

ALMANAC LVII TRANSITS VISIBLE FROM NEPTUNE IN BCE

The almanac LVII contains a list of transits visible from Neptune from the 125th millennium BCE to the 1st millennium BCE.

During the period of 250 000 years, the total number of transits visible from Neptune is 218 049 transits visible from Neptune (76 531 transits of Mercury, 63 576 transits of Venus, 33 187 transits of Earth, 33 172 transits of Moon, 10 702 transits of Mars, 754 transits of Jupiter, 125 transits of Saturn, 2 transits of Uranus).

125TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 125th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-124999-09-08 05:32 J	-43934211.39	-43934211.27	-43934211.13	0.0089	0.0071		
Venus	-124998-04-21 19:13 J	-43933985.78	-43933985.70	-43933985.57	0.0089	0.0079		
Venus	-124998-12-03 09:23 J	-43933760.15	-43933760.11	-43933760.04	0.0089	0.0086		
Mercury	-124996-12-06 14:54 J	-43933025.89	-43933025.88	-43933025.83	0.0089	0.0088		
Mercury	-124995-03-04 18:30 J	-43932937.79	-43932937.73	-43932937.64	0.0089	0.0082		
Mercury	-124995-05-31 22:06 J	-43932849.66	-43932849.58	-43932849.47	0.0089	0.0076		
Mercury	-124995-08-28 01:27 J	-43932761.53	-43932761.44	-43932761.30	0.0089	0.0070		
Mercury	-124995-11-24 05:03 J	-43932673.40	-43932673.29	-43932673.14	0.0089	0.0064		
Mercury	-124994-02-20 08:39 J	-43932585.27	-43932585.14	-43932584.97	0.0089	0.0058		
Mercury	-124994-05-19 12:44 J	-43932497.13	-43932496.97	-43932496.81	0.0089	0.0051		
Mercury	-124994-08-15 16:20 J	-43932408.99	-43932408.82	-43932408.66	0.0089	0.0045		
Mercury	-124994-11-11 19:42 J	-43932320.84	-43932320.68	-43932320.50	0.0089	0.0039		
Mercury	-124993-02-07 23:18 J	-43932232.70	-43932232.53	-43932232.34	0.0089	0.0033		
Mercury	-124993-05-06 02:54 J	-43932144.55	-43932144.38	-43932144.19	0.0089	0.0027		
Mercury	-124993-08-02 06:30 J	-43932056.41	-43932056.23	-43932056.03	0.0089	0.0021		
Mercury	-124993-10-29 10:06 J	-43931968.26	-43931968.08	-43931967.88	0.0089	0.0015		
Mercury	-124992-01-25 13:56 J	-43931880.11	-43931879.92	-43931879.73	0.0089	0.0008		
Mercury	-124992-04-23 17:32 J	-43931791.96	-43931791.77	-43931791.57	0.0089	0.0002		
Mercury	-124992-07-20 21:08 J	-43931703.81	-43931703.62	-43931703.42	0.0089	0.0004		
Mercury	-124992-10-17 00:44 J	-43931615.66	-43931615.47	-43931615.27	0.0089	0.0010		
Mercury	-124991-01-13 04:35 J	-43931527.50	-43931527.31	-43931527.12	0.0089	0.0016		

Mercury -124991-04-11 07:56 J -43931439.35 -43931439.17 -43931438.97 0.0089 0.0023

Mercury -124991-07-08 11:32 J -43931351.19 -43931351.02 -43931350.83 0.0089 0.0029

Mercury -124991-10-04 15:08 J -43931263.04 -43931262.87 -43931262.68 0.0089 0.0035

Mercury -124991-12-31 18:59 J -43931174.88 -43931174.71 -43931174.53 0.0089 0.0041

Mercury -124990-03-29 22:35 J -43931086.72 -43931086.56 -43931086.39 0.0089 0.0048

Mercury -124990-06-26 01:56 J -43930998.55 -43930998.42 -43930998.25 0.0089 0.0054

Mercury -124990-09-22 05:47 J -43930910.39 -43930910.26 -43930910.10 0.0089 0.0060

Mercury -124990-12-19 09:23 J -43930822.22 -43930822.11 -43930821.97 0.0089 0.0066

Mercury -124989-03-16 13:13 J -43930734.05 -43930733.95 -43930733.83 0.0089 0.0072

Mercury -124989-06-12 17:03 J -43930645.88 -43930645.79 -43930645.70 0.0089 0.0079

Mercury -124989-09-08 20:11 J -43930557.69 -43930557.66 -43930557.58 0.0089 0.0085

Mars -124939-05-04 20:11 J -43912422.82 -43912422.66 -43912422.46 0.0089 0.0073

Mars -124937-03-30 05:32 J -43911727.50 -43911727.27 -43911726.97 0.0089 0.0052

Mars -124935-02-23 17:32 J -43911032.08 -43911031.77 -43911031.46 0.0089 0.0029

Moon -124935-12-21 12:30 J -43910731.02 -43910730.98 -43910730.90 0.0089 0.0086

Moon -124934-12-23 16:49 J -43910363.96 -43910363.80 -43910363.63 0.0089 0.0067

Earth -124934-12-23 19:56 J -43910363.83 -43910363.67 -43910363.48 0.0089 0.0064 *

Mars -124933-01-20 06:30 J -43910336.55 -43910336.23 -43910335.90 0.0089 0.0007

Earth -124933-12-25 06:01 J -43909996.47 -43909996.25 -43909996.01 0.0088 0.0039

Moon -124933-12-25 09:37 J -43909996.32 -43909996.10 -43909995.86 0.0088 0.0037 *

Mars -124932-12-15 20:39 J -43909640.95 -43909640.64 -43909640.30 0.0088 0.0016

Moon -124932-12-27 12:59 J -43909629.20 -43909628.96 -43909628.71 0.0088 0.0016

Earth -124932-12-27 16:20 J -43909629.06 -43909628.82 -43909628.56 0.0088 0.0014 *

Earth -124931-12-30 02:25 J -43909261.65 -43909261.40 -43909261.15 0.0088 0.0012

Moon -124931-12-30 05:03 J -43909261.54 -43909261.29 -43909261.03 0.0088 0.0014 *

Venus -124930-04-01 01:13 J -43909169.50 -43909169.45 -43909169.37 0.0088 0.0085

Mars -124930-11-11 11:47 J -43908945.29 -43908945.01 -43908944.70 0.0088 0.0039

Venus -124930-11-12 14:25 J -43908943.99 -43908943.90 -43908943.78 0.0088 0.0078

Moon -124929-01-01 09:23 J -43908894.32 -43908894.11 -43908893.87 0.0088 0.0036

Earth -124929-01-01 11:47 J -43908894.22 -43908894.01 -43908893.76 0.0088 0.0038 *

Venus -124929-06-25 03:23 J -43908718.48 -43908718.36 -43908718.21 0.0088 0.0071
 Earth -124928-01-02 21:37 J -43908526.77 -43908526.60 -43908526.42 0.0088 0.0062
 Moon -124928-01-02 22:20 J -43908526.73 -43908526.57 -43908526.37 0.0088 0.0064 *
 Venus -124928-02-05 16:20 J -43908492.96 -43908492.82 -43908492.65 0.0088 0.0064
 Venus -124928-09-19 05:18 J -43908267.43 -43908267.28 -43908267.10 0.0088 0.0056
 Mars -124928-10-07 03:37 J -43908249.55 -43908249.35 -43908249.08 0.0088 0.0062
 Moon -124927-01-05 06:01 J -43908159.27 -43908159.25 -43908159.17 0.0088 0.0087
 Earth -124927-01-05 06:44 J -43908159.26 -43908159.22 -43908159.16 0.0088 0.0087 *
 Venus -124927-05-02 18:01 J -43908041.91 -43908041.75 -43908041.55 0.0088 0.0050
 Venus -124927-12-14 07:13 J -43907816.39 -43907816.20 -43907816.00 0.0088 0.0042
 Venus -124926-07-27 19:56 J -43907590.87 -43907590.67 -43907590.46 0.0088 0.0035
 Mars -124926-09-02 21:08 J -43907553.69 -43907553.62 -43907553.47 0.0088 0.0084
 Venus -124925-03-09 08:39 J -43907365.35 -43907365.14 -43907364.93 0.0088 0.0027
 Venus -124925-10-20 21:23 J -43907139.82 -43907139.61 -43907139.39 0.0088 0.0020
 Venus -124924-06-03 09:51 J -43906914.30 -43906914.09 -43906913.86 0.0088 0.0014
 Venus -124923-01-14 22:35 J -43906688.77 -43906688.56 -43906688.34 0.0088 0.0006
 Venus -124923-08-28 11:03 J -43906463.25 -43906463.04 -43906462.82 0.0088 0.0002
 Venus -124922-04-10 23:32 J -43906237.73 -43906237.52 -43906237.29 0.0088 0.0009
 Venus -124922-11-22 12:15 J -43906012.20 -43906011.99 -43906011.77 0.0088 0.0015
 Venus -124921-07-05 00:44 J -43905786.68 -43905786.47 -43905786.26 0.0088 0.0023
 Venus -124920-02-15 12:59 J -43905561.16 -43905560.96 -43905560.75 0.0088 0.0030
 Venus -124920-09-29 01:27 J -43905335.63 -43905335.44 -43905335.24 0.0088 0.0037
 Venus -124919-05-12 13:42 J -43905110.11 -43905109.93 -43905109.73 0.0088 0.0044
 Venus -124919-12-24 02:11 J -43904884.58 -43904884.41 -43904884.23 0.0088 0.0051
 Venus -124918-08-06 14:25 J -43904659.06 -43904658.90 -43904658.73 0.0088 0.0058
 Venus -124917-03-19 02:25 J -43904433.53 -43904433.40 -43904433.24 0.0088 0.0065
 Venus -124917-10-30 14:39 J -43904208.00 -43904207.89 -43904207.75 0.0088 0.0071
 Venus -124916-06-13 02:39 J -43903982.47 -43903982.39 -43903982.27 0.0088 0.0078
 Venus -124915-01-24 14:54 J -43903756.92 -43903756.88 -43903756.81 0.0088 0.0085
 Mercury -124915-07-04 07:13 J -43903596.20 -43903596.20 -43903596.19 0.0088 0.0088

Mercury -124915-09-30 08:25 J -43903508.17 -43903508.15 -43903508.10 0.0088 0.0084

Mercury -124915-12-27 10:06 J -43903420.13 -43903420.08 -43903420.02 0.0088 0.0080

Mercury -124914-03-25 11:32 J -43903332.09 -43903332.02 -43903331.95 0.0088 0.0076

Mercury -124914-06-21 12:44 J -43903244.04 -43903243.97 -43903243.88 0.0088 0.0072

Mercury -124914-09-17 14:11 J -43903155.99 -43903155.91 -43903155.82 0.0088 0.0067

Mercury -124914-12-14 15:23 J -43903067.94 -43903067.86 -43903067.75 0.0088 0.0063

Mercury -124913-03-11 17:03 J -43902979.89 -43902979.79 -43902979.69 0.0088 0.0059

Mercury -124913-06-07 18:15 J -43902891.84 -43902891.74 -43902891.63 0.0088 0.0055

Mercury -124913-09-03 19:42 J -43902803.78 -43902803.68 -43902803.56 0.0088 0.0050

Mercury -124913-11-30 21:08 J -43902715.73 -43902715.62 -43902715.50 0.0088 0.0046

Mercury -124912-02-26 22:20 J -43902627.68 -43902627.57 -43902627.44 0.0088 0.0042

Mercury -124912-05-26 00:01 J -43902539.63 -43902539.50 -43902539.38 0.0088 0.0038

Mercury -124912-08-22 01:13 J -43902451.57 -43902451.45 -43902451.32 0.0088 0.0034

Mercury -124912-11-18 02:39 J -43902363.52 -43902363.39 -43902363.26 0.0088 0.0029

Mercury -124911-02-14 03:51 J -43902275.46 -43902275.34 -43902275.20 0.0088 0.0025

Mercury -124911-05-13 05:18 J -43902187.41 -43902187.28 -43902187.15 0.0088 0.0021

Mercury -124911-08-09 06:44 J -43902099.35 -43902099.22 -43902099.09 0.0088 0.0017

Mercury -124911-11-05 07:56 J -43902011.30 -43902011.17 -43902011.03 0.0088 0.0013

Mercury -124910-02-01 09:23 J -43901923.24 -43901923.11 -43901922.97 0.0088 0.0008

Mercury -124910-04-30 10:49 J -43901835.19 -43901835.05 -43901834.92 0.0088 0.0004

Mercury -124910-07-27 12:01 J -43901747.13 -43901747.00 -43901746.86 0.0088 0.0002

Mercury -124910-10-23 13:27 J -43901659.07 -43901658.94 -43901658.81 0.0088 0.0004

Mercury -124909-01-19 14:54 J -43901571.02 -43901570.88 -43901570.75 0.0088 0.0009

Mercury -124909-04-16 16:06 J -43901482.96 -43901482.83 -43901482.70 0.0088 0.0013

Mercury -124909-07-13 17:32 J -43901394.90 -43901394.77 -43901394.64 0.0088 0.0017

Mercury -124909-10-09 18:44 J -43901306.85 -43901306.72 -43901306.59 0.0088 0.0021

Mercury -124908-01-05 19:56 J -43901218.79 -43901218.67 -43901218.53 0.0088 0.0026

Mercury -124908-04-03 21:23 J -43901130.73 -43901130.61 -43901130.48 0.0088 0.0029

Mercury -124908-06-30 22:49 J -43901042.67 -43901042.55 -43901042.43 0.0088 0.0033

Mercury -124908-09-27 00:01 J -43900954.61 -43900954.50 -43900954.37 0.0088 0.0038

Mercury -124908-12-24 01:27 J -43900866.55 -43900866.44 -43900866.32 0.0088 0.0042

Mercury -124907-03-22 02:54 J -43900778.50 -43900778.38 -43900778.27 0.0088 0.0046

Mercury -124907-06-18 03:51 J -43900690.44 -43900690.34 -43900690.22 0.0088 0.0051

Mercury -124907-09-14 05:18 J -43900602.38 -43900602.28 -43900602.17 0.0088 0.0054

Mercury -124907-12-11 06:44 J -43900514.31 -43900514.22 -43900514.12 0.0088 0.0058

Mercury -124906-03-09 07:56 J -43900426.25 -43900426.17 -43900426.07 0.0088 0.0062

Mercury -124906-06-05 09:23 J -43900338.19 -43900338.11 -43900338.02 0.0088 0.0066

Mercury -124906-09-01 10:35 J -43900250.13 -43900250.06 -43900249.97 0.0088 0.0071

Mercury -124906-11-28 12:01 J -43900162.06 -43900162.00 -43900161.93 0.0088 0.0075

Mercury -124905-02-24 13:27 J -43900074.00 -43900073.94 -43900073.88 0.0088 0.0079

Mercury -124905-05-22 14:39 J -43899985.93 -43899985.89 -43899985.84 0.0088 0.0083

Mercury -124905-08-18 16:06 J -43899897.85 -43899897.83 -43899897.81 0.0088 0.0087

Mars -124857-03-17 18:44 J -43882519.84 -43882519.72 -43882519.53 0.0089 0.0077

Mars -124855-02-10 04:49 J -43881825.52 -43881825.30 -43881825.04 0.0089 0.0056

Mars -124853-01-05 14:11 J -43881131.19 -43881130.91 -43881130.63 0.0089 0.0035

Mars -124852-11-29 21:08 J -43880436.91 -43880436.62 -43880436.31 0.0089 0.0015

Moon -124851-06-14 05:03 J -43880240.44 -43880240.29 -43880240.10 0.0089 0.0067

Earth -124851-06-14 08:39 J -43880240.28 -43880240.14 -43880239.97 0.0089 0.0071 *

Earth -124850-06-16 21:23 J -43879872.82 -43879872.61 -43879872.37 0.0089 0.0045

Moon -124850-06-17 01:13 J -43879872.65 -43879872.45 -43879872.22 0.0089 0.0049 *

Mars -124850-10-25 02:54 J -43879742.68 -43879742.38 -43879742.07 0.0089 0.0006

Moon -124849-06-18 07:27 J -43879505.43 -43879505.19 -43879504.93 0.0089 0.0015

Earth -124849-06-18 10:49 J -43879505.30 -43879505.05 -43879504.79 0.0089 0.0019 *

Earth -124848-06-20 23:47 J -43879137.76 -43879137.51 -43879137.24 0.0089 0.0008

Moon -124848-06-21 02:54 J -43879137.64 -43879137.38 -43879137.11 0.0089 0.0005 *

Mars -124848-09-18 08:11 J -43879048.43 -43879048.16 -43879047.86 0.0089 0.0027

Venus -124848-12-21 22:49 J -43878953.61 -43878953.55 -43878953.45 0.0089 0.0083

Moon -124847-06-23 10:35 J -43878770.28 -43878770.06 -43878769.81 0.0089 0.0037

Earth -124847-06-23 12:59 J -43878770.19 -43878769.96 -43878769.70 0.0089 0.0034 *

Venus -124847-08-04 11:32 J -43878728.11 -43878728.02 -43878727.88 0.0089 0.0076

Venus -124846-03-18 00:30 J -43878502.59 -43878502.48 -43878502.32 0.0089 0.0069
 Earth -124846-06-26 02:25 J -43878402.58 -43878402.40 -43878402.19 0.0089 0.0060
 Moon -124846-06-26 03:37 J -43878402.54 -43878402.35 -43878402.13 0.0089 0.0057 *
 Mars -124846-08-13 12:44 J -43878354.20 -43878353.97 -43878353.69 0.0089 0.0047
 Venus -124846-10-29 13:27 J -43878277.07 -43878276.94 -43878276.76 0.0089 0.0062
 Venus -124845-06-11 02:25 J -43878051.55 -43878051.40 -43878051.21 0.0089 0.0055
 Moon -124845-06-27 15:23 J -43878034.87 -43878034.86 -43878034.81 0.0089 0.0088
 Earth -124845-06-27 16:20 J -43878034.87 -43878034.82 -43878034.75 0.0089 0.0086 *
 Venus -124844-01-22 15:23 J -43877826.02 -43877825.86 -43877825.65 0.0089 0.0048
 Mars -124844-07-07 15:37 J -43877660.01 -43877659.85 -43877659.62 0.0089 0.0067
 Venus -124844-09-05 05:03 J -43877600.48 -43877600.29 -43877600.09 0.0089 0.0040
 Venus -124843-04-18 18:15 J -43877374.94 -43877374.74 -43877374.53 0.0089 0.0033
 Venus -124843-11-30 07:27 J -43877149.39 -43877149.19 -43877148.97 0.0089 0.0026
 Mars -124842-06-01 19:42 J -43876965.73 -43876965.68 -43876965.59 0.0089 0.0086
 Venus -124842-07-13 20:54 J -43876923.85 -43876923.63 -43876923.41 0.0089 0.0018
 Venus -124841-02-24 10:06 J -43876698.30 -43876698.08 -43876697.86 0.0089 0.0011
 Venus -124841-10-06 23:32 J -43876472.74 -43876472.52 -43876472.30 0.0089 0.0004
 Venus -124840-05-20 12:59 J -43876247.18 -43876246.96 -43876246.74 0.0089 0.0004
 Venus -124839-01-01 02:25 J -43876021.62 -43876021.40 -43876021.18 0.0089 0.0011
 Venus -124839-08-14 15:37 J -43875796.06 -43875795.85 -43875795.62 0.0089 0.0019
 Venus -124838-03-28 05:03 J -43875570.49 -43875570.29 -43875570.07 0.0089 0.0026
 Venus -124838-11-08 18:44 J -43875344.92 -43875344.72 -43875344.51 0.0089 0.0033
 Venus -124837-06-21 07:56 J -43875119.35 -43875119.17 -43875118.95 0.0089 0.0042
 Venus -124836-02-01 21:37 J -43874893.77 -43874893.60 -43874893.40 0.0089 0.0049
 Venus -124836-09-15 11:03 J -43874668.19 -43874668.04 -43874667.84 0.0089 0.0056
 Venus -124835-04-29 00:59 J -43874442.60 -43874442.46 -43874442.28 0.0089 0.0063
 Venus -124835-12-10 14:54 J -43874217.00 -43874216.88 -43874216.73 0.0089 0.0070
 Venus -124834-07-24 04:20 J -43873991.40 -43873991.32 -43873991.19 0.0089 0.0078
 Venus -124833-03-05 18:01 J -43873765.79 -43873765.75 -43873765.66 0.0089 0.0085
 Mercury -124831-09-02 12:44 J -43872854.99 -43872854.97 -43872854.90 0.0089 0.0086

Mercury -124831-11-29 16:20 J -43872766.88 -43872766.82 -43872766.71 0.0089 0.0080

Mercury -124830-02-25 19:56 J -43872678.76 -43872678.67 -43872678.54 0.0089 0.0074

Mercury -124830-05-24 23:32 J -43872590.62 -43872590.52 -43872590.38 0.0089 0.0068

Mercury -124830-08-21 03:37 J -43872502.49 -43872502.35 -43872502.22 0.0089 0.0062

Mercury -124830-11-17 06:59 J -43872414.35 -43872414.21 -43872414.06 0.0089 0.0055

Mercury -124829-02-13 10:35 J -43872326.21 -43872326.06 -43872325.90 0.0089 0.0049

Mercury -124829-05-11 14:11 J -43872238.07 -43872237.91 -43872237.74 0.0089 0.0043

Mercury -124829-08-07 17:47 J -43872149.93 -43872149.76 -43872149.58 0.0089 0.0037

Mercury -124829-11-03 21:08 J -43872061.79 -43872061.62 -43872061.43 0.0089 0.0032

Mercury -124828-01-31 00:59 J -43871973.64 -43871973.46 -43871973.27 0.0089 0.0025

Mercury -124828-04-29 04:35 J -43871885.49 -43871885.31 -43871885.12 0.0089 0.0019

Mercury -124828-07-26 08:11 J -43871797.35 -43871797.16 -43871796.96 0.0089 0.0013

Mercury -124828-10-22 11:47 J -43871709.20 -43871709.01 -43871708.81 0.0089 0.0007

Mercury -124827-01-18 15:37 J -43871621.05 -43871620.85 -43871620.66 0.0089 0.0002

Mercury -124827-04-16 19:13 J -43871532.90 -43871532.70 -43871532.51 0.0089 0.0006

Mercury -124827-07-13 22:49 J -43871444.74 -43871444.55 -43871444.36 0.0089 0.0012

Mercury -124827-10-10 02:25 J -43871356.59 -43871356.40 -43871356.21 0.0089 0.0019

Mercury -124826-01-06 05:47 J -43871268.43 -43871268.26 -43871268.06 0.0089 0.0025

Mercury -124826-04-04 09:37 J -43871180.28 -43871180.10 -43871179.91 0.0089 0.0031

Mercury -124826-07-01 13:13 J -43871092.12 -43871091.95 -43871091.77 0.0089 0.0037

Mercury -124826-09-27 17:03 J -43871003.96 -43871003.79 -43871003.62 0.0089 0.0043

Mercury -124826-12-24 20:25 J -43870915.80 -43870915.65 -43870915.48 0.0089 0.0050

Mercury -124825-03-22 00:01 J -43870827.64 -43870827.50 -43870827.33 0.0089 0.0056

Mercury -124825-06-18 03:51 J -43870739.47 -43870739.34 -43870739.19 0.0089 0.0062

Mercury -124825-09-14 07:27 J -43870651.30 -43870651.19 -43870651.06 0.0089 0.0069

Mercury -124825-12-11 11:18 J -43870563.13 -43870563.03 -43870562.92 0.0089 0.0075

Mercury -124824-03-09 14:39 J -43870474.95 -43870474.89 -43870474.79 0.0089 0.0081

Mercury -124824-06-05 18:15 J -43870386.76 -43870386.74 -43870386.68 0.0089 0.0087

Mars -124776-12-16 23:47 J -43852660.62 -43852660.51 -43852660.33 0.0089 0.0080

Mars -124774-11-12 08:54 J -43851965.35 -43851965.13 -43851964.86 0.0089 0.0059

Mars -124772-10-07 19:27 J -43851269.97 -43851269.69 -43851269.38 0.0089 0.0037
 Mars -124770-09-03 06:59 J -43850574.53 -43850574.21 -43850573.89 0.0089 0.0015
 Earth -124770-12-23 05:47 J -43850463.37 -43850463.26 -43850463.10 0.0089 0.0075
 Moon -124770-12-23 07:13 J -43850463.32 -43850463.20 -43850463.03 0.0089 0.0075 *
 Moon -124769-12-24 16:20 J -43850096.02 -43850095.82 -43850095.62 0.0089 0.0049
 Earth -124769-12-24 16:35 J -43850096.02 -43850095.81 -43850095.59 0.0089 0.0049 *
 Mars -124768-07-29 19:42 J -43849879.00 -43849878.68 -43849878.35 0.0088 0.0007
 Moon -124768-12-27 02:25 J -43849728.64 -43849728.40 -43849728.13 0.0088 0.0023
 Earth -124768-12-27 02:39 J -43849728.63 -43849728.39 -43849728.13 0.0088 0.0024 *
 Earth -124767-12-29 12:44 J -43849361.22 -43849360.97 -43849360.71 0.0088 0.0002
 Moon -124767-12-29 14:39 J -43849361.14 -43849360.89 -43849360.65 0.0088 0.0002 *
 Mars -124766-06-25 09:51 J -43849183.38 -43849183.09 -43849182.76 0.0088 0.0030
 Venus -124766-07-03 11:32 J -43849175.07 -43849175.02 -43849174.95 0.0088 0.0085
 Moon -124766-12-31 20:11 J -43848993.90 -43848993.66 -43848993.40 0.0088 0.0028
 Earth -124766-12-31 22:20 J -43848993.79 -43848993.57 -43848993.31 0.0088 0.0028 *
 Venus -124765-02-14 00:30 J -43848949.57 -43848949.48 -43848949.36 0.0088 0.0078
 Venus -124765-09-26 13:42 J -43848724.05 -43848723.93 -43848723.79 0.0088 0.0071
 Earth -124764-01-02 07:56 J -43848626.35 -43848626.17 -43848625.94 0.0088 0.0053
 Moon -124764-01-02 10:49 J -43848626.23 -43848626.05 -43848625.82 0.0088 0.0051 *
 Venus -124764-05-10 02:39 J -43848498.53 -43848498.39 -43848498.22 0.0088 0.0064
 Mars -124764-05-21 01:27 J -43848487.69 -43848487.44 -43848487.16 0.0088 0.0052
 Venus -124764-12-21 15:37 J -43848273.00 -43848272.85 -43848272.66 0.0088 0.0057
 Moon -124763-01-04 13:56 J -43848259.01 -43848258.92 -43848258.78 0.0088 0.0079
 Earth -124763-01-04 17:18 J -43848258.87 -43848258.78 -43848258.62 0.0088 0.0078 *
 Venus -124763-08-04 04:35 J -43848047.48 -43848047.31 -43848047.11 0.0088 0.0049
 Venus -124762-03-17 17:18 J -43847821.95 -43847821.78 -43847821.57 0.0088 0.0043
 Mars -124762-04-16 18:01 J -43847791.92 -43847791.75 -43847791.56 0.0088 0.0074
 Venus -124762-10-29 06:44 J -43847596.42 -43847596.22 -43847596.02 0.0088 0.0035
 Venus -124761-06-10 19:13 J -43847370.90 -43847370.70 -43847370.48 0.0088 0.0028
 Venus -124760-01-22 07:56 J -43847145.38 -43847145.17 -43847144.95 0.0088 0.0021

Venus -124760-09-04 20:39 J -43846919.86 -43846919.64 -43846919.42 0.0088 0.0013

Venus -124759-04-18 09:08 J -43846694.33 -43846694.12 -43846693.89 0.0088 0.0007

Venus -124759-11-29 21:51 J -43846468.80 -43846468.59 -43846468.37 0.0088 0.0002

Venus -124758-07-13 10:20 J -43846243.28 -43846243.07 -43846242.85 0.0088 0.0008

Venus -124757-02-23 22:49 J -43846017.76 -43846017.55 -43846017.33 0.0088 0.0015

Venus -124757-10-06 11:18 J -43845792.24 -43845792.03 -43845791.81 0.0088 0.0022

Venus -124756-05-19 23:32 J -43845566.71 -43845566.52 -43845566.30 0.0088 0.0030

Venus -124756-12-31 12:01 J -43845341.19 -43845341.00 -43845340.79 0.0088 0.0036

Venus -124755-08-14 00:15 J -43845115.67 -43845115.49 -43845115.29 0.0088 0.0043

Venus -124754-03-27 12:30 J -43844890.14 -43844889.98 -43844889.79 0.0088 0.0050

Venus -124754-11-08 00:44 J -43844664.61 -43844664.47 -43844664.28 0.0088 0.0058

Venus -124753-06-20 12:59 J -43844439.09 -43844438.96 -43844438.79 0.0088 0.0064

Venus -124752-02-01 01:27 J -43844213.56 -43844213.44 -43844213.30 0.0088 0.0071

Venus -124752-09-14 13:27 J -43843988.02 -43843987.94 -43843987.82 0.0088 0.0078

Venus -124751-04-28 01:27 J -43843762.48 -43843762.44 -43843762.35 0.0088 0.0085

Mercury -124750-03-31 06:44 J -43843425.24 -43843425.22 -43843425.19 0.0088 0.0087

Mercury -124750-06-27 07:56 J -43843337.20 -43843337.17 -43843337.11 0.0088 0.0083

Mercury -124750-09-23 09:23 J -43843249.16 -43843249.11 -43843249.04 0.0088 0.0078

Mercury -124750-12-20 11:03 J -43843161.11 -43843161.04 -43843160.97 0.0088 0.0074

Mercury -124749-03-17 12:15 J -43843073.06 -43843072.99 -43843072.90 0.0088 0.0070

Mercury -124749-06-13 13:42 J -43842985.01 -43842984.93 -43842984.83 0.0088 0.0065

Mercury -124749-09-09 14:54 J -43842896.96 -43842896.88 -43842896.77 0.0088 0.0062

Mercury -124749-12-06 16:20 J -43842808.91 -43842808.82 -43842808.71 0.0088 0.0057

Mercury -124748-03-04 18:01 J -43842720.86 -43842720.75 -43842720.64 0.0088 0.0053

Mercury -124748-05-31 19:13 J -43842632.81 -43842632.70 -43842632.58 0.0088 0.0049

Mercury -124748-08-27 20:39 J -43842544.75 -43842544.64 -43842544.52 0.0088 0.0044

Mercury -124748-11-23 21:51 J -43842456.70 -43842456.59 -43842456.46 0.0088 0.0041

Mercury -124747-02-19 23:18 J -43842368.65 -43842368.53 -43842368.40 0.0088 0.0036

Mercury -124747-05-19 00:44 J -43842280.59 -43842280.47 -43842280.34 0.0088 0.0032

Mercury -124747-08-15 02:11 J -43842192.54 -43842192.41 -43842192.28 0.0088 0.0027

Mercury -124747-11-11 03:23 J -43842104.48 -43842104.36 -43842104.22 0.0088 0.0024

Mercury -124746-02-07 04:49 J -43842016.43 -43842016.30 -43842016.17 0.0088 0.0019

Mercury -124746-05-06 06:15 J -43841928.37 -43841928.24 -43841928.11 0.0088 0.0015

Mercury -124746-08-02 07:27 J -43841840.32 -43841840.19 -43841840.05 0.0088 0.0011

Mercury -124746-10-29 08:54 J -43841752.26 -43841752.13 -43841751.99 0.0088 0.0007

Mercury -124745-01-25 10:20 J -43841664.21 -43841664.07 -43841663.94 0.0088 0.0003

Mercury -124745-04-22 11:32 J -43841576.15 -43841576.02 -43841575.88 0.0088 0.0004

Mercury -124745-07-19 12:59 J -43841488.09 -43841487.96 -43841487.83 0.0088 0.0006

Mercury -124745-10-15 14:25 J -43841400.04 -43841399.90 -43841399.77 0.0088 0.0010

Mercury -124744-01-11 15:37 J -43841311.98 -43841311.85 -43841311.72 0.0088 0.0014

Mercury -124744-04-09 17:03 J -43841223.92 -43841223.79 -43841223.66 0.0088 0.0018

Mercury -124744-07-06 18:15 J -43841135.86 -43841135.74 -43841135.61 0.0088 0.0023

Mercury -124744-10-02 19:27 J -43841047.81 -43841047.69 -43841047.55 0.0088 0.0028

Mercury -124744-12-29 20:54 J -43840959.75 -43840959.63 -43840959.50 0.0088 0.0031

Mercury -124743-03-27 22:20 J -43840871.69 -43840871.57 -43840871.45 0.0088 0.0035

Mercury -124743-06-23 23:32 J -43840783.63 -43840783.52 -43840783.39 0.0088 0.0039

Mercury -124743-09-20 00:59 J -43840695.57 -43840695.46 -43840695.34 0.0088 0.0043

Mercury -124743-12-17 02:11 J -43840607.51 -43840607.41 -43840607.29 0.0088 0.0048

Mercury -124742-03-15 03:37 J -43840519.45 -43840519.35 -43840519.24 0.0088 0.0052

Mercury -124742-06-11 05:03 J -43840431.39 -43840431.29 -43840431.19 0.0088 0.0056

Mercury -124742-09-07 06:01 J -43840343.33 -43840343.25 -43840343.14 0.0088 0.0060

Mercury -124742-12-04 07:27 J -43840255.27 -43840255.19 -43840255.09 0.0088 0.0064

Mercury -124741-03-01 08:39 J -43840167.21 -43840167.14 -43840167.04 0.0088 0.0069

Mercury -124741-05-28 10:06 J -43840079.14 -43840079.08 -43840079.00 0.0088 0.0072

Mercury -124741-08-24 11:32 J -43839991.08 -43839991.02 -43839990.95 0.0088 0.0076

Mercury -124741-11-20 12:44 J -43839903.01 -43839902.97 -43839902.91 0.0088 0.0081

Mercury -124740-02-16 14:11 J -43839814.94 -43839814.91 -43839814.87 0.0088 0.0084

Mars -124694-10-31 16:06 J -43822756.91 -43822756.83 -43822756.70 0.0089 0.0083

Mars -124692-09-25 02:39 J -43822062.58 -43822062.39 -43822062.15 0.0089 0.0063

Mars -124690-08-20 11:32 J -43821368.26 -43821368.02 -43821367.73 0.0089 0.0043

Mars	-124688-07-14 20:39 J	-43820673.93	-43820673.64	-43820673.34	0.0089	0.0022
Earth	-124687-06-13 15:51 J	-43820339.92	-43820339.84	-43820339.72	0.0089	0.0082
Moon	-124687-06-13 16:49 J	-43820339.90	-43820339.80	-43820339.66	0.0089	0.0079 *
Mars	-124686-06-09 04:06 J	-43819979.63	-43819979.33	-43819979.03	0.0089	0.0002
Moon	-124686-06-16 04:20 J	-43819972.49	-43819972.32	-43819972.11	0.0089	0.0058
Earth	-124686-06-16 04:35 J	-43819972.49	-43819972.31	-43819972.09	0.0089	0.0056 *
Moon	-124685-06-17 17:03 J	-43819605.04	-43819604.79	-43819604.53	0.0089	0.0028
Earth	-124685-06-17 17:32 J	-43819605.00	-43819604.77	-43819604.51	0.0089	0.0030 *
Mars	-124684-05-03 09:37 J	-43819285.38	-43819285.10	-43819284.79	0.0089	0.0019
Earth	-124684-06-20 06:44 J	-43819237.48	-43819237.22	-43819236.96	0.0089	0.0004
Moon	-124684-06-20 08:39 J	-43819237.39	-43819237.14	-43819236.89	0.0089	0.0005 *
Venus	-124683-03-25 09:23 J	-43818959.17	-43818959.11	-43818959.01	0.0089	0.0083
Moon	-124683-06-22 17:32 J	-43818870.03	-43818869.77	-43818869.51	0.0089	0.0023
Earth	-124683-06-22 19:42 J	-43818869.93	-43818869.68	-43818869.42	0.0089	0.0023 *
Venus	-124683-11-05 22:06 J	-43818733.67	-43818733.58	-43818733.44	0.0089	0.0076
Mars	-124682-03-28 14:54 J	-43818591.13	-43818590.88	-43818590.59	0.0089	0.0039
Venus	-124682-06-19 11:03 J	-43818508.16	-43818508.04	-43818507.89	0.0089	0.0069
Earth	-124682-06-25 08:54 J	-43818502.34	-43818502.13	-43818501.90	0.0089	0.0049
Moon	-124682-06-25 12:01 J	-43818502.20	-43818502.00	-43818501.78	0.0089	0.0049 *
Venus	-124681-01-30 23:47 J	-43818282.65	-43818282.51	-43818282.33	0.0089	0.0062
Moon	-124681-06-26 18:30 J	-43818134.83	-43818134.73	-43818134.56	0.0089	0.0076
Earth	-124681-06-26 22:35 J	-43818134.69	-43818134.56	-43818134.41	0.0089	0.0075 *
Venus	-124681-09-12 12:44 J	-43818057.12	-43818056.97	-43818056.78	0.0089	0.0055
Mars	-124680-02-19 20:25 J	-43817896.88	-43817896.65	-43817896.43	0.0089	0.0058
Venus	-124680-04-26 01:56 J	-43817831.59	-43817831.42	-43817831.22	0.0089	0.0048
Venus	-124680-12-07 14:54 J	-43817606.06	-43817605.88	-43817605.67	0.0089	0.0041
Venus	-124679-07-21 04:20 J	-43817380.52	-43817380.32	-43817380.11	0.0089	0.0033
Mars	-124678-01-14 22:35 J	-43817202.68	-43817202.56	-43817202.39	0.0089	0.0078
Venus	-124678-03-03 17:18 J	-43817154.98	-43817154.78	-43817154.56	0.0089	0.0026
Venus	-124678-10-15 06:30 J	-43816929.44	-43816929.23	-43816929.01	0.0089	0.0019

Venus -124677-05-27 19:56 J -43816703.89 -43816703.67 -43816703.45 0.0089 0.0012
 Venus -124676-01-08 09:23 J -43816478.33 -43816478.11 -43816477.89 0.0089 0.0004
 Venus -124676-08-21 22:35 J -43816252.78 -43816252.56 -43816252.33 0.0089 0.0004
 Venus -124675-04-04 12:01 J -43816027.21 -43816027.00 -43816026.77 0.0089 0.0011
 Venus -124675-11-16 01:27 J -43815801.65 -43815801.44 -43815801.22 0.0089 0.0018
 Venus -124674-06-29 15:08 J -43815576.09 -43815575.87 -43815575.66 0.0089 0.0025
 Venus -124673-02-10 04:20 J -43815350.52 -43815350.32 -43815350.11 0.0089 0.0033
 Venus -124673-09-22 17:47 J -43815124.95 -43815124.76 -43815124.55 0.0089 0.0040
 Venus -124672-05-06 07:56 J -43814899.36 -43814899.17 -43814898.99 0.0089 0.0047
 Venus -124672-12-17 21:08 J -43814673.78 -43814673.62 -43814673.43 0.0089 0.0055
 Venus -124671-07-31 10:49 J -43814448.20 -43814448.05 -43814447.88 0.0089 0.0062
 Venus -124670-03-14 00:44 J -43814222.61 -43814222.47 -43814222.33 0.0089 0.0069
 Venus -124670-10-25 13:56 J -43813997.01 -43813996.92 -43813996.78 0.0089 0.0077
 Venus -124669-06-07 03:51 J -43813771.39 -43813771.34 -43813771.25 0.0089 0.0084
 Mercury -124666-03-03 07:56 J -43812772.17 -43812772.17 -43812772.16 0.0089 0.0089
 Mercury -124666-05-30 11:18 J -43812684.08 -43812684.03 -43812683.95 0.0089 0.0083
 Mercury -124666-08-26 14:54 J -43812595.96 -43812595.88 -43812595.77 0.0089 0.0077
 Mercury -124666-11-22 18:15 J -43812507.83 -43812507.74 -43812507.61 0.0089 0.0072
 Mercury -124665-02-18 21:51 J -43812419.70 -43812419.59 -43812419.44 0.0089 0.0065
 Mercury -124665-05-17 01:27 J -43812331.57 -43812331.44 -43812331.28 0.0089 0.0059
 Mercury -124665-08-13 05:03 J -43812243.43 -43812243.29 -43812243.12 0.0089 0.0053
 Mercury -124665-11-09 08:39 J -43812155.29 -43812155.14 -43812154.96 0.0089 0.0047
 Mercury -124664-02-05 12:15 J -43812067.15 -43812066.99 -43812066.80 0.0089 0.0041
 Mercury -124664-05-04 16:06 J -43811979.00 -43811978.83 -43811978.65 0.0089 0.0034
 Mercury -124664-07-31 19:42 J -43811890.86 -43811890.68 -43811890.49 0.0089 0.0028
 Mercury -124664-10-27 23:18 J -43811802.71 -43811802.53 -43811802.34 0.0089 0.0022
 Mercury -124663-01-24 02:54 J -43811714.57 -43811714.38 -43811714.19 0.0089 0.0016
 Mercury -124663-04-22 06:30 J -43811626.42 -43811626.23 -43811626.03 0.0089 0.0010
 Mercury -124663-07-19 10:06 J -43811538.27 -43811538.08 -43811537.88 0.0089 0.0005
 Mercury -124663-10-15 13:56 J -43811450.12 -43811449.92 -43811449.73 0.0089 0.0003

Mercury -124662-01-11 17:32 J -43811361.96 -43811361.77 -43811361.58 0.0089 0.0009

Mercury -124662-04-09 21:08 J -43811273.81 -43811273.62 -43811273.43 0.0089 0.0015

Mercury -124662-07-07 00:44 J -43811185.66 -43811185.47 -43811185.28 0.0089 0.0021

Mercury -124662-10-03 04:06 J -43811097.50 -43811097.33 -43811097.13 0.0089 0.0028

Mercury -124662-12-30 07:42 J -43811009.34 -43811009.18 -43811008.98 0.0089 0.0035

Mercury -124661-03-27 11:32 J -43810921.18 -43810921.02 -43810920.84 0.0089 0.0040

Mercury -124661-06-23 15:08 J -43810833.02 -43810832.87 -43810832.69 0.0089 0.0047

Mercury -124661-09-19 18:59 J -43810744.86 -43810744.71 -43810744.55 0.0089 0.0053

Mercury -124661-12-16 22:20 J -43810656.70 -43810656.57 -43810656.41 0.0089 0.0059

Mercury -124660-03-15 02:11 J -43810568.53 -43810568.41 -43810568.27 0.0089 0.0065

Mercury -124660-06-11 05:47 J -43810480.36 -43810480.26 -43810480.13 0.0089 0.0071

Mercury -124660-09-07 09:37 J -43810392.19 -43810392.10 -43810392.00 0.0089 0.0077

Mercury -124660-12-04 12:59 J -43810304.00 -43810303.96 -43810303.87 0.0089 0.0084

Jupiter -124650-01-10 06:01 J -43806980.80 -43806980.25 -43806979.68 0.0089 0.0004

Mars -124612-07-31 06:01 J -43792898.29 -43792898.25 -43792898.12 0.0089 0.0086

Mars -124610-06-26 13:56 J -43792203.12 -43792202.92 -43792202.68 0.0089 0.0065

Mars -124608-05-21 22:35 J -43791507.82 -43791507.56 -43791507.26 0.0089 0.0044

Mars -124606-04-17 09:23 J -43790812.41 -43790812.11 -43790811.78 0.0089 0.0023

Earth -124606-12-22 16:20 J -43790562.87 -43790562.82 -43790562.72 0.0089 0.0085

Moon -124606-12-22 19:13 J -43790562.78 -43790562.70 -43790562.59 0.0089 0.0082 *

Moon -124605-12-23 23:32 J -43790195.69 -43790195.52 -43790195.32 0.0089 0.0062

Earth -124605-12-24 02:54 J -43790195.55 -43790195.38 -43790195.17 0.0089 0.0060 *

Mars -124604-03-12 21:37 J -43790116.93 -43790116.60 -43790116.27 0.0089 0.0001

Earth -124604-12-26 13:27 J -43789828.17 -43789827.94 -43789827.70 0.0089 0.0034

Moon -124604-12-26 16:49 J -43789828.03 -43789827.80 -43789827.55 0.0089 0.0031 *

Moon -124603-12-28 20:11 J -43789460.91 -43789460.66 -43789460.40 0.0088 0.0012

Earth -124603-12-28 23:47 J -43789460.76 -43789460.51 -43789460.25 0.0088 0.0008 *

Mars -124602-02-06 10:20 J -43789421.37 -43789421.07 -43789420.73 0.0088 0.0022

Venus -124602-10-04 21:51 J -43789180.64 -43789180.59 -43789180.51 0.0088 0.0085

Earth -124602-12-31 09:37 J -43789093.35 -43789093.10 -43789092.85 0.0088 0.0017

Moon	-124602-12-31 12:30 J	-43789093.22	-43789092.98	-43789092.72	0.0088	0.0021	*
Venus	-124601-05-17 11:03 J	-43788955.13	-43788955.04	-43788954.92	0.0088	0.0078	
Venus	-124601-12-29 00:01 J	-43788729.61	-43788729.50	-43788729.35	0.0088	0.0071	
Moon	-124600-01-01 17:03 J	-43788726.00	-43788725.79	-43788725.56	0.0088	0.0039	
Earth	-124600-01-01 19:13 J	-43788725.91	-43788725.70	-43788725.46	0.0088	0.0043	*
Mars	-124600-01-02 00:44 J	-43788725.73	-43788725.47	-43788725.15	0.0088	0.0044	*
Venus	-124600-08-11 13:13 J	-43788504.09	-43788503.95	-43788503.79	0.0088	0.0064	
Earth	-124599-01-04 04:49 J	-43788358.44	-43788358.30	-43788358.11	0.0088	0.0068	
Moon	-124599-01-04 06:44 J	-43788358.35	-43788358.22	-43788358.05	0.0088	0.0072	*
Venus	-124599-03-25 02:11 J	-43788278.56	-43788278.41	-43788278.22	0.0088	0.0057	
Venus	-124599-11-05 15:23 J	-43788053.03	-43788052.86	-43788052.67	0.0088	0.0049	
Mars	-124599-11-28 16:49 J	-43788030.00	-43788029.80	-43788029.55	0.0088	0.0065	
Venus	-124598-06-19 04:06 J	-43787827.50	-43787827.33	-43787827.12	0.0088	0.0043	
Venus	-124597-01-30 17:03 J	-43787601.97	-43787601.79	-43787601.57	0.0088	0.0036	
Venus	-124597-09-12 06:15 J	-43787376.44	-43787376.24	-43787376.03	0.0088	0.0028	
Mars	-124597-10-24 08:54 J	-43787334.16	-43787334.13	-43787334.02	0.0088	0.0087	
Venus	-124596-04-25 18:59 J	-43787150.91	-43787150.71	-43787150.49	0.0088	0.0021	
Venus	-124596-12-07 07:56 J	-43786925.38	-43786925.17	-43786924.95	0.0088	0.0013	
Venus	-124595-07-20 20:39 J	-43786699.86	-43786699.64	-43786699.42	0.0088	0.0006	
Venus	-124594-03-03 09:08 J	-43786474.34	-43786474.12	-43786473.90	0.0088	0.0002	
Venus	-124594-10-14 21:51 J	-43786248.81	-43786248.59	-43786248.37	0.0088	0.0008	
Venus	-124593-05-27 10:06 J	-43786023.28	-43786023.08	-43786022.85	0.0088	0.0016	
Venus	-124592-01-07 22:35 J	-43785797.76	-43785797.56	-43785797.34	0.0088	0.0023	
Venus	-124592-08-21 11:03 J	-43785572.24	-43785572.04	-43785571.82	0.0088	0.0029	
Venus	-124591-04-03 23:18 J	-43785346.71	-43785346.53	-43785346.31	0.0088	0.0037	
Venus	-124591-11-15 11:47 J	-43785121.18	-43785121.01	-43785120.80	0.0088	0.0043	
Venus	-124590-06-29 00:30 J	-43784895.66	-43784895.48	-43784895.30	0.0088	0.0050	
Venus	-124589-02-09 12:30 J	-43784670.13	-43784669.98	-43784669.80	0.0088	0.0057	
Venus	-124589-09-22 00:44 J	-43784444.61	-43784444.47	-43784444.31	0.0088	0.0064	
Venus	-124588-05-05 12:59 J	-43784219.07	-43784218.96	-43784218.82	0.0088	0.0070	

Venus -124588-12-17 00:59 J -43783993.54 -43783993.46 -43783993.33 0.0088 0.0078

Venus -124587-07-30 13:42 J -43783767.99 -43783767.93 -43783767.86 0.0088 0.0084

Mercury -124586-12-26 06:15 J -43783254.26 -43783254.24 -43783254.19 0.0088 0.0085

Mercury -124585-03-23 07:42 J -43783166.22 -43783166.18 -43783166.11 0.0088 0.0080

Mercury -124585-06-19 09:23 J -43783078.18 -43783078.11 -43783078.04 0.0088 0.0076

Mercury -124585-09-15 10:35 J -43782990.13 -43782990.06 -43782989.97 0.0088 0.0072

Mercury -124585-12-12 12:01 J -43782902.08 -43782902.00 -43782901.91 0.0088 0.0067

Mercury -124584-03-10 13:27 J -43782814.03 -43782813.94 -43782813.84 0.0088 0.0063

Mercury -124584-06-06 14:39 J -43782725.98 -43782725.89 -43782725.78 0.0088 0.0059

Mercury -124584-09-02 16:20 J -43782637.92 -43782637.82 -43782637.71 0.0088 0.0055

Mercury -124584-11-29 17:32 J -43782549.87 -43782549.77 -43782549.65 0.0088 0.0051

Mercury -124583-02-25 18:59 J -43782461.82 -43782461.71 -43782461.59 0.0088 0.0046

Mercury -124583-05-24 20:11 J -43782373.77 -43782373.66 -43782373.53 0.0088 0.0043

Mercury -124583-08-20 21:37 J -43782285.71 -43782285.60 -43782285.47 0.0088 0.0038

Mercury -124583-11-16 23:18 J -43782197.66 -43782197.53 -43782197.41 0.0088 0.0034

Mercury -124582-02-13 00:30 J -43782109.60 -43782109.48 -43782109.35 0.0088 0.0029

Mercury -124582-05-12 01:56 J -43782021.55 -43782021.42 -43782021.29 0.0088 0.0025

Mercury -124582-08-08 03:08 J -43781933.49 -43781933.37 -43781933.23 0.0088 0.0021

Mercury -124582-11-04 04:35 J -43781845.44 -43781845.31 -43781845.17 0.0088 0.0017

Mercury -124581-01-31 06:01 J -43781757.38 -43781757.25 -43781757.12 0.0088 0.0013

Mercury -124581-04-28 07:13 J -43781669.33 -43781669.20 -43781669.06 0.0088 0.0009

Mercury -124581-07-25 08:39 J -43781581.27 -43781581.14 -43781581.00 0.0088 0.0005

Mercury -124581-10-21 10:06 J -43781493.22 -43781493.08 -43781492.95 0.0088 0.0001

Mercury -124580-01-17 11:18 J -43781405.16 -43781405.03 -43781404.89 0.0088 0.0005

Mercury -124580-04-15 12:44 J -43781317.10 -43781316.97 -43781316.84 0.0088 0.0008

Mercury -124580-07-12 14:11 J -43781229.05 -43781228.91 -43781228.78 0.0088 0.0013

Mercury -124580-10-08 15:23 J -43781140.99 -43781140.86 -43781140.73 0.0088 0.0017

Mercury -124579-01-04 16:49 J -43781052.93 -43781052.80 -43781052.67 0.0088 0.0021

Mercury -124579-04-02 18:01 J -43780964.87 -43780964.75 -43780964.62 0.0088 0.0025

Mercury -124579-06-29 19:13 J -43780876.82 -43780876.70 -43780876.56 0.0088 0.0030

Mercury -124579-09-25 20:39 J -43780788.76 -43780788.64 -43780788.51 0.0088 0.0033
 Mercury -124579-12-22 22:06 J -43780700.70 -43780700.58 -43780700.46 0.0088 0.0037
 Mercury -124578-03-20 23:18 J -43780612.64 -43780612.53 -43780612.41 0.0088 0.0041
 Mercury -124578-06-17 00:44 J -43780524.58 -43780524.47 -43780524.36 0.0088 0.0045
 Mercury -124578-09-13 01:56 J -43780436.52 -43780436.42 -43780436.30 0.0088 0.0050
 Mercury -124578-12-10 03:23 J -43780348.46 -43780348.36 -43780348.25 0.0088 0.0054
 Mercury -124577-03-07 04:35 J -43780260.40 -43780260.31 -43780260.20 0.0088 0.0058
 Mercury -124577-06-03 05:47 J -43780172.34 -43780172.26 -43780172.15 0.0088 0.0062
 Mercury -124577-08-30 07:13 J -43780084.28 -43780084.20 -43780084.11 0.0088 0.0066
 Mercury -124577-11-26 08:25 J -43779996.22 -43779996.15 -43779996.06 0.0088 0.0071
 Mercury -124576-02-22 09:51 J -43779908.15 -43779908.09 -43779908.01 0.0088 0.0074
 Mercury -124576-05-21 11:03 J -43779820.09 -43779820.04 -43779819.97 0.0088 0.0079
 Mercury -124576-08-17 12:30 J -43779732.02 -43779731.98 -43779731.93 0.0088 0.0082
 Mercury -124576-11-13 13:42 J -43779643.94 -43779643.93 -43779643.89 0.0088 0.0087
 Mars -124528-05-10 00:59 J -43762299.64 -43762299.46 -43762299.26 0.0089 0.0069
 Mars -124526-04-04 12:30 J -43761605.22 -43761604.98 -43761604.72 0.0089 0.0049
 Mars -124524-02-26 21:23 J -43760910.89 -43760910.61 -43760910.31 0.0089 0.0029
 Mars -124522-01-22 06:01 J -43760216.55 -43760216.25 -43760215.95 0.0089 0.0009
 Moon -124522-06-15 09:37 J -43760072.27 -43760072.10 -43760071.93 0.0089 0.0066
 Earth -124522-06-15 12:30 J -43760072.12 -43760071.98 -43760071.77 0.0089 0.0067 *
 Earth -124521-06-17 01:56 J -43759704.65 -43759704.42 -43759704.19 0.0089 0.0040
 Moon -124521-06-17 05:18 J -43759704.50 -43759704.28 -43759704.04 0.0089 0.0042 *
 Mars -124521-12-16 13:27 J -43759522.24 -43759521.94 -43759521.64 0.0089 0.0011
 Moon -124520-06-19 11:03 J -43759337.29 -43759337.04 -43759336.78 0.0089 0.0012
 Earth -124520-06-19 14:39 J -43759337.14 -43759336.89 -43759336.62 0.0089 0.0014 *
 Earth -124519-06-22 03:37 J -43758969.60 -43758969.35 -43758969.08 0.0089 0.0013
 Moon -124519-06-22 06:30 J -43758969.48 -43758969.23 -43758968.95 0.0089 0.0011 *
 Venus -124519-06-26 20:39 J -43758964.69 -43758964.64 -43758964.54 0.0089 0.0083
 Mars -124519-11-10 18:44 J -43758827.99 -43758827.72 -43758827.43 0.0089 0.0031
 Venus -124518-02-07 09:23 J -43758739.20 -43758739.11 -43758738.97 0.0089 0.0076

Moon -124518-06-24 14:25 J -43758602.11 -43758601.90 -43758601.66 0.0089 0.0042
 Earth -124518-06-24 16:49 J -43758602.01 -43758601.80 -43758601.55 0.0089 0.0039 *
 Venus -124518-09-20 22:20 J -43758513.69 -43758513.57 -43758513.42 0.0089 0.0069
 Venus -124517-05-03 11:18 J -43758288.17 -43758288.03 -43758287.86 0.0089 0.0062
 Earth -124517-06-26 06:30 J -43758234.41 -43758234.23 -43758234.05 0.0089 0.0065
 Moon -124517-06-26 07:56 J -43758234.35 -43758234.17 -43758233.96 0.0089 0.0062 *
 Mars -124517-10-04 23:32 J -43758133.76 -43758133.52 -43758133.27 0.0089 0.0050
 Venus -124517-12-15 00:15 J -43758062.65 -43758062.49 -43758062.30 0.0089 0.0055
 Venus -124516-07-28 13:13 J -43757837.12 -43757836.95 -43757836.75 0.0089 0.0048
 Venus -124515-03-11 01:56 J -43757611.59 -43757611.42 -43757611.20 0.0089 0.0041
 Mars -124515-08-30 03:37 J -43757439.50 -43757439.35 -43757439.13 0.0089 0.0070
 Venus -124515-10-22 15:23 J -43757386.06 -43757385.86 -43757385.65 0.0089 0.0033
 Venus -124514-06-05 04:20 J -43757160.52 -43757160.32 -43757160.10 0.0089 0.0026
 Venus -124513-01-16 17:32 J -43756934.98 -43756934.77 -43756934.55 0.0089 0.0019
 Mars -124513-07-24 07:27 J -43756745.21 -43756745.19 -43756745.15 0.0089 0.0088
 Venus -124513-08-29 06:44 J -43756709.44 -43756709.22 -43756709.00 0.0089 0.0012
 Venus -124512-04-11 20:11 J -43756483.88 -43756483.66 -43756483.44 0.0089 0.0004
 Venus -124512-11-23 09:23 J -43756258.33 -43756258.11 -43756257.89 0.0089 0.0003
 Venus -124511-07-06 22:49 J -43756032.77 -43756032.55 -43756032.33 0.0089 0.0010
 Venus -124510-02-17 11:47 J -43755807.21 -43755807.01 -43755806.78 0.0089 0.0018
 Venus -124510-10-01 01:13 J -43755581.65 -43755581.45 -43755581.22 0.0089 0.0025
 Venus -124509-05-13 15:08 J -43755356.07 -43755355.87 -43755355.66 0.0089 0.0032
 Venus -124509-12-25 04:20 J -43755130.50 -43755130.32 -43755130.11 0.0089 0.0040
 Venus -124508-08-07 18:01 J -43754904.93 -43754904.75 -43754904.55 0.0089 0.0047
 Venus -124507-03-21 07:42 J -43754679.35 -43754679.18 -43754679.00 0.0089 0.0054
 Venus -124507-11-01 20:54 J -43754453.77 -43754453.63 -43754453.45 0.0089 0.0062
 Venus -124506-06-15 10:49 J -43754228.17 -43754228.05 -43754227.90 0.0089 0.0069
 Venus -124505-01-27 00:30 J -43754002.58 -43754002.48 -43754002.35 0.0089 0.0076
 Venus -124505-09-08 14:25 J -43753776.97 -43753776.90 -43753776.82 0.0089 0.0083
 Mercury -124502-11-28 06:15 J -43752601.27 -43752601.24 -43752601.17 0.0089 0.0086

Mercury -124501-02-24 09:51 J -43752513.15 -43752513.09 -43752512.99 0.0089 0.0080
 Mercury -124501-05-22 13:27 J -43752425.03 -43752424.94 -43752424.82 0.0089 0.0074
 Mercury -124501-08-18 17:03 J -43752336.90 -43752336.79 -43752336.66 0.0089 0.0068
 Mercury -124501-11-14 20:25 J -43752248.77 -43752248.65 -43752248.50 0.0089 0.0062
 Mercury -124500-02-11 00:01 J -43752160.63 -43752160.50 -43752160.34 0.0089 0.0056
 Mercury -124500-05-10 03:37 J -43752072.49 -43752072.35 -43752072.18 0.0089 0.0050
 Mercury -124500-08-06 07:13 J -43751984.35 -43751984.20 -43751984.02 0.0089 0.0044
 Mercury -124500-11-02 10:49 J -43751896.21 -43751896.05 -43751895.86 0.0089 0.0038
 Mercury -124499-01-29 14:39 J -43751808.07 -43751807.89 -43751807.71 0.0089 0.0031
 Mercury -124499-04-27 18:15 J -43751719.92 -43751719.74 -43751719.55 0.0089 0.0025
 Mercury -124499-07-24 21:51 J -43751631.78 -43751631.59 -43751631.40 0.0089 0.0019
 Mercury -124499-10-21 01:27 J -43751543.63 -43751543.44 -43751543.25 0.0089 0.0013
 Mercury -124498-01-17 05:03 J -43751455.48 -43751455.29 -43751455.09 0.0089 0.0007
 Mercury -124498-04-15 08:39 J -43751367.33 -43751367.14 -43751366.94 0.0089 0.0002
 Mercury -124498-07-12 12:15 J -43751279.18 -43751278.99 -43751278.79 0.0089 0.0006
 Mercury -124498-10-08 15:51 J -43751191.03 -43751190.84 -43751190.64 0.0089 0.0012
 Mercury -124497-01-04 19:27 J -43751102.87 -43751102.69 -43751102.49 0.0089 0.0018
 Mercury -124497-04-01 23:18 J -43751014.72 -43751014.53 -43751014.34 0.0089 0.0024
 Mercury -124497-06-29 02:54 J -43750926.56 -43750926.38 -43750926.20 0.0089 0.0030
 Mercury -124497-09-25 06:15 J -43750838.40 -43750838.24 -43750838.05 0.0089 0.0037
 Mercury -124497-12-22 10:06 J -43750750.24 -43750750.08 -43750749.90 0.0089 0.0043
 Mercury -124496-03-20 13:42 J -43750662.08 -43750661.93 -43750661.76 0.0089 0.0049
 Mercury -124496-06-16 17:32 J -43750573.92 -43750573.77 -43750573.62 0.0089 0.0055
 Mercury -124496-09-12 20:54 J -43750485.75 -43750485.63 -43750485.47 0.0089 0.0062
 Mercury -124496-12-10 00:30 J -43750397.58 -43750397.48 -43750397.34 0.0089 0.0068
 Mercury -124495-03-08 04:20 J -43750309.41 -43750309.32 -43750309.20 0.0089 0.0074
 Mercury -124495-06-04 08:11 J -43750221.23 -43750221.16 -43750221.07 0.0089 0.0080
 Mercury -124495-08-31 12:01 J -43750133.04 -43750133.00 -43750132.96 0.0089 0.0087
 Mars -124446-02-07 22:20 J -43732440.74 -43732440.57 -43732440.35 0.0089 0.0071
 Mars -124444-01-03 06:30 J -43731745.47 -43731745.23 -43731744.94 0.0089 0.0051

Mars -124443-11-29 15:37 J -43731050.14 -43731049.85 -43731049.52 0.0089 0.0030
 Mars -124441-10-25 02:39 J -43730354.70 -43730354.39 -43730354.05 0.0089 0.0009
 Earth -124441-12-23 14:39 J -43730295.02 -43730294.89 -43730294.70 0.0089 0.0069
 Moon -124441-12-23 17:32 J -43730294.91 -43730294.77 -43730294.62 0.0089 0.0073 *
 Moon -124440-12-26 00:44 J -43729927.69 -43729927.47 -43729927.24 0.0089 0.0039
 Earth -124440-12-26 01:13 J -43729927.65 -43729927.45 -43729927.21 0.0089 0.0044 *
 Mars -124439-09-20 14:25 J -43729659.21 -43729658.90 -43729658.56 0.0089 0.0014
 Earth -124439-12-28 11:47 J -43729560.26 -43729560.01 -43729559.76 0.0089 0.0018
 Moon -124439-12-28 11:47 J -43729560.26 -43729560.01 -43729559.75 0.0089 0.0022 *
 Earth -124438-12-30 21:51 J -43729192.84 -43729192.59 -43729192.33 0.0089 0.0008
 Moon -124438-12-30 22:20 J -43729192.80 -43729192.57 -43729192.31 0.0089 0.0013 *
 Venus -124437-01-06 08:39 J -43729186.18 -43729186.14 -43729186.05 0.0089 0.0085
 Mars -124437-08-16 03:08 J -43728963.65 -43728963.37 -43728963.05 0.0088 0.0035
 Venus -124437-08-18 21:51 J -43728960.67 -43728960.59 -43728960.46 0.0088 0.0078
 Moon -124436-01-01 05:18 J -43728825.51 -43728825.28 -43728825.01 0.0088 0.0029
 Earth -124436-01-01 07:56 J -43728825.40 -43728825.17 -43728824.93 0.0088 0.0033 *
 Venus -124436-04-01 11:03 J -43728735.15 -43728735.04 -43728734.89 0.0088 0.0071
 Venus -124436-11-13 00:15 J -43728509.62 -43728509.49 -43728509.32 0.0088 0.0064
 Earth -124435-01-03 17:03 J -43728457.96 -43728457.79 -43728457.58 0.0088 0.0059
 Moon -124435-01-03 19:42 J -43728457.84 -43728457.68 -43728457.49 0.0088 0.0063 *
 Venus -124435-06-26 13:13 J -43728284.10 -43728283.95 -43728283.76 0.0088 0.0057
 Mars -124435-07-12 17:18 J -43728268.00 -43728267.78 -43728267.49 0.0088 0.0057
 Moon -124434-01-05 23:32 J -43728090.62 -43728090.52 -43728090.38 0.0088 0.0079
 Earth -124434-01-06 02:39 J -43728090.45 -43728090.39 -43728090.28 0.0088 0.0084 *
 Venus -124434-02-07 02:11 J -43728058.57 -43728058.41 -43728058.21 0.0088 0.0050
 Venus -124434-09-20 15:37 J -43727833.04 -43727832.85 -43727832.65 0.0088 0.0042
 Venus -124433-05-03 04:35 J -43727607.51 -43727607.31 -43727607.10 0.0088 0.0035
 Mars -124433-06-07 09:08 J -43727572.24 -43727572.12 -43727571.92 0.0088 0.0078
 Venus -124433-12-14 17:32 J -43727381.97 -43727381.77 -43727381.56 0.0088 0.0028
 Venus -124432-07-28 06:15 J -43727156.44 -43727156.24 -43727156.02 0.0088 0.0021

Venus -124431-03-10 19:13 J -43726930.92 -43726930.70 -43726930.48 0.0088 0.0013

Venus -124431-10-22 08:11 J -43726705.38 -43726705.16 -43726704.94 0.0088 0.0006

Venus -124430-06-04 20:54 J -43726479.85 -43726479.63 -43726479.41 0.0088 0.0002

Venus -124429-01-16 09:23 J -43726254.33 -43726254.11 -43726253.89 0.0088 0.0008

Venus -124429-08-28 21:51 J -43726028.80 -43726028.59 -43726028.37 0.0088 0.0015

Venus -124428-04-11 10:20 J -43725803.27 -43725803.07 -43725802.85 0.0088 0.0022

Venus -124428-11-22 22:49 J -43725577.75 -43725577.55 -43725577.33 0.0088 0.0029

Venus -124427-07-06 11:03 J -43725352.22 -43725352.04 -43725351.82 0.0088 0.0037

Venus -124426-02-16 23:47 J -43725126.70 -43725126.51 -43725126.32 0.0088 0.0043

Venus -124426-09-30 12:15 J -43724901.17 -43724900.99 -43724900.81 0.0088 0.0050

Venus -124425-05-13 00:30 J -43724675.64 -43724675.48 -43724675.31 0.0088 0.0057

Venus -124425-12-24 12:44 J -43724450.11 -43724449.97 -43724449.81 0.0088 0.0064

Venus -124424-08-07 00:44 J -43724224.58 -43724224.47 -43724224.32 0.0088 0.0071

Venus -124423-03-20 12:44 J -43723999.05 -43723998.97 -43723998.84 0.0088 0.0078

Venus -124423-11-01 01:27 J -43723773.50 -43723773.44 -43723773.36 0.0088 0.0084

Mercury -124421-06-25 04:35 J -43723171.32 -43723171.31 -43723171.27 0.0088 0.0087

Mercury -124421-09-21 06:01 J -43723083.28 -43723083.25 -43723083.19 0.0088 0.0082

Mercury -124421-12-18 07:42 J -43722995.24 -43722995.18 -43722995.11 0.0088 0.0078

Mercury -124420-03-16 09:08 J -43722907.19 -43722907.12 -43722907.04 0.0088 0.0073

Mercury -124420-06-12 10:20 J -43722819.14 -43722819.07 -43722818.98 0.0088 0.0069

Mercury -124420-09-08 11:47 J -43722731.09 -43722731.01 -43722730.91 0.0088 0.0065

Mercury -124420-12-05 13:27 J -43722643.04 -43722642.94 -43722642.85 0.0088 0.0061

Mercury -124419-03-03 14:39 J -43722554.99 -43722554.89 -43722554.78 0.0088 0.0057

Mercury -124419-05-30 16:06 J -43722466.93 -43722466.83 -43722466.72 0.0088 0.0052

Mercury -124419-08-26 17:18 J -43722378.88 -43722378.78 -43722378.66 0.0088 0.0048

Mercury -124419-11-22 18:44 J -43722290.83 -43722290.72 -43722290.59 0.0088 0.0044

Mercury -124418-02-18 20:11 J -43722202.77 -43722202.66 -43722202.53 0.0088 0.0040

Mercury -124418-05-17 21:37 J -43722114.72 -43722114.60 -43722114.47 0.0088 0.0035

Mercury -124418-08-13 23:03 J -43722026.66 -43722026.54 -43722026.41 0.0088 0.0031

Mercury -124418-11-10 00:15 J -43721938.61 -43721938.49 -43721938.35 0.0088 0.0027

Mercury -124417-02-06 01:42 J -43721850.56 -43721850.43 -43721850.30 0.0088 0.0023

Mercury -124417-05-04 03:08 J -43721762.50 -43721762.37 -43721762.24 0.0088 0.0018

Mercury -124417-07-31 04:35 J -43721674.44 -43721674.31 -43721674.18 0.0088 0.0014

Mercury -124417-10-27 05:47 J -43721586.39 -43721586.26 -43721586.12 0.0088 0.0011

Mercury -124416-01-23 07:13 J -43721498.33 -43721498.20 -43721498.06 0.0088 0.0006

Mercury -124416-04-21 08:39 J -43721410.28 -43721410.14 -43721410.01 0.0088 0.0002

Mercury -124416-07-18 09:51 J -43721322.22 -43721322.09 -43721321.95 0.0088 0.0003

Mercury -124416-10-14 11:18 J -43721234.16 -43721234.03 -43721233.90 0.0088 0.0007

Mercury -124415-01-10 12:30 J -43721146.11 -43721145.98 -43721145.84 0.0088 0.0012

Mercury -124415-04-08 13:56 J -43721058.05 -43721057.92 -43721057.79 0.0088 0.0015

Mercury -124415-07-05 15:23 J -43720969.99 -43720969.86 -43720969.73 0.0088 0.0019

Mercury -124415-10-01 16:35 J -43720881.93 -43720881.81 -43720881.68 0.0088 0.0023

Mercury -124415-12-28 18:01 J -43720793.88 -43720793.75 -43720793.62 0.0088 0.0027

Mercury -124414-03-26 19:13 J -43720705.82 -43720705.70 -43720705.57 0.0088 0.0032

Mercury -124414-06-22 20:39 J -43720617.76 -43720617.64 -43720617.52 0.0088 0.0036

Mercury -124414-09-18 21:51 J -43720529.70 -43720529.59 -43720529.46 0.0088 0.0040

Mercury -124414-12-15 23:03 J -43720441.64 -43720441.54 -43720441.41 0.0088 0.0045

Mercury -124413-03-13 00:30 J -43720353.58 -43720353.48 -43720353.36 0.0088 0.0048

Mercury -124413-06-09 01:56 J -43720265.52 -43720265.42 -43720265.31 0.0088 0.0052

Mercury -124413-09-05 03:08 J -43720177.46 -43720177.37 -43720177.26 0.0088 0.0056

Mercury -124413-12-02 04:35 J -43720089.40 -43720089.31 -43720089.21 0.0088 0.0060

Mercury -124412-02-28 05:47 J -43720001.34 -43720001.26 -43720001.16 0.0088 0.0065

Mercury -124412-05-27 07:13 J -43719913.28 -43719913.20 -43719913.11 0.0088 0.0068

Mercury -124412-08-23 08:39 J -43719825.21 -43719825.14 -43719825.07 0.0088 0.0073

Mercury -124412-11-19 09:51 J -43719737.15 -43719737.09 -43719737.02 0.0088 0.0077

Mercury -124411-02-15 11:18 J -43719649.08 -43719649.03 -43719648.98 0.0088 0.0081

Mercury -124411-05-14 12:15 J -43719561.01 -43719560.99 -43719560.94 0.0088 0.0085

Mars -124365-12-23 00:15 J -43702536.63 -43702536.49 -43702536.30 0.0089 0.0075

Mars -124363-11-17 11:32 J -43701842.23 -43701842.02 -43701841.75 0.0089 0.0056

Mars -124361-10-11 22:35 J -43701147.82 -43701147.56 -43701147.26 0.0089 0.0036

Mars	-124359-09-06 07:27 J	-43700453.48	-43700453.19	-43700452.88	0.0089	0.0016
Earth	-124358-06-14 21:23 J	-43700171.71	-43700171.61	-43700171.45	0.0089	0.0077
Moon	-124358-06-15 00:30 J	-43700171.62	-43700171.48	-43700171.31	0.0089	0.0072 *
Moon	-124357-06-16 08:39 J	-43699804.31	-43699804.14	-43699803.92	0.0089	0.0055
Earth	-124357-06-16 10:06 J	-43699804.27	-43699804.08	-43699803.85	0.0089	0.0051 *
Mars	-124357-07-31 15:23 J	-43699759.16	-43699758.86	-43699758.56	0.0089	0.0004
Earth	-124356-06-18 23:03 J	-43699436.77	-43699436.54	-43699436.27	0.0089	0.0025
Moon	-124356-06-19 00:30 J	-43699436.74	-43699436.48	-43699436.21	0.0089	0.0020 *
Venus	-124355-02-14 20:11 J	-43699195.66	-43699195.66	-43699195.66	0.0089	0.0089
Earth	-124355-06-21 12:30 J	-43699069.24	-43699068.98	-43699068.72	0.0089	0.0002
Moon	-124355-06-21 12:30 J	-43699069.23	-43699068.98	-43699068.72	0.0089	0.0003 *
Mars	-124355-06-25 22:35 J	-43699064.84	-43699064.56	-43699064.26	0.0089	0.0024
Venus	-124355-09-28 08:39 J	-43698970.21	-43698970.14	-43698970.05	0.0089	0.0082
Venus	-124354-05-11 21:37 J	-43698744.71	-43698744.60	-43698744.48	0.0089	0.0075
Moon	-124354-06-24 00:01 J	-43698701.74	-43698701.50	-43698701.24	0.0089	0.0033
Earth	-124354-06-24 01:13 J	-43698701.68	-43698701.45	-43698701.19	0.0089	0.0029 *
Venus	-124354-12-23 10:35 J	-43698519.20	-43698519.06	-43698518.92	0.0089	0.0068
Mars	-124353-05-20 04:35 J	-43698370.56	-43698370.31	-43698370.03	0.0089	0.0043
Earth	-124353-06-25 14:25 J	-43698334.09	-43698333.90	-43698333.68	0.0089	0.0055
Moon	-124353-06-25 15:51 J	-43698334.03	-43698333.84	-43698333.61	0.0089	0.0051 *
Venus	-124353-08-04 22:49 J	-43698293.69	-43698293.55	-43698293.37	0.0089	0.0062
Venus	-124352-03-18 11:47 J	-43698068.16	-43698068.01	-43698067.82	0.0089	0.0055
Moon	-124352-06-28 00:59 J	-43697966.50	-43697966.46	-43697966.38	0.0089	0.0086
Earth	-124352-06-28 03:37 J	-43697966.42	-43697966.35	-43697966.22	0.0089	0.0082 *
Venus	-124352-10-30 00:44 J	-43697842.64	-43697842.47	-43697842.27	0.0089	0.0048
Mars	-124351-04-14 09:08 J	-43697676.31	-43697676.12	-43697675.88	0.0089	0.0062
Venus	-124351-06-12 13:56 J	-43697617.11	-43697616.92	-43697616.72	0.0089	0.0040
Venus	-124350-01-24 02:54 J	-43697391.58	-43697391.38	-43697391.17	0.0089	0.0033
Venus	-124350-09-06 15:51 J	-43697166.04	-43697165.84	-43697165.62	0.0089	0.0026
Mars	-124349-03-08 13:27 J	-43696982.03	-43696981.94	-43696981.78	0.0089	0.0081

Venus -124349-04-19 05:03 J -43696940.50 -43696940.29 -43696940.07 0.0089 0.0019

Venus -124349-11-30 18:15 J -43696714.95 -43696714.74 -43696714.52 0.0089 0.0012

Venus -124348-07-14 07:27 J -43696489.41 -43696489.19 -43696488.97 0.0089 0.0004

Venus -124347-02-24 20:39 J -43696263.86 -43696263.64 -43696263.42 0.0089 0.0003

Venus -124347-10-08 09:51 J -43696038.31 -43696038.09 -43696037.87 0.0089 0.0010

Venus -124346-05-21 23:18 J -43695812.74 -43695812.53 -43695812.31 0.0089 0.0017

Venus -124345-01-02 12:30 J -43695587.18 -43695586.98 -43695586.76 0.0089 0.0025

Venus -124345-08-15 01:56 J -43695361.62 -43695361.42 -43695361.20 0.0089 0.0032

Venus -124344-03-28 15:37 J -43695136.04 -43695135.85 -43695135.65 0.0089 0.0039

Venus -124344-11-09 04:49 J -43694910.47 -43694910.30 -43694910.09 0.0089 0.0047

Venus -124343-06-22 18:30 J -43694684.89 -43694684.73 -43694684.54 0.0089 0.0054

Venus -124342-02-03 08:11 J -43694459.31 -43694459.16 -43694458.99 0.0089 0.0061

Venus -124342-09-16 22:06 J -43694233.72 -43694233.58 -43694233.44 0.0089 0.0068

Venus -124341-04-29 11:32 J -43694008.12 -43694008.02 -43694007.89 0.0089 0.0076

Venus -124341-12-11 01:13 J -43693782.51 -43693782.45 -43693782.35 0.0089 0.0083

Mercury -124337-05-28 01:56 J -43692518.43 -43692518.42 -43692518.38 0.0089 0.0088

Mercury -124337-08-24 05:32 J -43692430.33 -43692430.27 -43692430.19 0.0089 0.0082

Mercury -124337-11-20 09:08 J -43692342.21 -43692342.12 -43692342.02 0.0089 0.0076

Mercury -124336-02-16 12:30 J -43692254.08 -43692253.98 -43692253.85 0.0089 0.0071

Mercury -124336-05-15 16:06 J -43692165.95 -43692165.83 -43692165.69 0.0089 0.0064

Mercury -124336-08-11 19:42 J -43692077.82 -43692077.68 -43692077.53 0.0089 0.0058

Mercury -124336-11-07 23:18 J -43691989.68 -43691989.53 -43691989.37 0.0089 0.0052

Mercury -124335-02-04 02:39 J -43691901.54 -43691901.39 -43691901.21 0.0089 0.0047

Mercury -124335-05-03 06:15 J -43691813.40 -43691813.24 -43691813.06 0.0089 0.0040

Mercury -124335-07-30 09:51 J -43691725.26 -43691725.09 -43691724.90 0.0089 0.0034

Mercury -124335-10-26 13:27 J -43691637.11 -43691636.94 -43691636.75 0.0089 0.0028

Mercury -124334-01-22 17:03 J -43691548.97 -43691548.79 -43691548.59 0.0089 0.0022

Mercury -124334-04-20 20:54 J -43691460.82 -43691460.63 -43691460.44 0.0089 0.0016

Mercury -124334-07-18 00:30 J -43691372.67 -43691372.48 -43691372.29 0.0089 0.0009

Mercury -124334-10-14 04:06 J -43691284.52 -43691284.33 -43691284.14 0.0089 0.0003

Mercury -124333-01-10 07:42 J -43691196.37 -43691196.18 -43691195.99 0.0089 0.0003

Mercury -124333-04-07 11:18 J -43691108.22 -43691108.03 -43691107.84 0.0089 0.0009

Mercury -124333-07-04 14:54 J -43691020.07 -43691019.88 -43691019.69 0.0089 0.0015

Mercury -124333-09-30 18:30 J -43690931.91 -43690931.73 -43690931.54 0.0089 0.0022

Mercury -124333-12-27 21:51 J -43690843.76 -43690843.59 -43690843.39 0.0089 0.0029

Mercury -124332-03-26 01:42 J -43690755.60 -43690755.43 -43690755.24 0.0089 0.0034

Mercury -124332-06-22 05:18 J -43690667.44 -43690667.28 -43690667.10 0.0089 0.0040

Mercury -124332-09-18 09:08 J -43690579.28 -43690579.12 -43690578.95 0.0089 0.0046

Mercury -124332-12-15 12:30 J -43690491.12 -43690490.98 -43690490.81 0.0089 0.0053

Mercury -124331-03-13 16:06 J -43690402.96 -43690402.83 -43690402.67 0.0089 0.0059

Mercury -124331-06-09 19:56 J -43690314.79 -43690314.67 -43690314.53 0.0089 0.0065

Mercury -124331-09-05 23:47 J -43690226.62 -43690226.51 -43690226.39 0.0089 0.0071

Mercury -124331-12-03 02:54 J -43690138.45 -43690138.38 -43690138.26 0.0089 0.0079

Mercury -124330-03-01 06:44 J -43690050.26 -43690050.22 -43690050.14 0.0089 0.0084

Mars -124283-09-22 07:42 J -43672678.30 -43672678.18 -43672677.98 0.0089 0.0077

Mars -124281-08-17 14:25 J -43671983.12 -43671982.90 -43671982.62 0.0089 0.0057

Mars -124279-07-13 23:18 J -43671287.81 -43671287.53 -43671287.22 0.0089 0.0036

Mars -124277-06-08 08:25 J -43670592.45 -43670592.15 -43670591.81 0.0089 0.0016

Earth -124277-12-23 02:54 J -43670394.47 -43670394.38 -43670394.24 0.0089 0.0079

Moon -124277-12-23 03:23 J -43670394.45 -43670394.36 -43670394.25 0.0089 0.0080 *

Moon -124276-12-25 12:59 J -43670027.18 -43670026.96 -43670026.75 0.0089 0.0051

Earth -124276-12-25 13:42 J -43670027.12 -43670026.93 -43670026.71 0.0089 0.0053 *

Mars -124275-05-04 19:56 J -43669896.99 -43669896.67 -43669896.34 0.0089 0.0006

Earth -124275-12-28 00:30 J -43669659.72 -43669659.48 -43669659.24 0.0089 0.0027

Moon -124275-12-28 02:39 J -43669659.62 -43669659.39 -43669659.15 0.0089 0.0029 *

Moon -124274-12-30 08:11 J -43669292.42 -43669292.16 -43669291.90 0.0089 0.0001

Earth -124274-12-30 10:49 J -43669292.31 -43669292.05 -43669291.80 0.0089 0.0002 *

Mars -124273-03-30 08:25 J -43669201.45 -43669201.15 -43669200.83 0.0089 0.0027

Venus -124273-04-08 20:11 J -43669191.70 -43669191.66 -43669191.57 0.0089 0.0085

Venus -124273-11-20 09:23 J -43668966.19 -43668966.11 -43668965.98 0.0089 0.0078

Earth	-124273-12-31 20:39 J	-43668924.88	-43668924.64	-43668924.39	0.0089	0.0024
Moon	-124272-01-01 00:01 J	-43668924.74	-43668924.50	-43668924.25	0.0089	0.0024 *
Venus	-124272-07-03 23:03 J	-43668740.67	-43668740.54	-43668740.40	0.0088	0.0070
Moon	-124271-01-03 03:08 J	-43668557.57	-43668557.37	-43668557.16	0.0088	0.0050
Earth	-124271-01-03 06:15 J	-43668557.43	-43668557.24	-43668557.01	0.0088	0.0050 *
Venus	-124271-02-14 12:15 J	-43668515.14	-43668514.99	-43668514.84	0.0088	0.0063
Mars	-124271-02-23 22:06 J	-43668505.85	-43668505.58	-43668505.30	0.0088	0.0048
Venus	-124271-09-28 01:13 J	-43668289.61	-43668289.45	-43668289.27	0.0088	0.0056
Earth	-124270-01-05 15:51 J	-43668189.96	-43668189.84	-43668189.69	0.0088	0.0075
Moon	-124270-01-05 19:27 J	-43668189.80	-43668189.69	-43668189.55	0.0088	0.0076 *
Venus	-124270-05-11 14:25 J	-43668064.08	-43668063.90	-43668063.71	0.0088	0.0049
Venus	-124270-12-23 03:23 J	-43667838.55	-43667838.36	-43667838.16	0.0088	0.0042
Mars	-124269-01-20 12:44 J	-43667810.16	-43667809.97	-43667809.75	0.0088	0.0069
Venus	-124269-08-04 16:06 J	-43667613.02	-43667612.83	-43667612.61	0.0088	0.0035
Venus	-124268-03-18 05:03 J	-43667387.49	-43667387.29	-43667387.07	0.0088	0.0028
Venus	-124268-10-29 18:15 J	-43667161.95	-43667161.74	-43667161.52	0.0088	0.0020
Venus	-124267-06-12 06:59 J	-43666936.42	-43666936.21	-43666935.98	0.0088	0.0014
Venus	-124266-01-23 19:56 J	-43666710.89	-43666710.67	-43666710.45	0.0088	0.0006
Venus	-124266-09-06 08:39 J	-43666485.36	-43666485.14	-43666484.92	0.0088	0.0002
Venus	-124265-04-18 21:23 J	-43666259.82	-43666259.61	-43666259.39	0.0088	0.0008
Venus	-124265-11-30 10:06 J	-43666034.29	-43666034.08	-43666033.86	0.0088	0.0015
Venus	-124264-07-13 22:35 J	-43665808.76	-43665808.56	-43665808.34	0.0088	0.0023
Venus	-124263-02-24 11:03 J	-43665583.23	-43665583.04	-43665582.82	0.0088	0.0029
Venus	-124263-10-07 23:32 J	-43665357.70	-43665357.52	-43665357.31	0.0088	0.0037
Venus	-124262-05-21 12:01 J	-43665132.18	-43665132.00	-43665131.80	0.0088	0.0043
Venus	-124261-01-02 00:15 J	-43664906.65	-43664906.49	-43664906.29	0.0088	0.0051
Venus	-124261-08-14 12:59 J	-43664681.12	-43664680.96	-43664680.79	0.0088	0.0057
Venus	-124260-03-28 00:59 J	-43664455.59	-43664455.46	-43664455.29	0.0088	0.0064
Venus	-124260-11-08 13:13 J	-43664230.06	-43664229.95	-43664229.80	0.0088	0.0071
Venus	-124259-06-22 01:56 J	-43664004.52	-43664004.42	-43664004.31	0.0088	0.0077

Venus -124258-02-02 13:42 J -43663778.98 -43663778.93 -43663778.84 0.0088 0.0084

Mercury -124257-12-24 03:23 J -43663088.37 -43663088.36 -43663088.34 0.0088 0.0088

Mercury -124256-03-22 04:49 J -43663000.34 -43663000.30 -43663000.25 0.0088 0.0083

Mercury -124256-06-18 06:01 J -43662912.29 -43662912.25 -43662912.18 0.0088 0.0080

Mercury -124256-09-14 07:27 J -43662824.25 -43662824.19 -43662824.11 0.0088 0.0075

Mercury -124256-12-11 09:08 J -43662736.20 -43662736.12 -43662736.04 0.0088 0.0071

Mercury -124255-03-09 10:20 J -43662648.15 -43662648.07 -43662647.97 0.0088 0.0067

Mercury -124255-06-05 11:47 J -43662560.10 -43662560.01 -43662559.91 0.0088 0.0062

Mercury -124255-09-01 12:59 J -43662472.05 -43662471.96 -43662471.84 0.0088 0.0059

Mercury -124255-11-28 14:25 J -43662383.99 -43662383.90 -43662383.78 0.0088 0.0054

Mercury -124254-02-24 16:06 J -43662295.94 -43662295.83 -43662295.72 0.0088 0.0050

Mercury -124254-05-23 17:18 J -43662207.89 -43662207.78 -43662207.66 0.0088 0.0046

Mercury -124254-08-19 18:44 J -43662119.83 -43662119.72 -43662119.60 0.0088 0.0041

Mercury -124254-11-15 20:11 J -43662031.78 -43662031.66 -43662031.53 0.0088 0.0037

Mercury -124253-02-11 21:37 J -43661943.72 -43661943.60 -43661943.47 0.0088 0.0033

Mercury -124253-05-09 23:03 J -43661855.67 -43661855.54 -43661855.41 0.0088 0.0028

Mercury -124253-08-06 00:15 J -43661767.61 -43661767.49 -43661767.36 0.0088 0.0024

Mercury -124253-11-02 01:42 J -43661679.56 -43661679.43 -43661679.30 0.0088 0.0020

Mercury -124252-01-29 03:08 J -43661591.50 -43661591.37 -43661591.24 0.0088 0.0016

Mercury -124252-04-27 04:20 J -43661503.45 -43661503.32 -43661503.18 0.0088 0.0012

Mercury -124252-07-24 05:47 J -43661415.39 -43661415.26 -43661415.12 0.0088 0.0008

Mercury -124252-10-20 07:13 J -43661327.33 -43661327.20 -43661327.07 0.0088 0.0003

Mercury -124251-01-16 08:39 J -43661239.28 -43661239.14 -43661239.01 0.0088 0.0002

Mercury -124251-04-14 09:51 J -43661151.22 -43661151.09 -43661150.95 0.0088 0.0005

Mercury -124251-07-11 11:18 J -43661063.16 -43661063.03 -43661062.90 0.0088 0.0009

Mercury -124251-10-07 12:30 J -43660975.11 -43660974.98 -43660974.84 0.0088 0.0014

Mercury -124250-01-03 13:56 J -43660887.05 -43660886.92 -43660886.79 0.0088 0.0018

Mercury -124250-04-01 15:08 J -43660798.99 -43660798.87 -43660798.73 0.0088 0.0022

Mercury -124250-06-28 16:35 J -43660710.93 -43660710.81 -43660710.68 0.0088 0.0026

Mercury -124250-09-24 17:47 J -43660622.88 -43660622.76 -43660622.63 0.0088 0.0031

Mercury -124250-12-21 19:13 J -43660534.82 -43660534.70 -43660534.57 0.0088 0.0034

Mercury -124249-03-18 20:39 J -43660446.76 -43660446.64 -43660446.52 0.0088 0.0038

Mercury -124249-06-14 21:51 J -43660358.70 -43660358.59 -43660358.47 0.0088 0.0043

Mercury -124249-09-10 23:18 J -43660270.64 -43660270.53 -43660270.42 0.0088 0.0047

Mercury -124249-12-08 00:44 J -43660182.58 -43660182.47 -43660182.37 0.0088 0.0051

Mercury -124248-03-06 01:56 J -43660094.52 -43660094.42 -43660094.32 0.0088 0.0055

Mercury -124248-06-02 03:08 J -43660006.46 -43660006.37 -43660006.26 0.0088 0.0059

Mercury -124248-08-29 04:20 J -43659918.40 -43659918.32 -43659918.22 0.0088 0.0063

Mercury -124248-11-25 05:47 J -43659830.34 -43659830.26 -43659830.17 0.0088 0.0067

Mercury -124247-02-21 06:59 J -43659742.27 -43659742.21 -43659742.12 0.0088 0.0071

Mercury -124247-05-20 08:25 J -43659654.21 -43659654.15 -43659654.08 0.0088 0.0075

Mercury -124247-08-16 09:37 J -43659566.14 -43659566.10 -43659566.03 0.0088 0.0080

Mercury -124247-11-12 11:03 J -43659478.07 -43659478.04 -43659477.99 0.0088 0.0083

Mercury -124246-02-08 12:15 J -43659389.99 -43659389.99 -43659389.96 0.0088 0.0088

Mars -124201-08-06 23:47 J -43642773.60 -43642773.51 -43642773.34 0.0089 0.0081

Mars -124199-07-02 12:59 J -43642079.17 -43642078.96 -43642078.73 0.0089 0.0061

Mars -124197-05-26 23:47 J -43641384.76 -43641384.51 -43641384.22 0.0089 0.0042

Mars -124195-04-21 11:03 J -43640690.32 -43640690.04 -43640689.73 0.0089 0.0023

Moon -124194-06-14 07:13 J -43640271.27 -43640271.20 -43640271.11 0.0089 0.0084

Earth -124194-06-14 07:56 J -43640271.21 -43640271.17 -43640271.09 0.0089 0.0086 *

Mars -124193-03-15 20:25 J -43639995.95 -43639995.65 -43639995.34 0.0089 0.0003

Moon -124193-06-15 19:56 J -43639903.85 -43639903.67 -43639903.47 0.0089 0.0062

Earth -124193-06-15 20:25 J -43639903.83 -43639903.65 -43639903.45 0.0089 0.0060 *

Earth -124192-06-18 09:08 J -43639536.35 -43639536.12 -43639535.87 0.0089 0.0034

Moon -124192-06-18 10:06 J -43639536.29 -43639536.08 -43639535.82 0.0089 0.0033 *

Mars -124191-02-08 03:23 J -43639301.64 -43639301.36 -43639301.04 0.0089 0.0017

Venus -124191-05-19 08:25 J -43639201.16 -43639201.15 -43639201.12 0.0089 0.0088

Moon -124191-06-20 20:11 J -43639168.92 -43639168.66 -43639168.39 0.0089 0.0008

Earth -124191-06-20 22:06 J -43639168.83 -43639168.58 -43639168.31 0.0089 0.0008 *

Venus -124191-12-30 20:39 J -43638975.70 -43638975.64 -43638975.53 0.0089 0.0082

Earth	-124190-06-23 11:03 J	-43638801.29	-43638801.04	-43638800.78	0.0089	0.0019
Moon	-124190-06-23 14:11 J	-43638801.16	-43638800.91	-43638800.66	0.0089	0.0020 *
Venus	-124190-08-13 09:37 J	-43638750.20	-43638750.10	-43638749.97	0.0089	0.0075
Mars	-124189-01-03 10:35 J	-43638607.32	-43638607.06	-43638606.77	0.0089	0.0036
Venus	-124189-03-25 22:20 J	-43638524.69	-43638524.57	-43638524.41	0.0089	0.0068
Moon	-124189-06-24 21:08 J	-43638433.85	-43638433.62	-43638433.39	0.0089	0.0045
Earth	-124189-06-24 23:47 J	-43638433.71	-43638433.51	-43638433.26	0.0089	0.0046 *
Venus	-124189-11-06 11:18 J	-43638299.17	-43638299.03	-43638298.86	0.0089	0.0061
Venus	-124188-06-20 00:15 J	-43638073.66	-43638073.49	-43638073.31	0.0089	0.0054
Earth	-124188-06-27 13:27 J	-43638066.08	-43638065.94	-43638065.78	0.0089	0.0072
Moon	-124188-06-27 17:03 J	-43638065.93	-43638065.79	-43638065.62	0.0089	0.0071 *
Mars	-124188-11-27 16:06 J	-43637913.04	-43637912.83	-43637912.57	0.0089	0.0055
Venus	-124187-01-31 12:59 J	-43637848.13	-43637847.96	-43637847.76	0.0089	0.0047
Venus	-124187-09-14 01:56 J	-43637622.61	-43637622.42	-43637622.22	0.0089	0.0040
Venus	-124186-04-27 15:08 J	-43637397.07	-43637396.87	-43637396.66	0.0089	0.0033
Mars	-124186-10-22 20:11 J	-43637218.80	-43637218.66	-43637218.46	0.0089	0.0073
Venus	-124186-12-09 04:06 J	-43637171.53	-43637171.33	-43637171.11	0.0089	0.0026
Venus	-124185-07-21 17:03 J	-43636946.00	-43636945.79	-43636945.57	0.0089	0.0019
Venus	-124184-03-04 06:01 J	-43636720.46	-43636720.25	-43636720.02	0.0089	0.0012
Venus	-124184-10-15 19:13 J	-43636494.92	-43636494.70	-43636494.48	0.0089	0.0005
Venus	-124183-05-29 08:25 J	-43636269.37	-43636269.15	-43636268.92	0.0089	0.0004
Venus	-124182-01-09 21:37 J	-43636043.82	-43636043.60	-43636043.38	0.0089	0.0010
Venus	-124182-08-23 11:03 J	-43635818.26	-43635818.04	-43635817.83	0.0089	0.0017
Venus	-124181-04-05 00:01 J	-43635592.70	-43635592.50	-43635592.27	0.0089	0.0025
Venus	-124181-11-16 13:27 J	-43635367.14	-43635366.94	-43635366.72	0.0089	0.0032
Venus	-124180-06-30 02:54 J	-43635141.57	-43635141.38	-43635141.17	0.0089	0.0039
Venus	-124179-02-10 16:06 J	-43634916.00	-43634915.83	-43634915.62	0.0089	0.0047
Venus	-124179-09-24 05:32 J	-43634690.42	-43634690.27	-43634690.07	0.0089	0.0054
Venus	-124178-05-07 19:27 J	-43634464.84	-43634464.69	-43634464.51	0.0089	0.0061
Venus	-124178-12-19 09:08 J	-43634239.25	-43634239.12	-43634238.96	0.0089	0.0068

Venus -124177-07-31 23:03 J -43634013.65 -43634013.54 -43634013.42 0.0089 0.0075

Venus -124176-03-14 12:01 J -43633788.05 -43633788.00 -43633787.89 0.0089 0.0083

Mercury -124172-02-22 01:13 J -43632347.50 -43632347.45 -43632347.38 0.0089 0.0084

Mercury -124172-05-21 04:49 J -43632259.38 -43632259.30 -43632259.21 0.0089 0.0078

Mercury -124172-08-17 08:11 J -43632171.26 -43632171.16 -43632171.04 0.0089 0.0073

Mercury -124172-11-13 11:47 J -43632083.13 -43632083.01 -43632082.88 0.0089 0.0066

Mercury -124171-02-09 15:23 J -43631994.99 -43631994.86 -43631994.71 0.0089 0.0060

Mercury -124171-05-08 18:59 J -43631906.86 -43631906.71 -43631906.56 0.0089 0.0054

Mercury -124171-08-04 22:20 J -43631818.72 -43631818.57 -43631818.40 0.0089 0.0048

Mercury -124171-11-01 01:56 J -43631730.58 -43631730.42 -43631730.24 0.0089 0.0042

Mercury -124170-01-28 05:32 J -43631642.44 -43631642.27 -43631642.09 0.0089 0.0036

Mercury -124170-04-26 09:08 J -43631554.30 -43631554.12 -43631553.93 0.0089 0.0030

Mercury -124170-07-23 12:44 J -43631466.15 -43631465.97 -43631465.78 0.0089 0.0024

Mercury -124170-10-19 16:20 J -43631378.01 -43631377.82 -43631377.63 0.0089 0.0018

Mercury -124169-01-15 19:56 J -43631289.86 -43631289.67 -43631289.48 0.0089 0.0012

Mercury -124169-04-12 23:32 J -43631201.71 -43631201.52 -43631201.33 0.0089 0.0006

Mercury -124169-07-10 03:08 J -43631113.56 -43631113.37 -43631113.18 0.0089 0.0001

Mercury -124169-10-06 06:44 J -43631025.41 -43631025.22 -43631025.03 0.0089 0.0007

Mercury -124168-01-02 10:20 J -43630937.26 -43630937.07 -43630936.88 0.0089 0.0013

Mercury -124168-03-31 13:56 J -43630849.11 -43630848.92 -43630848.73 0.0089 0.0019

Mercury -124168-06-27 17:32 J -43630760.95 -43630760.77 -43630760.58 0.0089 0.0025

Mercury -124168-09-23 20:54 J -43630672.79 -43630672.63 -43630672.43 0.0089 0.0032

Mercury -124168-12-21 00:44 J -43630584.64 -43630584.47 -43630584.29 0.0089 0.0038

Mercury -124167-03-19 04:20 J -43630496.48 -43630496.32 -43630496.14 0.0089 0.0044

Mercury -124167-06-15 07:56 J -43630408.32 -43630408.17 -43630408.00 0.0089 0.0051

Mercury -124167-09-11 11:47 J -43630320.15 -43630320.01 -43630319.86 0.0089 0.0057

Mercury -124167-12-08 15:08 J -43630231.99 -43630231.87 -43630231.72 0.0089 0.0063

Mercury -124166-03-06 18:59 J -43630143.82 -43630143.71 -43630143.58 0.0089 0.0069

Mercury -124166-06-02 22:35 J -43630055.65 -43630055.56 -43630055.44 0.0089 0.0075

Mercury -124166-08-30 02:25 J -43629967.47 -43629967.40 -43629967.32 0.0089 0.0082

Mercury -124166-11-26 05:47 J -43629879.27 -43629879.26 -43629879.21 0.0089 0.0088
 Mars -124119-05-06 20:54 J -43612915.72 -43612915.63 -43612915.47 0.0089 0.0082
 Mars -124117-04-01 01:56 J -43612220.63 -43612220.42 -43612220.17 0.0089 0.0062
 Mars -124115-02-25 09:08 J -43611525.40 -43611525.12 -43611524.83 0.0089 0.0042
 Mars -124113-01-21 18:01 J -43610830.05 -43610829.75 -43610829.42 0.0089 0.0022
 Moon -124113-12-22 12:44 J -43610494.02 -43610493.97 -43610493.86 0.0089 0.0085
 Earth -124113-12-22 15:23 J -43610493.87 -43610493.86 -43610493.81 0.0089 0.0088 *
 Mars -124112-12-17 04:06 J -43610134.66 -43610134.33 -43610134.01 0.0089 0.0002
 Earth -124112-12-25 02:25 J -43610126.57 -43610126.40 -43610126.21 0.0089 0.0062
 Moon -124112-12-25 04:49 J -43610126.44 -43610126.30 -43610126.12 0.0089 0.0067 *
 Moon -124111-12-27 09:37 J -43609759.33 -43609759.10 -43609758.85 0.0089 0.0032
 Earth -124111-12-27 12:59 J -43609759.18 -43609758.96 -43609758.71 0.0089 0.0037 *
 Mars -124110-11-12 14:39 J -43609439.20 -43609438.89 -43609438.56 0.0089 0.0020
 Earth -124110-12-29 23:32 J -43609391.77 -43609391.52 -43609391.26 0.0089 0.0010
 Moon -124110-12-30 02:54 J -43609391.63 -43609391.38 -43609391.12 0.0089 0.0015 *
 Venus -124109-07-11 08:11 J -43609197.21 -43609197.16 -43609197.07 0.0089 0.0084
 Moon -124109-12-31 06:15 J -43609024.48 -43609024.24 -43609023.99 0.0089 0.0020
 Earth -124109-12-31 09:37 J -43609024.34 -43609024.10 -43609023.84 0.0089 0.0016 *
 Venus -124108-02-21 21:23 J -43608971.70 -43608971.61 -43608971.48 0.0089 0.0077
 Venus -124108-10-05 10:35 J -43608746.17 -43608746.06 -43608745.90 0.0089 0.0070
 Mars -124108-10-08 03:37 J -43608743.64 -43608743.35 -43608743.06 0.0089 0.0040
 Earth -124107-01-02 19:27 J -43608656.90 -43608656.69 -43608656.45 0.0089 0.0041
 Moon -124107-01-02 22:35 J -43608656.79 -43608656.56 -43608656.31 0.0089 0.0036 *
 Venus -124107-05-18 23:47 J -43608520.65 -43608520.51 -43608520.33 0.0089 0.0063
 Venus -124107-12-30 12:59 J -43608295.12 -43608294.96 -43608294.77 0.0089 0.0056
 Moon -124106-01-05 02:39 J -43608289.51 -43608289.39 -43608289.21 0.0089 0.0071
 Earth -124106-01-05 05:18 J -43608289.43 -43608289.28 -43608289.10 0.0089 0.0066 *
 Venus -124106-08-13 01:56 J -43608069.59 -43608069.42 -43608069.22 0.0088 0.0049
 Mars -124106-09-03 16:20 J -43608048.03 -43608047.82 -43608047.55 0.0088 0.0061
 Moon -124105-01-07 16:35 J -43607921.84 -43607921.81 -43607921.72 0.0088 0.0087

Venus -124105-03-25 14:54 J -43607844.06 -43607843.88 -43607843.67 0.0088 0.0042
 Venus -124105-11-06 04:06 J -43607618.52 -43607618.33 -43607618.11 0.0088 0.0035
 Venus -124104-06-19 17:03 J -43607392.99 -43607392.79 -43607392.57 0.0088 0.0028
 Mars -124104-07-30 07:27 J -43607352.31 -43607352.19 -43607352.05 0.0088 0.0081
 Venus -124103-01-31 06:01 J -43607167.46 -43607167.25 -43607167.03 0.0088 0.0020
 Venus -124103-09-13 19:13 J -43606941.92 -43606941.70 -43606941.49 0.0088 0.0013
 Venus -124102-04-27 07:56 J -43606716.39 -43606716.17 -43606715.95 0.0088 0.0006
 Venus -124102-12-08 20:54 J -43606490.85 -43606490.63 -43606490.41 0.0088 0.0001
 Venus -124101-07-21 09:37 J -43606265.32 -43606265.10 -43606264.88 0.0088 0.0008
 Venus -124100-03-03 22:06 J -43606039.79 -43606039.58 -43606039.35 0.0088 0.0016
 Venus -124100-10-15 11:03 J -43605814.25 -43605814.04 -43605813.83 0.0088 0.0022
 Venus -124099-05-28 23:32 J -43605588.72 -43605588.52 -43605588.30 0.0088 0.0030
 Venus -124098-01-09 12:01 J -43605363.18 -43605363.00 -43605362.79 0.0088 0.0037
 Venus -124098-08-23 00:30 J -43605137.66 -43605137.48 -43605137.28 0.0088 0.0044
 Venus -124097-04-04 12:59 J -43604912.13 -43604911.96 -43604911.77 0.0088 0.0050
 Venus -124097-11-16 01:56 J -43604686.59 -43604686.42 -43604686.26 0.0088 0.0057
 Venus -124096-06-29 13:56 J -43604461.06 -43604460.92 -43604460.76 0.0088 0.0064
 Venus -124095-02-10 01:56 J -43604235.53 -43604235.42 -43604235.27 0.0088 0.0071
 Venus -124095-09-23 14:11 J -43604009.99 -43604009.91 -43604009.78 0.0088 0.0077
 Venus -124094-05-07 02:39 J -43603784.44 -43603784.39 -43603784.31 0.0088 0.0084
 Mercury -124092-09-20 03:37 J -43602917.39 -43602917.35 -43602917.32 0.0088 0.0085
 Mercury -124092-12-17 04:49 J -43602829.34 -43602829.30 -43602829.24 0.0088 0.0081
 Mercury -124091-03-15 06:15 J -43602741.30 -43602741.24 -43602741.17 0.0088 0.0076
 Mercury -124091-06-11 07:27 J -43602653.25 -43602653.19 -43602653.10 0.0088 0.0073
 Mercury -124091-09-07 08:54 J -43602565.20 -43602565.13 -43602565.03 0.0088 0.0068
 Mercury -124091-12-04 10:35 J -43602477.15 -43602477.06 -43602476.97 0.0088 0.0064
 Mercury -124090-03-02 11:47 J -43602389.10 -43602389.01 -43602388.90 0.0088 0.0060
 Mercury -124090-05-29 13:13 J -43602301.05 -43602300.95 -43602300.84 0.0088 0.0055
 Mercury -124090-08-25 14:25 J -43602212.99 -43602212.90 -43602212.77 0.0088 0.0052
 Mercury -124090-11-21 16:06 J -43602124.94 -43602124.83 -43602124.71 0.0088 0.0047

Mercury -124089-02-17 17:32 J -43602036.89 -43602036.77 -43602036.65 0.0088 0.0042

Mercury -124089-05-15 18:44 J -43601948.83 -43601948.72 -43601948.59 0.0088 0.0039

Mercury -124089-08-11 20:11 J -43601860.78 -43601860.66 -43601860.53 0.0088 0.0034

Mercury -124089-11-07 21:37 J -43601772.72 -43601772.60 -43601772.47 0.0088 0.0030

Mercury -124088-02-03 23:03 J -43601684.67 -43601684.54 -43601684.41 0.0088 0.0026

Mercury -124088-05-03 00:30 J -43601596.61 -43601596.48 -43601596.35 0.0088 0.0021

Mercury -124088-07-30 01:42 J -43601508.56 -43601508.43 -43601508.29 0.0088 0.0018

Mercury -124088-10-26 03:08 J -43601420.50 -43601420.37 -43601420.23 0.0088 0.0013

Mercury -124087-01-22 04:35 J -43601332.44 -43601332.31 -43601332.18 0.0088 0.0009

Mercury -124087-04-20 06:01 J -43601244.39 -43601244.25 -43601244.12 0.0088 0.0005

Mercury -124087-07-17 07:13 J -43601156.33 -43601156.20 -43601156.06 0.0088 0.0003

Mercury -124087-10-13 08:39 J -43601068.27 -43601068.14 -43601068.01 0.0088 0.0004

Mercury -124086-01-09 10:06 J -43600980.22 -43600980.08 -43600979.95 0.0088 0.0008

Mercury -124086-04-07 11:18 J -43600892.16 -43600892.03 -43600891.89 0.0088 0.0012

Mercury -124086-07-04 12:44 J -43600804.10 -43600803.97 -43600803.84 0.0088 0.0016

Mercury -124086-09-30 14:11 J -43600716.04 -43600715.91 -43600715.78 0.0088 0.0021

Mercury -124086-12-27 15:23 J -43600627.99 -43600627.86 -43600627.73 0.0088 0.0025

Mercury -124085-03-24 16:35 J -43600539.93 -43600539.81 -43600539.68 0.0088 0.0029

Mercury -124085-06-20 18:01 J -43600451.87 -43600451.75 -43600451.62 0.0088 0.0033

Mercury -124085-09-16 19:13 J -43600363.81 -43600363.70 -43600363.57 0.0088 0.0038

Mercury -124085-12-13 20:39 J -43600275.75 -43600275.64 -43600275.52 0.0088 0.0041

Mercury -124084-03-11 22:06 J -43600187.69 -43600187.58 -43600187.47 0.0088 0.0045

Mercury -124084-06-07 23:18 J -43600099.63 -43600099.53 -43600099.41 0.0088 0.0050

Mercury -124084-09-04 00:44 J -43600011.57 -43600011.47 -43600011.36 0.0088 0.0054

Mercury -124084-12-01 02:11 J -43599923.51 -43599923.41 -43599923.31 0.0088 0.0058

Mercury -124083-02-27 03:08 J -43599835.45 -43599835.37 -43599835.26 0.0088 0.0062

Mercury -124083-05-26 04:35 J -43599747.39 -43599747.31 -43599747.22 0.0088 0.0066

Mercury -124083-08-22 05:47 J -43599659.33 -43599659.26 -43599659.17 0.0088 0.0070

Mercury -124083-11-18 07:13 J -43599571.26 -43599571.20 -43599571.12 0.0088 0.0074

Mercury -124082-02-14 08:25 J -43599483.20 -43599483.15 -43599483.08 0.0088 0.0079

Mercury -124082-05-13 09:51 J -43599395.13 -43599395.09 -43599395.04 0.0088 0.0082

Mercury -124082-08-09 11:03 J -43599307.05 -43599307.04 -43599307.00 0.0088 0.0087

Jupiter -124075-03-29 21:08 J -43596882.91 -43596882.62 -43596882.25 0.0088 0.0069

Mars -124037-03-21 23:03 J -43583010.59 -43583010.54 -43583010.42 0.0089 0.0086

Mars -124035-02-14 13:42 J -43582316.10 -43582315.93 -43582315.69 0.0089 0.0067

Mars -124033-01-10 02:11 J -43581621.64 -43581621.41 -43581621.13 0.0089 0.0048

Mars -124032-12-04 12:59 J -43580927.23 -43580926.96 -43580926.65 0.0089 0.0029

Mars -124030-10-29 23:32 J -43580232.83 -43580232.52 -43580232.22 0.0089 0.0009

Earth -124029-06-15 06:44 J -43580003.35 -43580003.22 -43580003.03 0.0089 0.0070

Moon -124029-06-15 09:23 J -43580003.26 -43580003.11 -43580002.93 0.0089 0.0066 *

Moon -124028-06-17 16:06 J -43579636.04 -43579635.83 -43579635.59 0.0089 0.0047

Earth -124028-06-17 19:13 J -43579635.90 -43579635.70 -43579635.45 0.0089 0.0044 *

Mars -124028-09-23 08:25 J -43579538.45 -43579538.15 -43579537.84 0.0089 0.0010

Earth -124027-06-20 08:25 J -43579268.41 -43579268.15 -43579267.90 0.0089 0.0017

Moon -124027-06-20 11:32 J -43579268.27 -43579268.02 -43579267.76 0.0089 0.0013 *

Venus -124027-08-20 20:25 J -43579206.66 -43579206.65 -43579206.59 0.0089 0.0088

Venus -124026-04-03 09:23 J -43578981.18 -43578981.11 -43578981.01 0.0089 0.0081

Moon -124026-06-22 17:18 J -43578901.04 -43578900.78 -43578900.52 0.0089 0.0005

Earth -124026-06-22 20:54 J -43578900.88 -43578900.63 -43578900.36 0.0089 0.0010 *

Mars -124026-08-18 15:08 J -43578844.14 -43578843.87 -43578843.57 0.0089 0.0029

Venus -124026-11-14 22:20 J -43578755.68 -43578755.57 -43578755.45 0.0089 0.0074

Earth -124025-06-24 09:51 J -43578533.31 -43578533.09 -43578532.84 0.0089 0.0036

Moon -124025-06-24 13:13 J -43578533.17 -43578532.95 -43578532.70 0.0089 0.0041 *

Venus -124025-06-27 10:35 J -43578530.18 -43578530.06 -43578529.90 0.0089 0.0068

Venus -124024-02-07 23:18 J -43578304.66 -43578304.53 -43578304.35 0.0089 0.0061

Moon -124024-06-26 20:11 J -43578165.85 -43578165.66 -43578165.46 0.0089 0.0058

Earth -124024-06-26 23:03 J -43578165.70 -43578165.54 -43578165.33 0.0089 0.0063 *

Mars -124024-07-12 21:51 J -43578149.82 -43578149.59 -43578149.31 0.0089 0.0048

Venus -124024-09-21 12:15 J -43578079.14 -43578078.99 -43578078.80 0.0089 0.0054

Venus -124023-05-05 01:13 J -43577853.61 -43577853.45 -43577853.24 0.0089 0.0047

Venus -124023-12-16 14:11 J -43577628.09 -43577627.91 -43577627.69 0.0089 0.0040
 Mars -124022-06-07 04:20 J -43577455.50 -43577455.32 -43577455.09 0.0089 0.0066
 Venus -124022-07-30 03:08 J -43577402.56 -43577402.37 -43577402.15 0.0089 0.0033
 Venus -124021-03-11 16:06 J -43577177.02 -43577176.83 -43577176.60 0.0089 0.0026
 Venus -124021-10-23 05:32 J -43576951.48 -43576951.27 -43576951.05 0.0089 0.0018
 Mars -124020-05-01 08:54 J -43576761.19 -43576761.13 -43576761.00 0.0089 0.0084
 Venus -124020-06-05 18:30 J -43576725.94 -43576725.73 -43576725.51 0.0089 0.0011
 Venus -124019-01-17 07:42 J -43576500.40 -43576500.18 -43576499.96 0.0089 0.0004
 Venus -124019-08-30 20:54 J -43576274.85 -43576274.63 -43576274.41 0.0089 0.0003
 Venus -124018-04-13 10:06 J -43576049.30 -43576049.08 -43576048.86 0.0089 0.0010
 Venus -124018-11-24 23:03 J -43575823.75 -43575823.54 -43575823.31 0.0089 0.0018
 Venus -124017-07-07 12:15 J -43575598.19 -43575597.99 -43575597.77 0.0089 0.0025
 Venus -124016-02-18 01:27 J -43575372.63 -43575372.44 -43575372.22 0.0089 0.0032
 Venus -124016-10-01 14:54 J -43575147.07 -43575146.88 -43575146.67 0.0089 0.0039
 Venus -124015-05-15 04:35 J -43574921.50 -43574921.31 -43574921.12 0.0089 0.0046
 Venus -124015-12-26 17:47 J -43574695.92 -43574695.76 -43574695.57 0.0089 0.0054
 Venus -124014-08-09 07:13 J -43574470.34 -43574470.20 -43574470.02 0.0089 0.0061
 Venus -124013-03-21 20:54 J -43574244.76 -43574244.63 -43574244.48 0.0089 0.0068
 Venus -124013-11-02 10:35 J -43574019.17 -43574019.06 -43574018.93 0.0089 0.0075
 Venus -124012-06-16 00:30 J -43573793.56 -43573793.48 -43573793.40 0.0089 0.0082
 Mercury -124008-08-22 20:54 J -43572264.66 -43572264.63 -43572264.56 0.0089 0.0087
 Mercury -124008-11-19 00:30 J -43572176.55 -43572176.48 -43572176.38 0.0089 0.0080
 Mercury -124007-02-15 04:06 J -43572088.42 -43572088.33 -43572088.21 0.0089 0.0074
 Mercury -124007-05-14 07:42 J -43572000.29 -43572000.18 -43572000.05 0.0089 0.0068
 Mercury -124007-08-10 11:03 J -43571912.16 -43571912.04 -43571911.89 0.0089 0.0062
 Mercury -124007-11-06 14:39 J -43571824.03 -43571823.89 -43571823.73 0.0089 0.0056
 Mercury -124006-02-02 18:15 J -43571735.89 -43571735.74 -43571735.57 0.0089 0.0050
 Mercury -124006-05-01 21:37 J -43571647.75 -43571647.60 -43571647.42 0.0089 0.0045
 Mercury -124006-07-29 01:13 J -43571559.61 -43571559.45 -43571559.26 0.0089 0.0038
 Mercury -124006-10-25 04:49 J -43571471.47 -43571471.30 -43571471.11 0.0089 0.0032

Mercury -124005-01-21 08:25 J -43571383.32 -43571383.15 -43571382.96 0.0089 0.0026

Mercury -124005-04-18 12:01 J -43571295.18 -43571295.00 -43571294.81 0.0089 0.0020

Mercury -124005-07-15 15:37 J -43571207.03 -43571206.85 -43571206.65 0.0089 0.0014

Mercury -124005-10-11 19:13 J -43571118.89 -43571118.70 -43571118.50 0.0089 0.0008

Mercury -124004-01-07 22:49 J -43571030.74 -43571030.55 -43571030.35 0.0089 0.0003

Mercury -124004-04-06 02:25 J -43570942.59 -43570942.40 -43570942.20 0.0089 0.0005

Mercury -124004-07-03 06:01 J -43570854.44 -43570854.25 -43570854.05 0.0089 0.0011

Mercury -124004-09-29 09:37 J -43570766.28 -43570766.10 -43570765.91 0.0089 0.0017

Mercury -124004-12-26 13:13 J -43570678.13 -43570677.95 -43570677.76 0.0089 0.0023

Mercury -124003-03-24 17:03 J -43570589.98 -43570589.79 -43570589.61 0.0089 0.0030

Mercury -124003-06-20 20:11 J -43570501.82 -43570501.66 -43570501.47 0.0089 0.0037

Mercury -124003-09-17 00:01 J -43570413.66 -43570413.50 -43570413.32 0.0089 0.0042

Mercury -124003-12-14 03:37 J -43570325.50 -43570325.35 -43570325.18 0.0089 0.0048

Mercury -124002-03-12 07:13 J -43570237.34 -43570237.20 -43570237.04 0.0089 0.0055

Mercury -124002-06-08 11:03 J -43570149.18 -43570149.04 -43570148.89 0.0089 0.0061

Mercury -124002-09-04 14:25 J -43570061.01 -43570060.90 -43570060.76 0.0089 0.0067

Mercury -124002-12-01 18:01 J -43569972.84 -43569972.75 -43569972.62 0.0089 0.0074

Mercury -124001-02-27 21:51 J -43569884.66 -43569884.59 -43569884.49 0.0089 0.0079

Mercury -124001-05-26 01:42 J -43569796.48 -43569796.43 -43569796.37 0.0089 0.0085

124TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 124th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-123956-12-19 11:03 J		-43553153.09	-43553153.04	-43553152.93	0.0089	0.0086	
Mars	-123954-11-14 15:51 J		-43552458.04	-43552457.84	-43552457.62	0.0089	0.0067	
Mars	-123952-10-09 20:39 J		-43551762.89	-43551762.64	-43551762.35	0.0089	0.0048	
Mars	-123950-09-05 03:51 J		-43551067.64	-43551067.34	-43551067.02	0.0089	0.0028	
Mars	-123948-07-31 12:59 J		-43550372.28	-43550371.96	-43550371.64	0.0089	0.0008	
Moon	-123948-12-24 11:47 J		-43550226.14	-43550226.01	-43550225.86	0.0089	0.0074	
Earth	-123948-12-24 14:54 J		-43550226.01	-43550225.88	-43550225.70	0.0089	0.0072	*
Earth	-123947-12-27 01:56 J		-43549858.62	-43549858.42	-43549858.18	0.0089	0.0046	
Moon	-123947-12-27 06:01 J		-43549858.48	-43549858.25	-43549858.03	0.0089	0.0043	*
Mars	-123946-06-26 23:03 J		-43549676.85	-43549676.54	-43549676.21	0.0089	0.0013	
Moon	-123946-12-29 10:35 J		-43549491.31	-43549491.06	-43549490.82	0.0089	0.0022	
Earth	-123946-12-29 12:59 J		-43549491.20	-43549490.96	-43549490.70	0.0089	0.0020	*
Venus	-123945-10-12 20:25 J		-43549202.71	-43549202.65	-43549202.56	0.0089	0.0083	
Earth	-123945-12-30 23:18 J		-43549123.78	-43549123.53	-43549123.27	0.0089	0.0007	
Moon	-123945-12-31 01:42 J		-43549123.68	-43549123.43	-43549123.16	0.0089	0.0008	*
Mars	-123944-05-22 10:06 J		-43548981.37	-43548981.08	-43548980.76	0.0089	0.0033	
Venus	-123944-05-26 09:51 J		-43548977.19	-43548977.09	-43548976.97	0.0089	0.0076	
Moon	-123943-01-02 08:11 J		-43548756.39	-43548756.16	-43548755.92	0.0089	0.0031	
Earth	-123943-01-02 09:23 J		-43548756.33	-43548756.11	-43548755.86	0.0089	0.0033	*
Venus	-123943-01-06 23:03 J		-43548751.67	-43548751.54	-43548751.39	0.0089	0.0069	
Venus	-123943-08-20 12:15 J		-43548526.14	-43548525.99	-43548525.82	0.0089	0.0062	
Earth	-123942-01-04 19:27 J		-43548388.87	-43548388.69	-43548388.48	0.0089	0.0058	
Moon	-123942-01-04 19:27 J		-43548388.87	-43548388.69	-43548388.48	0.0089	0.0059	*
Venus	-123942-04-03 01:27 J		-43548300.61	-43548300.44	-43548300.26	0.0089	0.0055	
Mars	-123942-04-17 23:18 J		-43548285.78	-43548285.53	-43548285.25	0.0089	0.0053	
Venus	-123942-11-14 14:39 J		-43548075.07	-43548074.89	-43548074.70	0.0089	0.0048	
Earth	-123941-01-07 05:18 J		-43548021.36	-43548021.28	-43548021.18	0.0089	0.0083	

Moon -123941-01-07 05:32 J -43548021.34 -43548021.27 -43548021.17 0.0089 0.0083 *
 Venus -123941-06-27 03:37 J -43547849.54 -43547849.35 -43547849.15 0.0088 0.0041
 Venus -123940-02-07 16:35 J -43547624.01 -43547623.81 -43547623.60 0.0088 0.0034
 Mars -123940-03-13 13:13 J -43547590.11 -43547589.95 -43547589.74 0.0088 0.0073
 Venus -123940-09-21 05:32 J -43547398.47 -43547398.27 -43547398.05 0.0088 0.0027
 Venus -123939-05-04 18:30 J -43547172.93 -43547172.73 -43547172.50 0.0088 0.0020
 Venus -123939-12-16 07:27 J -43546947.40 -43546947.19 -43546946.96 0.0088 0.0013
 Venus -123938-07-29 20:25 J -43546721.87 -43546721.65 -43546721.43 0.0088 0.0005
 Venus -123937-03-11 09:08 J -43546496.33 -43546496.12 -43546495.89 0.0088 0.0003
 Venus -123937-10-22 22:06 J -43546270.80 -43546270.58 -43546270.36 0.0088 0.0009
 Venus -123936-06-05 10:49 J -43546045.26 -43546045.05 -43546044.83 0.0088 0.0016
 Venus -123935-01-16 23:32 J -43545819.73 -43545819.52 -43545819.31 0.0088 0.0023
 Venus -123935-08-30 12:01 J -43545594.20 -43545594.00 -43545593.79 0.0088 0.0030
 Venus -123934-04-13 00:44 J -43545368.66 -43545368.47 -43545368.27 0.0088 0.0037
 Venus -123934-11-24 13:13 J -43545143.13 -43545142.95 -43545142.75 0.0088 0.0044
 Venus -123933-07-07 01:42 J -43544917.59 -43544917.43 -43544917.24 0.0088 0.0051
 Venus -123932-02-17 13:56 J -43544692.06 -43544691.92 -43544691.73 0.0088 0.0058
 Venus -123932-10-01 02:54 J -43544466.53 -43544466.38 -43544466.23 0.0088 0.0064
 Venus -123931-05-14 15:08 J -43544240.99 -43544240.87 -43544240.73 0.0088 0.0071
 Venus -123931-12-26 03:23 J -43544015.45 -43544015.36 -43544015.24 0.0088 0.0077
 Venus -123930-08-08 15:51 J -43543789.90 -43543789.84 -43543789.77 0.0088 0.0084
 Mercury -123927-03-21 01:56 J -43542834.43 -43542834.42 -43542834.38 0.0088 0.0086
 Mercury -123927-06-17 03:37 J -43542746.40 -43542746.35 -43542746.30 0.0088 0.0082
 Mercury -123927-09-13 05:03 J -43542658.35 -43542658.29 -43542658.23 0.0088 0.0077
 Mercury -123927-12-10 06:15 J -43542570.30 -43542570.24 -43542570.16 0.0088 0.0074
 Mercury -123926-03-08 07:42 J -43542482.25 -43542482.18 -43542482.09 0.0088 0.0069
 Mercury -123926-06-04 08:54 J -43542394.20 -43542394.13 -43542394.02 0.0088 0.0066
 Mercury -123926-08-31 10:35 J -43542306.15 -43542306.06 -43542305.96 0.0088 0.0061
 Mercury -123926-11-27 12:01 J -43542218.10 -43542218.00 -43542217.89 0.0088 0.0056
 Mercury -123925-02-23 13:13 J -43542130.05 -43542129.95 -43542129.83 0.0088 0.0053

Mercury -123925-05-21 14:39 J -43542041.99 -43542041.89 -43542041.77 0.0088 0.0048

Mercury -123925-08-17 16:20 J -43541953.94 -43541953.82 -43541953.71 0.0088 0.0044

Mercury -123925-11-13 17:32 J -43541865.89 -43541865.77 -43541865.65 0.0088 0.0040

Mercury -123924-02-09 18:59 J -43541777.83 -43541777.71 -43541777.59 0.0088 0.0035

Mercury -123924-05-08 20:11 J -43541689.78 -43541689.66 -43541689.53 0.0088 0.0032

Mercury -123924-08-04 21:37 J -43541601.72 -43541601.60 -43541601.46 0.0088 0.0027

Mercury -123924-10-31 23:03 J -43541513.67 -43541513.54 -43541513.41 0.0088 0.0023

Mercury -123923-01-28 00:30 J -43541425.61 -43541425.48 -43541425.35 0.0088 0.0018

Mercury -123923-04-26 01:56 J -43541337.55 -43541337.42 -43541337.29 0.0088 0.0014

Mercury -123923-07-23 03:08 J -43541249.50 -43541249.37 -43541249.23 0.0088 0.0011

Mercury -123923-10-19 04:35 J -43541161.44 -43541161.31 -43541161.17 0.0088 0.0006

Mercury -123922-01-15 06:01 J -43541073.39 -43541073.25 -43541073.12 0.0088 0.0002

Mercury -123922-04-13 07:27 J -43540985.33 -43540985.19 -43540985.06 0.0088 0.0004

Mercury -123922-07-10 08:39 J -43540897.27 -43540897.14 -43540897.00 0.0088 0.0007

Mercury -123922-10-06 10:06 J -43540809.21 -43540809.08 -43540808.95 0.0088 0.0011

Mercury -123921-01-02 11:18 J -43540721.16 -43540721.03 -43540720.89 0.0088 0.0016

Mercury -123921-03-30 12:44 J -43540633.10 -43540632.97 -43540632.84 0.0088 0.0019

Mercury -123921-06-26 14:11 J -43540545.04 -43540544.91 -43540544.78 0.0088 0.0023

Mercury -123921-09-22 15:23 J -43540456.98 -43540456.86 -43540456.73 0.0088 0.0028

Mercury -123921-12-19 16:35 J -43540368.92 -43540368.81 -43540368.67 0.0088 0.0033

Mercury -123920-03-17 18:01 J -43540280.86 -43540280.75 -43540280.62 0.0088 0.0036

Mercury -123920-06-13 19:27 J -43540192.81 -43540192.69 -43540192.57 0.0088 0.0040

Mercury -123920-09-09 20:39 J -43540104.75 -43540104.64 -43540104.52 0.0088 0.0045

Mercury -123920-12-06 22:06 J -43540016.69 -43540016.58 -43540016.46 0.0088 0.0048

Mercury -123919-03-04 23:32 J -43539928.63 -43539928.52 -43539928.41 0.0088 0.0052

Mercury -123919-06-01 00:44 J -43539840.57 -43539840.47 -43539840.36 0.0088 0.0057

Mercury -123919-08-28 02:11 J -43539752.50 -43539752.41 -43539752.31 0.0088 0.0061

Mercury -123919-11-24 03:08 J -43539664.44 -43539664.37 -43539664.26 0.0088 0.0066

Mercury -123918-02-20 04:35 J -43539576.38 -43539576.31 -43539576.22 0.0088 0.0069

Mercury -123918-05-19 06:01 J -43539488.31 -43539488.25 -43539488.17 0.0088 0.0073

Mercury -123918-08-15 07:13 J -43539400.25 -43539400.20 -43539400.12 0.0088 0.0077

Mercury -123918-11-11 08:39 J -43539312.18 -43539312.14 -43539312.08 0.0088 0.0081

Mercury -123917-02-07 09:51 J -43539224.11 -43539224.09 -43539224.04 0.0088 0.0085

Jupiter -123909-05-26 03:51 J -43536193.81 -43536193.34 -43536192.80 0.0088 0.0026

Mars -123872-09-29 13:27 J -43522553.09 -43522552.94 -43522552.72 0.0089 0.0072

Mars -123870-08-25 03:51 J -43521858.57 -43521858.34 -43521858.07 0.0089 0.0053

Mars -123868-07-19 16:20 J -43521164.09 -43521163.82 -43521163.53 0.0089 0.0034

Mars -123866-06-14 02:39 J -43520469.68 -43520469.39 -43520469.07 0.0089 0.0016

Moon -123865-06-14 15:08 J -43520102.99 -43520102.87 -43520102.72 0.0089 0.0075

Earth -123865-06-14 18:15 J -43520102.83 -43520102.74 -43520102.59 0.0089 0.0079 *

Mars -123864-05-08 12:44 J -43519775.27 -43519774.97 -43519774.66 0.0089 0.0004

Earth -123864-06-17 06:30 J -43519735.42 -43519735.23 -43519735.00 0.0089 0.0053

Moon -123864-06-17 10:20 J -43519735.25 -43519735.07 -43519734.85 0.0089 0.0056 *

Moon -123863-06-19 15:51 J -43519368.07 -43519367.84 -43519367.58 0.0089 0.0024

Earth -123863-06-19 18:44 J -43519367.95 -43519367.72 -43519367.45 0.0089 0.0027 *

Venus -123863-11-22 09:51 J -43519212.12 -43519212.09 -43519212.04 0.0089 0.0087

Mars -123862-04-02 22:20 J -43519080.86 -43519080.57 -43519080.27 0.0089 0.0022

Earth -123862-06-22 07:42 J -43519000.44 -43519000.18 -43518999.92 0.0089 0.0000

Moon -123862-06-22 10:49 J -43519000.31 -43519000.05 -43518999.78 0.0089 0.0002 *

Venus -123862-07-05 22:35 J -43518986.65 -43518986.56 -43518986.47 0.0089 0.0080

Venus -123861-02-16 10:35 J -43518761.15 -43518761.06 -43518760.91 0.0089 0.0074

Moon -123861-06-23 18:30 J -43518632.96 -43518632.73 -43518632.49 0.0089 0.0029

Earth -123861-06-23 20:11 J -43518632.89 -43518632.66 -43518632.39 0.0089 0.0027 *

Venus -123861-09-28 23:32 J -43518535.65 -43518535.52 -43518535.36 0.0089 0.0067

Mars -123860-02-25 04:49 J -43518386.55 -43518386.30 -43518386.01 0.0089 0.0041

Venus -123860-05-12 12:15 J -43518310.13 -43518309.99 -43518309.81 0.0089 0.0060

Earth -123860-06-26 09:23 J -43518265.31 -43518265.11 -43518264.90 0.0089 0.0053

Moon -123860-06-26 10:20 J -43518265.27 -43518265.07 -43518264.83 0.0089 0.0052 *

Venus -123860-12-24 01:13 J -43518084.62 -43518084.45 -43518084.27 0.0089 0.0053

Moon -123859-06-28 21:23 J -43517897.68 -43517897.61 -43517897.48 0.0089 0.0081

Earth -123859-06-28 22:20 J -43517897.66 -43517897.57 -43517897.44 0.0089 0.0080 *
 Venus -123859-08-06 13:56 J -43517859.09 -43517858.92 -43517858.72 0.0089 0.0046
 Mars -123858-01-20 11:03 J -43517692.24 -43517692.04 -43517691.79 0.0089 0.0059
 Venus -123858-03-20 02:54 J -43517633.57 -43517633.38 -43517633.17 0.0089 0.0039
 Venus -123858-10-31 15:51 J -43517408.04 -43517407.84 -43517407.63 0.0089 0.0032
 Venus -123857-06-13 04:49 J -43517182.50 -43517182.30 -43517182.08 0.0089 0.0025
 Mars -123857-12-14 16:49 J -43516997.92 -43516997.80 -43516997.62 0.0089 0.0077
 Venus -123856-01-24 17:47 J -43516956.97 -43516956.76 -43516956.54 0.0089 0.0018
 Venus -123856-09-07 06:59 J -43516731.43 -43516731.21 -43516730.99 0.0089 0.0011
 Venus -123855-04-20 20:11 J -43516505.88 -43516505.66 -43516505.44 0.0089 0.0004
 Venus -123855-12-02 09:23 J -43516280.33 -43516280.11 -43516279.89 0.0089 0.0004
 Venus -123854-07-15 22:20 J -43516054.79 -43516054.57 -43516054.35 0.0089 0.0011
 Venus -123853-02-26 11:18 J -43515829.24 -43515829.03 -43515828.80 0.0089 0.0018
 Venus -123853-10-09 00:30 J -43515603.68 -43515603.48 -43515603.26 0.0089 0.0025
 Venus -123852-05-22 13:56 J -43515378.12 -43515377.92 -43515377.71 0.0089 0.0032
 Venus -123851-01-03 03:23 J -43515152.56 -43515152.36 -43515152.16 0.0089 0.0039
 Venus -123851-08-16 16:20 J -43514926.99 -43514926.82 -43514926.61 0.0089 0.0047
 Venus -123850-03-30 05:47 J -43514701.42 -43514701.26 -43514701.07 0.0089 0.0054
 Venus -123850-11-10 19:13 J -43514475.84 -43514475.70 -43514475.52 0.0089 0.0061
 Venus -123849-06-23 08:39 J -43514250.26 -43514250.14 -43514249.98 0.0089 0.0068
 Venus -123848-02-03 22:20 J -43514024.67 -43514024.57 -43514024.44 0.0089 0.0075
 Venus -123848-09-17 12:01 J -43513799.07 -43513799.00 -43513798.91 0.0089 0.0082
 Mercury -123843-02-20 16:49 J -43512181.81 -43512181.80 -43512181.75 0.0089 0.0088
 Mercury -123843-05-19 20:25 J -43512093.71 -43512093.65 -43512093.56 0.0089 0.0082
 Mercury -123843-08-15 23:47 J -43512005.59 -43512005.51 -43512005.39 0.0089 0.0076
 Mercury -123843-11-12 03:23 J -43511917.46 -43511917.36 -43511917.23 0.0089 0.0070
 Mercury -123842-02-08 06:59 J -43511829.33 -43511829.21 -43511829.06 0.0089 0.0064
 Mercury -123842-05-07 10:35 J -43511741.19 -43511741.06 -43511740.90 0.0089 0.0058
 Mercury -123842-08-03 13:56 J -43511653.06 -43511652.92 -43511652.75 0.0089 0.0052
 Mercury -123842-10-30 17:32 J -43511564.92 -43511564.77 -43511564.59 0.0089 0.0046

Mercury -123841-01-26 21:08 J -43511476.78 -43511476.62 -43511476.44 0.0089 0.0040

Mercury -123841-04-24 00:59 J -43511388.64 -43511388.46 -43511388.28 0.0089 0.0034

Mercury -123841-07-21 04:35 J -43511300.49 -43511300.31 -43511300.13 0.0089 0.0027

Mercury -123841-10-17 08:11 J -43511212.35 -43511212.16 -43511211.98 0.0089 0.0021

Mercury -123840-01-13 11:32 J -43511124.20 -43511124.02 -43511123.82 0.0089 0.0016

Mercury -123840-04-11 15:08 J -43511036.06 -43511035.87 -43511035.67 0.0089 0.0010

Mercury -123840-07-08 18:59 J -43510947.91 -43510947.71 -43510947.52 0.0089 0.0004

Mercury -123840-10-04 22:20 J -43510859.76 -43510859.57 -43510859.37 0.0089 0.0004

Mercury -123839-01-01 01:56 J -43510771.61 -43510771.42 -43510771.22 0.0089 0.0010

Mercury -123839-03-30 05:32 J -43510683.46 -43510683.27 -43510683.08 0.0089 0.0016

Mercury -123839-06-26 09:08 J -43510595.30 -43510595.12 -43510594.93 0.0089 0.0022

Mercury -123839-09-22 12:44 J -43510507.15 -43510506.97 -43510506.78 0.0089 0.0028

Mercury -123839-12-19 16:20 J -43510418.99 -43510418.82 -43510418.64 0.0089 0.0034

Mercury -123838-03-17 19:56 J -43510330.83 -43510330.67 -43510330.49 0.0089 0.0040

Mercury -123838-06-13 23:32 J -43510242.68 -43510242.52 -43510242.35 0.0089 0.0047

Mercury -123838-09-10 03:23 J -43510154.52 -43510154.36 -43510154.20 0.0089 0.0053

Mercury -123838-12-07 06:30 J -43510066.35 -43510066.23 -43510066.06 0.0089 0.0060

Mercury -123837-03-04 10:20 J -43509978.19 -43509978.07 -43509977.92 0.0089 0.0065

Mercury -123837-05-31 13:56 J -43509890.02 -43509889.92 -43509889.79 0.0089 0.0072

Mercury -123837-08-27 17:47 J -43509801.85 -43509801.76 -43509801.66 0.0089 0.0077

Mercury -123837-11-23 21:37 J -43509713.66 -43509713.60 -43509713.53 0.0089 0.0084

Mars -123790-06-29 04:49 J -43492695.46 -43492695.30 -43492695.08 0.0089 0.0072

Mars -123788-05-24 09:51 J -43492000.33 -43492000.09 -43491999.82 0.0089 0.0053

Mars -123786-04-19 15:08 J -43491305.15 -43491304.87 -43491304.55 0.0089 0.0034

Mars -123784-03-14 22:35 J -43490609.88 -43490609.56 -43490609.24 0.0089 0.0014

Earth -123784-12-24 03:37 J -43490325.44 -43490325.35 -43490325.23 0.0089 0.0081

Moon -123784-12-24 06:15 J -43490325.34 -43490325.24 -43490325.10 0.0089 0.0078 *

Moon -123783-12-26 12:15 J -43489958.15 -43489957.99 -43489957.78 0.0089 0.0059

Earth -123783-12-26 14:39 J -43489958.07 -43489957.89 -43489957.67 0.0089 0.0055 *

Mars -123782-02-08 07:56 J -43489914.49 -43489914.17 -43489913.84 0.0089 0.0006

Earth -123782-12-29 01:42 J -43489590.67 -43489590.43 -43489590.18 0.0089 0.0029
 Moon -123782-12-29 02:54 J -43489590.63 -43489590.38 -43489590.12 0.0089 0.0025 *
 Earth -123781-12-30 12:30 J -43489223.23 -43489222.98 -43489222.72 0.0089 0.0003
 Moon -123781-12-30 12:30 J -43489223.22 -43489222.98 -43489222.73 0.0089 0.0006 *
 Mars -123780-01-03 18:30 J -43489219.03 -43489218.73 -43489218.40 0.0089 0.0026
 Venus -123780-01-14 07:42 J -43489208.23 -43489208.18 -43489208.07 0.0089 0.0083
 Venus -123780-08-27 21:08 J -43488982.71 -43488982.62 -43488982.48 0.0089 0.0076
 Moon -123779-01-01 22:35 J -43488855.81 -43488855.56 -43488855.31 0.0089 0.0027
 Earth -123779-01-01 23:03 J -43488855.78 -43488855.54 -43488855.29 0.0089 0.0023 *
 Venus -123779-04-10 10:35 J -43488757.18 -43488757.06 -43488756.90 0.0089 0.0069
 Venus -123779-11-22 00:01 J -43488531.64 -43488531.50 -43488531.32 0.0089 0.0062
 Mars -123779-11-30 05:47 J -43488523.52 -43488523.26 -43488522.96 0.0089 0.0046
 Earth -123778-01-04 09:08 J -43488488.33 -43488488.12 -43488487.90 0.0089 0.0049
 Moon -123778-01-04 10:49 J -43488488.25 -43488488.05 -43488487.82 0.0089 0.0045 *
 Venus -123778-07-05 13:13 J -43488306.10 -43488305.95 -43488305.76 0.0089 0.0055
 Moon -123777-01-06 16:06 J -43488120.92 -43488120.83 -43488120.68 0.0089 0.0079
 Earth -123777-01-06 18:44 J -43488120.83 -43488120.72 -43488120.56 0.0089 0.0075 *
 Venus -123777-02-16 02:25 J -43488080.57 -43488080.40 -43488080.20 0.0089 0.0048
 Venus -123777-09-28 15:37 J -43487855.03 -43487854.85 -43487854.64 0.0088 0.0041
 Mars -123777-10-25 18:30 J -43487827.91 -43487827.73 -43487827.47 0.0088 0.0066
 Venus -123776-05-12 04:49 J -43487629.49 -43487629.30 -43487629.08 0.0088 0.0033
 Venus -123776-12-23 17:47 J -43487403.96 -43487403.76 -43487403.53 0.0088 0.0027
 Venus -123775-08-06 06:44 J -43487178.42 -43487178.22 -43487177.99 0.0088 0.0020
 Mars -123775-09-21 08:54 J -43487132.19 -43487132.13 -43487132.00 0.0088 0.0085
 Venus -123774-03-19 19:56 J -43486952.89 -43486952.67 -43486952.45 0.0088 0.0012
 Venus -123774-10-31 08:54 J -43486727.35 -43486727.13 -43486726.91 0.0088 0.0005
 Venus -123773-06-12 21:51 J -43486501.81 -43486501.59 -43486501.37 0.0088 0.0002
 Venus -123772-01-24 10:20 J -43486276.28 -43486276.07 -43486275.84 0.0088 0.0010
 Venus -123772-09-06 23:03 J -43486050.75 -43486050.54 -43486050.31 0.0088 0.0017
 Venus -123771-04-20 11:47 J -43485825.21 -43485825.01 -43485824.79 0.0088 0.0024

Venus -123771-12-02 00:30 J -43485599.67 -43485599.48 -43485599.26 0.0088 0.0031

Venus -123770-07-15 12:59 J -43485374.14 -43485373.96 -43485373.74 0.0088 0.0038

Venus -123769-02-26 01:56 J -43485148.60 -43485148.42 -43485148.22 0.0088 0.0044

Venus -123769-10-08 14:39 J -43484923.06 -43484922.89 -43484922.71 0.0088 0.0051

Venus -123768-05-22 02:54 J -43484697.53 -43484697.38 -43484697.20 0.0088 0.0058

Venus -123767-01-02 15:23 J -43484471.99 -43484471.86 -43484471.69 0.0088 0.0065

Venus -123767-08-16 04:20 J -43484246.45 -43484246.32 -43484246.19 0.0088 0.0071

Venus -123766-03-29 16:20 J -43484020.91 -43484020.82 -43484020.70 0.0088 0.0078

Venus -123766-11-10 04:35 J -43483795.35 -43483795.31 -43483795.22 0.0088 0.0084

Mercury -123763-09-19 00:44 J -43482751.48 -43482751.47 -43482751.44 0.0088 0.0087

Mercury -123763-12-16 02:25 J -43482663.44 -43482663.40 -43482663.35 0.0088 0.0083

Mercury -123762-03-14 03:37 J -43482575.40 -43482575.35 -43482575.28 0.0088 0.0079

Mercury -123762-06-10 05:03 J -43482487.35 -43482487.29 -43482487.21 0.0088 0.0074

Mercury -123762-09-06 06:30 J -43482399.30 -43482399.23 -43482399.14 0.0088 0.0070

Mercury -123762-12-03 08:11 J -43482311.25 -43482311.16 -43482311.07 0.0088 0.0066

Mercury -123761-02-29 09:23 J -43482223.20 -43482223.11 -43482223.01 0.0088 0.0062

Mercury -123761-05-27 10:49 J -43482135.15 -43482135.05 -43482134.95 0.0088 0.0057

Mercury -123761-08-23 12:01 J -43482047.10 -43482047.00 -43482046.88 0.0088 0.0054

Mercury -123761-11-19 13:27 J -43481959.04 -43481958.94 -43481958.82 0.0088 0.0049

Mercury -123760-02-15 15:08 J -43481870.99 -43481870.87 -43481870.76 0.0088 0.0045

Mercury -123760-05-14 16:20 J -43481782.94 -43481782.82 -43481782.70 0.0088 0.0041

Mercury -123760-08-10 17:47 J -43481694.88 -43481694.76 -43481694.64 0.0088 0.0036

Mercury -123760-11-06 18:59 J -43481606.83 -43481606.71 -43481606.57 0.0088 0.0033

Mercury -123759-02-02 20:25 J -43481518.77 -43481518.65 -43481518.51 0.0088 0.0028

Mercury -123759-05-01 21:51 J -43481430.72 -43481430.59 -43481430.46 0.0088 0.0024

Mercury -123759-07-28 23:18 J -43481342.66 -43481342.53 -43481342.40 0.0088 0.0019

Mercury -123759-10-25 00:44 J -43481254.60 -43481254.47 -43481254.34 0.0088 0.0015

Mercury -123758-01-21 01:56 J -43481166.55 -43481166.42 -43481166.28 0.0088 0.0012

Mercury -123758-04-19 03:23 J -43481078.49 -43481078.36 -43481078.22 0.0088 0.0007

Mercury -123758-07-16 04:49 J -43480990.44 -43480990.30 -43480990.17 0.0088 0.0003

Mercury -123758-10-12 06:15 J -43480902.38 -43480902.24 -43480902.11 0.0088 0.0003

Mercury -123757-01-08 07:27 J -43480814.32 -43480814.19 -43480814.05 0.0088 0.0006

Mercury -123757-04-05 08:54 J -43480726.26 -43480726.13 -43480726.00 0.0088 0.0010

Mercury -123757-07-02 10:06 J -43480638.21 -43480638.08 -43480637.94 0.0088 0.0014

Mercury -123757-09-28 11:32 J -43480550.15 -43480550.02 -43480549.89 0.0088 0.0018

Mercury -123757-12-25 12:59 J -43480462.09 -43480461.96 -43480461.83 0.0088 0.0022

Mercury -123756-03-23 14:11 J -43480374.03 -43480373.91 -43480373.78 0.0088 0.0027

Mercury -123756-06-19 15:37 J -43480285.97 -43480285.85 -43480285.72 0.0088 0.0031

Mercury -123756-09-15 16:49 J -43480197.92 -43480197.80 -43480197.67 0.0088 0.0035

Mercury -123756-12-12 18:15 J -43480109.86 -43480109.74 -43480109.62 0.0088 0.0039

Mercury -123755-03-10 19:27 J -43480021.80 -43480021.69 -43480021.56 0.0088 0.0043

Mercury -123755-06-06 20:54 J -43479933.74 -43479933.63 -43479933.51 0.0088 0.0047

Mercury -123755-09-02 22:20 J -43479845.68 -43479845.57 -43479845.46 0.0088 0.0051

Mercury -123755-11-29 23:32 J -43479757.62 -43479757.52 -43479757.41 0.0088 0.0056

Mercury -123754-02-26 00:59 J -43479669.55 -43479669.46 -43479669.36 0.0088 0.0060

Mercury -123754-05-25 02:25 J -43479581.49 -43479581.40 -43479581.31 0.0088 0.0064

Mercury -123754-08-21 03:23 J -43479493.43 -43479493.36 -43479493.26 0.0088 0.0068

Mercury -123754-11-17 04:49 J -43479405.37 -43479405.30 -43479405.22 0.0088 0.0072

Mercury -123753-02-13 06:01 J -43479317.30 -43479317.25 -43479317.17 0.0088 0.0076

Mercury -123753-05-11 07:27 J -43479229.23 -43479229.19 -43479229.13 0.0088 0.0080

Mercury -123753-08-07 08:39 J -43479141.16 -43479141.14 -43479141.09 0.0088 0.0085

Mercury -123753-11-03 10:20 J -43479053.07 -43479053.07 -43479053.06 0.0088 0.0088

Mars -123708-05-14 13:42 J -43462790.08 -43462789.93 -43462789.77 0.0089 0.0076

Mars -123706-04-09 04:06 J -43462095.55 -43462095.33 -43462095.08 0.0089 0.0058

Mars -123704-03-03 17:47 J -43461401.01 -43461400.76 -43461400.46 0.0089 0.0040

Mars -123702-01-27 06:44 J -43460706.51 -43460706.22 -43460705.92 0.0089 0.0021

Earth -123701-06-14 05:47 J -43460202.27 -43460202.26 -43460202.20 0.0089 0.0088

Mars -123701-12-21 17:18 J -43460012.09 -43460011.78 -43460011.48 0.0089 0.0002

Moon -123700-06-16 14:54 J -43459835.05 -43459834.88 -43459834.67 0.0089 0.0059

Earth -123700-06-16 18:01 J -43459834.92 -43459834.75 -43459834.55 0.0089 0.0062 *

Earth -123699-06-19 06:01 J -43459467.47 -43459467.25 -43459466.99 0.0089 0.0036
 Moon -123699-06-19 07:56 J -43459467.39 -43459467.17 -43459466.91 0.0089 0.0039 *
 Mars -123699-11-16 02:11 J -43459317.70 -43459317.41 -43459317.10 0.0089 0.0016
 Venus -123698-02-23 23:03 J -43459217.58 -43459217.54 -43459217.48 0.0089 0.0086
 Moon -123698-06-21 17:47 J -43459100.01 -43459099.76 -43459099.51 0.0089 0.0006
 Earth -123698-06-21 18:59 J -43459099.96 -43459099.71 -43459099.45 0.0089 0.0009 *
 Venus -123698-10-07 11:03 J -43458992.11 -43458992.04 -43458991.92 0.0089 0.0080
 Venus -123697-05-20 00:01 J -43458766.61 -43458766.50 -43458766.36 0.0089 0.0073
 Earth -123697-06-23 07:13 J -43458732.44 -43458732.20 -43458731.93 0.0089 0.0018
 Moon -123697-06-23 07:42 J -43458732.43 -43458732.18 -43458731.90 0.0089 0.0014 *
 Mars -123697-10-10 11:03 J -43458623.31 -43458623.04 -43458622.75 0.0089 0.0034
 Venus -123697-12-31 12:44 J -43458541.11 -43458540.97 -43458540.82 0.0089 0.0066
 Earth -123696-06-25 19:56 J -43458364.88 -43458364.67 -43458364.43 0.0089 0.0044
 Moon -123696-06-25 20:54 J -43458364.83 -43458364.63 -43458364.40 0.0089 0.0048 *
 Venus -123696-08-14 01:27 J -43458315.60 -43458315.44 -43458315.27 0.0089 0.0059
 Venus -123695-03-27 13:56 J -43458090.08 -43458089.92 -43458089.73 0.0089 0.0053
 Moon -123695-06-28 07:13 J -43457997.35 -43457997.20 -43457997.00 0.0089 0.0067
 Earth -123695-06-28 08:54 J -43457997.27 -43457997.13 -43457996.96 0.0089 0.0071 *
 Mars -123695-09-04 18:01 J -43457928.98 -43457928.75 -43457928.49 0.0089 0.0052
 Venus -123695-11-08 02:39 J -43457864.56 -43457864.39 -43457864.18 0.0089 0.0046
 Venus -123694-06-21 15:22 J -43457639.04 -43457638.86 -43457638.64 0.0089 0.0039
 Venus -123693-02-02 04:20 J -43457413.51 -43457413.32 -43457413.10 0.0089 0.0032
 Mars -123693-07-29 23:32 J -43457234.67 -43457234.52 -43457234.30 0.0089 0.0070
 Venus -123693-09-14 17:18 J -43457187.98 -43457187.78 -43457187.56 0.0089 0.0025
 Venus -123692-04-28 06:30 J -43456962.43 -43456962.23 -43456962.00 0.0089 0.0018
 Venus -123692-12-09 19:42 J -43456736.89 -43456736.68 -43456736.46 0.0089 0.0010
 Mars -123691-06-24 05:32 J -43456540.30 -43456540.27 -43456540.16 0.0089 0.0087
 Venus -123691-07-23 08:39 J -43456511.35 -43456511.14 -43456510.92 0.0089 0.0004
 Venus -123690-03-05 21:51 J -43456285.81 -43456285.59 -43456285.37 0.0089 0.0004
 Venus -123690-10-17 10:49 J -43456060.26 -43456060.05 -43456059.83 0.0089 0.0011

Venus -123689-05-30 00:01 J -43455834.71 -43455834.50 -43455834.28 0.0089 0.0018

Venus -123688-01-10 13:13 J -43455609.15 -43455608.95 -43455608.73 0.0089 0.0025

Venus -123688-08-24 02:39 J -43455383.60 -43455383.39 -43455383.19 0.0089 0.0032

Venus -123687-04-06 15:37 J -43455158.03 -43455157.85 -43455157.64 0.0089 0.0040

Venus -123687-11-18 04:49 J -43454932.47 -43454932.30 -43454932.09 0.0089 0.0047

Venus -123686-07-01 18:15 J -43454706.90 -43454706.74 -43454706.55 0.0089 0.0054

Venus -123685-02-12 07:27 J -43454481.33 -43454481.19 -43454481.01 0.0089 0.0061

Venus -123685-09-24 20:54 J -43454255.75 -43454255.63 -43454255.47 0.0089 0.0068

Venus -123684-05-08 10:34 J -43454030.16 -43454030.06 -43454029.93 0.0089 0.0075

Venus -123684-12-20 00:15 J -43453804.56 -43453804.49 -43453804.40 0.0089 0.0082

Mercury -123679-11-17 16:49 J -43452010.87 -43452010.80 -43452010.74 0.0089 0.0084

Mercury -123678-02-13 19:42 J -43451922.75 -43451922.68 -43451922.57 0.0089 0.0078

Mercury -123678-05-12 23:18 J -43451834.62 -43451834.53 -43451834.40 0.0089 0.0072

Mercury -123678-08-09 02:39 J -43451746.49 -43451746.39 -43451746.24 0.0089 0.0066

Mercury -123678-11-05 06:15 J -43451658.36 -43451658.24 -43451658.08 0.0089 0.0060

Mercury -123677-02-01 09:51 J -43451570.22 -43451570.09 -43451569.92 0.0089 0.0054

Mercury -123677-04-29 13:42 J -43451482.09 -43451481.93 -43451481.77 0.0089 0.0048

Mercury -123677-07-26 17:18 J -43451393.95 -43451393.78 -43451393.61 0.0089 0.0041

Mercury -123677-10-22 20:54 J -43451305.81 -43451305.63 -43451305.46 0.0089 0.0035

Mercury -123676-01-19 00:15 J -43451217.66 -43451217.49 -43451217.30 0.0089 0.0029

Mercury -123676-04-17 03:51 J -43451129.52 -43451129.34 -43451129.15 0.0089 0.0023

Mercury -123676-07-14 07:27 J -43451041.37 -43451041.19 -43451041.00 0.0089 0.0017

Mercury -123676-10-10 11:03 J -43450953.23 -43450953.04 -43450952.85 0.0089 0.0011

Mercury -123675-01-06 14:39 J -43450865.08 -43450864.89 -43450864.70 0.0089 0.0005

Mercury -123675-04-04 18:15 J -43450776.93 -43450776.74 -43450776.55 0.0089 0.0001

Mercury -123675-07-01 21:51 J -43450688.78 -43450688.59 -43450688.40 0.0089 0.0007

Mercury -123675-09-28 01:13 J -43450600.63 -43450600.45 -43450600.25 0.0089 0.0014

Mercury -123675-12-25 04:49 J -43450512.48 -43450512.30 -43450512.10 0.0089 0.0020

Mercury -123674-03-23 08:25 J -43450424.32 -43450424.15 -43450423.95 0.0089 0.0027

Mercury -123674-06-19 12:15 J -43450336.17 -43450335.99 -43450335.81 0.0089 0.0032

Mercury -123674-09-15 15:51 J -43450248.01 -43450247.84 -43450247.66 0.0089 0.0038

Mercury -123674-12-12 19:27 J -43450159.85 -43450159.69 -43450159.52 0.0089 0.0045

Mercury -123673-03-09 22:49 J -43450071.69 -43450071.55 -43450071.38 0.0089 0.0051

Mercury -123673-06-06 02:25 J -43449983.53 -43449983.40 -43449983.24 0.0089 0.0057

Mercury -123673-09-02 06:15 J -43449895.37 -43449895.24 -43449895.10 0.0089 0.0063

Mercury -123673-11-29 09:51 J -43449807.20 -43449807.09 -43449806.96 0.0089 0.0069

Mercury -123672-02-25 13:42 J -43449719.03 -43449718.93 -43449718.83 0.0089 0.0076

Mercury -123672-05-24 16:49 J -43449630.85 -43449630.80 -43449630.70 0.0089 0.0082

Mercury -123672-08-20 20:39 J -43449542.65 -43449542.64 -43449542.59 0.0089 0.0088

Mars -123626-02-10 20:39 J -43432932.78 -43432932.64 -43432932.45 0.0089 0.0076

Mars -123624-01-05 23:32 J -43432237.73 -43432237.52 -43432237.24 0.0089 0.0058

Mars -123623-12-02 05:03 J -43431542.56 -43431542.29 -43431541.98 0.0089 0.0039

Mars -123621-10-27 11:18 J -43430847.34 -43430847.03 -43430846.71 0.0089 0.0020

Moon -123620-12-23 15:22 J -43430424.89 -43430424.86 -43430424.78 0.0089 0.0087

Mars -123619-09-22 18:30 J -43430152.05 -43430151.73 -43430151.40 0.0089 0.0002

Earth -123619-12-26 03:51 J -43430057.50 -43430057.34 -43430057.15 0.0089 0.0064

Moon -123619-12-26 04:06 J -43430057.48 -43430057.33 -43430057.14 0.0089 0.0067 *

Earth -123618-12-28 14:54 J -43429690.10 -43429689.88 -43429689.64 0.0089 0.0038

Moon -123618-12-28 15:22 J -43429690.08 -43429689.86 -43429689.63 0.0089 0.0035 *

Mars -123617-08-18 03:37 J -43429456.67 -43429456.35 -43429456.03 0.0089 0.0019

Venus -123617-09-04 06:44 J -43429439.22 -43429439.22 -43429439.20 0.0089 0.0088

Moon -123617-12-29 23:46 J -43429322.77 -43429322.51 -43429322.24 0.0089 0.0015

Earth -123617-12-30 01:42 J -43429322.68 -43429322.43 -43429322.17 0.0089 0.0012 *

Venus -123616-04-17 19:56 J -43429213.73 -43429213.67 -43429213.57 0.0089 0.0082

Venus -123616-11-29 09:22 J -43428988.21 -43428988.11 -43428987.97 0.0089 0.0075

Earth -123615-01-01 12:15 J -43428955.24 -43428954.99 -43428954.73 0.0089 0.0014

Moon -123615-01-01 14:25 J -43428955.14 -43428954.90 -43428954.65 0.0089 0.0017 *

Venus -123615-07-12 22:49 J -43428762.67 -43428762.55 -43428762.39 0.0089 0.0068

Mars -123615-07-14 13:56 J -43428761.19 -43428760.92 -43428760.60 0.0089 0.0039

Moon -123614-01-03 19:13 J -43428587.91 -43428587.70 -43428587.44 0.0089 0.0039

Earth -123614-01-03 22:20 J -43428587.77 -43428587.57 -43428587.32 0.0089 0.0041 *
 Venus -123614-02-23 12:15 J -43428537.14 -43428536.99 -43428536.82 0.0089 0.0061
 Venus -123614-10-07 01:42 J -43428311.59 -43428311.43 -43428311.24 0.0089 0.0054
 Earth -123613-01-06 08:39 J -43428220.29 -43428220.14 -43428219.96 0.0089 0.0066
 Moon -123613-01-06 12:30 J -43428220.14 -43428219.98 -43428219.82 0.0089 0.0068 *
 Venus -123613-05-19 14:54 J -43428086.05 -43428085.88 -43428085.68 0.0089 0.0047
 Mars -123613-06-09 01:56 J -43428065.65 -43428065.42 -43428065.16 0.0089 0.0058
 Venus -123613-12-31 04:06 J -43427860.52 -43427860.33 -43427860.12 0.0089 0.0040
 Venus -123612-08-13 17:18 J -43427634.98 -43427634.78 -43427634.57 0.0088 0.0033
 Venus -123611-03-27 06:15 J -43427409.44 -43427409.24 -43427409.02 0.0088 0.0026
 Mars -123611-05-05 14:54 J -43427370.02 -43427369.88 -43427369.70 0.0088 0.0077
 Venus -123611-11-07 19:27 J -43427183.90 -43427183.69 -43427183.47 0.0088 0.0019
 Venus -123610-06-21 08:25 J -43426958.36 -43426958.15 -43426957.92 0.0088 0.0012
 Venus -123609-02-01 21:22 J -43426732.83 -43426732.61 -43426732.39 0.0088 0.0004
 Venus -123609-09-14 10:20 J -43426507.29 -43426507.07 -43426506.85 0.0088 0.0003
 Venus -123608-04-27 23:03 J -43426281.76 -43426281.54 -43426281.32 0.0088 0.0010
 Venus -123608-12-09 12:01 J -43426056.22 -43426056.00 -43426055.79 0.0088 0.0017
 Venus -123607-07-23 00:30 J -43425830.68 -43425830.48 -43425830.26 0.0088 0.0024
 Venus -123606-03-05 13:13 J -43425605.15 -43425604.95 -43425604.74 0.0088 0.0030
 Venus -123606-10-17 01:56 J -43425379.61 -43425379.42 -43425379.21 0.0088 0.0037
 Venus -123605-05-29 14:25 J -43425154.07 -43425153.90 -43425153.70 0.0088 0.0044
 Venus -123604-01-10 02:54 J -43424928.54 -43424928.38 -43424928.18 0.0088 0.0051
 Venus -123604-08-23 15:37 J -43424703.00 -43424702.85 -43424702.67 0.0088 0.0058
 Venus -123603-04-06 04:06 J -43424477.47 -43424477.33 -43424477.17 0.0088 0.0065
 Venus -123603-11-17 16:34 J -43424251.92 -43424251.81 -43424251.66 0.0088 0.0071
 Venus -123602-07-01 05:18 J -43424026.37 -43424026.28 -43424026.17 0.0088 0.0078
 Venus -123601-02-11 17:18 J -43423800.82 -43423800.78 -43423800.69 0.0088 0.0085
 Mercury -123598-03-19 23:32 J -43422668.52 -43422668.52 -43422668.50 0.0088 0.0088
 Mercury -123598-06-16 00:44 J -43422580.49 -43422580.47 -43422580.41 0.0088 0.0085
 Mercury -123598-09-12 02:25 J -43422492.45 -43422492.40 -43422492.34 0.0088 0.0080

Mercury -123598-12-09 03:51 J -43422404.40 -43422404.34 -43422404.26 0.0088 0.0075

Mercury -123597-03-06 05:03 J -43422316.35 -43422316.29 -43422316.20 0.0088 0.0072

Mercury -123597-06-02 06:30 J -43422228.30 -43422228.23 -43422228.13 0.0088 0.0067

Mercury -123597-08-29 08:10 J -43422140.25 -43422140.16 -43422140.06 0.0088 0.0063

Mercury -123597-11-25 09:37 J -43422052.20 -43422052.10 -43422052.00 0.0088 0.0058

Mercury -123596-02-21 10:49 J -43421964.15 -43421964.05 -43421963.93 0.0088 0.0054

Mercury -123596-05-20 12:15 J -43421876.09 -43421875.99 -43421875.87 0.0088 0.0050

Mercury -123596-08-16 13:27 J -43421788.04 -43421787.94 -43421787.81 0.0088 0.0047

Mercury -123596-11-12 15:08 J -43421699.99 -43421699.87 -43421699.75 0.0088 0.0042

Mercury -123595-02-08 16:34 J -43421611.93 -43421611.81 -43421611.69 0.0088 0.0037

Mercury -123595-05-07 17:46 J -43421523.88 -43421523.76 -43421523.63 0.0088 0.0034

Mercury -123595-08-03 19:13 J -43421435.82 -43421435.70 -43421435.57 0.0088 0.0029

Mercury -123595-10-30 20:39 J -43421347.77 -43421347.64 -43421347.51 0.0088 0.0025

Mercury -123594-01-26 22:06 J -43421259.71 -43421259.58 -43421259.45 0.0088 0.0021

Mercury -123594-04-24 23:32 J -43421171.65 -43421171.52 -43421171.39 0.0088 0.0016

Mercury -123594-07-22 00:44 J -43421083.60 -43421083.47 -43421083.33 0.0088 0.0013

Mercury -123594-10-18 02:10 J -43420995.54 -43420995.41 -43420995.27 0.0088 0.0008

Mercury -123593-01-14 03:37 J -43420907.49 -43420907.35 -43420907.22 0.0088 0.0004

Mercury -123593-04-11 04:49 J -43420819.43 -43420819.30 -43420819.16 0.0088 0.0004

Mercury -123593-07-08 06:15 J -43420731.37 -43420731.24 -43420731.10 0.0088 0.0005

Mercury -123593-10-04 07:42 J -43420643.32 -43420643.18 -43420643.05 0.0088 0.0009

Mercury -123593-12-31 08:54 J -43420555.26 -43420555.13 -43420554.99 0.0088 0.0013

Mercury -123592-03-29 10:20 J -43420467.20 -43420467.07 -43420466.94 0.0088 0.0017

Mercury -123592-06-25 11:46 J -43420379.14 -43420379.01 -43420378.88 0.0088 0.0021

Mercury -123592-09-21 12:58 J -43420291.08 -43420290.96 -43420290.83 0.0088 0.0026

Mercury -123592-12-18 14:25 J -43420203.03 -43420202.90 -43420202.77 0.0088 0.0030

Mercury -123591-03-16 15:37 J -43420114.97 -43420114.85 -43420114.72 0.0088 0.0034

Mercury -123591-06-12 16:49 J -43420026.91 -43420026.80 -43420026.67 0.0088 0.0039

Mercury -123591-09-08 18:15 J -43419938.85 -43419938.74 -43419938.61 0.0088 0.0042

Mercury -123591-12-05 19:42 J -43419850.79 -43419850.68 -43419850.56 0.0088 0.0046

Mercury -123590-03-03 20:54 J -43419762.73 -43419762.63 -43419762.51 0.0088 0.0051

Mercury -123590-05-30 22:20 J -43419674.67 -43419674.57 -43419674.46 0.0088 0.0054

Mercury -123590-08-26 23:46 J -43419586.61 -43419586.51 -43419586.41 0.0088 0.0058

Mercury -123590-11-23 01:13 J -43419498.54 -43419498.45 -43419498.36 0.0088 0.0063

Mercury -123589-02-19 02:25 J -43419410.48 -43419410.40 -43419410.31 0.0088 0.0067

Mercury -123589-05-17 03:37 J -43419322.42 -43419322.35 -43419322.26 0.0088 0.0071

Mercury -123589-08-13 04:49 J -43419234.35 -43419234.30 -43419234.22 0.0088 0.0075

Mercury -123589-11-09 06:15 J -43419146.29 -43419146.24 -43419146.17 0.0088 0.0079

Mercury -123588-02-05 07:27 J -43419058.22 -43419058.19 -43419058.13 0.0088 0.0084

Mercury -123588-05-04 08:54 J -43418970.14 -43418970.13 -43418970.10 0.0088 0.0087

Mars -123545-12-27 11:46 J -43403027.11 -43403027.01 -43403026.85 0.0089 0.0081

Mars -123543-11-22 04:20 J -43402332.51 -43402332.32 -43402332.08 0.0089 0.0063

Mars -123541-10-16 18:30 J -43401637.97 -43401637.73 -43401637.44 0.0089 0.0045

Mars -123539-09-11 07:27 J -43400943.46 -43400943.19 -43400942.88 0.0089 0.0027

Mars -123537-08-05 19:56 J -43400248.97 -43400248.67 -43400248.36 0.0089 0.0008

Earth -123536-06-16 05:03 J -43399934.42 -43399934.29 -43399934.11 0.0089 0.0072

Moon -123536-06-16 06:44 J -43399934.37 -43399934.22 -43399934.03 0.0089 0.0068 *

Moon -123535-06-18 17:18 J -43399566.98 -43399566.78 -43399566.56 0.0089 0.0049

Earth -123535-06-18 17:32 J -43399566.98 -43399566.77 -43399566.54 0.0089 0.0045 *

Mars -123535-07-01 06:15 J -43399554.54 -43399554.24 -43399553.93 0.0089 0.0010

Venus -123534-05-28 12:01 J -43399223.05 -43399223.00 -43399222.94 0.0089 0.0085

Moon -123534-06-21 05:03 J -43399199.55 -43399199.29 -43399199.02 0.0089 0.0015

Earth -123534-06-21 05:46 J -43399199.50 -43399199.26 -43399198.99 0.0089 0.0019 *

Venus -123533-01-09 00:01 J -43398997.57 -43398997.50 -43398997.38 0.0089 0.0079

Mars -123533-05-25 15:08 J -43398860.15 -43398859.87 -43398859.57 0.0089 0.0028

Earth -123533-06-22 18:30 J -43398831.99 -43398831.73 -43398831.47 0.0089 0.0008

Moon -123533-06-22 19:42 J -43398831.93 -43398831.68 -43398831.43 0.0089 0.0006 *

Venus -123533-08-21 12:58 J -43398772.08 -43398771.96 -43398771.83 0.0089 0.0072

Venus -123532-04-04 01:42 J -43398546.57 -43398546.43 -43398546.28 0.0089 0.0065

Moon -123532-06-25 03:37 J -43398464.57 -43398464.35 -43398464.08 0.0089 0.0038

Earth -123532-06-25 06:30 J -43398464.45 -43398464.23 -43398463.97 0.0089 0.0035 *
 Venus -123532-11-15 13:56 J -43398321.06 -43398320.92 -43398320.74 0.0089 0.0059
 Mars -123531-04-19 23:32 J -43398165.75 -43398165.52 -43398165.23 0.0089 0.0046
 Earth -123531-06-27 18:58 J -43398096.87 -43398096.71 -43398096.49 0.0089 0.0062
 Moon -123531-06-27 22:34 J -43398096.74 -43398096.56 -43398096.37 0.0089 0.0059 *
 Venus -123531-06-29 02:39 J -43398095.55 -43398095.39 -43398095.20 0.0089 0.0052
 Venus -123530-02-09 15:22 J -43397870.04 -43397869.86 -43397869.66 0.0089 0.0045
 Earth -123530-06-30 08:25 J -43397729.17 -43397729.15 -43397729.10 0.0089 0.0088
 Venus -123530-09-23 04:06 J -43397644.52 -43397644.33 -43397644.12 0.0089 0.0038
 Mars -123529-03-14 07:27 J -43397471.38 -43397471.19 -43397470.96 0.0089 0.0063
 Venus -123529-05-05 17:03 J -43397418.99 -43397418.79 -43397418.58 0.0089 0.0031
 Venus -123529-12-17 06:01 J -43397193.46 -43397193.25 -43397193.03 0.0089 0.0024
 Venus -123528-07-30 18:58 J -43396967.92 -43396967.71 -43396967.49 0.0089 0.0017
 Mars -123527-02-06 12:44 J -43396777.07 -43396776.97 -43396776.81 0.0089 0.0080
 Venus -123527-03-13 07:56 J -43396742.39 -43396742.17 -43396741.95 0.0089 0.0010
 Venus -123527-10-24 20:54 J -43396516.85 -43396516.63 -43396516.41 0.0089 0.0003
 Venus -123526-06-07 10:06 J -43396291.30 -43396291.08 -43396290.86 0.0089 0.0004
 Venus -123525-01-18 23:03 J -43396065.75 -43396065.54 -43396065.32 0.0089 0.0011
 Venus -123525-08-31 12:01 J -43395840.20 -43395840.00 -43395839.77 0.0089 0.0019
 Venus -123524-04-14 01:27 J -43395614.64 -43395614.44 -43395614.22 0.0089 0.0026
 Venus -123524-11-25 14:39 J -43395389.09 -43395388.89 -43395388.68 0.0089 0.0033
 Venus -123523-07-09 03:51 J -43395163.53 -43395163.34 -43395163.13 0.0089 0.0040
 Venus -123522-02-19 17:03 J -43394937.97 -43394937.79 -43394937.59 0.0089 0.0047
 Venus -123522-10-03 06:15 J -43394712.40 -43394712.24 -43394712.05 0.0089 0.0054
 Venus -123521-05-15 19:56 J -43394486.82 -43394486.67 -43394486.50 0.0089 0.0061
 Venus -123521-12-27 09:22 J -43394261.24 -43394261.11 -43394260.96 0.0089 0.0068
 Venus -123520-08-09 22:34 J -43394035.66 -43394035.56 -43394035.42 0.0089 0.0076
 Venus -123519-03-23 12:15 J -43393810.06 -43393809.99 -43393809.90 0.0089 0.0082
 Mercury -123514-05-18 12:30 J -43391928.02 -43391927.98 -43391927.92 0.0089 0.0085
 Mercury -123514-08-14 15:51 J -43391839.91 -43391839.84 -43391839.74 0.0089 0.0079

Mercury -123514-11-10 19:27 J -43391751.79 -43391751.69 -43391751.57 0.0089 0.0073

Mercury -123513-02-06 23:03 J -43391663.66 -43391663.54 -43391663.41 0.0089 0.0067

Mercury -123513-05-05 02:25 J -43391575.53 -43391575.40 -43391575.25 0.0089 0.0061

Mercury -123513-08-01 06:01 J -43391487.39 -43391487.25 -43391487.09 0.0089 0.0055

Mercury -123513-10-28 09:37 J -43391399.25 -43391399.10 -43391398.94 0.0089 0.0049

Mercury -123512-01-24 12:58 J -43391311.11 -43391310.96 -43391310.78 0.0089 0.0044

Mercury -123512-04-22 16:34 J -43391222.97 -43391222.81 -43391222.63 0.0089 0.0037

Mercury -123512-07-19 20:10 J -43391134.83 -43391134.66 -43391134.47 0.0089 0.0031

Mercury -123512-10-15 23:46 J -43391046.69 -43391046.51 -43391046.32 0.0089 0.0025

Mercury -123511-01-12 03:22 J -43390958.54 -43390958.36 -43390958.17 0.0089 0.0019

Mercury -123511-04-10 06:58 J -43390870.40 -43390870.21 -43390870.02 0.0089 0.0013

Mercury -123511-07-07 10:34 J -43390782.25 -43390782.06 -43390781.87 0.0089 0.0007

Mercury -123511-10-03 14:10 J -43390694.10 -43390693.91 -43390693.72 0.0089 0.0001

Mercury -123511-12-30 17:46 J -43390605.95 -43390605.76 -43390605.57 0.0089 0.0006

Mercury -123510-03-28 21:22 J -43390517.80 -43390517.61 -43390517.42 0.0089 0.0012

Mercury -123510-06-25 00:58 J -43390429.65 -43390429.46 -43390429.27 0.0089 0.0018

Mercury -123510-09-21 04:34 J -43390341.49 -43390341.31 -43390341.12 0.0089 0.0024

Mercury -123510-12-18 08:10 J -43390253.34 -43390253.16 -43390252.98 0.0089 0.0030

Mercury -123509-03-15 11:46 J -43390165.18 -43390165.01 -43390164.83 0.0089 0.0037

Mercury -123509-06-11 15:08 J -43390077.03 -43390076.87 -43390076.69 0.0089 0.0043

Mercury -123509-09-07 18:44 J -43389988.87 -43389988.72 -43389988.55 0.0089 0.0049

Mercury -123509-12-04 22:20 J -43389900.71 -43389900.57 -43389900.40 0.0089 0.0056

Mercury -123508-03-03 02:10 J -43389812.54 -43389812.41 -43389812.26 0.0089 0.0061

Mercury -123508-05-30 06:01 J -43389724.38 -43389724.25 -43389724.13 0.0089 0.0068

Mercury -123508-08-26 09:08 J -43389636.21 -43389636.12 -43389635.99 0.0089 0.0074

Mercury -123508-11-22 12:44 J -43389548.03 -43389547.97 -43389547.86 0.0089 0.0081

Mercury -123507-02-18 16:34 J -43389459.84 -43389459.81 -43389459.75 0.0089 0.0086

Mars -123463-09-25 12:01 J -43373170.10 -43373170.00 -43373169.83 0.0089 0.0080

Mars -123461-08-20 14:25 J -43372475.11 -43372474.90 -43372474.65 0.0089 0.0062

Mars -123459-07-16 17:18 J -43371780.04 -43371779.78 -43371779.48 0.0089 0.0044

Mars -123457-06-10 22:49 J -43371084.86 -43371084.55 -43371084.24 0.0089 0.0025
 Mars -123455-05-07 05:18 J -43370389.60 -43370389.28 -43370388.95 0.0089 0.0007
 Earth -123455-12-25 16:06 J -43370156.95 -43370156.83 -43370156.66 0.0089 0.0074
 Moon -123455-12-25 17:46 J -43370156.88 -43370156.76 -43370156.58 0.0089 0.0072 *
 Moon -123454-12-28 01:42 J -43369789.65 -43369789.43 -43369789.22 0.0089 0.0050
 Earth -123454-12-28 03:37 J -43369789.56 -43369789.35 -43369789.13 0.0089 0.0047 *
 Mars -123453-04-01 12:44 J -43369694.28 -43369693.97 -43369693.64 0.0089 0.0013
 Venus -123453-12-06 18:15 J -43369444.75 -43369444.74 -43369444.70 0.0089 0.0088
 Earth -123453-12-29 14:39 J -43369422.14 -43369421.89 -43369421.64 0.0089 0.0021
 Moon -123453-12-29 17:32 J -43369422.01 -43369421.77 -43369421.52 0.0089 0.0017 *
 Venus -123452-07-20 07:42 J -43369219.25 -43369219.18 -43369219.07 0.0089 0.0081
 Moon -123452-12-31 21:51 J -43369054.84 -43369054.59 -43369054.33 0.0089 0.0002
 Earth -123451-01-01 01:13 J -43369054.70 -43369054.45 -43369054.19 0.0089 0.0006 *
 Mars -123451-02-25 22:20 J -43368998.86 -43368998.57 -43368998.25 0.0089 0.0032
 Venus -123451-03-02 21:22 J -43368993.72 -43368993.61 -43368993.48 0.0089 0.0074
 Venus -123451-10-14 10:49 J -43368768.18 -43368768.05 -43368767.89 0.0089 0.0067
 Earth -123450-01-03 11:46 J -43368687.25 -43368687.01 -43368686.77 0.0089 0.0031
 Moon -123450-01-03 14:54 J -43368687.10 -43368686.88 -43368686.63 0.0089 0.0036 *
 Venus -123450-05-28 00:15 J -43368542.64 -43368542.49 -43368542.32 0.0089 0.0060
 Moon -123449-01-05 18:30 J -43368319.92 -43368319.73 -43368319.52 0.0089 0.0053
 Earth -123449-01-05 22:20 J -43368319.77 -43368319.57 -43368319.38 0.0089 0.0057 *
 Venus -123449-01-08 13:42 J -43368317.10 -43368316.93 -43368316.75 0.0089 0.0053
 Mars -123449-01-22 09:37 J -43368303.35 -43368303.10 -43368302.81 0.0089 0.0051
 Venus -123449-08-21 02:54 J -43368091.56 -43368091.38 -43368091.18 0.0088 0.0046
 Earth -123448-01-07 07:56 J -43367952.23 -43367952.17 -43367952.06 0.0088 0.0083
 Moon -123448-01-07 10:49 J -43367952.07 -43367952.05 -43367951.98 0.0088 0.0087 *
 Venus -123448-04-03 16:20 J -43367866.02 -43367865.82 -43367865.62 0.0088 0.0039
 Venus -123448-11-15 05:32 J -43367640.47 -43367640.27 -43367640.06 0.0088 0.0032
 Mars -123448-12-17 21:51 J -43367607.77 -43367607.59 -43367607.36 0.0088 0.0070
 Venus -123447-06-28 18:44 J -43367414.93 -43367414.72 -43367414.51 0.0088 0.0025

Venus -123446-02-09 07:42 J -43367189.39 -43367189.18 -43367188.96 0.0088 0.0018

Venus -123446-09-22 20:54 J -43366963.85 -43366963.63 -43366963.41 0.0088 0.0011

Mars -123446-11-13 11:18 J -43366912.05 -43366912.03 -43366911.98 0.0088 0.0088

Venus -123445-05-05 09:51 J -43366738.31 -43366738.09 -43366737.87 0.0088 0.0004

Venus -123445-12-16 22:49 J -43366512.77 -43366512.55 -43366512.32 0.0088 0.0004

Venus -123444-07-30 11:32 J -43366287.23 -43366287.02 -43366286.79 0.0088 0.0011

Venus -123443-03-13 00:15 J -43366061.69 -43366061.49 -43366061.26 0.0088 0.0018

Venus -123443-10-24 13:13 J -43365836.15 -43365835.95 -43365835.73 0.0088 0.0024

Venus -123442-06-07 02:10 J -43365610.62 -43365610.41 -43365610.20 0.0088 0.0031

Venus -123441-01-18 14:39 J -43365385.08 -43365384.89 -43365384.68 0.0088 0.0038

Venus -123441-08-31 03:08 J -43365159.55 -43365159.37 -43365159.17 0.0088 0.0045

Venus -123440-04-13 15:37 J -43364934.01 -43364933.85 -43364933.65 0.0088 0.0052

Venus -123440-11-25 04:20 J -43364708.47 -43364708.32 -43364708.14 0.0088 0.0058

Venus -123439-07-08 17:03 J -43364482.93 -43364482.79 -43364482.63 0.0088 0.0065

Venus -123438-02-19 05:18 J -43364257.39 -43364257.28 -43364257.14 0.0088 0.0072

Venus -123438-10-02 18:15 J -43364031.84 -43364031.74 -43364031.64 0.0088 0.0078

Venus -123437-05-15 06:15 J -43363806.28 -43363806.24 -43363806.16 0.0088 0.0085

Mercury -123434-12-14 23:32 J -43362497.54 -43362497.52 -43362497.47 0.0088 0.0086

Mercury -123433-03-12 01:13 J -43362409.50 -43362409.45 -43362409.39 0.0088 0.0081

Mercury -123433-06-08 02:39 J -43362321.45 -43362321.39 -43362321.32 0.0088 0.0076

Mercury -123433-09-04 03:51 J -43362233.40 -43362233.34 -43362233.25 0.0088 0.0073

Mercury -123433-12-01 05:18 J -43362145.35 -43362145.28 -43362145.18 0.0088 0.0068

Mercury -123432-02-27 06:58 J -43362057.30 -43362057.21 -43362057.12 0.0088 0.0064

Mercury -123432-05-26 08:10 J -43361969.25 -43361969.16 -43361969.05 0.0088 0.0060

Mercury -123432-08-22 09:37 J -43361881.20 -43361881.10 -43361880.99 0.0088 0.0055

Mercury -123432-11-18 11:03 J -43361793.14 -43361793.04 -43361792.93 0.0088 0.0051

Mercury -123431-02-14 12:15 J -43361705.09 -43361704.99 -43361704.86 0.0088 0.0048

Mercury -123431-05-13 13:56 J -43361617.04 -43361616.92 -43361616.80 0.0088 0.0043

Mercury -123431-08-09 15:22 J -43361528.98 -43361528.86 -43361528.74 0.0088 0.0038

Mercury -123431-11-05 16:34 J -43361440.93 -43361440.81 -43361440.68 0.0088 0.0034

Mercury -123430-02-01 18:01 J -43361352.87 -43361352.75 -43361352.62 0.0088 0.0030

Mercury -123430-04-30 19:27 J -43361264.82 -43361264.69 -43361264.56 0.0088 0.0026

Mercury -123430-07-27 20:54 J -43361176.76 -43361176.63 -43361176.50 0.0088 0.0022

Mercury -123430-10-23 22:20 J -43361088.71 -43361088.57 -43361088.44 0.0088 0.0018

Mercury -123429-01-19 23:32 J -43361000.65 -43361000.52 -43361000.38 0.0088 0.0013

Mercury -123429-04-17 00:58 J -43360912.59 -43360912.46 -43360912.33 0.0088 0.0009

Mercury -123429-07-14 02:25 J -43360824.54 -43360824.40 -43360824.27 0.0088 0.0005

Mercury -123429-10-10 03:37 J -43360736.48 -43360736.35 -43360736.21 0.0088 0.0003

Mercury -123428-01-06 05:03 J -43360648.42 -43360648.29 -43360648.16 0.0088 0.0003

Mercury -123428-04-04 06:15 J -43360560.37 -43360560.24 -43360560.10 0.0088 0.0009

Mercury -123428-07-01 07:42 J -43360472.31 -43360472.18 -43360472.04 0.0088 0.0012

Mercury -123428-09-27 09:08 J -43360384.25 -43360384.12 -43360383.99 0.0088 0.0016

Mercury -123428-12-24 10:20 J -43360296.19 -43360296.07 -43360295.93 0.0088 0.0020

Mercury -123427-03-22 11:46 J -43360208.14 -43360208.01 -43360207.88 0.0088 0.0024

Mercury -123427-06-18 13:13 J -43360120.08 -43360119.95 -43360119.83 0.0088 0.0028

Mercury -123427-09-14 14:25 J -43360032.02 -43360031.90 -43360031.77 0.0088 0.0033

Mercury -123427-12-11 15:51 J -43359943.96 -43359943.84 -43359943.72 0.0088 0.0037

Mercury -123426-03-09 17:03 J -43359855.90 -43359855.79 -43359855.67 0.0088 0.0041

Mercury -123426-06-05 18:15 J -43359767.84 -43359767.74 -43359767.61 0.0088 0.0046

Mercury -123426-09-01 19:42 J -43359679.78 -43359679.68 -43359679.56 0.0088 0.0049

Mercury -123426-11-28 21:08 J -43359591.72 -43359591.62 -43359591.51 0.0088 0.0053

Mercury -123425-02-24 22:20 J -43359503.66 -43359503.57 -43359503.46 0.0088 0.0058

Mercury -123425-05-22 23:46 J -43359415.60 -43359415.51 -43359415.41 0.0088 0.0061

Mercury -123425-08-19 01:13 J -43359327.54 -43359327.45 -43359327.36 0.0088 0.0065

Mercury -123425-11-15 02:25 J -43359239.47 -43359239.40 -43359239.31 0.0088 0.0070

Mercury -123424-02-11 03:51 J -43359151.41 -43359151.34 -43359151.27 0.0088 0.0074

Mercury -123424-05-10 05:18 J -43359063.34 -43359063.28 -43359063.22 0.0088 0.0078

Mercury -123424-08-06 06:30 J -43358975.27 -43358975.23 -43358975.18 0.0088 0.0082

Mercury -123424-11-02 07:56 J -43358887.20 -43358887.17 -43358887.14 0.0088 0.0086

Mars -123381-08-11 08:39 J -43343264.20 -43343264.14 -43343264.01 0.0089 0.0085

Mars -123379-07-07 01:56 J -43342569.61 -43342569.42 -43342569.21 0.0089 0.0067
 Mars -123377-05-31 17:32 J -43341874.99 -43341874.77 -43341874.48 0.0089 0.0050
 Mars -123375-04-26 08:39 J -43341180.41 -43341180.14 -43341179.83 0.0089 0.0032
 Mars -123373-03-20 21:37 J -43340485.89 -43340485.60 -43340485.28 0.0089 0.0014
 Earth -123372-06-15 16:20 J -43340033.90 -43340033.82 -43340033.69 0.0089 0.0081
 Moon -123372-06-15 17:03 J -43340033.85 -43340033.79 -43340033.68 0.0089 0.0083 *
 Mars -123371-02-13 09:51 J -43339791.39 -43339791.09 -43339790.78 0.0089 0.0005
 Moon -123371-06-18 02:54 J -43339666.58 -43339666.38 -43339666.14 0.0089 0.0052
 Earth -123371-06-18 04:20 J -43339666.50 -43339666.32 -43339666.09 0.0089 0.0055 *
 Earth -123370-06-20 16:49 J -43339299.04 -43339298.80 -43339298.55 0.0089 0.0028
 Moon -123370-06-20 19:27 J -43339298.92 -43339298.69 -43339298.44 0.0089 0.0031 *
 Venus -123370-08-30 00:30 J -43339228.52 -43339228.48 -43339228.39 0.0089 0.0085
 Mars -123369-01-08 20:10 J -43339096.95 -43339096.66 -43339096.35 0.0089 0.0022
 Venus -123369-04-11 13:27 J -43339003.03 -43339002.94 -43339002.82 0.0089 0.0078
 Moon -123369-06-22 02:10 J -43338931.67 -43338931.41 -43338931.14 0.0089 0.0002
 Earth -123369-06-22 05:18 J -43338931.54 -43338931.28 -43338931.02 0.0089 0.0002 *
 Venus -123369-11-23 02:10 J -43338777.53 -43338777.41 -43338777.28 0.0089 0.0071
 Earth -123368-06-24 17:18 J -43338564.01 -43338563.78 -43338563.51 0.0089 0.0026
 Moon -123368-06-24 20:54 J -43338563.87 -43338563.63 -43338563.37 0.0089 0.0022 *
 Venus -123368-07-06 14:10 J -43338552.03 -43338551.91 -43338551.74 0.0089 0.0065
 Mars -123368-12-03 04:49 J -43338402.57 -43338402.30 -43338402.02 0.0089 0.0039
 Venus -123367-02-17 02:54 J -43338326.53 -43338326.38 -43338326.20 0.0089 0.0058
 Moon -123367-06-27 02:25 J -43338196.58 -43338196.40 -43338196.18 0.0089 0.0056
 Earth -123367-06-27 06:15 J -43338196.44 -43338196.24 -43338196.02 0.0089 0.0052 *
 Venus -123367-09-30 15:37 J -43338101.02 -43338100.85 -43338100.66 0.0089 0.0051
 Venus -123366-05-14 04:34 J -43337875.50 -43337875.31 -43337875.12 0.0089 0.0044
 Earth -123366-06-29 18:44 J -43337828.82 -43337828.72 -43337828.58 0.0089 0.0079
 Moon -123366-06-29 21:51 J -43337828.70 -43337828.59 -43337828.42 0.0089 0.0075 *
 Mars -123366-10-28 12:30 J -43337708.20 -43337707.98 -43337707.74 0.0089 0.0056
 Venus -123366-12-25 16:49 J -43337649.98 -43337649.80 -43337649.58 0.0089 0.0038

Venus -123365-08-07 05:46 J -43337424.46 -43337424.26 -43337424.05 0.0089 0.0031

Venus -123364-03-20 18:30 J -43337198.93 -43337198.73 -43337198.51 0.0089 0.0024

Mars -123364-09-21 19:42 J -43337013.83 -43337013.68 -43337013.49 0.0089 0.0073

Venus -123364-11-01 07:27 J -43336973.40 -43336973.19 -43336972.97 0.0089 0.0017

Venus -123363-06-14 20:25 J -43336747.87 -43336747.65 -43336747.43 0.0089 0.0010

Venus -123362-01-26 09:22 J -43336522.33 -43336522.11 -43336521.89 0.0089 0.0003

Venus -123362-09-08 22:20 J -43336296.79 -43336296.57 -43336296.35 0.0089 0.0004

Venus -123361-04-21 11:18 J -43336071.24 -43336071.03 -43336070.80 0.0089 0.0012

Venus -123361-12-03 00:30 J -43335845.69 -43335845.48 -43335845.26 0.0089 0.0019

Venus -123360-07-16 13:27 J -43335620.14 -43335619.94 -43335619.72 0.0089 0.0026

Venus -123359-02-27 02:39 J -43335394.59 -43335394.39 -43335394.18 0.0089 0.0033

Venus -123359-10-10 15:51 J -43335169.03 -43335168.84 -43335168.63 0.0089 0.0040

Venus -123358-05-24 05:18 J -43334943.46 -43334943.28 -43334943.09 0.0089 0.0047

Venus -123357-01-04 18:30 J -43334717.89 -43334717.73 -43334717.54 0.0089 0.0054

Venus -123357-08-17 07:42 J -43334492.32 -43334492.18 -43334492.00 0.0089 0.0061

Venus -123356-03-30 21:08 J -43334266.75 -43334266.62 -43334266.46 0.0089 0.0068

Venus -123356-11-11 10:34 J -43334041.16 -43334041.06 -43334040.93 0.0089 0.0075

Venus -123355-06-25 00:01 J -43333815.57 -43333815.50 -43333815.40 0.0089 0.0082

Venus -123354-02-05 13:56 J -43333589.92 -43333589.92 -43333589.92 0.0089 0.0089

Mercury -123350-11-16 08:10 J -43331845.18 -43331845.16 -43331845.11 0.0089 0.0087

Mercury -123349-02-12 11:46 J -43331757.08 -43331757.01 -43331756.93 0.0089 0.0081

Mercury -123349-05-10 15:08 J -43331668.96 -43331668.87 -43331668.76 0.0089 0.0075

Mercury -123349-08-06 18:44 J -43331580.83 -43331580.72 -43331580.60 0.0089 0.0069

Mercury -123349-11-02 22:20 J -43331492.70 -43331492.57 -43331492.44 0.0089 0.0063

Mercury -123348-01-30 01:42 J -43331404.57 -43331404.43 -43331404.28 0.0089 0.0057

Mercury -123348-04-28 05:18 J -43331316.43 -43331316.28 -43331316.12 0.0089 0.0051

Mercury -123348-07-25 08:54 J -43331228.29 -43331228.13 -43331227.96 0.0089 0.0045

Mercury -123348-10-21 12:15 J -43331140.15 -43331139.99 -43331139.81 0.0089 0.0039

Mercury -123347-01-17 15:51 J -43331052.01 -43331051.84 -43331051.66 0.0089 0.0033

Mercury -123347-04-15 19:27 J -43330963.87 -43330963.69 -43330963.50 0.0089 0.0027

Mercury -123347-07-12 23:03 J -43330875.72 -43330875.54 -43330875.35 0.0089 0.0021

Mercury -123347-10-09 02:39 J -43330787.58 -43330787.39 -43330787.20 0.0089 0.0015

Mercury -123346-01-05 06:15 J -43330699.43 -43330699.24 -43330699.05 0.0089 0.0009

Mercury -123346-04-03 09:51 J -43330611.28 -43330611.09 -43330610.90 0.0089 0.0003

Mercury -123346-06-30 13:27 J -43330523.13 -43330522.94 -43330522.75 0.0089 0.0004

Mercury -123346-09-26 16:49 J -43330434.98 -43330434.80 -43330434.60 0.0089 0.0010

Mercury -123346-12-23 20:25 J -43330346.83 -43330346.65 -43330346.45 0.0089 0.0016

Mercury -123345-03-21 00:01 J -43330258.68 -43330258.50 -43330258.31 0.0089 0.0022

Mercury -123345-06-17 03:37 J -43330170.52 -43330170.35 -43330170.16 0.0089 0.0028

Mercury -123345-09-13 07:27 J -43330082.37 -43330082.19 -43330082.01 0.0089 0.0034

Mercury -123345-12-10 10:34 J -43329994.21 -43329994.06 -43329993.87 0.0089 0.0042

Mercury -123344-03-08 14:25 J -43329906.05 -43329905.90 -43329905.73 0.0089 0.0047

Mercury -123344-06-04 18:01 J -43329817.89 -43329817.75 -43329817.58 0.0089 0.0053

Mercury -123344-08-31 21:37 J -43329729.73 -43329729.60 -43329729.44 0.0089 0.0060

Mercury -123344-11-28 01:27 J -43329641.56 -43329641.44 -43329641.30 0.0089 0.0065

Mercury -123343-02-24 04:49 J -43329553.40 -43329553.30 -43329553.17 0.0089 0.0072

Mercury -123343-05-23 08:25 J -43329465.22 -43329465.15 -43329465.04 0.0089 0.0078

Mercury -123343-08-19 12:15 J -43329377.04 -43329376.99 -43329376.92 0.0089 0.0084

Jupiter -123334-08-16 13:56 J -43326093.42 -43326092.92 -43326092.40 0.0089 0.0037

Mars -123299-05-10 04:49 J -43313407.39 -43313407.30 -43313407.18 0.0089 0.0083

Mars -123297-04-04 05:03 J -43312712.48 -43312712.29 -43312712.06 0.0089 0.0066

Mars -123295-02-28 07:56 J -43312017.43 -43312017.17 -43312016.90 0.0089 0.0048

Mars -123293-01-24 12:01 J -43311322.30 -43311322.00 -43311321.70 0.0089 0.0030

Mars -123292-12-19 17:03 J -43310627.10 -43310626.79 -43310626.47 0.0089 0.0012

Moon -123291-12-25 01:13 J -43310256.54 -43310256.45 -43310256.30 0.0089 0.0079

Earth -123291-12-25 04:34 J -43310256.38 -43310256.31 -43310256.20 0.0089 0.0083 *

Mars -123290-11-15 00:01 J -43309931.82 -43309931.50 -43309931.17 0.0089 0.0007

Earth -123290-12-27 15:37 J -43309889.02 -43309888.85 -43309888.63 0.0089 0.0057

Moon -123290-12-27 19:13 J -43309888.88 -43309888.70 -43309888.50 0.0089 0.0060 *

Moon -123289-12-28 23:18 J -43309521.76 -43309521.53 -43309521.27 0.0089 0.0028

Earth -123289-12-29 02:54 J -43309521.60 -43309521.38 -43309521.12 0.0089 0.0031 *
 Venus -123288-03-10 06:01 J -43309450.28 -43309450.25 -43309450.21 0.0089 0.0087
 Mars -123288-10-10 07:27 J -43309236.48 -43309236.19 -43309235.86 0.0089 0.0026
 Venus -123288-10-21 18:58 J -43309224.77 -43309224.71 -43309224.59 0.0089 0.0081
 Earth -123288-12-31 13:56 J -43309154.18 -43309153.92 -43309153.66 0.0089 0.0004
 Moon -123288-12-31 17:18 J -43309154.03 -43309153.78 -43309153.52 0.0089 0.0008 *
 Venus -123287-06-04 08:39 J -43308999.24 -43308999.14 -43308998.99 0.0089 0.0074
 Moon -123286-01-02 21:22 J -43308786.84 -43308786.61 -43308786.35 0.0089 0.0025
 Earth -123286-01-03 00:30 J -43308786.72 -43308786.48 -43308786.22 0.0089 0.0022 *
 Venus -123286-01-15 22:06 J -43308773.71 -43308773.58 -43308773.41 0.0089 0.0067
 Venus -123286-08-29 11:32 J -43308548.17 -43308548.02 -43308547.84 0.0089 0.0060
 Mars -123286-09-05 16:49 J -43308541.07 -43308540.80 -43308540.51 0.0089 0.0044
 Earth -123285-01-05 10:49 J -43308419.25 -43308419.05 -43308418.82 0.0089 0.0048
 Moon -123285-01-05 13:42 J -43308419.14 -43308418.93 -43308418.70 0.0089 0.0046 *
 Venus -123285-04-11 00:58 J -43308322.62 -43308322.46 -43308322.27 0.0089 0.0053
 Venus -123285-11-22 14:10 J -43308097.08 -43308096.91 -43308096.70 0.0089 0.0046
 Moon -123284-01-06 19:56 J -43308051.79 -43308051.67 -43308051.54 0.0089 0.0076
 Earth -123284-01-06 20:54 J -43308051.75 -43308051.63 -43308051.47 0.0089 0.0074 *
 Venus -123284-07-06 03:37 J -43307871.54 -43307871.35 -43307871.14 0.0089 0.0039
 Mars -123284-08-01 03:22 J -43307845.56 -43307845.36 -43307845.10 0.0089 0.0063
 Venus -123283-02-16 16:49 J -43307645.99 -43307645.80 -43307645.58 0.0089 0.0032
 Venus -123283-09-30 06:15 J -43307420.45 -43307420.24 -43307420.02 0.0088 0.0024
 Venus -123282-05-13 19:27 J -43307194.90 -43307194.69 -43307194.47 0.0088 0.0017
 Mars -123282-06-27 16:06 J -43307149.94 -43307149.83 -43307149.67 0.0088 0.0081
 Venus -123282-12-25 08:39 J -43306969.36 -43306969.14 -43306968.92 0.0088 0.0010
 Venus -123281-08-06 21:37 J -43306743.82 -43306743.60 -43306743.37 0.0088 0.0004
 Venus -123280-03-20 10:49 J -43306518.27 -43306518.05 -43306517.83 0.0088 0.0004
 Venus -123280-10-31 23:46 J -43306292.73 -43306292.51 -43306292.29 0.0088 0.0011
 Venus -123279-06-14 12:30 J -43306067.19 -43306066.98 -43306066.76 0.0088 0.0018
 Venus -123278-01-26 01:13 J -43305841.65 -43305841.45 -43305841.23 0.0088 0.0025

Venus -123278-09-08 13:56 J -43305616.11 -43305615.92 -43305615.70 0.0088 0.0032
 Venus -123277-04-21 02:39 J -43305390.58 -43305390.39 -43305390.18 0.0088 0.0038
 Venus -123277-12-02 15:37 J -43305165.03 -43305164.85 -43305164.66 0.0088 0.0045
 Venus -123276-07-16 04:06 J -43304939.50 -43304939.33 -43304939.14 0.0088 0.0052
 Venus -123275-02-26 16:34 J -43304713.96 -43304713.81 -43304713.63 0.0088 0.0058
 Venus -123275-10-10 05:32 J -43304488.42 -43304488.27 -43304488.12 0.0088 0.0065
 Venus -123274-05-23 17:46 J -43304262.87 -43304262.76 -43304262.62 0.0088 0.0072
 Venus -123273-01-04 06:01 J -43304037.32 -43304037.25 -43304037.12 0.0088 0.0079
 Venus -123273-08-16 18:44 J -43303811.77 -43303811.72 -43303811.65 0.0088 0.0085
 Mercury -123269-06-13 22:20 J -43302414.59 -43302414.57 -43302414.54 0.0088 0.0086
 Mercury -123269-09-09 23:32 J -43302326.55 -43302326.52 -43302326.46 0.0088 0.0083
 Mercury -123269-12-07 00:58 J -43302238.51 -43302238.46 -43302238.38 0.0088 0.0078
 Mercury -123268-03-05 02:39 J -43302150.46 -43302150.39 -43302150.31 0.0088 0.0074
 Mercury -123268-06-01 04:06 J -43302062.41 -43302062.33 -43302062.24 0.0088 0.0069
 Mercury -123268-08-28 05:18 J -43301974.36 -43301974.28 -43301974.17 0.0088 0.0066
 Mercury -123268-11-24 06:44 J -43301886.30 -43301886.22 -43301886.11 0.0088 0.0061
 Mercury -123267-02-20 08:25 J -43301798.25 -43301798.15 -43301798.04 0.0088 0.0057
 Mercury -123267-05-19 09:37 J -43301710.20 -43301710.10 -43301709.98 0.0088 0.0053
 Mercury -123267-08-15 11:03 J -43301622.14 -43301622.04 -43301621.92 0.0088 0.0048
 Mercury -123267-11-11 12:30 J -43301534.09 -43301533.98 -43301533.86 0.0088 0.0044
 Mercury -123266-02-07 13:56 J -43301446.04 -43301445.92 -43301445.79 0.0088 0.0040
 Mercury -123266-05-06 15:22 J -43301357.98 -43301357.86 -43301357.73 0.0088 0.0035
 Mercury -123266-08-02 16:49 J -43301269.93 -43301269.80 -43301269.67 0.0088 0.0031
 Mercury -123266-10-29 18:01 J -43301181.87 -43301181.75 -43301181.61 0.0088 0.0028
 Mercury -123265-01-25 19:27 J -43301093.81 -43301093.69 -43301093.55 0.0088 0.0023
 Mercury -123265-04-22 20:54 J -43301005.76 -43301005.63 -43301005.49 0.0088 0.0019
 Mercury -123265-07-19 22:20 J -43300917.70 -43300917.57 -43300917.44 0.0088 0.0014
 Mercury -123265-10-15 23:46 J -43300829.65 -43300829.51 -43300829.38 0.0088 0.0010
 Mercury -123264-01-12 01:13 J -43300741.59 -43300741.45 -43300741.32 0.0088 0.0007
 Mercury -123264-04-10 02:25 J -43300653.53 -43300653.40 -43300653.26 0.0088 0.0002

Mercury -123264-07-07 03:51 J -43300565.48 -43300565.34 -43300565.21 0.0088 0.0003
 Mercury -123264-10-03 05:03 J -43300477.42 -43300477.29 -43300477.15 0.0088 0.0007
 Mercury -123264-12-30 06:30 J -43300389.36 -43300389.23 -43300389.09 0.0088 0.0011
 Mercury -123263-03-28 07:42 J -43300301.30 -43300301.18 -43300301.04 0.0088 0.0016
 Mercury -123263-06-24 09:08 J -43300213.25 -43300213.12 -43300212.98 0.0088 0.0019
 Mercury -123263-09-20 10:34 J -43300125.19 -43300125.06 -43300124.93 0.0088 0.0023
 Mercury -123263-12-17 11:46 J -43300037.13 -43300037.01 -43300036.88 0.0088 0.0028
 Mercury -123262-03-15 13:13 J -43299949.07 -43299948.95 -43299948.82 0.0088 0.0031
 Mercury -123262-06-11 14:39 J -43299861.01 -43299860.89 -43299860.77 0.0088 0.0036
 Mercury -123262-09-07 15:51 J -43299772.95 -43299772.84 -43299772.72 0.0088 0.0040
 Mercury -123262-12-04 17:03 J -43299684.89 -43299684.79 -43299684.66 0.0088 0.0044
 Mercury -123261-03-01 18:30 J -43299596.83 -43299596.73 -43299596.61 0.0088 0.0048
 Mercury -123261-05-28 19:42 J -43299508.77 -43299508.68 -43299508.56 0.0088 0.0053
 Mercury -123261-08-24 21:08 J -43299420.71 -43299420.62 -43299420.51 0.0088 0.0056
 Mercury -123261-11-20 22:34 J -43299332.65 -43299332.56 -43299332.46 0.0088 0.0060
 Mercury -123260-02-16 23:46 J -43299244.59 -43299244.51 -43299244.41 0.0088 0.0065
 Mercury -123260-05-16 01:13 J -43299156.53 -43299156.45 -43299156.36 0.0088 0.0068
 Mercury -123260-08-12 02:25 J -43299068.46 -43299068.40 -43299068.31 0.0088 0.0073
 Mercury -123260-11-08 03:51 J -43298980.40 -43298980.34 -43298980.27 0.0088 0.0077
 Mercury -123259-02-04 05:18 J -43298892.33 -43298892.28 -43298892.23 0.0088 0.0080
 Mercury -123259-05-03 06:30 J -43298804.26 -43298804.23 -43298804.19 0.0088 0.0085
 Mars -123217-03-26 05:18 J -43283501.31 -43283501.28 -43283501.24 0.0089 0.0088
 Mars -123215-02-18 23:32 J -43282806.69 -43282806.52 -43282806.32 0.0089 0.0071
 Mars -123213-01-14 15:37 J -43282112.07 -43282111.85 -43282111.58 0.0089 0.0054
 Mars -123212-12-09 06:58 J -43281417.47 -43281417.21 -43281416.90 0.0089 0.0037
 Mars -123210-11-03 21:37 J -43280722.89 -43280722.60 -43280722.28 0.0089 0.0019
 Mars -123208-09-28 09:51 J -43280028.39 -43280028.09 -43280027.78 0.0089 0.0001
 Earth -123207-06-17 14:39 J -43279766.04 -43279765.89 -43279765.69 0.0089 0.0065
 Moon -123207-06-17 17:46 J -43279765.94 -43279765.76 -43279765.57 0.0089 0.0061 *
 Moon -123206-06-19 23:32 J -43279398.75 -43279398.52 -43279398.29 0.0089 0.0042

Earth -123206-06-20 03:08 J -43279398.60 -43279398.37 -43279398.14 0.0089 0.0038 *
 Mars -123206-08-23 21:08 J -43279333.91 -43279333.62 -43279333.31 0.0089 0.0017
 Venus -123206-12-01 13:13 J -43279234.00 -43279233.95 -43279233.86 0.0089 0.0084
 Earth -123205-06-21 15:08 J -43279031.12 -43279030.87 -43279030.61 0.0089 0.0012
 Moon -123205-06-21 18:44 J -43279030.98 -43279030.72 -43279030.46 0.0089 0.0008 *
 Venus -123205-07-14 01:56 J -43279008.52 -43279008.42 -43279008.31 0.0089 0.0077
 Venus -123204-02-24 14:10 J -43278783.02 -43278782.91 -43278782.76 0.0089 0.0071
 Moon -123204-06-24 00:01 J -43278663.74 -43278663.50 -43278663.23 0.0089 0.0013
 Earth -123204-06-24 03:51 J -43278663.60 -43278663.34 -43278663.09 0.0089 0.0015 *
 Mars -123204-07-18 07:13 J -43278639.46 -43278639.20 -43278638.89 0.0089 0.0034
 Venus -123204-10-08 02:54 J -43278557.52 -43278557.38 -43278557.22 0.0089 0.0064
 Venus -123203-05-21 15:37 J -43278332.01 -43278331.85 -43278331.68 0.0089 0.0057
 Earth -123203-06-26 16:06 J -43278296.05 -43278295.83 -43278295.60 0.0089 0.0042
 Moon -123203-06-26 19:13 J -43278295.91 -43278295.70 -43278295.46 0.0089 0.0045 *
 Venus -123202-01-02 03:51 J -43278106.50 -43278106.34 -43278106.14 0.0089 0.0051
 Mars -123202-06-12 16:20 J -43277945.06 -43277944.82 -43277944.56 0.0089 0.0050
 Moon -123202-06-29 02:10 J -43277928.56 -43277928.41 -43277928.23 0.0089 0.0067
 Earth -123202-06-29 04:34 J -43277928.46 -43277928.31 -43277928.13 0.0089 0.0069 *
 Venus -123202-08-15 16:34 J -43277880.99 -43277880.81 -43277880.61 0.0089 0.0044
 Venus -123201-03-28 05:18 J -43277655.46 -43277655.28 -43277655.07 0.0089 0.0037
 Venus -123201-11-08 18:15 J -43277429.94 -43277429.74 -43277429.53 0.0089 0.0030
 Mars -123200-05-06 23:46 J -43277250.68 -43277250.51 -43277250.28 0.0089 0.0067
 Venus -123200-06-22 06:58 J -43277204.42 -43277204.21 -43277204.00 0.0089 0.0023
 Venus -123199-02-02 19:42 J -43276978.89 -43276978.68 -43276978.46 0.0089 0.0016
 Venus -123199-09-16 08:25 J -43276753.36 -43276753.15 -43276752.93 0.0089 0.0010
 Mars -123198-04-01 07:27 J -43276556.27 -43276556.19 -43276556.05 0.0089 0.0083
 Venus -123198-04-29 21:37 J -43276527.82 -43276527.60 -43276527.38 0.0089 0.0002
 Venus -123198-12-11 10:34 J -43276302.28 -43276302.06 -43276301.84 0.0089 0.0005
 Venus -123197-07-23 23:18 J -43276076.74 -43276076.53 -43276076.31 0.0089 0.0012
 Venus -123196-03-06 12:15 J -43275851.20 -43275850.99 -43275850.77 0.0089 0.0019

Venus -123196-10-18 01:13 J -43275625.65 -43275625.45 -43275625.23 0.0089 0.0026

Venus -123195-05-31 14:25 J -43275400.09 -43275399.90 -43275399.68 0.0089 0.0033

Venus -123194-01-12 03:37 J -43275174.53 -43275174.35 -43275174.14 0.0089 0.0040

Venus -123194-08-25 16:49 J -43274948.97 -43274948.80 -43274948.60 0.0089 0.0047

Venus -123193-04-07 06:15 J -43274723.40 -43274723.24 -43274723.05 0.0089 0.0054

Venus -123193-11-18 19:27 J -43274497.83 -43274497.69 -43274497.51 0.0089 0.0061

Venus -123192-07-02 08:54 J -43274272.26 -43274272.13 -43274271.97 0.0089 0.0068

Venus -123191-02-12 22:06 J -43274046.68 -43274046.58 -43274046.44 0.0089 0.0075

Venus -123191-09-26 11:32 J -43273821.08 -43273821.02 -43273820.91 0.0089 0.0082

Venus -123190-05-10 01:27 J -43273595.44 -43273595.44 -43273595.42 0.0089 0.0089

Mercury -123185-08-12 07:27 J -43271674.24 -43271674.19 -43271674.12 0.0089 0.0083

Mercury -123185-11-08 10:49 J -43271586.13 -43271586.05 -43271585.94 0.0089 0.0078

Mercury -123184-02-04 14:25 J -43271498.00 -43271497.90 -43271497.78 0.0089 0.0071

Mercury -123184-05-03 18:01 J -43271409.87 -43271409.75 -43271409.62 0.0089 0.0065

Mercury -123184-07-30 21:22 J -43271321.74 -43271321.61 -43271321.46 0.0089 0.0060

Mercury -123184-10-27 00:58 J -43271233.61 -43271233.46 -43271233.31 0.0089 0.0054

Mercury -123183-01-23 04:34 J -43271145.47 -43271145.31 -43271145.15 0.0089 0.0047

Mercury -123183-04-21 07:56 J -43271057.33 -43271057.17 -43271057.00 0.0089 0.0042

Mercury -123183-07-18 11:32 J -43270969.19 -43270969.02 -43270968.84 0.0089 0.0035

Mercury -123183-10-14 15:08 J -43270881.05 -43270880.87 -43270880.69 0.0089 0.0029

Mercury -123182-01-10 18:30 J -43270792.91 -43270792.73 -43270792.54 0.0089 0.0024

Mercury -123182-04-08 22:06 J -43270704.76 -43270704.58 -43270704.39 0.0089 0.0017

Mercury -123182-07-06 01:42 J -43270616.62 -43270616.43 -43270616.24 0.0089 0.0011

Mercury -123182-10-02 05:18 J -43270528.47 -43270528.28 -43270528.09 0.0089 0.0005

Mercury -123182-12-29 08:54 J -43270440.32 -43270440.13 -43270439.94 0.0089 0.0001

Mercury -123181-03-26 12:30 J -43270352.17 -43270351.98 -43270351.79 0.0089 0.0007

Mercury -123181-06-22 16:06 J -43270264.02 -43270263.83 -43270263.64 0.0089 0.0013

Mercury -123181-09-18 19:27 J -43270175.87 -43270175.69 -43270175.49 0.0089 0.0020

Mercury -123181-12-15 23:03 J -43270087.72 -43270087.54 -43270087.35 0.0089 0.0026

Mercury -123180-03-14 02:39 J -43269999.56 -43269999.39 -43269999.20 0.0089 0.0032

Mercury -123180-06-10 06:15 J -43269911.40 -43269911.24 -43269911.06 0.0089 0.0038
 Mercury -123180-09-06 10:06 J -43269823.25 -43269823.08 -43269822.91 0.0089 0.0044
 Mercury -123180-12-03 13:42 J -43269735.09 -43269734.93 -43269734.77 0.0089 0.0051
 Mercury -123179-03-01 17:03 J -43269646.92 -43269646.79 -43269646.63 0.0089 0.0057
 Mercury -123179-05-28 20:39 J -43269558.76 -43269558.64 -43269558.49 0.0089 0.0063
 Mercury -123179-08-25 00:15 J -43269470.59 -43269470.49 -43269470.35 0.0089 0.0070
 Mercury -123179-11-21 04:06 J -43269382.42 -43269382.33 -43269382.22 0.0089 0.0075
 Mercury -123178-02-17 07:56 J -43269294.24 -43269294.17 -43269294.09 0.0089 0.0082
 Mercury -123178-05-16 11:03 J -43269206.05 -43269206.04 -43269205.99 0.0089 0.0088
 Jupiter -123168-10-15 08:54 J -43265401.36 -43265401.13 -43265400.78 0.0089 0.0077
 Mars -123136-12-22 21:37 J -43253644.66 -43253644.60 -43253644.51 0.0089 0.0086
 Mars -123134-11-17 19:56 J -43252949.83 -43252949.67 -43252949.44 0.0089 0.0070
 Mars -123132-10-12 20:25 J -43252254.87 -43252254.65 -43252254.36 0.0089 0.0053
 Mars -123130-09-07 23:32 J -43251559.80 -43251559.52 -43251559.21 0.0089 0.0035
 Mars -123128-08-03 03:51 J -43250864.65 -43250864.34 -43250864.02 0.0089 0.0017
 Mars -123126-06-29 09:08 J -43250169.44 -43250169.12 -43250168.80 0.0089 0.0001
 Moon -123126-12-27 00:01 J -43249988.65 -43249988.50 -43249988.30 0.0089 0.0065
 Earth -123126-12-27 03:37 J -43249988.50 -43249988.35 -43249988.16 0.0089 0.0067 *
 Earth -123125-12-28 15:08 J -43249621.10 -43249620.87 -43249620.64 0.0089 0.0040
 Moon -123125-12-28 18:15 J -43249620.96 -43249620.74 -43249620.51 0.0089 0.0044 *
 Mars -123124-05-24 16:34 J -43249474.13 -43249473.81 -43249473.49 0.0089 0.0019
 Venus -123124-06-11 16:49 J -43249455.82 -43249455.80 -43249455.73 0.0089 0.0087
 Moon -123124-12-30 23:18 J -43249253.77 -43249253.53 -43249253.28 0.0089 0.0010
 Earth -123124-12-31 02:10 J -43249253.66 -43249253.41 -43249253.16 0.0089 0.0014 *
 Venus -123123-01-23 06:30 J -43249230.31 -43249230.23 -43249230.11 0.0089 0.0080
 Venus -123123-09-05 20:10 J -43249004.77 -43249004.66 -43249004.52 0.0089 0.0073
 Earth -123122-01-02 12:44 J -43248886.22 -43248885.97 -43248885.71 0.0089 0.0013
 Moon -123122-01-02 14:39 J -43248886.15 -43248885.89 -43248885.63 0.0089 0.0009 *
 Venus -123122-04-19 09:37 J -43248779.23 -43248779.10 -43248778.94 0.0089 0.0066
 Mars -123122-04-20 00:30 J -43248778.75 -43248778.48 -43248778.16 0.0089 0.0038

Venus -123122-11-30 23:18 J -43248553.69 -43248553.53 -43248553.36 0.0089 0.0059
 Moon -123121-01-04 21:51 J -43248518.79 -43248518.59 -43248518.36 0.0089 0.0043
 Earth -123121-01-04 23:03 J -43248518.75 -43248518.54 -43248518.29 0.0089 0.0039 *
 Venus -123121-07-13 12:30 J -43248328.15 -43248327.98 -43248327.79 0.0089 0.0052
 Moon -123120-01-06 09:51 J -43248151.28 -43248151.09 -43248150.89 0.0089 0.0060
 Earth -123120-01-06 09:22 J -43248151.26 -43248151.11 -43248150.91 0.0089 0.0065 *
 Venus -123120-02-24 01:56 J -43248102.60 -43248102.42 -43248102.22 0.0089 0.0045
 Mars -123120-03-15 10:20 J -43248083.30 -43248083.07 -43248082.79 0.0089 0.0056
 Venus -123120-10-07 15:22 J -43247877.06 -43247876.86 -43247876.65 0.0089 0.0038
 Venus -123119-05-21 04:49 J -43247651.51 -43247651.30 -43247651.09 0.0089 0.0031
 Venus -123118-01-01 18:01 J -43247425.96 -43247425.75 -43247425.54 0.0088 0.0024
 Mars -123118-02-08 21:37 J -43247387.75 -43247387.60 -43247387.39 0.0088 0.0074
 Venus -123118-08-15 07:13 J -43247200.42 -43247200.20 -43247199.99 0.0088 0.0017
 Venus -123117-03-27 20:10 J -43246974.88 -43246974.66 -43246974.44 0.0088 0.0010
 Venus -123117-11-08 09:22 J -43246749.33 -43246749.11 -43246748.89 0.0088 0.0003
 Venus -123116-06-21 22:34 J -43246523.78 -43246523.56 -43246523.34 0.0088 0.0004
 Venus -123115-02-02 11:32 J -43246298.24 -43246298.02 -43246297.80 0.0088 0.0011
 Venus -123115-09-16 00:30 J -43246072.70 -43246072.48 -43246072.27 0.0088 0.0018
 Venus -123114-04-29 13:13 J -43245847.15 -43245846.95 -43245846.73 0.0088 0.0025
 Venus -123114-12-11 02:10 J -43245621.61 -43245621.41 -43245621.20 0.0088 0.0032
 Venus -123113-07-23 14:54 J -43245396.07 -43245395.88 -43245395.67 0.0088 0.0038
 Venus -123112-03-06 03:22 J -43245170.53 -43245170.36 -43245170.15 0.0088 0.0046
 Venus -123112-10-17 16:34 J -43244944.99 -43244944.81 -43244944.63 0.0088 0.0052
 Venus -123111-05-31 04:49 J -43244719.45 -43244719.30 -43244719.12 0.0088 0.0059
 Venus -123110-01-11 17:18 J -43244493.91 -43244493.78 -43244493.61 0.0088 0.0066
 Venus -123110-08-25 06:01 J -43244268.36 -43244268.25 -43244268.11 0.0088 0.0072
 Venus -123109-04-06 18:15 J -43244042.82 -43244042.74 -43244042.62 0.0088 0.0079
 Venus -123109-11-18 06:58 J -43243817.25 -43243817.21 -43243817.13 0.0088 0.0085
 Mercury -123105-12-12 20:54 J -43242331.63 -43242331.63 -43242331.62 0.0088 0.0088
 Mercury -123104-03-10 22:20 J -43242243.61 -43242243.57 -43242243.53 0.0088 0.0084

Mercury -123104-06-06 23:46 J -43242155.56 -43242155.51 -43242155.45 0.0088 0.0079

Mercury -123104-09-03 00:58 J -43242067.52 -43242067.46 -43242067.38 0.0088 0.0076

Mercury -123104-11-30 02:25 J -43241979.47 -43241979.40 -43241979.31 0.0088 0.0071

Mercury -123103-02-26 04:06 J -43241891.42 -43241891.33 -43241891.24 0.0088 0.0067

Mercury -123103-05-25 05:18 J -43241803.36 -43241803.28 -43241803.18 0.0088 0.0063

Mercury -123103-08-21 06:44 J -43241715.31 -43241715.22 -43241715.11 0.0088 0.0058

Mercury -123103-11-17 08:10 J -43241627.26 -43241627.16 -43241627.04 0.0088 0.0054

Mercury -123102-02-13 09:51 J -43241539.20 -43241539.09 -43241538.98 0.0088 0.0050

Mercury -123102-05-12 11:03 J -43241451.15 -43241451.04 -43241450.92 0.0088 0.0046

Mercury -123102-08-08 12:30 J -43241363.10 -43241362.98 -43241362.86 0.0088 0.0041

Mercury -123102-11-04 13:56 J -43241275.04 -43241274.92 -43241274.79 0.0088 0.0037

Mercury -123101-01-31 15:22 J -43241186.98 -43241186.86 -43241186.73 0.0088 0.0033

Mercury -123101-04-28 16:49 J -43241098.93 -43241098.80 -43241098.67 0.0088 0.0029

Mercury -123101-07-25 18:01 J -43241010.87 -43241010.75 -43241010.61 0.0088 0.0025

Mercury -123101-10-21 19:27 J -43240922.82 -43240922.69 -43240922.55 0.0088 0.0020

Mercury -123100-01-17 20:54 J -43240834.76 -43240834.63 -43240834.50 0.0088 0.0016

Mercury -123100-04-15 22:20 J -43240746.70 -43240746.57 -43240746.44 0.0088 0.0012

Mercury -123100-07-12 23:32 J -43240658.65 -43240658.52 -43240658.38 0.0088 0.0008

Mercury -123100-10-09 00:58 J -43240570.59 -43240570.46 -43240570.32 0.0088 0.0004

Mercury -123099-01-05 02:25 J -43240482.54 -43240482.40 -43240482.27 0.0088 0.0001

Mercury -123099-04-03 03:51 J -43240394.48 -43240394.34 -43240394.21 0.0088 0.0005

Mercury -123099-06-30 05:03 J -43240306.42 -43240306.29 -43240306.15 0.0088 0.0009

Mercury -123099-09-26 06:30 J -43240218.36 -43240218.23 -43240218.10 0.0088 0.0013

Mercury -123099-12-23 07:56 J -43240130.31 -43240130.17 -43240130.04 0.0088 0.0018

Mercury -123098-03-21 09:08 J -43240042.25 -43240042.12 -43240041.99 0.0088 0.0022

Mercury -123098-06-17 10:20 J -43239954.19 -43239954.07 -43239953.93 0.0088 0.0026

Mercury -123098-09-13 11:46 J -43239866.13 -43239866.01 -43239865.88 0.0088 0.0030

Mercury -123098-12-10 13:13 J -43239778.07 -43239777.95 -43239777.83 0.0088 0.0034

Mercury -123097-03-07 14:25 J -43239690.01 -43239689.90 -43239689.77 0.0088 0.0038

Mercury -123097-06-03 15:51 J -43239601.95 -43239601.84 -43239601.72 0.0088 0.0042

Mercury -123097-08-30 17:18 J -43239513.89 -43239513.78 -43239513.67 0.0088 0.0046
 Mercury -123097-11-26 18:30 J -43239425.83 -43239425.73 -43239425.62 0.0088 0.0051
 Mercury -123096-02-22 19:56 J -43239337.77 -43239337.67 -43239337.56 0.0088 0.0055
 Mercury -123096-05-21 21:22 J -43239249.71 -43239249.61 -43239249.51 0.0088 0.0059
 Mercury -123096-08-17 22:20 J -43239161.65 -43239161.57 -43239161.46 0.0088 0.0063
 Mercury -123096-11-13 23:46 J -43239073.59 -43239073.51 -43239073.42 0.0088 0.0067
 Mercury -123095-02-10 00:58 J -43238985.52 -43238985.46 -43238985.37 0.0088 0.0071
 Mercury -123095-05-09 02:25 J -43238897.46 -43238897.40 -43238897.32 0.0088 0.0075
 Mercury -123095-08-05 03:37 J -43238809.39 -43238809.35 -43238809.28 0.0088 0.0080
 Mercury -123095-11-01 05:03 J -43238721.32 -43238721.29 -43238721.24 0.0088 0.0083
 Mercury -123094-01-28 06:15 J -43238633.24 -43238633.24 -43238633.21 0.0088 0.0088
 Mars -123052-10-03 17:46 J -43223043.90 -43223043.76 -43223043.57 0.0089 0.0075
 Mars -123050-08-29 12:01 J -43222349.21 -43222349.00 -43222348.74 0.0089 0.0058
 Mars -123048-07-24 04:06 J -43221654.59 -43221654.33 -43221654.03 0.0089 0.0041
 Mars -123046-06-18 19:13 J -43220959.99 -43220959.70 -43220959.39 0.0089 0.0024
 Mars -123044-05-13 09:51 J -43220265.40 -43220265.09 -43220264.78 0.0089 0.0007
 Moon -123043-06-16 21:22 J -43219865.71 -43219865.61 -43219865.46 0.0089 0.0077
 Earth -123043-06-17 00:58 J -43219865.58 -43219865.46 -43219865.30 0.0089 0.0075 *
 Mars -123042-04-07 22:06 J -43219570.88 -43219570.58 -43219570.27 0.0089 0.0011
 Earth -123042-06-19 12:30 J -43219498.17 -43219497.98 -43219497.74 0.0089 0.0049
 Moon -123042-06-19 16:34 J -43219498.02 -43219497.81 -43219497.58 0.0089 0.0045 *
 Venus -123041-03-04 01:42 J -43219239.50 -43219239.43 -43219239.35 0.0089 0.0083
 Moon -123041-06-20 21:51 J -43219130.82 -43219130.59 -43219130.33 0.0089 0.0025
 Earth -123041-06-21 00:58 J -43219130.70 -43219130.46 -43219130.20 0.0089 0.0022 *
 Venus -123041-10-15 13:42 J -43219014.02 -43219013.93 -43219013.80 0.0089 0.0077
 Mars -123040-03-02 08:54 J -43218876.40 -43218876.13 -43218875.82 0.0089 0.0028
 Venus -123040-05-29 02:25 J -43218788.52 -43218788.40 -43218788.26 0.0089 0.0070
 Earth -123040-06-23 13:27 J -43218763.20 -43218762.94 -43218762.68 0.0089 0.0005
 Moon -123040-06-23 16:06 J -43218763.09 -43218762.83 -43218762.56 0.0089 0.0008 *
 Venus -123039-01-09 14:39 J -43218563.02 -43218562.89 -43218562.72 0.0089 0.0064

Moon -123039-06-25 23:32 J -43218395.75 -43218395.52 -43218395.27 0.0089 0.0028
 Earth -123039-06-26 01:42 J -43218395.67 -43218395.43 -43218395.18 0.0089 0.0032 *
 Venus -123039-08-23 03:22 J -43218337.51 -43218337.36 -43218337.18 0.0089 0.0057
 Mars -123038-01-25 19:27 J -43218181.95 -43218181.69 -43218181.42 0.0089 0.0044
 Venus -123038-04-05 16:06 J -43218112.00 -43218111.83 -43218111.64 0.0089 0.0050
 Earth -123038-06-28 13:42 J -43218028.10 -43218027.93 -43218027.71 0.0089 0.0059
 Moon -123038-06-28 14:54 J -43218028.06 -43218027.88 -43218027.68 0.0089 0.0062 *
 Venus -123038-11-17 05:03 J -43217886.48 -43217886.29 -43217886.10 0.0089 0.0043
 Venus -123037-06-29 17:03 J -43217660.97 -43217660.79 -43217660.57 0.0089 0.0037
 Moon -123037-06-30 02:10 J -43217660.48 -43217660.41 -43217660.29 0.0089 0.0082
 Earth -123037-06-30 02:25 J -43217660.44 -43217660.40 -43217660.31 0.0089 0.0086 *
 Mars -123037-12-20 03:22 J -43217487.55 -43217487.36 -43217487.11 0.0089 0.0061
 Venus -123036-02-10 05:46 J -43217435.45 -43217435.26 -43217435.04 0.0089 0.0030
 Venus -123036-09-23 18:44 J -43217209.93 -43217209.72 -43217209.51 0.0089 0.0023
 Venus -123035-05-07 07:42 J -43216984.39 -43216984.18 -43216983.96 0.0089 0.0016
 Mars -123035-11-14 10:49 J -43216793.20 -43216793.05 -43216792.89 0.0089 0.0076
 Venus -123035-12-18 20:25 J -43216758.86 -43216758.65 -43216758.43 0.0089 0.0009
 Venus -123034-08-01 09:08 J -43216533.33 -43216533.12 -43216532.90 0.0089 0.0003
 Venus -123033-03-13 22:06 J -43216307.80 -43216307.58 -43216307.36 0.0089 0.0005
 Venus -123033-10-25 10:49 J -43216082.26 -43216082.05 -43216081.83 0.0089 0.0012
 Venus -123032-06-07 23:46 J -43215856.72 -43215856.51 -43215856.29 0.0089 0.0019
 Venus -123031-01-19 12:44 J -43215631.17 -43215630.97 -43215630.75 0.0089 0.0026
 Venus -123031-09-02 01:42 J -43215405.62 -43215405.43 -43215405.21 0.0089 0.0033
 Venus -123030-04-15 14:54 J -43215180.06 -43215179.88 -43215179.67 0.0089 0.0040
 Venus -123030-11-27 04:06 J -43214954.51 -43214954.33 -43214954.13 0.0089 0.0047
 Venus -123029-07-09 17:03 J -43214728.95 -43214728.79 -43214728.60 0.0089 0.0054
 Venus -123028-02-20 06:15 J -43214503.38 -43214503.24 -43214503.06 0.0089 0.0061
 Venus -123028-10-03 19:42 J -43214277.81 -43214277.68 -43214277.52 0.0089 0.0068
 Venus -123027-05-17 09:08 J -43214052.22 -43214052.12 -43214051.98 0.0089 0.0075
 Venus -123027-12-28 22:34 J -43213826.62 -43213826.56 -43213826.45 0.0089 0.0082

Venus -123026-08-11 12:30 J -43213601.00 -43213600.98 -43213600.96 0.0089 0.0088

Mercury -123020-02-10 03:08 J -43211591.42 -43211591.37 -43211591.32 0.0089 0.0086

Mercury -123020-05-09 06:01 J -43211503.31 -43211503.25 -43211503.14 0.0089 0.0081

Mercury -123020-08-05 09:37 J -43211415.19 -43211415.10 -43211414.98 0.0089 0.0074

Mercury -123020-11-01 13:13 J -43211327.06 -43211326.95 -43211326.82 0.0089 0.0068

Mercury -123019-01-28 16:34 J -43211238.93 -43211238.81 -43211238.66 0.0089 0.0062

Mercury -123019-04-26 20:10 J -43211150.79 -43211150.66 -43211150.50 0.0089 0.0056

Mercury -123019-07-23 23:46 J -43211062.66 -43211062.51 -43211062.35 0.0089 0.0050

Mercury -123019-10-20 03:08 J -43210974.52 -43210974.37 -43210974.19 0.0089 0.0044

Mercury -123018-01-16 06:44 J -43210886.38 -43210886.22 -43210886.04 0.0089 0.0038

Mercury -123018-04-14 10:20 J -43210798.24 -43210798.07 -43210797.89 0.0089 0.0032

Mercury -123018-07-11 13:42 J -43210710.10 -43210709.93 -43210709.73 0.0089 0.0026

Mercury -123018-10-07 17:18 J -43210621.96 -43210621.78 -43210621.58 0.0089 0.0020

Mercury -123017-01-03 20:54 J -43210533.81 -43210533.63 -43210533.43 0.0089 0.0014

Mercury -123017-04-01 00:30 J -43210445.67 -43210445.48 -43210445.28 0.0089 0.0008

Mercury -123017-06-28 04:06 J -43210357.52 -43210357.33 -43210357.13 0.0089 0.0002

Mercury -123017-09-24 07:42 J -43210269.37 -43210269.18 -43210268.99 0.0089 0.0005

Mercury -123017-12-21 11:18 J -43210181.22 -43210181.03 -43210180.84 0.0089 0.0011

Mercury -123016-03-19 14:54 J -43210093.07 -43210092.88 -43210092.69 0.0089 0.0017

Mercury -123016-06-15 18:30 J -43210004.92 -43210004.73 -43210004.54 0.0089 0.0023

Mercury -123016-09-11 22:06 J -43209916.76 -43209916.58 -43209916.40 0.0089 0.0029

Mercury -123016-12-09 01:42 J -43209828.61 -43209828.43 -43209828.25 0.0089 0.0035

Mercury -123015-03-07 05:03 J -43209740.45 -43209740.29 -43209740.11 0.0089 0.0042

Mercury -123015-06-03 08:39 J -43209652.29 -43209652.14 -43209651.97 0.0089 0.0048

Mercury -123015-08-30 12:15 J -43209564.13 -43209563.99 -43209563.82 0.0089 0.0054

Mercury -123015-11-26 15:51 J -43209475.97 -43209475.84 -43209475.68 0.0089 0.0061

Mercury -123014-02-22 19:42 J -43209387.80 -43209387.68 -43209387.55 0.0089 0.0066

Mercury -123014-05-21 23:03 J -43209299.63 -43209299.54 -43209299.41 0.0089 0.0073

Mercury -123014-08-18 02:39 J -43209211.46 -43209211.39 -43209211.28 0.0089 0.0079

Mercury -123014-11-14 06:30 J -43209123.27 -43209123.23 -43209123.16 0.0089 0.0085

123RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 123rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-122970-07-02 11:18 J	-43193187.18	-43193187.03	-43193186.83	0.0089	0.0073		
Mars	-122968-05-27 10:06 J	-43192492.29	-43192492.08	-43192491.80	0.0089	0.0057		
Mars	-122966-04-22 10:49 J	-43191797.31	-43191797.05	-43191796.74	0.0089	0.0040		
Mars	-122964-03-17 13:56 J	-43191102.23	-43191101.92	-43191101.61	0.0089	0.0022		
Mars	-122962-02-10 18:44 J	-43190407.03	-43190406.72	-43190406.39	0.0089	0.0005		
Earth	-122962-12-26 13:42 J	-43190088.03	-43190087.93	-43190087.78	0.0089	0.0078		
Moon	-122962-12-26 16:34 J	-43190087.92	-43190087.81	-43190087.63	0.0089	0.0074	*	
Moon	-122961-12-27 23:32 J	-43189720.71	-43189720.52	-43189720.31	0.0089	0.0054		
Earth	-122961-12-28 01:27 J	-43189720.63	-43189720.44	-43189720.21	0.0089	0.0051	*	
Mars	-122960-01-06 00:15 J	-43189711.80	-43189711.49	-43189711.16	0.0089	0.0014		
Venus	-122960-09-13 03:37 J	-43189461.39	-43189461.35	-43189461.28	0.0089	0.0086		
Earth	-122960-12-30 12:44 J	-43189353.21	-43189352.97	-43189352.71	0.0089	0.0024		
Moon	-122960-12-30 14:39 J	-43189353.14	-43189352.89	-43189352.63	0.0089	0.0022	*	
Venus	-122959-04-26 17:32 J	-43189235.86	-43189235.77	-43189235.67	0.0089	0.0079		
Mars	-122959-12-02 07:27 J	-43189016.47	-43189016.19	-43189015.87	0.0089	0.0032		
Venus	-122959-12-08 07:13 J	-43189010.33	-43189010.20	-43189010.07	0.0089	0.0072		

Moon -122958-01-01 23:32 J -43188985.76 -43188985.52 -43188985.27 0.0089 0.0002
 Earth -122958-01-01 23:46 J -43188985.76 -43188985.51 -43188985.25 0.0089 0.0003 *
 Venus -122958-07-21 20:10 J -43188784.79 -43188784.66 -43188784.49 0.0089 0.0066
 Moon -122957-01-04 09:51 J -43188618.32 -43188618.09 -43188617.82 0.0089 0.0031
 Earth -122957-01-04 10:20 J -43188618.30 -43188618.07 -43188617.81 0.0089 0.0029 *
 Venus -122957-03-03 09:37 J -43188559.25 -43188559.10 -43188558.91 0.0089 0.0059
 Venus -122957-10-14 23:18 J -43188333.70 -43188333.53 -43188333.34 0.0089 0.0052
 Mars -122957-10-27 16:20 J -43188321.08 -43188320.82 -43188320.54 0.0089 0.0049
 Earth -122956-01-05 20:39 J -43188250.82 -43188250.64 -43188250.42 0.0089 0.0055
 Moon -122956-01-05 22:20 J -43188250.77 -43188250.57 -43188250.37 0.0089 0.0053 *
 Venus -122956-05-28 12:44 J -43188108.15 -43188107.97 -43188107.77 0.0089 0.0045
 Moon -122955-01-08 04:20 J -43187883.39 -43187883.32 -43187883.20 0.0089 0.0083
 Earth -122955-01-08 06:58 J -43187883.29 -43187883.21 -43187883.08 0.0089 0.0081 *
 Venus -122955-01-09 01:56 J -43187882.61 -43187882.42 -43187882.21 0.0089 0.0038
 Venus -122955-08-22 15:08 J -43187657.06 -43187656.87 -43187656.65 0.0089 0.0031
 Mars -122955-09-23 01:27 J -43187625.62 -43187625.44 -43187625.19 0.0089 0.0067
 Venus -122954-04-05 04:34 J -43187431.52 -43187431.31 -43187431.09 0.0089 0.0024
 Venus -122954-11-16 18:01 J -43187205.97 -43187205.75 -43187205.53 0.0089 0.0017
 Venus -122953-06-29 07:13 J -43186980.42 -43186980.20 -43186979.98 0.0088 0.0010
 Mars -122953-08-18 12:58 J -43186930.04 -43186929.96 -43186929.83 0.0088 0.0084
 Venus -122952-02-09 20:10 J -43186754.88 -43186754.66 -43186754.44 0.0088 0.0003
 Venus -122952-09-23 09:22 J -43186529.33 -43186529.11 -43186528.89 0.0088 0.0004
 Venus -122951-05-06 22:20 J -43186303.78 -43186303.57 -43186303.34 0.0088 0.0011
 Venus -122951-12-18 11:18 J -43186078.23 -43186078.03 -43186077.80 0.0088 0.0019
 Venus -122950-08-01 00:30 J -43185852.69 -43185852.48 -43185852.27 0.0088 0.0025
 Venus -122949-03-13 13:13 J -43185627.15 -43185626.95 -43185626.74 0.0088 0.0032
 Venus -122949-10-25 02:10 J -43185401.60 -43185401.41 -43185401.20 0.0088 0.0039
 Venus -122948-06-07 14:54 J -43185176.05 -43185175.88 -43185175.68 0.0088 0.0046
 Venus -122947-01-19 03:37 J -43184950.51 -43184950.35 -43184950.16 0.0088 0.0052
 Venus -122947-09-01 16:34 J -43184724.97 -43184724.81 -43184724.64 0.0088 0.0059

Venus -122946-04-15 04:49 J -43184499.42 -43184499.30 -43184499.13 0.0088 0.0066

Venus -122946-11-26 18:01 J -43184273.87 -43184273.75 -43184273.62 0.0088 0.0072

Venus -122945-07-09 06:01 J -43184048.32 -43184048.25 -43184048.12 0.0088 0.0079

Venus -122944-02-19 18:44 J -43183822.76 -43183822.72 -43183822.64 0.0088 0.0085

Mercury -122940-09-08 20:39 J -43182160.66 -43182160.64 -43182160.60 0.0088 0.0086

Mercury -122940-12-05 22:06 J -43182072.62 -43182072.58 -43182072.52 0.0088 0.0081

Mercury -122939-03-03 23:18 J -43181984.58 -43181984.53 -43181984.45 0.0088 0.0078

Mercury -122939-05-31 00:58 J -43181896.53 -43181896.46 -43181896.38 0.0088 0.0073

Mercury -122939-08-27 02:25 J -43181808.48 -43181808.40 -43181808.31 0.0088 0.0068

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Mercury -122938-02-19 05:03 J -43181632.37 -43181632.29 -43181632.18 0.0088 0.0061

Mercury -122938-05-18 06:44 J -43181544.32 -43181544.22 -43181544.11 0.0088 0.0056

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Mercury -122937-02-06 10:49 J -43181280.16 -43181280.05 -43181279.92 0.0088 0.0043

Mercury -122937-05-04 12:30 J -43181192.10 -43181191.98 -43181191.86 0.0088 0.0039

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Mercury -122935-01-10 22:06 J -43180575.71 -43180575.58 -43180575.44 0.0088 0.0009

Mercury -122935-04-08 23:32 J -43180487.65 -43180487.52 -43180487.38 0.0088 0.0005

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Mercury -122934-12-16 09:08 J -43179871.25 -43179871.12 -43179870.99 0.0088 0.0024
 Mercury -122933-03-13 10:20 J -43179783.19 -43179783.07 -43179782.94 0.0088 0.0029
 Mercury -122933-06-09 11:46 J -43179695.13 -43179695.01 -43179694.88 0.0088 0.0032
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 Mercury -122933-12-02 14:10 J -43179519.01 -43179518.91 -43179518.78 0.0088 0.0042
 Mercury -122932-02-28 15:37 J -43179430.96 -43179430.85 -43179430.73 0.0088 0.0045
 Mercury -122932-05-27 17:03 J -43179342.90 -43179342.79 -43179342.67 0.0088 0.0049
 Mercury -122932-08-23 18:15 J -43179254.83 -43179254.74 -43179254.62 0.0088 0.0053
 Mercury -122932-11-19 19:42 J -43179166.77 -43179166.68 -43179166.57 0.0088 0.0057
 Mercury -122931-02-15 20:54 J -43179078.71 -43179078.63 -43179078.52 0.0088 0.0062
 Mercury -122931-05-14 22:20 J -43178990.65 -43178990.57 -43178990.47 0.0088 0.0065
 Mercury -122931-08-10 23:46 J -43178902.59 -43178902.51 -43178902.43 0.0088 0.0069
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 Mercury -122930-02-03 02:25 J -43178726.46 -43178726.40 -43178726.33 0.0088 0.0077
 Mercury -122930-05-02 03:37 J -43178638.39 -43178638.35 -43178638.29 0.0088 0.0082
 Mercury -122930-07-29 05:03 J -43178550.31 -43178550.29 -43178550.26 0.0088 0.0086
 Mars -122888-05-18 08:39 J -43163281.24 -43163281.14 -43163280.95 0.0088 0.0079
 Mars -122886-04-13 04:49 J -43162586.50 -43162586.30 -43162586.05 0.0089 0.0062
 Mars -122884-03-07 23:32 J -43161891.77 -43161891.52 -43161891.24 0.0089 0.0045
 Mars -122882-01-31 15:51 J -43161197.13 -43161196.84 -43161196.54 0.0089 0.0028
 Mars -122881-12-26 06:01 J -43160502.55 -43160502.25 -43160501.93 0.0089 0.0012
 Earth -122879-06-16 10:20 J -43159965.11 -43159965.07 -43159964.97 0.0089 0.0086
 Mars -122879-11-20 19:56 J -43159807.97 -43159807.67 -43159807.35 0.0089 0.0006
 Moon -122878-06-18 19:13 J -43159597.88 -43159597.70 -43159597.49 0.0089 0.0056
 Earth -122878-06-18 22:20 J -43159597.75 -43159597.57 -43159597.37 0.0089 0.0059 *
 Venus -122877-06-05 12:58 J -43159245.01 -43159244.96 -43159244.86 0.0089 0.0083
 Earth -122877-06-20 09:51 J -43159230.31 -43159230.09 -43159229.83 0.0089 0.0033
 Moon -122877-06-20 12:30 J -43159230.21 -43159229.98 -43159229.73 0.0089 0.0036 *
 Mars -122877-10-15 08:10 J -43159113.45 -43159113.16 -43159112.86 0.0089 0.0022
 Venus -122876-01-17 01:42 J -43159019.53 -43159019.43 -43159019.31 0.0089 0.0076

Moon -122876-06-22 21:08 J -43158862.87 -43158862.62 -43158862.37 0.0089 0.0003
 Earth -122876-06-22 22:20 J -43158862.83 -43158862.57 -43158862.31 0.0089 0.0006 *
 Venus -122876-08-30 13:56 J -43158794.04 -43158793.92 -43158793.77 0.0089 0.0070
 Venus -122875-04-13 02:39 J -43158568.53 -43158568.39 -43158568.23 0.0089 0.0063
 Earth -122875-06-25 10:20 J -43158495.32 -43158495.07 -43158494.82 0.0089 0.0021
 Moon -122875-06-25 11:03 J -43158495.30 -43158495.04 -43158494.77 0.0089 0.0019 *
 Mars -122875-09-09 18:01 J -43158419.00 -43158418.75 -43158418.45 0.0089 0.0039
 Venus -122875-11-24 14:54 J -43158343.03 -43158342.88 -43158342.69 0.0089 0.0057
 Earth -122874-06-27 22:34 J -43158127.77 -43158127.56 -43158127.33 0.0089 0.0048
 Moon -122874-06-27 22:49 J -43158127.73 -43158127.55 -43158127.32 0.0089 0.0051 *
 Venus -122874-07-08 03:37 J -43158117.52 -43158117.35 -43158117.16 0.0089 0.0050
 Venus -122873-02-18 16:06 J -43157892.01 -43157891.83 -43157891.63 0.0089 0.0043
 Moon -122873-06-29 09:22 J -43157760.24 -43157760.11 -43157759.93 0.0089 0.0073
 Earth -122873-06-29 11:03 J -43157760.15 -43157760.04 -43157759.88 0.0089 0.0075 *
 Mars -122873-08-04 04:06 J -43157724.54 -43157724.33 -43157724.06 0.0089 0.0055
 Venus -122873-10-01 05:03 J -43157666.49 -43157666.29 -43157666.09 0.0089 0.0036
 Venus -122872-05-14 17:32 J -43157440.97 -43157440.77 -43157440.55 0.0089 0.0030
 Venus -122872-12-26 06:15 J -43157215.44 -43157215.24 -43157215.02 0.0089 0.0023
 Mars -122871-06-29 13:13 J -43157030.12 -43157029.95 -43157029.75 0.0089 0.0070
 Venus -122871-08-08 18:58 J -43156989.92 -43156989.71 -43156989.49 0.0089 0.0016
 Venus -122870-03-22 07:56 J -43156764.39 -43156764.17 -43156763.95 0.0089 0.0009
 Venus -122870-11-02 20:39 J -43156538.86 -43156538.64 -43156538.42 0.0089 0.0002
 Mars -122869-05-23 20:39 J -43156335.71 -43156335.64 -43156335.54 0.0089 0.0085
 Venus -122869-06-15 09:37 J -43156313.32 -43156313.10 -43156312.88 0.0089 0.0005
 Venus -122868-01-26 22:20 J -43156087.78 -43156087.57 -43156087.35 0.0089 0.0012
 Venus -122868-09-09 11:03 J -43155862.24 -43155862.04 -43155861.82 0.0089 0.0019
 Venus -122867-04-23 00:15 J -43155636.69 -43155636.49 -43155636.27 0.0089 0.0026
 Venus -122867-12-04 12:58 J -43155411.15 -43155410.96 -43155410.74 0.0089 0.0033
 Venus -122866-07-18 01:56 J -43155185.60 -43155185.42 -43155185.21 0.0089 0.0040
 Venus -122865-02-28 14:54 J -43154960.05 -43154959.88 -43154959.67 0.0089 0.0047

Venus -122865-10-11 04:06 J -43154734.49 -43154734.33 -43154734.14 0.0089 0.0054

Venus -122864-05-24 17:18 J -43154508.92 -43154508.78 -43154508.60 0.0089 0.0061

Venus -122863-01-05 06:58 J -43154283.35 -43154283.21 -43154283.06 0.0089 0.0067

Venus -122863-08-18 20:10 J -43154057.77 -43154057.66 -43154057.53 0.0089 0.0074

Venus -122862-04-01 09:22 J -43153832.18 -43153832.11 -43153832.01 0.0089 0.0081

Venus -122862-11-12 22:49 J -43153606.56 -43153606.55 -43153606.51 0.0089 0.0088

Mercury -122856-08-10 22:06 J -43151508.59 -43151508.58 -43151508.54 0.0089 0.0089

Mercury -122856-11-07 01:42 J -43151420.49 -43151420.43 -43151420.35 0.0089 0.0083

Mercury -122855-02-03 05:18 J -43151332.37 -43151332.28 -43151332.19 0.0089 0.0077

Mercury -122855-05-02 08:10 J -43151244.25 -43151244.16 -43151244.02 0.0089 0.0072

Mercury -122855-07-29 11:46 J -43151156.12 -43151156.01 -43151155.86 0.0089 0.0065

Mercury -122855-10-25 15:22 J -43151067.99 -43151067.86 -43151067.71 0.0089 0.0059

Mercury -122854-01-21 18:44 J -43150979.86 -43150979.72 -43150979.55 0.0089 0.0053

Mercury -122854-04-19 22:20 J -43150891.72 -43150891.57 -43150891.40 0.0089 0.0047

Mercury -122854-07-17 01:42 J -43150803.58 -43150803.43 -43150803.25 0.0089 0.0042

Mercury -122854-10-13 05:18 J -43150715.44 -43150715.28 -43150715.09 0.0089 0.0035

Mercury -122853-01-09 08:54 J -43150627.30 -43150627.13 -43150626.94 0.0089 0.0029

Mercury -122853-04-06 12:30 J -43150539.16 -43150538.98 -43150538.79 0.0089 0.0023

Mercury -122853-07-03 15:51 J -43150451.02 -43150450.84 -43150450.64 0.0089 0.0017

Mercury -122853-09-29 19:27 J -43150362.87 -43150362.69 -43150362.49 0.0089 0.0011

Mercury -122853-12-26 23:03 J -43150274.73 -43150274.54 -43150274.34 0.0089 0.0005

Mercury -122852-03-25 02:39 J -43150186.58 -43150186.39 -43150186.20 0.0089 0.0002

Mercury -122852-06-21 06:15 J -43150098.43 -43150098.24 -43150098.05 0.0089 0.0008

Mercury -122852-09-17 09:37 J -43150010.28 -43150010.10 -43150009.90 0.0089 0.0014

Mercury -122852-12-14 13:13 J -43149922.13 -43149921.95 -43149921.75 0.0089 0.0020

Mercury -122851-03-12 16:49 J -43149833.98 -43149833.80 -43149833.61 0.0089 0.0026

Mercury -122851-06-08 20:25 J -43149745.82 -43149745.65 -43149745.46 0.0089 0.0032

Mercury -122851-09-05 00:01 J -43149657.67 -43149657.50 -43149657.32 0.0089 0.0038

Mercury -122851-12-02 03:37 J -43149569.51 -43149569.35 -43149569.18 0.0089 0.0045

Mercury -122850-02-28 06:58 J -43149481.35 -43149481.21 -43149481.03 0.0089 0.0051

Mercury -122850-05-27 10:34 J -43149393.19 -43149393.06 -43149392.89 0.0089 0.0057

Mercury -122850-08-23 14:10 J -43149305.03 -43149304.91 -43149304.76 0.0089 0.0064

Mercury -122850-11-19 18:01 J -43149216.86 -43149216.75 -43149216.62 0.0089 0.0069

Mercury -122849-02-15 21:37 J -43149128.69 -43149128.60 -43149128.49 0.0089 0.0076

Mercury -122849-05-14 00:58 J -43149040.51 -43149040.46 -43149040.36 0.0089 0.0082

Mercury -122849-08-10 04:34 J -43148952.31 -43148952.31 -43148952.25 0.0089 0.0089

Mars -122806-02-14 00:01 J -43133424.64 -43133424.50 -43133424.32 0.0089 0.0076

Mars -122804-01-08 23:03 J -43132729.75 -43132729.54 -43132729.28 0.0089 0.0060

Mars -122803-12-04 23:03 J -43132034.79 -43132034.54 -43132034.24 0.0089 0.0044

Mars -122801-10-30 00:01 J -43131339.79 -43131339.50 -43131339.18 0.0089 0.0027

Mars -122799-09-25 03:08 J -43130644.68 -43130644.37 -43130644.05 0.0089 0.0010

Earth -122798-12-25 23:32 J -43130187.52 -43130187.52 -43130187.49 0.0089 0.0088

Mars -122797-08-20 07:56 J -43129949.49 -43129949.17 -43129948.84 0.0089 0.0008

Earth -122797-12-27 11:03 J -43129820.21 -43129820.04 -43129819.84 0.0089 0.0062

Moon -122797-12-27 11:46 J -43129820.20 -43129820.01 -43129819.80 0.0089 0.0059 *

Venus -122796-12-15 13:27 J -43129466.97 -43129466.94 -43129466.86 0.0089 0.0086

Earth -122796-12-29 23:03 J -43129452.78 -43129452.54 -43129452.31 0.0089 0.0035

Moon -122796-12-29 22:34 J -43129452.77 -43129452.56 -43129452.32 0.0089 0.0039 *

Mars -122795-07-16 13:56 J -43129254.23 -43129253.92 -43129253.61 0.0089 0.0025

Venus -122795-07-29 03:08 J -43129241.45 -43129241.37 -43129241.25 0.0089 0.0079

Moon -122794-01-01 09:08 J -43129085.38 -43129085.12 -43129084.85 0.0089 0.0005

Earth -122794-01-01 10:20 J -43129085.32 -43129085.07 -43129084.81 0.0089 0.0009 *

Venus -122794-03-11 17:03 J -43129015.91 -43129015.79 -43129015.65 0.0089 0.0072

Venus -122794-10-23 06:44 J -43128790.36 -43128790.22 -43128790.06 0.0089 0.0065

Earth -122793-01-03 21:08 J -43128717.87 -43128717.62 -43128717.36 0.0089 0.0018

Moon -122793-01-03 23:18 J -43128717.77 -43128717.53 -43128717.28 0.0089 0.0015 *

Venus -122793-06-04 20:25 J -43128564.82 -43128564.65 -43128564.48 0.0089 0.0058

Mars -122793-06-10 20:39 J -43128558.90 -43128558.64 -43128558.33 0.0089 0.0043

Moon -122792-01-05 05:03 J -43128350.49 -43128350.29 -43128350.05 0.0089 0.0049

Earth -122792-01-05 07:27 J -43128350.39 -43128350.19 -43128349.94 0.0089 0.0045 *

Venus -122792-01-16 09:22 J -43128339.27 -43128339.11 -43128338.91 0.0089 0.0052
 Venus -122792-08-29 22:49 J -43128113.72 -43128113.55 -43128113.34 0.0089 0.0045
 Earth -122791-01-07 18:01 J -43127982.88 -43127982.75 -43127982.57 0.0089 0.0071
 Moon -122791-01-07 21:37 J -43127982.75 -43127982.60 -43127982.42 0.0089 0.0066 *
 Venus -122791-04-12 12:15 J -43127888.18 -43127887.99 -43127887.77 0.0089 0.0038
 Mars -122791-05-07 05:46 J -43127863.47 -43127863.26 -43127862.99 0.0089 0.0060
 Venus -122791-11-24 01:42 J -43127662.63 -43127662.43 -43127662.21 0.0089 0.0031
 Venus -122790-07-07 14:54 J -43127437.08 -43127436.88 -43127436.65 0.0089 0.0024
 Venus -122789-02-18 04:20 J -43127211.54 -43127211.32 -43127211.10 0.0089 0.0017
 Mars -122789-04-01 16:06 J -43127167.97 -43127167.83 -43127167.65 0.0089 0.0077
 Venus -122789-09-30 17:32 J -43126985.99 -43126985.77 -43126985.55 0.0089 0.0010
 Venus -122788-05-14 06:44 J -43126760.44 -43126760.22 -43126760.00 0.0089 0.0003
 Venus -122788-12-25 19:56 J -43126534.89 -43126534.67 -43126534.45 0.0088 0.0004
 Venus -122787-08-08 08:54 J -43126309.35 -43126309.13 -43126308.91 0.0088 0.0011
 Venus -122786-03-21 21:37 J -43126083.80 -43126083.60 -43126083.37 0.0088 0.0019
 Venus -122786-11-02 11:03 J -43125858.25 -43125858.04 -43125857.83 0.0088 0.0025
 Venus -122785-06-15 00:01 J -43125632.70 -43125632.50 -43125632.29 0.0088 0.0032
 Venus -122784-01-26 12:44 J -43125407.16 -43125406.97 -43125406.76 0.0088 0.0039
 Venus -122784-09-09 01:27 J -43125181.61 -43125181.44 -43125181.24 0.0088 0.0045
 Venus -122783-04-22 14:39 J -43124956.07 -43124955.89 -43124955.71 0.0088 0.0052
 Venus -122783-12-04 03:08 J -43124730.52 -43124730.37 -43124730.19 0.0088 0.0059
 Venus -122782-07-17 15:51 J -43124504.97 -43124504.84 -43124504.68 0.0088 0.0065
 Venus -122781-02-28 04:34 J -43124279.42 -43124279.31 -43124279.17 0.0088 0.0072
 Venus -122781-10-10 17:03 J -43124053.87 -43124053.79 -43124053.67 0.0088 0.0079
 Venus -122780-05-24 05:46 J -43123828.30 -43123828.26 -43123828.18 0.0088 0.0085
 Mercury -122775-03-09 18:58 J -43122077.72 -43122077.71 -43122077.70 0.0088 0.0088
 Mercury -122775-06-05 20:10 J -43121989.69 -43121989.66 -43121989.61 0.0088 0.0084
 Mercury -122775-09-01 21:37 J -43121901.65 -43121901.60 -43121901.53 0.0088 0.0079
 Mercury -122775-11-28 23:03 J -43121813.60 -43121813.54 -43121813.46 0.0088 0.0075
 Mercury -122774-02-25 00:44 J -43121725.55 -43121725.47 -43121725.39 0.0088 0.0071

Mercury -122774-05-24 01:56 J -43121637.50 -43121637.42 -43121637.32 0.0088 0.0067

Mercury -122774-08-20 03:22 J -43121549.45 -43121549.36 -43121549.26 0.0088 0.0062

Mercury -122774-11-16 04:49 J -43121461.39 -43121461.30 -43121461.19 0.0088 0.0058

Mercury -122773-02-12 06:15 J -43121373.34 -43121373.24 -43121373.13 0.0088 0.0054

Mercury -122773-05-10 07:42 J -43121285.29 -43121285.18 -43121285.06 0.0088 0.0049

Mercury -122773-08-06 09:08 J -43121197.23 -43121197.12 -43121197.00 0.0088 0.0045

Mercury -122773-11-02 10:20 J -43121109.18 -43121109.07 -43121108.94 0.0088 0.0042

Mercury -122772-01-29 12:01 J -43121021.12 -43121021.00 -43121020.88 0.0088 0.0037

Mercury -122772-04-27 13:27 J -43120933.07 -43120932.94 -43120932.81 0.0088 0.0032

Mercury -122772-07-24 14:39 J -43120845.01 -43120844.89 -43120844.75 0.0088 0.0029

Mercury -122772-10-20 16:06 J -43120756.95 -43120756.83 -43120756.69 0.0088 0.0024

Mercury -122771-01-16 17:32 J -43120668.90 -43120668.77 -43120668.63 0.0088 0.0020

Mercury -122771-04-14 18:58 J -43120580.84 -43120580.71 -43120580.57 0.0088 0.0016

Mercury -122771-07-11 20:25 J -43120492.78 -43120492.65 -43120492.52 0.0088 0.0011

Mercury -122771-10-07 21:51 J -43120404.73 -43120404.59 -43120404.46 0.0088 0.0007

Mercury -122770-01-03 23:18 J -43120316.67 -43120316.53 -43120316.40 0.0088 0.0004

Mercury -122770-04-02 00:30 J -43120228.61 -43120228.48 -43120228.34 0.0088 0.0002

Mercury -122770-06-29 01:56 J -43120140.55 -43120140.42 -43120140.29 0.0088 0.0006

Mercury -122770-09-25 03:22 J -43120052.50 -43120052.36 -43120052.23 0.0088 0.0010

Mercury -122770-12-22 04:34 J -43119964.44 -43119964.31 -43119964.17 0.0088 0.0014

Mercury -122769-03-19 06:01 J -43119876.38 -43119876.25 -43119876.12 0.0088 0.0018

Mercury -122769-06-15 07:27 J -43119788.32 -43119788.19 -43119788.06 0.0088 0.0022

Mercury -122769-09-11 08:39 J -43119700.26 -43119700.14 -43119700.01 0.0088 0.0027

Mercury -122769-12-08 10:06 J -43119612.20 -43119612.08 -43119611.95 0.0088 0.0031

Mercury -122768-03-06 11:32 J -43119524.14 -43119524.02 -43119523.90 0.0088 0.0035

Mercury -122768-06-02 12:44 J -43119436.08 -43119435.97 -43119435.84 0.0088 0.0039

Mercury -122768-08-29 13:56 J -43119348.03 -43119347.92 -43119347.79 0.0088 0.0043

Mercury -122768-11-25 15:22 J -43119259.96 -43119259.86 -43119259.74 0.0088 0.0047

Mercury -122767-02-21 16:49 J -43119171.90 -43119171.80 -43119171.69 0.0088 0.0051

Mercury -122767-05-20 18:01 J -43119083.84 -43119083.75 -43119083.64 0.0088 0.0056

Mercury -122767-08-16 19:27 J -43118995.78 -43118995.69 -43118995.59 0.0088 0.0059
 Mercury -122767-11-12 20:54 J -43118907.72 -43118907.63 -43118907.54 0.0088 0.0063
 Mercury -122766-02-08 22:06 J -43118819.66 -43118819.58 -43118819.49 0.0088 0.0068
 Mercury -122766-05-07 23:32 J -43118731.59 -43118731.52 -43118731.44 0.0088 0.0072
 Mercury -122766-08-04 00:44 J -43118643.53 -43118643.47 -43118643.40 0.0088 0.0076
 Mercury -122766-10-31 02:10 J -43118555.46 -43118555.41 -43118555.35 0.0088 0.0080
 Mercury -122765-01-27 03:37 J -43118467.39 -43118467.35 -43118467.31 0.0088 0.0084
 Mercury -122765-04-24 04:49 J -43118379.31 -43118379.30 -43118379.28 0.0088 0.0088
 Mars -122725-12-31 00:01 J -43103518.59 -43103518.50 -43103518.35 0.0088 0.0082
 Mars -122723-11-25 20:10 J -43102823.84 -43102823.66 -43102823.42 0.0088 0.0066
 Mars -122721-10-20 15:51 J -43102129.10 -43102128.84 -43102128.58 0.0089 0.0049
 Mars -122719-09-15 09:08 J -43101434.39 -43101434.12 -43101433.81 0.0089 0.0033
 Mars -122717-08-10 01:13 J -43100739.75 -43100739.45 -43100739.14 0.0089 0.0016
 Mars -122715-07-05 15:08 J -43100045.18 -43100044.87 -43100044.56 0.0089 0.0000
 Earth -122714-06-18 07:13 J -43099697.34 -43099697.20 -43099697.03 0.0089 0.0070
 Moon -122714-06-18 08:25 J -43099697.27 -43099697.15 -43099696.97 0.0089 0.0073 *
 Venus -122713-01-25 12:44 J -43099475.97 -43099475.97 -43099475.96 0.0089 0.0089
 Mars -122713-05-30 04:20 J -43099350.62 -43099350.32 -43099350.01 0.0089 0.0017
 Moon -122713-06-19 17:46 J -43099329.97 -43099329.76 -43099329.52 0.0089 0.0041
 Earth -122713-06-19 18:44 J -43099329.93 -43099329.72 -43099329.48 0.0089 0.0044 *
 Venus -122713-09-07 00:15 J -43099250.54 -43099250.49 -43099250.38 0.0089 0.0083
 Venus -122712-04-20 12:58 J -43099025.05 -43099024.96 -43099024.83 0.0089 0.0076
 Moon -122712-06-22 05:46 J -43098962.52 -43098962.26 -43098961.99 0.0089 0.0020
 Earth -122712-06-22 06:30 J -43098962.48 -43098962.23 -43098961.98 0.0089 0.0017 *
 Venus -122712-12-02 01:13 J -43098799.56 -43098799.45 -43098799.30 0.0089 0.0070
 Mars -122711-04-24 16:49 J -43098656.07 -43098655.80 -43098655.50 0.0089 0.0033
 Earth -122711-06-24 18:15 J -43098594.99 -43098594.74 -43098594.48 0.0089 0.0010
 Moon -122711-06-24 19:27 J -43098594.94 -43098594.69 -43098594.44 0.0089 0.0013 *
 Venus -122711-07-15 13:42 J -43098574.07 -43098573.93 -43098573.77 0.0089 0.0063
 Venus -122710-02-26 02:10 J -43098348.57 -43098348.41 -43098348.24 0.0089 0.0056

Moon -122710-06-27 04:06 J -43098227.56 -43098227.33 -43098227.06 0.0089 0.0033
 Earth -122710-06-27 06:15 J -43098227.46 -43098227.24 -43098226.99 0.0089 0.0037 *
 Venus -122710-10-09 14:25 J -43098123.06 -43098122.90 -43098122.70 0.0089 0.0050
 Mars -122709-03-19 02:54 J -43097961.61 -43097961.38 -43097961.10 0.0089 0.0049
 Venus -122709-05-22 03:08 J -43097897.55 -43097897.37 -43097897.17 0.0089 0.0043
 Earth -122709-06-28 18:15 J -43097859.90 -43097859.74 -43097859.54 0.0089 0.0064
 Moon -122709-06-28 21:08 J -43097859.76 -43097859.62 -43097859.43 0.0089 0.0068 *
 Venus -122708-01-02 15:51 J -43097672.03 -43097671.84 -43097671.64 0.0089 0.0036
 Moon -122708-07-01 04:06 J -43097492.38 -43097492.33 -43097492.26 0.0089 0.0086
 Venus -122708-08-16 04:20 J -43097446.52 -43097446.32 -43097446.11 0.0089 0.0030
 Mars -122707-02-11 12:44 J -43097267.17 -43097266.97 -43097266.75 0.0089 0.0064
 Venus -122707-03-29 17:03 J -43097220.99 -43097220.79 -43097220.57 0.0089 0.0023
 Venus -122707-11-10 05:46 J -43096995.47 -43096995.26 -43096995.04 0.0089 0.0016
 Venus -122706-06-23 18:30 J -43096769.94 -43096769.73 -43096769.51 0.0089 0.0009
 Mars -122705-01-06 21:22 J -43096572.73 -43096572.61 -43096572.46 0.0089 0.0079
 Venus -122705-02-04 07:13 J -43096544.41 -43096544.20 -43096543.97 0.0089 0.0003
 Venus -122705-09-16 20:10 J -43096318.88 -43096318.66 -43096318.44 0.0089 0.0005
 Venus -122704-04-30 09:08 J -43096093.33 -43096093.12 -43096092.90 0.0089 0.0012
 Venus -122704-12-11 21:51 J -43095867.80 -43095867.59 -43095867.37 0.0089 0.0019
 Venus -122703-07-25 10:34 J -43095642.26 -43095642.06 -43095641.84 0.0089 0.0026
 Venus -122702-03-07 23:32 J -43095416.71 -43095416.52 -43095416.30 0.0089 0.0033
 Venus -122702-10-19 12:44 J -43095191.16 -43095190.97 -43095190.77 0.0089 0.0039
 Venus -122701-06-01 01:56 J -43094965.61 -43094965.42 -43094965.23 0.0089 0.0046
 Venus -122700-01-12 14:54 J -43094740.05 -43094739.88 -43094739.70 0.0089 0.0053
 Venus -122700-08-26 03:51 J -43094514.49 -43094514.34 -43094514.17 0.0089 0.0060
 Venus -122699-04-08 17:03 J -43094288.92 -43094288.79 -43094288.64 0.0089 0.0067
 Venus -122699-11-20 06:01 J -43094063.35 -43094063.25 -43094063.11 0.0089 0.0074
 Venus -122698-07-03 19:13 J -43093837.77 -43093837.70 -43093837.59 0.0089 0.0081
 Venus -122697-02-14 09:08 J -43093612.16 -43093612.12 -43093612.08 0.0089 0.0087
 Mercury -122691-05-07 20:54 J -43091337.68 -43091337.63 -43091337.58 0.0089 0.0085

Mercury -122691-08-03 23:46 J -43091249.57 -43091249.51 -43091249.41 0.0089 0.0080

Mercury -122691-10-31 03:22 J -43091161.45 -43091161.36 -43091161.24 0.0089 0.0074

Mercury -122690-01-27 06:44 J -43091073.32 -43091073.22 -43091073.08 0.0089 0.0068

Mercury -122690-04-25 10:20 J -43090985.19 -43090985.07 -43090984.92 0.0089 0.0062

Mercury -122690-07-22 13:42 J -43090897.06 -43090896.93 -43090896.77 0.0089 0.0056

Mercury -122690-10-18 17:18 J -43090808.93 -43090808.78 -43090808.61 0.0089 0.0050

Mercury -122689-01-14 20:54 J -43090720.79 -43090720.63 -43090720.46 0.0089 0.0044

Mercury -122689-04-12 00:15 J -43090632.65 -43090632.49 -43090632.31 0.0089 0.0038

Mercury -122689-07-09 03:51 J -43090544.51 -43090544.34 -43090544.16 0.0089 0.0032

Mercury -122689-10-05 07:27 J -43090456.37 -43090456.19 -43090456.01 0.0089 0.0026

Mercury -122688-01-01 10:49 J -43090368.23 -43090368.05 -43090367.86 0.0089 0.0020

Mercury -122688-03-30 14:25 J -43090280.08 -43090279.90 -43090279.71 0.0089 0.0014

Mercury -122688-06-26 18:01 J -43090191.94 -43090191.75 -43090191.56 0.0089 0.0008

Mercury -122688-09-22 21:37 J -43090103.79 -43090103.60 -43090103.41 0.0089 0.0002

Mercury -122688-12-20 00:58 J -43090015.65 -43090015.46 -43090015.26 0.0089 0.0005

Mercury -122687-03-18 04:34 J -43089927.50 -43089927.31 -43089927.12 0.0089 0.0010

Mercury -122687-06-14 08:10 J -43089839.35 -43089839.16 -43089838.97 0.0089 0.0016

Mercury -122687-09-10 11:46 J -43089751.20 -43089751.01 -43089750.83 0.0089 0.0023

Mercury -122687-12-07 15:08 J -43089663.04 -43089662.87 -43089662.68 0.0089 0.0029

Mercury -122686-03-05 18:44 J -43089574.89 -43089574.72 -43089574.54 0.0089 0.0035

Mercury -122686-06-01 22:20 J -43089486.73 -43089486.57 -43089486.39 0.0089 0.0041

Mercury -122686-08-29 01:56 J -43089398.58 -43089398.42 -43089398.25 0.0089 0.0047

Mercury -122686-11-25 05:32 J -43089310.42 -43089310.27 -43089310.11 0.0089 0.0053

Mercury -122685-02-21 09:08 J -43089222.26 -43089222.12 -43089221.97 0.0089 0.0059

Mercury -122685-05-19 12:30 J -43089134.09 -43089133.98 -43089133.83 0.0089 0.0066

Mercury -122685-08-15 16:06 J -43089045.92 -43089045.83 -43089045.70 0.0089 0.0072

Mercury -122685-11-11 19:42 J -43088957.75 -43088957.68 -43088957.57 0.0089 0.0078

Mercury -122684-02-07 23:32 J -43088869.57 -43088869.52 -43088869.45 0.0089 0.0084

Mars -122643-09-28 13:42 J -43073662.04 -43073661.93 -43073661.76 0.0089 0.0079

Mars -122641-08-23 09:51 J -43072967.27 -43072967.09 -43072966.84 0.0089 0.0064

Mars -122639-07-19 08:10 J -43072272.39 -43072272.16 -43072271.86 0.0089 0.0048
 Mars -122637-06-13 09:08 J -43071577.42 -43071577.12 -43071576.82 0.0089 0.0031
 Mars -122635-05-09 09:51 J -43070882.39 -43070882.09 -43070881.77 0.0089 0.0015
 Mars -122633-04-03 12:44 J -43070187.28 -43070186.97 -43070186.64 0.0089 0.0003
 Earth -122633-12-26 18:58 J -43069919.83 -43069919.71 -43069919.55 0.0089 0.0074
 Moon -122633-12-26 19:42 J -43069919.80 -43069919.68 -43069919.50 0.0089 0.0071 *
 Moon -122632-12-29 05:18 J -43069552.50 -43069552.28 -43069552.06 0.0089 0.0050
 Earth -122632-12-29 06:58 J -43069552.42 -43069552.21 -43069551.99 0.0089 0.0047 *
 Mars -122631-02-27 17:46 J -43069492.05 -43069491.76 -43069491.43 0.0089 0.0020
 Venus -122631-03-18 22:06 J -43069472.61 -43069472.58 -43069472.49 0.0089 0.0086
 Venus -122631-10-30 12:15 J -43069247.08 -43069246.99 -43069246.87 0.0089 0.0079
 Earth -122631-12-31 18:15 J -43069184.98 -43069184.74 -43069184.48 0.0089 0.0021
 Moon -122631-12-31 20:39 J -43069184.88 -43069184.64 -43069184.39 0.0089 0.0018 *
 Venus -122630-06-13 01:56 J -43069021.53 -43069021.42 -43069021.27 0.0089 0.0072
 Moon -122629-01-03 02:25 J -43068817.66 -43068817.40 -43068817.14 0.0089 0.0003
 Earth -122629-01-03 05:46 J -43068817.51 -43068817.26 -43068817.00 0.0089 0.0006 *
 Mars -122629-01-24 00:30 J -43068796.75 -43068796.48 -43068796.16 0.0089 0.0037
 Venus -122629-01-24 15:37 J -43068795.99 -43068795.85 -43068795.69 0.0089 0.0065
 Venus -122629-09-06 05:32 J -43068570.44 -43068570.27 -43068570.10 0.0089 0.0058
 Earth -122628-01-04 16:34 J -43068450.04 -43068449.81 -43068449.56 0.0089 0.0033
 Moon -122628-01-04 19:56 J -43068449.89 -43068449.67 -43068449.43 0.0089 0.0035 *
 Venus -122628-04-19 19:13 J -43068344.88 -43068344.70 -43068344.52 0.0089 0.0051
 Venus -122628-12-01 08:10 J -43068119.33 -43068119.16 -43068118.95 0.0089 0.0045
 Mars -122628-12-19 07:42 J -43068101.41 -43068101.18 -43068100.89 0.0089 0.0054
 Moon -122627-01-06 23:46 J -43068082.69 -43068082.51 -43068082.31 0.0089 0.0058
 Earth -122627-01-07 03:08 J -43068082.53 -43068082.37 -43068082.15 0.0089 0.0060 *
 Venus -122627-07-14 21:37 J -43067893.78 -43067893.60 -43067893.38 0.0089 0.0038
 Earth -122626-01-09 13:27 J -43067714.97 -43067714.94 -43067714.84 0.0089 0.0086
 Moon -122626-01-09 17:03 J -43067714.82 -43067714.79 -43067714.71 0.0089 0.0087
 Venus -122626-02-25 11:03 J -43067668.23 -43067668.04 -43067667.82 0.0089 0.0031

Venus -122626-10-09 00:44 J -43067442.68 -43067442.47 -43067442.25 0.0089 0.0024

Mars -122626-11-14 17:32 J -43067405.95 -43067405.77 -43067405.55 0.0089 0.0070

Venus -122625-05-21 13:56 J -43067217.13 -43067216.92 -43067216.69 0.0089 0.0017

Venus -122624-01-02 03:22 J -43066991.58 -43066991.36 -43066991.14 0.0089 0.0010

Venus -122624-08-15 16:34 J -43066766.03 -43066765.81 -43066765.59 0.0089 0.0003

Mars -122624-10-10 04:20 J -43066710.39 -43066710.32 -43066710.25 0.0089 0.0086

Venus -122623-03-29 05:32 J -43066540.49 -43066540.27 -43066540.04 0.0089 0.0005

Venus -122623-11-09 18:44 J -43066314.93 -43066314.72 -43066314.50 0.0088 0.0011

Venus -122622-06-23 07:56 J -43066089.39 -43066089.17 -43066088.95 0.0088 0.0018

Venus -122621-02-03 20:54 J -43065863.84 -43065863.63 -43065863.42 0.0088 0.0025

Venus -122621-09-16 09:37 J -43065638.29 -43065638.10 -43065637.88 0.0088 0.0032

Venus -122620-04-29 22:34 J -43065412.75 -43065412.56 -43065412.35 0.0088 0.0039

Venus -122620-12-11 11:32 J -43065187.19 -43065187.02 -43065186.82 0.0088 0.0045

Venus -122619-07-25 00:30 J -43064961.65 -43064961.48 -43064961.29 0.0088 0.0052

Venus -122618-03-07 13:13 J -43064736.10 -43064735.95 -43064735.77 0.0088 0.0059

Venus -122618-10-19 02:25 J -43064510.55 -43064510.40 -43064510.25 0.0088 0.0065

Venus -122617-05-31 14:54 J -43064284.99 -43064284.88 -43064284.74 0.0088 0.0072

Venus -122616-01-12 03:22 J -43064059.44 -43064059.36 -43064059.23 0.0088 0.0079

Venus -122616-08-25 16:06 J -43063833.87 -43063833.83 -43063833.75 0.0088 0.0085

Mercury -122611-12-04 18:30 J -43061906.76 -43061906.73 -43061906.70 0.0088 0.0086

Mercury -122610-03-02 19:42 J -43061818.72 -43061818.68 -43061818.62 0.0088 0.0082

Mercury -122610-05-29 21:08 J -43061730.67 -43061730.62 -43061730.55 0.0088 0.0078

Mercury -122610-08-25 22:34 J -43061642.62 -43061642.56 -43061642.47 0.0088 0.0073

Mercury -122610-11-22 00:15 J -43061554.57 -43061554.49 -43061554.41 0.0088 0.0069

Mercury -122609-02-18 01:27 J -43061466.52 -43061466.44 -43061466.34 0.0088 0.0065

Mercury -122609-05-16 02:54 J -43061378.47 -43061378.38 -43061378.27 0.0088 0.0060

Mercury -122609-08-12 04:20 J -43061290.42 -43061290.32 -43061290.21 0.0088 0.0056

Mercury -122609-11-08 05:46 J -43061202.36 -43061202.26 -43061202.14 0.0088 0.0052

Mercury -122608-02-04 07:13 J -43061114.31 -43061114.20 -43061114.08 0.0088 0.0048

Mercury -122608-05-03 08:39 J -43061026.25 -43061026.14 -43061026.02 0.0088 0.0043

Mercury -122608-07-30 10:06 J -43060938.20 -43060938.08 -43060937.96 0.0088 0.0039

Mercury -122608-10-26 11:18 J -43060850.14 -43060850.03 -43060849.89 0.0088 0.0036

Mercury -122607-01-22 12:58 J -43060762.09 -43060761.96 -43060761.83 0.0088 0.0031

Mercury -122607-04-20 14:25 J -43060674.03 -43060673.90 -43060673.77 0.0088 0.0026

Mercury -122607-07-17 15:37 J -43060585.98 -43060585.85 -43060585.71 0.0088 0.0022

Mercury -122607-10-13 17:03 J -43060497.92 -43060497.79 -43060497.65 0.0088 0.0018

Mercury -122606-01-09 18:30 J -43060409.86 -43060409.73 -43060409.60 0.0088 0.0014

Mercury -122606-04-07 19:56 J -43060321.81 -43060321.67 -43060321.54 0.0088 0.0010

Mercury -122606-07-04 21:08 J -43060233.75 -43060233.62 -43060233.48 0.0088 0.0007

Mercury -122606-09-30 22:34 J -43060145.69 -43060145.56 -43060145.42 0.0088 0.0003

Mercury -122606-12-28 00:01 J -43060057.63 -43060057.50 -43060057.36 0.0088 0.0003

Mercury -122605-03-25 01:27 J -43059969.57 -43059969.44 -43059969.31 0.0088 0.0007

Mercury -122605-06-21 02:54 J -43059881.52 -43059881.38 -43059881.25 0.0088 0.0012

Mercury -122605-09-17 04:06 J -43059793.46 -43059793.33 -43059793.19 0.0088 0.0016

Mercury -122605-12-14 05:32 J -43059705.40 -43059705.27 -43059705.14 0.0088 0.0020

Mercury -122604-03-12 06:44 J -43059617.34 -43059617.22 -43059617.08 0.0088 0.0024

Mercury -122604-06-08 08:10 J -43059529.28 -43059529.16 -43059529.03 0.0088 0.0028

Mercury -122604-09-04 09:37 J -43059441.22 -43059441.10 -43059440.97 0.0088 0.0032

Mercury -122604-12-01 10:49 J -43059353.16 -43059353.05 -43059352.92 0.0088 0.0037

Mercury -122603-02-27 12:15 J -43059265.10 -43059264.99 -43059264.87 0.0088 0.0041

Mercury -122603-05-26 13:42 J -43059177.04 -43059176.93 -43059176.81 0.0088 0.0045

Mercury -122603-08-22 15:08 J -43059088.98 -43059088.87 -43059088.76 0.0088 0.0049

Mercury -122603-11-18 16:06 J -43059000.92 -43059000.83 -43059000.71 0.0088 0.0054

Mercury -122602-02-14 17:32 J -43058912.86 -43058912.77 -43058912.66 0.0088 0.0057

Mercury -122602-05-13 18:58 J -43058824.80 -43058824.71 -43058824.61 0.0088 0.0061

Mercury -122602-08-09 20:10 J -43058736.74 -43058736.66 -43058736.56 0.0088 0.0065

Mercury -122602-11-05 21:37 J -43058648.67 -43058648.60 -43058648.51 0.0088 0.0069

Mercury -122601-02-01 22:49 J -43058560.61 -43058560.55 -43058560.47 0.0088 0.0074

Mercury -122601-04-30 00:15 J -43058472.54 -43058472.49 -43058472.42 0.0088 0.0077

Mercury -122601-07-27 01:42 J -43058384.48 -43058384.43 -43058384.38 0.0088 0.0081

Mercury -122601-10-23 02:54 J -43058296.40 -43058296.38 -43058296.34 0.0088 0.0086

Jupiter -122592-01-09 12:58 J -43055296.48 -43055295.96 -43055295.42 0.0088 0.0003

Mars -122561-08-14 10:06 J -43043756.15 -43043756.08 -43043755.97 0.0088 0.0085

Mars -122559-07-10 07:42 J -43043061.34 -43043061.18 -43043060.95 0.0088 0.0070

Mars -122557-06-04 04:49 J -43042366.55 -43042366.30 -43042366.05 0.0088 0.0053

Mars -122555-04-29 23:03 J -43041671.81 -43041671.54 -43041671.24 0.0089 0.0037

Mars -122553-03-24 17:18 J -43040977.07 -43040976.78 -43040976.47 0.0089 0.0021

Mars -122551-02-17 09:22 J -43040282.41 -43040282.11 -43040281.79 0.0089 0.0005

Earth -122550-06-17 15:08 J -43039796.94 -43039796.87 -43039796.74 0.0089 0.0082

Moon -122550-06-17 15:37 J -43039796.89 -43039796.85 -43039796.76 0.0089 0.0086 *

Mars -122549-01-12 23:03 J -43039587.83 -43039587.54 -43039587.22 0.0089 0.0012

Venus -122549-04-27 23:32 J -43039481.52 -43039481.52 -43039481.48 0.0089 0.0089

Moon -122549-06-19 01:56 J -43039429.62 -43039429.42 -43039429.19 0.0089 0.0052

Earth -122549-06-19 02:54 J -43039429.57 -43039429.38 -43039429.17 0.0089 0.0055 *

Venus -122549-12-09 11:46 J -43039256.07 -43039256.01 -43039255.91 0.0089 0.0082

Earth -122548-06-21 14:10 J -43039062.14 -43039061.91 -43039061.65 0.0089 0.0029

Moon -122548-06-21 16:20 J -43039062.05 -43039061.82 -43039061.58 0.0089 0.0032 *

Venus -122548-07-22 23:46 J -43039030.60 -43039030.51 -43039030.38 0.0089 0.0076

Mars -122548-12-07 12:01 J -43038893.29 -43038893.00 -43038892.71 0.0089 0.0027

Venus -122547-03-05 12:30 J -43038805.11 -43038804.98 -43038804.84 0.0089 0.0069

Moon -122547-06-23 23:18 J -43038694.79 -43038694.53 -43038694.26 0.0089 0.0002

Earth -122547-06-24 02:25 J -43038694.66 -43038694.40 -43038694.14 0.0089 0.0002 *

Venus -122547-10-17 00:30 J -43038579.62 -43038579.48 -43038579.31 0.0089 0.0063

Venus -122546-05-30 12:58 J -43038354.12 -43038353.96 -43038353.78 0.0089 0.0056

Earth -122546-06-26 13:56 J -43038327.16 -43038326.92 -43038326.66 0.0089 0.0025

Moon -122546-06-26 17:03 J -43038327.03 -43038326.79 -43038326.54 0.0089 0.0023 *

Mars -122546-11-02 00:01 J -43038198.76 -43038198.50 -43038198.22 0.0089 0.0043

Venus -122545-01-11 01:13 J -43038128.61 -43038128.45 -43038128.26 0.0089 0.0050

Moon -122545-06-27 21:51 J -43037959.77 -43037959.59 -43037959.36 0.0089 0.0055

Earth -122545-06-28 01:56 J -43037959.62 -43037959.42 -43037959.20 0.0089 0.0052 *

Venus -122545-08-23 13:42 J -43037903.11 -43037902.93 -43037902.73 0.0089 0.0043

Venus -122544-04-06 02:25 J -43037677.59 -43037677.40 -43037677.19 0.0089 0.0036

Earth -122544-06-30 13:56 J -43037592.02 -43037591.92 -43037591.79 0.0089 0.0079

Moon -122544-06-30 17:32 J -43037591.88 -43037591.77 -43037591.63 0.0089 0.0077 *

Mars -122544-09-26 10:06 J -43037504.31 -43037504.08 -43037503.85 0.0089 0.0058

Venus -122544-11-17 14:54 J -43037452.08 -43037451.88 -43037451.67 0.0089 0.0030

Venus -122543-07-01 03:22 J -43037226.56 -43037226.36 -43037226.14 0.0089 0.0023

Venus -122542-02-11 16:06 J -43037001.04 -43037000.83 -43037000.61 0.0089 0.0016

Mars -122542-08-21 18:44 J -43036809.87 -43036809.72 -43036809.53 0.0089 0.0073

Venus -122542-09-25 04:49 J -43036775.51 -43036775.30 -43036775.08 0.0089 0.0009

Venus -122541-05-07 17:46 J -43036549.98 -43036549.76 -43036549.54 0.0089 0.0002

Venus -122541-12-19 06:30 J -43036324.44 -43036324.23 -43036324.01 0.0089 0.0005

Mars -122540-07-16 02:54 J -43036115.39 -43036115.38 -43036115.29 0.0089 0.0088

Venus -122540-08-01 19:13 J -43036098.91 -43036098.70 -43036098.48 0.0089 0.0012

Venus -122539-03-15 07:56 J -43035873.37 -43035873.17 -43035872.95 0.0089 0.0019

Venus -122539-10-26 21:08 J -43035647.83 -43035647.62 -43035647.41 0.0089 0.0025

Venus -122538-06-09 09:51 J -43035422.29 -43035422.09 -43035421.88 0.0089 0.0032

Venus -122537-01-20 22:49 J -43035196.74 -43035196.55 -43035196.35 0.0089 0.0039

Venus -122537-09-02 11:32 J -43034971.19 -43034971.02 -43034970.82 0.0089 0.0046

Venus -122536-04-16 00:44 J -43034745.63 -43034745.47 -43034745.28 0.0089 0.0053

Venus -122536-11-27 13:42 J -43034520.08 -43034519.93 -43034519.75 0.0089 0.0060

Venus -122535-07-11 03:08 J -43034294.52 -43034294.37 -43034294.23 0.0089 0.0066

Venus -122534-02-21 15:51 J -43034068.95 -43034068.84 -43034068.70 0.0089 0.0073

Venus -122534-10-05 05:03 J -43033843.37 -43033843.29 -43033843.18 0.0089 0.0080

Venus -122533-05-17 18:15 J -43033617.76 -43033617.74 -43033617.67 0.0089 0.0087

Mercury -122526-02-01 18:44 J -43031166.78 -43031166.72 -43031166.65 0.0089 0.0083

Mercury -122526-04-30 21:51 J -43031078.66 -43031078.59 -43031078.48 0.0089 0.0078

Mercury -122526-07-28 01:13 J -43030990.54 -43030990.45 -43030990.32 0.0089 0.0072

Mercury -122526-10-24 04:49 J -43030902.41 -43030902.30 -43030902.16 0.0089 0.0066

Mercury -122525-01-20 08:10 J -43030814.28 -43030814.16 -43030814.00 0.0089 0.0060

Mercury -122525-04-17 11:46 J -43030726.15 -43030726.01 -43030725.85 0.0089 0.0054

Mercury -122525-07-14 15:08 J -43030638.01 -43030637.87 -43030637.70 0.0089 0.0048

Mercury -122525-10-10 18:44 J -43030549.88 -43030549.72 -43030549.54 0.0089 0.0042

Mercury -122524-01-06 22:20 J -43030461.74 -43030461.57 -43030461.39 0.0089 0.0036

Mercury -122524-04-05 01:42 J -43030373.60 -43030373.43 -43030373.24 0.0089 0.0030

Mercury -122524-07-02 05:18 J -43030285.46 -43030285.28 -43030285.09 0.0089 0.0024

Mercury -122524-09-28 08:54 J -43030197.32 -43030197.13 -43030196.94 0.0089 0.0018

Mercury -122524-12-25 12:15 J -43030109.17 -43030108.99 -43030108.79 0.0089 0.0012

Mercury -122523-03-23 15:51 J -43030021.03 -43030020.84 -43030020.64 0.0089 0.0006

Mercury -122523-06-19 19:27 J -43029932.88 -43029932.69 -43029932.50 0.0089 0.0001

Mercury -122523-09-15 23:03 J -43029844.73 -43029844.54 -43029844.35 0.0089 0.0006

Mercury -122523-12-13 02:39 J -43029756.58 -43029756.39 -43029756.20 0.0089 0.0013

Mercury -122522-03-11 06:01 J -43029668.43 -43029668.25 -43029668.06 0.0089 0.0019

Mercury -122522-06-07 09:22 J -43029580.28 -43029580.11 -43029579.91 0.0089 0.0025

Mercury -122522-09-03 12:58 J -43029492.13 -43029491.96 -43029491.77 0.0089 0.0031

Mercury -122522-11-30 16:34 J -43029403.98 -43029403.81 -43029403.63 0.0089 0.0037

Mercury -122521-02-26 20:10 J -43029315.82 -43029315.66 -43029315.48 0.0089 0.0043

Mercury -122521-05-24 23:46 J -43029227.66 -43029227.51 -43029227.34 0.0089 0.0049

Mercury -122521-08-21 03:22 J -43029139.50 -43029139.36 -43029139.20 0.0089 0.0055

Mercury -122521-11-17 06:58 J -43029051.34 -43029051.21 -43029051.07 0.0089 0.0061

Mercury -122520-02-13 10:49 J -43028963.18 -43028963.05 -43028962.93 0.0089 0.0068

Mercury -122520-05-12 13:56 J -43028875.01 -43028874.92 -43028874.80 0.0089 0.0074

Mercury -122520-08-08 17:32 J -43028786.83 -43028786.77 -43028786.67 0.0089 0.0080

Mercury -122520-11-04 21:08 J -43028698.65 -43028698.62 -43028698.55 0.0089 0.0086

Mars -122479-05-13 00:15 J -43013899.58 -43013899.49 -43013899.33 0.0089 0.0082

Mars -122477-04-06 20:10 J -43013204.83 -43013204.66 -43013204.42 0.0089 0.0067

Mars -122475-03-02 18:01 J -43012510.01 -43012509.75 -43012509.49 0.0089 0.0051

Mars -122473-01-26 16:06 J -43011815.09 -43011814.83 -43011814.51 0.0089 0.0036

Mars -122472-12-21 17:18 J -43011120.08 -43011119.78 -43011119.45 0.0089 0.0020

Mars -122470-11-16 18:58 J -43010425.02 -43010424.71 -43010424.38 0.0089 0.0003

Moon -122469-12-25 23:03 J -43010019.54 -43010019.54 -43010019.49 0.0089 0.0089
 Earth -122469-12-26 02:25 J -43010019.45 -43010019.40 -43010019.33 0.0089 0.0086
 Mars -122468-10-11 21:37 J -43009729.91 -43009729.60 -43009729.27 0.0089 0.0014
 Earth -122468-12-28 13:42 J -43009652.10 -43009651.93 -43009651.72 0.0089 0.0060
 Moon -122468-12-28 17:03 J -43009651.96 -43009651.79 -43009651.57 0.0089 0.0058 *
 Venus -122467-06-20 06:44 J -43009478.26 -43009478.22 -43009478.15 0.0089 0.0086
 Moon -122467-12-30 22:06 J -43009284.80 -43009284.58 -43009284.33 0.0089 0.0036
 Earth -122467-12-31 01:27 J -43009284.66 -43009284.44 -43009284.18 0.0089 0.0033 *
 Venus -122466-01-31 20:39 J -43009252.73 -43009252.64 -43009252.53 0.0089 0.0079
 Mars -122466-09-07 02:39 J -43009034.69 -43009034.39 -43009034.08 0.0089 0.0030
 Venus -122466-09-14 10:34 J -43009027.18 -43009027.06 -43009026.93 0.0089 0.0072
 Earth -122465-01-02 12:58 J -43008917.21 -43008916.96 -43008916.70 0.0089 0.0006
 Moon -122465-01-02 16:49 J -43008917.06 -43008916.80 -43008916.54 0.0089 0.0002 *
 Venus -122465-04-27 00:30 J -43008801.63 -43008801.48 -43008801.33 0.0089 0.0065
 Venus -122465-12-08 13:27 J -43008576.08 -43008575.94 -43008575.75 0.0089 0.0059
 Moon -122464-01-03 21:22 J -43008549.85 -43008549.61 -43008549.36 0.0089 0.0018
 Earth -122464-01-04 00:15 J -43008549.73 -43008549.49 -43008549.23 0.0089 0.0021 *
 Venus -122464-07-22 03:08 J -43008350.53 -43008350.37 -43008350.17 0.0089 0.0052
 Mars -122464-08-02 08:54 J -43008339.38 -43008339.13 -43008338.84 0.0089 0.0047
 Earth -122463-01-06 11:03 J -43008182.24 -43008182.04 -43008181.81 0.0089 0.0048
 Moon -122463-01-06 13:42 J -43008182.12 -43008181.93 -43008181.69 0.0089 0.0052 *
 Venus -122463-03-04 16:49 J -43008124.98 -43008124.80 -43008124.59 0.0089 0.0045
 Venus -122463-10-16 06:30 J -43007899.42 -43007899.23 -43007899.01 0.0089 0.0038
 Moon -122462-01-08 20:10 J -43007814.80 -43007814.66 -43007814.49 0.0089 0.0070
 Earth -122462-01-08 21:51 J -43007814.71 -43007814.59 -43007814.43 0.0089 0.0074 *
 Venus -122462-05-29 20:10 J -43007673.86 -43007673.66 -43007673.45 0.0089 0.0031
 Mars -122462-06-28 16:49 J -43007644.02 -43007643.80 -43007643.57 0.0089 0.0063
 Venus -122461-01-10 09:37 J -43007448.31 -43007448.10 -43007447.88 0.0089 0.0024
 Venus -122461-08-22 22:49 J -43007222.76 -43007222.55 -43007222.33 0.0089 0.0017
 Venus -122460-04-05 12:15 J -43006997.21 -43006996.99 -43006996.77 0.0089 0.0010

Mars -122460-05-24 01:13 J -43006948.55 -43006948.45 -43006948.26 0.0089 0.0080
 Venus -122460-11-17 01:27 J -43006771.66 -43006771.44 -43006771.21 0.0089 0.0003
 Venus -122459-06-30 14:39 J -43006546.11 -43006545.89 -43006545.67 0.0089 0.0004
 Venus -122458-02-11 03:37 J -43006320.56 -43006320.35 -43006320.12 0.0089 0.0011
 Venus -122458-09-24 16:49 J -43006095.01 -43006094.80 -43006094.58 0.0089 0.0018
 Venus -122457-05-07 05:46 J -43005869.46 -43005869.26 -43005869.04 0.0089 0.0024
 Venus -122457-12-18 18:44 J -43005643.91 -43005643.72 -43005643.50 0.0088 0.0031
 Venus -122456-08-01 07:56 J -43005418.37 -43005418.17 -43005417.97 0.0088 0.0038
 Venus -122455-03-14 20:39 J -43005192.82 -43005192.64 -43005192.44 0.0088 0.0045
 Venus -122455-10-26 09:22 J -43004967.27 -43004967.11 -43004966.91 0.0088 0.0052
 Venus -122454-06-08 22:34 J -43004741.72 -43004741.56 -43004741.39 0.0088 0.0058
 Venus -122453-01-20 11:18 J -43004516.17 -43004516.03 -43004515.87 0.0088 0.0065
 Venus -122453-09-02 00:15 J -43004290.62 -43004290.49 -43004290.36 0.0088 0.0071
 Venus -122452-04-15 12:44 J -43004065.06 -43004064.97 -43004064.85 0.0088 0.0078
 Venus -122452-11-27 01:42 J -43003839.49 -43003839.43 -43003839.35 0.0088 0.0084
 Mercury -122446-08-31 17:32 J -43001735.80 -43001735.77 -43001735.72 0.0088 0.0085
 Mercury -122446-11-27 18:58 J -43001647.75 -43001647.71 -43001647.64 0.0088 0.0080
 Mercury -122445-02-23 20:25 J -43001559.71 -43001559.65 -43001559.57 0.0088 0.0076
 Mercury -122445-05-21 22:06 J -43001471.66 -43001471.58 -43001471.50 0.0088 0.0072
 Mercury -122445-08-17 23:18 J -43001383.61 -43001383.53 -43001383.43 0.0088 0.0068
 Mercury -122445-11-14 00:44 J -43001295.55 -43001295.47 -43001295.37 0.0088 0.0063
 Mercury -122444-02-10 02:10 J -43001207.50 -43001207.41 -43001207.30 0.0088 0.0059
 Mercury -122444-05-09 03:51 J -43001119.45 -43001119.34 -43001119.24 0.0088 0.0055
 Mercury -122444-08-05 05:03 J -43001031.39 -43001031.29 -43001031.17 0.0088 0.0051
 Mercury -122444-11-01 06:30 J -43000943.34 -43000943.23 -43000943.11 0.0088 0.0046
 Mercury -122443-01-28 07:56 J -43000855.28 -43000855.17 -43000855.05 0.0088 0.0042
 Mercury -122443-04-26 09:22 J -43000767.23 -43000767.11 -43000766.98 0.0088 0.0038
 Mercury -122443-07-23 10:49 J -43000679.17 -43000679.05 -43000678.92 0.0088 0.0033
 Mercury -122443-10-19 12:15 J -43000591.12 -43000590.99 -43000590.86 0.0088 0.0029
 Mercury -122442-01-15 13:27 J -43000503.06 -43000502.94 -43000502.80 0.0088 0.0026

Mercury -122442-04-13 14:54 J -43000415.00 -43000414.88 -43000414.74 0.0088 0.0021

Mercury -122442-07-10 16:20 J -43000326.95 -43000326.82 -43000326.68 0.0088 0.0017

Mercury -122442-10-06 17:46 J -43000238.89 -43000238.76 -43000238.62 0.0088 0.0012

Mercury -122441-01-02 19:13 J -43000150.83 -43000150.70 -43000150.57 0.0088 0.0008

Mercury -122441-03-30 20:39 J -43000062.78 -43000062.64 -43000062.51 0.0088 0.0004

Mercury -122441-06-26 22:06 J -42999974.72 -42999974.58 -42999974.45 0.0088 0.0003

Mercury -122441-09-22 23:18 J -42999886.66 -42999886.53 -42999886.39 0.0088 0.0005

Mercury -122441-12-20 00:44 J -42999798.60 -42999798.47 -42999798.34 0.0088 0.0009

Mercury -122440-03-18 01:56 J -42999710.55 -42999710.42 -42999710.28 0.0088 0.0014

Mercury -122440-06-14 03:22 J -42999622.49 -42999622.36 -42999622.22 0.0088 0.0017

Mercury -122440-09-10 04:49 J -42999534.43 -42999534.30 -42999534.17 0.0088 0.0021

Mercury -122440-12-07 06:15 J -42999446.37 -42999446.24 -42999446.11 0.0088 0.0025

Mercury -122439-03-05 07:27 J -42999358.31 -42999358.19 -42999358.06 0.0088 0.0030

Mercury -122439-06-01 08:54 J -42999270.25 -42999270.13 -42999270.00 0.0088 0.0034

Mercury -122439-08-28 10:06 J -42999182.19 -42999182.08 -42999181.95 0.0088 0.0038

Mercury -122439-11-24 11:32 J -42999094.13 -42999094.02 -42999093.90 0.0088 0.0042

Mercury -122438-02-20 12:58 J -42999006.07 -42999005.96 -42999005.84 0.0088 0.0046

Mercury -122438-05-19 14:10 J -42998918.01 -42998917.91 -42998917.79 0.0088 0.0051

Mercury -122438-08-15 15:37 J -42998829.95 -42998829.85 -42998829.74 0.0088 0.0054

Mercury -122438-11-11 17:03 J -42998741.89 -42998741.79 -42998741.69 0.0088 0.0058

Mercury -122437-02-07 18:15 J -42998653.82 -42998653.74 -42998653.64 0.0088 0.0063

Mercury -122437-05-05 19:42 J -42998565.76 -42998565.68 -42998565.59 0.0088 0.0067

Mercury -122437-08-01 21:08 J -42998477.70 -42998477.62 -42998477.54 0.0088 0.0071

Mercury -122437-10-28 22:34 J -42998389.63 -42998389.56 -42998389.49 0.0088 0.0075

Mercury -122436-01-24 23:46 J -42998301.57 -42998301.51 -42998301.45 0.0088 0.0079

Mercury -122436-04-23 00:44 J -42998213.50 -42998213.47 -42998213.41 0.0088 0.0084

Mercury -122436-07-20 02:10 J -42998125.42 -42998125.41 -42998125.38 0.0088 0.0087

Mars -122397-03-28 18:58 J -42983993.73 -42983993.71 -42983993.65 0.0088 0.0088

Mars -122395-02-21 17:46 J -42983298.91 -42983298.76 -42983298.55 0.0088 0.0073

Mars -122393-01-17 15:37 J -42982604.08 -42982603.85 -42982603.60 0.0088 0.0057

Mars	-122392-12-12 11:32 J	-42981909.27	-42981909.02	-42981908.72	0.0089	0.0042
Mars	-122390-11-07 05:32 J	-42981214.55	-42981214.27	-42981213.95	0.0089	0.0026
Mars	-122388-10-01 22:49 J	-42980519.85	-42980519.55	-42980519.23	0.0089	0.0010
Mars	-122386-08-27 14:39 J	-42979825.19	-42979824.89	-42979824.58	0.0089	0.0007
Earth	-122385-06-18 09:22 J	-42979529.24	-42979529.11	-42979528.91	0.0089	0.0068
Moon	-122385-06-18 12:58 J	-42979529.10	-42979528.96	-42979528.76	0.0089	0.0067 *
Venus	-122385-07-30 10:06 J	-42979487.09	-42979487.08	-42979487.05	0.0089	0.0088
Venus	-122384-03-12 22:06 J	-42979261.64	-42979261.58	-42979261.48	0.0089	0.0082
Moon	-122384-06-20 17:32 J	-42979161.98	-42979161.77	-42979161.52	0.0089	0.0041
Earth	-122384-06-20 21:08 J	-42979161.83	-42979161.62	-42979161.38	0.0089	0.0041 *
Mars	-122384-07-22 04:20 J	-42979130.62	-42979130.32	-42979130.02	0.0089	0.0022
Venus	-122384-10-24 10:06 J	-42979036.17	-42979036.08	-42979035.95	0.0089	0.0076
Venus	-122383-06-06 22:34 J	-42978810.68	-42978810.56	-42978810.41	0.0089	0.0069
Earth	-122383-06-23 08:54 J	-42978794.38	-42978794.13	-42978793.87	0.0089	0.0014
Moon	-122383-06-23 12:01 J	-42978794.25	-42978794.00	-42978793.73	0.0089	0.0015 *
Venus	-122382-01-18 10:34 J	-42978585.19	-42978585.06	-42978584.89	0.0089	0.0063
Mars	-122382-06-16 16:06 J	-42978436.08	-42978435.83	-42978435.53	0.0089	0.0038
Moon	-122382-06-25 18:15 J	-42978426.98	-42978426.74	-42978426.49	0.0089	0.0014
Earth	-122382-06-25 20:39 J	-42978426.89	-42978426.64	-42978426.38	0.0089	0.0013 *
Venus	-122382-08-31 23:18 J	-42978359.69	-42978359.53	-42978359.36	0.0089	0.0056
Venus	-122381-04-13 11:32 J	-42978134.19	-42978134.02	-42978133.83	0.0089	0.0050
Earth	-122381-06-27 07:56 J	-42978059.38	-42978059.17	-42978058.92	0.0089	0.0040
Moon	-122381-06-27 10:06 J	-42978059.30	-42978059.08	-42978058.82	0.0089	0.0038 *
Venus	-122381-11-25 00:01 J	-42977908.68	-42977908.50	-42977908.30	0.0089	0.0043
Mars	-122380-05-11 04:20 J	-42977741.54	-42977741.32	-42977741.04	0.0089	0.0053
Moon	-122380-06-29 18:58 J	-42977691.84	-42977691.71	-42977691.52	0.0089	0.0069
Earth	-122380-06-29 19:56 J	-42977691.82	-42977691.67	-42977691.48	0.0089	0.0067 *
Venus	-122380-07-08 12:15 J	-42977683.18	-42977682.99	-42977682.78	0.0089	0.0037
Venus	-122379-02-19 00:44 J	-42977457.67	-42977457.47	-42977457.26	0.0089	0.0030
Venus	-122379-10-02 13:13 J	-42977232.15	-42977231.95	-42977231.73	0.0089	0.0023

Mars -122378-04-05 15:22 J -42977047.05 -42977046.86 -42977046.65 0.0089 0.0067
 Venus -122378-05-16 02:10 J -42977006.63 -42977006.41 -42977006.20 0.0089 0.0016
 Venus -122378-12-27 14:39 J -42976781.10 -42976780.89 -42976780.67 0.0089 0.0009
 Venus -122377-08-09 03:22 J -42976555.58 -42976555.36 -42976555.14 0.0089 0.0003
 Mars -122376-02-27 23:18 J -42976352.61 -42976352.53 -42976352.37 0.0089 0.0082
 Venus -122376-03-22 16:06 J -42976330.05 -42976329.83 -42976329.61 0.0089 0.0004
 Venus -122376-11-03 04:49 J -42976104.51 -42976104.30 -42976104.08 0.0089 0.0011
 Venus -122375-06-16 17:32 J -42975878.98 -42975878.77 -42975878.55 0.0089 0.0018
 Venus -122374-01-28 06:15 J -42975653.44 -42975653.24 -42975653.02 0.0089 0.0025
 Venus -122374-09-10 19:13 J -42975427.90 -42975427.70 -42975427.49 0.0089 0.0032
 Venus -122373-04-23 08:10 J -42975202.34 -42975202.16 -42975201.95 0.0089 0.0039
 Venus -122373-12-04 21:22 J -42974976.80 -42974976.61 -42974976.42 0.0089 0.0045
 Venus -122372-07-18 10:06 J -42974751.25 -42974751.08 -42974750.89 0.0089 0.0052
 Venus -122371-02-28 23:03 J -42974525.69 -42974525.54 -42974525.36 0.0089 0.0059
 Venus -122371-10-12 12:01 J -42974300.13 -42974300.00 -42974299.84 0.0089 0.0066
 Venus -122370-05-26 01:42 J -42974074.56 -42974074.43 -42974074.30 0.0089 0.0072
 Venus -122369-01-06 14:39 J -42973848.98 -42973848.89 -42973848.78 0.0089 0.0079
 Venus -122369-08-19 03:37 J -42973623.39 -42973623.35 -42973623.28 0.0089 0.0086
 Mercury -122362-08-02 13:13 J -42971083.98 -42971083.95 -42971083.92 0.0089 0.0087
 Mercury -122362-10-29 16:06 J -42970995.88 -42970995.83 -42970995.74 0.0089 0.0082
 Mercury -122361-01-25 19:42 J -42970907.76 -42970907.68 -42970907.57 0.0089 0.0076
 Mercury -122361-04-22 23:03 J -42970819.64 -42970819.54 -42970819.41 0.0089 0.0070
 Mercury -122361-07-20 02:39 J -42970731.51 -42970731.39 -42970731.25 0.0089 0.0064
 Mercury -122361-10-16 06:01 J -42970643.38 -42970643.25 -42970643.09 0.0089 0.0058
 Mercury -122360-01-12 09:37 J -42970555.25 -42970555.10 -42970554.94 0.0089 0.0052
 Mercury -122360-04-10 12:58 J -42970467.11 -42970466.96 -42970466.79 0.0089 0.0046
 Mercury -122360-07-07 16:34 J -42970378.97 -42970378.81 -42970378.64 0.0089 0.0040
 Mercury -122360-10-03 20:10 J -42970290.83 -42970290.66 -42970290.48 0.0089 0.0034
 Mercury -122360-12-30 23:32 J -42970202.69 -42970202.52 -42970202.33 0.0089 0.0028
 Mercury -122359-03-29 03:08 J -42970114.55 -42970114.37 -42970114.18 0.0089 0.0022

Mercury -122359-06-25 06:44 J -42970026.41 -42970026.22 -42970026.04 0.0089 0.0016
 Mercury -122359-09-21 10:06 J -42969938.27 -42969938.08 -42969937.89 0.0089 0.0010
 Mercury -122359-12-18 13:42 J -42969850.12 -42969849.93 -42969849.74 0.0089 0.0004
 Mercury -122358-03-16 17:03 J -42969761.98 -42969761.79 -42969761.59 0.0089 0.0003
 Mercury -122358-06-12 20:39 J -42969673.83 -42969673.64 -42969673.45 0.0089 0.0008
 Mercury -122358-09-09 00:15 J -42969585.68 -42969585.49 -42969585.30 0.0089 0.0014
 Mercury -122358-12-06 03:37 J -42969497.53 -42969497.35 -42969497.16 0.0089 0.0021
 Mercury -122357-03-03 07:13 J -42969409.38 -42969409.20 -42969409.01 0.0089 0.0026
 Mercury -122357-05-30 10:49 J -42969321.23 -42969321.05 -42969320.87 0.0089 0.0032
 Mercury -122357-08-26 14:25 J -42969233.07 -42969232.90 -42969232.73 0.0089 0.0039
 Mercury -122357-11-22 17:46 J -42969144.92 -42969144.76 -42969144.58 0.0089 0.0045
 Mercury -122356-02-18 21:08 J -42969056.76 -42969056.62 -42969056.44 0.0089 0.0051
 Mercury -122356-05-18 00:44 J -42968968.60 -42968968.47 -42968968.30 0.0089 0.0057
 Mercury -122356-08-14 04:20 J -42968880.44 -42968880.32 -42968880.17 0.0089 0.0064
 Mercury -122356-11-10 08:10 J -42968792.27 -42968792.16 -42968792.03 0.0089 0.0069
 Mercury -122355-02-06 11:46 J -42968704.10 -42968704.01 -42968703.90 0.0089 0.0075
 Mercury -122355-05-05 15:22 J -42968615.93 -42968615.86 -42968615.78 0.0089 0.0081
 Mercury -122355-08-01 19:13 J -42968527.73 -42968527.70 -42968527.67 0.0089 0.0088
 Mars -122316-12-25 11:46 J -42954137.10 -42954137.01 -42954136.91 0.0089 0.0084
 Mars -122314-11-20 05:03 J -42953442.45 -42953442.29 -42953442.07 0.0089 0.0070
 Mars -122312-10-15 01:13 J -42952747.67 -42952747.45 -42952747.18 0.0089 0.0055
 Mars -122310-09-09 22:34 J -42952052.82 -42952052.56 -42952052.26 0.0089 0.0040
 Mars -122308-08-04 21:08 J -42951357.92 -42951357.62 -42951357.31 0.0089 0.0024
 Mars -122306-06-30 22:06 J -42950662.90 -42950662.58 -42950662.26 0.0089 0.0008
 Mars -122304-05-26 00:01 J -42949967.82 -42949967.50 -42949967.18 0.0089 0.0008
 Moon -122304-12-27 18:01 J -42949751.89 -42949751.75 -42949751.57 0.0089 0.0069
 Earth -122304-12-27 19:27 J -42949751.81 -42949751.69 -42949751.52 0.0089 0.0073 *
 Venus -122303-09-21 14:25 J -42949483.94 -42949483.90 -42949483.84 0.0089 0.0086
 Earth -122303-12-30 07:13 J -42949384.40 -42949384.20 -42949383.96 0.0089 0.0046
 Moon -122303-12-30 06:58 J -42949384.40 -42949384.21 -42949383.96 0.0089 0.0050 *

Mars -122302-04-21 02:54 J -42949272.68 -42949272.38 -42949272.07 0.0089 0.0024
 Venus -122302-05-05 03:51 J -42949258.41 -42949258.34 -42949258.22 0.0089 0.0080
 Venus -122302-12-16 17:46 J -42949032.87 -42949032.76 -42949032.62 0.0089 0.0073
 Earth -122301-01-01 18:58 J -42949016.95 -42949016.71 -42949016.45 0.0089 0.0019
 Moon -122301-01-01 19:27 J -42949016.93 -42949016.69 -42949016.44 0.0089 0.0015 *
 Venus -122301-07-29 07:27 J -42948807.32 -42948807.19 -42948807.02 0.0089 0.0066
 Moon -122300-01-03 05:03 J -42948649.55 -42948649.29 -42948649.02 0.0089 0.0004
 Earth -122300-01-03 06:30 J -42948649.48 -42948649.23 -42948648.97 0.0089 0.0008 *
 Venus -122300-03-11 21:08 J -42948581.77 -42948581.62 -42948581.44 0.0089 0.0059
 Mars -122300-03-16 07:42 J -42948577.44 -42948577.18 -42948576.87 0.0089 0.0041
 Venus -122300-10-23 11:03 J -42948356.21 -42948356.04 -42948355.85 0.0089 0.0052
 Earth -122299-01-05 17:32 J -42948282.00 -42948281.77 -42948281.53 0.0089 0.0035
 Moon -122299-01-05 19:56 J -42948281.88 -42948281.67 -42948281.43 0.0089 0.0040 *
 Venus -122299-06-06 00:44 J -42948130.65 -42948130.47 -42948130.27 0.0089 0.0045
 Moon -122298-01-08 01:42 J -42947914.62 -42947914.43 -42947914.22 0.0089 0.0057
 Earth -122298-01-08 04:20 J -42947914.48 -42947914.32 -42947914.11 0.0089 0.0062 *
 Venus -122298-01-17 13:56 J -42947905.10 -42947904.92 -42947904.70 0.0089 0.0039
 Mars -122298-02-09 15:08 J -42947882.09 -42947881.87 -42947881.60 0.0089 0.0057
 Venus -122298-08-31 03:37 J -42947679.54 -42947679.35 -42947679.13 0.0089 0.0032
 Earth -122297-01-10 15:08 J -42947546.88 -42947546.87 -42947546.81 0.0089 0.0088
 Venus -122297-04-12 17:18 J -42947453.99 -42947453.78 -42947453.56 0.0089 0.0024
 Venus -122297-11-24 06:44 J -42947228.43 -42947228.22 -42947227.99 0.0089 0.0018
 Mars -122296-01-04 23:03 J -42947186.69 -42947186.54 -42947186.32 0.0089 0.0073
 Venus -122296-07-07 20:10 J -42947002.87 -42947002.66 -42947002.43 0.0089 0.0011
 Venus -122295-02-18 09:37 J -42946777.32 -42946777.10 -42946776.88 0.0089 0.0004
 Venus -122295-10-01 23:03 J -42946551.77 -42946551.54 -42946551.32 0.0089 0.0003
 Mars -122295-12-01 08:25 J -42946491.16 -42946491.15 -42946491.07 0.0089 0.0088
 Venus -122294-05-15 12:01 J -42946326.21 -42946326.00 -42946325.77 0.0089 0.0011
 Venus -122294-12-27 01:27 J -42946100.66 -42946100.44 -42946100.23 0.0089 0.0017
 Venus -122293-08-08 14:10 J -42945875.11 -42945874.91 -42945874.69 0.0089 0.0024

Venus -122292-03-22 03:08 J -42945649.56 -42945649.37 -42945649.15 0.0089 0.0031

Venus -122292-11-02 16:06 J -42945424.01 -42945423.83 -42945423.61 0.0088 0.0038

Venus -122291-06-16 05:18 J -42945198.46 -42945198.28 -42945198.08 0.0088 0.0044

Venus -122290-01-27 18:01 J -42944972.91 -42944972.75 -42944972.55 0.0088 0.0051

Venus -122290-09-10 06:44 J -42944747.36 -42944747.22 -42944747.03 0.0088 0.0058

Venus -122289-04-22 19:56 J -42944521.81 -42944521.67 -42944521.51 0.0088 0.0064

Venus -122289-12-04 08:25 J -42944296.26 -42944296.15 -42944295.99 0.0088 0.0071

Venus -122288-07-17 21:22 J -42944070.70 -42944070.61 -42944070.48 0.0088 0.0077

Venus -122287-02-28 09:51 J -42943845.13 -42943845.09 -42943844.99 0.0088 0.0084

Mercury -122281-02-29 15:22 J -42941652.87 -42941652.86 -42941652.85 0.0088 0.0088

Mercury -122281-05-27 16:34 J -42941564.84 -42941564.81 -42941564.76 0.0088 0.0084

Mercury -122281-08-23 18:01 J -42941476.80 -42941476.75 -42941476.68 0.0088 0.0079

Mercury -122281-11-19 19:27 J -42941388.75 -42941388.69 -42941388.61 0.0088 0.0075

Mercury -122280-02-15 21:08 J -42941300.70 -42941300.62 -42941300.54 0.0088 0.0071

Mercury -122280-05-14 22:20 J -42941212.65 -42941212.57 -42941212.47 0.0088 0.0067

Mercury -122280-08-10 23:46 J -42941124.60 -42941124.51 -42941124.40 0.0088 0.0062

Mercury -122280-11-07 01:13 J -42941036.54 -42941036.45 -42941036.34 0.0088 0.0058

Mercury -122279-02-03 02:54 J -42940948.49 -42940948.38 -42940948.27 0.0088 0.0054

Mercury -122279-05-02 04:06 J -42940860.43 -42940860.33 -42940860.21 0.0088 0.0050

Mercury -122279-07-29 05:32 J -42940772.38 -42940772.27 -42940772.15 0.0088 0.0045

Mercury -122279-10-25 06:58 J -42940684.32 -42940684.21 -42940684.08 0.0088 0.0041

Mercury -122278-01-21 08:25 J -42940596.27 -42940596.15 -42940596.02 0.0088 0.0037

Mercury -122278-04-19 09:51 J -42940508.21 -42940508.09 -42940507.96 0.0088 0.0033

Mercury -122278-07-16 11:18 J -42940420.16 -42940420.03 -42940419.90 0.0088 0.0028

Mercury -122278-10-12 12:30 J -42940332.10 -42940331.98 -42940331.84 0.0088 0.0025

Mercury -122277-01-08 13:56 J -42940244.04 -42940243.92 -42940243.78 0.0088 0.0020

Mercury -122277-04-05 15:22 J -42940155.99 -42940155.86 -42940155.72 0.0088 0.0016

Mercury -122277-07-02 16:49 J -42940067.93 -42940067.80 -42940067.66 0.0088 0.0012

Mercury -122277-09-28 18:15 J -42939979.87 -42939979.74 -42939979.60 0.0088 0.0007

Mercury -122277-12-25 19:42 J -42939891.82 -42939891.68 -42939891.55 0.0088 0.0003

Mercury	-122276-03-23 21:08 J	-42939803.76	-42939803.62	-42939803.49	0.0088	0.0003
Mercury	-122276-06-19 22:20 J	-42939715.70	-42939715.57	-42939715.43	0.0088	0.0006
Mercury	-122276-09-15 23:46 J	-42939627.64	-42939627.51	-42939627.37	0.0088	0.0010
Mercury	-122276-12-13 01:13 J	-42939539.58	-42939539.45	-42939539.32	0.0088	0.0014
Mercury	-122275-03-11 02:25 J	-42939451.53	-42939451.40	-42939451.26	0.0088	0.0018
Mercury	-122275-06-07 03:51 J	-42939363.47	-42939363.34	-42939363.21	0.0088	0.0022
Mercury	-122275-09-03 05:18 J	-42939275.41	-42939275.28	-42939275.15	0.0088	0.0026
Mercury	-122275-11-30 06:30 J	-42939187.35	-42939187.23	-42939187.10	0.0088	0.0031
Mercury	-122274-02-26 07:56 J	-42939099.29	-42939099.17	-42939099.04	0.0088	0.0035
Mercury	-122274-05-25 09:22 J	-42939011.23	-42939011.11	-42939010.99	0.0088	0.0039
Mercury	-122274-08-21 10:34 J	-42938923.17	-42938923.06	-42938922.94	0.0088	0.0043
Mercury	-122274-11-17 11:46 J	-42938835.11	-42938835.01	-42938834.88	0.0088	0.0048
Mercury	-122273-02-13 13:13 J	-42938747.05	-42938746.95	-42938746.83	0.0088	0.0051
Mercury	-122273-05-11 14:39 J	-42938658.99	-42938658.89	-42938658.78	0.0088	0.0055
Mercury	-122273-08-07 16:06 J	-42938570.92	-42938570.83	-42938570.73	0.0088	0.0059
Mercury	-122273-11-03 17:18 J	-42938482.86	-42938482.78	-42938482.68	0.0088	0.0064
Mercury	-122272-01-30 18:44 J	-42938394.80	-42938394.72	-42938394.63	0.0088	0.0067
Mercury	-122272-04-28 20:10 J	-42938306.73	-42938306.66	-42938306.58	0.0088	0.0071
Mercury	-122272-07-25 21:22 J	-42938218.67	-42938218.61	-42938218.54	0.0088	0.0076
Mercury	-122272-10-21 22:49 J	-42938130.60	-42938130.55	-42938130.49	0.0088	0.0080
Mercury	-122271-01-18 00:15 J	-42938042.53	-42938042.49	-42938042.45	0.0088	0.0084
Mercury	-122271-04-16 01:27 J	-42937954.44	-42937954.44	-42937954.42	0.0088	0.0088
Mars	-122232-10-06 00:15 J	-42923536.62	-42923536.49	-42923536.30	0.0088	0.0076
Mars	-122230-08-31 22:49 J	-42922841.76	-42922841.55	-42922841.29	0.0088	0.0061
Mars	-122228-07-26 19:42 J	-42922146.92	-42922146.68	-42922146.38	0.0088	0.0046
Mars	-122226-06-21 16:20 J	-42921452.11	-42921451.82	-42921451.52	0.0088	0.0030
Mars	-122224-05-16 10:20 J	-42920757.37	-42920757.07	-42920756.75	0.0089	0.0015
Mars	-122222-04-11 03:37 J	-42920062.66	-42920062.35	-42920062.03	0.0089	0.0002
Moon	-122221-06-17 15:51 J	-42919628.91	-42919628.84	-42919628.72	0.0089	0.0082
Earth	-122221-06-17 16:06 J	-42919628.91	-42919628.83	-42919628.69	0.0089	0.0080 *

Venus -122221-10-31 20:25 J -42919492.67 -42919492.65 -42919492.63 0.0089 0.0088
 Mars -122220-03-05 19:27 J -42919367.99 -42919367.69 -42919367.38 0.0089 0.0017
 Venus -122220-06-14 08:10 J -42919267.23 -42919267.16 -42919267.07 0.0089 0.0082
 Moon -122220-06-20 02:25 J -42919261.60 -42919261.40 -42919261.16 0.0089 0.0052
 Earth -122220-06-20 03:51 J -42919261.54 -42919261.34 -42919261.13 0.0089 0.0053 *
 Venus -122219-01-25 20:10 J -42919041.75 -42919041.66 -42919041.53 0.0089 0.0076
 Earth -122219-06-22 14:54 J -42918894.11 -42918893.88 -42918893.62 0.0089 0.0027
 Moon -122219-06-22 16:34 J -42918894.04 -42918893.81 -42918893.57 0.0089 0.0029 *
 Venus -122219-09-08 08:10 J -42918816.27 -42918816.16 -42918816.00 0.0089 0.0070
 Mars -122218-01-29 09:08 J -42918673.40 -42918673.12 -42918672.82 0.0089 0.0032
 Venus -122218-04-21 20:54 J -42918590.77 -42918590.63 -42918590.46 0.0089 0.0063
 Moon -122218-06-24 23:46 J -42918526.77 -42918526.51 -42918526.24 0.0089 0.0004
 Earth -122218-06-25 02:39 J -42918526.65 -42918526.39 -42918526.13 0.0089 0.0001 *
 Venus -122218-12-03 08:54 J -42918365.27 -42918365.13 -42918364.94 0.0089 0.0057
 Earth -122217-06-26 13:56 J -42918159.15 -42918158.92 -42918158.66 0.0089 0.0028
 Moon -122217-06-26 17:18 J -42918159.02 -42918158.78 -42918158.53 0.0089 0.0025 *
 Venus -122217-07-15 21:22 J -42918139.78 -42918139.61 -42918139.42 0.0089 0.0050
 Mars -122217-12-23 20:39 J -42917978.88 -42917978.64 -42917978.36 0.0089 0.0047
 Venus -122216-02-26 09:37 J -42917914.27 -42917914.10 -42917913.90 0.0089 0.0044
 Moon -122216-06-28 22:34 J -42917791.74 -42917791.56 -42917791.35 0.0089 0.0058
 Earth -122216-06-29 01:42 J -42917791.61 -42917791.43 -42917791.20 0.0089 0.0055 *
 Venus -122216-10-09 22:06 J -42917688.77 -42917688.58 -42917688.37 0.0089 0.0037
 Venus -122215-05-23 10:34 J -42917463.26 -42917463.06 -42917462.85 0.0089 0.0030
 Earth -122215-07-01 13:27 J -42917424.01 -42917423.94 -42917423.81 0.0089 0.0082
 Moon -122215-07-01 17:18 J -42917423.88 -42917423.78 -42917423.63 0.0089 0.0078 *
 Mars -122215-11-18 08:10 J -42917284.37 -42917284.16 -42917283.93 0.0089 0.0061
 Venus -122214-01-03 22:49 J -42917237.74 -42917237.55 -42917237.32 0.0089 0.0024
 Venus -122214-08-17 11:32 J -42917012.23 -42917012.02 -42917011.80 0.0089 0.0017
 Venus -122213-03-30 00:15 J -42916786.71 -42916786.49 -42916786.28 0.0089 0.0010
 Mars -122213-10-12 18:30 J -42916589.88 -42916589.73 -42916589.56 0.0089 0.0075

Venus -122213-11-10 12:44 J -42916561.19 -42916560.97 -42916560.75 0.0089 0.0003

Venus -122212-06-24 01:27 J -42916335.66 -42916335.44 -42916335.23 0.0089 0.0004

Venus -122211-02-04 13:56 J -42916110.13 -42916109.92 -42916109.70 0.0089 0.0010

Mars -122211-09-07 02:54 J -42915895.38 -42915895.38 -42915895.38 0.0089 0.0089

Venus -122211-09-18 02:39 J -42915884.60 -42915884.39 -42915884.17 0.0089 0.0017

Venus -122210-05-01 15:37 J -42915659.06 -42915658.85 -42915658.64 0.0089 0.0024

Venus -122210-12-13 04:20 J -42915433.52 -42915433.32 -42915433.11 0.0089 0.0031

Venus -122209-07-25 17:03 J -42915207.98 -42915207.79 -42915207.58 0.0089 0.0038

Venus -122208-03-08 05:46 J -42914982.43 -42914982.26 -42914982.05 0.0089 0.0045

Venus -122208-10-19 18:58 J -42914756.88 -42914756.71 -42914756.52 0.0089 0.0051

Venus -122207-06-02 07:56 J -42914531.32 -42914531.17 -42914530.99 0.0089 0.0058

Venus -122206-01-13 20:54 J -42914305.76 -42914305.63 -42914305.46 0.0089 0.0065

Venus -122206-08-27 09:51 J -42914080.20 -42914080.09 -42914079.94 0.0089 0.0072

Venus -122205-04-08 23:18 J -42913854.62 -42913854.53 -42913854.42 0.0089 0.0078

Venus -122205-11-20 12:15 J -42913629.04 -42913628.99 -42913628.91 0.0089 0.0085

Mercury -122197-04-28 10:20 J -42910913.10 -42910913.07 -42910913.02 0.0089 0.0086

Mercury -122197-07-25 13:56 J -42910825.00 -42910824.92 -42910824.84 0.0089 0.0080

Mercury -122197-10-21 16:49 J -42910736.88 -42910736.80 -42910736.67 0.0089 0.0075

Mercury -122196-01-17 20:25 J -42910648.75 -42910648.65 -42910648.51 0.0089 0.0069

Mercury -122196-04-15 23:46 J -42910560.62 -42910560.51 -42910560.36 0.0089 0.0063

Mercury -122196-07-13 03:22 J -42910472.49 -42910472.36 -42910472.20 0.0089 0.0057

Mercury -122196-10-09 06:58 J -42910384.36 -42910384.21 -42910384.05 0.0089 0.0051

Mercury -122195-01-05 10:20 J -42910296.22 -42910296.07 -42910295.90 0.0089 0.0045

Mercury -122195-04-03 13:56 J -42910208.08 -42910207.92 -42910207.74 0.0089 0.0039

Mercury -122195-06-30 17:18 J -42910119.95 -42910119.78 -42910119.59 0.0089 0.0033

Mercury -122195-09-26 20:54 J -42910031.81 -42910031.63 -42910031.44 0.0089 0.0027

Mercury -122195-12-24 00:30 J -42909943.66 -42909943.48 -42909943.29 0.0089 0.0021

Mercury -122194-03-22 03:51 J -42909855.52 -42909855.34 -42909855.15 0.0089 0.0015

Mercury -122194-06-18 07:27 J -42909767.38 -42909767.19 -42909767.00 0.0089 0.0009

Mercury -122194-09-14 11:03 J -42909679.23 -42909679.04 -42909678.85 0.0089 0.0003

Mercury -122194-12-11 14:25 J -42909591.09 -42909590.90 -42909590.70 0.0089 0.0004
 Mercury -122193-03-08 18:01 J -42909502.94 -42909502.75 -42909502.56 0.0089 0.0009
 Mercury -122193-06-04 21:37 J -42909414.79 -42909414.60 -42909414.41 0.0089 0.0015
 Mercury -122193-09-01 00:58 J -42909326.64 -42909326.46 -42909326.27 0.0089 0.0022
 Mercury -122193-11-28 04:20 J -42909238.49 -42909238.32 -42909238.12 0.0089 0.0028
 Mercury -122192-02-24 07:56 J -42909150.33 -42909150.17 -42909149.98 0.0089 0.0034
 Mercury -122192-05-23 11:32 J -42909062.18 -42909062.02 -42909061.84 0.0089 0.0040
 Mercury -122192-08-19 15:08 J -42908974.02 -42908973.87 -42908973.70 0.0089 0.0046
 Mercury -122192-11-15 18:44 J -42908885.87 -42908885.72 -42908885.56 0.0089 0.0052
 Mercury -122191-02-11 22:20 J -42908797.71 -42908797.57 -42908797.42 0.0089 0.0058
 Mercury -122191-05-11 01:56 J -42908709.54 -42908709.42 -42908709.28 0.0089 0.0064
 Mercury -122191-08-07 05:32 J -42908621.38 -42908621.27 -42908621.15 0.0089 0.0070
 Mercury -122191-11-03 08:39 J -42908533.21 -42908533.14 -42908533.02 0.0089 0.0077
 Mercury -122190-01-30 12:30 J -42908445.03 -42908444.98 -42908444.89 0.0089 0.0083
 Mercury -122190-04-28 16:20 J -42908356.82 -42908356.82 -42908356.80 0.0089 0.0089
 Mars -122152-08-08 21:08 J -42894374.65 -42894374.62 -42894374.52 0.0089 0.0087
 Mars -122150-07-04 13:56 J -42893680.07 -42893679.92 -42893679.72 0.0089 0.0073
 Mars -122148-05-29 07:27 J -42892985.39 -42892985.19 -42892984.92 0.0089 0.0059
 Mars -122146-04-24 03:37 J -42892290.60 -42892290.35 -42892290.06 0.0089 0.0044
 Mars -122144-03-19 01:13 J -42891595.73 -42891595.45 -42891595.13 0.0089 0.0029
 Mars -122142-02-12 00:30 J -42890900.79 -42890900.48 -42890900.16 0.0089 0.0013
 Mars -122140-01-07 01:27 J -42890205.76 -42890205.44 -42890205.12 0.0089 0.0003
 Moon -122140-12-26 20:25 J -42889851.72 -42889851.65 -42889851.52 0.0089 0.0082
 Earth -122140-12-27 00:01 J -42889851.54 -42889851.50 -42889851.42 0.0089 0.0086 *
 Mars -122139-12-03 03:22 J -42889510.65 -42889510.36 -42889510.03 0.0089 0.0019
 Venus -122139-12-23 20:54 J -42889489.65 -42889489.63 -42889489.57 0.0089 0.0087
 Earth -122139-12-29 11:46 J -42889484.18 -42889484.01 -42889483.80 0.0089 0.0059
 Moon -122139-12-29 15:22 J -42889484.02 -42889483.86 -42889483.66 0.0089 0.0064 *
 Venus -122138-08-06 10:49 J -42889264.13 -42889264.05 -42889263.94 0.0089 0.0080
 Moon -122138-12-31 20:10 J -42889116.89 -42889116.66 -42889116.40 0.0089 0.0028

Earth -122137-01-01 00:01 J -42889116.74 -42889116.50 -42889116.26 0.0089 0.0032 *
 Venus -122137-03-19 00:15 J -42889038.59 -42889038.49 -42889038.34 0.0089 0.0074
 Mars -122137-10-28 06:44 J -42888815.51 -42888815.22 -42888814.92 0.0089 0.0034
 Venus -122137-10-30 14:10 J -42888813.04 -42888812.91 -42888812.74 0.0089 0.0067
 Earth -122136-01-02 11:18 J -42888749.28 -42888749.03 -42888748.77 0.0089 0.0005
 Moon -122136-01-02 14:25 J -42888749.15 -42888748.90 -42888748.63 0.0089 0.0010 *
 Venus -122136-06-13 03:51 J -42888587.48 -42888587.34 -42888587.15 0.0089 0.0060
 Moon -122135-01-04 19:56 J -42888381.90 -42888381.67 -42888381.42 0.0089 0.0026
 Earth -122135-01-04 22:34 J -42888381.80 -42888381.56 -42888381.30 0.0089 0.0022 *
 Venus -122135-01-24 17:46 J -42888361.93 -42888361.76 -42888361.57 0.0089 0.0053
 Venus -122135-09-07 07:27 J -42888136.37 -42888136.19 -42888135.99 0.0089 0.0046
 Mars -122135-09-23 11:18 J -42888120.28 -42888120.03 -42888119.75 0.0089 0.0050
 Earth -122134-01-07 09:22 J -42888014.30 -42888014.11 -42888013.87 0.0089 0.0049
 Moon -122134-01-07 11:18 J -42888014.25 -42888014.03 -42888013.80 0.0089 0.0044 *
 Venus -122134-04-20 21:08 J -42887910.82 -42887910.62 -42887910.41 0.0089 0.0039
 Venus -122134-12-02 10:49 J -42887685.26 -42887685.05 -42887684.84 0.0089 0.0032
 Moon -122133-01-09 19:13 J -42887646.78 -42887646.70 -42887646.56 0.0089 0.0079
 Earth -122133-01-09 20:25 J -42887646.77 -42887646.65 -42887646.49 0.0089 0.0075 *
 Venus -122133-07-15 00:01 J -42887459.70 -42887459.50 -42887459.27 0.0089 0.0026
 Mars -122133-08-18 17:46 J -42887424.94 -42887424.76 -42887424.51 0.0089 0.0066
 Venus -122132-02-25 13:27 J -42887234.14 -42887233.94 -42887233.71 0.0089 0.0019
 Venus -122132-10-09 03:08 J -42887008.58 -42887008.37 -42887008.14 0.0089 0.0012
 Venus -122131-05-22 16:49 J -42886783.02 -42886782.80 -42886782.58 0.0089 0.0004
 Mars -122131-07-15 02:10 J -42886729.51 -42886729.41 -42886729.25 0.0089 0.0081
 Venus -122130-01-03 06:01 J -42886557.47 -42886557.25 -42886557.02 0.0089 0.0003
 Venus -122130-08-16 19:13 J -42886331.91 -42886331.70 -42886331.47 0.0089 0.0010
 Venus -122129-03-29 08:39 J -42886106.36 -42886106.14 -42886105.92 0.0089 0.0016
 Venus -122129-11-09 21:51 J -42885880.80 -42885880.59 -42885880.37 0.0089 0.0023
 Venus -122128-06-23 10:49 J -42885655.25 -42885655.05 -42885654.83 0.0089 0.0030
 Venus -122127-02-03 23:46 J -42885429.70 -42885429.51 -42885429.30 0.0088 0.0036

Venus -122127-09-17 12:58 J -42885204.15 -42885203.96 -42885203.76 0.0088 0.0043

Venus -122126-05-01 01:42 J -42884978.60 -42884978.43 -42884978.23 0.0088 0.0050

Venus -122126-12-12 14:39 J -42884753.04 -42884752.89 -42884752.70 0.0088 0.0056

Venus -122125-07-25 03:37 J -42884527.49 -42884527.35 -42884527.18 0.0088 0.0063

Venus -122124-03-07 16:06 J -42884301.94 -42884301.83 -42884301.67 0.0088 0.0070

Venus -122124-10-19 05:18 J -42884076.38 -42884076.28 -42884076.15 0.0088 0.0076

Venus -122123-06-01 17:46 J -42883850.81 -42883850.76 -42883850.65 0.0088 0.0083

Venus -122122-01-13 06:58 J -42883625.21 -42883625.21 -42883625.19 0.0088 0.0088

Mercury -122117-11-25 13:56 J -42881481.93 -42881481.92 -42881481.89 0.0088 0.0087

Mercury -122116-02-21 15:37 J -42881393.89 -42881393.85 -42881393.80 0.0088 0.0083

Mercury -122116-05-20 17:03 J -42881305.85 -42881305.79 -42881305.72 0.0088 0.0078

Mercury -122116-08-16 18:15 J -42881217.80 -42881217.74 -42881217.65 0.0088 0.0075

Mercury -122116-11-12 19:42 J -42881129.75 -42881129.68 -42881129.58 0.0088 0.0071

Mercury -122115-02-08 21:22 J -42881041.69 -42881041.61 -42881041.52 0.0088 0.0066

Mercury -122115-05-07 22:49 J -42880953.64 -42880953.55 -42880953.45 0.0088 0.0061

Mercury -122115-08-04 00:15 J -42880865.59 -42880865.49 -42880865.38 0.0088 0.0057

Mercury -122115-10-31 01:27 J -42880777.53 -42880777.44 -42880777.32 0.0088 0.0054

Mercury -122114-01-27 03:08 J -42880689.48 -42880689.37 -42880689.25 0.0088 0.0049

Mercury -122114-04-25 04:34 J -42880601.43 -42880601.31 -42880601.19 0.0088 0.0044

Mercury -122114-07-22 05:46 J -42880513.37 -42880513.26 -42880513.13 0.0088 0.0041

Mercury -122114-10-18 07:13 J -42880425.31 -42880425.20 -42880425.07 0.0088 0.0036

Mercury -122113-01-14 08:54 J -42880337.26 -42880337.13 -42880337.01 0.0088 0.0032

Mercury -122113-04-11 10:06 J -42880249.20 -42880249.08 -42880248.94 0.0088 0.0028

Mercury -122113-07-08 11:32 J -42880161.15 -42880161.02 -42880160.88 0.0088 0.0023

Mercury -122113-10-04 12:58 J -42880073.09 -42880072.96 -42880072.82 0.0088 0.0019

Mercury -122113-12-31 14:25 J -42879985.03 -42879984.90 -42879984.76 0.0088 0.0015

Mercury -122112-03-29 15:51 J -42879896.97 -42879896.84 -42879896.71 0.0088 0.0011

Mercury -122112-06-25 17:18 J -42879808.92 -42879808.78 -42879808.65 0.0088 0.0007

Mercury -122112-09-21 18:30 J -42879720.86 -42879720.73 -42879720.59 0.0088 0.0004

Mercury -122112-12-18 19:56 J -42879632.80 -42879632.67 -42879632.53 0.0088 0.0003

Mercury -122111-03-16 21:22 J -42879544.74 -42879544.61 -42879544.47 0.0088 0.0006

Mercury -122111-06-12 22:49 J -42879456.69 -42879456.55 -42879456.42 0.0088 0.0010

Mercury -122111-09-09 00:01 J -42879368.63 -42879368.50 -42879368.36 0.0088 0.0015

Mercury -122111-12-06 01:27 J -42879280.57 -42879280.44 -42879280.31 0.0088 0.0019

Mercury -122110-03-04 02:54 J -42879192.51 -42879192.38 -42879192.25 0.0088 0.0023

Mercury -122110-05-31 04:06 J -42879104.45 -42879104.33 -42879104.20 0.0088 0.0027

Mercury -122110-08-27 05:32 J -42879016.39 -42879016.27 -42879016.14 0.0088 0.0031

Mercury -122110-11-23 06:44 J -42878928.33 -42878928.22 -42878928.09 0.0088 0.0036

Mercury -122109-02-19 08:10 J -42878840.27 -42878840.16 -42878840.03 0.0088 0.0039

Mercury -122109-05-17 09:37 J -42878752.21 -42878752.10 -42878751.98 0.0088 0.0043

Mercury -122109-08-13 11:03 J -42878664.15 -42878664.04 -42878663.93 0.0088 0.0047

Mercury -122109-11-09 12:15 J -42878576.09 -42878575.99 -42878575.88 0.0088 0.0052

Mercury -122108-02-05 13:42 J -42878488.03 -42878487.93 -42878487.82 0.0088 0.0056

Mercury -122108-05-04 14:54 J -42878399.97 -42878399.88 -42878399.77 0.0088 0.0060

Mercury -122108-07-31 16:06 J -42878311.91 -42878311.83 -42878311.72 0.0088 0.0065

Mercury -122108-10-27 17:32 J -42878223.84 -42878223.77 -42878223.67 0.0088 0.0068

Mercury -122107-01-23 18:58 J -42878135.78 -42878135.71 -42878135.63 0.0088 0.0072

Mercury -122107-04-21 20:10 J -42878047.71 -42878047.66 -42878047.58 0.0088 0.0077

Mercury -122107-07-18 21:37 J -42877959.64 -42877959.60 -42877959.54 0.0088 0.0080

Mercury -122107-10-14 23:03 J -42877871.57 -42877871.54 -42877871.50 0.0088 0.0084

Mercury -122106-01-11 00:30 J -42877783.48 -42877783.48 -42877783.48 0.0088 0.0088

Mars -122068-05-20 03:08 J -42863774.50 -42863774.37 -42863774.21 0.0088 0.0079

Mars -122066-04-15 04:06 J -42863079.55 -42863079.33 -42863079.11 0.0088 0.0064

Mars -122064-03-10 02:54 J -42862384.64 -42862384.38 -42862384.11 0.0088 0.0049

Mars -122062-02-02 23:32 J -42861689.81 -42861689.52 -42861689.22 0.0088 0.0034

Mars -122061-12-28 19:13 J -42860995.00 -42860994.70 -42860994.38 0.0089 0.0019

Mars -122059-11-23 13:27 J -42860300.25 -42860299.94 -42860299.62 0.0089 0.0004

Mars -122057-10-18 05:32 J -42859605.57 -42859605.27 -42859604.95 0.0089 0.0012

Venus -122056-02-02 05:18 J -42859498.28 -42859498.28 -42859498.26 0.0089 0.0088

Earth -122056-06-19 08:39 J -42859361.28 -42859361.14 -42859360.94 0.0089 0.0067

Moon	-122056-06-19 12:15 J	-42859361.14	-42859360.99	-42859360.78	0.0089	0.0063	*
Venus	-122056-09-15 17:03 J	-42859272.84	-42859272.79	-42859272.69	0.0089	0.0083	
Venus	-122055-04-29 05:46 J	-42859047.36	-42859047.26	-42859047.14	0.0089	0.0076	
Moon	-122055-06-21 17:32 J	-42858993.99	-42858993.77	-42858993.55	0.0089	0.0043	
Earth	-122055-06-21 20:10 J	-42858993.88	-42858993.66	-42858993.42	0.0089	0.0040	*
Mars	-122055-09-12 20:54 J	-42858910.91	-42858910.63	-42858910.32	0.0089	0.0027	
Venus	-122055-12-10 17:46 J	-42858821.88	-42858821.76	-42858821.61	0.0089	0.0070	
Earth	-122054-06-24 07:42 J	-42858626.43	-42858626.18	-42858625.92	0.0089	0.0013	
Moon	-122054-06-24 10:20 J	-42858626.32	-42858626.07	-42858625.80	0.0089	0.0009	*
Venus	-122054-07-24 05:46 J	-42858596.39	-42858596.26	-42858596.09	0.0089	0.0064	
Venus	-122053-03-05 18:15 J	-42858370.89	-42858370.74	-42858370.56	0.0089	0.0057	
Moon	-122053-06-25 17:46 J	-42858259.01	-42858258.76	-42858258.51	0.0089	0.0010	
Earth	-122053-06-25 19:13 J	-42858258.94	-42858258.70	-42858258.44	0.0089	0.0015	*
Mars	-122053-08-07 11:03 J	-42858216.31	-42858216.04	-42858215.77	0.0089	0.0041	
Venus	-122053-10-17 06:15 J	-42858145.39	-42858145.24	-42858145.04	0.0089	0.0051	
Venus	-122052-05-30 18:58 J	-42857919.89	-42857919.71	-42857919.51	0.0089	0.0044	
Earth	-122052-06-28 06:44 J	-42857891.43	-42857891.22	-42857890.97	0.0089	0.0042	
Moon	-122052-06-28 07:13 J	-42857891.41	-42857891.20	-42857890.95	0.0089	0.0046	*
Venus	-122051-01-11 07:27 J	-42857694.39	-42857694.19	-42857693.99	0.0089	0.0037	
Moon	-122051-06-30 18:15 J	-42857523.88	-42857523.74	-42857523.54	0.0089	0.0065	
Earth	-122051-06-30 18:30 J	-42857523.87	-42857523.73	-42857523.55	0.0089	0.0069	*
Mars	-122051-07-02 22:06 J	-42857521.78	-42857521.58	-42857521.30	0.0089	0.0056	
Venus	-122051-08-24 19:42 J	-42857468.88	-42857468.68	-42857468.47	0.0089	0.0031	
Venus	-122050-04-07 08:10 J	-42857243.36	-42857243.16	-42857242.94	0.0089	0.0024	
Venus	-122050-11-18 20:39 J	-42857017.85	-42857017.64	-42857017.42	0.0089	0.0017	
Mars	-122049-05-27 09:51 J	-42856827.26	-42856827.09	-42856826.88	0.0089	0.0069	
Venus	-122049-07-01 09:08 J	-42856792.33	-42856792.12	-42856791.90	0.0089	0.0011	
Venus	-122048-02-11 21:37 J	-42856566.82	-42856566.60	-42856566.38	0.0089	0.0004	
Venus	-122048-09-25 10:06 J	-42856341.29	-42856341.08	-42856340.86	0.0089	0.0004	
Mars	-122047-04-21 20:25 J	-42856132.72	-42856132.65	-42856132.51	0.0089	0.0083	

Venus -122047-05-08 22:49 J -42856115.76 -42856115.55 -42856115.33 0.0089 0.0010

Venus -122047-12-20 11:32 J -42855890.23 -42855890.02 -42855889.80 0.0089 0.0016

Venus -122046-08-03 00:15 J -42855664.70 -42855664.49 -42855664.28 0.0089 0.0023

Venus -122045-03-15 12:58 J -42855439.16 -42855438.96 -42855438.75 0.0089 0.0030

Venus -122045-10-27 01:27 J -42855213.62 -42855213.44 -42855213.22 0.0089 0.0037

Venus -122044-06-09 14:25 J -42854988.07 -42854987.90 -42854987.69 0.0089 0.0044

Venus -122043-01-21 03:37 J -42854762.53 -42854762.35 -42854762.17 0.0089 0.0050

Venus -122043-09-03 16:20 J -42854536.97 -42854536.82 -42854536.64 0.0089 0.0057

Venus -122042-04-17 05:18 J -42854311.41 -42854311.28 -42854311.11 0.0089 0.0064

Venus -122042-11-28 18:15 J -42854085.85 -42854085.74 -42854085.58 0.0089 0.0071

Venus -122041-07-11 07:27 J -42853860.28 -42853860.19 -42853860.07 0.0089 0.0077

Venus -122040-02-21 20:25 J -42853634.70 -42853634.65 -42853634.56 0.0089 0.0084

Mercury -122032-01-23 07:42 J -42850742.22 -42850742.18 -42850742.12 0.0089 0.0085

Mercury -122032-04-21 11:03 J -42850654.12 -42850654.04 -42850653.95 0.0089 0.0079

Mercury -122032-07-18 14:10 J -42850566.00 -42850565.91 -42850565.79 0.0089 0.0074

Mercury -122032-10-14 17:32 J -42850477.87 -42850477.77 -42850477.63 0.0089 0.0068

Mercury -122031-01-10 21:08 J -42850389.74 -42850389.62 -42850389.47 0.0089 0.0062

Mercury -122031-04-09 00:30 J -42850301.61 -42850301.48 -42850301.32 0.0089 0.0056

Mercury -122031-07-06 04:06 J -42850213.48 -42850213.33 -42850213.17 0.0089 0.0050

Mercury -122031-10-02 07:27 J -42850125.34 -42850125.19 -42850125.01 0.0089 0.0044

Mercury -122031-12-29 11:03 J -42850037.20 -42850037.04 -42850036.86 0.0089 0.0038

Mercury -122030-03-27 14:39 J -42849949.07 -42849948.89 -42849948.71 0.0089 0.0032

Mercury -122030-06-23 18:01 J -42849860.93 -42849860.75 -42849860.56 0.0089 0.0026

Mercury -122030-09-19 21:37 J -42849772.79 -42849772.60 -42849772.42 0.0089 0.0020

Mercury -122030-12-17 00:58 J -42849684.64 -42849684.46 -42849684.27 0.0089 0.0014

Mercury -122029-03-14 04:34 J -42849596.50 -42849596.31 -42849596.12 0.0089 0.0008

Mercury -122029-06-10 08:10 J -42849508.35 -42849508.16 -42849507.97 0.0089 0.0003

Mercury -122029-09-06 11:32 J -42849420.21 -42849420.02 -42849419.83 0.0089 0.0004

Mercury -122029-12-03 15:08 J -42849332.06 -42849331.87 -42849331.68 0.0089 0.0010

Mercury -122028-03-01 18:30 J -42849243.91 -42849243.73 -42849243.54 0.0089 0.0016

Mercury	-122028-05-28 22:06 J	-42849155.76	-42849155.58	-42849155.39	0.0089	0.0022
Mercury	-122028-08-25 01:42 J	-42849067.61	-42849067.43	-42849067.25	0.0089	0.0028
Mercury	-122028-11-21 05:18 J	-42848979.46	-42848979.28	-42848979.10	0.0089	0.0034
Mercury	-122027-02-17 08:25 J	-42848891.30	-42848891.15	-42848890.96	0.0089	0.0041
Mercury	-122027-05-16 12:01 J	-42848803.15	-42848803.00	-42848802.82	0.0089	0.0047
Mercury	-122027-08-12 15:37 J	-42848714.99	-42848714.85	-42848714.68	0.0089	0.0053
Mercury	-122027-11-08 19:13 J	-42848626.83	-42848626.70	-42848626.54	0.0089	0.0059
Mercury	-122026-02-04 22:49 J	-42848538.67	-42848538.55	-42848538.41	0.0089	0.0065
Mercury	-122026-05-04 02:25 J	-42848450.50	-42848450.40	-42848450.27	0.0089	0.0071
Mercury	-122026-07-31 06:01 J	-42848362.33	-42848362.25	-42848362.14	0.0089	0.0077
Mercury	-122026-10-27 09:51 J	-42848274.15	-42848274.09	-42848274.02	0.0089	0.0083

122ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 122nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-121988-03-23 05:18 J	-42834612.28	-42834612.28	-42834612.25	0.0089	0.0089		
Mars	-121986-02-15 20:25 J	-42833917.77	-42833917.65	-42833917.45	0.0089	0.0076		
Mars	-121984-01-10 14:10 J	-42833223.10	-42833222.91	-42833222.66	0.0089	0.0062		
Mars	-121983-12-06 09:08 J	-42832528.39	-42832528.12	-42832527.86	0.0089	0.0047		
Mars	-121981-10-31 04:34 J	-42831833.58	-42831833.31	-42831833.00	0.0089	0.0033		

Mars	-121979-09-26 02:39 J	-42831138.69	-42831138.39	-42831138.07	0.0089	0.0018
Mars	-121977-08-21 01:56 J	-42830443.74	-42830443.42	-42830443.10	0.0089	0.0003
Mars	-121975-07-17 02:10 J	-42829748.72	-42829748.41	-42829748.09	0.0089	0.0013
Earth	-121975-12-28 15:37 J	-42829583.98	-42829583.85	-42829583.69	0.0089	0.0073
Moon	-121975-12-28 15:22 J	-42829583.97	-42829583.86	-42829583.72	0.0089	0.0077 *
Venus	-121974-03-27 02:53 J	-42829495.38	-42829495.38	-42829495.32	0.0089	0.0088
Venus	-121974-11-07 17:03 J	-42829269.86	-42829269.79	-42829269.68	0.0089	0.0081
Moon	-121974-12-31 03:08 J	-42829216.60	-42829216.37	-42829216.13	0.0089	0.0042
Earth	-121974-12-31 03:37 J	-42829216.56	-42829216.35	-42829216.12	0.0089	0.0046 *
Mars	-121973-06-11 04:49 J	-42829053.60	-42829053.30	-42829052.99	0.0089	0.0028
Venus	-121973-06-20 07:13 J	-42829044.32	-42829044.20	-42829044.07	0.0089	0.0074
Earth	-121972-01-01 15:22 J	-42828849.11	-42828848.86	-42828848.60	0.0089	0.0019
Moon	-121972-01-01 17:17 J	-42828849.01	-42828848.78	-42828848.53	0.0089	0.0023 *
Venus	-121972-01-31 20:25 J	-42828818.77	-42828818.65	-42828818.48	0.0089	0.0068
Venus	-121972-09-14 10:20 J	-42828593.21	-42828593.07	-42828592.89	0.0089	0.0061
Moon	-121971-01-04 00:29 J	-42828481.74	-42828481.48	-42828481.21	0.0089	0.0011
Earth	-121971-01-04 03:08 J	-42828481.63	-42828481.37	-42828481.12	0.0089	0.0008 *
Venus	-121971-04-28 00:15 J	-42828367.66	-42828367.49	-42828367.30	0.0089	0.0054
Mars	-121971-05-07 07:41 J	-42828358.43	-42828358.18	-42828357.87	0.0089	0.0044
Venus	-121971-12-09 13:56 J	-42828142.10	-42828141.92	-42828141.72	0.0089	0.0047
Earth	-121970-01-06 14:10 J	-42828114.14	-42828113.91	-42828113.67	0.0089	0.0035
Moon	-121970-01-06 17:17 J	-42828114.01	-42828113.78	-42828113.54	0.0089	0.0032 *
Venus	-121970-07-23 03:37 J	-42827916.54	-42827916.35	-42827916.14	0.0089	0.0040
Moon	-121969-01-08 21:37 J	-42827746.76	-42827746.60	-42827746.41	0.0089	0.0065
Earth	-121969-01-09 00:58 J	-42827746.62	-42827746.46	-42827746.25	0.0089	0.0062 *
Venus	-121969-03-04 17:17 J	-42827690.99	-42827690.78	-42827690.57	0.0089	0.0033
Mars	-121969-04-01 12:44 J	-42827663.18	-42827662.97	-42827662.70	0.0089	0.0059
Venus	-121969-10-16 06:44 J	-42827465.42	-42827465.22	-42827465.00	0.0089	0.0026
Earth	-121968-01-10 12:01 J	-42827379.02	-42827379.00	-42827378.96	0.0089	0.0088
Moon	-121968-01-10 15:51 J	-42827378.90	-42827378.84	-42827378.79	0.0089	0.0086

Venus -121968-05-29 20:10 J -42827239.86 -42827239.66 -42827239.43 0.0089 0.0020

Venus -121967-01-10 09:51 J -42827014.31 -42827014.09 -42827013.87 0.0089 0.0013

Mars -121967-02-25 19:56 J -42826967.81 -42826967.67 -42826967.46 0.0089 0.0074

Venus -121967-08-23 23:17 J -42826788.75 -42826788.53 -42826788.31 0.0089 0.0006

Venus -121966-04-06 12:44 J -42826563.19 -42826562.97 -42826562.75 0.0089 0.0001

Venus -121966-11-18 02:10 J -42826337.63 -42826337.41 -42826337.19 0.0089 0.0008

Mars -121965-01-22 04:49 J -42826272.30 -42826272.30 -42826272.24 0.0089 0.0088

Venus -121965-06-30 15:22 J -42826112.07 -42826111.86 -42826111.64 0.0089 0.0015

Venus -121964-02-11 04:34 J -42825886.52 -42825886.31 -42825886.09 0.0089 0.0022

Venus -121964-09-24 17:46 J -42825660.96 -42825660.76 -42825660.54 0.0089 0.0029

Venus -121963-05-08 06:44 J -42825435.41 -42825435.22 -42825435.00 0.0089 0.0036

Venus -121963-12-19 20:10 J -42825209.85 -42825209.66 -42825209.46 0.0089 0.0042

Venus -121962-08-02 08:53 J -42824984.30 -42824984.13 -42824983.93 0.0088 0.0049

Venus -121961-03-14 22:05 J -42824758.75 -42824758.58 -42824758.40 0.0088 0.0055

Venus -121961-10-26 10:49 J -42824533.19 -42824533.05 -42824532.88 0.0088 0.0062

Venus -121960-06-08 23:32 J -42824307.63 -42824307.52 -42824307.36 0.0088 0.0069

Venus -121959-01-20 12:29 J -42824082.08 -42824081.98 -42824081.84 0.0088 0.0075

Venus -121959-09-03 01:27 J -42823856.52 -42823856.44 -42823856.34 0.0088 0.0081

Venus -121958-04-16 13:56 J -42823630.93 -42823630.92 -42823630.86 0.0088 0.0088

Mercury -121952-08-22 12:29 J -42821310.99 -42821310.98 -42821310.94 0.0088 0.0087

Mercury -121952-11-18 14:10 J -42821222.95 -42821222.91 -42821222.86 0.0088 0.0083

Mercury -121951-02-14 15:37 J -42821134.90 -42821134.85 -42821134.78 0.0088 0.0078

Mercury -121951-05-13 17:03 J -42821046.85 -42821046.79 -42821046.71 0.0088 0.0074

Mercury -121951-08-09 18:44 J -42820958.80 -42820958.72 -42820958.64 0.0088 0.0070

Mercury -121951-11-05 19:56 J -42820870.75 -42820870.67 -42820870.57 0.0088 0.0066

Mercury -121950-02-01 21:22 J -42820782.70 -42820782.61 -42820782.50 0.0088 0.0061

Mercury -121950-04-30 22:49 J -42820694.65 -42820694.55 -42820694.44 0.0088 0.0057

Mercury -121950-07-28 00:29 J -42820606.59 -42820606.48 -42820606.37 0.0088 0.0053

Mercury -121950-10-24 01:41 J -42820518.54 -42820518.43 -42820518.31 0.0088 0.0049

Mercury -121949-01-20 03:08 J -42820430.48 -42820430.37 -42820430.25 0.0088 0.0044

Mercury -121949-04-17 04:34 J -42820342.43 -42820342.31 -42820342.18 0.0088 0.0040

Mercury -121949-07-14 06:01 J -42820254.37 -42820254.25 -42820254.12 0.0088 0.0036

Mercury -121949-10-10 07:27 J -42820166.31 -42820166.19 -42820166.06 0.0088 0.0032

Mercury -121948-01-06 08:53 J -42820078.26 -42820078.13 -42820078.00 0.0088 0.0027

Mercury -121948-04-04 10:20 J -42819990.20 -42819990.07 -42819989.94 0.0088 0.0023

Mercury -121948-07-01 11:32 J -42819902.14 -42819902.02 -42819901.88 0.0088 0.0020

Mercury -121948-09-27 13:13 J -42819814.09 -42819813.95 -42819813.82 0.0088 0.0015

Mercury -121948-12-24 14:25 J -42819726.03 -42819725.90 -42819725.76 0.0088 0.0011

Mercury -121947-03-22 15:51 J -42819637.97 -42819637.84 -42819637.70 0.0088 0.0007

Mercury -121947-06-18 17:17 J -42819549.91 -42819549.78 -42819549.64 0.0088 0.0002

Mercury -121947-09-14 18:44 J -42819461.86 -42819461.72 -42819461.59 0.0088 0.0002

Mercury -121947-12-11 20:10 J -42819373.80 -42819373.66 -42819373.53 0.0088 0.0007

Mercury -121946-03-09 21:22 J -42819285.74 -42819285.61 -42819285.47 0.0088 0.0011

Mercury -121946-06-05 22:49 J -42819197.68 -42819197.55 -42819197.41 0.0088 0.0015

Mercury -121946-09-02 00:01 J -42819109.62 -42819109.50 -42819109.36 0.0088 0.0020

Mercury -121946-11-29 01:27 J -42819021.56 -42819021.44 -42819021.30 0.0088 0.0023

Mercury -121945-02-25 02:53 J -42818933.50 -42818933.38 -42818933.25 0.0088 0.0027

Mercury -121945-05-23 04:20 J -42818845.45 -42818845.32 -42818845.19 0.0088 0.0031

Mercury -121945-08-19 05:32 J -42818757.39 -42818757.27 -42818757.14 0.0088 0.0036

Mercury -121945-11-15 06:58 J -42818669.33 -42818669.21 -42818669.09 0.0088 0.0040

Mercury -121944-02-11 08:25 J -42818581.27 -42818581.15 -42818581.03 0.0088 0.0044

Mercury -121944-05-10 09:37 J -42818493.20 -42818493.10 -42818492.98 0.0088 0.0048

Mercury -121944-08-06 10:49 J -42818405.14 -42818405.05 -42818404.93 0.0088 0.0053

Mercury -121944-11-02 12:15 J -42818317.08 -42818316.99 -42818316.88 0.0088 0.0056

Mercury -121943-01-29 13:41 J -42818229.02 -42818228.93 -42818228.83 0.0088 0.0060

Mercury -121943-04-27 14:53 J -42818140.96 -42818140.88 -42818140.78 0.0088 0.0065

Mercury -121943-07-24 16:20 J -42818052.89 -42818052.82 -42818052.73 0.0088 0.0068

Mercury -121943-10-20 17:46 J -42817964.83 -42817964.76 -42817964.68 0.0088 0.0072

Mercury -121942-01-16 18:58 J -42817876.76 -42817876.71 -42817876.63 0.0088 0.0077

Mercury -121942-04-14 20:25 J -42817788.69 -42817788.65 -42817788.59 0.0088 0.0081

Mercury -121942-07-11 21:51 J -42817700.62 -42817700.59 -42817700.55 0.0088 0.0084

Mars -121904-01-01 03:37 J -42804012.45 -42804012.35 -42804012.21 0.0088 0.0082

Mars -121903-11-27 05:03 J -42803317.46 -42803317.29 -42803317.05 0.0088 0.0068

Mars -121901-10-22 06:01 J -42802622.49 -42802622.25 -42802621.98 0.0088 0.0053

Mars -121899-09-17 04:34 J -42801927.58 -42801927.31 -42801927.01 0.0088 0.0038

Mars -121897-08-12 00:44 J -42801232.75 -42801232.47 -42801232.14 0.0089 0.0024

Mars -121895-07-07 20:25 J -42800537.96 -42800537.65 -42800537.33 0.0089 0.0008

Mars -121893-06-01 14:53 J -42799843.19 -42799842.88 -42799842.57 0.0089 0.0007

Earth -121892-06-18 13:27 J -42799461.02 -42799460.94 -42799460.80 0.0089 0.0080

Moon -121892-06-18 15:22 J -42799460.97 -42799460.86 -42799460.72 0.0089 0.0076 *

Venus -121892-12-18 02:25 J -42799278.46 -42799278.40 -42799278.31 0.0089 0.0083

Mars -121891-04-27 06:44 J -42799148.51 -42799148.22 -42799147.90 0.0089 0.0022

Moon -121891-06-20 22:20 J -42799093.76 -42799093.57 -42799093.36 0.0089 0.0057

Earth -121891-06-21 00:58 J -42799093.66 -42799093.46 -42799093.25 0.0089 0.0053 *

Venus -121891-07-31 14:10 J -42799052.99 -42799052.91 -42799052.78 0.0089 0.0077

Venus -121890-03-14 02:53 J -42798827.51 -42798827.38 -42798827.25 0.0089 0.0070

Earth -121890-06-23 12:15 J -42798726.23 -42798725.99 -42798725.74 0.0089 0.0026

Moon -121890-06-23 15:37 J -42798726.09 -42798725.85 -42798725.60 0.0089 0.0022 *

Venus -121890-10-25 14:53 J -42798602.02 -42798601.88 -42798601.72 0.0089 0.0064

Mars -121889-03-21 22:05 J -42798453.84 -42798453.58 -42798453.28 0.0089 0.0036

Venus -121889-06-07 02:53 J -42798376.52 -42798376.38 -42798376.20 0.0089 0.0058

Moon -121889-06-24 20:25 J -42798358.91 -42798358.65 -42798358.39 0.0089 0.0004

Earth -121889-06-24 23:46 J -42798358.76 -42798358.51 -42798358.25 0.0089 0.0002 *

Venus -121888-01-18 15:22 J -42798151.03 -42798150.86 -42798150.67 0.0089 0.0051

Earth -121888-06-27 11:03 J -42797991.27 -42797991.04 -42797990.78 0.0089 0.0028

Moon -121888-06-27 14:53 J -42797991.11 -42797990.88 -42797990.63 0.0089 0.0033 *

Venus -121888-09-01 03:22 J -42797925.53 -42797925.36 -42797925.15 0.0089 0.0045

Mars -121887-02-14 12:01 J -42797759.24 -42797759.00 -42797758.73 0.0089 0.0050

Venus -121887-04-14 16:05 J -42797700.02 -42797699.83 -42797699.63 0.0089 0.0038

Moon -121887-06-29 19:27 J -42797623.88 -42797623.69 -42797623.46 0.0089 0.0051

Earth -121887-06-29 22:49 J -42797623.74 -42797623.55 -42797623.34 0.0089 0.0055 *
 Venus -121887-11-26 04:20 J -42797474.51 -42797474.32 -42797474.10 0.0089 0.0032
 Earth -121886-07-02 10:34 J -42797256.14 -42797256.06 -42797255.95 0.0089 0.0082
 Moon -121886-07-02 12:58 J -42797255.98 -42797255.96 -42797255.87 0.0089 0.0087 *
 Venus -121886-07-09 16:49 J -42797249.00 -42797248.80 -42797248.59 0.0089 0.0025
 Mars -121885-01-09 23:32 J -42797064.70 -42797064.52 -42797064.28 0.0089 0.0064
 Venus -121885-02-20 05:17 J -42797023.49 -42797023.28 -42797023.07 0.0089 0.0018
 Venus -121885-10-02 17:32 J -42796797.98 -42796797.77 -42796797.55 0.0089 0.0012
 Venus -121884-05-16 06:15 J -42796572.45 -42796572.24 -42796572.02 0.0089 0.0005
 Mars -121884-12-04 09:51 J -42796370.21 -42796370.09 -42796369.90 0.0089 0.0077
 Venus -121884-12-27 18:44 J -42796346.93 -42796346.72 -42796346.50 0.0089 0.0002
 Venus -121883-08-10 07:13 J -42796121.41 -42796121.20 -42796120.98 0.0089 0.0009
 Venus -121882-03-23 19:41 J -42795895.89 -42795895.68 -42795895.46 0.0089 0.0016
 Venus -121882-11-04 08:25 J -42795670.36 -42795670.15 -42795669.93 0.0089 0.0022
 Venus -121881-06-16 21:08 J -42795444.82 -42795444.62 -42795444.41 0.0089 0.0029
 Venus -121880-01-28 09:37 J -42795219.29 -42795219.10 -42795218.89 0.0089 0.0036
 Venus -121880-09-10 22:20 J -42794993.75 -42794993.57 -42794993.36 0.0089 0.0043
 Venus -121879-04-24 11:32 J -42794768.20 -42794768.02 -42794767.83 0.0089 0.0049
 Venus -121879-12-06 00:15 J -42794542.65 -42794542.49 -42794542.31 0.0089 0.0056
 Venus -121878-07-19 12:58 J -42794317.09 -42794316.96 -42794316.78 0.0089 0.0063
 Venus -121877-03-01 02:10 J -42794091.54 -42794091.41 -42794091.26 0.0089 0.0069
 Venus -121877-10-12 15:08 J -42793865.97 -42793865.87 -42793865.74 0.0089 0.0076
 Venus -121876-05-26 04:05 J -42793640.38 -42793640.33 -42793640.22 0.0089 0.0083
 Mercury -121868-10-20 04:49 J -42790571.35 -42790571.30 -42790571.24 0.0089 0.0084
 Mercury -121867-01-16 07:41 J -42790483.24 -42790483.18 -42790483.07 0.0089 0.0079
 Mercury -121867-04-14 11:17 J -42790395.12 -42790395.03 -42790394.91 0.0089 0.0073
 Mercury -121867-07-11 14:39 J -42790306.99 -42790306.89 -42790306.75 0.0089 0.0067
 Mercury -121867-10-07 18:15 J -42790218.87 -42790218.74 -42790218.59 0.0089 0.0061
 Mercury -121866-01-03 21:37 J -42790130.74 -42790130.60 -42790130.44 0.0089 0.0055
 Mercury -121866-04-02 01:13 J -42790042.60 -42790042.45 -42790042.29 0.0089 0.0049

Mercury -121866-06-29 04:34 J -42789954.47 -42789954.31 -42789954.14 0.0089 0.0043
 Mercury -121866-09-25 08:10 J -42789866.33 -42789866.16 -42789865.99 0.0089 0.0037
 Mercury -121866-12-22 11:17 J -42789778.19 -42789778.03 -42789777.84 0.0089 0.0032
 Mercury -121865-03-19 15:08 J -42789690.05 -42789689.87 -42789689.69 0.0089 0.0025
 Mercury -121865-06-15 18:29 J -42789601.91 -42789601.73 -42789601.54 0.0089 0.0019
 Mercury -121865-09-11 22:05 J -42789513.77 -42789513.58 -42789513.39 0.0089 0.0013
 Mercury -121865-12-09 01:27 J -42789425.63 -42789425.44 -42789425.25 0.0089 0.0008
 Mercury -121864-03-07 05:03 J -42789337.48 -42789337.29 -42789337.10 0.0089 0.0001
 Mercury -121864-06-03 08:39 J -42789249.33 -42789249.14 -42789248.95 0.0089 0.0005
 Mercury -121864-08-30 12:01 J -42789161.19 -42789161.00 -42789160.81 0.0089 0.0011
 Mercury -121864-11-26 15:22 J -42789073.04 -42789072.86 -42789072.66 0.0089 0.0017
 Mercury -121863-02-22 18:58 J -42788984.89 -42788984.71 -42788984.52 0.0089 0.0023
 Mercury -121863-05-21 22:34 J -42788896.74 -42788896.56 -42788896.37 0.0089 0.0029
 Mercury -121863-08-18 02:10 J -42788808.58 -42788808.41 -42788808.23 0.0089 0.0035
 Mercury -121863-11-14 05:32 J -42788720.43 -42788720.27 -42788720.09 0.0089 0.0041
 Mercury -121862-02-10 09:22 J -42788632.27 -42788632.11 -42788631.95 0.0089 0.0047
 Mercury -121862-05-09 12:58 J -42788544.12 -42788543.96 -42788543.81 0.0089 0.0053
 Mercury -121862-08-05 16:05 J -42788455.96 -42788455.83 -42788455.67 0.0089 0.0060
 Mercury -121862-11-01 19:41 J -42788367.79 -42788367.68 -42788367.54 0.0089 0.0066
 Mercury -121861-01-28 23:17 J -42788279.63 -42788279.53 -42788279.40 0.0089 0.0072
 Mercury -121861-04-26 02:53 J -42788191.46 -42788191.38 -42788191.28 0.0089 0.0078
 Mercury -121861-07-23 06:29 J -42788103.28 -42788103.23 -42788103.16 0.0089 0.0084
 Jupiter -121851-05-04 12:29 J -42784531.54 -42784530.98 -42784530.42 0.0089 0.0006
 Mars -121823-09-30 05:32 J -42774155.39 -42774155.27 -42774155.10 0.0089 0.0078
 Mars -121821-08-24 20:39 J -42773460.82 -42773460.64 -42773460.40 0.0089 0.0065
 Mars -121819-07-20 14:10 J -42772766.14 -42772765.91 -42772765.63 0.0089 0.0051
 Mars -121817-06-14 08:10 J -42772071.43 -42772071.16 -42772070.86 0.0089 0.0037
 Mars -121815-05-10 03:51 J -42771376.64 -42771376.34 -42771376.03 0.0089 0.0022
 Mars -121813-04-04 01:41 J -42770681.74 -42770681.43 -42770681.11 0.0089 0.0007
 Mars -121811-02-28 01:13 J -42769986.76 -42769986.45 -42769986.13 0.0089 0.0008

Earth -121811-12-27 17:46 J -42769683.77 -42769683.76 -42769683.70 0.0089 0.0088
 Venus -121810-06-28 08:39 J -42769501.14 -42769501.14 -42769501.11 0.0089 0.0089
 Moon -121810-12-30 05:32 J -42769316.46 -42769316.27 -42769316.05 0.0089 0.0057
 Earth -121810-12-30 06:01 J -42769316.41 -42769316.25 -42769316.04 0.0089 0.0061 *
 Mars -121809-01-24 01:41 J -42769291.72 -42769291.43 -42769291.11 0.0089 0.0023
 Venus -121809-02-08 22:34 J -42769275.63 -42769275.56 -42769275.46 0.0089 0.0082
 Venus -121809-09-21 12:44 J -42769050.08 -42769049.97 -42769049.84 0.0089 0.0075
 Earth -121809-12-31 18:01 J -42768948.98 -42768948.75 -42768948.50 0.0089 0.0034
 Moon -121809-12-31 18:58 J -42768948.91 -42768948.71 -42768948.46 0.0089 0.0038 *
 Venus -121808-05-05 02:10 J -42768824.53 -42768824.41 -42768824.24 0.0089 0.0069
 Venus -121808-12-16 16:05 J -42768598.97 -42768598.83 -42768598.65 0.0089 0.0062
 Mars -121808-12-19 04:20 J -42768596.59 -42768596.32 -42768596.01 0.0089 0.0038
 Moon -121807-01-03 03:37 J -42768581.61 -42768581.35 -42768581.08 0.0089 0.0002
 Earth -121807-01-03 06:01 J -42768581.51 -42768581.25 -42768580.99 0.0089 0.0006 *
 Venus -121807-07-30 05:46 J -42768373.42 -42768373.26 -42768373.07 0.0089 0.0055
 Earth -121806-01-05 17:17 J -42768214.02 -42768213.78 -42768213.52 0.0089 0.0021
 Moon -121806-01-05 20:25 J -42768213.89 -42768213.65 -42768213.39 0.0089 0.0017 *
 Venus -121806-03-12 19:41 J -42768147.86 -42768147.68 -42768147.48 0.0089 0.0048
 Venus -121806-10-24 09:37 J -42767922.30 -42767922.10 -42767921.90 0.0089 0.0041
 Mars -121806-11-14 08:25 J -42767901.40 -42767901.15 -42767900.88 0.0089 0.0052
 Moon -121805-01-08 01:13 J -42767846.65 -42767846.45 -42767846.23 0.0089 0.0052
 Earth -121805-01-08 04:20 J -42767846.52 -42767846.32 -42767846.09 0.0089 0.0048 *
 Venus -121805-06-05 22:49 J -42767696.74 -42767696.55 -42767696.33 0.0089 0.0035
 Earth -121804-01-09 15:51 J -42767478.98 -42767478.84 -42767478.70 0.0089 0.0074
 Moon -121804-01-09 18:58 J -42767478.84 -42767478.71 -42767478.53 0.0089 0.0070 *
 Venus -121804-01-17 12:29 J -42767471.18 -42767470.98 -42767470.76 0.0089 0.0028
 Venus -121804-08-31 02:10 J -42767245.62 -42767245.41 -42767245.19 0.0089 0.0021
 Mars -121804-10-09 12:58 J -42767206.15 -42767205.96 -42767205.73 0.0089 0.0067
 Venus -121803-04-13 15:37 J -42767020.06 -42767019.85 -42767019.62 0.0089 0.0014
 Venus -121803-11-25 05:17 J -42766794.50 -42766794.28 -42766794.06 0.0089 0.0007

Venus -121802-07-08 18:44 J -42766568.94 -42766568.72 -42766568.50 0.0089 0.0000
 Mars -121802-09-04 20:25 J -42766510.78 -42766510.65 -42766510.52 0.0089 0.0081
 Venus -121801-02-19 08:10 J -42766343.39 -42766343.16 -42766342.94 0.0089 0.0007
 Venus -121801-10-01 21:22 J -42766117.82 -42766117.61 -42766117.38 0.0089 0.0014
 Venus -121800-05-15 10:49 J -42765892.26 -42765892.05 -42765891.83 0.0089 0.0020
 Venus -121800-12-27 00:01 J -42765666.70 -42765666.50 -42765666.28 0.0088 0.0027
 Venus -121799-08-09 13:27 J -42765441.15 -42765440.94 -42765440.74 0.0088 0.0034
 Venus -121798-03-23 02:25 J -42765215.59 -42765215.40 -42765215.20 0.0088 0.0041
 Venus -121798-11-03 15:22 J -42764990.03 -42764989.86 -42764989.65 0.0088 0.0048
 Venus -121797-06-16 04:49 J -42764764.47 -42764764.30 -42764764.12 0.0088 0.0054
 Venus -121796-01-27 17:32 J -42764538.91 -42764538.77 -42764538.59 0.0088 0.0061
 Venus -121796-09-10 06:29 J -42764313.36 -42764313.23 -42764313.07 0.0088 0.0067
 Venus -121795-04-23 19:13 J -42764087.80 -42764087.70 -42764087.55 0.0088 0.0074
 Venus -121795-12-05 08:25 J -42763862.23 -42763862.15 -42763862.04 0.0088 0.0080
 Venus -121794-07-18 21:22 J -42763636.65 -42763636.61 -42763636.55 0.0088 0.0086
 Mercury -121787-05-19 11:03 J -42761140.05 -42761140.04 -42761140.00 0.0088 0.0087
 Mercury -121787-08-15 12:44 J -42761052.01 -42761051.97 -42761051.92 0.0088 0.0083
 Mercury -121787-11-11 14:10 J -42760963.96 -42760963.91 -42760963.84 0.0088 0.0078
 Mercury -121786-02-07 15:22 J -42760875.92 -42760875.86 -42760875.77 0.0088 0.0075
 Mercury -121786-05-06 17:17 J -42760787.86 -42760787.78 -42760787.70 0.0088 0.0070
 Mercury -121786-08-02 18:29 J -42760699.81 -42760699.73 -42760699.63 0.0088 0.0066
 Mercury -121786-10-29 19:56 J -42760611.76 -42760611.67 -42760611.56 0.0088 0.0061
 Mercury -121785-01-25 21:22 J -42760523.70 -42760523.61 -42760523.50 0.0088 0.0057
 Mercury -121785-04-22 23:03 J -42760435.65 -42760435.54 -42760435.43 0.0088 0.0053
 Mercury -121785-07-20 00:15 J -42760347.59 -42760347.49 -42760347.37 0.0088 0.0049
 Mercury -121785-10-16 01:41 J -42760259.54 -42760259.43 -42760259.30 0.0088 0.0044
 Mercury -121784-01-12 03:08 J -42760171.48 -42760171.37 -42760171.24 0.0088 0.0040
 Mercury -121784-04-10 04:49 J -42760083.43 -42760083.30 -42760083.18 0.0088 0.0036
 Mercury -121784-07-07 06:01 J -42759995.37 -42759995.25 -42759995.12 0.0088 0.0032
 Mercury -121784-10-03 07:27 J -42759907.31 -42759907.19 -42759907.06 0.0088 0.0027

Mercury -121784-12-30 08:53 J -42759819.26 -42759819.13 -42759819.00 0.0088 0.0023

Mercury -121783-03-28 10:20 J -42759731.20 -42759731.07 -42759730.94 0.0088 0.0019

Mercury -121783-06-24 11:46 J -42759643.14 -42759643.01 -42759642.88 0.0088 0.0014

Mercury -121783-09-20 13:13 J -42759555.09 -42759554.95 -42759554.82 0.0088 0.0010

Mercury -121783-12-17 14:39 J -42759467.03 -42759466.89 -42759466.76 0.0088 0.0007

Mercury -121782-03-15 15:51 J -42759378.97 -42759378.84 -42759378.70 0.0088 0.0003

Mercury -121782-06-11 17:17 J -42759290.91 -42759290.78 -42759290.64 0.0088 0.0003

Mercury -121782-09-07 18:44 J -42759202.85 -42759202.72 -42759202.58 0.0088 0.0006

Mercury -121782-12-04 20:10 J -42759114.80 -42759114.66 -42759114.53 0.0088 0.0011

Mercury -121781-03-01 21:22 J -42759026.74 -42759026.61 -42759026.47 0.0088 0.0015

Mercury -121781-05-28 22:49 J -42758938.68 -42758938.55 -42758938.42 0.0088 0.0019

Mercury -121781-08-25 00:15 J -42758850.62 -42758850.49 -42758850.36 0.0088 0.0023

Mercury -121781-11-21 01:27 J -42758762.56 -42758762.44 -42758762.31 0.0088 0.0028

Mercury -121780-02-17 02:53 J -42758674.50 -42758674.38 -42758674.25 0.0088 0.0031

Mercury -121780-05-16 04:20 J -42758586.44 -42758586.32 -42758586.20 0.0088 0.0035

Mercury -121780-08-12 05:46 J -42758498.38 -42758498.26 -42758498.14 0.0088 0.0040

Mercury -121780-11-08 06:58 J -42758410.32 -42758410.21 -42758410.09 0.0088 0.0044

Mercury -121779-02-04 08:10 J -42758322.26 -42758322.16 -42758322.04 0.0088 0.0048

Mercury -121779-05-03 09:37 J -42758234.20 -42758234.10 -42758233.99 0.0088 0.0052

Mercury -121779-07-30 10:49 J -42758146.14 -42758146.05 -42758145.93 0.0088 0.0057

Mercury -121779-10-26 12:15 J -42758058.08 -42758057.99 -42758057.88 0.0088 0.0060

Mercury -121778-01-22 13:41 J -42757970.01 -42757969.93 -42757969.83 0.0088 0.0064

Mercury -121778-04-20 14:53 J -42757881.95 -42757881.88 -42757881.78 0.0088 0.0069

Mercury -121778-07-17 16:20 J -42757793.89 -42757793.82 -42757793.74 0.0088 0.0072

Mercury -121778-10-13 17:46 J -42757705.82 -42757705.76 -42757705.69 0.0088 0.0076

Mercury -121777-01-09 18:58 J -42757617.75 -42757617.71 -42757617.65 0.0088 0.0081

Mercury -121777-04-06 20:25 J -42757529.68 -42757529.65 -42757529.61 0.0088 0.0084

Mars -121741-08-15 00:01 J -42744250.56 -42744250.50 -42744250.37 0.0088 0.0085

Mars -121739-07-11 03:22 J -42743555.52 -42743555.36 -42743555.13 0.0088 0.0071

Mars -121737-06-05 05:17 J -42742860.52 -42742860.28 -42742860.03 0.0088 0.0056

Mars	-121735-05-01 05:32 J	-42742165.53	-42742165.27	-42742164.97	0.0088	0.0042
Mars	-121733-03-26 05:03 J	-42741470.59	-42741470.29	-42741469.99	0.0088	0.0027
Mars	-121731-02-19 01:27 J	-42740775.74	-42740775.44	-42740775.12	0.0089	0.0013
Mars	-121729-01-14 20:53 J	-42740080.95	-42740080.63	-42740080.32	0.0089	0.0002
Mars	-121728-12-09 14:53 J	-42739386.17	-42739385.88	-42739385.56	0.0089	0.0017
Venus	-121727-03-21 10:49 J	-42739284.09	-42739284.05	-42739283.95	0.0089	0.0084
Moon	-121727-06-20 01:27 J	-42739193.60	-42739193.44	-42739193.25	0.0089	0.0063
Earth	-121727-06-20 05:03 J	-42739193.44	-42739193.29	-42739193.10	0.0089	0.0067 *
Venus	-121727-11-01 23:17 J	-42739058.63	-42739058.53	-42739058.42	0.0089	0.0077
Venus	-121726-06-15 11:03 J	-42738833.15	-42738833.04	-42738832.89	0.0089	0.0071
Earth	-121726-06-22 16:05 J	-42738826.05	-42738825.83	-42738825.59	0.0089	0.0040
Moon	-121726-06-22 19:41 J	-42738825.90	-42738825.68	-42738825.45	0.0089	0.0042 *
Mars	-121726-11-04 06:58 J	-42738691.49	-42738691.21	-42738690.90	0.0089	0.0031
Venus	-121725-01-26 23:03 J	-42738607.66	-42738607.54	-42738607.37	0.0089	0.0065
Moon	-121725-06-24 00:29 J	-42738458.73	-42738458.48	-42738458.23	0.0089	0.0011
Earth	-121725-06-24 03:37 J	-42738458.60	-42738458.35	-42738458.09	0.0089	0.0013 *
Venus	-121725-09-08 11:32 J	-42738382.17	-42738382.02	-42738381.85	0.0089	0.0058
Venus	-121724-04-21 23:46 J	-42738156.67	-42738156.51	-42738156.32	0.0089	0.0052
Earth	-121724-06-26 14:39 J	-42738091.13	-42738090.89	-42738090.62	0.0089	0.0015
Moon	-121724-06-26 17:03 J	-42738091.05	-42738090.79	-42738090.53	0.0089	0.0012 *
Mars	-121724-09-28 21:22 J	-42737996.85	-42737996.61	-42737996.31	0.0089	0.0045
Venus	-121724-12-03 12:29 J	-42737931.17	-42737930.98	-42737930.79	0.0089	0.0045
Moon	-121723-06-29 00:58 J	-42737723.66	-42737723.46	-42737723.23	0.0089	0.0043
Earth	-121723-06-29 02:10 J	-42737723.61	-42737723.41	-42737723.16	0.0089	0.0042 *
Venus	-121723-07-17 00:29 J	-42737705.66	-42737705.48	-42737705.28	0.0089	0.0039
Venus	-121722-02-27 12:58 J	-42737480.16	-42737479.96	-42737479.76	0.0089	0.0032
Earth	-121722-07-01 13:56 J	-42737356.06	-42737355.92	-42737355.73	0.0089	0.0069
Moon	-121722-07-01 15:08 J	-42737356.04	-42737355.87	-42737355.70	0.0089	0.0067 *
Mars	-121722-08-24 11:32 J	-42737302.23	-42737302.02	-42737301.76	0.0089	0.0058
Venus	-121722-10-11 01:13 J	-42737254.65	-42737254.45	-42737254.24	0.0089	0.0026

Venus -121721-05-23 13:41 J -42737029.13 -42737028.93 -42737028.71 0.0089 0.0019
 Venus -121720-01-04 02:10 J -42736803.62 -42736803.41 -42736803.19 0.0089 0.0012
 Mars -121720-07-18 23:32 J -42736607.68 -42736607.52 -42736607.31 0.0089 0.0071
 Venus -121720-08-17 14:39 J -42736578.10 -42736577.89 -42736577.67 0.0089 0.0006
 Venus -121719-03-31 03:22 J -42736352.58 -42736352.36 -42736352.15 0.0089 0.0002
 Venus -121719-11-11 15:51 J -42736127.06 -42736126.84 -42736126.63 0.0089 0.0008
 Mars -121718-06-13 09:51 J -42735913.16 -42735913.09 -42735912.95 0.0089 0.0084
 Venus -121718-06-25 04:05 J -42735901.54 -42735901.33 -42735901.11 0.0089 0.0015
 Venus -121717-02-05 16:49 J -42735676.01 -42735675.80 -42735675.59 0.0089 0.0021
 Venus -121717-09-18 05:17 J -42735450.48 -42735450.28 -42735450.07 0.0089 0.0028
 Venus -121716-05-01 18:01 J -42735224.94 -42735224.75 -42735224.54 0.0089 0.0035
 Venus -121716-12-13 06:58 J -42734999.40 -42734999.21 -42734999.02 0.0089 0.0041
 Venus -121715-07-26 19:27 J -42734773.86 -42734773.69 -42734773.50 0.0089 0.0048
 Venus -121714-03-09 07:56 J -42734548.32 -42734548.17 -42734547.98 0.0089 0.0055
 Venus -121714-10-20 21:08 J -42734322.77 -42734322.62 -42734322.46 0.0089 0.0061
 Venus -121713-06-02 10:05 J -42734097.21 -42734097.08 -42734096.93 0.0089 0.0068
 Venus -121712-01-13 22:49 J -42733871.65 -42733871.55 -42733871.41 0.0089 0.0075
 Venus -121712-08-27 12:01 J -42733646.07 -42733646.00 -42733645.90 0.0089 0.0081
 Venus -121711-04-10 00:58 J -42733420.47 -42733420.46 -42733420.41 0.0089 0.0088
 Mercury -121703-07-17 01:27 J -42730400.48 -42730400.44 -42730400.36 0.0089 0.0084
 Mercury -121703-10-13 04:49 J -42730312.37 -42730312.30 -42730312.19 0.0089 0.0078
 Mercury -121702-01-09 08:25 J -42730224.25 -42730224.15 -42730224.03 0.0089 0.0072
 Mercury -121702-04-07 11:46 J -42730136.13 -42730136.01 -42730135.88 0.0089 0.0066
 Mercury -121702-07-04 15:22 J -42730048.00 -42730047.86 -42730047.72 0.0089 0.0060
 Mercury -121702-09-30 18:15 J -42729959.87 -42729959.74 -42729959.57 0.0089 0.0055
 Mercury -121702-12-27 21:51 J -42729871.73 -42729871.59 -42729871.42 0.0089 0.0049
 Mercury -121701-03-25 01:13 J -42729783.60 -42729783.45 -42729783.27 0.0089 0.0043
 Mercury -121701-06-21 04:49 J -42729695.46 -42729695.30 -42729695.12 0.0089 0.0037
 Mercury -121701-09-17 08:10 J -42729607.33 -42729607.16 -42729606.97 0.0089 0.0031
 Mercury -121701-12-14 11:46 J -42729519.19 -42729519.01 -42729518.82 0.0089 0.0025

Mercury -121700-03-12 15:22 J -42729431.05 -42729430.86 -42729430.68 0.0089 0.0019
 Mercury -121700-06-08 18:44 J -42729342.90 -42729342.72 -42729342.53 0.0089 0.0013
 Mercury -121700-09-04 22:20 J -42729254.76 -42729254.57 -42729254.38 0.0089 0.0007
 Mercury -121700-12-02 01:41 J -42729166.62 -42729166.43 -42729166.23 0.0089 0.0002
 Mercury -121699-02-28 05:17 J -42729078.47 -42729078.28 -42729078.09 0.0089 0.0005
 Mercury -121699-05-27 08:53 J -42728990.32 -42728990.13 -42728989.94 0.0089 0.0011
 Mercury -121699-08-23 12:15 J -42728902.17 -42728901.99 -42728901.80 0.0089 0.0017
 Mercury -121699-11-19 15:51 J -42728814.02 -42728813.84 -42728813.66 0.0089 0.0023
 Mercury -121698-02-15 19:27 J -42728725.87 -42728725.69 -42728725.51 0.0089 0.0029
 Mercury -121698-05-14 22:34 J -42728637.72 -42728637.56 -42728637.37 0.0089 0.0036
 Mercury -121698-08-11 02:10 J -42728549.57 -42728549.41 -42728549.23 0.0089 0.0042
 Mercury -121698-11-07 05:46 J -42728461.41 -42728461.26 -42728461.09 0.0089 0.0048
 Mercury -121697-02-03 09:08 J -42728373.25 -42728373.12 -42728372.95 0.0089 0.0054
 Mercury -121697-05-01 12:44 J -42728285.09 -42728284.97 -42728284.81 0.0089 0.0060
 Mercury -121697-07-28 16:20 J -42728196.93 -42728196.82 -42728196.68 0.0089 0.0066
 Mercury -121697-10-24 19:56 J -42728108.76 -42728108.67 -42728108.54 0.0089 0.0072
 Mercury -121696-01-20 23:46 J -42728020.59 -42728020.51 -42728020.42 0.0089 0.0078
 Mercury -121696-04-19 03:22 J -42727932.41 -42727932.36 -42727932.30 0.0089 0.0084
 Mars -121659-05-14 13:41 J -42714393.03 -42714392.93 -42714392.76 0.0089 0.0080
 Mars -121657-04-08 03:51 J -42713698.51 -42713698.34 -42713698.11 0.0089 0.0067
 Mars -121655-03-03 18:58 J -42713003.93 -42713003.71 -42713003.44 0.0089 0.0054
 Mars -121653-01-27 13:13 J -42712309.21 -42712308.95 -42712308.66 0.0089 0.0040
 Mars -121652-12-22 08:10 J -42711614.45 -42711614.16 -42711613.85 0.0089 0.0026
 Mars -121650-11-17 03:51 J -42710919.64 -42710919.34 -42710919.02 0.0089 0.0012
 Mars -121648-10-12 01:41 J -42710224.74 -42710224.43 -42710224.11 0.0089 0.0003
 Mars -121646-09-07 01:13 J -42709529.76 -42709529.45 -42709529.13 0.0089 0.0017
 Moon -121646-12-29 05:32 J -42709416.36 -42709416.27 -42709416.12 0.0089 0.0079
 Earth -121646-12-29 08:53 J -42709416.26 -42709416.13 -42709415.99 0.0089 0.0075 *
 Venus -121645-05-12 04:05 J -42709281.39 -42709281.33 -42709281.23 0.0089 0.0083
 Venus -121645-12-23 18:15 J -42709055.84 -42709055.74 -42709055.61 0.0089 0.0076

Earth -121645-12-30 20:53 J -42709048.84 -42709048.63 -42709048.40 0.0089 0.0048
 Moon -121645-12-31 00:29 J -42709048.70 -42709048.48 -42709048.26 0.0089 0.0045 *
 Mars -121644-08-02 01:13 J -42708834.73 -42708834.45 -42708834.13 0.0089 0.0032
 Venus -121644-08-06 08:25 J -42708830.29 -42708830.15 -42708830.01 0.0089 0.0069
 Moon -121643-01-02 05:32 J -42708681.52 -42708681.27 -42708681.02 0.0089 0.0024
 Earth -121643-01-02 08:53 J -42708681.37 -42708681.13 -42708680.86 0.0089 0.0021 *
 Venus -121643-03-19 21:37 J -42708604.73 -42708604.60 -42708604.42 0.0089 0.0063
 Venus -121643-10-31 11:46 J -42708379.17 -42708379.01 -42708378.82 0.0089 0.0056
 Earth -121642-01-04 20:39 J -42708313.89 -42708313.64 -42708313.38 0.0089 0.0007
 Moon -121642-01-05 00:01 J -42708313.75 -42708313.50 -42708313.23 0.0089 0.0009 *
 Venus -121642-06-14 01:41 J -42708153.61 -42708153.43 -42708153.24 0.0089 0.0049
 Mars -121642-06-28 03:51 J -42708139.60 -42708139.34 -42708139.06 0.0089 0.0046
 Moon -121641-01-07 04:49 J -42707946.53 -42707946.30 -42707946.06 0.0089 0.0032
 Earth -121641-01-07 07:56 J -42707946.39 -42707946.17 -42707945.92 0.0089 0.0034 *
 Venus -121641-01-25 15:22 J -42707928.05 -42707927.86 -42707927.66 0.0089 0.0042
 Venus -121641-09-07 04:49 J -42707702.49 -42707702.30 -42707702.08 0.0089 0.0035
 Earth -121640-01-08 18:58 J -42707578.88 -42707578.71 -42707578.50 0.0089 0.0061
 Moon -121640-01-08 21:37 J -42707578.78 -42707578.60 -42707578.41 0.0089 0.0062 *
 Venus -121640-04-20 18:29 J -42707476.93 -42707476.73 -42707476.51 0.0089 0.0029
 Mars -121640-05-23 07:56 J -42707444.40 -42707444.17 -42707443.93 0.0089 0.0060
 Venus -121640-12-02 08:10 J -42707251.37 -42707251.16 -42707250.94 0.0089 0.0022
 Moon -121639-01-11 04:05 J -42707211.35 -42707211.33 -42707211.25 0.0089 0.0087
 Earth -121639-01-11 06:15 J -42707211.27 -42707211.24 -42707211.18 0.0089 0.0087 *
 Venus -121639-07-15 21:37 J -42707025.82 -42707025.60 -42707025.38 0.0089 0.0015
 Venus -121638-02-26 11:03 J -42706800.26 -42706800.04 -42706799.81 0.0089 0.0008
 Mars -121638-04-18 12:15 J -42706749.13 -42706748.99 -42706748.78 0.0089 0.0075
 Venus -121638-10-10 00:44 J -42706574.69 -42706574.47 -42706574.25 0.0089 0.0001
 Venus -121637-05-22 14:10 J -42706349.13 -42706348.91 -42706348.69 0.0089 0.0006
 Venus -121636-01-03 03:22 J -42706123.57 -42706123.36 -42706123.13 0.0089 0.0013
 Mars -121636-03-13 19:27 J -42706053.69 -42706053.69 -42706053.63 0.0089 0.0088

Venus -121636-08-16 16:34 J -42705898.02 -42705897.81 -42705897.58 0.0089 0.0019

Venus -121635-03-30 06:01 J -42705672.46 -42705672.25 -42705672.04 0.0089 0.0026

Venus -121635-11-10 19:13 J -42705446.90 -42705446.70 -42705446.48 0.0088 0.0033

Venus -121634-06-24 08:10 J -42705221.34 -42705221.16 -42705220.94 0.0088 0.0040

Venus -121633-02-04 21:37 J -42704995.78 -42704995.60 -42704995.40 0.0088 0.0046

Venus -121633-09-17 10:34 J -42704770.22 -42704770.06 -42704769.87 0.0088 0.0053

Venus -121632-05-01 00:01 J -42704544.66 -42704544.50 -42704544.33 0.0088 0.0059

Venus -121632-12-12 12:44 J -42704319.10 -42704318.97 -42704318.80 0.0088 0.0066

Venus -121631-07-26 01:56 J -42704093.54 -42704093.42 -42704093.28 0.0088 0.0072

Venus -121630-03-08 14:25 J -42703867.97 -42703867.90 -42703867.77 0.0088 0.0079

Venus -121630-10-20 03:37 J -42703642.39 -42703642.35 -42703642.27 0.0088 0.0085

Mercury -121622-02-13 09:22 J -42700969.11 -42700969.11 -42700969.07 0.0088 0.0088

Mercury -121622-05-12 11:17 J -42700881.08 -42700881.03 -42700880.98 0.0088 0.0083

Mercury -121622-08-08 12:29 J -42700793.03 -42700792.98 -42700792.91 0.0088 0.0079

Mercury -121622-11-04 13:56 J -42700704.98 -42700704.92 -42700704.84 0.0088 0.0074

Mercury -121621-01-31 15:22 J -42700616.93 -42700616.86 -42700616.77 0.0088 0.0070

Mercury -121621-04-28 17:03 J -42700528.88 -42700528.79 -42700528.70 0.0088 0.0066

Mercury -121621-07-25 18:29 J -42700440.82 -42700440.73 -42700440.63 0.0088 0.0061

Mercury -121621-10-21 19:41 J -42700352.77 -42700352.68 -42700352.56 0.0088 0.0058

Mercury -121620-01-17 21:22 J -42700264.71 -42700264.61 -42700264.50 0.0088 0.0053

Mercury -121620-04-15 22:49 J -42700176.66 -42700176.55 -42700176.43 0.0088 0.0049

Mercury -121620-07-13 00:15 J -42700088.60 -42700088.49 -42700088.37 0.0088 0.0044

Mercury -121620-10-09 01:41 J -42700000.55 -42700000.43 -42700000.30 0.0088 0.0040

Mercury -121619-01-05 03:08 J -42699912.49 -42699912.37 -42699912.24 0.0088 0.0036

Mercury -121619-04-03 04:34 J -42699824.43 -42699824.31 -42699824.18 0.0088 0.0031

Mercury -121619-06-30 06:01 J -42699736.38 -42699736.25 -42699736.12 0.0088 0.0027

Mercury -121619-09-26 07:27 J -42699648.32 -42699648.19 -42699648.06 0.0088 0.0023

Mercury -121619-12-23 08:53 J -42699560.26 -42699560.13 -42699560.00 0.0088 0.0019

Mercury -121618-03-21 10:20 J -42699472.20 -42699472.07 -42699471.94 0.0088 0.0015

Mercury -121618-06-17 11:46 J -42699384.15 -42699384.01 -42699383.88 0.0088 0.0010

Mercury -121618-09-13 13:13 J -42699296.09 -42699295.95 -42699295.82 0.0088 0.0006

Mercury -121618-12-10 14:25 J -42699208.03 -42699207.90 -42699207.76 0.0088 0.0004

Mercury -121617-03-07 15:51 J -42699119.97 -42699119.84 -42699119.70 0.0088 0.0003

Mercury -121617-06-03 17:17 J -42699031.91 -42699031.78 -42699031.64 0.0088 0.0006

Mercury -121617-08-30 18:44 J -42698943.86 -42698943.72 -42698943.59 0.0088 0.0011

Mercury -121617-11-26 19:56 J -42698855.80 -42698855.67 -42698855.53 0.0088 0.0015

Mercury -121616-02-22 21:22 J -42698767.74 -42698767.61 -42698767.47 0.0088 0.0019

Mercury -121616-05-21 22:49 J -42698679.68 -42698679.55 -42698679.42 0.0088 0.0023

Mercury -121616-08-18 00:01 J -42698591.62 -42698591.50 -42698591.36 0.0088 0.0028

Mercury -121616-11-14 01:27 J -42698503.56 -42698503.44 -42698503.31 0.0088 0.0032

Mercury -121615-02-10 02:53 J -42698415.50 -42698415.38 -42698415.26 0.0088 0.0036

Mercury -121615-05-09 04:20 J -42698327.44 -42698327.32 -42698327.20 0.0088 0.0040

Mercury -121615-08-05 05:32 J -42698239.38 -42698239.27 -42698239.15 0.0088 0.0044

Mercury -121615-11-01 06:44 J -42698151.32 -42698151.22 -42698151.10 0.0088 0.0049

Mercury -121614-01-28 08:10 J -42698063.26 -42698063.16 -42698063.04 0.0088 0.0052

Mercury -121614-04-26 09:37 J -42697975.20 -42697975.10 -42697974.99 0.0088 0.0056

Mercury -121614-07-23 10:49 J -42697887.13 -42697887.05 -42697886.94 0.0088 0.0061

Mercury -121614-10-19 12:15 J -42697799.07 -42697798.99 -42697798.89 0.0088 0.0064

Mercury -121613-01-15 13:41 J -42697711.01 -42697710.93 -42697710.84 0.0088 0.0068

Mercury -121613-04-12 14:53 J -42697622.94 -42697622.88 -42697622.79 0.0088 0.0073

Mercury -121613-07-09 16:20 J -42697534.88 -42697534.82 -42697534.75 0.0088 0.0077

Mercury -121613-10-05 17:46 J -42697446.81 -42697446.76 -42697446.70 0.0088 0.0080

Mercury -121612-01-01 18:58 J -42697358.74 -42697358.71 -42697358.67 0.0088 0.0085

Mars -121577-03-28 19:13 J -42684488.73 -42684488.70 -42684488.60 0.0088 0.0087

Mars -121575-02-22 00:58 J -42683793.63 -42683793.46 -42683793.28 0.0088 0.0073

Mars -121573-01-18 04:34 J -42683098.54 -42683098.31 -42683098.06 0.0088 0.0059

Mars -121572-12-13 05:46 J -42682403.53 -42682403.26 -42682402.98 0.0088 0.0045

Mars -121570-11-08 05:46 J -42681708.55 -42681708.26 -42681707.95 0.0088 0.0031

Mars -121568-10-03 04:34 J -42681013.61 -42681013.31 -42681012.99 0.0089 0.0017

Mars -121566-08-29 00:58 J -42680318.77 -42680318.46 -42680318.14 0.0089 0.0003

Mars -121564-07-23 19:41 J -42679623.99 -42679623.68 -42679623.37 0.0089 0.0012
 Moon -121563-06-19 06:58 J -42679293.30 -42679293.21 -42679293.07 0.0089 0.0079
 Earth -121563-06-19 09:08 J -42679293.20 -42679293.12 -42679292.99 0.0089 0.0081 *
 Venus -121563-06-22 19:27 J -42679289.74 -42679289.69 -42679289.60 0.0089 0.0084
 Venus -121562-02-03 07:27 J -42679064.28 -42679064.19 -42679064.07 0.0089 0.0078
 Mars -121562-06-18 13:27 J -42678929.22 -42678928.94 -42678928.62 0.0089 0.0026
 Earth -121562-06-21 20:10 J -42678925.85 -42678925.66 -42678925.45 0.0089 0.0054
 Moon -121562-06-21 21:51 J -42678925.77 -42678925.59 -42678925.37 0.0089 0.0057 *
 Venus -121562-09-16 19:13 J -42678838.80 -42678838.70 -42678838.55 0.0089 0.0072
 Venus -121561-04-29 07:56 J -42678613.31 -42678613.17 -42678613.02 0.0089 0.0065
 Moon -121561-06-23 06:44 J -42678558.45 -42678558.22 -42678557.97 0.0089 0.0025
 Earth -121561-06-23 07:13 J -42678558.44 -42678558.20 -42678557.96 0.0089 0.0027 *
 Venus -121561-12-10 19:41 J -42678387.82 -42678387.68 -42678387.50 0.0089 0.0059
 Mars -121560-05-13 06:01 J -42678234.50 -42678234.25 -42678233.95 0.0089 0.0040
 Moon -121560-06-25 17:32 J -42678191.03 -42678190.77 -42678190.50 0.0089 0.0003
 Earth -121560-06-25 18:15 J -42678190.99 -42678190.74 -42678190.48 0.0089 0.0001 *
 Venus -121560-07-24 07:41 J -42678162.33 -42678162.18 -42678161.98 0.0089 0.0053
 Venus -121559-03-06 20:10 J -42677936.83 -42677936.66 -42677936.46 0.0089 0.0046
 Earth -121559-06-28 05:46 J -42677823.51 -42677823.26 -42677823.01 0.0089 0.0027
 Moon -121559-06-28 06:44 J -42677823.44 -42677823.22 -42677822.97 0.0089 0.0031 *
 Venus -121559-10-18 08:25 J -42677711.33 -42677711.15 -42677710.95 0.0089 0.0040
 Mars -121558-04-07 20:53 J -42677539.86 -42677539.63 -42677539.36 0.0089 0.0053
 Venus -121558-05-31 20:53 J -42677485.83 -42677485.63 -42677485.42 0.0089 0.0033
 Moon -121558-06-30 14:25 J -42677456.10 -42677455.90 -42677455.67 0.0089 0.0051
 Earth -121558-06-30 16:49 J -42677455.98 -42677455.80 -42677455.57 0.0089 0.0055 *
 Venus -121557-01-12 09:08 J -42677260.32 -42677260.12 -42677259.90 0.0089 0.0027
 Earth -121557-07-02 04:34 J -42677088.38 -42677088.31 -42677088.18 0.0089 0.0082
 Moon -121557-07-02 08:10 J -42677088.23 -42677088.16 -42677088.09 0.0089 0.0085 *
 Venus -121557-08-24 21:37 J -42677034.81 -42677034.60 -42677034.38 0.0089 0.0020
 Mars -121556-03-02 10:34 J -42676845.23 -42676845.06 -42676844.82 0.0089 0.0066

Venus -121556-04-07 10:20 J -42676809.29 -42676809.07 -42676808.86 0.0089 0.0013

Venus -121556-11-18 22:34 J -42676583.77 -42676583.56 -42676583.34 0.0089 0.0007

Venus -121555-07-02 11:03 J -42676358.25 -42676358.04 -42676357.82 0.0089 0.0001

Mars -121554-01-25 23:17 J -42676150.66 -42676150.53 -42676150.37 0.0089 0.0078

Venus -121554-02-12 23:32 J -42676132.73 -42676132.52 -42676132.30 0.0089 0.0007

Venus -121554-09-26 12:01 J -42675907.21 -42675907.00 -42675906.78 0.0089 0.0014

Venus -121553-05-09 00:58 J -42675681.68 -42675681.46 -42675681.25 0.0089 0.0020

Venus -121553-12-20 13:13 J -42675456.15 -42675455.95 -42675455.73 0.0089 0.0027

Venus -121552-08-03 01:41 J -42675230.62 -42675230.43 -42675230.21 0.0089 0.0034

Venus -121551-03-16 14:39 J -42675005.08 -42675004.89 -42675004.69 0.0089 0.0040

Venus -121551-10-28 03:08 J -42674779.54 -42674779.37 -42674779.17 0.0089 0.0047

Venus -121550-06-10 15:51 J -42674554.00 -42674553.84 -42674553.65 0.0089 0.0054

Venus -121549-01-22 04:49 J -42674328.45 -42674328.30 -42674328.13 0.0089 0.0060

Venus -121549-09-03 17:32 J -42674102.90 -42674102.77 -42674102.61 0.0089 0.0067

Venus -121548-04-17 06:44 J -42673877.34 -42673877.22 -42673877.09 0.0089 0.0073

Venus -121548-11-28 19:27 J -42673651.77 -42673651.69 -42673651.58 0.0089 0.0080

Venus -121547-07-12 08:39 J -42673426.18 -42673426.14 -42673426.08 0.0089 0.0086

Mercury -121538-01-14 19:13 J -42670317.70 -42670317.70 -42670317.67 0.0089 0.0089

Mercury -121538-04-12 22:34 J -42670229.61 -42670229.56 -42670229.48 0.0089 0.0083

Mercury -121538-07-10 01:56 J -42670141.50 -42670141.42 -42670141.31 0.0089 0.0077

Mercury -121538-10-06 05:32 J -42670053.37 -42670053.27 -42670053.15 0.0089 0.0071

Mercury -121537-01-02 08:39 J -42669965.25 -42669965.14 -42669965.00 0.0089 0.0066

Mercury -121537-03-30 12:01 J -42669877.12 -42669877.00 -42669876.85 0.0089 0.0060

Mercury -121537-06-26 15:22 J -42669788.99 -42669788.86 -42669788.69 0.0089 0.0054

Mercury -121537-09-22 18:58 J -42669700.86 -42669700.71 -42669700.54 0.0089 0.0048

Mercury -121537-12-19 22:20 J -42669612.73 -42669612.57 -42669612.39 0.0089 0.0042

Mercury -121536-03-18 01:56 J -42669524.59 -42669524.42 -42669524.25 0.0089 0.0036

Mercury -121536-06-14 05:17 J -42669436.45 -42669436.28 -42669436.10 0.0089 0.0030

Mercury -121536-09-10 08:53 J -42669348.31 -42669348.13 -42669347.95 0.0089 0.0024

Mercury -121536-12-07 12:15 J -42669260.17 -42669259.99 -42669259.80 0.0089 0.0018

Mercury -121535-03-05 15:37 J -42669172.03 -42669171.85 -42669171.66 0.0089 0.0013

Mercury -121535-06-01 19:13 J -42669083.89 -42669083.70 -42669083.51 0.0089 0.0006

Mercury -121535-08-28 22:34 J -42668995.75 -42668995.56 -42668995.37 0.0089 0.0002

Mercury -121535-11-25 02:10 J -42668907.60 -42668907.41 -42668907.22 0.0089 0.0006

Mercury -121534-02-21 05:32 J -42668819.45 -42668819.27 -42668819.08 0.0089 0.0012

Mercury -121534-05-20 08:53 J -42668731.31 -42668731.13 -42668730.93 0.0089 0.0018

Mercury -121534-08-16 12:29 J -42668643.16 -42668642.98 -42668642.79 0.0089 0.0024

Mercury -121534-11-12 16:05 J -42668555.01 -42668554.83 -42668554.65 0.0089 0.0030

Mercury -121533-02-08 19:27 J -42668466.85 -42668466.69 -42668466.50 0.0089 0.0036

Mercury -121533-05-06 23:03 J -42668378.70 -42668378.54 -42668378.36 0.0089 0.0042

Mercury -121533-08-03 02:39 J -42668290.54 -42668290.39 -42668290.22 0.0089 0.0048

Mercury -121533-10-30 06:15 J -42668202.39 -42668202.24 -42668202.08 0.0089 0.0054

Mercury -121532-01-26 09:51 J -42668114.23 -42668114.09 -42668113.95 0.0089 0.0060

Mercury -121532-04-24 13:27 J -42668026.06 -42668025.94 -42668025.81 0.0089 0.0066

Mercury -121532-07-21 16:34 J -42667937.90 -42667937.81 -42667937.68 0.0089 0.0073

Mercury -121532-10-17 20:10 J -42667849.73 -42667849.66 -42667849.55 0.0089 0.0079

Mercury -121531-01-13 23:46 J -42667761.55 -42667761.51 -42667761.44 0.0089 0.0085

Mars -121496-12-27 00:15 J -42654630.59 -42654630.49 -42654630.35 0.0089 0.0081

Mars -121494-11-21 13:27 J -42653936.11 -42653935.94 -42653935.72 0.0089 0.0069

Mars -121492-10-16 04:05 J -42653241.55 -42653241.33 -42653241.07 0.0089 0.0056

Mars -121490-09-10 18:58 J -42652546.96 -42652546.71 -42652546.42 0.0089 0.0043

Mars -121488-08-05 12:15 J -42651852.26 -42651851.99 -42651851.68 0.0089 0.0030

Mars -121486-07-01 07:13 J -42651157.50 -42651157.20 -42651156.89 0.0089 0.0016

Mars -121484-05-26 02:53 J -42650462.70 -42650462.38 -42650462.07 0.0089 0.0002

Mars -121482-04-21 00:15 J -42649767.80 -42649767.49 -42649767.17 0.0089 0.0012

Venus -121481-08-13 09:22 J -42649287.16 -42649287.11 -42649287.02 0.0089 0.0084

Earth -121481-12-29 23:03 J -42649148.71 -42649148.54 -42649148.34 0.0089 0.0063

Moon -121481-12-30 02:10 J -42649148.58 -42649148.41 -42649148.20 0.0089 0.0061 *

Mars -121480-03-15 23:46 J -42649072.79 -42649072.51 -42649072.19 0.0089 0.0027

Venus -121480-03-26 23:32 J -42649061.62 -42649061.52 -42649061.40 0.0089 0.0077

Venus -121480-11-07 13:41 J -42648836.06 -42648835.93 -42648835.79 0.0089 0.0070
 Moon -121479-01-01 08:53 J -42648781.34 -42648781.13 -42648780.89 0.0089 0.0038
 Earth -121479-01-01 11:17 J -42648781.25 -42648781.03 -42648780.78 0.0089 0.0036 *
 Venus -121479-06-21 03:22 J -42648610.50 -42648610.36 -42648610.19 0.0089 0.0064
 Earth -121478-01-03 23:17 J -42648413.78 -42648413.53 -42648413.26 0.0089 0.0009
 Moon -121478-01-04 01:41 J -42648413.70 -42648413.43 -42648413.17 0.0089 0.0005 *
 Venus -121478-02-01 17:17 J -42648384.94 -42648384.78 -42648384.59 0.0089 0.0057
 Mars -121478-02-09 01:13 J -42648377.72 -42648377.45 -42648377.15 0.0089 0.0041
 Venus -121478-09-15 07:13 J -42648159.37 -42648159.20 -42648159.00 0.0089 0.0050
 Moon -121477-01-06 10:49 J -42648046.29 -42648046.05 -42648045.80 0.0089 0.0017
 Earth -121477-01-06 11:03 J -42648046.28 -42648046.04 -42648045.78 0.0089 0.0020 *
 Venus -121477-04-27 21:08 J -42647933.81 -42647933.62 -42647933.42 0.0089 0.0043
 Venus -121477-12-09 10:34 J -42647708.25 -42647708.06 -42647707.84 0.0089 0.0037
 Mars -121476-01-04 03:22 J -42647682.58 -42647682.36 -42647682.08 0.0089 0.0055
 Moon -121476-01-07 21:51 J -42647678.79 -42647678.59 -42647678.35 0.0089 0.0050
 Earth -121476-01-07 22:20 J -42647678.77 -42647678.57 -42647678.33 0.0089 0.0047 *
 Venus -121476-07-23 00:15 J -42647482.69 -42647482.49 -42647482.26 0.0089 0.0030
 Earth -121475-01-10 09:22 J -42647311.22 -42647311.11 -42647310.94 0.0089 0.0074
 Moon -121475-01-10 10:49 J -42647311.18 -42647311.05 -42647310.88 0.0089 0.0070 *
 Venus -121475-03-05 14:10 J -42647257.12 -42647256.91 -42647256.69 0.0089 0.0023
 Venus -121475-10-17 03:51 J -42647031.56 -42647031.34 -42647031.12 0.0089 0.0016
 Mars -121475-11-30 08:10 J -42646987.35 -42646987.16 -42646986.94 0.0089 0.0068
 Venus -121474-05-30 17:17 J -42646806.00 -42646805.78 -42646805.55 0.0089 0.0009
 Venus -121473-01-11 06:58 J -42646580.44 -42646580.21 -42646579.99 0.0089 0.0003
 Venus -121473-08-23 20:10 J -42646354.88 -42646354.66 -42646354.43 0.0089 0.0005
 Mars -121473-10-25 12:44 J -42646292.06 -42646291.97 -42646291.81 0.0089 0.0082
 Venus -121472-04-06 09:22 J -42646129.32 -42646129.11 -42646128.88 0.0089 0.0012
 Venus -121472-11-17 23:03 J -42645903.76 -42645903.54 -42645903.32 0.0089 0.0018
 Venus -121471-07-01 12:15 J -42645678.20 -42645677.99 -42645677.77 0.0089 0.0025
 Venus -121470-02-12 01:27 J -42645452.64 -42645452.44 -42645452.22 0.0088 0.0031

Venus -121470-09-25 14:53 J -42645227.08 -42645226.88 -42645226.68 0.0088 0.0038

Venus -121469-05-08 03:51 J -42645001.52 -42645001.34 -42645001.13 0.0088 0.0045

Venus -121469-12-19 17:03 J -42644775.95 -42644775.79 -42644775.59 0.0088 0.0052

Venus -121468-08-02 06:15 J -42644550.39 -42644550.24 -42644550.06 0.0088 0.0058

Venus -121467-03-15 19:13 J -42644324.83 -42644324.70 -42644324.53 0.0088 0.0064

Venus -121467-10-27 08:25 J -42644099.26 -42644099.15 -42644099.00 0.0088 0.0071

Venus -121466-06-09 21:51 J -42643873.70 -42643873.59 -42643873.48 0.0088 0.0077

Venus -121465-01-21 10:20 J -42643648.12 -42643648.07 -42643647.98 0.0088 0.0084

Mercury -121458-11-10 07:56 J -42640798.17 -42640798.17 -42640798.14 0.0088 0.0088

Mercury -121457-02-06 09:51 J -42640710.14 -42640710.09 -42640710.05 0.0088 0.0083

Mercury -121457-05-04 11:03 J -42640622.09 -42640622.04 -42640621.97 0.0088 0.0079

Mercury -121457-07-31 12:29 J -42640534.04 -42640533.98 -42640533.90 0.0088 0.0074

Mercury -121457-10-27 13:56 J -42640445.99 -42640445.92 -42640445.83 0.0088 0.0070

Mercury -121456-01-23 15:37 J -42640357.94 -42640357.85 -42640357.76 0.0088 0.0066

Mercury -121456-04-21 16:49 J -42640269.89 -42640269.80 -42640269.69 0.0088 0.0062

Mercury -121456-07-18 18:15 J -42640181.83 -42640181.74 -42640181.63 0.0088 0.0057

Mercury -121456-10-14 19:41 J -42640093.78 -42640093.68 -42640093.56 0.0088 0.0053

Mercury -121455-01-10 21:22 J -42640005.72 -42640005.61 -42640005.50 0.0088 0.0049

Mercury -121455-04-08 22:49 J -42639917.67 -42639917.55 -42639917.43 0.0088 0.0044

Mercury -121455-07-06 00:01 J -42639829.61 -42639829.50 -42639829.37 0.0088 0.0041

Mercury -121455-10-02 01:27 J -42639741.55 -42639741.44 -42639741.31 0.0088 0.0036

Mercury -121455-12-29 03:08 J -42639653.50 -42639653.37 -42639653.24 0.0088 0.0032

Mercury -121454-03-27 04:34 J -42639565.44 -42639565.31 -42639565.18 0.0088 0.0027

Mercury -121454-06-23 05:46 J -42639477.38 -42639477.26 -42639477.12 0.0088 0.0024

Mercury -121454-09-19 07:13 J -42639389.33 -42639389.20 -42639389.06 0.0088 0.0019

Mercury -121454-12-16 08:53 J -42639301.27 -42639301.13 -42639301.00 0.0088 0.0015

Mercury -121453-03-13 10:20 J -42639213.21 -42639213.07 -42639212.94 0.0088 0.0011

Mercury -121453-06-09 11:32 J -42639125.15 -42639125.02 -42639124.88 0.0088 0.0007

Mercury -121453-09-05 12:58 J -42639037.09 -42639036.96 -42639036.82 0.0088 0.0003

Mercury -121453-12-02 14:25 J -42638949.03 -42638948.90 -42638948.76 0.0088 0.0002

Mercury -121452-02-28 15:51 J -42638860.98 -42638860.84 -42638860.71 0.0088 0.0006
 Mercury -121452-05-27 17:17 J -42638772.92 -42638772.78 -42638772.65 0.0088 0.0011
 Mercury -121452-08-23 18:29 J -42638684.86 -42638684.73 -42638684.59 0.0088 0.0015
 Mercury -121452-11-19 19:56 J -42638596.80 -42638596.67 -42638596.54 0.0088 0.0019
 Mercury -121451-02-15 21:22 J -42638508.74 -42638508.61 -42638508.48 0.0088 0.0023
 Mercury -121451-05-14 22:34 J -42638420.68 -42638420.56 -42638420.42 0.0088 0.0028
 Mercury -121451-08-11 00:01 J -42638332.62 -42638332.50 -42638332.37 0.0088 0.0031
 Mercury -121451-11-07 01:27 J -42638244.56 -42638244.44 -42638244.32 0.0088 0.0036
 Mercury -121450-02-03 02:53 J -42638156.50 -42638156.38 -42638156.26 0.0088 0.0040
 Mercury -121450-05-02 04:05 J -42638068.44 -42638068.33 -42638068.21 0.0088 0.0044
 Mercury -121450-07-29 05:17 J -42637980.38 -42637980.28 -42637980.16 0.0088 0.0048
 Mercury -121450-10-25 06:44 J -42637892.32 -42637892.22 -42637892.10 0.0088 0.0052
 Mercury -121449-01-21 08:10 J -42637804.26 -42637804.16 -42637804.05 0.0088 0.0056
 Mercury -121449-04-18 09:22 J -42637716.20 -42637716.11 -42637716.00 0.0088 0.0061
 Mercury -121449-07-15 10:49 J -42637628.13 -42637628.05 -42637627.95 0.0088 0.0064
 Mercury -121449-10-11 12:15 J -42637540.07 -42637539.99 -42637539.90 0.0088 0.0068
 Mercury -121448-01-07 13:27 J -42637452.00 -42637451.94 -42637451.85 0.0088 0.0073
 Mercury -121448-04-05 14:53 J -42637363.94 -42637363.88 -42637363.81 0.0088 0.0076
 Mercury -121448-07-02 16:20 J -42637275.87 -42637275.82 -42637275.76 0.0088 0.0080
 Mercury -121448-09-28 17:32 J -42637187.80 -42637187.77 -42637187.72 0.0088 0.0085
 Mars -121414-11-10 13:41 J -42624726.95 -42624726.93 -42624726.89 0.0088 0.0088
 Mars -121412-10-05 19:27 J -42624031.84 -42624031.69 -42624031.50 0.0088 0.0075
 Mars -121410-08-31 23:32 J -42623336.72 -42623336.52 -42623336.26 0.0088 0.0062
 Mars -121408-07-27 03:22 J -42622641.62 -42622641.36 -42622641.08 0.0088 0.0048
 Mars -121406-06-22 05:03 J -42621946.58 -42621946.29 -42621945.99 0.0088 0.0034
 Mars -121404-05-17 04:34 J -42621251.60 -42621251.31 -42621250.98 0.0089 0.0021
 Mars -121402-04-12 04:05 J -42620556.64 -42620556.33 -42620556.01 0.0089 0.0007
 Mars -121400-03-07 01:13 J -42619861.76 -42619861.45 -42619861.13 0.0089 0.0008
 Venus -121399-09-24 03:51 J -42619295.38 -42619295.34 -42619295.25 0.0089 0.0085
 Mars -121398-01-30 19:56 J -42619166.97 -42619166.67 -42619166.36 0.0089 0.0021

Venus -121398-05-07 16:20 J -42619069.91 -42619069.82 -42619069.71 0.0089 0.0078
 Moon -121398-06-20 22:49 J -42619025.72 -42619025.55 -42619025.35 0.0089 0.0063
 Earth -121398-06-21 00:15 J -42619025.63 -42619025.49 -42619025.30 0.0089 0.0068 *
 Venus -121398-12-19 04:20 J -42618844.44 -42618844.32 -42618844.19 0.0089 0.0072
 Earth -121397-06-22 11:17 J -42618658.25 -42618658.03 -42618657.79 0.0089 0.0041
 Moon -121397-06-22 13:27 J -42618658.13 -42618657.94 -42618657.70 0.0089 0.0046 *
 Venus -121397-07-31 16:05 J -42618618.96 -42618618.83 -42618618.67 0.0089 0.0066
 Mars -121397-12-25 13:13 J -42618472.21 -42618471.95 -42618471.63 0.0089 0.0035
 Venus -121396-03-14 04:05 J -42618393.47 -42618393.33 -42618393.15 0.0089 0.0060
 Moon -121396-06-24 19:27 J -42618290.94 -42618290.69 -42618290.42 0.0089 0.0010
 Earth -121396-06-24 22:34 J -42618290.82 -42618290.56 -42618290.31 0.0089 0.0014 *
 Venus -121396-10-25 16:34 J -42618167.98 -42618167.81 -42618167.63 0.0089 0.0053
 Venus -121395-06-08 04:34 J -42617942.48 -42617942.31 -42617942.12 0.0089 0.0047
 Earth -121395-06-27 09:22 J -42617923.35 -42617923.11 -42617922.85 0.0089 0.0014
 Moon -121395-06-27 13:13 J -42617923.20 -42617922.95 -42617922.69 0.0089 0.0009 *
 Mars -121395-11-20 06:01 J -42617777.49 -42617777.25 -42617776.96 0.0089 0.0048
 Venus -121394-01-19 16:49 J -42617716.99 -42617716.80 -42617716.60 0.0089 0.0040
 Moon -121394-06-29 17:17 J -42617555.99 -42617555.78 -42617555.55 0.0089 0.0045
 Earth -121394-06-29 20:39 J -42617555.85 -42617555.64 -42617555.39 0.0089 0.0041 *
 Venus -121394-09-02 05:03 J -42617491.48 -42617491.29 -42617491.08 0.0089 0.0034
 Venus -121393-04-14 17:32 J -42617265.97 -42617265.77 -42617265.56 0.0089 0.0027
 Earth -121393-07-01 07:56 J -42617188.31 -42617188.17 -42617187.98 0.0089 0.0068
 Moon -121393-07-01 11:46 J -42617188.18 -42617188.01 -42617187.82 0.0089 0.0064 *
 Mars -121393-10-14 20:39 J -42617082.86 -42617082.64 -42617082.41 0.0089 0.0060
 Venus -121393-11-26 05:46 J -42617040.46 -42617040.26 -42617040.04 0.0089 0.0021
 Venus -121392-07-09 18:15 J -42616814.95 -42616814.74 -42616814.52 0.0089 0.0014
 Venus -121391-02-20 06:29 J -42616589.44 -42616589.23 -42616589.01 0.0089 0.0008
 Mars -121391-09-09 09:37 J -42616388.24 -42616388.10 -42616387.89 0.0089 0.0073
 Venus -121391-10-03 19:13 J -42616363.92 -42616363.70 -42616363.49 0.0089 0.0002
 Venus -121390-05-17 07:41 J -42616138.39 -42616138.18 -42616137.96 0.0089 0.0006

Venus -121390-12-28 20:10 J -42615912.87 -42615912.66 -42615912.44 0.0089 0.0013

Mars -121389-08-03 21:51 J -42615693.64 -42615693.59 -42615693.46 0.0089 0.0085

Venus -121389-08-10 08:39 J -42615687.35 -42615687.14 -42615686.92 0.0089 0.0019

Venus -121388-03-23 21:08 J -42615461.82 -42615461.62 -42615461.40 0.0089 0.0026

Venus -121388-11-04 09:37 J -42615236.29 -42615236.10 -42615235.88 0.0089 0.0033

Venus -121387-06-17 22:34 J -42615010.75 -42615010.56 -42615010.36 0.0089 0.0039

Venus -121386-01-29 11:03 J -42614785.22 -42614785.04 -42614784.84 0.0089 0.0046

Venus -121386-09-12 00:01 J -42614559.67 -42614559.50 -42614559.32 0.0089 0.0052

Venus -121385-04-24 12:29 J -42614334.12 -42614333.98 -42614333.80 0.0089 0.0059

Venus -121385-12-06 01:13 J -42614108.58 -42614108.45 -42614108.28 0.0089 0.0066

Venus -121384-07-19 14:10 J -42613883.02 -42613882.91 -42613882.77 0.0089 0.0072

Venus -121383-03-02 02:39 J -42613657.46 -42613657.39 -42613657.26 0.0089 0.0079

Venus -121383-10-13 15:51 J -42613431.89 -42613431.84 -42613431.76 0.0089 0.0085

Mercury -121374-10-11 16:05 J -42610146.83 -42610146.83 -42610146.78 0.0089 0.0088

Mercury -121373-01-07 19:41 J -42610058.74 -42610058.68 -42610058.60 0.0089 0.0082

Mercury -121373-04-04 23:03 J -42609970.62 -42609970.54 -42609970.44 0.0089 0.0076

Mercury -121373-07-02 02:10 J -42609882.50 -42609882.41 -42609882.28 0.0089 0.0071

Mercury -121373-09-28 05:32 J -42609794.38 -42609794.27 -42609794.12 0.0089 0.0065

Mercury -121373-12-25 09:08 J -42609706.25 -42609706.12 -42609705.97 0.0089 0.0059

Mercury -121372-03-23 12:29 J -42609618.12 -42609617.98 -42609617.82 0.0089 0.0053

Mercury -121372-06-19 16:05 J -42609529.99 -42609529.83 -42609529.67 0.0089 0.0047

Mercury -121372-09-15 19:27 J -42609441.85 -42609441.69 -42609441.52 0.0089 0.0041

Mercury -121372-12-12 22:34 J -42609353.72 -42609353.56 -42609353.37 0.0089 0.0036

Mercury -121371-03-11 02:10 J -42609265.58 -42609265.41 -42609265.23 0.0089 0.0030

Mercury -121371-06-07 05:32 J -42609177.44 -42609177.27 -42609177.08 0.0089 0.0024

Mercury -121371-09-03 09:08 J -42609089.30 -42609089.12 -42609088.93 0.0089 0.0018

Mercury -121371-11-30 12:29 J -42609001.16 -42609000.98 -42609000.79 0.0089 0.0012

Mercury -121370-02-26 16:05 J -42608913.02 -42608912.83 -42608912.64 0.0089 0.0006

Mercury -121370-05-25 19:27 J -42608824.88 -42608824.69 -42608824.50 0.0089 0.0002

Mercury -121370-08-21 23:03 J -42608736.73 -42608736.54 -42608736.35 0.0089 0.0006

Mercury -121370-11-18 02:25 J -42608648.58 -42608648.40 -42608648.21 0.0089 0.0012
 Mercury -121369-02-14 06:01 J -42608560.44 -42608560.25 -42608560.06 0.0089 0.0018
 Mercury -121369-05-12 09:22 J -42608472.29 -42608472.11 -42608471.92 0.0089 0.0024
 Mercury -121369-08-08 12:58 J -42608384.14 -42608383.96 -42608383.78 0.0089 0.0030
 Mercury -121369-11-04 16:34 J -42608295.99 -42608295.81 -42608295.64 0.0089 0.0036
 Mercury -121368-01-31 19:41 J -42608207.83 -42608207.68 -42608207.50 0.0089 0.0043
 Mercury -121368-04-29 23:17 J -42608119.68 -42608119.53 -42608119.36 0.0089 0.0049
 Mercury -121368-07-27 02:53 J -42608031.52 -42608031.38 -42608031.22 0.0089 0.0055
 Mercury -121368-10-23 06:15 J -42607943.36 -42607943.24 -42607943.08 0.0089 0.0061
 Mercury -121367-01-19 09:51 J -42607855.20 -42607855.09 -42607854.95 0.0089 0.0067
 Mercury -121367-04-17 13:27 J -42607767.03 -42607766.94 -42607766.82 0.0089 0.0073
 Mercury -121367-07-14 17:03 J -42607678.86 -42607678.79 -42607678.69 0.0089 0.0079
 Mercury -121367-10-10 20:39 J -42607590.68 -42607590.64 -42607590.57 0.0089 0.0085
 Mars -121332-08-10 13:41 J -42594868.03 -42594867.93 -42594867.80 0.0089 0.0082
 Mars -121330-07-06 00:44 J -42594173.64 -42594173.47 -42594173.27 0.0089 0.0070
 Mars -121328-05-30 13:27 J -42593479.15 -42593478.94 -42593478.69 0.0089 0.0058
 Mars -121326-04-25 04:20 J -42592784.58 -42592784.32 -42592784.05 0.0089 0.0045
 Mars -121324-03-19 19:41 J -42592089.97 -42592089.68 -42592089.39 0.0089 0.0032
 Mars -121322-02-12 12:58 J -42591395.26 -42591394.96 -42591394.65 0.0089 0.0019
 Mars -121320-01-07 08:25 J -42590700.45 -42590700.15 -42590699.83 0.0089 0.0006
 Mars -121319-12-03 04:20 J -42590005.63 -42590005.32 -42590005.00 0.0089 0.0008
 Mars -121317-10-28 01:27 J -42589310.73 -42589310.44 -42589310.12 0.0089 0.0022
 Venus -121317-11-14 15:08 J -42589292.91 -42589292.87 -42589292.78 0.0089 0.0085
 Moon -121317-12-29 01:13 J -42589248.54 -42589248.45 -42589248.33 0.0089 0.0081
 Earth -121317-12-29 01:27 J -42589248.53 -42589248.44 -42589248.28 0.0089 0.0078 *
 Venus -121316-06-28 05:17 J -42589067.37 -42589067.28 -42589067.16 0.0089 0.0078
 Earth -121316-12-31 14:25 J -42588881.11 -42588880.90 -42588880.68 0.0089 0.0050
 Moon -121316-12-31 15:22 J -42588881.06 -42588880.86 -42588880.63 0.0089 0.0046 *
 Venus -121315-02-08 19:13 J -42588841.82 -42588841.70 -42588841.55 0.0089 0.0071
 Venus -121315-09-22 09:37 J -42588616.25 -42588616.10 -42588615.94 0.0089 0.0064

Mars -121315-09-23 00:44 J -42588615.74 -42588615.47 -42588615.16 0.0089 0.0036
 Moon -121314-01-03 00:01 J -42588513.75 -42588513.50 -42588513.24 0.0089 0.0027
 Earth -121314-01-03 02:25 J -42588513.64 -42588513.40 -42588513.14 0.0089 0.0023 *
 Venus -121314-05-05 23:03 J -42588390.69 -42588390.54 -42588390.35 0.0089 0.0058
 Venus -121314-12-17 13:13 J -42588165.12 -42588164.95 -42588164.76 0.0089 0.0051
 Earth -121313-01-05 14:39 J -42588146.15 -42588145.89 -42588145.64 0.0089 0.0005
 Moon -121313-01-05 17:32 J -42588146.02 -42588145.77 -42588145.51 0.0089 0.0010 *
 Venus -121313-07-30 03:08 J -42587939.56 -42587939.37 -42587939.17 0.0089 0.0044
 Mars -121313-08-18 01:56 J -42587920.67 -42587920.42 -42587920.14 0.0089 0.0049
 Moon -121312-01-06 22:49 J -42587778.79 -42587778.55 -42587778.29 0.0089 0.0028
 Earth -121312-01-07 01:56 J -42587778.64 -42587778.42 -42587778.16 0.0089 0.0033 *
 Venus -121312-03-12 17:03 J -42587714.00 -42587713.79 -42587713.59 0.0089 0.0037
 Venus -121312-10-24 06:29 J -42587488.43 -42587488.23 -42587488.01 0.0089 0.0031
 Earth -121311-01-09 13:13 J -42587411.12 -42587410.95 -42587410.73 0.0089 0.0060
 Moon -121311-01-09 17:32 J -42587410.95 -42587410.77 -42587410.59 0.0089 0.0064 *
 Venus -121311-06-06 20:25 J -42587262.86 -42587262.65 -42587262.43 0.0089 0.0024
 Mars -121311-07-14 03:22 J -42587225.55 -42587225.36 -42587225.10 0.0089 0.0063
 Moon -121310-01-11 21:37 J -42587043.68 -42587043.60 -42587043.49 0.0089 0.0082
 Earth -121310-01-12 00:29 J -42587043.51 -42587043.48 -42587043.40 0.0089 0.0087 *
 Venus -121310-01-18 10:05 J -42587037.30 -42587037.08 -42587036.86 0.0089 0.0017
 Venus -121310-08-31 23:32 J -42586811.74 -42586811.52 -42586811.30 0.0089 0.0010
 Venus -121309-04-13 12:58 J -42586586.18 -42586585.96 -42586585.73 0.0089 0.0004
 Mars -121309-06-08 07:41 J -42586530.31 -42586530.18 -42586529.98 0.0089 0.0076
 Venus -121309-11-25 02:39 J -42586360.61 -42586360.39 -42586360.17 0.0089 0.0003
 Venus -121308-07-08 15:51 J -42586135.05 -42586134.84 -42586134.61 0.0089 0.0011
 Venus -121307-02-19 05:17 J -42585909.50 -42585909.28 -42585909.06 0.0089 0.0017
 Mars -121307-05-04 13:13 J -42585834.95 -42585834.95 -42585834.89 0.0089 0.0088
 Venus -121307-10-02 18:29 J -42585683.93 -42585683.73 -42585683.50 0.0089 0.0024
 Venus -121306-05-16 07:41 J -42585458.37 -42585458.18 -42585457.95 0.0089 0.0031
 Venus -121306-12-27 21:22 J -42585232.81 -42585232.61 -42585232.41 0.0088 0.0037

Venus -121305-08-09 10:20 J -42585007.25 -42585007.07 -42585006.87 0.0088 0.0044

Venus -121304-03-22 23:46 J -42584781.69 -42584781.51 -42584781.33 0.0088 0.0050

Venus -121304-11-03 12:44 J -42584556.13 -42584555.97 -42584555.79 0.0088 0.0057

Venus -121303-06-17 02:10 J -42584330.56 -42584330.41 -42584330.25 0.0088 0.0063

Venus -121302-01-28 14:53 J -42584105.00 -42584104.88 -42584104.73 0.0088 0.0070

Venus -121302-09-11 04:05 J -42583879.43 -42583879.33 -42583879.21 0.0088 0.0076

Venus -121301-04-23 16:49 J -42583653.86 -42583653.80 -42583653.70 0.0088 0.0082

Venus -121301-12-05 06:15 J -42583428.24 -42583428.24 -42583428.22 0.0088 0.0088

Mercury -121293-08-06 06:29 J -42580627.24 -42580627.23 -42580627.19 0.0088 0.0087

Mercury -121293-11-02 08:10 J -42580539.20 -42580539.16 -42580539.11 0.0088 0.0083

Mercury -121292-01-29 09:37 J -42580451.15 -42580451.10 -42580451.03 0.0088 0.0078

Mercury -121292-04-27 11:03 J -42580363.10 -42580363.04 -42580362.96 0.0088 0.0074

Mercury -121292-07-24 12:44 J -42580275.05 -42580274.97 -42580274.89 0.0088 0.0070

Mercury -121292-10-20 13:56 J -42580187.00 -42580186.92 -42580186.82 0.0088 0.0066

Mercury -121291-01-16 15:22 J -42580098.95 -42580098.86 -42580098.75 0.0088 0.0062

Mercury -121291-04-14 16:49 J -42580010.89 -42580010.80 -42580010.68 0.0088 0.0057

Mercury -121291-07-11 18:29 J -42579922.84 -42579922.73 -42579922.62 0.0088 0.0053

Mercury -121291-10-07 19:56 J -42579834.78 -42579834.67 -42579834.55 0.0088 0.0048

Mercury -121290-01-03 21:22 J -42579746.73 -42579746.61 -42579746.49 0.0088 0.0044

Mercury -121290-04-01 22:34 J -42579658.67 -42579658.56 -42579658.43 0.0088 0.0041

Mercury -121290-06-29 00:15 J -42579570.61 -42579570.49 -42579570.36 0.0088 0.0036

Mercury -121290-09-25 01:41 J -42579482.56 -42579482.43 -42579482.30 0.0088 0.0031

Mercury -121290-12-22 03:08 J -42579394.50 -42579394.37 -42579394.24 0.0088 0.0027

Mercury -121289-03-19 04:34 J -42579306.44 -42579306.31 -42579306.18 0.0088 0.0023

Mercury -121289-06-15 06:01 J -42579218.38 -42579218.25 -42579218.12 0.0088 0.0019

Mercury -121289-09-11 07:27 J -42579130.32 -42579130.19 -42579130.06 0.0088 0.0014

Mercury -121289-12-08 08:53 J -42579042.27 -42579042.13 -42579042.00 0.0088 0.0010

Mercury -121288-03-06 10:20 J -42578954.21 -42578954.07 -42578953.94 0.0088 0.0006

Mercury -121288-06-02 11:46 J -42578866.15 -42578866.01 -42578865.88 0.0088 0.0003

Mercury -121288-08-29 12:58 J -42578778.09 -42578777.96 -42578777.82 0.0088 0.0004

Mercury -121288-11-25 14:25 J -42578690.03 -42578689.90 -42578689.76 0.0088 0.0007

Mercury -121287-02-21 15:51 J -42578601.97 -42578601.84 -42578601.71 0.0088 0.0011

Mercury -121287-05-20 17:17 J -42578513.91 -42578513.78 -42578513.65 0.0088 0.0015

Mercury -121287-08-16 18:29 J -42578425.86 -42578425.73 -42578425.59 0.0088 0.0020

Mercury -121287-11-12 19:56 J -42578337.80 -42578337.67 -42578337.54 0.0088 0.0023

Mercury -121286-02-08 21:22 J -42578249.74 -42578249.61 -42578249.48 0.0088 0.0027

Mercury -121286-05-07 22:49 J -42578161.68 -42578161.55 -42578161.43 0.0088 0.0032

Mercury -121286-08-04 00:15 J -42578073.62 -42578073.49 -42578073.37 0.0088 0.0036

Mercury -121286-10-31 01:27 J -42577985.56 -42577985.44 -42577985.32 0.0088 0.0040

Mercury -121285-01-27 02:39 J -42577897.50 -42577897.39 -42577897.26 0.0088 0.0045

Mercury -121285-04-24 04:05 J -42577809.43 -42577809.33 -42577809.21 0.0088 0.0048

Mercury -121285-07-21 05:32 J -42577721.37 -42577721.27 -42577721.16 0.0088 0.0052

Mercury -121285-10-17 06:44 J -42577633.31 -42577633.22 -42577633.11 0.0088 0.0057

Mercury -121284-01-13 08:10 J -42577545.25 -42577545.16 -42577545.05 0.0088 0.0061

Mercury -121284-04-11 09:37 J -42577457.19 -42577457.10 -42577457.01 0.0088 0.0064

Mercury -121284-07-08 11:03 J -42577369.12 -42577369.04 -42577368.96 0.0088 0.0068

Mercury -121284-10-04 12:15 J -42577281.06 -42577280.99 -42577280.91 0.0088 0.0073

Mercury -121284-12-31 13:41 J -42577192.99 -42577192.93 -42577192.86 0.0088 0.0077

Mercury -121283-03-29 15:08 J -42577104.92 -42577104.87 -42577104.82 0.0088 0.0081

Mercury -121283-06-25 16:20 J -42577016.85 -42577016.82 -42577016.78 0.0088 0.0085

Jupiter -121276-07-08 09:22 J -42574447.13 -42574447.11 -42574446.99 0.0088 0.0088

Mars -121248-05-19 13:41 J -42564270.06 -42564269.93 -42564269.74 0.0088 0.0077

Mars -121246-04-14 19:41 J -42563574.88 -42563574.68 -42563574.43 0.0088 0.0064

Mars -121244-03-10 00:01 J -42562879.74 -42562879.50 -42562879.21 0.0089 0.0051

Mars -121242-02-03 03:51 J -42562184.62 -42562184.34 -42562184.04 0.0089 0.0037

Mars -121241-12-29 05:17 J -42561489.57 -42561489.28 -42561488.96 0.0089 0.0024

Mars -121239-11-24 05:03 J -42560794.60 -42560794.29 -42560793.97 0.0089 0.0010

Mars -121237-10-19 03:51 J -42560099.66 -42560099.34 -42560099.03 0.0089 0.0004

Mars -121235-09-14 00:44 J -42559404.78 -42559404.47 -42559404.16 0.0089 0.0017

Venus -121235-12-26 12:29 J -42559301.02 -42559300.98 -42559300.90 0.0089 0.0085

Moon -121234-06-20 02:25 J -42559125.43 -42559125.40 -42559125.33 0.0089 0.0087
 Earth -121234-06-20 04:34 J -42559125.39 -42559125.31 -42559125.19 0.0089 0.0082 *
 Venus -121234-08-09 00:29 J -42559075.56 -42559075.48 -42559075.36 0.0089 0.0079
 Venus -121233-03-21 12:29 J -42558850.08 -42558849.98 -42558849.84 0.0089 0.0073
 Earth -121233-06-21 15:37 J -42558758.05 -42558757.85 -42558757.65 0.0089 0.0055
 Moon -121233-06-21 16:34 J -42558758.02 -42558757.81 -42558757.58 0.0089 0.0051 *
 Mars -121233-08-08 19:13 J -42558709.99 -42558709.70 -42558709.40 0.0089 0.0030
 Venus -121233-11-02 00:58 J -42558624.60 -42558624.46 -42558624.32 0.0089 0.0066
 Venus -121232-06-15 12:44 J -42558399.12 -42558398.97 -42558398.80 0.0089 0.0060
 Moon -121232-06-24 01:27 J -42558390.65 -42558390.44 -42558390.19 0.0089 0.0033
 Earth -121232-06-24 02:25 J -42558390.64 -42558390.40 -42558390.15 0.0089 0.0028 *
 Venus -121231-01-27 00:44 J -42558173.63 -42558173.47 -42558173.28 0.0089 0.0054
 Moon -121231-06-26 12:29 J -42558023.25 -42558022.98 -42558022.72 0.0089 0.0003
 Earth -121231-06-26 13:27 J -42558023.19 -42558022.94 -42558022.68 0.0089 0.0002 *
 Mars -121231-07-04 12:29 J -42558015.24 -42558014.98 -42558014.69 0.0089 0.0043
 Venus -121231-09-09 13:13 J -42557948.13 -42557947.95 -42557947.77 0.0089 0.0047
 Venus -121230-04-23 01:13 J -42557722.63 -42557722.45 -42557722.25 0.0089 0.0041
 Earth -121230-06-29 00:29 J -42557655.73 -42557655.48 -42557655.23 0.0089 0.0026
 Moon -121230-06-29 02:10 J -42557655.64 -42557655.41 -42557655.16 0.0089 0.0022 *
 Venus -121230-12-04 13:13 J -42557497.13 -42557496.95 -42557496.73 0.0089 0.0035
 Mars -121229-05-29 05:17 J -42557320.49 -42557320.28 -42557320.01 0.0089 0.0056
 Moon -121229-06-30 09:22 J -42557288.31 -42557288.11 -42557287.91 0.0089 0.0057
 Earth -121229-06-30 11:17 J -42557288.21 -42557288.03 -42557287.80 0.0089 0.0054 *
 Venus -121229-07-17 01:41 J -42557271.63 -42557271.43 -42557271.22 0.0089 0.0028
 Venus -121228-02-27 13:56 J -42557046.12 -42557045.92 -42557045.70 0.0089 0.0021
 Earth -121228-07-02 23:03 J -42556920.62 -42556920.54 -42556920.42 0.0089 0.0081
 Moon -121228-07-03 02:25 J -42556920.50 -42556920.40 -42556920.25 0.0089 0.0077 *
 Venus -121228-10-11 02:25 J -42556820.61 -42556820.40 -42556820.19 0.0089 0.0015
 Mars -121227-04-23 20:25 J -42556625.82 -42556625.65 -42556625.43 0.0089 0.0068
 Venus -121227-05-24 14:53 J -42556595.10 -42556594.88 -42556594.67 0.0089 0.0008

Saturn -121227-07-31 11:17 J -42556527.27 -42556527.03 -42556526.65 0.0089 0.0080
 Venus -121226-01-05 03:22 J -42556369.58 -42556369.36 -42556369.15 0.0089 0.0002
 Venus -121226-08-18 15:37 J -42556144.06 -42556143.85 -42556143.63 0.0089 0.0005
 Mars -121225-03-18 10:34 J -42555931.20 -42555931.06 -42555930.93 0.0089 0.0079
 Venus -121225-03-31 04:05 J -42555918.54 -42555918.33 -42555918.11 0.0089 0.0012
 Venus -121225-11-11 16:49 J -42555693.01 -42555692.80 -42555692.59 0.0089 0.0018
 Venus -121224-06-25 05:17 J -42555467.48 -42555467.28 -42555467.07 0.0089 0.0025
 Venus -121223-02-05 17:46 J -42555241.95 -42555241.76 -42555241.55 0.0089 0.0032
 Venus -121223-09-19 06:29 J -42555016.42 -42555016.23 -42555016.03 0.0089 0.0038
 Venus -121222-05-02 19:13 J -42554790.87 -42554790.70 -42554790.50 0.0089 0.0045
 Venus -121222-12-14 08:10 J -42554565.33 -42554565.16 -42554564.98 0.0089 0.0051
 Venus -121221-07-26 20:39 J -42554339.79 -42554339.64 -42554339.46 0.0089 0.0058
 Venus -121220-03-09 09:37 J -42554114.25 -42554114.10 -42554113.95 0.0089 0.0064
 Venus -121220-10-20 22:05 J -42553888.69 -42553888.58 -42553888.43 0.0089 0.0071
 Venus -121219-06-03 11:32 J -42553663.13 -42553663.02 -42553662.92 0.0089 0.0077
 Venus -121218-01-15 00:01 J -42553437.55 -42553437.50 -42553437.42 0.0089 0.0084
 Mercury -121209-07-07 13:27 J -42549975.96 -42549975.94 -42549975.89 0.0089 0.0087
 Mercury -121209-10-03 16:49 J -42549887.86 -42549887.80 -42549887.72 0.0089 0.0081
 Mercury -121209-12-30 19:56 J -42549799.75 -42549799.67 -42549799.55 0.0089 0.0076
 Mercury -121208-03-28 23:17 J -42549711.63 -42549711.53 -42549711.40 0.0089 0.0070
 Mercury -121208-06-25 02:53 J -42549623.50 -42549623.38 -42549623.24 0.0089 0.0064
 Mercury -121208-09-21 06:15 J -42549535.37 -42549535.24 -42549535.09 0.0089 0.0058
 Mercury -121208-12-18 09:37 J -42549447.24 -42549447.10 -42549446.94 0.0089 0.0052
 Mercury -121207-03-16 13:13 J -42549359.11 -42549358.95 -42549358.79 0.0089 0.0046
 Mercury -121207-06-12 16:20 J -42549270.98 -42549270.82 -42549270.64 0.0089 0.0041
 Mercury -121207-09-08 19:41 J -42549182.84 -42549182.68 -42549182.49 0.0089 0.0035
 Mercury -121207-12-05 23:17 J -42549094.70 -42549094.53 -42549094.35 0.0089 0.0029
 Mercury -121206-03-04 02:39 J -42549006.57 -42549006.39 -42549006.20 0.0089 0.0023
 Mercury -121206-05-31 06:15 J -42548918.43 -42548918.24 -42548918.05 0.0089 0.0017
 Mercury -121206-08-27 09:37 J -42548830.28 -42548830.10 -42548829.91 0.0089 0.0011

Mercury -121206-11-23 13:13 J -42548742.14 -42548741.95 -42548741.76 0.0089 0.0005

Mercury -121205-02-19 16:34 J -42548654.00 -42548653.81 -42548653.62 0.0089 0.0001

Mercury -121205-05-17 19:56 J -42548565.85 -42548565.67 -42548565.48 0.0089 0.0007

Mercury -121205-08-13 23:32 J -42548477.71 -42548477.52 -42548477.33 0.0089 0.0013

Mercury -121205-11-10 02:53 J -42548389.56 -42548389.38 -42548389.19 0.0089 0.0019

Mercury -121204-02-06 06:15 J -42548301.41 -42548301.24 -42548301.05 0.0089 0.0025

Mercury -121204-05-05 09:51 J -42548213.26 -42548213.09 -42548212.91 0.0089 0.0031

Mercury -121204-08-01 13:13 J -42548125.11 -42548124.95 -42548124.77 0.0089 0.0037

Mercury -121204-10-28 16:49 J -42548036.96 -42548036.80 -42548036.63 0.0089 0.0043

Mercury -121203-01-24 20:25 J -42547948.80 -42547948.65 -42547948.49 0.0089 0.0049

Mercury -121203-04-23 00:01 J -42547860.65 -42547860.50 -42547860.35 0.0089 0.0055

Mercury -121203-07-20 03:37 J -42547772.49 -42547772.35 -42547772.21 0.0089 0.0061

Mercury -121203-10-16 07:13 J -42547684.33 -42547684.20 -42547684.08 0.0089 0.0067

Mercury -121202-01-12 10:05 J -42547596.16 -42547596.08 -42547595.95 0.0089 0.0074

Mercury -121202-04-10 13:41 J -42547507.99 -42547507.93 -42547507.82 0.0089 0.0080

Mercury -121202-07-07 17:17 J -42547419.80 -42547419.78 -42547419.71 0.0089 0.0086

Mars -121168-03-25 04:20 J -42535105.43 -42535105.32 -42535105.21 0.0089 0.0082

Mars -121166-02-17 14:25 J -42534411.06 -42534410.90 -42534410.70 0.0089 0.0071

Mars -121164-01-12 01:56 J -42533716.64 -42533716.42 -42533716.18 0.0089 0.0059

Mars -121163-12-07 14:53 J -42533022.12 -42533021.88 -42533021.60 0.0089 0.0047

Mars -121161-11-01 05:46 J -42532327.52 -42532327.26 -42532326.95 0.0089 0.0035

Mars -121159-09-26 21:37 J -42531632.89 -42531632.60 -42531632.28 0.0089 0.0022

Mars -121157-08-21 14:39 J -42530938.19 -42530937.89 -42530937.57 0.0089 0.0009

Mars -121155-07-17 10:05 J -42530243.39 -42530243.08 -42530242.77 0.0089 0.0004

Mars -121153-06-11 06:01 J -42529548.55 -42529548.25 -42529547.93 0.0089 0.0018

Venus -121152-02-15 21:37 J -42529298.65 -42529298.60 -42529298.52 0.0089 0.0085

Venus -121152-09-29 12:01 J -42529073.10 -42529073.00 -42529072.89 0.0089 0.0078

Earth -121152-12-30 18:15 J -42528980.91 -42528980.74 -42528980.56 0.0089 0.0064

Moon -121152-12-30 18:29 J -42528980.87 -42528980.73 -42528980.53 0.0089 0.0068 *

Mars -121151-05-07 03:22 J -42528853.65 -42528853.36 -42528853.06 0.0089 0.0031

Venus -121151-05-13 01:41 J -42528847.54 -42528847.43 -42528847.28 0.0089 0.0072
 Venus -121151-12-24 15:37 J -42528621.98 -42528621.85 -42528621.68 0.0089 0.0065
 Earth -121150-01-02 06:15 J -42528613.46 -42528613.24 -42528612.99 0.0089 0.0037
 Moon -121150-01-02 06:58 J -42528613.44 -42528613.21 -42528612.97 0.0089 0.0033 *
 Venus -121150-08-07 05:46 J -42528396.42 -42528396.26 -42528396.08 0.0089 0.0058
 Moon -121149-01-04 16:49 J -42528246.06 -42528245.80 -42528245.53 0.0089 0.0013
 Earth -121149-01-04 18:44 J -42528245.97 -42528245.72 -42528245.46 0.0089 0.0009 *
 Venus -121149-03-19 19:27 J -42528170.86 -42528170.69 -42528170.49 0.0089 0.0052
 Mars -121149-04-01 03:08 J -42528158.64 -42528158.37 -42528158.09 0.0089 0.0044
 Venus -121149-10-31 09:22 J -42527945.28 -42527945.11 -42527944.90 0.0089 0.0045
 Earth -121148-01-06 06:29 J -42527878.48 -42527878.23 -42527877.97 0.0089 0.0018
 Moon -121148-01-06 08:25 J -42527878.38 -42527878.15 -42527877.89 0.0089 0.0023 *
 Venus -121148-06-13 23:32 J -42527719.72 -42527719.52 -42527719.31 0.0089 0.0038
 Moon -121147-01-08 14:39 J -42527511.10 -42527510.89 -42527510.64 0.0089 0.0042
 Earth -121147-01-08 18:15 J -42527510.95 -42527510.74 -42527510.51 0.0089 0.0046 *
 Venus -121147-01-25 13:27 J -42527494.15 -42527493.94 -42527493.73 0.0089 0.0031
 Mars -121147-02-25 04:20 J -42527463.53 -42527463.32 -42527463.05 0.0089 0.0058
 Venus -121147-09-08 02:53 J -42527268.59 -42527268.38 -42527268.15 0.0089 0.0025
 Earth -121146-01-11 05:32 J -42527143.40 -42527143.27 -42527143.10 0.0089 0.0073
 Moon -121146-01-11 09:22 J -42527143.23 -42527143.11 -42527142.98 0.0089 0.0077 *
 Venus -121146-04-21 16:49 J -42527043.02 -42527042.80 -42527042.58 0.0089 0.0017
 Venus -121146-12-03 06:29 J -42526817.45 -42526817.23 -42526817.00 0.0089 0.0011
 Mars -121145-01-21 07:13 J -42526768.38 -42526768.20 -42526767.99 0.0089 0.0070
 Venus -121145-07-15 19:56 J -42526591.89 -42526591.67 -42526591.44 0.0089 0.0005
 Venus -121144-02-26 09:37 J -42526366.32 -42526366.10 -42526365.88 0.0089 0.0003
 Venus -121144-10-09 23:03 J -42526140.76 -42526140.54 -42526140.31 0.0089 0.0010
 Mars -121144-12-16 10:49 J -42526073.13 -42526073.05 -42526072.89 0.0089 0.0083
 Venus -121143-05-23 12:29 J -42525915.19 -42525914.98 -42525914.75 0.0089 0.0016
 Venus -121142-01-04 01:56 J -42525689.63 -42525689.42 -42525689.20 0.0089 0.0023
 Venus -121142-08-17 14:53 J -42525464.07 -42525463.88 -42525463.66 0.0089 0.0030

Venus -121141-03-30 04:34 J -42525238.51 -42525238.31 -42525238.11 0.0088 0.0036

Venus -121141-11-10 17:32 J -42525012.95 -42525012.77 -42525012.56 0.0088 0.0043

Venus -121140-06-24 06:44 J -42524787.39 -42524787.22 -42524787.02 0.0088 0.0049

Venus -121139-02-04 19:56 J -42524561.83 -42524561.67 -42524561.49 0.0088 0.0056

Venus -121139-09-18 08:53 J -42524336.27 -42524336.13 -42524335.95 0.0088 0.0062

Venus -121138-05-01 22:05 J -42524110.70 -42524110.58 -42524110.43 0.0088 0.0069

Venus -121138-12-13 11:32 J -42523885.13 -42523885.02 -42523884.90 0.0088 0.0075

Venus -121137-07-26 00:01 J -42523659.56 -42523659.50 -42523659.39 0.0088 0.0082

Venus -121136-03-08 12:58 J -42523433.97 -42523433.96 -42523433.90 0.0088 0.0088

Mercury -121128-05-03 05:17 J -42520456.29 -42520456.28 -42520456.25 0.0088 0.0087

Mercury -121128-07-30 06:44 J -42520368.26 -42520368.22 -42520368.16 0.0088 0.0083

Mercury -121128-10-26 08:10 J -42520280.21 -42520280.16 -42520280.09 0.0088 0.0078

Mercury -121127-01-22 09:51 J -42520192.16 -42520192.09 -42520192.01 0.0088 0.0074

Mercury -121127-04-20 11:17 J -42520104.11 -42520104.03 -42520103.94 0.0088 0.0070

Mercury -121127-07-17 12:44 J -42520016.06 -42520015.97 -42520015.87 0.0088 0.0065

Mercury -121127-10-13 13:56 J -42519928.00 -42519927.92 -42519927.81 0.0088 0.0062

Mercury -121126-01-09 15:37 J -42519839.95 -42519839.85 -42519839.74 0.0088 0.0057

Mercury -121126-04-07 17:03 J -42519751.89 -42519751.79 -42519751.67 0.0088 0.0053

Mercury -121126-07-04 18:29 J -42519663.84 -42519663.73 -42519663.61 0.0088 0.0048

Mercury -121126-09-30 19:56 J -42519575.78 -42519575.67 -42519575.54 0.0088 0.0044

Mercury -121126-12-27 21:37 J -42519487.72 -42519487.60 -42519487.48 0.0088 0.0040

Mercury -121125-03-24 22:49 J -42519399.67 -42519399.55 -42519399.42 0.0088 0.0036

Mercury -121125-06-21 00:15 J -42519311.61 -42519311.49 -42519311.36 0.0088 0.0031

Mercury -121125-09-17 01:41 J -42519223.55 -42519223.43 -42519223.29 0.0088 0.0027

Mercury -121125-12-14 03:08 J -42519135.50 -42519135.37 -42519135.23 0.0088 0.0023

Mercury -121124-03-12 04:34 J -42519047.44 -42519047.31 -42519047.17 0.0088 0.0019

Mercury -121124-06-08 06:01 J -42518959.38 -42518959.25 -42518959.11 0.0088 0.0014

Mercury -121124-09-04 07:27 J -42518871.32 -42518871.19 -42518871.05 0.0088 0.0010

Mercury -121124-12-01 08:53 J -42518783.26 -42518783.13 -42518782.99 0.0088 0.0006

Mercury -121123-02-27 10:20 J -42518695.21 -42518695.07 -42518694.93 0.0088 0.0002

Mercury -121123-05-26 11:46 J -42518607.15 -42518607.01 -42518606.88 0.0088 0.0003

Mercury -121123-08-22 13:13 J -42518519.09 -42518518.95 -42518518.82 0.0088 0.0007

Mercury -121123-11-18 14:25 J -42518431.03 -42518430.90 -42518430.76 0.0088 0.0012

Mercury -121122-02-14 15:51 J -42518342.97 -42518342.84 -42518342.70 0.0088 0.0015

Mercury -121122-05-13 17:17 J -42518254.91 -42518254.78 -42518254.65 0.0088 0.0019

Mercury -121122-08-09 18:44 J -42518166.85 -42518166.72 -42518166.59 0.0088 0.0024

Mercury -121122-11-05 20:10 J -42518078.79 -42518078.66 -42518078.53 0.0088 0.0028

Mercury -121121-02-01 21:22 J -42517990.73 -42517990.61 -42517990.48 0.0088 0.0032

Mercury -121121-04-29 22:49 J -42517902.67 -42517902.55 -42517902.42 0.0088 0.0036

Mercury -121121-07-27 00:01 J -42517814.61 -42517814.50 -42517814.37 0.0088 0.0041

Mercury -121121-10-23 01:27 J -42517726.55 -42517726.44 -42517726.32 0.0088 0.0045

Mercury -121120-01-19 02:53 J -42517638.49 -42517638.38 -42517638.26 0.0088 0.0049

Mercury -121120-04-17 04:20 J -42517550.42 -42517550.32 -42517550.21 0.0088 0.0053

Mercury -121120-07-14 05:46 J -42517462.36 -42517462.26 -42517462.16 0.0088 0.0057

Mercury -121120-10-10 07:13 J -42517374.30 -42517374.20 -42517374.11 0.0088 0.0061

Mercury -121119-01-06 08:10 J -42517286.24 -42517286.16 -42517286.06 0.0088 0.0065

Mercury -121119-04-04 09:37 J -42517198.17 -42517198.10 -42517198.01 0.0088 0.0069

Mercury -121119-07-01 10:49 J -42517110.11 -42517110.05 -42517109.96 0.0088 0.0074

Mercury -121119-09-27 12:15 J -42517022.04 -42517021.99 -42517021.91 0.0088 0.0077

Mercury -121119-12-24 13:41 J -42516933.97 -42516933.93 -42516933.87 0.0088 0.0081

Mercury -121118-03-22 14:53 J -42516845.90 -42516845.88 -42516845.83 0.0088 0.0086

Jupiter -121110-08-30 04:34 J -42513763.82 -42513763.31 -42513762.76 0.0088 0.0010

Mars -121085-12-31 07:27 J -42504508.32 -42504508.19 -42504508.01 0.0088 0.0078

Mars -121083-11-26 15:51 J -42503813.04 -42503812.84 -42503812.61 0.0088 0.0065

Mars -121081-10-21 22:20 J -42503117.83 -42503117.57 -42503117.31 0.0088 0.0052

Mars -121079-09-17 01:41 J -42502422.69 -42502422.43 -42502422.11 0.0089 0.0040

Mars -121077-08-12 05:17 J -42501727.59 -42501727.28 -42501726.97 0.0089 0.0026

Mars -121075-07-08 06:58 J -42501032.52 -42501032.21 -42501031.89 0.0089 0.0013

Mars -121073-06-02 06:15 J -42500337.55 -42500337.24 -42500336.92 0.0089 0.0002

Mars -121071-04-28 04:49 J -42499642.60 -42499642.30 -42499641.98 0.0089 0.0014

Venus -121070-03-29 21:37 J -42499306.64 -42499306.60 -42499306.52 0.0089 0.0085
 Venus -121070-11-10 09:37 J -42499081.18 -42499081.10 -42499080.99 0.0089 0.0079
 Mars -121069-03-23 02:10 J -42498947.70 -42498947.41 -42498947.10 0.0089 0.0027
 Moon -121069-06-20 17:17 J -42498857.89 -42498857.78 -42498857.61 0.0089 0.0074
 Earth -121069-06-20 20:25 J -42498857.79 -42498857.65 -42498857.47 0.0089 0.0069 *
 Venus -121069-06-22 21:37 J -42498855.71 -42498855.60 -42498855.46 0.0089 0.0073
 Venus -121068-02-03 09:22 J -42498630.23 -42498630.11 -42498629.95 0.0089 0.0067
 Earth -121068-06-23 07:13 J -42498490.41 -42498490.20 -42498489.96 0.0089 0.0042
 Moon -121068-06-23 09:37 J -42498490.32 -42498490.10 -42498489.84 0.0089 0.0038 *
 Venus -121068-09-16 21:51 J -42498404.74 -42498404.59 -42498404.43 0.0089 0.0060
 Mars -121067-02-15 21:08 J -42498252.89 -42498252.62 -42498252.33 0.0089 0.0039
 Venus -121067-04-30 09:51 J -42498179.25 -42498179.09 -42498178.91 0.0089 0.0054
 Moon -121067-06-25 16:49 J -42498123.03 -42498122.80 -42498122.55 0.0089 0.0020
 Earth -121067-06-25 18:01 J -42498123.00 -42498122.75 -42498122.49 0.0089 0.0015 *
 Venus -121067-12-11 21:51 J -42497953.75 -42497953.59 -42497953.39 0.0089 0.0048
 Earth -121066-06-28 05:03 J -42497755.54 -42497755.29 -42497755.03 0.0089 0.0013
 Moon -121066-06-28 05:03 J -42497755.54 -42497755.29 -42497755.02 0.0089 0.0017 *
 Venus -121066-07-25 10:20 J -42497728.26 -42497728.07 -42497727.88 0.0089 0.0041
 Mars -121065-01-11 14:10 J -42497558.15 -42497557.91 -42497557.64 0.0089 0.0051
 Venus -121065-03-06 22:20 J -42497502.76 -42497502.57 -42497502.37 0.0089 0.0035
 Earth -121065-06-29 16:05 J -42497388.05 -42497387.83 -42497387.59 0.0089 0.0040
 Moon -121065-06-29 16:34 J -42497388.02 -42497387.81 -42497387.56 0.0089 0.0036 *
 Venus -121065-10-18 10:20 J -42497277.26 -42497277.07 -42497276.85 0.0089 0.0029
 Venus -121064-05-31 22:49 J -42497051.76 -42497051.55 -42497051.34 0.0089 0.0022
 Moon -121064-07-02 00:58 J -42497020.59 -42497020.46 -42497020.28 0.0089 0.0072
 Earth -121064-07-02 03:22 J -42497020.51 -42497020.36 -42497020.17 0.0089 0.0067 *
 Mars -121064-12-06 06:44 J -42496863.43 -42496863.22 -42496862.99 0.0089 0.0063
 Venus -121063-01-12 10:49 J -42496826.25 -42496826.05 -42496825.83 0.0089 0.0016
 Venus -121063-08-25 23:17 J -42496600.74 -42496600.53 -42496600.31 0.0089 0.0009
 Venus -121062-04-08 11:46 J -42496375.23 -42496375.01 -42496374.79 0.0089 0.0002

Mars -121062-10-31 21:08 J -42496168.76 -42496168.62 -42496168.43 0.0089 0.0075
 Venus -121062-11-20 00:01 J -42496149.71 -42496149.50 -42496149.28 0.0089 0.0005
 Venus -121061-07-02 12:29 J -42495924.19 -42495923.98 -42495923.76 0.0089 0.0011
 Venus -121060-02-13 00:44 J -42495698.67 -42495698.47 -42495698.24 0.0089 0.0018
 Mars -121060-09-25 09:51 J -42495474.14 -42495474.09 -42495473.98 0.0089 0.0086
 Venus -121060-09-26 13:27 J -42495473.14 -42495472.94 -42495472.73 0.0089 0.0024
 Venus -121059-05-10 02:10 J -42495247.61 -42495247.41 -42495247.20 0.0089 0.0031
 Venus -121059-12-21 14:53 J -42495022.07 -42495021.88 -42495021.68 0.0089 0.0037
 Venus -121058-08-04 03:22 J -42494796.54 -42494796.36 -42494796.16 0.0089 0.0044
 Venus -121057-03-16 16:20 J -42494571.00 -42494570.82 -42494570.64 0.0089 0.0050
 Venus -121057-10-28 04:34 J -42494345.46 -42494345.31 -42494345.13 0.0089 0.0057
 Venus -121056-06-10 17:17 J -42494119.91 -42494119.78 -42494119.61 0.0089 0.0064
 Venus -121055-01-22 06:15 J -42493894.36 -42493894.24 -42493894.09 0.0089 0.0070
 Venus -121055-09-04 19:27 J -42493668.80 -42493668.69 -42493668.58 0.0089 0.0076
 Venus -121054-04-18 07:56 J -42493443.23 -42493443.17 -42493443.07 0.0089 0.0083
 Mercury -121044-04-03 10:34 J -42489805.09 -42489805.06 -42489805.00 0.0089 0.0086
 Mercury -121044-06-30 14:10 J -42489716.98 -42489716.91 -42489716.83 0.0089 0.0080
 Mercury -121044-09-26 17:32 J -42489628.87 -42489628.77 -42489628.66 0.0089 0.0074
 Mercury -121044-12-23 20:39 J -42489540.74 -42489540.64 -42489540.51 0.0089 0.0069
 Mercury -121043-03-22 00:01 J -42489452.62 -42489452.50 -42489452.35 0.0089 0.0063
 Mercury -121043-06-18 03:22 J -42489364.49 -42489364.36 -42489364.20 0.0089 0.0057
 Mercury -121043-09-14 06:58 J -42489276.36 -42489276.21 -42489276.05 0.0089 0.0051
 Mercury -121043-12-11 10:20 J -42489188.22 -42489188.07 -42489187.90 0.0089 0.0045
 Mercury -121042-03-09 13:56 J -42489100.09 -42489099.92 -42489099.75 0.0089 0.0039
 Mercury -121042-06-05 17:03 J -42489011.95 -42489011.79 -42489011.61 0.0089 0.0034
 Mercury -121042-09-01 20:25 J -42488923.82 -42488923.65 -42488923.46 0.0089 0.0028
 Mercury -121042-11-29 00:01 J -42488835.68 -42488835.50 -42488835.31 0.0089 0.0022
 Mercury -121041-02-25 03:22 J -42488747.54 -42488747.36 -42488747.17 0.0089 0.0016
 Mercury -121041-05-23 06:58 J -42488659.40 -42488659.21 -42488659.02 0.0089 0.0010
 Mercury -121041-08-19 10:20 J -42488571.26 -42488571.07 -42488570.88 0.0089 0.0004

Mercury	-121041-11-15 13:56 J	-42488483.11	-42488482.92	-42488482.73	0.0089	0.0002
Mercury	-121040-02-11 17:17 J	-42488394.97	-42488394.78	-42488394.59	0.0089	0.0008
Mercury	-121040-05-10 20:39 J	-42488306.82	-42488306.64	-42488306.45	0.0089	0.0014
Mercury	-121040-08-07 00:15 J	-42488218.67	-42488218.49	-42488218.30	0.0089	0.0020
Mercury	-121040-11-03 03:37 J	-42488130.53	-42488130.35	-42488130.16	0.0089	0.0026
Mercury	-121039-01-30 07:13 J	-42488042.38	-42488042.20	-42488042.02	0.0089	0.0032
Mercury	-121039-04-28 10:34 J	-42487954.22	-42487954.06	-42487953.88	0.0089	0.0038
Mercury	-121039-07-25 14:10 J	-42487866.07	-42487865.91	-42487865.74	0.0089	0.0044
Mercury	-121039-10-21 17:46 J	-42487777.92	-42487777.76	-42487777.60	0.0089	0.0050
Mercury	-121038-01-17 21:22 J	-42487689.76	-42487689.61	-42487689.47	0.0089	0.0056
Mercury	-121038-04-16 00:15 J	-42487601.60	-42487601.49	-42487601.33	0.0089	0.0063
Mercury	-121038-07-13 03:51 J	-42487513.44	-42487513.34	-42487513.20	0.0089	0.0069
Mercury	-121038-10-09 07:27 J	-42487425.27	-42487425.19	-42487425.07	0.0089	0.0075
Mercury	-121037-01-05 11:03 J	-42487337.10	-42487337.04	-42487336.94	0.0089	0.0081
Mercury	-121037-04-02 14:39 J	-42487248.91	-42487248.89	-42487248.83	0.0089	0.0087
Mars	-121005-11-06 22:05 J	-42475342.67	-42475342.58	-42475342.45	0.0089	0.0082
Mars	-121003-10-02 07:27 J	-42474648.36	-42474648.19	-42474648.00	0.0089	0.0071
Mars	-121001-08-26 18:15 J	-42473953.94	-42473953.74	-42473953.49	0.0089	0.0060

121ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 121st millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mars	-120999-07-22 06:01 J	-42473259.51	-42473259.25	-42473258.99	0.0089	0.0048
Mars	-120997-06-15 18:29 J	-42472565.01	-42472564.73	-42472564.44	0.0089	0.0036
Mars	-120995-05-11 08:53 J	-42471870.41	-42471870.13	-42471869.82	0.0089	0.0024
Mars	-120993-04-05 00:58 J	-42471175.75	-42471175.46	-42471175.14	0.0089	0.0012
Mars	-120991-02-28 18:15 J	-42470481.05	-42470480.74	-42470480.43	0.0089	0.0002
Mars	-120989-01-24 13:41 J	-42469786.23	-42469785.93	-42469785.61	0.0089	0.0015
Venus	-120988-05-20 04:49 J	-42469304.35	-42469304.30	-42469304.22	0.0089	0.0085
Mars	-120988-12-19 10:34 J	-42469091.36	-42469091.06	-42469090.76	0.0089	0.0027
Moon	-120988-12-29 20:10 J	-42469080.78	-42469080.66	-42469080.52	0.0089	0.0076
Earth	-120988-12-29 22:34 J	-42469080.67	-42469080.56	-42469080.42	0.0089	0.0078 *
Venus	-120988-12-31 18:29 J	-42469078.81	-42469078.73	-42469078.60	0.0089	0.0079
Venus	-120987-08-14 08:39 J	-42468853.25	-42468853.14	-42468852.99	0.0089	0.0072
Earth	-120986-01-01 10:49 J	-42468713.24	-42468713.05	-42468712.82	0.0089	0.0051
Moon	-120986-01-01 12:44 J	-42468713.17	-42468712.97	-42468712.74	0.0089	0.0053 *
Venus	-120986-03-27 22:49 J	-42468627.69	-42468627.55	-42468627.39	0.0089	0.0065
Venus	-120986-11-08 12:29 J	-42468402.13	-42468401.98	-42468401.79	0.0089	0.0059
Mars	-120986-11-14 07:41 J	-42468396.45	-42468396.18	-42468395.89	0.0089	0.0040
Moon	-120985-01-03 23:03 J	-42468345.78	-42468345.54	-42468345.29	0.0089	0.0021
Earth	-120985-01-03 23:17 J	-42468345.77	-42468345.53	-42468345.27	0.0089	0.0023 *
Venus	-120985-06-21 02:39 J	-42468176.56	-42468176.39	-42468176.20	0.0089	0.0052
Moon	-120984-01-05 11:17 J	-42467978.30	-42467978.03	-42467977.76	0.0089	0.0002
Earth	-120984-01-05 11:32 J	-42467978.28	-42467978.02	-42467977.76	0.0089	0.0005 *
Venus	-120984-02-01 16:34 J	-42467951.00	-42467950.81	-42467950.61	0.0089	0.0045
Venus	-120984-09-15 06:15 J	-42467725.43	-42467725.24	-42467725.02	0.0089	0.0038
Mars	-120984-10-09 06:44 J	-42467701.45	-42467701.22	-42467700.94	0.0089	0.0053
Earth	-120983-01-07 22:49 J	-42467610.77	-42467610.55	-42467610.29	0.0089	0.0033
Moon	-120983-01-08 00:29 J	-42467610.70	-42467610.48	-42467610.24	0.0089	0.0036 *
Venus	-120983-04-28 20:10 J	-42467499.86	-42467499.66	-42467499.44	0.0089	0.0032

Venus -120983-12-10 10:05 J -42467274.29 -42467274.08 -42467273.86 0.0089 0.0025
 Moon -120982-01-10 08:10 J -42467243.35 -42467243.16 -42467242.95 0.0089 0.0057
 Earth -120982-01-10 10:34 J -42467243.23 -42467243.06 -42467242.85 0.0089 0.0060 *
 Venus -120982-07-23 23:46 J -42467048.72 -42467048.51 -42467048.28 0.0089 0.0018
 Mars -120982-09-04 08:39 J -42467006.35 -42467006.14 -42467005.92 0.0089 0.0065
 Earth -120981-01-12 21:51 J -42466875.61 -42466875.59 -42466875.51 0.0089 0.0087
 Venus -120981-03-05 13:27 J -42466823.16 -42466822.94 -42466822.71 0.0089 0.0011
 Venus -120981-10-17 03:22 J -42466597.58 -42466597.36 -42466597.13 0.0089 0.0004
 Venus -120980-05-30 17:03 J -42466372.01 -42466371.79 -42466371.57 0.0089 0.0002
 Mars -120980-07-30 10:20 J -42466311.19 -42466311.07 -42466310.88 0.0089 0.0078
 Venus -120979-01-11 06:29 J -42466146.45 -42466146.23 -42466146.00 0.0089 0.0009
 Venus -120979-08-24 19:56 J -42465920.89 -42465920.67 -42465920.45 0.0088 0.0016
 Venus -120978-04-07 09:08 J -42465695.32 -42465695.12 -42465694.89 0.0088 0.0023
 Venus -120978-11-18 23:03 J -42465469.75 -42465469.54 -42465469.33 0.0088 0.0029
 Venus -120977-07-01 12:01 J -42465244.19 -42465244.00 -42465243.78 0.0088 0.0036
 Venus -120976-02-12 00:58 J -42465018.63 -42465018.46 -42465018.24 0.0088 0.0043
 Venus -120976-09-25 14:25 J -42464793.07 -42464792.90 -42464792.70 0.0088 0.0049
 Venus -120975-05-09 04:05 J -42464567.50 -42464567.33 -42464567.16 0.0088 0.0055
 Venus -120975-12-20 16:49 J -42464341.94 -42464341.80 -42464341.62 0.0088 0.0062
 Venus -120974-08-03 06:15 J -42464116.38 -42464116.24 -42464116.09 0.0088 0.0068
 Venus -120973-03-15 18:58 J -42463890.81 -42463890.71 -42463890.57 0.0088 0.0074
 Venus -120973-10-27 08:10 J -42463665.23 -42463665.16 -42463665.05 0.0088 0.0081
 Venus -120972-06-09 21:22 J -42463439.64 -42463439.61 -42463439.56 0.0088 0.0087
 Mercury -120963-01-28 04:20 J -42460285.34 -42460285.32 -42460285.28 0.0088 0.0086
 Mercury -120963-04-26 05:46 J -42460197.30 -42460197.26 -42460197.20 0.0088 0.0082
 Mercury -120963-07-23 07:13 J -42460109.26 -42460109.20 -42460109.13 0.0088 0.0077
 Mercury -120963-10-19 08:39 J -42460021.21 -42460021.14 -42460021.05 0.0088 0.0073
 Mercury -120962-01-15 10:20 J -42459933.15 -42459933.07 -42459932.98 0.0088 0.0069
 Mercury -120962-04-13 11:32 J -42459845.10 -42459845.02 -42459844.92 0.0088 0.0065
 Mercury -120962-07-10 12:58 J -42459757.05 -42459756.96 -42459756.85 0.0088 0.0061

Mercury -120962-10-06 14:25 J -42459668.99 -42459668.90 -42459668.78 0.0088 0.0056

Mercury -120961-01-02 16:05 J -42459580.94 -42459580.83 -42459580.72 0.0088 0.0052

Mercury -120961-03-30 17:32 J -42459492.88 -42459492.77 -42459492.65 0.0088 0.0047

Mercury -120961-06-26 18:58 J -42459404.83 -42459404.71 -42459404.59 0.0088 0.0043

Mercury -120961-09-22 20:10 J -42459316.77 -42459316.66 -42459316.52 0.0088 0.0040

Mercury -120961-12-19 21:51 J -42459228.71 -42459228.59 -42459228.46 0.0088 0.0035

Mercury -120960-03-17 23:17 J -42459140.66 -42459140.53 -42459140.40 0.0088 0.0030

Mercury -120960-06-14 00:44 J -42459052.60 -42459052.47 -42459052.34 0.0088 0.0026

Mercury -120960-09-10 02:10 J -42458964.54 -42458964.41 -42458964.28 0.0088 0.0022

Mercury -120960-12-07 03:37 J -42458876.48 -42458876.35 -42458876.22 0.0088 0.0018

Mercury -120959-03-05 05:03 J -42458788.43 -42458788.29 -42458788.16 0.0088 0.0013

Mercury -120959-06-01 06:29 J -42458700.37 -42458700.23 -42458700.10 0.0088 0.0009

Mercury -120959-08-28 07:56 J -42458612.31 -42458612.17 -42458612.04 0.0088 0.0006

Mercury -120959-11-24 09:08 J -42458524.25 -42458524.12 -42458523.98 0.0088 0.0003

Mercury -120958-02-20 10:34 J -42458436.19 -42458436.06 -42458435.92 0.0088 0.0004

Mercury -120958-05-19 12:01 J -42458348.13 -42458348.00 -42458347.86 0.0088 0.0008

Mercury -120958-08-15 13:27 J -42458260.07 -42458259.94 -42458259.81 0.0088 0.0012

Mercury -120958-11-11 14:39 J -42458172.01 -42458171.89 -42458171.75 0.0088 0.0017

Mercury -120957-02-07 16:05 J -42458083.95 -42458083.83 -42458083.69 0.0088 0.0020

Mercury -120957-05-05 17:32 J -42457995.89 -42457995.77 -42457995.64 0.0088 0.0024

Mercury -120957-08-01 18:58 J -42457907.84 -42457907.71 -42457907.58 0.0088 0.0028

Mercury -120957-10-28 20:25 J -42457819.77 -42457819.65 -42457819.52 0.0088 0.0032

Mercury -120956-01-24 21:51 J -42457731.71 -42457731.59 -42457731.47 0.0088 0.0037

Mercury -120956-04-22 23:03 J -42457643.65 -42457643.54 -42457643.41 0.0088 0.0041

Mercury -120956-07-20 00:15 J -42457555.59 -42457555.49 -42457555.36 0.0088 0.0046

Mercury -120956-10-16 01:41 J -42457467.53 -42457467.43 -42457467.31 0.0088 0.0049

Mercury -120955-01-12 03:08 J -42457379.47 -42457379.37 -42457379.26 0.0088 0.0053

Mercury -120955-04-10 04:34 J -42457291.41 -42457291.31 -42457291.20 0.0088 0.0057

Mercury -120955-07-07 06:01 J -42457203.34 -42457203.25 -42457203.15 0.0088 0.0061

Mercury -120955-10-03 07:13 J -42457115.28 -42457115.20 -42457115.10 0.0088 0.0066

Mercury -120955-12-30 08:39 J -42457027.22 -42457027.14 -42457027.05 0.0088 0.0070

Mercury -120954-03-28 10:05 J -42456939.15 -42456939.08 -42456939.01 0.0088 0.0074

Mercury -120954-06-24 11:17 J -42456851.08 -42456851.03 -42456850.96 0.0088 0.0078

Mercury -120954-09-20 12:44 J -42456763.01 -42456762.97 -42456762.92 0.0088 0.0082

Mercury -120954-12-17 14:10 J -42456674.94 -42456674.91 -42456674.88 0.0088 0.0086

Mars -120921-08-14 02:10 J -42444746.52 -42444746.41 -42444746.22 0.0088 0.0079

Mars -120919-07-10 11:32 J -42444051.24 -42444051.02 -42444050.81 0.0088 0.0066

Mars -120917-06-04 18:29 J -42443355.96 -42443355.73 -42443355.45 0.0088 0.0054

Mars -120915-05-01 00:58 J -42442660.74 -42442660.46 -42442660.17 0.0088 0.0041

Mars -120913-03-26 05:32 J -42441965.58 -42441965.27 -42441964.97 0.0089 0.0028

Mars -120911-02-19 07:56 J -42441270.47 -42441270.17 -42441269.84 0.0089 0.0016

Mars -120909-01-15 09:51 J -42440575.40 -42440575.09 -42440574.77 0.0089 0.0003

Mars -120908-12-10 09:22 J -42439880.42 -42439880.11 -42439879.79 0.0089 0.0011

Venus -120906-07-01 06:58 J -42439312.26 -42439312.21 -42439312.14 0.0089 0.0085

Mars -120906-11-05 07:27 J -42439185.49 -42439185.19 -42439184.88 0.0089 0.0023

Venus -120905-02-11 18:44 J -42439086.80 -42439086.72 -42439086.61 0.0089 0.0079

Earth -120905-06-20 01:56 J -42438957.48 -42438957.42 -42438957.31 0.0089 0.0083

Moon -120905-06-20 05:17 J -42438957.36 -42438957.28 -42438957.14 0.0089 0.0080 *

Venus -120905-09-24 06:44 J -42438861.33 -42438861.22 -42438861.08 0.0089 0.0073

Venus -120904-05-07 18:44 J -42438635.84 -42438635.72 -42438635.56 0.0089 0.0067

Moon -120904-06-22 09:08 J -42438590.29 -42438590.12 -42438589.91 0.0089 0.0060

Earth -120904-06-22 12:44 J -42438590.15 -42438589.97 -42438589.76 0.0089 0.0056 *

Mars -120904-09-30 04:05 J -42438490.59 -42438490.33 -42438490.01 0.0089 0.0036

Venus -120904-12-19 06:44 J -42438410.35 -42438410.22 -42438410.04 0.0089 0.0061

Earth -120903-06-24 23:32 J -42438222.75 -42438222.52 -42438222.27 0.0089 0.0029

Moon -120903-06-25 02:39 J -42438222.63 -42438222.39 -42438222.13 0.0089 0.0025 *

Venus -120903-08-01 19:13 J -42438184.87 -42438184.70 -42438184.53 0.0089 0.0054

Venus -120902-03-15 07:13 J -42437959.37 -42437959.20 -42437959.01 0.0089 0.0048

Moon -120902-06-27 08:53 J -42437855.38 -42437855.13 -42437854.89 0.0089 0.0005

Earth -120902-06-27 10:49 J -42437855.31 -42437855.05 -42437854.80 0.0089 0.0001 *

Mars -120902-08-25 23:03 J -42437795.77 -42437795.54 -42437795.25 0.0089 0.0048
 Venus -120902-10-26 19:13 J -42437733.88 -42437733.70 -42437733.50 0.0089 0.0042
 Venus -120901-06-08 07:27 J -42437508.38 -42437508.19 -42437507.98 0.0089 0.0035
 Earth -120901-06-28 21:51 J -42437487.84 -42437487.59 -42437487.35 0.0089 0.0026
 Moon -120901-06-28 23:03 J -42437487.77 -42437487.54 -42437487.27 0.0089 0.0031 *
 Venus -120900-01-19 19:41 J -42437282.88 -42437282.68 -42437282.47 0.0089 0.0029
 Earth -120900-07-01 08:39 J -42437120.33 -42437120.14 -42437119.92 0.0089 0.0054
 Moon -120900-07-01 08:39 J -42437120.33 -42437120.14 -42437119.92 0.0089 0.0050 *
 Mars -120900-07-20 16:20 J -42437101.03 -42437100.82 -42437100.57 0.0089 0.0059
 Venus -120900-09-02 07:41 J -42437057.38 -42437057.18 -42437056.96 0.0089 0.0023
 Venus -120899-04-15 20:10 J -42436831.86 -42436831.66 -42436831.44 0.0089 0.0016
 Moon -120899-07-03 18:44 J -42436752.77 -42436752.72 -42436752.62 0.0089 0.0085
 Earth -120899-07-03 19:56 J -42436752.75 -42436752.67 -42436752.55 0.0089 0.0081 *
 Venus -120899-11-27 08:25 J -42436606.36 -42436606.15 -42436605.93 0.0089 0.0010
 Mars -120898-06-15 08:53 J -42436406.30 -42436406.13 -42436405.93 0.0089 0.0070
 Venus -120898-07-10 20:53 J -42436380.85 -42436380.63 -42436380.41 0.0089 0.0003
 Venus -120897-02-21 09:08 J -42436155.33 -42436155.12 -42436154.90 0.0089 0.0004
 Venus -120897-10-03 21:37 J -42435929.82 -42435929.60 -42435929.39 0.0089 0.0010
 Mars -120896-05-10 00:29 J -42435711.58 -42435711.48 -42435711.34 0.0089 0.0081
 Venus -120896-05-17 10:05 J -42435704.29 -42435704.08 -42435703.86 0.0089 0.0017
 Venus -120896-12-28 22:20 J -42435478.77 -42435478.57 -42435478.35 0.0089 0.0024
 Venus -120895-08-11 11:03 J -42435253.24 -42435253.04 -42435252.83 0.0089 0.0030
 Venus -120894-03-24 23:17 J -42435027.71 -42435027.53 -42435027.31 0.0089 0.0037
 Venus -120894-11-05 12:15 J -42434802.18 -42434801.99 -42434801.80 0.0089 0.0043
 Venus -120893-06-18 00:44 J -42434576.64 -42434576.47 -42434576.28 0.0089 0.0050
 Venus -120892-01-29 13:41 J -42434351.09 -42434350.93 -42434350.76 0.0089 0.0056
 Venus -120892-09-12 02:10 J -42434125.55 -42434125.41 -42434125.24 0.0089 0.0063
 Venus -120891-04-25 15:22 J -42433899.99 -42433899.86 -42433899.72 0.0089 0.0069
 Venus -120891-12-07 03:51 J -42433674.44 -42433674.34 -42433674.21 0.0089 0.0076
 Venus -120890-07-20 16:49 J -42433448.87 -42433448.80 -42433448.71 0.0089 0.0082

Venus -120889-03-02 05:32 J -42433223.27 -42433223.27 -42433223.24 0.0089 0.0089

Mercury -120880-12-29 07:56 J -42429634.20 -42429634.17 -42429634.10 0.0089 0.0085

Mercury -120879-03-27 11:17 J -42429546.10 -42429546.03 -42429545.93 0.0089 0.0079

Mercury -120879-06-23 14:53 J -42429457.98 -42429457.88 -42429457.77 0.0089 0.0073

Mercury -120879-09-19 18:01 J -42429369.85 -42429369.75 -42429369.61 0.0089 0.0068

Mercury -120879-12-16 21:22 J -42429281.73 -42429281.61 -42429281.46 0.0089 0.0062

Mercury -120878-03-15 00:44 J -42429193.60 -42429193.47 -42429193.31 0.0089 0.0056

Mercury -120878-06-11 04:20 J -42429105.47 -42429105.32 -42429105.16 0.0089 0.0050

Mercury -120878-09-07 07:41 J -42429017.34 -42429017.18 -42429017.01 0.0089 0.0044

Mercury -120878-12-04 11:03 J -42428929.20 -42428929.04 -42428928.86 0.0089 0.0038

Mercury -120877-03-01 14:39 J -42428841.06 -42428840.89 -42428840.71 0.0089 0.0032

Mercury -120877-05-28 18:01 J -42428752.93 -42428752.75 -42428752.57 0.0089 0.0026

Mercury -120877-08-24 21:22 J -42428664.79 -42428664.61 -42428664.42 0.0089 0.0021

Mercury -120877-11-21 00:44 J -42428576.65 -42428576.47 -42428576.28 0.0089 0.0015

Mercury -120876-02-17 04:20 J -42428488.51 -42428488.32 -42428488.13 0.0089 0.0009

Mercury -120876-05-16 07:41 J -42428400.36 -42428400.18 -42428399.99 0.0089 0.0003

Mercury -120876-08-12 11:17 J -42428312.22 -42428312.03 -42428311.84 0.0089 0.0003

Mercury -120876-11-08 14:39 J -42428224.08 -42428223.89 -42428223.70 0.0089 0.0009

Mercury -120875-02-04 18:15 J -42428135.93 -42428135.74 -42428135.56 0.0089 0.0015

Mercury -120875-05-03 21:37 J -42428047.78 -42428047.60 -42428047.41 0.0089 0.0021

Mercury -120875-07-31 01:13 J -42427959.63 -42427959.45 -42427959.27 0.0089 0.0027

Mercury -120875-10-27 04:34 J -42427871.48 -42427871.31 -42427871.13 0.0089 0.0034

Mercury -120874-01-23 07:41 J -42427783.33 -42427783.18 -42427782.99 0.0089 0.0040

Mercury -120874-04-21 11:17 J -42427695.18 -42427695.03 -42427694.85 0.0089 0.0046

Mercury -120874-07-18 14:53 J -42427607.02 -42427606.88 -42427606.71 0.0089 0.0052

Mercury -120874-10-14 18:15 J -42427518.87 -42427518.74 -42427518.58 0.0089 0.0058

Mercury -120873-01-10 21:51 J -42427430.71 -42427430.59 -42427430.44 0.0089 0.0064

Mercury -120873-04-08 01:27 J -42427342.55 -42427342.44 -42427342.31 0.0089 0.0070

Mercury -120873-07-05 04:49 J -42427254.38 -42427254.30 -42427254.18 0.0089 0.0076

Mercury -120873-10-01 08:25 J -42427166.20 -42427166.15 -42427166.06 0.0089 0.0082

Mercury -120873-12-28 12:01 J -42427078.01 -42427078.00 -42427077.96 0.0089 0.0088

Mars -120841-06-21 17:32 J -42415579.86 -42415579.77 -42415579.62 0.0089 0.0082

Mars -120839-05-17 02:10 J -42414885.58 -42414885.41 -42414885.22 0.0089 0.0071

Mars -120837-04-10 11:03 J -42414191.25 -42414191.04 -42414190.80 0.0089 0.0060

Mars -120835-03-05 22:05 J -42413496.82 -42413496.58 -42413496.31 0.0089 0.0049

Mars -120833-01-29 10:05 J -42412802.34 -42412802.08 -42412801.78 0.0089 0.0038

Mars -120832-12-23 23:32 J -42412107.80 -42412107.52 -42412107.21 0.0089 0.0026

Mars -120830-11-18 14:53 J -42411413.19 -42411412.88 -42411412.57 0.0089 0.0013

Mars -120828-10-13 07:27 J -42410718.50 -42410718.19 -42410717.88 0.0089 0.0001

Mars -120826-09-08 00:29 J -42410023.78 -42410023.48 -42410023.16 0.0089 0.0012

Mars -120824-08-02 19:27 J -42409328.98 -42409328.69 -42409328.38 0.0089 0.0024

Venus -120824-08-21 12:29 J -42409310.02 -42409309.98 -42409309.89 0.0089 0.0085

Venus -120823-04-04 02:25 J -42409084.48 -42409084.40 -42409084.27 0.0089 0.0079

Venus -120823-11-15 16:34 J -42408858.92 -42408858.81 -42408858.65 0.0089 0.0072

Moon -120823-12-31 13:27 J -42408813.09 -42408812.94 -42408812.73 0.0089 0.0064

Earth -120823-12-31 16:49 J -42408812.95 -42408812.80 -42408812.59 0.0089 0.0064 *

Mars -120822-06-28 16:34 J -42408634.10 -42408633.81 -42408633.52 0.0089 0.0036

Venus -120822-06-29 06:58 J -42408633.36 -42408633.21 -42408633.05 0.0089 0.0065

Earth -120821-01-03 05:32 J -42408445.50 -42408445.27 -42408445.02 0.0089 0.0036

Moon -120821-01-03 07:56 J -42408445.40 -42408445.17 -42408444.91 0.0089 0.0036 *

Venus -120821-02-09 20:25 J -42408407.80 -42408407.65 -42408407.46 0.0089 0.0059

Venus -120821-09-22 10:34 J -42408182.23 -42408182.06 -42408181.86 0.0089 0.0052

Moon -120820-01-04 16:05 J -42408078.08 -42408077.83 -42408077.58 0.0089 0.0007

Earth -120820-01-04 18:01 J -42408078.01 -42408077.75 -42408077.49 0.0089 0.0008 *

Venus -120820-05-06 00:44 J -42407956.66 -42407956.47 -42407956.27 0.0089 0.0045

Mars -120820-05-23 13:41 J -42407939.17 -42407938.93 -42407938.64 0.0089 0.0049

Venus -120820-12-17 14:25 J -42407731.09 -42407730.90 -42407730.68 0.0089 0.0038

Earth -120819-01-07 05:46 J -42407710.51 -42407710.26 -42407710.00 0.0089 0.0020

Moon -120819-01-07 06:29 J -42407710.48 -42407710.23 -42407709.96 0.0089 0.0019 *

Venus -120819-07-31 04:05 J -42407505.52 -42407505.33 -42407505.10 0.0089 0.0032

Earth -120818-01-09 17:32 J -42407342.98 -42407342.77 -42407342.54 0.0089 0.0047
 Moon -120818-01-09 18:15 J -42407342.95 -42407342.74 -42407342.53 0.0089 0.0048 *
 Venus -120818-03-13 18:01 J -42407279.96 -42407279.75 -42407279.53 0.0089 0.0025
 Mars -120818-04-18 12:58 J -42407244.17 -42407243.96 -42407243.70 0.0089 0.0061
 Venus -120818-10-25 08:10 J -42407054.38 -42407054.16 -42407053.94 0.0089 0.0018
 Moon -120817-01-12 03:22 J -42406975.48 -42406975.36 -42406975.18 0.0089 0.0073
 Earth -120817-01-12 05:17 J -42406975.42 -42406975.28 -42406975.14 0.0089 0.0074 *
 Venus -120817-06-06 21:37 J -42406828.81 -42406828.60 -42406828.37 0.0089 0.0012
 Venus -120816-01-18 11:32 J -42406603.25 -42406603.02 -42406602.80 0.0089 0.0005
 Mars -120816-03-13 14:39 J -42406549.04 -42406548.89 -42406548.68 0.0089 0.0073
 Venus -120816-09-01 00:58 J -42406377.68 -42406377.46 -42406377.23 0.0089 0.0003
 Venus -120815-04-14 14:39 J -42406152.11 -42406151.89 -42406151.67 0.0089 0.0009
 Venus -120815-11-26 04:05 J -42405926.54 -42405926.33 -42405926.10 0.0088 0.0016
 Mars -120814-02-06 17:46 J -42405853.82 -42405853.76 -42405853.62 0.0088 0.0085
 Venus -120814-07-09 17:32 J -42405700.97 -42405700.77 -42405700.54 0.0088 0.0023
 Venus -120813-02-20 06:58 J -42405475.41 -42405475.21 -42405474.99 0.0088 0.0029
 Venus -120813-10-02 20:25 J -42405249.84 -42405249.65 -42405249.43 0.0088 0.0036
 Venus -120812-05-16 09:51 J -42405024.28 -42405024.09 -42405023.88 0.0088 0.0042
 Venus -120812-12-27 23:03 J -42404798.71 -42404798.54 -42404798.34 0.0088 0.0049
 Venus -120811-08-10 12:29 J -42404573.15 -42404572.98 -42404572.80 0.0088 0.0055
 Venus -120810-03-24 01:13 J -42404347.59 -42404347.45 -42404347.27 0.0088 0.0062
 Venus -120810-11-04 14:39 J -42404122.02 -42404121.89 -42404121.73 0.0088 0.0068
 Venus -120809-06-17 03:51 J -42403896.45 -42403896.34 -42403896.21 0.0088 0.0074
 Venus -120808-01-28 16:34 J -42403670.88 -42403670.81 -42403670.69 0.0088 0.0081
 Venus -120808-09-11 05:32 J -42403445.29 -42403445.27 -42403445.20 0.0088 0.0087
 Mercury -120799-10-25 03:22 J -42400114.39 -42400114.36 -42400114.32 0.0088 0.0085
 Mercury -120798-01-21 04:49 J -42400026.35 -42400026.30 -42400026.24 0.0088 0.0080
 Mercury -120798-04-19 06:15 J -42399938.30 -42399938.24 -42399938.16 0.0088 0.0076
 Mercury -120798-07-16 07:56 J -42399850.25 -42399850.17 -42399850.09 0.0088 0.0072
 Mercury -120798-10-12 09:22 J -42399762.19 -42399762.11 -42399762.02 0.0088 0.0067

Mercury -120797-01-08 10:34 J -42399674.14 -42399674.06 -42399673.95 0.0088 0.0064

Mercury -120797-04-05 12:01 J -42399586.09 -42399586.00 -42399585.88 0.0088 0.0060

Mercury -120797-07-02 13:41 J -42399498.03 -42399497.93 -42399497.82 0.0088 0.0055

Mercury -120797-09-28 15:08 J -42399409.98 -42399409.87 -42399409.75 0.0088 0.0051

Mercury -120797-12-25 16:34 J -42399321.92 -42399321.81 -42399321.69 0.0088 0.0046

Mercury -120796-03-23 18:01 J -42399233.86 -42399233.75 -42399233.62 0.0088 0.0042

Mercury -120796-06-19 19:41 J -42399145.81 -42399145.68 -42399145.56 0.0088 0.0038

Mercury -120796-09-15 20:53 J -42399057.75 -42399057.63 -42399057.50 0.0088 0.0034

Mercury -120796-12-12 22:20 J -42398969.69 -42398969.57 -42398969.44 0.0088 0.0029

Mercury -120795-03-10 23:46 J -42398881.64 -42398881.51 -42398881.37 0.0088 0.0025

Mercury -120795-06-07 01:13 J -42398793.58 -42398793.45 -42398793.31 0.0088 0.0021

Mercury -120795-09-03 02:39 J -42398705.52 -42398705.39 -42398705.25 0.0088 0.0017

Mercury -120795-11-30 04:05 J -42398617.46 -42398617.33 -42398617.19 0.0088 0.0012

Mercury -120794-02-26 05:32 J -42398529.40 -42398529.27 -42398529.13 0.0088 0.0008

Mercury -120794-05-25 06:58 J -42398441.35 -42398441.21 -42398441.07 0.0088 0.0004

Mercury -120794-08-21 08:25 J -42398353.29 -42398353.15 -42398353.02 0.0088 0.0001

Mercury -120794-11-17 09:51 J -42398265.23 -42398265.09 -42398264.96 0.0088 0.0005

Mercury -120793-02-13 11:03 J -42398177.17 -42398177.04 -42398176.90 0.0088 0.0009

Mercury -120793-05-11 12:29 J -42398089.11 -42398088.98 -42398088.84 0.0088 0.0013

Mercury -120793-08-07 13:56 J -42398001.05 -42398000.92 -42398000.78 0.0088 0.0017

Mercury -120793-11-03 15:22 J -42397912.99 -42397912.86 -42397912.73 0.0088 0.0021

Mercury -120792-01-30 16:49 J -42397824.93 -42397824.80 -42397824.67 0.0088 0.0025

Mercury -120792-04-28 18:01 J -42397736.87 -42397736.75 -42397736.62 0.0088 0.0030

Mercury -120792-07-25 19:27 J -42397648.81 -42397648.69 -42397648.56 0.0088 0.0034

Mercury -120792-10-21 20:53 J -42397560.75 -42397560.63 -42397560.51 0.0088 0.0038

Mercury -120791-01-17 22:05 J -42397472.69 -42397472.58 -42397472.45 0.0088 0.0042

Mercury -120791-04-15 23:32 J -42397384.63 -42397384.52 -42397384.40 0.0088 0.0046

Mercury -120791-07-13 00:58 J -42397296.57 -42397296.46 -42397296.35 0.0088 0.0050

Mercury -120791-10-09 02:10 J -42397208.50 -42397208.41 -42397208.29 0.0088 0.0055

Mercury -120790-01-05 03:37 J -42397120.44 -42397120.35 -42397120.24 0.0088 0.0059

Mercury -120790-04-03 05:03 J -42397032.38 -42397032.29 -42397032.19 0.0088 0.0062

Mercury -120790-06-30 06:29 J -42396944.31 -42396944.23 -42396944.14 0.0088 0.0066

Mercury -120790-09-26 07:56 J -42396856.25 -42396856.17 -42396856.09 0.0088 0.0070

Mercury -120790-12-23 09:08 J -42396768.18 -42396768.12 -42396768.04 0.0088 0.0075

Mercury -120789-03-20 10:34 J -42396680.11 -42396680.06 -42396680.00 0.0088 0.0079

Mercury -120789-06-16 12:01 J -42396592.04 -42396592.00 -42396591.96 0.0088 0.0083

Mercury -120789-09-12 13:27 J -42396503.96 -42396503.94 -42396503.92 0.0088 0.0087

Mars -120757-03-27 22:05 J -42384984.71 -42384984.58 -42384984.41 0.0088 0.0079

Mars -120755-02-21 08:53 J -42384289.32 -42384289.13 -42384288.89 0.0088 0.0067

Mars -120753-01-17 17:32 J -42383594.00 -42383593.77 -42383593.49 0.0088 0.0055

Mars -120752-12-13 00:58 J -42382898.72 -42382898.46 -42382898.15 0.0088 0.0043

Mars -120750-11-08 07:27 J -42382203.48 -42382203.19 -42382202.88 0.0089 0.0030

Mars -120748-10-03 11:17 J -42381508.33 -42381508.03 -42381507.70 0.0089 0.0018

Mars -120746-08-29 13:41 J -42380813.25 -42380812.93 -42380812.61 0.0089 0.0005

Mars -120744-07-24 14:39 J -42380118.20 -42380117.89 -42380117.57 0.0089 0.0008

Mars -120742-06-19 14:25 J -42379423.21 -42379422.90 -42379422.59 0.0089 0.0020

Venus -120742-10-02 16:49 J -42379317.85 -42379317.80 -42379317.73 0.0089 0.0085

Venus -120741-05-15 04:49 J -42379092.38 -42379092.30 -42379092.19 0.0089 0.0079

Venus -120741-12-26 16:34 J -42378866.91 -42378866.81 -42378866.67 0.0089 0.0073

Mars -120740-05-14 12:01 J -42378728.29 -42378728.00 -42378727.70 0.0089 0.0032

Earth -120740-06-21 19:13 J -42378689.84 -42378689.70 -42378689.52 0.0089 0.0069

Moon -120740-06-21 22:34 J -42378689.70 -42378689.56 -42378689.38 0.0089 0.0069 *

Venus -120740-08-09 04:34 J -42378641.43 -42378641.31 -42378641.15 0.0089 0.0067

Venus -120739-03-22 16:34 J -42378415.95 -42378415.81 -42378415.63 0.0089 0.0061

Moon -120739-06-24 02:53 J -42378322.60 -42378322.38 -42378322.16 0.0089 0.0042

Earth -120739-06-24 06:01 J -42378322.46 -42378322.25 -42378322.01 0.0089 0.0042 *

Venus -120739-11-03 05:03 J -42378190.46 -42378190.29 -42378190.12 0.0089 0.0054

Mars -120738-04-09 09:08 J -42378033.38 -42378033.12 -42378032.83 0.0089 0.0044

Venus -120738-06-16 16:49 J -42377964.97 -42377964.80 -42377964.61 0.0089 0.0048

Earth -120738-06-26 16:49 J -42377955.04 -42377954.80 -42377954.54 0.0089 0.0015

Moon -120738-06-26 19:13 J -42377954.95 -42377954.70 -42377954.43 0.0089 0.0015 *
 Venus -120737-01-28 04:49 J -42377739.47 -42377739.30 -42377739.09 0.0089 0.0042
 Moon -120737-06-28 02:10 J -42377587.65 -42377587.41 -42377587.16 0.0089 0.0012
 Earth -120737-06-28 03:51 J -42377587.58 -42377587.34 -42377587.08 0.0089 0.0013 *
 Venus -120737-09-09 17:17 J -42377513.97 -42377513.78 -42377513.58 0.0089 0.0035
 Mars -120736-03-04 04:05 J -42377338.55 -42377338.33 -42377338.06 0.0089 0.0056
 Venus -120736-04-23 05:32 J -42377288.47 -42377288.27 -42377288.06 0.0089 0.0029
 Earth -120736-06-30 14:25 J -42377220.11 -42377219.90 -42377219.65 0.0089 0.0041
 Moon -120736-06-30 15:22 J -42377220.09 -42377219.86 -42377219.62 0.0089 0.0041 *
 Venus -120736-12-04 17:32 J -42377062.97 -42377062.77 -42377062.55 0.0089 0.0023
 Earth -120735-07-03 01:56 J -42376852.57 -42376852.42 -42376852.24 0.0089 0.0068
 Moon -120735-07-03 02:39 J -42376852.53 -42376852.39 -42376852.21 0.0089 0.0068 *
 Venus -120735-07-18 06:01 J -42376837.46 -42376837.25 -42376837.04 0.0089 0.0016
 Mars -120734-01-27 20:53 J -42376643.80 -42376643.63 -42376643.39 0.0089 0.0067
 Venus -120734-02-28 18:01 J -42376611.96 -42376611.75 -42376611.53 0.0089 0.0010
 Venus -120734-10-12 06:29 J -42376386.45 -42376386.23 -42376386.02 0.0089 0.0003
 Venus -120733-05-24 18:44 J -42376160.93 -42376160.72 -42376160.50 0.0089 0.0004
 Mars -120733-12-22 12:58 J -42375949.09 -42375948.96 -42375948.79 0.0089 0.0077
 Venus -120732-01-05 07:13 J -42375935.42 -42375935.20 -42375934.98 0.0089 0.0010
 Venus -120732-08-18 19:27 J -42375709.90 -42375709.69 -42375709.47 0.0089 0.0017
 Venus -120731-04-01 07:56 J -42375484.38 -42375484.17 -42375483.96 0.0089 0.0023
 Venus -120731-11-12 20:10 J -42375258.85 -42375258.66 -42375258.44 0.0089 0.0030
 Mars -120731-11-17 04:20 J -42375254.36 -42375254.32 -42375254.25 0.0089 0.0087
 Venus -120730-06-26 08:53 J -42375033.32 -42375033.13 -42375032.93 0.0089 0.0036
 Venus -120729-02-06 21:08 J -42374807.79 -42374807.62 -42374807.41 0.0089 0.0043
 Venus -120729-09-19 10:05 J -42374582.26 -42374582.08 -42374581.90 0.0089 0.0049
 Venus -120728-05-02 22:34 J -42374356.71 -42374356.56 -42374356.37 0.0089 0.0056
 Venus -120728-12-14 11:32 J -42374131.17 -42374131.02 -42374130.86 0.0089 0.0062
 Venus -120727-07-28 00:01 J -42373905.62 -42373905.50 -42373905.34 0.0089 0.0069
 Venus -120726-03-10 12:58 J -42373680.07 -42373679.96 -42373679.84 0.0089 0.0075

Venus -120726-10-22 01:27 J -42373454.50 -42373454.44 -42373454.33 0.0089 0.0082

Venus -120725-06-03 14:39 J -42373228.90 -42373228.89 -42373228.84 0.0089 0.0088

Mercury -120715-06-29 02:39 J -42369551.39 -42369551.39 -42369551.37 0.0089 0.0089

Mercury -120715-09-25 05:46 J -42369463.31 -42369463.26 -42369463.18 0.0089 0.0083

Mercury -120715-12-22 09:22 J -42369375.19 -42369375.11 -42369375.01 0.0089 0.0077

Mercury -120714-03-20 12:15 J -42369287.07 -42369286.99 -42369286.86 0.0089 0.0072

Mercury -120714-06-16 15:51 J -42369198.95 -42369198.84 -42369198.70 0.0089 0.0066

Mercury -120714-09-12 19:13 J -42369110.82 -42369110.70 -42369110.55 0.0089 0.0060

Mercury -120714-12-09 22:34 J -42369022.69 -42369022.56 -42369022.40 0.0089 0.0054

Mercury -120713-03-07 02:10 J -42368934.56 -42368934.41 -42368934.25 0.0089 0.0048

Mercury -120713-06-03 05:32 J -42368846.43 -42368846.27 -42368846.10 0.0089 0.0042

Mercury -120713-08-30 09:08 J -42368758.29 -42368758.12 -42368757.95 0.0089 0.0036

Mercury -120713-11-26 12:15 J -42368670.16 -42368669.99 -42368669.81 0.0089 0.0031

Mercury -120712-02-22 15:37 J -42368582.02 -42368581.85 -42368581.66 0.0089 0.0025

Mercury -120712-05-21 19:13 J -42368493.88 -42368493.70 -42368493.51 0.0089 0.0019

Mercury -120712-08-17 22:34 J -42368405.74 -42368405.56 -42368405.37 0.0089 0.0013

Mercury -120712-11-14 02:10 J -42368317.60 -42368317.41 -42368317.22 0.0089 0.0007

Mercury -120711-02-10 05:32 J -42368229.46 -42368229.27 -42368229.08 0.0089 0.0001

Mercury -120711-05-09 09:08 J -42368141.31 -42368141.12 -42368140.93 0.0089 0.0005

Mercury -120711-08-05 12:29 J -42368053.17 -42368052.98 -42368052.79 0.0089 0.0011

Mercury -120711-11-01 15:51 J -42367965.02 -42367964.84 -42367964.65 0.0089 0.0017

Mercury -120710-01-28 19:27 J -42367876.87 -42367876.69 -42367876.51 0.0089 0.0023

Mercury -120710-04-26 22:49 J -42367788.72 -42367788.55 -42367788.37 0.0089 0.0029

Mercury -120710-07-24 02:25 J -42367700.57 -42367700.40 -42367700.22 0.0089 0.0035

Mercury -120710-10-20 05:46 J -42367612.42 -42367612.26 -42367612.09 0.0089 0.0041

Mercury -120709-01-16 09:22 J -42367524.27 -42367524.11 -42367523.95 0.0089 0.0047

Mercury -120709-04-13 12:58 J -42367436.11 -42367435.96 -42367435.81 0.0089 0.0053

Mercury -120709-07-10 16:05 J -42367347.96 -42367347.83 -42367347.67 0.0089 0.0060

Mercury -120709-10-06 19:27 J -42367259.80 -42367259.69 -42367259.54 0.0089 0.0066

Mercury -120708-01-02 23:03 J -42367171.63 -42367171.54 -42367171.41 0.0089 0.0072

Mercury -120708-04-01 02:39 J -42367083.46 -42367083.39 -42367083.28 0.0089 0.0078

Mercury -120708-06-28 06:15 J -42366995.29 -42366995.24 -42366995.16 0.0089 0.0084

Mars -120677-02-04 15:22 J -42355816.95 -42355816.86 -42355816.71 0.0089 0.0081

Mars -120676-12-29 23:17 J -42355122.68 -42355122.53 -42355122.32 0.0089 0.0071

Mars -120674-11-24 09:08 J -42354428.33 -42354428.12 -42354427.89 0.0089 0.0060

Mars -120672-10-18 18:15 J -42353733.98 -42353733.74 -42353733.47 0.0089 0.0049

Mars -120670-09-13 05:17 J -42353039.54 -42353039.28 -42353038.99 0.0089 0.0038

Mars -120668-08-07 17:32 J -42352345.05 -42352344.77 -42352344.46 0.0089 0.0027

Mars -120666-07-03 06:29 J -42351650.53 -42351650.23 -42351649.92 0.0089 0.0015

Mars -120664-05-27 21:22 J -42350955.92 -42350955.61 -42350955.30 0.0089 0.0003

Mars -120662-04-22 13:56 J -42350261.23 -42350260.92 -42350260.61 0.0089 0.0009

Mars -120660-03-17 07:41 J -42349566.48 -42349566.18 -42349565.88 0.0089 0.0021

Venus -120660-11-22 20:39 J -42349315.68 -42349315.64 -42349315.55 0.0089 0.0085

Venus -120659-07-06 11:03 J -42349090.13 -42349090.04 -42349089.92 0.0089 0.0078

Moon -120659-12-30 23:32 J -42348912.66 -42348912.52 -42348912.35 0.0089 0.0073

Earth -120659-12-30 23:32 J -42348912.62 -42348912.52 -42348912.36 0.0089 0.0077 *

Mars -120658-02-10 02:25 J -42348871.66 -42348871.40 -42348871.08 0.0089 0.0034

Venus -120658-02-17 00:44 J -42348864.58 -42348864.47 -42348864.31 0.0089 0.0072

Venus -120658-09-30 15:08 J -42348639.01 -42348638.87 -42348638.70 0.0089 0.0065

Earth -120657-01-02 12:01 J -42348545.19 -42348545.00 -42348544.76 0.0089 0.0049

Moon -120657-01-02 13:56 J -42348545.12 -42348544.92 -42348544.71 0.0089 0.0052 *

Venus -120657-05-13 05:17 J -42348413.44 -42348413.28 -42348413.10 0.0089 0.0058

Venus -120657-12-24 18:58 J -42348187.87 -42348187.71 -42348187.51 0.0089 0.0052

Moon -120656-01-03 21:51 J -42348177.84 -42348177.59 -42348177.32 0.0089 0.0018

Earth -120656-01-04 00:44 J -42348177.71 -42348177.47 -42348177.21 0.0089 0.0021 *

Mars -120656-01-05 00:29 J -42348176.74 -42348176.48 -42348176.20 0.0089 0.0045

Venus -120656-08-07 09:08 J -42347962.31 -42347962.12 -42347961.92 0.0089 0.0045

Earth -120655-01-06 12:58 J -42347810.21 -42347809.96 -42347809.70 0.0089 0.0007

Moon -120655-01-06 15:51 J -42347810.09 -42347809.84 -42347809.58 0.0089 0.0004 *

Venus -120655-03-20 23:03 J -42347736.74 -42347736.54 -42347736.33 0.0089 0.0038

Venus -120655-11-01 12:44 J -42347511.17 -42347510.97 -42347510.75 0.0089 0.0032
 Mars -120655-11-30 22:20 J -42347481.79 -42347481.57 -42347481.31 0.0089 0.0057
 Moon -120654-01-08 20:53 J -42347442.85 -42347442.63 -42347442.38 0.0089 0.0039
 Earth -120654-01-09 00:44 J -42347442.70 -42347442.47 -42347442.22 0.0089 0.0035 *
 Venus -120654-06-15 02:39 J -42347285.60 -42347285.39 -42347285.16 0.0089 0.0025
 Earth -120653-01-11 12:29 J -42347075.15 -42347074.98 -42347074.79 0.0089 0.0062
 Moon -120653-01-11 15:51 J -42347075.02 -42347074.84 -42347074.63 0.0089 0.0058 *
 Venus -120653-01-26 16:34 J -42347060.03 -42347059.81 -42347059.59 0.0089 0.0018
 Venus -120653-09-08 06:15 J -42346834.46 -42346834.24 -42346834.01 0.0089 0.0011
 Mars -120653-10-25 21:22 J -42346786.77 -42346786.61 -42346786.37 0.0089 0.0069
 Venus -120652-04-21 19:56 J -42346608.89 -42346608.67 -42346608.44 0.0089 0.0005
 Venus -120652-12-03 09:51 J -42346383.32 -42346383.09 -42346382.87 0.0089 0.0002
 Saturn -120651-03-03 21:37 J -42346293.20 -42346292.60 -42346291.94 0.0089 0.0032
 Venus -120651-07-16 23:17 J -42346157.75 -42346157.53 -42346157.30 0.0089 0.0009
 Mars -120651-09-20 23:03 J -42346091.65 -42346091.54 -42346091.37 0.0088 0.0080
 Venus -120650-02-27 12:44 J -42345932.18 -42345931.97 -42345931.74 0.0088 0.0016
 Venus -120650-10-11 02:25 J -42345706.61 -42345706.40 -42345706.17 0.0088 0.0022
 Venus -120649-05-23 16:05 J -42345481.04 -42345480.83 -42345480.61 0.0088 0.0029
 Venus -120648-01-04 05:17 J -42345255.47 -42345255.28 -42345255.06 0.0088 0.0036
 Venus -120648-08-17 18:58 J -42345029.90 -42345029.71 -42345029.51 0.0088 0.0042
 Venus -120647-03-31 08:10 J -42344804.33 -42344804.16 -42344803.96 0.0088 0.0049
 Venus -120647-11-11 21:37 J -42344578.76 -42344578.60 -42344578.41 0.0088 0.0055
 Venus -120646-06-25 10:34 J -42344353.19 -42344353.06 -42344352.87 0.0088 0.0062
 Venus -120645-02-06 00:01 J -42344127.63 -42344127.50 -42344127.34 0.0088 0.0068
 Venus -120645-09-18 13:13 J -42343902.06 -42343901.95 -42343901.82 0.0088 0.0074
 Venus -120644-05-02 02:39 J -42343676.48 -42343676.39 -42343676.30 0.0088 0.0080
 Venus -120644-12-13 15:08 J -42343450.89 -42343450.87 -42343450.79 0.0088 0.0087
 Mercury -120634-04-25 01:13 J -42340031.46 -42340031.45 -42340031.43 0.0088 0.0087
 Mercury -120634-07-22 02:25 J -42339943.43 -42339943.40 -42339943.34 0.0088 0.0084
 Mercury -120634-10-18 04:20 J -42339855.38 -42339855.32 -42339855.26 0.0088 0.0079

Mercury -120633-01-14 05:32 J -42339767.33 -42339767.27 -42339767.19 0.0088 0.0075

Mercury -120633-04-11 06:58 J -42339679.28 -42339679.21 -42339679.11 0.0088 0.0071

Mercury -120633-07-08 08:25 J -42339591.23 -42339591.15 -42339591.05 0.0088 0.0067

Mercury -120633-10-04 10:05 J -42339503.17 -42339503.08 -42339502.98 0.0088 0.0062

Mercury -120633-12-31 11:32 J -42339415.12 -42339415.02 -42339414.91 0.0088 0.0057

Mercury -120632-03-29 12:58 J -42339327.06 -42339326.96 -42339326.84 0.0088 0.0053

Mercury -120632-06-25 14:25 J -42339239.01 -42339238.90 -42339238.78 0.0088 0.0049

Mercury -120632-09-21 16:05 J -42339150.95 -42339150.83 -42339150.71 0.0088 0.0045

Mercury -120632-12-18 17:17 J -42339062.89 -42339062.78 -42339062.65 0.0088 0.0041

Mercury -120631-03-16 18:44 J -42338974.84 -42338974.72 -42338974.59 0.0088 0.0036

Mercury -120631-06-12 20:10 J -42338886.78 -42338886.66 -42338886.53 0.0088 0.0032

Mercury -120631-09-08 21:51 J -42338798.72 -42338798.59 -42338798.46 0.0088 0.0028

Mercury -120631-12-05 23:03 J -42338710.67 -42338710.54 -42338710.40 0.0088 0.0024

Mercury -120630-03-04 00:29 J -42338622.61 -42338622.48 -42338622.34 0.0088 0.0020

Mercury -120630-05-31 01:56 J -42338534.55 -42338534.42 -42338534.28 0.0088 0.0015

Mercury -120630-08-27 03:22 J -42338446.49 -42338446.36 -42338446.22 0.0088 0.0011

Mercury -120630-11-23 04:49 J -42338358.43 -42338358.30 -42338358.16 0.0088 0.0007

Mercury -120629-02-19 06:15 J -42338270.37 -42338270.24 -42338270.10 0.0088 0.0003

Mercury -120629-05-17 07:41 J -42338182.32 -42338182.18 -42338182.04 0.0088 0.0002

Mercury -120629-08-13 09:08 J -42338094.26 -42338094.12 -42338093.99 0.0088 0.0006

Mercury -120629-11-09 10:34 J -42338006.20 -42338006.06 -42338005.93 0.0088 0.0010

Mercury -120628-02-05 11:46 J -42337918.14 -42337918.01 -42337917.87 0.0088 0.0015

Mercury -120628-05-04 13:13 J -42337830.08 -42337829.95 -42337829.81 0.0088 0.0018

Mercury -120628-07-31 14:39 J -42337742.02 -42337741.89 -42337741.76 0.0088 0.0023

Mercury -120628-10-27 16:05 J -42337653.96 -42337653.83 -42337653.70 0.0088 0.0027

Mercury -120627-01-23 17:17 J -42337565.90 -42337565.78 -42337565.65 0.0088 0.0031

Mercury -120627-04-21 18:44 J -42337477.84 -42337477.72 -42337477.59 0.0088 0.0035

Mercury -120627-07-18 20:10 J -42337389.78 -42337389.66 -42337389.54 0.0088 0.0039

Mercury -120627-10-14 21:22 J -42337301.72 -42337301.61 -42337301.48 0.0088 0.0044

Mercury -120626-01-10 22:49 J -42337213.66 -42337213.55 -42337213.43 0.0088 0.0048

Mercury -120626-04-09 00:15 J -42337125.59 -42337125.49 -42337125.38 0.0088 0.0051
 Mercury -120626-07-06 01:41 J -42337037.53 -42337037.43 -42337037.32 0.0088 0.0055
 Mercury -120626-10-02 03:08 J -42336949.47 -42336949.37 -42336949.27 0.0088 0.0060
 Mercury -120626-12-29 04:34 J -42336861.41 -42336861.31 -42336861.22 0.0088 0.0064
 Mercury -120625-03-26 05:46 J -42336773.34 -42336773.26 -42336773.17 0.0088 0.0068
 Mercury -120625-06-22 06:58 J -42336685.28 -42336685.21 -42336685.12 0.0088 0.0072
 Mercury -120625-09-18 08:10 J -42336597.21 -42336597.16 -42336597.08 0.0088 0.0077
 Mercury -120625-12-15 09:37 J -42336509.14 -42336509.10 -42336509.03 0.0088 0.0080
 Mercury -120624-03-13 11:03 J -42336421.07 -42336421.04 -42336420.99 0.0088 0.0084
 Mercury -120624-06-09 12:29 J -42336332.98 -42336332.98 -42336332.97 0.0088 0.0088
 Mars -120594-11-09 19:27 J -42325222.80 -42325222.69 -42325222.50 0.0088 0.0079
 Mars -120592-10-05 06:58 J -42324527.41 -42324527.21 -42324526.98 0.0088 0.0067
 Mars -120590-08-31 16:49 J -42323832.02 -42323831.80 -42323831.52 0.0088 0.0056
 Mars -120588-07-27 01:56 J -42323136.70 -42323136.42 -42323136.14 0.0088 0.0043
 Mars -120586-06-22 08:39 J -42322441.44 -42322441.14 -42322440.83 0.0088 0.0031
 Mars -120584-05-17 14:39 J -42321746.20 -42321745.89 -42321745.57 0.0089 0.0019
 Mars -120582-04-12 18:58 J -42321051.03 -42321050.71 -42321050.39 0.0089 0.0007
 Mars -120580-03-07 21:22 J -42320355.92 -42320355.61 -42320355.29 0.0089 0.0006
 Mars -120578-01-31 22:05 J -42319660.88 -42319660.58 -42319660.25 0.0089 0.0018
 Venus -120577-01-04 03:22 J -42319323.40 -42319323.36 -42319323.28 0.0089 0.0085
 Venus -120577-08-16 15:22 J -42319097.94 -42319097.86 -42319097.75 0.0089 0.0079
 Mars -120577-12-26 21:51 J -42318965.87 -42318965.59 -42318965.27 0.0089 0.0030
 Venus -120576-03-30 03:08 J -42318872.47 -42318872.37 -42318872.22 0.0089 0.0073
 Earth -120576-06-21 02:53 J -42318789.45 -42318789.38 -42318789.25 0.0089 0.0082
 Moon -120576-06-21 05:46 J -42318789.33 -42318789.26 -42318789.15 0.0089 0.0083 *
 Venus -120576-11-10 15:08 J -42318646.99 -42318646.87 -42318646.71 0.0089 0.0067
 Moon -120575-06-23 10:34 J -42318422.24 -42318422.06 -42318421.83 0.0089 0.0054
 Earth -120575-06-23 13:41 J -42318422.11 -42318421.93 -42318421.71 0.0089 0.0055 *
 Venus -120575-06-24 03:37 J -42318421.51 -42318421.35 -42318421.19 0.0089 0.0060
 Mars -120575-11-21 19:27 J -42318270.96 -42318270.69 -42318270.40 0.0089 0.0041

Venus -120574-02-04 15:22 J -42318196.02 -42318195.86 -42318195.68 0.0089 0.0054
 Earth -120574-06-26 00:29 J -42318054.71 -42318054.48 -42318054.22 0.0089 0.0028
 Moon -120574-06-26 04:05 J -42318054.56 -42318054.33 -42318054.08 0.0089 0.0027 *
 Venus -120574-09-18 03:22 J -42317970.53 -42317970.36 -42317970.17 0.0089 0.0048
 Venus -120573-04-30 15:37 J -42317745.03 -42317744.85 -42317744.65 0.0089 0.0042
 Moon -120573-06-27 08:10 J -42317687.42 -42317687.16 -42317686.91 0.0089 0.0001
 Earth -120573-06-27 11:32 J -42317687.27 -42317687.02 -42317686.76 0.0089 0.0002 *
 Mars -120573-10-16 16:05 J -42317576.07 -42317575.83 -42317575.57 0.0089 0.0052
 Venus -120573-12-12 03:51 J -42317519.53 -42317519.34 -42317519.13 0.0089 0.0035
 Earth -120572-06-29 22:20 J -42317319.80 -42317319.57 -42317319.32 0.0089 0.0028
 Moon -120572-06-30 01:13 J -42317319.68 -42317319.45 -42317319.18 0.0089 0.0029 *
 Venus -120572-07-25 15:51 J -42317294.03 -42317293.84 -42317293.62 0.0089 0.0029
 Venus -120571-03-08 04:05 J -42317068.53 -42317068.33 -42317068.11 0.0089 0.0023
 Moon -120571-07-02 06:44 J -42316952.40 -42316952.22 -42316952.00 0.0089 0.0055
 Earth -120571-07-02 09:22 J -42316952.29 -42316952.11 -42316951.89 0.0089 0.0056 *
 Mars -120571-09-11 10:49 J -42316881.24 -42316881.05 -42316880.81 0.0089 0.0063
 Venus -120571-10-19 16:20 J -42316843.02 -42316842.82 -42316842.60 0.0089 0.0016
 Venus -120570-06-02 04:34 J -42316617.52 -42316617.31 -42316617.09 0.0089 0.0010
 Earth -120570-07-04 20:39 J -42316584.71 -42316584.64 -42316584.53 0.0089 0.0083
 Moon -120570-07-04 22:20 J -42316584.65 -42316584.57 -42316584.48 0.0089 0.0083 *
 Venus -120569-01-13 17:03 J -42316392.01 -42316391.79 -42316391.57 0.0089 0.0003
 Mars -120569-08-06 04:05 J -42316186.49 -42316186.33 -42316186.15 0.0089 0.0073
 Venus -120569-08-26 05:17 J -42316166.49 -42316166.28 -42316166.06 0.0089 0.0004
 Venus -120568-04-08 17:46 J -42315940.98 -42315940.76 -42315940.55 0.0089 0.0010
 Venus -120568-11-20 05:46 J -42315715.46 -42315715.26 -42315715.03 0.0089 0.0017
 Mars -120567-07-01 19:13 J -42315491.78 -42315491.70 -42315491.57 0.0089 0.0083
 Venus -120567-07-03 18:15 J -42315489.94 -42315489.74 -42315489.52 0.0089 0.0023
 Venus -120566-02-14 06:29 J -42315264.42 -42315264.23 -42315264.01 0.0089 0.0030
 Venus -120566-09-27 18:58 J -42315038.90 -42315038.71 -42315038.50 0.0089 0.0036
 Venus -120565-05-10 07:27 J -42314813.36 -42314813.19 -42314812.98 0.0089 0.0043

Venus -120565-12-21 20:10 J -42314587.83 -42314587.66 -42314587.47 0.0089 0.0049

Venus -120564-08-04 08:53 J -42314362.30 -42314362.13 -42314361.96 0.0089 0.0055

Venus -120563-03-17 21:08 J -42314136.76 -42314136.62 -42314136.45 0.0089 0.0062

Venus -120563-10-29 10:05 J -42313911.21 -42313911.08 -42313910.93 0.0089 0.0068

Venus -120562-06-11 22:34 J -42313685.65 -42313685.56 -42313685.42 0.0089 0.0075

Venus -120561-01-23 11:32 J -42313460.09 -42313460.02 -42313459.92 0.0089 0.0081

Venus -120561-09-05 00:44 J -42313234.50 -42313234.47 -42313234.43 0.0089 0.0087

Mercury -120550-03-26 00:29 J -42309380.50 -42309380.48 -42309380.43 0.0089 0.0087

Mercury -120550-06-22 03:51 J -42309292.40 -42309292.34 -42309292.25 0.0089 0.0081

Mercury -120550-09-18 07:13 J -42309204.28 -42309204.20 -42309204.09 0.0089 0.0075

Mercury -120550-12-15 10:49 J -42309116.16 -42309116.05 -42309115.93 0.0089 0.0069

Mercury -120549-03-12 13:41 J -42309028.04 -42309027.93 -42309027.78 0.0089 0.0064

Mercury -120549-06-08 17:17 J -42308939.91 -42308939.78 -42308939.63 0.0089 0.0058

Mercury -120549-09-04 20:39 J -42308851.78 -42308851.64 -42308851.48 0.0089 0.0052

Mercury -120549-12-02 00:01 J -42308763.65 -42308763.50 -42308763.33 0.0089 0.0046

Mercury -120548-02-28 03:37 J -42308675.52 -42308675.35 -42308675.18 0.0089 0.0040

Mercury -120548-05-27 06:58 J -42308587.38 -42308587.21 -42308587.04 0.0089 0.0034

Mercury -120548-08-23 10:05 J -42308499.24 -42308499.08 -42308498.89 0.0089 0.0029

Mercury -120548-11-19 13:41 J -42308411.11 -42308410.93 -42308410.74 0.0089 0.0023

Mercury -120547-02-15 17:03 J -42308322.97 -42308322.79 -42308322.60 0.0089 0.0017

Mercury -120547-05-14 20:39 J -42308234.83 -42308234.64 -42308234.45 0.0089 0.0011

Mercury -120547-08-11 00:01 J -42308146.69 -42308146.50 -42308146.31 0.0089 0.0005

Mercury -120547-11-07 03:37 J -42308058.54 -42308058.35 -42308058.16 0.0089 0.0002

Mercury -120546-02-03 06:58 J -42307970.40 -42307970.21 -42307970.02 0.0089 0.0007

Mercury -120546-05-02 10:20 J -42307882.25 -42307882.07 -42307881.88 0.0089 0.0013

Mercury -120546-07-29 13:56 J -42307794.11 -42307793.92 -42307793.74 0.0089 0.0019

Mercury -120546-10-25 17:17 J -42307705.96 -42307705.78 -42307705.59 0.0089 0.0025

Mercury -120545-01-21 20:53 J -42307617.81 -42307617.63 -42307617.45 0.0089 0.0031

Mercury -120545-04-19 00:15 J -42307529.66 -42307529.49 -42307529.31 0.0089 0.0037

Mercury -120545-07-16 03:51 J -42307441.50 -42307441.34 -42307441.17 0.0089 0.0043

Mercury -120545-10-12 07:27 J -42307353.35 -42307353.19 -42307353.03 0.0089 0.0050

Mercury -120544-01-08 10:34 J -42307265.19 -42307265.06 -42307264.90 0.0089 0.0056

Mercury -120544-04-06 13:56 J -42307177.03 -42307176.92 -42307176.76 0.0089 0.0062

Mercury -120544-07-03 17:32 J -42307088.87 -42307088.77 -42307088.63 0.0089 0.0068

Mercury -120544-09-29 21:08 J -42307000.71 -42307000.62 -42307000.50 0.0089 0.0074

Mercury -120544-12-27 00:44 J -42306912.54 -42306912.47 -42306912.37 0.0089 0.0080

Mercury -120543-03-25 04:20 J -42306824.35 -42306824.32 -42306824.26 0.0089 0.0086

Jupiter -120535-11-14 07:13 J -42303668.45 -42303668.20 -42303667.83 0.0089 0.0074

Mars -120514-09-19 17:03 J -42296053.89 -42296053.79 -42296053.63 0.0089 0.0080

Mars -120512-08-13 23:17 J -42295359.69 -42295359.53 -42295359.32 0.0089 0.0070

Mars -120510-07-09 06:58 J -42294665.41 -42294665.21 -42294664.96 0.0089 0.0060

Mars -120508-06-02 16:34 J -42293971.05 -42293970.81 -42293970.55 0.0089 0.0049

Mars -120506-04-28 01:41 J -42293276.68 -42293276.43 -42293276.13 0.0089 0.0039

Mars -120504-03-22 13:13 J -42292582.24 -42292581.95 -42292581.66 0.0089 0.0027

Mars -120502-02-15 02:10 J -42291887.71 -42291887.41 -42291887.10 0.0089 0.0016

Mars -120500-01-09 16:05 J -42291193.14 -42291192.83 -42291192.52 0.0089 0.0005

Mars -120499-12-05 06:58 J -42290498.51 -42290498.21 -42290497.89 0.0089 0.0007

Mars -120497-10-29 23:46 J -42289803.81 -42289803.51 -42289803.20 0.0089 0.0019

Venus -120495-02-24 05:46 J -42289321.31 -42289321.26 -42289321.17 0.0089 0.0084

Mars -120495-09-24 17:32 J -42289109.04 -42289108.77 -42289108.45 0.0089 0.0031

Venus -120495-10-07 19:56 J -42289095.76 -42289095.67 -42289095.54 0.0089 0.0078

Earth -120495-12-30 07:27 J -42289012.19 -42289012.19 -42289012.17 0.0089 0.0089

Moon -120495-12-30 09:37 J -42289012.14 -42289012.10 -42289012.00 0.0089 0.0086

Venus -120494-05-21 10:20 J -42288870.19 -42288870.07 -42288869.92 0.0089 0.0071

Moon -120493-01-01 18:29 J -42288644.88 -42288644.73 -42288644.53 0.0089 0.0064

Earth -120493-01-01 20:10 J -42288644.83 -42288644.66 -42288644.45 0.0089 0.0061 *

Venus -120493-01-02 00:01 J -42288644.63 -42288644.50 -42288644.32 0.0089 0.0065 *

Venus -120493-08-14 14:25 J -42288419.06 -42288418.90 -42288418.72 0.0089 0.0058

Mars -120493-08-19 12:44 J -42288414.23 -42288413.97 -42288413.68 0.0089 0.0042

Earth -120492-01-03 08:53 J -42288277.36 -42288277.13 -42288276.88 0.0089 0.0033

Moon	-120492-01-03 10:05 J	-42288277.33	-42288277.08	-42288276.82	0.0089	0.0029	*
Venus	-120492-03-28 04:34 J	-42288193.49	-42288193.31	-42288193.12	0.0089	0.0051	
Venus	-120492-11-08 18:15 J	-42287967.92	-42287967.74	-42287967.53	0.0089	0.0045	
Earth	-120491-01-05 21:22 J	-42287909.87	-42287909.61	-42287909.35	0.0089	0.0005	
Moon	-120491-01-05 22:05 J	-42287909.83	-42287909.58	-42287909.33	0.0089	0.0008	*
Venus	-120491-06-22 08:25 J	-42287742.35	-42287742.15	-42287741.94	0.0089	0.0038	
Mars	-120491-07-15 09:37 J	-42287719.32	-42287719.10	-42287718.82	0.0089	0.0054	
Moon	-120490-01-08 07:41 J	-42287542.43	-42287542.18	-42287541.91	0.0089	0.0026	
Earth	-120490-01-08 09:22 J	-42287542.35	-42287542.11	-42287541.85	0.0089	0.0023	*
Venus	-120490-02-02 22:20 J	-42287516.78	-42287516.57	-42287516.36	0.0089	0.0031	
Venus	-120490-09-16 12:01 J	-42287291.21	-42287291.00	-42287290.77	0.0089	0.0025	
Earth	-120489-01-10 20:53 J	-42287174.82	-42287174.63	-42287174.40	0.0089	0.0051	
Moon	-120489-01-10 23:17 J	-42287174.73	-42287174.53	-42287174.30	0.0089	0.0047	*
Venus	-120489-04-29 01:56 J	-42287065.64	-42287065.42	-42287065.20	0.0089	0.0018	
Mars	-120489-06-09 07:56 J	-42287024.35	-42287024.17	-42287023.92	0.0089	0.0065	
Venus	-120489-12-10 15:51 J	-42286840.07	-42286839.84	-42286839.62	0.0089	0.0011	
Moon	-120488-01-12 04:49 J	-42286807.37	-42286807.30	-42286807.16	0.0089	0.0082	
Earth	-120488-01-12 08:39 J	-42286807.24	-42286807.14	-42286807.00	0.0089	0.0078	*
Venus	-120488-07-24 05:17 J	-42286614.50	-42286614.28	-42286614.05	0.0089	0.0005	
Venus	-120487-03-06 18:58 J	-42286388.93	-42286388.71	-42286388.48	0.0089	0.0003	
Mars	-120487-05-05 07:27 J	-42286329.32	-42286329.19	-42286328.99	0.0089	0.0076	
Venus	-120487-10-18 08:39 J	-42286163.35	-42286163.14	-42286162.91	0.0089	0.0010	
Venus	-120486-05-31 22:20 J	-42285937.78	-42285937.57	-42285937.34	0.0089	0.0016	
Venus	-120485-01-12 11:46 J	-42285712.21	-42285712.01	-42285711.78	0.0089	0.0023	
Mars	-120485-03-30 08:53 J	-42285634.16	-42285634.13	-42285634.02	0.0089	0.0087	
Venus	-120485-08-25 01:27 J	-42285486.65	-42285486.44	-42285486.23	0.0088	0.0029	
Venus	-120484-04-07 14:39 J	-42285261.08	-42285260.89	-42285260.67	0.0088	0.0036	
Venus	-120484-11-19 04:34 J	-42285035.50	-42285035.31	-42285035.11	0.0088	0.0042	
Venus	-120483-07-02 17:46 J	-42284809.93	-42284809.76	-42284809.56	0.0088	0.0049	
Venus	-120482-02-13 07:13 J	-42284584.37	-42284584.20	-42284584.02	0.0088	0.0055	

Venus -120482-09-26 20:25 J -42284358.79 -42284358.65 -42284358.48 0.0088 0.0061

Venus -120481-05-09 09:51 J -42284133.22 -42284133.09 -42284132.94 0.0088 0.0068

Venus -120481-12-20 23:17 J -42283907.65 -42283907.53 -42283907.41 0.0088 0.0074

Venus -120480-08-03 12:01 J -42283682.07 -42283682.00 -42283681.89 0.0088 0.0080

Venus -120479-03-17 00:58 J -42283456.48 -42283456.46 -42283456.39 0.0088 0.0087

Mercury -120469-01-20 00:44 J -42279860.50 -42279860.47 -42279860.43 0.0088 0.0085

Mercury -120469-04-17 01:56 J -42279772.46 -42279772.42 -42279772.35 0.0088 0.0082

Mercury -120469-07-14 03:22 J -42279684.41 -42279684.36 -42279684.28 0.0088 0.0078

Mercury -120469-10-10 05:17 J -42279596.36 -42279596.28 -42279596.20 0.0088 0.0073

Mercury -120468-01-06 06:29 J -42279508.30 -42279508.23 -42279508.13 0.0088 0.0069

Mercury -120468-04-04 07:56 J -42279420.25 -42279420.17 -42279420.06 0.0088 0.0065

Mercury -120468-07-01 09:37 J -42279332.19 -42279332.10 -42279331.99 0.0088 0.0060

Mercury -120468-09-27 11:03 J -42279244.14 -42279244.04 -42279243.93 0.0088 0.0056

Mercury -120468-12-24 12:29 J -42279156.08 -42279155.98 -42279155.86 0.0088 0.0051

Mercury -120467-03-22 13:56 J -42279068.03 -42279067.92 -42279067.80 0.0088 0.0047

Mercury -120467-06-18 15:37 J -42278979.97 -42278979.85 -42278979.73 0.0088 0.0043

Mercury -120467-09-14 16:49 J -42278891.91 -42278891.80 -42278891.67 0.0088 0.0039

Mercury -120467-12-11 18:15 J -42278803.86 -42278803.74 -42278803.60 0.0088 0.0035

Mercury -120466-03-09 19:41 J -42278715.80 -42278715.68 -42278715.54 0.0088 0.0030

Mercury -120466-06-05 21:22 J -42278627.74 -42278627.61 -42278627.48 0.0088 0.0026

Mercury -120466-09-01 22:49 J -42278539.68 -42278539.55 -42278539.42 0.0088 0.0021

Mercury -120466-11-29 00:15 J -42278451.63 -42278451.49 -42278451.36 0.0088 0.0017

Mercury -120465-02-25 01:27 J -42278363.57 -42278363.44 -42278363.30 0.0088 0.0014

Mercury -120465-05-23 02:53 J -42278275.51 -42278275.38 -42278275.24 0.0088 0.0009

Mercury -120465-08-19 04:20 J -42278187.45 -42278187.32 -42278187.18 0.0088 0.0005

Mercury -120465-11-15 05:46 J -42278099.39 -42278099.26 -42278099.12 0.0088 0.0002

Mercury -120464-02-11 07:13 J -42278011.33 -42278011.20 -42278011.06 0.0088 0.0004

Mercury -120464-05-10 08:39 J -42277923.27 -42277923.14 -42277923.00 0.0088 0.0008

Mercury -120464-08-06 10:05 J -42277835.22 -42277835.08 -42277834.95 0.0088 0.0012

Mercury -120464-11-02 11:32 J -42277747.16 -42277747.02 -42277746.89 0.0088 0.0016

Mercury -120463-01-29 12:44 J -42277659.10 -42277658.97 -42277658.83 0.0088 0.0021

Mercury -120463-04-27 14:10 J -42277571.04 -42277570.91 -42277570.78 0.0088 0.0025

Mercury -120463-07-24 15:37 J -42277482.98 -42277482.85 -42277482.72 0.0088 0.0029

Mercury -120463-10-20 16:49 J -42277394.92 -42277394.80 -42277394.67 0.0088 0.0033

Mercury -120462-01-16 18:15 J -42277306.86 -42277306.74 -42277306.61 0.0088 0.0037

Mercury -120462-04-14 19:41 J -42277218.79 -42277218.68 -42277218.56 0.0088 0.0041

Mercury -120462-07-11 21:08 J -42277130.73 -42277130.62 -42277130.50 0.0088 0.0045

Mercury -120462-10-07 22:20 J -42277042.67 -42277042.57 -42277042.45 0.0088 0.0050

Mercury -120461-01-03 23:46 J -42276954.61 -42276954.51 -42276954.40 0.0088 0.0053

Mercury -120461-04-01 01:13 J -42276866.55 -42276866.45 -42276866.34 0.0088 0.0057

Mercury -120461-06-28 02:39 J -42276778.48 -42276778.39 -42276778.29 0.0088 0.0061

Mercury -120461-09-24 03:51 J -42276690.42 -42276690.34 -42276690.24 0.0088 0.0066

Mercury -120461-12-21 05:17 J -42276602.36 -42276602.28 -42276602.19 0.0088 0.0070

Mercury -120460-03-19 06:44 J -42276514.29 -42276514.22 -42276514.15 0.0088 0.0074

Mercury -120460-06-15 08:10 J -42276426.22 -42276426.16 -42276426.10 0.0088 0.0078

Mercury -120460-09-11 09:22 J -42276338.15 -42276338.11 -42276338.06 0.0088 0.0082

Mercury -120460-12-08 10:49 J -42276250.08 -42276250.05 -42276250.02 0.0088 0.0086

Mars -120432-07-28 05:17 J -42266156.28 -42266156.28 -42266156.23 0.0088 0.0088

Mars -120430-06-23 18:58 J -42265460.83 -42265460.71 -42265460.52 0.0088 0.0078

Mars -120428-05-19 07:13 J -42264765.39 -42264765.20 -42264764.95 0.0088 0.0067

Mars -120426-04-14 17:46 J -42264069.98 -42264069.76 -42264069.47 0.0088 0.0056

Mars -120424-03-10 04:05 J -42263374.59 -42263374.33 -42263374.03 0.0088 0.0044

Mars -120422-02-03 12:58 J -42262679.25 -42262678.96 -42262678.64 0.0088 0.0032

Mars -120421-12-29 19:27 J -42261983.99 -42261983.69 -42261983.36 0.0089 0.0020

Mars -120419-11-25 01:27 J -42261288.76 -42261288.44 -42261288.12 0.0089 0.0008

Mars -120417-10-20 05:17 J -42260593.60 -42260593.28 -42260592.96 0.0089 0.0004

Mars -120415-09-15 06:44 J -42259898.52 -42259898.22 -42259897.90 0.0089 0.0016

Venus -120413-04-06 15:08 J -42259328.93 -42259328.87 -42259328.79 0.0089 0.0084

Mars -120413-08-10 06:58 J -42259203.50 -42259203.21 -42259202.90 0.0089 0.0027

Venus -120413-11-18 02:53 J -42259103.47 -42259103.38 -42259103.27 0.0089 0.0078

Venus -120412-07-01 14:39 J -42258878.00 -42258877.89 -42258877.76 0.0089 0.0072

Venus -120411-02-12 02:25 J -42258652.53 -42258652.40 -42258652.24 0.0089 0.0066

Moon -120411-06-22 22:05 J -42258521.72 -42258521.58 -42258521.37 0.0089 0.0066

Earth -120411-06-22 22:49 J -42258521.70 -42258521.55 -42258521.36 0.0089 0.0067 *

Mars -120411-07-06 06:44 J -42258508.50 -42258508.22 -42258507.93 0.0089 0.0038

Venus -120411-09-25 14:25 J -42258427.05 -42258426.90 -42258426.73 0.0089 0.0060

Venus -120410-05-09 02:25 J -42258201.56 -42258201.40 -42258201.22 0.0089 0.0054

Earth -120410-06-25 09:08 J -42258154.33 -42258154.12 -42258153.88 0.0089 0.0040

Moon -120410-06-25 11:03 J -42258154.25 -42258154.04 -42258153.81 0.0089 0.0041 *

Venus -120410-12-20 14:10 J -42257976.07 -42257975.91 -42257975.71 0.0089 0.0048

Mars -120409-05-31 04:20 J -42257813.58 -42257813.32 -42257813.06 0.0089 0.0049

Moon -120409-06-26 17:32 J -42257787.02 -42257786.77 -42257786.50 0.0089 0.0012

Earth -120409-06-26 20:10 J -42257786.92 -42257786.66 -42257786.41 0.0089 0.0012 *

Venus -120409-08-02 02:39 J -42257750.58 -42257750.39 -42257750.20 0.0089 0.0041

Venus -120408-03-15 14:39 J -42257525.08 -42257524.89 -42257524.69 0.0089 0.0035

Earth -120408-06-29 06:44 J -42257419.46 -42257419.22 -42257418.96 0.0089 0.0016

Moon -120408-06-29 10:05 J -42257419.32 -42257419.08 -42257418.83 0.0089 0.0015 *

Venus -120408-10-27 02:39 J -42257299.58 -42257299.39 -42257299.17 0.0089 0.0029

Mars -120407-04-26 00:15 J -42257118.70 -42257118.49 -42257118.24 0.0089 0.0060

Venus -120407-06-09 15:08 J -42257074.08 -42257073.87 -42257073.66 0.0089 0.0022

Moon -120407-07-01 14:25 J -42257052.11 -42257051.90 -42257051.67 0.0089 0.0044

Earth -120407-07-01 18:01 J -42257051.97 -42257051.75 -42257051.52 0.0089 0.0043 *

Venus -120406-01-21 03:08 J -42256848.57 -42256848.37 -42256848.15 0.0089 0.0016

Earth -120406-07-04 04:49 J -42256684.44 -42256684.30 -42256684.13 0.0089 0.0071

Moon -120406-07-04 08:10 J -42256684.28 -42256684.16 -42256683.98 0.0089 0.0072 *

Venus -120406-09-03 15:37 J -42256623.07 -42256622.85 -42256622.64 0.0089 0.0009

Mars -120405-03-20 19:41 J -42256423.85 -42256423.68 -42256423.47 0.0089 0.0070

Venus -120405-04-16 03:51 J -42256397.55 -42256397.34 -42256397.12 0.0089 0.0003

Venus -120405-11-27 16:20 J -42256172.04 -42256171.82 -42256171.61 0.0089 0.0004

Venus -120404-07-11 04:34 J -42255946.53 -42255946.31 -42255946.10 0.0089 0.0010

Mars -120403-02-13 12:29 J -42255729.08 -42255728.98 -42255728.81 0.0089 0.0080
 Venus -120403-02-21 16:34 J -42255721.01 -42255720.81 -42255720.59 0.0089 0.0017
 Venus -120403-10-05 05:03 J -42255495.49 -42255495.29 -42255495.08 0.0089 0.0023
 Venus -120402-05-18 17:32 J -42255269.97 -42255269.77 -42255269.56 0.0089 0.0030
 Venus -120402-12-30 06:01 J -42255044.44 -42255044.25 -42255044.04 0.0089 0.0036
 Mars -120401-01-09 04:20 J -42255034.32 -42255034.32 -42255034.31 0.0089 0.0089
 Venus -120401-08-11 18:15 J -42254818.91 -42254818.74 -42254818.53 0.0089 0.0043
 Venus -120400-03-25 06:44 J -42254593.38 -42254593.22 -42254593.02 0.0089 0.0049
 Venus -120400-11-05 19:27 J -42254367.85 -42254367.69 -42254367.51 0.0089 0.0055
 Venus -120399-06-19 07:56 J -42254142.31 -42254142.17 -42254142.00 0.0089 0.0062
 Venus -120398-01-30 20:39 J -42253916.77 -42253916.64 -42253916.49 0.0089 0.0068
 Venus -120398-09-13 09:08 J -42253691.22 -42253691.12 -42253690.98 0.0089 0.0075
 Venus -120397-04-25 22:05 J -42253465.65 -42253465.58 -42253465.48 0.0089 0.0081
 Venus -120397-12-07 11:03 J -42253240.07 -42253240.04 -42253239.99 0.0089 0.0087
 Mercury -120386-12-20 23:03 J -42249209.59 -42249209.54 -42249209.47 0.0089 0.0084
 Mercury -120385-03-18 02:25 J -42249121.48 -42249121.40 -42249121.30 0.0089 0.0078
 Mercury -120385-06-14 05:32 J -42249033.36 -42249033.27 -42249033.15 0.0089 0.0073
 Mercury -120385-09-10 08:53 J -42248945.24 -42248945.13 -42248944.99 0.0089 0.0067
 Mercury -120385-12-07 12:15 J -42248857.11 -42248856.99 -42248856.84 0.0089 0.0061
 Mercury -120384-03-05 15:51 J -42248768.98 -42248768.84 -42248768.69 0.0089 0.0055
 Mercury -120384-06-01 19:13 J -42248680.85 -42248680.70 -42248680.54 0.0089 0.0049
 Mercury -120384-08-28 22:20 J -42248592.72 -42248592.57 -42248592.40 0.0089 0.0044
 Mercury -120384-11-25 01:41 J -42248504.59 -42248504.43 -42248504.25 0.0089 0.0038
 Mercury -120383-02-21 05:03 J -42248416.45 -42248416.29 -42248416.10 0.0089 0.0032
 Mercury -120383-05-20 08:39 J -42248328.32 -42248328.14 -42248327.96 0.0089 0.0026
 Mercury -120383-08-16 12:01 J -42248240.18 -42248240.00 -42248239.81 0.0089 0.0020
 Mercury -120383-11-12 15:37 J -42248152.04 -42248151.85 -42248151.67 0.0089 0.0014
 Mercury -120382-02-08 18:58 J -42248063.90 -42248063.71 -42248063.52 0.0089 0.0008
 Mercury -120382-05-07 22:20 J -42247975.76 -42247975.57 -42247975.38 0.0089 0.0003
 Mercury -120382-08-04 01:56 J -42247887.61 -42247887.42 -42247887.23 0.0089 0.0004

Mercury -120382-10-31 05:17 J -42247799.47 -42247799.28 -42247799.09 0.0089 0.0010
 Mercury -120381-01-27 08:39 J -42247711.32 -42247711.14 -42247710.95 0.0089 0.0016
 Mercury -120381-04-24 12:01 J -42247623.18 -42247623.00 -42247622.81 0.0089 0.0022
 Mercury -120381-07-21 15:22 J -42247535.03 -42247534.86 -42247534.67 0.0089 0.0028
 Mercury -120381-10-17 18:58 J -42247446.88 -42247446.71 -42247446.53 0.0089 0.0034
 Mercury -120380-01-13 22:20 J -42247358.73 -42247358.57 -42247358.39 0.0089 0.0040
 Mercury -120380-04-12 01:56 J -42247270.57 -42247270.42 -42247270.25 0.0089 0.0046
 Mercury -120380-07-09 05:17 J -42247182.42 -42247182.28 -42247182.11 0.0089 0.0053
 Mercury -120380-10-05 08:53 J -42247094.26 -42247094.13 -42247093.97 0.0089 0.0058
 Mercury -120379-01-01 12:29 J -42247006.10 -42247005.98 -42247005.84 0.0089 0.0064
 Mercury -120379-03-30 16:05 J -42246917.94 -42246917.83 -42246917.71 0.0089 0.0070
 Mercury -120379-06-26 19:41 J -42246829.77 -42246829.68 -42246829.58 0.0089 0.0076
 Mercury -120379-09-22 23:17 J -42246741.60 -42246741.53 -42246741.46 0.0089 0.0082
 Mercury -120379-12-20 02:53 J -42246653.40 -42246653.38 -42246653.36 0.0089 0.0088
 Jupiter -120368-01-11 22:34 J -42242978.01 -42242977.56 -42242977.09 0.0089 0.0050
 Mars -120352-06-09 14:25 J -42236984.93 -42236984.90 -42236984.82 0.0089 0.0088
 Mars -120350-05-04 19:41 J -42236290.80 -42236290.68 -42236290.52 0.0089 0.0079
 Mars -120348-03-29 01:56 J -42235596.59 -42235596.42 -42235596.22 0.0089 0.0069
 Mars -120346-02-21 08:10 J -42234902.37 -42234902.16 -42234901.92 0.0089 0.0059
 Mars -120344-01-15 15:37 J -42234208.08 -42234207.85 -42234207.57 0.0089 0.0049
 Mars -120343-12-11 01:27 J -42233513.69 -42233513.44 -42233513.14 0.0089 0.0039
 Mars -120341-11-04 12:01 J -42232819.28 -42232819.00 -42232818.69 0.0089 0.0028
 Mars -120339-09-29 22:49 J -42232124.84 -42232124.55 -42232124.23 0.0089 0.0017
 Mars -120337-08-24 12:15 J -42231430.29 -42231429.99 -42231429.68 0.0089 0.0006
 Mars -120335-07-20 01:56 J -42230735.72 -42230735.42 -42230735.10 0.0089 0.0006
 Mars -120333-06-13 16:49 J -42230041.10 -42230040.80 -42230040.49 0.0089 0.0017
 Mars -120331-05-09 09:51 J -42229346.38 -42229346.09 -42229345.79 0.0089 0.0028
 Venus -120331-05-28 14:53 J -42229326.93 -42229326.88 -42229326.78 0.0089 0.0084
 Venus -120330-01-09 05:17 J -42229101.37 -42229101.28 -42229101.15 0.0089 0.0077
 Venus -120330-08-22 19:56 J -42228875.80 -42228875.67 -42228875.53 0.0089 0.0070

Moon -120329-01-01 00:29 J -42228744.59 -42228744.48 -42228744.32 0.0089 0.0076
 Earth -120329-01-01 04:20 J -42228744.44 -42228744.32 -42228744.14 0.0089 0.0073 *
 Mars -120329-04-03 04:05 J -42228651.59 -42228651.33 -42228651.03 0.0089 0.0040
 Venus -120329-04-04 09:37 J -42228650.23 -42228650.10 -42228649.92 0.0089 0.0064
 Venus -120329-11-16 00:15 J -42228424.66 -42228424.49 -42228424.31 0.0089 0.0057
 Earth -120328-01-02 17:17 J -42228376.99 -42228376.78 -42228376.54 0.0089 0.0045
 Moon -120328-01-02 20:39 J -42228376.86 -42228376.64 -42228376.40 0.0089 0.0042 *
 Venus -120328-06-29 13:56 J -42228199.09 -42228198.92 -42228198.72 0.0089 0.0051
 Moon -120327-01-05 03:37 J -42228009.59 -42228009.35 -42228009.10 0.0089 0.0020
 Earth -120327-01-05 06:15 J -42228009.49 -42228009.24 -42228008.97 0.0089 0.0017 *
 Venus -120327-02-10 04:05 J -42227973.51 -42227973.33 -42227973.12 0.0089 0.0044
 Mars -120327-02-26 23:46 J -42227956.74 -42227956.51 -42227956.22 0.0089 0.0051
 Venus -120327-09-23 18:29 J -42227747.94 -42227747.73 -42227747.53 0.0089 0.0037
 Earth -120326-01-07 18:29 J -42227641.98 -42227641.73 -42227641.46 0.0089 0.0012
 Moon -120326-01-07 20:25 J -42227641.91 -42227641.65 -42227641.38 0.0089 0.0015 *
 Venus -120326-05-07 08:10 J -42227522.36 -42227522.16 -42227521.94 0.0089 0.0031
 Venus -120326-12-18 22:05 J -42227296.79 -42227296.58 -42227296.35 0.0089 0.0024
 Moon -120325-01-10 06:15 J -42227274.46 -42227274.24 -42227274.00 0.0089 0.0037
 Earth -120325-01-10 06:29 J -42227274.45 -42227274.23 -42227273.98 0.0089 0.0040 *
 Mars -120325-01-22 22:20 J -42227261.80 -42227261.57 -42227261.34 0.0089 0.0061
 Venus -120325-07-31 12:01 J -42227071.22 -42227071.00 -42227070.78 0.0089 0.0017
 Moon -120324-01-11 17:46 J -42226906.89 -42226906.76 -42226906.57 0.0089 0.0071
 Earth -120324-01-11 18:29 J -42226906.89 -42226906.73 -42226906.55 0.0089 0.0067 *
 Venus -120324-03-14 01:41 J -42226845.65 -42226845.43 -42226845.20 0.0089 0.0011
 Venus -120324-10-25 15:37 J -42226620.07 -42226619.85 -42226619.62 0.0089 0.0004
 Mars -120324-12-17 20:53 J -42226566.79 -42226566.63 -42226566.42 0.0089 0.0072
 Venus -120323-06-08 05:17 J -42226394.50 -42226394.28 -42226394.05 0.0089 0.0004
 Venus -120322-01-19 18:58 J -42226168.93 -42226168.71 -42226168.48 0.0089 0.0010
 Venus -120322-09-02 08:25 J -42225943.36 -42225943.15 -42225942.92 0.0089 0.0017
 Mars -120322-11-12 21:08 J -42225871.73 -42225871.62 -42225871.49 0.0089 0.0082

Venus -120321-04-14 22:05 J -42225717.79 -42225717.58 -42225717.36 0.0089 0.0023

Venus -120321-11-26 11:32 J -42225492.22 -42225492.02 -42225491.79 0.0089 0.0030

Venus -120320-07-10 01:13 J -42225266.65 -42225266.45 -42225266.24 0.0089 0.0036

Venus -120319-02-20 14:25 J -42225041.08 -42225040.90 -42225040.69 0.0088 0.0043

Venus -120319-10-04 04:20 J -42224815.50 -42224815.32 -42224815.13 0.0088 0.0049

Venus -120318-05-17 17:17 J -42224589.93 -42224589.78 -42224589.58 0.0088 0.0056

Venus -120318-12-29 06:58 J -42224364.36 -42224364.21 -42224364.04 0.0088 0.0062

Venus -120317-08-10 20:25 J -42224138.78 -42224138.65 -42224138.50 0.0088 0.0068

Venus -120316-03-24 09:22 J -42223913.21 -42223913.11 -42223912.97 0.0088 0.0075

Venus -120316-11-04 22:49 J -42223687.62 -42223687.55 -42223687.44 0.0088 0.0081

Venus -120315-06-18 12:01 J -42223462.02 -42223462.00 -42223461.94 0.0088 0.0087

Mercury -120305-07-19 22:49 J -42219777.56 -42219777.55 -42219777.53 0.0088 0.0088

Mercury -120305-10-16 00:15 J -42219689.53 -42219689.49 -42219689.44 0.0088 0.0083

Mercury -120304-01-12 01:41 J -42219601.48 -42219601.43 -42219601.36 0.0088 0.0079

Mercury -120304-04-10 03:22 J -42219513.43 -42219513.36 -42219513.29 0.0088 0.0075

Mercury -120304-07-07 04:49 J -42219425.38 -42219425.30 -42219425.21 0.0088 0.0070

Mercury -120304-10-03 06:15 J -42219337.32 -42219337.24 -42219337.14 0.0088 0.0066

Mercury -120304-12-30 07:41 J -42219249.27 -42219249.18 -42219249.07 0.0088 0.0062

Mercury -120303-03-28 09:22 J -42219161.21 -42219161.11 -42219161.01 0.0088 0.0058

Mercury -120303-06-24 10:34 J -42219073.16 -42219073.06 -42219072.94 0.0088 0.0054

Mercury -120303-09-20 12:01 J -42218985.10 -42218985.00 -42218984.87 0.0088 0.0050

Mercury -120303-12-17 13:41 J -42218897.05 -42218896.93 -42218896.81 0.0088 0.0045

Mercury -120302-03-15 15:08 J -42218808.99 -42218808.87 -42218808.74 0.0088 0.0041

Mercury -120302-06-11 16:34 J -42218720.93 -42218720.81 -42218720.68 0.0088 0.0036

Mercury -120302-09-07 18:01 J -42218632.87 -42218632.75 -42218632.62 0.0088 0.0032

Mercury -120302-12-04 19:27 J -42218544.82 -42218544.69 -42218544.56 0.0088 0.0028

Mercury -120301-03-01 20:53 J -42218456.76 -42218456.63 -42218456.49 0.0088 0.0024

Mercury -120301-05-28 22:20 J -42218368.70 -42218368.57 -42218368.43 0.0088 0.0019

Mercury -120301-08-24 23:46 J -42218280.64 -42218280.51 -42218280.37 0.0088 0.0015

Mercury -120301-11-21 01:13 J -42218192.58 -42218192.45 -42218192.31 0.0088 0.0011

Mercury -120300-02-17 02:39 J -42218104.52 -42218104.39 -42218104.25 0.0088 0.0007
 Mercury -120300-05-16 04:05 J -42218016.47 -42218016.33 -42218016.19 0.0088 0.0003
 Mercury -120300-08-12 05:32 J -42217928.41 -42217928.27 -42217928.13 0.0088 0.0002
 Mercury -120300-11-08 06:58 J -42217840.35 -42217840.21 -42217840.08 0.0088 0.0006
 Mercury -120299-02-04 08:25 J -42217752.29 -42217752.15 -42217752.02 0.0088 0.0010
 Mercury -120299-05-03 09:37 J -42217664.23 -42217664.10 -42217663.96 0.0088 0.0015
 Mercury -120299-07-30 11:03 J -42217576.17 -42217576.04 -42217575.90 0.0088 0.0019
 Mercury -120299-10-26 12:29 J -42217488.11 -42217487.98 -42217487.85 0.0088 0.0023
 Mercury -120298-01-22 13:56 J -42217400.05 -42217399.92 -42217399.79 0.0088 0.0027
 Mercury -120298-04-20 15:08 J -42217311.99 -42217311.87 -42217311.74 0.0088 0.0031
 Mercury -120298-07-17 16:34 J -42217223.93 -42217223.81 -42217223.68 0.0088 0.0035
 Mercury -120298-10-13 18:01 J -42217135.87 -42217135.75 -42217135.63 0.0088 0.0039
 Mercury -120297-01-09 19:13 J -42217047.81 -42217047.70 -42217047.57 0.0088 0.0044
 Mercury -120297-04-06 20:39 J -42216959.74 -42216959.64 -42216959.52 0.0088 0.0048
 Mercury -120297-07-03 22:05 J -42216871.68 -42216871.58 -42216871.46 0.0088 0.0052
 Mercury -120297-09-29 23:32 J -42216783.62 -42216783.52 -42216783.41 0.0088 0.0055
 Mercury -120297-12-27 00:58 J -42216695.56 -42216695.46 -42216695.36 0.0088 0.0059
 Mercury -120296-03-25 02:10 J -42216607.49 -42216607.41 -42216607.31 0.0088 0.0064
 Mercury -120296-06-21 03:37 J -42216519.43 -42216519.35 -42216519.26 0.0088 0.0068
 Mercury -120296-09-17 05:03 J -42216431.36 -42216431.29 -42216431.21 0.0088 0.0072
 Mercury -120296-12-14 06:29 J -42216343.30 -42216343.23 -42216343.17 0.0088 0.0076
 Mercury -120295-03-12 07:27 J -42216255.23 -42216255.19 -42216255.12 0.0088 0.0080
 Mercury -120295-06-08 09:08 J -42216167.16 -42216167.12 -42216167.08 0.0088 0.0084
 Mercury -120295-09-04 10:20 J -42216079.07 -42216079.07 -42216079.05 0.0088 0.0088
 Mars -120268-03-11 03:51 J -42206394.38 -42206394.34 -42206394.26 0.0088 0.0087
 Mars -120266-02-04 18:15 J -42205698.87 -42205698.74 -42205698.54 0.0088 0.0077
 Mars -120265-12-31 08:25 J -42205003.34 -42205003.15 -42205002.90 0.0088 0.0066
 Mars -120263-11-26 20:39 J -42204307.87 -42204307.64 -42204307.35 0.0088 0.0055
 Mars -120261-10-22 07:27 J -42203612.46 -42203612.19 -42203611.89 0.0088 0.0044
 Mars -120259-09-17 16:49 J -42202917.08 -42202916.80 -42202916.48 0.0088 0.0032

Mars	-120257-08-13 01:27 J	-42202221.74	-42202221.44	-42202221.11	0.0088	0.0021
Mars	-120255-07-09 07:56 J	-42201526.49	-42201526.17	-42201525.85	0.0089	0.0009
Mars	-120253-06-03 13:13 J	-42200831.27	-42200830.95	-42200830.63	0.0089	0.0003
Mars	-120251-04-29 17:17 J	-42200136.10	-42200135.78	-42200135.46	0.0089	0.0014
Mars	-120249-03-24 19:27 J	-42199440.99	-42199440.69	-42199440.38	0.0089	0.0025
Venus	-120249-07-09 02:53 J	-42199334.42	-42199334.38	-42199334.28	0.0089	0.0084
Venus	-120248-02-19 14:39 J	-42199108.96	-42199108.89	-42199108.76	0.0089	0.0078
Venus	-120248-10-03 02:39 J	-42198883.50	-42198883.39	-42198883.24	0.0089	0.0072
Mars	-120247-02-17 19:27 J	-42198745.97	-42198745.69	-42198745.39	0.0089	0.0036
Venus	-120247-05-16 15:08 J	-42198658.02	-42198657.87	-42198657.73	0.0089	0.0065
Earth	-120247-06-22 09:22 J	-42198621.20	-42198621.11	-42198620.96	0.0089	0.0078
Moon	-120247-06-22 12:29 J	-42198621.11	-42198620.98	-42198620.85	0.0089	0.0076 *
Venus	-120247-12-28 02:53 J	-42198432.54	-42198432.38	-42198432.22	0.0089	0.0059
Moon	-120246-06-24 18:15 J	-42198253.93	-42198253.74	-42198253.53	0.0089	0.0052
Earth	-120246-06-24 19:41 J	-42198253.87	-42198253.68	-42198253.45	0.0089	0.0051 *
Venus	-120246-08-10 14:39 J	-42198207.06	-42198206.89	-42198206.71	0.0089	0.0053
Mars	-120245-01-13 18:15 J	-42198050.98	-42198050.74	-42198050.45	0.0089	0.0047
Venus	-120245-03-23 02:25 J	-42197981.57	-42197981.40	-42197981.20	0.0089	0.0047
Earth	-120245-06-26 06:01 J	-42197886.48	-42197886.25	-42197885.99	0.0089	0.0024
Moon	-120245-06-26 06:15 J	-42197886.48	-42197886.24	-42197885.97	0.0089	0.0022 *
Venus	-120245-11-03 14:25 J	-42197756.08	-42197755.90	-42197755.70	0.0089	0.0041
Venus	-120244-06-17 02:39 J	-42197530.59	-42197530.39	-42197530.19	0.0089	0.0034
Earth	-120244-06-28 17:03 J	-42197519.05	-42197518.79	-42197518.54	0.0089	0.0004
Moon	-120244-06-28 17:46 J	-42197519.01	-42197518.76	-42197518.52	0.0089	0.0003 *
Mars	-120244-12-08 16:05 J	-42197356.06	-42197355.83	-42197355.58	0.0089	0.0057
Venus	-120243-01-28 14:39 J	-42197305.09	-42197304.89	-42197304.68	0.0089	0.0028
Moon	-120243-07-01 01:41 J	-42197151.66	-42197151.43	-42197151.17	0.0089	0.0033
Earth	-120243-07-01 03:37 J	-42197151.58	-42197151.35	-42197151.10	0.0089	0.0032 *
Venus	-120243-09-11 02:39 J	-42197079.59	-42197079.39	-42197079.17	0.0089	0.0022
Venus	-120242-04-24 15:08 J	-42196854.08	-42196853.87	-42196853.66	0.0089	0.0015

Earth -120242-07-03 13:56 J -42196784.08 -42196783.92 -42196783.70 0.0089 0.0060
 Moon -120242-07-03 17:17 J -42196783.96 -42196783.78 -42196783.58 0.0089 0.0058 *
 Mars -120242-11-03 11:17 J -42196661.21 -42196661.03 -42196660.81 0.0089 0.0067
 Venus -120242-12-06 03:22 J -42196628.58 -42196628.36 -42196628.15 0.0089 0.0009
 Moon -120241-07-04 22:05 J -42196416.59 -42196416.58 -42196416.51 0.0089 0.0088
 Earth -120241-07-05 01:27 J -42196416.46 -42196416.44 -42196416.37 0.0089 0.0087
 Venus -120241-07-18 15:37 J -42196403.07 -42196402.85 -42196402.64 0.0089 0.0003
 Venus -120240-03-01 03:37 J -42196177.56 -42196177.35 -42196177.13 0.0089 0.0004
 Mars -120240-09-28 05:32 J -42195966.39 -42195966.27 -42195966.08 0.0089 0.0077
 Venus -120240-10-12 15:51 J -42195952.05 -42195951.84 -42195951.62 0.0089 0.0011
 Venus -120239-05-26 04:20 J -42195726.53 -42195726.32 -42195726.10 0.0089 0.0017
 Venus -120238-01-06 16:34 J -42195501.01 -42195500.81 -42195500.59 0.0089 0.0024
 Venus -120238-08-20 05:03 J -42195275.49 -42195275.29 -42195275.08 0.0089 0.0030
 Mars -120238-08-23 22:34 J -42195271.61 -42195271.56 -42195271.44 0.0089 0.0086
 Venus -120237-04-01 17:32 J -42195049.96 -42195049.77 -42195049.57 0.0089 0.0036
 Venus -120237-11-13 05:46 J -42194824.44 -42194824.26 -42194824.06 0.0089 0.0043
 Venus -120236-06-26 18:15 J -42194598.91 -42194598.74 -42194598.55 0.0089 0.0049
 Venus -120235-02-07 06:29 J -42194373.38 -42194373.23 -42194373.04 0.0089 0.0056
 Venus -120235-09-20 19:13 J -42194147.84 -42194147.70 -42194147.53 0.0089 0.0062
 Venus -120234-05-04 08:10 J -42193922.29 -42193922.16 -42193922.02 0.0089 0.0068
 Venus -120234-12-15 20:25 J -42193696.75 -42193696.65 -42193696.51 0.0089 0.0075
 Venus -120233-07-28 09:08 J -42193471.19 -42193471.12 -42193471.02 0.0089 0.0081
 Venus -120232-03-10 21:51 J -42193245.62 -42193245.59 -42193245.54 0.0089 0.0087
 Mercury -120221-06-19 18:15 J -42189126.76 -42189126.74 -42189126.68 0.0089 0.0087
 Mercury -120221-09-15 21:37 J -42189038.65 -42189038.60 -42189038.50 0.0089 0.0081
 Mercury -120221-12-13 01:13 J -42188950.54 -42188950.45 -42188950.35 0.0089 0.0075
 Mercury -120220-03-11 04:34 J -42188862.42 -42188862.31 -42188862.19 0.0089 0.0069
 Mercury -120220-06-07 07:27 J -42188774.30 -42188774.19 -42188774.04 0.0089 0.0065
 Mercury -120220-09-03 11:03 J -42188686.17 -42188686.04 -42188685.89 0.0089 0.0058
 Mercury -120220-11-30 14:25 J -42188598.04 -42188597.90 -42188597.74 0.0089 0.0052

Mercury -120219-02-26 17:46 J -42188509.91 -42188509.76 -42188509.59 0.0089 0.0047

Mercury -120219-05-25 21:22 J -42188421.78 -42188421.61 -42188421.45 0.0089 0.0041

Mercury -120219-08-22 00:29 J -42188333.64 -42188333.48 -42188333.30 0.0089 0.0035

Mercury -120219-11-18 03:51 J -42188245.51 -42188245.34 -42188245.15 0.0089 0.0029

Mercury -120218-02-14 07:13 J -42188157.37 -42188157.20 -42188157.01 0.0089 0.0023

Mercury -120218-05-13 10:49 J -42188069.23 -42188069.05 -42188068.86 0.0089 0.0017

Mercury -120218-08-09 14:10 J -42187981.09 -42187980.91 -42187980.72 0.0089 0.0011

Mercury -120218-11-05 17:32 J -42187892.95 -42187892.77 -42187892.58 0.0089 0.0005

Mercury -120217-02-01 21:08 J -42187804.81 -42187804.62 -42187804.43 0.0089 0.0002

Mercury -120217-04-30 00:29 J -42187716.67 -42187716.48 -42187716.29 0.0089 0.0007

Mercury -120217-07-27 03:51 J -42187628.52 -42187628.34 -42187628.15 0.0089 0.0013

Mercury -120217-10-23 07:13 J -42187540.38 -42187540.20 -42187540.01 0.0089 0.0019

Mercury -120216-01-19 10:34 J -42187452.23 -42187452.06 -42187451.87 0.0089 0.0025

Mercury -120216-04-17 14:10 J -42187364.08 -42187363.91 -42187363.73 0.0089 0.0031

Mercury -120216-07-14 17:32 J -42187275.93 -42187275.77 -42187275.59 0.0089 0.0037

Mercury -120216-10-10 21:08 J -42187187.78 -42187187.62 -42187187.45 0.0089 0.0043

Mercury -120215-01-07 00:29 J -42187099.62 -42187099.48 -42187099.31 0.0089 0.0049

Mercury -120215-04-05 04:05 J -42187011.47 -42187011.33 -42187011.17 0.0089 0.0055

Mercury -120215-07-02 07:41 J -42186923.31 -42186923.18 -42186923.04 0.0089 0.0061

Mercury -120215-09-28 11:03 J -42186835.15 -42186835.04 -42186834.90 0.0089 0.0067

Mercury -120215-12-25 14:39 J -42186746.99 -42186746.89 -42186746.77 0.0089 0.0073

Mercury -120214-03-23 18:15 J -42186658.82 -42186658.74 -42186658.65 0.0089 0.0079

Mercury -120214-06-19 21:51 J -42186570.63 -42186570.59 -42186570.53 0.0089 0.0086

Mars -120188-01-22 19:27 J -42177221.75 -42177221.69 -42177221.58 0.0089 0.0085

Mars -120187-12-18 00:29 J -42176527.63 -42176527.48 -42176527.33 0.0089 0.0077

Mars -120185-11-11 05:46 J -42175833.45 -42175833.26 -42175833.06 0.0089 0.0067

Mars -120183-10-06 12:44 J -42175139.19 -42175138.97 -42175138.73 0.0089 0.0058

Mars -120181-08-30 19:27 J -42174444.93 -42174444.69 -42174444.42 0.0089 0.0048

Mars -120179-07-26 03:08 J -42173750.64 -42173750.37 -42173750.09 0.0089 0.0038

Mars -120177-06-19 12:29 J -42173056.26 -42173055.98 -42173055.68 0.0089 0.0028

Mars -120175-05-14 23:17 J -42172361.82 -42172361.53 -42172361.22 0.0089 0.0017
 Mars -120173-04-08 10:05 J -42171667.37 -42171667.08 -42171666.76 0.0089 0.0007
 Mars -120171-03-03 23:32 J -42170972.82 -42170972.52 -42170972.21 0.0089 0.0004
 Mars -120169-01-27 14:25 J -42170278.20 -42170277.90 -42170277.59 0.0089 0.0015
 Mars -120168-12-22 05:46 J -42169583.55 -42169583.26 -42169582.96 0.0089 0.0026
 Venus -120167-08-30 00:58 J -42169332.52 -42169332.46 -42169332.36 0.0089 0.0083
 Venus -120166-04-12 15:22 J -42169106.96 -42169106.86 -42169106.73 0.0089 0.0076
 Mars -120166-11-16 22:34 J -42168888.84 -42168888.56 -42168888.27 0.0089 0.0037
 Venus -120166-11-24 05:17 J -42168881.39 -42168881.28 -42168881.11 0.0089 0.0070
 Moon -120166-12-31 10:05 J -42168844.13 -42168844.08 -42168843.98 0.0089 0.0085
 Earth -120166-12-31 13:56 J -42168844.00 -42168843.92 -42168843.84 0.0089 0.0084 *
 Venus -120165-07-06 19:41 J -42168655.82 -42168655.68 -42168655.51 0.0089 0.0063
 Earth -120164-01-02 02:39 J -42168476.58 -42168476.39 -42168476.18 0.0089 0.0056
 Moon -120164-01-02 05:46 J -42168476.44 -42168476.26 -42168476.03 0.0089 0.0055 *
 Venus -120164-02-17 09:37 J -42168430.25 -42168430.10 -42168429.90 0.0089 0.0057
 Venus -120164-10-01 00:01 J -42168204.67 -42168204.50 -42168204.30 0.0089 0.0050
 Mars -120164-10-11 17:03 J -42168194.03 -42168193.79 -42168193.50 0.0089 0.0048
 Moon -120163-01-04 11:46 J -42168109.25 -42168109.01 -42168108.76 0.0089 0.0029
 Earth -120163-01-04 15:22 J -42168109.10 -42168108.86 -42168108.60 0.0089 0.0028 *
 Venus -120163-05-14 14:25 J -42167979.09 -42167978.90 -42167978.70 0.0089 0.0043
 Venus -120163-12-26 04:05 J -42167753.52 -42167753.33 -42167753.10 0.0089 0.0037
 Earth -120162-01-07 04:05 J -42167741.58 -42167741.33 -42167741.06 0.0089 0.0002
 Moon -120162-01-07 07:27 J -42167741.45 -42167741.19 -42167740.93 0.0089 0.0002 *
 Venus -120162-08-08 18:15 J -42167527.94 -42167527.74 -42167527.52 0.0089 0.0030
 Mars -120162-09-06 12:44 J -42167499.18 -42167498.97 -42167498.70 0.0089 0.0059
 Moon -120161-01-09 13:41 J -42167374.16 -42167373.93 -42167373.68 0.0089 0.0026
 Earth -120161-01-09 16:49 J -42167374.05 -42167373.80 -42167373.55 0.0089 0.0028 *
 Venus -120161-03-21 08:25 J -42167302.37 -42167302.15 -42167301.93 0.0089 0.0023
 Venus -120161-11-01 22:20 J -42167076.79 -42167076.57 -42167076.34 0.0089 0.0016
 Earth -120160-01-11 04:34 J -42167006.50 -42167006.31 -42167006.10 0.0089 0.0056

Moon -120160-01-11 06:01 J -42167006.44 -42167006.25 -42167006.03 0.0089 0.0058 *
 Venus -120160-06-15 12:15 J -42166851.21 -42166850.99 -42166850.76 0.0089 0.0010
 Mars -120160-08-01 09:51 J -42166804.26 -42166804.09 -42166803.86 0.0089 0.0069
 Moon -120159-01-13 15:22 J -42166638.93 -42166638.86 -42166638.74 0.0089 0.0082
 Earth -120159-01-13 16:05 J -42166638.89 -42166638.83 -42166638.72 0.0089 0.0084 *
 Venus -120159-01-27 01:56 J -42166625.64 -42166625.42 -42166625.19 0.0089 0.0004
 Venus -120159-09-09 15:51 J -42166400.07 -42166399.84 -42166399.62 0.0089 0.0004
 Venus -120158-04-23 05:17 J -42166174.49 -42166174.28 -42166174.05 0.0089 0.0011
 Mars -120158-06-27 09:08 J -42166109.23 -42166109.12 -42166108.93 0.0089 0.0079
 Venus -120158-12-04 19:13 J -42165948.92 -42165948.70 -42165948.48 0.0089 0.0017
 Venus -120157-07-17 08:25 J -42165723.35 -42165723.15 -42165722.92 0.0089 0.0024
 Venus -120156-02-27 22:05 J -42165497.78 -42165497.58 -42165497.36 0.0089 0.0030
 Mars -120156-05-22 10:05 J -42165414.10 -42165414.08 -42165414.03 0.0089 0.0088
 Venus -120156-10-11 11:32 J -42165272.21 -42165272.02 -42165271.80 0.0089 0.0037
 Venus -120155-05-25 01:27 J -42165046.63 -42165046.44 -42165046.24 0.0089 0.0043
 Venus -120154-01-05 14:39 J -42164821.06 -42164820.89 -42164820.69 0.0089 0.0050
 Venus -120154-08-19 04:05 J -42164595.49 -42164595.33 -42164595.15 0.0088 0.0056
 Venus -120153-03-31 17:17 J -42164369.92 -42164369.78 -42164369.60 0.0088 0.0063
 Venus -120153-11-12 06:44 J -42164144.34 -42164144.22 -42164144.06 0.0088 0.0069
 Venus -120152-06-25 20:25 J -42163918.76 -42163918.65 -42163918.52 0.0088 0.0075
 Venus -120151-02-06 09:37 J -42163693.17 -42163693.10 -42163693.00 0.0088 0.0081
 Venus -120151-09-19 23:03 J -42163467.57 -42163467.54 -42163467.50 0.0088 0.0087
 Mercury -120140-04-15 22:20 J -42159606.59 -42159606.57 -42159606.52 0.0088 0.0086
 Mercury -120140-07-13 00:15 J -42159518.54 -42159518.49 -42159518.44 0.0088 0.0081
 Mercury -120140-10-09 01:27 J -42159430.49 -42159430.44 -42159430.36 0.0088 0.0077
 Mercury -120139-01-05 02:53 J -42159342.44 -42159342.38 -42159342.29 0.0088 0.0073
 Mercury -120139-04-03 04:20 J -42159254.39 -42159254.32 -42159254.22 0.0088 0.0069
 Mercury -120139-06-30 06:01 J -42159166.34 -42159166.25 -42159166.15 0.0088 0.0064
 Mercury -120139-09-26 07:27 J -42159078.28 -42159078.19 -42159078.08 0.0088 0.0060
 Mercury -120139-12-23 08:53 J -42158990.23 -42158990.13 -42158990.01 0.0088 0.0055

Mercury -120138-03-21 10:34 J -42158902.17 -42158902.06 -42158901.94 0.0088 0.0051

Mercury -120138-06-17 12:01 J -42158814.11 -42158814.00 -42158813.88 0.0088 0.0046

Mercury -120138-09-13 13:27 J -42158726.05 -42158725.94 -42158725.81 0.0088 0.0042

Mercury -120138-12-10 14:53 J -42158638.00 -42158637.88 -42158637.75 0.0088 0.0038

Mercury -120137-03-07 16:34 J -42158549.94 -42158549.81 -42158549.69 0.0088 0.0034

Mercury -120137-06-03 17:46 J -42158461.88 -42158461.76 -42158461.62 0.0088 0.0030

Mercury -120137-08-30 19:13 J -42158373.82 -42158373.70 -42158373.56 0.0088 0.0026

Mercury -120137-11-26 20:39 J -42158285.77 -42158285.64 -42158285.50 0.0088 0.0021

Mercury -120136-02-22 22:20 J -42158197.71 -42158197.57 -42158197.44 0.0088 0.0017

Mercury -120136-05-21 23:46 J -42158109.65 -42158109.51 -42158109.38 0.0088 0.0013

Mercury -120136-08-18 01:13 J -42158021.59 -42158021.45 -42158021.32 0.0088 0.0008

Mercury -120136-11-14 02:39 J -42157933.53 -42157933.39 -42157933.26 0.0088 0.0004

Mercury -120135-02-10 04:05 J -42157845.47 -42157845.33 -42157845.20 0.0088 0.0003

Mercury -120135-05-09 05:17 J -42157757.41 -42157757.28 -42157757.14 0.0088 0.0005

Mercury -120135-08-05 06:44 J -42157669.35 -42157669.22 -42157669.08 0.0088 0.0009

Mercury -120135-11-01 08:10 J -42157581.29 -42157581.16 -42157581.02 0.0088 0.0013

Mercury -120134-01-28 09:37 J -42157493.23 -42157493.10 -42157492.97 0.0088 0.0017

Mercury -120134-04-26 11:03 J -42157405.17 -42157405.04 -42157404.91 0.0088 0.0021

Mercury -120134-07-23 12:15 J -42157317.11 -42157316.99 -42157316.85 0.0088 0.0026

Mercury -120134-10-19 13:41 J -42157229.05 -42157228.93 -42157228.80 0.0088 0.0030

Mercury -120133-01-15 15:08 J -42157140.99 -42157140.87 -42157140.74 0.0088 0.0034

Mercury -120133-04-12 16:34 J -42157052.93 -42157052.81 -42157052.69 0.0088 0.0038

Mercury -120133-07-09 18:01 J -42156964.87 -42156964.75 -42156964.63 0.0088 0.0042

Mercury -120133-10-05 19:13 J -42156876.81 -42156876.70 -42156876.58 0.0088 0.0046

Mercury -120132-01-01 20:25 J -42156788.75 -42156788.65 -42156788.53 0.0088 0.0051

Mercury -120132-03-30 21:51 J -42156700.68 -42156700.59 -42156700.47 0.0088 0.0054

Mercury -120132-06-26 23:17 J -42156612.62 -42156612.53 -42156612.42 0.0088 0.0058

Mercury -120132-09-23 00:44 J -42156524.56 -42156524.47 -42156524.37 0.0088 0.0062

Mercury -120132-12-20 01:56 J -42156436.50 -42156436.42 -42156436.32 0.0088 0.0067

Mercury -120131-03-18 03:22 J -42156348.43 -42156348.36 -42156348.27 0.0088 0.0070

Mercury -120131-06-14 04:49 J -42156260.36 -42156260.30 -42156260.22 0.0088 0.0074
 Mercury -120131-09-10 06:01 J -42156172.30 -42156172.25 -42156172.18 0.0088 0.0079
 Mercury -120131-12-07 07:27 J -42156084.23 -42156084.19 -42156084.13 0.0088 0.0082
 Mercury -120130-03-05 08:53 J -42155996.15 -42155996.13 -42155996.10 0.0088 0.0086
 Mars -120105-10-23 04:20 J -42146632.37 -42146632.32 -42146632.19 0.0088 0.0086
 Mars -120103-09-18 19:56 J -42145936.80 -42145936.67 -42145936.45 0.0088 0.0076
 Mars -120101-08-14 10:34 J -42145241.26 -42145241.06 -42145240.81 0.0088 0.0065
 Mars -120099-07-11 00:15 J -42144545.74 -42144545.49 -42144545.22 0.0088 0.0054
 Mars -120097-06-05 12:29 J -42143850.27 -42143849.98 -42143849.69 0.0088 0.0043
 Mars -120095-05-01 22:34 J -42143154.86 -42143154.56 -42143154.25 0.0088 0.0032
 Mars -120093-03-27 07:41 J -42142459.50 -42142459.18 -42142458.87 0.0088 0.0021
 Mars -120091-02-20 15:51 J -42141764.15 -42141763.84 -42141763.51 0.0089 0.0010
 Mars -120089-01-16 22:20 J -42141068.89 -42141068.57 -42141068.25 0.0089 0.0002
 Mars -120088-12-12 02:53 J -42140373.69 -42140373.38 -42140373.05 0.0089 0.0013
 Mars -120086-11-07 06:29 J -42139678.52 -42139678.23 -42139677.91 0.0089 0.0024
 Venus -120085-02-28 03:51 J -42139565.34 -42139565.34 -42139565.30 0.0089 0.0088
 Venus -120085-10-10 15:22 J -42139339.91 -42139339.86 -42139339.76 0.0089 0.0083
 Venus -120084-05-24 03:22 J -42139114.45 -42139114.36 -42139114.23 0.0089 0.0077
 Mars -120084-10-02 07:56 J -42138983.44 -42138983.17 -42138982.85 0.0089 0.0035
 Venus -120083-01-04 15:08 J -42138888.98 -42138888.87 -42138888.72 0.0089 0.0071
 Moon -120083-06-22 00:29 J -42138720.53 -42138720.48 -42138720.38 0.0089 0.0085
 Venus -120083-08-18 02:53 J -42138663.50 -42138663.38 -42138663.21 0.0089 0.0065
 Venus -120082-03-31 15:22 J -42138438.02 -42138437.86 -42138437.70 0.0089 0.0058
 Moon -120082-06-24 04:20 J -42138353.47 -42138353.32 -42138353.13 0.0089 0.0066
 Earth -120082-06-24 06:58 J -42138353.37 -42138353.21 -42138353.01 0.0089 0.0062 *
 Mars -120082-08-28 07:41 J -42138288.43 -42138288.18 -42138287.88 0.0089 0.0045
 Venus -120082-11-12 03:08 J -42138212.53 -42138212.37 -42138212.19 0.0089 0.0052
 Venus -120081-06-24 14:53 J -42137987.05 -42137986.88 -42137986.69 0.0089 0.0046
 Earth -120081-06-25 17:17 J -42137986.00 -42137985.78 -42137985.53 0.0089 0.0035
 Moon -120081-06-25 19:41 J -42137985.91 -42137985.68 -42137985.42 0.0089 0.0032 *

Venus -120080-02-05 02:53 J -42137761.56 -42137761.38 -42137761.18 0.0089 0.0040
 Moon -120080-06-28 02:53 J -42137618.62 -42137618.38 -42137618.13 0.0089 0.0011
 Earth -120080-06-28 04:05 J -42137618.58 -42137618.33 -42137618.07 0.0089 0.0007 *
 Mars -120080-07-23 06:15 J -42137593.46 -42137593.24 -42137592.96 0.0089 0.0055
 Venus -120080-09-18 14:53 J -42137536.07 -42137535.88 -42137535.67 0.0089 0.0034
 Venus -120079-05-02 02:53 J -42137310.57 -42137310.38 -42137310.16 0.0089 0.0028
 Moon -120079-06-30 13:56 J -42137251.17 -42137250.92 -42137250.66 0.0089 0.0024
 Earth -120079-06-30 14:10 J -42137251.15 -42137250.91 -42137250.65 0.0089 0.0021 *
 Venus -120079-12-13 15:08 J -42137085.07 -42137084.87 -42137084.66 0.0089 0.0021
 Mars -120078-06-18 03:51 J -42136898.52 -42136898.34 -42136898.09 0.0089 0.0065
 Earth -120078-07-03 01:13 J -42136883.66 -42136883.45 -42136883.23 0.0089 0.0048
 Moon -120078-07-03 01:41 J -42136883.62 -42136883.43 -42136883.20 0.0089 0.0046 *
 Venus -120078-07-27 03:08 J -42136859.57 -42136859.37 -42136859.15 0.0089 0.0015
 Venus -120077-03-08 15:22 J -42136634.07 -42136633.86 -42136633.64 0.0089 0.0008
 Moon -120077-07-04 09:37 J -42136516.21 -42136516.10 -42136515.97 0.0089 0.0079
 Earth -120077-07-04 11:46 J -42136516.12 -42136516.01 -42136515.86 0.0089 0.0076 *
 Venus -120077-10-20 03:37 J -42136408.57 -42136408.35 -42136408.13 0.0089 0.0002
 Mars -120076-05-12 23:32 J -42136203.66 -42136203.52 -42136203.31 0.0089 0.0074
 Venus -120076-06-02 15:51 J -42136183.05 -42136182.84 -42136182.62 0.0089 0.0005
 Venus -120075-01-14 04:05 J -42135957.54 -42135957.33 -42135957.11 0.0089 0.0011
 Venus -120075-08-27 16:20 J -42135732.02 -42135731.82 -42135731.60 0.0089 0.0018
 Mars -120074-04-07 18:15 J -42135508.81 -42135508.74 -42135508.59 0.0089 0.0083
 Venus -120074-04-10 04:49 J -42135506.50 -42135506.30 -42135506.09 0.0089 0.0024
 Venus -120074-11-21 17:17 J -42135280.98 -42135280.78 -42135280.58 0.0089 0.0030
 Venus -120073-07-04 05:17 J -42135055.46 -42135055.28 -42135055.07 0.0089 0.0037
 Venus -120072-02-14 18:01 J -42134829.93 -42134829.75 -42134829.56 0.0089 0.0043
 Venus -120072-09-28 06:15 J -42134604.41 -42134604.24 -42134604.05 0.0089 0.0050
 Venus -120071-05-11 18:58 J -42134378.87 -42134378.71 -42134378.53 0.0089 0.0056
 Venus -120071-12-23 07:41 J -42134153.33 -42134153.18 -42134153.02 0.0089 0.0062
 Venus -120070-08-05 19:41 J -42133927.79 -42133927.68 -42133927.52 0.0089 0.0069

Venus -120069-03-18 08:25 J -42133702.25 -42133702.15 -42133702.01 0.0089 0.0075

Venus -120069-10-29 21:08 J -42133476.69 -42133476.62 -42133476.52 0.0089 0.0081

Venus -120068-06-12 10:05 J -42133251.11 -42133251.08 -42133251.03 0.0089 0.0087

Mercury -120057-12-18 14:25 J -42129043.90 -42129043.90 -42129043.88 0.0089 0.0089

Mercury -120056-03-16 17:32 J -42128955.82 -42128955.77 -42128955.69 0.0089 0.0083

Mercury -120056-06-12 20:53 J -42128867.71 -42128867.63 -42128867.53 0.0089 0.0078

Mercury -120056-09-09 00:01 J -42128779.59 -42128779.50 -42128779.38 0.0089 0.0072

Mercury -120056-12-06 03:22 J -42128691.47 -42128691.36 -42128691.22 0.0089 0.0066

Mercury -120055-03-04 06:44 J -42128603.35 -42128603.22 -42128603.07 0.0089 0.0060

Mercury -120055-05-31 10:20 J -42128515.22 -42128515.07 -42128514.93 0.0089 0.0055

Mercury -120055-08-27 13:13 J -42128427.09 -42128426.95 -42128426.78 0.0089 0.0049

Mercury -120055-11-23 16:34 J -42128338.96 -42128338.81 -42128338.63 0.0089 0.0043

Mercury -120054-02-19 20:10 J -42128250.83 -42128250.66 -42128250.49 0.0089 0.0037

Mercury -120054-05-18 23:32 J -42128162.69 -42128162.52 -42128162.34 0.0089 0.0031

Mercury -120054-08-15 02:53 J -42128074.56 -42128074.38 -42128074.20 0.0089 0.0025

Mercury -120054-11-11 06:01 J -42127986.42 -42127986.25 -42127986.05 0.0089 0.0021

Mercury -120053-02-07 09:37 J -42127898.28 -42127898.10 -42127897.91 0.0089 0.0014

Mercury -120053-05-05 12:58 J -42127810.14 -42127809.96 -42127809.77 0.0089 0.0008

Mercury -120053-08-01 16:34 J -42127722.00 -42127721.81 -42127721.62 0.0089 0.0002

Mercury -120053-10-28 19:56 J -42127633.86 -42127633.67 -42127633.48 0.0089 0.0004

Mercury -120052-01-24 23:17 J -42127545.72 -42127545.53 -42127545.34 0.0089 0.0010

Mercury -120052-04-23 02:39 J -42127457.57 -42127457.39 -42127457.20 0.0089 0.0016

Mercury -120052-07-20 06:01 J -42127369.42 -42127369.25 -42127369.06 0.0089 0.0022

Mercury -120052-10-16 09:37 J -42127281.28 -42127281.10 -42127280.92 0.0089 0.0028

Mercury -120051-01-12 12:58 J -42127193.13 -42127192.96 -42127192.78 0.0089 0.0034

Mercury -120051-04-10 16:20 J -42127104.98 -42127104.82 -42127104.64 0.0089 0.0041

Mercury -120051-07-07 19:56 J -42127016.82 -42127016.67 -42127016.50 0.0089 0.0046

Mercury -120051-10-03 23:32 J -42126928.67 -42126928.52 -42126928.36 0.0089 0.0052

Mercury -120051-12-31 02:53 J -42126840.51 -42126840.38 -42126840.23 0.0089 0.0058

Mercury -120050-03-29 06:29 J -42126752.35 -42126752.23 -42126752.09 0.0089 0.0064

Mercury -120050-06-25 10:05 J -42126664.19 -42126664.08 -42126663.96 0.0089 0.0070

Mercury -120050-09-21 13:41 J -42126576.02 -42126575.93 -42126575.83 0.0089 0.0077

Mercury -120050-12-18 16:34 J -42126487.85 -42126487.81 -42126487.71 0.0089 0.0084

Mercury -120049-03-15 20:25 J -42126399.65 -42126399.65 -42126399.62 0.0089 0.0089

Mars -120025-09-07 02:25 J -42117458.48 -42117458.40 -42117458.27 0.0089 0.0083

Mars -120023-08-02 06:29 J -42116764.35 -42116764.23 -42116764.03 0.0089 0.0075

Mars -120021-06-26 11:17 J -42116070.21 -42116070.03 -42116069.80 0.0089 0.0066

Mars -120019-05-21 15:51 J -42115376.04 -42115375.84 -42115375.58 0.0089 0.0057

Mars -120017-04-14 23:17 J -42114681.78 -42114681.53 -42114681.27 0.0089 0.0047

Mars -120015-03-10 06:01 J -42113987.50 -42113987.25 -42113986.95 0.0089 0.0038

Mars -120013-02-02 14:25 J -42113293.19 -42113292.90 -42113292.61 0.0089 0.0027

Mars -120012-12-28 00:15 J -42112598.78 -42112598.49 -42112598.18 0.0089 0.0017

Mars -120010-11-22 11:46 J -42111904.31 -42111904.01 -42111903.70 0.0089 0.0007

Mars -120008-10-16 23:32 J -42111209.83 -42111209.52 -42111209.21 0.0089 0.0004

Mars -120006-09-11 12:29 J -42110515.28 -42110514.98 -42110514.67 0.0089 0.0014

Mars -120004-08-06 03:08 J -42109820.65 -42109820.37 -42109820.05 0.0089 0.0025

Venus -120003-04-19 21:22 J -42109563.62 -42109563.61 -42109563.57 0.0089 0.0088

Venus -120003-12-01 11:32 J -42109338.09 -42109338.02 -42109337.91 0.0089 0.0082

Mars -120002-07-01 18:58 J -42109125.99 -42109125.71 -42109125.42 0.0089 0.0035

Venus -120002-07-15 01:56 J -42109112.53 -42109112.42 -42109112.29 0.0089 0.0075

Venus -120001-02-25 15:51 J -42108886.96 -42108886.84 -42108886.68 0.0089 0.0069

Venus -120001-10-08 06:29 J -42108661.38 -42108661.23 -42108661.06 0.0089 0.0062

120TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 120th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-120000-01-01 12:29 J	-42108576.14	-42108575.98	-42108575.80	0.0089	0.0067		
Moon	-120000-01-01 15:22 J	-42108576.01	-42108575.86	-42108575.69	0.0089	0.0069	*	
Venus	-120000-05-21 20:25 J	-42108435.80	-42108435.65	-42108435.45	0.0089	0.0056		
Mars	-120000-05-26 11:32 J	-42108431.26	-42108431.02	-42108430.73	0.0089	0.0046		
Venus	-119999-01-02 10:49 J	-42108210.23	-42108210.05	-42108209.85	0.0089	0.0049		
Moon	-119999-01-03 22:20 J	-42108208.80	-42108208.57	-42108208.32	0.0089	0.0038		
Earth	-119999-01-04 01:27 J	-42108208.66	-42108208.44	-42108208.19	0.0089	0.0039	*	
Venus	-119999-08-16 00:58 J	-42107984.65	-42107984.46	-42107984.26	0.0089	0.0042		
Earth	-119998-01-06 14:25 J	-42107841.15	-42107840.90	-42107840.63	0.0089	0.0011		
Moon	-119998-01-06 18:01 J	-42107840.99	-42107840.75	-42107840.48	0.0089	0.0012	*	
Venus	-119998-03-29 14:53 J	-42107759.08	-42107758.88	-42107758.66	0.0089	0.0036		
Mars	-119998-04-21 06:29 J	-42107736.44	-42107736.23	-42107735.96	0.0089	0.0056		
Venus	-119998-11-10 05:03 J	-42107533.49	-42107533.29	-42107533.07	0.0089	0.0029		
Moon	-119997-01-08 23:32 J	-42107473.76	-42107473.52	-42107473.26	0.0089	0.0019		
Earth	-119997-01-09 02:53 J	-42107473.62	-42107473.38	-42107473.11	0.0089	0.0018	*	
Venus	-119997-06-22 18:58 J	-42107307.91	-42107307.71	-42107307.48	0.0089	0.0023		
Earth	-119996-01-10 15:08 J	-42107106.07	-42107105.87	-42107105.63	0.0089	0.0046		
Moon	-119996-01-10 18:44 J	-42107105.94	-42107105.72	-42107105.49	0.0089	0.0046	*	
Venus	-119996-02-03 09:08 J	-42107082.34	-42107082.12	-42107081.89	0.0089	0.0016		
Mars	-119996-03-16 03:22 J	-42107041.55	-42107041.36	-42107041.12	0.0089	0.0066		
Venus	-119996-09-16 23:03 J	-42106856.76	-42106856.54	-42106856.31	0.0089	0.0009		
Moon	-119995-01-13 00:44 J	-42106738.58	-42106738.47	-42106738.30	0.0089	0.0074		
Earth	-119995-01-13 03:08 J	-42106738.48	-42106738.37	-42106738.19	0.0089	0.0074	*	
Venus	-119995-04-30 12:58 J	-42106631.18	-42106630.96	-42106630.73	0.0089	0.0003		

Venus -119995-12-12 02:53 J -42106405.60 -42106405.38 -42106405.15 0.0089 0.0004
 Mars -119994-02-09 00:58 J -42106346.59 -42106346.46 -42106346.26 0.0089 0.0076
 Venus -119994-07-25 16:34 J -42106180.03 -42106179.81 -42106179.58 0.0089 0.0011
 Venus -119993-03-07 06:15 J -42105954.46 -42105954.24 -42105954.02 0.0089 0.0018
 Venus -119993-10-18 19:41 J -42105728.88 -42105728.68 -42105728.45 0.0089 0.0025
 Mars -119992-01-04 00:44 J -42105651.53 -42105651.47 -42105651.34 0.0089 0.0085
 Venus -119992-06-01 09:37 J -42105503.30 -42105503.10 -42105502.89 0.0089 0.0031
 Venus -119991-01-12 22:49 J -42105277.73 -42105277.55 -42105277.33 0.0089 0.0038
 Venus -119991-08-26 12:29 J -42105052.16 -42105051.98 -42105051.78 0.0089 0.0044
 Venus -119990-04-09 02:10 J -42104826.59 -42104826.41 -42104826.22 0.0089 0.0050
 Venus -119990-11-20 15:22 J -42104601.01 -42104600.86 -42104600.67 0.0089 0.0057
 Venus -119989-07-03 04:49 J -42104375.44 -42104375.30 -42104375.13 0.0089 0.0063
 Venus -119988-02-13 18:15 J -42104149.87 -42104149.74 -42104149.59 0.0089 0.0069
 Venus -119988-09-27 07:13 J -42103924.29 -42103924.20 -42103924.06 0.0088 0.0076
 Venus -119987-05-10 20:39 J -42103698.70 -42103698.64 -42103698.53 0.0088 0.0082
 Venus -119987-12-22 10:05 J -42103473.09 -42103473.08 -42103473.03 0.0088 0.0088
 Mercury -119976-10-14 20:53 J -42099523.64 -42099523.63 -42099523.60 0.0088 0.0087
 Mercury -119975-01-10 22:20 J -42099435.60 -42099435.57 -42099435.51 0.0088 0.0083
 Mercury -119975-04-08 23:46 J -42099347.56 -42099347.51 -42099347.43 0.0088 0.0079
 Mercury -119975-07-06 01:41 J -42099259.51 -42099259.43 -42099259.36 0.0088 0.0074
 Mercury -119975-10-02 02:53 J -42099171.45 -42099171.38 -42099171.29 0.0088 0.0070
 Mercury -119975-12-29 04:20 J -42099083.40 -42099083.32 -42099083.22 0.0088 0.0066
 Mercury -119974-03-27 05:46 J -42098995.35 -42098995.26 -42098995.15 0.0088 0.0061
 Mercury -119974-06-23 07:27 J -42098907.29 -42098907.19 -42098907.08 0.0088 0.0057
 Mercury -119974-09-19 08:53 J -42098819.23 -42098819.13 -42098819.01 0.0088 0.0052
 Mercury -119974-12-16 10:20 J -42098731.18 -42098731.07 -42098730.95 0.0088 0.0048
 Mercury -119973-03-13 12:01 J -42098643.12 -42098643.00 -42098642.88 0.0088 0.0044
 Mercury -119973-06-09 13:27 J -42098555.06 -42098554.94 -42098554.82 0.0088 0.0039
 Mercury -119973-09-05 14:53 J -42098467.00 -42098466.88 -42098466.75 0.0088 0.0035
 Mercury -119973-12-02 16:20 J -42098378.95 -42098378.82 -42098378.69 0.0088 0.0031

Mercury -119972-02-28 17:46 J -42098290.89 -42098290.76 -42098290.63 0.0088 0.0027

Mercury -119972-05-27 19:13 J -42098202.83 -42098202.70 -42098202.56 0.0088 0.0023

Mercury -119972-08-23 20:39 J -42098114.77 -42098114.64 -42098114.50 0.0088 0.0018

Mercury -119972-11-19 22:05 J -42098026.71 -42098026.58 -42098026.44 0.0088 0.0014

Mercury -119971-02-15 23:32 J -42097938.65 -42097938.52 -42097938.38 0.0088 0.0010

Mercury -119971-05-15 00:58 J -42097850.59 -42097850.46 -42097850.32 0.0088 0.0006

Mercury -119971-08-11 02:25 J -42097762.53 -42097762.40 -42097762.26 0.0088 0.0002

Mercury -119971-11-07 03:51 J -42097674.47 -42097674.34 -42097674.20 0.0088 0.0004

Mercury -119970-02-03 05:17 J -42097586.41 -42097586.28 -42097586.14 0.0088 0.0007

Mercury -119970-05-02 06:44 J -42097498.35 -42097498.22 -42097498.08 0.0088 0.0011

Mercury -119970-07-29 08:10 J -42097410.29 -42097410.16 -42097410.03 0.0088 0.0015

Mercury -119970-10-25 09:37 J -42097322.23 -42097322.10 -42097321.97 0.0088 0.0020

Mercury -119969-01-21 10:49 J -42097234.17 -42097234.05 -42097233.91 0.0088 0.0024

Mercury -119969-04-18 12:15 J -42097146.11 -42097145.99 -42097145.85 0.0088 0.0028

Mercury -119969-07-15 13:41 J -42097058.05 -42097057.93 -42097057.80 0.0088 0.0032

Mercury -119969-10-11 15:08 J -42096969.99 -42096969.87 -42096969.74 0.0088 0.0036

Mercury -119968-01-07 16:34 J -42096881.93 -42096881.81 -42096881.69 0.0088 0.0040

Mercury -119968-04-05 18:01 J -42096793.87 -42096793.75 -42096793.63 0.0088 0.0044

Mercury -119968-07-02 19:13 J -42096705.81 -42096705.70 -42096705.58 0.0088 0.0049

Mercury -119968-09-28 20:39 J -42096617.74 -42096617.64 -42096617.53 0.0088 0.0053

Mercury -119968-12-25 22:05 J -42096529.68 -42096529.58 -42096529.48 0.0088 0.0057

Mercury -119967-03-23 23:17 J -42096441.62 -42096441.53 -42096441.42 0.0088 0.0061

Mercury -119967-06-20 00:29 J -42096353.55 -42096353.48 -42096353.37 0.0088 0.0066

Mercury -119967-09-16 01:56 J -42096265.49 -42096265.42 -42096265.33 0.0088 0.0069

Mercury -119967-12-13 03:22 J -42096177.42 -42096177.36 -42096177.28 0.0088 0.0073

Mercury -119966-03-11 04:34 J -42096089.36 -42096089.31 -42096089.23 0.0088 0.0078

Mercury -119966-06-07 06:01 J -42096001.29 -42096001.25 -42096001.19 0.0088 0.0081

Mercury -119966-09-03 07:27 J -42095913.21 -42095913.19 -42095913.15 0.0088 0.0085

Mars -119941-06-06 05:46 J -42086870.36 -42086870.26 -42086870.13 0.0088 0.0083

Mars -119939-05-02 21:22 J -42086174.76 -42086174.61 -42086174.40 0.0088 0.0074

Mars	-119937-03-28 12:44 J	-42085479.16	-42085478.97	-42085478.70	0.0088	0.0064
Mars	-119935-02-22 03:37 J	-42084783.60	-42084783.35	-42084783.07	0.0088	0.0053
Mars	-119933-01-18 16:49 J	-42084088.06	-42084087.80	-42084087.48	0.0088	0.0043
Mars	-119932-12-14 05:03 J	-42083392.57	-42083392.29	-42083391.96	0.0088	0.0032
Mars	-119930-11-09 15:37 J	-42082697.16	-42082696.85	-42082696.52	0.0088	0.0021
Mars	-119928-10-05 00:29 J	-42082001.80	-42082001.48	-42082001.16	0.0088	0.0010
Mars	-119926-08-31 08:10 J	-42081306.49	-42081306.16	-42081305.84	0.0089	0.0001
Mars	-119924-07-26 14:10 J	-42080611.22	-42080610.91	-42080610.59	0.0089	0.0012
Mars	-119922-06-21 18:01 J	-42079916.04	-42079915.75	-42079915.42	0.0089	0.0023
Venus	-119921-05-31 17:17 J	-42079570.82	-42079570.78	-42079570.74	0.0089	0.0087
Venus	-119920-01-12 04:20 J	-42079345.37	-42079345.32	-42079345.21	0.0089	0.0082
Mars	-119920-05-16 21:37 J	-42079220.89	-42079220.60	-42079220.29	0.0089	0.0033
Venus	-119920-08-25 16:20 J	-42079119.91	-42079119.82	-42079119.69	0.0089	0.0076
Venus	-119919-04-08 04:20 J	-42078894.43	-42078894.32	-42078894.17	0.0089	0.0070
Venus	-119919-11-19 16:05 J	-42078668.96	-42078668.83	-42078668.66	0.0089	0.0064
Mars	-119918-04-11 23:32 J	-42078525.78	-42078525.52	-42078525.23	0.0089	0.0043
Moon	-119918-06-23 15:51 J	-42078452.94	-42078452.84	-42078452.70	0.0089	0.0077
Earth	-119918-06-23 19:56 J	-42078452.82	-42078452.67	-42078452.53	0.0089	0.0072 *
Venus	-119918-07-03 03:51 J	-42078443.48	-42078443.34	-42078443.15	0.0089	0.0058
Venus	-119917-02-13 16:05 J	-42078218.00	-42078217.83	-42078217.65	0.0089	0.0051
Earth	-119917-06-25 05:46 J	-42078085.47	-42078085.26	-42078085.04	0.0089	0.0045
Moon	-119917-06-25 09:08 J	-42078085.34	-42078085.12	-42078084.88	0.0089	0.0040 *
Venus	-119917-09-26 03:51 J	-42077992.51	-42077992.34	-42077992.14	0.0089	0.0045
Mars	-119916-03-06 23:03 J	-42077830.77	-42077830.54	-42077830.26	0.0089	0.0053
Venus	-119916-05-09 15:51 J	-42077767.02	-42077766.84	-42077766.63	0.0089	0.0039
Moon	-119916-06-27 13:13 J	-42077718.18	-42077717.95	-42077717.70	0.0089	0.0022
Earth	-119916-06-27 15:51 J	-42077718.08	-42077717.84	-42077717.58	0.0089	0.0018 *
Venus	-119916-12-21 03:51 J	-42077541.53	-42077541.34	-42077541.13	0.0089	0.0033
Earth	-119915-06-30 02:25 J	-42077350.66	-42077350.40	-42077350.15	0.0089	0.0010
Moon	-119915-06-30 04:34 J	-42077350.57	-42077350.31	-42077350.05	0.0089	0.0014 *

Venus -119915-08-03 15:51 J -42077316.04 -42077315.84 -42077315.63 0.0089 0.0027
 Mars -119914-01-30 21:22 J -42077135.82 -42077135.61 -42077135.37 0.0089 0.0062
 Venus -119914-03-17 04:05 J -42077090.54 -42077090.33 -42077090.12 0.0089 0.0020
 Moon -119914-07-02 12:01 J -42076983.21 -42076983.00 -42076982.75 0.0089 0.0034
 Earth -119914-07-02 12:29 J -42076983.19 -42076982.98 -42076982.73 0.0089 0.0038 *
 Venus -119914-10-28 15:51 J -42076865.04 -42076864.84 -42076864.62 0.0089 0.0014
 Venus -119913-06-10 04:05 J -42076639.54 -42076639.33 -42076639.11 0.0089 0.0007
 Moon -119913-07-03 22:49 J -42076615.70 -42076615.55 -42076615.37 0.0089 0.0069
 Earth -119913-07-03 23:32 J -42076615.69 -42076615.52 -42076615.34 0.0089 0.0065 *
 Mars -119913-12-25 18:44 J -42076440.89 -42076440.72 -42076440.52 0.0089 0.0071
 Venus -119912-01-21 16:20 J -42076414.04 -42076413.82 -42076413.61 0.0089 0.0002
 Venus -119912-09-04 04:20 J -42076188.53 -42076188.32 -42076188.10 0.0089 0.0005
 Venus -119911-04-17 16:34 J -42075963.02 -42075962.81 -42075962.59 0.0089 0.0012
 Mars -119911-11-20 13:27 J -42075746.04 -42075745.94 -42075745.77 0.0089 0.0080
 Venus -119911-11-29 04:49 J -42075737.51 -42075737.30 -42075737.08 0.0089 0.0018
 Venus -119910-07-12 16:49 J -42075511.99 -42075511.80 -42075511.58 0.0089 0.0025
 Venus -119909-02-23 05:17 J -42075286.47 -42075286.28 -42075286.07 0.0089 0.0031
 Venus -119909-10-05 17:46 J -42075060.95 -42075060.76 -42075060.56 0.0089 0.0037
 Mars -119909-10-15 07:13 J -42075051.21 -42075051.20 -42075051.12 0.0089 0.0088
 Venus -119908-05-19 06:15 J -42074835.42 -42074835.24 -42074835.04 0.0089 0.0044
 Venus -119908-12-30 18:44 J -42074609.89 -42074609.72 -42074609.53 0.0089 0.0050
 Venus -119907-08-13 07:27 J -42074384.36 -42074384.19 -42074384.02 0.0089 0.0056
 Venus -119906-03-26 19:27 J -42074158.82 -42074158.69 -42074158.52 0.0089 0.0063
 Venus -119906-11-07 08:10 J -42073933.28 -42073933.16 -42073933.01 0.0089 0.0069
 Venus -119905-06-19 20:53 J -42073707.73 -42073707.63 -42073707.51 0.0089 0.0075
 Venus -119904-01-31 09:08 J -42073482.18 -42073482.12 -42073482.01 0.0089 0.0082
 Venus -119904-09-13 21:51 J -42073256.60 -42073256.59 -42073256.53 0.0089 0.0088
 Mercury -119892-09-14 13:27 J -42068872.97 -42068872.94 -42068872.87 0.0089 0.0085
 Mercury -119892-12-11 16:49 J -42068784.87 -42068784.80 -42068784.70 0.0089 0.0079
 Mercury -119891-03-09 20:25 J -42068696.75 -42068696.65 -42068696.55 0.0089 0.0073

Mercury -119891-06-05 23:17 J -42068608.63 -42068608.53 -42068608.39 0.0089 0.0068

Mercury -119891-09-02 02:39 J -42068520.51 -42068520.39 -42068520.24 0.0089 0.0062

Mercury -119891-11-29 06:01 J -42068432.38 -42068432.25 -42068432.09 0.0089 0.0057

Mercury -119890-02-25 09:37 J -42068344.25 -42068344.10 -42068343.95 0.0089 0.0050

Mercury -119890-05-24 12:29 J -42068256.12 -42068255.98 -42068255.80 0.0089 0.0045

Mercury -119890-08-20 16:05 J -42068167.99 -42068167.83 -42068167.66 0.0089 0.0039

Mercury -119890-11-16 19:27 J -42068079.86 -42068079.69 -42068079.51 0.0089 0.0033

Mercury -119889-02-12 22:49 J -42067991.72 -42067991.55 -42067991.37 0.0089 0.0027

Mercury -119889-05-11 02:10 J -42067903.59 -42067903.41 -42067903.22 0.0089 0.0021

Mercury -119889-08-07 05:32 J -42067815.45 -42067815.27 -42067815.08 0.0089 0.0016

Mercury -119889-11-03 08:53 J -42067727.31 -42067727.13 -42067726.94 0.0089 0.0010

Mercury -119888-01-30 12:29 J -42067639.17 -42067638.98 -42067638.80 0.0089 0.0004

Mercury -119888-04-28 15:51 J -42067551.03 -42067550.84 -42067550.65 0.0089 0.0002

Mercury -119888-07-25 19:13 J -42067462.89 -42067462.70 -42067462.51 0.0089 0.0008

Mercury -119888-10-21 22:34 J -42067374.74 -42067374.56 -42067374.37 0.0089 0.0014

Mercury -119887-01-18 01:56 J -42067286.60 -42067286.42 -42067286.23 0.0089 0.0020

Mercury -119887-04-16 05:17 J -42067198.45 -42067198.28 -42067198.09 0.0089 0.0026

Mercury -119887-07-13 08:39 J -42067110.30 -42067110.14 -42067109.95 0.0089 0.0032

Mercury -119887-10-09 12:15 J -42067022.16 -42067021.99 -42067021.81 0.0089 0.0038

Mercury -119886-01-05 15:37 J -42066934.00 -42066933.85 -42066933.68 0.0089 0.0044

Mercury -119886-04-03 18:58 J -42066845.85 -42066845.71 -42066845.54 0.0089 0.0051

Mercury -119886-06-30 22:34 J -42066757.70 -42066757.56 -42066757.40 0.0089 0.0056

Mercury -119886-09-27 01:56 J -42066669.54 -42066669.42 -42066669.27 0.0089 0.0063

Mercury -119886-12-24 05:32 J -42066581.38 -42066581.27 -42066581.14 0.0089 0.0068

Mercury -119885-03-21 09:08 J -42066493.21 -42066493.12 -42066493.01 0.0089 0.0074

Mercury -119885-06-17 12:44 J -42066405.04 -42066404.97 -42066404.88 0.0089 0.0080

Mercury -119885-09-13 16:05 J -42066316.86 -42066316.83 -42066316.77 0.0089 0.0087

Mars -119863-05-29 08:10 J -42058389.18 -42058389.16 -42058389.10 0.0089 0.0088

Mars -119861-04-22 11:17 J -42057695.15 -42057695.03 -42057694.90 0.0089 0.0081

Mars -119859-03-17 13:56 J -42057001.08 -42057000.92 -42057000.73 0.0089 0.0072

Mars	-119857-02-09 18:01 J	-42056306.93	-42056306.75	-42056306.52	0.0089	0.0064
Mars	-119855-01-03 23:17 J	-42055612.74	-42055612.53	-42055612.27	0.0089	0.0055
Mars	-119854-11-29 04:49 J	-42054918.53	-42054918.30	-42054918.02	0.0089	0.0046
Mars	-119852-10-23 12:29 J	-42054224.26	-42054223.98	-42054223.71	0.0089	0.0036
Mars	-119850-09-17 19:56 J	-42053529.94	-42053529.67	-42053529.37	0.0089	0.0027
Mars	-119848-08-12 03:51 J	-42052835.63	-42052835.34	-42052835.03	0.0089	0.0017
Mars	-119846-07-07 13:27 J	-42052141.24	-42052140.94	-42052140.63	0.0089	0.0007
Mars	-119844-06-01 00:44 J	-42051446.77	-42051446.47	-42051446.16	0.0089	0.0003
Mars	-119842-04-26 12:29 J	-42050752.27	-42050751.98	-42050751.66	0.0089	0.0014
Mars	-119840-03-21 01:13 J	-42050057.73	-42050057.45	-42050057.13	0.0089	0.0024
Venus	-119839-07-22 07:56 J	-42049569.19	-42049569.17	-42049569.11	0.0089	0.0087
Mars	-119838-02-13 16:49 J	-42049363.07	-42049362.80	-42049362.49	0.0089	0.0034
Venus	-119838-03-04 22:05 J	-42049343.65	-42049343.58	-42049343.46	0.0089	0.0081
Venus	-119838-10-16 12:44 J	-42049118.08	-42049117.97	-42049117.83	0.0089	0.0074
Venus	-119837-05-29 02:53 J	-42048892.51	-42048892.38	-42048892.22	0.0089	0.0068
Earth	-119837-12-31 22:49 J	-42048675.67	-42048675.55	-42048675.43	0.0089	0.0078
Moon	-119837-12-31 22:49 J	-42048675.62	-42048675.55	-42048675.43	0.0089	0.0082 *
Mars	-119836-01-08 09:08 J	-42048668.37	-42048668.12	-42048667.83	0.0089	0.0044
Venus	-119836-01-09 17:17 J	-42048666.94	-42048666.78	-42048666.61	0.0089	0.0061
Venus	-119836-08-23 06:58 J	-42048441.36	-42048441.21	-42048441.01	0.0089	0.0055
Moon	-119835-01-03 09:08 J	-42048308.33	-42048308.12	-42048307.87	0.0089	0.0047
Earth	-119835-01-03 11:46 J	-42048308.22	-42048308.01	-42048307.79	0.0089	0.0050 *
Venus	-119835-04-05 21:22 J	-42048215.79	-42048215.61	-42048215.41	0.0089	0.0048
Venus	-119835-11-17 11:46 J	-42047990.20	-42047990.01	-42047989.81	0.0089	0.0041
Mars	-119835-12-04 02:10 J	-42047973.63	-42047973.41	-42047973.13	0.0089	0.0054
Earth	-119834-01-06 00:29 J	-42047940.72	-42047940.48	-42047940.21	0.0089	0.0022
Moon	-119834-01-06 03:22 J	-42047940.59	-42047940.36	-42047940.10	0.0089	0.0025 *
Venus	-119834-07-01 01:41 J	-42047764.63	-42047764.43	-42047764.21	0.0089	0.0035
Moon	-119833-01-08 10:20 J	-42047573.33	-42047573.07	-42047572.81	0.0089	0.0009
Earth	-119833-01-08 13:27 J	-42047573.19	-42047572.94	-42047572.67	0.0089	0.0007 *

Venus -119833-02-11 15:51 J -42047539.05 -42047538.84 -42047538.62 0.0089 0.0028
 Venus -119833-09-24 05:46 J -42047313.47 -42047313.26 -42047313.03 0.0089 0.0022
 Mars -119833-10-28 21:37 J -42047278.80 -42047278.60 -42047278.36 0.0089 0.0063
 Earth -119832-01-10 01:41 J -42047205.65 -42047205.43 -42047205.18 0.0089 0.0035
 Moon -119832-01-10 05:46 J -42047205.50 -42047205.26 -42047205.02 0.0089 0.0032 *
 Venus -119832-05-07 19:56 J -42047087.88 -42047087.67 -42047087.44 0.0089 0.0015
 Venus -119832-12-19 10:05 J -42046862.30 -42046862.08 -42046861.85 0.0089 0.0008
 Moon -119831-01-12 10:34 J -42046838.20 -42046838.06 -42046837.86 0.0089 0.0066
 Earth -119831-01-12 14:10 J -42046838.08 -42046837.91 -42046837.71 0.0089 0.0063 *
 Venus -119831-08-02 00:01 J -42046636.73 -42046636.50 -42046636.28 0.0089 0.0001
 Mars -119831-09-23 18:15 J -42046583.89 -42046583.74 -42046583.53 0.0089 0.0073
 Venus -119830-03-15 13:41 J -42046411.15 -42046410.93 -42046410.70 0.0089 0.0006
 Venus -119830-10-27 03:51 J -42046185.56 -42046185.34 -42046185.12 0.0089 0.0012
 Venus -119829-06-08 17:32 J -42045959.98 -42045959.77 -42045959.54 0.0089 0.0019
 Mars -119829-08-18 15:51 J -42045888.92 -42045888.84 -42045888.67 0.0089 0.0082
 Venus -119828-01-20 07:27 J -42045734.41 -42045734.19 -42045733.98 0.0089 0.0025
 Venus -119828-09-02 20:39 J -42045508.83 -42045508.64 -42045508.41 0.0089 0.0032
 Venus -119827-04-16 10:34 J -42045283.26 -42045283.06 -42045282.85 0.0089 0.0038
 Venus -119827-11-28 00:01 J -42045057.68 -42045057.50 -42045057.29 0.0089 0.0045
 Venus -119826-07-11 13:41 J -42044832.11 -42044831.93 -42044831.74 0.0089 0.0051
 Venus -119825-02-22 03:22 J -42044606.53 -42044606.36 -42044606.19 0.0089 0.0057
 Venus -119825-10-04 16:20 J -42044380.95 -42044380.82 -42044380.65 0.0089 0.0064
 Venus -119824-05-18 06:01 J -42044155.38 -42044155.25 -42044155.10 0.0089 0.0070
 Venus -119824-12-29 19:27 J -42043929.79 -42043929.69 -42043929.57 0.0089 0.0076
 Venus -119823-08-12 08:53 J -42043704.21 -42043704.13 -42043704.05 0.0088 0.0082
 Venus -119822-03-25 21:51 J -42043478.59 -42043478.59 -42043478.56 0.0088 0.0088
 Mercury -119811-04-14 19:41 J -42039440.69 -42039440.68 -42039440.67 0.0088 0.0088
 Mercury -119811-07-11 21:08 J -42039352.66 -42039352.62 -42039352.58 0.0088 0.0084
 Mercury -119811-10-07 22:20 J -42039264.61 -42039264.57 -42039264.50 0.0088 0.0080
 Mercury -119810-01-03 23:46 J -42039176.56 -42039176.51 -42039176.42 0.0088 0.0076

Mercury -119810-04-02 01:41 J -42039088.51 -42039088.43 -42039088.35 0.0088 0.0071

Mercury -119810-06-29 02:53 J -42039000.46 -42039000.38 -42039000.28 0.0088 0.0067

Mercury -119810-09-25 04:20 J -42038912.40 -42038912.32 -42038912.21 0.0088 0.0063

Mercury -119810-12-22 05:46 J -42038824.35 -42038824.26 -42038824.14 0.0088 0.0059

Mercury -119809-03-19 07:27 J -42038736.29 -42038736.19 -42038736.07 0.0088 0.0054

Mercury -119809-06-15 08:53 J -42038648.24 -42038648.13 -42038648.01 0.0088 0.0050

Mercury -119809-09-11 10:20 J -42038560.18 -42038560.07 -42038559.94 0.0088 0.0045

Mercury -119809-12-08 12:01 J -42038472.12 -42038472.00 -42038471.88 0.0088 0.0041

Mercury -119808-03-06 13:27 J -42038384.06 -42038383.94 -42038383.81 0.0088 0.0037

Mercury -119808-06-02 14:53 J -42038296.01 -42038295.88 -42038295.75 0.0088 0.0032

Mercury -119808-08-29 16:20 J -42038207.95 -42038207.82 -42038207.69 0.0088 0.0028

Mercury -119808-11-25 17:46 J -42038119.89 -42038119.76 -42038119.62 0.0088 0.0024

Mercury -119807-02-21 19:13 J -42038031.83 -42038031.70 -42038031.56 0.0088 0.0020

Mercury -119807-05-20 20:39 J -42037943.77 -42037943.64 -42037943.50 0.0088 0.0015

Mercury -119807-08-16 22:05 J -42037855.71 -42037855.58 -42037855.44 0.0088 0.0011

Mercury -119807-11-12 23:32 J -42037767.65 -42037767.52 -42037767.38 0.0088 0.0007

Mercury -119806-02-09 00:58 J -42037679.59 -42037679.46 -42037679.32 0.0088 0.0004

Mercury -119806-05-08 02:25 J -42037591.53 -42037591.40 -42037591.26 0.0088 0.0003

Mercury -119806-08-04 03:51 J -42037503.47 -42037503.34 -42037503.20 0.0088 0.0006

Mercury -119806-10-31 05:17 J -42037415.41 -42037415.28 -42037415.14 0.0088 0.0010

Mercury -119805-01-27 06:44 J -42037327.35 -42037327.22 -42037327.08 0.0088 0.0014

Mercury -119805-04-24 08:10 J -42037239.29 -42037239.16 -42037239.03 0.0088 0.0018

Mercury -119805-07-21 09:37 J -42037151.23 -42037151.10 -42037150.97 0.0088 0.0022

Mercury -119805-10-17 11:03 J -42037063.17 -42037063.04 -42037062.91 0.0088 0.0027

Mercury -119804-01-13 12:15 J -42036975.11 -42036974.99 -42036974.86 0.0088 0.0031

Mercury -119804-04-11 13:41 J -42036887.05 -42036886.93 -42036886.80 0.0088 0.0035

Mercury -119804-07-08 15:08 J -42036798.99 -42036798.87 -42036798.74 0.0088 0.0039

Mercury -119804-10-04 16:34 J -42036710.93 -42036710.81 -42036710.69 0.0088 0.0043

Mercury -119804-12-31 17:46 J -42036622.86 -42036622.76 -42036622.64 0.0088 0.0048

Mercury -119803-03-29 19:13 J -42036534.80 -42036534.70 -42036534.58 0.0088 0.0052

Mercury -119803-06-25 20:39 J -42036446.74 -42036446.64 -42036446.53 0.0088 0.0056
 Mercury -119803-09-21 22:05 J -42036358.68 -42036358.58 -42036358.48 0.0088 0.0060
 Mercury -119803-12-18 23:32 J -42036270.61 -42036270.52 -42036270.43 0.0088 0.0064
 Mercury -119802-03-17 00:58 J -42036182.55 -42036182.46 -42036182.38 0.0088 0.0068
 Mercury -119802-06-13 02:10 J -42036094.48 -42036094.41 -42036094.33 0.0088 0.0072
 Mercury -119802-09-09 03:37 J -42036006.42 -42036006.35 -42036006.28 0.0088 0.0076
 Mercury -119802-12-06 05:03 J -42035918.35 -42035918.29 -42035918.24 0.0088 0.0080
 Mercury -119801-03-03 06:01 J -42035830.27 -42035830.25 -42035830.20 0.0088 0.0084
 Mercury -119801-05-30 07:41 J -42035742.19 -42035742.18 -42035742.17 0.0088 0.0088
 Jupiter -119793-04-05 01:56 J -42032875.92 -42032875.42 -42032874.87 0.0088 0.0017
 Mars -119777-01-19 07:41 J -42027108.28 -42027108.18 -42027108.01 0.0088 0.0081
 Mars -119776-12-15 01:27 J -42026412.63 -42026412.44 -42026412.24 0.0088 0.0071
 Mars -119774-11-10 16:34 J -42025717.02 -42025716.81 -42025716.55 0.0088 0.0062
 Mars -119772-10-06 07:41 J -42025021.42 -42025021.18 -42025020.88 0.0088 0.0052
 Mars -119770-09-01 21:37 J -42024325.86 -42024325.60 -42024325.28 0.0088 0.0042
 Mars -119768-07-28 10:34 J -42023630.36 -42023630.06 -42023629.74 0.0088 0.0031
 Mars -119766-06-23 22:05 J -42022934.88 -42022934.58 -42022934.24 0.0088 0.0021
 Mars -119764-05-19 08:25 J -42022239.47 -42022239.15 -42022238.82 0.0088 0.0010
 Mars -119762-04-14 17:03 J -42021544.11 -42021543.79 -42021543.47 0.0089 0.0001
 Mars -119760-03-10 00:15 J -42020848.80 -42020848.49 -42020848.15 0.0089 0.0012
 Mars -119758-02-03 06:44 J -42020153.52 -42020153.22 -42020152.90 0.0089 0.0022
 Venus -119757-09-02 06:15 J -42019576.28 -42019576.24 -42019576.18 0.0089 0.0086
 Mars -119757-12-29 10:49 J -42019458.34 -42019458.05 -42019457.74 0.0089 0.0032
 Venus -119756-04-15 18:15 J -42019350.82 -42019350.74 -42019350.65 0.0089 0.0080
 Venus -119756-11-27 05:32 J -42019125.36 -42019125.27 -42019125.13 0.0089 0.0075
 Venus -119755-07-10 17:17 J -42018899.89 -42018899.78 -42018899.62 0.0089 0.0069
 Mars -119755-11-24 13:41 J -42018763.19 -42018762.93 -42018762.63 0.0089 0.0042
 Venus -119754-02-21 05:17 J -42018674.41 -42018674.28 -42018674.11 0.0089 0.0063
 Moon -119754-06-23 04:49 J -42018552.32 -42018552.30 -42018552.22 0.0089 0.0087
 Earth -119754-06-23 08:10 J -42018552.22 -42018552.16 -42018552.04 0.0089 0.0083 *

Venus -119754-10-04 17:32 J -42018448.93 -42018448.77 -42018448.60 0.0089 0.0056
 Venus -119753-05-17 05:32 J -42018223.44 -42018223.27 -42018223.09 0.0089 0.0050
 Earth -119753-06-24 18:01 J -42018184.92 -42018184.75 -42018184.53 0.0089 0.0056
 Moon -119753-06-24 21:51 J -42018184.79 -42018184.59 -42018184.38 0.0089 0.0051 *
 Mars -119753-10-19 15:37 J -42018068.10 -42018067.85 -42018067.58 0.0089 0.0051
 Venus -119753-12-28 17:17 J -42017997.96 -42017997.78 -42017997.59 0.0089 0.0044
 Moon -119752-06-27 00:44 J -42017817.69 -42017817.47 -42017817.22 0.0089 0.0033
 Earth -119752-06-27 04:34 J -42017817.54 -42017817.31 -42017817.06 0.0089 0.0028 *
 Venus -119752-08-11 05:03 J -42017772.47 -42017772.29 -42017772.08 0.0089 0.0038
 Venus -119751-03-24 17:03 J -42017546.98 -42017546.79 -42017546.58 0.0089 0.0032
 Earth -119751-06-29 14:53 J -42017450.13 -42017449.88 -42017449.62 0.0089 0.0002
 Moon -119751-06-29 18:01 J -42017450.01 -42017449.75 -42017449.49 0.0089 0.0004 *
 Mars -119751-09-14 15:08 J -42017373.09 -42017372.87 -42017372.63 0.0089 0.0060
 Venus -119751-11-05 05:03 J -42017321.48 -42017321.29 -42017321.07 0.0089 0.0026
 Venus -119750-06-18 17:17 J -42017095.99 -42017095.78 -42017095.57 0.0089 0.0019
 Moon -119750-07-01 23:03 J -42017082.78 -42017082.54 -42017082.30 0.0089 0.0023
 Earth -119750-07-02 01:13 J -42017082.68 -42017082.45 -42017082.19 0.0089 0.0028 *
 Venus -119749-01-30 05:17 J -42016870.49 -42016870.28 -42016870.07 0.0089 0.0013
 Earth -119749-07-03 12:01 J -42016715.19 -42016715.00 -42016714.79 0.0089 0.0055
 Moon -119749-07-03 13:27 J -42016715.12 -42016714.94 -42016714.73 0.0089 0.0060 *
 Mars -119749-08-09 12:15 J -42016678.16 -42016677.99 -42016677.76 0.0089 0.0069
 Venus -119749-09-11 17:17 J -42016644.99 -42016644.78 -42016644.56 0.0089 0.0007
 Venus -119748-04-25 05:32 J -42016419.48 -42016419.27 -42016419.05 0.0089 0.0001
 Moon -119748-07-05 22:20 J -42016347.66 -42016347.57 -42016347.44 0.0089 0.0079
 Earth -119748-07-05 22:20 J -42016347.64 -42016347.57 -42016347.46 0.0089 0.0083 *
 Venus -119748-12-06 17:32 J -42016193.98 -42016193.77 -42016193.55 0.0089 0.0007
 Mars -119747-07-05 09:37 J -42015983.24 -42015983.10 -42015982.93 0.0089 0.0077
 Venus -119747-07-20 05:32 J -42015968.47 -42015968.27 -42015968.05 0.0089 0.0013
 Venus -119746-03-02 17:46 J -42015742.96 -42015742.76 -42015742.54 0.0089 0.0019
 Venus -119746-10-14 06:01 J -42015517.45 -42015517.25 -42015517.04 0.0089 0.0025

Venus -119745-05-26 18:15 J -42015291.93 -42015291.74 -42015291.53 0.0089 0.0032

Mars -119745-05-30 05:03 J -42015288.35 -42015288.29 -42015288.18 0.0089 0.0085

Venus -119744-01-07 06:44 J -42015066.41 -42015066.22 -42015066.02 0.0089 0.0038

Venus -119744-08-20 19:13 J -42014840.89 -42014840.70 -42014840.51 0.0089 0.0044

Venus -119743-04-03 07:13 J -42014615.36 -42014615.20 -42014615.00 0.0089 0.0051

Venus -119743-11-14 19:56 J -42014389.83 -42014389.67 -42014389.49 0.0089 0.0057

Venus -119742-06-28 08:39 J -42014164.29 -42014164.14 -42014163.99 0.0089 0.0063

Venus -119741-02-08 20:39 J -42013938.75 -42013938.64 -42013938.48 0.0089 0.0070

Venus -119741-09-21 09:22 J -42013713.20 -42013713.11 -42013712.98 0.0089 0.0076

Venus -119740-05-04 22:05 J -42013487.64 -42013487.58 -42013487.48 0.0089 0.0082

Venus -119740-12-16 10:49 J -42013262.06 -42013262.05 -42013262.01 0.0089 0.0088

Mercury -119727-03-15 10:05 J -42008790.12 -42008790.08 -42008790.04 0.0089 0.0087

Mercury -119727-06-11 12:44 J -42008702.02 -42008701.97 -42008701.87 0.0089 0.0081

Mercury -119727-09-07 16:20 J -42008613.91 -42008613.82 -42008613.72 0.0089 0.0075

Mercury -119727-12-04 19:41 J -42008525.79 -42008525.68 -42008525.56 0.0089 0.0070

Mercury -119726-03-02 22:34 J -42008437.67 -42008437.56 -42008437.41 0.0089 0.0064

Mercury -119726-05-30 02:10 J -42008349.54 -42008349.41 -42008349.26 0.0089 0.0058

Mercury -119726-08-26 05:32 J -42008261.42 -42008261.27 -42008261.12 0.0089 0.0052

Mercury -119726-11-22 08:53 J -42008173.29 -42008173.13 -42008172.97 0.0089 0.0046

Mercury -119725-02-18 12:01 J -42008085.15 -42008085.00 -42008084.82 0.0089 0.0041

Mercury -119725-05-16 15:22 J -42007997.02 -42007996.86 -42007996.68 0.0089 0.0035

Mercury -119725-08-12 18:44 J -42007908.89 -42007908.72 -42007908.54 0.0089 0.0029

Mercury -119725-11-08 22:05 J -42007820.75 -42007820.58 -42007820.39 0.0089 0.0023

Mercury -119724-02-05 01:41 J -42007732.62 -42007732.43 -42007732.25 0.0089 0.0017

Mercury -119724-05-04 05:03 J -42007644.48 -42007644.29 -42007644.11 0.0089 0.0011

Mercury -119724-07-31 08:25 J -42007556.34 -42007556.15 -42007555.96 0.0089 0.0006

Mercury -119724-10-27 11:46 J -42007468.20 -42007468.01 -42007467.82 0.0089 0.0000

Mercury -119723-01-23 15:08 J -42007380.06 -42007379.87 -42007379.68 0.0089 0.0006

Mercury -119723-04-21 18:29 J -42007291.91 -42007291.73 -42007291.54 0.0089 0.0012

Mercury -119723-07-18 21:51 J -42007203.77 -42007203.59 -42007203.40 0.0089 0.0018

Mercury -119723-10-15 01:13 J -42007115.62 -42007115.45 -42007115.26 0.0089 0.0024

Mercury -119722-01-11 04:34 J -42007027.48 -42007027.31 -42007027.12 0.0089 0.0030

Mercury -119722-04-09 08:10 J -42006939.33 -42006939.16 -42006938.98 0.0089 0.0036

Mercury -119722-07-06 11:32 J -42006851.18 -42006851.02 -42006850.85 0.0089 0.0042

Mercury -119722-10-02 14:53 J -42006763.03 -42006762.88 -42006762.71 0.0089 0.0048

Mercury -119722-12-29 18:29 J -42006674.87 -42006674.73 -42006674.57 0.0089 0.0054

Mercury -119721-03-26 21:51 J -42006586.72 -42006586.59 -42006586.44 0.0089 0.0060

Mercury -119721-06-23 01:27 J -42006498.56 -42006498.44 -42006498.31 0.0089 0.0066

Mercury -119721-09-19 04:49 J -42006410.40 -42006410.30 -42006410.18 0.0089 0.0072

Mercury -119721-12-16 08:25 J -42006322.23 -42006322.15 -42006322.05 0.0089 0.0078

Mercury -119720-03-14 11:46 J -42006234.05 -42006234.01 -42006233.94 0.0089 0.0085

Mars -119699-01-11 16:34 J -41998625.87 -41998625.81 -41998625.70 0.0089 0.0085

Mars -119698-12-06 19:27 J -41997931.80 -41997931.69 -41997931.51 0.0089 0.0078

Mars -119696-10-30 23:17 J -41997237.68 -41997237.53 -41997237.32 0.0089 0.0070

Mars -119694-09-25 02:25 J -41996543.58 -41996543.40 -41996543.16 0.0089 0.0062

Mars -119692-08-19 06:58 J -41995849.44 -41995849.21 -41995848.95 0.0089 0.0053

Mars -119690-07-14 12:29 J -41995155.23 -41995154.98 -41995154.71 0.0089 0.0044

Mars -119688-06-07 17:46 J -41994461.02 -41994460.76 -41994460.47 0.0089 0.0035

Mars -119686-05-03 00:15 J -41993766.76 -41993766.49 -41993766.19 0.0089 0.0026

Mars -119684-03-27 08:53 J -41993072.42 -41993072.13 -41993071.83 0.0089 0.0016

Mars -119682-02-19 17:17 J -41992378.08 -41992377.78 -41992377.47 0.0089 0.0007

Mars -119680-01-14 03:22 J -41991683.66 -41991683.36 -41991683.05 0.0089 0.0003

Mars -119679-12-09 15:08 J -41990989.17 -41990988.87 -41990988.56 0.0089 0.0013

Mars -119677-11-03 03:51 J -41990294.63 -41990294.34 -41990294.03 0.0089 0.0023

Mars -119675-09-28 16:34 J -41989600.07 -41989599.81 -41989599.50 0.0089 0.0033

Venus -119675-10-23 19:13 J -41989574.74 -41989574.70 -41989574.63 0.0089 0.0086

Venus -119674-06-06 09:22 J -41989349.18 -41989349.11 -41989348.98 0.0089 0.0080

Venus -119673-01-17 23:46 J -41989123.62 -41989123.51 -41989123.36 0.0089 0.0073

Mars -119673-08-23 08:10 J -41988905.42 -41988905.16 -41988904.87 0.0089 0.0042

Venus -119673-08-30 13:56 J -41988898.05 -41988897.92 -41988897.75 0.0089 0.0067

Earth -119673-12-31 09:37 J -41988775.10 -41988775.10 -41988775.09 0.0089 0.0089
 Venus -119672-04-13 04:20 J -41988672.47 -41988672.32 -41988672.14 0.0089 0.0060
 Venus -119672-11-24 18:58 J -41988446.89 -41988446.71 -41988446.53 0.0089 0.0053
 Moon -119671-01-02 21:22 J -41988407.81 -41988407.61 -41988407.39 0.0089 0.0056
 Earth -119671-01-02 22:20 J -41988407.73 -41988407.57 -41988407.35 0.0089 0.0061 *
 Venus -119671-07-08 08:39 J -41988221.32 -41988221.14 -41988220.93 0.0089 0.0047
 Mars -119671-07-19 00:15 J -41988210.71 -41988210.49 -41988210.20 0.0089 0.0052
 Earth -119670-01-05 11:46 J -41988040.24 -41988040.01 -41988039.76 0.0089 0.0032
 Moon -119670-01-05 13:41 J -41988040.14 -41988039.93 -41988039.68 0.0089 0.0037 *
 Venus -119670-02-18 23:03 J -41987995.74 -41987995.54 -41987995.34 0.0089 0.0040
 Venus -119670-10-02 12:58 J -41987770.15 -41987769.96 -41987769.74 0.0089 0.0034
 Moon -119669-01-07 21:22 J -41987672.87 -41987672.61 -41987672.34 0.0089 0.0001
 Earth -119669-01-08 00:44 J -41987672.73 -41987672.47 -41987672.21 0.0089 0.0004 *
 Venus -119669-05-15 03:08 J -41987544.57 -41987544.37 -41987544.14 0.0089 0.0027
 Mars -119669-06-12 17:46 J -41987515.96 -41987515.76 -41987515.51 0.0089 0.0061
 Venus -119669-12-26 17:03 J -41987318.99 -41987318.79 -41987318.55 0.0089 0.0021
 Earth -119668-01-09 13:13 J -41987305.19 -41987304.95 -41987304.69 0.0089 0.0025
 Moon -119668-01-09 16:49 J -41987305.05 -41987304.80 -41987304.55 0.0089 0.0020 *
 Venus -119668-08-09 07:13 J -41987093.42 -41987093.20 -41987092.97 0.0089 0.0014
 Moon -119667-01-11 21:51 J -41986937.77 -41986937.59 -41986937.37 0.0089 0.0058
 Earth -119667-01-12 01:41 J -41986937.62 -41986937.43 -41986937.21 0.0089 0.0053 *
 Venus -119667-03-22 21:22 J -41986867.84 -41986867.61 -41986867.39 0.0089 0.0007
 Mars -119667-05-08 12:44 J -41986821.13 -41986820.97 -41986820.75 0.0089 0.0070
 Venus -119667-11-03 11:17 J -41986642.25 -41986642.03 -41986641.80 0.0089 0.0002
 Earth -119666-01-14 13:41 J -41986570.01 -41986569.93 -41986569.80 0.0089 0.0081
 Moon -119666-01-14 16:49 J -41986569.91 -41986569.80 -41986569.64 0.0089 0.0076 *
 Venus -119666-06-17 01:13 J -41986416.67 -41986416.45 -41986416.22 0.0089 0.0006
 Venus -119665-01-28 15:08 J -41986191.09 -41986190.87 -41986190.65 0.0089 0.0013
 Mars -119665-04-02 09:51 J -41986126.20 -41986126.09 -41986125.90 0.0089 0.0079
 Venus -119665-09-10 04:49 J -41985965.51 -41985965.30 -41985965.07 0.0089 0.0020

Venus -119664-04-23 18:44 J -41985739.93 -41985739.72 -41985739.50 0.0089 0.0026

Venus -119664-12-05 08:25 J -41985514.35 -41985514.15 -41985513.93 0.0089 0.0033

Mars -119663-02-26 08:53 J -41985431.16 -41985431.13 -41985431.04 0.0089 0.0087

Venus -119663-07-18 22:05 J -41985288.77 -41985288.58 -41985288.37 0.0089 0.0039

Venus -119662-03-01 11:32 J -41985063.20 -41985063.02 -41985062.81 0.0089 0.0046

Venus -119662-10-13 01:13 J -41984837.62 -41984837.45 -41984837.25 0.0089 0.0052

Venus -119661-05-25 15:08 J -41984612.04 -41984611.87 -41984611.70 0.0089 0.0058

Venus -119660-01-06 04:05 J -41984386.46 -41984386.33 -41984386.16 0.0089 0.0065

Venus -119660-08-19 17:32 J -41984160.88 -41984160.77 -41984160.62 0.0089 0.0071

Venus -119659-04-02 06:58 J -41983935.30 -41983935.21 -41983935.08 0.0089 0.0077

Venus -119659-11-13 20:39 J -41983709.71 -41983709.64 -41983709.56 0.0089 0.0083

Mercury -119646-01-09 19:41 J -41979269.71 -41979269.68 -41979269.64 0.0088 0.0085

Mercury -119646-04-07 21:08 J -41979181.67 -41979181.62 -41979181.56 0.0088 0.0080

Mercury -119646-07-04 22:34 J -41979093.62 -41979093.56 -41979093.48 0.0088 0.0076

Mercury -119646-10-01 00:15 J -41979005.57 -41979005.49 -41979005.41 0.0088 0.0072

Mercury -119646-12-28 01:41 J -41978917.51 -41978917.43 -41978917.34 0.0088 0.0067

Mercury -119645-03-25 03:08 J -41978829.46 -41978829.37 -41978829.27 0.0088 0.0063

Mercury -119645-06-21 04:34 J -41978741.40 -41978741.31 -41978741.20 0.0088 0.0059

Mercury -119645-09-17 06:15 J -41978653.35 -41978653.24 -41978653.13 0.0088 0.0055

Mercury -119645-12-14 07:41 J -41978565.29 -41978565.18 -41978565.07 0.0088 0.0050

Mercury -119644-03-12 08:53 J -41978477.23 -41978477.13 -41978477.00 0.0088 0.0047

Mercury -119644-06-08 10:20 J -41978389.18 -41978389.07 -41978388.93 0.0088 0.0043

Mercury -119644-09-04 12:01 J -41978301.12 -41978301.00 -41978300.87 0.0088 0.0038

Mercury -119644-12-01 13:27 J -41978213.06 -41978212.94 -41978212.81 0.0088 0.0034

Mercury -119643-02-27 14:53 J -41978125.00 -41978124.88 -41978124.74 0.0088 0.0029

Mercury -119643-05-26 16:20 J -41978036.94 -41978036.82 -41978036.68 0.0088 0.0025

Mercury -119643-08-22 18:01 J -41977948.88 -41977948.75 -41977948.62 0.0088 0.0021

Mercury -119643-11-18 19:27 J -41977860.83 -41977860.69 -41977860.56 0.0088 0.0016

Mercury -119642-02-14 20:53 J -41977772.77 -41977772.63 -41977772.50 0.0088 0.0012

Mercury -119642-05-13 22:20 J -41977684.71 -41977684.57 -41977684.43 0.0088 0.0008

Mercury -119642-08-09 23:46 J -41977596.65 -41977596.51 -41977596.37 0.0088 0.0004

Mercury -119642-11-06 01:13 J -41977508.59 -41977508.45 -41977508.31 0.0088 0.0001

Mercury -119641-02-02 02:39 J -41977420.53 -41977420.39 -41977420.26 0.0088 0.0005

Mercury -119641-04-30 04:05 J -41977332.47 -41977332.33 -41977332.20 0.0088 0.0009

Mercury -119641-07-27 05:32 J -41977244.41 -41977244.27 -41977244.14 0.0088 0.0013

Mercury -119641-10-23 06:44 J -41977156.35 -41977156.22 -41977156.08 0.0088 0.0018

Mercury -119640-01-19 08:10 J -41977068.29 -41977068.16 -41977068.02 0.0088 0.0022

Mercury -119640-04-17 09:37 J -41976980.23 -41976980.10 -41976979.97 0.0088 0.0026

Mercury -119640-07-14 11:03 J -41976892.16 -41976892.04 -41976891.91 0.0088 0.0030

Mercury -119640-10-10 12:15 J -41976804.10 -41976803.99 -41976803.85 0.0088 0.0035

Mercury -119639-01-06 13:41 J -41976716.04 -41976715.93 -41976715.80 0.0088 0.0039

Mercury -119639-04-04 15:08 J -41976627.98 -41976627.87 -41976627.74 0.0088 0.0042

Mercury -119639-07-01 16:34 J -41976539.92 -41976539.81 -41976539.69 0.0088 0.0046

Mercury -119639-09-27 18:01 J -41976451.85 -41976451.75 -41976451.63 0.0088 0.0050

Mercury -119639-12-24 19:27 J -41976363.79 -41976363.69 -41976363.58 0.0088 0.0054

Mercury -119638-03-22 20:53 J -41976275.73 -41976275.63 -41976275.53 0.0088 0.0059

Mercury -119638-06-18 22:20 J -41976187.67 -41976187.57 -41976187.48 0.0088 0.0063

Mercury -119638-09-14 23:46 J -41976099.60 -41976099.51 -41976099.43 0.0088 0.0067

Mercury -119638-12-12 00:44 J -41976011.53 -41976011.47 -41976011.38 0.0088 0.0071

Mercury -119637-03-09 02:25 J -41975923.47 -41975923.40 -41975923.33 0.0088 0.0075

Mercury -119637-06-05 03:22 J -41975835.40 -41975835.36 -41975835.28 0.0088 0.0080

Mercury -119637-09-01 04:49 J -41975747.33 -41975747.30 -41975747.24 0.0088 0.0083

Mercury -119637-11-28 06:15 J -41975659.25 -41975659.24 -41975659.21 0.0088 0.0087

Mars -119616-10-06 14:39 J -41968041.92 -41968041.89 -41968041.78 0.0088 0.0087

Mars -119614-09-02 09:37 J -41967346.23 -41967346.10 -41967345.91 0.0088 0.0078

Mars -119612-07-29 03:37 J -41966650.53 -41966650.35 -41966650.11 0.0088 0.0069

Mars -119610-06-24 21:08 J -41965954.87 -41965954.62 -41965954.37 0.0088 0.0059

Mars -119608-05-20 12:01 J -41965259.25 -41965259.00 -41965258.70 0.0088 0.0050

Mars -119606-04-16 03:08 J -41964563.65 -41964563.37 -41964563.07 0.0088 0.0040

Mars -119604-03-11 17:03 J -41963868.08 -41963867.79 -41963867.46 0.0088 0.0030

Mars	-119602-02-05 05:46 J	-41963172.57	-41963172.26	-41963171.93	0.0088	0.0019
Mars	-119601-12-31 17:17 J	-41962477.09	-41962476.78	-41962476.44	0.0088	0.0010
Mars	-119599-11-27 03:37 J	-41961781.67	-41961781.35	-41961781.02	0.0088	0.0001
Mars	-119597-10-22 11:32 J	-41961086.33	-41961086.02	-41961085.69	0.0089	0.0012
Mars	-119595-09-17 18:15 J	-41960391.05	-41960390.74	-41960390.42	0.0089	0.0021
Mars	-119593-08-12 23:46 J	-41959695.80	-41959695.51	-41959695.20	0.0089	0.0031
Venus	-119593-12-04 19:56 J	-41959581.72	-41959581.67	-41959581.60	0.0089	0.0085
Venus	-119592-07-18 07:41 J	-41959356.27	-41959356.18	-41959356.08	0.0089	0.0079
Venus	-119591-02-28 19:27 J	-41959130.80	-41959130.69	-41959130.57	0.0089	0.0073
Mars	-119591-07-09 03:22 J	-41959000.62	-41959000.36	-41959000.05	0.0089	0.0041
Venus	-119591-10-12 07:13 J	-41958905.33	-41958905.20	-41958905.06	0.0089	0.0067
Venus	-119590-05-25 18:58 J	-41958679.86	-41958679.71	-41958679.55	0.0089	0.0061
Venus	-119589-01-06 06:44 J	-41958454.38	-41958454.22	-41958454.04	0.0089	0.0055
Mars	-119589-06-03 05:46 J	-41958305.50	-41958305.26	-41958304.98	0.0089	0.0050
Moon	-119589-06-24 06:15 J	-41958284.38	-41958284.24	-41958284.06	0.0089	0.0070
Earth	-119589-06-24 07:13 J	-41958284.35	-41958284.20	-41958284.01	0.0089	0.0066 *
Venus	-119589-08-18 18:44 J	-41958228.89	-41958228.72	-41958228.54	0.0089	0.0049
Venus	-119588-04-01 06:29 J	-41958003.40	-41958003.23	-41958003.03	0.0089	0.0043
Earth	-119588-06-26 17:03 J	-41957917.00	-41957916.79	-41957916.54	0.0089	0.0039
Moon	-119588-06-26 19:27 J	-41957916.91	-41957916.69	-41957916.46	0.0089	0.0034 *
Venus	-119588-11-12 18:29 J	-41957777.91	-41957777.73	-41957777.53	0.0089	0.0037
Mars	-119587-04-29 07:27 J	-41957610.40	-41957610.19	-41957609.93	0.0089	0.0059
Venus	-119587-06-26 06:15 J	-41957552.43	-41957552.24	-41957552.02	0.0089	0.0031
Moon	-119587-06-29 00:29 J	-41957549.73	-41957549.48	-41957549.22	0.0089	0.0015
Earth	-119587-06-29 03:37 J	-41957549.59	-41957549.35	-41957549.09	0.0089	0.0011 *
Venus	-119586-02-06 18:15 J	-41957326.93	-41957326.74	-41957326.52	0.0089	0.0025
Earth	-119586-07-01 13:56 J	-41957182.17	-41957181.92	-41957181.67	0.0089	0.0017
Moon	-119586-07-01 17:03 J	-41957182.02	-41957181.79	-41957181.53	0.0089	0.0022 *
Venus	-119586-09-20 06:29 J	-41957101.44	-41957101.23	-41957101.02	0.0089	0.0018
Mars	-119585-03-24 07:41 J	-41956915.38	-41956915.18	-41956914.97	0.0089	0.0067

Venus -119585-05-02 18:44 J -41956875.93 -41956875.72 -41956875.51 0.0089 0.0012
 Moon -119585-07-02 20:39 J -41956814.86 -41956814.64 -41956814.41 0.0089 0.0040
 Earth -119585-07-03 00:01 J -41956814.70 -41956814.50 -41956814.26 0.0089 0.0045 *
 Venus -119585-12-14 06:44 J -41956650.43 -41956650.22 -41956650.01 0.0089 0.0005
 Earth -119584-07-05 10:20 J -41956447.19 -41956447.07 -41956446.90 0.0089 0.0073
 Moon -119584-07-05 13:27 J -41956447.05 -41956446.94 -41956446.79 0.0089 0.0077 *
 Venus -119584-07-27 18:44 J -41956424.93 -41956424.72 -41956424.50 0.0089 0.0001
 Mars -119583-02-17 04:49 J -41956220.45 -41956220.30 -41956220.11 0.0089 0.0075
 Venus -119583-03-10 06:44 J -41956199.43 -41956199.22 -41956199.00 0.0089 0.0007
 Venus -119583-10-21 18:44 J -41955973.92 -41955973.72 -41955973.50 0.0089 0.0014
 Venus -119582-06-04 06:58 J -41955748.41 -41955748.21 -41955747.99 0.0089 0.0020
 Mars -119581-01-13 00:58 J -41955525.54 -41955525.46 -41955525.32 0.0089 0.0083
 Venus -119581-01-15 19:13 J -41955522.90 -41955522.70 -41955522.49 0.0089 0.0026
 Venus -119581-08-28 07:13 J -41955297.39 -41955297.20 -41955296.98 0.0089 0.0033
 Venus -119580-04-10 19:41 J -41955071.87 -41955071.68 -41955071.48 0.0089 0.0039
 Venus -119580-11-22 07:56 J -41954846.34 -41954846.17 -41954845.97 0.0089 0.0045
 Venus -119579-07-05 19:56 J -41954620.82 -41954620.67 -41954620.47 0.0089 0.0052
 Venus -119578-02-16 08:25 J -41954395.29 -41954395.15 -41954394.96 0.0089 0.0058
 Venus -119578-09-29 21:08 J -41954169.76 -41954169.62 -41954169.46 0.0089 0.0064
 Venus -119577-05-12 09:51 J -41953944.21 -41953944.09 -41953943.95 0.0089 0.0070
 Venus -119577-12-23 22:34 J -41953718.66 -41953718.56 -41953718.45 0.0089 0.0076
 Venus -119576-08-06 10:34 J -41953493.11 -41953493.06 -41953492.95 0.0089 0.0083
 Venus -119575-03-19 23:32 J -41953267.52 -41953267.52 -41953267.50 0.0089 0.0089
 Mercury -119563-09-13 05:46 J -41948707.26 -41948707.26 -41948707.21 0.0089 0.0088
 Mercury -119563-12-10 09:22 J -41948619.17 -41948619.11 -41948619.04 0.0089 0.0082
 Mercury -119562-03-08 12:15 J -41948531.06 -41948530.99 -41948530.88 0.0089 0.0077
 Mercury -119562-06-04 15:37 J -41948442.94 -41948442.85 -41948442.72 0.0089 0.0071
 Mercury -119562-08-31 19:13 J -41948354.82 -41948354.70 -41948354.57 0.0089 0.0065
 Mercury -119562-11-27 22:34 J -41948266.70 -41948266.56 -41948266.42 0.0089 0.0060
 Mercury -119561-02-24 01:27 J -41948178.57 -41948178.44 -41948178.28 0.0089 0.0054

Mercury -119561-05-22 04:49 J -41948090.44 -41948090.30 -41948090.13 0.0089 0.0049

Mercury -119561-08-18 08:25 J -41948002.31 -41948002.15 -41948001.98 0.0089 0.0042

Mercury -119561-11-14 11:46 J -41947914.18 -41947914.01 -41947913.84 0.0089 0.0036

Mercury -119560-02-10 14:53 J -41947826.05 -41947825.88 -41947825.70 0.0089 0.0031

Mercury -119560-05-09 18:15 J -41947737.91 -41947737.74 -41947737.55 0.0089 0.0025

Mercury -119560-08-05 21:37 J -41947649.77 -41947649.60 -41947649.41 0.0089 0.0019

Mercury -119560-11-02 00:58 J -41947561.64 -41947561.46 -41947561.27 0.0089 0.0014

Mercury -119559-01-29 04:34 J -41947473.50 -41947473.31 -41947473.12 0.0089 0.0007

Mercury -119559-04-27 07:56 J -41947385.36 -41947385.17 -41947384.98 0.0089 0.0001

Mercury -119559-07-24 11:17 J -41947297.22 -41947297.03 -41947296.84 0.0089 0.0005

Mercury -119559-10-20 14:39 J -41947209.08 -41947208.89 -41947208.70 0.0089 0.0011

Mercury -119558-01-16 18:01 J -41947120.93 -41947120.75 -41947120.56 0.0089 0.0017

Mercury -119558-04-14 21:37 J -41947032.79 -41947032.60 -41947032.42 0.0089 0.0023

Mercury -119558-07-12 00:58 J -41946944.64 -41946944.46 -41946944.28 0.0089 0.0028

Mercury -119558-10-08 04:20 J -41946856.49 -41946856.32 -41946856.14 0.0089 0.0034

Mercury -119557-01-04 07:41 J -41946768.34 -41946768.18 -41946768.01 0.0089 0.0040

Mercury -119557-04-01 11:03 J -41946680.19 -41946680.04 -41946679.87 0.0089 0.0047

Mercury -119557-06-28 14:39 J -41946592.04 -41946591.89 -41946591.74 0.0089 0.0052

Mercury -119557-09-24 18:01 J -41946503.89 -41946503.75 -41946503.60 0.0089 0.0058

Mercury -119557-12-21 21:22 J -41946415.73 -41946415.61 -41946415.47 0.0089 0.0065

Mercury -119556-03-20 00:58 J -41946327.57 -41946327.46 -41946327.34 0.0089 0.0070

Mercury -119556-06-16 04:20 J -41946239.40 -41946239.32 -41946239.21 0.0089 0.0077

Mercury -119556-09-12 07:56 J -41946151.23 -41946151.17 -41946151.09 0.0089 0.0083

Mercury -119556-12-09 11:32 J -41946063.03 -41946063.02 -41946063.00 0.0089 0.0089

Mars -119538-10-03 02:39 J -41939556.42 -41939556.39 -41939556.36 0.0089 0.0089

Mars -119536-08-27 04:20 J -41938862.40 -41938862.32 -41938862.17 0.0089 0.0083

Mars -119534-07-22 06:01 J -41938168.37 -41938168.25 -41938168.05 0.0089 0.0075

Mars -119532-06-15 08:53 J -41937474.30 -41937474.13 -41937473.91 0.0089 0.0067

Mars -119530-05-10 12:44 J -41936780.18 -41936779.97 -41936779.73 0.0089 0.0059

Mars -119528-04-03 15:37 J -41936086.07 -41936085.85 -41936085.58 0.0089 0.0051

Mars	-119526-02-26 19:56 J	-41935391.93	-41935391.67	-41935391.40	0.0089	0.0042
Mars	-119524-01-21 01:41 J	-41934697.71	-41934697.43	-41934697.15	0.0089	0.0033
Mars	-119523-12-16 08:10 J	-41934003.45	-41934003.16	-41934002.87	0.0089	0.0024
Mars	-119521-11-09 14:39 J	-41933309.18	-41933308.89	-41933308.59	0.0089	0.0015
Mars	-119519-10-04 23:17 J	-41932614.83	-41932614.53	-41932614.23	0.0089	0.0006
Mars	-119517-08-29 08:10 J	-41931920.47	-41931920.16	-41931919.86	0.0089	0.0003
Mars	-119515-07-24 17:17 J	-41931226.07	-41931225.78	-41931225.46	0.0089	0.0013
Mars	-119513-06-18 04:34 J	-41930531.59	-41930531.31	-41930531.00	0.0089	0.0023
Mars	-119511-05-13 17:32 J	-41929837.04	-41929836.77	-41929836.46	0.0089	0.0032
Venus	-119510-01-25 05:46 J	-41929580.30	-41929580.26	-41929580.17	0.0089	0.0085
Venus	-119510-09-07 20:39 J	-41929354.74	-41929354.64	-41929354.52	0.0089	0.0078
Mars	-119509-04-07 07:13 J	-41929142.46	-41929142.20	-41929141.91	0.0089	0.0041
Venus	-119509-04-20 10:49 J	-41929129.16	-41929129.05	-41929128.90	0.0089	0.0072
Venus	-119509-12-02 01:27 J	-41928903.59	-41928903.44	-41928903.28	0.0089	0.0065
Venus	-119508-07-15 15:22 J	-41928678.01	-41928677.86	-41928677.67	0.0089	0.0059
Earth	-119507-01-02 09:51 J	-41928507.25	-41928507.09	-41928506.94	0.0089	0.0071
Moon	-119507-01-02 12:58 J	-41928507.11	-41928506.96	-41928506.78	0.0089	0.0069 *
Venus	-119507-02-26 05:46 J	-41928452.43	-41928452.26	-41928452.06	0.0089	0.0052
Mars	-119507-03-02 22:49 J	-41928447.79	-41928447.55	-41928447.28	0.0089	0.0050
Venus	-119507-10-09 19:56 J	-41928226.84	-41928226.67	-41928226.46	0.0089	0.0046
Moon	-119506-01-04 18:44 J	-41928139.92	-41928139.72	-41928139.47	0.0089	0.0045
Earth	-119506-01-04 22:34 J	-41928139.77	-41928139.56	-41928139.32	0.0089	0.0043 *
Venus	-119506-05-23 10:20 J	-41928001.26	-41928001.07	-41928000.86	0.0089	0.0039
Venus	-119505-01-04 00:15 J	-41927775.68	-41927775.49	-41927775.26	0.0089	0.0033
Earth	-119505-01-07 11:32 J	-41927772.27	-41927772.02	-41927771.75	0.0089	0.0015
Moon	-119505-01-07 15:37 J	-41927772.11	-41927771.85	-41927771.59	0.0089	0.0013 *
Mars	-119505-01-26 16:20 J	-41927753.03	-41927752.82	-41927752.57	0.0089	0.0059
Venus	-119505-08-16 14:25 J	-41927550.11	-41927549.90	-41927549.67	0.0089	0.0026
Moon	-119504-01-08 22:05 J	-41927404.83	-41927404.58	-41927404.32	0.0089	0.0012
Earth	-119504-01-09 00:29 J	-41927404.72	-41927404.48	-41927404.21	0.0089	0.0015 *

Venus -119504-03-30 04:49 J -41927324.52 -41927324.30 -41927324.08 0.0089 0.0019
 Venus -119504-11-10 18:44 J -41927098.94 -41927098.72 -41927098.49 0.0089 0.0013
 Mars -119504-12-21 10:05 J -41927058.25 -41927058.08 -41927057.85 0.0089 0.0068
 Earth -119503-01-11 12:58 J -41927037.17 -41927036.96 -41927036.72 0.0089 0.0043
 Moon -119503-01-11 15:08 J -41927037.09 -41927036.87 -41927036.62 0.0089 0.0043 *
 Venus -119503-06-24 08:53 J -41926873.36 -41926873.13 -41926872.91 0.0089 0.0006
 Moon -119502-01-14 00:29 J -41926669.62 -41926669.48 -41926669.31 0.0089 0.0070
 Earth -119502-01-14 01:13 J -41926669.58 -41926669.45 -41926669.27 0.0089 0.0071 *
 Venus -119502-02-04 22:49 J -41926647.78 -41926647.55 -41926647.33 0.0089 0.0001
 Venus -119502-09-18 12:29 J -41926422.20 -41926421.98 -41926421.75 0.0089 0.0008
 Mars -119502-11-16 05:32 J -41926363.41 -41926363.27 -41926363.08 0.0089 0.0076
 Venus -119501-05-01 02:39 J -41926196.61 -41926196.39 -41926196.17 0.0089 0.0014
 Venus -119501-12-12 16:20 J -41925971.03 -41925970.82 -41925970.59 0.0089 0.0021
 Venus -119500-07-26 06:15 J -41925745.45 -41925745.24 -41925745.02 0.0089 0.0027
 Mars -119500-10-11 02:53 J -41925668.45 -41925668.38 -41925668.25 0.0089 0.0084
 Venus -119499-03-08 19:41 J -41925519.87 -41925519.68 -41925519.46 0.0089 0.0034
 Venus -119499-10-20 09:51 J -41925294.28 -41925294.09 -41925293.88 0.0089 0.0040
 Venus -119498-06-02 23:17 J -41925068.70 -41925068.53 -41925068.32 0.0089 0.0047
 Venus -119497-01-14 13:13 J -41924843.12 -41924842.95 -41924842.76 0.0089 0.0053
 Venus -119497-08-27 02:53 J -41924617.54 -41924617.38 -41924617.21 0.0089 0.0059
 Venus -119496-04-09 16:05 J -41924391.96 -41924391.83 -41924391.66 0.0089 0.0066
 Venus -119496-11-21 05:46 J -41924166.37 -41924166.26 -41924166.11 0.0089 0.0072
 Venus -119495-07-04 19:13 J -41923940.79 -41923940.70 -41923940.58 0.0089 0.0078
 Venus -119494-02-15 08:39 J -41923715.20 -41923715.14 -41923715.06 0.0089 0.0084
 Mercury -119482-07-10 18:15 J -41919186.76 -41919186.74 -41919186.70 0.0088 0.0086
 Mercury -119482-10-06 19:41 J -41919098.72 -41919098.68 -41919098.62 0.0088 0.0082
 Mercury -119481-01-02 21:08 J -41919010.67 -41919010.62 -41919010.54 0.0088 0.0077
 Mercury -119481-03-30 22:34 J -41918922.62 -41918922.56 -41918922.47 0.0088 0.0073
 Mercury -119481-06-27 00:15 J -41918834.57 -41918834.49 -41918834.40 0.0088 0.0069
 Mercury -119481-09-23 01:41 J -41918746.51 -41918746.43 -41918746.33 0.0088 0.0064

Mercury -119481-12-20 03:08 J -41918658.46 -41918658.37 -41918658.26 0.0088 0.0060

Mercury -119480-03-18 04:49 J -41918570.40 -41918570.30 -41918570.19 0.0088 0.0056

Mercury -119480-06-14 06:15 J -41918482.35 -41918482.24 -41918482.12 0.0088 0.0052

Mercury -119480-09-10 07:41 J -41918394.29 -41918394.18 -41918394.06 0.0088 0.0047

Mercury -119480-12-07 09:08 J -41918306.23 -41918306.12 -41918305.99 0.0088 0.0043

Mercury -119479-03-05 10:49 J -41918218.17 -41918218.05 -41918217.93 0.0088 0.0039

Mercury -119479-06-01 12:15 J -41918130.12 -41918129.99 -41918129.86 0.0088 0.0034

Mercury -119479-08-28 13:41 J -41918042.06 -41918041.93 -41918041.80 0.0088 0.0030

Mercury -119479-11-24 15:08 J -41917954.00 -41917953.87 -41917953.74 0.0088 0.0026

Mercury -119478-02-20 16:34 J -41917865.94 -41917865.81 -41917865.67 0.0088 0.0022

Mercury -119478-05-19 18:01 J -41917777.88 -41917777.75 -41917777.61 0.0088 0.0018

Mercury -119478-08-15 19:27 J -41917689.82 -41917689.69 -41917689.55 0.0088 0.0013

Mercury -119478-11-11 20:53 J -41917601.76 -41917601.63 -41917601.49 0.0088 0.0009

Mercury -119477-02-07 22:20 J -41917513.70 -41917513.57 -41917513.43 0.0088 0.0005

Mercury -119477-05-05 23:46 J -41917425.64 -41917425.51 -41917425.37 0.0088 0.0002

Mercury -119477-08-02 01:13 J -41917337.58 -41917337.45 -41917337.31 0.0088 0.0004

Mercury -119477-10-29 02:39 J -41917249.52 -41917249.39 -41917249.25 0.0088 0.0008

Mercury -119476-01-25 04:05 J -41917161.46 -41917161.33 -41917161.19 0.0088 0.0012

Mercury -119476-04-23 05:32 J -41917073.40 -41917073.27 -41917073.14 0.0088 0.0016

Mercury -119476-07-20 06:58 J -41916985.34 -41916985.21 -41916985.08 0.0088 0.0020

Mercury -119476-10-16 08:25 J -41916897.28 -41916897.15 -41916897.02 0.0088 0.0024

Mercury -119475-01-12 09:51 J -41916809.22 -41916809.09 -41916808.96 0.0088 0.0029

Mercury -119475-04-10 11:03 J -41916721.16 -41916721.04 -41916720.91 0.0088 0.0033

Mercury -119475-07-07 12:29 J -41916633.10 -41916632.98 -41916632.85 0.0088 0.0037

Mercury -119475-10-03 13:56 J -41916545.04 -41916544.92 -41916544.80 0.0088 0.0041

Mercury -119475-12-30 15:08 J -41916456.97 -41916456.87 -41916456.74 0.0088 0.0046

Mercury -119474-03-28 16:34 J -41916368.91 -41916368.81 -41916368.69 0.0088 0.0050

Mercury -119474-06-24 18:01 J -41916280.85 -41916280.75 -41916280.63 0.0088 0.0054

Mercury -119474-09-20 19:27 J -41916192.79 -41916192.69 -41916192.58 0.0088 0.0058

Mercury -119474-12-17 20:53 J -41916104.72 -41916104.63 -41916104.53 0.0088 0.0062

Mercury -119473-03-14 22:20 J -41916016.66 -41916016.57 -41916016.48 0.0088 0.0066
 Mercury -119473-06-10 23:46 J -41915928.59 -41915928.51 -41915928.43 0.0088 0.0070
 Mercury -119473-09-07 01:13 J -41915840.52 -41915840.45 -41915840.38 0.0088 0.0074
 Mercury -119473-12-04 02:25 J -41915752.46 -41915752.40 -41915752.33 0.0088 0.0078
 Mercury -119472-03-02 03:51 J -41915664.38 -41915664.34 -41915664.29 0.0088 0.0082
 Mercury -119472-05-29 05:17 J -41915576.31 -41915576.28 -41915576.25 0.0088 0.0086
 Mars -119452-05-20 16:20 J -41908279.89 -41908279.82 -41908279.67 0.0088 0.0083
 Mars -119450-04-16 11:17 J -41907584.18 -41907584.03 -41907583.82 0.0088 0.0075
 Mars -119448-03-12 05:46 J -41906888.47 -41906888.26 -41906888.02 0.0088 0.0066
 Mars -119446-02-05 23:32 J -41906192.76 -41906192.52 -41906192.25 0.0088 0.0057
 Mars -119444-01-01 16:05 J -41905497.08 -41905496.83 -41905496.52 0.0088 0.0048
 Mars -119443-11-28 07:56 J -41904801.45 -41904801.17 -41904800.86 0.0088 0.0038
 Mars -119441-10-23 22:49 J -41904105.87 -41904105.55 -41904105.24 0.0088 0.0028
 Mars -119439-09-19 12:01 J -41903410.30 -41903410.00 -41903409.66 0.0088 0.0019
 Mars -119437-08-15 00:29 J -41902714.80 -41902714.48 -41902714.15 0.0088 0.0008
 Mars -119435-07-11 11:32 J -41902019.34 -41902019.02 -41902018.69 0.0088 0.0003
 Mars -119433-06-05 21:22 J -41901323.92 -41901323.61 -41901323.28 0.0088 0.0012
 Mars -119431-05-02 05:17 J -41900628.57 -41900628.28 -41900627.95 0.0089 0.0022
 Mars -119429-03-27 12:01 J -41899933.28 -41899933.00 -41899932.68 0.0089 0.0031
 Venus -119428-03-08 09:37 J -41899587.15 -41899587.10 -41899587.02 0.0089 0.0084
 Venus -119428-10-19 21:22 J -41899361.70 -41899361.61 -41899361.50 0.0089 0.0078
 Mars -119427-02-20 17:46 J -41899238.03 -41899237.76 -41899237.45 0.0089 0.0040
 Venus -119427-06-02 08:53 J -41899136.24 -41899136.13 -41899135.99 0.0089 0.0072
 Venus -119426-01-13 20:39 J -41898910.77 -41898910.64 -41898910.48 0.0089 0.0066
 Venus -119426-08-27 08:25 J -41898685.29 -41898685.15 -41898684.98 0.0089 0.0060
 Mars -119425-01-16 21:51 J -41898542.84 -41898542.59 -41898542.31 0.0089 0.0049
 Venus -119425-04-08 20:25 J -41898459.81 -41898459.65 -41898459.47 0.0089 0.0054
 Earth -119425-06-23 20:39 J -41898383.76 -41898383.64 -41898383.50 0.0089 0.0076
 Moon -119425-06-24 00:01 J -41898383.60 -41898383.50 -41898383.38 0.0089 0.0079 *
 Venus -119425-11-20 08:10 J -41898234.33 -41898234.16 -41898233.97 0.0089 0.0048

Moon -119424-06-26 03:22 J -41898016.57 -41898016.36 -41898016.14 0.0089 0.0046
 Earth -119424-06-26 06:29 J -41898016.42 -41898016.23 -41898016.00 0.0089 0.0049 *
 Venus -119424-07-03 19:56 J -41898008.84 -41898008.67 -41898008.47 0.0089 0.0042
 Mars -119424-12-11 23:32 J -41897847.73 -41897847.52 -41897847.25 0.0089 0.0058
 Venus -119423-02-14 07:56 J -41897783.36 -41897783.17 -41897782.96 0.0089 0.0036
 Earth -119423-06-28 16:49 J -41897649.04 -41897648.80 -41897648.54 0.0089 0.0021
 Moon -119423-06-28 20:25 J -41897648.89 -41897648.65 -41897648.39 0.0089 0.0024 *
 Venus -119423-09-27 19:41 J -41897557.86 -41897557.68 -41897557.46 0.0089 0.0030
 Venus -119422-05-11 08:10 J -41897332.36 -41897332.16 -41897331.95 0.0089 0.0023
 Moon -119422-07-01 00:29 J -41897281.72 -41897281.48 -41897281.23 0.0089 0.0010
 Earth -119422-07-01 03:08 J -41897281.62 -41897281.37 -41897281.11 0.0089 0.0007 *
 Mars -119422-11-07 00:29 J -41897152.66 -41897152.48 -41897152.23 0.0089 0.0066
 Venus -119422-12-22 20:10 J -41897106.87 -41897106.66 -41897106.45 0.0089 0.0017
 Earth -119421-07-02 13:13 J -41896914.17 -41896913.95 -41896913.70 0.0089 0.0035
 Moon -119421-07-02 15:22 J -41896914.09 -41896913.86 -41896913.60 0.0089 0.0033 *
 Venus -119421-08-04 08:10 J -41896881.37 -41896881.16 -41896880.95 0.0089 0.0011
 Venus -119420-03-17 20:10 J -41896655.87 -41896655.66 -41896655.44 0.0089 0.0004
 Moon -119420-07-04 23:17 J -41896546.69 -41896546.53 -41896546.36 0.0089 0.0065
 Earth -119420-07-04 23:32 J -41896546.68 -41896546.52 -41896546.32 0.0089 0.0063 *
 Mars -119420-10-01 23:46 J -41896457.65 -41896457.51 -41896457.30 0.0089 0.0074
 Venus -119420-10-29 08:10 J -41896430.37 -41896430.16 -41896429.94 0.0089 0.0002
 Venus -119419-06-11 20:10 J -41896204.87 -41896204.66 -41896204.44 0.0089 0.0009
 Moon -119419-07-07 09:08 J -41896179.13 -41896179.12 -41896179.05 0.0089 0.0088
 Venus -119418-01-23 08:10 J -41895979.36 -41895979.16 -41895978.94 0.0089 0.0015
 Mars -119418-08-27 20:53 J -41895762.73 -41895762.63 -41895762.47 0.0089 0.0081
 Venus -119418-09-05 20:25 J -41895753.85 -41895753.65 -41895753.43 0.0089 0.0021
 Venus -119417-04-18 08:39 J -41895528.34 -41895528.14 -41895527.93 0.0089 0.0027
 Venus -119417-11-29 21:08 J -41895302.82 -41895302.62 -41895302.42 0.0089 0.0033
 Venus -119416-07-13 08:53 J -41895077.31 -41895077.13 -41895076.92 0.0089 0.0040
 Mars -119416-07-22 17:03 J -41895067.83 -41895067.79 -41895067.72 0.0089 0.0087

Venus -119415-02-23 21:08 J -41894851.79 -41894851.62 -41894851.42 0.0089 0.0046

Venus -119415-10-07 09:22 J -41894626.27 -41894626.11 -41894625.92 0.0089 0.0052

Venus -119414-05-20 22:05 J -41894400.74 -41894400.58 -41894400.41 0.0089 0.0058

Venus -119413-01-01 10:05 J -41894175.21 -41894175.08 -41894174.91 0.0089 0.0065

Venus -119413-08-13 22:34 J -41893949.67 -41893949.56 -41893949.41 0.0089 0.0071

Venus -119412-03-27 11:03 J -41893724.13 -41893724.04 -41893723.92 0.0089 0.0077

Venus -119412-11-07 23:46 J -41893498.58 -41893498.51 -41893498.43 0.0089 0.0083

Mercury -119398-06-10 05:17 J -41888536.32 -41888536.28 -41888536.20 0.0089 0.0084

Mercury -119398-09-06 08:39 J -41888448.21 -41888448.14 -41888448.04 0.0089 0.0078

Mercury -119398-12-03 12:15 J -41888360.10 -41888359.99 -41888359.89 0.0089 0.0072

Mercury -119397-02-29 15:08 J -41888271.98 -41888271.87 -41888271.73 0.0089 0.0067

Mercury -119397-05-27 18:29 J -41888183.85 -41888183.73 -41888183.58 0.0089 0.0061

Mercury -119397-08-23 21:51 J -41888095.73 -41888095.59 -41888095.44 0.0089 0.0055

Mercury -119397-11-20 00:58 J -41888007.60 -41888007.46 -41888007.29 0.0089 0.0050

Mercury -119396-02-16 04:20 J -41887919.47 -41887919.32 -41887919.15 0.0089 0.0044

Mercury -119396-05-15 07:41 J -41887831.34 -41887831.18 -41887831.00 0.0089 0.0038

Mercury -119396-08-11 11:03 J -41887743.20 -41887743.04 -41887742.86 0.0089 0.0032

Mercury -119396-11-07 14:39 J -41887655.07 -41887654.89 -41887654.71 0.0089 0.0026

Mercury -119395-02-03 18:01 J -41887566.93 -41887566.75 -41887566.57 0.0089 0.0021

Mercury -119395-05-02 21:08 J -41887478.80 -41887478.62 -41887478.43 0.0089 0.0015

Mercury -119395-07-30 00:29 J -41887390.66 -41887390.48 -41887390.29 0.0089 0.0009

Mercury -119395-10-26 04:05 J -41887302.52 -41887302.33 -41887302.14 0.0089 0.0003

Mercury -119394-01-22 07:27 J -41887214.38 -41887214.19 -41887214.00 0.0089 0.0003

Mercury -119394-04-20 10:49 J -41887126.24 -41887126.05 -41887125.86 0.0089 0.0009

Mercury -119394-07-17 14:10 J -41887038.09 -41887037.91 -41887037.72 0.0089 0.0015

Mercury -119394-10-13 17:32 J -41886949.95 -41886949.77 -41886949.58 0.0089 0.0021

Mercury -119393-01-09 20:53 J -41886861.80 -41886861.63 -41886861.44 0.0089 0.0027

Mercury -119393-04-07 00:15 J -41886773.66 -41886773.49 -41886773.31 0.0089 0.0033

Mercury -119393-07-04 03:37 J -41886685.51 -41886685.35 -41886685.17 0.0089 0.0039

Mercury -119393-09-30 06:58 J -41886597.36 -41886597.21 -41886597.03 0.0089 0.0045

Mercury -119393-12-27 10:34 J -41886509.21 -41886509.06 -41886508.90 0.0089 0.0051

Mercury -119392-03-25 13:56 J -41886421.05 -41886420.92 -41886420.76 0.0089 0.0057

Mercury -119392-06-21 17:17 J -41886332.90 -41886332.78 -41886332.63 0.0089 0.0063

Mercury -119392-09-17 20:53 J -41886244.74 -41886244.63 -41886244.50 0.0089 0.0069

Mercury -119392-12-15 00:15 J -41886156.57 -41886156.49 -41886156.37 0.0089 0.0075

Mercury -119391-03-13 03:37 J -41886068.40 -41886068.35 -41886068.25 0.0089 0.0082

Mercury -119391-06-09 07:13 J -41885980.22 -41885980.20 -41885980.14 0.0089 0.0087

Mars -119374-05-18 12:44 J -41879793.03 -41879792.97 -41879792.87 0.0089 0.0085

Mars -119372-04-11 14:39 J -41879099.02 -41879098.89 -41879098.74 0.0089 0.0079

Mars -119370-03-06 17:03 J -41878404.96 -41878404.79 -41878404.61 0.0089 0.0071

Mars -119368-01-28 18:29 J -41877710.91 -41877710.73 -41877710.50 0.0089 0.0064

Mars -119367-12-23 21:08 J -41877016.84 -41877016.62 -41877016.38 0.0089 0.0056

Mars -119365-11-17 01:41 J -41876322.67 -41876322.43 -41876322.17 0.0089 0.0048

Mars -119363-10-12 05:32 J -41875628.52 -41875628.27 -41875627.99 0.0089 0.0040

Mars -119361-09-05 09:22 J -41874934.37 -41874934.11 -41874933.80 0.0089 0.0032

Mars -119359-07-31 15:08 J -41874240.14 -41874239.87 -41874239.56 0.0089 0.0023

Mars -119357-06-24 21:51 J -41873545.88 -41873545.59 -41873545.28 0.0089 0.0014

Mars -119355-05-20 04:34 J -41872851.61 -41872851.31 -41872851.01 0.0089 0.0005

Mars -119353-04-13 12:44 J -41872157.27 -41872156.97 -41872156.66 0.0089 0.0004

Mars -119351-03-08 22:20 J -41871462.87 -41871462.57 -41871462.27 0.0089 0.0013

Mars -119349-02-01 08:25 J -41870768.44 -41870768.15 -41870767.85 0.0089 0.0022

Mars -119348-12-26 20:10 J -41870073.94 -41870073.66 -41870073.36 0.0089 0.0031

Venus -119346-04-28 17:32 J -41869585.84 -41869585.77 -41869585.69 0.0089 0.0083

Mars -119346-11-21 09:37 J -41869379.37 -41869379.10 -41869378.82 0.0089 0.0040

Venus -119346-12-10 07:27 J -41869360.28 -41869360.19 -41869360.05 0.0089 0.0077

Venus -119345-07-22 22:20 J -41869134.70 -41869134.57 -41869134.43 0.0089 0.0070

Venus -119344-03-05 12:15 J -41868909.13 -41868908.99 -41868908.81 0.0089 0.0064

Mars -119344-10-15 23:32 J -41868684.76 -41868684.52 -41868684.25 0.0089 0.0049

Venus -119344-10-17 03:08 J -41868683.54 -41868683.37 -41868683.19 0.0089 0.0057

Moon -119343-01-01 16:34 J -41868606.85 -41868606.81 -41868606.72 0.0089 0.0086

Earth -119343-01-01 20:10 J -41868606.75 -41868606.66 -41868606.55 0.0089 0.0082 *
 Venus -119343-05-30 17:17 J -41868457.95 -41868457.78 -41868457.58 0.0089 0.0051
 Earth -119342-01-04 09:22 J -41868239.30 -41868239.11 -41868238.88 0.0089 0.0054
 Moon -119342-01-04 11:46 J -41868239.22 -41868239.01 -41868238.78 0.0089 0.0050 *
 Venus -119342-01-11 07:41 J -41868232.37 -41868232.18 -41868231.98 0.0089 0.0044
 Venus -119342-08-24 21:37 J -41868006.79 -41868006.60 -41868006.38 0.0089 0.0038
 Mars -119342-09-10 14:10 J -41867990.12 -41867989.91 -41867989.64 0.0089 0.0058
 Moon -119341-01-06 21:22 J -41867871.83 -41867871.61 -41867871.36 0.0089 0.0029
 Earth -119341-01-06 22:49 J -41867871.79 -41867871.55 -41867871.29 0.0089 0.0025 *
 Venus -119341-04-06 12:01 J -41867781.21 -41867781.00 -41867780.79 0.0089 0.0031
 Venus -119341-11-18 01:56 J -41867555.63 -41867555.42 -41867555.19 0.0089 0.0025
 Earth -119340-01-08 12:01 J -41867504.26 -41867504.00 -41867503.74 0.0089 0.0004
 Moon -119340-01-08 12:01 J -41867504.26 -41867504.00 -41867503.72 0.0089 0.0008 *
 Venus -119340-07-01 16:05 J -41867330.05 -41867329.83 -41867329.60 0.0089 0.0018
 Mars -119340-08-05 07:41 J -41867295.36 -41867295.18 -41867294.95 0.0089 0.0066
 Earth -119339-01-11 00:44 J -41867136.71 -41867136.47 -41867136.23 0.0089 0.0032
 Moon -119339-01-11 02:10 J -41867136.65 -41867136.41 -41867136.17 0.0089 0.0029 *
 Venus -119339-02-12 06:01 J -41867104.47 -41867104.25 -41867104.02 0.0089 0.0012
 Venus -119339-09-25 20:10 J -41866878.88 -41866878.66 -41866878.43 0.0089 0.0005
 Moon -119338-01-13 10:49 J -41866769.22 -41866769.05 -41866768.85 0.0089 0.0064
 Earth -119338-01-13 12:44 J -41866769.13 -41866768.97 -41866768.76 0.0089 0.0061 *
 Venus -119338-05-09 10:20 J -41866653.30 -41866653.07 -41866652.85 0.0089 0.0002
 Mars -119338-07-01 01:41 J -41866600.57 -41866600.43 -41866600.23 0.0089 0.0074
 Venus -119338-12-21 00:01 J -41866427.72 -41866427.50 -41866427.27 0.0089 0.0009
 Earth -119337-01-16 01:27 J -41866401.44 -41866401.44 -41866401.42 0.0089 0.0088
 Moon -119337-01-16 04:05 J -41866401.38 -41866401.33 -41866401.23 0.0089 0.0085
 Venus -119337-08-02 13:56 J -41866202.14 -41866201.92 -41866201.69 0.0089 0.0015
 Venus -119336-03-16 03:37 J -41865976.56 -41865976.35 -41865976.12 0.0089 0.0022
 Mars -119336-05-25 20:53 J -41865905.72 -41865905.63 -41865905.47 0.0089 0.0082
 Venus -119336-10-27 17:46 J -41865750.97 -41865750.76 -41865750.54 0.0089 0.0028

Venus -119335-06-10 07:27 J -41865525.39 -41865525.19 -41865524.97 0.0089 0.0035
 Venus -119334-01-21 21:22 J -41865299.81 -41865299.61 -41865299.41 0.0089 0.0041
 Mars -119334-04-20 19:13 J -41865210.70 -41865210.70 -41865210.70 0.0089 0.0089
 Venus -119334-09-04 10:34 J -41865074.23 -41865074.06 -41865073.85 0.0089 0.0048
 Venus -119333-04-17 00:29 J -41864848.64 -41864848.48 -41864848.29 0.0089 0.0054
 Venus -119333-11-28 14:25 J -41864623.06 -41864622.90 -41864622.73 0.0089 0.0060
 Venus -119332-07-12 03:37 J -41864397.47 -41864397.35 -41864397.18 0.0089 0.0067
 Venus -119331-02-22 17:17 J -41864171.89 -41864171.78 -41864171.63 0.0089 0.0073
 Venus -119331-10-06 06:58 J -41863946.29 -41863946.21 -41863946.09 0.0089 0.0079
 Venus -119330-05-19 20:25 J -41863720.69 -41863720.65 -41863720.57 0.0089 0.0085
 Mercury -119317-01-08 17:03 J -41859103.81 -41859103.79 -41859103.77 0.0088 0.0087
 Mercury -119317-04-05 18:15 J -41859015.77 -41859015.74 -41859015.68 0.0088 0.0083
 Mercury -119317-07-02 19:41 J -41858927.73 -41858927.68 -41858927.60 0.0088 0.0079
 Mercury -119317-09-28 21:37 J -41858839.68 -41858839.60 -41858839.53 0.0088 0.0074
 Mercury -119317-12-25 22:49 J -41858751.62 -41858751.55 -41858751.45 0.0088 0.0070
 Mercury -119316-03-24 00:15 J -41858663.57 -41858663.49 -41858663.38 0.0088 0.0066
 Mercury -119316-06-20 01:41 J -41858575.51 -41858575.43 -41858575.31 0.0088 0.0062
 Mercury -119316-09-16 03:37 J -41858487.46 -41858487.35 -41858487.25 0.0088 0.0057
 Mercury -119316-12-13 04:49 J -41858399.40 -41858399.30 -41858399.18 0.0088 0.0053
 Mercury -119315-03-11 06:15 J -41858311.34 -41858311.24 -41858311.11 0.0088 0.0049
 Mercury -119315-06-07 07:41 J -41858223.29 -41858223.18 -41858223.05 0.0088 0.0045
 Mercury -119315-09-03 09:22 J -41858135.23 -41858135.11 -41858134.98 0.0088 0.0040
 Mercury -119315-11-30 10:49 J -41858047.17 -41858047.05 -41858046.92 0.0088 0.0036
 Mercury -119314-02-26 12:15 J -41857959.11 -41857958.99 -41857958.85 0.0088 0.0031
 Mercury -119314-05-25 13:56 J -41857871.05 -41857870.92 -41857870.79 0.0088 0.0027
 Mercury -119314-08-21 15:22 J -41857782.99 -41857782.86 -41857782.73 0.0088 0.0023
 Mercury -119314-11-17 16:49 J -41857694.93 -41857694.80 -41857694.66 0.0088 0.0018
 Mercury -119313-02-13 18:15 J -41857606.87 -41857606.74 -41857606.60 0.0088 0.0014
 Mercury -119313-05-11 19:41 J -41857518.82 -41857518.68 -41857518.54 0.0088 0.0010
 Mercury -119313-08-07 21:08 J -41857430.76 -41857430.62 -41857430.48 0.0088 0.0006

Mercury -119313-11-03 22:34 J -41857342.70 -41857342.56 -41857342.42 0.0088 0.0002

Mercury -119312-01-31 00:01 J -41857254.64 -41857254.50 -41857254.36 0.0088 0.0003

Mercury -119312-04-29 01:27 J -41857166.58 -41857166.44 -41857166.30 0.0088 0.0007

Mercury -119312-07-26 02:53 J -41857078.52 -41857078.38 -41857078.24 0.0088 0.0011

Mercury -119312-10-22 04:20 J -41856990.46 -41856990.32 -41856990.19 0.0088 0.0015

Mercury -119311-01-18 05:46 J -41856902.39 -41856902.26 -41856902.13 0.0088 0.0019

Mercury -119311-04-16 07:13 J -41856814.33 -41856814.20 -41856814.07 0.0088 0.0024

Mercury -119311-07-13 08:39 J -41856726.27 -41856726.14 -41856726.01 0.0088 0.0028

Mercury -119311-10-09 09:51 J -41856638.21 -41856638.09 -41856637.96 0.0088 0.0032

Mercury -119310-01-05 11:17 J -41856550.15 -41856550.03 -41856549.90 0.0088 0.0036

Mercury -119310-04-03 12:29 J -41856462.09 -41856461.98 -41856461.85 0.0088 0.0041

Mercury -119310-06-30 13:56 J -41856374.03 -41856373.92 -41856373.79 0.0088 0.0045

Mercury -119310-09-26 15:22 J -41856285.96 -41856285.86 -41856285.74 0.0088 0.0048

Mercury -119310-12-23 16:49 J -41856197.90 -41856197.80 -41856197.69 0.0088 0.0052

Mercury -119309-03-20 18:15 J -41856109.84 -41856109.74 -41856109.63 0.0088 0.0056

Mercury -119309-06-16 19:41 J -41856021.77 -41856021.68 -41856021.58 0.0088 0.0060

Mercury -119309-09-12 21:08 J -41855933.71 -41855933.62 -41855933.53 0.0088 0.0065

Mercury -119309-12-09 22:34 J -41855845.65 -41855845.56 -41855845.48 0.0088 0.0069

Mercury -119308-03-07 23:46 J -41855757.58 -41855757.51 -41855757.43 0.0088 0.0073

Mercury -119308-06-04 01:13 J -41855669.51 -41855669.45 -41855669.38 0.0088 0.0077

Mercury -119308-08-31 02:39 J -41855581.44 -41855581.39 -41855581.34 0.0088 0.0081

Mercury -119308-11-27 04:05 J -41855493.37 -41855493.33 -41855493.30 0.0088 0.0085

Mars -119290-02-05 22:34 J -41849213.61 -41849213.56 -41849213.48 0.0088 0.0087

Mars -119288-01-01 17:32 J -41848517.88 -41848517.77 -41848517.58 0.0088 0.0080

Mars -119287-11-28 12:58 J -41847822.12 -41847821.96 -41847821.73 0.0088 0.0072

Mars -119285-10-24 08:25 J -41847126.37 -41847126.15 -41847125.90 0.0088 0.0063

Mars -119283-09-20 02:39 J -41846430.64 -41846430.39 -41846430.11 0.0088 0.0054

Mars -119281-08-15 20:25 J -41845734.92 -41845734.65 -41845734.35 0.0088 0.0045

Mars -119279-07-12 12:44 J -41845039.25 -41845038.97 -41845038.64 0.0088 0.0036

Mars -119277-06-07 04:20 J -41844343.63 -41844343.32 -41844343.00 0.0088 0.0026

Mars	-119275-05-03 18:01 J	-41843648.06	-41843647.75	-41843647.42	0.0088	0.0017
Mars	-119273-03-29 07:27 J	-41842952.51	-41842952.19	-41842951.85	0.0088	0.0007
Mars	-119271-02-22 19:56 J	-41842257.00	-41842256.67	-41842256.34	0.0088	0.0003
Mars	-119269-01-19 06:15 J	-41841561.55	-41841561.24	-41841560.90	0.0088	0.0013
Mars	-119268-12-14 16:05 J	-41840866.14	-41840865.83	-41840865.51	0.0088	0.0022
Mars	-119266-11-10 00:01 J	-41840170.80	-41840170.50	-41840170.19	0.0089	0.0031
Venus	-119265-10-27 11:46 J	-41839818.02	-41839818.01	-41839817.97	0.0089	0.0088
Venus	-119264-06-09 23:32 J	-41839592.59	-41839592.52	-41839592.44	0.0089	0.0082
Mars	-119264-10-05 05:46 J	-41839475.53	-41839475.26	-41839474.95	0.0089	0.0040
Venus	-119263-01-21 10:34 J	-41839367.14	-41839367.06	-41839366.93	0.0089	0.0077
Venus	-119263-09-03 22:20 J	-41839141.68	-41839141.57	-41839141.42	0.0089	0.0071
Venus	-119262-04-17 10:20 J	-41838916.20	-41838916.07	-41838915.91	0.0089	0.0065
Mars	-119262-08-31 10:49 J	-41838780.31	-41838780.05	-41838779.77	0.0089	0.0048
Venus	-119262-11-28 22:05 J	-41838690.73	-41838690.58	-41838690.41	0.0089	0.0059
Moon	-119261-06-23 06:29 J	-41838483.27	-41838483.23	-41838483.12	0.0089	0.0085
Earth	-119261-06-23 09:51 J	-41838483.11	-41838483.09	-41838483.01	0.0089	0.0087
Venus	-119261-07-11 09:51 J	-41838465.25	-41838465.09	-41838464.91	0.0089	0.0053
Venus	-119260-02-21 21:22 J	-41838239.77	-41838239.61	-41838239.41	0.0089	0.0047
Earth	-119260-06-25 19:56 J	-41838115.85	-41838115.67	-41838115.48	0.0089	0.0059
Moon	-119260-06-25 21:51 J	-41838115.75	-41838115.59	-41838115.38	0.0089	0.0062 *
Mars	-119260-07-26 14:10 J	-41838085.13	-41838084.91	-41838084.63	0.0089	0.0057
Venus	-119260-10-05 09:22 J	-41838014.29	-41838014.11	-41838013.91	0.0089	0.0041
Venus	-119259-05-18 21:08 J	-41837788.80	-41837788.62	-41837788.41	0.0089	0.0035
Moon	-119259-06-28 04:05 J	-41837748.56	-41837748.33	-41837748.09	0.0089	0.0029
Earth	-119259-06-28 05:32 J	-41837748.49	-41837748.27	-41837748.02	0.0089	0.0032 *
Venus	-119259-12-30 09:08 J	-41837563.31	-41837563.12	-41837562.91	0.0089	0.0029
Mars	-119258-06-21 15:37 J	-41837390.03	-41837389.85	-41837389.59	0.0089	0.0065
Moon	-119258-06-30 15:51 J	-41837381.10	-41837380.84	-41837380.57	0.0089	0.0006
Earth	-119258-06-30 15:51 J	-41837381.09	-41837380.84	-41837380.59	0.0089	0.0004 *
Venus	-119258-08-12 21:22 J	-41837337.82	-41837337.61	-41837337.40	0.0089	0.0022

Venus -119257-03-25 09:08 J -41837112.32 -41837112.12 -41837111.90 0.0089 0.0016
 Earth -119257-07-02 01:56 J -41837013.66 -41837013.42 -41837013.17 0.0089 0.0024
 Moon -119257-07-02 03:22 J -41837013.59 -41837013.36 -41837013.12 0.0089 0.0026 *
 Venus -119257-11-05 21:22 J -41836886.82 -41836886.61 -41836886.40 0.0089 0.0010
 Mars -119256-05-16 16:49 J -41836694.96 -41836694.80 -41836694.59 0.0089 0.0072
 Venus -119256-06-19 09:22 J -41836661.33 -41836661.11 -41836660.90 0.0089 0.0003
 Moon -119256-07-04 10:34 J -41836646.27 -41836646.06 -41836645.84 0.0089 0.0049
 Earth -119256-07-04 12:29 J -41836646.18 -41836645.98 -41836645.77 0.0089 0.0052 *
 Venus -119255-01-30 21:22 J -41836435.82 -41836435.61 -41836435.39 0.0089 0.0003
 Earth -119255-07-06 22:49 J -41836278.64 -41836278.55 -41836278.42 0.0089 0.0080
 Moon -119255-07-07 01:56 J -41836278.49 -41836278.42 -41836278.31 0.0089 0.0083 *
 Venus -119255-09-13 09:22 J -41836210.32 -41836210.11 -41836209.89 0.0089 0.0009
 Mars -119254-04-11 16:49 J -41835999.92 -41835999.80 -41835999.64 0.0089 0.0079
 Venus -119254-04-26 21:37 J -41835984.81 -41835984.60 -41835984.38 0.0089 0.0016
 Saturn -119254-07-27 00:29 J -41835893.86 -41835893.48 -41835893.06 0.0089 0.0072
 Venus -119254-12-08 09:37 J -41835759.30 -41835759.10 -41835758.88 0.0089 0.0022
 Venus -119253-07-20 21:51 J -41835533.79 -41835533.59 -41835533.38 0.0089 0.0028
 Venus -119252-03-03 10:05 J -41835308.28 -41835308.08 -41835307.88 0.0089 0.0034
 Mars -119252-03-06 13:27 J -41835304.98 -41835304.94 -41835304.81 0.0089 0.0086
 Venus -119252-10-14 22:05 J -41835082.76 -41835082.58 -41835082.38 0.0089 0.0041
 Venus -119251-05-28 10:20 J -41834857.24 -41834857.07 -41834856.87 0.0089 0.0047
 Venus -119250-01-08 22:49 J -41834631.71 -41834631.55 -41834631.37 0.0089 0.0053
 Venus -119250-08-22 11:03 J -41834406.19 -41834406.04 -41834405.87 0.0089 0.0059
 Venus -119249-04-03 23:32 J -41834180.66 -41834180.52 -41834180.37 0.0089 0.0065
 Venus -119249-11-15 11:32 J -41833955.12 -41833955.02 -41833954.87 0.0089 0.0072
 Venus -119248-06-29 00:01 J -41833729.58 -41833729.50 -41833729.38 0.0089 0.0078
 Venus -119247-02-09 12:29 J -41833504.03 -41833503.98 -41833503.89 0.0089 0.0084
 Mercury -119234-12-09 01:41 J -41828453.47 -41828453.43 -41828453.37 0.0089 0.0086
 Mercury -119233-03-06 04:49 J -41828365.36 -41828365.30 -41828365.20 0.0089 0.0080
 Mercury -119233-06-02 08:10 J -41828277.25 -41828277.16 -41828277.05 0.0089 0.0074

Mercury -119233-08-29 11:32 J -41828189.13 -41828189.02 -41828188.90 0.0089 0.0068
 Mercury -119233-11-25 14:39 J -41828101.01 -41828100.89 -41828100.75 0.0089 0.0063
 Mercury -119232-02-21 18:01 J -41828012.88 -41828012.75 -41828012.60 0.0089 0.0057
 Mercury -119232-05-20 21:22 J -41827924.76 -41827924.61 -41827924.45 0.0089 0.0051
 Mercury -119232-08-17 00:44 J -41827836.63 -41827836.47 -41827836.31 0.0089 0.0046
 Mercury -119232-11-13 03:51 J -41827748.50 -41827748.34 -41827748.17 0.0089 0.0040
 Mercury -119231-02-09 07:13 J -41827660.36 -41827660.20 -41827660.02 0.0089 0.0034
 Mercury -119231-05-08 10:34 J -41827572.23 -41827572.06 -41827571.88 0.0089 0.0028
 Mercury -119231-08-04 13:56 J -41827484.10 -41827483.92 -41827483.74 0.0089 0.0022
 Mercury -119231-10-31 17:17 J -41827395.96 -41827395.78 -41827395.59 0.0089 0.0016
 Mercury -119230-01-27 20:39 J -41827307.82 -41827307.64 -41827307.45 0.0089 0.0011
 Mercury -119230-04-26 00:01 J -41827219.68 -41827219.50 -41827219.31 0.0089 0.0005
 Mercury -119230-07-23 03:22 J -41827131.54 -41827131.36 -41827131.17 0.0089 0.0002
 Mercury -119230-10-19 06:44 J -41827043.40 -41827043.22 -41827043.03 0.0089 0.0007
 Mercury -119229-01-15 10:05 J -41826955.26 -41826955.08 -41826954.89 0.0089 0.0013
 Mercury -119229-04-12 13:27 J -41826867.12 -41826866.94 -41826866.75 0.0089 0.0019
 Mercury -119229-07-09 16:49 J -41826778.97 -41826778.80 -41826778.61 0.0089 0.0025
 Mercury -119229-10-05 20:10 J -41826690.83 -41826690.66 -41826690.47 0.0089 0.0031
 Mercury -119228-01-01 23:32 J -41826602.68 -41826602.52 -41826602.33 0.0089 0.0037
 Mercury -119228-03-31 03:08 J -41826514.53 -41826514.37 -41826514.20 0.0089 0.0043
 Mercury -119228-06-27 06:29 J -41826426.38 -41826426.23 -41826426.06 0.0089 0.0049
 Mercury -119228-09-23 09:51 J -41826338.22 -41826338.09 -41826337.93 0.0089 0.0055
 Mercury -119228-12-20 13:13 J -41826250.07 -41826249.95 -41826249.79 0.0089 0.0061
 Mercury -119227-03-18 16:49 J -41826161.91 -41826161.80 -41826161.66 0.0089 0.0067
 Mercury -119227-06-14 20:10 J -41826073.75 -41826073.66 -41826073.53 0.0089 0.0073
 Mercury -119227-09-10 23:46 J -41825985.58 -41825985.51 -41825985.41 0.0089 0.0079
 Mercury -119227-12-08 03:08 J -41825897.41 -41825897.37 -41825897.30 0.0089 0.0085
 Mars -119212-02-05 22:05 J -41820723.62 -41820723.58 -41820723.51 0.0089 0.0088
 Mars -119210-01-01 00:29 J -41820029.59 -41820029.48 -41820029.35 0.0089 0.0082
 Mars -119209-11-25 01:13 J -41819335.58 -41819335.45 -41819335.26 0.0089 0.0076

Mars	-119207-10-20 03:22 J	-41818641.53	-41818641.36	-41818641.15	0.0089	0.0068
Mars	-119205-09-13 06:01 J	-41817947.44	-41817947.25	-41817947.01	0.0089	0.0061
Mars	-119203-08-08 08:53 J	-41817253.36	-41817253.13	-41817252.89	0.0089	0.0053
Mars	-119201-07-02 10:20 J	-41816559.30	-41816559.07	-41816558.79	0.0089	0.0046
Mars	-119199-05-27 14:10 J	-41815865.16	-41815864.91	-41815864.62	0.0089	0.0038
Mars	-119197-04-20 18:44 J	-41815171.01	-41815170.72	-41815170.44	0.0089	0.0030
Mars	-119195-03-15 22:20 J	-41814476.85	-41814476.57	-41814476.27	0.0089	0.0021
Mars	-119193-02-08 03:51 J	-41813782.64	-41813782.34	-41813782.04	0.0089	0.0012
Mars	-119191-01-02 11:03 J	-41813088.34	-41813088.04	-41813087.74	0.0089	0.0004
Mars	-119190-11-27 18:29 J	-41812394.03	-41812393.73	-41812393.43	0.0089	0.0005
Mars	-119188-10-22 02:39 J	-41811699.69	-41811699.39	-41811699.09	0.0089	0.0014
Mars	-119186-09-16 12:15 J	-41811005.26	-41811004.99	-41811004.67	0.0089	0.0023
Mars	-119184-08-10 22:49 J	-41810310.83	-41810310.55	-41810310.26	0.0089	0.0031
Venus	-119183-12-17 13:41 J	-41809816.94	-41809816.93	-41809816.90	0.0089	0.0088
Mars	-119182-07-06 09:51 J	-41809616.34	-41809616.09	-41809615.79	0.0089	0.0040
Venus	-119182-07-31 03:51 J	-41809591.40	-41809591.34	-41809591.23	0.0089	0.0082
Venus	-119181-03-12 18:15 J	-41809365.83	-41809365.74	-41809365.60	0.0089	0.0076
Venus	-119181-10-24 09:08 J	-41809140.25	-41809140.12	-41809139.97	0.0089	0.0069
Mars	-119180-05-30 23:32 J	-41808921.77	-41808921.52	-41808921.25	0.0089	0.0048
Venus	-119180-06-06 23:17 J	-41808914.67	-41808914.53	-41808914.35	0.0089	0.0063
Venus	-119179-01-18 13:56 J	-41808689.09	-41808688.92	-41808688.74	0.0089	0.0056
Venus	-119179-09-01 04:05 J	-41808463.50	-41808463.33	-41808463.13	0.0089	0.0050
Earth	-119178-01-03 19:41 J	-41808338.83	-41808338.68	-41808338.47	0.0089	0.0065
Moon	-119178-01-03 20:39 J	-41808338.80	-41808338.64	-41808338.43	0.0089	0.0061 *
Venus	-119178-04-14 18:29 J	-41808237.91	-41808237.73	-41808237.52	0.0089	0.0043
Mars	-119178-04-25 13:41 J	-41808227.13	-41808226.93	-41808226.66	0.0089	0.0057
Venus	-119178-11-26 08:39 J	-41808012.33	-41808012.14	-41808011.91	0.0089	0.0037
Moon	-119177-01-06 07:13 J	-41807971.43	-41807971.20	-41807970.95	0.0089	0.0040
Earth	-119177-01-06 09:37 J	-41807971.33	-41807971.10	-41807970.85	0.0089	0.0036 *
Venus	-119177-07-08 23:03 J	-41807786.74	-41807786.54	-41807786.32	0.0089	0.0030

Earth -119176-01-07 23:03 J -41807603.79 -41807603.54 -41807603.27 0.0089 0.0007
 Moon -119176-01-08 01:56 J -41807603.68 -41807603.42 -41807603.17 0.0089 0.0003 *
 Venus -119176-02-19 13:27 J -41807561.16 -41807560.94 -41807560.72 0.0089 0.0023
 Mars -119176-03-20 05:03 J -41807532.46 -41807532.29 -41807532.04 0.0089 0.0065
 Venus -119176-10-03 03:37 J -41807335.57 -41807335.35 -41807335.12 0.0089 0.0017
 Moon -119175-01-10 08:10 J -41807236.41 -41807236.16 -41807235.89 0.0089 0.0018
 Earth -119175-01-10 12:01 J -41807236.25 -41807236.00 -41807235.74 0.0089 0.0022 *
 Venus -119175-05-16 17:46 J -41807109.98 -41807109.76 -41807109.53 0.0089 0.0010
 Venus -119175-12-28 07:56 J -41806884.40 -41806884.17 -41806883.95 0.0089 0.0004
 Earth -119174-01-13 00:15 J -41806868.68 -41806868.49 -41806868.25 0.0089 0.0051
 Moon -119174-01-13 03:51 J -41806868.52 -41806868.34 -41806868.11 0.0089 0.0055 *
 Mars -119174-02-12 23:32 J -41806837.68 -41806837.52 -41806837.31 0.0089 0.0072
 Venus -119174-08-10 21:37 J -41806658.82 -41806658.60 -41806658.37 0.0089 0.0004
 Moon -119173-01-15 09:51 J -41806501.21 -41806501.09 -41806500.94 0.0089 0.0075
 Earth -119173-01-15 12:58 J -41806501.06 -41806500.96 -41806500.82 0.0089 0.0079 *
 Venus -119173-03-23 11:32 J -41806433.24 -41806433.02 -41806432.79 0.0089 0.0010
 Venus -119173-11-04 01:41 J -41806207.65 -41806207.43 -41806207.21 0.0089 0.0016
 Mars -119172-01-07 18:58 J -41806142.84 -41806142.71 -41806142.56 0.0089 0.0079
 Venus -119172-06-17 15:22 J -41805982.07 -41805981.86 -41805981.63 0.0089 0.0023
 Venus -119171-01-29 05:17 J -41805756.49 -41805756.28 -41805756.06 0.0089 0.0029
 Venus -119171-09-11 18:58 J -41805530.90 -41805530.71 -41805530.49 0.0089 0.0036
 Mars -119171-12-03 14:53 J -41805447.95 -41805447.88 -41805447.81 0.0089 0.0086
 Venus -119170-04-25 08:53 J -41805305.32 -41805305.13 -41805304.93 0.0089 0.0042
 Venus -119170-12-06 22:20 J -41805079.74 -41805079.57 -41805079.36 0.0089 0.0049
 Venus -119169-07-19 12:15 J -41804854.15 -41804853.99 -41804853.80 0.0089 0.0055
 Venus -119168-03-02 01:56 J -41804628.57 -41804628.42 -41804628.25 0.0089 0.0061
 Venus -119168-10-13 15:22 J -41804402.98 -41804402.86 -41804402.69 0.0089 0.0068
 Venus -119167-05-27 05:03 J -41804177.39 -41804177.29 -41804177.14 0.0089 0.0074
 Venus -119166-01-07 18:44 J -41803951.80 -41803951.72 -41803951.61 0.0089 0.0080
 Venus -119166-08-21 08:10 J -41803726.19 -41803726.16 -41803726.09 0.0089 0.0086

Mercury -119153-07-08 15:22 J -41799020.86 -41799020.86 -41799020.85 0.0088 0.0088

Mercury -119153-10-04 17:03 J -41798932.83 -41798932.79 -41798932.75 0.0088 0.0084

Mercury -119153-12-31 18:15 J -41798844.78 -41798844.74 -41798844.67 0.0088 0.0080

Mercury -119152-03-29 19:41 J -41798756.73 -41798756.68 -41798756.59 0.0088 0.0076

Mercury -119152-06-25 21:37 J -41798668.68 -41798668.60 -41798668.52 0.0088 0.0071

Mercury -119152-09-21 23:03 J -41798580.63 -41798580.54 -41798580.45 0.0088 0.0066

Mercury -119152-12-19 00:29 J -41798492.57 -41798492.48 -41798492.38 0.0088 0.0062

Mercury -119151-03-17 02:10 J -41798404.51 -41798404.41 -41798404.31 0.0088 0.0058

Mercury -119151-06-13 03:37 J -41798316.46 -41798316.35 -41798316.24 0.0088 0.0054

Mercury -119151-09-09 05:03 J -41798228.40 -41798228.29 -41798228.17 0.0088 0.0049

Mercury -119151-12-06 06:29 J -41798140.34 -41798140.23 -41798140.11 0.0088 0.0045

Mercury -119150-03-04 08:10 J -41798052.28 -41798052.16 -41798052.04 0.0088 0.0041

Mercury -119150-05-31 09:37 J -41797964.23 -41797964.10 -41797963.98 0.0088 0.0036

Mercury -119150-08-27 10:49 J -41797876.17 -41797876.05 -41797875.91 0.0088 0.0033

Mercury -119150-11-23 12:29 J -41797788.11 -41797787.98 -41797787.85 0.0088 0.0028

Mercury -119149-02-19 13:56 J -41797700.05 -41797699.92 -41797699.78 0.0088 0.0024

Mercury -119149-05-17 15:22 J -41797611.99 -41797611.86 -41797611.72 0.0088 0.0020

Mercury -119149-08-13 16:49 J -41797523.93 -41797523.80 -41797523.66 0.0088 0.0015

Mercury -119149-11-09 18:15 J -41797435.87 -41797435.74 -41797435.60 0.0088 0.0011

Mercury -119148-02-05 19:41 J -41797347.81 -41797347.68 -41797347.54 0.0088 0.0008

Mercury -119148-05-04 21:22 J -41797259.75 -41797259.61 -41797259.48 0.0088 0.0004

Mercury -119148-07-31 22:34 J -41797171.69 -41797171.56 -41797171.42 0.0088 0.0004

Mercury -119148-10-28 00:01 J -41797083.63 -41797083.50 -41797083.36 0.0088 0.0007

Mercury -119147-01-24 01:27 J -41796995.57 -41796995.44 -41796995.30 0.0088 0.0010

Mercury -119147-04-22 02:53 J -41796907.51 -41796907.38 -41796907.24 0.0088 0.0014

Mercury -119147-07-19 04:20 J -41796819.45 -41796819.32 -41796819.18 0.0088 0.0018

Mercury -119147-10-15 05:46 J -41796731.39 -41796731.26 -41796731.13 0.0088 0.0022

Mercury -119146-01-11 07:13 J -41796643.33 -41796643.20 -41796643.07 0.0088 0.0027

Mercury -119146-04-09 08:39 J -41796555.27 -41796555.14 -41796555.01 0.0088 0.0031

Mercury -119146-07-06 09:51 J -41796467.21 -41796467.09 -41796466.96 0.0088 0.0035

Mercury -119146-10-02 11:17 J -41796379.14 -41796379.03 -41796378.90 0.0088 0.0039

Mercury -119146-12-29 12:44 J -41796291.08 -41796290.97 -41796290.85 0.0088 0.0043

Mercury -119145-03-26 14:10 J -41796203.02 -41796202.91 -41796202.79 0.0088 0.0047

Mercury -119145-06-22 15:37 J -41796114.96 -41796114.85 -41796114.74 0.0088 0.0051

Mercury -119145-09-18 17:03 J -41796026.89 -41796026.79 -41796026.68 0.0088 0.0055

Mercury -119145-12-15 18:15 J -41795938.83 -41795938.74 -41795938.63 0.0088 0.0060

Mercury -119144-03-13 19:41 J -41795850.77 -41795850.68 -41795850.58 0.0088 0.0064

Mercury -119144-06-09 21:08 J -41795762.70 -41795762.62 -41795762.53 0.0088 0.0068

Mercury -119144-09-05 22:34 J -41795674.63 -41795674.56 -41795674.48 0.0088 0.0072

Mercury -119144-12-03 00:01 J -41795586.57 -41795586.50 -41795586.43 0.0088 0.0076

Mercury -119143-03-01 01:27 J -41795498.50 -41795498.44 -41795498.39 0.0088 0.0080

Mercury -119143-05-28 02:39 J -41795410.42 -41795410.39 -41795410.35 0.0088 0.0084

Mercury -119143-08-24 04:05 J -41795322.34 -41795322.33 -41795322.32 0.0088 0.0088

Mars -119127-09-19 23:32 J -41789451.63 -41789451.52 -41789451.41 0.0088 0.0083

Mars -119125-08-15 18:44 J -41788755.86 -41788755.72 -41788755.51 0.0088 0.0076

Mars -119123-07-12 14:25 J -41788060.10 -41788059.90 -41788059.67 0.0088 0.0068

Mars -119121-06-07 08:53 J -41787364.35 -41787364.13 -41787363.85 0.0088 0.0060

Mars -119119-05-04 03:51 J -41786668.60 -41786668.34 -41786668.05 0.0088 0.0051

Mars -119117-03-29 21:51 J -41785972.88 -41785972.59 -41785972.29 0.0088 0.0042

Mars -119115-02-23 15:22 J -41785277.16 -41785276.86 -41785276.55 0.0088 0.0033

Mars -119113-01-20 08:10 J -41784581.47 -41784581.16 -41784580.83 0.0088 0.0024

Mars -119112-12-15 23:17 J -41783885.84 -41783885.53 -41783885.19 0.0088 0.0015

Mars -119110-11-11 13:27 J -41783190.26 -41783189.94 -41783189.61 0.0088 0.0005

Mars -119108-10-07 02:25 J -41782494.72 -41782494.40 -41782494.06 0.0088 0.0005

Mars -119106-09-02 14:25 J -41781799.21 -41781798.90 -41781798.57 0.0088 0.0014

Mars -119104-07-29 00:29 J -41781103.78 -41781103.48 -41781103.15 0.0088 0.0023

Mars -119102-06-24 09:37 J -41780408.38 -41780408.10 -41780407.77 0.0088 0.0032

Venus -119100-01-29 01:13 J -41779823.47 -41779823.45 -41779823.39 0.0089 0.0087

Mars -119100-05-19 17:32 J -41779713.04 -41779712.77 -41779712.46 0.0089 0.0040

Venus -119100-09-11 12:58 J -41779598.03 -41779597.96 -41779597.86 0.0089 0.0081

Venus -119099-04-25 00:58 J -41779372.56 -41779372.46 -41779372.34 0.0089 0.0075
 Venus -119099-12-06 12:44 J -41779147.10 -41779146.97 -41779146.84 0.0089 0.0069
 Mars -119098-04-14 23:46 J -41779017.77 -41779017.51 -41779017.22 0.0089 0.0048
 Venus -119098-07-19 23:46 J -41778921.63 -41778921.51 -41778921.34 0.0089 0.0064
 Venus -119097-03-01 11:32 J -41778696.16 -41778696.02 -41778695.84 0.0089 0.0058
 Venus -119097-10-12 23:17 J -41778470.68 -41778470.53 -41778470.34 0.0089 0.0052
 Mars -119096-03-10 04:20 J -41778322.55 -41778322.32 -41778322.05 0.0089 0.0056
 Venus -119096-05-26 11:03 J -41778245.20 -41778245.04 -41778244.84 0.0089 0.0046
 Earth -119096-06-25 09:08 J -41778215.25 -41778215.12 -41778214.94 0.0089 0.0070
 Moon -119096-06-25 08:53 J -41778215.24 -41778215.13 -41778214.97 0.0089 0.0074 *
 Venus -119095-01-06 22:49 J -41778019.72 -41778019.55 -41778019.34 0.0089 0.0040
 Moon -119095-06-27 18:15 J -41777847.97 -41777847.74 -41777847.50 0.0089 0.0038
 Earth -119095-06-27 18:58 J -41777847.92 -41777847.71 -41777847.48 0.0089 0.0042 *
 Venus -119095-08-20 10:34 J -41777794.24 -41777794.06 -41777793.84 0.0089 0.0034
 Mars -119094-02-03 07:41 J -41777627.37 -41777627.18 -41777626.93 0.0089 0.0064
 Venus -119094-04-02 22:49 J -41777568.75 -41777568.55 -41777568.34 0.0089 0.0027
 Earth -119094-06-30 04:34 J -41777480.55 -41777480.31 -41777480.05 0.0089 0.0015
 Moon -119094-06-30 06:15 J -41777480.47 -41777480.24 -41777479.99 0.0089 0.0019 *
 Venus -119094-11-14 10:34 J -41777343.26 -41777343.06 -41777342.84 0.0089 0.0021
 Venus -119093-06-26 22:34 J -41777117.77 -41777117.56 -41777117.35 0.0089 0.0015
 Moon -119093-07-01 11:46 J -41777113.26 -41777113.01 -41777112.76 0.0089 0.0018
 Earth -119093-07-01 14:39 J -41777113.13 -41777112.89 -41777112.63 0.0089 0.0014 *
 Mars -119093-12-29 09:22 J -41776932.28 -41776932.11 -41776931.90 0.0089 0.0071
 Venus -119092-02-07 10:20 J -41776892.28 -41776892.07 -41776891.85 0.0089 0.0009
 Earth -119092-07-04 00:44 J -41776745.68 -41776745.47 -41776745.23 0.0089 0.0042
 Moon -119092-07-04 04:05 J -41776745.55 -41776745.33 -41776745.09 0.0089 0.0038 *
 Venus -119092-09-20 22:34 J -41776666.78 -41776666.56 -41776666.35 0.0089 0.0003
 Venus -119091-05-04 10:34 J -41776441.27 -41776441.06 -41776440.84 0.0089 0.0004
 Moon -119091-07-06 07:13 J -41776378.32 -41776378.20 -41776378.03 0.0089 0.0074
 Earth -119091-07-06 10:49 J -41776378.18 -41776378.05 -41776377.86 0.0089 0.0070 *

Mars -119091-11-24 09:08 J -41776237.24 -41776237.12 -41776236.94 0.0089 0.0078
 Venus -119091-12-15 22:34 J -41776215.77 -41776215.56 -41776215.34 0.0089 0.0010
 Venus -119090-07-29 10:34 J -41775990.26 -41775990.06 -41775989.84 0.0089 0.0017
 Venus -119089-03-10 22:34 J -41775764.76 -41775764.56 -41775764.34 0.0089 0.0023
 Mars -119089-10-19 08:10 J -41775542.23 -41775542.16 -41775542.03 0.0089 0.0084
 Venus -119089-10-22 10:49 J -41775539.24 -41775539.05 -41775538.84 0.0089 0.0029
 Venus -119088-06-04 23:17 J -41775313.73 -41775313.53 -41775313.33 0.0089 0.0035
 Venus -119087-01-16 11:03 J -41775088.21 -41775088.04 -41775087.83 0.0089 0.0042
 Venus -119087-08-29 23:17 J -41774862.70 -41774862.53 -41774862.33 0.0089 0.0048
 Venus -119086-04-12 11:32 J -41774637.17 -41774637.02 -41774636.83 0.0089 0.0054
 Venus -119086-11-24 00:01 J -41774411.65 -41774411.50 -41774411.33 0.0089 0.0060
 Venus -119085-07-06 12:15 J -41774186.12 -41774185.99 -41774185.83 0.0089 0.0066
 Venus -119084-02-17 00:44 J -41773960.59 -41773960.47 -41773960.34 0.0089 0.0072
 Venus -119084-09-30 13:13 J -41773735.05 -41773734.95 -41773734.85 0.0089 0.0078
 Venus -119083-05-14 01:41 J -41773509.49 -41773509.43 -41773509.36 0.0089 0.0084
 Mercury -119069-06-07 21:51 J -41768370.61 -41768370.59 -41768370.54 0.0089 0.0087
 Mercury -119069-09-04 01:13 J -41768282.51 -41768282.45 -41768282.37 0.0089 0.0081
 Mercury -119069-12-01 04:05 J -41768194.40 -41768194.33 -41768194.21 0.0089 0.0076
 Mercury -119068-02-27 07:27 J -41768106.28 -41768106.19 -41768106.06 0.0089 0.0070
 Mercury -119068-05-26 11:03 J -41768018.16 -41768018.04 -41768017.91 0.0089 0.0064
 Mercury -119068-08-22 13:56 J -41767930.04 -41767929.92 -41767929.76 0.0089 0.0059
 Mercury -119068-11-18 17:17 J -41767841.91 -41767841.78 -41767841.62 0.0089 0.0053
 Mercury -119067-02-14 20:39 J -41767753.79 -41767753.64 -41767753.47 0.0089 0.0047
 Mercury -119067-05-14 00:15 J -41767665.66 -41767665.49 -41767665.33 0.0089 0.0041
 Mercury -119067-08-10 03:08 J -41767577.53 -41767577.37 -41767577.19 0.0089 0.0036
 Mercury -119067-11-06 06:29 J -41767489.39 -41767489.23 -41767489.04 0.0089 0.0030
 Mercury -119066-02-02 09:51 J -41767401.26 -41767401.09 -41767400.90 0.0089 0.0024
 Mercury -119066-05-01 13:27 J -41767313.12 -41767312.94 -41767312.76 0.0089 0.0018
 Mercury -119066-07-28 16:49 J -41767224.99 -41767224.80 -41767224.62 0.0089 0.0012
 Mercury -119066-10-24 19:56 J -41767136.85 -41767136.67 -41767136.48 0.0089 0.0007

Mercury -119065-01-20 23:32 J -41767048.71 -41767048.52 -41767048.34 0.0089 0.0001

Mercury -119065-04-18 02:53 J -41766960.57 -41766960.38 -41766960.20 0.0089 0.0005

Mercury -119065-07-15 06:15 J -41766872.43 -41766872.24 -41766872.06 0.0089 0.0011

Mercury -119065-10-11 09:37 J -41766784.28 -41766784.10 -41766783.92 0.0089 0.0017

Mercury -119064-01-07 12:58 J -41766696.14 -41766695.96 -41766695.78 0.0089 0.0023

Mercury -119064-04-05 16:20 J -41766607.99 -41766607.82 -41766607.64 0.0089 0.0029

Mercury -119064-07-02 19:41 J -41766519.85 -41766519.68 -41766519.50 0.0089 0.0035

Mercury -119064-09-28 23:03 J -41766431.70 -41766431.54 -41766431.36 0.0089 0.0041

Mercury -119064-12-26 02:25 J -41766343.55 -41766343.40 -41766343.23 0.0089 0.0047

Mercury -119063-03-24 05:46 J -41766255.40 -41766255.26 -41766255.09 0.0089 0.0053

Mercury -119063-06-20 09:22 J -41766167.24 -41766167.11 -41766166.96 0.0089 0.0059

Mercury -119063-09-16 12:44 J -41766079.08 -41766078.97 -41766078.83 0.0089 0.0065

Mercury -119063-12-13 16:05 J -41765990.92 -41765990.83 -41765990.70 0.0089 0.0072

Mercury -119062-03-11 19:41 J -41765902.76 -41765902.68 -41765902.57 0.0089 0.0077

Mercury -119062-06-07 23:03 J -41765814.59 -41765814.54 -41765814.46 0.0089 0.0083

Jupiter -119052-08-19 00:29 J -41762089.90 -41762089.48 -41762088.96 0.0089 0.0048

Mars -119051-10-28 07:27 J -41761654.19 -41761654.19 -41761654.18 0.0089 0.0089

Mars -119049-09-21 09:22 J -41760960.20 -41760960.11 -41760960.00 0.0089 0.0084

Mars -119047-08-16 10:49 J -41760266.19 -41760266.05 -41760265.91 0.0089 0.0078

Mars -119045-07-10 12:44 J -41759572.14 -41759571.97 -41759571.78 0.0089 0.0072

Mars -119043-06-04 13:41 J -41758878.10 -41758877.93 -41758877.70 0.0089 0.0065

Mars -119041-04-28 14:53 J -41758184.08 -41758183.88 -41758183.62 0.0089 0.0058

Mars -119039-03-23 17:32 J -41757490.00 -41757489.77 -41757489.51 0.0089 0.0051

Mars -119037-02-15 20:10 J -41756795.90 -41756795.66 -41756795.38 0.0089 0.0043

Mars -119035-01-09 22:34 J -41756101.82 -41756101.56 -41756101.27 0.0089 0.0035

Mars -119034-12-05 02:39 J -41755407.66 -41755407.39 -41755407.09 0.0089 0.0027

Mars -119032-10-29 07:41 J -41754713.46 -41754713.18 -41754712.87 0.0089 0.0019

Mars -119030-09-23 12:01 J -41754019.29 -41754019.00 -41754018.69 0.0089 0.0011

Mars -119028-08-17 17:32 J -41753325.07 -41753324.77 -41753324.47 0.0089 0.0002

Mars -119026-07-13 00:29 J -41752630.78 -41752630.48 -41752630.18 0.0089 0.0006

Mars -119024-06-06 07:41 J -41751936.47 -41751936.18 -41751935.87 0.0089 0.0015
 Mars -119022-05-01 15:37 J -41751242.14 -41751241.85 -41751241.55 0.0089 0.0023
 Mars -119020-03-26 01:41 J -41750547.71 -41750547.43 -41750547.14 0.0089 0.0031
 Mars -119018-02-18 12:15 J -41749853.25 -41749852.99 -41749852.70 0.0089 0.0040
 Venus -119018-03-21 00:15 J -41749822.52 -41749822.49 -41749822.44 0.0089 0.0087
 Venus -119018-11-01 14:39 J -41749596.96 -41749596.89 -41749596.78 0.0089 0.0081
 Venus -119017-06-14 05:17 J -41749371.39 -41749371.28 -41749371.15 0.0089 0.0074
 Mars -119016-01-13 00:15 J -41749158.73 -41749158.49 -41749158.22 0.0089 0.0048
 Venus -119016-01-25 19:27 J -41749145.82 -41749145.69 -41749145.53 0.0089 0.0068
 Venus -119016-09-08 10:20 J -41748920.23 -41748920.07 -41748919.91 0.0089 0.0061
 Venus -119015-04-22 00:29 J -41748694.65 -41748694.48 -41748694.29 0.0089 0.0055
 Venus -119015-12-03 15:08 J -41748469.06 -41748468.87 -41748468.68 0.0089 0.0048
 Mars -119015-12-08 13:41 J -41748464.15 -41748463.93 -41748463.67 0.0089 0.0056
 Moon -119014-01-03 03:22 J -41748438.47 -41748438.36 -41748438.22 0.0089 0.0078
 Earth -119014-01-03 05:32 J -41748438.39 -41748438.27 -41748438.12 0.0089 0.0076 *
 Venus -119014-07-17 05:03 J -41748243.48 -41748243.29 -41748243.08 0.0089 0.0042
 Earth -119013-01-05 19:27 J -41748070.91 -41748070.69 -41748070.46 0.0089 0.0047
 Moon -119013-01-05 22:49 J -41748070.77 -41748070.55 -41748070.32 0.0089 0.0045 *
 Venus -119013-02-27 19:41 J -41748017.89 -41748017.68 -41748017.47 0.0089 0.0035
 Venus -119013-10-10 09:51 J -41747792.29 -41747792.09 -41747791.87 0.0089 0.0029
 Mars -119013-11-02 05:17 J -41747769.50 -41747769.28 -41747769.06 0.0089 0.0063
 Moon -119012-01-07 05:32 J -41747703.53 -41747703.27 -41747703.01 0.0089 0.0020
 Earth -119012-01-07 09:08 J -41747703.38 -41747703.12 -41747702.87 0.0089 0.0018 *
 Venus -119012-05-24 00:15 J -41747566.70 -41747566.49 -41747566.27 0.0089 0.0022
 Venus -119011-01-04 14:25 J -41747341.12 -41747340.90 -41747340.67 0.0089 0.0016
 Earth -119011-01-09 22:05 J -41747335.83 -41747335.58 -41747335.31 0.0089 0.0011
 Moon -119011-01-10 01:56 J -41747335.68 -41747335.42 -41747335.16 0.0089 0.0014 *
 Venus -119011-08-18 04:34 J -41747115.53 -41747115.31 -41747115.08 0.0089 0.0009
 Mars -119011-09-27 20:10 J -41747074.82 -41747074.66 -41747074.44 0.0089 0.0071
 Moon -119010-01-12 08:10 J -41746968.39 -41746968.16 -41746967.92 0.0089 0.0037

Earth	-119010-01-12 11:03 J	-41746968.25	-41746968.04	-41746967.79	0.0089	0.0040 *
Venus	-119010-03-31 18:44 J	-41746889.95	-41746889.72	-41746889.49	0.0089	0.0002
Venus	-119010-11-12 08:53 J	-41746664.36	-41746664.13	-41746663.91	0.0089	0.0004
Earth	-119009-01-14 23:46 J	-41746600.66	-41746600.51	-41746600.33	0.0089	0.0068
Moon	-119009-01-15 01:56 J	-41746600.56	-41746600.42	-41746600.23	0.0089	0.0071 *
Venus	-119009-06-24 22:49 J	-41746438.77	-41746438.55	-41746438.32	0.0089	0.0011
Mars	-119009-08-22 13:27 J	-41746380.05	-41746379.94	-41746379.75	0.0089	0.0078
Venus	-119008-02-05 12:44 J	-41746213.19	-41746212.97	-41746212.75	0.0089	0.0017
Venus	-119008-09-19 02:25 J	-41745987.61	-41745987.40	-41745987.17	0.0089	0.0024
Venus	-119007-05-02 16:34 J	-41745762.02	-41745761.81	-41745761.60	0.0089	0.0030
Mars	-119007-07-18 09:22 J	-41745685.19	-41745685.11	-41745685.00	0.0089	0.0084
Venus	-119007-12-14 06:15 J	-41745536.44	-41745536.24	-41745536.03	0.0089	0.0037
Venus	-119006-07-27 19:56 J	-41745310.85	-41745310.67	-41745310.46	0.0089	0.0043
Venus	-119005-03-09 09:22 J	-41745085.27	-41745085.11	-41745084.90	0.0089	0.0050
Venus	-119005-10-20 23:32 J	-41744859.68	-41744859.52	-41744859.33	0.0089	0.0056
Venus	-119004-06-03 13:13 J	-41744634.10	-41744633.95	-41744633.78	0.0089	0.0062
Venus	-119003-01-15 03:08 J	-41744408.51	-41744408.37	-41744408.22	0.0089	0.0068
Venus	-119003-08-28 16:05 J	-41744182.92	-41744182.83	-41744182.68	0.0089	0.0075
Venus	-119002-04-11 05:46 J	-41743957.33	-41743957.26	-41743957.14	0.0089	0.0081
Venus	-119002-11-22 19:27 J	-41743731.71	-41743731.69	-41743731.62	0.0089	0.0087

119TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 119th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	-118988-04-04 15:08 J	-41738849.89	-41738849.87	-41738849.82	0.0088	0.0086		
Mercury	-118988-07-01 17:03 J	-41738761.84	-41738761.79	-41738761.74	0.0088	0.0081		
Mercury	-118988-09-27 18:15 J	-41738673.79	-41738673.74	-41738673.66	0.0088	0.0077		
Mercury	-118988-12-24 19:41 J	-41738585.74	-41738585.68	-41738585.58	0.0088	0.0073		
Mercury	-118987-03-22 21:37 J	-41738497.69	-41738497.60	-41738497.51	0.0088	0.0068		
Mercury	-118987-06-18 23:03 J	-41738409.63	-41738409.54	-41738409.44	0.0088	0.0063		
Mercury	-118987-09-15 00:29 J	-41738321.57	-41738321.48	-41738321.37	0.0088	0.0059		
Mercury	-118987-12-12 02:10 J	-41738233.52	-41738233.41	-41738233.30	0.0088	0.0055		
Mercury	-118986-03-10 03:37 J	-41738145.46	-41738145.35	-41738145.23	0.0088	0.0051		
Mercury	-118986-06-06 05:03 J	-41738057.40	-41738057.29	-41738057.17	0.0088	0.0046		
Mercury	-118986-09-02 06:29 J	-41737969.34	-41737969.23	-41737969.10	0.0088	0.0042		
Mercury	-118986-11-29 08:10 J	-41737881.28	-41737881.16	-41737881.04	0.0088	0.0038		
Mercury	-118985-02-25 09:37 J	-41737793.23	-41737793.10	-41737792.97	0.0088	0.0033		
Mercury	-118985-05-23 11:03 J	-41737705.17	-41737705.04	-41737704.91	0.0088	0.0029		
Mercury	-118985-08-19 12:29 J	-41737617.11	-41737616.98	-41737616.84	0.0088	0.0025		
Mercury	-118985-11-15 14:10 J	-41737529.05	-41737528.91	-41737528.78	0.0088	0.0021		
Mercury	-118984-02-11 15:37 J	-41737440.99	-41737440.85	-41737440.72	0.0088	0.0016		
Mercury	-118984-05-10 17:03 J	-41737352.93	-41737352.79	-41737352.66	0.0088	0.0012		
Mercury	-118984-08-06 18:29 J	-41737264.87	-41737264.73	-41737264.59	0.0088	0.0008		
Mercury	-118984-11-02 19:56 J	-41737176.81	-41737176.67	-41737176.53	0.0088	0.0004		
Mercury	-118983-01-29 21:22 J	-41737088.75	-41737088.61	-41737088.47	0.0088	0.0001		
Mercury	-118983-04-27 22:49 J	-41737000.69	-41737000.55	-41737000.41	0.0088	0.0005		
Mercury	-118983-07-25 00:15 J	-41736912.63	-41736912.49	-41736912.36	0.0088	0.0009		
Mercury	-118983-10-21 01:41 J	-41736824.57	-41736824.43	-41736824.30	0.0088	0.0013		
Mercury	-118982-01-17 02:53 J	-41736736.51	-41736736.38	-41736736.24	0.0088	0.0018		
Mercury	-118982-04-15 04:20 J	-41736648.45	-41736648.32	-41736648.18	0.0088	0.0022		

Mercury -118982-07-12 05:46 J -41736560.38 -41736560.26 -41736560.12 0.0088 0.0026

Mercury -118982-10-08 07:13 J -41736472.32 -41736472.20 -41736472.07 0.0088 0.0030

Mercury -118981-01-04 08:39 J -41736384.26 -41736384.14 -41736384.01 0.0088 0.0034

Mercury -118981-04-01 09:51 J -41736296.20 -41736296.09 -41736295.96 0.0088 0.0039

Mercury -118981-06-28 11:17 J -41736208.14 -41736208.03 -41736207.90 0.0088 0.0042

Mercury -118981-09-24 12:44 J -41736120.08 -41736119.97 -41736119.85 0.0088 0.0046

Mercury -118981-12-21 14:10 J -41736032.01 -41736031.91 -41736031.79 0.0088 0.0050

Mercury -118980-03-19 15:37 J -41735943.95 -41735943.85 -41735943.74 0.0088 0.0054

Mercury -118980-06-15 17:03 J -41735855.89 -41735855.79 -41735855.69 0.0088 0.0058

Mercury -118980-09-11 18:15 J -41735767.82 -41735767.74 -41735767.63 0.0088 0.0063

Mercury -118980-12-08 19:41 J -41735679.76 -41735679.68 -41735679.58 0.0088 0.0067

Mercury -118979-03-06 21:08 J -41735591.69 -41735591.62 -41735591.53 0.0088 0.0071

Mercury -118979-06-02 22:34 J -41735503.63 -41735503.56 -41735503.48 0.0088 0.0074

Mercury -118979-08-30 00:01 J -41735415.56 -41735415.50 -41735415.44 0.0088 0.0078

Mercury -118979-11-26 01:13 J -41735327.49 -41735327.45 -41735327.40 0.0088 0.0083

Mercury -118978-02-22 02:39 J -41735239.41 -41735239.39 -41735239.36 0.0088 0.0087

Mars -118965-06-07 02:39 J -41730385.45 -41730385.39 -41730385.30 0.0088 0.0086

Mars -118963-05-03 22:49 J -41729689.69 -41729689.55 -41729689.39 0.0088 0.0079

Mars -118961-03-29 18:44 J -41728993.89 -41728993.72 -41728993.50 0.0088 0.0071

Mars -118959-02-23 14:39 J -41728298.10 -41728297.89 -41728297.64 0.0088 0.0064

Mars -118957-01-20 10:20 J -41727602.32 -41727602.07 -41727601.80 0.0088 0.0056

Mars -118956-12-16 05:03 J -41726906.55 -41726906.29 -41726905.99 0.0088 0.0048

Mars -118954-11-11 23:17 J -41726210.80 -41726210.53 -41726210.20 0.0088 0.0040

Mars -118952-10-07 17:17 J -41725515.07 -41725514.78 -41725514.44 0.0088 0.0031

Mars -118950-09-03 10:20 J -41724819.37 -41724819.07 -41724818.73 0.0088 0.0022

Mars -118948-07-30 02:53 J -41724123.70 -41724123.38 -41724123.04 0.0088 0.0012

Mars -118946-06-25 17:46 J -41723428.08 -41723427.76 -41723427.42 0.0088 0.0004

Mars -118944-05-21 07:13 J -41722732.52 -41722732.20 -41722731.87 0.0088 0.0006

Mars -118942-04-16 19:41 J -41722037.00 -41722036.68 -41722036.35 0.0088 0.0014

Mars -118940-03-12 07:27 J -41721341.49 -41721341.19 -41721340.86 0.0088 0.0024

Mars	-118938-02-05 18:01 J	-41720646.05	-41720645.75	-41720645.44	0.0088	0.0032
Mars	-118936-01-01 02:25 J	-41719950.66	-41719950.40	-41719950.08	0.0088	0.0041
Venus	-118936-05-02 14:25 J	-41719828.93	-41719828.90	-41719828.82	0.0088	0.0086
Venus	-118936-12-14 02:10 J	-41719603.48	-41719603.41	-41719603.30	0.0088	0.0080
Venus	-118935-07-27 13:56 J	-41719378.02	-41719377.92	-41719377.79	0.0089	0.0074
Mars	-118935-11-27 10:20 J	-41719255.32	-41719255.07	-41719254.77	0.0089	0.0049
Venus	-118934-03-10 01:41 J	-41719152.56	-41719152.43	-41719152.28	0.0089	0.0068
Venus	-118934-10-21 13:27 J	-41718927.09	-41718926.94	-41718926.78	0.0089	0.0062
Venus	-118933-06-03 01:13 J	-41718701.61	-41718701.45	-41718701.28	0.0089	0.0056
Mars	-118933-10-22 16:20 J	-41718560.05	-41718559.82	-41718559.55	0.0089	0.0056
Venus	-118932-01-14 12:58 J	-41718476.14	-41718475.96	-41718475.79	0.0089	0.0050
Moon	-118932-06-24 21:22 J	-41718314.72	-41718314.61	-41718314.48	0.0089	0.0078
Earth	-118932-06-24 22:34 J	-41718314.66	-41718314.56	-41718314.44	0.0089	0.0080 *
Venus	-118932-08-28 00:44 J	-41718250.66	-41718250.47	-41718250.29	0.0089	0.0044
Venus	-118931-04-10 12:29 J	-41718025.17	-41718024.98	-41718024.79	0.0089	0.0038
Earth	-118931-06-27 07:41 J	-41717947.36	-41717947.18	-41717946.96	0.0089	0.0053
Moon	-118931-06-27 10:34 J	-41717947.25	-41717947.06	-41717946.86	0.0089	0.0054 *
Mars	-118931-09-17 20:25 J	-41717864.86	-41717864.65	-41717864.41	0.0089	0.0063
Venus	-118931-11-22 00:15 J	-41717799.69	-41717799.49	-41717799.29	0.0089	0.0032
Moon	-118930-06-29 14:25 J	-41717580.13	-41717579.90	-41717579.63	0.0089	0.0024
Earth	-118930-06-29 17:46 J	-41717580.00	-41717579.76	-41717579.51	0.0089	0.0025 *
Venus	-118930-07-05 12:01 J	-41717574.20	-41717574.00	-41717573.79	0.0089	0.0026
Venus	-118929-02-15 23:46 J	-41717348.72	-41717348.51	-41717348.30	0.0089	0.0020
Earth	-118929-07-01 03:37 J	-41717212.60	-41717212.35	-41717212.10	0.0089	0.0003
Moon	-118929-07-01 07:13 J	-41717212.45	-41717212.20	-41717211.94	0.0089	0.0001 *
Mars	-118929-08-12 23:32 J	-41717169.70	-41717169.52	-41717169.31	0.0089	0.0070
Venus	-118929-09-28 11:32 J	-41717123.23	-41717123.02	-41717122.80	0.0089	0.0014
Venus	-118928-05-11 23:46 J	-41716897.73	-41716897.51	-41716897.30	0.0089	0.0008
Moon	-118928-07-03 10:05 J	-41716845.31	-41716845.08	-41716844.84	0.0089	0.0032
Earth	-118928-07-03 13:13 J	-41716845.18	-41716844.95	-41716844.70	0.0089	0.0031 *

Venus -118928-12-23 11:32 J -41716672.23 -41716672.02 -41716671.80 0.0089 0.0002
 Earth -118927-07-05 23:03 J -41716477.71 -41716477.54 -41716477.33 0.0089 0.0059
 Moon -118927-07-06 02:10 J -41716477.60 -41716477.41 -41716477.19 0.0089 0.0056 *
 Mars -118927-07-09 00:44 J -41716474.59 -41716474.47 -41716474.28 0.0089 0.0077
 Venus -118927-08-05 23:32 J -41716446.73 -41716446.52 -41716446.30 0.0089 0.0005
 Venus -118926-03-19 11:32 J -41716221.23 -41716221.02 -41716220.81 0.0089 0.0011
 Earth -118926-07-08 09:22 J -41716110.13 -41716110.11 -41716110.03 0.0089 0.0087
 Venus -118926-10-30 23:17 J -41715995.73 -41715995.53 -41715995.31 0.0089 0.0018
 Mars -118925-06-03 00:15 J -41715779.56 -41715779.49 -41715779.33 0.0089 0.0083
 Venus -118925-06-12 11:32 J -41715770.22 -41715770.02 -41715769.80 0.0089 0.0024
 Venus -118924-01-23 23:46 J -41715544.71 -41715544.51 -41715544.30 0.0089 0.0030
 Venus -118924-09-06 12:01 J -41715319.19 -41715319.00 -41715318.80 0.0089 0.0036
 Venus -118923-04-20 00:15 J -41715093.67 -41715093.49 -41715093.30 0.0089 0.0042
 Mars -118923-04-29 00:01 J -41715084.52 -41715084.50 -41715084.44 0.0089 0.0088
 Venus -118923-12-01 12:15 J -41714868.16 -41714867.99 -41714867.80 0.0089 0.0049
 Venus -118922-07-15 00:15 J -41714642.64 -41714642.49 -41714642.30 0.0089 0.0055
 Venus -118921-02-25 12:29 J -41714417.11 -41714416.98 -41714416.80 0.0089 0.0061
 Venus -118921-10-08 00:58 J -41714191.59 -41714191.46 -41714191.30 0.0089 0.0067
 Venus -118920-05-21 13:27 J -41713966.05 -41713965.94 -41713965.80 0.0089 0.0073
 Venus -118919-01-02 01:56 J -41713740.51 -41713740.42 -41713740.31 0.0089 0.0079
 Venus -118919-08-15 14:10 J -41713514.95 -41713514.91 -41713514.83 0.0089 0.0085
 Mercury -118905-12-06 18:01 J -41708287.75 -41708287.75 -41708287.72 0.0089 0.0089
 Mercury -118904-03-04 21:08 J -41708199.67 -41708199.62 -41708199.54 0.0089 0.0083
 Mercury -118904-06-01 00:44 J -41708111.56 -41708111.47 -41708111.38 0.0089 0.0077
 Mercury -118904-08-28 03:37 J -41708023.44 -41708023.35 -41708023.23 0.0089 0.0072
 Mercury -118904-11-24 06:58 J -41707935.33 -41707935.21 -41707935.08 0.0089 0.0066
 Mercury -118903-02-20 09:51 J -41707847.20 -41707847.09 -41707846.94 0.0089 0.0061
 Mercury -118903-05-19 13:13 J -41707759.08 -41707758.95 -41707758.79 0.0089 0.0055
 Mercury -118903-08-15 16:34 J -41707670.95 -41707670.81 -41707670.65 0.0089 0.0049
 Mercury -118903-11-11 19:56 J -41707582.83 -41707582.67 -41707582.50 0.0089 0.0044

Mercury -118902-02-07 23:03 J -41707494.70 -41707494.54 -41707494.36 0.0089 0.0038

Mercury -118902-05-07 02:25 J -41707406.56 -41707406.40 -41707406.22 0.0089 0.0032

Mercury -118902-08-03 05:46 J -41707318.43 -41707318.26 -41707318.08 0.0089 0.0026

Mercury -118902-10-30 09:08 J -41707230.30 -41707230.12 -41707229.94 0.0089 0.0020

Mercury -118901-01-26 12:15 J -41707142.16 -41707141.99 -41707141.79 0.0089 0.0016

Mercury -118901-04-23 15:51 J -41707054.03 -41707053.84 -41707053.65 0.0089 0.0009

Mercury -118901-07-20 19:13 J -41706965.89 -41706965.70 -41706965.51 0.0089 0.0003

Mercury -118901-10-16 22:34 J -41706877.75 -41706877.56 -41706877.37 0.0089 0.0003

Mercury -118900-01-13 01:56 J -41706789.61 -41706789.42 -41706789.23 0.0089 0.0009

Mercury -118900-04-11 05:17 J -41706701.46 -41706701.28 -41706701.09 0.0089 0.0015

Mercury -118900-07-08 08:25 J -41706613.32 -41706613.15 -41706612.96 0.0089 0.0021

Mercury -118900-10-04 11:46 J -41706525.18 -41706525.01 -41706524.82 0.0089 0.0027

Mercury -118900-12-31 15:08 J -41706437.03 -41706436.87 -41706436.68 0.0089 0.0033

Mercury -118899-03-29 18:29 J -41706348.88 -41706348.73 -41706348.54 0.0089 0.0039

Mercury -118899-06-25 21:51 J -41706260.73 -41706260.59 -41706260.41 0.0089 0.0046

Mercury -118899-09-22 01:27 J -41706172.58 -41706172.44 -41706172.27 0.0089 0.0051

Mercury -118899-12-19 04:49 J -41706084.43 -41706084.30 -41706084.14 0.0089 0.0057

Mercury -118898-03-17 08:10 J -41705996.27 -41705996.16 -41705996.01 0.0089 0.0063

Mercury -118898-06-13 11:32 J -41705908.11 -41705908.02 -41705907.88 0.0089 0.0070

Mercury -118898-09-09 15:08 J -41705819.95 -41705819.87 -41705819.75 0.0089 0.0075

Mercury -118898-12-06 18:29 J -41705731.78 -41705731.73 -41705731.63 0.0089 0.0081

Mercury -118897-03-03 22:05 J -41705643.60 -41705643.58 -41705643.52 0.0089 0.0087

Mars -118887-06-12 16:34 J -41701890.87 -41701890.81 -41701890.70 0.0089 0.0086

Mars -118885-05-06 18:29 J -41701196.82 -41701196.73 -41701196.57 0.0089 0.0080

Mars -118883-03-31 20:25 J -41700502.79 -41700502.65 -41700502.46 0.0089 0.0074

Mars -118881-02-23 21:08 J -41699808.78 -41699808.62 -41699808.40 0.0089 0.0068

Mars -118879-01-17 23:03 J -41699114.74 -41699114.54 -41699114.31 0.0089 0.0062

Mars -118878-12-13 01:27 J -41698420.67 -41698420.44 -41698420.20 0.0089 0.0055

Mars -118876-11-06 02:39 J -41697726.62 -41697726.39 -41697726.12 0.0089 0.0048

Mars -118874-10-01 05:03 J -41697032.54 -41697032.29 -41697032.01 0.0089 0.0040

Mars	-118872-08-25 08:10 J	-41696338.43	-41696338.16	-41696337.87	0.0089	0.0032
Mars	-118870-07-20 10:49 J	-41695644.33	-41695644.05	-41695643.76	0.0089	0.0024
Mars	-118868-06-13 13:56 J	-41694950.21	-41694949.92	-41694949.63	0.0089	0.0016
Mars	-118866-05-08 18:29 J	-41694256.02	-41694255.73	-41694255.42	0.0089	0.0009
Mars	-118864-04-01 23:17 J	-41693561.83	-41693561.53	-41693561.23	0.0089	0.0001
Mars	-118862-02-25 04:20 J	-41692867.61	-41692867.32	-41692867.01	0.0089	0.0008
Mars	-118860-01-19 11:32 J	-41692173.31	-41692173.02	-41692172.71	0.0089	0.0016
Mars	-118859-12-14 20:10 J	-41691478.94	-41691478.66	-41691478.36	0.0089	0.0024
Mars	-118857-11-08 04:34 J	-41690784.58	-41690784.31	-41690784.02	0.0089	0.0032
Mars	-118855-10-03 14:25 J	-41690090.15	-41690089.90	-41690089.61	0.0089	0.0040
Venus	-118854-06-22 10:34 J	-41689828.09	-41689828.06	-41689827.98	0.0089	0.0086
Venus	-118853-02-03 00:58 J	-41689602.54	-41689602.46	-41689602.34	0.0089	0.0080
Mars	-118853-08-28 01:27 J	-41689395.67	-41689395.44	-41689395.15	0.0089	0.0048
Venus	-118853-09-15 15:51 J	-41689376.96	-41689376.84	-41689376.70	0.0089	0.0073
Venus	-118852-04-29 06:01 J	-41689151.38	-41689151.25	-41689151.08	0.0089	0.0067
Venus	-118852-12-10 20:39 J	-41688925.80	-41688925.64	-41688925.46	0.0089	0.0060
Mars	-118851-07-23 13:27 J	-41688701.16	-41688700.94	-41688700.68	0.0089	0.0055
Venus	-118851-07-24 10:49 J	-41688700.21	-41688700.05	-41688699.85	0.0089	0.0054
Earth	-118850-01-02 14:39 J	-41688537.90	-41688537.89	-41688537.82	0.0089	0.0088
Venus	-118850-03-07 01:27 J	-41688474.63	-41688474.44	-41688474.24	0.0089	0.0047
Venus	-118850-10-18 15:37 J	-41688249.03	-41688248.85	-41688248.63	0.0089	0.0041
Moon	-118849-01-05 00:44 J	-41688170.65	-41688170.47	-41688170.24	0.0089	0.0055
Earth	-118849-01-05 04:34 J	-41688170.49	-41688170.31	-41688170.09	0.0089	0.0059 *
Venus	-118849-05-31 06:15 J	-41688023.44	-41688023.24	-41688023.02	0.0089	0.0034
Mars	-118849-06-17 02:25 J	-41688006.59	-41688006.40	-41688006.15	0.0089	0.0063
Earth	-118848-01-06 18:15 J	-41687802.97	-41687802.74	-41687802.48	0.0089	0.0030
Moon	-118848-01-06 21:51 J	-41687802.83	-41687802.59	-41687802.34	0.0089	0.0034 *
Venus	-118848-01-11 20:25 J	-41687797.86	-41687797.65	-41687797.42	0.0089	0.0028
Venus	-118848-08-25 10:49 J	-41687572.27	-41687572.05	-41687571.83	0.0089	0.0021
Moon	-118847-01-09 05:32 J	-41687435.53	-41687435.27	-41687435.02	0.0089	0.0003

Earth -118847-01-09 08:10 J -41687435.42 -41687435.16 -41687434.90 0.0089 0.0001 *
 Venus -118847-04-08 00:58 J -41687346.68 -41687346.46 -41687346.23 0.0089 0.0015
 Mars -118847-05-12 17:32 J -41687311.92 -41687311.77 -41687311.54 0.0089 0.0070
 Venus -118847-11-19 15:22 J -41687121.09 -41687120.86 -41687120.63 0.0089 0.0008
 Earth -118846-01-11 21:22 J -41687067.86 -41687067.61 -41687067.36 0.0089 0.0028
 Moon -118846-01-11 23:17 J -41687067.78 -41687067.53 -41687067.26 0.0089 0.0025 *
 Venus -118846-07-03 05:32 J -41686895.50 -41686895.27 -41686895.05 0.0089 0.0001
 Moon -118845-01-14 09:51 J -41686700.26 -41686700.09 -41686699.89 0.0089 0.0061
 Earth -118845-01-14 10:05 J -41686700.26 -41686700.08 -41686699.86 0.0089 0.0057 *
 Venus -118845-02-13 19:27 J -41686669.91 -41686669.69 -41686669.46 0.0089 0.0006
 Mars -118845-04-06 10:34 J -41686617.21 -41686617.06 -41686616.89 0.0089 0.0076
 Venus -118845-09-26 09:37 J -41686444.32 -41686444.10 -41686443.87 0.0089 0.0012
 Moon -118844-01-15 22:20 J -41686332.65 -41686332.57 -41686332.45 0.0089 0.0082
 Earth -118844-01-15 22:34 J -41686332.60 -41686332.56 -41686332.46 0.0089 0.0086 *
 Venus -118844-05-09 23:32 J -41686218.73 -41686218.52 -41686218.29 0.0089 0.0019
 Venus -118844-12-21 13:27 J -41685993.14 -41685992.94 -41685992.71 0.0089 0.0025
 Mars -118843-03-02 03:37 J -41685922.42 -41685922.35 -41685922.20 0.0089 0.0083
 Venus -118843-08-04 03:37 J -41685767.56 -41685767.35 -41685767.14 0.0089 0.0031
 Venus -118842-03-17 17:03 J -41685541.98 -41685541.79 -41685541.57 0.0089 0.0038
 Venus -118842-10-29 07:13 J -41685316.39 -41685316.20 -41685316.00 0.0089 0.0044
 Mars -118841-01-26 00:29 J -41685227.51 -41685227.48 -41685227.45 0.0089 0.0088
 Venus -118841-06-10 20:39 J -41685090.80 -41685090.64 -41685090.43 0.0089 0.0051
 Venus -118840-01-22 10:34 J -41684865.22 -41684865.06 -41684864.87 0.0089 0.0057
 Venus -118840-09-05 00:15 J -41684639.64 -41684639.49 -41684639.32 0.0089 0.0063
 Venus -118839-04-18 13:56 J -41684414.05 -41684413.92 -41684413.77 0.0089 0.0069
 Venus -118839-11-30 03:51 J -41684188.45 -41684188.34 -41684188.22 0.0089 0.0075
 Venus -118838-07-13 17:32 J -41683962.86 -41683962.77 -41683962.68 0.0089 0.0081
 Venus -118837-02-24 06:15 J -41683737.24 -41683737.24 -41683737.17 0.0089 0.0088
 Mercury -118824-10-03 13:41 J -41678766.95 -41678766.93 -41678766.90 0.0088 0.0087
 Mercury -118824-12-30 15:08 J -41678678.91 -41678678.87 -41678678.81 0.0088 0.0082

Mercury -118823-03-28 16:34 J -41678590.86 -41678590.81 -41678590.73 0.0088 0.0078

Mercury -118823-06-24 18:15 J -41678502.81 -41678502.74 -41678502.66 0.0088 0.0074

Mercury -118823-09-20 19:41 J -41678414.75 -41678414.68 -41678414.58 0.0088 0.0070

Mercury -118823-12-17 21:08 J -41678326.70 -41678326.62 -41678326.51 0.0088 0.0066

Mercury -118822-03-15 23:03 J -41678238.64 -41678238.54 -41678238.44 0.0088 0.0061

Mercury -118822-06-12 00:29 J -41678150.58 -41678150.48 -41678150.37 0.0088 0.0056

Mercury -118822-09-08 01:56 J -41678062.52 -41678062.42 -41678062.30 0.0088 0.0052

Mercury -118822-12-05 03:37 J -41677974.47 -41677974.35 -41677974.23 0.0088 0.0048

Mercury -118821-03-02 05:03 J -41677886.41 -41677886.29 -41677886.17 0.0088 0.0043

Mercury -118821-05-29 06:29 J -41677798.35 -41677798.23 -41677798.10 0.0088 0.0039

Mercury -118821-08-25 07:56 J -41677710.29 -41677710.17 -41677710.04 0.0088 0.0035

Mercury -118821-11-21 09:37 J -41677622.23 -41677622.10 -41677621.97 0.0088 0.0031

Mercury -118820-02-17 11:03 J -41677534.17 -41677534.04 -41677533.91 0.0088 0.0026

Mercury -118820-05-16 12:29 J -41677446.11 -41677445.98 -41677445.84 0.0088 0.0022

Mercury -118820-08-12 13:56 J -41677358.05 -41677357.92 -41677357.78 0.0088 0.0018

Mercury -118820-11-08 15:37 J -41677269.99 -41677269.85 -41677269.72 0.0088 0.0014

Mercury -118819-02-04 17:03 J -41677181.93 -41677181.79 -41677181.66 0.0088 0.0010

Mercury -118819-05-03 18:29 J -41677093.87 -41677093.73 -41677093.60 0.0088 0.0005

Mercury -118819-07-30 19:56 J -41677005.81 -41677005.67 -41677005.54 0.0088 0.0002

Mercury -118819-10-26 21:22 J -41676917.75 -41676917.61 -41676917.47 0.0088 0.0004

Mercury -118818-01-22 22:49 J -41676829.69 -41676829.55 -41676829.42 0.0088 0.0008

Mercury -118818-04-21 00:01 J -41676741.63 -41676741.50 -41676741.36 0.0088 0.0013

Mercury -118818-07-18 01:27 J -41676653.57 -41676653.44 -41676653.30 0.0088 0.0017

Mercury -118818-10-14 02:53 J -41676565.51 -41676565.38 -41676565.24 0.0088 0.0021

Mercury -118817-01-10 04:20 J -41676477.44 -41676477.32 -41676477.18 0.0088 0.0025

Mercury -118817-04-07 05:46 J -41676389.38 -41676389.26 -41676389.13 0.0088 0.0029

Mercury -118817-07-04 07:13 J -41676301.32 -41676301.20 -41676301.07 0.0088 0.0033

Mercury -118817-09-30 08:39 J -41676213.26 -41676213.14 -41676213.01 0.0088 0.0037

Mercury -118817-12-27 10:05 J -41676125.20 -41676125.08 -41676124.96 0.0088 0.0041

Mercury -118816-03-25 11:17 J -41676037.13 -41676037.03 -41676036.90 0.0088 0.0045

Mercury -118816-06-21 12:44 J -41675949.07 -41675948.97 -41675948.85 0.0088 0.0049
 Mercury -118816-09-17 14:10 J -41675861.01 -41675860.91 -41675860.79 0.0088 0.0053
 Mercury -118816-12-14 15:37 J -41675772.95 -41675772.85 -41675772.74 0.0088 0.0057
 Mercury -118815-03-12 17:03 J -41675684.88 -41675684.79 -41675684.69 0.0088 0.0061
 Mercury -118815-06-08 18:15 J -41675596.82 -41675596.74 -41675596.64 0.0088 0.0066
 Mercury -118815-09-04 19:41 J -41675508.75 -41675508.68 -41675508.59 0.0088 0.0069
 Mercury -118815-12-01 21:08 J -41675420.69 -41675420.62 -41675420.54 0.0088 0.0073
 Mercury -118814-02-27 22:34 J -41675332.62 -41675332.56 -41675332.49 0.0088 0.0077
 Mercury -118814-05-26 23:46 J -41675244.55 -41675244.51 -41675244.45 0.0088 0.0082
 Mercury -118814-08-23 01:13 J -41675156.47 -41675156.45 -41675156.41 0.0088 0.0085
 Mars -118803-02-23 05:17 J -41671319.30 -41671319.28 -41671319.22 0.0088 0.0088
 Mars -118801-01-20 00:29 J -41670623.58 -41670623.48 -41670623.33 0.0088 0.0082
 Mars -118800-12-15 20:53 J -41669927.80 -41669927.63 -41669927.45 0.0088 0.0075
 Mars -118798-11-11 16:34 J -41669232.00 -41669231.81 -41669231.57 0.0088 0.0068
 Mars -118796-10-07 12:29 J -41668536.19 -41668535.98 -41668535.70 0.0088 0.0060
 Mars -118794-09-03 08:39 J -41667840.38 -41667840.14 -41667839.84 0.0088 0.0052
 Mars -118792-07-30 04:05 J -41667144.59 -41667144.33 -41667144.01 0.0088 0.0045
 Mars -118790-06-25 23:17 J -41666448.83 -41666448.53 -41666448.22 0.0088 0.0036
 Mars -118788-05-21 17:17 J -41665753.08 -41665752.78 -41665752.45 0.0088 0.0027
 Mars -118786-04-17 11:17 J -41665057.35 -41665057.03 -41665056.70 0.0088 0.0019
 Mars -118784-03-13 03:51 J -41664361.65 -41664361.34 -41664361.00 0.0088 0.0011
 Mars -118782-02-06 20:39 J -41663665.97 -41663665.64 -41663665.31 0.0088 0.0001
 Mars -118780-01-02 11:46 J -41662970.33 -41662970.01 -41662969.68 0.0088 0.0008
 Mars -118779-11-29 00:58 J -41662274.77 -41662274.46 -41662274.12 0.0088 0.0017
 Mars -118777-10-24 13:13 J -41661579.25 -41661578.95 -41661578.62 0.0088 0.0025
 Mars -118775-09-20 00:44 J -41660883.76 -41660883.47 -41660883.16 0.0088 0.0033
 Mars -118773-08-15 10:34 J -41660188.34 -41660188.06 -41660187.76 0.0088 0.0041
 Venus -118772-08-04 03:51 J -41659834.40 -41659834.34 -41659834.27 0.0088 0.0084
 Venus -118771-03-17 15:08 J -41659608.95 -41659608.87 -41659608.75 0.0088 0.0079
 Mars -118771-07-11 18:29 J -41659492.98 -41659492.73 -41659492.44 0.0088 0.0049

Venus -118771-10-29 02:53 J -41659383.49 -41659383.38 -41659383.24 0.0088 0.0073
 Venus -118770-06-11 14:25 J -41659158.02 -41659157.90 -41659157.74 0.0089 0.0067
 Venus -118769-01-23 02:10 J -41658932.55 -41658932.41 -41658932.24 0.0089 0.0061
 Mars -118769-06-06 02:10 J -41658797.65 -41658797.41 -41658797.15 0.0089 0.0056
 Venus -118769-09-04 13:56 J -41658707.08 -41658706.92 -41658706.74 0.0089 0.0055
 Venus -118768-04-18 01:56 J -41658481.59 -41658481.42 -41658481.24 0.0089 0.0049
 Moon -118768-06-24 13:13 J -41658413.96 -41658413.95 -41658413.88 0.0089 0.0088
 Venus -118768-11-29 13:41 J -41658256.11 -41658255.93 -41658255.74 0.0089 0.0043
 Mars -118767-05-02 07:56 J -41658102.38 -41658102.17 -41658101.93 0.0089 0.0063
 Moon -118767-06-26 16:34 J -41658046.94 -41658046.81 -41658046.62 0.0089 0.0069
 Earth -118767-06-26 20:25 J -41658046.81 -41658046.65 -41658046.46 0.0089 0.0064 *
 Venus -118767-07-13 01:13 J -41658030.64 -41658030.45 -41658030.25 0.0089 0.0037
 Venus -118766-02-23 12:58 J -41657805.16 -41657804.96 -41657804.76 0.0089 0.0031
 Earth -118766-06-29 05:46 J -41657679.47 -41657679.26 -41657679.01 0.0089 0.0037
 Moon -118766-06-29 09:22 J -41657679.34 -41657679.11 -41657678.86 0.0089 0.0032 *
 Venus -118766-10-07 00:44 J -41657579.67 -41657579.47 -41657579.26 0.0089 0.0025
 Mars -118765-03-27 11:32 J -41657407.19 -41657407.02 -41657406.79 0.0089 0.0070
 Venus -118765-05-19 12:44 J -41657354.18 -41657353.97 -41657353.76 0.0089 0.0019
 Moon -118765-06-30 12:15 J -41657312.23 -41657311.99 -41657311.73 0.0089 0.0013
 Earth -118765-06-30 15:37 J -41657312.10 -41657311.85 -41657311.59 0.0089 0.0009 *
 Venus -118765-12-31 00:29 J -41657128.69 -41657128.48 -41657128.27 0.0089 0.0013
 Earth -118764-07-03 01:13 J -41656944.69 -41656944.45 -41656944.19 0.0089 0.0020
 Moon -118764-07-03 03:51 J -41656944.59 -41656944.34 -41656944.08 0.0089 0.0024 *
 Venus -118764-08-13 12:15 J -41656903.20 -41656902.99 -41656902.77 0.0089 0.0007
 Mars -118763-02-20 14:10 J -41656712.05 -41656711.91 -41656711.72 0.0089 0.0076
 Venus -118763-03-27 00:15 J -41656677.70 -41656677.49 -41656677.28 0.0089 0.0000
 Moon -118763-07-05 09:51 J -41656577.28 -41656577.09 -41656576.86 0.0089 0.0044
 Earth -118763-07-05 10:49 J -41656577.24 -41656577.05 -41656576.81 0.0089 0.0048 *
 Venus -118763-11-07 12:15 J -41656452.21 -41656451.99 -41656451.78 0.0089 0.0006
 Venus -118762-06-21 00:01 J -41656226.71 -41656226.50 -41656226.28 0.0089 0.0012

Earth -118762-07-07 20:53 J -41656209.74 -41656209.63 -41656209.47 0.0089 0.0076
 Moon -118762-07-07 21:22 J -41656209.71 -41656209.61 -41656209.47 0.0089 0.0079 *
 Mars -118761-01-16 15:37 J -41656016.94 -41656016.85 -41656016.70 0.0089 0.0082
 Venus -118761-02-01 12:01 J -41656001.21 -41656001.00 -41656000.79 0.0089 0.0018
 Venus -118761-09-13 23:46 J -41655775.70 -41655775.51 -41655775.29 0.0089 0.0025
 Venus -118760-04-27 12:01 J -41655550.19 -41655550.00 -41655549.79 0.0089 0.0031
 Venus -118760-12-09 00:01 J -41655324.68 -41655324.50 -41655324.29 0.0089 0.0037
 Mars -118760-12-11 14:53 J -41655321.92 -41655321.88 -41655321.79 0.0089 0.0087
 Venus -118759-07-22 12:15 J -41655099.17 -41655098.99 -41655098.79 0.0089 0.0043
 Venus -118758-03-05 00:29 J -41654873.65 -41654873.48 -41654873.29 0.0089 0.0049
 Venus -118758-10-16 12:44 J -41654648.13 -41654647.97 -41654647.80 0.0089 0.0055
 Venus -118757-05-29 00:44 J -41654422.60 -41654422.47 -41654422.29 0.0089 0.0062
 Venus -118756-01-09 12:58 J -41654197.07 -41654196.96 -41654196.79 0.0089 0.0068
 Venus -118756-08-23 01:27 J -41653971.54 -41653971.44 -41653971.30 0.0089 0.0074
 Venus -118755-04-05 13:41 J -41653746.00 -41653745.93 -41653745.81 0.0089 0.0080
 Venus -118755-11-17 02:10 J -41653520.44 -41653520.41 -41653520.33 0.0089 0.0086
 Mercury -118740-09-02 17:03 J -41648116.82 -41648116.79 -41648116.72 0.0089 0.0085
 Mercury -118740-11-29 20:25 J -41648028.72 -41648028.65 -41648028.56 0.0089 0.0080
 Mercury -118739-02-25 23:32 J -41647940.61 -41647940.52 -41647940.40 0.0089 0.0074
 Mercury -118739-05-25 02:53 J -41647852.49 -41647852.38 -41647852.26 0.0089 0.0068
 Mercury -118739-08-21 06:15 J -41647764.37 -41647764.24 -41647764.11 0.0089 0.0063
 Mercury -118739-11-17 09:08 J -41647676.25 -41647676.12 -41647675.96 0.0089 0.0057
 Mercury -118738-02-13 12:29 J -41647588.12 -41647587.98 -41647587.82 0.0089 0.0051
 Mercury -118738-05-12 15:37 J -41647499.99 -41647499.85 -41647499.68 0.0089 0.0046
 Mercury -118738-08-08 18:58 J -41647411.87 -41647411.71 -41647411.54 0.0089 0.0040
 Mercury -118738-11-04 22:20 J -41647323.74 -41647323.57 -41647323.39 0.0089 0.0034
 Mercury -118737-02-01 01:41 J -41647235.60 -41647235.43 -41647235.25 0.0089 0.0028
 Mercury -118737-04-29 04:49 J -41647147.47 -41647147.30 -41647147.11 0.0089 0.0023
 Mercury -118737-07-26 08:10 J -41647059.34 -41647059.16 -41647058.97 0.0089 0.0017
 Mercury -118737-10-22 11:32 J -41646971.20 -41646971.02 -41646970.83 0.0089 0.0011

Mercury -118736-01-18 14:53 J -41646883.06 -41646882.88 -41646882.69 0.0089 0.0005

Mercury -118736-04-16 18:15 J -41646794.93 -41646794.74 -41646794.55 0.0089 0.0001

Mercury -118736-07-13 21:37 J -41646706.79 -41646706.60 -41646706.41 0.0089 0.0007

Mercury -118736-10-10 00:58 J -41646618.65 -41646618.46 -41646618.28 0.0089 0.0012

Mercury -118735-01-06 04:20 J -41646530.50 -41646530.32 -41646530.14 0.0089 0.0018

Mercury -118735-04-04 07:41 J -41646442.36 -41646442.18 -41646442.00 0.0089 0.0024

Mercury -118735-07-01 10:49 J -41646354.22 -41646354.05 -41646353.86 0.0089 0.0031

Mercury -118735-09-27 14:10 J -41646266.07 -41646265.91 -41646265.73 0.0089 0.0037

Mercury -118735-12-24 17:32 J -41646177.92 -41646177.77 -41646177.59 0.0089 0.0043

Mercury -118734-03-22 21:08 J -41646089.77 -41646089.62 -41646089.46 0.0089 0.0048

Mercury -118734-06-19 00:29 J -41646001.62 -41646001.48 -41646001.32 0.0089 0.0054

Mercury -118734-09-15 03:51 J -41645913.47 -41645913.34 -41645913.19 0.0089 0.0060

Mercury -118734-12-12 07:13 J -41645825.31 -41645825.20 -41645825.06 0.0089 0.0066

Mercury -118733-03-09 10:34 J -41645737.15 -41645737.06 -41645736.93 0.0089 0.0073

Mercury -118733-06-05 14:10 J -41645648.99 -41645648.91 -41645648.81 0.0089 0.0078

Mercury -118733-09-01 17:32 J -41645560.81 -41645560.77 -41645560.69 0.0089 0.0084

Mars -118725-03-02 22:05 J -41642821.63 -41642821.58 -41642821.50 0.0089 0.0087

Mars -118723-01-26 00:44 J -41642127.58 -41642127.47 -41642127.35 0.0089 0.0082

Mars -118722-12-21 01:41 J -41641433.56 -41641433.43 -41641433.25 0.0089 0.0076

Mars -118720-11-14 03:51 J -41640739.50 -41640739.34 -41640739.14 0.0089 0.0071

Mars -118718-10-09 06:29 J -41640045.42 -41640045.23 -41640045.01 0.0089 0.0064

Mars -118716-09-02 07:41 J -41639351.38 -41639351.18 -41639350.93 0.0089 0.0058

Mars -118714-07-28 09:08 J -41638657.34 -41638657.12 -41638656.85 0.0089 0.0052

Mars -118712-06-21 11:32 J -41637963.26 -41637963.02 -41637962.74 0.0089 0.0045

Mars -118710-05-16 12:58 J -41637269.22 -41637268.96 -41637268.67 0.0089 0.0037

Mars -118708-04-09 14:53 J -41636575.15 -41636574.88 -41636574.59 0.0089 0.0030

Mars -118706-03-04 17:46 J -41635881.04 -41635880.76 -41635880.46 0.0089 0.0022

Mars -118704-01-26 20:53 J -41635186.92 -41635186.63 -41635186.33 0.0089 0.0014

Mars -118703-12-22 00:15 J -41634492.79 -41634492.49 -41634492.19 0.0089 0.0006

Mars -118701-11-15 05:32 J -41633798.57 -41633798.27 -41633797.97 0.0089 0.0002

Mars	-118699-10-10 10:49 J	-41633104.35	-41633104.05	-41633103.75	0.0089	0.0009
Mars	-118697-09-03 15:51 J	-41632410.13	-41632409.84	-41632409.54	0.0089	0.0017
Mars	-118695-07-29 22:34 J	-41631715.84	-41631715.56	-41631715.26	0.0089	0.0025
Mars	-118693-06-23 06:29 J	-41631021.49	-41631021.23	-41631020.93	0.0089	0.0033
Mars	-118691-05-18 14:39 J	-41630327.13	-41630326.89	-41630326.59	0.0089	0.0041
Venus	-118690-09-23 20:25 J	-41629833.69	-41629833.65	-41629833.56	0.0089	0.0085
Mars	-118689-04-12 00:29 J	-41629632.71	-41629632.48	-41629632.20	0.0089	0.0048
Venus	-118689-05-06 11:17 J	-41629608.13	-41629608.03	-41629607.92	0.0089	0.0078
Venus	-118689-12-18 01:27 J	-41629382.55	-41629382.44	-41629382.29	0.0089	0.0072
Venus	-118688-07-31 15:37 J	-41629156.98	-41629156.85	-41629156.67	0.0089	0.0066
Mars	-118687-03-07 12:29 J	-41628938.20	-41628937.98	-41628937.72	0.0089	0.0055
Venus	-118687-03-14 06:29 J	-41628931.39	-41628931.23	-41628931.06	0.0089	0.0059
Venus	-118687-10-25 20:39 J	-41628705.80	-41628705.64	-41628705.44	0.0089	0.0053
Venus	-118686-06-08 11:17 J	-41628480.21	-41628480.03	-41628479.83	0.0089	0.0046
Earth	-118685-01-04 12:44 J	-41628270.11	-41628269.97	-41628269.80	0.0089	0.0071
Moon	-118685-01-04 16:05 J	-41628269.97	-41628269.83	-41628269.67	0.0089	0.0073 *
Venus	-118685-01-20 01:27 J	-41628254.63	-41628254.44	-41628254.22	0.0089	0.0040
Mars	-118685-01-31 00:58 J	-41628243.66	-41628243.46	-41628243.22	0.0089	0.0062
Venus	-118685-09-01 16:05 J	-41628029.04	-41628028.83	-41628028.62	0.0089	0.0033
Moon	-118684-01-06 00:29 J	-41627902.70	-41627902.48	-41627902.24	0.0089	0.0040
Earth	-118684-01-06 02:39 J	-41627902.61	-41627902.39	-41627902.14	0.0089	0.0042 *
Venus	-118684-04-15 06:15 J	-41627803.45	-41627803.24	-41627803.02	0.0089	0.0027
Venus	-118684-11-26 20:39 J	-41627577.86	-41627577.64	-41627577.42	0.0089	0.0020
Mars	-118684-12-25 14:25 J	-41627549.06	-41627548.90	-41627548.68	0.0089	0.0069
Earth	-118683-01-08 16:20 J	-41627535.07	-41627534.82	-41627534.55	0.0089	0.0013
Moon	-118683-01-08 17:03 J	-41627535.04	-41627534.79	-41627534.51	0.0089	0.0015 *
Venus	-118683-07-10 10:49 J	-41627352.27	-41627352.05	-41627351.82	0.0089	0.0014
Earth	-118682-01-11 06:01 J	-41627167.51	-41627167.25	-41627166.99	0.0089	0.0016
Moon	-118682-01-11 05:32 J	-41627167.50	-41627167.27	-41627167.01	0.0089	0.0019 *
Venus	-118682-02-21 01:13 J	-41627126.68	-41627126.45	-41627126.23	0.0089	0.0007

Venus -118682-10-04 15:22 J -41626901.08 -41626900.86 -41626900.63 0.0089 0.0001
 Mars -118682-11-20 06:15 J -41626854.39 -41626854.24 -41626854.06 0.0089 0.0075
 Moon -118681-01-13 17:17 J -41626799.99 -41626799.78 -41626799.52 0.0089 0.0043
 Earth -118681-01-13 18:58 J -41626799.93 -41626799.71 -41626799.48 0.0089 0.0045 *
 Venus -118681-05-17 05:32 J -41626675.49 -41626675.27 -41626675.04 0.0089 0.0006
 Venus -118681-12-28 19:41 J -41626449.90 -41626449.68 -41626449.45 0.0089 0.0013
 Earth -118680-01-15 07:41 J -41626432.30 -41626432.18 -41626432.01 0.0089 0.0074
 Moon -118680-01-15 10:20 J -41626432.18 -41626432.07 -41626431.92 0.0089 0.0076 *
 Venus -118680-08-11 09:37 J -41626224.31 -41626224.10 -41626223.87 0.0089 0.0019
 Mars -118680-10-14 23:03 J -41626159.65 -41626159.54 -41626159.40 0.0089 0.0081
 Venus -118679-03-24 23:32 J -41625998.72 -41625998.52 -41625998.29 0.0089 0.0026
 Venus -118679-11-05 13:56 J -41625773.13 -41625772.92 -41625772.71 0.0089 0.0032
 Venus -118678-06-19 03:37 J -41625547.54 -41625547.35 -41625547.13 0.0089 0.0039
 Mars -118678-09-09 16:05 J -41625464.86 -41625464.83 -41625464.73 0.0089 0.0087
 Venus -118677-01-30 17:32 J -41625321.95 -41625321.77 -41625321.56 0.0089 0.0045
 Venus -118677-09-12 07:27 J -41625096.37 -41625096.19 -41625096.00 0.0089 0.0051
 Venus -118676-04-25 20:53 J -41624870.78 -41624870.63 -41624870.44 0.0089 0.0058
 Venus -118676-12-07 10:49 J -41624645.19 -41624645.05 -41624644.88 0.0089 0.0064
 Venus -118675-07-21 00:29 J -41624419.60 -41624419.48 -41624419.32 0.0089 0.0070
 Venus -118674-03-03 14:10 J -41624194.01 -41624193.91 -41624193.78 0.0089 0.0076
 Venus -118674-10-15 04:05 J -41623968.40 -41623968.33 -41623968.24 0.0089 0.0082
 Venus -118673-05-27 17:32 J -41623742.78 -41623742.77 -41623742.73 0.0089 0.0088
 Mercury -118659-04-03 12:01 J -41618684.00 -41618684.00 -41618684.00 0.0088 0.0088
 Mercury -118659-06-30 13:13 J -41618595.97 -41618595.95 -41618595.89 0.0088 0.0085
 Mercury -118659-09-26 15:08 J -41618507.93 -41618507.87 -41618507.81 0.0088 0.0080
 Mercury -118659-12-23 16:34 J -41618419.87 -41618419.81 -41618419.73 0.0088 0.0075
 Mercury -118658-03-21 18:01 J -41618331.82 -41618331.75 -41618331.66 0.0088 0.0071
 Mercury -118658-06-17 19:41 J -41618243.77 -41618243.68 -41618243.59 0.0088 0.0067
 Mercury -118658-09-13 21:08 J -41618155.71 -41618155.62 -41618155.52 0.0088 0.0063
 Mercury -118658-12-10 22:34 J -41618067.65 -41618067.56 -41618067.45 0.0088 0.0058

Mercury -118657-03-08 00:01 J -41617979.60 -41617979.50 -41617979.38 0.0088 0.0054

Mercury -118657-06-04 01:41 J -41617891.54 -41617891.43 -41617891.31 0.0088 0.0050

Mercury -118657-08-31 03:08 J -41617803.48 -41617803.37 -41617803.24 0.0088 0.0046

Mercury -118657-11-27 04:34 J -41617715.42 -41617715.31 -41617715.17 0.0088 0.0042

Mercury -118656-02-23 06:15 J -41617627.36 -41617627.24 -41617627.11 0.0088 0.0037

Mercury -118656-05-22 07:41 J -41617539.30 -41617539.18 -41617539.04 0.0088 0.0033

Mercury -118656-08-18 09:08 J -41617451.24 -41617451.12 -41617450.98 0.0088 0.0029

Mercury -118656-11-14 10:34 J -41617363.18 -41617363.06 -41617362.92 0.0088 0.0025

Mercury -118655-02-10 12:15 J -41617275.12 -41617274.99 -41617274.85 0.0088 0.0020

Mercury -118655-05-09 13:41 J -41617187.06 -41617186.93 -41617186.79 0.0088 0.0016

Mercury -118655-08-05 15:08 J -41617099.00 -41617098.87 -41617098.73 0.0088 0.0012

Mercury -118655-11-01 16:49 J -41617010.94 -41617010.80 -41617010.67 0.0088 0.0007

Mercury -118654-01-28 18:15 J -41616922.88 -41616922.74 -41616922.61 0.0088 0.0003

Mercury -118654-04-26 19:41 J -41616834.82 -41616834.68 -41616834.54 0.0088 0.0002

Mercury -118654-07-23 21:08 J -41616746.76 -41616746.62 -41616746.48 0.0088 0.0006

Mercury -118654-10-19 22:34 J -41616658.70 -41616658.56 -41616658.43 0.0088 0.0010

Mercury -118653-01-16 00:01 J -41616570.64 -41616570.50 -41616570.37 0.0088 0.0014

Mercury -118653-04-13 01:27 J -41616482.57 -41616482.44 -41616482.31 0.0088 0.0018

Mercury -118653-07-10 02:53 J -41616394.51 -41616394.38 -41616394.25 0.0088 0.0023

Mercury -118653-10-06 04:20 J -41616306.45 -41616306.32 -41616306.19 0.0088 0.0027

Mercury -118652-01-02 05:32 J -41616218.39 -41616218.27 -41616218.13 0.0088 0.0031

Mercury -118652-03-31 06:58 J -41616130.33 -41616130.21 -41616130.08 0.0088 0.0035

Mercury -118652-06-27 08:25 J -41616042.27 -41616042.15 -41616042.02 0.0088 0.0039

Mercury -118652-09-23 09:51 J -41615954.20 -41615954.09 -41615953.97 0.0088 0.0043

Mercury -118652-12-20 11:17 J -41615866.14 -41615866.03 -41615865.91 0.0088 0.0047

Mercury -118651-03-18 12:44 J -41615778.08 -41615777.97 -41615777.86 0.0088 0.0051

Mercury -118651-06-14 14:10 J -41615690.01 -41615689.91 -41615689.80 0.0088 0.0055

Mercury -118651-09-10 15:37 J -41615601.95 -41615601.85 -41615601.75 0.0088 0.0060

Mercury -118651-12-07 16:49 J -41615513.89 -41615513.80 -41615513.70 0.0088 0.0064

Mercury -118650-03-05 18:15 J -41615425.82 -41615425.74 -41615425.65 0.0088 0.0068

Mercury -118650-06-01 19:41 J -41615337.75 -41615337.68 -41615337.60 0.0088 0.0072
 Mercury -118650-08-28 21:08 J -41615249.69 -41615249.62 -41615249.55 0.0088 0.0076
 Mercury -118650-11-24 22:34 J -41615161.62 -41615161.56 -41615161.51 0.0088 0.0080
 Mercury -118649-02-20 23:46 J -41615073.54 -41615073.51 -41615073.46 0.0088 0.0084
 Mercury -118649-05-19 01:13 J -41614985.46 -41614985.45 -41614985.43 0.0088 0.0088
 Mars -118640-10-07 02:39 J -41611557.46 -41611557.39 -41611557.24 0.0088 0.0084
 Mars -118638-09-02 22:05 J -41610861.70 -41610861.58 -41610861.37 0.0088 0.0078
 Mars -118636-07-29 18:29 J -41610165.91 -41610165.73 -41610165.51 0.0088 0.0071
 Mars -118634-06-25 14:25 J -41609470.12 -41609469.90 -41609469.65 0.0088 0.0064
 Mars -118632-05-21 10:05 J -41608774.31 -41608774.08 -41608773.79 0.0088 0.0056
 Mars -118630-04-17 06:15 J -41608078.50 -41608078.24 -41608077.95 0.0088 0.0049
 Mars -118628-03-13 01:56 J -41607382.70 -41607382.42 -41607382.11 0.0088 0.0041
 Mars -118626-02-06 21:22 J -41606686.91 -41606686.61 -41606686.29 0.0088 0.0032
 Mars -118624-01-02 16:05 J -41605991.14 -41605990.83 -41605990.50 0.0088 0.0024
 Mars -118623-11-29 09:51 J -41605295.40 -41605295.09 -41605294.74 0.0088 0.0017
 Mars -118621-10-25 03:51 J -41604599.67 -41604599.34 -41604599.01 0.0088 0.0007
 Mars -118619-09-20 20:25 J -41603903.98 -41603903.65 -41603903.32 0.0088 0.0001
 Mars -118617-08-16 12:15 J -41603208.32 -41603207.99 -41603207.66 0.0088 0.0010
 Mars -118615-07-13 02:39 J -41602512.70 -41602512.39 -41602512.05 0.0088 0.0018
 Mars -118613-06-07 15:51 J -41601817.14 -41601816.84 -41601816.51 0.0088 0.0027
 Mars -118611-05-04 03:37 J -41601121.63 -41601121.35 -41601121.02 0.0088 0.0034
 Mars -118609-03-29 15:08 J -41600426.14 -41600425.87 -41600425.57 0.0088 0.0042
 Venus -118608-11-05 16:34 J -41599839.88 -41599839.81 -41599839.74 0.0088 0.0083
 Mars -118607-02-23 01:13 J -41599730.69 -41599730.45 -41599730.16 0.0088 0.0050
 Venus -118607-06-19 03:37 J -41599614.43 -41599614.35 -41599614.23 0.0088 0.0078
 Venus -118606-01-30 15:22 J -41599388.97 -41599388.86 -41599388.72 0.0088 0.0072
 Venus -118606-09-13 03:08 J -41599163.50 -41599163.37 -41599163.22 0.0088 0.0066
 Mars -118605-01-19 09:22 J -41599035.34 -41599035.11 -41599034.84 0.0088 0.0057
 Venus -118605-04-25 14:53 J -41598938.02 -41598937.88 -41598937.71 0.0088 0.0060
 Venus -118605-12-07 02:39 J -41598712.55 -41598712.39 -41598712.21 0.0088 0.0054

Venus -118604-07-20 14:25 J -41598487.08 -41598486.90 -41598486.72 0.0088 0.0048
 Mars -118604-12-14 16:20 J -41598340.01 -41598339.82 -41598339.56 0.0089 0.0064
 Venus -118603-03-03 02:10 J -41598261.60 -41598261.41 -41598261.22 0.0089 0.0042
 Earth -118603-06-26 08:10 J -41598146.26 -41598146.16 -41598146.00 0.0089 0.0076
 Moon -118603-06-26 12:01 J -41598146.12 -41598146.00 -41598145.83 0.0089 0.0073 *
 Venus -118603-10-14 13:56 J -41598036.11 -41598035.92 -41598035.72 0.0089 0.0036
 Venus -118602-05-28 01:41 J -41597810.63 -41597810.43 -41597810.23 0.0089 0.0030
 Moon -118602-06-28 14:53 J -41597779.07 -41597778.88 -41597778.66 0.0089 0.0050
 Earth -118602-06-28 17:46 J -41597778.95 -41597778.76 -41597778.53 0.0089 0.0048 *
 Mars -118602-11-09 22:05 J -41597644.75 -41597644.58 -41597644.35 0.0089 0.0070
 Venus -118601-01-08 13:27 J -41597585.14 -41597584.94 -41597584.73 0.0089 0.0024
 Earth -118601-06-30 03:37 J -41597411.59 -41597411.35 -41597411.10 0.0089 0.0020
 Moon -118601-06-30 05:46 J -41597411.51 -41597411.26 -41597411.00 0.0089 0.0018 *
 Venus -118601-08-21 01:13 J -41597359.66 -41597359.45 -41597359.24 0.0089 0.0018
 Venus -118600-04-03 12:58 J -41597134.16 -41597133.96 -41597133.74 0.0089 0.0012
 Moon -118600-07-02 11:46 J -41597044.25 -41597044.01 -41597043.76 0.0089 0.0006
 Earth -118600-07-02 13:13 J -41597044.20 -41597043.95 -41597043.69 0.0089 0.0008 *
 Mars -118600-10-05 01:27 J -41596949.57 -41596949.44 -41596949.24 0.0089 0.0076
 Venus -118600-11-15 00:58 J -41596908.67 -41596908.46 -41596908.25 0.0089 0.0006
 Venus -118599-06-28 12:44 J -41596683.18 -41596682.97 -41596682.75 0.0089 0.0001
 Moon -118599-07-04 22:34 J -41596676.79 -41596676.56 -41596676.32 0.0089 0.0038
 Earth -118599-07-04 23:03 J -41596676.77 -41596676.54 -41596676.30 0.0089 0.0036 *
 Venus -118598-02-09 00:29 J -41596457.69 -41596457.48 -41596457.26 0.0089 0.0007
 Earth -118598-07-07 08:53 J -41596309.30 -41596309.13 -41596308.95 0.0089 0.0064
 Moon -118598-07-07 09:51 J -41596309.24 -41596309.09 -41596308.89 0.0089 0.0063 *
 Mars -118598-08-31 03:37 J -41596254.45 -41596254.35 -41596254.19 0.0089 0.0081
 Venus -118598-09-22 12:29 J -41596232.19 -41596231.98 -41596231.77 0.0089 0.0013
 Venus -118597-05-05 00:29 J -41596006.68 -41596006.48 -41596006.27 0.0089 0.0019
 Venus -118597-12-16 12:29 J -41595781.18 -41595780.98 -41595780.77 0.0089 0.0025
 Mars -118596-07-26 04:49 J -41595559.35 -41595559.30 -41595559.20 0.0089 0.0086

Venus -118596-07-30 00:29 J -41595555.68 -41595555.48 -41595555.28 0.0089 0.0031

Venus -118595-03-12 12:15 J -41595330.17 -41595329.99 -41595329.78 0.0089 0.0038

Venus -118595-10-24 00:15 J -41595104.66 -41595104.49 -41595104.29 0.0089 0.0044

Venus -118594-06-06 12:29 J -41594879.14 -41594878.98 -41594878.79 0.0089 0.0050

Venus -118593-01-18 00:44 J -41594653.63 -41594653.47 -41594653.29 0.0089 0.0056

Venus -118593-08-30 12:58 J -41594428.10 -41594427.96 -41594427.80 0.0089 0.0062

Venus -118592-04-13 01:13 J -41594202.57 -41594202.45 -41594202.30 0.0089 0.0068

Venus -118592-11-24 13:27 J -41593977.04 -41593976.94 -41593976.81 0.0089 0.0074

Venus -118591-07-08 01:56 J -41593751.50 -41593751.42 -41593751.32 0.0089 0.0080

Venus -118590-02-18 14:10 J -41593525.95 -41593525.91 -41593525.85 0.0089 0.0086

Mercury -118575-03-03 12:58 J -41588033.98 -41588033.96 -41588033.92 0.0089 0.0087

Mercury -118575-05-30 15:51 J -41587945.89 -41587945.84 -41587945.75 0.0089 0.0082

Mercury -118575-08-26 19:13 J -41587857.78 -41587857.70 -41587857.60 0.0089 0.0076

Mercury -118575-11-22 22:20 J -41587769.67 -41587769.57 -41587769.45 0.0089 0.0071

Mercury -118574-02-19 01:41 J -41587681.55 -41587681.43 -41587681.30 0.0089 0.0065

Mercury -118574-05-18 05:03 J -41587593.42 -41587593.29 -41587593.15 0.0089 0.0059

Mercury -118574-08-14 07:56 J -41587505.30 -41587505.17 -41587505.01 0.0089 0.0054

Mercury -118574-11-10 11:17 J -41587417.18 -41587417.03 -41587416.87 0.0089 0.0048

Mercury -118573-02-06 14:39 J -41587329.05 -41587328.89 -41587328.72 0.0089 0.0042

Mercury -118573-05-04 17:46 J -41587240.92 -41587240.76 -41587240.58 0.0089 0.0037

Mercury -118573-07-31 21:08 J -41587152.79 -41587152.62 -41587152.44 0.0089 0.0031

Mercury -118573-10-28 00:29 J -41587064.66 -41587064.48 -41587064.30 0.0089 0.0025

Mercury -118572-01-24 03:51 J -41586976.52 -41586976.34 -41586976.16 0.0089 0.0019

Mercury -118572-04-22 06:58 J -41586888.39 -41586888.21 -41586888.02 0.0089 0.0014

Mercury -118572-07-19 10:20 J -41586800.25 -41586800.07 -41586799.88 0.0089 0.0008

Mercury -118572-10-15 13:41 J -41586712.12 -41586711.93 -41586711.74 0.0089 0.0002

Mercury -118571-01-11 17:03 J -41586623.98 -41586623.79 -41586623.61 0.0089 0.0004

Mercury -118571-04-09 20:10 J -41586535.84 -41586535.66 -41586535.47 0.0089 0.0010

Mercury -118571-07-06 23:32 J -41586447.70 -41586447.52 -41586447.33 0.0089 0.0016

Mercury -118571-10-03 02:53 J -41586359.56 -41586359.38 -41586359.19 0.0089 0.0022

Mercury -118571-12-30 06:15 J -41586271.41 -41586271.24 -41586271.06 0.0089 0.0027

Mercury -118570-03-28 09:37 J -41586183.27 -41586183.10 -41586182.92 0.0089 0.0033

Mercury -118570-06-24 12:58 J -41586095.12 -41586094.96 -41586094.78 0.0089 0.0039

Mercury -118570-09-20 16:20 J -41586006.97 -41586006.82 -41586006.65 0.0089 0.0045

Mercury -118570-12-17 19:41 J -41585918.82 -41585918.68 -41585918.52 0.0089 0.0051

Mercury -118569-03-14 23:03 J -41585830.67 -41585830.54 -41585830.38 0.0089 0.0057

Mercury -118569-06-11 02:25 J -41585742.52 -41585742.40 -41585742.25 0.0089 0.0063

Mercury -118569-09-07 05:46 J -41585654.36 -41585654.26 -41585654.12 0.0089 0.0069

Mercury -118569-12-04 09:22 J -41585566.20 -41585566.11 -41585566.00 0.0089 0.0075

Mercury -118568-03-02 12:44 J -41585478.03 -41585477.97 -41585477.88 0.0089 0.0081

Mercury -118568-05-29 16:05 J -41585389.85 -41585389.83 -41585389.77 0.0089 0.0087

Mars -118564-11-22 00:29 J -41583752.51 -41583752.48 -41583752.40 0.0089 0.0088

Mars -118562-10-17 02:53 J -41583058.45 -41583058.38 -41583058.23 0.0089 0.0084

Mars -118560-09-10 06:29 J -41582364.34 -41582364.23 -41582364.05 0.0089 0.0078

Mars -118558-08-05 10:20 J -41581670.24 -41581670.07 -41581669.90 0.0089 0.0073

Mars -118556-06-29 11:03 J -41580976.21 -41580976.04 -41580975.82 0.0089 0.0067

Mars -118554-05-24 12:29 J -41580282.17 -41580281.98 -41580281.74 0.0089 0.0061

Mars -118552-04-17 14:53 J -41579588.11 -41579587.88 -41579587.64 0.0089 0.0054

Mars -118550-03-12 15:36 J -41578894.07 -41578893.85 -41578893.57 0.0089 0.0048

Mars -118548-02-03 16:34 J -41578200.05 -41578199.81 -41578199.53 0.0089 0.0041

Mars -118547-12-29 18:58 J -41577505.97 -41577505.71 -41577505.42 0.0089 0.0034

Mars -118545-11-22 20:53 J -41576811.89 -41576811.63 -41576811.33 0.0089 0.0027

Mars -118543-10-17 23:17 J -41576117.81 -41576117.53 -41576117.23 0.0089 0.0019

Mars -118541-09-11 02:10 J -41575423.69 -41575423.41 -41575423.10 0.0089 0.0012

Mars -118539-08-06 05:46 J -41574729.55 -41574729.26 -41574728.96 0.0089 0.0004

Mars -118537-06-30 08:53 J -41574035.42 -41574035.13 -41574034.82 0.0089 0.0004

Mars -118535-05-25 13:27 J -41573341.23 -41573340.94 -41573340.64 0.0089 0.0011

Mars -118533-04-18 18:44 J -41572647.00 -41572646.72 -41572646.41 0.0089 0.0019

Mars -118531-03-14 00:29 J -41571952.76 -41571952.48 -41571952.19 0.0089 0.0026

Mars -118529-02-06 06:58 J -41571258.47 -41571258.21 -41571257.91 0.0089 0.0034

Mars -118528-12-31 16:05 J -41570564.08 -41570563.83 -41570563.55 0.0089 0.0041
 Mars -118526-11-26 01:27 J -41569869.68 -41569869.44 -41569869.17 0.0089 0.0048
 Venus -118526-12-26 05:32 J -41569839.32 -41569839.27 -41569839.17 0.0089 0.0084
 Venus -118525-08-07 20:39 J -41569613.75 -41569613.64 -41569613.53 0.0089 0.0077
 Venus -118524-03-21 10:48 J -41569388.17 -41569388.05 -41569387.90 0.0089 0.0071
 Mars -118524-10-20 11:03 J -41569175.27 -41569175.04 -41569174.79 0.0089 0.0055
 Venus -118524-11-02 01:12 J -41569162.58 -41569162.45 -41569162.27 0.0089 0.0065
 Venus -118523-06-15 16:05 J -41568937.00 -41568936.83 -41568936.66 0.0089 0.0058
 Venus -118522-01-27 06:15 J -41568711.41 -41568711.24 -41568711.04 0.0089 0.0052
 Venus -118522-09-09 20:53 J -41568485.82 -41568485.63 -41568485.43 0.0089 0.0045
 Mars -118522-09-14 22:34 J -41568480.75 -41568480.56 -41568480.31 0.0089 0.0062
 Moon -118521-01-03 18:15 J -41568369.77 -41568369.74 -41568369.68 0.0089 0.0087
 Earth -118521-01-03 20:10 J -41568369.72 -41568369.66 -41568369.54 0.0089 0.0084 *
 Venus -118521-04-22 11:03 J -41568260.23 -41568260.04 -41568259.83 0.0089 0.0039
 Venus -118521-12-04 01:41 J -41568034.64 -41568034.43 -41568034.22 0.0089 0.0032
 Earth -118520-01-05 10:05 J -41568002.26 -41568002.08 -41568001.85 0.0089 0.0055
 Moon -118520-01-05 12:15 J -41568002.20 -41568001.99 -41568001.76 0.0089 0.0051 *
 Venus -118520-07-17 15:36 J -41567809.06 -41567808.85 -41567808.62 0.0089 0.0026
 Mars -118520-08-09 11:17 J -41567786.21 -41567786.03 -41567785.82 0.0089 0.0068
 Earth -118519-01-08 00:29 J -41567634.74 -41567634.48 -41567634.23 0.0089 0.0025
 Moon -118519-01-08 00:15 J -41567634.72 -41567634.49 -41567634.24 0.0089 0.0029 *
 Venus -118519-02-28 06:00 J -41567583.47 -41567583.25 -41567583.03 0.0089 0.0019
 Venus -118519-10-11 20:24 J -41567357.87 -41567357.65 -41567357.42 0.0089 0.0013
 Moon -118518-01-10 12:44 J -41567267.24 -41567266.97 -41567266.70 0.0089 0.0007
 Earth -118518-01-10 13:41 J -41567267.19 -41567266.93 -41567266.66 0.0089 0.0004 *
 Venus -118518-05-25 10:34 J -41567132.28 -41567132.06 -41567131.83 0.0089 0.0006
 Mars -118518-07-05 00:44 J -41567091.63 -41567091.47 -41567091.29 0.0089 0.0074
 Venus -118517-01-06 00:44 J -41566906.69 -41566906.47 -41566906.24 0.0089 0.0002
 Earth -118517-01-13 02:53 J -41566899.61 -41566899.38 -41566899.13 0.0089 0.0033
 Moon -118517-01-13 04:48 J -41566899.54 -41566899.30 -41566899.06 0.0089 0.0030 *

Venus -118517-08-18 14:53 J -41566681.10 -41566680.88 -41566680.65 0.0089 0.0007
 Moon -118516-01-14 12:58 J -41566532.13 -41566531.96 -41566531.77 0.0089 0.0065
 Earth -118516-01-14 15:51 J -41566532.00 -41566531.84 -41566531.63 0.0089 0.0062 *
 Venus -118516-04-01 04:48 J -41566455.51 -41566455.30 -41566455.07 0.0089 0.0014
 Mars -118516-05-29 15:36 J -41566396.96 -41566396.85 -41566396.69 0.0089 0.0080
 Venus -118516-11-12 19:12 J -41566229.92 -41566229.70 -41566229.48 0.0089 0.0020
 Moon -118515-01-17 07:56 J -41566164.18 -41566164.17 -41566164.10 0.0089 0.0088
 Venus -118515-06-26 09:08 J -41566004.33 -41566004.12 -41566003.89 0.0089 0.0027
 Venus -118514-02-06 23:03 J -41565778.74 -41565778.54 -41565778.32 0.0089 0.0033
 Mars -118514-04-24 09:22 J -41565702.19 -41565702.11 -41565702.03 0.0089 0.0085
 Venus -118514-09-20 13:27 J -41565553.14 -41565552.94 -41565552.74 0.0089 0.0039
 Venus -118513-05-03 02:53 J -41565327.55 -41565327.38 -41565327.17 0.0089 0.0046
 Venus -118513-12-14 17:03 J -41565101.96 -41565101.79 -41565101.60 0.0089 0.0052
 Venus -118512-07-28 06:58 J -41564876.37 -41564876.21 -41564876.03 0.0089 0.0058
 Venus -118511-03-10 20:24 J -41564650.78 -41564650.65 -41564650.47 0.0089 0.0065
 Venus -118511-10-22 10:20 J -41564425.18 -41564425.07 -41564424.91 0.0089 0.0071
 Venus -118510-06-05 00:00 J -41564199.59 -41564199.50 -41564199.37 0.0089 0.0077
 Venus -118509-01-16 13:41 J -41563973.99 -41563973.93 -41563973.83 0.0089 0.0083
 Venus -118509-08-29 03:36 J -41563748.35 -41563748.35 -41563748.33 0.0089 0.0088
 Mercury -118495-12-29 11:17 J -41558513.04 -41558513.03 -41558512.98 0.0088 0.0087
 Mercury -118494-03-27 13:12 J -41558425.00 -41558424.95 -41558424.90 0.0088 0.0082
 Mercury -118494-06-23 14:39 J -41558336.95 -41558336.89 -41558336.82 0.0088 0.0077
 Mercury -118494-09-19 16:05 J -41558248.89 -41558248.83 -41558248.74 0.0088 0.0073
 Mercury -118494-12-16 17:46 J -41558160.84 -41558160.76 -41558160.67 0.0088 0.0069
 Mercury -118493-03-13 19:12 J -41558072.78 -41558072.70 -41558072.60 0.0088 0.0065
 Mercury -118493-06-09 20:39 J -41557984.73 -41557984.64 -41557984.53 0.0088 0.0061
 Mercury -118493-09-05 22:34 J -41557896.67 -41557896.56 -41557896.46 0.0088 0.0056
 Mercury -118493-12-02 23:46 J -41557808.61 -41557808.51 -41557808.39 0.0088 0.0052
 Mercury -118492-03-01 01:27 J -41557720.55 -41557720.44 -41557720.32 0.0088 0.0047
 Mercury -118492-05-28 02:53 J -41557632.49 -41557632.38 -41557632.25 0.0088 0.0043

Mercury -118492-08-24 04:34 J -41557544.44 -41557544.31 -41557544.19 0.0088 0.0039

Mercury -118492-11-20 06:00 J -41557456.38 -41557456.25 -41557456.12 0.0088 0.0034

Mercury -118491-02-16 07:27 J -41557368.32 -41557368.19 -41557368.06 0.0088 0.0030

Mercury -118491-05-15 08:53 J -41557280.26 -41557280.13 -41557279.99 0.0088 0.0026

Mercury -118491-08-11 10:34 J -41557192.20 -41557192.06 -41557191.93 0.0088 0.0022

Mercury -118491-11-07 12:00 J -41557104.14 -41557104.00 -41557103.87 0.0088 0.0017

Mercury -118490-02-03 13:27 J -41557016.08 -41557015.94 -41557015.80 0.0088 0.0013

Mercury -118490-05-02 14:53 J -41556928.02 -41556927.88 -41556927.74 0.0088 0.0009

Mercury -118490-07-29 16:20 J -41556839.95 -41556839.82 -41556839.68 0.0088 0.0005

Mercury -118490-10-25 17:46 J -41556751.89 -41556751.76 -41556751.62 0.0088 0.0002

Mercury -118489-01-21 19:12 J -41556663.83 -41556663.70 -41556663.56 0.0088 0.0005

Mercury -118489-04-18 20:39 J -41556575.77 -41556575.64 -41556575.50 0.0088 0.0009

Mercury -118489-07-15 22:05 J -41556487.71 -41556487.58 -41556487.44 0.0088 0.0013

Mercury -118489-10-11 23:46 J -41556399.65 -41556399.51 -41556399.38 0.0088 0.0017

Mercury -118488-01-08 01:12 J -41556311.59 -41556311.45 -41556311.32 0.0088 0.0021

Mercury -118488-04-06 02:24 J -41556223.53 -41556223.40 -41556223.26 0.0088 0.0025

Mercury -118488-07-03 03:51 J -41556135.46 -41556135.34 -41556135.20 0.0088 0.0029

Mercury -118488-09-29 05:17 J -41556047.40 -41556047.28 -41556047.15 0.0088 0.0033

Mercury -118488-12-26 06:44 J -41555959.34 -41555959.22 -41555959.09 0.0088 0.0037

Mercury -118487-03-24 08:10 J -41555871.28 -41555871.16 -41555871.04 0.0088 0.0041

Mercury -118487-06-20 09:36 J -41555783.21 -41555783.10 -41555782.98 0.0088 0.0045

Mercury -118487-09-16 11:03 J -41555695.15 -41555695.04 -41555694.93 0.0088 0.0050

Mercury -118487-12-13 12:29 J -41555607.09 -41555606.98 -41555606.87 0.0088 0.0054

Mercury -118486-03-11 13:56 J -41555519.02 -41555518.92 -41555518.82 0.0088 0.0058

Mercury -118486-06-07 15:08 J -41555430.96 -41555430.87 -41555430.77 0.0088 0.0062

Mercury -118486-09-03 16:20 J -41555342.89 -41555342.82 -41555342.71 0.0088 0.0067

Mercury -118486-11-30 17:46 J -41555254.83 -41555254.76 -41555254.66 0.0088 0.0071

Mercury -118485-02-26 19:12 J -41555166.76 -41555166.70 -41555166.62 0.0088 0.0074

Mercury -118485-05-24 20:39 J -41555078.69 -41555078.64 -41555078.57 0.0088 0.0078

Mercury -118485-08-20 21:51 J -41554990.62 -41554990.59 -41554990.52 0.0088 0.0083

Mercury -118485-11-16 23:17 J -41554902.54 -41554902.53 -41554902.49 0.0088 0.0086

Mars -118478-06-25 04:05 J -41552491.41 -41552491.33 -41552491.23 0.0088 0.0085

Jupiter -118477-10-31 05:46 J -41551997.76 -41551997.26 -41551996.72 0.0088 0.0015

Mars -118476-05-20 22:20 J -41551795.68 -41551795.57 -41551795.39 0.0088 0.0079

Mars -118474-04-16 17:17 J -41551099.93 -41551099.78 -41551099.56 0.0088 0.0073

Mars -118472-03-12 12:58 J -41550404.15 -41550403.96 -41550403.71 0.0088 0.0067

Mars -118470-02-06 08:53 J -41549708.36 -41549708.13 -41549707.87 0.0088 0.0060

Mars -118468-01-02 04:48 J -41549012.55 -41549012.30 -41549012.02 0.0088 0.0052

Mars -118467-11-29 00:44 J -41548316.73 -41548316.47 -41548316.15 0.0088 0.0045

Mars -118465-10-24 20:53 J -41547620.91 -41547620.63 -41547620.30 0.0088 0.0037

Mars -118463-09-20 17:03 J -41546925.08 -41546924.79 -41546924.45 0.0088 0.0030

Mars -118461-08-16 12:44 J -41546229.28 -41546228.97 -41546228.63 0.0088 0.0021

Mars -118459-07-13 07:41 J -41545533.51 -41545533.18 -41545532.85 0.0088 0.0013

Mars -118457-06-08 01:27 J -41544837.77 -41544837.44 -41544837.11 0.0088 0.0005

Mars -118455-05-04 18:44 J -41544142.06 -41544141.72 -41544141.39 0.0088 0.0004

Mars -118453-03-30 10:48 J -41543446.37 -41543446.05 -41543445.71 0.0088 0.0012

Mars -118451-02-24 02:10 J -41542750.71 -41542750.41 -41542750.07 0.0088 0.0021

Mars -118449-01-20 17:03 J -41542055.08 -41542054.79 -41542054.45 0.0088 0.0029

Mars -118448-12-16 06:29 J -41541359.52 -41541359.23 -41541358.91 0.0088 0.0036

Mars -118446-11-11 18:29 J -41540664.02 -41540663.73 -41540663.45 0.0088 0.0043

Venus -118444-06-26 17:03 J -41540070.80 -41540070.79 -41540070.75 0.0088 0.0088

Mars -118444-10-07 04:05 J -41539968.56 -41539968.33 -41539968.03 0.0088 0.0051

Venus -118443-02-07 04:48 J -41539845.38 -41539845.30 -41539845.22 0.0088 0.0082

Venus -118443-09-20 15:51 J -41539619.92 -41539619.84 -41539619.71 0.0088 0.0077

Venus -118442-05-04 03:36 J -41539394.46 -41539394.35 -41539394.21 0.0088 0.0071

Mars -118442-09-02 13:41 J -41539273.14 -41539272.93 -41539272.64 0.0088 0.0058

Venus -118442-12-15 15:22 J -41539169.00 -41539168.86 -41539168.71 0.0088 0.0065

Venus -118441-07-28 02:53 J -41538943.53 -41538943.38 -41538943.21 0.0088 0.0059

Venus -118440-03-10 14:39 J -41538718.06 -41538717.89 -41538717.72 0.0088 0.0053

Mars -118440-07-28 21:36 J -41538577.80 -41538577.60 -41538577.35 0.0088 0.0064

Venus -118440-10-22 01:56 J -41538492.58 -41538492.42 -41538492.22 0.0088 0.0048
 Venus -118439-06-04 13:41 J -41538267.10 -41538266.93 -41538266.73 0.0088 0.0041
 Moon -118439-06-25 16:05 J -41538245.88 -41538245.83 -41538245.73 0.0088 0.0085
 Earth -118439-06-25 19:12 J -41538245.71 -41538245.70 -41538245.63 0.0088 0.0088
 Venus -118438-01-16 01:27 J -41538041.62 -41538041.44 -41538041.23 0.0089 0.0035
 Mars -118438-06-24 04:20 J -41537882.50 -41537882.32 -41537882.10 0.0089 0.0070
 Earth -118438-06-28 04:48 J -41537878.47 -41537878.30 -41537878.10 0.0089 0.0060
 Moon -118438-06-28 07:56 J -41537878.35 -41537878.17 -41537877.99 0.0089 0.0063 *
 Venus -118438-08-29 13:12 J -41537816.14 -41537815.95 -41537815.74 0.0089 0.0030
 Venus -118437-04-11 01:27 J -41537590.65 -41537590.44 -41537590.24 0.0089 0.0023
 Moon -118437-06-29 13:12 J -41537511.17 -41537510.95 -41537510.71 0.0089 0.0029
 Earth -118437-06-29 13:56 J -41537511.13 -41537510.92 -41537510.66 0.0089 0.0033 *
 Venus -118437-11-22 13:12 J -41537365.16 -41537364.95 -41537364.74 0.0089 0.0017
 Mars -118436-05-19 09:36 J -41537187.23 -41537187.10 -41537186.90 0.0089 0.0076
 Earth -118436-07-02 00:00 J -41537143.75 -41537143.50 -41537143.25 0.0089 0.0004
 Moon -118436-07-02 00:15 J -41537143.75 -41537143.49 -41537143.22 0.0089 0.0007 *
 Venus -118436-07-06 00:58 J -41537139.67 -41537139.46 -41537139.25 0.0089 0.0011
 Venus -118435-02-16 12:44 J -41536914.19 -41536913.97 -41536913.76 0.0089 0.0005
 Earth -118435-07-04 09:36 J -41536776.34 -41536776.10 -41536775.85 0.0089 0.0024
 Moon -118435-07-04 10:20 J -41536776.29 -41536776.07 -41536775.82 0.0089 0.0028 *
 Venus -118435-09-30 00:29 J -41536688.69 -41536688.48 -41536688.26 0.0089 0.0001
 Mars -118434-04-14 13:27 J -41536492.04 -41536491.94 -41536491.77 0.0089 0.0081
 Venus -118434-05-13 12:29 J -41536463.19 -41536462.98 -41536462.76 0.0089 0.0007
 Moon -118434-07-06 16:34 J -41536409.02 -41536408.81 -41536408.59 0.0089 0.0048
 Earth -118434-07-06 19:12 J -41536408.90 -41536408.70 -41536408.49 0.0089 0.0052 *
 Venus -118434-12-25 00:15 J -41536237.69 -41536237.49 -41536237.27 0.0089 0.0014
 Earth -118433-07-08 04:48 J -41536041.39 -41536041.30 -41536041.17 0.0089 0.0080
 Moon -118433-07-08 08:10 J -41536041.25 -41536041.16 -41536041.08 0.0089 0.0083 *
 Venus -118433-08-06 12:00 J -41536012.20 -41536012.00 -41536011.78 0.0089 0.0020
 Mars -118432-03-09 15:51 J -41535796.92 -41535796.84 -41535796.75 0.0089 0.0085

Venus -118432-03-20 00:00 J -41535786.70 -41535786.50 -41535786.29 0.0089 0.0026

Venus -118432-10-31 12:00 J -41535561.19 -41535561.00 -41535560.79 0.0089 0.0032

Venus -118431-06-14 00:00 J -41535335.69 -41535335.50 -41535335.30 0.0089 0.0038

Venus -118430-01-25 12:00 J -41535110.18 -41535110.00 -41535109.80 0.0089 0.0044

Venus -118430-09-08 00:15 J -41534884.66 -41534884.49 -41534884.31 0.0089 0.0050

Venus -118429-04-20 12:29 J -41534659.15 -41534658.98 -41534658.81 0.0089 0.0056

Venus -118429-12-02 00:00 J -41534433.63 -41534433.50 -41534433.32 0.0089 0.0063

Venus -118428-07-15 12:15 J -41534208.10 -41534207.99 -41534207.83 0.0089 0.0069

Venus -118427-02-26 00:29 J -41533982.57 -41533982.48 -41533982.34 0.0089 0.0075

Venus -118427-10-09 12:44 J -41533757.03 -41533756.97 -41533756.85 0.0089 0.0081

Venus -118426-05-23 01:56 J -41533531.47 -41533531.42 -41533531.37 0.0089 0.0086

Mercury -118411-11-28 11:17 J -41527863.06 -41527863.03 -41527862.96 0.0089 0.0085

Mercury -118410-02-24 14:39 J -41527774.96 -41527774.89 -41527774.80 0.0089 0.0079

Mercury -118410-05-23 18:00 J -41527686.85 -41527686.75 -41527686.65 0.0089 0.0073

Mercury -118410-08-19 20:53 J -41527598.73 -41527598.63 -41527598.50 0.0089 0.0068

Mercury -118410-11-16 00:15 J -41527510.61 -41527510.49 -41527510.35 0.0089 0.0062

Mercury -118409-02-12 03:08 J -41527422.49 -41527422.37 -41527422.21 0.0089 0.0057

Mercury -118409-05-10 06:29 J -41527334.37 -41527334.23 -41527334.07 0.0089 0.0051

Mercury -118409-08-06 09:51 J -41527246.24 -41527246.09 -41527245.92 0.0089 0.0045

Mercury -118409-11-02 12:58 J -41527158.11 -41527157.96 -41527157.78 0.0089 0.0040

Mercury -118408-01-29 16:20 J -41527069.98 -41527069.82 -41527069.64 0.0089 0.0034

Mercury -118408-04-27 19:41 J -41526981.85 -41526981.68 -41526981.50 0.0089 0.0028

Mercury -118408-07-24 23:03 J -41526893.72 -41526893.54 -41526893.36 0.0089 0.0022

Mercury -118408-10-21 02:10 J -41526805.59 -41526805.41 -41526805.22 0.0089 0.0017

Mercury -118407-01-17 05:32 J -41526717.45 -41526717.27 -41526717.08 0.0089 0.0011

Mercury -118407-04-15 08:53 J -41526629.32 -41526629.13 -41526628.95 0.0089 0.0005

Mercury -118407-07-12 12:15 J -41526541.18 -41526540.99 -41526540.81 0.0089 0.0002

Mercury -118407-10-08 15:22 J -41526453.04 -41526452.86 -41526452.67 0.0089 0.0007

Mercury -118406-01-04 18:44 J -41526364.90 -41526364.72 -41526364.53 0.0089 0.0012

Mercury -118406-04-02 22:05 J -41526276.76 -41526276.58 -41526276.40 0.0089 0.0018

Mercury -118406-06-30 01:12 J -41526188.62 -41526188.45 -41526188.26 0.0089 0.0025

Mercury -118406-09-26 04:34 J -41526100.48 -41526100.31 -41526100.12 0.0089 0.0030

Mercury -118406-12-23 07:56 J -41526012.33 -41526012.17 -41526011.99 0.0089 0.0036

Mercury -118405-03-20 11:17 J -41525924.19 -41525924.03 -41525923.85 0.0089 0.0042

Mercury -118405-06-16 14:39 J -41525836.04 -41525835.89 -41525835.72 0.0089 0.0048

Mercury -118405-09-12 17:46 J -41525747.89 -41525747.76 -41525747.59 0.0089 0.0055

Mercury -118405-12-09 21:36 J -41525659.73 -41525659.60 -41525659.46 0.0089 0.0060

Mercury -118404-03-08 00:58 J -41525571.58 -41525571.46 -41525571.33 0.0089 0.0065

Mercury -118404-06-04 04:20 J -41525483.42 -41525483.32 -41525483.20 0.0089 0.0072

Mercury -118404-08-31 07:41 J -41525395.26 -41525395.18 -41525395.08 0.0089 0.0078

Mercury -118404-11-27 11:17 J -41525307.09 -41525307.03 -41525306.96 0.0089 0.0083

Mars -118402-08-12 22:48 J -41524683.56 -41524683.55 -41524683.48 0.0089 0.0089

Mars -118400-07-07 03:36 J -41523989.41 -41523989.35 -41523989.22 0.0089 0.0085

Mars -118398-06-01 08:10 J -41523295.28 -41523295.16 -41523295.01 0.0089 0.0079

Mars -118396-04-25 10:48 J -41522601.19 -41522601.05 -41522600.87 0.0089 0.0074

Mars -118394-03-20 12:44 J -41521907.12 -41521906.97 -41521906.75 0.0089 0.0070

Mars -118392-02-11 16:05 J -41521213.02 -41521212.83 -41521212.61 0.0089 0.0064

Mars -118390-01-06 17:32 J -41520518.98 -41520518.77 -41520518.53 0.0089 0.0058

Mars -118389-11-30 18:44 J -41519824.94 -41519824.72 -41519824.46 0.0089 0.0051

Mars -118387-10-25 21:22 J -41519130.86 -41519130.61 -41519130.34 0.0089 0.0044

Mars -118385-09-18 23:03 J -41518436.79 -41518436.54 -41518436.25 0.0089 0.0038

Mars -118383-08-14 00:00 J -41517742.76 -41517742.50 -41517742.20 0.0089 0.0031

Mars -118381-07-08 01:56 J -41517048.69 -41517048.42 -41517048.11 0.0089 0.0024

Mars -118379-06-02 04:05 J -41516354.61 -41516354.33 -41516354.02 0.0089 0.0017

Mars -118377-04-26 05:46 J -41515660.55 -41515660.26 -41515659.96 0.0089 0.0009

Mars -118375-03-21 08:24 J -41514966.45 -41514966.15 -41514965.85 0.0089 0.0002

Mars -118373-02-13 11:46 J -41514272.30 -41514272.01 -41514271.70 0.0089 0.0006

Mars -118371-01-07 15:22 J -41513578.15 -41513577.86 -41513577.56 0.0089 0.0013

Mars -118370-12-02 20:10 J -41512883.95 -41512883.66 -41512883.37 0.0089 0.0020

Mars -118368-10-27 01:56 J -41512189.69 -41512189.42 -41512189.12 0.0089 0.0028

Mars -118366-09-21 07:41 J -41511495.44 -41511495.18 -41511494.89 0.0089 0.0035
 Mars -118364-08-15 14:10 J -41510801.16 -41510800.91 -41510800.63 0.0089 0.0042
 Mars -118362-07-10 22:20 J -41510106.80 -41510106.57 -41510106.29 0.0089 0.0049
 Venus -118361-03-28 13:56 J -41509844.98 -41509844.92 -41509844.83 0.0089 0.0083
 Venus -118361-11-09 04:20 J -41509619.41 -41509619.32 -41509619.18 0.0089 0.0077
 Mars -118360-06-04 07:41 J -41509412.39 -41509412.18 -41509411.91 0.0089 0.0056
 Venus -118360-06-22 19:27 J -41509393.83 -41509393.69 -41509393.55 0.0089 0.0070
 Venus -118359-02-03 09:36 J -41509168.24 -41509168.10 -41509167.93 0.0089 0.0064
 Venus -118359-09-17 00:00 J -41508942.65 -41508942.50 -41508942.30 0.0089 0.0058
 Mars -118358-04-29 17:32 J -41508717.96 -41508717.77 -41508717.53 0.0089 0.0062
 Venus -118358-04-30 14:53 J -41508717.06 -41508716.88 -41508716.69 0.0089 0.0051
 Venus -118358-12-12 05:03 J -41508491.47 -41508491.29 -41508491.07 0.0089 0.0045
 Venus -118357-07-24 19:41 J -41508265.88 -41508265.68 -41508265.47 0.0089 0.0038
 Earth -118356-01-04 16:20 J -41508101.96 -41508101.82 -41508101.62 0.0089 0.0068
 Moon -118356-01-04 17:17 J -41508101.92 -41508101.78 -41508101.62 0.0089 0.0070 *
 Venus -118356-03-07 09:51 J -41508040.29 -41508040.09 -41508039.86 0.0089 0.0032
 Mars -118356-03-24 05:17 J -41508023.45 -41508023.28 -41508023.05 0.0089 0.0068
 Venus -118356-10-19 00:29 J -41507814.69 -41507814.48 -41507814.26 0.0089 0.0025
 Moon -118355-01-07 04:34 J -41507734.54 -41507734.31 -41507734.04 0.0089 0.0036
 Earth -118355-01-07 06:15 J -41507734.46 -41507734.24 -41507733.99 0.0089 0.0039 *
 Venus -118355-06-01 14:53 J -41507589.10 -41507588.88 -41507588.66 0.0089 0.0019
 Earth -118354-01-09 20:10 J -41507366.92 -41507366.66 -41507366.39 0.0089 0.0009
 Moon -118354-01-09 23:03 J -41507366.79 -41507366.54 -41507366.28 0.0089 0.0012 *
 Venus -118354-01-13 05:03 J -41507363.51 -41507363.29 -41507363.06 0.0089 0.0012
 Mars -118354-02-16 18:44 J -41507328.86 -41507328.72 -41507328.51 0.0089 0.0074
 Venus -118354-08-26 19:12 J -41507137.92 -41507137.70 -41507137.47 0.0089 0.0006
 Moon -118353-01-12 06:29 J -41506999.48 -41506999.23 -41506998.96 0.0089 0.0023
 Earth -118353-01-12 09:51 J -41506999.34 -41506999.09 -41506998.83 0.0089 0.0020 *
 Venus -118353-04-08 09:36 J -41506912.33 -41506912.10 -41506911.88 0.0089 0.0001
 Venus -118353-11-19 23:46 J -41506686.73 -41506686.51 -41506686.28 0.0089 0.0007

Mars -118352-01-11 09:08 J -41506634.24 -41506634.12 -41506633.96 0.0089 0.0079
 Earth -118352-01-13 22:48 J -41506631.75 -41506631.55 -41506631.32 0.0089 0.0049
 Moon -118352-01-14 02:39 J -41506631.60 -41506631.39 -41506631.16 0.0089 0.0045 *
 Venus -118352-07-03 13:56 J -41506461.14 -41506460.92 -41506460.70 0.0089 0.0014
 Moon -118351-01-16 08:39 J -41506264.23 -41506264.14 -41506264.02 0.0089 0.0081
 Earth -118351-01-16 11:46 J -41506264.11 -41506264.01 -41506263.86 0.0089 0.0078 *
 Venus -118351-02-14 03:51 J -41506235.55 -41506235.34 -41506235.11 0.0089 0.0021
 Venus -118351-09-27 18:00 J -41506009.96 -41506009.75 -41506009.53 0.0089 0.0027
 Mars -118351-12-07 00:44 J -41505939.55 -41505939.47 -41505939.36 0.0089 0.0084
 Venus -118350-05-11 07:56 J -41505784.36 -41505784.17 -41505783.95 0.0089 0.0034
 Venus -118350-12-22 22:05 J -41505558.77 -41505558.58 -41505558.37 0.0089 0.0040
 Venus -118349-08-04 12:15 J -41505333.18 -41505332.99 -41505332.79 0.0089 0.0046
 Mars -118349-10-31 18:00 J -41505244.75 -41505244.75 -41505244.72 0.0089 0.0089
 Venus -118348-03-18 01:41 J -41505107.59 -41505107.43 -41505107.22 0.0089 0.0053
 Venus -118348-10-29 15:51 J -41504881.99 -41504881.84 -41504881.65 0.0089 0.0059
 Venus -118347-06-12 06:00 J -41504656.39 -41504656.25 -41504656.09 0.0089 0.0065
 Venus -118346-01-23 19:41 J -41504430.80 -41504430.68 -41504430.53 0.0089 0.0071
 Venus -118346-09-06 09:36 J -41504205.20 -41504205.10 -41504204.98 0.0089 0.0077
 Venus -118345-04-18 23:17 J -41503979.59 -41503979.53 -41503979.44 0.0089 0.0083
 Mercury -118330-09-25 10:48 J -41498342.08 -41498342.05 -41498342.00 0.0088 0.0085
 Mercury -118330-12-22 12:44 J -41498254.03 -41498253.97 -41498253.91 0.0088 0.0080
 Mercury -118329-03-19 14:10 J -41498165.98 -41498165.91 -41498165.84 0.0088 0.0075
 Mercury -118329-06-15 15:36 J -41498077.92 -41498077.85 -41498077.76 0.0088 0.0071
 Mercury -118329-09-11 17:17 J -41497989.87 -41497989.78 -41497989.69 0.0088 0.0067
 Mercury -118329-12-08 18:44 J -41497901.81 -41497901.72 -41497901.62 0.0088 0.0063
 Mercury -118328-03-06 20:10 J -41497813.76 -41497813.66 -41497813.55 0.0088 0.0058
 Mercury -118328-06-02 21:36 J -41497725.70 -41497725.60 -41497725.48 0.0088 0.0054
 Mercury -118328-08-29 23:17 J -41497637.64 -41497637.53 -41497637.41 0.0088 0.0050
 Mercury -118328-11-26 00:44 J -41497549.58 -41497549.47 -41497549.34 0.0088 0.0046
 Mercury -118327-02-22 02:10 J -41497461.52 -41497461.41 -41497461.28 0.0088 0.0042

Mercury -118327-05-21 03:36 J -41497373.46 -41497373.35 -41497373.21 0.0088 0.0038

Mercury -118327-08-17 05:17 J -41497285.40 -41497285.28 -41497285.14 0.0088 0.0033

Mercury -118327-11-13 06:44 J -41497197.34 -41497197.22 -41497197.08 0.0088 0.0029

Mercury -118326-02-09 08:24 J -41497109.28 -41497109.15 -41497109.02 0.0088 0.0024

Mercury -118326-05-08 09:51 J -41497021.22 -41497021.09 -41497020.95 0.0088 0.0020

Mercury -118326-08-04 11:17 J -41496933.16 -41496933.03 -41496932.89 0.0088 0.0016

Mercury -118326-10-31 12:58 J -41496845.10 -41496844.96 -41496844.83 0.0088 0.0012

Mercury -118325-01-27 14:24 J -41496757.04 -41496756.90 -41496756.77 0.0088 0.0007

Mercury -118325-04-24 15:51 J -41496668.98 -41496668.84 -41496668.70 0.0088 0.0003

Mercury -118325-07-21 17:17 J -41496580.92 -41496580.78 -41496580.64 0.0088 0.0002

Mercury -118325-10-17 18:44 J -41496492.86 -41496492.72 -41496492.58 0.0088 0.0006

Mercury -118324-01-13 20:10 J -41496404.80 -41496404.66 -41496404.52 0.0088 0.0010

Mercury -118324-04-11 21:36 J -41496316.73 -41496316.60 -41496316.46 0.0088 0.0014

Mercury -118324-07-08 23:03 J -41496228.67 -41496228.54 -41496228.40 0.0088 0.0018

Mercury -118324-10-05 00:29 J -41496140.61 -41496140.48 -41496140.35 0.0088 0.0022

Mercury -118323-01-01 01:56 J -41496052.55 -41496052.42 -41496052.29 0.0088 0.0027

Mercury -118323-03-30 03:22 J -41495964.49 -41495964.36 -41495964.23 0.0088 0.0031

Mercury -118323-06-26 04:34 J -41495876.42 -41495876.31 -41495876.17 0.0088 0.0036

Mercury -118323-09-22 06:00 J -41495788.36 -41495788.25 -41495788.12 0.0088 0.0040

Mercury -118323-12-19 07:27 J -41495700.30 -41495700.19 -41495700.06 0.0088 0.0044

Mercury -118322-03-17 08:53 J -41495612.23 -41495612.13 -41495612.00 0.0088 0.0048

Mercury -118322-06-13 10:20 J -41495524.17 -41495524.07 -41495523.95 0.0088 0.0052

Mercury -118322-09-09 11:46 J -41495436.11 -41495436.01 -41495435.90 0.0088 0.0056

Mercury -118322-12-06 13:12 J -41495348.04 -41495347.95 -41495347.84 0.0088 0.0060

Mercury -118321-03-03 14:39 J -41495259.98 -41495259.89 -41495259.79 0.0088 0.0064

Mercury -118321-05-30 16:05 J -41495171.91 -41495171.83 -41495171.74 0.0088 0.0068

Mercury -118321-08-26 17:32 J -41495083.84 -41495083.77 -41495083.69 0.0088 0.0072

Mercury -118321-11-22 18:58 J -41494995.77 -41494995.71 -41494995.64 0.0088 0.0076

Mercury -118320-02-18 20:24 J -41494907.70 -41494907.65 -41494907.59 0.0088 0.0080

Mercury -118320-05-17 21:51 J -41494819.63 -41494819.59 -41494819.55 0.0088 0.0084

Mercury -118320-08-13 23:03 J -41494731.54 -41494731.54 -41494731.52 0.0088 0.0088

Mars -118316-03-12 05:17 J -41493425.34 -41493425.28 -41493425.19 0.0088 0.0086

Mars -118314-02-05 22:20 J -41492729.69 -41492729.57 -41492729.42 0.0088 0.0081

Mars -118312-01-01 15:51 J -41492033.97 -41492033.84 -41492033.63 0.0088 0.0076

Mars -118311-11-28 11:03 J -41491338.21 -41491338.04 -41491337.80 0.0088 0.0069

Mars -118309-10-24 06:44 J -41490642.43 -41490642.22 -41490641.96 0.0088 0.0063

Mars -118307-09-20 02:39 J -41489946.63 -41489946.39 -41489946.12 0.0088 0.0056

Mars -118305-08-15 22:34 J -41489250.82 -41489250.56 -41489250.26 0.0088 0.0049

Mars -118303-07-12 18:15 J -41488555.02 -41488554.74 -41488554.43 0.0088 0.0042

Mars -118301-06-07 14:24 J -41487859.20 -41487858.90 -41487858.58 0.0088 0.0034

Mars -118299-05-04 10:20 J -41487163.39 -41487163.07 -41487162.75 0.0088 0.0026

Mars -118297-03-30 05:32 J -41486467.58 -41486467.27 -41486466.93 0.0088 0.0018

Mars -118295-02-24 01:12 J -41485771.78 -41485771.45 -41485771.12 0.0088 0.0010

Mars -118293-01-20 19:56 J -41485076.00 -41485075.67 -41485075.33 0.0088 0.0002

Mars -118292-12-16 13:41 J -41484380.26 -41484379.93 -41484379.59 0.0088 0.0006

Mars -118290-11-12 06:44 J -41483684.54 -41483684.22 -41483683.88 0.0088 0.0014

Mars -118288-10-07 23:03 J -41482988.84 -41482988.54 -41482988.20 0.0088 0.0023

Mars -118286-09-03 14:10 J -41482293.20 -41482292.91 -41482292.57 0.0088 0.0030

Mars -118284-07-30 04:48 J -41481597.58 -41481597.30 -41481596.98 0.0088 0.0038

Mars -118282-06-25 18:00 J -41480902.01 -41480901.75 -41480901.45 0.0088 0.0045

Mars -118280-05-21 05:32 J -41480206.51 -41480206.27 -41480205.98 0.0088 0.0052

Venus -118280-09-28 05:03 J -41480076.32 -41480076.29 -41480076.24 0.0088 0.0087

Venus -118279-05-11 16:20 J -41479850.88 -41479850.82 -41479850.72 0.0088 0.0081

Venus -118279-12-23 03:51 J -41479625.43 -41479625.34 -41479625.21 0.0088 0.0076

Mars -118278-04-16 16:05 J -41479511.06 -41479510.83 -41479510.57 0.0088 0.0058

Venus -118278-08-05 15:36 J -41479399.97 -41479399.85 -41479399.71 0.0088 0.0070

Venus -118277-03-18 03:22 J -41479174.51 -41479174.36 -41479174.21 0.0088 0.0064

Venus -118277-10-29 14:24 J -41478949.04 -41478948.90 -41478948.72 0.0088 0.0059

Mars -118276-03-12 01:27 J -41478815.62 -41478815.44 -41478815.18 0.0088 0.0065

Venus -118276-06-12 01:56 J -41478723.57 -41478723.42 -41478723.23 0.0088 0.0053

Venus -118275-01-23 13:41 J -41478498.10 -41478497.93 -41478497.74 0.0088 0.0047

Venus -118275-09-06 01:27 J -41478272.62 -41478272.44 -41478272.24 0.0088 0.0041

Mars -118274-02-05 09:08 J -41478120.27 -41478120.12 -41478119.88 0.0088 0.0071

Venus -118274-04-19 13:12 J -41478047.14 -41478046.95 -41478046.74 0.0088 0.0035

Moon -118274-06-27 14:39 J -41477978.03 -41477977.89 -41477977.73 0.0088 0.0070

Earth -118274-06-27 15:36 J -41477977.99 -41477977.85 -41477977.70 0.0088 0.0072 *

Venus -118274-12-01 00:58 J -41477821.65 -41477821.46 -41477821.25 0.0088 0.0029

Moon -118273-06-28 23:32 J -41477610.73 -41477610.52 -41477610.29 0.0088 0.0047

Earth -118273-06-29 00:29 J -41477610.68 -41477610.48 -41477610.24 0.0088 0.0045 *

Venus -118273-07-13 12:44 J -41477596.17 -41477595.97 -41477595.76 0.0088 0.0022

Mars -118273-12-31 15:36 J -41477424.99 -41477424.85 -41477424.65 0.0089 0.0076

Venus -118272-02-24 00:29 J -41477370.69 -41477370.48 -41477370.27 0.0089 0.0016

Earth -118272-07-01 10:05 J -41477243.32 -41477243.08 -41477242.82 0.0089 0.0017

Moon -118272-07-01 12:29 J -41477243.22 -41477242.98 -41477242.73 0.0089 0.0015 *

Venus -118272-10-07 12:15 J -41477145.20 -41477144.99 -41477144.77 0.0089 0.0011

Venus -118271-05-21 00:15 J -41476919.70 -41476919.49 -41476919.27 0.0089 0.0004

Moon -118271-07-03 17:03 J -41476876.05 -41476875.79 -41476875.54 0.0089 0.0009

Earth -118271-07-03 19:41 J -41476875.93 -41476875.68 -41476875.42 0.0089 0.0012 *

Mars -118271-11-26 20:39 J -41476729.73 -41476729.64 -41476729.47 0.0089 0.0081

Venus -118270-01-01 12:00 J -41476694.21 -41476694.00 -41476693.78 0.0089 0.0003

Earth -118270-07-06 05:03 J -41476508.50 -41476508.29 -41476508.05 0.0089 0.0040

Moon -118270-07-06 09:08 J -41476508.35 -41476508.12 -41476507.90 0.0089 0.0042 *

Venus -118270-08-15 00:00 J -41476468.72 -41476468.50 -41476468.29 0.0089 0.0008

Venus -118269-03-27 11:46 J -41476243.22 -41476243.01 -41476242.80 0.0089 0.0014

Moon -118269-07-07 11:32 J -41476141.17 -41476141.02 -41476140.83 0.0089 0.0066

Earth -118269-07-07 14:53 J -41476141.03 -41476140.88 -41476140.70 0.0089 0.0068 *

Mars -118269-10-22 00:15 J -41476034.56 -41476034.49 -41476034.38 0.0089 0.0085

Venus -118269-11-07 23:32 J -41476017.72 -41476017.52 -41476017.30 0.0089 0.0020

Venus -118268-06-21 11:17 J -41475792.22 -41475792.03 -41475791.81 0.0089 0.0027

Venus -118267-02-01 23:17 J -41475566.72 -41475566.53 -41475566.32 0.0089 0.0032

Venus -118267-09-15 11:03 J -41475341.22 -41475341.04 -41475340.83 0.0089 0.0039

Mars -118267-09-17 01:41 J -41475339.43 -41475339.43 -41475339.42 0.0089 0.0089

Venus -118266-04-28 23:17 J -41475115.70 -41475115.53 -41475115.33 0.0089 0.0045

Venus -118266-12-10 11:17 J -41474890.19 -41474890.03 -41474889.84 0.0089 0.0051

Venus -118265-07-22 23:03 J -41474664.68 -41474664.54 -41474664.35 0.0089 0.0057

Venus -118264-03-05 11:03 J -41474439.17 -41474439.04 -41474438.87 0.0089 0.0063

Venus -118264-10-16 23:17 J -41474213.65 -41474213.53 -41474213.38 0.0089 0.0069

Venus -118263-05-30 11:32 J -41473988.11 -41473988.02 -41473987.88 0.0089 0.0075

Venus -118262-01-10 23:46 J -41473762.58 -41473762.51 -41473762.40 0.0089 0.0081

Venus -118262-08-24 11:46 J -41473537.03 -41473537.01 -41473536.93 0.0089 0.0087

Mercury -118246-05-29 06:29 J -41467780.24 -41467780.23 -41467780.19 0.0089 0.0088

Mercury -118246-08-25 09:51 J -41467692.15 -41467692.09 -41467692.02 0.0089 0.0082

Mercury -118246-11-21 12:44 J -41467604.04 -41467603.97 -41467603.86 0.0089 0.0077

Mercury -118245-02-17 16:05 J -41467515.93 -41467515.83 -41467515.71 0.0089 0.0071

Mercury -118245-05-15 18:58 J -41467427.81 -41467427.71 -41467427.57 0.0089 0.0066

Mercury -118245-08-11 22:20 J -41467339.69 -41467339.57 -41467339.42 0.0089 0.0060

Mercury -118245-11-08 01:41 J -41467251.57 -41467251.43 -41467251.28 0.0089 0.0054

Mercury -118244-02-04 04:48 J -41467163.44 -41467163.30 -41467163.14 0.0089 0.0049

Mercury -118244-05-03 08:10 J -41467075.32 -41467075.16 -41467074.99 0.0089 0.0043

Mercury -118244-07-30 11:32 J -41466987.19 -41466987.02 -41466986.85 0.0089 0.0037

Mercury -118244-10-26 14:24 J -41466899.06 -41466898.90 -41466898.71 0.0089 0.0032

Mercury -118243-01-22 17:46 J -41466810.93 -41466810.76 -41466810.57 0.0089 0.0026

Mercury -118243-04-20 21:08 J -41466722.79 -41466722.62 -41466722.43 0.0089 0.0020

Mercury -118243-07-18 00:29 J -41466634.66 -41466634.48 -41466634.29 0.0089 0.0014

Mercury -118243-10-14 03:51 J -41466546.53 -41466546.34 -41466546.16 0.0089 0.0009

Mercury -118242-01-10 07:12 J -41466458.39 -41466458.20 -41466458.02 0.0089 0.0003

Mercury -118242-04-08 10:20 J -41466370.25 -41466370.07 -41466369.88 0.0089 0.0003

Mercury -118242-07-05 13:41 J -41466282.11 -41466281.93 -41466281.74 0.0089 0.0009

Mercury -118242-10-01 16:48 J -41466193.97 -41466193.80 -41466193.61 0.0089 0.0015

Mercury -118242-12-28 20:10 J -41466105.83 -41466105.66 -41466105.47 0.0089 0.0021

Mercury -118241-03-25 23:46 J -41466017.69 -41466017.51 -41466017.33 0.0089 0.0026

Mercury -118241-06-22 02:53 J -41465929.55 -41465929.38 -41465929.20 0.0089 0.0032

Mercury -118241-09-18 06:15 J -41465841.40 -41465841.24 -41465841.06 0.0089 0.0038

Mercury -118241-12-15 09:36 J -41465753.26 -41465753.10 -41465752.93 0.0089 0.0044

Mercury -118240-03-13 12:58 J -41465665.11 -41465664.96 -41465664.80 0.0089 0.0050

Mars -118240-05-02 18:29 J -41465614.75 -41465614.73 -41465614.69 0.0089 0.0089

Mercury -118240-06-09 16:05 J -41465576.96 -41465576.83 -41465576.67 0.0089 0.0056

Mercury -118240-09-05 19:27 J -41465488.81 -41465488.69 -41465488.54 0.0089 0.0062

Mercury -118240-12-02 22:48 J -41465400.65 -41465400.55 -41465400.41 0.0089 0.0068

Mercury -118239-03-01 02:10 J -41465312.49 -41465312.41 -41465312.28 0.0089 0.0074

Mercury -118239-05-28 05:32 J -41465224.33 -41465224.27 -41465224.16 0.0089 0.0080

Mercury -118239-08-24 09:08 J -41465136.15 -41465136.12 -41465136.05 0.0089 0.0086

Mars -118238-03-28 00:29 J -41464920.54 -41464920.48 -41464920.36 0.0089 0.0085

Mars -118236-02-19 04:34 J -41464226.39 -41464226.31 -41464226.14 0.0089 0.0081

Mars -118234-01-14 08:53 J -41463532.25 -41463532.13 -41463531.95 0.0089 0.0076

Mars -118233-12-08 12:58 J -41462838.12 -41462837.96 -41462837.76 0.0089 0.0071

Mars -118231-11-02 16:20 J -41462144.02 -41462143.82 -41462143.62 0.0089 0.0066

Mars -118229-09-26 18:00 J -41461449.94 -41461449.75 -41461449.51 0.0089 0.0060

Mars -118227-08-21 21:08 J -41460755.83 -41460755.62 -41460755.36 0.0089 0.0054

Mars -118225-07-15 22:48 J -41460061.78 -41460061.55 -41460061.28 0.0089 0.0048

Mars -118223-06-10 00:00 J -41459367.76 -41459367.50 -41459367.23 0.0089 0.0041

Mars -118221-05-04 01:12 J -41458673.70 -41458673.45 -41458673.15 0.0089 0.0035

Mars -118219-03-29 02:53 J -41457979.64 -41457979.38 -41457979.08 0.0089 0.0028

Mars -118217-02-21 03:51 J -41457285.61 -41457285.34 -41457285.04 0.0089 0.0021

Mars -118215-01-15 05:32 J -41456591.56 -41456591.27 -41456590.97 0.0089 0.0014

Mars -118214-12-10 08:24 J -41455897.44 -41455897.15 -41455896.85 0.0089 0.0007

Mars -118212-11-03 10:48 J -41455203.35 -41455203.05 -41455202.75 0.0089 0.0001

Mars -118210-09-28 13:12 J -41454509.24 -41454508.95 -41454508.64 0.0089 0.0008

Mars -118208-08-22 16:48 J -41453815.08 -41453814.80 -41453814.49 0.0089 0.0015

Mars -118206-07-17 20:53 J -41453120.92 -41453120.63 -41453120.34 0.0089 0.0022

Mars	-118204-06-11 00:44 J	-41452426.75	-41452426.47	-41452426.18	0.0089	0.0029
Mars	-118202-05-06 06:15 J	-41451732.50	-41451732.24	-41451731.95	0.0089	0.0036
Mars	-118200-03-30 12:15 J	-41451038.23	-41451037.99	-41451037.70	0.0089	0.0043
Mars	-118198-02-22 18:44 J	-41450343.94	-41450343.72	-41450343.44	0.0089	0.0050
Venus	-118198-11-17 07:12 J	-41450076.20	-41450076.20	-41450076.20	0.0089	0.0089
Venus	-118197-06-29 21:08 J	-41449850.67	-41449850.62	-41449850.51	0.0089	0.0083
Mars	-118196-01-17 03:36 J	-41449649.57	-41449649.35	-41449649.09	0.0089	0.0056
Venus	-118196-02-10 12:15 J	-41449625.10	-41449624.99	-41449624.87	0.0089	0.0076
Venus	-118196-09-24 02:39 J	-41449399.51	-41449399.39	-41449399.23	0.0089	0.0070
Venus	-118195-05-07 17:17 J	-41449173.92	-41449173.78	-41449173.60	0.0089	0.0064
Mars	-118195-12-12 13:41 J	-41448955.13	-41448954.93	-41448954.69	0.0089	0.0062
Venus	-118195-12-19 07:56 J	-41448948.33	-41448948.17	-41448947.98	0.0089	0.0057
Venus	-118194-08-01 22:20 J	-41448722.74	-41448722.57	-41448722.37	0.0089	0.0051
Venus	-118193-03-14 12:58 J	-41448497.15	-41448496.96	-41448496.75	0.0089	0.0044
Venus	-118193-10-26 03:22 J	-41448271.55	-41448271.36	-41448271.14	0.0089	0.0038
Mars	-118193-11-05 23:32 J	-41448260.69	-41448260.52	-41448260.29	0.0089	0.0068
Moon	-118192-01-03 17:17 J	-41448201.80	-41448201.78	-41448201.69	0.0089	0.0087
Earth	-118192-01-03 21:08 J	-41448201.70	-41448201.62	-41448201.50	0.0089	0.0082 *
Venus	-118192-06-08 18:00 J	-41448045.96	-41448045.75	-41448045.53	0.0089	0.0031
Earth	-118191-01-06 11:03 J	-41447834.23	-41447834.04	-41447833.80	0.0089	0.0053
Moon	-118191-01-06 14:53 J	-41447834.09	-41447833.88	-41447833.65	0.0089	0.0048 *
Venus	-118191-01-20 08:10 J	-41447820.36	-41447820.16	-41447819.93	0.0089	0.0025
Venus	-118191-09-02 22:48 J	-41447594.77	-41447594.55	-41447594.33	0.0089	0.0018
Mars	-118191-10-01 11:17 J	-41447566.19	-41447566.03	-41447565.84	0.0089	0.0073
Moon	-118190-01-08 21:36 J	-41447466.84	-41447466.60	-41447466.34	0.0089	0.0028
Earth	-118190-01-09 01:27 J	-41447466.69	-41447466.44	-41447466.18	0.0089	0.0023 *
Venus	-118190-04-16 12:58 J	-41447369.18	-41447368.96	-41447368.73	0.0089	0.0012
Venus	-118190-11-28 03:08 J	-41447143.59	-41447143.37	-41447143.13	0.0089	0.0006
Earth	-118189-01-11 15:08 J	-41447099.13	-41447098.87	-41447098.61	0.0089	0.0006
Moon	-118189-01-11 17:46 J	-41447099.02	-41447098.76	-41447098.48	0.0089	0.0011 *

Venus -118189-07-10 17:32 J -41446918.00 -41446917.77 -41446917.54 0.0089 0.0001
 Mars -118189-08-26 00:44 J -41446871.60 -41446871.47 -41446871.32 0.0089 0.0078
 Moon -118188-01-13 01:56 J -41446731.64 -41446731.42 -41446731.17 0.0089 0.0032
 Earth -118188-01-13 04:05 J -41446731.55 -41446731.33 -41446731.07 0.0089 0.0036 *
 Venus -118188-02-21 07:41 J -41446692.41 -41446692.18 -41446691.96 0.0089 0.0008
 Venus -118188-10-04 21:51 J -41446466.81 -41446466.59 -41446466.36 0.0089 0.0014
 Earth -118187-01-15 17:46 J -41446363.94 -41446363.76 -41446363.58 0.0089 0.0064
 Moon -118187-01-15 18:29 J -41446363.87 -41446363.73 -41446363.53 0.0089 0.0069 *
 Venus -118187-05-18 11:46 J -41446241.22 -41446241.01 -41446240.78 0.0089 0.0021
 Mars -118187-07-21 14:24 J -41446176.99 -41446176.90 -41446176.78 0.0089 0.0083
 Venus -118187-12-30 02:10 J -41446015.63 -41446015.41 -41446015.20 0.0089 0.0027
 Venus -118186-08-12 15:51 J -41445790.04 -41445789.84 -41445789.62 0.0089 0.0034
 Venus -118185-03-25 06:00 J -41445564.44 -41445564.25 -41445564.04 0.0089 0.0040
 Mars -118185-06-15 05:03 J -41445482.30 -41445482.29 -41445482.20 0.0089 0.0088
 Venus -118185-11-05 20:24 J -41445338.84 -41445338.65 -41445338.46 0.0089 0.0046
 Venus -118184-06-19 09:51 J -41445113.25 -41445113.09 -41445112.89 0.0089 0.0053
 Venus -118183-01-31 00:00 J -41444887.66 -41444887.50 -41444887.32 0.0089 0.0059
 Venus -118183-09-13 13:56 J -41444662.06 -41444661.92 -41444661.76 0.0089 0.0065
 Venus -118182-04-27 03:51 J -41444436.46 -41444436.34 -41444436.20 0.0089 0.0071
 Venus -118182-12-08 18:00 J -41444210.86 -41444210.75 -41444210.64 0.0089 0.0077
 Venus -118181-07-21 07:41 J -41443985.25 -41443985.18 -41443985.10 0.0089 0.0083
 Mercury -118165-03-25 08:53 J -41438259.15 -41438259.13 -41438259.11 0.0088 0.0087
 Mercury -118165-06-21 10:20 J -41438171.11 -41438171.07 -41438171.02 0.0088 0.0083
 Mercury -118165-09-17 11:46 J -41438083.06 -41438083.01 -41438082.94 0.0088 0.0078
 Mercury -118165-12-14 13:27 J -41437995.01 -41437994.94 -41437994.86 0.0088 0.0074
 Mercury -118164-03-12 14:53 J -41437906.96 -41437906.88 -41437906.79 0.0088 0.0070
 Mercury -118164-06-08 16:20 J -41437818.90 -41437818.82 -41437818.72 0.0088 0.0066
 Mercury -118164-09-04 17:46 J -41437730.84 -41437730.76 -41437730.64 0.0088 0.0062
 Mercury -118164-12-01 19:41 J -41437642.79 -41437642.68 -41437642.57 0.0088 0.0057
 Mercury -118163-02-27 20:53 J -41437554.73 -41437554.63 -41437554.51 0.0088 0.0053

Mercury -118163-05-26 22:34 J -41437466.67 -41437466.56 -41437466.44 0.0088 0.0048

Mercury -118163-08-23 00:15 J -41437378.61 -41437378.49 -41437378.37 0.0088 0.0044

Mercury -118163-11-19 01:41 J -41437290.55 -41437290.43 -41437290.30 0.0088 0.0039

Mercury -118162-02-15 03:08 J -41437202.49 -41437202.37 -41437202.24 0.0088 0.0035

Mercury -118162-05-14 04:34 J -41437114.43 -41437114.31 -41437114.17 0.0088 0.0031

Mercury -118162-08-10 06:15 J -41437026.37 -41437026.24 -41437026.11 0.0088 0.0027

Mercury -118162-11-06 07:41 J -41436938.31 -41436938.18 -41436938.05 0.0088 0.0022

Mercury -118161-02-02 09:08 J -41436850.25 -41436850.12 -41436849.98 0.0088 0.0018

Mercury -118161-04-30 10:34 J -41436762.19 -41436762.06 -41436761.92 0.0088 0.0014

Mercury -118161-07-27 12:00 J -41436674.13 -41436674.00 -41436673.86 0.0088 0.0010

Mercury -118161-10-23 13:41 J -41436586.07 -41436585.93 -41436585.80 0.0088 0.0006

Mercury -118160-01-19 15:08 J -41436498.01 -41436497.87 -41436497.73 0.0088 0.0002

Mercury -118160-04-17 16:34 J -41436409.95 -41436409.81 -41436409.67 0.0088 0.0003

Mercury -118160-07-14 18:00 J -41436321.89 -41436321.75 -41436321.61 0.0088 0.0007

Mercury -118160-10-10 19:27 J -41436233.83 -41436233.69 -41436233.55 0.0088 0.0011

Mercury -118159-01-06 20:53 J -41436145.76 -41436145.63 -41436145.49 0.0088 0.0016

Mercury -118159-04-04 22:20 J -41436057.70 -41436057.57 -41436057.43 0.0088 0.0020

Mercury -118159-07-01 23:46 J -41435969.64 -41435969.51 -41435969.38 0.0088 0.0024

Mercury -118159-09-28 01:12 J -41435881.58 -41435881.45 -41435881.32 0.0088 0.0028

Mercury -118159-12-25 02:39 J -41435793.52 -41435793.39 -41435793.26 0.0088 0.0032

Mercury -118158-03-23 04:05 J -41435705.45 -41435705.33 -41435705.20 0.0088 0.0036

Mercury -118158-06-19 05:32 J -41435617.39 -41435617.27 -41435617.15 0.0088 0.0040

Mercury -118158-09-15 06:58 J -41435529.33 -41435529.21 -41435529.09 0.0088 0.0045

Mercury -118158-12-12 08:24 J -41435441.26 -41435441.15 -41435441.04 0.0088 0.0049

Mercury -118157-03-09 09:51 J -41435353.20 -41435353.09 -41435352.98 0.0088 0.0053

Mercury -118157-06-05 11:03 J -41435265.13 -41435265.04 -41435264.93 0.0088 0.0057

Mercury -118157-09-01 12:29 J -41435177.07 -41435176.98 -41435176.87 0.0088 0.0061

Mercury -118157-11-28 13:56 J -41435089.00 -41435088.92 -41435088.82 0.0088 0.0065

Mercury -118156-02-24 15:08 J -41435000.94 -41435000.87 -41435000.77 0.0088 0.0070

Mercury -118156-05-23 16:34 J -41434912.87 -41434912.81 -41434912.72 0.0088 0.0074

Mercury -118156-08-19 18:00 J -41434824.80 -41434824.75 -41434824.67 0.0088 0.0078

Mercury -118156-11-15 19:27 J -41434736.73 -41434736.69 -41434736.63 0.0088 0.0081

Mercury -118155-02-11 20:53 J -41434648.65 -41434648.63 -41434648.59 0.0088 0.0085

Mars -118155-11-28 05:46 J -41434359.30 -41434359.26 -41434359.17 0.0088 0.0087

Mars -118153-10-23 21:51 J -41433663.70 -41433663.59 -41433663.45 0.0088 0.0082

Mars -118151-09-19 14:24 J -41432968.05 -41432967.90 -41432967.72 0.0088 0.0077

Mars -118149-08-15 07:12 J -41432272.36 -41432272.20 -41432271.97 0.0088 0.0072

Mars -118147-07-12 01:56 J -41431576.62 -41431576.42 -41431576.17 0.0088 0.0065

Mars -118145-06-06 21:22 J -41430880.84 -41430880.61 -41430880.34 0.0088 0.0059

Mars -118143-05-03 16:34 J -41430185.04 -41430184.81 -41430184.50 0.0088 0.0053

Mars -118141-03-29 12:58 J -41429489.24 -41429488.96 -41429488.66 0.0088 0.0045

Mars -118139-02-23 08:53 J -41428793.42 -41428793.13 -41428792.81 0.0088 0.0038

Mars -118137-01-20 04:48 J -41428097.60 -41428097.30 -41428096.97 0.0088 0.0030

Mars -118136-12-16 01:12 J -41427401.77 -41427401.45 -41427401.12 0.0088 0.0023

Mars -118134-11-11 21:22 J -41426705.94 -41426705.61 -41426705.28 0.0088 0.0015

Mars -118132-10-07 17:03 J -41426010.12 -41426009.79 -41426009.45 0.0088 0.0007

Mars -118130-09-03 12:44 J -41425314.31 -41425313.97 -41425313.64 0.0088 0.0001

Mars -118128-07-30 06:58 J -41424618.53 -41424618.21 -41424617.87 0.0088 0.0009

Mars -118126-06-26 00:29 J -41423922.80 -41423922.48 -41423922.15 0.0088 0.0017

Mars -118124-05-21 16:48 J -41423227.10 -41423226.80 -41423226.46 0.0088 0.0025

Mars -118122-04-17 09:22 J -41422531.41 -41422531.11 -41422530.80 0.0088 0.0032

Mars -118120-03-13 00:00 J -41421835.77 -41421835.50 -41421835.18 0.0088 0.0040

Mars -118118-02-06 14:24 J -41421140.15 -41421139.90 -41421139.59 0.0088 0.0047

Mars -118116-01-02 04:05 J -41420444.59 -41420444.33 -41420444.06 0.0088 0.0053

Venus -118116-12-30 15:51 J -41420081.86 -41420081.84 -41420081.77 0.0088 0.0087

Venus -118115-08-13 03:36 J -41419856.42 -41419856.35 -41419856.25 0.0088 0.0081

Mars -118115-11-28 15:08 J -41419749.08 -41419748.87 -41419748.60 0.0088 0.0060

Venus -118114-03-26 15:22 J -41419630.97 -41419630.86 -41419630.74 0.0088 0.0075

Venus -118114-11-07 02:24 J -41419405.51 -41419405.40 -41419405.25 0.0088 0.0070

Venus -118113-06-19 13:56 J -41419180.05 -41419179.92 -41419179.75 0.0088 0.0064

Mars -118113-10-24 01:41 J -41419053.65 -41419053.43 -41419053.21 0.0088 0.0065
 Venus -118112-01-31 01:41 J -41418954.58 -41418954.43 -41418954.26 0.0088 0.0058
 Venus -118112-09-13 13:12 J -41418729.11 -41418728.95 -41418728.77 0.0088 0.0052
 Venus -118111-04-27 00:58 J -41418503.63 -41418503.46 -41418503.27 0.0088 0.0046
 Mars -118111-09-19 10:20 J -41418358.24 -41418358.07 -41418357.85 0.0088 0.0071
 Venus -118111-12-08 12:44 J -41418278.16 -41418277.97 -41418277.78 0.0088 0.0040
 Moon -118110-06-26 22:05 J -41418077.66 -41418077.58 -41418077.45 0.0088 0.0081
 Earth -118110-06-27 00:29 J -41418077.51 -41418077.48 -41418077.38 0.0088 0.0086 *
 Venus -118110-07-22 00:00 J -41418052.68 -41418052.50 -41418052.29 0.0088 0.0034
 Venus -118109-03-03 11:32 J -41417827.20 -41417827.02 -41417826.80 0.0088 0.0029
 Earth -118109-06-28 09:51 J -41417710.26 -41417710.09 -41417709.88 0.0088 0.0058
 Moon -118109-06-28 12:44 J -41417710.12 -41417709.97 -41417709.77 0.0088 0.0063 *
 Mars -118109-08-14 18:15 J -41417662.89 -41417662.74 -41417662.56 0.0088 0.0076
 Venus -118109-10-14 23:17 J -41417601.72 -41417601.53 -41417601.31 0.0088 0.0023
 Venus -118108-05-28 11:17 J -41417376.23 -41417376.03 -41417375.81 0.0088 0.0016
 Moon -118108-06-30 15:36 J -41417343.08 -41417342.85 -41417342.60 0.0088 0.0025
 Earth -118108-06-30 19:12 J -41417342.93 -41417342.70 -41417342.45 0.0088 0.0030 *
 Venus -118107-01-08 23:03 J -41417150.75 -41417150.54 -41417150.32 0.0088 0.0010
 Earth -118107-07-03 04:48 J -41416975.56 -41416975.30 -41416975.05 0.0088 0.0002
 Moon -118107-07-03 07:41 J -41416975.43 -41416975.18 -41416974.92 0.0088 0.0007 *
 Mars -118107-07-10 23:46 J -41416967.62 -41416967.51 -41416967.35 0.0088 0.0081
 Venus -118107-08-22 10:48 J -41416925.26 -41416925.05 -41416924.83 0.0088 0.0005
 Venus -118106-04-04 22:48 J -41416699.76 -41416699.55 -41416699.33 0.0089 0.0002
 Moon -118106-07-05 11:32 J -41416608.25 -41416608.02 -41416607.78 0.0089 0.0031
 Earth -118106-07-05 14:10 J -41416608.14 -41416607.91 -41416607.66 0.0089 0.0027 *
 Venus -118106-11-16 10:34 J -41416474.27 -41416474.06 -41416473.84 0.0089 0.0009
 Mars -118105-06-05 04:48 J -41416272.36 -41416272.30 -41416272.18 0.0089 0.0085
 Venus -118105-06-28 22:20 J -41416248.77 -41416248.57 -41416248.35 0.0089 0.0015
 Earth -118105-07-06 23:46 J -41416240.69 -41416240.51 -41416240.29 0.0089 0.0055
 Moon -118105-07-07 01:12 J -41416240.65 -41416240.45 -41416240.22 0.0089 0.0050 *

Venus -118104-02-09 10:20 J -41416023.28 -41416023.07 -41416022.86 0.0089 0.0020
 Earth -118104-07-09 09:36 J -41415873.17 -41415873.10 -41415872.99 0.0089 0.0083
 Moon -118104-07-09 09:36 J -41415873.13 -41415873.10 -41415873.04 0.0089 0.0087 *
 Venus -118104-09-22 22:05 J -41415797.77 -41415797.58 -41415797.37 0.0089 0.0027
 Mars -118103-05-01 08:39 J -41415577.14 -41415577.14 -41415577.10 0.0089 0.0089
 Venus -118103-05-06 10:05 J -41415572.27 -41415572.08 -41415571.87 0.0089 0.0033
 Venus -118103-12-17 22:05 J -41415346.76 -41415346.58 -41415346.38 0.0089 0.0039
 Venus -118102-07-31 10:05 J -41415121.26 -41415121.08 -41415120.89 0.0089 0.0045
 Venus -118101-03-12 21:51 J -41414895.75 -41414895.59 -41414895.40 0.0089 0.0051
 Venus -118101-10-24 09:51 J -41414670.24 -41414670.09 -41414669.91 0.0089 0.0057
 Venus -118100-06-06 22:05 J -41414444.72 -41414444.58 -41414444.41 0.0089 0.0063
 Venus -118099-01-18 10:05 J -41414219.20 -41414219.08 -41414218.93 0.0089 0.0069
 Venus -118099-08-31 22:05 J -41413993.67 -41413993.58 -41413993.44 0.0089 0.0075
 Venus -118098-04-14 10:20 J -41413768.14 -41413768.07 -41413767.96 0.0089 0.0081
 Venus -118098-11-25 22:20 J -41413542.59 -41413542.57 -41413542.50 0.0089 0.0087
 Mercury -118081-02-23 04:34 J -41407609.34 -41407609.31 -41407609.26 0.0089 0.0086
 Mercury -118081-05-21 07:27 J -41407521.24 -41407521.19 -41407521.10 0.0089 0.0081
 Mercury -118081-08-17 10:48 J -41407433.14 -41407433.05 -41407432.94 0.0089 0.0075
 Mercury -118081-11-13 14:10 J -41407345.02 -41407344.91 -41407344.80 0.0089 0.0069
 Mercury -118080-02-09 17:03 J -41407256.90 -41407256.79 -41407256.65 0.0089 0.0064
 Mercury -118080-05-08 20:24 J -41407168.78 -41407168.65 -41407168.51 0.0089 0.0058
 Mercury -118080-08-04 23:17 J -41407080.66 -41407080.53 -41407080.36 0.0089 0.0053
 Mercury -118080-11-01 02:39 J -41406992.53 -41406992.39 -41406992.22 0.0089 0.0047
 Mercury -118079-01-28 06:00 J -41406904.41 -41406904.25 -41406904.08 0.0089 0.0041
 Mercury -118079-04-26 09:08 J -41406816.28 -41406816.12 -41406815.94 0.0089 0.0036
 Mercury -118079-07-23 12:29 J -41406728.15 -41406727.98 -41406727.80 0.0089 0.0030
 Mercury -118079-10-19 15:51 J -41406640.02 -41406639.84 -41406639.66 0.0089 0.0024
 Mercury -118078-01-15 18:58 J -41406551.88 -41406551.71 -41406551.52 0.0089 0.0019
 Mercury -118078-04-13 22:20 J -41406463.75 -41406463.57 -41406463.38 0.0089 0.0013
 Mercury -118078-07-11 01:41 J -41406375.62 -41406375.43 -41406375.25 0.0089 0.0007

Mercury -118078-10-07 04:48 J -41406287.48 -41406287.30 -41406287.11 0.0089 0.0002

Mercury -118077-01-03 08:10 J -41406199.34 -41406199.16 -41406198.97 0.0089 0.0005

Mercury -118077-03-31 11:32 J -41406111.20 -41406111.02 -41406110.83 0.0089 0.0011

Mercury -118077-06-27 14:53 J -41406023.07 -41406022.88 -41406022.70 0.0089 0.0016

Mercury -118077-09-23 18:00 J -41405934.92 -41405934.75 -41405934.56 0.0089 0.0022

Mars -118077-12-15 16:05 J -41405851.91 -41405851.83 -41405851.75 0.0089 0.0085

Mercury -118077-12-20 21:22 J -41405846.78 -41405846.61 -41405846.43 0.0089 0.0028

Mercury -118076-03-19 00:44 J -41405758.64 -41405758.47 -41405758.29 0.0089 0.0034

Mercury -118076-06-15 03:51 J -41405670.49 -41405670.34 -41405670.16 0.0089 0.0040

Mercury -118076-09-11 07:12 J -41405582.35 -41405582.20 -41405582.03 0.0089 0.0046

Mercury -118076-12-08 10:34 J -41405494.20 -41405494.06 -41405493.89 0.0089 0.0052

Mercury -118075-03-06 13:56 J -41405406.05 -41405405.92 -41405405.76 0.0089 0.0058

Mercury -118075-06-02 17:46 J -41405317.89 -41405317.76 -41405317.63 0.0089 0.0063

Mercury -118075-08-29 20:53 J -41405229.74 -41405229.63 -41405229.51 0.0089 0.0069

Mars -118075-11-09 21:08 J -41405157.70 -41405157.62 -41405157.46 0.0089 0.0082

Mercury -118075-11-26 00:15 J -41405141.58 -41405141.49 -41405141.38 0.0089 0.0075

Mercury -118074-02-22 03:36 J -41405053.41 -41405053.35 -41405053.26 0.0089 0.0081

Mercury -118074-05-21 06:58 J -41404965.23 -41404965.21 -41404965.16 0.0089 0.0087

Mars -118073-10-04 04:20 J -41404463.45 -41404463.32 -41404463.16 0.0089 0.0077

Mars -118071-08-29 08:53 J -41403769.27 -41403769.13 -41403768.93 0.0089 0.0073

Mars -118069-07-23 12:58 J -41403075.12 -41403074.96 -41403074.73 0.0089 0.0068

Mars -118067-06-17 17:17 J -41402380.98 -41402380.78 -41402380.55 0.0089 0.0062

Mars -118065-05-11 19:41 J -41401686.87 -41401686.68 -41401686.42 0.0089 0.0058

Mars -118063-04-05 21:22 J -41400992.82 -41400992.61 -41400992.33 0.0089 0.0052

Mars -118061-02-29 00:15 J -41400298.75 -41400298.49 -41400298.23 0.0089 0.0045

Mars -118059-01-23 01:56 J -41399604.68 -41399604.42 -41399604.14 0.0089 0.0038

Mars -118058-12-18 02:24 J -41398910.66 -41398910.40 -41398910.10 0.0089 0.0032

Mars -118056-11-11 04:05 J -41398216.60 -41398216.33 -41398216.03 0.0089 0.0025

Mars -118054-10-06 06:15 J -41397522.52 -41397522.24 -41397521.93 0.0089 0.0019

Mars -118052-08-30 07:41 J -41396828.47 -41396828.18 -41396827.88 0.0089 0.0011

Mars	-118050-07-25 08:39 J	-41396134.43	-41396134.14	-41396133.84	0.0089	0.0004
Mars	-118048-06-18 11:03 J	-41395440.33	-41395440.04	-41395439.74	0.0089	0.0003
Mars	-118046-05-13 12:58 J	-41394746.25	-41394745.96	-41394745.66	0.0089	0.0010
Mars	-118044-04-06 14:53 J	-41394052.16	-41394051.88	-41394051.58	0.0089	0.0017
Mars	-118042-03-01 18:15 J	-41393358.02	-41393357.74	-41393357.44	0.0089	0.0024
Mars	-118040-01-23 22:34 J	-41392663.83	-41392663.56	-41392663.27	0.0089	0.0031
Mars	-118039-12-19 02:53 J	-41391969.63	-41391969.38	-41391969.09	0.0089	0.0038
Mars	-118037-11-12 08:53 J	-41391275.37	-41391275.13	-41391274.85	0.0089	0.0044
Mars	-118035-10-07 15:51 J	-41390581.08	-41390580.84	-41390580.58	0.0089	0.0050
Venus	-118033-02-18 13:41 J	-41390081.93	-41390081.93	-41390081.91	0.0089	0.0089
Mars	-118033-08-31 22:05 J	-41389886.78	-41389886.58	-41389886.32	0.0089	0.0057
Venus	-118033-10-01 03:51 J	-41389856.39	-41389856.34	-41389856.22	0.0089	0.0083
Venus	-118032-05-14 18:58 J	-41389630.81	-41389630.71	-41389630.58	0.0089	0.0076
Venus	-118032-12-26 09:22 J	-41389405.23	-41389405.11	-41389404.95	0.0089	0.0070
Mars	-118031-07-27 06:44 J	-41389192.43	-41389192.22	-41389192.00	0.0089	0.0062
Venus	-118031-08-08 23:46 J	-41389179.64	-41389179.51	-41389179.33	0.0089	0.0064
Venus	-118030-03-22 14:39 J	-41388954.05	-41388953.89	-41388953.70	0.0089	0.0057
Venus	-118030-11-03 05:03 J	-41388728.45	-41388728.29	-41388728.08	0.0089	0.0051
Venus	-118029-06-15 19:56 J	-41388502.86	-41388502.67	-41388502.46	0.0089	0.0044
Mars	-118029-06-20 16:05 J	-41388498.00	-41388497.83	-41388497.61	0.0089	0.0068
Venus	-118028-01-27 10:20 J	-41388277.26	-41388277.07	-41388276.85	0.0089	0.0038
Venus	-118028-09-10 00:58 J	-41388051.67	-41388051.46	-41388051.24	0.0089	0.0031
Moon	-118027-01-05 12:15 J	-41387934.13	-41387933.99	-41387933.79	0.0089	0.0067
Earth	-118027-01-05 15:08 J	-41387934.03	-41387933.87	-41387933.69	0.0089	0.0067 *
Venus	-118027-04-23 15:22 J	-41387826.07	-41387825.86	-41387825.63	0.0089	0.0025
Mars	-118027-05-16 02:53 J	-41387803.54	-41387803.38	-41387803.19	0.0089	0.0073
Venus	-118027-12-05 06:00 J	-41387600.47	-41387600.25	-41387600.03	0.0089	0.0018
Earth	-118026-01-08 05:03 J	-41387566.51	-41387566.29	-41387566.03	0.0089	0.0038
Moon	-118026-01-08 07:27 J	-41387566.43	-41387566.19	-41387565.94	0.0089	0.0037 *
Venus	-118026-07-18 20:10 J	-41387374.88	-41387374.66	-41387374.43	0.0089	0.0012

Moon -118025-01-10 18:58 J -41387198.97 -41387198.71 -41387198.46 0.0089 0.0008
 Earth -118025-01-10 19:27 J -41387198.95 -41387198.69 -41387198.43 0.0089 0.0008 *
 Venus -118025-02-29 10:34 J -41387149.29 -41387149.06 -41387148.83 0.0089 0.0005
 Mars -118025-04-09 13:56 J -41387109.04 -41387108.92 -41387108.75 0.0089 0.0078
 Venus -118025-10-12 00:58 J -41386923.69 -41386923.46 -41386923.23 0.0089 0.0001
 Moon -118024-01-12 07:56 J -41386831.43 -41386831.17 -41386830.90 0.0089 0.0021
 Earth -118024-01-12 08:39 J -41386831.38 -41386831.14 -41386830.87 0.0089 0.0022 *
 Venus -118024-05-25 15:08 J -41386698.09 -41386697.87 -41386697.64 0.0089 0.0008
 Venus -118023-01-06 05:03 J -41386472.50 -41386472.29 -41386472.05 0.0089 0.0015
 Earth -118023-01-14 21:51 J -41386463.78 -41386463.59 -41386463.35 0.0089 0.0051
 Moon -118023-01-14 23:46 J -41386463.71 -41386463.51 -41386463.30 0.0089 0.0050 *
 Mars -118023-03-05 04:20 J -41386414.43 -41386414.32 -41386414.20 0.0089 0.0082
 Venus -118023-08-19 19:12 J -41386246.91 -41386246.70 -41386246.47 0.0089 0.0021
 Moon -118022-01-17 08:10 J -41386096.25 -41386096.16 -41386096.02 0.0089 0.0080
 Earth -118022-01-17 11:03 J -41386096.12 -41386096.04 -41386095.90 0.0089 0.0080 *
 Venus -118022-04-02 09:22 J -41386021.32 -41386021.11 -41386020.89 0.0089 0.0027
 Venus -118022-11-13 23:17 J -41385795.72 -41385795.53 -41385795.30 0.0089 0.0034
 Mars -118021-01-28 18:15 J -41385719.77 -41385719.74 -41385719.63 0.0089 0.0087
 Venus -118021-06-26 13:27 J -41385570.13 -41385569.94 -41385569.73 0.0089 0.0040
 Venus -118020-02-07 03:36 J -41385344.54 -41385344.35 -41385344.15 0.0089 0.0046
 Venus -118020-09-20 17:17 J -41385118.94 -41385118.78 -41385118.58 0.0089 0.0053
 Venus -118019-05-04 07:12 J -41384893.35 -41384893.20 -41384893.01 0.0089 0.0059
 Venus -118019-12-15 21:22 J -41384667.75 -41384667.61 -41384667.44 0.0089 0.0065
 Venus -118018-07-29 11:17 J -41384442.15 -41384442.03 -41384441.88 0.0089 0.0071
 Venus -118017-03-11 01:12 J -41384216.55 -41384216.45 -41384216.33 0.0089 0.0077
 Venus -118017-10-22 15:22 J -41383990.93 -41383990.86 -41383990.78 0.0089 0.0083
 Mercury -118001-12-20 07:41 J -41378088.20 -41378088.18 -41378088.14 0.0088 0.0086

118TH MILLENNIUM

BCE

This is a list of transits visible from Neptune in the 118th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-118000-03-18 09:08 J	-41378000.16	-41378000.12	-41378000.06	0.0088	0.0082		
Mercury	-118000-06-14 10:34 J	-41377912.11	-41377912.06	-41377911.98	0.0088	0.0078		
Mercury	-118000-09-10 12:29 J	-41377824.06	-41377823.98	-41377823.90	0.0088	0.0073		
Mercury	-118000-12-07 13:56 J	-41377736.00	-41377735.92	-41377735.83	0.0088	0.0069		
Mercury	-117999-03-05 15:22 J	-41377647.95	-41377647.86	-41377647.76	0.0088	0.0064		
Mercury	-117999-06-01 17:03 J	-41377559.89	-41377559.79	-41377559.68	0.0088	0.0060		
Mercury	-117999-08-28 18:29 J	-41377471.83	-41377471.73	-41377471.62	0.0088	0.0056		
Mercury	-117999-11-24 19:56 J	-41377383.77	-41377383.67	-41377383.55	0.0088	0.0052		
Mercury	-117998-02-20 21:22 J	-41377295.71	-41377295.61	-41377295.48	0.0088	0.0048		
Mercury	-117998-05-19 23:17 J	-41377207.65	-41377207.53	-41377207.41	0.0088	0.0043		
Mercury	-117998-08-16 00:44 J	-41377119.59	-41377119.47	-41377119.34	0.0088	0.0038		
Mercury	-117998-11-12 02:10 J	-41377031.53	-41377031.41	-41377031.28	0.0088	0.0034		
Mercury	-117997-02-08 03:36 J	-41376943.47	-41376943.35	-41376943.21	0.0088	0.0030		
Mercury	-117997-05-06 05:17 J	-41376855.41	-41376855.28	-41376855.15	0.0088	0.0026		
Mercury	-117997-08-02 06:44 J	-41376767.35	-41376767.22	-41376767.09	0.0088	0.0021		
Mercury	-117997-10-29 08:10 J	-41376679.29	-41376679.16	-41376679.02	0.0088	0.0017		
Mercury	-117996-01-25 09:36 J	-41376591.23	-41376591.10	-41376590.96	0.0088	0.0013		
Mercury	-117996-04-23 11:03 J	-41376503.17	-41376503.04	-41376502.90	0.0088	0.0009		
Mercury	-117996-07-20 12:44 J	-41376415.11	-41376414.97	-41376414.83	0.0088	0.0005		

Mercury -117996-10-16 14:10 J -41376327.05 -41376326.91 -41376326.77 0.0088 0.0001
 Mercury -117995-01-12 15:36 J -41376238.99 -41376238.85 -41376238.71 0.0088 0.0004
 Mercury -117995-04-10 17:03 J -41376150.93 -41376150.79 -41376150.65 0.0088 0.0008
 Mercury -117995-07-07 18:29 J -41376062.86 -41376062.73 -41376062.59 0.0088 0.0013
 Mercury -117995-10-03 19:56 J -41375974.80 -41375974.67 -41375974.53 0.0088 0.0017
 Mercury -117995-12-30 21:22 J -41375886.74 -41375886.61 -41375886.47 0.0088 0.0021
 Mercury -117994-03-28 22:48 J -41375798.68 -41375798.55 -41375798.42 0.0088 0.0025
 Mercury -117994-06-25 00:15 J -41375710.61 -41375710.49 -41375710.36 0.0088 0.0029
 Mercury -117994-09-21 01:41 J -41375622.55 -41375622.43 -41375622.30 0.0088 0.0033
 Mercury -117994-12-18 03:08 J -41375534.49 -41375534.37 -41375534.24 0.0088 0.0037
 Mercury -117993-03-15 04:34 J -41375446.43 -41375446.31 -41375446.19 0.0088 0.0042
 Mercury -117993-06-11 06:00 J -41375358.36 -41375358.25 -41375358.13 0.0088 0.0046
 Mars -117993-08-15 07:12 J -41375293.22 -41375293.20 -41375293.10 0.0088 0.0087
 Mercury -117993-09-07 07:27 J -41375270.30 -41375270.19 -41375270.07 0.0088 0.0050
 Mercury -117993-12-04 08:39 J -41375182.23 -41375182.14 -41375182.02 0.0088 0.0054
 Mercury -117992-03-02 10:05 J -41375094.17 -41375094.08 -41375093.97 0.0088 0.0058
 Mercury -117992-05-29 11:32 J -41375006.11 -41375006.02 -41375005.91 0.0088 0.0062
 Mercury -117992-08-25 12:58 J -41374918.04 -41374917.96 -41374917.86 0.0088 0.0066
 Mercury -117992-11-21 14:24 J -41374829.97 -41374829.90 -41374829.81 0.0088 0.0070
 Mercury -117991-02-17 15:51 J -41374741.90 -41374741.84 -41374741.76 0.0088 0.0074
 Mercury -117991-05-16 17:03 J -41374653.84 -41374653.79 -41374653.71 0.0088 0.0079
 Mars -117991-07-11 22:05 J -41374597.68 -41374597.58 -41374597.45 0.0088 0.0083
 Mercury -117991-08-12 18:29 J -41374565.76 -41374565.73 -41374565.67 0.0088 0.0083
 Mercury -117991-11-08 19:56 J -41374477.68 -41374477.67 -41374477.63 0.0088 0.0087
 Mars -117989-06-06 12:44 J -41373902.08 -41373901.97 -41373901.77 0.0088 0.0079
 Mars -117987-05-03 05:32 J -41373206.44 -41373206.27 -41373206.07 0.0088 0.0073
 Mars -117985-03-28 21:51 J -41372510.77 -41372510.59 -41372510.34 0.0088 0.0068
 Mars -117983-02-22 15:22 J -41371815.08 -41371814.86 -41371814.60 0.0088 0.0061
 Mars -117981-01-19 09:22 J -41371119.34 -41371119.11 -41371118.82 0.0088 0.0055
 Mars -117980-12-15 04:34 J -41370423.56 -41370423.31 -41370423.01 0.0088 0.0049

Mars	-117978-11-11 00:29 J	-41369727.75	-41369727.48	-41369727.16	0.0088	0.0042
Mars	-117976-10-06 20:24 J	-41369031.94	-41369031.65	-41369031.32	0.0088	0.0034
Mars	-117974-09-02 16:48 J	-41368336.10	-41368335.80	-41368335.47	0.0088	0.0027
Mars	-117972-07-29 12:58 J	-41367640.28	-41367639.96	-41367639.62	0.0088	0.0019
Mars	-117970-06-25 08:53 J	-41366944.45	-41366944.13	-41366943.79	0.0088	0.0012
Mars	-117968-05-21 05:03 J	-41366248.63	-41366248.29	-41366247.96	0.0088	0.0004
Mars	-117966-04-17 00:29 J	-41365552.81	-41365552.48	-41365552.14	0.0088	0.0004
Mars	-117964-03-12 19:41 J	-41364857.00	-41364856.68	-41364856.34	0.0088	0.0012
Mars	-117962-02-06 14:39 J	-41364161.21	-41364160.89	-41364160.55	0.0088	0.0020
Mars	-117960-01-02 08:53 J	-41363465.45	-41363465.13	-41363464.81	0.0088	0.0027
Mars	-117959-11-29 00:58 J	-41362769.74	-41362769.46	-41362769.13	0.0088	0.0035
Mars	-117957-10-24 17:17 J	-41362074.05	-41362073.78	-41362073.46	0.0088	0.0041
Mars	-117955-09-20 08:53 J	-41361378.40	-41361378.13	-41361377.85	0.0088	0.0048
Mars	-117953-08-15 22:20 J	-41360682.80	-41360682.57	-41360682.29	0.0088	0.0055
Venus	-117951-04-03 02:53 J	-41360087.41	-41360087.38	-41360087.31	0.0088	0.0086
Mars	-117951-07-12 11:17 J	-41359987.24	-41359987.03	-41359986.76	0.0088	0.0061
Venus	-117951-11-14 14:10 J	-41359861.97	-41359861.91	-41359861.80	0.0088	0.0081
Venus	-117950-06-28 01:41 J	-41359636.52	-41359636.43	-41359636.29	0.0088	0.0075
Venus	-117949-02-08 13:27 J	-41359411.06	-41359410.94	-41359410.80	0.0088	0.0069
Mars	-117949-06-06 22:34 J	-41359291.74	-41359291.56	-41359291.31	0.0088	0.0067
Venus	-117949-09-21 01:12 J	-41359185.60	-41359185.45	-41359185.30	0.0088	0.0063
Venus	-117948-05-04 12:15 J	-41358960.13	-41358959.99	-41358959.80	0.0088	0.0058
Venus	-117948-12-16 00:00 J	-41358734.66	-41358734.50	-41358734.31	0.0088	0.0052
Mars	-117947-05-03 08:24 J	-41358596.30	-41358596.15	-41358595.92	0.0088	0.0072
Venus	-117947-07-29 11:32 J	-41358509.19	-41358509.02	-41358508.83	0.0088	0.0046
Venus	-117946-03-11 23:17 J	-41358283.72	-41358283.53	-41358283.34	0.0088	0.0040
Venus	-117946-10-23 10:48 J	-41358058.24	-41358058.05	-41358057.85	0.0088	0.0034
Mars	-117945-03-28 17:17 J	-41357900.90	-41357900.78	-41357900.58	0.0088	0.0077
Venus	-117945-06-04 22:34 J	-41357832.76	-41357832.56	-41357832.36	0.0088	0.0028
Moon	-117945-06-27 15:51 J	-41357809.97	-41357809.84	-41357809.67	0.0088	0.0072

Earth -117945-06-27 18:58 J -41357809.84 -41357809.71 -41357809.54 0.0088 0.0071 *
 Venus -117944-01-16 10:05 J -41357607.28 -41357607.08 -41357606.87 0.0088 0.0022
 Earth -117944-06-30 04:05 J -41357442.55 -41357442.33 -41357442.11 0.0088 0.0043
 Moon -117944-06-30 06:44 J -41357442.44 -41357442.22 -41357441.99 0.0088 0.0043 *
 Venus -117944-08-29 21:51 J -41357381.80 -41357381.59 -41357381.38 0.0088 0.0016
 Mars -117943-02-22 01:41 J -41357205.54 -41357205.43 -41357205.28 0.0089 0.0081
 Venus -117943-04-12 09:36 J -41357156.31 -41357156.10 -41357155.89 0.0089 0.0010
 Moon -117943-07-02 11:46 J -41357075.24 -41357075.01 -41357074.76 0.0089 0.0017
 Earth -117943-07-02 12:58 J -41357075.20 -41357074.96 -41357074.70 0.0089 0.0015 *
 Venus -117943-11-23 21:22 J -41356930.83 -41356930.61 -41356930.40 0.0089 0.0004
 Moon -117942-07-04 22:20 J -41356707.82 -41356707.57 -41356707.30 0.0089 0.0014
 Earth -117942-07-04 22:34 J -41356707.81 -41356707.56 -41356707.31 0.0089 0.0013 *
 Venus -117942-07-07 09:08 J -41356705.34 -41356705.12 -41356704.91 0.0089 0.0003
 Mars -117941-01-18 07:12 J -41356510.27 -41356510.20 -41356510.09 0.0089 0.0085
 Venus -117941-02-17 20:39 J -41356479.85 -41356479.64 -41356479.42 0.0089 0.0009
 Earth -117941-07-06 07:56 J -41356340.39 -41356340.17 -41356339.94 0.0089 0.0041
 Moon -117941-07-06 08:39 J -41356340.34 -41356340.14 -41356339.91 0.0089 0.0041 *
 Venus -117941-09-30 08:24 J -41356254.35 -41356254.15 -41356253.93 0.0089 0.0015
 Venus -117940-05-13 20:24 J -41356028.85 -41356028.65 -41356028.43 0.0089 0.0021
 Moon -117940-07-08 14:24 J -41355973.03 -41355972.90 -41355972.72 0.0089 0.0071
 Earth -117940-07-08 17:32 J -41355972.92 -41355972.77 -41355972.61 0.0089 0.0069 *
 Mars -117940-12-13 11:32 J -41355815.02 -41355815.02 -41355814.98 0.0089 0.0089
 Venus -117940-12-25 08:24 J -41355803.35 -41355803.15 -41355802.94 0.0089 0.0027
 Venus -117939-08-07 20:10 J -41355577.85 -41355577.66 -41355577.45 0.0089 0.0033
 Venus -117938-03-21 08:10 J -41355352.35 -41355352.16 -41355351.96 0.0089 0.0039
 Venus -117938-11-01 20:10 J -41355126.84 -41355126.66 -41355126.47 0.0089 0.0045
 Venus -117937-06-14 08:10 J -41354901.33 -41354901.16 -41354900.98 0.0089 0.0051
 Venus -117936-01-25 20:10 J -41354675.82 -41354675.66 -41354675.49 0.0089 0.0057
 Venus -117936-09-08 07:56 J -41354450.30 -41354450.17 -41354450.00 0.0089 0.0063
 Venus -117935-04-21 20:10 J -41354224.78 -41354224.66 -41354224.51 0.0089 0.0069

Venus -117935-12-03 08:10 J -41353999.26 -41353999.16 -41353999.03 0.0089 0.0075

Venus -117934-07-16 20:10 J -41353773.73 -41353773.66 -41353773.55 0.0089 0.0081

Venus -117933-02-27 08:10 J -41353548.18 -41353548.16 -41353548.09 0.0089 0.0087

Mercury -117917-11-19 02:24 J -41347438.45 -41347438.40 -41347438.34 0.0089 0.0084

Mercury -117916-02-15 05:17 J -41347350.34 -41347350.28 -41347350.18 0.0089 0.0079

Mercury -117916-05-14 08:53 J -41347262.23 -41347262.13 -41347262.03 0.0089 0.0073

Mercury -117916-08-10 11:32 J -41347174.12 -41347174.02 -41347173.88 0.0089 0.0068

Mercury -117916-11-06 15:08 J -41347086.00 -41347085.87 -41347085.74 0.0089 0.0062

Mercury -117915-02-02 18:00 J -41346997.88 -41346997.75 -41346997.60 0.0089 0.0057

Mercury -117915-05-01 21:22 J -41346909.75 -41346909.61 -41346909.46 0.0089 0.0051

Mercury -117915-07-29 00:44 J -41346821.63 -41346821.47 -41346821.31 0.0089 0.0045

Mars -117915-09-05 02:53 J -41346783.43 -41346783.38 -41346783.29 0.0089 0.0086

Mercury -117915-10-25 03:36 J -41346733.50 -41346733.35 -41346733.17 0.0089 0.0040

Mercury -117914-01-21 06:58 J -41346645.37 -41346645.21 -41346645.03 0.0089 0.0034

Mercury -117914-04-19 10:20 J -41346557.24 -41346557.07 -41346556.90 0.0089 0.0028

Mercury -117914-07-16 13:27 J -41346469.11 -41346468.94 -41346468.76 0.0089 0.0023

Mercury -117914-10-12 16:48 J -41346380.98 -41346380.80 -41346380.62 0.0089 0.0017

Mercury -117913-01-08 19:56 J -41346292.85 -41346292.67 -41346292.48 0.0089 0.0011

Mercury -117913-04-05 23:17 J -41346204.71 -41346204.53 -41346204.34 0.0089 0.0005

Mercury -117913-07-03 02:39 J -41346116.58 -41346116.39 -41346116.21 0.0089 0.0001

Mars -117913-07-30 11:46 J -41346089.08 -41346089.01 -41346088.86 0.0089 0.0083

Mercury -117913-09-29 05:46 J -41346028.44 -41346028.26 -41346028.07 0.0089 0.0007

Mercury -117913-12-26 09:08 J -41345940.30 -41345940.12 -41345939.93 0.0089 0.0012

Mercury -117912-03-24 12:15 J -41345852.16 -41345851.99 -41345851.80 0.0089 0.0018

Mercury -117912-06-20 15:36 J -41345764.02 -41345763.85 -41345763.66 0.0089 0.0024

Mercury -117912-09-16 18:58 J -41345675.88 -41345675.71 -41345675.53 0.0089 0.0030

Mercury -117912-12-13 22:20 J -41345587.74 -41345587.57 -41345587.39 0.0089 0.0035

Mercury -117911-03-12 01:41 J -41345499.59 -41345499.43 -41345499.26 0.0089 0.0041

Mercury -117911-06-08 05:03 J -41345411.44 -41345411.29 -41345411.13 0.0089 0.0047

Mars -117911-06-24 19:12 J -41345394.80 -41345394.70 -41345394.52 0.0089 0.0079

Mercury -117911-09-04 08:10 J -41345323.30 -41345323.16 -41345323.00 0.0089 0.0053

Mercury -117911-12-01 11:32 J -41345235.14 -41345235.02 -41345234.87 0.0089 0.0059

Mercury -117910-02-27 14:53 J -41345146.99 -41345146.88 -41345146.74 0.0089 0.0065

Mercury -117910-05-26 18:15 J -41345058.84 -41345058.74 -41345058.61 0.0089 0.0071

Mercury -117910-08-22 21:36 J -41344970.67 -41344970.60 -41344970.49 0.0089 0.0077

Mercury -117910-11-19 00:58 J -41344882.51 -41344882.46 -41344882.37 0.0089 0.0083

Mercury -117909-02-15 04:34 J -41344794.31 -41344794.31 -41344794.28 0.0089 0.0089

Mars -117909-05-19 01:27 J -41344700.59 -41344700.44 -41344700.27 0.0089 0.0074

Mars -117907-04-13 06:44 J -41344006.38 -41344006.22 -41344006.01 0.0089 0.0070

Mars -117905-03-07 11:32 J -41343312.20 -41343312.02 -41343311.79 0.0089 0.0065

Mars -117903-01-30 14:53 J -41342618.09 -41342617.88 -41342617.64 0.0089 0.0059

Mars -117902-12-25 18:29 J -41341923.96 -41341923.73 -41341923.49 0.0089 0.0053

Mars -117900-11-18 21:36 J -41341229.85 -41341229.60 -41341229.35 0.0089 0.0048

Mars -117898-10-13 23:17 J -41340535.78 -41340535.53 -41340535.25 0.0089 0.0041

Mars -117896-09-07 01:12 J -41339841.71 -41339841.45 -41339841.16 0.0089 0.0035

Mars -117894-08-02 03:22 J -41339147.62 -41339147.36 -41339147.06 0.0089 0.0029

Mars -117892-06-26 04:20 J -41338453.59 -41338453.32 -41338453.02 0.0089 0.0022

Mars -117890-05-21 05:17 J -41337759.57 -41337759.28 -41337758.98 0.0089 0.0015

Mars -117888-04-14 06:58 J -41337065.50 -41337065.21 -41337064.91 0.0089 0.0008

Mars -117886-03-09 08:24 J -41336371.45 -41336371.15 -41336370.85 0.0089 0.0001

Mars -117884-01-31 09:08 J -41335677.41 -41335677.12 -41335676.82 0.0089 0.0006

Mars -117883-12-26 11:32 J -41334983.31 -41334983.02 -41334982.72 0.0089 0.0012

Mars -117881-11-19 14:24 J -41334289.18 -41334288.90 -41334288.60 0.0089 0.0019

Mars -117879-10-14 16:34 J -41333595.08 -41333594.81 -41333594.51 0.0089 0.0026

Mars -117877-09-07 19:27 J -41332900.95 -41332900.69 -41332900.39 0.0089 0.0033

Mars -117875-08-03 00:00 J -41332206.76 -41332206.50 -41332206.22 0.0089 0.0039

Mars -117873-06-27 03:51 J -41331512.57 -41331512.34 -41331512.06 0.0089 0.0046

Mars -117871-05-22 08:39 J -41330818.35 -41330818.14 -41330817.86 0.0089 0.0052

Mars -117869-04-15 15:51 J -41330124.05 -41330123.84 -41330123.59 0.0089 0.0057

Venus -117869-05-21 19:56 J -41330087.67 -41330087.67 -41330087.65 0.0089 0.0089

Venus -117868-01-02 10:05 J -41329862.14 -41329862.08 -41329861.97 0.0089 0.0083
 Venus -117868-08-16 00:58 J -41329636.56 -41329636.46 -41329636.33 0.0089 0.0076
 Mars -117867-03-10 22:34 J -41329429.75 -41329429.56 -41329429.32 0.0089 0.0063
 Venus -117867-03-29 15:22 J -41329410.98 -41329410.86 -41329410.70 0.0089 0.0070
 Venus -117867-11-10 05:46 J -41329185.39 -41329185.26 -41329185.07 0.0089 0.0064
 Venus -117866-06-23 20:39 J -41328959.80 -41328959.64 -41328959.45 0.0089 0.0057
 Mars -117865-02-03 07:12 J -41328735.39 -41328735.20 -41328735.00 0.0089 0.0068
 Venus -117865-02-04 11:03 J -41328734.21 -41328734.04 -41328733.84 0.0089 0.0051
 Venus -117865-09-17 01:56 J -41328508.61 -41328508.42 -41328508.22 0.0089 0.0044
 Venus -117864-04-30 16:20 J -41328283.01 -41328282.82 -41328282.60 0.0089 0.0038
 Venus -117864-12-12 06:58 J -41328057.42 -41328057.21 -41328056.99 0.0089 0.0031
 Mars -117864-12-28 17:17 J -41328040.94 -41328040.78 -41328040.60 0.0089 0.0073
 Earth -117863-01-04 16:20 J -41328033.88 -41328033.82 -41328033.70 0.0089 0.0083
 Moon -117863-01-04 16:05 J -41328033.86 -41328033.83 -41328033.75 0.0089 0.0087 *
 Venus -117863-07-25 21:08 J -41327831.82 -41327831.62 -41327831.39 0.0089 0.0025
 Earth -117862-01-07 07:27 J -41327666.40 -41327666.19 -41327665.98 0.0089 0.0053
 Moon -117862-01-07 08:24 J -41327666.34 -41327666.15 -41327665.92 0.0089 0.0050 *
 Venus -117862-03-08 11:32 J -41327606.23 -41327606.02 -41327605.78 0.0089 0.0019
 Venus -117862-10-20 02:24 J -41327380.62 -41327380.40 -41327380.17 0.0089 0.0012
 Mars -117862-11-23 03:51 J -41327346.46 -41327346.34 -41327346.16 0.0089 0.0078
 Moon -117861-01-09 18:58 J -41327298.95 -41327298.71 -41327298.44 0.0089 0.0028
 Earth -117861-01-09 21:08 J -41327298.86 -41327298.62 -41327298.35 0.0089 0.0024 *
 Venus -117861-06-01 16:48 J -41327155.02 -41327154.80 -41327154.57 0.0089 0.0005
 Earth -117860-01-11 11:17 J -41326931.29 -41326931.03 -41326930.76 0.0089 0.0006
 Moon -117860-01-11 14:39 J -41326931.14 -41326930.89 -41326930.63 0.0089 0.0010 *
 Venus -117860-01-13 07:12 J -41326929.43 -41326929.20 -41326928.97 0.0089 0.0001
 Venus -117860-08-26 21:22 J -41326703.83 -41326703.61 -41326703.38 0.0089 0.0008
 Mars -117860-10-17 15:22 J -41326651.96 -41326651.86 -41326651.73 0.0089 0.0082
 Moon -117859-01-13 21:22 J -41326563.84 -41326563.61 -41326563.35 0.0089 0.0032
 Earth -117859-01-14 00:58 J -41326563.69 -41326563.46 -41326563.21 0.0089 0.0036 *

Venus -117859-04-09 11:32 J -41326478.24 -41326478.02 -41326477.79 0.0089 0.0014
 Venus -117859-11-21 01:41 J -41326252.64 -41326252.43 -41326252.20 0.0089 0.0021
 Earth -117858-01-16 14:10 J -41326196.07 -41326195.91 -41326195.71 0.0089 0.0065
 Moon -117858-01-16 17:32 J -41326195.90 -41326195.77 -41326195.58 0.0089 0.0070 *
 Venus -117858-07-04 15:51 J -41326027.05 -41326026.84 -41326026.62 0.0089 0.0027
 Mars -117858-09-12 04:34 J -41325957.36 -41325957.31 -41325957.20 0.0089 0.0086
 Venus -117857-02-15 05:46 J -41325801.45 -41325801.26 -41325801.03 0.0089 0.0034
 Venus -117857-09-27 19:56 J -41325575.86 -41325575.67 -41325575.45 0.0089 0.0040
 Venus -117856-05-11 10:05 J -41325350.26 -41325350.08 -41325349.88 0.0089 0.0046
 Venus -117856-12-23 00:15 J -41325124.67 -41325124.49 -41325124.30 0.0089 0.0052
 Venus -117855-08-05 13:56 J -41324899.07 -41324898.92 -41324898.74 0.0089 0.0059
 Venus -117854-03-19 03:51 J -41324673.48 -41324673.34 -41324673.17 0.0089 0.0065
 Venus -117854-10-30 18:00 J -41324447.87 -41324447.75 -41324447.60 0.0089 0.0071
 Venus -117853-06-12 07:56 J -41324222.27 -41324222.17 -41324222.05 0.0089 0.0077
 Venus -117852-01-23 21:51 J -41323996.66 -41323996.59 -41323996.50 0.0089 0.0083
 Mercury -117836-09-16 06:15 J -41317917.26 -41317917.24 -41317917.19 0.0088 0.0085
 Mercury -117836-12-13 08:10 J -41317829.22 -41317829.16 -41317829.11 0.0088 0.0081
 Mercury -117835-03-11 09:36 J -41317741.16 -41317741.10 -41317741.03 0.0088 0.0076
 Mercury -117835-06-07 11:03 J -41317653.11 -41317653.04 -41317652.95 0.0088 0.0072
 Mercury -117835-09-03 12:44 J -41317565.05 -41317564.97 -41317564.88 0.0088 0.0068
 Mercury -117835-11-30 14:10 J -41317477.00 -41317476.91 -41317476.81 0.0088 0.0064
 Mercury -117834-02-26 15:36 J -41317388.94 -41317388.85 -41317388.73 0.0088 0.0060
 Mercury -117834-05-25 17:32 J -41317300.88 -41317300.77 -41317300.66 0.0088 0.0055
 Mercury -117834-08-21 18:58 J -41317212.82 -41317212.71 -41317212.59 0.0088 0.0050
 Mercury -117834-11-17 20:24 J -41317124.76 -41317124.65 -41317124.53 0.0088 0.0046
 Mercury -117833-02-13 21:51 J -41317036.70 -41317036.59 -41317036.46 0.0088 0.0042
 Mercury -117833-05-11 23:32 J -41316948.64 -41316948.52 -41316948.39 0.0088 0.0038
 Mercury -117833-08-08 00:58 J -41316860.58 -41316860.46 -41316860.33 0.0088 0.0033
 Mercury -117833-11-04 02:24 J -41316772.52 -41316772.40 -41316772.26 0.0088 0.0029
 Mercury -117832-01-31 04:05 J -41316684.46 -41316684.33 -41316684.20 0.0088 0.0025

Mercury -117832-04-29 05:32 J -41316596.40 -41316596.27 -41316596.13 0.0088 0.0021
 Mercury -117832-07-26 06:58 J -41316508.34 -41316508.21 -41316508.07 0.0088 0.0016
 Mercury -117832-10-22 08:24 J -41316420.28 -41316420.15 -41316420.01 0.0088 0.0013
 Mercury -117831-01-18 10:05 J -41316332.22 -41316332.08 -41316331.95 0.0088 0.0008
 Mercury -117831-04-16 11:32 J -41316244.16 -41316244.02 -41316243.88 0.0088 0.0004
 Mars -117831-05-03 11:17 J -41316227.04 -41316227.03 -41316226.94 0.0088 0.0088
 Mercury -117831-07-13 12:58 J -41316156.10 -41316155.96 -41316155.82 0.0088 0.0001
 Mercury -117831-10-09 14:24 J -41316068.04 -41316067.90 -41316067.76 0.0088 0.0005
 Mercury -117830-01-05 15:51 J -41315979.97 -41315979.84 -41315979.70 0.0088 0.0009
 Mercury -117830-04-03 17:17 J -41315891.91 -41315891.78 -41315891.64 0.0088 0.0013
 Mercury -117830-06-30 18:44 J -41315803.85 -41315803.72 -41315803.58 0.0088 0.0017
 Mercury -117830-09-26 20:10 J -41315715.79 -41315715.66 -41315715.52 0.0088 0.0022
 Mercury -117830-12-23 21:51 J -41315627.73 -41315627.59 -41315627.46 0.0088 0.0026
 Mercury -117829-03-20 23:03 J -41315539.66 -41315539.54 -41315539.41 0.0088 0.0030
 Mars -117829-03-28 22:48 J -41315531.63 -41315531.55 -41315531.42 0.0088 0.0084
 Mercury -117829-06-17 00:29 J -41315451.60 -41315451.48 -41315451.35 0.0088 0.0034
 Mercury -117829-09-13 01:56 J -41315363.54 -41315363.42 -41315363.29 0.0088 0.0038
 Mercury -117829-12-10 03:22 J -41315275.47 -41315275.36 -41315275.23 0.0088 0.0042
 Mercury -117828-03-08 04:48 J -41315187.41 -41315187.30 -41315187.18 0.0088 0.0046
 Mercury -117828-06-04 06:15 J -41315099.35 -41315099.24 -41315099.12 0.0088 0.0050
 Mercury -117828-08-31 07:41 J -41315011.28 -41315011.18 -41315011.07 0.0088 0.0054
 Mercury -117828-11-27 09:08 J -41314923.22 -41314923.12 -41314923.02 0.0088 0.0059
 Mars -117827-02-22 11:03 J -41314836.15 -41314836.04 -41314835.86 0.0088 0.0080
 Mercury -117827-02-23 10:34 J -41314835.15 -41314835.06 -41314834.96 0.0088 0.0063
 Mercury -117827-05-22 12:00 J -41314747.09 -41314747.00 -41314746.91 0.0088 0.0067
 Mercury -117827-08-18 13:27 J -41314659.02 -41314658.94 -41314658.86 0.0088 0.0071
 Mercury -117827-11-14 14:53 J -41314570.95 -41314570.88 -41314570.81 0.0088 0.0075
 Mercury -117826-02-10 16:20 J -41314482.88 -41314482.82 -41314482.76 0.0088 0.0079
 Mercury -117826-05-09 17:17 J -41314394.81 -41314394.78 -41314394.72 0.0088 0.0083
 Mercury -117826-08-05 18:58 J -41314306.73 -41314306.71 -41314306.69 0.0088 0.0087

Mars	-117825-01-19 01:12 J	-41314140.59	-41314140.45	-41314140.24	0.0088	0.0075
Mars	-117824-12-14 16:34 J	-41313444.98	-41313444.81	-41313444.57	0.0088	0.0069
Mars	-117822-11-10 08:53 J	-41312749.33	-41312749.13	-41312748.87	0.0088	0.0064
Mars	-117820-10-06 02:10 J	-41312053.63	-41312053.41	-41312053.13	0.0088	0.0058
Mars	-117818-09-01 19:56 J	-41311357.91	-41311357.67	-41311357.37	0.0088	0.0052
Mars	-117816-07-28 14:53 J	-41310662.15	-41310661.88	-41310661.57	0.0088	0.0045
Mars	-117814-06-24 10:34 J	-41309966.35	-41309966.06	-41309965.75	0.0088	0.0038
Mars	-117812-05-20 06:29 J	-41309270.53	-41309270.23	-41309269.91	0.0088	0.0030
Mars	-117810-04-16 02:24 J	-41308574.71	-41308574.40	-41308574.06	0.0088	0.0023
Mars	-117808-03-11 22:48 J	-41307878.87	-41307878.55	-41307878.21	0.0088	0.0016
Mars	-117806-02-05 18:58 J	-41307183.04	-41307182.71	-41307182.37	0.0088	0.0008
Mars	-117804-01-01 15:08 J	-41306487.21	-41306486.87	-41306486.54	0.0088	0.0001
Mars	-117803-11-28 11:03 J	-41305791.37	-41305791.04	-41305790.70	0.0088	0.0007
Mars	-117801-10-24 06:44 J	-41305095.55	-41305095.22	-41305094.89	0.0088	0.0015
Mars	-117799-09-20 01:41 J	-41304399.74	-41304399.43	-41304399.09	0.0088	0.0022
Mars	-117797-08-15 20:24 J	-41303703.95	-41303703.65	-41303703.32	0.0088	0.0030
Mars	-117795-07-12 13:56 J	-41303008.21	-41303007.92	-41303007.60	0.0088	0.0037
Mars	-117793-06-07 06:15 J	-41302312.51	-41302312.24	-41302311.93	0.0088	0.0043
Mars	-117791-05-03 22:20 J	-41301616.83	-41301616.57	-41301616.28	0.0088	0.0050
Mars	-117789-03-29 13:12 J	-41300921.17	-41300920.95	-41300920.66	0.0088	0.0057
Mars	-117787-02-23 03:22 J	-41300225.56	-41300225.36	-41300225.09	0.0088	0.0063
Venus	-117787-07-05 12:29 J	-41300093.01	-41300092.98	-41300092.90	0.0088	0.0086
Venus	-117786-02-16 00:15 J	-41299867.57	-41299867.49	-41299867.39	0.0088	0.0080
Venus	-117786-09-29 11:32 J	-41299642.11	-41299642.02	-41299641.88	0.0088	0.0075
Mars	-117785-01-19 16:48 J	-41299529.99	-41299529.80	-41299529.57	0.0088	0.0068
Venus	-117785-05-11 23:17 J	-41299416.65	-41299416.53	-41299416.38	0.0088	0.0069
Venus	-117785-12-23 11:03 J	-41299191.18	-41299191.04	-41299190.88	0.0088	0.0063
Venus	-117784-08-05 22:34 J	-41298965.72	-41298965.56	-41298965.39	0.0088	0.0057
Mars	-117784-12-15 04:34 J	-41298834.47	-41298834.31	-41298834.10	0.0088	0.0073
Venus	-117783-03-19 09:51 J	-41298740.24	-41298740.09	-41298739.90	0.0088	0.0052

Venus -117783-10-30 21:22 J -41298514.77 -41298514.61 -41298514.41 0.0088 0.0046
 Venus -117782-06-13 09:08 J -41298289.30 -41298289.12 -41298288.92 0.0088 0.0040
 Mars -117782-11-10 14:10 J -41298139.03 -41298138.91 -41298138.72 0.0088 0.0078
 Venus -117781-01-24 20:39 J -41298063.82 -41298063.64 -41298063.43 0.0088 0.0034
 Earth -117781-06-27 02:53 J -41297909.42 -41297909.38 -41297909.28 0.0088 0.0085
 Moon -117781-06-27 03:51 J -41297909.42 -41297909.34 -41297909.21 0.0088 0.0081 *
 Venus -117781-09-06 08:24 J -41297838.35 -41297838.15 -41297837.94 0.0088 0.0028
 Venus -117780-04-19 20:10 J -41297612.86 -41297612.66 -41297612.45 0.0088 0.0022
 Earth -117780-06-29 12:00 J -41297542.18 -41297542.00 -41297541.80 0.0088 0.0057
 Moon -117780-06-29 12:00 J -41297542.16 -41297542.00 -41297541.81 0.0088 0.0061 *
 Mars -117780-10-05 22:34 J -41297443.65 -41297443.56 -41297443.40 0.0088 0.0082
 Venus -117780-12-01 07:56 J -41297387.38 -41297387.17 -41297386.96 0.0088 0.0016
 Moon -117779-07-01 19:41 J -41297174.92 -41297174.68 -41297174.42 0.0088 0.0025
 Earth -117779-07-01 20:53 J -41297174.85 -41297174.63 -41297174.38 0.0088 0.0030 *
 Venus -117779-07-14 19:27 J -41297161.90 -41297161.69 -41297161.48 0.0088 0.0010
 Venus -117778-02-25 07:12 J -41296936.42 -41296936.20 -41296935.99 0.0088 0.0004
 Earth -117778-07-04 06:15 J -41296807.49 -41296807.24 -41296806.98 0.0089 0.0002
 Moon -117778-07-04 09:08 J -41296807.37 -41296807.12 -41296806.87 0.0089 0.0005 *
 Mars -117778-09-01 06:00 J -41296748.29 -41296748.25 -41296748.12 0.0089 0.0086
 Venus -117778-10-08 18:58 J -41296710.93 -41296710.71 -41296710.50 0.0089 0.0003
 Venus -117777-05-21 06:44 J -41296485.43 -41296485.22 -41296485.01 0.0089 0.0008
 Moon -117777-07-05 12:15 J -41296440.23 -41296439.99 -41296439.75 0.0089 0.0031
 Earth -117777-07-05 15:36 J -41296440.09 -41296439.85 -41296439.61 0.0089 0.0027 *
 Venus -117776-01-01 18:29 J -41296259.94 -41296259.73 -41296259.52 0.0089 0.0014
 Earth -117776-07-08 00:29 J -41296072.66 -41296072.48 -41296072.26 0.0089 0.0056
 Moon -117776-07-08 04:20 J -41296072.52 -41296072.32 -41296072.10 0.0089 0.0051 *
 Mars -117776-07-27 12:15 J -41296052.99 -41296052.99 -41296052.96 0.0089 0.0088
 Venus -117776-08-15 06:15 J -41296034.45 -41296034.24 -41296034.03 0.0089 0.0020
 Venus -117775-03-28 18:00 J -41295808.95 -41295808.75 -41295808.54 0.0089 0.0027
 Moon -117775-07-10 06:58 J -41295705.22 -41295705.21 -41295705.15 0.0089 0.0088

Earth -117775-07-10 10:05 J -41295705.14 -41295705.08 -41295704.97 0.0089 0.0084
 Venus -117775-11-09 05:46 J -41295583.45 -41295583.26 -41295583.05 0.0089 0.0033
 Venus -117774-06-22 17:46 J -41295357.94 -41295357.76 -41295357.56 0.0089 0.0039
 Venus -117773-02-03 05:46 J -41295132.44 -41295132.26 -41295132.07 0.0089 0.0045
 Venus -117773-09-15 17:46 J -41294906.93 -41294906.76 -41294906.58 0.0089 0.0051
 Venus -117772-04-29 05:46 J -41294681.41 -41294681.26 -41294681.08 0.0089 0.0057
 Venus -117772-12-10 17:46 J -41294455.90 -41294455.76 -41294455.60 0.0089 0.0063
 Venus -117771-07-24 05:32 J -41294230.38 -41294230.27 -41294230.11 0.0089 0.0069
 Venus -117770-03-06 17:32 J -41294004.86 -41294004.77 -41294004.63 0.0089 0.0075
 Venus -117770-10-18 05:32 J -41293779.33 -41293779.27 -41293779.15 0.0089 0.0081
 Venus -117769-05-30 18:29 J -41293553.78 -41293553.73 -41293553.68 0.0089 0.0086
 Mars -117753-05-25 09:36 J -41287715.13 -41287715.10 -41287715.02 0.0089 0.0087
 Mercury -117752-05-19 20:39 J -41287355.64 -41287355.64 -41287355.61 0.0089 0.0089
 Mercury -117752-08-15 23:46 J -41287267.56 -41287267.51 -41287267.44 0.0089 0.0083
 Mercury -117752-11-12 02:53 J -41287179.45 -41287179.38 -41287179.28 0.0089 0.0078
 Mercury -117751-02-08 06:15 J -41287091.34 -41287091.24 -41287091.13 0.0089 0.0072
 Mars -117751-04-19 19:56 J -41287020.74 -41287020.67 -41287020.54 0.0089 0.0084
 Mercury -117751-05-07 09:08 J -41287003.23 -41287003.12 -41287002.99 0.0089 0.0067
 Mercury -117751-08-03 12:29 J -41286915.11 -41286914.98 -41286914.84 0.0089 0.0061
 Mercury -117751-10-30 15:22 J -41286826.99 -41286826.86 -41286826.70 0.0089 0.0056
 Mercury -117750-01-26 18:44 J -41286738.86 -41286738.72 -41286738.56 0.0089 0.0050
 Mercury -117750-04-24 22:05 J -41286650.74 -41286650.58 -41286650.42 0.0089 0.0044
 Mercury -117750-07-22 00:58 J -41286562.61 -41286562.46 -41286562.28 0.0089 0.0039
 Mercury -117750-10-18 04:20 J -41286474.48 -41286474.32 -41286474.14 0.0089 0.0033
 Mercury -117749-01-14 07:41 J -41286386.36 -41286386.18 -41286386.01 0.0089 0.0027
 Mars -117749-03-14 04:48 J -41286326.40 -41286326.30 -41286326.14 0.0089 0.0080
 Mercury -117749-04-11 10:48 J -41286298.23 -41286298.05 -41286297.87 0.0089 0.0022
 Mercury -117749-07-08 14:10 J -41286210.09 -41286209.91 -41286209.73 0.0089 0.0016
 Mercury -117749-10-04 17:17 J -41286121.96 -41286121.78 -41286121.59 0.0089 0.0010
 Mercury -117749-12-31 20:39 J -41286033.83 -41286033.64 -41286033.46 0.0089 0.0004

Mercury -117748-03-29 23:46 J -41285945.69 -41285945.51 -41285945.32 0.0089 0.0003

Mercury -117748-06-26 03:08 J -41285857.55 -41285857.37 -41285857.18 0.0089 0.0007

Mercury -117748-09-22 06:29 J -41285769.41 -41285769.23 -41285769.05 0.0089 0.0013

Mercury -117748-12-19 09:36 J -41285681.27 -41285681.10 -41285680.91 0.0089 0.0019

Mars -117747-02-06 13:27 J -41285632.07 -41285631.94 -41285631.76 0.0089 0.0076

Mercury -117747-03-17 12:58 J -41285593.13 -41285592.96 -41285592.78 0.0089 0.0025

Mercury -117747-06-13 16:05 J -41285504.99 -41285504.83 -41285504.64 0.0089 0.0031

Mercury -117747-09-09 19:41 J -41285416.85 -41285416.68 -41285416.51 0.0089 0.0036

Mercury -117747-12-06 23:03 J -41285328.70 -41285328.54 -41285328.37 0.0089 0.0042

Mercury -117746-03-05 02:10 J -41285240.56 -41285240.41 -41285240.24 0.0089 0.0048

Mercury -117746-06-01 05:32 J -41285152.41 -41285152.27 -41285152.11 0.0089 0.0054

Mercury -117746-08-28 08:53 J -41285064.26 -41285064.13 -41285063.98 0.0089 0.0060

Mercury -117746-11-24 12:15 J -41284976.10 -41284975.99 -41284975.85 0.0089 0.0066

Mars -117745-01-01 21:08 J -41284937.79 -41284937.62 -41284937.44 0.0089 0.0071

Mercury -117745-02-20 15:36 J -41284887.95 -41284887.85 -41284887.73 0.0089 0.0072

Mercury -117745-05-18 18:58 J -41284799.78 -41284799.71 -41284799.61 0.0089 0.0078

Mercury -117745-08-14 22:05 J -41284711.61 -41284711.58 -41284711.49 0.0089 0.0084

Mars -117744-11-26 02:53 J -41284243.58 -41284243.38 -41284243.19 0.0089 0.0066

Mars -117742-10-21 07:56 J -41283549.38 -41283549.17 -41283548.95 0.0089 0.0061

Mars -117740-09-14 12:58 J -41282855.17 -41282854.96 -41282854.71 0.0089 0.0056

Mars -117738-08-09 16:48 J -41282161.03 -41282160.80 -41282160.54 0.0089 0.0050

Mars -117736-07-03 19:56 J -41281466.92 -41281466.67 -41281466.41 0.0089 0.0044

Jupiter -117735-03-14 04:05 J -41281213.87 -41281213.33 -41281212.77 0.0089 0.0016

Mars -117734-05-28 22:34 J -41280772.82 -41280772.56 -41280772.28 0.0089 0.0038

Mars -117732-04-22 00:00 J -41280078.76 -41280078.50 -41280078.20 0.0089 0.0032

Mars -117730-03-17 01:12 J -41279384.73 -41279384.45 -41279384.16 0.0089 0.0025

Mars -117728-02-08 02:53 J -41278690.66 -41278690.38 -41278690.08 0.0089 0.0019

Mars -117726-01-03 04:05 J -41277996.62 -41277996.33 -41277996.03 0.0089 0.0012

Mars -117725-11-27 04:48 J -41277302.59 -41277302.30 -41277302.00 0.0089 0.0005

Mars -117723-10-22 06:44 J -41276608.52 -41276608.22 -41276607.93 0.0089 0.0002

Mars	-117721-09-15 08:24 J	-41275914.44	-41275914.15	-41275913.85	0.0089	0.0008
Mars	-117719-08-10 09:08 J	-41275220.41	-41275220.12	-41275219.82	0.0089	0.0015
Mars	-117717-07-04 10:34 J	-41274526.34	-41274526.06	-41274525.76	0.0089	0.0022
Mars	-117715-05-29 13:12 J	-41273832.22	-41273831.95	-41273831.65	0.0089	0.0028
Mars	-117713-04-22 15:08 J	-41273138.13	-41273137.87	-41273137.58	0.0089	0.0035
Mars	-117711-03-17 18:00 J	-41272444.00	-41272443.75	-41272443.47	0.0089	0.0041
Mars	-117709-02-09 22:20 J	-41271749.80	-41271749.57	-41271749.30	0.0089	0.0047
Mars	-117707-01-04 03:36 J	-41271055.58	-41271055.35	-41271055.09	0.0089	0.0053
Mars	-117706-11-29 08:24 J	-41270361.34	-41270361.15	-41270360.89	0.0089	0.0059
Venus	-117705-08-23 01:27 J	-41270093.44	-41270093.44	-41270093.42	0.0089	0.0089
Venus	-117704-04-05 15:51 J	-41269867.90	-41269867.84	-41269867.73	0.0089	0.0083
Mars	-117704-10-23 15:36 J	-41269667.03	-41269666.85	-41269666.61	0.0089	0.0064
Venus	-117704-11-17 06:58 J	-41269642.32	-41269642.21	-41269642.09	0.0089	0.0076
Venus	-117703-06-30 21:08 J	-41269416.74	-41269416.62	-41269416.46	0.0089	0.0070
Venus	-117702-02-11 11:32 J	-41269191.15	-41269191.02	-41269190.84	0.0089	0.0064
Mars	-117702-09-17 22:48 J	-41268972.71	-41268972.55	-41268972.33	0.0089	0.0069
Venus	-117702-09-25 02:39 J	-41268965.56	-41268965.39	-41268965.21	0.0089	0.0057
Venus	-117701-05-07 17:03 J	-41268739.97	-41268739.79	-41268739.59	0.0089	0.0051
Venus	-117701-12-19 07:27 J	-41268514.37	-41268514.19	-41268513.98	0.0089	0.0045
Venus	-117700-08-01 22:05 J	-41268288.78	-41268288.58	-41268288.37	0.0089	0.0038
Mars	-117700-08-12 06:15 J	-41268278.37	-41268278.24	-41268278.03	0.0089	0.0074
Venus	-117699-03-15 12:15 J	-41268063.18	-41268062.99	-41268062.76	0.0089	0.0032
Venus	-117699-10-27 03:08 J	-41267837.58	-41267837.37	-41267837.14	0.0089	0.0025
Moon	-117698-01-06 04:34 J	-41267766.48	-41267766.31	-41267766.12	0.0089	0.0065
Earth	-117698-01-06 08:24 J	-41267766.31	-41267766.15	-41267765.98	0.0089	0.0069 *
Venus	-117698-06-09 17:32 J	-41267611.98	-41267611.77	-41267611.54	0.0089	0.0019
Mars	-117698-07-07 15:51 J	-41267583.95	-41267583.84	-41267583.66	0.0089	0.0078
Earth	-117697-01-08 22:20 J	-41267398.79	-41267398.57	-41267398.31	0.0089	0.0040
Moon	-117697-01-09 01:56 J	-41267398.63	-41267398.42	-41267398.17	0.0089	0.0043 *
Venus	-117697-01-21 08:10 J	-41267386.39	-41267386.16	-41267385.94	0.0089	0.0012

Venus -117697-09-02 22:20 J -41267160.79 -41267160.57 -41267160.34 0.0089 0.0006
 Moon -117696-01-10 09:36 J -41267031.36 -41267031.10 -41267030.84 0.0089 0.0007
 Earth -117696-01-10 12:58 J -41267031.22 -41267030.96 -41267030.69 0.0089 0.0010 *
 Venus -117696-04-16 12:58 J -41266935.19 -41266934.96 -41266934.74 0.0089 0.0002
 Mars -117696-06-01 03:08 J -41266889.46 -41266889.37 -41266889.23 0.0089 0.0082
 Venus -117696-11-28 03:08 J -41266709.59 -41266709.37 -41266709.14 0.0089 0.0008
 Earth -117695-01-13 02:53 J -41266663.63 -41266663.38 -41266663.12 0.0089 0.0020
 Moon -117695-01-13 05:32 J -41266663.52 -41266663.27 -41266662.99 0.0089 0.0017 *
 Venus -117695-07-11 17:32 J -41266483.99 -41266483.77 -41266483.55 0.0089 0.0014
 Moon -117694-01-15 14:53 J -41266296.07 -41266295.88 -41266295.66 0.0089 0.0052
 Earth -117694-01-15 16:20 J -41266296.02 -41266295.82 -41266295.58 0.0089 0.0050 *
 Venus -117694-02-22 07:41 J -41266258.40 -41266258.18 -41266257.96 0.0089 0.0020
 Mars -117694-04-26 14:10 J -41266194.95 -41266194.91 -41266194.79 0.0089 0.0086
 Venus -117694-10-05 21:51 J -41266032.80 -41266032.59 -41266032.36 0.0089 0.0027
 Earth -117693-01-18 05:32 J -41265928.36 -41265928.27 -41265928.12 0.0089 0.0079
 Moon -117693-01-18 06:29 J -41265928.33 -41265928.23 -41265928.06 0.0089 0.0077 *
 Venus -117693-05-18 12:00 J -41265807.20 -41265807.00 -41265806.78 0.0089 0.0033
 Venus -117693-12-30 01:56 J -41265581.60 -41265581.42 -41265581.20 0.0089 0.0040
 Mars -117692-03-21 03:51 J -41265500.34 -41265500.34 -41265500.29 0.0089 0.0089
 Venus -117692-08-12 16:05 J -41265356.01 -41265355.83 -41265355.62 0.0089 0.0046
 Venus -117691-03-26 06:00 J -41265130.42 -41265130.25 -41265130.05 0.0089 0.0052
 Venus -117691-11-06 20:24 J -41264904.81 -41264904.65 -41264904.48 0.0089 0.0058
 Venus -117690-06-20 10:20 J -41264679.22 -41264679.07 -41264678.91 0.0089 0.0064
 Venus -117689-01-31 23:46 J -41264453.62 -41264453.51 -41264453.35 0.0089 0.0071
 Venus -117689-09-13 13:41 J -41264228.02 -41264227.93 -41264227.79 0.0089 0.0077
 Venus -117688-04-27 03:36 J -41264002.41 -41264002.35 -41264002.25 0.0089 0.0083
 Venus -117688-12-08 17:46 J -41263776.76 -41263776.76 -41263776.73 0.0089 0.0088
 Mercury -117671-06-13 05:03 J -41257746.32 -41257746.29 -41257746.25 0.0088 0.0085
 Mercury -117671-09-09 06:29 J -41257658.28 -41257658.23 -41257658.17 0.0088 0.0081
 Mercury -117671-12-06 07:56 J -41257570.22 -41257570.17 -41257570.09 0.0088 0.0077

Mercury -117670-03-04 09:51 J -41257482.17 -41257482.09 -41257482.01 0.0088 0.0072
 Mercury -117670-05-31 11:17 J -41257394.11 -41257394.03 -41257393.94 0.0088 0.0067
 Mercury -117670-08-27 12:44 J -41257306.06 -41257305.97 -41257305.86 0.0088 0.0063
 Mercury -117670-11-23 14:24 J -41257218.00 -41257217.90 -41257217.79 0.0088 0.0059
 Mars -117669-01-19 17:32 J -41257160.78 -41257160.77 -41257160.68 0.0088 0.0088
 Mercury -117669-02-19 15:51 J -41257129.94 -41257129.84 -41257129.72 0.0088 0.0055
 Mercury -117669-05-17 17:17 J -41257041.88 -41257041.78 -41257041.65 0.0088 0.0051
 Mercury -117669-08-13 19:12 J -41256953.82 -41256953.70 -41256953.58 0.0088 0.0046
 Mercury -117669-11-09 20:39 J -41256865.76 -41256865.64 -41256865.51 0.0088 0.0041
 Mercury -117668-02-05 22:05 J -41256777.70 -41256777.58 -41256777.45 0.0088 0.0037
 Mercury -117668-05-04 23:46 J -41256689.64 -41256689.51 -41256689.38 0.0088 0.0033
 Mercury -117668-08-01 01:12 J -41256601.58 -41256601.45 -41256601.32 0.0088 0.0029
 Mercury -117668-10-28 02:39 J -41256513.52 -41256513.39 -41256513.25 0.0088 0.0024
 Mars -117668-12-15 02:53 J -41256465.46 -41256465.38 -41256465.26 0.0088 0.0084
 Mercury -117667-01-24 04:05 J -41256425.46 -41256425.33 -41256425.19 0.0088 0.0021
 Mercury -117667-04-22 05:46 J -41256337.40 -41256337.26 -41256337.12 0.0088 0.0016
 Mercury -117667-07-19 07:12 J -41256249.34 -41256249.20 -41256249.06 0.0088 0.0012
 Mercury -117667-10-15 08:39 J -41256161.27 -41256161.14 -41256161.00 0.0088 0.0008
 Mercury -117666-01-11 10:20 J -41256073.21 -41256073.07 -41256072.94 0.0088 0.0004
 Mercury -117666-04-09 11:46 J -41255985.15 -41255985.01 -41255984.87 0.0088 0.0002
 Mercury -117666-07-06 13:12 J -41255897.09 -41255896.95 -41255896.81 0.0088 0.0005
 Mercury -117666-10-02 14:39 J -41255809.03 -41255808.89 -41255808.75 0.0088 0.0010
 Mars -117666-11-10 13:27 J -41255770.06 -41255769.94 -41255769.78 0.0088 0.0080
 Mercury -117666-12-29 16:05 J -41255720.96 -41255720.83 -41255720.69 0.0088 0.0014
 Mercury -117665-03-26 17:32 J -41255632.90 -41255632.77 -41255632.63 0.0088 0.0018
 Mercury -117665-06-22 18:58 J -41255544.84 -41255544.71 -41255544.57 0.0088 0.0022
 Mercury -117665-09-18 20:24 J -41255456.78 -41255456.65 -41255456.52 0.0088 0.0026
 Mercury -117665-12-15 21:51 J -41255368.71 -41255368.59 -41255368.46 0.0088 0.0030
 Mercury -117664-03-13 23:17 J -41255280.65 -41255280.53 -41255280.40 0.0088 0.0035
 Mercury -117664-06-10 00:44 J -41255192.59 -41255192.47 -41255192.34 0.0088 0.0039

Mercury -117664-09-06 02:10 J -41255104.53 -41255104.41 -41255104.29 0.0088 0.0043

Mars -117664-10-06 00:44 J -41255074.61 -41255074.47 -41255074.28 0.0088 0.0076

Mercury -117664-12-03 03:36 J -41255016.46 -41255016.35 -41255016.23 0.0088 0.0047

Mercury -117663-03-01 04:48 J -41254928.40 -41254928.30 -41254928.18 0.0088 0.0051

Mercury -117663-05-28 06:15 J -41254840.33 -41254840.24 -41254840.12 0.0088 0.0055

Mercury -117663-08-24 07:41 J -41254752.27 -41254752.18 -41254752.07 0.0088 0.0059

Mercury -117663-11-20 09:08 J -41254664.20 -41254664.12 -41254664.02 0.0088 0.0063

Mercury -117662-02-16 10:34 J -41254576.14 -41254576.06 -41254575.96 0.0088 0.0067

Mercury -117662-05-15 12:00 J -41254488.07 -41254488.00 -41254487.91 0.0088 0.0071

Mercury -117662-08-11 13:27 J -41254400.00 -41254399.94 -41254399.86 0.0088 0.0075

Mars -117662-09-01 13:41 J -41254379.11 -41254378.93 -41254378.72 0.0088 0.0071

Mercury -117662-11-07 14:39 J -41254311.93 -41254311.89 -41254311.82 0.0088 0.0080

Mercury -117661-02-03 16:05 J -41254223.86 -41254223.83 -41254223.77 0.0088 0.0084

Mercury -117661-05-01 17:32 J -41254135.77 -41254135.77 -41254135.74 0.0088 0.0088

Mars -117660-07-28 03:36 J -41253683.55 -41253683.35 -41253683.10 0.0088 0.0066

Mars -117658-06-23 19:56 J -41252987.91 -41252987.67 -41252987.42 0.0088 0.0060

Mars -117656-05-19 12:00 J -41252292.25 -41252292.00 -41252291.72 0.0088 0.0054

Mars -117654-04-15 05:03 J -41251596.55 -41251596.29 -41251595.99 0.0088 0.0047

Mars -117652-03-10 23:03 J -41250900.82 -41250900.54 -41250900.23 0.0088 0.0041

Mars -117650-02-04 17:03 J -41250205.07 -41250204.79 -41250204.46 0.0088 0.0035

Mars -117649-12-31 12:29 J -41249509.28 -41249508.98 -41249508.64 0.0088 0.0027

Mars -117647-11-27 08:53 J -41248813.45 -41248813.13 -41248812.80 0.0088 0.0020

Mars -117645-10-23 05:17 J -41248117.60 -41248117.28 -41248116.94 0.0088 0.0012

Mars -117643-09-19 02:10 J -41247421.75 -41247421.41 -41247421.08 0.0088 0.0005

Mars -117641-08-14 22:34 J -41246725.89 -41246725.56 -41246725.22 0.0088 0.0003

Mars -117639-07-11 18:29 J -41246030.05 -41246029.73 -41246029.39 0.0088 0.0011

Mars -117637-06-06 14:39 J -41245334.22 -41245333.89 -41245333.56 0.0088 0.0018

Mars -117635-05-03 09:51 J -41244638.39 -41244638.09 -41244637.75 0.0088 0.0026

Mars -117633-03-29 05:03 J -41243942.58 -41243942.29 -41243941.96 0.0088 0.0033

Mars -117631-02-23 00:00 J -41243246.77 -41243246.50 -41243246.18 0.0088 0.0039

Mars -117629-01-19 18:29 J -41242551.00 -41242550.73 -41242550.44 0.0088 0.0046
 Mars -117628-12-15 10:34 J -41241855.29 -41241855.06 -41241854.76 0.0088 0.0053
 Mars -117626-11-11 03:08 J -41241159.61 -41241159.37 -41241159.12 0.0088 0.0058
 Mars -117624-10-06 18:00 J -41240463.96 -41240463.75 -41240463.50 0.0088 0.0064
 Venus -117623-10-06 22:05 J -41240098.61 -41240098.58 -41240098.51 0.0088 0.0086
 Venus -117622-05-20 09:51 J -41239873.17 -41239873.09 -41239872.99 0.0088 0.0080
 Mars -117622-09-02 07:12 J -41239768.37 -41239768.20 -41239767.96 0.0088 0.0070
 Venus -117622-12-31 20:53 J -41239647.72 -41239647.63 -41239647.49 0.0088 0.0075
 Venus -117621-08-13 08:39 J -41239422.26 -41239422.14 -41239421.99 0.0088 0.0069
 Venus -117620-03-26 20:24 J -41239196.79 -41239196.65 -41239196.49 0.0088 0.0063
 Mars -117620-07-28 19:41 J -41239072.81 -41239072.68 -41239072.46 0.0088 0.0075
 Venus -117620-11-07 07:56 J -41238971.32 -41238971.17 -41238971.00 0.0088 0.0057
 Venus -117619-06-20 19:12 J -41238745.85 -41238745.70 -41238745.51 0.0088 0.0052
 Venus -117618-02-01 06:44 J -41238520.38 -41238520.22 -41238520.02 0.0088 0.0046
 Mars -117618-06-24 07:41 J -41238377.30 -41238377.18 -41238377.01 0.0088 0.0079
 Venus -117618-09-14 18:29 J -41238294.91 -41238294.73 -41238294.53 0.0088 0.0040
 Venus -117617-04-27 06:15 J -41238069.43 -41238069.24 -41238069.03 0.0088 0.0034
 Venus -117617-12-08 18:00 J -41237843.95 -41237843.75 -41237843.54 0.0088 0.0028
 Mars -117616-05-19 17:17 J -41237681.86 -41237681.78 -41237681.63 0.0088 0.0083
 Moon -117616-06-28 16:20 J -41237641.95 -41237641.82 -41237641.68 0.0088 0.0075
 Earth -117616-06-28 18:58 J -41237641.83 -41237641.71 -41237641.54 0.0088 0.0072 *
 Venus -117616-07-22 05:32 J -41237618.47 -41237618.27 -41237618.06 0.0088 0.0022
 Venus -117615-03-04 17:03 J -41237392.99 -41237392.79 -41237392.57 0.0088 0.0016
 Earth -117615-07-01 03:51 J -41237274.54 -41237274.34 -41237274.10 0.0088 0.0044
 Moon -117615-07-01 06:58 J -41237274.41 -41237274.21 -41237273.97 0.0088 0.0041 *
 Venus -117615-10-16 04:48 J -41237167.51 -41237167.30 -41237167.09 0.0089 0.0010
 Mars -117614-04-15 02:10 J -41236986.47 -41236986.41 -41236986.31 0.0089 0.0086
 Venus -117614-05-29 16:34 J -41236942.02 -41236941.81 -41236941.60 0.0089 0.0004
 Moon -117614-07-03 09:36 J -41236907.35 -41236907.10 -41236906.86 0.0089 0.0019
 Earth -117614-07-03 12:58 J -41236907.20 -41236906.96 -41236906.70 0.0089 0.0016 *

Venus -117613-01-10 04:20 J -41236716.54 -41236716.32 -41236716.11 0.0089 0.0003
 Earth -117613-07-04 22:05 J -41236539.82 -41236539.58 -41236539.32 0.0089 0.0013
 Moon -117613-07-05 00:58 J -41236539.70 -41236539.46 -41236539.20 0.0089 0.0017 *
 Venus -117613-08-22 15:51 J -41236491.05 -41236490.84 -41236490.62 0.0089 0.0008
 Venus -117612-04-05 03:36 J -41236265.56 -41236265.35 -41236265.13 0.0089 0.0014
 Moon -117612-07-07 05:03 J -41236172.51 -41236172.29 -41236172.06 0.0089 0.0038
 Earth -117612-07-07 07:12 J -41236172.41 -41236172.20 -41236171.96 0.0089 0.0041 *
 Venus -117612-11-16 15:22 J -41236040.06 -41236039.86 -41236039.65 0.0089 0.0020
 Venus -117611-06-30 02:53 J -41235814.57 -41235814.38 -41235814.16 0.0089 0.0027
 Earth -117611-07-09 16:34 J -41235804.95 -41235804.81 -41235804.64 0.0089 0.0069
 Moon -117611-07-09 18:00 J -41235804.89 -41235804.75 -41235804.59 0.0089 0.0072 *
 Venus -117610-02-10 14:39 J -41235589.07 -41235588.89 -41235588.67 0.0089 0.0033
 Venus -117610-09-24 02:39 J -41235363.57 -41235363.39 -41235363.19 0.0089 0.0039
 Venus -117609-05-06 14:39 J -41235138.06 -41235137.89 -41235137.69 0.0089 0.0045
 Venus -117609-12-18 02:39 J -41234912.55 -41234912.39 -41234912.20 0.0089 0.0051
 Venus -117608-07-31 14:24 J -41234687.04 -41234686.90 -41234686.71 0.0089 0.0057
 Venus -117607-03-14 02:24 J -41234461.53 -41234461.40 -41234461.23 0.0089 0.0063
 Venus -117607-10-25 14:24 J -41234236.01 -41234235.90 -41234235.74 0.0089 0.0069
 Venus -117606-06-08 03:08 J -41234010.48 -41234010.37 -41234010.25 0.0089 0.0074
 Venus -117605-01-19 15:08 J -41233784.95 -41233784.87 -41233784.77 0.0089 0.0080
 Venus -117605-09-01 02:53 J -41233559.41 -41233559.38 -41233559.31 0.0089 0.0086
 Mars -117591-02-12 10:34 J -41228647.07 -41228647.06 -41228646.99 0.0089 0.0088
 Mars -117589-01-07 22:34 J -41227952.61 -41227952.56 -41227952.43 0.0089 0.0085
 Mars -117588-12-02 11:03 J -41227258.16 -41227258.04 -41227257.92 0.0089 0.0081
 Mercury -117587-02-13 18:29 J -41227184.76 -41227184.73 -41227184.70 0.0089 0.0087
 Mercury -117587-05-12 21:22 J -41227096.67 -41227096.61 -41227096.53 0.0089 0.0082
 Mercury -117587-08-09 00:15 J -41227008.56 -41227008.49 -41227008.38 0.0089 0.0077
 Mercury -117587-11-05 03:36 J -41226920.45 -41226920.35 -41226920.24 0.0089 0.0071
 Mercury -117586-02-01 06:29 J -41226832.34 -41226832.23 -41226832.09 0.0089 0.0066
 Mercury -117586-04-30 09:51 J -41226744.22 -41226744.09 -41226743.95 0.0089 0.0060

Mercury -117586-07-27 12:44 J -41226656.10 -41226655.97 -41226655.81 0.0089 0.0055
 Mercury -117586-10-23 16:05 J -41226567.98 -41226567.83 -41226567.67 0.0089 0.0049
 Mars -117586-10-27 20:39 J -41226563.75 -41226563.64 -41226563.45 0.0089 0.0078
 Mercury -117585-01-19 19:27 J -41226479.85 -41226479.69 -41226479.53 0.0089 0.0043
 Mercury -117585-04-16 22:20 J -41226391.73 -41226391.57 -41226391.39 0.0089 0.0038
 Mercury -117585-07-14 01:41 J -41226303.60 -41226303.43 -41226303.26 0.0089 0.0032
 Mercury -117585-10-10 04:48 J -41226215.47 -41226215.30 -41226215.12 0.0089 0.0027
 Mercury -117584-01-06 07:56 J -41226127.34 -41226127.17 -41226126.98 0.0089 0.0021
 Mercury -117584-04-04 11:17 J -41226039.21 -41226039.03 -41226038.84 0.0089 0.0015
 Mercury -117584-07-01 14:24 J -41225951.08 -41225950.90 -41225950.71 0.0089 0.0010
 Mars -117584-09-21 05:46 J -41225869.42 -41225869.26 -41225869.08 0.0089 0.0073
 Mercury -117584-09-27 17:46 J -41225862.94 -41225862.76 -41225862.57 0.0089 0.0004
 Mercury -117584-12-24 21:08 J -41225774.81 -41225774.62 -41225774.44 0.0089 0.0002
 Mercury -117583-03-23 00:15 J -41225686.67 -41225686.49 -41225686.30 0.0089 0.0008
 Mercury -117583-06-19 03:36 J -41225598.53 -41225598.35 -41225598.17 0.0089 0.0014
 Mercury -117583-09-15 06:44 J -41225510.39 -41225510.22 -41225510.03 0.0089 0.0020
 Mercury -117583-12-12 10:20 J -41225422.25 -41225422.07 -41225421.90 0.0089 0.0025
 Mercury -117582-03-10 13:27 J -41225334.11 -41225333.94 -41225333.76 0.0089 0.0031
 Mercury -117582-06-06 16:34 J -41225245.97 -41225245.81 -41225245.63 0.0089 0.0037
 Mars -117582-08-16 13:56 J -41225175.08 -41225174.92 -41225174.70 0.0089 0.0069
 Mercury -117582-09-02 19:56 J -41225157.82 -41225157.67 -41225157.50 0.0089 0.0043
 Mercury -117582-11-29 23:17 J -41225069.68 -41225069.53 -41225069.36 0.0089 0.0049
 Mercury -117581-02-26 02:24 J -41224981.53 -41224981.40 -41224981.23 0.0089 0.0055
 Mercury -117581-05-24 05:46 J -41224893.38 -41224893.26 -41224893.10 0.0089 0.0061
 Mercury -117581-08-20 09:36 J -41224805.22 -41224805.10 -41224804.98 0.0089 0.0066
 Mercury -117581-11-16 12:58 J -41224717.07 -41224716.96 -41224716.85 0.0089 0.0072
 Mercury -117580-02-12 16:05 J -41224628.91 -41224628.83 -41224628.73 0.0089 0.0078
 Mercury -117580-05-11 19:27 J -41224540.73 -41224540.69 -41224540.62 0.0089 0.0084
 Mars -117580-07-10 21:36 J -41224480.78 -41224480.60 -41224480.36 0.0089 0.0064
 Mars -117578-06-05 03:51 J -41223786.56 -41223786.34 -41223786.11 0.0089 0.0058

Mars	-117576-04-29 07:56 J	-41223092.39	-41223092.17	-41223091.91	0.0089	0.0053
Mars	-117574-03-24 12:58 J	-41222398.20	-41222397.96	-41222397.69	0.0089	0.0047
Mars	-117572-02-15 16:20 J	-41221704.08	-41221703.82	-41221703.55	0.0089	0.0041
Mars	-117570-01-10 18:29 J	-41221009.99	-41221009.73	-41221009.44	0.0089	0.0035
Mars	-117569-12-04 21:08 J	-41220315.88	-41220315.62	-41220315.32	0.0089	0.0029
Mars	-117567-10-29 23:32 J	-41219621.79	-41219621.52	-41219621.22	0.0089	0.0022
Mars	-117565-09-23 01:12 J	-41218927.74	-41218927.45	-41218927.16	0.0089	0.0015
Mars	-117563-08-18 02:53 J	-41218233.67	-41218233.38	-41218233.08	0.0089	0.0009
Mars	-117561-07-12 04:20 J	-41217539.62	-41217539.32	-41217539.02	0.0089	0.0002
Mars	-117559-06-06 04:34 J	-41216845.61	-41216845.31	-41216845.01	0.0089	0.0004
Mars	-117557-04-30 05:17 J	-41216151.57	-41216151.28	-41216150.98	0.0089	0.0011
Mars	-117555-03-25 06:29 J	-41215457.50	-41215457.23	-41215456.92	0.0089	0.0018
Mars	-117553-02-17 07:41 J	-41214763.46	-41214763.18	-41214762.89	0.0089	0.0024
Mars	-117551-01-11 08:39 J	-41214069.40	-41214069.14	-41214068.84	0.0089	0.0031
Mars	-117550-12-06 11:46 J	-41213375.26	-41213375.01	-41213374.72	0.0089	0.0037
Mars	-117548-10-30 14:24 J	-41212681.14	-41212680.90	-41212680.62	0.0089	0.0043
Mars	-117546-09-24 17:03 J	-41211987.02	-41211986.79	-41211986.52	0.0089	0.0049
Mars	-117544-08-18 20:39 J	-41211292.85	-41211292.64	-41211292.37	0.0089	0.0055
Mars	-117542-07-14 01:41 J	-41210598.63	-41210598.43	-41210598.19	0.0089	0.0060
Venus	-117541-11-24 06:44 J	-41210099.22	-41210099.22	-41210099.21	0.0089	0.0089
Mars	-117540-06-07 06:29 J	-41209904.42	-41209904.23	-41209904.01	0.0089	0.0065
Venus	-117540-07-07 20:53 J	-41209873.69	-41209873.63	-41209873.53	0.0089	0.0083
Venus	-117539-02-18 11:17 J	-41209648.11	-41209648.03	-41209647.88	0.0089	0.0077
Venus	-117539-10-02 02:39 J	-41209422.52	-41209422.39	-41209422.25	0.0089	0.0070
Mars	-117538-05-02 12:44 J	-41209210.13	-41209209.97	-41209209.76	0.0089	0.0070
Venus	-117538-05-15 17:03 J	-41209196.93	-41209196.79	-41209196.62	0.0089	0.0064
Venus	-117538-12-27 07:27 J	-41208971.34	-41208971.19	-41208971.00	0.0089	0.0058
Venus	-117537-08-08 22:05 J	-41208745.75	-41208745.58	-41208745.38	0.0089	0.0051
Venus	-117536-03-22 12:29 J	-41208520.16	-41208519.98	-41208519.77	0.0089	0.0045
Mars	-117536-03-26 20:39 J	-41208515.79	-41208515.64	-41208515.46	0.0089	0.0074

Venus -117536-11-03 02:53 J -41208294.56 -41208294.38 -41208294.15 0.0089 0.0039
 Venus -117535-06-16 17:46 J -41208068.97 -41208068.76 -41208068.54 0.0089 0.0032
 Earth -117534-01-05 08:10 J -41207866.20 -41207866.16 -41207866.07 0.0089 0.0086
 Moon -117534-01-05 11:17 J -41207866.04 -41207866.03 -41207865.96 0.0089 0.0088
 Venus -117534-01-28 07:56 J -41207843.37 -41207843.17 -41207842.94 0.0089 0.0026
 Mars -117534-02-19 05:03 J -41207821.43 -41207821.29 -41207821.15 0.0089 0.0078
 Venus -117534-09-10 22:34 J -41207617.77 -41207617.56 -41207617.33 0.0089 0.0019
 Moon -117533-01-07 20:53 J -41207498.81 -41207498.63 -41207498.41 0.0089 0.0055
 Earth -117533-01-07 22:48 J -41207498.73 -41207498.55 -41207498.33 0.0089 0.0056 *
 Venus -117533-04-23 12:58 J -41207392.17 -41207391.96 -41207391.72 0.0089 0.0013
 Venus -117533-12-05 03:36 J -41207166.57 -41207166.35 -41207166.12 0.0089 0.0006
 Earth -117532-01-09 13:27 J -41207131.19 -41207130.94 -41207130.68 0.0089 0.0026
 Moon -117532-01-09 14:10 J -41207131.15 -41207130.91 -41207130.63 0.0089 0.0028 *
 Mars -117532-01-13 14:24 J -41207126.99 -41207126.90 -41207126.76 0.0089 0.0082
 Venus -117532-07-18 18:00 J -41206940.98 -41206940.75 -41206940.52 0.0089 0.0000
 Earth -117531-01-12 03:36 J -41206763.61 -41206763.35 -41206763.08 0.0089 0.0004
 Moon -117531-01-12 03:36 J -41206763.60 -41206763.35 -41206763.10 0.0089 0.0006 *
 Venus -117531-03-01 08:24 J -41206715.38 -41206715.15 -41206714.93 0.0089 0.0007
 Venus -117531-10-12 22:34 J -41206489.77 -41206489.56 -41206489.32 0.0089 0.0014
 Mars -117531-12-09 02:24 J -41206432.48 -41206432.40 -41206432.32 0.0089 0.0085
 Moon -117530-01-14 15:36 J -41206396.09 -41206395.85 -41206395.58 0.0089 0.0032
 Earth -117530-01-14 17:03 J -41206396.01 -41206395.79 -41206395.52 0.0089 0.0034 *
 Venus -117530-05-26 12:58 J -41206264.17 -41206263.96 -41206263.73 0.0089 0.0020
 Venus -117529-01-07 03:22 J -41206038.57 -41206038.36 -41206038.14 0.0089 0.0026
 Earth -117529-01-17 06:58 J -41206028.38 -41206028.21 -41206028.01 0.0089 0.0063
 Moon -117529-01-17 09:22 J -41206028.27 -41206028.11 -41206027.93 0.0089 0.0065 *
 Venus -117529-08-19 17:17 J -41205812.98 -41205812.78 -41205812.56 0.0089 0.0033
 Mars -117529-11-02 14:10 J -41205737.93 -41205737.91 -41205737.87 0.0089 0.0088
 Venus -117528-04-02 07:41 J -41205587.38 -41205587.18 -41205586.97 0.0089 0.0039
 Venus -117528-11-13 22:05 J -41205361.77 -41205361.58 -41205361.38 0.0089 0.0045

Venus -117527-06-27 11:46 J -41205136.17 -41205136.01 -41205135.81 0.0089 0.0052
 Venus -117526-02-08 01:56 J -41204910.58 -41204910.42 -41204910.24 0.0089 0.0058
 Venus -117526-09-21 15:51 J -41204684.98 -41204684.84 -41204684.67 0.0089 0.0064
 Venus -117525-05-04 06:00 J -41204459.38 -41204459.25 -41204459.10 0.0089 0.0070
 Venus -117525-12-15 19:56 J -41204233.77 -41204233.67 -41204233.54 0.0089 0.0076
 Venus -117524-07-29 09:51 J -41204008.16 -41204008.09 -41204008.00 0.0089 0.0082
 Venus -117523-03-11 23:32 J -41203782.53 -41203782.52 -41203782.48 0.0089 0.0088
 Mars -117508-10-07 02:39 J -41198094.40 -41198094.39 -41198094.31 0.0088 0.0088
 Mercury -117506-03-10 03:22 J -41197575.39 -41197575.36 -41197575.32 0.0088 0.0085
 Mercury -117506-06-06 04:48 J -41197487.34 -41197487.30 -41197487.23 0.0088 0.0081
 Mercury -117506-09-02 06:15 J -41197399.29 -41197399.24 -41197399.15 0.0088 0.0077
 Mars -117506-09-02 09:08 J -41197399.18 -41197399.12 -41197398.99 0.0088 0.0085 *
 Mercury -117506-11-29 08:10 J -41197311.24 -41197311.16 -41197311.08 0.0088 0.0072
 Mercury -117505-02-25 09:36 J -41197223.18 -41197223.10 -41197223.00 0.0088 0.0068
 Mercury -117505-05-23 11:03 J -41197135.12 -41197135.04 -41197134.93 0.0088 0.0064
 Mercury -117505-08-19 12:58 J -41197047.07 -41197046.96 -41197046.86 0.0088 0.0059
 Mercury -117505-11-15 14:24 J -41196959.01 -41196958.90 -41196958.79 0.0088 0.0054
 Mercury -117504-02-11 15:51 J -41196870.95 -41196870.84 -41196870.72 0.0088 0.0050
 Mercury -117504-05-10 17:32 J -41196782.89 -41196782.77 -41196782.65 0.0088 0.0046
 Mars -117504-07-28 17:17 J -41196703.89 -41196703.78 -41196703.63 0.0088 0.0081
 Mercury -117504-08-06 18:58 J -41196694.83 -41196694.71 -41196694.58 0.0088 0.0042
 Mercury -117504-11-02 20:24 J -41196606.77 -41196606.65 -41196606.51 0.0088 0.0038
 Mercury -117503-01-29 22:05 J -41196518.70 -41196518.58 -41196518.45 0.0088 0.0033
 Mercury -117503-04-27 23:46 J -41196430.64 -41196430.51 -41196430.38 0.0088 0.0029
 Mercury -117503-07-25 01:12 J -41196342.58 -41196342.45 -41196342.32 0.0088 0.0024
 Mercury -117503-10-21 02:39 J -41196254.52 -41196254.39 -41196254.25 0.0088 0.0020
 Mercury -117502-01-17 04:20 J -41196166.46 -41196166.32 -41196166.19 0.0088 0.0016
 Mercury -117502-04-15 05:46 J -41196078.40 -41196078.26 -41196078.12 0.0088 0.0011
 Mars -117502-06-24 02:10 J -41196008.55 -41196008.41 -41196008.22 0.0088 0.0077
 Mercury -117502-07-12 07:12 J -41195990.34 -41195990.20 -41195990.06 0.0088 0.0007

Mercury -117502-10-08 08:39 J -41195902.27 -41195902.14 -41195902.00 0.0088 0.0004
 Mercury -117501-01-04 10:05 J -41195814.21 -41195814.08 -41195813.94 0.0088 0.0004
 Mercury -117501-04-01 11:46 J -41195726.15 -41195726.01 -41195725.87 0.0088 0.0006
 Mercury -117501-06-28 13:12 J -41195638.09 -41195637.95 -41195637.81 0.0088 0.0010
 Mercury -117501-09-24 14:39 J -41195550.03 -41195549.89 -41195549.75 0.0088 0.0014
 Mercury -117501-12-21 16:05 J -41195461.96 -41195461.83 -41195461.69 0.0088 0.0018
 Mercury -117500-03-19 17:32 J -41195373.90 -41195373.77 -41195373.64 0.0088 0.0022
 Mars -117500-05-19 13:56 J -41195313.11 -41195312.92 -41195312.73 0.0088 0.0072
 Mercury -117500-06-15 18:58 J -41195285.84 -41195285.71 -41195285.58 0.0088 0.0026
 Mercury -117500-09-11 20:24 J -41195197.78 -41195197.65 -41195197.52 0.0088 0.0031
 Mercury -117500-12-08 21:51 J -41195109.71 -41195109.59 -41195109.46 0.0088 0.0035
 Mercury -117499-03-06 23:17 J -41195021.65 -41195021.53 -41195021.40 0.0088 0.0039
 Mercury -117499-06-03 00:29 J -41194933.59 -41194933.48 -41194933.35 0.0088 0.0044
 Mercury -117499-08-30 01:56 J -41194845.52 -41194845.42 -41194845.29 0.0088 0.0048
 Mercury -117499-11-26 03:22 J -41194757.46 -41194757.36 -41194757.24 0.0088 0.0052
 Mercury -117498-02-22 04:48 J -41194669.39 -41194669.30 -41194669.18 0.0088 0.0056
 Mars -117498-04-15 00:58 J -41194617.64 -41194617.46 -41194617.22 0.0088 0.0068
 Mercury -117498-05-21 06:15 J -41194581.33 -41194581.24 -41194581.13 0.0088 0.0060
 Mercury -117498-08-17 07:41 J -41194493.26 -41194493.18 -41194493.08 0.0088 0.0064
 Mercury -117498-11-13 09:08 J -41194405.20 -41194405.12 -41194405.02 0.0088 0.0068
 Mercury -117497-02-09 10:34 J -41194317.13 -41194317.06 -41194316.97 0.0088 0.0072
 Mercury -117497-05-07 12:00 J -41194229.06 -41194229.00 -41194228.92 0.0088 0.0075
 Mercury -117497-08-03 13:27 J -41194140.99 -41194140.94 -41194140.88 0.0088 0.0079
 Mercury -117497-10-30 14:53 J -41194052.92 -41194052.88 -41194052.83 0.0088 0.0083
 Mercury -117496-01-26 16:05 J -41193964.83 -41193964.83 -41193964.80 0.0088 0.0088
 Mars -117496-03-10 14:24 J -41193922.13 -41193921.90 -41193921.66 0.0088 0.0062
 Mars -117494-02-04 04:05 J -41193226.56 -41193226.33 -41193226.05 0.0088 0.0056
 Mars -117493-12-30 19:41 J -41192530.92 -41192530.68 -41192530.37 0.0088 0.0051
 Mars -117491-11-26 12:44 J -41191835.24 -41191834.97 -41191834.67 0.0088 0.0044
 Mars -117489-10-22 06:44 J -41191139.52 -41191139.22 -41191138.92 0.0088 0.0037

Mars	-117487-09-18 00:29 J	-41190443.77	-41190443.48	-41190443.15	0.0088	0.0030
Mars	-117485-08-13 19:27 J	-41189748.00	-41189747.69	-41189747.35	0.0088	0.0023
Mars	-117483-07-10 14:53 J	-41189052.19	-41189051.88	-41189051.53	0.0088	0.0016
Mars	-117481-06-05 11:17 J	-41188356.36	-41188356.03	-41188355.70	0.0088	0.0008
Mars	-117479-05-02 07:41 J	-41187660.52	-41187660.18	-41187659.85	0.0088	0.0001
Mars	-117477-03-28 03:51 J	-41186964.67	-41186964.34	-41186964.00	0.0088	0.0006
Mars	-117475-02-22 00:15 J	-41186268.82	-41186268.49	-41186268.16	0.0088	0.0014
Mars	-117473-01-18 19:56 J	-41185572.97	-41185572.67	-41185572.32	0.0088	0.0021
Mars	-117472-12-14 15:51 J	-41184877.13	-41184876.84	-41184876.50	0.0088	0.0029
Mars	-117470-11-10 11:46 J	-41184181.30	-41184181.01	-41184180.68	0.0088	0.0035
Mars	-117468-10-06 06:58 J	-41183485.48	-41183485.21	-41183484.89	0.0088	0.0042
Mars	-117466-09-02 02:10 J	-41182789.67	-41182789.41	-41182789.12	0.0088	0.0049
Mars	-117464-07-28 20:10 J	-41182093.91	-41182093.66	-41182093.39	0.0088	0.0055
Mars	-117462-06-24 12:44 J	-41181398.19	-41181397.97	-41181397.71	0.0088	0.0061
Mars	-117460-05-20 04:48 J	-41180702.51	-41180702.30	-41180702.07	0.0088	0.0066
Venus	-117458-01-08 07:12 J	-41180104.23	-41180104.20	-41180104.13	0.0088	0.0086
Mars	-117458-04-15 19:27 J	-41180006.85	-41180006.69	-41180006.46	0.0088	0.0072
Venus	-117458-08-21 18:58 J	-41179878.79	-41179878.71	-41179878.62	0.0088	0.0080
Venus	-117457-04-03 06:00 J	-41179653.34	-41179653.25	-41179653.11	0.0088	0.0075
Venus	-117457-11-14 17:46 J	-41179427.88	-41179427.76	-41179427.61	0.0088	0.0069
Mars	-117456-03-11 10:20 J	-41179311.22	-41179311.07	-41179310.89	0.0088	0.0076
Venus	-117456-06-28 05:17 J	-41179202.42	-41179202.28	-41179202.12	0.0088	0.0063
Venus	-117455-02-08 17:03 J	-41178976.95	-41178976.79	-41178976.63	0.0088	0.0057
Venus	-117455-09-22 04:20 J	-41178751.48	-41178751.32	-41178751.13	0.0088	0.0051
Mars	-117454-02-04 22:34 J	-41178615.65	-41178615.56	-41178615.38	0.0088	0.0081
Venus	-117454-05-05 16:05 J	-41178526.00	-41178525.83	-41178525.63	0.0088	0.0046
Venus	-117454-12-17 03:36 J	-41178300.52	-41178300.35	-41178300.14	0.0088	0.0040
Venus	-117453-07-29 15:22 J	-41178075.05	-41178074.86	-41178074.66	0.0088	0.0034
Mars	-117453-12-31 11:03 J	-41177920.13	-41177920.04	-41177919.92	0.0088	0.0084
Venus	-117452-03-12 03:08 J	-41177849.57	-41177849.37	-41177849.17	0.0088	0.0028

Earth -117452-06-28 02:10 J -41177741.45 -41177741.41 -41177741.34 0.0088 0.0086
 Moon -117452-06-28 05:46 J -41177741.32 -41177741.26 -41177741.17 0.0088 0.0084
 Venus -117452-10-23 14:39 J -41177624.09 -41177623.89 -41177623.68 0.0088 0.0022
 Venus -117451-06-06 02:24 J -41177398.61 -41177398.40 -41177398.19 0.0088 0.0016
 Moon -117451-06-30 08:10 J -41177374.33 -41177374.16 -41177373.97 0.0088 0.0060
 Earth -117451-06-30 11:17 J -41177374.22 -41177374.03 -41177373.84 0.0088 0.0058 *
 Mars -117451-11-26 20:24 J -41177224.66 -41177224.65 -41177224.55 0.0088 0.0088
 Venus -117450-01-17 14:10 J -41177173.13 -41177172.91 -41177172.70 0.0088 0.0010
 Earth -117450-07-02 19:27 J -41177006.91 -41177006.69 -41177006.43 0.0089 0.0031
 Moon -117450-07-02 22:05 J -41177006.82 -41177006.58 -41177006.32 0.0089 0.0028 *
 Venus -117450-08-31 01:41 J -41176947.64 -41176947.43 -41176947.22 0.0089 0.0004
 Venus -117449-04-12 13:27 J -41176722.15 -41176721.94 -41176721.72 0.0089 0.0002
 Moon -117449-07-04 03:51 J -41176639.58 -41176639.34 -41176639.09 0.0089 0.0004
 Earth -117449-07-04 04:48 J -41176639.55 -41176639.30 -41176639.04 0.0089 0.0002 *
 Venus -117449-11-24 00:58 J -41176496.66 -41176496.46 -41176496.24 0.0089 0.0009
 Moon -117448-07-06 12:58 J -41176272.19 -41176271.96 -41176271.70 0.0089 0.0028
 Earth -117448-07-06 13:41 J -41176272.15 -41176271.93 -41176271.67 0.0089 0.0027 *
 Venus -117448-07-07 12:44 J -41176271.18 -41176270.97 -41176270.75 0.0089 0.0014
 Venus -117447-02-18 00:15 J -41176045.69 -41176045.49 -41176045.27 0.0089 0.0021
 Earth -117447-07-08 22:48 J -41175904.73 -41175904.55 -41175904.33 0.0089 0.0055
 Moon -117447-07-09 00:15 J -41175904.67 -41175904.49 -41175904.27 0.0089 0.0053 *
 Venus -117447-10-01 12:15 J -41175820.19 -41175819.99 -41175819.78 0.0089 0.0026
 Venus -117446-05-15 00:15 J -41175594.69 -41175594.49 -41175594.29 0.0089 0.0032
 Moon -117446-07-11 05:03 J -41175537.34 -41175537.29 -41175537.18 0.0089 0.0085
 Earth -117446-07-11 07:56 J -41175537.23 -41175537.17 -41175537.05 0.0089 0.0083 *
 Venus -117446-12-26 12:00 J -41175369.19 -41175369.00 -41175368.81 0.0089 0.0038
 Venus -117445-08-07 23:46 J -41175143.69 -41175143.51 -41175143.32 0.0089 0.0044
 Venus -117444-03-21 11:32 J -41174918.19 -41174918.02 -41174917.84 0.0089 0.0050
 Venus -117444-11-01 23:32 J -41174692.68 -41174692.52 -41174692.35 0.0089 0.0056
 Venus -117443-06-15 11:32 J -41174467.16 -41174467.02 -41174466.86 0.0089 0.0062

Venus -117442-01-26 23:32 J -41174241.65 -41174241.52 -41174241.38 0.0089 0.0068

Venus -117442-09-09 11:17 J -41174016.13 -41174016.03 -41174015.89 0.0089 0.0074

Venus -117441-04-21 23:32 J -41173790.60 -41173790.52 -41173790.41 0.0089 0.0080

Venus -117441-12-03 11:32 J -41173565.05 -41173565.02 -41173564.95 0.0089 0.0086

Mars -117428-09-26 20:53 J -41168884.69 -41168884.63 -41168884.54 0.0089 0.0086

Mars -117426-08-22 11:03 J -41168190.12 -41168190.04 -41168189.90 0.0089 0.0083

Mars -117424-07-17 00:00 J -41167495.62 -41167495.50 -41167495.35 0.0089 0.0079

Mercury -117423-11-10 15:22 J -41167013.88 -41167013.86 -41167013.80 0.0089 0.0087

Mercury -117422-02-06 18:29 J -41166925.79 -41166925.73 -41166925.64 0.0089 0.0081

Mercury -117422-05-05 21:36 J -41166837.68 -41166837.60 -41166837.49 0.0089 0.0076

Mars -117422-06-11 11:32 J -41166801.16 -41166801.02 -41166800.84 0.0089 0.0075

Mercury -117422-08-02 00:44 J -41166749.57 -41166749.47 -41166749.35 0.0089 0.0070

Mercury -117422-10-29 03:51 J -41166661.45 -41166661.34 -41166661.20 0.0089 0.0065

Mercury -117421-01-25 06:58 J -41166573.33 -41166573.21 -41166573.06 0.0089 0.0059

Mercury -117421-04-22 10:05 J -41166485.21 -41166485.08 -41166484.92 0.0089 0.0054

Mercury -117421-07-19 13:12 J -41166397.09 -41166396.95 -41166396.79 0.0089 0.0048

Mercury -117421-10-15 16:20 J -41166308.97 -41166308.82 -41166308.65 0.0089 0.0043

Mercury -117420-01-11 19:41 J -41166220.84 -41166220.68 -41166220.51 0.0089 0.0037

Mercury -117420-04-09 23:03 J -41166132.71 -41166132.54 -41166132.37 0.0089 0.0031

Mars -117420-05-05 22:20 J -41166106.73 -41166106.57 -41166106.36 0.0089 0.0071

Mercury -117420-07-07 01:56 J -41166044.59 -41166044.42 -41166044.24 0.0089 0.0026

Mercury -117420-10-03 05:17 J -41165956.46 -41165956.28 -41165956.10 0.0089 0.0020

Mercury -117420-12-30 08:24 J -41165868.33 -41165868.15 -41165867.96 0.0089 0.0014

Mercury -117419-03-28 11:46 J -41165780.19 -41165780.01 -41165779.83 0.0089 0.0009

Mercury -117419-06-24 14:53 J -41165692.06 -41165691.88 -41165691.69 0.0089 0.0003

Mercury -117419-09-20 18:15 J -41165603.93 -41165603.74 -41165603.56 0.0089 0.0003

Mercury -117419-12-17 21:22 J -41165515.79 -41165515.61 -41165515.42 0.0089 0.0009

Mercury -117418-03-16 00:29 J -41165427.65 -41165427.48 -41165427.29 0.0089 0.0015

Mars -117418-03-31 06:58 J -41165412.40 -41165412.21 -41165411.99 0.0089 0.0066

Mercury -117418-06-12 04:05 J -41165339.51 -41165339.33 -41165339.15 0.0089 0.0020

Mercury -117418-09-08 07:12 J -41165251.37 -41165251.20 -41165251.02 0.0089 0.0026

Mercury -117418-12-05 10:20 J -41165163.23 -41165163.07 -41165162.88 0.0089 0.0032

Mercury -117417-03-02 13:41 J -41165075.09 -41165074.93 -41165074.75 0.0089 0.0038

Mercury -117417-05-29 16:48 J -41164986.94 -41164986.80 -41164986.62 0.0089 0.0044

Mercury -117417-08-25 20:39 J -41164898.80 -41164898.64 -41164898.49 0.0089 0.0049

Mercury -117417-11-21 23:46 J -41164810.65 -41164810.51 -41164810.36 0.0089 0.0055

Mercury -117416-02-18 03:08 J -41164722.50 -41164722.37 -41164722.23 0.0089 0.0061

Mars -117416-02-22 14:24 J -41164718.09 -41164717.90 -41164717.65 0.0089 0.0061

Mercury -117416-05-17 06:29 J -41164634.35 -41164634.23 -41164634.10 0.0089 0.0067

Mercury -117416-08-13 09:36 J -41164546.19 -41164546.10 -41164545.98 0.0089 0.0073

Mercury -117416-11-09 12:58 J -41164458.03 -41164457.96 -41164457.86 0.0089 0.0079

Mercury -117415-02-05 16:20 J -41164369.85 -41164369.82 -41164369.75 0.0089 0.0085

Mars -117414-01-17 21:36 J -41164023.81 -41164023.60 -41164023.34 0.0089 0.0056

Mars -117413-12-12 03:22 J -41163329.59 -41163329.36 -41163329.09 0.0089 0.0050

Mars -117411-11-06 07:27 J -41162635.43 -41162635.19 -41162634.91 0.0089 0.0044

Mars -117409-09-30 12:29 J -41161941.24 -41161940.98 -41161940.70 0.0089 0.0038

Mars -117407-08-25 16:20 J -41161247.08 -41161246.82 -41161246.52 0.0089 0.0032

Mars -117405-07-19 18:58 J -41160553.00 -41160552.71 -41160552.42 0.0089 0.0025

Mars -117403-06-13 20:53 J -41159858.91 -41159858.63 -41159858.33 0.0089 0.0019

Mars -117401-05-07 23:03 J -41159164.83 -41159164.54 -41159164.24 0.0089 0.0012

Mars -117399-04-01 23:46 J -41158470.80 -41158470.51 -41158470.21 0.0089 0.0006

Mars -117397-02-25 00:29 J -41157776.77 -41157776.48 -41157776.18 0.0089 0.0002

Mars -117395-01-19 02:10 J -41157082.71 -41157082.41 -41157082.12 0.0089 0.0007

Mars -117394-12-14 02:24 J -41156388.68 -41156388.40 -41156388.10 0.0089 0.0014

Mars -117392-11-07 03:22 J -41155694.63 -41155694.36 -41155694.06 0.0089 0.0021

Mars -117390-10-02 05:17 J -41155000.55 -41155000.28 -41154999.99 0.0089 0.0027

Mars -117388-08-26 06:44 J -41154306.49 -41154306.22 -41154305.93 0.0089 0.0033

Mars -117386-07-21 07:12 J -41153612.44 -41153612.20 -41153611.91 0.0089 0.0040

Mars -117384-06-14 10:05 J -41152918.33 -41152918.08 -41152917.81 0.0089 0.0045

Mars -117382-05-09 12:29 J -41152224.21 -41152223.98 -41152223.72 0.0089 0.0051

Mars	-117380-04-02 15:08 J	-41151530.09	-41151529.87	-41151529.63	0.0089	0.0056
Mars	-117378-02-25 18:15 J	-41150835.92	-41150835.74	-41150835.49	0.0089	0.0062
Mars	-117376-01-19 23:32 J	-41150141.68	-41150141.52	-41150141.29	0.0089	0.0067
Venus	-117376-10-09 02:10 J	-41149879.47	-41149879.41	-41149879.31	0.0089	0.0083
Venus	-117375-05-22 16:48 J	-41149653.89	-41149653.80	-41149653.66	0.0089	0.0077
Mars	-117375-12-15 05:32 J	-41149447.44	-41149447.27	-41149447.08	0.0089	0.0071
Venus	-117374-01-03 07:56 J	-41149428.30	-41149428.17	-41149428.03	0.0089	0.0070
Venus	-117374-08-16 22:20 J	-41149202.72	-41149202.57	-41149202.40	0.0089	0.0064
Venus	-117373-03-29 12:44 J	-41148977.13	-41148976.97	-41148976.78	0.0089	0.0058
Mars	-117373-11-08 11:46 J	-41148753.16	-41148753.01	-41148752.84	0.0089	0.0075
Venus	-117373-11-10 03:08 J	-41148751.53	-41148751.37	-41148751.16	0.0089	0.0052
Venus	-117372-06-23 18:00 J	-41148525.94	-41148525.75	-41148525.55	0.0089	0.0045
Venus	-117371-02-04 08:24 J	-41148300.35	-41148300.15	-41148299.94	0.0089	0.0039
Venus	-117371-09-17 23:03 J	-41148074.75	-41148074.54	-41148074.32	0.0089	0.0032
Mars	-117371-10-03 19:12 J	-41148058.82	-41148058.70	-41148058.54	0.0089	0.0079
Venus	-117370-05-01 13:27 J	-41147849.15	-41147848.94	-41147848.72	0.0089	0.0026
Venus	-117370-12-13 03:51 J	-41147623.56	-41147623.34	-41147623.11	0.0089	0.0019
Moon	-117369-01-06 22:05 J	-41147598.72	-41147598.58	-41147598.37	0.0089	0.0068
Earth	-117369-01-06 23:32 J	-41147598.67	-41147598.52	-41147598.37	0.0089	0.0072 *
Venus	-117369-07-25 18:15 J	-41147397.96	-41147397.74	-41147397.51	0.0089	0.0013
Mars	-117369-08-28 02:39 J	-41147364.46	-41147364.39	-41147364.24	0.0089	0.0083
Earth	-117368-01-08 13:27 J	-41147231.15	-41147230.94	-41147230.69	0.0089	0.0043
Moon	-117368-01-08 16:05 J	-41147231.04	-41147230.83	-41147230.61	0.0089	0.0047 *
Venus	-117368-03-08 08:39 J	-41147172.36	-41147172.14	-41147171.91	0.0089	0.0006
Venus	-117368-10-19 23:17 J	-41146946.76	-41146946.53	-41146946.31	0.0089	0.0001
Moon	-117367-01-11 00:58 J	-41146863.72	-41146863.46	-41146863.18	0.0089	0.0009
Earth	-117367-01-11 03:51 J	-41146863.59	-41146863.34	-41146863.07	0.0089	0.0013 *
Venus	-117367-06-02 13:27 J	-41146721.16	-41146720.94	-41146720.71	0.0089	0.0007
Mars	-117367-07-23 11:46 J	-41146670.06	-41146670.01	-41146669.90	0.0089	0.0086
Earth	-117366-01-13 18:00 J	-41146496.01	-41146495.75	-41146495.49	0.0089	0.0017

Moon -117366-01-13 21:22 J -41146495.86 -41146495.61 -41146495.35 0.0089 0.0013 *
 Venus -117366-01-14 03:51 J -41146495.56 -41146495.34 -41146495.11 0.0089 0.0013 *
 Venus -117366-08-27 17:46 J -41146269.97 -41146269.76 -41146269.52 0.0089 0.0020
 Moon -117365-01-16 03:51 J -41146128.53 -41146128.34 -41146128.10 0.0089 0.0052
 Earth -117365-01-16 07:41 J -41146128.39 -41146128.18 -41146127.94 0.0089 0.0047 *
 Venus -117365-04-09 08:10 J -41146044.37 -41146044.16 -41146043.93 0.0089 0.0026
 Mars -117365-06-16 23:17 J -41145975.56 -41145975.53 -41145975.49 0.0089 0.0088
 Venus -117365-11-20 22:48 J -41145818.76 -41145818.55 -41145818.34 0.0089 0.0032
 Earth -117364-01-17 21:36 J -41145760.73 -41145760.60 -41145760.46 0.0089 0.0076
 Moon -117364-01-18 00:44 J -41145760.61 -41145760.47 -41145760.30 0.0089 0.0072 *
 Venus -117364-07-04 12:44 J -41145593.16 -41145592.97 -41145592.75 0.0089 0.0039
 Venus -117363-02-15 02:53 J -41145367.56 -41145367.38 -41145367.17 0.0089 0.0045
 Venus -117363-09-28 17:17 J -41145141.96 -41145141.78 -41145141.59 0.0089 0.0051
 Venus -117362-05-12 07:27 J -41144916.36 -41144916.19 -41144916.01 0.0089 0.0057
 Venus -117362-12-23 21:08 J -41144690.76 -41144690.62 -41144690.44 0.0089 0.0064
 Venus -117361-08-05 11:03 J -41144465.16 -41144465.04 -41144464.88 0.0089 0.0070
 Venus -117360-03-19 00:58 J -41144239.55 -41144239.46 -41144239.32 0.0089 0.0076
 Venus -117360-10-30 15:08 J -41144013.94 -41144013.87 -41144013.76 0.0089 0.0082
 Venus -117359-06-13 04:48 J -41143788.30 -41143788.30 -41143788.23 0.0089 0.0088
 Mars -117346-06-25 18:29 J -41139027.74 -41139027.73 -41139027.65 0.0088 0.0088
 Mars -117344-05-20 22:05 J -41138332.65 -41138332.58 -41138332.48 0.0088 0.0085
 Mars -117342-04-16 02:39 J -41137637.49 -41137637.39 -41137637.24 0.0088 0.0082
 Mercury -117342-12-05 01:41 J -41137404.46 -41137404.43 -41137404.38 0.0088 0.0085
 Mercury -117341-03-02 03:08 J -41137316.41 -41137316.37 -41137316.30 0.0088 0.0081
 Mercury -117341-05-29 04:48 J -41137228.36 -41137228.30 -41137228.22 0.0088 0.0076
 Mercury -117341-08-25 06:29 J -41137140.30 -41137140.23 -41137140.14 0.0088 0.0072
 Mercury -117341-11-21 07:56 J -41137052.25 -41137052.17 -41137052.07 0.0088 0.0068
 Mercury -117340-02-17 09:22 J -41136964.19 -41136964.11 -41136964.00 0.0088 0.0064
 Mars -117340-03-11 09:22 J -41136942.25 -41136942.11 -41136941.94 0.0088 0.0078
 Mercury -117340-05-16 11:17 J -41136876.13 -41136876.03 -41136875.92 0.0088 0.0059

Mercury -117340-08-12 12:44 J -41136788.07 -41136787.97 -41136787.85 0.0088 0.0054

Mercury -117340-11-08 14:10 J -41136700.01 -41136699.91 -41136699.78 0.0088 0.0050

Mercury -117339-02-04 15:51 J -41136611.95 -41136611.84 -41136611.71 0.0088 0.0046

Mercury -117339-05-03 17:32 J -41136523.89 -41136523.77 -41136523.65 0.0088 0.0041

Mercury -117339-07-30 18:58 J -41136435.83 -41136435.71 -41136435.58 0.0088 0.0037

Mercury -117339-10-26 20:39 J -41136347.77 -41136347.64 -41136347.51 0.0088 0.0033

Mercury -117338-01-22 22:05 J -41136259.71 -41136259.58 -41136259.45 0.0088 0.0028

Mars -117338-02-04 17:17 J -41136246.94 -41136246.78 -41136246.58 0.0088 0.0074

Mercury -117338-04-20 23:32 J -41136171.65 -41136171.52 -41136171.38 0.0088 0.0024

Mercury -117338-07-18 00:58 J -41136083.59 -41136083.46 -41136083.31 0.0088 0.0021

Mercury -117338-10-14 02:39 J -41135995.52 -41135995.39 -41135995.25 0.0088 0.0016

Mercury -117337-01-10 04:20 J -41135907.46 -41135907.32 -41135907.19 0.0088 0.0012

Mercury -117337-04-07 05:46 J -41135819.40 -41135819.26 -41135819.12 0.0088 0.0007

Mercury -117337-07-04 07:12 J -41135731.34 -41135731.20 -41135731.06 0.0088 0.0003

Mercury -117337-09-30 08:39 J -41135643.28 -41135643.14 -41135643.00 0.0088 0.0002

Mercury -117337-12-27 10:05 J -41135555.21 -41135555.08 -41135554.94 0.0088 0.0006

Mars -117337-12-31 02:24 J -41135551.60 -41135551.40 -41135551.19 0.0088 0.0069

Mercury -117336-03-25 11:32 J -41135467.15 -41135467.02 -41135466.88 0.0088 0.0011

Mercury -117336-06-21 13:12 J -41135379.09 -41135378.95 -41135378.82 0.0088 0.0014

Mercury -117336-09-17 14:39 J -41135291.02 -41135290.89 -41135290.76 0.0088 0.0018

Mercury -117336-12-14 16:05 J -41135202.96 -41135202.83 -41135202.70 0.0088 0.0022

Mercury -117335-03-12 17:32 J -41135114.90 -41135114.77 -41135114.64 0.0088 0.0026

Mercury -117335-06-08 18:58 J -41135026.84 -41135026.71 -41135026.58 0.0088 0.0031

Mercury -117335-09-04 20:24 J -41134938.77 -41134938.65 -41134938.52 0.0088 0.0035

Mars -117335-11-26 12:44 J -41134856.18 -41134855.97 -41134855.72 0.0088 0.0064

Mercury -117335-12-01 21:36 J -41134850.71 -41134850.60 -41134850.46 0.0088 0.0040

Mercury -117334-02-27 23:03 J -41134762.65 -41134762.54 -41134762.41 0.0088 0.0044

Mercury -117334-05-27 00:29 J -41134674.58 -41134674.48 -41134674.35 0.0088 0.0048

Mercury -117334-08-23 01:56 J -41134586.52 -41134586.42 -41134586.30 0.0088 0.0052

Mercury -117334-11-19 03:22 J -41134498.45 -41134498.36 -41134498.24 0.0088 0.0056

Mercury -117333-02-15 04:48 J -41134410.39 -41134410.30 -41134410.19 0.0088 0.0060

Mercury -117333-05-13 06:15 J -41134322.32 -41134322.24 -41134322.14 0.0088 0.0064

Mercury -117333-08-09 07:41 J -41134234.26 -41134234.18 -41134234.08 0.0088 0.0068

Mars -117333-10-22 00:29 J -41134160.70 -41134160.48 -41134160.21 0.0088 0.0059

Mercury -117333-11-05 09:08 J -41134146.19 -41134146.12 -41134146.03 0.0088 0.0072

Mercury -117332-02-01 10:34 J -41134058.12 -41134058.06 -41134057.98 0.0088 0.0076

Mercury -117332-04-30 12:00 J -41133970.05 -41133970.00 -41133969.94 0.0088 0.0080

Mercury -117332-07-27 13:27 J -41133881.98 -41133881.94 -41133881.89 0.0088 0.0084

Mercury -117332-10-23 14:53 J -41133793.89 -41133793.88 -41133793.86 0.0088 0.0087

Mars -117331-09-17 13:41 J -41133465.19 -41133464.93 -41133464.66 0.0088 0.0053

Mars -117329-08-13 03:36 J -41132769.61 -41132769.35 -41132769.05 0.0088 0.0047

Mars -117327-07-09 19:27 J -41132073.96 -41132073.69 -41132073.37 0.0088 0.0041

Mars -117325-06-04 12:44 J -41131378.26 -41131377.97 -41131377.65 0.0088 0.0034

Mars -117323-05-01 06:15 J -41130682.54 -41130682.24 -41130681.91 0.0088 0.0026

Mars -117321-03-27 00:44 J -41129986.79 -41129986.47 -41129986.13 0.0088 0.0019

Mars -117319-02-20 19:27 J -41129291.01 -41129290.69 -41129290.35 0.0088 0.0013

Mars -117317-01-17 15:08 J -41128595.20 -41128594.87 -41128594.53 0.0088 0.0005

Mars -117316-12-13 11:32 J -41127899.35 -41127899.02 -41127898.68 0.0088 0.0003

Mars -117314-11-09 08:10 J -41127203.49 -41127203.16 -41127202.82 0.0088 0.0010

Mars -117312-10-05 04:48 J -41126507.62 -41126507.30 -41126506.96 0.0088 0.0018

Mars -117310-09-01 01:41 J -41125811.74 -41125811.43 -41125811.10 0.0088 0.0025

Mars -117308-07-27 21:51 J -41125115.89 -41125115.59 -41125115.26 0.0088 0.0032

Mars -117306-06-23 17:32 J -41124420.05 -41124419.77 -41124419.45 0.0088 0.0039

Mars -117304-05-19 12:58 J -41123724.22 -41123723.96 -41123723.64 0.0088 0.0046

Mars -117302-04-15 08:24 J -41123028.40 -41123028.15 -41123027.86 0.0088 0.0052

Mars -117300-03-11 03:08 J -41122332.60 -41122332.37 -41122332.09 0.0088 0.0058

Mars -117298-02-04 21:22 J -41121636.81 -41121636.61 -41121636.35 0.0088 0.0064

Mars -117297-12-31 14:39 J -41120941.08 -41120940.89 -41120940.67 0.0088 0.0069

Mars -117295-11-27 06:00 J -41120245.40 -41120245.25 -41120245.04 0.0088 0.0074

Venus -117294-04-11 16:05 J -41120109.86 -41120109.83 -41120109.76 0.0088 0.0086

Venus	-117294-11-23 03:51 J	-41119884.42	-41119884.34	-41119884.25	0.0088	0.0080
Venus	-117293-07-05 14:53 J	-41119658.98	-41119658.88	-41119658.75	0.0088	0.0075
Mars	-117293-10-22 21:36 J	-41119549.75	-41119549.60	-41119549.44	0.0088	0.0078
Venus	-117292-02-16 02:24 J	-41119433.52	-41119433.40	-41119433.25	0.0088	0.0069
Venus	-117292-09-29 14:10 J	-41119208.06	-41119207.91	-41119207.76	0.0088	0.0063
Venus	-117291-05-13 01:12 J	-41118982.59	-41118982.45	-41118982.26	0.0088	0.0058
Mars	-117291-09-18 10:48 J	-41118854.12	-41118854.05	-41118853.88	0.0088	0.0083
Venus	-117291-12-24 12:58 J	-41118757.12	-41118756.96	-41118756.77	0.0088	0.0052
Venus	-117290-08-07 00:29 J	-41118531.65	-41118531.48	-41118531.28	0.0088	0.0046
Venus	-117289-03-19 12:15 J	-41118306.17	-41118305.99	-41118305.79	0.0088	0.0040
Mars	-117289-08-13 23:46 J	-41118158.57	-41118158.51	-41118158.41	0.0088	0.0086
Venus	-117289-10-31 00:00 J	-41118080.70	-41118080.50	-41118080.30	0.0088	0.0034
Venus	-117288-06-13 11:32 J	-41117855.22	-41117855.02	-41117854.81	0.0088	0.0028
Venus	-117287-01-24 23:17 J	-41117629.74	-41117629.53	-41117629.32	0.0088	0.0022
Earth	-117287-06-29 16:48 J	-41117473.92	-41117473.80	-41117473.65	0.0088	0.0074
Moon	-117287-06-29 17:46 J	-41117473.87	-41117473.76	-41117473.63	0.0088	0.0078 *
Venus	-117287-09-07 10:48 J	-41117404.25	-41117404.05	-41117403.84	0.0088	0.0016
Venus	-117286-04-20 22:34 J	-41117178.77	-41117178.56	-41117178.34	0.0088	0.0010
Earth	-117286-07-02 01:27 J	-41117106.64	-41117106.44	-41117106.21	0.0088	0.0046
Moon	-117286-07-02 02:10 J	-41117106.61	-41117106.41	-41117106.18	0.0088	0.0042 *
Venus	-117286-12-02 10:20 J	-41116953.28	-41116953.07	-41116952.85	0.0089	0.0004
Moon	-117285-07-03 09:08 J	-41116739.37	-41116739.12	-41116738.86	0.0089	0.0022
Earth	-117285-07-03 10:34 J	-41116739.30	-41116739.06	-41116738.80	0.0089	0.0018 *
Venus	-117285-07-14 22:05 J	-41116727.80	-41116727.58	-41116727.37	0.0089	0.0002
Venus	-117284-02-25 09:36 J	-41116502.31	-41116502.10	-41116501.88	0.0089	0.0008
Earth	-117284-07-05 19:41 J	-41116371.93	-41116371.68	-41116371.43	0.0089	0.0011
Moon	-117284-07-05 22:34 J	-41116371.80	-41116371.56	-41116371.31	0.0089	0.0016 *
Venus	-117284-10-08 21:22 J	-41116276.82	-41116276.61	-41116276.40	0.0089	0.0014
Venus	-117283-05-22 09:22 J	-41116051.32	-41116051.11	-41116050.90	0.0089	0.0020
Moon	-117283-07-08 01:12 J	-41116004.67	-41116004.45	-41116004.20	0.0089	0.0035

Earth -117283-07-08 04:20 J -41116004.52 -41116004.32 -41116004.07 0.0089 0.0040 *
 Venus -117282-01-02 20:53 J -41115825.83 -41115825.63 -41115825.42 0.0089 0.0026
 Earth -117282-07-10 13:27 J -41115637.07 -41115636.94 -41115636.75 0.0089 0.0068
 Moon -117282-07-10 17:17 J -41115636.91 -41115636.78 -41115636.62 0.0089 0.0072 *
 Venus -117282-08-16 08:39 J -41115600.33 -41115600.14 -41115599.93 0.0089 0.0032
 Venus -117281-03-28 20:24 J -41115374.83 -41115374.65 -41115374.45 0.0089 0.0038
 Venus -117281-11-09 08:10 J -41115149.33 -41115149.16 -41115148.96 0.0089 0.0044
 Venus -117280-06-22 19:56 J -41114923.83 -41114923.67 -41114923.48 0.0089 0.0050
 Venus -117279-02-03 07:56 J -41114698.33 -41114698.17 -41114697.99 0.0089 0.0056
 Venus -117279-09-16 19:41 J -41114472.82 -41114472.68 -41114472.51 0.0089 0.0062
 Venus -117278-04-30 07:41 J -41114247.30 -41114247.18 -41114247.02 0.0089 0.0068
 Venus -117278-12-11 19:41 J -41114021.78 -41114021.68 -41114021.54 0.0089 0.0074
 Venus -117277-07-24 08:10 J -41113796.25 -41113796.16 -41113796.06 0.0089 0.0079
 Venus -117276-03-06 19:56 J -41113570.72 -41113570.67 -41113570.60 0.0089 0.0085
 Mars -117266-06-16 13:41 J -41109816.94 -41109816.93 -41109816.86 0.0089 0.0088
 Mars -117264-05-11 06:15 J -41109122.30 -41109122.24 -41109122.12 0.0089 0.0085
 Mars -117262-04-05 22:20 J -41108427.69 -41108427.57 -41108427.44 0.0089 0.0081
 Mars -117260-02-28 11:46 J -41107733.12 -41107733.01 -41107732.82 0.0089 0.0078
 Mars -117258-01-24 00:29 J -41107038.64 -41107038.48 -41107038.29 0.0089 0.0073
 Mercury -117258-08-07 12:29 J -41106843.00 -41106842.98 -41106842.91 0.0089 0.0086
 Mercury -117258-11-03 15:51 J -41106754.90 -41106754.84 -41106754.75 0.0089 0.0080
 Mercury -117257-01-30 18:44 J -41106666.80 -41106666.72 -41106666.61 0.0089 0.0075
 Mercury -117257-04-27 22:20 J -41106578.69 -41106578.57 -41106578.46 0.0089 0.0069
 Mercury -117257-07-25 00:58 J -41106490.57 -41106490.46 -41106490.32 0.0089 0.0064
 Mercury -117257-10-21 04:05 J -41106402.45 -41106402.33 -41106402.18 0.0089 0.0059
 Mars -117257-12-18 10:48 J -41106344.21 -41106344.05 -41106343.82 0.0089 0.0069
 Mercury -117256-01-17 07:12 J -41106314.33 -41106314.20 -41106314.04 0.0089 0.0053
 Mercury -117256-04-15 10:34 J -41106226.21 -41106226.06 -41106225.90 0.0089 0.0047
 Mercury -117256-07-12 13:27 J -41106138.09 -41106137.94 -41106137.77 0.0089 0.0042
 Mercury -117256-10-08 16:48 J -41106049.96 -41106049.80 -41106049.63 0.0089 0.0036

Mercury -117255-01-04 19:56 J -41105961.84 -41105961.67 -41105961.49 0.0089 0.0031
 Mercury -117255-04-02 23:03 J -41105873.71 -41105873.54 -41105873.36 0.0089 0.0025
 Mercury -117255-06-30 02:24 J -41105785.58 -41105785.40 -41105785.22 0.0089 0.0019
 Mercury -117255-09-26 05:32 J -41105697.45 -41105697.27 -41105697.09 0.0089 0.0014
 Mars -117255-11-12 21:22 J -41105649.79 -41105649.61 -41105649.36 0.0089 0.0064
 Mercury -117255-12-23 08:53 J -41105609.32 -41105609.13 -41105608.95 0.0089 0.0008
 Mercury -117254-03-21 12:00 J -41105521.18 -41105521.00 -41105520.82 0.0089 0.0002
 Mercury -117254-06-17 15:08 J -41105433.05 -41105432.87 -41105432.68 0.0089 0.0004
 Mercury -117254-09-13 18:29 J -41105344.91 -41105344.73 -41105344.55 0.0089 0.0009
 Mercury -117254-12-10 21:36 J -41105256.78 -41105256.60 -41105256.41 0.0089 0.0015
 Mercury -117253-03-08 00:44 J -41105168.64 -41105168.47 -41105168.28 0.0089 0.0021
 Mercury -117253-06-04 04:05 J -41105080.50 -41105080.33 -41105080.15 0.0089 0.0027
 Mercury -117253-08-31 07:27 J -41104992.36 -41104992.19 -41104992.01 0.0089 0.0032
 Mars -117253-10-07 06:44 J -41104955.44 -41104955.22 -41104954.98 0.0089 0.0058
 Mercury -117253-11-27 10:48 J -41104904.22 -41104904.05 -41104903.88 0.0089 0.0038
 Mercury -117252-02-23 13:56 J -41104816.07 -41104815.92 -41104815.75 0.0089 0.0044
 Mercury -117252-05-22 17:03 J -41104727.93 -41104727.79 -41104727.62 0.0089 0.0050
 Mercury -117252-08-18 20:24 J -41104639.78 -41104639.65 -41104639.49 0.0089 0.0056
 Mercury -117252-11-14 23:46 J -41104551.63 -41104551.51 -41104551.36 0.0089 0.0062
 Mercury -117251-02-11 03:22 J -41104463.48 -41104463.36 -41104463.23 0.0089 0.0067
 Mercury -117251-05-10 06:44 J -41104375.32 -41104375.22 -41104375.11 0.0089 0.0073
 Mercury -117251-08-06 10:05 J -41104287.16 -41104287.08 -41104286.99 0.0089 0.0079
 Mars -117251-09-01 13:56 J -41104261.14 -41104260.92 -41104260.65 0.0089 0.0053
 Mercury -117251-11-02 13:12 J -41104198.98 -41104198.95 -41104198.88 0.0089 0.0085
 Mars -117249-07-26 21:51 J -41103566.83 -41103566.59 -41103566.32 0.0089 0.0047
 Mars -117247-06-21 03:51 J -41102872.59 -41102872.34 -41102872.06 0.0089 0.0041
 Mars -117245-05-15 07:41 J -41102178.43 -41102178.18 -41102177.88 0.0089 0.0035
 Mars -117243-04-09 11:46 J -41101484.27 -41101484.01 -41101483.71 0.0089 0.0029
 Mars -117241-03-03 15:51 J -41100790.12 -41100789.84 -41100789.54 0.0089 0.0022
 Mars -117239-01-26 17:46 J -41100096.04 -41100095.76 -41100095.46 0.0089 0.0016

Mars	-117238-12-21 19:41 J	-41099401.97	-41099401.68	-41099401.37	0.0089	0.0009
Mars	-117236-11-14 22:05 J	-41098707.88	-41098707.58	-41098707.28	0.0089	0.0002
Mars	-117234-10-09 23:46 J	-41098013.81	-41098013.51	-41098013.22	0.0089	0.0004
Mars	-117232-09-03 00:15 J	-41097319.78	-41097319.49	-41097319.19	0.0089	0.0011
Mars	-117230-07-29 01:41 J	-41096625.72	-41096625.43	-41096625.14	0.0089	0.0017
Mars	-117228-06-22 01:56 J	-41095931.69	-41095931.42	-41095931.12	0.0089	0.0024
Mars	-117226-05-17 02:10 J	-41095237.68	-41095237.41	-41095237.12	0.0089	0.0030
Mars	-117224-04-10 03:22 J	-41094543.63	-41094543.36	-41094543.08	0.0089	0.0036
Mars	-117222-03-05 04:34 J	-41093849.56	-41093849.31	-41093849.03	0.0089	0.0042
Mars	-117220-01-27 05:32 J	-41093155.51	-41093155.27	-41093155.01	0.0089	0.0048
Mars	-117219-12-22 07:27 J	-41092461.40	-41092461.19	-41092460.92	0.0089	0.0054
Mars	-117217-11-15 10:48 J	-41091767.24	-41091767.05	-41091766.79	0.0089	0.0059
Mars	-117215-10-10 13:27 J	-41091073.12	-41091072.94	-41091072.70	0.0089	0.0064
Mars	-117213-09-03 16:48 J	-41090378.96	-41090378.80	-41090378.58	0.0089	0.0069
Venus	-117211-01-10 07:12 J	-41089885.26	-41089885.20	-41089885.10	0.0089	0.0083
Mars	-117211-07-29 21:51 J	-41089684.74	-41089684.59	-41089684.40	0.0089	0.0073
Venus	-117211-08-23 21:51 J	-41089659.68	-41089659.59	-41089659.46	0.0089	0.0077
Venus	-117210-04-06 12:29 J	-41089434.10	-41089433.98	-41089433.82	0.0089	0.0071
Venus	-117210-11-18 03:22 J	-41089208.50	-41089208.36	-41089208.19	0.0089	0.0064
Mars	-117209-06-23 03:08 J	-41088990.49	-41088990.37	-41088990.19	0.0089	0.0077
Venus	-117209-06-30 18:00 J	-41088982.91	-41088982.75	-41088982.57	0.0089	0.0058
Venus	-117208-02-11 08:24 J	-41088757.32	-41088757.15	-41088756.95	0.0089	0.0052
Venus	-117208-09-24 23:17 J	-41088531.72	-41088531.53	-41088531.32	0.0089	0.0045
Venus	-117207-05-08 13:41 J	-41088306.12	-41088305.93	-41088305.71	0.0089	0.0039
Mars	-117207-05-18 08:39 J	-41088296.23	-41088296.14	-41088295.98	0.0089	0.0081
Venus	-117207-12-20 04:05 J	-41088080.52	-41088080.33	-41088080.10	0.0089	0.0033
Venus	-117206-08-02 18:44 J	-41087854.93	-41087854.72	-41087854.49	0.0089	0.0026
Earth	-117205-01-05 23:46 J	-41087698.51	-41087698.51	-41087698.48	0.0089	0.0089
Moon	-117205-01-06 02:24 J	-41087698.41	-41087698.40	-41087698.34	0.0089	0.0088
Venus	-117205-03-15 09:08 J	-41087629.33	-41087629.12	-41087628.89	0.0089	0.0020

Mars -117205-04-11 16:20 J -41087601.88 -41087601.82 -41087601.68 0.0089 0.0084
 Venus -117205-10-26 23:46 J -41087403.73 -41087403.51 -41087403.28 0.0089 0.0013
 Moon -117204-01-07 10:05 J -41087331.25 -41087331.08 -41087330.85 0.0089 0.0060
 Earth -117204-01-07 13:56 J -41087331.09 -41087330.92 -41087330.70 0.0089 0.0059 *
 Venus -117204-06-09 14:10 J -41087178.13 -41087177.91 -41087177.68 0.0089 0.0007
 Earth -117203-01-10 04:34 J -41086963.55 -41086963.31 -41086963.05 0.0089 0.0029
 Moon -117203-01-10 08:10 J -41086963.40 -41086963.16 -41086962.90 0.0089 0.0028 *
 Venus -117203-01-21 04:34 J -41086952.53 -41086952.31 -41086952.08 0.0089 0.0001
 Mars -117203-03-07 01:41 J -41086907.49 -41086907.43 -41086907.36 0.0089 0.0086
 Venus -117203-09-03 18:58 J -41086726.94 -41086726.71 -41086726.48 0.0089 0.0006
 Moon -117202-01-12 15:36 J -41086596.10 -41086595.85 -41086595.58 0.0089 0.0002
 Earth -117202-01-12 18:58 J -41086595.97 -41086595.71 -41086595.44 0.0089 0.0002 *
 Venus -117202-04-17 09:08 J -41086501.34 -41086501.12 -41086500.89 0.0089 0.0013
 Venus -117202-11-28 23:32 J -41086275.74 -41086275.52 -41086275.29 0.0089 0.0019
 Earth -117201-01-15 08:39 J -41086228.37 -41086228.14 -41086227.88 0.0089 0.0031
 Moon -117201-01-15 11:32 J -41086228.26 -41086228.02 -41086227.75 0.0089 0.0031 *
 Mars -117201-01-30 11:03 J -41086213.04 -41086213.04 -41086213.02 0.0089 0.0089
 Venus -117201-07-11 13:41 J -41086050.14 -41086049.93 -41086049.70 0.0089 0.0025
 Moon -117200-01-16 21:22 J -41085860.79 -41085860.61 -41085860.42 0.0089 0.0060
 Earth -117200-01-16 22:20 J -41085860.74 -41085860.57 -41085860.35 0.0089 0.0061 *
 Venus -117200-02-22 03:51 J -41085824.54 -41085824.34 -41085824.12 0.0089 0.0032
 Venus -117200-10-05 18:29 J -41085598.93 -41085598.73 -41085598.53 0.0089 0.0038
 Venus -117199-05-19 08:24 J -41085373.33 -41085373.15 -41085372.94 0.0089 0.0045
 Venus -117199-12-30 22:34 J -41085147.73 -41085147.56 -41085147.36 0.0089 0.0051
 Venus -117198-08-13 12:44 J -41084922.13 -41084921.97 -41084921.78 0.0089 0.0057
 Venus -117197-03-26 02:53 J -41084696.53 -41084696.38 -41084696.21 0.0089 0.0063
 Venus -117197-11-06 17:17 J -41084470.92 -41084470.78 -41084470.64 0.0089 0.0069
 Venus -117196-06-20 07:12 J -41084245.31 -41084245.20 -41084245.07 0.0089 0.0075
 Venus -117195-01-31 21:22 J -41084019.70 -41084019.61 -41084019.52 0.0089 0.0081
 Venus -117195-09-14 11:03 J -41083794.07 -41083794.04 -41083793.99 0.0089 0.0087

Mars -117184-03-13 15:51 J -41079960.84 -41079960.84 -41079960.80 0.0088 0.0088
 Mars -117182-02-06 15:36 J -41079265.91 -41079265.85 -41079265.75 0.0088 0.0086
 Mars -117180-01-01 17:17 J -41078570.86 -41078570.78 -41078570.63 0.0088 0.0083
 Mars -117179-11-27 20:24 J -41077875.76 -41077875.65 -41077875.47 0.0088 0.0080
 Mercury -117177-08-31 00:15 J -41077233.53 -41077233.49 -41077233.45 0.0088 0.0085
 Mars -117177-10-23 00:58 J -41077180.60 -41077180.46 -41077180.26 0.0088 0.0076
 Mercury -117177-11-27 01:41 J -41077145.48 -41077145.43 -41077145.37 0.0088 0.0080
 Mercury -117176-02-23 03:08 J -41077057.43 -41077057.37 -41077057.29 0.0088 0.0076
 Mercury -117176-05-22 04:48 J -41076969.37 -41076969.30 -41076969.21 0.0088 0.0072
 Mercury -117176-08-18 06:15 J -41076881.32 -41076881.24 -41076881.14 0.0088 0.0068
 Mercury -117176-11-14 07:56 J -41076793.26 -41076793.17 -41076793.06 0.0088 0.0063
 Mercury -117175-02-10 09:36 J -41076705.20 -41076705.10 -41076704.99 0.0088 0.0059
 Mercury -117175-05-09 11:03 J -41076617.14 -41076617.04 -41076616.92 0.0088 0.0055
 Mercury -117175-08-05 12:29 J -41076529.08 -41076528.98 -41076528.85 0.0088 0.0051
 Mars -117175-09-18 07:41 J -41076485.36 -41076485.18 -41076484.97 0.0088 0.0071
 Mercury -117175-11-01 14:24 J -41076441.02 -41076440.90 -41076440.78 0.0088 0.0046
 Mercury -117174-01-28 15:51 J -41076352.96 -41076352.84 -41076352.71 0.0088 0.0041
 Mercury -117174-04-26 17:17 J -41076264.90 -41076264.78 -41076264.65 0.0088 0.0037
 Mercury -117174-07-23 18:58 J -41076176.84 -41076176.71 -41076176.58 0.0088 0.0033
 Mercury -117174-10-19 20:24 J -41076088.78 -41076088.65 -41076088.51 0.0088 0.0029
 Mercury -117173-01-15 21:51 J -41076000.71 -41076000.59 -41076000.45 0.0088 0.0025
 Mercury -117173-04-12 23:32 J -41075912.65 -41075912.52 -41075912.38 0.0088 0.0020
 Mercury -117173-07-10 01:12 J -41075824.59 -41075824.45 -41075824.32 0.0088 0.0016
 Mars -117173-08-13 15:22 J -41075790.03 -41075789.86 -41075789.60 0.0088 0.0067
 Mercury -117173-10-06 02:39 J -41075736.53 -41075736.39 -41075736.25 0.0088 0.0011
 Mercury -117172-01-02 04:05 J -41075648.47 -41075648.33 -41075648.19 0.0088 0.0007
 Mercury -117172-03-31 05:32 J -41075560.40 -41075560.27 -41075560.13 0.0088 0.0004
 Mercury -117172-06-27 07:12 J -41075472.34 -41075472.20 -41075472.06 0.0088 0.0002
 Mercury -117172-09-23 08:39 J -41075384.28 -41075384.14 -41075384.00 0.0088 0.0006
 Mercury -117172-12-20 10:05 J -41075296.21 -41075296.08 -41075295.94 0.0088 0.0010

Mercury -117171-03-18 11:32 J -41075208.15 -41075208.02 -41075207.88 0.0088 0.0014

Mercury -117171-06-14 12:58 J -41075120.09 -41075119.96 -41075119.82 0.0088 0.0019

Mars -117171-07-10 01:27 J -41075094.66 -41075094.44 -41075094.19 0.0088 0.0061

Mercury -117171-09-10 14:39 J -41075032.03 -41075031.89 -41075031.76 0.0088 0.0022

Mercury -117171-12-07 16:05 J -41074943.96 -41074943.83 -41074943.70 0.0088 0.0027

Mercury -117170-03-05 17:32 J -41074855.90 -41074855.77 -41074855.64 0.0088 0.0031

Mercury -117170-06-01 18:44 J -41074767.84 -41074767.72 -41074767.58 0.0088 0.0035

Mercury -117170-08-28 20:10 J -41074679.77 -41074679.66 -41074679.53 0.0088 0.0040

Mercury -117170-11-24 21:36 J -41074591.71 -41074591.60 -41074591.47 0.0088 0.0044

Mercury -117169-02-20 23:03 J -41074503.64 -41074503.54 -41074503.41 0.0088 0.0048

Mercury -117169-05-19 00:44 J -41074415.58 -41074415.47 -41074415.36 0.0088 0.0051

Mars -117169-06-04 12:15 J -41074399.22 -41074398.99 -41074398.71 0.0088 0.0055

Mercury -117169-08-15 02:10 J -41074327.51 -41074327.41 -41074327.30 0.0088 0.0055

Mercury -117169-11-11 03:36 J -41074239.45 -41074239.35 -41074239.25 0.0088 0.0059

Mercury -117168-02-07 05:03 J -41074151.38 -41074151.29 -41074151.20 0.0088 0.0064

Mercury -117168-05-06 06:29 J -41074063.32 -41074063.23 -41074063.14 0.0088 0.0068

Mercury -117168-08-02 07:56 J -41073975.25 -41073975.17 -41073975.09 0.0088 0.0072

Mercury -117168-10-29 09:22 J -41073887.18 -41073887.11 -41073887.04 0.0088 0.0076

Mercury -117167-01-25 10:34 J -41073799.11 -41073799.06 -41073799.00 0.0088 0.0080

Mercury -117167-04-23 12:00 J -41073711.03 -41073711.00 -41073710.95 0.0088 0.0084

Mars -117167-05-01 00:44 J -41073703.71 -41073703.47 -41073703.17 0.0088 0.0050

Mercury -117167-07-20 13:27 J -41073622.95 -41073622.94 -41073622.92 0.0088 0.0088

Mars -117165-03-26 13:41 J -41073008.19 -41073007.93 -41073007.61 0.0088 0.0044

Mars -117163-02-20 04:20 J -41072312.61 -41072312.32 -41072312.01 0.0088 0.0037

Mars -117161-01-16 20:10 J -41071616.96 -41071616.66 -41071616.34 0.0088 0.0030

Jupiter -117160-05-11 04:05 J -41071136.52 -41071136.33 -41071136.13 0.0088 0.0082

Mars -117160-12-12 13:12 J -41070921.26 -41070920.95 -41070920.62 0.0088 0.0023

Mars -117158-11-08 06:44 J -41070225.54 -41070225.22 -41070224.88 0.0088 0.0016

Mars -117156-10-04 01:27 J -41069529.77 -41069529.44 -41069529.10 0.0088 0.0008

Mars -117154-08-30 20:39 J -41068833.98 -41068833.64 -41068833.31 0.0088 0.0001

Mars	-117152-07-26 16:05 J	-41068138.16	-41068137.83	-41068137.49	0.0088	0.0006
Mars	-117150-06-22 12:15 J	-41067442.32	-41067441.99	-41067441.66	0.0088	0.0014
Mars	-117148-05-18 08:10 J	-41066746.47	-41066746.16	-41066745.82	0.0088	0.0022
Mars	-117146-04-14 04:48 J	-41066050.60	-41066050.30	-41066049.96	0.0088	0.0029
Mars	-117144-03-10 01:27 J	-41065354.73	-41065354.44	-41065354.11	0.0088	0.0036
Mars	-117142-02-03 21:51 J	-41064658.86	-41064658.59	-41064658.27	0.0088	0.0042
Mars	-117141-12-30 18:00 J	-41063963.00	-41063962.75	-41063962.45	0.0088	0.0049
Mars	-117139-11-26 14:10 J	-41063267.16	-41063266.91	-41063266.64	0.0088	0.0055
Mars	-117137-10-22 09:51 J	-41062571.32	-41062571.09	-41062570.84	0.0088	0.0061
Mars	-117135-09-18 04:20 J	-41061875.51	-41061875.32	-41061875.07	0.0088	0.0067
Mars	-117133-08-13 22:48 J	-41061179.72	-41061179.55	-41061179.34	0.0088	0.0072
Mars	-117131-07-10 15:36 J	-41060483.98	-41060483.85	-41060483.65	0.0088	0.0077
Venus	-117130-07-14 00:44 J	-41060115.50	-41060115.47	-41060115.39	0.0088	0.0086
Venus	-117129-02-24 12:29 J	-41059890.06	-41059889.98	-41059889.88	0.0088	0.0080
Mars	-117129-06-05 07:27 J	-41059788.29	-41059788.19	-41059788.02	0.0088	0.0081
Venus	-117129-10-06 23:46 J	-41059664.60	-41059664.51	-41059664.38	0.0088	0.0075
Venus	-117128-05-20 11:17 J	-41059439.14	-41059439.03	-41059438.88	0.0088	0.0069
Venus	-117128-12-31 23:03 J	-41059213.68	-41059213.54	-41059213.39	0.0088	0.0063
Mars	-117127-05-01 22:05 J	-41059092.64	-41059092.58	-41059092.44	0.0088	0.0085
Venus	-117127-08-14 10:05 J	-41058988.22	-41058988.08	-41058987.90	0.0088	0.0058
Venus	-117126-03-27 21:51 J	-41058762.75	-41058762.59	-41058762.41	0.0088	0.0052
Venus	-117126-11-08 09:22 J	-41058537.28	-41058537.11	-41058536.92	0.0088	0.0046
Mars	-117125-03-27 12:58 J	-41058396.97	-41058396.96	-41058396.89	0.0088	0.0088
Venus	-117125-06-20 20:53 J	-41058311.81	-41058311.63	-41058311.43	0.0088	0.0040
Venus	-117124-02-01 08:39 J	-41058086.34	-41058086.14	-41058085.94	0.0088	0.0034
Venus	-117124-09-14 20:10 J	-41057860.86	-41057860.66	-41057860.46	0.0088	0.0028
Venus	-117123-04-28 07:41 J	-41057635.37	-41057635.18	-41057634.96	0.0088	0.0023
Venus	-117123-12-09 19:27 J	-41057409.89	-41057409.69	-41057409.47	0.0089	0.0016
Moon	-117122-07-01 04:34 J	-41057206.47	-41057206.31	-41057206.10	0.0089	0.0061
Earth	-117122-07-01 07:56 J	-41057206.35	-41057206.17	-41057205.99	0.0089	0.0061 *

Venus -117122-07-23 07:12 J -41057184.41 -41057184.20 -41057183.99 0.0089 0.0010
 Venus -117121-03-04 18:58 J -41056958.93 -41056958.71 -41056958.50 0.0089 0.0004
 Earth -117121-07-02 16:34 J -41056839.03 -41056838.81 -41056838.57 0.0089 0.0033
 Moon -117121-07-02 19:27 J -41056838.90 -41056838.69 -41056838.44 0.0089 0.0034 *
 Venus -117121-10-16 06:29 J -41056733.44 -41056733.23 -41056733.01 0.0089 0.0003
 Venus -117120-05-29 18:29 J -41056507.95 -41056507.73 -41056507.52 0.0089 0.0008
 Moon -117120-07-04 22:05 J -41056471.83 -41056471.58 -41056471.33 0.0089 0.0005
 Earth -117120-07-05 01:41 J -41056471.68 -41056471.43 -41056471.18 0.0089 0.0005 *
 Venus -117119-01-10 06:00 J -41056282.46 -41056282.25 -41056282.03 0.0089 0.0014
 Earth -117119-07-07 10:34 J -41056104.30 -41056104.06 -41056103.81 0.0089 0.0024
 Moon -117119-07-07 13:41 J -41056104.16 -41056103.93 -41056103.67 0.0089 0.0024 *
 Venus -117119-08-23 17:46 J -41056056.97 -41056056.76 -41056056.55 0.0089 0.0020
 Venus -117118-04-06 05:32 J -41055831.47 -41055831.27 -41055831.06 0.0089 0.0026
 Moon -117118-07-09 16:48 J -41055736.97 -41055736.80 -41055736.57 0.0089 0.0053
 Earth -117118-07-09 19:12 J -41055736.88 -41055736.70 -41055736.47 0.0089 0.0053 *
 Venus -117118-11-17 17:17 J -41055605.98 -41055605.78 -41055605.58 0.0089 0.0032
 Venus -117117-06-30 04:48 J -41055380.48 -41055380.30 -41055380.09 0.0089 0.0038
 Earth -117117-07-11 04:34 J -41055369.39 -41055369.31 -41055369.18 0.0089 0.0081
 Moon -117117-07-11 06:44 J -41055369.31 -41055369.22 -41055369.10 0.0089 0.0081 *
 Venus -117116-02-10 16:34 J -41055154.98 -41055154.81 -41055154.61 0.0089 0.0044
 Venus -117116-09-24 04:20 J -41054929.48 -41054929.32 -41054929.12 0.0089 0.0050
 Venus -117115-05-07 16:20 J -41054703.97 -41054703.82 -41054703.64 0.0089 0.0056
 Venus -117115-12-19 04:34 J -41054478.46 -41054478.31 -41054478.15 0.0089 0.0061
 Venus -117114-08-01 16:20 J -41054252.95 -41054252.82 -41054252.67 0.0089 0.0067
 Venus -117113-03-14 04:05 J -41054027.44 -41054027.33 -41054027.20 0.0089 0.0073
 Venus -117113-10-25 15:51 J -41053801.91 -41053801.84 -41053801.72 0.0089 0.0079
 Venus -117112-06-08 04:05 J -41053576.37 -41053576.33 -41053576.25 0.0089 0.0085
 Mars -117102-01-28 19:12 J -41050054.73 -41050054.70 -41050054.61 0.0089 0.0087
 Mars -117101-12-23 14:10 J -41049359.98 -41049359.91 -41049359.78 0.0089 0.0084
 Mars -117099-11-18 06:58 J -41048665.33 -41048665.21 -41048665.06 0.0089 0.0080

Mars -117097-10-12 21:51 J -41047970.72 -41047970.59 -41047970.40 0.0089 0.0076
 Mars -117095-09-07 12:58 J -41047276.14 -41047275.96 -41047275.78 0.0089 0.0071
 Mercury -117093-05-03 09:51 J -41046672.12 -41046672.09 -41046672.02 0.0089 0.0085
 Mercury -117093-07-30 13:27 J -41046584.02 -41046583.94 -41046583.86 0.0089 0.0079
 Mars -117093-08-02 00:58 J -41046581.62 -41046581.46 -41046581.22 0.0089 0.0067
 Mercury -117093-10-26 16:05 J -41046495.91 -41046495.83 -41046495.72 0.0089 0.0074
 Mercury -117092-01-22 18:58 J -41046407.80 -41046407.71 -41046407.57 0.0089 0.0069
 Mercury -117092-04-20 22:20 J -41046319.69 -41046319.57 -41046319.43 0.0089 0.0063
 Mercury -117092-07-18 01:12 J -41046231.57 -41046231.45 -41046231.29 0.0089 0.0058
 Mercury -117092-10-14 04:34 J -41046143.45 -41046143.31 -41046143.15 0.0089 0.0052
 Mercury -117091-01-10 07:27 J -41046055.32 -41046055.19 -41046055.02 0.0089 0.0047
 Mercury -117091-04-08 10:48 J -41045967.20 -41045967.05 -41045966.88 0.0089 0.0041
 Mars -117091-06-27 12:44 J -41045887.18 -41045886.97 -41045886.74 0.0089 0.0061
 Mercury -117091-07-05 14:10 J -41045879.08 -41045878.91 -41045878.74 0.0089 0.0035
 Mercury -117091-10-01 17:03 J -41045790.95 -41045790.79 -41045790.61 0.0089 0.0030
 Mercury -117091-12-28 20:24 J -41045702.82 -41045702.65 -41045702.47 0.0089 0.0024
 Mercury -117090-03-26 23:32 J -41045614.69 -41045614.52 -41045614.34 0.0089 0.0019
 Mercury -117090-06-23 02:39 J -41045526.56 -41045526.39 -41045526.20 0.0089 0.0013
 Mercury -117090-09-19 06:00 J -41045438.43 -41045438.25 -41045438.07 0.0089 0.0007
 Mercury -117090-12-16 09:08 J -41045350.30 -41045350.12 -41045349.93 0.0089 0.0002
 Mercury -117089-03-13 12:29 J -41045262.17 -41045261.98 -41045261.80 0.0089 0.0004
 Mars -117089-05-21 22:48 J -41045192.77 -41045192.55 -41045192.30 0.0089 0.0056
 Mercury -117089-06-09 15:36 J -41045174.03 -41045173.85 -41045173.66 0.0089 0.0010
 Mercury -117089-09-05 18:44 J -41045085.89 -41045085.72 -41045085.53 0.0089 0.0016
 Mercury -117089-12-02 21:51 J -41044997.76 -41044997.59 -41044997.40 0.0089 0.0022
 Mercury -117088-03-01 01:27 J -41044909.62 -41044909.44 -41044909.27 0.0089 0.0027
 Mercury -117088-05-28 04:34 J -41044821.48 -41044821.31 -41044821.13 0.0089 0.0033
 Mercury -117088-08-24 07:41 J -41044733.34 -41044733.18 -41044733.00 0.0089 0.0039
 Mercury -117088-11-20 10:48 J -41044645.19 -41044645.05 -41044644.87 0.0089 0.0045
 Mercury -117087-02-16 14:10 J -41044557.05 -41044556.91 -41044556.74 0.0089 0.0051

Mars -117087-04-16 08:10 J -41044498.41 -41044498.16 -41044497.91 0.0089 0.0050
 Mercury -117087-05-15 17:46 J -41044468.90 -41044468.76 -41044468.61 0.0089 0.0056
 Mercury -117087-08-11 20:53 J -41044380.75 -41044380.63 -41044380.48 0.0089 0.0062
 Mercury -117087-11-08 00:15 J -41044292.60 -41044292.49 -41044292.36 0.0089 0.0068
 Mercury -117086-02-04 03:36 J -41044204.44 -41044204.35 -41044204.24 0.0089 0.0074
 Mercury -117086-05-03 06:44 J -41044116.28 -41044116.22 -41044116.12 0.0089 0.0080
 Mercury -117086-07-30 10:05 J -41044028.11 -41044028.08 -41044028.01 0.0089 0.0086
 Mars -117085-03-10 15:08 J -41043804.13 -41043803.87 -41043803.61 0.0089 0.0044
 Mars -117083-02-02 21:36 J -41043109.86 -41043109.60 -41043109.32 0.0089 0.0038
 Mars -117082-12-29 03:22 J -41042415.63 -41042415.36 -41042415.07 0.0089 0.0032
 Mars -117080-11-22 07:41 J -41041721.46 -41041721.18 -41041720.89 0.0089 0.0025
 Mars -117078-10-17 11:17 J -41041027.32 -41041027.03 -41041026.73 0.0089 0.0019
 Mars -117076-09-10 15:51 J -41040333.14 -41040332.84 -41040332.54 0.0089 0.0012
 Mars -117074-08-05 18:00 J -41039639.04 -41039638.75 -41039638.44 0.0089 0.0006
 Mars -117072-06-29 19:41 J -41038944.98 -41038944.68 -41038944.38 0.0089 0.0001
 Mars -117070-05-24 21:22 J -41038250.90 -41038250.61 -41038250.31 0.0089 0.0008
 Mars -117068-04-17 22:48 J -41037556.84 -41037556.55 -41037556.25 0.0089 0.0014
 Mars -117066-03-12 22:48 J -41036862.83 -41036862.55 -41036862.25 0.0089 0.0021
 Mars -117064-02-03 23:46 J -41036168.78 -41036168.51 -41036168.21 0.0089 0.0027
 Mars -117063-12-30 01:12 J -41035474.72 -41035474.45 -41035474.17 0.0089 0.0033
 Mars -117061-11-23 01:56 J -41034780.68 -41034780.42 -41034780.15 0.0089 0.0039
 Mars -117059-10-18 03:08 J -41034086.62 -41034086.37 -41034086.11 0.0089 0.0045
 Mars -117057-09-11 04:34 J -41033392.53 -41033392.31 -41033392.05 0.0089 0.0051
 Mars -117055-08-06 06:00 J -41032698.47 -41032698.25 -41032698.01 0.0089 0.0056
 Mars -117053-06-30 07:27 J -41032004.40 -41032004.19 -41032003.97 0.0089 0.0061
 Mars -117051-05-25 10:05 J -41031310.26 -41031310.08 -41031309.86 0.0089 0.0066
 Mars -117049-04-18 12:29 J -41030616.13 -41030615.98 -41030615.77 0.0089 0.0071
 Mars -117047-03-13 15:36 J -41029921.99 -41029921.85 -41029921.67 0.0089 0.0075
 Venus -117047-04-13 12:44 J -41029891.03 -41029890.97 -41029890.88 0.0089 0.0083
 Venus -117047-11-25 03:08 J -41029665.46 -41029665.37 -41029665.23 0.0089 0.0077

Venus -117046-07-08 17:46 J -41029439.87 -41029439.76 -41029439.60 0.0089 0.0071
 Mars -117045-02-05 20:24 J -41029227.76 -41029227.65 -41029227.49 0.0089 0.0079
 Venus -117045-02-19 08:53 J -41029214.28 -41029214.13 -41029213.97 0.0089 0.0064
 Venus -117045-10-01 23:17 J -41028988.68 -41028988.53 -41028988.34 0.0089 0.0058
 Venus -117044-05-15 13:56 J -41028763.09 -41028762.92 -41028762.72 0.0089 0.0052
 Venus -117044-12-27 04:48 J -41028537.49 -41028537.30 -41028537.10 0.0089 0.0045
 Mars -117044-12-31 02:53 J -41028533.48 -41028533.38 -41028533.25 0.0089 0.0082
 Venus -117043-08-09 19:12 J -41028311.90 -41028311.70 -41028311.49 0.0089 0.0039
 Venus -117042-03-23 09:36 J -41028086.30 -41028086.10 -41028085.87 0.0089 0.0033
 Venus -117042-11-04 00:29 J -41027860.69 -41027860.48 -41027860.26 0.0089 0.0026
 Mars -117042-11-25 08:39 J -41027839.21 -41027839.14 -41027839.04 0.0089 0.0085
 Venus -117041-06-16 14:53 J -41027635.10 -41027634.88 -41027634.65 0.0089 0.0020
 Earth -117040-01-06 14:53 J -41027431.00 -41027430.88 -41027430.73 0.0089 0.0075
 Moon -117040-01-06 18:00 J -41027430.88 -41027430.75 -41027430.56 0.0089 0.0071 *
 Venus -117040-01-28 05:17 J -41027409.50 -41027409.28 -41027409.05 0.0089 0.0013
 Venus -117040-09-10 19:41 J -41027183.90 -41027183.68 -41027183.45 0.0089 0.0007
 Mars -117040-10-19 15:36 J -41027144.86 -41027144.85 -41027144.77 0.0089 0.0088
 Moon -117039-01-09 02:53 J -41027063.58 -41027063.38 -41027063.15 0.0089 0.0050
 Earth -117039-01-09 05:32 J -41027063.49 -41027063.27 -41027063.03 0.0089 0.0045 *
 Venus -117039-04-24 10:05 J -41026958.30 -41026958.08 -41026957.85 0.0089 0.0002
 Venus -117039-12-06 00:29 J -41026732.70 -41026732.48 -41026732.25 0.0089 0.0006
 Earth -117038-01-11 19:41 J -41026695.93 -41026695.68 -41026695.41 0.0089 0.0016
 Moon -117038-01-11 21:22 J -41026695.88 -41026695.61 -41026695.34 0.0089 0.0011 *
 Venus -117038-07-19 14:39 J -41026507.11 -41026506.89 -41026506.66 0.0089 0.0013
 Moon -117037-01-14 09:22 J -41026328.36 -41026328.11 -41026327.85 0.0089 0.0011
 Earth -117037-01-14 10:05 J -41026328.34 -41026328.08 -41026327.82 0.0089 0.0015 *
 Venus -117037-03-01 05:03 J -41026281.51 -41026281.29 -41026281.07 0.0089 0.0019
 Venus -117037-10-12 19:27 J -41026055.90 -41026055.69 -41026055.47 0.0089 0.0025
 Moon -117036-01-15 22:34 J -41025960.77 -41025960.56 -41025960.31 0.0089 0.0049
 Earth -117036-01-15 23:32 J -41025960.73 -41025960.52 -41025960.27 0.0089 0.0045 *

Venus -117036-05-26 09:22 J -41025830.30 -41025830.11 -41025829.88 0.0089 0.0032
 Venus -117035-01-06 23:46 J -41025604.70 -41025604.51 -41025604.29 0.0089 0.0038
 Earth -117035-01-18 13:27 J -41025593.07 -41025592.94 -41025592.78 0.0089 0.0074
 Moon -117035-01-18 15:36 J -41025592.99 -41025592.85 -41025592.68 0.0089 0.0070 *
 Venus -117035-08-20 14:10 J -41025379.11 -41025378.91 -41025378.71 0.0089 0.0044
 Venus -117034-04-03 03:51 J -41025153.50 -41025153.34 -41025153.13 0.0089 0.0051
 Venus -117034-11-14 18:15 J -41024927.90 -41024927.74 -41024927.55 0.0089 0.0057
 Venus -117033-06-27 08:24 J -41024702.29 -41024702.15 -41024701.97 0.0089 0.0063
 Venus -117032-02-07 22:34 J -41024476.69 -41024476.56 -41024476.40 0.0089 0.0069
 Venus -117032-09-21 12:44 J -41024251.08 -41024250.97 -41024250.84 0.0089 0.0075
 Venus -117031-05-05 02:39 J -41024025.46 -41024025.39 -41024025.28 0.0089 0.0081
 Venus -117031-12-16 16:48 J -41023799.83 -41023799.80 -41023799.74 0.0089 0.0087
 Mars -117021-10-25 16:34 J -41020198.85 -41020198.81 -41020198.74 0.0088 0.0087
 Mars -117019-09-20 15:08 J -41019503.93 -41019503.87 -41019503.74 0.0088 0.0085
 Mars -117017-08-15 15:36 J -41018808.97 -41018808.85 -41018808.71 0.0088 0.0081
 Mars -117015-07-11 17:32 J -41018113.92 -41018113.77 -41018113.60 0.0088 0.0077
 Mars -117013-06-05 21:08 J -41017418.79 -41017418.62 -41017418.43 0.0088 0.0073
 Mercury -117012-05-27 22:34 J -41017062.59 -41017062.56 -41017062.52 0.0088 0.0085
 Mercury -117012-08-24 00:00 J -41016974.54 -41016974.50 -41016974.43 0.0088 0.0080
 Mercury -117012-11-20 01:56 J -41016886.49 -41016886.42 -41016886.35 0.0088 0.0076
 Mercury -117011-02-16 03:22 J -41016798.44 -41016798.36 -41016798.27 0.0088 0.0071
 Mars -117011-05-02 01:41 J -41016723.61 -41016723.43 -41016723.20 0.0088 0.0069
 Mercury -117011-05-15 04:48 J -41016710.38 -41016710.30 -41016710.20 0.0088 0.0067
 Mercury -117011-08-11 06:29 J -41016622.32 -41016622.23 -41016622.13 0.0088 0.0063
 Mercury -117011-11-07 07:56 J -41016534.26 -41016534.17 -41016534.05 0.0088 0.0059
 Mercury -117010-02-03 09:36 J -41016446.20 -41016446.10 -41016445.98 0.0088 0.0054
 Mercury -117010-05-02 11:17 J -41016358.14 -41016358.03 -41016357.91 0.0088 0.0050
 Mercury -117010-07-29 12:44 J -41016270.08 -41016269.97 -41016269.84 0.0088 0.0046
 Mercury -117010-10-25 14:10 J -41016182.02 -41016181.91 -41016181.78 0.0088 0.0042
 Mercury -117009-01-21 15:51 J -41016093.96 -41016093.84 -41016093.71 0.0088 0.0037

Mars -117009-03-27 07:56 J -41016028.37 -41016028.17 -41016027.92 0.0088 0.0064
 Mercury -117009-04-18 17:32 J -41016005.90 -41016005.77 -41016005.64 0.0088 0.0033
 Mercury -117009-07-15 18:58 J -41015917.84 -41015917.71 -41015917.58 0.0088 0.0028
 Mercury -117009-10-11 20:24 J -41015829.78 -41015829.65 -41015829.51 0.0088 0.0024
 Mercury -117008-01-07 22:05 J -41015741.72 -41015741.58 -41015741.44 0.0088 0.0020
 Mercury -117008-04-05 23:32 J -41015653.65 -41015653.52 -41015653.38 0.0088 0.0016
 Mercury -117008-07-03 01:12 J -41015565.59 -41015565.45 -41015565.32 0.0088 0.0011
 Mercury -117008-09-29 02:39 J -41015477.53 -41015477.39 -41015477.25 0.0088 0.0007
 Mercury -117008-12-26 04:05 J -41015389.47 -41015389.33 -41015389.19 0.0088 0.0003
 Mars -117007-02-20 15:51 J -41015333.05 -41015332.84 -41015332.56 0.0088 0.0059
 Mercury -117007-03-24 05:32 J -41015301.40 -41015301.27 -41015301.13 0.0088 0.0004
 Mercury -117007-06-20 07:12 J -41015213.34 -41015213.20 -41015213.06 0.0088 0.0006
 Mercury -117007-09-16 08:39 J -41015125.28 -41015125.14 -41015125.00 0.0088 0.0010
 Mercury -117007-12-13 10:05 J -41015037.21 -41015037.08 -41015036.94 0.0088 0.0014
 Mercury -117006-03-11 11:32 J -41014949.15 -41014949.02 -41014948.88 0.0088 0.0018
 Mercury -117006-06-07 12:58 J -41014861.09 -41014860.96 -41014860.82 0.0088 0.0023
 Mercury -117006-09-03 14:39 J -41014773.02 -41014772.89 -41014772.76 0.0088 0.0027
 Mercury -117006-11-30 15:51 J -41014684.96 -41014684.84 -41014684.70 0.0088 0.0031
 Mars -117005-01-17 01:27 J -41014637.67 -41014637.44 -41014637.15 0.0088 0.0053
 Mercury -117005-02-26 17:17 J -41014596.90 -41014596.78 -41014596.65 0.0088 0.0035
 Mercury -117005-05-24 18:44 J -41014508.83 -41014508.72 -41014508.59 0.0088 0.0040
 Mercury -117005-08-20 20:10 J -41014420.77 -41014420.66 -41014420.53 0.0088 0.0044
 Mercury -117005-11-16 21:51 J -41014332.70 -41014332.59 -41014332.47 0.0088 0.0047
 Mercury -117004-02-12 23:17 J -41014244.64 -41014244.53 -41014244.42 0.0088 0.0051
 Mercury -117004-05-12 00:44 J -41014156.57 -41014156.47 -41014156.36 0.0088 0.0056
 Mercury -117004-08-08 02:10 J -41014068.51 -41014068.41 -41014068.31 0.0088 0.0060
 Mercury -117004-11-04 03:36 J -41013980.44 -41013980.35 -41013980.26 0.0088 0.0064
 Mars -117004-12-12 12:00 J -41013942.25 -41013942.00 -41013941.69 0.0088 0.0047
 Mercury -117003-01-31 05:03 J -41013892.37 -41013892.29 -41013892.20 0.0088 0.0068
 Mercury -117003-04-29 06:29 J -41013804.31 -41013804.23 -41013804.15 0.0088 0.0072

Mercury -117003-07-26 07:41 J -41013716.24 -41013716.18 -41013716.10 0.0088 0.0076

Mercury -117003-10-22 08:53 J -41013628.17 -41013628.13 -41013628.06 0.0088 0.0081

Mercury -117002-01-18 10:20 J -41013540.09 -41013540.07 -41013540.01 0.0088 0.0085

Mercury -117002-04-16 12:00 J -41013452.00 -41013452.00 -41013451.98 0.0088 0.0088

Mars -117002-11-08 00:44 J -41013246.75 -41013246.47 -41013246.16 0.0088 0.0040

117TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 117th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-117000-10-03 13:56 J	-41012551.20	-41012550.92	-41012550.59	0.0088	0.0033		
Mars	-116998-08-30 04:34 J	-41011855.61	-41011855.31	-41011854.98	0.0088	0.0026		
Mars	-116996-07-25 20:39 J	-41011159.95	-41011159.64	-41011159.30	0.0088	0.0019		
Mars	-116994-06-21 14:10 J	-41010464.23	-41010463.91	-41010463.57	0.0088	0.0012		
Jupiter	-116994-07-14 04:48 J	-41010441.74	-41010441.30	-41010440.79	0.0088	0.0039		
Mars	-116992-05-17 08:24 J	-41009768.48	-41009768.15	-41009767.82	0.0088	0.0004		
Mars	-116990-04-13 02:53 J	-41009072.71	-41009072.38	-41009072.04	0.0088	0.0003		
Mars	-116988-03-08 22:05 J	-41008376.91	-41008376.58	-41008376.24	0.0088	0.0010		
Mars	-116986-02-02 17:32 J	-41007681.09	-41007680.77	-41007680.44	0.0088	0.0017		
Mars	-116985-12-29 13:56 J	-41006985.24	-41006984.92	-41006984.60	0.0088	0.0025		
Mars	-116983-11-25 10:05 J	-41006289.37	-41006289.08	-41006288.75	0.0088	0.0032		

Mars	-116981-10-21 06:44 J	-41005593.49	-41005593.22	-41005592.89	0.0088	0.0040
Mars	-116979-09-17 04:05 J	-41004897.61	-41004897.33	-41004897.04	0.0088	0.0046
Mars	-116977-08-13 00:15 J	-41004201.74	-41004201.49	-41004201.20	0.0088	0.0053
Mars	-116975-07-09 19:56 J	-41003505.89	-41003505.67	-41003505.39	0.0088	0.0059
Mars	-116973-06-04 15:08 J	-41002810.06	-41002809.87	-41002809.60	0.0088	0.0065
Mars	-116971-05-01 11:03 J	-41002114.23	-41002114.04	-41002113.82	0.0088	0.0070
Mars	-116969-03-27 05:46 J	-41001418.43	-41001418.26	-41001418.07	0.0088	0.0075
Mars	-116967-02-20 23:46 J	-41000722.62	-41000722.51	-41000722.33	0.0088	0.0080
Venus	-116966-10-15 09:36 J	-41000121.13	-41000121.10	-41000121.03	0.0088	0.0086
Mars	-116965-01-17 17:32 J	-41000026.85	-41000026.77	-41000026.64	0.0088	0.0084
Venus	-116965-05-27 21:08 J	-40999895.69	-40999895.62	-40999895.51	0.0088	0.0080
Venus	-116964-01-08 08:24 J	-40999670.24	-40999670.15	-40999670.01	0.0088	0.0075
Venus	-116964-08-21 19:56 J	-40999444.78	-40999444.67	-40999444.52	0.0088	0.0069
Mars	-116964-12-13 09:08 J	-40999331.13	-40999331.12	-40999331.03	0.0088	0.0088
Venus	-116963-04-04 07:41 J	-40999219.32	-40999219.18	-40999219.02	0.0088	0.0063
Venus	-116963-11-15 18:58 J	-40998993.85	-40998993.71	-40998993.53	0.0088	0.0058
Venus	-116962-06-29 06:29 J	-40998768.39	-40998768.23	-40998768.04	0.0088	0.0052
Venus	-116961-02-09 18:00 J	-40998542.92	-40998542.75	-40998542.56	0.0088	0.0046
Venus	-116961-09-22 05:46 J	-40998317.45	-40998317.26	-40998317.07	0.0088	0.0040
Venus	-116960-05-05 17:32 J	-40998091.97	-40998091.77	-40998091.57	0.0089	0.0034
Venus	-116960-12-17 04:48 J	-40997866.49	-40997866.30	-40997866.09	0.0089	0.0028
Venus	-116959-07-30 16:20 J	-40997641.02	-40997640.82	-40997640.60	0.0089	0.0023
Venus	-116958-03-13 04:05 J	-40997415.53	-40997415.33	-40997415.12	0.0089	0.0016
Earth	-116958-06-30 13:27 J	-40997306.04	-40997305.94	-40997305.79	0.0089	0.0077
Moon	-116958-06-30 17:03 J	-40997305.86	-40997305.79	-40997305.67	0.0089	0.0082 *
Venus	-116958-10-24 15:36 J	-40997190.05	-40997189.85	-40997189.63	0.0089	0.0011
Venus	-116957-06-06 03:36 J	-40996964.57	-40996964.35	-40996964.14	0.0089	0.0004
Moon	-116957-07-01 19:41 J	-40996938.90	-40996938.68	-40996938.47	0.0089	0.0044
Earth	-116957-07-01 22:20 J	-40996938.76	-40996938.57	-40996938.34	0.0089	0.0049 *
Venus	-116956-01-17 15:08 J	-40996739.08	-40996738.87	-40996738.65	0.0089	0.0002

Earth -116956-07-04 07:12 J -40996571.43 -40996571.20 -40996570.94 0.0089 0.0021
 Moon -116956-07-04 10:05 J -40996571.32 -40996571.08 -40996570.82 0.0089 0.0025 *
 Venus -116956-08-31 02:53 J -40996513.59 -40996513.38 -40996513.16 0.0089 0.0008
 Venus -116955-04-13 14:39 J -40996288.09 -40996287.89 -40996287.67 0.0089 0.0014
 Moon -116955-07-06 14:39 J -40996204.12 -40996203.89 -40996203.64 0.0089 0.0013
 Earth -116955-07-06 16:34 J -40996204.06 -40996203.81 -40996203.56 0.0089 0.0008 *
 Venus -116955-11-25 02:24 J -40996062.60 -40996062.40 -40996062.19 0.0089 0.0020
 Venus -116954-07-08 14:10 J -40995837.11 -40995836.91 -40995836.70 0.0089 0.0026
 Moon -116954-07-09 01:27 J -40995836.66 -40995836.44 -40995836.18 0.0089 0.0033
 Earth -116954-07-09 01:41 J -40995836.65 -40995836.43 -40995836.20 0.0089 0.0037 *
 Venus -116953-02-19 01:41 J -40995611.61 -40995611.43 -40995611.22 0.0089 0.0032
 Earth -116953-07-10 11:03 J -40995469.21 -40995469.04 -40995468.87 0.0089 0.0065
 Moon -116953-07-10 11:17 J -40995469.15 -40995469.03 -40995468.85 0.0089 0.0070 *
 Venus -116953-10-01 13:27 J -40995386.12 -40995385.94 -40995385.73 0.0089 0.0038
 Venus -116952-05-15 01:27 J -40995160.61 -40995160.44 -40995160.24 0.0089 0.0044
 Venus -116952-12-26 13:12 J -40994935.11 -40994934.95 -40994934.75 0.0089 0.0050
 Venus -116951-08-09 01:27 J -40994709.61 -40994709.44 -40994709.27 0.0089 0.0055
 Venus -116950-03-22 13:12 J -40994484.10 -40994483.95 -40994483.79 0.0089 0.0061
 Venus -116950-11-03 00:58 J -40994258.59 -40994258.46 -40994258.31 0.0089 0.0067
 Venus -116949-06-15 12:44 J -40994033.07 -40994032.97 -40994032.83 0.0089 0.0073
 Venus -116948-01-27 00:44 J -40993807.55 -40993807.47 -40993807.35 0.0089 0.0079
 Venus -116948-09-09 12:58 J -40993582.02 -40993581.96 -40993581.89 0.0089 0.0084
 Mars -116939-09-12 00:44 J -40990292.50 -40990292.47 -40990292.37 0.0089 0.0087
 Mars -116937-08-06 20:24 J -40989597.74 -40989597.65 -40989597.52 0.0089 0.0083
 Mars -116935-07-02 15:36 J -40988902.98 -40988902.85 -40988902.70 0.0089 0.0079
 Mars -116933-05-27 08:24 J -40988208.29 -40988208.15 -40988207.96 0.0089 0.0075
 Mars -116931-04-21 23:32 J -40987513.69 -40987513.52 -40987513.31 0.0089 0.0070
 Mars -116929-03-16 13:41 J -40986819.12 -40986818.93 -40986818.70 0.0089 0.0065
 Mercury -116928-01-28 07:12 J -40986501.24 -40986501.20 -40986501.13 0.0089 0.0084
 Mercury -116928-04-26 10:05 J -40986413.14 -40986413.08 -40986412.98 0.0089 0.0079

Mercury -116928-07-23 13:27 J -40986325.03 -40986324.94 -40986324.83 0.0089 0.0073

Mercury -116928-10-19 16:20 J -40986236.92 -40986236.82 -40986236.69 0.0089 0.0068

Mercury -116927-01-15 19:41 J -40986148.80 -40986148.68 -40986148.55 0.0089 0.0062

Mars -116927-02-09 02:10 J -40986124.61 -40986124.41 -40986124.15 0.0089 0.0060

Mercury -116927-04-13 22:34 J -40986060.68 -40986060.56 -40986060.41 0.0089 0.0057

Mercury -116927-07-11 01:56 J -40985972.56 -40985972.42 -40985972.27 0.0089 0.0051

Mercury -116927-10-07 04:48 J -40985884.44 -40985884.30 -40985884.13 0.0089 0.0046

Mercury -116926-01-03 08:10 J -40985796.32 -40985796.16 -40985795.99 0.0089 0.0040

Mercury -116926-04-01 11:03 J -40985708.19 -40985708.04 -40985707.86 0.0089 0.0035

Mercury -116926-06-28 14:24 J -40985620.07 -40985619.90 -40985619.72 0.0089 0.0029

Mercury -116926-09-24 17:46 J -40985531.94 -40985531.76 -40985531.59 0.0089 0.0023

Mercury -116926-12-21 20:39 J -40985443.81 -40985443.64 -40985443.45 0.0089 0.0018

Mars -116925-01-04 12:58 J -40985430.18 -40985429.96 -40985429.70 0.0089 0.0054

Mercury -116925-03-19 00:00 J -40985355.68 -40985355.50 -40985355.32 0.0089 0.0012

Mercury -116925-06-15 03:08 J -40985267.55 -40985267.37 -40985267.18 0.0089 0.0007

Mercury -116925-09-11 06:29 J -40985179.42 -40985179.23 -40985179.05 0.0089 0.0001

Mercury -116925-12-08 09:36 J -40985091.28 -40985091.10 -40985090.92 0.0089 0.0005

Mercury -116924-03-06 12:44 J -40985003.15 -40985002.97 -40985002.78 0.0089 0.0011

Mercury -116924-06-02 15:51 J -40984915.01 -40984914.84 -40984914.65 0.0089 0.0017

Mercury -116924-08-29 19:12 J -40984826.87 -40984826.70 -40984826.52 0.0089 0.0022

Mercury -116924-11-25 22:20 J -40984738.74 -40984738.57 -40984738.38 0.0089 0.0028

Mars -116924-11-28 22:48 J -40984735.79 -40984735.55 -40984735.28 0.0089 0.0048

Mercury -116923-02-22 01:41 J -40984650.60 -40984650.43 -40984650.25 0.0089 0.0034

Mercury -116923-05-21 04:48 J -40984562.45 -40984562.30 -40984562.12 0.0089 0.0040

Mercury -116923-08-17 08:24 J -40984474.31 -40984474.15 -40984473.99 0.0089 0.0045

Mercury -116923-11-13 11:32 J -40984386.17 -40984386.02 -40984385.86 0.0089 0.0051

Mercury -116922-02-09 14:39 J -40984298.02 -40984297.89 -40984297.73 0.0089 0.0057

Mercury -116922-05-08 18:00 J -40984209.87 -40984209.75 -40984209.61 0.0089 0.0063

Mercury -116922-08-04 21:08 J -40984121.72 -40984121.62 -40984121.48 0.0089 0.0069

Mars -116922-10-24 08:10 J -40984041.41 -40984041.16 -40984040.87 0.0089 0.0042

Mercury -116922-11-01 00:29 J -40984033.56 -40984033.48 -40984033.36 0.0089 0.0075

Mercury -116921-01-28 04:20 J -40983945.40 -40983945.32 -40983945.24 0.0089 0.0080

Mercury -116921-04-25 07:27 J -40983857.22 -40983857.19 -40983857.14 0.0089 0.0086

Mars -116920-09-17 15:22 J -40983347.11 -40983346.86 -40983346.56 0.0089 0.0036

Mars -116918-08-12 22:34 J -40982652.83 -40982652.56 -40982652.26 0.0089 0.0029

Mars -116916-07-07 05:03 J -40981958.58 -40981958.29 -40981957.99 0.0089 0.0022

Mars -116914-06-01 09:22 J -40981264.39 -40981264.11 -40981263.80 0.0089 0.0016

Mars -116912-04-25 12:29 J -40980570.27 -40980569.98 -40980569.67 0.0089 0.0009

Mars -116910-03-20 16:05 J -40979876.12 -40979875.83 -40979875.53 0.0089 0.0003

Mars -116908-02-11 18:44 J -40979182.02 -40979181.72 -40979181.42 0.0089 0.0004

Mars -116906-01-06 19:41 J -40978487.97 -40978487.68 -40978487.38 0.0089 0.0011

Mars -116905-11-30 21:08 J -40977793.90 -40977793.62 -40977793.31 0.0089 0.0018

Mars -116903-10-25 23:17 J -40977099.81 -40977099.53 -40977099.24 0.0089 0.0024

Mars -116901-09-18 23:46 J -40976405.77 -40976405.51 -40976405.21 0.0089 0.0031

Mars -116899-08-14 00:15 J -40975711.74 -40975711.49 -40975711.20 0.0089 0.0037

Mars -116897-07-08 01:27 J -40975017.68 -40975017.44 -40975017.16 0.0089 0.0043

Mars -116895-06-02 01:41 J -40974323.66 -40974323.43 -40974323.16 0.0089 0.0049

Mars -116893-04-26 02:24 J -40973629.62 -40973629.40 -40973629.15 0.0089 0.0054

Mars -116891-03-21 03:22 J -40972935.54 -40972935.36 -40972935.10 0.0089 0.0060

Mars -116889-02-13 05:03 J -40972241.46 -40972241.29 -40972241.05 0.0089 0.0065

Mars -116887-01-07 06:58 J -40971547.38 -40971547.21 -40971547.01 0.0089 0.0069

Mars -116886-12-02 10:48 J -40970853.21 -40970853.05 -40970852.88 0.0089 0.0073

Mars -116884-10-26 13:56 J -40970159.05 -40970158.92 -40970158.76 0.0089 0.0077

Venus -116883-07-15 18:29 J -40969896.79 -40969896.73 -40969896.63 0.0089 0.0083

Venus -116882-02-26 09:08 J -40969671.21 -40969671.12 -40969670.99 0.0089 0.0077

Mars -116882-09-20 16:48 J -40969464.90 -40969464.80 -40969464.66 0.0089 0.0081

Venus -116882-10-09 23:46 J -40969445.62 -40969445.51 -40969445.34 0.0089 0.0071

Venus -116881-05-22 14:53 J -40969220.03 -40969219.88 -40969219.71 0.0089 0.0064

Venus -116880-01-03 05:17 J -40968994.44 -40968994.28 -40968994.09 0.0089 0.0058

Mars -116880-08-14 21:22 J -40968770.69 -40968770.61 -40968770.50 0.0089 0.0084

Venus	-116880-08-16 19:41 J	-40968768.84	-40968768.68	-40968768.47	0.0089	0.0052
Venus	-116879-03-30 10:48 J	-40968543.24	-40968543.05	-40968542.85	0.0089	0.0045
Venus	-116879-11-11 01:12 J	-40968317.64	-40968317.45	-40968317.23	0.0089	0.0039
Venus	-116878-06-24 15:36 J	-40968092.04	-40968091.85	-40968091.62	0.0089	0.0033
Mars	-116878-07-10 02:53 J	-40968076.41	-40968076.38	-40968076.29	0.0089	0.0087
Venus	-116877-02-05 06:29 J	-40967866.44	-40967866.23	-40967866.01	0.0089	0.0026
Venus	-116877-09-17 20:53 J	-40967640.84	-40967640.63	-40967640.39	0.0089	0.0020
Moon	-116876-01-05 15:51 J	-40967530.84	-40967530.84	-40967530.80	0.0089	0.0089
Venus	-116876-05-01 11:46 J	-40967415.24	-40967415.01	-40967414.79	0.0089	0.0013
Venus	-116876-12-13 02:10 J	-40967189.64	-40967189.41	-40967189.18	0.0089	0.0007
Earth	-116875-01-08 07:27 J	-40967163.36	-40967163.19	-40967162.98	0.0089	0.0061
Moon	-116875-01-08 07:41 J	-40967163.36	-40967163.18	-40967162.97	0.0089	0.0063 *
Venus	-116875-07-26 16:34 J	-40966964.04	-40966963.81	-40966963.58	0.0089	0.0001
Earth	-116874-01-10 22:05 J	-40966795.82	-40966795.58	-40966795.32	0.0089	0.0031
Moon	-116874-01-10 23:46 J	-40966795.75	-40966795.51	-40966795.26	0.0089	0.0028 *
Venus	-116874-03-09 06:44 J	-40966738.44	-40966738.22	-40966737.99	0.0089	0.0007
Venus	-116874-10-20 21:08 J	-40966512.83	-40966512.62	-40966512.38	0.0089	0.0013
Moon	-116873-01-13 09:51 J	-40966428.36	-40966428.09	-40966427.82	0.0089	0.0004
Earth	-116873-01-13 12:29 J	-40966428.24	-40966427.98	-40966427.72	0.0089	0.0001 *
Venus	-116873-06-02 11:32 J	-40966287.23	-40966287.02	-40966286.79	0.0089	0.0019
Venus	-116872-01-14 01:56 J	-40966061.64	-40966061.42	-40966061.20	0.0089	0.0025
Earth	-116872-01-15 02:24 J	-40966060.65	-40966060.40	-40966060.15	0.0089	0.0029
Moon	-116872-01-15 05:17 J	-40966060.52	-40966060.28	-40966060.03	0.0089	0.0031 *
Venus	-116872-08-27 15:51 J	-40965836.04	-40965835.84	-40965835.62	0.0089	0.0032
Moon	-116871-01-17 12:44 J	-40965693.18	-40965692.97	-40965692.77	0.0089	0.0056
Earth	-116871-01-17 16:05 J	-40965693.01	-40965692.83	-40965692.62	0.0089	0.0059 *
Venus	-116871-04-10 06:00 J	-40965610.44	-40965610.25	-40965610.03	0.0089	0.0038
Venus	-116871-11-21 20:24 J	-40965384.84	-40965384.65	-40965384.44	0.0089	0.0044
Earth	-116870-01-20 06:00 J	-40965325.27	-40965325.25	-40965325.22	0.0089	0.0088
Venus	-116870-07-05 10:20 J	-40965159.24	-40965159.07	-40965158.86	0.0089	0.0051

Venus -116869-02-16 00:29 J -40964933.64 -40964933.48 -40964933.29 0.0089 0.0057
 Venus -116869-09-28 14:39 J -40964708.03 -40964707.89 -40964707.71 0.0089 0.0063
 Venus -116868-05-12 04:48 J -40964482.42 -40964482.30 -40964482.14 0.0089 0.0069
 Venus -116868-12-23 18:58 J -40964256.81 -40964256.71 -40964256.58 0.0089 0.0075
 Venus -116867-08-06 08:53 J -40964031.20 -40964031.13 -40964031.02 0.0089 0.0081
 Venus -116866-03-19 23:03 J -40963805.57 -40963805.54 -40963805.48 0.0089 0.0087
 Mars -116859-07-15 00:44 J -40961131.47 -40961131.47 -40961131.43 0.0089 0.0088
 Mars -116857-06-08 19:56 J -40960436.73 -40960436.67 -40960436.59 0.0088 0.0086
 Mars -116855-05-04 17:17 J -40959741.88 -40959741.78 -40959741.67 0.0088 0.0083
 Mars -116853-03-29 16:19 J -40959046.92 -40959046.82 -40959046.65 0.0088 0.0080
 Mars -116851-02-22 17:03 J -40958351.93 -40958351.79 -40958351.60 0.0088 0.0076
 Mars -116849-01-18 19:12 J -40957656.89 -40957656.70 -40957656.51 0.0088 0.0071
 Mercury -116848-11-25 19:41 J -40956979.68 -40956979.68 -40956979.68 0.0088 0.0088
 Mars -116848-12-13 22:19 J -40956961.75 -40956961.57 -40956961.32 0.0088 0.0067
 Mercury -116847-02-21 20:53 J -40956891.65 -40956891.63 -40956891.57 0.0088 0.0085
 Mercury -116847-05-20 22:48 J -40956803.60 -40956803.55 -40956803.49 0.0088 0.0080
 Mercury -116847-08-17 00:15 J -40956715.55 -40956715.49 -40956715.41 0.0088 0.0075
 Mercury -116847-11-13 01:41 J -40956627.50 -40956627.43 -40956627.33 0.0088 0.0072
 Mercury -116846-02-09 03:36 J -40956539.44 -40956539.35 -40956539.25 0.0088 0.0067
 Mercury -116846-05-08 05:03 J -40956451.38 -40956451.29 -40956451.18 0.0088 0.0062
 Mercury -116846-08-04 06:29 J -40956363.32 -40956363.23 -40956363.11 0.0088 0.0059
 Mercury -116846-10-31 08:24 J -40956275.26 -40956275.15 -40956275.04 0.0088 0.0054
 Mars -116846-11-09 03:07 J -40956266.57 -40956266.37 -40956266.11 0.0088 0.0061
 Mercury -116845-01-27 09:51 J -40956187.20 -40956187.09 -40956186.97 0.0088 0.0049
 Mercury -116845-04-24 11:17 J -40956099.14 -40956099.03 -40956098.90 0.0088 0.0045
 Mercury -116845-07-21 12:58 J -40956011.08 -40956010.96 -40956010.83 0.0088 0.0041
 Mercury -116845-10-17 14:24 J -40955923.02 -40955922.90 -40955922.76 0.0088 0.0037
 Mercury -116844-01-13 16:05 J -40955834.96 -40955834.83 -40955834.70 0.0088 0.0032
 Mercury -116844-04-11 17:46 J -40955746.89 -40955746.76 -40955746.63 0.0088 0.0028
 Mercury -116844-07-08 19:12 J -40955658.83 -40955658.70 -40955658.56 0.0088 0.0024

Mars -116844-10-04 09:36 J -40955571.33 -40955571.10 -40955570.83 0.0088 0.0056
 Mercury -116844-10-04 20:39 J -40955570.77 -40955570.64 -40955570.50 0.0088 0.0020
 Mercury -116844-12-31 22:19 J -40955482.71 -40955482.57 -40955482.43 0.0088 0.0015
 Mercury -116843-03-29 23:46 J -40955394.65 -40955394.51 -40955394.37 0.0088 0.0011
 Mercury -116843-06-26 01:12 J -40955306.58 -40955306.45 -40955306.31 0.0088 0.0007
 Mercury -116843-09-22 02:53 J -40955218.52 -40955218.38 -40955218.24 0.0088 0.0003
 Mercury -116843-12-19 04:19 J -40955130.46 -40955130.32 -40955130.18 0.0088 0.0002
 Mercury -116842-03-17 05:46 J -40955042.40 -40955042.26 -40955042.12 0.0088 0.0006
 Mercury -116842-06-13 07:27 J -40954954.33 -40954954.19 -40954954.06 0.0088 0.0011
 Mars -116842-08-30 17:46 J -40954876.01 -40954875.76 -40954875.47 0.0088 0.0050
 Mercury -116842-09-09 08:53 J -40954866.27 -40954866.13 -40954866.00 0.0088 0.0015
 Mercury -116842-12-06 10:19 J -40954778.21 -40954778.07 -40954777.94 0.0088 0.0019
 Mercury -116841-03-03 11:46 J -40954690.14 -40954690.01 -40954689.88 0.0088 0.0023
 Mercury -116841-05-30 13:12 J -40954602.08 -40954601.95 -40954601.82 0.0088 0.0027
 Mercury -116841-08-26 14:39 J -40954514.01 -40954513.89 -40954513.76 0.0088 0.0031
 Mercury -116841-11-22 16:05 J -40954425.95 -40954425.83 -40954425.70 0.0088 0.0036
 Mercury -116840-02-18 17:31 J -40954337.89 -40954337.77 -40954337.64 0.0088 0.0040
 Mercury -116840-05-17 19:12 J -40954249.82 -40954249.70 -40954249.58 0.0088 0.0044
 Mars -116840-07-26 03:36 J -40954180.61 -40954180.35 -40954180.04 0.0088 0.0044
 Mercury -116840-08-13 20:24 J -40954161.76 -40954161.65 -40954161.53 0.0088 0.0048
 Mercury -116840-11-09 21:51 J -40954073.69 -40954073.59 -40954073.47 0.0088 0.0052
 Mercury -116839-02-05 23:17 J -40953985.63 -40953985.53 -40953985.42 0.0088 0.0056
 Mercury -116839-05-05 00:43 J -40953897.56 -40953897.47 -40953897.36 0.0088 0.0060
 Mercury -116839-08-01 02:10 J -40953809.49 -40953809.41 -40953809.31 0.0088 0.0064
 Mercury -116839-10-28 03:36 J -40953721.42 -40953721.35 -40953721.25 0.0088 0.0069
 Mercury -116838-01-24 05:03 J -40953633.36 -40953633.29 -40953633.20 0.0088 0.0073
 Mercury -116838-04-22 06:29 J -40953545.29 -40953545.23 -40953545.15 0.0088 0.0077
 Mars -116838-06-21 15:07 J -40953485.16 -40953484.87 -40953484.56 0.0088 0.0037
 Mercury -116838-07-19 07:55 J -40953457.22 -40953457.17 -40953457.11 0.0088 0.0080
 Mercury -116838-10-15 09:22 J -40953369.14 -40953369.11 -40953369.07 0.0088 0.0084

Mars	-116836-05-17 03:51 J	-40952789.64	-40952789.34	-40952789.02	0.0088	0.0030
Mars	-116834-04-12 17:31 J	-40952094.09	-40952093.77	-40952093.45	0.0088	0.0023
Mars	-116832-03-08 07:41 J	-40951398.50	-40951398.18	-40951397.85	0.0088	0.0016
Mars	-116830-02-01 23:17 J	-40950702.85	-40950702.53	-40950702.19	0.0088	0.0008
Mars	-116829-12-28 16:34 J	-40950007.14	-40950006.81	-40950006.48	0.0088	0.0001
Mars	-116827-11-24 10:34 J	-40949311.39	-40949311.06	-40949310.73	0.0088	0.0007
Mars	-116825-10-20 05:03 J	-40948615.61	-40948615.29	-40948614.95	0.0088	0.0014
Mars	-116823-09-16 00:29 J	-40947919.79	-40947919.48	-40947919.15	0.0088	0.0022
Mars	-116821-08-11 20:24 J	-40947223.96	-40947223.65	-40947223.33	0.0088	0.0029
Mars	-116819-07-08 16:05 J	-40946528.11	-40946527.83	-40946527.50	0.0088	0.0037
Mars	-116817-06-03 12:43 J	-40945832.24	-40945831.97	-40945831.65	0.0088	0.0043
Mars	-116815-04-30 09:51 J	-40945136.36	-40945136.09	-40945135.80	0.0088	0.0050
Mars	-116813-03-26 06:15 J	-40944440.47	-40944440.24	-40944439.95	0.0088	0.0057
Mars	-116811-02-20 02:53 J	-40943744.58	-40943744.38	-40943744.11	0.0088	0.0063
Mars	-116809-01-16 23:03 J	-40943048.71	-40943048.54	-40943048.29	0.0088	0.0069
Mars	-116808-12-12 18:58 J	-40942352.86	-40942352.71	-40942352.49	0.0088	0.0074
Mars	-116806-11-08 14:24 J	-40941657.02	-40941656.90	-40941656.71	0.0088	0.0079
Mars	-116804-10-04 09:51 J	-40940961.19	-40940961.09	-40940960.97	0.0088	0.0083
Mars	-116802-08-31 04:05 J	-40940265.38	-40940265.33	-40940265.27	0.0088	0.0087
Venus	-116801-01-16 18:29 J	-40940126.75	-40940126.73	-40940126.64	0.0088	0.0086
Venus	-116801-08-29 06:15 J	-40939901.31	-40939901.24	-40939901.13	0.0088	0.0080
Venus	-116800-04-11 18:15 J	-40939675.85	-40939675.74	-40939675.62	0.0088	0.0074
Venus	-116800-11-23 05:17 J	-40939450.39	-40939450.28	-40939450.13	0.0088	0.0069
Venus	-116799-07-06 16:48 J	-40939224.93	-40939224.80	-40939224.64	0.0088	0.0063
Venus	-116798-02-17 04:34 J	-40938999.47	-40938999.31	-40938999.15	0.0088	0.0057
Venus	-116798-09-30 15:36 J	-40938774.00	-40938773.85	-40938773.66	0.0088	0.0052
Venus	-116797-05-13 03:22 J	-40938548.53	-40938548.36	-40938548.16	0.0089	0.0046
Venus	-116797-12-24 14:53 J	-40938323.06	-40938322.88	-40938322.68	0.0089	0.0040
Venus	-116796-08-07 02:39 J	-40938097.59	-40938097.39	-40938097.19	0.0089	0.0034
Venus	-116795-03-20 14:10 J	-40937872.11	-40937871.91	-40937871.71	0.0089	0.0028

Venus	-116795-11-01 01:27 J	-40937646.63	-40937646.44	-40937646.22	0.0089	0.0023
Venus	-116794-06-14 12:58 J	-40937421.16	-40937420.96	-40937420.74	0.0089	0.0017
Venus	-116793-01-26 00:43 J	-40937195.68	-40937195.47	-40937195.25	0.0089	0.0010
Earth	-116793-07-01 05:03 J	-40937038.44	-40937038.29	-40937038.10	0.0089	0.0064
Moon	-116793-07-01 06:29 J	-40937038.39	-40937038.23	-40937038.02	0.0089	0.0062 *
Venus	-116793-09-07 12:29 J	-40936970.20	-40936969.98	-40936969.77	0.0089	0.0004
Venus	-116792-04-21 00:15 J	-40936744.71	-40936744.49	-40936744.28	0.0089	0.0002
Earth	-116792-07-03 13:41 J	-40936671.15	-40936670.93	-40936670.69	0.0089	0.0036
Moon	-116792-07-03 13:41 J	-40936671.13	-40936670.93	-40936670.69	0.0089	0.0039 *
Venus	-116792-12-02 11:46 J	-40936519.22	-40936519.01	-40936518.79	0.0089	0.0008
Moon	-116791-07-05 21:51 J	-40936303.85	-40936303.59	-40936303.33	0.0089	0.0005
Earth	-116791-07-05 22:48 J	-40936303.80	-40936303.55	-40936303.29	0.0089	0.0007 *
Venus	-116791-07-15 23:17 J	-40936293.73	-40936293.53	-40936293.31	0.0089	0.0014
Venus	-116790-02-26 11:03 J	-40936068.24	-40936068.04	-40936067.82	0.0089	0.0020
Earth	-116790-07-08 07:41 J	-40935936.41	-40935936.18	-40935935.93	0.0089	0.0022
Moon	-116790-07-08 10:05 J	-40935936.32	-40935936.08	-40935935.84	0.0089	0.0019 *
Venus	-116790-10-09 22:48 J	-40935842.75	-40935842.55	-40935842.34	0.0089	0.0026
Venus	-116789-05-22 10:34 J	-40935617.24	-40935617.06	-40935616.84	0.0089	0.0032
Moon	-116789-07-09 13:27 J	-40935569.13	-40935568.94	-40935568.73	0.0089	0.0053
Earth	-116789-07-09 16:48 J	-40935569.00	-40935568.80	-40935568.58	0.0089	0.0050 *
Venus	-116788-01-02 22:19 J	-40935391.75	-40935391.57	-40935391.36	0.0089	0.0038
Earth	-116788-07-12 01:41 J	-40935201.52	-40935201.43	-40935201.29	0.0089	0.0079
Moon	-116788-07-12 05:03 J	-40935201.39	-40935201.29	-40935201.14	0.0089	0.0077 *
Venus	-116788-08-16 10:05 J	-40935166.25	-40935166.08	-40935165.88	0.0089	0.0044
Venus	-116787-03-29 21:51 J	-40934940.75	-40934940.59	-40934940.39	0.0089	0.0050
Venus	-116787-11-10 10:05 J	-40934715.24	-40934715.08	-40934714.91	0.0089	0.0055
Venus	-116786-06-23 21:51 J	-40934489.73	-40934489.59	-40934489.42	0.0089	0.0061
Venus	-116785-02-04 09:36 J	-40934264.22	-40934264.10	-40934263.94	0.0089	0.0067
Venus	-116785-09-16 21:22 J	-40934038.71	-40934038.61	-40934038.46	0.0089	0.0073
Venus	-116784-04-30 09:22 J	-40933813.18	-40933813.11	-40933812.99	0.0089	0.0079

Venus -116784-12-11 21:51 J -40933587.65 -40933587.59 -40933587.52 0.0089 0.0084

Mars -116775-04-26 06:43 J -40930530.25 -40930530.22 -40930530.13 0.0089 0.0087

Mars -116773-03-21 04:05 J -40929835.41 -40929835.33 -40929835.19 0.0089 0.0083

Mars -116771-02-13 23:03 J -40929140.64 -40929140.54 -40929140.35 0.0089 0.0079

Mars -116769-01-09 17:46 J -40928445.91 -40928445.76 -40928445.57 0.0089 0.0074

Mars -116768-12-04 11:03 J -40927751.22 -40927751.04 -40927750.83 0.0089 0.0069

Mars -116766-10-30 01:12 J -40927056.63 -40927056.45 -40927056.20 0.0089 0.0064

Mercury -116764-07-29 01:55 J -40926418.43 -40926418.42 -40926418.40 0.0089 0.0088

Mars -116764-09-23 15:22 J -40926362.07 -40926361.86 -40926361.60 0.0089 0.0058

Mercury -116764-10-25 04:48 J -40926330.35 -40926330.30 -40926330.23 0.0089 0.0083

Mercury -116763-01-21 07:41 J -40926242.25 -40926242.18 -40926242.08 0.0089 0.0078

Mercury -116763-04-19 11:03 J -40926154.14 -40926154.04 -40926153.93 0.0089 0.0072

Mercury -116763-07-16 13:55 J -40926066.03 -40926065.92 -40926065.79 0.0089 0.0067

Mercury -116763-10-12 17:03 J -40925977.91 -40925977.79 -40925977.65 0.0089 0.0061

Mercury -116762-01-08 19:55 J -40925889.79 -40925889.67 -40925889.51 0.0089 0.0056

Mercury -116762-04-06 23:17 J -40925801.67 -40925801.53 -40925801.37 0.0089 0.0050

Mercury -116762-07-04 02:10 J -40925713.55 -40925713.41 -40925713.24 0.0089 0.0045

Mars -116762-08-19 04:34 J -40925667.54 -40925667.31 -40925667.05 0.0089 0.0052

Mercury -116762-09-30 05:31 J -40925625.43 -40925625.27 -40925625.10 0.0089 0.0039

Mercury -116762-12-27 08:39 J -40925537.30 -40925537.14 -40925536.96 0.0089 0.0034

Mercury -116761-03-24 11:46 J -40925449.18 -40925449.01 -40925448.83 0.0089 0.0028

Mercury -116761-06-20 15:07 J -40925361.05 -40925360.87 -40925360.69 0.0089 0.0022

Mercury -116761-09-16 18:15 J -40925272.92 -40925272.74 -40925272.56 0.0089 0.0017

Mercury -116761-12-13 21:22 J -40925184.79 -40925184.61 -40925184.43 0.0089 0.0011

Mercury -116760-03-12 00:29 J -40925096.66 -40925096.48 -40925096.29 0.0089 0.0006

Mercury -116760-06-08 03:51 J -40925008.52 -40925008.34 -40925008.16 0.0089 0.0001

Mars -116760-07-13 15:36 J -40924973.09 -40924972.85 -40924972.56 0.0089 0.0046

Mercury -116760-09-04 06:58 J -40924920.39 -40924920.21 -40924920.02 0.0089 0.0006

Mercury -116760-12-01 10:05 J -40924832.26 -40924832.08 -40924831.89 0.0089 0.0012

Mercury -116759-02-27 13:12 J -40924744.12 -40924743.95 -40924743.76 0.0089 0.0018

Mercury -116759-05-26 16:34 J -40924655.98 -40924655.81 -40924655.63 0.0089 0.0023

Mercury -116759-08-22 19:41 J -40924567.84 -40924567.68 -40924567.49 0.0089 0.0029

Mercury -116759-11-18 23:03 J -40924479.70 -40924479.54 -40924479.36 0.0089 0.0035

Mercury -116758-02-15 02:10 J -40924391.56 -40924391.41 -40924391.23 0.0089 0.0041

Mercury -116758-05-14 05:46 J -40924303.42 -40924303.26 -40924303.10 0.0089 0.0046

Mars -116758-06-08 01:41 J -40924278.70 -40924278.43 -40924278.16 0.0089 0.0039

Mercury -116758-08-10 08:53 J -40924215.27 -40924215.13 -40924214.97 0.0089 0.0052

Mercury -116758-11-06 12:00 J -40924127.13 -40924127.00 -40924126.85 0.0089 0.0058

Mercury -116757-02-02 15:07 J -40924038.98 -40924038.87 -40924038.72 0.0089 0.0064

Mercury -116757-04-30 18:29 J -40923950.83 -40923950.73 -40923950.60 0.0089 0.0070

Mercury -116757-07-27 22:19 J -40923862.67 -40923862.57 -40923862.48 0.0089 0.0075

Mercury -116757-10-24 01:27 J -40923774.51 -40923774.44 -40923774.36 0.0089 0.0081

Mercury -116756-01-20 04:34 J -40923686.33 -40923686.31 -40923686.26 0.0089 0.0087

Mars -116756-05-02 10:34 J -40923584.33 -40923584.06 -40923583.77 0.0089 0.0033

Mars -116754-03-27 18:00 J -40922890.04 -40922889.75 -40922889.46 0.0089 0.0026

Mars -116752-02-18 23:31 J -40922195.79 -40922195.52 -40922195.21 0.0089 0.0020

Mars -116750-01-14 05:31 J -40921501.56 -40921501.27 -40921500.96 0.0089 0.0013

Mars -116749-12-08 10:19 J -40920807.36 -40920807.07 -40920806.77 0.0089 0.0006

Mars -116747-11-02 13:41 J -40920113.23 -40920112.93 -40920112.63 0.0089 0.0001

Mars -116745-09-26 17:17 J -40919419.07 -40919418.78 -40919418.48 0.0089 0.0008

Mars -116743-08-21 20:24 J -40918724.93 -40918724.65 -40918724.34 0.0089 0.0015

Mars -116741-07-15 21:51 J -40918030.87 -40918030.59 -40918030.29 0.0089 0.0021

Mars -116739-06-09 23:03 J -40917336.81 -40917336.54 -40917336.24 0.0089 0.0028

Mars -116737-05-04 00:43 J -40916642.73 -40916642.47 -40916642.18 0.0089 0.0034

Mars -116735-03-29 01:41 J -40915948.70 -40915948.43 -40915948.17 0.0089 0.0040

Mars -116733-02-21 01:41 J -40915254.68 -40915254.43 -40915254.17 0.0089 0.0046

Mars -116731-01-15 02:39 J -40914560.61 -40914560.39 -40914560.13 0.0089 0.0052

Mars -116730-12-10 03:22 J -40913866.55 -40913866.36 -40913866.10 0.0089 0.0058

Mars -116728-11-03 04:19 J -40913172.50 -40913172.32 -40913172.08 0.0089 0.0063

Mars -116726-09-28 05:46 J -40912478.42 -40912478.26 -40912478.04 0.0089 0.0068

Mars	-116724-08-22 07:55 J	-40911784.33	-40911784.17	-40911783.99	0.0089	0.0072
Mars	-116722-07-17 08:24 J	-40911090.26	-40911090.15	-40911089.96	0.0089	0.0077
Mars	-116720-06-10 11:17 J	-40910396.13	-40910396.03	-40910395.88	0.0089	0.0080
Venus	-116719-03-05 10:34 J	-40910128.06	-40910128.06	-40910128.03	0.0089	0.0089
Venus	-116719-10-17 00:58 J	-40909902.51	-40909902.46	-40909902.35	0.0089	0.0083
Mars	-116718-05-05 14:24 J	-40909701.97	-40909701.90	-40909701.76	0.0089	0.0084
Venus	-116718-05-30 16:05 J	-40909676.94	-40909676.83	-40909676.71	0.0089	0.0076
Venus	-116717-01-11 06:29 J	-40909451.35	-40909451.23	-40909451.08	0.0089	0.0070
Venus	-116717-08-23 21:07 J	-40909225.76	-40909225.62	-40909225.45	0.0089	0.0064
Mars	-116716-03-29 17:31 J	-40909007.80	-40909007.77	-40909007.67	0.0089	0.0087
Venus	-116716-04-06 11:31 J	-40909000.17	-40909000.02	-40908999.82	0.0089	0.0058
Venus	-116716-11-18 02:39 J	-40908774.57	-40908774.39	-40908774.20	0.0089	0.0051
Venus	-116715-07-01 17:03 J	-40908548.98	-40908548.79	-40908548.58	0.0089	0.0045
Venus	-116714-02-12 07:27 J	-40908323.38	-40908323.19	-40908322.97	0.0089	0.0039
Venus	-116714-09-25 22:19 J	-40908097.77	-40908097.57	-40908097.35	0.0089	0.0032
Venus	-116713-05-08 12:58 J	-40907872.17	-40907871.96	-40907871.73	0.0089	0.0026
Venus	-116713-12-20 03:36 J	-40907646.57	-40907646.35	-40907646.13	0.0089	0.0019
Venus	-116712-08-02 18:00 J	-40907420.97	-40907420.75	-40907420.52	0.0089	0.0013
Earth	-116711-01-07 09:22 J	-40907263.22	-40907263.11	-40907262.95	0.0089	0.0077
Moon	-116711-01-07 12:43 J	-40907263.09	-40907262.97	-40907262.82	0.0089	0.0075 *
Venus	-116711-03-16 08:24 J	-40907195.37	-40907195.15	-40907194.91	0.0089	0.0007
Venus	-116711-10-27 23:17 J	-40906969.76	-40906969.53	-40906969.30	0.0089	0.0001
Moon	-116710-01-09 20:53 J	-40906895.84	-40906895.63	-40906895.40	0.0089	0.0049
Earth	-116710-01-10 00:15 J	-40906895.70	-40906895.49	-40906895.25	0.0089	0.0047 *
Venus	-116710-06-10 13:41 J	-40906744.16	-40906743.93	-40906743.70	0.0089	0.0006
Earth	-116709-01-12 14:53 J	-40906528.13	-40906527.88	-40906527.61	0.0089	0.0017
Moon	-116709-01-12 18:43 J	-40906527.97	-40906527.72	-40906527.45	0.0089	0.0014 *
Venus	-116709-01-22 04:05 J	-40906518.56	-40906518.33	-40906518.10	0.0089	0.0013
Venus	-116709-09-03 18:29 J	-40906292.96	-40906292.73	-40906292.51	0.0089	0.0019
Moon	-116708-01-14 02:10 J	-40906160.66	-40906160.41	-40906160.14	0.0089	0.0012

Earth -116708-01-14 05:31 J -40906160.53 -40906160.27 -40906160.01 0.0089 0.0014 *
 Venus -116708-04-17 08:24 J -40906067.35 -40906067.15 -40906066.92 0.0089 0.0026
 Venus -116708-11-28 22:48 J -40905841.75 -40905841.55 -40905841.33 0.0089 0.0032
 Earth -116707-01-16 19:12 J -40905792.92 -40905792.70 -40905792.46 0.0089 0.0044
 Moon -116707-01-16 22:34 J -40905792.79 -40905792.56 -40905792.33 0.0089 0.0047 *
 Venus -116707-07-12 13:12 J -40905616.15 -40905615.95 -40905615.74 0.0089 0.0038
 Moon -116706-01-19 07:41 J -40905425.32 -40905425.18 -40905425.01 0.0089 0.0071
 Earth -116706-01-19 08:53 J -40905425.25 -40905425.13 -40905424.96 0.0089 0.0074 *
 Venus -116706-02-23 03:07 J -40905390.55 -40905390.37 -40905390.16 0.0089 0.0045
 Venus -116706-10-06 17:17 J -40905164.94 -40905164.78 -40905164.57 0.0089 0.0051
 Saturn -116705-02-13 22:05 J -40905035.18 -40905034.58 -40905033.90 0.0089 0.0038
 Venus -116705-05-19 07:41 J -40904939.34 -40904939.18 -40904938.99 0.0089 0.0057
 Venus -116705-12-30 21:51 J -40904713.74 -40904713.59 -40904713.42 0.0089 0.0063
 Venus -116704-08-13 12:00 J -40904488.13 -40904488.00 -40904487.85 0.0089 0.0069
 Venus -116703-03-27 01:55 J -40904262.52 -40904262.42 -40904262.29 0.0089 0.0075
 Venus -116703-11-07 16:19 J -40904036.90 -40904036.82 -40904036.72 0.0089 0.0081
 Venus -116702-06-21 06:15 J -40903811.27 -40903811.24 -40903811.18 0.0089 0.0087
 Mars -116695-02-26 10:19 J -40901369.10 -40901369.07 -40901369.04 0.0089 0.0088
 Mars -116693-01-22 04:05 J -40900674.37 -40900674.33 -40900674.21 0.0088 0.0086
 Mars -116692-12-16 23:03 J -40899979.61 -40899979.54 -40899979.38 0.0088 0.0083
 Mars -116690-11-11 20:10 J -40899284.77 -40899284.66 -40899284.49 0.0088 0.0079
 Mars -116688-10-06 18:58 J -40898589.84 -40898589.71 -40898589.50 0.0088 0.0075
 Mars -116686-09-01 19:55 J -40897894.84 -40897894.67 -40897894.45 0.0088 0.0070
 Mars -116684-07-27 21:22 J -40897199.80 -40897199.61 -40897199.36 0.0088 0.0065
 Mercury -116683-08-22 18:15 J -40896808.75 -40896808.74 -40896808.71 0.0088 0.0088
 Mercury -116683-11-18 19:41 J -40896720.71 -40896720.68 -40896720.62 0.0088 0.0084
 Mercury -116682-02-14 21:36 J -40896632.66 -40896632.60 -40896632.53 0.0088 0.0079
 Mercury -116682-05-13 23:03 J -40896544.60 -40896544.54 -40896544.45 0.0088 0.0075
 Mars -116682-06-23 01:41 J -40896504.66 -40896504.43 -40896504.18 0.0088 0.0059
 Mercury -116682-08-10 00:29 J -40896456.55 -40896456.48 -40896456.38 0.0088 0.0071

Mercury -116682-11-06 02:24 J -40896368.49 -40896368.40 -40896368.30 0.0088 0.0066

Mercury -116681-02-02 03:51 J -40896280.43 -40896280.34 -40896280.23 0.0088 0.0062

Mercury -116681-04-30 05:17 J -40896192.37 -40896192.28 -40896192.16 0.0088 0.0058

Mercury -116681-07-27 07:12 J -40896104.31 -40896104.20 -40896104.09 0.0088 0.0053

Mercury -116681-10-23 08:39 J -40896016.25 -40896016.14 -40896016.02 0.0088 0.0049

Mercury -116680-01-19 10:05 J -40895928.19 -40895928.08 -40895927.95 0.0088 0.0045

Mercury -116680-04-17 11:46 J -40895840.13 -40895840.01 -40895839.88 0.0088 0.0040

Mars -116680-05-18 06:43 J -40895809.45 -40895809.22 -40895808.93 0.0088 0.0054

Mercury -116680-07-14 13:27 J -40895752.07 -40895751.94 -40895751.81 0.0088 0.0036

Mercury -116680-10-10 14:53 J -40895664.01 -40895663.88 -40895663.74 0.0088 0.0031

Mercury -116679-01-06 16:19 J -40895575.95 -40895575.82 -40895575.68 0.0088 0.0027

Mercury -116679-04-04 18:00 J -40895487.88 -40895487.75 -40895487.61 0.0088 0.0023

Mercury -116679-07-01 19:27 J -40895399.82 -40895399.69 -40895399.55 0.0088 0.0019

Mercury -116679-09-27 21:07 J -40895311.76 -40895311.62 -40895311.48 0.0088 0.0014

Mercury -116679-12-24 22:34 J -40895223.70 -40895223.56 -40895223.42 0.0088 0.0010

Mercury -116678-03-23 00:00 J -40895135.63 -40895135.50 -40895135.36 0.0088 0.0007

Mars -116678-04-13 13:12 J -40895114.20 -40895113.95 -40895113.65 0.0088 0.0048

Mercury -116678-06-19 01:41 J -40895047.57 -40895047.43 -40895047.29 0.0088 0.0002

Mercury -116678-09-15 03:07 J -40894959.51 -40894959.37 -40894959.23 0.0088 0.0003

Mercury -116678-12-12 04:34 J -40894871.44 -40894871.31 -40894871.17 0.0088 0.0007

Mercury -116677-03-09 06:00 J -40894783.38 -40894783.25 -40894783.11 0.0088 0.0012

Mercury -116677-06-05 07:41 J -40894695.32 -40894695.18 -40894695.05 0.0088 0.0015

Mercury -116677-09-01 09:07 J -40894607.26 -40894607.12 -40894606.99 0.0088 0.0019

Mercury -116677-11-28 10:34 J -40894519.19 -40894519.06 -40894518.93 0.0088 0.0024

Mercury -116676-02-24 12:00 J -40894431.13 -40894431.00 -40894430.87 0.0088 0.0028

Mars -116676-03-08 21:36 J -40894418.87 -40894418.60 -40894418.29 0.0088 0.0041

Mercury -116676-05-23 13:27 J -40894343.06 -40894342.94 -40894342.81 0.0088 0.0032

Mercury -116676-08-19 14:53 J -40894255.00 -40894254.88 -40894254.75 0.0088 0.0036

Mercury -116676-11-15 16:19 J -40894166.93 -40894166.82 -40894166.69 0.0088 0.0040

Mercury -116675-02-11 17:46 J -40894078.87 -40894078.76 -40894078.63 0.0088 0.0045

Mercury -116675-05-10 19:27 J -40893990.80 -40893990.69 -40893990.58 0.0088 0.0048
 Mercury -116675-08-06 20:53 J -40893902.74 -40893902.63 -40893902.52 0.0088 0.0053
 Mercury -116675-11-02 22:19 J -40893814.67 -40893814.57 -40893814.47 0.0088 0.0057
 Mercury -116674-01-29 23:46 J -40893726.61 -40893726.51 -40893726.41 0.0088 0.0061
 Mars -116674-02-02 07:55 J -40893723.47 -40893723.17 -40893722.86 0.0088 0.0034
 Mercury -116674-04-28 00:58 J -40893638.54 -40893638.46 -40893638.36 0.0088 0.0065
 Mercury -116674-07-25 02:24 J -40893550.47 -40893550.40 -40893550.31 0.0088 0.0069
 Mercury -116674-10-21 03:51 J -40893462.40 -40893462.34 -40893462.25 0.0088 0.0073
 Mercury -116673-01-17 05:17 J -40893374.33 -40893374.28 -40893374.20 0.0088 0.0077
 Mercury -116673-04-14 06:43 J -40893286.26 -40893286.22 -40893286.16 0.0088 0.0081
 Mercury -116673-07-11 08:10 J -40893198.18 -40893198.16 -40893198.12 0.0088 0.0085
 Mars -116673-12-28 18:58 J -40893028.02 -40893027.71 -40893027.39 0.0088 0.0027
 Mars -116671-11-24 07:12 J -40892332.51 -40892332.20 -40892331.86 0.0088 0.0020
 Mars -116669-10-19 21:22 J -40891636.93 -40891636.61 -40891636.27 0.0088 0.0012
 Mars -116667-09-15 12:15 J -40890941.32 -40890940.99 -40890940.66 0.0088 0.0005
 Mars -116665-08-11 04:19 J -40890245.65 -40890245.32 -40890244.99 0.0088 0.0003
 Mars -116663-07-07 21:51 J -40889549.92 -40889549.59 -40889549.26 0.0088 0.0010
 Mars -116661-06-02 15:51 J -40888854.15 -40888853.84 -40888853.50 0.0088 0.0018
 Mars -116659-04-29 10:34 J -40888158.37 -40888158.06 -40888157.73 0.0088 0.0026
 Mars -116657-03-25 05:31 J -40887462.55 -40887462.27 -40887461.93 0.0088 0.0034
 Mars -116655-02-19 01:12 J -40886766.72 -40886766.45 -40886766.13 0.0088 0.0040
 Mars -116653-01-15 21:36 J -40886070.87 -40886070.60 -40886070.31 0.0088 0.0047
 Mars -116652-12-11 18:15 J -40885374.99 -40885374.74 -40885374.46 0.0088 0.0054
 Mars -116650-11-07 14:24 J -40884679.11 -40884678.90 -40884678.62 0.0088 0.0061
 Mars -116648-10-03 11:31 J -40883983.21 -40883983.02 -40883982.77 0.0088 0.0067
 Mars -116646-08-30 07:55 J -40883287.32 -40883287.17 -40883286.94 0.0088 0.0073
 Mars -116644-07-26 04:19 J -40882591.45 -40882591.32 -40882591.13 0.0088 0.0078
 Mars -116642-06-21 23:31 J -40881895.60 -40881895.52 -40881895.36 0.0088 0.0083
 Mars -116640-05-17 18:58 J -40881199.74 -40881199.71 -40881199.61 0.0088 0.0087
 Venus -116637-04-19 04:34 J -40880132.36 -40880132.31 -40880132.24 0.0088 0.0085

Venus	-116637-11-30 15:51 J	-40879906.91	-40879906.84	-40879906.73	0.0088	0.0080
Venus	-116636-07-14 03:22 J	-40879681.46	-40879681.36	-40879681.23	0.0088	0.0074
Venus	-116635-02-24 14:39 J	-40879456.00	-40879455.89	-40879455.73	0.0088	0.0069
Venus	-116635-10-08 02:24 J	-40879230.54	-40879230.40	-40879230.24	0.0088	0.0063
Venus	-116634-05-21 13:55 J	-40879005.07	-40879004.92	-40879004.74	0.0088	0.0057
Venus	-116633-01-02 01:41 J	-40878779.60	-40878779.43	-40878779.25	0.0088	0.0051
Venus	-116633-08-14 12:58 J	-40878554.13	-40878553.96	-40878553.76	0.0088	0.0045
Venus	-116632-03-28 00:29 J	-40878328.65	-40878328.48	-40878328.27	0.0088	0.0040
Venus	-116632-11-08 12:15 J	-40878103.18	-40878102.99	-40878102.79	0.0089	0.0034
Venus	-116631-06-21 23:46 J	-40877877.71	-40877877.51	-40877877.30	0.0089	0.0028
Venus	-116630-02-02 11:17 J	-40877652.23	-40877652.03	-40877651.82	0.0089	0.0022
Venus	-116630-09-15 22:48 J	-40877426.75	-40877426.55	-40877426.34	0.0089	0.0016
Venus	-116629-04-28 10:34 J	-40877201.27	-40877201.06	-40877200.84	0.0089	0.0010
Earth	-116629-06-30 12:58 J	-40877138.05	-40877137.96	-40877137.82	0.0089	0.0079
Moon	-116629-06-30 14:53 J	-40877137.97	-40877137.88	-40877137.77	0.0089	0.0081 *
Venus	-116629-12-09 22:05 J	-40876975.79	-40876975.58	-40876975.36	0.0089	0.0005
Moon	-116628-07-02 18:43 J	-40876770.91	-40876770.72	-40876770.48	0.0089	0.0048
Earth	-116628-07-02 21:36 J	-40876770.78	-40876770.60	-40876770.37	0.0089	0.0051 *
Venus	-116628-07-23 09:51 J	-40876750.31	-40876750.09	-40876749.88	0.0089	0.0002
Venus	-116627-03-05 21:22 J	-40876524.82	-40876524.61	-40876524.40	0.0089	0.0008
Earth	-116627-07-05 06:29 J	-40876403.47	-40876403.23	-40876402.98	0.0089	0.0022
Moon	-116627-07-05 10:05 J	-40876403.32	-40876403.08	-40876402.84	0.0089	0.0024 *
Venus	-116627-10-17 08:53 J	-40876299.33	-40876299.13	-40876298.91	0.0089	0.0014
Venus	-116626-05-30 20:39 J	-40876073.84	-40876073.64	-40876073.42	0.0089	0.0020
Moon	-116626-07-07 11:46 J	-40876036.25	-40876036.01	-40876035.75	0.0089	0.0010
Earth	-116626-07-07 15:22 J	-40876036.11	-40876035.86	-40876035.61	0.0089	0.0007 *
Venus	-116625-01-11 08:24 J	-40875848.35	-40875848.15	-40875847.94	0.0089	0.0026
Earth	-116625-07-08 23:46 J	-40875668.72	-40875668.51	-40875668.26	0.0089	0.0036
Moon	-116625-07-09 03:36 J	-40875668.59	-40875668.35	-40875668.11	0.0089	0.0032 *
Venus	-116625-08-23 19:55 J	-40875622.85	-40875622.67	-40875622.46	0.0089	0.0032

Venus -116624-04-06 07:55 J -40875397.35 -40875397.17 -40875396.97 0.0089 0.0038
 Moon -116624-07-11 07:27 J -40875301.35 -40875301.19 -40875301.02 0.0089 0.0066
 Earth -116624-07-11 09:07 J -40875301.28 -40875301.12 -40875300.93 0.0089 0.0064 *
 Venus -116624-11-17 19:41 J -40875171.85 -40875171.68 -40875171.48 0.0089 0.0044
 Venus -116623-07-01 07:27 J -40874946.35 -40874946.19 -40874946.00 0.0089 0.0050
 Venus -116622-02-11 19:41 J -40874720.85 -40874720.68 -40874720.52 0.0089 0.0055
 Venus -116622-09-25 07:27 J -40874495.34 -40874495.19 -40874495.03 0.0089 0.0061
 Venus -116621-05-07 19:12 J -40874269.82 -40874269.70 -40874269.55 0.0089 0.0067
 Venus -116621-12-19 06:58 J -40874044.31 -40874044.21 -40874044.07 0.0089 0.0073
 Venus -116620-08-01 18:43 J -40873818.79 -40873818.72 -40873818.60 0.0089 0.0079
 Venus -116619-03-15 07:12 J -40873593.26 -40873593.20 -40873593.13 0.0089 0.0084
 Mars -116612-12-08 11:17 J -40870768.08 -40870768.03 -40870767.97 0.0089 0.0087
 Mars -116610-11-03 10:05 J -40870073.17 -40870073.08 -40870072.95 0.0089 0.0083
 Mars -116608-09-28 06:58 J -40869378.31 -40869378.21 -40869378.03 0.0089 0.0079
 Mars -116606-08-24 02:10 J -40868683.54 -40868683.41 -40868683.19 0.0089 0.0074
 Mars -116604-07-18 20:53 J -40867988.81 -40867988.63 -40867988.41 0.0089 0.0068
 Mars -116602-06-13 14:24 J -40867294.09 -40867293.90 -40867293.65 0.0089 0.0063
 Mars -116600-05-08 05:31 J -40866599.48 -40866599.27 -40866599.01 0.0089 0.0057
 Mercury -116599-04-24 23:31 J -40866247.55 -40866247.52 -40866247.48 0.0089 0.0087
 Mercury -116599-07-22 02:10 J -40866159.46 -40866159.41 -40866159.32 0.0089 0.0082
 Mercury -116599-10-18 05:46 J -40866071.35 -40866071.26 -40866071.17 0.0089 0.0076
 Mercury -116598-01-14 08:24 J -40865983.24 -40865983.15 -40865983.03 0.0089 0.0071
 Mars -116598-04-02 19:41 J -40865904.93 -40865904.68 -40865904.43 0.0089 0.0050
 Mercury -116598-04-12 11:17 J -40865895.13 -40865895.03 -40865894.89 0.0089 0.0066
 Mercury -116598-07-09 14:39 J -40865807.01 -40865806.89 -40865806.75 0.0089 0.0060
 Mercury -116598-10-05 17:31 J -40865718.89 -40865718.77 -40865718.61 0.0089 0.0055
 Mercury -116597-01-01 20:53 J -40865630.77 -40865630.63 -40865630.47 0.0089 0.0049
 Mercury -116597-03-29 23:46 J -40865542.65 -40865542.51 -40865542.34 0.0089 0.0044
 Mercury -116597-06-26 03:07 J -40865454.53 -40865454.37 -40865454.20 0.0089 0.0038
 Mercury -116597-09-22 06:15 J -40865366.40 -40865366.24 -40865366.06 0.0089 0.0032

Mercury -116597-12-19 09:22 J -40865278.28 -40865278.11 -40865277.93 0.0089 0.0027
 Mars -116596-02-25 08:10 J -40865210.41 -40865210.16 -40865209.88 0.0089 0.0044
 Mercury -116596-03-17 12:29 J -40865190.15 -40865189.98 -40865189.79 0.0089 0.0021
 Mercury -116596-06-13 15:51 J -40865102.02 -40865101.84 -40865101.66 0.0089 0.0015
 Mercury -116596-09-09 18:58 J -40865013.89 -40865013.71 -40865013.53 0.0089 0.0010
 Mercury -116596-12-06 22:05 J -40864925.76 -40864925.58 -40864925.39 0.0089 0.0005
 Mercury -116595-03-05 01:27 J -40864837.63 -40864837.44 -40864837.26 0.0089 0.0002
 Mercury -116595-06-01 04:34 J -40864749.49 -40864749.31 -40864749.12 0.0089 0.0007
 Mercury -116595-08-28 07:41 J -40864661.36 -40864661.18 -40864660.99 0.0089 0.0013
 Mercury -116595-11-24 10:48 J -40864573.22 -40864573.05 -40864572.86 0.0089 0.0019
 Mars -116594-01-20 19:27 J -40864515.97 -40864515.69 -40864515.41 0.0089 0.0037
 Mercury -116594-02-20 14:10 J -40864485.08 -40864484.91 -40864484.73 0.0089 0.0025
 Mercury -116594-05-19 17:31 J -40864396.94 -40864396.77 -40864396.60 0.0089 0.0030
 Mercury -116594-08-15 20:39 J -40864308.80 -40864308.64 -40864308.47 0.0089 0.0036
 Mercury -116594-11-11 23:46 J -40864220.66 -40864220.51 -40864220.33 0.0089 0.0042
 Mercury -116593-02-08 03:07 J -40864132.52 -40864132.37 -40864132.20 0.0089 0.0048
 Mercury -116593-05-06 06:15 J -40864044.37 -40864044.24 -40864044.08 0.0089 0.0054
 Mercury -116593-08-02 09:51 J -40863956.22 -40863956.09 -40863955.95 0.0089 0.0059
 Mercury -116593-10-29 12:58 J -40863868.08 -40863867.96 -40863867.82 0.0089 0.0065
 Mars -116593-12-15 04:05 J -40863821.60 -40863821.33 -40863821.02 0.0089 0.0031
 Mercury -116592-01-25 16:19 J -40863779.92 -40863779.82 -40863779.70 0.0089 0.0071
 Mercury -116592-04-23 19:27 J -40863691.76 -40863691.69 -40863691.58 0.0089 0.0077
 Mercury -116592-07-20 22:48 J -40863603.60 -40863603.55 -40863603.47 0.0089 0.0083
 Mercury -116592-10-17 02:10 J -40863515.41 -40863515.41 -40863515.38 0.0089 0.0089
 Mars -116591-11-09 12:58 J -40863127.23 -40863126.96 -40863126.65 0.0089 0.0025
 Mars -116589-10-03 21:07 J -40862432.91 -40862432.62 -40862432.32 0.0089 0.0017
 Mars -116587-08-29 03:22 J -40861738.65 -40861738.36 -40861738.05 0.0089 0.0010
 Mars -116585-07-23 09:22 J -40861044.41 -40861044.11 -40861043.81 0.0089 0.0003
 Mars -116583-06-17 14:10 J -40860350.21 -40860349.91 -40860349.61 0.0089 0.0004
 Mars -116581-05-11 17:17 J -40859656.08 -40859655.78 -40859655.48 0.0089 0.0011

Mars	-116579-04-05 19:41 J	-40858961.97	-40858961.68	-40858961.38	0.0089	0.0018
Mars	-116577-02-28 22:19 J	-40858267.83	-40858267.57	-40858267.26	0.0089	0.0025
Mars	-116575-01-23 00:00 J	-40857573.77	-40857573.50	-40857573.21	0.0089	0.0031
Mars	-116574-12-18 00:43 J	-40856879.72	-40856879.47	-40856879.18	0.0089	0.0038
Mars	-116572-11-11 02:53 J	-40856185.62	-40856185.38	-40856185.11	0.0089	0.0044
Mars	-116570-10-06 04:19 J	-40855491.55	-40855491.32	-40855491.06	0.0089	0.0050
Mars	-116568-08-30 04:19 J	-40854797.52	-40854797.32	-40854797.06	0.0089	0.0056
Mars	-116566-07-25 05:46 J	-40854103.46	-40854103.26	-40854103.03	0.0089	0.0061
Mars	-116564-06-18 06:43 J	-40853409.40	-40853409.22	-40853409.01	0.0089	0.0066
Mars	-116562-05-13 06:58 J	-40852715.37	-40852715.21	-40852715.01	0.0089	0.0071
Mars	-116560-04-06 07:41 J	-40852021.30	-40852021.18	-40852020.99	0.0089	0.0076
Mars	-116558-03-01 09:51 J	-40851327.19	-40851327.09	-40851326.93	0.0089	0.0080
Mars	-116556-01-23 12:29 J	-40850633.08	-40850632.98	-40850632.88	0.0089	0.0083
Venus	-116555-06-06 18:00 J	-40850133.76	-40850133.75	-40850133.70	0.0089	0.0088
Mars	-116555-12-18 14:24 J	-40849938.93	-40849938.90	-40849938.80	0.0089	0.0087
Venus	-116554-01-18 08:24 J	-40849908.21	-40849908.15	-40849908.04	0.0089	0.0082
Venus	-116554-08-31 23:03 J	-40849682.63	-40849682.54	-40849682.40	0.0089	0.0076
Venus	-116553-04-13 13:41 J	-40849457.05	-40849456.93	-40849456.76	0.0089	0.0070
Venus	-116553-11-25 04:48 J	-40849231.46	-40849231.30	-40849231.14	0.0089	0.0063
Venus	-116552-07-08 19:12 J	-40849005.86	-40849005.70	-40849005.52	0.0089	0.0057
Venus	-116551-02-19 09:36 J	-40848780.27	-40848780.10	-40848779.90	0.0089	0.0051
Venus	-116551-10-03 00:43 J	-40848554.67	-40848554.47	-40848554.27	0.0089	0.0044
Venus	-116550-05-16 15:07 J	-40848329.07	-40848328.87	-40848328.66	0.0089	0.0038
Venus	-116550-12-28 05:31 J	-40848103.47	-40848103.27	-40848103.04	0.0089	0.0032
Venus	-116549-08-09 20:10 J	-40847877.87	-40847877.66	-40847877.43	0.0089	0.0025
Venus	-116548-03-23 10:48 J	-40847652.27	-40847652.05	-40847651.82	0.0089	0.0019
Venus	-116548-11-04 01:27 J	-40847426.66	-40847426.44	-40847426.21	0.0089	0.0012
Moon	-116547-01-06 09:36 J	-40847363.13	-40847363.10	-40847363.04	0.0089	0.0087
Venus	-116547-06-17 16:05 J	-40847201.06	-40847200.83	-40847200.60	0.0089	0.0006
Earth	-116546-01-09 03:22 J	-40846995.52	-40846995.36	-40846995.14	0.0089	0.0062

Moon	-116546-01-09 06:15 J	-40846995.40	-40846995.24	-40846995.04	0.0089	0.0066	*
Venus	-116546-01-29 06:29 J	-40846975.46	-40846975.23	-40846975.00	0.0089	0.0001	
Venus	-116546-09-11 20:53 J	-40846749.85	-40846749.63	-40846749.40	0.0089	0.0007	
Moon	-116545-01-11 16:34 J	-40846628.04	-40846627.81	-40846627.55	0.0089	0.0027	
Earth	-116545-01-11 18:29 J	-40846627.96	-40846627.73	-40846627.47	0.0089	0.0032	*
Venus	-116545-04-24 11:17 J	-40846524.25	-40846524.03	-40846523.80	0.0089	0.0013	
Venus	-116545-12-06 01:41 J	-40846298.64	-40846298.43	-40846298.20	0.0089	0.0020	
Earth	-116544-01-13 09:22 J	-40846260.37	-40846260.11	-40846259.84	0.0089	0.0001	
Moon	-116544-01-13 09:36 J	-40846260.37	-40846260.10	-40846259.82	0.0089	0.0006	*
Venus	-116544-07-19 16:05 J	-40846073.04	-40846072.83	-40846072.61	0.0089	0.0026	
Earth	-116543-01-15 23:46 J	-40845892.76	-40845892.51	-40845892.26	0.0089	0.0029	
Moon	-116543-01-15 23:46 J	-40845892.72	-40845892.51	-40845892.25	0.0089	0.0034	*
Venus	-116543-03-02 06:15 J	-40845847.44	-40845847.24	-40845847.02	0.0089	0.0033	
Venus	-116543-10-13 20:39 J	-40845621.83	-40845621.64	-40845621.42	0.0089	0.0039	
Moon	-116542-01-18 11:46 J	-40845525.21	-40845525.01	-40845524.78	0.0089	0.0055	
Earth	-116542-01-18 13:41 J	-40845525.12	-40845524.93	-40845524.73	0.0089	0.0059	*
Venus	-116542-05-27 11:03 J	-40845396.23	-40845396.04	-40845395.84	0.0089	0.0045	
Venus	-116541-01-08 01:12 J	-40845170.63	-40845170.45	-40845170.26	0.0089	0.0051	
Venus	-116541-08-20 15:22 J	-40844945.03	-40844944.86	-40844944.68	0.0089	0.0057	
Venus	-116540-04-03 05:03 J	-40844719.42	-40844719.29	-40844719.11	0.0089	0.0064	
Venus	-116540-11-14 19:27 J	-40844493.81	-40844493.69	-40844493.53	0.0089	0.0070	
Venus	-116539-06-28 09:22 J	-40844268.20	-40844268.11	-40844267.97	0.0089	0.0076	
Venus	-116538-02-08 23:31 J	-40844042.59	-40844042.52	-40844042.41	0.0089	0.0082	
Venus	-116538-09-22 13:27 J	-40843816.95	-40843816.94	-40843816.88	0.0089	0.0088	
Mars	-116532-10-10 21:07 J	-40841606.62	-40841606.62	-40841606.58	0.0088	0.0088	
Mars	-116530-09-05 13:12 J	-40840911.99	-40840911.95	-40840911.83	0.0088	0.0086	
Mars	-116528-07-31 08:10 J	-40840217.25	-40840217.16	-40840217.01	0.0088	0.0082	
Mars	-116526-06-26 04:05 J	-40839522.46	-40839522.33	-40839522.16	0.0088	0.0078	
Mars	-116524-05-21 00:58 J	-40838827.61	-40838827.46	-40838827.25	0.0088	0.0074	
Mars	-116522-04-16 00:29 J	-40838132.65	-40838132.48	-40838132.24	0.0088	0.0069	

Mars -116520-03-11 02:24 J -40837437.62 -40837437.40 -40837437.17 0.0088 0.0063
 Mars -116518-02-04 03:36 J -40836742.56 -40836742.35 -40836742.07 0.0088 0.0058
 Mercury -116518-05-19 17:17 J -40836637.80 -40836637.78 -40836637.74 0.0088 0.0086
 Mercury -116518-08-15 19:12 J -40836549.75 -40836549.70 -40836549.65 0.0088 0.0082
 Mercury -116518-11-11 20:39 J -40836461.70 -40836461.64 -40836461.57 0.0088 0.0077
 Mercury -116517-02-07 22:05 J -40836373.65 -40836373.58 -40836373.49 0.0088 0.0073
 Mercury -116517-05-06 00:00 J -40836285.59 -40836285.50 -40836285.41 0.0088 0.0069
 Mercury -116517-08-02 01:27 J -40836197.53 -40836197.44 -40836197.34 0.0088 0.0064
 Mercury -116517-10-29 02:53 J -40836109.47 -40836109.38 -40836109.27 0.0088 0.0060
 Mars -116517-12-30 07:27 J -40836047.42 -40836047.19 -40836046.90 0.0088 0.0052
 Mercury -116516-01-25 04:48 J -40836021.41 -40836021.30 -40836021.19 0.0088 0.0056
 Mercury -116516-04-23 06:15 J -40835933.35 -40835933.24 -40835933.12 0.0088 0.0051
 Mercury -116516-07-20 07:41 J -40835845.29 -40835845.18 -40835845.05 0.0088 0.0047
 Mercury -116516-10-16 09:22 J -40835757.23 -40835757.11 -40835756.98 0.0088 0.0043
 Mercury -116515-01-12 10:48 J -40835669.17 -40835669.05 -40835668.92 0.0088 0.0039
 Mercury -116515-04-10 12:29 J -40835581.11 -40835580.98 -40835580.85 0.0088 0.0034
 Mercury -116515-07-07 13:55 J -40835493.05 -40835492.92 -40835492.78 0.0088 0.0030
 Mercury -116515-10-03 15:36 J -40835404.98 -40835404.85 -40835404.72 0.0088 0.0026
 Mars -116515-11-25 13:12 J -40835352.22 -40835351.95 -40835351.66 0.0088 0.0045
 Mercury -116515-12-30 17:03 J -40835316.92 -40835316.79 -40835316.65 0.0088 0.0022
 Mercury -116514-03-28 18:43 J -40835228.86 -40835228.72 -40835228.58 0.0088 0.0017
 Mercury -116514-06-24 20:10 J -40835140.80 -40835140.66 -40835140.52 0.0088 0.0013
 Mercury -116514-09-20 21:36 J -40835052.73 -40835052.60 -40835052.46 0.0088 0.0009
 Mercury -116514-12-17 23:17 J -40834964.67 -40834964.53 -40834964.39 0.0088 0.0005
 Mercury -116513-03-15 00:43 J -40834876.61 -40834876.47 -40834876.33 0.0088 0.0001
 Mercury -116513-06-11 02:10 J -40834788.55 -40834788.41 -40834788.27 0.0088 0.0004
 Mercury -116513-09-07 03:36 J -40834700.48 -40834700.35 -40834700.21 0.0088 0.0009
 Mars -116513-10-20 19:12 J -40834656.96 -40834656.70 -40834656.38 0.0088 0.0039
 Mercury -116513-12-04 05:17 J -40834612.42 -40834612.28 -40834612.14 0.0088 0.0012
 Mercury -116512-03-02 06:43 J -40834524.36 -40834524.22 -40834524.08 0.0088 0.0017

Mercury -116512-05-29 08:10 J -40834436.29 -40834436.16 -40834436.02 0.0088 0.0021
 Mercury -116512-08-25 09:36 J -40834348.23 -40834348.10 -40834347.96 0.0088 0.0025
 Mercury -116512-11-21 11:03 J -40834260.16 -40834260.04 -40834259.90 0.0088 0.0029
 Mercury -116511-02-17 12:29 J -40834172.10 -40834171.98 -40834171.85 0.0088 0.0033
 Mercury -116511-05-16 13:55 J -40834084.04 -40834083.92 -40834083.79 0.0088 0.0038
 Mercury -116511-08-12 15:36 J -40833995.97 -40833995.85 -40833995.73 0.0088 0.0041
 Mars -116511-09-16 03:22 J -40833961.64 -40833961.36 -40833961.03 0.0088 0.0032
 Mercury -116511-11-08 17:03 J -40833907.91 -40833907.79 -40833907.67 0.0088 0.0046
 Mercury -116510-02-04 18:29 J -40833819.84 -40833819.73 -40833819.62 0.0088 0.0050
 Mercury -116510-05-03 19:55 J -40833731.78 -40833731.67 -40833731.56 0.0088 0.0054
 Mercury -116510-07-30 21:07 J -40833643.71 -40833643.62 -40833643.50 0.0088 0.0058
 Mercury -116510-10-26 22:34 J -40833555.64 -40833555.56 -40833555.45 0.0088 0.0062
 Mercury -116509-01-23 00:00 J -40833467.58 -40833467.50 -40833467.40 0.0088 0.0066
 Mercury -116509-04-20 01:27 J -40833379.51 -40833379.44 -40833379.35 0.0088 0.0070
 Mercury -116509-07-17 02:53 J -40833291.44 -40833291.38 -40833291.29 0.0088 0.0074
 Mars -116509-08-11 13:27 J -40833266.23 -40833265.94 -40833265.60 0.0088 0.0025
 Mercury -116509-10-13 04:19 J -40833203.37 -40833203.32 -40833203.25 0.0088 0.0078
 Mercury -116508-01-09 05:46 J -40833115.30 -40833115.26 -40833115.20 0.0088 0.0082
 Mercury -116508-04-07 07:12 J -40833027.22 -40833027.20 -40833027.16 0.0088 0.0086
 Mars -116507-07-08 01:27 J -40832570.76 -40832570.44 -40832570.11 0.0088 0.0017
 Mars -116505-06-02 13:55 J -40831875.23 -40831874.92 -40831874.58 0.0088 0.0010
 Mars -116503-04-29 04:19 J -40831179.65 -40831179.32 -40831178.99 0.0088 0.0001
 Mars -116501-03-24 18:58 J -40830484.04 -40830483.71 -40830483.38 0.0088 0.0006
 Mars -116499-02-18 10:34 J -40829788.38 -40829788.06 -40829787.72 0.0088 0.0014
 Mars -116497-01-15 04:05 J -40829092.65 -40829092.33 -40829092.01 0.0088 0.0022
 Mars -116496-12-10 22:05 J -40828396.88 -40828396.58 -40828396.25 0.0088 0.0030
 Mars -116494-11-06 17:03 J -40827701.07 -40827700.79 -40827700.46 0.0088 0.0037
 Mars -116492-10-02 12:43 J -40827005.24 -40827004.97 -40827004.66 0.0088 0.0045
 Mars -116490-08-29 08:53 J -40826309.38 -40826309.13 -40826308.83 0.0088 0.0052
 Mars -116488-07-25 05:31 J -40825613.52 -40825613.27 -40825613.01 0.0088 0.0058

Mars	-116486-06-21 01:41 J	-40824917.63	-40824917.43	-40824917.18	0.0088	0.0065
Mars	-116484-05-16 22:19 J	-40824221.74	-40824221.57	-40824221.34	0.0088	0.0071
Mars	-116482-04-12 18:58 J	-40823525.84	-40823525.71	-40823525.51	0.0088	0.0077
Mars	-116480-03-08 15:51 J	-40822829.94	-40822829.84	-40822829.69	0.0088	0.0082
Mars	-116478-02-02 12:00 J	-40822134.03	-40822134.00	-40822133.89	0.0088	0.0087
Venus	-116473-07-21 14:39 J	-40820137.94	-40820137.89	-40820137.82	0.0088	0.0085
Venus	-116472-03-04 02:10 J	-40819912.49	-40819912.41	-40819912.30	0.0088	0.0079
Venus	-116472-10-15 13:27 J	-40819687.04	-40819686.94	-40819686.80	0.0088	0.0074
Venus	-116471-05-29 00:58 J	-40819461.58	-40819461.46	-40819461.31	0.0088	0.0068
Venus	-116470-01-09 12:43 J	-40819236.11	-40819235.97	-40819235.81	0.0088	0.0062
Venus	-116470-08-23 00:00 J	-40819010.65	-40819010.50	-40819010.32	0.0088	0.0056
Venus	-116469-04-04 11:46 J	-40818785.17	-40818785.01	-40818784.83	0.0088	0.0051
Venus	-116469-11-15 23:17 J	-40818559.70	-40818559.53	-40818559.34	0.0088	0.0045
Venus	-116468-06-29 10:48 J	-40818334.23	-40818334.05	-40818333.85	0.0088	0.0039
Venus	-116467-02-09 22:05 J	-40818108.76	-40818108.58	-40818108.37	0.0088	0.0034
Venus	-116467-09-23 09:51 J	-40817883.29	-40817883.09	-40817882.88	0.0089	0.0027
Venus	-116466-05-06 21:22 J	-40817657.80	-40817657.61	-40817657.39	0.0089	0.0022
Venus	-116466-12-18 09:07 J	-40817432.33	-40817432.12	-40817431.91	0.0089	0.0016
Venus	-116465-07-30 20:39 J	-40817206.85	-40817206.64	-40817206.43	0.0089	0.0010
Venus	-116464-03-13 08:10 J	-40816981.37	-40816981.16	-40816980.94	0.0089	0.0004
Earth	-116464-07-02 06:15 J	-40816870.39	-40816870.24	-40816870.05	0.0089	0.0065
Moon	-116464-07-02 10:05 J	-40816870.26	-40816870.08	-40816869.89	0.0089	0.0060 *
Venus	-116464-10-24 19:55 J	-40816755.89	-40816755.67	-40816755.46	0.0089	0.0002
Venus	-116463-06-07 07:27 J	-40816530.40	-40816530.19	-40816529.97	0.0089	0.0008
Moon	-116463-07-04 12:15 J	-40816503.20	-40816502.99	-40816502.76	0.0089	0.0041
Earth	-116463-07-04 15:22 J	-40816503.09	-40816502.86	-40816502.63	0.0089	0.0036 *
Venus	-116462-01-18 19:12 J	-40816304.91	-40816304.70	-40816304.49	0.0089	0.0014
Earth	-116462-07-06 23:46 J	-40816135.76	-40816135.51	-40816135.26	0.0089	0.0008
Moon	-116462-07-07 01:27 J	-40816135.70	-40816135.44	-40816135.18	0.0089	0.0004 *
Venus	-116462-09-01 06:43 J	-40816079.43	-40816079.22	-40816079.01	0.0089	0.0020

Venus -116461-04-13 18:29 J -40815853.93 -40815853.73 -40815853.52 0.0089 0.0026
 Moon -116461-07-08 07:41 J -40815768.42 -40815768.18 -40815767.94 0.0089 0.0017
 Earth -116461-07-08 08:24 J -40815768.39 -40815768.15 -40815767.90 0.0089 0.0021 *
 Venus -116461-11-25 06:00 J -40815628.44 -40815628.25 -40815628.04 0.0089 0.0032
 Venus -116460-07-08 17:46 J -40815402.95 -40815402.76 -40815402.56 0.0089 0.0038
 Moon -116460-07-10 16:19 J -40815401.01 -40815400.82 -40815400.60 0.0089 0.0054
 Earth -116460-07-10 16:48 J -40815400.98 -40815400.80 -40815400.56 0.0089 0.0050 *
 Venus -116459-02-19 05:17 J -40815177.45 -40815177.28 -40815177.08 0.0089 0.0044
 Earth -116459-07-13 02:10 J -40815033.51 -40815033.41 -40815033.27 0.0089 0.0078
 Moon -116459-07-13 04:19 J -40815033.44 -40815033.32 -40815033.17 0.0089 0.0074 *
 Venus -116459-10-02 17:03 J -40814951.95 -40814951.79 -40814951.59 0.0089 0.0050
 Venus -116458-05-16 05:03 J -40814726.44 -40814726.29 -40814726.10 0.0089 0.0056
 Venus -116458-12-27 16:48 J -40814500.93 -40814500.80 -40814500.62 0.0089 0.0062
 Venus -116457-08-09 05:03 J -40814275.42 -40814275.29 -40814275.14 0.0089 0.0067
 Venus -116456-03-22 16:48 J -40814049.90 -40814049.80 -40814049.66 0.0089 0.0073
 Venus -116456-11-03 04:34 J -40813824.38 -40813824.31 -40813824.19 0.0089 0.0079
 Venus -116455-06-16 16:34 J -40813598.85 -40813598.81 -40813598.72 0.0089 0.0085
 Mars -116448-07-22 17:03 J -40811005.81 -40811005.79 -40811005.73 0.0089 0.0088
 Mars -116446-06-17 16:48 J -40810310.87 -40810310.80 -40810310.66 0.0089 0.0084
 Mars -116444-05-12 16:05 J -40809615.94 -40809615.83 -40809615.65 0.0089 0.0079
 Mars -116442-04-07 13:27 J -40808921.08 -40808920.94 -40808920.73 0.0089 0.0074
 Mars -116440-03-02 08:53 J -40808226.30 -40808226.13 -40808225.90 0.0089 0.0068
 Mars -116438-01-26 02:24 J -40807531.60 -40807531.40 -40807531.15 0.0089 0.0062
 Mars -116437-12-20 19:12 J -40806836.91 -40806836.70 -40806836.43 0.0089 0.0056
 Mars -116435-11-15 10:34 J -40806142.31 -40806142.06 -40806141.79 0.0089 0.0049
 Mercury -116434-01-19 21:07 J -40806076.65 -40806076.62 -40806076.56 0.0089 0.0086
 Mercury -116434-04-18 00:15 J -40805988.55 -40805988.49 -40805988.40 0.0089 0.0080
 Mercury -116434-07-15 03:07 J -40805900.45 -40805900.37 -40805900.26 0.0089 0.0075
 Mercury -116434-10-11 06:29 J -40805812.34 -40805812.23 -40805812.11 0.0089 0.0069
 Mercury -116433-01-07 09:22 J -40805724.22 -40805724.11 -40805723.97 0.0089 0.0064

Mercury -116433-04-04 12:15 J -40805636.11 -40805635.99 -40805635.84 0.0089 0.0059

Mercury -116433-07-01 15:36 J -40805547.99 -40805547.85 -40805547.70 0.0089 0.0053

Mercury -116433-09-27 18:29 J -40805459.87 -40805459.73 -40805459.56 0.0089 0.0048

Mars -116433-10-09 23:17 J -40805447.77 -40805447.53 -40805447.23 0.0089 0.0043

Mercury -116433-12-24 21:51 J -40805371.74 -40805371.59 -40805371.43 0.0089 0.0042

Mercury -116432-03-23 00:58 J -40805283.62 -40805283.46 -40805283.29 0.0089 0.0036

Mercury -116432-06-19 04:05 J -40805195.50 -40805195.33 -40805195.16 0.0089 0.0031

Mercury -116432-09-15 07:12 J -40805107.37 -40805107.20 -40805107.02 0.0089 0.0025

Mercury -116432-12-12 10:19 J -40805019.24 -40805019.07 -40805018.89 0.0089 0.0020

Mercury -116431-03-10 13:27 J -40804931.11 -40804930.94 -40804930.75 0.0089 0.0014

Mercury -116431-06-06 16:48 J -40804842.98 -40804842.80 -40804842.62 0.0089 0.0008

Mercury -116431-09-02 19:55 J -40804754.85 -40804754.67 -40804754.48 0.0089 0.0003

Mars -116431-09-04 12:15 J -40804753.25 -40804752.99 -40804752.69 0.0089 0.0036

Mercury -116431-11-29 23:03 J -40804666.72 -40804666.54 -40804666.35 0.0089 0.0004

Mercury -116430-02-26 02:24 J -40804578.58 -40804578.40 -40804578.22 0.0089 0.0009

Mercury -116430-05-25 05:31 J -40804490.45 -40804490.27 -40804490.09 0.0089 0.0015

Mercury -116430-08-21 08:39 J -40804402.31 -40804402.14 -40804401.95 0.0089 0.0020

Mercury -116430-11-17 12:00 J -40804314.18 -40804314.00 -40804313.82 0.0089 0.0026

Mercury -116429-02-13 15:07 J -40804226.04 -40804225.87 -40804225.69 0.0089 0.0032

Mercury -116429-05-11 18:15 J -40804137.90 -40804137.74 -40804137.56 0.0089 0.0038

Mars -116429-07-29 23:46 J -40804058.77 -40804058.51 -40804058.20 0.0089 0.0029

Mercury -116429-08-07 21:51 J -40804049.75 -40804049.59 -40804049.43 0.0089 0.0043

Mercury -116429-11-04 00:58 J -40803961.61 -40803961.46 -40803961.30 0.0089 0.0049

Mercury -116428-01-31 04:05 J -40803873.46 -40803873.33 -40803873.17 0.0089 0.0055

Mercury -116428-04-29 07:12 J -40803785.32 -40803785.20 -40803785.05 0.0089 0.0061

Mercury -116428-07-26 10:34 J -40803697.17 -40803697.06 -40803696.92 0.0089 0.0067

Mercury -116428-10-22 13:41 J -40803609.01 -40803608.93 -40803608.80 0.0089 0.0073

Mercury -116427-01-18 17:31 J -40803520.85 -40803520.77 -40803520.68 0.0089 0.0078

Mercury -116427-04-16 20:39 J -40803432.69 -40803432.64 -40803432.57 0.0089 0.0084

Mars -116427-06-24 09:36 J -40803364.39 -40803364.10 -40803363.80 0.0089 0.0021

Mars	-116425-05-18 17:46 J	-40802670.05	-40802669.76	-40802669.45	0.0089	0.0014
Mars	-116423-04-13 01:55 J	-40801975.72	-40801975.42	-40801975.12	0.0089	0.0007
Mars	-116421-03-07 07:41 J	-40801281.48	-40801281.18	-40801280.88	0.0089	0.0000
Mars	-116419-01-30 12:43 J	-40800587.26	-40800586.97	-40800586.67	0.0089	0.0008
Jupiter	-116419-09-09 01:27 J	-40800365.76	-40800365.44	-40800365.03	0.0089	0.0067
Mars	-116418-12-25 17:46 J	-40799893.06	-40799892.76	-40799892.47	0.0089	0.0015
Mars	-116416-11-18 20:53 J	-40799198.90	-40799198.63	-40799198.32	0.0089	0.0022
Mars	-116414-10-14 00:00 J	-40798504.78	-40798504.50	-40798504.21	0.0089	0.0029
Mars	-116412-09-07 03:07 J	-40797810.62	-40797810.37	-40797810.08	0.0089	0.0035
Mars	-116410-08-02 05:31 J	-40797116.53	-40797116.27	-40797116.01	0.0089	0.0041
Mars	-116408-06-26 05:46 J	-40796422.49	-40796422.26	-40796421.99	0.0089	0.0048
Mars	-116406-05-21 06:58 J	-40795728.42	-40795728.21	-40795727.95	0.0089	0.0054
Mars	-116404-04-14 07:55 J	-40795034.35	-40795034.17	-40795033.92	0.0089	0.0060
Mars	-116402-03-09 08:24 J	-40794340.33	-40794340.15	-40794339.93	0.0089	0.0065
Mars	-116400-01-31 08:53 J	-40793646.29	-40793646.13	-40793645.92	0.0089	0.0070
Mars	-116399-12-26 10:19 J	-40792952.19	-40792952.07	-40792951.87	0.0089	0.0075
Mars	-116397-11-19 11:46 J	-40792258.13	-40792258.01	-40792257.86	0.0089	0.0079
Mars	-116395-10-14 12:43 J	-40791564.05	-40791563.97	-40791563.84	0.0089	0.0083
Mars	-116393-09-07 14:24 J	-40790869.93	-40790869.90	-40790869.80	0.0089	0.0087
Venus	-116391-09-08 01:41 J	-40790139.46	-40790139.43	-40790139.38	0.0089	0.0087
Venus	-116390-04-21 16:19 J	-40789913.90	-40789913.82	-40789913.71	0.0089	0.0081
Venus	-116390-12-03 06:58 J	-40789688.31	-40789688.21	-40789688.07	0.0089	0.0075
Venus	-116389-07-15 21:22 J	-40789462.73	-40789462.61	-40789462.44	0.0089	0.0069
Venus	-116388-02-26 12:00 J	-40789237.14	-40789237.00	-40789236.81	0.0089	0.0063
Venus	-116388-10-10 03:07 J	-40789011.54	-40789011.37	-40789011.18	0.0089	0.0056
Venus	-116387-05-23 17:46 J	-40788785.94	-40788785.76	-40788785.56	0.0089	0.0050
Venus	-116386-01-04 08:10 J	-40788560.34	-40788560.16	-40788559.95	0.0089	0.0044
Venus	-116386-08-17 23:03 J	-40788334.75	-40788334.54	-40788334.33	0.0089	0.0037
Venus	-116385-03-30 13:27 J	-40788109.15	-40788108.94	-40788108.72	0.0089	0.0031
Venus	-116385-11-11 03:51 J	-40787883.54	-40787883.34	-40787883.10	0.0089	0.0025

Venus -116384-06-24 18:43 J -40787657.94 -40787657.72 -40787657.50 0.0089 0.0018
 Venus -116383-02-05 09:07 J -40787432.34 -40787432.12 -40787431.89 0.0089 0.0012
 Venus -116383-09-18 23:46 J -40787206.73 -40787206.51 -40787206.28 0.0089 0.0005
 Earth -116382-01-08 08:10 J -40787095.29 -40787095.16 -40787095.02 0.0089 0.0076
 Moon -116382-01-08 08:39 J -40787095.23 -40787095.14 -40787095.00 0.0089 0.0079 *
 Venus -116382-05-02 14:24 J -40786981.13 -40786980.90 -40786980.67 0.0089 0.0001
 Venus -116382-12-14 04:48 J -40786755.52 -40786755.30 -40786755.07 0.0089 0.0008
 Moon -116381-01-10 21:07 J -40786727.84 -40786727.62 -40786727.37 0.0089 0.0044
 Earth -116381-01-10 22:48 J -40786727.76 -40786727.55 -40786727.31 0.0089 0.0046 *
 Venus -116381-07-26 19:12 J -40786529.92 -40786529.70 -40786529.47 0.0089 0.0014
 Earth -116380-01-12 13:41 J -40786360.18 -40786359.93 -40786359.66 0.0089 0.0016
 Moon -116380-01-12 16:19 J -40786360.07 -40786359.82 -40786359.56 0.0089 0.0017 *
 Venus -116380-03-09 09:22 J -40786304.32 -40786304.11 -40786303.87 0.0089 0.0021
 Venus -116380-10-21 00:00 J -40786078.70 -40786078.50 -40786078.27 0.0089 0.0027
 Moon -116379-01-15 00:43 J -40785992.73 -40785992.47 -40785992.20 0.0089 0.0017
 Earth -116379-01-15 04:19 J -40785992.57 -40785992.32 -40785992.05 0.0089 0.0015 *
 Venus -116379-06-03 14:39 J -40785853.10 -40785852.89 -40785852.67 0.0089 0.0033
 Venus -116378-01-15 04:34 J -40785627.49 -40785627.31 -40785627.08 0.0089 0.0040
 Earth -116378-01-17 18:43 J -40785624.94 -40785624.72 -40785624.49 0.0089 0.0045
 Moon -116378-01-17 21:51 J -40785624.80 -40785624.59 -40785624.34 0.0089 0.0045 *
 Venus -116378-08-28 18:58 J -40785401.89 -40785401.71 -40785401.50 0.0089 0.0046
 Moon -116377-01-20 04:48 J -40785257.41 -40785257.30 -40785257.14 0.0089 0.0076
 Earth -116377-01-20 09:07 J -40785257.25 -40785257.12 -40785256.98 0.0089 0.0075 *
 Venus -116377-04-10 09:22 J -40785176.28 -40785176.11 -40785175.91 0.0089 0.0052
 Venus -116377-11-21 23:46 J -40784950.67 -40784950.51 -40784950.33 0.0089 0.0058
 Venus -116376-07-05 13:55 J -40784725.06 -40784724.92 -40784724.75 0.0089 0.0064
 Venus -116375-02-16 04:05 J -40784499.46 -40784499.33 -40784499.18 0.0089 0.0070
 Venus -116375-09-29 18:15 J -40784273.84 -40784273.74 -40784273.61 0.0089 0.0076
 Venus -116374-05-13 08:24 J -40784048.22 -40784048.15 -40784048.06 0.0089 0.0082
 Venus -116374-12-24 22:19 J -40783822.58 -40783822.57 -40783822.53 0.0089 0.0088

Mars -116366-04-20 03:22 J -40781149.40 -40781149.36 -40781149.25 0.0088 0.0086
 Mars -116364-03-14 20:24 J -40780454.74 -40780454.65 -40780454.50 0.0088 0.0082
 Mars -116362-02-07 15:07 J -40779759.99 -40779759.87 -40779759.68 0.0088 0.0078
 Mars -116360-01-02 11:17 J -40779065.18 -40779065.03 -40779064.82 0.0088 0.0073
 Mars -116359-11-28 08:10 J -40778370.33 -40778370.16 -40778369.93 0.0088 0.0068
 Mars -116357-10-23 07:27 J -40777675.40 -40777675.19 -40777674.95 0.0088 0.0062
 Mars -116355-09-18 08:39 J -40776980.37 -40776980.14 -40776979.88 0.0088 0.0056
 Mercury -116353-02-13 16:34 J -40776466.84 -40776466.81 -40776466.77 0.0088 0.0085
 Mercury -116353-05-11 18:00 J -40776378.79 -40776378.75 -40776378.68 0.0088 0.0081
 Mercury -116353-08-07 19:41 J -40776290.74 -40776290.68 -40776290.60 0.0088 0.0076
 Mars -116353-08-13 10:48 J -40776285.29 -40776285.05 -40776284.76 0.0088 0.0050
 Mercury -116353-11-03 21:22 J -40776202.68 -40776202.61 -40776202.52 0.0088 0.0072
 Mercury -116352-01-30 22:48 J -40776114.63 -40776114.55 -40776114.45 0.0088 0.0068
 Mercury -116352-04-29 00:29 J -40776026.57 -40776026.48 -40776026.37 0.0088 0.0063
 Mercury -116352-07-26 02:10 J -40775938.51 -40775938.41 -40775938.30 0.0088 0.0059
 Mercury -116352-10-22 03:36 J -40775850.45 -40775850.35 -40775850.23 0.0088 0.0055
 Mercury -116351-01-18 05:17 J -40775762.39 -40775762.28 -40775762.15 0.0088 0.0050
 Mercury -116351-04-16 06:58 J -40775674.33 -40775674.21 -40775674.08 0.0088 0.0046
 Mars -116351-07-09 14:53 J -40775590.15 -40775589.88 -40775589.59 0.0088 0.0043
 Mercury -116351-07-13 08:24 J -40775586.26 -40775586.15 -40775586.02 0.0088 0.0042
 Mercury -116351-10-09 10:05 J -40775498.20 -40775498.08 -40775497.95 0.0088 0.0037
 Mercury -116350-01-05 11:46 J -40775410.14 -40775410.01 -40775409.88 0.0088 0.0033
 Mercury -116350-04-03 13:12 J -40775322.08 -40775321.95 -40775321.81 0.0088 0.0028
 Mercury -116350-06-30 14:39 J -40775234.02 -40775233.89 -40775233.75 0.0088 0.0025
 Mercury -116350-09-26 16:19 J -40775145.95 -40775145.82 -40775145.68 0.0088 0.0020
 Mercury -116350-12-23 18:00 J -40775057.89 -40775057.75 -40775057.62 0.0088 0.0016
 Mercury -116349-03-20 19:27 J -40774969.83 -40774969.69 -40774969.55 0.0088 0.0011
 Mars -116349-06-03 21:07 J -40774894.91 -40774894.62 -40774894.31 0.0088 0.0036
 Mercury -116349-06-16 20:53 J -40774881.77 -40774881.63 -40774881.49 0.0088 0.0007
 Mercury -116349-09-12 22:34 J -40774793.70 -40774793.56 -40774793.42 0.0088 0.0004

Mercury -116349-12-10 00:00 J -40774705.64 -40774705.50 -40774705.36 0.0088 0.0001
 Mercury -116348-03-08 01:27 J -40774617.58 -40774617.44 -40774617.30 0.0088 0.0006
 Mercury -116348-06-04 02:53 J -40774529.51 -40774529.38 -40774529.24 0.0088 0.0010
 Mercury -116348-08-31 04:19 J -40774441.45 -40774441.32 -40774441.18 0.0088 0.0015
 Mercury -116348-11-27 06:00 J -40774353.39 -40774353.25 -40774353.11 0.0088 0.0018
 Mercury -116347-02-23 07:27 J -40774265.32 -40774265.19 -40774265.05 0.0088 0.0022
 Mars -116347-04-30 04:19 J -40774199.62 -40774199.32 -40774199.01 0.0088 0.0029
 Mercury -116347-05-22 08:53 J -40774177.26 -40774177.13 -40774176.99 0.0088 0.0027
 Mercury -116347-08-18 10:19 J -40774089.19 -40774089.07 -40774088.93 0.0088 0.0031
 Mercury -116347-11-14 12:00 J -40774001.13 -40774001.00 -40774000.88 0.0088 0.0035
 Mercury -116346-02-10 13:12 J -40773913.07 -40773912.95 -40773912.82 0.0088 0.0039
 Mercury -116346-05-09 14:39 J -40773825.00 -40773824.89 -40773824.76 0.0088 0.0043
 Mercury -116346-08-05 16:05 J -40773736.93 -40773736.83 -40773736.70 0.0088 0.0048
 Mercury -116346-11-01 17:31 J -40773648.87 -40773648.77 -40773648.65 0.0088 0.0052
 Mercury -116345-01-28 18:58 J -40773560.80 -40773560.71 -40773560.59 0.0088 0.0056
 Mars -116345-03-25 12:29 J -40773504.29 -40773503.98 -40773503.65 0.0088 0.0021
 Mercury -116345-04-25 20:39 J -40773472.74 -40773472.64 -40773472.54 0.0088 0.0059
 Mercury -116345-07-22 22:05 J -40773384.67 -40773384.58 -40773384.48 0.0088 0.0063
 Mercury -116345-10-18 23:31 J -40773296.60 -40773296.52 -40773296.43 0.0088 0.0067
 Mercury -116344-01-15 00:58 J -40773208.53 -40773208.46 -40773208.38 0.0088 0.0071
 Mercury -116344-04-13 02:24 J -40773120.47 -40773120.40 -40773120.33 0.0088 0.0075
 Mercury -116344-07-10 03:51 J -40773032.39 -40773032.34 -40773032.28 0.0088 0.0080
 Mercury -116344-10-06 05:17 J -40772944.32 -40772944.28 -40772944.24 0.0088 0.0084
 Mercury -116343-01-02 06:43 J -40772856.23 -40772856.22 -40772856.20 0.0088 0.0087
 Mars -116343-02-18 22:48 J -40772808.87 -40772808.55 -40772808.22 0.0088 0.0013
 Mars -116341-01-15 10:19 J -40772113.39 -40772113.07 -40772112.73 0.0088 0.0007
 Mars -116340-12-10 23:17 J -40771417.86 -40771417.53 -40771417.20 0.0088 0.0002
 Mars -116338-11-06 13:12 J -40770722.27 -40770721.95 -40770721.61 0.0088 0.0011
 Mars -116336-10-02 04:19 J -40770026.63 -40770026.32 -40770025.98 0.0088 0.0018
 Mars -116334-08-28 20:24 J -40769330.96 -40769330.65 -40769330.32 0.0088 0.0026

Mars	-116332-07-24 13:41 J	-40768635.22	-40768634.93	-40768634.60	0.0088	0.0034
Mars	-116330-06-20 07:55 J	-40767939.44	-40767939.17	-40767938.85	0.0088	0.0041
Mars	-116328-05-16 02:53 J	-40767243.63	-40767243.38	-40767243.07	0.0088	0.0049
Mars	-116326-04-11 22:19 J	-40766547.80	-40766547.57	-40766547.29	0.0088	0.0056
Mars	-116324-03-07 18:15 J	-40765851.95	-40765851.74	-40765851.48	0.0088	0.0063
Mars	-116322-02-01 14:24 J	-40765156.09	-40765155.90	-40765155.67	0.0088	0.0069
Mars	-116321-12-28 11:17 J	-40764460.19	-40764460.03	-40764459.84	0.0088	0.0075
Mars	-116319-11-24 07:55 J	-40763764.28	-40763764.17	-40763764.01	0.0088	0.0081
Mars	-116317-10-20 05:17 J	-40763068.35	-40763068.28	-40763068.19	0.0088	0.0086
Venus	-116309-10-23 01:41 J	-40760143.48	-40760143.43	-40760143.35	0.0088	0.0084
Venus	-116308-06-05 12:58 J	-40759918.04	-40759917.96	-40759917.84	0.0088	0.0079
Venus	-116307-01-17 00:29 J	-40759692.58	-40759692.48	-40759692.35	0.0088	0.0073
Venus	-116307-08-30 12:15 J	-40759467.12	-40759466.99	-40759466.85	0.0088	0.0067
Venus	-116306-04-12 23:31 J	-40759241.66	-40759241.52	-40759241.35	0.0088	0.0062
Venus	-116306-11-24 11:03 J	-40759016.19	-40759016.04	-40759015.86	0.0088	0.0056
Venus	-116305-07-06 22:48 J	-40758790.72	-40758790.55	-40758790.38	0.0088	0.0050
Venus	-116304-02-17 09:51 J	-40758565.25	-40758565.09	-40758564.89	0.0088	0.0045
Venus	-116304-09-30 21:36 J	-40758339.78	-40758339.60	-40758339.40	0.0088	0.0039
Venus	-116303-05-14 09:22 J	-40758114.30	-40758114.11	-40758113.91	0.0088	0.0033
Venus	-116303-12-25 20:53 J	-40757888.82	-40757888.63	-40757888.42	0.0088	0.0027
Venus	-116302-08-08 08:24 J	-40757663.35	-40757663.15	-40757662.94	0.0089	0.0021
Venus	-116301-03-20 20:10 J	-40757437.87	-40757437.66	-40757437.45	0.0089	0.0015
Venus	-116301-11-01 07:41 J	-40757212.39	-40757212.18	-40757211.97	0.0089	0.0009
Venus	-116300-06-14 19:12 J	-40756986.91	-40756986.70	-40756986.48	0.0089	0.0004
Moon	-116300-07-01 15:51 J	-40756969.94	-40756969.84	-40756969.70	0.0089	0.0077
Earth	-116300-07-01 16:48 J	-40756969.90	-40756969.80	-40756969.66	0.0089	0.0078 *
Venus	-116299-01-26 06:43 J	-40756761.43	-40756761.22	-40756761.00	0.0089	0.0004
Earth	-116299-07-04 01:12 J	-40756602.64	-40756602.45	-40756602.23	0.0089	0.0050
Moon	-116299-07-04 01:12 J	-40756602.64	-40756602.45	-40756602.22	0.0089	0.0051 *
Venus	-116299-09-08 18:29 J	-40756535.94	-40756535.73	-40756535.52	0.0089	0.0009

Venus -116298-04-22 06:00 J -40756310.45 -40756310.25 -40756310.03 0.0089 0.0015
 Earth -116298-07-06 09:36 J -40756235.33 -40756235.10 -40756234.85 0.0089 0.0022
 Moon -116298-07-06 11:17 J -40756235.26 -40756235.03 -40756234.79 0.0089 0.0020 *
 Venus -116298-12-03 17:31 J -40756084.97 -40756084.77 -40756084.55 0.0089 0.0021
 Moon -116297-07-07 15:36 J -40755868.10 -40755867.85 -40755867.59 0.0089 0.0006
 Earth -116297-07-07 18:29 J -40755867.98 -40755867.73 -40755867.48 0.0089 0.0007 *
 Venus -116297-07-16 05:03 J -40755859.48 -40755859.29 -40755859.07 0.0089 0.0027
 Venus -116296-02-26 16:48 J -40755633.99 -40755633.80 -40755633.59 0.0089 0.0032
 Earth -116296-07-10 02:53 J -40755500.60 -40755500.38 -40755500.14 0.0089 0.0036
 Moon -116296-07-10 06:00 J -40755500.46 -40755500.25 -40755500.01 0.0089 0.0037 *
 Venus -116296-10-10 04:48 J -40755408.49 -40755408.30 -40755408.11 0.0089 0.0038
 Venus -116295-05-23 16:34 J -40755182.99 -40755182.81 -40755182.62 0.0089 0.0044
 Moon -116295-07-12 07:55 J -40755133.33 -40755133.17 -40755132.98 0.0089 0.0063
 Earth -116295-07-12 11:31 J -40755133.17 -40755133.02 -40755132.83 0.0089 0.0065 *
 Venus -116294-01-04 04:05 J -40754957.50 -40754957.33 -40754957.14 0.0089 0.0050
 Venus -116294-08-17 15:51 J -40754732.00 -40754731.84 -40754731.67 0.0089 0.0056
 Venus -116293-03-30 03:36 J -40754506.49 -40754506.35 -40754506.19 0.0089 0.0062
 Venus -116293-11-10 15:22 J -40754280.98 -40754280.86 -40754280.71 0.0089 0.0068
 Venus -116292-06-24 03:07 J -40754055.46 -40754055.37 -40754055.23 0.0089 0.0074
 Venus -116291-02-04 15:22 J -40753829.94 -40753829.86 -40753829.76 0.0089 0.0079
 Venus -116291-09-18 03:07 J -40753604.41 -40753604.37 -40753604.29 0.0089 0.0085
 Mars -116282-01-30 00:29 J -40750548.54 -40750548.48 -40750548.34 0.0089 0.0085
 Mars -116281-12-25 00:58 J -40749853.59 -40749853.46 -40749853.30 0.0089 0.0079
 Mars -116279-11-19 22:48 J -40749158.69 -40749158.55 -40749158.34 0.0089 0.0074
 Mars -116277-10-14 20:24 J -40748463.82 -40748463.65 -40748463.42 0.0089 0.0068
 Mars -116275-09-09 16:19 J -40747769.04 -40747768.82 -40747768.59 0.0089 0.0061
 Mars -116273-08-04 09:22 J -40747074.32 -40747074.11 -40747073.83 0.0089 0.0055
 Mars -116271-06-30 02:53 J -40746379.62 -40746379.38 -40746379.10 0.0089 0.0048
 Mercury -116270-07-20 16:34 J -40745993.81 -40745993.81 -40745993.79 0.0089 0.0089
 Mercury -116270-10-16 19:41 J -40745905.73 -40745905.68 -40745905.61 0.0089 0.0083

Mercury -116269-01-12 22:34 J -40745817.63 -40745817.56 -40745817.47 0.0089 0.0078

Mercury -116269-04-10 01:27 J -40745729.52 -40745729.44 -40745729.32 0.0089 0.0073

Mars -116269-05-24 18:29 J -40745684.99 -40745684.73 -40745684.45 0.0089 0.0041

Mercury -116269-07-07 04:48 J -40745641.41 -40745641.30 -40745641.18 0.0089 0.0067

Mercury -116269-10-03 07:27 J -40745553.30 -40745553.19 -40745553.04 0.0089 0.0062

Mercury -116269-12-30 10:48 J -40745465.18 -40745465.05 -40745464.91 0.0089 0.0056

Mercury -116268-03-28 13:41 J -40745377.06 -40745376.93 -40745376.77 0.0089 0.0051

Mercury -116268-06-24 17:03 J -40745288.94 -40745288.79 -40745288.63 0.0089 0.0045

Mercury -116268-09-20 19:55 J -40745200.82 -40745200.67 -40745200.50 0.0089 0.0040

Mercury -116268-12-17 23:17 J -40745112.70 -40745112.53 -40745112.36 0.0089 0.0034

Mercury -116267-03-16 02:10 J -40745024.57 -40745024.41 -40745024.23 0.0089 0.0029

Mars -116267-04-19 07:12 J -40744990.47 -40744990.20 -40744989.90 0.0089 0.0034

Mercury -116267-06-12 05:31 J -40744936.45 -40744936.27 -40744936.09 0.0089 0.0023

Mercury -116267-09-08 08:39 J -40744848.32 -40744848.14 -40744847.96 0.0089 0.0017

Mercury -116267-12-05 11:46 J -40744760.19 -40744760.01 -40744759.83 0.0089 0.0012

Mercury -116266-03-03 14:53 J -40744672.06 -40744671.88 -40744671.69 0.0089 0.0006

Mercury -116266-05-30 18:15 J -40744583.93 -40744583.74 -40744583.56 0.0089 0.0002

Mercury -116266-08-26 21:22 J -40744495.79 -40744495.61 -40744495.43 0.0089 0.0005

Mercury -116266-11-23 00:29 J -40744407.66 -40744407.48 -40744407.30 0.0089 0.0011

Mercury -116265-02-19 03:36 J -40744319.53 -40744319.35 -40744319.16 0.0089 0.0017

Mars -116265-03-13 19:12 J -40744295.97 -40744295.70 -40744295.38 0.0089 0.0027

Mercury -116265-05-17 06:58 J -40744231.39 -40744231.21 -40744231.03 0.0089 0.0022

Mercury -116265-08-13 10:05 J -40744143.25 -40744143.08 -40744142.90 0.0089 0.0028

Mercury -116265-11-09 13:12 J -40744055.11 -40744054.95 -40744054.77 0.0089 0.0034

Mercury -116264-02-05 16:19 J -40743966.97 -40743966.82 -40743966.64 0.0089 0.0040

Mercury -116264-05-04 19:55 J -40743878.83 -40743878.67 -40743878.51 0.0089 0.0045

Mercury -116264-07-31 23:03 J -40743790.68 -40743790.54 -40743790.38 0.0089 0.0051

Mercury -116264-10-28 02:10 J -40743702.54 -40743702.41 -40743702.25 0.0089 0.0057

Mercury -116263-01-24 05:31 J -40743614.39 -40743614.27 -40743614.13 0.0089 0.0063

Mars -116263-02-06 06:43 J -40743601.51 -40743601.22 -40743600.92 0.0089 0.0019

Mercury -116263-04-22 08:39 J -40743526.24 -40743526.14 -40743526.01 0.0089 0.0069

Mercury -116263-07-19 12:00 J -40743438.08 -40743438.00 -40743437.88 0.0089 0.0075

Mercury -116263-10-15 15:36 J -40743349.92 -40743349.85 -40743349.77 0.0089 0.0080

Mercury -116262-01-11 18:58 J -40743261.75 -40743261.71 -40743261.66 0.0089 0.0086

Mars -116261-01-01 15:36 J -40742907.14 -40742906.85 -40742906.54 0.0089 0.0012

Mars -116260-11-25 23:31 J -40742212.82 -40742212.52 -40742212.21 0.0089 0.0004

Mars -116258-10-21 07:27 J -40741518.49 -40741518.19 -40741517.88 0.0089 0.0003

Mars -116256-09-14 13:55 J -40740824.22 -40740823.92 -40740823.62 0.0089 0.0010

Mars -116254-08-09 18:43 J -40740130.00 -40740129.72 -40740129.41 0.0089 0.0018

Jupiter -116253-11-14 17:31 J -40739666.94 -40739666.77 -40739666.45 0.0089 0.0080

Mars -116252-07-03 23:31 J -40739435.80 -40739435.52 -40739435.22 0.0089 0.0025

Mars -116250-05-29 03:07 J -40738741.64 -40738741.37 -40738741.08 0.0089 0.0032

Mars -116248-04-22 05:03 J -40738047.53 -40738047.29 -40738047.00 0.0089 0.0039

Mars -116246-03-17 07:41 J -40737353.42 -40737353.18 -40737352.91 0.0089 0.0046

Mars -116244-02-08 10:19 J -40736659.31 -40736659.07 -40736658.83 0.0089 0.0052

Mars -116242-01-03 10:34 J -40735965.26 -40735965.06 -40735964.81 0.0089 0.0058

Mars -116241-11-27 12:29 J -40735271.18 -40735270.98 -40735270.77 0.0089 0.0063

Mars -116239-10-22 13:55 J -40734577.07 -40734576.92 -40734576.70 0.0089 0.0069

Mars -116237-09-15 14:53 J -40733883.02 -40733882.88 -40733882.69 0.0089 0.0074

Mars -116235-08-10 14:53 J -40733188.98 -40733188.88 -40733188.70 0.0089 0.0079

Mars -116233-07-04 16:34 J -40732494.88 -40732494.81 -40732494.67 0.0089 0.0083

Mars -116231-05-29 17:17 J -40731800.81 -40731800.78 -40731800.68 0.0089 0.0087

Venus -116227-12-10 10:05 J -40730145.12 -40730145.08 -40730145.02 0.0089 0.0086

Venus -116226-07-24 00:43 J -40729919.55 -40729919.47 -40729919.36 0.0089 0.0080

Venus -116225-03-05 15:22 J -40729693.97 -40729693.86 -40729693.72 0.0089 0.0074

Venus -116225-10-17 06:15 J -40729468.37 -40729468.24 -40729468.08 0.0089 0.0068

Venus -116224-05-30 20:39 J -40729242.78 -40729242.64 -40729242.45 0.0089 0.0062

Venus -116223-01-11 11:46 J -40729017.18 -40729017.01 -40729016.83 0.0089 0.0055

Venus -116223-08-25 02:10 J -40728791.59 -40728791.41 -40728791.21 0.0089 0.0049

Venus -116222-04-07 16:48 J -40728565.99 -40728565.80 -40728565.59 0.0089 0.0043

Venus	-116222-11-19 07:41 J	-40728340.39	-40728340.18	-40728339.97	0.0089	0.0036
Venus	-116221-07-01 22:05 J	-40728114.79	-40728114.58	-40728114.36	0.0089	0.0030
Venus	-116220-02-12 12:29 J	-40727889.19	-40727888.98	-40727888.75	0.0089	0.0024
Venus	-116220-09-26 03:22 J	-40727663.58	-40727663.36	-40727663.14	0.0089	0.0017
Venus	-116219-05-09 17:46 J	-40727437.98	-40727437.76	-40727437.53	0.0089	0.0011
Venus	-116219-12-21 08:24 J	-40727212.38	-40727212.15	-40727211.92	0.0089	0.0004
Moon	-116218-01-07 09:51 J	-40727195.13	-40727195.09	-40727195.04	0.0089	0.0087
Venus	-116218-08-03 22:48 J	-40726986.78	-40726986.55	-40726986.32	0.0089	0.0002
Earth	-116217-01-10 04:05 J	-40726827.51	-40726827.33	-40726827.12	0.0089	0.0060
Moon	-116217-01-10 07:41 J	-40726827.35	-40726827.18	-40726826.97	0.0089	0.0063 *
Venus	-116217-03-16 13:12 J	-40726761.17	-40726760.95	-40726760.72	0.0089	0.0008
Venus	-116217-10-28 03:51 J	-40726535.56	-40726535.34	-40726535.11	0.0089	0.0015
Moon	-116216-01-11 15:22 J	-40726460.09	-40726459.86	-40726459.59	0.0089	0.0027
Earth	-116216-01-11 18:43 J	-40726459.95	-40726459.72	-40726459.45	0.0089	0.0030 *
Venus	-116216-06-10 18:15 J	-40726309.96	-40726309.74	-40726309.51	0.0089	0.0021
Earth	-116215-01-14 09:51 J	-40726092.36	-40726092.09	-40726091.83	0.0089	0.0001
Moon	-116215-01-14 13:12 J	-40726092.22	-40726091.95	-40726091.68	0.0089	0.0003 *
Venus	-116215-01-22 08:24 J	-40726084.35	-40726084.15	-40726083.92	0.0089	0.0028
Venus	-116215-09-04 22:48 J	-40725858.75	-40725858.55	-40725858.33	0.0089	0.0034
Moon	-116214-01-16 22:05 J	-40725724.80	-40725724.58	-40725724.32	0.0089	0.0035
Earth	-116214-01-17 00:29 J	-40725724.73	-40725724.48	-40725724.23	0.0089	0.0031 *
Venus	-116214-04-18 13:27 J	-40725633.14	-40725632.94	-40725632.73	0.0089	0.0040
Venus	-116214-11-30 03:36 J	-40725407.53	-40725407.35	-40725407.14	0.0089	0.0047
Earth	-116213-01-19 14:24 J	-40725357.07	-40725356.90	-40725356.69	0.0089	0.0062
Moon	-116213-01-19 15:51 J	-40725357.03	-40725356.84	-40725356.62	0.0089	0.0058 *
Venus	-116213-07-12 18:00 J	-40725181.92	-40725181.75	-40725181.55	0.0089	0.0053
Venus	-116212-02-23 08:10 J	-40724956.31	-40724956.16	-40724955.97	0.0089	0.0059
Venus	-116212-10-06 22:34 J	-40724730.70	-40724730.56	-40724730.39	0.0089	0.0065
Venus	-116211-05-20 12:58 J	-40724505.08	-40724504.96	-40724504.81	0.0089	0.0071
Venus	-116210-01-01 03:07 J	-40724279.47	-40724279.37	-40724279.25	0.0089	0.0077

Venus -116210-08-14 17:03 J -40724053.85 -40724053.79 -40724053.69 0.0089 0.0083

Mars -116203-12-02 19:55 J -40721386.72 -40721386.67 -40721386.57 0.0089 0.0086

Mars -116201-10-27 12:00 J -40720692.09 -40720692.00 -40720691.85 0.0088 0.0082

Mars -116199-09-22 05:17 J -40719997.42 -40719997.28 -40719997.12 0.0088 0.0077

Mars -116197-08-16 23:46 J -40719302.67 -40719302.51 -40719302.31 0.0088 0.0072

Mars -116195-07-12 20:10 J -40718607.84 -40718607.66 -40718607.43 0.0088 0.0067

Mars -116193-06-06 17:46 J -40717912.97 -40717912.76 -40717912.51 0.0088 0.0061

Mars -116191-05-02 17:03 J -40717218.01 -40717217.79 -40717217.51 0.0088 0.0055

Mars -116189-03-27 18:58 J -40716522.97 -40716522.71 -40716522.43 0.0088 0.0048

Mercury -116189-08-13 14:10 J -40716383.92 -40716383.91 -40716383.88 0.0088 0.0087

Mercury -116189-11-09 16:05 J -40716295.88 -40716295.83 -40716295.78 0.0088 0.0083

Mercury -116188-02-05 17:31 J -40716207.83 -40716207.77 -40716207.70 0.0088 0.0078

Mercury -116188-05-04 18:58 J -40716119.77 -40716119.71 -40716119.62 0.0088 0.0075

Mercury -116188-07-31 20:53 J -40716031.71 -40716031.63 -40716031.54 0.0088 0.0070

Mercury -116188-10-27 22:19 J -40715943.65 -40715943.57 -40715943.47 0.0088 0.0065

Mercury -116187-01-23 23:46 J -40715855.59 -40715855.51 -40715855.39 0.0088 0.0062

Mars -116187-02-20 21:07 J -40715827.87 -40715827.62 -40715827.30 0.0088 0.0042

Mercury -116187-04-22 01:41 J -40715767.53 -40715767.43 -40715767.32 0.0088 0.0057

Mercury -116187-07-19 03:07 J -40715679.47 -40715679.37 -40715679.25 0.0088 0.0053

Mercury -116187-10-15 04:34 J -40715591.41 -40715591.31 -40715591.18 0.0088 0.0049

Mercury -116186-01-11 06:29 J -40715503.35 -40715503.23 -40715503.11 0.0088 0.0044

Mercury -116186-04-09 07:55 J -40715415.29 -40715415.17 -40715415.04 0.0088 0.0039

Mercury -116186-07-06 09:22 J -40715327.23 -40715327.11 -40715326.97 0.0088 0.0036

Mercury -116186-10-02 11:17 J -40715239.16 -40715239.03 -40715238.90 0.0088 0.0031

Mercury -116186-12-29 12:43 J -40715151.10 -40715150.97 -40715150.83 0.0088 0.0026

Mars -116185-01-17 01:12 J -40715132.73 -40715132.45 -40715132.14 0.0088 0.0034

Mercury -116185-03-26 14:10 J -40715063.04 -40715062.91 -40715062.77 0.0088 0.0022

Mercury -116185-06-22 15:51 J -40714974.98 -40714974.84 -40714974.70 0.0088 0.0018

Mercury -116185-09-18 17:17 J -40714886.91 -40714886.78 -40714886.64 0.0088 0.0014

Mercury -116185-12-15 18:58 J -40714798.85 -40714798.71 -40714798.57 0.0088 0.0009

Mercury -116184-03-13 20:24 J -40714710.79 -40714710.65 -40714710.51 0.0088 0.0005
 Mercury -116184-06-09 21:51 J -40714622.72 -40714622.59 -40714622.45 0.0088 0.0003
 Mercury -116184-09-05 23:31 J -40714534.66 -40714534.52 -40714534.38 0.0088 0.0004
 Mercury -116184-12-03 00:58 J -40714446.60 -40714446.46 -40714446.32 0.0088 0.0008
 Mars -116184-12-12 06:58 J -40714437.50 -40714437.21 -40714436.88 0.0088 0.0026
 Mercury -116183-03-01 02:24 J -40714358.53 -40714358.40 -40714358.26 0.0088 0.0012
 Mercury -116183-05-28 03:51 J -40714270.47 -40714270.34 -40714270.20 0.0088 0.0016
 Mercury -116183-08-24 05:17 J -40714182.41 -40714182.28 -40714182.14 0.0088 0.0021
 Mercury -116183-11-20 06:58 J -40714094.34 -40714094.21 -40714094.08 0.0088 0.0024
 Mercury -116182-02-16 08:24 J -40714006.28 -40714006.15 -40714006.02 0.0088 0.0028
 Mercury -116182-05-15 09:51 J -40713918.21 -40713918.09 -40713917.96 0.0088 0.0033
 Mercury -116182-08-11 11:17 J -40713830.15 -40713830.03 -40713829.90 0.0088 0.0037
 Mars -116182-11-07 14:10 J -40713742.22 -40713741.91 -40713741.58 0.0088 0.0019
 Mercury -116182-11-07 12:58 J -40713742.08 -40713741.96 -40713741.84 0.0088 0.0041 *
 Mercury -116181-02-03 14:10 J -40713654.02 -40713653.91 -40713653.78 0.0088 0.0045
 Mercury -116181-05-01 15:36 J -40713565.95 -40713565.85 -40713565.73 0.0088 0.0049
 Mercury -116181-07-28 17:03 J -40713477.89 -40713477.79 -40713477.67 0.0088 0.0053
 Mercury -116181-10-24 18:29 J -40713389.82 -40713389.73 -40713389.62 0.0088 0.0057
 Mercury -116180-01-20 19:55 J -40713301.76 -40713301.67 -40713301.56 0.0088 0.0062
 Mercury -116180-04-18 21:22 J -40713213.69 -40713213.61 -40713213.51 0.0088 0.0066
 Mercury -116180-07-15 22:48 J -40713125.62 -40713125.55 -40713125.46 0.0088 0.0070
 Mars -116180-10-02 22:19 J -40713046.88 -40713046.57 -40713046.23 0.0088 0.0012
 Mercury -116180-10-12 00:15 J -40713037.55 -40713037.49 -40713037.40 0.0088 0.0074
 Mercury -116179-01-08 01:41 J -40712949.48 -40712949.43 -40712949.36 0.0088 0.0078
 Mercury -116179-04-06 03:07 J -40712861.41 -40712861.37 -40712861.31 0.0088 0.0082
 Mercury -116179-07-03 04:34 J -40712773.33 -40712773.31 -40712773.27 0.0088 0.0085
 Mars -116178-08-29 08:53 J -40712351.46 -40712351.13 -40712350.80 0.0088 0.0003
 Mars -116176-07-24 20:53 J -40711655.95 -40711655.63 -40711655.30 0.0088 0.0006
 Mars -116174-06-20 10:05 J -40710960.39 -40710960.08 -40710959.74 0.0088 0.0014
 Mars -116172-05-16 00:43 J -40710264.79 -40710264.47 -40710264.15 0.0088 0.0022

Mars	-116170-04-11 16:05 J	-40709569.13	-40709568.83	-40709568.51	0.0088	0.0029
Mars	-116168-03-07 07:55 J	-40708873.45	-40708873.17	-40708872.85	0.0088	0.0037
Mars	-116166-02-01 00:58 J	-40708177.72	-40708177.46	-40708177.14	0.0088	0.0045
Mars	-116165-12-27 19:41 J	-40707481.92	-40707481.68	-40707481.39	0.0088	0.0053
Mars	-116163-11-23 15:22 J	-40706786.09	-40706785.86	-40706785.60	0.0088	0.0060
Mars	-116161-10-19 11:03 J	-40706090.24	-40706090.04	-40706089.80	0.0088	0.0067
Mars	-116159-09-15 06:58 J	-40705394.36	-40705394.21	-40705393.99	0.0088	0.0074
Mars	-116157-08-11 03:22 J	-40704698.47	-40704698.36	-40704698.18	0.0088	0.0080
Mars	-116155-07-08 00:15 J	-40704002.57	-40704002.49	-40704002.38	0.0088	0.0085
Venus	-116145-06-13 01:55 J	-40700374.42	-40700374.42	-40700374.40	0.0088	0.0088
Venus	-116144-01-24 13:27 J	-40700149.01	-40700148.94	-40700148.86	0.0088	0.0083
Venus	-116144-09-07 00:29 J	-40699923.56	-40699923.48	-40699923.36	0.0088	0.0078
Venus	-116143-04-20 12:15 J	-40699698.10	-40699697.99	-40699697.86	0.0088	0.0072
Venus	-116143-12-01 23:31 J	-40699472.64	-40699472.52	-40699472.37	0.0088	0.0066
Venus	-116142-07-15 11:03 J	-40699247.18	-40699247.04	-40699246.88	0.0088	0.0061
Venus	-116141-02-25 22:34 J	-40699021.72	-40699021.56	-40699021.39	0.0088	0.0055
Venus	-116141-10-08 09:51 J	-40698796.25	-40698796.09	-40698795.90	0.0088	0.0049
Venus	-116140-05-21 21:22 J	-40698570.78	-40698570.61	-40698570.41	0.0088	0.0044
Venus	-116139-01-02 08:53 J	-40698345.31	-40698345.13	-40698344.92	0.0088	0.0038
Venus	-116139-08-15 20:39 J	-40698119.83	-40698119.64	-40698119.44	0.0088	0.0032
Venus	-116138-03-29 08:10 J	-40697894.36	-40697894.16	-40697893.95	0.0088	0.0026
Venus	-116138-11-09 19:55 J	-40697668.88	-40697668.67	-40697668.46	0.0088	0.0020
Venus	-116137-06-22 07:12 J	-40697443.40	-40697443.20	-40697442.98	0.0088	0.0015
Venus	-116136-02-02 18:58 J	-40697217.92	-40697217.71	-40697217.50	0.0089	0.0008
Venus	-116136-09-16 06:43 J	-40696992.44	-40696992.22	-40696992.01	0.0089	0.0003
Venus	-116135-04-29 18:29 J	-40696766.95	-40696766.73	-40696766.52	0.0089	0.0004
Earth	-116135-07-03 12:15 J	-40696702.15	-40696701.99	-40696701.80	0.0089	0.0063
Moon	-116135-07-03 15:22 J	-40696702.03	-40696701.86	-40696701.67	0.0089	0.0060 *
Venus	-116135-12-11 06:00 J	-40696541.46	-40696541.25	-40696541.04	0.0089	0.0009
Moon	-116134-07-05 17:31 J	-40696334.99	-40696334.77	-40696334.54	0.0089	0.0038

Earth -116134-07-05 20:39 J -40696334.85 -40696334.64 -40696334.39 0.0089 0.0035 *
 Venus -116134-07-24 17:17 J -40696315.98 -40696315.78 -40696315.56 0.0089 0.0016
 Venus -116133-03-06 05:03 J -40696090.49 -40696090.29 -40696090.08 0.0089 0.0021
 Earth -116133-07-07 05:31 J -40695967.52 -40695967.27 -40695967.02 0.0089 0.0006
 Moon -116133-07-07 08:53 J -40695967.38 -40695967.13 -40695966.87 0.0089 0.0003 *
 Venus -116133-10-17 16:34 J -40695865.00 -40695864.81 -40695864.60 0.0089 0.0028
 Venus -116132-05-31 04:34 J -40695639.51 -40695639.31 -40695639.11 0.0089 0.0033
 Moon -116132-07-09 11:17 J -40695600.26 -40695600.03 -40695599.78 0.0089 0.0020
 Earth -116132-07-09 13:55 J -40695600.16 -40695599.92 -40695599.67 0.0089 0.0023 *
 Venus -116131-01-11 16:05 J -40695414.01 -40695413.83 -40695413.63 0.0089 0.0039
 Earth -116131-07-11 22:19 J -40695232.75 -40695232.57 -40695232.35 0.0089 0.0052
 Moon -116131-07-12 00:58 J -40695232.66 -40695232.46 -40695232.25 0.0089 0.0055 *
 Venus -116131-08-25 03:36 J -40695188.52 -40695188.35 -40695188.15 0.0089 0.0045
 Venus -116130-04-07 15:22 J -40694963.02 -40694962.86 -40694962.67 0.0089 0.0051
 Moon -116130-07-14 06:58 J -40694865.32 -40694865.21 -40694865.09 0.0089 0.0077
 Earth -116130-07-14 07:41 J -40694865.28 -40694865.18 -40694865.07 0.0089 0.0080 *
 Venus -116130-11-19 03:07 J -40694737.52 -40694737.37 -40694737.19 0.0089 0.0057
 Venus -116129-07-01 14:39 J -40694512.02 -40694511.89 -40694511.71 0.0089 0.0063
 Venus -116128-02-12 02:53 J -40694286.51 -40694286.38 -40694286.24 0.0089 0.0068
 Venus -116128-09-25 14:39 J -40694061.00 -40694060.89 -40694060.76 0.0089 0.0074
 Venus -116127-05-09 02:24 J -40693835.47 -40693835.40 -40693835.29 0.0089 0.0080
 Venus -116127-12-20 14:10 J -40693609.94 -40693609.91 -40693609.83 0.0089 0.0086
 Mars -116119-09-13 08:53 J -40690786.20 -40690786.13 -40690786.02 0.0089 0.0085
 Mars -116117-08-08 10:19 J -40690091.17 -40690091.07 -40690090.90 0.0089 0.0080
 Mars -116115-07-04 10:48 J -40689396.20 -40689396.05 -40689395.85 0.0089 0.0074
 Mars -116113-05-29 08:53 J -40688701.30 -40688701.13 -40688700.89 0.0089 0.0068
 Mars -116111-04-24 06:29 J -40688006.44 -40688006.23 -40688005.99 0.0089 0.0061
 Mars -116109-03-19 01:55 J -40687311.65 -40687311.42 -40687311.16 0.0089 0.0054
 Mars -116107-02-11 18:58 J -40686616.96 -40686616.71 -40686616.43 0.0089 0.0047
 Mars -116105-01-07 10:34 J -40685922.31 -40685922.06 -40685921.76 0.0089 0.0040

Mercury -116105-04-15 15:07 J -40685822.90 -40685822.87 -40685822.82 0.0089 0.0086

Mercury -116105-07-12 18:00 J -40685734.81 -40685734.75 -40685734.66 0.0089 0.0081

Mercury -116105-10-08 20:53 J -40685646.70 -40685646.63 -40685646.52 0.0089 0.0076

Mercury -116104-01-05 00:00 J -40685558.59 -40685558.50 -40685558.38 0.0089 0.0070

Mercury -116104-04-03 02:53 J -40685470.48 -40685470.38 -40685470.24 0.0089 0.0065

Mercury -116104-06-30 06:15 J -40685382.37 -40685382.24 -40685382.10 0.0089 0.0059

Mercury -116104-09-26 09:07 J -40685294.25 -40685294.12 -40685293.97 0.0089 0.0054

Mars -116104-12-02 02:24 J -40685227.68 -40685227.40 -40685227.11 0.0089 0.0032

Mercury -116104-12-23 12:29 J -40685206.13 -40685205.98 -40685205.83 0.0089 0.0048

Mercury -116103-03-21 15:22 J -40685118.01 -40685117.86 -40685117.70 0.0089 0.0043

Mercury -116103-06-17 18:29 J -40685029.89 -40685029.73 -40685029.56 0.0089 0.0037

Mercury -116103-09-13 21:36 J -40684941.77 -40684941.60 -40684941.43 0.0089 0.0032

Mercury -116103-12-11 00:43 J -40684853.64 -40684853.47 -40684853.29 0.0089 0.0026

Mercury -116102-03-09 03:51 J -40684765.51 -40684765.34 -40684765.16 0.0089 0.0021

Mercury -116102-06-05 06:58 J -40684677.39 -40684677.21 -40684677.03 0.0089 0.0015

Mercury -116102-09-01 10:05 J -40684589.26 -40684589.08 -40684588.89 0.0089 0.0010

Mars -116102-10-27 14:53 J -40684533.16 -40684532.88 -40684532.57 0.0089 0.0025

Mercury -116102-11-28 13:27 J -40684501.13 -40684500.94 -40684500.76 0.0089 0.0004

Mercury -116101-02-24 16:34 J -40684413.00 -40684412.81 -40684412.63 0.0089 0.0002

Mercury -116101-05-22 19:41 J -40684324.86 -40684324.68 -40684324.50 0.0089 0.0008

Mercury -116101-08-18 22:48 J -40684236.73 -40684236.55 -40684236.37 0.0089 0.0013

Mercury -116101-11-15 01:55 J -40684148.59 -40684148.42 -40684148.23 0.0089 0.0019

Mercury -116100-02-11 05:03 J -40684060.46 -40684060.29 -40684060.10 0.0089 0.0025

Mercury -116100-05-10 08:10 J -40683972.32 -40683972.16 -40683971.97 0.0089 0.0031

Mercury -116100-08-06 11:31 J -40683884.18 -40683884.02 -40683883.84 0.0089 0.0036

Mars -116100-09-21 03:07 J -40683838.66 -40683838.37 -40683838.06 0.0089 0.0017

Mercury -116100-11-02 14:53 J -40683796.04 -40683795.88 -40683795.71 0.0089 0.0042

Mercury -116099-01-29 18:00 J -40683707.89 -40683707.75 -40683707.58 0.0089 0.0048

Mercury -116099-04-27 21:07 J -40683619.75 -40683619.62 -40683619.46 0.0089 0.0054

Mercury -116099-07-25 00:43 J -40683531.60 -40683531.47 -40683531.33 0.0089 0.0059

Mercury -116099-10-21 03:51 J -40683443.45 -40683443.34 -40683443.20 0.0089 0.0065

Mercury -116098-01-17 07:12 J -40683355.30 -40683355.20 -40683355.08 0.0089 0.0071

Mercury -116098-04-15 10:19 J -40683267.14 -40683267.07 -40683266.96 0.0089 0.0077

Mercury -116098-07-12 13:41 J -40683178.98 -40683178.93 -40683178.85 0.0089 0.0083

Mars -116098-08-16 14:53 J -40683144.18 -40683143.88 -40683143.58 0.0089 0.0009

Mercury -116098-10-08 17:03 J -40683090.79 -40683090.79 -40683090.76 0.0089 0.0089

Mars -116096-07-11 00:29 J -40682449.78 -40682449.48 -40682449.17 0.0089 0.0002

Mars -116094-06-05 08:10 J -40681755.46 -40681755.16 -40681754.86 0.0089 0.0006

Mars -116092-04-29 15:36 J -40681061.15 -40681060.85 -40681060.55 0.0089 0.0014

Mars -116090-03-24 21:36 J -40680366.88 -40680366.60 -40680366.30 0.0089 0.0021

Mars -116088-02-16 02:10 J -40679672.69 -40679672.41 -40679672.12 0.0089 0.0028

Mars -116086-01-11 06:29 J -40678978.50 -40678978.23 -40678977.95 0.0089 0.0036

Mars -116085-12-05 10:19 J -40678284.32 -40678284.07 -40678283.80 0.0089 0.0043

Mars -116083-10-30 12:58 J -40677590.20 -40677589.96 -40677589.70 0.0089 0.0049

Mars -116081-09-23 15:36 J -40676896.08 -40676895.85 -40676895.61 0.0089 0.0056

Mars -116079-08-18 18:00 J -40676201.95 -40676201.75 -40676201.52 0.0089 0.0062

Mars -116077-07-12 18:58 J -40675507.89 -40675507.71 -40675507.51 0.0089 0.0067

Mars -116075-06-06 19:12 J -40674813.84 -40674813.70 -40674813.50 0.0089 0.0073

Mars -116073-04-30 20:24 J -40674119.76 -40674119.65 -40674119.48 0.0089 0.0078

Mars -116071-03-25 21:07 J -40673425.69 -40673425.62 -40673425.47 0.0089 0.0083

Mars -116069-02-17 21:22 J -40672731.64 -40672731.61 -40672731.52 0.0089 0.0087

Venus -116062-03-13 18:58 J -40670150.77 -40670150.71 -40670150.65 0.0089 0.0085

Venus -116062-10-25 09:36 J -40669925.19 -40669925.10 -40669924.99 0.0089 0.0079

Venus -116061-06-07 00:15 J -40669699.60 -40669699.49 -40669699.35 0.0089 0.0073

Venus -116060-01-18 14:53 J -40669474.01 -40669473.88 -40669473.71 0.0089 0.0067

Venus -116060-09-01 05:31 J -40669248.41 -40669248.27 -40669248.08 0.0089 0.0061

Venus -116059-04-14 20:39 J -40669022.81 -40669022.64 -40669022.45 0.0089 0.0054

Venus -116059-11-26 11:17 J -40668797.21 -40668797.03 -40668796.83 0.0089 0.0048

Venus -116058-07-10 01:41 J -40668571.61 -40668571.43 -40668571.21 0.0089 0.0042

Venus -116057-02-20 16:48 J -40668346.01 -40668345.80 -40668345.59 0.0089 0.0035

Venus	-116057-10-03 07:27 J	-40668120.40	-40668120.19	-40668119.97	0.0089	0.0029
Venus	-116056-05-16 21:51 J	-40667894.80	-40667894.59	-40667894.36	0.0089	0.0023
Venus	-116056-12-28 12:43 J	-40667669.20	-40667668.97	-40667668.75	0.0089	0.0016
Venus	-116055-08-11 03:07 J	-40667443.60	-40667443.37	-40667443.14	0.0089	0.0010
Venus	-116054-03-24 17:31 J	-40667217.99	-40667217.77	-40667217.54	0.0089	0.0004
Venus	-116054-11-05 08:10 J	-40666992.38	-40666992.16	-40666991.93	0.0089	0.0004
Moon	-116053-01-09 08:10 J	-40666927.27	-40666927.16	-40666927.02	0.0089	0.0078
Earth	-116053-01-09 10:34 J	-40666927.20	-40666927.06	-40666926.90	0.0089	0.0073 *
Venus	-116053-06-17 22:34 J	-40666766.78	-40666766.56	-40666766.32	0.0089	0.0010
Earth	-116052-01-11 01:27 J	-40666559.66	-40666559.44	-40666559.19	0.0089	0.0043
Moon	-116052-01-11 01:55 J	-40666559.64	-40666559.42	-40666559.15	0.0089	0.0039 *
Venus	-116052-01-29 12:58 J	-40666541.17	-40666540.96	-40666540.73	0.0089	0.0016
Venus	-116052-09-12 03:36 J	-40666315.57	-40666315.35	-40666315.13	0.0089	0.0022
Earth	-116051-01-13 16:34 J	-40666192.07	-40666191.81	-40666191.54	0.0089	0.0012
Moon	-116051-01-13 16:34 J	-40666192.06	-40666191.81	-40666191.56	0.0089	0.0016 *
Venus	-116051-04-25 17:46 J	-40666089.96	-40666089.76	-40666089.53	0.0089	0.0029
Venus	-116051-12-07 08:24 J	-40665864.35	-40665864.15	-40665863.93	0.0089	0.0035
Moon	-116050-01-16 05:46 J	-40665824.51	-40665824.26	-40665823.98	0.0089	0.0023
Earth	-116050-01-16 06:58 J	-40665824.45	-40665824.21	-40665823.94	0.0089	0.0019 *
Venus	-116050-07-20 22:48 J	-40665638.75	-40665638.55	-40665638.34	0.0089	0.0041
Earth	-116049-01-18 21:22 J	-40665456.81	-40665456.61	-40665456.37	0.0089	0.0049
Moon	-116049-01-18 23:46 J	-40665456.71	-40665456.51	-40665456.26	0.0089	0.0045 *
Venus	-116049-03-02 12:43 J	-40665413.14	-40665412.97	-40665412.75	0.0089	0.0048
Venus	-116049-10-14 03:22 J	-40665187.52	-40665187.36	-40665187.16	0.0089	0.0054
Moon	-116048-01-20 08:24 J	-40665089.21	-40665089.15	-40665089.02	0.0089	0.0083
Earth	-116048-01-20 11:31 J	-40665089.12	-40665089.02	-40665088.88	0.0089	0.0079 *
Venus	-116048-05-27 17:46 J	-40664961.91	-40664961.76	-40664961.58	0.0089	0.0060
Venus	-116047-01-08 08:10 J	-40664736.30	-40664736.16	-40664736.00	0.0089	0.0066
Venus	-116047-08-21 22:19 J	-40664510.69	-40664510.57	-40664510.42	0.0089	0.0072
Venus	-116046-04-04 12:29 J	-40664285.07	-40664284.98	-40664284.86	0.0089	0.0078

Venus -116046-11-16 02:53 J -40664059.44 -40664059.38 -40664059.29 0.0089 0.0084

Mars -116039-07-17 14:24 J -40661623.93 -40661623.90 -40661623.80 0.0089 0.0087

Mars -116037-06-11 05:03 J -40660929.39 -40660929.29 -40660929.16 0.0089 0.0082

Mars -116035-05-06 20:53 J -40660234.74 -40660234.63 -40660234.44 0.0088 0.0078

Mars -116033-03-31 15:22 J -40659540.03 -40659539.86 -40659539.66 0.0088 0.0072

Mars -116031-02-24 10:19 J -40658845.27 -40658845.07 -40658844.85 0.0088 0.0066

Mars -116029-01-20 07:12 J -40658150.42 -40658150.20 -40658149.95 0.0088 0.0060

Mars -116028-12-15 04:48 J -40657455.53 -40657455.30 -40657455.03 0.0088 0.0054

Mars -116026-11-10 04:05 J -40656760.58 -40656760.33 -40656760.04 0.0088 0.0047

Mercury -116024-05-10 13:55 J -40656212.95 -40656212.92 -40656212.88 0.0088 0.0085

Mercury -116024-08-06 15:22 J -40656124.90 -40656124.86 -40656124.79 0.0088 0.0081

Mars -116024-10-05 05:17 J -40656065.54 -40656065.28 -40656064.97 0.0088 0.0040

Mercury -116024-11-02 17:03 J -40656036.85 -40656036.79 -40656036.71 0.0088 0.0076

Mercury -116023-01-29 18:43 J -40655948.79 -40655948.72 -40655948.63 0.0088 0.0072

Mercury -116023-04-27 20:24 J -40655860.74 -40655860.65 -40655860.56 0.0088 0.0067

Mercury -116023-07-24 21:51 J -40655772.68 -40655772.59 -40655772.48 0.0088 0.0063

Mercury -116023-10-20 23:46 J -40655684.62 -40655684.51 -40655684.41 0.0088 0.0059

Mercury -116022-01-17 01:12 J -40655596.56 -40655596.45 -40655596.33 0.0088 0.0054

Mercury -116022-04-15 02:39 J -40655508.49 -40655508.39 -40655508.26 0.0088 0.0050

Mercury -116022-07-12 04:34 J -40655420.43 -40655420.31 -40655420.19 0.0088 0.0046

Mars -116022-08-31 09:07 J -40655370.42 -40655370.12 -40655369.82 0.0088 0.0032

Mercury -116022-10-08 06:00 J -40655332.37 -40655332.25 -40655332.12 0.0088 0.0041

Mercury -116021-01-04 07:27 J -40655244.31 -40655244.19 -40655244.05 0.0088 0.0037

Mercury -116021-04-01 09:22 J -40655156.24 -40655156.11 -40655155.98 0.0088 0.0033

Mercury -116021-06-28 10:48 J -40655068.18 -40655068.05 -40655067.92 0.0088 0.0028

Mercury -116021-09-24 12:15 J -40654980.12 -40654979.99 -40654979.85 0.0088 0.0024

Mercury -116021-12-21 13:55 J -40654892.06 -40654891.92 -40654891.78 0.0088 0.0020

Mercury -116020-03-19 15:36 J -40654803.99 -40654803.85 -40654803.72 0.0088 0.0016

Mercury -116020-06-15 17:03 J -40654715.93 -40654715.79 -40654715.65 0.0088 0.0011

Mars -116020-07-26 12:58 J -40654675.25 -40654674.96 -40654674.63 0.0088 0.0024

Mercury -116020-09-11 18:29 J -40654627.87 -40654627.73 -40654627.59 0.0088 0.0007
 Mercury -116020-12-08 20:10 J -40654539.80 -40654539.66 -40654539.52 0.0088 0.0003
 Mercury -116019-03-06 21:36 J -40654451.74 -40654451.60 -40654451.46 0.0088 0.0002
 Mercury -116019-06-02 23:03 J -40654363.67 -40654363.54 -40654363.40 0.0088 0.0006
 Mercury -116019-08-30 00:43 J -40654275.61 -40654275.47 -40654275.33 0.0088 0.0010
 Mercury -116019-11-26 02:10 J -40654187.55 -40654187.41 -40654187.27 0.0088 0.0014
 Mercury -116018-02-22 03:36 J -40654099.48 -40654099.35 -40654099.21 0.0088 0.0018
 Mercury -116018-05-21 05:03 J -40654011.42 -40654011.29 -40654011.15 0.0088 0.0023
 Mars -116018-06-21 19:27 J -40653980.00 -40653979.69 -40653979.36 0.0088 0.0016
 Mercury -116018-08-17 06:43 J -40653923.35 -40653923.22 -40653923.09 0.0088 0.0027
 Mercury -116018-11-13 07:55 J -40653835.29 -40653835.17 -40653835.03 0.0088 0.0031
 Mercury -116017-02-09 09:22 J -40653747.22 -40653747.11 -40653746.97 0.0088 0.0036
 Mercury -116017-05-07 11:03 J -40653659.16 -40653659.04 -40653658.91 0.0088 0.0039
 Mercury -116017-08-03 12:29 J -40653571.10 -40653570.98 -40653570.86 0.0088 0.0043
 Mercury -116017-10-30 13:55 J -40653483.03 -40653482.92 -40653482.80 0.0088 0.0047
 Mercury -116016-01-26 15:22 J -40653394.96 -40653394.86 -40653394.74 0.0088 0.0052
 Mercury -116016-04-24 16:48 J -40653306.90 -40653306.80 -40653306.69 0.0088 0.0056
 Mars -116016-05-17 03:22 J -40653284.67 -40653284.36 -40653284.02 0.0088 0.0009
 Mercury -116016-07-21 18:15 J -40653218.83 -40653218.74 -40653218.63 0.0088 0.0060
 Mercury -116016-10-17 19:41 J -40653130.77 -40653130.68 -40653130.58 0.0088 0.0064
 Mercury -116015-01-13 21:22 J -40653042.70 -40653042.61 -40653042.52 0.0088 0.0068
 Mercury -116015-04-11 22:48 J -40652954.63 -40652954.55 -40652954.47 0.0088 0.0072
 Mercury -116015-07-09 00:15 J -40652866.56 -40652866.49 -40652866.42 0.0088 0.0076
 Mercury -116015-10-05 01:41 J -40652778.49 -40652778.43 -40652778.37 0.0088 0.0080
 Mercury -116014-01-01 02:53 J -40652690.41 -40652690.38 -40652690.33 0.0088 0.0084
 Mercury -116014-03-30 04:19 J -40652602.32 -40652602.32 -40652602.30 0.0088 0.0088
 Mars -116014-04-12 12:15 J -40652589.31 -40652588.99 -40652588.66 0.0088 0.0001
 Mars -116012-03-07 22:19 J -40651893.89 -40651893.57 -40651893.23 0.0088 0.0009
 Mars -116010-02-01 10:34 J -40651198.38 -40651198.06 -40651197.74 0.0088 0.0017
 Mars -116009-12-27 23:17 J -40650502.82 -40650502.53 -40650502.19 0.0088 0.0026

Mars	-116007-11-23 13:41 J	-40649807.22	-40649806.93	-40649806.61	0.0088	0.0033
Mars	-116005-10-19 05:17 J	-40649111.55	-40649111.28	-40649110.96	0.0088	0.0042
Mars	-116003-09-14 21:36 J	-40648415.85	-40648415.60	-40648415.30	0.0088	0.0049
Mars	-116001-08-10 15:22 J	-40647720.10	-40647719.86	-40647719.59	0.0088	0.0057

116TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 116th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-115999-07-07 09:36 J	-40647024.30	-40647024.10	-40647023.84	0.0088	0.0064		
Mars	-115997-06-02 04:48 J	-40646328.46	-40646328.30	-40646328.06	0.0088	0.0072		
Mars	-115995-04-29 01:12 J	-40645632.59	-40645632.45	-40645632.28	0.0088	0.0078		
Mars	-115993-03-24 20:39 J	-40644936.70	-40644936.64	-40644936.49	0.0088	0.0085		
Venus	-115981-09-14 14:10 J	-40640379.92	-40640379.91	-40640379.86	0.0088	0.0088		
Venus	-115980-04-28 01:55 J	-40640154.49	-40640154.42	-40640154.33	0.0088	0.0082		
Venus	-115980-12-09 12:58 J	-40639929.04	-40639928.96	-40639928.83	0.0088	0.0077		
Venus	-115979-07-23 00:43 J	-40639703.59	-40639703.47	-40639703.34	0.0088	0.0071		
Venus	-115978-03-05 11:46 J	-40639478.13	-40639478.01	-40639477.84	0.0088	0.0066		
Venus	-115978-10-16 23:17 J	-40639252.67	-40639252.53	-40639252.36	0.0088	0.0060		
Venus	-115977-05-29 11:03 J	-40639027.20	-40639027.04	-40639026.87	0.0088	0.0054		
Venus	-115976-01-09 22:05 J	-40638801.74	-40638801.58	-40638801.38	0.0088	0.0049		

Venus	-115976-08-23 09:36 J	-40638576.27	-40638576.10	-40638575.90	0.0088	0.0043
Venus	-115975-04-05 21:22 J	-40638350.80	-40638350.61	-40638350.41	0.0088	0.0037
Venus	-115975-11-17 08:53 J	-40638125.32	-40638125.13	-40638124.93	0.0088	0.0031
Venus	-115974-06-30 20:24 J	-40637899.85	-40637899.65	-40637899.44	0.0088	0.0025
Venus	-115973-02-11 07:41 J	-40637674.38	-40637674.18	-40637673.96	0.0088	0.0020
Venus	-115973-09-23 19:27 J	-40637448.90	-40637448.69	-40637448.48	0.0089	0.0013
Venus	-115972-05-07 07:12 J	-40637223.41	-40637223.20	-40637222.99	0.0089	0.0007
Venus	-115972-12-18 18:43 J	-40636997.93	-40636997.72	-40636997.50	0.0089	0.0002
Moon	-115971-07-02 21:22 J	-40636801.75	-40636801.61	-40636801.45	0.0089	0.0071
Earth	-115971-07-03 00:15 J	-40636801.59	-40636801.49	-40636801.33	0.0089	0.0076 *
Venus	-115971-08-01 06:29 J	-40636772.45	-40636772.23	-40636772.02	0.0089	0.0005
Venus	-115970-03-14 18:00 J	-40636546.96	-40636546.75	-40636546.54	0.0089	0.0010
Earth	-115970-07-05 08:53 J	-40636434.33	-40636434.13	-40636433.91	0.0089	0.0047
Moon	-115970-07-05 11:17 J	-40636434.23	-40636434.03	-40636433.81	0.0089	0.0051 *
Venus	-115970-10-26 05:31 J	-40636321.47	-40636321.27	-40636321.06	0.0089	0.0016
Venus	-115969-06-07 17:03 J	-40636095.98	-40636095.79	-40636095.57	0.0089	0.0023
Moon	-115969-07-06 15:36 J	-40636067.08	-40636066.85	-40636066.60	0.0089	0.0015
Earth	-115969-07-06 17:17 J	-40636067.02	-40636066.78	-40636066.53	0.0089	0.0019 *
Venus	-115968-01-19 04:34 J	-40635870.50	-40635870.31	-40635870.09	0.0089	0.0029
Moon	-115968-07-09 01:55 J	-40635699.68	-40635699.42	-40635699.16	0.0089	0.0006
Earth	-115968-07-09 01:41 J	-40635699.67	-40635699.43	-40635699.17	0.0089	0.0011 *
Venus	-115968-09-01 16:34 J	-40635645.01	-40635644.81	-40635644.61	0.0089	0.0034
Venus	-115967-04-15 04:05 J	-40635419.51	-40635419.33	-40635419.13	0.0089	0.0040
Earth	-115967-07-11 10:19 J	-40635332.29	-40635332.07	-40635331.84	0.0089	0.0039
Moon	-115967-07-11 11:31 J	-40635332.22	-40635332.02	-40635331.80	0.0089	0.0043 *
Venus	-115967-11-26 15:51 J	-40635194.02	-40635193.84	-40635193.65	0.0089	0.0046
Venus	-115966-07-10 03:22 J	-40634968.52	-40634968.36	-40634968.17	0.0089	0.0052
Moon	-115966-07-13 16:48 J	-40634964.96	-40634964.80	-40634964.60	0.0089	0.0064
Earth	-115966-07-13 18:58 J	-40634964.85	-40634964.71	-40634964.53	0.0089	0.0068 *
Venus	-115965-02-20 14:53 J	-40634743.02	-40634742.88	-40634742.70	0.0089	0.0058

Venus -115965-10-03 02:53 J -40634517.52 -40634517.38 -40634517.22 0.0089 0.0063
 Venus -115964-05-16 14:39 J -40634292.01 -40634291.89 -40634291.74 0.0089 0.0069
 Venus -115964-12-28 02:24 J -40634066.50 -40634066.40 -40634066.27 0.0089 0.0075
 Venus -115963-08-10 13:55 J -40633840.98 -40633840.92 -40633840.80 0.0089 0.0081
 Venus -115962-03-24 02:10 J -40633615.45 -40633615.41 -40633615.35 0.0089 0.0086
 Mars -115955-04-27 18:43 J -40631023.75 -40631023.72 -40631023.61 0.0089 0.0087
 Mars -115953-03-22 21:07 J -40630328.71 -40630328.62 -40630328.44 0.0089 0.0081
 Mars -115951-02-15 23:03 J -40629633.70 -40629633.54 -40629633.35 0.0089 0.0074
 Mars -115949-01-11 23:03 J -40628938.72 -40628938.54 -40628938.31 0.0089 0.0068
 Mars -115948-12-06 20:39 J -40628243.84 -40628243.64 -40628243.38 0.0089 0.0061
 Mars -115946-11-01 17:17 J -40627549.00 -40627548.78 -40627548.50 0.0089 0.0054
 Mars -115944-09-26 12:58 J -40626854.22 -40626853.96 -40626853.68 0.0089 0.0046
 Mars -115942-08-22 06:29 J -40626159.51 -40626159.23 -40626158.95 0.0089 0.0038
 Mercury -115941-10-14 11:17 J -40625740.04 -40625740.03 -40625740.01 0.0089 0.0088
 Mercury -115940-01-10 13:55 J -40625651.96 -40625651.92 -40625651.84 0.0089 0.0083
 Mercury -115940-04-08 16:48 J -40625563.86 -40625563.80 -40625563.70 0.0089 0.0078
 Mercury -115940-07-05 20:10 J -40625475.76 -40625475.66 -40625475.55 0.0089 0.0072
 Mars -115940-07-16 21:51 J -40625464.86 -40625464.59 -40625464.28 0.0089 0.0031
 Mercury -115940-10-01 23:03 J -40625387.65 -40625387.54 -40625387.41 0.0089 0.0067
 Mercury -115940-12-29 01:55 J -40625299.53 -40625299.42 -40625299.28 0.0089 0.0062
 Mercury -115939-03-27 05:03 J -40625211.42 -40625211.29 -40625211.14 0.0089 0.0056
 Mercury -115939-06-23 07:55 J -40625123.30 -40625123.17 -40625123.01 0.0089 0.0051
 Mercury -115939-09-19 11:17 J -40625035.18 -40625035.03 -40625034.87 0.0089 0.0045
 Mercury -115939-12-16 14:10 J -40624947.06 -40624946.91 -40624946.74 0.0089 0.0040
 Mercury -115938-03-14 17:17 J -40624858.94 -40624858.78 -40624858.61 0.0089 0.0035
 Mercury -115938-06-10 20:24 J -40624770.82 -40624770.65 -40624770.47 0.0089 0.0029
 Mars -115938-06-11 13:12 J -40624770.23 -40624769.95 -40624769.64 0.0089 0.0024
 Mercury -115938-09-06 23:31 J -40624682.69 -40624682.52 -40624682.34 0.0089 0.0023
 Mercury -115938-12-04 02:39 J -40624594.56 -40624594.39 -40624594.21 0.0089 0.0018
 Mercury -115937-03-01 05:46 J -40624506.44 -40624506.26 -40624506.08 0.0089 0.0012

Mercury -115937-05-28 08:53 J -40624418.31 -40624418.13 -40624417.94 0.0089 0.0007

Mercury -115937-08-24 12:00 J -40624330.18 -40624330.00 -40624329.81 0.0089 0.0003

Mercury -115937-11-20 15:22 J -40624242.05 -40624241.86 -40624241.68 0.0089 0.0005

Mercury -115936-02-16 18:29 J -40624153.91 -40624153.73 -40624153.55 0.0089 0.0011

Mars -115936-05-06 02:24 J -40624075.70 -40624075.40 -40624075.09 0.0089 0.0015

Mercury -115936-05-15 21:36 J -40624065.78 -40624065.60 -40624065.42 0.0089 0.0016

Mercury -115936-08-12 00:43 J -40623977.64 -40623977.47 -40623977.29 0.0089 0.0022

Mercury -115936-11-08 03:51 J -40623889.51 -40623889.34 -40623889.16 0.0089 0.0028

Mercury -115935-02-04 07:12 J -40623801.37 -40623801.20 -40623801.03 0.0089 0.0033

Mercury -115935-05-03 10:19 J -40623713.23 -40623713.07 -40623712.90 0.0089 0.0039

Mercury -115935-07-30 13:27 J -40623625.09 -40623624.94 -40623624.77 0.0089 0.0045

Mercury -115935-10-26 16:34 J -40623536.95 -40623536.81 -40623536.64 0.0089 0.0051

Mercury -115934-01-22 20:10 J -40623448.80 -40623448.66 -40623448.52 0.0089 0.0056

Mars -115934-03-31 13:27 J -40623381.24 -40623380.94 -40623380.63 0.0089 0.0007

Mercury -115934-04-20 23:17 J -40623360.65 -40623360.53 -40623360.39 0.0089 0.0062

Mercury -115934-07-18 02:24 J -40623272.50 -40623272.40 -40623272.27 0.0089 0.0068

Mercury -115934-10-14 05:46 J -40623184.35 -40623184.26 -40623184.15 0.0089 0.0074

Mercury -115933-01-10 08:53 J -40623096.19 -40623096.13 -40623096.03 0.0089 0.0080

Mercury -115933-04-07 12:15 J -40623008.02 -40623007.99 -40623007.92 0.0089 0.0086

Mars -115932-02-23 00:15 J -40622686.79 -40622686.49 -40622686.18 0.0089 0.0001

Mars -115930-01-18 09:22 J -40621992.40 -40621992.11 -40621991.80 0.0089 0.0009

Mars -115929-12-12 16:34 J -40621298.09 -40621297.81 -40621297.50 0.0089 0.0017

Mars -115927-11-06 23:31 J -40620603.80 -40620603.52 -40620603.22 0.0089 0.0024

Mars -115925-10-01 06:15 J -40619909.50 -40619909.24 -40619908.94 0.0089 0.0032

Mars -115923-08-26 11:17 J -40619215.29 -40619215.03 -40619214.75 0.0089 0.0039

Mars -115921-07-20 15:22 J -40618521.10 -40618520.86 -40618520.59 0.0089 0.0046

Mars -115919-06-14 19:12 J -40617826.92 -40617826.70 -40617826.45 0.0089 0.0053

Mars -115917-05-08 21:22 J -40617132.79 -40617132.61 -40617132.35 0.0089 0.0061

Mars -115915-04-02 23:03 J -40616438.71 -40616438.54 -40616438.31 0.0089 0.0066

Mars -115913-02-26 01:55 J -40615744.58 -40615744.42 -40615744.23 0.0089 0.0072

Mars	-115911-01-20 02:53 J	-40615050.50	-40615050.38	-40615050.20	0.0089	0.0077
Mars	-115910-12-15 03:36 J	-40614356.43	-40614356.35	-40614356.21	0.0089	0.0083
Mars	-115908-11-08 05:03 J	-40613662.31	-40613662.29	-40613662.18	0.0089	0.0087
Venus	-115898-06-15 04:19 J	-40610156.39	-40610156.32	-40610156.25	0.0089	0.0084
Venus	-115897-01-26 18:58 J	-40609930.81	-40609930.71	-40609930.60	0.0089	0.0078
Venus	-115897-09-08 09:36 J	-40609705.22	-40609705.10	-40609704.95	0.0089	0.0072
Venus	-115896-04-22 00:15 J	-40609479.62	-40609479.49	-40609479.32	0.0089	0.0066
Venus	-115896-12-03 15:22 J	-40609254.03	-40609253.86	-40609253.69	0.0089	0.0059
Venus	-115895-07-17 05:46 J	-40609028.43	-40609028.26	-40609028.07	0.0089	0.0053
Venus	-115894-02-27 20:24 J	-40608802.83	-40608802.65	-40608802.44	0.0089	0.0047
Venus	-115894-10-11 11:17 J	-40608577.22	-40608577.03	-40608576.81	0.0089	0.0041
Venus	-115893-05-24 02:10 J	-40608351.61	-40608351.41	-40608351.19	0.0089	0.0034
Venus	-115892-01-04 16:48 J	-40608126.01	-40608125.80	-40608125.58	0.0089	0.0028
Venus	-115892-08-18 07:12 J	-40607900.41	-40607900.20	-40607899.96	0.0089	0.0022
Venus	-115891-03-31 22:05 J	-40607674.80	-40607674.58	-40607674.35	0.0089	0.0015
Venus	-115891-11-12 12:43 J	-40607449.19	-40607448.97	-40607448.74	0.0089	0.0009
Venus	-115890-06-26 03:22 J	-40607223.59	-40607223.36	-40607223.13	0.0089	0.0002
Moon	-115889-01-08 16:19 J	-40607026.86	-40607026.82	-40607026.76	0.0089	0.0087
Earth	-115889-01-08 16:48 J	-40607026.82	-40607026.80	-40607026.71	0.0089	0.0087 *
Venus	-115889-02-06 17:46 J	-40606997.98	-40606997.76	-40606997.53	0.0089	0.0004
Venus	-115889-09-19 08:10 J	-40606772.38	-40606772.16	-40606771.92	0.0089	0.0011
Earth	-115888-01-10 08:10 J	-40606659.34	-40606659.16	-40606658.93	0.0089	0.0056
Moon	-115888-01-10 10:48 J	-40606659.25	-40606659.05	-40606658.85	0.0089	0.0055 *
Venus	-115888-05-02 22:48 J	-40606546.77	-40606546.55	-40606546.32	0.0089	0.0017
Venus	-115888-12-14 13:12 J	-40606321.17	-40606320.95	-40606320.73	0.0089	0.0023
Moon	-115887-01-12 20:10 J	-40606291.91	-40606291.66	-40606291.39	0.0089	0.0027
Earth	-115887-01-12 23:46 J	-40606291.77	-40606291.51	-40606291.26	0.0089	0.0025 *
Venus	-115887-07-28 03:22 J	-40606095.56	-40606095.36	-40606095.13	0.0089	0.0030
Earth	-115886-01-15 14:24 J	-40605924.16	-40605923.90	-40605923.63	0.0089	0.0005
Moon	-115886-01-15 17:46 J	-40605924.02	-40605923.76	-40605923.50	0.0089	0.0005 *

Venus -115886-03-10 17:46 J -40605869.95 -40605869.76 -40605869.54 0.0089 0.0036

Venus -115886-10-22 08:39 J -40605644.34 -40605644.14 -40605643.94 0.0089 0.0042

Moon -115885-01-18 00:43 J -40605556.69 -40605556.47 -40605556.21 0.0089 0.0036

Earth -115885-01-18 04:48 J -40605556.53 -40605556.30 -40605556.05 0.0089 0.0036 *

Venus -115885-06-03 22:34 J -40605418.73 -40605418.56 -40605418.35 0.0089 0.0049

Venus -115884-01-15 12:58 J -40605193.12 -40605192.96 -40605192.76 0.0089 0.0055

Earth -115884-01-19 19:12 J -40605188.86 -40605188.70 -40605188.51 0.0089 0.0066

Moon -115884-01-19 22:34 J -40605188.73 -40605188.56 -40605188.37 0.0089 0.0066 *

Venus -115884-08-29 03:22 J -40604967.51 -40604967.36 -40604967.18 0.0089 0.0061

Venus -115883-04-11 17:46 J -40604741.90 -40604741.76 -40604741.60 0.0089 0.0067

Venus -115883-11-23 08:10 J -40604516.27 -40604516.16 -40604516.02 0.0089 0.0073

Venus -115882-07-06 22:34 J -40604290.65 -40604290.56 -40604290.45 0.0089 0.0079

Venus -115881-02-17 12:43 J -40604065.02 -40604064.97 -40604064.89 0.0089 0.0085

Mars -115875-03-01 13:41 J -40601860.97 -40601860.93 -40601860.86 0.0089 0.0087

Mars -115873-01-25 02:24 J -40601166.48 -40601166.40 -40601166.26 0.0089 0.0083

Mars -115872-12-19 16:34 J -40600471.92 -40600471.81 -40600471.62 0.0089 0.0078

Mars -115870-11-14 09:22 J -40599777.27 -40599777.11 -40599776.91 0.0088 0.0072

Mars -115868-10-09 03:22 J -40599082.55 -40599082.36 -40599082.13 0.0088 0.0066

Mars -115866-09-03 21:36 J -40598387.80 -40598387.60 -40598387.33 0.0088 0.0060

Mars -115864-07-29 18:43 J -40597692.94 -40597692.72 -40597692.43 0.0088 0.0053

Mars -115862-06-24 17:03 J -40596998.04 -40596997.79 -40596997.49 0.0088 0.0046

Mars -115860-05-19 17:17 J -40596303.07 -40596302.78 -40596302.49 0.0088 0.0038

Mercury -115860-11-08 12:00 J -40596130.02 -40596130.00 -40596129.97 0.0088 0.0087

Mercury -115859-02-04 13:27 J -40596041.98 -40596041.94 -40596041.88 0.0088 0.0083

Mercury -115859-05-03 14:53 J -40595953.93 -40595953.88 -40595953.80 0.0088 0.0079

Mercury -115859-07-30 16:48 J -40595865.87 -40595865.80 -40595865.72 0.0088 0.0074

Mercury -115859-10-26 18:15 J -40595777.81 -40595777.74 -40595777.64 0.0088 0.0070

Mercury -115858-01-22 20:10 J -40595689.75 -40595689.66 -40595689.56 0.0088 0.0065

Mars -115858-04-14 18:29 J -40595608.01 -40595607.73 -40595607.41 0.0088 0.0031

Mercury -115858-04-20 21:36 J -40595601.69 -40595601.60 -40595601.49 0.0088 0.0061

Mercury -115858-07-17 23:17 J -40595513.63 -40595513.53 -40595513.41 0.0088 0.0056

Mercury -115858-10-14 00:58 J -40595425.57 -40595425.46 -40595425.34 0.0088 0.0052

Mercury -115857-01-10 02:24 J -40595337.51 -40595337.40 -40595337.27 0.0088 0.0048

Mercury -115857-04-07 04:05 J -40595249.45 -40595249.33 -40595249.20 0.0088 0.0043

Mercury -115857-07-04 05:46 J -40595161.38 -40595161.26 -40595161.13 0.0088 0.0039

Mercury -115857-09-30 07:12 J -40595073.32 -40595073.20 -40595073.06 0.0088 0.0035

Mercury -115857-12-27 08:53 J -40594985.26 -40594985.13 -40594984.99 0.0088 0.0030

Mars -115856-03-09 22:05 J -40594912.87 -40594912.58 -40594912.25 0.0088 0.0022

Mercury -115856-03-25 10:19 J -40594897.20 -40594897.07 -40594896.93 0.0088 0.0026

Mercury -115856-06-21 12:00 J -40594809.13 -40594809.00 -40594808.86 0.0088 0.0022

Mercury -115856-09-17 13:41 J -40594721.07 -40594720.93 -40594720.79 0.0088 0.0017

Mercury -115856-12-14 15:07 J -40594633.00 -40594632.87 -40594632.73 0.0088 0.0013

Mercury -115855-03-12 16:48 J -40594544.94 -40594544.80 -40594544.66 0.0088 0.0009

Mercury -115855-06-08 18:15 J -40594456.88 -40594456.74 -40594456.60 0.0088 0.0005

Mercury -115855-09-04 19:55 J -40594368.81 -40594368.67 -40594368.53 0.0088 0.0002

Mercury -115855-12-01 21:22 J -40594280.75 -40594280.61 -40594280.47 0.0088 0.0004

Mars -115854-02-03 02:53 J -40594217.69 -40594217.38 -40594217.05 0.0088 0.0014

Mercury -115854-02-27 22:48 J -40594192.68 -40594192.55 -40594192.41 0.0088 0.0009

Mercury -115854-05-27 00:29 J -40594104.62 -40594104.48 -40594104.34 0.0088 0.0013

Mercury -115854-08-23 01:55 J -40594016.56 -40594016.42 -40594016.28 0.0088 0.0017

Mercury -115854-11-19 03:22 J -40593928.49 -40593928.36 -40593928.22 0.0088 0.0021

Mercury -115853-02-15 04:48 J -40593840.43 -40593840.30 -40593840.16 0.0088 0.0025

Mercury -115853-05-13 06:15 J -40593752.36 -40593752.24 -40593752.10 0.0088 0.0030

Mercury -115853-08-09 07:55 J -40593664.30 -40593664.17 -40593664.04 0.0088 0.0033

Mercury -115853-11-05 09:22 J -40593576.23 -40593576.11 -40593575.98 0.0088 0.0037

Mars -115853-12-29 08:53 J -40593522.44 -40593522.13 -40593521.80 0.0088 0.0006

Mercury -115852-02-01 10:48 J -40593488.17 -40593488.05 -40593487.92 0.0088 0.0042

Mercury -115852-04-30 12:29 J -40593400.10 -40593399.98 -40593399.87 0.0088 0.0046

Mercury -115852-07-27 13:55 J -40593312.04 -40593311.92 -40593311.81 0.0088 0.0050

Mercury -115852-10-23 15:07 J -40593223.97 -40593223.87 -40593223.75 0.0088 0.0054

Mercury -115851-01-19 16:34 J -40593135.90 -40593135.81 -40593135.70 0.0088 0.0058

Mercury -115851-04-17 18:00 J -40593047.84 -40593047.75 -40593047.64 0.0088 0.0062

Mercury -115851-07-14 19:27 J -40592959.77 -40592959.69 -40592959.59 0.0088 0.0066

Mercury -115851-10-10 20:53 J -40592871.70 -40592871.63 -40592871.54 0.0088 0.0070

Mars -115851-11-24 17:03 J -40592827.11 -40592826.79 -40592826.46 0.0088 0.0003

Mercury -115850-01-06 22:19 J -40592783.63 -40592783.57 -40592783.49 0.0088 0.0074

Mercury -115850-04-04 23:46 J -40592695.56 -40592695.51 -40592695.44 0.0088 0.0078

Mercury -115850-07-02 01:12 J -40592607.49 -40592607.45 -40592607.39 0.0088 0.0082

Mercury -115850-09-28 02:39 J -40592519.41 -40592519.39 -40592519.35 0.0088 0.0086

Mars -115849-10-20 02:10 J -40592131.73 -40592131.41 -40592131.08 0.0088 0.0012

Mars -115847-09-15 12:15 J -40591436.29 -40591435.99 -40591435.65 0.0088 0.0021

Mars -115845-08-11 00:58 J -40590740.76 -40590740.46 -40590740.14 0.0088 0.0029

Mars -115843-07-07 14:53 J -40590045.16 -40590044.88 -40590044.56 0.0088 0.0037

Mars -115841-06-02 05:31 J -40589349.53 -40589349.27 -40589348.96 0.0088 0.0046

Mars -115839-04-28 21:36 J -40588653.84 -40588653.60 -40588653.31 0.0088 0.0054

Mars -115837-03-24 13:55 J -40587958.12 -40587957.92 -40587957.64 0.0088 0.0062

Mars -115835-02-18 07:27 J -40587262.37 -40587262.19 -40587261.95 0.0088 0.0069

Mars -115833-01-15 02:10 J -40586566.56 -40586566.41 -40586566.22 0.0088 0.0076

Mars -115832-12-10 21:22 J -40585870.69 -40585870.61 -40585870.45 0.0088 0.0083

Venus -115817-12-17 02:39 J -40580385.41 -40580385.39 -40580385.32 0.0088 0.0087

Venus -115816-07-30 14:24 J -40580159.97 -40580159.90 -40580159.80 0.0088 0.0081

Venus -115815-03-13 01:41 J -40579934.52 -40579934.43 -40579934.30 0.0088 0.0075

Venus -115815-10-24 13:12 J -40579709.06 -40579708.95 -40579708.80 0.0088 0.0070

Venus -115814-06-07 00:58 J -40579483.60 -40579483.46 -40579483.31 0.0088 0.0064

Venus -115813-01-18 12:00 J -40579258.14 -40579258.00 -40579257.83 0.0088 0.0059

Venus -115813-08-30 23:31 J -40579032.68 -40579032.52 -40579032.34 0.0088 0.0053

Venus -115812-04-13 11:17 J -40578807.21 -40578807.03 -40578806.85 0.0088 0.0047

Venus -115812-11-24 22:19 J -40578581.74 -40578581.57 -40578581.36 0.0088 0.0042

Venus -115811-07-08 09:51 J -40578356.27 -40578356.09 -40578355.88 0.0088 0.0036

Venus -115810-02-18 21:22 J -40578130.80 -40578130.61 -40578130.40 0.0088 0.0030

Venus	-115810-10-02 09:07 J	-40577905.32	-40577905.12	-40577904.91	0.0088	0.0024
Venus	-115809-05-14 20:24 J	-40577679.84	-40577679.65	-40577679.43	0.0088	0.0019
Venus	-115809-12-26 08:10 J	-40577454.37	-40577454.16	-40577453.95	0.0088	0.0012
Venus	-115808-08-08 19:41 J	-40577228.89	-40577228.68	-40577228.46	0.0088	0.0006
Venus	-115807-03-22 07:27 J	-40577003.41	-40577003.19	-40577002.98	0.0088	0.0002
Earth	-115807-07-02 13:12 J	-40576900.96	-40576900.95	-40576900.88	0.0089	0.0088
Moon	-115807-07-02 14:53 J	-40576900.89	-40576900.88	-40576900.83	0.0089	0.0088 *
Venus	-115807-11-02 18:58 J	-40576777.92	-40576777.71	-40576777.50	0.0089	0.0006
Venus	-115806-06-16 06:29 J	-40576552.44	-40576552.23	-40576552.01	0.0089	0.0012
Earth	-115806-07-04 21:51 J	-40576533.76	-40576533.59	-40576533.39	0.0089	0.0059
Moon	-115806-07-04 22:05 J	-40576533.73	-40576533.58	-40576533.38	0.0089	0.0060 *
Venus	-115805-01-27 18:00 J	-40576326.95	-40576326.75	-40576326.53	0.0089	0.0018
Moon	-115805-07-06 04:34 J	-40576166.54	-40576166.31	-40576166.05	0.0089	0.0031
Earth	-115805-07-06 06:15 J	-40576166.46	-40576166.24	-40576165.99	0.0089	0.0031 *
Venus	-115805-09-09 05:31 J	-40576101.46	-40576101.27	-40576101.05	0.0089	0.0024
Venus	-115804-04-22 17:17 J	-40575875.97	-40575875.78	-40575875.56	0.0089	0.0030
Earth	-115804-07-08 14:53 J	-40575799.13	-40575798.88	-40575798.63	0.0089	0.0002
Moon	-115804-07-08 17:17 J	-40575799.02	-40575798.78	-40575798.53	0.0089	0.0001 *
Venus	-115804-12-04 05:17 J	-40575650.47	-40575650.28	-40575650.08	0.0089	0.0035
Moon	-115803-07-10 19:55 J	-40575431.90	-40575431.67	-40575431.42	0.0089	0.0028
Earth	-115803-07-10 23:31 J	-40575431.75	-40575431.52	-40575431.28	0.0089	0.0027 *
Venus	-115803-07-17 16:48 J	-40575424.98	-40575424.80	-40575424.61	0.0089	0.0041
Venus	-115802-02-28 04:19 J	-40575199.49	-40575199.32	-40575199.13	0.0089	0.0047
Earth	-115802-07-13 07:55 J	-40575064.35	-40575064.17	-40575063.96	0.0089	0.0056
Moon	-115802-07-13 11:31 J	-40575064.21	-40575064.02	-40575063.82	0.0089	0.0056 *
Venus	-115802-10-11 16:05 J	-40574973.99	-40574973.83	-40574973.65	0.0089	0.0053
Venus	-115801-05-24 03:51 J	-40574748.48	-40574748.34	-40574748.16	0.0089	0.0059
Moon	-115801-07-14 13:27 J	-40574697.01	-40574696.94	-40574696.86	0.0089	0.0084
Earth	-115801-07-14 16:34 J	-40574696.86	-40574696.81	-40574696.72	0.0089	0.0085 *
Venus	-115800-01-04 15:51 J	-40574522.98	-40574522.84	-40574522.69	0.0089	0.0064

Venus -115800-08-18 03:22 J -40574297.48 -40574297.36 -40574297.22 0.0089 0.0070
 Venus -115799-03-31 14:53 J -40574071.97 -40574071.88 -40574071.75 0.0089 0.0076
 Venus -115799-11-12 02:39 J -40573846.45 -40573846.39 -40573846.28 0.0089 0.0082
 Venus -115798-06-25 14:53 J -40573620.91 -40573620.88 -40573620.83 0.0089 0.0087
 Mars -115792-12-10 04:48 J -40571261.31 -40571261.30 -40571261.23 0.0089 0.0088
 Mars -115790-11-05 08:53 J -40570566.22 -40570566.13 -40570565.97 0.0089 0.0082
 Mars -115788-09-30 11:17 J -40569871.18 -40569871.03 -40569870.84 0.0089 0.0075
 Mars -115786-08-26 12:00 J -40569176.19 -40569176.00 -40569175.78 0.0089 0.0068
 Mars -115784-07-21 12:00 J -40568481.20 -40568481.00 -40568480.75 0.0089 0.0061
 Mars -115782-06-16 10:34 J -40567786.31 -40567786.06 -40567785.80 0.0089 0.0053
 Mars -115780-05-11 06:15 J -40567091.48 -40567091.24 -40567090.94 0.0089 0.0046
 Mars -115778-04-06 01:27 J -40566396.69 -40566396.44 -40566396.13 0.0089 0.0038
 Mars -115776-02-28 19:12 J -40565701.99 -40565701.70 -40565701.40 0.0089 0.0029
 Mercury -115776-07-11 10:05 J -40565569.11 -40565569.08 -40565569.02 0.0089 0.0085
 Mercury -115776-10-07 12:58 J -40565481.02 -40565480.96 -40565480.87 0.0089 0.0080
 Mercury -115775-01-03 16:19 J -40565392.91 -40565392.82 -40565392.72 0.0089 0.0074
 Mercury -115775-04-01 18:58 J -40565304.80 -40565304.71 -40565304.58 0.0089 0.0069
 Mercury -115775-06-28 21:51 J -40565216.69 -40565216.59 -40565216.45 0.0089 0.0064
 Mercury -115775-09-25 01:12 J -40565128.58 -40565128.45 -40565128.31 0.0089 0.0058
 Mercury -115775-12-22 04:05 J -40565040.46 -40565040.33 -40565040.17 0.0089 0.0053
 Mars -115774-01-24 10:05 J -40565007.37 -40565007.08 -40565006.77 0.0089 0.0021
 Mercury -115774-03-20 07:27 J -40564952.34 -40564952.19 -40564952.04 0.0089 0.0047
 Mercury -115774-06-16 10:05 J -40564864.22 -40564864.08 -40564863.91 0.0089 0.0043
 Mercury -115774-09-12 13:27 J -40564776.10 -40564775.94 -40564775.77 0.0089 0.0036
 Mercury -115774-12-09 16:19 J -40564687.98 -40564687.82 -40564687.64 0.0089 0.0031
 Mercury -115773-03-06 19:41 J -40564599.86 -40564599.68 -40564599.51 0.0089 0.0025
 Mercury -115773-06-02 22:34 J -40564511.73 -40564511.56 -40564511.38 0.0089 0.0020
 Mercury -115773-08-30 01:41 J -40564423.60 -40564423.43 -40564423.25 0.0089 0.0014
 Mercury -115773-11-26 04:48 J -40564335.48 -40564335.30 -40564335.11 0.0089 0.0009
 Mars -115773-12-19 00:43 J -40564312.77 -40564312.47 -40564312.16 0.0089 0.0013

Mercury -115772-02-22 07:55 J -40564247.35 -40564247.17 -40564246.98 0.0089 0.0004
 Mercury -115772-05-21 11:17 J -40564159.22 -40564159.03 -40564158.85 0.0089 0.0003
 Mercury -115772-08-17 14:24 J -40564071.09 -40564070.90 -40564070.72 0.0089 0.0008
 Mercury -115772-11-13 17:17 J -40563982.95 -40563982.78 -40563982.59 0.0089 0.0014
 Mercury -115771-02-09 20:24 J -40563894.82 -40563894.65 -40563894.46 0.0089 0.0020
 Mercury -115771-05-08 23:46 J -40563806.68 -40563806.51 -40563806.33 0.0089 0.0025
 Mercury -115771-08-05 02:53 J -40563718.55 -40563718.38 -40563718.20 0.0089 0.0031
 Mercury -115771-11-01 06:00 J -40563630.41 -40563630.25 -40563630.07 0.0089 0.0037
 Mars -115771-11-13 13:55 J -40563618.22 -40563617.92 -40563617.61 0.0089 0.0005
 Mercury -115770-01-28 09:22 J -40563542.27 -40563542.11 -40563541.95 0.0089 0.0042
 Mercury -115770-04-26 12:29 J -40563454.13 -40563453.98 -40563453.82 0.0089 0.0048
 Mercury -115770-07-23 15:36 J -40563365.98 -40563365.85 -40563365.69 0.0089 0.0054
 Mercury -115770-10-19 18:43 J -40563277.84 -40563277.72 -40563277.56 0.0089 0.0060
 Mercury -115769-01-15 22:05 J -40563189.69 -40563189.58 -40563189.44 0.0089 0.0066
 Mercury -115769-04-13 01:41 J -40563101.54 -40563101.43 -40563101.32 0.0089 0.0071
 Mercury -115769-07-10 04:48 J -40563013.38 -40563013.30 -40563013.20 0.0089 0.0077
 Mercury -115769-10-06 07:55 J -40562925.22 -40562925.17 -40562925.09 0.0089 0.0083
 Mars -115769-10-08 00:58 J -40562923.76 -40562923.46 -40562923.15 0.0089 0.0004
 Mercury -115768-01-02 11:31 J -40562837.02 -40562837.02 -40562837.01 0.0089 0.0089
 Mars -115767-09-02 11:31 J -40562229.31 -40562229.02 -40562228.71 0.0089 0.0012
 Mars -115765-07-27 21:07 J -40561534.90 -40561534.62 -40561534.31 0.0089 0.0020
 Mars -115763-06-22 04:34 J -40560840.58 -40560840.31 -40560840.01 0.0089 0.0028
 Mars -115761-05-16 11:03 J -40560146.31 -40560146.04 -40560145.76 0.0089 0.0035
 Mars -115759-04-10 16:48 J -40559452.04 -40559451.80 -40559451.51 0.0089 0.0043
 Mars -115757-03-04 21:22 J -40558757.83 -40558757.61 -40558757.34 0.0089 0.0050
 Mars -115755-01-28 00:43 J -40558063.67 -40558063.47 -40558063.21 0.0089 0.0058
 Mars -115754-12-23 04:19 J -40557369.50 -40557369.32 -40557369.08 0.0089 0.0064
 Mars -115752-11-16 07:27 J -40556675.35 -40556675.19 -40556674.98 0.0089 0.0070
 Mars -115750-10-11 09:22 J -40555981.23 -40555981.11 -40555980.93 0.0089 0.0076
 Mars -115748-09-04 11:46 J -40555287.11 -40555287.01 -40555286.87 0.0089 0.0081

Mars	-115746-07-30 13:27 J	-40554592.99	-40554592.94	-40554592.85	0.0089	0.0087
Venus	-115734-09-16 14:10 J	-40550161.97	-40550161.91	-40550161.82	0.0089	0.0083
Venus	-115733-04-29 04:48 J	-40549936.39	-40549936.30	-40549936.17	0.0089	0.0077
Venus	-115733-12-10 19:27 J	-40549710.81	-40549710.69	-40549710.53	0.0089	0.0071
Venus	-115732-07-24 10:05 J	-40549485.21	-40549485.08	-40549484.90	0.0089	0.0065
Venus	-115731-03-07 01:12 J	-40549259.62	-40549259.45	-40549259.27	0.0089	0.0058
Venus	-115731-10-18 15:51 J	-40549034.01	-40549033.84	-40549033.64	0.0089	0.0052
Venus	-115730-06-01 06:29 J	-40548808.41	-40548808.23	-40548808.02	0.0089	0.0046
Venus	-115729-01-12 21:22 J	-40548582.80	-40548582.61	-40548582.40	0.0089	0.0039
Venus	-115729-08-25 12:00 J	-40548357.20	-40548357.00	-40548356.78	0.0089	0.0033
Venus	-115728-04-08 02:39 J	-40548131.59	-40548131.39	-40548131.16	0.0089	0.0027
Venus	-115728-11-19 17:31 J	-40547905.99	-40547905.77	-40547905.54	0.0089	0.0020
Venus	-115727-07-03 08:10 J	-40547680.38	-40547680.16	-40547679.93	0.0089	0.0014
Venus	-115726-02-13 22:48 J	-40547454.77	-40547454.55	-40547454.32	0.0089	0.0008
Venus	-115726-09-27 13:41 J	-40547229.16	-40547228.93	-40547228.70	0.0089	0.0001
Venus	-115725-05-10 04:05 J	-40547003.55	-40547003.33	-40547003.10	0.0089	0.0006
Venus	-115725-12-21 18:43 J	-40546777.94	-40546777.72	-40546777.49	0.0089	0.0012
Moon	-115724-01-09 12:29 J	-40546759.10	-40546758.98	-40546758.80	0.0089	0.0073
Earth	-115724-01-09 16:05 J	-40546758.97	-40546758.83	-40546758.63	0.0089	0.0069 *
Venus	-115724-08-04 09:07 J	-40546552.34	-40546552.12	-40546551.89	0.0089	0.0018
Earth	-115723-01-12 07:27 J	-40546391.41	-40546391.19	-40546390.93	0.0089	0.0038
Moon	-115723-01-12 11:03 J	-40546391.27	-40546391.04	-40546390.77	0.0089	0.0034 *
Venus	-115723-03-17 23:17 J	-40546326.73	-40546326.53	-40546326.30	0.0089	0.0025
Venus	-115723-10-29 13:55 J	-40546101.12	-40546100.92	-40546100.69	0.0089	0.0031
Moon	-115722-01-14 19:55 J	-40546023.92	-40546023.67	-40546023.41	0.0089	0.0011
Earth	-115722-01-14 22:34 J	-40546023.82	-40546023.56	-40546023.29	0.0089	0.0007 *
Venus	-115722-06-12 04:34 J	-40545875.51	-40545875.31	-40545875.10	0.0089	0.0037
Earth	-115721-01-17 12:58 J	-40545656.20	-40545655.96	-40545655.69	0.0089	0.0024
Moon	-115721-01-17 15:22 J	-40545656.11	-40545655.86	-40545655.59	0.0089	0.0028 *
Venus	-115721-01-23 18:29 J	-40545649.91	-40545649.73	-40545649.51	0.0089	0.0044

Venus -115721-09-05 08:53 J -40545424.30 -40545424.13 -40545423.92 0.0089 0.0050
 Moon -115720-01-19 02:39 J -40545288.58 -40545288.39 -40545288.16 0.0089 0.0050
 Earth -115720-01-19 03:36 J -40545288.54 -40545288.35 -40545288.12 0.0089 0.0054 *
 Venus -115720-04-18 23:17 J -40545198.69 -40545198.53 -40545198.34 0.0089 0.0056
 Venus -115720-11-30 13:55 J -40544973.07 -40544972.92 -40544972.75 0.0089 0.0062
 Earth -115719-01-21 18:00 J -40544920.82 -40544920.75 -40544920.65 0.0089 0.0084
 Moon -115719-01-21 17:17 J -40544920.79 -40544920.78 -40544920.72 0.0089 0.0088 *
 Venus -115719-07-14 04:19 J -40544747.46 -40544747.32 -40544747.17 0.0089 0.0068
 Venus -115718-02-24 18:29 J -40544521.84 -40544521.73 -40544521.60 0.0089 0.0074
 Venus -115718-10-08 08:53 J -40544296.22 -40544296.13 -40544296.03 0.0089 0.0080
 Venus -115717-05-20 23:17 J -40544070.58 -40544070.53 -40544070.48 0.0089 0.0086
 Mars -115712-10-14 12:15 J -40542097.99 -40542097.99 -40542097.95 0.0089 0.0088
 Mars -115710-09-09 00:29 J -40541403.55 -40541403.48 -40541403.34 0.0089 0.0084
 Mars -115708-08-03 14:24 J -40540709.03 -40540708.90 -40540708.74 0.0089 0.0078
 Mars -115706-06-29 05:03 J -40540014.46 -40540014.29 -40540014.10 0.0089 0.0072
 Mars -115704-05-23 21:22 J -40539319.80 -40539319.61 -40539319.38 0.0088 0.0066
 Mars -115702-04-18 16:34 J -40538625.03 -40538624.81 -40538624.57 0.0088 0.0059
 Mars -115700-03-13 11:46 J -40537930.24 -40537930.01 -40537929.73 0.0088 0.0052
 Mars -115698-02-06 09:22 J -40537235.38 -40537235.11 -40537234.83 0.0088 0.0044
 Mars -115696-01-01 07:41 J -40536540.44 -40536540.18 -40536539.86 0.0088 0.0037
 Mercury -115695-05-09 10:05 J -40536047.08 -40536047.08 -40536047.06 0.0088 0.0088
 Mercury -115695-08-05 11:46 J -40535959.04 -40535959.01 -40535958.96 0.0088 0.0084
 Mercury -115695-11-01 13:27 J -40535870.99 -40535870.94 -40535870.87 0.0088 0.0079
 Mars -115695-11-27 07:41 J -40535845.47 -40535845.18 -40535844.86 0.0088 0.0029
 Mercury -115694-01-28 14:53 J -40535782.94 -40535782.88 -40535782.79 0.0088 0.0076
 Mercury -115694-04-26 16:48 J -40535694.88 -40535694.80 -40535694.71 0.0088 0.0071
 Mercury -115694-07-23 18:15 J -40535606.82 -40535606.74 -40535606.64 0.0088 0.0067
 Mercury -115694-10-19 20:10 J -40535518.76 -40535518.66 -40535518.56 0.0088 0.0062
 Mercury -115693-01-15 21:36 J -40535430.70 -40535430.60 -40535430.49 0.0088 0.0058
 Mercury -115693-04-12 23:03 J -40535342.64 -40535342.54 -40535342.41 0.0088 0.0054

Mercury -115693-07-10 00:58 J -40535254.58 -40535254.46 -40535254.34 0.0088 0.0049

Mercury -115693-10-06 02:24 J -40535166.52 -40535166.40 -40535166.27 0.0088 0.0045

Mars -115693-10-22 09:07 J -40535150.42 -40535150.12 -40535149.79 0.0088 0.0020

Mercury -115692-01-02 03:51 J -40535078.45 -40535078.34 -40535078.20 0.0088 0.0041

Mercury -115692-03-31 05:46 J -40534990.39 -40534990.26 -40534990.13 0.0088 0.0036

Mercury -115692-06-27 07:12 J -40534902.33 -40534902.20 -40534902.06 0.0088 0.0032

Mercury -115692-09-23 08:53 J -40534814.26 -40534814.13 -40534814.00 0.0088 0.0027

Mercury -115692-12-20 10:19 J -40534726.20 -40534726.07 -40534725.93 0.0088 0.0023

Mercury -115691-03-18 12:00 J -40534638.14 -40534638.00 -40534637.86 0.0088 0.0019

Mercury -115691-06-14 13:27 J -40534550.07 -40534549.94 -40534549.80 0.0088 0.0015

Mercury -115691-09-10 15:07 J -40534462.01 -40534461.87 -40534461.73 0.0088 0.0010

Mars -115691-09-17 12:58 J -40534455.27 -40534454.96 -40534454.63 0.0088 0.0012

Mercury -115691-12-07 16:34 J -40534373.95 -40534373.81 -40534373.67 0.0088 0.0006

Mercury -115690-03-05 18:15 J -40534285.88 -40534285.74 -40534285.60 0.0088 0.0002

Mercury -115690-06-01 19:41 J -40534197.82 -40534197.68 -40534197.54 0.0088 0.0003

Mercury -115690-08-28 21:22 J -40534109.75 -40534109.61 -40534109.47 0.0088 0.0007

Mercury -115690-11-24 22:48 J -40534021.69 -40534021.55 -40534021.41 0.0088 0.0011

Mercury -115689-02-21 00:15 J -40533933.62 -40533933.49 -40533933.35 0.0088 0.0015

Mercury -115689-05-19 01:55 J -40533845.56 -40533845.42 -40533845.29 0.0088 0.0020

Mars -115689-08-12 18:15 J -40533760.06 -40533759.74 -40533759.41 0.0088 0.0003

Mercury -115689-08-15 03:22 J -40533757.49 -40533757.36 -40533757.22 0.0088 0.0024

Mercury -115689-11-11 04:48 J -40533669.43 -40533669.30 -40533669.16 0.0088 0.0028

Mercury -115688-02-07 06:15 J -40533581.36 -40533581.24 -40533581.10 0.0088 0.0032

Mercury -115688-05-06 07:41 J -40533493.30 -40533493.18 -40533493.05 0.0088 0.0037

Mercury -115688-08-02 09:22 J -40533405.23 -40533405.11 -40533404.99 0.0088 0.0040

Mercury -115688-10-29 10:48 J -40533317.17 -40533317.05 -40533316.93 0.0088 0.0044

Mercury -115687-01-25 12:15 J -40533229.10 -40533228.99 -40533228.87 0.0088 0.0049

Mercury -115687-04-23 13:41 J -40533141.03 -40533140.93 -40533140.81 0.0088 0.0053

Mars -115687-07-09 00:29 J -40533064.79 -40533064.48 -40533064.15 0.0088 0.0007

Mercury -115687-07-20 15:22 J -40533052.97 -40533052.86 -40533052.76 0.0088 0.0057

Mercury -115687-10-16 16:48 J -40532964.90 -40532964.80 -40532964.70 0.0088 0.0061
 Mercury -115686-01-12 18:00 J -40532876.83 -40532876.75 -40532876.65 0.0088 0.0065
 Mercury -115686-04-10 19:27 J -40532788.76 -40532788.69 -40532788.60 0.0088 0.0069
 Mercury -115686-07-07 20:53 J -40532700.70 -40532700.63 -40532700.55 0.0088 0.0073
 Mercury -115686-10-03 22:19 J -40532612.62 -40532612.57 -40532612.50 0.0088 0.0077
 Mercury -115686-12-30 23:46 J -40532524.55 -40532524.51 -40532524.45 0.0088 0.0081
 Mercury -115685-03-28 00:58 J -40532436.47 -40532436.46 -40532436.41 0.0088 0.0086
 Mars -115685-06-03 09:07 J -40532369.43 -40532369.12 -40532368.79 0.0088 0.0015
 Mars -115683-04-29 18:43 J -40531674.03 -40531673.72 -40531673.40 0.0088 0.0023
 Mars -115681-03-25 04:48 J -40530978.58 -40530978.30 -40530977.97 0.0088 0.0033
 Mars -115679-02-18 17:17 J -40530283.06 -40530282.78 -40530282.47 0.0088 0.0041
 Mars -115677-01-15 06:58 J -40529587.46 -40529587.21 -40529586.91 0.0088 0.0049
 Jupiter -115677-01-26 11:17 J -40529576.55 -40529576.03 -40529575.49 0.0088 0.0006
 Mars -115676-12-10 21:51 J -40528891.81 -40528891.59 -40528891.31 0.0088 0.0058
 Mars -115674-11-06 14:10 J -40528196.11 -40528195.91 -40528195.67 0.0088 0.0066
 Mars -115672-10-02 06:58 J -40527500.36 -40527500.21 -40527499.99 0.0088 0.0073
 Mars -115670-08-29 00:43 J -40526804.57 -40526804.47 -40526804.29 0.0088 0.0081
 Mars -115668-07-24 19:27 J -40526108.70 -40526108.69 -40526108.58 0.0088 0.0088
 Venus -115652-03-20 16:19 J -40520390.87 -40520390.82 -40520390.76 0.0088 0.0085
 Venus -115652-11-01 03:22 J -40520165.43 -40520165.36 -40520165.25 0.0088 0.0080
 Venus -115651-06-14 15:07 J -40519939.98 -40519939.87 -40519939.75 0.0088 0.0074
 Venus -115650-01-26 02:10 J -40519714.52 -40519714.41 -40519714.25 0.0088 0.0069
 Venus -115650-09-08 13:55 J -40519489.06 -40519488.92 -40519488.76 0.0088 0.0063
 Venus -115649-04-21 01:41 J -40519263.59 -40519263.43 -40519263.27 0.0088 0.0057
 Venus -115649-12-02 12:43 J -40519038.12 -40519037.97 -40519037.78 0.0088 0.0052
 Venus -115648-07-16 00:15 J -40518812.66 -40518812.49 -40518812.30 0.0088 0.0046
 Venus -115647-02-26 11:46 J -40518587.19 -40518587.01 -40518586.81 0.0088 0.0040
 Venus -115647-10-09 23:03 J -40518361.72 -40518361.54 -40518361.33 0.0088 0.0035
 Venus -115646-05-23 10:34 J -40518136.24 -40518136.06 -40518135.84 0.0088 0.0029
 Venus -115645-01-03 22:05 J -40517910.77 -40517910.58 -40517910.36 0.0088 0.0023

Venus	-115645-08-16 09:36 J	-40517685.30	-40517685.10	-40517684.88	0.0088	0.0017
Venus	-115644-03-29 21:22 J	-40517459.82	-40517459.61	-40517459.40	0.0089	0.0011
Venus	-115644-11-10 08:53 J	-40517234.34	-40517234.13	-40517233.92	0.0089	0.0005
Venus	-115643-06-23 20:24 J	-40517008.87	-40517008.65	-40517008.44	0.0089	0.0002
Venus	-115642-02-04 07:41 J	-40516783.39	-40516783.18	-40516782.96	0.0089	0.0007
Moon	-115642-07-04 08:53 J	-40516633.29	-40516633.13	-40516632.95	0.0089	0.0066
Earth	-115642-07-04 11:31 J	-40516633.15	-40516633.02	-40516632.85	0.0089	0.0071 *
Venus	-115642-09-17 19:27 J	-40516557.90	-40516557.69	-40516557.48	0.0089	0.0013
Venus	-115641-04-30 06:58 J	-40516332.41	-40516332.21	-40516332.00	0.0089	0.0019
Earth	-115641-07-05 19:27 J	-40516265.89	-40516265.69	-40516265.45	0.0089	0.0043
Moon	-115641-07-05 23:03 J	-40516265.74	-40516265.54	-40516265.32	0.0089	0.0047 *
Venus	-115641-12-11 18:29 J	-40516106.92	-40516106.73	-40516106.52	0.0089	0.0025
Moon	-115640-07-08 00:58 J	-40515898.70	-40515898.46	-40515898.21	0.0089	0.0009
Earth	-115640-07-08 04:19 J	-40515898.57	-40515898.32	-40515898.07	0.0089	0.0014 *
Venus	-115640-07-25 06:00 J	-40515881.44	-40515881.25	-40515881.04	0.0089	0.0031
Venus	-115639-03-07 17:46 J	-40515655.94	-40515655.76	-40515655.56	0.0089	0.0036
Earth	-115639-07-10 12:29 J	-40515531.21	-40515530.98	-40515530.72	0.0089	0.0016
Moon	-115639-07-10 16:05 J	-40515531.08	-40515530.83	-40515530.58	0.0089	0.0010 *
Venus	-115639-10-19 05:17 J	-40515430.45	-40515430.28	-40515430.08	0.0089	0.0043
Venus	-115638-06-01 17:31 J	-40515204.95	-40515204.77	-40515204.59	0.0089	0.0048
Moon	-115638-07-12 18:58 J	-40515163.89	-40515163.71	-40515163.48	0.0089	0.0049
Earth	-115638-07-12 21:22 J	-40515163.82	-40515163.61	-40515163.39	0.0089	0.0044 *
Venus	-115637-01-13 05:03 J	-40514979.45	-40514979.29	-40514979.11	0.0089	0.0054
Earth	-115637-07-14 05:46 J	-40514796.39	-40514796.26	-40514796.10	0.0089	0.0073
Moon	-115637-07-14 06:43 J	-40514796.36	-40514796.22	-40514796.04	0.0089	0.0069 *
Venus	-115637-08-25 16:34 J	-40514753.95	-40514753.81	-40514753.64	0.0089	0.0060
Venus	-115636-04-08 04:19 J	-40514528.45	-40514528.32	-40514528.16	0.0089	0.0066
Venus	-115636-11-19 16:19 J	-40514302.94	-40514302.82	-40514302.69	0.0089	0.0071
Venus	-115635-07-03 03:51 J	-40514077.43	-40514077.34	-40514077.22	0.0089	0.0077
Venus	-115634-02-13 15:36 J	-40513851.91	-40513851.85	-40513851.76	0.0089	0.0083

Venus -115634-09-27 03:36 J -40513626.36 -40513626.35 -40513626.32 0.0089 0.0088

Mars -115626-06-19 20:53 J -40510803.72 -40510803.63 -40510803.50 0.0089 0.0083

Mars -115624-05-15 01:55 J -40510108.57 -40510108.42 -40510108.24 0.0089 0.0076

Mars -115622-04-10 03:51 J -40509413.51 -40509413.34 -40509413.11 0.0089 0.0069

Mars -115620-03-05 04:19 J -40508718.53 -40508718.32 -40508718.07 0.0089 0.0061

Mars -115618-01-29 03:51 J -40508023.58 -40508023.34 -40508023.07 0.0089 0.0053

Mars -115617-12-24 01:27 J -40507328.70 -40507328.44 -40507328.16 0.0089 0.0045

Mars -115615-11-18 20:39 J -40506633.90 -40506633.64 -40506633.33 0.0089 0.0037

Mars -115613-10-13 15:36 J -40505939.13 -40505938.85 -40505938.54 0.0089 0.0028

Mercury -115611-01-09 06:15 J -40505486.25 -40505486.24 -40505486.18 0.0089 0.0087

Mercury -115611-04-07 09:36 J -40505398.16 -40505398.10 -40505398.02 0.0089 0.0081

Mercury -115611-07-04 12:29 J -40505310.06 -40505309.98 -40505309.88 0.0089 0.0076

Mars -115611-09-08 08:39 J -40505244.43 -40505244.14 -40505243.82 0.0089 0.0020

Mercury -115611-09-30 15:22 J -40505221.95 -40505221.86 -40505221.74 0.0089 0.0071

Mercury -115611-12-27 18:29 J -40505133.84 -40505133.73 -40505133.60 0.0089 0.0065

Mercury -115610-03-25 21:22 J -40505045.73 -40505045.61 -40505045.47 0.0089 0.0060

Mercury -115610-06-22 00:15 J -40504957.61 -40504957.49 -40504957.33 0.0089 0.0055

Mercury -115610-09-18 03:22 J -40504869.50 -40504869.36 -40504869.20 0.0089 0.0050

Mercury -115610-12-15 06:29 J -40504781.38 -40504781.23 -40504781.06 0.0089 0.0044

Mercury -115609-03-12 09:36 J -40504693.26 -40504693.10 -40504692.93 0.0089 0.0038

Mercury -115609-06-08 12:29 J -40504605.13 -40504604.98 -40504604.80 0.0089 0.0033

Mars -115609-08-03 00:00 J -40504549.80 -40504549.50 -40504549.18 0.0089 0.0011

Mercury -115609-09-04 15:51 J -40504517.01 -40504516.84 -40504516.67 0.0089 0.0027

Mercury -115609-12-01 18:43 J -40504428.89 -40504428.72 -40504428.54 0.0089 0.0022

Mercury -115608-02-27 21:51 J -40504340.76 -40504340.59 -40504340.41 0.0089 0.0016

Mercury -115608-05-27 00:58 J -40504252.63 -40504252.46 -40504252.27 0.0089 0.0011

Mercury -115608-08-23 04:05 J -40504164.51 -40504164.33 -40504164.14 0.0089 0.0006

Mercury -115608-11-19 07:12 J -40504076.38 -40504076.20 -40504076.01 0.0089 0.0002

Mercury -115607-02-15 10:19 J -40503988.25 -40503988.07 -40503987.88 0.0089 0.0007

Mercury -115607-05-14 13:27 J -40503900.12 -40503899.94 -40503899.75 0.0089 0.0012

Mars -115607-06-28 14:10 J -40503855.21 -40503854.91 -40503854.60 0.0089 0.0003
 Mercury -115607-08-10 16:34 J -40503811.98 -40503811.81 -40503811.62 0.0089 0.0018
 Mercury -115607-11-06 19:55 J -40503723.85 -40503723.67 -40503723.49 0.0089 0.0023
 Mercury -115606-02-02 22:48 J -40503635.71 -40503635.55 -40503635.37 0.0089 0.0029
 Mercury -115606-05-02 01:55 J -40503547.58 -40503547.42 -40503547.24 0.0089 0.0035
 Mercury -115606-07-29 05:17 J -40503459.44 -40503459.28 -40503459.11 0.0089 0.0040
 Mercury -115606-10-25 08:24 J -40503371.30 -40503371.15 -40503370.98 0.0089 0.0046
 Mercury -115605-01-21 11:31 J -40503283.15 -40503283.02 -40503282.86 0.0089 0.0052
 Mercury -115605-04-18 14:39 J -40503195.01 -40503194.89 -40503194.73 0.0089 0.0058
 Mars -115605-05-23 03:22 J -40503160.66 -40503160.36 -40503160.05 0.0089 0.0006
 Mercury -115605-07-15 18:15 J -40503106.86 -40503106.74 -40503106.61 0.0089 0.0063
 Mercury -115605-10-11 21:22 J -40503018.71 -40503018.61 -40503018.49 0.0089 0.0069
 Mercury -115604-01-08 00:29 J -40502930.56 -40502930.48 -40502930.37 0.0089 0.0075
 Mercury -115604-04-06 03:36 J -40502842.40 -40502842.35 -40502842.25 0.0089 0.0081
 Mercury -115604-07-03 07:27 J -40502754.23 -40502754.19 -40502754.15 0.0089 0.0087
 Mars -115603-04-17 14:10 J -40502466.21 -40502465.91 -40502465.61 0.0089 0.0014
 Mars -115601-03-11 23:31 J -40501771.80 -40501771.52 -40501771.21 0.0089 0.0023
 Mars -115599-02-04 08:39 J -40501077.41 -40501077.14 -40501076.84 0.0089 0.0031
 Mars -115598-12-30 16:05 J -40500383.08 -40500382.83 -40500382.54 0.0089 0.0039
 Mars -115596-11-23 21:51 J -40499688.82 -40499688.59 -40499688.31 0.0089 0.0047
 Mars -115594-10-19 04:05 J -40498994.54 -40498994.33 -40498994.06 0.0089 0.0055
 Mars -115592-09-12 09:36 J -40498300.29 -40498300.10 -40498299.86 0.0089 0.0062
 Mars -115590-08-07 12:58 J -40497606.12 -40497605.96 -40497605.74 0.0089 0.0069
 Mars -115588-07-01 16:34 J -40496911.95 -40496911.81 -40496911.63 0.0089 0.0075
 Mars -115586-05-26 19:27 J -40496217.80 -40496217.69 -40496217.54 0.0089 0.0081
 Mars -115584-04-19 20:39 J -40495523.68 -40495523.64 -40495523.53 0.0089 0.0086
 Venus -115570-05-07 09:36 J -40490393.11 -40490393.10 -40490393.04 0.0089 0.0088
 Venus -115570-12-19 00:15 J -40490167.55 -40490167.49 -40490167.38 0.0089 0.0082
 Venus -115569-07-31 14:53 J -40489941.97 -40489941.88 -40489941.74 0.0089 0.0076
 Venus -115568-03-14 06:00 J -40489716.39 -40489716.25 -40489716.10 0.0089 0.0069

Venus	-115568-10-25 20:39 J	-40489490.79	-40489490.64	-40489490.47	0.0089	0.0063
Venus	-115567-06-08 11:17 J	-40489265.19	-40489265.03	-40489264.84	0.0089	0.0057
Venus	-115566-01-20 01:55 J	-40489039.59	-40489039.42	-40489039.22	0.0089	0.0051
Venus	-115566-09-02 16:48 J	-40488813.99	-40488813.80	-40488813.59	0.0089	0.0044
Venus	-115565-04-15 07:27 J	-40488588.38	-40488588.19	-40488587.97	0.0089	0.0038
Venus	-115565-11-26 22:05 J	-40488362.78	-40488362.58	-40488362.35	0.0089	0.0032
Venus	-115564-07-10 12:58 J	-40488137.17	-40488136.96	-40488136.74	0.0089	0.0025
Venus	-115563-02-21 03:36 J	-40487911.57	-40487911.35	-40487911.12	0.0089	0.0019
Venus	-115563-10-04 18:29 J	-40487685.95	-40487685.73	-40487685.50	0.0089	0.0012
Venus	-115562-05-18 09:07 J	-40487460.34	-40487460.12	-40487459.89	0.0089	0.0006
Venus	-115562-12-29 23:46 J	-40487234.73	-40487234.51	-40487234.28	0.0089	0.0002
Venus	-115561-08-11 14:24 J	-40487009.13	-40487008.90	-40487008.67	0.0089	0.0007
Earth	-115560-01-09 00:29 J	-40486858.58	-40486858.48	-40486858.37	0.0089	0.0081
Moon	-115560-01-09 02:10 J	-40486858.47	-40486858.41	-40486858.31	0.0089	0.0085 *
Venus	-115560-03-25 04:48 J	-40486783.52	-40486783.30	-40486783.06	0.0089	0.0014
Venus	-115560-11-05 19:41 J	-40486557.90	-40486557.68	-40486557.45	0.0089	0.0020
Moon	-115559-01-11 14:24 J	-40486491.12	-40486490.90	-40486490.68	0.0089	0.0047
Earth	-115559-01-11 15:22 J	-40486491.06	-40486490.86	-40486490.62	0.0089	0.0051 *
Venus	-115559-06-19 10:05 J	-40486332.29	-40486332.08	-40486331.85	0.0089	0.0026
Earth	-115558-01-14 06:43 J	-40486123.47	-40486123.22	-40486122.95	0.0089	0.0020
Moon	-115558-01-14 06:58 J	-40486123.47	-40486123.21	-40486122.94	0.0089	0.0023 *
Venus	-115558-01-31 00:29 J	-40486106.68	-40486106.48	-40486106.25	0.0089	0.0033
Venus	-115558-09-13 14:53 J	-40485881.07	-40485880.88	-40485880.66	0.0089	0.0039
Earth	-115557-01-16 21:51 J	-40485755.85	-40485755.59	-40485755.32	0.0089	0.0012
Moon	-115557-01-16 23:03 J	-40485755.78	-40485755.54	-40485755.28	0.0089	0.0015 *
Venus	-115557-04-26 05:17 J	-40485655.46	-40485655.28	-40485655.07	0.0089	0.0045
Venus	-115557-12-07 19:55 J	-40485429.85	-40485429.67	-40485429.48	0.0089	0.0051
Moon	-115556-01-18 10:34 J	-40485388.29	-40485388.06	-40485387.80	0.0089	0.0039
Earth	-115556-01-18 12:43 J	-40485388.20	-40485387.97	-40485387.73	0.0089	0.0042 *
Venus	-115556-07-21 10:19 J	-40485204.24	-40485204.07	-40485203.89	0.0089	0.0057

Earth -115555-01-21 02:39 J -40485020.51 -40485020.39 -40485020.21 0.0089 0.0073
 Moon -115555-01-21 06:00 J -40485020.36 -40485020.25 -40485020.10 0.0089 0.0076 *
 Venus -115555-03-04 00:15 J -40484978.62 -40484978.49 -40484978.31 0.0089 0.0064
 Venus -115555-10-15 14:39 J -40484753.00 -40484752.89 -40484752.72 0.0089 0.0070
 Venus -115554-05-29 05:03 J -40484527.38 -40484527.29 -40484527.15 0.0089 0.0076
 Venus -115553-01-09 19:12 J -40484301.76 -40484301.70 -40484301.59 0.0089 0.0082
 Venus -115553-08-22 09:22 J -40484076.11 -40484076.11 -40484076.05 0.0089 0.0088
 Mars -115546-04-24 00:43 J -40481640.53 -40481640.47 -40481640.35 0.0089 0.0085
 Mars -115544-03-18 14:10 J -40480946.02 -40480945.91 -40480945.74 0.0089 0.0079
 Mars -115542-02-11 04:19 J -40480251.47 -40480251.32 -40480251.11 0.0089 0.0073
 Mars -115540-01-05 19:12 J -40479556.89 -40479556.70 -40479556.47 0.0089 0.0066
 Mars -115539-12-01 11:46 J -40478862.23 -40478862.01 -40478861.76 0.0088 0.0059
 Mars -115537-10-26 06:00 J -40478167.48 -40478167.25 -40478166.97 0.0088 0.0052
 Mars -115535-09-21 01:41 J -40477472.68 -40477472.43 -40477472.13 0.0088 0.0044
 Mars -115533-08-15 22:48 J -40476777.82 -40476777.55 -40476777.24 0.0088 0.0036
 Mars -115531-07-11 22:19 J -40476082.86 -40476082.57 -40476082.26 0.0088 0.0027
 Mercury -115530-02-03 09:51 J -40475876.11 -40475876.09 -40475876.04 0.0088 0.0086
 Mercury -115530-05-02 11:46 J -40475788.06 -40475788.01 -40475787.95 0.0088 0.0081
 Mercury -115530-07-29 13:12 J -40475700.00 -40475699.95 -40475699.86 0.0088 0.0077
 Mercury -115530-10-25 14:53 J -40475611.95 -40475611.88 -40475611.79 0.0088 0.0072
 Mercury -115529-01-21 16:34 J -40475523.89 -40475523.81 -40475523.71 0.0088 0.0068
 Mercury -115529-04-18 18:15 J -40475435.83 -40475435.74 -40475435.63 0.0088 0.0063
 Mars -115529-06-05 22:48 J -40475387.85 -40475387.55 -40475387.23 0.0088 0.0018
 Mercury -115529-07-15 20:10 J -40475347.77 -40475347.66 -40475347.56 0.0088 0.0059
 Mercury -115529-10-11 21:36 J -40475259.71 -40475259.60 -40475259.49 0.0088 0.0054
 Mercury -115528-01-07 23:03 J -40475171.65 -40475171.54 -40475171.41 0.0088 0.0051
 Mercury -115528-04-06 00:58 J -40475083.58 -40475083.46 -40475083.34 0.0088 0.0046
 Mercury -115528-07-03 02:24 J -40474995.52 -40474995.40 -40474995.27 0.0088 0.0042
 Mercury -115528-09-29 03:51 J -40474907.46 -40474907.34 -40474907.20 0.0088 0.0038
 Mercury -115528-12-26 05:31 J -40474819.39 -40474819.27 -40474819.13 0.0088 0.0033

Mercury -115527-03-24 07:12 J -40474731.33 -40474731.20 -40474731.06 0.0088 0.0029

Mars -115527-05-02 00:58 J -40474692.77 -40474692.46 -40474692.13 0.0088 0.0010

Mercury -115527-06-20 08:39 J -40474643.27 -40474643.14 -40474643.00 0.0088 0.0025

Mercury -115527-09-16 10:19 J -40474555.20 -40474555.07 -40474554.93 0.0088 0.0020

Mercury -115527-12-13 12:00 J -40474467.14 -40474467.00 -40474466.86 0.0088 0.0016

Mercury -115526-03-11 13:27 J -40474379.08 -40474378.94 -40474378.80 0.0088 0.0012

Mercury -115526-06-07 15:07 J -40474291.01 -40474290.87 -40474290.73 0.0088 0.0007

Mercury -115526-09-03 16:34 J -40474202.95 -40474202.81 -40474202.67 0.0088 0.0003

Mercury -115526-11-30 18:15 J -40474114.88 -40474114.74 -40474114.60 0.0088 0.0002

Mercury -115525-02-26 19:41 J -40474026.82 -40474026.68 -40474026.54 0.0088 0.0006

Mars -115525-03-27 05:03 J -40473997.61 -40473997.29 -40473996.96 0.0088 0.0001

Mercury -115525-05-24 21:07 J -40473938.75 -40473938.62 -40473938.48 0.0088 0.0010

Mercury -115525-08-20 22:48 J -40473850.69 -40473850.55 -40473850.41 0.0088 0.0014

Mercury -115525-11-17 00:15 J -40473762.62 -40473762.49 -40473762.35 0.0088 0.0018

Mercury -115524-02-13 01:41 J -40473674.56 -40473674.43 -40473674.29 0.0088 0.0023

Mercury -115524-05-12 03:22 J -40473586.49 -40473586.36 -40473586.23 0.0088 0.0027

Mercury -115524-08-08 04:48 J -40473498.43 -40473498.30 -40473498.17 0.0088 0.0031

Mercury -115524-11-04 06:15 J -40473410.36 -40473410.24 -40473410.11 0.0088 0.0035

Mercury -115523-01-31 07:41 J -40473322.30 -40473322.18 -40473322.05 0.0088 0.0039

Mars -115523-02-20 10:48 J -40473302.37 -40473302.05 -40473301.72 0.0088 0.0009

Mercury -115523-04-29 09:07 J -40473234.23 -40473234.12 -40473233.99 0.0088 0.0044

Mercury -115523-07-26 10:48 J -40473146.16 -40473146.05 -40473145.93 0.0088 0.0047

Mercury -115523-10-22 12:15 J -40473058.10 -40473057.99 -40473057.87 0.0088 0.0051

Mercury -115522-01-18 13:41 J -40472970.03 -40472969.93 -40472969.82 0.0088 0.0056

Mercury -115522-04-16 15:07 J -40472881.96 -40472881.87 -40472881.76 0.0088 0.0060

Mercury -115522-07-13 16:48 J -40472793.90 -40472793.80 -40472793.71 0.0088 0.0064

Mercury -115522-10-09 18:15 J -40472705.83 -40472705.74 -40472705.65 0.0088 0.0068

Mercury -115521-01-05 19:41 J -40472617.76 -40472617.68 -40472617.60 0.0088 0.0072

Mars -115521-01-16 17:31 J -40472607.09 -40472606.77 -40472606.45 0.0088 0.0018

Mercury -115521-04-02 20:53 J -40472529.69 -40472529.63 -40472529.55 0.0088 0.0076

Mercury -115521-06-29 22:19 J -40472441.61 -40472441.57 -40472441.50 0.0088 0.0080
 Mercury -115521-09-25 23:46 J -40472353.54 -40472353.51 -40472353.46 0.0088 0.0084
 Mercury -115521-12-23 01:12 J -40472265.45 -40472265.45 -40472265.43 0.0088 0.0088
 Mars -115520-12-12 01:27 J -40471911.72 -40471911.44 -40471911.10 0.0088 0.0028
 Mars -115518-11-07 12:00 J -40471216.29 -40471216.00 -40471215.70 0.0088 0.0036
 Mars -115516-10-02 22:34 J -40470520.82 -40470520.56 -40470520.25 0.0088 0.0045
 Mars -115514-08-29 11:03 J -40469825.27 -40469825.04 -40469824.75 0.0088 0.0053
 Mars -115512-07-25 01:41 J -40469129.64 -40469129.43 -40469129.17 0.0088 0.0062
 Mars -115510-06-20 17:31 J -40468433.96 -40468433.77 -40468433.55 0.0088 0.0070
 Mars -115508-05-16 09:22 J -40467738.24 -40467738.11 -40467737.93 0.0088 0.0078
 Mars -115506-04-12 02:10 J -40467042.46 -40467042.41 -40467042.28 0.0088 0.0085
 Venus -115488-06-22 05:17 J -40460396.33 -40460396.28 -40460396.19 0.0088 0.0084
 Venus -115487-02-02 16:34 J -40460170.88 -40460170.81 -40460170.69 0.0088 0.0079
 Venus -115487-09-16 04:19 J -40459945.43 -40459945.32 -40459945.19 0.0088 0.0073
 Venus -115486-04-29 16:05 J -40459719.96 -40459719.83 -40459719.69 0.0088 0.0067
 Venus -115486-12-11 03:07 J -40459494.50 -40459494.37 -40459494.19 0.0088 0.0062
 Venus -115485-07-23 14:53 J -40459269.03 -40459268.88 -40459268.71 0.0088 0.0056
 Venus -115484-03-06 02:24 J -40459043.57 -40459043.40 -40459043.22 0.0088 0.0050
 Venus -115484-10-17 13:41 J -40458818.10 -40458817.93 -40458817.73 0.0088 0.0045
 Venus -115483-05-31 01:12 J -40458592.62 -40458592.45 -40458592.24 0.0088 0.0039
 Venus -115482-01-11 12:43 J -40458367.15 -40458366.97 -40458366.76 0.0088 0.0033
 Venus -115482-08-25 00:29 J -40458141.68 -40458141.48 -40458141.28 0.0088 0.0027
 Venus -115481-04-06 12:00 J -40457916.20 -40457916.00 -40457915.79 0.0088 0.0021
 Venus -115481-11-17 23:17 J -40457690.73 -40457690.53 -40457690.31 0.0088 0.0016
 Venus -115480-07-01 10:48 J -40457465.26 -40457465.05 -40457464.83 0.0088 0.0009
 Venus -115479-02-11 22:19 J -40457239.78 -40457239.57 -40457239.35 0.0089 0.0004
 Venus -115479-09-25 09:51 J -40457014.30 -40457014.09 -40457013.87 0.0089 0.0003
 Venus -115478-05-08 21:22 J -40456788.81 -40456788.61 -40456788.39 0.0089 0.0009
 Earth -115478-07-04 02:24 J -40456732.48 -40456732.40 -40456732.29 0.0089 0.0082
 Moon -115478-07-04 05:31 J -40456732.35 -40456732.27 -40456732.14 0.0089 0.0080 *

Venus -115478-12-20 08:53 J -40456563.33 -40456563.13 -40456562.91 0.0089 0.0014
 Moon -115477-07-05 07:41 J -40456365.37 -40456365.18 -40456364.99 0.0089 0.0056
 Earth -115477-07-05 10:19 J -40456365.25 -40456365.07 -40456364.85 0.0089 0.0054 *
 Venus -115477-08-01 20:39 J -40456337.85 -40456337.64 -40456337.44 0.0089 0.0020
 Venus -115476-03-15 08:10 J -40456112.36 -40456112.16 -40456111.96 0.0089 0.0026
 Earth -115476-07-07 18:43 J -40455997.96 -40455997.72 -40455997.48 0.0089 0.0025
 Moon -115476-07-07 20:39 J -40455997.89 -40455997.64 -40455997.39 0.0089 0.0022 *
 Venus -115476-10-26 19:41 J -40455886.88 -40455886.68 -40455886.48 0.0089 0.0032
 Venus -115475-06-09 07:12 J -40455661.38 -40455661.20 -40455661.00 0.0089 0.0038
 Moon -115475-07-10 02:10 J -40455630.65 -40455630.41 -40455630.17 0.0089 0.0002
 Earth -115475-07-10 03:07 J -40455630.62 -40455630.37 -40455630.12 0.0089 0.0004 *
 Venus -115474-01-20 18:43 J -40455435.89 -40455435.72 -40455435.52 0.0089 0.0044
 Moon -115474-07-12 10:48 J -40455263.27 -40455263.05 -40455262.80 0.0089 0.0036
 Earth -115474-07-12 11:17 J -40455263.25 -40455263.03 -40455262.79 0.0089 0.0033 *
 Venus -115474-09-03 06:29 J -40455210.39 -40455210.23 -40455210.04 0.0089 0.0049
 Venus -115473-04-15 18:00 J -40454984.89 -40454984.75 -40454984.56 0.0089 0.0056
 Earth -115473-07-13 19:41 J -40454895.84 -40454895.68 -40454895.48 0.0089 0.0062
 Moon -115473-07-13 21:51 J -40454895.76 -40454895.59 -40454895.39 0.0089 0.0059 *
 Venus -115473-11-27 06:00 J -40454759.39 -40454759.25 -40454759.08 0.0089 0.0061
 Venus -115472-07-10 17:31 J -40454533.89 -40454533.77 -40454533.61 0.0089 0.0067
 Venus -115471-02-21 05:17 J -40454308.38 -40454308.28 -40454308.14 0.0089 0.0073
 Venus -115471-10-04 17:17 J -40454082.87 -40454082.78 -40454082.67 0.0089 0.0078
 Venus -115470-05-18 05:03 J -40453857.34 -40453857.29 -40453857.20 0.0089 0.0084
 Mars -115462-02-01 08:39 J -40451041.20 -40451041.14 -40451041.02 0.0089 0.0085
 Mars -115461-12-27 13:41 J -40450346.05 -40450345.93 -40450345.74 0.0089 0.0078
 Mars -115459-11-22 17:46 J -40449650.93 -40449650.76 -40449650.53 0.0089 0.0070
 Mars -115457-10-17 19:55 J -40448955.87 -40448955.67 -40448955.42 0.0089 0.0062
 Mars -115455-09-12 20:24 J -40448260.90 -40448260.65 -40448260.39 0.0089 0.0053
 Mars -115453-08-07 18:58 J -40447565.96 -40447565.71 -40447565.41 0.0089 0.0045
 Mars -115451-07-03 17:46 J -40446871.04 -40446870.76 -40446870.47 0.0089 0.0036

Mars -115449-05-28 13:27 J -40446176.24 -40446175.94 -40446175.64 0.0089 0.0027
 Mars -115447-04-23 07:41 J -40445481.48 -40445481.18 -40445480.87 0.0089 0.0018
 Mercury -115447-07-10 03:07 J -40445403.38 -40445403.37 -40445403.34 0.0089 0.0088
 Mercury -115447-10-06 05:46 J -40445315.30 -40445315.26 -40445315.18 0.0089 0.0083
 Mercury -115446-01-02 08:39 J -40445227.20 -40445227.14 -40445227.03 0.0089 0.0078
 Mercury -115446-03-31 12:00 J -40445139.09 -40445139.00 -40445138.89 0.0089 0.0072
 Mercury -115446-06-27 14:53 J -40445050.98 -40445050.88 -40445050.75 0.0089 0.0067
 Mercury -115446-09-23 18:00 J -40444962.87 -40444962.75 -40444962.62 0.0089 0.0061
 Mercury -115446-12-20 20:53 J -40444874.76 -40444874.63 -40444874.48 0.0089 0.0056
 Mars -115445-03-18 00:43 J -40444786.78 -40444786.47 -40444786.16 0.0089 0.0009
 Mercury -115445-03-17 23:46 J -40444786.64 -40444786.51 -40444786.35 0.0089 0.0051 *
 Mercury -115445-06-14 03:07 J -40444698.52 -40444698.37 -40444698.21 0.0089 0.0045
 Mercury -115445-09-10 06:00 J -40444610.40 -40444610.25 -40444610.08 0.0089 0.0040
 Mercury -115445-12-07 09:07 J -40444522.28 -40444522.12 -40444521.95 0.0089 0.0034
 Mercury -115444-03-05 12:00 J -40444434.16 -40444434.00 -40444433.82 0.0089 0.0029
 Mercury -115444-06-01 15:22 J -40444346.03 -40444345.86 -40444345.69 0.0089 0.0023
 Mercury -115444-08-28 18:15 J -40444257.91 -40444257.74 -40444257.55 0.0089 0.0018
 Mercury -115444-11-24 21:22 J -40444169.78 -40444169.61 -40444169.42 0.0089 0.0012
 Mars -115443-02-10 15:36 J -40444092.16 -40444091.85 -40444091.54 0.0089 0.0001
 Mercury -115443-02-21 00:29 J -40444081.66 -40444081.48 -40444081.29 0.0089 0.0007
 Mercury -115443-05-20 03:36 J -40443993.53 -40443993.35 -40443993.16 0.0089 0.0002
 Mercury -115443-08-16 06:43 J -40443905.40 -40443905.22 -40443905.03 0.0089 0.0005
 Mercury -115443-11-12 09:51 J -40443817.27 -40443817.09 -40443816.90 0.0089 0.0011
 Mercury -115442-02-08 12:58 J -40443729.13 -40443728.96 -40443728.77 0.0089 0.0016
 Mercury -115442-05-07 16:05 J -40443641.00 -40443640.83 -40443640.65 0.0089 0.0022
 Mercury -115442-08-03 19:27 J -40443552.87 -40443552.69 -40443552.52 0.0089 0.0027
 Mercury -115442-10-30 22:19 J -40443464.73 -40443464.57 -40443464.39 0.0089 0.0033
 Mars -115441-01-06 04:34 J -40443397.61 -40443397.31 -40443397.00 0.0089 0.0008
 Mercury -115441-01-27 01:27 J -40443376.59 -40443376.44 -40443376.26 0.0089 0.0039
 Mercury -115441-04-24 05:03 J -40443288.45 -40443288.29 -40443288.13 0.0089 0.0045

Mercury -115441-07-21 07:55 J -40443200.31 -40443200.17 -40443200.01 0.0089 0.0050

Mercury -115441-10-17 11:03 J -40443112.17 -40443112.04 -40443111.88 0.0089 0.0056

Mercury -115440-01-13 14:10 J -40443024.02 -40443023.91 -40443023.76 0.0089 0.0062

Mercury -115440-04-11 17:46 J -40442935.88 -40442935.76 -40442935.64 0.0089 0.0067

Mercury -115440-07-08 20:53 J -40442847.72 -40442847.63 -40442847.52 0.0089 0.0073

Mercury -115440-10-05 00:00 J -40442759.57 -40442759.50 -40442759.40 0.0089 0.0079

Mars -115440-11-30 17:03 J -40442703.08 -40442702.79 -40442702.47 0.0089 0.0018

Mercury -115439-01-01 03:07 J -40442671.40 -40442671.37 -40442671.30 0.0089 0.0085

Mars -115438-10-26 03:51 J -40442008.62 -40442008.34 -40442008.03 0.0089 0.0026

Mars -115436-09-19 13:27 J -40441314.21 -40441313.94 -40441313.65 0.0089 0.0034

Mars -115434-08-14 22:48 J -40440619.81 -40440619.55 -40440619.28 0.0089 0.0042

Mars -115432-07-09 06:15 J -40439925.48 -40439925.24 -40439924.98 0.0089 0.0050

Mars -115430-06-03 11:31 J -40439231.22 -40439231.02 -40439230.77 0.0089 0.0058

Mars -115428-04-27 16:48 J -40438536.98 -40438536.80 -40438536.57 0.0089 0.0066

Mars -115426-03-22 21:51 J -40437842.74 -40437842.59 -40437842.39 0.0089 0.0072

Mars -115424-02-14 00:29 J -40437148.58 -40437148.48 -40437148.30 0.0089 0.0080

Mars -115422-01-09 03:22 J -40436454.41 -40436454.36 -40436454.23 0.0089 0.0086

Venus -115406-08-08 20:24 J -40430398.69 -40430398.65 -40430398.58 0.0089 0.0086

Venus -115405-03-21 11:17 J -40430173.11 -40430173.03 -40430172.92 0.0089 0.0080

Venus -115405-11-02 01:55 J -40429947.53 -40429947.42 -40429947.28 0.0089 0.0074

Venus -115404-06-15 16:34 J -40429721.93 -40429721.81 -40429721.64 0.0089 0.0068

Venus -115403-01-27 07:12 J -40429496.34 -40429496.20 -40429496.01 0.0089 0.0062

Venus -115403-09-09 22:19 J -40429270.74 -40429270.57 -40429270.38 0.0089 0.0055

Venus -115402-04-23 12:58 J -40429045.14 -40429044.96 -40429044.76 0.0089 0.0049

Venus -115402-12-05 03:22 J -40428819.54 -40428819.36 -40428819.14 0.0089 0.0043

Venus -115401-07-17 18:15 J -40428593.94 -40428593.74 -40428593.52 0.0089 0.0036

Venus -115400-02-28 08:53 J -40428368.34 -40428368.13 -40428367.91 0.0089 0.0030

Venus -115400-10-11 23:31 J -40428142.72 -40428142.52 -40428142.28 0.0089 0.0024

Venus -115399-05-25 14:39 J -40427917.12 -40427916.89 -40427916.67 0.0089 0.0017

Venus -115398-01-06 05:03 J -40427691.51 -40427691.29 -40427691.06 0.0089 0.0011

Venus	-115398-08-19 19:41 J	-40427465.90	-40427465.68	-40427465.45	0.0089	0.0005
Venus	-115397-04-01 10:19 J	-40427240.29	-40427240.07	-40427239.84	0.0089	0.0003
Venus	-115397-11-13 00:58 J	-40427014.68	-40427014.46	-40427014.22	0.0089	0.0009
Venus	-115396-06-26 15:36 J	-40426789.07	-40426788.85	-40426788.62	0.0089	0.0015
Moon	-115395-01-10 21:36 J	-40426590.77	-40426590.60	-40426590.38	0.0089	0.0064
Earth	-115395-01-10 23:46 J	-40426590.67	-40426590.51	-40426590.30	0.0089	0.0063 *
Venus	-115395-02-07 06:15 J	-40426563.46	-40426563.24	-40426563.01	0.0089	0.0021
Venus	-115395-09-20 20:39 J	-40426337.84	-40426337.64	-40426337.41	0.0089	0.0028
Earth	-115394-01-13 15:22 J	-40426223.10	-40426222.86	-40426222.60	0.0089	0.0032
Moon	-115394-01-13 18:00 J	-40426222.99	-40426222.75	-40426222.50	0.0089	0.0030 *
Venus	-115394-05-04 11:17 J	-40426112.23	-40426112.03	-40426111.81	0.0089	0.0034
Venus	-115394-12-16 01:55 J	-40425886.62	-40425886.42	-40425886.21	0.0089	0.0040
Moon	-115393-01-16 03:07 J	-40425855.63	-40425855.37	-40425855.09	0.0089	0.0003
Earth	-115393-01-16 06:58 J	-40425855.48	-40425855.21	-40425854.94	0.0089	0.0001 *
Venus	-115393-07-28 16:05 J	-40425661.01	-40425660.83	-40425660.62	0.0089	0.0047
Earth	-115392-01-17 21:36 J	-40425487.84	-40425487.60	-40425487.34	0.0089	0.0030
Moon	-115392-01-18 01:12 J	-40425487.69	-40425487.45	-40425487.19	0.0089	0.0032 *
Venus	-115392-03-11 06:29 J	-40425435.40	-40425435.23	-40425435.03	0.0089	0.0053
Venus	-115392-10-22 21:07 J	-40425209.77	-40425209.62	-40425209.44	0.0089	0.0059
Moon	-115391-01-20 08:39 J	-40425120.33	-40425120.14	-40425119.93	0.0089	0.0058
Earth	-115391-01-20 12:00 J	-40425120.17	-40425120.00	-40425119.78	0.0089	0.0061 *
Venus	-115391-06-05 11:31 J	-40424984.16	-40424984.02	-40424983.85	0.0089	0.0065
Venus	-115390-01-17 01:55 J	-40424758.54	-40424758.42	-40424758.27	0.0089	0.0071
Venus	-115390-08-30 16:05 J	-40424532.93	-40424532.83	-40424532.70	0.0089	0.0077
Venus	-115389-04-12 06:15 J	-40424307.30	-40424307.24	-40424307.14	0.0089	0.0083
Mars	-115383-12-07 04:19 J	-40421877.38	-40421877.32	-40421877.24	0.0089	0.0086
Mars	-115381-10-31 15:07 J	-40421182.98	-40421182.87	-40421182.72	0.0089	0.0080
Mars	-115379-09-26 03:22 J	-40420488.50	-40420488.36	-40420488.15	0.0089	0.0074
Mars	-115377-08-20 18:43 J	-40419793.92	-40419793.72	-40419793.51	0.0089	0.0066
Mars	-115375-07-16 09:36 J	-40419099.32	-40419099.10	-40419098.85	0.0089	0.0059

Mars -115373-06-10 02:39 J -40418404.65 -40418404.39 -40418404.14 0.0088 0.0051
 Mars -115371-05-05 21:36 J -40417709.87 -40417709.60 -40417709.32 0.0088 0.0043
 Mars -115369-03-30 18:00 J -40417015.02 -40417014.75 -40417014.44 0.0088 0.0035
 Mars -115367-02-23 15:36 J -40416320.15 -40416319.85 -40416319.54 0.0088 0.0026
 Mercury -115366-08-04 08:24 J -40415793.17 -40415793.15 -40415793.11 0.0088 0.0086
 Mercury -115366-10-31 10:19 J -40415705.12 -40415705.07 -40415705.02 0.0088 0.0082
 Mars -115365-01-19 15:07 J -40415625.18 -40415624.87 -40415624.55 0.0088 0.0016
 Mercury -115365-01-27 11:46 J -40415617.07 -40415617.01 -40415616.93 0.0088 0.0077
 Mercury -115365-04-24 13:41 J -40415529.01 -40415528.93 -40415528.85 0.0088 0.0073
 Mercury -115365-07-21 15:07 J -40415440.95 -40415440.87 -40415440.77 0.0088 0.0069
 Mercury -115365-10-17 16:34 J -40415352.89 -40415352.81 -40415352.70 0.0088 0.0065
 Mercury -115364-01-13 18:29 J -40415264.83 -40415264.73 -40415264.62 0.0088 0.0060
 Mercury -115364-04-11 19:55 J -40415176.77 -40415176.67 -40415176.55 0.0088 0.0056
 Mercury -115364-07-08 21:36 J -40415088.71 -40415088.60 -40415088.48 0.0088 0.0051
 Mercury -115364-10-04 23:17 J -40415000.65 -40415000.53 -40415000.41 0.0088 0.0047
 Mars -115364-12-14 15:51 J -40414930.16 -40414929.84 -40414929.52 0.0088 0.0008
 Mercury -115363-01-01 00:58 J -40414912.58 -40414912.46 -40414912.33 0.0088 0.0042
 Mercury -115363-03-30 02:24 J -40414824.52 -40414824.40 -40414824.27 0.0088 0.0038
 Mercury -115363-06-26 03:51 J -40414736.46 -40414736.34 -40414736.20 0.0088 0.0035
 Mercury -115363-09-22 05:46 J -40414648.39 -40414648.26 -40414648.13 0.0088 0.0030
 Mercury -115363-12-19 07:12 J -40414560.33 -40414560.20 -40414560.06 0.0088 0.0026
 Mercury -115362-03-17 08:53 J -40414472.27 -40414472.13 -40414471.99 0.0088 0.0021
 Mercury -115362-06-13 10:19 J -40414384.20 -40414384.07 -40414383.93 0.0088 0.0017
 Mercury -115362-09-09 12:00 J -40414296.14 -40414296.00 -40414295.86 0.0088 0.0012
 Mars -115362-11-09 17:46 J -40414235.08 -40414234.76 -40414234.44 0.0088 0.0002
 Mercury -115362-12-06 13:41 J -40414208.07 -40414207.93 -40414207.79 0.0088 0.0008
 Mercury -115361-03-03 15:07 J -40414120.01 -40414119.87 -40414119.73 0.0088 0.0004
 Mercury -115361-05-30 16:48 J -40414031.94 -40414031.80 -40414031.66 0.0088 0.0003
 Mercury -115361-08-26 18:15 J -40413943.88 -40413943.74 -40413943.60 0.0088 0.0005
 Mercury -115361-11-22 19:41 J -40413855.82 -40413855.68 -40413855.54 0.0088 0.0009

Mercury -115360-02-18 21:22 J -40413767.75 -40413767.61 -40413767.47 0.0088 0.0013

Mercury -115360-05-17 22:48 J -40413679.69 -40413679.55 -40413679.41 0.0088 0.0017

Mercury -115360-08-14 00:15 J -40413591.62 -40413591.49 -40413591.35 0.0088 0.0022

Mars -115360-10-04 21:22 J -40413539.92 -40413539.61 -40413539.28 0.0088 0.0011

Mercury -115360-11-10 01:55 J -40413503.56 -40413503.42 -40413503.29 0.0088 0.0026

Mercury -115359-02-06 03:22 J -40413415.49 -40413415.36 -40413415.23 0.0088 0.0030

Mercury -115359-05-05 04:48 J -40413327.42 -40413327.30 -40413327.17 0.0088 0.0034

Mercury -115359-08-01 06:15 J -40413239.36 -40413239.24 -40413239.11 0.0088 0.0038

Mercury -115359-10-28 07:41 J -40413151.29 -40413151.18 -40413151.05 0.0088 0.0042

Mercury -115358-01-24 09:07 J -40413063.23 -40413063.12 -40413062.99 0.0088 0.0047

Mercury -115358-04-22 10:48 J -40412975.16 -40412975.05 -40412974.93 0.0088 0.0050

Mercury -115358-07-19 12:15 J -40412887.09 -40412886.99 -40412886.88 0.0088 0.0055

Mars -115358-08-31 03:22 J -40412844.66 -40412844.36 -40412844.03 0.0088 0.0021

Mercury -115358-10-15 13:41 J -40412799.03 -40412798.93 -40412798.82 0.0088 0.0059

Mercury -115357-01-11 15:22 J -40412710.96 -40412710.86 -40412710.77 0.0088 0.0063

Mercury -115357-04-08 16:48 J -40412622.89 -40412622.80 -40412622.71 0.0088 0.0067

Mercury -115357-07-05 18:15 J -40412534.82 -40412534.74 -40412534.66 0.0088 0.0071

Mercury -115357-10-01 19:41 J -40412446.75 -40412446.68 -40412446.61 0.0088 0.0075

Mercury -115357-12-28 21:07 J -40412358.68 -40412358.62 -40412358.56 0.0088 0.0079

Mercury -115356-03-26 22:34 J -40412270.60 -40412270.56 -40412270.51 0.0088 0.0083

Mercury -115356-06-22 23:46 J -40412182.52 -40412182.51 -40412182.47 0.0088 0.0087

Mars -115356-07-26 10:34 J -40412149.36 -40412149.06 -40412148.75 0.0088 0.0030

Mars -115354-06-21 19:12 J -40411453.97 -40411453.70 -40411453.38 0.0088 0.0040

Mars -115352-05-17 05:46 J -40410758.51 -40410758.26 -40410757.96 0.0088 0.0049

Mars -115350-04-12 16:48 J -40410063.02 -40410062.80 -40410062.51 0.0088 0.0058

Mars -115348-03-08 05:46 J -40409367.46 -40409367.26 -40409367.02 0.0088 0.0066

Mars -115346-02-01 19:41 J -40408671.82 -40408671.68 -40408671.46 0.0088 0.0075

Mars -115345-12-28 11:31 J -40407976.10 -40407976.02 -40407975.86 0.0088 0.0083

Venus -115324-02-10 07:41 J -40400627.19 -40400627.18 -40400627.14 0.0088 0.0088

Venus -115324-09-23 18:58 J -40400401.76 -40400401.71 -40400401.61 0.0088 0.0082

Venus	-115323-05-07 06:43 J	-40400176.31	-40400176.22	-40400176.11	0.0088	0.0077
Venus	-115323-12-18 17:46 J	-40399950.86	-40399950.76	-40399950.61	0.0088	0.0072
Venus	-115322-08-01 05:17 J	-40399725.40	-40399725.28	-40399725.12	0.0088	0.0066
Venus	-115321-03-13 17:03 J	-40399499.94	-40399499.79	-40399499.63	0.0088	0.0060
Venus	-115321-10-25 04:05 J	-40399274.47	-40399274.33	-40399274.14	0.0088	0.0055
Venus	-115320-06-07 15:51 J	-40399049.01	-40399048.84	-40399048.65	0.0088	0.0048
Venus	-115319-01-19 03:22 J	-40398823.54	-40398823.36	-40398823.17	0.0088	0.0043
Venus	-115319-09-01 14:53 J	-40398598.07	-40398597.88	-40398597.68	0.0088	0.0037
Venus	-115318-04-15 02:24 J	-40398372.59	-40398372.40	-40398372.19	0.0088	0.0031
Venus	-115318-11-26 13:55 J	-40398147.11	-40398146.92	-40398146.71	0.0088	0.0025
Venus	-115317-07-09 01:27 J	-40397921.64	-40397921.44	-40397921.23	0.0088	0.0019
Venus	-115316-02-19 12:58 J	-40397696.17	-40397695.96	-40397695.75	0.0088	0.0014
Venus	-115316-10-03 00:29 J	-40397470.69	-40397470.48	-40397470.27	0.0088	0.0008
Venus	-115315-05-16 12:00 J	-40397245.21	-40397245.00	-40397244.78	0.0088	0.0003
Venus	-115315-12-27 23:31 J	-40397019.73	-40397019.52	-40397019.30	0.0088	0.0004
Venus	-115314-08-10 11:03 J	-40396794.25	-40396794.04	-40396793.83	0.0089	0.0010
Venus	-115313-03-22 22:34 J	-40396568.77	-40396568.56	-40396568.35	0.0089	0.0016
Earth	-115313-07-05 01:12 J	-40396464.60	-40396464.45	-40396464.27	0.0089	0.0065
Moon	-115313-07-05 01:55 J	-40396464.58	-40396464.42	-40396464.21	0.0089	0.0062 *
Venus	-115313-11-03 10:05 J	-40396343.28	-40396343.08	-40396342.87	0.0089	0.0021
Venus	-115312-06-16 21:22 J	-40396117.80	-40396117.61	-40396117.39	0.0089	0.0028
Earth	-115312-07-07 09:36 J	-40396097.33	-40396097.10	-40396096.87	0.0089	0.0036
Moon	-115312-07-07 10:05 J	-40396097.29	-40396097.08	-40396096.86	0.0089	0.0039 *
Venus	-115311-01-28 08:53 J	-40395892.31	-40395892.13	-40395891.92	0.0089	0.0034
Moon	-115311-07-09 15:22 J	-40395730.11	-40395729.86	-40395729.60	0.0089	0.0006
Earth	-115311-07-09 17:31 J	-40395730.01	-40395729.77	-40395729.51	0.0089	0.0008 *
Venus	-115311-09-10 20:53 J	-40395666.82	-40395666.63	-40395666.44	0.0089	0.0039
Venus	-115310-04-24 08:24 J	-40395441.33	-40395441.15	-40395440.96	0.0089	0.0045
Earth	-115310-07-12 01:27 J	-40395362.67	-40395362.44	-40395362.18	0.0089	0.0022
Moon	-115310-07-12 04:19 J	-40395362.55	-40395362.32	-40395362.08	0.0089	0.0019 *

Venus -115310-12-05 19:55 J -40395215.83 -40395215.67 -40395215.48 0.0089 0.0051
 Moon -115309-07-13 06:43 J -40394995.42 -40394995.22 -40394995.01 0.0089 0.0053
 Earth -115309-07-13 09:51 J -40394995.27 -40394995.09 -40394994.86 0.0089 0.0051 *
 Venus -115309-07-18 07:27 J -40394990.34 -40394990.19 -40394990.01 0.0089 0.0057
 Venus -115308-02-28 18:58 J -40394764.84 -40394764.71 -40394764.53 0.0089 0.0063
 Earth -115308-07-15 18:15 J -40394627.82 -40394627.74 -40394627.60 0.0089 0.0080
 Moon -115308-07-15 21:51 J -40394627.69 -40394627.59 -40394627.44 0.0089 0.0077 *
 Saturn -115308-08-03 10:48 J -40394609.41 -40394609.05 -40394608.61 0.0089 0.0070
 Venus -115308-10-12 07:12 J -40394539.33 -40394539.20 -40394539.06 0.0089 0.0068
 Venus -115307-05-25 18:58 J -40394313.81 -40394313.71 -40394313.58 0.0089 0.0074
 Venus -115306-01-06 06:29 J -40394088.30 -40394088.23 -40394088.11 0.0089 0.0080
 Venus -115306-08-19 18:29 J -40393862.77 -40393862.73 -40393862.66 0.0089 0.0085
 Mars -115299-09-15 20:24 J -40391278.69 -40391278.65 -40391278.56 0.0089 0.0087
 Mars -115297-08-11 03:36 J -40390583.49 -40390583.35 -40390583.20 0.0089 0.0079
 Mars -115295-07-07 08:10 J -40389888.33 -40389888.16 -40389887.95 0.0089 0.0071
 Mars -115293-06-01 12:00 J -40389193.20 -40389193.00 -40389192.75 0.0089 0.0063
 Mars -115291-04-27 14:24 J -40388498.13 -40388497.90 -40388497.63 0.0089 0.0054
 Mars -115289-03-22 14:10 J -40387803.17 -40387802.91 -40387802.62 0.0089 0.0045
 Mars -115287-02-15 12:15 J -40387108.26 -40387107.99 -40387107.68 0.0089 0.0036
 Mars -115285-01-11 09:51 J -40386413.37 -40386413.09 -40386412.78 0.0089 0.0027
 Mars -115284-12-06 05:17 J -40385718.59 -40385718.28 -40385717.98 0.0089 0.0017
 Mercury -115282-04-06 02:39 J -40385232.44 -40385232.39 -40385232.33 0.0089 0.0084
 Mercury -115282-07-03 05:31 J -40385144.34 -40385144.27 -40385144.18 0.0089 0.0079
 Mercury -115282-09-29 08:10 J -40385056.23 -40385056.16 -40385056.04 0.0089 0.0074
 Mars -115282-10-31 22:34 J -40385023.86 -40385023.56 -40385023.24 0.0089 0.0008
 Mercury -115282-12-26 11:31 J -40384968.13 -40384968.02 -40384967.90 0.0089 0.0068
 Mercury -115281-03-23 14:24 J -40384880.01 -40384879.90 -40384879.77 0.0089 0.0063
 Mercury -115281-06-19 17:17 J -40384791.90 -40384791.78 -40384791.63 0.0089 0.0058
 Mercury -115281-09-15 20:24 J -40384703.78 -40384703.65 -40384703.50 0.0089 0.0052
 Mercury -115281-12-12 23:17 J -40384615.67 -40384615.53 -40384615.36 0.0089 0.0047

Mercury -115280-03-11 02:39 J -40384527.55 -40384527.39 -40384527.23 0.0089 0.0041

Mercury -115280-06-07 05:31 J -40384439.43 -40384439.27 -40384439.10 0.0089 0.0036

Mercury -115280-09-03 08:39 J -40384351.31 -40384351.14 -40384350.97 0.0089 0.0030

Mars -115280-09-25 15:36 J -40384329.16 -40384328.85 -40384328.54 0.0089 0.0002

Mercury -115280-11-30 11:31 J -40384263.18 -40384263.02 -40384262.84 0.0089 0.0025

Mercury -115279-02-26 14:53 J -40384175.06 -40384174.88 -40384174.71 0.0089 0.0019

Mercury -115279-05-25 17:46 J -40384086.93 -40384086.76 -40384086.58 0.0089 0.0014

Mercury -115279-08-21 20:53 J -40383998.81 -40383998.63 -40383998.45 0.0089 0.0008

Mercury -115279-11-18 00:00 J -40383910.68 -40383910.50 -40383910.32 0.0089 0.0003

Mercury -115278-02-14 03:07 J -40383822.55 -40383822.37 -40383822.19 0.0089 0.0003

Mercury -115278-05-13 06:15 J -40383734.42 -40383734.24 -40383734.06 0.0089 0.0009

Mercury -115278-08-09 09:22 J -40383646.29 -40383646.11 -40383645.93 0.0089 0.0014

Mars -115278-08-21 06:29 J -40383634.53 -40383634.23 -40383633.92 0.0089 0.0011

Mercury -115278-11-05 12:29 J -40383558.15 -40383557.98 -40383557.80 0.0089 0.0020

Mercury -115277-02-01 15:36 J -40383470.02 -40383469.85 -40383469.67 0.0089 0.0026

Mercury -115277-04-29 18:58 J -40383381.88 -40383381.71 -40383381.54 0.0089 0.0031

Mercury -115277-07-26 21:51 J -40383293.75 -40383293.59 -40383293.41 0.0089 0.0037

Mercury -115277-10-23 00:58 J -40383205.61 -40383205.46 -40383205.29 0.0089 0.0043

Mercury -115276-01-19 04:05 J -40383117.47 -40383117.33 -40383117.16 0.0089 0.0049

Mercury -115276-04-17 07:27 J -40383029.33 -40383029.19 -40383029.04 0.0089 0.0054

Mercury -115276-07-14 10:34 J -40382941.18 -40382941.06 -40382940.91 0.0089 0.0060

Mars -115276-07-15 19:41 J -40382939.97 -40382939.68 -40382939.37 0.0089 0.0020

Mercury -115276-10-10 13:41 J -40382853.04 -40382852.93 -40382852.79 0.0089 0.0066

Mercury -115275-01-06 17:17 J -40382764.89 -40382764.78 -40382764.67 0.0089 0.0072

Mercury -115275-04-04 20:24 J -40382676.73 -40382676.65 -40382676.55 0.0089 0.0077

Mercury -115275-07-01 23:31 J -40382588.57 -40382588.52 -40382588.44 0.0089 0.0083

Mercury -115275-09-28 02:53 J -40382500.38 -40382500.38 -40382500.36 0.0089 0.0089

Mars -115274-06-10 07:41 J -40382245.44 -40382245.18 -40382244.87 0.0089 0.0029

Mars -115272-05-04 18:58 J -40381550.97 -40381550.71 -40381550.42 0.0089 0.0037

Mars -115270-03-30 03:36 J -40380856.59 -40380856.35 -40380856.07 0.0089 0.0046

Mars	-115268-02-21 12:00 J	-40380162.22	-40380162.00	-40380161.74	0.0089	0.0054
Mars	-115266-01-16 19:27 J	-40379467.88	-40379467.69	-40379467.45	0.0089	0.0062
Mars	-115265-12-11 01:27 J	-40378773.62	-40378773.44	-40378773.25	0.0089	0.0070
Mars	-115263-11-05 06:29 J	-40378079.38	-40378079.23	-40378079.07	0.0089	0.0077
Mars	-115261-09-29 11:31 J	-40377385.10	-40377385.02	-40377384.89	0.0089	0.0084
Venus	-115242-11-10 06:43 J	-40370404.26	-40370404.22	-40370404.12	0.0089	0.0085
Venus	-115241-06-22 22:05 J	-40370178.68	-40370178.58	-40370178.47	0.0089	0.0078
Venus	-115240-02-03 12:43 J	-40369953.09	-40369952.97	-40369952.83	0.0089	0.0072
Venus	-115240-09-17 03:22 J	-40369727.49	-40369727.36	-40369727.19	0.0089	0.0066
Venus	-115239-04-30 18:15 J	-40369501.89	-40369501.74	-40369501.56	0.0089	0.0060
Venus	-115239-12-12 08:53 J	-40369276.29	-40369276.13	-40369275.93	0.0089	0.0054
Venus	-115238-07-25 23:46 J	-40369050.70	-40369050.51	-40369050.31	0.0089	0.0047
Venus	-115237-03-07 14:24 J	-40368825.09	-40368824.90	-40368824.69	0.0089	0.0041
Venus	-115237-10-19 05:03 J	-40368599.48	-40368599.29	-40368599.06	0.0089	0.0035
Venus	-115236-06-01 20:10 J	-40368373.88	-40368373.66	-40368373.45	0.0089	0.0028
Venus	-115235-01-13 10:34 J	-40368148.27	-40368148.06	-40368147.83	0.0089	0.0022
Venus	-115235-08-27 01:12 J	-40367922.67	-40367922.45	-40367922.22	0.0089	0.0016
Venus	-115234-04-09 16:05 J	-40367697.06	-40367696.83	-40367696.61	0.0089	0.0009
Venus	-115234-11-21 06:43 J	-40367471.45	-40367471.22	-40367470.99	0.0089	0.0003
Venus	-115233-07-03 21:22 J	-40367245.84	-40367245.61	-40367245.38	0.0089	0.0004
Venus	-115232-02-14 11:46 J	-40367020.23	-40367020.01	-40367019.78	0.0089	0.0010
Venus	-115232-09-28 02:24 J	-40366794.61	-40366794.40	-40366794.17	0.0089	0.0017
Earth	-115231-01-10 08:24 J	-40366690.27	-40366690.15	-40366689.99	0.0089	0.0075
Moon	-115231-01-10 12:15 J	-40366690.09	-40366689.99	-40366689.86	0.0089	0.0080 *
Venus	-115231-05-11 17:03 J	-40366569.00	-40366568.79	-40366568.56	0.0089	0.0023
Venus	-115231-12-23 07:41 J	-40366343.39	-40366343.18	-40366342.96	0.0089	0.0029
Moon	-115230-01-12 20:39 J	-40366322.86	-40366322.64	-40366322.39	0.0089	0.0040
Earth	-115230-01-13 00:15 J	-40366322.71	-40366322.49	-40366322.25	0.0089	0.0044 *
Venus	-115230-08-05 22:05 J	-40366117.78	-40366117.58	-40366117.36	0.0089	0.0036
Earth	-115229-01-15 15:51 J	-40365955.10	-40365954.84	-40365954.58	0.0089	0.0013

Moon -115229-01-15 19:12 J -40365954.96 -40365954.70 -40365954.43 0.0089 0.0018 *
 Venus -115229-03-18 12:43 J -40365892.16 -40365891.97 -40365891.76 0.0089 0.0042
 Venus -115229-10-30 03:22 J -40365666.54 -40365666.36 -40365666.16 0.0089 0.0048
 Moon -115228-01-17 04:19 J -40365587.56 -40365587.32 -40365587.06 0.0089 0.0023
 Earth -115228-01-17 06:43 J -40365587.47 -40365587.22 -40365586.95 0.0089 0.0018 *
 Venus -115228-06-12 18:00 J -40365440.92 -40365440.75 -40365440.56 0.0089 0.0054
 Earth -115227-01-19 21:36 J -40365219.80 -40365219.60 -40365219.36 0.0089 0.0049
 Moon -115227-01-19 23:17 J -40365219.75 -40365219.53 -40365219.28 0.0089 0.0045 *
 Venus -115227-01-24 08:10 J -40365215.31 -40365215.16 -40365214.98 0.0089 0.0061
 Venus -115227-09-06 22:34 J -40364989.69 -40364989.56 -40364989.39 0.0089 0.0067
 Earth -115226-01-22 12:15 J -40364852.08 -40364851.99 -40364851.85 0.0089 0.0080
 Moon -115226-01-22 12:00 J -40364852.07 -40364852.00 -40364851.92 0.0089 0.0084 *
 Venus -115226-04-20 12:58 J -40364764.07 -40364763.96 -40364763.81 0.0089 0.0073
 Venus -115226-12-02 03:22 J -40364538.44 -40364538.36 -40364538.24 0.0089 0.0079
 Venus -115225-07-14 17:31 J -40364312.81 -40364312.77 -40364312.68 0.0089 0.0085
 Mars -115219-07-22 06:43 J -40362114.24 -40362114.22 -40362114.16 0.0089 0.0088
 Mars -115217-06-15 17:03 J -40361419.87 -40361419.79 -40361419.63 0.0089 0.0082
 Mars -115215-05-11 04:48 J -40360725.43 -40360725.30 -40360725.11 0.0089 0.0075
 Mars -115213-04-04 18:15 J -40360030.93 -40360030.74 -40360030.53 0.0089 0.0067
 Mars -115211-02-28 08:53 J -40359336.33 -40359336.13 -40359335.87 0.0089 0.0060
 Mars -115209-01-24 00:29 J -40358641.70 -40358641.48 -40358641.19 0.0089 0.0052
 Mars -115208-12-18 17:31 J -40357947.03 -40357946.77 -40357946.48 0.0088 0.0043
 Mars -115206-11-13 12:29 J -40357252.26 -40357251.98 -40357251.68 0.0088 0.0034
 Mars -115204-10-08 09:22 J -40356557.40 -40356557.11 -40356556.80 0.0088 0.0025
 Mars -115202-09-03 06:58 J -40355862.51 -40355862.21 -40355861.89 0.0088 0.0016
 Mercury -115201-02-02 06:43 J -40355710.22 -40355710.22 -40355710.18 0.0088 0.0088
 Mercury -115201-04-30 08:39 J -40355622.18 -40355622.14 -40355622.09 0.0088 0.0083
 Mercury -115201-07-27 10:05 J -40355534.13 -40355534.08 -40355534.00 0.0088 0.0079
 Mercury -115201-10-23 11:46 J -40355446.07 -40355446.01 -40355445.92 0.0088 0.0074
 Mercury -115200-01-19 13:41 J -40355358.01 -40355357.93 -40355357.84 0.0088 0.0070

Mercury -115200-04-17 15:07 J -40355269.95 -40355269.87 -40355269.76 0.0088 0.0065

Mercury -115200-07-14 17:03 J -40355181.89 -40355181.79 -40355181.69 0.0088 0.0061

Mars -115200-07-29 06:58 J -40355167.53 -40355167.21 -40355166.89 0.0088 0.0006

Mercury -115200-10-10 18:29 J -40355093.83 -40355093.73 -40355093.61 0.0088 0.0057

Mercury -115199-01-06 19:55 J -40355005.77 -40355005.67 -40355005.54 0.0088 0.0053

Mercury -115199-04-04 21:51 J -40354917.71 -40354917.59 -40354917.47 0.0088 0.0048

Mercury -115199-07-01 23:17 J -40354829.64 -40354829.53 -40354829.40 0.0088 0.0044

Mercury -115199-09-28 00:58 J -40354741.58 -40354741.46 -40354741.33 0.0088 0.0039

Mercury -115199-12-25 02:39 J -40354653.52 -40354653.39 -40354653.26 0.0088 0.0035

Mercury -115198-03-23 04:19 J -40354565.45 -40354565.32 -40354565.19 0.0088 0.0031

Mercury -115198-06-19 05:46 J -40354477.39 -40354477.26 -40354477.12 0.0088 0.0026

Mars -115198-06-24 08:24 J -40354472.47 -40354472.15 -40354471.83 0.0088 0.0004

Mercury -115198-09-15 07:12 J -40354389.33 -40354389.20 -40354389.05 0.0088 0.0023

Mercury -115198-12-12 09:07 J -40354301.26 -40354301.12 -40354300.99 0.0088 0.0018

Mercury -115197-03-09 10:34 J -40354213.20 -40354213.06 -40354212.92 0.0088 0.0013

Mercury -115197-06-05 12:15 J -40354125.13 -40354124.99 -40354124.85 0.0088 0.0009

Mercury -115197-09-01 13:41 J -40354037.07 -40354036.93 -40354036.79 0.0088 0.0005

Mercury -115197-11-28 15:22 J -40353949.00 -40353948.86 -40353948.72 0.0088 0.0003

Mercury -115196-02-24 16:48 J -40353860.94 -40353860.80 -40353860.66 0.0088 0.0004

Mars -115196-05-19 11:03 J -40353777.35 -40353777.04 -40353776.71 0.0088 0.0014

Mercury -115196-05-23 18:15 J -40353772.87 -40353772.74 -40353772.59 0.0088 0.0008

Mercury -115196-08-19 19:55 J -40353684.81 -40353684.67 -40353684.53 0.0088 0.0012

Mercury -115196-11-15 21:22 J -40353596.74 -40353596.61 -40353596.47 0.0088 0.0016

Mercury -115195-02-11 22:48 J -40353508.68 -40353508.55 -40353508.41 0.0088 0.0021

Mercury -115195-05-11 00:29 J -40353420.61 -40353420.48 -40353420.35 0.0088 0.0025

Mercury -115195-08-07 01:55 J -40353332.55 -40353332.42 -40353332.28 0.0088 0.0029

Mercury -115195-11-03 03:22 J -40353244.48 -40353244.36 -40353244.22 0.0088 0.0033

Mercury -115194-01-30 04:48 J -40353156.42 -40353156.30 -40353156.17 0.0088 0.0037

Mars -115194-04-14 15:07 J -40353082.16 -40353081.87 -40353081.54 0.0088 0.0024

Mercury -115194-04-28 06:15 J -40353068.35 -40353068.24 -40353068.11 0.0088 0.0042

Mercury -115194-07-25 07:55 J -40352980.28 -40352980.17 -40352980.05 0.0088 0.0045

Mercury -115194-10-21 09:22 J -40352892.22 -40352892.11 -40352891.99 0.0088 0.0050

Mercury -115193-01-17 10:48 J -40352804.15 -40352804.05 -40352803.93 0.0088 0.0054

Mercury -115193-04-14 12:29 J -40352716.08 -40352715.98 -40352715.88 0.0088 0.0058

Mercury -115193-07-11 13:55 J -40352628.02 -40352627.92 -40352627.82 0.0088 0.0062

Mercury -115193-10-07 15:22 J -40352539.95 -40352539.86 -40352539.77 0.0088 0.0066

Mercury -115192-01-03 16:34 J -40352451.88 -40352451.81 -40352451.71 0.0088 0.0070

Mars -115192-03-09 21:36 J -40352386.89 -40352386.60 -40352386.29 0.0088 0.0033

Mercury -115192-04-01 18:00 J -40352363.81 -40352363.75 -40352363.66 0.0088 0.0075

Mercury -115192-06-28 19:27 J -40352275.73 -40352275.69 -40352275.61 0.0088 0.0079

Mercury -115192-09-24 20:53 J -40352187.66 -40352187.63 -40352187.56 0.0088 0.0083

Mercury -115192-12-21 22:19 J -40352099.58 -40352099.57 -40352099.52 0.0088 0.0087

Mars -115190-02-03 05:03 J -40351691.55 -40351691.29 -40351690.98 0.0088 0.0043

Mars -115189-12-29 14:10 J -40350996.17 -40350995.91 -40350995.64 0.0088 0.0052

Mars -115187-11-25 01:12 J -40350300.69 -40350300.45 -40350300.22 0.0088 0.0061

Mars -115185-10-20 12:29 J -40349605.17 -40349604.98 -40349604.76 0.0088 0.0070

Mars -115183-09-16 00:43 J -40348909.58 -40348909.47 -40348909.28 0.0088 0.0079

Mars -115181-08-11 15:36 J -40348213.89 -40348213.85 -40348213.75 0.0088 0.0087

Venus -115160-05-14 22:05 J -40340632.63 -40340632.58 -40340632.53 0.0088 0.0086

Venus -115160-12-26 09:07 J -40340407.19 -40340407.12 -40340407.02 0.0088 0.0081

Venus -115159-08-08 20:10 J -40340181.74 -40340181.66 -40340181.52 0.0088 0.0076

Venus -115158-03-22 07:55 J -40339956.28 -40339956.17 -40339956.03 0.0088 0.0070

Venus -115158-11-02 19:27 J -40339730.83 -40339730.69 -40339730.53 0.0088 0.0064

Venus -115157-06-15 06:29 J -40339505.37 -40339505.23 -40339505.05 0.0088 0.0059

Venus -115156-01-26 18:15 J -40339279.90 -40339279.74 -40339279.56 0.0088 0.0053

Venus -115156-09-09 05:46 J -40339054.43 -40339054.26 -40339054.08 0.0088 0.0047

Venus -115155-04-22 17:03 J -40338828.96 -40338828.79 -40338828.58 0.0088 0.0042

Venus -115155-12-04 04:34 J -40338603.49 -40338603.31 -40338603.10 0.0088 0.0036

Venus -115154-07-17 16:05 J -40338378.02 -40338377.83 -40338377.62 0.0088 0.0030

Venus -115153-02-28 03:51 J -40338152.54 -40338152.34 -40338152.14 0.0088 0.0024

Venus	-115153-10-10 15:22 J	-40337927.07	-40337926.86	-40337926.65	0.0088	0.0018
Venus	-115152-05-24 02:53 J	-40337701.59	-40337701.38	-40337701.17	0.0088	0.0012
Venus	-115151-01-04 14:24 J	-40337476.11	-40337475.90	-40337475.69	0.0088	0.0006
Venus	-115151-08-18 01:55 J	-40337250.63	-40337250.42	-40337250.21	0.0088	0.0000
Venus	-115150-03-31 13:27 J	-40337025.15	-40337024.94	-40337024.73	0.0088	0.0006
Venus	-115150-11-12 00:58 J	-40336799.67	-40336799.46	-40336799.25	0.0088	0.0011
Venus	-115149-06-24 12:15 J	-40336574.19	-40336573.99	-40336573.77	0.0089	0.0018
Earth	-115149-07-04 16:34 J	-40336563.92	-40336563.81	-40336563.66	0.0089	0.0076
Moon	-115149-07-04 18:43 J	-40336563.84	-40336563.72	-40336563.56	0.0089	0.0072 *
Venus	-115148-02-04 23:46 J	-40336348.71	-40336348.51	-40336348.30	0.0089	0.0023
Moon	-115148-07-06 21:36 J	-40336196.78	-40336196.60	-40336196.37	0.0089	0.0052
Earth	-115148-07-07 00:43 J	-40336196.67	-40336196.47	-40336196.25	0.0089	0.0047 *
Venus	-115148-09-18 11:31 J	-40336123.22	-40336123.02	-40336122.82	0.0089	0.0029
Venus	-115147-05-01 23:03 J	-40335897.73	-40335897.54	-40335897.34	0.0089	0.0035
Earth	-115147-07-09 08:39 J	-40335829.38	-40335829.14	-40335828.89	0.0089	0.0018
Moon	-115147-07-09 12:15 J	-40335829.23	-40335828.99	-40335828.74	0.0089	0.0014 *
Venus	-115147-12-13 10:19 J	-40335672.24	-40335672.07	-40335671.86	0.0089	0.0041
Moon	-115146-07-11 13:41 J	-40335462.17	-40335461.93	-40335461.68	0.0089	0.0006
Earth	-115146-07-11 16:48 J	-40335462.04	-40335461.80	-40335461.54	0.0089	0.0011 *
Venus	-115146-07-26 21:51 J	-40335446.75	-40335446.59	-40335446.39	0.0089	0.0047
Venus	-115145-03-08 09:50 J	-40335221.26	-40335221.09	-40335220.92	0.0089	0.0052
Earth	-115145-07-13 01:12 J	-40335094.68	-40335094.45	-40335094.23	0.0089	0.0039
Moon	-115145-07-13 04:05 J	-40335094.55	-40335094.33	-40335094.10	0.0089	0.0043 *
Venus	-115145-10-19 21:22 J	-40334995.77	-40334995.61	-40334995.44	0.0089	0.0058
Venus	-115144-06-02 08:53 J	-40334770.26	-40334770.13	-40334769.97	0.0089	0.0064
Moon	-115144-07-15 07:12 J	-40334727.35	-40334727.20	-40334727.02	0.0089	0.0064
Earth	-115144-07-15 09:22 J	-40334727.26	-40334727.11	-40334726.95	0.0089	0.0068 *
Venus	-115143-01-13 20:24 J	-40334544.76	-40334544.65	-40334544.50	0.0089	0.0070
Venus	-115143-08-27 08:24 J	-40334319.25	-40334319.15	-40334319.03	0.0089	0.0075
Venus	-115142-04-09 19:55 J	-40334093.74	-40334093.67	-40334093.57	0.0089	0.0081

Venus -115142-11-21 07:26 J -40333868.21 -40333868.19 -40333868.12 0.0089 0.0087
 Mars -115133-03-25 15:36 J -40330820.97 -40330820.85 -40330820.71 0.0089 0.0081
 Mars -115131-02-18 22:05 J -40330125.74 -40330125.58 -40330125.38 0.0089 0.0073
 Mars -115129-01-15 02:24 J -40329430.60 -40329430.40 -40329430.15 0.0089 0.0064
 Mars -115128-12-10 05:46 J -40328735.49 -40328735.26 -40328734.99 0.0089 0.0055
 Mars -115126-11-05 07:26 J -40328040.43 -40328040.19 -40328039.89 0.0089 0.0046
 Mars -115124-09-30 07:26 J -40327345.46 -40327345.19 -40327344.88 0.0089 0.0036
 Mars -115122-08-26 05:31 J -40326650.56 -40326650.27 -40326649.96 0.0089 0.0026
 Mars -115120-07-21 02:53 J -40325955.67 -40325955.38 -40325955.06 0.0089 0.0017
 Mars -115118-06-15 22:48 J -40325260.86 -40325260.55 -40325260.24 0.0089 0.0007
 Mercury -115118-10-04 23:31 J -40325149.56 -40325149.52 -40325149.47 0.0089 0.0085
 Mercury -115117-01-01 02:10 J -40325061.47 -40325061.41 -40325061.32 0.0089 0.0080
 Mercury -115117-03-29 05:02 J -40324973.37 -40324973.29 -40324973.18 0.0089 0.0075
 Mercury -115117-06-25 08:24 J -40324885.26 -40324885.15 -40324885.04 0.0089 0.0069
 Mercury -115117-09-21 11:02 J -40324797.15 -40324797.04 -40324796.91 0.0089 0.0064
 Mercury -115117-12-18 13:55 J -40324709.04 -40324708.92 -40324708.77 0.0089 0.0059
 Mercury -115116-03-16 17:17 J -40324620.92 -40324620.78 -40324620.64 0.0089 0.0053
 Mars -115116-05-10 15:50 J -40324566.15 -40324565.84 -40324565.53 0.0089 0.0003
 Mercury -115116-06-12 19:55 J -40324532.81 -40324532.67 -40324532.51 0.0089 0.0048
 Mercury -115116-09-08 22:48 J -40324444.69 -40324444.55 -40324444.37 0.0089 0.0043
 Mercury -115116-12-06 02:10 J -40324356.57 -40324356.41 -40324356.24 0.0089 0.0037
 Mercury -115115-03-04 05:02 J -40324268.45 -40324268.29 -40324268.11 0.0089 0.0032
 Mercury -115115-05-31 08:10 J -40324180.32 -40324180.16 -40324179.98 0.0089 0.0026
 Mercury -115115-08-27 11:17 J -40324092.20 -40324092.03 -40324091.85 0.0089 0.0021
 Mercury -115115-11-23 14:24 J -40324004.08 -40324003.90 -40324003.72 0.0089 0.0015
 Mercury -115114-02-19 17:17 J -40323915.95 -40323915.78 -40323915.59 0.0089 0.0010
 Mars -115114-04-05 08:10 J -40323871.47 -40323871.16 -40323870.85 0.0089 0.0012
 Mercury -115114-05-18 20:38 J -40323827.82 -40323827.64 -40323827.46 0.0089 0.0004
 Mercury -115114-08-14 23:46 J -40323739.69 -40323739.51 -40323739.33 0.0089 0.0002
 Mercury -115114-11-11 02:53 J -40323651.56 -40323651.38 -40323651.20 0.0089 0.0008

Mercury -115113-02-07 05:46 J -40323563.43 -40323563.26 -40323563.07 0.0089 0.0013

Mercury -115113-05-05 08:53 J -40323475.30 -40323475.13 -40323474.95 0.0089 0.0019

Mercury -115113-08-01 12:00 J -40323387.17 -40323387.00 -40323386.82 0.0089 0.0024

Mercury -115113-10-28 15:07 J -40323299.03 -40323298.87 -40323298.69 0.0089 0.0030

Mercury -115112-01-24 18:14 J -40323210.90 -40323210.74 -40323210.56 0.0089 0.0036

Mars -115112-02-27 22:34 J -40323176.85 -40323176.56 -40323176.25 0.0089 0.0022

Mercury -115112-04-22 21:36 J -40323122.76 -40323122.60 -40323122.44 0.0089 0.0041

Mercury -115112-07-20 00:43 J -40323034.62 -40323034.47 -40323034.31 0.0089 0.0047

Mercury -115112-10-16 03:36 J -40322946.48 -40322946.35 -40322946.18 0.0089 0.0053

Mercury -115111-01-12 07:12 J -40322858.34 -40322858.20 -40322858.06 0.0089 0.0058

Mercury -115111-04-10 10:19 J -40322770.19 -40322770.07 -40322769.94 0.0089 0.0064

Mercury -115111-07-07 13:26 J -40322682.04 -40322681.94 -40322681.82 0.0089 0.0070

Mercury -115111-10-03 16:34 J -40322593.89 -40322593.81 -40322593.70 0.0089 0.0076

Mercury -115111-12-30 20:10 J -40322505.73 -40322505.66 -40322505.59 0.0089 0.0081

Mars -115110-01-23 11:02 J -40322482.32 -40322482.04 -40322481.75 0.0089 0.0031

Mercury -115110-03-28 23:17 J -40322417.56 -40322417.53 -40322417.49 0.0089 0.0087

Mars -115109-12-17 22:19 J -40321787.83 -40321787.57 -40321787.29 0.0089 0.0040

Mars -115107-11-12 09:07 J -40321093.36 -40321093.12 -40321092.85 0.0089 0.0049

Mars -115105-10-06 17:31 J -40320398.96 -40320398.77 -40320398.50 0.0089 0.0059

Mars -115103-09-01 01:55 J -40319704.59 -40319704.42 -40319704.18 0.0089 0.0067

Jupiter -115102-04-19 21:50 J -40319473.96 -40319473.59 -40319473.10 0.0089 0.0057

Mars -115101-07-26 10:05 J -40319010.24 -40319010.08 -40319009.90 0.0089 0.0074

Mars -115099-06-20 15:22 J -40318315.96 -40318315.86 -40318315.71 0.0089 0.0081

Mars -115097-05-14 19:26 J -40317621.70 -40317621.69 -40317621.61 0.0089 0.0088

Venus -115077-02-11 17:46 J -40310409.82 -40310409.76 -40310409.66 0.0089 0.0083

Venus -115077-09-24 08:38 J -40310184.23 -40310184.14 -40310184.01 0.0089 0.0077

Venus -115076-05-07 23:17 J -40309958.64 -40309958.53 -40309958.36 0.0089 0.0071

Venus -115076-12-19 14:38 J -40309733.04 -40309732.89 -40309732.73 0.0089 0.0064

Venus -115075-08-02 05:02 J -40309507.45 -40309507.29 -40309507.10 0.0089 0.0058

Venus -115074-03-15 19:41 J -40309281.85 -40309281.68 -40309281.48 0.0089 0.0052

Venus	-115074-10-27 10:34 J	-40309056.24	-40309056.06	-40309055.85	0.0089	0.0046
Venus	-115073-06-09 01:41 J	-40308830.63	-40308830.43	-40308830.22	0.0089	0.0039
Venus	-115072-01-20 16:05 J	-40308605.03	-40308604.83	-40308604.61	0.0089	0.0033
Venus	-115072-09-03 06:43 J	-40308379.42	-40308379.22	-40308378.99	0.0089	0.0027
Venus	-115071-04-16 21:36 J	-40308153.82	-40308153.60	-40308153.37	0.0089	0.0020
Venus	-115071-11-28 12:14 J	-40307928.21	-40307927.99	-40307927.76	0.0089	0.0014
Venus	-115070-07-12 02:53 J	-40307702.61	-40307702.38	-40307702.15	0.0089	0.0008
Venus	-115069-02-22 17:31 J	-40307477.00	-40307476.77	-40307476.54	0.0089	0.0001
Venus	-115069-10-05 08:10 J	-40307251.38	-40307251.16	-40307250.93	0.0089	0.0006
Venus	-115068-05-18 22:48 J	-40307025.77	-40307025.55	-40307025.32	0.0089	0.0012
Venus	-115068-12-30 13:26 J	-40306800.16	-40306799.94	-40306799.72	0.0089	0.0018
Earth	-115067-01-09 16:34 J	-40306789.82	-40306789.81	-40306789.75	0.0089	0.0088
Venus	-115067-08-13 03:36 J	-40306574.55	-40306574.35	-40306574.12	0.0089	0.0025
Earth	-115066-01-12 08:10 J	-40306422.34	-40306422.16	-40306421.93	0.0089	0.0057
Moon	-115066-01-12 09:50 J	-40306422.28	-40306422.09	-40306421.85	0.0089	0.0055 *
Venus	-115066-03-26 18:14 J	-40306348.94	-40306348.74	-40306348.51	0.0089	0.0031
Venus	-115066-11-07 09:07 J	-40306123.32	-40306123.12	-40306122.91	0.0089	0.0037
Moon	-115065-01-14 23:17 J	-40306054.77	-40306054.53	-40306054.28	0.0089	0.0027
Earth	-115065-01-14 23:46 J	-40306054.75	-40306054.51	-40306054.24	0.0089	0.0026 *
Venus	-115065-06-19 23:17 J	-40305897.71	-40305897.53	-40305897.31	0.0089	0.0044
Moon	-115064-01-16 15:07 J	-40305687.14	-40305686.87	-40305686.59	0.0089	0.0007
Earth	-115064-01-16 15:22 J	-40305687.12	-40305686.86	-40305686.59	0.0089	0.0006 *
Venus	-115064-01-31 13:55 J	-40305672.09	-40305671.92	-40305671.71	0.0089	0.0050
Venus	-115064-09-14 04:34 J	-40305446.47	-40305446.31	-40305446.12	0.0089	0.0056
Earth	-115063-01-19 06:29 J	-40305319.46	-40305319.23	-40305318.98	0.0089	0.0037
Moon	-115063-01-19 08:10 J	-40305319.38	-40305319.16	-40305318.91	0.0089	0.0036 *
Venus	-115063-04-27 19:12 J	-40305220.85	-40305220.70	-40305220.53	0.0089	0.0062
Venus	-115063-12-09 09:50 J	-40304995.23	-40304995.09	-40304994.94	0.0089	0.0068
Moon	-115062-01-21 18:43 J	-40304951.86	-40304951.72	-40304951.52	0.0089	0.0069
Earth	-115062-01-21 21:22 J	-40304951.76	-40304951.61	-40304951.42	0.0089	0.0068 *

Venus -115062-07-23 00:14 J -40304769.61 -40304769.49 -40304769.36 0.0089 0.0074

Venus -115061-03-04 14:38 J -40304543.98 -40304543.89 -40304543.79 0.0089 0.0080

Venus -115061-10-16 05:17 J -40304318.33 -40304318.28 -40304318.23 0.0089 0.0086

Mars -115053-01-29 20:38 J -40301656.70 -40301656.64 -40301656.50 0.0089 0.0084

Mars -115052-12-24 08:24 J -40300962.30 -40300962.15 -40300961.99 0.0089 0.0076

Mars -115050-11-18 19:55 J -40300267.83 -40300267.67 -40300267.44 0.0089 0.0069

Mars -115048-10-13 08:24 J -40299573.34 -40299573.15 -40299572.89 0.0089 0.0061

Mars -115046-09-07 23:31 J -40298878.74 -40298878.52 -40298878.24 0.0089 0.0052

Mars -115044-08-02 16:05 J -40298184.09 -40298183.83 -40298183.55 0.0089 0.0043

Mars -115042-06-28 09:07 J -40297489.40 -40297489.12 -40297488.82 0.0088 0.0034

Mars -115040-05-23 03:50 J -40296794.62 -40296794.34 -40296794.02 0.0088 0.0025

Mars -115038-04-18 01:41 J -40296099.73 -40296099.43 -40296099.11 0.0088 0.0015

Mercury -115037-08-02 05:31 J -40295627.27 -40295627.27 -40295627.27 0.0088 0.0088

Mercury -115037-10-29 07:12 J -40295539.24 -40295539.20 -40295539.16 0.0088 0.0084

Mercury -115036-01-25 08:38 J -40295451.19 -40295451.14 -40295451.07 0.0088 0.0080

Mars -115036-03-13 00:00 J -40295404.81 -40295404.50 -40295404.18 0.0088 0.0005

Mercury -115036-04-23 10:05 J -40295363.14 -40295363.08 -40295362.99 0.0088 0.0076

Mercury -115036-07-20 12:00 J -40295275.08 -40295275.00 -40295274.91 0.0088 0.0071

Mercury -115036-10-16 13:41 J -40295187.02 -40295186.93 -40295186.83 0.0088 0.0066

Mercury -115035-01-12 15:07 J -40295098.96 -40295098.87 -40295098.75 0.0088 0.0062

Mercury -115035-04-10 17:02 J -40295010.89 -40295010.79 -40295010.68 0.0088 0.0058

Mercury -115035-07-07 18:29 J -40294922.83 -40294922.73 -40294922.61 0.0088 0.0054

Mercury -115035-10-03 20:24 J -40294834.77 -40294834.65 -40294834.53 0.0088 0.0049

Mercury -115035-12-30 21:50 J -40294746.71 -40294746.59 -40294746.46 0.0088 0.0045

Mars -115034-02-05 23:31 J -40294709.83 -40294709.52 -40294709.20 0.0088 0.0005

Mercury -115034-03-28 23:17 J -40294658.64 -40294658.53 -40294658.39 0.0088 0.0041

Mercury -115034-06-25 01:12 J -40294570.58 -40294570.45 -40294570.32 0.0088 0.0036

Mercury -115034-09-21 02:38 J -40294482.52 -40294482.39 -40294482.25 0.0088 0.0032

Mercury -115034-12-18 04:19 J -40294394.45 -40294394.32 -40294394.18 0.0088 0.0027

Mercury -115033-03-15 05:46 J -40294306.39 -40294306.26 -40294306.12 0.0088 0.0023

Mercury -115033-06-11 07:26 J -40294218.32 -40294218.19 -40294218.05 0.0088 0.0019

Mercury -115033-09-07 09:07 J -40294130.26 -40294130.12 -40294129.98 0.0088 0.0014

Mercury -115033-12-04 10:34 J -40294042.19 -40294042.06 -40294041.91 0.0088 0.0011

Mars -115032-01-01 00:58 J -40294014.76 -40294014.46 -40294014.13 0.0088 0.0016

Mercury -115032-03-02 12:14 J -40293954.13 -40293953.99 -40293953.85 0.0088 0.0006

Mercury -115032-05-29 13:41 J -40293866.07 -40293865.93 -40293865.78 0.0088 0.0004

Mercury -115032-08-25 15:22 J -40293778.00 -40293777.86 -40293777.72 0.0088 0.0003

Mercury -115032-11-21 16:48 J -40293689.94 -40293689.80 -40293689.66 0.0088 0.0007

Mercury -115031-02-17 18:29 J -40293601.87 -40293601.73 -40293601.59 0.0088 0.0011

Mercury -115031-05-16 19:55 J -40293513.81 -40293513.67 -40293513.53 0.0088 0.0015

Mercury -115031-08-12 21:22 J -40293425.74 -40293425.61 -40293425.47 0.0088 0.0020

Mercury -115031-11-08 23:02 J -40293337.67 -40293337.54 -40293337.40 0.0088 0.0024

Mars -115031-11-27 03:36 J -40293319.64 -40293319.35 -40293319.02 0.0088 0.0026

Mercury -115030-02-05 00:29 J -40293249.61 -40293249.48 -40293249.34 0.0088 0.0028

Mercury -115030-05-04 01:55 J -40293161.54 -40293161.42 -40293161.28 0.0088 0.0032

Mercury -115030-07-31 03:22 J -40293073.48 -40293073.36 -40293073.22 0.0088 0.0037

Mercury -115030-10-27 05:02 J -40292985.41 -40292985.29 -40292985.16 0.0088 0.0040

Mercury -115029-01-23 06:29 J -40292897.34 -40292897.23 -40292897.11 0.0088 0.0044

Mercury -115029-04-20 07:55 J -40292809.28 -40292809.17 -40292809.05 0.0088 0.0049

Mercury -115029-07-17 09:22 J -40292721.21 -40292721.11 -40292720.99 0.0088 0.0053

Mercury -115029-10-13 11:02 J -40292633.14 -40292633.04 -40292632.93 0.0088 0.0057

Mars -115029-10-22 07:55 J -40292624.45 -40292624.17 -40292623.86 0.0088 0.0035

Mercury -115028-01-09 12:29 J -40292545.08 -40292544.98 -40292544.88 0.0088 0.0061

Mercury -115028-04-07 13:55 J -40292457.01 -40292456.92 -40292456.82 0.0088 0.0065

Mercury -115028-07-04 15:36 J -40292368.94 -40292368.85 -40292368.77 0.0088 0.0069

Mercury -115028-09-30 16:34 J -40292280.87 -40292280.81 -40292280.72 0.0088 0.0074

Mercury -115028-12-27 18:00 J -40292192.80 -40292192.75 -40292192.66 0.0088 0.0078

Mercury -115027-03-25 19:41 J -40292104.72 -40292104.68 -40292104.62 0.0088 0.0081

Mercury -115027-06-21 21:07 J -40292016.64 -40292016.62 -40292016.57 0.0088 0.0085

Mars -115027-09-17 14:10 J -40291929.16 -40291928.91 -40291928.60 0.0088 0.0046

Mars	-115025-08-12 23:02 J	-40291233.79	-40291233.54	-40291233.28	0.0088	0.0055
Mars	-115023-07-09 08:10 J	-40290538.36	-40290538.16	-40290537.91	0.0088	0.0065
Mars	-115021-06-03 19:41 J	-40289842.84	-40289842.68	-40289842.49	0.0088	0.0074
Mars	-115019-04-30 07:41 J	-40289147.27	-40289147.18	-40289147.04	0.0088	0.0083

115TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 115th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-114996-08-16 11:17 J	-40280638.07	-40280638.03	-40280637.95	0.0088	0.0085		
Venus	-114995-03-29 23:02 J	-40280412.63	-40280412.54	-40280412.44	0.0088	0.0079		
Venus	-114995-11-10 10:05 J	-40280187.17	-40280187.08	-40280186.94	0.0088	0.0074		
Venus	-114994-06-23 21:50 J	-40279961.72	-40279961.59	-40279961.45	0.0088	0.0068		
Venus	-114993-02-04 08:53 J	-40279736.26	-40279736.13	-40279735.96	0.0088	0.0063		
Venus	-114993-09-16 20:24 J	-40279510.80	-40279510.65	-40279510.47	0.0088	0.0057		
Venus	-114992-04-30 07:41 J	-40279285.33	-40279285.18	-40279284.98	0.0088	0.0052		
Venus	-114992-12-11 19:12 J	-40279059.86	-40279059.70	-40279059.50	0.0088	0.0046		
Venus	-114991-07-25 06:43 J	-40278834.40	-40278834.22	-40278834.02	0.0088	0.0040		
Venus	-114990-03-07 18:14 J	-40278608.93	-40278608.74	-40278608.53	0.0088	0.0034		
Venus	-114990-10-19 05:31 J	-40278383.45	-40278383.27	-40278383.05	0.0088	0.0029		
Venus	-114989-05-31 17:17 J	-40278157.98	-40278157.78	-40278157.57	0.0088	0.0022		

Venus -114988-01-12 04:48 J -40277932.50 -40277932.30 -40277932.09 0.0088 0.0016
 Venus -114988-08-25 16:19 J -40277707.03 -40277706.82 -40277706.61 0.0088 0.0010
 Venus -114987-04-08 04:05 J -40277481.54 -40277481.33 -40277481.12 0.0088 0.0005
 Venus -114987-11-19 15:36 J -40277256.06 -40277255.85 -40277255.64 0.0088 0.0002
 Venus -114986-07-03 02:53 J -40277030.59 -40277030.38 -40277030.16 0.0088 0.0008
 Venus -114985-02-13 14:24 J -40276805.10 -40276804.90 -40276804.68 0.0088 0.0013
 Moon -114985-07-04 04:19 J -40276663.35 -40276663.32 -40276663.25 0.0088 0.0087
 Earth -114985-07-04 08:10 J -40276663.19 -40276663.16 -40276663.10 0.0088 0.0087
 Venus -114985-09-26 02:10 J -40276579.62 -40276579.41 -40276579.20 0.0088 0.0019
 Venus -114984-05-09 13:41 J -40276354.13 -40276353.93 -40276353.72 0.0088 0.0025
 Earth -114984-07-06 15:36 J -40276296.02 -40276295.85 -40276295.65 0.0088 0.0059
 Moon -114984-07-06 18:43 J -40276295.89 -40276295.72 -40276295.51 0.0088 0.0059 *
 Venus -114984-12-21 01:12 J -40276128.64 -40276128.45 -40276128.24 0.0088 0.0031
 Moon -114983-07-08 20:38 J -40275928.85 -40275928.64 -40275928.39 0.0089 0.0031
 Earth -114983-07-08 23:46 J -40275928.73 -40275928.51 -40275928.26 0.0089 0.0030 *
 Venus -114983-08-03 12:29 J -40275903.16 -40275902.98 -40275902.77 0.0089 0.0037
 Venus -114982-03-17 00:00 J -40275677.67 -40275677.50 -40275677.30 0.0089 0.0043
 Earth -114982-07-11 07:55 J -40275561.42 -40275561.17 -40275560.92 0.0089 0.0002
 Moon -114982-07-11 09:36 J -40275561.35 -40275561.10 -40275560.84 0.0089 0.0001 *
 Venus -114982-10-28 11:46 J -40275452.18 -40275452.01 -40275451.82 0.0089 0.0048
 Venus -114981-06-09 23:31 J -40275226.68 -40275226.52 -40275226.34 0.0089 0.0054
 Moon -114981-07-12 15:36 J -40275194.07 -40275193.85 -40275193.61 0.0089 0.0029
 Earth -114981-07-12 15:50 J -40275194.06 -40275193.84 -40275193.59 0.0089 0.0028 *
 Venus -114980-01-21 10:48 J -40275001.19 -40275001.05 -40275000.87 0.0089 0.0060
 Moon -114980-07-14 23:46 J -40274826.71 -40274826.51 -40274826.31 0.0089 0.0057
 Earth -114980-07-15 00:14 J -40274826.67 -40274826.49 -40274826.29 0.0089 0.0057 *
 Venus -114980-09-03 22:48 J -40274775.69 -40274775.55 -40274775.40 0.0089 0.0065
 Venus -114979-04-17 10:19 J -40274550.18 -40274550.07 -40274549.93 0.0089 0.0071
 Earth -114979-07-17 08:24 J -40274459.19 -40274459.15 -40274459.08 0.0089 0.0086
 Moon -114979-07-17 10:19 J -40274459.09 -40274459.07 -40274458.99 0.0089 0.0087 *

Venus -114979-11-28 21:50 J -40274324.68 -40274324.59 -40274324.47 0.0089 0.0077

Venus -114978-07-12 09:50 J -40274099.16 -40274099.09 -40274099.01 0.0089 0.0082

Venus -114977-02-22 21:07 J -40273873.63 -40273873.62 -40273873.57 0.0089 0.0088

Mars -114970-11-08 02:38 J -40271058.47 -40271058.39 -40271058.26 0.0089 0.0084

Mars -114968-10-03 09:36 J -40270363.24 -40270363.10 -40270362.90 0.0089 0.0075

Mars -114966-08-29 15:50 J -40269668.02 -40269667.84 -40269667.59 0.0089 0.0066

Mars -114964-07-24 20:38 J -40268972.88 -40268972.64 -40268972.38 0.0089 0.0056

Mars -114962-06-20 00:00 J -40268277.77 -40268277.50 -40268277.23 0.0089 0.0046

Mars -114960-05-15 01:12 J -40267582.71 -40267582.45 -40267582.13 0.0089 0.0037

Mars -114958-04-10 01:12 J -40266887.74 -40266887.45 -40266887.14 0.0089 0.0026

Mars -114956-03-04 22:34 J -40266192.86 -40266192.56 -40266192.24 0.0089 0.0016

Mars -114954-01-28 19:12 J -40265498.01 -40265497.70 -40265497.39 0.0089 0.0006

Mercury -114953-04-03 19:41 J -40265066.69 -40265066.68 -40265066.62 0.0089 0.0087

Mercury -114953-06-30 23:02 J -40264978.60 -40264978.54 -40264978.47 0.0089 0.0081

Mercury -114953-09-27 01:41 J -40264890.50 -40264890.43 -40264890.33 0.0089 0.0076

Mars -114953-12-23 14:24 J -40264803.21 -40264802.90 -40264802.58 0.0089 0.0004

Mercury -114953-12-24 04:34 J -40264802.40 -40264802.31 -40264802.19 0.0089 0.0071

Mercury -114952-03-22 07:26 J -40264714.29 -40264714.19 -40264714.05 0.0089 0.0066

Mercury -114952-06-18 10:34 J -40264626.18 -40264626.06 -40264625.92 0.0089 0.0060

Mercury -114952-09-14 13:26 J -40264538.06 -40264537.94 -40264537.79 0.0089 0.0055

Mercury -114952-12-11 16:48 J -40264449.95 -40264449.80 -40264449.65 0.0089 0.0049

Mercury -114951-03-09 19:26 J -40264361.83 -40264361.69 -40264361.52 0.0089 0.0044

Mercury -114951-06-05 22:34 J -40264273.71 -40264273.56 -40264273.39 0.0089 0.0039

Mercury -114951-09-02 01:41 J -40264185.59 -40264185.43 -40264185.26 0.0089 0.0033

Mars -114951-11-18 06:58 J -40264108.51 -40264108.21 -40264107.89 0.0089 0.0014

Mercury -114951-11-29 04:34 J -40264097.47 -40264097.31 -40264097.13 0.0089 0.0028

Mercury -114950-02-25 07:41 J -40264009.35 -40264009.18 -40264009.00 0.0089 0.0022

Mercury -114950-05-24 10:48 J -40263921.22 -40263921.05 -40263920.87 0.0089 0.0017

Mercury -114950-08-20 13:55 J -40263833.10 -40263832.92 -40263832.74 0.0089 0.0011

Mercury -114950-11-16 17:02 J -40263744.97 -40263744.79 -40263744.61 0.0089 0.0006

Mercury -114949-02-12 20:10 J -40263656.84 -40263656.66 -40263656.48 0.0089 0.0002

Mercury -114949-05-10 23:02 J -40263568.72 -40263568.54 -40263568.35 0.0089 0.0006

Mercury -114949-08-07 02:10 J -40263480.59 -40263480.41 -40263480.23 0.0089 0.0011

Mars -114949-10-12 22:48 J -40263413.84 -40263413.55 -40263413.24 0.0089 0.0024

Mercury -114949-11-03 05:17 J -40263392.45 -40263392.28 -40263392.10 0.0089 0.0017

Mercury -114948-01-30 08:24 J -40263304.32 -40263304.15 -40263303.97 0.0089 0.0023

Mercury -114948-04-28 11:31 J -40263216.19 -40263216.02 -40263215.84 0.0089 0.0028

Mercury -114948-07-25 14:38 J -40263128.05 -40263127.89 -40263127.71 0.0089 0.0034

Mercury -114948-10-21 17:46 J -40263039.91 -40263039.76 -40263039.59 0.0089 0.0040

Mercury -114947-01-17 21:07 J -40262951.78 -40262951.62 -40262951.46 0.0089 0.0045

Mercury -114947-04-16 00:00 J -40262863.64 -40262863.50 -40262863.34 0.0089 0.0051

Mercury -114947-07-13 03:07 J -40262775.49 -40262775.37 -40262775.21 0.0089 0.0057

Mars -114947-09-07 13:26 J -40262719.20 -40262718.94 -40262718.63 0.0089 0.0034

Mercury -114947-10-09 06:43 J -40262687.35 -40262687.22 -40262687.09 0.0089 0.0062

Mercury -114946-01-05 09:50 J -40262599.20 -40262599.09 -40262598.97 0.0089 0.0068

Mercury -114946-04-03 12:58 J -40262511.05 -40262510.96 -40262510.85 0.0089 0.0074

Mercury -114946-06-30 16:05 J -40262422.89 -40262422.83 -40262422.74 0.0089 0.0080

Mercury -114946-09-26 19:41 J -40262334.73 -40262334.68 -40262334.63 0.0089 0.0086

Mars -114945-08-02 02:53 J -40262024.64 -40262024.38 -40262024.10 0.0089 0.0043

Mars -114943-06-27 13:55 J -40261330.16 -40261329.92 -40261329.66 0.0089 0.0052

Mars -114941-05-22 00:14 J -40260635.68 -40260635.49 -40260635.24 0.0089 0.0061

Mars -114939-04-16 09:22 J -40259941.29 -40259941.11 -40259940.91 0.0089 0.0070

Mars -114937-03-10 16:34 J -40259246.95 -40259246.81 -40259246.66 0.0089 0.0078

Mars -114935-02-02 23:02 J -40258552.60 -40258552.54 -40258552.43 0.0089 0.0085

Venus -114914-10-02 13:26 J -40250640.94 -40250640.94 -40250640.87 0.0089 0.0088

Venus -114913-05-15 04:48 J -40250415.38 -40250415.30 -40250415.20 0.0089 0.0081

Venus -114913-12-26 19:26 J -40250189.80 -40250189.69 -40250189.56 0.0089 0.0075

Venus -114912-08-09 10:05 J -40249964.21 -40249964.08 -40249963.92 0.0089 0.0069

Venus -114911-03-23 00:43 J -40249738.61 -40249738.47 -40249738.29 0.0089 0.0063

Venus -114911-11-03 15:36 J -40249513.00 -40249512.85 -40249512.65 0.0089 0.0057

Venus	-114910-06-17 06:43 J	-40249287.40	-40249287.22	-40249287.03	0.0089	0.0050
Venus	-114909-01-28 21:22 J	-40249061.80	-40249061.61	-40249061.40	0.0089	0.0044
Venus	-114909-09-10 12:00 J	-40248836.19	-40248836.00	-40248835.77	0.0089	0.0038
Venus	-114908-04-24 03:07 J	-40248610.58	-40248610.37	-40248610.15	0.0089	0.0031
Venus	-114908-12-05 17:46 J	-40248384.97	-40248384.76	-40248384.53	0.0089	0.0025
Venus	-114907-07-19 08:24 J	-40248159.37	-40248159.15	-40248158.92	0.0089	0.0019
Venus	-114906-03-01 23:17 J	-40247933.76	-40247933.53	-40247933.30	0.0089	0.0012
Venus	-114906-10-13 13:55 J	-40247708.14	-40247707.92	-40247707.69	0.0089	0.0006
Venus	-114905-05-26 04:48 J	-40247482.53	-40247482.30	-40247482.07	0.0089	0.0001
Venus	-114904-01-06 19:12 J	-40247256.92	-40247256.70	-40247256.47	0.0089	0.0007
Venus	-114904-08-20 09:50 J	-40247031.32	-40247031.09	-40247030.86	0.0089	0.0013
Venus	-114903-04-03 00:14 J	-40246805.71	-40246805.49	-40246805.26	0.0089	0.0020
Venus	-114903-11-14 14:53 J	-40246580.09	-40246579.88	-40246579.65	0.0089	0.0026
Earth	-114902-01-11 17:02 J	-40246521.94	-40246521.79	-40246521.60	0.0089	0.0069
Moon	-114902-01-11 18:00 J	-40246521.87	-40246521.75	-40246521.57	0.0089	0.0073 *
Venus	-114902-06-28 05:17 J	-40246354.48	-40246354.28	-40246354.05	0.0089	0.0033
Moon	-114901-01-14 06:00 J	-40246154.49	-40246154.25	-40246153.99	0.0089	0.0035
Earth	-114901-01-14 08:38 J	-40246154.36	-40246154.14	-40246153.88	0.0089	0.0038 *
Venus	-114901-02-08 19:55 J	-40246128.86	-40246128.67	-40246128.45	0.0089	0.0039
Venus	-114901-09-21 10:34 J	-40245903.25	-40245903.06	-40245902.86	0.0089	0.0045
Earth	-114900-01-16 00:14 J	-40245786.75	-40245786.49	-40245786.22	0.0089	0.0007
Moon	-114900-01-16 03:22 J	-40245786.62	-40245786.36	-40245786.10	0.0089	0.0010 *
Venus	-114900-05-05 01:12 J	-40245677.63	-40245677.45	-40245677.26	0.0089	0.0051
Venus	-114900-12-16 15:22 J	-40245452.01	-40245451.86	-40245451.67	0.0089	0.0058
Moon	-114899-01-18 11:46 J	-40245419.25	-40245419.01	-40245418.74	0.0089	0.0029
Earth	-114899-01-18 15:22 J	-40245419.10	-40245418.86	-40245418.59	0.0089	0.0025 *
Venus	-114899-07-30 05:46 J	-40245226.39	-40245226.26	-40245226.08	0.0089	0.0064
Earth	-114898-01-21 06:14 J	-40245051.42	-40245051.24	-40245051.01	0.0089	0.0056
Moon	-114898-01-21 10:05 J	-40245051.28	-40245051.08	-40245050.85	0.0089	0.0052 *
Venus	-114898-03-12 20:24 J	-40245000.77	-40245000.65	-40245000.50	0.0089	0.0070

Venus -114898-10-24 11:02 J -40244775.14 -40244775.04 -40244774.91 0.0089 0.0076

Earth -114897-01-23 20:53 J -40244683.65 -40244683.63 -40244683.53 0.0089 0.0087

Venus -114897-06-06 01:26 J -40244549.51 -40244549.44 -40244549.34 0.0089 0.0082

Venus -114896-01-17 15:50 J -40244323.85 -40244323.84 -40244323.79 0.0089 0.0088

Mars -114890-09-14 00:58 J -40241893.51 -40241893.46 -40241893.35 0.0089 0.0086

Mars -114888-08-08 10:34 J -40241199.20 -40241199.06 -40241198.92 0.0089 0.0078

Mars -114886-07-03 21:07 J -40240504.80 -40240504.62 -40240504.43 0.0089 0.0070

Mars -114884-05-28 09:22 J -40239810.31 -40239810.11 -40239809.87 0.0089 0.0062

Mars -114882-04-22 22:48 J -40239115.78 -40239115.55 -40239115.28 0.0089 0.0053

Mars -114880-03-17 13:55 J -40238421.16 -40238420.92 -40238420.62 0.0089 0.0044

Mars -114878-02-10 07:12 J -40237726.48 -40237726.20 -40237725.90 0.0088 0.0034

Mars -114876-01-05 00:29 J -40237031.76 -40237031.48 -40237031.16 0.0088 0.0025

Mars -114875-11-30 19:41 J -40236336.98 -40236336.68 -40236336.36 0.0088 0.0014

Mars -114873-10-25 17:02 J -40235642.10 -40235641.79 -40235641.47 0.0088 0.0004

Mercury -114872-04-29 05:02 J -40235456.31 -40235456.29 -40235456.23 0.0088 0.0086

Mercury -114872-07-26 06:58 J -40235368.26 -40235368.21 -40235368.14 0.0088 0.0081

Mercury -114872-10-22 08:38 J -40235280.20 -40235280.14 -40235280.06 0.0088 0.0076

Mercury -114871-01-18 10:34 J -40235192.14 -40235192.06 -40235191.98 0.0088 0.0072

Mercury -114871-04-16 12:00 J -40235104.08 -40235104.00 -40235103.90 0.0088 0.0068

Mercury -114871-07-13 13:41 J -40235016.02 -40235015.93 -40235015.82 0.0088 0.0063

Mars -114871-09-20 16:05 J -40234947.15 -40234946.83 -40234946.51 0.0088 0.0006

Mercury -114871-10-09 15:22 J -40234927.96 -40234927.86 -40234927.75 0.0088 0.0059

Mercury -114870-01-05 17:02 J -40234839.90 -40234839.79 -40234839.67 0.0088 0.0054

Mercury -114870-04-03 18:29 J -40234751.83 -40234751.73 -40234751.60 0.0088 0.0051

Mercury -114870-06-30 20:24 J -40234663.77 -40234663.65 -40234663.53 0.0088 0.0046

Mercury -114870-09-26 21:50 J -40234575.71 -40234575.59 -40234575.45 0.0088 0.0042

Mercury -114870-12-23 23:46 J -40234487.64 -40234487.51 -40234487.38 0.0088 0.0037

Mercury -114869-03-21 01:12 J -40234399.58 -40234399.45 -40234399.31 0.0088 0.0033

Mercury -114869-06-17 02:53 J -40234311.51 -40234311.38 -40234311.24 0.0088 0.0028

Mars -114869-08-15 15:36 J -40234252.15 -40234251.85 -40234251.53 0.0088 0.0017

Mercury -114869-09-13 04:19 J -40234223.45 -40234223.32 -40234223.18 0.0088 0.0024
 Mercury -114869-12-10 06:00 J -40234135.38 -40234135.25 -40234135.11 0.0088 0.0020
 Mercury -114868-03-08 07:41 J -40234047.32 -40234047.18 -40234047.04 0.0088 0.0015
 Mercury -114868-06-04 09:07 J -40233959.25 -40233959.12 -40233958.97 0.0088 0.0012
 Mercury -114868-08-31 10:48 J -40233871.19 -40233871.05 -40233870.91 0.0088 0.0007
 Mercury -114868-11-27 12:29 J -40233783.12 -40233782.98 -40233782.84 0.0088 0.0003
 Mercury -114867-02-23 13:55 J -40233695.06 -40233694.92 -40233694.78 0.0088 0.0002
 Mercury -114867-05-22 15:36 J -40233606.99 -40233606.85 -40233606.71 0.0088 0.0006
 Mars -114867-07-11 17:46 J -40233557.05 -40233556.76 -40233556.44 0.0088 0.0028
 Mercury -114867-08-18 17:02 J -40233518.93 -40233518.79 -40233518.65 0.0088 0.0010
 Mercury -114867-11-14 18:29 J -40233430.86 -40233430.73 -40233430.59 0.0088 0.0015
 Mercury -114866-02-10 20:10 J -40233342.80 -40233342.66 -40233342.52 0.0088 0.0019
 Mercury -114866-05-09 21:36 J -40233254.73 -40233254.60 -40233254.46 0.0088 0.0023
 Mercury -114866-08-05 23:02 J -40233166.67 -40233166.54 -40233166.40 0.0088 0.0027
 Mercury -114866-11-02 00:29 J -40233078.60 -40233078.48 -40233078.34 0.0088 0.0032
 Mercury -114865-01-29 02:10 J -40232990.53 -40232990.41 -40232990.28 0.0088 0.0035
 Mercury -114865-04-26 03:36 J -40232902.47 -40232902.35 -40232902.22 0.0088 0.0039
 Mars -114865-06-05 21:36 J -40232861.88 -40232861.60 -40232861.30 0.0088 0.0038
 Mercury -114865-07-23 05:02 J -40232814.40 -40232814.29 -40232814.16 0.0088 0.0044
 Mercury -114865-10-19 06:43 J -40232726.34 -40232726.22 -40232726.10 0.0088 0.0048
 Mercury -114864-01-15 08:10 J -40232638.27 -40232638.16 -40232638.04 0.0088 0.0052
 Mercury -114864-04-13 09:36 J -40232550.20 -40232550.10 -40232549.99 0.0088 0.0056
 Mercury -114864-07-10 11:17 J -40232462.13 -40232462.03 -40232461.93 0.0088 0.0060
 Mercury -114864-10-06 12:29 J -40232374.07 -40232373.98 -40232373.88 0.0088 0.0064
 Mercury -114863-01-02 13:55 J -40232286.00 -40232285.92 -40232285.82 0.0088 0.0068
 Mercury -114863-03-31 15:22 J -40232197.93 -40232197.86 -40232197.77 0.0088 0.0072
 Mars -114863-05-02 02:24 J -40232166.66 -40232166.40 -40232166.12 0.0088 0.0048
 Mercury -114863-06-27 16:48 J -40232109.85 -40232109.80 -40232109.72 0.0088 0.0076
 Mercury -114863-09-23 18:14 J -40232021.78 -40232021.74 -40232021.67 0.0088 0.0080
 Mercury -114863-12-20 19:41 J -40231933.70 -40231933.68 -40231933.62 0.0088 0.0084

Mercury -114862-03-18 21:22 J -40231845.61 -40231845.61 -40231845.59 0.0088 0.0088

Mars -114861-03-27 08:53 J -40231471.37 -40231471.13 -40231470.88 0.0088 0.0058

Mars -114859-02-20 17:02 J -40230775.98 -40230775.79 -40230775.56 0.0088 0.0068

Mars -114857-01-17 02:10 J -40230080.53 -40230080.41 -40230080.22 0.0088 0.0078

Mars -114856-12-12 13:26 J -40229384.98 -40229384.94 -40229384.85 0.0088 0.0087

Venus -114832-04-06 13:55 J -40220868.92 -40220868.92 -40220868.90 0.0088 0.0088

Venus -114832-11-18 01:26 J -40220643.50 -40220643.44 -40220643.36 0.0088 0.0083

Venus -114831-07-01 12:29 J -40220418.06 -40220417.98 -40220417.86 0.0088 0.0078

Venus -114830-02-12 00:14 J -40220192.60 -40220192.49 -40220192.36 0.0088 0.0072

Venus -114830-09-25 11:17 J -40219967.14 -40219967.03 -40219966.87 0.0088 0.0067

Venus -114829-05-07 23:02 J -40219741.68 -40219741.54 -40219741.37 0.0088 0.0061

Venus -114829-12-19 10:19 J -40219516.22 -40219516.07 -40219515.89 0.0088 0.0055

Venus -114828-08-01 21:50 J -40219290.76 -40219290.59 -40219290.40 0.0088 0.0049

Venus -114827-03-15 09:22 J -40219065.29 -40219065.11 -40219064.92 0.0088 0.0044

Venus -114827-10-26 20:53 J -40218839.82 -40218839.63 -40218839.44 0.0088 0.0038

Venus -114826-06-09 07:55 J -40218614.35 -40218614.17 -40218613.96 0.0088 0.0033

Venus -114825-01-20 19:26 J -40218388.88 -40218388.69 -40218388.48 0.0088 0.0027

Venus -114825-09-02 06:58 J -40218163.41 -40218163.21 -40218163.00 0.0088 0.0021

Venus -114824-04-15 18:43 J -40217937.93 -40217937.72 -40217937.51 0.0088 0.0015

Venus -114824-11-27 06:00 J -40217712.46 -40217712.25 -40217712.03 0.0088 0.0009

Venus -114823-07-10 17:31 J -40217486.98 -40217486.77 -40217486.56 0.0088 0.0003

Venus -114822-02-21 05:02 J -40217261.50 -40217261.29 -40217261.08 0.0088 0.0003

Venus -114822-10-04 16:34 J -40217036.02 -40217035.81 -40217035.60 0.0088 0.0009

Venus -114821-05-17 04:05 J -40216810.53 -40216810.33 -40216810.11 0.0088 0.0015

Venus -114821-12-28 15:36 J -40216585.05 -40216584.85 -40216584.64 0.0088 0.0021

Moon -114820-07-06 05:31 J -40216395.42 -40216395.27 -40216395.10 0.0088 0.0066

Earth -114820-07-06 06:58 J -40216395.36 -40216395.21 -40216395.06 0.0088 0.0070 *

Venus -114820-08-11 02:53 J -40216359.57 -40216359.38 -40216359.16 0.0088 0.0027

Venus -114819-03-24 14:24 J -40216134.08 -40216133.90 -40216133.68 0.0088 0.0033

Earth -114819-07-08 14:24 J -40216028.10 -40216027.90 -40216027.66 0.0088 0.0042

Moon	-114819-07-08 14:53 J	-40216028.10	-40216027.88	-40216027.65	0.0088	0.0045	*
Venus	-114819-11-05 02:24 J	-40215908.59	-40215908.40	-40215908.21	0.0088	0.0038	
Venus	-114818-06-18 13:41 J	-40215683.10	-40215682.93	-40215682.73	0.0089	0.0044	
Earth	-114818-07-10 22:34 J	-40215660.80	-40215660.56	-40215660.30	0.0089	0.0013	
Moon	-114818-07-10 23:31 J	-40215660.76	-40215660.52	-40215660.28	0.0089	0.0008	*
Venus	-114817-01-30 01:12 J	-40215457.61	-40215457.45	-40215457.26	0.0089	0.0050	
Moon	-114817-07-12 04:05 J	-40215293.58	-40215293.33	-40215293.07	0.0089	0.0013	
Earth	-114817-07-12 06:43 J	-40215293.46	-40215293.22	-40215292.97	0.0089	0.0017	*
Venus	-114817-09-11 12:43 J	-40215232.12	-40215231.97	-40215231.79	0.0089	0.0056	
Venus	-114816-04-25 00:43 J	-40215006.62	-40215006.47	-40215006.31	0.0089	0.0061	
Earth	-114816-07-14 14:24 J	-40214926.10	-40214925.90	-40214925.67	0.0089	0.0046	
Moon	-114816-07-14 17:31 J	-40214925.96	-40214925.77	-40214925.55	0.0089	0.0050	*
Venus	-114816-12-06 12:00 J	-40214781.12	-40214781.00	-40214780.84	0.0089	0.0067	
Moon	-114815-07-16 19:26 J	-40214558.83	-40214558.69	-40214558.52	0.0089	0.0070	
Earth	-114815-07-16 22:48 J	-40214558.66	-40214558.55	-40214558.40	0.0089	0.0075	*
Venus	-114815-07-19 23:31 J	-40214555.62	-40214555.52	-40214555.38	0.0089	0.0073	
Venus	-114814-03-02 11:17 J	-40214330.12	-40214330.03	-40214329.92	0.0089	0.0078	
Venus	-114814-10-13 22:48 J	-40214104.60	-40214104.55	-40214104.46	0.0089	0.0084	
Mars	-114806-06-22 12:14 J	-40211296.03	-40211295.99	-40211295.90	0.0089	0.0087	
Mars	-114804-05-17 21:07 J	-40210600.74	-40210600.62	-40210600.43	0.0089	0.0078	
Mars	-114802-04-13 04:19 J	-40209905.49	-40209905.32	-40209905.08	0.0089	0.0068	
Mars	-114800-03-08 10:34 J	-40209210.28	-40209210.06	-40209209.80	0.0089	0.0058	
Mars	-114798-02-01 14:53 J	-40208515.13	-40208514.88	-40208514.59	0.0089	0.0048	
Mars	-114797-12-27 17:17 J	-40207820.06	-40207819.78	-40207819.48	0.0089	0.0037	
Mars	-114795-11-22 18:14 J	-40207125.02	-40207124.74	-40207124.42	0.0089	0.0027	
Mars	-114793-10-17 18:00 J	-40206430.05	-40206429.75	-40206429.43	0.0089	0.0016	
Mars	-114791-09-12 15:22 J	-40205735.18	-40205734.86	-40205734.55	0.0089	0.0005	
Mars	-114789-08-07 11:17 J	-40205040.34	-40205040.03	-40205039.72	0.0089	0.0005	
Mercury	-114789-10-02 16:34 J	-40204983.82	-40204983.81	-40204983.77	0.0089	0.0088	
Mercury	-114789-12-29 19:26 J	-40204895.74	-40204895.69	-40204895.61	0.0089	0.0083	

Mercury -114788-03-27 22:34 J -40204807.64 -40204807.56 -40204807.47 0.0089 0.0077

Mercury -114788-06-24 01:26 J -40204719.53 -40204719.44 -40204719.33 0.0089 0.0072

Mercury -114788-09-20 04:05 J -40204631.43 -40204631.33 -40204631.20 0.0089 0.0067

Mercury -114788-12-17 06:58 J -40204543.32 -40204543.21 -40204543.06 0.0089 0.0062

Mercury -114787-03-15 10:19 J -40204455.20 -40204455.07 -40204454.93 0.0089 0.0056

Mercury -114787-06-11 12:58 J -40204367.09 -40204366.96 -40204366.80 0.0089 0.0051

Mars -114787-07-03 06:43 J -40204345.52 -40204345.22 -40204344.91 0.0089 0.0015

Mercury -114787-09-07 16:19 J -40204278.97 -40204278.82 -40204278.67 0.0089 0.0046

Mercury -114787-12-04 19:12 J -40204190.86 -40204190.70 -40204190.54 0.0089 0.0040

Mercury -114786-03-02 22:05 J -40204102.74 -40204102.58 -40204102.41 0.0089 0.0035

Mercury -114786-05-30 01:12 J -40204014.62 -40204014.45 -40204014.28 0.0089 0.0029

Mercury -114786-08-26 04:05 J -40203926.50 -40203926.33 -40203926.15 0.0089 0.0024

Mercury -114786-11-22 07:12 J -40203838.37 -40203838.20 -40203838.02 0.0089 0.0018

Mercury -114785-02-18 10:05 J -40203750.25 -40203750.08 -40203749.89 0.0089 0.0013

Mercury -114785-05-16 13:12 J -40203662.12 -40203661.95 -40203661.76 0.0089 0.0008

Mars -114785-05-27 23:02 J -40203650.82 -40203650.54 -40203650.23 0.0089 0.0026

Mercury -114785-08-12 16:19 J -40203574.00 -40203573.82 -40203573.64 0.0089 0.0002

Mercury -114785-11-08 19:26 J -40203485.87 -40203485.69 -40203485.51 0.0089 0.0004

Mercury -114784-02-04 22:34 J -40203397.74 -40203397.56 -40203397.38 0.0089 0.0009

Mercury -114784-05-04 01:41 J -40203309.61 -40203309.43 -40203309.25 0.0089 0.0015

Mercury -114784-07-31 04:34 J -40203221.48 -40203221.31 -40203221.12 0.0089 0.0021

Mercury -114784-10-27 07:55 J -40203133.34 -40203133.17 -40203133.00 0.0089 0.0026

Mercury -114783-01-23 10:48 J -40203045.21 -40203045.05 -40203044.87 0.0089 0.0032

Mercury -114783-04-21 13:55 J -40202957.07 -40202956.92 -40202956.74 0.0089 0.0038

Mars -114783-04-22 13:55 J -40202956.18 -40202955.92 -40202955.62 0.0089 0.0036

Mercury -114783-07-18 17:17 J -40202868.94 -40202868.78 -40202868.62 0.0089 0.0043

Mercury -114783-10-14 20:24 J -40202780.80 -40202780.65 -40202780.49 0.0089 0.0049

Mercury -114782-01-10 23:17 J -40202692.66 -40202692.53 -40202692.37 0.0089 0.0055

Mercury -114782-04-09 02:53 J -40202604.51 -40202604.38 -40202604.25 0.0089 0.0060

Mercury -114782-07-06 06:00 J -40202516.37 -40202516.25 -40202516.12 0.0089 0.0066

Mercury -114782-10-02 08:53 J -40202428.22 -40202428.13 -40202428.01 0.0089 0.0072

Mercury -114782-12-29 12:00 J -40202340.06 -40202340.00 -40202339.89 0.0089 0.0078

Mars -114781-03-17 04:05 J -40202261.57 -40202261.33 -40202261.04 0.0089 0.0046

Mercury -114781-03-26 15:50 J -40202251.90 -40202251.84 -40202251.78 0.0089 0.0084

Mars -114779-02-09 16:48 J -40201567.03 -40201566.80 -40201566.55 0.0089 0.0055

Mars -114777-01-05 03:22 J -40200872.56 -40200872.36 -40200872.15 0.0089 0.0065

Mars -114776-11-29 12:58 J -40200178.10 -40200177.96 -40200177.76 0.0089 0.0073

Mars -114774-10-24 22:19 J -40199483.67 -40199483.57 -40199483.43 0.0089 0.0082

Venus -114749-01-04 00:14 J -40190646.52 -40190646.49 -40190646.41 0.0089 0.0087

Venus -114749-08-16 14:53 J -40190420.95 -40190420.88 -40190420.76 0.0089 0.0081

Venus -114748-03-30 05:46 J -40190195.37 -40190195.26 -40190195.12 0.0089 0.0074

Venus -114748-11-10 20:24 J -40189969.77 -40189969.65 -40189969.48 0.0089 0.0068

Venus -114747-06-24 11:31 J -40189744.18 -40189744.02 -40189743.85 0.0089 0.0061

Venus -114746-02-05 02:10 J -40189518.58 -40189518.41 -40189518.22 0.0089 0.0055

Venus -114746-09-18 16:48 J -40189292.97 -40189292.80 -40189292.59 0.0089 0.0049

Venus -114745-05-01 07:55 J -40189067.37 -40189067.17 -40189066.96 0.0089 0.0042

Venus -114745-12-12 22:34 J -40188841.76 -40188841.56 -40188841.34 0.0089 0.0036

Venus -114744-07-26 13:12 J -40188616.16 -40188615.95 -40188615.72 0.0089 0.0030

Venus -114743-03-09 04:05 J -40188390.55 -40188390.33 -40188390.11 0.0089 0.0023

Venus -114743-10-20 18:58 J -40188164.93 -40188164.71 -40188164.48 0.0089 0.0017

Venus -114742-06-03 09:36 J -40187939.32 -40187939.10 -40187938.86 0.0089 0.0011

Venus -114741-01-15 00:29 J -40187713.71 -40187713.48 -40187713.25 0.0089 0.0004

Venus -114741-08-27 15:07 J -40187488.10 -40187487.87 -40187487.64 0.0089 0.0002

Venus -114740-04-10 05:46 J -40187262.49 -40187262.26 -40187262.03 0.0089 0.0009

Venus -114740-11-21 20:24 J -40187036.87 -40187036.65 -40187036.42 0.0089 0.0015

Venus -114739-07-05 11:02 J -40186811.26 -40186811.04 -40186810.82 0.0089 0.0021

Moon -114738-01-10 21:36 J -40186621.65 -40186621.60 -40186621.51 0.0089 0.0086

Earth -114738-01-11 00:58 J -40186621.54 -40186621.46 -40186621.34 0.0089 0.0082 *

Venus -114738-02-16 01:26 J -40186585.65 -40186585.44 -40186585.22 0.0089 0.0028

Venus -114738-09-29 16:05 J -40186360.03 -40186359.83 -40186359.61 0.0089 0.0034

Earth -114737-01-13 16:19 J -40186254.01 -40186253.82 -40186253.58 0.0089 0.0051
 Moon -114737-01-13 20:53 J -40186253.86 -40186253.63 -40186253.40 0.0089 0.0046 *
 Venus -114737-05-12 06:43 J -40186134.42 -40186134.22 -40186134.01 0.0089 0.0040
 Venus -114737-12-23 20:53 J -40185908.80 -40185908.63 -40185908.42 0.0089 0.0047
 Moon -114736-01-15 05:02 J -40185886.53 -40185886.29 -40185886.03 0.0089 0.0024
 Earth -114736-01-15 08:38 J -40185886.40 -40185886.14 -40185885.88 0.0089 0.0019 *
 Venus -114736-08-06 11:31 J -40185683.19 -40185683.02 -40185682.83 0.0089 0.0053
 Earth -114735-01-17 23:46 J -40185518.77 -40185518.51 -40185518.24 0.0089 0.0012
 Moon -114735-01-18 02:53 J -40185518.64 -40185518.38 -40185518.10 0.0089 0.0015 *
 Venus -114735-03-20 01:55 J -40185457.57 -40185457.42 -40185457.23 0.0089 0.0059
 Venus -114735-10-31 16:48 J -40185231.95 -40185231.80 -40185231.64 0.0089 0.0065
 Moon -114734-01-20 12:29 J -40185151.19 -40185150.98 -40185150.73 0.0089 0.0040
 Earth -114734-01-20 14:53 J -40185151.10 -40185150.88 -40185150.64 0.0089 0.0043 *
 Venus -114734-06-14 07:26 J -40185006.32 -40185006.19 -40185006.05 0.0089 0.0071
 Earth -114733-01-23 05:46 J -40184783.39 -40184783.26 -40184783.10 0.0089 0.0074
 Moon -114733-01-23 06:58 J -40184783.34 -40184783.21 -40184783.08 0.0089 0.0077 *
 Venus -114733-01-25 21:22 J -40184780.69 -40184780.61 -40184780.48 0.0089 0.0078
 Venus -114733-09-07 11:46 J -40184555.06 -40184555.01 -40184554.91 0.0089 0.0084
 Saturn -114732-01-08 18:58 J -40184432.37 -40184431.71 -40184431.00 0.0089 0.0029
 Mars -114726-04-29 05:31 J -40182130.29 -40182130.27 -40182130.24 0.0089 0.0088
 Mars -114724-03-23 13:55 J -40181436.01 -40181435.92 -40181435.76 0.0089 0.0081
 Mars -114722-02-16 00:14 J -40180741.66 -40180741.49 -40180741.31 0.0089 0.0072
 Mars -114720-01-10 10:34 J -40180047.25 -40180047.06 -40180046.82 0.0089 0.0064
 Mars -114719-12-05 23:46 J -40179352.75 -40179352.51 -40179352.26 0.0089 0.0054
 Mars -114717-10-30 12:58 J -40178658.21 -40178657.96 -40178657.67 0.0089 0.0045
 Mars -114715-09-25 03:36 J -40177963.62 -40177963.35 -40177963.04 0.0089 0.0035
 Mars -114713-08-19 20:38 J -40177268.92 -40177268.64 -40177268.32 0.0088 0.0025
 Mars -114711-07-15 14:24 J -40176574.19 -40176573.90 -40176573.57 0.0088 0.0015
 Mars -114709-06-09 10:05 J -40175879.40 -40175879.08 -40175878.77 0.0088 0.0004
 Mercury -114708-10-28 03:36 J -40175373.37 -40175373.35 -40175373.32 0.0088 0.0087

Mercury -114707-01-24 05:02 J -40175285.32 -40175285.29 -40175285.22 0.0088 0.0083

Mercury -114707-04-22 06:58 J -40175197.27 -40175197.21 -40175197.14 0.0088 0.0078

Mars -114707-05-05 07:41 J -40175184.49 -40175184.18 -40175183.86 0.0088 0.0007

Mercury -114707-07-19 08:24 J -40175109.21 -40175109.15 -40175109.06 0.0088 0.0074

Mercury -114707-10-15 10:19 J -40175021.15 -40175021.07 -40175020.98 0.0088 0.0069

Mercury -114706-01-11 12:00 J -40174933.09 -40174933.00 -40174932.90 0.0088 0.0064

Mercury -114706-04-09 13:26 J -40174845.03 -40174844.94 -40174844.82 0.0088 0.0061

Mercury -114706-07-06 15:22 J -40174756.97 -40174756.86 -40174756.75 0.0088 0.0056

Mercury -114706-10-02 16:48 J -40174668.90 -40174668.80 -40174668.67 0.0088 0.0052

Mercury -114706-12-29 18:29 J -40174580.84 -40174580.73 -40174580.60 0.0088 0.0047

Mercury -114705-03-26 20:10 J -40174492.78 -40174492.66 -40174492.53 0.0088 0.0043

Mars -114705-03-30 06:58 J -40174489.50 -40174489.21 -40174488.88 0.0088 0.0019

Mercury -114705-06-22 21:50 J -40174404.71 -40174404.59 -40174404.46 0.0088 0.0038

Mercury -114705-09-18 23:17 J -40174316.65 -40174316.53 -40174316.39 0.0088 0.0035

Mercury -114705-12-16 01:12 J -40174228.58 -40174228.45 -40174228.31 0.0088 0.0030

Mercury -114704-03-14 02:38 J -40174140.52 -40174140.39 -40174140.25 0.0088 0.0026

Mercury -114704-06-10 04:19 J -40174052.45 -40174052.32 -40174052.18 0.0088 0.0021

Mercury -114704-09-06 06:00 J -40173964.39 -40173964.25 -40173964.11 0.0088 0.0017

Mercury -114704-12-03 07:41 J -40173876.32 -40173876.18 -40173876.04 0.0088 0.0012

Mars -114703-02-23 07:26 J -40173794.49 -40173794.19 -40173793.88 0.0088 0.0029

Mercury -114703-03-01 09:07 J -40173788.26 -40173788.12 -40173787.97 0.0088 0.0009

Mercury -114703-05-28 10:48 J -40173700.19 -40173700.05 -40173699.91 0.0088 0.0004

Mercury -114703-08-24 12:29 J -40173612.13 -40173611.98 -40173611.84 0.0088 0.0003

Mercury -114703-11-20 13:55 J -40173524.06 -40173523.92 -40173523.78 0.0088 0.0005

Mercury -114702-02-16 15:22 J -40173435.99 -40173435.86 -40173435.71 0.0088 0.0010

Mercury -114702-05-15 17:02 J -40173347.93 -40173347.79 -40173347.65 0.0088 0.0013

Mercury -114702-08-11 18:29 J -40173259.86 -40173259.73 -40173259.59 0.0088 0.0018

Mercury -114702-11-07 20:10 J -40173171.80 -40173171.66 -40173171.53 0.0088 0.0022

Mars -114701-01-19 09:36 J -40173099.38 -40173099.10 -40173098.81 0.0088 0.0040

Mercury -114701-02-03 21:36 J -40173083.73 -40173083.60 -40173083.46 0.0088 0.0026

Mercury -114701-05-01 23:02 J -40172995.66 -40172995.54 -40172995.40 0.0088 0.0030
 Mercury -114701-07-29 00:29 J -40172907.60 -40172907.48 -40172907.34 0.0088 0.0035
 Mercury -114701-10-25 02:10 J -40172819.53 -40172819.41 -40172819.28 0.0088 0.0038
 Mercury -114700-01-21 03:36 J -40172731.47 -40172731.35 -40172731.22 0.0088 0.0042
 Mercury -114700-04-19 05:02 J -40172643.40 -40172643.29 -40172643.16 0.0088 0.0047
 Mercury -114700-07-16 06:43 J -40172555.33 -40172555.22 -40172555.11 0.0088 0.0051
 Mercury -114700-10-12 08:10 J -40172467.26 -40172467.16 -40172467.05 0.0088 0.0055
 Mars -114700-12-14 12:58 J -40172404.19 -40172403.96 -40172403.66 0.0088 0.0051
 Mercury -114699-01-08 09:50 J -40172379.20 -40172379.09 -40172378.99 0.0088 0.0059
 Mercury -114699-04-06 11:17 J -40172291.13 -40172291.03 -40172290.94 0.0088 0.0063
 Mercury -114699-07-03 12:29 J -40172203.06 -40172202.98 -40172202.88 0.0088 0.0067
 Mercury -114699-09-29 13:55 J -40172114.99 -40172114.92 -40172114.83 0.0088 0.0071
 Mercury -114699-12-26 15:22 J -40172026.92 -40172026.86 -40172026.78 0.0088 0.0075
 Mercury -114698-03-24 16:48 J -40171938.84 -40171938.80 -40171938.73 0.0088 0.0079
 Mercury -114698-06-20 18:14 J -40171850.77 -40171850.74 -40171850.68 0.0088 0.0083
 Mercury -114698-09-16 19:41 J -40171762.68 -40171762.68 -40171762.64 0.0088 0.0088
 Mars -114698-11-09 18:14 J -40171708.95 -40171708.74 -40171708.48 0.0088 0.0061
 Mars -114696-10-05 01:12 J -40171013.63 -40171013.45 -40171013.24 0.0088 0.0071
 Mars -114694-08-31 09:50 J -40170318.20 -40170318.09 -40170317.93 0.0088 0.0081
 Venus -114668-07-09 03:22 J -40160874.40 -40160874.36 -40160874.32 0.0088 0.0087
 Venus -114667-02-19 14:24 J -40160648.96 -40160648.90 -40160648.80 0.0088 0.0082
 Venus -114667-10-03 02:10 J -40160423.51 -40160423.41 -40160423.30 0.0088 0.0076
 Venus -114666-05-16 13:26 J -40160198.05 -40160197.94 -40160197.80 0.0088 0.0070
 Venus -114666-12-28 00:58 J -40159972.59 -40159972.46 -40159972.30 0.0088 0.0065
 Venus -114665-08-09 12:14 J -40159747.13 -40159746.99 -40159746.82 0.0088 0.0059
 Venus -114664-03-22 23:46 J -40159521.66 -40159521.51 -40159521.32 0.0088 0.0054
 Venus -114664-11-03 11:31 J -40159296.20 -40159296.02 -40159295.84 0.0088 0.0048
 Venus -114663-06-16 22:34 J -40159070.73 -40159070.56 -40159070.36 0.0088 0.0042
 Venus -114662-01-28 10:05 J -40158845.26 -40158845.08 -40158844.88 0.0088 0.0036
 Venus -114662-09-10 21:36 J -40158619.79 -40158619.60 -40158619.39 0.0088 0.0031

Venus	-114661-04-23 09:07 J	-40158394.32	-40158394.12	-40158393.91	0.0088	0.0025
Venus	-114661-12-04 20:24 J	-40158168.85	-40158168.65	-40158168.43	0.0088	0.0020
Venus	-114660-07-18 07:55 J	-40157943.37	-40157943.17	-40157942.95	0.0088	0.0013
Venus	-114659-02-28 19:26 J	-40157717.90	-40157717.69	-40157717.48	0.0088	0.0007
Venus	-114659-10-12 06:58 J	-40157492.42	-40157492.21	-40157492.00	0.0088	0.0002
Venus	-114658-05-25 18:29 J	-40157266.94	-40157266.73	-40157266.52	0.0088	0.0004
Venus	-114657-01-06 06:00 J	-40157041.46	-40157041.25	-40157041.04	0.0088	0.0010
Venus	-114657-08-18 17:17 J	-40156815.98	-40156815.78	-40156815.56	0.0088	0.0016
Venus	-114656-04-01 05:02 J	-40156590.49	-40156590.29	-40156590.08	0.0088	0.0022
Moon	-114656-07-05 20:24 J	-40156494.75	-40156494.65	-40156494.52	0.0088	0.0079
Earth	-114656-07-05 21:07 J	-40156494.69	-40156494.62	-40156494.50	0.0088	0.0082 *
Venus	-114656-11-12 16:34 J	-40156365.01	-40156364.81	-40156364.61	0.0088	0.0028
Venus	-114655-06-26 04:05 J	-40156139.52	-40156139.33	-40156139.13	0.0088	0.0034
Earth	-114655-07-08 05:17 J	-40156127.46	-40156127.28	-40156127.07	0.0088	0.0053
Moon	-114655-07-08 08:10 J	-40156127.34	-40156127.16	-40156126.97	0.0088	0.0056 *
Venus	-114654-02-06 15:22 J	-40155914.03	-40155913.86	-40155913.65	0.0088	0.0040
Moon	-114654-07-10 10:19 J	-40155760.31	-40155760.07	-40155759.81	0.0088	0.0021
Earth	-114654-07-10 13:41 J	-40155760.17	-40155759.93	-40155759.69	0.0088	0.0024 *
Venus	-114654-09-20 02:53 J	-40155688.54	-40155688.38	-40155688.18	0.0088	0.0046
Venus	-114653-05-02 15:07 J	-40155463.05	-40155462.87	-40155462.70	0.0088	0.0051
Earth	-114653-07-11 21:22 J	-40155392.86	-40155392.61	-40155392.36	0.0088	0.0005
Moon	-114653-07-12 00:58 J	-40155392.71	-40155392.46	-40155392.21	0.0088	0.0003 *
Venus	-114653-12-14 02:24 J	-40155237.55	-40155237.40	-40155237.23	0.0089	0.0057
Moon	-114652-07-14 02:10 J	-40155025.62	-40155025.41	-40155025.17	0.0089	0.0037
Earth	-114652-07-14 05:31 J	-40155025.50	-40155025.27	-40155025.03	0.0089	0.0034 *
Venus	-114652-07-27 13:41 J	-40155012.06	-40155011.93	-40155011.76	0.0089	0.0063
Venus	-114651-03-10 01:12 J	-40154786.56	-40154786.45	-40154786.29	0.0089	0.0069
Earth	-114651-07-16 13:41 J	-40154658.10	-40154657.93	-40154657.75	0.0089	0.0063
Moon	-114651-07-16 16:05 J	-40154658.00	-40154657.83	-40154657.63	0.0089	0.0061 *
Venus	-114651-10-21 13:12 J	-40154561.06	-40154560.95	-40154560.82	0.0089	0.0074

Venus -114650-06-04 00:43 J -40154335.54 -40154335.47 -40154335.36 0.0089 0.0080

Venus -114649-01-15 12:43 J -40154110.02 -40154109.97 -40154109.91 0.0089 0.0085

Mars -114641-12-30 06:00 J -40150838.35 -40150838.25 -40150838.08 0.0089 0.0081

Mars -114639-11-25 14:24 J -40150143.06 -40150142.90 -40150142.67 0.0089 0.0071

Mars -114637-10-20 21:07 J -40149447.83 -40149447.62 -40149447.36 0.0089 0.0060

Mars -114635-09-16 02:10 J -40148752.64 -40148752.41 -40148752.11 0.0089 0.0050

Mars -114633-08-11 06:43 J -40148057.48 -40148057.22 -40148056.91 0.0089 0.0039

Mars -114631-07-07 08:53 J -40147362.41 -40147362.13 -40147361.80 0.0089 0.0028

Mars -114629-06-01 10:19 J -40146667.37 -40146667.07 -40146666.74 0.0089 0.0017

Mars -114627-04-27 09:50 J -40145972.39 -40145972.09 -40145971.77 0.0089 0.0006

Mars -114625-03-22 06:58 J -40145277.51 -40145277.21 -40145276.89 0.0089 0.0006

Mercury -114624-06-29 16:05 J -40144812.87 -40144812.83 -40144812.76 0.0089 0.0084

Mercury -114624-09-25 18:58 J -40144724.78 -40144724.71 -40144724.62 0.0089 0.0079

Mercury -114624-12-22 21:36 J -40144636.67 -40144636.60 -40144636.48 0.0089 0.0074

Mars -114623-02-15 02:10 J -40144582.71 -40144582.41 -40144582.09 0.0089 0.0017

Mercury -114623-03-21 00:58 J -40144548.57 -40144548.46 -40144548.34 0.0089 0.0068

Mercury -114623-06-17 03:36 J -40144460.46 -40144460.35 -40144460.21 0.0089 0.0063

Mercury -114623-09-13 06:29 J -40144372.35 -40144372.23 -40144372.08 0.0089 0.0058

Mercury -114623-12-10 09:50 J -40144284.23 -40144284.09 -40144283.95 0.0089 0.0052

Mercury -114622-03-08 12:29 J -40144196.12 -40144195.98 -40144195.82 0.0089 0.0047

Mercury -114622-06-04 15:22 J -40144108.00 -40144107.86 -40144107.69 0.0089 0.0042

Mercury -114622-08-31 18:29 J -40144019.89 -40144019.73 -40144019.56 0.0089 0.0036

Mercury -114622-11-27 21:22 J -40143931.77 -40143931.61 -40143931.43 0.0089 0.0031

Mars -114621-01-10 20:53 J -40143887.92 -40143887.63 -40143887.33 0.0089 0.0027

Mercury -114621-02-24 00:29 J -40143843.65 -40143843.48 -40143843.30 0.0089 0.0026

Mercury -114621-05-22 03:36 J -40143755.52 -40143755.35 -40143755.17 0.0089 0.0020

Mercury -114621-08-18 06:29 J -40143667.40 -40143667.23 -40143667.05 0.0089 0.0015

Mercury -114621-11-14 09:36 J -40143579.28 -40143579.10 -40143578.92 0.0089 0.0009

Mercury -114620-02-10 12:43 J -40143491.15 -40143490.97 -40143490.79 0.0089 0.0004

Mercury -114620-05-09 15:50 J -40143403.02 -40143402.84 -40143402.66 0.0089 0.0003

Mercury -114620-08-05 18:43 J -40143314.90 -40143314.72 -40143314.54 0.0089 0.0008
 Mercury -114620-11-01 21:50 J -40143226.77 -40143226.59 -40143226.41 0.0089 0.0013
 Mars -114620-12-05 12:58 J -40143193.21 -40143192.96 -40143192.65 0.0089 0.0038
 Mercury -114619-01-29 00:58 J -40143138.64 -40143138.46 -40143138.28 0.0089 0.0019
 Mercury -114619-04-27 04:05 J -40143050.50 -40143050.33 -40143050.15 0.0089 0.0024
 Mercury -114619-07-24 06:58 J -40142962.37 -40142962.21 -40142962.03 0.0089 0.0030
 Mercury -114619-10-20 10:05 J -40142874.24 -40142874.08 -40142873.90 0.0089 0.0036
 Mercury -114618-01-16 13:26 J -40142786.10 -40142785.94 -40142785.78 0.0089 0.0041
 Mercury -114618-04-14 16:19 J -40142697.96 -40142697.82 -40142697.65 0.0089 0.0047
 Mercury -114618-07-11 19:26 J -40142609.82 -40142609.69 -40142609.53 0.0089 0.0053
 Mercury -114618-10-07 23:02 J -40142521.68 -40142521.54 -40142521.40 0.0089 0.0058
 Mars -114618-10-31 03:36 J -40142498.58 -40142498.35 -40142498.07 0.0089 0.0048
 Mercury -114617-01-04 01:55 J -40142433.53 -40142433.42 -40142433.28 0.0089 0.0064
 Mercury -114617-04-01 05:02 J -40142345.39 -40142345.29 -40142345.16 0.0089 0.0070
 Mercury -114617-06-28 08:10 J -40142257.24 -40142257.16 -40142257.05 0.0089 0.0076
 Mercury -114617-09-24 11:46 J -40142169.08 -40142169.01 -40142168.93 0.0089 0.0081
 Mercury -114617-12-21 14:53 J -40142080.91 -40142080.88 -40142080.84 0.0089 0.0087
 Mars -114616-09-24 17:46 J -40141803.97 -40141803.76 -40141803.50 0.0089 0.0058
 Mars -114614-08-20 06:58 J -40141109.40 -40141109.21 -40141109.00 0.0089 0.0068
 Mars -114612-07-14 17:46 J -40140414.92 -40140414.76 -40140414.61 0.0089 0.0077
 Mars -114610-06-09 02:24 J -40139720.46 -40139720.40 -40139720.29 0.0089 0.0085
 Venus -114585-04-06 11:17 J -40130652.10 -40130652.03 -40130651.96 0.0089 0.0085
 Venus -114585-11-18 01:41 J -40130426.53 -40130426.43 -40130426.31 0.0089 0.0079
 Venus -114584-07-01 16:19 J -40130200.94 -40130200.82 -40130200.68 0.0089 0.0072
 Venus -114583-02-12 06:58 J -40129975.35 -40129975.21 -40129975.05 0.0089 0.0066
 Venus -114583-09-25 21:36 J -40129749.75 -40129749.60 -40129749.41 0.0089 0.0060
 Venus -114582-05-09 12:29 J -40129524.15 -40129523.98 -40129523.78 0.0089 0.0054
 Venus -114582-12-21 03:22 J -40129298.54 -40129298.36 -40129298.16 0.0089 0.0047
 Venus -114581-08-02 18:00 J -40129072.94 -40129072.75 -40129072.54 0.0089 0.0041
 Venus -114580-03-16 08:38 J -40128847.34 -40128847.14 -40128846.92 0.0089 0.0035

Venus	-114580-10-27 23:46 J	-40128621.72	-40128621.51	-40128621.29	0.0089	0.0028
Venus	-114579-06-10 14:24 J	-40128396.11	-40128395.90	-40128395.67	0.0089	0.0022
Venus	-114578-01-22 05:17 J	-40128170.50	-40128170.28	-40128170.05	0.0089	0.0015
Venus	-114578-09-04 19:55 J	-40127944.89	-40127944.67	-40127944.44	0.0089	0.0009
Venus	-114577-04-17 10:48 J	-40127719.28	-40127719.05	-40127718.82	0.0089	0.0003
Venus	-114577-11-29 01:26 J	-40127493.67	-40127493.44	-40127493.21	0.0089	0.0004
Venus	-114576-07-12 16:05 J	-40127268.05	-40127267.83	-40127267.60	0.0089	0.0010
Venus	-114575-02-23 06:29 J	-40127042.44	-40127042.23	-40127041.99	0.0089	0.0017
Venus	-114575-10-06 21:22 J	-40126816.82	-40126816.61	-40126816.38	0.0089	0.0023
Venus	-114574-05-20 12:14 J	-40126591.21	-40126590.99	-40126590.78	0.0089	0.0029
Venus	-114573-01-01 02:24 J	-40126365.59	-40126365.40	-40126365.18	0.0089	0.0036
Moon	-114573-01-12 21:36 J	-40126353.75	-40126353.60	-40126353.39	0.0089	0.0065
Earth	-114573-01-13 00:14 J	-40126353.65	-40126353.49	-40126353.28	0.0089	0.0064 *
Venus	-114573-08-13 17:02 J	-40126139.98	-40126139.79	-40126139.58	0.0089	0.0042
Earth	-114572-01-14 16:19 J	-40125986.07	-40125985.82	-40125985.57	0.0089	0.0032
Moon	-114572-01-14 17:31 J	-40125986.01	-40125985.77	-40125985.50	0.0089	0.0031 *
Venus	-114572-03-27 07:26 J	-40125914.37	-40125914.19	-40125913.99	0.0089	0.0048
Venus	-114572-11-07 22:19 J	-40125688.75	-40125688.57	-40125688.39	0.0089	0.0054
Earth	-114571-01-17 07:41 J	-40125618.45	-40125618.18	-40125617.91	0.0089	0.0001
Moon	-114571-01-17 07:41 J	-40125618.43	-40125618.18	-40125617.92	0.0089	0.0002 *
Venus	-114571-06-21 12:29 J	-40125463.13	-40125462.98	-40125462.80	0.0089	0.0061
Moon	-114570-01-19 21:50 J	-40125250.83	-40125250.59	-40125250.31	0.0089	0.0032
Earth	-114570-01-19 23:02 J	-40125250.79	-40125250.54	-40125250.29	0.0089	0.0030 *
Venus	-114570-02-02 02:53 J	-40125237.51	-40125237.38	-40125237.21	0.0089	0.0067
Venus	-114570-09-15 17:17 J	-40125011.89	-40125011.78	-40125011.63	0.0089	0.0073
Earth	-114569-01-22 13:26 J	-40124883.10	-40124882.94	-40124882.72	0.0089	0.0062
Moon	-114569-01-22 15:50 J	-40124883.01	-40124882.84	-40124882.63	0.0089	0.0060 *
Venus	-114569-04-28 07:55 J	-40124786.26	-40124786.17	-40124786.05	0.0089	0.0079
Venus	-114569-12-09 22:19 J	-40124560.62	-40124560.57	-40124560.49	0.0089	0.0085
Mars	-114561-11-05 16:05 J	-40121672.89	-40121672.83	-40121672.69	0.0089	0.0084

Mars -114559-10-01 01:26 J -40120978.57 -40120978.44 -40120978.24 0.0089 0.0075
 Mars -114557-08-25 11:02 J -40120284.22 -40120284.04 -40120283.81 0.0089 0.0066
 Mars -114555-07-20 22:19 J -40119589.80 -40119589.57 -40119589.32 0.0089 0.0056
 Mars -114553-06-14 11:17 J -40118895.29 -40118895.03 -40118894.76 0.0089 0.0046
 Mars -114551-05-10 01:41 J -40118200.71 -40118200.43 -40118200.14 0.0088 0.0036
 Mars -114549-04-03 16:48 J -40117506.08 -40117505.80 -40117505.48 0.0088 0.0026
 Mars -114547-02-27 10:19 J -40116811.36 -40116811.07 -40116810.74 0.0088 0.0015
 Mars -114545-01-23 05:02 J -40116116.60 -40116116.29 -40116115.97 0.0088 0.0003
 Mars -114544-12-18 00:29 J -40115421.80 -40115421.48 -40115421.17 0.0088 0.0008
 Mercury -114543-04-28 01:55 J -40115290.43 -40115290.42 -40115290.41 0.0088 0.0088
 Mercury -114543-07-25 03:22 J -40115202.39 -40115202.36 -40115202.30 0.0088 0.0084
 Mercury -114543-10-21 05:02 J -40115114.34 -40115114.29 -40115114.22 0.0088 0.0079
 Mercury -114542-01-17 06:58 J -40115026.28 -40115026.21 -40115026.13 0.0088 0.0075
 Mercury -114542-04-15 08:24 J -40114938.22 -40114938.15 -40114938.05 0.0088 0.0071
 Mercury -114542-07-12 10:19 J -40114850.16 -40114850.07 -40114849.97 0.0088 0.0066
 Mercury -114542-10-08 11:46 J -40114762.10 -40114762.01 -40114761.90 0.0088 0.0062
 Mars -114542-11-12 21:50 J -40114726.90 -40114726.59 -40114726.28 0.0088 0.0019
 Mercury -114541-01-04 13:26 J -40114674.04 -40114673.94 -40114673.82 0.0088 0.0057
 Mercury -114541-04-01 15:22 J -40114585.98 -40114585.86 -40114585.75 0.0088 0.0053
 Mercury -114541-06-28 16:48 J -40114497.91 -40114497.80 -40114497.67 0.0088 0.0049
 Mercury -114541-09-24 18:29 J -40114409.85 -40114409.73 -40114409.60 0.0088 0.0044
 Mercury -114541-12-21 20:10 J -40114321.78 -40114321.66 -40114321.53 0.0088 0.0040
 Mercury -114540-03-19 21:50 J -40114233.72 -40114233.59 -40114233.46 0.0088 0.0035
 Mercury -114540-06-15 23:17 J -40114145.65 -40114145.53 -40114145.39 0.0088 0.0031
 Mercury -114540-09-12 01:12 J -40114057.59 -40114057.45 -40114057.32 0.0088 0.0027
 Mars -114540-10-07 20:53 J -40114031.91 -40114031.63 -40114031.31 0.0088 0.0031
 Mercury -114540-12-09 02:38 J -40113969.52 -40113969.39 -40113969.25 0.0088 0.0022
 Mercury -114539-03-07 04:19 J -40113881.46 -40113881.32 -40113881.18 0.0088 0.0018
 Mercury -114539-06-03 06:00 J -40113793.39 -40113793.25 -40113793.11 0.0088 0.0014
 Mercury -114539-08-30 07:26 J -40113705.33 -40113705.19 -40113705.04 0.0088 0.0010

Mercury -114539-11-26 09:07 J -40113617.26 -40113617.12 -40113616.98 0.0088 0.0005
 Mercury -114538-02-22 10:48 J -40113529.19 -40113529.05 -40113528.91 0.0088 0.0002
 Mercury -114538-05-21 12:14 J -40113441.13 -40113440.99 -40113440.85 0.0088 0.0004
 Mercury -114538-08-17 13:55 J -40113353.06 -40113352.92 -40113352.78 0.0088 0.0008
 Mars -114538-09-02 21:36 J -40113336.86 -40113336.60 -40113336.29 0.0088 0.0041
 Mercury -114538-11-13 15:22 J -40113265.00 -40113264.86 -40113264.72 0.0088 0.0012
 Mercury -114537-02-09 16:48 J -40113176.93 -40113176.80 -40113176.65 0.0088 0.0017
 Mercury -114537-05-07 18:29 J -40113088.86 -40113088.73 -40113088.59 0.0088 0.0020
 Mercury -114537-08-03 20:10 J -40113000.80 -40113000.66 -40113000.53 0.0088 0.0025
 Mercury -114537-10-30 21:36 J -40112912.73 -40112912.60 -40112912.47 0.0088 0.0029
 Mercury -114536-01-26 23:02 J -40112824.66 -40112824.54 -40112824.41 0.0088 0.0033
 Mercury -114536-04-25 00:29 J -40112736.60 -40112736.48 -40112736.35 0.0088 0.0037
 Mercury -114536-07-22 01:55 J -40112648.53 -40112648.42 -40112648.29 0.0088 0.0042
 Mars -114536-07-28 23:46 J -40112641.74 -40112641.51 -40112641.23 0.0088 0.0053
 Mercury -114536-10-18 03:36 J -40112560.46 -40112560.35 -40112560.23 0.0088 0.0045
 Mercury -114535-01-14 05:02 J -40112472.40 -40112472.29 -40112472.17 0.0088 0.0050
 Mercury -114535-04-12 06:29 J -40112384.33 -40112384.23 -40112384.11 0.0088 0.0054
 Mercury -114535-07-09 08:10 J -40112296.26 -40112296.16 -40112296.05 0.0088 0.0058
 Mercury -114535-10-05 09:36 J -40112208.19 -40112208.10 -40112208.00 0.0088 0.0062
 Mercury -114534-01-01 11:02 J -40112120.12 -40112120.04 -40112119.94 0.0088 0.0066
 Mercury -114534-03-30 12:43 J -40112032.05 -40112031.97 -40112031.89 0.0088 0.0070
 Mars -114534-06-24 04:05 J -40111946.52 -40111946.33 -40111946.07 0.0088 0.0064
 Mercury -114534-06-26 14:10 J -40111943.98 -40111943.91 -40111943.84 0.0088 0.0074
 Mercury -114534-09-22 15:36 J -40111855.91 -40111855.85 -40111855.78 0.0088 0.0078
 Mercury -114534-12-19 17:02 J -40111767.84 -40111767.79 -40111767.74 0.0088 0.0082
 Mercury -114533-03-16 18:29 J -40111679.75 -40111679.73 -40111679.70 0.0088 0.0086
 Mars -114532-05-19 09:50 J -40111251.24 -40111251.09 -40111250.88 0.0088 0.0074
 Mars -114530-04-14 16:48 J -40110555.87 -40110555.80 -40110555.67 0.0088 0.0084
 Venus -114504-10-10 16:19 J -40100879.86 -40100879.82 -40100879.76 0.0088 0.0086
 Venus -114503-05-24 03:22 J -40100654.42 -40100654.36 -40100654.24 0.0088 0.0081

Venus	-114502-01-04 15:07 J	-40100428.97	-40100428.87	-40100428.74	0.0088	0.0075
Venus	-114502-08-18 02:53 J	-40100203.51	-40100203.38	-40100203.25	0.0088	0.0069
Venus	-114501-03-30 13:55 J	-40099978.05	-40099977.92	-40099977.75	0.0088	0.0064
Venus	-114501-11-11 01:41 J	-40099752.58	-40099752.43	-40099752.26	0.0088	0.0058
Venus	-114500-06-24 12:43 J	-40099527.12	-40099526.97	-40099526.78	0.0088	0.0053
Venus	-114499-02-05 00:14 J	-40099301.65	-40099301.49	-40099301.29	0.0088	0.0047
Venus	-114499-09-18 12:00 J	-40099076.18	-40099076.00	-40099075.81	0.0088	0.0041
Venus	-114498-05-01 23:31 J	-40098850.71	-40098850.52	-40098850.32	0.0088	0.0035
Venus	-114498-12-13 10:48 J	-40098625.24	-40098625.05	-40098624.84	0.0088	0.0029
Venus	-114497-07-25 22:05 J	-40098399.77	-40098399.58	-40098399.36	0.0088	0.0024
Venus	-114496-03-08 09:36 J	-40098174.30	-40098174.10	-40098173.88	0.0088	0.0018
Venus	-114496-10-19 21:07 J	-40097948.83	-40097948.62	-40097948.40	0.0088	0.0012
Venus	-114495-06-02 08:38 J	-40097723.35	-40097723.14	-40097722.93	0.0088	0.0006
Venus	-114494-01-13 20:10 J	-40097497.87	-40097497.66	-40097497.45	0.0088	0.0001
Venus	-114494-08-27 07:26 J	-40097272.40	-40097272.19	-40097271.97	0.0088	0.0006
Venus	-114493-04-08 18:58 J	-40097046.92	-40097046.71	-40097046.50	0.0088	0.0012
Venus	-114493-11-20 06:14 J	-40096821.44	-40096821.24	-40096821.02	0.0088	0.0018
Venus	-114492-07-03 17:46 J	-40096595.96	-40096595.76	-40096595.55	0.0088	0.0023
Venus	-114491-02-14 05:02 J	-40096370.48	-40096370.29	-40096370.08	0.0088	0.0030
Moon	-114491-07-07 16:05 J	-40096227.01	-40096226.83	-40096226.66	0.0088	0.0062
Earth	-114491-07-07 19:41 J	-40096226.85	-40096226.68	-40096226.51	0.0088	0.0065 *
Venus	-114491-09-27 17:02 J	-40096144.99	-40096144.79	-40096144.60	0.0088	0.0035
Venus	-114490-05-11 04:34 J	-40095919.50	-40095919.31	-40095919.12	0.0088	0.0041
Earth	-114490-07-10 02:53 J	-40095859.59	-40095859.38	-40095859.14	0.0088	0.0036
Moon	-114490-07-10 06:00 J	-40095859.46	-40095859.25	-40095859.01	0.0088	0.0039 *
Venus	-114490-12-22 15:50 J	-40095694.01	-40095693.84	-40095693.65	0.0088	0.0047
Moon	-114489-07-11 08:53 J	-40095492.38	-40095492.13	-40095491.89	0.0088	0.0005
Earth	-114489-07-11 11:02 J	-40095492.28	-40095492.04	-40095491.78	0.0088	0.0008 *
Venus	-114489-08-04 03:22 J	-40095468.51	-40095468.36	-40095468.17	0.0088	0.0053
Venus	-114488-03-17 14:53 J	-40095243.02	-40095242.88	-40095242.70	0.0088	0.0059

Earth -114488-07-13 19:12 J -40095124.94 -40095124.70 -40095124.46 0.0088 0.0022
 Moon -114488-07-13 20:38 J -40095124.89 -40095124.64 -40095124.38 0.0088 0.0019 *
 Venus -114488-10-29 02:53 J -40095017.52 -40095017.38 -40095017.23 0.0088 0.0064
 Venus -114487-06-11 14:24 J -40094792.02 -40094791.90 -40094791.76 0.0088 0.0070
 Earth -114487-07-16 03:07 J -40094757.56 -40094757.37 -40094757.16 0.0088 0.0051
 Moon -114487-07-16 03:07 J -40094757.54 -40094757.37 -40094757.15 0.0088 0.0054 *
 Venus -114486-01-23 01:41 J -40094566.51 -40094566.43 -40094566.29 0.0089 0.0076
 Moon -114486-07-18 09:50 J -40094390.19 -40094390.09 -40094389.95 0.0089 0.0078
 Earth -114486-07-18 11:31 J -40094390.12 -40094390.02 -40094389.91 0.0089 0.0080 *
 Venus -114486-09-05 13:41 J -40094341.00 -40094340.93 -40094340.83 0.0089 0.0081
 Venus -114485-04-18 01:12 J -40094115.47 -40094115.45 -40094115.39 0.0089 0.0087
 Mars -114477-08-13 12:43 J -40091076.05 -40091075.97 -40091075.85 0.0089 0.0084
 Mars -114475-07-09 22:34 J -40090380.71 -40090380.56 -40090380.35 0.0089 0.0074
 Mars -114473-06-04 07:26 J -40089685.39 -40089685.19 -40089684.94 0.0089 0.0063
 Mars -114471-04-30 14:10 J -40088990.15 -40088989.91 -40088989.62 0.0089 0.0052
 Mars -114469-03-25 19:12 J -40088294.98 -40088294.70 -40088294.41 0.0089 0.0040
 Mars -114467-02-18 23:02 J -40087599.83 -40087599.54 -40087599.23 0.0089 0.0029
 Mars -114465-01-15 00:29 J -40086904.77 -40086904.48 -40086904.15 0.0089 0.0018
 Mars -114464-12-10 00:43 J -40086209.78 -40086209.47 -40086209.15 0.0089 0.0006
 Mars -114462-11-04 23:31 J -40085514.82 -40085514.52 -40085514.19 0.0089 0.0006
 Mars -114460-09-29 20:24 J -40084819.94 -40084819.65 -40084819.33 0.0089 0.0017
 Mercury -114460-12-28 12:29 J -40084730.01 -40084729.98 -40084729.93 0.0089 0.0086
 Mercury -114459-03-26 15:07 J -40084641.92 -40084641.87 -40084641.78 0.0089 0.0081
 Mercury -114459-06-22 18:29 J -40084553.82 -40084553.73 -40084553.64 0.0089 0.0075
 Mercury -114459-09-18 21:07 J -40084465.72 -40084465.62 -40084465.50 0.0089 0.0070
 Mercury -114459-12-16 00:00 J -40084377.61 -40084377.50 -40084377.37 0.0089 0.0065
 Mercury -114458-03-14 02:53 J -40084289.50 -40084289.38 -40084289.24 0.0089 0.0060
 Mercury -114458-06-10 06:00 J -40084201.39 -40084201.25 -40084201.11 0.0089 0.0054
 Mars -114458-08-25 15:36 J -40084125.14 -40084124.85 -40084124.55 0.0089 0.0028
 Mercury -114458-09-06 08:38 J -40084113.27 -40084113.14 -40084112.98 0.0089 0.0049

Mercury -114458-12-03 11:31 J -40084025.16 -40084025.02 -40084024.85 0.0089 0.0044

Mercury -114457-02-29 14:53 J -40083937.04 -40083936.88 -40083936.72 0.0089 0.0038

Mercury -114457-05-27 17:31 J -40083848.92 -40083848.77 -40083848.59 0.0089 0.0033

Mercury -114457-08-23 20:38 J -40083760.80 -40083760.64 -40083760.46 0.0089 0.0028

Mercury -114457-11-19 23:46 J -40083672.68 -40083672.51 -40083672.34 0.0089 0.0022

Mercury -114456-02-16 02:38 J -40083584.56 -40083584.39 -40083584.21 0.0089 0.0017

Mercury -114456-05-15 05:46 J -40083496.44 -40083496.26 -40083496.08 0.0089 0.0011

Mars -114456-07-20 09:50 J -40083430.36 -40083430.09 -40083429.80 0.0089 0.0039

Mercury -114456-08-11 08:38 J -40083408.31 -40083408.14 -40083407.96 0.0089 0.0006

Mercury -114456-11-07 11:46 J -40083320.19 -40083320.01 -40083319.83 0.0089 0.0001

Mercury -114455-02-03 14:53 J -40083232.06 -40083231.88 -40083231.70 0.0089 0.0005

Mercury -114455-05-02 17:46 J -40083143.93 -40083143.76 -40083143.58 0.0089 0.0011

Mercury -114455-07-29 20:53 J -40083055.80 -40083055.63 -40083055.45 0.0089 0.0017

Mercury -114455-10-26 00:00 J -40082967.67 -40082967.50 -40082967.32 0.0089 0.0022

Mercury -114454-01-22 02:53 J -40082879.54 -40082879.38 -40082879.20 0.0089 0.0028

Mercury -114454-04-20 06:14 J -40082791.41 -40082791.24 -40082791.07 0.0089 0.0033

Mars -114454-06-15 02:10 J -40082735.63 -40082735.41 -40082735.12 0.0089 0.0051

Mercury -114454-07-17 09:07 J -40082703.27 -40082703.12 -40082702.95 0.0089 0.0039

Mercury -114454-10-13 12:14 J -40082615.14 -40082614.99 -40082614.82 0.0089 0.0045

Mercury -114453-01-09 15:36 J -40082527.00 -40082526.85 -40082526.70 0.0089 0.0050

Mercury -114453-04-06 18:29 J -40082438.86 -40082438.73 -40082438.58 0.0089 0.0056

Mercury -114453-07-03 21:36 J -40082350.72 -40082350.60 -40082350.45 0.0089 0.0062

Mercury -114453-09-30 00:58 J -40082262.57 -40082262.46 -40082262.33 0.0089 0.0067

Mercury -114453-12-27 04:05 J -40082174.42 -40082174.33 -40082174.22 0.0089 0.0073

Mercury -114452-03-25 07:12 J -40082086.27 -40082086.20 -40082086.10 0.0089 0.0079

Mars -114452-05-09 16:34 J -40082041.01 -40082040.81 -40082040.56 0.0089 0.0060

Mercury -114452-06-21 10:48 J -40081998.11 -40081998.05 -40081998.00 0.0089 0.0085

Mars -114450-04-04 05:46 J -40081346.42 -40081346.26 -40081346.04 0.0089 0.0070

Mars -114448-02-26 18:43 J -40080651.85 -40080651.72 -40080651.58 0.0089 0.0080

Mars -114446-01-22 04:19 J -40079957.32 -40079957.32 -40079957.27 0.0089 0.0089

Venus	-114421-07-08 20:24 J	-40070657.71	-40070657.65	-40070657.55	0.0089	0.0083
Venus	-114420-02-19 11:02 J	-40070432.13	-40070432.04	-40070431.91	0.0089	0.0077
Venus	-114420-10-03 01:55 J	-40070206.54	-40070206.42	-40070206.26	0.0089	0.0071
Venus	-114419-05-16 16:34 J	-40069980.94	-40069980.81	-40069980.63	0.0089	0.0065
Venus	-114419-12-28 07:12 J	-40069755.35	-40069755.20	-40069755.01	0.0089	0.0059
Venus	-114418-08-10 22:19 J	-40069529.75	-40069529.57	-40069529.38	0.0089	0.0052
Venus	-114417-03-23 12:43 J	-40069304.15	-40069303.97	-40069303.76	0.0089	0.0046
Venus	-114417-11-04 03:22 J	-40069078.54	-40069078.36	-40069078.13	0.0089	0.0040
Venus	-114416-06-17 18:29 J	-40068852.94	-40068852.73	-40068852.51	0.0089	0.0033
Venus	-114415-01-29 09:07 J	-40068627.33	-40068627.12	-40068626.90	0.0089	0.0027
Venus	-114415-09-11 23:46 J	-40068401.72	-40068401.51	-40068401.28	0.0089	0.0021
Venus	-114414-04-25 14:38 J	-40068176.11	-40068175.89	-40068175.66	0.0089	0.0014
Venus	-114414-12-07 05:17 J	-40067950.50	-40067950.28	-40067950.04	0.0089	0.0008
Venus	-114413-07-19 20:10 J	-40067724.89	-40067724.66	-40067724.43	0.0089	0.0001
Venus	-114412-03-02 10:48 J	-40067499.27	-40067499.05	-40067498.82	0.0089	0.0005
Venus	-114412-10-14 01:41 J	-40067273.65	-40067273.43	-40067273.20	0.0089	0.0012
Venus	-114411-05-27 16:19 J	-40067048.04	-40067047.82	-40067047.59	0.0089	0.0018
Venus	-114410-01-08 06:58 J	-40066822.42	-40066822.21	-40066821.98	0.0089	0.0025
Venus	-114410-08-21 21:36 J	-40066596.81	-40066596.60	-40066596.38	0.0089	0.0031
Moon	-114409-01-12 05:02 J	-40066453.38	-40066453.29	-40066453.15	0.0089	0.0081
Earth	-114409-01-12 07:26 J	-40066453.32	-40066453.19	-40066453.06	0.0089	0.0077 *
Venus	-114409-04-03 12:14 J	-40066371.19	-40066370.99	-40066370.78	0.0089	0.0037
Venus	-114409-11-15 03:07 J	-40066145.57	-40066145.37	-40066145.17	0.0089	0.0043
Earth	-114408-01-13 22:34 J	-40066085.77	-40066085.56	-40066085.31	0.0089	0.0046
Moon	-114408-01-14 00:43 J	-40066085.68	-40066085.47	-40066085.23	0.0089	0.0042 *
Venus	-114408-06-28 17:17 J	-40065919.95	-40065919.78	-40065919.57	0.0089	0.0050
Moon	-114407-01-16 11:02 J	-40065718.29	-40065718.04	-40065717.76	0.0089	0.0019
Earth	-114407-01-16 14:38 J	-40065718.15	-40065717.89	-40065717.62	0.0089	0.0014 *
Venus	-114407-02-09 07:55 J	-40065694.33	-40065694.17	-40065693.98	0.0089	0.0056
Venus	-114407-09-22 22:34 J	-40065468.71	-40065468.56	-40065468.39	0.0089	0.0062

Earth -114406-01-19 06:00 J -40065350.51 -40065350.25 -40065349.98 0.0089 0.0017
 Moon -114406-01-19 09:22 J -40065350.35 -40065350.11 -40065349.84 0.0089 0.0022 *
 Venus -114406-05-06 13:12 J -40065243.09 -40065242.95 -40065242.80 0.0089 0.0068
 Venus -114406-12-18 03:36 J -40065017.46 -40065017.35 -40065017.22 0.0089 0.0074
 Moon -114405-01-21 17:31 J -40064982.99 -40064982.77 -40064982.53 0.0089 0.0044
 Earth -114405-01-21 20:53 J -40064982.83 -40064982.63 -40064982.38 0.0089 0.0049 *
 Venus -114405-07-30 18:14 J -40064791.83 -40064791.74 -40064791.64 0.0089 0.0080
 Earth -114404-01-23 11:46 J -40064615.09 -40064615.01 -40064614.86 0.0089 0.0080
 Moon -114404-01-23 16:05 J -40064614.91 -40064614.83 -40064614.75 0.0089 0.0084 *
 Venus -114404-03-13 08:38 J -40064566.19 -40064566.14 -40064566.09 0.0089 0.0086
 Mars -114397-06-20 18:43 J -40061909.75 -40061909.72 -40061909.62 0.0089 0.0087
 Mars -114395-05-16 01:55 J -40061215.53 -40061215.42 -40061215.24 0.0089 0.0078
 Mars -114393-04-09 12:00 J -40060521.18 -40060521.00 -40060520.79 0.0089 0.0068
 Mars -114391-03-04 22:05 J -40059826.78 -40059826.58 -40059826.32 0.0089 0.0059
 Mars -114389-01-28 09:36 J -40059132.35 -40059132.10 -40059131.84 0.0089 0.0048
 Mars -114388-12-22 21:50 J -40058437.85 -40058437.59 -40058437.29 0.0089 0.0038
 Mars -114386-11-17 12:29 J -40057743.26 -40057742.98 -40057742.67 0.0088 0.0027
 Mars -114384-10-12 03:50 J -40057048.64 -40057048.34 -40057048.02 0.0088 0.0015
 Mars -114382-09-06 21:07 J -40056353.93 -40056353.62 -40056353.30 0.0088 0.0004
 Mars -114380-08-01 16:05 J -40055659.14 -40055658.83 -40055658.51 0.0088 0.0008
 Mercury -114378-01-23 01:12 J -40055119.47 -40055119.45 -40055119.40 0.0088 0.0086
 Mercury -114378-04-21 03:22 J -40055031.42 -40055031.36 -40055031.31 0.0088 0.0081
 Mars -114378-06-27 11:46 J -40054964.31 -40054964.01 -40054963.69 0.0088 0.0019
 Mercury -114378-07-18 04:48 J -40054943.36 -40054943.30 -40054943.22 0.0088 0.0077
 Mercury -114378-10-14 06:29 J -40054855.30 -40054855.23 -40054855.14 0.0088 0.0072
 Mercury -114377-01-10 08:10 J -40054767.24 -40054767.16 -40054767.06 0.0088 0.0068
 Mercury -114377-04-07 09:50 J -40054679.18 -40054679.09 -40054678.98 0.0088 0.0063
 Mercury -114377-07-04 11:46 J -40054591.12 -40054591.01 -40054590.91 0.0088 0.0059
 Mercury -114377-09-30 13:12 J -40054503.05 -40054502.95 -40054502.83 0.0088 0.0055
 Mercury -114377-12-27 14:53 J -40054414.99 -40054414.88 -40054414.76 0.0088 0.0050

Mercury -114376-03-25 16:34 J -40054326.93 -40054326.81 -40054326.68 0.0088 0.0046

Mars -114376-05-22 09:50 J -40054269.38 -40054269.09 -40054268.78 0.0088 0.0031

Mercury -114376-06-21 18:14 J -40054238.86 -40054238.74 -40054238.61 0.0088 0.0041

Mercury -114376-09-17 19:41 J -40054150.80 -40054150.68 -40054150.54 0.0088 0.0038

Mercury -114376-12-14 21:36 J -40054062.73 -40054062.60 -40054062.47 0.0088 0.0033

Mercury -114375-03-12 23:02 J -40053974.67 -40053974.54 -40053974.40 0.0088 0.0029

Mercury -114375-06-09 00:43 J -40053886.60 -40053886.47 -40053886.33 0.0088 0.0024

Mercury -114375-09-05 02:24 J -40053798.54 -40053798.40 -40053798.26 0.0088 0.0020

Mercury -114375-12-02 04:05 J -40053710.47 -40053710.33 -40053710.19 0.0088 0.0015

Mercury -114374-02-28 05:31 J -40053622.40 -40053622.27 -40053622.12 0.0088 0.0012

Mars -114374-04-17 09:36 J -40053574.35 -40053574.10 -40053573.79 0.0088 0.0043

Mercury -114374-05-27 07:12 J -40053534.34 -40053534.20 -40053534.06 0.0088 0.0007

Mercury -114374-08-23 08:53 J -40053446.27 -40053446.13 -40053445.99 0.0088 0.0003

Mercury -114374-11-19 10:34 J -40053358.21 -40053358.06 -40053357.92 0.0088 0.0003

Mercury -114373-02-15 12:00 J -40053270.14 -40053270.00 -40053269.86 0.0088 0.0006

Mercury -114373-05-13 13:41 J -40053182.07 -40053181.93 -40053181.79 0.0088 0.0010

Mercury -114373-08-09 15:07 J -40053094.01 -40053093.87 -40053093.73 0.0088 0.0015

Mercury -114373-11-05 16:48 J -40053005.94 -40053005.80 -40053005.66 0.0088 0.0019

Mercury -114372-02-01 18:14 J -40052917.87 -40052917.74 -40052917.60 0.0088 0.0023

Mars -114372-03-12 11:17 J -40052879.26 -40052879.03 -40052878.76 0.0088 0.0054

Mercury -114372-04-30 19:41 J -40052829.81 -40052829.68 -40052829.54 0.0088 0.0027

Mercury -114372-07-27 21:22 J -40052741.74 -40052741.61 -40052741.48 0.0088 0.0031

Mercury -114372-10-23 22:48 J -40052653.67 -40052653.55 -40052653.42 0.0088 0.0036

Mercury -114371-01-20 00:29 J -40052565.60 -40052565.48 -40052565.36 0.0088 0.0040

Mercury -114371-04-18 01:55 J -40052477.54 -40052477.42 -40052477.30 0.0088 0.0044

Mercury -114371-07-15 03:22 J -40052389.47 -40052389.36 -40052389.24 0.0088 0.0048

Mercury -114371-10-11 04:48 J -40052301.40 -40052301.30 -40052301.18 0.0088 0.0052

Mercury -114370-01-07 06:14 J -40052213.33 -40052213.24 -40052213.12 0.0088 0.0057

Mars -114370-02-05 14:10 J -40052184.13 -40052183.91 -40052183.69 0.0088 0.0065

Mercury -114370-04-05 07:55 J -40052125.26 -40052125.17 -40052125.06 0.0088 0.0060

Mercury -114370-07-02 09:22 J -40052037.19 -40052037.11 -40052037.01 0.0088 0.0064

Mercury -114370-09-28 10:48 J -40051949.13 -40051949.05 -40051948.95 0.0088 0.0069

Mercury -114370-12-25 12:14 J -40051861.05 -40051860.99 -40051860.90 0.0088 0.0073

Mercury -114369-03-22 13:55 J -40051772.98 -40051772.92 -40051772.85 0.0088 0.0076

Mercury -114369-06-18 15:22 J -40051684.91 -40051684.86 -40051684.80 0.0088 0.0080

Mercury -114369-09-14 16:48 J -40051596.83 -40051596.80 -40051596.75 0.0088 0.0084

Mercury -114369-12-11 18:29 J -40051508.73 -40051508.73 -40051508.73 0.0088 0.0088

Mars -114369-12-31 18:43 J -40051488.88 -40051488.72 -40051488.55 0.0088 0.0076

Mars -114367-11-27 00:00 J -40050793.54 -40050793.50 -40050793.40 0.0088 0.0087

Jupiter -114361-09-01 20:38 J -40048688.09 -40048687.64 -40048687.16 0.0088 0.0041

Venus -114339-01-12 04:48 J -40040885.34 -40040885.30 -40040885.22 0.0088 0.0085

Venus -114339-08-25 16:34 J -40040659.90 -40040659.81 -40040659.71 0.0088 0.0079

Venus -114338-04-08 03:50 J -40040434.44 -40040434.34 -40040434.21 0.0088 0.0073

Venus -114338-11-19 15:22 J -40040208.98 -40040208.86 -40040208.71 0.0088 0.0068

Venus -114337-07-02 02:38 J -40039983.52 -40039983.39 -40039983.22 0.0088 0.0062

Venus -114336-02-12 14:10 J -40039758.06 -40039757.91 -40039757.73 0.0088 0.0057

Venus -114336-09-26 01:55 J -40039532.59 -40039532.42 -40039532.24 0.0088 0.0051

Venus -114335-05-09 13:12 J -40039307.12 -40039306.95 -40039306.75 0.0088 0.0045

Venus -114335-12-21 00:43 J -40039081.65 -40039081.47 -40039081.27 0.0088 0.0039

Venus -114334-08-03 12:14 J -40038856.18 -40038855.99 -40038855.79 0.0088 0.0034

Venus -114333-03-15 23:46 J -40038630.70 -40038630.51 -40038630.30 0.0088 0.0028

Venus -114333-10-27 11:02 J -40038405.23 -40038405.04 -40038404.82 0.0088 0.0023

Venus -114332-06-09 22:34 J -40038179.76 -40038179.56 -40038179.34 0.0088 0.0017

Venus -114331-01-21 10:05 J -40037954.29 -40037954.08 -40037953.86 0.0088 0.0010

Venus -114331-09-03 21:36 J -40037728.81 -40037728.60 -40037728.39 0.0088 0.0004

Venus -114330-04-17 09:07 J -40037503.33 -40037503.12 -40037502.91 0.0088 0.0002

Venus -114330-11-28 20:24 J -40037277.85 -40037277.65 -40037277.43 0.0088 0.0008

Venus -114329-07-11 07:41 J -40037052.38 -40037052.18 -40037051.96 0.0088 0.0014

Venus -114328-02-21 19:26 J -40036826.90 -40036826.69 -40036826.49 0.0088 0.0019

Venus -114328-10-05 06:43 J -40036601.42 -40036601.22 -40036601.01 0.0088 0.0025

Venus -114327-05-18 18:14 J -40036375.93 -40036375.74 -40036375.53 0.0088 0.0031
 Earth -114327-07-07 08:53 J -40036326.22 -40036326.13 -40036325.98 0.0088 0.0078
 Moon -114327-07-07 10:48 J -40036326.18 -40036326.05 -40036325.89 0.0088 0.0073 *
 Venus -114327-12-30 05:31 J -40036150.45 -40036150.27 -40036150.06 0.0088 0.0037
 Moon -114326-07-09 16:19 J -40035958.99 -40035958.82 -40035958.61 0.0088 0.0054
 Earth -114326-07-09 16:48 J -40035958.99 -40035958.80 -40035958.58 0.0088 0.0049 *
 Venus -114326-08-12 17:02 J -40035924.96 -40035924.79 -40035924.59 0.0088 0.0042
 Venus -114325-03-25 04:48 J -40035699.47 -40035699.30 -40035699.12 0.0088 0.0048
 Moon -114325-07-10 23:02 J -40035591.78 -40035591.54 -40035591.28 0.0088 0.0016
 Earth -114325-07-11 00:43 J -40035591.71 -40035591.47 -40035591.22 0.0088 0.0020 *
 Venus -114325-11-05 16:05 J -40035473.98 -40035473.83 -40035473.65 0.0088 0.0054
 Venus -114324-06-19 03:36 J -40035248.49 -40035248.35 -40035248.17 0.0088 0.0060
 Earth -114324-07-13 08:38 J -40035224.39 -40035224.14 -40035223.89 0.0088 0.0010
 Moon -114324-07-13 10:48 J -40035224.29 -40035224.05 -40035223.81 0.0088 0.0005 *
 Venus -114323-01-30 15:07 J -40035022.99 -40035022.87 -40035022.71 0.0088 0.0066
 Moon -114323-07-15 12:58 J -40034857.16 -40034856.96 -40034856.72 0.0088 0.0044
 Earth -114323-07-15 16:19 J -40034857.03 -40034856.82 -40034856.58 0.0088 0.0039 *
 Venus -114323-09-13 02:53 J -40034797.49 -40034797.38 -40034797.24 0.0088 0.0071
 Venus -114322-04-26 14:24 J -40034571.98 -40034571.90 -40034571.77 0.0088 0.0077
 Earth -114322-07-18 00:29 J -40034489.63 -40034489.48 -40034489.31 0.0088 0.0068
 Moon -114322-07-18 04:05 J -40034489.50 -40034489.33 -40034489.15 0.0088 0.0063 *
 Venus -114322-12-08 02:38 J -40034346.47 -40034346.39 -40034346.31 0.0089 0.0082
 Venus -114321-07-20 13:41 J -40034120.94 -40034120.93 -40034120.88 0.0089 0.0088
 Mars -114313-03-27 17:02 J -40031313.79 -40031313.79 -40031313.73 0.0089 0.0089
 Mars -114311-02-21 03:36 J -40030618.47 -40030618.35 -40030618.16 0.0089 0.0078
 Mars -114309-01-17 13:41 J -40029923.13 -40029922.93 -40029922.70 0.0089 0.0066
 Mars -114308-12-12 21:36 J -40029227.82 -40029227.60 -40029227.32 0.0089 0.0055
 Mars -114306-11-08 04:05 J -40028532.59 -40028532.33 -40028532.03 0.0089 0.0043
 Mars -114304-10-03 08:24 J -40027837.43 -40027837.15 -40027836.83 0.0089 0.0031
 Mars -114302-08-29 12:00 J -40027142.30 -40027142.00 -40027141.67 0.0089 0.0019

Mars -114300-07-24 14:24 J -40026447.21 -40026446.90 -40026446.58 0.0089 0.0007
 Mars -114298-06-19 14:38 J -40025752.21 -40025751.89 -40025751.58 0.0089 0.0005
 Mars -114296-05-14 12:58 J -40025057.26 -40025056.96 -40025056.64 0.0089 0.0017
 Mercury -114295-06-28 08:38 J -40024647.15 -40024647.14 -40024647.10 0.0089 0.0088
 Mercury -114295-09-24 11:17 J -40024559.07 -40024559.03 -40024558.95 0.0089 0.0083
 Mercury -114295-12-21 14:38 J -40024470.97 -40024470.89 -40024470.80 0.0089 0.0077
 Mercury -114294-03-19 17:17 J -40024382.87 -40024382.78 -40024382.67 0.0089 0.0072
 Mars -114294-04-09 09:36 J -40024362.38 -40024362.10 -40024361.78 0.0089 0.0029
 Mercury -114294-06-15 20:10 J -40024294.76 -40024294.66 -40024294.53 0.0089 0.0067
 Mercury -114294-09-11 23:02 J -40024206.65 -40024206.54 -40024206.40 0.0089 0.0062
 Mercury -114294-12-09 02:10 J -40024118.54 -40024118.41 -40024118.27 0.0089 0.0056
 Mercury -114293-03-06 05:02 J -40024030.43 -40024030.29 -40024030.14 0.0089 0.0051
 Mercury -114293-06-02 07:41 J -40023942.32 -40023942.18 -40023942.01 0.0089 0.0046
 Mercury -114293-08-29 11:02 J -40023854.20 -40023854.04 -40023853.89 0.0089 0.0040
 Mercury -114293-11-25 13:41 J -40023766.08 -40023765.93 -40023765.76 0.0089 0.0035
 Mercury -114292-02-21 16:34 J -40023677.97 -40023677.81 -40023677.63 0.0089 0.0030
 Mars -114292-03-04 04:19 J -40023667.59 -40023667.32 -40023667.03 0.0089 0.0040
 Mercury -114292-05-20 19:41 J -40023589.85 -40023589.68 -40023589.50 0.0089 0.0024
 Mercury -114292-08-16 22:34 J -40023501.72 -40023501.56 -40023501.38 0.0089 0.0019
 Mercury -114292-11-13 01:41 J -40023413.60 -40023413.43 -40023413.25 0.0089 0.0014
 Mercury -114291-02-09 04:48 J -40023325.48 -40023325.30 -40023325.12 0.0089 0.0008
 Mercury -114291-05-08 07:41 J -40023237.35 -40023237.18 -40023237.00 0.0089 0.0003
 Mercury -114291-08-04 10:48 J -40023149.23 -40023149.05 -40023148.87 0.0089 0.0003
 Mercury -114291-10-31 13:41 J -40023061.10 -40023060.93 -40023060.74 0.0089 0.0009
 Mercury -114290-01-27 16:48 J -40022972.97 -40022972.80 -40022972.62 0.0089 0.0014
 Mars -114290-01-27 21:22 J -40022972.85 -40022972.61 -40022972.34 0.0089 0.0051 *
 Mercury -114290-04-25 19:55 J -40022884.84 -40022884.67 -40022884.49 0.0089 0.0020
 Mercury -114290-07-22 23:02 J -40022796.71 -40022796.54 -40022796.37 0.0089 0.0025
 Mercury -114290-10-19 01:55 J -40022708.58 -40022708.42 -40022708.24 0.0089 0.0031
 Mercury -114289-01-15 05:17 J -40022620.45 -40022620.28 -40022620.12 0.0089 0.0036

Mercury -114289-04-12 08:10 J -40022532.31 -40022532.16 -40022531.99 0.0089 0.0042

Mercury -114289-07-09 11:02 J -40022444.18 -40022444.04 -40022443.87 0.0089 0.0048

Mercury -114289-10-05 14:24 J -40022356.04 -40022355.90 -40022355.75 0.0089 0.0053

Mars -114289-12-22 13:26 J -40022278.13 -40022277.94 -40022277.69 0.0089 0.0062

Mercury -114288-01-01 17:31 J -40022267.90 -40022267.77 -40022267.63 0.0089 0.0059

Mercury -114288-03-30 20:24 J -40022179.75 -40022179.65 -40022179.51 0.0089 0.0065

Mercury -114288-06-27 00:00 J -40022091.61 -40022091.50 -40022091.39 0.0089 0.0070

Mercury -114288-09-23 02:53 J -40022003.46 -40022003.38 -40022003.27 0.0089 0.0076

Mercury -114288-12-20 06:00 J -40021915.30 -40021915.25 -40021915.16 0.0089 0.0082

Mercury -114287-03-18 09:36 J -40021827.13 -40021827.10 -40021827.07 0.0089 0.0088

Mars -114287-11-17 03:36 J -40021583.51 -40021583.35 -40021583.16 0.0089 0.0072

Mars -114285-10-11 16:19 J -40020888.92 -40020888.82 -40020888.69 0.0089 0.0082

Venus -114257-02-27 14:53 J -40010888.89 -40010888.88 -40010888.83 0.0089 0.0088

Venus -114257-10-10 05:46 J -40010663.33 -40010663.26 -40010663.15 0.0089 0.0082

Venus -114256-05-23 20:24 J -40010437.74 -40010437.65 -40010437.51 0.0089 0.0076

Venus -114255-01-04 11:02 J -40010212.15 -40010212.04 -40010211.87 0.0089 0.0070

Venus -114255-08-18 01:41 J -40009986.56 -40009986.43 -40009986.24 0.0089 0.0064

Venus -114254-03-31 16:48 J -40009760.96 -40009760.80 -40009760.61 0.0089 0.0057

Venus -114254-11-12 07:26 J -40009535.36 -40009535.19 -40009534.99 0.0089 0.0051

Venus -114253-06-24 22:05 J -40009309.76 -40009309.58 -40009309.37 0.0089 0.0045

Venus -114252-02-05 13:12 J -40009084.16 -40009083.95 -40009083.75 0.0089 0.0038

Venus -114252-09-19 03:36 J -40008858.55 -40008858.35 -40008858.12 0.0089 0.0032

Venus -114251-05-02 18:14 J -40008632.94 -40008632.74 -40008632.51 0.0089 0.0026

Venus -114251-12-14 09:07 J -40008407.34 -40008407.12 -40008406.89 0.0089 0.0019

Venus -114250-07-27 23:46 J -40008181.73 -40008181.51 -40008181.28 0.0089 0.0013

Venus -114249-03-09 14:24 J -40007956.12 -40007955.90 -40007955.67 0.0089 0.0007

Venus -114249-10-21 05:17 J -40007730.50 -40007730.28 -40007730.05 0.0089 0.0002

Venus -114248-06-03 19:55 J -40007504.89 -40007504.67 -40007504.44 0.0089 0.0007

Venus -114247-01-15 10:34 J -40007279.28 -40007279.06 -40007278.83 0.0089 0.0013

Venus -114247-08-29 01:12 J -40007053.67 -40007053.45 -40007053.22 0.0089 0.0019

Venus	-114246-04-11 15:50 J	-40006828.05	-40006827.84	-40006827.61	0.0089	0.0026
Venus	-114246-11-23 06:29 J	-40006602.43	-40006602.23	-40006602.00	0.0089	0.0032
Venus	-114245-07-05 21:22 J	-40006376.81	-40006376.61	-40006376.40	0.0089	0.0038
Moon	-114244-01-13 00:58 J	-40006185.66	-40006185.46	-40006185.25	0.0089	0.0056
Earth	-114244-01-13 04:19 J	-40006185.51	-40006185.32	-40006185.12	0.0089	0.0060 *
Venus	-114244-02-16 11:46 J	-40006151.19	-40006151.01	-40006150.80	0.0089	0.0045
Venus	-114244-09-30 02:24 J	-40005925.57	-40005925.40	-40005925.20	0.0089	0.0051
Earth	-114243-01-15 19:41 J	-40005817.91	-40005817.68	-40005817.41	0.0089	0.0029
Moon	-114243-01-15 23:02 J	-40005817.78	-40005817.54	-40005817.27	0.0089	0.0032 *
Venus	-114243-05-13 17:17 J	-40005699.95	-40005699.78	-40005699.60	0.0089	0.0057
Venus	-114243-12-25 07:55 J	-40005474.33	-40005474.17	-40005474.01	0.0089	0.0063
Moon	-114242-01-18 09:50 J	-40005450.35	-40005450.09	-40005449.83	0.0089	0.0007
Earth	-114242-01-18 12:00 J	-40005450.27	-40005450.00	-40005449.73	0.0089	0.0003 *
Venus	-114242-08-07 21:50 J	-40005248.71	-40005248.59	-40005248.42	0.0089	0.0070
Earth	-114241-01-21 03:07 J	-40005082.60	-40005082.37	-40005082.11	0.0089	0.0035
Moon	-114241-01-21 04:19 J	-40005082.57	-40005082.32	-40005082.06	0.0089	0.0031 *
Venus	-114241-03-20 12:14 J	-40005023.08	-40005022.99	-40005022.84	0.0089	0.0076
Venus	-114241-11-01 02:53 J	-40004797.44	-40004797.38	-40004797.26	0.0089	0.0082
Moon	-114240-01-22 17:46 J	-40004714.90	-40004714.76	-40004714.58	0.0089	0.0069
Earth	-114240-01-22 18:00 J	-40004714.90	-40004714.75	-40004714.55	0.0089	0.0066 *
Venus	-114240-06-14 17:31 J	-40004571.78	-40004571.77	-40004571.71	0.0089	0.0088
Mars	-114232-12-29 04:05 J	-40001452.44	-40001452.33	-40001452.20	0.0089	0.0081
Mars	-114230-11-23 11:31 J	-40000758.20	-40000758.02	-40000757.84	0.0089	0.0071
Mars	-114228-10-17 20:24 J	-40000063.85	-40000063.65	-40000063.41	0.0089	0.0061
Mars	-114226-09-12 06:43 J	-39999369.44	-39999369.22	-39999368.94	0.0089	0.0051
Mars	-114224-08-06 18:00 J	-39998675.00	-39998674.75	-39998674.45	0.0089	0.0040
Mars	-114222-07-02 07:12 J	-39997980.50	-39997980.20	-39997979.91	0.0089	0.0028
Mars	-114220-05-26 21:50 J	-39997285.89	-39997285.59	-39997285.27	0.0088	0.0017
Mars	-114218-04-21 14:24 J	-39996591.21	-39996590.90	-39996590.59	0.0088	0.0005
Mars	-114216-03-16 07:26 J	-39995896.49	-39995896.19	-39995895.87	0.0088	0.0008

Mars -114214-02-09 02:38 J -39995201.68 -39995201.39 -39995201.07 0.0088 0.0020
 Mercury -114214-07-23 23:17 J -39995036.54 -39995036.53 -39995036.50 0.0088 0.0087
 Mercury -114214-10-20 01:12 J -39994948.50 -39994948.45 -39994948.40 0.0088 0.0083
 Mercury -114213-01-16 02:38 J -39994860.44 -39994860.39 -39994860.31 0.0088 0.0079
 Mercury -114213-04-13 04:19 J -39994772.39 -39994772.32 -39994772.23 0.0088 0.0074
 Mercury -114213-07-10 06:14 J -39994684.33 -39994684.24 -39994684.15 0.0088 0.0070
 Mercury -114213-10-06 07:41 J -39994596.26 -39994596.18 -39994596.07 0.0088 0.0066
 Mercury -114212-01-02 09:36 J -39994508.20 -39994508.10 -39994508.00 0.0088 0.0061
 Mars -114212-01-03 23:02 J -39994506.83 -39994506.54 -39994506.24 0.0088 0.0031
 Mercury -114212-03-31 11:02 J -39994420.14 -39994420.04 -39994419.92 0.0088 0.0057
 Mercury -114212-06-27 12:43 J -39994332.08 -39994331.97 -39994331.84 0.0088 0.0052
 Mercury -114212-09-23 14:38 J -39994244.01 -39994243.89 -39994243.77 0.0088 0.0048
 Mercury -114212-12-20 16:05 J -39994155.95 -39994155.83 -39994155.70 0.0088 0.0044
 Mercury -114211-03-18 17:46 J -39994067.88 -39994067.76 -39994067.63 0.0088 0.0039
 Mercury -114211-06-14 19:26 J -39993979.82 -39993979.69 -39993979.55 0.0088 0.0035
 Mercury -114211-09-10 21:07 J -39993891.75 -39993891.62 -39993891.48 0.0088 0.0030
 Mars -114211-11-29 20:24 J -39993811.92 -39993811.65 -39993811.36 0.0088 0.0043
 Mercury -114211-12-07 22:34 J -39993803.69 -39993803.56 -39993803.41 0.0088 0.0027
 Mercury -114210-03-06 00:29 J -39993715.62 -39993715.48 -39993715.34 0.0088 0.0022
 Mercury -114210-06-02 01:55 J -39993627.55 -39993627.42 -39993627.28 0.0088 0.0018
 Mercury -114210-08-29 03:36 J -39993539.49 -39993539.35 -39993539.21 0.0088 0.0013
 Mercury -114210-11-25 05:17 J -39993451.42 -39993451.28 -39993451.14 0.0088 0.0009
 Mercury -114209-02-21 06:43 J -39993363.36 -39993363.22 -39993363.07 0.0088 0.0006
 Mercury -114209-05-19 08:24 J -39993275.29 -39993275.15 -39993275.01 0.0088 0.0001
 Mercury -114209-08-15 10:05 J -39993187.22 -39993187.08 -39993186.94 0.0088 0.0004
 Mars -114209-10-24 19:55 J -39993116.90 -39993116.67 -39993116.40 0.0088 0.0055
 Mercury -114209-11-11 11:31 J -39993099.16 -39993099.02 -39993098.88 0.0088 0.0008
 Mercury -114208-02-07 13:12 J -39993011.09 -39993010.95 -39993010.81 0.0088 0.0012
 Mercury -114208-05-06 14:38 J -39992923.02 -39992922.89 -39992922.75 0.0088 0.0017
 Mercury -114208-08-02 16:05 J -39992834.96 -39992834.83 -39992834.68 0.0088 0.0022

Mercury -114208-10-29 17:46 J -39992746.89 -39992746.76 -39992746.62 0.0088 0.0025

Mercury -114207-01-25 19:12 J -39992658.82 -39992658.70 -39992658.56 0.0088 0.0030

Mercury -114207-04-23 20:53 J -39992570.76 -39992570.63 -39992570.50 0.0088 0.0034

Mercury -114207-07-20 22:34 J -39992482.69 -39992482.56 -39992482.44 0.0088 0.0038

Mars -114207-09-19 21:36 J -39992421.78 -39992421.60 -39992421.36 0.0088 0.0067

Mercury -114207-10-17 00:00 J -39992394.62 -39992394.50 -39992394.38 0.0088 0.0042

Mercury -114206-01-13 01:26 J -39992306.55 -39992306.44 -39992306.32 0.0088 0.0046

Mercury -114206-04-11 02:53 J -39992218.48 -39992218.38 -39992218.26 0.0088 0.0050

Mercury -114206-07-08 04:19 J -39992130.42 -39992130.32 -39992130.20 0.0088 0.0055

Mercury -114206-10-04 06:00 J -39992042.35 -39992042.25 -39992042.14 0.0088 0.0058

Mercury -114206-12-31 07:26 J -39991954.28 -39991954.19 -39991954.08 0.0088 0.0063

Mercury -114205-03-28 09:07 J -39991866.21 -39991866.12 -39991866.03 0.0088 0.0066

Mercury -114205-06-24 10:34 J -39991778.14 -39991778.06 -39991777.97 0.0088 0.0071

Mars -114205-08-15 00:29 J -39991726.61 -39991726.48 -39991726.30 0.0088 0.0078

Mercury -114205-09-20 12:00 J -39991690.06 -39991690.00 -39991689.92 0.0088 0.0075

Mercury -114205-12-17 13:26 J -39991601.99 -39991601.94 -39991601.87 0.0088 0.0079

Mercury -114204-03-15 14:53 J -39991513.91 -39991513.88 -39991513.82 0.0088 0.0083

Mercury -114204-06-11 16:34 J -39991425.83 -39991425.81 -39991425.78 0.0088 0.0087

Venus -114175-04-15 17:17 J -39980890.83 -39980890.78 -39980890.69 0.0088 0.0084

Venus -114175-11-27 05:02 J -39980665.38 -39980665.29 -39980665.19 0.0088 0.0078

Venus -114174-07-10 16:05 J -39980439.93 -39980439.83 -39980439.69 0.0088 0.0072

Venus -114173-02-21 03:36 J -39980214.48 -39980214.35 -39980214.20 0.0088 0.0067

Venus -114173-10-03 14:53 J -39979989.01 -39979988.88 -39979988.71 0.0088 0.0061

Venus -114172-05-17 02:24 J -39979763.55 -39979763.40 -39979763.22 0.0088 0.0056

Venus -114172-12-28 13:55 J -39979538.08 -39979537.92 -39979537.73 0.0088 0.0050

Venus -114171-08-11 01:12 J -39979312.62 -39979312.45 -39979312.25 0.0088 0.0044

Venus -114170-03-24 12:43 J -39979087.14 -39979086.97 -39979086.76 0.0088 0.0039

Venus -114170-11-05 00:14 J -39978861.67 -39978861.49 -39978861.28 0.0088 0.0033

Venus -114169-06-17 11:46 J -39978636.20 -39978636.01 -39978635.80 0.0088 0.0027

Venus -114168-01-28 23:17 J -39978410.73 -39978410.53 -39978410.32 0.0088 0.0021

Venus -114168-09-11 10:48 J -39978185.26 -39978185.05 -39978184.84 0.0088 0.0015
 Venus -114167-04-24 22:19 J -39977959.77 -39977959.57 -39977959.35 0.0088 0.0009
 Venus -114167-12-06 09:50 J -39977734.30 -39977734.09 -39977733.88 0.0088 0.0003
 Venus -114166-07-19 21:22 J -39977508.83 -39977508.61 -39977508.40 0.0088 0.0003
 Venus -114165-03-01 08:38 J -39977283.35 -39977283.14 -39977282.92 0.0088 0.0009
 Venus -114165-10-12 20:10 J -39977057.87 -39977057.66 -39977057.45 0.0088 0.0014
 Venus -114164-05-26 07:26 J -39976832.38 -39976832.19 -39976831.97 0.0088 0.0021
 Venus -114163-01-06 19:12 J -39976606.90 -39976606.70 -39976606.50 0.0088 0.0026
 Venus -114163-08-20 06:29 J -39976381.42 -39976381.23 -39976381.03 0.0088 0.0032
 Venus -114162-04-02 17:46 J -39976155.94 -39976155.76 -39976155.55 0.0088 0.0038
 Moon -114162-07-09 04:05 J -39976058.49 -39976058.33 -39976058.12 0.0088 0.0062
 Earth -114162-07-09 05:46 J -39976058.42 -39976058.26 -39976058.06 0.0088 0.0061 *
 Venus -114162-11-14 05:17 J -39975930.45 -39975930.28 -39975930.08 0.0088 0.0043
 Venus -114161-06-26 16:34 J -39975704.96 -39975704.81 -39975704.61 0.0088 0.0050
 Earth -114161-07-10 13:26 J -39975691.16 -39975690.94 -39975690.69 0.0088 0.0033
 Moon -114161-07-10 16:19 J -39975691.03 -39975690.82 -39975690.58 0.0088 0.0032 *
 Venus -114160-02-07 04:19 J -39975479.48 -39975479.32 -39975479.14 0.0088 0.0055
 Moon -114160-07-12 18:00 J -39975324.00 -39975323.75 -39975323.49 0.0088 0.0005
 Earth -114160-07-12 21:36 J -39975323.85 -39975323.60 -39975323.35 0.0088 0.0004 *
 Venus -114160-09-20 15:50 J -39975253.98 -39975253.84 -39975253.67 0.0088 0.0061
 Venus -114159-05-04 03:22 J -39975028.48 -39975028.36 -39975028.20 0.0088 0.0066
 Earth -114159-07-15 05:02 J -39974956.52 -39974956.29 -39974956.05 0.0088 0.0026
 Moon -114159-07-15 08:24 J -39974956.38 -39974956.15 -39974955.90 0.0088 0.0025 *
 Venus -114159-12-15 15:07 J -39974802.98 -39974802.87 -39974802.74 0.0088 0.0072
 Moon -114158-07-17 09:36 J -39974589.27 -39974589.10 -39974588.89 0.0088 0.0055
 Earth -114158-07-17 12:58 J -39974589.14 -39974588.96 -39974588.75 0.0088 0.0055 *
 Venus -114158-07-29 02:24 J -39974577.48 -39974577.40 -39974577.28 0.0088 0.0078
 Venus -114157-03-10 13:55 J -39974351.96 -39974351.92 -39974351.82 0.0088 0.0084
 Earth -114157-07-18 21:07 J -39974221.68 -39974221.62 -39974221.53 0.0088 0.0084
 Moon -114157-07-18 23:31 J -39974221.60 -39974221.52 -39974221.44 0.0088 0.0084 *

Mars -114148-10-05 06:43 J -39970856.31 -39970856.22 -39970856.05 0.0089 0.0082
 Mars -114146-08-31 17:31 J -39970160.94 -39970160.77 -39970160.54 0.0089 0.0070
 Mars -114144-07-27 02:24 J -39969465.62 -39969465.40 -39969465.12 0.0089 0.0058
 Mars -114142-06-22 10:48 J -39968770.30 -39968770.05 -39968769.75 0.0089 0.0046
 Mars -114140-05-17 17:31 J -39968075.06 -39968074.77 -39968074.46 0.0089 0.0033
 Mars -114138-04-12 21:22 J -39967379.90 -39967379.61 -39967379.28 0.0089 0.0021
 Mars -114136-03-08 00:29 J -39966684.80 -39966684.48 -39966684.16 0.0089 0.0008
 Mars -114134-02-01 02:10 J -39965989.73 -39965989.41 -39965989.09 0.0089 0.0004
 Mars -114133-12-27 00:58 J -39965294.76 -39965294.46 -39965294.14 0.0089 0.0017
 Mars -114131-11-21 22:48 J -39964599.83 -39964599.55 -39964599.24 0.0089 0.0029
 Mercury -114130-03-25 07:26 J -39964476.23 -39964476.19 -39964476.13 0.0089 0.0085
 Mercury -114130-06-21 10:19 J -39964388.14 -39964388.07 -39964387.99 0.0089 0.0080
 Mercury -114130-09-17 12:58 J -39964300.04 -39964299.96 -39964299.85 0.0089 0.0075
 Mercury -114130-12-14 15:50 J -39964211.93 -39964211.84 -39964211.72 0.0089 0.0070
 Mercury -114129-03-11 19:12 J -39964123.82 -39964123.70 -39964123.58 0.0089 0.0064
 Mercury -114129-06-07 21:50 J -39964035.71 -39964035.59 -39964035.45 0.0089 0.0059
 Mercury -114129-09-04 00:29 J -39963947.60 -39963947.48 -39963947.32 0.0089 0.0054
 Mars -114129-10-16 19:12 J -39963904.95 -39963904.70 -39963904.40 0.0089 0.0041
 Mercury -114129-12-01 03:22 J -39963859.49 -39963859.36 -39963859.19 0.0089 0.0049
 Mercury -114128-02-27 06:29 J -39963771.37 -39963771.23 -39963771.07 0.0089 0.0043
 Mercury -114128-05-26 09:22 J -39963683.26 -39963683.11 -39963682.94 0.0089 0.0038
 Mercury -114128-08-22 12:14 J -39963595.14 -39963594.99 -39963594.81 0.0089 0.0033
 Mercury -114128-11-18 15:22 J -39963507.02 -39963506.86 -39963506.68 0.0089 0.0027
 Mercury -114127-02-14 18:14 J -39963418.90 -39963418.74 -39963418.56 0.0089 0.0022
 Mercury -114127-05-13 21:22 J -39963330.78 -39963330.61 -39963330.43 0.0089 0.0016
 Mercury -114127-08-10 00:29 J -39963242.66 -39963242.48 -39963242.30 0.0089 0.0011
 Mars -114127-09-11 14:24 J -39963210.15 -39963209.90 -39963209.65 0.0089 0.0052
 Mercury -114127-11-06 03:22 J -39963154.54 -39963154.36 -39963154.18 0.0089 0.0006
 Mercury -114126-02-02 06:29 J -39963066.41 -39963066.23 -39963066.05 0.0089 0.0000
 Mercury -114126-05-01 09:22 J -39962978.28 -39962978.11 -39962977.93 0.0089 0.0006

Mercury -114126-07-28 12:29 J -39962890.16 -39962889.98 -39962889.80 0.0089 0.0011

Mercury -114126-10-24 15:22 J -39962802.03 -39962801.86 -39962801.67 0.0089 0.0017

Mercury -114125-01-20 18:43 J -39962713.90 -39962713.72 -39962713.55 0.0089 0.0022

Mercury -114125-04-17 21:36 J -39962625.77 -39962625.60 -39962625.42 0.0089 0.0028

Mercury -114125-07-15 00:29 J -39962537.64 -39962537.48 -39962537.30 0.0089 0.0034

Mars -114125-08-06 06:43 J -39962515.40 -39962515.22 -39962514.97 0.0089 0.0064

Mercury -114125-10-11 03:36 J -39962449.50 -39962449.35 -39962449.18 0.0089 0.0039

Mercury -114124-01-07 06:43 J -39962361.37 -39962361.22 -39962361.05 0.0089 0.0045

Mercury -114124-04-05 10:05 J -39962273.23 -39962273.08 -39962272.93 0.0089 0.0050

Mercury -114124-07-02 12:58 J -39962185.09 -39962184.96 -39962184.81 0.0089 0.0056

Mercury -114124-09-28 15:50 J -39962096.95 -39962096.84 -39962096.69 0.0089 0.0062

Mercury -114124-12-25 19:12 J -39962008.81 -39962008.70 -39962008.57 0.0089 0.0067

Mercury -114123-03-23 22:19 J -39961920.66 -39961920.57 -39961920.46 0.0089 0.0073

Mercury -114123-06-20 01:12 J -39961832.51 -39961832.45 -39961832.34 0.0089 0.0079

Mars -114123-07-01 23:31 J -39961820.67 -39961820.52 -39961820.33 0.0089 0.0074

Mercury -114123-09-16 04:48 J -39961744.35 -39961744.30 -39961744.24 0.0089 0.0084

Mars -114121-05-26 13:12 J -39961126.00 -39961125.95 -39961125.82 0.0089 0.0085

Venus -114093-05-30 23:31 J -39950894.55 -39950894.52 -39950894.47 0.0089 0.0087

Venus -114092-01-11 14:10 J -39950668.99 -39950668.91 -39950668.81 0.0089 0.0081

Venus -114092-08-25 04:48 J -39950443.40 -39950443.30 -39950443.16 0.0089 0.0075

Venus -114091-04-07 19:26 J -39950217.81 -39950217.69 -39950217.53 0.0089 0.0069

Venus -114091-11-19 10:05 J -39949992.22 -39949992.08 -39949991.89 0.0089 0.0063

Venus -114090-07-03 01:12 J -39949766.62 -39949766.45 -39949766.27 0.0089 0.0056

Venus -114089-02-13 15:50 J -39949541.02 -39949540.84 -39949540.64 0.0089 0.0050

Venus -114089-09-26 06:43 J -39949315.41 -39949315.22 -39949315.01 0.0089 0.0044

Venus -114088-05-09 21:36 J -39949089.80 -39949089.60 -39949089.39 0.0089 0.0037

Venus -114088-12-21 12:14 J -39948864.20 -39948863.99 -39948863.77 0.0089 0.0031

Venus -114087-08-04 02:38 J -39948638.59 -39948638.39 -39948638.15 0.0089 0.0025

Venus -114086-03-17 17:46 J -39948412.99 -39948412.76 -39948412.54 0.0089 0.0018

Venus -114086-10-29 08:24 J -39948187.37 -39948187.15 -39948186.92 0.0089 0.0012

Venus	-114085-06-10 23:02 J	-39947961.76	-39947961.54	-39947961.31	0.0089	0.0006
Venus	-114084-01-22 13:55 J	-39947736.15	-39947735.92	-39947735.69	0.0089	0.0002
Venus	-114084-09-05 04:34 J	-39947510.54	-39947510.31	-39947510.09	0.0089	0.0007
Venus	-114083-04-18 18:58 J	-39947284.93	-39947284.71	-39947284.48	0.0089	0.0014
Venus	-114083-11-30 09:50 J	-39947059.31	-39947059.09	-39947058.87	0.0089	0.0020
Venus	-114082-07-14 00:14 J	-39946833.70	-39946833.49	-39946833.26	0.0089	0.0027
Venus	-114081-02-24 14:53 J	-39946608.08	-39946607.88	-39946607.66	0.0089	0.0033
Venus	-114081-10-07 06:00 J	-39946382.45	-39946382.25	-39946382.05	0.0089	0.0039
Earth	-114080-01-12 08:10 J	-39946285.29	-39946285.16	-39946285.00	0.0089	0.0075
Moon	-114080-01-12 11:31 J	-39946285.11	-39946285.02	-39946284.87	0.0089	0.0080 *
Venus	-114080-05-20 20:10 J	-39946156.83	-39946156.66	-39946156.44	0.0089	0.0046
Venus	-114079-01-01 11:02 J	-39945931.21	-39945931.04	-39945930.85	0.0089	0.0052
Moon	-114079-01-14 21:07 J	-39945917.85	-39945917.62	-39945917.38	0.0089	0.0039
Earth	-114079-01-15 00:14 J	-39945917.70	-39945917.49	-39945917.24	0.0089	0.0044 *
Venus	-114079-08-15 01:41 J	-39945705.59	-39945705.43	-39945705.25	0.0089	0.0058
Earth	-114078-01-17 16:19 J	-39945550.07	-39945549.82	-39945549.54	0.0089	0.0012
Moon	-114078-01-17 19:26 J	-39945549.94	-39945549.69	-39945549.41	0.0089	0.0017 *
Venus	-114078-03-28 16:19 J	-39945479.97	-39945479.82	-39945479.66	0.0089	0.0064
Venus	-114078-11-09 06:43 J	-39945254.34	-39945254.22	-39945254.06	0.0089	0.0071
Moon	-114077-01-20 06:00 J	-39945182.48	-39945182.25	-39945181.98	0.0089	0.0025
Earth	-114077-01-20 07:55 J	-39945182.42	-39945182.17	-39945181.90	0.0089	0.0020 *
Venus	-114077-06-21 21:07 J	-39945028.70	-39945028.62	-39945028.48	0.0089	0.0077
Earth	-114076-01-21 23:17 J	-39944814.73	-39944814.53	-39944814.30	0.0089	0.0052
Moon	-114076-01-22 00:58 J	-39944814.69	-39944814.46	-39944814.22	0.0089	0.0047 *
Venus	-114076-02-02 11:46 J	-39944803.07	-39944803.01	-39944802.91	0.0089	0.0083
Venus	-114076-09-16 02:24 J	-39944577.40	-39944577.40	-39944577.37	0.0089	0.0089
Earth	-114075-01-24 14:24 J	-39944446.96	-39944446.90	-39944446.78	0.0089	0.0083
Moon	-114075-01-24 14:24 J	-39944446.91	-39944446.90	-39944446.84	0.0089	0.0088 *
Mars	-114068-08-13 01:55 J	-39941689.48	-39941689.42	-39941689.31	0.0089	0.0085
Mars	-114066-07-08 09:22 J	-39940995.25	-39940995.11	-39940994.93	0.0089	0.0075

Mars -114064-06-01 16:34 J -39940300.98 -39940300.81 -39940300.56 0.0089 0.0065
 Mars -114062-04-27 02:24 J -39939606.64 -39939606.40 -39939606.15 0.0089 0.0053
 Mars -114060-03-21 13:41 J -39938912.18 -39938911.93 -39938911.64 0.0089 0.0042
 Mars -114058-02-14 01:12 J -39938217.72 -39938217.45 -39938217.14 0.0089 0.0031
 Mars -114056-01-08 14:10 J -39937523.20 -39937522.91 -39937522.60 0.0089 0.0019
 Mars -114055-12-04 05:02 J -39936828.59 -39936828.29 -39936827.97 0.0088 0.0007
 Mars -114053-10-28 21:36 J -39936133.91 -39936133.60 -39936133.28 0.0088 0.0006
 Mars -114051-09-23 14:38 J -39935439.19 -39935438.89 -39935438.57 0.0088 0.0019
 Mercury -114049-04-18 22:34 J -39934865.58 -39934865.56 -39934865.51 0.0088 0.0085
 Mercury -114049-07-16 00:29 J -39934777.53 -39934777.48 -39934777.42 0.0088 0.0081
 Mars -114049-08-18 09:50 J -39934744.36 -39934744.09 -39934743.77 0.0088 0.0032
 Mercury -114049-10-12 01:55 J -39934689.48 -39934689.42 -39934689.33 0.0088 0.0077
 Mercury -114048-01-08 03:36 J -39934601.42 -39934601.35 -39934601.25 0.0088 0.0073
 Mercury -114048-04-06 05:31 J -39934513.36 -39934513.27 -39934513.17 0.0088 0.0068
 Mercury -114048-07-03 06:58 J -39934425.29 -39934425.21 -39934425.09 0.0088 0.0064
 Mercury -114048-09-29 08:53 J -39934337.23 -39934337.13 -39934337.02 0.0088 0.0059
 Mercury -114048-12-26 10:34 J -39934249.17 -39934249.06 -39934248.94 0.0088 0.0054
 Mercury -114047-03-24 12:00 J -39934161.10 -39934161.00 -39934160.87 0.0088 0.0051
 Mercury -114047-06-20 13:55 J -39934073.04 -39934072.92 -39934072.79 0.0088 0.0046
 Mars -114047-07-14 06:43 J -39934049.47 -39934049.22 -39934048.92 0.0088 0.0044
 Mercury -114047-09-16 15:36 J -39933984.97 -39933984.85 -39933984.72 0.0088 0.0041
 Mercury -114047-12-13 17:02 J -39933896.91 -39933896.79 -39933896.65 0.0088 0.0038
 Mercury -114046-03-11 18:58 J -39933808.84 -39933808.71 -39933808.58 0.0088 0.0033
 Mercury -114046-06-07 20:24 J -39933720.78 -39933720.65 -39933720.51 0.0088 0.0029
 Mercury -114046-09-03 22:05 J -39933632.71 -39933632.58 -39933632.44 0.0088 0.0024
 Mercury -114046-11-30 23:46 J -39933544.64 -39933544.51 -39933544.37 0.0088 0.0020
 Mercury -114045-02-27 01:26 J -39933456.58 -39933456.44 -39933456.30 0.0088 0.0015
 Mercury -114045-05-25 03:07 J -39933368.51 -39933368.37 -39933368.23 0.0088 0.0011
 Mars -114045-06-08 05:02 J -39933354.51 -39933354.29 -39933354.02 0.0088 0.0056
 Mercury -114045-08-21 04:34 J -39933280.45 -39933280.31 -39933280.16 0.0088 0.0008

Mercury -114045-11-17 06:14 J -39933192.38 -39933192.24 -39933192.10 0.0088 0.0003

Mercury -114044-02-13 07:55 J -39933104.31 -39933104.17 -39933104.03 0.0088 0.0002

Mercury -114044-05-12 09:22 J -39933016.25 -39933016.11 -39933015.96 0.0088 0.0007

Mercury -114044-08-08 11:02 J -39932928.18 -39932928.04 -39932927.90 0.0088 0.0010

Mercury -114044-11-04 12:43 J -39932840.11 -39932839.97 -39932839.84 0.0088 0.0015

Mercury -114043-01-31 14:10 J -39932752.05 -39932751.91 -39932751.77 0.0088 0.0019

Mercury -114043-04-29 15:36 J -39932663.98 -39932663.85 -39932663.71 0.0088 0.0023

Mars -114043-05-04 05:17 J -39932659.46 -39932659.28 -39932659.04 0.0088 0.0068

Mercury -114043-07-26 17:17 J -39932575.91 -39932575.78 -39932575.64 0.0088 0.0027

Mercury -114043-10-22 18:43 J -39932487.84 -39932487.72 -39932487.58 0.0088 0.0031

Mercury -114042-01-18 20:24 J -39932399.78 -39932399.65 -39932399.52 0.0088 0.0035

Mercury -114042-04-16 21:50 J -39932311.71 -39932311.59 -39932311.46 0.0088 0.0040

Mercury -114042-07-13 23:31 J -39932223.64 -39932223.52 -39932223.40 0.0088 0.0044

Mercury -114042-10-10 00:43 J -39932135.57 -39932135.47 -39932135.34 0.0088 0.0049

Mercury -114041-01-06 02:24 J -39932047.50 -39932047.40 -39932047.28 0.0088 0.0052

Mars -114041-03-29 07:26 J -39931964.30 -39931964.19 -39931964.01 0.0088 0.0079

Mercury -114041-04-03 03:50 J -39931959.44 -39931959.34 -39931959.22 0.0088 0.0056

Mercury -114041-06-30 05:31 J -39931871.37 -39931871.27 -39931871.16 0.0088 0.0060

Mercury -114041-09-26 06:58 J -39931783.30 -39931783.21 -39931783.11 0.0088 0.0064

Mercury -114041-12-23 08:24 J -39931695.22 -39931695.15 -39931695.05 0.0088 0.0069

Mercury -114040-03-21 10:05 J -39931607.15 -39931607.08 -39931607.00 0.0088 0.0072

Mercury -114040-06-17 11:31 J -39931519.08 -39931519.02 -39931518.95 0.0088 0.0077

Mercury -114040-09-13 12:58 J -39931431.01 -39931430.96 -39931430.90 0.0088 0.0081

Mercury -114040-12-10 14:24 J -39931342.93 -39931342.90 -39931342.85 0.0088 0.0085

Venus -114012-12-04 18:00 J -39921121.76 -39921121.75 -39921121.72 0.0088 0.0088

Venus -114011-07-18 05:02 J -39920896.34 -39920896.29 -39920896.19 0.0088 0.0083

Venus -114010-02-28 17:02 J -39920670.89 -39920670.79 -39920670.69 0.0088 0.0077

Venus -114010-10-12 04:05 J -39920445.44 -39920445.33 -39920445.19 0.0088 0.0071

Venus -114009-05-24 15:36 J -39920219.98 -39920219.85 -39920219.70 0.0088 0.0066

Venus -114008-01-05 02:53 J -39919994.52 -39919994.38 -39919994.21 0.0088 0.0060

Venus	-114008-08-18 14:24 J	-39919769.06	-39919768.90	-39919768.72	0.0088	0.0054
Venus	-114007-04-01 01:55 J	-39919543.59	-39919543.42	-39919543.23	0.0088	0.0049
Venus	-114007-11-12 13:12 J	-39919318.12	-39919317.95	-39919317.75	0.0088	0.0043
Venus	-114006-06-26 00:29 J	-39919092.65	-39919092.48	-39919092.27	0.0088	0.0038
Venus	-114005-02-06 12:00 J	-39918867.19	-39918867.00	-39918866.79	0.0088	0.0032
Venus	-114005-09-18 23:46 J	-39918641.71	-39918641.51	-39918641.31	0.0088	0.0026
Venus	-114004-05-02 11:17 J	-39918416.23	-39918416.03	-39918415.82	0.0088	0.0020
Venus	-114004-12-13 22:34 J	-39918190.76	-39918190.56	-39918190.34	0.0088	0.0014
Venus	-114003-07-27 10:05 J	-39917965.29	-39917965.08	-39917964.86	0.0088	0.0008
Venus	-114002-03-09 21:36 J	-39917739.81	-39917739.60	-39917739.38	0.0088	0.0003
Venus	-114002-10-21 09:07 J	-39917514.33	-39917514.12	-39917513.91	0.0088	0.0004
Venus	-114001-06-02 20:38 J	-39917288.85	-39917288.64	-39917288.43	0.0088	0.0010

114TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 114th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-114000-01-14 07:55 J	-39917063.37	-39917063.17	-39917062.95	0.0088	0.0016		
Venus	-114000-08-27 19:26 J	-39916837.89	-39916837.69	-39916837.48	0.0088	0.0021		
Venus	-113999-04-10 06:43 J	-39916612.41	-39916612.22	-39916612.00	0.0088	0.0028		
Venus	-113999-11-21 18:29 J	-39916386.93	-39916386.73	-39916386.53	0.0088	0.0033		

Venus	-113998-07-05 05:46 J	-39916161.44	-39916161.26	-39916161.06	0.0088	0.0039
Moon	-113998-07-08 17:17 J	-39916157.89	-39916157.78	-39916157.62	0.0088	0.0074
Earth	-113998-07-08 18:14 J	-39916157.85	-39916157.74	-39916157.58	0.0088	0.0075 *
Venus	-113997-02-15 17:02 J	-39915935.96	-39915935.79	-39915935.59	0.0088	0.0045
Moon	-113997-07-10 01:41 J	-39915790.65	-39915790.43	-39915790.21	0.0088	0.0047
Earth	-113997-07-10 01:55 J	-39915790.62	-39915790.42	-39915790.19	0.0088	0.0046 *
Venus	-113997-09-28 04:19 J	-39915710.47	-39915710.32	-39915710.12	0.0088	0.0051
Venus	-113996-05-11 16:19 J	-39915484.98	-39915484.82	-39915484.65	0.0088	0.0056
Earth	-113996-07-12 09:36 J	-39915423.34	-39915423.10	-39915422.85	0.0088	0.0017
Moon	-113996-07-12 11:31 J	-39915423.25	-39915423.02	-39915422.78	0.0088	0.0015 *
Venus	-113996-12-23 03:36 J	-39915259.49	-39915259.35	-39915259.18	0.0088	0.0062
Moon	-113995-07-14 14:38 J	-39915056.14	-39915055.89	-39915055.63	0.0088	0.0011
Earth	-113995-07-14 17:17 J	-39915056.02	-39915055.78	-39915055.53	0.0088	0.0012 *
Venus	-113995-08-05 14:53 J	-39915034.00	-39915033.88	-39915033.72	0.0088	0.0068
Venus	-113994-03-19 02:38 J	-39914808.50	-39914808.39	-39914808.26	0.0088	0.0073
Earth	-113994-07-17 00:43 J	-39914688.68	-39914688.47	-39914688.24	0.0088	0.0042
Moon	-113994-07-17 04:05 J	-39914688.53	-39914688.33	-39914688.10	0.0088	0.0044 *
Venus	-113994-10-30 13:55 J	-39914582.99	-39914582.92	-39914582.80	0.0088	0.0079
Venus	-113993-06-12 02:10 J	-39914357.47	-39914357.41	-39914357.35	0.0088	0.0084
Moon	-113993-07-18 05:02 J	-39914321.42	-39914321.29	-39914321.11	0.0088	0.0069
Earth	-113993-07-18 08:24 J	-39914321.28	-39914321.15	-39914320.98	0.0088	0.0071 *
Mars	-113984-05-19 06:43 J	-39911094.28	-39911094.22	-39911094.11	0.0089	0.0086
Mars	-113982-04-14 18:58 J	-39910398.86	-39910398.71	-39910398.51	0.0089	0.0074
Mars	-113980-03-10 05:31 J	-39909703.47	-39909703.27	-39909703.00	0.0089	0.0062
Mars	-113978-02-03 14:24 J	-39909008.15	-39909007.90	-39909007.61	0.0089	0.0049
Mars	-113977-12-29 22:19 J	-39908312.85	-39908312.57	-39908312.26	0.0089	0.0036
Mars	-113975-11-25 04:34 J	-39907617.61	-39907617.31	-39907616.99	0.0089	0.0023
Mars	-113973-10-20 08:24 J	-39906922.47	-39906922.15	-39906921.83	0.0089	0.0010
Mars	-113971-09-15 10:34 J	-39906227.38	-39906227.06	-39906226.74	0.0089	0.0003
Mars	-113969-08-10 11:46 J	-39905532.31	-39905532.01	-39905531.68	0.0089	0.0016

Mars -113967-07-06 11:31 J -39904837.31 -39904837.02 -39904836.72 0.0089 0.0028
 Mercury -113966-09-23 03:07 J -39904393.38 -39904393.37 -39904393.34 0.0089 0.0088
 Mercury -113966-12-20 06:00 J -39904305.30 -39904305.25 -39904305.18 0.0089 0.0083
 Mercury -113965-03-17 08:38 J -39904217.20 -39904217.14 -39904217.04 0.0089 0.0078
 Mars -113965-05-31 08:38 J -39904142.40 -39904142.14 -39904141.84 0.0089 0.0041
 Mercury -113965-06-13 11:31 J -39904129.10 -39904129.02 -39904128.90 0.0089 0.0073
 Mercury -113965-09-09 14:38 J -39904041.00 -39904040.89 -39904040.77 0.0089 0.0067
 Mercury -113965-12-06 17:17 J -39903952.89 -39903952.78 -39903952.64 0.0089 0.0062
 Mercury -113964-03-04 20:10 J -39903864.78 -39903864.66 -39903864.51 0.0089 0.0057
 Mercury -113964-05-31 23:02 J -39903776.67 -39903776.54 -39903776.38 0.0089 0.0052
 Mercury -113964-08-28 02:10 J -39903688.56 -39903688.41 -39903688.25 0.0089 0.0046
 Mercury -113964-11-24 05:02 J -39903600.44 -39903600.29 -39903600.13 0.0089 0.0041
 Mercury -113963-02-20 07:55 J -39903512.32 -39903512.17 -39903512.00 0.0089 0.0036
 Mars -113963-04-26 04:48 J -39903447.53 -39903447.30 -39903447.03 0.0089 0.0053
 Mercury -113963-05-19 11:02 J -39903424.21 -39903424.04 -39903423.87 0.0089 0.0030
 Mercury -113963-08-15 13:55 J -39903336.09 -39903335.92 -39903335.75 0.0089 0.0025
 Mercury -113963-11-11 17:02 J -39903247.97 -39903247.79 -39903247.62 0.0089 0.0019
 Mercury -113962-02-07 19:55 J -39903159.85 -39903159.67 -39903159.49 0.0089 0.0014
 Mercury -113962-05-06 22:48 J -39903071.72 -39903071.55 -39903071.37 0.0089 0.0009
 Mercury -113962-08-03 01:55 J -39902983.60 -39902983.42 -39902983.24 0.0089 0.0003
 Mercury -113962-10-30 04:48 J -39902895.48 -39902895.30 -39902895.12 0.0089 0.0003
 Mercury -113961-01-26 07:55 J -39902807.35 -39902807.17 -39902806.99 0.0089 0.0008
 Mars -113961-03-20 22:48 J -39902752.73 -39902752.55 -39902752.30 0.0089 0.0065
 Mercury -113961-04-23 10:48 J -39902719.22 -39902719.05 -39902718.87 0.0089 0.0014
 Mercury -113961-07-20 13:55 J -39902631.09 -39902630.92 -39902630.74 0.0089 0.0019
 Mercury -113961-10-16 16:48 J -39902542.96 -39902542.80 -39902542.62 0.0089 0.0025
 Mercury -113960-01-12 19:55 J -39902454.83 -39902454.67 -39902454.49 0.0089 0.0030
 Mercury -113960-04-10 22:48 J -39902366.70 -39902366.55 -39902366.37 0.0089 0.0036
 Mercury -113960-07-08 02:10 J -39902278.57 -39902278.41 -39902278.25 0.0089 0.0041
 Mercury -113960-10-04 05:02 J -39902190.43 -39902190.29 -39902190.12 0.0089 0.0047

Mercury -113960-12-31 07:55 J -39902102.30 -39902102.17 -39902102.00 0.0089 0.0053

Mars -113959-02-13 14:53 J -39902058.01 -39902057.88 -39902057.69 0.0089 0.0076

Mercury -113959-03-29 11:17 J -39902014.16 -39902014.03 -39902013.88 0.0089 0.0058

Mercury -113959-06-25 14:24 J -39901926.02 -39901925.90 -39901925.76 0.0089 0.0064

Mercury -113959-09-21 17:46 J -39901837.87 -39901837.76 -39901837.65 0.0089 0.0069

Mercury -113959-12-18 20:38 J -39901749.72 -39901749.64 -39901749.53 0.0089 0.0075

Mercury -113958-03-16 23:46 J -39901661.57 -39901661.51 -39901661.42 0.0089 0.0081

Mercury -113958-06-13 02:38 J -39901573.40 -39901573.39 -39901573.32 0.0089 0.0087

Mars -113957-01-09 06:58 J -39901363.28 -39901363.21 -39901363.14 0.0089 0.0086

Venus -113929-09-01 06:58 J -39890900.24 -39890900.21 -39890900.14 0.0089 0.0087

Venus -113928-04-14 21:36 J -39890674.67 -39890674.60 -39890674.48 0.0089 0.0081

Venus -113928-11-26 12:43 J -39890449.09 -39890448.97 -39890448.84 0.0089 0.0074

Venus -113927-07-10 03:22 J -39890223.50 -39890223.36 -39890223.21 0.0089 0.0068

Venus -113926-02-20 17:46 J -39889997.90 -39889997.76 -39889997.58 0.0089 0.0062

Venus -113926-10-04 08:38 J -39889772.30 -39889772.14 -39889771.94 0.0089 0.0056

Venus -113925-05-16 23:46 J -39889546.69 -39889546.51 -39889546.31 0.0089 0.0049

Venus -113925-12-28 14:24 J -39889321.09 -39889320.90 -39889320.69 0.0089 0.0043

Venus -113924-08-11 04:48 J -39889095.49 -39889095.30 -39889095.07 0.0089 0.0037

Venus -113923-03-24 19:55 J -39888869.88 -39888869.67 -39888869.45 0.0089 0.0030

Venus -113923-11-05 10:34 J -39888644.27 -39888644.06 -39888643.83 0.0089 0.0024

Venus -113922-06-19 01:12 J -39888418.66 -39888418.45 -39888418.21 0.0089 0.0018

Venus -113921-01-30 16:05 J -39888193.05 -39888192.83 -39888192.60 0.0089 0.0011

Venus -113921-09-12 06:43 J -39887967.44 -39887967.22 -39887966.99 0.0089 0.0005

Venus -113920-04-25 21:36 J -39887741.83 -39887741.60 -39887741.38 0.0089 0.0002

Venus -113920-12-07 12:00 J -39887516.22 -39887516.00 -39887515.77 0.0089 0.0008

Venus -113919-07-21 02:24 J -39887290.61 -39887290.40 -39887290.16 0.0089 0.0015

Venus -113918-03-03 17:02 J -39887065.00 -39887064.79 -39887064.56 0.0089 0.0021

Venus -113918-10-15 08:10 J -39886839.38 -39886839.16 -39886838.94 0.0089 0.0027

Venus -113917-05-27 22:34 J -39886613.76 -39886613.56 -39886613.34 0.0089 0.0034

Venus -113916-01-08 13:12 J -39886388.14 -39886387.95 -39886387.74 0.0089 0.0040

Moon -113916-01-11 07:12 J -39886385.22 -39886385.20 -39886385.14 0.0089 0.0088
 Venus -113916-08-22 03:50 J -39886162.53 -39886162.34 -39886162.14 0.0089 0.0046
 Earth -113915-01-14 02:53 J -39886017.56 -39886017.38 -39886017.17 0.0089 0.0059
 Moon -113915-01-14 06:14 J -39886017.41 -39886017.24 -39886017.04 0.0089 0.0063 *
 Venus -113915-04-04 18:14 J -39885936.91 -39885936.74 -39885936.54 0.0089 0.0053
 Venus -113915-11-16 09:07 J -39885711.28 -39885711.12 -39885710.94 0.0089 0.0059
 Moon -113914-01-16 15:07 J -39885650.12 -39885649.87 -39885649.60 0.0089 0.0023
 Earth -113914-01-16 18:43 J -39885649.95 -39885649.72 -39885649.45 0.0089 0.0028 *
 Venus -113914-06-29 23:46 J -39885485.65 -39885485.51 -39885485.34 0.0089 0.0065
 Earth -113913-01-19 10:48 J -39885282.31 -39885282.05 -39885281.78 0.0089 0.0005
 Moon -113913-01-19 14:24 J -39885282.17 -39885281.90 -39885281.63 0.0089 0.0001 *
 Venus -113913-02-10 14:24 J -39885260.02 -39885259.90 -39885259.75 0.0089 0.0071
 Venus -113913-09-23 05:17 J -39885034.39 -39885034.28 -39885034.17 0.0089 0.0077
 Moon -113912-01-20 23:46 J -39884914.74 -39884914.51 -39884914.28 0.0089 0.0040
 Earth -113912-01-21 02:38 J -39884914.63 -39884914.39 -39884914.14 0.0089 0.0036 *
 Venus -113912-05-06 19:12 J -39884808.75 -39884808.70 -39884808.60 0.0089 0.0084
 Earth -113911-01-23 17:46 J -39884546.90 -39884546.76 -39884546.56 0.0089 0.0068
 Moon -113911-01-23 20:24 J -39884546.82 -39884546.65 -39884546.43 0.0089 0.0063 *
 Mars -113902-02-20 06:29 J -39881232.34 -39881232.23 -39881232.07 0.0089 0.0079
 Mars -113900-01-14 14:24 J -39880538.08 -39880537.90 -39880537.69 0.0089 0.0068
 Mars -113899-12-09 22:19 J -39879843.78 -39879843.57 -39879843.31 0.0089 0.0057
 Mars -113897-11-03 07:12 J -39879149.44 -39879149.20 -39879148.92 0.0089 0.0045
 Mars -113895-09-28 18:29 J -39878455.00 -39878454.73 -39878454.43 0.0089 0.0033
 Mars -113893-08-23 06:14 J -39877760.53 -39877760.24 -39877759.93 0.0089 0.0021
 Mars -113891-07-18 18:58 J -39877066.01 -39877065.71 -39877065.39 0.0089 0.0009
 Mars -113889-06-12 09:50 J -39876371.40 -39876371.09 -39876370.78 0.0088 0.0005
 Mars -113887-05-08 02:53 J -39875676.68 -39875676.38 -39875676.06 0.0088 0.0017
 Mars -113885-04-01 20:24 J -39874981.92 -39874981.65 -39874981.33 0.0088 0.0031
 Mercury -113885-10-17 19:55 J -39874782.67 -39874782.67 -39874782.65 0.0088 0.0088
 Mercury -113884-01-13 21:50 J -39874694.63 -39874694.59 -39874694.54 0.0088 0.0084

Mercury -113884-04-11 23:17 J -39874606.58 -39874606.53 -39874606.45 0.0088 0.0080

Mercury -113884-07-09 01:26 J -39874518.52 -39874518.44 -39874518.37 0.0088 0.0075

Mercury -113884-10-05 02:53 J -39874430.46 -39874430.38 -39874430.29 0.0088 0.0071

Mercury -113883-01-01 04:34 J -39874342.40 -39874342.31 -39874342.21 0.0088 0.0066

Mars -113883-02-25 16:19 J -39874287.09 -39874286.82 -39874286.54 0.0088 0.0043

Mercury -113883-03-30 06:14 J -39874254.33 -39874254.24 -39874254.13 0.0088 0.0062

Mercury -113883-06-26 07:55 J -39874166.27 -39874166.17 -39874166.05 0.0088 0.0057

Mercury -113883-09-22 09:50 J -39874078.20 -39874078.09 -39874077.98 0.0088 0.0053

Mercury -113883-12-19 11:17 J -39873990.14 -39873990.03 -39873989.90 0.0088 0.0049

Mercury -113882-03-17 12:58 J -39873902.08 -39873901.96 -39873901.83 0.0088 0.0044

Mercury -113882-06-13 14:53 J -39873814.01 -39873813.88 -39873813.75 0.0088 0.0040

Mercury -113882-09-09 16:19 J -39873725.94 -39873725.82 -39873725.68 0.0088 0.0036

Mercury -113882-12-06 18:00 J -39873637.88 -39873637.75 -39873637.61 0.0088 0.0031

Mars -113881-01-21 12:58 J -39873592.18 -39873591.96 -39873591.69 0.0088 0.0056

Mercury -113881-03-03 19:41 J -39873549.81 -39873549.68 -39873549.54 0.0088 0.0027

Mercury -113881-05-30 21:22 J -39873461.75 -39873461.61 -39873461.47 0.0088 0.0022

Mercury -113881-08-26 22:48 J -39873373.68 -39873373.55 -39873373.40 0.0088 0.0019

Mercury -113881-11-23 00:29 J -39873285.61 -39873285.48 -39873285.33 0.0088 0.0014

Mercury -113880-02-19 02:10 J -39873197.55 -39873197.41 -39873197.27 0.0088 0.0010

Mercury -113880-05-18 03:50 J -39873109.48 -39873109.34 -39873109.20 0.0088 0.0005

Mercury -113880-08-14 05:31 J -39873021.42 -39873021.27 -39873021.13 0.0088 0.0002

Mercury -113880-11-10 06:58 J -39872933.35 -39872933.21 -39872933.07 0.0088 0.0004

Mars -113880-12-16 11:31 J -39872897.21 -39872897.02 -39872896.80 0.0088 0.0068

Mercury -113879-02-06 08:38 J -39872845.28 -39872845.14 -39872845.00 0.0088 0.0008

Mercury -113879-05-05 10:05 J -39872757.22 -39872757.08 -39872756.94 0.0088 0.0012

Mercury -113879-08-01 11:46 J -39872669.15 -39872669.01 -39872668.87 0.0088 0.0016

Mercury -113879-10-28 13:12 J -39872581.08 -39872580.95 -39872580.81 0.0088 0.0021

Mercury -113878-01-24 14:53 J -39872493.01 -39872492.88 -39872492.74 0.0088 0.0024

Mercury -113878-04-22 16:19 J -39872404.95 -39872404.82 -39872404.68 0.0088 0.0029

Mercury -113878-07-19 18:00 J -39872316.88 -39872316.75 -39872316.62 0.0088 0.0033

Mercury -113878-10-15 19:26 J -39872228.81 -39872228.69 -39872228.56 0.0088 0.0037

Mars -113878-11-11 11:46 J -39872202.14 -39872202.01 -39872201.87 0.0088 0.0080

Mercury -113877-01-11 20:53 J -39872140.74 -39872140.63 -39872140.50 0.0088 0.0042

Mercury -113877-04-08 22:34 J -39872052.67 -39872052.56 -39872052.44 0.0088 0.0045

Mercury -113877-07-06 00:00 J -39871964.61 -39871964.50 -39871964.38 0.0088 0.0050

Mercury -113877-10-02 01:41 J -39871876.54 -39871876.43 -39871876.32 0.0088 0.0053

Mercury -113877-12-29 03:07 J -39871788.47 -39871788.37 -39871788.26 0.0088 0.0058

Mercury -113876-03-27 04:48 J -39871700.40 -39871700.30 -39871700.20 0.0088 0.0062

Mercury -113876-06-23 06:14 J -39871612.33 -39871612.24 -39871612.14 0.0088 0.0066

Mercury -113876-09-19 07:55 J -39871524.26 -39871524.17 -39871524.09 0.0088 0.0070

Mercury -113876-12-16 09:07 J -39871436.18 -39871436.12 -39871436.04 0.0088 0.0074

Mercury -113875-03-14 10:34 J -39871348.11 -39871348.06 -39871347.98 0.0088 0.0078

Mercury -113875-06-10 12:00 J -39871260.03 -39871260.00 -39871259.94 0.0088 0.0082

Mercury -113875-09-06 13:26 J -39871171.95 -39871171.94 -39871171.89 0.0088 0.0087

Venus -113847-03-08 04:48 J -39861127.31 -39861127.30 -39861127.25 0.0088 0.0087

Venus -113847-10-19 16:34 J -39860901.88 -39860901.81 -39860901.72 0.0088 0.0082

Venus -113846-06-02 03:36 J -39860676.43 -39860676.35 -39860676.22 0.0088 0.0077

Venus -113845-01-13 15:07 J -39860450.98 -39860450.87 -39860450.73 0.0088 0.0071

Venus -113845-08-26 02:24 J -39860225.52 -39860225.40 -39860225.23 0.0088 0.0066

Venus -113844-04-08 14:10 J -39860000.05 -39859999.91 -39859999.74 0.0088 0.0059

Venus -113844-11-20 01:41 J -39859774.59 -39859774.43 -39859774.25 0.0088 0.0054

Venus -113843-07-03 12:43 J -39859549.13 -39859548.97 -39859548.77 0.0088 0.0049

Venus -113842-02-14 00:14 J -39859323.66 -39859323.49 -39859323.29 0.0088 0.0043

Venus -113842-09-27 11:46 J -39859098.19 -39859098.01 -39859097.81 0.0088 0.0037

Venus -113841-05-09 23:31 J -39858872.72 -39858872.52 -39858872.32 0.0088 0.0031

Venus -113841-12-21 10:34 J -39858647.25 -39858647.06 -39858646.84 0.0088 0.0026

Venus -113840-08-03 22:05 J -39858421.78 -39858421.58 -39858421.36 0.0088 0.0020

Venus -113839-03-17 09:36 J -39858196.30 -39858196.10 -39858195.88 0.0088 0.0014

Venus -113839-10-28 21:07 J -39857970.83 -39857970.62 -39857970.40 0.0088 0.0008

Venus -113838-06-11 08:38 J -39857745.35 -39857745.14 -39857744.92 0.0088 0.0002

Venus	-113837-01-22 20:10 J	-39857519.87	-39857519.66	-39857519.45	0.0088	0.0004
Venus	-113837-09-04 07:41 J	-39857294.39	-39857294.18	-39857293.97	0.0088	0.0010
Venus	-113836-04-17 19:12 J	-39857068.90	-39857068.70	-39857068.49	0.0088	0.0016
Venus	-113836-11-29 06:29 J	-39856843.42	-39856843.23	-39856843.01	0.0088	0.0022
Venus	-113835-07-12 18:14 J	-39856617.94	-39856617.74	-39856617.54	0.0088	0.0028
Venus	-113834-02-23 05:31 J	-39856392.46	-39856392.27	-39856392.07	0.0088	0.0034
Earth	-113834-07-08 06:14 J	-39856257.25	-39856257.24	-39856257.20	0.0088	0.0088
Venus	-113834-10-06 16:48 J	-39856166.97	-39856166.80	-39856166.59	0.0088	0.0040
Venus	-113833-05-19 04:19 J	-39855941.48	-39855941.32	-39855941.12	0.0088	0.0046
Moon	-113833-07-09 11:17 J	-39855890.19	-39855890.03	-39855889.82	0.0088	0.0057
Earth	-113833-07-09 13:12 J	-39855890.11	-39855889.95	-39855889.74	0.0088	0.0060 *
Venus	-113833-12-30 16:19 J	-39855716.00	-39855715.82	-39855715.65	0.0088	0.0051
Earth	-113832-07-11 20:53 J	-39855522.85	-39855522.63	-39855522.38	0.0088	0.0031
Moon	-113832-07-11 21:07 J	-39855522.84	-39855522.62	-39855522.36	0.0088	0.0034 *
Venus	-113832-08-13 03:22 J	-39855490.51	-39855490.36	-39855490.18	0.0088	0.0057
Venus	-113831-03-26 14:53 J	-39855265.02	-39855264.88	-39855264.72	0.0088	0.0063
Earth	-113831-07-14 04:48 J	-39855155.55	-39855155.30	-39855155.05	0.0088	0.0001
Moon	-113831-07-14 05:17 J	-39855155.52	-39855155.28	-39855155.04	0.0088	0.0001 *
Venus	-113831-11-07 02:38 J	-39855039.52	-39855039.39	-39855039.25	0.0088	0.0068
Venus	-113830-06-20 13:55 J	-39854814.02	-39854813.92	-39854813.79	0.0088	0.0074
Moon	-113830-07-16 10:34 J	-39854788.31	-39854788.06	-39854787.81	0.0088	0.0025
Earth	-113830-07-16 12:00 J	-39854788.22	-39854788.00	-39854787.74	0.0088	0.0029 *
Venus	-113829-02-01 01:12 J	-39854588.52	-39854588.45	-39854588.33	0.0088	0.0080
Earth	-113829-07-17 20:10 J	-39854420.85	-39854420.66	-39854420.47	0.0088	0.0057
Moon	-113829-07-17 22:48 J	-39854420.71	-39854420.55	-39854420.36	0.0088	0.0061 *
Venus	-113829-09-13 13:12 J	-39854363.00	-39854362.95	-39854362.89	0.0088	0.0085
Moon	-113828-07-20 00:00 J	-39854053.55	-39854053.50	-39854053.38	0.0088	0.0084
Earth	-113828-07-20 03:22 J	-39854053.38	-39854053.36	-39854053.27	0.0088	0.0087 *
Mars	-113819-11-26 17:02 J	-39850636.90	-39850636.79	-39850636.60	0.0089	0.0079
Mars	-113817-10-22 04:34 J	-39849941.50	-39849941.31	-39849941.06	0.0089	0.0066

Mars -113815-09-17 15:07 J -39849246.11 -39849245.87 -39849245.59 0.0089 0.0053
 Mars -113813-08-12 23:17 J -39848550.79 -39848550.53 -39848550.21 0.0089 0.0040
 Mars -113811-07-09 07:12 J -39847855.50 -39847855.20 -39847854.88 0.0089 0.0026
 Mars -113809-06-03 13:26 J -39847160.25 -39847159.94 -39847159.61 0.0089 0.0013
 Mars -113807-04-29 17:31 J -39846465.09 -39846464.77 -39846464.45 0.0089 0.0001
 Mars -113805-03-24 18:58 J -39845770.01 -39845769.71 -39845769.39 0.0089 0.0015
 Mars -113803-02-17 19:41 J -39845074.96 -39845074.68 -39845074.36 0.0089 0.0028
 Mars -113801-01-13 19:12 J -39844379.98 -39844379.70 -39844379.42 0.0089 0.0040
 Mercury -113801-06-19 01:26 J -39844222.47 -39844222.44 -39844222.39 0.0089 0.0086
 Mercury -113801-09-15 04:05 J -39844134.38 -39844134.33 -39844134.24 0.0089 0.0081
 Mercury -113801-12-12 06:58 J -39844046.28 -39844046.21 -39844046.11 0.0089 0.0076
 Mercury -113800-03-10 09:50 J -39843958.18 -39843958.09 -39843957.97 0.0089 0.0071
 Mercury -113800-06-06 12:58 J -39843870.08 -39843869.96 -39843869.84 0.0089 0.0065
 Mercury -113800-09-02 15:36 J -39843781.97 -39843781.85 -39843781.71 0.0089 0.0060
 Mercury -113800-11-29 18:29 J -39843693.86 -39843693.73 -39843693.58 0.0089 0.0055
 Mars -113800-12-08 15:36 J -39843685.08 -39843684.85 -39843684.58 0.0089 0.0053
 Mercury -113799-02-25 21:22 J -39843605.75 -39843605.61 -39843605.46 0.0089 0.0050
 Mercury -113799-05-25 00:29 J -39843517.63 -39843517.48 -39843517.33 0.0089 0.0044
 Mercury -113799-08-21 03:07 J -39843429.52 -39843429.37 -39843429.20 0.0089 0.0039
 Mercury -113799-11-17 06:00 J -39843341.40 -39843341.25 -39843341.07 0.0089 0.0034
 Mercury -113798-02-13 09:07 J -39843253.28 -39843253.12 -39843252.95 0.0089 0.0028
 Mercury -113798-05-12 12:00 J -39843165.16 -39843165.00 -39843164.82 0.0089 0.0023
 Mercury -113798-08-08 14:53 J -39843077.04 -39843076.88 -39843076.70 0.0089 0.0018
 Mars -113798-11-03 11:46 J -39842990.21 -39842990.01 -39842989.79 0.0089 0.0065
 Mercury -113798-11-04 18:00 J -39842988.92 -39842988.75 -39842988.57 0.0089 0.0012
 Mercury -113797-01-31 21:07 J -39842900.80 -39842900.62 -39842900.44 0.0089 0.0007
 Mercury -113797-04-29 00:00 J -39842812.68 -39842812.50 -39842812.32 0.0089 0.0001
 Mercury -113797-07-26 03:07 J -39842724.55 -39842724.37 -39842724.19 0.0089 0.0005
 Mercury -113797-10-22 06:00 J -39842636.43 -39842636.25 -39842636.07 0.0089 0.0010
 Mercury -113796-01-18 08:53 J -39842548.30 -39842548.13 -39842547.95 0.0089 0.0016

Mercury -113796-04-16 12:00 J -39842460.17 -39842460.00 -39842459.82 0.0089 0.0021

Mercury -113796-07-13 14:53 J -39842372.04 -39842371.88 -39842371.70 0.0089 0.0027

Mars -113796-09-28 05:46 J -39842295.39 -39842295.26 -39842295.08 0.0089 0.0077

Mercury -113796-10-09 18:00 J -39842283.91 -39842283.75 -39842283.57 0.0089 0.0032

Mercury -113795-01-05 21:07 J -39842195.78 -39842195.62 -39842195.45 0.0089 0.0038

Mercury -113795-04-04 00:14 J -39842107.64 -39842107.49 -39842107.33 0.0089 0.0043

Mercury -113795-07-01 03:07 J -39842019.51 -39842019.37 -39842019.21 0.0089 0.0049

Mercury -113795-09-27 06:14 J -39841931.37 -39841931.24 -39841931.09 0.0089 0.0055

Mercury -113795-12-24 09:22 J -39841843.23 -39841843.11 -39841842.96 0.0089 0.0060

Mercury -113794-03-22 12:29 J -39841755.09 -39841754.98 -39841754.85 0.0089 0.0066

Mercury -113794-06-18 15:50 J -39841666.94 -39841666.84 -39841666.73 0.0089 0.0071

Mars -113794-08-23 22:34 J -39841600.58 -39841600.56 -39841600.52 0.0089 0.0088

Mercury -113794-09-14 18:43 J -39841578.80 -39841578.72 -39841578.62 0.0089 0.0077

Mercury -113794-12-11 21:50 J -39841490.64 -39841490.59 -39841490.51 0.0089 0.0083

Mercury -113793-03-09 01:12 J -39841402.46 -39841402.45 -39841402.43 0.0089 0.0088

Jupiter -113786-11-07 06:58 J -39838603.58 -39838603.21 -39838602.77 0.0089 0.0061

Venus -113765-12-03 14:10 J -39830905.95 -39830905.91 -39830905.85 0.0089 0.0087

Venus -113764-07-17 04:48 J -39830680.38 -39830680.30 -39830680.19 0.0089 0.0080

Venus -113763-02-27 19:26 J -39830454.80 -39830454.69 -39830454.55 0.0089 0.0074

Venus -113763-10-11 10:05 J -39830229.20 -39830229.08 -39830228.91 0.0089 0.0068

Venus -113762-05-25 00:43 J -39830003.61 -39830003.47 -39830003.28 0.0089 0.0062

Venus -113761-01-05 15:50 J -39829778.01 -39829777.84 -39829777.66 0.0089 0.0055

Venus -113761-08-18 06:29 J -39829552.41 -39829552.23 -39829552.03 0.0089 0.0049

Venus -113760-03-31 21:07 J -39829326.81 -39829326.62 -39829326.41 0.0089 0.0043

Venus -113760-11-12 12:14 J -39829101.20 -39829100.99 -39829100.78 0.0089 0.0036

Venus -113759-06-26 02:38 J -39828875.59 -39828875.39 -39828875.16 0.0089 0.0030

Venus -113758-02-06 17:17 J -39828649.98 -39828649.78 -39828649.54 0.0089 0.0024

Venus -113758-09-20 08:24 J -39828424.37 -39828424.15 -39828423.92 0.0089 0.0017

Venus -113757-05-02 23:02 J -39828198.76 -39828198.54 -39828198.30 0.0089 0.0011

Venus -113757-12-14 13:55 J -39827973.15 -39827972.92 -39827972.69 0.0089 0.0004

Venus	-113756-07-28 04:34 J	-39827747.54	-39827747.31	-39827747.08	0.0089	0.0002
Venus	-113755-03-10 18:58 J	-39827521.93	-39827521.71	-39827521.47	0.0089	0.0009
Venus	-113755-10-22 09:50 J	-39827296.31	-39827296.09	-39827295.86	0.0089	0.0015
Venus	-113754-06-05 00:43 J	-39827070.69	-39827070.47	-39827070.25	0.0089	0.0021
Venus	-113753-01-16 14:53 J	-39826845.08	-39826844.88	-39826844.65	0.0089	0.0028
Venus	-113753-08-29 05:46 J	-39826619.47	-39826619.26	-39826619.05	0.0089	0.0034
Venus	-113752-04-11 20:24 J	-39826393.85	-39826393.65	-39826393.45	0.0089	0.0040
Venus	-113752-11-23 10:48 J	-39826168.23	-39826168.05	-39826167.84	0.0089	0.0047
Moon	-113751-01-13 02:53 J	-39826117.53	-39826117.38	-39826117.22	0.0089	0.0073
Earth	-113751-01-13 04:19 J	-39826117.42	-39826117.32	-39826117.15	0.0089	0.0076 *
Venus	-113751-07-07 01:26 J	-39825942.61	-39825942.44	-39825942.25	0.0089	0.0053
Earth	-113750-01-15 20:38 J	-39825749.85	-39825749.64	-39825749.39	0.0089	0.0044
Moon	-113750-01-15 23:31 J	-39825749.73	-39825749.52	-39825749.28	0.0089	0.0047 *
Venus	-113750-02-17 16:19 J	-39825716.99	-39825716.82	-39825716.65	0.0089	0.0059
Venus	-113750-10-01 06:29 J	-39825491.36	-39825491.23	-39825491.06	0.0089	0.0066
Moon	-113749-01-18 09:22 J	-39825382.38	-39825382.11	-39825381.84	0.0089	0.0009
Earth	-113749-01-18 12:58 J	-39825382.22	-39825381.96	-39825381.69	0.0089	0.0012 *
Venus	-113749-05-13 21:07 J	-39825265.73	-39825265.62	-39825265.47	0.0089	0.0072
Venus	-113749-12-25 11:46 J	-39825040.10	-39825040.01	-39825039.89	0.0089	0.0078
Earth	-113748-01-20 04:48 J	-39825014.56	-39825014.30	-39825014.04	0.0089	0.0020
Moon	-113748-01-20 08:10 J	-39825014.41	-39825014.16	-39825013.89	0.0089	0.0017 *
Venus	-113748-08-08 02:24 J	-39824814.46	-39824814.40	-39824814.32	0.0089	0.0084
Moon	-113747-01-22 16:19 J	-39824647.00	-39824646.82	-39824646.59	0.0089	0.0056
Earth	-113747-01-22 20:10 J	-39824646.86	-39824646.66	-39824646.43	0.0089	0.0052 *
Earth	-113746-01-25 11:46 J	-39824279.09	-39824279.01	-39824278.91	0.0089	0.0083
Moon	-113746-01-25 14:10 J	-39824279.00	-39824278.91	-39824278.76	0.0089	0.0080 *
Mars	-113739-10-05 02:53 J	-39821469.47	-39821469.38	-39821469.27	0.0089	0.0083
Mars	-113737-08-29 08:24 J	-39820775.32	-39820775.15	-39820774.97	0.0089	0.0072
Mars	-113735-07-24 15:07 J	-39820081.06	-39820080.87	-39820080.62	0.0089	0.0061
Mars	-113733-06-18 00:00 J	-39819386.73	-39819386.50	-39819386.22	0.0089	0.0049

Mars -113731-05-13 09:22 J -39818692.38 -39818692.11 -39818691.82 0.0089 0.0036
 Mars -113729-04-06 20:38 J -39817997.92 -39817997.64 -39817997.32 0.0089 0.0024
 Mars -113727-03-02 09:36 J -39817303.40 -39817303.10 -39817302.79 0.0089 0.0011
 Mars -113725-01-25 22:48 J -39816608.86 -39816608.55 -39816608.24 0.0089 0.0002
 Mars -113724-12-20 13:12 J -39815914.24 -39815913.95 -39815913.63 0.0088 0.0016
 Mars -113722-11-15 06:14 J -39815219.53 -39815219.24 -39815218.94 0.0088 0.0029
 Mercury -113720-07-14 19:12 J -39814611.73 -39814611.70 -39814611.68 0.0088 0.0087
 Mars -113720-10-09 23:46 J -39814524.76 -39814524.51 -39814524.20 0.0088 0.0043
 Mercury -113720-10-10 20:38 J -39814523.68 -39814523.64 -39814523.58 0.0088 0.0083
 Mercury -113719-01-06 22:19 J -39814435.63 -39814435.57 -39814435.49 0.0088 0.0078
 Mercury -113719-04-05 00:00 J -39814347.57 -39814347.50 -39814347.41 0.0088 0.0074
 Mercury -113719-07-02 01:41 J -39814259.50 -39814259.43 -39814259.33 0.0088 0.0070
 Mercury -113719-09-28 03:36 J -39814171.44 -39814171.35 -39814171.25 0.0088 0.0065
 Mercury -113719-12-25 05:17 J -39814083.38 -39814083.28 -39814083.17 0.0088 0.0060
 Mercury -113718-03-23 07:12 J -39813995.31 -39813995.20 -39813995.09 0.0088 0.0056
 Mercury -113718-06-19 08:38 J -39813907.25 -39813907.14 -39813907.02 0.0088 0.0052
 Mars -113718-09-04 19:12 J -39813829.92 -39813829.70 -39813829.43 0.0088 0.0056
 Mercury -113718-09-15 10:19 J -39813819.18 -39813819.07 -39813818.94 0.0088 0.0047
 Mercury -113718-12-12 12:14 J -39813731.12 -39813730.99 -39813730.87 0.0088 0.0043
 Mercury -113717-03-09 13:41 J -39813643.05 -39813642.93 -39813642.80 0.0088 0.0039
 Mercury -113717-06-05 15:22 J -39813554.99 -39813554.86 -39813554.72 0.0088 0.0034
 Mercury -113717-09-01 17:02 J -39813466.92 -39813466.79 -39813466.65 0.0088 0.0030
 Mercury -113717-11-28 18:43 J -39813378.86 -39813378.72 -39813378.58 0.0088 0.0025
 Mercury -113716-02-24 20:10 J -39813290.79 -39813290.66 -39813290.51 0.0088 0.0022
 Mercury -113716-05-23 22:05 J -39813202.72 -39813202.58 -39813202.44 0.0088 0.0017
 Mars -113716-07-30 16:48 J -39813134.97 -39813134.80 -39813134.57 0.0088 0.0069
 Mercury -113716-08-19 23:31 J -39813114.66 -39813114.52 -39813114.37 0.0088 0.0013
 Mercury -113716-11-16 01:12 J -39813026.59 -39813026.45 -39813026.31 0.0088 0.0008
 Mercury -113715-02-12 02:53 J -39812938.52 -39812938.38 -39812938.24 0.0088 0.0004
 Mercury -113715-05-11 04:34 J -39812850.46 -39812850.31 -39812850.17 0.0088 0.0003

Mercury -113715-08-07 06:00 J -39812762.39 -39812762.25 -39812762.11 0.0088 0.0005

Mercury -113715-11-03 07:41 J -39812674.32 -39812674.18 -39812674.04 0.0088 0.0009

Mercury -113714-01-30 09:07 J -39812586.26 -39812586.12 -39812585.98 0.0088 0.0013

Mercury -113714-04-28 10:48 J -39812498.19 -39812498.05 -39812497.91 0.0088 0.0017

Mars -113714-06-25 15:50 J -39812439.94 -39812439.84 -39812439.68 0.0088 0.0081

Mercury -113714-07-25 12:14 J -39812410.12 -39812409.99 -39812409.85 0.0088 0.0022

Mercury -113714-10-21 13:55 J -39812322.05 -39812321.92 -39812321.78 0.0088 0.0026

Mercury -113713-01-17 15:22 J -39812233.99 -39812233.86 -39812233.72 0.0088 0.0030

Mercury -113713-04-14 16:48 J -39812145.92 -39812145.80 -39812145.66 0.0088 0.0035

Mercury -113713-07-11 18:29 J -39812057.85 -39812057.73 -39812057.60 0.0088 0.0038

Mercury -113713-10-07 19:55 J -39811969.78 -39811969.67 -39811969.54 0.0088 0.0043

Mercury -113712-01-03 21:36 J -39811881.71 -39811881.60 -39811881.48 0.0088 0.0047

Mercury -113712-04-01 23:17 J -39811793.64 -39811793.53 -39811793.42 0.0088 0.0051

Mercury -113712-06-29 00:43 J -39811705.58 -39811705.47 -39811705.36 0.0088 0.0055

Mercury -113712-09-25 02:24 J -39811617.51 -39811617.40 -39811617.30 0.0088 0.0059

Mercury -113712-12-22 03:50 J -39811529.44 -39811529.34 -39811529.24 0.0088 0.0063

Mercury -113711-03-20 05:02 J -39811441.37 -39811441.29 -39811441.19 0.0088 0.0067

Mercury -113711-06-16 06:29 J -39811353.29 -39811353.23 -39811353.13 0.0088 0.0072

Mercury -113711-09-12 08:10 J -39811265.22 -39811265.16 -39811265.08 0.0088 0.0075

Mercury -113711-12-09 09:36 J -39811177.15 -39811177.10 -39811177.03 0.0088 0.0079

Mercury -113710-03-07 11:02 J -39811089.07 -39811089.04 -39811088.98 0.0088 0.0083

Mercury -113710-06-03 12:29 J -39811000.98 -39811000.98 -39811000.94 0.0088 0.0088

Venus -113683-06-09 15:22 J -39801132.88 -39801132.86 -39801132.81 0.0088 0.0087

Venus -113682-01-21 02:38 J -39800907.45 -39800907.39 -39800907.29 0.0088 0.0082

Venus -113682-09-03 14:24 J -39800682.00 -39800681.90 -39800681.78 0.0088 0.0076

Venus -113681-04-16 01:41 J -39800456.53 -39800456.43 -39800456.28 0.0088 0.0071

Venus -113681-11-27 13:26 J -39800231.07 -39800230.94 -39800230.78 0.0088 0.0064

Venus -113680-07-11 00:58 J -39800005.61 -39800005.46 -39800005.30 0.0088 0.0059

Venus -113679-02-21 12:00 J -39799780.15 -39799780.00 -39799779.81 0.0088 0.0054

Venus -113679-10-04 23:46 J -39799554.68 -39799554.51 -39799554.32 0.0088 0.0047

Venus	-113678-05-18 11:17 J	-39799329.21	-39799329.03	-39799328.83	0.0088	0.0042
Venus	-113678-12-29 22:48 J	-39799103.74	-39799103.55	-39799103.35	0.0088	0.0036
Venus	-113677-08-11 09:50 J	-39798878.27	-39798878.09	-39798877.87	0.0088	0.0031
Venus	-113676-03-24 21:36 J	-39798652.80	-39798652.60	-39798652.39	0.0088	0.0024
Venus	-113676-11-05 08:53 J	-39798427.33	-39798427.13	-39798426.91	0.0088	0.0019
Venus	-113675-06-18 20:24 J	-39798201.86	-39798201.65	-39798201.44	0.0088	0.0013
Venus	-113674-01-30 07:41 J	-39797976.39	-39797976.18	-39797975.96	0.0088	0.0007
Venus	-113674-09-12 19:12 J	-39797750.91	-39797750.70	-39797750.49	0.0088	0.0001
Venus	-113673-04-25 06:43 J	-39797525.43	-39797525.22	-39797525.00	0.0088	0.0005
Venus	-113673-12-06 18:14 J	-39797299.95	-39797299.74	-39797299.53	0.0088	0.0011
Venus	-113672-07-20 05:31 J	-39797074.47	-39797074.27	-39797074.06	0.0088	0.0017
Venus	-113671-03-02 17:02 J	-39796848.99	-39796848.79	-39796848.58	0.0088	0.0023
Venus	-113671-10-14 04:19 J	-39796623.51	-39796623.32	-39796623.11	0.0088	0.0029
Venus	-113670-05-27 16:05 J	-39796398.02	-39796397.83	-39796397.63	0.0088	0.0034
Venus	-113669-01-08 03:22 J	-39796172.53	-39796172.36	-39796172.16	0.0088	0.0040
Earth	-113669-07-08 23:46 J	-39795989.63	-39795989.51	-39795989.35	0.0088	0.0074
Moon	-113669-07-09 03:22 J	-39795989.46	-39795989.36	-39795989.22	0.0088	0.0078 *
Venus	-113669-08-20 15:07 J	-39795947.05	-39795946.87	-39795946.69	0.0088	0.0046
Venus	-113668-04-03 02:24 J	-39795721.56	-39795721.40	-39795721.21	0.0088	0.0052
Moon	-113668-07-11 04:48 J	-39795622.50	-39795622.30	-39795622.07	0.0088	0.0041
Earth	-113668-07-11 07:26 J	-39795622.40	-39795622.19	-39795621.97	0.0088	0.0045 *
Venus	-113668-11-14 13:55 J	-39795496.07	-39795495.92	-39795495.75	0.0088	0.0057
Venus	-113667-06-28 01:12 J	-39795270.57	-39795270.45	-39795270.28	0.0088	0.0064
Earth	-113667-07-13 14:53 J	-39795255.12	-39795254.88	-39795254.63	0.0088	0.0016
Moon	-113667-07-13 17:02 J	-39795255.04	-39795254.79	-39795254.53	0.0088	0.0019 *
Venus	-113666-02-08 12:58 J	-39795045.08	-39795044.96	-39795044.82	0.0088	0.0069
Moon	-113666-07-15 21:36 J	-39794887.82	-39794887.60	-39794887.35	0.0088	0.0018
Earth	-113666-07-15 22:34 J	-39794887.80	-39794887.56	-39794887.31	0.0088	0.0014 *
Venus	-113666-09-22 00:14 J	-39794819.58	-39794819.49	-39794819.36	0.0088	0.0075
Venus	-113665-05-04 12:14 J	-39794594.07	-39794593.99	-39794593.90	0.0088	0.0080

Moon -113665-07-17 05:02 J -39794520.51 -39794520.29 -39794520.05 0.0088 0.0039
 Earth -113665-07-17 06:00 J -39794520.46 -39794520.25 -39794520.02 0.0088 0.0043 *
 Venus -113665-12-15 23:31 J -39794368.56 -39794368.52 -39794368.45 0.0088 0.0086
 Earth -113664-07-19 13:41 J -39794153.06 -39794152.93 -39794152.77 0.0088 0.0072
 Moon -113664-07-19 15:07 J -39794152.97 -39794152.87 -39794152.72 0.0088 0.0076 *
 Mars -113655-07-10 13:12 J -39790875.02 -39790874.95 -39790874.81 0.0089 0.0084
 Mars -113653-06-05 01:55 J -39790179.58 -39790179.42 -39790179.19 0.0089 0.0071
 Mars -113651-05-01 13:41 J -39789484.15 -39789483.93 -39789483.66 0.0089 0.0057
 Mars -113649-03-27 00:00 J -39788788.76 -39788788.50 -39788788.19 0.0089 0.0044
 Mars -113647-02-20 08:24 J -39788093.43 -39788093.15 -39788092.82 0.0089 0.0030
 Mars -113645-01-16 15:22 J -39787398.17 -39787397.86 -39787397.53 0.0089 0.0016
 Mars -113644-12-11 21:07 J -39786702.94 -39786702.62 -39786702.30 0.0089 0.0001
 Mars -113642-11-07 00:29 J -39786007.79 -39786007.48 -39786007.16 0.0089 0.0013
 Mars -113640-10-02 01:26 J -39785312.72 -39785312.44 -39785312.12 0.0089 0.0027
 Mars -113638-08-28 01:41 J -39784617.69 -39784617.43 -39784617.13 0.0089 0.0040
 Mercury -113636-03-15 23:46 J -39784051.56 -39784051.51 -39784051.46 0.0089 0.0084
 Mercury -113636-06-12 02:24 J -39783963.47 -39783963.40 -39783963.32 0.0089 0.0079
 Mars -113636-07-23 00:58 J -39783922.68 -39783922.46 -39783922.18 0.0089 0.0053
 Mercury -113636-09-08 05:02 J -39783875.37 -39783875.29 -39783875.18 0.0089 0.0074
 Mercury -113636-12-05 07:55 J -39783787.27 -39783787.17 -39783787.05 0.0089 0.0069
 Mercury -113635-03-03 10:34 J -39783699.16 -39783699.06 -39783698.92 0.0089 0.0064
 Mercury -113635-05-30 13:26 J -39783611.05 -39783610.94 -39783610.79 0.0089 0.0059
 Mercury -113635-08-26 16:34 J -39783522.94 -39783522.81 -39783522.67 0.0089 0.0053
 Mercury -113635-11-22 19:26 J -39783434.83 -39783434.69 -39783434.54 0.0089 0.0048
 Mercury -113634-02-18 22:05 J -39783346.72 -39783346.58 -39783346.41 0.0089 0.0043
 Mercury -113634-05-18 00:58 J -39783258.61 -39783258.46 -39783258.29 0.0089 0.0038
 Mars -113634-06-17 21:36 J -39783227.78 -39783227.60 -39783227.36 0.0089 0.0066
 Mercury -113634-08-14 04:05 J -39783170.49 -39783170.33 -39783170.16 0.0089 0.0032
 Mercury -113634-11-10 06:58 J -39783082.37 -39783082.21 -39783082.03 0.0089 0.0027
 Mercury -113633-02-06 09:50 J -39782994.25 -39782994.09 -39782993.91 0.0089 0.0022

Mercury -113633-05-04 12:58 J -39782906.13 -39782905.96 -39782905.78 0.0089 0.0016

Mercury -113633-07-31 15:50 J -39782818.01 -39782817.84 -39782817.66 0.0089 0.0011

Mercury -113633-10-27 18:58 J -39782729.89 -39782729.71 -39782729.53 0.0089 0.0005

Mercury -113632-01-23 21:50 J -39782641.77 -39782641.59 -39782641.41 0.0089 0.0001

Mercury -113632-04-22 00:58 J -39782553.64 -39782553.46 -39782553.29 0.0089 0.0006

Mars -113632-05-12 17:02 J -39782532.91 -39782532.79 -39782532.61 0.0089 0.0078

Mercury -113632-07-19 03:50 J -39782465.52 -39782465.34 -39782465.16 0.0089 0.0011

Mercury -113632-10-15 06:43 J -39782377.39 -39782377.22 -39782377.04 0.0089 0.0017

Mercury -113631-01-11 09:50 J -39782289.26 -39782289.09 -39782288.91 0.0089 0.0022

Mercury -113631-04-09 12:43 J -39782201.13 -39782200.97 -39782200.79 0.0089 0.0028

Mercury -113631-07-06 15:36 J -39782113.00 -39782112.85 -39782112.67 0.0089 0.0034

Mercury -113631-10-02 18:58 J -39782024.87 -39782024.71 -39782024.55 0.0089 0.0039

Mercury -113631-12-29 21:50 J -39781936.74 -39781936.59 -39781936.42 0.0089 0.0045

Mercury -113630-03-28 00:58 J -39781848.60 -39781848.46 -39781848.30 0.0089 0.0050

Mercury -113630-06-24 04:05 J -39781760.46 -39781760.33 -39781760.18 0.0089 0.0056

Mercury -113630-09-20 07:26 J -39781672.32 -39781672.19 -39781672.06 0.0089 0.0061

Mercury -113630-12-17 10:19 J -39781584.18 -39781584.07 -39781583.94 0.0089 0.0067

Mercury -113629-03-14 13:12 J -39781496.04 -39781495.95 -39781495.83 0.0089 0.0073

Mercury -113629-06-10 16:34 J -39781407.89 -39781407.81 -39781407.72 0.0089 0.0078

Mercury -113629-09-06 19:41 J -39781319.73 -39781319.68 -39781319.61 0.0089 0.0084

Jupiter -113619-01-05 12:00 J -39777912.02 -39777912.00 -39777911.86 0.0089 0.0088

Venus -113600-03-06 20:38 J -39770911.68 -39770911.64 -39770911.57 0.0089 0.0086

Venus -113600-10-18 11:17 J -39770686.11 -39770686.03 -39770685.91 0.0089 0.0080

Venus -113599-06-01 01:55 J -39770460.53 -39770460.42 -39770460.28 0.0089 0.0074

Venus -113598-01-12 16:19 J -39770234.94 -39770234.82 -39770234.65 0.0089 0.0068

Venus -113598-08-26 06:58 J -39770009.35 -39770009.21 -39770009.02 0.0089 0.0062

Venus -113597-04-07 22:05 J -39769783.75 -39769783.58 -39769783.39 0.0089 0.0055

Venus -113597-11-19 12:29 J -39769558.15 -39769557.98 -39769557.77 0.0089 0.0049

Venus -113596-07-03 03:07 J -39769332.55 -39769332.37 -39769332.15 0.0089 0.0043

Venus -113595-02-13 18:00 J -39769106.95 -39769106.75 -39769106.53 0.0089 0.0036

Venus	-113595-09-27 08:53 J	-39768881.33	-39768881.13	-39768880.90	0.0089	0.0030
Venus	-113594-05-10 23:46 J	-39768655.72	-39768655.51	-39768655.28	0.0089	0.0023
Venus	-113594-12-22 14:24 J	-39768430.12	-39768429.90	-39768429.67	0.0089	0.0017
Venus	-113593-08-04 05:17 J	-39768204.51	-39768204.28	-39768204.05	0.0089	0.0010
Venus	-113592-03-17 19:55 J	-39767978.90	-39767978.67	-39767978.44	0.0089	0.0004
Venus	-113592-10-29 10:48 J	-39767753.28	-39767753.05	-39767752.82	0.0089	0.0003
Venus	-113591-06-12 01:26 J	-39767527.66	-39767527.44	-39767527.21	0.0089	0.0009
Venus	-113590-01-23 16:19 J	-39767302.05	-39767301.82	-39767301.60	0.0089	0.0015
Venus	-113590-09-06 06:43 J	-39767076.44	-39767076.22	-39767075.99	0.0089	0.0022
Venus	-113589-04-18 21:22 J	-39766850.82	-39766850.61	-39766850.39	0.0089	0.0028
Venus	-113589-11-30 11:46 J	-39766625.20	-39766625.01	-39766624.78	0.0089	0.0035
Venus	-113588-07-14 02:24 J	-39766399.59	-39766399.40	-39766399.18	0.0089	0.0041
Venus	-113587-02-24 17:02 J	-39766173.97	-39766173.79	-39766173.58	0.0089	0.0047
Venus	-113587-10-08 07:26 J	-39765948.35	-39765948.19	-39765947.98	0.0089	0.0054
Moon	-113586-01-14 20:24 J	-39765849.84	-39765849.65	-39765849.43	0.0089	0.0059
Earth	-113586-01-14 20:53 J	-39765849.80	-39765849.63	-39765849.41	0.0089	0.0061 *
Venus	-113586-05-21 22:05 J	-39765722.72	-39765722.58	-39765722.39	0.0089	0.0060
Venus	-113585-01-02 12:43 J	-39765497.10	-39765496.97	-39765496.80	0.0089	0.0066
Earth	-113585-01-17 13:12 J	-39765482.19	-39765481.95	-39765481.68	0.0089	0.0029
Moon	-113585-01-17 15:22 J	-39765482.09	-39765481.86	-39765481.60	0.0089	0.0030 *
Venus	-113585-08-15 03:22 J	-39765271.48	-39765271.36	-39765271.21	0.0089	0.0072
Moon	-113584-01-19 02:38 J	-39765114.66	-39765114.39	-39765114.12	0.0089	0.0004
Earth	-113584-01-19 05:31 J	-39765114.54	-39765114.27	-39765114.00	0.0089	0.0003 *
Venus	-113584-03-28 18:00 J	-39765045.84	-39765045.75	-39765045.63	0.0089	0.0078
Venus	-113584-11-09 08:53 J	-39764820.19	-39764820.13	-39764820.05	0.0089	0.0084
Earth	-113583-01-21 20:53 J	-39764746.87	-39764746.63	-39764746.38	0.0089	0.0035
Moon	-113583-01-22 00:14 J	-39764746.72	-39764746.49	-39764746.24	0.0089	0.0033 *
Moon	-113582-01-24 08:24 J	-39764379.29	-39764379.15	-39764378.96	0.0089	0.0069
Earth	-113582-01-24 12:14 J	-39764379.14	-39764378.99	-39764378.79	0.0089	0.0067 *
Mars	-113575-05-19 21:36 J	-39761706.61	-39761706.60	-39761706.53	0.0089	0.0088

Mars -113573-04-13 02:38 J -39761012.51 -39761012.39 -39761012.20 0.0089 0.0077
 Mars -113571-03-08 08:53 J -39760318.31 -39760318.13 -39760317.90 0.0089 0.0065
 Mars -113569-01-31 16:19 J -39759624.04 -39759623.82 -39759623.55 0.0089 0.0053
 Mars -113568-12-26 01:26 J -39758929.70 -39758929.44 -39758929.16 0.0089 0.0040
 Mars -113566-11-20 10:19 J -39758235.35 -39758235.07 -39758234.76 0.0089 0.0027
 Mars -113564-10-14 21:07 J -39757540.91 -39757540.62 -39757540.30 0.0089 0.0014
 Mars -113562-09-09 09:50 J -39756846.40 -39756846.09 -39756845.78 0.0089 0.0001
 Mars -113560-08-03 22:48 J -39756151.84 -39756151.55 -39756151.23 0.0089 0.0014
 Mars -113558-06-29 13:12 J -39755457.22 -39755456.95 -39755456.63 0.0088 0.0028
 Mars -113556-05-24 06:43 J -39754762.48 -39754762.22 -39754761.93 0.0088 0.0041
 Mercury -113555-04-10 17:17 J -39754440.79 -39754440.78 -39754440.74 0.0088 0.0087
 Mercury -113555-07-07 19:26 J -39754352.74 -39754352.69 -39754352.64 0.0088 0.0082
 Mercury -113555-10-03 20:53 J -39754264.69 -39754264.63 -39754264.55 0.0088 0.0078
 Mercury -113555-12-30 22:48 J -39754176.63 -39754176.55 -39754176.47 0.0088 0.0073
 Mercury -113554-03-29 00:29 J -39754088.56 -39754088.48 -39754088.38 0.0088 0.0069
 Mars -113554-04-19 01:26 J -39754067.66 -39754067.44 -39754067.16 0.0088 0.0055
 Mercury -113554-06-25 01:55 J -39754000.50 -39754000.42 -39754000.30 0.0088 0.0065
 Mercury -113554-09-21 03:50 J -39753912.44 -39753912.34 -39753912.23 0.0088 0.0060
 Mercury -113554-12-18 05:31 J -39753824.37 -39753824.27 -39753824.15 0.0088 0.0055
 Mercury -113553-03-15 07:26 J -39753736.31 -39753736.19 -39753736.07 0.0088 0.0051
 Mercury -113553-06-11 08:53 J -39753648.24 -39753648.13 -39753648.00 0.0088 0.0047
 Mercury -113553-09-07 10:34 J -39753560.18 -39753560.06 -39753559.92 0.0088 0.0042
 Mercury -113553-12-04 12:29 J -39753472.11 -39753471.98 -39753471.85 0.0088 0.0038
 Mercury -113552-03-02 13:55 J -39753384.04 -39753383.92 -39753383.78 0.0088 0.0034
 Mars -113552-03-13 21:07 J -39753372.80 -39753372.62 -39753372.39 0.0088 0.0068
 Mercury -113552-05-29 15:36 J -39753295.98 -39753295.85 -39753295.71 0.0088 0.0029
 Mercury -113552-08-25 17:31 J -39753207.91 -39753207.77 -39753207.64 0.0088 0.0025
 Mercury -113552-11-21 18:58 J -39753119.84 -39753119.71 -39753119.56 0.0088 0.0021
 Mercury -113551-02-17 20:38 J -39753031.78 -39753031.64 -39753031.50 0.0088 0.0016
 Mercury -113551-05-16 22:19 J -39752943.71 -39752943.57 -39752943.43 0.0088 0.0012

Mercury -113551-08-13 00:00 J -39752855.64 -39752855.50 -39752855.36 0.0088 0.0007
 Mercury -113551-11-09 01:41 J -39752767.58 -39752767.43 -39752767.29 0.0088 0.0004
 Mercury -113550-02-05 03:07 J -39752679.51 -39752679.37 -39752679.22 0.0088 0.0003
 Mars -113550-02-06 19:12 J -39752677.81 -39752677.70 -39752677.56 0.0088 0.0081
 Mercury -113550-05-04 04:48 J -39752591.44 -39752591.30 -39752591.16 0.0088 0.0005
 Mercury -113550-07-31 06:29 J -39752503.37 -39752503.23 -39752503.09 0.0088 0.0010
 Mercury -113550-10-27 07:55 J -39752415.31 -39752415.17 -39752415.03 0.0088 0.0014
 Mercury -113549-01-23 09:36 J -39752327.24 -39752327.10 -39752326.96 0.0088 0.0018
 Mercury -113549-04-20 11:02 J -39752239.17 -39752239.04 -39752238.90 0.0088 0.0023
 Mercury -113549-07-17 12:43 J -39752151.10 -39752150.97 -39752150.83 0.0088 0.0027
 Mercury -113549-10-13 14:24 J -39752063.04 -39752062.90 -39752062.77 0.0088 0.0031
 Mercury -113548-01-09 15:36 J -39751974.97 -39751974.85 -39751974.71 0.0088 0.0036
 Mercury -113548-04-07 17:17 J -39751886.90 -39751886.78 -39751886.65 0.0088 0.0039
 Mercury -113548-07-04 18:43 J -39751798.83 -39751798.72 -39751798.59 0.0088 0.0044
 Mercury -113548-09-30 20:24 J -39751710.76 -39751710.65 -39751710.53 0.0088 0.0047
 Mercury -113548-12-27 21:50 J -39751622.69 -39751622.59 -39751622.47 0.0088 0.0052
 Mercury -113547-03-25 23:31 J -39751534.62 -39751534.52 -39751534.41 0.0088 0.0056
 Mercury -113547-06-22 00:58 J -39751446.55 -39751446.46 -39751446.35 0.0088 0.0060
 Mercury -113547-09-18 02:38 J -39751358.48 -39751358.39 -39751358.29 0.0088 0.0064
 Mercury -113547-12-15 04:05 J -39751270.41 -39751270.33 -39751270.24 0.0088 0.0068
 Mercury -113546-03-13 05:46 J -39751182.34 -39751182.26 -39751182.18 0.0088 0.0072
 Mercury -113546-06-09 07:12 J -39751094.27 -39751094.20 -39751094.13 0.0088 0.0076
 Mercury -113546-09-05 08:24 J -39751006.19 -39751006.15 -39751006.08 0.0088 0.0080
 Mercury -113546-12-02 09:50 J -39750918.11 -39750918.09 -39750918.03 0.0088 0.0084
 Mercury -113545-02-28 11:46 J -39750830.02 -39750830.01 -39750830.00 0.0088 0.0088
 Venus -113519-09-11 00:58 J -39741138.49 -39741138.46 -39741138.41 0.0088 0.0087
 Venus -113518-04-24 12:14 J -39740913.05 -39740912.99 -39740912.88 0.0088 0.0081
 Venus -113518-12-06 00:00 J -39740687.60 -39740687.50 -39740687.38 0.0088 0.0076
 Venus -113517-07-18 11:46 J -39740462.14 -39740462.01 -39740461.88 0.0088 0.0070
 Venus -113516-02-28 22:48 J -39740236.67 -39740236.55 -39740236.38 0.0088 0.0065

Venus	-113516-10-12 10:34 J	-39740011.20	-39740011.06	-39740010.89	0.0088	0.0059
Venus	-113515-05-25 22:19 J	-39739785.74	-39739785.57	-39739785.40	0.0088	0.0053
Venus	-113514-01-06 09:22 J	-39739560.27	-39739560.11	-39739559.91	0.0088	0.0048
Venus	-113514-08-19 20:53 J	-39739334.80	-39739334.63	-39739334.42	0.0088	0.0042
Venus	-113513-04-01 08:38 J	-39739109.33	-39739109.14	-39739108.94	0.0088	0.0035
Venus	-113513-11-12 20:10 J	-39738883.86	-39738883.66	-39738883.46	0.0088	0.0030
Venus	-113512-06-26 07:41 J	-39738658.39	-39738658.18	-39738657.98	0.0088	0.0024
Venus	-113511-02-06 18:43 J	-39738432.92	-39738432.72	-39738432.50	0.0088	0.0019
Venus	-113511-09-20 06:14 J	-39738207.44	-39738207.24	-39738207.02	0.0088	0.0013
Venus	-113510-05-03 18:00 J	-39737981.96	-39737981.75	-39737981.54	0.0088	0.0006
Venus	-113510-12-15 05:17 J	-39737756.49	-39737756.28	-39737756.06	0.0088	0.0002
Venus	-113509-07-27 16:48 J	-39737531.01	-39737530.80	-39737530.59	0.0088	0.0005
Venus	-113508-03-10 04:05 J	-39737305.53	-39737305.33	-39737305.11	0.0088	0.0011
Venus	-113508-10-21 15:36 J	-39737080.05	-39737079.85	-39737079.64	0.0088	0.0017
Venus	-113507-06-04 02:53 J	-39736854.57	-39736854.38	-39736854.16	0.0088	0.0024
Venus	-113506-01-15 14:38 J	-39736629.09	-39736628.89	-39736628.69	0.0088	0.0029
Venus	-113506-08-29 01:55 J	-39736403.61	-39736403.42	-39736403.22	0.0088	0.0035
Venus	-113505-04-10 13:26 J	-39736178.12	-39736177.94	-39736177.74	0.0088	0.0041
Moon	-113505-07-08 06:29 J	-39736089.28	-39736089.23	-39736089.15	0.0088	0.0085
Earth	-113505-07-08 09:50 J	-39736089.09	-39736089.09	-39736089.07	0.0088	0.0088
Venus	-113505-11-22 00:58 J	-39735952.63	-39735952.46	-39735952.27	0.0088	0.0046
Venus	-113504-07-05 12:14 J	-39735727.14	-39735726.99	-39735726.80	0.0088	0.0053
Earth	-113504-07-10 17:02 J	-39735721.95	-39735721.79	-39735721.59	0.0088	0.0060
Moon	-113504-07-10 19:12 J	-39735721.86	-39735721.70	-39735721.51	0.0088	0.0063 *
Venus	-113503-02-16 00:00 J	-39735501.65	-39735501.50	-39735501.33	0.0088	0.0058
Moon	-113503-07-13 00:14 J	-39735354.72	-39735354.49	-39735354.26	0.0088	0.0028
Earth	-113503-07-13 00:43 J	-39735354.69	-39735354.47	-39735354.23	0.0088	0.0031 *
Venus	-113503-09-29 11:31 J	-39735276.16	-39735276.02	-39735275.86	0.0088	0.0064
Venus	-113502-05-12 23:02 J	-39735050.65	-39735050.54	-39735050.39	0.0088	0.0069
Moon	-113502-07-15 08:10 J	-39734987.42	-39734987.16	-39734986.90	0.0088	0.0005

Earth -113502-07-15 08:24 J -39734987.40 -39734987.15 -39734986.90 0.0088 0.0001 *
 Venus -113502-12-24 10:48 J -39734825.15 -39734825.05 -39734824.93 0.0088 0.0075
 Earth -113501-07-16 15:50 J -39734620.07 -39734619.84 -39734619.60 0.0088 0.0028
 Moon -113501-07-16 17:46 J -39734619.98 -39734619.76 -39734619.53 0.0088 0.0031 *
 Venus -113501-08-05 22:05 J -39734599.65 -39734599.58 -39734599.48 0.0088 0.0081
 Venus -113500-03-19 09:50 J -39734374.13 -39734374.09 -39734374.04 0.0088 0.0086
 Moon -113500-07-18 20:24 J -39734252.83 -39734252.65 -39734252.44 0.0088 0.0055
 Earth -113500-07-18 23:02 J -39734252.70 -39734252.54 -39734252.32 0.0088 0.0058 *
 Earth -113499-07-21 06:43 J -39733885.25 -39733885.22 -39733885.14 0.0088 0.0087
 Mars -113489-01-17 20:24 J -39730417.79 -39730417.65 -39730417.46 0.0089 0.0076
 Mars -113488-12-13 09:07 J -39729722.34 -39729722.12 -39729721.87 0.0089 0.0062
 Mars -113486-11-08 19:41 J -39729026.93 -39729026.68 -39729026.38 0.0089 0.0048
 Mars -113484-10-04 05:31 J -39728331.54 -39728331.27 -39728330.94 0.0089 0.0034
 Mars -113482-08-30 14:24 J -39727636.21 -39727635.90 -39727635.57 0.0089 0.0019
 Mars -113480-07-25 20:53 J -39726940.94 -39726940.63 -39726940.30 0.0089 0.0005
 Mars -113478-06-21 02:38 J -39726245.69 -39726245.39 -39726245.06 0.0089 0.0011
 Mars -113476-05-16 06:29 J -39725550.52 -39725550.23 -39725549.91 0.0089 0.0025
 Mars -113474-04-11 07:41 J -39724855.44 -39724855.18 -39724854.87 0.0089 0.0039
 Mars -113472-03-06 07:26 J -39724160.43 -39724160.19 -39724159.92 0.0089 0.0052
 Mercury -113472-09-13 18:43 J -39723968.73 -39723968.72 -39723968.69 0.0089 0.0088
 Mercury -113472-12-10 21:22 J -39723880.65 -39723880.61 -39723880.53 0.0089 0.0083
 Mercury -113471-03-09 00:14 J -39723792.56 -39723792.49 -39723792.40 0.0089 0.0078
 Mercury -113471-06-05 02:53 J -39723704.46 -39723704.38 -39723704.26 0.0089 0.0073
 Mercury -113471-09-01 05:46 J -39723616.36 -39723616.26 -39723616.13 0.0089 0.0068
 Mercury -113471-11-28 08:53 J -39723528.25 -39723528.13 -39723528.01 0.0089 0.0062
 Mars -113470-01-30 06:29 J -39723465.43 -39723465.23 -39723465.01 0.0089 0.0065
 Mercury -113470-02-24 11:31 J -39723440.14 -39723440.02 -39723439.88 0.0089 0.0057
 Mercury -113470-05-23 14:24 J -39723352.03 -39723351.90 -39723351.75 0.0089 0.0052
 Mercury -113470-08-19 17:02 J -39723263.92 -39723263.79 -39723263.63 0.0089 0.0047
 Mercury -113470-11-15 19:55 J -39723175.81 -39723175.67 -39723175.50 0.0089 0.0042

Mercury -113469-02-11 23:02 J -39723087.70 -39723087.54 -39723087.37 0.0089 0.0036

Mercury -113469-05-10 01:55 J -39722999.58 -39722999.42 -39722999.25 0.0089 0.0031

Mercury -113469-08-06 04:48 J -39722911.46 -39722911.30 -39722911.13 0.0089 0.0026

Mercury -113469-11-02 07:41 J -39722823.35 -39722823.18 -39722823.00 0.0089 0.0020

Mars -113469-12-25 02:38 J -39722770.52 -39722770.39 -39722770.23 0.0089 0.0078

Mercury -113468-01-29 10:34 J -39722735.23 -39722735.06 -39722734.88 0.0089 0.0015

Mercury -113468-04-27 13:41 J -39722647.11 -39722646.93 -39722646.75 0.0089 0.0009

Mercury -113468-07-24 16:34 J -39722558.98 -39722558.81 -39722558.63 0.0089 0.0004

Mercury -113468-10-20 19:41 J -39722470.86 -39722470.68 -39722470.50 0.0089 0.0002

Mercury -113467-01-16 22:34 J -39722382.74 -39722382.56 -39722382.38 0.0089 0.0007

Mercury -113467-04-15 01:26 J -39722294.61 -39722294.44 -39722294.26 0.0089 0.0013

Mercury -113467-07-12 04:34 J -39722206.48 -39722206.31 -39722206.13 0.0089 0.0018

Mercury -113467-10-08 07:26 J -39722118.36 -39722118.19 -39722118.01 0.0089 0.0024

Mercury -113466-01-04 10:34 J -39722030.23 -39722030.06 -39722029.89 0.0089 0.0029

Mercury -113466-04-02 13:26 J -39721942.10 -39721941.94 -39721941.77 0.0089 0.0035

Mercury -113466-06-29 16:34 J -39721853.96 -39721853.81 -39721853.64 0.0089 0.0040

Mercury -113466-09-25 19:26 J -39721765.83 -39721765.69 -39721765.52 0.0089 0.0046

Mercury -113466-12-22 22:48 J -39721677.69 -39721677.55 -39721677.40 0.0089 0.0051

Mercury -113465-03-20 01:41 J -39721589.56 -39721589.43 -39721589.28 0.0089 0.0057

Mercury -113465-06-16 04:34 J -39721501.42 -39721501.31 -39721501.16 0.0089 0.0063

Mercury -113465-09-12 07:55 J -39721413.28 -39721413.17 -39721413.05 0.0089 0.0068

Mercury -113465-12-09 10:48 J -39721325.13 -39721325.05 -39721324.93 0.0089 0.0074

Mercury -113464-03-07 14:24 J -39721236.98 -39721236.90 -39721236.82 0.0089 0.0079

Mercury -113464-06-03 17:17 J -39721148.82 -39721148.78 -39721148.72 0.0089 0.0085

Venus -113436-06-08 02:53 J -39710917.41 -39710917.38 -39710917.30 0.0089 0.0086

Venus -113435-01-19 17:31 J -39710691.85 -39710691.77 -39710691.65 0.0089 0.0080

Venus -113435-09-02 08:10 J -39710466.27 -39710466.16 -39710466.02 0.0089 0.0074

Venus -113434-04-15 22:34 J -39710240.68 -39710240.56 -39710240.39 0.0089 0.0068

Venus -113434-11-27 13:41 J -39710015.09 -39710014.93 -39710014.76 0.0089 0.0061

Venus -113433-07-10 04:05 J -39709789.50 -39709789.33 -39709789.14 0.0089 0.0055

Venus	-113432-02-20 18:29 J	-39709563.90	-39709563.73	-39709563.52	0.0089	0.0049
Venus	-113432-10-04 09:50 J	-39709338.29	-39709338.09	-39709337.89	0.0089	0.0042
Venus	-113431-05-18 00:14 J	-39709112.69	-39709112.49	-39709112.27	0.0089	0.0036
Venus	-113431-12-29 14:38 J	-39708887.09	-39708886.89	-39708886.66	0.0089	0.0030
Venus	-113430-08-12 05:31 J	-39708661.48	-39708661.27	-39708661.04	0.0089	0.0023
Venus	-113429-03-24 20:10 J	-39708435.88	-39708435.66	-39708435.43	0.0089	0.0017
Venus	-113429-11-05 11:02 J	-39708210.26	-39708210.04	-39708209.81	0.0089	0.0011
Venus	-113428-06-19 01:55 J	-39707984.65	-39707984.42	-39707984.19	0.0089	0.0004
Venus	-113427-01-30 16:34 J	-39707759.04	-39707758.81	-39707758.58	0.0089	0.0003
Venus	-113427-09-13 07:12 J	-39707533.42	-39707533.20	-39707532.97	0.0089	0.0009
Venus	-113426-04-26 21:50 J	-39707307.81	-39707307.59	-39707307.36	0.0089	0.0016
Venus	-113426-12-08 12:29 J	-39707082.19	-39707081.98	-39707081.75	0.0089	0.0022
Venus	-113425-07-21 03:22 J	-39706856.58	-39706856.36	-39706856.15	0.0089	0.0028
Venus	-113424-03-03 17:31 J	-39706630.96	-39706630.77	-39706630.54	0.0089	0.0035
Venus	-113424-10-15 08:24 J	-39706405.34	-39706405.15	-39706404.93	0.0089	0.0041
Venus	-113423-05-28 23:17 J	-39706179.72	-39706179.53	-39706179.33	0.0089	0.0047
Venus	-113422-01-09 13:26 J	-39705954.10	-39705953.94	-39705953.74	0.0089	0.0054
Earth	-113422-01-13 20:38 J	-39705949.74	-39705949.64	-39705949.49	0.0089	0.0078
Moon	-113422-01-14 00:43 J	-39705949.61	-39705949.47	-39705949.32	0.0089	0.0074 *
Venus	-113422-08-23 04:05 J	-39705728.48	-39705728.33	-39705728.15	0.0089	0.0060
Moon	-113421-01-16 09:36 J	-39705582.31	-39705582.10	-39705581.87	0.0089	0.0050
Earth	-113421-01-16 12:58 J	-39705582.17	-39705581.96	-39705581.71	0.0089	0.0046 *
Venus	-113421-04-04 18:43 J	-39705502.86	-39705502.72	-39705502.56	0.0089	0.0066
Venus	-113421-11-16 09:22 J	-39705277.23	-39705277.11	-39705276.97	0.0089	0.0072
Earth	-113420-01-18 05:02 J	-39705214.55	-39705214.29	-39705214.02	0.0089	0.0014
Moon	-113420-01-18 07:41 J	-39705214.45	-39705214.18	-39705213.90	0.0089	0.0010 *
Venus	-113420-06-30 00:14 J	-39705051.60	-39705051.49	-39705051.39	0.0089	0.0078
Moon	-113419-01-20 19:12 J	-39704846.95	-39704846.70	-39704846.44	0.0089	0.0014
Earth	-113419-01-20 20:38 J	-39704846.89	-39704846.64	-39704846.37	0.0089	0.0018 *
Venus	-113419-02-10 13:55 J	-39704825.96	-39704825.92	-39704825.82	0.0089	0.0085

Earth -113418-01-23 12:00 J -39704479.19 -39704479.00 -39704478.75 0.0089 0.0050
 Moon -113418-01-23 13:12 J -39704479.15 -39704478.95 -39704478.71 0.0089 0.0054 *
 Earth -113417-01-26 04:05 J -39704111.43 -39704111.33 -39704111.22 0.0089 0.0081
 Moon -113417-01-26 05:02 J -39704111.42 -39704111.29 -39704111.17 0.0089 0.0077 *
 Mars -113410-11-26 20:10 J -39701249.74 -39701249.66 -39701249.51 0.0089 0.0082
 Mars -113408-10-21 01:41 J -39700555.58 -39700555.43 -39700555.21 0.0089 0.0070
 Mars -113406-09-15 07:41 J -39699861.40 -39699861.18 -39699860.93 0.0089 0.0057
 Mars -113404-08-09 14:38 J -39699167.14 -39699166.89 -39699166.61 0.0089 0.0044
 Mars -113402-07-04 23:31 J -39698472.79 -39698472.52 -39698472.22 0.0089 0.0031
 Mars -113400-05-29 09:36 J -39697778.40 -39697778.10 -39697777.80 0.0089 0.0017
 Mars -113398-04-23 20:24 J -39697083.95 -39697083.65 -39697083.34 0.0089 0.0003
 Mars -113396-03-18 09:36 J -39696389.40 -39696389.10 -39696388.78 0.0089 0.0011
 Mars -113394-02-10 23:31 J -39695694.82 -39695694.52 -39695694.22 0.0088 0.0025
 Mars -113392-01-05 13:55 J -39695000.19 -39694999.92 -39694999.63 0.0088 0.0039
 Mars -113391-12-01 06:43 J -39694305.46 -39694305.22 -39694304.96 0.0088 0.0053
 Mercury -113390-01-05 16:05 J -39694269.86 -39694269.83 -39694269.80 0.0088 0.0086
 Mercury -113390-04-03 17:31 J -39694181.81 -39694181.77 -39694181.70 0.0088 0.0082
 Mercury -113390-06-30 19:41 J -39694093.75 -39694093.68 -39694093.61 0.0088 0.0077
 Mercury -113390-09-26 21:07 J -39694005.69 -39694005.62 -39694005.53 0.0088 0.0073
 Mercury -113390-12-23 22:48 J -39693917.63 -39693917.55 -39693917.45 0.0088 0.0068
 Mercury -113389-03-21 00:43 J -39693829.57 -39693829.47 -39693829.37 0.0088 0.0064
 Mercury -113389-06-17 02:10 J -39693741.50 -39693741.41 -39693741.29 0.0088 0.0060
 Mercury -113389-09-13 04:05 J -39693653.44 -39693653.33 -39693653.21 0.0088 0.0055
 Mars -113389-10-26 01:12 J -39693610.63 -39693610.45 -39693610.22 0.0088 0.0067
 Mercury -113389-12-10 05:46 J -39693565.37 -39693565.26 -39693565.13 0.0088 0.0050
 Mercury -113388-03-08 07:26 J -39693477.30 -39693477.19 -39693477.06 0.0088 0.0046
 Mercury -113388-06-04 09:07 J -39693389.24 -39693389.12 -39693388.98 0.0088 0.0042
 Mercury -113388-08-31 10:48 J -39693301.17 -39693301.05 -39693300.91 0.0088 0.0037
 Mercury -113388-11-27 12:43 J -39693213.11 -39693212.97 -39693212.84 0.0088 0.0033
 Mercury -113387-02-23 14:10 J -39693125.04 -39693124.91 -39693124.77 0.0088 0.0029

Mercury -113387-05-22 15:50 J -39693036.97 -39693036.84 -39693036.70 0.0088 0.0024
 Mercury -113387-08-18 17:31 J -39692948.90 -39692948.77 -39692948.63 0.0088 0.0020
 Mars -113387-09-20 20:38 J -39692915.74 -39692915.64 -39692915.48 0.0088 0.0081
 Mercury -113387-11-14 19:12 J -39692860.84 -39692860.70 -39692860.56 0.0088 0.0016
 Mercury -113386-02-10 20:53 J -39692772.77 -39692772.63 -39692772.49 0.0088 0.0011
 Mercury -113386-05-09 22:34 J -39692684.70 -39692684.56 -39692684.42 0.0088 0.0007
 Mercury -113386-08-06 00:14 J -39692596.63 -39692596.49 -39692596.35 0.0088 0.0003
 Mercury -113386-11-02 01:41 J -39692508.57 -39692508.43 -39692508.28 0.0088 0.0003
 Mercury -113385-01-29 03:22 J -39692420.50 -39692420.36 -39692420.22 0.0088 0.0006
 Mercury -113385-04-26 05:02 J -39692332.43 -39692332.29 -39692332.15 0.0088 0.0010
 Mercury -113385-07-23 06:29 J -39692244.36 -39692244.23 -39692244.08 0.0088 0.0015
 Mercury -113385-10-19 08:10 J -39692156.30 -39692156.16 -39692156.02 0.0088 0.0019
 Mercury -113384-01-15 09:36 J -39692068.23 -39692068.10 -39692067.96 0.0088 0.0023
 Mercury -113384-04-13 11:17 J -39691980.16 -39691980.03 -39691979.89 0.0088 0.0027
 Mercury -113384-07-10 12:43 J -39691892.09 -39691891.97 -39691891.83 0.0088 0.0032
 Mercury -113384-10-06 14:24 J -39691804.02 -39691803.90 -39691803.77 0.0088 0.0036
 Mercury -113383-01-02 16:05 J -39691715.96 -39691715.83 -39691715.71 0.0088 0.0040
 Mercury -113383-03-31 17:31 J -39691627.89 -39691627.77 -39691627.64 0.0088 0.0044
 Mercury -113383-06-27 19:12 J -39691539.82 -39691539.70 -39691539.58 0.0088 0.0048
 Mercury -113383-09-23 20:24 J -39691451.75 -39691451.65 -39691451.52 0.0088 0.0053
 Mercury -113383-12-20 22:05 J -39691363.68 -39691363.58 -39691363.47 0.0088 0.0056
 Mercury -113382-03-18 23:31 J -39691275.61 -39691275.52 -39691275.41 0.0088 0.0060
 Mercury -113382-06-15 00:58 J -39691187.54 -39691187.46 -39691187.35 0.0088 0.0065
 Mercury -113382-09-11 02:38 J -39691099.47 -39691099.39 -39691099.30 0.0088 0.0068
 Mercury -113382-12-08 04:05 J -39691011.40 -39691011.33 -39691011.24 0.0088 0.0073
 Mercury -113381-03-05 05:31 J -39690923.32 -39690923.27 -39690923.19 0.0088 0.0077
 Mercury -113381-06-01 07:12 J -39690835.25 -39690835.20 -39690835.14 0.0088 0.0080
 Mercury -113381-08-28 08:38 J -39690747.17 -39690747.14 -39690747.09 0.0088 0.0085
 Mercury -113381-11-24 10:19 J -39690659.07 -39690659.07 -39690659.07 0.0088 0.0088
 Venus -113355-12-13 10:05 J -39681144.10 -39681144.08 -39681144.03 0.0088 0.0087

Venus	-113354-07-26 21:22 J	-39680918.67	-39680918.61	-39680918.50	0.0088	0.0082
Venus	-113353-03-08 09:07 J	-39680693.21	-39680693.12	-39680692.99	0.0088	0.0076
Venus	-113353-10-19 20:53 J	-39680467.75	-39680467.63	-39680467.49	0.0088	0.0070
Venus	-113352-06-02 08:10 J	-39680242.29	-39680242.16	-39680242.00	0.0088	0.0064
Venus	-113351-01-13 19:41 J	-39680016.82	-39680016.68	-39680016.51	0.0088	0.0059
Venus	-113351-08-27 07:26 J	-39679791.36	-39679791.19	-39679791.02	0.0088	0.0053
Venus	-113350-04-09 19:12 J	-39679565.88	-39679565.70	-39679565.52	0.0088	0.0047
Venus	-113350-11-21 06:14 J	-39679340.41	-39679340.24	-39679340.04	0.0088	0.0042
Venus	-113349-07-03 17:46 J	-39679114.94	-39679114.76	-39679114.55	0.0088	0.0036
Venus	-113348-02-14 05:17 J	-39678889.47	-39678889.28	-39678889.07	0.0088	0.0030
Venus	-113348-09-27 16:48 J	-39678664.00	-39678663.80	-39678663.59	0.0088	0.0024
Venus	-113347-05-11 04:34 J	-39678438.52	-39678438.31	-39678438.10	0.0088	0.0018
Venus	-113347-12-22 15:50 J	-39678213.05	-39678212.84	-39678212.63	0.0088	0.0012
Venus	-113346-08-05 03:22 J	-39677987.57	-39677987.36	-39677987.15	0.0088	0.0006
Venus	-113345-03-17 14:53 J	-39677762.10	-39677761.88	-39677761.67	0.0088	0.0002
Venus	-113345-10-29 02:10 J	-39677536.62	-39677536.41	-39677536.20	0.0088	0.0006
Venus	-113344-06-11 13:41 J	-39677311.14	-39677310.93	-39677310.72	0.0088	0.0011
Venus	-113343-01-23 00:58 J	-39677085.66	-39677085.46	-39677085.25	0.0088	0.0017
Venus	-113343-09-05 12:14 J	-39676860.19	-39676859.99	-39676859.78	0.0088	0.0023
Venus	-113342-04-18 23:46 J	-39676634.70	-39676634.51	-39676634.30	0.0088	0.0029
Venus	-113342-11-30 11:31 J	-39676409.22	-39676409.02	-39676408.83	0.0088	0.0035
Venus	-113341-07-12 22:48 J	-39676183.73	-39676183.55	-39676183.36	0.0088	0.0041
Venus	-113340-02-23 10:05 J	-39675958.25	-39675958.08	-39675957.89	0.0088	0.0047
Earth	-113340-07-10 01:12 J	-39675821.55	-39675821.45	-39675821.30	0.0088	0.0076
Moon	-113340-07-10 03:36 J	-39675821.44	-39675821.35	-39675821.24	0.0088	0.0080 *
Venus	-113340-10-06 21:36 J	-39675732.76	-39675732.60	-39675732.42	0.0088	0.0052
Venus	-113339-05-20 09:07 J	-39675507.26	-39675507.12	-39675506.94	0.0088	0.0058
Moon	-113339-07-12 05:31 J	-39675454.48	-39675454.27	-39675454.03	0.0088	0.0042
Earth	-113339-07-12 08:53 J	-39675454.33	-39675454.13	-39675453.91	0.0088	0.0046 *
Venus	-113339-12-31 20:53 J	-39675281.77	-39675281.63	-39675281.47	0.0088	0.0064

Earth -113338-07-14 16:19 J -39675087.05 -39675086.82 -39675086.56 0.0088 0.0018
 Moon -113338-07-14 19:55 J -39675086.90 -39675086.67 -39675086.42 0.0088 0.0022 *
 Venus -113338-08-14 08:10 J -39675056.27 -39675056.16 -39675056.01 0.0088 0.0070
 Venus -113337-03-26 19:41 J -39674830.77 -39674830.68 -39674830.55 0.0088 0.0076
 Moon -113337-07-15 21:07 J -39674719.86 -39674719.62 -39674719.38 0.0088 0.0017
 Earth -113337-07-16 00:14 J -39674719.73 -39674719.49 -39674719.24 0.0088 0.0012 *
 Venus -113337-11-07 07:41 J -39674605.26 -39674605.18 -39674605.09 0.0088 0.0081
 Venus -113336-06-20 18:58 J -39674379.73 -39674379.71 -39674379.65 0.0088 0.0087
 Earth -113336-07-18 07:41 J -39674352.39 -39674352.18 -39674351.95 0.0088 0.0042
 Moon -113336-07-18 10:34 J -39674352.29 -39674352.06 -39674351.82 0.0088 0.0037 *
 Moon -113335-07-20 13:55 J -39673985.02 -39673984.92 -39673984.77 0.0088 0.0076
 Earth -113335-07-20 15:22 J -39673984.99 -39673984.86 -39673984.70 0.0088 0.0071 *
 Saturn -113335-09-17 14:10 J -39673926.29 -39673925.91 -39673925.49 0.0088 0.0070
 Mars -113326-08-31 11:31 J -39670656.12 -39670656.02 -39670655.87 0.0089 0.0082
 Mars -113324-07-27 01:26 J -39669960.61 -39669960.44 -39669960.19 0.0089 0.0068
 Mars -113322-06-22 14:24 J -39669265.13 -39669264.90 -39669264.61 0.0089 0.0053
 Mars -113320-05-18 01:41 J -39668569.70 -39668569.43 -39668569.11 0.0089 0.0038
 Mars -113318-04-13 11:31 J -39667874.32 -39667874.02 -39667873.70 0.0089 0.0023
 Mars -113316-03-08 20:10 J -39667178.98 -39667178.66 -39667178.34 0.0089 0.0008
 Mars -113314-02-02 01:55 J -39666483.73 -39666483.42 -39666483.09 0.0089 0.0008
 Mars -113313-12-28 06:58 J -39665788.52 -39665788.21 -39665787.89 0.0089 0.0022
 Mars -113311-11-23 10:05 J -39665093.35 -39665093.08 -39665092.77 0.0089 0.0037
 Mars -113309-10-18 11:17 J -39664398.27 -39664398.03 -39664397.76 0.0089 0.0051
 Mercury -113307-06-10 16:19 J -39663797.84 -39663797.82 -39663797.77 0.0089 0.0087
 Mercury -113307-09-06 18:58 J -39663709.76 -39663709.71 -39663709.62 0.0089 0.0082
 Mars -113307-09-13 10:19 J -39663703.26 -39663703.07 -39663702.83 0.0089 0.0065
 Mercury -113307-12-03 21:50 J -39663621.66 -39663621.59 -39663621.49 0.0089 0.0077
 Mercury -113306-03-02 00:29 J -39663533.56 -39663533.48 -39663533.36 0.0089 0.0072
 Mercury -113306-05-29 03:50 J -39663445.46 -39663445.34 -39663445.23 0.0089 0.0066
 Mercury -113306-08-25 06:29 J -39663357.35 -39663357.23 -39663357.10 0.0089 0.0061

Mercury -113306-11-21 09:07 J -39663269.24 -39663269.12 -39663268.98 0.0089 0.0056

Mercury -113305-02-17 12:00 J -39663181.14 -39663181.00 -39663180.85 0.0089 0.0051

Mercury -113305-05-15 14:38 J -39663093.02 -39663092.89 -39663092.72 0.0089 0.0046

Mars -113305-08-08 09:22 J -39663008.24 -39663008.11 -39663007.95 0.0089 0.0078

Mercury -113305-08-11 17:31 J -39663004.91 -39663004.77 -39663004.60 0.0089 0.0041

Mercury -113305-11-07 20:38 J -39662916.80 -39662916.64 -39662916.48 0.0089 0.0035

Mercury -113304-02-03 23:31 J -39662828.68 -39662828.52 -39662828.35 0.0089 0.0030

Mercury -113304-05-03 02:10 J -39662740.57 -39662740.41 -39662740.23 0.0089 0.0025

Mercury -113304-07-30 05:17 J -39662652.45 -39662652.28 -39662652.10 0.0089 0.0019

Mercury -113304-10-26 08:10 J -39662564.33 -39662564.16 -39662563.98 0.0089 0.0014

Mercury -113303-01-22 11:02 J -39662476.21 -39662476.04 -39662475.86 0.0089 0.0009

Mercury -113303-04-20 14:10 J -39662388.09 -39662387.91 -39662387.73 0.0089 0.0003

Mercury -113303-07-17 17:02 J -39662299.97 -39662299.79 -39662299.61 0.0089 0.0003

Mercury -113303-10-13 19:55 J -39662211.84 -39662211.67 -39662211.49 0.0089 0.0008

Mercury -113302-01-09 23:02 J -39662123.72 -39662123.54 -39662123.36 0.0089 0.0013

Mercury -113302-04-08 01:55 J -39662035.59 -39662035.42 -39662035.24 0.0089 0.0019

Mercury -113302-07-05 05:02 J -39661947.46 -39661947.29 -39661947.12 0.0089 0.0024

Mercury -113302-10-01 07:55 J -39661859.33 -39661859.17 -39661859.00 0.0089 0.0030

Mercury -113302-12-28 10:48 J -39661771.20 -39661771.05 -39661770.87 0.0089 0.0036

Mercury -113301-03-25 13:55 J -39661683.07 -39661682.92 -39661682.75 0.0089 0.0041

Mercury -113301-06-21 16:48 J -39661594.94 -39661594.80 -39661594.63 0.0089 0.0047

Mercury -113301-09-17 19:55 J -39661506.80 -39661506.67 -39661506.51 0.0089 0.0052

Mercury -113301-12-14 23:02 J -39661418.67 -39661418.54 -39661418.39 0.0089 0.0058

Mercury -113300-03-13 02:24 J -39661330.53 -39661330.40 -39661330.27 0.0089 0.0063

Mercury -113300-06-09 05:02 J -39661242.38 -39661242.29 -39661242.16 0.0089 0.0069

Mercury -113300-09-05 08:10 J -39661154.24 -39661154.16 -39661154.05 0.0089 0.0075

Mercury -113300-12-02 11:31 J -39661066.09 -39661066.02 -39661065.94 0.0089 0.0080

Mercury -113299-02-28 14:24 J -39660977.93 -39660977.90 -39660977.84 0.0089 0.0086

Venus -113272-09-09 08:38 J -39650923.18 -39650923.14 -39650923.07 0.0089 0.0086

Venus -113271-04-22 23:02 J -39650697.61 -39650697.54 -39650697.42 0.0089 0.0080

Venus	-113271-12-04 13:41 J	-39650472.03	-39650471.93	-39650471.78	0.0089	0.0074
Venus	-113270-07-18 04:05 J	-39650246.45	-39650246.33	-39650246.16	0.0089	0.0068
Venus	-113269-02-28 19:12 J	-39650020.86	-39650020.70	-39650020.53	0.0089	0.0061
Venus	-113269-10-11 09:50 J	-39649795.26	-39649795.09	-39649794.90	0.0089	0.0055
Venus	-113268-05-25 00:14 J	-39649569.66	-39649569.49	-39649569.28	0.0089	0.0049
Venus	-113267-01-05 14:53 J	-39649344.06	-39649343.88	-39649343.66	0.0089	0.0043
Venus	-113267-08-19 05:31 J	-39649118.47	-39649118.27	-39649118.05	0.0089	0.0036
Venus	-113266-04-01 20:10 J	-39648892.86	-39648892.66	-39648892.43	0.0089	0.0030
Venus	-113266-11-13 11:02 J	-39648667.26	-39648667.04	-39648666.82	0.0089	0.0023
Venus	-113265-06-26 01:41 J	-39648441.65	-39648441.43	-39648441.20	0.0089	0.0017
Venus	-113264-02-06 16:19 J	-39648216.04	-39648215.82	-39648215.59	0.0089	0.0010
Venus	-113264-09-20 07:12 J	-39647990.43	-39647990.20	-39647989.97	0.0089	0.0004
Venus	-113263-05-03 21:50 J	-39647764.82	-39647764.59	-39647764.36	0.0089	0.0003
Venus	-113263-12-15 12:29 J	-39647539.20	-39647538.98	-39647538.75	0.0089	0.0009
Venus	-113262-07-29 02:53 J	-39647313.59	-39647313.38	-39647313.14	0.0089	0.0016
Venus	-113261-03-10 17:46 J	-39647087.98	-39647087.76	-39647087.53	0.0089	0.0022
Venus	-113261-10-22 08:24 J	-39646862.35	-39646862.15	-39646861.92	0.0089	0.0029
Venus	-113260-06-04 23:17 J	-39646636.73	-39646636.53	-39646636.31	0.0089	0.0035
Venus	-113259-01-16 13:55 J	-39646411.12	-39646410.92	-39646410.71	0.0089	0.0041
Venus	-113259-08-30 04:19 J	-39646185.50	-39646185.32	-39646185.11	0.0089	0.0048
Venus	-113258-04-12 18:58 J	-39645959.88	-39645959.71	-39645959.51	0.0089	0.0054
Venus	-113258-11-24 09:50 J	-39645734.25	-39645734.09	-39645733.92	0.0089	0.0060
Moon	-113257-01-15 11:02 J	-39645682.19	-39645682.04	-39645681.83	0.0089	0.0068
Earth	-113257-01-15 12:00 J	-39645682.16	-39645682.00	-39645681.78	0.0089	0.0064 *
Venus	-113257-07-07 00:29 J	-39645508.63	-39645508.48	-39645508.32	0.0089	0.0066
Earth	-113256-01-17 04:19 J	-39645314.56	-39645314.32	-39645314.06	0.0089	0.0032
Moon	-113256-01-17 06:14 J	-39645314.49	-39645314.24	-39645313.99	0.0089	0.0027 *
Venus	-113256-02-17 14:38 J	-39645283.00	-39645282.89	-39645282.74	0.0089	0.0073
Venus	-113256-10-01 05:17 J	-39645057.36	-39645057.28	-39645057.16	0.0089	0.0079
Moon	-113255-01-19 17:17 J	-39644947.05	-39644946.78	-39644946.50	0.0089	0.0005

Earth -113255-01-19 20:24 J -39644946.91 -39644946.65 -39644946.38 0.0089 0.0002 *
 Venus -113255-05-14 19:41 J -39644831.72 -39644831.68 -39644831.59 0.0089 0.0085
 Earth -113254-01-22 12:14 J -39644579.24 -39644578.99 -39644578.74 0.0089 0.0032
 Moon -113254-01-22 15:07 J -39644579.09 -39644578.87 -39644578.61 0.0089 0.0037 *
 Moon -113253-01-24 23:46 J -39644211.69 -39644211.51 -39644211.29 0.0089 0.0060
 Earth -113253-01-25 03:50 J -39644211.52 -39644211.34 -39644211.15 0.0089 0.0064 *
 Mars -113246-07-11 13:12 J -39641486.96 -39641486.95 -39641486.86 0.0089 0.0088
 Mars -113244-06-04 17:17 J -39640792.91 -39640792.78 -39640792.59 0.0089 0.0075
 Mars -113242-04-29 23:02 J -39640098.73 -39640098.54 -39640098.30 0.0089 0.0062
 Mars -113240-03-24 05:17 J -39639404.51 -39639404.28 -39639404.00 0.0089 0.0049
 Mars -113238-02-16 12:43 J -39638710.24 -39638709.97 -39638709.68 0.0089 0.0035
 Mars -113236-01-10 21:22 J -39638015.90 -39638015.61 -39638015.30 0.0089 0.0021
 Mars -113235-12-06 07:26 J -39637321.49 -39637321.19 -39637320.88 0.0089 0.0007
 Mars -113233-10-30 18:00 J -39636627.06 -39636626.75 -39636626.44 0.0089 0.0008
 Mars -113231-09-25 06:29 J -39635932.52 -39635932.23 -39635931.92 0.0088 0.0023
 Mars -113229-08-19 20:38 J -39635237.91 -39635237.64 -39635237.35 0.0088 0.0037
 Mars -113227-07-15 11:02 J -39634543.26 -39634543.04 -39634542.75 0.0088 0.0052
 Mercury -113226-10-02 14:10 J -39634098.93 -39634098.91 -39634098.87 0.0088 0.0086
 Mercury -113226-12-29 15:50 J -39634010.88 -39634010.84 -39634010.77 0.0088 0.0081
 Mercury -113225-03-26 17:46 J -39633922.82 -39633922.76 -39633922.68 0.0088 0.0077
 Mars -113225-06-09 04:05 J -39633848.51 -39633848.33 -39633848.09 0.0088 0.0066
 Mercury -113225-06-22 19:26 J -39633834.76 -39633834.69 -39633834.60 0.0088 0.0072
 Mercury -113225-09-18 21:22 J -39633746.70 -39633746.61 -39633746.52 0.0088 0.0068
 Mercury -113225-12-15 22:48 J -39633658.64 -39633658.55 -39633658.44 0.0088 0.0064
 Mercury -113224-03-14 00:29 J -39633570.57 -39633570.48 -39633570.36 0.0088 0.0060
 Mercury -113224-06-10 02:24 J -39633482.51 -39633482.40 -39633482.28 0.0088 0.0055
 Mercury -113224-09-06 04:05 J -39633394.44 -39633394.33 -39633394.20 0.0088 0.0050
 Mercury -113224-12-03 06:00 J -39633306.37 -39633306.25 -39633306.13 0.0088 0.0046
 Mercury -113223-03-01 07:26 J -39633218.31 -39633218.19 -39633218.05 0.0088 0.0042
 Mars -113223-05-04 23:46 J -39633153.62 -39633153.51 -39633153.34 0.0088 0.0080

Mercury -113223-05-28 09:07 J -39633130.24 -39633130.12 -39633129.98 0.0088 0.0037

Mercury -113223-08-24 11:02 J -39633042.17 -39633042.04 -39633041.91 0.0088 0.0033

Mercury -113223-11-20 12:29 J -39632954.11 -39632953.98 -39632953.83 0.0088 0.0029

Mercury -113222-02-16 14:24 J -39632866.04 -39632865.90 -39632865.76 0.0088 0.0024

Mercury -113222-05-15 16:05 J -39632777.97 -39632777.83 -39632777.69 0.0088 0.0020

Mercury -113222-08-11 17:31 J -39632689.90 -39632689.77 -39632689.62 0.0088 0.0016

Mercury -113222-11-07 19:12 J -39632601.84 -39632601.70 -39632601.55 0.0088 0.0011

Mercury -113221-02-03 20:53 J -39632513.77 -39632513.63 -39632513.48 0.0088 0.0007

Mercury -113221-05-01 22:34 J -39632425.70 -39632425.56 -39632425.42 0.0088 0.0003

Mercury -113221-07-29 00:14 J -39632337.63 -39632337.49 -39632337.35 0.0088 0.0002

Mercury -113221-10-25 01:55 J -39632249.56 -39632249.42 -39632249.28 0.0088 0.0006

Mercury -113220-01-21 03:22 J -39632161.50 -39632161.36 -39632161.21 0.0088 0.0011

Mercury -113220-04-19 05:02 J -39632073.43 -39632073.29 -39632073.15 0.0088 0.0015

Mercury -113220-07-16 06:29 J -39631985.36 -39631985.23 -39631985.08 0.0088 0.0020

Mercury -113220-10-12 08:10 J -39631897.29 -39631897.16 -39631897.02 0.0088 0.0023

Mercury -113219-01-08 09:50 J -39631809.22 -39631809.09 -39631808.95 0.0088 0.0028

Mercury -113219-04-06 11:31 J -39631721.15 -39631721.02 -39631720.89 0.0088 0.0032

Mercury -113219-07-03 12:43 J -39631633.09 -39631632.97 -39631632.83 0.0088 0.0037

Mercury -113219-09-29 14:24 J -39631545.02 -39631544.90 -39631544.77 0.0088 0.0040

Mercury -113219-12-26 16:05 J -39631456.95 -39631456.83 -39631456.71 0.0088 0.0044

Mercury -113218-03-24 17:31 J -39631368.88 -39631368.77 -39631368.64 0.0088 0.0049

Mercury -113218-06-20 19:12 J -39631280.81 -39631280.70 -39631280.59 0.0088 0.0052

Mercury -113218-09-16 20:38 J -39631192.74 -39631192.64 -39631192.53 0.0088 0.0057

Mercury -113218-12-13 22:19 J -39631104.67 -39631104.57 -39631104.47 0.0088 0.0061

Mercury -113217-03-10 23:46 J -39631016.60 -39631016.51 -39631016.41 0.0088 0.0065

Mercury -113217-06-07 01:26 J -39630928.53 -39630928.44 -39630928.36 0.0088 0.0069

Mercury -113217-09-03 02:53 J -39630840.46 -39630840.38 -39630840.30 0.0088 0.0073

Mercury -113217-11-30 04:19 J -39630752.38 -39630752.32 -39630752.25 0.0088 0.0077

Mercury -113216-02-26 06:00 J -39630664.31 -39630664.25 -39630664.20 0.0088 0.0081

Mercury -113216-05-25 07:26 J -39630576.22 -39630576.19 -39630576.15 0.0088 0.0085

Venus	-113190-03-16 18:58 J	-39621149.74	-39621149.71	-39621149.66	0.0088	0.0087
Venus	-113190-10-28 06:14 J	-39620924.30	-39620924.24	-39620924.14	0.0088	0.0081
Venus	-113189-06-09 17:46 J	-39620698.85	-39620698.76	-39620698.63	0.0088	0.0076
Venus	-113188-01-21 05:31 J	-39620473.39	-39620473.27	-39620473.13	0.0088	0.0070
Venus	-113188-09-03 16:48 J	-39620247.93	-39620247.80	-39620247.64	0.0088	0.0064
Venus	-113187-04-17 04:34 J	-39620022.46	-39620022.31	-39620022.14	0.0088	0.0059
Venus	-113187-11-28 16:05 J	-39619796.99	-39619796.83	-39619796.65	0.0088	0.0053
Venus	-113186-07-12 03:50 J	-39619571.52	-39619571.34	-39619571.16	0.0088	0.0047
Venus	-113185-02-22 14:53 J	-39619346.05	-39619345.88	-39619345.67	0.0088	0.0042
Venus	-113185-10-05 02:38 J	-39619120.57	-39619120.39	-39619120.18	0.0088	0.0035
Venus	-113184-05-18 14:24 J	-39618895.10	-39618894.90	-39618894.69	0.0088	0.0029
Venus	-113184-12-30 01:55 J	-39618669.62	-39618669.42	-39618669.21	0.0088	0.0023
Venus	-113183-08-12 13:26 J	-39618444.15	-39618443.94	-39618443.73	0.0088	0.0018
Venus	-113182-03-26 00:58 J	-39618218.67	-39618218.46	-39618218.25	0.0088	0.0012
Venus	-113182-11-06 12:29 J	-39617993.19	-39617992.98	-39617992.77	0.0088	0.0006
Venus	-113181-06-18 23:46 J	-39617767.72	-39617767.51	-39617767.29	0.0088	0.0002
Venus	-113180-01-30 11:17 J	-39617542.24	-39617542.03	-39617541.82	0.0088	0.0006
Venus	-113180-09-12 22:48 J	-39617316.76	-39617316.55	-39617316.34	0.0088	0.0012
Venus	-113179-04-26 10:05 J	-39617091.28	-39617091.08	-39617090.86	0.0088	0.0018
Venus	-113179-12-07 21:36 J	-39616865.80	-39616865.60	-39616865.39	0.0088	0.0023
Venus	-113178-07-21 08:53 J	-39616640.32	-39616640.13	-39616639.92	0.0088	0.0029
Venus	-113177-03-02 20:10 J	-39616414.84	-39616414.66	-39616414.45	0.0088	0.0036
Venus	-113177-10-14 07:55 J	-39616189.35	-39616189.17	-39616188.98	0.0088	0.0041
Venus	-113176-05-27 19:26 J	-39615963.86	-39615963.69	-39615963.50	0.0088	0.0047
Venus	-113175-01-08 06:43 J	-39615738.38	-39615738.22	-39615738.04	0.0088	0.0053
Earth	-113175-07-11 16:34 J	-39615553.96	-39615553.81	-39615553.61	0.0088	0.0063
Moon	-113175-07-11 19:41 J	-39615553.84	-39615553.68	-39615553.47	0.0088	0.0061 *
Venus	-113175-08-21 18:00 J	-39615512.89	-39615512.75	-39615512.57	0.0088	0.0059
Venus	-113174-04-04 05:31 J	-39615287.39	-39615287.27	-39615287.10	0.0088	0.0065
Moon	-113174-07-13 22:19 J	-39615186.77	-39615186.57	-39615186.33	0.0088	0.0037

Earth -113174-07-14 00:14 J -39615186.71 -39615186.49 -39615186.25 0.0088 0.0033 *
 Venus -113174-11-15 17:17 J -39615061.90 -39615061.78 -39615061.64 0.0088 0.0070
 Venus -113173-06-28 04:48 J -39614836.39 -39614836.30 -39614836.18 0.0088 0.0076
 Earth -113173-07-15 07:55 J -39614819.41 -39614819.17 -39614818.91 0.0088 0.0005
 Moon -113173-07-15 08:38 J -39614819.40 -39614819.14 -39614818.89 0.0088 0.0002 *
 Venus -113172-02-08 16:05 J -39614610.89 -39614610.83 -39614610.72 0.0088 0.0082
 Earth -113172-07-17 15:36 J -39614452.08 -39614451.85 -39614451.61 0.0088 0.0026
 Moon -113172-07-17 15:50 J -39614452.06 -39614451.84 -39614451.60 0.0088 0.0023 *
 Venus -113172-09-22 03:50 J -39614385.36 -39614385.34 -39614385.28 0.0088 0.0087
 Moon -113171-07-19 21:07 J -39614084.81 -39614084.62 -39614084.42 0.0088 0.0058
 Earth -113171-07-19 23:02 J -39614084.72 -39614084.54 -39614084.33 0.0088 0.0055 *
 Earth -113170-07-22 06:29 J -39613717.28 -39613717.23 -39613717.13 0.0088 0.0085
 Moon -113170-07-22 10:05 J -39613717.18 -39613717.08 -39613716.98 0.0088 0.0081 *
 Mars -113162-04-14 00:29 J -39610894.48 -39610894.48 -39610894.44 0.0089 0.0088
 Mars -113160-03-09 15:22 J -39610199.01 -39610198.86 -39610198.65 0.0089 0.0074
 Mars -113158-02-03 05:31 J -39609503.48 -39609503.27 -39609502.99 0.0089 0.0059
 Mars -113157-12-29 18:43 J -39608807.99 -39608807.72 -39608807.42 0.0089 0.0043
 Mars -113155-11-25 06:00 J -39608112.56 -39608112.25 -39608111.94 0.0089 0.0027
 Mars -113153-10-20 14:53 J -39607417.19 -39607416.88 -39607416.55 0.0089 0.0012
 Mars -113151-09-15 23:31 J -39606721.84 -39606721.52 -39606721.20 0.0089 0.0004
 Mars -113149-08-11 05:31 J -39606026.57 -39606026.27 -39606025.94 0.0089 0.0020
 Mars -113147-07-07 10:19 J -39605331.34 -39605331.07 -39605330.75 0.0089 0.0035
 Mars -113145-06-01 14:38 J -39604636.16 -39604635.89 -39604635.63 0.0089 0.0049
 Mars -113143-04-27 15:22 J -39603941.06 -39603940.86 -39603940.62 0.0089 0.0064
 Mercury -113142-03-07 13:55 J -39603626.94 -39603626.92 -39603626.86 0.0089 0.0086
 Mercury -113142-06-03 16:48 J -39603538.86 -39603538.80 -39603538.72 0.0089 0.0081
 Mercury -113142-08-30 19:26 J -39603450.76 -39603450.69 -39603450.58 0.0089 0.0076
 Mercury -113142-11-26 22:34 J -39603362.66 -39603362.56 -39603362.45 0.0089 0.0070
 Mercury -113141-02-23 01:12 J -39603274.56 -39603274.45 -39603274.32 0.0089 0.0065
 Mars -113141-03-22 14:10 J -39603246.03 -39603245.91 -39603245.74 0.0089 0.0078

Mercury -113141-05-21 04:05 J -39603186.45 -39603186.33 -39603186.20 0.0089 0.0060

Mercury -113141-08-17 06:43 J -39603098.34 -39603098.22 -39603098.07 0.0089 0.0055

Mercury -113141-11-13 09:36 J -39603010.23 -39603010.10 -39603009.95 0.0089 0.0050

Mercury -113140-02-09 12:14 J -39602922.12 -39602921.99 -39602921.82 0.0089 0.0045

Mercury -113140-05-08 15:22 J -39602834.01 -39602833.86 -39602833.70 0.0089 0.0039

Mercury -113140-08-04 18:14 J -39602745.90 -39602745.74 -39602745.57 0.0089 0.0034

Mercury -113140-10-31 20:53 J -39602657.78 -39602657.63 -39602657.45 0.0089 0.0029

Mercury -113139-01-27 23:46 J -39602569.67 -39602569.51 -39602569.33 0.0089 0.0024

Mercury -113139-04-26 02:53 J -39602481.55 -39602481.38 -39602481.21 0.0089 0.0018

Mercury -113139-07-23 05:46 J -39602393.43 -39602393.26 -39602393.08 0.0089 0.0013

Mercury -113139-10-19 08:38 J -39602305.31 -39602305.14 -39602304.96 0.0089 0.0008

Mercury -113138-01-15 11:31 J -39602217.19 -39602217.02 -39602216.84 0.0089 0.0003

Mercury -113138-04-13 14:38 J -39602129.07 -39602128.89 -39602128.72 0.0089 0.0004

Mercury -113138-07-10 17:31 J -39602040.95 -39602040.77 -39602040.59 0.0089 0.0009

Mercury -113138-10-06 20:24 J -39601952.82 -39601952.65 -39601952.47 0.0089 0.0014

Mercury -113137-01-02 23:17 J -39601864.70 -39601864.53 -39601864.35 0.0089 0.0020

Mercury -113137-03-31 02:24 J -39601776.57 -39601776.40 -39601776.23 0.0089 0.0025

Mercury -113137-06-27 05:17 J -39601688.44 -39601688.28 -39601688.11 0.0089 0.0031

Mercury -113137-09-23 08:24 J -39601600.31 -39601600.15 -39601599.99 0.0089 0.0036

Mercury -113137-12-20 11:02 J -39601512.18 -39601512.04 -39601511.87 0.0089 0.0042

Mercury -113136-03-18 14:24 J -39601424.05 -39601423.90 -39601423.75 0.0089 0.0047

Mercury -113136-06-14 17:17 J -39601335.91 -39601335.78 -39601335.63 0.0089 0.0053

Mercury -113136-09-10 20:24 J -39601247.78 -39601247.65 -39601247.51 0.0089 0.0058

Mercury -113136-12-07 23:17 J -39601159.64 -39601159.53 -39601159.39 0.0089 0.0064

Mercury -113135-03-06 02:10 J -39601071.50 -39601071.41 -39601071.27 0.0089 0.0070

Mercury -113135-06-02 05:31 J -39600983.35 -39600983.27 -39600983.16 0.0089 0.0075

Mercury -113135-08-29 08:24 J -39600895.20 -39600895.15 -39600895.05 0.0089 0.0081

Mercury -113135-11-25 12:00 J -39600807.04 -39600807.00 -39600806.96 0.0089 0.0086

Venus -113108-12-11 14:24 J -39590928.94 -39590928.90 -39590928.83 0.0089 0.0086

Venus -113107-07-25 04:48 J -39590703.38 -39590703.30 -39590703.18 0.0089 0.0080

Venus	-113106-03-07 19:12 J	-39590477.80	-39590477.70	-39590477.55	0.0089	0.0074
Venus	-113106-10-19 10:34 J	-39590252.20	-39590252.06	-39590251.91	0.0089	0.0067
Venus	-113105-06-01 00:58 J	-39590026.61	-39590026.46	-39590026.29	0.0089	0.0061
Venus	-113104-01-12 15:22 J	-39589801.02	-39589800.86	-39589800.66	0.0089	0.0055
Venus	-113104-08-26 06:00 J	-39589575.42	-39589575.25	-39589575.04	0.0089	0.0049
Venus	-113103-04-08 20:53 J	-39589349.83	-39589349.63	-39589349.43	0.0089	0.0042
Venus	-113103-11-20 11:17 J	-39589124.23	-39589124.03	-39589123.81	0.0089	0.0036
Venus	-113102-07-04 01:41 J	-39588898.63	-39588898.43	-39588898.20	0.0089	0.0030
Venus	-113101-02-14 16:34 J	-39588673.03	-39588672.81	-39588672.59	0.0089	0.0023
Venus	-113101-09-27 07:12 J	-39588447.42	-39588447.20	-39588446.97	0.0089	0.0017
Venus	-113100-05-10 22:05 J	-39588221.81	-39588221.58	-39588221.36	0.0089	0.0010
Venus	-113100-12-22 12:29 J	-39587996.21	-39587995.98	-39587995.75	0.0089	0.0004
Venus	-113099-08-05 03:07 J	-39587770.60	-39587770.37	-39587770.14	0.0089	0.0003
Venus	-113098-03-18 17:46 J	-39587544.99	-39587544.76	-39587544.53	0.0089	0.0009
Venus	-113098-10-30 08:24 J	-39587319.37	-39587319.15	-39587318.92	0.0089	0.0016
Venus	-113097-06-11 23:02 J	-39587093.75	-39587093.54	-39587093.31	0.0089	0.0022
Venus	-113096-01-23 13:26 J	-39586868.14	-39586867.94	-39586867.71	0.0089	0.0029
Venus	-113096-09-06 04:05 J	-39586642.52	-39586642.33	-39586642.10	0.0089	0.0035
Venus	-113095-04-19 18:58 J	-39586416.90	-39586416.71	-39586416.50	0.0089	0.0041
Venus	-113095-12-01 09:22 J	-39586191.28	-39586191.11	-39586190.90	0.0089	0.0048
Venus	-113094-07-15 00:14 J	-39585965.66	-39585965.49	-39585965.30	0.0089	0.0054
Earth	-113093-01-14 10:34 J	-39585782.14	-39585782.06	-39585781.94	0.0089	0.0082
Moon	-113093-01-14 14:10 J	-39585781.97	-39585781.91	-39585781.80	0.0089	0.0084 *
Venus	-113093-02-25 14:53 J	-39585740.04	-39585739.88	-39585739.71	0.0089	0.0060
Venus	-113093-10-08 05:17 J	-39585514.41	-39585514.28	-39585514.11	0.0089	0.0067
Moon	-113092-01-15 23:31 J	-39585414.74	-39585414.52	-39585414.29	0.0089	0.0048
Earth	-113092-01-16 02:53 J	-39585414.58	-39585414.38	-39585414.14	0.0089	0.0050 *
Venus	-113092-05-21 19:55 J	-39585288.78	-39585288.67	-39585288.52	0.0089	0.0073
Venus	-113091-01-02 10:34 J	-39585063.15	-39585063.06	-39585062.94	0.0089	0.0079
Earth	-113091-01-18 18:58 J	-39585046.96	-39585046.71	-39585046.43	0.0089	0.0018

Moon -113091-01-18 23:02 J -39585046.80 -39585046.54 -39585046.27 0.0089 0.0018 *
 Venus -113091-08-16 00:58 J -39584837.50 -39584837.46 -39584837.38 0.0089 0.0085
 Moon -113090-01-21 08:10 J -39584679.41 -39584679.16 -39584678.90 0.0089 0.0016
 Earth -113090-01-21 11:02 J -39584679.29 -39584679.04 -39584678.76 0.0089 0.0015 *
 Earth -113089-01-24 02:24 J -39584311.61 -39584311.40 -39584311.15 0.0089 0.0047
 Moon -113089-01-24 05:17 J -39584311.51 -39584311.28 -39584311.05 0.0089 0.0046 *
 Moon -113088-01-25 16:19 J -39583943.92 -39583943.82 -39583943.68 0.0089 0.0078
 Earth -113088-01-25 18:14 J -39583943.85 -39583943.74 -39583943.60 0.0089 0.0078 *
 Mars -113080-01-17 11:31 J -39581030.11 -39581030.02 -39581029.87 0.0089 0.0081
 Mars -113079-12-12 15:50 J -39580336.04 -39580335.84 -39580335.65 0.0089 0.0067
 Mars -113077-11-05 20:38 J -39579641.85 -39579641.64 -39579641.37 0.0089 0.0054
 Mars -113075-10-01 02:53 J -39578947.63 -39578947.38 -39578947.09 0.0089 0.0040
 Mars -113073-08-25 09:36 J -39578253.37 -39578253.10 -39578252.79 0.0089 0.0026
 Mars -113071-07-20 18:14 J -39577559.04 -39577558.74 -39577558.43 0.0089 0.0011
 Mars -113069-06-14 04:34 J -39576864.61 -39576864.31 -39576864.00 0.0089 0.0004
 Mars -113067-05-09 15:07 J -39576170.15 -39576169.87 -39576169.55 0.0089 0.0020
 Mars -113065-04-03 03:50 J -39575475.60 -39575475.34 -39575475.03 0.0088 0.0035
 Mars -113063-02-26 18:43 J -39574780.97 -39574780.72 -39574780.45 0.0088 0.0049
 Mars -113061-01-22 09:22 J -39574086.30 -39574086.11 -39574085.87 0.0088 0.0064
 Mercury -113061-06-28 12:29 J -39573928.01 -39573927.98 -39573927.94 0.0088 0.0086
 Mercury -113061-09-24 13:55 J -39573839.96 -39573839.92 -39573839.85 0.0088 0.0082
 Mercury -113061-12-21 16:05 J -39573751.90 -39573751.83 -39573751.76 0.0088 0.0077
 Mercury -113060-03-19 17:31 J -39573663.84 -39573663.77 -39573663.67 0.0088 0.0073
 Mercury -113060-06-15 19:26 J -39573575.78 -39573575.69 -39573575.59 0.0088 0.0068
 Mercury -113060-09-11 21:07 J -39573487.71 -39573487.62 -39573487.51 0.0088 0.0064
 Mercury -113060-12-08 23:02 J -39573399.65 -39573399.54 -39573399.43 0.0088 0.0059
 Mars -113060-12-17 02:24 J -39573391.54 -39573391.40 -39573391.25 0.0088 0.0078
 Mercury -113059-03-07 00:43 J -39573311.58 -39573311.47 -39573311.35 0.0088 0.0055
 Mercury -113059-06-03 02:10 J -39573223.52 -39573223.41 -39573223.28 0.0088 0.0051
 Mercury -113059-08-30 04:05 J -39573135.45 -39573135.33 -39573135.20 0.0088 0.0046

Mercury -113059-11-26 05:46 J -39573047.38 -39573047.26 -39573047.13 0.0088 0.0041

Mercury -113058-02-22 07:26 J -39572959.31 -39572959.19 -39572959.05 0.0088 0.0037

Mercury -113058-05-21 09:07 J -39572871.25 -39572871.12 -39572870.98 0.0088 0.0033

Mercury -113058-08-17 10:48 J -39572783.18 -39572783.05 -39572782.91 0.0088 0.0028

Mercury -113058-11-13 12:29 J -39572695.11 -39572694.98 -39572694.84 0.0088 0.0024

Mercury -113057-02-09 14:10 J -39572607.04 -39572606.91 -39572606.76 0.0088 0.0020

Mercury -113057-05-07 15:50 J -39572518.98 -39572518.84 -39572518.69 0.0088 0.0015

Mercury -113057-08-03 17:31 J -39572430.91 -39572430.77 -39572430.62 0.0088 0.0011

Mercury -113057-10-30 19:12 J -39572342.84 -39572342.70 -39572342.56 0.0088 0.0007

Mercury -113056-01-26 20:53 J -39572254.77 -39572254.63 -39572254.49 0.0088 0.0002

Mercury -113056-04-24 22:34 J -39572166.70 -39572166.56 -39572166.42 0.0088 0.0002

Mercury -113056-07-22 00:14 J -39572078.64 -39572078.49 -39572078.35 0.0088 0.0007

Mercury -113056-10-18 01:41 J -39571990.57 -39571990.43 -39571990.28 0.0088 0.0011

Mercury -113055-01-14 03:22 J -39571902.50 -39571902.36 -39571902.22 0.0088 0.0015

Mercury -113055-04-12 05:02 J -39571814.43 -39571814.29 -39571814.15 0.0088 0.0019

Mercury -113055-07-09 06:29 J -39571726.36 -39571726.23 -39571726.09 0.0088 0.0024

Mercury -113055-10-05 08:10 J -39571638.29 -39571638.16 -39571638.02 0.0088 0.0028

Mercury -113054-01-01 09:50 J -39571550.22 -39571550.09 -39571549.96 0.0088 0.0032

Mercury -113054-03-30 11:17 J -39571462.15 -39571462.03 -39571461.90 0.0088 0.0036

Mercury -113054-06-26 12:43 J -39571374.08 -39571373.97 -39571373.83 0.0088 0.0041

Mercury -113054-09-22 14:24 J -39571286.02 -39571285.90 -39571285.77 0.0088 0.0044

Mercury -113054-12-19 15:50 J -39571197.95 -39571197.84 -39571197.71 0.0088 0.0049

Mercury -113053-03-16 17:31 J -39571109.88 -39571109.77 -39571109.65 0.0088 0.0053

Mercury -113053-06-12 19:12 J -39571021.81 -39571021.70 -39571021.59 0.0088 0.0057

Mercury -113053-09-08 20:38 J -39570933.74 -39570933.64 -39570933.53 0.0088 0.0061

Mercury -113053-12-05 22:19 J -39570845.66 -39570845.57 -39570845.48 0.0088 0.0065

Mercury -113052-03-03 23:31 J -39570757.59 -39570757.52 -39570757.42 0.0088 0.0069

Mercury -113052-05-31 00:58 J -39570669.52 -39570669.46 -39570669.37 0.0088 0.0074

Mercury -113052-08-27 02:38 J -39570581.45 -39570581.39 -39570581.31 0.0088 0.0077

Mercury -113052-11-23 04:05 J -39570493.37 -39570493.33 -39570493.26 0.0088 0.0081

Mercury -113051-02-19 05:31 J -39570405.29 -39570405.27 -39570405.22 0.0088 0.0085

Jupiter -113044-03-27 09:50 J -39567812.61 -39567812.09 -39567811.56 0.0088 0.0006

Venus -113026-06-18 03:22 J -39561155.39 -39561155.36 -39561155.32 0.0088 0.0087

Venus -113025-01-29 14:24 J -39560929.96 -39560929.90 -39560929.79 0.0088 0.0082

Venus -113025-09-11 02:10 J -39560704.50 -39560704.41 -39560704.29 0.0088 0.0076

Venus -113024-04-24 13:41 J -39560479.04 -39560478.93 -39560478.78 0.0088 0.0070

Venus -113024-12-06 01:12 J -39560253.58 -39560253.45 -39560253.29 0.0088 0.0065

Venus -113023-07-19 12:43 J -39560028.11 -39560027.97 -39560027.80 0.0088 0.0059

Venus -113022-03-02 00:29 J -39559802.64 -39559802.48 -39559802.31 0.0088 0.0053

Venus -113022-10-13 11:46 J -39559577.17 -39559577.01 -39559576.82 0.0088 0.0047

Venus -113021-05-25 23:17 J -39559351.70 -39559351.53 -39559351.33 0.0088 0.0042

Venus -113020-01-06 10:48 J -39559126.23 -39559126.05 -39559125.84 0.0088 0.0036

Venus -113020-08-19 22:34 J -39558900.76 -39558900.56 -39558900.36 0.0088 0.0029

Venus -113019-04-02 10:05 J -39558675.28 -39558675.08 -39558674.87 0.0088 0.0024

Venus -113019-11-13 21:50 J -39558449.80 -39558449.59 -39558449.38 0.0088 0.0018

Venus -113018-06-27 09:07 J -39558224.32 -39558224.12 -39558223.90 0.0088 0.0012

Venus -113017-02-07 20:38 J -39557998.85 -39557998.64 -39557998.42 0.0088 0.0006

Venus -113017-09-20 08:10 J -39557773.37 -39557773.16 -39557772.94 0.0088 0.0002

Venus -113016-05-03 19:41 J -39557547.88 -39557547.68 -39557547.46 0.0088 0.0007

Venus -113016-12-15 07:12 J -39557322.40 -39557322.20 -39557321.98 0.0088 0.0012

Venus -113015-07-28 18:43 J -39557096.93 -39557096.72 -39557096.51 0.0088 0.0018

Venus -113014-03-11 06:14 J -39556871.44 -39556871.24 -39556871.04 0.0088 0.0024

Venus -113014-10-22 17:31 J -39556645.96 -39556645.77 -39556645.56 0.0088 0.0030

Venus -113013-06-04 05:02 J -39556420.47 -39556420.29 -39556420.09 0.0088 0.0035

Venus -113012-01-15 16:19 J -39556194.99 -39556194.82 -39556194.62 0.0088 0.0042

Venus -113012-08-29 04:05 J -39555969.51 -39555969.33 -39555969.15 0.0088 0.0047

Venus -113011-04-11 15:36 J -39555744.02 -39555743.85 -39555743.68 0.0088 0.0053

Moon -113011-07-11 00:29 J -39555653.57 -39555653.48 -39555653.38 0.0088 0.0081

Earth -113011-07-11 00:29 J -39555653.57 -39555653.48 -39555653.35 0.0088 0.0079 *

Venus -113011-11-23 02:53 J -39555518.53 -39555518.38 -39555518.21 0.0088 0.0059

Venus	-113010-07-06 14:10 J	-39555293.03	-39555292.91	-39555292.74	0.0088	0.0065
Moon	-113010-07-13 07:26 J	-39555286.40	-39555286.19	-39555285.96	0.0088	0.0047
Earth	-113010-07-13 07:55 J	-39555286.36	-39555286.17	-39555285.95	0.0088	0.0050 *
Venus	-113009-02-17 01:55 J	-39555067.54	-39555067.42	-39555067.28	0.0088	0.0070
Earth	-113009-07-14 15:22 J	-39554919.09	-39554918.86	-39554918.61	0.0088	0.0020
Moon	-113009-07-14 17:46 J	-39554918.99	-39554918.76	-39554918.52	0.0088	0.0023 *
Venus	-113009-09-29 13:12 J	-39554842.04	-39554841.95	-39554841.82	0.0088	0.0076
Venus	-113008-05-13 00:43 J	-39554616.52	-39554616.47	-39554616.36	0.0088	0.0082
Moon	-113008-07-16 19:55 J	-39554551.92	-39554551.67	-39554551.42	0.0088	0.0011
Earth	-113008-07-16 22:48 J	-39554551.79	-39554551.55	-39554551.29	0.0088	0.0010 *
Venus	-113008-12-24 12:43 J	-39554391.00	-39554390.97	-39554390.92	0.0088	0.0087
Earth	-113007-07-19 06:14 J	-39554184.45	-39554184.24	-39554184.00	0.0088	0.0039
Moon	-113007-07-19 09:50 J	-39554184.31	-39554184.09	-39554183.86	0.0088	0.0035 *
Moon	-113006-07-21 10:19 J	-39553817.19	-39553817.07	-39553816.89	0.0088	0.0071
Earth	-113006-07-21 14:10 J	-39553817.05	-39553816.91	-39553816.74	0.0088	0.0068 *

113TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 113th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-112997-10-21 03:22 J	-39550437.46	-39550437.36	-39550437.19	0.0089	0.0081		

Mars -112995-09-16 18:29 J -39549741.93 -39549741.73 -39549741.48 0.0089 0.0065
 Mars -112993-08-12 08:38 J -39549046.40 -39549046.14 -39549045.85 0.0089 0.0049
 Mars -112991-07-08 21:36 J -39548350.89 -39548350.60 -39548350.28 0.0089 0.0033
 Mars -112989-06-03 08:53 J -39547655.44 -39547655.13 -39547654.80 0.0089 0.0017
 Mars -112987-04-29 18:29 J -39546960.06 -39546959.73 -39546959.41 0.0089 0.0000
 Mars -112985-03-25 02:10 J -39546264.71 -39546264.41 -39546264.08 0.0089 0.0016
 Mars -112983-02-18 08:24 J -39545569.43 -39545569.15 -39545568.83 0.0089 0.0032
 Mars -112981-01-14 12:43 J -39544874.22 -39544873.97 -39544873.68 0.0089 0.0047
 Mars -112980-12-09 16:05 J -39544179.05 -39544178.83 -39544178.59 0.0089 0.0062
 Mars -112978-11-04 17:02 J -39543483.92 -39543483.79 -39543483.61 0.0089 0.0077
 Mercury -112978-12-02 11:31 J -39543456.05 -39543456.02 -39543455.96 0.0089 0.0085
 Mercury -112977-02-28 14:10 J -39543367.96 -39543367.91 -39543367.82 0.0089 0.0080
 Mercury -112977-05-26 17:02 J -39543279.87 -39543279.79 -39543279.68 0.0089 0.0075
 Mercury -112977-08-22 19:41 J -39543191.77 -39543191.68 -39543191.55 0.0089 0.0070
 Mercury -112977-11-18 22:34 J -39543103.66 -39543103.56 -39543103.43 0.0089 0.0065
 Mercury -112976-02-15 01:41 J -39543015.56 -39543015.43 -39543015.30 0.0089 0.0059
 Mercury -112976-05-14 04:19 J -39542927.45 -39542927.32 -39542927.18 0.0089 0.0054
 Mercury -112976-08-10 07:12 J -39542839.34 -39542839.20 -39542839.05 0.0089 0.0049
 Mercury -112976-11-06 09:50 J -39542751.23 -39542751.09 -39542750.93 0.0089 0.0044
 Mercury -112975-02-02 12:43 J -39542663.12 -39542662.97 -39542662.80 0.0089 0.0039
 Mercury -112975-05-01 15:50 J -39542575.01 -39542574.84 -39542574.68 0.0089 0.0033
 Mercury -112975-07-28 18:29 J -39542486.89 -39542486.73 -39542486.56 0.0089 0.0028
 Mercury -112975-10-24 21:22 J -39542398.78 -39542398.61 -39542398.43 0.0089 0.0023
 Mercury -112974-01-21 00:14 J -39542310.66 -39542310.49 -39542310.31 0.0089 0.0017
 Mercury -112974-04-19 03:07 J -39542222.54 -39542222.37 -39542222.19 0.0089 0.0012
 Mercury -112974-07-16 06:00 J -39542134.42 -39542134.25 -39542134.07 0.0089 0.0007
 Mercury -112974-10-12 09:07 J -39542046.30 -39542046.12 -39542045.95 0.0089 0.0002
 Mercury -112973-01-08 12:00 J -39541958.18 -39541958.00 -39541957.82 0.0089 0.0004
 Mercury -112973-04-05 14:53 J -39541870.06 -39541869.88 -39541869.70 0.0089 0.0009
 Mercury -112973-07-02 17:46 J -39541781.93 -39541781.76 -39541781.58 0.0089 0.0015

Mercury -112973-09-28 20:38 J -39541693.81 -39541693.64 -39541693.46 0.0089 0.0021

Mercury -112973-12-25 23:31 J -39541605.68 -39541605.52 -39541605.34 0.0089 0.0026

Mercury -112972-03-24 02:38 J -39541517.55 -39541517.39 -39541517.22 0.0089 0.0031

Mercury -112972-06-20 05:31 J -39541429.42 -39541429.27 -39541429.10 0.0089 0.0037

Mercury -112972-09-16 08:38 J -39541341.29 -39541341.14 -39541340.98 0.0089 0.0042

Mercury -112972-12-13 11:31 J -39541253.16 -39541253.02 -39541252.86 0.0089 0.0048

Mercury -112971-03-11 14:53 J -39541165.03 -39541164.88 -39541164.74 0.0089 0.0053

Mercury -112971-06-07 17:31 J -39541076.89 -39541076.77 -39541076.62 0.0089 0.0059

Mercury -112971-09-03 20:24 J -39540988.75 -39540988.65 -39540988.51 0.0089 0.0065

Mercury -112971-11-30 23:46 J -39540900.61 -39540900.51 -39540900.39 0.0089 0.0070

Mercury -112970-02-27 02:38 J -39540812.47 -39540812.39 -39540812.28 0.0089 0.0076

Mercury -112970-05-26 06:00 J -39540724.31 -39540724.25 -39540724.17 0.0089 0.0081

Mercury -112970-08-22 08:53 J -39540636.15 -39540636.13 -39540636.08 0.0089 0.0087

Venus -112943-03-14 19:55 J -39530934.71 -39530934.67 -39530934.60 0.0089 0.0086

Venus -112943-10-26 10:34 J -39530709.14 -39530709.06 -39530708.95 0.0089 0.0080

Venus -112942-06-09 00:58 J -39530483.56 -39530483.46 -39530483.31 0.0089 0.0074

Venus -112941-01-20 15:36 J -39530257.97 -39530257.85 -39530257.68 0.0089 0.0068

Venus -112941-09-02 06:29 J -39530032.38 -39530032.23 -39530032.05 0.0089 0.0061

Venus -112940-04-15 21:07 J -39529806.79 -39529806.62 -39529806.43 0.0089 0.0055

Venus -112940-11-27 11:31 J -39529581.19 -39529581.02 -39529580.81 0.0089 0.0049

Venus -112939-07-11 02:24 J -39529355.59 -39529355.40 -39529355.19 0.0089 0.0042

Venus -112938-02-21 16:48 J -39529129.99 -39529129.80 -39529129.58 0.0089 0.0036

Venus -112938-10-05 07:55 J -39528904.38 -39528904.17 -39528903.95 0.0089 0.0029

Venus -112937-05-17 22:19 J -39528678.78 -39528678.57 -39528678.34 0.0089 0.0023

Venus -112937-12-29 12:58 J -39528453.18 -39528452.96 -39528452.73 0.0089 0.0017

Venus -112936-08-12 03:36 J -39528227.58 -39528227.35 -39528227.12 0.0089 0.0010

Venus -112935-03-25 18:14 J -39528001.97 -39528001.74 -39528001.51 0.0089 0.0004

Venus -112935-11-06 08:53 J -39527776.36 -39527776.13 -39527775.90 0.0089 0.0003

Venus -112934-06-19 23:31 J -39527550.75 -39527550.52 -39527550.29 0.0089 0.0009

Venus -112933-01-31 13:55 J -39527325.14 -39527324.92 -39527324.69 0.0089 0.0016

Venus	-112933-09-13 04:34 J	-39527099.52	-39527099.31	-39527099.08	0.0089	0.0022
Venus	-112932-04-26 18:58 J	-39526873.91	-39526873.71	-39526873.48	0.0089	0.0029
Venus	-112932-12-08 09:50 J	-39526648.29	-39526648.09	-39526647.87	0.0089	0.0035
Venus	-112931-07-22 00:14 J	-39526422.68	-39526422.49	-39526422.27	0.0089	0.0042
Venus	-112930-03-04 14:53 J	-39526197.06	-39526196.88	-39526196.67	0.0089	0.0048
Venus	-112930-10-16 05:46 J	-39525971.43	-39525971.26	-39525971.07	0.0089	0.0054
Venus	-112929-05-28 20:10 J	-39525745.80	-39525745.66	-39525745.47	0.0089	0.0061
Venus	-112928-01-09 10:48 J	-39525520.18	-39525520.05	-39525519.88	0.0089	0.0067
Earth	-112928-01-15 01:41 J	-39525514.58	-39525514.43	-39525514.23	0.0089	0.0068
Moon	-112928-01-15 04:05 J	-39525514.47	-39525514.33	-39525514.14	0.0089	0.0071 *
Venus	-112928-08-23 01:26 J	-39525294.55	-39525294.44	-39525294.30	0.0089	0.0073
Moon	-112927-01-17 17:02 J	-39525147.03	-39525146.79	-39525146.54	0.0089	0.0032
Earth	-112927-01-17 18:14 J	-39525146.97	-39525146.74	-39525146.48	0.0089	0.0036 *
Venus	-112927-04-05 16:05 J	-39525068.92	-39525068.83	-39525068.71	0.0089	0.0079
Venus	-112927-11-17 06:58 J	-39524843.26	-39524843.21	-39524843.14	0.0089	0.0085
Earth	-112926-01-20 10:34 J	-39524779.33	-39524779.06	-39524778.79	0.0089	0.0003
Moon	-112926-01-20 11:02 J	-39524779.31	-39524779.04	-39524778.75	0.0089	0.0008 *
Earth	-112925-01-23 02:10 J	-39524411.65	-39524411.41	-39524411.15	0.0089	0.0029
Moon	-112925-01-23 03:07 J	-39524411.60	-39524411.37	-39524411.12	0.0089	0.0033 *
Moon	-112924-01-24 16:05 J	-39524044.03	-39524043.83	-39524043.61	0.0089	0.0057
Earth	-112924-01-24 17:46 J	-39524043.94	-39524043.76	-39524043.55	0.0089	0.0061 *
Mars	-112917-09-01 04:48 J	-39521267.34	-39521267.30	-39521267.22	0.0089	0.0087
Mars	-112915-07-27 08:10 J	-39520573.30	-39520573.16	-39520572.96	0.0089	0.0074
Mars	-112913-06-20 11:31 J	-39519879.21	-39519879.02	-39519878.77	0.0089	0.0060
Mars	-112911-05-15 17:02 J	-39519185.03	-39519184.79	-39519184.51	0.0089	0.0045
Mars	-112909-04-09 00:14 J	-39518490.77	-39518490.49	-39518490.20	0.0089	0.0030
Mars	-112907-03-04 07:12 J	-39517796.49	-39517796.20	-39517795.89	0.0089	0.0016
Mars	-112905-01-27 15:50 J	-39517102.14	-39517101.84	-39517101.53	0.0089	0.0000
Mars	-112904-12-22 01:55 J	-39516407.71	-39516407.42	-39516407.11	0.0088	0.0015
Mars	-112902-11-16 12:58 J	-39515713.24	-39515712.96	-39515712.66	0.0088	0.0031

Mars -112900-10-11 00:58 J -39515018.70 -39515018.46 -39515018.17 0.0088 0.0047
 Mars -112898-09-05 15:36 J -39514324.05 -39514323.85 -39514323.61 0.0088 0.0062
 Mercury -112896-03-25 10:34 J -39513757.08 -39513757.06 -39513757.01 0.0088 0.0086
 Mercury -112896-06-21 12:43 J -39513669.03 -39513668.97 -39513668.92 0.0088 0.0081
 Mars -112896-07-31 06:43 J -39513629.34 -39513629.22 -39513629.03 0.0088 0.0077
 Mercury -112896-09-17 14:10 J -39513580.97 -39513580.91 -39513580.83 0.0088 0.0077
 Mercury -112896-12-14 15:50 J -39513492.91 -39513492.84 -39513492.74 0.0088 0.0072
 Mercury -112895-03-12 17:46 J -39513404.85 -39513404.76 -39513404.66 0.0088 0.0068
 Mercury -112895-06-08 19:26 J -39513316.78 -39513316.69 -39513316.58 0.0088 0.0063
 Mercury -112895-09-04 21:22 J -39513228.72 -39513228.61 -39513228.50 0.0088 0.0059
 Mercury -112895-12-01 22:48 J -39513140.65 -39513140.55 -39513140.42 0.0088 0.0055
 Mercury -112894-02-28 00:29 J -39513052.59 -39513052.48 -39513052.35 0.0088 0.0051
 Mercury -112894-05-27 02:24 J -39512964.52 -39512964.40 -39512964.27 0.0088 0.0046
 Mercury -112894-08-23 04:05 J -39512876.45 -39512876.33 -39512876.20 0.0088 0.0041
 Mercury -112894-11-19 06:00 J -39512788.38 -39512788.25 -39512788.12 0.0088 0.0037
 Mercury -112893-02-15 07:26 J -39512700.32 -39512700.19 -39512700.05 0.0088 0.0033
 Mercury -112893-05-13 09:07 J -39512612.25 -39512612.12 -39512611.98 0.0088 0.0028
 Mercury -112893-08-09 11:02 J -39512524.18 -39512524.04 -39512523.90 0.0088 0.0024
 Mercury -112893-11-05 12:29 J -39512436.11 -39512435.98 -39512435.83 0.0088 0.0020
 Mercury -112892-02-01 14:10 J -39512348.05 -39512347.91 -39512347.76 0.0088 0.0015
 Mercury -112892-04-30 15:50 J -39512259.98 -39512259.84 -39512259.69 0.0088 0.0011
 Mercury -112892-07-27 17:31 J -39512171.91 -39512171.77 -39512171.62 0.0088 0.0007
 Mercury -112892-10-23 19:12 J -39512083.84 -39512083.70 -39512083.55 0.0088 0.0003
 Mercury -112891-01-19 20:53 J -39511995.77 -39511995.63 -39511995.49 0.0088 0.0002
 Mercury -112891-04-17 22:34 J -39511907.70 -39511907.56 -39511907.42 0.0088 0.0007
 Mercury -112891-07-15 00:00 J -39511819.63 -39511819.50 -39511819.35 0.0088 0.0012
 Mercury -112891-10-11 01:41 J -39511731.57 -39511731.43 -39511731.29 0.0088 0.0015
 Mercury -112890-01-07 03:22 J -39511643.50 -39511643.36 -39511643.22 0.0088 0.0019
 Mercury -112890-04-05 05:02 J -39511555.43 -39511555.29 -39511555.15 0.0088 0.0024
 Mercury -112890-07-02 06:29 J -39511467.36 -39511467.23 -39511467.09 0.0088 0.0028

Mercury -112890-09-28 08:10 J -39511379.29 -39511379.16 -39511379.03 0.0088 0.0032

Mercury -112890-12-25 09:36 J -39511291.22 -39511291.10 -39511290.96 0.0088 0.0037

Mercury -112889-03-22 11:17 J -39511203.15 -39511203.03 -39511202.90 0.0088 0.0040

Mercury -112889-06-18 12:58 J -39511115.08 -39511114.96 -39511114.84 0.0088 0.0044

Mercury -112889-09-14 14:24 J -39511027.01 -39511026.90 -39511026.78 0.0088 0.0049

Mercury -112889-12-11 16:05 J -39510938.94 -39510938.83 -39510938.72 0.0088 0.0053

Mercury -112888-03-09 17:17 J -39510850.87 -39510850.78 -39510850.66 0.0088 0.0058

Mercury -112888-06-05 18:58 J -39510762.80 -39510762.71 -39510762.60 0.0088 0.0061

Mercury -112888-09-01 20:24 J -39510674.73 -39510674.65 -39510674.54 0.0088 0.0066

Mercury -112888-11-28 22:05 J -39510586.66 -39510586.58 -39510586.48 0.0088 0.0069

Mercury -112887-02-24 23:31 J -39510498.58 -39510498.52 -39510498.43 0.0088 0.0074

Mercury -112887-05-24 01:12 J -39510410.51 -39510410.45 -39510410.38 0.0088 0.0077

Mercury -112887-08-20 02:38 J -39510322.43 -39510322.39 -39510322.33 0.0088 0.0081

Mercury -112887-11-16 04:05 J -39510234.35 -39510234.33 -39510234.28 0.0088 0.0086

Venus -112862-09-19 11:46 J -39501161.04 -39501161.01 -39501160.97 0.0088 0.0087

Venus -112861-05-01 23:02 J -39500935.60 -39500935.54 -39500935.44 0.0088 0.0082

Venus -112861-12-13 10:48 J -39500710.15 -39500710.05 -39500709.93 0.0088 0.0076

Venus -112860-07-26 22:05 J -39500484.69 -39500484.58 -39500484.43 0.0088 0.0070

Venus -112859-03-09 09:50 J -39500259.22 -39500259.09 -39500258.93 0.0088 0.0064

Venus -112859-10-20 21:22 J -39500033.75 -39500033.61 -39500033.44 0.0088 0.0059

Venus -112858-06-03 09:07 J -39499808.29 -39499808.12 -39499807.95 0.0088 0.0053

Venus -112857-01-14 20:10 J -39499582.82 -39499582.66 -39499582.46 0.0088 0.0048

Venus -112857-08-27 07:55 J -39499357.35 -39499357.17 -39499356.97 0.0088 0.0041

Venus -112856-04-09 19:26 J -39499131.87 -39499131.69 -39499131.48 0.0088 0.0036

Venus -112856-11-21 06:58 J -39498906.40 -39498906.21 -39498906.00 0.0088 0.0030

Venus -112855-07-04 18:29 J -39498680.93 -39498680.73 -39498680.52 0.0088 0.0024

Venus -112854-02-15 06:00 J -39498455.45 -39498455.25 -39498455.04 0.0088 0.0018

Venus -112854-09-28 17:46 J -39498229.97 -39498229.76 -39498229.55 0.0088 0.0012

Venus -112853-05-11 05:17 J -39498004.49 -39498004.28 -39498004.07 0.0088 0.0006

Venus -112853-12-22 16:48 J -39497779.01 -39497778.80 -39497778.59 0.0088 0.0000

Venus	-112852-08-05 04:19 J	-39497553.53	-39497553.32	-39497553.11	0.0088	0.0006
Venus	-112851-03-18 15:36 J	-39497328.05	-39497327.85	-39497327.63	0.0088	0.0013
Venus	-112851-10-30 03:22 J	-39497102.57	-39497102.36	-39497102.15	0.0088	0.0018
Venus	-112850-06-12 14:53 J	-39496877.08	-39496876.88	-39496876.67	0.0088	0.0024
Venus	-112849-01-24 02:10 J	-39496651.60	-39496651.41	-39496651.20	0.0088	0.0030
Venus	-112849-09-05 13:41 J	-39496426.12	-39496425.93	-39496425.73	0.0088	0.0035
Venus	-112848-04-19 00:58 J	-39496200.63	-39496200.46	-39496200.26	0.0088	0.0042
Venus	-112848-11-30 12:29 J	-39495975.14	-39495974.98	-39495974.79	0.0088	0.0047
Venus	-112847-07-14 00:14 J	-39495749.66	-39495749.49	-39495749.32	0.0088	0.0053
Venus	-112846-02-24 11:31 J	-39495524.17	-39495524.02	-39495523.85	0.0088	0.0059
Earth	-112846-07-12 15:07 J	-39495386.01	-39495385.87	-39495385.68	0.0088	0.0067
Moon	-112846-07-12 18:29 J	-39495385.89	-39495385.73	-39495385.55	0.0088	0.0062 *
Venus	-112846-10-07 22:48 J	-39495298.68	-39495298.55	-39495298.39	0.0088	0.0065
Venus	-112845-05-20 10:19 J	-39495073.18	-39495073.07	-39495072.92	0.0088	0.0071
Moon	-112845-07-13 19:12 J	-39495018.91	-39495018.70	-39495018.47	0.0088	0.0042
Earth	-112845-07-13 22:48 J	-39495018.77	-39495018.55	-39495018.32	0.0088	0.0037 *
Venus	-112845-12-31 22:05 J	-39494847.68	-39494847.58	-39494847.46	0.0088	0.0076
Earth	-112844-07-16 06:14 J	-39494651.49	-39494651.24	-39494650.99	0.0088	0.0008
Moon	-112844-07-16 09:22 J	-39494651.35	-39494651.11	-39494650.85	0.0088	0.0004 *
Venus	-112844-08-14 09:22 J	-39494622.17	-39494622.11	-39494622.01	0.0088	0.0082
Venus	-112843-03-27 21:22 J	-39494396.65	-39494396.61	-39494396.58	0.0088	0.0087
Moon	-112843-07-18 11:02 J	-39494284.27	-39494284.04	-39494283.79	0.0088	0.0018
Earth	-112843-07-18 13:41 J	-39494284.17	-39494283.93	-39494283.69	0.0088	0.0022 *
Earth	-112842-07-20 20:38 J	-39493916.82	-39493916.64	-39493916.42	0.0088	0.0052
Moon	-112842-07-20 22:34 J	-39493916.74	-39493916.56	-39493916.34	0.0088	0.0056 *
Moon	-112841-07-22 04:19 J	-39493549.41	-39493549.32	-39493549.17	0.0088	0.0077
Earth	-112841-07-22 04:34 J	-39493549.39	-39493549.31	-39493549.19	0.0088	0.0081 *
Mars	-112833-06-03 12:58 J	-39490675.97	-39490675.96	-39490675.87	0.0089	0.0088
Mars	-112831-04-30 06:29 J	-39489980.40	-39489980.23	-39489980.01	0.0089	0.0072
Mars	-112829-03-25 21:50 J	-39489284.81	-39489284.59	-39489284.30	0.0089	0.0056

Mars -112827-02-19 12:00 J -39488589.27 -39488589.00 -39488588.68 0.0089 0.0039
 Mars -112825-01-16 01:12 J -39487893.75 -39487893.45 -39487893.12 0.0089 0.0022
 Mars -112824-12-11 12:29 J -39487198.30 -39487197.98 -39487197.65 0.0089 0.0005
 Mars -112822-11-06 21:22 J -39486502.93 -39486502.61 -39486502.28 0.0089 0.0012
 Mars -112820-10-02 04:48 J -39485807.59 -39485807.30 -39485806.98 0.0089 0.0028
 Mars -112818-08-28 11:17 J -39485112.29 -39485112.03 -39485111.73 0.0089 0.0044
 Mars -112816-07-23 15:36 J -39484417.07 -39484416.85 -39484416.60 0.0089 0.0060
 Mars -112814-06-18 18:58 J -39483721.87 -39483721.71 -39483721.53 0.0089 0.0075
 Mercury -112813-08-28 09:07 J -39483285.16 -39483285.12 -39483285.06 0.0089 0.0084
 Mercury -112813-11-24 11:46 J -39483197.07 -39483197.01 -39483196.92 0.0089 0.0079
 Mercury -112812-02-20 14:38 J -39483108.97 -39483108.89 -39483108.79 0.0089 0.0074
 Mercury -112812-05-19 17:17 J -39483020.87 -39483020.78 -39483020.66 0.0089 0.0069
 Mercury -112812-08-15 20:10 J -39482932.77 -39482932.66 -39482932.53 0.0089 0.0064
 Mercury -112812-11-11 22:48 J -39482844.66 -39482844.55 -39482844.41 0.0089 0.0059
 Mercury -112811-02-08 01:41 J -39482756.56 -39482756.43 -39482756.28 0.0089 0.0054
 Mercury -112811-05-07 04:34 J -39482668.45 -39482668.31 -39482668.16 0.0089 0.0048
 Mercury -112811-08-03 07:26 J -39482580.34 -39482580.19 -39482580.03 0.0089 0.0043
 Mercury -112811-10-30 10:05 J -39482492.23 -39482492.08 -39482491.91 0.0089 0.0038
 Mercury -112810-01-26 12:58 J -39482404.11 -39482403.96 -39482403.79 0.0089 0.0033
 Mercury -112810-04-24 16:05 J -39482316.00 -39482315.83 -39482315.66 0.0089 0.0027
 Mercury -112810-07-21 18:43 J -39482227.88 -39482227.72 -39482227.54 0.0089 0.0022
 Mercury -112810-10-17 21:36 J -39482139.77 -39482139.60 -39482139.42 0.0089 0.0017
 Mercury -112809-01-14 00:29 J -39482051.65 -39482051.48 -39482051.30 0.0089 0.0012
 Mercury -112809-04-11 03:36 J -39481963.53 -39481963.35 -39481963.18 0.0089 0.0006
 Mercury -112809-07-08 06:29 J -39481875.41 -39481875.23 -39481875.06 0.0089 0.0001
 Mercury -112809-10-04 09:22 J -39481787.29 -39481787.11 -39481786.93 0.0089 0.0005
 Mercury -112809-12-31 12:14 J -39481699.17 -39481698.99 -39481698.81 0.0089 0.0010
 Mercury -112808-03-29 15:07 J -39481611.04 -39481610.87 -39481610.69 0.0089 0.0016
 Mercury -112808-06-25 18:00 J -39481522.92 -39481522.75 -39481522.57 0.0089 0.0021
 Mercury -112808-09-21 20:53 J -39481434.79 -39481434.63 -39481434.45 0.0089 0.0027

Mercury -112808-12-19 00:00 J -39481346.66 -39481346.50 -39481346.33 0.0089 0.0032

Mercury -112807-03-17 02:38 J -39481258.54 -39481258.39 -39481258.21 0.0089 0.0038

Mercury -112807-06-13 05:46 J -39481170.41 -39481170.26 -39481170.09 0.0089 0.0043

Mercury -112807-09-09 09:07 J -39481082.27 -39481082.12 -39481081.97 0.0089 0.0048

Mercury -112807-12-06 11:46 J -39480994.14 -39480994.01 -39480993.86 0.0089 0.0054

Mercury -112806-03-04 14:38 J -39480906.00 -39480905.89 -39480905.74 0.0089 0.0060

Mercury -112806-05-31 17:46 J -39480817.87 -39480817.76 -39480817.62 0.0089 0.0065

Mercury -112806-08-27 20:38 J -39480729.73 -39480729.64 -39480729.51 0.0089 0.0071

Mercury -112806-11-24 00:00 J -39480641.58 -39480641.50 -39480641.40 0.0089 0.0076

Mercury -112805-02-20 02:53 J -39480553.43 -39480553.38 -39480553.29 0.0089 0.0082

Mercury -112805-05-18 06:14 J -39480465.26 -39480465.24 -39480465.20 0.0089 0.0087

Venus -112779-06-16 01:55 J -39470940.46 -39470940.42 -39470940.35 0.0089 0.0086

Venus -112778-01-27 16:19 J -39470714.90 -39470714.82 -39470714.70 0.0089 0.0080

Venus -112778-09-10 06:58 J -39470489.31 -39470489.21 -39470489.06 0.0089 0.0074

Venus -112777-04-22 21:50 J -39470263.73 -39470263.59 -39470263.43 0.0089 0.0067

Venus -112777-12-04 12:14 J -39470038.14 -39470037.99 -39470037.81 0.0089 0.0061

Venus -112776-07-18 02:38 J -39469812.55 -39469812.39 -39469812.19 0.0089 0.0055

Venus -112775-02-28 17:02 J -39469586.95 -39469586.79 -39469586.57 0.0089 0.0049

Venus -112775-10-12 08:10 J -39469361.35 -39469361.16 -39469360.95 0.0089 0.0042

Venus -112774-05-25 22:48 J -39469135.75 -39469135.55 -39469135.33 0.0089 0.0036

Venus -112773-01-06 13:26 J -39468910.15 -39468909.94 -39468909.72 0.0089 0.0029

Venus -112773-08-19 04:05 J -39468684.55 -39468684.33 -39468684.11 0.0089 0.0023

Venus -112772-04-01 18:43 J -39468458.94 -39468458.72 -39468458.49 0.0089 0.0016

Venus -112772-11-13 09:22 J -39468233.33 -39468233.11 -39468232.88 0.0089 0.0010

Venus -112771-06-27 00:00 J -39468007.73 -39468007.50 -39468007.27 0.0089 0.0003

Venus -112770-02-07 14:38 J -39467782.12 -39467781.89 -39467781.66 0.0089 0.0003

Venus -112770-09-21 05:02 J -39467556.51 -39467556.29 -39467556.05 0.0089 0.0010

Venus -112769-05-03 19:41 J -39467330.90 -39467330.68 -39467330.45 0.0089 0.0016

Venus -112769-12-15 10:05 J -39467105.29 -39467105.08 -39467104.85 0.0089 0.0023

Venus -112768-07-29 00:43 J -39466879.68 -39466879.47 -39466879.25 0.0089 0.0029

Venus -112767-03-11 15:22 J -39466654.06 -39466653.86 -39466653.65 0.0089 0.0035
 Venus -112767-10-23 05:46 J -39466428.44 -39466428.26 -39466428.04 0.0089 0.0042
 Venus -112766-06-05 20:38 J -39466202.82 -39466202.64 -39466202.44 0.0089 0.0048
 Venus -112765-01-17 11:31 J -39465977.20 -39465977.02 -39465976.84 0.0089 0.0054
 Venus -112765-08-30 01:41 J -39465751.58 -39465751.43 -39465751.25 0.0089 0.0061
 Earth -112764-01-14 00:43 J -39465614.51 -39465614.47 -39465614.38 0.0089 0.0086
 Venus -112764-04-12 16:19 J -39465525.96 -39465525.82 -39465525.66 0.0089 0.0067
 Venus -112764-11-24 07:12 J -39465300.32 -39465300.20 -39465300.07 0.0089 0.0073
 Moon -112763-01-16 14:53 J -39465247.10 -39465246.88 -39465246.64 0.0089 0.0049
 Earth -112763-01-16 17:02 J -39465246.98 -39465246.79 -39465246.55 0.0089 0.0054 *
 Venus -112763-07-07 21:22 J -39465074.68 -39465074.61 -39465074.48 0.0089 0.0080
 Earth -112762-01-19 09:50 J -39464879.35 -39464879.09 -39464878.83 0.0089 0.0021
 Moon -112762-01-19 12:14 J -39464879.23 -39464878.99 -39464878.73 0.0089 0.0025 *
 Venus -112762-02-18 12:00 J -39464849.03 -39464849.00 -39464848.92 0.0089 0.0086
 Moon -112761-01-21 22:19 J -39464511.83 -39464511.57 -39464511.30 0.0089 0.0015
 Earth -112761-01-22 01:55 J -39464511.68 -39464511.42 -39464511.15 0.0089 0.0011 *
 Earth -112760-01-23 17:46 J -39464143.99 -39464143.76 -39464143.52 0.0089 0.0043
 Moon -112760-01-23 21:36 J -39464143.84 -39464143.60 -39464143.36 0.0089 0.0039 *
 Saturn -112760-07-26 18:00 J -39463960.17 -39463959.75 -39463959.16 0.0089 0.0065
 Moon -112759-01-26 05:31 J -39463776.36 -39463776.27 -39463776.12 0.0089 0.0079
 Earth -112759-01-26 09:36 J -39463776.23 -39463776.10 -39463775.95 0.0089 0.0075 *
 Mars -112751-03-11 02:53 J -39460810.48 -39460810.38 -39460810.22 0.0089 0.0080
 Mars -112749-02-03 06:58 J -39460116.38 -39460116.21 -39460115.98 0.0089 0.0066
 Mars -112748-12-28 10:48 J -39459422.27 -39459422.05 -39459421.78 0.0089 0.0051
 Mars -112746-11-22 15:36 J -39458728.11 -39458727.85 -39458727.55 0.0089 0.0036
 Mars -112744-10-16 22:34 J -39458033.85 -39458033.56 -39458033.26 0.0089 0.0020
 Mars -112742-09-11 05:17 J -39457339.58 -39457339.28 -39457338.97 0.0089 0.0005
 Mars -112740-08-05 12:58 J -39456645.25 -39456644.96 -39456644.64 0.0088 0.0012
 Mars -112738-06-30 23:17 J -39455950.82 -39455950.53 -39455950.24 0.0088 0.0027
 Mars -112736-05-25 10:34 J -39455256.31 -39455256.06 -39455255.77 0.0088 0.0043

Mars -112734-04-19 23:02 J -39454561.75 -39454561.54 -39454561.29 0.0088 0.0059
 Mars -112732-03-14 13:26 J -39453867.07 -39453866.94 -39453866.74 0.0088 0.0075
 Mercury -112732-12-20 08:53 J -39453586.15 -39453586.13 -39453586.08 0.0088 0.0085
 Mercury -112731-03-18 10:48 J -39453498.10 -39453498.05 -39453497.99 0.0088 0.0081
 Mercury -112731-06-14 12:29 J -39453410.04 -39453409.98 -39453409.90 0.0088 0.0076
 Mercury -112731-09-10 14:24 J -39453321.98 -39453321.90 -39453321.81 0.0088 0.0072
 Mercury -112731-12-07 15:50 J -39453233.92 -39453233.84 -39453233.73 0.0088 0.0068
 Mercury -112730-03-05 18:00 J -39453145.85 -39453145.75 -39453145.65 0.0088 0.0063
 Mercury -112730-06-01 19:26 J -39453057.79 -39453057.69 -39453057.57 0.0088 0.0059
 Mercury -112730-08-28 21:07 J -39452969.72 -39452969.62 -39452969.49 0.0088 0.0055
 Mercury -112730-11-24 23:02 J -39452881.66 -39452881.54 -39452881.42 0.0088 0.0050
 Mercury -112729-02-21 00:43 J -39452793.59 -39452793.47 -39452793.34 0.0088 0.0045
 Mercury -112729-05-19 02:38 J -39452705.52 -39452705.39 -39452705.26 0.0088 0.0041
 Mercury -112729-08-15 04:05 J -39452617.45 -39452617.33 -39452617.19 0.0088 0.0037
 Mercury -112729-11-11 05:46 J -39452529.39 -39452529.26 -39452529.12 0.0088 0.0032
 Mercury -112728-02-07 07:41 J -39452441.32 -39452441.18 -39452441.04 0.0088 0.0028
 Mercury -112728-05-06 09:22 J -39452353.25 -39452353.11 -39452352.97 0.0088 0.0023
 Mercury -112728-08-02 10:48 J -39452265.18 -39452265.05 -39452264.90 0.0088 0.0020
 Mercury -112728-10-29 12:43 J -39452177.11 -39452176.97 -39452176.83 0.0088 0.0015
 Mercury -112727-01-25 14:24 J -39452089.05 -39452088.90 -39452088.76 0.0088 0.0011
 Mercury -112727-04-23 16:05 J -39452000.98 -39452000.83 -39452000.69 0.0088 0.0007
 Mercury -112727-07-20 17:31 J -39451912.91 -39451912.77 -39451912.62 0.0088 0.0004
 Mercury -112727-10-16 19:12 J -39451824.84 -39451824.70 -39451824.55 0.0088 0.0004
 Mercury -112726-01-12 20:53 J -39451736.77 -39451736.63 -39451736.49 0.0088 0.0007
 Mercury -112726-04-10 22:34 J -39451648.70 -39451648.56 -39451648.42 0.0088 0.0011
 Mercury -112726-07-08 00:14 J -39451560.63 -39451560.49 -39451560.35 0.0088 0.0015
 Mercury -112726-10-04 01:41 J -39451472.56 -39451472.43 -39451472.29 0.0088 0.0020
 Mercury -112726-12-31 03:22 J -39451384.49 -39451384.36 -39451384.22 0.0088 0.0024
 Mercury -112725-03-28 04:48 J -39451296.42 -39451296.30 -39451296.16 0.0088 0.0029
 Mercury -112725-06-24 06:29 J -39451208.36 -39451208.23 -39451208.09 0.0088 0.0032

Mercury -112725-09-20 08:10 J -39451120.29 -39451120.16 -39451120.03 0.0088 0.0036

Mercury -112725-12-17 09:50 J -39451032.22 -39451032.09 -39451031.97 0.0088 0.0041

Mercury -112724-03-15 11:31 J -39450944.15 -39450944.02 -39450943.90 0.0088 0.0045

Mercury -112724-06-11 12:43 J -39450856.08 -39450855.97 -39450855.84 0.0088 0.0049

Mercury -112724-09-07 14:24 J -39450768.01 -39450767.90 -39450767.78 0.0088 0.0053

Mercury -112724-12-04 15:50 J -39450679.93 -39450679.84 -39450679.72 0.0088 0.0058

Mercury -112723-03-02 17:31 J -39450591.86 -39450591.77 -39450591.66 0.0088 0.0061

Mercury -112723-05-29 18:58 J -39450503.79 -39450503.71 -39450503.60 0.0088 0.0066

Mercury -112723-08-25 20:38 J -39450415.72 -39450415.64 -39450415.55 0.0088 0.0069

Mercury -112723-11-21 22:05 J -39450327.64 -39450327.58 -39450327.49 0.0088 0.0074

Mercury -112722-02-17 23:46 J -39450239.57 -39450239.51 -39450239.44 0.0088 0.0078

Mercury -112722-05-17 01:12 J -39450151.49 -39450151.45 -39450151.39 0.0088 0.0082

Mercury -112722-08-13 02:53 J -39450063.41 -39450063.38 -39450063.35 0.0088 0.0086

Venus -112698-12-21 19:41 J -39441166.69 -39441166.68 -39441166.62 0.0088 0.0087

Venus -112697-08-03 07:26 J -39440941.25 -39440941.19 -39440941.09 0.0088 0.0082

Venus -112696-03-16 19:12 J -39440715.79 -39440715.70 -39440715.58 0.0088 0.0076

Venus -112696-10-28 06:29 J -39440490.33 -39440490.23 -39440490.08 0.0088 0.0071

Venus -112695-06-10 18:14 J -39440264.87 -39440264.74 -39440264.58 0.0088 0.0064

Venus -112694-01-22 05:46 J -39440039.40 -39440039.26 -39440039.09 0.0088 0.0059

Venus -112694-09-04 17:31 J -39439813.94 -39439813.77 -39439813.60 0.0088 0.0053

Venus -112693-04-17 04:48 J -39439588.46 -39439588.30 -39439588.10 0.0088 0.0048

Venus -112693-11-28 16:19 J -39439362.99 -39439362.82 -39439362.61 0.0088 0.0042

Venus -112692-07-12 03:50 J -39439137.52 -39439137.34 -39439137.13 0.0088 0.0036

Venus -112691-02-22 15:36 J -39438912.05 -39438911.85 -39438911.65 0.0088 0.0029

Venus -112691-10-06 03:07 J -39438686.57 -39438686.37 -39438686.16 0.0088 0.0024

Venus -112690-05-19 14:38 J -39438461.09 -39438460.89 -39438460.67 0.0088 0.0018

Venus -112690-12-31 02:10 J -39438235.62 -39438235.41 -39438235.19 0.0088 0.0012

Venus -112689-08-12 13:41 J -39438010.14 -39438009.93 -39438009.71 0.0088 0.0006

Venus -112688-03-26 01:26 J -39437784.66 -39437784.44 -39437784.23 0.0088 0.0002

Venus -112688-11-06 12:43 J -39437559.18 -39437558.97 -39437558.75 0.0088 0.0007

Venus	-112687-06-20 00:14 J	-39437333.69	-39437333.49	-39437333.27	0.0088	0.0012
Venus	-112686-01-31 11:46 J	-39437108.21	-39437108.01	-39437107.80	0.0088	0.0018
Venus	-112686-09-13 23:31 J	-39436882.73	-39436882.52	-39436882.32	0.0088	0.0024
Venus	-112685-04-26 11:02 J	-39436657.24	-39436657.04	-39436656.84	0.0088	0.0030
Venus	-112685-12-07 22:34 J	-39436431.75	-39436431.56	-39436431.36	0.0088	0.0036
Venus	-112684-07-21 09:50 J	-39436206.27	-39436206.09	-39436205.89	0.0088	0.0042
Venus	-112683-03-03 21:22 J	-39435980.78	-39435980.61	-39435980.42	0.0088	0.0047
Venus	-112683-10-15 08:38 J	-39435755.29	-39435755.14	-39435754.95	0.0088	0.0054
Venus	-112682-05-28 20:38 J	-39435529.79	-39435529.64	-39435529.48	0.0088	0.0059
Moon	-112682-07-11 20:10 J	-39435485.73	-39435485.66	-39435485.54	0.0088	0.0082
Earth	-112682-07-11 23:02 J	-39435485.60	-39435485.54	-39435485.42	0.0088	0.0083 *
Venus	-112681-01-09 07:55 J	-39435304.30	-39435304.17	-39435304.01	0.0088	0.0065
Earth	-112681-07-13 06:14 J	-39435118.41	-39435118.24	-39435118.02	0.0088	0.0054
Moon	-112681-07-13 08:38 J	-39435118.32	-39435118.14	-39435117.92	0.0088	0.0054 *
Venus	-112681-08-21 19:12 J	-39435078.81	-39435078.70	-39435078.55	0.0088	0.0071
Venus	-112680-04-04 06:43 J	-39434853.31	-39434853.22	-39434853.09	0.0088	0.0076
Moon	-112680-07-15 12:43 J	-39434751.19	-39434750.97	-39434750.73	0.0088	0.0023
Earth	-112680-07-15 14:10 J	-39434751.15	-39434750.91	-39434750.67	0.0088	0.0024 *
Venus	-112680-11-15 18:29 J	-39434627.80	-39434627.73	-39434627.64	0.0088	0.0082
Venus	-112679-06-29 05:46 J	-39434402.27	-39434402.26	-39434402.21	0.0088	0.0088
Moon	-112679-07-17 20:53 J	-39434383.88	-39434383.63	-39434383.37	0.0088	0.0004
Earth	-112679-07-17 21:36 J	-39434383.85	-39434383.60	-39434383.35	0.0088	0.0006 *
Earth	-112678-07-20 04:48 J	-39434016.52	-39434016.30	-39434016.07	0.0089	0.0035
Moon	-112678-07-20 06:00 J	-39434016.45	-39434016.25	-39434016.01	0.0089	0.0037 *
Moon	-112677-07-21 09:50 J	-39433649.27	-39433649.09	-39433648.91	0.0089	0.0063
Earth	-112677-07-21 11:46 J	-39433649.15	-39433649.01	-39433648.81	0.0089	0.0065 *
Mars	-112668-12-11 17:02 J	-39430218.92	-39430218.79	-39430218.63	0.0089	0.0079
Mars	-112666-11-07 09:07 J	-39429523.32	-39429523.12	-39429522.86	0.0089	0.0063
Mars	-112664-10-03 00:29 J	-39428827.73	-39428827.48	-39428827.16	0.0089	0.0046
Mars	-112662-08-29 14:38 J	-39428132.19	-39428131.89	-39428131.57	0.0089	0.0028

Mars -112660-07-25 03:36 J -39427436.67 -39427436.35 -39427436.02 0.0089 0.0011
 Mars -112658-06-20 15:22 J -39426741.18 -39426740.86 -39426740.54 0.0089 0.0007
 Mars -112656-05-16 00:43 J -39426045.77 -39426045.47 -39426045.15 0.0089 0.0024
 Mars -112654-04-11 07:55 J -39425350.44 -39425350.17 -39425349.87 0.0089 0.0041
 Mars -112652-03-06 14:38 J -39424655.12 -39424654.89 -39424654.63 0.0089 0.0057
 Mars -112650-01-30 18:58 J -39423959.88 -39423959.71 -39423959.52 0.0089 0.0073
 Mars -112649-12-25 21:36 J -39423264.60 -39423264.60 -39423264.58 0.0089 0.0089
 Mercury -112648-02-26 04:05 J -39423202.34 -39423202.33 -39423202.30 0.0089 0.0088
 Mercury -112648-05-25 06:58 J -39423114.27 -39423114.21 -39423114.15 0.0089 0.0083
 Mercury -112648-08-21 09:36 J -39423026.17 -39423026.10 -39423026.02 0.0089 0.0078
 Mercury -112648-11-17 12:14 J -39422938.08 -39422937.99 -39422937.89 0.0089 0.0073
 Mercury -112647-02-13 14:53 J -39422849.98 -39422849.88 -39422849.76 0.0089 0.0068
 Mercury -112647-05-12 17:46 J -39422761.87 -39422761.76 -39422761.63 0.0089 0.0063
 Mercury -112647-08-08 20:24 J -39422673.77 -39422673.65 -39422673.51 0.0089 0.0058
 Mercury -112647-11-04 23:17 J -39422585.66 -39422585.53 -39422585.38 0.0089 0.0053
 Mercury -112646-02-01 01:55 J -39422497.55 -39422497.42 -39422497.26 0.0089 0.0048
 Mercury -112646-04-30 05:02 J -39422409.44 -39422409.29 -39422409.13 0.0089 0.0042
 Mercury -112646-07-27 07:41 J -39422321.33 -39422321.18 -39422321.01 0.0089 0.0037
 Mercury -112646-10-23 10:34 J -39422233.22 -39422233.06 -39422232.89 0.0089 0.0032
 Mercury -112645-01-19 13:26 J -39422145.10 -39422144.94 -39422144.77 0.0089 0.0027
 Mercury -112645-04-16 16:19 J -39422056.99 -39422056.82 -39422056.65 0.0089 0.0021
 Mercury -112645-07-13 19:12 J -39421968.87 -39421968.70 -39421968.52 0.0089 0.0016
 Mercury -112645-10-09 22:05 J -39421880.75 -39421880.58 -39421880.40 0.0089 0.0011
 Mercury -112644-01-06 00:58 J -39421792.63 -39421792.46 -39421792.28 0.0089 0.0005
 Mercury -112644-04-04 03:50 J -39421704.51 -39421704.34 -39421704.16 0.0089 0.0002
 Mercury -112644-07-01 06:43 J -39421616.39 -39421616.22 -39421616.04 0.0089 0.0006
 Mercury -112644-09-27 09:50 J -39421528.27 -39421528.09 -39421527.92 0.0089 0.0011
 Mercury -112644-12-24 12:29 J -39421440.15 -39421439.98 -39421439.80 0.0089 0.0017
 Mercury -112643-03-22 15:36 J -39421352.02 -39421351.85 -39421351.68 0.0089 0.0022
 Mercury -112643-06-18 18:14 J -39421263.89 -39421263.74 -39421263.56 0.0089 0.0028

Mercury -112643-09-14 21:22 J -39421175.77 -39421175.61 -39421175.44 0.0089 0.0033

Mercury -112643-12-12 00:29 J -39421087.64 -39421087.48 -39421087.32 0.0089 0.0038

Mercury -112642-03-10 03:22 J -39420999.51 -39420999.36 -39420999.20 0.0089 0.0044

Mercury -112642-06-06 06:29 J -39420911.38 -39420911.23 -39420911.08 0.0089 0.0049

Mercury -112642-09-02 09:07 J -39420823.24 -39420823.12 -39420822.96 0.0089 0.0055

Mercury -112642-11-29 12:29 J -39420735.11 -39420734.98 -39420734.85 0.0089 0.0060

Mercury -112641-02-25 15:22 J -39420646.97 -39420646.86 -39420646.73 0.0089 0.0066

Mercury -112641-05-23 18:29 J -39420558.83 -39420558.73 -39420558.62 0.0089 0.0071

Mercury -112641-08-19 21:22 J -39420470.68 -39420470.61 -39420470.51 0.0089 0.0077

Mercury -112641-11-16 00:14 J -39420382.53 -39420382.49 -39420382.40 0.0089 0.0083

Mercury -112640-02-12 03:36 J -39420294.36 -39420294.35 -39420294.32 0.0089 0.0088

Venus -112615-09-17 08:24 J -39410946.19 -39410946.15 -39410946.07 0.0089 0.0086

Venus -112614-04-30 22:48 J -39410720.62 -39410720.55 -39410720.43 0.0089 0.0080

Venus -112614-12-12 13:41 J -39410495.05 -39410494.93 -39410494.80 0.0089 0.0073

Venus -112613-07-25 04:05 J -39410269.47 -39410269.33 -39410269.18 0.0089 0.0067

Venus -112612-03-07 18:29 J -39410043.88 -39410043.73 -39410043.55 0.0089 0.0061

Venus -112612-10-19 09:07 J -39409818.28 -39409818.12 -39409817.93 0.0089 0.0055

Venus -112611-06-02 00:00 J -39409592.69 -39409592.50 -39409592.31 0.0089 0.0048

Venus -112610-01-13 14:24 J -39409367.09 -39409366.90 -39409366.69 0.0089 0.0042

Venus -112610-08-27 05:17 J -39409141.49 -39409141.28 -39409141.07 0.0089 0.0035

Venus -112609-04-08 19:41 J -39408915.89 -39408915.68 -39408915.46 0.0089 0.0029

Venus -112609-11-20 10:19 J -39408690.28 -39408690.07 -39408689.84 0.0089 0.0023

Venus -112608-07-04 00:58 J -39408464.68 -39408464.46 -39408464.23 0.0089 0.0016

Venus -112607-02-14 15:36 J -39408239.07 -39408238.85 -39408238.62 0.0089 0.0010

Venus -112607-09-28 06:29 J -39408013.46 -39408013.23 -39408013.00 0.0089 0.0003

Venus -112606-05-11 21:07 J -39407787.85 -39407787.62 -39407787.39 0.0089 0.0003

Venus -112606-12-23 11:31 J -39407562.24 -39407562.02 -39407561.79 0.0089 0.0010

Venus -112605-08-05 01:55 J -39407336.63 -39407336.42 -39407336.19 0.0089 0.0017

Venus -112604-03-18 16:34 J -39407111.02 -39407110.81 -39407110.58 0.0089 0.0023

Venus -112604-10-30 07:26 J -39406885.40 -39406885.19 -39406884.97 0.0089 0.0029

Venus	-112603-06-12 21:36 J	-39406659.79	-39406659.60	-39406659.37	0.0089	0.0036
Venus	-112602-01-24 12:14 J	-39406434.18	-39406433.99	-39406433.78	0.0089	0.0042
Venus	-112602-09-07 02:38 J	-39406208.56	-39406208.39	-39406208.18	0.0089	0.0049
Venus	-112601-04-19 17:17 J	-39405982.94	-39405982.78	-39405982.59	0.0089	0.0055
Venus	-112601-12-01 08:10 J	-39405757.32	-39405757.16	-39405756.99	0.0089	0.0061
Venus	-112600-07-14 22:19 J	-39405531.70	-39405531.57	-39405531.40	0.0089	0.0068
Earth	-112599-01-15 17:17 J	-39405346.93	-39405346.78	-39405346.61	0.0089	0.0071
Moon	-112599-01-15 21:36 J	-39405346.76	-39405346.60	-39405346.45	0.0089	0.0071 *
Venus	-112599-02-25 12:58 J	-39405306.07	-39405305.96	-39405305.82	0.0089	0.0074
Venus	-112599-10-09 03:36 J	-39405080.43	-39405080.35	-39405080.23	0.0089	0.0080
Moon	-112598-01-18 06:29 J	-39404979.47	-39404979.23	-39404978.99	0.0089	0.0039
Earth	-112598-01-18 09:22 J	-39404979.33	-39404979.11	-39404978.85	0.0089	0.0039 *
Venus	-112598-05-22 18:29 J	-39404854.77	-39404854.73	-39404854.67	0.0089	0.0086
Earth	-112597-01-21 01:55 J	-39404611.68	-39404611.42	-39404611.15	0.0089	0.0007
Moon	-112597-01-21 05:02 J	-39404611.56	-39404611.29	-39404611.01	0.0089	0.0008 *
Moon	-112596-01-22 15:36 J	-39404244.09	-39404243.85	-39404243.59	0.0089	0.0027
Earth	-112596-01-22 18:00 J	-39404244.00	-39404243.75	-39404243.49	0.0089	0.0026 *
Earth	-112595-01-25 09:36 J	-39403876.29	-39403876.10	-39403875.88	0.0089	0.0058
Moon	-112595-01-25 10:34 J	-39403876.26	-39403876.06	-39403875.84	0.0089	0.0057 *
Mars	-112588-10-23 23:31 J	-39401047.55	-39401047.52	-39401047.42	0.0089	0.0087
Mars	-112586-09-18 01:41 J	-39400353.58	-39400353.43	-39400353.23	0.0089	0.0072
Mars	-112584-08-12 05:17 J	-39399659.49	-39399659.28	-39399659.03	0.0089	0.0057
Mars	-112582-07-07 09:22 J	-39398965.35	-39398965.11	-39398964.82	0.0089	0.0042
Mars	-112580-05-31 13:55 J	-39398271.19	-39398270.92	-39398270.61	0.0089	0.0026
Mars	-112578-04-25 21:07 J	-39397576.91	-39397576.62	-39397576.31	0.0089	0.0010
Mars	-112576-03-20 05:02 J	-39396882.59	-39396882.29	-39396881.98	0.0089	0.0007
Mars	-112574-02-12 13:12 J	-39396188.24	-39396187.95	-39396187.65	0.0088	0.0023
Mars	-112572-01-06 22:34 J	-39395493.81	-39395493.56	-39395493.26	0.0088	0.0040
Mars	-112571-12-02 10:19 J	-39394799.29	-39394799.07	-39394798.81	0.0088	0.0056
Mars	-112569-10-26 22:34 J	-39394104.72	-39394104.56	-39394104.35	0.0088	0.0072

Mercury -112567-09-16 07:26 J -39393415.22 -39393415.19 -39393415.14 0.0088 0.0085

Mars -112567-09-21 12:43 J -39393409.98 -39393409.97 -39393409.89 0.0088 0.0088

Mercury -112567-12-13 09:07 J -39393327.16 -39393327.12 -39393327.04 0.0088 0.0080

Mercury -112566-03-11 11:02 J -39393239.11 -39393239.04 -39393238.96 0.0088 0.0076

Mercury -112566-06-07 12:43 J -39393151.04 -39393150.97 -39393150.87 0.0088 0.0071

Mercury -112566-09-03 14:38 J -39393062.98 -39393062.89 -39393062.79 0.0088 0.0067

Mercury -112566-11-30 16:19 J -39392974.91 -39392974.82 -39392974.71 0.0088 0.0062

Mercury -112565-02-26 18:14 J -39392886.85 -39392886.74 -39392886.63 0.0088 0.0058

Mercury -112565-05-24 19:41 J -39392798.78 -39392798.68 -39392798.55 0.0088 0.0054

Mercury -112565-08-20 21:22 J -39392710.72 -39392710.61 -39392710.48 0.0088 0.0050

Mercury -112565-11-16 23:17 J -39392622.65 -39392622.53 -39392622.40 0.0088 0.0045

Mercury -112564-02-13 00:58 J -39392534.58 -39392534.46 -39392534.32 0.0088 0.0040

Mercury -112564-05-12 02:53 J -39392446.51 -39392446.38 -39392446.25 0.0088 0.0036

Mercury -112564-08-08 04:19 J -39392358.45 -39392358.32 -39392358.18 0.0088 0.0032

Mercury -112564-11-04 06:00 J -39392270.38 -39392270.25 -39392270.10 0.0088 0.0028

Mercury -112563-01-31 07:55 J -39392182.31 -39392182.17 -39392182.03 0.0088 0.0023

Mercury -112563-04-29 09:36 J -39392094.24 -39392094.10 -39392093.96 0.0088 0.0018

Mercury -112563-07-26 11:17 J -39392006.17 -39392006.03 -39392005.89 0.0088 0.0014

Mercury -112563-10-22 12:43 J -39391918.11 -39391917.97 -39391917.82 0.0088 0.0011

Mercury -112562-01-18 14:38 J -39391830.04 -39391829.89 -39391829.75 0.0088 0.0006

Mercury -112562-04-16 16:19 J -39391741.97 -39391741.82 -39391741.68 0.0088 0.0003

Mercury -112562-07-13 17:46 J -39391653.90 -39391653.76 -39391653.61 0.0088 0.0004

Mercury -112562-10-09 19:26 J -39391565.83 -39391565.69 -39391565.55 0.0088 0.0007

Mercury -112561-01-05 21:07 J -39391477.76 -39391477.62 -39391477.48 0.0088 0.0012

Mercury -112561-04-02 22:48 J -39391389.69 -39391389.55 -39391389.41 0.0088 0.0016

Mercury -112561-06-30 00:14 J -39391301.62 -39391301.49 -39391301.35 0.0088 0.0020

Mercury -112561-09-26 01:55 J -39391213.55 -39391213.42 -39391213.28 0.0088 0.0024

Mercury -112561-12-23 03:36 J -39391125.48 -39391125.35 -39391125.22 0.0088 0.0028

Mercury -112560-03-21 05:17 J -39391037.41 -39391037.28 -39391037.15 0.0088 0.0033

Mercury -112560-06-17 06:29 J -39390949.34 -39390949.23 -39390949.09 0.0088 0.0038

Mercury -112560-09-13 08:10 J -39390861.28 -39390861.16 -39390861.03 0.0088 0.0041

Mercury -112560-12-10 09:50 J -39390773.21 -39390773.09 -39390772.96 0.0088 0.0045

Mercury -112559-03-08 11:31 J -39390685.13 -39390685.02 -39390684.90 0.0088 0.0049

Mercury -112559-06-04 12:58 J -39390597.06 -39390596.96 -39390596.84 0.0088 0.0054

Mercury -112559-08-31 14:38 J -39390508.99 -39390508.89 -39390508.78 0.0088 0.0058

Mercury -112559-11-27 16:19 J -39390420.92 -39390420.82 -39390420.72 0.0088 0.0062

Mercury -112558-02-23 17:46 J -39390332.85 -39390332.76 -39390332.66 0.0088 0.0066

Mercury -112558-05-22 18:58 J -39390244.78 -39390244.71 -39390244.61 0.0088 0.0071

Mercury -112558-08-18 20:38 J -39390156.70 -39390156.64 -39390156.55 0.0088 0.0074

Mercury -112558-11-14 22:05 J -39390068.63 -39390068.58 -39390068.50 0.0088 0.0079

Mercury -112557-02-10 23:46 J -39389980.55 -39389980.51 -39389980.45 0.0088 0.0082

Mercury -112557-05-09 01:12 J -39389892.46 -39389892.45 -39389892.41 0.0088 0.0086

Venus -112533-03-24 04:19 J -39381172.32 -39381172.32 -39381172.26 0.0088 0.0088

Venus -112533-11-04 16:19 J -39380946.88 -39380946.82 -39380946.72 0.0088 0.0082

Venus -112532-06-18 04:05 J -39380721.43 -39380721.33 -39380721.21 0.0088 0.0076

Venus -112531-01-29 15:22 J -39380495.97 -39380495.86 -39380495.71 0.0088 0.0070

Venus -112531-09-12 03:07 J -39380270.50 -39380270.37 -39380270.21 0.0088 0.0064

Venus -112530-04-25 14:53 J -39380045.03 -39380044.88 -39380044.71 0.0088 0.0059

Venus -112530-12-07 02:24 J -39379819.56 -39379819.40 -39379819.22 0.0088 0.0053

Venus -112529-07-19 14:10 J -39379594.09 -39379593.91 -39379593.73 0.0088 0.0047

Venus -112528-03-02 01:26 J -39379368.62 -39379368.44 -39379368.24 0.0088 0.0041

Venus -112528-10-13 12:58 J -39379143.14 -39379142.96 -39379142.75 0.0088 0.0035

Venus -112527-05-27 00:29 J -39378917.67 -39378917.48 -39378917.27 0.0088 0.0030

Venus -112526-01-07 12:00 J -39378692.20 -39378692.00 -39378691.79 0.0088 0.0024

Venus -112526-08-20 23:31 J -39378466.72 -39378466.52 -39378466.30 0.0088 0.0018

Venus -112525-04-02 11:17 J -39378241.24 -39378241.03 -39378240.82 0.0088 0.0012

Venus -112525-11-13 22:48 J -39378015.77 -39378015.55 -39378015.34 0.0088 0.0006

Venus -112524-06-27 10:05 J -39377790.29 -39377790.08 -39377789.86 0.0088 0.0002

Venus -112523-02-07 21:36 J -39377564.81 -39377564.60 -39377564.39 0.0088 0.0006

Venus -112523-09-21 09:07 J -39377339.33 -39377339.12 -39377338.91 0.0088 0.0012

Venus	-112522-05-04 20:38 J	-39377113.84	-39377113.64	-39377113.43	0.0088	0.0018
Venus	-112522-12-16 07:55 J	-39376888.36	-39376888.17	-39376887.95	0.0088	0.0025
Venus	-112521-07-28 19:26 J	-39376662.88	-39376662.69	-39376662.48	0.0088	0.0030
Venus	-112520-03-11 06:58 J	-39376437.39	-39376437.21	-39376437.00	0.0088	0.0036
Venus	-112520-10-22 18:43 J	-39376211.90	-39376211.72	-39376211.53	0.0088	0.0042
Venus	-112519-06-05 06:14 J	-39375986.41	-39375986.24	-39375986.05	0.0088	0.0048
Venus	-112518-01-16 17:46 J	-39375760.92	-39375760.76	-39375760.58	0.0088	0.0054
Venus	-112518-08-30 05:02 J	-39375535.43	-39375535.29	-39375535.11	0.0088	0.0060
Venus	-112517-04-11 16:34 J	-39375309.93	-39375309.81	-39375309.65	0.0088	0.0066
Earth	-112517-07-12 14:38 J	-39375218.02	-39375217.89	-39375217.72	0.0088	0.0070
Moon	-112517-07-12 15:36 J	-39375217.99	-39375217.85	-39375217.67	0.0088	0.0067 *
Venus	-112517-11-23 04:19 J	-39375084.43	-39375084.32	-39375084.18	0.0088	0.0071
Venus	-112516-07-06 15:36 J	-39374858.93	-39374858.85	-39374858.73	0.0088	0.0077
Moon	-112516-07-14 20:10 J	-39374850.87	-39374850.66	-39374850.42	0.0088	0.0044
Earth	-112516-07-14 21:50 J	-39374850.79	-39374850.59	-39374850.35	0.0088	0.0041 *
Venus	-112515-02-17 02:53 J	-39374633.43	-39374633.38	-39374633.27	0.0088	0.0083
Earth	-112515-07-17 05:31 J	-39374483.51	-39374483.27	-39374483.02	0.0088	0.0011
Moon	-112515-07-17 08:24 J	-39374483.39	-39374483.15	-39374482.91	0.0088	0.0007 *
Venus	-112515-09-30 14:53 J	-39374407.89	-39374407.88	-39374407.85	0.0088	0.0088
Moon	-112514-07-19 09:07 J	-39374116.35	-39374116.12	-39374115.86	0.0089	0.0016
Earth	-112514-07-19 12:43 J	-39374116.20	-39374115.97	-39374115.72	0.0089	0.0019 *
Earth	-112513-07-20 20:24 J	-39373748.86	-39373748.65	-39373748.44	0.0089	0.0048
Moon	-112513-07-20 23:31 J	-39373748.71	-39373748.52	-39373748.31	0.0089	0.0052 *
Moon	-112512-07-23 00:29 J	-39373381.59	-39373381.48	-39373381.32	0.0089	0.0074
Earth	-112512-07-23 03:36 J	-39373381.45	-39373381.35	-39373381.21	0.0089	0.0078 *
Mars	-112504-07-25 04:05 J	-39370457.38	-39370457.33	-39370457.27	0.0089	0.0087
Mars	-112502-06-20 21:07 J	-39369761.80	-39369761.62	-39369761.39	0.0089	0.0070
Mars	-112500-05-16 14:24 J	-39369066.17	-39369065.90	-39369065.63	0.0089	0.0052
Mars	-112498-04-12 05:46 J	-39368370.54	-39368370.26	-39368369.93	0.0089	0.0035
Mars	-112496-03-07 19:41 J	-39367674.99	-39367674.68	-39367674.35	0.0089	0.0017

Mars -112494-02-01 08:24 J -39366979.47 -39366979.15 -39366978.82 0.0089 0.0002
 Mars -112493-12-27 19:26 J -39366284.00 -39366283.69 -39366283.36 0.0089 0.0019
 Mars -112491-11-23 04:19 J -39365588.60 -39365588.32 -39365588.01 0.0089 0.0037
 Mars -112489-10-18 11:17 J -39364893.26 -39364893.03 -39364892.75 0.0089 0.0054
 Mars -112487-09-13 17:02 J -39364197.95 -39364197.79 -39364197.56 0.0089 0.0071
 Mars -112485-08-08 21:50 J -39363502.62 -39363502.59 -39363502.49 0.0089 0.0087
 Mercury -112484-11-23 01:55 J -39363031.45 -39363031.42 -39363031.39 0.0089 0.0087
 Mercury -112483-02-19 04:34 J -39362943.37 -39362943.31 -39362943.25 0.0089 0.0082
 Mercury -112483-05-18 07:12 J -39362855.28 -39362855.20 -39362855.11 0.0089 0.0077
 Mercury -112483-08-14 10:05 J -39362767.18 -39362767.08 -39362766.98 0.0089 0.0072
 Mercury -112483-11-10 12:43 J -39362679.08 -39362678.97 -39362678.86 0.0089 0.0067
 Mercury -112482-02-06 15:22 J -39362590.98 -39362590.86 -39362590.73 0.0089 0.0062
 Mercury -112482-05-05 18:00 J -39362502.87 -39362502.75 -39362502.61 0.0089 0.0057
 Mercury -112482-08-01 20:53 J -39362414.76 -39362414.63 -39362414.48 0.0089 0.0052
 Mercury -112482-10-28 23:31 J -39362326.65 -39362326.52 -39362326.36 0.0089 0.0047
 Mercury -112481-01-25 02:38 J -39362238.54 -39362238.39 -39362238.24 0.0089 0.0041
 Mercury -112481-04-22 05:17 J -39362150.43 -39362150.28 -39362150.11 0.0089 0.0036
 Mercury -112481-07-19 08:10 J -39362062.32 -39362062.16 -39362061.99 0.0089 0.0031
 Mercury -112481-10-15 10:48 J -39361974.20 -39361974.05 -39361973.87 0.0089 0.0026
 Mercury -112480-01-11 13:55 J -39361886.09 -39361885.92 -39361885.75 0.0089 0.0020
 Mercury -112480-04-09 16:48 J -39361797.97 -39361797.80 -39361797.63 0.0089 0.0015
 Mercury -112480-07-06 19:41 J -39361709.86 -39361709.68 -39361709.51 0.0089 0.0010
 Mercury -112480-10-02 22:34 J -39361621.74 -39361621.56 -39361621.38 0.0089 0.0004
 Mercury -112480-12-30 01:26 J -39361533.62 -39361533.44 -39361533.26 0.0089 0.0001
 Mercury -112479-03-28 04:19 J -39361445.49 -39361445.32 -39361445.14 0.0089 0.0006
 Mercury -112479-06-24 07:12 J -39361357.37 -39361357.20 -39361357.02 0.0089 0.0012
 Mercury -112479-09-20 10:05 J -39361269.25 -39361269.08 -39361268.90 0.0089 0.0017
 Mercury -112479-12-17 12:58 J -39361181.12 -39361180.96 -39361180.78 0.0089 0.0023
 Mercury -112478-03-15 16:05 J -39361093.00 -39361092.83 -39361092.66 0.0089 0.0028
 Mercury -112478-06-11 18:43 J -39361004.87 -39361004.72 -39361004.54 0.0089 0.0034

Mercury -112478-09-07 21:50 J -39360916.74 -39360916.59 -39360916.42 0.0089 0.0039

Mercury -112478-12-05 00:43 J -39360828.61 -39360828.47 -39360828.30 0.0089 0.0045

Mercury -112477-03-02 03:50 J -39360740.48 -39360740.34 -39360740.19 0.0089 0.0050

Mercury -112477-05-29 06:43 J -39360652.35 -39360652.22 -39360652.07 0.0089 0.0056

Mercury -112477-08-25 09:50 J -39360564.21 -39360564.09 -39360563.95 0.0089 0.0061

Mercury -112477-11-21 12:43 J -39360476.07 -39360475.97 -39360475.84 0.0089 0.0067

Mercury -112476-02-17 15:50 J -39360387.93 -39360387.84 -39360387.73 0.0089 0.0072

Mercury -112476-05-16 18:43 J -39360299.79 -39360299.72 -39360299.62 0.0089 0.0078

Mercury -112476-08-12 22:05 J -39360211.63 -39360211.58 -39360211.51 0.0089 0.0083

Mercury -112476-11-09 01:12 J -39360123.45 -39360123.45 -39360123.45 0.0089 0.0089

Venus -112451-12-19 15:07 J -39350951.90 -39350951.87 -39350951.78 0.0089 0.0086

Venus -112450-08-02 06:00 J -39350726.35 -39350726.25 -39350726.15 0.0089 0.0079

Venus -112449-03-14 20:24 J -39350500.77 -39350500.65 -39350500.52 0.0089 0.0073

Venus -112449-10-26 10:48 J -39350275.19 -39350275.05 -39350274.89 0.0089 0.0067

Venus -112448-06-09 01:12 J -39350049.60 -39350049.45 -39350049.27 0.0089 0.0061

Venus -112447-01-20 16:05 J -39349824.01 -39349823.83 -39349823.65 0.0089 0.0054

Venus -112447-09-03 06:14 J -39349598.41 -39349598.24 -39349598.03 0.0089 0.0048

Venus -112446-04-16 20:53 J -39349372.82 -39349372.63 -39349372.42 0.0089 0.0042

Venus -112446-11-28 11:31 J -39349147.22 -39349147.02 -39349146.80 0.0089 0.0035

Venus -112445-07-11 01:55 J -39348921.62 -39348921.42 -39348921.19 0.0089 0.0029

Venus -112444-02-21 16:48 J -39348696.02 -39348695.80 -39348695.57 0.0089 0.0022

Venus -112444-10-05 07:26 J -39348470.40 -39348470.19 -39348469.95 0.0089 0.0016

Venus -112443-05-18 22:19 J -39348244.79 -39348244.57 -39348244.34 0.0089 0.0009

Venus -112443-12-30 12:58 J -39348019.19 -39348018.96 -39348018.73 0.0089 0.0003

Venus -112442-08-13 03:36 J -39347793.58 -39347793.35 -39347793.12 0.0089 0.0004

Venus -112441-03-25 18:00 J -39347567.97 -39347567.75 -39347567.52 0.0089 0.0011

Venus -112441-11-06 08:53 J -39347342.35 -39347342.13 -39347341.90 0.0089 0.0017

Venus -112440-06-19 23:17 J -39347116.74 -39347116.53 -39347116.30 0.0089 0.0024

Venus -112439-01-31 13:55 J -39346891.13 -39346890.92 -39346890.70 0.0089 0.0030

Venus -112439-09-14 04:48 J -39346665.51 -39346665.30 -39346665.09 0.0089 0.0036

Venus	-112438-04-27 18:58 J	-39346439.89	-39346439.71	-39346439.49	0.0089	0.0043
Venus	-112438-12-09 09:36 J	-39346214.28	-39346214.10	-39346213.90	0.0089	0.0049
Venus	-112437-07-22 00:00 J	-39345988.66	-39345988.50	-39345988.30	0.0089	0.0056
Venus	-112436-03-04 14:38 J	-39345763.04	-39345762.89	-39345762.71	0.0089	0.0062
Venus	-112436-10-16 05:31 J	-39345537.41	-39345537.27	-39345537.12	0.0089	0.0068
Earth	-112435-01-14 18:00 J	-39345446.77	-39345446.75	-39345446.70	0.0089	0.0088
Venus	-112435-05-29 20:10 J	-39345311.78	-39345311.66	-39345311.53	0.0089	0.0074
Venus	-112434-01-10 10:05 J	-39345086.14	-39345086.08	-39345085.96	0.0089	0.0081
Earth	-112434-01-17 10:19 J	-39345079.26	-39345079.07	-39345078.85	0.0089	0.0056
Moon	-112434-01-17 12:00 J	-39345079.23	-39345079.00	-39345078.77	0.0089	0.0051 *
Venus	-112434-08-24 00:43 J	-39344860.49	-39344860.47	-39344860.40	0.0089	0.0087
Earth	-112433-01-20 02:38 J	-39344711.63	-39344711.39	-39344711.12	0.0089	0.0024
Moon	-112433-01-20 02:53 J	-39344711.61	-39344711.38	-39344711.11	0.0089	0.0028 *
Moon	-112432-01-21 18:00 J	-39344344.02	-39344343.75	-39344343.47	0.0089	0.0013
Earth	-112432-01-21 18:58 J	-39344343.97	-39344343.71	-39344343.44	0.0089	0.0009 *
Earth	-112431-01-24 11:02 J	-39343976.28	-39343976.04	-39343975.80	0.0089	0.0041
Moon	-112431-01-24 12:58 J	-39343976.19	-39343975.96	-39343975.71	0.0089	0.0037 *
Moon	-112430-01-26 23:02 J	-39343608.64	-39343608.54	-39343608.37	0.0089	0.0078
Earth	-112430-01-27 02:53 J	-39343608.52	-39343608.38	-39343608.22	0.0089	0.0073 *
Mars	-112422-05-03 00:00 J	-39340590.61	-39340590.50	-39340590.33	0.0089	0.0079
Mars	-112420-03-27 02:38 J	-39339896.59	-39339896.39	-39339896.18	0.0089	0.0063
Mars	-112418-02-19 06:00 J	-39339202.48	-39339202.25	-39339201.97	0.0089	0.0048
Mars	-112416-01-13 10:48 J	-39338508.32	-39338508.05	-39338507.75	0.0089	0.0032
Mars	-112415-12-08 15:22 J	-39337814.16	-39337813.86	-39337813.56	0.0089	0.0015
Mars	-112413-11-01 21:36 J	-39337119.90	-39337119.60	-39337119.29	0.0089	0.0003
Mars	-112411-09-27 05:02 J	-39336425.58	-39336425.29	-39336424.98	0.0088	0.0019
Mars	-112409-08-21 12:43 J	-39335731.22	-39335730.97	-39335730.66	0.0088	0.0036
Mars	-112407-07-16 22:48 J	-39335036.79	-39335036.55	-39335036.29	0.0088	0.0052
Mars	-112405-06-10 10:19 J	-39334342.23	-39334342.07	-39334341.85	0.0088	0.0069
Mars	-112403-05-06 00:00 J	-39333647.57	-39333647.50	-39333647.39	0.0088	0.0085

Mercury -112402-03-17 04:19 J -39333332.32 -39333332.32 -39333332.30 0.0088 0.0088

Mercury -112402-06-13 06:14 J -39333244.28 -39333244.24 -39333244.19 0.0088 0.0084

Mercury -112402-09-09 07:41 J -39333156.22 -39333156.18 -39333156.10 0.0088 0.0080

Mercury -112402-12-06 09:50 J -39333068.16 -39333068.09 -39333068.01 0.0088 0.0075

Mercury -112401-03-03 11:31 J -39332980.10 -39332980.02 -39332979.92 0.0088 0.0070

Mercury -112401-05-30 13:26 J -39332892.04 -39332891.94 -39332891.84 0.0088 0.0066

Mercury -112401-08-26 14:53 J -39332803.97 -39332803.88 -39332803.76 0.0088 0.0062

Mercury -112401-11-22 17:02 J -39332715.90 -39332715.79 -39332715.68 0.0088 0.0057

Mercury -112400-02-18 18:29 J -39332627.84 -39332627.73 -39332627.60 0.0088 0.0053

Mercury -112400-05-17 20:10 J -39332539.77 -39332539.66 -39332539.53 0.0088 0.0048

Mercury -112400-08-13 22:05 J -39332451.70 -39332451.58 -39332451.45 0.0088 0.0044

Mercury -112400-11-09 23:46 J -39332363.64 -39332363.51 -39332363.38 0.0088 0.0039

Mercury -112399-02-06 01:26 J -39332275.57 -39332275.44 -39332275.30 0.0088 0.0035

Mercury -112399-05-05 03:07 J -39332187.50 -39332187.37 -39332187.23 0.0088 0.0031

Mercury -112399-08-01 04:48 J -39332099.43 -39332099.30 -39332099.15 0.0088 0.0026

Mercury -112399-10-28 06:29 J -39332011.36 -39332011.23 -39332011.08 0.0088 0.0022

Mercury -112398-01-24 08:24 J -39331923.29 -39331923.15 -39331923.01 0.0088 0.0018

Mercury -112398-04-22 10:05 J -39331835.22 -39331835.08 -39331834.94 0.0088 0.0013

Mercury -112398-07-19 11:31 J -39331747.16 -39331747.02 -39331746.87 0.0088 0.0010

Mercury -112398-10-15 13:12 J -39331659.09 -39331658.95 -39331658.80 0.0088 0.0006

Mercury -112397-01-11 14:53 J -39331571.02 -39331570.88 -39331570.73 0.0088 0.0003

Mercury -112397-04-08 16:34 J -39331482.95 -39331482.81 -39331482.66 0.0088 0.0005

Mercury -112397-07-05 18:14 J -39331394.88 -39331394.74 -39331394.59 0.0088 0.0008

Mercury -112397-10-01 19:55 J -39331306.81 -39331306.67 -39331306.53 0.0088 0.0012

Mercury -112397-12-28 21:36 J -39331218.74 -39331218.60 -39331218.46 0.0088 0.0017

Mercury -112396-03-26 23:02 J -39331130.67 -39331130.54 -39331130.40 0.0088 0.0021

Mercury -112396-06-23 00:43 J -39331042.60 -39331042.47 -39331042.33 0.0088 0.0025

Mercury -112396-09-19 02:24 J -39330954.53 -39330954.40 -39330954.27 0.0088 0.0029

Mercury -112396-12-16 04:05 J -39330866.46 -39330866.33 -39330866.20 0.0088 0.0034

Mercury -112395-03-14 05:31 J -39330778.39 -39330778.27 -39330778.14 0.0088 0.0038

Mercury -112395-06-10 06:58 J -39330690.32 -39330690.21 -39330690.08 0.0088 0.0042

Mercury -112395-09-06 08:38 J -39330602.25 -39330602.14 -39330602.01 0.0088 0.0046

Mercury -112395-12-03 10:05 J -39330514.18 -39330514.08 -39330513.95 0.0088 0.0051

Mercury -112394-03-01 11:46 J -39330426.11 -39330426.01 -39330425.89 0.0088 0.0055

Mercury -112394-05-28 13:26 J -39330338.04 -39330337.94 -39330337.83 0.0088 0.0058

Mercury -112394-08-24 15:07 J -39330249.97 -39330249.87 -39330249.77 0.0088 0.0063

Mercury -112394-11-20 16:34 J -39330161.90 -39330161.81 -39330161.71 0.0088 0.0067

Mercury -112393-02-16 18:14 J -39330073.82 -39330073.74 -39330073.66 0.0088 0.0071

Mercury -112393-05-14 19:41 J -39329985.75 -39329985.68 -39329985.60 0.0088 0.0075

Mercury -112393-08-10 21:22 J -39329897.67 -39329897.61 -39329897.55 0.0088 0.0079

Mercury -112393-11-06 22:34 J -39329809.59 -39329809.56 -39329809.50 0.0088 0.0083

Mercury -112392-02-03 00:00 J -39329721.50 -39329721.50 -39329721.46 0.0088 0.0087

Venus -112369-06-25 13:26 J -39321177.95 -39321177.94 -39321177.88 0.0088 0.0088

Venus -112368-02-06 01:12 J -39320952.51 -39320952.45 -39320952.35 0.0088 0.0082

Venus -112368-09-19 13:12 J -39320727.05 -39320726.95 -39320726.83 0.0088 0.0076

Venus -112367-05-03 00:29 J -39320501.58 -39320501.48 -39320501.32 0.0088 0.0071

Venus -112367-12-14 12:14 J -39320276.11 -39320275.99 -39320275.82 0.0088 0.0065

Venus -112366-07-28 00:00 J -39320050.64 -39320050.50 -39320050.33 0.0088 0.0059

Venus -112365-03-09 11:46 J -39319825.17 -39319825.01 -39319824.83 0.0088 0.0053

Venus -112365-10-20 23:31 J -39319599.69 -39319599.52 -39319599.33 0.0088 0.0047

Venus -112364-06-03 11:02 J -39319374.22 -39319374.04 -39319373.84 0.0088 0.0041

Venus -112363-01-14 22:48 J -39319148.75 -39319148.55 -39319148.36 0.0088 0.0035

Venus -112363-08-28 09:50 J -39318923.27 -39318923.09 -39318922.87 0.0088 0.0030

Venus -112362-04-10 21:36 J -39318697.79 -39318697.60 -39318697.38 0.0088 0.0023

Venus -112362-11-22 09:07 J -39318472.32 -39318472.12 -39318471.90 0.0088 0.0018

Venus -112361-07-04 20:38 J -39318246.84 -39318246.64 -39318246.42 0.0088 0.0012

Venus -112360-02-15 08:10 J -39318021.37 -39318021.16 -39318020.94 0.0088 0.0006

Venus -112360-09-28 19:41 J -39317795.89 -39317795.68 -39317795.46 0.0088 0.0002

Venus -112359-05-12 07:26 J -39317570.40 -39317570.19 -39317569.98 0.0088 0.0007

Venus -112359-12-23 18:43 J -39317344.93 -39317344.72 -39317344.50 0.0088 0.0013

Venus	-112358-08-06 06:14 J	-39317119.45	-39317119.24	-39317119.03	0.0088	0.0018
Venus	-112357-03-18 17:46 J	-39316893.96	-39316893.76	-39316893.55	0.0088	0.0024
Venus	-112357-10-30 05:02 J	-39316668.48	-39316668.29	-39316668.08	0.0088	0.0031
Venus	-112356-06-12 16:34 J	-39316442.99	-39316442.81	-39316442.60	0.0088	0.0037
Venus	-112355-01-24 04:05 J	-39316217.50	-39316217.33	-39316217.13	0.0088	0.0043
Venus	-112355-09-06 15:36 J	-39315992.01	-39315991.85	-39315991.66	0.0088	0.0048
Venus	-112354-04-20 03:07 J	-39315766.52	-39315766.37	-39315766.18	0.0088	0.0054
Venus	-112354-12-01 14:53 J	-39315541.03	-39315540.88	-39315540.72	0.0088	0.0060
Moon	-112353-07-11 20:38 J	-39315317.71	-39315317.64	-39315317.51	0.0088	0.0082
Earth	-112353-07-12 00:00 J	-39315317.54	-39315317.50	-39315317.41	0.0088	0.0086 *
Venus	-112353-07-14 02:24 J	-39315315.53	-39315315.40	-39315315.25	0.0088	0.0066
Venus	-112352-02-24 13:41 J	-39315090.04	-39315089.93	-39315089.79	0.0088	0.0072
Earth	-112352-07-14 07:41 J	-39314950.37	-39314950.18	-39314949.99	0.0088	0.0056
Moon	-112352-07-14 10:34 J	-39314950.21	-39314950.06	-39314949.85	0.0088	0.0061 *
Venus	-112352-10-08 00:58 J	-39314864.53	-39314864.46	-39314864.33	0.0088	0.0078
Venus	-112351-05-21 12:58 J	-39314639.02	-39314638.96	-39314638.87	0.0088	0.0083
Moon	-112351-07-16 11:17 J	-39314583.25	-39314583.03	-39314582.78	0.0088	0.0024
Earth	-112351-07-16 14:38 J	-39314583.12	-39314582.89	-39314582.64	0.0088	0.0027 *
Venus	-112350-01-02 00:43 J	-39314413.47	-39314413.47	-39314413.46	0.0088	0.0088
Earth	-112350-07-18 22:05 J	-39314215.83	-39314215.58	-39314215.33	0.0089	0.0003
Moon	-112350-07-19 00:58 J	-39314215.71	-39314215.46	-39314215.20	0.0089	0.0001 *
Moon	-112349-07-20 03:50 J	-39313848.54	-39313848.34	-39313848.10	0.0089	0.0037
Earth	-112349-07-20 05:17 J	-39313848.50	-39313848.28	-39313848.04	0.0089	0.0033 *
Earth	-112348-07-22 12:58 J	-39313481.14	-39313480.96	-39313480.79	0.0089	0.0062
Moon	-112348-07-22 12:58 J	-39313481.13	-39313480.96	-39313480.75	0.0089	0.0059 *
Mars	-112338-02-01 09:36 J	-39310000.24	-39310000.10	-39309999.93	0.0089	0.0078
Mars	-112337-12-28 03:07 J	-39309304.59	-39309304.37	-39309304.11	0.0089	0.0060
Mars	-112335-11-23 19:12 J	-39308608.97	-39308608.70	-39308608.38	0.0089	0.0042
Mars	-112333-10-19 11:17 J	-39307913.34	-39307913.03	-39307912.71	0.0089	0.0023
Mars	-112331-09-15 00:58 J	-39307217.78	-39307217.46	-39307217.12	0.0089	0.0005

Mars -112329-08-10 13:26 J -39306522.26 -39306521.94 -39306521.61 0.0089 0.0014
 Mars -112327-07-07 00:58 J -39305826.76 -39305826.46 -39305826.15 0.0089 0.0032
 Mars -112325-06-01 10:48 J -39305131.31 -39305131.05 -39305130.78 0.0089 0.0050
 Mars -112323-04-27 17:31 J -39304435.95 -39304435.77 -39304435.54 0.0089 0.0068
 Mars -112321-03-22 22:48 J -39303740.60 -39303740.55 -39303740.41 0.0089 0.0085
 Mercury -112319-08-19 23:31 J -39302860.54 -39302860.52 -39302860.47 0.0089 0.0086
 Mercury -112319-11-16 02:24 J -39302772.46 -39302772.40 -39302772.33 0.0089 0.0081
 Mercury -112318-02-12 05:02 J -39302684.37 -39302684.29 -39302684.19 0.0089 0.0076
 Mercury -112318-05-11 07:41 J -39302596.27 -39302596.18 -39302596.07 0.0089 0.0071
 Mercury -112318-08-07 10:19 J -39302508.17 -39302508.07 -39302507.94 0.0089 0.0066
 Mercury -112318-11-03 13:12 J -39302420.07 -39302419.95 -39302419.82 0.0089 0.0061
 Mercury -112317-01-30 15:50 J -39302331.96 -39302331.84 -39302331.69 0.0089 0.0056
 Mercury -112317-04-27 18:43 J -39302243.85 -39302243.72 -39302243.57 0.0089 0.0051
 Mercury -112317-07-24 21:36 J -39302155.74 -39302155.60 -39302155.45 0.0089 0.0045
 Mercury -112317-10-21 00:29 J -39302067.63 -39302067.48 -39302067.32 0.0089 0.0040
 Mercury -112316-01-17 03:07 J -39301979.52 -39301979.37 -39301979.20 0.0089 0.0035
 Mercury -112316-04-15 06:00 J -39301891.41 -39301891.25 -39301891.08 0.0089 0.0030
 Mercury -112316-07-12 08:38 J -39301803.29 -39301803.14 -39301802.96 0.0089 0.0025
 Mercury -112316-10-08 11:46 J -39301715.18 -39301715.01 -39301714.84 0.0089 0.0019
 Mercury -112315-01-04 14:38 J -39301627.06 -39301626.89 -39301626.72 0.0089 0.0014
 Mercury -112315-04-02 17:31 J -39301538.95 -39301538.77 -39301538.60 0.0089 0.0009
 Mercury -112315-06-29 20:24 J -39301450.83 -39301450.65 -39301450.48 0.0089 0.0003
 Mercury -112315-09-25 23:17 J -39301362.71 -39301362.53 -39301362.35 0.0089 0.0002
 Mercury -112315-12-23 02:10 J -39301274.59 -39301274.41 -39301274.23 0.0089 0.0008
 Mercury -112314-03-21 05:02 J -39301186.46 -39301186.29 -39301186.11 0.0089 0.0013
 Mercury -112314-06-17 07:55 J -39301098.34 -39301098.17 -39301097.99 0.0089 0.0018
 Mercury -112314-09-13 10:48 J -39301010.22 -39301010.05 -39301009.87 0.0089 0.0024
 Mercury -112314-12-10 13:55 J -39300922.09 -39300921.92 -39300921.75 0.0089 0.0029
 Mercury -112313-03-07 16:34 J -39300833.96 -39300833.81 -39300833.64 0.0089 0.0035
 Mercury -112313-06-03 19:41 J -39300745.83 -39300745.68 -39300745.52 0.0089 0.0040

Mercury -112313-08-30 22:34 J -39300657.70 -39300657.56 -39300657.40 0.0089 0.0046

Mercury -112313-11-27 01:41 J -39300569.57 -39300569.43 -39300569.28 0.0089 0.0051

Mercury -112312-02-23 04:19 J -39300481.44 -39300481.32 -39300481.17 0.0089 0.0057

Mercury -112312-05-22 07:41 J -39300393.30 -39300393.18 -39300393.05 0.0089 0.0062

Mercury -112312-08-18 10:34 J -39300305.16 -39300305.06 -39300304.94 0.0089 0.0068

Mercury -112312-11-14 13:41 J -39300217.02 -39300216.93 -39300216.82 0.0089 0.0073

Mercury -112311-02-10 16:34 J -39300128.88 -39300128.81 -39300128.72 0.0089 0.0079

Mercury -112311-05-09 19:26 J -39300040.72 -39300040.69 -39300040.62 0.0089 0.0085

Jupiter -112303-07-19 00:00 J -39297049.03 -39297048.50 -39297047.94 0.0089 0.0020

Venus -112286-03-22 22:48 J -39290957.60 -39290957.55 -39290957.47 0.0089 0.0085

Venus -112286-11-03 13:12 J -39290732.03 -39290731.95 -39290731.83 0.0089 0.0079

Venus -112285-06-16 03:36 J -39290506.46 -39290506.35 -39290506.20 0.0089 0.0073

Venus -112284-01-27 18:00 J -39290280.87 -39290280.75 -39290280.58 0.0089 0.0067

Venus -112284-09-10 08:53 J -39290055.28 -39290055.13 -39290054.95 0.0089 0.0060

Venus -112283-04-23 23:17 J -39289829.69 -39289829.53 -39289829.33 0.0089 0.0054

Venus -112283-12-05 13:41 J -39289604.11 -39289603.93 -39289603.72 0.0089 0.0048

Venus -112282-07-19 04:19 J -39289378.51 -39289378.32 -39289378.11 0.0089 0.0041

Venus -112281-02-29 18:43 J -39289152.92 -39289152.72 -39289152.50 0.0089 0.0035

Venus -112281-10-12 09:36 J -39288927.31 -39288927.10 -39288926.88 0.0089 0.0028

Venus -112280-05-26 00:00 J -39288701.71 -39288701.50 -39288701.26 0.0089 0.0022

Venus -112279-01-06 14:53 J -39288476.10 -39288475.88 -39288475.65 0.0089 0.0015

Venus -112279-08-20 05:17 J -39288250.50 -39288250.28 -39288250.05 0.0089 0.0009

Venus -112278-04-02 20:10 J -39288024.89 -39288024.66 -39288024.43 0.0089 0.0002

Venus -112278-11-14 10:48 J -39287799.28 -39287799.05 -39287798.82 0.0089 0.0004

Venus -112277-06-27 01:26 J -39287573.67 -39287573.44 -39287573.21 0.0089 0.0011

Venus -112276-02-07 15:50 J -39287348.06 -39287347.84 -39287347.61 0.0089 0.0018

Venus -112276-09-21 06:43 J -39287122.44 -39287122.22 -39287122.00 0.0089 0.0024

Venus -112275-05-04 21:07 J -39286896.82 -39286896.62 -39286896.40 0.0089 0.0031

Venus -112275-12-16 11:46 J -39286671.21 -39286671.01 -39286670.79 0.0089 0.0037

Venus -112274-07-30 02:10 J -39286445.59 -39286445.41 -39286445.20 0.0089 0.0044

Venus	-112273-03-11 16:48 J	-39286219.98	-39286219.80	-39286219.60	0.0089	0.0050
Venus	-112273-10-23 07:41 J	-39285994.35	-39285994.18	-39285994.00	0.0089	0.0056
Venus	-112272-06-05 21:50 J	-39285768.73	-39285768.59	-39285768.40	0.0089	0.0063
Venus	-112271-01-17 12:29 J	-39285543.10	-39285542.98	-39285542.82	0.0089	0.0069
Venus	-112271-08-31 03:07 J	-39285317.48	-39285317.37	-39285317.24	0.0089	0.0075
Earth	-112270-01-16 11:46 J	-39285179.13	-39285179.01	-39285178.82	0.0089	0.0073
Moon	-112270-01-16 14:24 J	-39285179.06	-39285178.90	-39285178.73	0.0089	0.0069 *
Venus	-112270-04-13 17:46 J	-39285091.84	-39285091.76	-39285091.66	0.0089	0.0081
Venus	-112270-11-25 07:55 J	-39284866.18	-39284866.17	-39284866.11	0.0089	0.0088
Moon	-112269-01-19 00:58 J	-39284811.67	-39284811.46	-39284811.20	0.0089	0.0044
Earth	-112269-01-19 04:34 J	-39284811.54	-39284811.31	-39284811.06	0.0089	0.0040 *
Earth	-112268-01-20 20:38 J	-39284443.90	-39284443.64	-39284443.36	0.0089	0.0008
Moon	-112268-01-21 00:14 J	-39284443.75	-39284443.49	-39284443.22	0.0089	0.0005 *
Moon	-112267-01-23 09:22 J	-39284076.37	-39284076.11	-39284075.85	0.0089	0.0022
Earth	-112267-01-23 12:43 J	-39284076.21	-39284075.97	-39284075.70	0.0089	0.0025 *
Earth	-112266-01-26 04:34 J	-39283708.49	-39283708.31	-39283708.09	0.0089	0.0057
Moon	-112266-01-26 08:10 J	-39283708.33	-39283708.16	-39283707.93	0.0089	0.0060 *
Moon	-112265-01-28 17:46 J	-39283340.79	-39283340.76	-39283340.68	0.0089	0.0087
Mars	-112259-12-16 01:41 J	-39280827.50	-39280827.43	-39280827.34	0.0089	0.0085
Mars	-112257-11-09 02:53 J	-39280133.54	-39280133.38	-39280133.17	0.0089	0.0070
Mars	-112255-10-04 04:48 J	-39279439.52	-39279439.30	-39279439.04	0.0089	0.0054
Mars	-112253-08-28 07:41 J	-39278745.42	-39278745.18	-39278744.88	0.0089	0.0038
Mars	-112251-07-23 12:43 J	-39278051.25	-39278050.97	-39278050.66	0.0089	0.0021
Mars	-112249-06-16 17:46 J	-39277357.06	-39277356.76	-39277356.46	0.0089	0.0003
Mars	-112247-05-12 00:00 J	-39276662.80	-39276662.50	-39276662.20	0.0089	0.0014
Mars	-112245-04-05 07:55 J	-39275968.43	-39275968.17	-39275967.86	0.0088	0.0032
Mars	-112243-02-28 17:02 J	-39275274.05	-39275273.79	-39275273.53	0.0088	0.0048
Mars	-112241-01-24 02:38 J	-39274579.60	-39274579.39	-39274579.19	0.0088	0.0065
Mars	-112240-12-18 13:55 J	-39273885.02	-39273884.92	-39273884.79	0.0088	0.0082
Mercury	-112238-12-12 03:22 J	-39273161.38	-39273161.36	-39273161.33	0.0088	0.0087

Mercury -112237-03-09 05:02 J -39273073.33 -39273073.29 -39273073.23 0.0088 0.0082

Mercury -112237-06-05 06:58 J -39272985.27 -39272985.21 -39272985.14 0.0088 0.0078

Mercury -112237-09-01 08:38 J -39272897.21 -39272897.14 -39272897.05 0.0088 0.0073

Mercury -112237-11-28 10:19 J -39272809.15 -39272809.07 -39272808.97 0.0088 0.0069

Mercury -112236-02-24 12:14 J -39272721.08 -39272720.99 -39272720.89 0.0088 0.0065

Mercury -112236-05-23 13:55 J -39272633.02 -39272632.92 -39272632.81 0.0088 0.0060

Mercury -112236-08-19 15:50 J -39272544.95 -39272544.84 -39272544.73 0.0088 0.0056

Mercury -112236-11-15 17:17 J -39272456.88 -39272456.78 -39272456.65 0.0088 0.0052

Mercury -112235-02-11 19:26 J -39272368.82 -39272368.69 -39272368.57 0.0088 0.0047

Mercury -112235-05-10 20:53 J -39272280.75 -39272280.63 -39272280.49 0.0088 0.0043

Mercury -112235-08-06 22:34 J -39272192.68 -39272192.56 -39272192.42 0.0088 0.0038

Mercury -112235-11-03 00:29 J -39272104.61 -39272104.48 -39272104.34 0.0088 0.0034

Mercury -112234-01-30 02:10 J -39272016.54 -39272016.41 -39272016.27 0.0088 0.0029

Mercury -112234-04-28 03:50 J -39271928.48 -39271928.34 -39271928.20 0.0088 0.0025

Mercury -112234-07-25 05:31 J -39271840.41 -39271840.27 -39271840.13 0.0088 0.0021

Mercury -112234-10-21 07:12 J -39271752.34 -39271752.20 -39271752.05 0.0088 0.0016

Mercury -112233-01-17 08:53 J -39271664.27 -39271664.13 -39271663.98 0.0088 0.0012

Mercury -112233-04-14 10:34 J -39271576.20 -39271576.06 -39271575.91 0.0088 0.0008

Mercury -112233-07-11 12:14 J -39271488.13 -39271487.99 -39271487.84 0.0088 0.0004

Mercury -112233-10-07 13:55 J -39271400.06 -39271399.92 -39271399.77 0.0088 0.0001

Mercury -112232-01-03 15:36 J -39271311.99 -39271311.85 -39271311.71 0.0088 0.0005

Mercury -112232-04-01 17:17 J -39271223.92 -39271223.78 -39271223.64 0.0088 0.0010

Mercury -112232-06-28 18:43 J -39271135.85 -39271135.72 -39271135.57 0.0088 0.0014

Mercury -112232-09-24 20:24 J -39271047.79 -39271047.65 -39271047.51 0.0088 0.0018

Mercury -112232-12-21 22:05 J -39270959.72 -39270959.58 -39270959.44 0.0088 0.0022

Mercury -112231-03-19 23:46 J -39270871.65 -39270871.51 -39270871.37 0.0088 0.0026

Mercury -112231-06-16 01:26 J -39270783.58 -39270783.44 -39270783.31 0.0088 0.0031

Mercury -112231-09-12 02:38 J -39270695.51 -39270695.39 -39270695.25 0.0088 0.0036

Mercury -112231-12-09 04:19 J -39270607.44 -39270607.32 -39270607.18 0.0088 0.0039

Mercury -112230-03-07 06:00 J -39270519.37 -39270519.25 -39270519.12 0.0088 0.0043

Mercury -112230-06-03 07:41 J -39270431.30 -39270431.18 -39270431.06 0.0088 0.0047

Mercury -112230-08-30 09:07 J -39270343.22 -39270343.12 -39270343.00 0.0088 0.0052

Mercury -112230-11-26 10:48 J -39270255.15 -39270255.05 -39270254.94 0.0088 0.0056

Mercury -112229-02-22 12:29 J -39270167.08 -39270166.98 -39270166.88 0.0088 0.0060

Mercury -112229-05-20 13:55 J -39270079.01 -39270078.92 -39270078.82 0.0088 0.0064

Mercury -112229-08-16 15:36 J -39269990.94 -39269990.85 -39269990.76 0.0088 0.0068

Mercury -112229-11-12 16:48 J -39269902.86 -39269902.80 -39269902.70 0.0088 0.0073

Mercury -112228-02-08 18:29 J -39269814.79 -39269814.73 -39269814.65 0.0088 0.0076

Mercury -112228-05-07 19:55 J -39269726.71 -39269726.67 -39269726.60 0.0088 0.0080

Mercury -112228-08-03 21:36 J -39269638.63 -39269638.60 -39269638.55 0.0088 0.0084

Mercury -112228-10-30 23:17 J -39269550.53 -39269550.53 -39269550.52 0.0088 0.0088

Venus -112205-09-26 23:31 J -39261183.53 -39261183.52 -39261183.46 0.0088 0.0087

Venus -112204-05-10 11:17 J -39260958.09 -39260958.03 -39260957.93 0.0088 0.0082

Venus -112204-12-21 23:02 J -39260732.64 -39260732.54 -39260732.42 0.0088 0.0076

Venus -112203-08-04 10:48 J -39260507.17 -39260507.05 -39260506.91 0.0088 0.0070

Venus -112202-03-17 22:05 J -39260281.70 -39260281.58 -39260281.41 0.0088 0.0065

Venus -112202-10-29 09:50 J -39260056.23 -39260056.09 -39260055.91 0.0088 0.0058

Venus -112201-06-10 21:36 J -39259830.76 -39259830.60 -39259830.42 0.0088 0.0052

Venus -112200-01-22 09:07 J -39259605.29 -39259605.12 -39259604.92 0.0088 0.0047

Venus -112200-09-04 20:53 J -39259379.81 -39259379.63 -39259379.43 0.0088 0.0040

Venus -112199-04-18 08:38 J -39259154.33 -39259154.14 -39259153.94 0.0088 0.0034

Venus -112199-11-29 20:10 J -39258928.85 -39258928.66 -39258928.45 0.0088 0.0029

Venus -112198-07-13 07:41 J -39258703.38 -39258703.18 -39258702.97 0.0088 0.0023

Venus -112197-02-23 19:12 J -39258477.90 -39258477.70 -39258477.48 0.0088 0.0017

Venus -112197-10-06 06:58 J -39258252.42 -39258252.21 -39258252.00 0.0088 0.0011

Venus -112196-05-19 18:29 J -39258026.94 -39258026.73 -39258026.52 0.0088 0.0005

Venus -112196-12-31 06:00 J -39257801.47 -39257801.25 -39257801.04 0.0088 0.0002

Venus -112195-08-13 17:17 J -39257575.99 -39257575.78 -39257575.56 0.0088 0.0007

Venus -112194-03-27 04:48 J -39257350.50 -39257350.30 -39257350.08 0.0088 0.0013

Venus -112194-11-07 16:19 J -39257125.02 -39257124.82 -39257124.61 0.0088 0.0019

Venus	-112193-06-20 03:36 J	-39256899.54	-39256899.35	-39256899.13	0.0088	0.0026
Venus	-112192-01-31 15:07 J	-39256674.06	-39256673.87	-39256673.66	0.0088	0.0031
Venus	-112192-09-14 02:53 J	-39256448.57	-39256448.38	-39256448.19	0.0088	0.0037
Venus	-112191-04-27 14:24 J	-39256223.08	-39256222.90	-39256222.71	0.0088	0.0043
Venus	-112191-12-09 01:41 J	-39255997.60	-39255997.43	-39255997.24	0.0088	0.0049
Venus	-112190-07-22 13:12 J	-39255772.11	-39255771.95	-39255771.77	0.0088	0.0055
Venus	-112189-03-04 00:29 J	-39255546.61	-39255546.48	-39255546.31	0.0088	0.0061
Venus	-112189-10-15 12:00 J	-39255321.12	-39255321.00	-39255320.84	0.0088	0.0067
Venus	-112188-05-28 23:46 J	-39255095.61	-39255095.51	-39255095.37	0.0088	0.0072
Moon	-112188-07-13 14:24 J	-39255050.02	-39255049.90	-39255049.73	0.0088	0.0071
Earth	-112188-07-13 17:02 J	-39255049.91	-39255049.79	-39255049.62	0.0088	0.0072 *
Venus	-112187-01-09 11:31 J	-39254870.11	-39254870.02	-39254869.91	0.0088	0.0078
Earth	-112187-07-16 00:43 J	-39254682.68	-39254682.47	-39254682.25	0.0088	0.0042
Moon	-112187-07-16 01:55 J	-39254682.64	-39254682.42	-39254682.19	0.0088	0.0043 *
Saturn	-112187-08-17 06:43 J	-39254650.82	-39254650.22	-39254649.56	0.0088	0.0020
Venus	-112187-08-22 22:48 J	-39254644.60	-39254644.55	-39254644.46	0.0088	0.0084
Moon	-112186-07-18 07:41 J	-39254315.41	-39254315.18	-39254314.94	0.0088	0.0011
Earth	-112186-07-18 08:10 J	-39254315.40	-39254315.16	-39254314.91	0.0088	0.0012 *
Moon	-112185-07-19 14:10 J	-39253948.16	-39253947.91	-39253947.65	0.0088	0.0016
Earth	-112185-07-19 15:22 J	-39253948.10	-39253947.86	-39253947.61	0.0088	0.0017 *
Earth	-112184-07-21 22:48 J	-39253580.76	-39253580.55	-39253580.34	0.0089	0.0047
Moon	-112184-07-22 00:58 J	-39253580.65	-39253580.46	-39253580.24	0.0089	0.0048 *
Moon	-112183-07-24 02:53 J	-39253213.49	-39253213.38	-39253213.23	0.0089	0.0076
Earth	-112183-07-24 05:46 J	-39253213.36	-39253213.26	-39253213.11	0.0089	0.0077 *
Mars	-112175-09-14 23:02 J	-39250238.61	-39250238.54	-39250238.45	0.0089	0.0086
Mars	-112173-08-10 17:17 J	-39249542.96	-39249542.78	-39249542.53	0.0089	0.0068
Mars	-112171-07-07 11:02 J	-39248847.29	-39248847.04	-39248846.74	0.0089	0.0049
Mars	-112169-06-02 03:22 J	-39248151.65	-39248151.36	-39248151.03	0.0089	0.0030
Mars	-112167-04-28 19:12 J	-39247456.02	-39247455.70	-39247455.37	0.0089	0.0011
Mars	-112165-03-24 09:07 J	-39246760.44	-39246760.12	-39246759.78	0.0089	0.0009

Mars -112163-02-17 21:22 J -39246064.92 -39246064.61 -39246064.30 0.0089 0.0027
 Mars -112161-01-14 07:55 J -39245369.43 -39245369.17 -39245368.88 0.0089 0.0046
 Mars -112160-12-09 17:17 J -39244673.99 -39244673.78 -39244673.55 0.0089 0.0064
 Mars -112158-11-05 00:00 J -39243978.60 -39243978.50 -39243978.35 0.0089 0.0082
 Mercury -112154-05-16 21:36 J -39242689.63 -39242689.60 -39242689.53 0.0089 0.0085
 Mercury -112154-08-13 00:14 J -39242601.55 -39242601.49 -39242601.40 0.0089 0.0080
 Mercury -112154-11-09 02:53 J -39242513.45 -39242513.38 -39242513.27 0.0089 0.0075
 Mercury -112153-02-05 05:31 J -39242425.35 -39242425.27 -39242425.14 0.0089 0.0070
 Mercury -112153-05-03 08:53 J -39242337.25 -39242337.13 -39242337.02 0.0089 0.0064
 Mercury -112153-07-30 11:31 J -39242249.15 -39242249.02 -39242248.89 0.0089 0.0059
 Mercury -112153-10-26 14:10 J -39242161.04 -39242160.91 -39242160.77 0.0089 0.0054
 Mercury -112152-01-22 16:48 J -39242072.94 -39242072.80 -39242072.65 0.0089 0.0049
 Mercury -112152-04-20 19:26 J -39241984.83 -39241984.69 -39241984.53 0.0089 0.0044
 Mercury -112152-07-17 22:19 J -39241896.72 -39241896.57 -39241896.40 0.0089 0.0039
 Mercury -112152-10-14 00:58 J -39241808.61 -39241808.46 -39241808.28 0.0089 0.0034
 Mercury -112151-01-10 04:05 J -39241720.49 -39241720.33 -39241720.16 0.0089 0.0028
 Mercury -112151-04-08 06:58 J -39241632.38 -39241632.21 -39241632.04 0.0089 0.0023
 Mercury -112151-07-05 09:36 J -39241544.26 -39241544.10 -39241543.92 0.0089 0.0018
 Mercury -112151-10-01 12:29 J -39241456.15 -39241455.98 -39241455.80 0.0089 0.0013
 Mercury -112151-12-28 15:36 J -39241368.03 -39241367.85 -39241367.68 0.0089 0.0007
 Mercury -112150-03-26 18:14 J -39241279.91 -39241279.74 -39241279.56 0.0089 0.0003
 Mercury -112150-06-22 21:07 J -39241191.79 -39241191.62 -39241191.44 0.0089 0.0004
 Mercury -112150-09-19 00:14 J -39241103.67 -39241103.49 -39241103.32 0.0089 0.0009
 Mercury -112150-12-16 02:53 J -39241015.55 -39241015.38 -39241015.20 0.0089 0.0015
 Mercury -112149-03-13 05:46 J -39240927.42 -39240927.26 -39240927.08 0.0089 0.0020
 Mercury -112149-06-09 08:53 J -39240839.30 -39240839.13 -39240838.96 0.0089 0.0025
 Mercury -112149-09-05 11:31 J -39240751.17 -39240751.02 -39240750.84 0.0089 0.0031
 Mercury -112149-12-02 14:38 J -39240663.05 -39240662.89 -39240662.72 0.0089 0.0036
 Mercury -112148-02-28 17:31 J -39240574.92 -39240574.77 -39240574.60 0.0089 0.0042
 Mercury -112148-05-27 20:38 J -39240486.79 -39240486.64 -39240486.49 0.0089 0.0047

Mercury -112148-08-23 23:17 J -39240398.66 -39240398.53 -39240398.37 0.0089 0.0053

Mercury -112148-11-20 02:38 J -39240310.52 -39240310.39 -39240310.25 0.0089 0.0058

Mercury -112147-02-16 05:17 J -39240222.38 -39240222.28 -39240222.14 0.0089 0.0064

Mercury -112147-05-15 08:38 J -39240134.25 -39240134.14 -39240134.02 0.0089 0.0069

Mercury -112147-08-11 11:31 J -39240046.10 -39240046.02 -39240045.91 0.0089 0.0075

Mercury -112147-11-07 14:53 J -39239957.96 -39239957.88 -39239957.81 0.0089 0.0080

Mercury -112146-02-03 17:31 J -39239869.80 -39239869.77 -39239869.71 0.0089 0.0086

Venus -112122-06-24 06:14 J -39230963.28 -39230963.24 -39230963.14 0.0089 0.0085

Venus -112121-02-04 21:22 J -39230737.71 -39230737.61 -39230737.50 0.0089 0.0078

Venus -112121-09-17 11:46 J -39230512.13 -39230512.01 -39230511.87 0.0089 0.0072

Venus -112120-05-01 02:10 J -39230286.55 -39230286.41 -39230286.24 0.0089 0.0066

Venus -112120-12-12 16:19 J -39230060.96 -39230060.82 -39230060.63 0.0089 0.0060

Venus -112119-07-26 07:12 J -39229835.37 -39229835.20 -39229835.01 0.0089 0.0053

Venus -112118-03-08 21:36 J -39229609.78 -39229609.60 -39229609.40 0.0089 0.0047

Venus -112118-10-20 12:29 J -39229384.18 -39229383.98 -39229383.78 0.0089 0.0040

Venus -112117-06-02 02:53 J -39229158.58 -39229158.38 -39229158.16 0.0089 0.0034

Venus -112116-01-13 17:17 J -39228932.99 -39228932.78 -39228932.55 0.0089 0.0028

Venus -112116-08-27 07:55 J -39228707.39 -39228707.17 -39228706.94 0.0089 0.0021

Venus -112115-04-09 22:19 J -39228481.78 -39228481.57 -39228481.33 0.0089 0.0015

Venus -112115-11-21 13:12 J -39228256.18 -39228255.95 -39228255.72 0.0089 0.0008

Venus -112114-07-05 03:50 J -39228030.57 -39228030.34 -39228030.11 0.0089 0.0001

Venus -112113-02-15 18:29 J -39227804.96 -39227804.73 -39227804.50 0.0089 0.0005

Venus -112113-09-28 09:07 J -39227579.34 -39227579.12 -39227578.89 0.0089 0.0012

Venus -112112-05-11 23:46 J -39227353.73 -39227353.51 -39227353.28 0.0089 0.0018

Venus -112112-12-23 14:10 J -39227128.12 -39227127.91 -39227127.68 0.0089 0.0025

Venus -112111-08-06 05:02 J -39226902.50 -39226902.29 -39226902.08 0.0089 0.0031

Venus -112110-03-19 19:26 J -39226676.89 -39226676.69 -39226676.47 0.0089 0.0038

Venus -112110-10-31 10:34 J -39226451.26 -39226451.06 -39226450.86 0.0089 0.0044

Venus -112109-06-13 00:43 J -39226225.64 -39226225.47 -39226225.26 0.0089 0.0051

Venus -112108-01-24 15:36 J -39226000.02 -39225999.85 -39225999.67 0.0089 0.0057

Venus -112108-09-07 05:46 J -39225774.39 -39225774.26 -39225774.08 0.0089 0.0064

Venus -112107-04-20 20:38 J -39225548.77 -39225548.64 -39225548.49 0.0089 0.0070

Venus -112107-12-02 11:17 J -39225323.13 -39225323.03 -39225322.90 0.0089 0.0076

Earth -112106-01-15 15:22 J -39225278.87 -39225278.86 -39225278.81 0.0089 0.0088

Venus -112106-07-16 01:26 J -39225097.49 -39225097.44 -39225097.33 0.0089 0.0083

Earth -112105-01-18 07:26 J -39224911.37 -39224911.19 -39224910.96 0.0089 0.0056

Moon -112105-01-18 11:31 J -39224911.23 -39224911.02 -39224910.80 0.0089 0.0053 *

Venus -112105-02-26 16:19 J -39224871.82 -39224871.82 -39224871.79 0.0089 0.0089

Moon -112104-01-19 21:07 J -39224543.87 -39224543.62 -39224543.37 0.0089 0.0025

Earth -112104-01-20 00:14 J -39224543.75 -39224543.49 -39224543.23 0.0089 0.0023 *

Earth -112103-01-22 16:19 J -39224176.09 -39224175.82 -39224175.55 0.0089 0.0009

Moon -112103-01-22 18:29 J -39224176.01 -39224175.73 -39224175.46 0.0089 0.0011 *

Moon -112102-01-25 06:29 J -39223808.44 -39223808.23 -39223807.98 0.0089 0.0039

Earth -112102-01-25 07:55 J -39223808.38 -39223808.17 -39223807.91 0.0089 0.0042 *

Earth -112101-01-27 23:31 J -39223440.64 -39223440.52 -39223440.34 0.0089 0.0074

Moon -112101-01-28 00:00 J -39223440.63 -39223440.50 -39223440.35 0.0089 0.0076 *

Mars -112093-06-24 03:50 J -39220370.45 -39220370.34 -39220370.15 0.0089 0.0077

Mars -112091-05-19 06:29 J -39219676.44 -39219676.23 -39219676.00 0.0089 0.0060

Mars -112089-04-12 08:10 J -39218982.40 -39218982.16 -39218981.87 0.0089 0.0044

Mars -112087-03-07 11:46 J -39218288.28 -39218288.01 -39218287.70 0.0089 0.0027

Mars -112085-01-30 17:02 J -39217594.09 -39217593.79 -39217593.49 0.0089 0.0009

Mars -112084-12-24 22:19 J -39216899.87 -39216899.57 -39216899.26 0.0088 0.0009

Mars -112082-11-19 03:50 J -39216205.61 -39216205.34 -39216205.03 0.0088 0.0027

Mars -112080-10-13 11:46 J -39215511.25 -39215511.01 -39215510.72 0.0088 0.0045

Mars -112078-09-07 20:38 J -39214816.83 -39214816.64 -39214816.40 0.0088 0.0062

Mars -112076-08-02 06:43 J -39214122.35 -39214122.22 -39214122.07 0.0088 0.0079

Mercury -112073-09-07 02:10 J -39212990.43 -39212990.41 -39212990.36 0.0088 0.0086

Mercury -112073-12-04 04:05 J -39212902.38 -39212902.33 -39212902.26 0.0088 0.0081

Mercury -112072-03-02 05:46 J -39212814.32 -39212814.26 -39212814.17 0.0088 0.0077

Mercury -112072-05-29 07:55 J -39212726.25 -39212726.17 -39212726.09 0.0088 0.0072

Mercury -112072-08-25 09:22 J -39212638.19 -39212638.11 -39212638.00 0.0088 0.0068

Mercury -112072-11-21 11:31 J -39212550.12 -39212550.02 -39212549.92 0.0088 0.0063

Mercury -112071-02-17 12:58 J -39212462.06 -39212461.96 -39212461.84 0.0088 0.0059

Mercury -112071-05-16 14:38 J -39212373.99 -39212373.89 -39212373.76 0.0088 0.0055

Mercury -112071-08-12 16:34 J -39212285.92 -39212285.81 -39212285.68 0.0088 0.0050

Mercury -112071-11-08 18:14 J -39212197.85 -39212197.74 -39212197.60 0.0088 0.0046

Mercury -112070-02-04 20:10 J -39212109.78 -39212109.66 -39212109.53 0.0088 0.0041

Mercury -112070-05-03 21:50 J -39212021.72 -39212021.59 -39212021.45 0.0088 0.0036

Mercury -112070-07-30 23:31 J -39211933.65 -39211933.52 -39211933.38 0.0088 0.0032

Mercury -112070-10-27 01:26 J -39211845.58 -39211845.44 -39211845.30 0.0088 0.0027

Mercury -112069-01-23 03:07 J -39211757.51 -39211757.37 -39211757.23 0.0088 0.0023

Mercury -112069-04-20 04:48 J -39211669.44 -39211669.30 -39211669.16 0.0088 0.0019

Mercury -112069-07-17 06:29 J -39211581.37 -39211581.23 -39211581.09 0.0088 0.0014

Mercury -112069-10-13 08:10 J -39211493.30 -39211493.16 -39211493.01 0.0088 0.0010

Mercury -112068-01-09 09:50 J -39211405.23 -39211405.09 -39211404.94 0.0088 0.0006

Mercury -112068-04-07 11:31 J -39211317.16 -39211317.02 -39211316.88 0.0088 0.0002

Mercury -112068-07-04 13:12 J -39211229.09 -39211228.95 -39211228.81 0.0088 0.0003

Mercury -112068-09-30 14:53 J -39211141.02 -39211140.88 -39211140.74 0.0088 0.0007

Mercury -112068-12-27 16:34 J -39211052.95 -39211052.81 -39211052.67 0.0088 0.0011

Mercury -112067-03-25 18:14 J -39210964.89 -39210964.74 -39210964.60 0.0088 0.0016

Mercury -112067-06-21 19:41 J -39210876.82 -39210876.68 -39210876.54 0.0088 0.0020

Mercury -112067-09-17 21:07 J -39210788.75 -39210788.62 -39210788.47 0.0088 0.0025

Mercury -112067-12-14 22:48 J -39210700.68 -39210700.55 -39210700.41 0.0088 0.0029

Mercury -112066-03-13 00:29 J -39210612.61 -39210612.48 -39210612.34 0.0088 0.0033

Mercury -112066-06-09 02:10 J -39210524.54 -39210524.41 -39210524.28 0.0088 0.0037

Mercury -112066-09-05 03:50 J -39210436.47 -39210436.34 -39210436.21 0.0088 0.0041

Mercury -112066-12-02 05:17 J -39210348.40 -39210348.28 -39210348.15 0.0088 0.0045

Mercury -112065-02-28 06:43 J -39210260.32 -39210260.22 -39210260.09 0.0088 0.0050

Mercury -112065-05-26 08:24 J -39210172.25 -39210172.15 -39210172.03 0.0088 0.0053

Mercury -112065-08-22 10:05 J -39210084.18 -39210084.08 -39210083.97 0.0088 0.0057

Mercury -112065-11-18 11:31 J -39209996.11 -39209996.02 -39209995.91 0.0088 0.0062

Mercury -112064-02-14 13:12 J -39209908.04 -39209907.95 -39209907.85 0.0088 0.0065

Mercury -112064-05-13 14:38 J -39209819.96 -39209819.89 -39209819.79 0.0088 0.0070

Mercury -112064-08-09 16:19 J -39209731.89 -39209731.82 -39209731.74 0.0088 0.0074

Mercury -112064-11-05 17:46 J -39209643.81 -39209643.76 -39209643.68 0.0088 0.0078

Mercury -112063-02-01 19:26 J -39209555.74 -39209555.69 -39209555.63 0.0088 0.0082

Mercury -112063-04-30 20:53 J -39209467.65 -39209467.63 -39209467.59 0.0088 0.0086

Venus -112041-12-29 10:19 J -39201189.09 -39201189.07 -39201189.01 0.0088 0.0087

Venus -112040-08-11 22:19 J -39200963.65 -39200963.57 -39200963.48 0.0088 0.0081

Venus -112039-03-25 09:36 J -39200738.19 -39200738.10 -39200737.97 0.0088 0.0075

Venus -112039-11-05 21:22 J -39200512.73 -39200512.61 -39200512.46 0.0088 0.0069

Venus -112038-06-19 08:53 J -39200287.26 -39200287.13 -39200286.97 0.0088 0.0064

Venus -112037-01-30 20:38 J -39200061.79 -39200061.64 -39200061.47 0.0088 0.0058

Venus -112037-09-12 08:24 J -39199836.32 -39199836.15 -39199835.97 0.0088 0.0052

Venus -112036-04-25 20:10 J -39199610.84 -39199610.66 -39199610.48 0.0088 0.0046

Venus -112036-12-07 07:26 J -39199385.36 -39199385.19 -39199384.99 0.0088 0.0040

Venus -112035-07-20 18:58 J -39199159.89 -39199159.71 -39199159.50 0.0088 0.0035

Venus -112034-03-03 06:43 J -39198934.41 -39198934.22 -39198934.01 0.0088 0.0028

Venus -112034-10-14 18:29 J -39198708.93 -39198708.73 -39198708.52 0.0088 0.0022

Venus -112033-05-27 06:00 J -39198483.45 -39198483.25 -39198483.03 0.0088 0.0016

Venus -112032-01-07 17:31 J -39198257.97 -39198257.77 -39198257.55 0.0088 0.0011

Venus -112032-08-21 05:17 J -39198032.49 -39198032.28 -39198032.07 0.0088 0.0004

Venus -112031-04-03 16:48 J -39197807.01 -39197806.80 -39197806.58 0.0088 0.0003

Venus -112031-11-15 04:19 J -39197581.53 -39197581.32 -39197581.11 0.0088 0.0008

Venus -112030-06-28 15:36 J -39197356.05 -39197355.85 -39197355.63 0.0088 0.0015

Venus -112029-02-09 03:07 J -39197130.57 -39197130.37 -39197130.16 0.0088 0.0020

Venus -112029-09-21 14:53 J -39196905.09 -39196904.88 -39196904.68 0.0088 0.0026

Venus -112028-05-05 02:24 J -39196679.60 -39196679.40 -39196679.20 0.0088 0.0032

Venus -112028-12-16 13:41 J -39196454.12 -39196453.93 -39196453.73 0.0088 0.0038

Venus -112027-07-30 00:58 J -39196228.63 -39196228.46 -39196228.26 0.0088 0.0044

Venus -112026-03-12 12:29 J -39196003.14 -39196002.98 -39196002.79 0.0088 0.0050

Venus -112026-10-23 23:46 J -39195777.65 -39195777.51 -39195777.32 0.0088 0.0056

Venus -112025-06-05 11:17 J -39195552.16 -39195552.03 -39195551.85 0.0088 0.0062

Venus -112024-01-16 22:48 J -39195326.67 -39195326.55 -39195326.39 0.0088 0.0068

Moon -112024-07-13 04:05 J -39195149.40 -39195149.33 -39195149.20 0.0088 0.0082

Earth -112024-07-13 04:34 J -39195149.36 -39195149.31 -39195149.25 0.0088 0.0086 *

Venus -112024-08-30 10:34 J -39195101.17 -39195101.06 -39195100.93 0.0088 0.0073

Venus -112023-04-12 22:05 J -39194875.66 -39194875.58 -39194875.47 0.0088 0.0079

Earth -112023-07-15 11:31 J -39194782.20 -39194782.02 -39194781.82 0.0088 0.0057

Moon -112023-07-15 12:58 J -39194782.11 -39194781.96 -39194781.77 0.0088 0.0062 *

Venus -112023-11-24 09:22 J -39194650.15 -39194650.11 -39194650.02 0.0088 0.0085

Moon -112022-07-17 16:19 J -39194415.06 -39194414.82 -39194414.57 0.0088 0.0023

Earth -112022-07-17 18:58 J -39194414.93 -39194414.71 -39194414.46 0.0088 0.0027 *

Earth -112021-07-19 02:24 J -39194047.64 -39194047.40 -39194047.15 0.0088 0.0003

Moon -112021-07-19 05:31 J -39194047.51 -39194047.27 -39194047.02 0.0088 0.0003 *

Moon -112020-07-21 06:14 J -39193680.46 -39193680.24 -39193680.01 0.0088 0.0037

Earth -112020-07-21 09:22 J -39193680.32 -39193680.11 -39193679.86 0.0088 0.0033 *

Earth -112019-07-23 17:02 J -39193312.96 -39193312.79 -39193312.60 0.0089 0.0062

Moon -112019-07-23 19:41 J -39193312.85 -39193312.68 -39193312.47 0.0089 0.0058 *

Mars -112009-03-24 08:53 J -39189781.27 -39189781.13 -39189780.92 0.0089 0.0076

Mars -112007-02-18 03:50 J -39189085.56 -39189085.34 -39189085.05 0.0089 0.0057

Mars -112005-01-14 22:05 J -39188389.86 -39188389.58 -39188389.26 0.0089 0.0037

Mars -112004-12-10 14:24 J -39187694.21 -39187693.90 -39187693.57 0.0089 0.0017

Mars -112002-11-06 05:31 J -39186998.60 -39186998.27 -39186997.94 0.0089 0.0003

112TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 112th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-112000-10-01 19:12 J	-39186303.01	-39186302.70	-39186302.37	0.0089	0.0022		
Mars	-111998-08-28 06:43 J	-39185607.48	-39185607.22	-39185606.91	0.0089	0.0042		
Mars	-111996-07-23 17:17 J	-39184911.98	-39184911.78	-39184911.51	0.0089	0.0061		
Mars	-111994-06-19 03:07 J	-39184216.49	-39184216.37	-39184216.20	0.0089	0.0079		
Mercury	-111990-11-14 17:46 J	-39182606.78	-39182606.76	-39182606.73	0.0089	0.0087		
Mercury	-111989-02-10 20:24 J	-39182518.71	-39182518.65	-39182518.59	0.0089	0.0082		
Mercury	-111989-05-08 22:34 J	-39182430.62	-39182430.56	-39182430.45	0.0089	0.0078		
Mercury	-111989-08-05 01:26 J	-39182342.52	-39182342.44	-39182342.33	0.0089	0.0073		
Mercury	-111989-11-01 04:34 J	-39182254.42	-39182254.31	-39182254.20	0.0089	0.0067		
Mercury	-111988-01-28 07:12 J	-39182166.32	-39182166.20	-39182166.08	0.0089	0.0062		
Mercury	-111988-04-26 09:50 J	-39182078.22	-39182078.09	-39182077.96	0.0089	0.0057		
Mercury	-111988-07-23 12:29 J	-39181990.11	-39181989.98	-39181989.83	0.0089	0.0052		
Mercury	-111988-10-19 15:07 J	-39181902.01	-39181901.87	-39181901.71	0.0089	0.0047		
Mercury	-111987-01-15 18:00 J	-39181813.90	-39181813.75	-39181813.59	0.0089	0.0042		
Mercury	-111987-04-13 20:38 J	-39181725.79	-39181725.64	-39181725.47	0.0089	0.0037		
Mercury	-111987-07-10 23:31 J	-39181637.68	-39181637.52	-39181637.35	0.0089	0.0032		
Mercury	-111987-10-07 02:24 J	-39181549.56	-39181549.40	-39181549.23	0.0089	0.0026		
Mercury	-111986-01-03 05:17 J	-39181461.45	-39181461.28	-39181461.11	0.0089	0.0021		
Mercury	-111986-04-01 07:55 J	-39181373.33	-39181373.17	-39181372.99	0.0089	0.0016		
Mercury	-111986-06-28 10:48 J	-39181285.22	-39181285.05	-39181284.87	0.0089	0.0011		
Mercury	-111986-09-24 13:41 J	-39181197.10	-39181196.93	-39181196.75	0.0089	0.0005		

Mercury -111986-12-21 16:34 J -39181108.98 -39181108.81 -39181108.63 0.0089 0.0001

Mercury -111985-03-18 19:26 J -39181020.86 -39181020.69 -39181020.51 0.0089 0.0006

Mercury -111985-06-14 22:19 J -39180932.74 -39180932.57 -39180932.39 0.0089 0.0011

Mercury -111985-09-11 01:12 J -39180844.62 -39180844.45 -39180844.27 0.0089 0.0016

Mercury -111985-12-08 04:05 J -39180756.50 -39180756.33 -39180756.15 0.0089 0.0022

Mercury -111984-03-06 06:58 J -39180668.37 -39180668.21 -39180668.04 0.0089 0.0027

Mercury -111984-06-02 09:50 J -39180580.25 -39180580.09 -39180579.92 0.0089 0.0033

Mercury -111984-08-29 12:43 J -39180492.12 -39180491.97 -39180491.80 0.0089 0.0038

Mercury -111984-11-25 15:36 J -39180403.99 -39180403.85 -39180403.68 0.0089 0.0044

Mercury -111983-02-21 18:43 J -39180315.86 -39180315.72 -39180315.56 0.0089 0.0049

Mercury -111983-05-20 21:36 J -39180227.73 -39180227.60 -39180227.45 0.0089 0.0055

Mercury -111983-08-17 00:43 J -39180139.59 -39180139.47 -39180139.33 0.0089 0.0060

Mercury -111983-11-13 03:22 J -39180051.46 -39180051.36 -39180051.22 0.0089 0.0066

Mercury -111982-02-09 06:43 J -39179963.32 -39179963.22 -39179963.11 0.0089 0.0071

Mercury -111982-05-08 09:36 J -39179875.17 -39179875.10 -39179875.00 0.0089 0.0077

Mercury -111982-08-04 12:43 J -39179787.03 -39179786.97 -39179786.89 0.0089 0.0082

Mercury -111982-10-31 15:36 J -39179698.86 -39179698.85 -39179698.81 0.0089 0.0088

Venus -111958-09-25 15:22 J -39170968.92 -39170968.86 -39170968.78 0.0089 0.0084

Venus -111957-05-08 05:31 J -39170743.35 -39170743.27 -39170743.14 0.0089 0.0078

Venus -111957-12-19 19:55 J -39170517.78 -39170517.67 -39170517.51 0.0089 0.0072

Venus -111956-08-02 10:48 J -39170292.20 -39170292.05 -39170291.89 0.0089 0.0065

Venus -111955-03-16 00:58 J -39170066.61 -39170066.46 -39170066.27 0.0089 0.0060

Venus -111955-10-27 15:36 J -39169841.01 -39169840.85 -39169840.65 0.0089 0.0053

Venus -111954-06-10 06:14 J -39169615.42 -39169615.24 -39169615.03 0.0089 0.0046

Venus -111953-01-21 20:38 J -39169389.83 -39169389.64 -39169389.42 0.0089 0.0040

Venus -111953-09-03 11:31 J -39169164.23 -39169164.02 -39169163.81 0.0089 0.0033

Venus -111952-04-17 01:55 J -39168938.63 -39168938.42 -39168938.19 0.0089 0.0027

Venus -111952-11-28 16:34 J -39168713.03 -39168712.81 -39168712.59 0.0089 0.0020

Venus -111951-07-12 06:58 J -39168487.43 -39168487.21 -39168486.98 0.0089 0.0014

Venus -111950-02-22 21:36 J -39168261.83 -39168261.60 -39168261.37 0.0089 0.0007

Venus	-111950-10-06 12:14 J	-39168036.21	-39168035.99	-39168035.76	0.0089	0.0002
Venus	-111949-05-19 02:53 J	-39167810.61	-39167810.38	-39167810.15	0.0089	0.0006
Venus	-111949-12-30 17:17 J	-39167585.00	-39167584.78	-39167584.55	0.0089	0.0013
Venus	-111948-08-13 07:55 J	-39167359.39	-39167359.17	-39167358.94	0.0089	0.0019
Venus	-111947-03-26 22:19 J	-39167133.78	-39167133.57	-39167133.34	0.0089	0.0026
Venus	-111947-11-07 13:12 J	-39166908.16	-39166907.95	-39166907.73	0.0089	0.0032
Venus	-111946-06-21 03:36 J	-39166682.54	-39166682.35	-39166682.13	0.0089	0.0039
Venus	-111945-02-01 18:29 J	-39166456.92	-39166456.73	-39166456.53	0.0089	0.0045
Venus	-111945-09-14 08:53 J	-39166231.30	-39166231.13	-39166230.93	0.0089	0.0052
Venus	-111944-04-27 23:46 J	-39166005.67	-39166005.51	-39166005.33	0.0089	0.0058
Venus	-111944-12-09 14:10 J	-39165780.05	-39165779.91	-39165779.73	0.0089	0.0065
Venus	-111943-07-23 04:48 J	-39165554.42	-39165554.30	-39165554.15	0.0089	0.0071
Venus	-111942-03-05 19:41 J	-39165328.78	-39165328.68	-39165328.56	0.0089	0.0077
Venus	-111942-10-17 10:05 J	-39165103.13	-39165103.08	-39165102.98	0.0089	0.0084
Moon	-111941-01-17 10:48 J	-39165011.22	-39165011.05	-39165010.88	0.0089	0.0067
Earth	-111941-01-17 10:48 J	-39165011.18	-39165011.05	-39165010.86	0.0089	0.0072 *
Earth	-111940-01-19 03:36 J	-39164643.58	-39164643.35	-39164643.09	0.0089	0.0039
Moon	-111940-01-19 03:50 J	-39164643.57	-39164643.34	-39164643.09	0.0089	0.0043 *
Earth	-111939-01-21 20:10 J	-39164275.92	-39164275.66	-39164275.39	0.0089	0.0006
Moon	-111939-01-21 21:36 J	-39164275.86	-39164275.60	-39164275.34	0.0089	0.0002 *
Moon	-111938-01-24 09:36 J	-39163908.36	-39163908.10	-39163907.82	0.0089	0.0022
Earth	-111938-01-24 12:14 J	-39163908.24	-39163907.99	-39163907.73	0.0089	0.0026 *
Earth	-111937-01-27 03:36 J	-39163540.52	-39163540.35	-39163540.12	0.0089	0.0059
Moon	-111937-01-27 06:58 J	-39163540.39	-39163540.21	-39163540.02	0.0089	0.0063 *
Moon	-111936-01-28 16:05 J	-39163172.88	-39163172.83	-39163172.74	0.0089	0.0086
Mars	-111929-02-07 09:07 J	-39160607.19	-39160607.12	-39160606.99	0.0089	0.0084
Mars	-111927-01-01 10:05 J	-39159913.25	-39159913.08	-39159912.85	0.0089	0.0067
Mars	-111926-11-26 12:29 J	-39159219.20	-39159218.98	-39159218.71	0.0089	0.0050
Mars	-111924-10-20 15:07 J	-39158525.15	-39158524.87	-39158524.59	0.0089	0.0032
Mars	-111922-09-14 17:31 J	-39157831.05	-39157830.77	-39157830.46	0.0089	0.0015

Mars -111920-08-08 22:19 J -39157136.87 -39157136.57 -39157136.26 0.0089 0.0004
 Mars -111918-07-04 04:05 J -39156442.62 -39156442.33 -39156442.03 0.0089 0.0022
 Mars -111916-05-28 09:50 J -39155748.35 -39155748.09 -39155747.81 0.0088 0.0040
 Mars -111914-04-22 17:46 J -39155053.96 -39155053.76 -39155053.50 0.0088 0.0059
 Mars -111912-03-17 03:50 J -39154359.48 -39154359.34 -39154359.17 0.0088 0.0076
 Mercury -111908-03-07 23:46 J -39152907.52 -39152907.51 -39152907.49 0.0088 0.0088
 Mercury -111908-06-04 01:26 J -39152819.47 -39152819.44 -39152819.38 0.0088 0.0084
 Mercury -111908-08-31 03:36 J -39152731.42 -39152731.35 -39152731.29 0.0088 0.0079
 Mercury -111908-11-27 05:02 J -39152643.35 -39152643.29 -39152643.20 0.0088 0.0075
 Mercury -111907-02-23 07:12 J -39152555.29 -39152555.20 -39152555.11 0.0088 0.0070
 Mercury -111907-05-22 08:38 J -39152467.23 -39152467.14 -39152467.03 0.0088 0.0066
 Mercury -111907-08-18 10:19 J -39152379.16 -39152379.07 -39152378.95 0.0088 0.0062
 Mercury -111907-11-14 12:14 J -39152291.09 -39152290.99 -39152290.87 0.0088 0.0057
 Mercury -111906-02-10 13:55 J -39152203.02 -39152202.92 -39152202.79 0.0088 0.0053
 Mercury -111906-05-09 15:50 J -39152114.95 -39152114.84 -39152114.71 0.0088 0.0048
 Mercury -111906-08-05 17:31 J -39152026.89 -39152026.77 -39152026.63 0.0088 0.0044
 Mercury -111906-11-01 19:26 J -39151938.82 -39151938.69 -39151938.56 0.0088 0.0039
 Mercury -111905-01-28 21:07 J -39151850.75 -39151850.62 -39151850.48 0.0088 0.0035
 Mercury -111905-04-25 22:48 J -39151762.68 -39151762.55 -39151762.40 0.0088 0.0030
 Mercury -111905-07-23 00:43 J -39151674.61 -39151674.47 -39151674.33 0.0088 0.0026
 Mercury -111905-10-19 02:24 J -39151586.54 -39151586.40 -39151586.26 0.0088 0.0021
 Mercury -111904-01-15 04:05 J -39151498.47 -39151498.33 -39151498.19 0.0088 0.0017
 Mercury -111904-04-13 05:46 J -39151410.40 -39151410.26 -39151410.11 0.0088 0.0013
 Mercury -111904-07-10 07:26 J -39151322.33 -39151322.19 -39151322.04 0.0088 0.0008
 Mercury -111904-10-06 09:07 J -39151234.26 -39151234.12 -39151233.97 0.0088 0.0004
 Mercury -111903-01-02 10:48 J -39151146.19 -39151146.05 -39151145.90 0.0088 0.0002
 Mercury -111903-03-31 12:29 J -39151058.12 -39151057.98 -39151057.83 0.0088 0.0005
 Mercury -111903-06-27 14:10 J -39150970.05 -39150969.91 -39150969.76 0.0088 0.0009
 Mercury -111903-09-23 15:50 J -39150881.98 -39150881.84 -39150881.70 0.0088 0.0013
 Mercury -111903-12-20 17:31 J -39150793.91 -39150793.77 -39150793.63 0.0088 0.0018

Mercury -111902-03-18 19:12 J -39150705.84 -39150705.70 -39150705.56 0.0088 0.0022

Mercury -111902-06-14 20:38 J -39150617.77 -39150617.64 -39150617.50 0.0088 0.0026

Mercury -111902-09-10 22:19 J -39150529.70 -39150529.57 -39150529.43 0.0088 0.0030

Mercury -111902-12-08 00:00 J -39150441.63 -39150441.50 -39150441.37 0.0088 0.0034

Mercury -111901-03-05 01:41 J -39150353.56 -39150353.43 -39150353.30 0.0088 0.0039

Mercury -111901-06-01 03:07 J -39150265.49 -39150265.37 -39150265.24 0.0088 0.0043

Mercury -111901-08-28 04:34 J -39150177.42 -39150177.31 -39150177.18 0.0088 0.0047

Mercury -111901-11-24 06:14 J -39150089.35 -39150089.24 -39150089.12 0.0088 0.0051

Mercury -111900-02-20 07:41 J -39150001.28 -39150001.18 -39150001.06 0.0088 0.0056

Mercury -111900-05-19 09:22 J -39149913.20 -39149913.11 -39149913.00 0.0088 0.0059

Mercury -111900-08-15 11:02 J -39149825.13 -39149825.04 -39149824.94 0.0088 0.0063

Mercury -111900-11-11 12:29 J -39149737.06 -39149736.98 -39149736.88 0.0088 0.0068

Mercury -111899-02-07 14:10 J -39149648.98 -39149648.91 -39149648.82 0.0088 0.0071

Mercury -111899-05-06 15:36 J -39149560.91 -39149560.85 -39149560.77 0.0088 0.0076

Mercury -111899-08-02 17:17 J -39149472.83 -39149472.78 -39149472.71 0.0088 0.0080

Mercury -111899-10-29 18:43 J -39149384.75 -39149384.72 -39149384.66 0.0088 0.0084

Mercury -111898-01-25 20:24 J -39149296.66 -39149296.65 -39149296.63 0.0088 0.0087

Venus -111876-04-01 22:05 J -39141194.63 -39141194.58 -39141194.54 0.0088 0.0086

Venus -111876-11-13 09:07 J -39140969.19 -39140969.12 -39140969.01 0.0088 0.0081

Venus -111875-06-26 20:53 J -39140743.73 -39140743.63 -39140743.50 0.0088 0.0075

Venus -111874-02-07 08:38 J -39140518.26 -39140518.14 -39140518.00 0.0088 0.0069

Venus -111874-09-20 20:24 J -39140292.80 -39140292.65 -39140292.50 0.0088 0.0063

Venus -111873-05-03 07:41 J -39140067.32 -39140067.18 -39140067.00 0.0088 0.0057

Venus -111873-12-14 19:12 J -39139841.85 -39139841.70 -39139841.50 0.0088 0.0052

Venus -111872-07-28 06:58 J -39139616.38 -39139616.21 -39139616.01 0.0088 0.0045

Venus -111871-03-10 18:43 J -39139390.90 -39139390.72 -39139390.52 0.0088 0.0039

Venus -111871-10-22 06:14 J -39139165.43 -39139165.24 -39139165.03 0.0088 0.0034

Venus -111870-06-04 18:00 J -39138939.95 -39138939.75 -39138939.54 0.0088 0.0027

Venus -111869-01-16 05:31 J -39138714.47 -39138714.27 -39138714.06 0.0088 0.0021

Venus -111869-08-28 17:02 J -39138488.99 -39138488.79 -39138488.57 0.0088 0.0016

Venus	-111868-04-11 04:48 J	-39138263.51	-39138263.30	-39138263.08	0.0088	0.0010
Venus	-111868-11-22 16:34 J	-39138038.02	-39138037.81	-39138037.60	0.0088	0.0003
Venus	-111867-07-06 04:05 J	-39137812.54	-39137812.33	-39137812.12	0.0088	0.0003
Venus	-111866-02-16 15:22 J	-39137587.06	-39137586.86	-39137586.64	0.0088	0.0010
Venus	-111866-09-30 02:53 J	-39137361.58	-39137361.38	-39137361.16	0.0088	0.0016
Venus	-111865-05-12 14:38 J	-39137136.09	-39137135.89	-39137135.68	0.0088	0.0021
Venus	-111865-12-24 01:55 J	-39136910.61	-39136910.42	-39136910.20	0.0088	0.0027
Venus	-111864-08-06 13:41 J	-39136685.13	-39136684.93	-39136684.73	0.0088	0.0033
Venus	-111863-03-20 01:12 J	-39136459.64	-39136459.45	-39136459.26	0.0088	0.0039
Venus	-111863-10-31 12:29 J	-39136234.15	-39136233.98	-39136233.78	0.0088	0.0045
Venus	-111862-06-14 00:00 J	-39136008.66	-39136008.50	-39136008.31	0.0088	0.0051
Venus	-111861-01-25 11:31 J	-39135783.17	-39135783.02	-39135782.85	0.0088	0.0057
Venus	-111861-09-06 22:48 J	-39135557.68	-39135557.55	-39135557.38	0.0088	0.0063
Venus	-111860-04-20 10:19 J	-39135332.18	-39135332.07	-39135331.91	0.0088	0.0069
Venus	-111860-12-01 22:05 J	-39135106.68	-39135106.58	-39135106.45	0.0088	0.0074
Moon	-111859-07-14 20:38 J	-39134881.76	-39134881.64	-39134881.48	0.0088	0.0073
Earth	-111859-07-15 00:00 J	-39134881.63	-39134881.50	-39134881.33	0.0088	0.0071 *
Venus	-111859-07-15 09:22 J	-39134881.18	-39134881.11	-39134881.00	0.0088	0.0080
Venus	-111858-02-25 20:53 J	-39134655.67	-39134655.63	-39134655.56	0.0088	0.0086
Earth	-111858-07-17 06:58 J	-39134514.41	-39134514.21	-39134513.97	0.0088	0.0042
Moon	-111858-07-17 10:34 J	-39134514.27	-39134514.06	-39134513.82	0.0088	0.0039 *
Moon	-111857-07-18 11:46 J	-39134147.24	-39134147.01	-39134146.76	0.0088	0.0015
Earth	-111857-07-18 14:38 J	-39134147.13	-39134146.89	-39134146.64	0.0088	0.0011 *
Earth	-111856-07-20 21:50 J	-39133779.82	-39133779.59	-39133779.34	0.0088	0.0018
Moon	-111856-07-21 00:00 J	-39133779.74	-39133779.50	-39133779.24	0.0088	0.0020 *
Moon	-111855-07-23 04:34 J	-39133412.50	-39133412.31	-39133412.09	0.0088	0.0046
Earth	-111855-07-23 05:31 J	-39133412.48	-39133412.27	-39133412.06	0.0088	0.0048 *
Moon	-111854-07-25 11:17 J	-39133045.10	-39133045.03	-39133044.89	0.0089	0.0081
Earth	-111854-07-25 12:29 J	-39133045.08	-39133044.98	-39133044.84	0.0089	0.0078 *
Mars	-111846-11-06 02:38 J	-39130019.47	-39130019.39	-39130019.26	0.0089	0.0084

Mars -111844-10-01 22:05 J -39129323.79 -39129323.58 -39129323.33 0.0089 0.0064
 Mars -111842-08-28 16:48 J -39128628.07 -39128627.80 -39128627.50 0.0089 0.0044
 Mars -111840-07-24 10:19 J -39127932.37 -39127932.07 -39127931.73 0.0089 0.0024
 Mars -111838-06-20 02:53 J -39127236.71 -39127236.38 -39127236.05 0.0089 0.0003
 Mars -111836-05-15 17:46 J -39126541.08 -39126540.76 -39126540.43 0.0089 0.0017
 Mars -111834-04-11 07:12 J -39125845.48 -39125845.20 -39125844.88 0.0089 0.0037
 Mars -111832-03-06 19:41 J -39125149.93 -39125149.68 -39125149.43 0.0089 0.0056
 Mars -111830-01-31 05:02 J -39124454.43 -39124454.29 -39124454.09 0.0089 0.0076
 Mercury -111825-08-10 16:19 J -39122435.86 -39122435.82 -39122435.76 0.0089 0.0085
 Mercury -111825-11-06 18:58 J -39122347.77 -39122347.71 -39122347.63 0.0089 0.0080
 Mercury -111824-02-02 21:36 J -39122259.68 -39122259.60 -39122259.50 0.0089 0.0075
 Mercury -111824-05-02 00:14 J -39122171.58 -39122171.49 -39122171.37 0.0089 0.0070
 Mercury -111824-07-29 02:53 J -39122083.48 -39122083.38 -39122083.25 0.0089 0.0065
 Mercury -111824-10-25 05:46 J -39121995.38 -39121995.26 -39121995.13 0.0089 0.0060
 Mercury -111823-01-21 08:24 J -39121907.27 -39121907.15 -39121907.00 0.0089 0.0055
 Mercury -111823-04-19 11:02 J -39121819.17 -39121819.04 -39121818.88 0.0089 0.0050
 Mercury -111823-07-16 13:41 J -39121731.06 -39121730.93 -39121730.76 0.0089 0.0045
 Mercury -111823-10-12 16:48 J -39121642.95 -39121642.80 -39121642.64 0.0089 0.0039
 Mercury -111822-01-08 19:26 J -39121554.84 -39121554.69 -39121554.52 0.0089 0.0034
 Mercury -111822-04-06 22:19 J -39121466.73 -39121466.57 -39121466.40 0.0089 0.0029
 Mercury -111822-07-04 00:58 J -39121378.62 -39121378.46 -39121378.28 0.0089 0.0024
 Mercury -111822-09-30 03:50 J -39121290.51 -39121290.34 -39121290.17 0.0089 0.0019
 Mercury -111822-12-27 06:43 J -39121202.39 -39121202.22 -39121202.05 0.0089 0.0013
 Mercury -111821-03-24 09:36 J -39121114.27 -39121114.10 -39121113.93 0.0089 0.0008
 Mercury -111821-06-20 12:29 J -39121026.16 -39121025.98 -39121025.81 0.0089 0.0003
 Mercury -111821-09-16 15:22 J -39120938.04 -39120937.86 -39120937.69 0.0089 0.0003
 Mercury -111821-12-13 18:00 J -39120849.92 -39120849.75 -39120849.57 0.0089 0.0008
 Mercury -111820-03-11 20:53 J -39120761.80 -39120761.63 -39120761.45 0.0089 0.0014
 Mercury -111820-06-07 23:46 J -39120673.68 -39120673.51 -39120673.33 0.0089 0.0019
 Mercury -111820-09-04 02:38 J -39120585.55 -39120585.39 -39120585.21 0.0089 0.0024

Mercury -111820-12-01 05:31 J -39120497.43 -39120497.27 -39120497.10 0.0089 0.0030

Mercury -111819-02-27 08:24 J -39120409.30 -39120409.15 -39120408.98 0.0089 0.0035

Mercury -111819-05-26 11:31 J -39120321.18 -39120321.02 -39120320.86 0.0089 0.0040

Mercury -111819-08-22 14:10 J -39120233.05 -39120232.91 -39120232.74 0.0089 0.0046

Mercury -111819-11-18 17:31 J -39120144.92 -39120144.77 -39120144.63 0.0089 0.0051

Mercury -111818-02-14 20:10 J -39120056.78 -39120056.66 -39120056.51 0.0089 0.0057

Mercury -111818-05-13 23:17 J -39119968.65 -39119968.53 -39119968.40 0.0089 0.0062

Mercury -111818-08-10 02:10 J -39119880.51 -39119880.41 -39119880.28 0.0089 0.0068

Mercury -111818-11-06 05:31 J -39119792.37 -39119792.27 -39119792.17 0.0089 0.0073

Mercury -111817-02-02 08:10 J -39119704.23 -39119704.16 -39119704.07 0.0089 0.0079

Mercury -111817-04-30 11:02 J -39119616.07 -39119616.04 -39119615.97 0.0089 0.0085

Venus -111794-12-27 23:46 J -39110974.56 -39110974.51 -39110974.41 0.0089 0.0084

Venus -111793-08-09 14:38 J -39110748.99 -39110748.89 -39110748.77 0.0089 0.0077

Venus -111792-03-23 04:48 J -39110523.41 -39110523.30 -39110523.14 0.0089 0.0072

Venus -111792-11-03 19:26 J -39110297.83 -39110297.69 -39110297.52 0.0089 0.0065

Venus -111791-06-17 10:05 J -39110072.24 -39110072.08 -39110071.90 0.0089 0.0058

Venus -111790-01-29 00:29 J -39109846.65 -39109846.48 -39109846.28 0.0089 0.0052

Venus -111790-09-11 15:22 J -39109621.05 -39109620.86 -39109620.66 0.0089 0.0045

Venus -111789-04-24 05:46 J -39109395.45 -39109395.26 -39109395.04 0.0089 0.0039

Venus -111789-12-05 20:24 J -39109169.85 -39109169.65 -39109169.43 0.0089 0.0032

Venus -111788-07-19 10:48 J -39108944.25 -39108944.05 -39108943.82 0.0089 0.0026

Venus -111787-03-02 01:41 J -39108718.65 -39108718.43 -39108718.21 0.0089 0.0019

Venus -111787-10-13 16:19 J -39108493.04 -39108492.82 -39108492.59 0.0089 0.0013

Venus -111786-05-27 06:58 J -39108267.44 -39108267.21 -39108266.98 0.0089 0.0006

Venus -111785-01-07 21:22 J -39108041.83 -39108041.61 -39108041.38 0.0089 0.0002

Venus -111785-08-20 12:00 J -39107816.23 -39107816.00 -39107815.77 0.0089 0.0007

Venus -111784-04-03 02:24 J -39107590.62 -39107590.40 -39107590.17 0.0089 0.0014

Venus -111784-11-14 17:02 J -39107365.01 -39107364.79 -39107364.56 0.0089 0.0020

Venus -111783-06-28 07:26 J -39107139.39 -39107139.19 -39107138.96 0.0089 0.0027

Venus -111782-02-08 22:19 J -39106913.78 -39106913.57 -39106913.36 0.0089 0.0033

Venus -111782-09-22 12:43 J -39106688.16 -39106687.97 -39106687.75 0.0089 0.0040
 Venus -111781-05-05 03:36 J -39106462.54 -39106462.35 -39106462.15 0.0089 0.0046
 Venus -111781-12-16 18:00 J -39106236.92 -39106236.75 -39106236.55 0.0089 0.0053
 Venus -111780-07-30 08:53 J -39106011.30 -39106011.13 -39106010.96 0.0089 0.0059
 Venus -111779-03-12 23:02 J -39105785.67 -39105785.54 -39105785.37 0.0089 0.0066
 Venus -111779-10-24 14:10 J -39105560.03 -39105559.91 -39105559.77 0.0089 0.0072
 Venus -111778-06-07 04:19 J -39105334.39 -39105334.32 -39105334.19 0.0089 0.0079
 Moon -111777-01-16 13:26 J -39105111.03 -39105110.94 -39105110.85 0.0089 0.0083
 Earth -111777-01-16 15:22 J -39105110.89 -39105110.86 -39105110.77 0.0089 0.0087 *
 Venus -111777-01-18 19:12 J -39105108.75 -39105108.70 -39105108.62 0.0089 0.0085
 Earth -111776-01-18 08:10 J -39104743.35 -39104743.16 -39104742.92 0.0089 0.0054
 Moon -111776-01-18 11:31 J -39104743.21 -39104743.02 -39104742.80 0.0089 0.0056 *
 Moon -111775-01-20 21:22 J -39104375.86 -39104375.61 -39104375.33 0.0089 0.0020
 Earth -111775-01-21 00:58 J -39104375.71 -39104375.46 -39104375.19 0.0089 0.0021 *
 Earth -111774-01-23 17:02 J -39104008.04 -39104007.79 -39104007.51 0.0089 0.0012
 Moon -111774-01-23 21:07 J -39104007.88 -39104007.62 -39104007.35 0.0089 0.0010 *
 Moon -111773-01-26 05:46 J -39103640.47 -39103640.26 -39103640.01 0.0089 0.0046
 Earth -111773-01-26 09:22 J -39103640.33 -39103640.11 -39103639.87 0.0089 0.0044 *
 Earth -111772-01-28 00:43 J -39103272.57 -39103272.47 -39103272.30 0.0089 0.0077
 Moon -111772-01-28 04:19 J -39103272.44 -39103272.32 -39103272.16 0.0089 0.0076 *
 Mars -111764-08-16 15:50 J -39100149.98 -39100149.84 -39100149.65 0.0089 0.0074
 Mars -111762-07-11 16:34 J -39099456.03 -39099455.81 -39099455.57 0.0089 0.0056
 Mars -111760-06-04 18:58 J -39098761.97 -39098761.71 -39098761.43 0.0089 0.0038
 Mars -111758-04-29 21:50 J -39098067.88 -39098067.59 -39098067.29 0.0089 0.0020
 Mars -111756-03-24 01:26 J -39097373.74 -39097373.44 -39097373.14 0.0089 0.0002
 Mars -111754-02-16 06:14 J -39096679.54 -39096679.24 -39096678.94 0.0089 0.0017
 Mars -111752-01-10 12:00 J -39095985.26 -39095985.00 -39095984.70 0.0088 0.0036
 Mars -111751-12-05 18:00 J -39095290.96 -39095290.75 -39095290.48 0.0088 0.0055
 Mars -111749-10-30 02:10 J -39094596.56 -39094596.41 -39094596.22 0.0088 0.0073
 Mercury -111744-12-02 23:02 J -39092736.56 -39092736.54 -39092736.49 0.0088 0.0086

Mercury -111743-03-01 01:12 J -39092648.50 -39092648.45 -39092648.39 0.0088 0.0081

Mercury -111743-05-28 02:53 J -39092560.44 -39092560.38 -39092560.30 0.0088 0.0076

Mercury -111743-08-24 04:48 J -39092472.38 -39092472.30 -39092472.21 0.0088 0.0072

Mercury -111743-11-20 06:29 J -39092384.32 -39092384.23 -39092384.13 0.0088 0.0068

Mercury -111742-02-16 08:10 J -39092296.25 -39092296.16 -39092296.04 0.0088 0.0063

Mercury -111742-05-15 10:05 J -39092208.18 -39092208.08 -39092207.96 0.0088 0.0059

Mercury -111742-08-11 11:46 J -39092120.11 -39092120.01 -39092119.88 0.0088 0.0054

Mercury -111742-11-07 13:41 J -39092032.05 -39092031.93 -39092031.80 0.0088 0.0050

Mercury -111741-02-03 15:22 J -39091943.98 -39091943.86 -39091943.73 0.0088 0.0045

Mercury -111741-05-01 17:17 J -39091855.91 -39091855.78 -39091855.65 0.0088 0.0041

Mercury -111741-07-28 18:58 J -39091767.84 -39091767.71 -39091767.57 0.0088 0.0036

Mercury -111741-10-24 20:38 J -39091679.77 -39091679.64 -39091679.50 0.0088 0.0032

Mercury -111740-01-20 22:34 J -39091591.70 -39091591.56 -39091591.42 0.0088 0.0028

Mercury -111740-04-19 00:14 J -39091503.63 -39091503.49 -39091503.35 0.0088 0.0023

Mercury -111740-07-16 01:55 J -39091415.56 -39091415.42 -39091415.28 0.0088 0.0019

Mercury -111740-10-12 03:36 J -39091327.49 -39091327.35 -39091327.20 0.0088 0.0015

Mercury -111739-01-08 05:17 J -39091239.42 -39091239.28 -39091239.13 0.0088 0.0010

Mercury -111739-04-06 06:58 J -39091151.35 -39091151.21 -39091151.06 0.0088 0.0006

Mercury -111739-07-03 08:38 J -39091063.28 -39091063.14 -39091062.99 0.0088 0.0003

Mercury -111739-09-29 10:19 J -39090975.21 -39090975.07 -39090974.92 0.0088 0.0004

Mercury -111739-12-26 12:00 J -39090887.14 -39090887.00 -39090886.85 0.0088 0.0008

Mercury -111738-03-24 13:41 J -39090799.07 -39090798.93 -39090798.78 0.0088 0.0012

Mercury -111738-06-20 15:22 J -39090711.00 -39090710.86 -39090710.72 0.0088 0.0016

Mercury -111738-09-16 17:02 J -39090622.93 -39090622.79 -39090622.65 0.0088 0.0020

Mercury -111738-12-13 18:43 J -39090534.86 -39090534.72 -39090534.58 0.0088 0.0024

Mercury -111737-03-10 20:10 J -39090446.79 -39090446.66 -39090446.52 0.0088 0.0029

Mercury -111737-06-06 21:50 J -39090358.72 -39090358.59 -39090358.45 0.0088 0.0033

Mercury -111737-09-02 23:17 J -39090270.64 -39090270.53 -39090270.39 0.0088 0.0038

Mercury -111737-11-30 00:58 J -39090182.57 -39090182.46 -39090182.32 0.0088 0.0042

Mercury -111736-02-26 02:38 J -39090094.50 -39090094.39 -39090094.26 0.0088 0.0045

Mercury -111736-05-25 04:19 J -39090006.43 -39090006.32 -39090006.20 0.0088 0.0049

Mercury -111736-08-21 05:46 J -39089918.36 -39089918.26 -39089918.14 0.0088 0.0054

Mercury -111736-11-17 07:26 J -39089830.29 -39089830.19 -39089830.07 0.0088 0.0058

Mercury -111735-02-13 09:07 J -39089742.22 -39089742.12 -39089742.01 0.0088 0.0062

Mercury -111735-05-12 10:48 J -39089654.14 -39089654.05 -39089653.96 0.0088 0.0066

Mercury -111735-08-08 12:14 J -39089566.07 -39089565.99 -39089565.90 0.0088 0.0070

Mercury -111735-11-04 13:55 J -39089477.99 -39089477.92 -39089477.84 0.0088 0.0074

Mercury -111734-01-31 15:22 J -39089389.92 -39089389.86 -39089389.79 0.0088 0.0078

Mercury -111734-04-29 17:02 J -39089301.84 -39089301.79 -39089301.74 0.0088 0.0082

Mercury -111734-07-26 18:29 J -39089213.75 -39089213.73 -39089213.69 0.0088 0.0086

Jupiter -111728-10-02 16:34 J -39086954.22 -39086953.81 -39086953.32 0.0088 0.0046

Venus -111712-07-04 09:21 J -39081200.14 -39081200.11 -39081200.03 0.0088 0.0086

Venus -111711-02-14 21:21 J -39080974.69 -39080974.61 -39080974.50 0.0088 0.0079

Venus -111711-09-28 09:07 J -39080749.22 -39080749.12 -39080748.99 0.0088 0.0074

Venus -111710-05-11 20:53 J -39080523.76 -39080523.63 -39080523.49 0.0088 0.0068

Venus -111710-12-23 08:09 J -39080298.29 -39080298.16 -39080297.99 0.0088 0.0062

Venus -111709-08-04 19:41 J -39080072.82 -39080072.68 -39080072.49 0.0088 0.0057

Venus -111708-03-18 07:26 J -39079847.34 -39079847.19 -39079846.99 0.0088 0.0051

Venus -111708-10-29 19:12 J -39079621.87 -39079621.70 -39079621.50 0.0088 0.0044

Venus -111707-06-12 06:43 J -39079396.40 -39079396.22 -39079396.01 0.0088 0.0039

Venus -111706-01-23 18:14 J -39079170.92 -39079170.74 -39079170.53 0.0088 0.0033

Venus -111706-09-06 06:00 J -39078945.45 -39078945.25 -39078945.04 0.0088 0.0026

Venus -111705-04-18 17:31 J -39078719.97 -39078719.77 -39078719.55 0.0088 0.0021

Venus -111705-11-30 05:17 J -39078494.49 -39078494.28 -39078494.07 0.0088 0.0014

Venus -111704-07-13 16:48 J -39078269.01 -39078268.80 -39078268.59 0.0088 0.0008

Venus -111703-02-24 04:19 J -39078043.53 -39078043.32 -39078043.10 0.0088 0.0003

Venus -111703-10-07 16:05 J -39077818.05 -39077817.83 -39077817.62 0.0088 0.0004

Venus -111702-05-21 03:36 J -39077592.56 -39077592.35 -39077592.14 0.0088 0.0010

Venus -111701-01-01 15:07 J -39077367.08 -39077366.87 -39077366.66 0.0088 0.0016

Venus -111701-08-14 02:24 J -39077141.59 -39077141.40 -39077141.18 0.0088 0.0023

Venus	-111700-03-27 14:09 J	-39076916.10	-39076915.91	-39076915.70	0.0088	0.0028
Venus	-111700-11-08 01:26 J	-39076690.62	-39076690.44	-39076690.23	0.0088	0.0035
Venus	-111699-06-21 12:57 J	-39076465.13	-39076464.96	-39076464.75	0.0088	0.0041
Venus	-111698-02-02 00:29 J	-39076239.65	-39076239.48	-39076239.28	0.0088	0.0046
Venus	-111698-09-15 12:14 J	-39076014.16	-39076013.99	-39076013.82	0.0088	0.0052
Venus	-111697-04-27 23:45 J	-39075788.66	-39075788.51	-39075788.34	0.0088	0.0058
Venus	-111697-12-09 11:02 J	-39075563.17	-39075563.04	-39075562.88	0.0088	0.0064
Venus	-111696-07-22 22:19 J	-39075337.68	-39075337.57	-39075337.42	0.0088	0.0070
Venus	-111695-03-05 09:36 J	-39075112.18	-39075112.10	-39075111.96	0.0088	0.0076
Earth	-111695-07-14 13:26 J	-39074981.01	-39074980.94	-39074980.86	0.0088	0.0084
Moon	-111695-07-14 16:05 J	-39074980.92	-39074980.83	-39074980.72	0.0088	0.0081 *
Venus	-111695-10-16 21:36 J	-39074886.68	-39074886.60	-39074886.51	0.0088	0.0081
Venus	-111694-05-30 08:53 J	-39074661.15	-39074661.13	-39074661.07	0.0088	0.0087
Moon	-111694-07-16 18:29 J	-39074613.90	-39074613.73	-39074613.54	0.0088	0.0058
Earth	-111694-07-16 20:09 J	-39074613.84	-39074613.66	-39074613.45	0.0088	0.0055 *
Earth	-111693-07-18 03:21 J	-39074246.59	-39074246.36	-39074246.11	0.0088	0.0025
Moon	-111693-07-18 03:36 J	-39074246.59	-39074246.35	-39074246.09	0.0088	0.0023 *
Earth	-111692-07-20 10:48 J	-39073879.30	-39073879.05	-39073878.80	0.0088	0.0005
Moon	-111692-07-20 11:45 J	-39073879.25	-39073879.01	-39073878.77	0.0088	0.0003 *
Moon	-111691-07-22 15:36 J	-39073512.06	-39073511.85	-39073511.60	0.0088	0.0038
Earth	-111691-07-22 17:45 J	-39073511.97	-39073511.76	-39073511.52	0.0088	0.0035 *
Earth	-111690-07-25 00:57 J	-39073144.61	-39073144.46	-39073144.27	0.0088	0.0065
Moon	-111690-07-25 04:33 J	-39073144.48	-39073144.31	-39073144.13	0.0088	0.0062 *
Mars	-111680-05-15 18:29 J	-39069561.91	-39069561.73	-39069561.52	0.0089	0.0072
Mars	-111678-04-11 13:55 J	-39068866.16	-39068865.92	-39068865.62	0.0089	0.0052
Mars	-111676-03-07 08:53 J	-39068170.43	-39068170.13	-39068169.80	0.0089	0.0031
Mars	-111674-02-01 02:38 J	-39067474.71	-39067474.39	-39067474.05	0.0089	0.0010
Mars	-111673-12-27 18:29 J	-39066779.04	-39066778.73	-39066778.39	0.0089	0.0012
Mars	-111671-11-23 08:38 J	-39066083.43	-39066083.14	-39066082.82	0.0089	0.0032
Mars	-111669-10-18 21:36 J	-39065387.84	-39065387.60	-39065387.32	0.0089	0.0052

Mars -111667-09-14 09:21 J -39064692.28 -39064692.11 -39064691.90 0.0089 0.0072
 Mercury -111660-02-08 12:43 J -39062352.99 -39062352.97 -39062352.93 0.0089 0.0087
 Mercury -111660-05-07 15:21 J -39062264.91 -39062264.86 -39062264.79 0.0089 0.0082
 Mercury -111660-08-03 18:00 J -39062176.82 -39062176.75 -39062176.66 0.0089 0.0077
 Mercury -111660-10-30 20:38 J -39062088.73 -39062088.64 -39062088.53 0.0089 0.0072
 Mercury -111659-01-26 23:17 J -39062000.63 -39062000.53 -39062000.41 0.0089 0.0067
 Mercury -111659-04-25 01:55 J -39061912.53 -39061912.42 -39061912.29 0.0089 0.0062
 Mercury -111659-07-22 04:33 J -39061824.43 -39061824.31 -39061824.17 0.0089 0.0057
 Mercury -111659-10-18 07:26 J -39061736.32 -39061736.19 -39061736.05 0.0089 0.0052
 Mercury -111658-01-14 10:05 J -39061648.22 -39061648.08 -39061647.93 0.0089 0.0047
 Mercury -111658-04-12 12:43 J -39061560.11 -39061559.97 -39061559.81 0.0089 0.0042
 Mercury -111658-07-09 15:36 J -39061472.00 -39061471.85 -39061471.69 0.0089 0.0037
 Mercury -111658-10-05 18:29 J -39061383.89 -39061383.73 -39061383.57 0.0089 0.0031
 Mercury -111657-01-01 21:07 J -39061295.78 -39061295.62 -39061295.45 0.0089 0.0026
 Mercury -111657-03-30 00:00 J -39061207.67 -39061207.50 -39061207.33 0.0089 0.0021
 Mercury -111657-06-26 02:38 J -39061119.55 -39061119.39 -39061119.21 0.0089 0.0016
 Mercury -111657-09-22 05:31 J -39061031.44 -39061031.27 -39061031.09 0.0089 0.0011
 Mercury -111657-12-19 08:24 J -39060943.32 -39060943.15 -39060942.97 0.0089 0.0005
 Mercury -111656-03-17 11:17 J -39060855.21 -39060855.03 -39060854.86 0.0089 0.0000
 Mercury -111656-06-13 14:09 J -39060767.09 -39060766.91 -39060766.74 0.0089 0.0005
 Mercury -111656-09-09 16:48 J -39060678.97 -39060678.80 -39060678.62 0.0089 0.0011
 Mercury -111656-12-06 19:41 J -39060590.85 -39060590.68 -39060590.50 0.0089 0.0016
 Mercury -111655-03-04 22:33 J -39060502.73 -39060502.56 -39060502.38 0.0089 0.0022
 Mercury -111655-06-01 01:26 J -39060414.60 -39060414.44 -39060414.27 0.0089 0.0027
 Mercury -111655-08-28 04:19 J -39060326.48 -39060326.32 -39060326.15 0.0089 0.0032
 Mercury -111655-11-24 07:12 J -39060238.35 -39060238.20 -39060238.03 0.0089 0.0038
 Mercury -111654-02-20 10:05 J -39060150.22 -39060150.08 -39060149.92 0.0089 0.0043
 Mercury -111654-05-19 12:57 J -39060062.10 -39060061.96 -39060061.80 0.0089 0.0049
 Mercury -111654-08-15 15:50 J -39059973.97 -39059973.84 -39059973.68 0.0089 0.0055
 Mercury -111654-11-11 19:12 J -39059885.83 -39059885.70 -39059885.57 0.0089 0.0059

Mercury -111653-02-07 21:50 J -39059797.70 -39059797.59 -39059797.46 0.0089 0.0065

Mercury -111653-05-06 01:12 J -39059709.56 -39059709.45 -39059709.34 0.0089 0.0071

Mercury -111653-08-02 03:50 J -39059621.42 -39059621.34 -39059621.24 0.0089 0.0076

Mercury -111653-10-29 06:43 J -39059533.27 -39059533.22 -39059533.13 0.0089 0.0082

Mercury -111652-01-25 09:50 J -39059445.11 -39059445.09 -39059445.04 0.0089 0.0087

Venus -111630-08-17 19:41 J -39051205.68 -39051205.68 -39051205.68 0.0089 0.0089

Venus -111629-03-30 09:21 J -39050980.16 -39050980.11 -39050980.00 0.0089 0.0083

Venus -111629-11-11 00:14 J -39050754.60 -39050754.49 -39050754.37 0.0089 0.0077

Venus -111628-06-24 14:24 J -39050529.02 -39050528.90 -39050528.75 0.0089 0.0070

Venus -111627-02-05 04:48 J -39050303.44 -39050303.30 -39050303.13 0.0089 0.0064

Venus -111627-09-18 19:41 J -39050077.84 -39050077.68 -39050077.50 0.0089 0.0057

Venus -111626-05-02 10:05 J -39049852.25 -39049852.08 -39049851.88 0.0089 0.0051

Venus -111626-12-14 00:43 J -39049626.66 -39049626.47 -39049626.27 0.0089 0.0044

Venus -111625-07-26 14:53 J -39049401.07 -39049400.88 -39049400.66 0.0089 0.0039

Venus -111624-03-09 05:45 J -39049175.47 -39049175.26 -39049175.04 0.0089 0.0031

Venus -111624-10-20 20:24 J -39048949.86 -39048949.65 -39048949.42 0.0089 0.0025

Venus -111623-06-03 11:02 J -39048724.26 -39048724.04 -39048723.81 0.0089 0.0018

Venus -111622-01-15 01:26 J -39048498.65 -39048498.44 -39048498.20 0.0089 0.0012

Venus -111622-08-28 16:19 J -39048273.05 -39048272.82 -39048272.59 0.0089 0.0005

Venus -111621-04-10 06:57 J -39048047.44 -39048047.21 -39048046.99 0.0089 0.0002

Venus -111621-11-21 21:21 J -39047821.83 -39047821.61 -39047821.38 0.0089 0.0008

Venus -111620-07-05 11:45 J -39047596.22 -39047596.01 -39047595.77 0.0089 0.0015

Venus -111619-02-16 02:38 J -39047370.61 -39047370.39 -39047370.17 0.0089 0.0021

Venus -111619-09-29 17:02 J -39047145.00 -39047144.79 -39047144.56 0.0089 0.0028

Venus -111618-05-13 07:26 J -39046919.38 -39046919.19 -39046918.96 0.0089 0.0035

Venus -111618-12-24 22:05 J -39046693.77 -39046693.58 -39046693.37 0.0089 0.0041

Venus -111617-08-06 12:29 J -39046468.15 -39046467.98 -39046467.77 0.0089 0.0048

Venus -111616-03-20 03:21 J -39046242.53 -39046242.36 -39046242.17 0.0089 0.0054

Venus -111616-10-31 17:45 J -39046016.90 -39046016.76 -39046016.57 0.0089 0.0061

Venus -111615-06-14 08:38 J -39045791.27 -39045791.14 -39045790.98 0.0089 0.0067

Venus -111614-01-25 23:02 J -39045565.64 -39045565.54 -39045565.39 0.0089 0.0074
 Venus -111614-09-08 13:41 J -39045340.00 -39045339.93 -39045339.81 0.0089 0.0080
 Venus -111613-04-21 04:33 J -39045114.35 -39045114.31 -39045114.24 0.0089 0.0086
 Moon -111612-01-17 10:05 J -39044843.24 -39044843.08 -39044842.89 0.0089 0.0066
 Earth -111612-01-17 13:12 J -39044843.09 -39044842.95 -39044842.75 0.0089 0.0069 *
 Saturn -111612-02-11 01:55 J -39044818.94 -39044818.42 -39044817.80 0.0089 0.0056
 Earth -111611-01-20 06:00 J -39044475.48 -39044475.25 -39044474.99 0.0089 0.0036
 Moon -111611-01-20 08:53 J -39044475.36 -39044475.13 -39044474.87 0.0089 0.0039 *
 Moon -111610-01-22 20:38 J -39044107.90 -39044107.64 -39044107.38 0.0089 0.0001
 Earth -111610-01-22 23:02 J -39044107.81 -39044107.54 -39044107.27 0.0089 0.0003 *
 Earth -111609-01-25 15:07 J -39043740.11 -39043739.87 -39043739.61 0.0089 0.0030
 Moon -111609-01-25 15:50 J -39043740.09 -39043739.84 -39043739.56 0.0089 0.0027 *
 Earth -111608-01-27 06:57 J -39043372.37 -39043372.21 -39043371.99 0.0089 0.0063
 Moon -111608-01-27 07:12 J -39043372.35 -39043372.20 -39043372.01 0.0089 0.0066 *
 Mars -111600-03-31 23:17 J -39040386.63 -39040386.53 -39040386.39 0.0089 0.0081
 Mars -111598-02-24 00:57 J -39039692.65 -39039692.46 -39039692.23 0.0089 0.0063
 Mars -111596-01-18 01:41 J -39038998.67 -39038998.43 -39038998.15 0.0089 0.0045
 Mars -111595-12-13 04:05 J -39038304.61 -39038304.33 -39038304.04 0.0089 0.0026
 Mars -111593-11-06 07:12 J -39037610.50 -39037610.20 -39037609.90 0.0089 0.0007
 Mars -111591-10-01 10:05 J -39036916.37 -39036916.08 -39036915.78 0.0089 0.0012
 Mars -111589-08-25 14:24 J -39036222.18 -39036221.90 -39036221.61 0.0089 0.0031
 Mars -111587-07-20 20:24 J -39035527.89 -39035527.65 -39035527.39 0.0088 0.0050
 Mars -111585-06-14 03:21 J -39034833.54 -39034833.36 -39034833.16 0.0088 0.0069
 Mars -111583-05-09 11:17 J -39034139.05 -39034139.03 -39034138.97 0.0088 0.0088
 Mercury -111579-06-02 20:53 J -39032653.64 -39032653.63 -39032653.59 0.0088 0.0088
 Mercury -111579-08-29 23:02 J -39032565.59 -39032565.54 -39032565.49 0.0088 0.0083
 Mercury -111579-11-26 00:29 J -39032477.53 -39032477.48 -39032477.40 0.0088 0.0079
 Mercury -111578-02-22 02:38 J -39032389.47 -39032389.39 -39032389.31 0.0088 0.0074
 Mercury -111578-05-21 04:19 J -39032301.40 -39032301.32 -39032301.22 0.0088 0.0069
 Mercury -111578-08-17 06:14 J -39032213.34 -39032213.24 -39032213.14 0.0088 0.0065

Mercury -111578-11-13 07:55 J -39032125.27 -39032125.17 -39032125.06 0.0088 0.0060

Mercury -111577-02-09 09:50 J -39032037.20 -39032037.09 -39032036.97 0.0088 0.0056

Mercury -111577-05-07 11:31 J -39031949.13 -39031949.02 -39031948.89 0.0088 0.0052

Mercury -111577-08-03 13:12 J -39031861.06 -39031860.95 -39031860.82 0.0088 0.0047

Mercury -111577-10-30 15:07 J -39031772.99 -39031772.87 -39031772.74 0.0088 0.0043

Mercury -111576-01-26 16:48 J -39031684.93 -39031684.80 -39031684.66 0.0088 0.0038

Mercury -111576-04-24 18:43 J -39031596.86 -39031596.72 -39031596.59 0.0088 0.0034

Mercury -111576-07-21 20:24 J -39031508.79 -39031508.65 -39031508.51 0.0088 0.0029

Mercury -111576-10-17 22:05 J -39031420.72 -39031420.58 -39031420.44 0.0088 0.0025

Mercury -111575-01-14 00:00 J -39031332.65 -39031332.50 -39031332.36 0.0088 0.0021

Mercury -111575-04-12 01:26 J -39031244.58 -39031244.44 -39031244.29 0.0088 0.0017

Mercury -111575-07-09 03:21 J -39031156.50 -39031156.36 -39031156.22 0.0088 0.0012

Mercury -111575-10-05 05:02 J -39031068.43 -39031068.29 -39031068.15 0.0088 0.0008

Mercury -111574-01-01 06:43 J -39030980.36 -39030980.22 -39030980.07 0.0088 0.0003

Mercury -111574-03-30 08:24 J -39030892.29 -39030892.15 -39030892.00 0.0088 0.0001

Mercury -111574-06-26 10:05 J -39030804.22 -39030804.08 -39030803.93 0.0088 0.0006

Mercury -111574-09-22 11:45 J -39030716.15 -39030716.01 -39030715.86 0.0088 0.0010

Mercury -111574-12-19 13:26 J -39030628.08 -39030627.94 -39030627.80 0.0088 0.0014

Mercury -111573-03-16 15:07 J -39030540.01 -39030539.87 -39030539.73 0.0088 0.0018

Mercury -111573-06-12 16:48 J -39030451.94 -39030451.80 -39030451.66 0.0088 0.0023

Mercury -111573-09-08 18:29 J -39030363.87 -39030363.73 -39030363.59 0.0088 0.0027

Mercury -111573-12-05 19:55 J -39030275.80 -39030275.67 -39030275.53 0.0088 0.0031

Mercury -111572-03-03 21:36 J -39030187.72 -39030187.60 -39030187.46 0.0088 0.0035

Mercury -111572-05-30 23:17 J -39030099.65 -39030099.53 -39030099.40 0.0088 0.0039

Mercury -111572-08-27 00:57 J -39030011.58 -39030011.46 -39030011.33 0.0088 0.0044

Mercury -111572-11-23 02:38 J -39029923.51 -39029923.39 -39029923.27 0.0088 0.0048

Mercury -111571-02-19 04:05 J -39029835.44 -39029835.33 -39029835.21 0.0088 0.0052

Mercury -111571-05-18 05:31 J -39029747.36 -39029747.27 -39029747.15 0.0088 0.0057

Mercury -111571-08-14 07:12 J -39029659.29 -39029659.20 -39029659.09 0.0088 0.0060

Mercury -111571-11-10 08:53 J -39029571.22 -39029571.13 -39029571.03 0.0088 0.0064

Mercury -111570-02-06 10:19 J -39029483.15 -39029483.07 -39029482.97 0.0088 0.0069

Mercury -111570-05-05 12:00 J -39029395.07 -39029395.00 -39029394.91 0.0088 0.0072

Mercury -111570-08-01 13:26 J -39029306.99 -39029306.94 -39029306.86 0.0088 0.0077

Mercury -111570-10-28 15:07 J -39029218.92 -39029218.87 -39029218.81 0.0088 0.0081

Mercury -111569-01-24 16:33 J -39029130.83 -39029130.81 -39029130.76 0.0088 0.0085

Venus -111548-10-05 21:36 J -39021205.64 -39021205.60 -39021205.51 0.0088 0.0085

Venus -111547-05-19 09:36 J -39020980.18 -39020980.10 -39020979.99 0.0088 0.0079

Venus -111547-12-30 21:21 J -39020754.72 -39020754.61 -39020754.48 0.0088 0.0073

Venus -111546-08-13 09:07 J -39020529.25 -39020529.12 -39020528.97 0.0088 0.0067

Venus -111545-03-25 21:07 J -39020303.78 -39020303.62 -39020303.47 0.0088 0.0061

Venus -111545-11-06 08:09 J -39020078.30 -39020078.16 -39020077.97 0.0088 0.0056

Venus -111544-06-19 19:55 J -39019852.83 -39019852.67 -39019852.48 0.0088 0.0049

Venus -111543-01-31 07:26 J -39019627.36 -39019627.19 -39019626.99 0.0088 0.0044

Venus -111543-09-13 19:12 J -39019401.88 -39019401.70 -39019401.50 0.0088 0.0037

Venus -111542-04-27 06:57 J -39019176.40 -39019176.21 -39019176.00 0.0088 0.0031

Venus -111542-12-08 18:29 J -39018950.93 -39018950.73 -39018950.52 0.0088 0.0025

Venus -111541-07-21 06:00 J -39018725.45 -39018725.25 -39018725.03 0.0088 0.0019

Venus -111540-03-03 17:45 J -39018499.97 -39018499.76 -39018499.55 0.0088 0.0013

Venus -111540-10-15 05:17 J -39018274.49 -39018274.28 -39018274.06 0.0088 0.0007

Venus -111539-05-28 17:02 J -39018049.01 -39018048.79 -39018048.58 0.0088 0.0001

Venus -111538-01-09 04:33 J -39017823.52 -39017823.31 -39017823.10 0.0088 0.0005

Venus -111538-08-22 15:50 J -39017598.04 -39017597.84 -39017597.62 0.0088 0.0012

Venus -111537-04-04 03:36 J -39017372.55 -39017372.35 -39017372.14 0.0088 0.0017

Venus -111537-11-15 15:07 J -39017147.07 -39017146.87 -39017146.66 0.0088 0.0023

Venus -111536-06-29 02:38 J -39016921.58 -39016921.39 -39016921.18 0.0088 0.0029

Venus -111535-02-09 14:09 J -39016696.10 -39016695.91 -39016695.71 0.0088 0.0035

Venus -111535-09-23 01:41 J -39016470.61 -39016470.43 -39016470.23 0.0088 0.0041

Venus -111534-05-06 13:12 J -39016245.11 -39016244.95 -39016244.76 0.0088 0.0048

Venus -111534-12-18 00:43 J -39016019.62 -39016019.47 -39016019.29 0.0088 0.0053

Venus -111533-07-30 12:00 J -39015794.13 -39015794.00 -39015793.82 0.0088 0.0060

Venus	-111532-03-12 23:31 J	-39015568.64	-39015568.52	-39015568.35	0.0088	0.0066
Venus	-111532-10-24 11:17 J	-39015343.14	-39015343.03	-39015342.89	0.0088	0.0071
Venus	-111531-06-06 22:48 J	-39015117.64	-39015117.55	-39015117.43	0.0088	0.0077
Venus	-111530-01-18 10:05 J	-39014892.13	-39014892.08	-39014891.98	0.0088	0.0083
Moon	-111530-07-16 09:50 J	-39014713.23	-39014713.09	-39014712.93	0.0088	0.0071
Earth	-111530-07-16 11:02 J	-39014713.19	-39014713.04	-39014712.87	0.0088	0.0067 *
Venus	-111530-08-31 22:05 J	-39014666.60	-39014666.58	-39014666.56	0.0088	0.0088
Earth	-111529-07-17 17:45 J	-39014345.97	-39014345.76	-39014345.52	0.0088	0.0038
Moon	-111529-07-17 19:55 J	-39014345.88	-39014345.67	-39014345.44	0.0088	0.0034 *
Moon	-111528-07-19 21:50 J	-39013978.83	-39013978.59	-39013978.34	0.0088	0.0013
Earth	-111528-07-20 01:12 J	-39013978.69	-39013978.45	-39013978.20	0.0088	0.0008 *
Earth	-111527-07-22 08:09 J	-39013611.39	-39013611.16	-39013610.91	0.0088	0.0022
Moon	-111527-07-22 11:31 J	-39013611.25	-39013611.02	-39013610.78	0.0088	0.0026 *
Moon	-111526-07-24 12:00 J	-39013244.20	-39013244.00	-39013243.79	0.0088	0.0047
Earth	-111526-07-24 15:07 J	-39013244.05	-39013243.87	-39013243.65	0.0088	0.0052 *
Earth	-111525-07-25 22:33 J	-39012876.64	-39012876.56	-39012876.45	0.0089	0.0081
Moon	-111525-07-26 00:43 J	-39012876.51	-39012876.47	-39012876.38	0.0089	0.0086 *
Mars	-111517-12-27 15:21 J	-39009799.99	-39009799.86	-39009799.71	0.0089	0.0080
Mars	-111515-11-23 12:00 J	-39009104.25	-39009104.00	-39009103.75	0.0089	0.0059
Mars	-111513-10-19 07:12 J	-39008408.49	-39008408.20	-39008407.89	0.0089	0.0038
Mars	-111511-09-15 01:26 J	-39007712.75	-39007712.44	-39007712.10	0.0089	0.0017
Mars	-111509-08-10 19:12 J	-39007017.03	-39007016.70	-39007016.37	0.0089	0.0005
Mars	-111507-07-07 11:02 J	-39006321.34	-39006321.04	-39006320.71	0.0089	0.0027
Mars	-111505-06-02 01:26 J	-39005625.69	-39005625.44	-39005625.14	0.0089	0.0048
Mars	-111503-04-28 14:38 J	-39004930.08	-39004929.89	-39004929.67	0.0089	0.0068
Mars	-111501-03-24 02:24 J	-39004234.42	-39004234.40	-39004234.34	0.0089	0.0088
Mercury	-111496-08-09 09:21 J	-39002270.11	-39002270.11	-39002270.09	0.0089	0.0089
Mercury	-111496-11-05 11:45 J	-39002182.05	-39002182.01	-39002181.94	0.0089	0.0084
Mercury	-111495-02-01 14:24 J	-39002093.96	-39002093.90	-39002093.81	0.0089	0.0079
Mercury	-111495-04-30 17:02 J	-39002005.86	-39002005.79	-39002005.68	0.0089	0.0074

Mercury -111495-07-27 19:55 J -39001917.77 -39001917.67 -39001917.56 0.0089 0.0069

Mercury -111495-10-23 22:33 J -39001829.67 -39001829.56 -39001829.43 0.0089 0.0064

Mercury -111494-01-20 01:12 J -39001741.57 -39001741.45 -39001741.31 0.0089 0.0059

Mercury -111494-04-18 03:50 J -39001653.46 -39001653.34 -39001653.19 0.0089 0.0054

Mercury -111494-07-15 06:29 J -39001565.36 -39001565.23 -39001565.07 0.0089 0.0049

Mercury -111494-10-11 09:21 J -39001477.25 -39001477.11 -39001476.95 0.0089 0.0044

Mercury -111493-01-07 12:14 J -39001389.14 -39001388.99 -39001388.83 0.0089 0.0038

Mercury -111493-04-04 14:53 J -39001301.03 -39001300.88 -39001300.71 0.0089 0.0033

Mercury -111493-07-01 17:45 J -39001212.92 -39001212.76 -39001212.59 0.0089 0.0028

Mercury -111493-09-27 20:24 J -39001124.81 -39001124.65 -39001124.48 0.0089 0.0023

Mercury -111493-12-24 23:17 J -39001036.70 -39001036.53 -39001036.36 0.0089 0.0018

Mercury -111492-03-23 02:09 J -39000948.58 -39000948.41 -39000948.24 0.0089 0.0012

Mercury -111492-06-19 04:48 J -39000860.47 -39000860.30 -39000860.12 0.0089 0.0007

Mercury -111492-09-15 07:41 J -39000772.35 -39000772.18 -39000772.00 0.0089 0.0002

Mercury -111492-12-12 10:33 J -39000684.24 -39000684.06 -39000683.89 0.0089 0.0003

Mercury -111491-03-10 13:12 J -39000596.12 -39000595.95 -39000595.77 0.0089 0.0009

Mercury -111491-06-06 16:05 J -39000508.00 -39000507.83 -39000507.65 0.0089 0.0014

Mercury -111491-09-02 18:57 J -39000419.88 -39000419.71 -39000419.54 0.0089 0.0019

Mercury -111491-11-29 21:36 J -39000331.76 -39000331.60 -39000331.42 0.0089 0.0025

Mercury -111490-02-26 00:43 J -39000243.63 -39000243.47 -39000243.30 0.0089 0.0030

Mercury -111490-05-25 03:36 J -39000155.51 -39000155.35 -39000155.19 0.0089 0.0036

Mercury -111490-08-21 06:14 J -39000067.38 -39000067.24 -39000067.07 0.0089 0.0041

Mercury -111490-11-17 09:21 J -38999979.26 -38999979.11 -38999978.95 0.0089 0.0046

Mercury -111489-02-13 12:00 J -38999891.13 -38999891.00 -38999890.84 0.0089 0.0052

Mercury -111489-05-11 15:07 J -38999803.00 -38999802.87 -38999802.73 0.0089 0.0057

Mercury -111489-08-07 18:00 J -38999714.86 -38999714.75 -38999714.61 0.0089 0.0063

Mercury -111489-11-03 21:07 J -38999626.73 -38999626.62 -38999626.50 0.0089 0.0068

Mercury -111488-01-30 23:45 J -38999538.59 -38999538.51 -38999538.39 0.0089 0.0074

Mercury -111488-04-29 03:07 J -38999450.44 -38999450.37 -38999450.29 0.0089 0.0079

Mercury -111488-07-26 05:45 J -38999362.29 -38999362.26 -38999362.19 0.0089 0.0085

Venus	-111466-11-19 05:31 J	-38991211.28	-38991211.27	-38991211.22	0.0089	0.0088
Venus	-111465-07-01 19:41 J	-38990985.74	-38990985.68	-38990985.57	0.0089	0.0082
Venus	-111464-02-12 10:33 J	-38990760.18	-38990760.06	-38990759.94	0.0089	0.0076
Venus	-111464-09-26 00:43 J	-38990534.59	-38990534.47	-38990534.31	0.0089	0.0070
Venus	-111463-05-09 15:07 J	-38990309.01	-38990308.87	-38990308.69	0.0089	0.0063
Venus	-111463-12-21 05:45 J	-38990083.42	-38990083.26	-38990083.07	0.0089	0.0056
Venus	-111462-08-03 19:55 J	-38989857.84	-38989857.67	-38989857.46	0.0089	0.0050
Venus	-111461-03-16 10:48 J	-38989632.24	-38989632.05	-38989631.85	0.0089	0.0043
Venus	-111461-10-28 01:12 J	-38989406.64	-38989406.45	-38989406.23	0.0089	0.0037
Venus	-111460-06-10 15:50 J	-38989181.04	-38989180.84	-38989180.61	0.0089	0.0030
Venus	-111459-01-22 06:29 J	-38988955.44	-38988955.23	-38988955.00	0.0089	0.0024
Venus	-111459-09-04 21:07 J	-38988729.84	-38988729.62	-38988729.39	0.0089	0.0017
Venus	-111458-04-18 11:45 J	-38988504.23	-38988504.01	-38988503.78	0.0089	0.0010
Venus	-111458-11-30 02:24 J	-38988278.62	-38988278.40	-38988278.17	0.0089	0.0004
Venus	-111457-07-12 17:02 J	-38988053.02	-38988052.79	-38988052.56	0.0089	0.0003
Venus	-111456-02-23 07:26 J	-38987827.41	-38987827.19	-38987826.96	0.0089	0.0010
Venus	-111456-10-06 22:19 J	-38987601.79	-38987601.57	-38987601.34	0.0089	0.0016
Venus	-111455-05-20 12:43 J	-38987376.18	-38987375.97	-38987375.74	0.0089	0.0023
Venus	-111454-01-01 03:07 J	-38987150.57	-38987150.37	-38987150.14	0.0089	0.0030
Venus	-111454-08-14 17:45 J	-38986924.96	-38986924.76	-38986924.54	0.0089	0.0036
Venus	-111453-03-27 08:09 J	-38986699.34	-38986699.16	-38986698.94	0.0089	0.0043
Venus	-111453-11-07 23:02 J	-38986473.72	-38986473.54	-38986473.34	0.0089	0.0049
Venus	-111452-06-21 13:26 J	-38986248.10	-38986247.94	-38986247.75	0.0089	0.0056
Venus	-111451-02-02 04:05 J	-38986022.48	-38986022.33	-38986022.15	0.0089	0.0062
Venus	-111451-09-15 18:29 J	-38985796.85	-38985796.73	-38985796.57	0.0089	0.0069
Venus	-111450-04-29 09:07 J	-38985571.22	-38985571.12	-38985570.98	0.0089	0.0075
Venus	-111450-12-11 00:14 J	-38985345.58	-38985345.49	-38985345.40	0.0089	0.0081
Venus	-111449-07-23 14:09 J	-38985119.92	-38985119.91	-38985119.85	0.0089	0.0088
Earth	-111448-01-16 18:57 J	-38984942.78	-38984942.71	-38984942.59	0.0089	0.0083
Moon	-111448-01-16 20:53 J	-38984942.75	-38984942.63	-38984942.49	0.0089	0.0078 *

Earth -111447-01-19 11:45 J -38984575.21 -38984575.01 -38984574.77 0.0089 0.0050
 Moon -111447-01-19 12:00 J -38984575.18 -38984575.00 -38984574.78 0.0089 0.0055 *
 Moon -111446-01-22 03:50 J -38984207.62 -38984207.34 -38984207.07 0.0089 0.0013
 Earth -111446-01-22 04:48 J -38984207.56 -38984207.30 -38984207.03 0.0089 0.0017 *
 Earth -111445-01-24 21:07 J -38983839.87 -38983839.62 -38983839.34 0.0089 0.0016
 Moon -111445-01-24 23:17 J -38983839.78 -38983839.53 -38983839.27 0.0089 0.0012 *
 Moon -111444-01-26 09:50 J -38983472.28 -38983472.09 -38983471.84 0.0089 0.0053
 Earth -111444-01-26 13:41 J -38983472.15 -38983471.93 -38983471.70 0.0089 0.0048 *
 Earth -111443-01-29 05:31 J -38983104.36 -38983104.27 -38983104.14 0.0089 0.0081
 Moon -111443-01-29 08:38 J -38983104.24 -38983104.14 -38983103.99 0.0089 0.0078 *
 Mars -111437-11-14 09:21 J -38980623.14 -38980623.11 -38980623.08 0.0089 0.0088
 Mars -111435-10-09 08:53 J -38979929.29 -38979929.13 -38979928.93 0.0089 0.0070
 Mars -111433-09-02 10:33 J -38979235.30 -38979235.06 -38979234.81 0.0089 0.0051
 Mars -111431-07-28 11:45 J -38978541.29 -38978541.01 -38978540.73 0.0089 0.0032
 Mars -111429-06-21 13:12 J -38977847.24 -38977846.95 -38977846.64 0.0089 0.0013
 Mars -111427-05-16 17:02 J -38977153.09 -38977152.79 -38977152.49 0.0089 0.0007
 Mars -111425-04-09 20:24 J -38976458.92 -38976458.65 -38976458.34 0.0089 0.0027
 Mars -111423-03-05 01:12 J -38975764.69 -38975764.45 -38975764.17 0.0089 0.0046
 Mars -111421-01-28 06:57 J -38975070.38 -38975070.21 -38975069.97 0.0088 0.0066
 Mars -111420-12-22 14:38 J -38974375.95 -38974375.89 -38974375.77 0.0088 0.0085
 Mercury -111414-02-27 20:38 J -38972482.67 -38972482.64 -38972482.58 0.0088 0.0085
 Mercury -111414-05-26 22:48 J -38972394.61 -38972394.55 -38972394.48 0.0088 0.0080
 Mercury -111414-08-23 00:29 J -38972306.55 -38972306.48 -38972306.39 0.0088 0.0075
 Mercury -111414-11-19 02:24 J -38972218.48 -38972218.40 -38972218.31 0.0088 0.0071
 Mercury -111413-02-15 04:05 J -38972130.42 -38972130.33 -38972130.22 0.0088 0.0066
 Mercury -111413-05-13 06:00 J -38972042.35 -38972042.25 -38972042.14 0.0088 0.0062
 Mercury -111413-08-09 07:41 J -38971954.28 -38971954.18 -38971954.06 0.0088 0.0058
 Mercury -111413-11-05 09:21 J -38971866.21 -38971866.11 -38971865.98 0.0088 0.0054
 Mercury -111412-02-01 11:17 J -38971778.14 -38971778.03 -38971777.90 0.0088 0.0049
 Mercury -111412-04-30 12:57 J -38971690.08 -38971689.96 -38971689.82 0.0088 0.0045

Mercury -111412-07-27 14:53 J -38971602.01 -38971601.88 -38971601.74 0.0088 0.0040

Mercury -111412-10-23 16:33 J -38971513.94 -38971513.81 -38971513.67 0.0088 0.0036

Mercury -111411-01-19 18:29 J -38971425.87 -38971425.73 -38971425.59 0.0088 0.0031

Mercury -111411-04-17 20:09 J -38971337.80 -38971337.66 -38971337.52 0.0088 0.0027

Mercury -111411-07-14 21:50 J -38971249.73 -38971249.59 -38971249.44 0.0088 0.0022

Mercury -111411-10-10 23:45 J -38971161.66 -38971161.51 -38971161.37 0.0088 0.0018

Mercury -111410-01-07 01:26 J -38971073.58 -38971073.44 -38971073.30 0.0088 0.0013

Mercury -111410-04-05 03:07 J -38970985.51 -38970985.37 -38970985.22 0.0088 0.0009

Mercury -111410-07-02 04:48 J -38970897.44 -38970897.30 -38970897.15 0.0088 0.0005

Mercury -111410-09-28 06:29 J -38970809.37 -38970809.23 -38970809.08 0.0088 0.0001

Mercury -111410-12-25 08:09 J -38970721.30 -38970721.16 -38970721.01 0.0088 0.0004

Mercury -111409-03-22 09:50 J -38970633.23 -38970633.09 -38970632.94 0.0088 0.0008

Mercury -111409-06-18 11:31 J -38970545.16 -38970545.02 -38970544.87 0.0088 0.0013

Mercury -111409-09-14 13:12 J -38970457.09 -38970456.95 -38970456.81 0.0088 0.0017

Mercury -111409-12-11 14:53 J -38970369.02 -38970368.88 -38970368.74 0.0088 0.0021

Mercury -111408-03-09 16:33 J -38970280.95 -38970280.81 -38970280.67 0.0088 0.0025

Mercury -111408-06-05 18:14 J -38970192.87 -38970192.74 -38970192.60 0.0088 0.0030

Mercury -111408-09-01 19:55 J -38970104.80 -38970104.67 -38970104.54 0.0088 0.0034

Mercury -111408-11-28 21:21 J -38970016.73 -38970016.61 -38970016.47 0.0088 0.0038

Mercury -111407-02-24 23:02 J -38969928.66 -38969928.54 -38969928.41 0.0088 0.0042

Mercury -111407-05-24 00:43 J -38969840.59 -38969840.47 -38969840.34 0.0088 0.0046

Mercury -111407-08-20 02:24 J -38969752.51 -38969752.40 -38969752.28 0.0088 0.0050

Mercury -111407-11-16 04:05 J -38969664.44 -38969664.33 -38969664.22 0.0088 0.0055

Mercury -111406-02-12 05:45 J -38969576.37 -38969576.26 -38969576.16 0.0088 0.0059

Mercury -111406-05-11 06:57 J -38969488.30 -38969488.21 -38969488.10 0.0088 0.0063

Mercury -111406-08-07 08:38 J -38969400.22 -38969400.14 -38969400.04 0.0088 0.0067

Mercury -111406-11-03 10:05 J -38969312.15 -38969312.08 -38969311.98 0.0088 0.0072

Mercury -111405-01-30 11:45 J -38969224.07 -38969224.01 -38969223.93 0.0088 0.0075

Mercury -111405-04-27 13:12 J -38969135.99 -38969135.95 -38969135.87 0.0088 0.0080

Mercury -111405-07-24 14:53 J -38969047.91 -38969047.88 -38969047.82 0.0088 0.0083

Mercury -111405-10-20 16:33 J -38968959.82 -38968959.81 -38968959.78 0.0088 0.0087

Venus -111383-01-07 10:19 J -38961211.12 -38961211.07 -38961210.98 0.0088 0.0084

Venus -111383-08-20 22:19 J -38960985.66 -38960985.57 -38960985.46 0.0088 0.0077

Venus -111382-04-03 10:05 J -38960760.19 -38960760.08 -38960759.94 0.0088 0.0072

Venus -111382-11-14 22:05 J -38960534.72 -38960534.58 -38960534.43 0.0088 0.0066

Venus -111381-06-27 09:36 J -38960309.25 -38960309.10 -38960308.93 0.0088 0.0060

Venus -111380-02-07 21:21 J -38960083.77 -38960083.61 -38960083.44 0.0088 0.0054

Venus -111380-09-21 09:07 J -38959858.30 -38959858.12 -38959857.94 0.0088 0.0048

Venus -111379-05-04 20:53 J -38959632.82 -38959632.63 -38959632.44 0.0088 0.0042

Venus -111379-12-16 08:24 J -38959407.34 -38959407.15 -38959406.95 0.0088 0.0036

Venus -111378-07-29 19:55 J -38959181.87 -38959181.67 -38959181.47 0.0088 0.0030

Venus -111377-03-11 07:41 J -38958956.39 -38958956.18 -38958955.98 0.0088 0.0024

Venus -111377-10-22 19:12 J -38958730.91 -38958730.70 -38958730.49 0.0088 0.0018

Venus -111376-06-05 06:43 J -38958505.43 -38958505.22 -38958505.01 0.0088 0.0012

Venus -111375-01-16 18:14 J -38958279.95 -38958279.74 -38958279.53 0.0088 0.0006

Venus -111375-08-30 05:45 J -38958054.47 -38958054.26 -38958054.05 0.0088 0.0000

Venus -111374-04-12 17:17 J -38957828.99 -38957828.78 -38957828.56 0.0088 0.0007

Venus -111374-11-24 04:48 J -38957603.51 -38957603.30 -38957603.08 0.0088 0.0013

Venus -111373-07-06 16:19 J -38957378.03 -38957377.82 -38957377.61 0.0088 0.0019

Venus -111372-02-17 03:50 J -38957152.54 -38957152.34 -38957152.13 0.0088 0.0025

Venus -111372-09-30 15:21 J -38956927.06 -38956926.86 -38956926.66 0.0088 0.0031

Venus -111371-05-14 03:07 J -38956701.56 -38956701.37 -38956701.18 0.0088 0.0037

Venus -111371-12-25 14:38 J -38956476.08 -38956475.89 -38956475.70 0.0088 0.0043

Venus -111370-08-08 01:55 J -38956250.59 -38956250.42 -38956250.23 0.0088 0.0049

Venus -111369-03-20 13:41 J -38956025.09 -38956024.93 -38956024.76 0.0088 0.0055

Venus -111369-11-01 01:12 J -38955799.60 -38955799.45 -38955799.29 0.0088 0.0061

Venus -111368-06-14 12:43 J -38955574.10 -38955573.97 -38955573.82 0.0088 0.0067

Venus -111367-01-26 00:00 J -38955348.60 -38955348.50 -38955348.36 0.0088 0.0073

Venus -111367-09-08 11:31 J -38955123.10 -38955123.02 -38955122.90 0.0088 0.0078

Venus -111366-04-21 23:31 J -38954897.58 -38954897.52 -38954897.45 0.0088 0.0084

Earth -111366-07-16 01:26 J -38954812.52 -38954812.44 -38954812.31 0.0088 0.0080
 Moon -111366-07-16 05:17 J -38954812.38 -38954812.28 -38954812.18 0.0088 0.0080 *
 Moon -111365-07-17 05:17 J -38954445.46 -38954445.28 -38954445.05 0.0088 0.0051
 Earth -111365-07-17 08:38 J -38954445.32 -38954445.14 -38954444.92 0.0088 0.0050 *
 Earth -111364-07-19 15:50 J -38954078.07 -38954077.84 -38954077.59 0.0088 0.0021
 Moon -111364-07-19 19:41 J -38954077.93 -38954077.68 -38954077.44 0.0088 0.0020 *
 Moon -111363-07-21 20:53 J -38953710.87 -38953710.63 -38953710.39 0.0088 0.0010
 Earth -111363-07-21 23:02 J -38953710.78 -38953710.54 -38953710.29 0.0088 0.0009 *
 Earth -111362-07-24 06:14 J -38953343.46 -38953343.24 -38953343.01 0.0088 0.0039
 Moon -111362-07-24 07:26 J -38953343.40 -38953343.19 -38953342.94 0.0088 0.0039 *
 Earth -111361-07-25 13:12 J -38952976.09 -38952975.95 -38952975.78 0.0088 0.0069
 Moon -111361-07-25 12:57 J -38952976.09 -38952975.96 -38952975.79 0.0088 0.0069 *
 Mars -111353-08-10 14:09 J -38950037.91 -38950037.91 -38950037.88 0.0089 0.0089
 Mars -111351-07-07 10:48 J -38949342.25 -38949342.05 -38949341.82 0.0089 0.0067
 Mars -111349-06-02 06:43 J -38948646.47 -38948646.22 -38948645.90 0.0089 0.0046
 Mars -111347-04-29 02:53 J -38947950.68 -38947950.38 -38947950.04 0.0089 0.0024
 Mars -111345-03-24 21:21 J -38947254.94 -38947254.61 -38947254.28 0.0089 0.0001
 Mars -111343-02-18 14:09 J -38946559.22 -38946558.91 -38946558.57 0.0089 0.0021
 Mars -111341-01-15 05:45 J -38945863.53 -38945863.26 -38945862.95 0.0089 0.0043
 Mars -111340-12-10 19:41 J -38945167.89 -38945167.68 -38945167.43 0.0089 0.0064
 Mars -111338-11-06 07:41 J -38944472.24 -38944472.18 -38944472.06 0.0089 0.0085
 Mercury -111331-05-06 08:24 J -38942099.17 -38942099.15 -38942099.09 0.0089 0.0086
 Mercury -111331-08-02 11:02 J -38942011.09 -38942011.04 -38942010.95 0.0089 0.0081
 Mercury -111331-10-29 13:41 J -38941923.00 -38941922.93 -38941922.82 0.0089 0.0076
 Mercury -111330-01-25 16:19 J -38941834.90 -38941834.82 -38941834.70 0.0089 0.0071
 Mercury -111330-04-23 18:57 J -38941746.80 -38941746.71 -38941746.58 0.0089 0.0066
 Mercury -111330-07-20 21:50 J -38941658.70 -38941658.59 -38941658.45 0.0089 0.0061
 Mercury -111330-10-17 00:29 J -38941570.60 -38941570.48 -38941570.33 0.0089 0.0056
 Mercury -111329-01-13 03:36 J -38941482.49 -38941482.35 -38941482.21 0.0089 0.0050
 Mercury -111329-04-10 06:14 J -38941394.39 -38941394.24 -38941394.09 0.0089 0.0045

Mercury -111329-07-07 08:53 J -38941306.28 -38941306.13 -38941305.98 0.0089 0.0040

Mercury -111329-10-03 11:31 J -38941218.17 -38941218.02 -38941217.86 0.0089 0.0035

Mercury -111329-12-30 14:09 J -38941130.06 -38941129.91 -38941129.74 0.0089 0.0030

Mercury -111328-03-28 17:02 J -38941041.95 -38941041.79 -38941041.62 0.0089 0.0025

Mercury -111328-06-24 19:55 J -38940953.84 -38940953.67 -38940953.50 0.0089 0.0019

Mercury -111328-09-20 22:33 J -38940865.73 -38940865.56 -38940865.38 0.0089 0.0014

Mercury -111328-12-18 01:26 J -38940777.61 -38940777.44 -38940777.27 0.0089 0.0009

Mercury -111327-03-16 04:19 J -38940689.50 -38940689.32 -38940689.15 0.0089 0.0004

Mercury -111327-06-12 06:57 J -38940601.38 -38940601.21 -38940601.03 0.0089 0.0003

Mercury -111327-09-08 09:50 J -38940513.26 -38940513.09 -38940512.91 0.0089 0.0007

Mercury -111327-12-05 12:43 J -38940425.14 -38940424.97 -38940424.80 0.0089 0.0012

Mercury -111326-03-03 15:21 J -38940337.02 -38940336.86 -38940336.68 0.0089 0.0018

Mercury -111326-05-30 18:14 J -38940248.90 -38940248.74 -38940248.56 0.0089 0.0023

Mercury -111326-08-26 21:07 J -38940160.78 -38940160.62 -38940160.45 0.0089 0.0028

Mercury -111326-11-22 23:45 J -38940072.66 -38940072.51 -38940072.33 0.0089 0.0034

Mercury -111325-02-19 02:53 J -38939984.53 -38939984.38 -38939984.22 0.0089 0.0039

Mercury -111325-05-17 06:00 J -38939896.41 -38939896.25 -38939896.10 0.0089 0.0044

Mercury -111325-08-13 08:38 J -38939808.28 -38939808.14 -38939807.99 0.0089 0.0050

Mercury -111325-11-09 11:31 J -38939720.15 -38939720.02 -38939719.87 0.0089 0.0056

Mercury -111324-02-05 14:24 J -38939632.02 -38939631.90 -38939631.76 0.0089 0.0061

Mercury -111324-05-04 17:31 J -38939543.88 -38939543.77 -38939543.65 0.0089 0.0066

Mercury -111324-07-31 20:09 J -38939455.75 -38939455.66 -38939455.54 0.0089 0.0072

Mercury -111324-10-27 23:17 J -38939367.60 -38939367.53 -38939367.43 0.0089 0.0077

Mercury -111323-01-24 02:09 J -38939279.46 -38939279.41 -38939279.33 0.0089 0.0083

Mercury -111323-04-22 05:17 J -38939191.29 -38939191.28 -38939191.25 0.0089 0.0088

Venus -111301-02-20 15:50 J -38931216.86 -38931216.84 -38931216.77 0.0089 0.0088

Venus -111301-10-03 06:14 J -38930991.30 -38930991.24 -38930991.12 0.0089 0.0082

Venus -111300-05-16 21:07 J -38930765.73 -38930765.62 -38930765.49 0.0089 0.0074

Venus -111300-12-28 11:17 J -38930540.16 -38930540.03 -38930539.87 0.0089 0.0068

Venus -111299-08-11 01:26 J -38930314.58 -38930314.44 -38930314.26 0.0089 0.0062

Venus	-111298-03-24 16:05 J	-38930089.00	-38930088.83	-38930088.64	0.0089	0.0055
Venus	-111298-11-05 06:29 J	-38929863.40	-38929863.23	-38929863.02	0.0089	0.0049
Venus	-111297-06-17 21:07 J	-38929637.81	-38929637.62	-38929637.41	0.0089	0.0042
Venus	-111296-01-29 11:45 J	-38929412.22	-38929412.01	-38929411.80	0.0089	0.0036
Venus	-111296-09-12 02:09 J	-38929186.62	-38929186.41	-38929186.19	0.0089	0.0029
Venus	-111295-04-25 16:48 J	-38928961.01	-38928960.80	-38928960.57	0.0089	0.0022
Venus	-111295-12-07 07:12 J	-38928735.41	-38928735.20	-38928734.97	0.0089	0.0016
Venus	-111294-07-20 21:50 J	-38928509.81	-38928509.59	-38928509.36	0.0089	0.0009
Venus	-111293-03-02 12:29 J	-38928284.20	-38928283.98	-38928283.75	0.0089	0.0003
Venus	-111293-10-14 03:21 J	-38928058.59	-38928058.36	-38928058.13	0.0089	0.0004
Venus	-111292-05-27 18:00 J	-38927832.98	-38927832.75	-38927832.52	0.0089	0.0011
Venus	-111291-01-08 08:24 J	-38927607.37	-38927607.15	-38927606.92	0.0089	0.0018
Venus	-111291-08-21 23:02 J	-38927381.75	-38927381.54	-38927381.32	0.0089	0.0024
Venus	-111290-04-04 13:26 J	-38927156.14	-38927155.94	-38927155.71	0.0089	0.0031
Venus	-111290-11-16 04:05 J	-38926930.52	-38926930.33	-38926930.11	0.0089	0.0038
Venus	-111289-06-28 18:57 J	-38926704.90	-38926704.71	-38926704.51	0.0089	0.0044
Venus	-111288-02-09 09:21 J	-38926479.28	-38926479.11	-38926478.91	0.0089	0.0051
Venus	-111288-09-23 00:14 J	-38926253.66	-38926253.49	-38926253.31	0.0089	0.0057
Venus	-111287-05-06 14:24 J	-38926028.03	-38926027.90	-38926027.72	0.0089	0.0064
Venus	-111287-12-18 05:17 J	-38925802.41	-38925802.28	-38925802.13	0.0089	0.0070
Venus	-111286-07-31 19:26 J	-38925576.78	-38925576.69	-38925576.55	0.0089	0.0077
Venus	-111285-03-13 10:19 J	-38925351.14	-38925351.07	-38925350.98	0.0089	0.0083
Moon	-111283-01-18 15:36 J	-38924675.02	-38924674.85	-38924674.64	0.0089	0.0064
Earth	-111283-01-18 18:29 J	-38924674.89	-38924674.73	-38924674.52	0.0089	0.0064 *
Earth	-111282-01-21 11:17 J	-38924307.27	-38924307.03	-38924306.76	0.0089	0.0031
Moon	-111282-01-21 14:53 J	-38924307.11	-38924306.88	-38924306.62	0.0089	0.0031 *
Moon	-111281-01-24 00:29 J	-38923939.75	-38923939.48	-38923939.21	0.0089	0.0003
Earth	-111281-01-24 04:05 J	-38923939.59	-38923939.33	-38923939.06	0.0089	0.0002 *
Earth	-111280-01-25 20:09 J	-38923571.89	-38923571.66	-38923571.39	0.0089	0.0035
Moon	-111280-01-26 00:00 J	-38923571.73	-38923571.50	-38923571.23	0.0089	0.0034 *

Moon -111279-01-28 10:05 J -38923204.24 -38923204.08 -38923203.91 0.0089 0.0068
 Earth -111279-01-28 12:29 J -38923204.12 -38923203.98 -38923203.78 0.0089 0.0068 *
 Mars -111271-05-24 19:26 J -38920165.83 -38920165.69 -38920165.54 0.0089 0.0077
 Mars -111269-04-17 19:12 J -38919471.92 -38919471.70 -38919471.47 0.0089 0.0058
 Mars -111267-03-12 20:38 J -38918777.89 -38918777.64 -38918777.36 0.0089 0.0039
 Mars -111265-02-04 22:48 J -38918083.84 -38918083.55 -38918083.25 0.0089 0.0019
 Mars -111264-12-30 00:29 J -38917389.78 -38917389.48 -38917389.18 0.0089 0.0001
 Mars -111262-11-24 03:36 J -38916695.63 -38916695.35 -38916695.05 0.0089 0.0021
 Mars -111260-10-18 07:41 J -38916001.44 -38916001.18 -38916000.91 0.0089 0.0041
 Mars -111258-09-12 12:00 J -38915307.21 -38915307.00 -38915306.77 0.0089 0.0061
 Mars -111256-08-06 18:00 J -38914612.85 -38914612.75 -38914612.61 0.0088 0.0081
 Mercury -111250-08-28 18:57 J -38912399.74 -38912399.71 -38912399.67 0.0088 0.0085
 Mercury -111250-11-24 21:07 J -38912311.68 -38912311.62 -38912311.57 0.0088 0.0081
 Mercury -111249-02-20 22:33 J -38912223.62 -38912223.56 -38912223.48 0.0088 0.0077
 Mercury -111249-05-19 00:43 J -38912135.56 -38912135.47 -38912135.39 0.0088 0.0072
 Mercury -111249-08-15 02:09 J -38912047.49 -38912047.41 -38912047.30 0.0088 0.0068
 Mercury -111249-11-11 03:50 J -38911959.42 -38911959.34 -38911959.22 0.0088 0.0064
 Mercury -111248-02-07 06:00 J -38911871.36 -38911871.25 -38911871.14 0.0088 0.0059
 Mercury -111248-05-06 07:41 J -38911783.29 -38911783.18 -38911783.06 0.0088 0.0054
 Mercury -111248-08-02 09:36 J -38911695.22 -38911695.10 -38911694.98 0.0088 0.0050
 Mercury -111248-10-29 11:17 J -38911607.15 -38911607.03 -38911606.90 0.0088 0.0045
 Mercury -111247-01-25 13:12 J -38911519.08 -38911518.95 -38911518.82 0.0088 0.0041
 Mercury -111247-04-23 14:53 J -38911431.01 -38911430.88 -38911430.74 0.0088 0.0036
 Mercury -111247-07-20 16:33 J -38911342.94 -38911342.81 -38911342.67 0.0088 0.0032
 Mercury -111247-10-16 18:29 J -38911254.87 -38911254.73 -38911254.59 0.0088 0.0028
 Mercury -111246-01-12 20:09 J -38911166.80 -38911166.66 -38911166.52 0.0088 0.0023
 Mercury -111246-04-10 21:50 J -38911078.73 -38911078.59 -38911078.44 0.0088 0.0019
 Mercury -111246-07-07 23:45 J -38910990.66 -38910990.51 -38910990.37 0.0088 0.0015
 Mercury -111246-10-04 01:26 J -38910902.59 -38910902.44 -38910902.30 0.0088 0.0010
 Mercury -111246-12-31 03:07 J -38910814.52 -38910814.37 -38910814.23 0.0088 0.0006

Mercury -111245-03-28 04:48 J -38910726.44 -38910726.30 -38910726.15 0.0088 0.0002

Mercury -111245-06-24 06:29 J -38910638.37 -38910638.23 -38910638.08 0.0088 0.0003

Mercury -111245-09-20 08:09 J -38910550.30 -38910550.16 -38910550.01 0.0088 0.0007

Mercury -111245-12-17 09:50 J -38910462.23 -38910462.09 -38910461.94 0.0088 0.0011

Mercury -111244-03-15 11:31 J -38910374.16 -38910374.02 -38910373.88 0.0088 0.0016

Mercury -111244-06-11 13:12 J -38910286.09 -38910285.95 -38910285.81 0.0088 0.0020

Mercury -111244-09-07 14:53 J -38910198.02 -38910197.88 -38910197.74 0.0088 0.0024

Mercury -111244-12-04 16:33 J -38910109.95 -38910109.81 -38910109.67 0.0088 0.0028

Mercury -111243-03-02 18:14 J -38910021.87 -38910021.74 -38910021.61 0.0088 0.0033

Mercury -111243-05-29 19:55 J -38909933.80 -38909933.67 -38909933.54 0.0088 0.0037

Mercury -111243-08-25 21:21 J -38909845.73 -38909845.61 -38909845.48 0.0088 0.0041

Mercury -111243-11-21 23:02 J -38909757.66 -38909757.54 -38909757.41 0.0088 0.0045

Mercury -111242-02-18 00:43 J -38909669.58 -38909669.47 -38909669.35 0.0088 0.0049

Mercury -111242-05-17 02:24 J -38909581.51 -38909581.40 -38909581.29 0.0088 0.0053

Mercury -111242-08-13 04:05 J -38909493.44 -38909493.33 -38909493.23 0.0088 0.0058

Mercury -111242-11-09 05:45 J -38909405.36 -38909405.26 -38909405.16 0.0088 0.0062

Mercury -111241-02-05 06:57 J -38909317.29 -38909317.21 -38909317.10 0.0088 0.0066

Mercury -111241-05-03 08:38 J -38909229.22 -38909229.14 -38909229.05 0.0088 0.0070

Mercury -111241-07-30 10:05 J -38909141.14 -38909141.08 -38909140.99 0.0088 0.0075

Mercury -111241-10-26 11:45 J -38909053.06 -38909053.01 -38909052.93 0.0088 0.0078

Mercury -111240-01-22 13:12 J -38908964.98 -38908964.95 -38908964.88 0.0088 0.0083

Mercury -111240-04-20 14:53 J -38908876.89 -38908876.88 -38908876.84 0.0088 0.0086

Venus -111220-08-28 11:45 J -38901442.01 -38901442.01 -38901441.99 0.0088 0.0088

Venus -111219-04-10 23:31 J -38901216.58 -38901216.52 -38901216.43 0.0088 0.0082

Venus -111219-11-22 11:17 J -38900991.12 -38900991.03 -38900990.91 0.0088 0.0077

Venus -111218-07-05 23:02 J -38900765.65 -38900765.54 -38900765.40 0.0088 0.0071

Venus -111217-02-16 10:48 J -38900540.18 -38900540.05 -38900539.89 0.0088 0.0065

Venus -111217-09-28 22:33 J -38900314.71 -38900314.56 -38900314.39 0.0088 0.0059

Venus -111216-05-12 10:33 J -38900089.23 -38900089.06 -38900088.88 0.0088 0.0052

Venus -111216-12-23 22:05 J -38899863.75 -38899863.58 -38899863.39 0.0088 0.0047

Venus	-111215-08-06 09:50 J	-38899638.27	-38899638.09	-38899637.89	0.0088	0.0041
Venus	-111214-03-19 21:36 J	-38899412.79	-38899412.60	-38899412.40	0.0088	0.0034
Venus	-111214-10-31 09:21 J	-38899187.31	-38899187.11	-38899186.90	0.0088	0.0028
Venus	-111213-06-12 20:53 J	-38898961.83	-38898961.63	-38898961.42	0.0088	0.0022
Venus	-111212-01-24 08:24 J	-38898736.35	-38898736.15	-38898735.93	0.0088	0.0016
Venus	-111212-09-06 20:09 J	-38898510.87	-38898510.66	-38898510.45	0.0088	0.0010
Venus	-111211-04-20 07:41 J	-38898285.39	-38898285.18	-38898284.96	0.0088	0.0005
Venus	-111211-12-01 19:26 J	-38898059.91	-38898059.69	-38898059.48	0.0088	0.0003
Venus	-111210-07-15 06:43 J	-38897834.43	-38897834.22	-38897834.00	0.0088	0.0008
Venus	-111209-02-25 18:14 J	-38897608.95	-38897608.74	-38897608.53	0.0088	0.0014
Venus	-111209-10-08 05:45 J	-38897383.46	-38897383.26	-38897383.05	0.0088	0.0020
Venus	-111208-05-21 17:17 J	-38897157.97	-38897157.78	-38897157.57	0.0088	0.0026
Venus	-111207-01-02 04:48 J	-38896932.49	-38896932.30	-38896932.09	0.0088	0.0032
Venus	-111207-08-15 16:05 J	-38896707.01	-38896706.83	-38896706.62	0.0088	0.0039
Venus	-111206-03-29 03:50 J	-38896481.51	-38896481.34	-38896481.15	0.0088	0.0044
Venus	-111206-11-09 15:21 J	-38896256.02	-38896255.86	-38896255.68	0.0088	0.0050
Venus	-111205-06-22 02:53 J	-38896030.53	-38896030.38	-38896030.21	0.0088	0.0056
Venus	-111204-02-02 14:09 J	-38895805.04	-38895804.91	-38895804.74	0.0088	0.0063
Venus	-111204-09-16 01:41 J	-38895579.54	-38895579.43	-38895579.27	0.0088	0.0069
Venus	-111203-04-29 13:12 J	-38895354.04	-38895353.95	-38895353.81	0.0088	0.0075
Venus	-111203-12-11 01:12 J	-38895128.53	-38895128.45	-38895128.35	0.0088	0.0080
Moon	-111202-07-15 13:55 J	-38894911.93	-38894911.92	-38894911.86	0.0088	0.0088
Venus	-111202-07-24 12:29 J	-38894903.01	-38894902.98	-38894902.91	0.0088	0.0086
Earth	-111201-07-17 00:14 J	-38894544.64	-38894544.49	-38894544.29	0.0088	0.0063
Moon	-111201-07-17 02:24 J	-38894544.54	-38894544.40	-38894544.21	0.0088	0.0067 *
Moon	-111200-07-19 06:00 J	-38894177.47	-38894177.25	-38894177.02	0.0088	0.0029
Earth	-111200-07-19 07:26 J	-38894177.41	-38894177.19	-38894176.95	0.0088	0.0033 *
Earth	-111199-07-21 14:38 J	-38893810.14	-38893809.89	-38893809.64	0.0088	0.0003
Moon	-111199-07-21 14:38 J	-38893810.14	-38893809.89	-38893809.63	0.0088	0.0007 *
Earth	-111198-07-23 21:36 J	-38893442.83	-38893442.60	-38893442.36	0.0088	0.0027

Moon -111198-07-23 23:02 J -38893442.76 -38893442.54 -38893442.31 0.0088 0.0031 *
 Moon -111197-07-25 02:09 J -38893075.60 -38893075.41 -38893075.19 0.0089 0.0053
 Earth -111197-07-25 04:33 J -38893075.49 -38893075.31 -38893075.11 0.0089 0.0057 *
 Earth -111196-07-27 11:17 J -38892708.05 -38892708.03 -38892707.95 0.0089 0.0087
 Mars -111187-02-18 10:19 J -38889580.21 -38889580.07 -38889579.87 0.0089 0.0076
 Mars -111185-01-15 07:41 J -38888884.44 -38888884.18 -38888883.90 0.0089 0.0053
 Mars -111184-12-11 03:21 J -38888188.65 -38888188.36 -38888188.03 0.0089 0.0031
 Mars -111182-11-06 23:17 J -38887492.86 -38887492.53 -38887492.19 0.0089 0.0008
 Mars -111180-10-02 17:02 J -38886797.11 -38886796.79 -38886796.45 0.0089 0.0015
 Mars -111178-08-29 09:36 J -38886101.37 -38886101.10 -38886100.78 0.0089 0.0038
 Mars -111176-07-25 01:12 J -38885405.66 -38885405.45 -38885405.17 0.0089 0.0060
 Mars -111174-06-20 16:05 J -38884709.95 -38884709.83 -38884709.69 0.0089 0.0081
 Mercury -111167-11-04 05:31 J -38882016.29 -38882016.27 -38882016.22 0.0089 0.0087
 Mercury -111166-01-31 08:09 J -38881928.21 -38881928.16 -38881928.08 0.0089 0.0082
 Mercury -111166-04-29 10:48 J -38881840.12 -38881840.05 -38881839.95 0.0089 0.0077
 Mercury -111166-07-26 13:26 J -38881752.03 -38881751.94 -38881751.83 0.0089 0.0072
 Mercury -111166-10-22 16:05 J -38881663.93 -38881663.83 -38881663.71 0.0089 0.0067
 Mercury -111165-01-18 18:43 J -38881575.83 -38881575.72 -38881575.59 0.0089 0.0062
 Mercury -111165-04-15 21:21 J -38881487.73 -38881487.61 -38881487.47 0.0089 0.0057
 Mercury -111165-07-13 00:00 J -38881399.62 -38881399.50 -38881399.35 0.0089 0.0052
 Mercury -111165-10-09 02:53 J -38881311.52 -38881311.38 -38881311.23 0.0089 0.0047
 Mercury -111164-01-05 05:31 J -38881223.41 -38881223.27 -38881223.11 0.0089 0.0042
 Mercury -111164-04-03 08:09 J -38881135.30 -38881135.16 -38881134.99 0.0089 0.0037
 Mercury -111164-06-30 11:02 J -38881047.19 -38881047.04 -38881046.87 0.0089 0.0031
 Mercury -111164-09-26 13:55 J -38880959.08 -38880958.92 -38880958.76 0.0089 0.0026
 Mercury -111164-12-23 16:33 J -38880870.97 -38880870.81 -38880870.64 0.0089 0.0021
 Mercury -111163-03-21 19:12 J -38880782.86 -38880782.70 -38880782.52 0.0089 0.0016
 Mercury -111163-06-17 22:05 J -38880694.75 -38880694.58 -38880694.40 0.0089 0.0011
 Mercury -111163-09-14 00:57 J -38880606.63 -38880606.46 -38880606.29 0.0089 0.0005
 Mercury -111163-12-11 03:50 J -38880518.52 -38880518.34 -38880518.17 0.0089 0.0002

Mercury -111162-03-09 06:29 J -38880430.40 -38880430.23 -38880430.05 0.0089 0.0006

Mercury -111162-06-05 09:21 J -38880342.28 -38880342.11 -38880341.94 0.0089 0.0011

Mercury -111162-09-01 12:14 J -38880254.16 -38880253.99 -38880253.82 0.0089 0.0016

Mercury -111162-11-28 15:07 J -38880166.04 -38880165.87 -38880165.70 0.0089 0.0021

Mercury -111161-02-24 17:45 J -38880077.92 -38880077.76 -38880077.59 0.0089 0.0027

Mercury -111161-05-22 20:38 J -38879989.80 -38879989.64 -38879989.47 0.0089 0.0032

Mercury -111161-08-18 23:31 J -38879901.67 -38879901.52 -38879901.36 0.0089 0.0037

Mercury -111161-11-15 02:09 J -38879813.55 -38879813.41 -38879813.24 0.0089 0.0043

Mercury -111160-02-11 05:17 J -38879725.42 -38879725.28 -38879725.13 0.0089 0.0048

Mercury -111160-05-10 07:55 J -38879637.29 -38879637.17 -38879637.01 0.0089 0.0054

Mercury -111160-08-06 11:02 J -38879549.16 -38879549.04 -38879548.90 0.0089 0.0059

Mercury -111160-11-02 14:09 J -38879461.03 -38879460.91 -38879460.79 0.0089 0.0065

Mercury -111159-01-29 16:48 J -38879372.89 -38879372.80 -38879372.68 0.0089 0.0070

Mercury -111159-04-27 19:55 J -38879284.76 -38879284.67 -38879284.57 0.0089 0.0075

Mercury -111159-07-24 22:33 J -38879196.61 -38879196.56 -38879196.47 0.0089 0.0081

Mercury -111159-10-21 01:55 J -38879108.46 -38879108.42 -38879108.38 0.0089 0.0086

Venus -111137-05-24 03:07 J -38871222.40 -38871222.37 -38871222.29 0.0089 0.0086

Venus -111136-01-04 17:45 J -38870996.85 -38870996.76 -38870996.65 0.0089 0.0079

Venus -111136-08-18 07:55 J -38870771.28 -38870771.17 -38870771.02 0.0089 0.0073

Venus -111135-03-31 22:05 J -38870545.70 -38870545.58 -38870545.40 0.0089 0.0067

Venus -111135-11-12 12:43 J -38870320.12 -38870319.97 -38870319.79 0.0089 0.0060

Venus -111134-06-26 02:53 J -38870094.54 -38870094.38 -38870094.18 0.0089 0.0055

Venus -111133-02-06 17:31 J -38869868.95 -38869868.77 -38869868.56 0.0089 0.0048

Venus -111133-09-19 07:55 J -38869643.35 -38869643.17 -38869642.95 0.0089 0.0041

Venus -111132-05-02 22:33 J -38869417.76 -38869417.56 -38869417.34 0.0089 0.0034

Venus -111132-12-14 13:12 J -38869192.16 -38869191.95 -38869191.73 0.0089 0.0027

Venus -111131-07-28 03:21 J -38868966.57 -38868966.36 -38868966.13 0.0089 0.0021

Venus -111130-03-10 18:00 J -38868740.97 -38868740.75 -38868740.52 0.0089 0.0014

Venus -111130-10-22 08:53 J -38868515.36 -38868515.13 -38868514.91 0.0089 0.0008

Venus -111129-06-03 23:17 J -38868289.75 -38868289.53 -38868289.30 0.0089 0.0002

Venus	-111128-01-15 13:55 J	-38868064.15	-38868063.92	-38868063.69	0.0089	0.0006
Venus	-111128-08-29 04:19 J	-38867838.54	-38867838.32	-38867838.09	0.0089	0.0013
Venus	-111127-04-11 18:57 J	-38867612.93	-38867612.71	-38867612.48	0.0089	0.0019
Venus	-111127-11-23 09:36 J	-38867387.31	-38867387.10	-38867386.88	0.0089	0.0026
Venus	-111126-07-07 00:00 J	-38867161.70	-38867161.50	-38867161.27	0.0089	0.0033
Venus	-111125-02-17 14:53 J	-38866936.08	-38866935.88	-38866935.67	0.0089	0.0039
Venus	-111125-09-30 05:17 J	-38866710.46	-38866710.28	-38866710.07	0.0089	0.0046
Venus	-111124-05-13 19:55 J	-38866484.84	-38866484.67	-38866484.47	0.0089	0.0053
Venus	-111124-12-25 10:33 J	-38866259.21	-38866259.06	-38866258.88	0.0089	0.0059
Venus	-111123-08-08 00:57 J	-38866033.59	-38866033.46	-38866033.29	0.0089	0.0066
Venus	-111122-03-21 15:36 J	-38865807.96	-38865807.85	-38865807.70	0.0089	0.0072
Venus	-111122-11-02 06:43 J	-38865582.32	-38865582.22	-38865582.11	0.0089	0.0078
Venus	-111121-06-14 20:53 J	-38865356.67	-38865356.63	-38865356.54	0.0089	0.0085
Earth	-111119-01-18 01:12 J	-38864774.55	-38864774.45	-38864774.29	0.0089	0.0078
Moon	-111119-01-18 05:31 J	-38864774.42	-38864774.27	-38864774.12	0.0089	0.0073 *
Moon	-111118-01-20 14:38 J	-38864407.08	-38864406.89	-38864406.65	0.0089	0.0050
Earth	-111118-01-20 18:14 J	-38864406.96	-38864406.74	-38864406.49	0.0089	0.0045 *
Earth	-111117-01-23 11:02 J	-38864039.30	-38864039.04	-38864038.77	0.0089	0.0012
Moon	-111117-01-23 13:12 J	-38864039.22	-38864038.95	-38864038.67	0.0089	0.0008 *
Moon	-111116-01-25 01:55 J	-38863671.67	-38863671.42	-38863671.16	0.0089	0.0017
Earth	-111116-01-25 03:36 J	-38863671.61	-38863671.35	-38863671.08	0.0089	0.0021 *
Earth	-111115-01-27 19:55 J	-38863303.87	-38863303.67	-38863303.44	0.0089	0.0054
Moon	-111115-01-27 19:55 J	-38863303.84	-38863303.67	-38863303.43	0.0089	0.0059 *
Earth	-111114-01-30 12:00 J	-38862936.03	-38862936.00	-38862935.91	0.0089	0.0087
Moon	-111114-01-30 12:57 J	-38862936.02	-38862935.96	-38862935.84	0.0089	0.0083 *
Mars	-111107-01-07 07:26 J	-38860402.25	-38860402.19	-38860402.08	0.0089	0.0085
Mars	-111106-12-02 06:57 J	-38859708.38	-38859708.21	-38859707.98	0.0089	0.0066
Mars	-111104-10-26 06:43 J	-38859014.45	-38859014.22	-38859013.94	0.0089	0.0046
Mars	-111102-09-20 07:41 J	-38858320.45	-38858320.18	-38858319.87	0.0089	0.0026
Mars	-111100-08-14 10:05 J	-38857626.38	-38857626.08	-38857625.78	0.0089	0.0005

Mars -111098-07-09 11:31 J -38856932.31 -38856932.02 -38856931.72 0.0089 0.0016
 Mars -111096-06-02 14:38 J -38856238.15 -38856237.89 -38856237.60 0.0089 0.0037
 Mars -111094-04-27 19:12 J -38855543.90 -38855543.70 -38855543.44 0.0089 0.0057
 Mars -111092-03-22 00:29 J -38854849.61 -38854849.48 -38854849.31 0.0089 0.0077
 Mercury -111085-02-26 17:02 J -38852316.81 -38852316.79 -38852316.76 0.0088 0.0087
 Mercury -111085-05-24 18:43 J -38852228.76 -38852228.72 -38852228.65 0.0088 0.0083
 Mercury -111085-08-20 20:53 J -38852140.70 -38852140.63 -38852140.56 0.0088 0.0078
 Mercury -111085-11-16 22:33 J -38852052.63 -38852052.56 -38852052.47 0.0088 0.0073
 Mercury -111084-02-13 00:29 J -38851964.57 -38851964.48 -38851964.38 0.0088 0.0069
 Mercury -111084-05-12 02:09 J -38851876.50 -38851876.41 -38851876.30 0.0088 0.0065
 Mercury -111084-08-08 04:05 J -38851788.43 -38851788.33 -38851788.21 0.0088 0.0060
 Mercury -111084-11-04 05:45 J -38851700.36 -38851700.26 -38851700.13 0.0088 0.0056
 Mercury -111083-01-31 07:55 J -38851612.29 -38851612.17 -38851612.05 0.0088 0.0051
 Mercury -111083-04-29 09:21 J -38851524.22 -38851524.11 -38851523.97 0.0088 0.0047
 Mercury -111083-07-26 11:02 J -38851436.15 -38851436.04 -38851435.90 0.0088 0.0043
 Mercury -111083-10-22 12:57 J -38851348.08 -38851347.96 -38851347.82 0.0088 0.0038
 Mercury -111082-01-18 14:38 J -38851260.01 -38851259.89 -38851259.74 0.0088 0.0034
 Mercury -111082-04-16 16:33 J -38851171.94 -38851171.81 -38851171.67 0.0088 0.0029
 Mercury -111082-07-13 18:14 J -38851083.87 -38851083.74 -38851083.59 0.0088 0.0025
 Mercury -111082-10-09 20:09 J -38850995.80 -38850995.66 -38850995.52 0.0088 0.0020
 Mercury -111081-01-05 21:50 J -38850907.73 -38850907.59 -38850907.44 0.0088 0.0016
 Mercury -111081-04-02 23:31 J -38850819.66 -38850819.52 -38850819.37 0.0088 0.0012
 Mercury -111081-06-30 01:26 J -38850731.59 -38850731.44 -38850731.30 0.0088 0.0007
 Mercury -111081-09-26 03:07 J -38850643.52 -38850643.37 -38850643.23 0.0088 0.0003
 Mercury -111081-12-23 04:48 J -38850555.45 -38850555.30 -38850555.16 0.0088 0.0002
 Mercury -111080-03-21 06:29 J -38850467.37 -38850467.23 -38850467.09 0.0088 0.0006
 Mercury -111080-06-17 08:09 J -38850379.30 -38850379.16 -38850379.02 0.0088 0.0010
 Mercury -111080-09-13 09:50 J -38850291.23 -38850291.09 -38850290.95 0.0088 0.0015
 Mercury -111080-12-10 11:31 J -38850203.16 -38850203.02 -38850202.88 0.0088 0.0019
 Mercury -111079-03-08 13:12 J -38850115.09 -38850114.95 -38850114.81 0.0088 0.0023

Mercury -111079-06-04 14:53 J -38850027.02 -38850026.88 -38850026.74 0.0088 0.0027

Mercury -111079-08-31 16:33 J -38849938.94 -38849938.81 -38849938.68 0.0088 0.0031

Mercury -111079-11-27 18:14 J -38849850.87 -38849850.74 -38849850.61 0.0088 0.0036

Mercury -111078-02-23 19:41 J -38849762.80 -38849762.68 -38849762.55 0.0088 0.0040

Mercury -111078-05-22 21:21 J -38849674.73 -38849674.61 -38849674.48 0.0088 0.0044

Mercury -111078-08-18 23:02 J -38849586.66 -38849586.54 -38849586.42 0.0088 0.0048

Mercury -111078-11-15 00:43 J -38849498.58 -38849498.47 -38849498.35 0.0088 0.0052

Mercury -111077-02-11 02:24 J -38849410.51 -38849410.40 -38849410.29 0.0088 0.0057

Mercury -111077-05-09 03:50 J -38849322.44 -38849322.34 -38849322.23 0.0088 0.0061

Mercury -111077-08-05 05:31 J -38849234.36 -38849234.27 -38849234.17 0.0088 0.0065

Mercury -111077-11-01 06:57 J -38849146.29 -38849146.21 -38849146.11 0.0088 0.0069

Mercury -111076-01-28 08:24 J -38849058.21 -38849058.15 -38849058.05 0.0088 0.0074

Mercury -111076-04-26 10:05 J -38848970.13 -38848970.08 -38848970.00 0.0088 0.0077

Mercury -111076-07-23 11:45 J -38848882.05 -38848882.01 -38848881.95 0.0088 0.0081

Mercury -111076-10-19 13:12 J -38848793.97 -38848793.95 -38848793.90 0.0088 0.0086

Venus -111056-11-30 00:43 J -38841447.48 -38841447.47 -38841447.41 0.0088 0.0088

Venus -111055-07-13 12:29 J -38841222.04 -38841221.98 -38841221.87 0.0088 0.0082

Venus -111054-02-24 00:29 J -38840996.57 -38840996.48 -38840996.35 0.0088 0.0075

Venus -111054-10-07 12:14 J -38840771.10 -38840770.99 -38840770.84 0.0088 0.0070

Venus -111053-05-20 00:00 J -38840545.63 -38840545.50 -38840545.34 0.0088 0.0064

Venus -111053-12-31 11:45 J -38840320.16 -38840320.01 -38840319.84 0.0088 0.0057

Venus -111052-08-13 23:31 J -38840094.68 -38840094.52 -38840094.34 0.0088 0.0051

Venus -111051-03-27 11:17 J -38839869.20 -38839869.03 -38839868.84 0.0088 0.0045

Venus -111051-11-07 23:02 J -38839643.72 -38839643.54 -38839643.34 0.0088 0.0039

Venus -111050-06-21 10:33 J -38839418.24 -38839418.06 -38839417.85 0.0088 0.0034

Venus -111049-02-01 22:19 J -38839192.76 -38839192.57 -38839192.36 0.0088 0.0027

Venus -111049-09-14 10:05 J -38838967.28 -38838967.08 -38838966.87 0.0088 0.0021

Venus -111048-04-27 21:50 J -38838741.80 -38838741.59 -38838741.37 0.0088 0.0015

Venus -111048-12-09 09:36 J -38838516.31 -38838516.10 -38838515.89 0.0088 0.0009

Venus -111047-07-22 21:07 J -38838290.83 -38838290.62 -38838290.41 0.0088 0.0003

Venus	-111046-03-05 08:38 J	-38838065.35	-38838065.14	-38838064.92	0.0088	0.0004
Venus	-111046-10-16 20:09 J	-38837839.87	-38837839.66	-38837839.44	0.0088	0.0010
Venus	-111045-05-29 07:55 J	-38837614.38	-38837614.17	-38837613.96	0.0088	0.0016
Venus	-111044-01-09 19:12 J	-38837388.90	-38837388.70	-38837388.49	0.0088	0.0022
Venus	-111044-08-23 06:29 J	-38837163.42	-38837163.23	-38837163.01	0.0088	0.0029
Venus	-111043-04-05 18:00 J	-38836937.93	-38836937.75	-38836937.53	0.0088	0.0035
Venus	-111043-11-17 05:31 J	-38836712.44	-38836712.27	-38836712.06	0.0088	0.0041
Venus	-111042-06-30 17:02 J	-38836486.95	-38836486.79	-38836486.59	0.0088	0.0046
Venus	-111041-02-11 04:33 J	-38836261.46	-38836261.31	-38836261.12	0.0088	0.0052
Venus	-111041-09-23 16:05 J	-38836035.97	-38836035.83	-38836035.65	0.0088	0.0058
Venus	-111040-05-07 04:05 J	-38835810.47	-38835810.33	-38835810.18	0.0088	0.0064
Venus	-111040-12-18 15:36 J	-38835584.98	-38835584.85	-38835584.72	0.0088	0.0070
Venus	-111039-08-01 02:53 J	-38835359.48	-38835359.38	-38835359.26	0.0088	0.0076
Saturn	-111039-11-20 14:38 J	-38835248.27	-38835247.89	-38835247.36	0.0088	0.0063
Venus	-111038-03-14 14:24 J	-38835133.97	-38835133.90	-38835133.81	0.0088	0.0082
Venus	-111038-10-26 01:55 J	-38834908.43	-38834908.42	-38834908.37	0.0088	0.0087
Earth	-111037-07-16 15:50 J	-38834643.94	-38834643.84	-38834643.68	0.0088	0.0075
Moon	-111037-07-16 16:05 J	-38834643.92	-38834643.83	-38834643.69	0.0088	0.0078 *
Moon	-111036-07-18 21:21 J	-38834276.82	-38834276.61	-38834276.37	0.0088	0.0042
Earth	-111036-07-18 23:17 J	-38834276.73	-38834276.53	-38834276.30	0.0088	0.0045 *
Earth	-111035-07-21 06:29 J	-38833909.47	-38833909.23	-38833908.98	0.0088	0.0015
Moon	-111035-07-21 08:38 J	-38833909.37	-38833909.14	-38833908.89	0.0088	0.0018 *
Moon	-111034-07-23 10:05 J	-38833542.32	-38833542.08	-38833541.83	0.0088	0.0018
Earth	-111034-07-23 13:41 J	-38833542.17	-38833541.93	-38833541.69	0.0088	0.0015 *
Earth	-111033-07-24 20:38 J	-38833174.85	-38833174.64	-38833174.42	0.0088	0.0045
Moon	-111033-07-24 23:45 J	-38833174.72	-38833174.51	-38833174.28	0.0088	0.0042 *
Moon	-111032-07-27 00:00 J	-38832807.58	-38832807.50	-38832807.35	0.0088	0.0078
Earth	-111032-07-27 03:21 J	-38832807.47	-38832807.36	-38832807.21	0.0088	0.0075 *
Mars	-111024-10-02 09:50 J	-38829818.15	-38829818.09	-38829817.95	0.0089	0.0085
Mars	-111022-08-29 07:41 J	-38829122.39	-38829122.18	-38829121.91	0.0089	0.0062

Mars	-111020-07-25 05:02 J	-38828426.59	-38828426.29	-38828425.99	0.0089	0.0038
Mars	-111018-06-21 00:29 J	-38827730.80	-38827730.48	-38827730.14	0.0089	0.0015
Mars	-111016-05-16 20:09 J	-38827034.99	-38827034.66	-38827034.33	0.0089	0.0008
Mars	-111014-04-12 13:41 J	-38826339.22	-38826338.93	-38826338.60	0.0089	0.0032
Mars	-111012-03-08 06:29 J	-38825643.48	-38825643.23	-38825642.96	0.0089	0.0054
Mars	-111010-02-01 21:21 J	-38824947.74	-38824947.61	-38824947.41	0.0089	0.0077
Mercury	-111002-05-05 02:38 J	-38821933.40	-38821933.39	-38821933.35	0.0089	0.0088
Mercury	-111002-08-01 05:17 J	-38821845.33	-38821845.28	-38821845.21	0.0089	0.0083
Mercury	-111002-10-28 07:55 J	-38821757.24	-38821757.17	-38821757.08	0.0089	0.0078
Mercury	-111001-01-24 10:33 J	-38821669.15	-38821669.06	-38821668.96	0.0089	0.0073
Mercury	-111001-04-21 13:12 J	-38821581.05	-38821580.95	-38821580.84	0.0089	0.0068
Mercury	-111001-07-18 15:50 J	-38821492.95	-38821492.84	-38821492.71	0.0089	0.0063
Mercury	-111001-10-14 18:29 J	-38821404.85	-38821404.73	-38821404.59	0.0089	0.0058

111TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 111th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-111000-01-10 21:07 J	-38821316.75	-38821316.62	-38821316.48	0.0089	0.0053		
Mercury	-111000-04-08 23:45 J	-38821228.64	-38821228.51	-38821228.36	0.0089	0.0048		
Mercury	-111000-07-06 02:24 J	-38821140.54	-38821140.40	-38821140.24	0.0089	0.0043		

Mercury -111000-10-02 05:17 J -38821052.43 -38821052.28 -38821052.12 0.0089 0.0038

Mercury -111000-12-29 07:55 J -38820964.32 -38820964.17 -38820964.00 0.0089 0.0033

Mercury -110999-03-27 10:33 J -38820876.21 -38820876.06 -38820875.89 0.0089 0.0028

Mercury -110999-06-23 13:26 J -38820788.10 -38820787.94 -38820787.77 0.0089 0.0022

Mercury -110999-09-19 16:19 J -38820699.99 -38820699.82 -38820699.65 0.0089 0.0017

Mercury -110999-12-16 18:57 J -38820611.88 -38820611.71 -38820611.54 0.0089 0.0012

Mercury -110998-03-14 21:50 J -38820523.76 -38820523.59 -38820523.42 0.0089 0.0007

Mercury -110998-06-11 00:29 J -38820435.65 -38820435.48 -38820435.30 0.0089 0.0003

Mercury -110998-09-07 03:21 J -38820347.53 -38820347.36 -38820347.19 0.0089 0.0004

Mercury -110998-12-04 06:14 J -38820259.42 -38820259.24 -38820259.07 0.0089 0.0009

Mercury -110997-03-01 08:53 J -38820171.30 -38820171.13 -38820170.95 0.0089 0.0015

Mercury -110997-05-28 11:45 J -38820083.18 -38820083.01 -38820082.84 0.0089 0.0020

Mercury -110997-08-24 14:38 J -38819995.06 -38819994.89 -38819994.72 0.0089 0.0025

Mercury -110997-11-20 17:17 J -38819906.93 -38819906.78 -38819906.60 0.0089 0.0031

Mercury -110996-02-16 20:09 J -38819818.81 -38819818.66 -38819818.49 0.0089 0.0036

Mercury -110996-05-15 23:17 J -38819730.69 -38819730.53 -38819730.38 0.0089 0.0041

Mercury -110996-08-12 01:55 J -38819642.56 -38819642.42 -38819642.26 0.0089 0.0047

Mercury -110996-11-08 04:48 J -38819554.43 -38819554.30 -38819554.15 0.0089 0.0052

Mercury -110995-02-04 07:41 J -38819466.30 -38819466.18 -38819466.03 0.0089 0.0058

Mercury -110995-05-03 10:33 J -38819378.17 -38819378.06 -38819377.92 0.0089 0.0063

Mercury -110995-07-30 13:55 J -38819290.04 -38819289.92 -38819289.81 0.0089 0.0069

Mercury -110995-10-26 16:33 J -38819201.90 -38819201.81 -38819201.70 0.0089 0.0074

Mercury -110994-01-22 19:41 J -38819113.76 -38819113.68 -38819113.60 0.0089 0.0079

Mercury -110994-04-20 22:19 J -38819025.60 -38819025.57 -38819025.50 0.0089 0.0085

Jupiter -110986-02-05 02:38 J -38816178.90 -38816178.39 -38816177.82 0.0089 0.0026

Venus -110973-08-25 14:38 J -38811227.96 -38811227.89 -38811227.82 0.0089 0.0084

Venus -110972-04-08 04:33 J -38811002.40 -38811002.31 -38811002.18 0.0089 0.0079

Venus -110972-11-19 18:43 J -38810776.82 -38810776.72 -38810776.56 0.0089 0.0072

Venus -110971-07-03 09:21 J -38810551.25 -38810551.11 -38810550.94 0.0089 0.0066

Venus -110970-02-13 23:45 J -38810325.66 -38810325.51 -38810325.33 0.0089 0.0059

Venus	-110970-09-27 14:24 J	-38810100.07	-38810099.90	-38810099.70	0.0089	0.0052
Venus	-110969-05-10 04:48 J	-38809874.48	-38809874.30	-38809874.09	0.0089	0.0046
Venus	-110969-12-21 19:12 J	-38809648.89	-38809648.70	-38809648.48	0.0089	0.0039
Venus	-110968-08-04 09:50 J	-38809423.30	-38809423.09	-38809422.88	0.0089	0.0033
Venus	-110967-03-18 00:00 J	-38809197.71	-38809197.50	-38809197.27	0.0089	0.0026
Venus	-110967-10-29 14:53 J	-38808972.10	-38808971.88	-38808971.66	0.0089	0.0019
Venus	-110966-06-12 05:02 J	-38808746.50	-38808746.29	-38808746.05	0.0089	0.0013
Venus	-110965-01-23 19:41 J	-38808520.90	-38808520.68	-38808520.45	0.0089	0.0006
Venus	-110965-09-05 10:19 J	-38808295.30	-38808295.07	-38808294.84	0.0089	0.0001
Venus	-110964-04-19 00:43 J	-38808069.69	-38808069.47	-38808069.24	0.0089	0.0008
Venus	-110964-11-30 15:21 J	-38807844.08	-38807843.86	-38807843.63	0.0089	0.0014
Venus	-110963-07-14 05:45 J	-38807618.47	-38807618.26	-38807618.03	0.0089	0.0021
Venus	-110962-02-24 20:24 J	-38807392.86	-38807392.65	-38807392.42	0.0089	0.0028
Venus	-110962-10-08 11:17 J	-38807167.24	-38807167.03	-38807166.82	0.0089	0.0034
Venus	-110961-05-21 01:41 J	-38806941.62	-38806941.43	-38806941.21	0.0089	0.0041
Venus	-110960-01-01 16:05 J	-38806716.00	-38806715.83	-38806715.62	0.0089	0.0048
Venus	-110960-08-15 06:57 J	-38806490.38	-38806490.21	-38806490.02	0.0089	0.0054
Venus	-110959-03-28 21:21 J	-38806264.75	-38806264.61	-38806264.42	0.0089	0.0061
Venus	-110959-11-09 12:29 J	-38806039.12	-38806038.98	-38806038.83	0.0089	0.0067
Venus	-110958-06-23 02:53 J	-38805813.49	-38805813.38	-38805813.24	0.0089	0.0074
Venus	-110957-02-03 17:45 J	-38805587.85	-38805587.76	-38805587.66	0.0089	0.0080
Venus	-110957-09-16 07:55 J	-38805362.19	-38805362.17	-38805362.10	0.0089	0.0087
Moon	-110955-01-17 07:55 J	-38804874.18	-38804874.17	-38804874.10	0.0089	0.0088
Earth	-110954-01-20 02:09 J	-38804506.60	-38804506.41	-38804506.20	0.0089	0.0058
Moon	-110954-01-20 02:24 J	-38804506.57	-38804506.40	-38804506.17	0.0089	0.0061 *
Earth	-110953-01-22 18:43 J	-38804138.97	-38804138.72	-38804138.46	0.0089	0.0025
Moon	-110953-01-22 19:26 J	-38804138.94	-38804138.69	-38804138.43	0.0089	0.0022 *
Moon	-110952-01-24 09:07 J	-38803771.39	-38803771.12	-38803770.83	0.0089	0.0005
Earth	-110952-01-24 11:17 J	-38803771.29	-38803771.03	-38803770.75	0.0089	0.0008 *
Earth	-110951-01-27 03:21 J	-38803403.58	-38803403.36	-38803403.10	0.0089	0.0041

Moon -110951-01-27 06:00 J -38803403.46 -38803403.25 -38803403.01 0.0089 0.0043 *
 Moon -110950-01-29 16:05 J -38803035.97 -38803035.83 -38803035.64 0.0089 0.0071
 Earth -110950-01-29 19:26 J -38803035.81 -38803035.69 -38803035.51 0.0089 0.0074 *
 Mars -110942-07-17 18:00 J -38799944.90 -38799944.75 -38799944.57 0.0089 0.0073
 Mars -110940-06-10 17:45 J -38799250.98 -38799250.76 -38799250.50 0.0089 0.0053
 Mars -110938-05-05 17:31 J -38798557.03 -38798556.77 -38798556.48 0.0089 0.0033
 Mars -110936-03-29 18:57 J -38797863.00 -38797862.71 -38797862.41 0.0089 0.0012
 Mars -110934-02-21 21:36 J -38797168.89 -38797168.60 -38797168.29 0.0089 0.0010
 Mars -110932-01-15 23:45 J -38796474.78 -38796474.51 -38796474.21 0.0089 0.0031
 Mars -110931-12-11 02:53 J -38795780.61 -38795780.38 -38795780.12 0.0089 0.0052
 Mars -110929-11-04 07:26 J -38795086.33 -38795086.19 -38795085.99 0.0089 0.0073
 Mercury -110921-08-26 15:21 J -38792233.87 -38792233.86 -38792233.84 0.0088 0.0088
 Mercury -110921-11-22 17:02 J -38792145.83 -38792145.79 -38792145.73 0.0088 0.0083
 Mercury -110920-02-18 18:57 J -38792057.77 -38792057.71 -38792057.64 0.0088 0.0079
 Mercury -110920-05-17 20:38 J -38791969.70 -38791969.64 -38791969.55 0.0088 0.0075
 Mercury -110920-08-13 22:48 J -38791881.64 -38791881.55 -38791881.46 0.0088 0.0070
 Mercury -110920-11-10 00:29 J -38791793.57 -38791793.48 -38791793.37 0.0088 0.0065
 Mercury -110919-02-06 02:24 J -38791705.50 -38791705.40 -38791705.29 0.0088 0.0061
 Mercury -110919-05-05 04:05 J -38791617.43 -38791617.33 -38791617.21 0.0088 0.0057
 Mercury -110919-08-01 06:00 J -38791529.36 -38791529.25 -38791529.13 0.0088 0.0052
 Mercury -110919-10-28 07:41 J -38791441.29 -38791441.18 -38791441.05 0.0088 0.0048
 Mercury -110918-01-24 09:21 J -38791353.22 -38791353.11 -38791352.97 0.0088 0.0044
 Mercury -110918-04-22 11:17 J -38791265.15 -38791265.03 -38791264.89 0.0088 0.0039
 Mercury -110918-07-19 12:57 J -38791177.08 -38791176.96 -38791176.81 0.0088 0.0035
 Mercury -110918-10-15 14:53 J -38791089.01 -38791088.88 -38791088.74 0.0088 0.0030
 Mercury -110917-01-11 16:33 J -38791000.94 -38791000.81 -38791000.66 0.0088 0.0026
 Mercury -110917-04-08 18:29 J -38790912.87 -38790912.73 -38790912.59 0.0088 0.0021
 Mercury -110917-07-05 20:09 J -38790824.80 -38790824.66 -38790824.51 0.0088 0.0017
 Mercury -110917-10-01 21:50 J -38790736.73 -38790736.59 -38790736.44 0.0088 0.0013
 Mercury -110917-12-28 23:45 J -38790648.66 -38790648.51 -38790648.37 0.0088 0.0008

Mercury -110916-03-27 01:26 J -38790560.58 -38790560.44 -38790560.29 0.0088 0.0004

Mercury -110916-06-23 03:07 J -38790472.51 -38790472.37 -38790472.22 0.0088 0.0001

Mercury -110916-09-19 04:48 J -38790384.44 -38790384.30 -38790384.15 0.0088 0.0005

Mercury -110916-12-16 06:29 J -38790296.37 -38790296.23 -38790296.08 0.0088 0.0010

Mercury -110915-03-14 08:09 J -38790208.30 -38790208.16 -38790208.01 0.0088 0.0014

Mercury -110915-06-10 09:50 J -38790120.23 -38790120.09 -38790119.94 0.0088 0.0018

Mercury -110915-09-06 11:31 J -38790032.16 -38790032.02 -38790031.88 0.0088 0.0022

Mercury -110915-12-03 13:12 J -38789944.08 -38789943.95 -38789943.81 0.0088 0.0027

Mercury -110914-03-01 14:53 J -38789856.01 -38789855.88 -38789855.74 0.0088 0.0031

Mercury -110914-05-28 16:33 J -38789767.94 -38789767.81 -38789767.67 0.0088 0.0035

Mercury -110914-08-24 18:00 J -38789679.87 -38789679.75 -38789679.61 0.0088 0.0040

Mercury -110914-11-20 19:41 J -38789591.79 -38789591.68 -38789591.55 0.0088 0.0044

Mercury -110913-02-16 21:21 J -38789503.72 -38789503.61 -38789503.48 0.0088 0.0048

Mercury -110913-05-14 23:02 J -38789415.65 -38789415.54 -38789415.42 0.0088 0.0052

Mercury -110913-08-11 00:43 J -38789327.57 -38789327.47 -38789327.36 0.0088 0.0056

Mercury -110913-11-07 02:24 J -38789239.50 -38789239.40 -38789239.29 0.0088 0.0060

Mercury -110912-02-03 03:50 J -38789151.43 -38789151.34 -38789151.23 0.0088 0.0064

Mercury -110912-05-02 05:17 J -38789063.35 -38789063.28 -38789063.17 0.0088 0.0069

Mercury -110912-07-29 06:57 J -38788975.28 -38788975.21 -38788975.12 0.0088 0.0072

Mercury -110912-10-25 08:38 J -38788887.20 -38788887.14 -38788887.06 0.0088 0.0076

Mercury -110911-01-21 10:05 J -38788799.12 -38788799.08 -38788799.01 0.0088 0.0081

Mercury -110911-04-19 11:45 J -38788711.04 -38788711.01 -38788710.96 0.0088 0.0085

Mercury -110911-07-16 13:41 J -38788622.93 -38788622.93 -38788622.93 0.0088 0.0088

Venus -110891-03-03 14:38 J -38781452.93 -38781452.89 -38781452.83 0.0088 0.0086

Venus -110891-10-15 02:38 J -38781227.48 -38781227.39 -38781227.30 0.0088 0.0080

Venus -110890-05-28 14:24 J -38781002.02 -38781001.90 -38781001.78 0.0088 0.0074

Venus -110889-01-09 01:26 J -38780776.55 -38780776.44 -38780776.28 0.0088 0.0069

Venus -110889-08-21 13:12 J -38780551.08 -38780550.95 -38780550.77 0.0088 0.0063

Venus -110888-04-04 01:12 J -38780325.60 -38780325.45 -38780325.27 0.0088 0.0056

Venus -110888-11-15 12:57 J -38780100.12 -38780099.96 -38780099.77 0.0088 0.0050

Venus	-110887-06-29 00:57 J	-38779874.64	-38779874.46	-38779874.27	0.0088	0.0044
Venus	-110886-02-09 12:29 J	-38779649.17	-38779648.98	-38779648.78	0.0088	0.0038
Venus	-110886-09-23 00:14 J	-38779423.69	-38779423.49	-38779423.29	0.0088	0.0032
Venus	-110885-05-05 12:00 J	-38779198.20	-38779198.00	-38779197.79	0.0088	0.0025
Venus	-110885-12-16 23:31 J	-38778972.72	-38778972.52	-38778972.30	0.0088	0.0020
Venus	-110884-07-30 11:17 J	-38778747.24	-38778747.03	-38778746.81	0.0088	0.0013
Venus	-110883-03-12 23:02 J	-38778521.75	-38778521.54	-38778521.32	0.0088	0.0007
Venus	-110883-10-24 10:48 J	-38778296.26	-38778296.05	-38778295.84	0.0088	0.0001
Venus	-110882-06-06 22:19 J	-38778070.78	-38778070.57	-38778070.35	0.0088	0.0005
Venus	-110881-01-18 09:50 J	-38777845.30	-38777845.09	-38777844.87	0.0088	0.0012
Venus	-110881-08-30 21:21 J	-38777619.81	-38777619.61	-38777619.40	0.0088	0.0018
Venus	-110880-04-13 09:07 J	-38777394.33	-38777394.12	-38777393.91	0.0088	0.0024
Venus	-110880-11-24 20:38 J	-38777168.84	-38777168.64	-38777168.44	0.0088	0.0030
Venus	-110879-07-08 08:09 J	-38776943.36	-38776943.16	-38776942.97	0.0088	0.0036
Venus	-110878-02-18 19:26 J	-38776717.87	-38776717.69	-38776717.50	0.0088	0.0042
Venus	-110878-10-02 06:57 J	-38776492.38	-38776492.21	-38776492.03	0.0088	0.0048
Venus	-110877-05-14 18:29 J	-38776266.89	-38776266.73	-38776266.55	0.0088	0.0054
Venus	-110877-12-26 06:00 J	-38776041.40	-38776041.25	-38776041.09	0.0088	0.0060
Venus	-110876-08-08 17:17 J	-38775815.91	-38775815.78	-38775815.62	0.0088	0.0066
Venus	-110875-03-22 04:48 J	-38775590.41	-38775590.30	-38775590.16	0.0088	0.0072
Venus	-110875-11-02 16:19 J	-38775364.90	-38775364.82	-38775364.70	0.0088	0.0078
Venus	-110874-06-16 03:50 J	-38775139.39	-38775139.34	-38775139.25	0.0088	0.0084
Moon	-110873-07-16 05:17 J	-38774743.34	-38774743.28	-38774743.18	0.0088	0.0084
Earth	-110873-07-16 07:55 J	-38774743.20	-38774743.17	-38774743.10	0.0088	0.0087 *
Earth	-110872-07-18 15:07 J	-38774376.05	-38774375.87	-38774375.68	0.0088	0.0057
Moon	-110872-07-18 18:14 J	-38774375.90	-38774375.74	-38774375.54	0.0088	0.0060 *
Moon	-110871-07-20 18:57 J	-38774008.94	-38774008.71	-38774008.47	0.0088	0.0025
Earth	-110871-07-20 22:05 J	-38774008.80	-38774008.58	-38774008.33	0.0088	0.0028 *
Earth	-110870-07-23 05:31 J	-38773641.52	-38773641.27	-38773641.02	0.0088	0.0003
Moon	-110870-07-23 08:38 J	-38773641.39	-38773641.14	-38773640.89	0.0088	0.0001 *

Moon -110869-07-24 10:05 J -38773274.28 -38773274.08 -38773273.84 0.0088 0.0035
 Earth -110869-07-24 12:14 J -38773274.21 -38773273.99 -38773273.75 0.0088 0.0033 *
 Earth -110868-07-26 19:12 J -38772906.85 -38772906.70 -38772906.51 0.0088 0.0063
 Moon -110868-07-26 19:55 J -38772906.84 -38772906.67 -38772906.47 0.0088 0.0061 *
 Mars -110858-04-12 07:41 J -38769360.35 -38769360.18 -38769359.94 0.0089 0.0071
 Mars -110856-03-08 06:00 J -38768664.51 -38768664.25 -38768663.95 0.0089 0.0047
 Mars -110854-02-02 03:07 J -38767968.68 -38767968.37 -38767968.04 0.0089 0.0023
 Mars -110853-12-28 23:02 J -38767272.88 -38767272.54 -38767272.21 0.0089 0.0002
 Mars -110851-11-24 17:31 J -38766577.08 -38766576.77 -38766576.44 0.0089 0.0025
 Mars -110849-10-20 11:02 J -38765881.29 -38765881.04 -38765880.74 0.0089 0.0049
 Mars -110847-09-16 02:53 J -38765185.54 -38765185.38 -38765185.16 0.0089 0.0072
 Mercury -110838-11-03 00:00 J -38761850.50 -38761850.50 -38761850.50 0.0089 0.0089
 Mercury -110837-01-30 02:24 J -38761762.44 -38761762.40 -38761762.34 0.0089 0.0084
 Mercury -110837-04-27 05:02 J -38761674.36 -38761674.29 -38761674.21 0.0089 0.0079
 Mercury -110837-07-24 07:41 J -38761586.27 -38761586.18 -38761586.08 0.0089 0.0074
 Mercury -110837-10-20 10:19 J -38761498.17 -38761498.07 -38761497.96 0.0089 0.0069
 Mercury -110836-01-16 12:57 J -38761410.07 -38761409.96 -38761409.84 0.0089 0.0064
 Mercury -110836-04-14 15:36 J -38761321.97 -38761321.85 -38761321.72 0.0089 0.0059
 Mercury -110836-07-11 18:14 J -38761233.87 -38761233.74 -38761233.60 0.0089 0.0054
 Mercury -110836-10-07 20:53 J -38761145.77 -38761145.63 -38761145.49 0.0089 0.0049
 Mercury -110835-01-03 23:31 J -38761057.66 -38761057.52 -38761057.37 0.0089 0.0044
 Mercury -110835-04-02 02:09 J -38760969.56 -38760969.41 -38760969.25 0.0089 0.0039
 Mercury -110835-06-29 04:48 J -38760881.45 -38760881.30 -38760881.14 0.0089 0.0034
 Mercury -110835-09-25 07:26 J -38760793.34 -38760793.19 -38760793.02 0.0089 0.0029
 Mercury -110835-12-22 10:19 J -38760705.23 -38760705.07 -38760704.90 0.0089 0.0024
 Mercury -110834-03-20 12:57 J -38760617.12 -38760616.96 -38760616.79 0.0089 0.0019
 Mercury -110834-06-16 15:50 J -38760529.01 -38760528.84 -38760528.67 0.0089 0.0013
 Mercury -110834-09-12 18:29 J -38760440.90 -38760440.73 -38760440.55 0.0089 0.0009
 Mercury -110834-12-09 21:21 J -38760352.78 -38760352.61 -38760352.44 0.0089 0.0003
 Mercury -110833-03-07 00:14 J -38760264.67 -38760264.49 -38760264.32 0.0089 0.0003

Mercury -110833-06-03 02:53 J -38760176.55 -38760176.38 -38760176.20 0.0089 0.0008

Mercury -110833-08-30 05:45 J -38760088.43 -38760088.26 -38760088.09 0.0089 0.0013

Mercury -110833-11-26 08:24 J -38760000.31 -38760000.15 -38759999.97 0.0089 0.0018

Mercury -110832-02-22 11:17 J -38759912.19 -38759912.03 -38759911.86 0.0089 0.0024

Mercury -110832-05-21 14:09 J -38759824.07 -38759823.91 -38759823.74 0.0089 0.0029

Mercury -110832-08-17 17:02 J -38759735.95 -38759735.79 -38759735.63 0.0089 0.0034

Mercury -110832-11-13 19:41 J -38759647.83 -38759647.68 -38759647.51 0.0089 0.0040

Mercury -110831-02-09 22:33 J -38759559.70 -38759559.56 -38759559.40 0.0089 0.0045

Mercury -110831-05-09 01:41 J -38759471.57 -38759471.43 -38759471.28 0.0089 0.0050

Mercury -110831-08-05 04:19 J -38759383.44 -38759383.32 -38759383.17 0.0089 0.0056

Mercury -110831-11-01 07:26 J -38759295.31 -38759295.19 -38759295.06 0.0089 0.0061

Mercury -110830-01-28 10:05 J -38759207.18 -38759207.08 -38759206.95 0.0089 0.0067

Mercury -110830-04-26 13:12 J -38759119.04 -38759118.95 -38759118.84 0.0089 0.0072

Mercury -110830-07-23 15:50 J -38759030.90 -38759030.84 -38759030.74 0.0089 0.0078

Mercury -110830-10-19 18:57 J -38758942.76 -38758942.71 -38758942.64 0.0089 0.0083

Mercury -110829-01-15 22:05 J -38758854.58 -38758854.58 -38758854.56 0.0089 0.0089

Venus -110809-11-27 01:41 J -38751233.50 -38751233.43 -38751233.34 0.0089 0.0083

Venus -110808-07-10 15:36 J -38751007.94 -38751007.85 -38751007.71 0.0089 0.0078

Venus -110807-02-21 06:29 J -38750782.36 -38750782.23 -38750782.09 0.0089 0.0070

Venus -110807-10-04 20:38 J -38750556.78 -38750556.64 -38750556.46 0.0089 0.0064

Venus -110806-05-18 11:17 J -38750331.19 -38750331.03 -38750330.85 0.0089 0.0058

Venus -110806-12-30 01:26 J -38750105.61 -38750105.44 -38750105.24 0.0089 0.0051

Venus -110805-08-11 16:05 J -38749880.02 -38749879.83 -38749879.63 0.0089 0.0044

Venus -110804-03-25 06:14 J -38749654.43 -38749654.24 -38749654.02 0.0089 0.0038

Venus -110804-11-05 20:53 J -38749428.83 -38749428.63 -38749428.41 0.0089 0.0031

Venus -110803-06-19 11:31 J -38749203.24 -38749203.02 -38749202.80 0.0089 0.0024

Venus -110802-01-31 01:41 J -38748977.64 -38748977.43 -38748977.19 0.0089 0.0018

Venus -110802-09-13 16:19 J -38748752.04 -38748751.82 -38748751.59 0.0089 0.0011

Venus -110801-04-26 06:57 J -38748526.44 -38748526.21 -38748525.98 0.0089 0.0004

Venus -110801-12-07 21:21 J -38748300.84 -38748300.61 -38748300.38 0.0089 0.0003

Venus	-110800-07-21 11:45 J	-38748075.23	-38748075.01	-38748074.78	0.0089	0.0009
Venus	-110799-03-04 02:09 J	-38747849.63	-38747849.41	-38747849.18	0.0089	0.0016
Venus	-110799-10-15 17:02 J	-38747624.01	-38747623.79	-38747623.57	0.0089	0.0023
Venus	-110798-05-29 07:26 J	-38747398.40	-38747398.19	-38747397.97	0.0089	0.0029
Venus	-110797-01-09 21:50 J	-38747172.79	-38747172.59	-38747172.37	0.0089	0.0036
Venus	-110797-08-22 12:14 J	-38746947.17	-38746946.99	-38746946.77	0.0089	0.0043
Venus	-110796-04-05 03:07 J	-38746721.55	-38746721.37	-38746721.17	0.0089	0.0049
Venus	-110796-11-16 17:45 J	-38746495.92	-38746495.76	-38746495.57	0.0089	0.0056
Venus	-110795-06-30 08:09 J	-38746270.30	-38746270.16	-38746269.98	0.0089	0.0063
Venus	-110794-02-10 23:02 J	-38746044.67	-38746044.54	-38746044.39	0.0089	0.0069
Venus	-110794-09-24 13:26 J	-38745819.03	-38745818.94	-38745818.80	0.0089	0.0076
Venus	-110793-05-07 04:19 J	-38745593.39	-38745593.32	-38745593.22	0.0089	0.0082
Venus	-110793-12-18 18:57 J	-38745367.71	-38745367.71	-38745367.68	0.0089	0.0089
Earth	-110790-01-19 09:07 J	-38744606.26	-38744606.12	-38744605.94	0.0089	0.0072
Moon	-110790-01-19 12:00 J	-38744606.14	-38744606.00	-38744605.82	0.0089	0.0071 *
Moon	-110789-01-21 22:48 J	-38744238.78	-38744238.55	-38744238.29	0.0089	0.0041
Earth	-110789-01-22 01:55 J	-38744238.64	-38744238.42	-38744238.16	0.0089	0.0039 *
Earth	-110788-01-23 18:57 J	-38743870.98	-38743870.71	-38743870.44	0.0089	0.0006
Moon	-110788-01-23 22:48 J	-38743870.81	-38743870.55	-38743870.28	0.0089	0.0004 *
Moon	-110787-01-26 07:55 J	-38743503.42	-38743503.17	-38743502.91	0.0089	0.0025
Earth	-110787-01-26 11:31 J	-38743503.28	-38743503.02	-38743502.76	0.0089	0.0027 *
Earth	-110786-01-29 03:36 J	-38743135.53	-38743135.35	-38743135.14	0.0089	0.0060
Moon	-110786-01-29 06:43 J	-38743135.38	-38743135.22	-38743135.00	0.0089	0.0064 *
Mars	-110778-03-02 06:14 J	-38740181.35	-38740181.24	-38740181.12	0.0089	0.0081
Mars	-110776-01-24 05:31 J	-38739487.45	-38739487.27	-38739487.02	0.0089	0.0061
Mars	-110775-12-19 06:00 J	-38738793.49	-38738793.25	-38738792.96	0.0089	0.0040
Mars	-110773-11-12 06:00 J	-38738099.53	-38738099.25	-38738098.95	0.0089	0.0019
Mars	-110771-10-07 06:43 J	-38737405.52	-38737405.22	-38737404.92	0.0089	0.0003
Mars	-110769-08-31 08:38 J	-38736711.42	-38736711.14	-38736710.84	0.0089	0.0025
Mars	-110767-07-26 10:48 J	-38736017.28	-38736017.05	-38736016.77	0.0089	0.0047

Mars -110765-06-19 13:55 J -38735323.10 -38735322.92 -38735322.71 0.0089 0.0068
 Mercury -110756-05-23 15:07 J -38732062.90 -38732062.87 -38732062.82 0.0088 0.0085
 Mercury -110756-08-19 16:48 J -38731974.84 -38731974.80 -38731974.72 0.0088 0.0081
 Mercury -110756-11-15 18:57 J -38731886.78 -38731886.71 -38731886.63 0.0088 0.0076
 Mercury -110755-02-11 20:38 J -38731798.71 -38731798.64 -38731798.54 0.0088 0.0071
 Mercury -110755-05-10 22:33 J -38731710.65 -38731710.56 -38731710.45 0.0088 0.0067
 Mercury -110755-08-07 00:14 J -38731622.58 -38731622.49 -38731622.37 0.0088 0.0063
 Mercury -110755-11-03 02:24 J -38731534.51 -38731534.40 -38731534.29 0.0088 0.0057
 Mercury -110754-01-30 04:05 J -38731446.44 -38731446.33 -38731446.20 0.0088 0.0053
 Mercury -110754-04-28 06:00 J -38731358.37 -38731358.25 -38731358.12 0.0088 0.0049
 Mercury -110754-07-25 07:41 J -38731270.30 -38731270.18 -38731270.04 0.0088 0.0044
 Mercury -110754-10-21 09:36 J -38731182.23 -38731182.10 -38731181.96 0.0088 0.0040
 Mercury -110753-01-17 11:17 J -38731094.16 -38731094.03 -38731093.89 0.0088 0.0036
 Mercury -110753-04-14 13:12 J -38731006.08 -38731005.95 -38731005.81 0.0088 0.0031
 Mercury -110753-07-11 14:53 J -38730918.01 -38730917.88 -38730917.73 0.0088 0.0027
 Mercury -110753-10-07 16:33 J -38730829.94 -38730829.81 -38730829.66 0.0088 0.0023
 Mercury -110752-01-03 18:29 J -38730741.87 -38730741.73 -38730741.58 0.0088 0.0018
 Mercury -110752-04-01 20:09 J -38730653.80 -38730653.66 -38730653.51 0.0088 0.0014
 Mercury -110752-06-28 22:05 J -38730565.73 -38730565.58 -38730565.44 0.0088 0.0009
 Mercury -110752-09-24 23:45 J -38730477.65 -38730477.51 -38730477.36 0.0088 0.0005
 Mercury -110752-12-22 01:26 J -38730389.58 -38730389.44 -38730389.29 0.0088 0.0002
 Mercury -110751-03-20 03:07 J -38730301.51 -38730301.37 -38730301.22 0.0088 0.0005
 Mercury -110751-06-16 05:02 J -38730213.44 -38730213.29 -38730213.15 0.0088 0.0009
 Mercury -110751-09-12 06:43 J -38730125.37 -38730125.22 -38730125.08 0.0088 0.0013
 Mercury -110751-12-09 08:09 J -38730037.29 -38730037.16 -38730037.01 0.0088 0.0018
 Mercury -110750-03-07 09:50 J -38729949.22 -38729949.09 -38729948.94 0.0088 0.0022
 Mercury -110750-06-03 11:45 J -38729861.15 -38729861.01 -38729860.87 0.0088 0.0026
 Mercury -110750-08-30 13:26 J -38729773.08 -38729772.94 -38729772.81 0.0088 0.0030
 Mercury -110750-11-26 14:53 J -38729685.01 -38729684.88 -38729684.74 0.0088 0.0034
 Mercury -110749-02-22 16:33 J -38729596.93 -38729596.81 -38729596.67 0.0088 0.0038

Mercury -110749-05-20 18:14 J -38729508.86 -38729508.74 -38729508.61 0.0088 0.0042

Mercury -110749-08-16 19:55 J -38729420.79 -38729420.67 -38729420.54 0.0088 0.0047

Mercury -110749-11-12 21:36 J -38729332.71 -38729332.60 -38729332.48 0.0088 0.0051

Mercury -110748-02-08 23:17 J -38729244.64 -38729244.53 -38729244.42 0.0088 0.0055

Mercury -110748-05-08 00:43 J -38729156.57 -38729156.47 -38729156.36 0.0088 0.0059

Mercury -110748-08-04 02:09 J -38729068.49 -38729068.41 -38729068.29 0.0088 0.0064

Mercury -110748-10-31 03:50 J -38728980.42 -38728980.34 -38728980.23 0.0088 0.0068

Mercury -110747-01-27 05:31 J -38728892.34 -38728892.27 -38728892.18 0.0088 0.0071

Mercury -110747-04-25 07:12 J -38728804.26 -38728804.20 -38728804.12 0.0088 0.0075

Mercury -110747-07-22 08:38 J -38728716.18 -38728716.14 -38728716.07 0.0088 0.0080

Mercury -110747-10-18 10:19 J -38728628.10 -38728628.07 -38728628.01 0.0088 0.0084

Mercury -110746-01-14 12:00 J -38728540.01 -38728540.00 -38728539.98 0.0088 0.0087

Venus -110727-06-05 03:50 J -38721458.39 -38721458.34 -38721458.27 0.0088 0.0084

Venus -110726-01-16 15:36 J -38721232.93 -38721232.85 -38721232.74 0.0088 0.0079

Venus -110726-08-30 03:21 J -38721007.47 -38721007.36 -38721007.23 0.0088 0.0073

Venus -110725-04-11 15:21 J -38720781.99 -38720781.86 -38720781.71 0.0088 0.0067

Venus -110725-11-23 03:07 J -38720556.52 -38720556.37 -38720556.21 0.0088 0.0061

Venus -110724-07-06 14:38 J -38720331.05 -38720330.89 -38720330.71 0.0088 0.0055

Venus -110723-02-17 02:24 J -38720105.57 -38720105.40 -38720105.21 0.0088 0.0049

Venus -110723-09-30 14:09 J -38719880.09 -38719879.91 -38719879.71 0.0088 0.0043

Venus -110722-05-14 01:55 J -38719654.61 -38719654.42 -38719654.22 0.0088 0.0036

Venus -110722-12-25 13:26 J -38719429.13 -38719428.94 -38719428.73 0.0088 0.0031

Venus -110721-08-07 01:12 J -38719203.65 -38719203.45 -38719203.24 0.0088 0.0024

Venus -110720-03-20 12:57 J -38718978.16 -38718977.96 -38718977.74 0.0088 0.0018

Venus -110720-11-01 00:43 J -38718752.68 -38718752.47 -38718752.26 0.0088 0.0012

Venus -110719-06-14 12:29 J -38718527.20 -38718526.98 -38718526.77 0.0088 0.0006

Venus -110718-01-26 00:00 J -38718301.71 -38718301.50 -38718301.28 0.0088 0.0001

Venus -110718-09-08 11:31 J -38718076.23 -38718076.02 -38718075.80 0.0088 0.0007

Venus -110717-04-20 23:17 J -38717850.73 -38717850.53 -38717850.31 0.0088 0.0013

Venus -110717-12-02 10:48 J -38717625.25 -38717625.05 -38717624.83 0.0088 0.0020

Venus	-110716-07-15 22:19 J	-38717399.76	-38717399.57	-38717399.35	0.0088	0.0026
Saturn	-110715-01-26 03:36 J	-38717205.91	-38717205.35	-38717204.73	0.0088	0.0037
Venus	-110715-02-26 10:05 J	-38717174.27	-38717174.08	-38717173.88	0.0088	0.0031
Venus	-110715-10-09 21:36 J	-38716948.79	-38716948.60	-38716948.40	0.0088	0.0038
Venus	-110714-05-23 09:21 J	-38716723.29	-38716723.11	-38716722.92	0.0088	0.0044
Venus	-110713-01-03 20:38 J	-38716497.80	-38716497.64	-38716497.45	0.0088	0.0050
Venus	-110713-08-16 08:09 J	-38716272.31	-38716272.16	-38716271.99	0.0088	0.0056
Venus	-110712-03-29 19:41 J	-38716046.82	-38716046.68	-38716046.52	0.0088	0.0062
Venus	-110712-11-10 07:12 J	-38715821.32	-38715821.20	-38715821.05	0.0088	0.0068
Venus	-110711-06-23 18:43 J	-38715595.82	-38715595.72	-38715595.59	0.0088	0.0074
Venus	-110710-02-04 06:00 J	-38715370.32	-38715370.25	-38715370.14	0.0088	0.0080
Venus	-110710-09-17 17:17 J	-38715144.81	-38715144.78	-38715144.70	0.0088	0.0086
Moon	-110708-07-18 03:50 J	-38714475.45	-38714475.34	-38714475.18	0.0088	0.0074
Earth	-110708-07-18 07:12 J	-38714475.34	-38714475.20	-38714475.03	0.0088	0.0069 *
Earth	-110707-07-20 13:55 J	-38714108.12	-38714107.92	-38714107.68	0.0088	0.0040
Moon	-110707-07-20 16:05 J	-38714108.05	-38714107.83	-38714107.58	0.0088	0.0035 *
Moon	-110706-07-22 20:38 J	-38713740.87	-38713740.64	-38713740.39	0.0088	0.0014
Earth	-110706-07-22 21:21 J	-38713740.85	-38713740.61	-38713740.36	0.0088	0.0009 *
Moon	-110705-07-24 04:05 J	-38713373.57	-38713373.33	-38713373.08	0.0088	0.0025
Earth	-110705-07-24 04:19 J	-38713373.55	-38713373.32	-38713373.07	0.0088	0.0021 *
Earth	-110704-07-26 11:31 J	-38713006.21	-38713006.02	-38713005.81	0.0088	0.0051
Moon	-110704-07-26 13:12 J	-38713006.13	-38713005.95	-38713005.72	0.0088	0.0047 *
Moon	-110703-07-28 15:36 J	-38712638.90	-38712638.85	-38712638.76	0.0088	0.0085
Earth	-110703-07-28 18:14 J	-38712638.81	-38712638.74	-38712638.61	0.0088	0.0081 *
Mars	-110695-11-24 06:43 J	-38709598.34	-38709598.22	-38709598.05	0.0089	0.0080
Mars	-110693-10-20 04:48 J	-38708902.53	-38708902.30	-38708902.01	0.0089	0.0056
Mars	-110691-09-16 03:07 J	-38708206.68	-38708206.37	-38708206.05	0.0089	0.0031
Mars	-110689-08-11 23:45 J	-38707510.84	-38707510.51	-38707510.17	0.0089	0.0007
Mars	-110687-07-08 18:57 J	-38706815.01	-38706814.71	-38706814.36	0.0089	0.0019
Mars	-110685-06-03 13:26 J	-38706119.20	-38706118.94	-38706118.62	0.0089	0.0043

Mars -110683-04-30 08:09 J -38705423.37 -38705423.16 -38705422.94 0.0089 0.0066
 Mercury -110673-07-29 23:31 J -38701679.55 -38701679.52 -38701679.46 0.0089 0.0085
 Mercury -110673-10-26 02:09 J -38701591.47 -38701591.41 -38701591.33 0.0089 0.0080
 Mercury -110672-01-22 04:48 J -38701503.38 -38701503.30 -38701503.20 0.0089 0.0075
 Mercury -110672-04-20 07:26 J -38701415.29 -38701415.19 -38701415.08 0.0089 0.0070
 Mercury -110672-07-17 10:05 J -38701327.19 -38701327.08 -38701326.96 0.0089 0.0065
 Mercury -110672-10-13 12:29 J -38701239.09 -38701238.98 -38701238.84 0.0089 0.0061
 Mercury -110671-01-09 15:07 J -38701150.99 -38701150.87 -38701150.73 0.0089 0.0056
 Mercury -110671-04-07 18:00 J -38701062.89 -38701062.75 -38701062.61 0.0089 0.0050
 Mercury -110671-07-04 20:38 J -38700974.78 -38700974.64 -38700974.49 0.0089 0.0045
 Mercury -110671-09-30 23:17 J -38700886.68 -38700886.53 -38700886.38 0.0089 0.0040
 Mercury -110671-12-28 01:55 J -38700798.57 -38700798.42 -38700798.26 0.0089 0.0035
 Mercury -110670-03-26 04:33 J -38700710.47 -38700710.31 -38700710.14 0.0089 0.0030
 Mercury -110670-06-22 07:12 J -38700622.36 -38700622.20 -38700622.03 0.0089 0.0025
 Mercury -110670-09-18 09:50 J -38700534.25 -38700534.09 -38700533.91 0.0089 0.0020
 Mercury -110670-12-15 12:43 J -38700446.14 -38700445.97 -38700445.80 0.0089 0.0015
 Mercury -110669-03-12 15:21 J -38700358.02 -38700357.86 -38700357.68 0.0089 0.0010
 Mercury -110669-06-08 18:14 J -38700269.91 -38700269.74 -38700269.57 0.0089 0.0004
 Mercury -110669-09-04 21:07 J -38700181.80 -38700181.62 -38700181.45 0.0089 0.0002
 Mercury -110669-12-01 23:45 J -38700093.68 -38700093.51 -38700093.34 0.0089 0.0006
 Mercury -110668-02-28 02:24 J -38700005.56 -38700005.40 -38700005.22 0.0089 0.0012
 Mercury -110668-05-27 05:17 J -38699917.45 -38699917.28 -38699917.10 0.0089 0.0017
 Mercury -110668-08-23 08:09 J -38699829.33 -38699829.16 -38699828.99 0.0089 0.0022
 Mercury -110668-11-19 11:02 J -38699741.21 -38699741.04 -38699740.87 0.0089 0.0027
 Mercury -110667-02-15 13:41 J -38699653.08 -38699652.93 -38699652.76 0.0089 0.0033
 Mercury -110667-05-14 16:33 J -38699564.96 -38699564.81 -38699564.65 0.0089 0.0038
 Mercury -110667-08-10 19:12 J -38699476.84 -38699476.70 -38699476.53 0.0089 0.0044
 Mercury -110667-11-06 22:05 J -38699388.71 -38699388.58 -38699388.42 0.0089 0.0050
 Mercury -110666-02-03 01:12 J -38699300.58 -38699300.45 -38699300.31 0.0089 0.0054
 Mercury -110666-05-02 03:50 J -38699212.45 -38699212.34 -38699212.19 0.0089 0.0060

Mercury -110666-07-29 06:57 J -38699124.32 -38699124.21 -38699124.08 0.0089 0.0065

Mercury -110666-10-25 09:36 J -38699036.19 -38699036.10 -38699035.97 0.0089 0.0071

Mercury -110665-01-21 12:43 J -38698948.05 -38698947.97 -38698947.87 0.0089 0.0076

Mercury -110665-04-18 15:21 J -38698859.90 -38698859.86 -38698859.77 0.0089 0.0082

Mercury -110665-07-15 18:29 J -38698771.75 -38698771.73 -38698771.68 0.0089 0.0087

Venus -110645-07-17 22:33 J -38691464.57 -38691464.56 -38691464.53 0.0089 0.0089

Venus -110644-02-28 12:29 J -38691239.04 -38691238.98 -38691238.87 0.0089 0.0083

Venus -110644-10-12 02:53 J -38691013.47 -38691013.38 -38691013.24 0.0089 0.0076

Venus -110643-05-25 17:31 J -38690787.90 -38690787.77 -38690787.62 0.0089 0.0069

Venus -110642-01-06 07:26 J -38690562.32 -38690562.19 -38690562.00 0.0089 0.0064

Venus -110642-08-19 22:05 J -38690336.74 -38690336.58 -38690336.39 0.0089 0.0056

Venus -110641-04-01 12:43 J -38690111.15 -38690110.97 -38690110.78 0.0089 0.0050

Venus -110641-11-13 02:53 J -38689885.56 -38689885.38 -38689885.16 0.0089 0.0043

Venus -110640-06-26 17:31 J -38689659.97 -38689659.77 -38689659.56 0.0089 0.0036

Venus -110639-02-07 08:09 J -38689434.37 -38689434.16 -38689433.95 0.0089 0.0030

Venus -110639-09-20 22:33 J -38689208.77 -38689208.56 -38689208.33 0.0089 0.0023

Venus -110638-05-04 13:12 J -38688983.17 -38688982.95 -38688982.73 0.0089 0.0016

Venus -110638-12-16 03:36 J -38688757.57 -38688757.35 -38688757.12 0.0089 0.0009

Venus -110637-07-28 18:00 J -38688531.97 -38688531.75 -38688531.52 0.0089 0.0003

Venus -110636-03-11 08:38 J -38688306.37 -38688306.14 -38688305.92 0.0089 0.0004

Venus -110636-10-22 23:02 J -38688080.76 -38688080.54 -38688080.31 0.0089 0.0011

Venus -110635-06-05 13:41 J -38687855.15 -38687854.93 -38687854.71 0.0089 0.0018

Venus -110634-01-17 04:05 J -38687629.55 -38687629.33 -38687629.11 0.0089 0.0024

Venus -110634-08-30 18:29 J -38687403.94 -38687403.73 -38687403.51 0.0089 0.0031

Venus -110633-04-12 08:53 J -38687178.32 -38687178.13 -38687177.91 0.0089 0.0038

Venus -110633-11-23 23:45 J -38686952.71 -38686952.51 -38686952.31 0.0089 0.0044

Venus -110632-07-07 13:55 J -38686727.09 -38686726.92 -38686726.72 0.0089 0.0051

Venus -110631-02-18 04:19 J -38686501.47 -38686501.32 -38686501.12 0.0089 0.0058

Venus -110631-10-01 19:26 J -38686275.84 -38686275.69 -38686275.53 0.0089 0.0064

Venus -110630-05-15 09:50 J -38686050.21 -38686050.09 -38686049.94 0.0089 0.0071

Venus -110630-12-27 00:14 J -38685824.58 -38685824.49 -38685824.36 0.0089 0.0078
 Venus -110629-08-08 14:53 J -38685598.93 -38685598.88 -38685598.79 0.0089 0.0084
 Moon -110626-01-18 12:43 J -38684706.05 -38684705.97 -38684705.84 0.0089 0.0081
 Earth -110626-01-18 16:33 J -38684705.85 -38684705.81 -38684705.72 0.0089 0.0086 *
 Earth -110625-01-21 09:21 J -38684338.30 -38684338.11 -38684337.87 0.0089 0.0053
 Moon -110625-01-21 12:43 J -38684338.16 -38684337.97 -38684337.74 0.0089 0.0057 *
 Moon -110624-01-22 23:45 J -38683970.77 -38683970.51 -38683970.25 0.0089 0.0015
 Earth -110624-01-23 02:38 J -38683970.65 -38683970.39 -38683970.12 0.0089 0.0019 *
 Earth -110623-01-25 18:57 J -38683602.97 -38683602.71 -38683602.43 0.0089 0.0014
 Moon -110623-01-25 20:53 J -38683602.91 -38683602.63 -38683602.35 0.0089 0.0009 *
 Moon -110622-01-28 10:48 J -38683235.25 -38683235.05 -38683234.82 0.0089 0.0051
 Earth -110622-01-28 11:17 J -38683235.24 -38683235.03 -38683234.79 0.0089 0.0047 *
 Moon -110621-01-31 03:50 J -38682867.48 -38682867.34 -38682867.19 0.0089 0.0075
 Earth -110621-01-31 03:21 J -38682867.45 -38682867.36 -38682867.21 0.0089 0.0080 *
 Mars -110613-09-08 16:48 J -38679723.97 -38679723.80 -38679723.60 0.0089 0.0069
 Mars -110611-08-03 16:05 J -38679030.08 -38679029.83 -38679029.57 0.0089 0.0047
 Mars -110609-06-27 16:19 J -38678336.09 -38678335.82 -38678335.52 0.0089 0.0026
 Mars -110607-05-22 16:48 J -38677642.09 -38677641.80 -38677641.50 0.0089 0.0004
 Mars -110605-04-15 17:31 J -38676948.05 -38676947.77 -38676947.47 0.0089 0.0019
 Mars -110603-03-10 19:55 J -38676253.92 -38676253.67 -38676253.38 0.0089 0.0041
 Mars -110601-02-02 23:02 J -38675559.72 -38675559.54 -38675559.30 0.0089 0.0063
 Mars -110600-12-28 01:55 J -38674865.48 -38674865.42 -38674865.30 0.0089 0.0085
 Mercury -110592-11-21 13:26 J -38671979.97 -38671979.94 -38671979.91 0.0088 0.0086
 Mercury -110591-02-17 14:53 J -38671891.92 -38671891.88 -38671891.81 0.0088 0.0082
 Mercury -110591-05-16 17:02 J -38671803.86 -38671803.79 -38671803.71 0.0088 0.0077
 Mercury -110591-08-12 18:43 J -38671715.79 -38671715.72 -38671715.62 0.0088 0.0073
 Mercury -110591-11-08 20:53 J -38671627.72 -38671627.63 -38671627.54 0.0088 0.0068
 Mercury -110590-02-04 22:33 J -38671539.66 -38671539.56 -38671539.45 0.0088 0.0063
 Mercury -110590-05-04 00:29 J -38671451.59 -38671451.48 -38671451.36 0.0088 0.0059
 Mercury -110590-07-31 02:09 J -38671363.52 -38671363.41 -38671363.28 0.0088 0.0055

Mercury -110590-10-27 04:05 J -38671275.45 -38671275.33 -38671275.20 0.0088 0.0050

Mercury -110589-01-23 05:45 J -38671187.37 -38671187.26 -38671187.12 0.0088 0.0046

Mercury -110589-04-20 07:55 J -38671099.30 -38671099.17 -38671099.04 0.0088 0.0041

Mercury -110589-07-17 09:36 J -38671011.23 -38671011.10 -38671010.96 0.0088 0.0036

Mercury -110589-10-13 11:17 J -38670923.16 -38670923.03 -38670922.88 0.0088 0.0032

Mercury -110588-01-09 13:12 J -38670835.09 -38670834.95 -38670834.81 0.0088 0.0028

Mercury -110588-04-07 14:53 J -38670747.02 -38670746.88 -38670746.73 0.0088 0.0023

Mercury -110588-07-04 16:48 J -38670658.94 -38670658.80 -38670658.66 0.0088 0.0019

Mercury -110588-09-30 18:29 J -38670570.87 -38670570.73 -38670570.58 0.0088 0.0014

Mercury -110588-12-27 20:09 J -38670482.80 -38670482.66 -38670482.51 0.0088 0.0011

Mercury -110587-03-25 22:05 J -38670394.73 -38670394.58 -38670394.43 0.0088 0.0006

Mercury -110587-06-21 23:45 J -38670306.65 -38670306.51 -38670306.36 0.0088 0.0002

Mercury -110587-09-18 01:26 J -38670218.58 -38670218.44 -38670218.29 0.0088 0.0004

Mercury -110587-12-15 03:21 J -38670130.51 -38670130.36 -38670130.22 0.0088 0.0008

Mercury -110586-03-13 05:02 J -38670042.44 -38670042.29 -38670042.15 0.0088 0.0012

Mercury -110586-06-09 06:29 J -38669954.36 -38669954.23 -38669954.08 0.0088 0.0017

Mercury -110586-09-05 08:24 J -38669866.29 -38669866.15 -38669866.01 0.0088 0.0020

Mercury -110586-12-02 10:05 J -38669778.22 -38669778.08 -38669777.94 0.0088 0.0025

Mercury -110585-02-28 11:45 J -38669690.15 -38669690.01 -38669689.87 0.0088 0.0029

Mercury -110585-05-26 13:12 J -38669602.07 -38669601.95 -38669601.81 0.0088 0.0033

Mercury -110585-08-22 14:53 J -38669514.00 -38669513.88 -38669513.74 0.0088 0.0038

Mercury -110585-11-18 16:33 J -38669425.93 -38669425.81 -38669425.68 0.0088 0.0042

Mercury -110584-02-14 18:14 J -38669337.86 -38669337.74 -38669337.61 0.0088 0.0046

Mercury -110584-05-13 19:55 J -38669249.78 -38669249.67 -38669249.55 0.0088 0.0050

Mercury -110584-08-09 21:21 J -38669161.71 -38669161.61 -38669161.48 0.0088 0.0054

Mercury -110584-11-05 23:02 J -38669073.63 -38669073.54 -38669073.42 0.0088 0.0058

Mercury -110583-02-02 00:43 J -38668985.56 -38668985.47 -38668985.36 0.0088 0.0062

Mercury -110583-05-01 02:24 J -38668897.49 -38668897.40 -38668897.30 0.0088 0.0066

Mercury -110583-07-28 03:50 J -38668809.41 -38668809.34 -38668809.24 0.0088 0.0071

Mercury -110583-10-24 05:31 J -38668721.33 -38668721.27 -38668721.18 0.0088 0.0075

Mercury -110582-01-20 07:12 J -38668633.25 -38668633.20 -38668633.13 0.0088 0.0079

Mercury -110582-04-18 08:53 J -38668545.17 -38668545.13 -38668545.08 0.0088 0.0082

Mercury -110582-07-15 10:19 J -38668457.08 -38668457.07 -38668457.03 0.0088 0.0087

Venus -110563-09-06 17:02 J -38661463.84 -38661463.79 -38661463.70 0.0088 0.0083

Venus -110562-04-20 05:02 J -38661238.38 -38661238.29 -38661238.17 0.0088 0.0077

Venus -110562-12-01 16:48 J -38661012.91 -38661012.80 -38661012.66 0.0088 0.0072

Venus -110561-07-14 04:33 J -38660787.44 -38660787.31 -38660787.15 0.0088 0.0066

Venus -110560-02-24 16:19 J -38660561.96 -38660561.82 -38660561.64 0.0088 0.0060

Venus -110560-10-08 04:05 J -38660336.48 -38660336.33 -38660336.14 0.0088 0.0054

Venus -110559-05-21 15:50 J -38660111.00 -38660110.84 -38660110.64 0.0088 0.0048

Venus -110558-01-02 03:36 J -38659885.53 -38659885.35 -38659885.15 0.0088 0.0041

Venus -110558-08-15 15:07 J -38659660.05 -38659659.87 -38659659.65 0.0088 0.0036

Venus -110557-03-28 03:21 J -38659434.56 -38659434.36 -38659434.16 0.0088 0.0029

Venus -110557-11-08 14:53 J -38659209.08 -38659208.88 -38659208.67 0.0088 0.0023

Venus -110556-06-22 02:24 J -38658983.60 -38658983.40 -38658983.18 0.0088 0.0017

Venus -110555-02-02 14:09 J -38658758.12 -38658757.91 -38658757.70 0.0088 0.0010

Venus -110555-09-16 01:41 J -38658532.64 -38658532.43 -38658532.21 0.0088 0.0004

Venus -110554-04-29 13:26 J -38658307.15 -38658306.94 -38658306.72 0.0088 0.0003

Venus -110554-12-11 00:57 J -38658081.67 -38658081.46 -38658081.24 0.0088 0.0009

Venus -110553-07-23 12:43 J -38657856.18 -38657855.97 -38657855.76 0.0088 0.0015

Venus -110552-03-06 00:00 J -38657630.69 -38657630.50 -38657630.28 0.0088 0.0022

Venus -110552-10-17 11:45 J -38657405.20 -38657405.01 -38657404.80 0.0088 0.0027

Venus -110551-05-30 23:17 J -38657179.71 -38657179.53 -38657179.32 0.0088 0.0034

Venus -110550-01-11 11:02 J -38656954.22 -38656954.04 -38656953.84 0.0088 0.0039

Venus -110550-08-24 22:33 J -38656728.73 -38656728.56 -38656728.37 0.0088 0.0045

Venus -110549-04-06 10:05 J -38656503.24 -38656503.08 -38656502.89 0.0088 0.0052

Venus -110549-11-17 21:36 J -38656277.75 -38656277.60 -38656277.42 0.0088 0.0058

Venus -110548-07-01 09:07 J -38656052.25 -38656052.12 -38656051.96 0.0088 0.0064

Venus -110547-02-11 20:38 J -38655826.76 -38655826.64 -38655826.50 0.0088 0.0070

Venus -110547-09-25 07:55 J -38655601.26 -38655601.17 -38655601.04 0.0088 0.0076

Venus -110546-05-08 19:26 J -38655375.75 -38655375.69 -38655375.58 0.0088 0.0082

Venus -110546-12-20 06:57 J -38655150.22 -38655150.21 -38655150.15 0.0088 0.0087

Earth -110544-07-17 22:33 J -38654574.62 -38654574.56 -38654574.43 0.0088 0.0082

Moon -110544-07-17 23:45 J -38654574.60 -38654574.51 -38654574.40 0.0088 0.0081 *

Earth -110543-07-20 05:45 J -38654207.45 -38654207.26 -38654207.05 0.0088 0.0052

Moon -110543-07-20 06:14 J -38654207.42 -38654207.24 -38654207.03 0.0088 0.0052 *

Moon -110542-07-22 10:33 J -38653840.30 -38653840.06 -38653839.81 0.0088 0.0023

Earth -110542-07-22 12:57 J -38653840.20 -38653839.96 -38653839.72 0.0088 0.0022 *

Earth -110541-07-23 19:41 J -38653472.92 -38653472.68 -38653472.43 0.0088 0.0009

Moon -110541-07-23 22:33 J -38653472.80 -38653472.56 -38653472.31 0.0088 0.0009 *

Moon -110540-07-25 23:02 J -38653105.74 -38653105.54 -38653105.29 0.0088 0.0039

Earth -110540-07-26 02:38 J -38653105.59 -38653105.39 -38653105.15 0.0088 0.0039 *

Earth -110539-07-28 09:36 J -38652738.23 -38652738.10 -38652737.92 0.0088 0.0069

Moon -110539-07-28 13:41 J -38652738.08 -38652737.93 -38652737.77 0.0088 0.0069 *

Mars -110529-06-03 04:05 J -38649140.54 -38649140.33 -38649140.08 0.0089 0.0065

Mars -110527-04-30 02:38 J -38648444.67 -38648444.39 -38648444.08 0.0089 0.0040

Mars -110525-03-26 00:29 J -38647748.80 -38647748.48 -38647748.14 0.0089 0.0015

Mars -110523-02-19 21:21 J -38647052.93 -38647052.61 -38647052.27 0.0089 0.0011

Mars -110521-01-16 16:19 J -38646357.10 -38646356.82 -38646356.49 0.0089 0.0036

Mars -110520-12-12 09:50 J -38645661.29 -38645661.09 -38645660.81 0.0089 0.0061

Mars -110518-11-08 03:07 J -38644965.43 -38644965.37 -38644965.23 0.0089 0.0085

Mercury -110508-01-27 20:53 J -38641596.66 -38641596.63 -38641596.59 0.0089 0.0086

Mercury -110508-04-25 23:31 J -38641508.59 -38641508.52 -38641508.46 0.0089 0.0081

Mercury -110508-07-23 01:41 J -38641420.50 -38641420.43 -38641420.33 0.0089 0.0077

Mercury -110508-10-19 04:19 J -38641332.41 -38641332.32 -38641332.21 0.0089 0.0072

Mercury -110507-01-15 06:43 J -38641244.31 -38641244.22 -38641244.09 0.0089 0.0067

Mercury -110507-04-13 09:21 J -38641156.21 -38641156.11 -38641155.97 0.0089 0.0062

Mercury -110507-07-10 12:00 J -38641068.11 -38641068.00 -38641067.85 0.0089 0.0057

Mercury -110507-10-06 14:38 J -38640980.01 -38640979.89 -38640979.74 0.0089 0.0052

Mercury -110506-01-02 17:17 J -38640891.91 -38640891.78 -38640891.62 0.0089 0.0047

Mercury -110506-03-31 19:55 J -38640803.81 -38640803.67 -38640803.51 0.0089 0.0042

Mercury -110506-06-27 22:33 J -38640715.70 -38640715.56 -38640715.39 0.0089 0.0037

Mercury -110506-09-24 01:12 J -38640627.59 -38640627.45 -38640627.28 0.0089 0.0032

Mercury -110506-12-21 04:05 J -38640539.49 -38640539.33 -38640539.16 0.0089 0.0027

Mercury -110505-03-18 06:57 J -38640451.38 -38640451.21 -38640451.05 0.0089 0.0021

Mercury -110505-06-14 09:36 J -38640363.27 -38640363.10 -38640362.93 0.0089 0.0016

Mercury -110505-09-10 12:14 J -38640275.16 -38640274.99 -38640274.82 0.0089 0.0011

Mercury -110505-12-07 15:07 J -38640187.05 -38640186.87 -38640186.70 0.0089 0.0006

Mercury -110504-03-05 17:45 J -38640098.93 -38640098.76 -38640098.59 0.0089 0.0001

Mercury -110504-06-01 20:24 J -38640010.82 -38640010.65 -38640010.47 0.0089 0.0005

Mercury -110504-08-28 23:17 J -38639922.70 -38639922.53 -38639922.36 0.0089 0.0010

Mercury -110504-11-25 01:55 J -38639834.58 -38639834.42 -38639834.24 0.0089 0.0015

Mercury -110503-02-21 04:48 J -38639746.47 -38639746.30 -38639746.13 0.0089 0.0020

Mercury -110503-05-20 07:26 J -38639658.35 -38639658.19 -38639658.01 0.0089 0.0026

Mercury -110503-08-16 10:19 J -38639570.23 -38639570.07 -38639569.90 0.0089 0.0031

Mercury -110503-11-12 13:12 J -38639482.10 -38639481.95 -38639481.79 0.0089 0.0036

Mercury -110502-02-08 15:50 J -38639393.98 -38639393.84 -38639393.67 0.0089 0.0042

Mercury -110502-05-07 18:57 J -38639305.86 -38639305.71 -38639305.56 0.0089 0.0047

Mercury -110502-08-03 21:36 J -38639217.73 -38639217.60 -38639217.45 0.0089 0.0053

Mercury -110502-10-31 00:29 J -38639129.60 -38639129.48 -38639129.33 0.0089 0.0058

Mercury -110501-01-27 03:36 J -38639041.47 -38639041.35 -38639041.22 0.0089 0.0063

Mercury -110501-04-24 06:14 J -38638953.34 -38638953.24 -38638953.12 0.0089 0.0069

Mercury -110501-07-21 09:21 J -38638865.20 -38638865.11 -38638865.01 0.0089 0.0074

Mercury -110501-10-17 12:00 J -38638777.06 -38638777.00 -38638776.91 0.0089 0.0080

Mercury -110500-01-13 15:07 J -38638688.91 -38638688.87 -38638688.81 0.0089 0.0085

Venus -110481-10-19 09:50 J -38631470.12 -38631470.09 -38631470.04 0.0089 0.0087

Venus -110480-06-01 23:45 J -38631244.58 -38631244.51 -38631244.40 0.0089 0.0081

Venus -110479-01-13 13:41 J -38631019.02 -38631018.93 -38631018.78 0.0089 0.0076

Venus -110479-08-27 04:19 J -38630793.45 -38630793.32 -38630793.16 0.0089 0.0068

Venus -110478-04-09 18:57 J -38630567.87 -38630567.71 -38630567.55 0.0089 0.0062

Venus	-110478-11-21 08:53 J	-38630342.29	-38630342.13	-38630341.94	0.0089	0.0055
Venus	-110477-07-03 23:17 J	-38630116.71	-38630116.53	-38630116.33	0.0089	0.0049
Venus	-110476-02-14 13:26 J	-38629891.12	-38629890.94	-38629890.72	0.0089	0.0043
Venus	-110476-09-28 04:19 J	-38629665.52	-38629665.32	-38629665.10	0.0089	0.0035
Venus	-110475-05-11 18:43 J	-38629439.92	-38629439.72	-38629439.49	0.0089	0.0029
Venus	-110475-12-23 09:21 J	-38629214.33	-38629214.11	-38629213.89	0.0089	0.0021
Venus	-110474-08-05 23:31 J	-38628988.73	-38628988.52	-38628988.29	0.0089	0.0015
Venus	-110473-03-18 14:09 J	-38628763.13	-38628762.91	-38628762.68	0.0089	0.0008
Venus	-110473-10-30 04:48 J	-38628537.52	-38628537.30	-38628537.07	0.0089	0.0002
Venus	-110472-06-12 19:12 J	-38628311.92	-38628311.70	-38628311.47	0.0089	0.0006
Venus	-110471-01-24 09:50 J	-38628086.31	-38628086.09	-38628085.86	0.0089	0.0012
Venus	-110471-09-07 00:14 J	-38627860.71	-38627860.49	-38627860.26	0.0089	0.0019
Venus	-110470-04-20 14:38 J	-38627635.10	-38627634.89	-38627634.66	0.0089	0.0026
Venus	-110470-12-02 05:02 J	-38627409.49	-38627409.29	-38627409.06	0.0089	0.0033
Venus	-110469-07-14 19:55 J	-38627183.87	-38627183.67	-38627183.47	0.0089	0.0039
Venus	-110468-02-25 10:05 J	-38626958.26	-38626958.08	-38626957.87	0.0089	0.0046
Venus	-110468-10-09 00:43 J	-38626732.64	-38626732.47	-38626732.27	0.0089	0.0053
Venus	-110467-05-22 15:36 J	-38626507.02	-38626506.85	-38626506.68	0.0089	0.0059
Venus	-110466-01-03 05:45 J	-38626281.39	-38626281.26	-38626281.09	0.0089	0.0066
Venus	-110466-08-16 20:09 J	-38626055.77	-38626055.66	-38626055.51	0.0089	0.0073
Venus	-110465-03-29 11:02 J	-38625830.13	-38625830.04	-38625829.93	0.0089	0.0079
Venus	-110465-11-10 01:26 J	-38625604.47	-38625604.44	-38625604.36	0.0089	0.0086
Moon	-110461-01-20 15:36 J	-38624437.98	-38624437.85	-38624437.66	0.0089	0.0069
Earth	-110461-01-20 16:05 J	-38624437.98	-38624437.83	-38624437.62	0.0089	0.0067 *
Moon	-110460-01-22 08:53 J	-38624070.38	-38624070.13	-38624069.86	0.0089	0.0032
Earth	-110460-01-22 09:07 J	-38624070.35	-38624070.12	-38624069.85	0.0089	0.0034 *
Earth	-110459-01-25 02:24 J	-38623702.67	-38623702.40	-38623702.13	0.0089	0.0000
Moon	-110459-01-25 03:36 J	-38623702.61	-38623702.35	-38623702.09	0.0089	0.0001 *
Moon	-110458-01-27 16:19 J	-38623335.07	-38623334.82	-38623334.56	0.0089	0.0034
Earth	-110458-01-27 18:57 J	-38623334.95	-38623334.71	-38623334.45	0.0089	0.0033 *

Earth -110457-01-30 11:31 J -38622967.19 -38622967.02 -38622966.83 0.0089 0.0066
 Moon -110457-01-30 14:24 J -38622967.06 -38622966.90 -38622966.71 0.0089 0.0066 *
 Mars -110449-04-24 03:21 J -38619960.47 -38619960.36 -38619960.18 0.0089 0.0078
 Mars -110447-03-19 03:07 J -38619266.57 -38619266.37 -38619266.11 0.0089 0.0056
 Mars -110445-02-11 02:24 J -38618572.65 -38618572.40 -38618572.10 0.0089 0.0034
 Mars -110443-01-05 03:21 J -38617878.65 -38617878.36 -38617878.06 0.0089 0.0011
 Mars -110442-11-30 03:36 J -38617184.64 -38617184.35 -38617184.04 0.0089 0.0012
 Mars -110440-10-24 04:05 J -38616490.60 -38616490.33 -38616490.05 0.0089 0.0034
 Mars -110438-09-18 05:17 J -38615796.48 -38615796.28 -38615796.02 0.0089 0.0057
 Mars -110436-08-12 08:53 J -38615102.24 -38615102.13 -38615101.97 0.0089 0.0079
 Mercury -110427-05-22 11:02 J -38611897.04 -38611897.04 -38611897.00 0.0088 0.0088
 Mercury -110427-08-18 13:12 J -38611809.00 -38611808.95 -38611808.89 0.0088 0.0083
 Mercury -110427-11-14 14:53 J -38611720.93 -38611720.88 -38611720.80 0.0088 0.0078
 Mercury -110426-02-10 16:48 J -38611632.87 -38611632.80 -38611632.71 0.0088 0.0074
 Mercury -110426-05-09 18:43 J -38611544.80 -38611544.72 -38611544.62 0.0088 0.0069
 Mercury -110426-08-05 20:38 J -38611456.73 -38611456.64 -38611456.53 0.0088 0.0065
 Mercury -110426-11-01 22:19 J -38611368.66 -38611368.57 -38611368.45 0.0088 0.0061
 Mercury -110425-01-29 00:14 J -38611280.59 -38611280.49 -38611280.36 0.0088 0.0056
 Mercury -110425-04-26 02:09 J -38611192.52 -38611192.41 -38611192.28 0.0088 0.0051
 Mercury -110425-07-23 04:05 J -38611104.45 -38611104.33 -38611104.20 0.0088 0.0047
 Mercury -110425-10-19 05:45 J -38611016.38 -38611016.26 -38611016.12 0.0088 0.0042
 Mercury -110424-01-15 07:41 J -38610928.31 -38610928.18 -38610928.04 0.0088 0.0038
 Mercury -110424-04-13 09:21 J -38610840.24 -38610840.11 -38610839.96 0.0088 0.0034
 Mercury -110424-07-10 11:17 J -38610752.16 -38610752.03 -38610751.89 0.0088 0.0029
 Mercury -110424-10-06 13:12 J -38610664.09 -38610663.95 -38610663.81 0.0088 0.0024
 Mercury -110423-01-02 14:53 J -38610576.02 -38610575.88 -38610575.73 0.0088 0.0020
 Mercury -110423-03-31 16:48 J -38610487.95 -38610487.80 -38610487.66 0.0088 0.0016
 Mercury -110423-06-27 18:29 J -38610399.87 -38610399.73 -38610399.58 0.0088 0.0011
 Mercury -110423-09-23 20:09 J -38610311.80 -38610311.66 -38610311.51 0.0088 0.0007
 Mercury -110423-12-20 22:05 J -38610223.73 -38610223.58 -38610223.44 0.0088 0.0003

Mercury -110422-03-18 23:45 J -38610135.66 -38610135.51 -38610135.36 0.0088 0.0002
 Mercury -110422-06-15 01:26 J -38610047.58 -38610047.44 -38610047.29 0.0088 0.0007
 Mercury -110422-09-11 03:07 J -38609959.51 -38609959.37 -38609959.22 0.0088 0.0011
 Mercury -110422-12-08 04:48 J -38609871.44 -38609871.30 -38609871.15 0.0088 0.0016
 Mercury -110421-03-05 06:29 J -38609783.36 -38609783.23 -38609783.08 0.0088 0.0020
 Mercury -110421-06-01 08:24 J -38609695.29 -38609695.15 -38609695.01 0.0088 0.0023
 Mercury -110421-08-28 10:05 J -38609607.22 -38609607.08 -38609606.94 0.0088 0.0028
 Mercury -110421-11-24 11:31 J -38609519.14 -38609519.02 -38609518.87 0.0088 0.0033
 Mercury -110420-02-20 13:12 J -38609431.07 -38609430.95 -38609430.81 0.0088 0.0037
 Mercury -110420-05-19 14:53 J -38609343.00 -38609342.88 -38609342.74 0.0088 0.0041
 Mercury -110420-08-15 16:48 J -38609254.92 -38609254.80 -38609254.68 0.0088 0.0045
 Mercury -110420-11-11 18:29 J -38609166.85 -38609166.73 -38609166.61 0.0088 0.0049
 Mercury -110419-02-07 19:55 J -38609078.78 -38609078.67 -38609078.55 0.0088 0.0053
 Mercury -110419-05-06 21:21 J -38608990.70 -38608990.61 -38608990.49 0.0088 0.0058
 Mercury -110419-08-02 23:02 J -38608902.63 -38608902.54 -38608902.42 0.0088 0.0062
 Mercury -110419-10-30 00:43 J -38608814.55 -38608814.47 -38608814.36 0.0088 0.0066
 Mercury -110418-01-26 02:24 J -38608726.48 -38608726.40 -38608726.30 0.0088 0.0070
 Mercury -110418-04-24 04:05 J -38608638.40 -38608638.33 -38608638.25 0.0088 0.0074
 Mercury -110418-07-21 05:45 J -38608550.32 -38608550.26 -38608550.19 0.0088 0.0077
 Mercury -110418-10-17 07:12 J -38608462.24 -38608462.20 -38608462.14 0.0088 0.0082
 Mercury -110417-01-13 08:53 J -38608374.15 -38608374.13 -38608374.09 0.0088 0.0086
 Jupiter -110411-05-25 07:55 J -38606050.67 -38606050.17 -38606049.63 0.0088 0.0009
 Venus -110399-04-27 18:14 J -38601694.74 -38601694.74 -38601694.74 0.0088 0.0088
 Venus -110399-12-09 05:45 J -38601469.32 -38601469.26 -38601469.17 0.0088 0.0083
 Venus -110398-07-22 17:45 J -38601243.85 -38601243.76 -38601243.64 0.0088 0.0076
 Venus -110397-03-04 05:31 J -38601018.38 -38601018.27 -38601018.12 0.0088 0.0071
 Venus -110397-10-15 17:31 J -38600792.90 -38600792.77 -38600792.61 0.0088 0.0064
 Venus -110396-05-29 05:17 J -38600567.42 -38600567.28 -38600567.10 0.0088 0.0058
 Venus -110395-01-09 17:02 J -38600341.94 -38600341.79 -38600341.60 0.0088 0.0052
 Venus -110395-08-23 05:17 J -38600116.46 -38600116.28 -38600116.10 0.0088 0.0046

Venus	-110394-04-05 17:02 J	-38599890.98	-38599890.79	-38599890.60	0.0088	0.0040
Venus	-110394-11-17 04:33 J	-38599665.50	-38599665.31	-38599665.10	0.0088	0.0034
Venus	-110393-06-29 16:19 J	-38599440.02	-38599439.82	-38599439.61	0.0088	0.0027
Saturn	-110393-12-09 04:19 J	-38599277.94	-38599277.32	-38599276.64	0.0088	0.0011
Venus	-110392-02-10 03:50 J	-38599214.54	-38599214.34	-38599214.12	0.0088	0.0021
Venus	-110392-09-23 15:36 J	-38598989.06	-38598988.85	-38598988.63	0.0088	0.0015
Venus	-110391-05-07 03:21 J	-38598763.57	-38598763.36	-38598763.14	0.0088	0.0009
Venus	-110391-12-18 15:07 J	-38598538.09	-38598537.87	-38598537.66	0.0088	0.0003
Venus	-110390-08-01 02:38 J	-38598312.60	-38598312.39	-38598312.18	0.0088	0.0004
Venus	-110389-03-13 14:09 J	-38598087.12	-38598086.91	-38598086.69	0.0088	0.0010
Venus	-110389-10-25 01:55 J	-38597861.63	-38597861.42	-38597861.21	0.0088	0.0016
Venus	-110388-06-07 13:26 J	-38597636.14	-38597635.94	-38597635.73	0.0088	0.0023
Venus	-110387-01-19 00:57 J	-38597410.65	-38597410.46	-38597410.25	0.0088	0.0029
Venus	-110387-09-01 12:43 J	-38597185.16	-38597184.97	-38597184.77	0.0088	0.0035
Venus	-110386-04-15 00:00 J	-38596959.67	-38596959.50	-38596959.29	0.0088	0.0042
Venus	-110386-11-26 11:45 J	-38596734.18	-38596734.01	-38596733.82	0.0088	0.0047
Venus	-110385-07-08 23:17 J	-38596508.68	-38596508.53	-38596508.35	0.0088	0.0053
Venus	-110384-02-19 10:48 J	-38596283.19	-38596283.05	-38596282.88	0.0088	0.0059
Venus	-110384-10-02 22:19 J	-38596057.69	-38596057.57	-38596057.41	0.0088	0.0066
Venus	-110383-05-16 10:05 J	-38595832.19	-38595832.08	-38595831.94	0.0088	0.0071
Venus	-110383-12-27 21:21 J	-38595606.69	-38595606.61	-38595606.48	0.0088	0.0078
Venus	-110382-08-10 08:53 J	-38595381.18	-38595381.13	-38595381.04	0.0088	0.0083
Moon	-110379-07-19 18:43 J	-38594306.86	-38594306.72	-38594306.54	0.0088	0.0068
Earth	-110379-07-19 21:50 J	-38594306.75	-38594306.59	-38594306.41	0.0088	0.0064 *
Earth	-110378-07-22 04:48 J	-38593939.53	-38593939.30	-38593939.07	0.0088	0.0034
Moon	-110378-07-22 07:55 J	-38593939.38	-38593939.17	-38593938.92	0.0088	0.0030 *
Moon	-110377-07-23 08:24 J	-38593572.39	-38593572.15	-38593571.90	0.0088	0.0009
Earth	-110377-07-23 11:45 J	-38593572.25	-38593572.01	-38593571.76	0.0088	0.0004 *
Earth	-110376-07-25 18:29 J	-38593204.96	-38593204.73	-38593204.49	0.0088	0.0026
Moon	-110376-07-25 21:21 J	-38593204.85	-38593204.61	-38593204.37	0.0088	0.0030 *

Moon -110375-07-27 23:31 J -38592837.71 -38592837.52 -38592837.32 0.0088 0.0052
 Earth -110375-07-28 01:26 J -38592837.62 -38592837.44 -38592837.24 0.0088 0.0056 *
 Earth -110374-07-30 08:09 J -38592470.19 -38592470.16 -38592470.07 0.0088 0.0086
 Mars -110365-01-16 00:57 J -38589378.61 -38589378.46 -38589378.26 0.0089 0.0075
 Mars -110364-12-12 00:00 J -38588682.75 -38588682.50 -38588682.20 0.0089 0.0050
 Mars -110362-11-07 22:19 J -38587986.88 -38587986.57 -38587986.23 0.0089 0.0024
 Mars -110360-10-03 19:55 J -38587291.00 -38587290.67 -38587290.33 0.0089 0.0003
 Mars -110358-08-30 16:33 J -38586595.12 -38586594.81 -38586594.49 0.0089 0.0028
 Mars -110356-07-26 11:31 J -38585899.26 -38585899.02 -38585898.73 0.0089 0.0054
 Mars -110354-06-22 05:31 J -38585203.39 -38585203.27 -38585203.09 0.0089 0.0079
 Mercury -110344-07-28 18:00 J -38581513.78 -38581513.75 -38581513.72 0.0089 0.0087
 Mercury -110344-10-24 20:09 J -38581425.70 -38581425.66 -38581425.58 0.0089 0.0083
 Mercury -110343-01-20 22:48 J -38581337.62 -38581337.55 -38581337.46 0.0089 0.0078
 Mercury -110343-04-19 01:26 J -38581249.53 -38581249.44 -38581249.34 0.0089 0.0073
 Mercury -110343-07-16 03:50 J -38581161.43 -38581161.34 -38581161.22 0.0089 0.0068
 Mercury -110343-10-12 06:29 J -38581073.33 -38581073.23 -38581073.10 0.0089 0.0063
 Mercury -110342-01-08 09:07 J -38580985.24 -38580985.12 -38580984.98 0.0089 0.0058
 Mercury -110342-04-06 11:45 J -38580897.14 -38580897.01 -38580896.87 0.0089 0.0053
 Mercury -110342-07-03 14:24 J -38580809.03 -38580808.90 -38580808.75 0.0089 0.0048
 Mercury -110342-09-29 17:02 J -38580720.93 -38580720.79 -38580720.64 0.0089 0.0043
 Mercury -110342-12-26 19:41 J -38580632.83 -38580632.68 -38580632.52 0.0089 0.0038
 Mercury -110341-03-23 22:19 J -38580544.72 -38580544.57 -38580544.41 0.0089 0.0033
 Mercury -110341-06-20 00:57 J -38580456.62 -38580456.46 -38580456.29 0.0089 0.0028
 Mercury -110341-09-16 03:36 J -38580368.51 -38580368.35 -38580368.18 0.0089 0.0023
 Mercury -110341-12-13 06:14 J -38580280.40 -38580280.24 -38580280.06 0.0089 0.0018
 Mercury -110340-03-11 09:07 J -38580192.29 -38580192.12 -38580191.95 0.0089 0.0013
 Mercury -110340-06-07 11:45 J -38580104.18 -38580104.01 -38580103.84 0.0089 0.0008
 Mercury -110340-09-03 14:38 J -38580016.07 -38580015.89 -38580015.72 0.0089 0.0003
 Mercury -110340-11-30 17:17 J -38579927.95 -38579927.78 -38579927.61 0.0089 0.0003
 Mercury -110339-02-26 19:55 J -38579839.84 -38579839.67 -38579839.49 0.0089 0.0008

Mercury -110339-05-25 22:48 J -38579751.72 -38579751.55 -38579751.38 0.0089 0.0013

Mercury -110339-08-22 01:26 J -38579663.61 -38579663.44 -38579663.27 0.0089 0.0019

Mercury -110339-11-18 04:05 J -38579575.49 -38579575.33 -38579575.15 0.0089 0.0024

Mercury -110338-02-14 06:57 J -38579487.37 -38579487.21 -38579487.04 0.0089 0.0029

Mercury -110338-05-13 09:36 J -38579399.25 -38579399.10 -38579398.93 0.0089 0.0035

Mercury -110338-08-09 12:29 J -38579311.13 -38579310.98 -38579310.81 0.0089 0.0040

Mercury -110338-11-05 15:21 J -38579223.00 -38579222.86 -38579222.70 0.0089 0.0045

Mercury -110337-02-01 18:00 J -38579134.88 -38579134.75 -38579134.59 0.0089 0.0051

Mercury -110337-04-29 20:53 J -38579046.75 -38579046.63 -38579046.48 0.0089 0.0056

Mercury -110337-07-27 00:00 J -38578958.62 -38578958.50 -38578958.37 0.0089 0.0061

Mercury -110337-10-23 02:38 J -38578870.49 -38578870.39 -38578870.26 0.0089 0.0067

Mercury -110336-01-19 05:45 J -38578782.35 -38578782.26 -38578782.15 0.0089 0.0072

Mercury -110336-04-17 08:24 J -38578694.22 -38578694.15 -38578694.05 0.0089 0.0078

Mercury -110336-07-14 11:31 J -38578606.07 -38578606.02 -38578605.95 0.0089 0.0083

Mercury -110336-10-10 14:38 J -38578517.90 -38578517.89 -38578517.87 0.0089 0.0088

Venus -110316-01-20 20:38 J -38571475.68 -38571475.64 -38571475.57 0.0089 0.0087

Venus -110316-09-03 10:48 J -38571250.13 -38571250.05 -38571249.93 0.0089 0.0080

Venus -110315-04-17 01:12 J -38571024.56 -38571024.45 -38571024.31 0.0089 0.0074

Venus -110315-11-28 15:07 J -38570799.00 -38570798.87 -38570798.70 0.0089 0.0067

Venus -110314-07-12 05:31 J -38570573.42 -38570573.27 -38570573.09 0.0089 0.0061

Venus -110313-02-22 19:41 J -38570347.84 -38570347.68 -38570347.49 0.0089 0.0054

Venus -110313-10-05 10:19 J -38570122.25 -38570122.07 -38570121.87 0.0089 0.0047

Venus -110312-05-19 00:43 J -38569896.66 -38569896.47 -38569896.26 0.0089 0.0041

Venus -110312-12-30 14:53 J -38569671.08 -38569670.88 -38569670.66 0.0089 0.0034

Venus -110311-08-13 05:17 J -38569445.49 -38569445.28 -38569445.05 0.0089 0.0027

Venus -110310-03-26 19:55 J -38569219.89 -38569219.67 -38569219.45 0.0089 0.0020

Venus -110310-11-07 10:33 J -38568994.29 -38568994.06 -38568993.84 0.0089 0.0013

Venus -110309-06-20 00:43 J -38568768.69 -38568768.47 -38568768.23 0.0089 0.0008

Venus -110308-01-31 15:21 J -38568543.08 -38568542.86 -38568542.63 0.0089 0.0001

Venus -110308-09-14 06:00 J -38568317.48 -38568317.25 -38568317.02 0.0089 0.0007

Venus	-110307-04-27 20:24 J	-38568091.87	-38568091.65	-38568091.42	0.0089	0.0014
Venus	-110307-12-09 10:48 J	-38567866.26	-38567866.05	-38567865.82	0.0089	0.0021
Venus	-110306-07-23 01:26 J	-38567640.66	-38567640.44	-38567640.22	0.0089	0.0027
Venus	-110305-03-04 15:50 J	-38567415.04	-38567414.84	-38567414.62	0.0089	0.0034
Venus	-110305-10-16 06:29 J	-38567189.42	-38567189.23	-38567189.02	0.0089	0.0041
Venus	-110304-05-29 20:38 J	-38566963.81	-38566963.64	-38566963.43	0.0089	0.0049
Venus	-110303-01-10 11:31 J	-38566738.19	-38566738.02	-38566737.83	0.0089	0.0054
Venus	-110303-08-24 01:41 J	-38566512.58	-38566512.43	-38566512.25	0.0089	0.0061
Venus	-110302-04-06 16:05 J	-38566286.95	-38566286.83	-38566286.66	0.0089	0.0068
Venus	-110302-11-18 06:57 J	-38566061.32	-38566061.21	-38566061.07	0.0089	0.0074
Venus	-110301-06-30 21:21 J	-38565835.68	-38565835.61	-38565835.50	0.0089	0.0081
Venus	-110300-02-11 12:14 J	-38565610.02	-38565609.99	-38565609.94	0.0089	0.0087
Moon	-110297-01-19 19:41 J	-38564537.78	-38564537.68	-38564537.52	0.0089	0.0078
Earth	-110297-01-19 22:33 J	-38564537.66	-38564537.56	-38564537.44	0.0089	0.0081 *
Earth	-110296-01-21 15:07 J	-38564170.08	-38564169.87	-38564169.63	0.0089	0.0048
Moon	-110296-01-21 18:43 J	-38564169.93	-38564169.72	-38564169.50	0.0089	0.0051 *
Moon	-110295-01-24 04:48 J	-38563802.56	-38563802.30	-38563802.02	0.0089	0.0011
Earth	-110295-01-24 08:09 J	-38563802.41	-38563802.16	-38563801.88	0.0089	0.0015 *
Earth	-110294-01-27 00:57 J	-38563434.71	-38563434.46	-38563434.18	0.0089	0.0019
Moon	-110294-01-27 05:02 J	-38563434.55	-38563434.29	-38563434.02	0.0089	0.0014 *
Moon	-110293-01-29 14:09 J	-38563067.09	-38563066.91	-38563066.69	0.0089	0.0056
Earth	-110293-01-29 17:31 J	-38563066.97	-38563066.77	-38563066.53	0.0089	0.0052 *
Earth	-110292-01-31 10:05 J	-38562699.14	-38562699.08	-38562698.99	0.0089	0.0085
Moon	-110292-01-31 12:43 J	-38562699.05	-38562698.97	-38562698.83	0.0089	0.0081 *
Mars	-110286-12-08 14:24 J	-38560196.93	-38560196.90	-38560196.82	0.0089	0.0087
Mars	-110284-11-01 13:12 J	-38559503.13	-38559502.95	-38559502.72	0.0089	0.0065
Mars	-110282-09-26 12:57 J	-38558809.20	-38558808.96	-38558808.68	0.0089	0.0042
Mars	-110280-08-20 12:00 J	-38558115.28	-38558115.00	-38558114.70	0.0089	0.0019
Mars	-110278-07-15 12:14 J	-38557421.29	-38557420.99	-38557420.69	0.0089	0.0004
Mars	-110276-06-08 13:12 J	-38556727.24	-38556726.95	-38556726.67	0.0089	0.0027

Mars -110274-05-03 13:41 J -38556033.16 -38556032.93 -38556032.67 0.0089 0.0050
 Mars -110272-03-27 15:50 J -38555338.99 -38555338.84 -38555338.65 0.0089 0.0073
 Mercury -110262-02-16 10:48 J -38551726.08 -38551726.05 -38551725.99 0.0088 0.0085
 Mercury -110262-05-15 12:57 J -38551638.02 -38551637.96 -38551637.89 0.0088 0.0080
 Mercury -110262-08-11 14:38 J -38551549.95 -38551549.89 -38551549.80 0.0088 0.0076
 Mercury -110262-11-07 16:48 J -38551461.89 -38551461.80 -38551461.71 0.0088 0.0071
 Mercury -110261-02-03 18:29 J -38551373.82 -38551373.73 -38551373.62 0.0088 0.0066
 Mercury -110261-05-01 20:24 J -38551285.75 -38551285.65 -38551285.54 0.0088 0.0062
 Mercury -110261-07-28 22:05 J -38551197.68 -38551197.58 -38551197.45 0.0088 0.0058
 Mercury -110261-10-25 00:14 J -38551109.61 -38551109.49 -38551109.37 0.0088 0.0053
 Mercury -110260-01-21 01:55 J -38551021.54 -38551021.42 -38551021.29 0.0088 0.0048
 Mercury -110260-04-19 03:50 J -38550933.47 -38550933.34 -38550933.21 0.0088 0.0044
 Mercury -110260-07-16 05:31 J -38550845.39 -38550845.27 -38550845.13 0.0088 0.0040
 Mercury -110260-10-12 07:12 J -38550757.32 -38550757.20 -38550757.05 0.0088 0.0036
 Mercury -110259-01-08 09:21 J -38550669.25 -38550669.11 -38550668.97 0.0088 0.0030
 Mercury -110259-04-06 11:02 J -38550581.18 -38550581.04 -38550580.89 0.0088 0.0026
 Mercury -110259-07-03 12:57 J -38550493.10 -38550492.96 -38550492.82 0.0088 0.0022
 Mercury -110259-09-29 14:38 J -38550405.03 -38550404.89 -38550404.74 0.0088 0.0017
 Mercury -110259-12-26 16:33 J -38550316.96 -38550316.81 -38550316.67 0.0088 0.0013
 Mercury -110258-03-24 18:14 J -38550228.88 -38550228.74 -38550228.59 0.0088 0.0008
 Mercury -110258-06-20 19:55 J -38550140.81 -38550140.67 -38550140.52 0.0088 0.0005
 Mercury -110258-09-16 21:50 J -38550052.74 -38550052.59 -38550052.45 0.0088 0.0001
 Mercury -110258-12-13 23:31 J -38549964.66 -38549964.52 -38549964.37 0.0088 0.0005
 Mercury -110257-03-11 01:12 J -38549876.59 -38549876.45 -38549876.30 0.0088 0.0009
 Mercury -110257-06-07 02:53 J -38549788.52 -38549788.38 -38549788.23 0.0088 0.0014
 Mercury -110257-09-03 04:48 J -38549700.44 -38549700.30 -38549700.16 0.0088 0.0018
 Mercury -110257-11-30 06:14 J -38549612.37 -38549612.24 -38549612.09 0.0088 0.0023
 Mercury -110256-02-26 08:09 J -38549524.30 -38549524.16 -38549524.02 0.0088 0.0026
 Mercury -110256-05-25 09:50 J -38549436.22 -38549436.09 -38549435.95 0.0088 0.0031
 Mercury -110256-08-21 11:31 J -38549348.15 -38549348.02 -38549347.88 0.0088 0.0035

Mercury -110256-11-17 12:57 J -38549260.08 -38549259.96 -38549259.82 0.0088 0.0040

Mercury -110255-02-13 14:38 J -38549172.00 -38549171.89 -38549171.75 0.0088 0.0044

Mercury -110255-05-12 16:33 J -38549083.93 -38549083.81 -38549083.69 0.0088 0.0047

Mercury -110255-08-08 18:14 J -38548995.85 -38548995.74 -38548995.62 0.0088 0.0052

Mercury -110255-11-04 19:55 J -38548907.78 -38548907.67 -38548907.56 0.0088 0.0056

Mercury -110254-01-31 21:36 J -38548819.70 -38548819.60 -38548819.50 0.0088 0.0060

Mercury -110254-04-29 23:02 J -38548731.63 -38548731.54 -38548731.43 0.0088 0.0064

Mercury -110254-07-27 00:29 J -38548643.55 -38548643.48 -38548643.37 0.0088 0.0069

Mercury -110254-10-23 02:09 J -38548555.48 -38548555.41 -38548555.32 0.0088 0.0073

Mercury -110253-01-19 03:50 J -38548467.40 -38548467.34 -38548467.26 0.0088 0.0077

Mercury -110253-04-16 05:31 J -38548379.32 -38548379.27 -38548379.20 0.0088 0.0080

Mercury -110253-07-13 07:12 J -38548291.23 -38548291.20 -38548291.15 0.0088 0.0084

Mercury -110253-10-09 08:53 J -38548203.13 -38548203.13 -38548203.13 0.0088 0.0088

Venus -110235-07-30 06:29 J -38541700.24 -38541700.23 -38541700.19 0.0088 0.0088

Venus -110234-03-12 18:29 J -38541474.79 -38541474.73 -38541474.63 0.0088 0.0082

Venus -110234-10-24 06:29 J -38541249.32 -38541249.23 -38541249.10 0.0088 0.0076

Venus -110233-06-05 18:14 J -38541023.85 -38541023.74 -38541023.59 0.0088 0.0070

Venus -110232-01-17 06:00 J -38540798.38 -38540798.25 -38540798.08 0.0088 0.0064

Venus -110232-08-30 18:00 J -38540572.90 -38540572.75 -38540572.57 0.0088 0.0057

Venus -110231-04-13 05:45 J -38540347.41 -38540347.26 -38540347.06 0.0088 0.0052

Venus -110231-11-24 18:00 J -38540121.93 -38540121.75 -38540121.56 0.0088 0.0045

Venus -110230-07-08 05:31 J -38539896.45 -38539896.27 -38539896.06 0.0088 0.0039

Venus -110229-02-18 17:17 J -38539670.97 -38539670.78 -38539670.57 0.0088 0.0033

Venus -110229-10-01 05:02 J -38539445.48 -38539445.29 -38539445.07 0.0088 0.0026

Venus -110228-05-14 17:02 J -38539220.00 -38539219.79 -38539219.58 0.0088 0.0020

Venus -110228-12-26 04:33 J -38538994.52 -38538994.31 -38538994.09 0.0088 0.0014

Venus -110227-08-08 16:19 J -38538769.03 -38538768.82 -38538768.61 0.0088 0.0007

Venus -110226-03-22 04:05 J -38538543.55 -38538543.33 -38538543.12 0.0088 0.0001

Venus -110226-11-02 15:36 J -38538318.06 -38538317.85 -38538317.63 0.0088 0.0005

Venus -110225-06-15 03:07 J -38538092.58 -38538092.37 -38538092.15 0.0088 0.0012

Venus	-110224-01-26 14:38 J	-38537867.09	-38537866.89	-38537866.67	0.0088	0.0018
Venus	-110224-09-09 02:24 J	-38537641.61	-38537641.40	-38537641.20	0.0088	0.0024
Venus	-110223-04-22 13:41 J	-38537416.11	-38537415.93	-38537415.71	0.0088	0.0031
Venus	-110223-12-04 01:12 J	-38537190.63	-38537190.45	-38537190.24	0.0088	0.0037
Venus	-110222-07-17 12:57 J	-38536965.14	-38536964.96	-38536964.77	0.0088	0.0042
Venus	-110221-02-28 00:29 J	-38536739.65	-38536739.48	-38536739.29	0.0088	0.0049
Venus	-110221-10-10 12:14 J	-38536514.15	-38536513.99	-38536513.82	0.0088	0.0055
Venus	-110220-05-24 00:00 J	-38536288.65	-38536288.50	-38536288.35	0.0088	0.0061
Venus	-110219-01-04 11:31 J	-38536063.15	-38536063.02	-38536062.88	0.0088	0.0067
Venus	-110219-08-17 23:02 J	-38535837.65	-38535837.54	-38535837.42	0.0088	0.0073
Venus	-110218-03-31 10:33 J	-38535612.14	-38535612.06	-38535611.96	0.0088	0.0079
Venus	-110218-11-11 22:05 J	-38535386.63	-38535386.58	-38535386.51	0.0088	0.0085
Earth	-110215-07-19 12:43 J	-38534406.07	-38534405.97	-38534405.82	0.0088	0.0077
Moon	-110215-07-19 16:05 J	-38534405.92	-38534405.83	-38534405.70	0.0088	0.0080 *
Moon	-110214-07-21 17:02 J	-38534038.98	-38534038.79	-38534038.56	0.0088	0.0045
Earth	-110214-07-21 19:55 J	-38534038.87	-38534038.67	-38534038.45	0.0088	0.0047 *
Earth	-110213-07-23 02:53 J	-38533671.62	-38533671.38	-38533671.13	0.0088	0.0017
Moon	-110213-07-23 04:33 J	-38533671.55	-38533671.31	-38533671.05	0.0088	0.0020 *
Earth	-110212-07-25 09:36 J	-38533304.33	-38533304.10	-38533303.84	0.0088	0.0014
Moon	-110212-07-25 09:50 J	-38533304.32	-38533304.09	-38533303.85	0.0088	0.0017 *
Moon	-110211-07-27 15:21 J	-38532937.07	-38532936.86	-38532936.61	0.0088	0.0040
Earth	-110211-07-27 16:19 J	-38532937.02	-38532936.82	-38532936.58	0.0088	0.0044 *
Earth	-110210-07-29 23:45 J	-38532569.65	-38532569.51	-38532569.37	0.0088	0.0073
Moon	-110210-07-30 01:26 J	-38532569.54	-38532569.44	-38532569.30	0.0088	0.0077 *
Mars	-110202-08-29 21:21 J	-38529616.66	-38529616.61	-38529616.48	0.0089	0.0086
Mars	-110200-07-25 20:09 J	-38528920.88	-38528920.66	-38528920.38	0.0089	0.0060
Mars	-110198-06-21 18:57 J	-38528225.00	-38528224.71	-38528224.37	0.0089	0.0034
Mars	-110196-05-17 17:45 J	-38527529.09	-38527528.76	-38527528.42	0.0089	0.0007
Mars	-110194-04-13 14:53 J	-38526833.19	-38526832.88	-38526832.54	0.0089	0.0020
Mars	-110192-03-09 11:17 J	-38526137.30	-38526137.03	-38526136.73	0.0089	0.0046

Mars -110190-02-03 06:14 J -38525441.41 -38525441.24 -38525441.02 0.0089 0.0072
 Mercury -110179-04-24 17:17 J -38521342.83 -38521342.78 -38521342.73 0.0089 0.0084
 Mercury -110179-07-21 19:26 J -38521254.74 -38521254.69 -38521254.60 0.0089 0.0080
 Mercury -110179-10-17 22:05 J -38521166.65 -38521166.58 -38521166.48 0.0089 0.0075
 Mercury -110178-01-14 00:43 J -38521078.56 -38521078.47 -38521078.36 0.0089 0.0070
 Mercury -110178-04-12 03:07 J -38520990.47 -38520990.37 -38520990.24 0.0089 0.0065
 Mercury -110178-07-09 05:45 J -38520902.37 -38520902.26 -38520902.12 0.0089 0.0060
 Mercury -110178-10-05 08:24 J -38520814.27 -38520814.15 -38520814.01 0.0089 0.0055
 Mercury -110177-01-01 11:02 J -38520726.17 -38520726.04 -38520725.89 0.0089 0.0050
 Mercury -110177-03-29 13:41 J -38520638.07 -38520637.93 -38520637.77 0.0089 0.0045
 Mercury -110177-06-25 16:19 J -38520549.96 -38520549.82 -38520549.66 0.0089 0.0040
 Mercury -110177-09-21 18:57 J -38520461.86 -38520461.71 -38520461.55 0.0089 0.0035
 Mercury -110177-12-18 21:36 J -38520373.75 -38520373.60 -38520373.43 0.0089 0.0030
 Mercury -110176-03-17 00:14 J -38520285.64 -38520285.49 -38520285.32 0.0089 0.0025
 Mercury -110176-06-13 02:53 J -38520197.54 -38520197.38 -38520197.20 0.0089 0.0020
 Mercury -110176-09-09 05:45 J -38520109.43 -38520109.26 -38520109.09 0.0089 0.0014
 Mercury -110176-12-06 08:24 J -38520021.32 -38520021.15 -38520020.98 0.0089 0.0009
 Mercury -110175-03-04 11:02 J -38519933.21 -38519933.04 -38519932.86 0.0089 0.0005
 Mercury -110175-05-31 13:55 J -38519845.09 -38519844.92 -38519844.75 0.0089 0.0001
 Mercury -110175-08-27 16:33 J -38519756.98 -38519756.81 -38519756.64 0.0089 0.0006
 Mercury -110175-11-23 19:12 J -38519668.87 -38519668.70 -38519668.52 0.0089 0.0012
 Mercury -110174-02-19 21:50 J -38519580.75 -38519580.59 -38519580.41 0.0089 0.0017
 Mercury -110174-05-19 00:43 J -38519492.63 -38519492.47 -38519492.30 0.0089 0.0022
 Mercury -110174-08-15 03:36 J -38519404.51 -38519404.35 -38519404.18 0.0089 0.0027
 Mercury -110174-11-11 06:14 J -38519316.40 -38519316.24 -38519316.07 0.0089 0.0033
 Mercury -110173-02-07 08:53 J -38519228.27 -38519228.13 -38519227.96 0.0089 0.0038
 Mercury -110173-05-05 11:45 J -38519140.15 -38519140.01 -38519139.85 0.0089 0.0043
 Mercury -110173-08-01 14:53 J -38519052.03 -38519051.88 -38519051.74 0.0089 0.0048
 Mercury -110173-10-28 17:17 J -38518963.90 -38518963.78 -38518963.63 0.0089 0.0054
 Mercury -110172-01-24 20:24 J -38518875.78 -38518875.65 -38518875.52 0.0089 0.0059

Mercury -110172-04-22 23:02 J -38518787.65 -38518787.54 -38518787.41 0.0089 0.0065

Mercury -110172-07-20 01:55 J -38518699.51 -38518699.42 -38518699.30 0.0089 0.0070

Mercury -110172-10-16 05:02 J -38518611.38 -38518611.29 -38518611.19 0.0089 0.0075

Mercury -110171-01-12 07:41 J -38518523.24 -38518523.18 -38518523.09 0.0089 0.0081

Mercury -110171-04-10 10:48 J -38518435.08 -38518435.05 -38518435.00 0.0089 0.0086

Venus -110152-04-24 07:12 J -38511481.25 -38511481.20 -38511481.13 0.0089 0.0086

Venus -110152-12-05 20:53 J -38511255.71 -38511255.63 -38511255.51 0.0089 0.0080

Venus -110151-07-19 11:31 J -38511030.15 -38511030.02 -38511029.89 0.0089 0.0073

Venus -110150-03-02 01:26 J -38510804.58 -38510804.44 -38510804.28 0.0089 0.0066

Venus -110150-10-13 16:05 J -38510579.00 -38510578.83 -38510578.66 0.0089 0.0060

Venus -110149-05-26 06:00 J -38510353.42 -38510353.25 -38510353.06 0.0089 0.0053

Venus -110148-01-06 20:24 J -38510127.84 -38510127.65 -38510127.45 0.0089 0.0046

Venus -110148-08-20 10:48 J -38509902.25 -38509902.05 -38509901.85 0.0089 0.0040

Venus -110147-04-03 00:43 J -38509676.66 -38509676.47 -38509676.24 0.0089 0.0033

Venus -110147-11-14 15:21 J -38509451.07 -38509450.86 -38509450.64 0.0089 0.0026

Venus -110146-06-28 05:45 J -38509225.48 -38509225.26 -38509225.04 0.0089 0.0019

Venus -110145-02-08 20:09 J -38508999.88 -38508999.66 -38508999.43 0.0089 0.0012

Venus -110145-09-21 10:48 J -38508774.28 -38508774.05 -38508773.82 0.0089 0.0006

Venus -110144-05-05 01:12 J -38508548.67 -38508548.45 -38508548.22 0.0089 0.0002

Venus -110144-12-16 15:36 J -38508323.07 -38508322.85 -38508322.62 0.0089 0.0008

Venus -110143-07-30 06:00 J -38508097.47 -38508097.25 -38508097.02 0.0089 0.0015

Venus -110142-03-12 20:24 J -38507871.86 -38507871.65 -38507871.42 0.0089 0.0022

Venus -110142-10-24 11:02 J -38507646.24 -38507646.04 -38507645.81 0.0089 0.0029

Venus -110141-06-06 01:41 J -38507420.63 -38507420.43 -38507420.21 0.0089 0.0036

Venus -110140-01-17 16:19 J -38507195.01 -38507194.82 -38507194.61 0.0089 0.0042

Venus -110140-08-31 06:43 J -38506969.40 -38506969.22 -38506969.02 0.0089 0.0049

Venus -110139-04-13 21:07 J -38506743.78 -38506743.62 -38506743.43 0.0089 0.0056

Venus -110139-11-25 11:31 J -38506518.15 -38506518.02 -38506517.83 0.0089 0.0063

Venus -110138-07-09 02:24 J -38506292.53 -38506292.40 -38506292.25 0.0089 0.0069

Venus -110137-02-19 16:48 J -38506066.90 -38506066.80 -38506066.66 0.0089 0.0076

Venus -110137-10-02 07:55 J -38505841.25 -38505841.17 -38505841.09 0.0089 0.0082

Venus -110136-05-15 22:19 J -38505615.57 -38505615.57 -38505615.56 0.0089 0.0089

Moon -110132-01-20 17:17 J -38504269.94 -38504269.78 -38504269.59 0.0089 0.0067

Earth -110132-01-20 20:38 J -38504269.80 -38504269.64 -38504269.42 0.0089 0.0063 *

Earth -110131-01-23 13:41 J -38503902.16 -38503901.93 -38503901.65 0.0089 0.0030

Moon -110131-01-23 16:48 J -38503902.06 -38503901.80 -38503901.53 0.0089 0.0025 *

Moon -110130-01-26 04:48 J -38503534.55 -38503534.30 -38503534.03 0.0089 0.0002

Earth -110130-01-26 06:57 J -38503534.48 -38503534.21 -38503533.94 0.0089 0.0004 *

Earth -110129-01-28 23:31 J -38503166.76 -38503166.52 -38503166.27 0.0089 0.0037

Moon -110129-01-29 00:29 J -38503166.71 -38503166.48 -38503166.21 0.0089 0.0041 *

Earth -110128-01-30 15:50 J -38502798.98 -38502798.84 -38502798.65 0.0089 0.0071

Moon -110128-01-30 16:33 J -38502798.96 -38502798.81 -38502798.63 0.0089 0.0067 *

Mars -110120-06-16 22:05 J -38499739.72 -38499739.58 -38499739.40 0.0089 0.0074

Mars -110118-05-11 20:38 J -38499045.87 -38499045.64 -38499045.38 0.0089 0.0051

Mars -110116-04-04 20:38 J -38498351.91 -38498351.64 -38498351.35 0.0089 0.0028

Mars -110114-02-27 20:24 J -38497657.94 -38497657.65 -38497657.34 0.0089 0.0005

Mars -110112-01-21 20:09 J -38496963.94 -38496963.66 -38496963.36 0.0089 0.0020

Mars -110111-12-16 21:21 J -38496269.86 -38496269.61 -38496269.34 0.0089 0.0043

Mars -110109-11-09 21:50 J -38495575.75 -38495575.59 -38495575.36 0.0089 0.0067

Mercury -110098-08-17 08:38 J -38491643.16 -38491643.14 -38491643.09 0.0088 0.0086

Mercury -110098-11-13 10:33 J -38491555.10 -38491555.06 -38491554.99 0.0088 0.0082

Mercury -110097-02-09 12:43 J -38491467.04 -38491466.97 -38491466.90 0.0088 0.0077

Mercury -110097-05-07 14:24 J -38491378.97 -38491378.90 -38491378.80 0.0088 0.0073

Mercury -110097-08-03 16:33 J -38491290.91 -38491290.81 -38491290.72 0.0088 0.0068

Mercury -110097-10-30 18:14 J -38491202.84 -38491202.74 -38491202.63 0.0088 0.0063

Mercury -110096-01-26 20:09 J -38491114.77 -38491114.66 -38491114.54 0.0088 0.0059

Mercury -110096-04-24 21:50 J -38491026.70 -38491026.59 -38491026.46 0.0088 0.0055

Mercury -110096-07-22 00:00 J -38490938.62 -38490938.50 -38490938.38 0.0088 0.0050

Mercury -110096-10-18 01:41 J -38490850.55 -38490850.43 -38490850.30 0.0088 0.0045

Mercury -110095-01-14 03:21 J -38490762.48 -38490762.36 -38490762.22 0.0088 0.0041

Mercury -110095-04-12 05:17 J -38490674.41 -38490674.28 -38490674.14 0.0088 0.0037

Mercury -110095-07-09 06:57 J -38490586.33 -38490586.21 -38490586.06 0.0088 0.0033

Mercury -110095-10-05 09:07 J -38490498.26 -38490498.12 -38490497.98 0.0088 0.0028

Mercury -110094-01-01 10:48 J -38490410.19 -38490410.05 -38490409.90 0.0088 0.0023

Mercury -110094-03-30 12:43 J -38490322.12 -38490321.97 -38490321.83 0.0088 0.0019

Mercury -110094-06-26 14:24 J -38490234.04 -38490233.90 -38490233.75 0.0088 0.0014

Mercury -110094-09-22 16:05 J -38490145.97 -38490145.83 -38490145.68 0.0088 0.0011

Mercury -110094-12-19 18:00 J -38490057.90 -38490057.75 -38490057.60 0.0088 0.0006

Mercury -110093-03-16 19:41 J -38489969.82 -38489969.68 -38489969.53 0.0088 0.0002

Mercury -110093-06-12 21:36 J -38489881.75 -38489881.60 -38489881.46 0.0088 0.0004

Mercury -110093-09-08 23:17 J -38489793.68 -38489793.53 -38489793.38 0.0088 0.0007

Mercury -110093-12-06 00:57 J -38489705.60 -38489705.46 -38489705.31 0.0088 0.0012

Mercury -110092-03-04 02:38 J -38489617.53 -38489617.39 -38489617.24 0.0088 0.0016

Mercury -110092-05-31 04:19 J -38489529.46 -38489529.32 -38489529.17 0.0088 0.0021

Mercury -110092-08-27 06:14 J -38489441.38 -38489441.24 -38489441.10 0.0088 0.0025

Mercury -110092-11-23 07:41 J -38489353.31 -38489353.18 -38489353.03 0.0088 0.0029

Mercury -110091-02-19 09:21 J -38489265.23 -38489265.11 -38489264.97 0.0088 0.0034

Mercury -110091-05-18 11:17 J -38489177.16 -38489177.03 -38489176.90 0.0088 0.0037

Mercury -110091-08-14 12:57 J -38489089.09 -38489088.96 -38489088.83 0.0088 0.0042

Mercury -110091-11-10 14:38 J -38489001.01 -38489000.89 -38489000.77 0.0088 0.0046

Mercury -110090-02-06 16:05 J -38488912.94 -38488912.83 -38488912.70 0.0088 0.0050

Mercury -110090-05-05 17:45 J -38488824.86 -38488824.76 -38488824.64 0.0088 0.0055

Mercury -110090-08-01 19:26 J -38488736.79 -38488736.69 -38488736.57 0.0088 0.0059

Mercury -110090-10-28 21:07 J -38488648.71 -38488648.62 -38488648.51 0.0088 0.0063

Mercury -110089-01-24 22:48 J -38488560.63 -38488560.55 -38488560.45 0.0088 0.0067

Mercury -110089-04-22 00:29 J -38488472.56 -38488472.48 -38488472.39 0.0088 0.0071

Mercury -110089-07-19 02:09 J -38488384.48 -38488384.41 -38488384.33 0.0088 0.0075

Mercury -110089-10-15 03:36 J -38488296.40 -38488296.35 -38488296.27 0.0088 0.0079

Mercury -110088-01-11 05:02 J -38488208.31 -38488208.29 -38488208.22 0.0088 0.0084

Mercury -110088-04-09 06:43 J -38488120.22 -38488120.22 -38488120.18 0.0088 0.0088

Venus	-110071-10-31 19:12 J	-38481705.73	-38481705.70	-38481705.66	0.0088	0.0087
Venus	-110070-06-14 07:12 J	-38481480.29	-38481480.20	-38481480.12	0.0088	0.0081
Venus	-110069-01-25 18:57 J	-38481254.82	-38481254.71	-38481254.59	0.0088	0.0075
Saturn	-110069-01-26 20:09 J	-38481254.20	-38481253.66	-38481253.02	0.0088	0.0041
Venus	-110069-09-07 06:43 J	-38481029.34	-38481029.22	-38481029.08	0.0088	0.0069
Venus	-110068-04-20 18:29 J	-38480803.86	-38480803.73	-38480803.56	0.0088	0.0063
Venus	-110068-12-02 06:29 J	-38480578.38	-38480578.23	-38480578.05	0.0088	0.0056
Venus	-110067-07-15 18:14 J	-38480352.90	-38480352.74	-38480352.55	0.0088	0.0050
Venus	-110066-02-26 06:29 J	-38480127.42	-38480127.23	-38480127.05	0.0088	0.0044
Venus	-110066-10-09 18:14 J	-38479901.93	-38479901.74	-38479901.54	0.0088	0.0037
Venus	-110065-05-22 06:00 J	-38479676.44	-38479676.25	-38479676.04	0.0088	0.0031
Venus	-110064-01-02 17:31 J	-38479450.96	-38479450.77	-38479450.55	0.0088	0.0026
Venus	-110064-08-16 05:31 J	-38479225.47	-38479225.27	-38479225.06	0.0088	0.0019
Venus	-110063-03-29 17:17 J	-38478999.99	-38478999.78	-38478999.56	0.0088	0.0013
Venus	-110063-11-10 05:02 J	-38478774.50	-38478774.29	-38478774.07	0.0088	0.0006
Venus	-110062-06-23 16:48 J	-38478549.02	-38478548.80	-38478548.59	0.0088	0.0001
Venus	-110061-02-04 04:19 J	-38478323.53	-38478323.32	-38478323.10	0.0088	0.0007
Venus	-110061-09-16 15:50 J	-38478098.05	-38478097.84	-38478097.62	0.0088	0.0013
Venus	-110060-04-30 03:21 J	-38477872.55	-38477872.36	-38477872.14	0.0088	0.0020
Venus	-110060-12-11 15:07 J	-38477647.07	-38477646.87	-38477646.66	0.0088	0.0025
Venus	-110059-07-25 02:38 J	-38477421.58	-38477421.39	-38477421.19	0.0088	0.0031
Venus	-110058-03-07 14:09 J	-38477196.09	-38477195.91	-38477195.71	0.0088	0.0038
Venus	-110058-10-19 01:55 J	-38476970.60	-38476970.42	-38476970.23	0.0088	0.0044
Venus	-110057-05-31 13:12 J	-38476745.11	-38476744.95	-38476744.76	0.0088	0.0050
Venus	-110056-01-12 00:43 J	-38476519.62	-38476519.47	-38476519.29	0.0088	0.0056
Venus	-110056-08-25 12:14 J	-38476294.12	-38476293.99	-38476293.82	0.0088	0.0062
Venus	-110055-04-07 23:45 J	-38476068.62	-38476068.51	-38476068.35	0.0088	0.0069
Venus	-110055-11-19 11:31 J	-38475843.12	-38475843.02	-38475842.89	0.0088	0.0074
Venus	-110054-07-02 23:02 J	-38475617.61	-38475617.54	-38475617.44	0.0088	0.0080
Venus	-110053-02-13 10:19 J	-38475392.09	-38475392.07	-38475392.00	0.0088	0.0087

Moon -110051-07-19 02:09 J -38474505.42 -38474505.41 -38474505.35 0.0088 0.0088
 Moon -110050-07-21 10:05 J -38474138.24 -38474138.08 -38474137.87 0.0088 0.0061
 Earth -110050-07-21 10:33 J -38474138.23 -38474138.06 -38474137.86 0.0088 0.0060 *
 Earth -110049-07-22 17:17 J -38473771.00 -38473770.78 -38473770.54 0.0088 0.0030
 Moon -110049-07-22 18:29 J -38473770.95 -38473770.73 -38473770.50 0.0088 0.0028 *
 Moon -110048-07-24 21:50 J -38473403.85 -38473403.59 -38473403.34 0.0088 0.0002
 Earth -110048-07-25 00:29 J -38473403.73 -38473403.48 -38473403.24 0.0088 0.0002 *
 Earth -110047-07-27 06:43 J -38473036.44 -38473036.22 -38473035.97 0.0088 0.0031
 Moon -110047-07-27 10:19 J -38473036.29 -38473036.07 -38473035.84 0.0088 0.0032 *
 Moon -110046-07-29 10:48 J -38472669.24 -38472669.05 -38472668.87 0.0088 0.0058
 Earth -110046-07-29 13:26 J -38472669.09 -38472668.94 -38472668.73 0.0088 0.0061 *
 Mars -110036-03-08 15:07 J -38469159.03 -38469158.87 -38469158.62 0.0089 0.0071
 Mars -110034-02-02 14:24 J -38468463.16 -38468462.90 -38468462.58 0.0089 0.0044
 Mars -110033-12-29 13:12 J -38467767.26 -38467766.95 -38467766.60 0.0089 0.0017
 Mars -110031-11-25 11:31 J -38467071.34 -38467071.02 -38467070.68 0.0089 0.0011
 Mars -110029-10-21 08:09 J -38466375.44 -38466375.16 -38466374.84 0.0089 0.0038
 Mars -110027-09-17 04:48 J -38465679.52 -38465679.30 -38465679.07 0.0089 0.0064
 Mercury -110015-10-23 13:55 J -38461259.95 -38461259.92 -38461259.88 0.0089 0.0086
 Mercury -110014-01-19 16:33 J -38461171.87 -38461171.81 -38461171.75 0.0089 0.0081
 Mercury -110014-04-17 18:43 J -38461083.79 -38461083.72 -38461083.62 0.0089 0.0077
 Mercury -110014-07-14 21:07 J -38460995.70 -38460995.62 -38460995.50 0.0089 0.0072
 Mercury -110014-10-10 23:45 J -38460907.60 -38460907.51 -38460907.39 0.0089 0.0067
 Mercury -110013-01-07 02:24 J -38460819.51 -38460819.40 -38460819.27 0.0089 0.0062
 Mercury -110013-04-04 05:02 J -38460731.41 -38460731.29 -38460731.15 0.0089 0.0057
 Mercury -110013-07-01 07:40 J -38460643.31 -38460643.18 -38460643.04 0.0089 0.0052
 Mercury -110013-09-27 10:19 J -38460555.21 -38460555.07 -38460554.92 0.0089 0.0047
 Mercury -110013-12-24 12:57 J -38460467.11 -38460466.96 -38460466.81 0.0089 0.0042
 Mercury -110012-03-22 15:36 J -38460379.00 -38460378.85 -38460378.69 0.0089 0.0037
 Mercury -110012-06-18 18:00 J -38460290.90 -38460290.75 -38460290.58 0.0089 0.0032
 Mercury -110012-09-14 20:38 J -38460202.79 -38460202.64 -38460202.47 0.0089 0.0027

Mercury -110012-12-11 23:16 J -38460114.68 -38460114.53 -38460114.35 0.0089 0.0022

Mercury -110011-03-10 02:09 J -38460026.58 -38460026.41 -38460026.24 0.0089 0.0017

Mercury -110011-06-06 04:48 J -38459938.47 -38459938.30 -38459938.13 0.0089 0.0012

Mercury -110011-09-02 07:26 J -38459850.36 -38459850.19 -38459850.01 0.0089 0.0007

Mercury -110011-11-29 10:19 J -38459762.24 -38459762.07 -38459761.90 0.0089 0.0002

Mercury -110010-02-25 12:57 J -38459674.13 -38459673.96 -38459673.79 0.0089 0.0004

Mercury -110010-05-24 15:36 J -38459586.02 -38459585.85 -38459585.68 0.0089 0.0009

Mercury -110010-08-20 18:28 J -38459497.90 -38459497.73 -38459497.56 0.0089 0.0014

Mercury -110010-11-16 20:52 J -38459409.79 -38459409.63 -38459409.45 0.0089 0.0020

Mercury -110009-02-12 23:45 J -38459321.67 -38459321.51 -38459321.34 0.0089 0.0025

Mercury -110009-05-11 02:38 J -38459233.55 -38459233.39 -38459233.23 0.0089 0.0030

Mercury -110009-08-07 05:31 J -38459145.43 -38459145.27 -38459145.11 0.0089 0.0035

Mercury -110009-11-03 07:55 J -38459057.31 -38459057.17 -38459057.00 0.0089 0.0041

Mercury -110008-01-30 10:48 J -38458969.19 -38458969.05 -38458968.89 0.0089 0.0046

Mercury -110008-04-28 13:40 J -38458881.07 -38458880.93 -38458880.78 0.0089 0.0051

Mercury -110008-07-25 16:19 J -38458792.94 -38458792.82 -38458792.67 0.0089 0.0057

Mercury -110008-10-21 19:12 J -38458704.81 -38458704.70 -38458704.56 0.0089 0.0062

Mercury -110007-01-17 22:19 J -38458616.68 -38458616.57 -38458616.46 0.0089 0.0067

Mercury -110007-04-16 00:43 J -38458528.55 -38458528.47 -38458528.35 0.0089 0.0073

Mercury -110007-07-13 03:50 J -38458440.41 -38458440.34 -38458440.25 0.0089 0.0078

Mercury -110007-10-09 06:28 J -38458352.27 -38458352.23 -38458352.15 0.0089 0.0084

Mercury -110006-01-05 09:50 J -38458264.09 -38458264.09 -38458264.09 0.0089 0.0089

110TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 110th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-109988-07-26 16:33 J	-38451486.85	-38451486.81	-38451486.72	0.0089	0.0086		
Venus	-109987-03-09 07:12 J	-38451261.30	-38451261.20	-38451261.09	0.0089	0.0079		
Venus	-109987-10-20 21:07 J	-38451035.73	-38451035.62	-38451035.47	0.0089	0.0072		
Venus	-109986-06-03 11:31 J	-38450810.16	-38450810.02	-38450809.86	0.0089	0.0065		
Venus	-109985-01-15 01:26 J	-38450584.59	-38450584.44	-38450584.25	0.0089	0.0059		
Venus	-109985-08-27 15:50 J	-38450359.01	-38450358.84	-38450358.64	0.0089	0.0052		
Venus	-109984-04-10 06:14 J	-38450133.42	-38450133.24	-38450133.04	0.0089	0.0046		
Venus	-109984-11-21 20:09 J	-38449907.84	-38449907.66	-38449907.43	0.0089	0.0040		
Venus	-109983-07-05 10:33 J	-38449682.26	-38449682.06	-38449681.83	0.0089	0.0032		
Venus	-109982-02-16 00:57 J	-38449456.67	-38449456.46	-38449456.23	0.0089	0.0025		
Venus	-109982-09-29 15:36 J	-38449231.07	-38449230.85	-38449230.63	0.0089	0.0018		
Venus	-109981-05-12 06:00 J	-38449005.47	-38449005.25	-38449005.03	0.0089	0.0012		
Venus	-109981-12-23 20:09 J	-38448779.88	-38448779.66	-38448779.43	0.0089	0.0005		
Venus	-109980-08-06 10:33 J	-38448554.28	-38448554.06	-38448553.83	0.0089	0.0002		
Venus	-109979-03-20 00:57 J	-38448328.68	-38448328.46	-38448328.23	0.0089	0.0009		
Venus	-109979-10-31 15:36 J	-38448103.07	-38448102.85	-38448102.63	0.0089	0.0016		
Venus	-109978-06-14 06:00 J	-38447877.46	-38447877.25	-38447877.03	0.0089	0.0023		
Venus	-109977-01-25 20:09 J	-38447651.86	-38447651.66	-38447651.43	0.0089	0.0031		
Venus	-109977-09-07 10:48 J	-38447426.24	-38447426.05	-38447425.83	0.0089	0.0037		
Venus	-109976-04-21 01:40 J	-38447200.63	-38447200.43	-38447200.23	0.0089	0.0043		
Venus	-109976-12-02 16:04 J	-38446975.01	-38446974.83	-38446974.64	0.0089	0.0050		
Venus	-109975-07-16 06:28 J	-38446749.39	-38446749.23	-38446749.04	0.0089	0.0057		
Venus	-109974-02-26 20:52 J	-38446523.77	-38446523.63	-38446523.45	0.0089	0.0064		
Venus	-109974-10-10 12:00 J	-38446298.14	-38446298.00	-38446297.86	0.0089	0.0071		

Venus -109973-05-23 02:09 J -38446072.50 -38446072.41 -38446072.28 0.0089 0.0077
 Venus -109972-01-03 16:33 J -38445846.86 -38445846.81 -38445846.71 0.0089 0.0084
 Earth -109968-01-20 01:12 J -38444369.56 -38444369.45 -38444369.31 0.0089 0.0078
 Moon -109968-01-20 01:55 J -38444369.53 -38444369.42 -38444369.26 0.0089 0.0078 *
 Earth -109967-01-22 18:00 J -38444001.96 -38444001.75 -38444001.50 0.0089 0.0045
 Moon -109967-01-22 18:14 J -38444001.95 -38444001.74 -38444001.50 0.0089 0.0046 *
 Moon -109966-01-25 09:07 J -38443634.38 -38443634.12 -38443633.83 0.0089 0.0012
 Earth -109966-01-25 11:02 J -38443634.30 -38443634.04 -38443633.76 0.0089 0.0012 *
 Earth -109965-01-28 03:50 J -38443266.59 -38443266.34 -38443266.07 0.0089 0.0022
 Moon -109965-01-28 06:00 J -38443266.50 -38443266.25 -38443265.99 0.0089 0.0021 *
 Moon -109964-01-29 17:02 J -38442898.98 -38442898.79 -38442898.56 0.0089 0.0057
 Earth -109964-01-29 20:38 J -38442898.84 -38442898.64 -38442898.42 0.0089 0.0055 *
 Earth -109963-02-01 13:12 J -38442530.95 -38442530.95 -38442530.91 0.0089 0.0089
 Moon -109963-02-01 17:02 J -38442530.83 -38442530.79 -38442530.73 0.0089 0.0087
 Mars -109956-01-30 07:40 J -38439976.25 -38439976.18 -38439976.06 0.0089 0.0084
 Mars -109955-12-25 05:45 J -38439282.44 -38439282.26 -38439282.01 0.0089 0.0061
 Mars -109953-11-18 04:19 J -38438588.58 -38438588.32 -38438588.04 0.0089 0.0037
 Mars -109951-10-13 03:50 J -38437894.63 -38437894.34 -38437894.04 0.0089 0.0013
 Mars -109949-09-06 03:36 J -38437200.65 -38437200.35 -38437200.06 0.0089 0.0011
 Mars -109947-08-01 02:24 J -38436506.66 -38436506.40 -38436506.11 0.0089 0.0036
 Mars -109945-06-25 03:21 J -38435812.55 -38435812.36 -38435812.11 0.0089 0.0060
 Mars -109943-05-20 05:02 J -38435118.37 -38435118.29 -38435118.17 0.0089 0.0083
 Mercury -109933-02-15 06:14 J -38431560.24 -38431560.24 -38431560.22 0.0088 0.0088
 Mercury -109933-05-13 08:09 J -38431472.20 -38431472.16 -38431472.10 0.0088 0.0084
 Mercury -109933-08-09 09:50 J -38431384.14 -38431384.09 -38431384.01 0.0088 0.0080
 Mercury -109933-11-05 12:00 J -38431296.07 -38431296.00 -38431295.91 0.0088 0.0075
 Mercury -109932-02-01 13:40 J -38431208.00 -38431207.93 -38431207.82 0.0088 0.0071
 Mercury -109932-04-30 15:50 J -38431119.93 -38431119.84 -38431119.74 0.0088 0.0066
 Mercury -109932-07-27 17:31 J -38431031.86 -38431031.77 -38431031.65 0.0088 0.0061
 Mercury -109932-10-23 19:26 J -38430943.79 -38430943.69 -38430943.56 0.0088 0.0057

Mercury -109931-01-19 21:21 J -38430855.72 -38430855.61 -38430855.48 0.0088 0.0052

Mercury -109931-04-17 23:16 J -38430767.65 -38430767.53 -38430767.40 0.0088 0.0048

Mercury -109931-07-15 00:57 J -38430679.58 -38430679.46 -38430679.32 0.0088 0.0044

Mercury -109931-10-11 02:52 J -38430591.50 -38430591.38 -38430591.24 0.0088 0.0039

Mercury -109930-01-07 04:48 J -38430503.43 -38430503.30 -38430503.16 0.0088 0.0034

Mercury -109930-04-05 06:43 J -38430415.36 -38430415.22 -38430415.08 0.0088 0.0030

Mercury -109930-07-02 08:24 J -38430327.29 -38430327.15 -38430327.00 0.0088 0.0025

Mercury -109930-09-28 10:19 J -38430239.21 -38430239.07 -38430238.93 0.0088 0.0021

Mercury -109930-12-25 12:00 J -38430151.14 -38430151.00 -38430150.85 0.0088 0.0017

Mercury -109929-03-22 13:55 J -38430063.07 -38430062.92 -38430062.77 0.0088 0.0012

Mercury -109929-06-18 15:36 J -38429974.99 -38429974.85 -38429974.70 0.0088 0.0008

Mercury -109929-09-14 17:31 J -38429886.92 -38429886.77 -38429886.62 0.0088 0.0003

Mercury -109929-12-11 19:12 J -38429798.84 -38429798.70 -38429798.55 0.0088 0.0002

Mercury -109928-03-09 20:52 J -38429710.77 -38429710.63 -38429710.48 0.0088 0.0006

Mercury -109928-06-05 22:48 J -38429622.70 -38429622.55 -38429622.41 0.0088 0.0010

Mercury -109928-09-02 00:28 J -38429534.62 -38429534.48 -38429534.34 0.0088 0.0014

Mercury -109928-11-29 02:09 J -38429446.55 -38429446.41 -38429446.26 0.0088 0.0018

Mercury -109927-02-25 03:50 J -38429358.48 -38429358.34 -38429358.19 0.0088 0.0023

Mercury -109927-05-24 05:31 J -38429270.40 -38429270.27 -38429270.13 0.0088 0.0027

Mercury -109927-08-20 07:12 J -38429182.33 -38429182.20 -38429182.06 0.0088 0.0032

Mercury -109927-11-16 08:52 J -38429094.25 -38429094.13 -38429093.99 0.0088 0.0036

Mercury -109926-02-12 10:48 J -38429006.18 -38429006.05 -38429005.92 0.0088 0.0040

Mercury -109926-05-11 12:14 J -38428918.10 -38428917.99 -38428917.85 0.0088 0.0044

Mercury -109926-08-07 13:55 J -38428830.03 -38428829.92 -38428829.79 0.0088 0.0049

Mercury -109926-11-03 15:36 J -38428741.95 -38428741.85 -38428741.72 0.0088 0.0053

Mercury -109925-01-30 17:31 J -38428653.88 -38428653.77 -38428653.66 0.0088 0.0056

Mercury -109925-04-27 19:12 J -38428565.80 -38428565.70 -38428565.60 0.0088 0.0061

Mercury -109925-07-24 20:52 J -38428477.73 -38428477.63 -38428477.53 0.0088 0.0065

Mercury -109925-10-20 22:04 J -38428389.65 -38428389.58 -38428389.47 0.0088 0.0070

Mercury -109924-01-16 23:45 J -38428301.57 -38428301.51 -38428301.41 0.0088 0.0074

Mercury -109924-04-15 01:26 J -38428213.49 -38428213.44 -38428213.36 0.0088 0.0078

Mercury -109924-07-12 03:07 J -38428125.41 -38428125.37 -38428125.30 0.0088 0.0082

Mercury -109924-10-08 04:48 J -38428037.32 -38428037.30 -38428037.25 0.0088 0.0086

Venus -109906-02-02 06:28 J -38421711.25 -38421711.23 -38421711.17 0.0088 0.0087

Venus -109906-09-15 18:28 J -38421485.80 -38421485.73 -38421485.63 0.0088 0.0080

Venus -109905-04-28 06:14 J -38421260.33 -38421260.24 -38421260.10 0.0088 0.0075

Venus -109905-12-09 18:14 J -38421034.86 -38421034.74 -38421034.59 0.0088 0.0068

Venus -109904-07-23 06:00 J -38420809.38 -38420809.25 -38420809.08 0.0088 0.0062

Venus -109903-03-05 18:14 J -38420583.90 -38420583.74 -38420583.57 0.0088 0.0056

Venus -109903-10-17 06:00 J -38420358.42 -38420358.25 -38420358.06 0.0088 0.0049

Venus -109902-05-30 17:45 J -38420132.93 -38420132.76 -38420132.56 0.0088 0.0043

Venus -109901-01-11 05:45 J -38419907.45 -38419907.26 -38419907.06 0.0088 0.0037

Venus -109901-08-23 17:31 J -38419681.96 -38419681.77 -38419681.56 0.0088 0.0030

Venus -109900-04-06 05:16 J -38419456.47 -38419456.28 -38419456.06 0.0088 0.0025

Venus -109900-11-17 17:02 J -38419230.99 -38419230.79 -38419230.57 0.0088 0.0019

Venus -109899-07-01 05:02 J -38419005.50 -38419005.29 -38419005.08 0.0088 0.0011

Venus -109898-02-11 16:48 J -38418780.01 -38418779.80 -38418779.59 0.0088 0.0005

Venus -109898-09-25 04:33 J -38418554.52 -38418554.31 -38418554.10 0.0088 0.0001

Venus -109897-05-07 16:19 J -38418329.03 -38418328.82 -38418328.61 0.0088 0.0007

Venus -109897-12-19 03:50 J -38418103.55 -38418103.34 -38418103.12 0.0088 0.0014

Venus -109896-08-01 15:21 J -38417878.06 -38417877.86 -38417877.64 0.0088 0.0020

Venus -109895-03-15 03:07 J -38417652.57 -38417652.37 -38417652.16 0.0088 0.0026

Venus -109895-10-26 14:38 J -38417427.08 -38417426.89 -38417426.68 0.0088 0.0033

Venus -109894-06-09 02:09 J -38417201.59 -38417201.41 -38417201.21 0.0088 0.0039

Venus -109893-01-20 13:40 J -38416976.10 -38416975.93 -38416975.73 0.0088 0.0045

Venus -109893-09-02 01:12 J -38416750.61 -38416750.45 -38416750.26 0.0088 0.0051

Venus -109892-04-15 12:57 J -38416525.11 -38416524.96 -38416524.79 0.0088 0.0057

Venus -109892-11-27 00:28 J -38416299.61 -38416299.48 -38416299.32 0.0088 0.0063

Venus -109891-07-10 12:00 J -38416074.12 -38416074.00 -38416073.86 0.0088 0.0070

Venus -109890-02-20 23:31 J -38415848.62 -38415848.52 -38415848.40 0.0088 0.0076

Venus -109890-10-04 11:02 J -38415623.11 -38415623.04 -38415622.95 0.0088 0.0082
 Venus -109889-05-16 22:48 J -38415397.57 -38415397.55 -38415397.51 0.0088 0.0088
 Earth -109886-07-21 00:14 J -38414237.60 -38414237.49 -38414237.32 0.0088 0.0073
 Moon -109886-07-21 03:21 J -38414237.46 -38414237.36 -38414237.24 0.0088 0.0078 *
 Moon -109885-07-22 04:19 J -38413870.54 -38413870.32 -38413870.09 0.0088 0.0039
 Earth -109885-07-22 07:26 J -38413870.39 -38413870.19 -38413869.96 0.0088 0.0043 *
 Earth -109884-07-24 14:24 J -38413503.14 -38413502.90 -38413502.65 0.0088 0.0013
 Moon -109884-07-24 17:45 J -38413503.00 -38413502.76 -38413502.51 0.0088 0.0018 *
 Moon -109883-07-26 18:14 J -38413135.97 -38413135.74 -38413135.50 0.0088 0.0022
 Earth -109883-07-26 21:21 J -38413135.85 -38413135.61 -38413135.36 0.0088 0.0017 *
 Earth -109882-07-29 04:19 J -38412768.53 -38412768.32 -38412768.11 0.0088 0.0047
 Moon -109882-07-29 06:00 J -38412768.46 -38412768.25 -38412768.02 0.0088 0.0043 *
 Moon -109881-07-30 09:07 J -38412401.18 -38412401.12 -38412400.99 0.0088 0.0082
 Earth -109881-07-30 10:48 J -38412401.16 -38412401.05 -38412400.92 0.0088 0.0077 *
 Mars -109873-10-20 08:24 J -38409397.25 -38409397.15 -38409397.00 0.0089 0.0082
 Mars -109871-09-16 07:40 J -38408701.41 -38408701.18 -38408700.88 0.0089 0.0055
 Mars -109869-08-12 06:43 J -38408005.53 -38408005.22 -38408004.89 0.0089 0.0027
 Mars -109867-07-09 05:02 J -38407309.62 -38407309.29 -38407308.95 0.0089 0.0002
 Mars -109865-06-04 02:52 J -38406613.68 -38406613.38 -38406613.04 0.0089 0.0029
 Mars -109863-05-01 00:00 J -38405917.74 -38405917.50 -38405917.22 0.0089 0.0056
 Mars -109861-03-26 19:40 J -38405221.76 -38405221.68 -38405221.53 0.0089 0.0083
 Mercury -109850-04-23 10:33 J -38401177.07 -38401177.06 -38401177.05 0.0089 0.0088
 Mercury -109850-07-20 12:43 J -38401089.01 -38401088.97 -38401088.90 0.0089 0.0084
 Mercury -109850-10-16 15:07 J -38401000.93 -38401000.87 -38401000.78 0.0089 0.0079
 Mercury -109849-01-12 17:45 J -38400912.84 -38400912.76 -38400912.66 0.0089 0.0074
 Mercury -109849-04-09 20:24 J -38400824.75 -38400824.65 -38400824.54 0.0089 0.0069
 Mercury -109849-07-06 23:02 J -38400736.65 -38400736.54 -38400736.42 0.0089 0.0064
 Mercury -109849-10-03 01:40 J -38400648.55 -38400648.43 -38400648.31 0.0089 0.0059
 Mercury -109849-12-30 04:19 J -38400560.46 -38400560.32 -38400560.19 0.0089 0.0054
 Mercury -109848-03-28 06:43 J -38400472.36 -38400472.22 -38400472.08 0.0089 0.0049

Mercury -109848-06-24 09:21 J -38400384.25 -38400384.11 -38400383.96 0.0089 0.0044

Mercury -109848-09-20 12:00 J -38400296.15 -38400296.00 -38400295.85 0.0089 0.0039

Mercury -109848-12-17 14:38 J -38400208.05 -38400207.89 -38400207.74 0.0089 0.0034

Mercury -109847-03-15 17:16 J -38400119.94 -38400119.78 -38400119.62 0.0089 0.0029

Mercury -109847-06-11 19:55 J -38400031.84 -38400031.67 -38400031.51 0.0089 0.0024

Mercury -109847-09-07 22:33 J -38399943.73 -38399943.56 -38399943.40 0.0089 0.0019

Mercury -109847-12-05 01:12 J -38399855.62 -38399855.45 -38399855.28 0.0089 0.0014

Mercury -109846-03-03 03:50 J -38399767.51 -38399767.34 -38399767.17 0.0089 0.0009

Mercury -109846-05-30 06:28 J -38399679.40 -38399679.23 -38399679.06 0.0089 0.0004

Mercury -109846-08-26 09:07 J -38399591.29 -38399591.12 -38399590.95 0.0089 0.0002

Mercury -109846-11-22 11:45 J -38399503.18 -38399503.01 -38399502.83 0.0089 0.0007

Mercury -109845-02-18 14:38 J -38399415.06 -38399414.89 -38399414.72 0.0089 0.0012

Mercury -109845-05-16 17:16 J -38399326.95 -38399326.78 -38399326.61 0.0089 0.0017

Mercury -109845-08-12 20:09 J -38399238.83 -38399238.66 -38399238.50 0.0089 0.0022

Mercury -109845-11-08 22:33 J -38399150.71 -38399150.56 -38399150.38 0.0089 0.0028

Mercury -109844-02-05 01:26 J -38399062.59 -38399062.44 -38399062.27 0.0089 0.0033

Mercury -109844-05-04 04:19 J -38398974.47 -38398974.32 -38398974.16 0.0089 0.0038

Mercury -109844-07-31 07:12 J -38398886.35 -38398886.20 -38398886.05 0.0089 0.0043

Mercury -109844-10-27 09:36 J -38398798.23 -38398798.10 -38398797.94 0.0089 0.0049

Mercury -109843-01-23 12:28 J -38398710.11 -38398709.98 -38398709.83 0.0089 0.0054

Mercury -109843-04-21 15:36 J -38398621.98 -38398621.85 -38398621.72 0.0089 0.0059

Mercury -109843-07-18 18:00 J -38398533.85 -38398533.75 -38398533.61 0.0089 0.0065

Mercury -109843-10-14 20:52 J -38398445.72 -38398445.63 -38398445.51 0.0089 0.0070

Mercury -109842-01-11 00:00 J -38398357.59 -38398357.50 -38398357.40 0.0089 0.0075

Mercury -109842-04-09 02:38 J -38398269.45 -38398269.39 -38398269.31 0.0089 0.0081

Mercury -109842-07-06 05:31 J -38398181.30 -38398181.27 -38398181.22 0.0089 0.0086

Venus -109824-10-28 01:40 J -38391492.47 -38391492.43 -38391492.34 0.0089 0.0085

Venus -109823-06-10 16:04 J -38391266.92 -38391266.83 -38391266.71 0.0089 0.0078

Venus -109822-01-22 06:00 J -38391041.36 -38391041.25 -38391041.09 0.0089 0.0072

Venus -109822-09-04 20:24 J -38390815.78 -38390815.65 -38390815.48 0.0089 0.0065

Venus	-109821-04-17 10:48 J	-38390590.21	-38390590.05	-38390589.87	0.0089	0.0058
Venus	-109821-11-29 00:43 J	-38390364.63	-38390364.47	-38390364.26	0.0089	0.0052
Venus	-109820-07-12 15:07 J	-38390139.05	-38390138.87	-38390138.66	0.0089	0.0045
Venus	-109819-02-23 05:31 J	-38389913.47	-38389913.27	-38389913.06	0.0089	0.0038
Venus	-109819-10-06 19:55 J	-38389687.87	-38389687.67	-38389687.45	0.0089	0.0032
Venus	-109818-05-20 10:33 J	-38389462.28	-38389462.06	-38389461.85	0.0089	0.0025
Venus	-109817-01-01 00:28 J	-38389236.69	-38389236.48	-38389236.25	0.0089	0.0018
Venus	-109817-08-13 14:52 J	-38389011.10	-38389010.88	-38389010.65	0.0089	0.0011
Venus	-109816-03-27 05:16 J	-38388785.51	-38388785.28	-38388785.05	0.0089	0.0004
Venus	-109816-11-07 19:40 J	-38388559.90	-38388559.68	-38388559.45	0.0089	0.0003
Venus	-109815-06-21 10:04 J	-38388334.30	-38388334.08	-38388333.85	0.0089	0.0010
Venus	-109814-02-02 00:14 J	-38388108.70	-38388108.49	-38388108.26	0.0089	0.0017
Venus	-109814-09-15 14:38 J	-38387883.09	-38387882.89	-38387882.66	0.0089	0.0024
Venus	-109813-04-28 05:31 J	-38387657.49	-38387657.27	-38387657.06	0.0089	0.0031
Venus	-109813-12-09 19:55 J	-38387431.88	-38387431.67	-38387431.46	0.0089	0.0037
Venus	-109812-07-23 10:19 J	-38387206.26	-38387206.07	-38387205.87	0.0089	0.0044
Venus	-109811-03-06 00:43 J	-38386980.65	-38386980.47	-38386980.28	0.0089	0.0051
Venus	-109811-10-17 15:21 J	-38386755.02	-38386754.86	-38386754.68	0.0089	0.0058
Venus	-109810-05-31 05:45 J	-38386529.39	-38386529.26	-38386529.09	0.0089	0.0065
Venus	-109809-01-11 20:38 J	-38386303.77	-38386303.64	-38386303.50	0.0089	0.0071
Venus	-109809-08-24 11:02 J	-38386078.14	-38386078.04	-38386077.92	0.0089	0.0078
Venus	-109808-04-07 01:12 J	-38385852.49	-38385852.45	-38385852.36	0.0089	0.0085
Moon	-109803-01-21 18:28 J	-38384101.89	-38384101.73	-38384101.52	0.0089	0.0065
Earth	-109803-01-21 21:36 J	-38384101.77	-38384101.60	-38384101.38	0.0089	0.0061 *
Earth	-109802-01-24 14:38 J	-38383734.14	-38383733.89	-38383733.63	0.0089	0.0027
Moon	-109802-01-24 18:14 J	-38383733.99	-38383733.74	-38383733.47	0.0089	0.0023 *
Moon	-109801-01-27 03:50 J	-38383366.60	-38383366.34	-38383366.07	0.0089	0.0002
Earth	-109801-01-27 07:26 J	-38383366.45	-38383366.19	-38383365.92	0.0089	0.0006 *
Earth	-109800-01-29 00:14 J	-38382998.73	-38382998.49	-38382998.25	0.0089	0.0039
Moon	-109800-01-29 03:21 J	-38382998.58	-38382998.36	-38382998.10	0.0089	0.0044 *

Moon -109799-01-31 13:26 J -38382631.09 -38382630.94 -38382630.75 0.0089 0.0068
 Earth -109799-01-31 16:19 J -38382630.95 -38382630.82 -38382630.64 0.0089 0.0073 *
 Mars -109791-08-09 12:00 J -38379519.15 -38379519.00 -38379518.80 0.0089 0.0071
 Mars -109789-07-03 10:19 J -38378825.30 -38378825.07 -38378824.80 0.0089 0.0047
 Mars -109787-05-28 08:24 J -38378131.42 -38378131.15 -38378130.84 0.0089 0.0023
 Mars -109785-04-21 08:09 J -38377437.45 -38377437.16 -38377436.86 0.0089 0.0002
 Mars -109783-03-16 08:38 J -38376743.41 -38376743.14 -38376742.85 0.0089 0.0027
 Mars -109781-02-08 07:55 J -38376049.38 -38376049.17 -38376048.90 0.0089 0.0052
 Mars -109779-01-02 09:07 J -38375355.25 -38375355.12 -38375354.95 0.0089 0.0076
 Mercury -109769-11-11 05:16 J -38371389.29 -38371389.28 -38371389.23 0.0088 0.0087
 Mercury -109768-02-07 07:26 J -38371301.24 -38371301.19 -38371301.12 0.0088 0.0082
 Mercury -109768-05-06 09:36 J -38371213.17 -38371213.10 -38371213.03 0.0088 0.0077
 Mercury -109768-08-02 11:16 J -38371125.11 -38371125.03 -38371124.94 0.0088 0.0073
 Mercury -109768-10-29 13:26 J -38371037.04 -38371036.94 -38371036.85 0.0088 0.0068
 Mercury -109767-01-25 15:07 J -38370948.97 -38370948.87 -38370948.76 0.0088 0.0063
 Mercury -109767-04-23 17:02 J -38370860.90 -38370860.79 -38370860.68 0.0088 0.0059
 Mercury -109767-07-20 18:43 J -38370772.83 -38370772.72 -38370772.59 0.0088 0.0055
 Mercury -109767-10-16 20:52 J -38370684.75 -38370684.63 -38370684.51 0.0088 0.0050
 Mercury -109766-01-12 22:33 J -38370596.68 -38370596.56 -38370596.43 0.0088 0.0046
 Mercury -109766-04-11 00:28 J -38370508.61 -38370508.48 -38370508.35 0.0088 0.0041
 Mercury -109766-07-08 02:09 J -38370420.54 -38370420.41 -38370420.26 0.0088 0.0037
 Mercury -109766-10-04 04:04 J -38370332.46 -38370332.33 -38370332.19 0.0088 0.0032
 Mercury -109766-12-31 06:00 J -38370244.39 -38370244.25 -38370244.11 0.0088 0.0028
 Mercury -109765-03-28 07:40 J -38370156.32 -38370156.18 -38370156.03 0.0088 0.0024
 Mercury -109765-06-24 09:36 J -38370068.24 -38370068.10 -38370067.95 0.0088 0.0019
 Mercury -109765-09-20 11:16 J -38369980.17 -38369980.03 -38369979.88 0.0088 0.0015
 Mercury -109765-12-17 13:12 J -38369892.09 -38369891.95 -38369891.80 0.0088 0.0010
 Mercury -109764-03-15 14:52 J -38369804.02 -38369803.88 -38369803.73 0.0088 0.0007
 Mercury -109764-06-11 16:48 J -38369715.95 -38369715.80 -38369715.65 0.0088 0.0001
 Mercury -109764-09-07 18:28 J -38369627.87 -38369627.73 -38369627.58 0.0088 0.0004

Mercury -109764-12-04 20:24 J -38369539.80 -38369539.65 -38369539.51 0.0088 0.0008

Mercury -109763-03-02 22:04 J -38369451.73 -38369451.58 -38369451.44 0.0088 0.0012

Mercury -109763-05-29 23:45 J -38369363.65 -38369363.51 -38369363.36 0.0088 0.0016

Mercury -109763-08-26 01:26 J -38369275.58 -38369275.44 -38369275.29 0.0088 0.0021

Mercury -109763-11-22 03:21 J -38369187.50 -38369187.36 -38369187.22 0.0088 0.0025

Mercury -109762-02-18 04:48 J -38369099.43 -38369099.30 -38369099.15 0.0088 0.0029

Mercury -109762-05-17 06:28 J -38369011.35 -38369011.23 -38369011.09 0.0088 0.0034

Mercury -109762-08-13 08:24 J -38368923.28 -38368923.15 -38368923.02 0.0088 0.0037

Mercury -109762-11-09 10:04 J -38368835.21 -38368835.08 -38368834.95 0.0088 0.0042

Mercury -109761-02-05 11:45 J -38368747.13 -38368747.01 -38368746.88 0.0088 0.0046

Mercury -109761-05-03 13:12 J -38368659.06 -38368658.95 -38368658.82 0.0088 0.0051

Mercury -109761-07-30 14:52 J -38368570.98 -38368570.88 -38368570.75 0.0088 0.0055

Mercury -109761-10-26 16:33 J -38368482.90 -38368482.81 -38368482.69 0.0088 0.0059

Mercury -109760-01-22 18:28 J -38368394.83 -38368394.73 -38368394.63 0.0088 0.0062

Mercury -109760-04-20 20:09 J -38368306.75 -38368306.66 -38368306.56 0.0088 0.0067

Mercury -109760-07-17 21:50 J -38368218.67 -38368218.59 -38368218.50 0.0088 0.0071

Mercury -109760-10-13 23:31 J -38368130.59 -38368130.52 -38368130.45 0.0088 0.0075

Mercury -109759-01-10 00:43 J -38368042.51 -38368042.47 -38368042.39 0.0088 0.0080

Mercury -109759-04-08 02:24 J -38367954.43 -38367954.40 -38367954.34 0.0088 0.0084

Mercury -109759-07-05 04:04 J -38367866.33 -38367866.33 -38367866.29 0.0088 0.0088

Venus -109742-05-06 17:45 J -38361716.78 -38361716.76 -38361716.69 0.0088 0.0086

Venus -109742-12-18 06:14 J -38361491.33 -38361491.24 -38361491.15 0.0088 0.0080

Venus -109741-07-30 18:00 J -38361265.86 -38361265.75 -38361265.63 0.0088 0.0074

Venus -109740-03-13 05:45 J -38361040.38 -38361040.26 -38361040.11 0.0088 0.0068

Venus -109740-10-24 17:45 J -38360814.90 -38360814.76 -38360814.60 0.0088 0.0061

Venus -109739-06-07 05:31 J -38360589.42 -38360589.27 -38360589.09 0.0088 0.0055

Venus -109738-01-18 17:16 J -38360363.94 -38360363.78 -38360363.59 0.0088 0.0049

Venus -109738-09-01 05:16 J -38360138.46 -38360138.28 -38360138.08 0.0088 0.0043

Venus -109737-04-13 17:02 J -38359912.97 -38359912.79 -38359912.58 0.0088 0.0037

Venus -109737-11-25 04:48 J -38359687.49 -38359687.30 -38359687.08 0.0088 0.0030

Venus	-109736-07-08 16:48 J	-38359462.00	-38359461.80	-38359461.59	0.0088	0.0024
Venus	-109735-02-19 04:33 J	-38359236.52	-38359236.31	-38359236.10	0.0088	0.0017
Venus	-109735-10-02 16:19 J	-38359011.03	-38359010.82	-38359010.60	0.0088	0.0011
Venus	-109734-05-16 04:19 J	-38358785.53	-38358785.32	-38358785.11	0.0088	0.0004
Venus	-109734-12-27 16:04 J	-38358560.05	-38358559.83	-38358559.62	0.0088	0.0002
Venus	-109733-08-09 03:36 J	-38358334.56	-38358334.35	-38358334.13	0.0088	0.0009
Venus	-109732-03-22 15:36 J	-38358109.06	-38358108.85	-38358108.64	0.0088	0.0015
Venus	-109732-11-03 02:52 J	-38357883.57	-38357883.38	-38357883.16	0.0088	0.0022
Venus	-109731-06-16 14:38 J	-38357658.08	-38357657.89	-38357657.68	0.0088	0.0028
Venus	-109730-01-28 02:24 J	-38357432.60	-38357432.40	-38357432.20	0.0088	0.0034
Venus	-109730-09-10 13:40 J	-38357207.10	-38357206.93	-38357206.72	0.0088	0.0040
Venus	-109729-04-23 01:26 J	-38356981.61	-38356981.44	-38356981.25	0.0088	0.0046
Venus	-109729-12-04 12:57 J	-38356756.12	-38356755.96	-38356755.78	0.0088	0.0052
Venus	-109728-07-18 00:28 J	-38356530.63	-38356530.48	-38356530.31	0.0088	0.0059
Venus	-109727-02-28 12:00 J	-38356305.13	-38356305.00	-38356304.84	0.0088	0.0065
Venus	-109727-10-11 23:31 J	-38356079.63	-38356079.52	-38356079.38	0.0088	0.0071
Venus	-109726-05-25 11:16 J	-38355854.12	-38355854.03	-38355853.92	0.0088	0.0077
Venus	-109725-01-05 22:48 J	-38355628.61	-38355628.55	-38355628.47	0.0088	0.0083
Moon	-109722-07-20 09:50 J	-38354337.10	-38354337.09	-38354337.04	0.0088	0.0088
Earth	-109722-07-20 12:57 J	-38354336.97	-38354336.96	-38354336.89	0.0088	0.0088
Earth	-109721-07-21 19:55 J	-38353969.83	-38353969.67	-38353969.46	0.0088	0.0058
Moon	-109721-07-21 22:48 J	-38353969.72	-38353969.55	-38353969.33	0.0088	0.0057 *
Moon	-109720-07-24 01:26 J	-38353602.66	-38353602.44	-38353602.20	0.0088	0.0029
Earth	-109720-07-24 03:07 J	-38353602.59	-38353602.37	-38353602.12	0.0088	0.0028 *
Earth	-109719-07-26 10:19 J	-38353235.32	-38353235.07	-38353234.82	0.0088	0.0003
Moon	-109719-07-26 11:16 J	-38353235.28	-38353235.03	-38353234.77	0.0088	0.0004 *
Earth	-109718-07-28 17:02 J	-38352868.02	-38352867.79	-38352867.56	0.0088	0.0033
Moon	-109718-07-28 17:31 J	-38352867.98	-38352867.77	-38352867.53	0.0088	0.0032 *
Moon	-109717-07-29 21:21 J	-38352500.76	-38352500.61	-38352500.42	0.0088	0.0065
Earth	-109717-07-29 23:45 J	-38352500.67	-38352500.51	-38352500.33	0.0088	0.0063 *

Mars -109707-04-29 23:31 J -38348939.73 -38348939.52 -38348939.29 0.0088 0.0066
 Mars -109705-03-25 23:16 J -38348243.82 -38348243.53 -38348243.21 0.0089 0.0038
 Mars -109703-02-19 22:19 J -38347547.89 -38347547.57 -38347547.23 0.0089 0.0010
 Mars -109701-01-16 20:24 J -38346851.97 -38346851.65 -38346851.31 0.0089 0.0019
 Mars -109700-12-12 17:45 J -38346156.02 -38346155.76 -38346155.45 0.0089 0.0047
 Mars -109698-11-08 14:09 J -38345460.05 -38345459.91 -38345459.70 0.0089 0.0075
 Mercury -109685-01-18 09:07 J -38341006.15 -38341006.12 -38341006.08 0.0089 0.0086
 Mercury -109685-04-15 11:16 J -38340918.07 -38340918.03 -38340917.95 0.0089 0.0082
 Mercury -109685-07-12 13:55 J -38340829.99 -38340829.92 -38340829.82 0.0089 0.0077
 Mercury -109685-10-08 16:19 J -38340741.90 -38340741.82 -38340741.71 0.0089 0.0072
 Mercury -109684-01-04 18:57 J -38340653.81 -38340653.71 -38340653.59 0.0089 0.0067
 Mercury -109684-04-02 21:36 J -38340565.71 -38340565.60 -38340565.47 0.0089 0.0062
 Mercury -109684-06-30 00:14 J -38340477.61 -38340477.49 -38340477.36 0.0089 0.0057
 Mercury -109684-09-26 02:52 J -38340389.51 -38340389.38 -38340389.24 0.0089 0.0052
 Mercury -109684-12-23 05:16 J -38340301.41 -38340301.28 -38340301.13 0.0089 0.0047
 Mercury -109683-03-21 07:55 J -38340213.31 -38340213.17 -38340213.02 0.0089 0.0042
 Mercury -109683-06-17 10:33 J -38340125.21 -38340125.06 -38340124.91 0.0089 0.0037
 Mercury -109683-09-13 13:12 J -38340037.11 -38340036.95 -38340036.79 0.0089 0.0032
 Mercury -109683-12-10 15:50 J -38339949.00 -38339948.84 -38339948.68 0.0089 0.0027
 Mercury -109682-03-08 18:28 J -38339860.90 -38339860.73 -38339860.57 0.0089 0.0022
 Mercury -109682-06-04 21:07 J -38339772.79 -38339772.62 -38339772.45 0.0089 0.0017
 Mercury -109682-08-31 23:45 J -38339684.68 -38339684.51 -38339684.34 0.0089 0.0012
 Mercury -109682-11-28 02:24 J -38339596.57 -38339596.40 -38339596.23 0.0089 0.0007
 Mercury -109681-02-24 05:02 J -38339508.46 -38339508.29 -38339508.12 0.0089 0.0002
 Mercury -109681-05-22 07:40 J -38339420.35 -38339420.18 -38339420.00 0.0089 0.0004
 Mercury -109681-08-18 10:19 J -38339332.23 -38339332.07 -38339331.89 0.0089 0.0009
 Mercury -109681-11-14 13:12 J -38339244.12 -38339243.95 -38339243.78 0.0089 0.0014
 Mercury -109680-02-10 15:50 J -38339156.01 -38339155.84 -38339155.67 0.0089 0.0019
 Mercury -109680-05-09 18:28 J -38339067.89 -38339067.73 -38339067.56 0.0089 0.0025
 Mercury -109680-08-05 21:07 J -38338979.77 -38338979.62 -38338979.45 0.0089 0.0030

Mercury -109680-11-02 00:00 J -38338891.65 -38338891.50 -38338891.34 0.0089 0.0035

Mercury -109679-01-29 02:52 J -38338803.53 -38338803.38 -38338803.22 0.0089 0.0040

Mercury -109679-04-27 05:16 J -38338715.41 -38338715.28 -38338715.11 0.0089 0.0046

Mercury -109679-07-24 08:09 J -38338627.29 -38338627.16 -38338627.00 0.0089 0.0051

Mercury -109679-10-20 11:02 J -38338539.16 -38338539.04 -38338538.90 0.0089 0.0056

Mercury -109678-01-16 13:40 J -38338451.04 -38338450.93 -38338450.79 0.0089 0.0062

Mercury -109678-04-14 16:33 J -38338362.91 -38338362.81 -38338362.68 0.0089 0.0067

Mercury -109678-07-11 19:40 J -38338274.78 -38338274.68 -38338274.58 0.0089 0.0072

Mercury -109678-10-07 22:04 J -38338186.64 -38338186.58 -38338186.47 0.0089 0.0078

Mercury -109677-01-04 01:12 J -38338098.50 -38338098.45 -38338098.38 0.0089 0.0083

Mercury -109677-04-01 04:04 J -38338010.34 -38338010.33 -38338010.30 0.0089 0.0088

Saturn -109676-04-30 06:14 J -38337616.73 -38337616.24 -38337615.70 0.0089 0.0058

Jupiter -109670-08-31 23:31 J -38335301.99 -38335301.52 -38335301.01 0.0089 0.0044

Venus -109659-01-29 10:19 J -38331498.11 -38331498.07 -38331497.98 0.0089 0.0085

Venus -109659-09-12 00:43 J -38331272.56 -38331272.47 -38331272.35 0.0089 0.0078

Venus -109658-04-25 15:07 J -38331047.00 -38331046.87 -38331046.74 0.0089 0.0072

Venus -109658-12-07 04:48 J -38330821.43 -38330821.30 -38330821.13 0.0089 0.0065

Venus -109657-07-19 18:57 J -38330595.86 -38330595.71 -38330595.52 0.0089 0.0059

Venus -109656-03-02 09:21 J -38330370.28 -38330370.11 -38330369.92 0.0089 0.0052

Venus -109656-10-13 23:31 J -38330144.70 -38330144.52 -38330144.31 0.0089 0.0045

Venus -109655-05-27 13:55 J -38329919.11 -38329918.92 -38329918.70 0.0089 0.0038

Venus -109654-01-08 04:04 J -38329693.53 -38329693.33 -38329693.10 0.0089 0.0032

Venus -109654-08-21 18:28 J -38329467.94 -38329467.73 -38329467.50 0.0089 0.0024

Venus -109653-04-03 08:52 J -38329242.35 -38329242.13 -38329241.90 0.0089 0.0017

Venus -109653-11-14 23:16 J -38329016.75 -38329016.53 -38329016.30 0.0089 0.0010

Venus -109652-06-28 13:26 J -38328791.16 -38328790.94 -38328790.71 0.0089 0.0004

Venus -109651-02-09 03:50 J -38328565.56 -38328565.34 -38328565.11 0.0089 0.0004

Venus -109651-09-22 18:14 J -38328339.96 -38328339.74 -38328339.51 0.0089 0.0010

Venus -109650-05-06 08:38 J -38328114.36 -38328114.14 -38328113.92 0.0089 0.0017

Venus -109650-12-17 22:48 J -38327888.76 -38327888.55 -38327888.32 0.0089 0.0024

Venus	-109649-07-30 13:12 J	-38327663.16	-38327662.95	-38327662.73	0.0089	0.0031
Venus	-109648-03-13 03:21 J	-38327437.55	-38327437.36	-38327437.14	0.0089	0.0038
Venus	-109648-10-24 18:00 J	-38327211.93	-38327211.75	-38327211.54	0.0089	0.0045
Venus	-109647-06-07 08:24 J	-38326986.31	-38326986.15	-38326985.95	0.0089	0.0052
Venus	-109646-01-18 23:16 J	-38326760.70	-38326760.53	-38326760.36	0.0089	0.0058
Venus	-109646-09-01 13:40 J	-38326535.08	-38326534.93	-38326534.77	0.0089	0.0065
Venus	-109645-04-14 04:04 J	-38326309.45	-38326309.33	-38326309.19	0.0089	0.0072
Venus	-109645-11-25 18:28 J	-38326083.81	-38326083.73	-38326083.60	0.0089	0.0079
Venus	-109644-07-09 08:52 J	-38325858.16	-38325858.13	-38325858.04	0.0089	0.0086
Earth	-109639-01-21 00:00 J	-38324201.62	-38324201.50	-38324201.36	0.0089	0.0077
Moon	-109639-01-21 02:52 J	-38324201.47	-38324201.38	-38324201.24	0.0089	0.0081 *
Moon	-109638-01-23 14:09 J	-38323834.14	-38323833.91	-38323833.67	0.0089	0.0041
Earth	-109638-01-23 16:48 J	-38323834.02	-38323833.80	-38323833.55	0.0089	0.0044 *
Earth	-109637-01-26 09:50 J	-38323466.35	-38323466.09	-38323465.82	0.0089	0.0011
Moon	-109637-01-26 11:31 J	-38323466.28	-38323466.02	-38323465.73	0.0089	0.0014 *
Moon	-109636-01-28 01:40 J	-38323098.66	-38323098.43	-38323098.16	0.0089	0.0026
Earth	-109636-01-28 02:24 J	-38323098.65	-38323098.40	-38323098.13	0.0089	0.0023 *
Moon	-109635-01-30 18:57 J	-38322730.92	-38322730.71	-38322730.48	0.0089	0.0054
Earth	-109635-01-30 18:57 J	-38322730.90	-38322730.71	-38322730.49	0.0089	0.0056 *
Mars	-109627-03-24 16:33 J	-38319755.89	-38319755.81	-38319755.67	0.0089	0.0082
Mars	-109625-02-16 16:04 J	-38319062.04	-38319061.83	-38319061.59	0.0089	0.0057
Mars	-109623-01-10 14:38 J	-38318368.14	-38318367.89	-38318367.59	0.0089	0.0033
Mars	-109622-12-05 12:57 J	-38317674.25	-38317673.96	-38317673.66	0.0089	0.0008
Mars	-109620-10-29 11:31 J	-38316980.30	-38316980.02	-38316979.72	0.0089	0.0018
Mars	-109618-09-23 11:16 J	-38316286.27	-38316286.03	-38316285.75	0.0089	0.0043
Mars	-109616-08-17 11:02 J	-38315592.21	-38315592.04	-38315591.83	0.0089	0.0068
Mercury	-109604-08-08 04:19 J	-38311218.35	-38311218.32	-38311218.26	0.0088	0.0085
Mercury	-109604-11-04 06:14 J	-38311130.29	-38311130.24	-38311130.16	0.0088	0.0080
Mercury	-109603-01-31 08:09 J	-38311042.22	-38311042.16	-38311042.07	0.0088	0.0076
Mercury	-109603-04-29 10:19 J	-38310954.15	-38310954.07	-38310953.98	0.0088	0.0071

Mercury -109603-07-26 12:00 J -38310866.08 -38310866.00 -38310865.89 0.0088 0.0067
 Mercury -109603-10-22 14:09 J -38310778.01 -38310777.91 -38310777.80 0.0088 0.0062
 Mercury -109602-01-18 15:50 J -38310689.94 -38310689.84 -38310689.71 0.0088 0.0058
 Mercury -109602-04-16 18:00 J -38310601.87 -38310601.75 -38310601.63 0.0088 0.0053
 Mercury -109602-07-13 19:40 J -38310513.80 -38310513.68 -38310513.55 0.0088 0.0048
 Mercury -109602-10-09 21:36 J -38310425.72 -38310425.60 -38310425.46 0.0088 0.0044
 Mercury -109601-01-05 23:31 J -38310337.65 -38310337.52 -38310337.38 0.0088 0.0039
 Mercury -109601-04-03 01:26 J -38310249.58 -38310249.44 -38310249.30 0.0088 0.0035
 Mercury -109601-06-30 03:07 J -38310161.50 -38310161.37 -38310161.22 0.0088 0.0031
 Mercury -109601-09-26 05:02 J -38310073.43 -38310073.29 -38310073.14 0.0088 0.0026
 Mercury -109601-12-23 06:57 J -38309985.35 -38309985.21 -38309985.07 0.0088 0.0021
 Mercury -109600-03-21 08:38 J -38309897.28 -38309897.14 -38309896.99 0.0088 0.0017
 Mercury -109600-06-17 10:33 J -38309809.21 -38309809.06 -38309808.91 0.0088 0.0013
 Mercury -109600-09-13 12:14 J -38309721.13 -38309720.99 -38309720.84 0.0088 0.0009
 Mercury -109600-12-10 14:09 J -38309633.06 -38309632.91 -38309632.76 0.0088 0.0004
 Mercury -109599-03-08 15:50 J -38309544.98 -38309544.84 -38309544.69 0.0088 0.0002
 Mercury -109599-06-04 17:45 J -38309456.91 -38309456.76 -38309456.62 0.0088 0.0005
 Mercury -109599-08-31 19:26 J -38309368.84 -38309368.69 -38309368.54 0.0088 0.0009
 Mercury -109599-11-27 21:07 J -38309280.76 -38309280.62 -38309280.47 0.0088 0.0014
 Mercury -109598-02-23 22:48 J -38309192.69 -38309192.55 -38309192.40 0.0088 0.0018
 Mercury -109598-05-23 00:28 J -38309104.61 -38309104.48 -38309104.33 0.0088 0.0023
 Mercury -109598-08-19 02:24 J -38309016.54 -38309016.40 -38309016.26 0.0088 0.0026
 Mercury -109598-11-15 04:04 J -38308928.46 -38308928.33 -38308928.19 0.0088 0.0031
 Mercury -109597-02-11 05:31 J -38308840.39 -38308840.27 -38308840.12 0.0088 0.0036
 Mercury -109597-05-09 07:26 J -38308752.31 -38308752.19 -38308752.05 0.0088 0.0039
 Mercury -109597-08-05 09:07 J -38308664.24 -38308664.12 -38308663.99 0.0088 0.0044
 Mercury -109597-11-01 10:48 J -38308576.16 -38308576.05 -38308575.92 0.0088 0.0048
 Mercury -109596-01-28 12:43 J -38308488.09 -38308487.97 -38308487.86 0.0088 0.0052
 Mercury -109596-04-26 14:24 J -38308400.01 -38308399.90 -38308399.79 0.0088 0.0056
 Mercury -109596-07-23 15:50 J -38308311.94 -38308311.84 -38308311.73 0.0088 0.0060

Mercury -109596-10-19 17:31 J -38308223.86 -38308223.77 -38308223.66 0.0088 0.0064

Mercury -109595-01-15 19:12 J -38308135.78 -38308135.70 -38308135.60 0.0088 0.0068

Mercury -109595-04-13 20:52 J -38308047.70 -38308047.63 -38308047.54 0.0088 0.0073

Mercury -109595-07-10 22:33 J -38307959.62 -38307959.56 -38307959.48 0.0088 0.0077

Mercury -109595-10-07 00:14 J -38307871.54 -38307871.49 -38307871.43 0.0088 0.0081

Mercury -109594-01-03 01:55 J -38307783.45 -38307783.42 -38307783.38 0.0088 0.0085

Venus -109578-08-08 04:04 J -38301722.35 -38301722.33 -38301722.26 0.0088 0.0086

Venus -109577-03-20 16:33 J -38301496.89 -38301496.81 -38301496.71 0.0088 0.0080

Venus -109577-11-01 04:33 J -38301271.42 -38301271.31 -38301271.19 0.0088 0.0074

Venus -109576-06-14 16:19 J -38301045.95 -38301045.82 -38301045.67 0.0088 0.0067

Venus -109575-01-26 04:04 J -38300820.47 -38300820.33 -38300820.16 0.0088 0.0061

Venus -109575-09-08 15:50 J -38300594.99 -38300594.84 -38300594.65 0.0088 0.0055

Venus -109574-04-22 04:04 J -38300369.50 -38300369.33 -38300369.14 0.0088 0.0049

Venus -109574-12-03 15:50 J -38300144.02 -38300143.84 -38300143.64 0.0088 0.0042

Venus -109573-07-16 03:36 J -38299918.53 -38299918.35 -38299918.14 0.0088 0.0036

Venus -109572-02-26 15:36 J -38299693.05 -38299692.85 -38299692.64 0.0088 0.0030

Venus -109572-10-10 03:21 J -38299467.56 -38299467.36 -38299467.14 0.0088 0.0023

Venus -109571-05-23 15:07 J -38299242.07 -38299241.87 -38299241.65 0.0088 0.0017

Venus -109570-01-04 03:07 J -38299016.58 -38299016.37 -38299016.16 0.0088 0.0010

Venus -109570-08-17 14:52 J -38298791.09 -38298790.88 -38298790.67 0.0088 0.0004

Venus -109569-03-30 02:38 J -38298565.60 -38298565.39 -38298565.17 0.0088 0.0003

Venus -109569-11-10 14:24 J -38298340.11 -38298339.90 -38298339.68 0.0088 0.0009

Venus -109568-06-24 02:09 J -38298114.62 -38298114.41 -38298114.20 0.0088 0.0015

Venus -109567-02-04 13:55 J -38297889.13 -38297888.92 -38297888.71 0.0088 0.0022

Venus -109567-09-18 01:26 J -38297663.63 -38297663.44 -38297663.23 0.0088 0.0028

Venus -109566-05-01 13:12 J -38297438.14 -38297437.95 -38297437.74 0.0088 0.0034

Venus -109566-12-13 00:57 J -38297212.64 -38297212.46 -38297212.27 0.0088 0.0041

Venus -109565-07-25 12:43 J -38296987.15 -38296986.97 -38296986.79 0.0088 0.0047

Venus -109564-03-08 00:00 J -38296761.66 -38296761.50 -38296761.32 0.0088 0.0053

Venus -109564-10-19 11:31 J -38296536.16 -38296536.02 -38296535.84 0.0088 0.0060

Venus -109563-06-01 23:16 J -38296310.66 -38296310.53 -38296310.37 0.0088 0.0066
 Venus -109562-01-13 10:48 J -38296085.16 -38296085.05 -38296084.91 0.0088 0.0072
 Venus -109562-08-26 22:19 J -38295859.65 -38295859.57 -38295859.46 0.0088 0.0078
 Venus -109561-04-08 10:04 J -38295634.14 -38295634.08 -38295634.00 0.0088 0.0084
 Moon -109557-07-21 07:55 J -38294069.29 -38294069.17 -38294069.05 0.0088 0.0076
 Earth -109557-07-21 08:24 J -38294069.28 -38294069.15 -38294069.00 0.0088 0.0072 *
 Moon -109556-07-23 13:55 J -38293702.13 -38293701.92 -38293701.67 0.0088 0.0039
 Earth -109556-07-23 15:07 J -38293702.07 -38293701.87 -38293701.64 0.0088 0.0042 *
 Earth -109555-07-25 22:19 J -38293334.82 -38293334.57 -38293334.33 0.0088 0.0012
 Moon -109555-07-26 00:14 J -38293334.72 -38293334.49 -38293334.24 0.0088 0.0015 *
 Moon -109554-07-28 02:09 J -38292967.64 -38292967.41 -38292967.16 0.0088 0.0022
 Earth -109554-07-28 05:02 J -38292967.52 -38292967.29 -38292967.04 0.0088 0.0019 *
 Earth -109553-07-29 11:45 J -38292600.20 -38292600.01 -38292599.79 0.0088 0.0049
 Moon -109553-07-29 15:36 J -38292600.06 -38292599.85 -38292599.63 0.0088 0.0045 *
 Moon -109552-07-31 15:36 J -38292232.93 -38292232.85 -38292232.74 0.0088 0.0082
 Earth -109552-07-31 18:28 J -38292232.82 -38292232.73 -38292232.59 0.0088 0.0079 *
 Mars -109544-12-11 11:16 J -38289178.15 -38289178.03 -38289177.84 0.0088 0.0079
 Mars -109542-11-07 11:45 J -38288482.27 -38288482.01 -38288481.72 0.0088 0.0050
 Mars -109540-10-03 11:31 J -38287786.34 -38287786.02 -38287785.69 0.0089 0.0021
 Mars -109538-08-30 10:19 J -38287090.39 -38287090.07 -38287089.73 0.0089 0.0009
 Mars -109536-07-26 08:24 J -38286394.45 -38286394.15 -38286393.84 0.0089 0.0037
 Mars -109534-06-22 05:16 J -38285698.47 -38285698.28 -38285698.02 0.0089 0.0066
 Mercury -109521-07-18 05:31 J -38280923.27 -38280923.27 -38280923.27 0.0089 0.0089
 Mercury -109521-10-14 07:40 J -38280835.22 -38280835.18 -38280835.12 0.0089 0.0084
 Mercury -109520-01-10 10:19 J -38280747.14 -38280747.07 -38280746.99 0.0089 0.0079
 Mercury -109520-04-08 12:28 J -38280659.05 -38280658.98 -38280658.88 0.0089 0.0075
 Mercury -109520-07-05 15:07 J -38280570.96 -38280570.87 -38280570.76 0.0089 0.0070
 Mercury -109520-10-01 17:31 J -38280482.87 -38280482.77 -38280482.64 0.0089 0.0065
 Mercury -109520-12-28 20:09 J -38280394.77 -38280394.66 -38280394.53 0.0089 0.0060
 Mercury -109519-03-26 22:48 J -38280306.68 -38280306.55 -38280306.42 0.0089 0.0055

Mercury -109519-06-23 01:26 J -38280218.58 -38280218.44 -38280218.30 0.0089 0.0050

Mercury -109519-09-19 03:50 J -38280130.48 -38280130.34 -38280130.19 0.0089 0.0045

Mercury -109519-12-16 06:28 J -38280042.38 -38280042.23 -38280042.08 0.0089 0.0040

Mercury -109518-03-14 09:07 J -38279954.27 -38279954.12 -38279953.96 0.0089 0.0035

Mercury -109518-06-10 11:45 J -38279866.17 -38279866.01 -38279865.85 0.0089 0.0030

Mercury -109518-09-06 14:24 J -38279778.07 -38279777.90 -38279777.74 0.0089 0.0025

Mercury -109518-12-03 17:02 J -38279689.96 -38279689.79 -38279689.63 0.0089 0.0020

Mercury -109517-02-29 19:40 J -38279601.85 -38279601.68 -38279601.52 0.0089 0.0015

Mercury -109517-05-27 22:19 J -38279513.74 -38279513.57 -38279513.40 0.0089 0.0010

Mercury -109517-08-24 00:57 J -38279425.63 -38279425.46 -38279425.29 0.0089 0.0005

Mercury -109517-11-20 03:36 J -38279337.52 -38279337.35 -38279337.18 0.0089 0.0001

Mercury -109516-02-16 06:14 J -38279249.41 -38279249.24 -38279249.07 0.0089 0.0005

Mercury -109516-05-15 08:52 J -38279161.30 -38279161.13 -38279160.96 0.0089 0.0011

Mercury -109516-08-11 11:31 J -38279073.19 -38279073.02 -38279072.85 0.0089 0.0016

Mercury -109516-11-07 14:09 J -38278985.07 -38278984.91 -38278984.74 0.0089 0.0021

Mercury -109515-02-03 17:02 J -38278896.95 -38278896.79 -38278896.63 0.0089 0.0026

Mercury -109515-05-02 19:26 J -38278808.84 -38278808.69 -38278808.51 0.0089 0.0032

Mercury -109515-07-29 22:19 J -38278720.72 -38278720.57 -38278720.40 0.0089 0.0037

Mercury -109515-10-26 01:12 J -38278632.60 -38278632.45 -38278632.29 0.0089 0.0042

Mercury -109514-01-22 04:04 J -38278544.48 -38278544.33 -38278544.18 0.0089 0.0047

Mercury -109514-04-20 06:28 J -38278456.35 -38278456.23 -38278456.08 0.0089 0.0053

Mercury -109514-07-17 09:21 J -38278368.23 -38278368.11 -38278367.97 0.0089 0.0058

Mercury -109514-10-13 12:14 J -38278280.10 -38278279.99 -38278279.86 0.0089 0.0063

Mercury -109513-01-09 14:52 J -38278191.97 -38278191.88 -38278191.75 0.0089 0.0069

Mercury -109513-04-06 17:45 J -38278103.84 -38278103.76 -38278103.65 0.0089 0.0074

Mercury -109513-07-03 20:52 J -38278015.70 -38278015.63 -38278015.55 0.0089 0.0079

Mercury -109513-09-29 23:16 J -38277927.56 -38277927.53 -38277927.46 0.0089 0.0085

Venus -109495-05-02 18:28 J -38271503.77 -38271503.73 -38271503.64 0.0089 0.0085

Venus -109495-12-14 08:52 J -38271278.23 -38271278.13 -38271278.02 0.0089 0.0078

Venus -109494-07-27 22:33 J -38271052.67 -38271052.56 -38271052.41 0.0089 0.0072

Venus	-109493-03-09 12:43 J	-38270827.10	-38270826.97	-38270826.80	0.0089	0.0065
Venus	-109493-10-21 03:07 J	-38270601.53	-38270601.37	-38270601.19	0.0089	0.0058
Venus	-109492-06-03 17:31 J	-38270375.95	-38270375.77	-38270375.59	0.0089	0.0051
Venus	-109491-01-15 07:12 J	-38270150.37	-38270150.20	-38270149.98	0.0089	0.0045
Venus	-109491-08-28 21:36 J	-38269924.79	-38269924.60	-38269924.38	0.0089	0.0038
Venus	-109490-04-11 12:00 J	-38269699.20	-38269699.00	-38269698.78	0.0089	0.0031
Venus	-109490-11-23 02:24 J	-38269473.61	-38269473.40	-38269473.18	0.0089	0.0024
Venus	-109489-07-05 16:33 J	-38269248.02	-38269247.81	-38269247.58	0.0089	0.0017
Venus	-109488-02-16 06:57 J	-38269022.43	-38269022.21	-38269021.98	0.0089	0.0010
Venus	-109488-09-29 21:36 J	-38268796.83	-38268796.60	-38268796.38	0.0089	0.0003
Venus	-109487-05-13 11:45 J	-38268571.23	-38268571.01	-38268570.78	0.0089	0.0004
Venus	-109487-12-25 01:55 J	-38268345.64	-38268345.42	-38268345.19	0.0089	0.0011
Venus	-109486-08-07 16:04 J	-38268120.04	-38268119.83	-38268119.59	0.0089	0.0018
Venus	-109485-03-20 06:43 J	-38267894.44	-38267894.22	-38267894.00	0.0089	0.0024
Venus	-109485-10-31 21:07 J	-38267668.83	-38267668.62	-38267668.40	0.0089	0.0031
Venus	-109484-06-14 11:31 J	-38267443.22	-38267443.02	-38267442.81	0.0089	0.0038
Venus	-109483-01-26 01:40 J	-38267217.61	-38267217.43	-38267217.22	0.0089	0.0045
Venus	-109483-09-08 16:04 J	-38266992.00	-38266991.83	-38266991.63	0.0089	0.0052
Venus	-109482-04-22 06:28 J	-38266766.38	-38266766.23	-38266766.05	0.0089	0.0059
Venus	-109482-12-03 20:52 J	-38266540.76	-38266540.63	-38266540.46	0.0089	0.0066
Venus	-109481-07-16 11:16 J	-38266315.14	-38266315.03	-38266314.88	0.0089	0.0073
Venus	-109480-02-27 02:09 J	-38266089.51	-38266089.41	-38266089.30	0.0089	0.0079
Venus	-109480-10-10 16:33 J	-38265863.85	-38265863.81	-38265863.74	0.0089	0.0086
Moon	-109474-01-22 17:02 J	-38263933.97	-38263933.79	-38263933.58	0.0089	0.0062
Earth	-109474-01-22 18:14 J	-38263933.93	-38263933.74	-38263933.54	0.0089	0.0061 *
Earth	-109473-01-25 10:48 J	-38263566.29	-38263566.05	-38263565.78	0.0089	0.0028
Moon	-109473-01-25 12:14 J	-38263566.23	-38263565.99	-38263565.73	0.0089	0.0026 *
Moon	-109472-01-27 00:57 J	-38263198.74	-38263198.46	-38263198.19	0.0089	0.0004
Earth	-109472-01-27 03:50 J	-38263198.61	-38263198.34	-38263198.07	0.0089	0.0006 *
Earth	-109471-01-29 20:09 J	-38262830.89	-38262830.66	-38262830.41	0.0089	0.0039

Moon -109471-01-29 23:31 J -38262830.75 -38262830.52 -38262830.28 0.0089 0.0041 *
 Moon -109470-02-01 09:07 J -38262463.27 -38262463.12 -38262462.94 0.0089 0.0069
 Earth -109470-02-01 13:12 J -38262463.11 -38262462.95 -38262462.80 0.0089 0.0072 *
 Mars -109462-10-01 18:28 J -38259298.88 -38259298.73 -38259298.51 0.0089 0.0069
 Mars -109460-08-25 17:02 J -38258605.04 -38258604.79 -38258604.52 0.0089 0.0043
 Mars -109458-07-20 15:50 J -38257911.12 -38257910.84 -38257910.54 0.0089 0.0018
 Mars -109456-06-13 14:09 J -38257217.20 -38257216.91 -38257216.61 0.0089 0.0008
 Mars -109454-05-08 12:28 J -38256523.24 -38256522.98 -38256522.69 0.0089 0.0034
 Mars -109452-04-01 12:57 J -38255829.16 -38255828.96 -38255828.72 0.0089 0.0059
 Mars -109450-02-24 13:12 J -38255135.00 -38255134.95 -38255134.82 0.0089 0.0085
 Mercury -109439-02-06 01:12 J -38251135.45 -38251135.45 -38251135.43 0.0088 0.0088
 Mercury -109439-05-05 03:07 J -38251047.41 -38251047.37 -38251047.31 0.0088 0.0084
 Mercury -109439-08-01 05:16 J -38250959.35 -38250959.28 -38250959.21 0.0088 0.0079
 Mercury -109439-10-28 06:57 J -38250871.28 -38250871.21 -38250871.12 0.0088 0.0074
 Mercury -109438-01-24 09:07 J -38250783.21 -38250783.12 -38250783.03 0.0088 0.0070
 Mercury -109438-04-22 10:48 J -38250695.14 -38250695.05 -38250694.94 0.0088 0.0065
 Mercury -109438-07-19 12:43 J -38250607.07 -38250606.97 -38250606.85 0.0088 0.0061
 Mercury -109438-10-15 14:38 J -38250519.00 -38250518.89 -38250518.76 0.0088 0.0056
 Mercury -109437-01-11 16:33 J -38250430.92 -38250430.81 -38250430.68 0.0088 0.0052
 Mercury -109437-04-08 18:28 J -38250342.85 -38250342.73 -38250342.60 0.0088 0.0047
 Mercury -109437-07-05 20:24 J -38250254.77 -38250254.65 -38250254.51 0.0088 0.0043
 Mercury -109437-10-01 22:04 J -38250166.70 -38250166.58 -38250166.43 0.0088 0.0039
 Mercury -109437-12-29 00:14 J -38250078.63 -38250078.49 -38250078.35 0.0088 0.0034
 Mercury -109436-03-27 01:55 J -38249990.55 -38249990.42 -38249990.27 0.0088 0.0029
 Mercury -109436-06-23 03:50 J -38249902.48 -38249902.34 -38249902.19 0.0088 0.0025
 Mercury -109436-09-19 05:45 J -38249814.40 -38249814.26 -38249814.12 0.0088 0.0020
 Mercury -109436-12-16 07:26 J -38249726.33 -38249726.19 -38249726.04 0.0088 0.0016
 Mercury -109435-03-14 09:21 J -38249638.26 -38249638.11 -38249637.96 0.0088 0.0011
 Mercury -109435-06-10 11:02 J -38249550.18 -38249550.04 -38249549.89 0.0088 0.0008
 Mercury -109435-09-06 12:57 J -38249462.11 -38249461.96 -38249461.81 0.0088 0.0003

Mercury -109435-12-03 14:38 J -38249374.03 -38249373.89 -38249373.74 0.0088 0.0003

Mercury -109434-03-01 16:33 J -38249285.96 -38249285.81 -38249285.67 0.0088 0.0006

Mercury -109434-05-28 18:14 J -38249197.88 -38249197.74 -38249197.59 0.0088 0.0010

Mercury -109434-08-24 19:55 J -38249109.81 -38249109.67 -38249109.52 0.0088 0.0015

Mercury -109434-11-20 21:36 J -38249021.73 -38249021.60 -38249021.45 0.0088 0.0020

Mercury -109433-02-16 23:31 J -38248933.66 -38248933.52 -38248933.38 0.0088 0.0023

Mercury -109433-05-15 01:12 J -38248845.59 -38248845.45 -38248845.31 0.0088 0.0028

Mercury -109433-08-11 02:52 J -38248757.51 -38248757.38 -38248757.24 0.0088 0.0032

Mercury -109433-11-07 04:33 J -38248669.44 -38248669.31 -38248669.17 0.0088 0.0036

Mercury -109432-02-03 06:14 J -38248581.36 -38248581.24 -38248581.10 0.0088 0.0041

Mercury -109432-05-02 07:55 J -38248493.29 -38248493.17 -38248493.04 0.0088 0.0045

Mercury -109432-07-29 09:50 J -38248405.21 -38248405.09 -38248404.97 0.0088 0.0049

Mercury -109432-10-25 11:16 J -38248317.13 -38248317.03 -38248316.90 0.0088 0.0053

Mercury -109431-01-21 12:57 J -38248229.06 -38248228.96 -38248228.84 0.0088 0.0058

Mercury -109431-04-19 14:38 J -38248140.98 -38248140.89 -38248140.77 0.0088 0.0062

Mercury -109431-07-16 16:19 J -38248052.90 -38248052.82 -38248052.71 0.0088 0.0066

Mercury -109431-10-12 18:00 J -38247964.83 -38247964.75 -38247964.65 0.0088 0.0070

Mercury -109430-01-08 19:55 J -38247876.75 -38247876.67 -38247876.59 0.0088 0.0074

Mercury -109430-04-06 21:36 J -38247788.67 -38247788.60 -38247788.53 0.0088 0.0078

Mercury -109430-07-03 23:16 J -38247700.58 -38247700.53 -38247700.48 0.0088 0.0082

Mercury -109430-09-30 00:57 J -38247612.49 -38247612.46 -38247612.43 0.0088 0.0086

Venus -109414-11-09 13:55 J -38241727.95 -38241727.92 -38241727.86 0.0088 0.0086

Venus -109413-06-22 01:55 J -38241502.49 -38241502.42 -38241502.31 0.0088 0.0080

Venus -109412-02-02 14:24 J -38241277.02 -38241276.90 -38241276.78 0.0088 0.0074

Venus -109412-09-16 02:09 J -38241051.54 -38241051.41 -38241051.26 0.0088 0.0068

Venus -109411-04-29 14:09 J -38240826.05 -38240825.91 -38240825.74 0.0088 0.0061

Venus -109411-12-11 01:55 J -38240600.57 -38240600.42 -38240600.23 0.0088 0.0055

Venus -109410-07-24 13:55 J -38240375.09 -38240374.92 -38240374.73 0.0088 0.0049

Venus -109409-03-06 01:55 J -38240149.60 -38240149.42 -38240149.22 0.0088 0.0042

Venus -109409-10-17 13:55 J -38239924.11 -38239923.92 -38239923.72 0.0088 0.0036

Venus	-109408-05-31 01:40 J	-38239698.62	-38239698.43	-38239698.22	0.0088	0.0029
Venus	-109407-01-11 13:26 J	-38239473.14	-38239472.94	-38239472.73	0.0088	0.0023
Venus	-109407-08-25 01:26 J	-38239247.65	-38239247.44	-38239247.23	0.0088	0.0017
Venus	-109406-04-07 13:12 J	-38239022.16	-38239021.95	-38239021.73	0.0088	0.0010
Venus	-109406-11-19 00:57 J	-38238796.67	-38238796.46	-38238796.24	0.0088	0.0004
Venus	-109405-07-01 12:43 J	-38238571.19	-38238570.97	-38238570.76	0.0088	0.0003
Venus	-109404-02-12 00:14 J	-38238345.70	-38238345.49	-38238345.27	0.0088	0.0009
Venus	-109404-09-25 12:00 J	-38238120.21	-38238120.00	-38238119.78	0.0088	0.0016
Venus	-109403-05-08 23:45 J	-38237894.71	-38237894.51	-38237894.30	0.0088	0.0022
Venus	-109403-12-20 11:31 J	-38237669.22	-38237669.02	-38237668.81	0.0088	0.0028
Venus	-109402-08-02 23:16 J	-38237443.73	-38237443.53	-38237443.33	0.0088	0.0035
Venus	-109401-03-15 10:48 J	-38237218.23	-38237218.05	-38237217.85	0.0088	0.0041
Venus	-109401-10-26 22:33 J	-38236992.73	-38236992.56	-38236992.37	0.0088	0.0047
Venus	-109400-06-09 10:19 J	-38236767.23	-38236767.07	-38236766.89	0.0088	0.0054
Venus	-109399-01-20 21:36 J	-38236541.73	-38236541.60	-38236541.42	0.0088	0.0060
Venus	-109399-09-03 09:21 J	-38236316.23	-38236316.11	-38236315.95	0.0088	0.0066
Venus	-109398-04-16 20:52 J	-38236090.73	-38236090.63	-38236090.49	0.0088	0.0073
Venus	-109398-11-28 08:38 J	-38235865.22	-38235865.14	-38235865.03	0.0088	0.0079
Venus	-109397-07-10 20:09 J	-38235639.70	-38235639.66	-38235639.58	0.0088	0.0085
Earth	-109393-07-20 18:57 J	-38234168.71	-38234168.71	-38234168.63	0.0088	0.0088
Earth	-109392-07-23 01:55 J	-38233801.59	-38233801.42	-38233801.21	0.0088	0.0058
Moon	-109392-07-23 05:02 J	-38233801.47	-38233801.29	-38233801.08	0.0088	0.0054 *
Moon	-109391-07-25 05:31 J	-38233434.49	-38233434.27	-38233434.03	0.0088	0.0032
Earth	-109391-07-25 08:52 J	-38233434.35	-38233434.13	-38233433.88	0.0088	0.0028 *
Earth	-109390-07-27 16:04 J	-38233067.08	-38233066.83	-38233066.59	0.0088	0.0003
Moon	-109390-07-27 19:12 J	-38233066.95	-38233066.70	-38233066.45	0.0088	0.0007 *
Moon	-109389-07-28 20:09 J	-38232699.88	-38232699.66	-38232699.42	0.0088	0.0030
Earth	-109389-07-28 22:48 J	-38232699.77	-38232699.55	-38232699.31	0.0088	0.0033 *
Earth	-109388-07-31 05:31 J	-38232332.42	-38232332.27	-38232332.07	0.0088	0.0064
Moon	-109388-07-31 06:43 J	-38232332.36	-38232332.22	-38232332.03	0.0088	0.0067 *

Mars -109378-06-20 22:19 J -38228720.78 -38228720.57 -38228720.31 0.0088 0.0063
 Mars -109376-05-16 22:48 J -38228024.85 -38228024.55 -38228024.23 0.0089 0.0033
 Mars -109374-04-12 22:48 J -38227328.88 -38227328.55 -38227328.21 0.0089 0.0004
 Mars -109372-03-08 21:50 J -38226632.91 -38226632.59 -38226632.27 0.0089 0.0026
 Mars -109370-02-02 19:12 J -38225936.93 -38225936.70 -38225936.41 0.0089 0.0056
 Mars -109369-12-29 16:33 J -38225240.90 -38225240.81 -38225240.69 0.0089 0.0084
 Mercury -109356-04-14 03:36 J -38220752.37 -38220752.35 -38220752.31 0.0089 0.0087
 Mercury -109356-07-11 05:45 J -38220664.30 -38220664.26 -38220664.18 0.0089 0.0083
 Mercury -109356-10-07 08:24 J -38220576.21 -38220576.15 -38220576.06 0.0089 0.0078
 Mercury -109355-01-03 11:02 J -38220488.13 -38220488.04 -38220487.94 0.0089 0.0073
 Mercury -109355-04-01 13:26 J -38220400.03 -38220399.94 -38220399.82 0.0089 0.0068
 Mercury -109355-06-28 16:04 J -38220311.94 -38220311.83 -38220311.71 0.0089 0.0063
 Mercury -109355-09-24 18:14 J -38220223.85 -38220223.74 -38220223.60 0.0089 0.0059
 Mercury -109355-12-21 20:52 J -38220135.75 -38220135.63 -38220135.48 0.0089 0.0054
 Mercury -109354-03-19 23:31 J -38220047.65 -38220047.52 -38220047.37 0.0089 0.0049
 Mercury -109354-06-16 01:55 J -38219959.55 -38219959.42 -38219959.26 0.0089 0.0044
 Mercury -109354-09-12 04:33 J -38219871.45 -38219871.31 -38219871.15 0.0089 0.0039
 Mercury -109354-12-09 07:12 J -38219783.35 -38219783.20 -38219783.04 0.0089 0.0034
 Saturn -109353-01-18 06:43 J -38219743.86 -38219743.22 -38219742.53 0.0089 0.0013
 Mercury -109353-03-06 09:50 J -38219695.24 -38219695.09 -38219694.93 0.0089 0.0029
 Mercury -109353-06-02 12:28 J -38219607.14 -38219606.98 -38219606.81 0.0089 0.0024
 Mercury -109353-08-29 15:07 J -38219519.03 -38219518.87 -38219518.70 0.0089 0.0019
 Mercury -109353-11-25 17:45 J -38219430.93 -38219430.76 -38219430.59 0.0089 0.0014
 Mercury -109352-02-21 20:24 J -38219342.82 -38219342.65 -38219342.48 0.0089 0.0009
 Mercury -109352-05-20 23:02 J -38219254.71 -38219254.54 -38219254.37 0.0089 0.0003
 Mercury -109352-08-17 01:40 J -38219166.60 -38219166.43 -38219166.26 0.0089 0.0002
 Mercury -109352-11-13 04:19 J -38219078.49 -38219078.32 -38219078.15 0.0089 0.0007
 Mercury -109351-02-09 06:57 J -38218990.38 -38218990.21 -38218990.04 0.0089 0.0012
 Mercury -109351-05-08 09:50 J -38218902.26 -38218902.09 -38218901.93 0.0089 0.0017
 Mercury -109351-08-04 12:14 J -38218814.15 -38218813.99 -38218813.81 0.0089 0.0023

Mercury -109351-10-31 15:07 J -38218726.03 -38218725.87 -38218725.70 0.0089 0.0028

Mercury -109350-01-27 17:45 J -38218637.91 -38218637.76 -38218637.59 0.0089 0.0033

Mercury -109350-04-25 20:38 J -38218549.80 -38218549.64 -38218549.48 0.0089 0.0038

Mercury -109350-07-22 23:02 J -38218461.68 -38218461.54 -38218461.37 0.0089 0.0044

Mercury -109350-10-19 01:55 J -38218373.55 -38218373.42 -38218373.27 0.0089 0.0049

Mercury -109349-01-15 04:48 J -38218285.43 -38218285.30 -38218285.16 0.0089 0.0054

Mercury -109349-04-12 07:40 J -38218197.31 -38218197.18 -38218197.05 0.0089 0.0059

Mercury -109349-07-09 10:04 J -38218109.18 -38218109.08 -38218108.94 0.0089 0.0065

Mercury -109349-10-05 13:12 J -38218021.05 -38218020.95 -38218020.84 0.0089 0.0070

Mercury -109348-01-01 16:04 J -38217932.92 -38217932.83 -38217932.74 0.0089 0.0075

Mercury -109348-03-30 18:43 J -38217844.78 -38217844.72 -38217844.64 0.0089 0.0081

Mercury -109348-06-26 21:36 J -38217756.63 -38217756.60 -38217756.55 0.0089 0.0086

Venus -109331-08-04 02:24 J -38211509.45 -38211509.40 -38211509.32 0.0089 0.0085

Venus -109330-03-17 16:04 J -38211283.91 -38211283.83 -38211283.70 0.0089 0.0079

Venus -109330-10-29 06:14 J -38211058.35 -38211058.24 -38211058.09 0.0089 0.0072

Venus -109329-06-10 20:24 J -38210832.79 -38210832.65 -38210832.49 0.0089 0.0065

Venus -109328-01-22 10:04 J -38210607.22 -38210607.08 -38210606.89 0.0089 0.0059

Venus -109328-09-05 00:28 J -38210381.65 -38210381.48 -38210381.28 0.0089 0.0052

Venus -109327-04-18 14:38 J -38210156.07 -38210155.89 -38210155.68 0.0089 0.0045

Venus -109327-11-30 04:48 J -38209930.49 -38209930.30 -38209930.08 0.0089 0.0038

Venus -109326-07-13 19:12 J -38209704.91 -38209704.70 -38209704.49 0.0089 0.0031

Venus -109325-02-24 09:21 J -38209479.32 -38209479.11 -38209478.89 0.0089 0.0024

Venus -109325-10-07 00:00 J -38209253.72 -38209253.50 -38209253.28 0.0089 0.0017

Venus -109324-05-20 14:09 J -38209028.13 -38209027.91 -38209027.68 0.0089 0.0010

Venus -109323-01-01 04:19 J -38208802.54 -38208802.32 -38208802.09 0.0089 0.0004

Venus -109323-08-14 18:43 J -38208576.95 -38208576.72 -38208576.49 0.0089 0.0004

Venus -109322-03-28 08:52 J -38208351.35 -38208351.13 -38208350.90 0.0089 0.0011

Venus -109322-11-08 23:16 J -38208125.74 -38208125.53 -38208125.30 0.0089 0.0018

Venus -109321-06-21 13:26 J -38207900.14 -38207899.94 -38207899.70 0.0089 0.0025

Venus -109320-02-02 03:50 J -38207674.54 -38207674.34 -38207674.11 0.0089 0.0032

Venus	-109320-09-15 18:14 J	-38207448.93	-38207448.74	-38207448.52	0.0089	0.0039
Venus	-109319-04-29 08:52 J	-38207223.32	-38207223.13	-38207222.93	0.0089	0.0045
Venus	-109319-12-10 23:16 J	-38206997.71	-38206997.53	-38206997.34	0.0089	0.0052
Venus	-109318-07-24 13:26 J	-38206772.10	-38206771.94	-38206771.76	0.0089	0.0059
Venus	-109317-03-06 03:50 J	-38206546.48	-38206546.34	-38206546.18	0.0089	0.0066
Venus	-109317-10-17 18:14 J	-38206320.85	-38206320.74	-38206320.59	0.0089	0.0073
Venus	-109316-05-31 08:38 J	-38206095.21	-38206095.14	-38206095.02	0.0089	0.0080
Venus	-109315-01-11 23:31 J	-38205869.57	-38205869.52	-38205869.46	0.0089	0.0086
Earth	-109310-01-21 18:00 J	-38204033.86	-38204033.75	-38204033.62	0.0089	0.0079
Moon	-109310-01-21 21:21 J	-38204033.67	-38204033.61	-38204033.51	0.0089	0.0084 *
Moon	-109309-01-24 07:26 J	-38203666.42	-38203666.19	-38203665.94	0.0089	0.0041
Earth	-109309-01-24 10:48 J	-38203666.26	-38203666.05	-38203665.80	0.0089	0.0046 *
Earth	-109308-01-26 03:50 J	-38203298.61	-38203298.34	-38203298.07	0.0089	0.0012
Moon	-109308-01-26 07:26 J	-38203298.45	-38203298.19	-38203297.92	0.0089	0.0017 *
Moon	-109307-01-28 17:31 J	-38202931.02	-38202930.77	-38202930.52	0.0089	0.0026
Earth	-109307-01-28 20:52 J	-38202930.89	-38202930.63	-38202930.37	0.0089	0.0021 *
Earth	-109306-01-31 12:57 J	-38202563.15	-38202562.96	-38202562.73	0.0089	0.0055
Moon	-109306-01-31 15:21 J	-38202563.06	-38202562.86	-38202562.61	0.0089	0.0051 *
Earth	-109305-02-03 05:31 J	-38202195.28	-38202195.27	-38202195.22	0.0089	0.0088
Mars	-109298-05-16 20:09 J	-38199535.74	-38199535.66	-38199535.50	0.0089	0.0081
Mars	-109296-04-09 18:28 J	-38198841.94	-38198841.73	-38198841.48	0.0089	0.0055
Mars	-109294-03-04 16:33 J	-38198148.08	-38198147.81	-38198147.52	0.0089	0.0029
Mars	-109292-01-26 16:04 J	-38197454.13	-38197453.83	-38197453.53	0.0089	0.0003
Mars	-109291-12-21 14:24 J	-38196760.19	-38196759.90	-38196759.62	0.0089	0.0023
Mars	-109289-11-14 12:00 J	-38196066.22	-38196066.00	-38196065.73	0.0089	0.0050
Mars	-109287-10-09 12:14 J	-38195372.15	-38195371.99	-38195371.84	0.0089	0.0075
Mercury	-109275-11-02 23:31 J	-38190964.53	-38190964.52	-38190964.48	0.0088	0.0088
Mercury	-109274-01-30 01:40 J	-38190876.47	-38190876.43	-38190876.37	0.0088	0.0083
Mercury	-109274-04-28 03:21 J	-38190788.41	-38190788.36	-38190788.27	0.0088	0.0079
Mercury	-109274-07-25 05:31 J	-38190700.34	-38190700.27	-38190700.18	0.0088	0.0074

Mercury -109274-10-21 07:40 J -38190612.27 -38190612.18 -38190612.09 0.0088 0.0069

Mercury -109273-01-17 09:21 J -38190524.20 -38190524.11 -38190524.00 0.0088 0.0064

Mercury -109273-04-14 11:31 J -38190436.13 -38190436.02 -38190435.91 0.0088 0.0060

Mercury -109273-07-11 13:12 J -38190348.06 -38190347.95 -38190347.82 0.0088 0.0055

Mercury -109273-10-07 15:07 J -38190259.98 -38190259.87 -38190259.74 0.0088 0.0051

Mercury -109272-01-03 17:02 J -38190171.91 -38190171.79 -38190171.65 0.0088 0.0046

Mercury -109272-04-01 18:57 J -38190083.84 -38190083.71 -38190083.57 0.0088 0.0042

Mercury -109272-06-28 20:52 J -38189995.76 -38189995.63 -38189995.49 0.0088 0.0037

Mercury -109272-09-24 22:48 J -38189907.69 -38189907.55 -38189907.41 0.0088 0.0033

Mercury -109272-12-22 00:28 J -38189819.61 -38189819.48 -38189819.33 0.0088 0.0029

Mercury -109271-03-20 02:24 J -38189731.54 -38189731.40 -38189731.25 0.0088 0.0024

Mercury -109271-06-16 04:19 J -38189643.46 -38189643.32 -38189643.17 0.0088 0.0019

Mercury -109271-09-12 06:14 J -38189555.39 -38189555.24 -38189555.09 0.0088 0.0015

Mercury -109271-12-09 07:55 J -38189467.31 -38189467.17 -38189467.02 0.0088 0.0011

Mercury -109270-03-07 09:50 J -38189379.24 -38189379.09 -38189378.94 0.0088 0.0006

Mercury -109270-06-03 11:31 J -38189291.16 -38189291.02 -38189290.87 0.0088 0.0003

Mercury -109270-08-30 13:26 J -38189203.09 -38189202.94 -38189202.79 0.0088 0.0003

Mercury -109270-11-26 15:07 J -38189115.01 -38189114.87 -38189114.72 0.0088 0.0007

Mercury -109269-02-22 17:02 J -38189026.94 -38189026.79 -38189026.65 0.0088 0.0012

Mercury -109269-05-20 18:43 J -38188938.86 -38188938.72 -38188938.57 0.0088 0.0016

Mercury -109269-08-16 20:24 J -38188850.79 -38188850.65 -38188850.50 0.0088 0.0020

Mercury -109269-11-12 22:04 J -38188762.71 -38188762.58 -38188762.43 0.0088 0.0025

Mercury -109268-02-09 00:00 J -38188674.64 -38188674.50 -38188674.36 0.0088 0.0029

Mercury -109268-05-08 01:26 J -38188586.56 -38188586.44 -38188586.29 0.0088 0.0034

Mercury -109268-08-04 03:21 J -38188498.49 -38188498.36 -38188498.22 0.0088 0.0037

Mercury -109268-10-31 05:02 J -38188410.41 -38188410.29 -38188410.16 0.0088 0.0041

Mercury -109267-01-27 06:43 J -38188322.34 -38188322.22 -38188322.09 0.0088 0.0046

Mercury -109267-04-25 08:38 J -38188234.26 -38188234.14 -38188234.02 0.0088 0.0050

Mercury -109267-07-22 10:04 J -38188146.18 -38188146.08 -38188145.96 0.0088 0.0054

Mercury -109267-10-18 11:45 J -38188058.11 -38188058.01 -38188057.89 0.0088 0.0058

Mercury -109266-01-14 13:26 J -38187970.03 -38187969.94 -38187969.83 0.0088 0.0063

Mercury -109266-04-12 15:07 J -38187881.95 -38187881.87 -38187881.77 0.0088 0.0067

Mercury -109266-07-09 16:48 J -38187793.87 -38187793.80 -38187793.70 0.0088 0.0071

Mercury -109266-10-05 18:28 J -38187705.80 -38187705.73 -38187705.65 0.0088 0.0075

Mercury -109265-01-01 20:09 J -38187617.71 -38187617.66 -38187617.59 0.0088 0.0079

Mercury -109265-03-29 21:50 J -38187529.63 -38187529.59 -38187529.53 0.0088 0.0083

Mercury -109265-06-25 23:31 J -38187441.54 -38187441.52 -38187441.49 0.0088 0.0087

Venus -109249-02-10 22:19 J -38181733.58 -38181733.57 -38181733.51 0.0088 0.0087

Venus -109249-09-23 10:48 J -38181508.12 -38181508.05 -38181507.95 0.0088 0.0081

Venus -109248-05-06 22:48 J -38181282.65 -38181282.55 -38181282.42 0.0088 0.0075

Venus -109248-12-18 10:48 J -38181057.17 -38181057.05 -38181056.89 0.0088 0.0068

Venus -109247-07-31 23:02 J -38180831.68 -38180831.54 -38180831.38 0.0088 0.0062

Venus -109246-03-14 11:02 J -38180606.19 -38180606.04 -38180605.86 0.0088 0.0055

Venus -109246-10-25 23:16 J -38180380.70 -38180380.53 -38180380.34 0.0088 0.0049

Venus -109245-06-07 11:02 J -38180155.21 -38180155.04 -38180154.84 0.0088 0.0043

Venus -109244-01-18 22:48 J -38179929.73 -38179929.55 -38179929.34 0.0088 0.0037

Venus -109244-09-01 11:02 J -38179704.24 -38179704.04 -38179703.84 0.0088 0.0029

Venus -109243-04-14 22:48 J -38179478.75 -38179478.55 -38179478.33 0.0088 0.0023

Venus -109243-11-26 10:48 J -38179253.26 -38179253.05 -38179252.84 0.0088 0.0017

Venus -109242-07-09 22:33 J -38179027.77 -38179027.56 -38179027.35 0.0088 0.0010

Venus -109241-02-20 10:19 J -38178802.28 -38178802.07 -38178801.85 0.0088 0.0004

Venus -109241-10-02 22:04 J -38178576.79 -38178576.58 -38178576.36 0.0088 0.0003

Venus -109240-05-16 09:50 J -38178351.30 -38178351.09 -38178350.87 0.0088 0.0010

Venus -109240-12-27 21:36 J -38178125.81 -38178125.60 -38178125.39 0.0088 0.0016

Venus -109239-08-10 09:07 J -38177900.32 -38177900.12 -38177899.90 0.0088 0.0022

Venus -109238-03-23 21:07 J -38177674.82 -38177674.62 -38177674.42 0.0088 0.0028

Venus -109238-11-04 08:38 J -38177449.33 -38177449.14 -38177448.93 0.0088 0.0035

Venus -109237-06-16 20:24 J -38177223.83 -38177223.65 -38177223.45 0.0088 0.0041

Venus -109236-01-28 08:09 J -38176998.33 -38176998.16 -38176997.98 0.0088 0.0048

Venus -109236-09-10 19:26 J -38176772.84 -38176772.69 -38176772.50 0.0088 0.0055

Venus -109235-04-24 07:26 J -38176547.33 -38176547.19 -38176547.02 0.0088 0.0060
 Venus -109235-12-05 19:12 J -38176321.83 -38176321.70 -38176321.55 0.0088 0.0067
 Venus -109234-07-19 06:57 J -38176096.33 -38176096.21 -38176096.09 0.0088 0.0073
 Venus -109233-02-29 18:00 J -38175870.82 -38175870.75 -38175870.63 0.0088 0.0080
 Venus -109233-10-12 05:45 J -38175645.29 -38175645.26 -38175645.18 0.0088 0.0085
 Moon -109228-07-22 09:21 J -38173901.22 -38173901.11 -38173900.96 0.0088 0.0074
 Earth -109228-07-22 12:43 J -38173901.10 -38173900.97 -38173900.82 0.0088 0.0073 *
 Earth -109227-07-24 18:57 J -38173533.90 -38173533.71 -38173533.47 0.0088 0.0044
 Moon -109227-07-24 21:50 J -38173533.80 -38173533.59 -38173533.36 0.0088 0.0042 *
 Moon -109226-07-27 01:26 J -38173166.67 -38173166.44 -38173166.20 0.0088 0.0014
 Earth -109226-07-27 02:09 J -38173166.65 -38173166.41 -38173166.16 0.0088 0.0013 *
 Moon -109225-07-28 08:38 J -38172799.38 -38172799.14 -38172798.88 0.0088 0.0018
 Earth -109225-07-28 08:52 J -38172799.36 -38172799.13 -38172798.88 0.0088 0.0018 *
 Earth -109224-07-30 15:36 J -38172432.05 -38172431.85 -38172431.63 0.0088 0.0047
 Moon -109224-07-30 17:02 J -38172431.98 -38172431.79 -38172431.57 0.0088 0.0047 *
 Moon -109223-08-01 19:40 J -38172064.79 -38172064.68 -38172064.55 0.0088 0.0077
 Earth -109223-08-01 22:19 J -38172064.66 -38172064.57 -38172064.42 0.0088 0.0078 *
 Mars -109214-02-01 06:28 J -38168959.39 -38168959.23 -38168959.04 0.0088 0.0076
 Mars -109213-12-28 06:28 J -38168263.48 -38168263.23 -38168262.91 0.0088 0.0047
 Mars -109211-11-24 07:12 J -38167567.52 -38167567.20 -38167566.86 0.0089 0.0016
 Mars -109209-10-20 06:43 J -38166871.53 -38166871.22 -38166870.87 0.0089 0.0015
 Mars -109207-09-16 05:31 J -38166175.53 -38166175.27 -38166174.95 0.0089 0.0045
 Mars -109205-08-12 03:21 J -38165479.50 -38165479.36 -38165479.14 0.0089 0.0075
 Mercury -109191-01-09 01:40 J -38160581.45 -38160581.43 -38160581.37 0.0089 0.0086
 Mercury -109191-04-07 04:19 J -38160493.38 -38160493.32 -38160493.24 0.0089 0.0081
 Mercury -109191-07-04 06:57 J -38160405.29 -38160405.21 -38160405.13 0.0089 0.0076
 Mercury -109191-09-30 09:07 J -38160317.20 -38160317.12 -38160317.01 0.0089 0.0072
 Mercury -109191-12-27 11:31 J -38160229.11 -38160229.02 -38160228.90 0.0089 0.0067
 Mercury -109190-03-25 14:09 J -38160141.02 -38160140.91 -38160140.78 0.0089 0.0062
 Mercury -109190-06-21 16:33 J -38160052.92 -38160052.81 -38160052.67 0.0089 0.0057

Mercury -109190-09-17 19:12 J -38159964.83 -38159964.70 -38159964.56 0.0089 0.0052

Mercury -109190-12-14 21:50 J -38159876.73 -38159876.59 -38159876.45 0.0089 0.0047

Mercury -109189-03-12 00:28 J -38159788.63 -38159788.48 -38159788.34 0.0089 0.0042

Mercury -109189-06-08 02:38 J -38159700.53 -38159700.39 -38159700.23 0.0089 0.0038

Mercury -109189-09-04 05:16 J -38159612.43 -38159612.28 -38159612.11 0.0089 0.0033

Mercury -109189-12-01 07:55 J -38159524.32 -38159524.17 -38159524.00 0.0089 0.0028

Mercury -109188-02-27 10:19 J -38159436.22 -38159436.07 -38159435.89 0.0089 0.0023

Mercury -109188-05-26 12:57 J -38159348.12 -38159347.96 -38159347.78 0.0089 0.0018

Mercury -109188-08-22 15:36 J -38159260.01 -38159259.85 -38159259.67 0.0089 0.0013

Mercury -109188-11-18 18:14 J -38159171.90 -38159171.74 -38159171.56 0.0089 0.0008

Mercury -109187-02-14 21:07 J -38159083.79 -38159083.62 -38159083.45 0.0089 0.0003

Mercury -109187-05-13 23:45 J -38158995.68 -38158995.51 -38158995.34 0.0089 0.0003

Mercury -109187-08-10 02:24 J -38158907.57 -38158907.40 -38158907.23 0.0089 0.0008

Mercury -109187-11-06 05:02 J -38158819.46 -38158819.29 -38158819.12 0.0089 0.0013

Mercury -109186-02-02 07:40 J -38158731.35 -38158731.18 -38158731.01 0.0089 0.0018

Mercury -109186-05-01 10:04 J -38158643.23 -38158643.08 -38158642.90 0.0089 0.0024

Mercury -109186-07-28 12:57 J -38158555.12 -38158554.96 -38158554.79 0.0089 0.0029

Mercury -109186-10-24 15:36 J -38158467.00 -38158466.85 -38158466.68 0.0089 0.0034

Mercury -109185-01-20 18:28 J -38158378.88 -38158378.73 -38158378.57 0.0089 0.0039

Mercury -109185-04-17 20:52 J -38158290.76 -38158290.63 -38158290.47 0.0089 0.0045

Mercury -109185-07-14 23:45 J -38158202.64 -38158202.51 -38158202.36 0.0089 0.0050

Mercury -109185-10-11 02:38 J -38158114.52 -38158114.39 -38158114.25 0.0089 0.0055

Mercury -109184-01-07 05:31 J -38158026.40 -38158026.27 -38158026.14 0.0089 0.0060

Mercury -109184-04-05 07:55 J -38157938.27 -38157938.17 -38157938.04 0.0089 0.0066

Mercury -109184-07-02 10:48 J -38157850.14 -38157850.05 -38157849.93 0.0089 0.0071

Mercury -109184-09-28 13:55 J -38157762.01 -38157761.92 -38157761.83 0.0089 0.0076

Mercury -109184-12-25 16:19 J -38157673.87 -38157673.82 -38157673.73 0.0089 0.0082

Mercury -109183-03-23 19:26 J -38157585.71 -38157585.69 -38157585.65 0.0089 0.0087

Venus -109167-11-05 10:04 J -38151515.13 -38151515.08 -38151515.02 0.0089 0.0085

Venus -109166-06-18 23:31 J -38151289.60 -38151289.52 -38151289.40 0.0089 0.0079

Venus	-109165-01-30 13:40 J	-38151064.05	-38151063.93	-38151063.79	0.0089	0.0072
Venus	-109165-09-12 03:36 J	-38150838.48	-38150838.35	-38150838.18	0.0089	0.0066
Venus	-109164-04-25 17:31 J	-38150612.91	-38150612.77	-38150612.58	0.0089	0.0059
Venus	-109164-12-07 07:40 J	-38150387.35	-38150387.18	-38150386.98	0.0089	0.0052
Venus	-109163-07-20 21:50 J	-38150161.78	-38150161.59	-38150161.39	0.0089	0.0045
Venus	-109162-03-03 12:00 J	-38149936.20	-38149936.00	-38149935.79	0.0089	0.0038
Venus	-109162-10-15 02:24 J	-38149710.61	-38149710.40	-38149710.19	0.0089	0.0031
Venus	-109161-05-27 16:19 J	-38149485.03	-38149484.82	-38149484.59	0.0089	0.0025
Venus	-109160-01-08 06:28 J	-38149259.44	-38149259.23	-38149259.00	0.0089	0.0018
Venus	-109160-08-21 20:38 J	-38149033.85	-38149033.64	-38149033.41	0.0089	0.0011
Venus	-109159-04-04 11:02 J	-38148808.26	-38148808.04	-38148807.81	0.0089	0.0004
Venus	-109159-11-16 01:26 J	-38148582.67	-38148582.44	-38148582.21	0.0089	0.0004
Venus	-109158-06-29 15:36 J	-38148357.07	-38148356.85	-38148356.62	0.0089	0.0011
Venus	-109157-02-10 05:45 J	-38148131.47	-38148131.26	-38148131.03	0.0089	0.0018
Venus	-109157-09-22 20:09 J	-38147905.86	-38147905.66	-38147905.43	0.0089	0.0025
Venus	-109156-05-06 10:33 J	-38147680.26	-38147680.06	-38147679.84	0.0089	0.0032
Venus	-109156-12-18 00:43 J	-38147454.66	-38147454.47	-38147454.25	0.0089	0.0039
Venus	-109155-07-31 14:52 J	-38147229.05	-38147228.88	-38147228.66	0.0089	0.0046
Venus	-109154-03-14 05:45 J	-38147003.44	-38147003.26	-38147003.07	0.0089	0.0052
Venus	-109154-10-25 20:09 J	-38146777.82	-38146777.66	-38146777.48	0.0089	0.0059
Venus	-109153-06-07 10:33 J	-38146552.20	-38146552.06	-38146551.90	0.0089	0.0066
Venus	-109152-01-19 00:43 J	-38146326.58	-38146326.47	-38146326.33	0.0089	0.0073
Venus	-109152-09-01 14:52 J	-38146100.95	-38146100.88	-38146100.76	0.0089	0.0080
Venus	-109151-04-15 05:16 J	-38145875.30	-38145875.28	-38145875.21	0.0089	0.0087
Earth	-109145-01-23 09:07 J	-38143766.27	-38143766.12	-38143765.91	0.0089	0.0065
Moon	-109145-01-23 11:31 J	-38143766.19	-38143766.02	-38143765.80	0.0089	0.0062 *
Moon	-109144-01-25 01:26 J	-38143398.67	-38143398.44	-38143398.19	0.0089	0.0033
Earth	-109144-01-25 02:38 J	-38143398.63	-38143398.39	-38143398.13	0.0089	0.0031 *
Earth	-109143-01-27 19:40 J	-38143030.94	-38143030.68	-38143030.41	0.0089	0.0003
Moon	-109143-01-27 20:24 J	-38143030.93	-38143030.65	-38143030.37	0.0089	0.0004 *

Earth -109142-01-30 12:28 J -38142663.22 -38142662.98 -38142662.73 0.0089 0.0036
 Moon -109142-01-30 13:12 J -38142663.17 -38142662.95 -38142662.69 0.0089 0.0035 *
 Moon -109141-02-02 02:52 J -38142295.53 -38142295.38 -38142295.20 0.0089 0.0071
 Earth -109141-02-02 04:48 J -38142295.45 -38142295.30 -38142295.12 0.0089 0.0070 *
 Mars -109133-11-22 19:40 J -38139078.86 -38139078.68 -38139078.47 0.0089 0.0067
 Mars -109131-10-17 17:31 J -38138385.01 -38138384.77 -38138384.49 0.0089 0.0041
 Mars -109129-09-10 14:52 J -38137691.16 -38137690.88 -38137690.58 0.0089 0.0014
 Mars -109127-08-05 13:26 J -38136997.23 -38136996.94 -38136996.64 0.0089 0.0013
 Mars -109125-06-29 12:00 J -38136303.26 -38136303.00 -38136302.73 0.0089 0.0039
 Mars -109123-05-24 09:50 J -38135609.26 -38135609.09 -38135608.87 0.0089 0.0066
 Mercury -109110-07-30 22:04 J -38130793.60 -38130793.58 -38130793.55 0.0088 0.0087
 Mercury -109110-10-26 23:45 J -38130705.55 -38130705.51 -38130705.44 0.0088 0.0083
 Mercury -109109-01-23 01:55 J -38130617.49 -38130617.42 -38130617.35 0.0088 0.0078
 Mercury -109109-04-20 03:36 J -38130529.42 -38130529.35 -38130529.25 0.0088 0.0074
 Mercury -109109-07-17 05:45 J -38130441.35 -38130441.26 -38130441.16 0.0088 0.0069
 Mercury -109109-10-13 07:55 J -38130353.28 -38130353.17 -38130353.07 0.0088 0.0064
 Mercury -109108-01-09 09:36 J -38130265.20 -38130265.10 -38130264.98 0.0088 0.0059
 Mercury -109108-04-07 11:31 J -38130177.13 -38130177.02 -38130176.90 0.0088 0.0055
 Mercury -109108-07-04 13:26 J -38130089.06 -38130088.94 -38130088.81 0.0088 0.0050
 Mercury -109108-09-30 15:21 J -38130000.98 -38130000.86 -38130000.73 0.0088 0.0046
 Mercury -109108-12-27 17:16 J -38129912.91 -38129912.78 -38129912.64 0.0088 0.0041
 Mercury -109107-03-25 19:12 J -38129824.83 -38129824.70 -38129824.56 0.0088 0.0037
 Mercury -109107-06-21 20:52 J -38129736.76 -38129736.63 -38129736.48 0.0088 0.0033
 Mercury -109107-09-17 23:02 J -38129648.68 -38129648.54 -38129648.40 0.0088 0.0028
 Mercury -109107-12-15 00:43 J -38129560.61 -38129560.47 -38129560.32 0.0088 0.0023
 Mercury -109106-03-13 02:38 J -38129472.53 -38129472.39 -38129472.24 0.0088 0.0019
 Mercury -109106-06-09 04:33 J -38129384.46 -38129384.31 -38129384.16 0.0088 0.0014
 Mercury -109106-09-05 06:14 J -38129296.38 -38129296.24 -38129296.09 0.0088 0.0010
 Mercury -109106-12-02 08:09 J -38129208.31 -38129208.16 -38129208.01 0.0088 0.0006
 Mercury -109105-02-28 10:04 J -38129120.23 -38129120.08 -38129119.94 0.0088 0.0002

Mercury -109105-05-26 11:45 J -38129032.16 -38129032.01 -38129031.86 0.0088 0.0003
 Mercury -109105-08-22 13:40 J -38128944.08 -38128943.93 -38128943.79 0.0088 0.0008
 Mercury -109105-11-18 15:21 J -38128856.01 -38128855.86 -38128855.71 0.0088 0.0012
 Mercury -109104-02-14 17:02 J -38128767.93 -38128767.79 -38128767.64 0.0088 0.0017
 Mercury -109104-05-13 18:57 J -38128679.85 -38128679.71 -38128679.57 0.0088 0.0021
 Mercury -109104-08-09 20:38 J -38128591.78 -38128591.64 -38128591.50 0.0088 0.0025
 Mercury -109104-11-05 22:19 J -38128503.70 -38128503.57 -38128503.43 0.0088 0.0029
 Mercury -109103-02-02 00:00 J -38128415.63 -38128415.50 -38128415.36 0.0088 0.0034
 Mercury -109103-05-01 01:55 J -38128327.55 -38128327.42 -38128327.29 0.0088 0.0038
 Mercury -109103-07-28 03:21 J -38128239.47 -38128239.36 -38128239.22 0.0088 0.0043
 Mercury -109103-10-24 05:16 J -38128151.40 -38128151.28 -38128151.15 0.0088 0.0046
 Mercury -109102-01-20 06:57 J -38128063.32 -38128063.21 -38128063.09 0.0088 0.0051
 Mercury -109102-04-18 08:38 J -38127975.25 -38127975.14 -38127975.02 0.0088 0.0055
 Mercury -109102-07-15 10:33 J -38127887.17 -38127887.06 -38127886.95 0.0088 0.0059
 Mercury -109102-10-11 12:14 J -38127799.09 -38127798.99 -38127798.89 0.0088 0.0063
 Mercury -109101-01-07 13:40 J -38127711.01 -38127710.93 -38127710.83 0.0088 0.0067
 Mercury -109101-04-04 15:21 J -38127622.93 -38127622.86 -38127622.77 0.0088 0.0071
 Mercury -109101-07-01 17:02 J -38127534.85 -38127534.79 -38127534.71 0.0088 0.0075
 Mercury -109101-09-27 18:43 J -38127446.77 -38127446.72 -38127446.65 0.0088 0.0079
 Mercury -109101-12-24 20:24 J -38127358.69 -38127358.65 -38127358.60 0.0088 0.0083
 Mercury -109100-03-22 22:04 J -38127270.59 -38127270.58 -38127270.56 0.0088 0.0087
 Jupiter -109095-12-16 05:16 J -38125176.76 -38125176.28 -38125175.74 0.0088 0.0020
 Venus -109085-05-14 07:12 J -38121739.21 -38121739.20 -38121739.17 0.0088 0.0088
 Venus -109085-12-25 18:57 J -38121513.77 -38121513.71 -38121513.61 0.0088 0.0082
 Venus -109084-08-08 06:57 J -38121288.30 -38121288.21 -38121288.07 0.0088 0.0076
 Venus -109083-03-21 19:26 J -38121062.81 -38121062.69 -38121062.54 0.0088 0.0069
 Venus -109083-11-02 07:26 J -38120837.33 -38120837.19 -38120837.02 0.0088 0.0062
 Venus -109082-06-15 19:40 J -38120611.84 -38120611.68 -38120611.51 0.0088 0.0056
 Venus -109081-01-27 07:26 J -38120386.35 -38120386.19 -38120386.00 0.0088 0.0050
 Venus -109081-09-08 19:26 J -38120160.86 -38120160.69 -38120160.49 0.0088 0.0043

Venus	-109080-04-22 07:40 J	-38119935.37	-38119935.18	-38119934.98	0.0088	0.0036
Venus	-109080-12-03 19:26 J	-38119709.88	-38119709.69	-38119709.47	0.0088	0.0030
Venus	-109079-07-17 07:26 J	-38119484.39	-38119484.19	-38119483.98	0.0088	0.0023
Venus	-109078-02-27 19:12 J	-38119258.90	-38119258.70	-38119258.48	0.0088	0.0018
Venus	-109078-10-11 07:12 J	-38119033.41	-38119033.20	-38119032.98	0.0088	0.0011
Venus	-109077-05-23 19:12 J	-38118807.91	-38118807.70	-38118807.48	0.0088	0.0004
Venus	-109076-01-04 06:57 J	-38118582.42	-38118582.21	-38118581.99	0.0088	0.0003
Venus	-109076-08-17 18:43 J	-38118356.93	-38118356.72	-38118356.51	0.0088	0.0009
Venus	-109075-03-31 06:28 J	-38118131.44	-38118131.23	-38118131.02	0.0088	0.0016
Venus	-109075-11-11 18:00 J	-38117905.94	-38117905.75	-38117905.53	0.0088	0.0023
Venus	-109074-06-25 05:45 J	-38117680.45	-38117680.26	-38117680.05	0.0088	0.0029
Venus	-109073-02-05 17:16 J	-38117454.96	-38117454.78	-38117454.57	0.0088	0.0035
Venus	-109073-09-18 05:02 J	-38117229.47	-38117229.29	-38117229.09	0.0088	0.0042
Venus	-109072-05-01 17:02 J	-38117003.96	-38117003.79	-38117003.61	0.0088	0.0048
Venus	-109072-12-13 04:19 J	-38116778.47	-38116778.32	-38116778.13	0.0088	0.0055
Venus	-109071-07-26 16:04 J	-38116552.97	-38116552.83	-38116552.66	0.0088	0.0061
Venus	-109070-03-09 04:04 J	-38116327.46	-38116327.33	-38116327.19	0.0088	0.0067
Venus	-109070-10-20 15:21 J	-38116101.96	-38116101.86	-38116101.72	0.0088	0.0073
Venus	-109069-06-02 03:07 J	-38115876.44	-38115876.37	-38115876.26	0.0088	0.0080
Venus	-109068-01-13 14:52 J	-38115650.91	-38115650.88	-38115650.81	0.0088	0.0086
Earth	-109063-07-24 04:33 J	-38113633.47	-38113633.31	-38113633.11	0.0088	0.0060
Moon	-109063-07-24 05:16 J	-38113633.45	-38113633.28	-38113633.08	0.0088	0.0056 *
Moon	-109062-07-26 09:50 J	-38113266.32	-38113266.09	-38113265.86	0.0088	0.0034
Earth	-109062-07-26 11:31 J	-38113266.24	-38113266.02	-38113265.77	0.0088	0.0030 *
Earth	-109061-07-27 18:28 J	-38112898.98	-38112898.73	-38112898.48	0.0088	0.0001
Moon	-109061-07-27 21:36 J	-38112898.84	-38112898.60	-38112898.36	0.0088	0.0005 *
Moon	-109060-07-29 21:50 J	-38112531.82	-38112531.59	-38112531.34	0.0088	0.0027
Earth	-109060-07-30 00:57 J	-38112531.67	-38112531.46	-38112531.21	0.0088	0.0032 *
Earth	-109059-08-01 07:26 J	-38112164.34	-38112164.19	-38112163.98	0.0088	0.0062
Moon	-109059-08-01 11:31 J	-38112164.18	-38112164.02	-38112163.85	0.0088	0.0066 *

Moon -109058-08-03 12:00 J -38111797.01 -38111797.00 -38111796.94 0.0088 0.0088
 Mars -109049-08-10 12:43 J -38108502.20 -38108501.97 -38108501.70 0.0089 0.0060
 Mars -109047-07-07 12:57 J -38107806.25 -38107805.96 -38107805.62 0.0089 0.0030
 Mars -109045-06-02 13:40 J -38107110.27 -38107109.93 -38107109.60 0.0089 0.0002
 Mars -109043-04-29 13:12 J -38106414.24 -38106413.95 -38106413.62 0.0089 0.0033
 Mars -109041-03-25 12:28 J -38105718.20 -38105717.98 -38105717.73 0.0089 0.0063
 Saturn -109030-02-16 21:50 J -38101738.19 -38101737.59 -38101736.91 0.0089 0.0022
 Mercury -109027-10-05 23:45 J -38100410.54 -38100410.51 -38100410.44 0.0089 0.0085
 Mercury -109026-01-02 02:09 J -38100322.46 -38100322.41 -38100322.32 0.0089 0.0080
 Mercury -109026-03-31 04:48 J -38100234.38 -38100234.30 -38100234.20 0.0089 0.0075
 Mercury -109026-06-27 07:26 J -38100146.29 -38100146.19 -38100146.09 0.0089 0.0070
 Mercury -109026-09-23 09:36 J -38100058.20 -38100058.10 -38100057.97 0.0089 0.0066
 Mercury -109026-12-20 12:00 J -38099970.10 -38099970.00 -38099969.86 0.0089 0.0061
 Mercury -109025-03-17 14:38 J -38099882.01 -38099881.89 -38099881.75 0.0089 0.0056
 Mercury -109025-06-13 17:16 J -38099793.91 -38099793.78 -38099793.64 0.0089 0.0051
 Mercury -109025-09-09 19:40 J -38099705.81 -38099705.68 -38099705.53 0.0089 0.0046
 Mercury -109025-12-06 22:19 J -38099617.71 -38099617.57 -38099617.42 0.0089 0.0041
 Mercury -109024-03-05 00:57 J -38099529.61 -38099529.46 -38099529.31 0.0089 0.0036
 Mercury -109024-06-01 03:36 J -38099441.51 -38099441.35 -38099441.20 0.0089 0.0031
 Mercury -109024-08-28 06:00 J -38099353.41 -38099353.25 -38099353.09 0.0089 0.0026
 Mercury -109024-11-24 08:38 J -38099265.30 -38099265.14 -38099264.98 0.0089 0.0021
 Mercury -109023-02-20 11:16 J -38099177.20 -38099177.03 -38099176.87 0.0089 0.0016
 Mercury -109023-05-19 13:40 J -38099089.09 -38099088.93 -38099088.76 0.0089 0.0011
 Mercury -109023-08-15 16:19 J -38099000.99 -38099000.82 -38099000.65 0.0089 0.0006
 Mercury -109023-11-11 18:57 J -38098912.88 -38098912.71 -38098912.54 0.0089 0.0001
 Mercury -109022-02-07 21:36 J -38098824.77 -38098824.60 -38098824.43 0.0089 0.0004
 Mercury -109022-05-07 00:14 J -38098736.66 -38098736.49 -38098736.32 0.0089 0.0009
 Mercury -109022-08-03 02:52 J -38098648.55 -38098648.38 -38098648.21 0.0089 0.0014
 Mercury -109022-10-30 05:16 J -38098560.44 -38098560.28 -38098560.10 0.0089 0.0020
 Mercury -109021-01-26 07:55 J -38098472.32 -38098472.17 -38098471.99 0.0089 0.0025

Mercury	-109021-04-23 10:48 J	-38098384.21	-38098384.05	-38098383.88	0.0089	0.0030
Mercury	-109021-07-20 13:26 J	-38098296.09	-38098295.94	-38098295.77	0.0089	0.0035
Mercury	-109021-10-16 16:19 J	-38098207.97	-38098207.82	-38098207.67	0.0089	0.0040
Mercury	-109020-01-12 18:43 J	-38098119.85	-38098119.72	-38098119.56	0.0089	0.0046
Mercury	-109020-04-10 21:36 J	-38098031.73	-38098031.60	-38098031.45	0.0089	0.0051
Mercury	-109020-07-08 00:14 J	-38097943.61	-38097943.49	-38097943.34	0.0089	0.0056
Mercury	-109020-10-04 03:07 J	-38097855.49	-38097855.37	-38097855.24	0.0089	0.0061
Mercury	-109020-12-31 05:45 J	-38097767.36	-38097767.26	-38097767.13	0.0089	0.0067
Mercury	-109019-03-29 08:38 J	-38097679.23	-38097679.14	-38097679.03	0.0089	0.0072
Mercury	-109019-06-25 11:31 J	-38097591.10	-38097591.02	-38097590.93	0.0089	0.0077
Mercury	-109019-09-21 14:09 J	-38097502.96	-38097502.91	-38097502.83	0.0089	0.0083
Mercury	-109019-12-18 17:02 J	-38097414.80	-38097414.79	-38097414.75	0.0089	0.0088
Venus	-109002-02-06 16:33 J	-38091520.85	-38091520.81	-38091520.74	0.0089	0.0086
Venus	-109002-09-20 06:57 J	-38091295.31	-38091295.21	-38091295.11	0.0089	0.0079
Venus	-109001-05-02 20:24 J	-38091069.76	-38091069.65	-38091069.50	0.0089	0.0073
Venus	-109001-12-14 10:19 J	-38090844.20	-38090844.07	-38090843.90	0.0089	0.0066

109TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 109th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Venus	-109000-07-28 00:28 J	-38090618.64	-38090618.48	-38090618.30	0.0089	0.0059
Venus	-108999-03-10 14:09 J	-38090393.07	-38090392.91	-38090392.71	0.0089	0.0053
Venus	-108999-10-22 04:19 J	-38090167.49	-38090167.32	-38090167.11	0.0089	0.0046
Venus	-108998-06-04 18:28 J	-38089941.92	-38089941.73	-38089941.51	0.0089	0.0039
Venus	-108997-01-16 08:38 J	-38089716.34	-38089716.14	-38089715.92	0.0089	0.0032
Venus	-108997-08-28 22:48 J	-38089490.76	-38089490.55	-38089490.33	0.0089	0.0025
Venus	-108996-04-11 12:57 J	-38089265.18	-38089264.96	-38089264.73	0.0089	0.0018
Venus	-108996-11-23 03:07 J	-38089039.59	-38089039.37	-38089039.14	0.0089	0.0011
Venus	-108995-07-06 17:31 J	-38088814.00	-38088813.77	-38088813.55	0.0089	0.0004
Venus	-108994-02-17 07:40 J	-38088588.41	-38088588.18	-38088587.95	0.0089	0.0003
Venus	-108994-09-30 22:04 J	-38088362.80	-38088362.58	-38088362.36	0.0089	0.0010
Venus	-108993-05-13 12:14 J	-38088137.21	-38088136.99	-38088136.76	0.0089	0.0017
Venus	-108993-12-25 02:38 J	-38087911.61	-38087911.39	-38087911.17	0.0089	0.0024
Venus	-108992-08-07 16:48 J	-38087686.01	-38087685.80	-38087685.58	0.0089	0.0031
Venus	-108991-03-21 07:12 J	-38087460.40	-38087460.20	-38087459.99	0.0089	0.0038
Venus	-108991-11-01 21:50 J	-38087234.79	-38087234.59	-38087234.40	0.0089	0.0045
Venus	-108990-06-15 12:14 J	-38087009.17	-38087008.99	-38087008.81	0.0089	0.0052
Venus	-108989-01-27 02:24 J	-38086783.56	-38086783.40	-38086783.23	0.0089	0.0059
Venus	-108989-09-08 16:48 J	-38086557.94	-38086557.80	-38086557.64	0.0089	0.0066
Venus	-108988-04-22 06:57 J	-38086332.32	-38086332.21	-38086332.07	0.0089	0.0073
Venus	-108988-12-03 21:21 J	-38086106.69	-38086106.61	-38086106.50	0.0089	0.0080
Venus	-108987-07-17 11:31 J	-38085881.04	-38085881.02	-38085880.95	0.0089	0.0087
Earth	-108981-01-22 08:24 J	-38083866.23	-38083866.15	-38083866.04	0.0089	0.0083
Moon	-108981-01-22 09:07 J	-38083866.16	-38083866.12	-38083866.03	0.0089	0.0086 *
Moon	-108980-01-23 22:33 J	-38083498.77	-38083498.56	-38083498.30	0.0089	0.0048
Earth	-108980-01-24 01:12 J	-38083498.65	-38083498.45	-38083498.21	0.0089	0.0050 *
Earth	-108979-01-26 18:14 J	-38083131.00	-38083130.74	-38083130.47	0.0089	0.0016
Moon	-108979-01-26 21:07 J	-38083130.87	-38083130.62	-38083130.35	0.0089	0.0019 *
Moon	-108978-01-29 07:26 J	-38082763.44	-38082763.19	-38082762.91	0.0089	0.0021
Earth	-108978-01-29 11:02 J	-38082763.29	-38082763.04	-38082762.76	0.0089	0.0018 *

Earth -108977-02-01 03:50 J -38082395.55 -38082395.34 -38082395.12 0.0089 0.0051
 Moon -108977-02-01 07:26 J -38082395.40 -38082395.19 -38082394.95 0.0089 0.0048 *
 Moon -108976-02-02 17:02 J -38082027.81 -38082027.79 -38082027.75 0.0089 0.0088
 Earth -108976-02-02 20:09 J -38082027.71 -38082027.66 -38082027.55 0.0089 0.0085
 Mars -108969-07-07 18:00 J -38079315.85 -38079315.75 -38079315.60 0.0089 0.0080
 Mars -108967-06-01 16:04 J -38078622.06 -38078621.83 -38078621.59 0.0089 0.0053
 Mars -108965-04-25 14:24 J -38077928.18 -38077927.90 -38077927.62 0.0089 0.0026
 Mars -108963-03-20 12:00 J -38077234.30 -38077234.00 -38077233.71 0.0089 0.0001
 Mars -108961-02-12 10:04 J -38076540.34 -38076540.08 -38076539.78 0.0089 0.0029
 Mars -108959-01-06 09:21 J -38075846.34 -38075846.11 -38075845.87 0.0089 0.0055
 Mars -108958-12-01 07:12 J -38075152.29 -38075152.20 -38075152.07 0.0089 0.0082
 Mercury -108945-04-25 19:55 J -38070622.68 -38070622.67 -38070622.63 0.0088 0.0087
 Mercury -108945-07-22 22:04 J -38070534.63 -38070534.58 -38070534.52 0.0088 0.0082
 Mercury -108945-10-18 23:45 J -38070446.56 -38070446.51 -38070446.42 0.0088 0.0078
 Mercury -108944-01-15 01:55 J -38070358.49 -38070358.42 -38070358.33 0.0088 0.0073
 Mercury -108944-04-13 03:50 J -38070270.42 -38070270.34 -38070270.23 0.0088 0.0068
 Mercury -108944-07-10 05:45 J -38070182.35 -38070182.26 -38070182.14 0.0088 0.0064
 Mercury -108944-10-06 07:40 J -38070094.28 -38070094.18 -38070094.06 0.0088 0.0059
 Mercury -108943-01-02 09:36 J -38070006.21 -38070006.10 -38070005.97 0.0088 0.0055
 Mercury -108943-03-31 11:31 J -38069918.13 -38069918.02 -38069917.88 0.0088 0.0050
 Mercury -108943-06-27 13:26 J -38069830.06 -38069829.94 -38069829.80 0.0088 0.0046
 Mercury -108943-09-23 15:36 J -38069741.98 -38069741.85 -38069741.72 0.0088 0.0041
 Mercury -108943-12-20 17:16 J -38069653.91 -38069653.78 -38069653.64 0.0088 0.0037
 Mercury -108942-03-18 19:12 J -38069565.83 -38069565.70 -38069565.55 0.0088 0.0032
 Mercury -108942-06-14 21:07 J -38069477.76 -38069477.62 -38069477.47 0.0088 0.0028
 Mercury -108942-09-10 22:48 J -38069389.68 -38069389.55 -38069389.39 0.0088 0.0024
 Mercury -108942-12-08 00:57 J -38069301.61 -38069301.46 -38069301.32 0.0088 0.0019
 Mercury -108941-03-05 02:38 J -38069213.53 -38069213.39 -38069213.24 0.0088 0.0014
 Mercury -108941-06-01 04:33 J -38069125.46 -38069125.31 -38069125.16 0.0088 0.0010
 Mercury -108941-08-28 06:28 J -38069037.38 -38069037.23 -38069037.08 0.0088 0.0005

Mercury -108941-11-24 08:09 J -38068949.30 -38068949.16 -38068949.01 0.0088 0.0002

Mercury -108940-02-20 10:04 J -38068861.23 -38068861.08 -38068860.93 0.0088 0.0004

Mercury -108940-05-19 11:45 J -38068773.15 -38068773.01 -38068772.86 0.0088 0.0008

Mercury -108940-08-15 13:40 J -38068685.08 -38068684.93 -38068684.78 0.0088 0.0012

Mercury -108940-11-11 15:21 J -38068597.00 -38068596.86 -38068596.71 0.0088 0.0017

Mercury -108939-02-07 17:02 J -38068508.92 -38068508.79 -38068508.64 0.0088 0.0021

Mercury -108939-05-06 18:57 J -38068420.85 -38068420.71 -38068420.57 0.0088 0.0025

Mercury -108939-08-02 20:38 J -38068332.77 -38068332.64 -38068332.50 0.0088 0.0030

Mercury -108939-10-29 22:33 J -38068244.70 -38068244.56 -38068244.43 0.0088 0.0034

Mercury -108938-01-26 00:00 J -38068156.62 -38068156.50 -38068156.36 0.0088 0.0039

Mercury -108938-04-24 01:55 J -38068068.54 -38068068.42 -38068068.29 0.0088 0.0042

Mercury -108938-07-21 03:36 J -38067980.47 -38067980.35 -38067980.22 0.0088 0.0047

Mercury -108938-10-17 05:31 J -38067892.39 -38067892.27 -38067892.15 0.0088 0.0051

Mercury -108937-01-13 06:57 J -38067804.31 -38067804.21 -38067804.09 0.0088 0.0055

Mercury -108937-04-10 08:38 J -38067716.24 -38067716.14 -38067716.02 0.0088 0.0059

Mercury -108937-07-07 10:19 J -38067628.16 -38067628.07 -38067627.96 0.0088 0.0064

Mercury -108937-10-03 12:00 J -38067540.08 -38067540.00 -38067539.90 0.0088 0.0068

Mercury -108937-12-30 13:55 J -38067452.00 -38067451.92 -38067451.83 0.0088 0.0072

Mercury -108936-03-28 15:36 J -38067363.92 -38067363.85 -38067363.78 0.0088 0.0076

Mercury -108936-06-24 17:16 J -38067275.84 -38067275.78 -38067275.72 0.0088 0.0080

Mercury -108936-09-20 18:57 J -38067187.75 -38067187.71 -38067187.67 0.0088 0.0084

Mercury -108936-12-17 20:38 J -38067099.65 -38067099.64 -38067099.63 0.0088 0.0088

Venus -108920-03-29 02:52 J -38061519.43 -38061519.38 -38061519.28 0.0088 0.0083

Venus -108920-11-09 15:21 J -38061293.96 -38061293.86 -38061293.74 0.0088 0.0076

Venus -108919-06-23 03:07 J -38061068.48 -38061068.37 -38061068.22 0.0088 0.0070

Venus -108918-02-03 15:07 J -38060843.00 -38060842.87 -38060842.70 0.0088 0.0063

Venus -108918-09-17 03:21 J -38060617.51 -38060617.36 -38060617.18 0.0088 0.0057

Venus -108917-04-29 15:21 J -38060392.02 -38060391.86 -38060391.66 0.0088 0.0051

Venus -108917-12-11 03:36 J -38060166.53 -38060166.35 -38060166.15 0.0088 0.0044

Venus -108916-07-24 15:21 J -38059941.04 -38059940.86 -38059940.65 0.0088 0.0038

Venus	-108915-03-07 03:36 J	-38059715.54	-38059715.35	-38059715.14	0.0088	0.0031
Venus	-108915-10-18 15:50 J	-38059490.05	-38059489.84	-38059489.63	0.0088	0.0024
Venus	-108914-06-01 03:36 J	-38059264.55	-38059264.35	-38059264.13	0.0088	0.0018
Venus	-108913-01-12 15:36 J	-38059039.06	-38059038.85	-38059038.63	0.0088	0.0011
Venus	-108913-08-25 03:36 J	-38058813.57	-38058813.35	-38058813.14	0.0088	0.0004
Venus	-108912-04-07 15:21 J	-38058588.07	-38058587.86	-38058587.64	0.0088	0.0003
Venus	-108912-11-19 03:07 J	-38058362.58	-38058362.37	-38058362.15	0.0088	0.0009
Venus	-108911-07-02 14:52 J	-38058137.08	-38058136.88	-38058136.66	0.0088	0.0016
Venus	-108910-02-13 02:24 J	-38057911.59	-38057911.40	-38057911.18	0.0088	0.0023
Venus	-108910-09-26 14:24 J	-38057686.10	-38057685.90	-38057685.69	0.0088	0.0028
Venus	-108909-05-09 02:24 J	-38057460.60	-38057460.40	-38057460.21	0.0088	0.0035
Venus	-108909-12-20 13:40 J	-38057235.11	-38057234.93	-38057234.73	0.0088	0.0042
Venus	-108908-08-03 01:26 J	-38057009.61	-38057009.44	-38057009.25	0.0088	0.0048
Venus	-108907-03-16 12:57 J	-38056784.11	-38056783.96	-38056783.77	0.0088	0.0054
Venus	-108907-10-28 00:43 J	-38056558.61	-38056558.47	-38056558.30	0.0088	0.0061
Venus	-108906-06-10 12:43 J	-38056333.10	-38056332.97	-38056332.83	0.0088	0.0067
Venus	-108905-01-21 23:45 J	-38056107.60	-38056107.51	-38056107.36	0.0088	0.0074
Venus	-108905-09-03 11:31 J	-38055882.09	-38055882.02	-38055881.91	0.0088	0.0080
Venus	-108904-04-16 23:31 J	-38055656.56	-38055656.52	-38055656.46	0.0088	0.0086
Moon	-108899-07-23 10:19 J	-38053733.21	-38053733.07	-38053732.93	0.0088	0.0073
Earth	-108899-07-23 12:57 J	-38053733.06	-38053732.96	-38053732.81	0.0088	0.0077 *
Earth	-108898-07-25 19:40 J	-38053365.87	-38053365.68	-38053365.45	0.0088	0.0047
Moon	-108898-07-25 23:16 J	-38053365.73	-38053365.53	-38053365.32	0.0088	0.0049 *
Moon	-108897-07-26 23:31 J	-38052998.76	-38052998.52	-38052998.27	0.0088	0.0013
Earth	-108897-07-27 02:52 J	-38052998.62	-38052998.38	-38052998.13	0.0088	0.0016 *
Earth	-108896-07-29 09:21 J	-38052631.34	-38052631.11	-38052630.85	0.0088	0.0015
Moon	-108896-07-29 12:00 J	-38052631.25	-38052631.00	-38052630.75	0.0088	0.0011 *
Moon	-108895-07-31 14:52 J	-38052264.07	-38052263.88	-38052263.67	0.0088	0.0047
Earth	-108895-07-31 16:04 J	-38052264.02	-38052263.83	-38052263.59	0.0088	0.0045 *
Moon	-108894-08-02 22:48 J	-38051896.67	-38051896.55	-38051896.37	0.0088	0.0072

Earth -108894-08-02 22:48 J -38051896.65 -38051896.55 -38051896.39 0.0088 0.0075 *
 Mars -108885-03-23 17:02 J -38048740.94 -38048740.79 -38048740.57 0.0089 0.0075
 Mars -108883-02-17 17:31 J -38048045.03 -38048044.77 -38048044.44 0.0089 0.0044
 Mars -108881-01-14 18:57 J -38047349.05 -38047348.71 -38047348.38 0.0089 0.0012
 Mars -108880-12-10 18:57 J -38046653.03 -38046652.71 -38046652.37 0.0089 0.0020
 Mars -108878-11-06 18:43 J -38045956.98 -38045956.72 -38045956.43 0.0089 0.0051
 Mars -108876-10-02 17:31 J -38045260.87 -38045260.77 -38045260.62 0.0089 0.0082
 Mercury -108862-04-05 19:40 J -38040327.69 -38040327.68 -38040327.67 0.0089 0.0088
 Mercury -108862-07-02 21:36 J -38040239.63 -38040239.60 -38040239.53 0.0089 0.0084
 Mercury -108862-09-29 00:14 J -38040151.55 -38040151.49 -38040151.41 0.0089 0.0079
 Mercury -108862-12-26 02:38 J -38040063.47 -38040063.39 -38040063.29 0.0089 0.0074
 Mercury -108861-03-23 05:16 J -38039975.38 -38039975.28 -38039975.17 0.0089 0.0069
 Mercury -108861-06-19 07:26 J -38039887.29 -38039887.19 -38039887.06 0.0089 0.0065
 Mercury -108861-09-15 10:04 J -38039799.19 -38039799.08 -38039798.95 0.0089 0.0060
 Mercury -108861-12-12 12:28 J -38039711.10 -38039710.98 -38039710.84 0.0089 0.0055
 Mercury -108860-03-10 15:07 J -38039623.00 -38039622.87 -38039622.73 0.0089 0.0050
 Mercury -108860-06-06 17:45 J -38039534.90 -38039534.76 -38039534.62 0.0089 0.0045
 Mercury -108860-09-02 20:09 J -38039446.80 -38039446.66 -38039446.51 0.0089 0.0040
 Mercury -108860-11-29 22:48 J -38039358.70 -38039358.55 -38039358.40 0.0089 0.0035
 Mercury -108859-02-26 00:57 J -38039270.60 -38039270.46 -38039270.29 0.0089 0.0031
 Mercury -108859-05-25 03:36 J -38039182.50 -38039182.35 -38039182.18 0.0089 0.0026
 Mercury -108859-08-21 06:14 J -38039094.40 -38039094.24 -38039094.07 0.0089 0.0021
 Mercury -108859-11-17 08:52 J -38039006.29 -38039006.13 -38039005.96 0.0089 0.0015
 Mercury -108858-02-13 11:31 J -38038918.19 -38038918.02 -38038917.85 0.0089 0.0010
 Mercury -108858-05-12 14:09 J -38038830.08 -38038829.91 -38038829.74 0.0089 0.0005
 Mercury -108858-08-08 16:48 J -38038741.97 -38038741.80 -38038741.63 0.0089 0.0002
 Mercury -108858-11-04 19:12 J -38038653.86 -38038653.70 -38038653.53 0.0089 0.0005
 Mercury -108857-01-31 21:50 J -38038565.76 -38038565.59 -38038565.42 0.0089 0.0010
 Mercury -108857-04-29 00:28 J -38038477.64 -38038477.48 -38038477.31 0.0089 0.0015
 Mercury -108857-07-26 03:07 J -38038389.53 -38038389.37 -38038389.20 0.0089 0.0020

Mercury -108857-10-22 05:45 J -38038301.42 -38038301.26 -38038301.09 0.0089 0.0025

Mercury -108856-01-18 08:24 J -38038213.30 -38038213.15 -38038212.98 0.0089 0.0031

Mercury -108856-04-16 11:02 J -38038125.19 -38038125.04 -38038124.87 0.0089 0.0036

Mercury -108856-07-13 13:40 J -38038037.07 -38038036.93 -38038036.77 0.0089 0.0041

Mercury -108856-10-09 16:33 J -38037948.95 -38037948.81 -38037948.66 0.0089 0.0046

Mercury -108855-01-05 19:26 J -38037860.83 -38037860.69 -38037860.55 0.0089 0.0051

Mercury -108855-04-03 21:50 J -38037772.71 -38037772.59 -38037772.45 0.0089 0.0057

Mercury -108855-07-01 00:28 J -38037684.59 -38037684.48 -38037684.34 0.0089 0.0062

Mercury -108855-09-27 03:21 J -38037596.46 -38037596.36 -38037596.24 0.0089 0.0067

Mercury -108855-12-24 06:28 J -38037508.33 -38037508.23 -38037508.13 0.0089 0.0072

Mercury -108854-03-22 08:52 J -38037420.20 -38037420.13 -38037420.03 0.0089 0.0078

Mercury -108854-06-18 11:45 J -38037332.06 -38037332.01 -38037331.94 0.0089 0.0083

Mercury -108854-09-14 14:52 J -38037243.90 -38037243.88 -38037243.87 0.0089 0.0088

Venus -108838-05-10 23:31 J -38031526.54 -38031526.52 -38031526.45 0.0089 0.0087

Venus -108838-12-22 13:26 J -38031301.02 -38031300.94 -38031300.83 0.0089 0.0080

Venus -108837-08-04 03:36 J -38031075.47 -38031075.35 -38031075.22 0.0089 0.0073

Venus -108836-03-17 17:02 J -38030849.91 -38030849.79 -38030849.62 0.0089 0.0067

Venus -108836-10-29 07:12 J -38030624.35 -38030624.20 -38030624.01 0.0089 0.0060

Venus -108835-06-11 21:21 J -38030398.78 -38030398.61 -38030398.42 0.0089 0.0053

Venus -108834-01-23 11:16 J -38030173.21 -38030173.03 -38030172.83 0.0089 0.0046

Venus -108834-09-06 01:26 J -38029947.63 -38029947.44 -38029947.23 0.0089 0.0039

Venus -108833-04-18 15:36 J -38029722.06 -38029721.85 -38029721.64 0.0089 0.0032

Venus -108833-11-30 05:31 J -38029496.48 -38029496.27 -38029496.05 0.0089 0.0025

Venus -108832-07-13 19:40 J -38029270.90 -38029270.68 -38029270.46 0.0089 0.0018

Venus -108831-02-24 09:36 J -38029045.32 -38029045.10 -38029044.87 0.0089 0.0011

Venus -108831-10-08 00:00 J -38028819.72 -38028819.50 -38028819.27 0.0089 0.0004

Venus -108830-05-21 14:09 J -38028594.14 -38028593.91 -38028593.68 0.0089 0.0003

Venus -108829-01-02 04:04 J -38028368.55 -38028368.33 -38028368.10 0.0089 0.0010

Venus -108829-08-14 18:14 J -38028142.95 -38028142.74 -38028142.51 0.0089 0.0017

Venus -108828-03-28 08:38 J -38027917.36 -38027917.14 -38027916.92 0.0089 0.0024

Venus	-108828-11-08 23:02 J	-38027691.75	-38027691.54	-38027691.33	0.0089	0.0031
Venus	-108827-06-22 13:12 J	-38027466.15	-38027465.95	-38027465.74	0.0089	0.0038
Venus	-108826-02-03 03:36 J	-38027240.54	-38027240.35	-38027240.15	0.0089	0.0045
Venus	-108826-09-16 18:00 J	-38027014.93	-38027014.75	-38027014.56	0.0089	0.0052
Venus	-108825-04-29 08:24 J	-38026789.31	-38026789.15	-38026788.98	0.0089	0.0059
Venus	-108825-12-10 22:33 J	-38026563.70	-38026563.56	-38026563.40	0.0089	0.0066
Venus	-108824-07-24 12:57 J	-38026338.08	-38026337.96	-38026337.82	0.0089	0.0073
Venus	-108823-03-07 03:07 J	-38026112.45	-38026112.37	-38026112.25	0.0089	0.0080
Venus	-108823-10-18 17:45 J	-38025886.79	-38025886.76	-38025886.70	0.0089	0.0087
Earth	-108816-01-22 23:16 J	-38023598.68	-38023598.53	-38023598.34	0.0089	0.0069
Moon	-108816-01-23 03:21 J	-38023598.53	-38023598.36	-38023598.16	0.0089	0.0064 *
Moon	-108815-01-25 13:12 J	-38023231.18	-38023230.95	-38023230.71	0.0089	0.0040
Earth	-108815-01-25 16:33 J	-38023231.05	-38023230.81	-38023230.55	0.0089	0.0035 *
Earth	-108814-01-28 09:21 J	-38022863.38	-38022863.11	-38022862.84	0.0089	0.0002
Moon	-108814-01-28 12:14 J	-38022863.26	-38022862.99	-38022862.71	0.0089	0.0003 *
Moon	-108813-01-30 23:45 J	-38022495.74	-38022495.51	-38022495.25	0.0089	0.0028
Earth	-108813-01-31 02:09 J	-38022495.65	-38022495.41	-38022495.15	0.0089	0.0032 *
Earth	-108812-02-01 18:43 J	-38022127.88	-38022127.72	-38022127.52	0.0089	0.0066
Moon	-108812-02-01 19:26 J	-38022127.84	-38022127.69	-38022127.50	0.0089	0.0070 *
Mars	-108803-01-14 16:19 J	-38018859.01	-38018858.82	-38018858.62	0.0089	0.0066
Mars	-108802-12-09 13:12 J	-38018165.20	-38018164.95	-38018164.67	0.0089	0.0039
Mars	-108800-11-02 11:16 J	-38017471.31	-38017471.03	-38017470.73	0.0089	0.0012
Mars	-108798-09-27 08:38 J	-38016777.42	-38016777.14	-38016776.84	0.0089	0.0017
Mars	-108796-08-21 05:31 J	-38016083.50	-38016083.27	-38016082.99	0.0089	0.0045
Mars	-108794-07-16 04:19 J	-38015389.47	-38015389.32	-38015389.12	0.0089	0.0072
Mercury	-108780-01-20 18:00 J	-38010451.77	-38010451.75	-38010451.71	0.0088	0.0087
Mercury	-108780-04-18 20:09 J	-38010363.71	-38010363.66	-38010363.60	0.0088	0.0082
Mercury	-108780-07-15 21:50 J	-38010275.65	-38010275.59	-38010275.50	0.0088	0.0078
Mercury	-108780-10-12 00:00 J	-38010187.58	-38010187.50	-38010187.41	0.0088	0.0073
Mercury	-108779-01-08 01:40 J	-38010099.51	-38010099.43	-38010099.31	0.0088	0.0069

Mercury -108779-04-06 03:50 J -38010011.43 -38010011.34 -38010011.23 0.0088 0.0064

Mercury -108779-07-03 06:00 J -38009923.36 -38009923.25 -38009923.14 0.0088 0.0059

Mercury -108779-09-29 07:40 J -38009835.29 -38009835.18 -38009835.05 0.0088 0.0055

Mercury -108779-12-26 09:50 J -38009747.21 -38009747.09 -38009746.96 0.0088 0.0050

Mercury -108778-03-24 11:31 J -38009659.14 -38009659.02 -38009658.88 0.0088 0.0046

Mercury -108778-06-20 13:40 J -38009571.06 -38009570.93 -38009570.80 0.0088 0.0041

Mercury -108778-09-16 15:21 J -38009482.99 -38009482.86 -38009482.71 0.0088 0.0037

Mercury -108778-12-13 17:31 J -38009394.91 -38009394.77 -38009394.63 0.0088 0.0032

Mercury -108777-03-10 19:12 J -38009306.84 -38009306.70 -38009306.55 0.0088 0.0027

Mercury -108777-06-06 21:07 J -38009218.76 -38009218.62 -38009218.47 0.0088 0.0023

Mercury -108777-09-02 23:02 J -38009130.69 -38009130.54 -38009130.39 0.0088 0.0018

Mercury -108777-11-30 00:43 J -38009042.61 -38009042.47 -38009042.31 0.0088 0.0015

Mercury -108776-02-26 02:38 J -38008954.53 -38008954.39 -38008954.24 0.0088 0.0010

Mercury -108776-05-25 04:33 J -38008866.46 -38008866.31 -38008866.16 0.0088 0.0005

Mercury -108776-08-21 06:28 J -38008778.38 -38008778.23 -38008778.08 0.0088 0.0002

Mercury -108776-11-17 08:09 J -38008690.30 -38008690.16 -38008690.01 0.0088 0.0004

Mercury -108775-02-13 10:04 J -38008602.23 -38008602.08 -38008601.93 0.0088 0.0008

Mercury -108775-05-12 11:45 J -38008514.15 -38008514.01 -38008513.86 0.0088 0.0013

Mercury -108775-08-08 13:40 J -38008426.08 -38008425.93 -38008425.79 0.0088 0.0017

Mercury -108775-11-04 15:21 J -38008338.00 -38008337.86 -38008337.71 0.0088 0.0021

Mercury -108774-01-31 17:16 J -38008249.92 -38008249.78 -38008249.64 0.0088 0.0025

Mercury -108774-04-29 18:57 J -38008161.85 -38008161.71 -38008161.57 0.0088 0.0030

Mercury -108774-07-26 20:38 J -38008073.77 -38008073.64 -38008073.50 0.0088 0.0034

Mercury -108774-10-22 22:19 J -38007985.69 -38007985.57 -38007985.43 0.0088 0.0039

Mercury -108773-01-19 00:14 J -38007897.61 -38007897.49 -38007897.36 0.0088 0.0043

Mercury -108773-04-16 01:40 J -38007809.54 -38007809.43 -38007809.29 0.0088 0.0048

Mercury -108773-07-13 03:36 J -38007721.46 -38007721.35 -38007721.22 0.0088 0.0051

Mercury -108773-10-09 05:16 J -38007633.38 -38007633.28 -38007633.16 0.0088 0.0056

Mercury -108772-01-05 06:57 J -38007545.30 -38007545.21 -38007545.09 0.0088 0.0060

Mercury -108772-04-03 08:52 J -38007457.23 -38007457.13 -38007457.03 0.0088 0.0064

Mercury -108772-06-30 10:33 J -38007369.15 -38007369.06 -38007368.96 0.0088 0.0068

Mercury -108772-09-26 12:00 J -38007281.07 -38007281.00 -38007280.90 0.0088 0.0072

Mercury -108772-12-23 13:40 J -38007192.99 -38007192.93 -38007192.84 0.0088 0.0076

Mercury -108771-03-21 15:21 J -38007104.90 -38007104.86 -38007104.79 0.0088 0.0081

Mercury -108771-06-17 17:02 J -38007016.82 -38007016.79 -38007016.73 0.0088 0.0085

Mercury -108771-09-13 18:57 J -38006928.71 -38006928.71 -38006928.70 0.0088 0.0088

Venus -108756-06-30 10:19 J -38001525.12 -38001525.07 -38001524.98 0.0088 0.0084

Venus -108755-02-10 22:48 J -38001299.65 -38001299.55 -38001299.44 0.0088 0.0077

Venus -108755-09-24 10:48 J -38001074.17 -38001074.05 -38001073.91 0.0088 0.0070

Venus -108754-05-07 23:16 J -38000848.68 -38000848.53 -38000848.38 0.0088 0.0064

Venus -108754-12-19 11:02 J -38000623.19 -38000623.04 -38000622.87 0.0088 0.0057

Venus -108753-07-31 23:16 J -38000397.71 -38000397.53 -38000397.35 0.0088 0.0051

Venus -108752-03-14 11:02 J -38000172.21 -38000172.04 -38000171.84 0.0088 0.0045

Venus -108752-10-25 23:16 J -37999946.72 -37999946.53 -37999946.33 0.0088 0.0038

Venus -108751-06-08 11:02 J -37999721.23 -37999721.04 -37999720.82 0.0088 0.0032

Venus -108750-01-19 23:16 J -37999495.73 -37999495.53 -37999495.32 0.0088 0.0024

Venus -108750-09-02 11:02 J -37999270.24 -37999270.04 -37999269.82 0.0088 0.0018

Venus -108749-04-14 23:16 J -37999044.74 -37999044.53 -37999044.31 0.0088 0.0011

Venus -108749-11-26 11:16 J -37998819.24 -37998819.03 -37998818.81 0.0088 0.0005

Venus -108748-07-09 23:16 J -37998593.75 -37998593.53 -37998593.32 0.0088 0.0003

Venus -108747-02-20 11:02 J -37998368.25 -37998368.04 -37998367.83 0.0088 0.0009

Venus -108747-10-03 22:48 J -37998142.76 -37998142.55 -37998142.33 0.0088 0.0015

Venus -108746-05-17 10:48 J -37997917.26 -37997917.05 -37997916.84 0.0088 0.0022

Venus -108746-12-28 22:19 J -37997691.76 -37997691.57 -37997691.36 0.0088 0.0028

Venus -108745-08-10 10:04 J -37997466.27 -37997466.08 -37997465.87 0.0088 0.0035

Venus -108744-03-23 21:50 J -37997240.77 -37997240.59 -37997240.39 0.0088 0.0041

Venus -108744-11-04 09:36 J -37997015.27 -37997015.10 -37997014.91 0.0088 0.0048

Venus -108743-06-17 21:07 J -37996789.77 -37996789.62 -37996789.43 0.0088 0.0055

Venus -108742-01-29 08:52 J -37996564.27 -37996564.13 -37996563.96 0.0088 0.0061

Venus -108742-09-11 20:38 J -37996338.77 -37996338.64 -37996338.49 0.0088 0.0067

Venus -108741-04-24 08:09 J -37996113.26 -37996113.16 -37996113.02 0.0088 0.0073

Venus -108741-12-05 19:55 J -37995887.74 -37995887.67 -37995887.56 0.0088 0.0080

Venus -108740-07-19 07:40 J -37995662.22 -37995662.18 -37995662.12 0.0088 0.0086

Moon -108734-07-25 02:52 J -37993465.55 -37993465.38 -37993465.21 0.0088 0.0062

Earth -108734-07-25 04:19 J -37993465.47 -37993465.32 -37993465.13 0.0088 0.0064 *

Earth -108733-07-26 11:02 J -37993098.25 -37993098.04 -37993097.80 0.0088 0.0034

Moon -108733-07-26 12:28 J -37993098.21 -37993097.98 -37993097.74 0.0088 0.0036 *

Earth -108732-07-28 18:14 J -37992730.99 -37992730.74 -37992730.49 0.0088 0.0003

Moon -108732-07-28 18:28 J -37992730.96 -37992730.73 -37992730.49 0.0088 0.0002 *

Moon -108731-07-30 23:02 J -37992363.78 -37992363.54 -37992363.29 0.0088 0.0026

Earth -108731-07-31 00:43 J -37992363.69 -37992363.47 -37992363.22 0.0088 0.0028 *

Earth -108730-08-02 07:12 J -37991996.36 -37991996.20 -37991995.99 0.0088 0.0058

Moon -108730-08-02 09:50 J -37991996.25 -37991996.09 -37991995.90 0.0088 0.0060 *

Moon -108729-08-03 10:48 J -37991629.09 -37991629.05 -37991628.97 0.0088 0.0086

Earth -108729-08-03 14:09 J -37991628.92 -37991628.91 -37991628.85 0.0088 0.0088

Mars -108720-09-30 20:09 J -37988283.88 -37988283.66 -37988283.37 0.0089 0.0059

Mars -108718-08-27 20:52 J -37987587.93 -37987587.63 -37987587.29 0.0089 0.0027

Mars -108716-07-23 21:36 J -37986891.93 -37986891.60 -37986891.26 0.0089 0.0006

Mars -108714-06-19 21:50 J -37986195.87 -37986195.59 -37986195.27 0.0089 0.0038

Mars -108712-05-15 21:50 J -37985499.77 -37985499.59 -37985499.36 0.0089 0.0070

Saturn -108707-01-16 18:14 J -37983793.29 -37983792.74 -37983792.08 0.0089 0.0035

Mercury -108698-12-31 17:02 J -37980156.79 -37980156.79 -37980156.74 0.0089 0.0088

Mercury -108697-03-28 19:40 J -37980068.73 -37980068.68 -37980068.61 0.0089 0.0083

Mercury -108697-06-24 22:04 J -37979980.64 -37979980.58 -37979980.49 0.0089 0.0078

Mercury -108697-09-21 00:43 J -37979892.56 -37979892.47 -37979892.38 0.0089 0.0073

Mercury -108697-12-18 02:52 J -37979804.47 -37979804.38 -37979804.26 0.0089 0.0069

Mercury -108696-03-16 05:16 J -37979716.38 -37979716.28 -37979716.15 0.0089 0.0064

Mercury -108696-06-12 07:55 J -37979628.28 -37979628.17 -37979628.04 0.0089 0.0059

Mercury -108696-09-08 10:33 J -37979540.19 -37979540.06 -37979539.93 0.0089 0.0054

Mercury -108696-12-05 12:57 J -37979452.09 -37979451.96 -37979451.82 0.0089 0.0049

Mercury -108695-03-03 15:36 J -37979364.00 -37979363.85 -37979363.71 0.0089 0.0044

Mercury -108695-05-30 17:45 J -37979275.90 -37979275.76 -37979275.60 0.0089 0.0040

Mercury -108695-08-26 20:24 J -37979187.80 -37979187.65 -37979187.49 0.0089 0.0035

Mercury -108695-11-22 22:48 J -37979099.69 -37979099.55 -37979099.38 0.0089 0.0030

Mercury -108694-02-19 01:26 J -37979011.59 -37979011.44 -37979011.27 0.0089 0.0025

Mercury -108694-05-18 04:04 J -37978923.49 -37978923.33 -37978923.16 0.0089 0.0020

Mercury -108694-08-14 06:43 J -37978835.39 -37978835.22 -37978835.05 0.0089 0.0015

Mercury -108694-11-10 09:21 J -37978747.28 -37978747.11 -37978746.94 0.0089 0.0010

Mercury -108693-02-06 11:45 J -37978659.17 -37978659.01 -37978658.84 0.0089 0.0005

Mercury -108693-05-04 14:24 J -37978571.07 -37978570.90 -37978570.73 0.0089 0.0002

Mercury -108693-07-31 17:02 J -37978482.96 -37978482.79 -37978482.62 0.0089 0.0006

Mercury -108693-10-27 19:40 J -37978394.85 -37978394.68 -37978394.51 0.0089 0.0011

Mercury -108692-01-23 22:19 J -37978306.74 -37978306.57 -37978306.40 0.0089 0.0016

Mercury -108692-04-22 00:57 J -37978218.63 -37978218.46 -37978218.29 0.0089 0.0021

Mercury -108692-07-19 03:36 J -37978130.51 -37978130.35 -37978130.19 0.0089 0.0026

Mercury -108692-10-15 06:14 J -37978042.40 -37978042.24 -37978042.08 0.0089 0.0031

Mercury -108691-01-11 08:52 J -37977954.28 -37977954.13 -37977953.97 0.0089 0.0036

Mercury -108691-04-09 11:16 J -37977866.17 -37977866.03 -37977865.86 0.0089 0.0042

Mercury -108691-07-06 14:09 J -37977778.05 -37977777.91 -37977777.76 0.0089 0.0047

Mercury -108691-10-02 16:48 J -37977689.93 -37977689.80 -37977689.65 0.0089 0.0052

Mercury -108691-12-29 19:40 J -37977601.81 -37977601.68 -37977601.55 0.0089 0.0057

Mercury -108690-03-27 22:04 J -37977513.69 -37977513.58 -37977513.44 0.0089 0.0063

Mercury -108690-06-24 00:57 J -37977425.56 -37977425.46 -37977425.34 0.0089 0.0068

Mercury -108690-09-20 03:36 J -37977337.43 -37977337.35 -37977337.24 0.0089 0.0073

Mercury -108690-12-17 06:43 J -37977249.30 -37977249.22 -37977249.14 0.0089 0.0078

Mercury -108689-03-14 09:07 J -37977161.16 -37977161.12 -37977161.05 0.0089 0.0084

Mercury -108689-06-10 12:14 J -37977072.99 -37977072.99 -37977072.99 0.0089 0.0089

Venus -108674-08-12 06:00 J -37971532.26 -37971532.25 -37971532.19 0.0089 0.0088

Venus -108673-03-24 19:55 J -37971306.74 -37971306.67 -37971306.56 0.0089 0.0081

Venus -108673-11-05 10:04 J -37971081.19 -37971081.08 -37971080.95 0.0089 0.0074

Venus	-108672-06-19 00:00 J	-37970855.63	-37970855.50	-37970855.34	0.0089	0.0067
Venus	-108671-01-30 14:09 J	-37970630.07	-37970629.91	-37970629.75	0.0089	0.0060
Venus	-108671-09-13 04:19 J	-37970404.50	-37970404.32	-37970404.14	0.0089	0.0053
Venus	-108670-04-26 17:45 J	-37970178.93	-37970178.76	-37970178.55	0.0089	0.0047
Venus	-108670-12-08 07:40 J	-37969953.36	-37969953.18	-37969952.96	0.0089	0.0040
Venus	-108669-07-20 21:50 J	-37969727.79	-37969727.59	-37969727.37	0.0089	0.0033
Venus	-108668-03-03 12:00 J	-37969502.21	-37969502.00	-37969501.78	0.0089	0.0026
Venus	-108668-10-15 02:09 J	-37969276.62	-37969276.41	-37969276.18	0.0089	0.0019
Venus	-108667-05-28 16:19 J	-37969051.04	-37969050.82	-37969050.59	0.0089	0.0012
Venus	-108666-01-09 06:28 J	-37968825.45	-37968825.23	-37968825.00	0.0089	0.0005
Venus	-108666-08-22 20:38 J	-37968599.87	-37968599.64	-37968599.42	0.0089	0.0003
Venus	-108665-04-04 10:33 J	-37968374.28	-37968374.06	-37968373.83	0.0089	0.0010
Venus	-108665-11-16 00:43 J	-37968148.68	-37968148.47	-37968148.24	0.0089	0.0017
Venus	-108664-06-29 14:52 J	-37967923.09	-37967922.88	-37967922.65	0.0089	0.0024
Venus	-108663-02-10 05:02 J	-37967697.49	-37967697.29	-37967697.06	0.0089	0.0031
Venus	-108663-09-23 19:26 J	-37967471.88	-37967471.69	-37967471.47	0.0089	0.0038
Venus	-108662-05-07 09:50 J	-37967246.28	-37967246.09	-37967245.89	0.0089	0.0045
Venus	-108662-12-19 00:00 J	-37967020.67	-37967020.50	-37967020.31	0.0089	0.0052
Venus	-108661-07-31 14:24 J	-37966795.06	-37966794.90	-37966794.73	0.0089	0.0059
Venus	-108660-03-14 04:48 J	-37966569.44	-37966569.30	-37966569.14	0.0089	0.0066
Venus	-108660-10-25 19:12 J	-37966343.81	-37966343.70	-37966343.56	0.0089	0.0073
Venus	-108659-06-08 09:36 J	-37966118.18	-37966118.10	-37966117.99	0.0089	0.0080
Venus	-108658-01-19 23:45 J	-37965892.53	-37965892.51	-37965892.45	0.0089	0.0087
Moon	-108652-01-21 20:52 J	-37963698.68	-37963698.63	-37963698.56	0.0089	0.0086
Earth	-108652-01-21 22:04 J	-37963698.59	-37963698.58	-37963698.51	0.0089	0.0088 *
Earth	-108651-01-24 15:07 J	-37963331.08	-37963330.87	-37963330.65	0.0089	0.0054
Moon	-108651-01-24 15:21 J	-37963331.04	-37963330.86	-37963330.61	0.0089	0.0056 *
Earth	-108650-01-27 07:40 J	-37962963.43	-37962963.18	-37962962.90	0.0089	0.0021
Moon	-108650-01-27 08:38 J	-37962963.39	-37962963.14	-37962962.88	0.0089	0.0019 *
Moon	-108649-01-29 23:02 J	-37962595.81	-37962595.54	-37962595.25	0.0089	0.0012

Earth -108649-01-30 00:43 J -37962595.73 -37962595.47 -37962595.20 0.0089 0.0013 *
 Earth -108648-01-31 16:48 J -37962228.00 -37962227.80 -37962227.55 0.0089 0.0047
 Moon -108648-01-31 19:40 J -37962227.89 -37962227.68 -37962227.45 0.0089 0.0047 *
 Moon -108647-02-03 06:00 J -37961860.35 -37961860.25 -37961860.10 0.0089 0.0079
 Earth -108647-02-03 09:50 J -37961860.19 -37961860.09 -37961859.96 0.0089 0.0080 *
 Mars -108640-08-29 15:07 J -37959095.96 -37959095.87 -37959095.71 0.0089 0.0080
 Mars -108638-07-24 12:28 J -37958402.21 -37958401.98 -37958401.73 0.0089 0.0052
 Mars -108636-06-17 09:21 J -37957708.39 -37957708.11 -37957707.82 0.0089 0.0024
 Mars -108634-05-12 07:12 J -37957014.49 -37957014.20 -37957013.90 0.0089 0.0004
 Mars -108632-04-05 05:02 J -37956320.55 -37956320.29 -37956320.00 0.0089 0.0033
 Mars -108630-02-28 02:24 J -37955626.59 -37955626.40 -37955626.16 0.0089 0.0061
 Mars -108628-01-22 01:26 J -37954932.44 -37954932.44 -37954932.41 0.0089 0.0088
 Mercury -108616-10-17 16:04 J -37950280.85 -37950280.83 -37950280.79 0.0088 0.0086
 Mercury -108615-01-13 18:14 J -37950192.79 -37950192.74 -37950192.68 0.0088 0.0082
 Mercury -108615-04-11 19:55 J -37950104.73 -37950104.67 -37950104.58 0.0088 0.0078
 Mercury -108615-07-08 22:04 J -37950016.66 -37950016.58 -37950016.49 0.0088 0.0073
 Mercury -108615-10-05 00:14 J -37949928.59 -37949928.49 -37949928.39 0.0088 0.0068
 Mercury -108614-01-01 01:55 J -37949840.51 -37949840.42 -37949840.30 0.0088 0.0064
 Mercury -108614-03-30 04:04 J -37949752.44 -37949752.33 -37949752.22 0.0088 0.0059
 Mercury -108614-06-26 05:45 J -37949664.37 -37949664.26 -37949664.13 0.0088 0.0055
 Mercury -108614-09-22 07:55 J -37949576.29 -37949576.17 -37949576.04 0.0088 0.0050
 Mercury -108614-12-19 09:36 J -37949488.22 -37949488.10 -37949487.96 0.0088 0.0046
 Mercury -108613-03-16 11:45 J -37949400.14 -37949400.01 -37949399.87 0.0088 0.0041
 Mercury -108613-06-12 13:26 J -37949312.07 -37949311.94 -37949311.79 0.0088 0.0037
 Mercury -108613-09-08 15:36 J -37949223.99 -37949223.85 -37949223.71 0.0088 0.0032
 Mercury -108613-12-05 17:16 J -37949135.92 -37949135.78 -37949135.63 0.0088 0.0028
 Mercury -108612-03-03 19:26 J -37949047.84 -37949047.69 -37949047.55 0.0088 0.0023
 Mercury -108612-05-30 21:07 J -37948959.76 -37948959.62 -37948959.47 0.0088 0.0018
 Mercury -108612-08-26 23:02 J -37948871.69 -37948871.54 -37948871.39 0.0088 0.0014
 Mercury -108612-11-23 00:57 J -37948783.61 -37948783.46 -37948783.31 0.0088 0.0009

Mercury -108611-02-19 02:38 J -37948695.53 -37948695.39 -37948695.24 0.0088 0.0006

Mercury -108611-05-18 04:33 J -37948607.46 -37948607.31 -37948607.16 0.0088 0.0001

Mercury -108611-08-14 06:28 J -37948519.38 -37948519.23 -37948519.09 0.0088 0.0004

Mercury -108611-11-10 08:09 J -37948431.31 -37948431.16 -37948431.01 0.0088 0.0008

Mercury -108610-02-06 10:04 J -37948343.23 -37948343.08 -37948342.94 0.0088 0.0013

Mercury -108610-05-05 11:45 J -37948255.15 -37948255.01 -37948254.86 0.0088 0.0017

Mercury -108610-08-01 13:26 J -37948167.08 -37948166.94 -37948166.79 0.0088 0.0022

Mercury -108610-10-28 15:21 J -37948079.00 -37948078.86 -37948078.72 0.0088 0.0026

Mercury -108609-01-24 17:02 J -37947990.92 -37947990.79 -37947990.65 0.0088 0.0030

Mercury -108609-04-21 18:43 J -37947902.84 -37947902.72 -37947902.57 0.0088 0.0035

Mercury -108609-07-18 20:38 J -37947814.77 -37947814.64 -37947814.50 0.0088 0.0039

Mercury -108609-10-14 22:33 J -37947726.69 -37947726.56 -37947726.44 0.0088 0.0043

Mercury -108608-01-11 00:00 J -37947638.61 -37947638.50 -37947638.37 0.0088 0.0047

Mercury -108608-04-09 01:40 J -37947550.54 -37947550.43 -37947550.30 0.0088 0.0052

Mercury -108608-07-06 03:36 J -37947462.46 -37947462.35 -37947462.23 0.0088 0.0055

Mercury -108608-10-02 05:16 J -37947374.38 -37947374.28 -37947374.17 0.0088 0.0060

Mercury -108608-12-29 07:12 J -37947286.30 -37947286.20 -37947286.10 0.0088 0.0064

Mercury -108607-03-27 08:38 J -37947198.22 -37947198.14 -37947198.04 0.0088 0.0068

Mercury -108607-06-23 10:19 J -37947110.14 -37947110.07 -37947109.98 0.0088 0.0072

Mercury -108607-09-19 12:00 J -37947022.06 -37947022.00 -37947021.92 0.0088 0.0076

Mercury -108607-12-16 13:40 J -37946933.97 -37946933.93 -37946933.86 0.0088 0.0081

Mercury -108606-03-14 15:21 J -37946845.89 -37946845.86 -37946845.81 0.0088 0.0085

Venus -108592-10-01 18:14 J -37941530.78 -37941530.74 -37941530.65 0.0088 0.0084

Venus -108591-05-15 06:28 J -37941305.31 -37941305.23 -37941305.11 0.0088 0.0078

Venus -108591-12-26 18:28 J -37941079.83 -37941079.73 -37941079.58 0.0088 0.0072

Venus -108590-08-09 06:43 J -37940854.35 -37940854.22 -37940854.06 0.0088 0.0065

Venus -108589-03-21 18:43 J -37940628.86 -37940628.72 -37940628.54 0.0088 0.0059

Venus -108589-11-02 07:12 J -37940403.37 -37940403.20 -37940403.02 0.0088 0.0052

Venus -108588-06-15 18:57 J -37940177.88 -37940177.71 -37940177.51 0.0088 0.0045

Venus -108587-01-27 06:57 J -37939952.39 -37939952.21 -37939952.00 0.0088 0.0039

Venus	-108587-09-09 19:12 J	-37939726.90	-37939726.70	-37939726.50	0.0088	0.0032
Venus	-108586-04-23 07:12 J	-37939501.40	-37939501.20	-37939500.99	0.0088	0.0025
Venus	-108586-12-04 19:12 J	-37939275.91	-37939275.70	-37939275.49	0.0088	0.0019
Venus	-108585-07-17 06:57 J	-37939050.42	-37939050.21	-37939049.99	0.0088	0.0012
Venus	-108584-02-27 19:12 J	-37938824.92	-37938824.70	-37938824.49	0.0088	0.0005
Venus	-108584-10-11 06:57 J	-37938599.42	-37938599.21	-37938598.99	0.0088	0.0002
Venus	-108583-05-24 18:57 J	-37938373.92	-37938373.71	-37938373.49	0.0088	0.0008
Venus	-108582-01-05 06:57 J	-37938148.42	-37938148.21	-37938148.00	0.0088	0.0015
Venus	-108582-08-18 18:28 J	-37937922.93	-37937922.73	-37937922.51	0.0088	0.0022
Venus	-108581-03-31 06:28 J	-37937697.42	-37937697.23	-37937697.02	0.0088	0.0028
Venus	-108581-11-11 18:14 J	-37937471.93	-37937471.74	-37937471.53	0.0088	0.0035
Venus	-108580-06-25 06:00 J	-37937246.43	-37937246.25	-37937246.05	0.0088	0.0041
Venus	-108579-02-05 17:45 J	-37937020.93	-37937020.76	-37937020.57	0.0088	0.0048
Venus	-108579-09-19 05:16 J	-37936795.43	-37936795.28	-37936795.09	0.0088	0.0054
Venus	-108578-05-02 17:02 J	-37936569.93	-37936569.79	-37936569.62	0.0088	0.0061
Venus	-108578-12-14 05:02 J	-37936344.42	-37936344.29	-37936344.15	0.0088	0.0067
Venus	-108577-07-26 16:19 J	-37936118.92	-37936118.82	-37936118.68	0.0088	0.0073
Venus	-108576-03-09 04:04 J	-37935893.41	-37935893.33	-37935893.22	0.0088	0.0080
Venus	-108576-10-20 15:50 J	-37935667.88	-37935667.84	-37935667.78	0.0088	0.0086
Moon	-108570-07-24 10:48 J	-37933565.16	-37933565.05	-37933564.90	0.0088	0.0077
Earth	-108570-07-24 11:45 J	-37933565.08	-37933565.01	-37933564.90	0.0088	0.0082 *
Earth	-108569-07-25 18:43 J	-37933197.90	-37933197.72	-37933197.50	0.0088	0.0051
Moon	-108569-07-25 21:07 J	-37933197.80	-37933197.62	-37933197.42	0.0088	0.0056 *
Moon	-108568-07-27 23:02 J	-37932830.78	-37932830.54	-37932830.28	0.0088	0.0017
Earth	-108568-07-28 02:09 J	-37932830.65	-37932830.41	-37932830.17	0.0088	0.0021 *
Earth	-108567-07-30 08:38 J	-37932463.38	-37932463.14	-37932462.89	0.0088	0.0010
Moon	-108567-07-30 12:14 J	-37932463.23	-37932462.99	-37932462.74	0.0088	0.0005 *
Moon	-108566-08-01 12:14 J	-37932096.19	-37932095.99	-37932095.76	0.0088	0.0045
Earth	-108566-08-01 15:36 J	-37932096.07	-37932095.85	-37932095.62	0.0088	0.0040 *
Earth	-108565-08-02 21:50 J	-37931728.71	-37931728.59	-37931728.41	0.0088	0.0071

Moon -108565-08-03 00:57 J -37931728.61 -37931728.46 -37931728.27 0.0088 0.0066 *
 Mars -108556-05-13 23:02 J -37928522.72 -37928522.54 -37928522.36 0.0089 0.0074
 Mars -108554-04-10 00:00 J -37927826.78 -37927826.50 -37927826.18 0.0089 0.0042
 Mars -108552-03-06 01:12 J -37927130.78 -37927130.45 -37927130.11 0.0089 0.0009
 Mars -108550-01-31 01:40 J -37926434.75 -37926434.43 -37926434.10 0.0089 0.0024
 Mars -108549-12-27 01:40 J -37925738.66 -37925738.43 -37925738.14 0.0089 0.0057
 Mars -108547-11-23 02:09 J -37925042.41 -37925042.41 -37925042.40 0.0089 0.0089
 Mercury -108533-09-26 14:52 J -37919985.89 -37919985.88 -37919985.83 0.0089 0.0087
 Mercury -108533-12-23 17:31 J -37919897.82 -37919897.77 -37919897.70 0.0089 0.0082
 Mercury -108532-03-21 19:40 J -37919809.74 -37919809.68 -37919809.59 0.0089 0.0078
 Mercury -108532-06-17 22:04 J -37919721.65 -37919721.58 -37919721.47 0.0089 0.0073
 Mercury -108532-09-14 00:43 J -37919633.57 -37919633.47 -37919633.36 0.0089 0.0068
 Mercury -108532-12-11 03:21 J -37919545.47 -37919545.36 -37919545.24 0.0089 0.0063
 Mercury -108531-03-09 05:31 J -37919457.38 -37919457.27 -37919457.13 0.0089 0.0059
 Mercury -108531-06-05 07:55 J -37919369.29 -37919369.17 -37919369.02 0.0089 0.0054
 Mercury -108531-09-01 10:33 J -37919281.19 -37919281.06 -37919280.91 0.0089 0.0049
 Mercury -108531-11-28 12:57 J -37919193.09 -37919192.96 -37919192.80 0.0089 0.0044
 Mercury -108530-02-24 15:36 J -37919104.99 -37919104.85 -37919104.69 0.0089 0.0039
 Mercury -108530-05-23 18:14 J -37919016.89 -37919016.74 -37919016.59 0.0089 0.0034
 Mercury -108530-08-19 20:38 J -37918928.79 -37918928.64 -37918928.48 0.0089 0.0029
 Mercury -108530-11-15 23:16 J -37918840.69 -37918840.53 -37918840.37 0.0089 0.0024
 Mercury -108529-02-12 01:55 J -37918752.59 -37918752.42 -37918752.26 0.0089 0.0019
 Mercury -108529-05-10 04:19 J -37918664.48 -37918664.32 -37918664.15 0.0089 0.0014
 Mercury -108529-08-06 06:57 J -37918576.38 -37918576.21 -37918576.04 0.0089 0.0009
 Mercury -108529-11-02 09:36 J -37918488.27 -37918488.10 -37918487.93 0.0089 0.0004
 Mercury -108528-01-29 12:00 J -37918400.16 -37918400.00 -37918399.83 0.0089 0.0003
 Mercury -108528-04-27 14:38 J -37918312.06 -37918311.89 -37918311.72 0.0089 0.0006
 Mercury -108528-07-24 17:16 J -37918223.95 -37918223.78 -37918223.61 0.0089 0.0011
 Mercury -108528-10-20 19:40 J -37918135.84 -37918135.68 -37918135.50 0.0089 0.0017
 Mercury -108527-01-16 22:19 J -37918047.72 -37918047.57 -37918047.39 0.0089 0.0022

Mercury -108527-04-15 00:57 J -37917959.61 -37917959.46 -37917959.29 0.0089 0.0027

Mercury -108527-07-12 03:50 J -37917871.50 -37917871.34 -37917871.18 0.0089 0.0032

Mercury -108527-10-08 06:28 J -37917783.38 -37917783.23 -37917783.07 0.0089 0.0037

Mercury -108526-01-04 09:07 J -37917695.27 -37917695.12 -37917694.96 0.0089 0.0042

Mercury -108526-04-02 12:00 J -37917607.15 -37917607.00 -37917606.86 0.0089 0.0047

Mercury -108526-06-29 14:24 J -37917519.03 -37917518.90 -37917518.75 0.0089 0.0053

Mercury -108526-09-25 17:02 J -37917430.91 -37917430.79 -37917430.65 0.0089 0.0058

Mercury -108526-12-22 19:55 J -37917342.78 -37917342.67 -37917342.54 0.0089 0.0063

Mercury -108525-03-19 22:48 J -37917254.66 -37917254.55 -37917254.44 0.0089 0.0068

Mercury -108525-06-16 01:12 J -37917166.53 -37917166.45 -37917166.34 0.0089 0.0074

Mercury -108525-09-12 04:04 J -37917078.40 -37917078.33 -37917078.24 0.0089 0.0079

Mercury -108525-12-09 06:57 J -37916990.26 -37916990.21 -37916990.15 0.0089 0.0084

Venus -108510-11-13 13:12 J -37911537.97 -37911537.95 -37911537.92 0.0089 0.0088

Venus -108509-06-26 02:24 J -37911312.46 -37911312.40 -37911312.28 0.0089 0.0082

Venus -108508-02-06 16:33 J -37911086.91 -37911086.81 -37911086.67 0.0089 0.0075

Venus -108508-09-20 06:43 J -37910861.35 -37910861.22 -37910861.06 0.0089 0.0068

Venus -108507-05-03 20:38 J -37910635.79 -37910635.64 -37910635.47 0.0089 0.0061

Venus -108507-12-15 10:33 J -37910410.23 -37910410.06 -37910409.87 0.0089 0.0054

Venus -108506-07-29 00:28 J -37910184.66 -37910184.48 -37910184.28 0.0089 0.0047

Venus -108505-03-10 14:24 J -37909959.09 -37909958.90 -37909958.69 0.0089 0.0040

Venus -108505-10-22 04:33 J -37909733.51 -37909733.31 -37909733.09 0.0089 0.0033

Venus -108504-06-04 18:43 J -37909507.93 -37909507.72 -37909507.50 0.0089 0.0026

Venus -108503-01-16 08:38 J -37909282.35 -37909282.14 -37909281.91 0.0089 0.0019

Venus -108503-08-29 22:48 J -37909056.77 -37909056.55 -37909056.32 0.0089 0.0012

Venus -108502-04-12 12:57 J -37908831.18 -37908830.96 -37908830.73 0.0089 0.0005

Venus -108502-11-24 03:07 J -37908605.60 -37908605.37 -37908605.15 0.0089 0.0002

Venus -108501-07-06 17:02 J -37908380.01 -37908379.79 -37908379.56 0.0089 0.0010

Venus -108500-02-17 06:57 J -37908154.42 -37908154.21 -37908153.97 0.0089 0.0017

Venus -108500-09-30 21:21 J -37907928.82 -37907928.61 -37907928.38 0.0089 0.0024

Venus -108499-05-14 11:31 J -37907703.22 -37907703.02 -37907702.80 0.0089 0.0031

Venus -108499-12-26 01:40 J -37907477.63 -37907477.43 -37907477.22 0.0089 0.0038
 Venus -108498-08-08 15:50 J -37907252.03 -37907251.84 -37907251.64 0.0089 0.0045
 Venus -108497-03-21 06:00 J -37907026.42 -37907026.25 -37907026.05 0.0089 0.0052
 Venus -108497-11-01 20:24 J -37906800.80 -37906800.65 -37906800.47 0.0089 0.0059
 Venus -108496-06-15 10:48 J -37906575.19 -37906575.05 -37906574.89 0.0089 0.0066
 Venus -108495-01-27 01:12 J -37906349.57 -37906349.45 -37906349.31 0.0089 0.0073
 Venus -108495-09-09 15:21 J -37906123.94 -37906123.86 -37906123.75 0.0089 0.0080
 Venus -108494-04-23 05:45 J -37905898.28 -37905898.26 -37905898.20 0.0089 0.0087
 Earth -108487-01-23 14:09 J -37903431.04 -37903430.91 -37903430.74 0.0089 0.0073
 Moon -108487-01-23 16:33 J -37903430.95 -37903430.81 -37903430.63 0.0089 0.0070 *
 Moon -108486-01-26 03:36 J -37903063.57 -37903063.35 -37903063.09 0.0089 0.0043
 Earth -108486-01-26 07:26 J -37903063.43 -37903063.19 -37903062.95 0.0089 0.0039 *
 Earth -108485-01-29 00:00 J -37902695.77 -37902695.50 -37902695.23 0.0089 0.0006
 Moon -108485-01-29 03:36 J -37902695.61 -37902695.35 -37902695.08 0.0089 0.0003 *
 Moon -108484-01-30 12:57 J -37902328.21 -37902327.96 -37902327.69 0.0089 0.0024
 Earth -108484-01-30 16:33 J -37902328.06 -37902327.81 -37902327.55 0.0089 0.0028 *
 Earth -108483-02-02 08:38 J -37901960.30 -37901960.14 -37901959.92 0.0089 0.0062
 Moon -108483-02-02 12:28 J -37901960.14 -37901959.98 -37901959.78 0.0089 0.0066 *
 Mars -108474-03-08 12:43 J -37898639.13 -37898638.97 -37898638.74 0.0089 0.0066
 Mars -108472-01-30 11:02 J -37897945.31 -37897945.04 -37897944.77 0.0089 0.0037
 Mars -108471-12-25 07:26 J -37897251.48 -37897251.19 -37897250.89 0.0089 0.0009
 Mars -108469-11-18 04:19 J -37896557.59 -37896557.32 -37896557.02 0.0089 0.0021
 Mars -108467-10-13 02:09 J -37895863.64 -37895863.41 -37895863.15 0.0089 0.0049
 Mars -108465-09-05 22:33 J -37895169.67 -37895169.56 -37895169.38 0.0089 0.0078
 Mercury -108451-07-14 14:24 J -37890109.93 -37890109.90 -37890109.86 0.0088 0.0086
 Mercury -108451-10-10 16:19 J -37890021.87 -37890021.82 -37890021.75 0.0088 0.0081
 Mercury -108450-01-06 18:14 J -37889933.80 -37889933.74 -37889933.65 0.0088 0.0077
 Mercury -108450-04-04 20:09 J -37889845.73 -37889845.66 -37889845.56 0.0088 0.0072
 Mercury -108450-07-01 22:19 J -37889757.66 -37889757.57 -37889757.47 0.0088 0.0068
 Mercury -108450-09-28 00:28 J -37889669.59 -37889669.48 -37889669.38 0.0088 0.0063

Mercury -108450-12-25 02:09 J -37889581.51 -37889581.41 -37889581.29 0.0088 0.0059

Mercury -108449-03-22 04:19 J -37889493.44 -37889493.32 -37889493.20 0.0088 0.0054

Mercury -108449-06-18 06:00 J -37889405.36 -37889405.25 -37889405.11 0.0088 0.0050

Mercury -108449-09-14 08:09 J -37889317.29 -37889317.16 -37889317.03 0.0088 0.0045

Mercury -108449-12-11 09:50 J -37889229.21 -37889229.09 -37889228.95 0.0088 0.0041

Mercury -108448-03-09 12:00 J -37889141.14 -37889141.00 -37889140.86 0.0088 0.0036

Mercury -108448-06-05 13:40 J -37889053.06 -37889052.93 -37889052.78 0.0088 0.0032

Mercury -108448-09-01 15:50 J -37888964.99 -37888964.84 -37888964.70 0.0088 0.0027

Mercury -108448-11-28 17:31 J -37888876.91 -37888876.77 -37888876.62 0.0088 0.0022

Mercury -108447-02-24 19:26 J -37888788.83 -37888788.69 -37888788.54 0.0088 0.0018

Mercury -108447-05-23 21:21 J -37888700.76 -37888700.61 -37888700.46 0.0088 0.0013

Mercury -108447-08-19 23:16 J -37888612.68 -37888612.53 -37888612.38 0.0088 0.0009

Mercury -108447-11-16 00:57 J -37888524.60 -37888524.46 -37888524.31 0.0088 0.0005

Mercury -108446-02-12 02:52 J -37888436.53 -37888436.38 -37888436.23 0.0088 0.0000

Mercury -108446-05-11 04:48 J -37888348.45 -37888348.30 -37888348.15 0.0088 0.0004

Mercury -108446-08-07 06:28 J -37888260.37 -37888260.23 -37888260.08 0.0088 0.0009

Mercury -108446-11-03 08:24 J -37888172.30 -37888172.15 -37888172.00 0.0088 0.0013

Mercury -108445-01-30 10:04 J -37888084.22 -37888084.08 -37888083.93 0.0088 0.0017

Mercury -108445-04-27 12:00 J -37887996.14 -37887996.00 -37887995.86 0.0088 0.0022

Mercury -108445-07-24 13:40 J -37887908.07 -37887907.93 -37887907.78 0.0088 0.0026

Mercury -108445-10-20 15:21 J -37887819.99 -37887819.86 -37887819.71 0.0088 0.0031

Mercury -108444-01-16 17:16 J -37887731.91 -37887731.78 -37887731.64 0.0088 0.0035

Mercury -108444-04-14 18:43 J -37887643.84 -37887643.72 -37887643.57 0.0088 0.0040

Mercury -108444-07-11 20:38 J -37887555.76 -37887555.64 -37887555.50 0.0088 0.0043

Mercury -108444-10-07 22:33 J -37887467.68 -37887467.56 -37887467.43 0.0088 0.0047

Mercury -108443-01-04 00:14 J -37887379.60 -37887379.49 -37887379.37 0.0088 0.0052

Mercury -108443-04-02 02:09 J -37887291.52 -37887291.41 -37887291.30 0.0088 0.0056

Mercury -108443-06-29 03:36 J -37887203.45 -37887203.35 -37887203.23 0.0088 0.0060

Mercury -108443-09-25 05:16 J -37887115.37 -37887115.28 -37887115.17 0.0088 0.0064

Mercury -108443-12-22 06:57 J -37887027.29 -37887027.21 -37887027.11 0.0088 0.0069

Mercury -108442-03-20 08:52 J -37886939.21 -37886939.13 -37886939.04 0.0088 0.0072

Mercury -108442-06-16 10:33 J -37886851.12 -37886851.06 -37886850.98 0.0088 0.0077

Mercury -108442-09-12 12:14 J -37886763.04 -37886762.99 -37886762.93 0.0088 0.0081

Mercury -108442-12-09 13:55 J -37886674.95 -37886674.92 -37886674.87 0.0088 0.0085

Venus -108427-01-03 01:40 J -37881536.46 -37881536.43 -37881536.35 0.0088 0.0085

Venus -108427-08-16 14:09 J -37881310.99 -37881310.91 -37881310.80 0.0088 0.0079

Venus -108426-03-30 02:09 J -37881085.51 -37881085.41 -37881085.26 0.0088 0.0073

Venus -108426-11-10 14:38 J -37880860.02 -37880859.89 -37880859.73 0.0088 0.0066

Venus -108425-06-23 02:24 J -37880634.54 -37880634.40 -37880634.22 0.0088 0.0060

Venus -108424-02-03 14:38 J -37880409.05 -37880408.89 -37880408.70 0.0088 0.0053

Venus -108424-09-17 03:07 J -37880183.55 -37880183.37 -37880183.19 0.0088 0.0046

Venus -108423-04-30 14:52 J -37879958.06 -37879957.88 -37879957.67 0.0088 0.0039

Venus -108423-12-12 03:07 J -37879732.57 -37879732.37 -37879732.17 0.0088 0.0032

Venus -108422-07-25 14:52 J -37879507.08 -37879506.88 -37879506.66 0.0088 0.0026

Venus -108421-03-07 03:07 J -37879281.58 -37879281.37 -37879281.16 0.0088 0.0019

Venus -108421-10-18 15:07 J -37879056.08 -37879055.87 -37879055.65 0.0088 0.0012

Venus -108420-06-01 03:07 J -37878830.58 -37878830.37 -37878830.15 0.0088 0.0006

Venus -108419-01-12 15:07 J -37878605.09 -37878604.87 -37878604.66 0.0088 0.0002

Venus -108419-08-26 02:52 J -37878379.59 -37878379.38 -37878379.16 0.0088 0.0008

Venus -108418-04-08 14:52 J -37878154.09 -37878153.88 -37878153.66 0.0088 0.0014

Venus -108418-11-20 02:38 J -37877928.59 -37877928.39 -37877928.17 0.0088 0.0021

Venus -108417-07-02 14:38 J -37877703.09 -37877702.89 -37877702.68 0.0088 0.0028

Venus -108416-02-13 02:24 J -37877477.59 -37877477.40 -37877477.19 0.0088 0.0034

Venus -108416-09-26 14:24 J -37877252.09 -37877251.90 -37877251.71 0.0088 0.0041

Venus -108415-05-10 02:09 J -37877026.58 -37877026.41 -37877026.22 0.0088 0.0047

Venus -108415-12-21 13:40 J -37876801.08 -37876800.93 -37876800.74 0.0088 0.0054

Venus -108414-08-04 01:26 J -37876575.58 -37876575.44 -37876575.27 0.0088 0.0061

Venus -108413-03-16 13:26 J -37876350.07 -37876349.94 -37876349.79 0.0088 0.0067

Venus -108413-10-28 00:57 J -37876124.56 -37876124.46 -37876124.33 0.0088 0.0073

Venus -108412-06-10 12:43 J -37875899.04 -37875898.97 -37875898.86 0.0088 0.0080

Venus -108411-01-22 00:43 J -37875673.52 -37875673.47 -37875673.42 0.0088 0.0086
 Moon -108405-07-24 23:02 J -37873297.66 -37873297.54 -37873297.36 0.0088 0.0071
 Earth -108405-07-25 02:52 J -37873297.52 -37873297.38 -37873297.21 0.0088 0.0069 *
 Earth -108404-07-27 09:50 J -37872930.30 -37872930.09 -37872929.86 0.0088 0.0038
 Moon -108404-07-27 12:57 J -37872930.17 -37872929.96 -37872929.72 0.0088 0.0038 *
 Moon -108403-07-29 14:09 J -37872563.15 -37872562.91 -37872562.67 0.0088 0.0009
 Earth -108403-07-29 17:02 J -37872563.03 -37872562.79 -37872562.54 0.0088 0.0008 *
 Earth -108402-07-31 23:45 J -37872195.74 -37872195.51 -37872195.27 0.0088 0.0022
 Moon -108402-08-01 01:26 J -37872195.68 -37872195.44 -37872195.19 0.0088 0.0024 *
 Moon -108401-08-02 06:00 J -37871828.43 -37871828.25 -37871828.04 0.0088 0.0052
 Earth -108401-08-02 06:43 J -37871828.42 -37871828.22 -37871828.02 0.0088 0.0053 *
 Moon -108400-08-04 12:57 J -37871461.03 -37871460.96 -37871460.88 0.0088 0.0084
 Earth -108400-08-04 12:57 J -37871461.01 -37871460.96 -37871460.85 0.0088 0.0084 *
 Mars -108391-11-21 01:26 J -37868065.67 -37868065.44 -37868065.16 0.0089 0.0058
 Mars -108389-10-17 02:52 J -37867369.68 -37867369.38 -37867369.03 0.0089 0.0025
 Mars -108387-09-13 04:19 J -37866673.65 -37866673.32 -37866672.97 0.0089 0.0010
 Mars -108385-08-09 04:48 J -37865977.58 -37865977.30 -37865976.99 0.0089 0.0043
 Mars -108383-07-06 05:02 J -37865281.43 -37865281.29 -37865281.08 0.0089 0.0076
 Mercury -108368-06-23 12:57 J -37859814.99 -37859814.96 -37859814.92 0.0089 0.0086
 Mercury -108368-09-19 15:07 J -37859726.92 -37859726.87 -37859726.79 0.0089 0.0082
 Mercury -108368-12-16 17:31 J -37859638.83 -37859638.77 -37859638.67 0.0089 0.0077
 Mercury -108367-03-14 20:09 J -37859550.75 -37859550.66 -37859550.56 0.0089 0.0072
 Mercury -108367-06-10 22:48 J -37859462.66 -37859462.55 -37859462.45 0.0089 0.0067
 Mercury -108367-09-07 00:43 J -37859374.57 -37859374.47 -37859374.33 0.0089 0.0063
 Mercury -108367-12-04 03:21 J -37859286.47 -37859286.36 -37859286.22 0.0089 0.0058
 Mercury -108366-03-02 05:45 J -37859198.38 -37859198.26 -37859198.11 0.0089 0.0053
 Mercury -108366-05-29 08:24 J -37859110.28 -37859110.15 -37859110.00 0.0089 0.0048
 Mercury -108366-08-25 11:02 J -37859022.19 -37859022.04 -37859021.90 0.0089 0.0043
 Mercury -108366-11-21 13:26 J -37858934.09 -37858933.94 -37858933.79 0.0089 0.0038
 Mercury -108365-02-17 16:04 J -37858845.99 -37858845.83 -37858845.68 0.0089 0.0033

Mercury -108365-05-15 18:14 J -37858757.89 -37858757.74 -37858757.57 0.0089 0.0029

Mercury -108365-08-11 20:52 J -37858669.78 -37858669.63 -37858669.46 0.0089 0.0024

Mercury -108365-11-07 23:31 J -37858581.68 -37858581.52 -37858581.35 0.0089 0.0018

Mercury -108364-02-04 01:55 J -37858493.58 -37858493.42 -37858493.25 0.0089 0.0014

Mercury -108364-05-03 04:33 J -37858405.47 -37858405.31 -37858405.14 0.0089 0.0009

Mercury -108364-07-30 07:12 J -37858317.37 -37858317.20 -37858317.03 0.0089 0.0004

Mercury -108364-10-26 09:50 J -37858229.26 -37858229.09 -37858228.92 0.0089 0.0002

Mercury -108363-01-22 12:28 J -37858141.15 -37858140.98 -37858140.81 0.0089 0.0007

Mercury -108363-04-20 14:52 J -37858053.04 -37858052.88 -37858052.71 0.0089 0.0012

Mercury -108363-07-17 17:31 J -37857964.93 -37857964.77 -37857964.60 0.0089 0.0017

Mercury -108363-10-13 20:09 J -37857876.82 -37857876.66 -37857876.49 0.0089 0.0022

Mercury -108362-01-09 22:48 J -37857788.71 -37857788.55 -37857788.38 0.0089 0.0027

Mercury -108362-04-08 01:12 J -37857700.59 -37857700.45 -37857700.28 0.0089 0.0033

Mercury -108362-07-05 03:50 J -37857612.48 -37857612.34 -37857612.17 0.0089 0.0038

Mercury -108362-10-01 06:43 J -37857524.36 -37857524.22 -37857524.06 0.0089 0.0043

Mercury -108362-12-28 09:21 J -37857436.25 -37857436.11 -37857435.96 0.0089 0.0048

Mercury -108361-03-25 12:14 J -37857348.13 -37857347.99 -37857347.85 0.0089 0.0053

Mercury -108361-06-21 14:52 J -37857260.01 -37857259.88 -37857259.75 0.0089 0.0058

Mercury -108361-09-17 17:16 J -37857171.88 -37857171.78 -37857171.64 0.0089 0.0064

Mercury -108361-12-14 20:09 J -37857083.76 -37857083.66 -37857083.54 0.0089 0.0069

Mercury -108360-03-12 23:02 J -37856995.63 -37856995.54 -37856995.44 0.0089 0.0074

Mercury -108360-06-09 01:55 J -37856907.50 -37856907.42 -37856907.35 0.0089 0.0079

Mercury -108360-09-05 04:19 J -37856819.36 -37856819.32 -37856819.26 0.0089 0.0085

Jupiter -108353-03-09 18:57 J -37854442.26 -37854441.71 -37854441.15 0.0089 0.0016

Venus -108345-09-27 10:19 J -37851318.14 -37851318.07 -37851317.98 0.0089 0.0082

Venus -108344-05-10 23:45 J -37851092.60 -37851092.51 -37851092.37 0.0089 0.0076

Venus -108344-12-22 13:26 J -37850867.05 -37850866.94 -37850866.77 0.0089 0.0069

Venus -108343-08-05 03:21 J -37850641.50 -37850641.36 -37850641.18 0.0089 0.0062

Venus -108342-03-18 17:16 J -37850415.93 -37850415.78 -37850415.58 0.0089 0.0055

Venus -108342-10-30 07:26 J -37850190.36 -37850190.19 -37850189.99 0.0089 0.0048

Venus	-108341-06-11 21:21 J	-37849964.79	-37849964.61	-37849964.39	0.0089	0.0041
Venus	-108340-01-23 11:31 J	-37849739.22	-37849739.02	-37849738.80	0.0089	0.0034
Venus	-108340-09-06 01:26 J	-37849513.64	-37849513.44	-37849513.21	0.0089	0.0027
Venus	-108339-04-19 15:50 J	-37849288.06	-37849287.84	-37849287.62	0.0089	0.0019
Venus	-108339-12-01 06:00 J	-37849062.48	-37849062.25	-37849062.03	0.0089	0.0012
Venus	-108338-07-14 19:55 J	-37848836.89	-37848836.67	-37848836.44	0.0089	0.0005
Venus	-108337-02-25 10:04 J	-37848611.31	-37848611.08	-37848610.85	0.0089	0.0002
Venus	-108337-10-08 00:14 J	-37848385.71	-37848385.49	-37848385.26	0.0089	0.0010
Venus	-108336-05-21 14:09 J	-37848160.12	-37848159.91	-37848159.67	0.0089	0.0017
Venus	-108335-01-02 04:19 J	-37847934.53	-37847934.32	-37847934.09	0.0089	0.0024
Venus	-108335-08-15 18:14 J	-37847708.93	-37847708.74	-37847708.51	0.0089	0.0031
Venus	-108334-03-29 08:24 J	-37847483.34	-37847483.15	-37847482.93	0.0089	0.0038
Venus	-108334-11-09 22:48 J	-37847257.73	-37847257.55	-37847257.34	0.0089	0.0045
Venus	-108333-06-22 12:57 J	-37847032.13	-37847031.96	-37847031.76	0.0089	0.0052
Venus	-108332-02-03 03:21 J	-37846806.52	-37846806.36	-37846806.19	0.0089	0.0059
Venus	-108332-09-16 17:31 J	-37846580.91	-37846580.77	-37846580.61	0.0089	0.0066
Venus	-108331-04-30 07:55 J	-37846355.29	-37846355.17	-37846355.04	0.0089	0.0073
Venus	-108331-12-11 22:19 J	-37846129.66	-37846129.57	-37846129.47	0.0089	0.0080
Venus	-108330-07-25 12:28 J	-37845904.01	-37845903.98	-37845903.93	0.0089	0.0087
Moon	-108323-01-22 10:19 J	-37843531.10	-37843531.07	-37843531.00	0.0089	0.0087
Earth	-108322-01-25 06:28 J	-37843163.41	-37843163.23	-37843163.00	0.0089	0.0058
Moon	-108322-01-25 10:33 J	-37843163.25	-37843163.06	-37843162.86	0.0089	0.0061 *
Moon	-108321-01-27 20:38 J	-37842795.90	-37842795.64	-37842795.38	0.0089	0.0020
Earth	-108321-01-27 23:45 J	-37842795.77	-37842795.51	-37842795.25	0.0089	0.0024 *
Earth	-108320-01-29 16:04 J	-37842428.09	-37842427.83	-37842427.56	0.0089	0.0010
Moon	-108320-01-29 18:14 J	-37842428.02	-37842427.74	-37842427.46	0.0089	0.0006 *
Moon	-108319-02-01 07:12 J	-37842060.41	-37842060.20	-37842059.96	0.0089	0.0046
Earth	-108319-02-01 08:38 J	-37842060.36	-37842060.14	-37842059.89	0.0089	0.0043 *
Moon	-108318-02-04 01:26 J	-37841692.58	-37841692.44	-37841692.27	0.0089	0.0073
Earth	-108318-02-04 00:57 J	-37841692.56	-37841692.46	-37841692.30	0.0089	0.0077 *

Mars -108311-10-21 14:52 J -37838876.01 -37838875.88 -37838875.75 0.0089 0.0079
 Mars -108309-09-14 11:31 J -37838182.23 -37838182.02 -37838181.75 0.0089 0.0051
 Mars -108307-08-09 09:07 J -37837488.39 -37837488.12 -37837487.81 0.0089 0.0022
 Mars -108305-07-03 05:45 J -37836794.55 -37836794.26 -37836793.96 0.0089 0.0008
 Mars -108303-05-28 02:24 J -37836100.66 -37836100.40 -37836100.12 0.0089 0.0037
 Mars -108301-04-21 00:14 J -37835406.67 -37835406.49 -37835406.27 0.0089 0.0066
 Mercury -108286-04-10 12:28 J -37829939.00 -37829938.98 -37829938.93 0.0088 0.0086
 Mercury -108286-07-07 14:38 J -37829850.94 -37829850.89 -37829850.82 0.0088 0.0081
 Mercury -108286-10-03 16:33 J -37829762.87 -37829762.81 -37829762.72 0.0088 0.0076
 Mercury -108286-12-30 18:28 J -37829674.80 -37829674.73 -37829674.63 0.0088 0.0072
 Mercury -108285-03-27 20:52 J -37829586.73 -37829586.63 -37829586.53 0.0088 0.0067
 Mercury -108285-06-23 22:33 J -37829498.66 -37829498.56 -37829498.44 0.0088 0.0062
 Mercury -108285-09-20 00:43 J -37829410.58 -37829410.47 -37829410.36 0.0088 0.0058
 Mercury -108285-12-17 02:24 J -37829322.51 -37829322.40 -37829322.27 0.0088 0.0054
 Mercury -108284-03-15 04:33 J -37829234.43 -37829234.31 -37829234.18 0.0088 0.0049
 Mercury -108284-06-11 06:14 J -37829146.36 -37829146.24 -37829146.10 0.0088 0.0045
 Mercury -108284-09-07 08:24 J -37829058.28 -37829058.15 -37829058.01 0.0088 0.0040
 Mercury -108284-12-04 10:04 J -37828970.21 -37828970.08 -37828969.93 0.0088 0.0036
 Mercury -108283-03-02 12:14 J -37828882.13 -37828881.99 -37828881.85 0.0088 0.0031
 Mercury -108283-05-29 13:55 J -37828794.05 -37828793.92 -37828793.77 0.0088 0.0027
 Mercury -108283-08-25 16:04 J -37828705.98 -37828705.83 -37828705.69 0.0088 0.0022
 Mercury -108283-11-21 17:45 J -37828617.90 -37828617.76 -37828617.61 0.0088 0.0017
 Mercury -108282-02-17 19:40 J -37828529.83 -37828529.68 -37828529.53 0.0088 0.0013
 Mercury -108282-05-16 21:35 J -37828441.75 -37828441.60 -37828441.45 0.0088 0.0008
 Mercury -108282-08-12 23:31 J -37828353.67 -37828353.52 -37828353.37 0.0088 0.0004
 Mercury -108282-11-09 01:11 J -37828265.59 -37828265.45 -37828265.30 0.0088 0.0003
 Mercury -108281-02-05 03:07 J -37828177.52 -37828177.37 -37828177.22 0.0088 0.0005
 Mercury -108281-05-03 05:02 J -37828089.44 -37828089.29 -37828089.15 0.0088 0.0009
 Mercury -108281-07-30 06:43 J -37828001.36 -37828001.22 -37828001.07 0.0088 0.0014
 Mercury -108281-10-26 08:24 J -37827913.29 -37827913.15 -37827913.00 0.0088 0.0019

Mercury -108280-01-22 10:19 J -37827825.21 -37827825.07 -37827824.92 0.0088 0.0022

Mercury -108280-04-20 12:14 J -37827737.13 -37827736.99 -37827736.85 0.0088 0.0027

Mercury -108280-07-17 13:55 J -37827649.06 -37827648.92 -37827648.78 0.0088 0.0031

Mercury -108280-10-13 15:35 J -37827560.98 -37827560.85 -37827560.71 0.0088 0.0035

Mercury -108279-01-09 17:31 J -37827472.90 -37827472.77 -37827472.64 0.0088 0.0039

Mercury -108279-04-07 19:11 J -37827384.82 -37827384.70 -37827384.57 0.0088 0.0044

Mercury -108279-07-04 20:52 J -37827296.74 -37827296.63 -37827296.50 0.0088 0.0048

Mercury -108279-09-30 22:33 J -37827208.67 -37827208.56 -37827208.43 0.0088 0.0052

Mercury -108279-12-28 00:14 J -37827120.59 -37827120.49 -37827120.36 0.0088 0.0057

Mercury -108278-03-26 02:09 J -37827032.51 -37827032.41 -37827032.30 0.0088 0.0061

Mercury -108278-06-22 03:50 J -37826944.43 -37826944.34 -37826944.23 0.0088 0.0065

Mercury -108278-09-18 05:45 J -37826856.35 -37826856.26 -37826856.17 0.0088 0.0069

Mercury -108278-12-15 07:11 J -37826768.27 -37826768.20 -37826768.11 0.0088 0.0073

Mercury -108277-03-12 08:52 J -37826680.19 -37826680.13 -37826680.05 0.0088 0.0077

Mercury -108277-06-08 10:33 J -37826592.10 -37826592.06 -37826591.99 0.0088 0.0082

Mercury -108277-09-04 12:14 J -37826504.01 -37826503.99 -37826503.94 0.0088 0.0086

Venus -108263-04-06 09:50 J -37821542.11 -37821542.09 -37821542.02 0.0088 0.0086

Venus -108263-11-17 22:19 J -37821316.65 -37821316.57 -37821316.46 0.0088 0.0080

Venus -108262-07-01 10:48 J -37821091.17 -37821091.05 -37821090.93 0.0088 0.0073

Venus -108261-02-11 22:33 J -37820865.68 -37820865.56 -37820865.40 0.0088 0.0067

Venus -108261-09-24 11:02 J -37820640.19 -37820640.04 -37820639.87 0.0088 0.0060

Venus -108260-05-07 23:02 J -37820414.70 -37820414.54 -37820414.35 0.0088 0.0053

Venus -108260-12-19 11:02 J -37820189.21 -37820189.04 -37820188.84 0.0088 0.0047

Venus -108259-08-01 23:16 J -37819963.71 -37819963.53 -37819963.33 0.0088 0.0040

Venus -108258-03-15 11:16 J -37819738.22 -37819738.03 -37819737.82 0.0088 0.0033

Venus -108258-10-26 23:31 J -37819512.72 -37819512.52 -37819512.31 0.0088 0.0026

Venus -108257-06-08 11:31 J -37819287.23 -37819287.02 -37819286.81 0.0088 0.0020

Venus -108256-01-19 23:16 J -37819061.73 -37819061.53 -37819061.31 0.0088 0.0013

Venus -108256-09-02 11:16 J -37818836.24 -37818836.03 -37818835.81 0.0088 0.0007

Venus -108255-04-15 23:31 J -37818610.74 -37818610.52 -37818610.31 0.0088 0.0001

Venus	-108255-11-27 11:16 J	-37818385.24	-37818385.03	-37818384.81	0.0088	0.0007
Venus	-108254-07-10 23:02 J	-37818159.75	-37818159.54	-37818159.32	0.0088	0.0014
Venus	-108253-02-21 11:02 J	-37817934.25	-37817934.04	-37817933.83	0.0088	0.0021
Venus	-108253-10-03 22:48 J	-37817708.75	-37817708.55	-37817708.34	0.0088	0.0027
Venus	-108252-05-17 10:33 J	-37817483.24	-37817483.06	-37817482.85	0.0088	0.0034
Venus	-108252-12-28 22:33 J	-37817257.74	-37817257.56	-37817257.36	0.0088	0.0041
Venus	-108251-08-11 10:04 J	-37817032.24	-37817032.08	-37817031.88	0.0088	0.0048
Venus	-108250-03-24 22:19 J	-37816806.73	-37816806.57	-37816806.39	0.0088	0.0054
Venus	-108250-11-05 09:50 J	-37816581.23	-37816581.09	-37816580.92	0.0088	0.0061
Venus	-108249-06-17 22:04 J	-37816355.72	-37816355.58	-37816355.44	0.0088	0.0067
Venus	-108248-01-29 09:21 J	-37816130.21	-37816130.11	-37816129.97	0.0088	0.0074
Venus	-108248-09-11 21:21 J	-37815904.69	-37815904.61	-37815904.51	0.0088	0.0080
Venus	-108247-04-25 08:38 J	-37815679.16	-37815679.14	-37815679.06	0.0088	0.0087
Earth	-108241-07-24 11:31 J	-37813397.07	-37813397.02	-37813396.95	0.0088	0.0086
Moon	-108241-07-24 14:09 J	-37813396.97	-37813396.91	-37813396.78	0.0088	0.0082 *
Moon	-108240-07-26 16:33 J	-37813029.97	-37813029.81	-37813029.62	0.0088	0.0060
Earth	-108240-07-26 18:14 J	-37813029.91	-37813029.74	-37813029.53	0.0088	0.0056 *
Earth	-108239-07-29 01:11 J	-37812662.67	-37812662.45	-37812662.20	0.0088	0.0026
Moon	-108239-07-29 02:09 J	-37812662.65	-37812662.41	-37812662.15	0.0088	0.0022 *
Earth	-108238-07-31 08:38 J	-37812295.39	-37812295.14	-37812294.89	0.0088	0.0005
Moon	-108238-07-31 09:07 J	-37812295.36	-37812295.12	-37812294.88	0.0088	0.0002 *
Moon	-108237-08-01 13:11 J	-37811928.16	-37811927.95	-37811927.71	0.0088	0.0040
Earth	-108237-08-01 15:35 J	-37811928.07	-37811927.85	-37811927.62	0.0088	0.0036 *
Earth	-108236-08-03 21:50 J	-37811560.72	-37811560.59	-37811560.40	0.0088	0.0067
Moon	-108236-08-04 00:57 J	-37811560.62	-37811560.46	-37811560.28	0.0088	0.0063 *
Mars	-108227-07-04 04:48 J	-37808304.46	-37808304.30	-37808304.09	0.0089	0.0074
Mars	-108225-05-30 06:28 J	-37807608.52	-37807608.23	-37807607.92	0.0089	0.0040
Mars	-108223-04-26 08:24 J	-37806912.49	-37806912.15	-37806911.81	0.0089	0.0006
Mars	-108221-03-22 09:21 J	-37806216.41	-37806216.11	-37806215.77	0.0089	0.0029
Mars	-108219-02-16 10:33 J	-37805520.29	-37805520.06	-37805519.82	0.0089	0.0062

Mercury -108203-03-20 11:02 J -37799644.08 -37799644.04 -37799643.99 0.0089 0.0085

Mercury -108203-06-16 13:11 J -37799556.00 -37799555.95 -37799555.87 0.0089 0.0081

Mercury -108203-09-12 15:35 J -37799467.92 -37799467.85 -37799467.76 0.0089 0.0076

Mercury -108203-12-09 18:14 J -37799379.83 -37799379.74 -37799379.64 0.0089 0.0071

Mercury -108202-03-07 20:24 J -37799291.75 -37799291.65 -37799291.53 0.0089 0.0067

Mercury -108202-06-03 22:48 J -37799203.65 -37799203.55 -37799203.42 0.0089 0.0062

Mercury -108202-08-31 01:26 J -37799115.56 -37799115.44 -37799115.31 0.0089 0.0057

Mercury -108202-11-27 03:50 J -37799027.47 -37799027.34 -37799027.20 0.0089 0.0052

Mercury -108201-02-23 06:28 J -37798939.37 -37798939.23 -37798939.09 0.0089 0.0047

Mercury -108201-05-21 08:52 J -37798851.27 -37798851.13 -37798850.98 0.0089 0.0042

Mercury -108201-08-17 11:02 J -37798763.17 -37798763.04 -37798762.87 0.0089 0.0038

Mercury -108201-11-13 13:40 J -37798675.08 -37798674.93 -37798674.77 0.0089 0.0033

Mercury -108200-02-09 16:19 J -37798586.97 -37798586.82 -37798586.66 0.0089 0.0028

Mercury -108200-05-08 18:43 J -37798498.87 -37798498.72 -37798498.55 0.0089 0.0023

Mercury -108200-08-04 21:21 J -37798410.77 -37798410.61 -37798410.44 0.0089 0.0018

Mercury -108200-11-01 00:00 J -37798322.67 -37798322.50 -37798322.33 0.0089 0.0013

Mercury -108199-01-28 02:24 J -37798234.56 -37798234.40 -37798234.23 0.0089 0.0008

Mercury -108199-04-26 05:02 J -37798146.46 -37798146.29 -37798146.12 0.0089 0.0003

Mercury -108199-07-23 07:40 J -37798058.35 -37798058.18 -37798058.01 0.0089 0.0002

Mercury -108199-10-19 10:19 J -37797970.24 -37797970.07 -37797969.90 0.0089 0.0008

Mercury -108198-01-15 12:43 J -37797882.13 -37797881.97 -37797881.80 0.0089 0.0013

Mercury -108198-04-13 15:21 J -37797794.02 -37797793.86 -37797793.69 0.0089 0.0018

Mercury -108198-07-10 18:00 J -37797705.91 -37797705.75 -37797705.58 0.0089 0.0023

Mercury -108198-10-06 20:38 J -37797617.80 -37797617.64 -37797617.48 0.0089 0.0028

Mercury -108197-01-02 23:16 J -37797529.68 -37797529.53 -37797529.37 0.0089 0.0033

Mercury -108197-03-31 01:40 J -37797441.57 -37797441.43 -37797441.26 0.0089 0.0039

Mercury -108197-06-27 04:19 J -37797353.45 -37797353.32 -37797353.16 0.0089 0.0044

Mercury -108197-09-23 07:11 J -37797265.33 -37797265.20 -37797265.05 0.0089 0.0049

Mercury -108197-12-20 09:50 J -37797177.22 -37797177.09 -37797176.94 0.0089 0.0054

Mercury -108196-03-18 12:43 J -37797089.09 -37797088.97 -37797088.84 0.0089 0.0059

Mercury -108196-06-14 15:07 J -37797000.97 -37797000.87 -37797000.74 0.0089 0.0065

Mercury -108196-09-10 17:45 J -37796912.85 -37796912.76 -37796912.64 0.0089 0.0070

Mercury -108196-12-07 20:38 J -37796824.72 -37796824.64 -37796824.54 0.0089 0.0075

Mercury -108195-03-05 23:31 J -37796736.58 -37796736.52 -37796736.44 0.0089 0.0080

Mercury -108195-06-02 01:55 J -37796648.44 -37796648.42 -37796648.35 0.0089 0.0086

Venus -108181-12-29 17:31 J -37791323.83 -37791323.77 -37791323.68 0.0089 0.0083

Venus -108180-08-12 07:26 J -37791098.30 -37791098.19 -37791098.07 0.0089 0.0076

Venus -108179-03-25 21:21 J -37790872.75 -37790872.61 -37790872.47 0.0089 0.0069

Venus -108179-11-06 11:02 J -37790647.19 -37790647.04 -37790646.88 0.0089 0.0062

Venus -108178-06-20 00:57 J -37790421.63 -37790421.46 -37790421.28 0.0089 0.0055

Venus -108177-01-31 14:52 J -37790196.07 -37790195.88 -37790195.69 0.0089 0.0048

Venus -108177-09-13 04:48 J -37789970.49 -37789970.30 -37789970.10 0.0089 0.0041

Venus -108176-04-26 18:43 J -37789744.92 -37789744.72 -37789744.51 0.0089 0.0034

Venus -108176-12-08 08:38 J -37789519.35 -37789519.14 -37789518.92 0.0089 0.0027

Venus -108175-07-21 22:33 J -37789293.77 -37789293.56 -37789293.33 0.0089 0.0020

Venus -108174-03-04 12:43 J -37789068.19 -37789067.97 -37789067.74 0.0089 0.0013

Venus -108174-10-16 03:07 J -37788842.59 -37788842.37 -37788842.14 0.0089 0.0005

Venus -108173-05-28 17:16 J -37788617.01 -37788616.78 -37788616.55 0.0089 0.0002

Venus -108172-01-09 07:11 J -37788391.42 -37788391.20 -37788390.97 0.0089 0.0009

Venus -108172-08-22 21:21 J -37788165.83 -37788165.61 -37788165.38 0.0089 0.0016

Venus -108171-04-05 11:16 J -37787940.23 -37787940.03 -37787939.80 0.0089 0.0024

Venus -108171-11-17 01:40 J -37787714.63 -37787714.43 -37787714.21 0.0089 0.0031

Venus -108170-06-30 15:50 J -37787489.04 -37787488.84 -37787488.63 0.0089 0.0038

Venus -108169-02-11 06:00 J -37787263.43 -37787263.25 -37787263.05 0.0089 0.0045

Venus -108169-09-23 20:24 J -37787037.83 -37787037.65 -37787037.46 0.0089 0.0052

Venus -108168-05-07 10:33 J -37786812.22 -37786812.06 -37786811.88 0.0089 0.0059

Venus -108168-12-19 00:57 J -37786586.61 -37786586.46 -37786586.31 0.0089 0.0066

Venus -108167-08-01 14:38 J -37786360.99 -37786360.89 -37786360.74 0.0089 0.0074

Venus -108166-03-15 04:48 J -37786135.37 -37786135.30 -37786135.18 0.0089 0.0081

Venus -108166-10-26 19:11 J -37785909.71 -37785909.70 -37785909.63 0.0089 0.0088

Moon -108158-01-24 06:28 J -37783263.36 -37783263.23 -37783263.09 0.0089 0.0075
 Earth -108158-01-24 07:11 J -37783263.31 -37783263.20 -37783263.03 0.0089 0.0076 *
 Earth -108157-01-27 00:00 J -37782895.72 -37782895.50 -37782895.25 0.0089 0.0042
 Moon -108157-01-27 00:43 J -37782895.69 -37782895.47 -37782895.21 0.0089 0.0044 *
 Earth -108156-01-28 17:02 J -37782528.05 -37782527.79 -37782527.52 0.0089 0.0008
 Moon -108156-01-28 17:45 J -37782528.01 -37782527.76 -37782527.49 0.0089 0.0007 *
 Moon -108155-01-31 07:40 J -37782160.44 -37782160.18 -37782159.90 0.0089 0.0024
 Earth -108155-01-31 09:21 J -37782160.35 -37782160.11 -37782159.83 0.0089 0.0026 *
 Earth -108154-02-03 01:55 J -37781792.61 -37781792.42 -37781792.21 0.0089 0.0059
 Moon -108154-02-03 04:04 J -37781792.50 -37781792.33 -37781792.12 0.0089 0.0062 *
 Mars -108145-04-29 14:38 J -37778419.09 -37778418.89 -37778418.68 0.0089 0.0064
 Mars -108143-03-24 11:16 J -37777725.28 -37777725.03 -37777724.74 0.0089 0.0035
 Mars -108141-02-16 09:50 J -37777031.38 -37777031.09 -37777030.79 0.0089 0.0005
 Mars -108139-01-10 06:14 J -37776337.51 -37776337.24 -37776336.95 0.0089 0.0025
 Mars -108138-12-05 02:09 J -37775643.61 -37775643.41 -37775643.15 0.0089 0.0055
 Mars -108136-10-28 23:45 J -37774949.58 -37774949.51 -37774949.39 0.0089 0.0084
 Mercury -108121-01-05 11:02 J -37769768.07 -37769768.04 -37769767.98 0.0088 0.0085
 Mercury -108121-04-02 13:11 J -37769680.01 -37769679.95 -37769679.88 0.0088 0.0080
 Mercury -108121-06-29 15:07 J -37769591.94 -37769591.87 -37769591.78 0.0088 0.0075
 Mercury -108121-09-25 17:16 J -37769503.86 -37769503.78 -37769503.68 0.0088 0.0071
 Mercury -108121-12-22 19:26 J -37769415.79 -37769415.69 -37769415.59 0.0088 0.0066
 Mercury -108120-03-20 21:07 J -37769327.72 -37769327.62 -37769327.50 0.0088 0.0062
 Mercury -108120-06-16 23:16 J -37769239.64 -37769239.53 -37769239.41 0.0088 0.0057
 Mercury -108120-09-13 00:57 J -37769151.57 -37769151.46 -37769151.32 0.0088 0.0053
 Mercury -108120-12-10 03:07 J -37769063.49 -37769063.37 -37769063.24 0.0088 0.0048
 Mercury -108119-03-08 04:48 J -37768975.42 -37768975.30 -37768975.15 0.0088 0.0044
 Mercury -108119-06-04 06:57 J -37768887.34 -37768887.21 -37768887.07 0.0088 0.0039
 Mercury -108119-08-31 08:52 J -37768799.26 -37768799.13 -37768798.99 0.0088 0.0034
 Mercury -108119-11-27 10:48 J -37768711.19 -37768711.05 -37768710.90 0.0088 0.0030
 Mercury -108118-02-23 12:43 J -37768623.11 -37768622.97 -37768622.82 0.0088 0.0025

Mercury -108118-05-22 14:38 J -37768535.04 -37768534.89 -37768534.74 0.0088 0.0021

Mercury -108118-08-18 16:33 J -37768446.96 -37768446.81 -37768446.66 0.0088 0.0016

Mercury -108118-11-14 18:28 J -37768358.88 -37768358.73 -37768358.58 0.0088 0.0012

Mercury -108117-02-10 20:24 J -37768270.80 -37768270.65 -37768270.51 0.0088 0.0008

Mercury -108117-05-08 22:04 J -37768182.73 -37768182.58 -37768182.43 0.0088 0.0003

Mercury -108117-08-05 00:00 J -37768094.65 -37768094.50 -37768094.35 0.0088 0.0002

Mercury -108117-11-01 01:40 J -37768006.57 -37768006.43 -37768006.28 0.0088 0.0007

Mercury -108116-01-28 03:35 J -37767918.50 -37767918.35 -37767918.20 0.0088 0.0010

Mercury -108116-04-26 05:31 J -37767830.42 -37767830.27 -37767830.13 0.0088 0.0015

Mercury -108116-07-23 07:11 J -37767742.34 -37767742.20 -37767742.05 0.0088 0.0019

Mercury -108116-10-19 08:52 J -37767654.26 -37767654.13 -37767653.98 0.0088 0.0024

Mercury -108115-01-15 10:48 J -37767566.19 -37767566.05 -37767565.91 0.0088 0.0028

Mercury -108115-04-13 12:43 J -37767478.11 -37767477.97 -37767477.83 0.0088 0.0032

Mercury -108115-07-10 14:09 J -37767390.03 -37767389.91 -37767389.76 0.0088 0.0037

Mercury -108115-10-06 16:04 J -37767301.95 -37767301.83 -37767301.69 0.0088 0.0040

Mercury -108114-01-02 18:00 J -37767213.88 -37767213.75 -37767213.62 0.0088 0.0045

Mercury -108114-03-31 19:40 J -37767125.80 -37767125.68 -37767125.56 0.0088 0.0049

Mercury -108114-06-27 21:07 J -37767037.72 -37767037.62 -37767037.49 0.0088 0.0054

Mercury -108114-09-23 23:02 J -37766949.64 -37766949.54 -37766949.42 0.0088 0.0057

Mercury -108114-12-21 00:43 J -37766861.56 -37766861.47 -37766861.35 0.0088 0.0062

Mercury -108113-03-18 02:38 J -37766773.48 -37766773.39 -37766773.29 0.0088 0.0066

Mercury -108113-06-14 04:19 J -37766685.40 -37766685.32 -37766685.23 0.0088 0.0070

Mercury -108113-09-10 06:14 J -37766597.32 -37766597.24 -37766597.16 0.0088 0.0074

Mercury -108113-12-07 07:26 J -37766509.24 -37766509.19 -37766509.11 0.0088 0.0079

Mercury -108112-03-05 09:07 J -37766421.15 -37766421.12 -37766421.05 0.0088 0.0083

Mercury -108112-06-01 11:02 J -37766333.06 -37766333.04 -37766333.00 0.0088 0.0086

Venus -108099-07-08 18:14 J -37761547.75 -37761547.74 -37761547.68 0.0088 0.0087

Venus -108098-02-19 06:43 J -37761322.29 -37761322.22 -37761322.11 0.0088 0.0081

Venus -108098-10-02 19:11 J -37761096.81 -37761096.70 -37761096.57 0.0088 0.0074

Venus -108097-05-15 07:11 J -37760871.32 -37760871.20 -37760871.04 0.0088 0.0068

Venus	-108097-12-26 19:40 J	-37760645.83	-37760645.68	-37760645.51	0.0088	0.0060
Venus	-108096-08-09 07:55 J	-37760420.33	-37760420.17	-37760419.99	0.0088	0.0054
Venus	-108095-03-22 19:55 J	-37760194.83	-37760194.67	-37760194.47	0.0088	0.0048
Venus	-108095-11-03 08:09 J	-37759969.34	-37759969.16	-37759968.95	0.0088	0.0041
Venus	-108094-06-16 20:24 J	-37759743.84	-37759743.65	-37759743.44	0.0088	0.0033
Venus	-108093-01-28 08:38 J	-37759518.35	-37759518.14	-37759517.94	0.0088	0.0027
Venus	-108093-09-09 20:24 J	-37759292.85	-37759292.65	-37759292.43	0.0088	0.0020
Venus	-108092-04-23 08:38 J	-37759067.35	-37759067.14	-37759066.92	0.0088	0.0013
Venus	-108092-12-04 20:38 J	-37758841.86	-37758841.64	-37758841.43	0.0088	0.0006
Venus	-108091-07-18 08:24 J	-37758616.36	-37758616.15	-37758615.93	0.0088	0.0002
Venus	-108090-02-28 20:24 J	-37758390.86	-37758390.65	-37758390.43	0.0088	0.0007
Venus	-108090-10-12 08:24 J	-37758165.36	-37758165.15	-37758164.94	0.0088	0.0014
Venus	-108089-05-24 20:09 J	-37757939.86	-37757939.66	-37757939.44	0.0088	0.0021
Venus	-108088-01-05 07:55 J	-37757714.36	-37757714.17	-37757713.96	0.0088	0.0027
Venus	-108088-08-18 19:40 J	-37757488.86	-37757488.68	-37757488.47	0.0088	0.0034
Venus	-108087-04-01 07:55 J	-37757263.36	-37757263.17	-37757262.98	0.0088	0.0041
Venus	-108087-11-12 19:26 J	-37757037.86	-37757037.69	-37757037.49	0.0088	0.0048
Venus	-108086-06-26 07:11 J	-37756812.35	-37756812.20	-37756812.01	0.0088	0.0054
Venus	-108085-02-06 19:11 J	-37756586.85	-37756586.70	-37756586.54	0.0088	0.0061
Venus	-108085-09-19 06:43 J	-37756361.34	-37756361.22	-37756361.06	0.0088	0.0067
Venus	-108084-05-02 18:43 J	-37756135.82	-37756135.72	-37756135.59	0.0088	0.0074
Venus	-108084-12-14 06:14 J	-37755910.30	-37755910.24	-37755910.12	0.0088	0.0081
Venus	-108083-07-27 18:14 J	-37755684.77	-37755684.74	-37755684.68	0.0088	0.0087
Earth	-108076-07-26 03:35 J	-37753129.47	-37753129.35	-37753129.19	0.0088	0.0072
Moon	-108076-07-26 03:35 J	-37753129.47	-37753129.35	-37753129.20	0.0088	0.0075 *
Earth	-108075-07-28 10:48 J	-37752762.26	-37752762.05	-37752761.83	0.0088	0.0042
Moon	-108075-07-28 12:43 J	-37752762.18	-37752761.97	-37752761.75	0.0088	0.0039 *
Moon	-108074-07-30 15:07 J	-37752395.11	-37752394.87	-37752394.62	0.0088	0.0015
Earth	-108074-07-30 17:45 J	-37752395.00	-37752394.76	-37752394.51	0.0088	0.0012 *
Earth	-108073-08-01 00:28 J	-37752027.71	-37752027.48	-37752027.23	0.0088	0.0019

Moon -108073-08-01 03:50 J -37752027.57 -37752027.34 -37752027.09 0.0088 0.0022 *
 Moon -108072-08-03 04:04 J -37751660.53 -37751660.33 -37751660.11 0.0088 0.0046
 Earth -108072-08-03 07:26 J -37751660.38 -37751660.19 -37751659.97 0.0088 0.0050 *
 Earth -108071-08-05 14:24 J -37751292.99 -37751292.90 -37751292.78 0.0088 0.0080
 Moon -108071-08-05 17:02 J -37751292.85 -37751292.79 -37751292.67 0.0088 0.0083 *
 Mars -108061-01-11 11:45 J -37747847.26 -37747847.01 -37747846.74 0.0089 0.0056
 Mars -108060-12-07 13:26 J -37747151.25 -37747150.94 -37747150.60 0.0089 0.0022
 Mars -108058-11-03 15:07 J -37746455.19 -37746454.87 -37746454.52 0.0089 0.0014
 Mars -108056-09-29 17:02 J -37745759.07 -37745758.79 -37745758.51 0.0089 0.0048
 Mars -108054-08-26 17:16 J -37745062.87 -37745062.78 -37745062.63 0.0089 0.0083
 Mercury -108039-09-18 06:57 J -37739561.21 -37739561.21 -37739561.21 0.0089 0.0089
 Mercury -108039-12-15 09:07 J -37739473.16 -37739473.12 -37739473.06 0.0089 0.0084
 Mercury -108038-03-13 11:16 J -37739385.09 -37739385.03 -37739384.95 0.0089 0.0080
 Mercury -108038-06-09 13:40 J -37739297.00 -37739296.93 -37739296.83 0.0089 0.0075
 Mercury -108038-09-05 16:19 J -37739208.92 -37739208.82 -37739208.72 0.0089 0.0070
 Mercury -108038-12-02 18:28 J -37739120.83 -37739120.73 -37739120.61 0.0089 0.0066
 Mercury -108037-02-28 20:52 J -37739032.74 -37739032.63 -37739032.50 0.0089 0.0061
 Mercury -108037-05-26 23:16 J -37738944.64 -37738944.53 -37738944.39 0.0089 0.0056
 Mercury -108037-08-23 01:55 J -37738856.55 -37738856.42 -37738856.28 0.0089 0.0051
 Mercury -108037-11-19 04:19 J -37738768.45 -37738768.32 -37738768.17 0.0089 0.0046
 Mercury -108036-02-15 06:57 J -37738680.36 -37738680.21 -37738680.06 0.0089 0.0041
 Mercury -108036-05-14 09:07 J -37738592.26 -37738592.12 -37738591.96 0.0089 0.0037
 Mercury -108036-08-10 11:45 J -37738504.16 -37738504.01 -37738503.85 0.0089 0.0032
 Mercury -108036-11-06 14:09 J -37738416.06 -37738415.91 -37738415.74 0.0089 0.0027
 Mercury -108035-02-02 16:48 J -37738327.96 -37738327.80 -37738327.63 0.0089 0.0022
 Mercury -108035-05-01 19:11 J -37738239.86 -37738239.70 -37738239.53 0.0089 0.0017
 Mercury -108035-07-28 21:50 J -37738151.75 -37738151.59 -37738151.42 0.0089 0.0012
 Mercury -108035-10-25 00:28 J -37738063.65 -37738063.48 -37738063.31 0.0089 0.0007
 Mercury -108034-01-21 03:07 J -37737975.54 -37737975.37 -37737975.21 0.0089 0.0002
 Mercury -108034-04-19 05:31 J -37737887.43 -37737887.27 -37737887.10 0.0089 0.0004

Mercury -108034-07-16 08:09 J -37737799.33 -37737799.16 -37737798.99 0.0089 0.0008

Mercury -108034-10-12 10:33 J -37737711.22 -37737711.06 -37737710.88 0.0089 0.0014

Mercury -108033-01-08 13:11 J -37737623.11 -37737622.95 -37737622.78 0.0089 0.0019

Mercury -108033-04-05 15:50 J -37737535.00 -37737534.84 -37737534.67 0.0089 0.0024

Mercury -108033-07-02 18:28 J -37737446.88 -37737446.73 -37737446.56 0.0089 0.0029

Mercury -108033-09-28 21:07 J -37737358.77 -37737358.62 -37737358.46 0.0089 0.0034

Mercury -108033-12-25 23:45 J -37737270.66 -37737270.51 -37737270.35 0.0089 0.0039

Mercury -108032-03-24 02:09 J -37737182.54 -37737182.41 -37737182.25 0.0089 0.0045

Mercury -108032-06-20 05:02 J -37737094.42 -37737094.29 -37737094.14 0.0089 0.0050

Mercury -108032-09-16 07:40 J -37737006.30 -37737006.18 -37737006.04 0.0089 0.0055

Mercury -108032-12-13 10:33 J -37736918.18 -37736918.06 -37736917.93 0.0089 0.0060

Mercury -108031-03-11 13:11 J -37736830.06 -37736829.95 -37736829.83 0.0089 0.0065

Mercury -108031-06-07 15:35 J -37736741.93 -37736741.85 -37736741.73 0.0089 0.0071

Mercury -108031-09-03 18:28 J -37736653.80 -37736653.73 -37736653.63 0.0089 0.0076

Mercury -108031-11-30 21:21 J -37736565.67 -37736565.61 -37736565.53 0.0089 0.0081

Mercury -108030-02-27 00:14 J -37736477.52 -37736477.49 -37736477.45 0.0089 0.0086

Venus -108016-04-02 01:26 J -37731329.49 -37731329.44 -37731329.34 0.0089 0.0084

Venus -108016-11-13 15:07 J -37731103.96 -37731103.87 -37731103.73 0.0089 0.0077

Venus -108015-06-27 05:02 J -37730878.41 -37730878.29 -37730878.14 0.0089 0.0070

Venus -108014-02-07 18:43 J -37730652.86 -37730652.72 -37730652.54 0.0089 0.0063

Venus -108014-09-21 08:38 J -37730427.29 -37730427.14 -37730426.95 0.0089 0.0056

Venus -108013-05-03 22:33 J -37730201.73 -37730201.56 -37730201.36 0.0089 0.0049

Venus -108013-12-15 12:14 J -37729976.17 -37729975.99 -37729975.77 0.0089 0.0043

Venus -108012-07-29 02:09 J -37729750.60 -37729750.41 -37729750.19 0.0089 0.0035

Venus -108011-03-11 16:33 J -37729525.03 -37729524.81 -37729524.60 0.0089 0.0027

Venus -108011-10-23 06:28 J -37729299.44 -37729299.23 -37729299.00 0.0089 0.0020

Venus -108010-06-05 20:38 J -37729073.86 -37729073.64 -37729073.42 0.0089 0.0013

Venus -108009-01-17 10:33 J -37728848.28 -37728848.06 -37728847.83 0.0089 0.0006

Venus -108009-08-30 00:43 J -37728622.69 -37728622.47 -37728622.24 0.0089 0.0002

Venus -108008-04-12 14:52 J -37728397.10 -37728396.88 -37728396.66 0.0089 0.0009

Venus	-108008-11-24 05:02 J	-37728171.51	-37728171.29	-37728171.07	0.0089	0.0016
Venus	-108007-07-07 18:43 J	-37727945.92	-37727945.72	-37727945.48	0.0089	0.0024
Venus	-108006-02-18 09:07 J	-37727720.32	-37727720.12	-37727719.90	0.0089	0.0031
Venus	-108006-10-01 23:16 J	-37727494.72	-37727494.53	-37727494.31	0.0089	0.0038
Venus	-108005-05-14 13:40 J	-37727269.12	-37727268.93	-37727268.73	0.0089	0.0045
Venus	-108005-12-26 03:21 J	-37727043.52	-37727043.36	-37727043.15	0.0089	0.0053
Venus	-108004-08-08 17:31 J	-37726817.91	-37726817.77	-37726817.58	0.0089	0.0060
Venus	-108003-03-22 07:55 J	-37726592.30	-37726592.17	-37726592.00	0.0089	0.0067
Venus	-108003-11-02 22:19 J	-37726366.67	-37726366.57	-37726366.43	0.0089	0.0074
Venus	-108002-06-16 12:28 J	-37726141.05	-37726140.98	-37726140.87	0.0089	0.0081
Venus	-108001-01-28 02:52 J	-37725915.39	-37725915.38	-37725915.33	0.0089	0.0088

108TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 108th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-107994-01-23 06:43 J	-37723363.22	-37723363.22	-37723363.19	0.0089	0.0089		
Earth	-107993-01-26 00:57 J	-37722995.63	-37722995.46	-37722995.24	0.0089	0.0060		
Moon	-107993-01-26 03:35 J	-37722995.52	-37722995.35	-37722995.16	0.0089	0.0064	*	
Moon	-107992-01-27 15:35 J	-37722628.12	-37722627.85	-37722627.58	0.0089	0.0021		
Earth	-107992-01-27 18:28 J	-37722627.98	-37722627.73	-37722627.47	0.0089	0.0026	*	

Earth -107991-01-30 11:02 J -37722260.30 -37722260.04 -37722259.76 0.0089 0.0008
 Moon -107991-01-30 14:52 J -37722260.14 -37722259.88 -37722259.61 0.0089 0.0003 *
 Moon -107990-02-02 00:00 J -37721892.71 -37721892.50 -37721892.25 0.0089 0.0046
 Earth -107990-02-02 03:35 J -37721892.57 -37721892.35 -37721892.10 0.0089 0.0042 *
 Earth -107989-02-04 19:40 J -37721524.79 -37721524.68 -37721524.51 0.0089 0.0076
 Moon -107989-02-04 23:45 J -37721524.65 -37721524.51 -37721524.33 0.0089 0.0071 *
 Mars -107982-12-13 20:38 J -37718655.76 -37718655.64 -37718655.49 0.0089 0.0078
 Mars -107980-11-06 17:45 J -37717962.00 -37717961.76 -37717961.51 0.0089 0.0048
 Mars -107978-10-01 13:40 J -37717268.21 -37717267.93 -37717267.63 0.0089 0.0018
 Mars -107976-08-25 11:16 J -37716574.32 -37716574.03 -37716573.73 0.0089 0.0013
 Mars -107974-07-20 07:26 J -37715880.43 -37715880.19 -37715879.91 0.0089 0.0043
 Mars -107972-06-13 03:21 J -37715186.50 -37715186.36 -37715186.16 0.0089 0.0073
 Mercury -107957-07-05 07:55 J -37709685.18 -37709685.17 -37709685.15 0.0088 0.0088
 Mercury -107957-10-01 09:35 J -37709597.13 -37709597.10 -37709597.03 0.0088 0.0084
 Mercury -107957-12-28 11:45 J -37709509.06 -37709509.01 -37709508.93 0.0088 0.0079
 Mercury -107956-03-26 13:40 J -37709420.99 -37709420.93 -37709420.83 0.0088 0.0074
 Mercury -107956-06-22 15:50 J -37709332.92 -37709332.84 -37709332.74 0.0088 0.0070
 Mercury -107956-09-18 18:00 J -37709244.85 -37709244.75 -37709244.64 0.0088 0.0065
 Mercury -107956-12-15 19:40 J -37709156.77 -37709156.68 -37709156.55 0.0088 0.0061
 Mercury -107955-03-13 21:50 J -37709068.70 -37709068.59 -37709068.46 0.0088 0.0056
 Mercury -107955-06-09 23:45 J -37708980.62 -37708980.51 -37708980.38 0.0088 0.0051
 Mercury -107955-09-06 01:40 J -37708892.55 -37708892.43 -37708892.29 0.0088 0.0047
 Mercury -107955-12-03 03:50 J -37708804.47 -37708804.34 -37708804.20 0.0088 0.0042
 Mercury -107954-03-01 05:45 J -37708716.39 -37708716.26 -37708716.12 0.0088 0.0037
 Mercury -107954-05-28 07:40 J -37708628.32 -37708628.18 -37708628.04 0.0088 0.0033
 Mercury -107954-08-24 09:35 J -37708540.24 -37708540.10 -37708539.95 0.0088 0.0028
 Mercury -107954-11-20 11:31 J -37708452.16 -37708452.02 -37708451.87 0.0088 0.0024
 Mercury -107953-02-16 13:26 J -37708364.08 -37708363.94 -37708363.79 0.0088 0.0019
 Mercury -107953-05-14 15:21 J -37708276.01 -37708275.86 -37708275.71 0.0088 0.0015
 Mercury -107953-08-10 17:16 J -37708187.93 -37708187.78 -37708187.63 0.0088 0.0010

Mercury -107953-11-06 19:11 J -37708099.85 -37708099.70 -37708099.55 0.0088 0.0006

Mercury -107952-02-02 20:52 J -37708011.77 -37708011.63 -37708011.48 0.0088 0.0003

Mercury -107952-05-01 22:48 J -37707923.70 -37707923.55 -37707923.40 0.0088 0.0003

Mercury -107952-07-29 00:43 J -37707835.62 -37707835.47 -37707835.32 0.0088 0.0007

Mercury -107952-10-25 02:24 J -37707747.54 -37707747.40 -37707747.25 0.0088 0.0012

Mercury -107951-01-21 04:19 J -37707659.46 -37707659.32 -37707659.17 0.0088 0.0016

Mercury -107951-04-19 06:00 J -37707571.39 -37707571.25 -37707571.10 0.0088 0.0021

Mercury -107951-07-16 07:55 J -37707483.31 -37707483.17 -37707483.02 0.0088 0.0025

Mercury -107951-10-12 09:35 J -37707395.23 -37707395.10 -37707394.95 0.0088 0.0029

Mercury -107950-01-08 11:31 J -37707307.15 -37707307.02 -37707306.88 0.0088 0.0033

Mercury -107950-04-06 13:11 J -37707219.08 -37707218.95 -37707218.81 0.0088 0.0038

Mercury -107950-07-03 15:07 J -37707131.00 -37707130.87 -37707130.74 0.0088 0.0042

Mercury -107950-09-29 16:33 J -37707042.92 -37707042.81 -37707042.67 0.0088 0.0047

Mercury -107950-12-26 18:28 J -37706954.84 -37706954.73 -37706954.60 0.0088 0.0050

Mercury -107949-03-23 20:09 J -37706866.76 -37706866.66 -37706866.53 0.0088 0.0055

Mercury -107949-06-19 22:04 J -37706778.68 -37706778.58 -37706778.47 0.0088 0.0059

Mercury -107949-09-16 00:00 J -37706690.60 -37706690.50 -37706690.40 0.0088 0.0063

Mercury -107949-12-13 01:26 J -37706602.52 -37706602.44 -37706602.34 0.0088 0.0067

Mercury -107948-03-11 03:07 J -37706514.44 -37706514.37 -37706514.27 0.0088 0.0071

Mercury -107948-06-07 04:48 J -37706426.36 -37706426.30 -37706426.21 0.0088 0.0076

Mercury -107948-09-03 06:28 J -37706338.28 -37706338.23 -37706338.15 0.0088 0.0080

Mercury -107948-11-30 08:24 J -37706250.19 -37706250.15 -37706250.10 0.0088 0.0083

Mercury -107947-02-26 10:04 J -37706162.09 -37706162.08 -37706162.06 0.0088 0.0087

Venus -107935-10-10 03:50 J -37701553.35 -37701553.34 -37701553.30 0.0088 0.0088

Venus -107934-05-23 15:50 J -37701327.90 -37701327.84 -37701327.73 0.0088 0.0082

Venus -107933-01-04 04:19 J -37701102.42 -37701102.32 -37701102.19 0.0088 0.0074

Venus -107933-08-16 16:48 J -37700876.93 -37700876.80 -37700876.66 0.0088 0.0068

Venus -107932-03-30 04:48 J -37700651.44 -37700651.30 -37700651.12 0.0088 0.0061

Venus -107932-11-10 17:02 J -37700425.94 -37700425.79 -37700425.60 0.0088 0.0055

Venus -107931-06-24 05:16 J -37700200.45 -37700200.28 -37700200.08 0.0088 0.0048

Venus	-107930-02-04 17:31 J	-37699974.95	-37699974.77	-37699974.57	0.0088	0.0041
Venus	-107930-09-18 06:00 J	-37699749.45	-37699749.25	-37699749.05	0.0088	0.0034
Venus	-107929-04-30 17:45 J	-37699523.95	-37699523.76	-37699523.54	0.0088	0.0027
Venus	-107929-12-12 06:00 J	-37699298.45	-37699298.25	-37699298.03	0.0088	0.0020
Venus	-107928-07-25 18:00 J	-37699072.96	-37699072.75	-37699072.53	0.0088	0.0013
Venus	-107927-03-08 06:14 J	-37698847.46	-37698847.24	-37698847.03	0.0088	0.0007
Venus	-107927-10-19 18:14 J	-37698621.96	-37698621.74	-37698621.53	0.0088	0.0001
Venus	-107926-06-02 06:00 J	-37698396.46	-37698396.25	-37698396.03	0.0088	0.0007
Venus	-107925-01-13 17:45 J	-37698170.96	-37698170.76	-37698170.54	0.0088	0.0014
Venus	-107925-08-26 05:45 J	-37697945.46	-37697945.26	-37697945.05	0.0088	0.0021
Venus	-107924-04-08 17:45 J	-37697719.96	-37697719.76	-37697719.55	0.0088	0.0027
Venus	-107924-11-20 05:16 J	-37697494.46	-37697494.28	-37697494.06	0.0088	0.0035
Venus	-107923-07-03 17:31 J	-37697268.96	-37697268.77	-37697268.58	0.0088	0.0041
Venus	-107922-02-14 05:02 J	-37697043.46	-37697043.29	-37697043.10	0.0088	0.0048
Venus	-107922-09-27 16:48 J	-37696817.95	-37696817.80	-37696817.62	0.0088	0.0054
Venus	-107921-05-10 04:48 J	-37696592.44	-37696592.30	-37696592.13	0.0088	0.0061
Venus	-107921-12-21 16:33 J	-37696366.93	-37696366.81	-37696366.66	0.0088	0.0067
Venus	-107920-08-04 04:33 J	-37696141.42	-37696141.31	-37696141.19	0.0088	0.0074
Venus	-107919-03-17 16:04 J	-37695915.90	-37695915.83	-37695915.73	0.0088	0.0081
Venus	-107919-10-29 04:04 J	-37695690.36	-37695690.33	-37695690.28	0.0088	0.0087
Earth	-107912-07-25 14:38 J	-37693228.91	-37693228.89	-37693228.85	0.0088	0.0088
Moon	-107912-07-25 16:48 J	-37693228.84	-37693228.80	-37693228.72	0.0088	0.0086
Moon	-107911-07-27 17:45 J	-37692861.92	-37692861.76	-37692861.56	0.0088	0.0060
Earth	-107911-07-27 21:21 J	-37692861.78	-37692861.61	-37692861.41	0.0088	0.0058 *
Earth	-107910-07-30 04:04 J	-37692494.55	-37692494.33	-37692494.08	0.0088	0.0028
Moon	-107910-07-30 07:26 J	-37692494.41	-37692494.19	-37692493.94	0.0088	0.0026 *
Moon	-107909-07-31 08:24 J	-37692127.39	-37692127.15	-37692126.91	0.0088	0.0001
Earth	-107909-07-31 11:16 J	-37692127.27	-37692127.03	-37692126.78	0.0088	0.0003 *
Earth	-107908-08-02 17:45 J	-37691759.97	-37691759.76	-37691759.52	0.0088	0.0034
Moon	-107908-08-02 19:55 J	-37691759.88	-37691759.67	-37691759.42	0.0088	0.0036 *

Moon -107907-08-05 00:14 J -37691392.64 -37691392.49 -37691392.31 0.0088 0.0063
 Earth -107907-08-05 00:28 J -37691392.62 -37691392.48 -37691392.29 0.0088 0.0065 *
 Mars -107898-08-24 18:57 J -37688085.89 -37688085.71 -37688085.50 0.0089 0.0072
 Mars -107896-07-20 20:24 J -37687389.95 -37687389.65 -37687389.33 0.0089 0.0037
 Mars -107894-06-16 22:19 J -37686693.91 -37686693.57 -37686693.24 0.0089 0.0002
 Mars -107892-05-12 23:45 J -37685997.80 -37685997.51 -37685997.18 0.0089 0.0034
 Mars -107890-04-09 01:40 J -37685301.62 -37685301.43 -37685301.20 0.0089 0.0069
 Mercury -107874-06-15 05:16 J -37679390.30 -37679390.28 -37679390.25 0.0089 0.0087
 Mercury -107874-09-11 07:26 J -37679302.23 -37679302.19 -37679302.12 0.0089 0.0083
 Mercury -107874-12-08 09:50 J -37679214.15 -37679214.09 -37679214.00 0.0089 0.0078
 Mercury -107873-03-05 12:28 J -37679126.07 -37679125.98 -37679125.89 0.0089 0.0073
 Mercury -107873-06-01 14:24 J -37679037.98 -37679037.90 -37679037.78 0.0089 0.0069
 Mercury -107873-08-28 17:02 J -37678949.90 -37678949.79 -37678949.67 0.0089 0.0064
 Mercury -107873-11-24 19:26 J -37678861.80 -37678861.69 -37678861.56 0.0089 0.0059
 Mercury -107872-02-20 22:04 J -37678773.71 -37678773.58 -37678773.45 0.0089 0.0054
 Mercury -107872-05-20 00:14 J -37678685.62 -37678685.49 -37678685.35 0.0089 0.0050
 Mercury -107872-08-16 02:38 J -37678597.52 -37678597.39 -37678597.24 0.0089 0.0045
 Mercury -107872-11-12 05:02 J -37678509.43 -37678509.29 -37678509.13 0.0089 0.0040
 Mercury -107871-02-08 07:40 J -37678421.33 -37678421.18 -37678421.02 0.0089 0.0035
 Mercury -107871-05-07 10:04 J -37678333.23 -37678333.08 -37678332.92 0.0089 0.0030
 Mercury -107871-08-03 12:43 J -37678245.13 -37678244.97 -37678244.81 0.0089 0.0025
 Mercury -107871-10-30 15:07 J -37678157.03 -37678156.87 -37678156.70 0.0089 0.0020
 Mercury -107870-01-26 17:45 J -37678068.93 -37678068.76 -37678068.60 0.0089 0.0015
 Mercury -107870-04-24 20:09 J -37677980.82 -37677980.66 -37677980.49 0.0089 0.0010
 Mercury -107870-07-21 22:48 J -37677892.72 -37677892.55 -37677892.38 0.0089 0.0005
 Mercury -107870-10-18 01:11 J -37677804.61 -37677804.45 -37677804.28 0.0089 0.0002
 Mercury -107869-01-14 03:50 J -37677716.51 -37677716.34 -37677716.17 0.0089 0.0005
 Mercury -107869-04-11 06:28 J -37677628.40 -37677628.23 -37677628.06 0.0089 0.0010
 Mercury -107869-07-08 08:52 J -37677540.29 -37677540.13 -37677539.96 0.0089 0.0015
 Mercury -107869-10-04 11:31 J -37677452.18 -37677452.02 -37677451.85 0.0089 0.0020

Mercury -107869-12-31 14:09 J -37677364.07 -37677363.91 -37677363.74 0.0089 0.0025

Mercury -107868-03-29 16:48 J -37677275.96 -37677275.80 -37677275.64 0.0089 0.0030

Mercury -107868-06-25 19:11 J -37677187.84 -37677187.70 -37677187.53 0.0089 0.0036

Mercury -107868-09-21 21:50 J -37677099.73 -37677099.59 -37677099.43 0.0089 0.0041

Mercury -107868-12-19 00:28 J -37677011.61 -37677011.48 -37677011.32 0.0089 0.0046

Mercury -107867-03-17 03:21 J -37676923.50 -37676923.36 -37676923.22 0.0089 0.0051

Mercury -107867-06-13 06:00 J -37676835.38 -37676835.25 -37676835.11 0.0089 0.0056

Mercury -107867-09-09 08:52 J -37676747.25 -37676747.13 -37676747.01 0.0089 0.0061

Mercury -107867-12-06 11:16 J -37676659.13 -37676659.03 -37676658.91 0.0089 0.0067

Mercury -107866-03-04 13:55 J -37676571.01 -37676570.92 -37676570.81 0.0089 0.0072

Mercury -107866-05-31 16:48 J -37676482.88 -37676482.80 -37676482.71 0.0089 0.0077

Mercury -107866-08-27 19:11 J -37676394.74 -37676394.70 -37676394.62 0.0089 0.0083

Mercury -107866-11-23 22:04 J -37676306.59 -37676306.58 -37676306.54 0.0089 0.0088

Venus -107852-07-04 09:50 J -37671335.14 -37671335.09 -37671335.00 0.0089 0.0084

Venus -107851-02-14 23:45 J -37671109.61 -37671109.51 -37671109.39 0.0089 0.0077

Venus -107851-09-28 13:40 J -37670884.05 -37670883.93 -37670883.78 0.0089 0.0070

Venus -107850-05-12 03:21 J -37670658.50 -37670658.36 -37670658.19 0.0089 0.0064

Venus -107850-12-23 17:16 J -37670432.95 -37670432.78 -37670432.60 0.0089 0.0056

Venus -107849-08-05 06:57 J -37670207.39 -37670207.21 -37670207.01 0.0089 0.0049

Venus -107848-03-18 20:52 J -37669981.82 -37669981.63 -37669981.43 0.0089 0.0042

Venus -107848-10-30 10:48 J -37669756.25 -37669756.05 -37669755.84 0.0089 0.0035

Venus -107847-06-13 00:28 J -37669530.68 -37669530.48 -37669530.25 0.0089 0.0028

Venus -107846-01-24 14:52 J -37669305.10 -37669304.88 -37669304.66 0.0089 0.0020

Venus -107846-09-07 04:48 J -37669079.52 -37669079.30 -37669079.08 0.0089 0.0013

Venus -107845-04-19 18:43 J -37668853.94 -37668853.72 -37668853.49 0.0089 0.0006

Venus -107845-12-01 08:52 J -37668628.36 -37668628.13 -37668627.91 0.0089 0.0002

Venus -107844-07-14 22:48 J -37668402.77 -37668402.55 -37668402.32 0.0089 0.0009

Venus -107843-02-25 12:57 J -37668177.18 -37668176.96 -37668176.73 0.0089 0.0016

Venus -107843-10-09 03:07 J -37667951.58 -37667951.37 -37667951.14 0.0089 0.0024

Venus -107842-05-22 17:16 J -37667725.98 -37667725.78 -37667725.56 0.0089 0.0031

Venus -107841-01-03 07:26 J -37667500.38 -37667500.19 -37667499.98 0.0089 0.0038
 Venus -107841-08-15 21:50 J -37667274.78 -37667274.59 -37667274.40 0.0089 0.0045
 Venus -107840-03-29 11:31 J -37667049.18 -37667049.02 -37667048.82 0.0089 0.0053
 Venus -107840-11-10 02:09 J -37666823.56 -37666823.41 -37666823.23 0.0089 0.0060
 Venus -107839-06-23 16:33 J -37666597.95 -37666597.81 -37666597.66 0.0089 0.0067
 Venus -107838-02-04 06:43 J -37666372.33 -37666372.22 -37666372.09 0.0089 0.0074
 Venus -107838-09-17 20:38 J -37666146.70 -37666146.64 -37666146.53 0.0089 0.0082
 Venus -107837-04-30 11:16 J -37665921.03 -37665921.03 -37665921.00 0.0089 0.0089
 Moon -107829-01-24 23:31 J -37663095.61 -37663095.52 -37663095.38 0.0089 0.0080
 Earth -107829-01-25 03:21 J -37663095.47 -37663095.36 -37663095.21 0.0089 0.0077 *
 Earth -107828-01-26 20:24 J -37662727.88 -37662727.65 -37662727.41 0.0089 0.0043
 Moon -107828-01-26 23:31 J -37662727.74 -37662727.52 -37662727.26 0.0089 0.0042 *
 Moon -107827-01-29 10:19 J -37662360.33 -37662360.07 -37662359.80 0.0089 0.0011
 Earth -107827-01-29 13:26 J -37662360.21 -37662359.94 -37662359.67 0.0089 0.0009 *
 Earth -107826-02-01 05:45 J -37661992.50 -37661992.26 -37661991.99 0.0089 0.0025
 Moon -107826-02-01 07:40 J -37661992.44 -37661992.18 -37661991.90 0.0089 0.0026 *
 Moon -107825-02-03 21:35 J -37661624.78 -37661624.60 -37661624.39 0.0089 0.0058
 Earth -107825-02-03 22:19 J -37661624.75 -37661624.57 -37661624.34 0.0089 0.0059 *
 Mars -107816-06-21 23:02 J -37658198.73 -37658198.54 -37658198.31 0.0089 0.0062
 Mars -107814-05-16 20:38 J -37657504.91 -37657504.64 -37657504.36 0.0089 0.0031
 Mars -107812-04-09 17:02 J -37656811.09 -37656810.79 -37656810.50 0.0089 0.0000
 Mars -107810-03-04 14:24 J -37656117.16 -37656116.90 -37656116.61 0.0089 0.0031
 Saturn -107810-05-24 00:14 J -37656036.71 -37656036.49 -37656036.16 0.0089 0.0082
 Mars -107808-01-26 12:00 J -37655423.21 -37655423.00 -37655422.78 0.0089 0.0061
 Mercury -107792-04-01 06:43 J -37649514.24 -37649514.22 -37649514.18 0.0088 0.0086
 Mercury -107792-06-28 08:52 J -37649426.18 -37649426.13 -37649426.07 0.0088 0.0082
 Mercury -107792-09-24 10:33 J -37649338.11 -37649338.06 -37649337.97 0.0088 0.0078
 Mercury -107792-12-21 12:43 J -37649250.04 -37649249.97 -37649249.87 0.0088 0.0073
 Mercury -107791-03-19 14:52 J -37649161.97 -37649161.88 -37649161.78 0.0088 0.0068
 Mercury -107791-06-15 16:48 J -37649073.90 -37649073.80 -37649073.68 0.0088 0.0063

Mercury -107791-09-11 18:43 J -37648985.82 -37648985.72 -37648985.59 0.0088 0.0059

Mercury -107791-12-08 20:38 J -37648897.75 -37648897.64 -37648897.50 0.0088 0.0055

Mercury -107790-03-06 22:48 J -37648809.67 -37648809.55 -37648809.42 0.0088 0.0049

Mercury -107790-06-03 00:57 J -37648721.59 -37648721.46 -37648721.33 0.0088 0.0045

Mercury -107790-08-30 02:38 J -37648633.51 -37648633.39 -37648633.24 0.0088 0.0041

Mercury -107790-11-26 04:48 J -37648545.44 -37648545.30 -37648545.16 0.0088 0.0036

Mercury -107789-02-22 06:28 J -37648457.36 -37648457.23 -37648457.08 0.0088 0.0032

Mercury -107789-05-20 08:38 J -37648369.28 -37648369.14 -37648368.99 0.0088 0.0027

Mercury -107789-08-16 10:33 J -37648281.20 -37648281.06 -37648280.91 0.0088 0.0022

Mercury -107789-11-12 12:28 J -37648193.13 -37648192.98 -37648192.83 0.0088 0.0018

Mercury -107788-02-08 14:24 J -37648105.05 -37648104.90 -37648104.75 0.0088 0.0013

Mercury -107788-05-07 16:19 J -37648016.97 -37648016.82 -37648016.67 0.0088 0.0009

Mercury -107788-08-03 18:14 J -37647928.89 -37647928.74 -37647928.59 0.0088 0.0004

Mercury -107788-10-30 20:09 J -37647840.81 -37647840.66 -37647840.51 0.0088 0.0002

Mercury -107787-01-26 21:50 J -37647752.74 -37647752.59 -37647752.44 0.0088 0.0005

Mercury -107787-04-24 23:45 J -37647664.66 -37647664.51 -37647664.36 0.0088 0.0009

Mercury -107787-07-22 01:26 J -37647576.58 -37647576.44 -37647576.29 0.0088 0.0014

Mercury -107787-10-18 03:21 J -37647488.50 -37647488.36 -37647488.21 0.0088 0.0018

Mercury -107786-01-14 05:02 J -37647400.42 -37647400.29 -37647400.14 0.0088 0.0023

Mercury -107786-04-12 06:57 J -37647312.35 -37647312.21 -37647312.06 0.0088 0.0026

Mercury -107786-07-09 08:52 J -37647224.27 -37647224.13 -37647223.99 0.0088 0.0031

Mercury -107786-10-05 10:33 J -37647136.19 -37647136.06 -37647135.92 0.0088 0.0035

Mercury -107785-01-01 12:14 J -37647048.11 -37647047.99 -37647047.85 0.0088 0.0039

Mercury -107785-03-29 14:09 J -37646960.03 -37646959.91 -37646959.78 0.0088 0.0043

Mercury -107785-06-25 15:50 J -37646871.96 -37646871.84 -37646871.71 0.0088 0.0048

Mercury -107785-09-21 17:45 J -37646783.88 -37646783.76 -37646783.64 0.0088 0.0052

Mercury -107785-12-18 19:11 J -37646695.80 -37646695.70 -37646695.57 0.0088 0.0057

Mercury -107784-03-16 21:07 J -37646607.72 -37646607.62 -37646607.51 0.0088 0.0060

Mercury -107784-06-12 22:48 J -37646519.64 -37646519.55 -37646519.44 0.0088 0.0065

Mercury -107784-09-09 00:43 J -37646431.56 -37646431.47 -37646431.38 0.0088 0.0069

Mercury -107784-12-06 02:24 J -37646343.48 -37646343.40 -37646343.31 0.0088 0.0073

Mercury -107783-03-04 04:19 J -37646255.39 -37646255.32 -37646255.25 0.0088 0.0077

Mercury -107783-05-31 05:31 J -37646167.31 -37646167.27 -37646167.20 0.0088 0.0082

Mercury -107783-08-27 07:11 J -37646079.22 -37646079.20 -37646079.14 0.0088 0.0086

Jupiter -107778-07-03 17:02 J -37644307.97 -37644307.79 -37644307.58 0.0088 0.0082

Venus -107770-01-11 13:55 J -37641558.92 -37641558.92 -37641558.90 0.0088 0.0088

Venus -107770-08-25 01:55 J -37641333.48 -37641333.42 -37641333.32 0.0088 0.0082

Venus -107769-04-06 14:38 J -37641108.00 -37641107.89 -37641107.77 0.0088 0.0075

Venus -107769-11-18 02:24 J -37640882.51 -37640882.40 -37640882.24 0.0088 0.0069

Venus -107768-07-01 14:52 J -37640657.02 -37640656.88 -37640656.71 0.0088 0.0061

Venus -107767-02-12 03:07 J -37640431.53 -37640431.37 -37640431.19 0.0088 0.0055

Venus -107767-09-25 15:35 J -37640206.03 -37640205.85 -37640205.67 0.0088 0.0048

Venus -107766-05-09 03:50 J -37639980.53 -37639980.34 -37639980.15 0.0088 0.0041

Venus -107766-12-20 15:35 J -37639755.03 -37639754.85 -37639754.63 0.0088 0.0035

Venus -107765-08-02 03:50 J -37639529.53 -37639529.34 -37639529.12 0.0088 0.0027

Venus -107764-03-15 16:04 J -37639304.03 -37639303.83 -37639303.61 0.0088 0.0021

Venus -107764-10-27 04:19 J -37639078.53 -37639078.32 -37639078.10 0.0088 0.0013

Venus -107763-06-09 16:33 J -37638853.03 -37638852.81 -37638852.60 0.0088 0.0006

Venus -107762-01-21 04:33 J -37638627.53 -37638627.31 -37638627.10 0.0088 0.0001

Venus -107762-09-03 16:19 J -37638402.03 -37638401.82 -37638401.60 0.0088 0.0008

Venus -107761-04-16 04:19 J -37638176.53 -37638176.32 -37638176.10 0.0088 0.0014

Venus -107761-11-27 16:04 J -37637951.03 -37637950.83 -37637950.61 0.0088 0.0022

Venus -107760-07-11 04:04 J -37637725.53 -37637725.33 -37637725.12 0.0088 0.0028

Venus -107759-02-21 15:50 J -37637500.03 -37637499.84 -37637499.63 0.0088 0.0035

Venus -107759-10-05 03:35 J -37637274.53 -37637274.35 -37637274.15 0.0088 0.0041

Venus -107758-05-18 15:50 J -37637049.02 -37637048.84 -37637048.66 0.0088 0.0048

Venus -107758-12-30 03:21 J -37636823.52 -37636823.36 -37636823.18 0.0088 0.0055

Venus -107757-08-11 14:52 J -37636598.01 -37636597.88 -37636597.71 0.0088 0.0062

Venus -107756-03-25 03:07 J -37636372.50 -37636372.37 -37636372.23 0.0088 0.0068

Venus -107756-11-05 14:38 J -37636146.99 -37636146.89 -37636146.76 0.0088 0.0075

Venus -107755-06-19 02:09 J -37635921.46 -37635921.41 -37635921.30 0.0088 0.0082
 Venus -107754-01-30 14:09 J -37635695.92 -37635695.91 -37635695.87 0.0088 0.0088
 Earth -107747-07-27 08:52 J -37632961.26 -37632961.13 -37632960.98 0.0088 0.0073
 Moon -107747-07-27 12:00 J -37632961.12 -37632961.00 -37632960.87 0.0088 0.0077 *
 Moon -107746-07-29 13:40 J -37632594.12 -37632593.93 -37632593.69 0.0088 0.0039
 Earth -107746-07-29 15:35 J -37632594.05 -37632593.85 -37632593.62 0.0088 0.0043 *
 Earth -107745-07-30 22:33 J -37632226.80 -37632226.56 -37632226.31 0.0088 0.0012
 Moon -107745-07-30 22:48 J -37632226.79 -37632226.55 -37632226.29 0.0088 0.0016 *
 Earth -107744-08-02 05:16 J -37631859.51 -37631859.28 -37631859.03 0.0088 0.0019
 Moon -107744-08-02 06:00 J -37631859.47 -37631859.25 -37631859.01 0.0088 0.0023 *
 Moon -107743-08-04 10:04 J -37631492.29 -37631492.08 -37631491.85 0.0088 0.0044
 Earth -107743-08-04 12:14 J -37631492.19 -37631491.99 -37631491.77 0.0088 0.0049 *
 Earth -107742-08-06 19:11 J -37631124.81 -37631124.70 -37631124.59 0.0088 0.0079
 Moon -107742-08-06 21:50 J -37631124.65 -37631124.59 -37631124.49 0.0088 0.0084 *
 Mars -107734-04-07 05:45 J -37628324.28 -37628324.26 -37628324.19 0.0089 0.0088
 Mars -107732-03-03 06:43 J -37627628.47 -37627628.22 -37627627.92 0.0089 0.0053
 Mars -107730-01-28 08:52 J -37626932.46 -37626932.13 -37626931.80 0.0089 0.0017
 Mars -107729-12-24 10:48 J -37626236.38 -37626236.05 -37626235.72 0.0089 0.0019
 Mars -107727-11-20 12:28 J -37625540.23 -37625539.98 -37625539.71 0.0089 0.0055
 Mercury -107709-03-11 03:35 J -37619219.37 -37619219.35 -37619219.29 0.0089 0.0086
 Mercury -107709-06-07 06:00 J -37619131.30 -37619131.25 -37619131.17 0.0089 0.0081
 Mercury -107709-09-03 08:38 J -37619043.22 -37619043.14 -37619043.06 0.0089 0.0076
 Mercury -107709-11-30 10:33 J -37618955.13 -37618955.06 -37618954.94 0.0089 0.0072
 Mercury -107708-02-26 13:11 J -37618867.05 -37618866.95 -37618866.83 0.0089 0.0067
 Mercury -107708-05-25 15:35 J -37618778.96 -37618778.85 -37618778.73 0.0089 0.0062
 Mercury -107708-08-21 18:14 J -37618690.87 -37618690.74 -37618690.62 0.0089 0.0057
 Mercury -107708-11-17 20:09 J -37618602.77 -37618602.66 -37618602.51 0.0089 0.0053
 Mercury -107707-02-13 22:48 J -37618514.68 -37618514.55 -37618514.40 0.0089 0.0048
 Mercury -107707-05-13 01:11 J -37618426.58 -37618426.45 -37618426.30 0.0089 0.0043
 Mercury -107707-08-09 03:50 J -37618338.49 -37618338.34 -37618338.19 0.0089 0.0038

Mercury -107707-11-05 06:14 J -37618250.39 -37618250.24 -37618250.08 0.0089 0.0033
 Mercury -107706-02-01 08:38 J -37618162.29 -37618162.14 -37618161.98 0.0089 0.0028
 Mercury -107706-04-30 11:02 J -37618074.19 -37618074.04 -37618073.87 0.0089 0.0024
 Mercury -107706-07-27 13:40 J -37617986.09 -37617985.93 -37617985.77 0.0089 0.0019
 Mercury -107706-10-23 16:04 J -37617897.99 -37617897.83 -37617897.66 0.0089 0.0014
 Mercury -107705-01-19 18:43 J -37617809.89 -37617809.72 -37617809.55 0.0089 0.0009
 Mercury -107705-04-16 21:07 J -37617721.78 -37617721.62 -37617721.45 0.0089 0.0004
 Mercury -107705-07-13 23:45 J -37617633.68 -37617633.51 -37617633.34 0.0089 0.0001
 Mercury -107705-10-10 02:24 J -37617545.57 -37617545.40 -37617545.24 0.0089 0.0007
 Mercury -107704-01-06 04:48 J -37617457.46 -37617457.30 -37617457.13 0.0089 0.0012
 Mercury -107704-04-04 07:26 J -37617369.35 -37617369.19 -37617369.02 0.0089 0.0017
 Mercury -107704-07-01 09:50 J -37617281.24 -37617281.09 -37617280.92 0.0089 0.0022
 Mercury -107704-09-27 12:28 J -37617193.13 -37617192.98 -37617192.81 0.0089 0.0027
 Mercury -107704-12-24 15:07 J -37617105.02 -37617104.87 -37617104.71 0.0089 0.0032
 Mercury -107703-03-22 17:45 J -37617016.91 -37617016.76 -37617016.60 0.0089 0.0037
 Mercury -107703-06-18 20:24 J -37616928.79 -37616928.65 -37616928.50 0.0089 0.0042
 Mercury -107703-09-14 22:48 J -37616840.68 -37616840.55 -37616840.39 0.0089 0.0048
 Mercury -107703-12-12 01:26 J -37616752.56 -37616752.44 -37616752.29 0.0089 0.0053
 Mercury -107702-03-10 04:19 J -37616664.44 -37616664.32 -37616664.18 0.0089 0.0058
 Mercury -107702-06-06 06:57 J -37616576.32 -37616576.21 -37616576.08 0.0089 0.0063
 Mercury -107702-09-02 09:50 J -37616488.20 -37616488.09 -37616487.98 0.0089 0.0068
 Mercury -107702-11-29 12:14 J -37616400.07 -37616399.99 -37616399.88 0.0089 0.0074
 Mercury -107701-02-25 14:52 J -37616311.94 -37616311.88 -37616311.78 0.0089 0.0079
 Mercury -107701-05-23 17:45 J -37616223.80 -37616223.76 -37616223.69 0.0089 0.0084
 Venus -107688-10-05 18:57 J -37611340.75 -37611340.71 -37611340.62 0.0089 0.0085
 Venus -107687-05-19 08:38 J -37611115.22 -37611115.14 -37611115.01 0.0089 0.0078
 Venus -107687-12-30 22:19 J -37610889.68 -37610889.57 -37610889.41 0.0089 0.0071
 Venus -107686-08-13 12:00 J -37610664.13 -37610664.00 -37610663.82 0.0089 0.0064
 Venus -107685-03-26 02:24 J -37610438.57 -37610438.40 -37610438.23 0.0089 0.0056
 Venus -107685-11-06 16:04 J -37610213.01 -37610212.83 -37610212.64 0.0089 0.0049

Venus	-107684-06-20 05:45 J	-37609987.44	-37609987.26	-37609987.05	0.0089	0.0042
Venus	-107683-01-31 19:40 J	-37609761.87	-37609761.68	-37609761.46	0.0089	0.0035
Venus	-107683-09-14 09:35 J	-37609536.30	-37609536.10	-37609535.87	0.0089	0.0028
Venus	-107682-04-27 23:45 J	-37609310.73	-37609310.51	-37609310.29	0.0089	0.0020
Venus	-107682-12-09 13:40 J	-37609085.15	-37609084.93	-37609084.71	0.0089	0.0013
Venus	-107681-07-22 03:35 J	-37608859.58	-37608859.35	-37608859.13	0.0089	0.0006
Venus	-107680-03-04 17:31 J	-37608633.99	-37608633.77	-37608633.54	0.0089	0.0002
Venus	-107680-10-16 07:40 J	-37608408.40	-37608408.18	-37608407.95	0.0089	0.0009
Venus	-107679-05-29 21:50 J	-37608182.81	-37608182.59	-37608182.37	0.0089	0.0016
Venus	-107678-01-10 11:31 J	-37607957.22	-37607957.02	-37607956.79	0.0089	0.0024
Venus	-107678-08-24 01:40 J	-37607731.63	-37607731.43	-37607731.21	0.0089	0.0031
Venus	-107677-04-05 16:04 J	-37607506.03	-37607505.83	-37607505.63	0.0089	0.0038
Venus	-107677-11-17 06:00 J	-37607280.43	-37607280.25	-37607280.04	0.0089	0.0046
Venus	-107676-06-30 20:24 J	-37607054.82	-37607054.65	-37607054.46	0.0089	0.0053
Venus	-107675-02-11 10:48 J	-37606829.21	-37606829.05	-37606828.88	0.0089	0.0060
Venus	-107675-09-25 00:43 J	-37606603.60	-37606603.47	-37606603.31	0.0089	0.0068
Venus	-107674-05-08 15:07 J	-37606377.97	-37606377.87	-37606377.74	0.0089	0.0075
Venus	-107674-12-20 05:16 J	-37606152.35	-37606152.28	-37606152.18	0.0089	0.0082
Moon	-107664-01-25 22:19 J	-37602827.73	-37602827.57	-37602827.36	0.0089	0.0063
Earth	-107664-01-25 23:02 J	-37602827.72	-37602827.54	-37602827.32	0.0089	0.0060 *
Moon	-107663-01-28 15:50 J	-37602460.10	-37602459.84	-37602459.56	0.0089	0.0023
Earth	-107663-01-28 16:04 J	-37602460.08	-37602459.83	-37602459.56	0.0089	0.0026 *
Earth	-107662-01-31 09:07 J	-37602092.38	-37602092.12	-37602091.85	0.0089	0.0008
Moon	-107662-01-31 10:19 J	-37602092.33	-37602092.07	-37602091.81	0.0089	0.0005 *
Moon	-107661-02-02 23:16 J	-37601724.76	-37601724.53	-37601724.28	0.0089	0.0045
Earth	-107661-02-03 01:55 J	-37601724.64	-37601724.42	-37601724.17	0.0089	0.0042 *
Earth	-107660-02-04 18:28 J	-37601356.85	-37601356.73	-37601356.57	0.0089	0.0076
Moon	-107660-02-04 21:35 J	-37601356.74	-37601356.60	-37601356.44	0.0089	0.0072 *
Mars	-107652-02-04 07:11 J	-37598435.32	-37598435.20	-37598435.02	0.0089	0.0076
Mars	-107651-12-30 04:48 J	-37597741.53	-37597741.30	-37597741.02	0.0089	0.0045

Mars -107649-11-23 02:38 J -37597047.68 -37597047.39 -37597047.10 0.0089 0.0013
 Mars -107647-10-17 22:19 J -37596353.84 -37596353.57 -37596353.27 0.0089 0.0019
 Mars -107645-09-10 18:43 J -37595659.94 -37595659.72 -37595659.46 0.0089 0.0050
 Mars -107643-08-05 15:35 J -37594965.94 -37594965.85 -37594965.70 0.0089 0.0081
 Mercury -107628-12-27 05:45 J -37589343.29 -37589343.26 -37589343.20 0.0088 0.0085
 Mercury -107627-03-25 07:55 J -37589255.22 -37589255.17 -37589255.09 0.0088 0.0080
 Mercury -107627-06-21 09:50 J -37589167.15 -37589167.09 -37589167.00 0.0088 0.0075
 Mercury -107627-09-17 12:00 J -37589079.08 -37589079.00 -37589078.90 0.0088 0.0070
 Mercury -107627-12-14 14:09 J -37588991.01 -37588990.91 -37588990.81 0.0088 0.0066
 Mercury -107626-03-12 15:50 J -37588902.93 -37588902.84 -37588902.71 0.0088 0.0062
 Mercury -107626-06-08 18:00 J -37588814.86 -37588814.75 -37588814.62 0.0088 0.0057
 Mercury -107626-09-04 20:09 J -37588726.78 -37588726.66 -37588726.53 0.0088 0.0052
 Mercury -107626-12-01 22:04 J -37588638.70 -37588638.58 -37588638.45 0.0088 0.0047
 Mercury -107625-02-28 00:00 J -37588550.63 -37588550.50 -37588550.36 0.0088 0.0043
 Mercury -107625-05-26 01:55 J -37588462.55 -37588462.42 -37588462.28 0.0088 0.0038
 Mercury -107625-08-22 04:04 J -37588374.47 -37588374.33 -37588374.19 0.0088 0.0034
 Mercury -107625-11-18 05:45 J -37588286.39 -37588286.26 -37588286.11 0.0088 0.0030
 Mercury -107624-02-14 07:55 J -37588198.31 -37588198.17 -37588198.02 0.0088 0.0025
 Mercury -107624-05-13 09:50 J -37588110.24 -37588110.09 -37588109.94 0.0088 0.0020
 Mercury -107624-08-09 11:45 J -37588022.16 -37588022.01 -37588021.86 0.0088 0.0016
 Mercury -107624-11-05 13:40 J -37587934.08 -37587933.93 -37587933.78 0.0088 0.0011
 Mercury -107623-02-01 15:35 J -37587846.00 -37587845.85 -37587845.70 0.0088 0.0007
 Mercury -107623-04-30 17:31 J -37587757.92 -37587757.77 -37587757.62 0.0088 0.0003
 Mercury -107623-07-27 19:26 J -37587669.84 -37587669.69 -37587669.54 0.0088 0.0003
 Mercury -107623-10-23 21:07 J -37587581.77 -37587581.62 -37587581.47 0.0088 0.0007
 Mercury -107622-01-19 23:02 J -37587493.69 -37587493.54 -37587493.39 0.0088 0.0011
 Mercury -107622-04-18 00:57 J -37587405.61 -37587405.46 -37587405.31 0.0088 0.0015
 Mercury -107622-07-15 02:38 J -37587317.53 -37587317.39 -37587317.24 0.0088 0.0020
 Mercury -107622-10-11 04:33 J -37587229.45 -37587229.31 -37587229.17 0.0088 0.0024
 Mercury -107621-01-07 06:14 J -37587141.37 -37587141.24 -37587141.09 0.0088 0.0029

Mercury -107621-04-04 08:09 J -37587053.29 -37587053.16 -37587053.02 0.0088 0.0033

Mercury -107621-07-01 09:50 J -37586965.22 -37586965.09 -37586964.95 0.0088 0.0037

Mercury -107621-09-27 11:45 J -37586877.14 -37586877.01 -37586876.88 0.0088 0.0041

Mercury -107621-12-24 13:26 J -37586789.06 -37586788.94 -37586788.81 0.0088 0.0046

Mercury -107620-03-22 15:21 J -37586700.98 -37586700.86 -37586700.74 0.0088 0.0050

Mercury -107620-06-18 16:48 J -37586612.90 -37586612.80 -37586612.67 0.0088 0.0055

Mercury -107620-09-14 18:43 J -37586524.82 -37586524.72 -37586524.60 0.0088 0.0058

Mercury -107620-12-11 20:24 J -37586436.74 -37586436.65 -37586436.54 0.0088 0.0063

Mercury -107619-03-09 22:19 J -37586348.66 -37586348.57 -37586348.47 0.0088 0.0067

Mercury -107619-06-06 00:00 J -37586260.58 -37586260.50 -37586260.41 0.0088 0.0071

Mercury -107619-09-02 01:55 J -37586172.50 -37586172.42 -37586172.34 0.0088 0.0075

Mercury -107619-11-29 03:21 J -37586084.41 -37586084.36 -37586084.29 0.0088 0.0079

Mercury -107618-02-25 05:02 J -37585996.32 -37585996.29 -37585996.23 0.0088 0.0083

Mercury -107618-05-24 06:43 J -37585908.23 -37585908.22 -37585908.18 0.0088 0.0088

Jupiter -107612-09-05 06:28 J -37583612.57 -37583612.23 -37583611.78 0.0088 0.0058

Venus -107606-04-15 00:43 J -37581564.47 -37581564.47 -37581564.47 0.0088 0.0088

Venus -107606-11-26 12:57 J -37581339.04 -37581338.96 -37581338.88 0.0088 0.0082

Venus -107605-07-09 00:43 J -37581113.56 -37581113.47 -37581113.33 0.0088 0.0076

Venus -107604-02-19 13:11 J -37580888.07 -37580887.95 -37580887.80 0.0088 0.0068

Venus -107604-10-03 01:26 J -37580662.58 -37580662.44 -37580662.27 0.0088 0.0062

Venus -107603-05-16 13:55 J -37580437.08 -37580436.92 -37580436.74 0.0088 0.0055

Venus -107603-12-28 02:09 J -37580211.59 -37580211.41 -37580211.22 0.0088 0.0048

Venus -107602-08-10 13:55 J -37579986.09 -37579985.92 -37579985.71 0.0088 0.0042

Venus -107601-03-23 02:24 J -37579760.59 -37579760.40 -37579760.19 0.0088 0.0034

Venus -107601-11-03 14:38 J -37579535.09 -37579534.89 -37579534.68 0.0088 0.0027

Venus -107600-06-17 02:38 J -37579309.59 -37579309.39 -37579309.17 0.0088 0.0021

Venus -107599-01-28 14:52 J -37579084.09 -37579083.88 -37579083.66 0.0088 0.0013

Venus -107599-09-11 03:07 J -37578858.59 -37578858.37 -37578858.15 0.0088 0.0006

Venus -107598-04-24 15:21 J -37578633.08 -37578632.86 -37578632.65 0.0088 0.0001

Venus -107598-12-06 03:21 J -37578407.58 -37578407.36 -37578407.15 0.0088 0.0008

Venus	-107597-07-18 15:07 J	-37578182.08	-37578181.87	-37578181.65	0.0088	0.0015
Venus	-107596-03-01 03:07 J	-37577956.57	-37577956.37	-37577956.15	0.0088	0.0022
Venus	-107596-10-12 15:07 J	-37577731.07	-37577730.87	-37577730.66	0.0088	0.0028
Venus	-107595-05-26 02:52 J	-37577505.56	-37577505.38	-37577505.17	0.0088	0.0035
Venus	-107594-01-06 15:07 J	-37577280.06	-37577279.87	-37577279.68	0.0088	0.0042
Venus	-107594-08-20 02:38 J	-37577054.56	-37577054.39	-37577054.20	0.0088	0.0049
Venus	-107593-04-01 14:24 J	-37576829.05	-37576828.90	-37576828.71	0.0088	0.0056
Venus	-107593-11-13 02:09 J	-37576603.54	-37576603.41	-37576603.24	0.0088	0.0062
Venus	-107592-06-26 14:09 J	-37576378.03	-37576377.91	-37576377.76	0.0088	0.0069
Venus	-107591-02-07 01:40 J	-37576152.52	-37576152.43	-37576152.30	0.0088	0.0076
Venus	-107591-09-20 13:55 J	-37575927.00	-37575926.92	-37575926.84	0.0088	0.0082
Venus	-107590-05-04 01:40 J	-37575701.43	-37575701.43	-37575701.42	0.0088	0.0088
Earth	-107583-07-26 21:21 J	-37573060.62	-37573060.61	-37573060.54	0.0088	0.0088
Moon	-107583-07-26 21:35 J	-37573060.60	-37573060.60	-37573060.58	0.0088	0.0088 *
Moon	-107582-07-29 03:35 J	-37572693.53	-37572693.35	-37572693.13	0.0088	0.0057
Earth	-107582-07-29 04:19 J	-37572693.49	-37572693.32	-37572693.11	0.0088	0.0057 *
Earth	-107581-07-30 11:31 J	-37572326.25	-37572326.02	-37572325.78	0.0088	0.0027
Moon	-107581-07-30 13:55 J	-37572326.15	-37572325.92	-37572325.69	0.0088	0.0028 *
Moon	-107580-08-01 15:21 J	-37571959.11	-37571958.86	-37571958.61	0.0088	0.0005
Earth	-107580-08-01 18:28 J	-37571958.98	-37571958.73	-37571958.48	0.0088	0.0004 *
Earth	-107579-08-04 00:43 J	-37571591.68	-37571591.47	-37571591.22	0.0088	0.0035
Moon	-107579-08-04 04:33 J	-37571591.54	-37571591.31	-37571591.09	0.0088	0.0034 *
Moon	-107578-08-06 04:48 J	-37571224.47	-37571224.30	-37571224.14	0.0088	0.0066
Earth	-107578-08-06 07:40 J	-37571224.33	-37571224.18	-37571224.00	0.0088	0.0065 *
Mars	-107569-10-14 18:57 J	-37567866.88	-37567866.71	-37567866.45	0.0089	0.0069
Mars	-107567-09-10 20:38 J	-37567170.94	-37567170.64	-37567170.31	0.0089	0.0032
Mars	-107565-08-06 22:04 J	-37566474.91	-37566474.58	-37566474.23	0.0089	0.0005
Mars	-107563-07-04 00:00 J	-37565778.78	-37565778.50	-37565778.19	0.0089	0.0041
Mars	-107561-05-30 01:40 J	-37565082.56	-37565082.43	-37565082.23	0.0089	0.0078
Mercury	-107545-09-09 00:14 J	-37559136.49	-37559136.49	-37559136.45	0.0089	0.0088

Mercury -107545-12-06 02:52 J -37559048.43 -37559048.38 -37559048.32 0.0089 0.0083

Mercury -107544-03-04 04:48 J -37558960.35 -37558960.30 -37558960.21 0.0089 0.0079

Mercury -107544-05-31 07:26 J -37558872.27 -37558872.19 -37558872.09 0.0089 0.0074

Mercury -107544-08-27 09:50 J -37558784.18 -37558784.09 -37558783.98 0.0089 0.0069

Mercury -107544-11-23 12:00 J -37558696.10 -37558696.00 -37558695.87 0.0089 0.0065

Mercury -107543-02-19 14:24 J -37558608.01 -37558607.90 -37558607.77 0.0089 0.0060

Mercury -107543-05-18 16:48 J -37558519.91 -37558519.80 -37558519.66 0.0089 0.0055

Mercury -107543-08-14 19:26 J -37558431.82 -37558431.69 -37558431.55 0.0089 0.0050

Mercury -107543-11-10 21:50 J -37558343.73 -37558343.59 -37558343.45 0.0089 0.0045

Mercury -107542-02-07 00:00 J -37558255.63 -37558255.50 -37558255.34 0.0089 0.0041

Mercury -107542-05-06 02:38 J -37558167.54 -37558167.39 -37558167.23 0.0089 0.0036

Mercury -107542-08-02 05:02 J -37558079.44 -37558079.29 -37558079.13 0.0089 0.0031

Mercury -107542-10-29 07:26 J -37557991.34 -37557991.19 -37557991.02 0.0089 0.0026

Mercury -107541-01-25 10:04 J -37557903.24 -37557903.08 -37557902.92 0.0089 0.0021

Mercury -107541-04-22 12:28 J -37557815.14 -37557814.98 -37557814.81 0.0089 0.0016

Mercury -107541-07-19 15:07 J -37557727.04 -37557726.87 -37557726.71 0.0089 0.0011

Mercury -107541-10-15 17:31 J -37557638.93 -37557638.77 -37557638.60 0.0089 0.0006

Mercury -107540-01-11 20:09 J -37557550.83 -37557550.66 -37557550.50 0.0089 0.0002

Mercury -107540-04-09 22:33 J -37557462.73 -37557462.56 -37557462.39 0.0089 0.0004

Mercury -107540-07-07 00:57 J -37557374.62 -37557374.46 -37557374.29 0.0089 0.0009

Mercury -107540-10-03 03:35 J -37557286.51 -37557286.35 -37557286.18 0.0089 0.0014

Mercury -107540-12-30 06:00 J -37557198.40 -37557198.25 -37557198.08 0.0089 0.0019

Mercury -107539-03-28 08:38 J -37557110.30 -37557110.14 -37557109.97 0.0089 0.0024

Mercury -107539-06-24 11:16 J -37557022.19 -37557022.03 -37557021.87 0.0089 0.0029

Mercury -107539-09-20 13:55 J -37556934.07 -37556933.92 -37556933.76 0.0089 0.0034

Mercury -107539-12-17 16:33 J -37556845.96 -37556845.81 -37556845.66 0.0089 0.0039

Mercury -107538-03-15 19:11 J -37556757.85 -37556757.70 -37556757.55 0.0089 0.0044

Mercury -107538-06-11 21:35 J -37556669.73 -37556669.60 -37556669.45 0.0089 0.0050

Mercury -107538-09-08 00:14 J -37556581.61 -37556581.49 -37556581.35 0.0089 0.0055

Mercury -107538-12-05 02:52 J -37556493.49 -37556493.38 -37556493.24 0.0089 0.0060

Mercury -107537-03-02 05:45 J -37556405.37 -37556405.26 -37556405.14 0.0089 0.0065

Mercury -107537-05-29 08:24 J -37556317.25 -37556317.15 -37556317.04 0.0089 0.0070

Mercury -107537-08-25 10:48 J -37556229.12 -37556229.05 -37556228.94 0.0089 0.0076

Mercury -107537-11-21 13:40 J -37556140.99 -37556140.93 -37556140.85 0.0089 0.0081

Mercury -107536-02-17 16:19 J -37556052.85 -37556052.82 -37556052.77 0.0089 0.0086

Venus -107523-01-07 04:19 J -37551346.36 -37551346.32 -37551346.24 0.0089 0.0085

Venus -107523-08-20 18:00 J -37551120.83 -37551120.75 -37551120.62 0.0089 0.0078

Venus -107522-04-03 07:55 J -37550895.29 -37550895.17 -37550895.02 0.0089 0.0071

Venus -107522-11-14 21:35 J -37550669.74 -37550669.60 -37550669.43 0.0089 0.0064

Venus -107521-06-27 11:45 J -37550444.18 -37550444.01 -37550443.83 0.0089 0.0057

Venus -107520-02-08 01:26 J -37550218.62 -37550218.44 -37550218.24 0.0089 0.0049

Venus -107520-09-21 15:21 J -37549993.04 -37549992.86 -37549992.65 0.0089 0.0042

Venus -107519-05-05 05:16 J -37549767.47 -37549767.28 -37549767.06 0.0089 0.0035

Venus -107519-12-16 19:26 J -37549541.91 -37549541.69 -37549541.48 0.0089 0.0027

Venus -107518-07-30 09:07 J -37549316.33 -37549316.12 -37549315.90 0.0089 0.0020

Venus -107517-03-11 23:02 J -37549090.76 -37549090.54 -37549090.31 0.0089 0.0013

Venus -107517-10-23 13:11 J -37548865.17 -37548864.95 -37548864.72 0.0089 0.0006

Venus -107516-06-06 03:07 J -37548639.59 -37548639.37 -37548639.14 0.0089 0.0002

Venus -107515-01-17 17:02 J -37548414.01 -37548413.79 -37548413.56 0.0089 0.0009

Venus -107515-08-31 06:57 J -37548188.42 -37548188.21 -37548187.98 0.0089 0.0017

Venus -107514-04-13 21:07 J -37547962.83 -37547962.62 -37547962.40 0.0089 0.0024

Venus -107514-11-25 11:16 J -37547737.24 -37547737.03 -37547736.82 0.0089 0.0032

Venus -107513-07-08 01:11 J -37547511.64 -37547511.45 -37547511.24 0.0089 0.0039

Venus -107512-02-18 15:21 J -37547286.04 -37547285.86 -37547285.66 0.0089 0.0046

Venus -107512-10-02 05:31 J -37547060.43 -37547060.27 -37547060.08 0.0089 0.0054

Venus -107511-05-15 19:40 J -37546834.82 -37546834.68 -37546834.50 0.0089 0.0061

Venus -107511-12-27 10:04 J -37546609.21 -37546609.08 -37546608.93 0.0089 0.0068

Venus -107510-08-10 00:00 J -37546383.60 -37546383.50 -37546383.36 0.0089 0.0076

Venus -107509-03-22 14:24 J -37546157.96 -37546157.90 -37546157.80 0.0089 0.0083

Moon -107500-01-25 00:28 J -37542927.58 -37542927.48 -37542927.34 0.0089 0.0080

Earth -107500-01-25 02:38 J -37542927.50 -37542927.39 -37542927.22 0.0089 0.0076 *
 Earth -107499-01-27 19:40 J -37542559.90 -37542559.68 -37542559.43 0.0089 0.0042
 Moon -107499-01-27 22:48 J -37542559.76 -37542559.55 -37542559.29 0.0089 0.0038 *
 Moon -107498-01-30 09:35 J -37542192.37 -37542192.10 -37542191.83 0.0089 0.0012
 Earth -107498-01-30 12:57 J -37542192.22 -37542191.96 -37542191.69 0.0089 0.0008 *
 Earth -107497-02-02 05:31 J -37541824.51 -37541824.27 -37541824.00 0.0089 0.0026
 Moon -107497-02-02 09:35 J -37541824.35 -37541824.10 -37541823.84 0.0089 0.0030 *
 Moon -107496-02-03 18:57 J -37541456.90 -37541456.71 -37541456.49 0.0089 0.0056
 Earth -107496-02-03 22:19 J -37541456.75 -37541456.57 -37541456.35 0.0089 0.0060 *
 Mars -107487-08-14 13:55 J -37537978.12 -37537977.92 -37537977.68 0.0089 0.0058
 Mars -107485-07-08 11:02 J -37537284.31 -37537284.04 -37537283.75 0.0089 0.0026
 Mars -107483-06-02 08:38 J -37536590.44 -37536590.14 -37536589.85 0.0089 0.0006
 Mars -107481-04-26 04:48 J -37535896.55 -37535896.30 -37535896.01 0.0089 0.0038
 Mars -107479-03-21 01:11 J -37535202.61 -37535202.45 -37535202.24 0.0089 0.0070
 Mercury -107463-06-27 03:07 J -37529260.39 -37529260.37 -37529260.33 0.0088 0.0087
 Mercury -107463-09-23 05:16 J -37529172.33 -37529172.28 -37529172.22 0.0088 0.0082
 Mercury -107463-12-20 07:11 J -37529084.26 -37529084.20 -37529084.11 0.0088 0.0078
 Mercury -107462-03-18 09:21 J -37528996.19 -37528996.11 -37528996.02 0.0088 0.0073
 Mercury -107462-06-14 11:16 J -37528908.12 -37528908.03 -37528907.92 0.0088 0.0068
 Mercury -107462-09-10 13:11 J -37528820.04 -37528819.95 -37528819.83 0.0088 0.0064
 Mercury -107462-12-07 15:35 J -37528731.96 -37528731.85 -37528731.74 0.0088 0.0059
 Mercury -107461-03-04 17:16 J -37528643.89 -37528643.78 -37528643.65 0.0088 0.0055
 Mercury -107461-05-31 19:26 J -37528555.81 -37528555.69 -37528555.56 0.0088 0.0050
 Mercury -107461-08-27 21:21 J -37528467.73 -37528467.61 -37528467.47 0.0088 0.0045
 Mercury -107461-11-23 23:16 J -37528379.66 -37528379.53 -37528379.39 0.0088 0.0041
 Mercury -107460-02-20 01:26 J -37528291.58 -37528291.44 -37528291.30 0.0088 0.0036
 Mercury -107460-05-19 03:21 J -37528203.50 -37528203.36 -37528203.22 0.0088 0.0031
 Mercury -107460-08-15 05:16 J -37528115.42 -37528115.28 -37528115.13 0.0088 0.0027
 Mercury -107460-11-11 07:11 J -37528027.34 -37528027.20 -37528027.05 0.0088 0.0022
 Mercury -107459-02-07 09:07 J -37527939.26 -37527939.12 -37527938.97 0.0088 0.0018

Mercury -107459-05-06 11:02 J -37527851.19 -37527851.04 -37527850.89 0.0088 0.0014

Mercury -107459-08-02 12:57 J -37527763.11 -37527762.96 -37527762.81 0.0088 0.0009

Mercury -107459-10-29 14:52 J -37527675.03 -37527674.88 -37527674.73 0.0088 0.0005

Mercury -107458-01-25 16:48 J -37527586.95 -37527586.80 -37527586.65 0.0088 0.0001

Mercury -107458-04-23 18:43 J -37527498.87 -37527498.72 -37527498.57 0.0088 0.0004

Mercury -107458-07-20 20:38 J -37527410.79 -37527410.64 -37527410.49 0.0088 0.0009

Mercury -107458-10-16 22:19 J -37527322.71 -37527322.57 -37527322.42 0.0088 0.0014

Mercury -107457-01-13 00:14 J -37527234.63 -37527234.49 -37527234.34 0.0088 0.0018

Mercury -107457-04-10 01:55 J -37527146.55 -37527146.42 -37527146.27 0.0088 0.0023

Mercury -107457-07-07 03:50 J -37527058.47 -37527058.34 -37527058.19 0.0088 0.0027

Mercury -107457-10-03 05:45 J -37526970.40 -37526970.26 -37526970.12 0.0088 0.0031

Mercury -107457-12-30 07:26 J -37526882.32 -37526882.19 -37526882.04 0.0088 0.0035

Mercury -107456-03-28 09:21 J -37526794.24 -37526794.11 -37526793.97 0.0088 0.0039

Mercury -107456-06-24 11:16 J -37526706.16 -37526706.03 -37526705.90 0.0088 0.0044

Mercury -107456-09-20 12:43 J -37526618.08 -37526617.97 -37526617.83 0.0088 0.0049

Mercury -107456-12-17 14:38 J -37526530.00 -37526529.89 -37526529.76 0.0088 0.0052

Mercury -107455-03-15 16:33 J -37526441.92 -37526441.81 -37526441.69 0.0088 0.0056

Mercury -107455-06-11 18:14 J -37526353.84 -37526353.74 -37526353.63 0.0088 0.0061

Mercury -107455-09-07 20:09 J -37526265.76 -37526265.66 -37526265.56 0.0088 0.0065

Mercury -107455-12-04 21:35 J -37526177.68 -37526177.60 -37526177.49 0.0088 0.0069

Mercury -107454-03-02 23:16 J -37526089.59 -37526089.53 -37526089.43 0.0088 0.0074

Mercury -107454-05-30 01:11 J -37526001.51 -37526001.45 -37526001.37 0.0088 0.0077

Mercury -107454-08-26 02:52 J -37525913.42 -37525913.38 -37525913.31 0.0088 0.0082

Mercury -107454-11-22 04:33 J -37525825.33 -37525825.31 -37525825.26 0.0088 0.0086

Venus -107441-02-28 00:14 J -37521344.56 -37521344.49 -37521344.39 0.0088 0.0082

Venus -107441-10-10 12:57 J -37521119.07 -37521118.96 -37521118.85 0.0088 0.0075

Venus -107440-05-24 00:43 J -37520893.59 -37520893.47 -37520893.31 0.0088 0.0068

Venus -107439-01-04 12:57 J -37520668.10 -37520667.96 -37520667.79 0.0088 0.0061

Venus -107439-08-18 01:11 J -37520442.60 -37520442.45 -37520442.26 0.0088 0.0055

Venus -107438-03-31 13:40 J -37520217.10 -37520216.93 -37520216.74 0.0088 0.0048

Venus	-107438-11-12 01:55 J	-37519991.61	-37519991.42	-37519991.22	0.0088	0.0041
Venus	-107437-06-24 14:09 J	-37519766.11	-37519765.91	-37519765.71	0.0088	0.0034
Venus	-107436-02-05 02:09 J	-37519540.61	-37519540.41	-37519540.20	0.0088	0.0027
Venus	-107436-09-18 14:24 J	-37519315.11	-37519314.90	-37519314.69	0.0088	0.0020
Venus	-107435-05-02 02:24 J	-37519089.61	-37519089.40	-37519089.18	0.0088	0.0013
Venus	-107435-12-13 14:38 J	-37518864.11	-37518863.89	-37518863.68	0.0088	0.0006
Venus	-107434-07-27 02:38 J	-37518638.61	-37518638.39	-37518638.17	0.0088	0.0001
Venus	-107433-03-08 14:38 J	-37518413.10	-37518412.89	-37518412.67	0.0088	0.0008
Venus	-107433-10-20 02:38 J	-37518187.59	-37518187.39	-37518187.17	0.0088	0.0015
Venus	-107432-06-02 14:38 J	-37517962.09	-37517961.89	-37517961.67	0.0088	0.0022
Venus	-107431-01-14 02:24 J	-37517736.59	-37517736.40	-37517736.18	0.0088	0.0030
Venus	-107431-08-27 14:24 J	-37517511.08	-37517510.90	-37517510.69	0.0088	0.0036
Venus	-107430-04-10 02:38 J	-37517285.57	-37517285.39	-37517285.20	0.0088	0.0043
Venus	-107430-11-21 14:24 J	-37517060.07	-37517059.90	-37517059.71	0.0088	0.0050
Venus	-107429-07-04 02:09 J	-37516834.56	-37516834.41	-37516834.23	0.0088	0.0056
Venus	-107428-02-14 13:40 J	-37516609.05	-37516608.93	-37516608.75	0.0088	0.0064
Venus	-107428-09-28 01:55 J	-37516383.54	-37516383.42	-37516383.28	0.0088	0.0070
Venus	-107427-05-11 13:26 J	-37516158.02	-37516157.94	-37516157.81	0.0088	0.0077
Venus	-107427-12-23 01:40 J	-37515932.50	-37515932.43	-37515932.35	0.0088	0.0083
Earth	-107418-07-28 17:45 J	-37512792.88	-37512792.76	-37512792.59	0.0088	0.0071
Moon	-107418-07-28 20:38 J	-37512792.74	-37512792.64	-37512792.49	0.0088	0.0076 *
Moon	-107417-07-29 21:21 J	-37512425.82	-37512425.61	-37512425.37	0.0088	0.0037
Earth	-107417-07-30 01:11 J	-37512425.67	-37512425.45	-37512425.23	0.0088	0.0041 *
Earth	-107416-08-01 07:40 J	-37512058.42	-37512058.18	-37512057.93	0.0088	0.0011
Moon	-107416-08-01 11:02 J	-37512058.28	-37512058.04	-37512057.79	0.0088	0.0014 *
Moon	-107415-08-03 12:14 J	-37511691.21	-37511690.99	-37511690.75	0.0088	0.0024
Earth	-107415-08-03 14:38 J	-37511691.12	-37511690.89	-37511690.64	0.0088	0.0020 *
Earth	-107414-08-05 21:21 J	-37511323.80	-37511323.61	-37511323.40	0.0088	0.0051
Moon	-107414-08-05 23:02 J	-37511323.74	-37511323.54	-37511323.31	0.0088	0.0047 *
Earth	-107413-08-07 03:35 J	-37510956.41	-37510956.35	-37510956.22	0.0088	0.0082

Moon -107413-08-07 03:50 J -37510956.38 -37510956.34 -37510956.25 0.0088 0.0086 *
 Mars -107405-05-28 11:02 J -37508105.13 -37508105.04 -37508104.93 0.0089 0.0084
 Mars -107403-04-24 11:45 J -37507409.27 -37507409.01 -37507408.70 0.0089 0.0048
 Mars -107401-03-20 13:26 J -37506713.26 -37506712.94 -37506712.59 0.0089 0.0011
 Mars -107399-02-14 14:52 J -37506017.19 -37506016.88 -37506016.54 0.0089 0.0027
 Mars -107397-01-11 16:48 J -37505321.01 -37505320.80 -37505320.54 0.0089 0.0064
 Mercury -107380-06-05 23:45 J -37498965.55 -37498965.51 -37498965.47 0.0089 0.0085
 Mercury -107380-09-02 01:40 J -37498877.48 -37498877.43 -37498877.35 0.0089 0.0081
 Mercury -107380-11-29 04:04 J -37498789.40 -37498789.33 -37498789.23 0.0089 0.0076
 Mercury -107379-02-25 06:43 J -37498701.31 -37498701.22 -37498701.12 0.0089 0.0071
 Mercury -107379-05-24 08:52 J -37498613.23 -37498613.13 -37498613.01 0.0089 0.0067
 Mercury -107379-08-20 11:16 J -37498525.14 -37498525.03 -37498524.91 0.0089 0.0062
 Mercury -107379-11-16 13:40 J -37498437.05 -37498436.93 -37498436.80 0.0089 0.0057
 Mercury -107378-02-12 16:19 J -37498348.95 -37498348.82 -37498348.69 0.0089 0.0052
 Mercury -107378-05-11 18:14 J -37498260.86 -37498260.74 -37498260.59 0.0089 0.0048
 Mercury -107378-08-07 20:52 J -37498172.77 -37498172.63 -37498172.48 0.0089 0.0043
 Mercury -107378-11-03 23:16 J -37498084.67 -37498084.53 -37498084.37 0.0089 0.0038
 Mercury -107377-01-31 01:40 J -37497996.57 -37497996.43 -37497996.27 0.0089 0.0033
 Mercury -107377-04-28 04:19 J -37497908.48 -37497908.32 -37497908.16 0.0089 0.0028
 Mercury -107377-07-25 06:43 J -37497820.38 -37497820.22 -37497820.06 0.0089 0.0023
 Mercury -107377-10-21 09:07 J -37497732.28 -37497732.12 -37497731.95 0.0089 0.0019
 Mercury -107376-01-17 11:31 J -37497644.18 -37497644.02 -37497643.85 0.0089 0.0014
 Mercury -107376-04-15 14:09 J -37497556.07 -37497555.91 -37497555.74 0.0089 0.0009
 Mercury -107376-07-12 16:33 J -37497467.97 -37497467.81 -37497467.64 0.0089 0.0004
 Mercury -107376-10-08 19:11 J -37497379.87 -37497379.70 -37497379.53 0.0089 0.0001
 Mercury -107375-01-04 21:35 J -37497291.76 -37497291.60 -37497291.43 0.0089 0.0007
 Mercury -107375-04-03 00:14 J -37497203.66 -37497203.49 -37497203.32 0.0089 0.0011
 Mercury -107375-06-30 02:38 J -37497115.55 -37497115.39 -37497115.22 0.0089 0.0017
 Mercury -107375-09-26 05:02 J -37497027.44 -37497027.29 -37497027.12 0.0089 0.0022
 Mercury -107375-12-23 07:40 J -37496939.33 -37496939.18 -37496939.01 0.0089 0.0027

Mercury -107374-03-21 10:19 J -37496851.22 -37496851.07 -37496850.91 0.0089 0.0032

Mercury -107374-06-17 12:43 J -37496763.11 -37496762.97 -37496762.80 0.0089 0.0037

Mercury -107374-09-13 15:21 J -37496675.00 -37496674.86 -37496674.70 0.0089 0.0042

Mercury -107374-12-10 18:00 J -37496586.88 -37496586.75 -37496586.60 0.0089 0.0047

Mercury -107373-03-07 20:38 J -37496498.77 -37496498.64 -37496498.49 0.0089 0.0052

Mercury -107373-06-03 23:31 J -37496410.65 -37496410.52 -37496410.39 0.0089 0.0057

Mercury -107373-08-31 01:40 J -37496322.53 -37496322.43 -37496322.29 0.0089 0.0063

Mercury -107373-11-27 04:33 J -37496234.41 -37496234.31 -37496234.19 0.0089 0.0068

Mercury -107372-02-23 07:11 J -37496146.28 -37496146.20 -37496146.09 0.0089 0.0073

Mercury -107372-05-22 10:04 J -37496058.15 -37496058.08 -37496058.00 0.0089 0.0078

Mercury -107372-08-18 12:57 J -37495970.02 -37495969.96 -37495969.91 0.0089 0.0083

Mercury -107372-11-14 15:21 J -37495881.86 -37495881.86 -37495881.84 0.0089 0.0089

Venus -107359-04-10 14:38 J -37491351.94 -37491351.89 -37491351.82 0.0089 0.0085

Venus -107359-11-22 04:04 J -37491126.42 -37491126.33 -37491126.21 0.0089 0.0078

Venus -107358-07-05 17:45 J -37490900.87 -37490900.76 -37490900.61 0.0089 0.0071

Venus -107357-02-16 07:26 J -37490675.32 -37490675.19 -37490675.01 0.0089 0.0064

Venus -107357-09-28 21:50 J -37490449.76 -37490449.59 -37490449.42 0.0089 0.0057

Venus -107356-05-12 11:31 J -37490224.20 -37490224.02 -37490223.83 0.0089 0.0049

Venus -107356-12-24 01:11 J -37489998.64 -37489998.45 -37489998.24 0.0089 0.0042

Venus -107355-08-06 14:52 J -37489773.07 -37489772.88 -37489772.66 0.0089 0.0035

Venus -107354-03-20 05:02 J -37489547.50 -37489547.29 -37489547.07 0.0089 0.0027

Venus -107354-10-31 18:57 J -37489321.92 -37489321.71 -37489321.48 0.0089 0.0020

Venus -107353-06-13 09:07 J -37489096.34 -37489096.12 -37489095.90 0.0089 0.0012

Venus -107352-01-24 23:02 J -37488870.76 -37488870.54 -37488870.32 0.0089 0.0005

Venus -107352-09-07 12:57 J -37488645.18 -37488644.96 -37488644.73 0.0089 0.0003

Venus -107351-04-21 02:52 J -37488419.60 -37488419.38 -37488419.15 0.0089 0.0010

Venus -107351-12-02 17:02 J -37488194.01 -37488193.79 -37488193.57 0.0089 0.0017

Venus -107350-07-16 06:43 J -37487968.42 -37487968.22 -37487967.99 0.0089 0.0025

Venus -107349-02-26 20:52 J -37487742.83 -37487742.63 -37487742.41 0.0089 0.0032

Venus -107349-10-09 11:16 J -37487517.23 -37487517.03 -37487516.83 0.0089 0.0040

Venus -107348-05-23 00:57 J -37487291.63 -37487291.46 -37487291.25 0.0089 0.0047
 Venus -107347-01-03 15:21 J -37487066.03 -37487065.86 -37487065.68 0.0089 0.0054
 Venus -107347-08-17 05:02 J -37486840.43 -37486840.29 -37486840.11 0.0089 0.0062
 Venus -107346-03-30 19:26 J -37486614.82 -37486614.69 -37486614.53 0.0089 0.0069
 Venus -107346-11-11 10:04 J -37486389.19 -37486389.08 -37486388.96 0.0089 0.0076
 Venus -107345-06-23 23:45 J -37486163.55 -37486163.51 -37486163.41 0.0089 0.0085
 Moon -107335-01-26 21:35 J -37482659.80 -37482659.60 -37482659.40 0.0089 0.0057
 Earth -107335-01-27 01:11 J -37482659.65 -37482659.45 -37482659.24 0.0089 0.0057 *
 Earth -107334-01-29 18:00 J -37482292.01 -37482291.75 -37482291.49 0.0089 0.0023
 Moon -107334-01-29 20:52 J -37482291.89 -37482291.63 -37482291.36 0.0089 0.0023 *
 Moon -107333-02-01 08:24 J -37481924.40 -37481924.15 -37481923.88 0.0089 0.0010
 Earth -107333-02-01 10:48 J -37481924.31 -37481924.05 -37481923.78 0.0089 0.0011 *
 Earth -107332-02-03 03:07 J -37481556.58 -37481556.37 -37481556.11 0.0089 0.0045
 Moon -107332-02-03 04:33 J -37481556.53 -37481556.31 -37481556.05 0.0089 0.0046 *
 Earth -107331-02-05 19:55 J -37481188.76 -37481188.67 -37481188.51 0.0089 0.0079
 Moon -107331-02-05 20:09 J -37481188.75 -37481188.66 -37481188.51 0.0089 0.0078 *
 Mars -107323-03-30 00:14 J -37478214.63 -37478214.49 -37478214.28 0.0089 0.0072
 Mars -107321-02-21 22:33 J -37477520.82 -37477520.56 -37477520.30 0.0089 0.0039
 Mars -107319-01-15 19:11 J -37476826.99 -37476826.70 -37476826.40 0.0089 0.0007
 Mars -107318-12-10 16:04 J -37476133.10 -37476132.83 -37476132.54 0.0089 0.0026
 Mars -107316-11-03 12:43 J -37475439.17 -37475438.97 -37475438.73 0.0089 0.0058
 Mercury -107299-12-26 00:57 J -37469177.46 -37469177.46 -37469177.45 0.0088 0.0088
 Mercury -107298-03-24 02:52 J -37469089.42 -37469089.38 -37469089.33 0.0088 0.0084
 Mercury -107298-06-20 04:33 J -37469001.36 -37469001.31 -37469001.22 0.0088 0.0080
 Mercury -107298-09-16 06:43 J -37468913.29 -37468913.22 -37468913.12 0.0088 0.0075
 Mercury -107298-12-13 09:07 J -37468825.21 -37468825.12 -37468825.03 0.0088 0.0070
 Mercury -107297-03-10 10:48 J -37468737.14 -37468737.05 -37468736.93 0.0088 0.0066
 Mercury -107297-06-06 12:57 J -37468649.06 -37468648.96 -37468648.84 0.0088 0.0061
 Mercury -107297-09-02 14:52 J -37468560.99 -37468560.88 -37468560.75 0.0088 0.0056
 Mercury -107297-11-29 17:02 J -37468472.91 -37468472.79 -37468472.66 0.0088 0.0051

Mercury -107296-02-25 19:11 J -37468384.83 -37468384.70 -37468384.57 0.0088 0.0047

Mercury -107296-05-24 20:52 J -37468296.75 -37468296.63 -37468296.48 0.0088 0.0043

Mercury -107296-08-20 23:02 J -37468208.67 -37468208.54 -37468208.40 0.0088 0.0038

Mercury -107296-11-17 00:57 J -37468120.60 -37468120.46 -37468120.31 0.0088 0.0033

Mercury -107295-02-13 02:52 J -37468032.52 -37468032.38 -37468032.23 0.0088 0.0029

Mercury -107295-05-12 04:48 J -37467944.44 -37467944.30 -37467944.15 0.0088 0.0024

Mercury -107295-08-08 06:57 J -37467856.36 -37467856.21 -37467856.06 0.0088 0.0020

Mercury -107295-11-04 08:38 J -37467768.28 -37467768.14 -37467767.98 0.0088 0.0016

Mercury -107294-01-31 10:48 J -37467680.20 -37467680.05 -37467679.90 0.0088 0.0011

Mercury -107294-04-29 12:43 J -37467592.12 -37467591.97 -37467591.82 0.0088 0.0006

Mercury -107294-07-26 14:38 J -37467504.04 -37467503.89 -37467503.74 0.0088 0.0002

Mercury -107294-10-22 16:33 J -37467415.96 -37467415.81 -37467415.66 0.0088 0.0004

Mercury -107293-01-18 18:14 J -37467327.89 -37467327.74 -37467327.59 0.0088 0.0008

Mercury -107293-04-15 20:09 J -37467239.81 -37467239.66 -37467239.51 0.0088 0.0012

Mercury -107293-07-12 22:04 J -37467151.73 -37467151.58 -37467151.43 0.0088 0.0016

Mercury -107293-10-08 23:45 J -37467063.65 -37467063.51 -37467063.36 0.0088 0.0021

Mercury -107292-01-05 01:40 J -37466975.57 -37466975.43 -37466975.28 0.0088 0.0025

Mercury -107292-04-03 03:21 J -37466887.49 -37466887.36 -37466887.21 0.0088 0.0030

Mercury -107292-06-30 05:16 J -37466799.41 -37466799.28 -37466799.13 0.0088 0.0034

Mercury -107292-09-26 07:11 J -37466711.33 -37466711.20 -37466711.06 0.0088 0.0038

Mercury -107292-12-23 08:52 J -37466623.25 -37466623.13 -37466622.99 0.0088 0.0042

Mercury -107291-03-21 10:48 J -37466535.17 -37466535.05 -37466534.92 0.0088 0.0046

Mercury -107291-06-17 12:43 J -37466447.09 -37466446.97 -37466446.85 0.0088 0.0050

Mercury -107291-09-13 14:24 J -37466359.01 -37466358.90 -37466358.78 0.0088 0.0055

Mercury -107291-12-10 16:04 J -37466270.93 -37466270.83 -37466270.71 0.0088 0.0059

Mercury -107290-03-08 17:45 J -37466182.85 -37466182.76 -37466182.64 0.0088 0.0064

Mercury -107290-06-04 19:40 J -37466094.77 -37466094.68 -37466094.58 0.0088 0.0067

Mercury -107290-08-31 21:21 J -37466006.68 -37466006.61 -37466006.51 0.0088 0.0072

Mercury -107290-11-27 23:16 J -37465918.60 -37465918.53 -37465918.45 0.0088 0.0076

Mercury -107289-02-24 01:11 J -37465830.51 -37465830.45 -37465830.39 0.0088 0.0080

Mercury -107289-05-22 02:24 J -37465742.42 -37465742.40 -37465742.34 0.0088 0.0085

Mercury -107289-08-18 04:19 J -37465654.32 -37465654.32 -37465654.30 0.0088 0.0088

Venus -107278-10-18 23:45 J -37461575.51 -37461575.51 -37461575.51 0.0088 0.0088

Venus -107277-05-31 11:45 J -37461350.07 -37461350.01 -37461349.91 0.0088 0.0082

Venus -107276-01-12 00:14 J -37461124.59 -37461124.49 -37461124.37 0.0088 0.0075

Venus -107276-08-25 12:43 J -37460899.10 -37460898.97 -37460898.83 0.0088 0.0068

Venus -107275-04-08 00:43 J -37460673.61 -37460673.47 -37460673.29 0.0088 0.0061

Venus -107275-11-19 12:57 J -37460448.11 -37460447.96 -37460447.77 0.0088 0.0054

Venus -107274-07-03 01:11 J -37460222.62 -37460222.45 -37460222.25 0.0088 0.0048

Venus -107273-02-13 13:26 J -37459997.12 -37459996.94 -37459996.73 0.0088 0.0041

Venus -107273-09-26 01:40 J -37459771.62 -37459771.43 -37459771.22 0.0088 0.0034

Venus -107272-05-09 13:55 J -37459546.11 -37459545.92 -37459545.70 0.0088 0.0027

Venus -107272-12-21 02:09 J -37459320.62 -37459320.41 -37459320.19 0.0088 0.0019

Venus -107271-08-03 14:09 J -37459095.12 -37459094.91 -37459094.69 0.0088 0.0013

Venus -107270-03-17 02:38 J -37458869.61 -37458869.39 -37458869.18 0.0088 0.0005

Venus -107270-10-28 14:38 J -37458644.11 -37458643.89 -37458643.67 0.0088 0.0002

Venus -107269-06-10 02:38 J -37458418.60 -37458418.39 -37458418.17 0.0088 0.0009

Venus -107268-01-21 14:24 J -37458193.10 -37458192.90 -37458192.67 0.0088 0.0017

Venus -107268-09-04 02:24 J -37457967.59 -37457967.40 -37457967.18 0.0088 0.0023

Venus -107267-04-17 14:52 J -37457742.08 -37457741.88 -37457741.68 0.0088 0.0030

Venus -107267-11-29 02:52 J -37457516.58 -37457516.38 -37457516.18 0.0088 0.0037

Venus -107266-07-12 14:38 J -37457291.07 -37457290.89 -37457290.70 0.0088 0.0044

Venus -107265-02-23 02:24 J -37457065.56 -37457065.40 -37457065.21 0.0088 0.0051

Venus -107265-10-05 14:24 J -37456840.05 -37456839.90 -37456839.72 0.0088 0.0057

Venus -107264-05-19 02:09 J -37456614.54 -37456614.41 -37456614.24 0.0088 0.0065

Venus -107264-12-30 14:24 J -37456389.02 -37456388.90 -37456388.77 0.0088 0.0071

Venus -107263-08-13 01:55 J -37456163.51 -37456163.42 -37456163.30 0.0088 0.0078

Venus -107262-03-26 13:40 J -37455937.97 -37455937.93 -37455937.85 0.0088 0.0084

Earth -107254-07-28 08:24 J -37452892.21 -37452892.15 -37452892.07 0.0088 0.0085

Earth -107253-07-29 15:07 J -37452525.05 -37452524.87 -37452524.66 0.0088 0.0055

Moon -107253-07-29 17:31 J -37452524.95 -37452524.77 -37452524.54 0.0088 0.0052 *
 Moon -107252-07-31 20:24 J -37452157.86 -37452157.65 -37452157.40 0.0088 0.0028
 Earth -107252-07-31 22:19 J -37452157.80 -37452157.57 -37452157.33 0.0088 0.0024 *
 Moon -107251-08-03 04:48 J -37451790.55 -37451790.30 -37451790.04 0.0088 0.0011
 Earth -107251-08-03 05:16 J -37451790.53 -37451790.28 -37451790.04 0.0088 0.0007 *
 Earth -107250-08-05 11:45 J -37451423.22 -37451423.01 -37451422.78 0.0088 0.0037
 Moon -107250-08-05 12:57 J -37451423.17 -37451422.96 -37451422.73 0.0088 0.0034 *
 Moon -107249-08-06 15:50 J -37451055.96 -37451055.84 -37451055.66 0.0088 0.0072
 Earth -107249-08-06 18:28 J -37451055.87 -37451055.73 -37451055.56 0.0088 0.0068 *
 Mars -107240-12-06 04:48 J -37447647.53 -37447647.30 -37447647.05 0.0089 0.0063
 Mars -107238-11-02 06:00 J -37446951.56 -37446951.25 -37446950.91 0.0089 0.0026
 Saturn -107236-01-23 09:35 J -37446503.28 -37446503.10 -37446502.78 0.0089 0.0082
 Mars -107236-09-28 07:40 J -37446255.51 -37446255.18 -37446254.84 0.0089 0.0013
 Mars -107234-08-25 08:38 J -37445559.38 -37445559.14 -37445558.83 0.0089 0.0051
 Mars -107232-07-21 10:48 J -37444863.06 -37444863.05 -37444862.97 0.0089 0.0088
 Mercury -107216-12-04 20:38 J -37438882.66 -37438882.64 -37438882.60 0.0089 0.0087
 Mercury -107215-03-02 22:33 J -37438794.59 -37438794.56 -37438794.48 0.0089 0.0083
 Mercury -107215-05-30 01:11 J -37438706.52 -37438706.45 -37438706.37 0.0089 0.0078
 Mercury -107215-08-26 03:35 J -37438618.43 -37438618.35 -37438618.25 0.0089 0.0073
 Mercury -107215-11-22 05:45 J -37438530.35 -37438530.26 -37438530.15 0.0089 0.0069
 Mercury -107214-02-18 08:09 J -37438442.26 -37438442.16 -37438442.04 0.0089 0.0064
 Mercury -107214-05-17 10:33 J -37438354.17 -37438354.06 -37438353.93 0.0089 0.0059
 Mercury -107214-08-13 13:11 J -37438266.08 -37438265.95 -37438265.82 0.0089 0.0054
 Mercury -107214-11-09 15:07 J -37438177.99 -37438177.87 -37438177.72 0.0089 0.0050
 Mercury -107213-02-05 17:45 J -37438089.89 -37438089.76 -37438089.61 0.0089 0.0045
 Mercury -107213-05-03 20:09 J -37438001.80 -37438001.66 -37438001.51 0.0089 0.0040
 Mercury -107213-07-30 22:33 J -37437913.70 -37437913.56 -37437913.40 0.0089 0.0035
 Mercury -107213-10-27 01:11 J -37437825.61 -37437825.45 -37437825.30 0.0089 0.0030
 Mercury -107212-01-23 03:35 J -37437737.51 -37437737.35 -37437737.19 0.0089 0.0025
 Mercury -107212-04-21 06:00 J -37437649.41 -37437649.25 -37437649.09 0.0089 0.0020

Mercury -107212-07-18 08:24 J -37437561.31 -37437561.15 -37437560.98 0.0089 0.0016

Mercury -107212-10-14 10:48 J -37437473.21 -37437473.05 -37437472.88 0.0089 0.0011

Mercury -107211-01-10 13:26 J -37437385.11 -37437384.94 -37437384.77 0.0089 0.0006

Mercury -107211-04-08 15:50 J -37437297.00 -37437296.84 -37437296.67 0.0089 0.0002

Mercury -107211-07-05 18:28 J -37437208.90 -37437208.73 -37437208.57 0.0089 0.0004

Mercury -107211-10-01 20:52 J -37437120.79 -37437120.63 -37437120.46 0.0089 0.0009

Mercury -107211-12-28 23:31 J -37437032.69 -37437032.52 -37437032.36 0.0089 0.0014

Mercury -107210-03-27 01:55 J -37436944.58 -37436944.42 -37436944.25 0.0089 0.0019

Mercury -107210-06-23 04:33 J -37436856.47 -37436856.31 -37436856.15 0.0089 0.0024

Mercury -107210-09-19 06:57 J -37436768.36 -37436768.21 -37436768.04 0.0089 0.0030

Mercury -107210-12-16 09:21 J -37436680.25 -37436680.11 -37436679.94 0.0089 0.0035

Mercury -107209-03-13 12:00 J -37436592.14 -37436592.00 -37436591.84 0.0089 0.0040

Mercury -107209-06-09 14:38 J -37436504.03 -37436503.89 -37436503.74 0.0089 0.0045

Mercury -107209-09-05 17:16 J -37436415.91 -37436415.78 -37436415.63 0.0089 0.0050

Mercury -107209-12-02 19:55 J -37436327.80 -37436327.67 -37436327.53 0.0089 0.0055

Mercury -107208-02-28 22:33 J -37436239.68 -37436239.56 -37436239.43 0.0089 0.0060

Mercury -107208-05-28 01:26 J -37436151.56 -37436151.44 -37436151.33 0.0089 0.0065

Mercury -107208-08-24 03:35 J -37436063.44 -37436063.35 -37436063.23 0.0089 0.0071

Mercury -107208-11-20 06:14 J -37435975.31 -37435975.24 -37435975.13 0.0089 0.0076

Mercury -107207-02-16 09:07 J -37435887.18 -37435887.12 -37435887.04 0.0089 0.0081

Mercury -107207-05-15 11:45 J -37435799.04 -37435799.01 -37435798.96 0.0089 0.0086

Venus -107195-07-13 01:11 J -37431357.49 -37431357.45 -37431357.36 0.0089 0.0086

Venus -107194-02-23 14:52 J -37431131.96 -37431131.88 -37431131.75 0.0089 0.0078

Venus -107194-10-07 04:33 J -37430906.42 -37430906.31 -37430906.15 0.0089 0.0072

Venus -107193-05-19 18:14 J -37430680.87 -37430680.74 -37430680.56 0.0089 0.0064

Venus -107193-12-31 08:24 J -37430455.32 -37430455.15 -37430454.97 0.0089 0.0056

Venus -107192-08-13 21:50 J -37430229.76 -37430229.59 -37430229.39 0.0089 0.0050

Venus -107191-03-27 11:45 J -37430004.19 -37430004.01 -37430003.80 0.0089 0.0042

Venus -107191-11-08 01:55 J -37429778.62 -37429778.42 -37429778.21 0.0089 0.0034

Venus -107190-06-21 15:35 J -37429553.05 -37429552.85 -37429552.63 0.0089 0.0027

Venus	-107189-02-02 05:45 J	-37429327.48	-37429327.26	-37429327.04	0.0089	0.0019
Venus	-107189-09-14 19:40 J	-37429101.90	-37429101.68	-37429101.45	0.0089	0.0012
Venus	-107188-04-28 09:35 J	-37428876.32	-37428876.10	-37428875.87	0.0089	0.0005
Venus	-107188-12-09 23:45 J	-37428650.74	-37428650.51	-37428650.29	0.0089	0.0004
Venus	-107187-07-23 13:26 J	-37428425.16	-37428424.94	-37428424.71	0.0089	0.0011
Venus	-107186-03-06 03:21 J	-37428199.57	-37428199.36	-37428199.13	0.0089	0.0019
Venus	-107186-10-17 17:45 J	-37427973.97	-37427973.76	-37427973.54	0.0089	0.0026
Venus	-107185-05-30 07:40 J	-37427748.38	-37427748.18	-37427747.96	0.0089	0.0033
Venus	-107184-01-10 21:50 J	-37427522.79	-37427522.59	-37427522.39	0.0089	0.0040
Venus	-107184-08-24 11:31 J	-37427297.20	-37427297.02	-37427296.82	0.0089	0.0048
Venus	-107183-04-07 01:40 J	-37427071.59	-37427071.43	-37427071.24	0.0089	0.0055
Venus	-107183-11-18 15:35 J	-37426845.99	-37426845.85	-37426845.67	0.0089	0.0063
Venus	-107182-07-02 06:00 J	-37426620.38	-37426620.25	-37426620.10	0.0089	0.0070
Venus	-107181-02-12 20:24 J	-37426394.76	-37426394.65	-37426394.54	0.0089	0.0077
Venus	-107181-09-25 10:04 J	-37426169.12	-37426169.08	-37426168.99	0.0089	0.0085
Earth	-107171-01-26 06:43 J	-37422759.36	-37422759.22	-37422759.05	0.0089	0.0072
Moon	-107171-01-26 08:24 J	-37422759.28	-37422759.15	-37422759.00	0.0089	0.0076 *
Moon	-107170-01-28 23:31 J	-37422391.76	-37422391.52	-37422391.28	0.0089	0.0034
Earth	-107170-01-28 23:16 J	-37422391.75	-37422391.53	-37422391.27	0.0089	0.0039 *
Moon	-107169-01-31 14:52 J	-37422024.15	-37422023.88	-37422023.59	0.0089	0.0009
Earth	-107169-01-31 16:19 J	-37422024.09	-37422023.82	-37422023.55	0.0089	0.0005 *
Earth	-107168-02-02 09:07 J	-37421656.37	-37421656.12	-37421655.86	0.0089	0.0029
Moon	-107168-02-02 10:33 J	-37421656.29	-37421656.06	-37421655.81	0.0089	0.0034 *
Moon	-107167-02-04 22:19 J	-37421288.74	-37421288.57	-37421288.33	0.0089	0.0059
Earth	-107167-02-05 02:09 J	-37421288.60	-37421288.41	-37421288.22	0.0089	0.0063 *
Mars	-107160-11-12 12:00 J	-37418451.07	-37418451.00	-37418450.91	0.0089	0.0085
Mars	-107158-10-07 09:50 J	-37417757.30	-37417757.09	-37417756.83	0.0089	0.0053
Mars	-107156-08-31 07:26 J	-37417063.47	-37417063.19	-37417062.90	0.0089	0.0020
Mars	-107154-07-26 03:50 J	-37416369.63	-37416369.34	-37416369.05	0.0089	0.0013
Mars	-107152-06-19 00:14 J	-37415675.73	-37415675.49	-37415675.23	0.0089	0.0046

Mars -107150-05-13 20:52 J -37414981.74 -37414981.63 -37414981.47 0.0089 0.0079
 Mercury -107134-09-22 00:14 J -37409006.51 -37409006.49 -37409006.44 0.0088 0.0086
 Mercury -107134-12-19 02:24 J -37408918.45 -37408918.40 -37408918.33 0.0088 0.0081
 Mercury -107133-03-16 04:19 J -37408830.38 -37408830.32 -37408830.23 0.0088 0.0077
 Mercury -107133-06-12 06:28 J -37408742.31 -37408742.23 -37408742.13 0.0088 0.0072
 Mercury -107133-09-08 08:38 J -37408654.23 -37408654.14 -37408654.03 0.0088 0.0067
 Mercury -107133-12-05 10:33 J -37408566.16 -37408566.06 -37408565.94 0.0088 0.0063
 Mercury -107132-03-03 12:43 J -37408478.08 -37408477.97 -37408477.85 0.0088 0.0058
 Mercury -107132-05-30 14:38 J -37408390.00 -37408389.89 -37408389.76 0.0088 0.0053
 Mercury -107132-08-26 16:48 J -37408301.92 -37408301.80 -37408301.67 0.0088 0.0048
 Mercury -107132-11-22 18:57 J -37408213.85 -37408213.71 -37408213.58 0.0088 0.0044
 Mercury -107131-02-18 20:38 J -37408125.77 -37408125.64 -37408125.49 0.0088 0.0040
 Mercury -107131-05-17 22:48 J -37408037.69 -37408037.55 -37408037.41 0.0088 0.0035
 Mercury -107131-08-14 00:43 J -37407949.61 -37407949.47 -37407949.32 0.0088 0.0030
 Mercury -107131-11-10 02:38 J -37407861.53 -37407861.39 -37407861.24 0.0088 0.0026
 Mercury -107130-02-06 04:33 J -37407773.45 -37407773.31 -37407773.16 0.0088 0.0021
 Mercury -107130-05-05 06:43 J -37407685.37 -37407685.22 -37407685.08 0.0088 0.0017
 Mercury -107130-08-01 08:24 J -37407597.29 -37407597.15 -37407596.99 0.0088 0.0013
 Mercury -107130-10-28 10:19 J -37407509.21 -37407509.07 -37407508.91 0.0088 0.0009
 Mercury -107129-01-24 12:14 J -37407421.14 -37407420.99 -37407420.83 0.0088 0.0005
 Mercury -107129-04-21 14:09 J -37407333.06 -37407332.91 -37407332.75 0.0088 0.0003
 Mercury -107129-07-18 16:04 J -37407244.98 -37407244.83 -37407244.68 0.0088 0.0006
 Mercury -107129-10-14 18:00 J -37407156.90 -37407156.75 -37407156.60 0.0088 0.0010
 Mercury -107128-01-10 19:55 J -37407068.82 -37407068.67 -37407068.52 0.0088 0.0014
 Mercury -107128-04-08 21:50 J -37406980.74 -37406980.59 -37406980.44 0.0088 0.0019
 Mercury -107128-07-05 23:31 J -37406892.66 -37406892.52 -37406892.37 0.0088 0.0023
 Mercury -107128-10-02 01:26 J -37406804.58 -37406804.44 -37406804.29 0.0088 0.0028
 Mercury -107128-12-29 03:07 J -37406716.50 -37406716.37 -37406716.22 0.0088 0.0032
 Mercury -107127-03-27 05:02 J -37406628.42 -37406628.29 -37406628.15 0.0088 0.0036
 Mercury -107127-06-23 06:57 J -37406540.34 -37406540.21 -37406540.07 0.0088 0.0041

Mercury -107127-09-19 08:52 J -37406452.26 -37406452.13 -37406452.00 0.0088 0.0045

Mercury -107127-12-16 10:33 J -37406364.18 -37406364.06 -37406363.93 0.0088 0.0049

Mercury -107126-03-14 12:14 J -37406276.10 -37406275.99 -37406275.86 0.0088 0.0054

Mercury -107126-06-10 14:09 J -37406188.01 -37406187.91 -37406187.79 0.0088 0.0058

Mercury -107126-09-06 16:04 J -37406099.93 -37406099.83 -37406099.73 0.0088 0.0062

Mercury -107126-12-03 17:31 J -37406011.85 -37406011.77 -37406011.66 0.0088 0.0067

Mercury -107125-02-29 19:26 J -37405923.77 -37405923.69 -37405923.59 0.0088 0.0070

Mercury -107125-05-27 21:07 J -37405835.68 -37405835.62 -37405835.53 0.0088 0.0075

Mercury -107125-08-23 23:02 J -37405747.60 -37405747.54 -37405747.47 0.0088 0.0079

Mercury -107125-11-20 00:43 J -37405659.51 -37405659.47 -37405659.41 0.0088 0.0083

Mercury -107124-02-16 02:38 J -37405571.41 -37405571.39 -37405571.36 0.0088 0.0087

Venus -107113-01-20 11:31 J -37401581.02 -37401581.02 -37401581.00 0.0088 0.0088

Venus -107113-09-01 23:45 J -37401355.57 -37401355.51 -37401355.41 0.0088 0.0081

Venus -107112-04-15 12:14 J -37401130.09 -37401129.99 -37401129.86 0.0088 0.0075

Venus -107112-11-27 00:43 J -37400904.60 -37400904.47 -37400904.32 0.0088 0.0068

Venus -107111-07-10 12:57 J -37400679.10 -37400678.96 -37400678.79 0.0088 0.0061

Venus -107110-02-21 01:26 J -37400453.60 -37400453.44 -37400453.26 0.0088 0.0054

Venus -107110-10-04 13:40 J -37400228.10 -37400227.93 -37400227.73 0.0088 0.0047

Venus -107109-05-17 01:55 J -37400002.60 -37400002.42 -37400002.21 0.0088 0.0040

Venus -107109-12-28 14:09 J -37399777.10 -37399776.91 -37399776.70 0.0088 0.0033

Venus -107108-08-11 02:24 J -37399551.60 -37399551.40 -37399551.19 0.0088 0.0025

Venus -107107-03-24 14:38 J -37399326.10 -37399325.89 -37399325.67 0.0088 0.0018

Venus -107107-11-05 02:52 J -37399100.60 -37399100.38 -37399100.17 0.0088 0.0011

Venus -107106-06-18 14:52 J -37398875.09 -37398874.88 -37398874.66 0.0088 0.0004

Venus -107105-01-30 02:52 J -37398649.59 -37398649.38 -37398649.16 0.0088 0.0003

Venus -107105-09-11 14:52 J -37398424.09 -37398423.88 -37398423.66 0.0088 0.0010

Venus -107104-04-25 03:07 J -37398198.58 -37398198.37 -37398198.16 0.0088 0.0017

Venus -107104-12-06 15:07 J -37397973.08 -37397972.87 -37397972.66 0.0088 0.0024

Venus -107103-07-20 02:52 J -37397747.58 -37397747.38 -37397747.17 0.0088 0.0031

Venus -107102-03-02 14:52 J -37397522.07 -37397521.88 -37397521.68 0.0088 0.0038

Venus -107102-10-14 02:52 J -37397296.56 -37397296.38 -37397296.19 0.0088 0.0045
 Venus -107101-05-26 14:52 J -37397071.05 -37397070.88 -37397070.70 0.0088 0.0052
 Venus -107100-01-07 02:38 J -37396845.54 -37396845.39 -37396845.21 0.0088 0.0059
 Venus -107100-08-20 14:24 J -37396620.02 -37396619.90 -37396619.74 0.0088 0.0066
 Venus -107099-04-03 02:24 J -37396394.50 -37396394.40 -37396394.26 0.0088 0.0073
 Venus -107099-11-14 14:38 J -37396168.98 -37396168.89 -37396168.79 0.0088 0.0079
 Venus -107098-06-28 02:24 J -37395943.44 -37395943.40 -37395943.34 0.0088 0.0086
 Earth -107089-07-29 06:00 J -37392624.39 -37392624.25 -37392624.07 0.0088 0.0068
 Moon -107089-07-29 06:14 J -37392624.36 -37392624.24 -37392624.07 0.0088 0.0070 *
 Moon -107088-07-31 11:45 J -37392257.22 -37392257.01 -37392256.75 0.0088 0.0036
 Earth -107088-07-31 12:57 J -37392257.16 -37392256.96 -37392256.71 0.0088 0.0038 *
 Earth -107087-08-02 20:24 J -37391889.89 -37391889.65 -37391889.40 0.0088 0.0006
 Moon -107087-08-02 22:48 J -37391889.79 -37391889.55 -37391889.31 0.0088 0.0009 *
 Moon -107086-08-04 23:45 J -37391522.73 -37391522.51 -37391522.26 0.0088 0.0026
 Earth -107086-08-05 03:07 J -37391522.59 -37391522.37 -37391522.12 0.0088 0.0025 *
 Earth -107085-08-06 10:04 J -37391155.27 -37391155.08 -37391154.88 0.0088 0.0055
 Moon -107085-08-06 13:26 J -37391155.13 -37391154.94 -37391154.74 0.0088 0.0053 *
 Moon -107084-08-08 13:11 J -37390787.96 -37390787.95 -37390787.89 0.0088 0.0088
 Earth -107084-08-08 16:19 J -37390787.85 -37390787.82 -37390787.72 0.0088 0.0086
 Mars -107076-07-19 22:33 J -37387885.68 -37387885.56 -37387885.38 0.0089 0.0079
 Mars -107074-06-15 23:31 J -37387189.80 -37387189.52 -37387189.20 0.0089 0.0041
 Mars -107072-05-12 01:26 J -37386493.77 -37386493.44 -37386493.10 0.0089 0.0002
 Mars -107070-04-08 02:52 J -37385797.66 -37385797.38 -37385797.05 0.0089 0.0037
 Mars -107068-03-04 04:33 J -37385101.46 -37385101.31 -37385101.10 0.0089 0.0075
 Mercury -107051-06-04 17:45 J -37378799.76 -37378799.76 -37378799.74 0.0089 0.0089
 Mercury -107051-08-31 20:09 J -37378711.70 -37378711.66 -37378711.60 0.0089 0.0084
 Mercury -107051-11-27 22:33 J -37378623.63 -37378623.56 -37378623.49 0.0089 0.0079
 Mercury -107050-02-24 00:28 J -37378535.55 -37378535.48 -37378535.37 0.0089 0.0075
 Mercury -107050-05-23 03:07 J -37378447.46 -37378447.37 -37378447.27 0.0089 0.0070
 Mercury -107050-08-19 05:31 J -37378359.37 -37378359.27 -37378359.16 0.0089 0.0065

Mercury -107050-11-15 07:40 J -37378271.29 -37378271.18 -37378271.05 0.0089 0.0061

Mercury -107049-02-11 10:04 J -37378183.20 -37378183.08 -37378182.94 0.0089 0.0056

Mercury -107049-05-09 12:28 J -37378095.10 -37378094.98 -37378094.84 0.0089 0.0051

Mercury -107049-08-05 15:07 J -37378007.01 -37378006.87 -37378006.73 0.0089 0.0046

Mercury -107049-11-01 17:16 J -37377918.92 -37377918.78 -37377918.63 0.0089 0.0042

Mercury -107048-01-28 19:40 J -37377830.82 -37377830.68 -37377830.52 0.0089 0.0037

Mercury -107048-04-26 22:04 J -37377742.73 -37377742.58 -37377742.42 0.0089 0.0032

Mercury -107048-07-24 00:28 J -37377654.63 -37377654.48 -37377654.31 0.0089 0.0027

Mercury -107048-10-20 03:07 J -37377566.53 -37377566.37 -37377566.21 0.0089 0.0022

Mercury -107047-01-16 05:31 J -37377478.43 -37377478.27 -37377478.11 0.0089 0.0017

Mercury -107047-04-14 07:55 J -37377390.33 -37377390.17 -37377390.00 0.0089 0.0012

Mercury -107047-07-11 10:33 J -37377302.23 -37377302.06 -37377301.90 0.0089 0.0007

Mercury -107047-10-07 12:57 J -37377214.13 -37377213.96 -37377213.79 0.0089 0.0002

Mercury -107046-01-03 15:21 J -37377126.02 -37377125.86 -37377125.69 0.0089 0.0004

Mercury -107046-04-01 18:00 J -37377037.92 -37377037.75 -37377037.59 0.0089 0.0008

Mercury -107046-06-28 20:24 J -37376949.81 -37376949.65 -37376949.48 0.0089 0.0013

Mercury -107046-09-24 22:48 J -37376861.71 -37376861.55 -37376861.38 0.0089 0.0018

Mercury -107046-12-22 01:26 J -37376773.60 -37376773.44 -37376773.27 0.0089 0.0023

Mercury -107045-03-19 03:50 J -37376685.49 -37376685.34 -37376685.17 0.0089 0.0028

Mercury -107045-06-15 06:28 J -37376597.38 -37376597.23 -37376597.07 0.0089 0.0033

Mercury -107045-09-11 09:07 J -37376509.27 -37376509.12 -37376508.96 0.0089 0.0038

Mercury -107045-12-08 11:31 J -37376421.16 -37376421.02 -37376420.86 0.0089 0.0043

Mercury -107044-03-06 14:09 J -37376333.04 -37376332.91 -37376332.76 0.0089 0.0048

Mercury -107044-06-02 16:48 J -37376244.93 -37376244.80 -37376244.66 0.0089 0.0054

Mercury -107044-08-29 19:11 J -37376156.81 -37376156.70 -37376156.56 0.0089 0.0059

Mercury -107044-11-25 21:50 J -37376068.69 -37376068.59 -37376068.46 0.0089 0.0064

Mercury -107043-02-22 00:28 J -37375980.57 -37375980.48 -37375980.36 0.0089 0.0069

Mercury -107043-05-21 03:07 J -37375892.45 -37375892.37 -37375892.26 0.0089 0.0074

Mercury -107043-08-17 06:00 J -37375804.32 -37375804.25 -37375804.17 0.0089 0.0079

Mercury -107043-11-13 08:52 J -37375716.18 -37375716.13 -37375716.08 0.0089 0.0084

Jupiter -107037-09-13 07:40 J -37373585.63 -37373585.18 -37373584.63 0.0089 0.0043
 Venus -107031-10-14 12:28 J -37371363.02 -37371362.98 -37371362.89 0.0089 0.0085
 Venus -107030-05-28 01:55 J -37371137.50 -37371137.42 -37371137.29 0.0089 0.0078
 Venus -107029-01-08 16:04 J -37370911.96 -37370911.83 -37370911.69 0.0089 0.0071
 Venus -107029-08-21 05:31 J -37370686.41 -37370686.27 -37370686.10 0.0089 0.0063
 Venus -107028-04-03 18:57 J -37370460.86 -37370460.71 -37370460.52 0.0089 0.0057
 Venus -107028-11-15 08:38 J -37370235.30 -37370235.14 -37370234.93 0.0089 0.0049
 Venus -107027-06-28 22:33 J -37370009.74 -37370009.56 -37370009.35 0.0089 0.0042
 Venus -107026-02-09 12:14 J -37369784.18 -37369783.99 -37369783.76 0.0089 0.0035
 Venus -107026-09-23 02:38 J -37369558.60 -37369558.39 -37369558.18 0.0089 0.0026
 Venus -107025-05-05 16:19 J -37369333.03 -37369332.82 -37369332.59 0.0089 0.0019
 Venus -107025-12-17 06:28 J -37369107.46 -37369107.23 -37369107.01 0.0089 0.0011
 Venus -107024-07-30 20:09 J -37368881.88 -37368881.66 -37368881.43 0.0089 0.0004
 Venus -107023-03-13 10:19 J -37368656.30 -37368656.07 -37368655.85 0.0089 0.0004
 Venus -107023-10-25 00:28 J -37368430.70 -37368430.48 -37368430.26 0.0089 0.0011
 Venus -107022-06-07 14:09 J -37368205.12 -37368204.91 -37368204.68 0.0089 0.0020
 Venus -107021-01-19 04:19 J -37367979.53 -37367979.32 -37367979.10 0.0089 0.0027
 Venus -107021-08-31 18:14 J -37367753.94 -37367753.74 -37367753.52 0.0089 0.0034
 Venus -107020-04-14 08:38 J -37367528.34 -37367528.14 -37367527.94 0.0089 0.0042
 Venus -107020-11-25 22:19 J -37367302.74 -37367302.57 -37367302.37 0.0089 0.0049
 Venus -107019-07-09 12:43 J -37367077.14 -37367076.97 -37367076.79 0.0089 0.0057
 Venus -107018-02-20 02:24 J -37366851.53 -37366851.40 -37366851.22 0.0089 0.0064
 Venus -107018-10-03 17:02 J -37366625.92 -37366625.79 -37366625.65 0.0089 0.0071
 Venus -107017-05-16 06:43 J -37366400.30 -37366400.22 -37366400.09 0.0089 0.0079
 Venus -107017-12-27 20:52 J -37366174.66 -37366174.63 -37366174.55 0.0089 0.0087
 Earth -107007-01-25 13:11 J -37362858.98 -37362858.95 -37362858.88 0.0089 0.0087
 Moon -107006-01-28 03:35 J -37362491.57 -37362491.35 -37362491.11 0.0089 0.0050
 Earth -107006-01-28 06:00 J -37362491.45 -37362491.25 -37362491.02 0.0089 0.0053 *
 Earth -107005-01-30 22:48 J -37362123.80 -37362123.55 -37362123.28 0.0089 0.0019
 Moon -107005-01-31 02:24 J -37362123.65 -37362123.40 -37362123.13 0.0089 0.0022 *

Moon	-107004-02-01 12:00 J	-37361756.25	-37361756.00	-37361755.72	0.0089	0.0018
Earth	-107004-02-01 15:35 J	-37361756.10	-37361755.85	-37361755.57	0.0089	0.0015 *
Earth	-107003-02-04 07:55 J	-37361388.37	-37361388.17	-37361387.92	0.0089	0.0049
Moon	-107003-02-04 12:14 J	-37361388.22	-37361387.99	-37361387.76	0.0089	0.0047 *
Moon	-107002-02-06 21:21 J	-37361020.66	-37361020.61	-37361020.51	0.0089	0.0085
Earth	-107002-02-07 00:28 J	-37361020.54	-37361020.48	-37361020.35	0.0089	0.0083 *

107TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 107th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-106994-05-22 20:24 J	-37357993.81	-37357993.65	-37357993.43	0.0089	0.0067		
Mars	-106992-04-15 18:43 J	-37357299.98	-37357299.72	-37357299.43	0.0089	0.0033		
Mars	-106990-03-10 17:02 J	-37356606.09	-37356605.79	-37356605.50	0.0089	0.0001		
Mars	-106988-02-01 13:26 J	-37355912.20	-37355911.94	-37355911.66	0.0089	0.0034		
Mars	-106987-12-27 09:07 J	-37355218.27	-37355218.12	-37355217.89	0.0089	0.0068		
Mercury	-106969-03-21 22:19 J	-37348923.59	-37348923.57	-37348923.54	0.0088	0.0087		
Mercury	-106969-06-18 00:00 J	-37348835.54	-37348835.50	-37348835.43	0.0088	0.0083		
Mercury	-106969-09-14 02:09 J	-37348747.47	-37348747.41	-37348747.32	0.0088	0.0078		
Mercury	-106969-12-11 04:33 J	-37348659.39	-37348659.31	-37348659.22	0.0088	0.0073		
Mercury	-106968-03-09 06:14 J	-37348571.32	-37348571.24	-37348571.13	0.0088	0.0069		

Mercury -106968-06-05 08:24 J -37348483.24 -37348483.15 -37348483.03 0.0088 0.0064

Mercury -106968-09-01 10:48 J -37348395.17 -37348395.05 -37348394.94 0.0088 0.0059

Mercury -106968-11-28 12:28 J -37348307.09 -37348306.98 -37348306.85 0.0088 0.0055

Mercury -106967-02-24 14:38 J -37348219.01 -37348218.89 -37348218.76 0.0088 0.0050

Mercury -106967-05-23 16:33 J -37348130.93 -37348130.81 -37348130.67 0.0088 0.0045

Mercury -106967-08-19 18:43 J -37348042.86 -37348042.72 -37348042.58 0.0088 0.0041

Mercury -106967-11-15 20:24 J -37347954.78 -37347954.65 -37347954.50 0.0088 0.0037

Mercury -106966-02-11 22:33 J -37347866.70 -37347866.56 -37347866.41 0.0088 0.0032

Mercury -106966-05-11 00:28 J -37347778.62 -37347778.48 -37347778.33 0.0088 0.0027

Mercury -106966-08-07 02:24 J -37347690.54 -37347690.40 -37347690.24 0.0088 0.0023

Mercury -106966-11-03 04:19 J -37347602.46 -37347602.32 -37347602.16 0.0088 0.0019

Mercury -106965-01-30 06:28 J -37347514.38 -37347514.23 -37347514.08 0.0088 0.0013

Mercury -106965-04-27 08:24 J -37347426.30 -37347426.15 -37347426.00 0.0088 0.0009

Mercury -106965-07-24 10:19 J -37347338.22 -37347338.07 -37347337.92 0.0088 0.0005

Mercury -106965-10-20 12:14 J -37347250.14 -37347249.99 -37347249.84 0.0088 0.0000

Mercury -106964-01-16 14:09 J -37347162.06 -37347161.91 -37347161.76 0.0088 0.0004

Mercury -106964-04-14 16:04 J -37347073.98 -37347073.83 -37347073.68 0.0088 0.0009

Mercury -106964-07-11 17:45 J -37346985.90 -37346985.76 -37346985.60 0.0088 0.0014

Mercury -106964-10-07 19:40 J -37346897.82 -37346897.68 -37346897.53 0.0088 0.0018

Mercury -106963-01-03 21:35 J -37346809.74 -37346809.60 -37346809.45 0.0088 0.0022

Mercury -106963-04-01 23:31 J -37346721.66 -37346721.52 -37346721.38 0.0088 0.0026

Mercury -106963-06-29 01:26 J -37346633.58 -37346633.44 -37346633.30 0.0088 0.0031

Mercury -106963-09-25 02:52 J -37346545.50 -37346545.38 -37346545.23 0.0088 0.0036

Mercury -106963-12-22 04:48 J -37346457.42 -37346457.30 -37346457.16 0.0088 0.0040

Mercury -106962-03-20 06:43 J -37346369.34 -37346369.22 -37346369.08 0.0088 0.0044

Mercury -106962-06-16 08:38 J -37346281.26 -37346281.14 -37346281.01 0.0088 0.0048

Mercury -106962-09-12 10:19 J -37346193.18 -37346193.07 -37346192.94 0.0088 0.0052

Mercury -106962-12-09 12:14 J -37346105.10 -37346104.99 -37346104.87 0.0088 0.0056

Mercury -106961-03-06 13:55 J -37346017.02 -37346016.92 -37346016.80 0.0088 0.0061

Mercury -106961-06-02 15:50 J -37345928.93 -37345928.84 -37345928.74 0.0088 0.0065

Mercury -106961-08-29 17:16 J -37345840.85 -37345840.78 -37345840.67 0.0088 0.0070

Mercury -106961-11-25 19:11 J -37345752.77 -37345752.70 -37345752.61 0.0088 0.0073

Mercury -106960-02-21 20:52 J -37345664.68 -37345664.63 -37345664.55 0.0088 0.0078

Mercury -106960-05-20 22:48 J -37345576.59 -37345576.55 -37345576.49 0.0088 0.0082

Mercury -106960-08-17 00:28 J -37345488.50 -37345488.48 -37345488.43 0.0088 0.0086

Venus -106949-04-22 23:45 J -37341586.51 -37341586.51 -37341586.48 0.0088 0.0088

Venus -106949-12-04 12:00 J -37341361.06 -37341361.00 -37341360.89 0.0088 0.0081

Venus -106948-07-18 00:28 J -37341135.58 -37341135.48 -37341135.34 0.0088 0.0074

Venus -106947-02-28 12:57 J -37340910.08 -37340909.96 -37340909.80 0.0088 0.0067

Venus -106947-10-12 01:26 J -37340684.58 -37340684.44 -37340684.26 0.0088 0.0060

Venus -106946-05-25 13:55 J -37340459.08 -37340458.92 -37340458.73 0.0088 0.0053

Venus -106945-01-06 02:38 J -37340233.58 -37340233.39 -37340233.21 0.0088 0.0046

Venus -106945-08-18 14:52 J -37340008.08 -37340007.88 -37340007.69 0.0088 0.0039

Venus -106944-04-01 03:07 J -37339782.57 -37339782.37 -37339782.16 0.0088 0.0032

Venus -106944-11-12 15:21 J -37339557.06 -37339556.86 -37339556.65 0.0088 0.0025

Venus -106943-06-26 03:35 J -37339331.56 -37339331.35 -37339331.14 0.0088 0.0017

Venus -106942-02-06 15:35 J -37339106.06 -37339105.85 -37339105.63 0.0088 0.0011

Venus -106942-09-20 03:50 J -37338880.56 -37338880.34 -37338880.12 0.0088 0.0003

Venus -106941-05-02 15:50 J -37338655.05 -37338654.84 -37338654.62 0.0088 0.0004

Venus -106941-12-14 03:50 J -37338429.55 -37338429.34 -37338429.12 0.0088 0.0011

Venus -106940-07-27 15:50 J -37338204.05 -37338203.84 -37338203.62 0.0088 0.0018

Venus -106939-03-10 03:50 J -37337978.54 -37337978.34 -37337978.12 0.0088 0.0025

Venus -106939-10-21 15:50 J -37337753.03 -37337752.84 -37337752.63 0.0088 0.0032

Venus -106938-06-04 03:35 J -37337527.52 -37337527.35 -37337527.14 0.0088 0.0040

Venus -106937-01-15 15:35 J -37337302.02 -37337301.85 -37337301.65 0.0088 0.0046

Venus -106937-08-28 03:21 J -37337076.51 -37337076.36 -37337076.16 0.0088 0.0054

Venus -106936-04-10 15:50 J -37336850.99 -37336850.84 -37336850.68 0.0088 0.0060

Venus -106936-11-22 03:50 J -37336625.47 -37336625.34 -37336625.20 0.0088 0.0067

Venus -106935-07-05 15:35 J -37336399.96 -37336399.85 -37336399.72 0.0088 0.0073

Venus -106934-02-16 03:07 J -37336174.43 -37336174.37 -37336174.26 0.0088 0.0081

Venus -106934-09-29 14:52 J -37335948.88 -37335948.88 -37335948.82 0.0088 0.0088
 Moon -106925-07-28 18:28 J -37332723.76 -37332723.73 -37332723.63 0.0088 0.0086
 Earth -106925-07-28 21:21 J -37332723.69 -37332723.61 -37332723.49 0.0088 0.0081 *
 Earth -106924-07-31 04:04 J -37332356.51 -37332356.33 -37332356.10 0.0088 0.0051
 Moon -106924-07-31 07:40 J -37332356.38 -37332356.18 -37332355.96 0.0088 0.0046 *
 Moon -106923-08-02 07:55 J -37331989.39 -37331989.17 -37331988.92 0.0088 0.0024
 Earth -106923-08-02 11:31 J -37331989.26 -37331989.02 -37331988.77 0.0088 0.0019 *
 Earth -106922-08-04 18:14 J -37331621.98 -37331621.74 -37331621.49 0.0088 0.0011
 Moon -106922-08-04 21:50 J -37331621.84 -37331621.59 -37331621.34 0.0088 0.0016 *
 Moon -106921-08-05 23:02 J -37331254.74 -37331254.54 -37331254.31 0.0088 0.0038
 Earth -106921-08-06 01:26 J -37331254.65 -37331254.44 -37331254.22 0.0088 0.0042 *
 Earth -106920-08-08 07:40 J -37330887.29 -37330887.18 -37330887.01 0.0088 0.0073
 Moon -106920-08-08 09:07 J -37330887.22 -37330887.12 -37330886.96 0.0088 0.0077 *
 Mars -106910-01-27 19:26 J -37327427.94 -37327427.69 -37327427.42 0.0089 0.0056
 Mars -106909-12-23 20:38 J -37326731.95 -37326731.64 -37326731.29 0.0089 0.0018
 Mars -106907-11-19 22:33 J -37326035.88 -37326035.56 -37326035.22 0.0089 0.0022
 Mars -106905-10-16 00:28 J -37325339.71 -37325339.48 -37325339.22 0.0089 0.0061
 Mercury -106886-03-01 17:31 J -37318628.81 -37318628.77 -37318628.72 0.0089 0.0085
 Mercury -106886-05-28 19:26 J -37318540.73 -37318540.69 -37318540.60 0.0089 0.0081
 Mercury -106886-08-24 22:04 J -37318452.65 -37318452.58 -37318452.49 0.0089 0.0076
 Mercury -106886-11-21 00:28 J -37318364.57 -37318364.48 -37318364.38 0.0089 0.0071
 Mercury -106885-02-17 02:38 J -37318276.49 -37318276.39 -37318276.28 0.0089 0.0067
 Mercury -106885-05-15 05:02 J -37318188.40 -37318188.29 -37318188.17 0.0089 0.0062
 Mercury -106885-08-11 07:26 J -37318100.31 -37318100.19 -37318100.06 0.0089 0.0057
 Mercury -106885-11-07 09:35 J -37318012.22 -37318012.10 -37318011.96 0.0089 0.0053
 Mercury -106884-02-03 12:00 J -37317924.13 -37317924.00 -37317923.85 0.0089 0.0048
 Mercury -106884-05-02 14:24 J -37317836.03 -37317835.90 -37317835.75 0.0089 0.0043
 Mercury -106884-07-29 17:02 J -37317747.94 -37317747.79 -37317747.64 0.0089 0.0038
 Mercury -106884-10-25 19:26 J -37317659.84 -37317659.69 -37317659.54 0.0089 0.0033
 Mercury -106883-01-21 21:35 J -37317571.75 -37317571.60 -37317571.44 0.0089 0.0029

Mercury -106883-04-20 00:00 J -37317483.65 -37317483.50 -37317483.33 0.0089 0.0024

Mercury -106883-07-17 02:38 J -37317395.55 -37317395.39 -37317395.23 0.0089 0.0019

Mercury -106883-10-13 05:02 J -37317307.45 -37317307.29 -37317307.12 0.0089 0.0014

Mercury -106882-01-09 07:26 J -37317219.35 -37317219.19 -37317219.02 0.0089 0.0009

Mercury -106882-04-07 10:04 J -37317131.25 -37317131.08 -37317130.92 0.0089 0.0004

Mercury -106882-07-04 12:28 J -37317043.14 -37317042.98 -37317042.81 0.0089 0.0001

Mercury -106882-09-30 14:52 J -37316955.04 -37316954.88 -37316954.71 0.0089 0.0007

Mercury -106882-12-27 17:31 J -37316866.94 -37316866.77 -37316866.61 0.0089 0.0011

Mercury -106881-03-24 19:55 J -37316778.83 -37316778.67 -37316778.50 0.0089 0.0016

Mercury -106881-06-20 22:33 J -37316690.72 -37316690.56 -37316690.40 0.0089 0.0021

Mercury -106881-09-17 00:57 J -37316602.62 -37316602.46 -37316602.30 0.0089 0.0026

Mercury -106881-12-14 03:35 J -37316514.51 -37316514.35 -37316514.19 0.0089 0.0031

Mercury -106880-03-12 06:14 J -37316426.40 -37316426.24 -37316426.09 0.0089 0.0036

Mercury -106880-06-08 08:38 J -37316338.28 -37316338.14 -37316337.99 0.0089 0.0041

Mercury -106880-09-04 11:02 J -37316250.17 -37316250.04 -37316249.88 0.0089 0.0047

Mercury -106880-12-01 13:40 J -37316162.06 -37316161.93 -37316161.78 0.0089 0.0052

Mercury -106879-02-27 16:19 J -37316073.94 -37316073.82 -37316073.68 0.0089 0.0057

Mercury -106879-05-26 18:57 J -37315985.82 -37315985.71 -37315985.58 0.0089 0.0062

Mercury -106879-08-22 21:35 J -37315897.70 -37315897.60 -37315897.48 0.0089 0.0067

Mercury -106879-11-19 00:14 J -37315809.58 -37315809.49 -37315809.39 0.0089 0.0072

Mercury -106878-02-15 03:07 J -37315721.45 -37315721.37 -37315721.29 0.0089 0.0077

Mercury -106878-05-14 05:16 J -37315633.32 -37315633.28 -37315633.20 0.0089 0.0083

Mercury -106878-08-10 08:09 J -37315545.17 -37315545.16 -37315545.13 0.0089 0.0088

Venus -106866-01-16 00:28 J -37311368.54 -37311368.48 -37311368.40 0.0089 0.0084

Venus -106866-08-29 13:55 J -37311143.01 -37311142.92 -37311142.79 0.0089 0.0077

Venus -106865-04-11 03:21 J -37310917.47 -37310917.36 -37310917.20 0.0089 0.0071

Venus -106865-11-22 17:02 J -37310691.93 -37310691.79 -37310691.61 0.0089 0.0063

Venus -106864-07-06 06:57 J -37310466.38 -37310466.21 -37310466.03 0.0089 0.0055

Venus -106863-02-16 20:24 J -37310240.82 -37310240.65 -37310240.45 0.0089 0.0048

Venus -106863-09-30 10:33 J -37310015.26 -37310015.06 -37310014.86 0.0089 0.0041

Venus	-106862-05-14 00:00 J	-37309789.69	-37309789.50	-37309789.28	0.0089	0.0034
Venus	-106862-12-25 13:40 J	-37309564.13	-37309563.93	-37309563.70	0.0089	0.0026
Venus	-106861-08-07 03:35 J	-37309338.56	-37309338.35	-37309338.12	0.0089	0.0018
Venus	-106860-03-20 17:31 J	-37309112.99	-37309112.77	-37309112.54	0.0089	0.0011
Venus	-106860-11-01 07:40 J	-37308887.41	-37308887.18	-37308886.96	0.0089	0.0003
Venus	-106859-06-14 21:21 J	-37308661.83	-37308661.61	-37308661.38	0.0089	0.0005
Venus	-106858-01-26 11:16 J	-37308436.24	-37308436.03	-37308435.80	0.0089	0.0013
Venus	-106858-09-09 01:11 J	-37308210.66	-37308210.45	-37308210.22	0.0089	0.0020
Venus	-106857-04-21 15:21 J	-37307985.07	-37307984.86	-37307984.64	0.0089	0.0028
Venus	-106857-12-03 05:16 J	-37307759.48	-37307759.28	-37307759.06	0.0089	0.0035
Venus	-106856-07-16 19:11 J	-37307533.88	-37307533.70	-37307533.49	0.0089	0.0043
Venus	-106855-02-27 09:21 J	-37307308.28	-37307308.11	-37307307.91	0.0089	0.0050
Venus	-106855-10-10 23:31 J	-37307082.67	-37307082.52	-37307082.33	0.0089	0.0058
Venus	-106854-05-24 13:40 J	-37306857.07	-37306856.93	-37306856.76	0.0089	0.0065
Venus	-106853-01-05 03:35 J	-37306631.46	-37306631.35	-37306631.20	0.0089	0.0073
Venus	-106853-08-17 17:45 J	-37306405.84	-37306405.76	-37306405.65	0.0089	0.0080
Venus	-106852-03-31 08:09 J	-37306180.19	-37306180.16	-37306180.11	0.0089	0.0088
Earth	-106842-01-27 12:43 J	-37302591.12	-37302590.97	-37302590.78	0.0089	0.0068
Moon	-106842-01-27 16:33 J	-37302590.96	-37302590.81	-37302590.64	0.0089	0.0070 *
Moon	-106841-01-30 02:09 J	-37302223.64	-37302223.41	-37302223.14	0.0089	0.0031
Earth	-106841-01-30 05:45 J	-37302223.49	-37302223.26	-37302222.99	0.0089	0.0034 *
Earth	-106840-01-31 23:02 J	-37301855.81	-37301855.54	-37301855.27	0.0089	0.0001
Moon	-106840-02-01 01:40 J	-37301855.70	-37301855.43	-37301855.15	0.0089	0.0003 *
Moon	-106839-02-03 13:26 J	-37301488.16	-37301487.94	-37301487.68	0.0089	0.0038
Earth	-106839-02-03 15:50 J	-37301488.09	-37301487.84	-37301487.59	0.0089	0.0034 *
Earth	-106838-02-06 07:40 J	-37301120.32	-37301120.18	-37301119.98	0.0089	0.0069
Moon	-106838-02-06 09:07 J	-37301120.28	-37301120.12	-37301119.90	0.0089	0.0065 *
Mars	-106830-01-05 10:33 J	-37298230.15	-37298230.06	-37298229.91	0.0089	0.0081
Mars	-106829-11-29 08:09 J	-37297536.39	-37297536.16	-37297535.89	0.0089	0.0047
Mars	-106827-10-24 05:31 J	-37296842.56	-37296842.27	-37296841.98	0.0089	0.0012

Mars -106825-09-17 02:52 J -37296148.66 -37296148.38 -37296148.09 0.0089 0.0022
 Mars -106823-08-11 22:33 J -37295454.76 -37295454.56 -37295454.30 0.0089 0.0056
 Mercury -106805-09-19 19:55 J -37288840.67 -37288840.67 -37288840.65 0.0088 0.0088
 Mercury -106805-12-16 22:04 J -37288752.62 -37288752.58 -37288752.52 0.0088 0.0084
 Mercury -106804-03-15 00:14 J -37288664.55 -37288664.49 -37288664.42 0.0088 0.0079
 Mercury -106804-06-11 02:09 J -37288576.48 -37288576.41 -37288576.32 0.0088 0.0074
 Mercury -106804-09-07 04:19 J -37288488.41 -37288488.32 -37288488.22 0.0088 0.0070
 Mercury -106804-12-04 06:28 J -37288400.33 -37288400.23 -37288400.12 0.0088 0.0065
 Mercury -106803-03-02 08:24 J -37288312.25 -37288312.15 -37288312.03 0.0088 0.0060
 Mercury -106803-05-29 10:33 J -37288224.18 -37288224.06 -37288223.94 0.0088 0.0056
 Mercury -106803-08-25 12:14 J -37288136.10 -37288135.99 -37288135.85 0.0088 0.0052
 Mercury -106803-11-21 14:24 J -37288048.02 -37288047.90 -37288047.76 0.0088 0.0047
 Mercury -106802-02-17 16:33 J -37287959.94 -37287959.81 -37287959.67 0.0088 0.0042
 Mercury -106802-05-16 18:28 J -37287871.86 -37287871.73 -37287871.58 0.0088 0.0038
 Mercury -106802-08-12 20:38 J -37287783.78 -37287783.64 -37287783.50 0.0088 0.0033
 Mercury -106802-11-08 22:33 J -37287695.70 -37287695.56 -37287695.41 0.0088 0.0028
 Mercury -106801-02-05 00:28 J -37287607.62 -37287607.48 -37287607.33 0.0088 0.0024
 Mercury -106801-05-03 02:24 J -37287519.54 -37287519.40 -37287519.24 0.0088 0.0019
 Mercury -106801-07-30 04:33 J -37287431.46 -37287431.31 -37287431.16 0.0088 0.0015
 Mercury -106801-10-26 06:28 J -37287343.38 -37287343.23 -37287343.08 0.0088 0.0010
 Mercury -106800-01-22 08:24 J -37287255.30 -37287255.15 -37287255.00 0.0088 0.0006
 Mercury -106800-04-20 10:19 J -37287167.22 -37287167.07 -37287166.92 0.0088 0.0001
 Mercury -106800-07-17 12:14 J -37287079.14 -37287078.99 -37287078.84 0.0088 0.0003
 Mercury -106800-10-13 14:09 J -37286991.06 -37286990.91 -37286990.76 0.0088 0.0008
 Mercury -106799-01-09 15:50 J -37286902.98 -37286902.84 -37286902.68 0.0088 0.0013
 Mercury -106799-04-07 17:45 J -37286814.90 -37286814.76 -37286814.61 0.0088 0.0017
 Mercury -106799-07-04 19:40 J -37286726.82 -37286726.68 -37286726.53 0.0088 0.0021
 Mercury -106799-09-30 21:35 J -37286638.74 -37286638.60 -37286638.45 0.0088 0.0025
 Mercury -106799-12-27 23:31 J -37286550.66 -37286550.52 -37286550.38 0.0088 0.0030
 Mercury -106798-03-26 01:11 J -37286462.58 -37286462.45 -37286462.31 0.0088 0.0034

Mercury -106798-06-22 03:07 J -37286374.50 -37286374.37 -37286374.23 0.0088 0.0038

Mercury -106798-09-18 05:02 J -37286286.42 -37286286.29 -37286286.16 0.0088 0.0043

Mercury -106798-12-15 06:57 J -37286198.34 -37286198.21 -37286198.09 0.0088 0.0047

Mercury -106797-03-12 08:24 J -37286110.26 -37286110.15 -37286110.02 0.0088 0.0052

Mercury -106797-06-08 10:19 J -37286022.18 -37286022.07 -37286021.95 0.0088 0.0056

Mercury -106797-09-04 12:14 J -37285934.09 -37285933.99 -37285933.88 0.0088 0.0060

Mercury -106797-12-01 14:09 J -37285846.01 -37285845.91 -37285845.81 0.0088 0.0064

Mercury -106796-02-27 15:35 J -37285757.93 -37285757.85 -37285757.74 0.0088 0.0068

Mercury -106796-05-26 17:31 J -37285669.84 -37285669.77 -37285669.68 0.0088 0.0072

Mercury -106796-08-22 19:11 J -37285581.76 -37285581.70 -37285581.62 0.0088 0.0077

Mercury -106796-11-18 21:07 J -37285493.67 -37285493.62 -37285493.56 0.0088 0.0080

Mercury -106795-02-14 22:48 J -37285405.58 -37285405.55 -37285405.50 0.0088 0.0085

Venus -106785-07-25 12:14 J -37281592.00 -37281591.99 -37281591.96 0.0088 0.0088

Venus -106784-03-08 00:43 J -37281366.54 -37281366.47 -37281366.37 0.0088 0.0081

Venus -106784-10-19 13:11 J -37281141.05 -37281140.95 -37281140.82 0.0088 0.0074

Venus -106783-06-02 01:40 J -37280915.56 -37280915.43 -37280915.28 0.0088 0.0067

Venus -106782-01-13 13:55 J -37280690.07 -37280689.92 -37280689.75 0.0088 0.0060

Venus -106782-08-27 02:24 J -37280464.56 -37280464.40 -37280464.22 0.0088 0.0052

Venus -106781-04-08 14:52 J -37280239.06 -37280238.88 -37280238.68 0.0088 0.0045

Venus -106781-11-20 03:07 J -37280013.55 -37280013.37 -37280013.16 0.0088 0.0038

Venus -106780-07-03 15:21 J -37279788.05 -37279787.86 -37279787.64 0.0088 0.0031

Venus -106779-02-14 03:35 J -37279562.54 -37279562.35 -37279562.12 0.0088 0.0025

Venus -106779-09-27 16:19 J -37279337.04 -37279336.82 -37279336.61 0.0088 0.0017

Venus -106778-05-11 04:33 J -37279111.53 -37279111.31 -37279111.10 0.0088 0.0009

Venus -106778-12-22 16:33 J -37278886.02 -37278885.81 -37278885.59 0.0088 0.0002

Venus -106777-08-04 04:33 J -37278660.52 -37278660.31 -37278660.09 0.0088 0.0005

Venus -106776-03-17 16:48 J -37278435.01 -37278434.80 -37278434.58 0.0088 0.0012

Venus -106776-10-29 04:48 J -37278209.50 -37278209.30 -37278209.08 0.0088 0.0019

Venus -106775-06-11 16:48 J -37277984.00 -37277983.80 -37277983.59 0.0088 0.0026

Venus -106774-01-23 04:48 J -37277758.49 -37277758.30 -37277758.09 0.0088 0.0033

Venus -106774-09-05 16:33 J -37277532.99 -37277532.81 -37277532.60 0.0088 0.0041
 Venus -106773-04-18 04:33 J -37277307.47 -37277307.31 -37277307.11 0.0088 0.0048
 Venus -106773-11-29 16:33 J -37277081.96 -37277081.81 -37277081.62 0.0088 0.0055
 Venus -106772-07-13 04:19 J -37276856.45 -37276856.32 -37276856.14 0.0088 0.0062
 Venus -106771-02-23 16:19 J -37276630.94 -37276630.82 -37276630.66 0.0088 0.0068
 Venus -106771-10-07 04:48 J -37276405.42 -37276405.30 -37276405.19 0.0088 0.0075
 Venus -106770-05-20 16:33 J -37276179.88 -37276179.81 -37276179.72 0.0088 0.0082
 Moon -106760-07-30 17:02 J -37272455.94 -37272455.79 -37272455.59 0.0088 0.0063
 Earth -106760-07-30 20:38 J -37272455.80 -37272455.64 -37272455.45 0.0088 0.0063 *
 Earth -106759-08-02 03:21 J -37272088.58 -37272088.36 -37272088.12 0.0088 0.0032
 Moon -106759-08-02 05:45 J -37272088.48 -37272088.26 -37272088.01 0.0088 0.0033 *
 Moon -106758-08-04 08:52 J -37271721.37 -37271721.13 -37271720.89 0.0088 0.0002
 Earth -106758-08-04 10:33 J -37271721.31 -37271721.06 -37271720.81 0.0088 0.0002 *
 Moon -106757-08-05 17:02 J -37271354.02 -37271353.79 -37271353.53 0.0088 0.0029
 Earth -106757-08-05 17:02 J -37271354.01 -37271353.79 -37271353.54 0.0088 0.0029 *
 Earth -106756-08-08 00:00 J -37270986.67 -37270986.50 -37270986.30 0.0088 0.0060
 Moon -106756-08-08 01:40 J -37270986.60 -37270986.43 -37270986.25 0.0088 0.0061 *
 Mars -106747-09-10 15:21 J -37267666.05 -37267665.86 -37267665.66 0.0089 0.0072
 Mars -106745-08-06 15:50 J -37266970.14 -37266969.84 -37266969.52 0.0089 0.0033
 Mars -106743-07-03 17:31 J -37266274.11 -37266273.77 -37266273.44 0.0089 0.0007
 Mars -106741-05-29 18:57 J -37265577.98 -37265577.71 -37265577.40 0.0089 0.0047
 Mars -106739-04-25 20:52 J -37264881.66 -37264881.63 -37264881.51 0.0089 0.0087
 Mercury -106722-08-30 15:07 J -37258545.90 -37258545.87 -37258545.83 0.0089 0.0086
 Mercury -106722-11-26 17:02 J -37258457.83 -37258457.79 -37258457.71 0.0089 0.0082
 Mercury -106721-02-22 19:40 J -37258369.75 -37258369.68 -37258369.60 0.0089 0.0077
 Mercury -106721-05-20 21:35 J -37258281.67 -37258281.60 -37258281.49 0.0089 0.0073
 Mercury -106721-08-17 00:00 J -37258193.59 -37258193.50 -37258193.38 0.0089 0.0068
 Mercury -106721-11-13 02:24 J -37258105.50 -37258105.40 -37258105.28 0.0089 0.0063
 Mercury -106720-02-09 04:33 J -37258017.41 -37258017.31 -37258017.17 0.0089 0.0059
 Mercury -106720-05-08 06:57 J -37257929.32 -37257929.21 -37257929.07 0.0089 0.0054

Mercury -106720-08-04 09:21 J -37257841.23 -37257841.11 -37257840.96 0.0089 0.0049

Mercury -106720-10-31 12:00 J -37257753.14 -37257753.00 -37257752.86 0.0089 0.0044

Mercury -106719-01-27 14:09 J -37257665.05 -37257664.91 -37257664.76 0.0089 0.0040

Mercury -106719-04-25 16:33 J -37257576.95 -37257576.81 -37257576.65 0.0089 0.0035

Mercury -106719-07-22 18:57 J -37257488.86 -37257488.71 -37257488.55 0.0089 0.0030

Mercury -106719-10-18 21:21 J -37257400.76 -37257400.61 -37257400.45 0.0089 0.0025

Mercury -106718-01-15 00:00 J -37257312.66 -37257312.50 -37257312.34 0.0089 0.0020

Mercury -106718-04-13 02:24 J -37257224.56 -37257224.40 -37257224.24 0.0089 0.0015

Mercury -106718-07-10 04:48 J -37257136.46 -37257136.30 -37257136.13 0.0089 0.0010

Mercury -106718-10-06 07:11 J -37257048.36 -37257048.20 -37257048.03 0.0089 0.0006

Mercury -106717-01-02 09:50 J -37256960.26 -37256960.09 -37256959.93 0.0089 0.0002

Mercury -106717-03-30 12:14 J -37256872.16 -37256871.99 -37256871.83 0.0089 0.0005

Mercury -106717-06-26 14:38 J -37256784.05 -37256783.89 -37256783.72 0.0089 0.0010

Mercury -106717-09-22 17:02 J -37256695.95 -37256695.79 -37256695.62 0.0089 0.0015

Mercury -106717-12-19 19:26 J -37256607.84 -37256607.69 -37256607.52 0.0089 0.0020

Mercury -106716-03-17 22:04 J -37256519.73 -37256519.58 -37256519.41 0.0089 0.0025

Mercury -106716-06-14 00:28 J -37256431.63 -37256431.48 -37256431.31 0.0089 0.0030

Mercury -106716-09-10 03:07 J -37256343.52 -37256343.37 -37256343.21 0.0089 0.0035

Mercury -106716-12-07 05:31 J -37256255.41 -37256255.27 -37256255.11 0.0089 0.0040

Mercury -106715-03-05 08:09 J -37256167.29 -37256167.16 -37256167.00 0.0089 0.0045

Mercury -106715-06-01 10:48 J -37256079.18 -37256079.05 -37256078.90 0.0089 0.0050

Mercury -106715-08-28 13:26 J -37255991.07 -37255990.94 -37255990.80 0.0089 0.0055

Mercury -106715-11-24 16:04 J -37255902.95 -37255902.83 -37255902.70 0.0089 0.0060

Mercury -106714-02-20 18:28 J -37255814.83 -37255814.73 -37255814.60 0.0089 0.0066

Mercury -106714-05-19 21:07 J -37255726.71 -37255726.62 -37255726.51 0.0089 0.0071

Mercury -106714-08-15 23:45 J -37255638.58 -37255638.51 -37255638.41 0.0089 0.0076

Mercury -106714-11-12 02:24 J -37255550.45 -37255550.40 -37255550.32 0.0089 0.0081

Mercury -106713-02-08 05:16 J -37255462.31 -37255462.28 -37255462.24 0.0089 0.0086

Venus -106702-04-19 12:00 J -37251374.05 -37251374.00 -37251373.90 0.0089 0.0085

Venus -106702-12-01 01:26 J -37251148.52 -37251148.44 -37251148.30 0.0089 0.0077

Venus	-106701-07-13 15:21 J	-37250922.99	-37250922.86	-37250922.71	0.0089	0.0070
Venus	-106700-02-24 04:48 J	-37250697.44	-37250697.30	-37250697.12	0.0089	0.0063
Venus	-106700-10-07 18:28 J	-37250471.88	-37250471.73	-37250471.53	0.0089	0.0056
Venus	-106699-05-21 08:24 J	-37250246.33	-37250246.15	-37250245.95	0.0089	0.0048
Venus	-106698-01-01 22:04 J	-37250020.77	-37250020.58	-37250020.37	0.0089	0.0040
Venus	-106698-08-15 11:45 J	-37249795.21	-37249795.01	-37249794.79	0.0089	0.0033
Venus	-106697-03-28 01:26 J	-37249569.64	-37249569.44	-37249569.21	0.0089	0.0025
Venus	-106697-11-08 15:21 J	-37249344.07	-37249343.86	-37249343.63	0.0089	0.0018
Venus	-106696-06-22 05:16 J	-37249118.50	-37249118.28	-37249118.06	0.0089	0.0010
Venus	-106695-02-02 19:11 J	-37248892.93	-37248892.70	-37248892.48	0.0089	0.0002
Venus	-106695-09-16 09:07 J	-37248667.34	-37248667.12	-37248666.90	0.0089	0.0006
Venus	-106694-04-29 23:02 J	-37248441.76	-37248441.54	-37248441.32	0.0089	0.0013
Venus	-106694-12-11 12:43 J	-37248216.18	-37248215.97	-37248215.74	0.0089	0.0021
Venus	-106693-07-24 02:52 J	-37247990.59	-37247990.38	-37247990.17	0.0089	0.0028
Venus	-106692-03-06 16:48 J	-37247765.00	-37247764.80	-37247764.59	0.0089	0.0036
Venus	-106692-10-18 06:43 J	-37247539.40	-37247539.22	-37247539.01	0.0089	0.0044
Venus	-106691-05-31 21:07 J	-37247313.80	-37247313.62	-37247313.43	0.0089	0.0051
Venus	-106690-01-12 10:48 J	-37247088.20	-37247088.05	-37247087.86	0.0089	0.0060
Venus	-106690-08-26 01:26 J	-37246862.59	-37246862.44	-37246862.29	0.0089	0.0067
Venus	-106689-04-07 15:07 J	-37246636.98	-37246636.87	-37246636.73	0.0089	0.0074
Venus	-106689-11-19 05:02 J	-37246411.35	-37246411.29	-37246411.17	0.0089	0.0082
Venus	-106688-07-02 19:55 J	-37246185.67	-37246185.67	-37246185.66	0.0089	0.0089
Moon	-106678-01-26 18:00 J	-37242690.78	-37242690.75	-37242690.68	0.0089	0.0088
Earth	-106678-01-26 20:09 J	-37242690.75	-37242690.66	-37242690.55	0.0089	0.0083 *
Earth	-106677-01-29 13:11 J	-37242323.17	-37242322.95	-37242322.72	0.0089	0.0048
Moon	-106677-01-29 14:24 J	-37242323.14	-37242322.90	-37242322.65	0.0089	0.0044 *
Moon	-106676-01-31 05:45 J	-37241955.51	-37241955.26	-37241955.01	0.0089	0.0018
Earth	-106676-01-31 06:00 J	-37241955.51	-37241955.25	-37241954.98	0.0089	0.0014 *
Moon	-106675-02-02 21:07 J	-37241587.88	-37241587.62	-37241587.34	0.0089	0.0024
Earth	-106675-02-02 22:33 J	-37241587.81	-37241587.56	-37241587.29	0.0089	0.0020 *

Earth -106674-02-05 15:21 J -37241220.06 -37241219.86 -37241219.64 0.0089 0.0054
 Moon -106674-02-05 16:48 J -37241219.99 -37241219.80 -37241219.56 0.0089 0.0051 *
 Earth -106673-02-08 07:55 J -37240852.18 -37240852.17 -37240852.11 0.0089 0.0088
 Mars -106665-07-14 20:38 J -37237772.83 -37237772.64 -37237772.40 0.0089 0.0061
 Mars -106663-06-08 18:43 J -37237079.00 -37237078.72 -37237078.43 0.0089 0.0026
 Saturn -106663-12-31 06:14 J -37236873.63 -37236873.24 -37236872.68 0.0089 0.0068
 Mars -106661-05-02 15:21 J -37236385.15 -37236384.86 -37236384.57 0.0089 0.0009
 Mars -106659-03-27 12:43 J -37235691.20 -37235690.97 -37235690.69 0.0089 0.0044
 Mars -106657-02-19 09:35 J -37234997.21 -37234997.10 -37234996.93 0.0089 0.0078
 Mercury -106640-06-16 19:26 J -37228669.71 -37228669.69 -37228669.63 0.0088 0.0086
 Mercury -106640-09-12 21:50 J -37228581.64 -37228581.59 -37228581.52 0.0088 0.0080
 Mercury -106640-12-10 00:00 J -37228493.57 -37228493.50 -37228493.41 0.0088 0.0076
 Mercury -106639-03-08 02:24 J -37228405.50 -37228405.40 -37228405.31 0.0088 0.0071
 Mercury -106639-06-04 04:04 J -37228317.42 -37228317.33 -37228317.22 0.0088 0.0067
 Mercury -106639-08-31 06:14 J -37228229.34 -37228229.24 -37228229.12 0.0088 0.0062
 Mercury -106639-11-27 08:09 J -37228141.26 -37228141.16 -37228141.03 0.0088 0.0057
 Mercury -106638-02-23 10:19 J -37228053.19 -37228053.07 -37228052.94 0.0088 0.0052
 Mercury -106638-05-22 12:28 J -37227965.11 -37227964.98 -37227964.85 0.0088 0.0048
 Mercury -106638-08-18 14:24 J -37227877.03 -37227876.90 -37227876.76 0.0088 0.0043
 Mercury -106638-11-14 16:33 J -37227788.95 -37227788.81 -37227788.67 0.0088 0.0038
 Mercury -106637-02-10 18:14 J -37227700.87 -37227700.74 -37227700.58 0.0088 0.0035
 Mercury -106637-05-08 20:24 J -37227612.79 -37227612.65 -37227612.50 0.0088 0.0030
 Mercury -106637-08-04 22:33 J -37227524.71 -37227524.56 -37227524.41 0.0088 0.0025
 Mercury -106637-11-01 00:28 J -37227436.63 -37227436.48 -37227436.33 0.0088 0.0020
 Mercury -106636-01-28 02:24 J -37227348.55 -37227348.40 -37227348.25 0.0088 0.0016
 Mercury -106636-04-26 04:19 J -37227260.47 -37227260.32 -37227260.16 0.0088 0.0012
 Mercury -106636-07-23 06:14 J -37227172.38 -37227172.24 -37227172.08 0.0088 0.0008
 Mercury -106636-10-19 08:24 J -37227084.30 -37227084.15 -37227084.00 0.0088 0.0003
 Mercury -106635-01-15 10:19 J -37226996.22 -37226996.07 -37226995.92 0.0088 0.0003
 Mercury -106635-04-13 12:14 J -37226908.14 -37226907.99 -37226907.84 0.0088 0.0007

Mercury -106635-07-10 13:55 J -37226820.06 -37226819.92 -37226819.76 0.0088 0.0012

Mercury -106635-10-06 15:50 J -37226731.98 -37226731.84 -37226731.69 0.0088 0.0016

Mercury -106634-01-02 17:45 J -37226643.90 -37226643.76 -37226643.61 0.0088 0.0020

Mercury -106634-03-31 19:40 J -37226555.82 -37226555.68 -37226555.53 0.0088 0.0024

Mercury -106634-06-27 21:35 J -37226467.74 -37226467.60 -37226467.46 0.0088 0.0029

Mercury -106634-09-23 23:31 J -37226379.66 -37226379.52 -37226379.38 0.0088 0.0033

Mercury -106634-12-21 01:11 J -37226291.58 -37226291.45 -37226291.31 0.0088 0.0037

Mercury -106633-03-18 03:07 J -37226203.50 -37226203.37 -37226203.24 0.0088 0.0041

Mercury -106633-06-14 05:02 J -37226115.42 -37226115.29 -37226115.16 0.0088 0.0046

Mercury -106633-09-10 06:28 J -37226027.34 -37226027.23 -37226027.09 0.0088 0.0051

Mercury -106633-12-07 08:24 J -37225939.25 -37225939.15 -37225939.02 0.0088 0.0055

Mercury -106632-03-05 10:19 J -37225851.17 -37225851.07 -37225850.95 0.0088 0.0059

Mercury -106632-06-01 12:14 J -37225763.09 -37225762.99 -37225762.88 0.0088 0.0063

Mercury -106632-08-28 13:40 J -37225675.01 -37225674.93 -37225674.82 0.0088 0.0068

Mercury -106632-11-24 15:35 J -37225586.92 -37225586.85 -37225586.75 0.0088 0.0071

Mercury -106631-02-20 17:31 J -37225498.84 -37225498.77 -37225498.69 0.0088 0.0075

Mercury -106631-05-19 19:11 J -37225410.75 -37225410.70 -37225410.63 0.0088 0.0080

Mercury -106631-08-15 21:07 J -37225322.66 -37225322.62 -37225322.57 0.0088 0.0084

Mercury -106631-11-11 22:48 J -37225234.56 -37225234.55 -37225234.53 0.0088 0.0088

Venus -106621-10-27 00:57 J -37221597.47 -37221597.46 -37221597.41 0.0088 0.0087

Venus -106620-06-09 13:26 J -37221372.01 -37221371.94 -37221371.83 0.0088 0.0080

Venus -106619-01-21 01:40 J -37221146.52 -37221146.43 -37221146.28 0.0088 0.0074

Venus -106619-09-03 14:09 J -37220921.03 -37220920.91 -37220920.74 0.0088 0.0067

Venus -106618-04-17 02:38 J -37220695.53 -37220695.39 -37220695.21 0.0088 0.0060

Venus -106618-11-28 15:21 J -37220470.03 -37220469.86 -37220469.68 0.0088 0.0052

Venus -106617-07-11 03:35 J -37220244.53 -37220244.35 -37220244.15 0.0088 0.0045

Venus -106616-02-21 16:04 J -37220019.02 -37220018.83 -37220018.63 0.0088 0.0037

Venus -106616-10-05 04:19 J -37219793.51 -37219793.32 -37219793.11 0.0088 0.0030

Venus -106615-05-18 16:33 J -37219568.00 -37219567.81 -37219567.59 0.0088 0.0024

Venus -106615-12-30 05:02 J -37219342.50 -37219342.29 -37219342.07 0.0088 0.0016

Venus	-106614-08-12 17:16 J	-37219116.99	-37219116.78	-37219116.56	0.0088	0.0009
Venus	-106613-03-25 05:45 J	-37218891.48	-37218891.26	-37218891.04	0.0088	0.0001
Venus	-106613-11-05 17:45 J	-37218665.97	-37218665.76	-37218665.54	0.0088	0.0007
Venus	-106612-06-19 06:00 J	-37218440.46	-37218440.25	-37218440.03	0.0088	0.0013
Venus	-106611-01-30 18:00 J	-37218214.96	-37218214.75	-37218214.54	0.0088	0.0020
Venus	-106611-09-13 06:00 J	-37217989.45	-37217989.25	-37217989.04	0.0088	0.0027
Venus	-106610-04-26 18:00 J	-37217763.94	-37217763.75	-37217763.54	0.0088	0.0035
Venus	-106610-12-08 06:00 J	-37217538.43	-37217538.25	-37217538.05	0.0088	0.0042
Venus	-106609-07-20 18:00 J	-37217312.92	-37217312.75	-37217312.56	0.0088	0.0049
Venus	-106608-03-03 06:00 J	-37217087.41	-37217087.25	-37217087.08	0.0088	0.0056
Venus	-106608-10-14 17:45 J	-37216861.90	-37216861.76	-37216861.60	0.0088	0.0063
Venus	-106607-05-28 05:45 J	-37216636.38	-37216636.26	-37216636.12	0.0088	0.0070
Venus	-106606-01-08 17:31 J	-37216410.86	-37216410.77	-37216410.65	0.0088	0.0077
Venus	-106606-08-22 05:16 J	-37216185.33	-37216185.28	-37216185.19	0.0088	0.0083
Earth	-106596-07-30 12:14 J	-37212555.09	-37212554.99	-37212554.84	0.0088	0.0076
Moon	-106596-07-30 14:09 J	-37212555.00	-37212554.91	-37212554.78	0.0088	0.0080 *
Earth	-106595-08-01 19:40 J	-37212187.89	-37212187.68	-37212187.46	0.0088	0.0045
Moon	-106595-08-01 19:26 J	-37212187.89	-37212187.69	-37212187.46	0.0088	0.0041 *
Moon	-106594-08-04 00:57 J	-37211820.70	-37211820.46	-37211820.19	0.0088	0.0019
Earth	-106594-08-04 02:24 J	-37211820.64	-37211820.40	-37211820.15	0.0088	0.0014 *
Earth	-106593-08-05 09:21 J	-37211453.35	-37211453.11	-37211452.86	0.0088	0.0016
Moon	-106593-08-05 11:31 J	-37211453.26	-37211453.02	-37211452.79	0.0088	0.0021 *
Moon	-106592-08-07 12:43 J	-37211086.18	-37211085.97	-37211085.74	0.0088	0.0043
Earth	-106592-08-07 15:50 J	-37211086.03	-37211085.84	-37211085.61	0.0088	0.0048 *
Earth	-106591-08-09 22:33 J	-37210718.65	-37210718.56	-37210718.42	0.0088	0.0078
Moon	-106591-08-10 01:55 J	-37210718.49	-37210718.42	-37210718.31	0.0088	0.0082 *
Mars	-106583-04-24 12:57 J	-37207903.98	-37207903.96	-37207903.90	0.0089	0.0088
Mars	-106581-03-20 12:43 J	-37207208.23	-37207207.97	-37207207.67	0.0089	0.0049
Mars	-106579-02-14 13:55 J	-37206512.25	-37206511.92	-37206511.58	0.0089	0.0009
Mars	-106577-01-11 15:35 J	-37205816.16	-37205815.85	-37205815.53	0.0089	0.0032

Mars -106576-12-07 17:45 J -37205119.95 -37205119.76 -37205119.56 0.0089 0.0072
 Mercury -106557-02-28 12:43 J -37198462.99 -37198462.97 -37198462.94 0.0089 0.0087
 Mercury -106557-05-26 14:38 J -37198374.93 -37198374.89 -37198374.82 0.0089 0.0083
 Mercury -106557-08-22 17:02 J -37198286.85 -37198286.79 -37198286.71 0.0089 0.0078
 Mercury -106557-11-18 19:11 J -37198198.77 -37198198.70 -37198198.60 0.0089 0.0074
 Mercury -106556-02-14 21:35 J -37198110.69 -37198110.60 -37198110.49 0.0089 0.0069
 Mercury -106556-05-13 23:59 J -37198022.60 -37198022.50 -37198022.38 0.0089 0.0064
 Mercury -106556-08-10 02:09 J -37197934.52 -37197934.41 -37197934.28 0.0089 0.0060
 Mercury -106556-11-06 04:33 J -37197846.43 -37197846.31 -37197846.18 0.0089 0.0055
 Mercury -106555-02-02 06:57 J -37197758.34 -37197758.21 -37197758.07 0.0089 0.0050
 Mercury -106555-05-01 09:07 J -37197670.25 -37197670.12 -37197669.97 0.0089 0.0046
 Mercury -106555-07-28 11:31 J -37197582.15 -37197582.02 -37197581.87 0.0089 0.0041
 Mercury -106555-10-24 13:55 J -37197494.06 -37197493.92 -37197493.76 0.0089 0.0036
 Mercury -106554-01-20 16:19 J -37197405.97 -37197405.82 -37197405.66 0.0089 0.0031
 Mercury -106554-04-18 18:57 J -37197317.87 -37197317.71 -37197317.56 0.0089 0.0026
 Mercury -106554-07-15 21:07 J -37197229.77 -37197229.62 -37197229.45 0.0089 0.0022
 Mercury -106554-10-11 23:31 J -37197141.67 -37197141.52 -37197141.35 0.0089 0.0017
 Mercury -106553-01-08 01:55 J -37197053.58 -37197053.42 -37197053.25 0.0089 0.0012
 Mercury -106553-04-05 04:33 J -37196965.48 -37196965.31 -37196965.15 0.0089 0.0007
 Mercury -106553-07-02 06:57 J -37196877.37 -37196877.21 -37196877.04 0.0089 0.0002
 Mercury -106553-09-28 09:21 J -37196789.27 -37196789.11 -37196788.94 0.0089 0.0004
 Mercury -106553-12-25 11:59 J -37196701.17 -37196701.00 -37196700.84 0.0089 0.0008
 Mercury -106552-03-23 14:23 J -37196613.06 -37196612.90 -37196612.74 0.0089 0.0013
 Mercury -106552-06-19 16:47 J -37196524.96 -37196524.80 -37196524.63 0.0089 0.0018
 Mercury -106552-09-15 19:26 J -37196436.85 -37196436.69 -37196436.53 0.0089 0.0023
 Mercury -106552-12-12 21:50 J -37196348.74 -37196348.59 -37196348.43 0.0089 0.0028
 Mercury -106551-03-11 00:28 J -37196260.64 -37196260.48 -37196260.33 0.0089 0.0033
 Mercury -106551-06-07 02:52 J -37196172.53 -37196172.38 -37196172.22 0.0089 0.0038
 Mercury -106551-09-03 05:31 J -37196084.41 -37196084.27 -37196084.12 0.0089 0.0043
 Mercury -106551-11-30 07:40 J -37195996.30 -37195996.18 -37195996.02 0.0089 0.0049

Mercury -106550-02-26 10:19 J -37195908.19 -37195908.07 -37195907.92 0.0089 0.0054

Mercury -106550-05-25 12:57 J -37195820.07 -37195819.96 -37195819.82 0.0089 0.0059

Mercury -106550-08-21 15:35 J -37195731.95 -37195731.85 -37195731.72 0.0089 0.0064

Mercury -106550-11-17 18:14 J -37195643.83 -37195643.74 -37195643.62 0.0089 0.0069

Mercury -106549-02-13 20:52 J -37195555.71 -37195555.63 -37195555.53 0.0089 0.0074

Mercury -106549-05-11 23:45 J -37195467.58 -37195467.51 -37195467.44 0.0089 0.0079

Mercury -106549-08-08 01:55 J -37195379.45 -37195379.42 -37195379.35 0.0089 0.0085

Venus -106538-07-21 23:45 J -37191379.56 -37191379.51 -37191379.41 0.0089 0.0084

Venus -106537-03-03 13:40 J -37191154.03 -37191153.93 -37191153.81 0.0089 0.0076

Venus -106537-10-15 03:07 J -37190928.49 -37190928.37 -37190928.21 0.0089 0.0069

Venus -106536-05-28 16:33 J -37190702.94 -37190702.81 -37190702.62 0.0089 0.0062

Venus -106535-01-09 06:28 J -37190477.39 -37190477.23 -37190477.04 0.0089 0.0054

Venus -106535-08-22 19:55 J -37190251.84 -37190251.67 -37190251.46 0.0089 0.0047

Venus -106534-04-05 09:50 J -37190026.28 -37190026.09 -37190025.88 0.0089 0.0039

Venus -106534-11-16 23:45 J -37189800.72 -37189800.51 -37189800.30 0.0089 0.0032

Venus -106533-06-29 13:11 J -37189575.16 -37189574.95 -37189574.73 0.0089 0.0024

Venus -106532-02-10 03:07 J -37189349.59 -37189349.37 -37189349.15 0.0089 0.0016

Venus -106532-09-23 16:47 J -37189124.01 -37189123.80 -37189123.57 0.0089 0.0010

Venus -106531-05-07 06:43 J -37188898.44 -37188898.22 -37188897.99 0.0089 0.0002

Venus -106531-12-18 20:38 J -37188672.87 -37188672.64 -37188672.42 0.0089 0.0007

Venus -106530-08-01 10:19 J -37188447.29 -37188447.07 -37188446.85 0.0089 0.0014

Venus -106529-03-13 23:59 J -37188221.71 -37188221.50 -37188221.27 0.0089 0.0022

Venus -106529-10-25 14:23 J -37187996.11 -37187995.90 -37187995.69 0.0089 0.0029

Venus -106528-06-08 04:04 J -37187770.52 -37187770.33 -37187770.12 0.0089 0.0037

Venus -106527-01-19 17:45 J -37187544.93 -37187544.76 -37187544.54 0.0089 0.0046

Venus -106527-09-02 08:09 J -37187319.33 -37187319.16 -37187318.97 0.0089 0.0053

Venus -106526-04-15 22:04 J -37187093.73 -37187093.58 -37187093.40 0.0089 0.0060

Venus -106526-11-27 11:59 J -37186868.12 -37186868.00 -37186867.83 0.0089 0.0068

Venus -106525-07-10 02:23 J -37186642.51 -37186642.40 -37186642.27 0.0089 0.0075

Venus -106524-02-20 16:19 J -37186416.88 -37186416.82 -37186416.72 0.0089 0.0083

Earth -106513-01-28 19:55 J -37182422.83 -37182422.67 -37182422.45 0.0089 0.0063
 Moon -106513-01-28 21:50 J -37182422.75 -37182422.59 -37182422.38 0.0089 0.0063 *
 Moon -106512-01-30 10:47 J -37182055.31 -37182055.05 -37182054.78 0.0089 0.0028
 Earth -106512-01-30 12:57 J -37182055.20 -37182054.96 -37182054.69 0.0089 0.0029 *
 Earth -106511-02-02 05:59 J -37181687.51 -37181687.25 -37181686.97 0.0089 0.0006
 Moon -106511-02-02 09:21 J -37181687.37 -37181687.11 -37181686.84 0.0089 0.0005 *
 Moon -106510-02-04 19:11 J -37181319.93 -37181319.70 -37181319.44 0.0089 0.0040
 Earth -106510-02-04 22:47 J -37181319.77 -37181319.55 -37181319.29 0.0089 0.0040 *
 Earth -106509-02-07 15:21 J -37180951.98 -37180951.86 -37180951.69 0.0089 0.0074
 Moon -106509-02-07 19:11 J -37180951.84 -37180951.70 -37180951.52 0.0089 0.0072 *
 Mars -106501-02-28 09:35 J -37178009.25 -37178009.10 -37178008.94 0.0089 0.0075
 Mars -106499-01-22 08:09 J -37177315.41 -37177315.16 -37177314.88 0.0089 0.0040
 Mars -106498-12-17 06:14 J -37176621.53 -37176621.24 -37176620.94 0.0089 0.0005
 Mars -106496-11-10 01:55 J -37175927.68 -37175927.42 -37175927.12 0.0089 0.0031
 Mars -106494-10-04 22:33 J -37175233.73 -37175233.56 -37175233.33 0.0089 0.0066
 Mercury -106476-12-15 17:31 J -37168586.79 -37168586.77 -37168586.73 0.0088 0.0087
 Mercury -106475-03-13 19:40 J -37168498.73 -37168498.68 -37168498.61 0.0088 0.0082
 Mercury -106475-06-09 22:04 J -37168410.66 -37168410.58 -37168410.51 0.0088 0.0077
 Mercury -106475-09-05 23:45 J -37168322.58 -37168322.51 -37168322.41 0.0088 0.0073
 Mercury -106475-12-03 01:55 J -37168234.51 -37168234.42 -37168234.31 0.0088 0.0068
 Mercury -106474-03-01 04:19 J -37168146.43 -37168146.32 -37168146.21 0.0088 0.0063
 Mercury -106474-05-28 05:59 J -37168058.35 -37168058.25 -37168058.12 0.0088 0.0059
 Mercury -106474-08-24 08:09 J -37167970.27 -37167970.16 -37167970.03 0.0088 0.0054
 Mercury -106474-11-20 10:33 J -37167882.19 -37167882.06 -37167881.93 0.0088 0.0049
 Mercury -106473-02-16 12:14 J -37167794.11 -37167793.99 -37167793.85 0.0088 0.0045
 Mercury -106473-05-14 14:23 J -37167706.03 -37167705.90 -37167705.76 0.0088 0.0040
 Mercury -106473-08-10 16:19 J -37167617.95 -37167617.82 -37167617.67 0.0088 0.0036
 Mercury -106473-11-06 18:28 J -37167529.87 -37167529.73 -37167529.58 0.0088 0.0031
 Mercury -106472-02-02 20:23 J -37167441.79 -37167441.65 -37167441.50 0.0088 0.0026
 Mercury -106472-05-01 22:33 J -37167353.71 -37167353.56 -37167353.41 0.0088 0.0021

Mercury -106472-07-29 00:28 J -37167265.63 -37167265.48 -37167265.33 0.0088 0.0017

Mercury -106472-10-25 02:23 J -37167177.55 -37167177.40 -37167177.24 0.0088 0.0013

Mercury -106471-01-21 04:19 J -37167089.47 -37167089.32 -37167089.16 0.0088 0.0009

Mercury -106471-04-19 06:28 J -37167001.38 -37167001.23 -37167001.08 0.0088 0.0004

Mercury -106471-07-16 08:23 J -37166913.30 -37166913.15 -37166913.00 0.0088 0.0001

Mercury -106471-10-12 10:19 J -37166825.22 -37166825.07 -37166824.92 0.0088 0.0006

Mercury -106470-01-08 12:14 J -37166737.14 -37166736.99 -37166736.84 0.0088 0.0010

Mercury -106470-04-06 14:09 J -37166649.06 -37166648.91 -37166648.76 0.0088 0.0014

Mercury -106470-07-03 16:04 J -37166560.98 -37166560.83 -37166560.68 0.0088 0.0019

Mercury -106470-09-29 17:45 J -37166472.90 -37166472.76 -37166472.61 0.0088 0.0024

Mercury -106470-12-26 19:40 J -37166384.82 -37166384.68 -37166384.53 0.0088 0.0028

Mercury -106469-03-23 21:21 J -37166296.74 -37166296.61 -37166296.46 0.0088 0.0033

Mercury -106469-06-19 23:16 J -37166208.66 -37166208.53 -37166208.38 0.0088 0.0037

Mercury -106469-09-16 01:11 J -37166120.57 -37166120.45 -37166120.31 0.0088 0.0041

Mercury -106469-12-13 02:52 J -37166032.49 -37166032.38 -37166032.24 0.0088 0.0046

Mercury -106468-03-11 04:47 J -37165944.41 -37165944.30 -37165944.16 0.0088 0.0050

Mercury -106468-06-07 06:43 J -37165856.33 -37165856.22 -37165856.09 0.0088 0.0054

Mercury -106468-09-03 08:38 J -37165768.25 -37165768.14 -37165768.02 0.0088 0.0058

Mercury -106468-11-30 10:33 J -37165680.17 -37165680.06 -37165679.96 0.0088 0.0062

Mercury -106467-02-26 11:59 J -37165592.08 -37165592.00 -37165591.89 0.0088 0.0067

Mercury -106467-05-25 13:55 J -37165504.00 -37165503.92 -37165503.82 0.0088 0.0071

Mercury -106467-08-21 15:50 J -37165415.91 -37165415.84 -37165415.76 0.0088 0.0074

Mercury -106467-11-17 17:31 J -37165327.83 -37165327.77 -37165327.70 0.0088 0.0079

Mercury -106466-02-13 19:26 J -37165239.74 -37165239.69 -37165239.64 0.0088 0.0083

Mercury -106466-05-12 21:21 J -37165151.64 -37165151.61 -37165151.59 0.0088 0.0087

Jupiter -106461-02-19 05:16 J -37163408.68 -37163408.28 -37163407.83 0.0088 0.0052

Venus -106456-01-28 13:55 J -37161602.95 -37161602.92 -37161602.88 0.0088 0.0087

Venus -106456-09-11 02:23 J -37161377.49 -37161377.40 -37161377.30 0.0088 0.0080

Venus -106455-04-24 14:52 J -37161151.99 -37161151.88 -37161151.75 0.0088 0.0073

Venus -106455-12-06 03:07 J -37160926.50 -37160926.37 -37160926.21 0.0088 0.0066

Venus	-106454-07-19 15:35 J	-37160701.00	-37160700.85	-37160700.68	0.0088	0.0058
Venus	-106453-03-01 03:50 J	-37160475.50	-37160475.34	-37160475.14	0.0088	0.0052
Venus	-106453-10-12 16:19 J	-37160249.99	-37160249.82	-37160249.62	0.0088	0.0044
Venus	-106452-05-26 05:02 J	-37160024.49	-37160024.29	-37160024.09	0.0088	0.0037
Venus	-106451-01-06 17:02 J	-37159798.98	-37159798.79	-37159798.57	0.0088	0.0030
Venus	-106451-08-20 05:16 J	-37159573.48	-37159573.28	-37159573.06	0.0088	0.0023
Venus	-106450-04-02 17:45 J	-37159347.96	-37159347.76	-37159347.54	0.0088	0.0015
Venus	-106450-11-14 06:14 J	-37159122.45	-37159122.24	-37159122.02	0.0088	0.0008
Venus	-106449-06-26 18:28 J	-37158896.95	-37158896.73	-37158896.51	0.0088	0.0000
Venus	-106448-02-07 06:28 J	-37158671.44	-37158671.23	-37158671.01	0.0088	0.0008
Venus	-106448-09-20 18:43 J	-37158445.93	-37158445.72	-37158445.50	0.0088	0.0014
Venus	-106447-05-04 06:57 J	-37158220.41	-37158220.21	-37158219.99	0.0088	0.0022
Venus	-106447-12-15 19:11 J	-37157994.90	-37157994.70	-37157994.49	0.0088	0.0029
Venus	-106446-07-29 06:57 J	-37157769.39	-37157769.21	-37157769.00	0.0088	0.0036
Venus	-106445-03-10 18:57 J	-37157543.88	-37157543.71	-37157543.50	0.0088	0.0044
Venus	-106445-10-22 06:57 J	-37157318.37	-37157318.21	-37157318.01	0.0088	0.0051
Venus	-106444-06-04 19:11 J	-37157092.85	-37157092.70	-37157092.52	0.0088	0.0057
Venus	-106443-01-16 06:57 J	-37156867.34	-37156867.21	-37156867.04	0.0088	0.0065
Venus	-106443-08-29 18:43 J	-37156641.82	-37156641.72	-37156641.57	0.0088	0.0072
Venus	-106442-04-12 06:43 J	-37156416.29	-37156416.22	-37156416.09	0.0088	0.0079
Venus	-106442-11-23 18:43 J	-37156190.75	-37156190.72	-37156190.64	0.0088	0.0085
Earth	-106432-07-30 05:02 J	-37152654.31	-37152654.29	-37152654.26	0.0088	0.0088
Moon	-106431-08-01 10:04 J	-37152287.26	-37152287.08	-37152286.87	0.0088	0.0056
Earth	-106431-08-01 11:31 J	-37152287.19	-37152287.02	-37152286.81	0.0088	0.0058 *
Earth	-106430-08-03 18:43 J	-37151919.95	-37151919.72	-37151919.48	0.0088	0.0027
Moon	-106430-08-03 21:21 J	-37151919.82	-37151919.61	-37151919.37	0.0088	0.0029 *
Moon	-106429-08-04 22:19 J	-37151552.81	-37151552.57	-37151552.31	0.0088	0.0006
Earth	-106429-08-05 01:40 J	-37151552.68	-37151552.43	-37151552.18	0.0088	0.0004 *
Earth	-106428-08-07 08:09 J	-37151185.38	-37151185.16	-37151184.92	0.0088	0.0035
Moon	-106428-08-07 11:59 J	-37151185.23	-37151185.00	-37151184.77	0.0088	0.0033 *

Moon -106427-08-09 11:59 J -37150818.14 -37150818.00 -37150817.83 0.0088 0.0068
 Earth -106427-08-09 15:07 J -37150818.03 -37150817.87 -37150817.70 0.0088 0.0065 *
 Mars -106418-11-02 09:50 J -37147446.29 -37147446.09 -37147445.84 0.0089 0.0065
 Mars -106416-09-28 09:50 J -37146750.39 -37146750.09 -37146749.75 0.0089 0.0025
 Mars -106414-08-25 10:47 J -37146054.36 -37146054.05 -37146053.70 0.0089 0.0017
 Mars -106412-07-21 12:28 J -37145358.21 -37145357.98 -37145357.70 0.0089 0.0058
 Mercury -106393-08-28 10:19 J -37138380.08 -37138380.07 -37138380.05 0.0089 0.0088
 Mercury -106393-11-24 12:14 J -37138292.02 -37138291.99 -37138291.92 0.0089 0.0084
 Mercury -106392-02-20 14:38 J -37138203.95 -37138203.89 -37138203.81 0.0089 0.0079
 Mercury -106392-05-19 16:47 J -37138115.87 -37138115.80 -37138115.70 0.0089 0.0075
 Mercury -106392-08-15 19:11 J -37138027.79 -37138027.70 -37138027.60 0.0089 0.0070
 Mercury -106392-11-11 21:35 J -37137939.71 -37137939.60 -37137939.49 0.0089 0.0065
 Mercury -106391-02-07 23:45 J -37137851.62 -37137851.51 -37137851.39 0.0089 0.0061
 Mercury -106391-05-07 02:09 J -37137763.53 -37137763.41 -37137763.28 0.0089 0.0056
 Mercury -106391-08-03 04:33 J -37137675.44 -37137675.31 -37137675.18 0.0089 0.0051
 Mercury -106391-10-30 06:28 J -37137587.35 -37137587.23 -37137587.08 0.0089 0.0047
 Mercury -106390-01-26 09:07 J -37137499.26 -37137499.12 -37137498.97 0.0089 0.0042
 Mercury -106390-04-24 11:31 J -37137411.17 -37137411.02 -37137410.87 0.0089 0.0037
 Mercury -106390-07-21 13:55 J -37137323.07 -37137322.92 -37137322.77 0.0089 0.0032
 Mercury -106390-10-17 16:04 J -37137234.98 -37137234.83 -37137234.67 0.0089 0.0028
 Mercury -106389-01-13 18:28 J -37137146.88 -37137146.73 -37137146.57 0.0089 0.0023
 Mercury -106389-04-10 20:52 J -37137058.79 -37137058.63 -37137058.47 0.0089 0.0018
 Mercury -106389-07-07 23:16 J -37136970.69 -37136970.53 -37136970.36 0.0089 0.0013
 Mercury -106389-10-04 01:40 J -37136882.59 -37136882.43 -37136882.26 0.0089 0.0009
 Mercury -106389-12-31 04:19 J -37136794.49 -37136794.32 -37136794.16 0.0089 0.0004
 Mercury -106388-03-29 06:43 J -37136706.39 -37136706.22 -37136706.06 0.0089 0.0002
 Mercury -106388-06-25 09:07 J -37136618.29 -37136618.12 -37136617.96 0.0089 0.0007
 Mercury -106388-09-21 11:31 J -37136530.18 -37136530.02 -37136529.85 0.0089 0.0012
 Mercury -106388-12-18 13:55 J -37136442.08 -37136441.92 -37136441.75 0.0089 0.0017
 Mercury -106387-03-16 16:19 J -37136353.97 -37136353.82 -37136353.65 0.0089 0.0022

Mercury -106387-06-12 18:43 J -37136265.87 -37136265.72 -37136265.55 0.0089 0.0027

Mercury -106387-09-08 21:21 J -37136177.76 -37136177.61 -37136177.45 0.0089 0.0032

Mercury -106387-12-05 23:45 J -37136089.65 -37136089.51 -37136089.35 0.0089 0.0037

Mercury -106386-03-04 02:23 J -37136001.54 -37136001.40 -37136001.24 0.0089 0.0042

Mercury -106386-05-31 04:47 J -37135913.43 -37135913.30 -37135913.14 0.0089 0.0047

Mercury -106386-08-27 07:26 J -37135825.31 -37135825.19 -37135825.04 0.0089 0.0052

Mercury -106386-11-23 10:04 J -37135737.20 -37135737.08 -37135736.94 0.0089 0.0057

Mercury -106385-02-19 12:43 J -37135649.08 -37135648.97 -37135648.84 0.0089 0.0062

Mercury -106385-05-17 15:21 J -37135560.96 -37135560.86 -37135560.75 0.0089 0.0067

Mercury -106385-08-13 17:45 J -37135472.84 -37135472.76 -37135472.65 0.0089 0.0073

Mercury -106385-11-09 20:23 J -37135384.72 -37135384.65 -37135384.56 0.0089 0.0078

Mercury -106384-02-05 23:02 J -37135296.59 -37135296.54 -37135296.47 0.0089 0.0083

Mercury -106384-05-05 01:40 J -37135208.44 -37135208.43 -37135208.40 0.0089 0.0088

Venus -106374-10-23 11:59 J -37131385.06 -37131385.00 -37131384.92 0.0089 0.0083

Venus -106373-06-05 01:11 J -37131159.54 -37131159.45 -37131159.31 0.0089 0.0077

Venus -106372-01-16 14:38 J -37130934.00 -37130933.89 -37130933.72 0.0089 0.0069

Venus -106372-08-30 04:33 J -37130708.46 -37130708.31 -37130708.13 0.0089 0.0061

Venus -106371-04-12 17:59 J -37130482.90 -37130482.75 -37130482.55 0.0089 0.0054

Venus -106371-11-24 07:55 J -37130257.35 -37130257.17 -37130256.97 0.0089 0.0046

Venus -106370-07-07 21:50 J -37130031.79 -37130031.59 -37130031.39 0.0089 0.0038

Venus -106369-02-18 11:16 J -37129806.23 -37129806.03 -37129805.81 0.0089 0.0031

Venus -106369-10-01 01:11 J -37129580.66 -37129580.45 -37129580.23 0.0089 0.0023

Venus -106368-05-14 15:07 J -37129355.09 -37129354.87 -37129354.65 0.0089 0.0016

Venus -106368-12-26 04:47 J -37129129.52 -37129129.30 -37129129.08 0.0089 0.0008

Venus -106367-08-08 18:28 J -37128903.95 -37128903.73 -37128903.51 0.0089 0.0000

Venus -106366-03-22 08:23 J -37128678.38 -37128678.15 -37128677.93 0.0089 0.0008

Venus -106366-11-02 22:04 J -37128452.79 -37128452.58 -37128452.35 0.0089 0.0015

Venus -106365-06-15 11:45 J -37128227.21 -37128227.01 -37128226.78 0.0089 0.0023

Venus -106364-01-27 01:55 J -37128001.63 -37128001.42 -37128001.21 0.0089 0.0031

Venus -106364-09-09 15:35 J -37127776.04 -37127775.85 -37127775.64 0.0089 0.0038

Venus -106363-04-23 05:31 J -37127550.45 -37127550.27 -37127550.07 0.0089 0.0046
 Venus -106363-12-04 19:11 J -37127324.85 -37127324.70 -37127324.50 0.0089 0.0055
 Venus -106362-07-18 09:35 J -37127099.25 -37127099.10 -37127098.93 0.0089 0.0061
 Venus -106361-02-28 23:31 J -37126873.65 -37126873.52 -37126873.37 0.0089 0.0069
 Venus -106361-10-11 13:26 J -37126648.02 -37126647.94 -37126647.80 0.0089 0.0077
 Venus -106360-05-25 03:50 J -37126422.39 -37126422.34 -37126422.25 0.0089 0.0084
 Moon -106349-01-27 23:45 J -37122522.60 -37122522.51 -37122522.40 0.0089 0.0082
 Earth -106349-01-28 03:35 J -37122522.48 -37122522.35 -37122522.22 0.0089 0.0077 *
 Earth -106348-01-29 19:40 J -37122154.89 -37122154.68 -37122154.42 0.0089 0.0044
 Moon -106348-01-29 23:31 J -37122154.75 -37122154.52 -37122154.27 0.0089 0.0039 *
 Moon -106347-02-01 09:21 J -37121787.37 -37121787.11 -37121786.84 0.0089 0.0014
 Earth -106347-02-01 13:11 J -37121787.21 -37121786.95 -37121786.68 0.0089 0.0009 *
 Earth -106346-02-04 05:45 J -37121419.51 -37121419.26 -37121418.99 0.0089 0.0025
 Moon -106346-02-04 09:21 J -37121419.35 -37121419.11 -37121418.84 0.0089 0.0030 *
 Moon -106345-02-06 19:55 J -37121051.86 -37121051.67 -37121051.45 0.0089 0.0055
 Earth -106345-02-06 22:47 J -37121051.74 -37121051.55 -37121051.34 0.0089 0.0059 *
 Mars -106336-09-06 20:23 J -37117551.86 -37117551.65 -37117551.39 0.0089 0.0055
 Mars -106334-08-01 18:43 J -37116858.00 -37116857.72 -37116857.43 0.0089 0.0019
 Mars -106332-06-25 16:33 J -37116164.09 -37116163.81 -37116163.52 0.0089 0.0017
 Mars -106330-05-20 12:28 J -37115470.20 -37115469.98 -37115469.72 0.0089 0.0053
 Mars -106328-04-13 09:07 J -37114776.14 -37114776.12 -37114776.07 0.0089 0.0088
 Mercury -106311-06-15 15:21 J -37108503.87 -37108503.86 -37108503.84 0.0088 0.0088
 Mercury -106311-09-11 17:16 J -37108415.82 -37108415.78 -37108415.71 0.0088 0.0084
 Mercury -106311-12-08 19:26 J -37108327.75 -37108327.69 -37108327.61 0.0088 0.0079
 Mercury -106310-03-06 21:50 J -37108239.67 -37108239.59 -37108239.50 0.0088 0.0074
 Mercury -106310-06-02 23:31 J -37108151.60 -37108151.52 -37108151.41 0.0088 0.0070
 Mercury -106310-08-30 01:40 J -37108063.52 -37108063.43 -37108063.31 0.0088 0.0065
 Mercury -106310-11-26 04:04 J -37107975.44 -37107975.33 -37107975.21 0.0088 0.0060
 Mercury -106309-02-22 05:59 J -37107887.36 -37107887.25 -37107887.12 0.0088 0.0055
 Mercury -106309-05-20 08:09 J -37107799.28 -37107799.16 -37107799.03 0.0088 0.0050

Mercury -106309-08-16 10:19 J -37107711.20 -37107711.07 -37107710.94 0.0088 0.0046

Mercury -106309-11-12 11:59 J -37107623.12 -37107623.00 -37107622.85 0.0088 0.0042

Mercury -106308-02-08 14:09 J -37107535.04 -37107534.91 -37107534.76 0.0088 0.0037

Mercury -106308-05-07 16:04 J -37107446.96 -37107446.83 -37107446.67 0.0088 0.0033

Mercury -106308-08-03 18:14 J -37107358.88 -37107358.74 -37107358.59 0.0088 0.0028

Mercury -106308-10-30 20:23 J -37107270.80 -37107270.65 -37107270.50 0.0088 0.0023

Mercury -106307-01-26 22:19 J -37107182.72 -37107182.57 -37107182.42 0.0088 0.0018

Mercury -106307-04-25 00:28 J -37107094.63 -37107094.48 -37107094.33 0.0088 0.0014

Mercury -106307-07-22 02:23 J -37107006.55 -37107006.40 -37107006.25 0.0088 0.0009

Mercury -106307-10-18 04:19 J -37106918.47 -37106918.32 -37106918.17 0.0088 0.0005

Mercury -106306-01-14 06:14 J -37106830.39 -37106830.24 -37106830.08 0.0088 0.0002

Mercury -106306-04-12 08:09 J -37106742.31 -37106742.16 -37106742.00 0.0088 0.0005

Mercury -106306-07-09 10:04 J -37106654.23 -37106654.08 -37106653.92 0.0088 0.0009

Mercury -106306-10-05 11:59 J -37106566.14 -37106566.00 -37106565.84 0.0088 0.0014

Mercury -106305-01-01 14:09 J -37106478.06 -37106477.91 -37106477.77 0.0088 0.0018

Mercury -106305-03-29 15:50 J -37106389.98 -37106389.84 -37106389.69 0.0088 0.0022

Mercury -106305-06-25 17:45 J -37106301.90 -37106301.76 -37106301.61 0.0088 0.0027

Mercury -106305-09-21 19:40 J -37106213.82 -37106213.68 -37106213.54 0.0088 0.0031

Mercury -106305-12-18 21:21 J -37106125.74 -37106125.61 -37106125.46 0.0088 0.0036

Mercury -106304-03-16 23:31 J -37106037.65 -37106037.52 -37106037.39 0.0088 0.0040

Mercury -106304-06-13 01:26 J -37105949.57 -37105949.44 -37105949.31 0.0088 0.0044

Mercury -106304-09-09 02:52 J -37105861.49 -37105861.38 -37105861.24 0.0088 0.0049

Mercury -106304-12-06 04:47 J -37105773.41 -37105773.30 -37105773.17 0.0088 0.0053

Mercury -106303-03-04 06:43 J -37105685.33 -37105685.22 -37105685.10 0.0088 0.0057

Mercury -106303-05-31 08:23 J -37105597.24 -37105597.15 -37105597.03 0.0088 0.0061

Mercury -106303-08-27 10:19 J -37105509.16 -37105509.07 -37105508.96 0.0088 0.0065

Mercury -106303-11-23 11:59 J -37105421.08 -37105421.00 -37105420.89 0.0088 0.0070

Mercury -106302-02-19 13:55 J -37105332.99 -37105332.92 -37105332.83 0.0088 0.0074

Mercury -106302-05-18 15:50 J -37105244.90 -37105244.84 -37105244.77 0.0088 0.0078

Mercury -106302-08-14 17:45 J -37105156.81 -37105156.76 -37105156.71 0.0088 0.0082

Mercury -106302-11-10 19:11 J -37105068.72 -37105068.70 -37105068.66 0.0088 0.0086

Jupiter -106295-04-14 15:21 J -37102721.89 -37102721.86 -37102721.74 0.0088 0.0088

Venus -106292-05-02 02:23 J -37101608.42 -37101608.40 -37101608.34 0.0088 0.0087

Venus -106292-12-13 14:52 J -37101382.96 -37101382.88 -37101382.77 0.0088 0.0080

Venus -106291-07-27 03:21 J -37101157.47 -37101157.36 -37101157.22 0.0088 0.0072

Venus -106290-03-09 15:50 J -37100931.97 -37100931.84 -37100931.67 0.0088 0.0065

Venus -106290-10-21 04:33 J -37100706.46 -37100706.31 -37100706.14 0.0088 0.0058

Venus -106289-06-02 16:47 J -37100480.96 -37100480.80 -37100480.61 0.0088 0.0051

Venus -106288-01-14 05:02 J -37100255.46 -37100255.29 -37100255.08 0.0088 0.0044

Venus -106288-08-27 17:31 J -37100029.96 -37100029.77 -37100029.56 0.0088 0.0036

Venus -106287-04-10 06:14 J -37099804.45 -37099804.24 -37099804.04 0.0088 0.0029

Venus -106287-11-21 18:28 J -37099578.94 -37099578.73 -37099578.52 0.0088 0.0021

Venus -106286-07-05 06:28 J -37099353.43 -37099353.23 -37099353.01 0.0088 0.0015

Venus -106285-02-15 18:57 J -37099127.93 -37099127.71 -37099127.49 0.0088 0.0007

Venus -106285-09-28 07:11 J -37098902.42 -37098902.20 -37098901.98 0.0088 0.0001

Venus -106284-05-11 19:26 J -37098676.90 -37098676.69 -37098676.47 0.0088 0.0008

Venus -106284-12-23 07:26 J -37098451.40 -37098451.19 -37098450.97 0.0088 0.0016

Venus -106283-08-05 19:40 J -37098225.88 -37098225.68 -37098225.47 0.0088 0.0022

Venus -106282-03-19 07:40 J -37098000.37 -37098000.18 -37097999.96 0.0088 0.0030

Venus -106282-10-30 19:55 J -37097774.85 -37097774.67 -37097774.46 0.0088 0.0037

Venus -106281-06-12 07:55 J -37097549.34 -37097549.17 -37097548.97 0.0088 0.0045

Venus -106280-01-23 20:09 J -37097323.83 -37097323.66 -37097323.48 0.0088 0.0051

Venus -106280-09-06 08:09 J -37097098.31 -37097098.16 -37097097.99 0.0088 0.0059

Venus -106279-04-19 20:09 J -37096872.79 -37096872.66 -37096872.50 0.0088 0.0066

Venus -106279-12-01 08:09 J -37096647.27 -37096647.16 -37096647.03 0.0088 0.0073

Venus -106278-07-14 20:09 J -37096421.74 -37096421.66 -37096421.56 0.0088 0.0079

Venus -106277-02-25 07:55 J -37096196.20 -37096196.17 -37096196.11 0.0088 0.0086

Earth -106267-08-01 03:21 J -37092386.48 -37092386.36 -37092386.18 0.0088 0.0071

Moon -106267-08-01 06:14 J -37092386.35 -37092386.24 -37092386.09 0.0088 0.0075 *

Moon -106266-08-03 06:57 J -37092019.42 -37092019.21 -37092018.96 0.0088 0.0036

Earth -106266-08-03 10:47 J -37092019.26 -37092019.05 -37092018.82 0.0088 0.0040 *
 Earth -106265-08-04 17:45 J -37091652.01 -37091651.76 -37091651.52 0.0088 0.0009
 Moon -106265-08-04 20:52 J -37091651.88 -37091651.63 -37091651.38 0.0088 0.0013 *
 Moon -106264-08-06 21:21 J -37091284.82 -37091284.61 -37091284.36 0.0088 0.0027
 Earth -106264-08-07 00:14 J -37091284.71 -37091284.49 -37091284.24 0.0088 0.0022 *
 Earth -106263-08-09 06:57 J -37090917.39 -37090917.21 -37090917.00 0.0088 0.0053
 Moon -106263-08-09 08:38 J -37090917.33 -37090917.14 -37090916.90 0.0088 0.0049 *
 Earth -106262-08-11 13:55 J -37090549.99 -37090549.92 -37090549.83 0.0088 0.0083
 Moon -106262-08-11 13:40 J -37090549.96 -37090549.93 -37090549.87 0.0088 0.0087 *
 Mars -106254-06-16 06:57 J -37087684.30 -37087684.21 -37087684.05 0.0088 0.0082
 Mars -106252-05-12 06:57 J -37086988.49 -37086988.21 -37086987.89 0.0089 0.0041
 Mars -106250-04-08 07:40 J -37086292.51 -37086292.18 -37086291.84 0.0089 0.0001
 Mars -106248-03-04 08:38 J -37085596.43 -37085596.14 -37085595.84 0.0089 0.0042
 Mars -106246-01-29 10:04 J -37084900.16 -37084900.08 -37084899.94 0.0089 0.0084
 Mercury -106228-05-25 09:50 J -37078209.12 -37078209.09 -37078209.03 0.0089 0.0085
 Mercury -106228-08-21 12:14 J -37078121.05 -37078120.99 -37078120.92 0.0089 0.0080
 Mercury -106228-11-17 14:23 J -37078032.97 -37078032.90 -37078032.81 0.0089 0.0076
 Mercury -106227-02-13 16:47 J -37077944.89 -37077944.80 -37077944.70 0.0089 0.0071
 Mercury -106227-05-12 18:43 J -37077856.81 -37077856.72 -37077856.60 0.0089 0.0067
 Mercury -106227-08-08 21:07 J -37077768.72 -37077768.62 -37077768.49 0.0089 0.0062
 Mercury -106227-11-04 23:31 J -37077680.63 -37077680.52 -37077680.39 0.0089 0.0057
 Mercury -106226-02-01 01:40 J -37077592.55 -37077592.43 -37077592.29 0.0089 0.0053
 Mercury -106226-04-30 04:04 J -37077504.46 -37077504.33 -37077504.18 0.0089 0.0048
 Mercury -106226-07-27 06:28 J -37077416.36 -37077416.23 -37077416.08 0.0089 0.0043
 Mercury -106226-10-23 08:38 J -37077328.27 -37077328.14 -37077327.98 0.0089 0.0039
 Mercury -106225-01-19 11:02 J -37077240.18 -37077240.04 -37077239.88 0.0089 0.0034
 Mercury -106225-04-16 13:26 J -37077152.08 -37077151.94 -37077151.78 0.0089 0.0029
 Mercury -106225-07-13 15:50 J -37077063.99 -37077063.84 -37077063.68 0.0089 0.0024
 Mercury -106225-10-09 18:28 J -37076975.89 -37076975.73 -37076975.58 0.0089 0.0019
 Mercury -106224-01-05 20:38 J -37076887.80 -37076887.64 -37076887.47 0.0089 0.0015

Mercury -106224-04-03 23:02 J -37076799.70 -37076799.54 -37076799.37 0.0089 0.0010

Mercury -106224-07-01 01:26 J -37076711.60 -37076711.44 -37076711.27 0.0089 0.0005

Mercury -106224-09-27 03:50 J -37076623.50 -37076623.34 -37076623.17 0.0089 0.0003

Mercury -106224-12-24 06:14 J -37076535.40 -37076535.24 -37076535.07 0.0089 0.0006

Mercury -106223-03-22 08:52 J -37076447.30 -37076447.13 -37076446.97 0.0089 0.0010

Mercury -106223-06-18 11:16 J -37076359.19 -37076359.03 -37076358.87 0.0089 0.0015

Mercury -106223-09-14 13:40 J -37076271.09 -37076270.93 -37076270.77 0.0089 0.0020

Mercury -106223-12-11 16:04 J -37076182.98 -37076182.83 -37076182.66 0.0089 0.0025

Mercury -106222-03-09 18:28 J -37076094.88 -37076094.73 -37076094.56 0.0089 0.0030

Mercury -106222-06-05 21:07 J -37076006.77 -37076006.62 -37076006.46 0.0089 0.0035

Mercury -106222-09-01 23:31 J -37075918.66 -37075918.52 -37075918.36 0.0089 0.0040

Mercury -106222-11-29 02:09 J -37075830.55 -37075830.41 -37075830.26 0.0089 0.0045

Mercury -106221-02-25 04:47 J -37075742.44 -37075742.30 -37075742.16 0.0089 0.0050

Mercury -106221-05-23 07:26 J -37075654.32 -37075654.19 -37075654.06 0.0089 0.0055

Mercury -106221-08-19 09:35 J -37075566.21 -37075566.10 -37075565.96 0.0089 0.0061

Mercury -106221-11-15 12:14 J -37075478.09 -37075477.99 -37075477.87 0.0089 0.0066

Mercury -106220-02-11 14:52 J -37075389.97 -37075389.88 -37075389.77 0.0089 0.0071

Mercury -106220-05-10 17:31 J -37075301.85 -37075301.77 -37075301.68 0.0089 0.0076

Mercury -106220-08-06 20:09 J -37075213.72 -37075213.66 -37075213.59 0.0089 0.0081

Mercury -106220-11-02 22:47 J -37075125.58 -37075125.55 -37075125.50 0.0089 0.0086

Venus -106209-01-24 23:31 J -37071390.58 -37071390.52 -37071390.43 0.0089 0.0083

Venus -106209-09-06 12:57 J -37071165.06 -37071164.96 -37071164.83 0.0089 0.0076

Venus -106208-04-20 02:38 J -37070939.52 -37070939.39 -37070939.24 0.0089 0.0069

Venus -106208-12-01 15:50 J -37070713.98 -37070713.84 -37070713.66 0.0089 0.0061

Venus -106207-07-15 05:45 J -37070488.43 -37070488.26 -37070488.08 0.0089 0.0053

Venus -106206-02-25 19:11 J -37070262.88 -37070262.70 -37070262.50 0.0089 0.0046

Venus -106206-10-09 09:07 J -37070037.31 -37070037.12 -37070036.91 0.0089 0.0038

Venus -106205-05-21 23:02 J -37069811.75 -37069811.54 -37069811.33 0.0089 0.0030

Venus -106204-01-02 12:28 J -37069586.19 -37069585.98 -37069585.76 0.0089 0.0023

Venus -106204-08-16 02:09 J -37069360.62 -37069360.41 -37069360.18 0.0089 0.0015

Venus	-106203-03-29 16:04 J	-37069135.05	-37069134.83	-37069134.61	0.0089	0.0007
Venus	-106203-11-10 05:59 J	-37068909.48	-37068909.25	-37068909.03	0.0089	0.0001
Venus	-106202-06-23 19:40 J	-37068683.90	-37068683.68	-37068683.45	0.0089	0.0008
Venus	-106201-02-04 09:21 J	-37068458.32	-37068458.11	-37068457.88	0.0089	0.0016
Venus	-106201-09-16 23:16 J	-37068232.74	-37068232.53	-37068232.31	0.0089	0.0024
Venus	-106200-04-30 13:11 J	-37068007.15	-37068006.95	-37068006.73	0.0089	0.0032
Venus	-106200-12-12 02:52 J	-37067781.57	-37067781.38	-37067781.17	0.0089	0.0040
Venus	-106199-07-25 16:47 J	-37067555.98	-37067555.80	-37067555.60	0.0089	0.0047
Venus	-106198-03-08 06:28 J	-37067330.38	-37067330.23	-37067330.03	0.0089	0.0055
Venus	-106198-10-19 20:52 J	-37067104.78	-37067104.63	-37067104.46	0.0089	0.0063
Venus	-106197-06-01 10:47 J	-37066879.17	-37066879.05	-37066878.90	0.0089	0.0070
Venus	-106196-01-13 00:28 J	-37066653.56	-37066653.48	-37066653.34	0.0089	0.0078
Venus	-106196-08-26 14:52 J	-37066427.93	-37066427.88	-37066427.81	0.0089	0.0085
Moon	-106184-01-28 23:45 J	-37062254.70	-37062254.51	-37062254.29	0.0089	0.0057
Earth	-106184-01-29 03:07 J	-37062254.56	-37062254.37	-37062254.15	0.0089	0.0058 *
Earth	-106183-01-31 19:55 J	-37061886.92	-37061886.67	-37061886.40	0.0089	0.0024
Moon	-106183-01-31 22:33 J	-37061886.81	-37061886.56	-37061886.28	0.0089	0.0024 *
Moon	-106182-02-03 10:33 J	-37061519.31	-37061519.06	-37061518.79	0.0089	0.0010
Earth	-106182-02-03 12:57 J	-37061519.22	-37061518.96	-37061518.69	0.0089	0.0010 *
Earth	-106181-02-06 05:16 J	-37061151.49	-37061151.28	-37061151.03	0.0089	0.0045
Moon	-106181-02-06 05:59 J	-37061151.47	-37061151.25	-37061150.99	0.0089	0.0045 *
Earth	-106180-02-07 22:04 J	-37060783.68	-37060783.58	-37060783.43	0.0089	0.0079
Moon	-106180-02-07 22:33 J	-37060783.67	-37060783.56	-37060783.43	0.0089	0.0078 *
Mars	-106172-04-22 08:52 J	-37057788.29	-37057788.13	-37057787.93	0.0089	0.0070
Mars	-106170-03-17 06:57 J	-37057094.47	-37057094.21	-37057093.92	0.0089	0.0034
Mars	-106168-02-08 05:16 J	-37056400.57	-37056400.28	-37056399.99	0.0089	0.0003
Mars	-106166-01-03 02:52 J	-37055706.64	-37055706.38	-37055706.11	0.0089	0.0039
Mars	-106165-11-26 23:16 J	-37055012.67	-37055012.53	-37055012.36	0.0089	0.0075
Mercury	-106146-03-12 15:07 J	-37048332.90	-37048332.87	-37048332.82	0.0088	0.0085
Mercury	-106146-06-08 17:31 J	-37048244.84	-37048244.77	-37048244.71	0.0088	0.0080

Mercury -106146-09-04 19:11 J -37048156.76 -37048156.70 -37048156.60 0.0088 0.0076

Mercury -106146-12-01 21:21 J -37048068.69 -37048068.61 -37048068.50 0.0088 0.0071

Mercury -106145-02-27 23:45 J -37047980.61 -37047980.51 -37047980.40 0.0088 0.0066

Mercury -106145-05-26 01:40 J -37047892.53 -37047892.43 -37047892.31 0.0088 0.0061

Mercury -106145-08-22 03:50 J -37047804.45 -37047804.34 -37047804.22 0.0088 0.0057

Mercury -106145-11-18 05:59 J -37047716.37 -37047716.25 -37047716.12 0.0088 0.0052

Mercury -106144-02-14 07:55 J -37047628.29 -37047628.17 -37047628.03 0.0088 0.0047

Mercury -106144-05-13 10:04 J -37047540.21 -37047540.08 -37047539.94 0.0088 0.0043

Mercury -106144-08-09 11:59 J -37047452.13 -37047452.00 -37047451.85 0.0088 0.0038

Mercury -106144-11-05 14:09 J -37047364.05 -37047363.91 -37047363.77 0.0088 0.0033

Mercury -106143-02-01 16:19 J -37047275.97 -37047275.82 -37047275.68 0.0088 0.0029

Mercury -106143-04-30 17:59 J -37047187.89 -37047187.75 -37047187.59 0.0088 0.0025

Mercury -106143-07-27 20:09 J -37047099.81 -37047099.66 -37047099.51 0.0088 0.0020

Mercury -106143-10-23 22:04 J -37047011.72 -37047011.58 -37047011.42 0.0088 0.0016

Mercury -106142-01-20 00:14 J -37046923.64 -37046923.49 -37046923.34 0.0088 0.0011

Mercury -106142-04-18 02:09 J -37046835.56 -37046835.41 -37046835.25 0.0088 0.0006

Mercury -106142-07-15 04:04 J -37046747.48 -37046747.33 -37046747.17 0.0088 0.0003

Mercury -106142-10-11 06:14 J -37046659.40 -37046659.24 -37046659.09 0.0088 0.0004

Mercury -106141-01-07 08:09 J -37046571.31 -37046571.16 -37046571.01 0.0088 0.0008

Mercury -106141-04-04 09:50 J -37046483.23 -37046483.09 -37046482.93 0.0088 0.0013

Mercury -106141-07-01 11:59 J -37046395.15 -37046395.00 -37046394.85 0.0088 0.0016

Mercury -106141-09-27 13:55 J -37046307.07 -37046306.92 -37046306.77 0.0088 0.0021

Mercury -106141-12-24 15:35 J -37046218.99 -37046218.85 -37046218.70 0.0088 0.0026

Mercury -106140-03-22 17:45 J -37046130.90 -37046130.76 -37046130.62 0.0088 0.0030

Mercury -106140-06-18 19:26 J -37046042.82 -37046042.69 -37046042.54 0.0088 0.0034

Mercury -106140-09-14 21:21 J -37045954.74 -37045954.61 -37045954.47 0.0088 0.0038

Mercury -106140-12-11 23:16 J -37045866.66 -37045866.53 -37045866.39 0.0088 0.0043

Mercury -106139-03-10 00:57 J -37045778.57 -37045778.46 -37045778.32 0.0088 0.0047

Mercury -106139-06-06 02:52 J -37045690.49 -37045690.38 -37045690.25 0.0088 0.0052

Mercury -106139-09-02 04:47 J -37045602.41 -37045602.30 -37045602.18 0.0088 0.0056

Mercury -106139-11-29 06:43 J -37045514.32 -37045514.22 -37045514.11 0.0088 0.0060

Mercury -106138-02-25 08:23 J -37045426.24 -37045426.15 -37045426.04 0.0088 0.0064

Mercury -106138-05-24 10:04 J -37045338.16 -37045338.08 -37045337.97 0.0088 0.0069

Mercury -106138-08-20 11:59 J -37045250.07 -37045250.00 -37045249.91 0.0088 0.0073

Mercury -106138-11-16 13:55 J -37045161.98 -37045161.92 -37045161.84 0.0088 0.0077

Mercury -106137-02-12 15:50 J -37045073.90 -37045073.84 -37045073.78 0.0088 0.0081

Mercury -106137-05-10 17:45 J -37044985.80 -37044985.76 -37044985.73 0.0088 0.0085

Venus -106128-08-03 14:23 J -37041613.92 -37041613.90 -37041613.84 0.0088 0.0087

Venus -106127-03-17 03:07 J -37041388.44 -37041388.37 -37041388.26 0.0088 0.0079

Venus -106127-10-28 15:35 J -37041162.95 -37041162.85 -37041162.70 0.0088 0.0072

Venus -106126-06-11 04:33 J -37040937.45 -37040937.31 -37040937.16 0.0088 0.0065

Venus -106125-01-22 16:47 J -37040711.95 -37040711.80 -37040711.62 0.0088 0.0057

Venus -106125-09-04 05:02 J -37040486.45 -37040486.29 -37040486.09 0.0088 0.0051

Venus -106124-04-17 17:59 J -37040260.94 -37040260.75 -37040260.56 0.0088 0.0043

Venus -106124-11-29 06:14 J -37040035.43 -37040035.24 -37040035.03 0.0088 0.0035

Venus -106123-07-12 18:28 J -37039809.93 -37039809.73 -37039809.51 0.0088 0.0028

Venus -106122-02-23 06:57 J -37039584.42 -37039584.21 -37039584.00 0.0088 0.0021

Venus -106122-10-06 19:11 J -37039358.91 -37039358.70 -37039358.48 0.0088 0.0014

Venus -106121-05-19 07:40 J -37039133.40 -37039133.18 -37039132.96 0.0088 0.0006

Venus -106121-12-30 19:55 J -37038907.89 -37038907.67 -37038907.46 0.0088 0.0002

Venus -106120-08-13 07:55 J -37038682.38 -37038682.17 -37038681.95 0.0088 0.0009

Venus -106119-03-26 20:09 J -37038456.86 -37038456.66 -37038456.44 0.0088 0.0016

Venus -106119-11-07 08:23 J -37038231.35 -37038231.15 -37038230.93 0.0088 0.0024

Venus -106118-06-20 20:23 J -37038005.84 -37038005.65 -37038005.43 0.0088 0.0031

Venus -106117-02-01 08:23 J -37037780.33 -37037780.15 -37037779.94 0.0088 0.0039

Venus -106117-09-13 20:38 J -37037554.81 -37037554.64 -37037554.44 0.0088 0.0046

Venus -106116-04-27 08:52 J -37037329.29 -37037329.13 -37037328.94 0.0088 0.0053

Venus -106116-12-08 21:07 J -37037103.77 -37037103.62 -37037103.46 0.0088 0.0060

Venus -106115-07-22 09:21 J -37036878.25 -37036878.11 -37036877.97 0.0088 0.0067

Venus -106114-03-04 20:38 J -37036652.73 -37036652.64 -37036652.50 0.0088 0.0075

Venus -106114-10-16 08:38 J -37036427.19 -37036427.14 -37036427.03 0.0088 0.0082
 Venus -106113-05-28 20:52 J -37036201.63 -37036201.63 -37036201.59 0.0088 0.0088
 Moon -106103-07-31 15:50 J -37032485.89 -37032485.84 -37032485.77 0.0088 0.0086
 Earth -106103-07-31 18:43 J -37032485.77 -37032485.72 -37032485.61 0.0088 0.0084 *
 Earth -106102-08-03 02:09 J -37032118.60 -37032118.41 -37032118.20 0.0088 0.0053
 Moon -106102-08-03 05:16 J -37032118.46 -37032118.28 -37032118.06 0.0088 0.0052 *
 Moon -106101-08-04 06:57 J -37031751.44 -37031751.21 -37031750.97 0.0088 0.0024
 Earth -106101-08-04 09:21 J -37031751.35 -37031751.11 -37031750.87 0.0088 0.0022 *
 Earth -106100-08-06 16:04 J -37031384.07 -37031383.83 -37031383.58 0.0088 0.0009
 Moon -106100-08-06 17:16 J -37031384.03 -37031383.78 -37031383.52 0.0088 0.0011 *
 Moon -106099-08-08 22:33 J -37031016.77 -37031016.56 -37031016.34 0.0088 0.0038
 Earth -106099-08-08 22:47 J -37031016.76 -37031016.55 -37031016.32 0.0088 0.0040 *
 Moon -106098-08-11 03:50 J -37030649.47 -37030649.34 -37030649.18 0.0088 0.0073
 Earth -106098-08-11 05:16 J -37030649.41 -37030649.28 -37030649.11 0.0088 0.0070 *
 Mars -106089-12-24 03:35 J -37027226.59 -37027226.35 -37027226.08 0.0088 0.0058
 Mars -106087-11-20 04:04 J -37026530.66 -37026530.33 -37026529.99 0.0089 0.0016
 Mars -106085-10-16 04:19 J -37025834.62 -37025834.32 -37025833.98 0.0089 0.0027
 Mars -106083-09-12 05:02 J -37025138.47 -37025138.29 -37025138.04 0.0089 0.0069
 Mercury -106064-11-23 07:26 J -37018126.22 -37018126.19 -37018126.15 0.0089 0.0086
 Mercury -106063-02-19 09:21 J -37018038.15 -37018038.11 -37018038.03 0.0089 0.0082
 Mercury -106063-05-18 11:45 J -37017950.08 -37017950.01 -37017949.92 0.0089 0.0077
 Mercury -106063-08-14 13:55 J -37017862.00 -37017861.92 -37017861.82 0.0089 0.0073
 Mercury -106063-11-10 16:19 J -37017773.92 -37017773.82 -37017773.71 0.0089 0.0068
 Mercury -106062-02-06 18:14 J -37017685.83 -37017685.74 -37017685.61 0.0089 0.0064
 Mercury -106062-05-05 20:38 J -37017597.74 -37017597.64 -37017597.51 0.0089 0.0059
 Mercury -106062-08-01 23:02 J -37017509.66 -37017509.54 -37017509.40 0.0089 0.0054
 Mercury -106062-10-29 01:11 J -37017421.57 -37017421.45 -37017421.30 0.0089 0.0050
 Mercury -106061-01-25 03:35 J -37017333.48 -37017333.35 -37017333.20 0.0089 0.0045
 Mercury -106061-04-22 05:59 J -37017245.39 -37017245.25 -37017245.10 0.0089 0.0040
 Mercury -106061-07-19 08:23 J -37017157.29 -37017157.15 -37017157.00 0.0089 0.0035

Mercury -106061-10-15 10:33 J -37017069.20 -37017069.06 -37017068.90 0.0089 0.0031
 Mercury -106060-01-11 12:57 J -37016981.11 -37016980.96 -37016980.79 0.0089 0.0026
 Mercury -106060-04-09 15:21 J -37016893.01 -37016892.86 -37016892.69 0.0089 0.0021
 Mercury -106060-07-06 17:59 J -37016804.91 -37016804.75 -37016804.59 0.0089 0.0016
 Mercury -106060-10-02 20:23 J -37016716.82 -37016716.65 -37016716.49 0.0089 0.0011
 Mercury -106060-12-29 22:33 J -37016628.72 -37016628.56 -37016628.39 0.0089 0.0007
 Mercury -106059-03-28 00:57 J -37016540.62 -37016540.46 -37016540.29 0.0089 0.0003
 Mercury -106059-06-24 03:35 J -37016452.52 -37016452.35 -37016452.19 0.0089 0.0004
 Mercury -106059-09-20 05:45 J -37016364.42 -37016364.26 -37016364.09 0.0089 0.0009
 Mercury -106059-12-17 08:23 J -37016276.31 -37016276.15 -37016275.99 0.0089 0.0013
 Mercury -106058-03-15 10:47 J -37016188.21 -37016188.05 -37016187.89 0.0089 0.0018
 Mercury -106058-06-11 13:11 J -37016100.11 -37016099.95 -37016099.79 0.0089 0.0023
 Mercury -106058-09-07 15:35 J -37016012.00 -37016011.85 -37016011.69 0.0089 0.0028
 Mercury -106058-12-04 18:14 J -37015923.89 -37015923.74 -37015923.59 0.0089 0.0033
 Mercury -106057-03-01 20:38 J -37015835.79 -37015835.64 -37015835.49 0.0089 0.0038
 Mercury -106057-05-28 23:16 J -37015747.68 -37015747.53 -37015747.39 0.0089 0.0043
 Mercury -106057-08-25 01:40 J -37015659.57 -37015659.43 -37015659.29 0.0089 0.0048
 Mercury -106057-11-21 04:19 J -37015571.45 -37015571.32 -37015571.19 0.0089 0.0053
 Mercury -106056-02-17 06:28 J -37015483.34 -37015483.23 -37015483.09 0.0089 0.0059
 Mercury -106056-05-16 09:07 J -37015395.23 -37015395.12 -37015394.99 0.0089 0.0064
 Mercury -106056-08-12 11:31 J -37015307.11 -37015307.02 -37015306.90 0.0089 0.0069
 Mercury -106056-11-08 14:09 J -37015218.99 -37015218.91 -37015218.80 0.0089 0.0074
 Mercury -106055-02-04 16:47 J -37015130.86 -37015130.80 -37015130.71 0.0089 0.0079
 Mercury -106055-05-03 19:26 J -37015042.73 -37015042.69 -37015042.63 0.0089 0.0084
 Venus -106045-04-27 11:16 J -37011396.09 -37011396.03 -37011395.94 0.0089 0.0083
 Venus -106045-12-09 00:28 J -37011170.58 -37011170.48 -37011170.35 0.0089 0.0076
 Venus -106044-07-22 14:09 J -37010945.05 -37010944.91 -37010944.76 0.0089 0.0068
 Venus -106043-03-05 03:21 J -37010719.50 -37010719.36 -37010719.18 0.0089 0.0061
 Venus -106043-10-16 17:02 J -37010493.95 -37010493.79 -37010493.60 0.0089 0.0054
 Venus -106042-05-30 06:57 J -37010268.40 -37010268.21 -37010268.02 0.0089 0.0046

Venus	-106041-01-10 20:09 J	-37010042.85	-37010042.66	-37010042.44	0.0089	0.0038
Venus	-106041-08-23 10:04 J	-37009817.28	-37009817.08	-37009816.87	0.0089	0.0030
Venus	-106040-04-05 23:45 J	-37009591.72	-37009591.51	-37009591.29	0.0089	0.0022
Venus	-106040-11-17 13:26 J	-37009366.15	-37009365.94	-37009365.71	0.0089	0.0015
Venus	-106039-07-01 03:07 J	-37009140.58	-37009140.37	-37009140.14	0.0089	0.0007
Venus	-106038-02-11 17:02 J	-37008915.01	-37008914.79	-37008914.56	0.0089	0.0001
Venus	-106038-09-25 06:57 J	-37008689.43	-37008689.21	-37008688.99	0.0089	0.0009
Venus	-106037-05-07 20:38 J	-37008463.85	-37008463.64	-37008463.41	0.0089	0.0017
Venus	-106037-12-19 10:33 J	-37008238.27	-37008238.06	-37008237.84	0.0089	0.0025
Venus	-106036-08-02 00:14 J	-37008012.69	-37008012.49	-37008012.28	0.0089	0.0032
Venus	-106035-03-15 13:55 J	-37007787.11	-37007786.92	-37007786.71	0.0089	0.0041
Venus	-106035-10-27 03:50 J	-37007561.51	-37007561.34	-37007561.13	0.0089	0.0049
Venus	-106034-06-09 17:45 J	-37007335.91	-37007335.76	-37007335.57	0.0089	0.0056
Venus	-106033-01-21 07:55 J	-37007110.32	-37007110.17	-37007110.01	0.0089	0.0063
Venus	-106033-09-02 21:35 J	-37006884.72	-37006884.60	-37006884.45	0.0089	0.0071
Venus	-106032-04-16 11:31 J	-37006659.10	-37006659.02	-37006658.90	0.0089	0.0079
Venus	-106032-11-28 01:55 J	-37006433.46	-37006433.42	-37006433.36	0.0089	0.0086
Earth	-106020-01-28 09:21 J	-37002354.24	-37002354.11	-37002353.93	0.0089	0.0073
Moon	-106020-01-28 11:59 J	-37002354.13	-37002354.00	-37002353.86	0.0089	0.0077 *
Moon	-106019-01-31 01:40 J	-37001986.65	-37001986.43	-37001986.18	0.0089	0.0035
Earth	-106019-01-31 02:09 J	-37001986.63	-37001986.41	-37001986.15	0.0089	0.0039 *
Moon	-106018-02-02 18:57 J	-37001618.99	-37001618.71	-37001618.43	0.0089	0.0009
Earth	-106018-02-02 18:57 J	-37001618.97	-37001618.71	-37001618.44	0.0089	0.0005 *
Earth	-106017-02-05 11:59 J	-37001251.26	-37001251.00	-37001250.75	0.0089	0.0029
Moon	-106017-02-05 12:57 J	-37001251.19	-37001250.96	-37001250.71	0.0089	0.0034 *
Moon	-106016-02-07 01:55 J	-37000883.61	-37000883.42	-37000883.20	0.0089	0.0059
Earth	-106016-02-07 04:19 J	-37000883.48	-37000883.32	-37000883.11	0.0089	0.0064 *
Mars	-106009-12-05 20:09 J	-36998024.71	-36998024.66	-36998024.55	0.0089	0.0086
Mars	-106007-10-30 19:55 J	-36997330.90	-36997330.67	-36997330.41	0.0089	0.0049
Mars	-106005-09-23 17:45 J	-36996637.04	-36996636.76	-36996636.46	0.0089	0.0012

Mars -106003-08-18 14:38 J -36995943.17 -36995942.89 -36995942.60 0.0089 0.0025

Mars -106001-07-12 11:16 J -36995249.22 -36995249.03 -36995248.79 0.0089 0.0062

106TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 106th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-105982-09-10 12:28 J	-36988249.99	-36988249.98	-36988249.93	0.0088	0.0087		
Mercury	-105982-12-07 14:52 J	-36988161.93	-36988161.88	-36988161.82	0.0088	0.0082		
Mercury	-105981-03-04 17:02 J	-36988073.86	-36988073.79	-36988073.71	0.0088	0.0077		
Mercury	-105981-05-31 18:57 J	-36987985.78	-36987985.71	-36987985.61	0.0088	0.0073		
Mercury	-105981-08-27 21:07 J	-36987897.71	-36987897.62	-36987897.51	0.0088	0.0068		
Mercury	-105981-11-23 23:31 J	-36987809.63	-36987809.52	-36987809.41	0.0088	0.0063		
Mercury	-105980-02-20 01:11 J	-36987721.55	-36987721.45	-36987721.32	0.0088	0.0059		
Mercury	-105980-05-19 03:35 J	-36987633.47	-36987633.35	-36987633.22	0.0088	0.0054		
Mercury	-105980-08-15 05:45 J	-36987545.39	-36987545.26	-36987545.13	0.0088	0.0049		
Mercury	-105980-11-11 07:40 J	-36987457.31	-36987457.18	-36987457.04	0.0088	0.0044		
Mercury	-105979-02-07 09:50 J	-36987369.23	-36987369.09	-36987368.95	0.0088	0.0040		
Mercury	-105979-05-06 11:45 J	-36987281.15	-36987281.01	-36987280.86	0.0088	0.0035		
Mercury	-105979-08-02 13:55 J	-36987193.06	-36987192.92	-36987192.77	0.0088	0.0030		
Mercury	-105979-10-29 15:50 J	-36987104.98	-36987104.84	-36987104.69	0.0088	0.0026		

Mercury -105978-01-25 17:45 J -36987016.90 -36987016.76 -36987016.60 0.0088 0.0022

Mercury -105978-04-23 19:55 J -36986928.82 -36986928.67 -36986928.52 0.0088 0.0017

Mercury -105978-07-20 21:50 J -36986840.74 -36986840.59 -36986840.43 0.0088 0.0013

Mercury -105978-10-16 23:59 J -36986752.65 -36986752.50 -36986752.35 0.0088 0.0008

Mercury -105977-01-13 01:55 J -36986664.57 -36986664.42 -36986664.27 0.0088 0.0003

Mercury -105977-04-10 03:50 J -36986576.49 -36986576.34 -36986576.18 0.0088 0.0002

Mercury -105977-07-07 05:45 J -36986488.41 -36986488.26 -36986488.10 0.0088 0.0007

Mercury -105977-10-03 07:55 J -36986400.32 -36986400.17 -36986400.02 0.0088 0.0010

Mercury -105977-12-30 09:50 J -36986312.24 -36986312.09 -36986311.94 0.0088 0.0015

Mercury -105976-03-28 11:31 J -36986224.16 -36986224.02 -36986223.86 0.0088 0.0020

Mercury -105976-06-24 13:40 J -36986136.08 -36986135.93 -36986135.79 0.0088 0.0024

Mercury -105976-09-20 15:21 J -36986047.99 -36986047.86 -36986047.71 0.0088 0.0029

Mercury -105976-12-17 17:16 J -36985959.91 -36985959.78 -36985959.63 0.0088 0.0033

Mercury -105975-03-15 19:26 J -36985871.83 -36985871.69 -36985871.55 0.0088 0.0037

Mercury -105975-06-11 21:07 J -36985783.75 -36985783.62 -36985783.48 0.0088 0.0041

Mercury -105975-09-07 23:02 J -36985695.66 -36985695.54 -36985695.41 0.0088 0.0046

Mercury -105975-12-05 00:57 J -36985607.58 -36985607.46 -36985607.33 0.0088 0.0050

Mercury -105974-03-03 02:38 J -36985519.50 -36985519.39 -36985519.26 0.0088 0.0055

Mercury -105974-05-30 04:33 J -36985431.41 -36985431.31 -36985431.19 0.0088 0.0059

Mercury -105974-08-26 06:28 J -36985343.33 -36985343.23 -36985343.12 0.0088 0.0063

Mercury -105974-11-22 08:09 J -36985255.24 -36985255.16 -36985255.05 0.0088 0.0067

Mercury -105973-02-18 10:04 J -36985167.16 -36985167.08 -36985166.98 0.0088 0.0071

Mercury -105973-05-16 11:45 J -36985079.07 -36985079.01 -36985078.92 0.0088 0.0076

Mercury -105973-08-12 13:40 J -36984990.98 -36984990.93 -36984990.86 0.0088 0.0080

Mercury -105973-11-08 15:35 J -36984902.89 -36984902.85 -36984902.80 0.0088 0.0084

Mercury -105972-02-04 17:31 J -36984814.78 -36984814.77 -36984814.76 0.0088 0.0088

Venus -105964-11-05 02:38 J -36981619.42 -36981619.39 -36981619.34 0.0088 0.0087

Venus -105963-06-18 15:07 J -36981393.95 -36981393.87 -36981393.76 0.0088 0.0079

Venus -105962-01-30 03:35 J -36981168.45 -36981168.35 -36981168.20 0.0088 0.0072

Venus -105962-09-12 16:19 J -36980942.95 -36980942.82 -36980942.66 0.0088 0.0065

Venus	-105961-04-25 04:47 J	-36980717.44	-36980717.30	-36980717.11	0.0088	0.0058
Venus	-105961-12-06 17:45 J	-36980491.94	-36980491.76	-36980491.58	0.0088	0.0050
Venus	-105960-07-20 05:59 J	-36980266.43	-36980266.25	-36980266.05	0.0088	0.0042
Venus	-105959-03-02 18:14 J	-36980040.92	-36980040.74	-36980040.52	0.0088	0.0036
Venus	-105959-10-14 06:57 J	-36979815.41	-36979815.21	-36979815.00	0.0088	0.0028
Venus	-105958-05-27 19:11 J	-36979589.90	-36979589.70	-36979589.48	0.0088	0.0020
Venus	-105957-01-08 07:40 J	-36979364.40	-36979364.18	-36979363.97	0.0088	0.0013
Venus	-105957-08-20 19:55 J	-36979138.89	-36979138.67	-36979138.45	0.0088	0.0005
Venus	-105956-04-03 08:09 J	-36978913.37	-36978913.16	-36978912.94	0.0088	0.0003
Venus	-105956-11-14 20:23 J	-36978687.86	-36978687.65	-36978687.43	0.0088	0.0010
Venus	-105955-06-28 08:23 J	-36978462.35	-36978462.15	-36978461.93	0.0088	0.0017
Venus	-105954-02-08 20:38 J	-36978236.84	-36978236.64	-36978236.43	0.0088	0.0024
Venus	-105954-09-22 08:52 J	-36978011.33	-36978011.13	-36978010.93	0.0088	0.0031
Venus	-105953-05-04 20:38 J	-36977785.81	-36977785.64	-36977785.42	0.0088	0.0040
Venus	-105953-12-16 08:52 J	-36977560.30	-36977560.13	-36977559.93	0.0088	0.0046
Venus	-105952-07-29 21:07 J	-36977334.78	-36977334.62	-36977334.44	0.0088	0.0053
Venus	-105951-03-12 09:21 J	-36977109.26	-36977109.11	-36977108.95	0.0088	0.0061
Venus	-105951-10-23 21:35 J	-36976883.74	-36976883.60	-36976883.46	0.0088	0.0068
Venus	-105950-06-06 09:07 J	-36976658.21	-36976658.12	-36976657.98	0.0088	0.0076
Venus	-105949-01-17 21:07 J	-36976432.67	-36976432.62	-36976432.52	0.0088	0.0083
Moon	-105938-08-02 15:21 J	-36972218.00	-36972217.86	-36972217.71	0.0088	0.0070
Earth	-105938-08-02 17:16 J	-36972217.93	-36972217.78	-36972217.61	0.0088	0.0066 *
Earth	-105937-08-04 00:14 J	-36971850.71	-36971850.49	-36971850.25	0.0088	0.0035
Moon	-105937-08-04 01:11 J	-36971850.67	-36971850.45	-36971850.19	0.0088	0.0032 *
Earth	-105936-08-06 07:26 J	-36971483.43	-36971483.19	-36971482.94	0.0088	0.0005
Moon	-105936-08-06 08:09 J	-36971483.39	-36971483.16	-36971482.92	0.0088	0.0008 *
Moon	-105935-08-08 12:43 J	-36971116.21	-36971115.97	-36971115.73	0.0088	0.0030
Earth	-105935-08-08 14:09 J	-36971116.13	-36971115.91	-36971115.66	0.0088	0.0027 *
Earth	-105934-08-10 20:38 J	-36970748.80	-36970748.64	-36970748.43	0.0088	0.0058
Moon	-105934-08-10 23:16 J	-36970748.70	-36970748.53	-36970748.32	0.0088	0.0053 *

Earth -105933-08-12 03:35 J -36970381.36 -36970381.35 -36970381.30 0.0088 0.0088
 Mars -105925-08-06 23:02 J -36967464.68 -36967464.54 -36967464.33 0.0088 0.0076
 Mars -105923-07-03 22:19 J -36966768.86 -36966768.57 -36966768.24 0.0088 0.0034
 Mars -105921-05-29 22:47 J -36966072.88 -36966072.55 -36966072.21 0.0089 0.0010
 Mars -105919-04-25 23:16 J -36965376.77 -36965376.53 -36965376.23 0.0089 0.0053
 Mercury -105899-05-24 04:33 J -36958043.32 -36958043.31 -36958043.28 0.0089 0.0088
 Mercury -105899-08-20 06:57 J -36957955.26 -36957955.21 -36957955.15 0.0089 0.0083
 Mercury -105899-11-16 08:52 J -36957867.18 -36957867.13 -36957867.04 0.0089 0.0079
 Mercury -105898-02-12 11:31 J -36957779.11 -36957779.02 -36957778.93 0.0089 0.0074
 Mercury -105898-05-11 13:26 J -36957691.02 -36957690.94 -36957690.83 0.0089 0.0070
 Mercury -105898-08-07 15:50 J -36957602.94 -36957602.84 -36957602.72 0.0089 0.0065
 Mercury -105898-11-03 17:59 J -36957514.85 -36957514.75 -36957514.62 0.0089 0.0061
 Mercury -105897-01-30 20:09 J -36957426.77 -36957426.66 -36957426.52 0.0089 0.0056
 Mercury -105897-04-27 22:47 J -36957338.68 -36957338.55 -36957338.42 0.0089 0.0051
 Mercury -105897-07-25 00:43 J -36957250.59 -36957250.47 -36957250.32 0.0089 0.0047
 Mercury -105897-10-21 03:07 J -36957162.50 -36957162.37 -36957162.22 0.0089 0.0042
 Mercury -105896-01-17 05:31 J -36957074.41 -36957074.27 -36957074.11 0.0089 0.0037
 Mercury -105896-04-15 07:55 J -36956986.32 -36956986.17 -36956986.01 0.0089 0.0032
 Mercury -105896-07-12 10:19 J -36956898.22 -36956898.07 -36956897.91 0.0089 0.0027
 Mercury -105896-10-08 12:28 J -36956810.13 -36956809.98 -36956809.81 0.0089 0.0023
 Mercury -105895-01-04 14:52 J -36956722.03 -36956721.88 -36956721.71 0.0089 0.0018
 Mercury -105895-04-02 17:16 J -36956633.94 -36956633.78 -36956633.61 0.0089 0.0013
 Mercury -105895-06-29 19:40 J -36956545.84 -36956545.68 -36956545.51 0.0089 0.0009
 Mercury -105895-09-25 22:04 J -36956457.74 -36956457.58 -36956457.41 0.0089 0.0004
 Mercury -105895-12-23 00:28 J -36956369.64 -36956369.48 -36956369.31 0.0089 0.0003
 Mercury -105894-03-21 02:52 J -36956281.54 -36956281.38 -36956281.21 0.0089 0.0007
 Mercury -105894-06-17 05:16 J -36956193.44 -36956193.28 -36956193.11 0.0089 0.0012
 Mercury -105894-09-13 07:40 J -36956105.34 -36956105.18 -36956105.01 0.0089 0.0017
 Mercury -105894-12-10 10:19 J -36956017.23 -36956017.07 -36956016.91 0.0089 0.0021
 Mercury -105893-03-07 12:43 J -36955929.13 -36955928.97 -36955928.81 0.0089 0.0026

Mercury -105893-06-03 15:07 J -36955841.02 -36955840.87 -36955840.71 0.0089 0.0031

Mercury -105893-08-30 17:45 J -36955752.91 -36955752.76 -36955752.61 0.0089 0.0036

Mercury -105893-11-26 20:09 J -36955664.81 -36955664.66 -36955664.51 0.0089 0.0041

Mercury -105892-02-22 22:19 J -36955576.70 -36955576.57 -36955576.41 0.0089 0.0047

Mercury -105892-05-22 01:11 J -36955488.59 -36955488.45 -36955488.32 0.0089 0.0051

Mercury -105892-08-18 03:21 J -36955400.47 -36955400.36 -36955400.22 0.0089 0.0057

Mercury -105892-11-14 05:45 J -36955312.36 -36955312.26 -36955312.12 0.0089 0.0062

Mercury -105891-02-10 08:23 J -36955224.24 -36955224.15 -36955224.02 0.0089 0.0067

Mercury -105891-05-09 11:02 J -36955136.12 -36955136.04 -36955135.93 0.0089 0.0072

Mercury -105891-08-05 13:40 J -36955048.00 -36955047.93 -36955047.84 0.0089 0.0077

Mercury -105891-11-01 16:19 J -36954959.88 -36954959.82 -36954959.75 0.0089 0.0082

Mercury -105890-01-28 18:57 J -36954871.73 -36954871.71 -36954871.67 0.0089 0.0087

Venus -105881-07-29 22:19 J -36951401.64 -36951401.57 -36951401.49 0.0089 0.0083

Venus -105880-03-12 11:16 J -36951176.12 -36951176.03 -36951175.89 0.0089 0.0076

Venus -105880-10-24 01:11 J -36950950.59 -36950950.45 -36950950.31 0.0089 0.0068

Venus -105879-06-06 14:09 J -36950725.05 -36950724.91 -36950724.73 0.0089 0.0062

Venus -105878-01-18 03:50 J -36950499.50 -36950499.34 -36950499.15 0.0089 0.0054

Venus -105878-08-31 17:16 J -36950273.95 -36950273.78 -36950273.57 0.0089 0.0046

Venus -105877-04-13 06:57 J -36950048.40 -36950048.21 -36950048.00 0.0089 0.0038

Venus -105877-11-24 20:38 J -36949822.84 -36949822.64 -36949822.43 0.0089 0.0030

Venus -105876-07-08 10:19 J -36949597.28 -36949597.07 -36949596.85 0.0089 0.0022

Venus -105875-02-18 23:59 J -36949371.72 -36949371.50 -36949371.28 0.0089 0.0015

Venus -105875-10-02 13:55 J -36949146.14 -36949145.92 -36949145.70 0.0089 0.0007

Venus -105874-05-16 03:35 J -36948920.57 -36948920.35 -36948920.12 0.0089 0.0002

Venus -105874-12-27 17:16 J -36948695.00 -36948694.78 -36948694.55 0.0089 0.0009

Venus -105873-08-09 06:57 J -36948469.42 -36948469.21 -36948468.98 0.0089 0.0017

Venus -105872-03-22 20:52 J -36948243.84 -36948243.63 -36948243.41 0.0089 0.0025

Venus -105872-11-03 10:47 J -36948018.25 -36948018.05 -36948017.83 0.0089 0.0033

Venus -105871-06-17 00:28 J -36947792.66 -36947792.48 -36947792.26 0.0089 0.0041

Venus -105870-01-28 14:52 J -36947567.07 -36947566.88 -36947566.70 0.0089 0.0049

Venus -105870-09-11 04:33 J -36947341.48 -36947341.31 -36947341.13 0.0089 0.0056
 Venus -105869-04-23 18:14 J -36947115.88 -36947115.74 -36947115.57 0.0089 0.0065
 Venus -105869-12-05 08:09 J -36946890.27 -36946890.16 -36946890.01 0.0089 0.0072
 Venus -105868-07-18 22:04 J -36946664.66 -36946664.58 -36946664.46 0.0089 0.0080
 Venus -105867-03-01 12:14 J -36946439.01 -36946438.99 -36946438.94 0.0089 0.0088
 Earth -105856-01-27 15:35 J -36942453.86 -36942453.85 -36942453.80 0.0089 0.0089
 Moon -105855-01-30 06:28 J -36942086.43 -36942086.23 -36942085.98 0.0089 0.0053
 Earth -105855-01-30 08:09 J -36942086.36 -36942086.16 -36942085.94 0.0089 0.0054 *
 Earth -105854-02-02 00:43 J -36941718.72 -36941718.47 -36941718.20 0.0089 0.0020
 Moon -105854-02-02 03:21 J -36941718.61 -36941718.36 -36941718.11 0.0089 0.0021 *
 Moon -105853-02-04 14:52 J -36941351.15 -36941350.88 -36941350.61 0.0089 0.0014
 Earth -105853-02-04 17:31 J -36941351.03 -36941350.77 -36941350.50 0.0089 0.0014 *
 Earth -105852-02-06 10:04 J -36940983.30 -36940983.08 -36940982.85 0.0089 0.0048
 Moon -105852-02-06 13:40 J -36940983.14 -36940982.93 -36940982.70 0.0089 0.0048 *
 Moon -105851-02-08 22:47 J -36940615.62 -36940615.55 -36940615.43 0.0089 0.0083
 Earth -105851-02-09 02:52 J -36940615.47 -36940615.38 -36940615.27 0.0089 0.0082 *
 Mars -105843-06-15 04:33 J -36937567.49 -36937567.31 -36937567.09 0.0089 0.0065
 Mars -105841-05-09 04:04 J -36936873.60 -36936873.33 -36936873.04 0.0089 0.0027
 Mars -105839-04-03 02:23 J -36936179.69 -36936179.40 -36936179.11 0.0089 0.0010
 Mars -105837-02-25 23:02 J -36935485.76 -36935485.54 -36935485.27 0.0089 0.0048
 Mars -105835-01-19 20:38 J -36934791.73 -36934791.64 -36934791.55 0.0089 0.0084
 Mercury -105817-03-10 10:04 J -36928167.08 -36928167.08 -36928167.07 0.0089 0.0088
 Mercury -105817-06-06 12:14 J -36928079.03 -36928078.99 -36928078.93 0.0089 0.0084
 Mercury -105817-09-02 14:23 J -36927990.96 -36927990.90 -36927990.82 0.0089 0.0079
 Mercury -105817-11-29 16:19 J -36927902.89 -36927902.82 -36927902.72 0.0089 0.0075
 Mercury -105816-02-25 18:28 J -36927814.81 -36927814.73 -36927814.62 0.0088 0.0070
 Mercury -105816-05-24 20:52 J -36927726.73 -36927726.63 -36927726.52 0.0088 0.0065
 Mercury -105816-08-20 22:47 J -36927638.65 -36927638.55 -36927638.43 0.0088 0.0060
 Mercury -105816-11-17 00:57 J -36927550.57 -36927550.46 -36927550.33 0.0088 0.0056
 Mercury -105815-02-13 03:07 J -36927462.49 -36927462.37 -36927462.24 0.0088 0.0051

Mercury -105815-05-12 05:02 J -36927374.41 -36927374.29 -36927374.15 0.0088 0.0046

Mercury -105815-08-08 07:11 J -36927286.33 -36927286.20 -36927286.06 0.0088 0.0042

Mercury -105815-11-04 09:21 J -36927198.25 -36927198.11 -36927197.97 0.0088 0.0037

Mercury -105814-01-31 11:16 J -36927110.17 -36927110.03 -36927109.88 0.0088 0.0033

Mercury -105814-04-29 13:26 J -36927022.09 -36927021.94 -36927021.79 0.0088 0.0028

Mercury -105814-07-26 15:21 J -36926934.00 -36926933.86 -36926933.71 0.0088 0.0023

Mercury -105814-10-22 17:31 J -36926845.92 -36926845.77 -36926845.62 0.0088 0.0019

Mercury -105813-01-18 19:26 J -36926757.84 -36926757.69 -36926757.53 0.0088 0.0014

Mercury -105813-04-15 21:35 J -36926669.76 -36926669.60 -36926669.45 0.0088 0.0010

Mercury -105813-07-12 23:31 J -36926581.67 -36926581.52 -36926581.37 0.0088 0.0005

Mercury -105813-10-09 01:26 J -36926493.59 -36926493.44 -36926493.28 0.0088 0.0001

Mercury -105812-01-05 03:35 J -36926405.51 -36926405.35 -36926405.20 0.0088 0.0005

Mercury -105812-04-03 05:31 J -36926317.42 -36926317.27 -36926317.12 0.0088 0.0009

Mercury -105812-06-30 07:11 J -36926229.34 -36926229.20 -36926229.04 0.0088 0.0014

Mercury -105812-09-26 09:21 J -36926141.26 -36926141.11 -36926140.96 0.0088 0.0017

Mercury -105812-12-23 11:16 J -36926053.18 -36926053.03 -36926052.88 0.0088 0.0022

Mercury -105811-03-21 13:11 J -36925965.09 -36925964.95 -36925964.80 0.0088 0.0026

Mercury -105811-06-17 15:07 J -36925877.01 -36925876.87 -36925876.73 0.0088 0.0031

Mercury -105811-09-13 16:47 J -36925788.93 -36925788.80 -36925788.65 0.0088 0.0035

Mercury -105811-12-10 18:43 J -36925700.85 -36925700.72 -36925700.58 0.0088 0.0040

Mercury -105810-03-08 20:52 J -36925612.76 -36925612.63 -36925612.50 0.0088 0.0044

Mercury -105810-06-04 22:33 J -36925524.68 -36925524.56 -36925524.43 0.0088 0.0048

Mercury -105810-09-01 00:28 J -36925436.59 -36925436.48 -36925436.35 0.0088 0.0052

Mercury -105810-11-28 02:23 J -36925348.51 -36925348.40 -36925348.28 0.0088 0.0057

Mercury -105809-02-24 04:04 J -36925260.43 -36925260.33 -36925260.21 0.0088 0.0061

Mercury -105809-05-22 05:59 J -36925172.34 -36925172.25 -36925172.14 0.0088 0.0065

Mercury -105809-08-18 07:55 J -36925084.26 -36925084.17 -36925084.07 0.0088 0.0069

Mercury -105809-11-14 09:50 J -36924996.17 -36924996.09 -36924996.01 0.0088 0.0074

Mercury -105808-02-10 11:45 J -36924908.08 -36924908.01 -36924907.94 0.0088 0.0078

Mercury -105808-05-09 13:11 J -36924819.99 -36924819.95 -36924819.88 0.0088 0.0082

Mercury	-105808-08-05 15:07 J	-36924731.89	-36924731.87	-36924731.83	0.0088	0.0086
Venus	-105799-02-06 13:40 J	-36921624.94	-36921624.93	-36921624.87	0.0088	0.0087
Venus	-105799-09-20 02:38 J	-36921399.47	-36921399.39	-36921399.28	0.0088	0.0080
Venus	-105798-05-03 15:07 J	-36921173.97	-36921173.87	-36921173.72	0.0088	0.0073
Venus	-105798-12-15 04:04 J	-36920948.47	-36920948.33	-36920948.18	0.0088	0.0065
Venus	-105797-07-27 16:19 J	-36920722.97	-36920722.82	-36920722.64	0.0088	0.0058
Venus	-105796-03-10 05:31 J	-36920497.45	-36920497.27	-36920497.09	0.0088	0.0050
Venus	-105796-10-21 17:45 J	-36920271.94	-36920271.76	-36920271.56	0.0088	0.0042
Venus	-105795-06-04 06:28 J	-36920046.43	-36920046.23	-36920046.03	0.0088	0.0035
Venus	-105794-01-15 18:43 J	-36919820.92	-36919820.72	-36919820.51	0.0088	0.0027
Venus	-105794-08-29 06:57 J	-36919595.41	-36919595.21	-36919594.98	0.0088	0.0020
Venus	-105793-04-10 19:40 J	-36919369.89	-36919369.68	-36919369.46	0.0088	0.0012
Venus	-105793-11-22 07:55 J	-36919144.38	-36919144.17	-36919143.95	0.0088	0.0006
Venus	-105792-07-05 20:23 J	-36918918.87	-36918918.65	-36918918.44	0.0088	0.0003
Venus	-105791-02-16 08:23 J	-36918693.36	-36918693.15	-36918692.93	0.0088	0.0010
Venus	-105791-09-29 20:38 J	-36918467.85	-36918467.64	-36918467.42	0.0088	0.0018
Venus	-105790-05-13 08:38 J	-36918242.33	-36918242.14	-36918241.92	0.0088	0.0026
Venus	-105790-12-24 20:52 J	-36918016.82	-36918016.63	-36918016.42	0.0088	0.0032
Venus	-105789-08-06 09:07 J	-36917791.31	-36917791.12	-36917790.92	0.0088	0.0040
Venus	-105788-03-19 21:07 J	-36917565.79	-36917565.62	-36917565.42	0.0088	0.0047
Venus	-105788-10-31 09:07 J	-36917340.27	-36917340.12	-36917339.93	0.0088	0.0055
Venus	-105787-06-13 21:21 J	-36917114.75	-36917114.61	-36917114.44	0.0088	0.0062
Venus	-105786-01-25 09:35 J	-36916889.23	-36916889.10	-36916888.96	0.0088	0.0069
Venus	-105786-09-07 21:07 J	-36916663.70	-36916663.62	-36916663.49	0.0088	0.0077
Venus	-105785-04-20 09:21 J	-36916438.16	-36916438.11	-36916438.02	0.0088	0.0083
Earth	-105774-08-02 07:11 J	-36912317.29	-36912317.20	-36912317.08	0.0088	0.0080
Moon	-105774-08-02 07:26 J	-36912317.27	-36912317.19	-36912317.08	0.0088	0.0082 *
Earth	-105773-08-03 13:55 J	-36911950.10	-36911949.92	-36911949.69	0.0088	0.0050
Moon	-105773-08-03 14:38 J	-36911950.07	-36911949.89	-36911949.67	0.0088	0.0048 *
Moon	-105772-08-05 19:26 J	-36911582.94	-36911582.69	-36911582.45	0.0088	0.0021

Earth -105772-08-05 21:21 J -36911582.84 -36911582.61 -36911582.36 0.0088 0.0018 *
 Earth -105771-08-08 04:19 J -36911215.56 -36911215.32 -36911215.07 0.0088 0.0013
 Moon -105771-08-08 07:26 J -36911215.42 -36911215.19 -36911214.94 0.0088 0.0016 *
 Moon -105770-08-10 07:40 J -36910848.37 -36910848.18 -36910847.94 0.0088 0.0042
 Earth -105770-08-10 11:16 J -36910848.23 -36910848.03 -36910847.80 0.0088 0.0043 *
 Earth -105769-08-11 18:14 J -36910480.87 -36910480.74 -36910480.60 0.0088 0.0074
 Moon -105769-08-11 21:21 J -36910480.71 -36910480.61 -36910480.46 0.0088 0.0077 *
 Mars -105759-02-14 17:02 J -36907007.03 -36907006.79 -36907006.48 0.0088 0.0052
 Mars -105757-01-11 17:16 J -36906311.11 -36906310.78 -36906310.44 0.0088 0.0008
 Mars -105756-12-07 17:31 J -36905615.06 -36905614.77 -36905614.44 0.0089 0.0036
 Mars -105754-11-03 18:28 J -36904918.85 -36904918.73 -36904918.54 0.0089 0.0079
 Mercury -105734-02-18 04:04 J -36897872.37 -36897872.33 -36897872.29 0.0089 0.0085
 Mercury -105734-05-17 05:59 J -36897784.30 -36897784.25 -36897784.17 0.0089 0.0081
 Mercury -105734-08-13 08:23 J -36897696.22 -36897696.15 -36897696.06 0.0089 0.0076
 Mercury -105734-11-09 10:33 J -36897608.14 -36897608.06 -36897607.96 0.0089 0.0072
 Mercury -105733-02-05 12:57 J -36897520.06 -36897519.96 -36897519.85 0.0089 0.0067
 Mercury -105733-05-03 14:52 J -36897431.98 -36897431.88 -36897431.75 0.0089 0.0063
 Mercury -105733-07-30 17:16 J -36897343.89 -36897343.78 -36897343.65 0.0089 0.0058
 Mercury -105733-10-26 19:40 J -36897255.80 -36897255.68 -36897255.55 0.0089 0.0053
 Mercury -105732-01-22 21:50 J -36897167.71 -36897167.59 -36897167.45 0.0089 0.0049
 Mercury -105732-04-21 00:14 J -36897079.62 -36897079.49 -36897079.34 0.0089 0.0044
 Mercury -105732-07-18 02:38 J -36896991.53 -36896991.39 -36896991.24 0.0089 0.0039
 Mercury -105732-10-14 05:02 J -36896903.44 -36896903.29 -36896903.14 0.0089 0.0034
 Mercury -105731-01-10 07:11 J -36896815.35 -36896815.20 -36896815.04 0.0089 0.0030
 Mercury -105731-04-08 09:35 J -36896727.25 -36896727.10 -36896726.94 0.0089 0.0025
 Mercury -105731-07-05 11:59 J -36896639.16 -36896639.00 -36896638.84 0.0089 0.0020
 Mercury -105731-10-01 14:23 J -36896551.06 -36896550.90 -36896550.74 0.0089 0.0015
 Mercury -105731-12-28 16:33 J -36896462.97 -36896462.81 -36896462.64 0.0089 0.0011
 Mercury -105730-03-26 18:57 J -36896374.87 -36896374.71 -36896374.54 0.0089 0.0006
 Mercury -105730-06-22 21:21 J -36896286.77 -36896286.61 -36896286.44 0.0089 0.0002

Mercury -105730-09-18 23:45 J -36896198.67 -36896198.51 -36896198.34 0.0089 0.0005

Mercury -105730-12-16 02:09 J -36896110.57 -36896110.41 -36896110.24 0.0089 0.0009

Mercury -105729-03-13 04:33 J -36896022.47 -36896022.31 -36896022.14 0.0089 0.0014

Mercury -105729-06-09 07:11 J -36895934.36 -36895934.20 -36895934.04 0.0089 0.0019

Mercury -105729-09-05 09:35 J -36895846.26 -36895846.10 -36895845.94 0.0089 0.0024

Mercury -105729-12-02 11:59 J -36895758.16 -36895758.00 -36895757.84 0.0089 0.0029

Mercury -105728-02-28 14:23 J -36895670.05 -36895669.90 -36895669.74 0.0089 0.0034

Mercury -105728-05-27 16:47 J -36895581.94 -36895581.80 -36895581.65 0.0089 0.0039

Mercury -105728-08-23 19:11 J -36895493.83 -36895493.70 -36895493.55 0.0089 0.0044

Mercury -105728-11-19 21:50 J -36895405.72 -36895405.59 -36895405.45 0.0089 0.0049

Mercury -105727-02-16 00:14 J -36895317.61 -36895317.49 -36895317.35 0.0089 0.0054

Mercury -105727-05-15 02:52 J -36895229.50 -36895229.38 -36895229.25 0.0089 0.0059

Mercury -105727-08-11 05:31 J -36895141.39 -36895141.27 -36895141.16 0.0089 0.0064

Mercury -105727-11-07 07:40 J -36895053.27 -36895053.18 -36895053.06 0.0089 0.0070

Mercury -105726-02-03 10:04 J -36894965.15 -36894965.08 -36894964.97 0.0089 0.0075

Mercury -105726-05-02 12:43 J -36894877.02 -36894876.97 -36894876.88 0.0089 0.0080

Mercury -105726-07-29 15:21 J -36894788.89 -36894788.86 -36894788.80 0.0089 0.0085

Jupiter -105720-04-20 21:07 J -36892697.17 -36892696.62 -36892696.05 0.0089 0.0014

Venus -105717-10-31 08:52 J -36891407.18 -36891407.13 -36891407.04 0.0089 0.0084

Venus -105716-06-13 22:19 J -36891181.67 -36891181.57 -36891181.44 0.0089 0.0076

Venus -105715-01-25 11:31 J -36890956.14 -36890956.02 -36890955.86 0.0089 0.0069

Venus -105715-09-08 01:11 J -36890730.60 -36890730.45 -36890730.28 0.0089 0.0061

Venus -105714-04-21 14:52 J -36890505.05 -36890504.88 -36890504.70 0.0089 0.0053

Venus -105714-12-03 03:50 J -36890279.51 -36890279.34 -36890279.13 0.0089 0.0046

Venus -105713-07-15 17:31 J -36890053.96 -36890053.77 -36890053.56 0.0089 0.0038

Venus -105712-02-26 07:11 J -36889828.41 -36889828.20 -36889827.99 0.0089 0.0030

Venus -105712-10-09 20:52 J -36889602.84 -36889602.63 -36889602.41 0.0089 0.0022

Venus -105711-05-23 10:33 J -36889377.28 -36889377.06 -36889376.84 0.0089 0.0015

Venus -105710-01-03 23:59 J -36889151.72 -36889151.50 -36889151.27 0.0089 0.0007

Venus -105710-08-17 13:40 J -36888926.15 -36888925.93 -36888925.70 0.0089 0.0002

Venus	-105709-03-30 03:21 J	-36888700.58	-36888700.36	-36888700.13	0.0089	0.0009
Venus	-105709-11-10 17:16 J	-36888475.00	-36888474.78	-36888474.56	0.0089	0.0017
Venus	-105708-06-24 06:57 J	-36888249.42	-36888249.21	-36888248.99	0.0089	0.0025
Venus	-105707-02-04 20:38 J	-36888023.83	-36888023.64	-36888023.42	0.0089	0.0033
Venus	-105707-09-18 10:33 J	-36887798.25	-36887798.06	-36887797.85	0.0089	0.0041
Venus	-105706-05-02 00:14 J	-36887572.66	-36887572.49	-36887572.28	0.0089	0.0050
Venus	-105706-12-13 14:09 J	-36887347.06	-36887346.91	-36887346.72	0.0089	0.0057
Venus	-105705-07-26 03:50 J	-36887121.46	-36887121.34	-36887121.16	0.0089	0.0066
Venus	-105704-03-08 18:14 J	-36886895.86	-36886895.74	-36886895.60	0.0089	0.0073
Venus	-105704-10-20 08:23 J	-36886670.24	-36886670.15	-36886670.05	0.0089	0.0080
Venus	-105703-06-02 22:04 J	-36886444.59	-36886444.58	-36886444.53	0.0089	0.0088
Earth	-105691-01-29 12:43 J	-36882186.11	-36882185.97	-36882185.79	0.0089	0.0071
Moon	-105691-01-29 15:21 J	-36882185.97	-36882185.86	-36882185.69	0.0089	0.0075 *
Moon	-105690-02-01 01:40 J	-36881818.66	-36881818.43	-36881818.16	0.0089	0.0032
Earth	-105690-02-01 05:45 J	-36881818.50	-36881818.26	-36881818.01	0.0089	0.0036 *
Earth	-105689-02-03 22:33 J	-36881450.83	-36881450.56	-36881450.29	0.0089	0.0002
Moon	-105689-02-04 02:09 J	-36881450.68	-36881450.41	-36881450.14	0.0089	0.0006 *
Moon	-105688-02-05 11:16 J	-36881083.26	-36881083.03	-36881082.77	0.0089	0.0037
Earth	-105688-02-05 15:21 J	-36881083.11	-36881082.86	-36881082.61	0.0089	0.0032 *
Earth	-105687-02-08 07:11 J	-36880715.35	-36880715.20	-36880715.00	0.0089	0.0067
Moon	-105687-02-08 10:19 J	-36880715.24	-36880715.07	-36880714.85	0.0089	0.0062 *
Mars	-105679-01-28 14:38 J	-36877803.98	-36877803.89	-36877803.75	0.0089	0.0082
Mars	-105678-12-23 13:11 J	-36877110.18	-36877109.95	-36877109.67	0.0089	0.0044
Mars	-105676-11-16 11:59 J	-36876416.29	-36876416.00	-36876415.70	0.0089	0.0006
Mars	-105674-10-11 10:04 J	-36875722.36	-36875722.08	-36875721.81	0.0089	0.0032
Mars	-105672-09-04 05:45 J	-36875028.41	-36875028.26	-36875028.05	0.0089	0.0070
Mercury	-105653-12-05 09:35 J	-36867996.13	-36867996.10	-36867996.06	0.0088	0.0086
Mercury	-105652-03-03 11:31 J	-36867908.07	-36867908.02	-36867907.95	0.0088	0.0081
Mercury	-105652-05-30 13:40 J	-36867820.00	-36867819.93	-36867819.84	0.0088	0.0077
Mercury	-105652-08-26 15:50 J	-36867731.92	-36867731.84	-36867731.74	0.0088	0.0072

Mercury -105652-11-22 18:14 J -36867643.84 -36867643.74 -36867643.64 0.0088 0.0067

Mercury -105651-02-18 20:09 J -36867555.76 -36867555.66 -36867555.54 0.0088 0.0062

Mercury -105651-05-17 22:19 J -36867467.68 -36867467.57 -36867467.45 0.0088 0.0058

Mercury -105651-08-14 00:28 J -36867379.60 -36867379.48 -36867379.35 0.0088 0.0053

Mercury -105651-11-10 02:23 J -36867291.52 -36867291.40 -36867291.26 0.0088 0.0049

Mercury -105650-02-06 04:33 J -36867203.44 -36867203.31 -36867203.17 0.0088 0.0044

Mercury -105650-05-05 06:28 J -36867115.36 -36867115.23 -36867115.08 0.0088 0.0040

Mercury -105650-08-01 08:38 J -36867027.28 -36867027.14 -36867026.99 0.0088 0.0035

Mercury -105650-10-28 10:47 J -36866939.19 -36866939.05 -36866938.90 0.0088 0.0030

Mercury -105649-01-24 12:43 J -36866851.11 -36866850.97 -36866850.81 0.0088 0.0026

Mercury -105649-04-21 14:52 J -36866763.03 -36866762.88 -36866762.73 0.0088 0.0021

Mercury -105649-07-18 16:47 J -36866674.94 -36866674.80 -36866674.64 0.0088 0.0017

Mercury -105649-10-14 18:57 J -36866586.86 -36866586.71 -36866586.56 0.0088 0.0012

Mercury -105648-01-10 20:52 J -36866498.78 -36866498.63 -36866498.47 0.0088 0.0007

Mercury -105648-04-08 23:02 J -36866410.70 -36866410.54 -36866410.39 0.0088 0.0003

Mercury -105648-07-06 00:57 J -36866322.61 -36866322.46 -36866322.31 0.0088 0.0002

Mercury -105648-10-02 02:52 J -36866234.53 -36866234.38 -36866234.23 0.0088 0.0007

Mercury -105648-12-29 04:47 J -36866146.45 -36866146.30 -36866146.14 0.0088 0.0011

Mercury -105647-03-27 06:43 J -36866058.36 -36866058.22 -36866058.06 0.0088 0.0016

Mercury -105647-06-23 08:52 J -36865970.28 -36865970.13 -36865969.98 0.0088 0.0020

Mercury -105647-09-19 10:33 J -36865882.20 -36865882.06 -36865881.91 0.0088 0.0025

Mercury -105647-12-16 12:43 J -36865794.12 -36865793.97 -36865793.83 0.0088 0.0029

Mercury -105646-03-14 14:23 J -36865706.03 -36865705.90 -36865705.75 0.0088 0.0033

Mercury -105646-06-10 16:19 J -36865617.95 -36865617.82 -36865617.68 0.0088 0.0038

Mercury -105646-09-06 18:28 J -36865529.86 -36865529.73 -36865529.60 0.0088 0.0042

Mercury -105646-12-03 20:09 J -36865441.78 -36865441.66 -36865441.53 0.0088 0.0046

Mercury -105645-02-29 22:04 J -36865353.70 -36865353.58 -36865353.45 0.0088 0.0050

Mercury -105645-05-27 23:59 J -36865265.61 -36865265.50 -36865265.38 0.0088 0.0055

Mercury -105645-08-24 01:40 J -36865177.53 -36865177.43 -36865177.31 0.0088 0.0059

Mercury -105645-11-20 03:35 J -36865089.44 -36865089.35 -36865089.24 0.0088 0.0063

Mercury -105644-02-16 05:31 J -36865001.36 -36865001.27 -36865001.17 0.0088 0.0068

Mercury -105644-05-15 07:26 J -36864913.27 -36864913.19 -36864913.10 0.0088 0.0072

Mercury -105644-08-11 08:52 J -36864825.18 -36864825.13 -36864825.04 0.0088 0.0077

Mercury -105644-11-07 10:47 J -36864737.09 -36864737.05 -36864736.97 0.0088 0.0081

Mercury -105643-02-03 12:43 J -36864649.00 -36864648.97 -36864648.92 0.0088 0.0085

Venus -105635-05-11 00:43 J -36861630.48 -36861630.47 -36861630.42 0.0088 0.0088

Venus -105635-12-22 13:11 J -36861405.02 -36861404.95 -36861404.84 0.0088 0.0081

Venus -105634-08-05 02:09 J -36861179.52 -36861179.41 -36861179.28 0.0088 0.0073

Venus -105633-03-17 14:38 J -36860954.02 -36860953.89 -36860953.72 0.0088 0.0066

Venus -105633-10-29 03:35 J -36860728.51 -36860728.35 -36860728.18 0.0088 0.0058

Venus -105632-06-11 15:50 J -36860503.00 -36860502.84 -36860502.64 0.0088 0.0051

Venus -105631-01-23 04:33 J -36860277.49 -36860277.31 -36860277.11 0.0088 0.0043

Venus -105631-09-05 17:02 J -36860051.98 -36860051.79 -36860051.58 0.0088 0.0035

Venus -105630-04-19 05:45 J -36859826.46 -36859826.26 -36859826.05 0.0088 0.0027

Venus -105630-11-30 17:59 J -36859600.95 -36859600.75 -36859600.52 0.0088 0.0021

Venus -105629-07-13 06:43 J -36859375.44 -36859375.22 -36859375.00 0.0088 0.0012

Venus -105628-02-23 18:57 J -36859149.92 -36859149.71 -36859149.49 0.0088 0.0006

Venus -105628-10-07 07:26 J -36858924.40 -36858924.19 -36858923.97 0.0088 0.0003

Venus -105627-05-20 19:40 J -36858698.89 -36858698.68 -36858698.46 0.0088 0.0011

Venus -105626-01-01 07:55 J -36858473.38 -36858473.17 -36858472.95 0.0088 0.0018

Venus -105626-08-14 20:09 J -36858247.86 -36858247.66 -36858247.45 0.0088 0.0025

Venus -105625-03-27 08:38 J -36858022.34 -36858022.14 -36858021.94 0.0088 0.0033

Venus -105625-11-07 20:23 J -36857796.83 -36857796.65 -36857796.44 0.0088 0.0041

Venus -105624-06-21 08:38 J -36857571.31 -36857571.14 -36857570.95 0.0088 0.0048

Venus -105623-02-01 20:23 J -36857345.79 -36857345.65 -36857345.46 0.0088 0.0056

Venus -105623-09-15 08:38 J -36857120.27 -36857120.14 -36857119.97 0.0088 0.0062

Venus -105622-04-28 20:52 J -36856894.75 -36856894.63 -36856894.48 0.0088 0.0070

Venus -105622-12-10 09:07 J -36856669.22 -36856669.12 -36856669.01 0.0088 0.0077

Venus -105621-07-22 21:21 J -36856443.68 -36856443.61 -36856443.55 0.0088 0.0084

Moon -105609-08-03 01:26 J -36852049.58 -36852049.44 -36852049.25 0.0088 0.0067

Earth -105609-08-03 03:50 J -36852049.48 -36852049.34 -36852049.14 0.0088 0.0064 *
 Earth -105608-08-05 11:02 J -36851682.26 -36851682.04 -36851681.80 0.0088 0.0033
 Moon -105608-08-05 13:55 J -36851682.13 -36851681.92 -36851681.67 0.0088 0.0029 *
 Moon -105607-08-07 14:38 J -36851315.13 -36851314.89 -36851314.64 0.0088 0.0006
 Earth -105607-08-07 18:14 J -36851314.98 -36851314.74 -36851314.49 0.0088 0.0002 *
 Earth -105606-08-10 00:57 J -36850947.68 -36850947.46 -36850947.22 0.0088 0.0029
 Moon -105606-08-10 03:50 J -36850947.55 -36850947.34 -36850947.09 0.0088 0.0033 *
 Moon -105605-08-11 05:02 J -36850580.45 -36850580.29 -36850580.08 0.0088 0.0057
 Earth -105605-08-11 07:40 J -36850580.33 -36850580.18 -36850579.97 0.0088 0.0061 *
 Mars -105596-09-28 10:04 J -36847245.26 -36847245.08 -36847244.85 0.0088 0.0070
 Mars -105594-08-25 08:52 J -36846549.44 -36846549.13 -36846548.79 0.0088 0.0027
 Mars -105592-07-21 08:52 J -36845853.45 -36845853.13 -36845852.79 0.0088 0.0018
 Mars -105590-06-17 08:52 J -36845157.33 -36845157.13 -36845156.85 0.0088 0.0062
 Mercury -105570-08-19 01:11 J -36837789.48 -36837789.45 -36837789.42 0.0089 0.0087
 Mercury -105570-11-15 03:07 J -36837701.41 -36837701.37 -36837701.31 0.0089 0.0083
 Mercury -105569-02-11 05:31 J -36837613.34 -36837613.27 -36837613.20 0.0089 0.0078
 Mercury -105569-05-09 07:26 J -36837525.26 -36837525.19 -36837525.09 0.0089 0.0074
 Mercury -105569-08-05 09:50 J -36837437.18 -36837437.09 -36837436.99 0.0089 0.0069
 Mercury -105569-11-01 11:59 J -36837349.10 -36837349.00 -36837348.88 0.0089 0.0065
 Mercury -105568-01-28 14:09 J -36837261.01 -36837260.91 -36837260.78 0.0089 0.0060
 Mercury -105568-04-26 16:19 J -36837172.93 -36837172.82 -36837172.68 0.0089 0.0056
 Mercury -105568-07-23 18:43 J -36837084.84 -36837084.72 -36837084.58 0.0089 0.0051
 Mercury -105568-10-19 21:07 J -36836996.75 -36836996.62 -36836996.48 0.0089 0.0046
 Mercury -105567-01-15 23:31 J -36836908.66 -36836908.52 -36836908.38 0.0089 0.0041
 Mercury -105567-04-14 01:40 J -36836820.57 -36836820.43 -36836820.28 0.0089 0.0037
 Mercury -105567-07-11 03:50 J -36836732.48 -36836732.34 -36836732.18 0.0089 0.0032
 Mercury -105567-10-07 06:14 J -36836644.39 -36836644.24 -36836644.08 0.0089 0.0027
 Mercury -105566-01-03 08:38 J -36836556.29 -36836556.14 -36836555.98 0.0089 0.0022
 Mercury -105566-04-01 11:02 J -36836468.20 -36836468.04 -36836467.88 0.0089 0.0018
 Mercury -105566-06-28 13:26 J -36836380.10 -36836379.94 -36836379.78 0.0089 0.0013

Mercury -105566-09-24 15:50 J -36836292.01 -36836291.84 -36836291.68 0.0089 0.0008

Mercury -105566-12-21 17:59 J -36836203.91 -36836203.75 -36836203.58 0.0089 0.0004

Mercury -105565-03-18 20:23 J -36836115.81 -36836115.65 -36836115.48 0.0089 0.0003

Mercury -105565-06-14 22:47 J -36836027.71 -36836027.55 -36836027.38 0.0089 0.0007

Mercury -105565-09-11 01:11 J -36835939.61 -36835939.45 -36835939.28 0.0089 0.0012

Mercury -105565-12-08 03:35 J -36835851.51 -36835851.35 -36835851.18 0.0089 0.0017

Mercury -105564-03-06 05:59 J -36835763.40 -36835763.25 -36835763.09 0.0089 0.0022

Mercury -105564-06-02 08:23 J -36835675.30 -36835675.15 -36835674.99 0.0089 0.0027

Mercury -105564-08-29 10:47 J -36835587.20 -36835587.05 -36835586.89 0.0089 0.0032

Mercury -105564-11-25 13:11 J -36835499.09 -36835498.95 -36835498.79 0.0089 0.0037

Mercury -105563-02-21 15:35 J -36835410.98 -36835410.85 -36835410.69 0.0089 0.0042

Mercury -105563-05-20 17:59 J -36835322.87 -36835322.75 -36835322.59 0.0089 0.0047

Mercury -105563-08-16 20:38 J -36835234.76 -36835234.64 -36835234.49 0.0089 0.0052

Mercury -105563-11-12 23:02 J -36835146.65 -36835146.54 -36835146.40 0.0089 0.0057

Mercury -105562-02-09 01:40 J -36835058.54 -36835058.43 -36835058.30 0.0089 0.0062

Mercury -105562-05-08 04:04 J -36834970.42 -36834970.33 -36834970.21 0.0089 0.0067

Mercury -105562-08-04 06:43 J -36834882.31 -36834882.22 -36834882.11 0.0089 0.0072

Mercury -105562-10-31 09:07 J -36834794.18 -36834794.12 -36834794.02 0.0089 0.0077

Mercury -105561-01-27 11:45 J -36834706.06 -36834706.01 -36834705.93 0.0089 0.0082

Mercury -105561-04-24 14:23 J -36834617.92 -36834617.90 -36834617.86 0.0089 0.0087

Venus -105552-02-01 19:11 J -36831412.76 -36831412.70 -36831412.63 0.0089 0.0084

Venus -105552-09-15 08:23 J -36831187.24 -36831187.15 -36831187.02 0.0089 0.0077

Venus -105551-04-28 21:50 J -36830961.71 -36830961.59 -36830961.44 0.0089 0.0069

Venus -105551-12-10 11:31 J -36830736.18 -36830736.02 -36830735.86 0.0089 0.0061

Venus -105550-07-24 00:28 J -36830510.64 -36830510.48 -36830510.29 0.0089 0.0054

Venus -105549-03-05 14:09 J -36830285.09 -36830284.91 -36830284.71 0.0089 0.0046

Venus -105549-10-17 03:50 J -36830059.53 -36830059.34 -36830059.13 0.0089 0.0038

Venus -105548-05-30 17:31 J -36829833.98 -36829833.77 -36829833.56 0.0089 0.0030

Venus -105547-01-11 06:43 J -36829608.43 -36829608.22 -36829608.00 0.0089 0.0023

Venus -105547-08-24 20:09 J -36829382.87 -36829382.66 -36829382.43 0.0089 0.0015

Venus	-105546-04-07 09:50 J	-36829157.30	-36829157.09	-36829156.86	0.0089	0.0007
Venus	-105546-11-18 23:31 J	-36828931.74	-36828931.52	-36828931.29	0.0089	0.0003
Venus	-105545-07-01 13:11 J	-36828706.17	-36828705.95	-36828705.72	0.0089	0.0009
Venus	-105544-02-12 02:52 J	-36828480.59	-36828480.38	-36828480.16	0.0089	0.0017
Venus	-105544-09-25 16:33 J	-36828255.01	-36828254.81	-36828254.58	0.0089	0.0025
Venus	-105543-05-09 06:28 J	-36828029.43	-36828029.23	-36828029.02	0.0089	0.0033
Venus	-105543-12-20 20:09 J	-36827803.85	-36827803.66	-36827803.45	0.0089	0.0041
Venus	-105542-08-03 09:50 J	-36827578.26	-36827578.09	-36827577.89	0.0089	0.0049
Venus	-105541-03-15 23:45 J	-36827352.67	-36827352.51	-36827352.32	0.0089	0.0057
Venus	-105541-10-27 13:40 J	-36827127.06	-36827126.93	-36827126.76	0.0089	0.0065
Venus	-105540-06-10 03:35 J	-36826901.45	-36826901.35	-36826901.20	0.0089	0.0073
Venus	-105539-01-21 17:16 J	-36826675.84	-36826675.78	-36826675.65	0.0089	0.0082
Venus	-105539-09-04 07:55 J	-36826450.19	-36826450.17	-36826450.14	0.0089	0.0088
Earth	-105527-01-28 16:04 J	-36822285.85	-36822285.83	-36822285.75	0.0089	0.0087
Earth	-105526-01-31 08:52 J	-36821918.32	-36821918.13	-36821917.89	0.0089	0.0053
Moon	-105526-01-31 12:43 J	-36821918.17	-36821917.97	-36821917.73	0.0089	0.0052 *
Moon	-105525-02-02 23:16 J	-36821550.79	-36821550.53	-36821550.28	0.0089	0.0020
Earth	-105525-02-03 01:55 J	-36821550.67	-36821550.42	-36821550.15	0.0089	0.0019 *
Earth	-105524-02-04 18:14 J	-36821182.99	-36821182.74	-36821182.46	0.0089	0.0016
Moon	-105524-02-04 20:52 J	-36821182.89	-36821182.63	-36821182.35	0.0089	0.0016 *
Moon	-105523-02-07 09:07 J	-36820815.31	-36820815.12	-36820814.88	0.0089	0.0050
Earth	-105523-02-07 11:02 J	-36820815.25	-36820815.04	-36820814.80	0.0089	0.0050 *
Earth	-105522-02-10 03:35 J	-36820447.41	-36820447.35	-36820447.25	0.0089	0.0084
Moon	-105522-02-10 03:21 J	-36820447.41	-36820447.36	-36820447.25	0.0089	0.0085 *
Mars	-105514-08-07 20:09 J	-36817346.85	-36817346.66	-36817346.42	0.0089	0.0061
Mars	-105512-07-01 19:11 J	-36816652.98	-36816652.70	-36816652.41	0.0089	0.0022
Mars	-105510-05-26 16:47 J	-36815959.08	-36815958.80	-36815958.50	0.0089	0.0017
Mars	-105508-04-19 14:38 J	-36815265.10	-36815264.89	-36815264.64	0.0089	0.0055
Mercury	-105488-09-01 08:09 J	-36807825.19	-36807825.16	-36807825.09	0.0088	0.0085
Mercury	-105488-11-28 10:33 J	-36807737.12	-36807737.06	-36807736.98	0.0088	0.0079

Mercury -105487-02-24 12:43 J -36807649.04 -36807648.97 -36807648.88 0.0088 0.0075

Mercury -105487-05-23 15:07 J -36807560.96 -36807560.87 -36807560.77 0.0088 0.0070

Mercury -105487-08-19 16:47 J -36807472.89 -36807472.80 -36807472.68 0.0088 0.0066

Mercury -105487-11-15 19:11 J -36807384.81 -36807384.70 -36807384.58 0.0088 0.0061

Mercury -105486-02-11 21:21 J -36807296.72 -36807296.61 -36807296.48 0.0088 0.0056

Mercury -105486-05-10 23:16 J -36807208.64 -36807208.53 -36807208.39 0.0088 0.0052

Mercury -105486-08-07 01:26 J -36807120.56 -36807120.44 -36807120.30 0.0088 0.0047

Mercury -105486-11-03 03:35 J -36807032.48 -36807032.35 -36807032.20 0.0088 0.0042

Mercury -105485-01-30 05:31 J -36806944.40 -36806944.27 -36806944.11 0.0088 0.0038

Mercury -105485-04-27 07:40 J -36806856.31 -36806856.18 -36806856.02 0.0088 0.0033

Mercury -105485-07-24 10:04 J -36806768.23 -36806768.08 -36806767.94 0.0088 0.0028

Mercury -105485-10-20 11:59 J -36806680.15 -36806680.00 -36806679.85 0.0088 0.0023

Mercury -105484-01-16 14:09 J -36806592.06 -36806591.91 -36806591.76 0.0088 0.0019

Mercury -105484-04-14 16:04 J -36806503.98 -36806503.83 -36806503.68 0.0088 0.0014

Mercury -105484-07-11 18:14 J -36806415.90 -36806415.74 -36806415.59 0.0088 0.0010

Mercury -105484-10-07 20:09 J -36806327.81 -36806327.66 -36806327.51 0.0088 0.0005

Mercury -105483-01-03 22:04 J -36806239.73 -36806239.58 -36806239.42 0.0088 0.0001

Mercury -105483-04-01 23:59 J -36806151.65 -36806151.50 -36806151.34 0.0088 0.0005

Mercury -105483-06-29 02:09 J -36806063.57 -36806063.41 -36806063.26 0.0088 0.0009

Mercury -105483-09-25 04:04 J -36805975.48 -36805975.33 -36805975.18 0.0088 0.0013

Mercury -105483-12-22 05:59 J -36805887.40 -36805887.25 -36805887.10 0.0088 0.0017

Mercury -105482-03-20 07:55 J -36805799.32 -36805799.17 -36805799.02 0.0088 0.0022

Mercury -105482-06-16 09:50 J -36805711.23 -36805711.09 -36805710.94 0.0088 0.0026

Mercury -105482-09-12 11:45 J -36805623.15 -36805623.01 -36805622.86 0.0088 0.0031

Mercury -105482-12-09 13:26 J -36805535.06 -36805534.94 -36805534.79 0.0088 0.0036

Mercury -105481-03-06 15:35 J -36805446.98 -36805446.85 -36805446.71 0.0088 0.0039

Mercury -105481-06-02 17:31 J -36805358.90 -36805358.77 -36805358.64 0.0088 0.0044

Mercury -105481-08-29 19:11 J -36805270.81 -36805270.70 -36805270.56 0.0088 0.0049

Mercury -105481-11-25 21:07 J -36805182.73 -36805182.62 -36805182.49 0.0088 0.0053

Mercury -105480-02-21 23:16 J -36805094.64 -36805094.53 -36805094.42 0.0088 0.0057

Mercury -105480-05-21 00:43 J -36805006.56 -36805006.47 -36805006.34 0.0088 0.0062

Mercury -105480-08-17 02:38 J -36804918.47 -36804918.39 -36804918.27 0.0088 0.0066

Mercury -105480-11-13 04:33 J -36804830.39 -36804830.31 -36804830.21 0.0088 0.0070

Mercury -105479-02-09 06:43 J -36804742.30 -36804742.22 -36804742.14 0.0088 0.0074

Mercury -105479-05-08 08:38 J -36804654.21 -36804654.14 -36804654.07 0.0088 0.0078

Mercury -105479-08-04 10:04 J -36804566.12 -36804566.08 -36804566.01 0.0088 0.0082

Mercury -105479-10-31 11:59 J -36804478.02 -36804478.00 -36804477.96 0.0088 0.0086

Venus -105471-08-12 11:31 J -36801636.02 -36801636.02 -36801636.00 0.0088 0.0088

Venus -105470-03-26 00:14 J -36801410.57 -36801410.49 -36801410.39 0.0088 0.0081

Venus -105470-11-06 12:43 J -36801185.07 -36801184.97 -36801184.83 0.0088 0.0074

Venus -105469-06-19 01:40 J -36800959.57 -36800959.43 -36800959.28 0.0088 0.0066

Venus -105468-01-30 13:55 J -36800734.07 -36800733.92 -36800733.74 0.0088 0.0058

Venus -105468-09-13 02:38 J -36800508.56 -36800508.39 -36800508.20 0.0088 0.0051

Venus -105467-04-26 15:07 J -36800283.05 -36800282.87 -36800282.67 0.0088 0.0043

Venus -105467-12-08 03:50 J -36800057.54 -36800057.34 -36800057.14 0.0088 0.0035

Venus -105466-07-21 16:04 J -36799832.02 -36799831.83 -36799831.61 0.0088 0.0028

Venus -105465-03-03 04:47 J -36799606.51 -36799606.30 -36799606.08 0.0088 0.0020

Venus -105465-10-14 17:16 J -36799380.99 -36799380.78 -36799380.56 0.0088 0.0013

Venus -105464-05-28 05:45 J -36799155.47 -36799155.26 -36799155.04 0.0088 0.0005

Venus -105463-01-08 18:14 J -36798929.96 -36798929.74 -36798929.52 0.0088 0.0003

Venus -105463-08-22 06:28 J -36798704.44 -36798704.23 -36798704.01 0.0088 0.0010

Venus -105462-04-04 18:43 J -36798478.92 -36798478.72 -36798478.49 0.0088 0.0019

Venus -105462-11-16 07:11 J -36798253.40 -36798253.20 -36798252.99 0.0088 0.0026

Venus -105461-06-28 19:11 J -36798027.89 -36798027.70 -36798027.48 0.0088 0.0033

Venus -105460-02-09 07:26 J -36797802.37 -36797802.19 -36797801.99 0.0088 0.0041

Venus -105460-09-22 19:26 J -36797576.85 -36797576.69 -36797576.49 0.0088 0.0048

Venus -105459-05-06 07:40 J -36797351.33 -36797351.18 -36797350.99 0.0088 0.0056

Venus -105459-12-17 19:55 J -36797125.81 -36797125.67 -36797125.51 0.0088 0.0063

Venus -105458-07-31 08:09 J -36796900.29 -36796900.16 -36796900.03 0.0088 0.0070

Venus -105457-03-12 19:40 J -36796674.76 -36796674.68 -36796674.55 0.0088 0.0078

Venus -105457-10-24 07:55 J -36796449.21 -36796449.17 -36796449.09 0.0088 0.0085
 Earth -105445-08-02 16:47 J -36792148.90 -36792148.80 -36792148.67 0.0088 0.0078
 Moon -105445-08-02 20:09 J -36792148.74 -36792148.66 -36792148.54 0.0088 0.0080 *
 Moon -105444-08-04 20:52 J -36791781.84 -36791781.63 -36791781.41 0.0088 0.0045
 Earth -105444-08-04 23:45 J -36791781.70 -36791781.51 -36791781.28 0.0088 0.0048 *
 Earth -105443-08-07 06:57 J -36791414.45 -36791414.21 -36791413.96 0.0088 0.0016
 Moon -105443-08-07 10:19 J -36791414.31 -36791414.07 -36791413.82 0.0088 0.0018 *
 Moon -105442-08-09 11:59 J -36791047.23 -36791047.00 -36791046.76 0.0088 0.0018
 Earth -105442-08-09 14:09 J -36791047.15 -36791046.91 -36791046.67 0.0088 0.0015 *
 Earth -105441-08-10 20:38 J -36790679.83 -36790679.64 -36790679.41 0.0088 0.0046
 Moon -105441-08-10 21:35 J -36790679.80 -36790679.60 -36790679.35 0.0088 0.0044 *
 Earth -105440-08-13 03:21 J -36790312.46 -36790312.36 -36790312.21 0.0088 0.0076
 Moon -105440-08-13 03:35 J -36790312.44 -36790312.35 -36790312.22 0.0088 0.0079 *
 Mars -105430-04-08 00:14 J -36786787.76 -36786787.49 -36786787.18 0.0088 0.0046
 Mars -105428-03-03 23:45 J -36786091.85 -36786091.51 -36786091.17 0.0088 0.0001
 Mars -105426-01-28 23:16 J -36785395.80 -36785395.53 -36785395.21 0.0088 0.0044
 Mars -105425-12-25 00:14 J -36784699.51 -36784699.49 -36784699.41 0.0089 0.0088
 Mercury -105405-05-14 23:59 J -36777618.53 -36777618.50 -36777618.45 0.0089 0.0085
 Mercury -105405-08-11 02:09 J -36777530.46 -36777530.41 -36777530.34 0.0089 0.0081
 Mercury -105405-11-07 04:33 J -36777442.39 -36777442.31 -36777442.23 0.0089 0.0076
 Mercury -105404-02-03 06:28 J -36777354.31 -36777354.23 -36777354.13 0.0089 0.0072
 Mercury -105404-05-02 08:52 J -36777266.23 -36777266.13 -36777266.02 0.0089 0.0067
 Mercury -105404-07-29 10:47 J -36777178.15 -36777178.05 -36777177.92 0.0089 0.0063
 Mercury -105404-10-25 13:11 J -36777090.06 -36777089.95 -36777089.82 0.0089 0.0058
 Mercury -105403-01-21 15:35 J -36777001.98 -36777001.85 -36777001.72 0.0089 0.0053
 Mercury -105403-04-19 17:45 J -36776913.89 -36776913.76 -36776913.62 0.0089 0.0049
 Mercury -105403-07-16 19:55 J -36776825.80 -36776825.67 -36776825.52 0.0089 0.0044
 Mercury -105403-10-12 22:19 J -36776737.71 -36776737.57 -36776737.42 0.0089 0.0039
 Mercury -105402-01-09 00:28 J -36776649.62 -36776649.48 -36776649.32 0.0089 0.0035
 Mercury -105402-04-07 02:52 J -36776561.53 -36776561.38 -36776561.22 0.0089 0.0030

Mercury -105402-07-04 05:16 J -36776473.43 -36776473.28 -36776473.12 0.0089 0.0025
 Mercury -105402-09-30 07:40 J -36776385.34 -36776385.18 -36776385.02 0.0089 0.0020
 Mercury -105402-12-27 09:50 J -36776297.24 -36776297.09 -36776296.93 0.0089 0.0016
 Mercury -105401-03-24 12:14 J -36776209.15 -36776208.99 -36776208.83 0.0089 0.0011
 Mercury -105401-06-20 14:38 J -36776121.05 -36776120.89 -36776120.73 0.0089 0.0006
 Mercury -105401-09-16 17:02 J -36776032.95 -36776032.79 -36776032.63 0.0089 0.0001
 Mercury -105401-12-13 19:26 J -36775944.86 -36775944.69 -36775944.53 0.0089 0.0004
 Mercury -105400-03-11 21:50 J -36775856.76 -36775856.59 -36775856.43 0.0089 0.0009
 Mercury -105400-06-07 23:59 J -36775768.65 -36775768.50 -36775768.33 0.0089 0.0014
 Mercury -105400-09-04 02:23 J -36775680.55 -36775680.40 -36775680.23 0.0089 0.0019
 Mercury -105400-12-01 04:47 J -36775592.45 -36775592.30 -36775592.13 0.0089 0.0024
 Mercury -105399-02-27 07:11 J -36775504.35 -36775504.20 -36775504.03 0.0089 0.0029
 Mercury -105399-05-26 09:35 J -36775416.24 -36775416.10 -36775415.94 0.0089 0.0034
 Mercury -105399-08-22 11:59 J -36775328.14 -36775328.00 -36775327.84 0.0089 0.0039
 Mercury -105399-11-18 14:23 J -36775240.03 -36775239.90 -36775239.74 0.0089 0.0044
 Mercury -105398-02-14 17:02 J -36775151.92 -36775151.79 -36775151.64 0.0089 0.0049
 Mercury -105398-05-13 19:26 J -36775063.81 -36775063.69 -36775063.55 0.0089 0.0054
 Mercury -105398-08-09 21:50 J -36774975.70 -36774975.59 -36774975.45 0.0089 0.0059
 Mercury -105398-11-06 00:28 J -36774887.58 -36774887.48 -36774887.35 0.0089 0.0064
 Mercury -105397-02-02 02:52 J -36774799.47 -36774799.38 -36774799.26 0.0089 0.0069
 Mercury -105397-04-30 05:31 J -36774711.35 -36774711.27 -36774711.17 0.0089 0.0074
 Mercury -105397-07-27 08:09 J -36774623.23 -36774623.16 -36774623.08 0.0089 0.0079
 Mercury -105397-10-23 10:33 J -36774535.10 -36774535.06 -36774534.99 0.0089 0.0084
 Venus -105388-05-06 04:47 J -36771418.35 -36771418.30 -36771418.23 0.0089 0.0085
 Venus -105388-12-17 17:45 J -36771192.84 -36771192.76 -36771192.63 0.0089 0.0078
 Venus -105387-07-31 07:11 J -36770967.32 -36770967.20 -36770967.05 0.0089 0.0070
 Venus -105386-03-13 20:52 J -36770741.79 -36770741.63 -36770741.47 0.0089 0.0062
 Venus -105386-10-25 09:50 J -36770516.24 -36770516.09 -36770515.89 0.0089 0.0055
 Venus -105385-06-06 23:16 J -36770290.70 -36770290.53 -36770290.32 0.0089 0.0047
 Venus -105384-01-18 12:57 J -36770065.15 -36770064.96 -36770064.75 0.0089 0.0039

Venus	-105384-09-01 02:23 J	-36769839.60	-36769839.40	-36769839.18	0.0089	0.0031
Venus	-105383-04-14 16:04 J	-36769614.04	-36769613.83	-36769613.61	0.0089	0.0023
Venus	-105383-11-26 05:31 J	-36769388.48	-36769388.27	-36769388.05	0.0089	0.0015
Venus	-105382-07-09 19:11 J	-36769162.92	-36769162.70	-36769162.48	0.0089	0.0007
Venus	-105381-02-20 08:38 J	-36768937.36	-36768937.14	-36768936.91	0.0089	0.0002
Venus	-105381-10-02 22:19 J	-36768711.79	-36768711.57	-36768711.34	0.0089	0.0009
Venus	-105380-05-16 11:45 J	-36768486.22	-36768486.01	-36768485.78	0.0089	0.0017
Venus	-105380-12-28 01:26 J	-36768260.64	-36768260.44	-36768260.22	0.0089	0.0025
Venus	-105379-08-10 14:52 J	-36768035.07	-36768034.88	-36768034.65	0.0089	0.0033
Venus	-105378-03-24 04:33 J	-36767809.49	-36767809.31	-36767809.09	0.0089	0.0041
Venus	-105378-11-04 18:28 J	-36767583.89	-36767583.73	-36767583.52	0.0089	0.0049
Venus	-105377-06-17 08:23 J	-36767358.30	-36767358.15	-36767357.96	0.0089	0.0057
Venus	-105376-01-28 22:04 J	-36767132.71	-36767132.58	-36767132.40	0.0089	0.0065
Venus	-105376-09-11 11:59 J	-36766907.10	-36766907.00	-36766906.85	0.0089	0.0073
Venus	-105375-04-25 02:23 J	-36766681.49	-36766681.40	-36766681.30	0.0089	0.0080
Venus	-105375-12-06 16:19 J	-36766455.83	-36766455.82	-36766455.79	0.0089	0.0088
Moon	-105362-01-30 09:21 J	-36762018.24	-36762018.11	-36762017.95	0.0089	0.0074
Earth	-105362-01-30 11:45 J	-36762018.15	-36762018.01	-36762017.83	0.0089	0.0070 *
Earth	-105361-02-02 04:19 J	-36761650.55	-36761650.32	-36761650.06	0.0089	0.0036
Moon	-105361-02-02 06:14 J	-36761650.50	-36761650.24	-36761649.98	0.0089	0.0031 *
Earth	-105360-02-03 21:21 J	-36761282.88	-36761282.61	-36761282.34	0.0089	0.0002
Moon	-105360-02-03 21:21 J	-36761282.87	-36761282.61	-36761282.35	0.0089	0.0006 *
Moon	-105359-02-06 13:11 J	-36760915.18	-36760914.95	-36760914.68	0.0089	0.0037
Earth	-105359-02-06 13:40 J	-36760915.16	-36760914.93	-36760914.66	0.0089	0.0033 *
Earth	-105358-02-09 06:28 J	-36760547.39	-36760547.23	-36760547.04	0.0089	0.0067
Moon	-105358-02-09 08:09 J	-36760547.32	-36760547.16	-36760546.95	0.0089	0.0063 *
Mars	-105350-03-22 23:45 J	-36757583.62	-36757583.51	-36757583.35	0.0089	0.0079
Mars	-105348-02-14 00:14 J	-36756889.73	-36756889.49	-36756889.20	0.0089	0.0040
Mars	-105346-01-08 23:45 J	-36756195.81	-36756195.51	-36756195.22	0.0089	0.0001
Mars	-105345-12-02 20:09 J	-36755501.90	-36755501.66	-36755501.37	0.0089	0.0039

Mars -105343-10-27 18:14 J -36754807.88 -36754807.74 -36754807.59 0.0089 0.0077
 Mercury -105323-03-02 04:47 J -36747742.30 -36747742.30 -36747742.26 0.0088 0.0088
 Mercury -105323-05-29 07:11 J -36747654.24 -36747654.20 -36747654.13 0.0088 0.0083
 Mercury -105323-08-25 09:21 J -36747566.17 -36747566.11 -36747566.02 0.0088 0.0078
 Mercury -105323-11-21 11:45 J -36747478.10 -36747478.01 -36747477.92 0.0088 0.0073
 Mercury -105322-02-17 13:40 J -36747390.02 -36747389.93 -36747389.82 0.0088 0.0068
 Mercury -105322-05-16 15:50 J -36747301.94 -36747301.84 -36747301.72 0.0088 0.0064
 Mercury -105322-08-12 18:14 J -36747213.86 -36747213.74 -36747213.62 0.0088 0.0059
 Mercury -105322-11-08 20:09 J -36747125.77 -36747125.66 -36747125.53 0.0088 0.0054
 Mercury -105321-02-04 22:19 J -36747037.69 -36747037.57 -36747037.43 0.0088 0.0050
 Mercury -105321-05-03 00:28 J -36746949.61 -36746949.48 -36746949.34 0.0088 0.0045
 Mercury -105321-07-30 02:23 J -36746861.53 -36746861.40 -36746861.25 0.0088 0.0041
 Mercury -105321-10-26 04:33 J -36746773.44 -36746773.31 -36746773.16 0.0088 0.0036
 Mercury -105320-01-22 06:43 J -36746685.36 -36746685.22 -36746685.07 0.0088 0.0031
 Mercury -105320-04-20 08:52 J -36746597.28 -36746597.13 -36746596.98 0.0088 0.0026
 Mercury -105320-07-17 10:47 J -36746509.19 -36746509.05 -36746508.89 0.0088 0.0022
 Mercury -105320-10-13 12:57 J -36746421.11 -36746420.96 -36746420.80 0.0088 0.0017
 Mercury -105319-01-09 15:07 J -36746333.02 -36746332.87 -36746332.72 0.0088 0.0012
 Mercury -105319-04-07 17:02 J -36746244.94 -36746244.79 -36746244.63 0.0088 0.0008
 Mercury -105319-07-04 18:57 J -36746156.86 -36746156.71 -36746156.55 0.0088 0.0005
 Mercury -105319-09-30 21:07 J -36746068.77 -36746068.62 -36746068.47 0.0088 0.0001
 Mercury -105319-12-27 23:02 J -36745980.69 -36745980.54 -36745980.38 0.0088 0.0006
 Mercury -105318-03-26 00:57 J -36745892.61 -36745892.46 -36745892.30 0.0088 0.0011
 Mercury -105318-06-22 03:07 J -36745804.52 -36745804.37 -36745804.22 0.0088 0.0015
 Mercury -105318-09-18 04:47 J -36745716.44 -36745716.30 -36745716.14 0.0088 0.0020
 Mercury -105318-12-15 06:57 J -36745628.36 -36745628.21 -36745628.06 0.0088 0.0024
 Mercury -105317-03-12 08:38 J -36745540.27 -36745540.14 -36745539.98 0.0088 0.0029
 Mercury -105317-06-08 10:47 J -36745452.19 -36745452.05 -36745451.91 0.0088 0.0032
 Mercury -105317-09-04 12:43 J -36745364.11 -36745363.97 -36745363.83 0.0088 0.0037
 Mercury -105317-12-01 14:23 J -36745276.02 -36745275.90 -36745275.75 0.0088 0.0042

Mercury -105316-02-27 16:19 J -36745187.94 -36745187.82 -36745187.68 0.0088 0.0046

Mercury -105316-05-26 18:28 J -36745099.85 -36745099.73 -36745099.60 0.0088 0.0050

Mercury -105316-08-22 20:09 J -36745011.77 -36745011.66 -36745011.53 0.0088 0.0054

Mercury -105316-11-18 22:04 J -36744923.68 -36744923.58 -36744923.46 0.0088 0.0059

Mercury -105315-02-14 23:59 J -36744835.60 -36744835.50 -36744835.39 0.0088 0.0063

Mercury -105315-05-14 01:55 J -36744747.51 -36744747.42 -36744747.32 0.0088 0.0067

Mercury -105315-08-10 03:35 J -36744659.42 -36744659.35 -36744659.25 0.0088 0.0071

Mercury -105315-11-06 05:31 J -36744571.34 -36744571.27 -36744571.18 0.0088 0.0075

Mercury -105314-02-02 07:26 J -36744483.25 -36744483.19 -36744483.12 0.0088 0.0080

Mercury -105314-05-01 09:21 J -36744395.15 -36744395.11 -36744395.06 0.0088 0.0084

Mercury -105314-07-28 11:16 J -36744307.04 -36744307.03 -36744307.02 0.0088 0.0088

Venus -105306-06-27 09:50 J -36741416.16 -36741416.09 -36741416.00 0.0088 0.0082

Venus -105305-02-07 22:19 J -36741190.67 -36741190.57 -36741190.44 0.0088 0.0074

Venus -105305-09-20 11:02 J -36740965.17 -36740965.04 -36740964.89 0.0088 0.0067

Venus -105304-05-03 23:31 J -36740739.66 -36740739.52 -36740739.34 0.0088 0.0060

Venus -105304-12-15 12:14 J -36740514.15 -36740513.99 -36740513.80 0.0088 0.0052

Venus -105303-07-29 00:43 J -36740288.64 -36740288.47 -36740288.27 0.0088 0.0044

Venus -105302-03-11 13:26 J -36740063.13 -36740062.94 -36740062.73 0.0088 0.0036

Venus -105302-10-23 02:09 J -36739837.61 -36739837.41 -36739837.20 0.0088 0.0029

Venus -105301-06-04 14:23 J -36739612.10 -36739611.90 -36739611.67 0.0088 0.0022

Venus -105300-01-16 03:07 J -36739386.58 -36739386.37 -36739386.15 0.0088 0.0013

Venus -105300-08-29 15:35 J -36739161.07 -36739160.85 -36739160.63 0.0088 0.0005

Venus -105299-04-12 04:04 J -36738935.54 -36738935.33 -36738935.11 0.0088 0.0003

Venus -105299-11-23 16:33 J -36738710.03 -36738709.81 -36738709.59 0.0088 0.0010

Venus -105298-07-07 04:47 J -36738484.51 -36738484.30 -36738484.08 0.0088 0.0018

Venus -105297-02-17 17:02 J -36738258.99 -36738258.79 -36738258.57 0.0088 0.0025

Venus -105297-09-30 05:31 J -36738033.47 -36738033.27 -36738033.06 0.0088 0.0033

Venus -105296-05-13 17:45 J -36737807.94 -36737807.76 -36737807.56 0.0088 0.0040

Venus -105296-12-25 05:45 J -36737582.42 -36737582.26 -36737582.06 0.0088 0.0048

Venus -105295-08-07 17:59 J -36737356.90 -36737356.75 -36737356.57 0.0088 0.0056

Venus -105294-03-21 06:28 J -36737131.38 -36737131.23 -36737131.07 0.0088 0.0063
 Venus -105294-11-01 18:14 J -36736905.85 -36736905.74 -36736905.59 0.0088 0.0071
 Venus -105293-06-14 06:28 J -36736680.31 -36736680.23 -36736680.11 0.0088 0.0078
 Venus -105292-01-25 18:43 J -36736454.77 -36736454.72 -36736454.65 0.0088 0.0085
 Earth -105280-08-04 11:31 J -36731881.17 -36731881.02 -36731880.82 0.0088 0.0062
 Moon -105280-08-04 14:23 J -36731881.05 -36731880.90 -36731880.72 0.0088 0.0066 *
 Moon -105279-08-06 17:02 J -36731514.01 -36731513.79 -36731513.56 0.0088 0.0028
 Earth -105279-08-06 18:57 J -36731513.93 -36731513.71 -36731513.47 0.0088 0.0031 *
 Earth -105278-08-09 02:09 J -36731146.66 -36731146.41 -36731146.17 0.0088 0.0002
 Moon -105278-08-09 02:38 J -36731146.64 -36731146.39 -36731146.13 0.0088 0.0005 *
 Earth -105277-08-10 08:38 J -36730779.36 -36730779.14 -36730778.90 0.0088 0.0030
 Moon -105277-08-10 09:35 J -36730779.31 -36730779.10 -36730778.86 0.0088 0.0034 *
 Moon -105276-08-12 13:26 J -36730412.11 -36730411.94 -36730411.73 0.0088 0.0058
 Earth -105276-08-12 15:50 J -36730412.02 -36730411.84 -36730411.66 0.0088 0.0061 *
 Mars -105267-11-19 14:23 J -36727026.11 -36727025.90 -36727025.66 0.0088 0.0065
 Mars -105265-10-15 11:59 J -36726330.31 -36726330.00 -36726329.66 0.0088 0.0021
 Mars -105263-09-11 11:02 J -36725634.35 -36725634.04 -36725633.70 0.0088 0.0025
 Mars -105261-08-07 11:02 J -36724938.21 -36724938.04 -36724937.80 0.0088 0.0070
 Mercury -105241-11-12 20:38 J -36717535.65 -36717535.64 -36717535.61 0.0089 0.0088
 Mercury -105240-02-08 23:02 J -36717447.59 -36717447.54 -36717447.49 0.0089 0.0083
 Mercury -105240-05-08 00:57 J -36717359.52 -36717359.46 -36717359.38 0.0089 0.0079
 Mercury -105240-08-04 03:21 J -36717271.44 -36717271.36 -36717271.27 0.0089 0.0074
 Mercury -105240-10-31 05:16 J -36717183.36 -36717183.28 -36717183.17 0.0089 0.0070
 Mercury -105239-01-27 07:40 J -36717095.28 -36717095.18 -36717095.07 0.0089 0.0065
 Mercury -105239-04-25 09:35 J -36717007.20 -36717007.10 -36717006.97 0.0089 0.0061
 Mercury -105239-07-22 11:59 J -36716919.12 -36716919.00 -36716918.87 0.0089 0.0056
 Mercury -105239-10-18 14:09 J -36716831.03 -36716830.91 -36716830.77 0.0089 0.0052
 Mercury -105238-01-14 16:19 J -36716742.94 -36716742.82 -36716742.67 0.0089 0.0047
 Mercury -105238-04-12 18:43 J -36716654.85 -36716654.72 -36716654.57 0.0089 0.0042
 Mercury -105238-07-09 20:52 J -36716566.77 -36716566.63 -36716566.48 0.0089 0.0038

Mercury -105238-10-05 23:16 J -36716478.67 -36716478.53 -36716478.38 0.0089 0.0033
 Mercury -105237-01-02 01:40 J -36716390.58 -36716390.43 -36716390.28 0.0089 0.0028
 Mercury -105237-03-30 03:50 J -36716302.49 -36716302.34 -36716302.18 0.0089 0.0023
 Mercury -105237-06-26 06:14 J -36716214.40 -36716214.24 -36716214.08 0.0089 0.0019
 Mercury -105237-09-22 08:23 J -36716126.30 -36716126.15 -36716125.98 0.0089 0.0014
 Mercury -105237-12-19 10:47 J -36716038.21 -36716038.05 -36716037.88 0.0089 0.0009
 Mercury -105236-03-17 13:11 J -36715950.11 -36715949.95 -36715949.79 0.0089 0.0004
 Mercury -105236-06-13 15:35 J -36715862.01 -36715861.85 -36715861.69 0.0089 0.0001
 Mercury -105236-09-09 17:59 J -36715773.91 -36715773.75 -36715773.59 0.0089 0.0006
 Mercury -105236-12-06 20:09 J -36715685.81 -36715685.66 -36715685.49 0.0089 0.0011
 Mercury -105235-03-04 22:33 J -36715597.71 -36715597.56 -36715597.39 0.0089 0.0016
 Mercury -105235-06-01 01:11 J -36715509.61 -36715509.45 -36715509.29 0.0089 0.0020
 Mercury -105235-08-28 03:35 J -36715421.51 -36715421.35 -36715421.19 0.0089 0.0025
 Mercury -105235-11-24 05:59 J -36715333.41 -36715333.25 -36715333.10 0.0089 0.0030
 Mercury -105234-02-20 08:23 J -36715245.30 -36715245.15 -36715245.00 0.0089 0.0035
 Mercury -105234-05-19 10:47 J -36715157.19 -36715157.05 -36715156.90 0.0089 0.0040
 Mercury -105234-08-15 13:11 J -36715069.09 -36715068.95 -36715068.80 0.0089 0.0045
 Mercury -105234-11-11 15:35 J -36714980.98 -36714980.85 -36714980.71 0.0089 0.0050
 Mercury -105233-02-07 18:14 J -36714892.87 -36714892.74 -36714892.61 0.0089 0.0055
 Mercury -105233-05-05 20:38 J -36714804.76 -36714804.64 -36714804.51 0.0089 0.0060
 Mercury -105233-08-01 23:16 J -36714716.64 -36714716.53 -36714716.42 0.0089 0.0065
 Mercury -105233-10-29 01:40 J -36714628.53 -36714628.43 -36714628.33 0.0089 0.0070
 Mercury -105232-01-25 04:19 J -36714540.41 -36714540.32 -36714540.24 0.0089 0.0075
 Mercury -105232-04-23 06:28 J -36714452.28 -36714452.23 -36714452.15 0.0089 0.0081
 Mercury -105232-07-20 08:52 J -36714364.15 -36714364.13 -36714364.07 0.0089 0.0086
 Venus -105224-08-07 13:26 J -36711423.96 -36711423.94 -36711423.87 0.0089 0.0087
 Venus -105223-03-21 02:52 J -36711198.46 -36711198.38 -36711198.26 0.0089 0.0079
 Venus -105223-11-01 16:19 J -36710972.93 -36710972.82 -36710972.67 0.0089 0.0071
 Venus -105222-06-15 05:59 J -36710747.40 -36710747.25 -36710747.10 0.0089 0.0063
 Venus -105221-01-26 18:57 J -36710521.86 -36710521.71 -36710521.52 0.0089 0.0056

Venus	-105221-09-08 08:23 J	-36710296.32	-36710296.15	-36710295.95	0.0089	0.0048
Venus	-105220-04-21 21:50 J	-36710070.77	-36710070.59	-36710070.37	0.0089	0.0040
Venus	-105220-12-03 11:16 J	-36709845.22	-36709845.03	-36709844.81	0.0089	0.0032
Venus	-105219-07-17 00:57 J	-36709619.67	-36709619.46	-36709619.24	0.0089	0.0024
Venus	-105218-02-27 14:23 J	-36709394.11	-36709393.90	-36709393.67	0.0089	0.0016
Venus	-105218-10-11 04:19 J	-36709168.54	-36709168.32	-36709168.10	0.0089	0.0008
Venus	-105217-05-23 17:45 J	-36708942.98	-36708942.76	-36708942.54	0.0089	0.0001
Venus	-105216-01-04 07:11 J	-36708717.42	-36708717.20	-36708716.97	0.0089	0.0008
Venus	-105216-08-17 20:52 J	-36708491.85	-36708491.63	-36708491.41	0.0089	0.0016
Venus	-105215-03-31 10:19 J	-36708266.28	-36708266.07	-36708265.85	0.0089	0.0024
Venus	-105215-11-11 23:59 J	-36708040.70	-36708040.50	-36708040.28	0.0089	0.0032
Venus	-105214-06-25 13:40 J	-36707815.12	-36707814.93	-36707814.72	0.0089	0.0040
Venus	-105213-02-06 03:21 J	-36707589.54	-36707589.36	-36707589.16	0.0089	0.0048
Venus	-105213-09-18 17:02 J	-36707363.95	-36707363.79	-36707363.60	0.0089	0.0057
Venus	-105212-05-02 06:57 J	-36707138.36	-36707138.21	-36707138.05	0.0089	0.0064
Venus	-105212-12-13 20:38 J	-36706912.76	-36706912.64	-36706912.50	0.0089	0.0072
Venus	-105211-07-27 10:33 J	-36706687.14	-36706687.06	-36706686.96	0.0089	0.0080
Venus	-105210-03-10 00:14 J	-36706461.50	-36706461.49	-36706461.44	0.0089	0.0088
Earth	-105198-01-29 12:43 J	-36702117.98	-36702117.97	-36702117.90	0.0089	0.0088
Earth	-105197-02-01 05:31 J	-36701750.46	-36701750.27	-36701750.04	0.0089	0.0054
Moon	-105197-02-01 06:14 J	-36701750.44	-36701750.24	-36701750.02	0.0089	0.0052 *
Moon	-105196-02-02 20:09 J	-36701382.91	-36701382.66	-36701382.38	0.0089	0.0022
Earth	-105196-02-02 22:19 J	-36701382.82	-36701382.57	-36701382.29	0.0089	0.0020 *
Earth	-105195-02-05 15:07 J	-36701015.13	-36701014.87	-36701014.60	0.0089	0.0015
Moon	-105195-02-05 17:45 J	-36701015.00	-36701014.76	-36701014.49	0.0089	0.0017 *
Moon	-105194-02-08 04:19 J	-36700647.53	-36700647.32	-36700647.07	0.0089	0.0048
Earth	-105194-02-08 07:40 J	-36700647.39	-36700647.18	-36700646.94	0.0089	0.0049 *
Earth	-105193-02-11 00:28 J	-36700279.56	-36700279.48	-36700279.38	0.0089	0.0083
Moon	-105193-02-11 03:50 J	-36700279.39	-36700279.34	-36700279.23	0.0089	0.0085 *
Mars	-105185-09-29 02:52 J	-36697126.59	-36697126.38	-36697126.14	0.0089	0.0058

Mars -105183-08-24 02:38 J -36696432.68 -36696432.39 -36696432.11 0.0089 0.0018
 Mars -105181-07-18 00:43 J -36695738.74 -36695738.47 -36695738.16 0.0089 0.0022
 Mars -105179-06-11 21:21 J -36695044.80 -36695044.61 -36695044.37 0.0089 0.0061
 Mercury -105159-11-27 03:21 J -36687571.38 -36687571.36 -36687571.31 0.0088 0.0087
 Mercury -105158-02-23 05:31 J -36687483.31 -36687483.27 -36687483.19 0.0088 0.0082
 Mercury -105158-05-22 07:55 J -36687395.24 -36687395.17 -36687395.09 0.0088 0.0077
 Mercury -105158-08-18 10:19 J -36687307.16 -36687307.07 -36687306.98 0.0088 0.0072
 Mercury -105158-11-14 11:59 J -36687219.08 -36687219.00 -36687218.88 0.0088 0.0068
 Mercury -105157-02-10 14:23 J -36687131.00 -36687130.90 -36687130.78 0.0088 0.0063
 Mercury -105157-05-08 16:33 J -36687042.92 -36687042.81 -36687042.68 0.0088 0.0058
 Mercury -105157-08-04 18:57 J -36686954.84 -36686954.71 -36686954.59 0.0088 0.0053
 Mercury -105157-10-31 20:52 J -36686866.75 -36686866.63 -36686866.49 0.0088 0.0048
 Mercury -105156-01-27 23:02 J -36686778.67 -36686778.54 -36686778.40 0.0088 0.0044
 Mercury -105156-04-26 01:11 J -36686690.59 -36686690.45 -36686690.31 0.0088 0.0039
 Mercury -105156-07-23 03:07 J -36686602.50 -36686602.37 -36686602.22 0.0088 0.0035
 Mercury -105156-10-19 05:16 J -36686514.42 -36686514.28 -36686514.13 0.0088 0.0030
 Mercury -105155-01-15 07:26 J -36686426.33 -36686426.19 -36686426.04 0.0088 0.0025
 Mercury -105155-04-13 09:35 J -36686338.25 -36686338.10 -36686337.95 0.0088 0.0020
 Mercury -105155-07-10 11:45 J -36686250.17 -36686250.01 -36686249.86 0.0088 0.0016
 Mercury -105155-10-06 13:40 J -36686162.08 -36686161.93 -36686161.77 0.0088 0.0011
 Mercury -105154-01-02 15:50 J -36686074.00 -36686073.84 -36686073.69 0.0088 0.0007
 Mercury -105154-03-31 17:45 J -36685985.91 -36685985.76 -36685985.60 0.0088 0.0002
 Mercury -105154-06-27 19:40 J -36685897.83 -36685897.68 -36685897.52 0.0088 0.0004
 Mercury -105154-09-23 21:50 J -36685809.74 -36685809.59 -36685809.44 0.0088 0.0007
 Mercury -105154-12-20 23:45 J -36685721.66 -36685721.51 -36685721.36 0.0088 0.0012
 Mercury -105153-03-18 01:40 J -36685633.58 -36685633.43 -36685633.28 0.0088 0.0016
 Mercury -105153-06-14 03:35 J -36685545.49 -36685545.35 -36685545.19 0.0088 0.0021
 Mercury -105153-09-10 05:45 J -36685457.41 -36685457.26 -36685457.12 0.0088 0.0025
 Mercury -105153-12-07 07:26 J -36685369.32 -36685369.19 -36685369.04 0.0088 0.0030
 Mercury -105152-03-05 09:35 J -36685281.24 -36685281.10 -36685280.96 0.0088 0.0034

Mercury -105152-06-01 11:16 J -36685193.16 -36685193.03 -36685192.88 0.0088 0.0039

Mercury -105152-08-28 13:11 J -36685105.07 -36685104.95 -36685104.81 0.0088 0.0043

Mercury -105152-11-24 15:21 J -36685016.99 -36685016.86 -36685016.73 0.0088 0.0047

Mercury -105151-02-20 17:02 J -36684928.90 -36684928.79 -36684928.66 0.0088 0.0051

Mercury -105151-05-19 18:57 J -36684840.82 -36684840.71 -36684840.58 0.0088 0.0056

Mercury -105151-08-15 20:52 J -36684752.73 -36684752.63 -36684752.51 0.0088 0.0060

Mercury -105151-11-11 22:33 J -36684664.64 -36684664.56 -36684664.44 0.0088 0.0065

Mercury -105150-02-08 00:28 J -36684576.56 -36684576.48 -36684576.37 0.0088 0.0069

Mercury -105150-05-07 02:23 J -36684488.47 -36684488.40 -36684488.30 0.0088 0.0073

Mercury -105150-08-03 04:33 J -36684400.38 -36684400.31 -36684400.24 0.0088 0.0077

Mercury -105150-10-30 06:28 J -36684312.29 -36684312.23 -36684312.17 0.0088 0.0081

Mercury -105149-01-26 07:55 J -36684224.19 -36684224.17 -36684224.12 0.0088 0.0085

Jupiter -105145-09-18 16:19 J -36682527.21 -36682526.82 -36682526.35 0.0088 0.0051

Venus -105142-09-28 18:28 J -36681421.78 -36681421.73 -36681421.64 0.0088 0.0083

Venus -105141-05-11 07:26 J -36681196.29 -36681196.19 -36681196.06 0.0088 0.0075

Venus -105141-12-22 20:09 J -36680970.79 -36680970.66 -36680970.51 0.0088 0.0068

Venus -105140-08-05 08:38 J -36680745.28 -36680745.14 -36680744.97 0.0088 0.0060

Venus -105139-03-18 21:21 J -36680519.77 -36680519.61 -36680519.42 0.0088 0.0053

Venus -105139-10-30 10:19 J -36680294.26 -36680294.07 -36680293.88 0.0088 0.0045

Venus -105138-06-12 22:33 J -36680068.75 -36680068.56 -36680068.35 0.0088 0.0037

Venus -105137-01-24 11:02 J -36679843.23 -36679843.04 -36679842.82 0.0088 0.0030

Venus -105137-09-05 23:45 J -36679617.72 -36679617.51 -36679617.30 0.0088 0.0022

Venus -105136-04-19 12:14 J -36679392.20 -36679391.99 -36679391.77 0.0088 0.0014

Venus -105136-12-01 00:43 J -36679166.68 -36679166.47 -36679166.25 0.0088 0.0006

Venus -105135-07-14 13:11 J -36678941.17 -36678940.95 -36678940.73 0.0088 0.0001

Venus -105134-02-25 01:26 J -36678715.65 -36678715.44 -36678715.22 0.0088 0.0010

Venus -105134-10-08 13:40 J -36678490.13 -36678489.93 -36678489.70 0.0088 0.0018

Venus -105133-05-21 02:23 J -36678264.61 -36678264.40 -36678264.19 0.0088 0.0025

Venus -105132-01-01 14:23 J -36678039.09 -36678038.90 -36678038.68 0.0088 0.0033

Venus -105132-08-15 02:38 J -36677813.57 -36677813.39 -36677813.18 0.0088 0.0040

Venus -105131-03-28 15:07 J -36677588.04 -36677587.87 -36677587.67 0.0088 0.0048
 Venus -105131-11-09 03:21 J -36677362.51 -36677362.36 -36677362.17 0.0088 0.0055
 Venus -105130-06-22 15:50 J -36677136.99 -36677136.84 -36677136.68 0.0088 0.0063
 Venus -105129-02-03 03:35 J -36676911.46 -36676911.35 -36676911.20 0.0088 0.0070
 Venus -105129-09-15 15:50 J -36676685.92 -36676685.84 -36676685.72 0.0088 0.0078
 Venus -105128-04-29 04:19 J -36676460.37 -36676460.32 -36676460.25 0.0088 0.0085
 Moon -105116-08-03 21:50 J -36671980.68 -36671980.59 -36671980.49 0.0088 0.0081
 Earth -105116-08-03 23:02 J -36671980.65 -36671980.54 -36671980.42 0.0088 0.0078 *
 Moon -105115-08-06 05:45 J -36671613.46 -36671613.26 -36671613.02 0.0088 0.0045
 Earth -105115-08-06 05:45 J -36671613.45 -36671613.26 -36671613.03 0.0088 0.0047 *
 Earth -105114-08-08 12:57 J -36671246.19 -36671245.96 -36671245.71 0.0088 0.0016
 Moon -105114-08-08 13:55 J -36671246.15 -36671245.92 -36671245.68 0.0088 0.0019 *
 Moon -105113-08-09 17:31 J -36670879.01 -36670878.77 -36670878.52 0.0088 0.0018
 Earth -105113-08-09 20:09 J -36670878.90 -36670878.66 -36670878.41 0.0088 0.0015 *
 Earth -105112-08-12 02:38 J -36670511.59 -36670511.39 -36670511.16 0.0088 0.0046
 Moon -105112-08-12 05:45 J -36670511.46 -36670511.26 -36670511.03 0.0088 0.0043 *
 Moon -105111-08-14 05:59 J -36670144.34 -36670144.25 -36670144.11 0.0088 0.0079
 Earth -105111-08-14 09:50 J -36670144.21 -36670144.09 -36670143.96 0.0088 0.0076 *
 Mars -105103-07-03 01:40 J -36667264.48 -36667264.43 -36667264.31 0.0088 0.0086
 Mars -105101-05-28 23:02 J -36666568.82 -36666568.54 -36666568.23 0.0088 0.0041
 Mars -105099-04-24 21:21 J -36665872.94 -36665872.61 -36665872.27 0.0088 0.0005
 Mars -105097-03-20 20:23 J -36665176.91 -36665176.65 -36665176.35 0.0088 0.0050
 Mercury -105076-08-09 19:26 J -36657364.72 -36657364.69 -36657364.65 0.0089 0.0086
 Mercury -105076-11-05 21:21 J -36657276.65 -36657276.61 -36657276.53 0.0089 0.0082
 Mercury -105075-02-01 23:45 J -36657188.58 -36657188.51 -36657188.43 0.0089 0.0077
 Mercury -105075-05-01 01:40 J -36657100.50 -36657100.43 -36657100.32 0.0089 0.0073
 Mercury -105075-07-28 04:04 J -36657012.42 -36657012.33 -36657012.22 0.0089 0.0068
 Mercury -105075-10-24 06:14 J -36656924.34 -36656924.24 -36656924.12 0.0089 0.0064
 Mercury -105074-01-20 08:23 J -36656836.26 -36656836.15 -36656836.02 0.0089 0.0059
 Mercury -105074-04-18 10:33 J -36656748.17 -36656748.06 -36656747.92 0.0089 0.0055

Mercury -105074-07-15 12:57 J -36656660.09 -36656659.96 -36656659.82 0.0089 0.0050

Mercury -105074-10-11 15:07 J -36656572.00 -36656571.87 -36656571.73 0.0089 0.0045

Mercury -105073-01-07 17:16 J -36656483.91 -36656483.78 -36656483.63 0.0089 0.0041

Mercury -105073-04-04 19:40 J -36656395.82 -36656395.68 -36656395.53 0.0089 0.0036

Mercury -105073-07-01 22:04 J -36656307.73 -36656307.58 -36656307.43 0.0089 0.0031

Mercury -105073-09-27 23:59 J -36656219.64 -36656219.50 -36656219.34 0.0089 0.0027

Mercury -105073-12-25 02:23 J -36656131.55 -36656131.40 -36656131.24 0.0089 0.0022

Mercury -105072-03-23 04:47 J -36656043.46 -36656043.30 -36656043.14 0.0089 0.0017

Mercury -105072-06-19 07:11 J -36655955.36 -36655955.20 -36655955.04 0.0089 0.0012

Mercury -105072-09-15 09:21 J -36655867.27 -36655867.11 -36655866.94 0.0089 0.0008

Mercury -105072-12-12 11:45 J -36655779.17 -36655779.01 -36655778.85 0.0089 0.0003

Mercury -105071-03-10 14:09 J -36655691.07 -36655690.91 -36655690.75 0.0089 0.0002

Mercury -105071-06-06 16:33 J -36655602.98 -36655602.81 -36655602.65 0.0089 0.0007

Mercury -105071-09-02 18:43 J -36655514.88 -36655514.72 -36655514.55 0.0089 0.0012

Mercury -105071-11-29 21:07 J -36655426.78 -36655426.62 -36655426.46 0.0089 0.0017

Mercury -105070-02-25 23:31 J -36655338.68 -36655338.52 -36655338.36 0.0089 0.0022

Mercury -105070-05-25 01:55 J -36655250.57 -36655250.42 -36655250.26 0.0089 0.0027

Mercury -105070-08-21 04:19 J -36655162.47 -36655162.32 -36655162.16 0.0089 0.0032

Mercury -105070-11-17 06:43 J -36655074.36 -36655074.22 -36655074.07 0.0089 0.0037

Mercury -105069-02-13 08:52 J -36654986.26 -36654986.13 -36654985.97 0.0089 0.0042

Mercury -105069-05-11 11:31 J -36654898.15 -36654898.02 -36654897.87 0.0089 0.0047

Mercury -105069-08-07 13:55 J -36654810.04 -36654809.92 -36654809.77 0.0089 0.0052

Mercury -105069-11-03 16:19 J -36654721.93 -36654721.82 -36654721.68 0.0089 0.0057

Mercury -105068-01-30 18:43 J -36654633.82 -36654633.72 -36654633.58 0.0089 0.0062

Mercury -105068-04-28 21:21 J -36654545.71 -36654545.61 -36654545.49 0.0089 0.0067

Mercury -105068-07-25 23:45 J -36654457.59 -36654457.51 -36654457.40 0.0089 0.0072

Mercury -105068-10-22 02:23 J -36654369.47 -36654369.40 -36654369.31 0.0089 0.0077

Mercury -105067-01-18 04:47 J -36654281.35 -36654281.30 -36654281.22 0.0089 0.0082

Mercury -105067-04-16 07:26 J -36654193.21 -36654193.19 -36654193.15 0.0089 0.0087

Venus -105060-11-08 22:19 J -36651429.58 -36651429.57 -36651429.52 0.0089 0.0088

Venus	-105059-06-22 11:45 J	-36651204.10	-36651204.01	-36651203.91	0.0089	0.0080
Venus	-105058-02-03 00:28 J	-36650978.58	-36650978.48	-36650978.33	0.0089	0.0073
Venus	-105058-09-16 13:55 J	-36650753.05	-36650752.92	-36650752.75	0.0089	0.0065
Venus	-105057-04-29 03:21 J	-36650527.51	-36650527.36	-36650527.17	0.0089	0.0057
Venus	-105057-12-10 16:47 J	-36650301.97	-36650301.80	-36650301.61	0.0089	0.0049
Venus	-105056-07-24 06:14 J	-36650076.43	-36650076.24	-36650076.04	0.0089	0.0041
Venus	-105055-03-06 19:40 J	-36649850.88	-36649850.68	-36649850.47	0.0089	0.0033
Venus	-105055-10-18 09:21 J	-36649625.32	-36649625.11	-36649624.89	0.0089	0.0025
Venus	-105054-05-31 22:47 J	-36649399.76	-36649399.55	-36649399.33	0.0089	0.0017
Venus	-105053-01-12 12:14 J	-36649174.21	-36649173.99	-36649173.76	0.0089	0.0009
Venus	-105053-08-25 01:55 J	-36648948.64	-36648948.42	-36648948.20	0.0089	0.0001
Venus	-105052-04-07 15:21 J	-36648723.08	-36648722.86	-36648722.63	0.0089	0.0007
Venus	-105052-11-19 05:02 J	-36648497.51	-36648497.29	-36648497.07	0.0089	0.0015
Venus	-105051-07-02 18:14 J	-36648271.94	-36648271.74	-36648271.51	0.0089	0.0024
Venus	-105050-02-13 07:55 J	-36648046.36	-36648046.17	-36648045.95	0.0089	0.0032
Venus	-105050-09-26 21:35 J	-36647820.78	-36647820.60	-36647820.38	0.0089	0.0040
Venus	-105049-05-09 11:16 J	-36647595.20	-36647595.03	-36647594.83	0.0089	0.0048
Venus	-105049-12-21 00:57 J	-36647369.62	-36647369.46	-36647369.27	0.0089	0.0056
Venus	-105048-08-03 14:23 J	-36647144.03	-36647143.90	-36647143.72	0.0089	0.0064
Venus	-105047-03-17 04:19 J	-36646918.43	-36646918.32	-36646918.17	0.0089	0.0072
Venus	-105047-10-28 18:14 J	-36646692.81	-36646692.74	-36646692.62	0.0089	0.0080
Venus	-105046-06-11 07:55 J	-36646467.18	-36646467.17	-36646467.11	0.0089	0.0088
Moon	-105033-01-31 03:35 J	-36641850.48	-36641850.35	-36641850.19	0.0089	0.0075
Earth	-105033-01-31 06:28 J	-36641850.37	-36641850.23	-36641850.06	0.0089	0.0072 *
Earth	-105032-02-01 23:02 J	-36641482.77	-36641482.54	-36641482.29	0.0089	0.0038
Moon	-105032-02-02 02:09 J	-36641482.64	-36641482.41	-36641482.15	0.0089	0.0034 *
Moon	-105031-02-04 11:45 J	-36641115.27	-36641115.01	-36641114.73	0.0089	0.0008
Earth	-105031-02-04 15:50 J	-36641115.11	-36641114.84	-36641114.57	0.0089	0.0004 *
Earth	-105030-02-07 08:09 J	-36640747.41	-36640747.16	-36640746.91	0.0089	0.0030
Moon	-105030-02-07 11:16 J	-36640747.26	-36640747.03	-36640746.76	0.0089	0.0035 *

Moon	-105029-02-09 21:21 J	-36640379.79	-36640379.61	-36640379.41	0.0089	0.0060
Earth	-105029-02-10 00:28 J	-36640379.64	-36640379.48	-36640379.27	0.0089	0.0065 *
Mars	-105021-05-14 02:38 J	-36637363.49	-36637363.39	-36637363.21	0.0089	0.0078
Mars	-105019-04-08 02:38 J	-36636669.65	-36636669.39	-36636669.11	0.0089	0.0037
Mars	-105017-03-02 02:09 J	-36635975.70	-36635975.41	-36635975.11	0.0089	0.0003
Mars	-105015-01-25 01:11 J	-36635281.70	-36635281.45	-36635281.19	0.0089	0.0043
Mars	-105014-12-19 21:50 J	-36634587.68	-36634587.59	-36634587.47	0.0089	0.0083

105TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 105th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-104994-08-24 01:40 J	-36627400.46	-36627400.43	-36627400.38	0.0089	0.0086		
Mercury	-104994-11-20 04:04 J	-36627312.39	-36627312.33	-36627312.26	0.0088	0.0081		
Mercury	-104993-02-16 06:14 J	-36627224.31	-36627224.24	-36627224.15	0.0088	0.0076		
Mercury	-104993-05-14 08:09 J	-36627136.23	-36627136.16	-36627136.05	0.0088	0.0072		
Mercury	-104993-08-10 10:33 J	-36627048.16	-36627048.06	-36627047.95	0.0088	0.0066		
Mercury	-104993-11-06 12:43 J	-36626960.07	-36626959.97	-36626959.85	0.0088	0.0062		
Mercury	-104992-02-02 15:07 J	-36626871.99	-36626871.87	-36626871.75	0.0088	0.0057		
Mercury	-104992-05-01 17:02 J	-36626783.91	-36626783.79	-36626783.66	0.0088	0.0052		
Mercury	-104992-07-28 19:11 J	-36626695.83	-36626695.70	-36626695.56	0.0088	0.0048		

Mercury -104992-10-24 21:21 J -36626607.74 -36626607.61 -36626607.47 0.0088 0.0043

Mercury -104991-01-20 23:16 J -36626519.66 -36626519.53 -36626519.38 0.0088 0.0039

Mercury -104991-04-19 01:40 J -36626431.57 -36626431.43 -36626431.28 0.0088 0.0033

Mercury -104991-07-16 03:50 J -36626343.49 -36626343.34 -36626343.19 0.0088 0.0029

Mercury -104991-10-12 05:45 J -36626255.40 -36626255.26 -36626255.10 0.0088 0.0024

Mercury -104990-01-08 07:55 J -36626167.32 -36626167.17 -36626167.02 0.0088 0.0020

Mercury -104990-04-06 09:50 J -36626079.23 -36626079.09 -36626078.93 0.0088 0.0016

Mercury -104990-07-03 11:59 J -36625991.15 -36625991.00 -36625990.84 0.0088 0.0011

Mercury -104990-09-29 14:09 J -36625903.07 -36625902.91 -36625902.76 0.0088 0.0006

Mercury -104990-12-26 16:04 J -36625814.98 -36625814.83 -36625814.67 0.0088 0.0003

Mercury -104989-03-23 18:14 J -36625726.90 -36625726.74 -36625726.59 0.0088 0.0003

Mercury -104989-06-19 20:09 J -36625638.81 -36625638.66 -36625638.50 0.0088 0.0008

Mercury -104989-09-15 22:04 J -36625550.73 -36625550.58 -36625550.42 0.0088 0.0013

Mercury -104989-12-13 00:14 J -36625462.64 -36625462.49 -36625462.34 0.0088 0.0017

Mercury -104988-03-11 02:09 J -36625374.56 -36625374.41 -36625374.26 0.0088 0.0021

Mercury -104988-06-07 04:04 J -36625286.47 -36625286.33 -36625286.18 0.0088 0.0026

Mercury -104988-09-03 05:59 J -36625198.39 -36625198.25 -36625198.10 0.0088 0.0030

Mercury -104988-11-30 07:55 J -36625110.30 -36625110.17 -36625110.02 0.0088 0.0035

Mercury -104987-02-26 09:50 J -36625022.22 -36625022.09 -36625021.95 0.0088 0.0039

Mercury -104987-05-25 11:45 J -36624934.13 -36624934.01 -36624933.87 0.0088 0.0044

Mercury -104987-08-21 13:55 J -36624846.05 -36624845.92 -36624845.79 0.0088 0.0048

Mercury -104987-11-17 15:35 J -36624757.96 -36624757.85 -36624757.72 0.0088 0.0052

Mercury -104986-02-13 17:31 J -36624669.88 -36624669.77 -36624669.65 0.0088 0.0057

Mercury -104986-05-12 19:26 J -36624581.79 -36624581.69 -36624581.57 0.0088 0.0061

Mercury -104986-08-08 21:35 J -36624493.70 -36624493.60 -36624493.50 0.0088 0.0065

Mercury -104986-11-04 23:02 J -36624405.62 -36624405.54 -36624405.43 0.0088 0.0070

Mercury -104985-02-01 00:57 J -36624317.53 -36624317.46 -36624317.36 0.0088 0.0074

Mercury -104985-04-29 02:52 J -36624229.44 -36624229.38 -36624229.30 0.0088 0.0078

Mercury -104985-07-26 04:47 J -36624141.35 -36624141.30 -36624141.24 0.0088 0.0082

Mercury -104985-10-22 06:28 J -36624053.25 -36624053.23 -36624053.18 0.0088 0.0086

Jupiter -104979-11-18 02:38 J -36621835.59 -36621835.39 -36621835.09 0.0088 0.0078
 Venus -104978-12-31 02:52 J -36621427.43 -36621427.38 -36621427.32 0.0088 0.0085
 Venus -104977-08-12 15:21 J -36621201.95 -36621201.86 -36621201.74 0.0088 0.0077
 Venus -104976-03-26 04:19 J -36620976.44 -36620976.32 -36620976.17 0.0088 0.0070
 Venus -104976-11-06 17:16 J -36620750.93 -36620750.78 -36620750.62 0.0088 0.0062
 Venus -104975-06-20 05:31 J -36620525.42 -36620525.27 -36620525.07 0.0088 0.0055
 Venus -104974-01-31 18:14 J -36620299.91 -36620299.74 -36620299.53 0.0088 0.0047
 Venus -104974-09-14 06:57 J -36620074.39 -36620074.21 -36620074.00 0.0088 0.0039
 Venus -104973-04-26 19:55 J -36619848.87 -36619848.67 -36619848.46 0.0088 0.0031
 Venus -104973-12-08 08:09 J -36619623.36 -36619623.16 -36619622.94 0.0088 0.0023
 Venus -104972-07-21 20:38 J -36619397.84 -36619397.64 -36619397.41 0.0088 0.0016
 Venus -104971-03-04 09:21 J -36619172.32 -36619172.11 -36619171.89 0.0088 0.0007
 Venus -104971-10-15 21:50 J -36618946.81 -36618946.59 -36618946.37 0.0088 0.0001
 Venus -104970-05-29 10:19 J -36618721.29 -36618721.07 -36618720.85 0.0088 0.0008
 Venus -104969-01-09 22:33 J -36618495.77 -36618495.56 -36618495.34 0.0088 0.0016
 Venus -104969-08-22 11:02 J -36618270.25 -36618270.04 -36618269.83 0.0088 0.0024
 Venus -104968-04-04 23:16 J -36618044.72 -36618044.53 -36618044.32 0.0088 0.0032
 Venus -104968-11-16 11:31 J -36617819.20 -36617819.02 -36617818.81 0.0088 0.0040
 Venus -104967-06-29 23:45 J -36617593.67 -36617593.51 -36617593.31 0.0088 0.0047
 Venus -104966-02-10 12:14 J -36617368.15 -36617367.99 -36617367.81 0.0088 0.0055
 Venus -104966-09-24 00:14 J -36617142.62 -36617142.49 -36617142.32 0.0088 0.0063
 Venus -104965-05-06 12:57 J -36616917.09 -36616916.96 -36616916.82 0.0088 0.0070
 Venus -104965-12-18 00:43 J -36616691.55 -36616691.47 -36616691.34 0.0088 0.0078
 Venus -104964-07-31 13:11 J -36616466.00 -36616465.95 -36616465.88 0.0088 0.0085
 Earth -104951-08-05 15:35 J -36611713.01 -36611712.85 -36611712.67 0.0088 0.0064
 Moon -104951-08-05 17:16 J -36611712.92 -36611712.78 -36611712.60 0.0088 0.0067 *
 Moon -104950-08-07 20:09 J -36611345.89 -36611345.66 -36611345.41 0.0088 0.0030
 Earth -104950-08-07 22:33 J -36611345.77 -36611345.56 -36611345.31 0.0088 0.0034 *
 Earth -104949-08-09 05:59 J -36610978.50 -36610978.25 -36610978.01 0.0088 0.0002
 Moon -104949-08-09 09:07 J -36610978.36 -36610978.12 -36610977.87 0.0088 0.0006 *

Moon -104948-08-11 09:07 J -36610611.33 -36610611.12 -36610610.87 0.0088 0.0033
 Earth -104948-08-11 12:57 J -36610611.19 -36610610.96 -36610610.72 0.0088 0.0029 *
 Earth -104947-08-13 19:26 J -36610243.85 -36610243.69 -36610243.49 0.0088 0.0060
 Moon -104947-08-13 22:19 J -36610243.74 -36610243.57 -36610243.35 0.0088 0.0056 *
 Mars -104937-01-10 08:52 J -36606807.36 -36606807.13 -36606806.89 0.0088 0.0062
 Mars -104936-12-06 06:28 J -36606111.55 -36606111.23 -36606110.89 0.0088 0.0016
 Mars -104934-11-02 05:02 J -36605415.60 -36605415.29 -36605414.96 0.0088 0.0030
 Mars -104932-09-28 04:04 J -36604719.48 -36604719.33 -36604719.13 0.0088 0.0076
 Mercury -104911-05-06 17:45 J -36597193.79 -36597193.76 -36597193.70 0.0089 0.0085
 Mercury -104911-08-02 19:40 J -36597105.72 -36597105.68 -36597105.59 0.0089 0.0081
 Mercury -104911-10-29 22:04 J -36597017.65 -36597017.58 -36597017.49 0.0089 0.0076
 Mercury -104910-01-26 00:14 J -36596929.57 -36596929.49 -36596929.39 0.0089 0.0072
 Mercury -104910-04-24 02:23 J -36596841.49 -36596841.40 -36596841.29 0.0089 0.0067
 Mercury -104910-07-21 04:33 J -36596753.41 -36596753.31 -36596753.19 0.0089 0.0063
 Mercury -104910-10-17 06:43 J -36596665.33 -36596665.22 -36596665.09 0.0089 0.0058
 Mercury -104909-01-13 09:07 J -36596577.24 -36596577.12 -36596576.99 0.0089 0.0053
 Mercury -104909-04-10 11:16 J -36596489.16 -36596489.03 -36596488.89 0.0089 0.0049
 Mercury -104909-07-07 13:26 J -36596401.07 -36596400.94 -36596400.79 0.0089 0.0044
 Mercury -104909-10-03 15:35 J -36596312.98 -36596312.85 -36596312.70 0.0089 0.0040
 Mercury -104909-12-30 17:59 J -36596224.89 -36596224.75 -36596224.60 0.0089 0.0035
 Mercury -104908-03-28 20:23 J -36596136.80 -36596136.65 -36596136.50 0.0089 0.0030
 Mercury -104908-06-24 22:19 J -36596048.71 -36596048.57 -36596048.40 0.0089 0.0026
 Mercury -104908-09-21 00:43 J -36595960.62 -36595960.47 -36595960.31 0.0089 0.0021
 Mercury -104908-12-18 03:07 J -36595872.53 -36595872.37 -36595872.21 0.0089 0.0016
 Mercury -104907-03-16 05:31 J -36595784.43 -36595784.27 -36595784.11 0.0089 0.0011
 Mercury -104907-06-12 07:40 J -36595696.34 -36595696.18 -36595696.01 0.0089 0.0007
 Mercury -104907-09-08 10:04 J -36595608.24 -36595608.08 -36595607.92 0.0089 0.0002
 Mercury -104907-12-05 12:28 J -36595520.14 -36595519.98 -36595519.82 0.0089 0.0004
 Mercury -104906-03-03 14:38 J -36595432.05 -36595431.89 -36595431.72 0.0089 0.0008
 Mercury -104906-05-30 17:02 J -36595343.95 -36595343.79 -36595343.63 0.0089 0.0013

Mercury -104906-08-26 19:26 J -36595255.85 -36595255.69 -36595255.53 0.0089 0.0018

Mercury -104906-11-22 21:50 J -36595167.75 -36595167.59 -36595167.43 0.0089 0.0023

Mercury -104905-02-18 23:59 J -36595079.65 -36595079.50 -36595079.34 0.0089 0.0028

Mercury -104905-05-17 02:23 J -36594991.54 -36594991.40 -36594991.24 0.0089 0.0033

Mercury -104905-08-13 04:47 J -36594903.44 -36594903.30 -36594903.14 0.0089 0.0038

Mercury -104905-11-09 07:11 J -36594815.33 -36594815.20 -36594815.04 0.0089 0.0043

Mercury -104904-02-05 09:35 J -36594727.23 -36594727.10 -36594726.95 0.0089 0.0048

Mercury -104904-05-04 11:59 J -36594639.12 -36594639.00 -36594638.85 0.0089 0.0053

Mercury -104904-07-31 14:23 J -36594551.01 -36594550.90 -36594550.76 0.0089 0.0058

Mercury -104904-10-27 17:02 J -36594462.90 -36594462.79 -36594462.66 0.0089 0.0063

Mercury -104903-01-23 19:26 J -36594374.78 -36594374.69 -36594374.57 0.0089 0.0068

Mercury -104903-04-21 21:50 J -36594286.67 -36594286.59 -36594286.48 0.0089 0.0073

Mercury -104903-07-19 00:28 J -36594198.55 -36594198.48 -36594198.39 0.0089 0.0078

Mercury -104903-10-15 02:52 J -36594110.42 -36594110.38 -36594110.31 0.0089 0.0083

Mercury -104902-01-11 05:31 J -36594022.28 -36594022.27 -36594022.24 0.0089 0.0088

Venus -104895-09-23 19:55 J -36591209.73 -36591209.67 -36591209.56 0.0089 0.0082

Venus -104894-05-07 09:07 J -36590984.22 -36590984.12 -36590983.98 0.0089 0.0074

Venus -104894-12-18 22:19 J -36590758.70 -36590758.57 -36590758.41 0.0089 0.0066

Venus -104893-07-31 11:45 J -36590533.17 -36590533.01 -36590532.84 0.0089 0.0058

Venus -104892-03-14 00:57 J -36590307.63 -36590307.46 -36590307.27 0.0089 0.0050

Venus -104892-10-25 14:23 J -36590082.09 -36590081.90 -36590081.70 0.0089 0.0042

Venus -104891-06-08 03:50 J -36589856.54 -36589856.34 -36589856.13 0.0089 0.0034

Venus -104890-01-19 17:16 J -36589630.99 -36589630.78 -36589630.57 0.0089 0.0026

Venus -104890-09-02 06:43 J -36589405.44 -36589405.22 -36589405.00 0.0089 0.0018

Venus -104889-04-14 20:09 J -36589179.88 -36589179.66 -36589179.44 0.0089 0.0010

Venus -104889-11-26 09:35 J -36588954.32 -36588954.10 -36588953.87 0.0089 0.0002

Venus -104888-07-09 23:16 J -36588728.76 -36588728.53 -36588728.31 0.0089 0.0006

Venus -104887-02-20 12:43 J -36588503.19 -36588502.97 -36588502.75 0.0089 0.0014

Venus -104887-10-04 02:09 J -36588277.61 -36588277.41 -36588277.18 0.0089 0.0023

Venus -104886-05-17 15:50 J -36588052.04 -36588051.84 -36588051.62 0.0089 0.0031

Venus -104886-12-29 05:16 J -36587826.47 -36587826.28 -36587826.07 0.0089 0.0039
 Venus -104885-08-10 18:57 J -36587600.89 -36587600.71 -36587600.51 0.0089 0.0047
 Venus -104884-03-24 08:38 J -36587375.31 -36587375.14 -36587374.96 0.0089 0.0055
 Venus -104884-11-04 22:19 J -36587149.71 -36587149.57 -36587149.40 0.0089 0.0063
 Venus -104883-06-18 11:59 J -36586924.12 -36586924.00 -36586923.85 0.0089 0.0071
 Venus -104882-01-30 01:40 J -36586698.51 -36586698.43 -36586698.31 0.0089 0.0079
 Venus -104882-09-12 15:21 J -36586472.88 -36586472.86 -36586472.80 0.0089 0.0087
 Moon -104868-01-31 19:40 J -36581582.88 -36581582.68 -36581582.46 0.0089 0.0054
 Earth -104868-01-31 23:02 J -36581582.72 -36581582.54 -36581582.31 0.0089 0.0057 *
 Earth -104867-02-03 15:21 J -36581215.11 -36581214.86 -36581214.59 0.0089 0.0023
 Moon -104867-02-03 18:57 J -36581214.96 -36581214.71 -36581214.44 0.0089 0.0025 *
 Moon -104866-02-06 05:59 J -36580847.50 -36580847.25 -36580846.99 0.0089 0.0014
 Earth -104866-02-06 07:54 J -36580847.42 -36580847.17 -36580846.89 0.0089 0.0012 *
 Earth -104865-02-09 00:28 J -36580479.69 -36580479.48 -36580479.23 0.0089 0.0046
 Moon -104865-02-09 02:23 J -36580479.63 -36580479.40 -36580479.15 0.0089 0.0044 *
 Moon -104864-02-10 16:33 J -36580111.89 -36580111.81 -36580111.69 0.0089 0.0082
 Earth -104864-02-10 17:02 J -36580111.89 -36580111.79 -36580111.66 0.0089 0.0080 *
 Mars -104856-11-21 03:21 J -36576906.57 -36576906.36 -36576906.11 0.0089 0.0057
 Mars -104854-10-16 02:23 J -36576212.68 -36576212.40 -36576212.10 0.0089 0.0016
 Mars -104852-09-09 00:28 J -36575518.75 -36575518.48 -36575518.18 0.0089 0.0025
 Mars -104850-08-03 22:04 J -36574824.74 -36574824.58 -36574824.35 0.0089 0.0066
 Mercury -104829-05-19 23:59 J -36567229.54 -36567229.50 -36567229.46 0.0088 0.0085
 Mercury -104829-08-16 01:54 J -36567141.47 -36567141.42 -36567141.34 0.0088 0.0081
 Mercury -104829-11-12 04:04 J -36567053.39 -36567053.33 -36567053.23 0.0088 0.0076
 Mercury -104828-02-08 06:28 J -36566965.32 -36566965.23 -36566965.13 0.0088 0.0071
 Mercury -104828-05-07 08:52 J -36566877.23 -36566877.13 -36566877.03 0.0088 0.0066
 Mercury -104828-08-03 10:47 J -36566789.15 -36566789.05 -36566788.93 0.0088 0.0061
 Mercury -104828-10-30 12:57 J -36566701.07 -36566700.96 -36566700.83 0.0088 0.0057
 Mercury -104827-01-26 15:21 J -36566612.99 -36566612.86 -36566612.73 0.0088 0.0052
 Mercury -104827-04-24 17:16 J -36566524.90 -36566524.78 -36566524.64 0.0088 0.0047

Mercury -104827-07-21 19:26 J -36566436.82 -36566436.69 -36566436.54 0.0088 0.0043

Mercury -104827-10-17 21:35 J -36566348.73 -36566348.60 -36566348.45 0.0088 0.0038

Mercury -104826-01-13 23:45 J -36566260.65 -36566260.51 -36566260.36 0.0088 0.0033

Mercury -104826-04-12 01:54 J -36566172.57 -36566172.42 -36566172.27 0.0088 0.0028

Mercury -104826-07-09 04:04 J -36566084.48 -36566084.33 -36566084.18 0.0088 0.0024

Mercury -104826-10-05 05:59 J -36565996.39 -36565996.25 -36565996.09 0.0088 0.0019

Mercury -104825-01-01 08:09 J -36565908.31 -36565908.16 -36565908.00 0.0088 0.0015

Mercury -104825-03-29 10:18 J -36565820.22 -36565820.07 -36565819.92 0.0088 0.0010

Mercury -104825-06-25 12:14 J -36565732.14 -36565731.99 -36565731.83 0.0088 0.0006

Mercury -104825-09-21 14:23 J -36565644.05 -36565643.90 -36565643.74 0.0088 0.0001

Mercury -104825-12-18 16:33 J -36565555.97 -36565555.81 -36565555.66 0.0088 0.0005

Mercury -104824-03-16 18:28 J -36565467.88 -36565467.73 -36565467.58 0.0088 0.0008

Mercury -104824-06-12 20:23 J -36565379.80 -36565379.65 -36565379.49 0.0088 0.0013

Mercury -104824-09-08 22:18 J -36565291.71 -36565291.57 -36565291.41 0.0088 0.0018

Mercury -104824-12-06 00:28 J -36565203.63 -36565203.48 -36565203.33 0.0088 0.0022

Mercury -104823-03-04 02:23 J -36565115.54 -36565115.40 -36565115.25 0.0088 0.0026

Mercury -104823-05-31 04:33 J -36565027.46 -36565027.31 -36565027.17 0.0088 0.0031

Mercury -104823-08-27 06:14 J -36564939.37 -36564939.24 -36564939.09 0.0088 0.0035

Mercury -104823-11-23 08:23 J -36564851.29 -36564851.15 -36564851.01 0.0088 0.0040

Mercury -104822-02-19 10:04 J -36564763.20 -36564763.08 -36564762.94 0.0088 0.0044

Mercury -104822-05-18 11:59 J -36564675.11 -36564675.00 -36564674.86 0.0088 0.0049

Mercury -104822-08-14 14:09 J -36564587.03 -36564586.91 -36564586.79 0.0088 0.0053

Mercury -104822-11-10 15:50 J -36564498.94 -36564498.84 -36564498.71 0.0088 0.0057

Mercury -104821-02-06 17:45 J -36564410.86 -36564410.76 -36564410.64 0.0088 0.0062

Mercury -104821-05-04 19:40 J -36564322.77 -36564322.68 -36564322.57 0.0088 0.0066

Mercury -104821-07-31 21:50 J -36564234.68 -36564234.59 -36564234.50 0.0088 0.0070

Mercury -104821-10-27 23:16 J -36564146.59 -36564146.53 -36564146.43 0.0088 0.0075

Mercury -104820-01-24 01:11 J -36564058.50 -36564058.45 -36564058.37 0.0088 0.0079

Mercury -104820-04-22 03:06 J -36563970.41 -36563970.37 -36563970.31 0.0088 0.0083

Mercury -104820-07-19 05:02 J -36563882.30 -36563882.29 -36563882.25 0.0088 0.0087

Venus	-104813-04-02 10:18 J	-36561433.10	-36561433.07	-36561433.02	0.0088	0.0087
Venus	-104813-11-13 22:47 J	-36561207.62	-36561207.55	-36561207.43	0.0088	0.0080
Venus	-104812-06-27 11:45 J	-36560982.12	-36560982.01	-36560981.86	0.0088	0.0071
Venus	-104811-02-08 00:42 J	-36560756.61	-36560756.47	-36560756.31	0.0088	0.0063
Venus	-104811-09-21 13:26 J	-36560531.10	-36560530.94	-36560530.76	0.0088	0.0056
Venus	-104810-05-05 02:23 J	-36560305.58	-36560305.40	-36560305.21	0.0088	0.0048
Venus	-104810-12-16 14:38 J	-36560080.07	-36560079.89	-36560079.68	0.0088	0.0041
Venus	-104809-07-29 03:21 J	-36559854.55	-36559854.36	-36559854.14	0.0088	0.0032
Venus	-104808-03-11 16:04 J	-36559629.03	-36559628.83	-36559628.61	0.0088	0.0025
Venus	-104808-10-23 04:47 J	-36559403.51	-36559403.30	-36559403.08	0.0088	0.0016
Venus	-104807-06-05 17:16 J	-36559177.99	-36559177.78	-36559177.56	0.0088	0.0009
Venus	-104806-01-17 05:45 J	-36558952.48	-36558952.26	-36558952.04	0.0088	0.0001
Venus	-104806-08-30 18:14 J	-36558726.96	-36558726.74	-36558726.52	0.0088	0.0007
Venus	-104805-04-12 06:28 J	-36558501.43	-36558501.23	-36558501.00	0.0088	0.0016
Venus	-104805-11-23 18:57 J	-36558275.91	-36558275.71	-36558275.49	0.0088	0.0023
Venus	-104804-07-07 07:11 J	-36558050.39	-36558050.20	-36558049.98	0.0088	0.0031
Venus	-104803-02-17 19:26 J	-36557824.87	-36557824.69	-36557824.48	0.0088	0.0038
Venus	-104803-10-01 08:09 J	-36557599.35	-36557599.16	-36557598.98	0.0088	0.0046
Venus	-104802-05-14 20:09 J	-36557373.82	-36557373.66	-36557373.47	0.0088	0.0054
Venus	-104802-12-26 08:23 J	-36557148.29	-36557148.15	-36557147.98	0.0088	0.0061
Venus	-104801-08-07 20:52 J	-36556922.76	-36556922.63	-36556922.49	0.0088	0.0069
Venus	-104800-03-21 08:52 J	-36556697.22	-36556697.13	-36556697.00	0.0088	0.0077
Venus	-104800-11-01 20:52 J	-36556471.66	-36556471.63	-36556471.53	0.0088	0.0085
Moon	-104787-08-04 20:52 J	-36551812.68	-36551812.63	-36551812.53	0.0088	0.0085
Earth	-104787-08-04 23:59 J	-36551812.57	-36551812.50	-36551812.38	0.0088	0.0081 *
Earth	-104786-08-07 07:26 J	-36551445.38	-36551445.19	-36551444.97	0.0088	0.0050
Moon	-104786-08-07 11:02 J	-36551445.24	-36551445.04	-36551444.82	0.0088	0.0047 *
Moon	-104785-08-08 11:30 J	-36551078.24	-36551078.02	-36551077.77	0.0088	0.0023
Earth	-104785-08-08 14:52 J	-36551078.11	-36551077.88	-36551077.63	0.0088	0.0020 *
Earth	-104784-08-10 22:04 J	-36550710.82	-36550710.58	-36550710.33	0.0088	0.0012

Moon -104784-08-11 00:57 J -36550710.70 -36550710.46 -36550710.21 0.0088 0.0015 *
 Moon -104783-08-13 03:21 J -36550343.56 -36550343.36 -36550343.13 0.0088 0.0040
 Earth -104783-08-13 04:47 J -36550343.50 -36550343.30 -36550343.07 0.0088 0.0043 *
 Earth -104782-08-15 11:30 J -36549976.13 -36549976.02 -36549975.86 0.0088 0.0074
 Moon -104782-08-15 12:28 J -36549976.10 -36549975.98 -36549975.84 0.0088 0.0076 *
 Mars -104774-08-23 15:50 J -36547045.90 -36547045.84 -36547045.69 0.0088 0.0085
 Mars -104772-07-19 12:28 J -36546350.26 -36546349.98 -36546349.66 0.0088 0.0039
 Mars -104770-06-15 10:33 J -36545654.39 -36545654.06 -36545653.72 0.0088 0.0009
 Mars -104768-05-11 09:50 J -36544958.35 -36544958.09 -36544957.83 0.0089 0.0055
 Mercury -104747-11-04 14:09 J -36537110.92 -36537110.91 -36537110.89 0.0089 0.0088
 Mercury -104746-01-31 16:04 J -36537022.86 -36537022.83 -36537022.77 0.0089 0.0084
 Mercury -104746-04-29 18:28 J -36536934.79 -36536934.73 -36536934.66 0.0089 0.0079
 Mercury -104746-07-26 20:23 J -36536846.72 -36536846.65 -36536846.55 0.0089 0.0075
 Mercury -104746-10-22 22:33 J -36536758.64 -36536758.56 -36536758.45 0.0089 0.0071
 Mercury -104745-01-19 00:42 J -36536670.56 -36536670.47 -36536670.35 0.0089 0.0066
 Mercury -104745-04-16 03:06 J -36536582.48 -36536582.37 -36536582.25 0.0089 0.0061
 Mercury -104745-07-13 05:02 J -36536494.40 -36536494.29 -36536494.16 0.0089 0.0057
 Mercury -104745-10-09 07:26 J -36536406.31 -36536406.19 -36536406.06 0.0089 0.0052
 Mercury -104744-01-05 09:21 J -36536318.23 -36536318.11 -36536317.96 0.0089 0.0048
 Mercury -104744-04-03 11:45 J -36536230.14 -36536230.01 -36536229.86 0.0089 0.0043
 Mercury -104744-06-30 14:09 J -36536142.05 -36536141.91 -36536141.77 0.0089 0.0038
 Mercury -104744-09-26 16:18 J -36536053.96 -36536053.82 -36536053.67 0.0089 0.0034
 Mercury -104744-12-23 18:28 J -36535965.87 -36535965.73 -36535965.57 0.0089 0.0029
 Mercury -104743-03-21 20:52 J -36535877.78 -36535877.63 -36535877.48 0.0089 0.0024
 Mercury -104743-06-17 23:02 J -36535789.69 -36535789.54 -36535789.38 0.0089 0.0020
 Mercury -104743-09-14 01:26 J -36535701.60 -36535701.44 -36535701.28 0.0089 0.0015
 Mercury -104743-12-11 03:35 J -36535613.51 -36535613.35 -36535613.19 0.0089 0.0010
 Mercury -104742-03-09 05:59 J -36535525.41 -36535525.25 -36535525.09 0.0089 0.0005
 Mercury -104742-06-05 08:09 J -36535437.32 -36535437.16 -36535436.99 0.0089 0.0003
 Mercury -104742-09-01 10:33 J -36535349.22 -36535349.06 -36535348.90 0.0089 0.0004

Mercury -104742-11-28 12:57 J -36535261.12 -36535260.96 -36535260.80 0.0089 0.0009

Mercury -104741-02-24 15:06 J -36535173.02 -36535172.87 -36535172.70 0.0089 0.0014

Mercury -104741-05-22 17:30 J -36535084.93 -36535084.77 -36535084.61 0.0089 0.0019

Mercury -104741-08-18 19:54 J -36534996.83 -36534996.67 -36534996.51 0.0089 0.0024

Mercury -104741-11-14 22:04 J -36534908.72 -36534908.58 -36534908.41 0.0089 0.0029

Mercury -104740-02-11 00:28 J -36534820.62 -36534820.48 -36534820.32 0.0089 0.0034

Mercury -104740-05-10 02:52 J -36534732.52 -36534732.38 -36534732.22 0.0089 0.0039

Mercury -104740-08-06 05:30 J -36534644.41 -36534644.27 -36534644.13 0.0089 0.0043

Mercury -104740-11-02 07:54 J -36534556.31 -36534556.17 -36534556.03 0.0089 0.0048

Mercury -104739-01-29 10:18 J -36534468.20 -36534468.07 -36534467.94 0.0089 0.0053

Mercury -104739-04-27 12:42 J -36534380.09 -36534379.97 -36534379.84 0.0089 0.0058

Mercury -104739-07-24 15:06 J -36534291.98 -36534291.87 -36534291.75 0.0089 0.0063

Mercury -104739-10-20 17:45 J -36534203.87 -36534203.76 -36534203.66 0.0089 0.0068

Mercury -104738-01-16 20:09 J -36534115.75 -36534115.66 -36534115.57 0.0089 0.0073

Mercury -104738-04-14 22:18 J -36534027.63 -36534027.57 -36534027.48 0.0089 0.0079

Mercury -104738-07-12 00:42 J -36533939.50 -36533939.47 -36533939.39 0.0089 0.0084

Mercury -104738-10-08 03:21 J -36533851.36 -36533851.36 -36533851.33 0.0089 0.0089

Venus -104731-12-26 04:04 J -36531215.39 -36531215.33 -36531215.25 0.0089 0.0083

Venus -104730-08-08 16:47 J -36530989.89 -36530989.80 -36530989.66 0.0089 0.0076

Venus -104729-03-21 05:59 J -36530764.37 -36530764.25 -36530764.09 0.0089 0.0068

Venus -104729-11-01 19:26 J -36530538.84 -36530538.69 -36530538.51 0.0089 0.0060

Venus -104728-06-15 08:38 J -36530313.31 -36530313.14 -36530312.95 0.0089 0.0052

Venus -104727-01-26 21:50 J -36530087.77 -36530087.59 -36530087.38 0.0089 0.0044

Venus -104727-09-09 11:16 J -36529862.22 -36529862.03 -36529861.82 0.0089 0.0036

Venus -104726-04-23 00:42 J -36529636.67 -36529636.47 -36529636.25 0.0089 0.0028

Venus -104726-12-04 13:54 J -36529411.12 -36529410.92 -36529410.69 0.0089 0.0020

Venus -104725-07-17 03:21 J -36529185.57 -36529185.36 -36529185.13 0.0089 0.0012

Venus -104724-02-27 17:02 J -36528960.01 -36528959.79 -36528959.57 0.0089 0.0003

Venus -104724-10-11 06:42 J -36528734.44 -36528734.22 -36528734.00 0.0089 0.0005

Venus -104723-05-24 20:09 J -36528508.87 -36528508.66 -36528508.43 0.0089 0.0013

Venus	-104722-01-05 09:50 J	-36528283.31	-36528283.09	-36528282.88	0.0089	0.0021
Venus	-104722-08-18 23:02 J	-36528057.74	-36528057.54	-36528057.32	0.0089	0.0030
Venus	-104721-03-31 12:42 J	-36527832.16	-36527831.97	-36527831.76	0.0089	0.0038
Venus	-104721-11-12 02:23 J	-36527606.58	-36527606.40	-36527606.20	0.0089	0.0046
Venus	-104720-06-25 16:04 J	-36527380.99	-36527380.83	-36527380.64	0.0089	0.0054
Venus	-104719-02-06 05:45 J	-36527155.41	-36527155.26	-36527155.09	0.0089	0.0062
Venus	-104719-09-19 19:40 J	-36526929.81	-36526929.68	-36526929.54	0.0089	0.0070
Venus	-104718-05-03 08:52 J	-36526704.21	-36526704.13	-36526704.00	0.0089	0.0079
Venus	-104718-12-14 22:33 J	-36526478.58	-36526478.56	-36526478.49	0.0089	0.0087
Earth	-104704-01-30 22:33 J	-36521682.67	-36521682.56	-36521682.40	0.0089	0.0076
Moon	-104704-01-31 00:28 J	-36521682.57	-36521682.48	-36521682.31	0.0089	0.0079 *
Moon	-104703-02-02 13:26 J	-36521315.16	-36521314.94	-36521314.69	0.0089	0.0039
Earth	-104703-02-02 15:06 J	-36521315.09	-36521314.87	-36521314.62	0.0089	0.0042 *
Earth	-104702-02-05 07:40 J	-36520947.45	-36520947.18	-36520946.91	0.0089	0.0008
Moon	-104702-02-05 07:54 J	-36520947.45	-36520947.17	-36520946.90	0.0089	0.0011 *
Earth	-104701-02-07 23:59 J	-36520579.76	-36520579.50	-36520579.24	0.0089	0.0026
Moon	-104701-02-08 00:42 J	-36520579.70	-36520579.47	-36520579.21	0.0089	0.0030 *
Moon	-104700-02-09 14:09 J	-36520212.10	-36520211.91	-36520211.67	0.0089	0.0057
Earth	-104700-02-09 15:50 J	-36520212.01	-36520211.84	-36520211.62	0.0089	0.0061 *
Mars	-104692-07-05 23:45 J	-36517143.63	-36517143.51	-36517143.34	0.0089	0.0077
Mars	-104690-05-31 00:57 J	-36516449.71	-36516449.46	-36516449.17	0.0089	0.0036
Saturn	-104690-08-13 04:04 J	-36516375.95	-36516375.33	-36516374.69	0.0089	0.0043
Mars	-104688-04-24 00:14 J	-36515755.78	-36515755.49	-36515755.19	0.0089	0.0006
Mars	-104686-03-18 22:04 J	-36515061.81	-36515061.58	-36515061.31	0.0089	0.0047
Mars	-104684-02-09 19:54 J	-36514367.68	-36514367.67	-36514367.58	0.0089	0.0088
Mercury	-104664-02-13 21:50 J	-36507058.63	-36507058.59	-36507058.54	0.0089	0.0085
Mercury	-104664-05-12 23:45 J	-36506970.56	-36506970.51	-36506970.43	0.0088	0.0081
Mercury	-104664-08-09 01:54 J	-36506882.48	-36506882.42	-36506882.32	0.0088	0.0076
Mercury	-104664-11-05 04:18 J	-36506794.40	-36506794.32	-36506794.21	0.0088	0.0071
Mercury	-104663-02-01 06:42 J	-36506706.32	-36506706.22	-36506706.11	0.0088	0.0066

Mercury -104663-04-30 08:38 J -36506618.24 -36506618.14 -36506618.01 0.0088 0.0061

Mercury -104663-07-27 10:47 J -36506530.16 -36506530.05 -36506529.92 0.0088 0.0057

Mercury -104663-10-23 13:11 J -36506442.07 -36506441.95 -36506441.82 0.0088 0.0052

Mercury -104662-01-19 15:21 J -36506353.99 -36506353.86 -36506353.72 0.0088 0.0047

Mercury -104662-04-17 17:16 J -36506265.91 -36506265.78 -36506265.63 0.0088 0.0043

Mercury -104662-07-14 19:26 J -36506177.82 -36506177.69 -36506177.54 0.0088 0.0038

Mercury -104662-10-10 21:50 J -36506089.74 -36506089.59 -36506089.45 0.0088 0.0033

Mercury -104661-01-06 23:45 J -36506001.65 -36506001.51 -36506001.35 0.0088 0.0028

Mercury -104661-04-04 01:54 J -36505913.57 -36505913.42 -36505913.26 0.0088 0.0024

Mercury -104661-07-01 04:04 J -36505825.48 -36505825.33 -36505825.18 0.0088 0.0019

Mercury -104661-09-27 06:14 J -36505737.40 -36505737.24 -36505737.09 0.0088 0.0014

Mercury -104661-12-24 08:09 J -36505649.31 -36505649.16 -36505649.00 0.0088 0.0010

Mercury -104660-03-22 10:18 J -36505561.22 -36505561.07 -36505560.91 0.0088 0.0005

Mercury -104660-06-18 12:28 J -36505473.14 -36505472.98 -36505472.83 0.0088 0.0002

Mercury -104660-09-14 14:23 J -36505385.05 -36505384.90 -36505384.74 0.0088 0.0004

Mercury -104660-12-11 16:33 J -36505296.97 -36505296.81 -36505296.66 0.0088 0.0009

Mercury -104659-03-09 18:28 J -36505208.88 -36505208.73 -36505208.58 0.0088 0.0013

Mercury -104659-06-05 20:23 J -36505120.80 -36505120.65 -36505120.49 0.0088 0.0018

Mercury -104659-09-01 22:18 J -36505032.71 -36505032.57 -36505032.41 0.0088 0.0023

Mercury -104659-11-29 00:28 J -36504944.62 -36504944.48 -36504944.33 0.0088 0.0027

Mercury -104658-02-25 02:23 J -36504856.54 -36504856.40 -36504856.25 0.0088 0.0031

Mercury -104658-05-24 04:18 J -36504768.45 -36504768.32 -36504768.17 0.0088 0.0036

Mercury -104658-08-20 06:28 J -36504680.37 -36504680.23 -36504680.09 0.0088 0.0040

Mercury -104658-11-16 08:09 J -36504592.28 -36504592.16 -36504592.02 0.0088 0.0045

Mercury -104657-02-12 10:18 J -36504504.19 -36504504.07 -36504503.94 0.0088 0.0049

Mercury -104657-05-10 11:59 J -36504416.11 -36504416.00 -36504415.86 0.0088 0.0054

Mercury -104657-08-06 14:09 J -36504328.02 -36504327.91 -36504327.79 0.0088 0.0057

Mercury -104657-11-02 16:04 J -36504239.93 -36504239.83 -36504239.72 0.0088 0.0062

Mercury -104656-01-29 17:45 J -36504151.84 -36504151.76 -36504151.65 0.0088 0.0066

Mercury -104656-04-27 19:40 J -36504063.76 -36504063.68 -36504063.58 0.0088 0.0071

Mercury -104656-07-24 21:35 J -36503975.67 -36503975.60 -36503975.51 0.0088 0.0075

Mercury -104656-10-20 23:45 J -36503887.57 -36503887.51 -36503887.44 0.0088 0.0079

Mercury -104655-01-17 01:40 J -36503799.48 -36503799.43 -36503799.38 0.0088 0.0083

Mercury -104655-04-15 03:06 J -36503711.37 -36503711.37 -36503711.33 0.0088 0.0088

Venus -104648-02-15 05:45 J -36501213.32 -36501213.26 -36501213.15 0.0088 0.0082

Venus -104648-09-28 18:42 J -36500987.82 -36500987.72 -36500987.58 0.0088 0.0074

Venus -104647-05-12 07:40 J -36500762.31 -36500762.18 -36500762.02 0.0088 0.0066

Venus -104647-12-23 20:38 J -36500536.80 -36500536.64 -36500536.47 0.0088 0.0058

Venus -104646-08-06 09:21 J -36500311.28 -36500311.11 -36500310.92 0.0088 0.0050

Venus -104645-03-18 22:18 J -36500085.76 -36500085.57 -36500085.37 0.0088 0.0042

Venus -104645-10-30 11:02 J -36499860.24 -36499860.04 -36499859.83 0.0088 0.0034

Venus -104644-06-12 23:45 J -36499634.72 -36499634.51 -36499634.30 0.0088 0.0026

Venus -104643-01-24 11:59 J -36499409.20 -36499409.00 -36499408.77 0.0088 0.0019

Venus -104643-09-07 00:42 J -36499183.68 -36499183.47 -36499183.25 0.0088 0.0010

Venus -104642-04-20 13:26 J -36498958.15 -36498957.94 -36498957.72 0.0088 0.0003

Venus -104642-12-02 01:54 J -36498732.64 -36498732.42 -36498732.20 0.0088 0.0006

Venus -104641-07-14 14:23 J -36498507.12 -36498506.90 -36498506.68 0.0088 0.0014

Venus -104640-02-25 02:38 J -36498281.60 -36498281.39 -36498281.17 0.0088 0.0022

Venus -104640-10-08 14:52 J -36498056.07 -36498055.88 -36498055.66 0.0088 0.0030

Venus -104639-05-22 03:06 J -36497830.55 -36497830.37 -36497830.15 0.0088 0.0038

Venus -104638-01-02 15:50 J -36497605.03 -36497604.84 -36497604.65 0.0088 0.0045

Venus -104638-08-16 03:50 J -36497379.50 -36497379.34 -36497379.15 0.0088 0.0053

Venus -104637-03-28 16:04 J -36497153.97 -36497153.83 -36497153.65 0.0088 0.0061

Venus -104637-11-09 04:18 J -36496928.44 -36496928.32 -36496928.16 0.0088 0.0068

Venus -104636-06-22 16:47 J -36496702.90 -36496702.80 -36496702.68 0.0088 0.0076

Venus -104635-02-03 04:47 J -36496477.35 -36496477.30 -36496477.21 0.0088 0.0083

Moon -104622-08-06 11:59 J -36491545.13 -36491545.00 -36491544.84 0.0088 0.0072

Earth -104622-08-06 14:52 J -36491545.01 -36491544.88 -36491544.70 0.0088 0.0069 *

Earth -104621-08-07 22:18 J -36491177.78 -36491177.57 -36491177.33 0.0088 0.0038

Moon -104621-08-08 00:28 J -36491177.70 -36491177.48 -36491177.23 0.0088 0.0035 *

Moon -104620-08-10 04:33 J -36490810.54 -36490810.31 -36490810.06 0.0088 0.0010
 Earth -104620-08-10 05:59 J -36490810.49 -36490810.25 -36490810.00 0.0088 0.0006 *
 Moon -104619-08-12 12:57 J -36490443.20 -36490442.96 -36490442.71 0.0088 0.0028
 Earth -104619-08-12 13:11 J -36490443.18 -36490442.95 -36490442.71 0.0088 0.0025 *
 Earth -104618-08-14 20:09 J -36490075.84 -36490075.66 -36490075.46 0.0088 0.0056
 Moon -104618-08-14 21:35 J -36490075.77 -36490075.60 -36490075.39 0.0088 0.0054 *
 Earth -104617-08-16 02:52 J -36489708.41 -36489708.38 -36489708.31 0.0088 0.0087
 Mars -104608-03-01 19:40 J -36486588.92 -36486588.68 -36486588.43 0.0088 0.0061
 Mars -104606-01-26 16:04 J -36485893.14 -36485892.83 -36485892.48 0.0088 0.0015
 Mars -104605-12-22 14:09 J -36485197.19 -36485196.91 -36485196.57 0.0089 0.0034
 Mars -104603-11-18 13:40 J -36484501.04 -36484500.93 -36484500.76 0.0089 0.0081
 Mercury -104582-08-01 11:59 J -36476940.00 -36476940.00 -36476939.96 0.0089 0.0088
 Mercury -104582-10-28 14:23 J -36476851.94 -36476851.90 -36476851.84 0.0089 0.0083
 Mercury -104581-01-24 16:18 J -36476763.87 -36476763.82 -36476763.73 0.0089 0.0079
 Mercury -104581-04-21 18:42 J -36476675.80 -36476675.72 -36476675.63 0.0089 0.0074
 Mercury -104581-07-18 20:38 J -36476587.72 -36476587.64 -36476587.53 0.0089 0.0070
 Mercury -104581-10-14 23:02 J -36476499.64 -36476499.54 -36476499.43 0.0089 0.0065
 Mercury -104580-01-11 00:57 J -36476411.56 -36476411.46 -36476411.33 0.0089 0.0061
 Mercury -104580-04-09 03:21 J -36476323.48 -36476323.36 -36476323.23 0.0089 0.0056
 Mercury -104580-07-06 05:16 J -36476235.39 -36476235.28 -36476235.14 0.0089 0.0052
 Mercury -104580-10-02 07:40 J -36476147.31 -36476147.18 -36476147.04 0.0089 0.0047
 Mercury -104580-12-29 10:04 J -36476059.22 -36476059.08 -36476058.94 0.0089 0.0042
 Mercury -104579-03-27 11:59 J -36475971.13 -36475971.00 -36475970.84 0.0089 0.0038
 Mercury -104579-06-23 14:23 J -36475883.04 -36475882.90 -36475882.75 0.0089 0.0033
 Mercury -104579-09-19 16:47 J -36475794.95 -36475794.80 -36475794.65 0.0089 0.0028
 Mercury -104579-12-16 18:57 J -36475706.86 -36475706.71 -36475706.55 0.0089 0.0024
 Mercury -104578-03-14 21:06 J -36475618.77 -36475618.62 -36475618.46 0.0089 0.0019
 Mercury -104578-06-10 23:30 J -36475530.68 -36475530.52 -36475530.36 0.0089 0.0014
 Mercury -104578-09-07 01:40 J -36475442.59 -36475442.43 -36475442.26 0.0089 0.0010
 Mercury -104578-12-04 04:04 J -36475354.49 -36475354.33 -36475354.17 0.0089 0.0005

Mercury -104577-03-01 06:28 J -36475266.40 -36475266.23 -36475266.07 0.0089 0.0002

Mercury -104577-05-28 08:38 J -36475178.30 -36475178.14 -36475177.98 0.0089 0.0005

Mercury -104577-08-24 11:02 J -36475090.20 -36475090.04 -36475089.88 0.0089 0.0010

Mercury -104577-11-20 13:11 J -36475002.10 -36475001.95 -36475001.78 0.0089 0.0015

Mercury -104576-02-16 15:35 J -36474914.01 -36474913.85 -36474913.69 0.0089 0.0020

Mercury -104576-05-15 17:45 J -36474825.91 -36474825.76 -36474825.59 0.0089 0.0025

Mercury -104576-08-11 20:23 J -36474737.80 -36474737.65 -36474737.50 0.0089 0.0029

Mercury -104576-11-07 22:47 J -36474649.70 -36474649.55 -36474649.40 0.0089 0.0034

Mercury -104575-02-04 00:57 J -36474561.60 -36474561.46 -36474561.31 0.0089 0.0039

Mercury -104575-05-03 03:21 J -36474473.49 -36474473.36 -36474473.21 0.0089 0.0044

Mercury -104575-07-30 05:45 J -36474385.39 -36474385.26 -36474385.12 0.0089 0.0049

Mercury -104575-10-26 08:09 J -36474297.28 -36474297.16 -36474297.02 0.0089 0.0054

Mercury -104574-01-22 10:33 J -36474209.17 -36474209.06 -36474208.93 0.0089 0.0059

Mercury -104574-04-20 12:57 J -36474121.06 -36474120.96 -36474120.84 0.0089 0.0064

Mercury -104574-07-17 15:21 J -36474032.95 -36474032.86 -36474032.74 0.0089 0.0069

Mercury -104574-10-13 17:59 J -36473944.83 -36473944.75 -36473944.65 0.0089 0.0074

Mercury -104573-01-09 20:23 J -36473856.71 -36473856.65 -36473856.57 0.0089 0.0079

Mercury -104573-04-06 22:47 J -36473768.59 -36473768.55 -36473768.49 0.0089 0.0084

Venus -104566-03-29 11:45 J -36471221.05 -36471221.01 -36471220.93 0.0089 0.0085

Venus -104566-11-10 00:57 J -36470995.55 -36470995.46 -36470995.34 0.0089 0.0077

Venus -104565-06-22 14:09 J -36470770.04 -36470769.91 -36470769.76 0.0089 0.0069

Venus -104564-02-03 03:35 J -36470544.51 -36470544.35 -36470544.20 0.0089 0.0061

Venus -104564-09-16 16:47 J -36470318.98 -36470318.80 -36470318.62 0.0089 0.0053

Venus -104563-04-30 05:59 J -36470093.44 -36470093.25 -36470093.06 0.0089 0.0045

Venus -104563-12-11 19:11 J -36469867.90 -36469867.70 -36469867.50 0.0089 0.0037

Venus -104562-07-25 08:09 J -36469642.36 -36469642.16 -36469641.94 0.0089 0.0029

Venus -104561-03-06 21:35 J -36469416.81 -36469416.60 -36469416.38 0.0089 0.0021

Venus -104561-10-18 11:02 J -36469191.26 -36469191.04 -36469190.82 0.0089 0.0013

Venus -104560-06-01 00:28 J -36468965.70 -36468965.48 -36468965.26 0.0089 0.0005

Venus -104559-01-12 13:54 J -36468740.14 -36468739.92 -36468739.70 0.0089 0.0004

Venus -104559-08-26 03:06 J -36468514.58 -36468514.37 -36468514.14 0.0089 0.0012
 Venus -104558-04-08 16:47 J -36468289.01 -36468288.80 -36468288.58 0.0089 0.0020
 Venus -104558-11-20 06:28 J -36468063.44 -36468063.23 -36468063.02 0.0089 0.0028
 Venus -104557-07-02 19:40 J -36467837.87 -36467837.68 -36467837.46 0.0089 0.0037
 Venus -104556-02-13 09:21 J -36467612.29 -36467612.11 -36467611.91 0.0089 0.0045
 Venus -104556-09-26 23:02 J -36467386.71 -36467386.54 -36467386.35 0.0089 0.0053
 Venus -104555-05-10 12:42 J -36467161.12 -36467160.97 -36467160.80 0.0089 0.0061
 Venus -104555-12-22 02:38 J -36466935.53 -36466935.39 -36466935.25 0.0089 0.0069
 Venus -104554-08-04 15:50 J -36466709.93 -36466709.84 -36466709.71 0.0089 0.0078
 Venus -104553-03-17 05:30 J -36466484.30 -36466484.27 -36466484.19 0.0089 0.0086
 Moon -104539-02-01 14:09 J -36461415.12 -36461414.91 -36461414.70 0.0089 0.0057
 Earth -104539-02-01 14:52 J -36461415.06 -36461414.88 -36461414.67 0.0089 0.0061 *
 Earth -104538-02-04 07:11 J -36461047.44 -36461047.20 -36461046.93 0.0089 0.0027
 Moon -104538-02-04 08:52 J -36461047.36 -36461047.13 -36461046.87 0.0089 0.0030 *
 Moon -104537-02-06 20:23 J -36460679.91 -36460679.65 -36460679.37 0.0089 0.0011
 Earth -104537-02-06 23:45 J -36460679.78 -36460679.51 -36460679.24 0.0089 0.0007 *
 Earth -104536-02-08 15:50 J -36460312.08 -36460311.84 -36460311.60 0.0089 0.0041
 Moon -104536-02-08 18:42 J -36460311.94 -36460311.72 -36460311.47 0.0089 0.0039 *
 Moon -104535-02-11 04:04 J -36459944.44 -36459944.33 -36459944.18 0.0089 0.0078
 Earth -104535-02-11 08:23 J -36459944.29 -36459944.15 -36459944.01 0.0089 0.0075 *
 Mars -104526-01-12 23:02 J -36456686.75 -36456686.54 -36456686.29 0.0089 0.0056
 Mars -104525-12-06 23:45 J -36455992.80 -36455992.51 -36455992.21 0.0089 0.0014
 Mars -104523-10-31 22:18 J -36455298.83 -36455298.57 -36455298.27 0.0089 0.0028
 Mars -104521-09-24 19:26 J -36454604.85 -36454604.69 -36454604.48 0.0089 0.0069
 Mercury -104500-11-10 19:40 J -36446887.72 -36446887.68 -36446887.63 0.0088 0.0085
 Mercury -104499-02-06 22:04 J -36446799.65 -36446799.58 -36446799.51 0.0088 0.0080
 Mercury -104499-05-05 23:59 J -36446711.57 -36446711.50 -36446711.40 0.0088 0.0075
 Mercury -104499-08-02 02:09 J -36446623.49 -36446623.41 -36446623.30 0.0088 0.0071
 Mercury -104499-10-29 04:33 J -36446535.41 -36446535.31 -36446535.20 0.0088 0.0066
 Mercury -104498-01-25 06:42 J -36446447.33 -36446447.22 -36446447.10 0.0088 0.0061

Mercury -104498-04-23 08:38 J -36446359.24 -36446359.14 -36446359.00 0.0088 0.0057

Mercury -104498-07-20 11:02 J -36446271.16 -36446271.04 -36446270.90 0.0088 0.0052

Mercury -104498-10-16 13:11 J -36446183.08 -36446182.95 -36446182.81 0.0088 0.0047

Mercury -104497-01-12 15:21 J -36446094.99 -36446094.86 -36446094.71 0.0088 0.0042

Mercury -104497-04-09 17:30 J -36446006.91 -36446006.77 -36446006.62 0.0088 0.0037

Mercury -104497-07-06 19:40 J -36445918.82 -36445918.68 -36445918.53 0.0088 0.0033

Mercury -104497-10-02 21:35 J -36445830.74 -36445830.60 -36445830.44 0.0088 0.0029

Mercury -104497-12-29 23:59 J -36445742.65 -36445742.50 -36445742.35 0.0088 0.0023

Mercury -104496-03-28 02:09 J -36445654.56 -36445654.41 -36445654.26 0.0088 0.0019

Mercury -104496-06-24 04:04 J -36445566.48 -36445566.33 -36445566.17 0.0088 0.0014

Mercury -104496-09-20 06:14 J -36445478.39 -36445478.24 -36445478.08 0.0088 0.0010

Mercury -104496-12-17 08:23 J -36445390.31 -36445390.15 -36445390.00 0.0088 0.0005

Mercury -104495-03-15 10:18 J -36445302.22 -36445302.07 -36445301.91 0.0088 0.0002

Mercury -104495-06-11 12:28 J -36445214.14 -36445213.98 -36445213.83 0.0088 0.0004

Mercury -104495-09-07 14:23 J -36445126.05 -36445125.90 -36445125.74 0.0088 0.0009

Mercury -104495-12-04 16:33 J -36445037.96 -36445037.81 -36445037.66 0.0088 0.0013

Mercury -104494-03-02 18:28 J -36444949.88 -36444949.73 -36444949.58 0.0088 0.0018

Mercury -104494-05-29 20:23 J -36444861.79 -36444861.65 -36444861.49 0.0088 0.0023

Mercury -104494-08-25 22:33 J -36444773.71 -36444773.56 -36444773.41 0.0088 0.0027

Mercury -104494-11-22 00:28 J -36444685.62 -36444685.48 -36444685.33 0.0088 0.0031

Mercury -104493-02-18 02:23 J -36444597.53 -36444597.40 -36444597.25 0.0088 0.0036

Mercury -104493-05-16 04:18 J -36444509.45 -36444509.32 -36444509.18 0.0088 0.0040

Mercury -104493-08-12 06:28 J -36444421.36 -36444421.23 -36444421.10 0.0088 0.0044

Mercury -104493-11-08 08:23 J -36444333.27 -36444333.15 -36444333.02 0.0088 0.0049

Mercury -104492-02-04 10:04 J -36444245.19 -36444245.08 -36444244.95 0.0088 0.0054

Mercury -104492-05-03 12:14 J -36444157.10 -36444156.99 -36444156.87 0.0088 0.0058

Mercury -104492-07-30 14:23 J -36444069.01 -36444068.90 -36444068.80 0.0088 0.0062

Mercury -104492-10-26 15:50 J -36443980.92 -36443980.84 -36443980.72 0.0088 0.0067

Mercury -104491-01-22 17:59 J -36443892.83 -36443892.75 -36443892.65 0.0088 0.0070

Mercury -104491-04-20 19:54 J -36443804.74 -36443804.67 -36443804.59 0.0088 0.0075

Mercury -104491-07-17 21:35 J -36443716.65 -36443716.60 -36443716.52 0.0088 0.0079

Mercury -104491-10-13 23:30 J -36443628.55 -36443628.52 -36443628.46 0.0088 0.0083

Mercury -104490-01-10 01:26 J -36443540.45 -36443540.44 -36443540.41 0.0088 0.0088

Venus -104484-05-19 12:42 J -36441219.02 -36441218.97 -36441218.88 0.0088 0.0084

Venus -104484-12-31 01:40 J -36440993.53 -36440993.43 -36440993.31 0.0088 0.0076

Venus -104483-08-13 14:38 J -36440768.03 -36440767.89 -36440767.75 0.0088 0.0068

Venus -104482-03-27 03:35 J -36440542.51 -36440542.35 -36440542.19 0.0088 0.0060

Venus -104482-11-07 16:18 J -36440316.99 -36440316.82 -36440316.64 0.0088 0.0052

Venus -104481-06-20 05:16 J -36440091.47 -36440091.28 -36440091.09 0.0088 0.0044

Venus -104480-01-31 17:30 J -36439865.96 -36439865.77 -36439865.56 0.0088 0.0036

Venus -104480-09-14 06:14 J -36439640.43 -36439640.24 -36439640.02 0.0088 0.0028

Venus -104479-04-27 18:57 J -36439414.91 -36439414.71 -36439414.48 0.0088 0.0021

Venus -104479-12-09 07:40 J -36439189.39 -36439189.18 -36439188.95 0.0088 0.0013

Venus -104478-07-22 20:23 J -36438963.86 -36438963.65 -36438963.43 0.0088 0.0004

Venus -104477-03-04 09:06 J -36438738.34 -36438738.12 -36438737.90 0.0088 0.0004

Venus -104477-10-15 21:35 J -36438512.81 -36438512.60 -36438512.38 0.0088 0.0012

Venus -104476-05-29 09:50 J -36438287.29 -36438287.09 -36438286.87 0.0088 0.0021

Venus -104475-01-09 22:18 J -36438061.77 -36438061.57 -36438061.36 0.0088 0.0028

Venus -104475-08-23 10:47 J -36437836.24 -36437836.05 -36437835.85 0.0088 0.0036

Venus -104474-04-05 23:16 J -36437610.71 -36437610.53 -36437610.34 0.0088 0.0044

Venus -104474-11-17 11:30 J -36437385.19 -36437385.02 -36437384.83 0.0088 0.0051

Venus -104473-06-29 23:30 J -36437159.66 -36437159.52 -36437159.34 0.0088 0.0060

Venus -104472-02-10 12:14 J -36436934.13 -36436933.99 -36436933.85 0.0088 0.0067

Venus -104472-09-24 00:14 J -36436708.59 -36436708.49 -36436708.36 0.0088 0.0075

Venus -104471-05-07 12:14 J -36436483.04 -36436482.99 -36436482.89 0.0088 0.0083

Earth -104458-08-05 22:18 J -36431644.60 -36431644.57 -36431644.49 0.0088 0.0087

Moon -104457-08-07 05:45 J -36431277.45 -36431277.26 -36431277.06 0.0088 0.0052

Earth -104457-08-07 05:45 J -36431277.43 -36431277.26 -36431277.05 0.0088 0.0056 *

Moon -104456-08-09 12:28 J -36430910.21 -36430909.98 -36430909.73 0.0088 0.0028

Earth -104456-08-09 13:11 J -36430910.17 -36430909.95 -36430909.70 0.0088 0.0025 *

Earth -104455-08-11 20:38 J -36430542.88 -36430542.64 -36430542.39 0.0088 0.0007
 Moon -104455-08-11 22:18 J -36430542.80 -36430542.57 -36430542.32 0.0088 0.0010 *
 Moon -104454-08-14 00:28 J -36430175.70 -36430175.48 -36430175.23 0.0088 0.0034
 Earth -104454-08-14 03:50 J -36430175.55 -36430175.34 -36430175.11 0.0088 0.0038 *
 Earth -104453-08-15 10:47 J -36429808.19 -36429808.05 -36429807.88 0.0088 0.0069
 Moon -104453-08-15 13:54 J -36429808.04 -36429807.92 -36429807.75 0.0088 0.0072 *
 Mars -104445-10-13 00:28 J -36426827.54 -36426827.48 -36426827.35 0.0088 0.0085
 Mars -104443-09-08 20:38 J -36426131.92 -36426131.64 -36426131.31 0.0088 0.0038
 Mars -104441-08-04 18:14 J -36425436.06 -36425435.74 -36425435.40 0.0088 0.0010
 Mars -104439-07-01 16:04 J -36424740.04 -36424739.83 -36424739.54 0.0089 0.0059
 Mercury -104417-04-27 10:18 J -36416769.09 -36416769.07 -36416769.03 0.0089 0.0087
 Mercury -104417-07-24 12:14 J -36416681.03 -36416680.99 -36416680.92 0.0089 0.0083
 Mercury -104417-10-20 14:38 J -36416592.96 -36416592.89 -36416592.81 0.0089 0.0078
 Mercury -104416-01-16 16:33 J -36416504.88 -36416504.81 -36416504.71 0.0089 0.0074
 Mercury -104416-04-14 18:57 J -36416416.80 -36416416.71 -36416416.61 0.0089 0.0069
 Mercury -104416-07-11 20:52 J -36416328.72 -36416328.63 -36416328.51 0.0089 0.0065
 Mercury -104416-10-07 23:16 J -36416240.64 -36416240.53 -36416240.41 0.0089 0.0060
 Mercury -104415-01-04 01:11 J -36416152.56 -36416152.45 -36416152.32 0.0089 0.0056
 Mercury -104415-04-02 03:35 J -36416064.48 -36416064.35 -36416064.22 0.0089 0.0051
 Mercury -104415-06-29 05:30 J -36415976.39 -36415976.27 -36415976.12 0.0089 0.0047
 Mercury -104415-09-25 07:54 J -36415888.30 -36415888.17 -36415888.02 0.0089 0.0042
 Mercury -104415-12-22 10:04 J -36415800.22 -36415800.08 -36415799.93 0.0089 0.0037
 Mercury -104414-03-20 12:14 J -36415712.13 -36415711.99 -36415711.83 0.0089 0.0033
 Mercury -104414-06-16 14:38 J -36415624.04 -36415623.89 -36415623.74 0.0089 0.0028
 Mercury -104414-09-12 16:47 J -36415535.95 -36415535.80 -36415535.64 0.0089 0.0023
 Mercury -104414-12-09 19:11 J -36415447.86 -36415447.70 -36415447.54 0.0089 0.0018
 Mercury -104413-03-06 21:21 J -36415359.76 -36415359.61 -36415359.45 0.0089 0.0014
 Mercury -104413-06-02 23:45 J -36415271.67 -36415271.51 -36415271.35 0.0089 0.0009
 Mercury -104413-08-30 01:54 J -36415183.58 -36415183.42 -36415183.26 0.0089 0.0005
 Mercury -104413-11-26 04:18 J -36415095.48 -36415095.32 -36415095.16 0.0089 0.0001

Mercury -104412-02-22 06:28 J -36415007.39 -36415007.23 -36415007.06 0.0089 0.0006
 Mercury -104412-05-21 08:52 J -36414919.29 -36414919.13 -36414918.97 0.0089 0.0010
 Mercury -104412-08-17 11:16 J -36414831.19 -36414831.03 -36414830.87 0.0089 0.0015
 Mercury -104412-11-13 13:26 J -36414743.09 -36414742.94 -36414742.78 0.0089 0.0020
 Mercury -104411-02-09 15:50 J -36414654.99 -36414654.84 -36414654.68 0.0089 0.0025
 Mercury -104411-05-08 17:59 J -36414566.89 -36414566.75 -36414566.59 0.0089 0.0030
 Mercury -104411-08-04 20:23 J -36414478.79 -36414478.65 -36414478.49 0.0089 0.0035
 Mercury -104411-10-31 22:47 J -36414390.69 -36414390.55 -36414390.40 0.0089 0.0040
 Mercury -104410-01-28 01:11 J -36414302.58 -36414302.45 -36414302.30 0.0089 0.0045
 Mercury -104410-04-26 03:21 J -36414214.48 -36414214.36 -36414214.21 0.0089 0.0050
 Mercury -104410-07-23 05:45 J -36414126.37 -36414126.26 -36414126.11 0.0089 0.0055
 Mercury -104410-10-19 08:38 J -36414038.26 -36414038.14 -36414038.02 0.0089 0.0059
 Mercury -104409-01-15 11:02 J -36413950.15 -36413950.04 -36413949.93 0.0089 0.0064
 Mercury -104409-04-12 13:26 J -36413862.04 -36413861.94 -36413861.84 0.0089 0.0069
 Mercury -104409-07-09 15:50 J -36413773.92 -36413773.84 -36413773.75 0.0089 0.0074
 Mercury -104409-10-05 18:28 J -36413685.81 -36413685.73 -36413685.66 0.0089 0.0079
 Mercury -104408-01-01 20:23 J -36413597.68 -36413597.65 -36413597.58 0.0089 0.0085
 Jupiter -104404-10-21 21:06 J -36411843.90 -36411843.62 -36411843.20 0.0089 0.0070
 Venus -104402-06-30 19:26 J -36411226.72 -36411226.69 -36411226.64 0.0089 0.0087
 Venus -104401-02-11 08:38 J -36411001.23 -36411001.14 -36411001.04 0.0089 0.0079
 Venus -104401-09-23 21:50 J -36410775.71 -36410775.59 -36410775.45 0.0089 0.0071
 Venus -104400-05-07 11:02 J -36410550.19 -36410550.04 -36410549.88 0.0089 0.0063
 Venus -104400-12-18 23:59 J -36410324.66 -36410324.50 -36410324.32 0.0089 0.0055
 Venus -104399-08-01 13:11 J -36410099.13 -36410098.95 -36410098.75 0.0089 0.0047
 Venus -104398-03-15 02:23 J -36409873.59 -36409873.40 -36409873.19 0.0089 0.0039
 Venus -104398-10-26 15:50 J -36409648.04 -36409647.84 -36409647.63 0.0089 0.0031
 Venus -104397-06-08 05:02 J -36409422.49 -36409422.29 -36409422.07 0.0089 0.0023
 Venus -104396-01-19 18:14 J -36409196.95 -36409196.74 -36409196.51 0.0089 0.0015
 Venus -104396-09-02 07:54 J -36408971.39 -36408971.17 -36408970.95 0.0089 0.0006
 Venus -104395-04-15 21:06 J -36408745.84 -36408745.62 -36408745.39 0.0089 0.0003

Venus -104395-11-27 10:33 J -36408520.28 -36408520.06 -36408519.84 0.0089 0.0010
 Venus -104394-07-10 23:45 J -36408294.71 -36408294.51 -36408294.28 0.0089 0.0019
 Venus -104393-02-21 13:26 J -36408069.15 -36408068.94 -36408068.72 0.0089 0.0027
 Venus -104393-10-04 03:06 J -36407843.57 -36407843.37 -36407843.16 0.0089 0.0035
 Venus -104392-05-17 16:18 J -36407617.99 -36407617.82 -36407617.61 0.0089 0.0044
 Venus -104392-12-29 05:59 J -36407392.42 -36407392.25 -36407392.06 0.0089 0.0052
 Venus -104391-08-11 19:40 J -36407166.83 -36407166.68 -36407166.51 0.0089 0.0060
 Venus -104390-03-25 09:35 J -36406941.24 -36406941.10 -36406940.96 0.0089 0.0068
 Venus -104390-11-05 23:02 J -36406715.63 -36406715.54 -36406715.41 0.0089 0.0077
 Venus -104389-06-18 12:42 J -36406490.01 -36406489.97 -36406489.89 0.0089 0.0085
 Earth -104375-01-31 13:54 J -36401515.00 -36401514.92 -36401514.77 0.0089 0.0081
 Moon -104375-01-31 17:45 J -36401514.85 -36401514.76 -36401514.66 0.0089 0.0082 *
 Moon -104374-02-03 03:21 J -36401147.58 -36401147.36 -36401147.11 0.0089 0.0044
 Earth -104374-02-03 06:28 J -36401147.43 -36401147.23 -36401146.98 0.0089 0.0047 *
 Earth -104373-02-05 23:02 J -36400779.81 -36400779.54 -36400779.28 0.0089 0.0012
 Moon -104373-02-06 02:38 J -36400779.64 -36400779.39 -36400779.12 0.0089 0.0016 *
 Moon -104372-02-07 11:30 J -36400412.26 -36400412.02 -36400411.75 0.0089 0.0025
 Earth -104372-02-07 15:06 J -36400412.12 -36400411.87 -36400411.60 0.0089 0.0022 *
 Earth -104371-02-10 07:11 J -36400044.39 -36400044.20 -36400043.97 0.0089 0.0056
 Moon -104371-02-10 10:18 J -36400044.26 -36400044.07 -36400043.83 0.0089 0.0053 *
 Mars -104363-08-27 21:06 J -36396923.73 -36396923.62 -36396923.44 0.0089 0.0078
 Mars -104361-07-21 21:35 J -36396229.85 -36396229.60 -36396229.31 0.0089 0.0035
 Mars -104359-06-15 21:35 J -36395535.89 -36395535.60 -36395535.30 0.0089 0.0008
 Mars -104357-05-09 20:09 J -36394841.88 -36394841.66 -36394841.39 0.0089 0.0050
 Mercury -104335-08-07 17:30 J -36386716.81 -36386716.77 -36386716.72 0.0088 0.0085
 Mercury -104335-11-03 19:40 J -36386628.74 -36386628.68 -36386628.60 0.0088 0.0080
 Mercury -104334-01-30 22:04 J -36386540.66 -36386540.58 -36386540.49 0.0088 0.0075
 Mercury -104334-04-28 23:59 J -36386452.58 -36386452.50 -36386452.39 0.0088 0.0071
 Mercury -104334-07-26 02:23 J -36386364.50 -36386364.40 -36386364.29 0.0088 0.0066
 Mercury -104334-10-22 04:33 J -36386276.41 -36386276.31 -36386276.19 0.0088 0.0061

Mercury -104333-01-18 06:57 J -36386188.33 -36386188.21 -36386188.09 0.0088 0.0056

Mercury -104333-04-15 08:52 J -36386100.25 -36386100.13 -36386099.99 0.0088 0.0052

Mercury -104333-07-12 11:02 J -36386012.16 -36386012.04 -36386011.89 0.0088 0.0047

Mercury -104333-10-08 13:26 J -36385924.08 -36385923.94 -36385923.80 0.0088 0.0042

Mercury -104332-01-04 15:21 J -36385835.99 -36385835.86 -36385835.71 0.0088 0.0038

Mercury -104332-04-02 17:30 J -36385747.91 -36385747.77 -36385747.61 0.0088 0.0033

Mercury -104332-06-29 19:54 J -36385659.82 -36385659.67 -36385659.52 0.0088 0.0028

Mercury -104332-09-25 21:50 J -36385571.74 -36385571.59 -36385571.43 0.0088 0.0023

Mercury -104332-12-22 23:59 J -36385483.65 -36385483.50 -36385483.34 0.0088 0.0019

Mercury -104331-03-21 02:09 J -36385395.56 -36385395.41 -36385395.26 0.0088 0.0014

Mercury -104331-06-17 04:18 J -36385307.48 -36385307.32 -36385307.17 0.0088 0.0009

Mercury -104331-09-13 06:14 J -36385219.39 -36385219.24 -36385219.08 0.0088 0.0005

Mercury -104331-12-10 08:23 J -36385131.31 -36385131.15 -36385130.99 0.0088 0.0000

Mercury -104330-03-08 10:33 J -36385043.22 -36385043.06 -36385042.91 0.0088 0.0005

Mercury -104330-06-04 12:28 J -36384955.13 -36384954.98 -36384954.82 0.0088 0.0009

Mercury -104330-08-31 14:38 J -36384867.05 -36384866.89 -36384866.74 0.0088 0.0014

Mercury -104330-11-27 16:33 J -36384778.96 -36384778.81 -36384778.66 0.0088 0.0018

Mercury -104329-02-23 18:28 J -36384690.87 -36384690.73 -36384690.58 0.0088 0.0023

Mercury -104329-05-21 20:23 J -36384602.79 -36384602.65 -36384602.49 0.0088 0.0027

Mercury -104329-08-17 22:33 J -36384514.70 -36384514.56 -36384514.41 0.0088 0.0031

Mercury -104329-11-14 00:42 J -36384426.61 -36384426.47 -36384426.33 0.0088 0.0036

Mercury -104328-02-10 02:23 J -36384338.53 -36384338.40 -36384338.26 0.0088 0.0041

Mercury -104328-05-09 04:33 J -36384250.44 -36384250.31 -36384250.18 0.0088 0.0045

Mercury -104328-08-05 06:14 J -36384162.35 -36384162.24 -36384162.10 0.0088 0.0050

Mercury -104328-11-01 08:23 J -36384074.27 -36384074.15 -36384074.02 0.0088 0.0053

Mercury -104327-01-28 10:18 J -36383986.18 -36383986.07 -36383985.95 0.0088 0.0058

Mercury -104327-04-26 11:59 J -36383898.09 -36383898.00 -36383897.88 0.0088 0.0063

Mercury -104327-07-23 14:09 J -36383810.00 -36383809.91 -36383809.80 0.0088 0.0066

Mercury -104327-10-19 16:04 J -36383721.91 -36383721.83 -36383721.73 0.0088 0.0071

Mercury -104326-01-15 17:45 J -36383633.82 -36383633.76 -36383633.66 0.0088 0.0076

Mercury -104326-04-13 19:40 J -36383545.73 -36383545.68 -36383545.60 0.0088 0.0080

Mercury -104326-07-10 21:50 J -36383457.63 -36383457.59 -36383457.54 0.0088 0.0083

Mercury -104326-10-06 23:45 J -36383369.52 -36383369.51 -36383369.49 0.0088 0.0088

Venus -104320-08-20 19:54 J -36381224.71 -36381224.67 -36381224.61 0.0088 0.0086

Venus -104319-04-03 09:06 J -36380999.22 -36380999.12 -36380999.02 0.0088 0.0078

Venus -104319-11-14 21:21 J -36380773.72 -36380773.61 -36380773.45 0.0088 0.0071

Venus -104318-06-28 10:04 J -36380548.21 -36380548.08 -36380547.90 0.0088 0.0063

Venus -104317-02-08 23:02 J -36380322.70 -36380322.54 -36380322.35 0.0088 0.0054

Venus -104317-09-21 11:45 J -36380097.18 -36380097.01 -36380096.80 0.0088 0.0046

Venus -104316-05-05 00:57 J -36379871.66 -36379871.46 -36379871.26 0.0088 0.0038

Venus -104316-12-16 13:40 J -36379646.14 -36379645.93 -36379645.72 0.0088 0.0030

Venus -104315-07-30 02:23 J -36379420.62 -36379420.40 -36379420.19 0.0088 0.0022

Venus -104314-03-12 15:06 J -36379195.09 -36379194.87 -36379194.66 0.0088 0.0014

Venus -104314-10-24 03:50 J -36378969.56 -36378969.34 -36378969.13 0.0088 0.0006

Venus -104313-06-05 16:18 J -36378744.04 -36378743.82 -36378743.60 0.0088 0.0003

Venus -104312-01-17 04:47 J -36378518.51 -36378518.30 -36378518.08 0.0088 0.0011

Venus -104312-08-30 17:16 J -36378292.99 -36378292.78 -36378292.56 0.0088 0.0019

Venus -104311-04-13 05:45 J -36378067.46 -36378067.26 -36378067.04 0.0088 0.0027

Venus -104311-11-24 18:14 J -36377841.93 -36377841.74 -36377841.53 0.0088 0.0035

Venus -104310-07-08 06:28 J -36377616.41 -36377616.23 -36377616.03 0.0088 0.0043

Venus -104309-02-18 18:42 J -36377390.88 -36377390.72 -36377390.52 0.0088 0.0051

Venus -104309-10-01 06:57 J -36377165.35 -36377165.21 -36377165.03 0.0088 0.0059

Venus -104308-05-14 19:40 J -36376939.82 -36376939.68 -36376939.53 0.0088 0.0066

Venus -104308-12-26 07:40 J -36376714.28 -36376714.18 -36376714.04 0.0088 0.0074

Venus -104307-08-08 19:40 J -36376488.74 -36376488.68 -36376488.57 0.0088 0.0082

Moon -104293-08-06 11:45 J -36371377.11 -36371377.01 -36371376.86 0.0088 0.0076

Earth -104293-08-06 13:11 J -36371377.06 -36371376.95 -36371376.79 0.0088 0.0074 *

Earth -104292-08-08 20:38 J -36371009.85 -36371009.64 -36371009.41 0.0088 0.0043

Moon -104292-08-08 23:16 J -36371009.73 -36371009.53 -36371009.30 0.0088 0.0041 *

Moon -104291-08-11 00:57 J -36370642.70 -36370642.46 -36370642.20 0.0088 0.0014

Earth -104291-08-11 04:04 J -36370642.57 -36370642.33 -36370642.08 0.0088 0.0012 *
 Earth -104290-08-13 11:16 J -36370275.27 -36370275.03 -36370274.78 0.0088 0.0019
 Moon -104290-08-13 14:52 J -36370275.11 -36370274.88 -36370274.64 0.0088 0.0023 *
 Moon -104289-08-14 15:21 J -36369908.05 -36369907.86 -36369907.64 0.0088 0.0049
 Earth -104289-08-14 18:28 J -36369907.92 -36369907.73 -36369907.52 0.0088 0.0051 *
 Earth -104288-08-17 01:11 J -36369540.51 -36369540.45 -36369540.32 0.0088 0.0082
 Moon -104288-08-17 04:18 J -36369540.39 -36369540.32 -36369540.24 0.0088 0.0084 *
 Mars -104279-04-22 01:54 J -36366370.62 -36366370.42 -36366370.15 0.0088 0.0062
 Mars -104277-03-17 22:47 J -36365674.87 -36365674.55 -36365674.21 0.0088 0.0013
 Mars -104275-02-11 20:09 J -36364978.94 -36364978.66 -36364978.33 0.0089 0.0036
 Mars -104273-01-08 18:57 J -36364282.78 -36364282.71 -36364282.57 0.0089 0.0084
 Mercury -104252-01-22 08:09 J -36356598.17 -36356598.16 -36356598.11 0.0089 0.0087
 Mercury -104252-04-20 10:33 J -36356510.11 -36356510.06 -36356510.00 0.0089 0.0082
 Mercury -104252-07-17 12:28 J -36356422.04 -36356421.98 -36356421.89 0.0089 0.0078
 Mercury -104252-10-13 14:52 J -36356333.96 -36356333.88 -36356333.79 0.0089 0.0073
 Mercury -104251-01-09 16:47 J -36356245.89 -36356245.80 -36356245.69 0.0089 0.0069
 Mercury -104251-04-07 19:11 J -36356157.81 -36356157.70 -36356157.59 0.0089 0.0064
 Mercury -104251-07-04 21:06 J -36356069.72 -36356069.62 -36356069.49 0.0089 0.0060
 Mercury -104251-09-30 23:30 J -36355981.64 -36355981.52 -36355981.40 0.0089 0.0055
 Mercury -104251-12-28 01:26 J -36355893.56 -36355893.44 -36355893.30 0.0089 0.0051
 Mercury -104250-03-26 03:50 J -36355805.47 -36355805.34 -36355805.20 0.0089 0.0046
 Mercury -104250-06-22 05:59 J -36355717.39 -36355717.25 -36355717.11 0.0089 0.0041
 Mercury -104250-09-18 08:09 J -36355629.30 -36355629.16 -36355629.01 0.0089 0.0037
 Mercury -104250-12-15 10:18 J -36355541.21 -36355541.07 -36355540.91 0.0089 0.0032
 Mercury -104249-03-12 12:42 J -36355453.12 -36355452.97 -36355452.82 0.0089 0.0027
 Mercury -104249-06-08 14:52 J -36355365.03 -36355364.88 -36355364.72 0.0089 0.0023
 Mercury -104249-09-04 17:02 J -36355276.94 -36355276.79 -36355276.63 0.0089 0.0018
 Mercury -104249-12-01 19:26 J -36355188.85 -36355188.69 -36355188.53 0.0089 0.0013
 Mercury -104248-02-27 21:35 J -36355100.75 -36355100.60 -36355100.43 0.0089 0.0009
 Mercury -104248-05-26 23:59 J -36355012.66 -36355012.50 -36355012.34 0.0089 0.0004

Mercury -104248-08-23 02:09 J -36354924.57 -36354924.41 -36354924.24 0.0089 0.0003

Mercury -104248-11-19 04:33 J -36354836.47 -36354836.31 -36354836.15 0.0089 0.0006

Mercury -104247-02-15 06:57 J -36354748.37 -36354748.21 -36354748.05 0.0089 0.0011

Mercury -104247-05-14 09:06 J -36354660.28 -36354660.12 -36354659.96 0.0089 0.0016

Mercury -104247-08-10 11:16 J -36354572.18 -36354572.03 -36354571.86 0.0089 0.0021

Mercury -104247-11-06 13:40 J -36354484.08 -36354483.93 -36354483.77 0.0089 0.0026

Mercury -104246-02-02 16:04 J -36354395.98 -36354395.83 -36354395.67 0.0089 0.0030

Mercury -104246-05-01 18:28 J -36354307.88 -36354307.73 -36354307.58 0.0089 0.0035

Mercury -104246-07-28 20:52 J -36354219.77 -36354219.63 -36354219.48 0.0089 0.0040

Mercury -104246-10-24 23:16 J -36354131.67 -36354131.53 -36354131.39 0.0089 0.0045

Mercury -104245-01-21 01:26 J -36354043.56 -36354043.44 -36354043.29 0.0089 0.0050

Mercury -104245-04-18 03:50 J -36353955.46 -36353955.34 -36353955.20 0.0089 0.0055

Mercury -104245-07-15 06:14 J -36353867.35 -36353867.24 -36353867.11 0.0089 0.0060

Mercury -104245-10-11 08:38 J -36353779.24 -36353779.14 -36353779.02 0.0089 0.0065

Mercury -104244-01-07 11:02 J -36353691.13 -36353691.04 -36353690.93 0.0089 0.0070

Mercury -104244-04-05 13:26 J -36353603.01 -36353602.94 -36353602.84 0.0089 0.0075

Mercury -104244-07-02 16:04 J -36353514.89 -36353514.83 -36353514.75 0.0089 0.0080

Mercury -104244-09-28 18:28 J -36353426.76 -36353426.73 -36353426.67 0.0089 0.0085

Jupiter -104238-12-21 02:52 J -36351152.68 -36351152.38 -36351151.96 0.0089 0.0069

Venus -104237-05-14 16:18 J -36351006.91 -36351006.82 -36351006.73 0.0089 0.0081

Venus -104237-12-26 05:16 J -36350781.40 -36350781.28 -36350781.15 0.0089 0.0073

Venus -104236-08-08 18:14 J -36350555.88 -36350555.74 -36350555.58 0.0089 0.0065

Venus -104235-03-22 07:26 J -36350330.35 -36350330.19 -36350330.01 0.0089 0.0057

Venus -104235-11-02 20:38 J -36350104.81 -36350104.64 -36350104.45 0.0089 0.0049

Venus -104234-06-16 09:50 J -36349879.28 -36349879.09 -36349878.89 0.0089 0.0041

Venus -104233-01-27 23:02 J -36349653.74 -36349653.54 -36349653.33 0.0089 0.0033

Venus -104233-09-09 12:28 J -36349428.19 -36349427.98 -36349427.76 0.0089 0.0024

Venus -104232-04-23 01:40 J -36349202.64 -36349202.43 -36349202.20 0.0089 0.0016

Venus -104232-12-04 15:06 J -36348977.09 -36348976.87 -36348976.65 0.0089 0.0008

Venus -104231-07-18 04:18 J -36348751.54 -36348751.32 -36348751.09 0.0089 0.0002

Venus	-104230-02-28 17:45 J	-36348525.98	-36348525.76	-36348525.54	0.0089	0.0009
Venus	-104230-10-12 07:11 J	-36348300.41	-36348300.20	-36348299.98	0.0089	0.0017
Venus	-104229-05-24 20:23 J	-36348074.85	-36348074.65	-36348074.42	0.0089	0.0026
Venus	-104228-01-05 09:50 J	-36347849.28	-36347849.09	-36347848.87	0.0089	0.0034
Venus	-104228-08-18 23:30 J	-36347623.71	-36347623.52	-36347623.32	0.0089	0.0042
Venus	-104227-04-01 12:42 J	-36347398.13	-36347397.97	-36347397.77	0.0089	0.0051
Venus	-104227-11-13 02:38 J	-36347172.54	-36347172.39	-36347172.21	0.0089	0.0059
Venus	-104226-06-26 16:18 J	-36346946.95	-36346946.82	-36346946.66	0.0089	0.0067
Venus	-104225-02-07 05:30 J	-36346721.36	-36346721.27	-36346721.12	0.0089	0.0076
Venus	-104225-09-19 19:26 J	-36346495.74	-36346495.69	-36346495.59	0.0089	0.0084
Earth	-104210-02-02 06:14 J	-36341247.39	-36341247.24	-36341247.03	0.0089	0.0066
Moon	-104210-02-02 10:04 J	-36341247.26	-36341247.08	-36341246.87	0.0089	0.0061 *
Moon	-104209-02-04 19:54 J	-36340879.91	-36340879.67	-36340879.43	0.0089	0.0035
Earth	-104209-02-04 22:47 J	-36340879.78	-36340879.55	-36340879.28	0.0089	0.0032 *
Earth	-104208-02-06 15:21 J	-36340512.13	-36340511.86	-36340511.59	0.0089	0.0003
Moon	-104208-02-06 17:45 J	-36340512.03	-36340511.76	-36340511.48	0.0089	0.0007 *
Moon	-104207-02-09 06:14 J	-36340144.47	-36340144.24	-36340143.99	0.0089	0.0034
Earth	-104207-02-09 07:26 J	-36340144.42	-36340144.19	-36340143.94	0.0089	0.0037 *
Earth	-104206-02-11 23:30 J	-36339776.66	-36339776.52	-36339776.34	0.0089	0.0071
Moon	-104206-02-11 23:59 J	-36339776.63	-36339776.50	-36339776.32	0.0089	0.0074 *
Mars	-104197-03-05 20:52 J	-36336466.84	-36336466.63	-36336466.38	0.0089	0.0056
Mars	-104195-01-28 21:50 J	-36335772.88	-36335772.59	-36335772.29	0.0089	0.0013
Mars	-104194-12-23 20:23 J	-36335078.91	-36335078.65	-36335078.35	0.0089	0.0031
Mars	-104192-11-16 18:57 J	-36334384.85	-36334384.71	-36334384.51	0.0089	0.0073
Mercury	-104170-05-04 15:21 J	-36326545.89	-36326545.86	-36326545.80	0.0088	0.0085
Mercury	-104170-07-31 17:45 J	-36326457.82	-36326457.76	-36326457.68	0.0088	0.0080
Mercury	-104170-10-27 19:54 J	-36326369.74	-36326369.67	-36326369.57	0.0088	0.0075
Mercury	-104169-01-23 22:18 J	-36326281.66	-36326281.57	-36326281.47	0.0088	0.0070
Mercury	-104169-04-21 00:14 J	-36326193.58	-36326193.49	-36326193.37	0.0088	0.0066
Mercury	-104169-07-18 02:38 J	-36326105.50	-36326105.39	-36326105.27	0.0088	0.0060

Mercury -104169-10-14 04:47 J -36326017.41 -36326017.30 -36326017.17 0.0088 0.0056

Mercury -104168-01-10 07:11 J -36325929.33 -36325929.20 -36325929.07 0.0088 0.0051

Mercury -104168-04-08 09:06 J -36325841.24 -36325841.12 -36325840.97 0.0088 0.0046

Mercury -104168-07-05 11:16 J -36325753.16 -36325753.03 -36325752.88 0.0088 0.0042

Mercury -104168-10-01 13:40 J -36325665.07 -36325664.93 -36325664.79 0.0088 0.0037

Mercury -104168-12-28 15:35 J -36325576.99 -36325576.85 -36325576.69 0.0088 0.0032

Mercury -104167-03-26 17:45 J -36325488.90 -36325488.76 -36325488.60 0.0088 0.0028

Mercury -104167-06-22 20:09 J -36325400.82 -36325400.66 -36325400.51 0.0088 0.0023

Mercury -104167-09-18 22:04 J -36325312.73 -36325312.58 -36325312.42 0.0088 0.0018

Mercury -104167-12-16 00:14 J -36325224.64 -36325224.49 -36325224.33 0.0088 0.0014

Mercury -104166-03-14 02:23 J -36325136.56 -36325136.40 -36325136.25 0.0088 0.0009

Mercury -104166-06-10 04:18 J -36325048.47 -36325048.32 -36325048.16 0.0088 0.0005

Mercury -104166-09-06 06:28 J -36324960.38 -36324960.23 -36324960.07 0.0088 0.0001

Mercury -104166-12-03 08:38 J -36324872.30 -36324872.14 -36324871.99 0.0088 0.0005

Mercury -104165-02-29 10:33 J -36324784.21 -36324784.06 -36324783.90 0.0088 0.0009

Mercury -104165-05-27 12:42 J -36324696.13 -36324695.97 -36324695.82 0.0088 0.0014

Mercury -104165-08-23 14:38 J -36324608.04 -36324607.89 -36324607.74 0.0088 0.0018

Mercury -104165-11-19 16:47 J -36324519.95 -36324519.80 -36324519.65 0.0088 0.0023

Mercury -104164-02-15 18:42 J -36324431.86 -36324431.72 -36324431.57 0.0088 0.0027

Mercury -104164-05-14 20:38 J -36324343.78 -36324343.64 -36324343.49 0.0088 0.0032

Mercury -104164-08-10 22:33 J -36324255.69 -36324255.56 -36324255.41 0.0088 0.0036

Mercury -104164-11-07 00:42 J -36324167.61 -36324167.47 -36324167.33 0.0088 0.0041

Mercury -104163-02-03 02:23 J -36324079.52 -36324079.40 -36324079.26 0.0088 0.0046

Mercury -104163-05-02 04:33 J -36323991.43 -36323991.31 -36323991.18 0.0088 0.0049

Mercury -104163-07-29 06:28 J -36323903.34 -36323903.23 -36323903.10 0.0088 0.0054

Mercury -104163-10-25 08:23 J -36323815.25 -36323815.15 -36323815.03 0.0088 0.0058

Mercury -104162-01-21 10:18 J -36323727.17 -36323727.07 -36323726.95 0.0088 0.0063

Mercury -104162-04-19 12:28 J -36323639.08 -36323638.98 -36323638.88 0.0088 0.0067

Mercury -104162-07-16 14:09 J -36323550.99 -36323550.91 -36323550.81 0.0088 0.0071

Mercury -104162-10-12 16:04 J -36323462.90 -36323462.83 -36323462.74 0.0088 0.0075

Mercury -104161-01-08 17:59 J -36323374.80 -36323374.75 -36323374.68 0.0088 0.0080

Mercury -104161-04-05 19:54 J -36323286.71 -36323286.67 -36323286.62 0.0088 0.0084

Mercury -104161-07-02 21:50 J -36323198.59 -36323198.59 -36323198.57 0.0088 0.0088

Venus -104156-11-22 02:52 J -36321230.38 -36321230.38 -36321230.35 0.0088 0.0088

Venus -104155-07-05 15:35 J -36321004.92 -36321004.85 -36321004.74 0.0088 0.0080

Venus -104154-02-16 04:18 J -36320779.42 -36320779.32 -36320779.17 0.0088 0.0073

Venus -104154-09-29 17:16 J -36320553.91 -36320553.78 -36320553.61 0.0088 0.0065

Venus -104153-05-12 06:14 J -36320328.39 -36320328.24 -36320328.06 0.0088 0.0056

Venus -104153-12-23 18:57 J -36320102.88 -36320102.71 -36320102.51 0.0088 0.0048

Venus -104152-08-06 07:40 J -36319877.36 -36319877.18 -36319876.97 0.0088 0.0040

Venus -104151-03-19 20:52 J -36319651.83 -36319651.63 -36319651.42 0.0088 0.0032

Venus -104151-10-31 09:35 J -36319426.31 -36319426.10 -36319425.89 0.0088 0.0024

Venus -104150-06-13 22:18 J -36319200.79 -36319200.57 -36319200.36 0.0088 0.0015

Venus -104149-01-25 10:47 J -36318975.26 -36318975.05 -36318974.83 0.0088 0.0008

Venus -104149-09-06 23:30 J -36318749.74 -36318749.52 -36318749.30 0.0088 0.0001

Venus -104148-04-20 11:59 J -36318524.21 -36318524.00 -36318523.77 0.0088 0.0010

Venus -104148-12-02 00:42 J -36318298.68 -36318298.47 -36318298.25 0.0088 0.0017

Venus -104147-07-15 13:11 J -36318073.15 -36318072.95 -36318072.73 0.0088 0.0025

Venus -104146-02-26 01:40 J -36317847.62 -36317847.43 -36317847.22 0.0088 0.0033

Venus -104146-10-09 13:54 J -36317622.09 -36317621.92 -36317621.71 0.0088 0.0042

Venus -104145-05-22 02:23 J -36317396.56 -36317396.40 -36317396.20 0.0088 0.0050

Venus -104144-01-02 14:38 J -36317171.03 -36317170.89 -36317170.70 0.0088 0.0058

Venus -104144-08-16 03:35 J -36316945.50 -36316945.35 -36316945.21 0.0088 0.0065

Venus -104143-03-29 15:50 J -36316719.96 -36316719.84 -36316719.71 0.0088 0.0073

Venus -104143-11-10 03:50 J -36316494.41 -36316494.34 -36316494.23 0.0088 0.0081

Venus -104142-06-23 16:18 J -36316268.82 -36316268.82 -36316268.80 0.0088 0.0088

Moon -104128-08-08 00:28 J -36311109.65 -36311109.48 -36311109.27 0.0088 0.0057

Earth -104128-08-08 04:18 J -36311109.49 -36311109.32 -36311109.13 0.0088 0.0061 *

Earth -104127-08-10 11:30 J -36310742.25 -36310742.02 -36310741.78 0.0088 0.0030

Moon -104127-08-10 14:52 J -36310742.11 -36310741.88 -36310741.64 0.0088 0.0034 *

Moon -104126-08-12 15:50 J -36310375.08 -36310374.84 -36310374.59 0.0088 0.0005
 Earth -104126-08-12 18:57 J -36310374.96 -36310374.71 -36310374.46 0.0088 0.0001 *
 Earth -104125-08-14 01:54 J -36310007.64 -36310007.42 -36310007.18 0.0088 0.0032
 Moon -104125-08-14 03:50 J -36310007.57 -36310007.34 -36310007.08 0.0088 0.0029 *
 Moon -104124-08-16 08:23 J -36309640.29 -36309640.15 -36309639.98 0.0088 0.0067
 Earth -104124-08-16 08:38 J -36309640.29 -36309640.14 -36309639.94 0.0088 0.0064 *
 Mars -104116-12-03 10:33 J -36306609.14 -36306609.06 -36306608.96 0.0088 0.0085
 Mars -104114-10-30 04:47 J -36305913.58 -36305913.30 -36305912.97 0.0088 0.0038
 Mars -104112-09-25 01:40 J -36305217.76 -36305217.43 -36305217.09 0.0089 0.0012
 Mars -104110-08-21 23:30 J -36304521.74 -36304521.52 -36304521.25 0.0089 0.0061
 Mercury -104088-10-19 06:28 J -36296427.26 -36296427.23 -36296427.18 0.0089 0.0086
 Mercury -104087-01-15 08:23 J -36296339.19 -36296339.15 -36296339.07 0.0089 0.0082
 Mercury -104087-04-13 10:47 J -36296251.12 -36296251.05 -36296250.97 0.0089 0.0077
 Mercury -104087-07-10 12:42 J -36296163.05 -36296162.97 -36296162.87 0.0089 0.0073
 Mercury -104087-10-06 15:06 J -36296074.97 -36296074.87 -36296074.77 0.0089 0.0068
 Mercury -104086-01-02 17:02 J -36295986.89 -36295986.79 -36295986.67 0.0089 0.0064
 Mercury -104086-03-31 19:26 J -36295898.81 -36295898.69 -36295898.58 0.0089 0.0059
 Mercury -104086-06-27 21:21 J -36295810.73 -36295810.61 -36295810.48 0.0089 0.0055
 Mercury -104086-09-23 23:30 J -36295722.64 -36295722.52 -36295722.38 0.0089 0.0050
 Mercury -104086-12-21 01:40 J -36295634.56 -36295634.43 -36295634.29 0.0089 0.0046
 Mercury -104085-03-18 03:50 J -36295546.47 -36295546.34 -36295546.19 0.0089 0.0041
 Mercury -104085-06-14 06:14 J -36295458.38 -36295458.24 -36295458.09 0.0089 0.0036
 Mercury -104085-09-10 08:23 J -36295370.29 -36295370.15 -36295370.00 0.0089 0.0032
 Mercury -104085-12-07 10:33 J -36295282.21 -36295282.06 -36295281.90 0.0089 0.0027
 Mercury -104084-03-05 12:57 J -36295194.12 -36295193.96 -36295193.81 0.0089 0.0022
 Mercury -104084-06-01 15:06 J -36295106.03 -36295105.87 -36295105.71 0.0089 0.0017
 Mercury -104084-08-28 17:16 J -36295017.93 -36295017.78 -36295017.62 0.0089 0.0013
 Mercury -104084-11-24 19:40 J -36294929.84 -36294929.68 -36294929.52 0.0089 0.0008
 Mercury -104083-02-20 21:50 J -36294841.75 -36294841.59 -36294841.43 0.0089 0.0004
 Mercury -104083-05-20 00:14 J -36294753.65 -36294753.49 -36294753.33 0.0089 0.0002

Mercury -104083-08-16 02:23 J -36294665.56 -36294665.40 -36294665.24 0.0089 0.0007

Mercury -104083-11-12 04:47 J -36294577.46 -36294577.30 -36294577.14 0.0089 0.0011

Mercury -104082-02-08 07:11 J -36294489.36 -36294489.20 -36294489.04 0.0089 0.0016

Mercury -104082-05-07 09:21 J -36294401.26 -36294401.11 -36294400.95 0.0089 0.0021

Mercury -104082-08-03 11:30 J -36294313.17 -36294313.02 -36294312.85 0.0089 0.0026

Mercury -104082-10-30 13:54 J -36294225.06 -36294224.92 -36294224.76 0.0089 0.0031

Mercury -104081-01-26 16:18 J -36294136.96 -36294136.82 -36294136.67 0.0089 0.0036

Mercury -104081-04-23 18:28 J -36294048.86 -36294048.73 -36294048.57 0.0089 0.0041

Mercury -104081-07-20 20:52 J -36293960.76 -36293960.63 -36293960.48 0.0089 0.0046

Mercury -104081-10-16 23:16 J -36293872.65 -36293872.53 -36293872.38 0.0089 0.0051

Mercury -104080-01-13 01:54 J -36293784.54 -36293784.42 -36293784.29 0.0089 0.0055

Mercury -104080-04-11 04:18 J -36293696.44 -36293696.32 -36293696.20 0.0089 0.0060

Mercury -104080-07-08 06:42 J -36293608.33 -36293608.22 -36293608.11 0.0089 0.0065

Mercury -104080-10-04 09:06 J -36293520.21 -36293520.12 -36293520.02 0.0089 0.0070

Mercury -104080-12-31 11:30 J -36293432.10 -36293432.02 -36293431.93 0.0089 0.0075

Mercury -104079-03-29 14:09 J -36293343.98 -36293343.91 -36293343.84 0.0089 0.0080

Mercury -104079-06-25 16:33 J -36293255.85 -36293255.81 -36293255.76 0.0089 0.0085

Venus -104073-08-15 23:16 J -36291012.57 -36291012.53 -36291012.43 0.0089 0.0084

Venus -104072-03-29 12:28 J -36290787.07 -36290786.98 -36290786.84 0.0089 0.0076

Venus -104072-11-10 02:09 J -36290561.55 -36290561.41 -36290561.26 0.0089 0.0067

Venus -104071-06-23 15:06 J -36290336.02 -36290335.87 -36290335.70 0.0089 0.0059

Venus -104070-02-04 04:18 J -36290110.49 -36290110.32 -36290110.13 0.0089 0.0051

Venus -104070-09-17 17:30 J -36289884.95 -36289884.77 -36289884.56 0.0089 0.0043

Venus -104069-04-30 06:57 J -36289659.41 -36289659.21 -36289659.00 0.0089 0.0034

Venus -104069-12-11 20:09 J -36289433.87 -36289433.66 -36289433.44 0.0089 0.0026

Venus -104068-07-25 09:21 J -36289208.32 -36289208.11 -36289207.89 0.0089 0.0018

Venus -104067-03-07 22:47 J -36288982.77 -36288982.55 -36288982.33 0.0089 0.0009

Venus -104067-10-19 12:14 J -36288757.21 -36288756.99 -36288756.76 0.0089 0.0002

Venus -104066-06-02 01:40 J -36288531.65 -36288531.43 -36288531.21 0.0089 0.0007

Venus -104065-01-13 14:52 J -36288306.09 -36288305.88 -36288305.66 0.0089 0.0016

Venus -104065-08-26 04:18 J -36288080.53 -36288080.32 -36288080.11 0.0089 0.0024
 Venus -104064-04-08 17:30 J -36287854.97 -36287854.77 -36287854.55 0.0089 0.0033
 Venus -104064-11-20 06:57 J -36287629.39 -36287629.21 -36287629.00 0.0089 0.0041
 Venus -104063-07-03 20:38 J -36287403.82 -36287403.64 -36287403.45 0.0089 0.0049
 Venus -104062-02-14 09:50 J -36287178.24 -36287178.09 -36287177.90 0.0089 0.0058
 Venus -104062-09-27 23:30 J -36286952.65 -36286952.52 -36286952.36 0.0089 0.0066
 Venus -104061-05-10 12:57 J -36286727.06 -36286726.96 -36286726.82 0.0089 0.0075
 Venus -104061-12-22 02:38 J -36286501.45 -36286501.39 -36286501.29 0.0089 0.0083
 Moon -104046-02-01 04:18 J -36281347.36 -36281347.32 -36281347.23 0.0089 0.0086
 Earth -104046-02-01 06:28 J -36281347.28 -36281347.23 -36281347.12 0.0089 0.0085 *
 Earth -104045-02-03 22:47 J -36280979.75 -36280979.55 -36280979.31 0.0089 0.0051
 Moon -104045-02-04 00:14 J -36280979.71 -36280979.49 -36280979.25 0.0089 0.0049 *
 Moon -104044-02-05 14:52 J -36280612.12 -36280611.88 -36280611.61 0.0089 0.0019
 Earth -104044-02-05 15:35 J -36280612.11 -36280611.85 -36280611.58 0.0089 0.0016 *
 Moon -104043-02-08 06:28 J -36280244.49 -36280244.23 -36280243.95 0.0089 0.0020
 Earth -104043-02-08 07:40 J -36280244.43 -36280244.18 -36280243.91 0.0089 0.0018 *
 Earth -104042-02-10 23:59 J -36279876.71 -36279876.50 -36279876.28 0.0089 0.0052
 Moon -104042-02-11 01:54 J -36279876.62 -36279876.42 -36279876.20 0.0089 0.0050 *
 Earth -104041-02-13 16:18 J -36279508.87 -36279508.82 -36279508.75 0.0089 0.0086
 Mars -104034-10-19 20:38 J -36276703.78 -36276703.64 -36276703.49 0.0089 0.0077
 Mars -104032-09-12 21:50 J -36276009.84 -36276009.59 -36276009.29 0.0089 0.0034
 Mars -104030-08-07 22:33 J -36275315.86 -36275315.56 -36275315.27 0.0089 0.0010
 Mars -104028-07-01 19:54 J -36274621.88 -36274621.67 -36274621.41 0.0089 0.0054
 Mercury -104005-01-29 13:40 J -36266374.97 -36266374.93 -36266374.88 0.0088 0.0084
 Mercury -104005-04-26 16:04 J -36266286.90 -36266286.83 -36266286.76 0.0088 0.0079
 Mercury -104005-07-23 17:59 J -36266198.82 -36266198.75 -36266198.65 0.0088 0.0074
 Mercury -104005-10-19 20:09 J -36266110.74 -36266110.66 -36266110.54 0.0088 0.0070
 Mercury -104004-01-15 22:33 J -36266022.66 -36266022.56 -36266022.44 0.0088 0.0065
 Mercury -104004-04-14 00:57 J -36265934.57 -36265934.46 -36265934.34 0.0088 0.0060
 Mercury -104004-07-11 02:52 J -36265846.49 -36265846.38 -36265846.24 0.0088 0.0056

Mercury -104004-10-07 05:16 J -36265758.40 -36265758.28 -36265758.14 0.0088 0.0050

Mercury -104003-01-03 07:26 J -36265670.32 -36265670.19 -36265670.05 0.0088 0.0046

Mercury -104003-04-01 09:50 J -36265582.23 -36265582.09 -36265581.95 0.0088 0.0041

Mercury -104003-06-28 11:45 J -36265494.15 -36265494.01 -36265493.86 0.0088 0.0036

Mercury -104003-09-24 13:54 J -36265406.06 -36265405.92 -36265405.77 0.0088 0.0032

Mercury -104003-12-21 16:18 J -36265317.97 -36265317.82 -36265317.67 0.0088 0.0027

Mercury -104002-03-19 18:14 J -36265229.89 -36265229.74 -36265229.58 0.0088 0.0022

Mercury -104002-06-15 20:23 J -36265141.80 -36265141.65 -36265141.49 0.0088 0.0018

Mercury -104002-09-11 22:33 J -36265053.71 -36265053.56 -36265053.40 0.0088 0.0013

Mercury -104002-12-09 00:42 J -36264965.63 -36264965.47 -36264965.32 0.0088 0.0008

Mercury -104001-03-06 02:38 J -36264877.54 -36264877.39 -36264877.23 0.0088 0.0005

Mercury -104001-06-02 04:47 J -36264789.45 -36264789.30 -36264789.14 0.0088 0.0001

Mercury -104001-08-29 06:57 J -36264701.37 -36264701.21 -36264701.06 0.0088 0.0006

Mercury -104001-11-25 08:52 J -36264613.28 -36264613.13 -36264612.97 0.0088 0.0010

104TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 104th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-104000-02-21 11:02 J	-36264525.19	-36264525.04	-36264524.89	0.0088	0.0014		
Mercury	-104000-05-20 12:57 J	-36264437.11	-36264436.96	-36264436.80	0.0088	0.0019		

Mercury -104000-08-16 15:06 J -36264349.02 -36264348.87 -36264348.72 0.0088 0.0023

Mercury -104000-11-12 16:47 J -36264260.93 -36264260.80 -36264260.64 0.0088 0.0029

Mercury -103999-02-08 18:57 J -36264172.85 -36264172.71 -36264172.56 0.0088 0.0033

Mercury -103999-05-07 21:06 J -36264084.76 -36264084.62 -36264084.48 0.0088 0.0037

Mercury -103999-08-03 23:02 J -36263996.67 -36263996.54 -36263996.40 0.0088 0.0041

Mercury -103999-10-31 00:57 J -36263908.58 -36263908.46 -36263908.32 0.0088 0.0046

Mercury -103998-01-27 02:52 J -36263820.50 -36263820.38 -36263820.25 0.0088 0.0050

Mercury -103998-04-25 04:47 J -36263732.41 -36263732.30 -36263732.17 0.0088 0.0055

Mercury -103998-07-22 06:57 J -36263644.32 -36263644.21 -36263644.09 0.0088 0.0059

Mercury -103998-10-18 08:38 J -36263556.23 -36263556.14 -36263556.02 0.0088 0.0063

Mercury -103997-01-14 10:33 J -36263468.14 -36263468.06 -36263467.95 0.0088 0.0068

Mercury -103997-04-11 12:42 J -36263380.05 -36263379.97 -36263379.88 0.0088 0.0072

Mercury -103997-07-08 14:23 J -36263291.96 -36263291.90 -36263291.81 0.0088 0.0076

Mercury -103997-10-04 16:18 J -36263203.87 -36263203.82 -36263203.74 0.0088 0.0081

Mercury -103997-12-31 18:14 J -36263115.77 -36263115.74 -36263115.68 0.0088 0.0085

Venus -103991-10-06 23:16 J -36261010.59 -36261010.53 -36261010.43 0.0088 0.0083

Venus -103990-05-20 12:14 J -36260785.09 -36260784.99 -36260784.85 0.0088 0.0074

Venus -103989-01-01 00:57 J -36260559.58 -36260559.46 -36260559.29 0.0088 0.0066

Venus -103989-08-13 13:40 J -36260334.07 -36260333.93 -36260333.74 0.0088 0.0059

Venus -103988-03-27 03:06 J -36260108.55 -36260108.37 -36260108.19 0.0088 0.0050

Venus -103988-11-07 15:50 J -36259883.03 -36259882.84 -36259882.64 0.0088 0.0042

Venus -103987-06-21 04:33 J -36259657.51 -36259657.31 -36259657.11 0.0088 0.0034

Venus -103986-02-01 17:02 J -36259431.99 -36259431.79 -36259431.57 0.0088 0.0026

Venus -103986-09-15 05:45 J -36259206.47 -36259206.26 -36259206.04 0.0088 0.0017

Venus -103985-04-27 18:28 J -36258980.94 -36258980.73 -36258980.51 0.0088 0.0009

Venus -103985-12-09 07:11 J -36258755.42 -36258755.20 -36258754.98 0.0088 0.0001

Venus -103984-07-22 19:40 J -36258529.89 -36258529.68 -36258529.46 0.0088 0.0007

Venus -103983-03-05 08:23 J -36258304.37 -36258304.15 -36258303.94 0.0088 0.0015

Venus -103983-10-16 20:52 J -36258078.84 -36258078.63 -36258078.42 0.0088 0.0023

Venus -103982-05-30 09:21 J -36257853.31 -36257853.11 -36257852.90 0.0088 0.0032

Venus	-103981-01-10 21:50 J	-36257627.78	-36257627.59	-36257627.39	0.0088	0.0040
Venus	-103981-08-23 10:18 J	-36257402.25	-36257402.07	-36257401.88	0.0088	0.0048
Venus	-103980-04-05 23:02 J	-36257176.71	-36257176.54	-36257176.37	0.0088	0.0056
Venus	-103980-11-17 11:30 J	-36256951.17	-36256951.02	-36256950.87	0.0088	0.0064
Venus	-103979-06-30 23:45 J	-36256725.63	-36256725.51	-36256725.38	0.0088	0.0072
Venus	-103978-02-11 11:45 J	-36256500.08	-36256500.01	-36256499.90	0.0088	0.0080
Venus	-103978-09-24 23:59 J	-36256274.51	-36256274.50	-36256274.45	0.0088	0.0088
Earth	-103964-08-07 12:42 J	-36251209.08	-36251208.97	-36251208.85	0.0088	0.0078
Moon	-103964-08-07 15:50 J	-36251208.92	-36251208.84	-36251208.72	0.0088	0.0081 *
Moon	-103963-08-09 17:30 J	-36250841.96	-36250841.77	-36250841.54	0.0088	0.0046
Earth	-103963-08-09 19:40 J	-36250841.86	-36250841.68	-36250841.44	0.0088	0.0048 *
Earth	-103962-08-12 03:21 J	-36250474.59	-36250474.36	-36250474.11	0.0088	0.0016
Moon	-103962-08-12 05:02 J	-36250474.54	-36250474.29	-36250474.04	0.0088	0.0018 *
Moon	-103961-08-13 10:04 J	-36250107.30	-36250107.08	-36250106.83	0.0088	0.0018
Earth	-103961-08-13 10:47 J	-36250107.30	-36250107.05	-36250106.81	0.0088	0.0015 *
Moon	-103960-08-15 16:04 J	-36249740.03	-36249739.83	-36249739.59	0.0088	0.0045
Earth	-103960-08-15 17:45 J	-36249739.96	-36249739.76	-36249739.54	0.0088	0.0046 *
Earth	-103959-08-18 00:42 J	-36249372.58	-36249372.47	-36249372.33	0.0088	0.0077
Moon	-103959-08-18 02:52 J	-36249372.47	-36249372.38	-36249372.24	0.0088	0.0078 *
Mars	-103950-06-12 13:11 J	-36246152.17	-36246151.95	-36246151.69	0.0089	0.0061
Mars	-103948-05-08 08:23 J	-36245456.48	-36245456.15	-36245455.82	0.0089	0.0012
Mars	-103946-04-04 04:33 J	-36244760.59	-36244760.31	-36244759.98	0.0089	0.0038
Mars	-103944-02-28 03:35 J	-36244064.40	-36244064.35	-36244064.28	0.0089	0.0087
Mercury	-103923-07-16 04:47 J	-36236256.33	-36236256.30	-36236256.25	0.0089	0.0085
Mercury	-103923-10-12 06:42 J	-36236168.27	-36236168.22	-36236168.14	0.0089	0.0081
Mercury	-103922-01-08 08:52 J	-36236080.19	-36236080.13	-36236080.04	0.0089	0.0077
Mercury	-103922-04-06 11:02 J	-36235992.12	-36235992.04	-36235991.94	0.0089	0.0072
Mercury	-103922-07-03 12:57 J	-36235904.04	-36235903.96	-36235903.84	0.0089	0.0068
Mercury	-103922-09-29 15:21 J	-36235815.96	-36235815.86	-36235815.75	0.0089	0.0063
Mercury	-103922-12-26 17:16 J	-36235727.88	-36235727.78	-36235727.65	0.0089	0.0059

Mercury -103921-03-23 19:40 J -36235639.80 -36235639.68 -36235639.55 0.0089 0.0054
 Mercury -103921-06-19 21:35 J -36235551.72 -36235551.60 -36235551.46 0.0089 0.0050
 Mercury -103921-09-15 23:45 J -36235463.63 -36235463.51 -36235463.36 0.0089 0.0045
 Mercury -103921-12-13 02:09 J -36235375.55 -36235375.41 -36235375.27 0.0089 0.0040
 Mercury -103920-03-11 04:18 J -36235287.46 -36235287.32 -36235287.17 0.0089 0.0036
 Mercury -103920-06-07 06:28 J -36235199.37 -36235199.23 -36235199.08 0.0089 0.0031
 Mercury -103920-09-03 08:52 J -36235111.28 -36235111.13 -36235110.98 0.0089 0.0026
 Mercury -103920-11-30 10:47 J -36235023.19 -36235023.05 -36235022.89 0.0089 0.0022
 Mercury -103919-02-26 13:11 J -36234935.10 -36234934.95 -36234934.79 0.0089 0.0017
 Mercury -103919-05-25 15:35 J -36234847.01 -36234846.85 -36234846.70 0.0089 0.0012
 Mercury -103919-08-21 17:45 J -36234758.92 -36234758.76 -36234758.60 0.0089 0.0007
 Mercury -103919-11-17 19:54 J -36234670.83 -36234670.67 -36234670.51 0.0089 0.0003
 Mercury -103918-02-13 22:18 J -36234582.73 -36234582.57 -36234582.41 0.0089 0.0002
 Mercury -103918-05-13 00:28 J -36234494.64 -36234494.48 -36234494.32 0.0089 0.0007
 Mercury -103918-08-09 02:52 J -36234406.54 -36234406.38 -36234406.22 0.0089 0.0012
 Mercury -103918-11-05 05:02 J -36234318.44 -36234318.29 -36234318.13 0.0089 0.0017
 Mercury -103917-02-01 07:11 J -36234230.35 -36234230.20 -36234230.03 0.0089 0.0022
 Mercury -103917-04-29 09:50 J -36234142.25 -36234142.09 -36234141.94 0.0089 0.0026
 Mercury -103917-07-26 11:59 J -36234054.15 -36234054.00 -36234053.84 0.0089 0.0031
 Mercury -103917-10-22 14:23 J -36233966.04 -36233965.90 -36233965.75 0.0089 0.0036
 Mercury -103916-01-18 16:47 J -36233877.94 -36233877.80 -36233877.65 0.0089 0.0041
 Mercury -103916-04-16 18:57 J -36233789.84 -36233789.71 -36233789.56 0.0089 0.0046
 Mercury -103916-07-13 21:21 J -36233701.73 -36233701.61 -36233701.47 0.0089 0.0051
 Mercury -103916-10-09 23:45 J -36233613.63 -36233613.51 -36233613.37 0.0089 0.0056
 Mercury -103915-01-06 02:09 J -36233525.52 -36233525.41 -36233525.28 0.0089 0.0061
 Mercury -103915-04-04 04:33 J -36233437.41 -36233437.31 -36233437.19 0.0089 0.0066
 Mercury -103915-07-01 06:57 J -36233349.30 -36233349.21 -36233349.10 0.0089 0.0071
 Mercury -103915-09-27 09:21 J -36233261.18 -36233261.11 -36233261.01 0.0089 0.0076
 Mercury -103915-12-24 11:45 J -36233173.06 -36233173.01 -36233172.93 0.0089 0.0081
 Mercury -103914-03-22 14:09 J -36233084.93 -36233084.91 -36233084.85 0.0089 0.0086

Venus	-103909-11-17 07:11 J	-36231018.23	-36231018.20	-36231018.12	0.0089	0.0086
Venus	-103908-06-30 20:09 J	-36230792.74	-36230792.66	-36230792.53	0.0089	0.0078
Venus	-103907-02-11 09:21 J	-36230567.22	-36230567.11	-36230566.95	0.0089	0.0070
Venus	-103907-09-24 23:02 J	-36230341.69	-36230341.54	-36230341.38	0.0089	0.0061
Venus	-103906-05-08 11:59 J	-36230116.16	-36230116.00	-36230115.81	0.0089	0.0053
Venus	-103906-12-20 00:57 J	-36229890.63	-36229890.46	-36229890.25	0.0089	0.0045
Venus	-103905-08-01 14:38 J	-36229665.09	-36229664.89	-36229664.69	0.0089	0.0036
Venus	-103904-03-15 03:35 J	-36229439.55	-36229439.35	-36229439.13	0.0089	0.0028
Venus	-103904-10-26 17:02 J	-36229213.99	-36229213.79	-36229213.56	0.0089	0.0020
Venus	-103903-06-09 06:28 J	-36228988.44	-36228988.23	-36228988.01	0.0089	0.0011
Venus	-103902-01-20 19:54 J	-36228762.89	-36228762.67	-36228762.45	0.0089	0.0003
Venus	-103902-09-03 09:21 J	-36228537.33	-36228537.11	-36228536.89	0.0089	0.0006
Venus	-103901-04-15 22:33 J	-36228311.77	-36228311.56	-36228311.34	0.0089	0.0014
Venus	-103901-11-27 11:59 J	-36228086.21	-36228086.00	-36228085.78	0.0089	0.0023
Venus	-103900-07-11 01:26 J	-36227860.65	-36227860.44	-36227860.23	0.0089	0.0031
Venus	-103899-02-21 14:38 J	-36227635.08	-36227634.89	-36227634.68	0.0089	0.0040
Venus	-103899-10-05 04:18 J	-36227409.50	-36227409.32	-36227409.12	0.0089	0.0048
Venus	-103898-05-18 17:30 J	-36227183.92	-36227183.77	-36227183.58	0.0089	0.0057
Venus	-103898-12-30 07:11 J	-36226958.34	-36226958.20	-36226958.04	0.0089	0.0065
Venus	-103897-08-11 21:06 J	-36226732.75	-36226732.62	-36226732.50	0.0089	0.0073
Venus	-103896-03-25 10:04 J	-36226507.14	-36226507.08	-36226506.97	0.0089	0.0082
Earth	-103881-02-02 23:59 J	-36221079.65	-36221079.50	-36221079.32	0.0089	0.0069
Moon	-103881-02-03 01:11 J	-36221079.61	-36221079.45	-36221079.25	0.0089	0.0065 *
Moon	-103880-02-04 14:09 J	-36220712.15	-36220711.91	-36220711.65	0.0089	0.0039
Earth	-103880-02-04 16:04 J	-36220712.06	-36220711.83	-36220711.57	0.0089	0.0035 *
Earth	-103879-02-07 08:23 J	-36220344.42	-36220344.15	-36220343.88	0.0089	0.0001
Moon	-103879-02-07 11:16 J	-36220344.29	-36220344.03	-36220343.77	0.0089	0.0004 *
Moon	-103878-02-09 20:52 J	-36219976.87	-36219976.63	-36219976.36	0.0089	0.0029
Earth	-103878-02-10 00:28 J	-36219976.71	-36219976.48	-36219976.21	0.0089	0.0034 *
Earth	-103877-02-12 16:33 J	-36219608.96	-36219608.81	-36219608.61	0.0089	0.0068

Moon -103877-02-12 20:09 J -36219608.79 -36219608.66 -36219608.48 0.0089 0.0072 *
 Mars -103868-04-27 21:35 J -36216246.80 -36216246.60 -36216246.33 0.0089 0.0055
 Mars -103866-03-22 23:30 J -36215552.81 -36215552.52 -36215552.21 0.0089 0.0011
 Mars -103864-02-14 00:14 J -36214858.75 -36214858.49 -36214858.20 0.0089 0.0034
 Mars -103862-01-08 22:47 J -36214164.69 -36214164.55 -36214164.40 0.0089 0.0077
 Mercury -103841-07-29 09:35 J -36206292.11 -36206292.10 -36206292.08 0.0088 0.0088
 Mercury -103841-10-25 11:30 J -36206204.05 -36206204.02 -36206203.94 0.0088 0.0084
 Mercury -103840-01-21 13:54 J -36206115.97 -36206115.92 -36206115.83 0.0088 0.0079
 Mercury -103840-04-19 16:18 J -36206027.90 -36206027.82 -36206027.72 0.0088 0.0074
 Mercury -103840-07-16 18:42 J -36205939.81 -36205939.72 -36205939.61 0.0088 0.0069
 Mercury -103840-10-12 21:06 J -36205851.73 -36205851.62 -36205851.51 0.0088 0.0064
 Mercury -103839-01-08 23:02 J -36205763.65 -36205763.54 -36205763.41 0.0088 0.0059
 Mercury -103839-04-07 01:11 J -36205675.56 -36205675.45 -36205675.31 0.0088 0.0055
 Mercury -103839-07-04 03:35 J -36205587.47 -36205587.35 -36205587.21 0.0088 0.0050
 Mercury -103839-09-30 05:59 J -36205499.39 -36205499.25 -36205499.12 0.0088 0.0045
 Mercury -103839-12-27 07:54 J -36205411.30 -36205411.17 -36205411.02 0.0088 0.0040
 Mercury -103838-03-25 10:04 J -36205323.22 -36205323.08 -36205322.93 0.0088 0.0036
 Mercury -103838-06-21 12:28 J -36205235.13 -36205234.98 -36205234.83 0.0088 0.0031
 Mercury -103838-09-17 14:23 J -36205147.04 -36205146.90 -36205146.74 0.0088 0.0026
 Mercury -103838-12-14 16:33 J -36205058.95 -36205058.81 -36205058.65 0.0088 0.0022
 Mercury -103837-03-11 18:57 J -36204970.87 -36204970.71 -36204970.56 0.0088 0.0017
 Mercury -103837-06-07 20:52 J -36204882.78 -36204882.63 -36204882.47 0.0088 0.0012
 Mercury -103837-09-03 23:02 J -36204794.69 -36204794.54 -36204794.38 0.0088 0.0008
 Mercury -103837-12-01 01:11 J -36204706.61 -36204706.45 -36204706.29 0.0088 0.0003
 Mercury -103836-02-27 03:21 J -36204618.52 -36204618.36 -36204618.21 0.0088 0.0002
 Mercury -103836-05-26 05:16 J -36204530.43 -36204530.28 -36204530.12 0.0088 0.0007
 Mercury -103836-08-22 07:26 J -36204442.34 -36204442.19 -36204442.04 0.0088 0.0011
 Mercury -103836-11-18 09:21 J -36204354.26 -36204354.11 -36204353.95 0.0088 0.0016
 Mercury -103835-02-14 11:16 J -36204266.17 -36204266.03 -36204265.87 0.0088 0.0021
 Mercury -103835-05-13 13:26 J -36204178.08 -36204177.94 -36204177.79 0.0088 0.0025

Mercury -103835-08-09 15:35 J -36204090.00 -36204089.85 -36204089.70 0.0088 0.0029

Mercury -103835-11-05 17:30 J -36204001.91 -36204001.77 -36204001.62 0.0088 0.0033

Mercury -103834-02-01 19:40 J -36203913.82 -36203913.68 -36203913.54 0.0088 0.0038

Mercury -103834-04-30 21:21 J -36203825.73 -36203825.61 -36203825.46 0.0088 0.0043

Mercury -103834-07-27 23:30 J -36203737.65 -36203737.52 -36203737.39 0.0088 0.0047

Mercury -103834-10-24 01:11 J -36203649.56 -36203649.45 -36203649.31 0.0088 0.0052

Mercury -103833-01-20 03:21 J -36203561.47 -36203561.36 -36203561.23 0.0088 0.0055

Mercury -103833-04-17 05:16 J -36203473.38 -36203473.28 -36203473.16 0.0088 0.0060

Mercury -103833-07-14 07:11 J -36203385.29 -36203385.20 -36203385.08 0.0088 0.0064

Mercury -103833-10-10 09:06 J -36203297.20 -36203297.12 -36203297.01 0.0088 0.0069

Mercury -103832-01-06 11:16 J -36203209.11 -36203209.03 -36203208.94 0.0088 0.0072

Mercury -103832-04-04 13:11 J -36203121.02 -36203120.95 -36203120.87 0.0088 0.0077

Mercury -103832-07-01 14:52 J -36203032.92 -36203032.88 -36203032.81 0.0088 0.0081

Mercury -103832-09-27 16:47 J -36202944.82 -36202944.80 -36202944.75 0.0088 0.0086

Venus -103826-01-08 07:26 J -36201016.23 -36201016.19 -36201016.11 0.0088 0.0084

Venus -103826-08-21 20:23 J -36200790.74 -36200790.65 -36200790.52 0.0088 0.0076

Venus -103825-04-03 09:21 J -36200565.23 -36200565.11 -36200564.95 0.0088 0.0068

Venus -103825-11-14 22:47 J -36200339.71 -36200339.55 -36200339.39 0.0088 0.0060

Venus -103824-06-28 11:16 J -36200114.20 -36200114.03 -36200113.84 0.0088 0.0052

Venus -103823-02-08 23:59 J -36199888.68 -36199888.50 -36199888.30 0.0088 0.0044

Venus -103823-09-22 12:42 J -36199663.16 -36199662.97 -36199662.76 0.0088 0.0036

Venus -103822-05-06 01:26 J -36199437.63 -36199437.44 -36199437.22 0.0088 0.0028

Venus -103822-12-17 14:09 J -36199212.11 -36199211.91 -36199211.68 0.0088 0.0019

Venus -103821-07-30 03:06 J -36198986.59 -36198986.37 -36198986.15 0.0088 0.0011

Venus -103820-03-12 15:50 J -36198761.06 -36198760.84 -36198760.62 0.0088 0.0002

Venus -103820-10-24 04:18 J -36198535.53 -36198535.32 -36198535.10 0.0088 0.0006

Venus -103819-06-06 16:47 J -36198310.01 -36198309.80 -36198309.58 0.0088 0.0014

Venus -103818-01-18 05:16 J -36198084.48 -36198084.28 -36198084.06 0.0088 0.0023

Venus -103818-08-31 17:45 J -36197858.95 -36197858.76 -36197858.54 0.0088 0.0031

Venus -103817-04-13 06:28 J -36197633.42 -36197633.23 -36197633.03 0.0088 0.0039

Venus -103817-11-24 19:11 J -36197407.88 -36197407.70 -36197407.52 0.0088 0.0047
 Venus -103816-07-08 07:40 J -36197182.35 -36197182.18 -36197182.01 0.0088 0.0055
 Venus -103815-02-18 19:54 J -36196956.82 -36196956.67 -36196956.51 0.0088 0.0063
 Venus -103815-10-02 08:23 J -36196731.28 -36196731.15 -36196731.02 0.0088 0.0071
 Venus -103814-05-15 20:52 J -36196505.72 -36196505.63 -36196505.53 0.0088 0.0079
 Venus -103814-12-27 09:06 J -36196280.15 -36196280.12 -36196280.07 0.0088 0.0087
 Earth -103799-08-09 04:33 J -36190941.45 -36190941.31 -36190941.11 0.0088 0.0065
 Moon -103799-08-09 05:59 J -36190941.43 -36190941.25 -36190941.05 0.0088 0.0060 *
 Earth -103798-08-11 11:59 J -36190574.21 -36190574.00 -36190573.75 0.0088 0.0034
 Moon -103798-08-11 12:57 J -36190574.17 -36190573.96 -36190573.73 0.0088 0.0037 *
 Moon -103797-08-12 17:59 J -36190207.00 -36190206.75 -36190206.49 0.0088 0.0002
 Earth -103797-08-12 19:40 J -36190206.92 -36190206.68 -36190206.43 0.0088 0.0003 *
 Earth -103796-08-15 02:38 J -36189839.61 -36189839.39 -36189839.14 0.0088 0.0029
 Moon -103796-08-15 05:30 J -36189839.50 -36189839.27 -36189839.03 0.0088 0.0025 *
 Moon -103795-08-17 06:14 J -36189472.39 -36189472.24 -36189472.05 0.0088 0.0065
 Earth -103795-08-17 09:50 J -36189472.26 -36189472.09 -36189471.89 0.0088 0.0060 *
 Moon -103794-08-19 20:09 J -36189104.69 -36189104.66 -36189104.59 0.0088 0.0087
 Mars -103786-01-24 00:42 J -36186390.53 -36186390.47 -36186390.34 0.0088 0.0085
 Mars -103785-12-19 18:57 J -36185694.99 -36185694.71 -36185694.38 0.0089 0.0036
 Mars -103783-11-15 14:38 J -36184999.21 -36184998.89 -36184998.55 0.0089 0.0015
 Mars -103781-10-11 11:02 J -36184303.24 -36184303.04 -36184302.78 0.0089 0.0065
 Mercury -103758-01-14 01:11 J -36176173.45 -36176173.45 -36176173.44 0.0089 0.0089
 Mercury -103758-04-12 03:21 J -36176085.40 -36176085.36 -36176085.31 0.0089 0.0084
 Mercury -103758-07-09 05:16 J -36175997.34 -36175997.28 -36175997.21 0.0089 0.0080
 Mercury -103758-10-05 07:11 J -36175909.26 -36175909.20 -36175909.10 0.0089 0.0076
 Mercury -103757-01-01 09:21 J -36175821.19 -36175821.11 -36175821.01 0.0089 0.0071
 Mercury -103757-03-29 11:30 J -36175733.11 -36175733.02 -36175732.91 0.0089 0.0067
 Mercury -103757-06-25 13:40 J -36175645.03 -36175644.93 -36175644.81 0.0089 0.0062
 Mercury -103757-09-21 15:35 J -36175556.95 -36175556.85 -36175556.72 0.0089 0.0058
 Mercury -103757-12-18 17:59 J -36175468.87 -36175468.75 -36175468.62 0.0089 0.0053

Mercury -103756-03-16 19:54 J -36175380.79 -36175380.67 -36175380.53 0.0089 0.0049

Mercury -103756-06-12 22:18 J -36175292.70 -36175292.57 -36175292.43 0.0089 0.0044

Mercury -103756-09-09 00:28 J -36175204.62 -36175204.48 -36175204.34 0.0089 0.0039

Mercury -103756-12-06 02:38 J -36175116.53 -36175116.39 -36175116.24 0.0089 0.0035

Mercury -103755-03-04 04:47 J -36175028.44 -36175028.30 -36175028.15 0.0089 0.0030

Mercury -103755-05-31 06:57 J -36174940.36 -36174940.21 -36174940.05 0.0089 0.0026

Mercury -103755-08-27 09:06 J -36174852.27 -36174852.12 -36174851.96 0.0089 0.0021

Mercury -103755-11-23 11:30 J -36174764.18 -36174764.02 -36174763.86 0.0089 0.0016

Mercury -103754-02-19 13:40 J -36174676.09 -36174675.93 -36174675.77 0.0089 0.0011

Mercury -103754-05-18 15:50 J -36174587.99 -36174587.84 -36174587.67 0.0089 0.0007

Mercury -103754-08-14 18:14 J -36174499.90 -36174499.74 -36174499.58 0.0089 0.0002

Mercury -103754-11-10 20:23 J -36174411.81 -36174411.65 -36174411.48 0.0089 0.0004

Mercury -103753-02-06 22:47 J -36174323.71 -36174323.55 -36174323.39 0.0089 0.0008

Mercury -103753-05-05 00:57 J -36174235.61 -36174235.46 -36174235.30 0.0089 0.0013

Mercury -103753-08-01 03:06 J -36174147.52 -36174147.37 -36174147.20 0.0089 0.0018

Mercury -103753-10-28 05:45 J -36174059.42 -36174059.26 -36174059.11 0.0089 0.0022

Mercury -103752-01-24 07:54 J -36173971.32 -36173971.17 -36173971.01 0.0089 0.0027

Mercury -103752-04-22 10:18 J -36173883.22 -36173883.07 -36173882.92 0.0089 0.0032

Mercury -103752-07-19 12:28 J -36173795.12 -36173794.98 -36173794.82 0.0089 0.0037

Mercury -103752-10-15 14:52 J -36173707.02 -36173706.88 -36173706.73 0.0089 0.0042

Mercury -103751-01-11 17:16 J -36173618.91 -36173618.78 -36173618.64 0.0089 0.0047

Mercury -103751-04-09 19:26 J -36173530.81 -36173530.69 -36173530.54 0.0089 0.0052

Mercury -103751-07-06 21:50 J -36173442.70 -36173442.59 -36173442.45 0.0089 0.0057

Mercury -103751-10-03 00:14 J -36173354.59 -36173354.49 -36173354.36 0.0089 0.0062

Mercury -103751-12-30 02:38 J -36173266.48 -36173266.39 -36173266.27 0.0089 0.0067

Mercury -103750-03-28 05:02 J -36173178.37 -36173178.29 -36173178.18 0.0089 0.0072

Mercury -103750-06-24 07:26 J -36173090.26 -36173090.19 -36173090.09 0.0089 0.0077

Mercury -103750-09-20 09:50 J -36173002.13 -36173002.09 -36173002.01 0.0089 0.0082

Mercury -103750-12-17 12:14 J -36172914.00 -36172913.99 -36172913.94 0.0089 0.0087

Venus -103744-02-18 15:50 J -36171023.85 -36171023.84 -36171023.79 0.0089 0.0088

Venus	-103744-10-02 04:47 J	-36170798.37	-36170798.30	-36170798.18	0.0089	0.0080
Venus	-103743-05-15 18:28 J	-36170572.86	-36170572.73	-36170572.60	0.0089	0.0071
Venus	-103743-12-27 07:11 J	-36170347.34	-36170347.20	-36170347.04	0.0089	0.0063
Venus	-103742-08-09 20:09 J	-36170121.82	-36170121.66	-36170121.47	0.0089	0.0055
Venus	-103741-03-22 09:06 J	-36169896.29	-36169896.12	-36169895.91	0.0089	0.0047
Venus	-103741-11-02 22:47 J	-36169670.74	-36169670.55	-36169670.35	0.0089	0.0038
Venus	-103740-06-16 11:45 J	-36169445.20	-36169445.01	-36169444.79	0.0089	0.0030
Venus	-103739-01-28 01:11 J	-36169219.66	-36169219.45	-36169219.23	0.0089	0.0021
Venus	-103739-09-10 14:38 J	-36168994.11	-36168993.89	-36168993.67	0.0089	0.0013
Venus	-103738-04-24 04:04 J	-36168768.55	-36168768.33	-36168768.11	0.0089	0.0004
Venus	-103738-12-05 17:16 J	-36168543.00	-36168542.78	-36168542.56	0.0089	0.0005
Venus	-103737-07-18 06:28 J	-36168317.44	-36168317.23	-36168317.00	0.0089	0.0013
Venus	-103736-02-28 19:54 J	-36168091.88	-36168091.67	-36168091.45	0.0089	0.0022
Venus	-103736-10-12 09:35 J	-36167866.30	-36167866.10	-36167865.89	0.0089	0.0030
Venus	-103735-05-25 22:47 J	-36167640.74	-36167640.55	-36167640.34	0.0089	0.0039
Venus	-103734-01-06 12:14 J	-36167415.17	-36167414.99	-36167414.79	0.0089	0.0047
Venus	-103734-08-20 01:26 J	-36167189.59	-36167189.44	-36167189.25	0.0089	0.0056
Venus	-103733-04-01 15:06 J	-36166964.01	-36166963.87	-36166963.70	0.0089	0.0064
Venus	-103733-11-13 04:33 J	-36166738.41	-36166738.31	-36166738.16	0.0089	0.0073
Venus	-103732-06-26 18:14 J	-36166512.81	-36166512.74	-36166512.63	0.0089	0.0081
Moon	-103717-02-01 22:47 J	-36161179.58	-36161179.55	-36161179.47	0.0089	0.0087
Earth	-103717-02-02 01:54 J	-36161179.45	-36161179.42	-36161179.34	0.0089	0.0087
Earth	-103716-02-03 17:45 J	-36160811.95	-36160811.76	-36160811.52	0.0089	0.0053
Moon	-103716-02-03 21:21 J	-36160811.80	-36160811.61	-36160811.37	0.0089	0.0053 *
Moon	-103715-02-06 06:42 J	-36160444.47	-36160444.22	-36160443.95	0.0089	0.0020
Earth	-103715-02-06 10:18 J	-36160444.32	-36160444.07	-36160443.80	0.0089	0.0019 *
Earth	-103714-02-09 02:23 J	-36160076.65	-36160076.40	-36160076.12	0.0089	0.0016
Moon	-103714-02-09 06:28 J	-36160076.49	-36160076.23	-36160075.96	0.0089	0.0017 *
Moon	-103713-02-11 15:50 J	-36159709.04	-36159708.84	-36159708.60	0.0089	0.0049
Earth	-103713-02-11 18:42 J	-36159708.92	-36159708.72	-36159708.48	0.0089	0.0050 *

Earth -103712-02-13 10:47 J -36159341.11 -36159341.05 -36159340.94 0.0089 0.0084
 Moon -103712-02-13 13:54 J -36159340.97 -36159340.92 -36159340.85 0.0089 0.0086 *
 Mars -103705-12-11 00:42 J -36156483.60 -36156483.47 -36156483.29 0.0089 0.0076
 Mars -103703-11-05 02:09 J -36155789.67 -36155789.41 -36155789.11 0.0089 0.0031
 Mars -103701-09-29 02:52 J -36155095.67 -36155095.38 -36155095.08 0.0089 0.0014
 Mars -103699-08-24 02:38 J -36154401.60 -36154401.39 -36154401.15 0.0089 0.0058
 Mercury -103676-04-25 08:09 J -36146121.18 -36146121.16 -36146121.12 0.0088 0.0087
 Mercury -103676-07-22 10:33 J -36146033.11 -36146033.06 -36146033.00 0.0088 0.0082
 Mercury -103676-10-18 12:57 J -36145945.04 -36145944.96 -36145944.88 0.0088 0.0077
 Mercury -103675-01-14 14:52 J -36145856.96 -36145856.88 -36145856.77 0.0088 0.0072
 Mercury -103675-04-12 17:16 J -36145768.87 -36145768.78 -36145768.67 0.0088 0.0067
 Mercury -103675-07-09 19:26 J -36145680.79 -36145680.69 -36145680.57 0.0088 0.0063
 Mercury -103675-10-05 21:50 J -36145592.71 -36145592.59 -36145592.46 0.0088 0.0058
 Mercury -103674-01-01 23:45 J -36145504.62 -36145504.51 -36145504.37 0.0088 0.0054
 Mercury -103674-03-31 02:09 J -36145416.53 -36145416.41 -36145416.27 0.0088 0.0048
 Mercury -103674-06-27 04:18 J -36145328.45 -36145328.32 -36145328.17 0.0088 0.0044
 Mercury -103674-09-23 06:42 J -36145240.36 -36145240.22 -36145240.07 0.0088 0.0039
 Mercury -103674-12-20 08:38 J -36145152.27 -36145152.14 -36145151.98 0.0088 0.0035
 Mercury -103673-03-17 11:02 J -36145064.18 -36145064.04 -36145063.89 0.0088 0.0029
 Mercury -103673-06-13 13:11 J -36144976.10 -36144975.95 -36144975.79 0.0088 0.0025
 Mercury -103673-09-09 15:21 J -36144888.01 -36144887.86 -36144887.70 0.0088 0.0020
 Mercury -103673-12-06 17:30 J -36144799.92 -36144799.77 -36144799.61 0.0088 0.0015
 Mercury -103672-03-04 19:40 J -36144711.83 -36144711.68 -36144711.52 0.0088 0.0011
 Mercury -103672-05-31 21:50 J -36144623.75 -36144623.59 -36144623.43 0.0088 0.0006
 Mercury -103672-08-27 23:59 J -36144535.66 -36144535.50 -36144535.35 0.0088 0.0002
 Mercury -103672-11-24 02:09 J -36144447.57 -36144447.41 -36144447.26 0.0088 0.0004
 Mercury -103671-02-20 04:04 J -36144359.48 -36144359.33 -36144359.17 0.0088 0.0008
 Mercury -103671-05-19 06:14 J -36144271.40 -36144271.24 -36144271.09 0.0088 0.0012
 Mercury -103671-08-15 08:09 J -36144183.31 -36144183.16 -36144183.00 0.0088 0.0017
 Mercury -103671-11-11 10:18 J -36144095.22 -36144095.07 -36144094.92 0.0088 0.0021

Mercury -103670-02-07 12:14 J -36144007.13 -36144006.99 -36144006.84 0.0088 0.0026

Mercury -103670-05-06 14:09 J -36143919.04 -36143918.91 -36143918.75 0.0088 0.0031

Mercury -103670-08-02 16:18 J -36143830.96 -36143830.82 -36143830.67 0.0088 0.0035

Mercury -103670-10-29 18:14 J -36143742.87 -36143742.74 -36143742.59 0.0088 0.0039

Mercury -103669-01-25 20:23 J -36143654.78 -36143654.65 -36143654.52 0.0088 0.0044

Mercury -103669-04-22 22:04 J -36143566.69 -36143566.58 -36143566.44 0.0088 0.0049

Mercury -103669-07-20 00:14 J -36143478.61 -36143478.49 -36143478.36 0.0088 0.0052

Mercury -103669-10-16 02:23 J -36143390.52 -36143390.40 -36143390.28 0.0088 0.0057

Mercury -103668-01-12 04:04 J -36143302.43 -36143302.33 -36143302.21 0.0088 0.0061

Mercury -103668-04-10 05:59 J -36143214.34 -36143214.25 -36143214.14 0.0088 0.0066

Mercury -103668-07-07 08:09 J -36143126.25 -36143126.16 -36143126.06 0.0088 0.0070

Mercury -103668-10-03 09:50 J -36143038.16 -36143038.09 -36143037.99 0.0088 0.0074

Mercury -103668-12-30 11:45 J -36142950.06 -36142950.01 -36142949.93 0.0088 0.0079

Mercury -103667-03-28 13:40 J -36142861.97 -36142861.93 -36142861.86 0.0088 0.0083

Mercury -103667-06-24 15:50 J -36142773.86 -36142773.84 -36142773.81 0.0088 0.0087

Venus -103662-04-11 16:04 J -36141021.86 -36141021.83 -36141021.77 0.0088 0.0086

Jupiter -103662-06-12 02:23 J -36140960.91 -36140960.40 -36140959.87 0.0088 0.0011

Venus -103662-11-23 04:47 J -36140796.37 -36140796.30 -36140796.17 0.0088 0.0079

Venus -103661-07-05 18:28 J -36140570.87 -36140570.73 -36140570.60 0.0088 0.0070

Venus -103660-02-16 07:11 J -36140345.35 -36140345.20 -36140345.04 0.0088 0.0062

Venus -103660-09-29 19:54 J -36140119.83 -36140119.67 -36140119.48 0.0088 0.0054

Venus -103659-05-13 08:38 J -36139894.31 -36139894.14 -36139893.93 0.0088 0.0046

Venus -103659-12-24 21:50 J -36139668.79 -36139668.59 -36139668.39 0.0088 0.0037

Venus -103658-08-07 10:18 J -36139443.27 -36139443.07 -36139442.85 0.0088 0.0029

Venus -103657-03-19 23:16 J -36139217.74 -36139217.53 -36139217.31 0.0088 0.0020

Venus -103657-10-31 11:59 J -36138992.21 -36138992.00 -36138991.78 0.0088 0.0012

Venus -103656-06-14 00:42 J -36138766.69 -36138766.47 -36138766.25 0.0088 0.0004

Venus -103655-01-25 13:11 J -36138541.16 -36138540.95 -36138540.73 0.0088 0.0005

Venus -103655-09-08 01:40 J -36138315.64 -36138315.43 -36138315.20 0.0088 0.0013

Venus -103654-04-21 14:23 J -36138090.10 -36138089.90 -36138089.68 0.0088 0.0021

Venus -103654-12-03 02:52 J -36137864.58 -36137864.38 -36137864.16 0.0088 0.0030
 Venus -103653-07-15 15:21 J -36137639.05 -36137638.86 -36137638.65 0.0088 0.0038
 Venus -103652-02-26 04:04 J -36137413.52 -36137413.33 -36137413.14 0.0088 0.0046
 Venus -103652-10-09 16:04 J -36137187.98 -36137187.83 -36137187.64 0.0088 0.0054
 Venus -103651-05-23 04:33 J -36136962.44 -36136962.31 -36136962.13 0.0088 0.0063
 Venus -103650-01-03 17:02 J -36136736.90 -36136736.79 -36136736.64 0.0088 0.0070
 Venus -103650-08-17 05:16 J -36136511.35 -36136511.28 -36136511.15 0.0088 0.0079
 Venus -103649-03-29 17:45 J -36136285.78 -36136285.76 -36136285.69 0.0088 0.0087
 Earth -103635-08-08 14:38 J -36131040.97 -36131040.89 -36131040.77 0.0088 0.0081
 Moon -103635-08-08 15:21 J -36131040.92 -36131040.86 -36131040.75 0.0088 0.0083 *
 Moon -103634-08-10 19:54 J -36130673.86 -36130673.67 -36130673.44 0.0088 0.0048
 Earth -103634-08-10 22:18 J -36130673.76 -36130673.57 -36130673.35 0.0088 0.0050 *
 Earth -103633-08-12 05:45 J -36130306.49 -36130306.26 -36130306.01 0.0088 0.0019
 Moon -103633-08-12 08:52 J -36130306.36 -36130306.13 -36130305.88 0.0088 0.0019 *
 Moon -103632-08-14 09:50 J -36129939.33 -36129939.09 -36129938.84 0.0088 0.0014
 Earth -103632-08-14 13:11 J -36129939.19 -36129938.95 -36129938.70 0.0088 0.0013 *
 Earth -103631-08-16 20:09 J -36129571.86 -36129571.66 -36129571.43 0.0088 0.0044
 Moon -103631-08-16 23:30 J -36129571.72 -36129571.52 -36129571.28 0.0088 0.0042 *
 Moon -103630-08-19 00:28 J -36129204.58 -36129204.48 -36129204.33 0.0088 0.0076
 Earth -103630-08-19 03:06 J -36129204.48 -36129204.37 -36129204.22 0.0088 0.0075 *
 Mars -103621-08-02 07:26 J -36125933.41 -36125933.19 -36125932.91 0.0088 0.0059
 Mars -103619-06-29 02:09 J -36125237.73 -36125237.41 -36125237.07 0.0089 0.0009
 Mars -103617-05-24 21:50 J -36124541.87 -36124541.59 -36124541.28 0.0089 0.0042
 Mercury -103594-10-10 23:59 J -36116002.52 -36116002.50 -36116002.48 0.0089 0.0087
 Mercury -103593-01-07 01:54 J -36115914.47 -36115914.42 -36115914.36 0.0089 0.0083
 Mercury -103593-04-04 03:50 J -36115826.40 -36115826.34 -36115826.26 0.0089 0.0079
 Mercury -103593-07-01 05:59 J -36115738.33 -36115738.25 -36115738.16 0.0089 0.0074
 Mercury -103593-09-27 07:54 J -36115650.25 -36115650.17 -36115650.06 0.0089 0.0070
 Mercury -103593-12-24 10:18 J -36115562.17 -36115562.07 -36115561.96 0.0089 0.0065
 Mercury -103592-03-22 12:14 J -36115474.09 -36115473.99 -36115473.87 0.0089 0.0061

Mercury -103592-06-18 14:38 J -36115386.01 -36115385.89 -36115385.77 0.0089 0.0056

Mercury -103592-09-14 16:33 J -36115297.93 -36115297.81 -36115297.68 0.0089 0.0052

Mercury -103592-12-11 18:42 J -36115209.85 -36115209.72 -36115209.58 0.0089 0.0047

Mercury -103591-03-09 20:38 J -36115121.76 -36115121.64 -36115121.49 0.0089 0.0043

Mercury -103591-06-05 23:02 J -36115033.68 -36115033.54 -36115033.40 0.0089 0.0038

Mercury -103591-09-02 00:57 J -36114945.59 -36114945.46 -36114945.30 0.0089 0.0034

Mercury -103591-11-29 03:21 J -36114857.51 -36114857.36 -36114857.21 0.0089 0.0029

Mercury -103590-02-25 05:30 J -36114769.42 -36114769.27 -36114769.11 0.0089 0.0024

Mercury -103590-05-24 07:40 J -36114681.33 -36114681.18 -36114681.02 0.0089 0.0020

Mercury -103590-08-20 09:50 J -36114593.24 -36114593.09 -36114592.93 0.0089 0.0015

Mercury -103590-11-16 12:14 J -36114505.15 -36114504.99 -36114504.83 0.0089 0.0010

Mercury -103589-02-12 14:23 J -36114417.06 -36114416.90 -36114416.74 0.0089 0.0005

Mercury -103589-05-10 16:33 J -36114328.97 -36114328.81 -36114328.65 0.0089 0.0003

Mercury -103589-08-06 18:57 J -36114240.87 -36114240.71 -36114240.55 0.0089 0.0004

Mercury -103589-11-02 21:06 J -36114152.78 -36114152.62 -36114152.46 0.0089 0.0009

Mercury -103588-01-29 23:16 J -36114064.68 -36114064.53 -36114064.36 0.0089 0.0014

Mercury -103588-04-28 01:40 J -36113976.58 -36113976.43 -36113976.27 0.0089 0.0019

Mercury -103588-07-25 04:04 J -36113888.49 -36113888.33 -36113888.18 0.0089 0.0023

Mercury -103588-10-21 06:14 J -36113800.39 -36113800.24 -36113800.08 0.0089 0.0028

Mercury -103587-01-17 08:38 J -36113712.29 -36113712.14 -36113711.99 0.0089 0.0033

Mercury -103587-04-15 10:47 J -36113624.19 -36113624.05 -36113623.89 0.0089 0.0038

Mercury -103587-07-12 13:11 J -36113536.09 -36113535.95 -36113535.80 0.0089 0.0043

Mercury -103587-10-08 15:35 J -36113447.98 -36113447.85 -36113447.71 0.0089 0.0048

Mercury -103586-01-04 17:45 J -36113359.88 -36113359.76 -36113359.62 0.0089 0.0053

Mercury -103586-04-02 20:09 J -36113271.77 -36113271.66 -36113271.52 0.0089 0.0058

Mercury -103586-06-29 22:33 J -36113183.66 -36113183.56 -36113183.43 0.0089 0.0063

Mercury -103586-09-26 00:57 J -36113095.55 -36113095.46 -36113095.34 0.0089 0.0068

Mercury -103586-12-23 03:21 J -36113007.44 -36113007.36 -36113007.25 0.0089 0.0073

Mercury -103585-03-20 05:45 J -36112919.32 -36112919.26 -36112919.17 0.0089 0.0078

Mercury -103585-06-16 08:09 J -36112831.20 -36112831.16 -36112831.09 0.0089 0.0083

Mercury -103585-09-12 10:33 J -36112743.07 -36112743.06 -36112743.02 0.0089 0.0088
 Venus -103579-01-03 14:23 J -36110803.99 -36110803.90 -36110803.82 0.0089 0.0081
 Venus -103579-08-17 03:06 J -36110578.48 -36110578.37 -36110578.24 0.0089 0.0073
 Venus -103578-03-30 16:04 J -36110352.97 -36110352.83 -36110352.67 0.0089 0.0065
 Venus -103578-11-11 05:02 J -36110127.44 -36110127.29 -36110127.10 0.0089 0.0057
 Venus -103577-06-23 18:14 J -36109901.91 -36109901.74 -36109901.54 0.0089 0.0048
 Venus -103576-02-04 07:11 J -36109676.38 -36109676.20 -36109675.99 0.0089 0.0040
 Venus -103576-09-17 20:52 J -36109450.83 -36109450.63 -36109450.42 0.0089 0.0031
 Venus -103575-05-01 09:50 J -36109225.29 -36109225.09 -36109224.86 0.0089 0.0023
 Venus -103575-12-12 23:16 J -36108999.74 -36108999.53 -36108999.31 0.0089 0.0014
 Venus -103574-07-26 12:28 J -36108774.19 -36108773.98 -36108773.75 0.0089 0.0006
 Venus -103573-03-08 01:54 J -36108548.64 -36108548.42 -36108548.20 0.0089 0.0003
 Venus -103573-10-19 15:21 J -36108323.07 -36108322.86 -36108322.63 0.0089 0.0012
 Venus -103572-06-02 04:47 J -36108097.51 -36108097.30 -36108097.08 0.0089 0.0020
 Venus -103571-01-13 17:59 J -36107871.95 -36107871.75 -36107871.53 0.0089 0.0029
 Venus -103571-08-27 07:26 J -36107646.38 -36107646.19 -36107645.98 0.0089 0.0038
 Venus -103570-04-09 21:06 J -36107420.80 -36107420.62 -36107420.43 0.0089 0.0046
 Venus -103570-11-21 10:18 J -36107195.22 -36107195.07 -36107194.88 0.0089 0.0055
 Venus -103569-07-04 00:14 J -36106969.64 -36106969.49 -36106969.33 0.0089 0.0063
 Venus -103568-02-14 13:26 J -36106744.05 -36106743.94 -36106743.79 0.0089 0.0072
 Venus -103568-09-28 03:21 J -36106518.45 -36106518.36 -36106518.26 0.0089 0.0081
 Venus -103567-05-11 17:02 J -36106292.79 -36106292.79 -36106292.78 0.0089 0.0089
 Moon -103552-02-02 16:47 J -36100911.95 -36100911.80 -36100911.60 0.0089 0.0066
 Earth -103552-02-02 21:06 J -36100911.78 -36100911.62 -36100911.46 0.0089 0.0070 *
 Earth -103551-02-05 12:57 J -36100544.20 -36100543.96 -36100543.71 0.0089 0.0036
 Moon -103551-02-05 15:35 J -36100544.07 -36100543.85 -36100543.59 0.0089 0.0041 *
 Moon -103550-02-08 02:38 J -36100176.65 -36100176.39 -36100176.13 0.0089 0.0002
 Earth -103550-02-08 05:16 J -36100176.55 -36100176.28 -36100176.01 0.0089 0.0002 *
 Earth -103549-02-10 21:06 J -36099808.86 -36099808.62 -36099808.36 0.0089 0.0032
 Moon -103549-02-10 22:18 J -36099808.82 -36099808.57 -36099808.29 0.0089 0.0028 *

Earth -103548-02-12 13:26 J -36099441.11 -36099440.94 -36099440.76 0.0089 0.0066
 Moon -103548-02-12 13:26 J -36099441.10 -36099440.94 -36099440.79 0.0089 0.0070 *
 Mars -103539-06-20 05:02 J -36096026.50 -36096026.29 -36096026.02 0.0089 0.0052
 Mars -103537-05-14 06:57 J -36095332.50 -36095332.21 -36095331.91 0.0089 0.0006
 Mars -103535-04-08 06:57 J -36094638.46 -36094638.21 -36094637.93 0.0089 0.0039
 Mars -103533-03-02 06:42 J -36093944.29 -36093944.22 -36093944.09 0.0089 0.0084
 Mercury -103511-01-20 06:42 J -36085950.24 -36085950.22 -36085950.16 0.0088 0.0086
 Mercury -103511-04-18 09:06 J -36085862.17 -36085862.12 -36085862.04 0.0088 0.0080
 Mercury -103511-07-15 11:16 J -36085774.10 -36085774.03 -36085773.93 0.0088 0.0076
 Mercury -103511-10-11 13:40 J -36085686.01 -36085685.93 -36085685.82 0.0088 0.0071
 Mercury -103510-01-07 16:04 J -36085597.93 -36085597.83 -36085597.72 0.0088 0.0066
 Mercury -103510-04-05 17:59 J -36085509.85 -36085509.75 -36085509.62 0.0088 0.0062
 Mercury -103510-07-02 20:23 J -36085421.76 -36085421.65 -36085421.51 0.0088 0.0057
 Mercury -103510-09-28 22:47 J -36085333.67 -36085333.55 -36085333.41 0.0088 0.0051
 Mercury -103510-12-26 00:57 J -36085245.59 -36085245.46 -36085245.32 0.0088 0.0047
 Mercury -103509-03-23 03:06 J -36085157.50 -36085157.37 -36085157.22 0.0088 0.0042
 Mercury -103509-06-19 05:16 J -36085069.41 -36085069.28 -36085069.12 0.0088 0.0038
 Mercury -103509-09-15 07:40 J -36084981.32 -36084981.18 -36084981.03 0.0088 0.0032
 Mercury -103509-12-12 09:50 J -36084893.24 -36084893.09 -36084892.93 0.0088 0.0028
 Mercury -103508-03-10 11:59 J -36084805.15 -36084805.00 -36084804.84 0.0088 0.0023
 Mercury -103508-06-06 14:09 J -36084717.06 -36084716.91 -36084716.75 0.0088 0.0019
 Mercury -103508-09-02 16:18 J -36084628.97 -36084628.82 -36084628.66 0.0088 0.0014
 Mercury -103508-11-29 18:28 J -36084540.88 -36084540.73 -36084540.57 0.0088 0.0009
 Mercury -103507-02-25 20:38 J -36084452.79 -36084452.64 -36084452.48 0.0088 0.0005
 Mercury -103507-05-24 22:47 J -36084364.71 -36084364.55 -36084364.39 0.0088 0.0001
 Mercury -103507-08-21 00:57 J -36084276.62 -36084276.46 -36084276.30 0.0088 0.0005
 Mercury -103507-11-17 03:06 J -36084188.53 -36084188.37 -36084188.22 0.0088 0.0010
 Mercury -103506-02-13 05:02 J -36084100.44 -36084100.29 -36084100.13 0.0088 0.0014
 Mercury -103506-05-12 07:11 J -36084012.35 -36084012.20 -36084012.05 0.0088 0.0018
 Mercury -103506-08-08 09:06 J -36083924.26 -36083924.12 -36083923.96 0.0088 0.0023

Mercury -103506-11-04 11:16 J -36083836.18 -36083836.03 -36083835.88 0.0088 0.0027

Mercury -103505-01-31 13:11 J -36083748.09 -36083747.95 -36083747.80 0.0088 0.0032

Mercury -103505-04-28 15:21 J -36083660.00 -36083659.86 -36083659.72 0.0088 0.0036

Mercury -103505-07-25 17:02 J -36083571.91 -36083571.79 -36083571.64 0.0088 0.0042

Mercury -103505-10-21 19:11 J -36083483.82 -36083483.70 -36083483.56 0.0088 0.0046

Mercury -103504-01-17 21:21 J -36083395.73 -36083395.61 -36083395.48 0.0088 0.0050

Mercury -103504-04-15 23:02 J -36083307.64 -36083307.54 -36083307.40 0.0088 0.0055

Mercury -103504-07-13 01:11 J -36083219.56 -36083219.45 -36083219.33 0.0088 0.0059

Mercury -103504-10-09 03:21 J -36083131.47 -36083131.36 -36083131.25 0.0088 0.0063

Mercury -103503-01-05 05:02 J -36083043.38 -36083043.29 -36083043.18 0.0088 0.0067

Mercury -103503-04-03 06:57 J -36082955.28 -36082955.21 -36082955.11 0.0088 0.0072

Mercury -103503-06-30 09:06 J -36082867.19 -36082867.12 -36082867.04 0.0088 0.0076

Mercury -103503-09-26 10:47 J -36082779.10 -36082779.05 -36082778.97 0.0088 0.0080

Mercury -103503-12-23 12:42 J -36082691.00 -36082690.97 -36082690.91 0.0088 0.0085

Mercury -103502-03-21 15:06 J -36082602.87 -36082602.87 -36082602.87 0.0088 0.0088

Venus -103498-07-14 01:26 J -36081027.44 -36081027.44 -36081027.41 0.0088 0.0088

Venus -103497-02-24 14:38 J -36080801.97 -36080801.89 -36080801.79 0.0088 0.0080

Venus -103497-10-07 03:35 J -36080576.47 -36080576.35 -36080576.21 0.0088 0.0071

Venus -103496-05-20 16:18 J -36080350.95 -36080350.82 -36080350.64 0.0088 0.0064

Venus -103495-01-01 05:30 J -36080125.43 -36080125.27 -36080125.09 0.0088 0.0055

Venus -103495-08-14 18:14 J -36079899.91 -36079899.74 -36079899.54 0.0088 0.0047

Venus -103494-03-28 07:11 J -36079674.38 -36079674.20 -36079673.98 0.0088 0.0039

Venus -103494-11-08 20:23 J -36079448.85 -36079448.65 -36079448.44 0.0088 0.0030

Venus -103493-06-21 09:06 J -36079223.33 -36079223.12 -36079222.90 0.0088 0.0021

Venus -103492-02-01 21:35 J -36078997.81 -36078997.60 -36078997.37 0.0088 0.0014

Venus -103492-09-15 10:33 J -36078772.28 -36078772.06 -36078771.84 0.0088 0.0004

Venus -103491-04-28 23:16 J -36078546.75 -36078546.53 -36078546.31 0.0088 0.0004

Venus -103491-12-10 11:45 J -36078321.22 -36078321.01 -36078320.79 0.0088 0.0012

Venus -103490-07-24 00:14 J -36078095.70 -36078095.49 -36078095.27 0.0088 0.0021

Venus -103489-03-05 12:57 J -36077870.17 -36077869.96 -36077869.75 0.0088 0.0029

Venus -103489-10-17 01:11 J -36077644.64 -36077644.45 -36077644.24 0.0088 0.0037
 Venus -103488-05-30 13:40 J -36077419.10 -36077418.93 -36077418.73 0.0088 0.0045
 Venus -103487-01-11 02:09 J -36077193.57 -36077193.41 -36077193.23 0.0088 0.0053
 Venus -103487-08-24 14:38 J -36076968.04 -36076967.89 -36076967.73 0.0088 0.0062
 Venus -103486-04-07 03:06 J -36076742.49 -36076742.37 -36076742.23 0.0088 0.0070
 Venus -103486-11-18 15:35 J -36076516.94 -36076516.85 -36076516.74 0.0088 0.0078
 Venus -103485-07-01 04:04 J -36076291.37 -36076291.33 -36076291.28 0.0088 0.0086
 Earth -103470-08-10 08:52 J -36070773.27 -36070773.13 -36070772.94 0.0088 0.0066
 Moon -103470-08-10 11:59 J -36070773.15 -36070773.00 -36070772.80 0.0088 0.0061 *
 Moon -103469-08-11 12:57 J -36070406.16 -36070405.96 -36070405.71 0.0088 0.0040
 Earth -103469-08-11 16:47 J -36070406.01 -36070405.80 -36070405.56 0.0088 0.0034 *
 Earth -103468-08-14 00:28 J -36070038.73 -36070038.48 -36070038.23 0.0088 0.0003
 Moon -103468-08-14 03:35 J -36070038.60 -36070038.35 -36070038.10 0.0088 0.0001 *
 Moon -103467-08-16 04:47 J -36069671.52 -36069671.30 -36069671.05 0.0088 0.0024
 Earth -103467-08-16 07:26 J -36069671.41 -36069671.19 -36069670.94 0.0088 0.0029 *
 Earth -103466-08-18 14:52 J -36069304.06 -36069303.88 -36069303.69 0.0088 0.0059
 Moon -103466-08-18 15:50 J -36069304.00 -36069303.84 -36069303.64 0.0088 0.0063 *
 Moon -103465-08-19 21:35 J -36068936.62 -36068936.60 -36068936.52 0.0088 0.0087
 Mars -103457-03-16 00:28 J -36066171.58 -36066171.48 -36066171.32 0.0088 0.0082
 Mars -103455-02-09 17:16 J -36065476.08 -36065475.78 -36065475.45 0.0088 0.0032
 Mars -103453-01-06 11:59 J -36064780.31 -36064780.00 -36064779.66 0.0089 0.0020
 Mars -103452-12-02 08:09 J -36064084.34 -36064084.16 -36064083.94 0.0089 0.0071
 Mercury -103429-07-06 22:33 J -36055831.58 -36055831.56 -36055831.51 0.0089 0.0086
 Mercury -103429-10-03 00:57 J -36055743.52 -36055743.46 -36055743.40 0.0089 0.0081
 Mercury -103429-12-30 02:38 J -36055655.45 -36055655.39 -36055655.30 0.0089 0.0077
 Mercury -103428-03-28 04:47 J -36055567.38 -36055567.30 -36055567.20 0.0089 0.0073
 Mercury -103428-06-24 06:57 J -36055479.30 -36055479.21 -36055479.10 0.0089 0.0068
 Mercury -103428-09-20 08:52 J -36055391.22 -36055391.13 -36055391.01 0.0089 0.0064
 Mercury -103428-12-17 11:16 J -36055303.14 -36055303.03 -36055302.91 0.0089 0.0059
 Mercury -103427-03-15 13:11 J -36055215.06 -36055214.95 -36055214.82 0.0089 0.0055

Mercury -103427-06-11 15:21 J -36055126.98 -36055126.86 -36055126.72 0.0089 0.0050

Mercury -103427-09-07 17:16 J -36055038.90 -36055038.78 -36055038.63 0.0089 0.0046

Mercury -103427-12-04 19:40 J -36054950.81 -36054950.68 -36054950.54 0.0089 0.0041

Mercury -103426-03-02 21:35 J -36054862.73 -36054862.60 -36054862.44 0.0089 0.0037

Mercury -103426-05-29 23:59 J -36054774.64 -36054774.50 -36054774.35 0.0089 0.0032

Mercury -103426-08-26 02:09 J -36054686.56 -36054686.41 -36054686.26 0.0089 0.0027

Mercury -103426-11-22 04:18 J -36054598.47 -36054598.32 -36054598.16 0.0089 0.0023

Mercury -103425-02-18 06:28 J -36054510.38 -36054510.23 -36054510.07 0.0089 0.0018

Mercury -103425-05-16 08:52 J -36054422.29 -36054422.13 -36054421.98 0.0089 0.0013

Mercury -103425-08-12 11:02 J -36054334.20 -36054334.04 -36054333.88 0.0089 0.0008

Mercury -103425-11-08 13:11 J -36054246.11 -36054245.95 -36054245.79 0.0089 0.0004

Mercury -103424-02-04 15:21 J -36054158.02 -36054157.86 -36054157.70 0.0089 0.0002

Mercury -103424-05-03 17:45 J -36054069.92 -36054069.76 -36054069.60 0.0089 0.0006

Mercury -103424-07-30 19:54 J -36053981.83 -36053981.67 -36053981.51 0.0089 0.0011

Mercury -103424-10-26 22:04 J -36053893.73 -36053893.58 -36053893.42 0.0089 0.0016

Mercury -103423-01-23 00:28 J -36053805.64 -36053805.48 -36053805.32 0.0089 0.0020

Mercury -103423-04-21 02:38 J -36053717.54 -36053717.39 -36053717.23 0.0089 0.0025

Mercury -103423-07-18 05:02 J -36053629.44 -36053629.29 -36053629.14 0.0089 0.0030

Mercury -103423-10-14 07:11 J -36053541.34 -36053541.20 -36053541.04 0.0089 0.0035

Mercury -103422-01-10 09:21 J -36053453.24 -36053453.11 -36053452.95 0.0089 0.0040

Mercury -103422-04-08 11:45 J -36053365.14 -36053365.01 -36053364.86 0.0089 0.0045

Mercury -103422-07-05 14:23 J -36053277.03 -36053276.90 -36053276.77 0.0089 0.0049

Mercury -103422-10-01 16:47 J -36053188.93 -36053188.80 -36053188.67 0.0089 0.0054

Mercury -103422-12-28 18:57 J -36053100.82 -36053100.71 -36053100.58 0.0089 0.0059

Mercury -103421-03-25 21:21 J -36053012.72 -36053012.61 -36053012.49 0.0089 0.0064

Mercury -103421-06-21 23:45 J -36052924.61 -36052924.51 -36052924.40 0.0089 0.0069

Mercury -103421-09-18 02:09 J -36052836.49 -36052836.41 -36052836.32 0.0089 0.0074

Mercury -103421-12-15 04:33 J -36052748.38 -36052748.31 -36052748.23 0.0089 0.0079

Mercury -103420-03-13 06:57 J -36052660.25 -36052660.21 -36052660.15 0.0089 0.0084

Venus -103415-04-06 23:30 J -36050809.58 -36050809.52 -36050809.43 0.0089 0.0083

Venus	-103415-11-18 12:14 J	-36050584.08	-36050583.99	-36050583.85	0.0089	0.0075
Venus	-103414-07-02 01:40 J	-36050358.57	-36050358.43	-36050358.28	0.0089	0.0066
Venus	-103413-02-12 14:23 J	-36050133.05	-36050132.90	-36050132.71	0.0089	0.0059
Venus	-103413-09-25 03:35 J	-36049907.51	-36049907.35	-36049907.15	0.0089	0.0050
Venus	-103412-05-08 16:47 J	-36049681.98	-36049681.80	-36049681.59	0.0089	0.0041
Venus	-103412-12-20 05:45 J	-36049456.45	-36049456.26	-36049456.04	0.0089	0.0033
Venus	-103411-08-02 19:11 J	-36049230.91	-36049230.70	-36049230.48	0.0089	0.0024
Venus	-103410-03-16 08:23 J	-36049005.36	-36049005.15	-36049004.93	0.0089	0.0016
Venus	-103410-10-27 21:50 J	-36048779.81	-36048779.59	-36048779.37	0.0089	0.0007
Venus	-103409-06-09 11:02 J	-36048554.26	-36048554.04	-36048553.81	0.0089	0.0003
Venus	-103408-01-21 00:28 J	-36048328.70	-36048328.48	-36048328.26	0.0089	0.0011
Venus	-103408-09-03 13:40 J	-36048103.14	-36048102.93	-36048102.71	0.0089	0.0019
Venus	-103407-04-17 03:06 J	-36047877.57	-36047877.37	-36047877.15	0.0089	0.0028
Venus	-103407-11-28 16:18 J	-36047652.01	-36047651.82	-36047651.60	0.0089	0.0037
Venus	-103406-07-12 05:59 J	-36047426.43	-36047426.25	-36047426.05	0.0089	0.0045
Venus	-103405-02-22 19:11 J	-36047200.86	-36047200.70	-36047200.50	0.0089	0.0055
Venus	-103405-10-05 08:52 J	-36046975.27	-36046975.13	-36046974.95	0.0089	0.0063
Venus	-103404-05-18 22:33 J	-36046749.68	-36046749.56	-36046749.42	0.0089	0.0071
Venus	-103404-12-30 11:59 J	-36046524.08	-36046524.00	-36046523.89	0.0089	0.0080
Venus	-103403-08-13 01:40 J	-36046298.44	-36046298.43	-36046298.40	0.0089	0.0089
Earth	-103388-02-02 00:42 J	-36041011.50	-36041011.47	-36041011.39	0.0089	0.0087
Moon	-103388-02-02 03:50 J	-36041011.37	-36041011.34	-36041011.27	0.0089	0.0087
Moon	-103387-02-04 15:50 J	-36040644.04	-36040643.84	-36040643.63	0.0089	0.0053
Earth	-103387-02-04 16:47 J	-36040643.99	-36040643.80	-36040643.56	0.0089	0.0053 *
Earth	-103386-02-07 09:06 J	-36040276.38	-36040276.12	-36040275.85	0.0089	0.0019
Moon	-103386-02-07 09:35 J	-36040276.36	-36040276.10	-36040275.82	0.0089	0.0020 *
Earth	-103385-02-10 00:57 J	-36039908.72	-36039908.46	-36039908.19	0.0089	0.0015
Moon	-103385-02-10 01:26 J	-36039908.69	-36039908.44	-36039908.18	0.0089	0.0016 *
Moon	-103384-02-11 14:52 J	-36039541.09	-36039540.88	-36039540.63	0.0089	0.0049
Earth	-103384-02-11 17:16 J	-36039541.00	-36039540.78	-36039540.55	0.0089	0.0049 *

Earth -103383-02-14 08:52 J -36039173.18 -36039173.13 -36039173.01 0.0089 0.0084
 Moon -103383-02-14 11:45 J -36039173.07 -36039173.01 -36039172.92 0.0089 0.0085 *
 Mars -103375-02-02 07:54 J -36036263.32 -36036263.17 -36036262.97 0.0089 0.0072
 Mars -103374-12-28 12:14 J -36035569.27 -36035568.99 -36035568.70 0.0089 0.0026
 Mars -103372-11-21 12:57 J -36034875.23 -36034874.96 -36034874.65 0.0089 0.0020
 Mars -103370-10-16 12:14 J -36034181.17 -36034180.99 -36034180.77 0.0089 0.0065
 Mercury -103347-07-21 03:50 J -36025867.35 -36025867.34 -36025867.32 0.0088 0.0088
 Mercury -103347-10-17 05:45 J -36025779.30 -36025779.26 -36025779.19 0.0088 0.0083
 Mercury -103346-01-13 08:09 J -36025691.22 -36025691.16 -36025691.07 0.0088 0.0078
 Mercury -103346-04-11 10:33 J -36025603.14 -36025603.06 -36025602.96 0.0088 0.0073
 Mercury -103346-07-08 12:42 J -36025515.06 -36025514.97 -36025514.86 0.0088 0.0069
 Mercury -103346-10-04 15:06 J -36025426.97 -36025426.87 -36025426.75 0.0088 0.0064
 Mercury -103346-12-31 17:16 J -36025338.89 -36025338.78 -36025338.65 0.0088 0.0059
 Mercury -103345-03-28 19:26 J -36025250.80 -36025250.69 -36025250.55 0.0088 0.0055
 Mercury -103345-06-24 21:50 J -36025162.71 -36025162.59 -36025162.45 0.0088 0.0050
 Mercury -103345-09-21 00:14 J -36025074.63 -36025074.49 -36025074.35 0.0088 0.0045
 Mercury -103345-12-18 02:23 J -36024986.54 -36024986.40 -36024986.26 0.0088 0.0040
 Mercury -103344-03-16 04:33 J -36024898.45 -36024898.31 -36024898.16 0.0088 0.0035
 Mercury -103344-06-12 06:42 J -36024810.36 -36024810.22 -36024810.07 0.0088 0.0031
 Mercury -103344-09-08 09:06 J -36024722.28 -36024722.12 -36024721.97 0.0088 0.0026
 Mercury -103344-12-05 11:02 J -36024634.19 -36024634.04 -36024633.88 0.0088 0.0021
 Mercury -103343-03-03 13:11 J -36024546.10 -36024545.95 -36024545.79 0.0088 0.0017
 Mercury -103343-05-30 15:35 J -36024458.01 -36024457.85 -36024457.70 0.0088 0.0012
 Mercury -103343-08-26 17:30 J -36024369.92 -36024369.77 -36024369.61 0.0088 0.0008
 Mercury -103343-11-22 19:40 J -36024281.83 -36024281.68 -36024281.52 0.0088 0.0004
 Mercury -103342-02-18 21:50 J -36024193.74 -36024193.59 -36024193.43 0.0088 0.0003
 Mercury -103342-05-17 23:59 J -36024105.65 -36024105.50 -36024105.34 0.0088 0.0007
 Mercury -103342-08-14 02:09 J -36024017.57 -36024017.41 -36024017.26 0.0088 0.0011
 Mercury -103342-11-10 04:04 J -36023929.48 -36023929.33 -36023929.17 0.0088 0.0016
 Mercury -103341-02-06 06:14 J -36023841.39 -36023841.24 -36023841.09 0.0088 0.0021

Mercury -103341-05-04 08:09 J -36023753.30 -36023753.16 -36023753.00 0.0088 0.0025

Mercury -103341-07-31 10:18 J -36023665.21 -36023665.07 -36023664.92 0.0088 0.0030

Mercury -103341-10-27 12:14 J -36023577.12 -36023576.99 -36023576.84 0.0088 0.0035

Mercury -103340-01-23 14:23 J -36023489.03 -36023488.90 -36023488.75 0.0088 0.0039

Mercury -103340-04-21 16:18 J -36023400.94 -36023400.82 -36023400.67 0.0088 0.0043

Mercury -103340-07-18 18:28 J -36023312.85 -36023312.73 -36023312.60 0.0088 0.0047

Mercury -103340-10-14 20:38 J -36023224.77 -36023224.64 -36023224.52 0.0088 0.0052

Mercury -103339-01-10 22:18 J -36023136.68 -36023136.57 -36023136.44 0.0088 0.0056

Mercury -103339-04-09 00:28 J -36023048.59 -36023048.48 -36023048.36 0.0088 0.0060

Mercury -103339-07-06 02:38 J -36022960.50 -36022960.39 -36022960.29 0.0088 0.0065

Mercury -103339-10-02 04:18 J -36022872.40 -36022872.32 -36022872.22 0.0088 0.0069

Mercury -103339-12-29 06:14 J -36022784.31 -36022784.24 -36022784.15 0.0088 0.0074

Mercury -103338-03-27 08:23 J -36022696.22 -36022696.15 -36022696.08 0.0088 0.0078

Mercury -103338-06-23 10:04 J -36022608.12 -36022608.08 -36022608.01 0.0088 0.0082

Mercury -103338-09-19 11:59 J -36022520.02 -36022520.00 -36022519.96 0.0088 0.0086

Venus -103333-05-28 00:14 J -36020807.55 -36020807.49 -36020807.38 0.0088 0.0082

Venus -103332-01-08 13:40 J -36020582.05 -36020581.93 -36020581.80 0.0088 0.0073

Venus -103332-08-22 02:23 J -36020356.54 -36020356.40 -36020356.24 0.0088 0.0065

Venus -103331-04-04 15:21 J -36020131.01 -36020130.86 -36020130.67 0.0088 0.0056

Venus -103331-11-16 04:33 J -36019905.49 -36019905.31 -36019905.12 0.0088 0.0048

Venus -103330-06-29 17:16 J -36019679.96 -36019679.78 -36019679.57 0.0088 0.0039

Venus -103329-02-10 06:28 J -36019454.44 -36019454.23 -36019454.02 0.0088 0.0031

Venus -103329-09-22 19:11 J -36019228.91 -36019228.70 -36019228.48 0.0088 0.0022

Venus -103328-05-06 08:09 J -36019003.38 -36019003.16 -36019002.94 0.0088 0.0014

Venus -103328-12-17 20:52 J -36018777.85 -36018777.63 -36018777.41 0.0088 0.0005

Venus -103327-07-31 09:35 J -36018552.32 -36018552.10 -36018551.88 0.0088 0.0003

Venus -103326-03-13 22:18 J -36018326.79 -36018326.57 -36018326.35 0.0088 0.0012

Venus -103326-10-25 10:47 J -36018101.26 -36018101.05 -36018100.83 0.0088 0.0020

Venus -103325-06-06 23:16 J -36017875.73 -36017875.53 -36017875.31 0.0088 0.0029

Venus -103324-01-18 11:59 J -36017650.20 -36017650.00 -36017649.80 0.0088 0.0037

Venus -103324-09-01 00:14 J -36017424.66 -36017424.49 -36017424.29 0.0088 0.0045
 Venus -103323-04-14 12:42 J -36017199.12 -36017198.97 -36017198.78 0.0088 0.0054
 Venus -103323-11-26 01:11 J -36016973.59 -36016973.45 -36016973.27 0.0088 0.0062
 Venus -103322-07-09 13:40 J -36016748.05 -36016747.93 -36016747.78 0.0088 0.0070
 Venus -103321-02-20 02:09 J -36016522.50 -36016522.41 -36016522.30 0.0088 0.0078
 Venus -103321-10-02 14:38 J -36016296.93 -36016296.89 -36016296.83 0.0088 0.0086
 Moon -103306-08-09 17:02 J -36010872.85 -36010872.79 -36010872.67 0.0088 0.0083
 Earth -103306-08-09 20:38 J -36010872.72 -36010872.64 -36010872.52 0.0088 0.0081 *
 Earth -103305-08-11 04:18 J -36010505.51 -36010505.32 -36010505.10 0.0088 0.0050
 Moon -103305-08-11 07:40 J -36010505.38 -36010505.18 -36010504.95 0.0088 0.0048 *
 Moon -103304-08-13 10:18 J -36010138.30 -36010138.07 -36010137.83 0.0088 0.0019
 Earth -103304-08-13 12:14 J -36010138.23 -36010137.99 -36010137.74 0.0088 0.0018 *
 Earth -103303-08-15 19:54 J -36009770.92 -36009770.67 -36009770.43 0.0088 0.0013
 Moon -103303-08-15 20:52 J -36009770.88 -36009770.63 -36009770.37 0.0088 0.0014 *
 Earth -103302-08-18 03:06 J -36009403.58 -36009403.37 -36009403.15 0.0088 0.0044
 Moon -103302-08-18 03:06 J -36009403.57 -36009403.37 -36009403.15 0.0088 0.0043 *
 Moon -103301-08-19 07:40 J -36009036.28 -36009036.18 -36009036.02 0.0088 0.0076
 Earth -103301-08-19 10:04 J -36009036.20 -36009036.08 -36009035.93 0.0088 0.0075 *
 Mars -103292-09-23 11:59 J -36005714.26 -36005714.00 -36005713.73 0.0088 0.0054
 Mars -103290-08-20 05:02 J -36005018.62 -36005018.29 -36005017.95 0.0088 0.0003
 Mars -103288-07-15 23:30 J -36004322.77 -36004322.52 -36004322.22 0.0089 0.0049
 Mercury -103264-01-04 19:40 J -35995748.69 -35995748.68 -35995748.66 0.0089 0.0088
 Mercury -103264-04-02 21:35 J -35995660.64 -35995660.60 -35995660.54 0.0089 0.0084
 Mercury -103264-06-29 23:30 J -35995572.57 -35995572.52 -35995572.44 0.0089 0.0080
 Mercury -103264-09-26 01:40 J -35995484.50 -35995484.43 -35995484.34 0.0089 0.0075
 Mercury -103264-12-23 03:50 J -35995396.42 -35995396.34 -35995396.24 0.0089 0.0071
 Mercury -103263-03-21 05:59 J -35995308.35 -35995308.25 -35995308.14 0.0089 0.0066
 Mercury -103263-06-17 07:54 J -35995220.27 -35995220.17 -35995220.05 0.0089 0.0062
 Mercury -103263-09-13 10:18 J -35995132.19 -35995132.07 -35995131.95 0.0089 0.0057
 Mercury -103263-12-10 12:14 J -35995044.11 -35995043.99 -35995043.86 0.0089 0.0053

Mercury -103262-03-08 14:23 J -35994956.03 -35994955.90 -35994955.76 0.0089 0.0048

Mercury -103262-06-04 16:18 J -35994867.94 -35994867.82 -35994867.67 0.0089 0.0044

Mercury -103262-08-31 18:42 J -35994779.86 -35994779.72 -35994779.58 0.0089 0.0039

Mercury -103262-11-27 20:52 J -35994691.77 -35994691.63 -35994691.48 0.0089 0.0034

Mercury -103261-02-23 22:47 J -35994603.69 -35994603.55 -35994603.39 0.0089 0.0030

Mercury -103261-05-22 01:11 J -35994515.60 -35994515.45 -35994515.30 0.0089 0.0025

Mercury -103261-08-18 03:21 J -35994427.51 -35994427.36 -35994427.20 0.0089 0.0021

Mercury -103261-11-14 05:30 J -35994339.42 -35994339.27 -35994339.11 0.0089 0.0016

Mercury -103260-02-10 07:40 J -35994251.33 -35994251.18 -35994251.02 0.0089 0.0011

Mercury -103260-05-09 09:50 J -35994163.24 -35994163.09 -35994162.93 0.0089 0.0007

Mercury -103260-08-05 12:14 J -35994075.15 -35994074.99 -35994074.83 0.0089 0.0002

Mercury -103260-11-01 14:23 J -35993987.06 -35993986.90 -35993986.74 0.0089 0.0003

Mercury -103259-01-28 16:33 J -35993898.97 -35993898.81 -35993898.65 0.0089 0.0008

Mercury -103259-04-26 18:42 J -35993810.87 -35993810.72 -35993810.55 0.0089 0.0013

Mercury -103259-07-23 21:06 J -35993722.78 -35993722.62 -35993722.46 0.0089 0.0017

Mercury -103259-10-19 23:16 J -35993634.68 -35993634.53 -35993634.37 0.0089 0.0022

Mercury -103258-01-16 01:40 J -35993546.58 -35993546.43 -35993546.28 0.0089 0.0027

Mercury -103258-04-14 03:50 J -35993458.48 -35993458.34 -35993458.18 0.0089 0.0032

Mercury -103258-07-11 05:59 J -35993370.39 -35993370.25 -35993370.09 0.0089 0.0037

Mercury -103258-10-07 08:23 J -35993282.28 -35993282.15 -35993282.00 0.0089 0.0042

Mercury -103257-01-03 10:33 J -35993194.18 -35993194.06 -35993193.91 0.0089 0.0047

Mercury -103257-03-31 13:11 J -35993106.08 -35993105.95 -35993105.82 0.0089 0.0051

Mercury -103257-06-27 15:21 J -35993017.98 -35993017.86 -35993017.73 0.0089 0.0056

Mercury -103257-09-23 17:45 J -35992929.87 -35992929.76 -35992929.63 0.0089 0.0061

Mercury -103257-12-20 20:09 J -35992841.76 -35992841.66 -35992841.55 0.0089 0.0066

Mercury -103256-03-18 22:33 J -35992753.65 -35992753.56 -35992753.46 0.0089 0.0071

Mercury -103256-06-15 00:57 J -35992665.54 -35992665.46 -35992665.37 0.0089 0.0076

Mercury -103256-09-11 03:21 J -35992577.42 -35992577.36 -35992577.29 0.0089 0.0081

Mercury -103256-12-08 05:45 J -35992489.29 -35992489.26 -35992489.21 0.0089 0.0086

Venus -103251-07-09 09:50 J -35990815.15 -35990815.09 -35990815.02 0.0089 0.0084

Venus	-103250-02-19 22:33 J	-35990589.65	-35990589.56	-35990589.43	0.0089	0.0076
Venus	-103250-10-03 11:30 J	-35990364.13	-35990364.02	-35990363.85	0.0089	0.0068
Venus	-103249-05-16 00:57 J	-35990138.61	-35990138.46	-35990138.29	0.0089	0.0059
Venus	-103249-12-27 13:40 J	-35989913.09	-35989912.93	-35989912.73	0.0089	0.0051
Venus	-103248-08-10 02:52 J	-35989687.56	-35989687.38	-35989687.17	0.0089	0.0043
Venus	-103247-03-23 15:50 J	-35989462.02	-35989461.84	-35989461.62	0.0089	0.0035
Venus	-103247-11-04 05:16 J	-35989236.48	-35989236.28	-35989236.06	0.0089	0.0025
Venus	-103246-06-17 18:42 J	-35989010.94	-35989010.72	-35989010.51	0.0089	0.0016
Venus	-103245-01-29 07:40 J	-35988785.39	-35988785.18	-35988784.95	0.0089	0.0008
Venus	-103245-09-10 21:06 J	-35988559.84	-35988559.62	-35988559.40	0.0089	0.0001
Venus	-103244-04-24 10:18 J	-35988334.29	-35988334.07	-35988333.85	0.0089	0.0010
Venus	-103244-12-05 23:45 J	-35988108.73	-35988108.51	-35988108.30	0.0089	0.0019
Venus	-103243-07-19 12:57 J	-35987883.17	-35987882.96	-35987882.75	0.0089	0.0027
Venus	-103242-03-02 02:09 J	-35987657.60	-35987657.41	-35987657.20	0.0089	0.0036
Venus	-103242-10-13 15:35 J	-35987432.02	-35987431.85	-35987431.64	0.0089	0.0045
Venus	-103241-05-26 05:30 J	-35987206.45	-35987206.27	-35987206.09	0.0089	0.0053
Venus	-103240-01-06 18:42 J	-35986980.87	-35986980.72	-35986980.55	0.0089	0.0062
Venus	-103240-08-20 07:54 J	-35986755.28	-35986755.17	-35986755.02	0.0089	0.0071
Venus	-103239-04-02 22:04 J	-35986529.68	-35986529.58	-35986529.49	0.0089	0.0080
Venus	-103239-11-14 11:16 J	-35986304.04	-35986304.03	-35986303.98	0.0089	0.0089
Moon	-103223-02-03 21:06 J	-35980743.78	-35980743.62	-35980743.40	0.0089	0.0065
Earth	-103223-02-03 22:04 J	-35980743.74	-35980743.58	-35980743.41	0.0089	0.0069 *
Earth	-103222-02-06 13:40 J	-35980376.17	-35980375.93	-35980375.68	0.0089	0.0035
Moon	-103222-02-06 15:06 J	-35980376.08	-35980375.87	-35980375.62	0.0089	0.0040 *
Moon	-103221-02-09 03:35 J	-35980008.62	-35980008.35	-35980008.07	0.0089	0.0003
Earth	-103221-02-09 05:59 J	-35980008.52	-35980008.25	-35980007.98	0.0089	0.0001 *
Earth	-103220-02-10 21:50 J	-35979640.83	-35979640.59	-35979640.33	0.0089	0.0033
Moon	-103220-02-11 01:11 J	-35979640.69	-35979640.45	-35979640.20	0.0089	0.0028 *
Moon	-103219-02-13 09:50 J	-35979273.22	-35979273.09	-35979272.90	0.0089	0.0072
Earth	-103219-02-13 13:54 J	-35979273.08	-35979272.92	-35979272.73	0.0089	0.0067 *

Mars -103210-08-12 15:50 J -35975806.08 -35975805.84 -35975805.57 0.0089 0.0046
 Mars -103208-07-06 18:57 J -35975112.01 -35975111.71 -35975111.41 0.0089 0.0001
 Mars -103206-05-31 20:09 J -35974417.91 -35974417.66 -35974417.40 0.0089 0.0046
 Mercury -103182-04-17 02:52 J -35965696.41 -35965696.38 -35965696.33 0.0088 0.0086
 Mercury -103182-07-14 05:16 J -35965608.34 -35965608.28 -35965608.21 0.0088 0.0081
 Mercury -103182-10-10 07:40 J -35965520.26 -35965520.18 -35965520.10 0.0088 0.0076
 Mercury -103181-01-06 09:35 J -35965432.18 -35965432.10 -35965431.99 0.0088 0.0071
 Mercury -103181-04-03 11:59 J -35965344.09 -35965344.00 -35965343.88 0.0088 0.0066
 Mercury -103181-06-30 14:23 J -35965256.01 -35965255.90 -35965255.78 0.0088 0.0061
 Mercury -103181-09-26 16:33 J -35965167.92 -35965167.81 -35965167.68 0.0088 0.0057
 Mercury -103181-12-23 18:57 J -35965079.84 -35965079.71 -35965079.58 0.0088 0.0052
 Mercury -103180-03-21 20:52 J -35964991.75 -35964991.63 -35964991.48 0.0088 0.0048
 Mercury -103180-06-17 23:16 J -35964903.66 -35964903.53 -35964903.38 0.0088 0.0043
 Mercury -103180-09-14 01:40 J -35964815.57 -35964815.43 -35964815.28 0.0088 0.0038
 Mercury -103180-12-11 03:50 J -35964727.48 -35964727.34 -35964727.19 0.0088 0.0033
 Mercury -103179-03-09 05:59 J -35964639.39 -35964639.25 -35964639.09 0.0088 0.0028
 Mercury -103179-06-05 08:09 J -35964551.31 -35964551.16 -35964551.00 0.0088 0.0024
 Mercury -103179-09-01 10:33 J -35964463.22 -35964463.06 -35964462.91 0.0088 0.0019
 Mercury -103179-11-28 12:28 J -35964375.13 -35964374.98 -35964374.81 0.0088 0.0015
 Mercury -103178-02-24 14:52 J -35964287.04 -35964286.88 -35964286.72 0.0088 0.0009
 Mercury -103178-05-23 17:02 J -35964198.95 -35964198.79 -35964198.63 0.0088 0.0005
 Mercury -103178-08-19 19:11 J -35964110.86 -35964110.70 -35964110.55 0.0088 0.0002
 Mercury -103178-11-15 21:06 J -35964022.77 -35964022.62 -35964022.46 0.0088 0.0006
 Mercury -103177-02-11 23:16 J -35963934.68 -35963934.53 -35963934.37 0.0088 0.0009
 Mercury -103177-05-10 01:26 J -35963846.59 -35963846.44 -35963846.28 0.0088 0.0014
 Mercury -103177-08-06 03:35 J -35963758.50 -35963758.35 -35963758.20 0.0088 0.0018
 Mercury -103177-11-02 05:30 J -35963670.41 -35963670.27 -35963670.11 0.0088 0.0023
 Mercury -103176-01-29 07:40 J -35963582.32 -35963582.18 -35963582.03 0.0088 0.0027
 Mercury -103176-04-27 09:35 J -35963494.24 -35963494.10 -35963493.95 0.0088 0.0032
 Mercury -103176-07-24 11:45 J -35963406.15 -35963406.01 -35963405.86 0.0088 0.0036

Mercury -103176-10-20 13:54 J -35963318.06 -35963317.92 -35963317.78 0.0088 0.0041

Mercury -103175-01-16 15:50 J -35963229.97 -35963229.84 -35963229.70 0.0088 0.0045

Mercury -103175-04-14 17:59 J -35963141.88 -35963141.75 -35963141.62 0.0088 0.0050

Mercury -103175-07-11 19:40 J -35963053.79 -35963053.68 -35963053.54 0.0088 0.0055

Mercury -103175-10-07 21:50 J -35962965.70 -35962965.59 -35962965.47 0.0088 0.0059

Mercury -103174-01-03 23:45 J -35962877.60 -35962877.51 -35962877.39 0.0088 0.0063

Mercury -103174-04-02 01:40 J -35962789.51 -35962789.43 -35962789.32 0.0088 0.0068

Mercury -103174-06-29 03:50 J -35962701.42 -35962701.34 -35962701.24 0.0088 0.0072

Mercury -103174-09-25 05:59 J -35962613.33 -35962613.25 -35962613.17 0.0088 0.0076

Mercury -103174-12-22 07:40 J -35962525.23 -35962525.18 -35962525.11 0.0088 0.0080

Mercury -103173-03-19 09:35 J -35962437.13 -35962437.10 -35962437.05 0.0088 0.0085

Venus -103169-08-29 11:01 J -35960813.10 -35960813.04 -35960812.94 0.0088 0.0083

Venus -103168-04-12 00:28 J -35960587.59 -35960587.48 -35960587.35 0.0088 0.0074

Venus -103168-11-23 13:11 J -35960362.08 -35960361.95 -35960361.79 0.0088 0.0066

Venus -103167-07-07 01:54 J -35960136.56 -35960136.42 -35960136.23 0.0088 0.0058

Venus -103166-02-17 15:06 J -35959911.04 -35959910.87 -35959910.67 0.0088 0.0049

Venus -103166-10-01 03:49 J -35959685.52 -35959685.34 -35959685.12 0.0088 0.0041

Venus -103165-05-13 17:01 J -35959459.99 -35959459.79 -35959459.58 0.0088 0.0031

Venus -103165-12-25 05:45 J -35959234.46 -35959234.26 -35959234.04 0.0088 0.0023

Venus -103164-08-07 18:42 J -35959008.93 -35959008.72 -35959008.50 0.0088 0.0014

Venus -103163-03-21 07:40 J -35958783.40 -35958783.18 -35958782.96 0.0088 0.0006

Venus -103163-11-01 20:23 J -35958557.87 -35958557.65 -35958557.43 0.0088 0.0003

Venus -103162-06-15 09:06 J -35958332.33 -35958332.12 -35958331.90 0.0088 0.0011

Venus -103161-01-26 21:49 J -35958106.80 -35958106.59 -35958106.38 0.0088 0.0020

Venus -103161-09-08 10:04 J -35957881.27 -35957881.08 -35957880.86 0.0088 0.0029

Venus -103160-04-21 23:01 J -35957655.73 -35957655.54 -35957655.33 0.0088 0.0037

Venus -103160-12-03 11:45 J -35957430.20 -35957430.01 -35957429.82 0.0088 0.0045

Venus -103159-07-16 23:45 J -35957204.66 -35957204.51 -35957204.32 0.0088 0.0054

Venus -103158-02-27 12:13 J -35956979.13 -35956978.99 -35956978.82 0.0088 0.0062

Venus -103158-10-11 00:57 J -35956753.59 -35956753.46 -35956753.32 0.0088 0.0070

Venus -103157-05-23 13:25 J -35956528.03 -35956527.94 -35956527.83 0.0088 0.0078
 Venus -103156-01-04 01:54 J -35956302.47 -35956302.42 -35956302.37 0.0088 0.0086
 Moon -103141-08-10 15:06 J -35950605.02 -35950604.87 -35950604.67 0.0088 0.0060
 Earth -103141-08-10 17:45 J -35950604.93 -35950604.76 -35950604.59 0.0088 0.0064 *
 Earth -103140-08-13 01:11 J -35950237.68 -35950237.45 -35950237.21 0.0088 0.0033
 Moon -103140-08-13 01:40 J -35950237.65 -35950237.43 -35950237.18 0.0088 0.0037 *
 Earth -103139-08-15 08:52 J -35949870.38 -35949870.13 -35949869.88 0.0088 0.0002
 Moon -103139-08-15 09:35 J -35949870.34 -35949870.10 -35949869.86 0.0088 0.0003 *
 Moon -103138-08-17 14:23 J -35949503.13 -35949502.90 -35949502.64 0.0088 0.0025
 Earth -103138-08-17 16:04 J -35949503.05 -35949502.83 -35949502.59 0.0088 0.0030 *
 Earth -103137-08-18 23:16 J -35949135.69 -35949135.53 -35949135.33 0.0088 0.0061
 Moon -103137-08-19 02:09 J -35949135.55 -35949135.41 -35949135.23 0.0088 0.0065 *
 Moon -103136-08-21 03:21 J -35948768.39 -35948768.36 -35948768.30 0.0088 0.0087
 Mars -103128-05-07 07:40 J -35945952.31 -35945952.18 -35945951.97 0.0088 0.0077
 Mars -103126-04-03 00:13 J -35945256.79 -35945256.49 -35945256.15 0.0088 0.0025
 Mars -103124-02-26 18:13 J -35944561.05 -35944560.74 -35944560.41 0.0089 0.0027
 Mars -103122-01-23 13:25 J -35943865.08 -35943864.94 -35943864.78 0.0089 0.0079
 Mercury -103100-10-01 18:57 J -35935577.74 -35935577.71 -35935577.66 0.0089 0.0086
 Mercury -103100-12-28 20:52 J -35935489.67 -35935489.63 -35935489.56 0.0089 0.0082
 Mercury -103099-03-26 23:01 J -35935401.60 -35935401.54 -35935401.46 0.0089 0.0077
 Mercury -103099-06-23 00:57 J -35935313.53 -35935313.46 -35935313.36 0.0089 0.0073
 Mercury -103099-09-19 03:21 J -35935225.46 -35935225.36 -35935225.26 0.0089 0.0068
 Mercury -103099-12-16 05:16 J -35935137.38 -35935137.28 -35935137.17 0.0089 0.0064
 Mercury -103098-03-14 07:25 J -35935049.30 -35935049.19 -35935049.07 0.0089 0.0059
 Mercury -103098-06-10 09:21 J -35934961.22 -35934961.11 -35934960.98 0.0089 0.0055
 Mercury -103098-09-06 11:45 J -35934873.14 -35934873.01 -35934872.88 0.0089 0.0050
 Mercury -103098-12-03 13:40 J -35934785.06 -35934784.93 -35934784.79 0.0089 0.0046
 Mercury -103097-02-29 15:49 J -35934696.97 -35934696.84 -35934696.70 0.0089 0.0041
 Mercury -103097-05-27 17:45 J -35934608.89 -35934608.76 -35934608.61 0.0089 0.0037
 Mercury -103097-08-23 20:09 J -35934520.80 -35934520.66 -35934520.51 0.0089 0.0032

Mercury -103097-11-19 22:18 J -35934432.72 -35934432.57 -35934432.42 0.0089 0.0027

Mercury -103096-02-16 00:28 J -35934344.63 -35934344.48 -35934344.33 0.0089 0.0023

Mercury -103096-05-15 02:37 J -35934256.54 -35934256.39 -35934256.23 0.0089 0.0018

Mercury -103096-08-11 04:47 J -35934168.45 -35934168.30 -35934168.14 0.0089 0.0013

Mercury -103096-11-07 06:57 J -35934080.36 -35934080.21 -35934080.05 0.0089 0.0009

Mercury -103095-02-03 09:06 J -35933992.27 -35933992.12 -35933991.96 0.0089 0.0005

Mercury -103095-05-02 11:30 J -35933904.18 -35933904.02 -35933903.86 0.0089 0.0002

Mercury -103095-07-29 13:40 J -35933816.09 -35933815.93 -35933815.77 0.0089 0.0005

Mercury -103095-10-25 15:49 J -35933728.00 -35933727.84 -35933727.68 0.0089 0.0010

Mercury -103094-01-21 17:59 J -35933639.90 -35933639.75 -35933639.59 0.0089 0.0015

Mercury -103094-04-19 20:23 J -35933551.81 -35933551.65 -35933551.49 0.0089 0.0020

Mercury -103094-07-16 22:33 J -35933463.71 -35933463.56 -35933463.40 0.0089 0.0025

Mercury -103094-10-13 00:57 J -35933375.61 -35933375.46 -35933375.31 0.0089 0.0029

Mercury -103093-01-09 03:06 J -35933287.51 -35933287.37 -35933287.22 0.0089 0.0034

Mercury -103093-04-06 05:16 J -35933199.42 -35933199.28 -35933199.13 0.0089 0.0039

Mercury -103093-07-03 07:40 J -35933111.32 -35933111.18 -35933111.04 0.0089 0.0044

Mercury -103093-09-29 09:49 J -35933023.21 -35933023.09 -35933022.94 0.0089 0.0049

Mercury -103093-12-26 12:13 J -35932935.11 -35932934.99 -35932934.85 0.0089 0.0054

Mercury -103092-03-24 14:23 J -35932847.01 -35932846.90 -35932846.76 0.0089 0.0059

Mercury -103092-06-20 16:47 J -35932758.90 -35932758.80 -35932758.67 0.0089 0.0064

Mercury -103092-09-16 18:57 J -35932670.79 -35932670.71 -35932670.59 0.0089 0.0069

Mercury -103092-12-13 21:49 J -35932582.68 -35932582.59 -35932582.50 0.0089 0.0073

Mercury -103091-03-12 00:13 J -35932494.57 -35932494.49 -35932494.42 0.0089 0.0078

Mercury -103091-06-08 02:37 J -35932406.45 -35932406.39 -35932406.34 0.0089 0.0083

Mercury -103091-09-04 04:47 J -35932318.31 -35932318.30 -35932318.28 0.0089 0.0088

Venus -103087-10-10 20:09 J -35930820.69 -35930820.66 -35930820.58 0.0089 0.0086

Venus -103086-05-24 09:35 J -35930595.20 -35930595.10 -35930594.99 0.0089 0.0077

Venus -103085-01-04 22:04 J -35930369.69 -35930369.58 -35930369.42 0.0089 0.0069

Venus -103085-08-17 11:30 J -35930144.17 -35930144.02 -35930143.85 0.0089 0.0060

Venus -103084-03-31 00:13 J -35929918.65 -35929918.49 -35929918.29 0.0089 0.0052

Venus	-103084-11-11 13:25 J	-35929693.12	-35929692.94	-35929692.73	0.0089	0.0043
Venus	-103083-06-25 02:52 J	-35929467.58	-35929467.38	-35929467.18	0.0089	0.0034
Venus	-103082-02-05 15:35 J	-35929242.04	-35929241.85	-35929241.62	0.0089	0.0027
Venus	-103082-09-19 05:01 J	-35929016.50	-35929016.29	-35929016.07	0.0089	0.0017
Venus	-103081-05-01 18:28 J	-35928790.95	-35928790.73	-35928790.51	0.0089	0.0008
Venus	-103081-12-13 07:25 J	-35928565.41	-35928565.19	-35928564.97	0.0089	0.0002
Venus	-103080-07-26 20:37 J	-35928339.86	-35928339.64	-35928339.42	0.0089	0.0009
Venus	-103079-03-09 09:49 J	-35928114.30	-35928114.09	-35928113.87	0.0089	0.0018
Venus	-103079-10-20 23:16 J	-35927888.73	-35927888.53	-35927888.31	0.0089	0.0027
Venus	-103078-06-03 12:42 J	-35927663.17	-35927662.97	-35927662.76	0.0089	0.0035
Venus	-103077-01-15 01:54 J	-35927437.60	-35927437.42	-35927437.22	0.0089	0.0044
Venus	-103077-08-27 15:06 J	-35927212.03	-35927211.87	-35927211.67	0.0089	0.0054
Venus	-103076-04-10 04:33 J	-35926986.45	-35926986.31	-35926986.13	0.0089	0.0062
Venus	-103076-11-21 17:59 J	-35926760.86	-35926760.75	-35926760.59	0.0089	0.0071
Venus	-103075-07-05 07:54 J	-35926535.26	-35926535.17	-35926535.06	0.0089	0.0079
Venus	-103074-02-15 21:21 J	-35926309.62	-35926309.61	-35926309.56	0.0089	0.0088
Earth	-103059-02-03 03:21 J	-35920843.42	-35920843.36	-35920843.27	0.0089	0.0085
Moon	-103059-02-03 04:47 J	-35920843.33	-35920843.30	-35920843.20	0.0089	0.0086 *
Moon	-103058-02-05 15:49 J	-35920476.04	-35920475.84	-35920475.60	0.0089	0.0052
Earth	-103058-02-05 19:25 J	-35920475.90	-35920475.69	-35920475.46	0.0089	0.0051 *
Earth	-103057-02-08 11:30 J	-35920108.28	-35920108.02	-35920107.75	0.0089	0.0017
Moon	-103057-02-08 14:52 J	-35920108.13	-35920107.88	-35920107.61	0.0089	0.0017 *
Moon	-103056-02-09 23:45 J	-35919740.76	-35919740.51	-35919740.24	0.0089	0.0018
Earth	-103056-02-10 03:35 J	-35919740.61	-35919740.35	-35919740.08	0.0089	0.0017 *
Earth	-103055-02-12 19:40 J	-35919372.90	-35919372.68	-35919372.46	0.0089	0.0051
Moon	-103055-02-12 23:16 J	-35919372.75	-35919372.53	-35919372.30	0.0089	0.0051 *
Moon	-103054-02-15 08:23 J	-35919005.18	-35919005.15	-35919005.07	0.0089	0.0087
Earth	-103054-02-15 11:45 J	-35919005.08	-35919005.01	-35919004.94	0.0089	0.0085 *
Mars	-103046-03-27 21:06 J	-35916042.80	-35916042.62	-35916042.41	0.0089	0.0067
Mars	-103044-02-19 00:42 J	-35915348.75	-35915348.47	-35915348.16	0.0089	0.0020

Mars -103042-01-14 03:35 J -35914654.64 -35914654.35 -35914654.07 0.0089 0.0027
 Mars -103041-12-08 04:04 J -35913960.46 -35913960.33 -35913960.13 0.0089 0.0074
 Mercury -103018-10-15 23:59 J -35905613.51 -35905613.50 -35905613.47 0.0088 0.0088
 Mercury -103017-01-12 02:23 J -35905525.45 -35905525.40 -35905525.34 0.0088 0.0083
 Mercury -103017-04-09 04:47 J -35905437.37 -35905437.30 -35905437.22 0.0088 0.0078
 Mercury -103017-07-06 06:42 J -35905349.29 -35905349.22 -35905349.11 0.0088 0.0074
 Mercury -103017-10-02 09:06 J -35905261.21 -35905261.12 -35905261.01 0.0088 0.0069
 Mercury -103017-12-29 11:30 J -35905173.12 -35905173.02 -35905172.90 0.0088 0.0064
 Mercury -103016-03-27 13:54 J -35905085.04 -35905084.92 -35905084.80 0.0088 0.0059
 Mercury -103016-06-23 16:18 J -35904996.95 -35904996.82 -35904996.70 0.0088 0.0054
 Mercury -103016-09-19 18:13 J -35904908.86 -35904908.74 -35904908.60 0.0088 0.0049
 Mercury -103016-12-16 20:23 J -35904820.77 -35904820.65 -35904820.50 0.0088 0.0045
 Mercury -103015-03-14 22:47 J -35904732.69 -35904732.55 -35904732.40 0.0088 0.0040
 Mercury -103015-06-11 01:11 J -35904644.60 -35904644.45 -35904644.30 0.0088 0.0035
 Mercury -103015-09-07 03:06 J -35904556.51 -35904556.37 -35904556.21 0.0088 0.0031
 Mercury -103015-12-04 05:30 J -35904468.42 -35904468.27 -35904468.11 0.0088 0.0025
 Mercury -103014-03-02 07:40 J -35904380.33 -35904380.18 -35904380.02 0.0088 0.0021
 Mercury -103014-05-29 09:49 J -35904292.24 -35904292.09 -35904291.93 0.0088 0.0016
 Mercury -103014-08-25 11:59 J -35904204.15 -35904204.00 -35904203.84 0.0088 0.0012
 Mercury -103014-11-21 14:09 J -35904116.06 -35904115.91 -35904115.75 0.0088 0.0007
 Mercury -103013-02-17 16:18 J -35904027.97 -35904027.82 -35904027.66 0.0088 0.0004
 Mercury -103013-05-15 18:28 J -35903939.88 -35903939.73 -35903939.57 0.0088 0.0003
 Mercury -103013-08-11 20:37 J -35903851.79 -35903851.64 -35903851.48 0.0088 0.0007
 Mercury -103013-11-07 22:47 J -35903763.71 -35903763.55 -35903763.39 0.0088 0.0012
 Mercury -103012-02-04 00:57 J -35903675.62 -35903675.46 -35903675.31 0.0088 0.0016
 Mercury -103012-05-03 02:52 J -35903587.53 -35903587.38 -35903587.22 0.0088 0.0021
 Mercury -103012-07-30 05:01 J -35903499.44 -35903499.29 -35903499.14 0.0088 0.0025
 Mercury -103012-10-26 06:57 J -35903411.35 -35903411.21 -35903411.05 0.0088 0.0030
 Mercury -103011-01-22 09:06 J -35903323.26 -35903323.12 -35903322.97 0.0088 0.0035
 Mercury -103011-04-20 11:01 J -35903235.17 -35903235.04 -35903234.89 0.0088 0.0039

Mercury	-103011-07-17 13:11 J	-35903147.08	-35903146.95	-35903146.81	0.0088	0.0044
Mercury	-103011-10-13 15:21 J	-35903058.99	-35903058.86	-35903058.73	0.0088	0.0048
Mercury	-103010-01-09 17:16 J	-35902970.90	-35902970.78	-35902970.65	0.0088	0.0052
Mercury	-103010-04-07 19:25 J	-35902882.80	-35902882.69	-35902882.57	0.0088	0.0057
Mercury	-103010-07-04 21:06 J	-35902794.71	-35902794.62	-35902794.49	0.0088	0.0062
Mercury	-103010-09-30 23:16 J	-35902706.62	-35902706.53	-35902706.42	0.0088	0.0066
Mercury	-103010-12-28 01:25 J	-35902618.53	-35902618.44	-35902618.34	0.0088	0.0070
Mercury	-103009-03-25 03:06 J	-35902530.44	-35902530.37	-35902530.27	0.0088	0.0075
Mercury	-103009-06-21 05:16 J	-35902442.34	-35902442.28	-35902442.20	0.0088	0.0079
Mercury	-103009-09-17 07:25 J	-35902354.24	-35902354.19	-35902354.14	0.0088	0.0083
Mercury	-103009-12-14 08:52 J	-35902266.13	-35902266.13	-35902266.08	0.0088	0.0088
Venus	-103005-11-30 22:04 J	-35900818.62	-35900818.58	-35900818.48	0.0088	0.0084
Venus	-103004-07-14 11:30 J	-35900593.13	-35900593.02	-35900592.89	0.0088	0.0075
Venus	-103003-02-25 00:13 J	-35900367.61	-35900367.49	-35900367.32	0.0088	0.0067
Venus	-103003-10-08 13:25 J	-35900142.09	-35900141.94	-35900141.76	0.0088	0.0058
Venus	-103002-05-22 02:09 J	-35899916.57	-35899916.41	-35899916.21	0.0088	0.0050
Venus	-103001-01-02 15:21 J	-35899691.05	-35899690.86	-35899690.66	0.0088	0.0041
Venus	-103001-08-15 04:04 J	-35899465.52	-35899465.33	-35899465.11	0.0088	0.0032

103RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 103rd millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Venus	-103000-03-28 17:16 J	-35899239.99	-35899239.78	-35899239.56	0.0088	0.0023
Venus	-103000-11-09 05:59 J	-35899014.46	-35899014.25	-35899014.02	0.0088	0.0015
Venus	-102999-06-22 18:57 J	-35898788.93	-35898788.71	-35898788.49	0.0088	0.0006
Venus	-102998-02-03 07:40 J	-35898563.40	-35898563.18	-35898562.96	0.0088	0.0003
Venus	-102998-09-16 20:23 J	-35898337.86	-35898337.65	-35898337.43	0.0088	0.0011
Venus	-102997-04-29 09:21 J	-35898112.32	-35898112.11	-35898111.90	0.0088	0.0019
Venus	-102997-12-10 21:49 J	-35897886.79	-35897886.59	-35897886.37	0.0088	0.0028
Venus	-102996-07-24 10:33 J	-35897661.25	-35897661.06	-35897660.86	0.0088	0.0036
Venus	-102995-03-06 22:47 J	-35897435.72	-35897435.55	-35897435.34	0.0088	0.0046
Venus	-102995-10-18 11:30 J	-35897210.18	-35897210.02	-35897209.83	0.0088	0.0054
Venus	-102994-06-01 00:28 J	-35896984.63	-35896984.48	-35896984.32	0.0088	0.0062
Venus	-102993-01-12 12:28 J	-35896759.09	-35896758.98	-35896758.83	0.0088	0.0070
Venus	-102993-08-25 00:57 J	-35896533.54	-35896533.46	-35896533.34	0.0088	0.0078
Venus	-102992-04-07 13:25 J	-35896307.96	-35896307.94	-35896307.88	0.0088	0.0087
Earth	-102977-08-10 07:11 J	-35890704.31	-35890704.20	-35890704.08	0.0088	0.0078
Moon	-102977-08-10 06:57 J	-35890704.29	-35890704.21	-35890704.07	0.0088	0.0079 *
Earth	-102976-08-12 14:52 J	-35890337.09	-35890336.88	-35890336.67	0.0088	0.0047
Moon	-102976-08-12 15:06 J	-35890337.06	-35890336.87	-35890336.64	0.0088	0.0046 *
Moon	-102975-08-14 19:40 J	-35889969.92	-35889969.68	-35889969.42	0.0088	0.0017
Earth	-102975-08-14 22:18 J	-35889969.81	-35889969.57	-35889969.32	0.0088	0.0016 *
Earth	-102974-08-17 05:45 J	-35889602.50	-35889602.26	-35889602.01	0.0088	0.0015
Moon	-102974-08-17 08:37 J	-35889602.38	-35889602.14	-35889601.89	0.0088	0.0017 *
Moon	-102973-08-18 09:35 J	-35889235.31	-35889235.10	-35889234.88	0.0088	0.0045
Earth	-102973-08-18 12:57 J	-35889235.16	-35889234.96	-35889234.74	0.0088	0.0047 *
Earth	-102972-08-20 20:09 J	-35888867.76	-35888867.66	-35888867.52	0.0088	0.0078
Moon	-102972-08-20 23:30 J	-35888867.61	-35888867.52	-35888867.38	0.0088	0.0079 *
Mars	-102963-11-14 23:45 J	-35885494.79	-35885494.51	-35885494.23	0.0088	0.0047
Mars	-102961-10-10 16:04 J	-35884799.15	-35884798.83	-35884798.49	0.0088	0.0005

Mars -102959-09-06 10:04 J -35884103.31 -35884103.08 -35884102.81 0.0089 0.0058
 Mercury -102935-04-01 16:18 J -35875494.83 -35875494.82 -35875494.79 0.0089 0.0088
 Mercury -102935-06-28 18:13 J -35875406.77 -35875406.74 -35875406.67 0.0089 0.0084
 Mercury -102935-09-24 20:23 J -35875318.71 -35875318.65 -35875318.57 0.0089 0.0079
 Mercury -102935-12-21 22:18 J -35875230.64 -35875230.57 -35875230.47 0.0089 0.0075
 Mercury -102934-03-20 00:42 J -35875142.56 -35875142.47 -35875142.38 0.0089 0.0070
 Mercury -102934-06-16 02:23 J -35875054.49 -35875054.40 -35875054.28 0.0089 0.0066
 Mercury -102934-09-12 04:47 J -35874966.41 -35874966.30 -35874966.19 0.0089 0.0061
 Mercury -102934-12-09 06:42 J -35874878.33 -35874878.22 -35874878.09 0.0089 0.0057
 Mercury -102933-03-06 08:52 J -35874790.25 -35874790.13 -35874790.00 0.0089 0.0052
 Mercury -102933-06-02 10:47 J -35874702.17 -35874702.05 -35874701.91 0.0089 0.0048
 Mercury -102933-08-29 13:11 J -35874614.08 -35874613.95 -35874613.81 0.0089 0.0043
 Mercury -102933-11-25 15:06 J -35874526.00 -35874525.87 -35874525.72 0.0089 0.0039
 Mercury -102932-02-21 17:16 J -35874437.92 -35874437.78 -35874437.63 0.0089 0.0034
 Mercury -102932-05-20 19:25 J -35874349.83 -35874349.69 -35874349.53 0.0089 0.0030
 Mercury -102932-08-16 21:35 J -35874261.74 -35874261.60 -35874261.44 0.0089 0.0025
 Mercury -102932-11-12 23:59 J -35874173.66 -35874173.50 -35874173.35 0.0089 0.0020
 Mercury -102931-02-09 01:54 J -35874085.57 -35874085.42 -35874085.26 0.0089 0.0016
 Mercury -102931-05-08 04:18 J -35873997.48 -35873997.32 -35873997.17 0.0089 0.0011
 Mercury -102931-08-04 06:28 J -35873909.39 -35873909.23 -35873909.07 0.0089 0.0006
 Mercury -102931-10-31 08:37 J -35873821.30 -35873821.14 -35873820.98 0.0089 0.0001
 Mercury -102930-01-27 10:47 J -35873733.21 -35873733.05 -35873732.89 0.0089 0.0004
 Mercury -102930-04-25 12:57 J -35873645.11 -35873644.96 -35873644.80 0.0089 0.0009
 Mercury -102930-07-22 15:21 J -35873557.02 -35873556.86 -35873556.70 0.0089 0.0013
 Mercury -102930-10-18 17:30 J -35873468.92 -35873468.77 -35873468.61 0.0089 0.0018
 Mercury -102929-01-14 19:40 J -35873380.83 -35873380.68 -35873380.52 0.0089 0.0023
 Mercury -102929-04-11 22:04 J -35873292.73 -35873292.58 -35873292.43 0.0089 0.0027
 Mercury -102929-07-09 00:13 J -35873204.64 -35873204.49 -35873204.34 0.0089 0.0032
 Mercury -102929-10-05 02:23 J -35873116.54 -35873116.40 -35873116.25 0.0089 0.0037
 Mercury -102928-01-01 04:47 J -35873028.44 -35873028.30 -35873028.15 0.0089 0.0042

Mercury -102928-03-30 06:57 J -35872940.34 -35872940.21 -35872940.06 0.0089 0.0047

Mercury -102928-06-26 09:06 J -35872852.23 -35872852.12 -35872851.97 0.0089 0.0052

Mercury -102928-09-22 11:30 J -35872764.13 -35872764.02 -35872763.88 0.0089 0.0057

Mercury -102928-12-19 14:09 J -35872676.03 -35872675.91 -35872675.79 0.0089 0.0061

Mercury -102927-03-17 16:18 J -35872587.92 -35872587.82 -35872587.71 0.0089 0.0066

Mercury -102927-06-13 18:42 J -35872499.81 -35872499.72 -35872499.62 0.0089 0.0071

Mercury -102927-09-09 21:06 J -35872411.70 -35872411.62 -35872411.53 0.0089 0.0076

Mercury -102927-12-06 23:30 J -35872323.58 -35872323.52 -35872323.45 0.0089 0.0081

Mercury -102926-03-05 01:40 J -35872235.45 -35872235.43 -35872235.38 0.0089 0.0086

Venus -102922-01-12 07:25 J -35870826.21 -35870826.19 -35870826.12 0.0089 0.0087

Venus -102922-08-25 20:37 J -35870600.73 -35870600.64 -35870600.53 0.0089 0.0078

Venus -102921-04-07 09:21 J -35870375.22 -35870375.11 -35870374.95 0.0089 0.0070

Jupiter -102921-07-07 16:47 J -35870284.32 -35870283.80 -35870283.26 0.0089 0.0032

Venus -102921-11-18 22:33 J -35870149.70 -35870149.56 -35870149.39 0.0089 0.0061

Venus -102920-07-02 11:59 J -35869924.18 -35869924.00 -35869923.83 0.0089 0.0052

Venus -102919-02-13 00:42 J -35869698.65 -35869698.47 -35869698.27 0.0089 0.0044

Venus -102919-09-26 13:54 J -35869473.11 -35869472.92 -35869472.71 0.0089 0.0035

Venus -102918-05-10 03:06 J -35869247.57 -35869247.37 -35869247.15 0.0089 0.0027

Venus -102918-12-21 16:04 J -35869022.03 -35869021.83 -35869021.60 0.0089 0.0018

Venus -102917-08-03 05:16 J -35868796.49 -35868796.28 -35868796.05 0.0089 0.0010

Venus -102916-03-16 18:42 J -35868570.94 -35868570.72 -35868570.50 0.0089 0.0000

Venus -102916-10-28 07:54 J -35868345.38 -35868345.17 -35868344.94 0.0089 0.0009

Venus -102915-06-10 21:06 J -35868119.83 -35868119.62 -35868119.40 0.0089 0.0018

Venus -102914-01-22 10:33 J -35867894.27 -35867894.06 -35867893.85 0.0089 0.0026

Venus -102914-09-04 23:30 J -35867668.71 -35867668.52 -35867668.31 0.0089 0.0036

Venus -102913-04-17 12:42 J -35867443.15 -35867442.97 -35867442.76 0.0089 0.0045

Venus -102913-11-29 02:09 J -35867217.57 -35867217.41 -35867217.22 0.0089 0.0053

Venus -102912-07-12 15:21 J -35866992.00 -35866991.86 -35866991.68 0.0089 0.0062

Venus -102911-02-23 05:16 J -35866766.41 -35866766.28 -35866766.15 0.0089 0.0071

Venus -102911-10-06 18:42 J -35866540.81 -35866540.72 -35866540.61 0.0089 0.0079

Venus -102910-05-20 07:54 J -35866315.18 -35866315.17 -35866315.12 0.0089 0.0089
 Earth -102894-02-05 01:25 J -35860575.59 -35860575.44 -35860575.24 0.0089 0.0067
 Moon -102894-02-05 05:16 J -35860575.45 -35860575.28 -35860575.07 0.0089 0.0063 *
 Moon -102893-02-07 14:37 J -35860208.13 -35860207.89 -35860207.65 0.0089 0.0037
 Earth -102893-02-07 17:45 J -35860207.99 -35860207.76 -35860207.49 0.0089 0.0033 *
 Earth -102892-02-09 10:04 J -35859840.34 -35859840.08 -35859839.81 0.0089 0.0002
 Moon -102892-02-09 13:11 J -35859840.22 -35859839.95 -35859839.67 0.0089 0.0006 *
 Moon -102891-02-11 23:30 J -35859472.75 -35859472.52 -35859472.27 0.0089 0.0032
 Earth -102891-02-12 01:54 J -35859472.65 -35859472.42 -35859472.16 0.0089 0.0036 *
 Earth -102890-02-14 17:59 J -35859104.89 -35859104.75 -35859104.57 0.0089 0.0070
 Moon -102890-02-14 19:25 J -35859104.84 -35859104.69 -35859104.54 0.0089 0.0074 *
 Mars -102883-11-10 02:23 J -35856279.41 -35856279.40 -35856279.32 0.0089 0.0088
 Mars -102881-10-04 07:54 J -35855585.42 -35855585.17 -35855584.89 0.0089 0.0040
 Mars -102879-08-29 11:01 J -35854891.33 -35854891.04 -35854890.74 0.0089 0.0008
 Mars -102877-07-23 11:59 J -35854197.22 -35854197.00 -35854196.76 0.0089 0.0055
 Mercury -102853-07-11 23:30 J -35845442.55 -35845442.52 -35845442.46 0.0088 0.0085
 Mercury -102853-10-08 01:54 J -35845354.48 -35845354.42 -35845354.34 0.0088 0.0080
 Mercury -102852-01-04 04:18 J -35845266.40 -35845266.32 -35845266.23 0.0088 0.0075
 Mercury -102852-04-02 06:28 J -35845178.31 -35845178.23 -35845178.12 0.0088 0.0070
 Mercury -102852-06-29 08:37 J -35845090.23 -35845090.14 -35845090.01 0.0088 0.0066
 Mercury -102852-09-25 11:01 J -35845002.14 -35845002.04 -35845001.91 0.0088 0.0061
 Mercury -102852-12-22 13:25 J -35844914.06 -35844913.94 -35844913.81 0.0088 0.0056
 Mercury -102851-03-20 15:49 J -35844825.97 -35844825.84 -35844825.71 0.0088 0.0051
 Mercury -102851-06-16 17:45 J -35844737.88 -35844737.76 -35844737.61 0.0088 0.0047
 Mercury -102851-09-12 20:09 J -35844649.79 -35844649.66 -35844649.51 0.0088 0.0042
 Mercury -102851-12-09 22:33 J -35844561.70 -35844561.56 -35844561.41 0.0088 0.0037
 Mercury -102850-03-08 00:57 J -35844473.61 -35844473.46 -35844473.31 0.0088 0.0032
 Mercury -102850-06-04 02:52 J -35844385.52 -35844385.38 -35844385.22 0.0088 0.0027
 Mercury -102850-08-31 05:16 J -35844297.43 -35844297.28 -35844297.13 0.0088 0.0022
 Mercury -102850-11-27 07:25 J -35844209.34 -35844209.19 -35844209.03 0.0088 0.0018

Mercury -102849-02-23 09:35 J -35844121.25 -35844121.10 -35844120.94 0.0088 0.0013

Mercury -102849-05-21 11:45 J -35844033.16 -35844033.01 -35844032.85 0.0088 0.0008

Mercury -102849-08-17 13:54 J -35843945.08 -35843944.92 -35843944.76 0.0088 0.0004

Mercury -102849-11-13 16:04 J -35843856.99 -35843856.83 -35843856.67 0.0088 0.0002

Mercury -102848-02-09 18:13 J -35843768.90 -35843768.74 -35843768.58 0.0088 0.0006

Mercury -102848-05-08 20:23 J -35843680.81 -35843680.65 -35843680.49 0.0088 0.0010

Mercury -102848-08-04 22:33 J -35843592.72 -35843592.56 -35843592.41 0.0088 0.0015

Mercury -102848-11-01 00:28 J -35843504.63 -35843504.48 -35843504.32 0.0088 0.0020

Mercury -102847-01-28 02:37 J -35843416.54 -35843416.39 -35843416.24 0.0088 0.0024

Mercury -102847-04-26 04:47 J -35843328.45 -35843328.30 -35843328.15 0.0088 0.0028

Mercury -102847-07-23 06:57 J -35843240.36 -35843240.21 -35843240.07 0.0088 0.0033

Mercury -102847-10-19 08:52 J -35843152.27 -35843152.13 -35843151.98 0.0088 0.0037

Mercury -102846-01-15 11:01 J -35843064.18 -35843064.04 -35843063.90 0.0088 0.0042

Mercury -102846-04-13 12:57 J -35842976.09 -35842975.96 -35842975.82 0.0088 0.0046

Mercury -102846-07-10 15:06 J -35842887.99 -35842887.87 -35842887.74 0.0088 0.0051

Mercury -102846-10-06 16:47 J -35842799.90 -35842799.80 -35842799.66 0.0088 0.0056

Mercury -102845-01-02 18:57 J -35842711.81 -35842711.71 -35842711.59 0.0088 0.0060

Mercury -102845-03-30 20:52 J -35842623.72 -35842623.63 -35842623.51 0.0088 0.0064

Mercury -102845-06-26 23:01 J -35842535.63 -35842535.54 -35842535.44 0.0088 0.0068

Mercury -102845-09-23 01:11 J -35842447.53 -35842447.45 -35842447.36 0.0088 0.0073

Mercury -102845-12-20 02:52 J -35842359.44 -35842359.38 -35842359.29 0.0088 0.0077

Mercury -102844-03-18 04:47 J -35842271.34 -35842271.30 -35842271.23 0.0088 0.0082

Mercury -102844-06-14 06:57 J -35842183.24 -35842183.21 -35842183.17 0.0088 0.0086

Venus -102840-03-04 10:04 J -35840824.13 -35840824.08 -35840824.00 0.0088 0.0084

Venus -102840-10-15 23:01 J -35840598.64 -35840598.54 -35840598.41 0.0088 0.0075

Venus -102839-05-29 12:13 J -35840373.13 -35840372.99 -35840372.84 0.0088 0.0067

Venus -102838-01-10 00:57 J -35840147.61 -35840147.46 -35840147.28 0.0088 0.0058

Venus -102838-08-23 13:54 J -35839922.09 -35839921.92 -35839921.72 0.0088 0.0050

Venus -102837-04-05 02:52 J -35839696.56 -35839696.38 -35839696.17 0.0088 0.0041

Venus -102837-11-16 16:04 J -35839471.03 -35839470.83 -35839470.62 0.0088 0.0032

Venus	-102836-06-30 05:01 J	-35839245.50	-35839245.29	-35839245.08	0.0088	0.0024
Venus	-102835-02-10 17:30 J	-35839019.98	-35839019.77	-35839019.54	0.0088	0.0016
Venus	-102835-09-24 06:28 J	-35838794.45	-35838794.23	-35838794.01	0.0088	0.0007
Venus	-102834-05-07 19:25 J	-35838568.91	-35838568.69	-35838568.47	0.0088	0.0002
Venus	-102834-12-19 08:09 J	-35838343.38	-35838343.16	-35838342.94	0.0088	0.0011
Venus	-102833-07-31 20:37 J	-35838117.85	-35838117.64	-35838117.42	0.0088	0.0020
Venus	-102832-03-14 09:21 J	-35837892.31	-35837892.11	-35837891.89	0.0088	0.0028
Venus	-102832-10-25 22:18 J	-35837666.77	-35837666.57	-35837666.37	0.0088	0.0036
Venus	-102831-06-08 10:33 J	-35837441.23	-35837441.06	-35837440.85	0.0088	0.0046
Venus	-102830-01-19 23:30 J	-35837215.69	-35837215.52	-35837215.34	0.0088	0.0054
Venus	-102830-09-02 11:45 J	-35836990.15	-35836990.01	-35836989.84	0.0088	0.0062
Venus	-102829-04-15 00:28 J	-35836764.59	-35836764.48	-35836764.33	0.0088	0.0071
Venus	-102829-11-26 13:25 J	-35836539.03	-35836538.94	-35836538.84	0.0088	0.0079
Venus	-102828-07-10 01:11 J	-35836313.45	-35836313.45	-35836313.39	0.0088	0.0088
Moon	-102812-08-12 02:37 J	-35830436.56	-35830436.39	-35830436.17	0.0088	0.0057
Earth	-102812-08-12 05:01 J	-35830436.45	-35830436.29	-35830436.09	0.0088	0.0061 *
Earth	-102811-08-14 12:42 J	-35830069.19	-35830068.97	-35830068.72	0.0088	0.0030
Moon	-102811-08-14 16:04 J	-35830069.05	-35830068.83	-35830068.59	0.0088	0.0034 *
Moon	-102810-08-16 17:01 J	-35829702.03	-35829701.79	-35829701.54	0.0088	0.0007
Earth	-102810-08-16 20:37 J	-35829701.89	-35829701.64	-35829701.39	0.0088	0.0002 *
Earth	-102809-08-18 03:49 J	-35829334.57	-35829334.34	-35829334.11	0.0088	0.0033
Moon	-102809-08-18 07:11 J	-35829334.44	-35829334.20	-35829333.96	0.0088	0.0029 *
Moon	-102808-08-20 08:09 J	-35828967.29	-35828967.16	-35828966.99	0.0088	0.0069
Earth	-102808-08-20 11:01 J	-35828967.20	-35828967.04	-35828966.86	0.0088	0.0064 *
Mars	-102799-06-29 00:42 J	-35825732.65	-35825732.47	-35825732.24	0.0088	0.0069
Mars	-102797-05-24 15:21 J	-35825037.18	-35825036.86	-35825036.53	0.0088	0.0017
Mars	-102795-04-20 07:40 J	-35824341.46	-35824341.18	-35824340.86	0.0088	0.0037
Mercury	-102771-12-27 16:04 J	-35815323.87	-35815323.83	-35815323.78	0.0089	0.0085
Mercury	-102770-03-25 17:45 J	-35815235.80	-35815235.76	-35815235.68	0.0089	0.0081
Mercury	-102770-06-21 20:09 J	-35815147.73	-35815147.66	-35815147.58	0.0089	0.0076

Mercury -102770-09-17 22:04 J -35815059.66 -35815059.58 -35815059.48 0.0089 0.0072

Mercury -102770-12-15 00:13 J -35814971.58 -35814971.49 -35814971.39 0.0089 0.0067

Mercury -102769-03-12 02:09 J -35814883.51 -35814883.41 -35814883.29 0.0089 0.0063

Mercury -102769-06-08 04:04 J -35814795.43 -35814795.33 -35814795.20 0.0089 0.0059

Mercury -102769-09-04 06:13 J -35814707.35 -35814707.24 -35814707.11 0.0089 0.0054

Mercury -102769-12-01 08:23 J -35814619.27 -35814619.15 -35814619.01 0.0089 0.0050

Mercury -102768-02-27 10:33 J -35814531.19 -35814531.06 -35814530.92 0.0089 0.0045

Mercury -102768-05-26 12:42 J -35814443.10 -35814442.97 -35814442.83 0.0089 0.0040

Mercury -102768-08-22 14:37 J -35814355.02 -35814354.89 -35814354.74 0.0089 0.0036

Mercury -102768-11-18 17:01 J -35814266.94 -35814266.79 -35814266.64 0.0089 0.0031

Mercury -102767-02-14 18:57 J -35814178.85 -35814178.71 -35814178.55 0.0089 0.0027

Mercury -102767-05-13 21:21 J -35814090.76 -35814090.61 -35814090.46 0.0089 0.0022

Mercury -102767-08-09 23:30 J -35814002.68 -35814002.52 -35814002.37 0.0089 0.0017

Mercury -102767-11-06 01:40 J -35813914.59 -35813914.43 -35813914.28 0.0089 0.0013

Mercury -102766-02-02 03:49 J -35813826.50 -35813826.34 -35813826.18 0.0089 0.0008

Mercury -102766-05-01 05:59 J -35813738.41 -35813738.25 -35813738.09 0.0089 0.0003

Mercury -102766-07-28 08:09 J -35813650.32 -35813650.16 -35813650.00 0.0089 0.0002

Mercury -102766-10-24 10:18 J -35813562.22 -35813562.07 -35813561.91 0.0089 0.0007

Mercury -102765-01-20 12:42 J -35813474.13 -35813473.97 -35813473.82 0.0089 0.0011

Mercury -102765-04-17 14:52 J -35813386.04 -35813385.88 -35813385.72 0.0089 0.0016

Mercury -102765-07-14 17:01 J -35813297.94 -35813297.79 -35813297.63 0.0089 0.0021

Mercury -102765-10-10 19:11 J -35813209.85 -35813209.70 -35813209.54 0.0089 0.0026

Mercury -102764-01-06 21:35 J -35813121.75 -35813121.60 -35813121.45 0.0089 0.0030

Mercury -102764-04-04 23:45 J -35813033.65 -35813033.51 -35813033.36 0.0089 0.0035

Mercury -102764-07-02 01:54 J -35812945.55 -35812945.42 -35812945.27 0.0089 0.0040

Mercury -102764-09-28 04:04 J -35812857.45 -35812857.33 -35812857.18 0.0089 0.0045

Mercury -102764-12-25 06:28 J -35812769.35 -35812769.23 -35812769.09 0.0089 0.0050

Mercury -102763-03-23 08:37 J -35812681.25 -35812681.14 -35812681.00 0.0089 0.0055

Mercury -102763-06-19 11:16 J -35812593.15 -35812593.03 -35812592.91 0.0089 0.0059

Mercury -102763-09-15 13:40 J -35812505.04 -35812504.93 -35812504.82 0.0089 0.0064

Mercury -102763-12-12 15:49 J -35812416.93 -35812416.84 -35812416.73 0.0089 0.0069

Mercury -102762-03-10 18:13 J -35812328.82 -35812328.74 -35812328.65 0.0089 0.0074

Mercury -102762-06-06 20:37 J -35812240.71 -35812240.64 -35812240.56 0.0089 0.0079

Mercury -102762-09-02 22:47 J -35812152.59 -35812152.55 -35812152.49 0.0089 0.0084

Venus -102758-04-15 18:57 J -35810831.72 -35810831.71 -35810831.65 0.0089 0.0088

Venus -102758-11-27 08:09 J -35810606.25 -35810606.16 -35810606.05 0.0089 0.0079

Venus -102757-07-09 20:37 J -35810380.74 -35810380.64 -35810380.48 0.0089 0.0071

Venus -102756-02-20 09:49 J -35810155.23 -35810155.09 -35810154.92 0.0089 0.0062

Venus -102756-10-03 23:16 J -35809929.70 -35809929.53 -35809929.35 0.0089 0.0053

Venus -102755-05-17 12:28 J -35809704.17 -35809703.98 -35809703.79 0.0089 0.0045

Venus -102755-12-29 01:11 J -35809478.64 -35809478.45 -35809478.24 0.0089 0.0036

Venus -102754-08-11 14:23 J -35809253.10 -35809252.90 -35809252.68 0.0089 0.0027

Venus -102753-03-24 03:35 J -35809027.56 -35809027.35 -35809027.13 0.0089 0.0018

Venus -102753-11-04 17:01 J -35808802.01 -35808801.79 -35808801.57 0.0089 0.0009

Venus -102752-06-18 06:13 J -35808576.46 -35808576.24 -35808576.02 0.0089 0.0000

Venus -102751-01-29 19:11 J -35808350.91 -35808350.70 -35808350.47 0.0089 0.0009

Venus -102751-09-12 08:23 J -35808125.35 -35808125.15 -35808124.92 0.0089 0.0018

Venus -102750-04-25 22:04 J -35807899.79 -35807899.58 -35807899.37 0.0089 0.0027

Venus -102750-12-07 11:16 J -35807674.23 -35807674.03 -35807673.83 0.0089 0.0035

Venus -102749-07-20 00:13 J -35807448.67 -35807448.49 -35807448.29 0.0089 0.0045

Venus -102748-03-02 13:40 J -35807223.10 -35807222.93 -35807222.74 0.0089 0.0053

Venus -102748-10-14 02:52 J -35806997.52 -35806997.38 -35806997.20 0.0089 0.0063

Venus -102747-05-27 16:18 J -35806771.93 -35806771.82 -35806771.67 0.0089 0.0071

Venus -102746-01-08 05:30 J -35806546.34 -35806546.27 -35806546.15 0.0089 0.0080

Venus -102746-08-21 19:25 J -35806320.71 -35806320.69 -35806320.66 0.0089 0.0088

Moon -102730-02-04 05:16 J -35800675.35 -35800675.28 -35800675.15 0.0089 0.0082

Earth -102730-02-04 08:37 J -35800675.22 -35800675.14 -35800675.02 0.0089 0.0082 *

Earth -102729-02-07 00:42 J -35800307.68 -35800307.47 -35800307.23 0.0089 0.0048

Moon -102729-02-07 03:21 J -35800307.57 -35800307.36 -35800307.11 0.0089 0.0048 *

Moon -102728-02-08 15:21 J -35799940.10 -35799939.86 -35799939.59 0.0089 0.0014

Earth -102728-02-08 16:47 J -35799940.06 -35799939.80 -35799939.53 0.0089 0.0014 *
 Earth -102727-02-11 08:52 J -35799572.39 -35799572.13 -35799571.87 0.0089 0.0020
 Moon -102727-02-11 09:21 J -35799572.37 -35799572.11 -35799571.83 0.0089 0.0021 *
 Earth -102726-02-14 00:42 J -35799204.66 -35799204.47 -35799204.24 0.0089 0.0055
 Moon -102726-02-14 01:40 J -35799204.62 -35799204.43 -35799204.21 0.0089 0.0054 *
 Saturn -102717-04-22 02:09 J -35795849.92 -35795849.41 -35795848.79 0.0089 0.0053
 Mars -102717-05-19 14:09 J -35795822.13 -35795821.91 -35795821.69 0.0089 0.0060
 Mars -102715-04-13 18:57 J -35795128.00 -35795127.71 -35795127.41 0.0089 0.0012
 Mars -102713-03-07 22:18 J -35794433.84 -35794433.57 -35794433.29 0.0089 0.0036
 Mars -102711-01-30 22:47 J -35793739.61 -35793739.55 -35793739.42 0.0089 0.0084
 Mercury -102688-01-09 20:52 J -35785359.65 -35785359.63 -35785359.59 0.0088 0.0087
 Mercury -102688-04-07 23:16 J -35785271.58 -35785271.53 -35785271.46 0.0088 0.0082
 Mercury -102688-07-05 01:40 J -35785183.50 -35785183.43 -35785183.35 0.0088 0.0077
 Mercury -102688-10-01 04:04 J -35785095.42 -35785095.33 -35785095.23 0.0088 0.0072
 Mercury -102688-12-28 05:59 J -35785007.34 -35785007.25 -35785007.13 0.0088 0.0068
 Mercury -102687-03-26 08:23 J -35784919.25 -35784919.15 -35784919.02 0.0088 0.0063
 Mercury -102687-06-22 10:47 J -35784831.16 -35784831.05 -35784830.92 0.0088 0.0058
 Mercury -102687-09-18 13:11 J -35784743.07 -35784742.95 -35784742.81 0.0088 0.0053
 Mercury -102687-12-15 15:35 J -35784654.98 -35784654.85 -35784654.71 0.0088 0.0048
 Mercury -102686-03-13 17:30 J -35784566.90 -35784566.77 -35784566.61 0.0088 0.0044
 Mercury -102686-06-09 19:54 J -35784478.81 -35784478.67 -35784478.52 0.0088 0.0038
 Mercury -102686-09-05 22:18 J -35784390.72 -35784390.57 -35784390.42 0.0088 0.0033
 Mercury -102686-12-03 00:28 J -35784302.63 -35784302.48 -35784302.32 0.0088 0.0029
 Mercury -102685-02-29 02:37 J -35784214.54 -35784214.39 -35784214.23 0.0088 0.0024
 Mercury -102685-05-27 04:47 J -35784126.45 -35784126.30 -35784126.14 0.0088 0.0020
 Mercury -102685-08-23 07:11 J -35784038.36 -35784038.20 -35784038.04 0.0088 0.0015
 Mercury -102685-11-19 09:21 J -35783950.27 -35783950.11 -35783949.95 0.0088 0.0010
 Mercury -102684-02-15 11:30 J -35783862.18 -35783862.02 -35783861.86 0.0088 0.0005
 Mercury -102684-05-14 13:40 J -35783774.09 -35783773.93 -35783773.77 0.0088 0.0001
 Mercury -102684-08-10 15:49 J -35783686.00 -35783685.84 -35783685.68 0.0088 0.0004

Mercury -102684-11-06 17:59 J -35783597.91 -35783597.75 -35783597.59 0.0088 0.0009

Mercury -102683-02-02 20:09 J -35783509.82 -35783509.66 -35783509.50 0.0088 0.0013

Mercury -102683-05-01 22:18 J -35783421.73 -35783421.57 -35783421.42 0.0088 0.0018

Mercury -102683-07-29 00:13 J -35783333.64 -35783333.49 -35783333.33 0.0088 0.0023

Mercury -102683-10-25 02:23 J -35783245.55 -35783245.40 -35783245.25 0.0088 0.0027

Mercury -102682-01-21 04:33 J -35783157.45 -35783157.31 -35783157.16 0.0088 0.0031

Mercury -102682-04-19 06:28 J -35783069.36 -35783069.23 -35783069.08 0.0088 0.0036

Mercury -102682-07-16 08:37 J -35782981.27 -35782981.14 -35782981.00 0.0088 0.0040

Mercury -102682-10-12 10:47 J -35782893.18 -35782893.05 -35782892.92 0.0088 0.0045

Mercury -102681-01-08 12:42 J -35782805.09 -35782804.97 -35782804.84 0.0088 0.0049

Mercury -102681-04-05 14:52 J -35782717.00 -35782716.88 -35782716.76 0.0088 0.0054

Mercury -102681-07-02 16:33 J -35782628.91 -35782628.81 -35782628.68 0.0088 0.0059

Mercury -102681-09-28 18:42 J -35782540.82 -35782540.72 -35782540.60 0.0088 0.0063

Mercury -102681-12-25 20:37 J -35782452.72 -35782452.64 -35782452.53 0.0088 0.0067

Mercury -102680-03-23 22:47 J -35782364.63 -35782364.55 -35782364.45 0.0088 0.0071

Mercury -102680-06-20 00:57 J -35782276.53 -35782276.46 -35782276.38 0.0088 0.0076

Mercury -102680-09-16 02:37 J -35782188.44 -35782188.39 -35782188.31 0.0088 0.0080

Mercury -102680-12-13 04:33 J -35782100.33 -35782100.31 -35782100.25 0.0088 0.0085

Venus -102676-06-05 21:49 J -35780829.63 -35780829.59 -35780829.51 0.0088 0.0085

Venus -102675-01-17 11:16 J -35780604.14 -35780604.03 -35780603.92 0.0088 0.0076

Venus -102675-08-30 23:59 J -35780378.62 -35780378.50 -35780378.34 0.0088 0.0067

Venus -102674-04-13 13:11 J -35780153.10 -35780152.95 -35780152.77 0.0088 0.0059

Venus -102674-11-25 02:23 J -35779927.58 -35779927.40 -35779927.21 0.0088 0.0050

Venus -102673-07-07 15:06 J -35779702.05 -35779701.87 -35779701.66 0.0088 0.0041

Venus -102672-02-18 04:04 J -35779476.52 -35779476.33 -35779476.11 0.0088 0.0033

Venus -102672-10-01 17:16 J -35779250.99 -35779250.78 -35779250.57 0.0088 0.0024

Venus -102671-05-15 05:59 J -35779025.46 -35779025.25 -35779025.03 0.0088 0.0015

Venus -102671-12-26 18:42 J -35778799.93 -35778799.72 -35778799.49 0.0088 0.0007

Venus -102670-08-09 07:40 J -35778574.40 -35778574.18 -35778573.96 0.0088 0.0003

Venus -102669-03-21 20:23 J -35778348.86 -35778348.65 -35778348.43 0.0088 0.0011

Venus -102669-11-02 09:06 J -35778123.33 -35778123.12 -35778122.90 0.0088 0.0020
 Venus -102668-06-15 21:35 J -35777897.79 -35777897.60 -35777897.38 0.0088 0.0029
 Venus -102667-01-27 10:04 J -35777672.26 -35777672.08 -35777671.86 0.0088 0.0038
 Venus -102667-09-09 23:01 J -35777446.72 -35777446.54 -35777446.35 0.0088 0.0045
 Venus -102666-04-23 11:30 J -35777221.17 -35777221.02 -35777220.83 0.0088 0.0054
 Venus -102666-12-05 00:13 J -35776995.63 -35776995.49 -35776995.32 0.0088 0.0063
 Venus -102665-07-17 12:28 J -35776770.08 -35776769.98 -35776769.82 0.0088 0.0072
 Venus -102664-02-28 01:11 J -35776544.52 -35776544.45 -35776544.34 0.0088 0.0080
 Venus -102664-10-11 13:54 J -35776318.93 -35776318.92 -35776318.88 0.0088 0.0088
 Earth -102648-08-11 19:54 J -35770535.79 -35770535.67 -35770535.51 0.0088 0.0074
 Moon -102648-08-11 23:16 J -35770535.65 -35770535.53 -35770535.38 0.0088 0.0075 *
 Moon -102647-08-14 00:13 J -35770168.70 -35770168.49 -35770168.26 0.0088 0.0041
 Earth -102647-08-14 03:35 J -35770168.55 -35770168.35 -35770168.12 0.0088 0.0043 *
 Earth -102646-08-16 11:16 J -35769801.27 -35769801.03 -35769800.78 0.0088 0.0012
 Moon -102646-08-16 14:23 J -35769801.14 -35769800.90 -35769800.64 0.0088 0.0014 *
 Moon -102645-08-17 17:01 J -35769434.03 -35769433.79 -35769433.56 0.0088 0.0021
 Earth -102645-08-17 18:57 J -35769433.95 -35769433.71 -35769433.47 0.0088 0.0020 *
 Earth -102644-08-20 02:09 J -35769066.61 -35769066.41 -35769066.20 0.0088 0.0051
 Moon -102644-08-20 03:35 J -35769066.56 -35769066.35 -35769066.13 0.0088 0.0049 *
 Earth -102643-08-22 09:06 J -35768699.19 -35768699.12 -35768699.00 0.0088 0.0082
 Moon -102643-08-22 09:49 J -35768699.16 -35768699.09 -35768699.00 0.0088 0.0083 *
 Mars -102633-01-06 18:57 J -35765275.00 -35765274.71 -35765274.41 0.0088 0.0038
 Mars -102632-12-02 10:04 J -35764579.40 -35764579.08 -35764578.75 0.0088 0.0015
 Mars -102630-10-29 02:23 J -35763883.58 -35763883.40 -35763883.16 0.0089 0.0069
 Mercury -102606-06-27 13:54 J -35755240.95 -35755240.92 -35755240.88 0.0089 0.0086
 Mercury -102606-09-23 15:49 J -35755152.89 -35755152.84 -35755152.77 0.0089 0.0082
 Mercury -102606-12-20 17:45 J -35755064.82 -35755064.76 -35755064.68 0.0089 0.0078
 Mercury -102605-03-17 19:54 J -35754976.75 -35754976.67 -35754976.58 0.0089 0.0073
 Mercury -102605-06-13 21:49 J -35754888.68 -35754888.59 -35754888.48 0.0089 0.0069
 Mercury -102605-09-09 23:59 J -35754800.60 -35754800.50 -35754800.39 0.0089 0.0064

Mercury -102605-12-07 01:54 J -35754712.52 -35754712.42 -35754712.30 0.0089 0.0060
 Mercury -102604-03-05 04:18 J -35754624.44 -35754624.32 -35754624.20 0.0089 0.0055
 Mercury -102604-06-01 05:59 J -35754536.36 -35754536.25 -35754536.11 0.0089 0.0051
 Mercury -102604-08-28 08:23 J -35754448.28 -35754448.15 -35754448.02 0.0089 0.0046
 Mercury -102604-11-24 10:18 J -35754360.20 -35754360.07 -35754359.93 0.0089 0.0042
 Mercury -102603-02-20 12:28 J -35754272.12 -35754271.98 -35754271.84 0.0089 0.0037
 Mercury -102603-05-19 14:23 J -35754184.03 -35754183.90 -35754183.74 0.0089 0.0033
 Mercury -102603-08-15 16:47 J -35754095.95 -35754095.80 -35754095.65 0.0089 0.0028
 Mercury -102603-11-11 18:42 J -35754007.86 -35754007.72 -35754007.56 0.0089 0.0024
 Mercury -102602-02-07 20:52 J -35753919.78 -35753919.63 -35753919.47 0.0089 0.0019
 Mercury -102602-05-06 23:16 J -35753831.69 -35753831.53 -35753831.38 0.0089 0.0014
 Mercury -102602-08-03 01:11 J -35753743.60 -35753743.45 -35753743.29 0.0089 0.0010
 Mercury -102602-10-30 03:35 J -35753655.51 -35753655.35 -35753655.19 0.0089 0.0005
 Mercury -102601-01-26 05:45 J -35753567.42 -35753567.26 -35753567.10 0.0089 0.0000
 Mercury -102601-04-23 07:54 J -35753479.33 -35753479.17 -35753479.01 0.0089 0.0005
 Mercury -102601-07-20 10:04 J -35753391.24 -35753391.08 -35753390.92 0.0089 0.0010
 Mercury -102601-10-16 12:13 J -35753303.14 -35753302.99 -35753302.83 0.0089 0.0014
 Mercury -102600-01-12 14:23 J -35753215.05 -35753214.90 -35753214.74 0.0089 0.0019
 Mercury -102600-04-10 16:47 J -35753126.95 -35753126.80 -35753126.65 0.0089 0.0024
 Mercury -102600-07-07 18:57 J -35753038.86 -35753038.71 -35753038.56 0.0089 0.0029
 Mercury -102600-10-03 21:21 J -35752950.76 -35752950.61 -35752950.46 0.0089 0.0033
 Mercury -102600-12-30 23:30 J -35752862.66 -35752862.52 -35752862.37 0.0089 0.0038
 Mercury -102599-03-29 01:40 J -35752774.56 -35752774.43 -35752774.28 0.0089 0.0043
 Mercury -102599-06-25 03:49 J -35752686.46 -35752686.34 -35752686.19 0.0089 0.0048
 Mercury -102599-09-21 06:13 J -35752598.36 -35752598.24 -35752598.10 0.0089 0.0053
 Mercury -102599-12-18 08:23 J -35752510.26 -35752510.15 -35752510.01 0.0089 0.0058
 Mercury -102598-03-16 10:47 J -35752422.15 -35752422.05 -35752421.93 0.0089 0.0063
 Mercury -102598-06-12 12:57 J -35752334.05 -35752333.96 -35752333.84 0.0089 0.0068
 Mercury -102598-09-08 15:21 J -35752245.94 -35752245.86 -35752245.75 0.0089 0.0073
 Mercury -102598-12-05 17:45 J -35752157.82 -35752157.76 -35752157.67 0.0089 0.0078

Mercury -102597-03-02 20:23 J -35752069.71 -35752069.65 -35752069.59 0.0089 0.0082

Mercury -102597-05-29 22:47 J -35751981.58 -35751981.55 -35751981.52 0.0089 0.0087

Venus -102594-07-18 07:25 J -35750837.20 -35750837.19 -35750837.15 0.0089 0.0089

Venus -102593-02-28 20:09 J -35750611.74 -35750611.66 -35750611.55 0.0089 0.0080

Venus -102593-10-11 09:21 J -35750386.23 -35750386.11 -35750385.97 0.0089 0.0071

Venus -102592-05-24 21:49 J -35750160.72 -35750160.59 -35750160.41 0.0089 0.0063

Venus -102591-01-05 11:01 J -35749935.20 -35749935.04 -35749934.85 0.0089 0.0054

Venus -102591-08-18 23:59 J -35749709.67 -35749709.50 -35749709.30 0.0089 0.0045

Venus -102590-04-01 13:11 J -35749484.14 -35749483.95 -35749483.74 0.0089 0.0036

Venus -102590-11-13 02:23 J -35749258.60 -35749258.40 -35749258.19 0.0089 0.0027

Venus -102589-06-25 15:35 J -35749033.06 -35749032.85 -35749032.63 0.0089 0.0018

Venus -102588-02-06 04:47 J -35748807.52 -35748807.30 -35748807.08 0.0089 0.0009

Venus -102588-09-19 17:59 J -35748581.97 -35748581.75 -35748581.53 0.0089 0.0000

Venus -102587-05-03 07:11 J -35748356.42 -35748356.20 -35748355.98 0.0089 0.0009

Venus -102587-12-14 20:23 J -35748130.87 -35748130.65 -35748130.43 0.0089 0.0017

Venus -102586-07-28 09:35 J -35747905.31 -35747905.10 -35747904.89 0.0089 0.0026

Venus -102585-03-09 22:47 J -35747679.75 -35747679.55 -35747679.34 0.0089 0.0035

Venus -102585-10-21 12:13 J -35747454.18 -35747453.99 -35747453.79 0.0089 0.0044

Venus -102584-06-04 01:25 J -35747228.61 -35747228.44 -35747228.25 0.0089 0.0053

Venus -102583-01-15 14:37 J -35747003.03 -35747002.89 -35747002.72 0.0089 0.0062

Venus -102583-08-29 03:49 J -35746777.45 -35746777.34 -35746777.19 0.0089 0.0072

Venus -102582-04-11 17:16 J -35746551.86 -35746551.78 -35746551.67 0.0089 0.0080

Venus -102582-11-23 06:57 J -35746326.21 -35746326.21 -35746326.19 0.0089 0.0089

Moon -102565-02-06 07:11 J -35740407.36 -35740407.20 -35740406.98 0.0089 0.0059

Earth -102565-02-06 08:09 J -35740407.32 -35740407.16 -35740406.95 0.0089 0.0063 *

Moon -102564-02-07 23:45 J -35740039.76 -35740039.51 -35740039.25 0.0089 0.0033

Earth -102564-02-08 00:13 J -35740039.72 -35740039.49 -35740039.22 0.0089 0.0029 *

Earth -102563-02-10 16:47 J -35739672.07 -35739671.80 -35739671.53 0.0089 0.0006

Moon -102563-02-10 18:13 J -35739671.99 -35739671.74 -35739671.47 0.0089 0.0010 *

Moon -102562-02-13 06:13 J -35739304.48 -35739304.24 -35739303.97 0.0089 0.0035

Earth -102562-02-13 08:37 J -35739304.37 -35739304.14 -35739303.89 0.0089 0.0040 *
 Earth -102561-02-16 00:28 J -35738936.60 -35738936.48 -35738936.31 0.0089 0.0074
 Moon -102561-02-16 03:49 J -35738936.43 -35738936.34 -35738936.19 0.0089 0.0079 *
 Mars -102553-01-02 22:04 J -35736058.69 -35736058.58 -35736058.45 0.0089 0.0081
 Mars -102552-11-27 03:06 J -35735364.64 -35735364.37 -35735364.08 0.0089 0.0032
 Mars -102550-10-22 06:57 J -35734670.49 -35734670.21 -35734669.90 0.0089 0.0017
 Mars -102548-09-15 09:35 J -35733976.29 -35733976.10 -35733975.88 0.0089 0.0065
 Mercury -102524-07-10 18:13 J -35725276.74 -35725276.74 -35725276.72 0.0088 0.0088
 Mercury -102524-10-06 20:23 J -35725188.68 -35725188.65 -35725188.58 0.0088 0.0084
 Mercury -102523-01-02 22:47 J -35725100.61 -35725100.55 -35725100.46 0.0088 0.0079
 Mercury -102523-04-01 01:11 J -35725012.52 -35725012.45 -35725012.35 0.0088 0.0074
 Mercury -102523-06-28 03:35 J -35724924.44 -35724924.35 -35724924.23 0.0088 0.0069
 Mercury -102523-09-24 05:59 J -35724836.35 -35724836.25 -35724836.13 0.0088 0.0064
 Mercury -102523-12-21 08:23 J -35724748.26 -35724748.15 -35724748.02 0.0088 0.0059
 Mercury -102522-03-19 10:33 J -35724660.17 -35724660.06 -35724659.92 0.0088 0.0054
 Mercury -102522-06-15 12:57 J -35724572.08 -35724571.96 -35724571.82 0.0088 0.0049
 Mercury -102522-09-11 15:21 J -35724483.99 -35724483.86 -35724483.72 0.0088 0.0044
 Mercury -102522-12-08 17:30 J -35724395.90 -35724395.77 -35724395.62 0.0088 0.0040
 Mercury -102521-03-05 19:54 J -35724307.81 -35724307.67 -35724307.52 0.0088 0.0035
 Mercury -102521-06-01 22:04 J -35724219.72 -35724219.58 -35724219.42 0.0088 0.0030
 Mercury -102521-08-29 00:13 J -35724131.63 -35724131.49 -35724131.33 0.0088 0.0026
 Mercury -102521-11-25 02:37 J -35724043.54 -35724043.39 -35724043.23 0.0088 0.0021
 Mercury -102520-02-21 04:47 J -35723955.45 -35723955.30 -35723955.14 0.0088 0.0016
 Mercury -102520-05-20 06:57 J -35723867.36 -35723867.21 -35723867.05 0.0088 0.0011
 Mercury -102520-08-16 09:21 J -35723779.27 -35723779.11 -35723778.96 0.0088 0.0007
 Mercury -102520-11-12 11:30 J -35723691.18 -35723691.02 -35723690.86 0.0088 0.0003
 Mercury -102519-02-08 13:40 J -35723603.09 -35723602.93 -35723602.77 0.0088 0.0003
 Mercury -102519-05-07 15:49 J -35723515.00 -35723514.84 -35723514.69 0.0088 0.0008
 Mercury -102519-08-03 17:45 J -35723426.91 -35723426.76 -35723426.60 0.0088 0.0012
 Mercury -102519-10-30 19:54 J -35723338.82 -35723338.67 -35723338.51 0.0088 0.0017

Mercury -102518-01-26 22:04 J -35723250.73 -35723250.58 -35723250.42 0.0088 0.0021

Mercury -102518-04-25 00:13 J -35723162.64 -35723162.49 -35723162.34 0.0088 0.0026

Mercury -102518-07-22 02:09 J -35723074.55 -35723074.41 -35723074.25 0.0088 0.0031

Mercury -102518-10-18 04:18 J -35722986.46 -35722986.32 -35722986.17 0.0088 0.0035

Mercury -102517-01-14 06:13 J -35722898.37 -35722898.24 -35722898.09 0.0088 0.0040

Mercury -102517-04-11 08:37 J -35722810.28 -35722810.14 -35722810.01 0.0088 0.0044

Mercury -102517-07-08 10:18 J -35722722.18 -35722722.07 -35722721.92 0.0088 0.0049

Mercury -102517-10-04 12:28 J -35722634.09 -35722633.98 -35722633.85 0.0088 0.0053

Mercury -102517-12-31 14:23 J -35722546.00 -35722545.90 -35722545.77 0.0088 0.0058

Mercury -102516-03-29 16:33 J -35722457.91 -35722457.81 -35722457.69 0.0088 0.0062

Mercury -102516-06-25 18:42 J -35722369.82 -35722369.72 -35722369.61 0.0088 0.0066

Mercury -102516-09-21 20:37 J -35722281.72 -35722281.64 -35722281.54 0.0088 0.0070

Mercury -102516-12-18 22:33 J -35722193.63 -35722193.56 -35722193.47 0.0088 0.0075

Mercury -102515-03-17 00:42 J -35722105.53 -35722105.47 -35722105.40 0.0088 0.0079

Mercury -102515-06-13 02:23 J -35722017.43 -35722017.40 -35722017.33 0.0088 0.0084

Mercury -102515-09-09 04:33 J -35721929.32 -35721929.31 -35721929.28 0.0088 0.0088

Venus -102512-09-07 09:21 J -35720835.14 -35720835.11 -35720835.03 0.0088 0.0086

Venus -102511-04-20 22:47 J -35720609.64 -35720609.55 -35720609.43 0.0088 0.0077

Venus -102511-12-02 12:13 J -35720384.13 -35720383.99 -35720383.85 0.0088 0.0068

Venus -102510-07-16 00:57 J -35720158.61 -35720158.46 -35720158.28 0.0088 0.0059

Venus -102509-02-26 14:09 J -35719933.08 -35719932.91 -35719932.72 0.0088 0.0050

Venus -102509-10-09 03:06 J -35719707.55 -35719707.37 -35719707.16 0.0088 0.0042

Venus -102508-05-22 16:18 J -35719482.02 -35719481.82 -35719481.61 0.0088 0.0033

Venus -102507-01-03 05:01 J -35719256.49 -35719256.29 -35719256.07 0.0088 0.0024

Venus -102507-08-16 17:59 J -35719030.96 -35719030.75 -35719030.53 0.0088 0.0015

Venus -102506-03-30 07:11 J -35718805.42 -35718805.20 -35718804.98 0.0088 0.0006

Venus -102506-11-10 19:54 J -35718579.89 -35718579.67 -35718579.45 0.0088 0.0003

Venus -102505-06-23 08:37 J -35718354.36 -35718354.14 -35718353.92 0.0088 0.0011

Venus -102504-02-03 21:21 J -35718128.82 -35718128.61 -35718128.39 0.0088 0.0020

Venus -102504-09-17 09:49 J -35717903.29 -35717903.09 -35717902.87 0.0088 0.0029

Venus -102503-04-30 22:33 J -35717677.74 -35717677.56 -35717677.35 0.0088 0.0038
 Venus -102503-12-12 11:30 J -35717452.20 -35717452.02 -35717451.83 0.0088 0.0046
 Venus -102502-07-25 23:45 J -35717226.66 -35717226.51 -35717226.32 0.0088 0.0055
 Venus -102501-03-07 12:13 J -35717001.12 -35717000.99 -35717000.81 0.0088 0.0064
 Venus -102501-10-19 01:11 J -35716775.57 -35716775.45 -35716775.31 0.0088 0.0071
 Venus -102500-06-01 13:25 J -35716550.00 -35716549.94 -35716549.82 0.0088 0.0081
 Earth -102484-08-11 11:16 J -35710635.06 -35710635.03 -35710634.97 0.0088 0.0087
 Earth -102483-08-13 18:57 J -35710267.89 -35710267.71 -35710267.50 0.0088 0.0056
 Moon -102483-08-13 21:49 J -35710267.78 -35710267.59 -35710267.37 0.0088 0.0052 *
 Moon -102482-08-16 00:28 J -35709900.70 -35709900.48 -35709900.24 0.0088 0.0029
 Earth -102482-08-16 02:37 J -35709900.62 -35709900.39 -35709900.14 0.0088 0.0025 *
 Earth -102481-08-17 10:18 J -35709533.32 -35709533.07 -35709532.82 0.0088 0.0007
 Moon -102481-08-17 10:33 J -35709533.30 -35709533.06 -35709532.79 0.0088 0.0012 *
 Earth -102480-08-19 17:30 J -35709165.98 -35709165.77 -35709165.54 0.0088 0.0038
 Moon -102480-08-19 18:28 J -35709165.96 -35709165.73 -35709165.51 0.0088 0.0034 *
 Moon -102479-08-21 23:01 J -35708798.67 -35708798.54 -35708798.38 0.0088 0.0073
 Earth -102479-08-22 00:42 J -35708798.61 -35708798.47 -35708798.30 0.0088 0.0069 *
 Mars -102470-08-20 23:01 J -35705512.76 -35705512.54 -35705512.28 0.0088 0.0060
 Mars -102468-07-16 13:11 J -35704817.28 -35704816.95 -35704816.62 0.0088 0.0007
 Mars -102466-06-12 04:04 J -35704121.58 -35704121.33 -35704121.02 0.0088 0.0048
 Mercury -102442-12-26 11:45 J -35695158.03 -35695158.01 -35695157.98 0.0089 0.0087
 Mercury -102441-03-23 13:40 J -35695069.97 -35695069.93 -35695069.87 0.0089 0.0083
 Mercury -102441-06-19 15:35 J -35694981.91 -35694981.85 -35694981.77 0.0089 0.0079
 Mercury -102441-09-15 17:45 J -35694893.84 -35694893.76 -35694893.67 0.0089 0.0074
 Mercury -102441-12-12 19:40 J -35694805.76 -35694805.68 -35694805.58 0.0089 0.0070
 Mercury -102440-03-10 21:35 J -35694717.69 -35694717.60 -35694717.49 0.0089 0.0066
 Mercury -102440-06-06 23:45 J -35694629.61 -35694629.51 -35694629.39 0.0089 0.0061
 Mercury -102440-09-03 01:40 J -35694541.54 -35694541.43 -35694541.30 0.0089 0.0057
 Mercury -102440-11-30 03:49 J -35694453.46 -35694453.34 -35694453.21 0.0089 0.0052
 Mercury -102439-02-26 05:45 J -35694365.38 -35694365.26 -35694365.12 0.0089 0.0048

Mercury -102439-05-25 08:09 J -35694277.30 -35694277.16 -35694277.03 0.0089 0.0043

Mercury -102439-08-21 10:04 J -35694189.21 -35694189.08 -35694188.94 0.0089 0.0039

Mercury -102439-11-17 12:13 J -35694101.13 -35694100.99 -35694100.84 0.0089 0.0034

Mercury -102438-02-13 14:09 J -35694013.05 -35694012.91 -35694012.75 0.0089 0.0030

Mercury -102438-05-12 16:18 J -35693924.96 -35693924.82 -35693924.66 0.0089 0.0025

Mercury -102438-08-08 18:42 J -35693836.88 -35693836.72 -35693836.57 0.0089 0.0020

Mercury -102438-11-04 20:37 J -35693748.79 -35693748.64 -35693748.48 0.0089 0.0016

Mercury -102437-01-31 23:01 J -35693660.70 -35693660.54 -35693660.39 0.0089 0.0011

Mercury -102437-04-29 00:57 J -35693572.61 -35693572.46 -35693572.30 0.0089 0.0007

Mercury -102437-07-26 03:21 J -35693484.52 -35693484.36 -35693484.21 0.0089 0.0003

Mercury -102437-10-22 05:30 J -35693396.43 -35693396.27 -35693396.12 0.0089 0.0004

Mercury -102436-01-18 07:40 J -35693308.34 -35693308.18 -35693308.02 0.0089 0.0008

Mercury -102436-04-16 09:49 J -35693220.25 -35693220.09 -35693219.93 0.0089 0.0013

Mercury -102436-07-13 11:59 J -35693132.15 -35693132.00 -35693131.84 0.0089 0.0017

Mercury -102436-10-09 14:09 J -35693044.06 -35693043.91 -35693043.75 0.0089 0.0022

Mercury -102435-01-05 16:18 J -35692955.96 -35692955.82 -35692955.66 0.0089 0.0027

Mercury -102435-04-03 18:28 J -35692867.87 -35692867.73 -35692867.57 0.0089 0.0032

Mercury -102435-06-30 20:37 J -35692779.77 -35692779.64 -35692779.48 0.0089 0.0037

Mercury -102435-09-26 23:16 J -35692691.67 -35692691.53 -35692691.39 0.0089 0.0041

Mercury -102435-12-24 01:25 J -35692603.57 -35692603.44 -35692603.30 0.0089 0.0046

Mercury -102434-03-22 03:35 J -35692515.47 -35692515.35 -35692515.21 0.0089 0.0051

Mercury -102434-06-18 05:59 J -35692427.37 -35692427.25 -35692427.12 0.0089 0.0056

Mercury -102434-09-14 08:09 J -35692339.26 -35692339.16 -35692339.03 0.0089 0.0061

Mercury -102434-12-11 10:33 J -35692251.16 -35692251.06 -35692250.94 0.0089 0.0066

Mercury -102433-03-08 12:42 J -35692163.05 -35692162.97 -35692162.86 0.0089 0.0071

Mercury -102433-06-04 15:06 J -35692074.94 -35692074.87 -35692074.77 0.0089 0.0076

Mercury -102433-08-31 17:16 J -35691986.82 -35691986.78 -35691986.69 0.0089 0.0081

Mercury -102433-11-27 19:40 J -35691898.70 -35691898.68 -35691898.62 0.0089 0.0086

Venus -102430-10-19 20:23 J -35690842.65 -35690842.65 -35690842.65 0.0089 0.0089

Venus -102429-06-01 08:52 J -35690617.21 -35690617.13 -35690617.03 0.0089 0.0081

Venus	-102428-01-12 21:21 J	-35690391.71	-35690391.61	-35690391.46	0.0089	0.0072
Venus	-102428-08-26 10:33 J	-35690166.20	-35690166.06	-35690165.90	0.0089	0.0063
Venus	-102427-04-08 23:30 J	-35689940.68	-35689940.52	-35689940.34	0.0089	0.0054
Venus	-102427-11-20 12:28 J	-35689715.16	-35689714.98	-35689714.79	0.0089	0.0046
Venus	-102426-07-04 01:11 J	-35689489.63	-35689489.45	-35689489.23	0.0089	0.0037
Venus	-102425-02-14 14:23 J	-35689264.10	-35689263.90	-35689263.68	0.0089	0.0028
Venus	-102425-09-27 03:35 J	-35689038.56	-35689038.35	-35689038.13	0.0089	0.0019
Venus	-102424-05-10 16:47 J	-35688813.01	-35688812.80	-35688812.58	0.0089	0.0010
Venus	-102424-12-22 05:59 J	-35688587.47	-35688587.25	-35688587.03	0.0089	0.0001
Venus	-102423-08-04 19:11 J	-35688361.92	-35688361.70	-35688361.48	0.0089	0.0008
Venus	-102422-03-18 08:23 J	-35688136.36	-35688136.15	-35688135.93	0.0089	0.0017
Venus	-102422-10-29 21:49 J	-35687910.80	-35687910.59	-35687910.38	0.0089	0.0026
Venus	-102421-06-11 11:01 J	-35687685.24	-35687685.04	-35687684.84	0.0089	0.0036
Venus	-102420-01-22 23:59 J	-35687459.68	-35687459.50	-35687459.29	0.0089	0.0045
Venus	-102420-09-05 13:11 J	-35687234.10	-35687233.95	-35687233.75	0.0089	0.0054
Venus	-102419-04-19 02:23 J	-35687008.53	-35687008.40	-35687008.22	0.0089	0.0064
Venus	-102419-11-30 15:49 J	-35686782.94	-35686782.84	-35686782.68	0.0089	0.0072
Venus	-102418-07-14 05:16 J	-35686557.35	-35686557.28	-35686557.17	0.0089	0.0081
Moon	-102401-02-05 14:52 J	-35680507.00	-35680506.88	-35680506.72	0.0089	0.0077
Earth	-102401-02-05 16:04 J	-35680506.93	-35680506.83	-35680506.67	0.0089	0.0078 *
Earth	-102400-02-07 08:23 J	-35680139.38	-35680139.15	-35680138.92	0.0089	0.0044
Moon	-102400-02-07 10:18 J	-35680139.28	-35680139.07	-35680138.83	0.0089	0.0044 *
Moon	-102399-02-09 20:52 J	-35679771.90	-35679771.63	-35679771.36	0.0089	0.0008
Earth	-102399-02-10 00:28 J	-35679771.75	-35679771.48	-35679771.22	0.0089	0.0009 *
Earth	-102398-02-12 16:04 J	-35679404.07	-35679403.83	-35679403.56	0.0089	0.0025
Moon	-102398-02-12 19:40 J	-35679403.93	-35679403.68	-35679403.42	0.0089	0.0025 *
Moon	-102397-02-15 03:49 J	-35679036.51	-35679036.34	-35679036.11	0.0089	0.0059
Earth	-102397-02-15 08:09 J	-35679036.35	-35679036.16	-35679035.95	0.0089	0.0059 *
Mars	-102388-07-12 11:16 J	-35675601.25	-35675601.03	-35675600.77	0.0089	0.0053
Mars	-102386-06-06 16:18 J	-35674907.12	-35674906.82	-35674906.52	0.0089	0.0003

Mars -102384-04-30 19:11 J -35674212.94 -35674212.70 -35674212.42 0.0089 0.0046
 Mercury -102359-04-06 18:13 J -35665105.78 -35665105.74 -35665105.70 0.0088 0.0085
 Mercury -102359-07-03 20:09 J -35665017.71 -35665017.66 -35665017.57 0.0088 0.0081
 Mercury -102359-09-29 22:33 J -35664929.63 -35664929.56 -35664929.46 0.0088 0.0076
 Mercury -102359-12-27 00:57 J -35664841.54 -35664841.46 -35664841.35 0.0088 0.0071
 Mercury -102358-03-25 03:21 J -35664753.45 -35664753.36 -35664753.24 0.0088 0.0066
 Mercury -102358-06-21 05:45 J -35664665.37 -35664665.26 -35664665.13 0.0088 0.0061
 Mercury -102358-09-17 08:09 J -35664577.28 -35664577.16 -35664577.03 0.0088 0.0056
 Mercury -102358-12-14 10:33 J -35664489.19 -35664489.06 -35664488.92 0.0088 0.0051
 Mercury -102357-03-11 12:57 J -35664401.10 -35664400.96 -35664400.82 0.0088 0.0046
 Mercury -102357-06-07 15:06 J -35664313.01 -35664312.87 -35664312.72 0.0088 0.0041
 Mercury -102357-09-03 17:16 J -35664224.92 -35664224.78 -35664224.62 0.0088 0.0037
 Mercury -102357-11-30 19:40 J -35664136.82 -35664136.68 -35664136.52 0.0088 0.0032
 Mercury -102356-02-26 22:04 J -35664048.73 -35664048.58 -35664048.43 0.0088 0.0027
 Mercury -102356-05-26 00:13 J -35663960.64 -35663960.49 -35663960.33 0.0088 0.0022
 Mercury -102356-08-22 02:23 J -35663872.55 -35663872.40 -35663872.24 0.0088 0.0018
 Mercury -102356-11-18 04:47 J -35663784.46 -35663784.30 -35663784.14 0.0088 0.0013
 Mercury -102355-02-14 06:57 J -35663696.37 -35663696.21 -35663696.05 0.0088 0.0008
 Mercury -102355-05-13 09:06 J -35663608.28 -35663608.12 -35663607.96 0.0088 0.0003
 Mercury -102355-08-09 11:16 J -35663520.19 -35663520.03 -35663519.87 0.0088 0.0002
 Mercury -102355-11-05 13:25 J -35663432.09 -35663431.94 -35663431.78 0.0088 0.0006
 Mercury -102354-02-01 15:35 J -35663344.00 -35663343.85 -35663343.69 0.0088 0.0011
 Mercury -102354-04-30 17:45 J -35663255.91 -35663255.76 -35663255.60 0.0088 0.0016
 Mercury -102354-07-27 19:54 J -35663167.82 -35663167.67 -35663167.51 0.0088 0.0020
 Mercury -102354-10-23 22:04 J -35663079.73 -35663079.58 -35663079.43 0.0088 0.0025
 Mercury -102353-01-19 23:59 J -35662991.64 -35662991.50 -35662991.34 0.0088 0.0030
 Mercury -102353-04-17 02:09 J -35662903.55 -35662903.41 -35662903.26 0.0088 0.0034
 Mercury -102353-07-14 04:18 J -35662815.46 -35662815.32 -35662815.17 0.0088 0.0038
 Mercury -102353-10-10 06:28 J -35662727.36 -35662727.23 -35662727.09 0.0088 0.0043
 Mercury -102352-01-06 08:23 J -35662639.27 -35662639.15 -35662639.01 0.0088 0.0047

Mercury -102352-04-04 10:33 J -35662551.18 -35662551.06 -35662550.93 0.0088 0.0052

Mercury -102352-07-01 12:28 J -35662463.09 -35662462.98 -35662462.85 0.0088 0.0056

Mercury -102352-09-27 14:37 J -35662375.00 -35662374.89 -35662374.77 0.0088 0.0060

Mercury -102352-12-24 16:47 J -35662286.90 -35662286.80 -35662286.70 0.0088 0.0065

Mercury -102351-03-22 18:28 J -35662198.81 -35662198.73 -35662198.62 0.0088 0.0070

Mercury -102351-06-18 20:37 J -35662110.71 -35662110.64 -35662110.55 0.0088 0.0074

Mercury -102351-09-14 22:47 J -35662022.62 -35662022.55 -35662022.48 0.0088 0.0078

Mercury -102351-12-12 00:28 J -35661934.52 -35661934.48 -35661934.41 0.0088 0.0083

Mercury -102350-03-10 02:37 J -35661846.41 -35661846.39 -35661846.35 0.0088 0.0087

Venus -102348-12-09 22:04 J -35660840.63 -35660840.58 -35660840.53 0.0088 0.0086

Venus -102347-07-23 10:33 J -35660615.14 -35660615.06 -35660614.93 0.0088 0.0078

Venus -102346-03-05 23:59 J -35660389.62 -35660389.50 -35660389.34 0.0088 0.0069

Venus -102346-10-17 13:11 J -35660164.09 -35660163.95 -35660163.77 0.0088 0.0060

Jupiter -102345-01-14 08:23 J -35660075.64 -35660075.15 -35660074.60 0.0088 0.0013

Venus -102345-05-30 02:23 J -35659938.57 -35659938.40 -35659938.21 0.0088 0.0051

Venus -102344-01-10 15:35 J -35659713.04 -35659712.85 -35659712.65 0.0088 0.0042

Venus -102344-08-24 04:47 J -35659487.51 -35659487.30 -35659487.10 0.0088 0.0033

Venus -102343-04-06 17:30 J -35659261.97 -35659261.77 -35659261.54 0.0088 0.0025

Venus -102343-11-18 06:42 J -35659036.43 -35659036.22 -35659036.00 0.0088 0.0015

Venus -102342-07-01 19:40 J -35658810.90 -35658810.68 -35658810.46 0.0088 0.0006

Venus -102341-02-12 08:23 J -35658585.37 -35658585.15 -35658584.93 0.0088 0.0003

Venus -102341-09-24 21:06 J -35658359.83 -35658359.62 -35658359.40 0.0088 0.0011

Venus -102340-05-08 09:49 J -35658134.30 -35658134.09 -35658133.87 0.0088 0.0020

Venus -102340-12-19 22:18 J -35657908.76 -35657908.57 -35657908.35 0.0088 0.0030

Venus -102339-08-02 11:16 J -35657683.22 -35657683.03 -35657682.83 0.0088 0.0038

Venus -102338-03-15 23:45 J -35657457.68 -35657457.51 -35657457.31 0.0088 0.0047

Venus -102338-10-27 12:13 J -35657232.14 -35657231.99 -35657231.80 0.0088 0.0056

Venus -102337-06-09 01:11 J -35657006.59 -35657006.45 -35657006.29 0.0088 0.0064

Venus -102336-01-20 13:25 J -35656781.04 -35656780.94 -35656780.79 0.0088 0.0072

Venus -102336-09-03 02:09 J -35656555.48 -35656555.41 -35656555.31 0.0088 0.0081

Moon -102319-08-13 08:23 J -35650367.26 -35650367.15 -35650366.97 0.0088 0.0071
 Earth -102319-08-13 10:18 J -35650367.22 -35650367.07 -35650366.90 0.0088 0.0069 *
 Earth -102318-08-15 17:59 J -35649999.96 -35649999.75 -35649999.51 0.0088 0.0038
 Moon -102318-08-15 18:42 J -35649999.95 -35649999.72 -35649999.47 0.0088 0.0036 *
 Earth -102317-08-17 01:54 J -35649632.66 -35649632.42 -35649632.17 0.0088 0.0006
 Moon -102317-08-17 02:37 J -35649632.62 -35649632.39 -35649632.14 0.0088 0.0009 *
 Moon -102316-08-19 06:42 J -35649265.45 -35649265.22 -35649264.96 0.0088 0.0026
 Earth -102316-08-19 09:21 J -35649265.34 -35649265.11 -35649264.87 0.0088 0.0025 *
 Earth -102315-08-21 16:47 J -35648897.99 -35648897.80 -35648897.60 0.0088 0.0056
 Moon -102315-08-21 19:11 J -35648897.87 -35648897.70 -35648897.49 0.0088 0.0055 *
 Moon -102314-08-23 20:37 J -35648530.66 -35648530.64 -35648530.61 0.0088 0.0088
 Earth -102314-08-23 23:59 J -35648530.53 -35648530.50 -35648530.44 0.0088 0.0087
 Mars -102306-04-04 05:45 J -35645750.37 -35645750.26 -35645750.12 0.0088 0.0082
 Mars -102304-02-27 17:30 J -35645055.06 -35645054.77 -35645054.44 0.0088 0.0029
 Mars -102302-01-24 08:09 J -35644359.47 -35644359.16 -35644358.84 0.0088 0.0026
 Mars -102301-12-19 23:45 J -35643663.61 -35643663.51 -35643663.33 0.0089 0.0081
 Mercury -102277-06-25 09:49 J -35635075.10 -35635075.09 -35635075.07 0.0089 0.0088
 Mercury -102277-09-21 11:45 J -35634987.05 -35634987.01 -35634986.96 0.0089 0.0084
 Mercury -102277-12-18 13:25 J -35634898.99 -35634898.94 -35634898.86 0.0089 0.0080
 Mercury -102276-03-16 15:49 J -35634810.92 -35634810.84 -35634810.76 0.0089 0.0075
 Mercury -102276-06-12 17:30 J -35634722.85 -35634722.77 -35634722.67 0.0089 0.0071
 Mercury -102276-09-08 19:25 J -35634634.77 -35634634.69 -35634634.57 0.0089 0.0067
 Mercury -102276-12-05 21:49 J -35634546.70 -35634546.59 -35634546.48 0.0089 0.0062
 Mercury -102275-03-03 23:45 J -35634458.62 -35634458.51 -35634458.39 0.0089 0.0058
 Mercury -102275-05-31 01:54 J -35634370.54 -35634370.42 -35634370.30 0.0089 0.0053
 Mercury -102275-08-27 03:49 J -35634282.46 -35634282.34 -35634282.21 0.0089 0.0049
 Mercury -102275-11-23 05:59 J -35634194.38 -35634194.25 -35634194.12 0.0089 0.0044
 Mercury -102274-02-19 07:54 J -35634106.30 -35634106.17 -35634106.03 0.0089 0.0040
 Mercury -102274-05-18 10:04 J -35634018.22 -35634018.08 -35634017.93 0.0089 0.0035
 Mercury -102274-08-14 11:59 J -35633930.14 -35633930.00 -35633929.84 0.0089 0.0031

Mercury -102274-11-10 14:23 J -35633842.05 -35633841.90 -35633841.75 0.0089 0.0026

Mercury -102273-02-06 16:18 J -35633753.97 -35633753.82 -35633753.66 0.0089 0.0022

Mercury -102273-05-04 18:28 J -35633665.88 -35633665.73 -35633665.57 0.0089 0.0017

Mercury -102273-07-31 20:37 J -35633577.79 -35633577.64 -35633577.48 0.0089 0.0012

Mercury -102273-10-27 22:47 J -35633489.71 -35633489.55 -35633489.39 0.0089 0.0008

Mercury -102272-01-24 00:57 J -35633401.62 -35633401.46 -35633401.30 0.0089 0.0003

Mercury -102272-04-22 03:06 J -35633313.53 -35633313.37 -35633313.21 0.0089 0.0002

Mercury -102272-07-19 05:16 J -35633225.44 -35633225.28 -35633225.12 0.0089 0.0006

Mercury -102272-10-15 07:25 J -35633137.35 -35633137.19 -35633137.03 0.0089 0.0011

Mercury -102271-01-11 09:35 J -35633049.25 -35633049.10 -35633048.94 0.0089 0.0016

Mercury -102271-04-09 11:45 J -35632961.16 -35632961.01 -35632960.85 0.0089 0.0021

Mercury -102271-07-06 14:09 J -35632873.07 -35632872.91 -35632872.76 0.0089 0.0025

Mercury -102271-10-02 16:18 J -35632784.97 -35632784.82 -35632784.67 0.0089 0.0030

Mercury -102271-12-29 18:28 J -35632696.87 -35632696.73 -35632696.58 0.0089 0.0035

Mercury -102270-03-27 20:37 J -35632608.78 -35632608.64 -35632608.49 0.0089 0.0040

Mercury -102270-06-23 22:47 J -35632520.68 -35632520.55 -35632520.40 0.0089 0.0045

Mercury -102270-09-20 00:57 J -35632432.58 -35632432.46 -35632432.31 0.0089 0.0050

Mercury -102270-12-17 03:35 J -35632344.48 -35632344.35 -35632344.22 0.0089 0.0054

Mercury -102269-03-14 05:45 J -35632256.37 -35632256.26 -35632256.14 0.0089 0.0059

Mercury -102269-06-10 08:09 J -35632168.27 -35632168.16 -35632168.05 0.0089 0.0064

Mercury -102269-09-06 10:18 J -35632080.16 -35632080.07 -35632079.96 0.0089 0.0069

Mercury -102269-12-03 12:42 J -35631992.05 -35631991.97 -35631991.88 0.0089 0.0074

Mercury -102268-03-01 14:52 J -35631903.94 -35631903.88 -35631903.79 0.0089 0.0079

Mercury -102268-05-28 17:16 J -35631815.82 -35631815.78 -35631815.72 0.0089 0.0084

Mercury -102268-08-24 19:54 J -35631727.67 -35631727.67 -35631727.67 0.0089 0.0089

Venus -102265-09-02 21:06 J -35630622.69 -35630622.62 -35630622.52 0.0089 0.0081

Venus -102264-04-16 10:04 J -35630397.20 -35630397.08 -35630396.95 0.0089 0.0072

Venus -102264-11-27 23:01 J -35630171.69 -35630171.54 -35630171.39 0.0089 0.0063

Venus -102263-07-11 11:30 J -35629946.17 -35629946.02 -35629945.83 0.0089 0.0055

Venus -102262-02-22 00:28 J -35629720.65 -35629720.48 -35629720.28 0.0089 0.0046

Venus	-102262-10-05 13:40 J	-35629495.12	-35629494.93	-35629494.72	0.0089	0.0037
Venus	-102261-05-18 02:37 J	-35629269.59	-35629269.39	-35629269.17	0.0089	0.0028
Venus	-102261-12-29 15:35 J	-35629044.06	-35629043.85	-35629043.63	0.0089	0.0019
Venus	-102260-08-12 04:47 J	-35628818.52	-35628818.30	-35628818.08	0.0089	0.0010
Venus	-102259-03-25 17:59 J	-35628592.97	-35628592.75	-35628592.53	0.0089	0.0002
Venus	-102259-11-06 07:11 J	-35628367.42	-35628367.20	-35628366.98	0.0089	0.0008
Venus	-102258-06-19 20:09 J	-35628141.87	-35628141.66	-35628141.44	0.0089	0.0017
Venus	-102257-01-31 09:21 J	-35627916.31	-35627916.11	-35627915.89	0.0089	0.0027
Venus	-102257-09-12 22:47 J	-35627690.75	-35627690.55	-35627690.35	0.0089	0.0036
Venus	-102256-04-26 11:45 J	-35627465.18	-35627465.01	-35627464.80	0.0089	0.0045
Venus	-102256-12-08 00:57 J	-35627239.61	-35627239.46	-35627239.26	0.0089	0.0054
Venus	-102255-07-21 14:23 J	-35627014.04	-35627013.90	-35627013.73	0.0089	0.0063
Venus	-102254-03-04 03:35 J	-35626788.45	-35626788.35	-35626788.20	0.0089	0.0072
Venus	-102254-10-15 17:16 J	-35626562.85	-35626562.78	-35626562.67	0.0089	0.0081
Moon	-102236-02-06 13:40 J	-35620239.14	-35620238.93	-35620238.71	0.0089	0.0053
Earth	-102236-02-06 16:47 J	-35620238.98	-35620238.80	-35620238.58	0.0089	0.0058 *
Earth	-102235-02-09 08:37 J	-35619871.39	-35619871.14	-35619870.88	0.0089	0.0024
Moon	-102235-02-09 12:28 J	-35619871.22	-35619870.98	-35619870.72	0.0089	0.0029 *
Moon	-102234-02-11 20:52 J	-35619503.88	-35619503.63	-35619503.36	0.0089	0.0015
Earth	-102234-02-12 00:28 J	-35619503.74	-35619503.48	-35619503.21	0.0089	0.0010 *
Earth	-102233-02-14 16:18 J	-35619136.05	-35619135.82	-35619135.58	0.0089	0.0044
Moon	-102233-02-14 19:11 J	-35619135.93	-35619135.70	-35619135.44	0.0089	0.0040 *
Moon	-102232-02-16 06:13 J	-35618768.32	-35618768.24	-35618768.15	0.0089	0.0083
Earth	-102232-02-16 08:37 J	-35618768.26	-35618768.14	-35618768.02	0.0089	0.0079 *
Mars	-102224-02-24 17:30 J	-35615837.91	-35615837.77	-35615837.57	0.0089	0.0074
Mars	-102222-01-20 01:25 J	-35615143.71	-35615143.44	-35615143.13	0.0089	0.0024
Mars	-102221-12-14 05:59 J	-35614449.53	-35614449.25	-35614448.96	0.0089	0.0026
Mars	-102219-11-08 07:54 J	-35613755.29	-35613755.17	-35613754.98	0.0089	0.0076
Mercury	-102195-10-05 15:21 J	-35605022.88	-35605022.86	-35605022.82	0.0089	0.0087
Mercury	-102194-01-01 17:45 J	-35604934.81	-35604934.76	-35604934.69	0.0088	0.0082

Mercury -102194-03-30 20:09 J -35604846.73 -35604846.66 -35604846.57 0.0088 0.0077

Mercury -102194-06-26 22:47 J -35604758.64 -35604758.55 -35604758.46 0.0088 0.0072

Mercury -102194-09-23 01:11 J -35604670.56 -35604670.45 -35604670.35 0.0088 0.0067

Mercury -102194-12-20 03:06 J -35604582.47 -35604582.37 -35604582.24 0.0088 0.0063

Mercury -102193-03-17 05:30 J -35604494.38 -35604494.27 -35604494.13 0.0088 0.0058

Mercury -102193-06-13 07:54 J -35604406.29 -35604406.17 -35604406.03 0.0088 0.0053

Mercury -102193-09-09 10:18 J -35604318.20 -35604318.07 -35604317.93 0.0088 0.0048

Mercury -102193-12-06 12:42 J -35604230.11 -35604229.97 -35604229.83 0.0088 0.0043

Mercury -102192-03-04 15:06 J -35604142.02 -35604141.87 -35604141.73 0.0088 0.0038

Mercury -102192-05-31 17:01 J -35604053.93 -35604053.79 -35604053.63 0.0088 0.0034

Mercury -102192-08-27 19:25 J -35603965.84 -35603965.69 -35603965.53 0.0088 0.0029

Mercury -102192-11-23 21:49 J -35603877.74 -35603877.59 -35603877.43 0.0088 0.0024

Mercury -102191-02-19 23:59 J -35603789.65 -35603789.50 -35603789.34 0.0088 0.0019

Mercury -102191-05-19 02:09 J -35603701.56 -35603701.41 -35603701.24 0.0088 0.0015

Mercury -102191-08-15 04:33 J -35603613.47 -35603613.31 -35603613.15 0.0088 0.0009

Mercury -102191-11-11 06:42 J -35603525.38 -35603525.22 -35603525.06 0.0088 0.0005

Mercury -102190-02-07 08:52 J -35603437.29 -35603437.13 -35603436.97 0.0088 0.0002

Mercury -102190-05-06 11:01 J -35603349.19 -35603349.04 -35603348.88 0.0088 0.0006

Mercury -102190-08-02 13:25 J -35603261.10 -35603260.94 -35603260.79 0.0088 0.0010

Mercury -102190-10-29 15:21 J -35603173.01 -35603172.86 -35603172.70 0.0088 0.0015

Mercury -102189-01-25 17:45 J -35603084.92 -35603084.76 -35603084.61 0.0088 0.0019

Mercury -102189-04-22 19:40 J -35602996.83 -35602996.68 -35602996.52 0.0088 0.0024

Mercury -102189-07-19 22:04 J -35602908.73 -35602908.58 -35602908.43 0.0088 0.0028

Mercury -102189-10-15 23:59 J -35602820.64 -35602820.50 -35602820.35 0.0088 0.0032

Mercury -102188-01-12 02:09 J -35602732.55 -35602732.41 -35602732.27 0.0088 0.0037

Mercury -102188-04-10 04:04 J -35602644.46 -35602644.33 -35602644.18 0.0088 0.0042

Mercury -102188-07-07 06:28 J -35602556.37 -35602556.23 -35602556.10 0.0088 0.0046

Mercury -102188-10-03 08:23 J -35602468.27 -35602468.15 -35602468.02 0.0088 0.0050

Mercury -102188-12-30 10:33 J -35602380.18 -35602380.06 -35602379.94 0.0088 0.0055

Mercury -102187-03-28 12:13 J -35602292.09 -35602291.99 -35602291.86 0.0088 0.0060

Mercury -102187-06-24 14:37 J -35602203.99 -35602203.89 -35602203.78 0.0088 0.0064

Mercury -102187-09-20 16:18 J -35602115.90 -35602115.82 -35602115.71 0.0088 0.0069

Mercury -102187-12-17 18:28 J -35602027.80 -35602027.73 -35602027.63 0.0088 0.0073

Mercury -102186-03-15 20:37 J -35601939.71 -35601939.64 -35601939.56 0.0088 0.0077

Mercury -102186-06-11 22:18 J -35601851.61 -35601851.57 -35601851.49 0.0088 0.0082

Mercury -102186-09-08 00:28 J -35601763.50 -35601763.48 -35601763.43 0.0088 0.0086

Venus -102183-03-13 09:49 J -35600846.12 -35600846.09 -35600846.04 0.0088 0.0087

Venus -102183-10-24 23:16 J -35600620.63 -35600620.53 -35600620.42 0.0088 0.0078

Venus -102182-06-07 11:45 J -35600395.12 -35600395.01 -35600394.84 0.0088 0.0070

Venus -102181-01-19 00:57 J -35600169.60 -35600169.46 -35600169.27 0.0088 0.0061

Venus -102181-08-31 14:09 J -35599944.07 -35599943.91 -35599943.71 0.0088 0.0052

Venus -102180-04-14 03:35 J -35599718.53 -35599718.35 -35599718.14 0.0088 0.0042

Venus -102180-11-25 16:33 J -35599493.00 -35599492.81 -35599492.59 0.0088 0.0034

Venus -102179-07-09 05:45 J -35599267.46 -35599267.26 -35599267.04 0.0088 0.0024

Venus -102178-02-19 18:42 J -35599041.93 -35599041.72 -35599041.49 0.0088 0.0016

Venus -102178-10-03 07:54 J -35598816.39 -35598816.17 -35598815.95 0.0088 0.0006

Venus -102177-05-15 20:52 J -35598590.85 -35598590.63 -35598590.41 0.0088 0.0003

Venus -102177-12-27 09:35 J -35598365.31 -35598365.10 -35598364.88 0.0088 0.0012

Venus -102176-08-09 22:18 J -35598139.78 -35598139.57 -35598139.35 0.0088 0.0021

Venus -102175-03-23 11:01 J -35597914.23 -35597914.04 -35597913.82 0.0088 0.0030

Venus -102175-11-03 23:45 J -35597688.69 -35597688.51 -35597688.30 0.0088 0.0039

Venus -102174-06-17 12:57 J -35597463.15 -35597462.96 -35597462.78 0.0088 0.0047

Venus -102173-01-29 01:11 J -35597237.61 -35597237.45 -35597237.27 0.0088 0.0056

Venus -102173-09-10 13:40 J -35597012.06 -35597011.93 -35597011.76 0.0088 0.0064

Venus -102172-04-24 02:37 J -35596786.50 -35596786.39 -35596786.26 0.0088 0.0073

Venus -102172-12-05 14:52 J -35596560.94 -35596560.88 -35596560.77 0.0088 0.0082

Earth -102155-08-13 00:57 J -35590466.54 -35590466.46 -35590466.36 0.0088 0.0082

Moon -102155-08-13 00:13 J -35590466.51 -35590466.49 -35590466.40 0.0088 0.0087 *

Earth -102154-08-15 09:06 J -35590099.32 -35590099.12 -35590098.91 0.0088 0.0051

Moon -102154-08-15 10:33 J -35590099.27 -35590099.06 -35590098.86 0.0088 0.0047 *

Moon -102153-08-16 14:37 J -35589732.13 -35589731.89 -35589731.64 0.0088 0.0024
 Earth -102153-08-16 16:47 J -35589732.04 -35589731.80 -35589731.55 0.0088 0.0020 *
 Earth -102152-08-19 00:28 J -35589364.72 -35589364.48 -35589364.23 0.0088 0.0012
 Moon -102152-08-19 03:49 J -35589364.58 -35589364.34 -35589364.09 0.0088 0.0016 *
 Moon -102151-08-21 04:33 J -35588997.52 -35588997.31 -35588997.07 0.0088 0.0039
 Earth -102151-08-21 08:09 J -35588997.37 -35588997.16 -35588996.94 0.0088 0.0043 *
 Earth -102150-08-23 15:21 J -35588629.98 -35588629.86 -35588629.71 0.0088 0.0074
 Moon -102150-08-23 18:42 J -35588629.82 -35588629.72 -35588629.59 0.0088 0.0078 *
 Saturn -102143-12-26 09:49 J -35585948.63 -35585948.09 -35585947.48 0.0088 0.0046
 Mars -102141-10-12 00:28 J -35585292.73 -35585292.48 -35585292.20 0.0088 0.0051
 Mars -102139-09-07 13:11 J -35584597.28 -35584596.95 -35584596.62 0.0088 0.0004
 Mars -102137-08-03 03:35 J -35583901.58 -35583901.35 -35583901.09 0.0088 0.0059
 Mercury -102112-03-22 09:35 J -35574904.13 -35574904.10 -35574904.05 0.0089 0.0085
 Mercury -102112-06-18 11:30 J -35574816.07 -35574816.02 -35574815.95 0.0089 0.0081
 Mercury -102112-09-14 13:25 J -35574728.00 -35574727.94 -35574727.85 0.0089 0.0077
 Mercury -102112-12-11 15:35 J -35574639.93 -35574639.85 -35574639.76 0.0089 0.0072
 Mercury -102111-03-09 17:30 J -35574551.86 -35574551.77 -35574551.67 0.0089 0.0068
 Mercury -102111-06-05 19:25 J -35574463.79 -35574463.69 -35574463.57 0.0089 0.0064
 Mercury -102111-09-01 21:35 J -35574375.71 -35574375.60 -35574375.48 0.0089 0.0059
 Mercury -102111-11-28 23:30 J -35574287.63 -35574287.52 -35574287.39 0.0089 0.0055
 Mercury -102110-02-25 01:40 J -35574199.55 -35574199.43 -35574199.30 0.0089 0.0050
 Mercury -102110-05-24 03:35 J -35574111.47 -35574111.35 -35574111.21 0.0089 0.0046
 Mercury -102110-08-20 05:45 J -35574023.39 -35574023.26 -35574023.12 0.0089 0.0041
 Mercury -102110-11-16 07:40 J -35573935.31 -35573935.18 -35573935.03 0.0089 0.0037
 Mercury -102109-02-12 09:49 J -35573847.23 -35573847.09 -35573846.94 0.0089 0.0032
 Mercury -102109-05-10 11:59 J -35573759.14 -35573759.00 -35573758.85 0.0089 0.0028
 Mercury -102109-08-06 14:09 J -35573671.06 -35573670.91 -35573670.76 0.0089 0.0023
 Mercury -102109-11-02 16:04 J -35573582.97 -35573582.83 -35573582.67 0.0089 0.0019
 Mercury -102108-01-29 18:13 J -35573494.89 -35573494.74 -35573494.58 0.0089 0.0014
 Mercury -102108-04-27 20:23 J -35573406.80 -35573406.65 -35573406.49 0.0089 0.0009

Mercury -102108-07-24 22:33 J -35573318.71 -35573318.56 -35573318.40 0.0089 0.0005

Mercury -102108-10-21 00:42 J -35573230.62 -35573230.47 -35573230.31 0.0089 0.0001

Mercury -102107-01-17 02:52 J -35573142.54 -35573142.38 -35573142.22 0.0089 0.0005

Mercury -102107-04-15 05:01 J -35573054.45 -35573054.29 -35573054.13 0.0089 0.0010

Mercury -102107-07-12 07:11 J -35572966.35 -35572966.20 -35572966.04 0.0089 0.0014

Mercury -102107-10-08 09:21 J -35572878.26 -35572878.11 -35572877.95 0.0089 0.0019

Mercury -102106-01-04 11:30 J -35572790.17 -35572790.02 -35572789.86 0.0089 0.0024

Mercury -102106-04-02 13:40 J -35572702.07 -35572701.93 -35572701.77 0.0089 0.0029

Mercury -102106-06-29 16:04 J -35572613.98 -35572613.83 -35572613.68 0.0089 0.0033

Mercury -102106-09-25 18:13 J -35572525.88 -35572525.74 -35572525.59 0.0089 0.0038

Mercury -102106-12-22 20:23 J -35572437.78 -35572437.65 -35572437.50 0.0089 0.0043

Mercury -102105-03-19 22:33 J -35572349.68 -35572349.56 -35572349.42 0.0089 0.0048

Mercury -102105-06-16 00:42 J -35572261.58 -35572261.47 -35572261.33 0.0089 0.0053

Mercury -102105-09-12 03:06 J -35572173.48 -35572173.37 -35572173.24 0.0089 0.0058

Mercury -102105-12-09 05:16 J -35572085.38 -35572085.28 -35572085.15 0.0089 0.0063

Mercury -102104-03-07 07:54 J -35571997.27 -35571997.17 -35571997.06 0.0089 0.0067

Mercury -102104-06-03 10:04 J -35571909.16 -35571909.08 -35571908.98 0.0089 0.0072

Mercury -102104-08-30 12:28 J -35571821.05 -35571820.98 -35571820.90 0.0089 0.0077

Mercury -102104-11-26 14:37 J -35571732.94 -35571732.89 -35571732.82 0.0089 0.0082

Mercury -102103-02-22 17:01 J -35571644.81 -35571644.79 -35571644.75 0.0089 0.0087

Venus -102101-12-05 09:21 J -35570628.17 -35570628.11 -35570628.00 0.0089 0.0082

Venus -102100-07-18 22:18 J -35570402.68 -35570402.57 -35570402.43 0.0089 0.0073

Venus -102099-03-01 11:16 J -35570177.17 -35570177.03 -35570176.87 0.0089 0.0064

Venus -102099-10-13 00:13 J -35569951.65 -35569951.49 -35569951.30 0.0089 0.0055

Venus -102098-05-26 13:11 J -35569726.13 -35569725.95 -35569725.75 0.0089 0.0046

Venus -102097-01-07 02:09 J -35569500.60 -35569500.41 -35569500.20 0.0089 0.0037

Venus -102097-08-19 15:06 J -35569275.07 -35569274.87 -35569274.66 0.0089 0.0028

Venus -102096-04-02 04:04 J -35569049.54 -35569049.33 -35569049.11 0.0089 0.0019

Venus -102096-11-13 17:16 J -35568824.00 -35568823.78 -35568823.56 0.0089 0.0010

Venus -102095-06-27 06:13 J -35568598.46 -35568598.24 -35568598.02 0.0089 0.0001

Venus	-102094-02-07 19:11 J	-35568372.91	-35568372.70	-35568372.47	0.0089	0.0008
Venus	-102094-09-21 08:23 J	-35568147.36	-35568147.15	-35568146.93	0.0089	0.0017
Venus	-102093-05-03 21:35 J	-35567921.81	-35567921.60	-35567921.39	0.0089	0.0026
Venus	-102093-12-15 10:47 J	-35567696.25	-35567696.05	-35567695.85	0.0089	0.0036
Venus	-102092-07-28 23:30 J	-35567470.69	-35567470.52	-35567470.31	0.0089	0.0046
Venus	-102091-03-11 12:57 J	-35567245.12	-35567244.96	-35567244.77	0.0089	0.0054
Venus	-102091-10-23 02:23 J	-35567019.54	-35567019.40	-35567019.23	0.0089	0.0063
Venus	-102090-06-05 15:49 J	-35566793.95	-35566793.84	-35566793.70	0.0089	0.0072
Venus	-102089-01-17 05:01 J	-35566568.36	-35566568.29	-35566568.18	0.0089	0.0082
Earth	-102072-02-06 01:25 J	-35560338.59	-35560338.44	-35560338.28	0.0089	0.0073
Moon	-102072-02-06 04:47 J	-35560338.45	-35560338.30	-35560338.13	0.0089	0.0071 *
Moon	-102071-02-08 13:25 J	-35559971.16	-35559970.94	-35559970.69	0.0089	0.0039
Earth	-102071-02-08 17:01 J	-35559971.02	-35559970.79	-35559970.54	0.0089	0.0039 *
Earth	-102070-02-11 08:37 J	-35559603.40	-35559603.14	-35559602.87	0.0089	0.0005
Moon	-102070-02-11 11:01 J	-35559603.31	-35559603.04	-35559602.76	0.0089	0.0004 *
Moon	-102069-02-13 23:01 J	-35559235.77	-35559235.54	-35559235.28	0.0089	0.0030
Earth	-102069-02-14 00:13 J	-35559235.72	-35559235.49	-35559235.22	0.0089	0.0030 *
Earth	-102068-02-15 16:04 J	-35558868.00	-35558867.83	-35558867.63	0.0089	0.0064
Moon	-102068-02-15 16:47 J	-35558867.98	-35558867.80	-35558867.59	0.0089	0.0063 *
Mars	-102059-09-04 07:54 J	-35555380.41	-35555380.17	-35555379.88	0.0089	0.0045
Mars	-102057-07-29 14:52 J	-35554686.18	-35554685.88	-35554685.57	0.0089	0.0006
Mars	-102055-06-23 18:42 J	-35553991.94	-35553991.72	-35553991.48	0.0089	0.0056
Mercury	-102030-04-05 12:57 J	-35544939.96	-35544939.96	-35544939.95	0.0089	0.0088
Mercury	-102030-07-02 15:06 J	-35544851.91	-35544851.87	-35544851.80	0.0089	0.0084
Mercury	-102030-09-28 17:30 J	-35544763.83	-35544763.77	-35544763.68	0.0088	0.0079
Mercury	-102030-12-25 19:54 J	-35544675.75	-35544675.67	-35544675.57	0.0088	0.0074
Mercury	-102029-03-22 22:18 J	-35544587.66	-35544587.57	-35544587.46	0.0088	0.0069
Mercury	-102029-06-19 00:42 J	-35544499.57	-35544499.47	-35544499.35	0.0088	0.0064
Mercury	-102029-09-15 03:06 J	-35544411.48	-35544411.37	-35544411.24	0.0088	0.0059
Mercury	-102029-12-12 05:16 J	-35544323.39	-35544323.28	-35544323.14	0.0088	0.0055

Mercury -102028-03-10 07:40 J -35544235.30 -35544235.18 -35544235.03 0.0088 0.0050

Mercury -102028-06-06 10:04 J -35544147.21 -35544147.08 -35544146.93 0.0088 0.0044

Mercury -102028-09-02 12:28 J -35544059.12 -35544058.98 -35544058.83 0.0088 0.0040

Mercury -102028-11-29 14:52 J -35543971.03 -35543970.88 -35543970.73 0.0088 0.0035

Mercury -102027-02-25 17:01 J -35543882.94 -35543882.79 -35543882.63 0.0088 0.0030

Mercury -102027-05-24 19:11 J -35543794.84 -35543794.70 -35543794.54 0.0088 0.0026

Mercury -102027-08-20 21:35 J -35543706.75 -35543706.60 -35543706.44 0.0088 0.0020

Mercury -102027-11-16 23:59 J -35543618.66 -35543618.50 -35543618.34 0.0088 0.0016

Mercury -102026-02-13 02:09 J -35543530.57 -35543530.41 -35543530.25 0.0088 0.0011

Mercury -102026-05-12 04:18 J -35543442.48 -35543442.32 -35543442.16 0.0088 0.0006

Mercury -102026-08-08 06:42 J -35543354.38 -35543354.22 -35543354.06 0.0088 0.0002

Mercury -102026-11-04 08:52 J -35543266.29 -35543266.13 -35543265.97 0.0088 0.0003

Mercury -102025-01-31 11:01 J -35543178.20 -35543178.04 -35543177.88 0.0088 0.0008

Mercury -102025-04-28 13:11 J -35543090.11 -35543089.95 -35543089.79 0.0088 0.0013

Mercury -102025-07-25 15:21 J -35543002.01 -35543001.86 -35543001.70 0.0088 0.0017

Mercury -102025-10-21 17:30 J -35542913.92 -35542913.77 -35542913.61 0.0088 0.0022

Mercury -102024-01-17 19:40 J -35542825.83 -35542825.68 -35542825.53 0.0088 0.0027

Mercury -102024-04-15 21:35 J -35542737.74 -35542737.60 -35542737.44 0.0088 0.0032

Mercury -102024-07-12 23:59 J -35542649.64 -35542649.50 -35542649.36 0.0088 0.0036

Mercury -102024-10-09 01:54 J -35542561.55 -35542561.42 -35542561.27 0.0088 0.0040

Mercury -102023-01-05 04:04 J -35542473.46 -35542473.33 -35542473.19 0.0088 0.0045

Mercury -102023-04-03 05:59 J -35542385.36 -35542385.25 -35542385.11 0.0088 0.0050

Mercury -102023-06-30 08:23 J -35542297.27 -35542297.15 -35542297.02 0.0088 0.0054

Mercury -102023-09-26 10:18 J -35542209.18 -35542209.07 -35542208.95 0.0088 0.0058

Mercury -102023-12-23 12:28 J -35542121.08 -35542120.98 -35542120.87 0.0088 0.0063

Mercury -102022-03-21 14:09 J -35542032.99 -35542032.91 -35542032.79 0.0088 0.0068

Mercury -102022-06-17 16:18 J -35541944.89 -35541944.82 -35541944.71 0.0088 0.0072

Mercury -102022-09-13 18:28 J -35541856.80 -35541856.73 -35541856.64 0.0088 0.0076

Mercury -102022-12-10 20:23 J -35541768.70 -35541768.65 -35541768.57 0.0088 0.0080

Mercury -102021-03-07 22:33 J -35541680.59 -35541680.56 -35541680.51 0.0088 0.0084

Venus	-102019-06-14 21:35 J	-35540851.61	-35540851.60	-35540851.54	0.0088	0.0088
Venus	-102018-01-26 11:01 J	-35540626.13	-35540626.04	-35540625.93	0.0088	0.0079
Venus	-102018-09-09 00:13 J	-35540400.62	-35540400.49	-35540400.35	0.0088	0.0070
Venus	-102017-04-21 13:25 J	-35540175.09	-35540174.94	-35540174.77	0.0088	0.0061
Venus	-102017-12-03 02:37 J	-35539949.56	-35539949.39	-35539949.21	0.0088	0.0052
Venus	-102016-07-16 15:35 J	-35539724.04	-35539723.85	-35539723.65	0.0088	0.0043
Venus	-102015-02-27 04:47 J	-35539498.50	-35539498.30	-35539498.09	0.0088	0.0034
Venus	-102015-10-10 17:45 J	-35539272.97	-35539272.76	-35539272.54	0.0088	0.0025
Venus	-102014-05-24 06:57 J	-35539047.43	-35539047.21	-35539046.99	0.0088	0.0016
Venus	-102013-01-04 19:54 J	-35538821.89	-35538821.67	-35538821.45	0.0088	0.0007
Venus	-102013-08-17 08:52 J	-35538596.35	-35538596.13	-35538595.91	0.0088	0.0003
Venus	-102012-03-30 21:49 J	-35538370.81	-35538370.59	-35538370.37	0.0088	0.0011
Venus	-102012-11-11 10:33 J	-35538145.27	-35538145.06	-35538144.84	0.0088	0.0021
Venus	-102011-06-24 23:16 J	-35537919.72	-35537919.53	-35537919.31	0.0088	0.0030
Venus	-102010-02-05 11:59 J	-35537694.18	-35537694.00	-35537693.79	0.0088	0.0039
Venus	-102010-09-19 00:42 J	-35537468.64	-35537468.47	-35537468.27	0.0088	0.0047
Venus	-102009-05-01 13:25 J	-35537243.09	-35537242.94	-35537242.75	0.0088	0.0056
Venus	-102009-12-13 02:23 J	-35537017.54	-35537017.40	-35537017.25	0.0088	0.0065
Venus	-102008-07-26 14:37 J	-35536791.99	-35536791.89	-35536791.75	0.0088	0.0074
Venus	-102007-03-09 03:06 J	-35536566.42	-35536566.37	-35536566.26	0.0088	0.0083

102ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 102nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-101990-08-14 21:06 J	-35530198.79	-35530198.62	-35530198.44	0.0088	0.0065		
Earth	-101990-08-15 00:13 J	-35530198.66	-35530198.49	-35530198.32	0.0088	0.0064	*	
Earth	-101989-08-16 07:54 J	-35529831.40	-35529831.17	-35529830.93	0.0088	0.0033		
Moon	-101989-08-16 10:47 J	-35529831.26	-35529831.05	-35529830.80	0.0088	0.0032	*	
Moon	-101988-08-18 12:13 J	-35529464.24	-35529463.99	-35529463.74	0.0088	0.0003		
Earth	-101988-08-18 15:49 J	-35529464.09	-35529463.84	-35529463.59	0.0088	0.0002	*	
Earth	-101987-08-20 23:16 J	-35529096.75	-35529096.53	-35529096.28	0.0088	0.0030		
Moon	-101987-08-21 02:37 J	-35529096.63	-35529096.39	-35529096.15	0.0088	0.0031	*	
Moon	-101986-08-23 04:33 J	-35528729.47	-35528729.31	-35528729.11	0.0088	0.0059		
Earth	-101986-08-23 06:57 J	-35528729.38	-35528729.21	-35528729.02	0.0088	0.0061	*	
Mars	-101977-05-26 05:30 J	-35525530.41	-35525530.27	-35525530.05	0.0088	0.0074		
Mars	-101975-04-21 17:59 J	-35524835.07	-35524834.75	-35524834.43	0.0088	0.0019		
Mars	-101973-03-17 06:42 J	-35524139.50	-35524139.22	-35524138.90	0.0088	0.0037		
Mercury	-101948-09-20 07:11 J	-35514821.21	-35514821.20	-35514821.15	0.0089	0.0087		
Mercury	-101948-12-17 09:35 J	-35514733.15	-35514733.10	-35514733.05	0.0089	0.0082		
Mercury	-101947-03-15 11:16 J	-35514645.09	-35514645.03	-35514644.95	0.0089	0.0078		
Mercury	-101947-06-11 13:11 J	-35514557.02	-35514556.95	-35514556.85	0.0089	0.0074		
Mercury	-101947-09-07 15:21 J	-35514468.95	-35514468.86	-35514468.76	0.0089	0.0069		
Mercury	-101947-12-04 17:16 J	-35514380.87	-35514380.78	-35514380.67	0.0089	0.0065		
Mercury	-101946-03-02 19:11 J	-35514292.80	-35514292.70	-35514292.58	0.0089	0.0061		
Mercury	-101946-05-29 21:21 J	-35514204.72	-35514204.61	-35514204.48	0.0089	0.0056		
Mercury	-101946-08-25 23:16 J	-35514116.64	-35514116.53	-35514116.39	0.0089	0.0052		
Mercury	-101946-11-22 01:25 J	-35514028.56	-35514028.44	-35514028.30	0.0089	0.0047		
Mercury	-101945-02-18 03:21 J	-35513940.48	-35513940.36	-35513940.21	0.0089	0.0043		
Mercury	-101945-05-16 05:30 J	-35513852.40	-35513852.27	-35513852.12	0.0089	0.0038		
Mercury	-101945-08-12 07:25 J	-35513764.32	-35513764.19	-35513764.03	0.0089	0.0034		

Mercury -101945-11-08 09:35 J -35513676.24 -35513676.10 -35513675.94 0.0089 0.0029
 Mercury -101944-02-04 11:45 J -35513588.15 -35513588.01 -35513587.85 0.0089 0.0025
 Mercury -101944-05-03 13:54 J -35513500.07 -35513499.92 -35513499.77 0.0089 0.0020
 Mercury -101944-07-30 16:04 J -35513411.98 -35513411.83 -35513411.68 0.0089 0.0015
 Mercury -101944-10-26 18:13 J -35513323.90 -35513323.74 -35513323.59 0.0089 0.0011
 Mercury -101943-01-22 20:23 J -35513235.81 -35513235.65 -35513235.50 0.0089 0.0006
 Mercury -101943-04-20 22:18 J -35513147.72 -35513147.57 -35513147.41 0.0089 0.0003
 Mercury -101943-07-18 00:28 J -35513059.63 -35513059.48 -35513059.32 0.0089 0.0004
 Mercury -101943-10-14 02:37 J -35512971.54 -35512971.39 -35512971.23 0.0089 0.0008
 Mercury -101942-01-10 04:47 J -35512883.45 -35512883.30 -35512883.14 0.0089 0.0013
 Mercury -101942-04-08 06:57 J -35512795.36 -35512795.21 -35512795.05 0.0089 0.0018
 Mercury -101942-07-05 09:06 J -35512707.27 -35512707.12 -35512706.96 0.0089 0.0022
 Mercury -101942-10-01 11:16 J -35512619.18 -35512619.03 -35512618.88 0.0089 0.0027
 Mercury -101942-12-28 13:25 J -35512531.08 -35512530.94 -35512530.79 0.0089 0.0032
 Mercury -101941-03-25 15:35 J -35512442.99 -35512442.85 -35512442.70 0.0089 0.0037
 Mercury -101941-06-21 17:59 J -35512354.89 -35512354.75 -35512354.61 0.0089 0.0041
 Mercury -101941-09-17 20:09 J -35512266.79 -35512266.66 -35512266.52 0.0089 0.0046
 Mercury -101941-12-14 22:18 J -35512178.69 -35512178.57 -35512178.43 0.0089 0.0051
 Mercury -101940-03-13 00:28 J -35512090.59 -35512090.48 -35512090.34 0.0089 0.0056
 Mercury -101940-06-09 02:37 J -35512002.49 -35512002.39 -35512002.26 0.0089 0.0061
 Mercury -101940-09-05 04:47 J -35511914.39 -35511914.30 -35511914.17 0.0089 0.0066
 Mercury -101940-12-02 07:40 J -35511826.28 -35511826.18 -35511826.09 0.0089 0.0070
 Mercury -101939-02-28 09:49 J -35511738.17 -35511738.09 -35511738.00 0.0089 0.0075
 Mercury -101939-05-27 11:59 J -35511650.06 -35511650.00 -35511649.92 0.0089 0.0080
 Mercury -101939-08-23 14:23 J -35511561.94 -35511561.90 -35511561.85 0.0089 0.0085
 Venus -101936-03-08 21:21 J -35510633.66 -35510633.61 -35510633.51 0.0089 0.0083
 Venus -101936-10-20 10:33 J -35510408.17 -35510408.06 -35510407.93 0.0089 0.0074
 Venus -101935-06-02 23:16 J -35510182.66 -35510182.53 -35510182.36 0.0089 0.0065
 Venus -101934-01-14 12:13 J -35509957.15 -35509956.99 -35509956.81 0.0089 0.0056
 Venus -101934-08-28 01:11 J -35509731.62 -35509731.45 -35509731.25 0.0089 0.0047

Venus	-101933-04-09 14:09 J	-35509506.10	-35509505.91	-35509505.70	0.0089	0.0038
Venus	-101933-11-21 03:06 J	-35509280.57	-35509280.37	-35509280.16	0.0089	0.0029
Venus	-101932-07-04 16:04 J	-35509055.04	-35509054.83	-35509054.61	0.0089	0.0020
Venus	-101931-02-15 05:01 J	-35508829.50	-35508829.29	-35508829.06	0.0089	0.0011
Venus	-101931-09-28 18:28 J	-35508603.95	-35508603.73	-35508603.51	0.0089	0.0002
Venus	-101930-05-12 07:11 J	-35508378.41	-35508378.20	-35508377.97	0.0089	0.0009
Venus	-101930-12-23 20:09 J	-35508152.86	-35508152.66	-35508152.43	0.0089	0.0018
Venus	-101929-08-05 09:21 J	-35507927.31	-35507927.11	-35507926.89	0.0089	0.0026
Venus	-101928-03-18 22:33 J	-35507701.76	-35507701.56	-35507701.35	0.0089	0.0035
Venus	-101928-10-30 11:59 J	-35507476.19	-35507476.00	-35507475.81	0.0089	0.0045
Venus	-101927-06-13 00:42 J	-35507250.62	-35507250.47	-35507250.27	0.0089	0.0054
Venus	-101926-01-24 13:54 J	-35507025.05	-35507024.92	-35507024.74	0.0089	0.0064
Venus	-101926-09-07 03:21 J	-35506799.47	-35506799.36	-35506799.21	0.0089	0.0072
Venus	-101925-04-19 16:47 J	-35506573.87	-35506573.80	-35506573.70	0.0089	0.0081
Earth	-101908-02-05 09:06 J	-35500438.15	-35500438.12	-35500438.05	0.0089	0.0088
Earth	-101907-02-08 00:57 J	-35500070.67	-35500070.46	-35500070.24	0.0089	0.0053
Moon	-101907-02-08 02:23 J	-35500070.61	-35500070.40	-35500070.15	0.0089	0.0049 *
Moon	-101906-02-10 15:35 J	-35499703.09	-35499702.85	-35499702.59	0.0089	0.0024
Earth	-101906-02-10 16:33 J	-35499703.06	-35499702.81	-35499702.54	0.0089	0.0019 *
Moon	-101905-02-13 07:25 J	-35499335.46	-35499335.19	-35499334.92	0.0089	0.0019
Earth	-101905-02-13 08:09 J	-35499335.41	-35499335.16	-35499334.89	0.0089	0.0015 *
Earth	-101904-02-14 23:45 J	-35498967.71	-35498967.51	-35498967.27	0.0089	0.0049
Moon	-101904-02-15 01:11 J	-35498967.65	-35498967.45	-35498967.21	0.0089	0.0045 *
Moon	-101903-02-17 12:28 J	-35498599.99	-35498599.98	-35498599.90	0.0089	0.0088
Earth	-101903-02-17 15:21 J	-35498599.93	-35498599.86	-35498599.74	0.0089	0.0083 *
Mars	-101895-04-19 14:52 J	-35495617.08	-35495616.88	-35495616.68	0.0089	0.0066
Mars	-101893-03-13 21:21 J	-35494922.90	-35494922.61	-35494922.31	0.0089	0.0015
Mars	-101891-02-06 03:35 J	-35494228.61	-35494228.35	-35494228.06	0.0089	0.0036
Mars	-101889-01-01 07:40 J	-35493534.23	-35493534.18	-35493534.09	0.0089	0.0086
Mercury	-101866-12-31 12:13 J	-35484769.01	-35484768.99	-35484768.93	0.0089	0.0086

Mercury -101865-03-28 14:37 J -35484680.94 -35484680.89 -35484680.80 0.0089 0.0081

Mercury -101865-06-24 17:16 J -35484592.85 -35484592.78 -35484592.69 0.0089 0.0076

Mercury -101865-09-20 19:40 J -35484504.77 -35484504.68 -35484504.57 0.0089 0.0071

Mercury -101865-12-17 22:04 J -35484416.68 -35484416.58 -35484416.46 0.0089 0.0066

Mercury -101864-03-16 00:28 J -35484328.59 -35484328.48 -35484328.36 0.0088 0.0061

Mercury -101864-06-12 02:52 J -35484240.50 -35484240.38 -35484240.25 0.0088 0.0056

Mercury -101864-09-08 05:16 J -35484152.41 -35484152.28 -35484152.15 0.0088 0.0051

Mercury -101864-12-05 07:25 J -35484064.32 -35484064.19 -35484064.04 0.0088 0.0046

Mercury -101863-03-03 09:35 J -35483976.23 -35483976.10 -35483975.94 0.0088 0.0042

Mercury -101863-05-30 11:59 J -35483888.14 -35483888.00 -35483887.84 0.0088 0.0037

Mercury -101863-08-26 14:23 J -35483800.04 -35483799.90 -35483799.74 0.0088 0.0032

Mercury -101863-11-22 16:47 J -35483711.95 -35483711.80 -35483711.65 0.0088 0.0027

Mercury -101862-02-18 18:57 J -35483623.86 -35483623.71 -35483623.55 0.0088 0.0022

Mercury -101862-05-17 21:21 J -35483535.77 -35483535.61 -35483535.45 0.0088 0.0017

Mercury -101862-08-13 23:30 J -35483447.68 -35483447.52 -35483447.36 0.0088 0.0013

Mercury -101862-11-10 01:54 J -35483359.58 -35483359.42 -35483359.26 0.0088 0.0008

Mercury -101861-02-06 04:04 J -35483271.49 -35483271.33 -35483271.17 0.0088 0.0003

Mercury -101861-05-04 06:13 J -35483183.40 -35483183.24 -35483183.08 0.0088 0.0002

Mercury -101861-07-31 08:23 J -35483095.30 -35483095.15 -35483094.99 0.0088 0.0007

Mercury -101861-10-27 10:33 J -35483007.21 -35483007.06 -35483006.90 0.0088 0.0012

Mercury -101860-01-23 12:57 J -35482919.12 -35482918.96 -35482918.81 0.0088 0.0016

Mercury -101860-04-21 14:52 J -35482831.02 -35482830.88 -35482830.72 0.0088 0.0021

Mercury -101860-07-18 17:16 J -35482742.93 -35482742.78 -35482742.63 0.0088 0.0025

Mercury -101860-10-14 19:25 J -35482654.84 -35482654.69 -35482654.54 0.0088 0.0029

Mercury -101859-01-10 21:21 J -35482566.75 -35482566.61 -35482566.46 0.0088 0.0034

Mercury -101859-04-08 23:45 J -35482478.65 -35482478.51 -35482478.37 0.0088 0.0039

Mercury -101859-07-06 01:40 J -35482390.56 -35482390.43 -35482390.29 0.0088 0.0043

Mercury -101859-10-02 03:49 J -35482302.47 -35482302.34 -35482302.20 0.0088 0.0048

Mercury -101859-12-29 05:45 J -35482214.37 -35482214.26 -35482214.12 0.0088 0.0053

Mercury -101858-03-27 08:09 J -35482126.28 -35482126.16 -35482126.04 0.0088 0.0057

Mercury	-101858-06-23 10:04 J	-35482038.18	-35482038.08	-35482037.96	0.0088	0.0061
Mercury	-101858-09-19 12:13 J	-35481950.09	-35481949.99	-35481949.88	0.0088	0.0066
Mercury	-101858-12-16 13:54 J	-35481861.99	-35481861.92	-35481861.81	0.0088	0.0071
Mercury	-101857-03-13 16:04 J	-35481773.90	-35481773.83	-35481773.73	0.0088	0.0075
Mercury	-101857-06-09 18:28 J	-35481685.80	-35481685.73	-35481685.66	0.0088	0.0079
Mercury	-101857-09-05 20:09 J	-35481597.69	-35481597.66	-35481597.59	0.0088	0.0084
Mercury	-101857-12-02 22:18 J	-35481509.58	-35481509.57	-35481509.54	0.0088	0.0088
Venus	-101855-09-16 09:49 J	-35480857.09	-35480857.09	-35480857.07	0.0088	0.0088
Venus	-101854-04-29 22:47 J	-35480631.63	-35480631.55	-35480631.44	0.0088	0.0080
Venus	-101854-12-11 11:59 J	-35480406.12	-35480406.00	-35480405.85	0.0088	0.0071
Venus	-101853-07-24 01:11 J	-35480180.60	-35480180.45	-35480180.28	0.0088	0.0062
Venus	-101852-03-06 14:23 J	-35479955.06	-35479954.90	-35479954.71	0.0088	0.0053
Venus	-101852-10-18 03:35 J	-35479729.53	-35479729.35	-35479729.15	0.0088	0.0043
Venus	-101851-05-31 16:33 J	-35479504.00	-35479503.81	-35479503.59	0.0088	0.0034
Venus	-101850-01-12 05:30 J	-35479278.47	-35479278.27	-35479278.04	0.0088	0.0026
Venus	-101850-08-25 18:42 J	-35479052.93	-35479052.72	-35479052.50	0.0088	0.0016
Venus	-101849-04-07 07:54 J	-35478827.39	-35478827.17	-35478826.95	0.0088	0.0007
Venus	-101849-11-18 20:52 J	-35478601.85	-35478601.63	-35478601.41	0.0088	0.0003
Venus	-101848-07-02 09:49 J	-35478376.31	-35478376.09	-35478375.87	0.0088	0.0011
Venus	-101847-02-12 22:33 J	-35478150.77	-35478150.56	-35478150.34	0.0088	0.0020
Venus	-101847-09-26 11:16 J	-35477925.22	-35477925.03	-35477924.81	0.0088	0.0030
Venus	-101846-05-10 00:13 J	-35477699.67	-35477699.49	-35477699.28	0.0088	0.0039
Venus	-101846-12-21 12:57 J	-35477474.13	-35477473.96	-35477473.76	0.0088	0.0048
Venus	-101845-08-03 01:40 J	-35477248.58	-35477248.43	-35477248.24	0.0088	0.0056
Venus	-101844-03-16 14:23 J	-35477023.03	-35477022.90	-35477022.73	0.0088	0.0065
Venus	-101844-10-28 03:35 J	-35476797.47	-35476797.35	-35476797.23	0.0088	0.0074
Venus	-101843-06-10 15:49 J	-35476571.90	-35476571.84	-35476571.75	0.0088	0.0083
Earth	-101826-08-14 13:54 J	-35470298.01	-35470297.92	-35470297.77	0.0088	0.0078
Moon	-101826-08-14 17:59 J	-35470297.83	-35470297.75	-35470297.65	0.0088	0.0082 *
Moon	-101825-08-15 19:11 J	-35469930.92	-35469930.70	-35469930.48	0.0088	0.0042

Earth -101825-08-15 22:04 J -35469930.77 -35469930.58 -35469930.35 0.0088 0.0047 *
 Earth -101824-08-18 05:59 J -35469563.49 -35469563.25 -35469562.99 0.0088 0.0015
 Moon -101824-08-18 09:06 J -35469563.36 -35469563.12 -35469562.86 0.0088 0.0019 *
 Moon -101823-08-20 11:45 J -35469196.24 -35469196.01 -35469195.77 0.0088 0.0021
 Earth -101823-08-20 13:54 J -35469196.16 -35469195.92 -35469195.67 0.0088 0.0016 *
 Earth -101822-08-22 21:21 J -35468828.81 -35468828.61 -35468828.39 0.0088 0.0047
 Moon -101822-08-22 21:49 J -35468828.80 -35468828.59 -35468828.35 0.0088 0.0043 *
 Earth -101821-08-24 04:47 J -35468461.39 -35468461.30 -35468461.16 0.0088 0.0078
 Moon -101821-08-24 05:01 J -35468461.35 -35468461.29 -35468461.18 0.0088 0.0083 *
 Mars -101812-12-03 23:16 J -35465072.80 -35465072.53 -35465072.22 0.0088 0.0042
 Mars -101810-10-30 11:59 J -35464377.32 -35464377.00 -35464376.67 0.0088 0.0014
 Mars -101808-09-25 01:25 J -35463681.62 -35463681.44 -35463681.22 0.0088 0.0070
 Mercury -101783-03-21 05:16 J -35454738.29 -35454738.28 -35454738.26 0.0089 0.0088
 Mercury -101783-06-17 06:57 J -35454650.24 -35454650.21 -35454650.15 0.0089 0.0084
 Mercury -101783-09-13 08:52 J -35454562.18 -35454562.13 -35454562.05 0.0089 0.0080
 Mercury -101783-12-10 11:01 J -35454474.11 -35454474.04 -35454473.95 0.0089 0.0075
 Mercury -101782-03-08 12:57 J -35454386.04 -35454385.96 -35454385.86 0.0089 0.0071
 Mercury -101782-06-04 14:52 J -35454297.96 -35454297.88 -35454297.76 0.0089 0.0067
 Mercury -101782-08-31 17:01 J -35454209.89 -35454209.79 -35454209.67 0.0089 0.0062
 Mercury -101782-11-27 18:57 J -35454121.81 -35454121.71 -35454121.58 0.0089 0.0058
 Mercury -101781-02-23 21:06 J -35454033.74 -35454033.62 -35454033.49 0.0089 0.0053
 Mercury -101781-05-21 23:01 J -35453945.66 -35453945.54 -35453945.40 0.0089 0.0049
 Mercury -101781-08-18 01:11 J -35453857.58 -35453857.45 -35453857.31 0.0089 0.0044
 Mercury -101781-11-14 03:06 J -35453769.50 -35453769.37 -35453769.22 0.0089 0.0040
 Mercury -101780-02-10 05:16 J -35453681.42 -35453681.28 -35453681.13 0.0089 0.0035
 Mercury -101780-05-09 07:11 J -35453593.33 -35453593.20 -35453593.04 0.0089 0.0031
 Mercury -101780-08-05 09:21 J -35453505.25 -35453505.11 -35453504.95 0.0089 0.0026
 Mercury -101780-11-01 11:30 J -35453417.17 -35453417.02 -35453416.86 0.0089 0.0022
 Mercury -101779-01-28 13:40 J -35453329.08 -35453328.93 -35453328.78 0.0089 0.0017
 Mercury -101779-04-26 15:49 J -35453241.00 -35453240.84 -35453240.69 0.0089 0.0012

Mercury -101779-07-23 17:45 J -35453152.91 -35453152.76 -35453152.60 0.0089 0.0008

Mercury -101779-10-19 19:54 J -35453064.82 -35453064.67 -35453064.51 0.0089 0.0004

Mercury -101778-01-15 22:04 J -35452976.73 -35452976.58 -35452976.42 0.0089 0.0003

Mercury -101778-04-14 00:13 J -35452888.64 -35452888.49 -35452888.33 0.0089 0.0007

Mercury -101778-07-11 02:23 J -35452800.55 -35452800.40 -35452800.24 0.0089 0.0011

Mercury -101778-10-07 04:33 J -35452712.46 -35452712.31 -35452712.15 0.0089 0.0016

Mercury -101777-01-03 06:42 J -35452624.37 -35452624.22 -35452624.07 0.0089 0.0021

Mercury -101777-03-31 08:52 J -35452536.28 -35452536.13 -35452535.98 0.0089 0.0025

Mercury -101777-06-27 11:01 J -35452448.19 -35452448.04 -35452447.89 0.0089 0.0030

Mercury -101777-09-23 13:11 J -35452360.09 -35452359.95 -35452359.80 0.0089 0.0035

Mercury -101777-12-20 15:21 J -35452272.00 -35452271.86 -35452271.71 0.0089 0.0040

Mercury -101776-03-18 17:45 J -35452183.90 -35452183.76 -35452183.62 0.0089 0.0044

Mercury -101776-06-14 19:54 J -35452095.80 -35452095.67 -35452095.54 0.0089 0.0049

Mercury -101776-09-10 22:04 J -35452007.70 -35452007.58 -35452007.45 0.0089 0.0054

Mercury -101776-12-08 00:13 J -35451919.60 -35451919.49 -35451919.36 0.0089 0.0059

Mercury -101775-03-06 02:23 J -35451831.50 -35451831.40 -35451831.28 0.0089 0.0064

Mercury -101775-06-02 04:33 J -35451743.39 -35451743.31 -35451743.19 0.0089 0.0069

Mercury -101775-08-29 07:11 J -35451655.29 -35451655.20 -35451655.11 0.0089 0.0073

Mercury -101775-11-25 09:21 J -35451567.18 -35451567.11 -35451567.03 0.0089 0.0078

Mercury -101774-02-21 11:45 J -35451479.06 -35451479.01 -35451478.95 0.0089 0.0083

Mercury -101774-05-20 13:54 J -35451390.93 -35451390.92 -35451390.89 0.0089 0.0088

Venus -101772-06-10 09:35 J -35450639.15 -35450639.10 -35450639.01 0.0089 0.0084

Venus -101771-01-21 22:18 J -35450413.67 -35450413.57 -35450413.44 0.0089 0.0075

Venus -101771-09-04 11:16 J -35450188.16 -35450188.03 -35450187.87 0.0089 0.0066

Venus -101770-04-17 23:59 J -35449962.65 -35449962.50 -35449962.31 0.0089 0.0057

Venus -101770-11-29 12:57 J -35449737.13 -35449736.96 -35449736.76 0.0089 0.0048

Venus -101769-07-12 01:54 J -35449511.61 -35449511.42 -35449511.21 0.0089 0.0039

Venus -101768-02-22 15:06 J -35449286.08 -35449285.87 -35449285.66 0.0089 0.0029

Venus -101768-10-06 04:04 J -35449060.54 -35449060.33 -35449060.11 0.0089 0.0020

Venus -101767-05-19 17:01 J -35448835.00 -35448834.79 -35448834.57 0.0089 0.0011

Venus	-101767-12-31 05:59 J	-35448609.46	-35448609.25	-35448609.03	0.0089	0.0003
Venus	-101766-08-13 18:57 J	-35448383.92	-35448383.71	-35448383.49	0.0089	0.0008
Venus	-101765-03-26 07:54 J	-35448158.38	-35448158.17	-35448157.94	0.0089	0.0017
Venus	-101765-11-06 21:06 J	-35447932.82	-35447932.62	-35447932.40	0.0089	0.0026
Venus	-101764-06-20 10:04 J	-35447707.27	-35447707.08	-35447706.86	0.0089	0.0036
Venus	-101763-01-31 23:16 J	-35447481.71	-35447481.53	-35447481.33	0.0089	0.0044
Venus	-101763-09-14 12:42 J	-35447256.15	-35447255.97	-35447255.80	0.0089	0.0054
Venus	-101762-04-28 01:25 J	-35447030.58	-35447030.44	-35447030.27	0.0089	0.0063
Venus	-101762-12-09 14:37 J	-35446805.00	-35446804.89	-35446804.74	0.0089	0.0073
Venus	-101761-07-22 04:04 J	-35446579.40	-35446579.33	-35446579.23	0.0089	0.0081
Earth	-101743-02-07 08:37 J	-35440170.30	-35440170.14	-35440169.97	0.0089	0.0068
Moon	-101743-02-07 08:52 J	-35440170.28	-35440170.13	-35440169.94	0.0089	0.0067 *
Moon	-101742-02-09 23:01 J	-35439802.79	-35439802.54	-35439802.28	0.0089	0.0035
Earth	-101742-02-10 00:28 J	-35439802.73	-35439802.48	-35439802.24	0.0089	0.0034 *
Earth	-101741-02-12 16:04 J	-35439435.10	-35439434.83	-35439434.56	0.0089	0.0000
Moon	-101741-02-12 18:28 J	-35439434.99	-35439434.73	-35439434.47	0.0089	0.0001 *
Moon	-101740-02-14 03:49 J	-35439067.57	-35439067.34	-35439067.06	0.0089	0.0033
Earth	-101740-02-14 07:25 J	-35439067.42	-35439067.19	-35439066.93	0.0089	0.0034 *
Earth	-101739-02-16 23:01 J	-35438699.69	-35438699.54	-35438699.35	0.0089	0.0068
Moon	-101739-02-17 02:23 J	-35438699.54	-35438699.40	-35438699.20	0.0089	0.0068 *
Mars	-101730-10-28 03:35 J	-35435159.61	-35435159.35	-35435159.06	0.0089	0.0037
Mars	-101728-09-21 09:49 J	-35434465.38	-35434465.09	-35434464.79	0.0089	0.0015
Mars	-101726-08-16 14:23 J	-35433771.09	-35433770.90	-35433770.70	0.0089	0.0066
Mercury	-101701-06-30 09:21 J	-35424686.11	-35424686.11	-35424686.06	0.0089	0.0088
Mercury	-101701-09-26 11:59 J	-35424598.04	-35424598.00	-35424597.93	0.0089	0.0083
Mercury	-101701-12-23 14:23 J	-35424509.96	-35424509.90	-35424509.81	0.0089	0.0078
Mercury	-101700-03-21 16:47 J	-35424421.88	-35424421.80	-35424421.69	0.0089	0.0073
Mercury	-101700-06-17 19:11 J	-35424333.79	-35424333.70	-35424333.58	0.0089	0.0068
Mercury	-101700-09-13 21:35 J	-35424245.70	-35424245.60	-35424245.47	0.0089	0.0063
Mercury	-101700-12-10 23:59 J	-35424157.61	-35424157.50	-35424157.37	0.0089	0.0058

Mercury -101699-03-09 02:23 J -35424069.52 -35424069.40 -35424069.26 0.0089 0.0053

Mercury -101699-06-05 05:01 J -35423981.43 -35423981.29 -35423981.16 0.0089 0.0048

Mercury -101699-09-01 06:57 J -35423893.34 -35423893.21 -35423893.05 0.0089 0.0044

Mercury -101699-11-28 09:21 J -35423805.25 -35423805.11 -35423804.95 0.0088 0.0039

Mercury -101698-02-24 11:45 J -35423717.15 -35423717.01 -35423716.85 0.0088 0.0034

Mercury -101698-05-23 14:09 J -35423629.06 -35423628.91 -35423628.76 0.0088 0.0029

Mercury -101698-08-19 16:33 J -35423540.97 -35423540.81 -35423540.66 0.0088 0.0024

Mercury -101698-11-15 18:28 J -35423452.88 -35423452.73 -35423452.56 0.0088 0.0020

Mercury -101697-02-11 20:52 J -35423364.78 -35423364.63 -35423364.47 0.0088 0.0015

Mercury -101697-05-09 23:16 J -35423276.69 -35423276.53 -35423276.37 0.0088 0.0010

Mercury -101697-08-06 01:25 J -35423188.60 -35423188.44 -35423188.28 0.0088 0.0005

Mercury -101697-11-02 03:49 J -35423100.50 -35423100.34 -35423100.18 0.0088 0.0002

Mercury -101696-01-29 05:59 J -35423012.41 -35423012.25 -35423012.09 0.0088 0.0005

Mercury -101696-04-27 08:09 J -35422924.32 -35422924.16 -35422924.00 0.0088 0.0009

Mercury -101696-07-24 10:18 J -35422836.22 -35422836.07 -35422835.91 0.0088 0.0014

Mercury -101696-10-20 12:28 J -35422748.13 -35422747.98 -35422747.82 0.0088 0.0019

Mercury -101695-01-16 14:37 J -35422660.04 -35422659.89 -35422659.73 0.0088 0.0023

Mercury -101695-04-14 16:47 J -35422571.95 -35422571.80 -35422571.64 0.0088 0.0028

Mercury -101695-07-11 18:57 J -35422483.85 -35422483.71 -35422483.56 0.0088 0.0033

Mercury -101695-10-07 20:52 J -35422395.76 -35422395.63 -35422395.47 0.0088 0.0038

Mercury -101694-01-03 23:16 J -35422307.66 -35422307.53 -35422307.39 0.0088 0.0042

Mercury -101694-04-02 01:11 J -35422219.57 -35422219.45 -35422219.30 0.0088 0.0047

Mercury -101694-06-29 03:21 J -35422131.48 -35422131.36 -35422131.22 0.0088 0.0051

Mercury -101694-09-25 05:30 J -35422043.38 -35422043.27 -35422043.14 0.0088 0.0055

Mercury -101694-12-22 07:40 J -35421955.29 -35421955.18 -35421955.06 0.0088 0.0060

Mercury -101693-03-19 09:35 J -35421867.19 -35421867.10 -35421866.98 0.0088 0.0064

Mercury -101693-06-15 11:45 J -35421779.10 -35421779.01 -35421778.90 0.0088 0.0069

Mercury -101693-09-11 13:54 J -35421691.00 -35421690.92 -35421690.83 0.0088 0.0073

Mercury -101693-12-08 15:49 J -35421602.90 -35421602.84 -35421602.75 0.0088 0.0077

Mercury -101692-03-06 17:59 J -35421514.80 -35421514.75 -35421514.68 0.0088 0.0082

Mercury	-101692-06-02 20:09 J	-35421426.69	-35421426.66	-35421426.62	0.0088	0.0086
Venus	-101690-08-01 10:04 J	-35420637.15	-35420637.08	-35420636.97	0.0088	0.0081
Venus	-101689-03-13 23:30 J	-35420411.63	-35420411.52	-35420411.37	0.0088	0.0072
Venus	-101689-10-25 12:42 J	-35420186.11	-35420185.97	-35420185.80	0.0088	0.0063
Venus	-101688-06-08 01:40 J	-35419960.58	-35419960.43	-35419960.23	0.0088	0.0054
Venus	-101687-01-19 14:52 J	-35419735.06	-35419734.88	-35419734.67	0.0088	0.0044
Venus	-101687-09-02 03:49 J	-35419509.52	-35419509.34	-35419509.12	0.0088	0.0036
Venus	-101686-04-15 17:30 J	-35419283.98	-35419283.77	-35419283.56	0.0088	0.0026
Venus	-101686-11-27 06:28 J	-35419058.45	-35419058.23	-35419058.01	0.0088	0.0017
Venus	-101685-07-09 19:25 J	-35418832.91	-35418832.69	-35418832.47	0.0088	0.0008
Venus	-101684-02-20 08:23 J	-35418607.37	-35418607.15	-35418606.93	0.0088	0.0002
Venus	-101684-10-03 21:21 J	-35418381.83	-35418381.61	-35418381.39	0.0088	0.0011
Venus	-101683-05-17 10:18 J	-35418156.29	-35418156.07	-35418155.86	0.0088	0.0020
Venus	-101683-12-28 22:47 J	-35417930.74	-35417930.55	-35417930.33	0.0088	0.0029
Venus	-101682-08-11 11:30 J	-35417705.20	-35417705.02	-35417704.80	0.0088	0.0039
Venus	-101681-03-24 00:28 J	-35417479.64	-35417479.48	-35417479.27	0.0088	0.0048
Venus	-101681-11-04 13:25 J	-35417254.09	-35417253.94	-35417253.75	0.0088	0.0056
Venus	-101680-06-18 02:09 J	-35417028.54	-35417028.41	-35417028.24	0.0088	0.0065
Venus	-101679-01-29 15:21 J	-35416802.98	-35416802.86	-35416802.74	0.0088	0.0074
Venus	-101679-09-12 03:49 J	-35416577.41	-35416577.34	-35416577.26	0.0088	0.0083
Earth	-101661-08-15 12:28 J	-35410030.15	-35410029.98	-35410029.78	0.0088	0.0060
Moon	-101661-08-15 14:52 J	-35410030.03	-35410029.88	-35410029.67	0.0088	0.0062 *
Moon	-101660-08-17 18:57 J	-35409662.93	-35409662.71	-35409662.47	0.0088	0.0027
Earth	-101660-08-17 20:37 J	-35409662.87	-35409662.64	-35409662.40	0.0088	0.0029 *
Earth	-101659-08-20 04:18 J	-35409295.57	-35409295.32	-35409295.07	0.0088	0.0003
Moon	-101659-08-20 05:16 J	-35409295.54	-35409295.28	-35409295.03	0.0088	0.0002 *
Earth	-101658-08-22 11:45 J	-35408928.23	-35408928.01	-35408927.77	0.0088	0.0034
Moon	-101658-08-22 12:42 J	-35408928.18	-35408927.97	-35408927.73	0.0088	0.0035 *
Moon	-101657-08-23 17:16 J	-35408560.95	-35408560.78	-35408560.60	0.0088	0.0064
Earth	-101657-08-23 19:25 J	-35408560.85	-35408560.69	-35408560.51	0.0088	0.0065 *

Mars -101648-07-18 04:47 J -35405310.49 -35405310.30 -35405310.05 0.0088 0.0065
 Mars -101646-06-13 14:37 J -35404615.20 -35404614.89 -35404614.55 0.0088 0.0010
 Mars -101644-05-09 02:52 J -35403919.64 -35403919.38 -35403919.08 0.0088 0.0047
 Mercury -101619-12-16 04:33 J -35394567.33 -35394567.31 -35394567.25 0.0089 0.0086
 Mercury -101618-03-14 06:42 J -35394479.27 -35394479.22 -35394479.15 0.0089 0.0081
 Mercury -101618-06-10 08:37 J -35394391.20 -35394391.14 -35394391.05 0.0089 0.0077
 Mercury -101618-09-06 10:33 J -35394303.13 -35394303.06 -35394302.96 0.0089 0.0073
 Mercury -101618-12-03 12:42 J -35394215.06 -35394214.97 -35394214.87 0.0089 0.0068
 Mercury -101617-02-29 14:37 J -35394126.99 -35394126.89 -35394126.78 0.0089 0.0064
 Mercury -101617-05-27 16:47 J -35394038.91 -35394038.80 -35394038.69 0.0089 0.0059
 Mercury -101617-08-23 18:42 J -35393950.84 -35393950.72 -35393950.60 0.0089 0.0055
 Mercury -101617-11-19 20:37 J -35393862.76 -35393862.64 -35393862.51 0.0089 0.0051
 Mercury -101616-02-15 22:47 J -35393774.68 -35393774.55 -35393774.42 0.0089 0.0046
 Mercury -101616-05-15 00:42 J -35393686.60 -35393686.47 -35393686.33 0.0089 0.0042
 Mercury -101616-08-11 02:52 J -35393598.52 -35393598.38 -35393598.24 0.0089 0.0037
 Mercury -101616-11-07 04:47 J -35393510.44 -35393510.30 -35393510.15 0.0089 0.0033
 Mercury -101615-02-03 06:57 J -35393422.35 -35393422.21 -35393422.06 0.0089 0.0028
 Mercury -101615-05-02 09:06 J -35393334.27 -35393334.12 -35393333.97 0.0089 0.0023
 Mercury -101615-07-29 11:01 J -35393246.19 -35393246.04 -35393245.88 0.0089 0.0019
 Mercury -101615-10-25 13:11 J -35393158.10 -35393157.95 -35393157.80 0.0089 0.0014
 Mercury -101614-01-21 15:21 J -35393070.02 -35393069.86 -35393069.71 0.0089 0.0010
 Mercury -101614-04-19 17:30 J -35392981.93 -35392981.77 -35392981.62 0.0089 0.0005
 Mercury -101614-07-16 19:25 J -35392893.84 -35392893.69 -35392893.53 0.0089 0.0003
 Mercury -101614-10-12 21:35 J -35392805.75 -35392805.60 -35392805.44 0.0089 0.0005
 Mercury -101613-01-08 23:45 J -35392717.66 -35392717.51 -35392717.35 0.0089 0.0009
 Mercury -101613-04-06 01:54 J -35392629.57 -35392629.42 -35392629.26 0.0089 0.0014
 Mercury -101613-07-03 04:04 J -35392541.48 -35392541.33 -35392541.18 0.0089 0.0018
 Mercury -101613-09-29 06:13 J -35392453.39 -35392453.24 -35392453.09 0.0089 0.0023
 Mercury -101613-12-26 08:23 J -35392365.30 -35392365.15 -35392365.00 0.0089 0.0028
 Mercury -101612-03-24 10:18 J -35392277.20 -35392277.07 -35392276.91 0.0089 0.0033

Mercury -101612-06-20 12:28 J -35392189.11 -35392188.98 -35392188.82 0.0089 0.0038

Mercury -101612-09-16 14:52 J -35392101.01 -35392100.88 -35392100.74 0.0089 0.0042

Mercury -101612-12-13 17:01 J -35392012.92 -35392012.79 -35392012.65 0.0089 0.0047

Mercury -101611-03-11 19:11 J -35391924.82 -35391924.70 -35391924.56 0.0089 0.0052

Mercury -101611-06-07 21:21 J -35391836.72 -35391836.61 -35391836.47 0.0089 0.0057

Mercury -101611-09-03 23:30 J -35391748.62 -35391748.52 -35391748.39 0.0089 0.0062

Mercury -101611-12-01 02:09 J -35391660.51 -35391660.41 -35391660.30 0.0089 0.0066

Mercury -101610-02-27 04:18 J -35391572.41 -35391572.32 -35391572.22 0.0089 0.0071

Mercury -101610-05-26 06:28 J -35391484.30 -35391484.23 -35391484.14 0.0089 0.0076

Mercury -101610-08-22 08:37 J -35391396.19 -35391396.14 -35391396.06 0.0089 0.0081

Mercury -101610-11-18 11:01 J -35391308.07 -35391308.04 -35391307.99 0.0089 0.0086

Venus -101608-09-11 21:21 J -35390644.66 -35390644.61 -35390644.54 0.0089 0.0085

Venus -101607-04-25 10:04 J -35390419.18 -35390419.08 -35390418.96 0.0089 0.0076

Venus -101607-12-06 22:47 J -35390193.68 -35390193.55 -35390193.40 0.0089 0.0067

Venus -101606-07-20 11:30 J -35389968.17 -35389968.02 -35389967.85 0.0089 0.0058

Venus -101605-03-02 00:13 J -35389742.65 -35389742.49 -35389742.29 0.0089 0.0049

Venus -101605-10-13 13:25 J -35389517.12 -35389516.94 -35389516.73 0.0089 0.0040

Jupiter -101604-02-02 06:28 J -35389405.71 -35389405.23 -35389404.68 0.0089 0.0037

Venus -101604-05-27 02:09 J -35389291.60 -35389291.41 -35389291.19 0.0089 0.0031

Venus -101603-01-07 15:21 J -35389066.07 -35389065.86 -35389065.64 0.0089 0.0021

Venus -101603-08-21 04:18 J -35388840.53 -35388840.32 -35388840.10 0.0089 0.0012

Venus -101602-04-03 17:30 J -35388614.99 -35388614.77 -35388614.55 0.0089 0.0003

Venus -101602-11-15 06:28 J -35388389.44 -35388389.23 -35388389.01 0.0089 0.0007

Venus -101601-06-27 19:25 J -35388163.90 -35388163.69 -35388163.47 0.0089 0.0016

Venus -101600-02-08 08:37 J -35387938.35 -35387938.14 -35387937.93 0.0089 0.0025

Venus -101600-09-21 21:35 J -35387712.79 -35387712.60 -35387712.39 0.0089 0.0035

Venus -101599-05-05 10:33 J -35387487.23 -35387487.06 -35387486.85 0.0089 0.0044

Venus -101599-12-16 23:45 J -35387261.67 -35387261.51 -35387261.32 0.0089 0.0054

Venus -101598-07-30 13:11 J -35387036.10 -35387035.95 -35387035.79 0.0089 0.0063

Venus -101597-03-12 01:54 J -35386810.53 -35386810.42 -35386810.27 0.0089 0.0072

Venus -101597-10-23 15:21 J -35386584.93 -35386584.86 -35386584.75 0.0089 0.0081
 Moon -101579-02-06 12:13 J -35380270.00 -35380269.99 -35380269.93 0.0089 0.0088
 Earth -101579-02-06 14:52 J -35380269.94 -35380269.88 -35380269.77 0.0089 0.0084 *
 Earth -101578-02-09 06:42 J -35379902.43 -35379902.22 -35379902.00 0.0089 0.0050
 Moon -101578-02-09 09:35 J -35379902.31 -35379902.10 -35379901.87 0.0089 0.0046 *
 Moon -101577-02-11 18:28 J -35379534.98 -35379534.73 -35379534.45 0.0089 0.0022
 Earth -101577-02-11 22:18 J -35379534.83 -35379534.57 -35379534.31 0.0089 0.0016 *
 Earth -101576-02-13 13:40 J -35379167.18 -35379166.93 -35379166.66 0.0089 0.0018
 Moon -101576-02-13 17:30 J -35379167.01 -35379166.77 -35379166.50 0.0089 0.0023 *
 Moon -101575-02-16 02:09 J -35378799.61 -35378799.41 -35378799.17 0.0089 0.0048
 Earth -101575-02-16 05:30 J -35378799.47 -35378799.27 -35378799.04 0.0089 0.0053 *
 Earth -101574-02-18 21:21 J -35378431.66 -35378431.61 -35378431.53 0.0089 0.0086
 Mars -101566-06-12 05:30 J -35375396.47 -35375396.27 -35375396.02 0.0089 0.0060
 Mars -101564-05-06 14:23 J -35374702.19 -35374701.90 -35374701.59 0.0089 0.0007
 Mars -101562-03-31 20:23 J -35374007.89 -35374007.65 -35374007.38 0.0089 0.0045
 Mercury -101536-03-27 09:06 J -35364515.16 -35364515.12 -35364515.06 0.0089 0.0085
 Mercury -101536-06-23 11:30 J -35364427.08 -35364427.02 -35364426.94 0.0089 0.0080
 Mercury -101536-09-19 13:54 J -35364339.00 -35364338.92 -35364338.82 0.0089 0.0075
 Mercury -101536-12-16 16:18 J -35364250.91 -35364250.82 -35364250.71 0.0089 0.0070
 Mercury -101535-03-14 18:42 J -35364162.82 -35364162.72 -35364162.60 0.0089 0.0065
 Mercury -101535-06-10 21:06 J -35364074.73 -35364074.62 -35364074.49 0.0089 0.0060
 Mercury -101535-09-06 23:45 J -35363986.64 -35363986.51 -35363986.39 0.0089 0.0055
 Mercury -101535-12-04 01:40 J -35363898.55 -35363898.43 -35363898.28 0.0088 0.0051
 Mercury -101534-03-02 04:04 J -35363810.46 -35363810.33 -35363810.18 0.0088 0.0046
 Mercury -101534-05-29 06:28 J -35363722.36 -35363722.23 -35363722.08 0.0088 0.0041
 Mercury -101534-08-25 08:52 J -35363634.27 -35363634.13 -35363633.97 0.0088 0.0036
 Mercury -101534-11-21 11:16 J -35363546.18 -35363546.03 -35363545.88 0.0088 0.0031
 Mercury -101533-02-17 13:40 J -35363458.09 -35363457.93 -35363457.78 0.0088 0.0026
 Mercury -101533-05-15 15:49 J -35363369.99 -35363369.84 -35363369.68 0.0088 0.0021
 Mercury -101533-08-11 17:59 J -35363281.90 -35363281.75 -35363281.58 0.0088 0.0017

Mercury -101533-11-07 20:23 J -35363193.81 -35363193.65 -35363193.49 0.0088 0.0012

Mercury -101532-02-03 22:33 J -35363105.71 -35363105.56 -35363105.39 0.0088 0.0008

Mercury -101532-05-03 00:57 J -35363017.62 -35363017.46 -35363017.30 0.0088 0.0002

Mercury -101532-07-30 03:06 J -35362929.53 -35362929.37 -35362929.21 0.0088 0.0003

Mercury -101532-10-26 05:30 J -35362841.43 -35362841.27 -35362841.11 0.0088 0.0007

Mercury -101531-01-22 07:40 J -35362753.34 -35362753.18 -35362753.02 0.0088 0.0012

Mercury -101531-04-20 09:49 J -35362665.25 -35362665.09 -35362664.93 0.0088 0.0017

Mercury -101531-07-17 11:59 J -35362577.15 -35362577.00 -35362576.84 0.0088 0.0021

Mercury -101531-10-13 14:09 J -35362489.06 -35362488.91 -35362488.75 0.0088 0.0026

Mercury -101530-01-09 16:18 J -35362400.96 -35362400.82 -35362400.67 0.0088 0.0030

Mercury -101530-04-07 18:13 J -35362312.87 -35362312.74 -35362312.58 0.0088 0.0036

Mercury -101530-07-04 20:37 J -35362224.78 -35362224.64 -35362224.50 0.0088 0.0040

Mercury -101530-09-30 22:33 J -35362136.68 -35362136.56 -35362136.41 0.0088 0.0045

Mercury -101530-12-28 00:57 J -35362048.59 -35362048.46 -35362048.33 0.0088 0.0049

Mercury -101529-03-25 02:52 J -35361960.49 -35361960.38 -35361960.24 0.0088 0.0053

Mercury -101529-06-21 05:01 J -35361872.40 -35361872.29 -35361872.16 0.0088 0.0058

Mercury -101529-09-17 06:57 J -35361784.30 -35361784.21 -35361784.08 0.0088 0.0063

Mercury -101529-12-14 09:21 J -35361696.21 -35361696.11 -35361696.00 0.0088 0.0067

Mercury -101528-03-12 11:01 J -35361608.11 -35361608.04 -35361607.93 0.0088 0.0072

Mercury -101528-06-08 13:25 J -35361520.01 -35361519.94 -35361519.85 0.0088 0.0075

Mercury -101528-09-04 15:35 J -35361431.91 -35361431.85 -35361431.78 0.0088 0.0080

Mercury -101528-12-01 17:16 J -35361343.81 -35361343.78 -35361343.72 0.0088 0.0085

Venus -101526-11-02 21:35 J -35360642.67 -35360642.60 -35360642.51 0.0088 0.0082

Venus -101525-06-15 10:47 J -35360417.17 -35360417.05 -35360416.92 0.0088 0.0073

Venus -101524-01-26 23:45 J -35360191.64 -35360191.51 -35360191.34 0.0088 0.0064

Venus -101524-09-09 12:57 J -35359966.12 -35359965.96 -35359965.77 0.0088 0.0055

Venus -101523-04-23 02:09 J -35359740.58 -35359740.41 -35359740.20 0.0088 0.0046

Venus -101523-12-04 15:35 J -35359515.05 -35359514.85 -35359514.64 0.0088 0.0036

Venus -101522-07-18 04:33 J -35359289.51 -35359289.31 -35359289.09 0.0088 0.0027

Venus -101521-02-28 17:45 J -35359063.97 -35359063.76 -35359063.54 0.0088 0.0017

Venus	-101521-10-11 06:42 J	-35358838.44	-35358838.22	-35358838.00	0.0088	0.0008
Venus	-101520-05-24 19:40 J	-35358612.90	-35358612.68	-35358612.45	0.0088	0.0002
Venus	-101519-01-05 08:37 J	-35358387.36	-35358387.14	-35358386.92	0.0088	0.0010
Venus	-101519-08-18 21:21 J	-35358161.82	-35358161.61	-35358161.39	0.0088	0.0020
Venus	-101518-04-01 10:18 J	-35357936.27	-35357936.07	-35357935.85	0.0088	0.0029
Venus	-101518-11-12 23:16 J	-35357710.72	-35357710.53	-35357710.32	0.0088	0.0038
Venus	-101517-06-25 12:13 J	-35357485.17	-35357484.99	-35357484.80	0.0088	0.0047
Venus	-101516-02-06 00:57 J	-35357259.63	-35357259.46	-35357259.29	0.0088	0.0056
Venus	-101516-09-19 13:40 J	-35357034.07	-35357033.93	-35357033.77	0.0088	0.0065
Venus	-101515-05-03 02:37 J	-35356808.50	-35356808.39	-35356808.27	0.0088	0.0074
Venus	-101515-12-14 15:06 J	-35356582.93	-35356582.87	-35356582.78	0.0088	0.0083
Moon	-101497-08-15 00:57 J	-35350129.57	-35350129.46	-35350129.35	0.0088	0.0078
Earth	-101497-08-15 01:54 J	-35350129.53	-35350129.42	-35350129.26	0.0088	0.0074 *
Moon	-101496-08-17 09:35 J	-35349762.31	-35349762.10	-35349761.85	0.0088	0.0039
Earth	-101496-08-17 10:04 J	-35349762.29	-35349762.08	-35349761.85	0.0088	0.0042 *
Earth	-101495-08-19 17:59 J	-35349394.99	-35349394.75	-35349394.50	0.0088	0.0011
Moon	-101495-08-19 19:11 J	-35349394.94	-35349394.70	-35349394.46	0.0088	0.0015 *
Moon	-101494-08-21 23:16 J	-35349027.76	-35349027.53	-35349027.27	0.0088	0.0024
Earth	-101494-08-22 01:54 J	-35349027.66	-35349027.42	-35349027.18	0.0088	0.0020 *
Earth	-101493-08-23 09:21 J	-35348660.31	-35348660.11	-35348659.90	0.0088	0.0051
Moon	-101493-08-23 12:28 J	-35348660.17	-35348659.98	-35348659.76	0.0088	0.0046 *
Moon	-101492-08-25 13:40 J	-35348292.98	-35348292.93	-35348292.87	0.0088	0.0086
Earth	-101492-08-25 16:47 J	-35348292.88	-35348292.80	-35348292.69	0.0088	0.0082 *
Mars	-101484-03-01 11:01 J	-35345548.05	-35345548.04	-35345547.98	0.0088	0.0088
Mars	-101482-01-25 19:25 J	-35344852.98	-35344852.69	-35344852.38	0.0088	0.0033
Mars	-101481-12-21 05:16 J	-35344157.58	-35344157.28	-35344156.94	0.0088	0.0024
Mars	-101479-11-16 18:13 J	-35343461.87	-35343461.74	-35343461.59	0.0088	0.0080
Mercury	-101454-06-16 02:37 J	-35334484.42	-35334484.39	-35334484.37	0.0089	0.0087
Mercury	-101454-09-12 04:18 J	-35334396.36	-35334396.32	-35334396.26	0.0089	0.0083
Mercury	-101454-12-09 06:13 J	-35334308.30	-35334308.24	-35334308.16	0.0089	0.0079

Mercury -101453-03-06 07:54 J -35334220.23 -35334220.17 -35334220.07 0.0089 0.0075

Mercury -101453-06-02 10:18 J -35334132.16 -35334132.07 -35334131.98 0.0089 0.0070

Mercury -101453-08-29 11:59 J -35334044.09 -35334044.00 -35334043.88 0.0089 0.0066

Mercury -101453-11-25 14:23 J -35333956.01 -35333955.90 -35333955.79 0.0089 0.0061

Mercury -101452-02-21 16:04 J -35333867.94 -35333867.83 -35333867.70 0.0089 0.0057

Mercury -101452-05-20 17:59 J -35333779.86 -35333779.75 -35333779.61 0.0089 0.0053

Mercury -101452-08-16 20:09 J -35333691.78 -35333691.66 -35333691.52 0.0089 0.0048

Mercury -101452-11-12 22:04 J -35333603.70 -35333603.58 -35333603.44 0.0089 0.0044

Mercury -101451-02-09 00:13 J -35333515.62 -35333515.49 -35333515.35 0.0089 0.0039

Mercury -101451-05-08 02:09 J -35333427.54 -35333427.41 -35333427.26 0.0089 0.0035

Mercury -101451-08-04 04:18 J -35333339.46 -35333339.32 -35333339.17 0.0089 0.0030

Mercury -101451-10-31 06:13 J -35333251.38 -35333251.24 -35333251.08 0.0089 0.0026

Mercury -101450-01-27 08:23 J -35333163.29 -35333163.15 -35333162.99 0.0089 0.0021

Mercury -101450-04-25 10:33 J -35333075.21 -35333075.06 -35333074.91 0.0089 0.0016

Mercury -101450-07-22 12:42 J -35332987.12 -35332986.97 -35332986.82 0.0089 0.0012

Mercury -101450-10-18 14:52 J -35332899.04 -35332898.88 -35332898.73 0.0089 0.0007

Mercury -101449-01-14 16:47 J -35332810.95 -35332810.80 -35332810.64 0.0089 0.0003

Mercury -101449-04-11 18:57 J -35332722.86 -35332722.71 -35332722.55 0.0089 0.0002

Mercury -101449-07-08 21:06 J -35332634.78 -35332634.62 -35332634.46 0.0089 0.0007

Mercury -101449-10-04 23:16 J -35332546.69 -35332546.53 -35332546.38 0.0089 0.0012

Mercury -101448-01-01 01:25 J -35332458.60 -35332458.44 -35332458.29 0.0089 0.0016

Mercury -101448-03-30 03:35 J -35332370.51 -35332370.35 -35332370.20 0.0089 0.0021

Mercury -101448-06-26 05:30 J -35332282.41 -35332282.27 -35332282.11 0.0089 0.0026

Mercury -101448-09-22 07:40 J -35332194.32 -35332194.18 -35332194.02 0.0089 0.0031

Mercury -101448-12-19 10:04 J -35332106.23 -35332106.08 -35332105.94 0.0089 0.0035

Mercury -101447-03-17 11:59 J -35332018.13 -35332018.00 -35332017.85 0.0089 0.0040

Mercury -101447-06-13 14:09 J -35331930.04 -35331929.91 -35331929.76 0.0089 0.0045

Mercury -101447-09-09 16:18 J -35331841.94 -35331841.82 -35331841.68 0.0089 0.0050

Mercury -101447-12-06 18:28 J -35331753.84 -35331753.73 -35331753.59 0.0089 0.0055

Mercury -101446-03-04 21:06 J -35331665.74 -35331665.62 -35331665.50 0.0089 0.0059

Mercury -101446-05-31 23:16 J -35331577.64 -35331577.53 -35331577.42 0.0089 0.0064

Mercury -101446-08-28 01:25 J -35331489.53 -35331489.44 -35331489.33 0.0089 0.0069

Mercury -101446-11-24 03:35 J -35331401.43 -35331401.35 -35331401.25 0.0089 0.0074

Mercury -101445-02-20 05:45 J -35331313.32 -35331313.26 -35331313.17 0.0089 0.0079

Mercury -101445-05-18 07:54 J -35331225.20 -35331225.17 -35331225.10 0.0089 0.0084

Mercury -101445-08-14 10:18 J -35331137.07 -35331137.07 -35331137.04 0.0089 0.0089

Venus -101444-12-14 08:23 J -35330650.17 -35330650.15 -35330650.08 0.0089 0.0087

Venus -101443-07-27 20:52 J -35330424.71 -35330424.63 -35330424.50 0.0089 0.0078

Venus -101442-03-10 09:35 J -35330199.21 -35330199.10 -35330198.94 0.0089 0.0069

Venus -101442-10-21 22:33 J -35329973.70 -35329973.56 -35329973.38 0.0089 0.0060

Venus -101441-06-03 11:45 J -35329748.19 -35329748.01 -35329747.83 0.0089 0.0050

Venus -101440-01-15 00:28 J -35329522.67 -35329522.48 -35329522.28 0.0089 0.0041

Venus -101440-08-28 13:11 J -35329297.14 -35329296.95 -35329296.73 0.0089 0.0032

Venus -101439-04-11 02:09 J -35329071.61 -35329071.41 -35329071.19 0.0089 0.0023

Venus -101439-11-22 15:21 J -35328846.08 -35328845.86 -35328845.64 0.0089 0.0013

Venus -101438-07-06 04:18 J -35328620.54 -35328620.32 -35328620.10 0.0089 0.0004

Venus -101437-02-16 17:16 J -35328395.00 -35328394.78 -35328394.56 0.0089 0.0006

Venus -101437-09-29 06:13 J -35328169.45 -35328169.24 -35328169.02 0.0089 0.0015

Venus -101436-05-12 19:25 J -35327943.90 -35327943.69 -35327943.48 0.0089 0.0024

Venus -101436-12-24 08:09 J -35327718.35 -35327718.16 -35327717.94 0.0089 0.0034

Venus -101435-08-06 21:21 J -35327492.79 -35327492.61 -35327492.41 0.0089 0.0043

Venus -101434-03-20 10:47 J -35327267.23 -35327267.05 -35327266.88 0.0089 0.0053

Venus -101434-10-31 23:30 J -35327041.65 -35327041.52 -35327041.34 0.0089 0.0062

Venus -101433-06-13 12:57 J -35326816.08 -35326815.96 -35326815.82 0.0089 0.0071

Venus -101432-01-25 02:09 J -35326590.49 -35326590.41 -35326590.31 0.0089 0.0081

Moon -101414-02-08 08:23 J -35320002.30 -35320002.15 -35320001.94 0.0089 0.0065

Earth -101414-02-08 12:28 J -35320002.14 -35320001.98 -35320001.79 0.0089 0.0066 *

Earth -101413-02-11 04:04 J -35319634.57 -35319634.33 -35319634.07 0.0089 0.0032

Moon -101413-02-11 07:40 J -35319634.42 -35319634.18 -35319633.93 0.0089 0.0033 *

Moon -101412-02-12 16:47 J -35319267.06 -35319266.80 -35319266.54 0.0089 0.0003

Earth -101412-02-12 19:54 J -35319266.93 -35319266.67 -35319266.40 0.0089 0.0002 *
 Earth -101411-02-15 11:16 J -35318899.25 -35318899.03 -35318898.77 0.0089 0.0036
 Moon -101411-02-15 13:25 J -35318899.18 -35318898.94 -35318898.67 0.0089 0.0035 *
 Moon -101410-02-18 02:09 J -35318531.56 -35318531.41 -35318531.25 0.0089 0.0070
 Earth -101410-02-18 03:06 J -35318531.51 -35318531.37 -35318531.19 0.0089 0.0070 *
 Mars -101402-01-25 06:42 J -35315633.32 -35315633.22 -35315633.11 0.0089 0.0083
 Mars -101401-12-19 15:35 J -35314939.12 -35314938.85 -35314938.55 0.0089 0.0030
 Mars -101399-11-13 23:16 J -35314244.81 -35314244.53 -35314244.22 0.0089 0.0023
 Mars -101397-10-08 05:01 J -35313550.43 -35313550.29 -35313550.11 0.0089 0.0075
 Mercury -101372-09-25 05:30 J -35304432.27 -35304432.27 -35304432.22 0.0089 0.0088
 Mercury -101372-12-22 08:09 J -35304344.20 -35304344.16 -35304344.09 0.0089 0.0082
 Mercury -101371-03-20 10:33 J -35304256.12 -35304256.06 -35304255.97 0.0089 0.0078
 Mercury -101371-06-16 12:57 J -35304168.04 -35304167.96 -35304167.85 0.0089 0.0073
 Mercury -101371-09-12 15:21 J -35304079.95 -35304079.86 -35304079.74 0.0089 0.0068
 Mercury -101371-12-09 17:45 J -35303991.86 -35303991.76 -35303991.63 0.0089 0.0063
 Mercury -101370-03-07 20:23 J -35303903.77 -35303903.65 -35303903.52 0.0089 0.0058
 Mercury -101370-06-03 22:47 J -35303815.68 -35303815.55 -35303815.41 0.0089 0.0053
 Mercury -101370-08-31 01:11 J -35303727.58 -35303727.45 -35303727.31 0.0089 0.0048
 Mercury -101370-11-27 03:35 J -35303639.49 -35303639.35 -35303639.21 0.0089 0.0043
 Mercury -101369-02-23 05:59 J -35303551.40 -35303551.25 -35303551.11 0.0089 0.0038
 Mercury -101369-05-21 07:54 J -35303463.31 -35303463.17 -35303463.01 0.0089 0.0034
 Mercury -101369-08-17 10:18 J -35303375.21 -35303375.07 -35303374.91 0.0089 0.0029
 Mercury -101369-11-13 12:42 J -35303287.12 -35303286.97 -35303286.81 0.0089 0.0024
 Mercury -101368-02-09 15:06 J -35303199.03 -35303198.87 -35303198.71 0.0088 0.0019
 Mercury -101368-05-08 17:16 J -35303110.93 -35303110.78 -35303110.61 0.0088 0.0014
 Mercury -101368-08-04 19:40 J -35303022.84 -35303022.68 -35303022.52 0.0088 0.0009
 Mercury -101368-10-31 21:49 J -35302934.74 -35302934.59 -35302934.42 0.0088 0.0005
 Mercury -101367-01-28 00:13 J -35302846.65 -35302846.49 -35302846.33 0.0088 0.0000
 Mercury -101367-04-26 02:23 J -35302758.56 -35302758.40 -35302758.24 0.0088 0.0005
 Mercury -101367-07-23 04:47 J -35302670.46 -35302670.30 -35302670.15 0.0088 0.0010

Mercury -101367-10-19 06:42 J -35302582.37 -35302582.22 -35302582.05 0.0088 0.0015

Mercury -101366-01-15 09:06 J -35302494.28 -35302494.12 -35302493.96 0.0088 0.0019

Mercury -101366-04-13 11:16 J -35302406.18 -35302406.03 -35302405.88 0.0088 0.0024

Mercury -101366-07-10 13:11 J -35302318.09 -35302317.95 -35302317.79 0.0088 0.0029

Mercury -101366-10-06 15:35 J -35302229.99 -35302229.85 -35302229.70 0.0088 0.0033

Mercury -101365-01-02 17:45 J -35302141.90 -35302141.76 -35302141.61 0.0088 0.0037

Mercury -101365-03-30 19:54 J -35302053.81 -35302053.67 -35302053.53 0.0088 0.0042

Mercury -101365-06-26 21:49 J -35301965.71 -35301965.59 -35301965.44 0.0088 0.0047

Mercury -101365-09-23 00:13 J -35301877.62 -35301877.49 -35301877.36 0.0088 0.0051

Mercury -101365-12-20 02:09 J -35301789.52 -35301789.41 -35301789.28 0.0088 0.0056

Mercury -101364-03-18 04:33 J -35301701.43 -35301701.31 -35301701.20 0.0088 0.0060

Mercury -101364-06-14 06:13 J -35301613.33 -35301613.24 -35301613.12 0.0088 0.0065

Mercury -101364-09-10 08:37 J -35301525.23 -35301525.14 -35301525.04 0.0088 0.0069

Mercury -101364-12-07 10:33 J -35301437.14 -35301437.06 -35301436.96 0.0088 0.0073

Mercury -101363-03-05 12:42 J -35301349.04 -35301348.97 -35301348.89 0.0088 0.0078

Mercury -101363-06-01 14:37 J -35301260.93 -35301260.89 -35301260.82 0.0088 0.0082

Mercury -101363-08-28 16:33 J -35301172.82 -35301172.81 -35301172.76 0.0088 0.0087

Venus -101361-02-04 07:25 J -35300648.25 -35300648.19 -35300648.11 0.0088 0.0084

Venus -101361-09-16 20:37 J -35300422.74 -35300422.64 -35300422.50 0.0088 0.0075

Venus -101360-04-30 09:49 J -35300197.21 -35300197.09 -35300196.92 0.0088 0.0066

Venus -101360-12-11 23:30 J -35299971.68 -35299971.52 -35299971.34 0.0088 0.0056

Venus -101359-07-25 12:42 J -35299746.15 -35299745.97 -35299745.77 0.0088 0.0047

Venus -101358-03-08 01:54 J -35299520.61 -35299520.42 -35299520.21 0.0088 0.0037

Venus -101358-10-19 15:21 J -35299295.07 -35299294.86 -35299294.65 0.0088 0.0028

Venus -101357-06-01 04:18 J -35299069.53 -35299069.32 -35299069.10 0.0088 0.0019

Venus -101356-01-12 17:16 J -35298844.00 -35298843.78 -35298843.56 0.0088 0.0009

Venus -101356-08-26 06:13 J -35298618.46 -35298618.24 -35298618.01 0.0088 0.0002

Venus -101355-04-08 19:25 J -35298392.91 -35298392.69 -35298392.47 0.0088 0.0009

Venus -101355-11-20 08:23 J -35298167.36 -35298167.15 -35298166.93 0.0088 0.0018

Venus -101354-07-03 21:06 J -35297941.82 -35297941.62 -35297941.40 0.0088 0.0028

Venus -101353-02-14 10:04 J -35297716.28 -35297716.08 -35297715.88 0.0088 0.0037
 Venus -101353-09-26 22:33 J -35297490.73 -35297490.56 -35297490.35 0.0088 0.0046
 Venus -101352-05-10 11:30 J -35297265.17 -35297265.02 -35297264.83 0.0088 0.0055
 Venus -101352-12-22 00:13 J -35297039.62 -35297039.49 -35297039.32 0.0088 0.0065
 Venus -101351-08-04 12:57 J -35296814.06 -35296813.96 -35296813.82 0.0088 0.0074
 Venus -101350-03-18 01:40 J -35296588.48 -35296588.43 -35296588.33 0.0088 0.0083
 Moon -101333-08-14 14:09 J -35290228.93 -35290228.91 -35290228.82 0.0088 0.0087
 Earth -101333-08-14 14:37 J -35290228.89 -35290228.89 -35290228.85 0.0088 0.0088 *
 Earth -101332-08-16 23:01 J -35289861.73 -35289861.54 -35289861.35 0.0088 0.0057
 Moon -101332-08-17 00:28 J -35289861.65 -35289861.48 -35289861.28 0.0088 0.0058 *
 Moon -101331-08-19 03:49 J -35289494.57 -35289494.34 -35289494.09 0.0088 0.0025
 Earth -101331-08-19 06:57 J -35289494.45 -35289494.21 -35289493.97 0.0088 0.0026 *
 Earth -101330-08-21 14:37 J -35289127.14 -35289126.89 -35289126.64 0.0088 0.0006
 Moon -101330-08-21 17:45 J -35289127.00 -35289126.76 -35289126.51 0.0088 0.0004 *
 Moon -101329-08-22 18:42 J -35288759.94 -35288759.72 -35288759.49 0.0088 0.0038
 Earth -101329-08-22 22:18 J -35288759.79 -35288759.57 -35288759.33 0.0088 0.0036 *
 Earth -101328-08-25 05:30 J -35288392.41 -35288392.27 -35288392.09 0.0088 0.0068
 Moon -101328-08-25 08:23 J -35288392.29 -35288392.15 -35288391.96 0.0088 0.0067 *
 Mars -101319-09-08 22:47 J -35285090.78 -35285090.55 -35285090.29 0.0088 0.0057
 Mars -101317-08-04 07:54 J -35284395.50 -35284395.17 -35284394.84 0.0088 0.0001
 Mars -101315-06-30 17:30 J -35283699.99 -35283699.77 -35283699.48 0.0088 0.0057
 Mercury -101289-03-12 01:40 J -35274313.46 -35274313.43 -35274313.38 0.0089 0.0085
 Mercury -101289-06-08 03:35 J -35274225.40 -35274225.35 -35274225.28 0.0089 0.0081
 Mercury -101289-09-04 05:30 J -35274137.33 -35274137.27 -35274137.18 0.0089 0.0077
 Mercury -101289-12-01 07:40 J -35274049.26 -35274049.18 -35274049.09 0.0089 0.0072
 Mercury -101288-02-27 09:21 J -35273961.19 -35273961.11 -35273961.00 0.0089 0.0068
 Mercury -101288-05-26 11:16 J -35273873.12 -35273873.03 -35273872.91 0.0089 0.0064
 Mercury -101288-08-22 13:25 J -35273785.05 -35273784.94 -35273784.82 0.0089 0.0059
 Mercury -101288-11-18 15:21 J -35273696.97 -35273696.86 -35273696.73 0.0089 0.0055
 Mercury -101287-02-14 17:16 J -35273608.89 -35273608.78 -35273608.64 0.0089 0.0051

Mercury -101287-05-13 19:25 J -35273520.82 -35273520.69 -35273520.56 0.0089 0.0046

Mercury -101287-08-09 21:21 J -35273432.74 -35273432.61 -35273432.47 0.0089 0.0042

Mercury -101287-11-05 23:30 J -35273344.66 -35273344.52 -35273344.38 0.0089 0.0037

Mercury -101286-02-02 01:25 J -35273256.58 -35273256.44 -35273256.29 0.0089 0.0033

Mercury -101286-05-01 03:35 J -35273168.49 -35273168.35 -35273168.20 0.0089 0.0028

Mercury -101286-07-28 05:30 J -35273080.41 -35273080.27 -35273080.11 0.0089 0.0024

Mercury -101286-10-24 07:40 J -35272992.33 -35272992.18 -35272992.03 0.0089 0.0019

Mercury -101285-01-20 09:49 J -35272904.24 -35272904.09 -35272903.94 0.0089 0.0014

Mercury -101285-04-17 11:45 J -35272816.16 -35272816.01 -35272815.85 0.0089 0.0010

Mercury -101285-07-14 13:54 J -35272728.07 -35272727.92 -35272727.76 0.0089 0.0005

Mercury -101285-10-10 16:04 J -35272639.99 -35272639.83 -35272639.67 0.0089 0.0000

Mercury -101284-01-06 18:13 J -35272551.90 -35272551.74 -35272551.59 0.0089 0.0005

Mercury -101284-04-04 20:23 J -35272463.81 -35272463.65 -35272463.50 0.0089 0.0009

Mercury -101284-07-01 22:18 J -35272375.72 -35272375.57 -35272375.41 0.0089 0.0014

Mercury -101284-09-28 00:28 J -35272287.63 -35272287.48 -35272287.32 0.0089 0.0018

Mercury -101284-12-25 02:37 J -35272199.54 -35272199.39 -35272199.24 0.0089 0.0023

Mercury -101283-03-23 04:47 J -35272111.45 -35272111.30 -35272111.15 0.0089 0.0028

Mercury -101283-06-19 06:57 J -35272023.35 -35272023.21 -35272023.06 0.0089 0.0033

Mercury -101283-09-15 08:52 J -35271935.26 -35271935.13 -35271934.97 0.0089 0.0038

Mercury -101283-12-12 11:16 J -35271847.16 -35271847.03 -35271846.89 0.0089 0.0042

Mercury -101282-03-10 13:25 J -35271759.07 -35271758.94 -35271758.80 0.0089 0.0047

Mercury -101282-06-06 15:35 J -35271670.97 -35271670.85 -35271670.71 0.0089 0.0052

Mercury -101282-09-02 17:45 J -35271582.87 -35271582.76 -35271582.63 0.0089 0.0057

Mercury -101282-11-29 19:54 J -35271494.77 -35271494.67 -35271494.54 0.0089 0.0062

Mercury -101281-02-25 22:18 J -35271406.67 -35271406.57 -35271406.46 0.0089 0.0066

Mercury -101281-05-24 00:28 J -35271318.56 -35271318.48 -35271318.37 0.0089 0.0071

Mercury -101281-08-20 02:37 J -35271230.46 -35271230.39 -35271230.29 0.0089 0.0076

Mercury -101281-11-16 05:01 J -35271142.34 -35271142.29 -35271142.22 0.0089 0.0081

Mercury -101280-02-12 07:11 J -35271054.23 -35271054.20 -35271054.15 0.0089 0.0086

Venus -101279-03-17 19:40 J -35270655.69 -35270655.68 -35270655.65 0.0089 0.0088

Venus	-101279-10-29 08:23 J	-35270430.24	-35270430.15	-35270430.05	0.0089	0.0079
Venus	-101278-06-11 21:06 J	-35270204.75	-35270204.62	-35270204.48	0.0089	0.0070
Venus	-101277-01-23 09:35 J	-35269979.25	-35269979.10	-35269978.93	0.0089	0.0061
Venus	-101277-09-04 22:18 J	-35269753.73	-35269753.57	-35269753.38	0.0089	0.0052
Venus	-101276-04-18 11:01 J	-35269528.22	-35269528.04	-35269527.83	0.0089	0.0043
Venus	-101276-11-29 23:59 J	-35269302.70	-35269302.50	-35269302.29	0.0089	0.0033
Venus	-101275-07-13 12:42 J	-35269077.17	-35269076.97	-35269076.75	0.0089	0.0024
Venus	-101274-02-24 01:40 J	-35268851.64	-35268851.43	-35268851.21	0.0089	0.0015
Venus	-101274-10-07 14:52 J	-35268626.10	-35268625.88	-35268625.66	0.0089	0.0005
Venus	-101273-05-20 03:49 J	-35268400.56	-35268400.34	-35268400.12	0.0089	0.0004
Venus	-101273-12-31 16:33 J	-35268175.02	-35268174.81	-35268174.58	0.0089	0.0014
Venus	-101272-08-14 05:45 J	-35267949.47	-35267949.26	-35267949.04	0.0089	0.0023
Venus	-101271-03-27 18:28 J	-35267723.92	-35267723.73	-35267723.51	0.0089	0.0033
Venus	-101271-11-08 07:54 J	-35267498.35	-35267498.17	-35267497.97	0.0089	0.0042
Venus	-101270-06-21 20:52 J	-35267272.79	-35267272.63	-35267272.44	0.0089	0.0052
Venus	-101269-02-02 10:04 J	-35267047.23	-35267047.08	-35267046.91	0.0089	0.0061
Venus	-101269-09-14 23:30 J	-35266821.65	-35266821.52	-35266821.39	0.0089	0.0070
Venus	-101268-04-28 12:13 J	-35266596.06	-35266595.99	-35266595.87	0.0089	0.0080
Earth	-101250-02-07 17:01 J	-35260101.85	-35260101.79	-35260101.66	0.0089	0.0083
Moon	-101250-02-07 20:37 J	-35260101.67	-35260101.64	-35260101.56	0.0089	0.0087 *
Moon	-101249-02-10 06:42 J	-35259734.42	-35259734.22	-35259733.98	0.0089	0.0045
Earth	-101249-02-10 08:37 J	-35259734.34	-35259734.14	-35259733.90	0.0089	0.0049 *
Earth	-101248-02-12 00:28 J	-35259366.74	-35259366.48	-35259366.21	0.0089	0.0015
Moon	-101248-02-12 02:09 J	-35259366.67	-35259366.41	-35259366.14	0.0089	0.0019 *
Moon	-101247-02-14 15:49 J	-35258999.08	-35258998.84	-35258998.58	0.0089	0.0024
Earth	-101247-02-14 16:04 J	-35258999.08	-35258998.83	-35258998.56	0.0089	0.0019 *
Moon	-101246-02-17 06:13 J	-35258631.45	-35258631.24	-35258630.99	0.0089	0.0049
Earth	-101246-02-17 07:40 J	-35258631.38	-35258631.18	-35258630.96	0.0089	0.0053 *
Earth	-101245-02-19 23:16 J	-35258263.56	-35258263.53	-35258263.46	0.0089	0.0087
Mars	-101237-08-03 14:37 J	-35255176.11	-35255175.89	-35255175.63	0.0089	0.0054

Mars -101235-06-28 23:16 J -35254481.83 -35254481.53 -35254481.22 0.0089 0.0001
 Mars -101233-05-23 05:45 J -35253787.48 -35253787.26 -35253786.99 0.0089 0.0053
 Mercury -101207-06-22 04:33 J -35244261.34 -35244261.31 -35244261.25 0.0089 0.0086
 Mercury -101207-09-18 06:57 J -35244173.26 -35244173.21 -35244173.13 0.0089 0.0081
 Mercury -101207-12-15 09:21 J -35244085.18 -35244085.11 -35244085.01 0.0088 0.0076
 Mercury -101206-03-13 11:59 J -35243997.09 -35243997.00 -35243996.89 0.0088 0.0071
 Mercury -101206-06-09 14:23 J -35243909.00 -35243908.90 -35243908.78 0.0088 0.0066
 Mercury -101206-09-05 16:47 J -35243820.91 -35243820.80 -35243820.67 0.0088 0.0061
 Mercury -101206-12-02 19:11 J -35243732.82 -35243732.70 -35243732.56 0.0088 0.0056
 Mercury -101205-02-28 21:35 J -35243644.72 -35243644.60 -35243644.45 0.0088 0.0051
 Mercury -101205-05-27 00:13 J -35243556.63 -35243556.49 -35243556.35 0.0088 0.0046
 Mercury -101205-08-23 02:37 J -35243468.54 -35243468.39 -35243468.25 0.0088 0.0041
 Mercury -101205-11-19 04:33 J -35243380.44 -35243380.31 -35243380.14 0.0088 0.0037
 Mercury -101204-02-15 06:57 J -35243292.35 -35243292.21 -35243292.04 0.0088 0.0032
 Mercury -101204-05-14 09:21 J -35243204.25 -35243204.11 -35243203.94 0.0088 0.0027
 Mercury -101204-08-10 11:45 J -35243116.16 -35243116.01 -35243115.85 0.0088 0.0022
 Mercury -101204-11-06 14:09 J -35243028.07 -35243027.91 -35243027.75 0.0088 0.0017
 Mercury -101203-02-02 16:33 J -35242939.97 -35242939.81 -35242939.65 0.0088 0.0012
 Mercury -101203-05-01 18:42 J -35242851.88 -35242851.72 -35242851.56 0.0088 0.0007
 Mercury -101203-07-28 21:06 J -35242763.78 -35242763.62 -35242763.46 0.0088 0.0003
 Mercury -101203-10-24 23:16 J -35242675.69 -35242675.53 -35242675.37 0.0088 0.0002
 Mercury -101202-01-21 01:25 J -35242587.60 -35242587.44 -35242587.27 0.0088 0.0008
 Mercury -101202-04-19 03:49 J -35242499.50 -35242499.34 -35242499.18 0.0088 0.0012
 Mercury -101202-07-16 05:59 J -35242411.41 -35242411.25 -35242411.09 0.0088 0.0016
 Mercury -101202-10-12 08:09 J -35242323.31 -35242323.16 -35242323.00 0.0088 0.0021
 Mercury -101201-01-08 10:18 J -35242235.22 -35242235.07 -35242234.91 0.0088 0.0026
 Mercury -101201-04-05 12:28 J -35242147.12 -35242146.98 -35242146.83 0.0088 0.0030
 Mercury -101201-07-02 14:52 J -35242059.03 -35242058.88 -35242058.74 0.0088 0.0035
 Mercury -101201-09-28 16:47 J -35241970.93 -35241970.80 -35241970.65 0.0088 0.0040
 Mercury -101201-12-25 18:42 J -35241882.84 -35241882.72 -35241882.57 0.0088 0.0045

Mercury -101200-03-23 21:06 J -35241794.75 -35241794.62 -35241794.48 0.0088 0.0049

Mercury -101200-06-19 23:01 J -35241706.65 -35241706.54 -35241706.40 0.0088 0.0054

Mercury -101200-09-16 01:25 J -35241618.55 -35241618.44 -35241618.32 0.0088 0.0057

Mercury -101200-12-13 03:35 J -35241530.46 -35241530.35 -35241530.24 0.0088 0.0062

Mercury -101199-03-11 05:30 J -35241442.36 -35241442.27 -35241442.16 0.0088 0.0067

Mercury -101199-06-07 07:40 J -35241354.26 -35241354.18 -35241354.08 0.0088 0.0071

Mercury -101199-09-03 09:35 J -35241266.16 -35241266.10 -35241266.00 0.0088 0.0076

Mercury -101199-11-30 11:45 J -35241178.06 -35241178.01 -35241177.93 0.0088 0.0080

Mercury -101198-02-26 13:40 J -35241089.96 -35241089.93 -35241089.87 0.0088 0.0085

Mercury -101198-05-25 16:04 J -35241001.83 -35241001.83 -35241001.82 0.0088 0.0088

Venus -101197-05-07 17:16 J -35240653.82 -35240653.78 -35240653.72 0.0088 0.0086

Venus -101197-12-19 06:13 J -35240428.33 -35240428.24 -35240428.11 0.0088 0.0077

Venus -101196-08-01 19:25 J -35240202.81 -35240202.69 -35240202.52 0.0088 0.0068

Venus -101195-03-15 09:21 J -35239977.27 -35239977.11 -35239976.94 0.0088 0.0058

Venus -101195-10-26 22:18 J -35239751.73 -35239751.57 -35239751.36 0.0088 0.0049

Venus -101194-06-09 11:59 J -35239526.20 -35239526.00 -35239525.80 0.0088 0.0039

Venus -101193-01-21 00:57 J -35239300.66 -35239300.46 -35239300.24 0.0088 0.0030

Venus -101193-09-02 14:09 J -35239075.12 -35239074.91 -35239074.69 0.0088 0.0020

Venus -101192-04-16 03:35 J -35238849.57 -35238849.35 -35238849.13 0.0088 0.0011

Venus -101192-11-27 16:33 J -35238624.03 -35238623.81 -35238623.59 0.0088 0.0001

Venus -101191-07-11 05:30 J -35238398.49 -35238398.27 -35238398.05 0.0088 0.0008

Venus -101190-02-21 18:13 J -35238172.95 -35238172.74 -35238172.51 0.0088 0.0018

Venus -101190-10-05 07:11 J -35237947.40 -35237947.20 -35237946.98 0.0088 0.0027

Venus -101189-05-17 20:23 J -35237721.85 -35237721.65 -35237721.45 0.0088 0.0036

Venus -101189-12-29 08:52 J -35237496.31 -35237496.13 -35237495.93 0.0088 0.0045

Venus -101188-08-11 21:35 J -35237270.76 -35237270.60 -35237270.41 0.0088 0.0055

Venus -101187-03-25 10:33 J -35237045.20 -35237045.06 -35237044.89 0.0088 0.0064

Venus -101187-11-05 23:16 J -35236819.64 -35236819.53 -35236819.39 0.0088 0.0073

Venus -101186-06-19 11:59 J -35236594.06 -35236594.00 -35236593.90 0.0088 0.0082

Moon -101168-08-16 07:25 J -35229961.29 -35229961.19 -35229961.03 0.0088 0.0077

Earth -101168-08-16 10:47 J -35229961.19 -35229961.05 -35229960.90 0.0088 0.0072 *
 Earth -101167-08-18 18:57 J -35229593.93 -35229593.71 -35229593.48 0.0088 0.0041
 Moon -101167-08-18 22:04 J -35229593.78 -35229593.58 -35229593.33 0.0088 0.0037 *
 Moon -101166-08-20 23:30 J -35229226.75 -35229226.52 -35229226.26 0.0088 0.0015
 Earth -101166-08-21 03:06 J -35229226.62 -35229226.37 -35229226.12 0.0088 0.0009 *
 Earth -101165-08-22 10:33 J -35228859.29 -35228859.06 -35228858.81 0.0088 0.0022
 Moon -101165-08-22 13:25 J -35228859.16 -35228858.94 -35228858.68 0.0088 0.0027 *
 Moon -101164-08-24 16:18 J -35228492.00 -35228491.82 -35228491.60 0.0088 0.0049
 Earth -101164-08-24 18:13 J -35228491.93 -35228491.74 -35228491.53 0.0088 0.0053 *
 Earth -101163-08-27 01:40 J -35228124.49 -35228124.43 -35228124.33 0.0088 0.0084
 Moon -101163-08-27 02:09 J -35228124.42 -35228124.41 -35228124.35 0.0088 0.0087 *
 Mars -101155-04-23 01:11 J -35225328.55 -35225328.45 -35225328.31 0.0088 0.0082
 Mars -101153-03-18 08:09 J -35224633.46 -35224633.16 -35224632.83 0.0088 0.0026
 Mars -101151-02-11 17:45 J -35223938.06 -35223937.76 -35223937.45 0.0088 0.0032
 Mercury -101125-09-09 23:16 J -35214230.55 -35214230.53 -35214230.50 0.0089 0.0087
 Mercury -101125-12-07 00:57 J -35214142.50 -35214142.46 -35214142.40 0.0089 0.0083
 Mercury -101124-03-05 02:52 J -35214054.44 -35214054.38 -35214054.30 0.0089 0.0079
 Mercury -101124-06-01 04:47 J -35213966.37 -35213966.30 -35213966.21 0.0089 0.0075
 Mercury -101124-08-28 06:57 J -35213878.30 -35213878.21 -35213878.12 0.0089 0.0070
 Mercury -101124-11-24 08:37 J -35213790.23 -35213790.14 -35213790.03 0.0089 0.0066
 Mercury -101123-02-20 10:33 J -35213702.16 -35213702.06 -35213701.94 0.0089 0.0062
 Mercury -101123-05-19 12:42 J -35213614.08 -35213613.97 -35213613.85 0.0089 0.0057
 Mercury -101123-08-15 14:37 J -35213526.01 -35213525.89 -35213525.76 0.0089 0.0053
 Mercury -101123-11-11 16:33 J -35213437.93 -35213437.81 -35213437.68 0.0089 0.0049
 Mercury -101122-02-07 18:28 J -35213349.85 -35213349.73 -35213349.59 0.0089 0.0044
 Mercury -101122-05-06 20:23 J -35213261.77 -35213261.65 -35213261.50 0.0089 0.0040
 Mercury -101122-08-02 22:33 J -35213173.69 -35213173.56 -35213173.41 0.0089 0.0035
 Mercury -101122-10-30 00:28 J -35213085.61 -35213085.48 -35213085.33 0.0089 0.0031
 Mercury -101121-01-26 02:37 J -35212997.53 -35212997.39 -35212997.24 0.0089 0.0026
 Mercury -101121-04-23 04:33 J -35212909.45 -35212909.31 -35212909.15 0.0089 0.0022

Mercury -101121-07-20 06:42 J -35212821.37 -35212821.22 -35212821.06 0.0089 0.0017

Mercury -101121-10-16 08:52 J -35212733.28 -35212733.13 -35212732.98 0.0089 0.0012

Mercury -101120-01-12 11:01 J -35212645.20 -35212645.04 -35212644.89 0.0089 0.0008

Mercury -101120-04-10 12:57 J -35212557.11 -35212556.96 -35212556.80 0.0089 0.0004

Mercury -101120-07-07 15:06 J -35212469.03 -35212468.87 -35212468.71 0.0089 0.0002

Mercury -101120-10-03 17:16 J -35212380.94 -35212380.78 -35212380.63 0.0089 0.0006

Mercury -101120-12-30 19:11 J -35212292.85 -35212292.70 -35212292.54 0.0089 0.0011

Mercury -101119-03-28 21:21 J -35212204.76 -35212204.61 -35212204.45 0.0089 0.0016

Mercury -101119-06-24 23:30 J -35212116.67 -35212116.52 -35212116.36 0.0089 0.0020

Mercury -101119-09-21 01:40 J -35212028.58 -35212028.43 -35212028.28 0.0089 0.0025

Mercury -101119-12-18 03:35 J -35211940.49 -35211940.35 -35211940.19 0.0089 0.0030

Mercury -101118-03-16 05:45 J -35211852.39 -35211852.26 -35211852.10 0.0089 0.0035

Mercury -101118-06-12 08:09 J -35211764.30 -35211764.16 -35211764.02 0.0089 0.0039

Mercury -101118-09-08 10:18 J -35211676.20 -35211676.07 -35211675.93 0.0089 0.0044

Mercury -101118-12-05 12:13 J -35211588.11 -35211587.99 -35211587.84 0.0089 0.0049

Mercury -101117-03-02 14:23 J -35211500.01 -35211499.90 -35211499.76 0.0089 0.0054

Mercury -101117-05-29 17:01 J -35211411.91 -35211411.79 -35211411.67 0.0089 0.0058

Mercury -101117-08-25 19:11 J -35211323.81 -35211323.70 -35211323.59 0.0089 0.0063

Mercury -101117-11-21 21:06 J -35211235.71 -35211235.62 -35211235.51 0.0089 0.0068

Mercury -101116-02-17 23:16 J -35211147.60 -35211147.53 -35211147.42 0.0089 0.0073

Mercury -101116-05-17 01:40 J -35211059.50 -35211059.43 -35211059.34 0.0089 0.0078

Mercury -101116-08-13 03:49 J -35210971.38 -35210971.34 -35210971.27 0.0089 0.0083

Mercury -101116-11-09 05:59 J -35210883.26 -35210883.25 -35210883.21 0.0089 0.0088

Venus -101114-01-30 18:42 J -35210435.80 -35210435.72 -35210435.63 0.0089 0.0081

Venus -101114-09-13 07:11 J -35210210.31 -35210210.20 -35210210.06 0.0089 0.0072

Venus -101113-04-25 19:40 J -35209984.81 -35209984.68 -35209984.51 0.0089 0.0063

Venus -101113-12-07 08:23 J -35209759.31 -35209759.15 -35209758.96 0.0089 0.0054

Venus -101112-07-20 20:52 J -35209533.80 -35209533.63 -35209533.42 0.0089 0.0045

Venus -101111-03-03 10:04 J -35209308.28 -35209308.08 -35209307.88 0.0089 0.0035

Venus -101111-10-14 22:47 J -35209082.75 -35209082.55 -35209082.33 0.0089 0.0026

Venus	-101110-05-28 11:45 J	-35208857.22	-35208857.01	-35208856.79	0.0089	0.0017
Venus	-101109-01-09 00:42 J	-35208631.69	-35208631.47	-35208631.25	0.0089	0.0007
Venus	-101109-08-21 13:25 J	-35208406.15	-35208405.94	-35208405.72	0.0089	0.0003
Venus	-101108-04-04 02:23 J	-35208180.61	-35208180.40	-35208180.18	0.0089	0.0012
Venus	-101108-11-15 15:21 J	-35207955.06	-35207954.86	-35207954.64	0.0089	0.0022
Venus	-101107-06-29 04:33 J	-35207729.51	-35207729.31	-35207729.10	0.0089	0.0031
Venus	-101106-02-09 17:16 J	-35207503.96	-35207503.78	-35207503.57	0.0089	0.0041
Venus	-101106-09-23 06:42 J	-35207278.40	-35207278.22	-35207278.03	0.0089	0.0050
Venus	-101105-05-05 19:25 J	-35207052.83	-35207052.69	-35207052.51	0.0089	0.0060
Venus	-101105-12-17 08:52 J	-35206827.26	-35206827.13	-35206826.98	0.0089	0.0069
Venus	-101104-07-30 21:35 J	-35206601.67	-35206601.60	-35206601.47	0.0089	0.0079
Venus	-101103-03-13 11:01 J	-35206376.05	-35206376.04	-35206375.99	0.0089	0.0088
Moon	-101085-02-09 13:25 J	-35199834.12	-35199833.94	-35199833.74	0.0089	0.0063
Earth	-101085-02-09 12:57 J	-35199834.11	-35199833.96	-35199833.76	0.0089	0.0066 *
Earth	-101084-02-11 04:33 J	-35199466.55	-35199466.31	-35199466.05	0.0089	0.0032
Moon	-101084-02-11 05:30 J	-35199466.50	-35199466.27	-35199466.03	0.0089	0.0034 *
Moon	-101083-02-13 18:13 J	-35199099.01	-35199098.74	-35199098.46	0.0089	0.0003
Earth	-101083-02-13 19:54 J	-35199098.93	-35199098.67	-35199098.40	0.0089	0.0002 *
Earth	-101082-02-16 11:01 J	-35198731.27	-35198731.04	-35198730.78	0.0089	0.0036
Moon	-101082-02-16 14:09 J	-35198731.14	-35198730.91	-35198730.66	0.0089	0.0034 *
Moon	-101081-02-18 23:45 J	-35198363.66	-35198363.51	-35198363.34	0.0089	0.0071
Earth	-101081-02-19 02:37 J	-35198363.53	-35198363.39	-35198363.20	0.0089	0.0070 *
Mars	-101073-03-18 09:21 J	-35195413.23	-35195413.11	-35195412.95	0.0089	0.0079
Mars	-101071-02-10 20:52 J	-35194718.91	-35194718.63	-35194718.33	0.0089	0.0025
Mars	-101069-01-06 05:01 J	-35194024.56	-35194024.29	-35194023.99	0.0089	0.0029
Mars	-101068-11-30 11:30 J	-35193330.12	-35193330.02	-35193329.90	0.0089	0.0082
Mercury	-101042-03-19 03:21 J	-35184090.41	-35184090.36	-35184090.31	0.0089	0.0084
Mercury	-101042-06-15 05:45 J	-35184002.33	-35184002.26	-35184002.18	0.0089	0.0079
Mercury	-101042-09-11 08:23 J	-35183914.24	-35183914.15	-35183914.06	0.0089	0.0074
Mercury	-101042-12-08 10:47 J	-35183826.15	-35183826.05	-35183825.95	0.0089	0.0069

Mercury -101041-03-05 12:42 J -35183738.06 -35183737.97 -35183737.84 0.0088 0.0065

Mercury -101041-06-01 15:21 J -35183649.97 -35183649.86 -35183649.73 0.0088 0.0059

Mercury -101041-08-28 17:45 J -35183561.88 -35183561.76 -35183561.62 0.0088 0.0055

Mercury -101041-11-24 20:09 J -35183473.78 -35183473.66 -35183473.51 0.0088 0.0050

Mercury -101040-02-20 22:33 J -35183385.69 -35183385.56 -35183385.41 0.0088 0.0045

Mercury -101040-05-20 00:57 J -35183297.60 -35183297.46 -35183297.30 0.0088 0.0040

Mercury -101040-08-16 03:21 J -35183209.50 -35183209.36 -35183209.20 0.0088 0.0035

Mercury -101040-11-12 05:45 J -35183121.41 -35183121.26 -35183121.10 0.0088 0.0030

Mercury -101039-02-08 08:09 J -35183033.31 -35183033.16 -35183033.00 0.0088 0.0025

Mercury -101039-05-07 10:18 J -35182945.22 -35182945.07 -35182944.90 0.0088 0.0021

Mercury -101039-08-03 12:42 J -35182857.12 -35182856.97 -35182856.80 0.0088 0.0016

Mercury -101039-10-30 15:06 J -35182769.03 -35182768.87 -35182768.71 0.0088 0.0011

Mercury -101038-01-26 17:30 J -35182680.93 -35182680.77 -35182680.61 0.0088 0.0006

Mercury -101038-04-24 19:40 J -35182592.84 -35182592.68 -35182592.51 0.0088 0.0002

Mercury -101038-07-21 22:04 J -35182504.74 -35182504.58 -35182504.42 0.0088 0.0004

Mercury -101038-10-18 00:13 J -35182416.65 -35182416.49 -35182416.33 0.0088 0.0009

Mercury -101037-01-14 02:23 J -35182328.55 -35182328.40 -35182328.24 0.0088 0.0014

Mercury -101037-04-11 04:47 J -35182240.46 -35182240.30 -35182240.14 0.0088 0.0018

Mercury -101037-07-08 06:57 J -35182152.36 -35182152.21 -35182152.05 0.0088 0.0023

Mercury -101037-10-04 09:06 J -35182064.27 -35182064.12 -35182063.96 0.0088 0.0027

Mercury -101037-12-31 11:16 J -35181976.17 -35181976.03 -35181975.88 0.0088 0.0032

Mercury -101036-03-29 13:25 J -35181888.08 -35181887.94 -35181887.79 0.0088 0.0037

Mercury -101036-06-25 15:21 J -35181799.98 -35181799.86 -35181799.70 0.0088 0.0042

Mercury -101036-09-21 17:45 J -35181711.89 -35181711.76 -35181711.62 0.0088 0.0046

Mercury -101036-12-18 19:40 J -35181623.79 -35181623.68 -35181623.53 0.0088 0.0051

Mercury -101035-03-16 22:04 J -35181535.70 -35181535.58 -35181535.45 0.0088 0.0055

Mercury -101035-06-12 23:59 J -35181447.60 -35181447.50 -35181447.37 0.0088 0.0060

Mercury -101035-09-09 02:09 J -35181359.50 -35181359.41 -35181359.29 0.0088 0.0064

Mercury -101035-12-06 04:33 J -35181271.41 -35181271.31 -35181271.21 0.0088 0.0068

Mercury -101034-03-04 06:28 J -35181183.31 -35181183.23 -35181183.13 0.0088 0.0073

Mercury -101034-05-31 08:37 J -35181095.21 -35181095.14 -35181095.06 0.0088 0.0077

Mercury -101034-08-27 10:33 J -35181007.11 -35181007.06 -35181006.99 0.0088 0.0081

Mercury -101034-11-23 12:42 J -35180919.00 -35180918.97 -35180918.92 0.0088 0.0086

Venus -101033-08-09 01:54 J -35180659.42 -35180659.42 -35180659.39 0.0088 0.0088

Venus -101032-03-22 15:35 J -35180433.94 -35180433.85 -35180433.74 0.0088 0.0079

Venus -101032-11-03 04:47 J -35180208.42 -35180208.30 -35180208.15 0.0088 0.0069

Venus -101031-06-16 18:28 J -35179982.90 -35179982.73 -35179982.57 0.0088 0.0060

Venus -101030-01-28 07:25 J -35179757.36 -35179757.19 -35179757.00 0.0088 0.0050

Venus -101030-09-10 20:23 J -35179531.83 -35179531.65 -35179531.43 0.0088 0.0042

Venus -101029-04-23 10:04 J -35179306.28 -35179306.08 -35179305.87 0.0088 0.0032

Jupiter -101029-09-01 06:42 J -35179175.71 -35179175.22 -35179174.68 0.0088 0.0019

Venus -101029-12-04 23:16 J -35179080.74 -35179080.53 -35179080.31 0.0088 0.0022

Venus -101028-07-18 12:28 J -35178855.19 -35178854.98 -35178854.76 0.0088 0.0013

Venus -101027-03-01 01:40 J -35178629.65 -35178629.43 -35178629.20 0.0088 0.0003

Venus -101027-10-12 14:52 J -35178404.10 -35178403.88 -35178403.66 0.0088 0.0006

Venus -101026-05-26 03:35 J -35178178.55 -35178178.35 -35178178.12 0.0088 0.0017

Venus -101025-01-06 16:33 J -35177953.01 -35177952.81 -35177952.58 0.0088 0.0026

Venus -101025-08-19 05:45 J -35177727.46 -35177727.26 -35177727.05 0.0088 0.0035

Venus -101024-04-01 18:28 J -35177501.90 -35177501.73 -35177501.52 0.0088 0.0044

Venus -101024-11-13 07:25 J -35177276.35 -35177276.19 -35177276.00 0.0088 0.0053

Venus -101023-06-26 20:09 J -35177050.80 -35177050.66 -35177050.49 0.0088 0.0063

Venus -101022-02-07 08:52 J -35176825.24 -35176825.13 -35176824.98 0.0088 0.0072

Venus -101022-09-20 21:49 J -35176599.67 -35176599.59 -35176599.49 0.0088 0.0081

Earth -101004-08-15 20:37 J -35170060.66 -35170060.64 -35170060.60 0.0088 0.0088

Moon -101004-08-15 23:45 J -35170060.54 -35170060.51 -35170060.43 0.0088 0.0087

Moon -101003-08-18 01:54 J -35169693.60 -35169693.42 -35169693.23 0.0088 0.0058

Earth -101003-08-18 05:01 J -35169693.46 -35169693.29 -35169693.08 0.0088 0.0057 *

Earth -101002-08-20 13:11 J -35169326.18 -35169325.95 -35169325.70 0.0088 0.0026

Moon -101002-08-20 15:35 J -35169326.08 -35169325.85 -35169325.59 0.0088 0.0025 *

Moon -101001-08-21 20:09 J -35168958.90 -35168958.66 -35168958.42 0.0088 0.0005

Earth -101001-08-21 21:35 J -35168958.85 -35168958.60 -35168958.35 0.0088 0.0006 *

101ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 101st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-101000-08-24 05:01 J	-35168591.50	-35168591.29	-35168591.05	0.0088	0.0038		
Moon	-101000-08-24 05:16 J	-35168591.49	-35168591.28	-35168591.03	0.0088	0.0039	*	
Earth	-100999-08-26 12:28 J	-35168224.11	-35168223.98	-35168223.79	0.0088	0.0069		
Moon	-100999-08-26 14:37 J	-35168224.04	-35168223.89	-35168223.74	0.0088	0.0068	*	
Mars	-100990-10-31 09:06 J	-35164871.35	-35164871.12	-35164870.82	0.0088	0.0052		
Mars	-100988-09-25 17:01 J	-35164176.11	-35164175.79	-35164175.46	0.0088	0.0006		
Mars	-100986-08-22 02:09 J	-35163480.60	-35163480.41	-35163480.15	0.0088	0.0065		
Mercury	-100960-06-06 22:04 J	-35154059.60	-35154059.58	-35154059.53	0.0089	0.0086		
Mercury	-100960-09-02 23:45 J	-35153971.55	-35153971.51	-35153971.43	0.0089	0.0082		
Mercury	-100960-11-30 02:09 J	-35153883.48	-35153883.41	-35153883.34	0.0089	0.0077		
Mercury	-100959-02-26 03:49 J	-35153795.41	-35153795.34	-35153795.25	0.0089	0.0073		
Mercury	-100959-05-25 05:45 J	-35153707.34	-35153707.26	-35153707.16	0.0089	0.0069		
Mercury	-100959-08-21 07:54 J	-35153619.27	-35153619.17	-35153619.07	0.0089	0.0064		
Mercury	-100959-11-17 09:35 J	-35153531.20	-35153531.10	-35153530.98	0.0089	0.0060		
Mercury	-100958-02-13 11:30 J	-35153443.13	-35153443.02	-35153442.89	0.0089	0.0056		

Mercury -100958-05-12 13:40 J -35153355.05 -35153354.93 -35153354.80 0.0089 0.0051

Mercury -100958-08-08 15:35 J -35153266.97 -35153266.85 -35153266.72 0.0089 0.0047

Mercury -100958-11-04 17:45 J -35153178.90 -35153178.76 -35153178.63 0.0089 0.0042

Mercury -100957-01-31 19:25 J -35153090.82 -35153090.69 -35153090.54 0.0089 0.0038

Mercury -100957-04-28 21:21 J -35153002.74 -35153002.61 -35153002.45 0.0089 0.0034

Mercury -100957-07-25 23:30 J -35152914.66 -35152914.52 -35152914.37 0.0089 0.0029

Mercury -100957-10-22 01:25 J -35152826.58 -35152826.44 -35152826.28 0.0089 0.0025

Mercury -100956-01-18 03:35 J -35152738.50 -35152738.35 -35152738.19 0.0089 0.0020

Mercury -100956-04-16 05:45 J -35152650.41 -35152650.26 -35152650.11 0.0089 0.0015

Mercury -100956-07-13 07:40 J -35152562.33 -35152562.18 -35152562.02 0.0089 0.0011

Mercury -100956-10-09 09:49 J -35152474.24 -35152474.09 -35152473.93 0.0089 0.0006

Mercury -100955-01-05 11:59 J -35152386.16 -35152386.00 -35152385.85 0.0089 0.0002

Mercury -100955-04-03 13:54 J -35152298.07 -35152297.92 -35152297.76 0.0089 0.0004

Mercury -100955-06-30 16:04 J -35152209.98 -35152209.83 -35152209.67 0.0089 0.0008

Mercury -100955-09-26 17:59 J -35152121.90 -35152121.75 -35152121.59 0.0089 0.0013

Mercury -100955-12-23 20:23 J -35152033.81 -35152033.65 -35152033.50 0.0089 0.0017

Mercury -100954-03-21 22:18 J -35151945.72 -35151945.57 -35151945.41 0.0089 0.0022

Mercury -100954-06-18 00:28 J -35151857.63 -35151857.48 -35151857.33 0.0089 0.0027

Mercury -100954-09-14 02:37 J -35151769.53 -35151769.39 -35151769.24 0.0089 0.0031

Mercury -100954-12-11 04:47 J -35151681.44 -35151681.30 -35151681.15 0.0089 0.0036

Mercury -100953-03-08 06:42 J -35151593.35 -35151593.22 -35151593.07 0.0089 0.0041

Mercury -100953-06-04 08:52 J -35151505.25 -35151505.13 -35151504.98 0.0089 0.0046

Mercury -100953-08-31 11:16 J -35151417.16 -35151417.03 -35151416.90 0.0089 0.0050

Mercury -100953-11-27 13:25 J -35151329.06 -35151328.94 -35151328.81 0.0089 0.0055

Mercury -100952-02-23 15:35 J -35151240.96 -35151240.85 -35151240.73 0.0089 0.0060

Mercury -100952-05-22 17:45 J -35151152.86 -35151152.76 -35151152.64 0.0089 0.0065

Mercury -100952-08-18 19:54 J -35151064.75 -35151064.67 -35151064.56 0.0089 0.0070

Mercury -100952-11-14 22:04 J -35150976.65 -35150976.58 -35150976.48 0.0089 0.0075

Mercury -100951-02-11 00:42 J -35150888.54 -35150888.47 -35150888.40 0.0089 0.0079

Mercury -100951-05-10 02:52 J -35150800.42 -35150800.38 -35150800.33 0.0089 0.0084

Venus	-100950-05-04 04:18 J	-35150441.37	-35150441.32	-35150441.22	0.0089	0.0084
Venus	-100950-12-15 17:16 J	-35150215.89	-35150215.78	-35150215.65	0.0089	0.0074
Venus	-100949-07-28 05:45 J	-35149990.39	-35149990.26	-35149990.10	0.0089	0.0065
Venus	-100948-03-10 18:13 J	-35149764.89	-35149764.74	-35149764.55	0.0089	0.0056
Venus	-100948-10-22 07:25 J	-35149539.37	-35149539.19	-35149539.00	0.0089	0.0046
Venus	-100947-06-04 19:54 J	-35149313.85	-35149313.67	-35149313.46	0.0089	0.0037
Venus	-100946-01-16 08:37 J	-35149088.34	-35149088.14	-35149087.92	0.0089	0.0028
Venus	-100946-08-29 21:35 J	-35148862.81	-35148862.60	-35148862.38	0.0089	0.0018
Venus	-100945-04-11 10:18 J	-35148637.28	-35148637.07	-35148636.84	0.0089	0.0009
Venus	-100945-11-22 23:16 J	-35148411.75	-35148411.53	-35148411.31	0.0089	0.0001
Venus	-100944-07-06 12:13 J	-35148186.21	-35148185.99	-35148185.77	0.0089	0.0010
Venus	-100943-02-17 00:57 J	-35147960.67	-35147960.46	-35147960.24	0.0089	0.0020
Venus	-100943-09-30 13:40 J	-35147735.12	-35147734.93	-35147734.71	0.0089	0.0030
Venus	-100942-05-14 02:52 J	-35147509.57	-35147509.38	-35147509.17	0.0089	0.0039
Venus	-100942-12-25 15:35 J	-35147284.01	-35147283.85	-35147283.65	0.0089	0.0049
Venus	-100941-08-07 04:47 J	-35147058.45	-35147058.30	-35147058.12	0.0089	0.0058
Venus	-100940-03-20 17:45 J	-35146832.88	-35146832.76	-35146832.60	0.0089	0.0068
Venus	-100940-11-01 07:11 J	-35146607.29	-35146607.20	-35146607.08	0.0089	0.0077
Venus	-100939-06-14 20:09 J	-35146381.68	-35146381.66	-35146381.59	0.0089	0.0087
Earth	-100921-02-08 16:47 J	-35139933.87	-35139933.80	-35139933.69	0.0089	0.0083
Moon	-100921-02-08 18:28 J	-35139933.76	-35139933.73	-35139933.67	0.0089	0.0087 *
Moon	-100920-02-10 04:47 J	-35139566.52	-35139566.30	-35139566.05	0.0089	0.0046
Earth	-100920-02-10 07:40 J	-35139566.38	-35139566.18	-35139565.94	0.0089	0.0050 *
Earth	-100919-02-12 23:01 J	-35139198.79	-35139198.54	-35139198.27	0.0089	0.0016
Moon	-100919-02-13 02:09 J	-35139198.65	-35139198.41	-35139198.14	0.0089	0.0020 *
Moon	-100918-02-15 10:47 J	-35138831.30	-35138831.05	-35138830.79	0.0089	0.0022
Earth	-100918-02-15 14:23 J	-35138831.15	-35138830.90	-35138830.63	0.0089	0.0018 *
Earth	-100917-02-18 05:45 J	-35138463.46	-35138463.26	-35138463.03	0.0089	0.0052
Moon	-100917-02-18 09:06 J	-35138463.32	-35138463.12	-35138462.87	0.0089	0.0048 *
Earth	-100916-02-19 21:06 J	-35138095.66	-35138095.62	-35138095.53	0.0089	0.0086

Mars -100908-09-25 14:37 J -35134956.13 -35134955.89 -35134955.63 0.0089 0.0050
 Mars -100906-08-21 01:11 J -35134261.75 -35134261.45 -35134261.14 0.0089 0.0005
 Mars -100904-07-15 08:09 J -35133567.36 -35133567.16 -35133566.91 0.0089 0.0059
 Mercury -100878-09-16 23:16 J -35124007.54 -35124007.53 -35124007.51 0.0089 0.0088
 Mercury -100878-12-14 01:40 J -35123919.48 -35123919.43 -35123919.37 0.0089 0.0083
 Mercury -100877-03-11 04:04 J -35123831.40 -35123831.33 -35123831.25 0.0089 0.0078
 Mercury -100877-06-07 06:42 J -35123743.31 -35123743.22 -35123743.13 0.0089 0.0073
 Mercury -100877-09-03 09:06 J -35123655.22 -35123655.12 -35123655.01 0.0089 0.0068
 Mercury -100877-11-30 11:30 J -35123567.13 -35123567.02 -35123566.90 0.0089 0.0063
 Mercury -100876-02-26 13:40 J -35123479.04 -35123478.93 -35123478.79 0.0088 0.0058
 Mercury -100876-05-25 16:04 J -35123390.95 -35123390.83 -35123390.68 0.0088 0.0054
 Mercury -100876-08-21 18:28 J -35123302.85 -35123302.73 -35123302.58 0.0088 0.0049
 Mercury -100876-11-17 20:52 J -35123214.76 -35123214.63 -35123214.47 0.0088 0.0044
 Mercury -100875-02-13 23:30 J -35123126.66 -35123126.52 -35123126.37 0.0088 0.0038
 Mercury -100875-05-13 01:54 J -35123038.57 -35123038.42 -35123038.27 0.0088 0.0033
 Mercury -100875-08-09 04:18 J -35122950.47 -35122950.32 -35122950.16 0.0088 0.0029
 Mercury -100875-11-05 06:42 J -35122862.38 -35122862.22 -35122862.06 0.0088 0.0024
 Mercury -100874-02-01 09:06 J -35122774.28 -35122774.12 -35122773.96 0.0088 0.0019
 Mercury -100874-04-30 11:16 J -35122686.19 -35122686.03 -35122685.87 0.0088 0.0014
 Mercury -100874-07-27 13:40 J -35122598.09 -35122597.93 -35122597.77 0.0088 0.0009
 Mercury -100874-10-23 16:04 J -35122509.99 -35122509.83 -35122509.67 0.0088 0.0005
 Mercury -100873-01-19 18:13 J -35122421.90 -35122421.74 -35122421.58 0.0088 0.0001
 Mercury -100873-04-16 20:37 J -35122333.80 -35122333.64 -35122333.48 0.0088 0.0005
 Mercury -100873-07-13 22:47 J -35122245.71 -35122245.55 -35122245.39 0.0088 0.0010
 Mercury -100873-10-10 00:57 J -35122157.61 -35122157.46 -35122157.30 0.0088 0.0015
 Mercury -100872-01-06 03:06 J -35122069.52 -35122069.37 -35122069.20 0.0088 0.0020
 Mercury -100872-04-04 05:30 J -35121981.42 -35121981.27 -35121981.11 0.0088 0.0024
 Mercury -100872-07-01 07:40 J -35121893.33 -35121893.18 -35121893.03 0.0088 0.0029
 Mercury -100872-09-27 09:49 J -35121805.23 -35121805.09 -35121804.94 0.0088 0.0033
 Mercury -100872-12-24 11:59 J -35121717.14 -35121717.00 -35121716.85 0.0088 0.0038

Mercury -100871-03-22 14:09 J -35121629.04 -35121628.91 -35121628.76 0.0088 0.0043

Mercury -100871-06-18 16:33 J -35121540.95 -35121540.81 -35121540.68 0.0088 0.0047

Mercury -100871-09-14 18:28 J -35121452.85 -35121452.73 -35121452.59 0.0088 0.0052

Mercury -100871-12-11 20:52 J -35121364.75 -35121364.63 -35121364.51 0.0088 0.0056

Mercury -100870-03-09 22:47 J -35121276.66 -35121276.55 -35121276.43 0.0088 0.0061

Mercury -100870-06-06 00:57 J -35121188.56 -35121188.46 -35121188.35 0.0088 0.0065

Mercury -100870-09-02 02:52 J -35121100.46 -35121100.38 -35121100.27 0.0088 0.0070

Mercury -100870-11-29 05:16 J -35121012.36 -35121012.28 -35121012.19 0.0088 0.0074

Mercury -100869-02-25 06:57 J -35120924.26 -35120924.21 -35120924.12 0.0088 0.0079

Mercury -100869-05-23 09:21 J -35120836.16 -35120836.11 -35120836.05 0.0088 0.0083

Mercury -100869-08-19 11:30 J -35120748.04 -35120748.02 -35120747.99 0.0088 0.0087

Venus -100868-06-23 23:30 J -35120439.58 -35120439.52 -35120439.41 0.0088 0.0082

Venus -100867-02-04 12:42 J -35120214.07 -35120213.97 -35120213.82 0.0088 0.0073

Venus -100867-09-18 02:09 J -35119988.55 -35119988.41 -35119988.24 0.0088 0.0063

Venus -100866-05-01 15:21 J -35119763.01 -35119762.86 -35119762.66 0.0088 0.0054

Venus -100866-12-13 04:47 J -35119537.48 -35119537.30 -35119537.09 0.0088 0.0044

Venus -100865-07-25 17:59 J -35119311.94 -35119311.75 -35119311.53 0.0088 0.0034

Venus -100864-03-08 07:25 J -35119086.39 -35119086.19 -35119085.97 0.0088 0.0025

Venus -100864-10-19 20:52 J -35118860.85 -35118860.63 -35118860.41 0.0088 0.0015

Venus -100863-06-02 10:04 J -35118635.30 -35118635.08 -35118634.86 0.0088 0.0005

Venus -100862-01-13 23:01 J -35118409.76 -35118409.54 -35118409.32 0.0088 0.0004

Venus -100862-08-27 12:13 J -35118184.21 -35118183.99 -35118183.77 0.0088 0.0014

Venus -100861-04-09 01:11 J -35117958.65 -35117958.45 -35117958.23 0.0088 0.0024

Venus -100861-11-20 14:23 J -35117733.10 -35117732.90 -35117732.69 0.0088 0.0033

Venus -100860-07-04 03:06 J -35117507.55 -35117507.37 -35117507.16 0.0088 0.0042

Venus -100859-02-14 16:04 J -35117282.00 -35117281.83 -35117281.64 0.0088 0.0052

Venus -100859-09-28 05:01 J -35117056.44 -35117056.29 -35117056.12 0.0088 0.0061

Venus -100858-05-11 17:30 J -35116830.88 -35116830.77 -35116830.61 0.0088 0.0071

Venus -100858-12-23 06:28 J -35116605.31 -35116605.23 -35116605.12 0.0088 0.0080

Venus -100857-08-04 19:40 J -35116379.68 -35116379.68 -35116379.67 0.0088 0.0088

Earth -100839-08-17 14:37 J -35109793.02 -35109792.89 -35109792.74 0.0088 0.0073
 Moon -100839-08-17 17:01 J -35109792.91 -35109792.79 -35109792.66 0.0088 0.0077 *
 Moon -100838-08-19 21:49 J -35109425.79 -35109425.59 -35109425.35 0.0088 0.0038
 Earth -100838-08-19 23:01 J -35109425.76 -35109425.54 -35109425.31 0.0088 0.0042 *
 Moon -100837-08-21 06:28 J -35109058.48 -35109058.23 -35109057.97 0.0088 0.0015
 Earth -100837-08-21 07:11 J -35109058.44 -35109058.20 -35109057.95 0.0088 0.0010 *
 Earth -100836-08-23 15:21 J -35108691.10 -35108690.86 -35108690.61 0.0088 0.0021
 Moon -100836-08-23 16:33 J -35108691.03 -35108690.81 -35108690.57 0.0088 0.0025 *
 Moon -100835-08-25 19:54 J -35108323.86 -35108323.67 -35108323.43 0.0088 0.0048
 Earth -100835-08-25 22:47 J -35108323.72 -35108323.55 -35108323.32 0.0088 0.0053 *
 Earth -100834-08-28 06:42 J -35107956.29 -35107956.22 -35107956.12 0.0088 0.0083
 Moon -100834-08-28 09:49 J -35107956.10 -35107956.09 -35107956.03 0.0088 0.0088
 Mars -100826-06-14 07:54 J -35105109.30 -35105109.17 -35105108.99 0.0088 0.0078
 Mars -100824-05-09 14:37 J -35104414.20 -35104413.89 -35104413.57 0.0088 0.0020
 Mars -100822-04-04 22:18 J -35103718.85 -35103718.57 -35103718.27 0.0088 0.0038
 Mercury -100796-12-05 19:11 J -35093976.70 -35093976.70 -35093976.69 0.0089 0.0088
 Mercury -100795-03-03 21:06 J -35093888.66 -35093888.62 -35093888.57 0.0089 0.0084
 Mercury -100795-05-30 23:01 J -35093800.60 -35093800.54 -35093800.47 0.0089 0.0080
 Mercury -100795-08-27 00:42 J -35093712.53 -35093712.47 -35093712.38 0.0089 0.0076
 Mercury -100795-11-23 02:37 J -35093624.47 -35093624.39 -35093624.29 0.0089 0.0072
 Mercury -100794-02-19 04:47 J -35093536.40 -35093536.30 -35093536.20 0.0089 0.0067
 Mercury -100794-05-18 06:28 J -35093448.32 -35093448.23 -35093448.11 0.0089 0.0063
 Mercury -100794-08-14 08:23 J -35093360.25 -35093360.15 -35093360.02 0.0089 0.0059
 Mercury -100794-11-10 10:33 J -35093272.18 -35093272.06 -35093271.94 0.0089 0.0054
 Mercury -100793-02-06 12:28 J -35093184.10 -35093183.98 -35093183.85 0.0089 0.0050
 Mercury -100793-05-04 14:09 J -35093096.02 -35093095.91 -35093095.76 0.0089 0.0046
 Mercury -100793-07-31 16:18 J -35093007.95 -35093007.82 -35093007.68 0.0089 0.0041
 Mercury -100793-10-27 18:13 J -35092919.87 -35092919.74 -35092919.59 0.0089 0.0037
 Mercury -100792-01-23 20:23 J -35092831.79 -35092831.65 -35092831.50 0.0089 0.0032
 Mercury -100792-04-21 22:18 J -35092743.71 -35092743.57 -35092743.42 0.0089 0.0028

Mercury -100792-07-19 00:28 J -35092655.63 -35092655.48 -35092655.33 0.0089 0.0023

Mercury -100792-10-15 02:23 J -35092567.55 -35092567.40 -35092567.25 0.0089 0.0019

Mercury -100791-01-11 04:33 J -35092479.46 -35092479.31 -35092479.16 0.0089 0.0014

Mercury -100791-04-09 06:28 J -35092391.38 -35092391.23 -35092391.07 0.0089 0.0009

Mercury -100791-07-06 08:37 J -35092303.30 -35092303.14 -35092302.99 0.0089 0.0005

Mercury -100791-10-02 10:33 J -35092215.21 -35092215.06 -35092214.90 0.0089 0.0001

Mercury -100791-12-29 12:42 J -35092127.13 -35092126.97 -35092126.82 0.0089 0.0004

Mercury -100790-03-27 14:37 J -35092039.04 -35092038.89 -35092038.73 0.0089 0.0009

Mercury -100790-06-23 16:47 J -35091950.95 -35091950.80 -35091950.64 0.0089 0.0014

Mercury -100790-09-19 18:57 J -35091862.86 -35091862.71 -35091862.56 0.0089 0.0018

Mercury -100790-12-16 20:52 J -35091774.77 -35091774.63 -35091774.47 0.0089 0.0023

Mercury -100789-03-13 23:01 J -35091686.68 -35091686.54 -35091686.39 0.0089 0.0028

Mercury -100789-06-10 00:57 J -35091598.59 -35091598.46 -35091598.30 0.0089 0.0033

Mercury -100789-09-06 03:21 J -35091510.50 -35091510.36 -35091510.21 0.0089 0.0037

Mercury -100789-12-03 05:30 J -35091422.41 -35091422.27 -35091422.13 0.0089 0.0042

Mercury -100788-03-01 07:25 J -35091334.31 -35091334.19 -35091334.04 0.0089 0.0047

Mercury -100788-05-28 09:35 J -35091246.21 -35091246.10 -35091245.96 0.0089 0.0052

Mercury -100788-08-24 11:59 J -35091158.12 -35091158.00 -35091157.87 0.0089 0.0056

Mercury -100788-11-20 14:09 J -35091070.02 -35091069.91 -35091069.79 0.0089 0.0061

Mercury -100787-02-16 16:18 J -35090981.92 -35090981.82 -35090981.71 0.0089 0.0066

Mercury -100787-05-15 18:28 J -35090893.81 -35090893.73 -35090893.62 0.0089 0.0071

Mercury -100787-08-11 20:37 J -35090805.71 -35090805.64 -35090805.54 0.0089 0.0076

Mercury -100787-11-07 23:01 J -35090717.60 -35090717.54 -35090717.47 0.0089 0.0080

Mercury -100786-02-04 01:11 J -35090629.48 -35090629.45 -35090629.40 0.0089 0.0085

Venus -100786-08-05 13:40 J -35090446.97 -35090446.93 -35090446.87 0.0089 0.0086

Venus -100785-03-18 02:09 J -35090221.50 -35090221.41 -35090221.28 0.0089 0.0077

Venus -100785-10-29 14:52 J -35089996.00 -35089995.88 -35089995.72 0.0089 0.0068

Venus -100784-06-12 03:49 J -35089770.50 -35089770.34 -35089770.17 0.0089 0.0058

Venus -100783-01-23 16:18 J -35089544.99 -35089544.82 -35089544.62 0.0089 0.0049

Venus -100783-09-06 05:16 J -35089319.47 -35089319.28 -35089319.08 0.0089 0.0039

Venus	-100782-04-19 17:59 J	-35089093.95	-35089093.75	-35089093.54	0.0089	0.0030
Venus	-100782-12-01 06:42 J	-35088868.43	-35088868.22	-35088868.00	0.0089	0.0020
Venus	-100781-07-13 19:25 J	-35088642.90	-35088642.69	-35088642.47	0.0089	0.0011
Venus	-100780-02-24 08:23 J	-35088417.37	-35088417.15	-35088416.93	0.0089	0.0001
Venus	-100780-10-07 21:21 J	-35088191.83	-35088191.61	-35088191.39	0.0089	0.0008
Venus	-100779-05-21 10:04 J	-35087966.29	-35087966.08	-35087965.86	0.0089	0.0018
Venus	-100778-01-01 22:47 J	-35087740.75	-35087740.55	-35087740.33	0.0089	0.0028
Venus	-100778-08-15 11:45 J	-35087515.20	-35087515.01	-35087514.80	0.0089	0.0037
Venus	-100777-03-28 00:28 J	-35087289.65	-35087289.48	-35087289.27	0.0089	0.0047
Venus	-100777-11-08 13:54 J	-35087064.08	-35087063.92	-35087063.74	0.0089	0.0056
Venus	-100776-06-22 02:37 J	-35086838.52	-35086838.39	-35086838.22	0.0089	0.0066
Venus	-100775-02-02 15:35 J	-35086612.94	-35086612.85	-35086612.71	0.0089	0.0076
Venus	-100775-09-16 05:01 J	-35086387.34	-35086387.29	-35086387.22	0.0089	0.0085
Earth	-100756-02-09 10:04 J	-35079666.23	-35079666.08	-35079665.89	0.0089	0.0068
Moon	-100756-02-09 13:54 J	-35079666.08	-35079665.92	-35079665.72	0.0089	0.0065 *
Moon	-100755-02-11 22:04 J	-35079298.81	-35079298.58	-35079298.33	0.0089	0.0037
Earth	-100755-02-12 01:25 J	-35079298.67	-35079298.44	-35079298.18	0.0089	0.0034 *
Earth	-100754-02-14 16:47 J	-35078931.06	-35078930.80	-35078930.53	0.0089	0.0000
Moon	-100754-02-14 20:09 J	-35078930.93	-35078930.66	-35078930.39	0.0089	0.0002 *
Moon	-100753-02-17 05:30 J	-35078563.51	-35078563.27	-35078563.02	0.0089	0.0031
Earth	-100753-02-17 07:40 J	-35078563.41	-35078563.18	-35078562.92	0.0089	0.0034 *
Earth	-100752-02-18 23:01 J	-35078195.70	-35078195.54	-35078195.36	0.0089	0.0067
Moon	-100752-02-19 00:13 J	-35078195.65	-35078195.49	-35078195.31	0.0089	0.0069 *
Mars	-100744-05-10 06:13 J	-35075193.36	-35075193.24	-35075193.05	0.0089	0.0077
Mars	-100742-04-04 17:30 J	-35074499.06	-35074498.77	-35074498.47	0.0089	0.0021
Mars	-100740-02-27 03:35 J	-35073804.61	-35073804.35	-35073804.05	0.0089	0.0034
Mars	-100738-01-22 11:30 J	-35073110.04	-35073110.02	-35073109.95	0.0089	0.0088
Mercury	-100713-06-12 20:52 J	-35063836.64	-35063836.63	-35063836.59	0.0089	0.0088
Mercury	-100713-09-08 23:30 J	-35063748.57	-35063748.52	-35063748.45	0.0089	0.0083
Mercury	-100713-12-06 01:54 J	-35063660.48	-35063660.42	-35063660.33	0.0089	0.0078

Mercury -100712-03-04 04:18 J -35063572.40 -35063572.32 -35063572.21 0.0089 0.0073

Mercury -100712-05-31 06:57 J -35063484.31 -35063484.21 -35063484.09 0.0089 0.0068

Mercury -100712-08-27 09:21 J -35063396.22 -35063396.11 -35063395.98 0.0088 0.0063

Mercury -100712-11-23 11:45 J -35063308.12 -35063308.01 -35063307.87 0.0088 0.0058

Mercury -100711-02-19 14:09 J -35063220.03 -35063219.91 -35063219.76 0.0088 0.0053

Mercury -100711-05-18 16:47 J -35063131.93 -35063131.80 -35063131.66 0.0088 0.0048

Mercury -100711-08-14 19:11 J -35063043.84 -35063043.70 -35063043.55 0.0088 0.0043

Mercury -100711-11-10 21:35 J -35062955.74 -35062955.60 -35062955.45 0.0088 0.0038

Mercury -100710-02-06 23:59 J -35062867.65 -35062867.50 -35062867.34 0.0088 0.0033

Mercury -100710-05-06 02:09 J -35062779.55 -35062779.41 -35062779.24 0.0088 0.0029

Mercury -100710-08-02 04:33 J -35062691.46 -35062691.31 -35062691.14 0.0088 0.0024

Mercury -100710-10-29 06:57 J -35062603.36 -35062603.21 -35062603.04 0.0088 0.0019

Mercury -100709-01-25 09:21 J -35062515.26 -35062515.11 -35062514.94 0.0088 0.0014

Mercury -100709-04-22 11:45 J -35062427.17 -35062427.01 -35062426.85 0.0088 0.0009

Mercury -100709-07-19 14:09 J -35062339.07 -35062338.91 -35062338.75 0.0088 0.0004

Mercury -100709-10-15 16:18 J -35062250.98 -35062250.82 -35062250.65 0.0088 0.0003

Mercury -100708-01-11 18:42 J -35062162.88 -35062162.72 -35062162.56 0.0088 0.0006

Mercury -100708-04-09 20:52 J -35062074.78 -35062074.63 -35062074.46 0.0088 0.0011

Mercury -100708-07-06 23:16 J -35061986.69 -35061986.53 -35061986.37 0.0088 0.0015

Mercury -100708-10-03 01:25 J -35061898.59 -35061898.44 -35061898.28 0.0088 0.0020

Mercury -100708-12-30 03:35 J -35061810.50 -35061810.35 -35061810.19 0.0088 0.0025

Mercury -100707-03-28 05:45 J -35061722.40 -35061722.26 -35061722.10 0.0088 0.0030

Mercury -100707-06-24 08:09 J -35061634.30 -35061634.16 -35061634.01 0.0088 0.0034

Mercury -100707-09-20 10:18 J -35061546.21 -35061546.07 -35061545.92 0.0088 0.0039

Mercury -100707-12-17 12:28 J -35061458.11 -35061457.98 -35061457.83 0.0088 0.0043

Mercury -100706-03-15 14:37 J -35061370.01 -35061369.89 -35061369.75 0.0088 0.0048

Mercury -100706-06-11 16:47 J -35061281.92 -35061281.80 -35061281.66 0.0088 0.0052

Mercury -100706-09-07 19:11 J -35061193.82 -35061193.70 -35061193.58 0.0088 0.0057

Mercury -100706-12-04 21:06 J -35061105.72 -35061105.62 -35061105.50 0.0088 0.0061

Mercury -100705-03-01 23:16 J -35061017.63 -35061017.53 -35061017.42 0.0088 0.0066

Mercury -100705-05-29 01:11 J -35060929.53 -35060929.45 -35060929.34 0.0088 0.0071

Mercury -100705-08-25 03:35 J -35060841.43 -35060841.35 -35060841.26 0.0088 0.0075

Mercury -100705-11-21 05:30 J -35060753.32 -35060753.27 -35060753.19 0.0088 0.0079

Mercury -100704-02-17 07:40 J -35060665.22 -35060665.18 -35060665.12 0.0088 0.0084

Mercury -100704-05-16 09:49 J -35060577.10 -35060577.09 -35060577.07 0.0088 0.0088

Venus -100704-09-25 07:11 J -35060445.24 -35060445.20 -35060445.11 0.0088 0.0085

Venus -100703-05-08 20:52 J -35060219.74 -35060219.63 -35060219.50 0.0088 0.0075

Venus -100703-12-20 09:49 J -35059994.22 -35059994.09 -35059993.92 0.0088 0.0066

Venus -100702-08-02 23:30 J -35059768.69 -35059768.52 -35059768.34 0.0088 0.0056

Venus -100701-03-15 12:42 J -35059543.14 -35059542.97 -35059542.77 0.0088 0.0046

Venus -100701-10-27 02:09 J -35059317.60 -35059317.41 -35059317.20 0.0088 0.0037

Venus -100700-06-09 15:06 J -35059092.06 -35059091.87 -35059091.64 0.0088 0.0028

Venus -100699-01-21 04:33 J -35058866.52 -35058866.31 -35058866.09 0.0088 0.0017

Venus -100699-09-03 17:45 J -35058640.98 -35058640.76 -35058640.54 0.0088 0.0008

Venus -100698-04-17 07:11 J -35058415.43 -35058415.20 -35058414.98 0.0088 0.0002

Venus -100698-11-28 20:09 J -35058189.88 -35058189.66 -35058189.44 0.0088 0.0012

Venus -100697-07-11 09:06 J -35057964.33 -35057964.12 -35057963.90 0.0088 0.0021

Venus -100696-02-21 22:18 J -35057738.78 -35057738.57 -35057738.36 0.0088 0.0031

Venus -100696-10-05 11:01 J -35057513.22 -35057513.04 -35057512.83 0.0088 0.0040

Venus -100695-05-19 00:13 J -35057287.66 -35057287.49 -35057287.30 0.0088 0.0050

Venus -100695-12-30 12:57 J -35057062.10 -35057061.96 -35057061.78 0.0088 0.0059

Venus -100694-08-13 01:54 J -35056836.54 -35056836.42 -35056836.27 0.0088 0.0069

Venus -100693-03-25 15:06 J -35056610.97 -35056610.87 -35056610.76 0.0088 0.0078

Venus -100693-11-06 04:04 J -35056385.37 -35056385.33 -35056385.29 0.0088 0.0087

Moon -100674-08-19 05:45 J -35049525.42 -35049525.26 -35049525.04 0.0088 0.0060

Earth -100674-08-19 06:57 J -35049525.39 -35049525.21 -35049525.01 0.0088 0.0059 *

Earth -100673-08-20 15:21 J -35049158.09 -35049157.86 -35049157.62 0.0088 0.0027

Moon -100673-08-20 17:45 J -35049157.99 -35049157.76 -35049157.52 0.0088 0.0028 *

Moon -100672-08-22 20:37 J -35048790.89 -35048790.64 -35048790.38 0.0088 0.0004

Earth -100672-08-22 23:45 J -35048790.76 -35048790.51 -35048790.26 0.0088 0.0004 *

Earth -100671-08-25 07:25 J -35048423.40 -35048423.19 -35048422.94 0.0088 0.0035
 Moon -100671-08-25 10:47 J -35048423.26 -35048423.05 -35048422.80 0.0088 0.0037 *
 Moon -100670-08-27 11:59 J -35048056.13 -35048056.00 -35048055.81 0.0088 0.0067
 Earth -100670-08-27 16:04 J -35048056.00 -35048055.83 -35048055.67 0.0088 0.0066 *
 Mars -100661-12-21 11:45 J -35044652.26 -35044652.01 -35044651.72 0.0088 0.0048
 Mars -100659-11-16 19:11 J -35043957.01 -35043956.70 -35043956.37 0.0088 0.0011
 Mars -100657-10-12 02:52 J -35043261.54 -35043261.38 -35043261.14 0.0088 0.0070
 Mercury -100631-09-01 17:45 J -35033805.77 -35033805.76 -35033805.73 0.0089 0.0088
 Mercury -100631-11-28 19:54 J -35033717.72 -35033717.67 -35033717.62 0.0089 0.0083
 Mercury -100630-02-24 21:35 J -35033629.66 -35033629.60 -35033629.52 0.0089 0.0079
 Mercury -100630-05-23 23:30 J -35033541.59 -35033541.52 -35033541.43 0.0089 0.0075
 Mercury -100630-08-20 01:11 J -35033453.52 -35033453.45 -35033453.34 0.0089 0.0071
 Mercury -100630-11-16 03:21 J -35033365.45 -35033365.36 -35033365.25 0.0089 0.0066
 Mercury -100629-02-12 05:16 J -35033277.38 -35033277.28 -35033277.17 0.0089 0.0062
 Mercury -100629-05-10 06:57 J -35033189.31 -35033189.21 -35033189.08 0.0089 0.0058
 Mercury -100629-08-06 09:06 J -35033101.23 -35033101.12 -35033100.99 0.0089 0.0053
 Mercury -100629-11-02 11:01 J -35033013.16 -35033013.04 -35033012.90 0.0089 0.0049
 Mercury -100628-01-29 13:11 J -35032925.08 -35032924.95 -35032924.82 0.0089 0.0044
 Mercury -100628-04-27 15:06 J -35032837.00 -35032836.87 -35032836.73 0.0089 0.0040
 Mercury -100628-07-24 16:47 J -35032748.93 -35032748.80 -35032748.65 0.0089 0.0036
 Mercury -100628-10-20 18:57 J -35032660.85 -35032660.71 -35032660.56 0.0089 0.0031
 Mercury -100627-01-16 20:52 J -35032572.77 -35032572.63 -35032572.47 0.0089 0.0027
 Mercury -100627-04-14 23:01 J -35032484.68 -35032484.54 -35032484.39 0.0089 0.0022
 Mercury -100627-07-12 00:57 J -35032396.60 -35032396.46 -35032396.30 0.0089 0.0018
 Mercury -100627-10-08 03:06 J -35032308.52 -35032308.37 -35032308.22 0.0089 0.0013
 Mercury -100626-01-04 05:01 J -35032220.44 -35032220.29 -35032220.13 0.0089 0.0009
 Mercury -100626-04-02 07:11 J -35032132.35 -35032132.20 -35032132.05 0.0089 0.0004
 Mercury -100626-06-29 09:21 J -35032044.27 -35032044.11 -35032043.96 0.0089 0.0002
 Mercury -100626-09-25 11:16 J -35031956.18 -35031956.03 -35031955.87 0.0089 0.0006
 Mercury -100626-12-22 13:25 J -35031868.10 -35031867.94 -35031867.79 0.0089 0.0010

Mercury -100625-03-19 15:21 J -35031780.01 -35031779.86 -35031779.70 0.0089 0.0015

Mercury -100625-06-15 17:16 J -35031691.92 -35031691.78 -35031691.62 0.0089 0.0020

Mercury -100625-09-11 19:40 J -35031603.83 -35031603.68 -35031603.53 0.0089 0.0024

Mercury -100625-12-08 21:35 J -35031515.74 -35031515.60 -35031515.45 0.0089 0.0029

Mercury -100624-03-06 23:30 J -35031427.65 -35031427.52 -35031427.36 0.0089 0.0034

Mercury -100624-06-03 01:54 J -35031339.56 -35031339.42 -35031339.28 0.0089 0.0038

Mercury -100624-08-30 03:49 J -35031251.47 -35031251.34 -35031251.19 0.0089 0.0043

Mercury -100624-11-26 05:59 J -35031163.37 -35031163.25 -35031163.11 0.0089 0.0048

Mercury -100623-02-22 08:23 J -35031075.28 -35031075.15 -35031075.02 0.0089 0.0052

Mercury -100623-05-21 10:33 J -35030987.18 -35030987.06 -35030986.94 0.0089 0.0057

Mercury -100623-08-17 12:28 J -35030899.08 -35030898.98 -35030898.86 0.0089 0.0062

Mercury -100623-11-13 14:37 J -35030810.98 -35030810.89 -35030810.77 0.0089 0.0067

Mercury -100622-02-09 16:47 J -35030722.88 -35030722.80 -35030722.69 0.0089 0.0072

Mercury -100622-05-08 19:25 J -35030634.77 -35030634.69 -35030634.61 0.0089 0.0076

Mercury -100622-08-04 21:35 J -35030546.66 -35030546.60 -35030546.54 0.0089 0.0081

Mercury -100622-10-31 23:45 J -35030458.54 -35030458.51 -35030458.47 0.0089 0.0086

Venus -100621-06-19 11:01 J -35030227.11 -35030227.04 -35030226.92 0.0089 0.0080

Venus -100620-01-30 23:59 J -35030001.62 -35030001.50 -35030001.36 0.0089 0.0070

Venus -100620-09-13 12:28 J -35029776.12 -35029775.98 -35029775.81 0.0089 0.0061

Venus -100619-04-27 00:57 J -35029550.61 -35029550.46 -35029550.26 0.0089 0.0052

Venus -100619-12-08 13:54 J -35029325.10 -35029324.92 -35029324.72 0.0089 0.0042

Venus -100618-07-22 02:52 J -35029099.58 -35029099.38 -35029099.18 0.0089 0.0032

Venus -100617-03-03 15:21 J -35028874.06 -35028873.86 -35028873.64 0.0089 0.0023

Venus -100617-10-15 04:18 J -35028648.53 -35028648.32 -35028648.10 0.0089 0.0013

Venus -100616-05-28 17:16 J -35028423.00 -35028422.78 -35028422.56 0.0089 0.0004

Venus -100615-01-09 05:59 J -35028197.47 -35028197.25 -35028197.03 0.0089 0.0006

Venus -100615-08-22 18:42 J -35027971.93 -35027971.72 -35027971.50 0.0089 0.0016

Venus -100614-04-05 07:40 J -35027746.39 -35027746.18 -35027745.97 0.0089 0.0025

Venus -100614-11-16 20:23 J -35027520.84 -35027520.65 -35027520.44 0.0089 0.0035

Venus -100613-06-29 09:06 J -35027295.29 -35027295.12 -35027294.92 0.0089 0.0045

Venus -100612-02-09 22:18 J -35027069.74 -35027069.57 -35027069.39 0.0089 0.0054
 Venus -100612-09-23 11:01 J -35026844.18 -35026844.04 -35026843.87 0.0089 0.0064
 Venus -100611-05-06 23:45 J -35026618.60 -35026618.51 -35026618.36 0.0089 0.0074
 Venus -100611-12-18 13:11 J -35026393.01 -35026392.95 -35026392.86 0.0089 0.0083
 Earth -100592-02-08 12:28 J -35019766.02 -35019765.98 -35019765.89 0.0089 0.0086
 Earth -100591-02-11 03:21 J -35019398.55 -35019398.36 -35019398.12 0.0089 0.0053
 Moon -100591-02-11 05:59 J -35019398.46 -35019398.25 -35019398.01 0.0089 0.0049 *
 Moon -100590-02-13 17:30 J -35019031.01 -35019030.77 -35019030.51 0.0089 0.0022
 Earth -100590-02-13 18:42 J -35019030.97 -35019030.72 -35019030.45 0.0089 0.0019 *
 Earth -100589-02-16 09:49 J -35018663.35 -35018663.09 -35018662.82 0.0089 0.0015
 Moon -100589-02-16 10:33 J -35018663.32 -35018663.06 -35018662.78 0.0089 0.0019 *
 Earth -100588-02-18 00:42 J -35018295.67 -35018295.47 -35018295.23 0.0089 0.0049
 Moon -100588-02-18 02:09 J -35018295.63 -35018295.41 -35018295.19 0.0089 0.0045 *
 Moon -100587-02-20 13:54 J -35017927.96 -35017927.92 -35017927.82 0.0089 0.0086
 Earth -100587-02-20 15:49 J -35017927.90 -35017927.84 -35017927.71 0.0089 0.0083 *
 Mars -100579-11-17 10:18 J -35014736.33 -35014736.07 -35014735.81 0.0089 0.0048
 Mars -100577-10-11 20:09 J -35014041.96 -35014041.66 -35014041.35 0.0089 0.0008
 Mars -100575-09-06 04:33 J -35013347.50 -35013347.31 -35013347.07 0.0089 0.0063
 Mercury -100548-03-09 19:11 J -35003665.73 -35003665.70 -35003665.67 0.0089 0.0087
 Mercury -100548-06-05 21:35 J -35003577.66 -35003577.60 -35003577.54 0.0089 0.0082
 Mercury -100548-09-01 23:59 J -35003489.57 -35003489.50 -35003489.41 0.0089 0.0077
 Mercury -100548-11-29 02:37 J -35003401.49 -35003401.39 -35003401.30 0.0089 0.0072
 Mercury -100547-02-25 05:01 J -35003313.40 -35003313.29 -35003313.18 0.0089 0.0067
 Mercury -100547-05-24 07:11 J -35003225.30 -35003225.20 -35003225.07 0.0089 0.0062
 Mercury -100547-08-20 09:35 J -35003137.21 -35003137.10 -35003136.96 0.0089 0.0058
 Mercury -100547-11-16 11:59 J -35003049.12 -35003049.00 -35003048.85 0.0089 0.0053
 Mercury -100546-02-12 14:37 J -35002961.02 -35002960.89 -35002960.74 0.0089 0.0047
 Mercury -100546-05-11 17:01 J -35002872.93 -35002872.79 -35002872.64 0.0088 0.0042
 Mercury -100546-08-07 19:25 J -35002784.83 -35002784.69 -35002784.53 0.0088 0.0038
 Mercury -100546-11-03 21:49 J -35002696.74 -35002696.59 -35002696.43 0.0088 0.0033

Mercury -100545-01-31 00:13 J -35002608.64 -35002608.49 -35002608.33 0.0088 0.0028

Mercury -100545-04-28 02:37 J -35002520.54 -35002520.39 -35002520.23 0.0088 0.0023

Mercury -100545-07-25 05:01 J -35002432.45 -35002432.29 -35002432.13 0.0088 0.0018

Mercury -100545-10-21 07:25 J -35002344.35 -35002344.19 -35002344.03 0.0088 0.0013

Mercury -100544-01-17 09:35 J -35002256.26 -35002256.10 -35002255.93 0.0088 0.0009

Mercury -100544-04-15 11:59 J -35002168.16 -35002168.00 -35002167.83 0.0088 0.0004

Mercury -100544-07-12 14:23 J -35002080.06 -35002079.90 -35002079.74 0.0088 0.0001

Mercury -100544-10-08 16:33 J -35001991.97 -35001991.81 -35001991.64 0.0088 0.0007

Mercury -100543-01-04 18:57 J -35001903.87 -35001903.71 -35001903.55 0.0088 0.0011

Mercury -100543-04-02 21:06 J -35001815.77 -35001815.62 -35001815.46 0.0088 0.0016

Mercury -100543-06-29 23:16 J -35001727.68 -35001727.53 -35001727.36 0.0088 0.0021

Mercury -100543-09-26 01:40 J -35001639.58 -35001639.43 -35001639.27 0.0088 0.0025

Mercury -100543-12-23 03:49 J -35001551.48 -35001551.34 -35001551.18 0.0088 0.0030

Mercury -100542-03-21 05:59 J -35001463.39 -35001463.25 -35001463.09 0.0088 0.0035

Mercury -100542-06-17 08:23 J -35001375.29 -35001375.15 -35001375.00 0.0088 0.0039

Mercury -100542-09-13 10:33 J -35001287.19 -35001287.06 -35001286.92 0.0088 0.0044

Mercury -100542-12-10 12:42 J -35001199.10 -35001198.97 -35001198.83 0.0088 0.0048

Mercury -100541-03-07 14:52 J -35001111.00 -35001110.88 -35001110.74 0.0088 0.0053

Mercury -100541-06-03 17:01 J -35001022.90 -35001022.79 -35001022.66 0.0088 0.0057

Mercury -100541-08-30 19:25 J -35000934.80 -35000934.69 -35000934.58 0.0088 0.0062

Mercury -100541-11-26 21:21 J -35000846.70 -35000846.61 -35000846.50 0.0088 0.0066

Mercury -100540-02-22 23:30 J -35000758.60 -35000758.52 -35000758.42 0.0088 0.0071

Mercury -100540-05-22 01:25 J -35000670.50 -35000670.44 -35000670.34 0.0088 0.0076

Mercury -100540-08-18 03:49 J -35000582.40 -35000582.34 -35000582.27 0.0088 0.0080

Mercury -100540-11-14 05:45 J -35000494.29 -35000494.26 -35000494.20 0.0088 0.0084

Venus -100540-12-27 14:09 J -35000450.92 -35000450.91 -35000450.86 0.0088 0.0088

Mercury -100539-02-10 08:09 J -35000406.16 -35000406.16 -35000406.15 0.0088 0.0088

Venus -100539-08-10 03:21 J -35000225.44 -35000225.36 -35000225.23 0.0088 0.0079

Venus -100538-03-23 17:01 J -34999999.91 -34999999.79 -34999999.63 0.0088 0.0069

Venus -100538-11-04 06:42 J -34999774.38 -34999774.22 -34999774.05 0.0088 0.0059

Venus	-100537-06-16 19:40 J	-34999548.85	-34999548.68	-34999548.48	0.0088	0.0050
Venus	-100536-01-28 09:06 J	-34999323.31	-34999323.12	-34999322.92	0.0088	0.0040
Venus	-100536-09-10 22:04 J	-34999097.77	-34999097.58	-34999097.35	0.0088	0.0031
Venus	-100535-04-24 11:45 J	-34998872.22	-34998872.01	-34998871.79	0.0088	0.0020
Venus	-100535-12-06 00:57 J	-34998646.68	-34998646.46	-34998646.24	0.0088	0.0011
Venus	-100534-07-19 14:09 J	-34998421.13	-34998420.91	-34998420.69	0.0088	0.0001
Venus	-100533-03-01 03:21 J	-34998195.58	-34998195.36	-34998195.14	0.0088	0.0009
Venus	-100533-10-12 16:18 J	-34997970.03	-34997969.82	-34997969.60	0.0088	0.0018
Venus	-100532-05-26 05:16 J	-34997744.48	-34997744.28	-34997744.06	0.0088	0.0028
Venus	-100531-01-06 18:13 J	-34997518.93	-34997518.74	-34997518.53	0.0088	0.0038
Venus	-100531-08-20 07:11 J	-34997293.37	-34997293.20	-34997293.00	0.0088	0.0047
Venus	-100530-04-02 20:23 J	-34997067.80	-34997067.65	-34997067.47	0.0088	0.0057
Venus	-100530-11-14 09:06 J	-34996842.24	-34996842.12	-34996841.95	0.0088	0.0067
Venus	-100529-06-26 22:18 J	-34996616.67	-34996616.57	-34996616.44	0.0088	0.0076
Venus	-100528-02-07 11:30 J	-34996391.08	-34996391.02	-34996390.96	0.0088	0.0085
Earth	-100510-08-18 13:54 J	-34989625.02	-34989624.92	-34989624.77	0.0088	0.0077
Moon	-100510-08-18 16:47 J	-34989624.88	-34989624.80	-34989624.69	0.0088	0.0081 *
Moon	-100509-08-19 19:11 J	-34989257.91	-34989257.70	-34989257.46	0.0088	0.0041
Earth	-100509-08-19 22:33 J	-34989257.75	-34989257.56	-34989257.32	0.0088	0.0046 *
Earth	-100508-08-22 06:57 J	-34988890.45	-34988890.21	-34988889.96	0.0088	0.0014
Moon	-100508-08-22 10:33 J	-34988890.30	-34988890.06	-34988889.81	0.0088	0.0019 *
Moon	-100507-08-24 12:13 J	-34988523.23	-34988522.99	-34988522.75	0.0088	0.0022
Earth	-100507-08-24 15:06 J	-34988523.11	-34988522.87	-34988522.61	0.0088	0.0017 *
Earth	-100506-08-26 23:01 J	-34988155.73	-34988155.54	-34988155.32	0.0088	0.0049
Moon	-100506-08-27 01:40 J	-34988155.64	-34988155.43	-34988155.20	0.0088	0.0044 *
Moon	-100505-08-28 06:28 J	-34987788.30	-34987788.23	-34987788.15	0.0088	0.0084
Earth	-100505-08-28 06:57 J	-34987788.30	-34987788.21	-34987788.08	0.0088	0.0079 *
Mars	-100497-08-04 09:21 J	-34984890.25	-34984890.11	-34984889.92	0.0088	0.0076
Mars	-100495-06-30 13:40 J	-34984195.24	-34984194.93	-34984194.61	0.0088	0.0018
Mars	-100493-05-25 20:23 J	-34983499.91	-34983499.65	-34983499.34	0.0088	0.0042

Mercury -100466-05-29 16:18 J -34973634.84 -34973634.82 -34973634.78 0.0089 0.0087

Mercury -100466-08-25 17:59 J -34973546.79 -34973546.75 -34973546.68 0.0089 0.0083

Mercury -100466-11-21 19:54 J -34973458.72 -34973458.67 -34973458.59 0.0089 0.0079

Mercury -100465-02-17 22:04 J -34973370.66 -34973370.58 -34973370.50 0.0089 0.0074

Mercury -100465-05-15 23:45 J -34973282.59 -34973282.51 -34973282.41 0.0089 0.0070

Mercury -100465-08-12 01:40 J -34973194.52 -34973194.43 -34973194.32 0.0089 0.0066

Mercury -100465-11-08 03:49 J -34973106.45 -34973106.34 -34973106.23 0.0089 0.0061

Mercury -100464-02-04 05:30 J -34973018.37 -34973018.27 -34973018.14 0.0089 0.0057

Mercury -100464-05-03 07:25 J -34972930.30 -34972930.19 -34972930.06 0.0089 0.0053

Mercury -100464-07-30 09:35 J -34972842.22 -34972842.10 -34972841.97 0.0089 0.0048

Mercury -100464-10-26 11:30 J -34972754.15 -34972754.02 -34972753.88 0.0089 0.0044

Mercury -100463-01-22 13:25 J -34972666.07 -34972665.94 -34972665.80 0.0089 0.0039

Mercury -100463-04-20 15:21 J -34972577.99 -34972577.86 -34972577.71 0.0089 0.0035

Mercury -100463-07-17 17:30 J -34972489.91 -34972489.77 -34972489.63 0.0089 0.0030

Mercury -100463-10-13 19:25 J -34972401.83 -34972401.69 -34972401.54 0.0089 0.0026

Mercury -100462-01-09 21:35 J -34972313.75 -34972313.60 -34972313.45 0.0089 0.0021

Mercury -100462-04-07 23:30 J -34972225.67 -34972225.52 -34972225.37 0.0089 0.0017

Mercury -100462-07-05 01:25 J -34972137.59 -34972137.44 -34972137.28 0.0089 0.0012

Mercury -100462-10-01 03:35 J -34972049.50 -34972049.35 -34972049.20 0.0089 0.0008

Mercury -100462-12-28 05:30 J -34971961.42 -34971961.27 -34971961.11 0.0089 0.0003

Mercury -100461-03-25 07:40 J -34971873.34 -34971873.18 -34971873.03 0.0089 0.0002

Mercury -100461-06-21 09:35 J -34971785.25 -34971785.10 -34971784.94 0.0089 0.0007

Mercury -100461-09-17 11:45 J -34971697.16 -34971697.01 -34971696.86 0.0089 0.0011

Mercury -100461-12-14 13:40 J -34971609.08 -34971608.93 -34971608.77 0.0089 0.0016

Mercury -100460-03-12 15:49 J -34971520.99 -34971520.84 -34971520.69 0.0089 0.0020

Mercury -100460-06-08 17:45 J -34971432.90 -34971432.76 -34971432.60 0.0089 0.0025

Mercury -100460-09-04 19:54 J -34971344.81 -34971344.67 -34971344.52 0.0089 0.0030

Mercury -100460-12-01 22:04 J -34971256.72 -34971256.58 -34971256.43 0.0089 0.0034

Mercury -100459-02-28 00:13 J -34971168.63 -34971168.49 -34971168.35 0.0089 0.0039

Mercury -100459-05-27 02:09 J -34971080.54 -34971080.41 -34971080.26 0.0089 0.0044

Mercury -100459-08-23 04:33 J -34970992.44 -34970992.31 -34970992.18 0.0089 0.0048

Mercury -100459-11-19 06:28 J -34970904.35 -34970904.23 -34970904.09 0.0089 0.0053

Mercury -100458-02-15 08:37 J -34970816.25 -34970816.14 -34970816.01 0.0089 0.0058

Mercury -100458-05-14 10:47 J -34970728.15 -34970728.05 -34970727.93 0.0089 0.0063

Mercury -100458-08-10 13:11 J -34970640.05 -34970639.95 -34970639.85 0.0089 0.0067

Mercury -100458-11-06 15:21 J -34970551.95 -34970551.86 -34970551.77 0.0089 0.0072

Mercury -100457-02-02 17:16 J -34970463.84 -34970463.78 -34970463.69 0.0089 0.0077

Mercury -100457-04-30 19:25 J -34970375.73 -34970375.69 -34970375.61 0.0089 0.0082

Mercury -100457-07-27 21:35 J -34970287.61 -34970287.60 -34970287.55 0.0089 0.0087

Venus -100457-09-20 19:40 J -34970232.74 -34970232.68 -34970232.59 0.0089 0.0083

Venus -100456-05-04 08:37 J -34970007.26 -34970007.14 -34970007.02 0.0089 0.0073

Venus -100456-12-15 20:52 J -34969781.77 -34969781.63 -34969781.47 0.0089 0.0064

Venus -100455-07-29 09:49 J -34969556.26 -34969556.09 -34969555.92 0.0089 0.0054

Venus -100454-03-11 22:18 J -34969330.75 -34969330.57 -34969330.37 0.0089 0.0045

Venus -100454-10-23 11:16 J -34969105.23 -34969105.03 -34969104.83 0.0089 0.0035

Venus -100453-06-04 23:45 J -34968879.70 -34968879.51 -34968879.29 0.0089 0.0026

Venus -100452-01-16 12:42 J -34968654.18 -34968653.97 -34968653.75 0.0089 0.0016

Venus -100452-08-30 01:40 J -34968428.65 -34968428.43 -34968428.22 0.0089 0.0006

Venus -100451-04-12 14:23 J -34968203.12 -34968202.90 -34968202.68 0.0089 0.0004

Venus -100451-11-24 03:06 J -34967977.58 -34967977.37 -34967977.15 0.0089 0.0014

Venus -100450-07-07 16:04 J -34967752.04 -34967751.83 -34967751.62 0.0089 0.0023

Venus -100449-02-18 04:33 J -34967526.50 -34967526.31 -34967526.09 0.0089 0.0033

Venus -100449-09-30 17:30 J -34967300.95 -34967300.77 -34967300.56 0.0089 0.0043

Venus -100448-05-14 06:42 J -34967075.39 -34967075.22 -34967075.04 0.0089 0.0052

Venus -100448-12-25 19:25 J -34966849.83 -34966849.69 -34966849.52 0.0089 0.0062

Venus -100447-08-08 08:09 J -34966624.27 -34966624.16 -34966624.01 0.0089 0.0072

Venus -100446-03-21 21:21 J -34966398.68 -34966398.61 -34966398.51 0.0089 0.0081

Moon -100427-02-10 04:18 J -34959498.47 -34959498.32 -34959498.14 0.0089 0.0068

Earth -100427-02-10 04:33 J -34959498.44 -34959498.31 -34959498.12 0.0089 0.0072 *

Moon -100426-02-12 18:28 J -34959130.95 -34959130.73 -34959130.47 0.0089 0.0042

Earth -100426-02-12 19:40 J -34959130.90 -34959130.68 -34959130.42 0.0089 0.0038 *
 Earth -100425-02-15 11:01 J -34958763.30 -34958763.04 -34958762.77 0.0089 0.0004
 Moon -100425-02-15 12:42 J -34958763.22 -34958762.97 -34958762.71 0.0089 0.0001 *
 Moon -100424-02-16 23:01 J -34958395.78 -34958395.54 -34958395.26 0.0089 0.0027
 Earth -100424-02-17 01:54 J -34958395.66 -34958395.42 -34958395.16 0.0089 0.0030 *
 Earth -100423-02-19 16:47 J -34958027.96 -34958027.80 -34958027.59 0.0089 0.0064
 Moon -100423-02-19 20:37 J -34958027.80 -34958027.64 -34958027.45 0.0089 0.0067 *
 Mars -100415-07-01 22:47 J -34954973.69 -34954973.55 -34954973.38 0.0089 0.0076
 Mars -100413-05-26 11:45 J -34954279.30 -34954279.01 -34954278.70 0.0089 0.0020
 Mars -100411-04-20 21:21 J -34953584.87 -34953584.61 -34953584.31 0.0089 0.0037
 Mercury -100384-12-04 16:47 J -34943494.83 -34943494.80 -34943494.77 0.0089 0.0087
 Mercury -100383-03-02 19:11 J -34943406.75 -34943406.70 -34943406.63 0.0089 0.0082
 Mercury -100383-05-29 21:49 J -34943318.67 -34943318.59 -34943318.51 0.0089 0.0077
 Mercury -100383-08-26 00:13 J -34943230.58 -34943230.49 -34943230.39 0.0089 0.0072
 Mercury -100383-11-22 02:37 J -34943142.49 -34943142.39 -34943142.28 0.0088 0.0067
 Mercury -100382-02-18 05:16 J -34943054.40 -34943054.28 -34943054.16 0.0088 0.0062
 Mercury -100382-05-17 07:40 J -34942966.30 -34942966.18 -34942966.05 0.0088 0.0057
 Mercury -100382-08-13 09:49 J -34942878.21 -34942878.09 -34942877.94 0.0088 0.0052
 Mercury -100382-11-09 12:13 J -34942790.12 -34942789.99 -34942789.84 0.0088 0.0048
 Mercury -100381-02-05 14:37 J -34942702.02 -34942701.89 -34942701.73 0.0088 0.0043
 Mercury -100381-05-03 17:16 J -34942613.92 -34942613.78 -34942613.63 0.0088 0.0037
 Mercury -100381-07-30 19:40 J -34942525.83 -34942525.68 -34942525.52 0.0088 0.0032
 Mercury -100381-10-26 22:04 J -34942437.73 -34942437.58 -34942437.42 0.0088 0.0028
 Mercury -100380-01-23 00:28 J -34942349.64 -34942349.48 -34942349.32 0.0088 0.0023
 Mercury -100380-04-21 02:52 J -34942261.54 -34942261.38 -34942261.22 0.0088 0.0018
 Mercury -100380-07-18 05:16 J -34942173.44 -34942173.28 -34942173.12 0.0088 0.0013
 Mercury -100380-10-14 07:25 J -34942085.35 -34942085.19 -34942085.02 0.0088 0.0009
 Mercury -100379-01-10 09:49 J -34941997.25 -34941997.09 -34941996.92 0.0088 0.0004
 Mercury -100379-04-08 12:13 J -34941909.15 -34941908.99 -34941908.83 0.0088 0.0002
 Mercury -100379-07-05 14:37 J -34941821.06 -34941820.89 -34941820.73 0.0088 0.0007

Mercury -100379-10-01 16:47 J -34941732.96 -34941732.80 -34941732.64 0.0088 0.0011

Mercury -100379-12-28 19:11 J -34941644.86 -34941644.70 -34941644.54 0.0088 0.0016

Mercury -100378-03-26 21:21 J -34941556.76 -34941556.61 -34941556.45 0.0088 0.0021

Mercury -100378-06-22 23:30 J -34941468.67 -34941468.52 -34941468.36 0.0088 0.0025

Mercury -100378-09-19 01:54 J -34941380.57 -34941380.42 -34941380.27 0.0088 0.0030

Mercury -100378-12-16 04:04 J -34941292.47 -34941292.33 -34941292.18 0.0088 0.0035

Mercury -100377-03-13 06:13 J -34941204.38 -34941204.24 -34941204.09 0.0088 0.0039

Mercury -100377-06-09 08:37 J -34941116.28 -34941116.14 -34941116.00 0.0088 0.0044

Mercury -100377-09-05 10:33 J -34941028.18 -34941028.06 -34941027.92 0.0088 0.0049

Mercury -100377-12-02 12:42 J -34940940.08 -34940939.97 -34940939.83 0.0088 0.0053

Mercury -100376-02-28 15:06 J -34940851.98 -34940851.87 -34940851.74 0.0088 0.0058

Mercury -100376-05-27 17:01 J -34940763.89 -34940763.79 -34940763.66 0.0088 0.0063

Mercury -100376-08-23 19:25 J -34940675.79 -34940675.69 -34940675.58 0.0088 0.0067

Mercury -100376-11-19 21:21 J -34940587.69 -34940587.61 -34940587.50 0.0088 0.0072

Mercury -100375-02-15 23:45 J -34940499.58 -34940499.51 -34940499.42 0.0088 0.0076

Mercury -100375-05-15 01:40 J -34940411.48 -34940411.43 -34940411.35 0.0088 0.0080

Mercury -100375-08-11 03:49 J -34940323.37 -34940323.34 -34940323.28 0.0088 0.0085

Venus -100375-11-11 10:33 J -34940231.13 -34940231.06 -34940230.96 0.0088 0.0082

Venus -100374-06-25 00:13 J -34940005.62 -34940005.49 -34940005.36 0.0088 0.0072

Venus -100373-02-05 13:11 J -34939780.09 -34939779.95 -34939779.78 0.0088 0.0062

Venus -100373-09-18 02:37 J -34939554.56 -34939554.39 -34939554.20 0.0088 0.0053

Venus -100372-05-01 16:04 J -34939329.02 -34939328.83 -34939328.63 0.0088 0.0043

Venus -100372-12-13 05:01 J -34939103.48 -34939103.29 -34939103.07 0.0088 0.0034

Venus -100371-07-26 18:28 J -34938877.94 -34938877.73 -34938877.51 0.0088 0.0024

Venus -100370-03-09 07:54 J -34938652.39 -34938652.17 -34938651.95 0.0088 0.0014

Venus -100370-10-20 21:06 J -34938426.84 -34938426.62 -34938426.40 0.0088 0.0004

Venus -100369-06-02 10:04 J -34938201.30 -34938201.08 -34938200.85 0.0088 0.0006

Venus -100368-01-13 23:16 J -34937975.75 -34937975.53 -34937975.31 0.0088 0.0015

Venus -100368-08-27 11:59 J -34937750.20 -34937750.00 -34937749.77 0.0088 0.0026

Venus -100367-04-10 01:25 J -34937524.64 -34937524.44 -34937524.23 0.0088 0.0035

Venus -100367-11-21 14:23 J -34937299.08 -34937298.90 -34937298.70 0.0088 0.0045
 Venus -100366-07-05 03:06 J -34937073.52 -34937073.37 -34937073.18 0.0088 0.0055
 Venus -100365-02-15 16:18 J -34936847.96 -34936847.82 -34936847.66 0.0088 0.0064
 Venus -100365-09-28 05:01 J -34936622.39 -34936622.29 -34936622.15 0.0088 0.0073
 Venus -100364-05-11 18:13 J -34936396.80 -34936396.74 -34936396.65 0.0088 0.0083
 Earth -100345-08-19 05:16 J -34929357.43 -34929357.28 -34929357.08 0.0088 0.0063
 Moon -100345-08-19 08:37 J -34929357.29 -34929357.14 -34929356.94 0.0088 0.0064 *
 Moon -100344-08-21 11:16 J -34928990.25 -34928990.03 -34928989.80 0.0088 0.0033
 Earth -100344-08-21 13:40 J -34928990.14 -34928989.93 -34928989.67 0.0088 0.0033 *
 Earth -100343-08-23 22:18 J -34928622.82 -34928622.57 -34928622.32 0.0088 0.0001
 Moon -100343-08-23 23:59 J -34928622.76 -34928622.50 -34928622.25 0.0088 0.0001 *
 Moon -100342-08-26 05:30 J -34928255.49 -34928255.27 -34928255.03 0.0088 0.0030
 Earth -100342-08-26 06:13 J -34928255.46 -34928255.24 -34928254.99 0.0088 0.0031 *
 Moon -100341-08-27 13:40 J -34927888.11 -34927887.93 -34927887.74 0.0088 0.0062
 Earth -100341-08-27 14:09 J -34927888.07 -34927887.91 -34927887.71 0.0088 0.0062 *
 Mars -100331-02-11 09:35 J -34924433.35 -34924433.10 -34924432.80 0.0088 0.0047
 Mars -100329-01-07 14:09 J -34923738.22 -34923737.91 -34923737.58 0.0088 0.0013
 Mars -100328-12-02 21:35 J -34923042.77 -34923042.60 -34923042.39 0.0088 0.0072
 Mercury -100301-02-23 14:52 J -34913463.91 -34913463.88 -34913463.84 0.0089 0.0086
 Mercury -100301-05-21 16:33 J -34913375.85 -34913375.81 -34913375.74 0.0089 0.0082
 Mercury -100301-08-17 18:28 J -34913287.79 -34913287.73 -34913287.65 0.0089 0.0078
 Mercury -100301-11-13 20:09 J -34913199.72 -34913199.66 -34913199.56 0.0089 0.0074
 Mercury -100300-02-09 22:18 J -34913111.66 -34913111.57 -34913111.47 0.0089 0.0069
 Mercury -100300-05-09 00:13 J -34913023.58 -34913023.49 -34913023.38 0.0089 0.0065
 Mercury -100300-08-05 01:54 J -34912935.51 -34912935.42 -34912935.30 0.0089 0.0061
 Mercury -100300-11-01 04:04 J -34912847.44 -34912847.33 -34912847.21 0.0089 0.0056
 Mercury -100299-01-28 05:59 J -34912759.37 -34912759.25 -34912759.12 0.0089 0.0052
 Mercury -100299-04-26 07:40 J -34912671.29 -34912671.18 -34912671.04 0.0089 0.0048
 Mercury -100299-07-23 09:49 J -34912583.21 -34912583.09 -34912582.95 0.0089 0.0043
 Mercury -100299-10-19 11:45 J -34912495.14 -34912495.01 -34912494.86 0.0089 0.0039

Mercury -100298-01-15 13:54 J -34912407.06 -34912406.92 -34912406.78 0.0089 0.0034

Mercury -100298-04-13 15:49 J -34912318.98 -34912318.84 -34912318.69 0.0089 0.0030

Mercury -100298-07-10 17:45 J -34912230.90 -34912230.76 -34912230.61 0.0089 0.0025

Mercury -100298-10-06 19:40 J -34912142.82 -34912142.68 -34912142.52 0.0089 0.0021

Mercury -100297-01-02 21:49 J -34912054.74 -34912054.59 -34912054.44 0.0089 0.0016

Mercury -100297-03-30 23:45 J -34911966.66 -34911966.51 -34911966.35 0.0089 0.0012

Mercury -100297-06-27 01:54 J -34911878.57 -34911878.42 -34911878.27 0.0089 0.0007

Mercury -100297-09-23 03:49 J -34911790.49 -34911790.34 -34911790.18 0.0089 0.0003

Mercury -100297-12-20 05:59 J -34911702.41 -34911702.25 -34911702.10 0.0089 0.0002

Mercury -100296-03-18 07:54 J -34911614.32 -34911614.17 -34911614.01 0.0089 0.0007

Mercury -100296-06-14 09:49 J -34911526.24 -34911526.09 -34911525.93 0.0089 0.0012

Mercury -100296-09-10 11:59 J -34911438.15 -34911438.00 -34911437.84 0.0089 0.0016

Mercury -100296-12-07 14:09 J -34911350.06 -34911349.91 -34911349.76 0.0089 0.0021

Mercury -100295-03-05 16:18 J -34911261.97 -34911261.82 -34911261.67 0.0089 0.0025

Mercury -100295-06-01 18:13 J -34911173.88 -34911173.74 -34911173.59 0.0089 0.0030

Mercury -100295-08-28 20:09 J -34911085.79 -34911085.66 -34911085.51 0.0089 0.0035

Mercury -100295-11-24 22:33 J -34910997.70 -34910997.56 -34910997.42 0.0089 0.0039

Mercury -100294-02-21 00:28 J -34910909.61 -34910909.48 -34910909.34 0.0089 0.0044

Mercury -100294-05-20 02:37 J -34910821.51 -34910821.39 -34910821.25 0.0089 0.0049

Mercury -100294-08-16 04:33 J -34910733.42 -34910733.31 -34910733.17 0.0089 0.0054

Mercury -100294-11-12 06:57 J -34910645.32 -34910645.21 -34910645.09 0.0089 0.0058

Mercury -100293-02-08 09:06 J -34910557.22 -34910557.12 -34910557.01 0.0089 0.0063

Mercury -100293-05-06 11:01 J -34910469.13 -34910469.04 -34910468.92 0.0089 0.0068

Mercury -100293-08-02 13:11 J -34910381.02 -34910380.95 -34910380.84 0.0089 0.0073

Mercury -100293-10-29 15:49 J -34910292.92 -34910292.84 -34910292.77 0.0089 0.0077

Venus -100293-12-23 04:04 J -34910238.37 -34910238.33 -34910238.27 0.0089 0.0086

Mercury -100292-01-25 17:45 J -34910204.81 -34910204.76 -34910204.69 0.0089 0.0082

Mercury -100292-04-23 19:54 J -34910116.69 -34910116.67 -34910116.63 0.0089 0.0087

Venus -100292-08-05 16:18 J -34910012.91 -34910012.82 -34910012.69 0.0089 0.0077

Venus -100291-03-19 05:01 J -34909787.42 -34909787.29 -34909787.14 0.0089 0.0067

Venus	-100291-10-30 17:30 J	-34909561.92	-34909561.77	-34909561.59	0.0089	0.0058
Venus	-100290-06-13 06:13 J	-34909336.41	-34909336.24	-34909336.04	0.0089	0.0048
Venus	-100289-01-24 19:11 J	-34909110.90	-34909110.70	-34909110.50	0.0089	0.0038
Venus	-100289-09-06 07:40 J	-34908885.38	-34908885.18	-34908884.96	0.0089	0.0029
Venus	-100288-04-19 20:37 J	-34908659.85	-34908659.64	-34908659.43	0.0089	0.0019
Jupiter	-100288-08-16 04:04 J	-34908541.88	-34908541.33	-34908540.77	0.0089	0.0010
Venus	-100288-12-01 09:21 J	-34908434.32	-34908434.11	-34908433.89	0.0089	0.0009
Venus	-100287-07-14 22:04 J	-34908208.79	-34908208.58	-34908208.36	0.0089	0.0002
Venus	-100286-02-25 10:47 J	-34907983.26	-34907983.05	-34907982.82	0.0089	0.0011
Venus	-100286-10-08 23:59 J	-34907757.71	-34907757.50	-34907757.29	0.0089	0.0020
Venus	-100285-05-21 12:42 J	-34907532.17	-34907531.97	-34907531.76	0.0089	0.0030
Venus	-100284-01-02 01:25 J	-34907306.63	-34907306.44	-34907306.24	0.0089	0.0040
Venus	-100284-08-15 14:09 J	-34907081.08	-34907080.91	-34907080.71	0.0089	0.0050
Venus	-100283-03-29 02:52 J	-34906855.52	-34906855.38	-34906855.19	0.0089	0.0060
Venus	-100283-11-09 16:18 J	-34906629.95	-34906629.82	-34906629.67	0.0089	0.0069
Venus	-100282-06-23 05:01 J	-34906404.37	-34906404.29	-34906404.17	0.0089	0.0079
Venus	-100281-02-03 18:13 J	-34906178.74	-34906178.74	-34906178.71	0.0089	0.0089
Earth	-100262-02-11 20:52 J	-34899230.81	-34899230.63	-34899230.41	0.0089	0.0057
Moon	-100262-02-11 23:59 J	-34899230.70	-34899230.50	-34899230.29	0.0089	0.0054 *
Moon	-100261-02-14 08:37 J	-34898863.39	-34898863.14	-34898862.88	0.0089	0.0025
Earth	-100261-02-14 12:13 J	-34898863.24	-34898862.99	-34898862.73	0.0089	0.0023 *
Earth	-100260-02-16 03:06 J	-34898495.63	-34898495.37	-34898495.10	0.0089	0.0011
Moon	-100260-02-16 06:42 J	-34898495.47	-34898495.22	-34898494.95	0.0089	0.0014 *
Moon	-100259-02-18 14:23 J	-34898128.12	-34898127.90	-34898127.65	0.0089	0.0041
Earth	-100259-02-18 18:13 J	-34898127.96	-34898127.74	-34898127.50	0.0089	0.0044 *
Earth	-100258-02-21 08:52 J	-34897760.23	-34897760.13	-34897759.98	0.0089	0.0078
Moon	-100258-02-21 11:59 J	-34897760.09	-34897760.00	-34897759.87	0.0089	0.0081 *
Mars	-100249-01-09 00:42 J	-34894516.71	-34894516.47	-34894516.19	0.0089	0.0048
Mars	-100248-12-03 13:25 J	-34893822.24	-34893821.94	-34893821.63	0.0089	0.0010
Mars	-100246-10-28 22:47 J	-34893127.73	-34893127.55	-34893127.32	0.0089	0.0066

Mercury -100219-08-31 14:23 J -34883323.93 -34883323.90 -34883323.87 0.0089 0.0087

Mercury -100219-11-27 16:47 J -34883235.85 -34883235.80 -34883235.73 0.0089 0.0082

Mercury -100218-02-23 19:25 J -34883147.77 -34883147.69 -34883147.61 0.0089 0.0077

Mercury -100218-05-22 21:49 J -34883059.68 -34883059.59 -34883059.49 0.0088 0.0072

Mercury -100218-08-19 00:13 J -34882971.59 -34882971.49 -34882971.37 0.0088 0.0067

Mercury -100218-11-15 02:52 J -34882883.50 -34882883.38 -34882883.26 0.0088 0.0062

Mercury -100217-02-11 05:16 J -34882795.40 -34882795.28 -34882795.15 0.0088 0.0057

Mercury -100217-05-09 07:25 J -34882707.31 -34882707.19 -34882707.04 0.0088 0.0053

Mercury -100217-08-05 09:49 J -34882619.21 -34882619.09 -34882618.93 0.0088 0.0048

Mercury -100217-11-01 12:28 J -34882531.12 -34882530.98 -34882530.83 0.0088 0.0042

Mercury -100216-01-28 14:52 J -34882443.02 -34882442.88 -34882442.72 0.0088 0.0037

Mercury -100216-04-26 17:16 J -34882354.93 -34882354.78 -34882354.62 0.0088 0.0033

Mercury -100216-07-23 19:40 J -34882266.83 -34882266.68 -34882266.52 0.0088 0.0028

Mercury -100216-10-19 22:04 J -34882178.73 -34882178.58 -34882178.42 0.0088 0.0023

Mercury -100215-01-16 00:28 J -34882090.64 -34882090.48 -34882090.31 0.0088 0.0018

Mercury -100215-04-14 02:52 J -34882002.54 -34882002.38 -34882002.21 0.0088 0.0013

Mercury -100215-07-11 05:16 J -34881914.44 -34881914.28 -34881914.12 0.0088 0.0008

Mercury -100215-10-07 07:40 J -34881826.34 -34881826.18 -34881826.02 0.0088 0.0003

Mercury -100214-01-03 09:49 J -34881738.25 -34881738.09 -34881737.92 0.0088 0.0003

Mercury -100214-04-01 12:13 J -34881650.15 -34881649.99 -34881649.83 0.0088 0.0006

Mercury -100214-06-28 14:23 J -34881562.05 -34881561.90 -34881561.73 0.0088 0.0012

Mercury -100214-09-24 16:47 J -34881473.96 -34881473.80 -34881473.64 0.0088 0.0016

Mercury -100214-12-21 18:57 J -34881385.86 -34881385.71 -34881385.55 0.0088 0.0021

Mercury -100213-03-18 21:21 J -34881297.76 -34881297.61 -34881297.45 0.0088 0.0025

Mercury -100213-06-14 23:45 J -34881209.66 -34881209.51 -34881209.36 0.0088 0.0030

Mercury -100213-09-11 01:54 J -34881121.57 -34881121.42 -34881121.27 0.0088 0.0034

Mercury -100213-12-08 03:49 J -34881033.47 -34881033.34 -34881033.18 0.0088 0.0040

Mercury -100212-03-06 06:28 J -34880945.37 -34880945.23 -34880945.09 0.0088 0.0044

Mercury -100212-06-02 08:23 J -34880857.27 -34880857.15 -34880857.01 0.0088 0.0049

Mercury -100212-08-29 10:33 J -34880769.17 -34880769.06 -34880768.92 0.0088 0.0053

Mercury -100212-11-25 12:57 J -34880681.08 -34880680.96 -34880680.84 0.0088 0.0058

Mercury -100211-02-21 14:52 J -34880592.98 -34880592.88 -34880592.75 0.0088 0.0063

Mercury -100211-05-20 17:16 J -34880504.88 -34880504.78 -34880504.67 0.0088 0.0067

Mercury -100211-08-16 19:11 J -34880416.78 -34880416.70 -34880416.59 0.0088 0.0072

Mercury -100211-11-12 21:35 J -34880328.67 -34880328.60 -34880328.51 0.0088 0.0076

Mercury -100210-02-08 23:30 J -34880240.57 -34880240.52 -34880240.44 0.0088 0.0080

Venus -100210-02-12 16:33 J -34880236.85 -34880236.81 -34880236.74 0.0088 0.0086

Mercury -100210-05-08 01:40 J -34880152.46 -34880152.43 -34880152.37 0.0088 0.0085

Venus -100210-09-26 06:13 J -34880011.35 -34880011.24 -34880011.12 0.0088 0.0076

Venus -100209-05-08 19:11 J -34879785.82 -34879785.70 -34879785.52 0.0088 0.0067

Venus -100209-12-20 08:52 J -34879560.28 -34879560.13 -34879559.94 0.0088 0.0056

Venus -100208-08-02 22:18 J -34879334.75 -34879334.57 -34879334.37 0.0088 0.0047

Venus -100207-03-16 11:45 J -34879109.20 -34879109.01 -34879108.80 0.0088 0.0037

Venus -100207-10-28 01:11 J -34878883.66 -34878883.45 -34878883.23 0.0088 0.0027

Venus -100206-06-10 14:23 J -34878658.11 -34878657.90 -34878657.68 0.0088 0.0017

Venus -100205-01-22 03:35 J -34878432.57 -34878432.35 -34878432.12 0.0088 0.0007

Venus -100205-09-03 16:47 J -34878207.02 -34878206.80 -34878206.58 0.0088 0.0003

Venus -100204-04-17 05:59 J -34877981.46 -34877981.25 -34877981.03 0.0088 0.0013

Venus -100204-11-28 18:57 J -34877755.91 -34877755.71 -34877755.48 0.0088 0.0023

Venus -100203-07-12 07:54 J -34877530.36 -34877530.17 -34877529.95 0.0088 0.0032

Venus -100202-02-22 21:06 J -34877304.81 -34877304.62 -34877304.42 0.0088 0.0042

Venus -100202-10-06 09:49 J -34877079.25 -34877079.09 -34877078.89 0.0088 0.0052

Venus -100201-05-18 22:47 J -34876853.68 -34876853.55 -34876853.37 0.0088 0.0062

Venus -100201-12-30 11:59 J -34876628.12 -34876628.00 -34876627.85 0.0088 0.0071

Venus -100200-08-13 00:42 J -34876402.54 -34876402.47 -34876402.35 0.0088 0.0081

Moon -100181-08-18 09:35 J -34869457.15 -34869457.10 -34869457.04 0.0088 0.0086

Earth -100181-08-18 11:16 J -34869457.10 -34869457.03 -34869456.91 0.0088 0.0082 *

Earth -100180-08-20 19:40 J -34869089.87 -34869089.68 -34869089.45 0.0088 0.0051

Moon -100180-08-20 21:21 J -34869089.82 -34869089.61 -34869089.38 0.0088 0.0046 *

Earth -100179-08-23 04:18 J -34868722.56 -34868722.32 -34868722.07 0.0088 0.0019

Moon -100179-08-23 04:47 J -34868722.53 -34868722.30 -34868722.06 0.0088 0.0024 *
 Moon -100178-08-25 11:01 J -34868355.29 -34868355.04 -34868354.78 0.0088 0.0016
 Earth -100178-08-25 12:42 J -34868355.21 -34868354.97 -34868354.72 0.0088 0.0012 *
 Earth -100177-08-26 20:23 J -34867987.85 -34867987.65 -34867987.41 0.0088 0.0044
 Moon -100177-08-26 23:01 J -34867987.75 -34867987.54 -34867987.31 0.0088 0.0039 *
 Moon -100176-08-29 00:57 J -34867620.55 -34867620.46 -34867620.32 0.0088 0.0079
 Earth -100176-08-29 05:01 J -34867620.43 -34867620.29 -34867620.15 0.0088 0.0074 *
 Mars -100168-09-25 06:13 J -34864671.37 -34864671.24 -34864671.04 0.0088 0.0076
 Mars -100166-08-21 09:49 J -34863976.40 -34863976.09 -34863975.77 0.0088 0.0017
 Mars -100164-07-16 14:23 J -34863281.17 -34863280.90 -34863280.60 0.0088 0.0043
 Mercury -100137-11-19 12:57 J -34853292.98 -34853292.96 -34853292.91 0.0089 0.0086
 Mercury -100136-02-15 14:52 J -34853204.93 -34853204.88 -34853204.82 0.0089 0.0082
 Mercury -100136-05-14 16:33 J -34853116.86 -34853116.81 -34853116.72 0.0089 0.0078
 Mercury -100136-08-10 18:42 J -34853028.80 -34853028.72 -34853028.63 0.0089 0.0073
 Mercury -100136-11-06 20:37 J -34852940.73 -34852940.64 -34852940.54 0.0089 0.0069
 Mercury -100135-02-02 22:18 J -34852852.66 -34852852.57 -34852852.46 0.0089 0.0065
 Mercury -100135-05-02 00:28 J -34852764.59 -34852764.48 -34852764.37 0.0089 0.0060
 Mercury -100135-07-29 02:23 J -34852676.51 -34852676.40 -34852676.28 0.0089 0.0056
 Mercury -100135-10-25 04:04 J -34852588.44 -34852588.33 -34852588.20 0.0089 0.0052
 Mercury -100134-01-21 06:13 J -34852500.36 -34852500.24 -34852500.11 0.0089 0.0047
 Mercury -100134-04-19 08:09 J -34852412.29 -34852412.16 -34852412.02 0.0089 0.0043
 Mercury -100134-07-16 09:49 J -34852324.21 -34852324.09 -34852323.94 0.0089 0.0039
 Mercury -100134-10-12 11:59 J -34852236.13 -34852236.00 -34852235.85 0.0089 0.0034
 Mercury -100133-01-08 13:54 J -34852148.05 -34852147.92 -34852147.77 0.0089 0.0030
 Mercury -100133-04-05 16:04 J -34852059.97 -34852059.83 -34852059.68 0.0089 0.0025
 Mercury -100133-07-02 17:59 J -34851971.89 -34851971.75 -34851971.60 0.0089 0.0020
 Mercury -100133-09-28 19:54 J -34851883.81 -34851883.67 -34851883.51 0.0089 0.0016
 Mercury -100133-12-25 22:04 J -34851795.73 -34851795.58 -34851795.43 0.0089 0.0011
 Mercury -100132-03-23 23:59 J -34851707.65 -34851707.50 -34851707.34 0.0089 0.0007
 Mercury -100132-06-20 02:09 J -34851619.57 -34851619.41 -34851619.26 0.0089 0.0002

Mercury -100132-09-16 04:04 J -34851531.48 -34851531.33 -34851531.17 0.0089 0.0003

Mercury -100132-12-13 06:13 J -34851443.40 -34851443.24 -34851443.09 0.0089 0.0007

Mercury -100131-03-11 08:09 J -34851355.31 -34851355.16 -34851355.00 0.0089 0.0012

Mercury -100131-06-07 10:18 J -34851267.22 -34851267.07 -34851266.92 0.0089 0.0016

Mercury -100131-09-03 12:13 J -34851179.14 -34851178.99 -34851178.83 0.0089 0.0021

Mercury -100131-11-30 14:23 J -34851091.05 -34851090.90 -34851090.75 0.0089 0.0026

Mercury -100130-02-26 16:33 J -34851002.96 -34851002.81 -34851002.67 0.0089 0.0030

Mercury -100130-05-25 18:28 J -34850914.87 -34850914.73 -34850914.58 0.0089 0.0035

Mercury -100130-08-21 20:37 J -34850826.78 -34850826.64 -34850826.50 0.0089 0.0040

Mercury -100130-11-17 22:33 J -34850738.68 -34850738.56 -34850738.41 0.0089 0.0045

Mercury -100129-02-14 00:57 J -34850650.59 -34850650.46 -34850650.33 0.0089 0.0049

Mercury -100129-05-12 02:52 J -34850562.49 -34850562.38 -34850562.25 0.0089 0.0054

Mercury -100129-08-08 05:01 J -34850474.40 -34850474.29 -34850474.16 0.0089 0.0059

Mercury -100129-11-04 06:57 J -34850386.30 -34850386.21 -34850386.08 0.0089 0.0064

Mercury -100128-01-31 09:21 J -34850298.20 -34850298.11 -34850298.00 0.0089 0.0068

Mercury -100128-04-29 11:30 J -34850210.10 -34850210.02 -34850209.92 0.0089 0.0073

Mercury -100128-07-26 13:40 J -34850121.99 -34850121.93 -34850121.85 0.0089 0.0078

Mercury -100128-10-22 15:35 J -34850033.88 -34850033.85 -34850033.77 0.0089 0.0083

Venus -100128-11-07 00:42 J -34850018.55 -34850018.47 -34850018.36 0.0089 0.0080

Mercury -100127-01-18 18:13 J -34849945.76 -34849945.74 -34849945.71 0.0089 0.0087

Venus -100127-06-20 12:57 J -34849793.07 -34849792.96 -34849792.81 0.0089 0.0071

Venus -100126-02-01 01:40 J -34849567.57 -34849567.43 -34849567.26 0.0089 0.0061

Venus -100126-09-14 14:37 J -34849342.07 -34849341.89 -34849341.71 0.0089 0.0051

Venus -100125-04-27 02:52 J -34849116.56 -34849116.38 -34849116.17 0.0089 0.0042

Venus -100125-12-08 15:35 J -34848891.04 -34848890.85 -34848890.64 0.0089 0.0032

Venus -100124-07-22 04:18 J -34848665.52 -34848665.32 -34848665.10 0.0089 0.0022

Venus -100123-03-04 17:16 J -34848440.00 -34848439.78 -34848439.56 0.0089 0.0012

Venus -100123-10-16 06:13 J -34848214.46 -34848214.24 -34848214.02 0.0089 0.0003

Venus -100122-05-29 18:57 J -34847988.93 -34847988.71 -34847988.49 0.0089 0.0008

Venus -100121-01-10 07:25 J -34847763.39 -34847763.19 -34847762.96 0.0089 0.0018

Venus -100121-08-22 20:37 J -34847537.85 -34847537.64 -34847537.44 0.0089 0.0027

Venus -100120-04-05 09:21 J -34847312.30 -34847312.11 -34847311.91 0.0089 0.0037

Venus -100120-11-16 22:18 J -34847086.75 -34847086.57 -34847086.38 0.0089 0.0047

Venus -100119-06-30 11:01 J -34846861.19 -34846861.04 -34846860.86 0.0089 0.0057

Venus -100118-02-10 23:45 J -34846635.63 -34846635.51 -34846635.35 0.0089 0.0067

Venus -100118-09-24 12:42 J -34846410.06 -34846409.97 -34846409.84 0.0089 0.0077

Venus -100117-05-07 01:40 J -34846184.45 -34846184.43 -34846184.36 0.0089 0.0087

Moon -100098-02-10 18:13 J -34839330.86 -34839330.74 -34839330.55 0.0089 0.0072

Earth -100098-02-10 22:04 J -34839330.69 -34839330.58 -34839330.42 0.0089 0.0076 *

Earth -100097-02-13 13:25 J -34838963.17 -34838962.94 -34838962.71 0.0089 0.0042

Moon -100097-02-13 16:47 J -34838963.01 -34838962.80 -34838962.56 0.0089 0.0047 *

Moon -100096-02-15 01:25 J -34838595.69 -34838595.44 -34838595.18 0.0089 0.0005

Earth -100096-02-15 04:18 J -34838595.58 -34838595.32 -34838595.05 0.0089 0.0009 *

Earth -100095-02-17 19:11 J -34838227.95 -34838227.70 -34838227.44 0.0089 0.0025

Moon -100095-02-17 21:49 J -34838227.84 -34838227.59 -34838227.32 0.0089 0.0022 *

Moon -100094-02-20 08:37 J -34837860.29 -34837860.14 -34837859.93 0.0089 0.0063

Earth -100094-02-20 09:49 J -34837860.26 -34837860.09 -34837859.86 0.0089 0.0059 *

Mars -100086-08-23 13:25 J -34834754.08 -34834753.94 -34834753.76 0.0089 0.0076

Mars -100084-07-18 02:52 J -34834059.68 -34834059.38 -34834059.08 0.0089 0.0018

Mars -100082-06-12 14:09 J -34833365.17 -34833364.91 -34833364.62 0.0089 0.0039

Mercury -100054-05-28 11:59 J -34823153.02 -34823153.00 -34823152.97 0.0088 0.0087

Mercury -100054-08-24 14:23 J -34823064.95 -34823064.90 -34823064.83 0.0088 0.0082

Mercury -100054-11-20 17:01 J -34822976.86 -34822976.79 -34822976.70 0.0088 0.0077

Mercury -100053-02-16 19:25 J -34822888.77 -34822888.69 -34822888.58 0.0088 0.0072

Mercury -100053-05-14 22:04 J -34822800.68 -34822800.58 -34822800.47 0.0088 0.0067

Mercury -100053-08-11 00:28 J -34822712.59 -34822712.48 -34822712.35 0.0088 0.0062

Mercury -100053-11-07 03:06 J -34822624.50 -34822624.37 -34822624.24 0.0088 0.0057

Mercury -100052-02-03 05:30 J -34822536.40 -34822536.27 -34822536.13 0.0088 0.0052

Mercury -100052-05-02 07:54 J -34822448.30 -34822448.17 -34822448.02 0.0088 0.0047

Mercury -100052-07-29 10:33 J -34822360.21 -34822360.06 -34822359.92 0.0088 0.0042

Mercury -100052-10-25 12:42 J -34822272.11 -34822271.97 -34822271.81 0.0088 0.0037

Mercury -100051-01-21 15:06 J -34822184.02 -34822183.87 -34822183.71 0.0088 0.0032

Mercury -100051-04-19 17:30 J -34822095.92 -34822095.77 -34822095.61 0.0088 0.0027

Mercury -100051-07-16 19:54 J -34822007.82 -34822007.67 -34822007.50 0.0088 0.0023

Mercury -100051-10-12 22:18 J -34821919.73 -34821919.57 -34821919.40 0.0088 0.0018

Mercury -100050-01-09 00:42 J -34821831.63 -34821831.47 -34821831.30 0.0088 0.0013

Mercury -100050-04-07 03:06 J -34821743.53 -34821743.37 -34821743.21 0.0088 0.0008

Mercury -100050-07-04 05:30 J -34821655.43 -34821655.27 -34821655.11 0.0088 0.0003

Mercury -100050-09-30 07:54 J -34821567.34 -34821567.17 -34821567.01 0.0088 0.0003

Mercury -100050-12-27 10:04 J -34821479.24 -34821479.08 -34821478.92 0.0088 0.0007

Mercury -100049-03-24 12:28 J -34821391.14 -34821390.98 -34821390.82 0.0088 0.0011

Mercury -100049-06-20 14:37 J -34821303.04 -34821302.89 -34821302.73 0.0088 0.0016

Mercury -100049-09-16 17:01 J -34821214.95 -34821214.79 -34821214.63 0.0088 0.0021

Mercury -100049-12-13 19:11 J -34821126.85 -34821126.70 -34821126.54 0.0088 0.0025

Mercury -100048-03-11 21:21 J -34821038.75 -34821038.61 -34821038.45 0.0088 0.0030

Mercury -100048-06-07 23:45 J -34820950.65 -34820950.51 -34820950.36 0.0088 0.0035

Mercury -100048-09-04 01:54 J -34820862.56 -34820862.42 -34820862.27 0.0088 0.0040

Mercury -100048-12-01 04:04 J -34820774.46 -34820774.33 -34820774.18 0.0088 0.0044

Mercury -100047-02-27 06:28 J -34820686.36 -34820686.23 -34820686.09 0.0088 0.0049

Mercury -100047-05-26 08:23 J -34820598.26 -34820598.15 -34820598.01 0.0088 0.0054

Mercury -100047-08-22 10:47 J -34820510.16 -34820510.05 -34820509.92 0.0088 0.0058

Mercury -100047-11-18 12:57 J -34820422.06 -34820421.96 -34820421.84 0.0088 0.0062

Mercury -100046-02-14 15:21 J -34820333.96 -34820333.86 -34820333.76 0.0088 0.0067

Mercury -100046-05-13 17:16 J -34820245.86 -34820245.78 -34820245.68 0.0088 0.0071

Mercury -100046-08-09 19:40 J -34820157.76 -34820157.68 -34820157.60 0.0088 0.0076

Mercury -100046-11-05 21:35 J -34820069.65 -34820069.60 -34820069.53 0.0088 0.0080

Venus -100046-12-28 12:28 J -34820017.06 -34820016.98 -34820016.88 0.0088 0.0080

Mercury -100045-02-01 23:45 J -34819981.54 -34819981.51 -34819981.46 0.0088 0.0085

Venus -100045-08-10 01:54 J -34819791.54 -34819791.42 -34819791.27 0.0088 0.0070

Venus -100044-03-23 15:35 J -34819566.01 -34819565.85 -34819565.68 0.0088 0.0060

Venus	-100044-11-04 04:47 J	-34819340.47	-34819340.30	-34819340.10	0.0088	0.0050
Venus	-100043-06-17 18:13 J	-34819114.93	-34819114.74	-34819114.53	0.0088	0.0040
Venus	-100042-01-29 07:25 J	-34818889.38	-34818889.19	-34818888.97	0.0088	0.0031
Venus	-100042-09-11 20:52 J	-34818663.84	-34818663.63	-34818663.41	0.0088	0.0020
Venus	-100041-04-24 10:18 J	-34818438.29	-34818438.07	-34818437.84	0.0088	0.0011
Venus	-100041-12-05 23:30 J	-34818212.74	-34818212.52	-34818212.29	0.0088	0.0002
Venus	-100040-07-19 12:42 J	-34817987.19	-34817986.97	-34817986.75	0.0088	0.0009
Venus	-100039-03-02 01:40 J	-34817761.64	-34817761.43	-34817761.20	0.0088	0.0019
Venus	-100039-10-13 14:37 J	-34817536.09	-34817535.89	-34817535.67	0.0088	0.0029
Venus	-100038-05-27 04:04 J	-34817310.53	-34817310.33	-34817310.13	0.0088	0.0039
Venus	-100037-01-07 16:47 J	-34817084.97	-34817084.80	-34817084.61	0.0088	0.0049
Venus	-100037-08-20 05:30 J	-34816859.41	-34816859.27	-34816859.08	0.0088	0.0059
Venus	-100036-04-02 18:57 J	-34816633.84	-34816633.71	-34816633.56	0.0088	0.0068
Venus	-100036-11-14 07:40 J	-34816408.27	-34816408.18	-34816408.06	0.0088	0.0078
Venus	-100035-06-27 20:23 J	-34816182.66	-34816182.65	-34816182.59	0.0088	0.0088
Earth	-100016-08-20 02:09 J	-34809189.55	-34809189.41	-34809189.23	0.0088	0.0069
Moon	-100016-08-20 02:52 J	-34809189.52	-34809189.38	-34809189.21	0.0088	0.0068 *
Moon	-100015-08-22 08:52 J	-34808822.35	-34808822.13	-34808821.89	0.0088	0.0039
Earth	-100015-08-22 10:47 J	-34808822.26	-34808822.05	-34808821.81	0.0088	0.0038 *
Earth	-100014-08-24 19:11 J	-34808454.94	-34808454.70	-34808454.44	0.0088	0.0007
Moon	-100014-08-24 22:33 J	-34808454.81	-34808454.56	-34808454.32	0.0088	0.0004 *
Moon	-100013-08-26 00:13 J	-34808087.73	-34808087.49	-34808087.24	0.0088	0.0024
Earth	-100013-08-26 03:21 J	-34808087.59	-34808087.36	-34808087.11	0.0088	0.0025 *
Earth	-100012-08-28 11:45 J	-34807720.21	-34807720.01	-34807719.82	0.0088	0.0056
Moon	-100012-08-28 15:06 J	-34807720.05	-34807719.87	-34807719.67	0.0088	0.0057 *
Moon	-100011-08-30 16:18 J	-34807352.85	-34807352.82	-34807352.72	0.0088	0.0086
Earth	-100011-08-30 19:25 J	-34807352.72	-34807352.69	-34807352.63	0.0088	0.0087 *
Mars	-100002-04-04 04:18 J	-34804214.56	-34804214.32	-34804214.02	0.0088	0.0047

100TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 100th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-100000-02-27 08:23 J	-34803519.46	-34803519.15	-34803518.82	0.0088	0.0014		
Mars	-99998-01-23 13:11 J	-34802824.10	-34802823.95	-34802823.74	0.0088	0.0074		
Mercury	-99972-08-16 11:16 J	-34793122.05	-34793122.03	-34793121.98	0.0089	0.0086		
Mercury	-99972-11-12 12:57 J	-34793034.00	-34793033.96	-34793033.89	0.0089	0.0082		
Mercury	-99971-02-08 15:06 J	-34792945.94	-34792945.87	-34792945.79	0.0089	0.0077		
Mercury	-99971-05-07 17:01 J	-34792857.87	-34792857.79	-34792857.70	0.0089	0.0073		
Mercury	-99971-08-03 18:42 J	-34792769.80	-34792769.72	-34792769.62	0.0089	0.0069		
Mercury	-99971-10-30 20:23 J	-34792681.73	-34792681.65	-34792681.53	0.0089	0.0065		
Mercury	-99970-01-26 22:33 J	-34792593.66	-34792593.56	-34792593.44	0.0089	0.0060		
Mercury	-99970-04-25 00:28 J	-34792505.59	-34792505.48	-34792505.36	0.0089	0.0056		
Mercury	-99970-07-22 02:09 J	-34792417.51	-34792417.41	-34792417.27	0.0089	0.0052		
Mercury	-99970-10-18 04:18 J	-34792329.44	-34792329.32	-34792329.19	0.0089	0.0047		
Mercury	-99969-01-14 06:13 J	-34792241.36	-34792241.24	-34792241.10	0.0089	0.0043		
Mercury	-99969-04-11 08:23 J	-34792153.29	-34792153.15	-34792153.01	0.0089	0.0038		
Mercury	-99969-07-08 10:04 J	-34792065.21	-34792065.08	-34792064.93	0.0089	0.0034		
Mercury	-99969-10-04 12:13 J	-34791977.13	-34791976.99	-34791976.84	0.0089	0.0029		
Mercury	-99969-12-31 14:09 J	-34791889.05	-34791888.91	-34791888.76	0.0089	0.0025		

Mercury -99968-03-29 16:18 J -34791800.97 -34791800.82 -34791800.67 0.0089 0.0020

Mercury -99968-06-25 18:13 J -34791712.89 -34791712.74 -34791712.59 0.0089 0.0016

Mercury -99968-09-21 20:09 J -34791624.81 -34791624.66 -34791624.51 0.0089 0.0011

Mercury -99968-12-18 22:18 J -34791536.73 -34791536.57 -34791536.42 0.0089 0.0007

Mercury -99967-03-17 00:13 J -34791448.64 -34791448.49 -34791448.34 0.0089 0.0002

Mercury -99967-06-13 02:09 J -34791360.56 -34791360.41 -34791360.25 0.0089 0.0004

Mercury -99967-09-09 04:18 J -34791272.47 -34791272.32 -34791272.17 0.0089 0.0007

Mercury -99967-12-06 06:13 J -34791184.39 -34791184.24 -34791184.08 0.0089 0.0012

Mercury -99966-03-04 08:09 J -34791096.30 -34791096.16 -34791096.00 0.0089 0.0017

Mercury -99966-05-31 10:18 J -34791008.21 -34791008.07 -34791007.91 0.0089 0.0021

Mercury -99966-08-27 12:28 J -34790920.13 -34790919.98 -34790919.83 0.0089 0.0026

Mercury -99966-11-23 14:23 J -34790832.04 -34790831.90 -34790831.75 0.0089 0.0031

Mercury -99965-02-19 16:33 J -34790743.95 -34790743.81 -34790743.66 0.0089 0.0035

Mercury -99965-05-17 18:42 J -34790655.86 -34790655.72 -34790655.58 0.0089 0.0040

Mercury -99965-08-13 20:37 J -34790567.76 -34790567.64 -34790567.49 0.0089 0.0045

Mercury -99965-11-09 23:01 J -34790479.67 -34790479.54 -34790479.41 0.0089 0.0049

Mercury -99964-02-06 00:57 J -34790391.58 -34790391.46 -34790391.33 0.0089 0.0054

Mercury -99964-05-05 03:06 J -34790303.48 -34790303.37 -34790303.25 0.0089 0.0059

Mercury -99964-08-01 05:01 J -34790215.38 -34790215.29 -34790215.17 0.0089 0.0064

Mercury -99964-10-28 07:40 J -34790127.28 -34790127.18 -34790127.08 0.0089 0.0068

Mercury -99963-01-24 09:35 J -34790039.18 -34790039.10 -34790039.01 0.0089 0.0073

Venus -99963-02-08 08:23 J -34790024.20 -34790024.15 -34790024.06 0.0089 0.0084

Mercury -99963-04-22 11:45 J -34789951.08 -34789951.01 -34789950.93 0.0089 0.0078

Mercury -99963-07-19 13:40 J -34789862.97 -34789862.93 -34789862.86 0.0089 0.0083

Venus -99963-09-21 21:06 J -34789798.72 -34789798.62 -34789798.49 0.0089 0.0074

Mercury -99963-10-15 15:49 J -34789774.84 -34789774.84 -34789774.80 0.0089 0.0088

Venus -99962-05-05 09:49 J -34789573.23 -34789573.09 -34789572.93 0.0089 0.0064

Venus -99962-12-16 22:04 J -34789347.73 -34789347.58 -34789347.39 0.0089 0.0055

Venus -99961-07-29 10:47 J -34789122.23 -34789122.05 -34789121.85 0.0089 0.0045

Venus -99960-03-11 23:30 J -34788896.71 -34788896.52 -34788896.32 0.0089 0.0035

Venus	-99960-10-23 12:28 J	-34788671.19	-34788670.98	-34788670.77	0.0089	0.0025
Venus	-99959-06-06 00:57 J	-34788445.67	-34788445.46	-34788445.24	0.0089	0.0016
Venus	-99958-01-17 13:40 J	-34788220.15	-34788219.93	-34788219.71	0.0089	0.0006
Venus	-99958-08-31 02:23 J	-34787994.61	-34787994.40	-34787994.18	0.0089	0.0005
Venus	-99957-04-12 15:21 J	-34787769.08	-34787768.86	-34787768.65	0.0089	0.0014
Venus	-99957-11-24 04:04 J	-34787543.54	-34787543.33	-34787543.12	0.0089	0.0024
Venus	-99956-07-07 17:01 J	-34787317.99	-34787317.79	-34787317.59	0.0089	0.0034
Venus	-99955-02-18 05:45 J	-34787092.44	-34787092.26	-34787092.06	0.0089	0.0044
Venus	-99955-10-01 18:42 J	-34786866.88	-34786866.72	-34786866.54	0.0089	0.0054
Venus	-99954-05-15 07:40 J	-34786641.32	-34786641.18	-34786641.02	0.0089	0.0064
Venus	-99954-12-26 20:37 J	-34786415.75	-34786415.64	-34786415.51	0.0089	0.0074
Venus	-99953-08-08 09:21 J	-34786190.16	-34786190.11	-34786190.02	0.0089	0.0084
Moon	-99933-02-12 11:45 J	-34779063.18	-34779063.01	-34779062.80	0.0089	0.0060
Earth	-99933-02-12 14:37 J	-34779063.07	-34779062.89	-34779062.69	0.0089	0.0061 *
Earth	-99932-02-14 05:01 J	-34778695.52	-34778695.29	-34778695.02	0.0089	0.0028
Moon	-99932-02-14 06:28 J	-34778695.48	-34778695.23	-34778694.97	0.0089	0.0029 *
Moon	-99931-02-16 19:54 J	-34778327.92	-34778327.67	-34778327.41	0.0089	0.0008
Earth	-99931-02-16 20:09 J	-34778327.92	-34778327.66	-34778327.39	0.0089	0.0006 *
Moon	-99930-02-19 10:18 J	-34777960.30	-34777960.07	-34777959.80	0.0089	0.0037
Earth	-99930-02-19 10:47 J	-34777960.26	-34777960.05	-34777959.79	0.0089	0.0040 *
Earth	-99929-02-22 02:09 J	-34777592.54	-34777592.41	-34777592.24	0.0089	0.0073
Moon	-99929-02-22 04:33 J	-34777592.44	-34777592.31	-34777592.17	0.0089	0.0075 *
Mars	-99920-03-01 15:49 J	-34774297.08	-34774296.84	-34774296.56	0.0089	0.0047
Mars	-99918-01-25 05:16 J	-34773602.57	-34773602.28	-34773601.96	0.0089	0.0012
Mars	-99917-12-19 16:04 J	-34772907.99	-34772907.83	-34772907.61	0.0089	0.0069
Mercury	-99889-02-22 09:35 J	-34762982.12	-34762982.10	-34762982.06	0.0088	0.0087
Mercury	-99889-05-20 12:13 J	-34762894.05	-34762893.99	-34762893.92	0.0088	0.0082
Mercury	-99889-08-16 14:37 J	-34762805.96	-34762805.89	-34762805.80	0.0088	0.0077
Mercury	-99889-11-12 17:16 J	-34762717.87	-34762717.78	-34762717.68	0.0088	0.0072
Mercury	-99888-02-08 19:40 J	-34762629.78	-34762629.68	-34762629.56	0.0088	0.0067

Mercury -99888-05-07 22:18 J -34762541.68 -34762541.57 -34762541.45 0.0088 0.0062

Mercury -99888-08-04 00:42 J -34762453.59 -34762453.47 -34762453.34 0.0088 0.0057

Mercury -99888-10-31 03:06 J -34762365.49 -34762365.37 -34762365.23 0.0088 0.0052

Mercury -99887-01-27 05:45 J -34762277.40 -34762277.26 -34762277.12 0.0088 0.0047

Mercury -99887-04-25 08:09 J -34762189.30 -34762189.16 -34762189.01 0.0088 0.0042

Mercury -99887-07-22 10:47 J -34762101.20 -34762101.05 -34762100.90 0.0088 0.0037

Mercury -99887-10-18 12:57 J -34762013.11 -34762012.96 -34762012.80 0.0088 0.0032

Mercury -99886-01-14 15:21 J -34761925.01 -34761924.86 -34761924.70 0.0088 0.0027

Mercury -99886-04-12 17:45 J -34761836.91 -34761836.76 -34761836.59 0.0088 0.0022

Mercury -99886-07-09 20:09 J -34761748.82 -34761748.66 -34761748.49 0.0088 0.0018

Mercury -99886-10-05 22:33 J -34761660.72 -34761660.56 -34761660.39 0.0088 0.0013

Mercury -99885-01-02 00:57 J -34761572.62 -34761572.46 -34761572.29 0.0088 0.0008

Mercury -99885-03-30 03:21 J -34761484.52 -34761484.36 -34761484.20 0.0088 0.0003

Mercury -99885-06-26 05:45 J -34761396.43 -34761396.26 -34761396.10 0.0088 0.0002

Mercury -99885-09-22 07:54 J -34761308.33 -34761308.17 -34761308.00 0.0088 0.0007

Mercury -99885-12-19 10:18 J -34761220.23 -34761220.07 -34761219.91 0.0088 0.0012

Mercury -99884-03-17 12:28 J -34761132.13 -34761131.98 -34761131.81 0.0088 0.0017

Mercury -99884-06-13 14:52 J -34761044.03 -34761043.88 -34761043.72 0.0088 0.0021

Mercury -99884-09-09 17:16 J -34760955.94 -34760955.78 -34760955.63 0.0088 0.0026

Mercury -99884-12-06 19:25 J -34760867.84 -34760867.69 -34760867.53 0.0088 0.0030

Mercury -99883-03-04 21:35 J -34760779.74 -34760779.60 -34760779.44 0.0088 0.0035

Mercury -99883-05-31 23:59 J -34760691.64 -34760691.50 -34760691.35 0.0088 0.0040

Mercury -99883-08-28 02:09 J -34760603.54 -34760603.41 -34760603.27 0.0088 0.0044

Mercury -99883-11-24 04:33 J -34760515.44 -34760515.31 -34760515.18 0.0088 0.0049

Mercury -99882-02-20 06:28 J -34760427.34 -34760427.23 -34760427.09 0.0088 0.0054

Mercury -99882-05-19 08:37 J -34760339.25 -34760339.14 -34760339.01 0.0088 0.0058

Mercury -99882-08-15 11:01 J -34760251.15 -34760251.04 -34760250.92 0.0088 0.0063

Mercury -99882-11-11 12:57 J -34760163.05 -34760162.96 -34760162.84 0.0088 0.0068

Mercury -99881-02-07 15:21 J -34760074.94 -34760074.86 -34760074.76 0.0088 0.0072

Venus -99881-03-30 18:57 J -34760022.76 -34760022.71 -34760022.62 0.0088 0.0084

Mercury -99881-05-05 17:16 J -34759986.84 -34759986.78 -34759986.68 0.0088 0.0077

Mercury -99881-08-01 19:40 J -34759898.73 -34759898.68 -34759898.61 0.0088 0.0081

Mercury -99881-10-28 21:35 J -34759810.62 -34759810.60 -34759810.54 0.0088 0.0085

Venus -99881-11-11 08:37 J -34759797.25 -34759797.14 -34759797.00 0.0088 0.0074

Venus -99880-06-24 22:04 J -34759571.72 -34759571.58 -34759571.41 0.0088 0.0064

Venus -99879-02-05 11:30 J -34759346.19 -34759346.02 -34759345.83 0.0088 0.0054

Venus -99879-09-19 00:57 J -34759120.64 -34759120.46 -34759120.26 0.0088 0.0044

Venus -99878-05-02 14:37 J -34758895.10 -34758894.89 -34758894.68 0.0088 0.0034

Venus -99878-12-14 03:49 J -34758669.55 -34758669.34 -34758669.12 0.0088 0.0024

Venus -99877-07-26 17:16 J -34758444.00 -34758443.78 -34758443.56 0.0088 0.0014

Venus -99876-03-09 06:28 J -34758218.45 -34758218.23 -34758218.00 0.0088 0.0004

Venus -99876-10-20 19:54 J -34757992.89 -34757992.67 -34757992.45 0.0088 0.0006

Venus -99875-06-03 08:52 J -34757767.34 -34757767.13 -34757766.91 0.0088 0.0016

Venus -99874-01-14 21:49 J -34757541.79 -34757541.59 -34757541.37 0.0088 0.0027

Venus -99874-08-28 10:47 J -34757316.24 -34757316.05 -34757315.83 0.0088 0.0037

Venus -99873-04-10 00:28 J -34757090.67 -34757090.48 -34757090.29 0.0088 0.0046

Venus -99873-11-21 13:11 J -34756865.11 -34756864.95 -34756864.77 0.0088 0.0056

Venus -99872-07-05 01:54 J -34756639.55 -34756639.42 -34756639.25 0.0088 0.0066

Venus -99871-02-15 14:37 J -34756413.98 -34756413.89 -34756413.75 0.0088 0.0076

Venus -99871-09-29 03:49 J -34756188.38 -34756188.34 -34756188.26 0.0088 0.0085

Earth -99852-08-19 08:23 J -34749289.18 -34749289.15 -34749289.09 0.0088 0.0087

Earth -99851-08-21 17:01 J -34748921.97 -34748921.79 -34748921.58 0.0088 0.0056

Moon -99851-08-21 19:54 J -34748921.85 -34748921.67 -34748921.45 0.0088 0.0052 *

Moon -99850-08-23 22:18 J -34748554.81 -34748554.57 -34748554.34 0.0088 0.0029

Earth -99850-08-24 01:40 J -34748554.66 -34748554.43 -34748554.18 0.0088 0.0025 *

Earth -99849-08-25 10:04 J -34748187.33 -34748187.08 -34748186.83 0.0088 0.0007

Moon -99849-08-25 12:57 J -34748187.20 -34748186.96 -34748186.70 0.0088 0.0012 *

Moon -99848-08-27 15:49 J -34747820.06 -34747819.84 -34747819.61 0.0088 0.0034

Earth -99848-08-27 17:59 J -34747819.95 -34747819.75 -34747819.50 0.0088 0.0039 *

Earth -99847-08-30 02:37 J -34747452.54 -34747452.39 -34747452.23 0.0088 0.0069

Moon -99847-08-30 03:21 J -34747452.47 -34747452.36 -34747452.19 0.0088 0.0074 *
 Mars -99839-11-16 02:52 J -34744452.52 -34744452.38 -34744452.19 0.0088 0.0076
 Mars -99837-10-11 04:33 J -34743757.61 -34743757.31 -34743756.98 0.0088 0.0017
 Mars -99835-09-06 08:23 J -34743062.41 -34743062.15 -34743061.85 0.0088 0.0045
 Mercury -99807-05-13 09:35 J -34732951.12 -34732951.10 -34732951.05 0.0089 0.0086
 Mercury -99807-08-09 11:45 J -34732863.07 -34732863.01 -34732862.95 0.0089 0.0081
 Mercury -99807-11-05 13:25 J -34732775.00 -34732774.94 -34732774.86 0.0089 0.0077
 Mercury -99806-02-01 15:06 J -34732686.94 -34732686.87 -34732686.77 0.0089 0.0073
 Mercury -99806-04-30 17:01 J -34732598.87 -34732598.79 -34732598.68 0.0089 0.0069
 Mercury -99806-07-27 19:11 J -34732510.80 -34732510.70 -34732510.60 0.0089 0.0064
 Mercury -99806-10-23 20:52 J -34732422.73 -34732422.63 -34732422.51 0.0089 0.0060
 Mercury -99805-01-19 22:33 J -34732334.66 -34732334.56 -34732334.43 0.0089 0.0056
 Mercury -99805-04-17 00:42 J -34732246.59 -34732246.47 -34732246.34 0.0089 0.0051
 Mercury -99805-07-14 02:37 J -34732158.51 -34732158.39 -34732158.26 0.0089 0.0047
 Mercury -99805-10-10 04:47 J -34732070.43 -34732070.30 -34732070.17 0.0089 0.0042
 Mercury -99804-01-06 06:28 J -34731982.36 -34731982.23 -34731982.09 0.0089 0.0038
 Mercury -99804-04-04 08:23 J -34731894.28 -34731894.15 -34731894.00 0.0089 0.0034
 Mercury -99804-07-01 10:33 J -34731806.20 -34731806.06 -34731805.92 0.0089 0.0029
 Mercury -99804-09-27 12:28 J -34731718.12 -34731717.98 -34731717.83 0.0089 0.0024
 Mercury -99804-12-24 14:23 J -34731630.04 -34731629.90 -34731629.75 0.0089 0.0020
 Mercury -99803-03-22 16:18 J -34731541.96 -34731541.82 -34731541.66 0.0089 0.0016
 Mercury -99803-06-18 18:28 J -34731453.88 -34731453.73 -34731453.58 0.0089 0.0011
 Mercury -99803-09-14 20:23 J -34731365.80 -34731365.65 -34731365.49 0.0089 0.0007
 Mercury -99803-12-11 22:33 J -34731277.72 -34731277.56 -34731277.41 0.0089 0.0002
 Mercury -99802-03-10 00:28 J -34731189.63 -34731189.48 -34731189.33 0.0089 0.0003
 Mercury -99802-06-06 02:23 J -34731101.55 -34731101.40 -34731101.24 0.0089 0.0008
 Mercury -99802-09-02 04:33 J -34731013.46 -34731013.31 -34731013.16 0.0089 0.0012
 Mercury -99802-11-29 06:28 J -34730925.38 -34730925.23 -34730925.07 0.0089 0.0017
 Mercury -99801-02-25 08:23 J -34730837.29 -34730837.15 -34730836.99 0.0089 0.0022
 Mercury -99801-05-23 10:33 J -34730749.20 -34730749.06 -34730748.91 0.0089 0.0026

Mercury -99801-08-19 12:42 J -34730661.11 -34730660.97 -34730660.82 0.0089 0.0031

Mercury -99801-11-15 14:37 J -34730573.02 -34730572.89 -34730572.74 0.0089 0.0036

Mercury -99800-02-11 16:47 J -34730484.93 -34730484.80 -34730484.65 0.0089 0.0040

Mercury -99800-05-10 18:57 J -34730396.84 -34730396.71 -34730396.57 0.0089 0.0045

Mercury -99800-08-06 20:52 J -34730308.75 -34730308.63 -34730308.49 0.0089 0.0050

Mercury -99800-11-02 23:16 J -34730220.65 -34730220.53 -34730220.41 0.0089 0.0054

Mercury -99799-01-30 01:11 J -34730132.56 -34730132.45 -34730132.32 0.0089 0.0059

Mercury -99799-04-28 03:21 J -34730044.46 -34730044.36 -34730044.24 0.0089 0.0064

Venus -99799-05-12 17:01 J -34730029.82 -34730029.79 -34730029.74 0.0089 0.0087

Mercury -99799-07-25 05:30 J -34729956.36 -34729956.27 -34729956.16 0.0089 0.0069

Mercury -99799-10-21 07:25 J -34729868.26 -34729868.19 -34729868.08 0.0089 0.0074

Venus -99799-12-24 05:01 J -34729804.37 -34729804.29 -34729804.16 0.0089 0.0078

Mercury -99798-01-17 10:04 J -34729780.15 -34729780.08 -34729780.01 0.0089 0.0078

Mercury -99798-04-15 11:59 J -34729692.04 -34729692.00 -34729691.94 0.0089 0.0083

Mercury -99798-07-12 14:09 J -34729603.92 -34729603.91 -34729603.88 0.0089 0.0088

Venus -99798-08-06 17:45 J -34729578.88 -34729578.76 -34729578.60 0.0089 0.0068

Venus -99797-03-19 06:28 J -34729353.38 -34729353.23 -34729353.06 0.0089 0.0058

Venus -99797-10-30 19:11 J -34729127.87 -34729127.70 -34729127.51 0.0089 0.0048

Venus -99796-06-13 07:54 J -34728902.37 -34728902.17 -34728901.97 0.0089 0.0038

Venus -99795-01-24 20:09 J -34728676.85 -34728676.66 -34728676.44 0.0089 0.0029

Venus -99795-09-07 08:52 J -34728451.33 -34728451.13 -34728450.91 0.0089 0.0019

Venus -99794-04-20 21:35 J -34728225.81 -34728225.60 -34728225.37 0.0089 0.0009

Venus -99794-12-02 10:33 J -34728000.28 -34728000.06 -34727999.85 0.0089 0.0002

Venus -99793-07-14 23:16 J -34727774.75 -34727774.53 -34727774.32 0.0089 0.0011

Venus -99792-02-25 11:59 J -34727549.21 -34727549.00 -34727548.79 0.0089 0.0021

Venus -99792-10-09 00:42 J -34727323.67 -34727323.47 -34727323.26 0.0089 0.0031

Venus -99791-05-22 13:40 J -34727098.12 -34727097.93 -34727097.74 0.0089 0.0041

Venus -99790-01-03 02:23 J -34726872.57 -34726872.40 -34726872.22 0.0089 0.0051

Venus -99790-08-16 15:21 J -34726647.01 -34726646.86 -34726646.70 0.0089 0.0061

Venus -99789-03-29 04:18 J -34726421.44 -34726421.32 -34726421.19 0.0089 0.0071

Venus	-99789-11-09 17:30 J	-34726195.85	-34726195.77	-34726195.68	0.0089	0.0081
Moon	-99769-02-11 17:45 J	-34719162.90	-34719162.76	-34719162.61	0.0089	0.0075
Earth	-99769-02-11 16:33 J	-34719162.89	-34719162.81	-34719162.66	0.0089	0.0080 *
Earth	-99768-02-13 07:40 J	-34718795.40	-34718795.18	-34718794.95	0.0089	0.0046
Moon	-99768-02-13 08:09 J	-34718795.35	-34718795.16	-34718794.93	0.0089	0.0051 *
Moon	-99767-02-15 19:54 J	-34718427.93	-34718427.67	-34718427.39	0.0089	0.0009
Earth	-99767-02-15 22:18 J	-34718427.82	-34718427.57	-34718427.30	0.0089	0.0013 *
Earth	-99766-02-18 12:57 J	-34718060.20	-34718059.96	-34718059.69	0.0089	0.0021
Moon	-99766-02-18 15:35 J	-34718060.09	-34718059.85	-34718059.59	0.0089	0.0017 *
Moon	-99765-02-21 00:13 J	-34717692.67	-34717692.49	-34717692.27	0.0089	0.0059
Earth	-99765-02-21 04:18 J	-34717692.53	-34717692.32	-34717692.11	0.0089	0.0054 *
Earth	-99764-02-22 18:42 J	-34717324.73	-34717324.72	-34717324.66	0.0089	0.0088
Moon	-99764-02-22 22:18 J	-34717324.63	-34717324.57	-34717324.46	0.0089	0.0084
Mars	-99757-10-14 04:04 J	-34714534.48	-34714534.33	-34714534.15	0.0089	0.0075
Mars	-99755-09-08 19:25 J	-34713839.98	-34713839.69	-34713839.37	0.0089	0.0017
Mars	-99753-08-03 07:25 J	-34713145.44	-34713145.19	-34713144.90	0.0089	0.0042
Mercury	-99725-11-18 07:25 J	-34702811.21	-34702811.19	-34702811.15	0.0088	0.0087
Mercury	-99724-02-14 09:49 J	-34702723.13	-34702723.09	-34702723.01	0.0088	0.0082
Mercury	-99724-05-13 12:28 J	-34702635.05	-34702634.98	-34702634.88	0.0088	0.0077
Mercury	-99724-08-09 15:06 J	-34702546.96	-34702546.87	-34702546.76	0.0088	0.0071
Mercury	-99724-11-05 17:30 J	-34702458.86	-34702458.77	-34702458.65	0.0088	0.0067
Mercury	-99723-02-01 20:08 J	-34702370.77	-34702370.66	-34702370.53	0.0088	0.0061
Mercury	-99723-04-30 22:32 J	-34702282.67	-34702282.56	-34702282.42	0.0088	0.0057
Mercury	-99723-07-28 00:56 J	-34702194.58	-34702194.46	-34702194.31	0.0088	0.0052
Mercury	-99723-10-24 03:35 J	-34702106.48	-34702106.35	-34702106.20	0.0088	0.0046
Mercury	-99722-01-20 05:59 J	-34702018.38	-34702018.25	-34702018.09	0.0088	0.0042
Mercury	-99722-04-18 08:37 J	-34701930.29	-34701930.14	-34701929.99	0.0088	0.0036
Mercury	-99722-07-15 11:01 J	-34701842.19	-34701842.04	-34701841.88	0.0088	0.0031
Mercury	-99722-10-11 13:25 J	-34701754.09	-34701753.94	-34701753.78	0.0088	0.0027
Mercury	-99721-01-07 15:49 J	-34701665.99	-34701665.84	-34701665.67	0.0088	0.0022

Mercury -99721-04-04 18:28 J -34701577.90 -34701577.73 -34701577.57 0.0088 0.0017

Mercury -99721-07-01 20:37 J -34701489.80 -34701489.64 -34701489.47 0.0088 0.0012

Mercury -99721-09-27 23:01 J -34701401.70 -34701401.54 -34701401.37 0.0088 0.0007

Mercury -99721-12-25 01:25 J -34701313.60 -34701313.44 -34701313.27 0.0088 0.0002

Mercury -99720-03-23 03:49 J -34701225.50 -34701225.34 -34701225.18 0.0088 0.0003

Mercury -99720-06-19 06:13 J -34701137.41 -34701137.24 -34701137.08 0.0088 0.0008

Mercury -99720-09-15 08:23 J -34701049.31 -34701049.15 -34701048.99 0.0088 0.0012

Mercury -99720-12-12 10:47 J -34700961.21 -34700961.05 -34700960.89 0.0088 0.0017

Mercury -99719-03-10 12:56 J -34700873.11 -34700872.96 -34700872.80 0.0088 0.0022

Mercury -99719-06-06 15:20 J -34700785.01 -34700784.86 -34700784.70 0.0088 0.0026

Mercury -99719-09-02 17:30 J -34700696.92 -34700696.77 -34700696.61 0.0088 0.0031

Mercury -99719-11-29 19:54 J -34700608.82 -34700608.67 -34700608.52 0.0088 0.0036

Mercury -99718-02-25 22:04 J -34700520.72 -34700520.58 -34700520.43 0.0088 0.0040

Mercury -99718-05-25 00:28 J -34700432.62 -34700432.48 -34700432.34 0.0088 0.0045

Mercury -99718-08-21 02:23 J -34700344.52 -34700344.40 -34700344.26 0.0088 0.0050

Mercury -99718-11-17 04:32 J -34700256.42 -34700256.31 -34700256.17 0.0088 0.0055

Mercury -99717-02-13 06:56 J -34700168.32 -34700168.21 -34700168.08 0.0088 0.0059

Mercury -99717-05-11 09:06 J -34700080.22 -34700080.12 -34700080.00 0.0088 0.0063

Venus -99717-07-02 01:54 J -34700028.43 -34700028.42 -34700028.36 0.0088 0.0088

Mercury -99717-08-07 11:16 J -34699992.12 -34699992.03 -34699991.92 0.0088 0.0068

Mercury -99717-11-03 13:25 J -34699904.02 -34699903.94 -34699903.84 0.0088 0.0072

Mercury -99716-01-30 15:35 J -34699815.92 -34699815.85 -34699815.76 0.0088 0.0077

Venus -99716-02-12 15:20 J -34699802.94 -34699802.86 -34699802.73 0.0088 0.0078

Mercury -99716-04-28 17:44 J -34699727.81 -34699727.76 -34699727.69 0.0088 0.0081

Mercury -99716-07-25 19:54 J -34699639.69 -34699639.67 -34699639.62 0.0088 0.0086

Venus -99716-09-26 05:01 J -34699577.42 -34699577.29 -34699577.13 0.0088 0.0068

Venus -99715-05-09 18:28 J -34699351.88 -34699351.73 -34699351.54 0.0088 0.0058

Venus -99715-12-21 07:54 J -34699126.34 -34699126.17 -34699125.97 0.0088 0.0047

Venus -99714-08-03 21:20 J -34698900.80 -34698900.61 -34698900.40 0.0088 0.0037

Venus -99713-03-16 10:47 J -34698675.25 -34698675.05 -34698674.83 0.0088 0.0027

Venus	-99713-10-28 00:13 J	-34698449.70	-34698449.49	-34698449.26	0.0088	0.0017
Jupiter	-99712-03-17 04:32 J	-34698309.65	-34698309.31	-34698308.87	0.0088	0.0060
Venus	-99712-06-10 13:40 J	-34698224.15	-34698223.93	-34698223.71	0.0088	0.0007
Venus	-99711-01-22 02:52 J	-34697998.60	-34697998.38	-34697998.16	0.0088	0.0003
Venus	-99711-09-04 16:04 J	-34697773.05	-34697772.83	-34697772.61	0.0088	0.0013
Venus	-99710-04-18 05:16 J	-34697547.48	-34697547.28	-34697547.06	0.0088	0.0024
Venus	-99710-11-29 18:28 J	-34697321.93	-34697321.73	-34697321.52	0.0088	0.0033
Venus	-99709-07-12 07:25 J	-34697096.37	-34697096.19	-34697095.98	0.0088	0.0043
Venus	-99708-02-22 20:23 J	-34696870.81	-34696870.65	-34696870.46	0.0088	0.0053
Venus	-99708-10-06 09:49 J	-34696645.24	-34696645.09	-34696644.94	0.0088	0.0063
Venus	-99707-05-19 22:32 J	-34696419.67	-34696419.56	-34696419.42	0.0088	0.0073
Venus	-99707-12-31 11:16 J	-34696194.08	-34696194.03	-34696193.93	0.0088	0.0083
Moon	-99687-08-20 20:23 J	-34689021.78	-34689021.65	-34689021.48	0.0088	0.0071
Earth	-99687-08-20 23:44 J	-34689021.63	-34689021.51	-34689021.35	0.0088	0.0074 *
Earth	-99686-08-23 08:23 J	-34688654.36	-34688654.15	-34688653.91	0.0088	0.0042
Moon	-99686-08-23 11:44 J	-34688654.22	-34688654.01	-34688653.78	0.0088	0.0044 *
Moon	-99685-08-24 15:35 J	-34688287.09	-34688286.85	-34688286.60	0.0088	0.0009
Earth	-99685-08-24 17:16 J	-34688287.02	-34688286.78	-34688286.52	0.0088	0.0011 *
Earth	-99684-08-27 01:40 J	-34687919.67	-34687919.43	-34687919.18	0.0088	0.0020
Moon	-99684-08-27 02:23 J	-34687919.65	-34687919.40	-34687919.14	0.0088	0.0018 *
Earth	-99683-08-29 09:35 J	-34687552.28	-34687552.10	-34687551.88	0.0088	0.0052
Moon	-99683-08-29 09:49 J	-34687552.26	-34687552.09	-34687551.88	0.0088	0.0054 *
Moon	-99682-08-31 15:35 J	-34687184.94	-34687184.85	-34687184.72	0.0088	0.0080
Earth	-99682-08-31 17:30 J	-34687184.83	-34687184.77	-34687184.65	0.0088	0.0083 *
Mars	-99673-05-25 02:23 J	-34683995.65	-34683995.40	-34683995.11	0.0088	0.0046
Mars	-99671-04-20 04:18 J	-34683300.63	-34683300.32	-34683300.00	0.0088	0.0015
Mars	-99669-03-15 08:37 J	-34682605.29	-34682605.14	-34682604.96	0.0088	0.0076
Mercury	-99642-02-07 08:08 J	-34672780.19	-34672780.16	-34672780.11	0.0089	0.0085
Mercury	-99642-05-06 09:49 J	-34672692.13	-34672692.09	-34672692.02	0.0089	0.0081
Mercury	-99642-08-02 11:44 J	-34672604.07	-34672604.01	-34672603.92	0.0089	0.0077

Mercury -99642-10-29 13:54 J -34672516.01 -34672515.92 -34672515.84 0.0089 0.0072

Mercury -99641-01-25 15:35 J -34672427.94 -34672427.85 -34672427.75 0.0089 0.0068

Mercury -99641-04-22 17:16 J -34672339.87 -34672339.78 -34672339.66 0.0089 0.0064

Mercury -99641-07-19 19:25 J -34672251.80 -34672251.69 -34672251.58 0.0089 0.0059

Mercury -99641-10-15 21:06 J -34672163.73 -34672163.62 -34672163.49 0.0089 0.0055

Mercury -99640-01-11 23:01 J -34672075.65 -34672075.54 -34672075.41 0.0089 0.0051

Mercury -99640-04-10 01:11 J -34671987.58 -34671987.45 -34671987.32 0.0089 0.0046

Mercury -99640-07-07 02:52 J -34671899.50 -34671899.38 -34671899.24 0.0089 0.0042

Mercury -99640-10-03 04:47 J -34671811.43 -34671811.30 -34671811.16 0.0089 0.0038

Mercury -99640-12-30 06:56 J -34671723.35 -34671723.21 -34671723.07 0.0089 0.0033

Mercury -99639-03-28 08:37 J -34671635.27 -34671635.14 -34671634.99 0.0089 0.0029

Mercury -99639-06-24 10:47 J -34671547.20 -34671547.05 -34671546.90 0.0089 0.0024

Mercury -99639-09-20 12:42 J -34671459.12 -34671458.97 -34671458.82 0.0089 0.0020

Mercury -99639-12-17 14:37 J -34671371.04 -34671370.89 -34671370.74 0.0089 0.0015

Mercury -99638-03-15 16:32 J -34671282.95 -34671282.81 -34671282.65 0.0089 0.0011

Mercury -99638-06-11 18:42 J -34671194.87 -34671194.72 -34671194.57 0.0089 0.0006

Mercury -99638-09-07 20:37 J -34671106.79 -34671106.64 -34671106.48 0.0089 0.0002

Mercury -99638-12-04 22:47 J -34671018.71 -34671018.55 -34671018.40 0.0089 0.0004

Mercury -99637-03-02 00:42 J -34670930.62 -34670930.47 -34670930.32 0.0089 0.0008

Mercury -99637-05-29 02:37 J -34670842.54 -34670842.39 -34670842.23 0.0089 0.0013

Mercury -99637-08-25 04:47 J -34670754.45 -34670754.30 -34670754.15 0.0089 0.0017

Mercury -99637-11-21 06:42 J -34670666.36 -34670666.22 -34670666.06 0.0089 0.0022

Mercury -99636-02-17 08:52 J -34670578.28 -34670578.13 -34670577.98 0.0089 0.0026

Mercury -99636-05-16 10:47 J -34670490.19 -34670490.05 -34670489.90 0.0089 0.0031

Mercury -99636-08-12 12:56 J -34670402.10 -34670401.96 -34670401.81 0.0089 0.0036

Mercury -99636-11-08 15:06 J -34670314.01 -34670313.87 -34670313.73 0.0089 0.0040

Mercury -99635-02-04 17:01 J -34670225.91 -34670225.79 -34670225.65 0.0089 0.0045

Mercury -99635-05-03 19:11 J -34670137.82 -34670137.70 -34670137.56 0.0089 0.0050

Mercury -99635-07-30 21:06 J -34670049.73 -34670049.62 -34670049.48 0.0089 0.0055

Mercury -99635-10-26 23:30 J -34669961.63 -34669961.52 -34669961.40 0.0089 0.0059

Mercury -99634-01-23 01:40 J -34669873.53 -34669873.43 -34669873.32 0.0089 0.0064

Venus -99634-03-27 13:40 J -34669810.01 -34669809.93 -34669809.84 0.0089 0.0081

Mercury -99634-04-21 03:35 J -34669785.43 -34669785.35 -34669785.24 0.0089 0.0069

Mercury -99634-07-18 05:44 J -34669697.33 -34669697.26 -34669697.16 0.0089 0.0074

Mercury -99634-10-14 07:54 J -34669609.23 -34669609.17 -34669609.08 0.0089 0.0079

Venus -99634-11-08 02:23 J -34669584.52 -34669584.40 -34669584.27 0.0089 0.0071

Mercury -99633-01-10 10:18 J -34669521.12 -34669521.07 -34669521.01 0.0089 0.0083

Mercury -99633-04-07 12:28 J -34669432.99 -34669432.98 -34669432.96 0.0089 0.0088

Venus -99633-06-20 14:23 J -34669359.03 -34669358.90 -34669358.72 0.0089 0.0062

Venus -99632-02-01 03:06 J -34669133.53 -34669133.37 -34669133.18 0.0089 0.0052

Venus -99632-09-14 15:49 J -34668908.02 -34668907.84 -34668907.63 0.0089 0.0042

Venus -99631-04-28 04:32 J -34668682.50 -34668682.31 -34668682.10 0.0089 0.0032

Venus -99631-12-09 17:16 J -34668456.99 -34668456.78 -34668456.56 0.0089 0.0022

Venus -99630-07-23 05:59 J -34668231.46 -34668231.25 -34668231.03 0.0089 0.0012

Venus -99629-03-04 18:42 J -34668005.94 -34668005.72 -34668005.50 0.0089 0.0002

Venus -99629-10-16 07:25 J -34667780.40 -34667780.19 -34667779.97 0.0089 0.0008

Venus -99628-05-29 20:08 J -34667554.87 -34667554.66 -34667554.44 0.0089 0.0018

Venus -99627-01-10 08:52 J -34667329.33 -34667329.13 -34667328.92 0.0089 0.0028

Venus -99627-08-23 21:20 J -34667103.79 -34667103.61 -34667103.40 0.0089 0.0039

Venus -99626-04-06 10:04 J -34666878.24 -34666878.08 -34666877.87 0.0089 0.0049

Venus -99626-11-17 23:16 J -34666652.68 -34666652.53 -34666652.35 0.0089 0.0059

Venus -99625-06-30 11:59 J -34666427.11 -34666427.00 -34666426.84 0.0089 0.0069

Venus -99624-02-11 00:56 J -34666201.54 -34666201.46 -34666201.34 0.0089 0.0079

Venus -99624-09-24 14:23 J -34665975.90 -34665975.90 -34665975.89 0.0089 0.0089

Moon -99604-02-12 07:54 J -34658895.36 -34658895.17 -34658894.98 0.0089 0.0063

Earth -99604-02-12 10:18 J -34658895.24 -34658895.07 -34658894.88 0.0089 0.0064 *

Earth -99603-02-15 00:42 J -34658527.71 -34658527.47 -34658527.21 0.0089 0.0031

Moon -99603-02-15 04:04 J -34658527.55 -34658527.33 -34658527.07 0.0089 0.0032 *

Moon -99602-02-17 11:59 J -34658160.26 -34658160.00 -34658159.73 0.0089 0.0003

Earth -99602-02-17 15:35 J -34658160.11 -34658159.85 -34658159.58 0.0089 0.0003 *

Earth	-99601-02-20 05:59 J	-34657792.48	-34657792.25	-34657792.00	0.0089	0.0036
Moon	-99601-02-20 09:35 J	-34657792.33	-34657792.10	-34657791.84	0.0089	0.0034 *
Moon	-99600-02-21 17:44 J	-34657424.90	-34657424.76	-34657424.58	0.0089	0.0071
Earth	-99600-02-21 21:20 J	-34657424.78	-34657424.61	-34657424.45	0.0089	0.0069 *
Mars	-99591-04-23 08:08 J	-34654077.42	-34654077.16	-34654076.88	0.0089	0.0044
Mars	-99589-03-17 23:44 J	-34653382.81	-34653382.51	-34653382.20	0.0089	0.0015
Mars	-99587-02-10 12:13 J	-34652688.15	-34652687.99	-34652687.81	0.0089	0.0073
Mercury	-99560-08-15 05:44 J	-34642640.30	-34642640.26	-34642640.22	0.0088	0.0086
Mercury	-99560-11-11 08:08 J	-34642552.22	-34642552.16	-34642552.08	0.0088	0.0081
Mercury	-99559-02-07 10:47 J	-34642464.13	-34642464.05	-34642463.96	0.0088	0.0076
Mercury	-99559-05-06 13:11 J	-34642376.04	-34642375.95	-34642375.84	0.0088	0.0071
Mercury	-99559-08-02 15:49 J	-34642287.94	-34642287.84	-34642287.72	0.0088	0.0066
Mercury	-99559-10-29 18:13 J	-34642199.85	-34642199.74	-34642199.61	0.0088	0.0061
Mercury	-99558-01-25 20:52 J	-34642111.75	-34642111.63	-34642111.49	0.0088	0.0056
Mercury	-99558-04-23 23:16 J	-34642023.66	-34642023.53	-34642023.38	0.0088	0.0051
Mercury	-99558-07-21 01:54 J	-34641935.56	-34641935.42	-34641935.27	0.0088	0.0045
Mercury	-99558-10-17 04:18 J	-34641847.46	-34641847.32	-34641847.17	0.0088	0.0041
Mercury	-99557-01-13 06:42 J	-34641759.36	-34641759.22	-34641759.06	0.0088	0.0036
Mercury	-99557-04-10 09:20 J	-34641671.26	-34641671.11	-34641670.95	0.0088	0.0031
Mercury	-99557-07-07 11:44 J	-34641583.17	-34641583.01	-34641582.85	0.0088	0.0026
Mercury	-99557-10-03 14:08 J	-34641495.07	-34641494.91	-34641494.75	0.0088	0.0021
Mercury	-99557-12-30 16:32 J	-34641406.97	-34641406.81	-34641406.64	0.0088	0.0016
Mercury	-99556-03-28 18:56 J	-34641318.87	-34641318.71	-34641318.54	0.0088	0.0011
Mercury	-99556-06-24 21:20 J	-34641230.77	-34641230.61	-34641230.44	0.0088	0.0006
Mercury	-99556-09-20 23:44 J	-34641142.67	-34641142.51	-34641142.34	0.0088	0.0002
Mercury	-99556-12-18 02:08 J	-34641054.57	-34641054.41	-34641054.25	0.0088	0.0004
Mercury	-99555-03-16 04:32 J	-34640966.47	-34640966.31	-34640966.15	0.0088	0.0008
Mercury	-99555-06-12 06:42 J	-34640878.38	-34640878.22	-34640878.05	0.0088	0.0013
Mercury	-99555-09-08 09:06 J	-34640790.28	-34640790.12	-34640789.96	0.0088	0.0018
Mercury	-99555-12-05 11:30 J	-34640702.18	-34640702.02	-34640701.86	0.0088	0.0023

Mercury -99554-03-03 13:40 J -34640614.08 -34640613.93 -34640613.77 0.0088 0.0027

Mercury -99554-05-30 15:49 J -34640525.98 -34640525.84 -34640525.68 0.0088 0.0032

Mercury -99554-08-26 18:13 J -34640437.88 -34640437.74 -34640437.59 0.0088 0.0037

Mercury -99554-11-22 20:23 J -34640349.78 -34640349.65 -34640349.50 0.0088 0.0042

Mercury -99553-02-18 22:32 J -34640261.68 -34640261.56 -34640261.41 0.0088 0.0046

Mercury -99553-05-17 00:56 J -34640173.58 -34640173.46 -34640173.32 0.0088 0.0051

Mercury -99553-08-13 03:06 J -34640085.48 -34640085.37 -34640085.24 0.0088 0.0055

Mercury -99553-11-09 05:30 J -34639997.38 -34639997.27 -34639997.15 0.0088 0.0060

Mercury -99552-02-05 07:25 J -34639909.28 -34639909.19 -34639909.07 0.0088 0.0065

Mercury -99552-05-04 09:49 J -34639821.18 -34639821.09 -34639820.99 0.0088 0.0069

Venus -99552-05-16 23:30 J -34639808.59 -34639808.52 -34639808.41 0.0088 0.0081

Mercury -99552-07-31 11:44 J -34639733.08 -34639733.01 -34639732.91 0.0088 0.0074

Mercury -99552-10-27 14:08 J -34639644.97 -34639644.91 -34639644.83 0.0088 0.0078

Venus -99552-12-28 12:56 J -34639583.08 -34639582.96 -34639582.81 0.0088 0.0071

Mercury -99551-01-23 16:04 J -34639556.87 -34639556.83 -34639556.76 0.0088 0.0083

Mercury -99551-04-21 18:28 J -34639468.75 -34639468.73 -34639468.69 0.0088 0.0087

Venus -99551-08-11 02:23 J -34639357.55 -34639357.40 -34639357.22 0.0088 0.0061

Venus -99550-03-24 16:04 J -34639132.00 -34639131.83 -34639131.64 0.0088 0.0050

Venus -99550-11-05 05:16 J -34638906.46 -34638906.28 -34638906.06 0.0088 0.0041

Venus -99549-06-17 18:42 J -34638680.92 -34638680.72 -34638680.50 0.0088 0.0030

Venus -99548-01-29 07:54 J -34638455.37 -34638455.17 -34638454.94 0.0088 0.0021

Venus -99548-09-11 21:20 J -34638229.82 -34638229.61 -34638229.38 0.0088 0.0010

Venus -99547-04-25 11:01 J -34638004.26 -34638004.04 -34638003.82 0.0088 0.0001

Venus -99547-12-07 00:13 J -34637778.71 -34637778.49 -34637778.27 0.0088 0.0010

Jupiter -99546-05-11 07:11 J -34637623.59 -34637623.20 -34637622.73 0.0088 0.0052

Venus -99546-07-20 13:25 J -34637553.15 -34637552.94 -34637552.72 0.0088 0.0020

Venus -99545-03-02 02:37 J -34637327.60 -34637327.39 -34637327.18 0.0088 0.0031

Venus -99545-10-13 15:35 J -34637102.04 -34637101.85 -34637101.64 0.0088 0.0041

Venus -99544-05-27 04:47 J -34636876.47 -34636876.30 -34636876.11 0.0088 0.0051

Venus -99543-01-07 17:44 J -34636650.91 -34636650.76 -34636650.59 0.0088 0.0061

Venus	-99543-08-21 06:42 J	-34636425.34	-34636425.22	-34636425.07	0.0088	0.0071
Venus	-99542-04-03 19:40 J	-34636199.75	-34636199.68	-34636199.57	0.0088	0.0081
Moon	-99522-08-22 14:52 J	-34628754.07	-34628753.88	-34628753.69	0.0088	0.0056
Earth	-99522-08-22 15:49 J	-34628754.00	-34628753.84	-34628753.63	0.0088	0.0060 *
Earth	-99521-08-24 00:42 J	-34628386.69	-34628386.47	-34628386.21	0.0088	0.0029
Moon	-99521-08-24 00:56 J	-34628386.68	-34628386.46	-34628386.20	0.0088	0.0033 *
Earth	-99520-08-26 09:49 J	-34628019.34	-34628019.09	-34628018.84	0.0088	0.0003
Moon	-99520-08-26 11:16 J	-34628019.27	-34628019.03	-34628018.79	0.0088	0.0007 *
Moon	-99519-08-28 16:04 J	-34627652.07	-34627651.83	-34627651.59	0.0088	0.0031
Earth	-99519-08-28 17:59 J	-34627651.97	-34627651.75	-34627651.50	0.0088	0.0035 *
Earth	-99518-08-31 02:08 J	-34627284.56	-34627284.41	-34627284.22	0.0088	0.0066
Moon	-99518-08-31 05:30 J	-34627284.41	-34627284.27	-34627284.11	0.0088	0.0070 *
Mars	-99509-01-07 03:06 J	-34624233.50	-34624233.37	-34624233.16	0.0088	0.0075
Mars	-99508-12-02 04:18 J	-34623538.62	-34623538.32	-34623537.99	0.0088	0.0015
Mars	-99506-10-28 06:42 J	-34622843.49	-34622843.22	-34622842.95	0.0088	0.0047
Mercury	-99478-08-08 05:16 J	-34612697.30	-34612697.28	-34612697.27	0.0089	0.0088
Mercury	-99478-11-04 06:56 J	-34612609.25	-34612609.21	-34612609.16	0.0089	0.0084
Mercury	-99477-01-31 08:37 J	-34612521.19	-34612521.14	-34612521.07	0.0089	0.0080
Mercury	-99477-04-28 10:18 J	-34612433.13	-34612433.07	-34612432.98	0.0089	0.0076
Mercury	-99477-07-25 12:13 J	-34612345.06	-34612344.99	-34612344.89	0.0089	0.0072
Mercury	-99477-10-21 14:08 J	-34612257.00	-34612256.91	-34612256.80	0.0089	0.0067
Mercury	-99476-01-17 16:04 J	-34612168.93	-34612168.83	-34612168.72	0.0089	0.0063
Mercury	-99476-04-15 17:44 J	-34612080.86	-34612080.76	-34612080.63	0.0089	0.0059
Mercury	-99476-07-12 19:54 J	-34611992.78	-34611992.67	-34611992.55	0.0089	0.0054
Mercury	-99476-10-08 21:35 J	-34611904.71	-34611904.60	-34611904.46	0.0089	0.0050
Mercury	-99475-01-04 23:30 J	-34611816.64	-34611816.52	-34611816.38	0.0089	0.0046
Mercury	-99475-04-03 01:40 J	-34611728.56	-34611728.43	-34611728.30	0.0089	0.0041
Mercury	-99475-06-30 03:20 J	-34611640.49	-34611640.36	-34611640.21	0.0089	0.0037
Mercury	-99475-09-26 05:30 J	-34611552.41	-34611552.27	-34611552.13	0.0089	0.0032
Mercury	-99475-12-23 07:11 J	-34611464.33	-34611464.20	-34611464.05	0.0089	0.0028

Mercury -99474-03-21 09:20 J -34611376.25 -34611376.11 -34611375.96 0.0089 0.0023
 Mercury -99474-06-17 11:16 J -34611288.18 -34611288.03 -34611287.88 0.0089 0.0019
 Mercury -99474-09-13 13:11 J -34611200.10 -34611199.95 -34611199.80 0.0089 0.0014
 Mercury -99474-12-10 15:06 J -34611112.02 -34611111.87 -34611111.71 0.0089 0.0010
 Mercury -99473-03-07 17:16 J -34611023.93 -34611023.78 -34611023.63 0.0089 0.0005
 Mercury -99473-06-03 19:11 J -34610935.85 -34610935.70 -34610935.55 0.0089 0.0001
 Mercury -99473-08-30 21:06 J -34610847.77 -34610847.62 -34610847.46 0.0089 0.0004
 Mercury -99473-11-26 23:01 J -34610759.69 -34610759.54 -34610759.38 0.0089 0.0009
 Mercury -99472-02-23 01:11 J -34610671.60 -34610671.45 -34610671.30 0.0089 0.0013
 Mercury -99472-05-22 03:06 J -34610583.51 -34610583.37 -34610583.21 0.0089 0.0018
 Mercury -99472-08-18 05:16 J -34610495.43 -34610495.28 -34610495.13 0.0089 0.0022
 Mercury -99472-11-14 07:11 J -34610407.34 -34610407.20 -34610407.05 0.0089 0.0027
 Mercury -99471-02-10 09:06 J -34610319.25 -34610319.12 -34610318.96 0.0089 0.0032
 Mercury -99471-05-09 11:30 J -34610231.16 -34610231.02 -34610230.88 0.0089 0.0036
 Mercury -99471-08-05 13:25 J -34610143.07 -34610142.94 -34610142.80 0.0089 0.0041
 Mercury -99471-11-01 15:20 J -34610054.98 -34610054.86 -34610054.71 0.0089 0.0046
 Mercury -99470-01-28 17:30 J -34609966.89 -34609966.77 -34609966.63 0.0089 0.0051
 Mercury -99470-04-26 19:40 J -34609878.79 -34609878.68 -34609878.55 0.0089 0.0055
 Venus -99470-06-28 22:04 J -34609815.62 -34609815.58 -34609815.50 0.0089 0.0085
 Mercury -99470-07-23 21:49 J -34609790.70 -34609790.59 -34609790.47 0.0089 0.0060
 Mercury -99470-10-19 23:44 J -34609702.60 -34609702.51 -34609702.39 0.0089 0.0065
 Mercury -99469-01-16 01:54 J -34609614.50 -34609614.42 -34609614.31 0.0089 0.0070
 Venus -99469-02-09 10:32 J -34609590.15 -34609590.06 -34609589.92 0.0089 0.0075
 Mercury -99469-04-13 04:18 J -34609526.40 -34609526.32 -34609526.23 0.0089 0.0074
 Mercury -99469-07-10 06:28 J -34609438.29 -34609438.23 -34609438.16 0.0089 0.0079
 Venus -99469-09-21 23:16 J -34609364.66 -34609364.53 -34609364.37 0.0089 0.0065
 Mercury -99469-10-06 08:23 J -34609350.18 -34609350.15 -34609350.09 0.0089 0.0084
 Mercury -99468-01-02 10:47 J -34609262.05 -34609262.05 -34609262.04 0.0089 0.0089
 Venus -99468-05-05 11:59 J -34609139.16 -34609139.00 -34609138.82 0.0089 0.0055
 Venus -99468-12-17 00:28 J -34608913.65 -34608913.48 -34608913.28 0.0089 0.0045

Venus	-99467-07-30 13:11 J	-34608688.14	-34608687.95	-34608687.74	0.0089	0.0035
Venus	-99466-03-13 01:40 J	-34608462.63	-34608462.43	-34608462.21	0.0089	0.0025
Venus	-99466-10-24 14:37 J	-34608237.10	-34608236.89	-34608236.67	0.0089	0.0015
Venus	-99465-06-06 03:20 J	-34608011.58	-34608011.36	-34608011.14	0.0089	0.0005
Venus	-99464-01-17 16:04 J	-34607786.05	-34607785.83	-34607785.61	0.0089	0.0005
Venus	-99464-08-31 04:32 J	-34607560.52	-34607560.31	-34607560.09	0.0089	0.0016
Venus	-99463-04-13 17:16 J	-34607334.98	-34607334.78	-34607334.56	0.0089	0.0026
Venus	-99463-11-25 05:59 J	-34607109.44	-34607109.25	-34607109.04	0.0089	0.0036
Venus	-99462-07-08 18:42 J	-34606883.89	-34606883.72	-34606883.52	0.0089	0.0046
Venus	-99461-02-19 07:40 J	-34606658.34	-34606658.18	-34606658.00	0.0089	0.0056
Venus	-99461-10-01 20:37 J	-34606432.78	-34606432.64	-34606432.49	0.0089	0.0066
Venus	-99460-05-15 09:35 J	-34606207.20	-34606207.10	-34606206.98	0.0089	0.0076
Venus	-99460-12-26 22:32 J	-34605981.60	-34605981.56	-34605981.51	0.0089	0.0086
Earth	-99440-02-11 13:40 J	-34598995.00	-34598994.93	-34598994.80	0.0089	0.0082
Moon	-99440-02-11 17:44 J	-34598994.89	-34598994.76	-34598994.63	0.0089	0.0077 *
Moon	-99439-02-14 00:56 J	-34598627.66	-34598627.46	-34598627.24	0.0089	0.0053
Earth	-99439-02-14 04:18 J	-34598627.52	-34598627.32	-34598627.08	0.0089	0.0049 *
Earth	-99438-02-16 19:11 J	-34598259.96	-34598259.70	-34598259.44	0.0089	0.0015
Moon	-99438-02-16 22:18 J	-34598259.84	-34598259.57	-34598259.30	0.0089	0.0010 *
Moon	-99437-02-19 07:25 J	-34597892.44	-34597892.19	-34597891.93	0.0089	0.0014
Earth	-99437-02-19 09:49 J	-34597892.35	-34597892.09	-34597891.83	0.0089	0.0018 *
Earth	-99436-02-20 23:59 J	-34597524.69	-34597524.50	-34597524.26	0.0089	0.0052
Moon	-99436-02-21 01:54 J	-34597524.61	-34597524.42	-34597524.19	0.0089	0.0056 *
Moon	-99435-02-23 15:06 J	-34597156.95	-34597156.87	-34597156.75	0.0089	0.0081
Earth	-99435-02-23 15:20 J	-34597156.92	-34597156.86	-34597156.78	0.0089	0.0085 *
Mars	-99428-12-05 21:49 J	-34594314.73	-34594314.59	-34594314.37	0.0089	0.0073
Mars	-99426-10-31 14:08 J	-34593620.22	-34593619.91	-34593619.60	0.0089	0.0012
Mars	-99424-09-25 04:18 J	-34592925.57	-34592925.32	-34592925.04	0.0089	0.0047
Mercury	-99395-05-12 03:49 J	-34582469.37	-34582469.34	-34582469.28	0.0088	0.0085
Mercury	-99395-08-08 06:28 J	-34582381.29	-34582381.23	-34582381.15	0.0088	0.0080

Mercury -99395-11-04 09:06 J -34582293.20 -34582293.12 -34582293.02 0.0088 0.0075

Mercury -99394-01-31 11:30 J -34582205.11 -34582205.02 -34582204.90 0.0088 0.0070

Mercury -99394-04-29 14:08 J -34582117.02 -34582116.91 -34582116.79 0.0088 0.0065

Mercury -99394-07-26 16:32 J -34582028.92 -34582028.81 -34582028.67 0.0088 0.0060

Mercury -99394-10-22 19:11 J -34581940.82 -34581940.70 -34581940.56 0.0088 0.0054

Mercury -99393-01-18 21:35 J -34581852.73 -34581852.60 -34581852.45 0.0088 0.0050

Mercury -99393-04-16 00:13 J -34581764.63 -34581764.49 -34581764.34 0.0088 0.0044

Mercury -99393-07-13 02:37 J -34581676.53 -34581676.39 -34581676.23 0.0088 0.0040

Mercury -99393-10-09 05:16 J -34581588.43 -34581588.28 -34581588.13 0.0088 0.0034

Mercury -99392-01-05 07:40 J -34581500.33 -34581500.18 -34581500.02 0.0088 0.0030

Mercury -99392-04-03 10:04 J -34581412.23 -34581412.08 -34581411.92 0.0088 0.0025

Mercury -99392-06-30 12:42 J -34581324.13 -34581323.97 -34581323.81 0.0088 0.0020

Mercury -99392-09-26 15:06 J -34581236.03 -34581235.87 -34581235.71 0.0088 0.0015

Mercury -99392-12-23 17:16 J -34581147.94 -34581147.78 -34581147.61 0.0088 0.0011

Mercury -99391-03-21 19:54 J -34581059.84 -34581059.67 -34581059.51 0.0088 0.0005

Mercury -99391-06-17 22:18 J -34580971.74 -34580971.57 -34580971.41 0.0088 0.0001

Mercury -99391-09-14 00:28 J -34580883.64 -34580883.48 -34580883.31 0.0088 0.0006

Mercury -99391-12-11 02:52 J -34580795.54 -34580795.38 -34580795.21 0.0088 0.0010

Mercury -99390-03-09 05:16 J -34580707.44 -34580707.28 -34580707.12 0.0088 0.0014

Mercury -99390-06-05 07:25 J -34580619.34 -34580619.19 -34580619.02 0.0088 0.0020

Mercury -99390-09-01 10:04 J -34580531.24 -34580531.08 -34580530.93 0.0088 0.0024

Mercury -99390-11-28 12:13 J -34580443.14 -34580442.99 -34580442.83 0.0088 0.0029

Mercury -99389-02-24 14:23 J -34580355.04 -34580354.90 -34580354.74 0.0088 0.0034

Mercury -99389-05-22 16:32 J -34580266.94 -34580266.81 -34580266.65 0.0088 0.0039

Mercury -99389-08-18 18:56 J -34580178.84 -34580178.71 -34580178.56 0.0088 0.0043

Mercury -99389-11-14 21:06 J -34580090.74 -34580090.62 -34580090.47 0.0088 0.0048

Mercury -99388-02-10 23:44 J -34580002.64 -34580002.51 -34580002.38 0.0088 0.0052

Mercury -99388-05-10 01:40 J -34579914.54 -34579914.43 -34579914.30 0.0088 0.0057

Mercury -99388-08-06 03:49 J -34579826.44 -34579826.34 -34579826.21 0.0088 0.0061

Venus -99388-08-18 07:54 J -34579814.23 -34579814.17 -34579814.09 0.0088 0.0084

Mercury -99388-11-02 06:13 J -34579738.34 -34579738.24 -34579738.13 0.0088 0.0065

Mercury -99387-01-29 08:08 J -34579650.24 -34579650.16 -34579650.05 0.0088 0.0071

Venus -99387-03-31 21:35 J -34579588.71 -34579588.60 -34579588.47 0.0088 0.0074

Mercury -99387-04-27 10:32 J -34579562.13 -34579562.06 -34579561.97 0.0088 0.0075

Mercury -99387-07-24 12:28 J -34579474.03 -34579473.98 -34579473.89 0.0088 0.0080

Mercury -99387-10-20 14:52 J -34579385.92 -34579385.88 -34579385.82 0.0088 0.0084

Venus -99387-11-12 11:01 J -34579363.18 -34579363.04 -34579362.87 0.0088 0.0064

Mercury -99386-01-16 17:16 J -34579297.79 -34579297.78 -34579297.76 0.0088 0.0088

Venus -99386-06-26 00:13 J -34579137.65 -34579137.49 -34579137.29 0.0088 0.0054

Venus -99385-02-06 13:40 J -34578912.11 -34578911.93 -34578911.72 0.0088 0.0043

Venus -99385-09-19 03:06 J -34578686.57 -34578686.37 -34578686.15 0.0088 0.0033

Venus -99384-05-02 16:47 J -34578461.02 -34578460.80 -34578460.59 0.0088 0.0023

Venus -99384-12-14 05:59 J -34578235.47 -34578235.25 -34578235.03 0.0088 0.0013

Venus -99383-07-27 19:25 J -34578009.92 -34578009.69 -34578009.47 0.0088 0.0003

Venus -99382-03-10 08:37 J -34577784.36 -34577784.14 -34577783.92 0.0088 0.0008

Venus -99382-10-21 21:35 J -34577558.80 -34577558.60 -34577558.37 0.0088 0.0019

Venus -99381-06-03 10:47 J -34577333.25 -34577333.05 -34577332.82 0.0088 0.0029

Venus -99380-01-14 23:59 J -34577107.69 -34577107.50 -34577107.29 0.0088 0.0039

Venus -99380-08-28 13:11 J -34576882.12 -34576881.95 -34576881.75 0.0088 0.0048

Venus -99379-04-11 02:23 J -34576656.55 -34576656.40 -34576656.22 0.0088 0.0059

Venus -99379-11-22 15:35 J -34576430.97 -34576430.85 -34576430.70 0.0088 0.0069

Venus -99378-07-06 04:32 J -34576205.39 -34576205.31 -34576205.19 0.0088 0.0079

Venus -99377-02-16 17:44 J -34575979.76 -34575979.76 -34575979.74 0.0088 0.0088

Moon -99358-08-21 23:59 J -34568853.64 -34568853.50 -34568853.35 0.0088 0.0073

Earth -99358-08-22 00:56 J -34568853.59 -34568853.46 -34568853.33 0.0088 0.0076 *

Earth -99357-08-23 09:20 J -34568486.32 -34568486.11 -34568485.88 0.0088 0.0045

Moon -99357-08-23 10:32 J -34568486.24 -34568486.06 -34568485.83 0.0088 0.0048 *

Moon -99356-08-25 15:20 J -34568119.11 -34568118.86 -34568118.60 0.0088 0.0010

Earth -99356-08-25 18:13 J -34568118.98 -34568118.74 -34568118.49 0.0088 0.0014 *

Earth -99355-08-28 02:52 J -34567751.63 -34567751.38 -34567751.13 0.0088 0.0018

Moon -99355-08-28 06:13 J -34567751.49 -34567751.24 -34567750.99 0.0088 0.0015 *
 Moon -99354-08-30 07:40 J -34567384.37 -34567384.18 -34567383.96 0.0088 0.0051
 Earth -99354-08-30 11:16 J -34567384.23 -34567384.03 -34567383.81 0.0088 0.0049 *
 Earth -99353-08-31 19:40 J -34567016.78 -34567016.68 -34567016.57 0.0088 0.0080
 Moon -99353-08-31 23:01 J -34567016.66 -34567016.54 -34567016.41 0.0088 0.0077 *
 Mars -99344-07-16 06:28 J -34563776.49 -34563776.23 -34563775.93 0.0088 0.0043
 Mars -99342-06-11 07:40 J -34563081.48 -34563081.18 -34563080.86 0.0088 0.0019
 Mars -99340-05-06 09:35 J -34562386.19 -34562386.10 -34562385.93 0.0088 0.0081
 Mercury -99313-05-04 04:04 J -34552526.36 -34552526.33 -34552526.31 0.0089 0.0087
 Mercury -99313-07-31 05:44 J -34552438.31 -34552438.26 -34552438.21 0.0089 0.0083
 Mercury -99313-10-27 07:25 J -34552350.25 -34552350.19 -34552350.12 0.0089 0.0079
 Mercury -99312-01-23 09:06 J -34552262.18 -34552262.12 -34552262.03 0.0089 0.0075
 Mercury -99312-04-21 11:01 J -34552174.12 -34552174.04 -34552173.94 0.0089 0.0071
 Mercury -99312-07-18 12:56 J -34552086.05 -34552085.96 -34552085.85 0.0089 0.0066
 Mercury -99312-10-14 14:52 J -34551997.98 -34551997.88 -34551997.77 0.0089 0.0062
 Mercury -99311-01-10 16:32 J -34551909.91 -34551909.81 -34551909.68 0.0089 0.0058
 Mercury -99311-04-08 18:42 J -34551821.84 -34551821.72 -34551821.60 0.0089 0.0053
 Mercury -99311-07-05 20:23 J -34551733.76 -34551733.65 -34551733.52 0.0089 0.0049
 Mercury -99311-10-01 22:18 J -34551645.69 -34551645.57 -34551645.43 0.0089 0.0045
 Mercury -99311-12-29 00:13 J -34551557.62 -34551557.49 -34551557.35 0.0089 0.0040
 Mercury -99310-03-27 02:08 J -34551469.54 -34551469.41 -34551469.27 0.0089 0.0036
 Mercury -99310-06-23 04:18 J -34551381.46 -34551381.32 -34551381.18 0.0089 0.0031
 Mercury -99310-09-19 05:59 J -34551293.39 -34551293.25 -34551293.10 0.0089 0.0027
 Mercury -99310-12-16 08:08 J -34551205.31 -34551205.16 -34551205.02 0.0089 0.0022
 Mercury -99309-03-13 10:04 J -34551117.23 -34551117.08 -34551116.93 0.0089 0.0018
 Mercury -99309-06-09 11:59 J -34551029.15 -34551029.00 -34551028.85 0.0089 0.0013
 Mercury -99309-09-05 13:54 J -34550941.07 -34550940.92 -34550940.77 0.0089 0.0009
 Mercury -99309-12-02 15:49 J -34550852.99 -34550852.84 -34550852.68 0.0089 0.0005
 Mercury -99308-02-28 17:44 J -34550764.91 -34550764.76 -34550764.60 0.0089 0.0003
 Mercury -99308-05-27 19:54 J -34550676.82 -34550676.67 -34550676.52 0.0089 0.0005

Mercury -99308-08-23 21:49 J -34550588.74 -34550588.59 -34550588.44 0.0089 0.0009

Mercury -99308-11-19 23:44 J -34550500.66 -34550500.51 -34550500.35 0.0089 0.0014

Mercury -99307-02-16 01:40 J -34550412.57 -34550412.43 -34550412.27 0.0089 0.0019

Mercury -99307-05-15 03:49 J -34550324.48 -34550324.34 -34550324.19 0.0089 0.0023

Mercury -99307-08-11 05:44 J -34550236.40 -34550236.26 -34550236.10 0.0089 0.0028

Mercury -99307-11-07 07:54 J -34550148.31 -34550148.17 -34550148.02 0.0089 0.0033

Mercury -99306-02-03 10:04 J -34550060.22 -34550060.08 -34550059.94 0.0089 0.0037

Mercury -99306-05-02 11:59 J -34549972.13 -34549972.00 -34549971.86 0.0089 0.0042

Mercury -99306-07-29 13:54 J -34549884.04 -34549883.92 -34549883.77 0.0089 0.0047

Venus -99306-09-30 07:25 J -34549821.20 -34549821.19 -34549821.14 0.0089 0.0088

Mercury -99306-10-25 16:18 J -34549795.94 -34549795.82 -34549795.69 0.0089 0.0051

Mercury -99305-01-21 18:13 J -34549707.85 -34549707.74 -34549707.61 0.0089 0.0056

Mercury -99305-04-18 20:23 J -34549619.76 -34549619.65 -34549619.53 0.0089 0.0061

Venus -99305-05-12 19:54 J -34549595.75 -34549595.67 -34549595.55 0.0089 0.0078

Mercury -99305-07-15 22:18 J -34549531.66 -34549531.57 -34549531.45 0.0089 0.0066

Mercury -99305-10-12 00:28 J -34549443.56 -34549443.48 -34549443.37 0.0089 0.0071

Venus -99305-12-24 08:37 J -34549370.27 -34549370.14 -34549369.99 0.0089 0.0068

Mercury -99304-01-08 02:52 J -34549355.46 -34549355.38 -34549355.29 0.0089 0.0075

Mercury -99304-04-06 04:47 J -34549267.35 -34549267.30 -34549267.22 0.0089 0.0080

Mercury -99304-07-03 06:56 J -34549179.24 -34549179.21 -34549179.15 0.0089 0.0085

Venus -99304-08-06 21:06 J -34549144.77 -34549144.62 -34549144.45 0.0089 0.0058

Venus -99303-03-20 09:49 J -34548919.27 -34548919.09 -34548918.90 0.0089 0.0048

Venus -99303-10-31 22:32 J -34548693.75 -34548693.56 -34548693.36 0.0089 0.0038

Venus -99302-06-14 11:01 J -34548468.23 -34548468.04 -34548467.82 0.0089 0.0028

Venus -99301-01-25 23:44 J -34548242.72 -34548242.51 -34548242.29 0.0089 0.0018

Venus -99301-09-07 12:42 J -34548017.19 -34548016.97 -34548016.76 0.0089 0.0007

Venus -99300-04-21 01:25 J -34547791.66 -34547791.44 -34547791.23 0.0089 0.0003

Venus -99300-12-02 13:54 J -34547566.13 -34547565.92 -34547565.70 0.0089 0.0013

Venus -99299-07-16 02:37 J -34547340.60 -34547340.39 -34547340.17 0.0089 0.0023

Venus -99298-02-26 15:06 J -34547115.06 -34547114.87 -34547114.65 0.0089 0.0034

Venus	-99298-10-10 04:04 J	-34546889.51	-34546889.33	-34546889.13	0.0089	0.0044
Venus	-99297-05-22 16:47 J	-34546663.96	-34546663.80	-34546663.61	0.0089	0.0054
Venus	-99296-01-03 05:30 J	-34546438.40	-34546438.27	-34546438.10	0.0089	0.0064
Venus	-99296-08-16 18:28 J	-34546212.84	-34546212.73	-34546212.60	0.0089	0.0074
Venus	-99295-03-30 07:25 J	-34545987.25	-34545987.19	-34545987.11	0.0089	0.0084
Earth	-99275-02-13 08:23 J	-34538727.30	-34538727.15	-34538726.95	0.0089	0.0066
Moon	-99275-02-13 11:30 J	-34538727.19	-34538727.02	-34538726.83	0.0089	0.0065 *
Moon	-99274-02-15 21:20 J	-34538359.83	-34538359.61	-34538359.35	0.0089	0.0033
Earth	-99274-02-15 23:01 J	-34538359.77	-34538359.54	-34538359.28	0.0089	0.0033 *
Earth	-99273-02-18 13:54 J	-34537992.18	-34537991.92	-34537991.65	0.0089	0.0002
Moon	-99273-02-18 14:08 J	-34537992.18	-34537991.91	-34537991.63	0.0089	0.0001 *
Earth	-99272-02-20 04:47 J	-34537624.54	-34537624.30	-34537624.05	0.0089	0.0034
Moon	-99272-02-20 05:01 J	-34537624.51	-34537624.29	-34537624.04	0.0089	0.0034 *
Moon	-99271-02-22 17:30 J	-34537256.93	-34537256.77	-34537256.59	0.0089	0.0068
Earth	-99271-02-22 19:11 J	-34537256.85	-34537256.70	-34537256.51	0.0089	0.0068 *
Mars	-99262-06-15 05:30 J	-34533857.53	-34533857.27	-34533856.97	0.0089	0.0040
Mars	-99260-05-09 20:37 J	-34533162.92	-34533162.64	-34533162.32	0.0089	0.0021
Mars	-99258-04-04 10:18 J	-34532468.18	-34532468.07	-34532467.91	0.0089	0.0080
Mercury	-99231-11-09 23:59 J	-34522386.50	-34522386.50	-34522386.48	0.0088	0.0088
Mercury	-99230-02-06 02:23 J	-34522298.44	-34522298.40	-34522298.33	0.0088	0.0084
Mercury	-99230-05-05 05:01 J	-34522210.35	-34522210.29	-34522210.20	0.0088	0.0078
Mercury	-99230-08-01 07:54 J	-34522122.26	-34522122.17	-34522122.07	0.0088	0.0073
Mercury	-99230-10-28 10:32 J	-34522034.17	-34522034.06	-34522033.96	0.0088	0.0068
Mercury	-99229-01-24 12:56 J	-34521946.07	-34521945.96	-34521945.84	0.0088	0.0063
Mercury	-99229-04-21 15:35 J	-34521857.98	-34521857.85	-34521857.72	0.0088	0.0058
Mercury	-99229-07-18 17:59 J	-34521769.88	-34521769.75	-34521769.61	0.0088	0.0053
Mercury	-99229-10-14 20:37 J	-34521681.78	-34521681.64	-34521681.50	0.0088	0.0048
Mercury	-99228-01-10 23:01 J	-34521593.68	-34521593.54	-34521593.39	0.0088	0.0043
Mercury	-99228-04-09 01:25 J	-34521505.58	-34521505.44	-34521505.28	0.0088	0.0038
Mercury	-99228-07-06 04:04 J	-34521417.49	-34521417.33	-34521417.18	0.0088	0.0033

Mercury -99228-10-02 06:28 J -34521329.39 -34521329.23 -34521329.07 0.0088 0.0028

Mercury -99228-12-29 08:52 J -34521241.29 -34521241.13 -34521240.97 0.0088 0.0023

Mercury -99227-03-27 11:16 J -34521153.19 -34521153.03 -34521152.86 0.0088 0.0018

Mercury -99227-06-23 13:40 J -34521065.09 -34521064.93 -34521064.76 0.0088 0.0013

Mercury -99227-09-19 16:18 J -34520976.99 -34520976.82 -34520976.66 0.0088 0.0008

Mercury -99227-12-16 18:42 J -34520888.89 -34520888.72 -34520888.56 0.0088 0.0004

Mercury -99226-03-14 21:06 J -34520800.79 -34520800.62 -34520800.46 0.0088 0.0002

Mercury -99226-06-10 23:30 J -34520712.69 -34520712.52 -34520712.36 0.0088 0.0007

Mercury -99226-09-07 01:40 J -34520624.59 -34520624.43 -34520624.26 0.0088 0.0011

Mercury -99226-12-04 04:04 J -34520536.49 -34520536.33 -34520536.17 0.0088 0.0016

Mercury -99225-03-01 06:28 J -34520448.39 -34520448.23 -34520448.07 0.0088 0.0021

Mercury -99225-05-28 08:37 J -34520360.29 -34520360.14 -34520359.98 0.0088 0.0026

Mercury -99225-08-24 11:01 J -34520272.19 -34520272.04 -34520271.88 0.0088 0.0030

Mercury -99225-11-20 13:11 J -34520184.09 -34520183.95 -34520183.79 0.0088 0.0035

Mercury -99224-02-16 15:35 J -34520095.99 -34520095.85 -34520095.70 0.0088 0.0040

Mercury -99224-05-15 17:44 J -34520007.89 -34520007.76 -34520007.61 0.0088 0.0045

Mercury -99224-08-11 19:54 J -34519919.79 -34519919.67 -34519919.52 0.0088 0.0050

Mercury -99224-11-07 22:18 J -34519831.69 -34519831.57 -34519831.43 0.0088 0.0054

Venus -99224-11-19 17:01 J -34519819.81 -34519819.79 -34519819.72 0.0088 0.0087

Mercury -99223-02-04 00:28 J -34519743.58 -34519743.48 -34519743.34 0.0088 0.0059

Mercury -99223-05-03 02:52 J -34519655.48 -34519655.38 -34519655.26 0.0088 0.0063

Venus -99223-07-03 06:28 J -34519594.32 -34519594.23 -34519594.09 0.0088 0.0077

Mercury -99223-07-30 05:01 J -34519567.38 -34519567.29 -34519567.18 0.0088 0.0067

Mercury -99223-10-26 07:25 J -34519479.28 -34519479.19 -34519479.10 0.0088 0.0072

Mercury -99222-01-22 09:20 J -34519391.17 -34519391.11 -34519391.02 0.0088 0.0077

Venus -99222-02-13 19:54 J -34519368.79 -34519368.67 -34519368.50 0.0088 0.0067

Mercury -99222-04-20 11:44 J -34519303.06 -34519303.01 -34519302.94 0.0088 0.0081

Mercury -99222-07-17 13:40 J -34519214.95 -34519214.93 -34519214.87 0.0088 0.0086

Venus -99222-09-27 09:49 J -34519143.26 -34519143.09 -34519142.91 0.0088 0.0056

Venus -99221-05-09 23:01 J -34518917.72 -34518917.54 -34518917.34 0.0088 0.0046

Venus	-99221-12-21 12:28 J	-34518692.17	-34518691.98	-34518691.77	0.0088	0.0035
Venus	-99220-08-04 01:40 J	-34518466.63	-34518466.43	-34518466.20	0.0088	0.0026
Venus	-99219-03-17 15:06 J	-34518241.08	-34518240.87	-34518240.64	0.0088	0.0016
Venus	-99219-10-29 04:32 J	-34518015.53	-34518015.31	-34518015.08	0.0088	0.0005
Venus	-99218-06-11 17:59 J	-34517789.98	-34517789.75	-34517789.53	0.0088	0.0006
Venus	-99217-01-23 06:56 J	-34517564.42	-34517564.21	-34517563.99	0.0088	0.0016
Venus	-99217-09-04 19:54 J	-34517338.87	-34517338.67	-34517338.44	0.0088	0.0027
Venus	-99216-04-18 09:20 J	-34517113.30	-34517113.11	-34517112.90	0.0088	0.0036
Venus	-99216-11-29 22:32 J	-34516887.74	-34516887.56	-34516887.36	0.0088	0.0047
Venus	-99215-07-13 11:44 J	-34516662.17	-34516662.01	-34516661.83	0.0088	0.0056
Venus	-99214-02-24 00:42 J	-34516436.60	-34516436.47	-34516436.31	0.0088	0.0067
Venus	-99214-10-07 13:54 J	-34516211.02	-34516210.92	-34516210.80	0.0088	0.0077
Venus	-99213-05-20 02:52 J	-34515985.40	-34515985.38	-34515985.32	0.0088	0.0087
Moon	-99193-08-22 16:04 J	-34508586.00	-34508585.83	-34508585.61	0.0088	0.0058
Earth	-99193-08-22 19:25 J	-34508585.86	-34508585.69	-34508585.49	0.0088	0.0060 *
Earth	-99192-08-25 04:04 J	-34508218.56	-34508218.33	-34508218.08	0.0088	0.0029
Moon	-99192-08-25 07:25 J	-34508218.41	-34508218.19	-34508217.94	0.0088	0.0034 *
Moon	-99191-08-27 09:35 J	-34507851.35	-34507851.10	-34507850.85	0.0088	0.0005
Earth	-99191-08-27 12:56 J	-34507851.21	-34507850.96	-34507850.70	0.0088	0.0002 *
Earth	-99190-08-29 21:06 J	-34507483.84	-34507483.62	-34507483.37	0.0088	0.0034
Moon	-99190-08-29 23:59 J	-34507483.73	-34507483.50	-34507483.25	0.0088	0.0030 *
Moon	-99189-08-31 03:49 J	-34507116.49	-34507116.34	-34507116.18	0.0088	0.0068
Earth	-99189-08-31 05:16 J	-34507116.42	-34507116.28	-34507116.08	0.0088	0.0065 *
Mars	-99180-02-27 13:40 J	-34504014.11	-34504013.93	-34504013.72	0.0088	0.0070
Mars	-99178-01-23 11:30 J	-34503319.32	-34503319.02	-34503318.69	0.0088	0.0010
Mars	-99177-12-18 12:28 J	-34502624.21	-34502623.98	-34502623.70	0.0088	0.0053
Mercury	-99148-01-29 02:52 J	-34492355.41	-34492355.38	-34492355.34	0.0089	0.0086
Mercury	-99148-04-27 04:32 J	-34492267.35	-34492267.31	-34492267.24	0.0089	0.0082
Mercury	-99148-07-24 06:13 J	-34492179.29	-34492179.24	-34492179.15	0.0089	0.0078
Mercury	-99148-10-20 08:23 J	-34492091.23	-34492091.15	-34492091.07	0.0089	0.0073

Mercury -99147-01-16 10:04 J -34492003.16 -34492003.08 -34492002.98 0.0089 0.0069

Mercury -99147-04-14 11:44 J -34491915.09 -34491915.01 -34491914.89 0.0089 0.0065

Mercury -99147-07-11 13:40 J -34491827.02 -34491826.93 -34491826.81 0.0089 0.0061

Mercury -99147-10-07 15:49 J -34491738.95 -34491738.84 -34491738.72 0.0089 0.0056

Mercury -99146-01-03 17:30 J -34491650.88 -34491650.77 -34491650.64 0.0089 0.0052

Mercury -99146-04-01 19:11 J -34491562.81 -34491562.70 -34491562.56 0.0089 0.0048

Mercury -99146-06-28 21:20 J -34491474.73 -34491474.61 -34491474.47 0.0089 0.0043

Mercury -99146-09-24 23:16 J -34491386.66 -34491386.53 -34491386.39 0.0089 0.0039

Mercury -99146-12-22 01:11 J -34491298.58 -34491298.45 -34491298.31 0.0089 0.0034

Mercury -99145-03-19 03:06 J -34491210.51 -34491210.37 -34491210.23 0.0089 0.0030

Mercury -99145-06-15 05:01 J -34491122.43 -34491122.29 -34491122.14 0.0089 0.0025

Mercury -99145-09-11 06:56 J -34491034.35 -34491034.21 -34491034.06 0.0089 0.0021

Mercury -99145-12-08 08:52 J -34490946.27 -34490946.13 -34490945.98 0.0089 0.0017

Mercury -99144-03-06 10:47 J -34490858.20 -34490858.05 -34490857.89 0.0089 0.0012

Mercury -99144-06-02 12:42 J -34490770.12 -34490769.97 -34490769.81 0.0089 0.0008

Mercury -99144-08-29 14:52 J -34490682.03 -34490681.88 -34490681.73 0.0089 0.0003

Mercury -99144-11-25 16:47 J -34490593.95 -34490593.80 -34490593.65 0.0089 0.0002

Mercury -99143-02-21 18:42 J -34490505.87 -34490505.72 -34490505.56 0.0089 0.0006

Mercury -99143-05-20 20:37 J -34490417.79 -34490417.64 -34490417.48 0.0089 0.0011

Mercury -99143-08-16 22:47 J -34490329.70 -34490329.55 -34490329.40 0.0089 0.0015

Mercury -99143-11-13 00:42 J -34490241.62 -34490241.47 -34490241.32 0.0089 0.0020

Mercury -99142-02-09 02:37 J -34490153.53 -34490153.39 -34490153.24 0.0089 0.0025

Mercury -99142-05-08 04:47 J -34490065.44 -34490065.30 -34490065.15 0.0089 0.0029

Mercury -99142-08-04 06:42 J -34489977.36 -34489977.22 -34489977.07 0.0089 0.0034

Mercury -99142-10-31 08:37 J -34489889.27 -34489889.14 -34489888.99 0.0089 0.0039

Mercury -99141-01-27 10:47 J -34489801.18 -34489801.05 -34489800.91 0.0089 0.0043

Mercury -99141-04-24 12:56 J -34489713.09 -34489712.96 -34489712.83 0.0089 0.0048

Mercury -99141-07-21 14:52 J -34489624.99 -34489624.88 -34489624.75 0.0089 0.0053

Venus -99141-08-14 05:44 J -34489601.34 -34489601.26 -34489601.16 0.0089 0.0081

Mercury -99141-10-17 17:16 J -34489536.90 -34489536.78 -34489536.66 0.0089 0.0057

Mercury -99140-01-13 19:11 J -34489448.81 -34489448.70 -34489448.58 0.0089 0.0062

Venus -99140-03-27 18:13 J -34489375.86 -34489375.74 -34489375.60 0.0089 0.0071

Mercury -99140-04-11 21:06 J -34489360.71 -34489360.62 -34489360.51 0.0089 0.0067

Mercury -99140-07-08 23:16 J -34489272.61 -34489272.53 -34489272.43 0.0089 0.0072

Mercury -99140-10-05 01:40 J -34489184.51 -34489184.43 -34489184.35 0.0089 0.0076

Venus -99140-11-08 06:42 J -34489150.36 -34489150.22 -34489150.05 0.0089 0.0061

Mercury -99139-01-01 03:35 J -34489096.40 -34489096.35 -34489096.28 0.0089 0.0081

Mercury -99139-03-30 05:44 J -34489008.29 -34489008.26 -34489008.21 0.0089 0.0086

Venus -99139-06-21 19:11 J -34488924.86 -34488924.70 -34488924.51 0.0089 0.0051

Venus -99138-02-02 07:54 J -34488699.35 -34488699.17 -34488698.97 0.0089 0.0041

Venus -99138-09-15 20:23 J -34488473.84 -34488473.65 -34488473.43 0.0089 0.0031

Venus -99137-04-28 09:20 J -34488248.32 -34488248.11 -34488247.89 0.0089 0.0020

Venus -99137-12-09 22:04 J -34488022.79 -34488022.58 -34488022.36 0.0089 0.0010

Venus -99136-07-23 10:47 J -34487797.27 -34487797.05 -34487796.83 0.0089 0.0000

Venus -99135-03-05 23:16 J -34487571.74 -34487571.53 -34487571.30 0.0089 0.0011

Venus -99135-10-17 12:13 J -34487346.19 -34487345.99 -34487345.77 0.0089 0.0021

Venus -99134-05-31 00:56 J -34487120.66 -34487120.46 -34487120.25 0.0089 0.0031

Venus -99133-01-11 13:54 J -34486895.11 -34486894.92 -34486894.73 0.0089 0.0041

Venus -99133-08-24 02:08 J -34486669.57 -34486669.41 -34486669.21 0.0089 0.0052

Venus -99132-04-06 15:06 J -34486444.01 -34486443.87 -34486443.70 0.0089 0.0062

Venus -99132-11-18 04:18 J -34486218.44 -34486218.32 -34486218.19 0.0089 0.0072

Venus -99131-07-01 17:16 J -34485992.86 -34485992.78 -34485992.70 0.0089 0.0082

Moon -99111-02-12 12:56 J -34478827.04 -34478826.96 -34478826.81 0.0089 0.0079

Earth -99111-02-12 13:25 J -34478827.00 -34478826.94 -34478826.81 0.0089 0.0083 *

Moon -99110-02-15 03:35 J -34478459.54 -34478459.35 -34478459.10 0.0089 0.0054

Earth -99110-02-15 04:18 J -34478459.53 -34478459.32 -34478459.09 0.0089 0.0049 *

Earth -99109-02-17 18:56 J -34478091.96 -34478091.71 -34478091.44 0.0089 0.0016

Moon -99109-02-17 20:52 J -34478091.88 -34478091.63 -34478091.37 0.0089 0.0011 *

Moon -99108-02-19 06:56 J -34477724.47 -34477724.21 -34477723.93 0.0089 0.0013

Earth -99108-02-19 09:35 J -34477724.35 -34477724.10 -34477723.83 0.0089 0.0018 *

Earth -99107-02-21 23:59 J -34477356.70 -34477356.50 -34477356.27 0.0089 0.0051
 Moon -99107-02-22 02:52 J -34477356.55 -34477356.38 -34477356.15 0.0089 0.0056 *
 Moon -99106-02-24 10:47 J -34476989.13 -34476989.05 -34476988.90 0.0089 0.0080
 Earth -99106-02-24 14:37 J -34476988.94 -34476988.89 -34476988.78 0.0089 0.0085 *
 Mars -99098-01-27 20:08 J -34474094.84 -34474094.66 -34474094.43 0.0089 0.0068
 Mars -99097-12-22 15:06 J -34473400.17 -34473399.87 -34473399.55 0.0089 0.0007
 Mars -99095-11-17 05:59 J -34472705.48 -34472705.25 -34472704.99 0.0089 0.0054
 Mercury -99066-08-06 22:32 J -34462215.57 -34462215.56 -34462215.51 0.0088 0.0087
 Mercury -99066-11-03 01:11 J -34462127.50 -34462127.45 -34462127.37 0.0088 0.0082
 Mercury -99065-01-30 03:49 J -34462039.41 -34462039.34 -34462039.24 0.0088 0.0077
 Mercury -99065-04-27 06:28 J -34461951.32 -34461951.23 -34461951.12 0.0088 0.0071
 Mercury -99065-07-24 08:52 J -34461863.22 -34461863.13 -34461863.00 0.0088 0.0067
 Mercury -99065-10-20 11:30 J -34461775.13 -34461775.02 -34461774.88 0.0088 0.0061
 Mercury -99064-01-16 14:23 J -34461687.03 -34461686.90 -34461686.77 0.0088 0.0056
 Mercury -99064-04-14 16:32 J -34461598.93 -34461598.81 -34461598.66 0.0088 0.0052
 Mercury -99064-07-11 19:25 J -34461510.83 -34461510.69 -34461510.55 0.0088 0.0046
 Mercury -99064-10-07 21:35 J -34461422.73 -34461422.60 -34461422.44 0.0088 0.0042
 Mercury -99063-01-04 00:13 J -34461334.63 -34461334.49 -34461334.33 0.0088 0.0036
 Mercury -99063-04-02 02:37 J -34461246.53 -34461246.39 -34461246.22 0.0088 0.0032
 Mercury -99063-06-29 05:16 J -34461158.43 -34461158.28 -34461158.12 0.0088 0.0026
 Mercury -99063-09-25 07:40 J -34461070.33 -34461070.18 -34461070.01 0.0088 0.0021
 Mercury -99063-12-22 10:04 J -34460982.23 -34460982.08 -34460981.91 0.0088 0.0017
 Mercury -99062-03-20 12:42 J -34460894.13 -34460893.97 -34460893.81 0.0088 0.0011
 Mercury -99062-06-16 15:06 J -34460806.03 -34460805.87 -34460805.70 0.0088 0.0006
 Mercury -99062-09-12 17:30 J -34460717.93 -34460717.77 -34460717.60 0.0088 0.0002
 Mercury -99062-12-09 19:54 J -34460629.83 -34460629.67 -34460629.50 0.0088 0.0003
 Mercury -99061-03-06 22:18 J -34460541.73 -34460541.57 -34460541.41 0.0088 0.0008
 Mercury -99061-06-03 00:42 J -34460453.63 -34460453.47 -34460453.31 0.0088 0.0013
 Mercury -99061-08-30 03:06 J -34460365.53 -34460365.37 -34460365.21 0.0088 0.0018
 Mercury -99061-11-26 05:16 J -34460277.43 -34460277.28 -34460277.12 0.0088 0.0023

Mercury -99060-02-22 07:40 J -34460189.33 -34460189.18 -34460189.02 0.0088 0.0027

Mercury -99060-05-21 09:49 J -34460101.23 -34460101.09 -34460100.93 0.0088 0.0033

Mercury -99060-08-17 12:28 J -34460013.13 -34460012.98 -34460012.83 0.0088 0.0037

Mercury -99060-11-13 14:37 J -34459925.03 -34459924.89 -34459924.74 0.0088 0.0042

Mercury -99059-02-09 16:47 J -34459836.93 -34459836.80 -34459836.65 0.0088 0.0046

Mercury -99059-05-08 18:56 J -34459748.83 -34459748.71 -34459748.56 0.0088 0.0051

Mercury -99059-08-04 21:20 J -34459660.72 -34459660.61 -34459660.48 0.0088 0.0056

Venus -99059-10-04 16:32 J -34459599.90 -34459599.81 -34459599.71 0.0088 0.0079

Mercury -99059-10-31 23:30 J -34459572.62 -34459572.52 -34459572.39 0.0088 0.0061

Mercury -99058-01-28 01:54 J -34459484.52 -34459484.42 -34459484.30 0.0088 0.0065

Mercury -99058-04-26 04:04 J -34459396.42 -34459396.33 -34459396.22 0.0088 0.0069

Venus -99058-05-18 05:44 J -34459374.38 -34459374.26 -34459374.10 0.0088 0.0069

Mercury -99058-07-23 06:28 J -34459308.31 -34459308.23 -34459308.14 0.0088 0.0074

Mercury -99058-10-19 08:23 J -34459220.20 -34459220.15 -34459220.06 0.0088 0.0079

Venus -99058-12-29 19:11 J -34459148.85 -34459148.70 -34459148.51 0.0088 0.0059

Mercury -99057-01-15 11:01 J -34459132.09 -34459132.04 -34459131.99 0.0088 0.0083

Mercury -99057-04-12 12:56 J -34459043.97 -34459043.96 -34459043.93 0.0088 0.0087

Venus -99057-08-11 09:06 J -34458923.31 -34458923.12 -34458922.93 0.0088 0.0048

Venus -99056-03-24 22:32 J -34458697.76 -34458697.56 -34458697.35 0.0088 0.0037

Venus -99056-11-05 11:44 J -34458472.21 -34458472.01 -34458471.78 0.0088 0.0028

Venus -99055-06-19 01:25 J -34458246.66 -34458246.44 -34458246.22 0.0088 0.0017

Venus -99054-01-30 14:37 J -34458021.11 -34458020.89 -34458020.67 0.0088 0.0007

Venus -99054-09-13 03:49 J -34457795.56 -34457795.34 -34457795.12 0.0088 0.0004

Venus -99053-04-25 17:01 J -34457570.00 -34457569.79 -34457569.56 0.0088 0.0015

Venus -99053-12-07 06:13 J -34457344.44 -34457344.24 -34457344.02 0.0088 0.0025

Venus -99052-07-20 19:25 J -34457118.88 -34457118.69 -34457118.48 0.0088 0.0035

Venus -99051-03-03 08:52 J -34456893.32 -34456893.13 -34456892.94 0.0088 0.0045

Venus -99051-10-14 21:35 J -34456667.76 -34456667.60 -34456667.41 0.0088 0.0055

Venus -99050-05-28 10:32 J -34456442.18 -34456442.06 -34456441.89 0.0088 0.0066

Venus -99049-01-08 23:44 J -34456216.60 -34456216.51 -34456216.38 0.0088 0.0076

Venus	-99049-08-21 12:42 J	-34455991.00	-34455990.97	-34455990.89	0.0088	0.0086
Earth	-99029-08-22 05:44 J	-34448685.37	-34448685.26	-34448685.11	0.0088	0.0075
Moon	-99029-08-22 09:20 J	-34448685.24	-34448685.11	-34448684.95	0.0088	0.0072 *
Moon	-99028-08-24 11:30 J	-34448318.21	-34448318.02	-34448317.79	0.0088	0.0047
Earth	-99028-08-24 14:37 J	-34448318.09	-34448317.89	-34448317.65	0.0088	0.0045 *
Earth	-99027-08-26 23:44 J	-34447950.76	-34447950.51	-34447950.26	0.0088	0.0013
Moon	-99027-08-27 02:23 J	-34447950.65	-34447950.40	-34447950.14	0.0088	0.0010 *
Moon	-99026-08-29 07:25 J	-34447583.43	-34447583.19	-34447582.95	0.0088	0.0015
Earth	-99026-08-29 08:08 J	-34447583.40	-34447583.16	-34447582.90	0.0088	0.0018 *
Earth	-99025-08-30 16:47 J	-34447216.00	-34447215.80	-34447215.59	0.0088	0.0049
Moon	-99025-08-30 16:47 J	-34447216.00	-34447215.80	-34447215.58	0.0088	0.0051 *
Earth	-99024-09-02 01:11 J	-34446848.55	-34446848.45	-34446848.34	0.0088	0.0080
Moon	-99024-09-02 01:40 J	-34446848.51	-34446848.43	-34446848.28	0.0088	0.0078 *
Mars	-99015-09-06 21:35 J	-34443556.87	-34443556.60	-34443556.29	0.0088	0.0036
Mars	-99013-08-01 19:54 J	-34442861.96	-34442861.67	-34442861.35	0.0088	0.0026
Mars	-99011-06-27 20:52 J	-34442166.65	-34442166.63	-34442166.57	0.0088	0.0088

99TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 99th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-98984-07-30 00:13 J	-34432272.49	-34432272.49	-34432272.47	0.0089	0.0089		
Mercury	-98984-10-26 02:08 J	-34432184.45	-34432184.41	-34432184.36	0.0089	0.0084		

Mercury -98983-01-22 03:49 J -34432096.39 -34432096.34 -34432096.27 0.0089 0.0080

Mercury -98983-04-20 05:30 J -34432008.33 -34432008.27 -34432008.18 0.0089 0.0076

Mercury -98983-07-17 07:25 J -34431920.27 -34431920.19 -34431920.09 0.0089 0.0072

Mercury -98983-10-13 09:35 J -34431832.20 -34431832.10 -34431832.01 0.0089 0.0067

Mercury -98982-01-09 11:16 J -34431744.13 -34431744.03 -34431743.92 0.0089 0.0063

Mercury -98982-04-07 12:56 J -34431656.06 -34431655.96 -34431655.84 0.0089 0.0059

Mercury -98982-07-04 15:06 J -34431567.99 -34431567.87 -34431567.76 0.0089 0.0054

Mercury -98982-09-30 16:47 J -34431479.92 -34431479.80 -34431479.67 0.0089 0.0050

Mercury -98982-12-27 18:28 J -34431391.84 -34431391.73 -34431391.59 0.0089 0.0046

Mercury -98981-03-24 20:37 J -34431303.77 -34431303.64 -34431303.51 0.0089 0.0041

Mercury -98981-06-20 22:32 J -34431215.69 -34431215.56 -34431215.42 0.0089 0.0037

Mercury -98981-09-17 00:13 J -34431127.62 -34431127.49 -34431127.34 0.0089 0.0033

Mercury -98981-12-14 02:23 J -34431039.54 -34431039.40 -34431039.26 0.0089 0.0028

Mercury -98980-03-12 04:04 J -34430951.46 -34430951.33 -34430951.17 0.0089 0.0024

Mercury -98980-06-08 06:13 J -34430863.39 -34430863.24 -34430863.09 0.0089 0.0019

Mercury -98980-09-04 08:08 J -34430775.31 -34430775.16 -34430775.01 0.0089 0.0015

Mercury -98980-12-01 10:04 J -34430687.23 -34430687.08 -34430686.93 0.0089 0.0010

Mercury -98979-02-27 11:59 J -34430599.15 -34430599.00 -34430598.85 0.0089 0.0006

Mercury -98979-05-26 13:54 J -34430511.07 -34430510.92 -34430510.76 0.0089 0.0003

Mercury -98979-08-22 16:04 J -34430422.99 -34430422.83 -34430422.68 0.0089 0.0004

Mercury -98979-11-18 17:59 J -34430334.90 -34430334.75 -34430334.60 0.0089 0.0008

Mercury -98978-02-14 19:54 J -34430246.82 -34430246.67 -34430246.52 0.0089 0.0013

Mercury -98978-05-13 21:49 J -34430158.73 -34430158.59 -34430158.43 0.0089 0.0018

Mercury -98978-08-09 23:59 J -34430070.65 -34430070.50 -34430070.35 0.0089 0.0022

Mercury -98978-11-06 01:54 J -34429982.56 -34429982.42 -34429982.27 0.0089 0.0027

Mercury -98977-02-02 03:49 J -34429894.48 -34429894.34 -34429894.19 0.0089 0.0031

Mercury -98977-04-30 05:44 J -34429806.39 -34429806.26 -34429806.11 0.0089 0.0036

Mercury -98977-07-27 07:54 J -34429718.30 -34429718.17 -34429718.03 0.0089 0.0041

Mercury -98977-10-23 10:04 J -34429630.21 -34429630.08 -34429629.94 0.0089 0.0045

Venus -98977-11-15 16:04 J -34429606.87 -34429606.83 -34429606.73 0.0089 0.0084

Mercury -98976-01-19 11:59 J -34429542.12 -34429542.00 -34429541.86 0.0089 0.0050

Mercury -98976-04-17 13:54 J -34429454.03 -34429453.92 -34429453.78 0.0089 0.0055

Venus -98976-06-29 04:32 J -34429381.40 -34429381.31 -34429381.16 0.0089 0.0074

Mercury -98976-07-14 16:18 J -34429365.93 -34429365.82 -34429365.70 0.0089 0.0059

Mercury -98976-10-10 18:13 J -34429277.84 -34429277.74 -34429277.62 0.0089 0.0064

Mercury -98975-01-06 20:08 J -34429189.74 -34429189.66 -34429189.55 0.0089 0.0069

Venus -98975-02-09 17:01 J -34429155.92 -34429155.79 -34429155.62 0.0089 0.0064

Mercury -98975-04-04 22:18 J -34429101.64 -34429101.57 -34429101.47 0.0089 0.0074

Mercury -98975-07-02 00:42 J -34429013.54 -34429013.47 -34429013.40 0.0089 0.0078

Venus -98975-09-23 05:59 J -34428930.42 -34428930.25 -34428930.07 0.0089 0.0053

Mercury -98975-09-28 02:37 J -34428925.43 -34428925.39 -34428925.33 0.0089 0.0083

Mercury -98975-12-25 04:47 J -34428837.31 -34428837.30 -34428837.27 0.0089 0.0088

Venus -98974-05-06 18:28 J -34428704.91 -34428704.73 -34428704.53 0.0089 0.0043

Venus -98974-12-18 06:56 J -34428479.40 -34428479.21 -34428479.00 0.0089 0.0033

Venus -98973-07-30 19:25 J -34428253.89 -34428253.69 -34428253.47 0.0089 0.0023

Venus -98972-03-13 08:23 J -34428028.36 -34428028.15 -34428027.93 0.0089 0.0012

Venus -98972-10-24 21:06 J -34427802.83 -34427802.62 -34427802.40 0.0089 0.0003

Jupiter -98971-02-25 00:28 J -34427679.70 -34427679.48 -34427679.17 0.0089 0.0078

Venus -98971-06-07 09:49 J -34427577.30 -34427577.09 -34427576.87 0.0089 0.0009

Venus -98970-01-18 22:18 J -34427351.77 -34427351.57 -34427351.34 0.0089 0.0019

Venus -98970-09-01 11:16 J -34427126.23 -34427126.03 -34427125.82 0.0089 0.0029

Venus -98969-04-13 23:44 J -34426900.69 -34426900.51 -34426900.30 0.0089 0.0040

Venus -98969-11-25 12:42 J -34426675.14 -34426674.97 -34426674.78 0.0089 0.0050

Venus -98968-07-09 01:40 J -34426449.58 -34426449.43 -34426449.27 0.0089 0.0060

Venus -98967-02-19 14:08 J -34426224.02 -34426223.91 -34426223.76 0.0089 0.0071

Venus -98967-10-03 03:06 J -34425998.44 -34425998.37 -34425998.26 0.0089 0.0081

Earth -98946-02-14 10:47 J -34418559.23 -34418559.05 -34418558.87 0.0089 0.0066

Moon -98946-02-14 12:28 J -34418559.12 -34418558.98 -34418558.79 0.0089 0.0067 *

Moon -98945-02-16 21:49 J -34418191.83 -34418191.59 -34418191.33 0.0089 0.0032

Earth -98945-02-17 01:11 J -34418191.69 -34418191.45 -34418191.20 0.0089 0.0032 *

Earth -98944-02-18 15:49 J -34417824.11 -34417823.84 -34417823.58 0.0089 0.0001
 Moon -98944-02-18 19:25 J -34417823.95 -34417823.69 -34417823.42 0.0089 0.0001 *
 Moon -98943-02-21 02:37 J -34417456.61 -34417456.39 -34417456.13 0.0089 0.0035
 Earth -98943-02-21 06:13 J -34417456.47 -34417456.24 -34417455.98 0.0089 0.0035 *
 Earth -98942-02-23 21:06 J -34417088.78 -34417088.62 -34417088.44 0.0089 0.0068
 Moon -98942-02-24 00:28 J -34417088.63 -34417088.48 -34417088.29 0.0089 0.0069 *
 Mars -98933-08-06 06:56 J -34413637.47 -34413637.21 -34413636.90 0.0089 0.0034
 Mars -98931-07-02 00:56 J -34412942.74 -34412942.46 -34412942.16 0.0089 0.0028
 Mars -98929-05-26 15:49 J -34412247.84 -34412247.84 -34412247.81 0.0089 0.0089
 Mercury -98901-05-02 22:04 J -34402044.62 -34402044.58 -34402044.52 0.0088 0.0084
 Mercury -98901-07-30 00:42 J -34401956.54 -34401956.47 -34401956.39 0.0088 0.0079
 Mercury -98901-10-26 03:06 J -34401868.45 -34401868.37 -34401868.27 0.0088 0.0074
 Mercury -98900-01-22 05:44 J -34401780.36 -34401780.26 -34401780.15 0.0088 0.0069
 Mercury -98900-04-20 08:23 J -34401692.26 -34401692.15 -34401692.03 0.0088 0.0064
 Mercury -98900-07-17 10:47 J -34401604.16 -34401604.05 -34401603.91 0.0088 0.0059
 Mercury -98900-10-13 13:25 J -34401516.07 -34401515.94 -34401515.80 0.0088 0.0054
 Mercury -98899-01-09 15:49 J -34401427.97 -34401427.84 -34401427.69 0.0088 0.0049
 Mercury -98899-04-07 18:28 J -34401339.87 -34401339.73 -34401339.58 0.0088 0.0044
 Mercury -98899-07-04 20:52 J -34401251.77 -34401251.63 -34401251.47 0.0088 0.0039
 Mercury -98899-09-30 23:30 J -34401163.67 -34401163.52 -34401163.36 0.0088 0.0034
 Mercury -98899-12-28 01:54 J -34401075.57 -34401075.42 -34401075.25 0.0088 0.0029
 Mercury -98898-03-26 04:32 J -34400987.47 -34400987.31 -34400987.15 0.0088 0.0024
 Mercury -98898-06-22 06:56 J -34400899.37 -34400899.21 -34400899.04 0.0088 0.0019
 Mercury -98898-09-18 09:20 J -34400811.27 -34400811.11 -34400810.94 0.0088 0.0014
 Mercury -98898-12-15 11:44 J -34400723.17 -34400723.01 -34400722.84 0.0088 0.0009
 Mercury -98897-03-12 14:23 J -34400635.07 -34400634.90 -34400634.74 0.0088 0.0004
 Mercury -98897-06-08 16:47 J -34400546.97 -34400546.80 -34400546.64 0.0088 0.0001
 Mercury -98897-09-04 19:11 J -34400458.87 -34400458.70 -34400458.54 0.0088 0.0006
 Mercury -98897-12-01 21:35 J -34400370.77 -34400370.60 -34400370.44 0.0088 0.0011
 Mercury -98896-02-27 23:44 J -34400282.67 -34400282.51 -34400282.34 0.0088 0.0016

Mercury -98896-05-27 02:08 J -34400194.56 -34400194.41 -34400194.25 0.0088 0.0020

Mercury -98896-08-23 04:18 J -34400106.46 -34400106.32 -34400106.15 0.0088 0.0026

Mercury -98896-11-19 06:56 J -34400018.36 -34400018.21 -34400018.06 0.0088 0.0030

Mercury -98895-02-15 09:06 J -34399930.26 -34399930.12 -34399929.96 0.0088 0.0035

Mercury -98895-05-14 11:16 J -34399842.16 -34399842.03 -34399841.87 0.0088 0.0040

Mercury -98895-08-10 13:54 J -34399754.06 -34399753.92 -34399753.78 0.0088 0.0044

Mercury -98895-11-06 16:04 J -34399665.96 -34399665.83 -34399665.69 0.0088 0.0049

Venus -98894-01-06 01:54 J -34399605.48 -34399605.42 -34399605.30 0.0088 0.0082

Mercury -98894-02-02 18:13 J -34399577.86 -34399577.74 -34399577.60 0.0088 0.0054

Mercury -98894-05-01 20:37 J -34399489.75 -34399489.64 -34399489.51 0.0088 0.0058

Mercury -98894-07-28 22:47 J -34399401.65 -34399401.55 -34399401.43 0.0088 0.0063

Venus -98894-08-19 16:04 J -34399379.96 -34399379.83 -34399379.69 0.0088 0.0071

Mercury -98894-10-25 00:56 J -34399313.55 -34399313.46 -34399313.34 0.0088 0.0067

Mercury -98893-01-21 03:20 J -34399225.44 -34399225.36 -34399225.26 0.0088 0.0072

Venus -98893-04-01 05:30 J -34399154.42 -34399154.27 -34399154.09 0.0088 0.0061

Mercury -98893-04-18 05:30 J -34399137.34 -34399137.27 -34399137.18 0.0088 0.0076

Mercury -98893-07-15 07:54 J -34399049.23 -34399049.17 -34399049.10 0.0088 0.0081

Mercury -98893-10-11 09:49 J -34398961.11 -34398961.09 -34398961.03 0.0088 0.0086

Venus -98893-11-12 18:56 J -34398928.87 -34398928.71 -34398928.51 0.0088 0.0051

Venus -98892-06-26 08:37 J -34398703.33 -34398703.14 -34398702.93 0.0088 0.0040

Venus -98891-02-06 21:49 J -34398477.78 -34398477.59 -34398477.36 0.0088 0.0030

Venus -98891-09-20 11:30 J -34398252.23 -34398252.02 -34398251.80 0.0088 0.0019

Venus -98890-05-04 00:56 J -34398026.68 -34398026.46 -34398026.23 0.0088 0.0008

Venus -98890-12-15 14:23 J -34397801.12 -34397800.90 -34397800.68 0.0088 0.0002

Venus -98889-07-28 03:35 J -34397575.57 -34397575.35 -34397575.13 0.0088 0.0012

Venus -98888-03-10 16:32 J -34397350.01 -34397349.81 -34397349.58 0.0088 0.0023

Venus -98888-10-22 05:44 J -34397124.45 -34397124.26 -34397124.04 0.0088 0.0034

Venus -98887-06-04 18:56 J -34396898.89 -34396898.71 -34396898.50 0.0088 0.0044

Venus -98886-01-16 08:08 J -34396673.33 -34396673.16 -34396672.97 0.0088 0.0054

Venus -98886-08-29 21:35 J -34396447.76 -34396447.60 -34396447.45 0.0088 0.0064

Venus	-98885-04-11 10:18 J	-34396222.17	-34396222.07	-34396221.93	0.0088	0.0074
Venus	-98885-11-22 23:16 J	-34395996.57	-34395996.53	-34395996.44	0.0088	0.0085
Earth	-98864-08-24 02:52 J	-34388417.56	-34388417.38	-34388417.18	0.0088	0.0059
Moon	-98864-08-24 04:32 J	-34388417.49	-34388417.31	-34388417.09	0.0088	0.0056 *
Moon	-98863-08-26 10:18 J	-34388050.28	-34388050.07	-34388049.82	0.0088	0.0032
Earth	-98863-08-26 11:44 J	-34388050.24	-34388050.01	-34388049.76	0.0088	0.0027 *
Moon	-98862-08-28 19:54 J	-34387682.93	-34387682.67	-34387682.41	0.0088	0.0007
Earth	-98862-08-28 20:37 J	-34387682.90	-34387682.64	-34387682.39	0.0088	0.0004 *
Earth	-98861-08-30 04:47 J	-34387315.52	-34387315.30	-34387315.06	0.0088	0.0035
Moon	-98861-08-30 06:28 J	-34387315.44	-34387315.23	-34387314.99	0.0088	0.0032 *
Moon	-98860-09-01 10:32 J	-34386948.21	-34386948.06	-34386947.89	0.0088	0.0069
Earth	-98860-09-01 12:56 J	-34386948.11	-34386947.96	-34386947.77	0.0088	0.0066 *
Mars	-98851-04-21 09:20 J	-34383794.31	-34383794.11	-34383793.86	0.0088	0.0063
Mars	-98849-03-16 06:56 J	-34383099.53	-34383099.21	-34383098.89	0.0088	0.0001
Mars	-98847-02-09 05:01 J	-34382404.49	-34382404.29	-34382404.03	0.0088	0.0062
Mercury	-98819-04-25 23:30 J	-34372101.54	-34372101.52	-34372101.48	0.0089	0.0087
Mercury	-98819-07-23 01:40 J	-34372013.49	-34372013.43	-34372013.38	0.0089	0.0082
Mercury	-98819-10-19 03:20 J	-34371925.43	-34371925.36	-34371925.29	0.0089	0.0078
Mercury	-98818-01-15 05:01 J	-34371837.36	-34371837.29	-34371837.20	0.0089	0.0074
Mercury	-98818-04-13 06:42 J	-34371749.30	-34371749.22	-34371749.12	0.0089	0.0070
Mercury	-98818-07-10 08:52 J	-34371661.23	-34371661.13	-34371661.03	0.0089	0.0065
Mercury	-98818-10-06 10:32 J	-34371573.16	-34371573.06	-34371572.95	0.0089	0.0061
Mercury	-98817-01-02 12:13 J	-34371485.09	-34371484.99	-34371484.86	0.0089	0.0057
Mercury	-98817-03-30 14:23 J	-34371397.02	-34371396.90	-34371396.78	0.0089	0.0052
Mercury	-98817-06-26 16:04 J	-34371308.95	-34371308.83	-34371308.70	0.0089	0.0048
Mercury	-98817-09-22 17:59 J	-34371220.87	-34371220.75	-34371220.61	0.0089	0.0044
Mercury	-98817-12-19 19:54 J	-34371132.80	-34371132.67	-34371132.53	0.0089	0.0039
Mercury	-98816-03-17 21:49 J	-34371044.72	-34371044.59	-34371044.45	0.0089	0.0035
Mercury	-98816-06-13 23:30 J	-34370956.65	-34370956.52	-34370956.37	0.0089	0.0031
Mercury	-98816-09-10 01:40 J	-34370868.57	-34370868.43	-34370868.28	0.0089	0.0026

Mercury -98816-12-07 03:35 J -34370780.49 -34370780.35 -34370780.20 0.0089 0.0021

Mercury -98815-03-05 05:30 J -34370692.42 -34370692.27 -34370692.12 0.0089 0.0017

Mercury -98815-06-01 07:25 J -34370604.34 -34370604.19 -34370604.04 0.0089 0.0013

Mercury -98815-08-28 09:20 J -34370516.26 -34370516.11 -34370515.96 0.0089 0.0008

Mercury -98815-11-24 11:16 J -34370428.18 -34370428.03 -34370427.87 0.0089 0.0004

Mercury -98814-02-20 13:11 J -34370340.10 -34370339.95 -34370339.79 0.0089 0.0003

Mercury -98814-05-19 15:20 J -34370252.01 -34370251.86 -34370251.71 0.0089 0.0006

Mercury -98814-08-15 17:16 J -34370163.93 -34370163.78 -34370163.63 0.0089 0.0010

Mercury -98814-11-11 19:11 J -34370075.85 -34370075.70 -34370075.55 0.0089 0.0015

Mercury -98813-02-07 21:06 J -34369987.76 -34369987.62 -34369987.47 0.0089 0.0020

Mercury -98813-05-05 23:16 J -34369899.68 -34369899.53 -34369899.38 0.0089 0.0024

Mercury -98813-08-02 01:11 J -34369811.59 -34369811.45 -34369811.30 0.0089 0.0029

Mercury -98813-10-29 03:20 J -34369723.50 -34369723.36 -34369723.22 0.0089 0.0033

Mercury -98812-01-25 05:16 J -34369635.42 -34369635.28 -34369635.14 0.0089 0.0038

Venus -98812-02-17 03:20 J -34369612.39 -34369612.36 -34369612.29 0.0089 0.0086

Mercury -98812-04-23 07:11 J -34369547.33 -34369547.20 -34369547.06 0.0089 0.0043

Mercury -98812-07-20 09:20 J -34369459.24 -34369459.11 -34369458.98 0.0089 0.0047

Venus -98812-09-30 15:49 J -34369386.93 -34369386.84 -34369386.71 0.0089 0.0076

Mercury -98812-10-16 11:16 J -34369371.15 -34369371.03 -34369370.90 0.0089 0.0052

Mercury -98811-01-12 13:11 J -34369283.05 -34369282.95 -34369282.82 0.0089 0.0057

Mercury -98811-04-10 15:35 J -34369194.96 -34369194.85 -34369194.74 0.0089 0.0061

Venus -98811-05-14 04:18 J -34369161.45 -34369161.32 -34369161.16 0.0089 0.0066

Mercury -98811-07-07 17:30 J -34369106.86 -34369106.77 -34369106.66 0.0089 0.0066

Mercury -98811-10-03 19:25 J -34369018.77 -34369018.69 -34369018.58 0.0089 0.0071

Venus -98811-12-25 16:32 J -34368935.95 -34368935.81 -34368935.62 0.0089 0.0056

Mercury -98811-12-30 21:35 J -34368930.67 -34368930.60 -34368930.51 0.0089 0.0076

Mercury -98810-03-28 23:59 J -34368842.56 -34368842.50 -34368842.43 0.0089 0.0080

Mercury -98810-06-25 01:54 J -34368754.45 -34368754.42 -34368754.37 0.0089 0.0085

Venus -98810-08-08 05:30 J -34368710.45 -34368710.27 -34368710.08 0.0089 0.0045

Venus -98809-03-20 17:59 J -34368484.94 -34368484.75 -34368484.54 0.0089 0.0035

Venus	-98809-11-01 06:28 J	-34368259.42	-34368259.23	-34368259.01	0.0089	0.0025
Venus	-98808-06-14 19:25 J	-34368033.91	-34368033.69	-34368033.48	0.0089	0.0014
Venus	-98807-01-26 07:54 J	-34367808.38	-34367808.17	-34367807.95	0.0089	0.0004
Venus	-98807-09-08 20:37 J	-34367582.85	-34367582.64	-34367582.42	0.0089	0.0007
Venus	-98806-04-22 09:20 J	-34367357.32	-34367357.11	-34367356.89	0.0089	0.0017
Venus	-98806-12-03 21:49 J	-34367131.78	-34367131.59	-34367131.37	0.0089	0.0028
Jupiter	-98805-04-26 23:16 J	-34366986.97	-34366986.53	-34366986.00	0.0089	0.0044
Venus	-98805-07-16 10:32 J	-34366906.24	-34366906.06	-34366905.85	0.0089	0.0038
Venus	-98804-02-26 23:44 J	-34366680.69	-34366680.51	-34366680.33	0.0089	0.0048
Venus	-98804-10-10 12:13 J	-34366455.13	-34366454.99	-34366454.81	0.0089	0.0059
Venus	-98803-05-24 01:11 J	-34366229.57	-34366229.45	-34366229.30	0.0089	0.0069
Venus	-98802-01-04 13:40 J	-34366004.00	-34366003.93	-34366003.81	0.0089	0.0080
Moon	-98782-02-13 13:40 J	-34358659.04	-34358658.93	-34358658.78	0.0089	0.0077
Earth	-98782-02-13 17:16 J	-34358658.87	-34358658.78	-34358658.66	0.0089	0.0082 *
Earth	-98781-02-16 07:25 J	-34358291.40	-34358291.19	-34358290.95	0.0089	0.0048
Moon	-98781-02-16 10:47 J	-34358291.24	-34358291.05	-34358290.81	0.0089	0.0053 *
Moon	-98780-02-17 18:42 J	-34357923.97	-34357923.72	-34357923.46	0.0089	0.0010
Earth	-98780-02-17 22:04 J	-34357923.83	-34357923.58	-34357923.31	0.0089	0.0015 *
Earth	-98779-02-20 12:42 J	-34357556.22	-34357555.97	-34357555.70	0.0089	0.0019
Moon	-98779-02-20 15:35 J	-34357556.12	-34357555.85	-34357555.58	0.0089	0.0014 *
Moon	-98778-02-23 01:11 J	-34357188.62	-34357188.45	-34357188.23	0.0089	0.0057
Earth	-98778-02-23 03:35 J	-34357188.55	-34357188.35	-34357188.12	0.0089	0.0052 *
Moon	-98777-02-25 18:56 J	-34356820.80	-34356820.71	-34356820.57	0.0089	0.0081
Earth	-98777-02-25 17:59 J	-34356820.79	-34356820.75	-34356820.65	0.0089	0.0086 *
Saturn	-98771-01-12 13:40 J	-34354673.56	-34354672.93	-34354672.25	0.0089	0.0026
Mars	-98769-03-21 00:42 J	-34353874.67	-34353874.47	-34353874.22	0.0089	0.0061
Mars	-98767-02-13 20:37 J	-34353179.95	-34353179.64	-34353179.33	0.0089	0.0002
Mars	-98765-01-09 14:08 J	-34352485.12	-34352484.91	-34352484.69	0.0089	0.0063
Mercury	-98737-10-31 18:28 J	-34341961.75	-34341961.73	-34341961.68	0.0088	0.0087
Mercury	-98736-01-27 21:06 J	-34341873.67	-34341873.62	-34341873.54	0.0088	0.0082

Mercury -98736-04-25 23:44 J -34341785.58 -34341785.51 -34341785.41 0.0088 0.0076

Mercury -98736-07-23 02:23 J -34341697.49 -34341697.40 -34341697.29 0.0088 0.0071

Mercury -98736-10-19 05:16 J -34341609.39 -34341609.28 -34341609.17 0.0088 0.0066

Mercury -98735-01-15 07:54 J -34341521.29 -34341521.17 -34341521.05 0.0088 0.0061

Mercury -98735-04-13 10:18 J -34341433.20 -34341433.07 -34341432.94 0.0088 0.0056

Mercury -98735-07-10 12:56 J -34341345.10 -34341344.96 -34341344.82 0.0088 0.0051

Mercury -98735-10-06 15:20 J -34341257.00 -34341256.86 -34341256.71 0.0088 0.0046

Mercury -98734-01-02 17:59 J -34341168.90 -34341168.75 -34341168.60 0.0088 0.0041

Mercury -98734-03-31 20:23 J -34341080.80 -34341080.65 -34341080.49 0.0088 0.0036

Mercury -98734-06-27 23:01 J -34340992.70 -34340992.54 -34340992.39 0.0088 0.0031

Mercury -98734-09-24 01:25 J -34340904.60 -34340904.44 -34340904.28 0.0088 0.0026

Mercury -98734-12-21 03:49 J -34340816.50 -34340816.34 -34340816.17 0.0088 0.0021

Mercury -98733-03-18 06:13 J -34340728.40 -34340728.24 -34340728.07 0.0088 0.0016

Mercury -98733-06-14 08:52 J -34340640.30 -34340640.13 -34340639.97 0.0088 0.0011

Mercury -98733-09-10 11:16 J -34340552.19 -34340552.03 -34340551.86 0.0088 0.0006

Mercury -98733-12-07 13:40 J -34340464.09 -34340463.93 -34340463.76 0.0088 0.0002

Mercury -98732-03-05 16:04 J -34340375.99 -34340375.83 -34340375.66 0.0088 0.0004

Mercury -98732-06-01 18:28 J -34340287.89 -34340287.73 -34340287.56 0.0088 0.0008

Mercury -98732-08-28 20:52 J -34340199.79 -34340199.63 -34340199.47 0.0088 0.0013

Mercury -98732-11-24 23:16 J -34340111.69 -34340111.53 -34340111.37 0.0088 0.0018

Mercury -98731-02-21 01:40 J -34340023.59 -34340023.43 -34340023.27 0.0088 0.0023

Mercury -98731-05-20 04:04 J -34339935.49 -34339935.33 -34339935.18 0.0088 0.0028

Mercury -98731-08-16 06:13 J -34339847.39 -34339847.24 -34339847.08 0.0088 0.0032

Mercury -98731-11-12 08:23 J -34339759.28 -34339759.15 -34339758.99 0.0088 0.0038

Mercury -98730-02-08 11:01 J -34339671.18 -34339671.04 -34339670.90 0.0088 0.0042

Venus -98730-04-09 12:56 J -34339611.01 -34339610.96 -34339610.87 0.0088 0.0084

Mercury -98730-05-07 13:11 J -34339583.08 -34339582.95 -34339582.81 0.0088 0.0047

Mercury -98730-08-03 15:20 J -34339494.98 -34339494.86 -34339494.72 0.0088 0.0052

Mercury -98730-10-30 17:59 J -34339406.88 -34339406.75 -34339406.63 0.0088 0.0056

Venus -98730-11-21 02:52 J -34339385.50 -34339385.38 -34339385.25 0.0088 0.0073

Mercury -98729-01-26 19:54 J -34339318.77 -34339318.67 -34339318.54 0.0088 0.0061

Mercury -98729-04-23 22:04 J -34339230.67 -34339230.58 -34339230.45 0.0088 0.0066

Venus -98729-07-03 16:04 J -34339159.97 -34339159.83 -34339159.65 0.0088 0.0063

Mercury -98729-07-21 00:42 J -34339142.56 -34339142.47 -34339142.37 0.0088 0.0070

Mercury -98729-10-17 02:37 J -34339054.46 -34339054.39 -34339054.29 0.0088 0.0075

Mercury -98728-01-13 05:16 J -34338966.35 -34338966.28 -34338966.21 0.0088 0.0079

Venus -98728-02-14 05:59 J -34338934.43 -34338934.25 -34338934.07 0.0088 0.0052

Mercury -98728-04-11 07:11 J -34338878.24 -34338878.20 -34338878.13 0.0088 0.0084

Mercury -98728-07-08 09:35 J -34338790.11 -34338790.10 -34338790.08 0.0088 0.0088

Venus -98728-09-27 19:11 J -34338708.88 -34338708.70 -34338708.49 0.0088 0.0042

Venus -98727-05-11 09:06 J -34338483.33 -34338483.12 -34338482.91 0.0088 0.0031

Venus -98727-12-22 22:18 J -34338257.78 -34338257.57 -34338257.34 0.0088 0.0021

Venus -98726-08-05 11:59 J -34338032.22 -34338032.00 -34338031.78 0.0088 0.0010

Venus -98725-03-18 01:25 J -34337806.66 -34337806.44 -34337806.22 0.0088 0.0001

Venus -98725-10-29 14:37 J -34337581.10 -34337580.89 -34337580.66 0.0088 0.0012

Venus -98724-06-12 04:04 J -34337355.55 -34337355.33 -34337355.11 0.0088 0.0022

Venus -98723-01-23 17:01 J -34337129.99 -34337129.79 -34337129.57 0.0088 0.0032

Venus -98723-09-06 06:13 J -34336904.43 -34336904.24 -34336904.04 0.0088 0.0043

Venus -98722-04-19 19:11 J -34336678.85 -34336678.70 -34336678.50 0.0088 0.0054

Venus -98722-12-01 08:23 J -34336453.28 -34336453.15 -34336452.97 0.0088 0.0064

Venus -98721-07-13 21:35 J -34336227.71 -34336227.60 -34336227.46 0.0088 0.0074

Venus -98720-02-24 10:32 J -34336002.11 -34336002.06 -34336001.97 0.0088 0.0084

Moon -98700-08-23 15:06 J -34328517.00 -34328516.87 -34328516.70 0.0088 0.0069

Earth -98700-08-23 15:20 J -34328516.99 -34328516.86 -34328516.71 0.0088 0.0073 *

Moon -98699-08-25 23:16 J -34328149.74 -34328149.53 -34328149.29 0.0088 0.0045

Earth -98699-08-26 00:13 J -34328149.70 -34328149.49 -34328149.25 0.0088 0.0042 *

Earth -98698-08-28 09:06 J -34327782.37 -34327782.12 -34327781.87 0.0088 0.0010

Moon -98698-08-28 11:01 J -34327782.28 -34327782.04 -34327781.79 0.0088 0.0007 *

Moon -98697-08-29 14:37 J -34327415.14 -34327414.89 -34327414.64 0.0088 0.0017

Earth -98697-08-29 17:59 J -34327415.00 -34327414.75 -34327414.51 0.0088 0.0021 *

Earth -98696-09-01 02:08 J -34327047.60 -34327047.41 -34327047.19 0.0088 0.0052
 Moon -98696-09-01 05:44 J -34327047.45 -34327047.26 -34327047.06 0.0088 0.0055 *
 Moon -98695-09-03 06:42 J -34326680.30 -34326680.22 -34326680.08 0.0088 0.0079
 Earth -98695-09-03 10:18 J -34326680.13 -34326680.07 -34326679.96 0.0088 0.0083 *
 Mars -98686-10-29 21:06 J -34323336.90 -34323336.62 -34323336.30 0.0088 0.0027
 Mars -98684-09-23 18:42 J -34322641.99 -34322641.72 -34322641.41 0.0088 0.0036
 Mercury -98655-10-24 21:35 J -34312018.61 -34312018.60 -34312018.59 0.0089 0.0088
 Mercury -98654-01-20 23:16 J -34311930.57 -34311930.53 -34311930.48 0.0089 0.0084
 Mercury -98654-04-19 00:56 J -34311842.51 -34311842.46 -34311842.39 0.0089 0.0080
 Mercury -98654-07-16 02:37 J -34311754.45 -34311754.39 -34311754.30 0.0089 0.0076
 Mercury -98654-10-12 04:32 J -34311666.38 -34311666.31 -34311666.21 0.0089 0.0072
 Mercury -98653-01-08 06:28 J -34311578.32 -34311578.23 -34311578.13 0.0089 0.0067
 Mercury -98653-04-05 08:23 J -34311490.25 -34311490.15 -34311490.04 0.0089 0.0063
 Mercury -98653-07-02 10:04 J -34311402.18 -34311402.08 -34311401.96 0.0089 0.0059
 Mercury -98653-09-28 12:13 J -34311314.11 -34311313.99 -34311313.88 0.0089 0.0054
 Mercury -98653-12-25 13:54 J -34311226.04 -34311225.92 -34311225.79 0.0089 0.0050
 Mercury -98652-03-23 15:35 J -34311137.97 -34311137.85 -34311137.71 0.0089 0.0046
 Mercury -98652-06-19 17:44 J -34311049.89 -34311049.76 -34311049.63 0.0089 0.0041
 Mercury -98652-09-15 19:25 J -34310961.82 -34310961.69 -34310961.55 0.0089 0.0037
 Mercury -98652-12-12 21:20 J -34310873.74 -34310873.61 -34310873.46 0.0089 0.0033
 Mercury -98651-03-10 23:16 J -34310785.67 -34310785.53 -34310785.38 0.0089 0.0028
 Mercury -98651-06-07 01:11 J -34310697.59 -34310697.45 -34310697.30 0.0089 0.0024
 Mercury -98651-09-03 03:06 J -34310609.51 -34310609.37 -34310609.22 0.0089 0.0019
 Mercury -98651-11-30 05:01 J -34310521.43 -34310521.29 -34310521.14 0.0089 0.0015
 Mercury -98650-02-26 06:56 J -34310433.36 -34310433.21 -34310433.06 0.0089 0.0010
 Mercury -98650-05-25 08:52 J -34310345.28 -34310345.13 -34310344.97 0.0089 0.0006
 Mercury -98650-08-21 11:01 J -34310257.20 -34310257.04 -34310256.89 0.0089 0.0002
 Mercury -98650-11-17 12:56 J -34310169.11 -34310168.96 -34310168.81 0.0089 0.0004
 Mercury -98649-02-13 14:52 J -34310081.03 -34310080.88 -34310080.73 0.0089 0.0008
 Mercury -98649-05-11 16:47 J -34309992.95 -34309992.80 -34309992.65 0.0089 0.0013

Mercury -98649-08-07 18:42 J -34309904.87 -34309904.72 -34309904.57 0.0089 0.0017

Mercury -98649-11-03 20:37 J -34309816.78 -34309816.64 -34309816.48 0.0089 0.0022

Mercury -98648-01-30 22:32 J -34309728.69 -34309728.56 -34309728.40 0.0089 0.0027

Mercury -98648-04-29 00:42 J -34309640.61 -34309640.47 -34309640.32 0.0089 0.0031

Venus -98648-05-21 15:20 J -34309617.87 -34309617.86 -34309617.81 0.0089 0.0088

Mercury -98648-07-26 02:37 J -34309552.52 -34309552.39 -34309552.24 0.0089 0.0036

Mercury -98648-10-22 04:32 J -34309464.43 -34309464.31 -34309464.16 0.0089 0.0041

Venus -98647-01-02 03:35 J -34309392.43 -34309392.35 -34309392.23 0.0089 0.0078

Mercury -98647-01-18 06:42 J -34309376.34 -34309376.22 -34309376.08 0.0089 0.0045

Mercury -98647-04-16 08:37 J -34309288.25 -34309288.14 -34309288.00 0.0089 0.0050

Mercury -98647-07-13 10:47 J -34309200.16 -34309200.05 -34309199.92 0.0089 0.0055

Venus -98647-08-15 15:49 J -34309166.95 -34309166.84 -34309166.67 0.0089 0.0068

Mercury -98647-10-09 12:56 J -34309112.07 -34309111.96 -34309111.84 0.0089 0.0059

Mercury -98646-01-05 14:52 J -34309023.98 -34309023.88 -34309023.76 0.0089 0.0064

Venus -98646-03-29 04:47 J -34308941.46 -34308941.30 -34308941.13 0.0089 0.0057

Mercury -98646-04-03 16:47 J -34308935.88 -34308935.80 -34308935.68 0.0089 0.0069

Mercury -98646-06-30 19:11 J -34308847.78 -34308847.70 -34308847.61 0.0089 0.0073

Mercury -98646-09-26 21:06 J -34308759.68 -34308759.62 -34308759.54 0.0089 0.0078

Venus -98646-11-09 17:16 J -34308715.96 -34308715.78 -34308715.59 0.0089 0.0047

Mercury -98646-12-23 23:16 J -34308671.57 -34308671.53 -34308671.47 0.0089 0.0083

Mercury -98645-03-21 01:11 J -34308583.45 -34308583.45 -34308583.41 0.0089 0.0088

Venus -98645-06-22 05:30 J -34308490.45 -34308490.27 -34308490.06 0.0089 0.0037

Venus -98644-02-02 18:13 J -34308264.94 -34308264.74 -34308264.53 0.0089 0.0026

Venus -98644-09-16 06:42 J -34308039.42 -34308039.22 -34308039.00 0.0089 0.0016

Venus -98643-04-29 19:25 J -34307813.90 -34307813.69 -34307813.47 0.0089 0.0006

Venus -98643-12-11 08:08 J -34307588.38 -34307588.16 -34307587.95 0.0089 0.0005

Venus -98642-07-24 20:37 J -34307362.85 -34307362.64 -34307362.42 0.0089 0.0015

Venus -98641-03-06 09:06 J -34307137.32 -34307137.12 -34307136.90 0.0089 0.0026

Venus -98641-10-17 22:18 J -34306911.77 -34306911.57 -34306911.38 0.0089 0.0036

Venus -98640-05-31 10:32 J -34306686.23 -34306686.06 -34306685.86 0.0089 0.0047

Venus	-98639-01-11 23:44 J	-34306460.68	-34306460.51	-34306460.35	0.0089	0.0057
Venus	-98639-08-25 12:13 J	-34306235.12	-34306234.99	-34306234.84	0.0089	0.0068
Venus	-98638-04-08 01:11 J	-34306009.54	-34306009.45	-34306009.34	0.0089	0.0078
Venus	-98638-11-19 14:08 J	-34305783.91	-34305783.91	-34305783.89	0.0089	0.0089
Moon	-98617-02-15 12:56 J	-34298391.11	-34298390.96	-34298390.76	0.0089	0.0065
Earth	-98617-02-15 15:49 J	-34298391.01	-34298390.84	-34298390.64	0.0089	0.0063 *
Earth	-98616-02-17 05:59 J	-34298023.48	-34298023.25	-34298022.99	0.0089	0.0030
Moon	-98616-02-17 08:52 J	-34298023.39	-34298023.13	-34298022.88	0.0089	0.0029 *
Moon	-98615-02-19 20:08 J	-34297655.92	-34297655.66	-34297655.41	0.0089	0.0002
Earth	-98615-02-19 20:52 J	-34297655.89	-34297655.63	-34297655.36	0.0089	0.0003 *
Moon	-98614-02-22 11:16 J	-34297288.27	-34297288.03	-34297287.78	0.0089	0.0037
Earth	-98614-02-22 11:01 J	-34297288.26	-34297288.04	-34297287.78	0.0089	0.0037 *
Earth	-98613-02-25 01:40 J	-34296920.57	-34296920.43	-34296920.25	0.0089	0.0070
Moon	-98613-02-25 02:52 J	-34296920.52	-34296920.38	-34296920.21	0.0089	0.0070 *
Mars	-98606-11-03 18:56 J	-34294111.73	-34294111.71	-34294111.67	0.0089	0.0088
Mars	-98604-09-28 16:04 J	-34293417.12	-34293416.83	-34293416.52	0.0089	0.0025
Mars	-98602-08-24 09:49 J	-34292722.35	-34292722.09	-34292721.78	0.0089	0.0038
Mercury	-98572-07-28 17:59 J	-34281790.79	-34281790.75	-34281790.68	0.0088	0.0084
Mercury	-98572-10-24 20:37 J	-34281702.70	-34281702.64	-34281702.55	0.0088	0.0079
Mercury	-98571-01-20 23:16 J	-34281614.61	-34281614.53	-34281614.42	0.0088	0.0074
Mercury	-98571-04-19 01:40 J	-34281526.52	-34281526.43	-34281526.30	0.0088	0.0069
Mercury	-98571-07-16 04:18 J	-34281438.42	-34281438.32	-34281438.18	0.0088	0.0064
Mercury	-98571-10-12 06:56 J	-34281350.32	-34281350.21	-34281350.07	0.0088	0.0059
Mercury	-98570-01-08 09:49 J	-34281262.22	-34281262.09	-34281261.95	0.0088	0.0053
Mercury	-98570-04-06 12:28 J	-34281174.12	-34281173.98	-34281173.84	0.0088	0.0048
Mercury	-98570-07-03 14:52 J	-34281086.02	-34281085.88	-34281085.73	0.0088	0.0043
Mercury	-98570-09-29 17:30 J	-34280997.92	-34280997.77	-34280997.62	0.0088	0.0038
Mercury	-98570-12-26 19:54 J	-34280909.82	-34280909.67	-34280909.51	0.0088	0.0033
Mercury	-98569-03-23 22:32 J	-34280821.72	-34280821.56	-34280821.40	0.0088	0.0028
Mercury	-98569-06-20 00:56 J	-34280733.62	-34280733.46	-34280733.30	0.0088	0.0023

Mercury -98569-09-16 03:20 J -34280645.52 -34280645.36 -34280645.19 0.0088 0.0018

Mercury -98569-12-13 05:44 J -34280557.42 -34280557.26 -34280557.09 0.0088 0.0014

Mercury -98568-03-11 08:23 J -34280469.32 -34280469.15 -34280468.99 0.0088 0.0008

Mercury -98568-06-07 10:47 J -34280381.22 -34280381.05 -34280380.88 0.0088 0.0003

Mercury -98568-09-03 13:11 J -34280293.11 -34280292.95 -34280292.78 0.0088 0.0002

Mercury -98568-11-30 15:35 J -34280205.01 -34280204.85 -34280204.68 0.0088 0.0006

Mercury -98567-02-26 17:59 J -34280116.91 -34280116.75 -34280116.58 0.0088 0.0011

Mercury -98567-05-25 20:23 J -34280028.81 -34280028.65 -34280028.49 0.0088 0.0016

Mercury -98567-08-21 22:47 J -34279940.71 -34279940.55 -34279940.39 0.0088 0.0021

Mercury -98567-11-18 01:11 J -34279852.61 -34279852.45 -34279852.29 0.0088 0.0026

Mercury -98566-02-14 03:20 J -34279764.51 -34279764.36 -34279764.20 0.0088 0.0031

Mercury -98566-05-13 05:44 J -34279676.40 -34279676.26 -34279676.10 0.0088 0.0035

Venus -98566-07-11 23:44 J -34279616.54 -34279616.51 -34279616.43 0.0088 0.0086

Mercury -98566-08-09 07:54 J -34279588.30 -34279588.17 -34279588.01 0.0088 0.0040

Mercury -98566-11-05 10:18 J -34279500.20 -34279500.07 -34279499.92 0.0088 0.0045

Mercury -98565-02-01 12:42 J -34279412.10 -34279411.97 -34279411.83 0.0088 0.0049

Venus -98565-02-22 13:40 J -34279391.04 -34279390.93 -34279390.81 0.0088 0.0075

Mercury -98565-04-29 14:52 J -34279323.99 -34279323.88 -34279323.74 0.0088 0.0054

Mercury -98565-07-26 17:16 J -34279235.89 -34279235.78 -34279235.65 0.0088 0.0059

Venus -98565-10-05 02:52 J -34279165.51 -34279165.38 -34279165.20 0.0088 0.0065

Mercury -98565-10-22 19:25 J -34279147.79 -34279147.69 -34279147.56 0.0088 0.0064

Mercury -98564-01-18 22:04 J -34279059.68 -34279059.58 -34279059.48 0.0088 0.0068

Mercury -98564-04-16 23:59 J -34278971.58 -34278971.50 -34278971.40 0.0088 0.0073

Venus -98564-05-18 16:47 J -34278939.97 -34278939.80 -34278939.61 0.0088 0.0054

Mercury -98564-07-14 02:08 J -34278883.47 -34278883.41 -34278883.31 0.0088 0.0078

Mercury -98564-10-10 04:32 J -34278795.36 -34278795.31 -34278795.24 0.0088 0.0082

Venus -98564-12-30 05:59 J -34278714.42 -34278714.25 -34278714.03 0.0088 0.0044

Mercury -98563-01-06 06:42 J -34278707.24 -34278707.22 -34278707.17 0.0088 0.0086

Venus -98563-08-12 19:40 J -34278488.87 -34278488.68 -34278488.46 0.0088 0.0033

Venus -98562-03-26 09:35 J -34278263.31 -34278263.10 -34278262.88 0.0088 0.0022

Venus	-98562-11-06 23:01 J	-34278037.76	-34278037.54	-34278037.32	0.0088	0.0011
Venus	-98561-06-19 12:28 J	-34277812.20	-34277811.98	-34277811.76	0.0088	0.0001
Venus	-98560-01-31 01:40 J	-34277586.64	-34277586.43	-34277586.20	0.0088	0.0010
Venus	-98560-09-13 15:06 J	-34277361.08	-34277360.87	-34277360.65	0.0088	0.0021
Venus	-98559-04-27 04:18 J	-34277135.51	-34277135.32	-34277135.10	0.0088	0.0032
Venus	-98559-12-08 17:44 J	-34276909.95	-34276909.76	-34276909.56	0.0088	0.0042
Venus	-98558-07-22 06:42 J	-34276684.38	-34276684.22	-34276684.02	0.0088	0.0052
Venus	-98557-03-03 19:54 J	-34276458.81	-34276458.67	-34276458.50	0.0088	0.0063
Venus	-98557-10-15 09:06 J	-34276233.23	-34276233.12	-34276232.98	0.0088	0.0073
Venus	-98556-05-28 22:04 J	-34276007.63	-34276007.58	-34276007.48	0.0088	0.0083
Earth	-98536-08-23 03:49 J	-34268616.37	-34268616.34	-34268616.27	0.0088	0.0087
Earth	-98535-08-25 12:56 J	-34268249.14	-34268248.96	-34268248.74	0.0088	0.0056
Moon	-98535-08-25 15:35 J	-34268249.02	-34268248.85	-34268248.63	0.0088	0.0053 *
Moon	-98534-08-27 18:56 J	-34267881.94	-34267881.71	-34267881.45	0.0088	0.0028
Earth	-98534-08-27 22:18 J	-34267881.81	-34267881.57	-34267881.32	0.0088	0.0024 *
Earth	-98533-08-29 07:11 J	-34267514.45	-34267514.20	-34267513.95	0.0088	0.0007
Moon	-98533-08-29 10:47 J	-34267514.29	-34267514.05	-34267513.79	0.0088	0.0011 *
Moon	-98532-08-31 12:28 J	-34267147.19	-34267146.98	-34267146.74	0.0088	0.0036
Earth	-98532-08-31 15:20 J	-34267147.06	-34267146.86	-34267146.61	0.0088	0.0039 *
Earth	-98531-09-02 23:59 J	-34266779.64	-34266779.50	-34266779.33	0.0088	0.0069
Moon	-98531-09-03 02:23 J	-34266779.52	-34266779.40	-34266779.23	0.0088	0.0072 *
Mars	-98522-06-13 13:25 J	-34263574.16	-34263573.94	-34263573.66	0.0088	0.0054
Mars	-98520-05-08 09:20 J	-34262879.42	-34262879.11	-34262878.79	0.0088	0.0010
Mars	-98518-04-03 07:11 J	-34262184.35	-34262184.20	-34262183.99	0.0088	0.0073
Mercury	-98490-07-21 21:06 J	-34251847.64	-34251847.62	-34251847.58	0.0089	0.0086
Mercury	-98490-10-17 22:47 J	-34251759.59	-34251759.55	-34251759.48	0.0089	0.0082
Mercury	-98489-01-14 00:28 J	-34251671.53	-34251671.48	-34251671.39	0.0089	0.0078
Mercury	-98489-04-11 02:37 J	-34251583.47	-34251583.39	-34251583.31	0.0089	0.0073
Mercury	-98489-07-08 04:18 J	-34251495.40	-34251495.32	-34251495.22	0.0089	0.0069
Mercury	-98489-10-04 05:59 J	-34251407.34	-34251407.25	-34251407.14	0.0089	0.0065

Mercury -98489-12-31 07:54 J -34251319.27 -34251319.17 -34251319.05 0.0089 0.0061

Mercury -98488-03-29 09:49 J -34251231.20 -34251231.09 -34251230.97 0.0089 0.0056

Mercury -98488-06-25 11:30 J -34251143.13 -34251143.02 -34251142.89 0.0089 0.0052

Mercury -98488-09-21 13:25 J -34251055.06 -34251054.94 -34251054.81 0.0089 0.0048

Mercury -98488-12-18 15:20 J -34250966.98 -34250966.86 -34250966.72 0.0089 0.0043

Mercury -98487-03-16 17:16 J -34250878.91 -34250878.78 -34250878.64 0.0089 0.0039

Mercury -98487-06-12 19:11 J -34250790.83 -34250790.70 -34250790.56 0.0089 0.0034

Mercury -98487-09-08 21:06 J -34250702.76 -34250702.62 -34250702.48 0.0089 0.0030

Mercury -98487-12-05 22:47 J -34250614.68 -34250614.55 -34250614.40 0.0089 0.0026

Mercury -98486-03-04 00:56 J -34250526.61 -34250526.46 -34250526.31 0.0089 0.0021

Mercury -98486-05-31 02:37 J -34250438.53 -34250438.39 -34250438.23 0.0089 0.0017

Mercury -98486-08-27 04:47 J -34250350.45 -34250350.30 -34250350.15 0.0089 0.0012

Mercury -98486-11-23 06:42 J -34250262.37 -34250262.22 -34250262.07 0.0089 0.0008

Mercury -98485-02-19 08:37 J -34250174.29 -34250174.14 -34250173.99 0.0089 0.0003

Mercury -98485-05-17 10:32 J -34250086.21 -34250086.06 -34250085.91 0.0089 0.0002

Mercury -98485-08-13 12:28 J -34249998.13 -34249997.98 -34249997.83 0.0089 0.0006

Mercury -98485-11-09 14:23 J -34249910.05 -34249909.90 -34249909.74 0.0089 0.0011

Mercury -98484-02-05 16:32 J -34249821.96 -34249821.81 -34249821.66 0.0089 0.0015

Mercury -98484-05-04 18:28 J -34249733.88 -34249733.73 -34249733.58 0.0089 0.0020

Mercury -98484-07-31 20:23 J -34249645.79 -34249645.65 -34249645.50 0.0089 0.0025

Mercury -98484-10-27 22:18 J -34249557.71 -34249557.57 -34249557.42 0.0089 0.0029

Mercury -98483-01-24 00:13 J -34249469.62 -34249469.49 -34249469.34 0.0089 0.0034

Venus -98483-04-05 15:35 J -34249397.92 -34249397.85 -34249397.73 0.0089 0.0080

Mercury -98483-04-22 02:08 J -34249381.53 -34249381.41 -34249381.26 0.0089 0.0039

Mercury -98483-07-19 04:18 J -34249293.45 -34249293.32 -34249293.18 0.0089 0.0043

Mercury -98483-10-15 06:13 J -34249205.36 -34249205.24 -34249205.10 0.0089 0.0048

Venus -98483-11-17 04:32 J -34249172.44 -34249172.31 -34249172.17 0.0089 0.0069

Mercury -98482-01-11 08:23 J -34249117.27 -34249117.15 -34249117.02 0.0089 0.0053

Mercury -98482-04-09 10:32 J -34249029.17 -34249029.06 -34249028.94 0.0089 0.0057

Venus -98482-06-30 16:47 J -34248946.95 -34248946.80 -34248946.63 0.0089 0.0059

Mercury -98482-07-06 12:28 J -34248941.08 -34248940.98 -34248940.86 0.0089 0.0062

Mercury -98482-10-02 14:23 J -34248852.98 -34248852.90 -34248852.78 0.0089 0.0067

Mercury -98482-12-29 16:47 J -34248764.89 -34248764.80 -34248764.71 0.0089 0.0071

Venus -98481-02-11 05:01 J -34248721.45 -34248721.29 -34248721.09 0.0089 0.0049

Mercury -98481-03-26 18:42 J -34248676.79 -34248676.72 -34248676.63 0.0089 0.0076

Mercury -98481-06-22 20:52 J -34248588.68 -34248588.63 -34248588.56 0.0089 0.0081

Mercury -98481-09-18 22:47 J -34248500.57 -34248500.55 -34248500.49 0.0089 0.0086

Venus -98481-09-23 17:59 J -34248495.94 -34248495.75 -34248495.55 0.0089 0.0038

Venus -98480-05-07 06:13 J -34248270.43 -34248270.24 -34248270.02 0.0089 0.0028

Venus -98480-12-18 18:56 J -34248044.92 -34248044.71 -34248044.49 0.0089 0.0017

Venus -98479-08-01 07:25 J -34247819.40 -34247819.19 -34247818.97 0.0089 0.0007

Venus -98478-03-14 20:08 J -34247593.88 -34247593.66 -34247593.44 0.0089 0.0004

Venus -98478-10-26 08:52 J -34247368.34 -34247368.13 -34247367.92 0.0089 0.0014

Venus -98477-06-07 21:06 J -34247142.81 -34247142.62 -34247142.40 0.0089 0.0025

Venus -98476-01-19 09:49 J -34246917.28 -34246917.09 -34246916.88 0.0089 0.0035

Venus -98476-09-01 22:32 J -34246691.74 -34246691.56 -34246691.36 0.0089 0.0046

Venus -98475-04-15 11:30 J -34246466.19 -34246466.02 -34246465.85 0.0089 0.0056

Venus -98475-11-26 23:59 J -34246240.62 -34246240.50 -34246240.34 0.0089 0.0067

Venus -98474-07-10 13:11 J -34246015.05 -34246014.95 -34246014.84 0.0089 0.0078

Venus -98473-02-21 01:40 J -34245789.44 -34245789.43 -34245789.38 0.0089 0.0088

Earth -98453-02-15 00:13 J -34238490.59 -34238490.49 -34238490.34 0.0089 0.0078

Moon -98453-02-15 01:11 J -34238490.57 -34238490.45 -34238490.27 0.0089 0.0074 *

Moon -98452-02-16 14:08 J -34238123.10 -34238122.91 -34238122.68 0.0089 0.0050

Earth -98452-02-16 14:37 J -34238123.10 -34238122.89 -34238122.65 0.0089 0.0045 *

Moon -98451-02-19 04:18 J -34237755.59 -34237755.32 -34237755.04 0.0089 0.0007

Earth -98451-02-19 05:01 J -34237755.54 -34237755.29 -34237755.02 0.0089 0.0012 *

Earth -98450-02-21 19:11 J -34237387.94 -34237387.70 -34237387.43 0.0089 0.0022

Moon -98450-02-21 21:49 J -34237387.84 -34237387.59 -34237387.34 0.0089 0.0017 *

Moon -98449-02-24 06:56 J -34237020.39 -34237020.21 -34237019.99 0.0089 0.0059

Earth -98449-02-24 09:49 J -34237020.28 -34237020.09 -34237019.87 0.0089 0.0055 *

Earth	-98448-02-26 00:42 J	-34236652.48	-34236652.47	-34236652.43	0.0089	0.0088
Moon	-98448-02-26 03:49 J	-34236652.40	-34236652.34	-34236652.22	0.0089	0.0084
Mars	-98440-05-13 10:32 J	-34233654.29	-34233654.06	-34233653.78	0.0089	0.0052
Mars	-98438-04-08 08:08 J	-34232959.46	-34232959.16	-34232958.84	0.0089	0.0012
Mars	-98436-03-03 01:25 J	-34232264.58	-34232264.44	-34232264.24	0.0089	0.0075
Mercury	-98407-01-26 15:06 J	-34221707.90	-34221707.87	-34221707.82	0.0088	0.0086
Mercury	-98407-04-24 17:30 J	-34221619.82	-34221619.77	-34221619.68	0.0088	0.0081
Mercury	-98407-07-21 20:08 J	-34221531.73	-34221531.66	-34221531.56	0.0088	0.0076
Mercury	-98407-10-17 22:47 J	-34221443.64	-34221443.55	-34221443.43	0.0088	0.0071
Mercury	-98406-01-14 01:25 J	-34221355.54	-34221355.44	-34221355.31	0.0088	0.0065
Mercury	-98406-04-12 04:18 J	-34221267.44	-34221267.32	-34221267.19	0.0088	0.0060
Mercury	-98406-07-09 06:56 J	-34221179.34	-34221179.21	-34221179.08	0.0088	0.0055
Mercury	-98406-10-05 09:20 J	-34221091.24	-34221091.11	-34221090.96	0.0088	0.0050
Mercury	-98405-01-01 11:59 J	-34221003.14	-34221003.00	-34221002.85	0.0088	0.0045
Mercury	-98405-03-29 14:37 J	-34220915.04	-34220914.89	-34220914.74	0.0088	0.0040
Mercury	-98405-06-25 17:01 J	-34220826.94	-34220826.79	-34220826.63	0.0088	0.0035
Mercury	-98405-09-21 19:40 J	-34220738.84	-34220738.68	-34220738.52	0.0088	0.0030
Mercury	-98405-12-18 22:04 J	-34220650.74	-34220650.58	-34220650.41	0.0088	0.0025
Mercury	-98404-03-17 00:42 J	-34220562.63	-34220562.47	-34220562.31	0.0088	0.0020
Mercury	-98404-06-13 03:06 J	-34220474.53	-34220474.37	-34220474.20	0.0088	0.0015
Mercury	-98404-09-09 05:30 J	-34220386.43	-34220386.27	-34220386.10	0.0088	0.0010
Mercury	-98404-12-06 08:08 J	-34220298.33	-34220298.16	-34220298.00	0.0088	0.0005
Mercury	-98403-03-04 10:32 J	-34220210.23	-34220210.06	-34220209.89	0.0088	0.0000
Mercury	-98403-05-31 12:56 J	-34220122.12	-34220121.96	-34220121.79	0.0088	0.0005
Mercury	-98403-08-27 15:20 J	-34220034.02	-34220033.86	-34220033.69	0.0088	0.0010
Mercury	-98403-11-23 17:44 J	-34219945.92	-34219945.76	-34219945.60	0.0088	0.0015
Mercury	-98402-02-19 20:08 J	-34219857.82	-34219857.66	-34219857.50	0.0088	0.0019
Mercury	-98402-05-18 22:18 J	-34219769.72	-34219769.57	-34219769.40	0.0088	0.0025
Mercury	-98402-08-15 00:56 J	-34219681.62	-34219681.46	-34219681.31	0.0088	0.0029
Venus	-98402-10-13 11:44 J	-34219622.04	-34219622.01	-34219621.97	0.0088	0.0087

Mercury -98402-11-11 03:06 J -34219593.51 -34219593.37 -34219593.21 0.0088 0.0034

Mercury -98401-02-07 05:30 J -34219505.41 -34219505.27 -34219505.12 0.0088 0.0039

Mercury -98401-05-05 07:40 J -34219417.31 -34219417.18 -34219417.02 0.0088 0.0044

Venus -98401-05-26 00:56 J -34219396.55 -34219396.46 -34219396.33 0.0088 0.0077

Mercury -98401-08-01 10:18 J -34219329.21 -34219329.07 -34219328.93 0.0088 0.0048

Mercury -98401-10-28 12:28 J -34219241.10 -34219240.98 -34219240.84 0.0088 0.0053

Venus -98400-01-06 14:37 J -34219171.03 -34219170.89 -34219170.73 0.0088 0.0066

Mercury -98400-01-24 14:37 J -34219153.00 -34219152.89 -34219152.75 0.0088 0.0058

Mercury -98400-04-22 17:16 J -34219064.90 -34219064.78 -34219064.67 0.0088 0.0062

Mercury -98400-07-19 19:11 J -34218976.79 -34218976.70 -34218976.58 0.0088 0.0067

Venus -98400-08-20 04:04 J -34218945.49 -34218945.33 -34218945.14 0.0088 0.0055

Mercury -98400-10-15 21:20 J -34218888.68 -34218888.61 -34218888.50 0.0088 0.0072

Mercury -98399-01-11 23:44 J -34218800.58 -34218800.51 -34218800.41 0.0088 0.0076

Venus -98399-04-02 17:59 J -34218719.94 -34218719.75 -34218719.55 0.0088 0.0045

Mercury -98399-04-10 01:54 J -34218712.47 -34218712.42 -34218712.34 0.0088 0.0081

Mercury -98399-07-07 04:18 J -34218624.35 -34218624.32 -34218624.26 0.0088 0.0085

Venus -98399-11-14 07:40 J -34218494.39 -34218494.18 -34218493.97 0.0088 0.0034

Venus -98398-06-27 20:52 J -34218268.84 -34218268.63 -34218268.40 0.0088 0.0023

Venus -98397-02-08 10:32 J -34218043.28 -34218043.06 -34218042.84 0.0088 0.0012

Venus -98397-09-20 23:59 J -34217817.72 -34217817.50 -34217817.28 0.0088 0.0002

Venus -98396-05-04 13:25 J -34217592.16 -34217591.94 -34217591.72 0.0088 0.0009

Jupiter -98396-10-18 21:35 J -34217424.76 -34217424.60 -34217424.32 0.0088 0.0081

Venus -98396-12-16 02:52 J -34217366.60 -34217366.38 -34217366.16 0.0088 0.0019

Venus -98395-07-29 15:49 J -34217141.03 -34217140.84 -34217140.61 0.0088 0.0031

Venus -98394-03-12 05:30 J -34216915.46 -34216915.27 -34216915.07 0.0088 0.0041

Venus -98394-10-23 18:28 J -34216689.89 -34216689.73 -34216689.53 0.0088 0.0052

Venus -98393-06-05 07:54 J -34216464.32 -34216464.17 -34216464.00 0.0088 0.0062

Venus -98392-01-16 20:52 J -34216238.74 -34216238.63 -34216238.49 0.0088 0.0072

Venus -98392-08-30 10:04 J -34216013.14 -34216013.08 -34216012.99 0.0088 0.0083

Moon -98371-08-24 23:01 J -34208348.71 -34208348.54 -34208348.36 0.0088 0.0065

Earth	-98371-08-25 02:37 J	-34208348.54	-34208348.39	-34208348.22	0.0088	0.0069	*
Earth	-98370-08-27 11:44 J	-34207981.23	-34207981.01	-34207980.77	0.0088	0.0038	
Moon	-98370-08-27 14:52 J	-34207981.08	-34207980.88	-34207980.63	0.0088	0.0042	*
Moon	-98369-08-28 17:44 J	-34207614.00	-34207613.76	-34207613.51	0.0088	0.0004	
Earth	-98369-08-28 21:06 J	-34207613.87	-34207613.62	-34207613.37	0.0088	0.0006	*
Earth	-98368-08-31 05:44 J	-34207246.50	-34207246.26	-34207246.01	0.0088	0.0025	
Moon	-98368-08-31 07:54 J	-34207246.41	-34207246.17	-34207245.91	0.0088	0.0021	*
Moon	-98367-09-02 13:11 J	-34206879.11	-34206878.95	-34206878.75	0.0088	0.0059	
Earth	-98367-09-02 14:08 J	-34206879.09	-34206878.91	-34206878.70	0.0088	0.0056	*
Moon	-98366-09-04 22:18 J	-34206511.62	-34206511.57	-34206511.45	0.0088	0.0084	
Earth	-98366-09-04 22:32 J	-34206511.59	-34206511.56	-34206511.49	0.0088	0.0087	*
Mars	-98358-01-26 08:52 J	-34203811.25	-34203811.13	-34203810.97	0.0088	0.0079	
Mars	-98357-12-21 03:20 J	-34203116.66	-34203116.36	-34203116.05	0.0088	0.0017	
Mars	-98355-11-15 23:01 J	-34202421.79	-34202421.54	-34202421.25	0.0088	0.0047	
Mercury	-98325-01-19 19:25 J	-34191764.71	-34191764.69	-34191764.66	0.0089	0.0087	
Mercury	-98325-04-16 21:06 J	-34191676.66	-34191676.62	-34191676.56	0.0089	0.0083	
Mercury	-98325-07-13 22:47 J	-34191588.60	-34191588.55	-34191588.47	0.0089	0.0079	
Mercury	-98325-10-10 00:28 J	-34191500.54	-34191500.48	-34191500.39	0.0089	0.0075	
Mercury	-98324-01-06 02:08 J	-34191412.48	-34191412.41	-34191412.30	0.0089	0.0071	
Mercury	-98324-04-04 04:18 J	-34191324.41	-34191324.32	-34191324.22	0.0089	0.0066	
Mercury	-98324-07-01 05:59 J	-34191236.35	-34191236.25	-34191236.14	0.0089	0.0062	
Mercury	-98324-09-27 07:40 J	-34191148.28	-34191148.18	-34191148.05	0.0089	0.0058	
Mercury	-98324-12-24 09:49 J	-34191060.21	-34191060.09	-34191059.97	0.0089	0.0053	
Mercury	-98323-03-22 11:30 J	-34190972.14	-34190972.02	-34190971.89	0.0089	0.0049	
Mercury	-98323-06-18 13:11 J	-34190884.06	-34190883.95	-34190883.81	0.0089	0.0045	
Mercury	-98323-09-14 15:20 J	-34190795.99	-34190795.86	-34190795.73	0.0089	0.0040	
Mercury	-98323-12-11 17:01 J	-34190707.92	-34190707.79	-34190707.65	0.0089	0.0036	
Mercury	-98322-03-09 18:56 J	-34190619.84	-34190619.71	-34190619.57	0.0089	0.0032	
Mercury	-98322-06-05 20:52 J	-34190531.77	-34190531.63	-34190531.48	0.0089	0.0027	
Mercury	-98322-09-01 22:47 J	-34190443.69	-34190443.55	-34190443.40	0.0089	0.0023	

Mercury -98322-11-29 00:42 J -34190355.62 -34190355.47 -34190355.32 0.0089 0.0018

Mercury -98321-02-25 02:37 J -34190267.54 -34190267.39 -34190267.24 0.0089 0.0014

Mercury -98321-05-23 04:32 J -34190179.46 -34190179.31 -34190179.16 0.0089 0.0009

Mercury -98321-08-19 06:28 J -34190091.38 -34190091.23 -34190091.08 0.0089 0.0005

Mercury -98321-11-15 08:23 J -34190003.30 -34190003.15 -34190003.00 0.0089 0.0000

Mercury -98320-02-11 10:18 J -34189915.22 -34189915.07 -34189914.92 0.0089 0.0004

Mercury -98320-05-10 12:13 J -34189827.14 -34189826.99 -34189826.84 0.0089 0.0009

Mercury -98320-08-06 14:08 J -34189739.05 -34189738.91 -34189738.75 0.0089 0.0014

Mercury -98320-11-02 16:18 J -34189650.97 -34189650.82 -34189650.67 0.0089 0.0018

Mercury -98319-01-29 17:59 J -34189562.89 -34189562.75 -34189562.59 0.0089 0.0023

Mercury -98319-04-27 20:08 J -34189474.80 -34189474.66 -34189474.51 0.0089 0.0027

Venus -98319-07-08 03:49 J -34189403.40 -34189403.34 -34189403.23 0.0089 0.0082

Mercury -98319-07-24 22:04 J -34189386.72 -34189386.58 -34189386.43 0.0089 0.0032

Mercury -98319-10-20 23:59 J -34189298.63 -34189298.50 -34189298.35 0.0089 0.0037

Mercury -98318-01-17 02:08 J -34189210.54 -34189210.41 -34189210.27 0.0089 0.0041

Venus -98318-02-18 16:32 J -34189177.92 -34189177.81 -34189177.67 0.0089 0.0071

Mercury -98318-04-15 04:04 J -34189122.45 -34189122.33 -34189122.19 0.0089 0.0046

Mercury -98318-07-12 05:59 J -34189034.36 -34189034.25 -34189034.11 0.0089 0.0051

Venus -98318-10-02 05:01 J -34188952.43 -34188952.29 -34188952.12 0.0089 0.0061

Mercury -98318-10-08 08:08 J -34188946.27 -34188946.16 -34188946.03 0.0089 0.0055

Mercury -98317-01-04 10:04 J -34188858.18 -34188858.08 -34188857.95 0.0089 0.0060

Mercury -98317-04-01 12:13 J -34188770.09 -34188769.99 -34188769.88 0.0089 0.0065

Venus -98317-05-14 17:44 J -34188726.93 -34188726.76 -34188726.58 0.0089 0.0050

Mercury -98317-06-28 14:08 J -34188681.99 -34188681.91 -34188681.80 0.0089 0.0070

Mercury -98317-09-24 16:18 J -34188593.89 -34188593.82 -34188593.72 0.0089 0.0074

Mercury -98317-12-21 18:28 J -34188505.79 -34188505.73 -34188505.65 0.0089 0.0079

Venus -98317-12-26 05:59 J -34188501.43 -34188501.25 -34188501.04 0.0089 0.0040

Mercury -98316-03-19 20:23 J -34188417.68 -34188417.65 -34188417.58 0.0089 0.0084

Mercury -98316-06-15 22:47 J -34188329.56 -34188329.55 -34188329.53 0.0089 0.0088

Venus -98316-08-08 18:42 J -34188275.92 -34188275.72 -34188275.51 0.0089 0.0029

Venus	-98315-03-22 07:11 J	-34188050.41	-34188050.20	-34188049.98	0.0089	0.0019
Venus	-98315-11-02 19:54 J	-34187824.89	-34187824.67	-34187824.45	0.0089	0.0008
Venus	-98314-06-16 08:23 J	-34187599.36	-34187599.15	-34187598.93	0.0089	0.0003
Venus	-98313-01-27 20:52 J	-34187373.84	-34187373.63	-34187373.41	0.0089	0.0013
Venus	-98313-09-09 09:20 J	-34187148.31	-34187148.11	-34187147.89	0.0089	0.0024
Venus	-98312-04-22 22:04 J	-34186922.77	-34186922.58	-34186922.37	0.0089	0.0034
Venus	-98312-12-04 10:32 J	-34186697.23	-34186697.06	-34186696.86	0.0089	0.0045
Venus	-98311-07-17 23:30 J	-34186471.69	-34186471.52	-34186471.35	0.0089	0.0055
Venus	-98310-02-28 11:59 J	-34186246.13	-34186246.00	-34186245.84	0.0089	0.0066
Venus	-98310-10-12 00:28 J	-34186020.56	-34186020.48	-34186020.34	0.0089	0.0078
Venus	-98309-05-24 13:40 J	-34185794.96	-34185794.93	-34185794.87	0.0089	0.0087
Moon	-98288-02-15 22:18 J	-34178222.75	-34178222.57	-34178222.36	0.0089	0.0062
Earth	-98288-02-16 00:13 J	-34178222.67	-34178222.49	-34178222.28	0.0089	0.0060 *
Earth	-98287-02-18 14:23 J	-34177855.14	-34177854.90	-34177854.64	0.0089	0.0026
Moon	-98287-02-18 16:47 J	-34177855.04	-34177854.80	-34177854.55	0.0089	0.0025 *
Moon	-98286-02-21 01:11 J	-34177487.71	-34177487.45	-34177487.18	0.0089	0.0005
Earth	-98286-02-21 04:47 J	-34177487.56	-34177487.30	-34177487.03	0.0089	0.0007 *
Earth	-98285-02-23 18:56 J	-34177119.94	-34177119.71	-34177119.47	0.0089	0.0040
Moon	-98285-02-23 22:18 J	-34177119.78	-34177119.57	-34177119.32	0.0089	0.0042 *
Moon	-98284-02-25 05:44 J	-34176752.39	-34176752.26	-34176752.09	0.0089	0.0073
Earth	-98284-02-25 09:35 J	-34176752.24	-34176752.10	-34176751.94	0.0089	0.0074 *
Mars	-98277-12-26 05:59 J	-34173891.37	-34173891.25	-34173891.09	0.0089	0.0079
Mars	-98275-11-21 03:49 J	-34173196.63	-34173196.34	-34173196.01	0.0089	0.0015
Mars	-98273-10-16 00:13 J	-34172501.73	-34172501.49	-34172501.21	0.0089	0.0049
Mercury	-98243-07-27 11:59 J	-34161625.01	-34161625.00	-34161624.97	0.0088	0.0088
Mercury	-98243-10-23 14:37 J	-34161536.94	-34161536.89	-34161536.82	0.0088	0.0083
Mercury	-98242-01-19 17:01 J	-34161448.85	-34161448.79	-34161448.69	0.0088	0.0078
Mercury	-98242-04-17 19:40 J	-34161360.76	-34161360.68	-34161360.56	0.0088	0.0073
Mercury	-98242-07-14 22:18 J	-34161272.66	-34161272.57	-34161272.44	0.0088	0.0068
Mercury	-98242-10-11 00:56 J	-34161184.56	-34161184.46	-34161184.32	0.0088	0.0063

Mercury -98241-01-07 03:49 J -34161096.46 -34161096.34 -34161096.21 0.0088 0.0057

Mercury -98241-04-04 06:28 J -34161008.36 -34161008.23 -34161008.09 0.0088 0.0052

Mercury -98241-07-01 09:06 J -34160920.26 -34160920.12 -34160919.98 0.0088 0.0047

Mercury -98241-09-27 11:30 J -34160832.16 -34160832.02 -34160831.86 0.0088 0.0042

Mercury -98241-12-24 14:08 J -34160744.06 -34160743.91 -34160743.75 0.0088 0.0037

Mercury -98240-03-22 16:47 J -34160655.96 -34160655.80 -34160655.64 0.0088 0.0032

Mercury -98240-06-18 19:11 J -34160567.85 -34160567.70 -34160567.53 0.0088 0.0027

Mercury -98240-09-14 21:49 J -34160479.75 -34160479.59 -34160479.43 0.0088 0.0022

Mercury -98240-12-12 00:13 J -34160391.65 -34160391.49 -34160391.32 0.0088 0.0017

Mercury -98239-03-10 02:52 J -34160303.55 -34160303.38 -34160303.22 0.0088 0.0012

Mercury -98239-06-06 05:16 J -34160215.44 -34160215.28 -34160215.11 0.0088 0.0007

Mercury -98239-09-02 07:40 J -34160127.34 -34160127.18 -34160127.01 0.0088 0.0003

Mercury -98239-11-29 10:18 J -34160039.24 -34160039.07 -34160038.91 0.0088 0.0003

Mercury -98238-02-25 12:42 J -34159951.14 -34159950.97 -34159950.81 0.0088 0.0008

Mercury -98238-05-24 15:06 J -34159863.03 -34159862.87 -34159862.71 0.0088 0.0013

Mercury -98238-08-20 17:30 J -34159774.93 -34159774.77 -34159774.61 0.0088 0.0018

Mercury -98238-11-16 19:54 J -34159686.83 -34159686.67 -34159686.51 0.0088 0.0023

Mercury -98237-02-12 22:04 J -34159598.73 -34159598.58 -34159598.41 0.0088 0.0028

Mercury -98237-05-11 00:28 J -34159510.62 -34159510.48 -34159510.32 0.0088 0.0032

Mercury -98237-08-07 03:06 J -34159422.52 -34159422.37 -34159422.22 0.0088 0.0037

Venus -98237-08-27 12:13 J -34159402.07 -34159401.99 -34159401.86 0.0088 0.0079

Mercury -98237-11-03 05:16 J -34159334.42 -34159334.28 -34159334.13 0.0088 0.0042

Mercury -98236-01-30 07:25 J -34159246.31 -34159246.19 -34159246.04 0.0088 0.0047

Venus -98236-04-10 02:08 J -34159176.53 -34159176.41 -34159176.25 0.0088 0.0068

Mercury -98236-04-28 09:49 J -34159158.21 -34159158.09 -34159157.95 0.0088 0.0051

Mercury -98236-07-25 12:13 J -34159070.11 -34159069.99 -34159069.86 0.0088 0.0056

Mercury -98236-10-21 14:23 J -34158982.00 -34158981.90 -34158981.77 0.0088 0.0061

Venus -98236-11-21 16:04 J -34158950.99 -34158950.83 -34158950.65 0.0088 0.0057

Mercury -98235-01-17 16:32 J -34158893.90 -34158893.81 -34158893.68 0.0088 0.0066

Mercury -98235-04-15 19:11 J -34158805.79 -34158805.70 -34158805.60 0.0088 0.0070

Venus -98235-07-05 05:16 J -34158725.45 -34158725.28 -34158725.07 0.0088 0.0047
 Mercury -98235-07-12 21:06 J -34158717.69 -34158717.62 -34158717.51 0.0088 0.0075
 Mercury -98235-10-08 23:44 J -34158629.58 -34158629.51 -34158629.43 0.0088 0.0079
 Mercury -98234-01-05 01:40 J -34158541.46 -34158541.43 -34158541.36 0.0088 0.0084
 Venus -98234-02-15 18:56 J -34158499.90 -34158499.71 -34158499.49 0.0088 0.0035
 Mercury -98234-04-03 04:18 J -34158453.33 -34158453.32 -34158453.30 0.0088 0.0088
 Venus -98234-09-29 08:37 J -34158274.35 -34158274.14 -34158273.92 0.0088 0.0025
 Venus -98233-05-11 22:18 J -34158048.79 -34158048.57 -34158048.35 0.0088 0.0014
 Venus -98233-12-23 11:44 J -34157823.24 -34157823.01 -34157822.79 0.0088 0.0003
 Venus -98232-08-06 00:56 J -34157597.68 -34157597.46 -34157597.23 0.0088 0.0008
 Venus -98231-03-19 14:23 J -34157372.11 -34157371.90 -34157371.67 0.0088 0.0019
 Venus -98231-10-31 03:35 J -34157146.54 -34157146.35 -34157146.12 0.0088 0.0030
 Venus -98230-06-13 16:47 J -34156920.98 -34156920.80 -34156920.58 0.0088 0.0041
 Jupiter -98230-12-24 07:25 J -34156727.66 -34156727.19 -34156726.67 0.0088 0.0033
 Venus -98229-01-25 06:13 J -34156695.41 -34156695.24 -34156695.04 0.0088 0.0051
 Venus -98229-09-06 19:25 J -34156469.83 -34156469.69 -34156469.51 0.0088 0.0062
 Venus -98228-04-20 09:06 J -34156244.24 -34156244.12 -34156243.98 0.0088 0.0072
 Venus -98228-12-01 22:04 J -34156018.64 -34156018.58 -34156018.48 0.0088 0.0082
 Earth -98207-08-24 15:20 J -34148447.92 -34148447.86 -34148447.73 0.0088 0.0083
 Moon -98207-08-24 19:11 J -34148447.74 -34148447.70 -34148447.61 0.0088 0.0086 *
 Moon -98206-08-26 22:32 J -34148080.75 -34148080.56 -34148080.34 0.0088 0.0049
 Earth -98206-08-27 00:56 J -34148080.65 -34148080.46 -34148080.23 0.0088 0.0051 *
 Earth -98205-08-28 10:32 J -34147713.31 -34147713.06 -34147712.82 0.0088 0.0020
 Moon -98205-08-28 12:28 J -34147713.23 -34147712.98 -34147712.73 0.0088 0.0023 *
 Moon -98204-08-30 18:28 J -34147345.96 -34147345.73 -34147345.48 0.0088 0.0015
 Earth -98204-08-30 19:25 J -34147345.94 -34147345.69 -34147345.43 0.0088 0.0011 *
 Moon -98203-09-02 03:20 J -34146978.59 -34146978.36 -34146978.12 0.0088 0.0040
 Earth -98203-09-02 04:04 J -34146978.53 -34146978.33 -34146978.09 0.0088 0.0043 *
 Earth -98202-09-04 12:42 J -34146611.09 -34146610.97 -34146610.81 0.0088 0.0073
 Moon -98202-09-04 14:52 J -34146611.00 -34146610.88 -34146610.75 0.0088 0.0076 *

Mars -98193-08-04 22:32 J -34143353.82 -34143353.56 -34143353.27 0.0088 0.0043
 Mars -98191-06-30 17:44 J -34142659.06 -34142658.76 -34142658.45 0.0088 0.0021
 Mars -98189-05-25 13:25 J -34141964.00 -34141963.94 -34141963.82 0.0088 0.0085
 Mercury -98161-07-19 17:30 J -34131681.77 -34131681.77 -34131681.75 0.0089 0.0089
 Mercury -98161-10-15 19:25 J -34131593.73 -34131593.69 -34131593.65 0.0089 0.0084
 Mercury -98160-01-11 21:06 J -34131505.68 -34131505.62 -34131505.55 0.0089 0.0080
 Mercury -98160-04-09 22:47 J -34131417.62 -34131417.55 -34131417.47 0.0089 0.0076
 Mercury -98160-07-07 00:28 J -34131329.55 -34131329.48 -34131329.38 0.0089 0.0072
 Mercury -98160-10-03 02:08 J -34131241.49 -34131241.41 -34131241.30 0.0089 0.0068
 Mercury -98160-12-30 04:18 J -34131153.42 -34131153.32 -34131153.22 0.0089 0.0063
 Mercury -98159-03-28 05:59 J -34131065.35 -34131065.25 -34131065.13 0.0089 0.0059
 Mercury -98159-06-24 07:40 J -34130977.28 -34130977.18 -34130977.05 0.0089 0.0055
 Mercury -98159-09-20 09:35 J -34130889.21 -34130889.10 -34130888.97 0.0089 0.0051
 Mercury -98159-12-17 11:30 J -34130801.14 -34130801.02 -34130800.89 0.0089 0.0046
 Mercury -98158-03-15 13:11 J -34130713.07 -34130712.95 -34130712.81 0.0089 0.0042
 Mercury -98158-06-11 15:20 J -34130625.00 -34130624.86 -34130624.73 0.0089 0.0037
 Mercury -98158-09-07 17:01 J -34130536.92 -34130536.79 -34130536.65 0.0089 0.0033
 Mercury -98158-12-04 18:56 J -34130448.85 -34130448.71 -34130448.57 0.0089 0.0029
 Mercury -98157-03-01 20:52 J -34130360.77 -34130360.63 -34130360.49 0.0089 0.0024
 Mercury -98157-05-28 22:32 J -34130272.70 -34130272.56 -34130272.41 0.0089 0.0020
 Mercury -98157-08-25 00:42 J -34130184.62 -34130184.47 -34130184.33 0.0089 0.0015
 Mercury -98157-11-21 02:23 J -34130096.54 -34130096.40 -34130096.24 0.0089 0.0011
 Mercury -98156-02-17 04:18 J -34130008.46 -34130008.32 -34130008.16 0.0089 0.0007
 Mercury -98156-05-16 06:28 J -34129920.39 -34129920.23 -34129920.08 0.0089 0.0003
 Mercury -98156-08-12 08:08 J -34129832.30 -34129832.16 -34129832.00 0.0089 0.0004
 Mercury -98156-11-08 10:04 J -34129744.22 -34129744.08 -34129743.92 0.0089 0.0008
 Mercury -98155-02-04 12:13 J -34129656.14 -34129655.99 -34129655.84 0.0089 0.0012
 Mercury -98155-05-03 13:54 J -34129568.06 -34129567.92 -34129567.76 0.0089 0.0017
 Mercury -98155-07-30 16:04 J -34129479.98 -34129479.83 -34129479.68 0.0089 0.0021
 Venus -98155-10-09 17:01 J -34129408.85 -34129408.79 -34129408.71 0.0089 0.0083

Mercury -98155-10-26 17:59 J -34129391.89 -34129391.75 -34129391.60 0.0089 0.0026

Mercury -98154-01-22 20:08 J -34129303.81 -34129303.66 -34129303.52 0.0089 0.0030

Mercury -98154-04-20 21:49 J -34129215.72 -34129215.59 -34129215.44 0.0089 0.0035

Venus -98154-05-23 05:16 J -34129183.39 -34129183.28 -34129183.14 0.0089 0.0073

Mercury -98154-07-17 23:44 J -34129127.63 -34129127.51 -34129127.36 0.0089 0.0040

Mercury -98154-10-14 01:54 J -34129039.55 -34129039.42 -34129039.28 0.0089 0.0044

Venus -98153-01-03 17:59 J -34128957.90 -34128957.75 -34128957.60 0.0089 0.0062

Mercury -98153-01-10 03:49 J -34128951.46 -34128951.34 -34128951.20 0.0089 0.0049

Mercury -98153-04-07 05:44 J -34128863.37 -34128863.26 -34128863.12 0.0089 0.0054

Mercury -98153-07-04 08:08 J -34128775.27 -34128775.16 -34128775.04 0.0089 0.0058

Venus -98153-08-16 05:59 J -34128732.41 -34128732.25 -34128732.06 0.0089 0.0052

Mercury -98153-09-30 10:04 J -34128687.18 -34128687.08 -34128686.97 0.0089 0.0063

Mercury -98153-12-27 11:59 J -34128599.09 -34128599.00 -34128598.89 0.0089 0.0068

Mercury -98152-03-25 14:23 J -34128510.99 -34128510.90 -34128510.81 0.0089 0.0072

Venus -98152-03-29 18:56 J -34128506.90 -34128506.71 -34128506.52 0.0089 0.0041

Mercury -98152-06-21 16:18 J -34128422.89 -34128422.82 -34128422.74 0.0089 0.0077

Mercury -98152-09-17 18:13 J -34128334.78 -34128334.74 -34128334.67 0.0089 0.0082

Venus -98152-11-10 07:11 J -34128281.39 -34128281.20 -34128280.98 0.0089 0.0031

Mercury -98152-12-14 20:08 J -34128246.67 -34128246.66 -34128246.61 0.0089 0.0087

Venus -98151-06-23 19:54 J -34128055.88 -34128055.67 -34128055.45 0.0089 0.0020

Venus -98150-02-04 08:23 J -34127830.36 -34127830.15 -34127829.93 0.0089 0.0010

Venus -98150-09-17 21:06 J -34127604.84 -34127604.62 -34127604.40 0.0089 0.0001

Venus -98149-04-30 09:35 J -34127379.31 -34127379.10 -34127378.88 0.0089 0.0012

Venus -98149-12-11 22:04 J -34127153.78 -34127153.58 -34127153.36 0.0089 0.0023

Venus -98148-07-25 10:47 J -34126928.25 -34126928.05 -34126927.85 0.0089 0.0033

Venus -98147-03-07 23:16 J -34126702.71 -34126702.53 -34126702.33 0.0089 0.0044

Venus -98147-10-19 11:44 J -34126477.16 -34126477.01 -34126476.82 0.0089 0.0055

Venus -98146-06-02 00:42 J -34126251.61 -34126251.47 -34126251.31 0.0089 0.0065

Venus -98145-01-13 13:11 J -34126026.05 -34126025.95 -34126025.82 0.0089 0.0076

Venus -98145-08-26 02:23 J -34125800.45 -34125800.40 -34125800.36 0.0089 0.0087

Earth	-98124-02-15 10:18 J	-34118322.21	-34118322.07	-34118321.92	0.0089	0.0073
Moon	-98124-02-15 13:25 J	-34118322.09	-34118321.94	-34118321.77	0.0089	0.0070 *
Moon	-98123-02-17 20:52 J	-34117954.85	-34117954.63	-34117954.40	0.0089	0.0044
Earth	-98123-02-18 00:13 J	-34117954.71	-34117954.49	-34117954.25	0.0089	0.0041 *
Earth	-98122-02-20 14:37 J	-34117587.16	-34117586.89	-34117586.63	0.0089	0.0008
Moon	-98122-02-20 18:13 J	-34117587.00	-34117586.74	-34117586.47	0.0089	0.0003 *
Moon	-98121-02-23 01:40 J	-34117219.68	-34117219.43	-34117219.17	0.0089	0.0022
Earth	-98121-02-23 04:32 J	-34117219.54	-34117219.31	-34117219.04	0.0089	0.0027 *
Earth	-98120-02-24 18:42 J	-34116851.89	-34116851.72	-34116851.50	0.0089	0.0060
Moon	-98120-02-24 21:35 J	-34116851.78	-34116851.60	-34116851.40	0.0089	0.0063 *
Moon	-98119-02-27 07:11 J	-34116484.21	-34116484.20	-34116484.13	0.0089	0.0088
Mars	-98111-07-06 00:28 J	-34113433.76	-34113433.48	-34113433.20	0.0089	0.0041
Mars	-98109-05-30 21:06 J	-34112738.91	-34112738.62	-34112738.31	0.0089	0.0023
Mars	-98107-04-25 16:18 J	-34112043.85	-34112043.82	-34112043.73	0.0089	0.0087
Mercury	-98078-04-23 11:30 J	-34101454.05	-34101454.02	-34101453.96	0.0089	0.0085
Mercury	-98078-07-20 14:08 J	-34101365.97	-34101365.91	-34101365.82	0.0089	0.0080
Mercury	-98078-10-16 16:47 J	-34101277.87	-34101277.80	-34101277.69	0.0089	0.0075
Mercury	-98077-01-12 19:54 J	-34101189.78	-34101189.67	-34101189.57	0.0088	0.0069
Mercury	-98077-04-09 22:18 J	-34101101.68	-34101101.57	-34101101.45	0.0088	0.0064
Mercury	-98077-07-07 00:56 J	-34101013.58	-34101013.46	-34101013.33	0.0088	0.0059
Mercury	-98077-10-03 03:35 J	-34100925.48	-34100925.35	-34100925.21	0.0088	0.0054
Mercury	-98077-12-30 05:59 J	-34100837.38	-34100837.25	-34100837.10	0.0088	0.0049
Mercury	-98076-03-28 08:37 J	-34100749.28	-34100749.14	-34100748.98	0.0088	0.0044
Mercury	-98076-06-24 11:16 J	-34100661.17	-34100661.03	-34100660.87	0.0088	0.0039
Mercury	-98076-09-20 13:54 J	-34100573.07	-34100572.92	-34100572.76	0.0088	0.0033
Mercury	-98076-12-17 16:18 J	-34100484.97	-34100484.82	-34100484.65	0.0088	0.0029
Mercury	-98075-03-15 18:56 J	-34100396.87	-34100396.71	-34100396.54	0.0088	0.0023
Mercury	-98075-06-11 21:35 J	-34100308.76	-34100308.60	-34100308.43	0.0088	0.0018
Mercury	-98075-09-07 23:59 J	-34100220.66	-34100220.50	-34100220.33	0.0088	0.0014
Mercury	-98075-12-05 02:37 J	-34100132.56	-34100132.39	-34100132.22	0.0088	0.0008

Mercury -98074-03-03 05:01 J -34100044.45 -34100044.29 -34100044.12 0.0088 0.0004

Mercury -98074-05-30 07:40 J -34099956.35 -34099956.18 -34099956.02 0.0088 0.0002

Mercury -98074-08-26 10:04 J -34099868.25 -34099868.08 -34099867.92 0.0088 0.0007

Mercury -98074-11-22 12:28 J -34099780.14 -34099779.98 -34099779.81 0.0088 0.0011

Mercury -98073-02-18 14:52 J -34099692.04 -34099691.88 -34099691.71 0.0088 0.0016

Mercury -98073-05-16 17:16 J -34099603.94 -34099603.78 -34099603.62 0.0088 0.0021

Mercury -98073-08-12 19:25 J -34099515.83 -34099515.69 -34099515.52 0.0088 0.0027

Mercury -98073-11-08 22:04 J -34099427.73 -34099427.58 -34099427.42 0.0088 0.0031

Venus -98073-11-29 00:28 J -34099407.56 -34099407.48 -34099407.37 0.0088 0.0080

Mercury -98072-02-05 00:28 J -34099339.63 -34099339.48 -34099339.33 0.0088 0.0036

Mercury -98072-05-04 02:37 J -34099251.52 -34099251.39 -34099251.23 0.0088 0.0041

Venus -98072-07-12 14:23 J -34099182.04 -34099181.90 -34099181.76 0.0088 0.0069

Mercury -98072-07-31 05:01 J -34099163.42 -34099163.29 -34099163.14 0.0088 0.0045

Mercury -98072-10-27 07:25 J -34099075.32 -34099075.19 -34099075.05 0.0088 0.0050

Mercury -98071-01-23 09:49 J -34098987.21 -34098987.09 -34098986.96 0.0088 0.0054

Venus -98071-02-23 03:35 J -34098956.50 -34098956.35 -34098956.16 0.0088 0.0058

Mercury -98071-04-21 11:59 J -34098899.11 -34098899.00 -34098898.87 0.0088 0.0059

Mercury -98071-07-18 14:23 J -34098811.00 -34098810.90 -34098810.78 0.0088 0.0064

Venus -98071-10-06 17:16 J -34098730.96 -34098730.78 -34098730.58 0.0088 0.0048

Mercury -98071-10-14 16:32 J -34098722.90 -34098722.81 -34098722.69 0.0088 0.0069

Mercury -98070-01-10 19:11 J -34098634.79 -34098634.70 -34098634.61 0.0088 0.0073

Mercury -98070-04-08 21:06 J -34098546.68 -34098546.62 -34098546.53 0.0088 0.0078

Venus -98070-05-20 06:56 J -34098505.41 -34098505.21 -34098505.00 0.0088 0.0037

Mercury -98070-07-05 23:16 J -34098458.57 -34098458.53 -34098458.45 0.0088 0.0083

Mercury -98070-10-02 01:40 J -34098370.45 -34098370.43 -34098370.39 0.0088 0.0087

Venus -98070-12-31 20:23 J -34098279.86 -34098279.65 -34098279.43 0.0088 0.0026

Venus -98069-08-13 09:49 J -34098054.30 -34098054.09 -34098053.86 0.0088 0.0015

Venus -98068-03-26 23:30 J -34097828.74 -34097828.52 -34097828.29 0.0088 0.0004

Venus -98068-11-07 12:56 J -34097603.18 -34097602.96 -34097602.74 0.0088 0.0007

Venus -98067-06-21 02:08 J -34097377.62 -34097377.41 -34097377.18 0.0088 0.0018

Venus	-98066-02-01 15:20 J	-34097152.06	-34097151.86	-34097151.64	0.0088	0.0029
Venus	-98066-09-15 04:32 J	-34096926.49	-34096926.31	-34096926.09	0.0088	0.0040
Venus	-98065-04-27 18:13 J	-34096700.91	-34096700.74	-34096700.55	0.0088	0.0050
Venus	-98065-12-09 07:25 J	-34096475.34	-34096475.19	-34096475.01	0.0088	0.0061
Venus	-98064-07-22 20:23 J	-34096249.75	-34096249.65	-34096249.49	0.0088	0.0072
Venus	-98063-03-05 09:49 J	-34096024.15	-34096024.09	-34096023.99	0.0088	0.0082
Earth	-98042-08-26 14:52 J	-34088180.03	-34088179.88	-34088179.68	0.0088	0.0065
Moon	-98042-08-26 16:32 J	-34088179.98	-34088179.81	-34088179.60	0.0088	0.0060 *
Earth	-98041-08-28 00:13 J	-34087812.71	-34087812.49	-34087812.24	0.0088	0.0033
Moon	-98041-08-28 00:27 J	-34087812.69	-34087812.48	-34087812.25	0.0088	0.0037 *
Moon	-98040-08-30 08:37 J	-34087445.40	-34087445.14	-34087444.87	0.0088	0.0002
Earth	-98040-08-30 09:35 J	-34087445.35	-34087445.10	-34087444.85	0.0088	0.0002 *
Earth	-98039-09-01 18:13 J	-34087077.96	-34087077.74	-34087077.49	0.0088	0.0030
Moon	-98039-09-01 20:37 J	-34087077.86	-34087077.64	-34087077.39	0.0088	0.0026 *
Moon	-98038-09-03 23:30 J	-34086710.67	-34086710.52	-34086710.31	0.0088	0.0065
Earth	-98038-09-04 02:51 J	-34086710.54	-34086710.38	-34086710.17	0.0088	0.0060 *
Moon	-98037-09-05 15:06 J	-34086342.88	-34086342.87	-34086342.82	0.0088	0.0088
Mars	-98029-03-19 18:56 J	-34083590.88	-34083590.71	-34083590.48	0.0088	0.0069
Mars	-98027-02-12 11:44 J	-34082896.32	-34082896.01	-34082895.69	0.0088	0.0005
Mars	-98025-01-08 06:56 J	-34082201.43	-34082201.21	-34082200.96	0.0088	0.0059

98TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 98th millennium BCE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury -97996-04-15 17:15 J -34071510.80 -34071510.78 -34071510.73 0.0089 0.0086

Mercury -97996-07-12 18:56 J -34071422.75 -34071422.71 -34071422.64 0.0089 0.0082

Mercury -97996-10-08 21:06 J -34071334.69 -34071334.62 -34071334.55 0.0089 0.0077

Mercury -97995-01-04 22:47 J -34071246.63 -34071246.55 -34071246.46 0.0089 0.0073

Mercury -97995-04-03 00:27 J -34071158.56 -34071158.48 -34071158.38 0.0089 0.0069

Mercury -97995-06-30 02:08 J -34071070.49 -34071070.41 -34071070.30 0.0089 0.0065

Mercury -97995-09-26 04:18 J -34070982.43 -34070982.32 -34070982.21 0.0089 0.0060

Mercury -97995-12-23 05:59 J -34070894.36 -34070894.25 -34070894.13 0.0089 0.0056

Mercury -97994-03-21 07:39 J -34070806.29 -34070806.18 -34070806.05 0.0089 0.0052

Mercury -97994-06-17 09:20 J -34070718.22 -34070718.11 -34070717.97 0.0089 0.0048

Mercury -97994-09-13 11:30 J -34070630.15 -34070630.02 -34070629.89 0.0089 0.0043

Mercury -97994-12-10 13:11 J -34070542.08 -34070541.95 -34070541.81 0.0089 0.0039

Mercury -97993-03-07 14:51 J -34070454.00 -34070453.88 -34070453.73 0.0089 0.0035

Mercury -97993-06-03 17:01 J -34070365.93 -34070365.79 -34070365.65 0.0089 0.0030

Mercury -97993-08-30 18:42 J -34070277.85 -34070277.72 -34070277.57 0.0089 0.0026

Mercury -97993-11-26 20:51 J -34070189.78 -34070189.63 -34070189.49 0.0089 0.0021

Mercury -97992-02-22 22:32 J -34070101.70 -34070101.56 -34070101.41 0.0089 0.0017

Mercury -97992-05-22 00:27 J -34070013.63 -34070013.48 -34070013.33 0.0089 0.0012

Mercury -97992-08-18 02:23 J -34069925.55 -34069925.40 -34069925.25 0.0089 0.0008

Mercury -97992-11-14 04:18 J -34069837.47 -34069837.32 -34069837.17 0.0089 0.0003

Mercury -97991-02-10 06:13 J -34069749.39 -34069749.24 -34069749.09 0.0089 0.0001

Mercury -97991-05-09 08:08 J -34069661.31 -34069661.16 -34069661.01 0.0089 0.0006

Mercury -97991-08-05 10:03 J -34069573.23 -34069573.08 -34069572.93 0.0089 0.0010

Mercury -97991-11-01 11:59 J -34069485.15 -34069485.00 -34069484.85 0.0089 0.0015

Venus -97990-01-11 05:30 J -34069414.32 -34069414.27 -34069414.20 0.0089 0.0085

Mercury -97990-01-28 13:54 J -34069397.07 -34069396.92 -34069396.77 0.0089 0.0019

Mercury -97990-04-26 15:49 J -34069308.98 -34069308.84 -34069308.69 0.0089 0.0024

Mercury -97990-07-23 17:44 J -34069220.90 -34069220.76 -34069220.61 0.0089 0.0029

Venus -97990-08-24 17:30 J -34069188.86 -34069188.77 -34069188.63 0.0089 0.0075

Mercury -97990-10-19 19:39 J -34069132.81 -34069132.68 -34069132.53 0.0089 0.0033

Mercury -97989-01-15 21:35 J -34069044.73 -34069044.60 -34069044.45 0.0089 0.0038

Venus -97989-04-06 06:13 J -34068963.38 -34068963.24 -34068963.08 0.0089 0.0064

Mercury -97989-04-12 23:30 J -34068956.64 -34068956.52 -34068956.37 0.0089 0.0043

Mercury -97989-07-10 01:39 J -34068868.55 -34068868.43 -34068868.29 0.0089 0.0047

Mercury -97989-10-06 03:35 J -34068780.46 -34068780.35 -34068780.21 0.0089 0.0052

Venus -97989-11-17 18:27 J -34068737.88 -34068737.73 -34068737.54 0.0089 0.0054

Mercury -97988-01-02 05:59 J -34068692.37 -34068692.25 -34068692.14 0.0089 0.0056

Mercury -97988-03-31 07:54 J -34068604.28 -34068604.17 -34068604.06 0.0089 0.0061

Mercury -97988-06-27 09:49 J -34068516.18 -34068516.09 -34068515.98 0.0089 0.0066

Venus -97988-07-01 07:11 J -34068512.38 -34068512.20 -34068512.00 0.0089 0.0043

Mercury -97988-09-23 11:44 J -34068428.09 -34068428.01 -34068427.90 0.0089 0.0071

Mercury -97988-12-20 14:08 J -34068339.99 -34068339.91 -34068339.83 0.0089 0.0075

Venus -97987-02-11 19:39 J -34068286.87 -34068286.68 -34068286.47 0.0089 0.0032

Mercury -97987-03-18 16:03 J -34068251.89 -34068251.83 -34068251.76 0.0089 0.0080

Mercury -97987-06-14 17:59 J -34068163.78 -34068163.75 -34068163.69 0.0089 0.0085

Venus -97987-09-25 08:08 J -34068061.36 -34068061.16 -34068060.94 0.0089 0.0022

Venus -97986-05-08 20:51 J -34067835.84 -34067835.63 -34067835.41 0.0089 0.0011

Venus -97986-12-20 09:20 J -34067610.32 -34067610.11 -34067609.89 0.0089 0.0002

Venus -97985-08-01 21:49 J -34067384.80 -34067384.59 -34067384.37 0.0089 0.0011

Venus -97984-03-15 10:18 J -34067159.27 -34067159.07 -34067158.84 0.0089 0.0022

Venus -97984-10-26 23:15 J -34066933.73 -34066933.53 -34066933.32 0.0089 0.0032

Venus -97983-06-09 11:44 J -34066708.19 -34066708.01 -34066707.81 0.0089 0.0043

Venus -97982-01-21 00:13 J -34066482.65 -34066482.49 -34066482.30 0.0089 0.0054

Venus -97982-09-03 13:25 J -34066257.09 -34066256.94 -34066256.80 0.0089 0.0064

Venus -97981-04-16 01:39 J -34066031.53 -34066031.43 -34066031.30 0.0089 0.0075

Venus -97981-11-27 14:23 J -34065805.93 -34065805.90 -34065805.83 0.0089 0.0086

Moon -97960-02-14 16:03 J -34058421.88 -34058421.83 -34058421.74 0.0089 0.0085

Earth -97960-02-14 19:25 J -34058421.69 -34058421.69 -34058421.61 0.0089 0.0089

Earth -97959-02-17 09:35 J -34058054.28 -34058054.10 -34058053.87 0.0089 0.0055

Moon	-97959-02-17 12:56 J	-34058054.14	-34058053.96	-34058053.74	0.0089	0.0058 *
Moon	-97958-02-19 21:20 J	-34057686.86	-34057686.61	-34057686.36	0.0089	0.0020
Earth	-97958-02-19 23:59 J	-34057686.74	-34057686.50	-34057686.23	0.0089	0.0022 *
Earth	-97957-02-22 14:23 J	-34057319.16	-34057318.90	-34057318.64	0.0089	0.0011
Moon	-97957-02-22 16:32 J	-34057319.07	-34057318.81	-34057318.54	0.0089	0.0010 *
Moon	-97956-02-24 04:03 J	-34056951.54	-34056951.33	-34056951.11	0.0089	0.0046
Earth	-97956-02-24 04:03 J	-34056951.53	-34056951.33	-34056951.08	0.0089	0.0045 *
Moon	-97955-02-26 18:13 J	-34056583.84	-34056583.74	-34056583.57	0.0089	0.0077
Earth	-97955-02-26 18:27 J	-34056583.83	-34056583.73	-34056583.58	0.0089	0.0078 *
Mars	-97947-02-17 17:30 J	-34053670.94	-34053670.77	-34053670.54	0.0089	0.0069
Mars	-97945-01-13 18:42 J	-34052976.04	-34052975.72	-34052975.40	0.0089	0.0003
Mars	-97944-12-08 14:37 J	-34052281.09	-34052280.89	-34052280.64	0.0089	0.0062
Mercury	-97914-10-22 08:37 J	-34041371.16	-34041371.14	-34041371.10	0.0089	0.0087
Mercury	-97913-01-18 11:15 J	-34041283.08	-34041283.03	-34041282.95	0.0089	0.0082
Mercury	-97913-04-15 13:39 J	-34041194.99	-34041194.93	-34041194.82	0.0089	0.0077
Mercury	-97913-07-12 16:47 J	-34041106.90	-34041106.80	-34041106.70	0.0089	0.0071
Mercury	-97913-10-08 19:25 J	-34041018.80	-34041018.69	-34041018.57	0.0088	0.0066
Mercury	-97912-01-04 22:03 J	-34040930.70	-34040930.58	-34040930.45	0.0088	0.0061
Mercury	-97912-04-03 00:27 J	-34040842.60	-34040842.48	-34040842.34	0.0088	0.0056
Mercury	-97912-06-30 03:06 J	-34040754.50	-34040754.37	-34040754.22	0.0088	0.0051
Mercury	-97912-09-26 05:44 J	-34040666.40	-34040666.26	-34040666.11	0.0088	0.0046
Mercury	-97912-12-23 08:23 J	-34040578.29	-34040578.15	-34040577.99	0.0088	0.0040
Mercury	-97911-03-21 11:01 J	-34040490.19	-34040490.04	-34040489.88	0.0088	0.0035
Mercury	-97911-06-17 13:25 J	-34040402.09	-34040401.94	-34040401.77	0.0088	0.0031
Mercury	-97911-09-13 16:03 J	-34040313.98	-34040313.83	-34040313.66	0.0088	0.0025
Mercury	-97911-12-10 18:42 J	-34040225.88	-34040225.72	-34040225.55	0.0088	0.0020
Mercury	-97910-03-08 21:06 J	-34040137.78	-34040137.62	-34040137.45	0.0088	0.0016
Mercury	-97910-06-04 23:44 J	-34040049.67	-34040049.51	-34040049.34	0.0088	0.0010
Mercury	-97910-09-01 02:23 J	-34039961.57	-34039961.40	-34039961.23	0.0088	0.0005
Mercury	-97910-11-28 04:47 J	-34039873.47	-34039873.30	-34039873.13	0.0088	0.0001

Mercury -97909-02-24 07:11 J -34039785.36 -34039785.20 -34039785.03 0.0088 0.0006

Mercury -97909-05-22 09:49 J -34039697.26 -34039697.09 -34039696.93 0.0088 0.0010

Mercury -97909-08-18 12:13 J -34039609.15 -34039608.99 -34039608.83 0.0088 0.0015

Mercury -97909-11-14 14:37 J -34039521.05 -34039520.89 -34039520.73 0.0088 0.0020

Mercury -97908-02-10 17:01 J -34039432.94 -34039432.79 -34039432.63 0.0088 0.0024

Venus -97908-03-02 11:59 J -34039413.06 -34039413.00 -34039412.90 0.0088 0.0082

Mercury -97908-05-09 19:25 J -34039344.84 -34039344.69 -34039344.53 0.0088 0.0029

Mercury -97908-08-05 21:35 J -34039256.74 -34039256.60 -34039256.43 0.0088 0.0035

Venus -97908-10-14 01:54 J -34039187.54 -34039187.42 -34039187.28 0.0088 0.0071

Mercury -97908-11-02 00:13 J -34039168.63 -34039168.49 -34039168.34 0.0088 0.0039

Mercury -97907-01-29 02:37 J -34039080.53 -34039080.39 -34039080.24 0.0088 0.0044

Mercury -97907-04-27 04:47 J -34038992.42 -34038992.30 -34038992.15 0.0088 0.0049

Venus -97907-05-27 15:35 J -34038962.00 -34038961.85 -34038961.68 0.0088 0.0060

Mercury -97907-07-24 07:11 J -34038904.32 -34038904.20 -34038904.06 0.0088 0.0053

Mercury -97907-10-20 09:35 J -34038816.21 -34038816.10 -34038815.97 0.0088 0.0058

Venus -97906-01-08 05:15 J -34038736.46 -34038736.28 -34038736.09 0.0088 0.0049

Mercury -97906-01-16 11:59 J -34038728.11 -34038728.00 -34038727.88 0.0088 0.0062

Mercury -97906-04-14 14:08 J -34038640.00 -34038639.91 -34038639.79 0.0088 0.0067

Mercury -97906-07-11 16:32 J -34038551.89 -34038551.81 -34038551.71 0.0088 0.0072

Venus -97906-08-21 18:56 J -34038510.91 -34038510.71 -34038510.51 0.0088 0.0038

Mercury -97906-10-07 18:42 J -34038463.78 -34038463.72 -34038463.62 0.0088 0.0077

Mercury -97905-01-03 21:20 J -34038375.67 -34038375.61 -34038375.55 0.0088 0.0081

Mercury -97905-03-31 23:15 J -34038287.55 -34038287.53 -34038287.48 0.0088 0.0086

Venus -97905-04-03 08:37 J -34038285.35 -34038285.14 -34038284.93 0.0088 0.0027

Venus -97905-11-14 22:03 J -34038059.80 -34038059.58 -34038059.36 0.0088 0.0016

Venus -97904-06-28 11:30 J -34037834.24 -34037834.02 -34037833.79 0.0088 0.0005

Venus -97903-02-09 00:56 J -34037608.68 -34037608.46 -34037608.24 0.0088 0.0006

Venus -97903-09-22 14:08 J -34037383.12 -34037382.91 -34037382.68 0.0088 0.0017

Venus -97902-05-06 03:35 J -34037157.55 -34037157.35 -34037157.13 0.0088 0.0028

Venus -97902-12-17 16:47 J -34036931.98 -34036931.80 -34036931.58 0.0088 0.0039

Venus	-97901-07-30 05:59 J	-34036706.41	-34036706.25	-34036706.04	0.0088	0.0050
Venus	-97900-03-12 19:39 J	-34036480.84	-34036480.68	-34036480.51	0.0088	0.0060
Venus	-97900-10-24 08:37 J	-34036255.25	-34036255.14	-34036254.99	0.0088	0.0071
Venus	-97899-06-06 21:49 J	-34036029.65	-34036029.59	-34036029.48	0.0088	0.0082
Earth	-97878-08-26 04:18 J	-34028279.41	-34028279.32	-34028279.16	0.0088	0.0078
Moon	-97878-08-26 04:32 J	-34028279.39	-34028279.31	-34028279.18	0.0088	0.0080 *
Moon	-97877-08-27 12:13 J	-34027912.21	-34027911.99	-34027911.75	0.0088	0.0044
Earth	-97877-08-27 13:54 J	-34027912.12	-34027911.92	-34027911.68	0.0088	0.0046 *
Earth	-97876-08-29 23:15 J	-34027544.77	-34027544.53	-34027544.27	0.0088	0.0016
Moon	-97876-08-30 01:54 J	-34027544.65	-34027544.42	-34027544.17	0.0088	0.0018 *
Moon	-97875-09-01 05:01 J	-34027177.53	-34027177.29	-34027177.03	0.0088	0.0019
Earth	-97875-09-01 08:23 J	-34027177.39	-34027177.15	-34027176.89	0.0088	0.0016 *
Earth	-97874-09-03 16:47 J	-34026809.99	-34026809.80	-34026809.56	0.0088	0.0048
Moon	-97874-09-03 20:37 J	-34026809.84	-34026809.64	-34026809.40	0.0088	0.0045 *
Moon	-97873-09-04 22:47 J	-34026442.63	-34026442.55	-34026442.43	0.0088	0.0080
Earth	-97873-09-05 01:54 J	-34026442.52	-34026442.42	-34026442.28	0.0088	0.0078 *
Mars	-97864-09-27 09:06 J	-34023133.39	-34023133.12	-34023132.80	0.0088	0.0032
Mars	-97862-08-23 01:54 J	-34022438.71	-34022438.42	-34022438.12	0.0088	0.0033
Mercury	-97832-10-14 15:35 J	-34011427.86	-34011427.85	-34011427.81	0.0089	0.0087
Mercury	-97831-01-10 17:15 J	-34011339.81	-34011339.78	-34011339.71	0.0089	0.0083
Mercury	-97831-04-08 18:56 J	-34011251.76	-34011251.71	-34011251.63	0.0089	0.0079
Mercury	-97831-07-05 20:51 J	-34011163.70	-34011163.63	-34011163.54	0.0089	0.0075
Mercury	-97831-10-01 22:47 J	-34011075.63	-34011075.55	-34011075.46	0.0089	0.0070
Mercury	-97831-12-29 00:27 J	-34010987.57	-34010987.48	-34010987.37	0.0089	0.0066
Mercury	-97830-03-27 02:08 J	-34010899.50	-34010899.41	-34010899.29	0.0089	0.0062
Mercury	-97830-06-23 04:03 J	-34010811.43	-34010811.33	-34010811.21	0.0089	0.0058
Mercury	-97830-09-19 05:59 J	-34010723.36	-34010723.25	-34010723.13	0.0089	0.0053
Mercury	-97830-12-16 07:39 J	-34010635.29	-34010635.18	-34010635.05	0.0089	0.0049
Mercury	-97829-03-13 09:20 J	-34010547.22	-34010547.11	-34010546.97	0.0089	0.0045
Mercury	-97829-06-09 11:30 J	-34010459.15	-34010459.02	-34010458.89	0.0089	0.0040

Mercury -97829-09-05 13:11 J -34010371.08 -34010370.95 -34010370.81 0.0089 0.0036

Mercury -97829-12-02 14:51 J -34010283.00 -34010282.88 -34010282.73 0.0089 0.0032

Mercury -97828-02-28 17:01 J -34010194.93 -34010194.79 -34010194.65 0.0089 0.0027

Mercury -97828-05-27 18:42 J -34010106.86 -34010106.72 -34010106.57 0.0089 0.0023

Mercury -97828-08-23 20:51 J -34010018.78 -34010018.63 -34010018.49 0.0089 0.0018

Mercury -97828-11-19 22:32 J -34009930.70 -34009930.56 -34009930.41 0.0089 0.0014

Mercury -97827-02-16 00:27 J -34009842.63 -34009842.48 -34009842.33 0.0089 0.0009

Mercury -97827-05-15 02:23 J -34009754.55 -34009754.40 -34009754.25 0.0089 0.0005

Mercury -97827-08-11 04:18 J -34009666.47 -34009666.32 -34009666.17 0.0089 0.0000

Mercury -97827-11-07 06:13 J -34009578.39 -34009578.24 -34009578.09 0.0089 0.0004

Mercury -97826-02-03 08:08 J -34009490.31 -34009490.16 -34009490.01 0.0089 0.0009

Venus -97826-04-14 18:13 J -34009419.76 -34009419.74 -34009419.68 0.0089 0.0087

Mercury -97826-05-02 10:03 J -34009402.23 -34009402.08 -34009401.93 0.0089 0.0013

Mercury -97826-07-29 11:59 J -34009314.15 -34009314.00 -34009313.85 0.0089 0.0018

Mercury -97826-10-25 13:54 J -34009226.07 -34009225.92 -34009225.77 0.0089 0.0022

Venus -97826-11-26 06:42 J -34009194.32 -34009194.22 -34009194.10 0.0089 0.0076

Mercury -97825-01-21 15:49 J -34009137.98 -34009137.84 -34009137.69 0.0089 0.0027

Mercury -97825-04-18 17:44 J -34009049.90 -34009049.76 -34009049.61 0.0089 0.0032

Venus -97825-07-08 18:42 J -34008968.84 -34008968.72 -34008968.55 0.0089 0.0066

Mercury -97825-07-15 19:39 J -34008961.81 -34008961.68 -34008961.54 0.0089 0.0036

Mercury -97825-10-11 21:35 J -34008873.73 -34008873.60 -34008873.46 0.0089 0.0041

Mercury -97824-01-07 23:44 J -34008785.64 -34008785.51 -34008785.38 0.0089 0.0045

Venus -97824-02-19 07:25 J -34008743.35 -34008743.19 -34008743.01 0.0089 0.0055

Mercury -97824-04-06 01:39 J -34008697.55 -34008697.43 -34008697.30 0.0089 0.0050

Mercury -97824-07-03 03:35 J -34008609.46 -34008609.35 -34008609.22 0.0089 0.0055

Mercury -97824-09-29 05:44 J -34008521.37 -34008521.26 -34008521.14 0.0089 0.0059

Venus -97824-10-02 19:39 J -34008517.85 -34008517.68 -34008517.48 0.0089 0.0045

Mercury -97824-12-26 07:39 J -34008433.28 -34008433.18 -34008433.07 0.0089 0.0064

Mercury -97823-03-24 09:35 J -34008345.18 -34008345.10 -34008344.99 0.0089 0.0069

Venus -97823-05-16 08:08 J -34008292.34 -34008292.16 -34008291.95 0.0089 0.0034

Mercury -97823-06-20 11:30 J -34008257.09 -34008257.02 -34008256.92 0.0089 0.0074

Mercury -97823-09-16 13:54 J -34008168.99 -34008168.92 -34008168.85 0.0089 0.0078

Mercury -97823-12-13 15:49 J -34008080.88 -34008080.84 -34008080.78 0.0089 0.0083

Venus -97823-12-27 20:51 J -34008066.84 -34008066.63 -34008066.42 0.0089 0.0023

Mercury -97822-03-11 17:44 J -34007992.76 -34007992.76 -34007992.72 0.0089 0.0088

Venus -97822-08-10 09:20 J -34007841.32 -34007841.11 -34007840.89 0.0089 0.0012

Venus -97821-03-22 22:03 J -34007615.80 -34007615.58 -34007615.37 0.0089 0.0002

Venus -97821-11-03 10:32 J -34007390.27 -34007390.06 -34007389.84 0.0089 0.0010

Venus -97820-06-16 23:01 J -34007164.74 -34007164.54 -34007164.32 0.0089 0.0020

Venus -97819-01-28 11:30 J -34006939.21 -34006939.02 -34006938.81 0.0089 0.0031

Venus -97819-09-11 00:13 J -34006713.67 -34006713.49 -34006713.29 0.0089 0.0042

Venus -97818-04-24 12:42 J -34006488.13 -34006487.97 -34006487.78 0.0089 0.0053

Venus -97818-12-06 01:11 J -34006262.58 -34006262.45 -34006262.27 0.0089 0.0064

Venus -97817-07-18 14:23 J -34006037.01 -34006036.90 -34006036.78 0.0089 0.0074

Venus -97816-03-01 02:51 J -34005811.43 -34005811.38 -34005811.31 0.0089 0.0085

Moon -97795-02-16 17:44 J -33998153.92 -33998153.76 -33998153.57 0.0089 0.0065

Earth -97795-02-16 19:39 J -33998153.82 -33998153.68 -33998153.49 0.0089 0.0070 *

Earth -97794-02-19 10:03 J -33997786.31 -33997786.08 -33997785.83 0.0089 0.0036

Moon -97794-02-19 10:47 J -33997786.27 -33997786.05 -33997785.78 0.0089 0.0040 *

Moon -97793-02-21 23:59 J -33997418.75 -33997418.50 -33997418.25 0.0089 0.0001

Earth -97793-02-22 00:13 J -33997418.75 -33997418.49 -33997418.22 0.0089 0.0003 *

Moon -97792-02-23 12:56 J -33997051.21 -33997050.96 -33997050.69 0.0089 0.0026

Earth -97792-02-23 14:23 J -33997051.14 -33997050.90 -33997050.65 0.0089 0.0030 *

Earth -97791-02-26 04:32 J -33996683.48 -33996683.31 -33996683.11 0.0089 0.0063

Moon -97791-02-26 06:56 J -33996683.37 -33996683.21 -33996683.04 0.0089 0.0067 *

Mars -97782-08-28 11:15 J -33993213.30 -33993213.03 -33993212.71 0.0089 0.0031

Mars -97780-07-23 10:47 J -33992518.32 -33992518.05 -33992517.75 0.0089 0.0035

Mercury -97749-04-21 05:44 J -33981288.26 -33981288.26 -33981288.25 0.0089 0.0088

Mercury -97749-07-18 08:08 J -33981200.20 -33981200.16 -33981200.09 0.0089 0.0084

Mercury -97749-10-14 10:47 J -33981112.11 -33981112.05 -33981111.95 0.0089 0.0079

Mercury -97748-01-10 13:54 J -33981024.01 -33981023.92 -33981023.82 0.0089 0.0073

Mercury -97748-04-08 16:18 J -33980935.92 -33980935.82 -33980935.70 0.0089 0.0068

Mercury -97748-07-05 18:56 J -33980847.82 -33980847.71 -33980847.58 0.0089 0.0063

Mercury -97748-10-01 21:35 J -33980759.72 -33980759.60 -33980759.46 0.0089 0.0058

Mercury -97748-12-29 00:13 J -33980671.62 -33980671.49 -33980671.34 0.0089 0.0053

Mercury -97747-03-27 02:51 J -33980583.51 -33980583.38 -33980583.23 0.0089 0.0047

Mercury -97747-06-23 05:30 J -33980495.41 -33980495.27 -33980495.11 0.0089 0.0042

Mercury -97747-09-19 07:54 J -33980407.31 -33980407.17 -33980407.00 0.0089 0.0038

Mercury -97747-12-16 10:32 J -33980319.21 -33980319.06 -33980318.89 0.0088 0.0033

Mercury -97746-03-14 13:25 J -33980231.10 -33980230.94 -33980230.78 0.0088 0.0027

Mercury -97746-06-10 15:49 J -33980143.00 -33980142.84 -33980142.67 0.0088 0.0022

Mercury -97746-09-06 18:27 J -33980054.89 -33980054.73 -33980054.56 0.0088 0.0017

Mercury -97746-12-03 20:51 J -33979966.79 -33979966.63 -33979966.46 0.0088 0.0012

Mercury -97745-02-29 23:30 J -33979878.69 -33979878.52 -33979878.35 0.0088 0.0007

Mercury -97745-05-28 01:54 J -33979790.58 -33979790.42 -33979790.25 0.0088 0.0003

Mercury -97745-08-24 04:32 J -33979702.48 -33979702.31 -33979702.14 0.0088 0.0003

Mercury -97745-11-20 06:56 J -33979614.37 -33979614.21 -33979614.04 0.0088 0.0008

Mercury -97744-02-16 09:20 J -33979526.27 -33979526.11 -33979525.94 0.0088 0.0013

Mercury -97744-05-15 11:59 J -33979438.17 -33979438.00 -33979437.84 0.0088 0.0018

Venus -97744-06-03 23:15 J -33979418.58 -33979418.53 -33979418.44 0.0088 0.0084

Mercury -97744-08-11 14:23 J -33979350.06 -33979349.90 -33979349.74 0.0088 0.0023

Mercury -97744-11-07 16:47 J -33979261.96 -33979261.80 -33979261.64 0.0088 0.0027

Venus -97743-01-15 12:56 J -33979193.07 -33979192.96 -33979192.81 0.0088 0.0073

Mercury -97743-02-03 18:56 J -33979173.85 -33979173.71 -33979173.54 0.0088 0.0033

Mercury -97743-05-02 21:20 J -33979085.75 -33979085.61 -33979085.45 0.0088 0.0038

Mercury -97743-07-29 23:59 J -33978997.64 -33978997.50 -33978997.35 0.0088 0.0042

Venus -97743-08-29 02:51 J -33978967.53 -33978967.38 -33978967.21 0.0088 0.0062

Mercury -97743-10-26 02:23 J -33978909.54 -33978909.40 -33978909.26 0.0088 0.0047

Mercury -97742-01-22 04:32 J -33978821.43 -33978821.31 -33978821.17 0.0088 0.0052

Venus -97742-04-11 16:47 J -33978741.98 -33978741.80 -33978741.61 0.0088 0.0051

Mercury -97742-04-20 06:56 J -33978733.33 -33978733.21 -33978733.07 0.0088 0.0056

Mercury -97742-07-17 09:35 J -33978645.22 -33978645.10 -33978644.98 0.0088 0.0061

Mercury -97742-10-13 11:44 J -33978557.11 -33978557.01 -33978556.90 0.0088 0.0066

Venus -97742-11-23 06:27 J -33978516.42 -33978516.23 -33978516.02 0.0088 0.0040

Mercury -97741-01-09 13:54 J -33978469.00 -33978468.92 -33978468.81 0.0088 0.0070

Mercury -97741-04-06 16:18 J -33978380.89 -33978380.82 -33978380.73 0.0088 0.0075

Mercury -97741-07-03 18:27 J -33978292.78 -33978292.73 -33978292.65 0.0088 0.0080

Venus -97741-07-05 19:54 J -33978290.87 -33978290.67 -33978290.45 0.0088 0.0029

Mercury -97741-09-29 21:06 J -33978204.67 -33978204.62 -33978204.57 0.0088 0.0084

Venus -97740-02-16 09:35 J -33978065.32 -33978065.10 -33978064.88 0.0088 0.0018

Venus -97740-09-29 23:15 J -33977839.76 -33977839.53 -33977839.31 0.0088 0.0007

Venus -97739-05-13 12:42 J -33977614.19 -33977613.97 -33977613.75 0.0088 0.0004

Venus -97739-12-25 01:54 J -33977388.63 -33977388.42 -33977388.19 0.0088 0.0016

Venus -97738-08-07 15:20 J -33977163.07 -33977162.86 -33977162.64 0.0088 0.0026

Venus -97737-03-20 04:32 J -33976937.49 -33976937.31 -33976937.09 0.0088 0.0038

Venus -97737-10-31 17:44 J -33976711.92 -33976711.76 -33976711.55 0.0088 0.0049

Venus -97736-06-14 07:25 J -33976486.35 -33976486.19 -33976486.02 0.0088 0.0059

Venus -97735-01-25 20:37 J -33976260.77 -33976260.64 -33976260.49 0.0088 0.0070

Venus -97735-09-08 09:35 J -33976035.17 -33976035.10 -33976034.99 0.0088 0.0081

Earth -97713-08-27 03:35 J -33968011.51 -33968011.35 -33968011.13 0.0088 0.0060

Moon -97713-08-27 06:42 J -33968011.39 -33968011.22 -33968011.01 0.0088 0.0056 *

Moon -97712-08-29 09:35 J -33967644.32 -33967644.10 -33967643.85 0.0088 0.0033

Earth -97712-08-29 13:11 J -33967644.18 -33967643.95 -33967643.70 0.0088 0.0028 *

Earth -97711-08-31 22:32 J -33967276.82 -33967276.56 -33967276.31 0.0088 0.0003

Moon -97711-09-01 01:54 J -33967276.67 -33967276.42 -33967276.17 0.0088 0.0006 *

Moon -97710-09-03 03:49 J -33966909.55 -33966909.34 -33966909.09 0.0088 0.0031

Earth -97710-09-03 07:25 J -33966909.42 -33966909.19 -33966908.95 0.0088 0.0034 *

Earth -97709-09-04 15:49 J -33966541.99 -33966541.84 -33966541.65 0.0088 0.0065

Moon -97709-09-04 17:30 J -33966541.90 -33966541.77 -33966541.58 0.0088 0.0069 *

Mars -97700-05-12 05:59 J -33963370.47 -33963370.25 -33963370.00 0.0088 0.0057

Mars -97698-04-06 21:35 J -33962675.91 -33962675.60 -33962675.29 0.0088 0.0007
 Mars -97696-03-01 14:37 J -33961981.08 -33961980.89 -33961980.70 0.0088 0.0071
 Mercury -97667-04-14 13:54 J -33951344.92 -33951344.92 -33951344.91 0.0089 0.0088
 Mercury -97667-07-11 15:20 J -33951256.89 -33951256.86 -33951256.80 0.0089 0.0085
 Mercury -97667-10-07 17:15 J -33951168.83 -33951168.78 -33951168.71 0.0089 0.0080
 Mercury -97666-01-03 18:56 J -33951080.77 -33951080.71 -33951080.62 0.0089 0.0076
 Mercury -97666-04-01 20:51 J -33950992.71 -33950992.63 -33950992.54 0.0089 0.0072
 Mercury -97666-06-28 22:32 J -33950904.64 -33950904.56 -33950904.46 0.0089 0.0068
 Mercury -97666-09-25 00:27 J -33950816.58 -33950816.48 -33950816.38 0.0089 0.0063
 Mercury -97666-12-22 02:08 J -33950728.51 -33950728.41 -33950728.29 0.0089 0.0059
 Mercury -97665-03-19 03:49 J -33950640.44 -33950640.34 -33950640.21 0.0089 0.0055
 Mercury -97665-06-15 05:44 J -33950552.37 -33950552.26 -33950552.13 0.0089 0.0051
 Mercury -97665-09-11 07:39 J -33950464.30 -33950464.18 -33950464.05 0.0089 0.0046
 Mercury -97665-12-08 09:20 J -33950376.23 -33950376.11 -33950375.97 0.0089 0.0042
 Mercury -97664-03-06 11:01 J -33950288.16 -33950288.04 -33950287.89 0.0089 0.0038
 Mercury -97664-06-02 13:11 J -33950200.09 -33950199.95 -33950199.81 0.0089 0.0033
 Mercury -97664-08-29 14:51 J -33950112.01 -33950111.88 -33950111.73 0.0089 0.0029
 Mercury -97664-11-25 16:47 J -33950023.94 -33950023.80 -33950023.65 0.0089 0.0024
 Mercury -97663-02-21 18:42 J -33949935.86 -33949935.72 -33949935.57 0.0089 0.0020
 Mercury -97663-05-20 20:37 J -33949847.79 -33949847.64 -33949847.49 0.0089 0.0015
 Mercury -97663-08-16 22:32 J -33949759.71 -33949759.56 -33949759.41 0.0089 0.0011
 Mercury -97663-11-13 00:13 J -33949671.63 -33949671.49 -33949671.33 0.0089 0.0007
 Mercury -97662-02-09 02:08 J -33949583.56 -33949583.41 -33949583.26 0.0089 0.0003
 Mercury -97662-05-08 04:03 J -33949495.48 -33949495.33 -33949495.18 0.0089 0.0003
 Venus -97662-07-17 06:56 J -33949425.21 -33949425.21 -33949425.19 0.0089 0.0089
 Mercury -97662-08-04 05:59 J -33949407.40 -33949407.25 -33949407.10 0.0089 0.0007
 Mercury -97662-10-31 07:54 J -33949319.32 -33949319.17 -33949319.02 0.0089 0.0012
 Mercury -97661-01-27 09:49 J -33949231.24 -33949231.09 -33949230.94 0.0089 0.0016
 Venus -97661-02-27 19:11 J -33949199.79 -33949199.70 -33949199.59 0.0089 0.0078
 Mercury -97661-04-24 11:44 J -33949143.15 -33949143.01 -33949142.86 0.0089 0.0021

Mercury -97661-07-21 13:39 J -33949055.07 -33949054.93 -33949054.78 0.0089 0.0025

Venus -97661-10-10 07:25 J -33948974.31 -33948974.19 -33948974.03 0.0089 0.0068

Mercury -97661-10-17 15:35 J -33948966.99 -33948966.85 -33948966.70 0.0089 0.0030

Mercury -97660-01-13 17:30 J -33948878.90 -33948878.77 -33948878.62 0.0089 0.0035

Mercury -97660-04-11 19:25 J -33948790.82 -33948790.69 -33948790.55 0.0089 0.0039

Venus -97660-05-23 19:54 J -33948748.82 -33948748.67 -33948748.49 0.0089 0.0057

Mercury -97660-07-08 21:20 J -33948702.73 -33948702.61 -33948702.47 0.0089 0.0044

Mercury -97660-10-04 23:30 J -33948614.64 -33948614.52 -33948614.39 0.0089 0.0048

Mercury -97659-01-01 01:25 J -33948526.56 -33948526.44 -33948526.31 0.0089 0.0053

Venus -97659-01-04 08:23 J -33948523.33 -33948523.15 -33948522.96 0.0089 0.0046

Mercury -97659-03-30 03:20 J -33948438.47 -33948438.36 -33948438.23 0.0089 0.0058

Mercury -97659-06-26 05:30 J -33948350.37 -33948350.27 -33948350.16 0.0089 0.0062

Venus -97659-08-17 20:37 J -33948297.83 -33948297.64 -33948297.43 0.0089 0.0036

Mercury -97659-09-22 07:25 J -33948262.28 -33948262.19 -33948262.08 0.0089 0.0067

Mercury -97659-12-19 09:20 J -33948174.19 -33948174.11 -33948174.01 0.0089 0.0072

Mercury -97658-03-17 11:44 J -33948086.09 -33948086.01 -33948085.93 0.0089 0.0076

Venus -97658-03-31 09:06 J -33948072.32 -33948072.12 -33948071.90 0.0089 0.0025

Mercury -97658-06-13 13:25 J -33947997.99 -33947997.94 -33947997.87 0.0089 0.0081

Mercury -97658-09-09 15:35 J -33947909.88 -33947909.85 -33947909.80 0.0089 0.0086

Venus -97658-11-11 21:49 J -33947846.80 -33947846.59 -33947846.37 0.0089 0.0014

Venus -97657-06-24 10:18 J -33947621.28 -33947621.07 -33947620.85 0.0089 0.0003

Venus -97656-02-04 22:47 J -33947395.76 -33947395.55 -33947395.33 0.0089 0.0008

Venus -97656-09-18 11:15 J -33947170.23 -33947170.03 -33947169.81 0.0089 0.0019

Venus -97655-05-01 23:44 J -33946944.70 -33946944.51 -33946944.29 0.0089 0.0030

Jupiter -97655-09-23 18:13 J -33946799.87 -33946799.74 -33946799.47 0.0089 0.0083

Venus -97655-12-13 12:27 J -33946719.16 -33946718.98 -33946718.78 0.0089 0.0041

Venus -97654-07-27 00:56 J -33946493.62 -33946493.46 -33946493.27 0.0089 0.0052

Venus -97653-03-08 13:25 J -33946268.07 -33946267.94 -33946267.76 0.0089 0.0063

Venus -97653-10-20 02:37 J -33946042.50 -33946042.39 -33946042.26 0.0089 0.0073

Venus -97652-06-02 15:20 J -33945816.92 -33945816.86 -33945816.78 0.0089 0.0084

Earth	-97631-02-16 05:15 J	-33938253.36	-33938253.28	-33938253.18	0.0089	0.0083
Moon	-97631-02-16 05:30 J	-33938253.35	-33938253.27	-33938253.13	0.0089	0.0082 *
Earth	-97630-02-18 19:11 J	-33937885.91	-33937885.70	-33937885.48	0.0089	0.0051
Moon	-97630-02-18 20:08 J	-33937885.85	-33937885.66	-33937885.45	0.0089	0.0053 *
Moon	-97629-02-21 07:25 J	-33937518.45	-33937518.19	-33937517.92	0.0089	0.0015
Earth	-97629-02-21 09:06 J	-33937518.37	-33937518.12	-33937517.85	0.0089	0.0018 *
Earth	-97628-02-22 23:30 J	-33937150.78	-33937150.52	-33937150.26	0.0089	0.0015
Moon	-97628-02-23 01:54 J	-33937150.66	-33937150.42	-33937150.16	0.0089	0.0014 *
Moon	-97627-02-25 09:49 J	-33936783.29	-33936783.09	-33936782.85	0.0089	0.0051
Earth	-97627-02-25 13:54 J	-33936783.14	-33936782.92	-33936782.70	0.0089	0.0048 *
Earth	-97626-02-28 03:35 J	-33936415.42	-33936415.35	-33936415.22	0.0089	0.0082
Moon	-97626-02-28 07:39 J	-33936415.28	-33936415.18	-33936415.06	0.0089	0.0080 *
Mars	-97618-04-12 03:06 J	-33933450.57	-33933450.37	-33933450.10	0.0089	0.0059
Mars	-97616-03-07 04:47 J	-33932755.62	-33932755.30	-33932754.98	0.0089	0.0008
Mars	-97614-01-31 03:20 J	-33932060.50	-33932060.36	-33932060.15	0.0089	0.0074
Mercury	-97584-01-16 05:01 J	-33921117.31	-33921117.29	-33921117.23	0.0089	0.0086
Mercury	-97584-04-14 07:39 J	-33921029.23	-33921029.18	-33921029.09	0.0089	0.0081
Mercury	-97584-07-11 10:47 J	-33920941.14	-33920941.05	-33920940.96	0.0089	0.0075
Mercury	-97584-10-07 13:25 J	-33920853.04	-33920852.94	-33920852.83	0.0089	0.0070
Mercury	-97583-01-03 16:03 J	-33920764.94	-33920764.83	-33920764.71	0.0089	0.0065
Mercury	-97583-04-01 18:27 J	-33920676.84	-33920676.73	-33920676.59	0.0089	0.0060
Mercury	-97583-06-28 21:06 J	-33920588.74	-33920588.62	-33920588.47	0.0089	0.0055
Mercury	-97583-09-24 23:44 J	-33920500.64	-33920500.51	-33920500.35	0.0089	0.0050
Mercury	-97583-12-22 02:23 J	-33920412.53	-33920412.40	-33920412.24	0.0089	0.0045
Mercury	-97582-03-20 05:01 J	-33920324.43	-33920324.29	-33920324.13	0.0089	0.0040
Mercury	-97582-06-16 07:54 J	-33920236.33	-33920236.17	-33920236.01	0.0089	0.0034
Mercury	-97582-09-12 10:32 J	-33920148.22	-33920148.06	-33920147.90	0.0088	0.0029
Mercury	-97582-12-09 12:56 J	-33920060.12	-33920059.96	-33920059.79	0.0088	0.0024
Mercury	-97581-03-06 15:35 J	-33919972.01	-33919971.85	-33919971.68	0.0088	0.0019
Mercury	-97581-06-02 18:13 J	-33919883.91	-33919883.74	-33919883.58	0.0088	0.0014

Mercury -97581-08-29 20:37 J -33919795.81 -33919795.64 -33919795.47 0.0088 0.0009
 Mercury -97581-11-25 23:15 J -33919707.70 -33919707.53 -33919707.37 0.0088 0.0004
 Mercury -97580-02-22 01:39 J -33919619.60 -33919619.43 -33919619.26 0.0088 0.0001
 Mercury -97580-05-21 04:03 J -33919531.49 -33919531.33 -33919531.16 0.0088 0.0007
 Mercury -97580-08-17 06:27 J -33919443.39 -33919443.23 -33919443.06 0.0088 0.0012
 Venus -97580-09-05 10:32 J -33919424.09 -33919424.06 -33919423.99 0.0088 0.0086
 Mercury -97580-11-13 09:06 J -33919355.28 -33919355.12 -33919354.95 0.0088 0.0016
 Mercury -97579-02-09 11:30 J -33919267.18 -33919267.02 -33919266.85 0.0088 0.0021
 Venus -97579-04-19 00:27 J -33919198.58 -33919198.48 -33919198.34 0.0088 0.0075
 Mercury -97579-05-08 13:54 J -33919179.07 -33919178.92 -33919178.75 0.0088 0.0026
 Mercury -97579-08-04 16:18 J -33919090.97 -33919090.82 -33919090.66 0.0088 0.0031
 Mercury -97579-10-31 18:42 J -33919002.86 -33919002.72 -33919002.56 0.0088 0.0036
 Venus -97579-11-30 14:23 J -33918973.04 -33918972.90 -33918972.73 0.0088 0.0064
 Mercury -97578-01-27 21:06 J -33918914.76 -33918914.62 -33918914.46 0.0088 0.0041
 Mercury -97578-04-25 23:30 J -33918826.65 -33918826.52 -33918826.37 0.0088 0.0045
 Venus -97578-07-14 04:03 J -33918747.50 -33918747.33 -33918747.14 0.0088 0.0053
 Mercury -97578-07-23 02:08 J -33918738.55 -33918738.41 -33918738.27 0.0088 0.0050
 Mercury -97578-10-19 04:18 J -33918650.44 -33918650.32 -33918650.18 0.0088 0.0055
 Mercury -97577-01-15 06:42 J -33918562.33 -33918562.22 -33918562.09 0.0088 0.0059
 Venus -97577-02-24 17:44 J -33918521.95 -33918521.76 -33918521.55 0.0088 0.0041
 Mercury -97577-04-12 09:20 J -33918474.22 -33918474.11 -33918474.00 0.0088 0.0064
 Mercury -97577-07-09 11:30 J -33918386.12 -33918386.02 -33918385.91 0.0088 0.0069
 Mercury -97577-10-05 13:39 J -33918298.01 -33918297.93 -33918297.83 0.0088 0.0073
 Venus -97577-10-07 07:25 J -33918296.39 -33918296.19 -33918295.97 0.0088 0.0030
 Mercury -97576-01-01 16:18 J -33918209.90 -33918209.82 -33918209.75 0.0088 0.0078
 Mercury -97576-03-30 18:13 J -33918121.78 -33918121.74 -33918121.67 0.0088 0.0083
 Venus -97576-05-20 21:06 J -33918070.83 -33918070.62 -33918070.39 0.0088 0.0019
 Mercury -97576-06-26 20:23 J -33918033.65 -33918033.65 -33918033.60 0.0088 0.0088
 Venus -97575-01-01 10:47 J -33917845.27 -33917845.05 -33917844.83 0.0088 0.0008
 Venus -97575-08-15 00:13 J -33917619.71 -33917619.49 -33917619.26 0.0088 0.0004

Venus	-97574-03-28 13:54 J	-33917394.14	-33917393.92	-33917393.70	0.0088	0.0014
Venus	-97574-11-09 03:06 J	-33917168.57	-33917168.37	-33917168.14	0.0088	0.0026
Venus	-97573-06-21 16:32 J	-33916943.00	-33916942.81	-33916942.60	0.0088	0.0036
Venus	-97572-02-02 05:44 J	-33916717.44	-33916717.26	-33916717.06	0.0088	0.0047
Venus	-97572-09-15 18:56 J	-33916491.86	-33916491.71	-33916491.53	0.0088	0.0058
Venus	-97571-04-29 08:37 J	-33916266.27	-33916266.14	-33916265.99	0.0088	0.0069
Venus	-97571-12-10 21:49 J	-33916040.67	-33916040.59	-33916040.48	0.0088	0.0080
Moon	-97549-08-26 13:25 J	-33908111.04	-33908110.94	-33908110.78	0.0088	0.0076
Earth	-97549-08-26 17:01 J	-33908110.91	-33908110.79	-33908110.62	0.0088	0.0073 *
Earth	-97548-08-29 02:37 J	-33907743.60	-33907743.39	-33907743.15	0.0088	0.0042
Moon	-97548-08-29 06:13 J	-33907743.46	-33907743.24	-33907743.00	0.0088	0.0039 *
Moon	-97547-08-31 09:35 J	-33907376.34	-33907376.10	-33907375.85	0.0088	0.0013
Earth	-97547-08-31 11:59 J	-33907376.24	-33907376.00	-33907375.74	0.0088	0.0011 *
Earth	-97546-09-02 21:06 J	-33907008.86	-33907008.62	-33907008.37	0.0088	0.0021
Moon	-97546-09-02 23:15 J	-33907008.78	-33907008.53	-33907008.28	0.0088	0.0023 *
Moon	-97545-09-04 05:15 J	-33906641.46	-33906641.28	-33906641.05	0.0088	0.0050
Earth	-97545-09-04 05:44 J	-33906641.44	-33906641.26	-33906641.03	0.0088	0.0052 *
Moon	-97544-09-06 13:39 J	-33906274.00	-33906273.93	-33906273.84	0.0088	0.0084
Earth	-97544-09-06 14:51 J	-33906273.97	-33906273.88	-33906273.78	0.0088	0.0082 *
Mars	-97537-12-25 02:51 J	-33903607.44	-33903607.38	-33903607.23	0.0088	0.0084
Mars	-97535-11-19 17:44 J	-33902913.05	-33902912.76	-33902912.45	0.0088	0.0020
Mars	-97533-10-14 09:49 J	-33902218.35	-33902218.09	-33902217.81	0.0088	0.0045
Mercury	-97502-01-09 13:39 J	-33891173.96	-33891173.93	-33891173.89	0.0089	0.0086
Mercury	-97502-04-07 15:20 J	-33891085.90	-33891085.86	-33891085.80	0.0089	0.0082
Mercury	-97502-07-04 17:01 J	-33890997.85	-33890997.79	-33890997.71	0.0089	0.0078
Mercury	-97502-09-30 18:42 J	-33890909.78	-33890909.72	-33890909.62	0.0089	0.0074
Mercury	-97502-12-27 20:37 J	-33890821.72	-33890821.64	-33890821.54	0.0089	0.0069
Mercury	-97501-03-24 22:18 J	-33890733.66	-33890733.57	-33890733.46	0.0089	0.0065
Mercury	-97501-06-21 00:13 J	-33890645.59	-33890645.49	-33890645.38	0.0089	0.0061
Mercury	-97501-09-17 01:54 J	-33890557.52	-33890557.42	-33890557.30	0.0089	0.0057

Mercury -97501-12-14 03:49 J -33890469.45 -33890469.34 -33890469.22 0.0089 0.0052

Mercury -97500-03-12 05:30 J -33890381.38 -33890381.27 -33890381.14 0.0089 0.0048

Mercury -97500-06-08 07:25 J -33890293.31 -33890293.19 -33890293.06 0.0089 0.0044

Mercury -97500-09-04 09:20 J -33890205.24 -33890205.11 -33890204.98 0.0089 0.0039

Mercury -97500-12-01 11:01 J -33890117.17 -33890117.04 -33890116.90 0.0089 0.0035

Mercury -97499-02-27 12:42 J -33890029.10 -33890028.97 -33890028.82 0.0089 0.0031

Mercury -97499-05-26 14:51 J -33889941.02 -33889940.88 -33889940.74 0.0089 0.0026

Mercury -97499-08-22 16:32 J -33889852.95 -33889852.81 -33889852.66 0.0089 0.0022

Mercury -97499-11-18 18:27 J -33889764.87 -33889764.73 -33889764.58 0.0089 0.0017

Mercury -97498-02-14 20:23 J -33889676.80 -33889676.65 -33889676.50 0.0089 0.0013

Mercury -97498-05-13 22:18 J -33889588.72 -33889588.57 -33889588.42 0.0089 0.0008

Mercury -97498-08-10 00:13 J -33889500.64 -33889500.49 -33889500.34 0.0089 0.0004

Mercury -97498-11-06 02:08 J -33889412.56 -33889412.41 -33889412.26 0.0089 0.0002

Mercury -97497-02-02 03:49 J -33889324.48 -33889324.34 -33889324.19 0.0089 0.0006

Mercury -97497-04-30 05:44 J -33889236.41 -33889236.26 -33889236.11 0.0089 0.0010

Venus -97497-05-31 07:54 J -33889205.25 -33889205.17 -33889205.07 0.0089 0.0080

Mercury -97497-07-27 07:39 J -33889148.33 -33889148.18 -33889148.03 0.0089 0.0014

Mercury -97497-10-23 09:35 J -33889060.24 -33889060.10 -33889059.95 0.0089 0.0019

Venus -97496-01-11 19:39 J -33888979.79 -33888979.68 -33888979.52 0.0089 0.0070

Mercury -97496-01-19 11:30 J -33888972.16 -33888972.02 -33888971.87 0.0089 0.0024

Mercury -97496-04-17 13:25 J -33888884.08 -33888883.94 -33888883.79 0.0089 0.0028

Mercury -97496-07-14 15:20 J -33888796.00 -33888795.86 -33888795.71 0.0089 0.0033

Venus -97496-08-25 08:08 J -33888754.30 -33888754.16 -33888753.98 0.0089 0.0059

Mercury -97496-10-10 17:15 J -33888707.91 -33888707.78 -33888707.64 0.0089 0.0037

Mercury -97495-01-06 19:11 J -33888619.83 -33888619.70 -33888619.56 0.0089 0.0042

Mercury -97495-04-04 21:20 J -33888531.74 -33888531.61 -33888531.48 0.0089 0.0046

Venus -97495-04-07 20:37 J -33888528.81 -33888528.64 -33888528.45 0.0089 0.0048

Mercury -97495-07-01 23:15 J -33888443.65 -33888443.53 -33888443.40 0.0089 0.0051

Mercury -97495-09-28 00:56 J -33888355.56 -33888355.46 -33888355.33 0.0089 0.0056

Venus -97495-11-19 09:06 J -33888303.31 -33888303.12 -33888302.92 0.0089 0.0037

Mercury -97495-12-25 03:20 J -33888267.47 -33888267.36 -33888267.25 0.0089 0.0060

Mercury -97494-03-23 05:01 J -33888179.38 -33888179.29 -33888179.17 0.0089 0.0065

Mercury -97494-06-19 06:56 J -33888091.29 -33888091.21 -33888091.10 0.0089 0.0070

Venus -97494-07-02 21:20 J -33888077.80 -33888077.61 -33888077.39 0.0089 0.0027

Mercury -97494-09-15 09:20 J -33888003.19 -33888003.11 -33888003.03 0.0089 0.0074

Mercury -97494-12-12 11:15 J -33887915.09 -33887915.03 -33887914.96 0.0089 0.0079

Venus -97493-02-13 09:49 J -33887852.30 -33887852.09 -33887851.87 0.0089 0.0016

Mercury -97493-03-09 13:11 J -33887826.99 -33887826.95 -33887826.89 0.0089 0.0084

Mercury -97493-06-05 15:20 J -33887738.86 -33887738.86 -33887738.84 0.0089 0.0089

Venus -97493-09-25 22:32 J -33887626.78 -33887626.56 -33887626.35 0.0089 0.0005

Venus -97492-05-09 11:01 J -33887401.26 -33887401.04 -33887400.83 0.0089 0.0006

Venus -97492-12-20 23:15 J -33887175.74 -33887175.53 -33887175.31 0.0089 0.0017

Venus -97491-08-03 11:44 J -33886950.21 -33886950.01 -33886949.80 0.0089 0.0028

Venus -97490-03-17 00:13 J -33886724.67 -33886724.49 -33886724.28 0.0089 0.0039

Venus -97490-10-28 12:56 J -33886499.13 -33886498.96 -33886498.77 0.0089 0.0050

Venus -97489-06-10 01:39 J -33886273.58 -33886273.43 -33886273.26 0.0089 0.0061

Jupiter -97489-11-28 19:25 J -33886102.20 -33886101.69 -33886101.18 0.0089 0.0035

Venus -97488-01-21 14:08 J -33886048.02 -33886047.91 -33886047.77 0.0089 0.0072

Venus -97488-09-04 02:51 J -33885822.44 -33885822.38 -33885822.29 0.0089 0.0083

Moon -97466-02-18 01:39 J -33877985.60 -33877985.43 -33877985.22 0.0089 0.0062

Earth -97466-02-18 04:18 J -33877985.48 -33877985.32 -33877985.12 0.0089 0.0066 *

Earth -97465-02-20 18:13 J -33877617.98 -33877617.74 -33877617.49 0.0089 0.0032

Moon -97465-02-20 21:20 J -33877617.83 -33877617.61 -33877617.36 0.0089 0.0036 *

Moon -97464-02-22 05:01 J -33877250.55 -33877250.29 -33877250.02 0.0089 0.0005

Earth -97464-02-22 08:37 J -33877250.40 -33877250.14 -33877249.88 0.0089 0.0001 *

Earth -97463-02-24 22:18 J -33876882.80 -33876882.57 -33876882.31 0.0089 0.0034

Moon -97463-02-25 02:08 J -33876882.64 -33876882.41 -33876882.15 0.0089 0.0029 *

Moon -97462-02-27 09:20 J -33876515.24 -33876515.11 -33876514.93 0.0089 0.0071

Earth -97462-02-27 12:42 J -33876515.13 -33876514.97 -33876514.79 0.0089 0.0067 *

Mars -97455-11-24 17:01 J -33873687.80 -33873687.79 -33873687.71 0.0089 0.0088

Mars -97453-10-19 20:08 J -33872992.96 -33872992.66 -33872992.34 0.0089 0.0020
 Mars -97451-09-14 19:25 J -33872297.93 -33872297.69 -33872297.39 0.0089 0.0047
 Mercury -97420-07-17 01:54 J -33861034.43 -33861034.42 -33861034.39 0.0089 0.0088
 Mercury -97420-10-13 04:32 J -33860946.35 -33860946.31 -33860946.23 0.0089 0.0083
 Mercury -97419-01-09 07:11 J -33860858.26 -33860858.20 -33860858.10 0.0089 0.0078
 Mercury -97419-04-07 09:49 J -33860770.17 -33860770.09 -33860769.97 0.0089 0.0073
 Mercury -97419-07-04 12:56 J -33860682.07 -33860681.96 -33860681.85 0.0089 0.0067
 Mercury -97419-09-30 15:35 J -33860593.97 -33860593.85 -33860593.73 0.0089 0.0062
 Mercury -97419-12-27 17:59 J -33860505.87 -33860505.75 -33860505.61 0.0089 0.0057
 Mercury -97418-03-25 20:37 J -33860417.77 -33860417.64 -33860417.49 0.0089 0.0052
 Mercury -97418-06-21 23:15 J -33860329.66 -33860329.53 -33860329.37 0.0089 0.0047
 Mercury -97418-09-18 01:54 J -33860241.56 -33860241.42 -33860241.26 0.0089 0.0042
 Mercury -97418-12-15 04:32 J -33860153.46 -33860153.31 -33860153.15 0.0089 0.0036
 Mercury -97417-03-12 07:11 J -33860065.35 -33860065.20 -33860065.03 0.0089 0.0031
 Mercury -97417-06-08 09:35 J -33859977.25 -33859977.10 -33859976.92 0.0089 0.0027
 Mercury -97417-09-04 12:13 J -33859889.14 -33859888.99 -33859888.82 0.0089 0.0022
 Mercury -97417-12-01 14:51 J -33859801.04 -33859800.88 -33859800.71 0.0089 0.0016
 Mercury -97416-02-27 17:30 J -33859712.93 -33859712.77 -33859712.60 0.0088 0.0011
 Mercury -97416-05-26 20:08 J -33859624.83 -33859624.66 -33859624.49 0.0088 0.0006
 Mercury -97416-08-22 22:32 J -33859536.72 -33859536.56 -33859536.39 0.0088 0.0002
 Mercury -97416-11-19 01:11 J -33859448.62 -33859448.45 -33859448.28 0.0088 0.0004
 Venus -97416-12-07 21:20 J -33859429.61 -33859429.61 -33859429.57 0.0088 0.0088
 Mercury -97415-02-15 03:35 J -33859360.51 -33859360.35 -33859360.18 0.0088 0.0009
 Mercury -97415-05-14 06:13 J -33859272.41 -33859272.24 -33859272.08 0.0088 0.0014
 Venus -97415-07-21 11:30 J -33859204.12 -33859204.02 -33859203.91 0.0088 0.0077
 Mercury -97415-08-10 08:37 J -33859184.30 -33859184.14 -33859183.98 0.0088 0.0019
 Mercury -97415-11-06 11:01 J -33859096.20 -33859096.04 -33859095.88 0.0088 0.0024
 Mercury -97414-02-02 13:25 J -33859008.09 -33859007.94 -33859007.78 0.0088 0.0028
 Venus -97414-03-04 01:11 J -33858978.59 -33858978.45 -33858978.29 0.0088 0.0066
 Mercury -97414-05-01 15:49 J -33858919.99 -33858919.84 -33858919.68 0.0088 0.0033

Mercury -97414-07-28 18:13 J -33858831.88 -33858831.74 -33858831.58 0.0088 0.0038

Venus -97414-10-15 14:51 J -33858753.05 -33858752.88 -33858752.69 0.0088 0.0055

Mercury -97414-10-24 20:51 J -33858743.78 -33858743.63 -33858743.49 0.0088 0.0043

Mercury -97413-01-20 23:01 J -33858655.67 -33858655.54 -33858655.39 0.0088 0.0048

Mercury -97413-04-18 01:25 J -33858567.56 -33858567.44 -33858567.30 0.0088 0.0053

Venus -97413-05-28 04:32 J -33858527.50 -33858527.31 -33858527.11 0.0088 0.0044

Mercury -97413-07-15 03:49 J -33858479.46 -33858479.34 -33858479.21 0.0088 0.0057

Mercury -97413-10-11 06:27 J -33858391.35 -33858391.23 -33858391.12 0.0088 0.0062

Mercury -97412-01-07 08:37 J -33858303.24 -33858303.14 -33858303.03 0.0088 0.0067

Venus -97412-01-08 18:13 J -33858301.94 -33858301.74 -33858301.52 0.0088 0.0032

Mercury -97412-04-05 10:47 J -33858215.13 -33858215.05 -33858214.94 0.0088 0.0072

Mercury -97412-07-02 13:25 J -33858127.02 -33858126.94 -33858126.86 0.0088 0.0076

Venus -97412-08-22 07:54 J -33858076.38 -33858076.17 -33858075.95 0.0088 0.0021

Mercury -97412-09-28 15:35 J -33858038.91 -33858038.85 -33858038.78 0.0088 0.0081

Mercury -97412-12-25 17:44 J -33857950.79 -33857950.76 -33857950.70 0.0088 0.0085

Venus -97411-04-04 21:49 J -33857850.81 -33857850.59 -33857850.37 0.0088 0.0010

Venus -97411-11-16 11:30 J -33857625.25 -33857625.02 -33857624.80 0.0088 0.0002

Venus -97410-06-30 00:56 J -33857399.68 -33857399.46 -33857399.24 0.0088 0.0012

Venus -97409-02-10 14:23 J -33857174.11 -33857173.90 -33857173.68 0.0088 0.0024

Venus -97409-09-23 03:49 J -33856948.54 -33856948.34 -33856948.13 0.0088 0.0035

Venus -97408-05-06 17:15 J -33856722.96 -33856722.78 -33856722.58 0.0088 0.0046

Venus -97408-12-18 06:42 J -33856497.38 -33856497.22 -33856497.04 0.0088 0.0057

Venus -97407-07-31 19:54 J -33856271.80 -33856271.67 -33856271.52 0.0088 0.0068

Venus -97406-03-14 09:06 J -33856046.20 -33856046.12 -33856046.00 0.0088 0.0079

Earth -97385-08-26 05:15 J -33848210.30 -33848210.28 -33848210.19 0.0088 0.0086

Moon -97384-08-28 12:27 J -33847843.16 -33847842.98 -33847842.76 0.0088 0.0052

Earth -97384-08-28 15:06 J -33847843.05 -33847842.87 -33847842.65 0.0088 0.0055 *

Earth -97383-08-31 00:42 J -33847475.70 -33847475.47 -33847475.22 0.0088 0.0024

Moon -97383-08-31 01:39 J -33847475.66 -33847475.43 -33847475.16 0.0088 0.0028 *

Earth -97382-09-02 10:03 J -33847108.33 -33847108.08 -33847107.82 0.0088 0.0007

Moon -97382-09-02 10:03 J -33847108.32 -33847108.08 -33847107.83 0.0088 0.0010 *
 Moon -97381-09-03 17:44 J -33846740.98 -33846740.76 -33846740.50 0.0088 0.0034
 Earth -97381-09-03 18:42 J -33846740.93 -33846740.72 -33846740.47 0.0088 0.0039 *
 Earth -97380-09-06 03:35 J -33846373.49 -33846373.35 -33846373.17 0.0088 0.0069
 Moon -97380-09-06 06:27 J -33846373.36 -33846373.23 -33846373.08 0.0088 0.0073 *
 Mars -97371-07-04 13:54 J -33843150.17 -33843149.92 -33843149.64 0.0088 0.0047
 Mars -97369-05-29 03:49 J -33842455.63 -33842455.34 -33842455.02 0.0088 0.0019
 Mars -97367-04-23 19:54 J -33841760.73 -33841760.67 -33841760.53 0.0088 0.0084
 Mercury -97338-07-10 11:30 J -33831091.03 -33831091.02 -33831090.99 0.0089 0.0088
 Mercury -97338-10-06 13:11 J -33831002.98 -33831002.95 -33831002.89 0.0089 0.0084
 Mercury -97337-01-02 14:51 J -33830914.93 -33830914.88 -33830914.80 0.0089 0.0080
 Mercury -97337-03-30 17:01 J -33830826.87 -33830826.79 -33830826.72 0.0089 0.0075
 Mercury -97337-06-26 18:42 J -33830738.80 -33830738.72 -33830738.63 0.0089 0.0071
 Mercury -97337-09-22 20:23 J -33830650.74 -33830650.65 -33830650.55 0.0089 0.0067
 Mercury -97337-12-19 22:03 J -33830562.67 -33830562.58 -33830562.47 0.0089 0.0063
 Mercury -97336-03-17 23:44 J -33830474.61 -33830474.51 -33830474.39 0.0089 0.0059
 Mercury -97336-06-14 01:39 J -33830386.54 -33830386.43 -33830386.31 0.0089 0.0054
 Mercury -97336-09-10 03:20 J -33830298.47 -33830298.36 -33830298.23 0.0089 0.0050
 Mercury -97336-12-07 05:15 J -33830210.40 -33830210.28 -33830210.15 0.0089 0.0046
 Mercury -97335-03-05 07:11 J -33830122.33 -33830122.20 -33830122.07 0.0089 0.0041
 Mercury -97335-06-01 08:51 J -33830034.26 -33830034.13 -33830033.99 0.0089 0.0037
 Mercury -97335-08-28 10:32 J -33829946.18 -33829946.06 -33829945.91 0.0089 0.0033
 Mercury -97335-11-24 12:42 J -33829858.11 -33829857.97 -33829857.83 0.0089 0.0028
 Mercury -97334-02-20 14:23 J -33829770.04 -33829769.90 -33829769.75 0.0089 0.0024
 Mercury -97334-05-19 16:18 J -33829681.96 -33829681.82 -33829681.67 0.0089 0.0019
 Mercury -97334-08-15 18:13 J -33829593.89 -33829593.74 -33829593.59 0.0089 0.0015
 Mercury -97334-11-11 20:08 J -33829505.81 -33829505.66 -33829505.51 0.0089 0.0010
 Mercury -97333-02-07 22:03 J -33829417.73 -33829417.58 -33829417.43 0.0089 0.0006
 Mercury -97333-05-05 23:44 J -33829329.66 -33829329.51 -33829329.36 0.0089 0.0003
 Mercury -97333-08-02 01:39 J -33829241.58 -33829241.43 -33829241.28 0.0089 0.0003

Venus -97333-09-01 19:39 J -33829210.74 -33829210.68 -33829210.58 0.0089 0.0083
 Mercury -97333-10-29 03:35 J -33829153.50 -33829153.35 -33829153.20 0.0089 0.0008
 Mercury -97332-01-25 05:30 J -33829065.42 -33829065.27 -33829065.12 0.0089 0.0012
 Venus -97332-04-15 08:08 J -33828985.27 -33828985.16 -33828985.02 0.0089 0.0072
 Mercury -97332-04-23 07:25 J -33828977.34 -33828977.19 -33828977.04 0.0089 0.0017
 Mercury -97332-07-20 09:20 J -33828889.26 -33828889.11 -33828888.96 0.0089 0.0021
 Mercury -97332-10-16 11:15 J -33828801.17 -33828801.03 -33828800.89 0.0089 0.0026
 Venus -97332-11-26 20:23 J -33828759.79 -33828759.65 -33828759.48 0.0089 0.0061
 Mercury -97331-01-12 12:56 J -33828713.09 -33828712.96 -33828712.81 0.0089 0.0031
 Mercury -97331-04-10 15:06 J -33828625.01 -33828624.87 -33828624.73 0.0089 0.0035
 Mercury -97331-07-07 17:01 J -33828536.92 -33828536.79 -33828536.65 0.0089 0.0040
 Venus -97331-07-10 08:51 J -33828534.30 -33828534.13 -33828533.94 0.0089 0.0050
 Mercury -97331-10-03 18:42 J -33828448.84 -33828448.72 -33828448.57 0.0089 0.0045
 Mercury -97331-12-30 20:51 J -33828360.75 -33828360.63 -33828360.50 0.0089 0.0049
 Venus -97330-02-20 21:20 J -33828308.80 -33828308.61 -33828308.42 0.0089 0.0039
 Mercury -97330-03-28 22:47 J -33828272.66 -33828272.55 -33828272.42 0.0089 0.0054
 Mercury -97330-06-25 00:56 J -33828184.57 -33828184.46 -33828184.34 0.0089 0.0058
 Mercury -97330-09-21 02:51 J -33828096.48 -33828096.38 -33828096.27 0.0089 0.0063
 Venus -97330-10-04 09:49 J -33828083.29 -33828083.09 -33828082.89 0.0089 0.0028
 Mercury -97330-12-18 04:47 J -33828008.39 -33828008.30 -33828008.19 0.0089 0.0068
 Mercury -97329-03-15 06:56 J -33827920.29 -33827920.21 -33827920.12 0.0089 0.0072
 Venus -97329-05-16 22:03 J -33827857.79 -33827857.58 -33827857.36 0.0089 0.0018
 Mercury -97329-06-11 08:51 J -33827832.20 -33827832.13 -33827832.05 0.0089 0.0077
 Mercury -97329-09-07 10:47 J -33827744.10 -33827744.05 -33827743.98 0.0089 0.0082
 Mercury -97329-12-04 13:11 J -33827655.99 -33827655.95 -33827655.92 0.0089 0.0086
 Venus -97329-12-28 10:32 J -33827632.28 -33827632.06 -33827631.84 0.0089 0.0007
 Venus -97328-08-10 22:47 J -33827406.76 -33827406.55 -33827406.33 0.0089 0.0005
 Venus -97327-03-24 11:15 J -33827181.24 -33827181.03 -33827180.81 0.0089 0.0016
 Venus -97327-11-04 23:59 J -33826955.71 -33826955.50 -33826955.29 0.0089 0.0026
 Venus -97326-06-18 12:27 J -33826730.18 -33826729.98 -33826729.78 0.0089 0.0037

Venus	-97325-01-30 00:56 J	-33826504.64	-33826504.46	-33826504.28	0.0089	0.0048
Venus	-97325-09-11 12:56 J	-33826279.09	-33826278.96	-33826278.77	0.0089	0.0060
Venus	-97324-04-25 01:39 J	-33826053.54	-33826053.43	-33826053.27	0.0089	0.0071
Venus	-97324-12-06 14:23 J	-33825827.96	-33825827.90	-33825827.79	0.0089	0.0082
Earth	-97302-02-17 12:42 J	-33818085.06	-33818084.97	-33818084.83	0.0089	0.0080
Moon	-97302-02-17 16:32 J	-33818084.93	-33818084.81	-33818084.68	0.0089	0.0077 *
Moon	-97301-02-19 22:47 J	-33817717.74	-33817717.55	-33817717.31	0.0089	0.0051
Earth	-97301-02-20 02:51 J	-33817717.59	-33817717.38	-33817717.15	0.0089	0.0047 *
Earth	-97300-02-21 16:32 J	-33817350.06	-33817349.81	-33817349.54	0.0089	0.0015
Moon	-97300-02-21 19:54 J	-33817349.93	-33817349.67	-33817349.40	0.0089	0.0012 *
Moon	-97299-02-24 03:35 J	-33816982.60	-33816982.35	-33816982.09	0.0089	0.0016
Earth	-97299-02-24 06:27 J	-33816982.48	-33816982.23	-33816981.96	0.0089	0.0018 *
Earth	-97298-02-26 20:23 J	-33816614.85	-33816614.65	-33816614.42	0.0089	0.0051
Moon	-97298-02-26 22:18 J	-33816614.78	-33816614.57	-33816614.35	0.0089	0.0053 *
Moon	-97297-02-29 09:49 J	-33816247.15	-33816247.09	-33816246.96	0.0089	0.0083
Earth	-97297-02-29 10:47 J	-33816247.12	-33816247.05	-33816246.95	0.0089	0.0084 *
Mars	-97289-06-03 08:37 J	-33813230.39	-33813230.14	-33813229.87	0.0089	0.0050
Mars	-97287-04-29 11:15 J	-33812535.34	-33812535.03	-33812534.72	0.0089	0.0018
Mars	-97285-03-24 10:03 J	-33811840.15	-33811840.08	-33811839.97	0.0089	0.0085
Mercury	-97255-04-13 00:56 J	-33800863.48	-33800863.46	-33800863.39	0.0089	0.0086
Mercury	-97255-07-10 04:03 J	-33800775.39	-33800775.33	-33800775.25	0.0089	0.0080
Mercury	-97255-10-06 06:42 J	-33800687.30	-33800687.22	-33800687.12	0.0089	0.0075
Mercury	-97254-01-02 09:20 J	-33800599.20	-33800599.11	-33800598.99	0.0089	0.0070
Mercury	-97254-03-31 11:59 J	-33800511.10	-33800511.00	-33800510.87	0.0089	0.0065
Mercury	-97254-06-27 14:37 J	-33800423.00	-33800422.89	-33800422.75	0.0089	0.0060
Mercury	-97254-09-23 17:30 J	-33800334.90	-33800334.77	-33800334.63	0.0089	0.0054
Mercury	-97254-12-20 20:08 J	-33800246.80	-33800246.66	-33800246.51	0.0089	0.0049
Mercury	-97253-03-17 22:47 J	-33800158.69	-33800158.55	-33800158.40	0.0089	0.0044
Mercury	-97253-06-14 01:25 J	-33800070.59	-33800070.44	-33800070.28	0.0089	0.0039
Mercury	-97253-09-10 04:03 J	-33799982.48	-33799982.33	-33799982.17	0.0089	0.0033

Mercury -97253-12-07 06:27 J -33799894.38 -33799894.23 -33799894.06 0.0089 0.0029

Mercury -97252-03-05 09:06 J -33799806.27 -33799806.12 -33799805.95 0.0089 0.0024

Mercury -97252-06-01 11:44 J -33799718.17 -33799718.01 -33799717.84 0.0089 0.0018

Mercury -97252-08-28 14:23 J -33799630.07 -33799629.90 -33799629.73 0.0089 0.0013

Mercury -97252-11-24 17:01 J -33799541.96 -33799541.79 -33799541.62 0.0089 0.0008

Mercury -97251-02-20 19:25 J -33799453.85 -33799453.69 -33799453.52 0.0089 0.0004

Mercury -97251-05-19 22:03 J -33799365.75 -33799365.58 -33799365.41 0.0089 0.0002

Mercury -97251-08-16 00:27 J -33799277.64 -33799277.48 -33799277.31 0.0088 0.0007

Venus -97251-10-22 21:49 J -33799209.67 -33799209.59 -33799209.47 0.0088 0.0080

Mercury -97251-11-12 03:06 J -33799189.54 -33799189.37 -33799189.21 0.0088 0.0012

Mercury -97250-02-08 05:30 J -33799101.43 -33799101.27 -33799101.11 0.0088 0.0016

Mercury -97250-05-07 07:54 J -33799013.33 -33799013.17 -33799013.00 0.0088 0.0021

Venus -97250-06-05 11:30 J -33798984.14 -33798984.02 -33798983.86 0.0088 0.0069

Mercury -97250-08-03 10:18 J -33798925.22 -33798925.07 -33798924.90 0.0088 0.0026

Mercury -97250-10-30 12:42 J -33798837.12 -33798836.97 -33798836.81 0.0088 0.0031

Venus -97249-01-17 01:39 J -33798758.60 -33798758.43 -33798758.26 0.0088 0.0057

Mercury -97249-01-26 15:20 J -33798749.01 -33798748.86 -33798748.71 0.0088 0.0036

Mercury -97249-04-23 17:44 J -33798660.90 -33798660.76 -33798660.61 0.0088 0.0041

Mercury -97249-07-20 20:08 J -33798572.80 -33798572.66 -33798572.52 0.0088 0.0046

Venus -97249-08-29 15:06 J -33798533.05 -33798532.87 -33798532.67 0.0088 0.0046

Mercury -97249-10-16 22:18 J -33798484.69 -33798484.57 -33798484.42 0.0088 0.0051

Mercury -97248-01-13 00:42 J -33798396.58 -33798396.47 -33798396.33 0.0088 0.0056

Mercury -97248-04-11 03:20 J -33798308.48 -33798308.36 -33798308.24 0.0088 0.0060

Venus -97248-04-12 04:47 J -33798307.49 -33798307.30 -33798307.08 0.0088 0.0035

Mercury -97248-07-08 05:30 J -33798220.37 -33798220.27 -33798220.15 0.0088 0.0065

Mercury -97248-10-04 07:54 J -33798132.26 -33798132.17 -33798132.06 0.0088 0.0069

Venus -97248-11-23 18:27 J -33798081.93 -33798081.73 -33798081.50 0.0088 0.0024

Mercury -97248-12-31 10:32 J -33798044.15 -33798044.06 -33798043.97 0.0088 0.0074

Mercury -97247-03-29 12:27 J -33797956.04 -33797955.98 -33797955.89 0.0088 0.0079

Mercury -97247-06-25 14:51 J -33797867.92 -33797867.88 -33797867.81 0.0088 0.0083

Venus -97247-07-07 08:08 J -33797856.37 -33797856.16 -33797855.93 0.0088 0.0012
 Mercury -97247-09-21 17:15 J -33797779.79 -33797779.78 -33797779.75 0.0088 0.0088
 Venus -97246-02-17 21:49 J -33797630.81 -33797630.59 -33797630.36 0.0088 0.0001
 Venus -97246-10-01 11:30 J -33797405.24 -33797405.02 -33797404.80 0.0088 0.0011
 Venus -97245-05-14 00:56 J -33797179.67 -33797179.46 -33797179.24 0.0088 0.0022
 Venus -97245-12-25 14:37 J -33796954.10 -33796953.89 -33796953.68 0.0088 0.0033
 Venus -97244-08-08 03:35 J -33796728.52 -33796728.35 -33796728.14 0.0088 0.0045
 Venus -97243-03-21 17:01 J -33796502.94 -33796502.79 -33796502.59 0.0088 0.0056
 Venus -97243-11-02 06:27 J -33796277.35 -33796277.23 -33796277.06 0.0088 0.0067
 Venus -97242-06-15 19:54 J -33796051.76 -33796051.67 -33796051.55 0.0088 0.0078
 Venus -97241-01-27 09:20 J -33795826.11 -33795826.11 -33795826.09 0.0088 0.0088
 Earth -97220-08-28 02:51 J -33787942.51 -33787942.38 -33787942.20 0.0088 0.0069
 Moon -97220-08-28 03:49 J -33787942.46 -33787942.34 -33787942.16 0.0088 0.0072 *
 Earth -97219-08-30 12:42 J -33787575.18 -33787574.97 -33787574.72 0.0088 0.0038
 Moon -97219-08-30 13:39 J -33787575.16 -33787574.93 -33787574.71 0.0088 0.0036 *
 Moon -97218-09-01 20:37 J -33787207.90 -33787207.64 -33787207.38 0.0088 0.0008
 Earth -97218-09-01 22:32 J -33787207.81 -33787207.56 -33787207.30 0.0088 0.0007 *
 Earth -97217-09-03 07:25 J -33786840.42 -33786840.19 -33786839.93 0.0088 0.0025
 Moon -97217-09-03 10:03 J -33786840.31 -33786840.08 -33786839.83 0.0088 0.0027 *
 Moon -97216-09-05 12:56 J -33786473.15 -33786472.96 -33786472.74 0.0088 0.0053
 Earth -97216-09-05 16:47 J -33786472.99 -33786472.80 -33786472.60 0.0088 0.0055 *
 Earth -97215-09-08 01:11 J -33786105.49 -33786105.45 -33786105.36 0.0088 0.0086
 Moon -97215-09-08 04:32 J -33786105.32 -33786105.31 -33786105.25 0.0088 0.0088
 Mars -97207-02-16 10:32 J -33783387.20 -33783387.06 -33783386.86 0.0088 0.0074
 Mars -97205-01-11 23:01 J -33782692.84 -33782692.54 -33782692.22 0.0088 0.0010
 Mars -97204-12-06 13:11 J -33781998.18 -33781997.95 -33781997.70 0.0088 0.0056
 Mercury -97173-04-05 11:01 J -33770920.06 -33770920.04 -33770919.99 0.0089 0.0086
 Mercury -97173-07-02 12:42 J -33770832.01 -33770831.97 -33770831.90 0.0089 0.0082
 Mercury -97173-09-28 14:51 J -33770743.95 -33770743.88 -33770743.81 0.0089 0.0077
 Mercury -97173-12-25 16:32 J -33770655.89 -33770655.81 -33770655.73 0.0089 0.0073

Mercury -97172-03-23 18:13 J -33770567.82 -33770567.74 -33770567.64 0.0089 0.0069

Mercury -97172-06-19 19:54 J -33770479.76 -33770479.67 -33770479.56 0.0089 0.0065

Mercury -97172-09-15 21:35 J -33770391.69 -33770391.60 -33770391.48 0.0089 0.0061

Mercury -97172-12-12 23:30 J -33770303.63 -33770303.52 -33770303.40 0.0089 0.0056

Mercury -97171-03-11 01:11 J -33770215.56 -33770215.45 -33770215.32 0.0089 0.0052

Mercury -97171-06-07 02:51 J -33770127.49 -33770127.38 -33770127.24 0.0089 0.0048

Mercury -97171-09-03 05:01 J -33770039.42 -33770039.29 -33770039.16 0.0089 0.0043

Mercury -97171-11-30 06:42 J -33769951.35 -33769951.22 -33769951.09 0.0089 0.0039

Mercury -97170-02-26 08:23 J -33769863.28 -33769863.15 -33769863.01 0.0089 0.0035

Mercury -97170-05-25 10:18 J -33769775.20 -33769775.07 -33769774.93 0.0089 0.0030

Mercury -97170-08-21 12:13 J -33769687.13 -33769686.99 -33769686.85 0.0089 0.0026

Mercury -97170-11-17 13:54 J -33769599.06 -33769598.92 -33769598.77 0.0089 0.0022

Mercury -97169-02-13 15:49 J -33769510.98 -33769510.84 -33769510.69 0.0089 0.0017

Mercury -97169-05-11 17:44 J -33769422.91 -33769422.76 -33769422.61 0.0089 0.0013

Mercury -97169-08-07 19:39 J -33769334.83 -33769334.68 -33769334.53 0.0089 0.0008

Mercury -97169-11-03 21:20 J -33769246.75 -33769246.61 -33769246.46 0.0089 0.0004

Venus -97169-12-04 07:25 J -33769216.24 -33769216.19 -33769216.12 0.0089 0.0085

Mercury -97168-01-30 23:15 J -33769158.68 -33769158.53 -33769158.38 0.0089 0.0001

Mercury -97168-04-29 01:11 J -33769070.60 -33769070.45 -33769070.30 0.0089 0.0005

Venus -97168-07-17 19:25 J -33768990.79 -33768990.69 -33768990.55 0.0089 0.0075

Mercury -97168-07-26 03:06 J -33768982.52 -33768982.37 -33768982.22 0.0089 0.0010

Mercury -97168-10-22 04:47 J -33768894.44 -33768894.30 -33768894.14 0.0089 0.0015

Mercury -97167-01-18 06:56 J -33768806.36 -33768806.21 -33768806.07 0.0089 0.0019

Venus -97167-02-28 07:39 J -33768765.31 -33768765.18 -33768765.01 0.0089 0.0064

Mercury -97167-04-16 08:37 J -33768718.28 -33768718.14 -33768717.99 0.0089 0.0024

Mercury -97167-07-13 10:47 J -33768630.20 -33768630.05 -33768629.91 0.0089 0.0028

Mercury -97167-10-09 12:27 J -33768542.11 -33768541.98 -33768541.83 0.0089 0.0033

Venus -97167-10-11 20:08 J -33768539.81 -33768539.66 -33768539.47 0.0089 0.0053

Mercury -97166-01-05 14:37 J -33768454.03 -33768453.89 -33768453.75 0.0089 0.0037

Mercury -97166-04-03 16:18 J -33768365.94 -33768365.82 -33768365.68 0.0089 0.0042

Venus -97166-05-25 08:37 J -33768314.32 -33768314.14 -33768313.94 0.0089 0.0042
 Mercury -97166-06-30 18:13 J -33768277.86 -33768277.74 -33768277.60 0.0089 0.0047
 Mercury -97166-09-26 20:23 J -33768189.77 -33768189.65 -33768189.52 0.0089 0.0051
 Mercury -97166-12-23 22:18 J -33768101.68 -33768101.57 -33768101.45 0.0089 0.0056
 Venus -97165-01-05 20:51 J -33768088.82 -33768088.63 -33768088.41 0.0089 0.0031
 Mercury -97165-03-20 23:59 J -33768013.59 -33768013.50 -33768013.37 0.0089 0.0061
 Mercury -97165-06-17 02:08 J -33767925.50 -33767925.41 -33767925.30 0.0089 0.0065
 Venus -97165-08-18 09:20 J -33767863.31 -33767863.11 -33767862.89 0.0089 0.0020
 Mercury -97165-09-13 04:03 J -33767837.41 -33767837.33 -33767837.22 0.0089 0.0070
 Mercury -97165-12-10 05:59 J -33767749.31 -33767749.25 -33767749.15 0.0089 0.0075
 Mercury -97164-03-08 08:23 J -33767661.21 -33767661.15 -33767661.08 0.0089 0.0079
 Venus -97164-03-31 21:49 J -33767637.80 -33767637.59 -33767637.37 0.0089 0.0009
 Mercury -97164-06-04 10:03 J -33767573.11 -33767573.08 -33767573.01 0.0089 0.0084
 Mercury -97164-08-31 12:13 J -33767484.99 -33767484.99 -33767484.97 0.0089 0.0089
 Venus -97164-11-12 10:32 J -33767412.28 -33767412.06 -33767411.85 0.0089 0.0003
 Venus -97163-06-25 22:47 J -33767186.76 -33767186.55 -33767186.33 0.0089 0.0013
 Venus -97162-02-06 11:15 J -33766961.24 -33766961.03 -33766960.82 0.0089 0.0024
 Venus -97162-09-19 23:30 J -33766735.71 -33766735.52 -33766735.31 0.0089 0.0036
 Venus -97161-05-02 11:59 J -33766510.17 -33766510.00 -33766509.80 0.0089 0.0047
 Venus -97161-12-14 00:27 J -33766284.63 -33766284.48 -33766284.30 0.0089 0.0058
 Venus -97160-07-27 12:56 J -33766059.08 -33766058.96 -33766058.81 0.0089 0.0069
 Venus -97159-03-10 01:25 J -33765833.51 -33765833.44 -33765833.32 0.0089 0.0080
 Earth -97137-02-19 10:18 J -33757817.23 -33757817.07 -33757816.86 0.0089 0.0063
 Moon -97137-02-19 13:25 J -33757817.11 -33757816.94 -33757816.71 0.0089 0.0060 *
 Moon -97136-02-20 22:32 J -33757449.78 -33757449.56 -33757449.31 0.0089 0.0034
 Earth -97136-02-21 00:13 J -33757449.72 -33757449.49 -33757449.23 0.0089 0.0030 *
 Earth -97135-02-23 14:08 J -33757082.17 -33757081.91 -33757081.65 0.0089 0.0003
 Moon -97135-02-23 15:06 J -33757082.14 -33757081.87 -33757081.59 0.0089 0.0006 *
 Earth -97134-02-26 04:03 J -33756714.57 -33756714.33 -33756714.09 0.0089 0.0036
 Moon -97134-02-26 03:35 J -33756714.57 -33756714.35 -33756714.09 0.0089 0.0032 *

Moon -97133-02-28 15:35 J -33756346.98 -33756346.85 -33756346.66 0.0089 0.0072
 Earth -97133-02-28 17:44 J -33756346.91 -33756346.76 -33756346.58 0.0089 0.0069 *
 Mars -97125-01-16 17:30 J -33753467.87 -33753467.77 -33753467.59 0.0089 0.0080
 Mars -97124-12-11 22:32 J -33752772.87 -33752772.56 -33752772.24 0.0089 0.0011
 Mars -97122-11-07 00:13 J -33752077.70 -33752077.49 -33752077.22 0.0089 0.0057
 Mercury -97091-10-11 21:20 J -33740780.61 -33740780.61 -33740780.59 0.0089 0.0089
 Mercury -97090-01-08 00:27 J -33740692.54 -33740692.48 -33740692.43 0.0089 0.0083
 Mercury -97090-04-06 02:51 J -33740604.45 -33740604.38 -33740604.29 0.0089 0.0078
 Mercury -97090-07-03 05:30 J -33740516.35 -33740516.27 -33740516.16 0.0089 0.0073
 Mercury -97090-09-29 08:08 J -33740428.25 -33740428.16 -33740428.03 0.0089 0.0068
 Mercury -97090-12-26 10:47 J -33740340.15 -33740340.05 -33740339.91 0.0089 0.0063
 Mercury -97089-03-23 13:54 J -33740252.05 -33740251.92 -33740251.79 0.0089 0.0057
 Mercury -97089-06-19 16:32 J -33740163.94 -33740163.81 -33740163.67 0.0089 0.0052
 Mercury -97089-09-15 19:11 J -33740075.84 -33740075.70 -33740075.55 0.0089 0.0047
 Mercury -97089-12-12 21:49 J -33739987.74 -33739987.59 -33739987.44 0.0089 0.0042
 Mercury -97088-03-11 00:13 J -33739899.63 -33739899.49 -33739899.32 0.0089 0.0037
 Mercury -97088-06-07 02:51 J -33739811.53 -33739811.38 -33739811.21 0.0089 0.0032
 Mercury -97088-09-03 05:30 J -33739723.42 -33739723.27 -33739723.10 0.0089 0.0027
 Mercury -97088-11-30 08:08 J -33739635.32 -33739635.16 -33739634.99 0.0089 0.0022
 Mercury -97087-02-26 10:47 J -33739547.21 -33739547.05 -33739546.88 0.0088 0.0016
 Mercury -97087-05-25 13:25 J -33739459.10 -33739458.94 -33739458.77 0.0088 0.0011
 Mercury -97087-08-21 16:03 J -33739371.00 -33739370.83 -33739370.66 0.0088 0.0006
 Mercury -97087-11-17 18:42 J -33739282.89 -33739282.72 -33739282.56 0.0088 0.0002
 Venus -97086-01-24 07:39 J -33739215.24 -33739215.18 -33739215.08 0.0088 0.0083
 Mercury -97086-02-13 21:06 J -33739194.79 -33739194.62 -33739194.45 0.0088 0.0004
 Mercury -97086-05-12 23:30 J -33739106.68 -33739106.52 -33739106.35 0.0088 0.0009
 Mercury -97086-08-09 02:08 J -33739018.58 -33739018.41 -33739018.24 0.0088 0.0014
 Venus -97086-09-06 21:49 J -33738989.72 -33738989.59 -33738989.45 0.0088 0.0071
 Mercury -97086-11-05 04:32 J -33738930.47 -33738930.31 -33738930.14 0.0088 0.0019
 Mercury -97085-02-01 06:56 J -33738842.36 -33738842.21 -33738842.04 0.0088 0.0024

Venus -97085-04-19 11:30 J -33738764.17 -33738764.02 -33738763.84 0.0088 0.0060
 Mercury -97085-04-29 09:35 J -33738754.26 -33738754.10 -33738753.94 0.0088 0.0029
 Mercury -97085-07-26 11:59 J -33738666.15 -33738666.00 -33738665.84 0.0088 0.0033
 Mercury -97085-10-22 14:23 J -33738578.04 -33738577.90 -33738577.75 0.0088 0.0038
 Venus -97085-12-01 01:11 J -33738538.63 -33738538.45 -33738538.25 0.0088 0.0049
 Mercury -97084-01-18 16:32 J -33738489.94 -33738489.81 -33738489.65 0.0088 0.0044
 Mercury -97084-04-16 19:25 J -33738401.83 -33738401.69 -33738401.55 0.0088 0.0048
 Mercury -97084-07-13 21:35 J -33738313.72 -33738313.60 -33738313.46 0.0088 0.0053
 Venus -97084-07-14 14:37 J -33738313.07 -33738312.89 -33738312.67 0.0088 0.0038
 Mercury -97084-10-09 23:59 J -33738225.62 -33738225.50 -33738225.37 0.0088 0.0057
 Mercury -97083-01-06 02:08 J -33738137.51 -33738137.41 -33738137.28 0.0088 0.0063
 Venus -97083-02-25 04:47 J -33738087.52 -33738087.30 -33738087.09 0.0088 0.0026
 Mercury -97083-04-04 04:47 J -33738049.40 -33738049.30 -33738049.19 0.0088 0.0067
 Mercury -97083-07-01 06:56 J -33737961.29 -33737961.21 -33737961.10 0.0088 0.0072
 Mercury -97083-09-27 09:20 J -33737873.18 -33737873.11 -33737873.02 0.0088 0.0076
 Venus -97083-10-08 18:13 J -33737861.96 -33737861.74 -33737861.51 0.0088 0.0015
 Mercury -97083-12-24 11:59 J -33737785.06 -33737785.00 -33737784.93 0.0088 0.0081
 Mercury -97082-03-22 14:08 J -33737696.94 -33737696.91 -33737696.86 0.0088 0.0085
 Venus -97082-05-22 07:54 J -33737636.39 -33737636.17 -33737635.94 0.0088 0.0003
 Venus -97081-01-02 21:20 J -33737410.82 -33737410.61 -33737410.38 0.0088 0.0009
 Venus -97081-08-15 11:01 J -33737185.26 -33737185.04 -33737184.82 0.0088 0.0019
 Venus -97080-03-29 00:42 J -33736959.68 -33736959.47 -33736959.26 0.0088 0.0031
 Venus -97080-11-09 13:54 J -33736734.10 -33736733.92 -33736733.71 0.0088 0.0042
 Jupiter -97079-06-05 22:32 J -33736525.67 -33736525.56 -33736525.36 0.0088 0.0085
 Venus -97079-06-23 03:20 J -33736508.52 -33736508.36 -33736508.17 0.0088 0.0054
 Venus -97078-02-03 16:47 J -33736282.94 -33736282.80 -33736282.63 0.0088 0.0065
 Venus -97078-09-17 06:13 J -33736057.34 -33736057.24 -33736057.11 0.0088 0.0076
 Venus -97077-04-29 19:39 J -33735831.70 -33735831.68 -33735831.62 0.0088 0.0087
 Earth -97056-08-27 13:25 J -33728041.99 -33728041.94 -33728041.83 0.0088 0.0084
 Moon -97056-08-27 14:37 J -33728041.90 -33728041.89 -33728041.83 0.0088 0.0088 *

Moon -97055-08-29 21:20 J -33727674.81 -33727674.61 -33727674.37 0.0088 0.0049
 Earth -97055-08-29 23:30 J -33727674.71 -33727674.52 -33727674.30 0.0088 0.0053 *
 Earth -97054-09-01 09:20 J -33727307.35 -33727307.11 -33727306.86 0.0088 0.0021
 Moon -97054-09-01 12:13 J -33727307.21 -33727306.99 -33727306.73 0.0088 0.0027 *
 Moon -97053-09-02 15:35 J -33726940.10 -33726939.85 -33726939.60 0.0088 0.0014
 Earth -97053-09-02 18:56 J -33726939.96 -33726939.71 -33726939.46 0.0088 0.0009 *
 Earth -97052-09-05 03:49 J -33726572.55 -33726572.34 -33726572.10 0.0088 0.0041
 Moon -97052-09-05 07:39 J -33726572.40 -33726572.18 -33726571.94 0.0088 0.0037 *
 Moon -97051-09-07 10:18 J -33726205.18 -33726205.07 -33726204.93 0.0088 0.0076
 Earth -97051-09-07 12:56 J -33726205.08 -33726204.96 -33726204.79 0.0088 0.0071 *
 Mars -97042-08-26 18:27 J -33722929.99 -33722929.73 -33722929.43 0.0088 0.0038
 Mars -97040-07-21 07:54 J -33722235.46 -33722235.17 -33722234.87 0.0088 0.0028
 Mercury -97009-10-04 08:51 J -33710837.13 -33710837.13 -33710837.09 0.0089 0.0088
 Mercury -97009-12-31 10:32 J -33710749.09 -33710749.06 -33710749.00 0.0089 0.0084
 Mercury -97008-03-29 12:13 J -33710661.03 -33710660.99 -33710660.91 0.0089 0.0080
 Mercury -97008-06-25 14:23 J -33710572.97 -33710572.90 -33710572.82 0.0089 0.0075
 Mercury -97008-09-21 16:03 J -33710484.91 -33710484.83 -33710484.74 0.0089 0.0071
 Mercury -97008-12-18 17:44 J -33710396.85 -33710396.76 -33710396.66 0.0089 0.0067
 Mercury -97007-03-16 19:25 J -33710308.78 -33710308.69 -33710308.58 0.0089 0.0063
 Mercury -97007-06-12 21:06 J -33710220.72 -33710220.62 -33710220.50 0.0089 0.0059
 Mercury -97007-09-08 23:01 J -33710132.65 -33710132.54 -33710132.42 0.0089 0.0054
 Mercury -97007-12-06 00:42 J -33710044.58 -33710044.47 -33710044.34 0.0089 0.0050
 Mercury -97006-03-04 02:23 J -33709956.51 -33709956.40 -33709956.26 0.0089 0.0046
 Mercury -97006-05-31 04:03 J -33709868.44 -33709868.33 -33709868.19 0.0089 0.0042
 Mercury -97006-08-27 06:13 J -33709780.37 -33709780.24 -33709780.11 0.0089 0.0037
 Mercury -97006-11-23 07:54 J -33709692.30 -33709692.17 -33709692.03 0.0089 0.0033
 Mercury -97005-02-19 09:49 J -33709604.23 -33709604.09 -33709603.95 0.0089 0.0028
 Mercury -97005-05-17 11:30 J -33709516.16 -33709516.02 -33709515.87 0.0089 0.0024
 Mercury -97005-08-13 13:25 J -33709428.08 -33709427.94 -33709427.79 0.0089 0.0019
 Mercury -97005-11-09 15:20 J -33709340.01 -33709339.86 -33709339.72 0.0089 0.0015

Mercury -97004-02-05 17:01 J -33709251.93 -33709251.79 -33709251.64 0.0089 0.0011

Venus -97004-03-07 18:42 J -33709221.74 -33709221.72 -33709221.69 0.0089 0.0088

Mercury -97004-05-04 18:56 J -33709163.86 -33709163.71 -33709163.56 0.0089 0.0006

Mercury -97004-07-31 20:51 J -33709075.78 -33709075.63 -33709075.48 0.0089 0.0002

Venus -97004-10-19 07:11 J -33708996.30 -33708996.20 -33708996.09 0.0089 0.0077

Mercury -97004-10-27 22:47 J -33708987.70 -33708987.55 -33708987.40 0.0089 0.0003

Mercury -97003-01-24 00:27 J -33708899.62 -33708899.48 -33708899.33 0.0089 0.0008

Mercury -97003-04-22 02:23 J -33708811.54 -33708811.40 -33708811.25 0.0089 0.0012

Venus -97003-06-01 18:56 J -33708770.83 -33708770.71 -33708770.54 0.0089 0.0067

Mercury -97003-07-19 04:18 J -33708723.46 -33708723.32 -33708723.17 0.0089 0.0016

Mercury -97003-10-15 06:13 J -33708635.38 -33708635.24 -33708635.09 0.0089 0.0021

Mercury -97002-01-11 08:08 J -33708547.30 -33708547.16 -33708547.01 0.0089 0.0026

Venus -97002-01-13 07:11 J -33708545.34 -33708545.20 -33708545.01 0.0089 0.0056

Mercury -97002-04-09 10:03 J -33708459.22 -33708459.08 -33708458.94 0.0089 0.0030

Mercury -97002-07-06 11:44 J -33708371.14 -33708371.01 -33708370.86 0.0089 0.0035

Venus -97002-08-26 20:08 J -33708319.85 -33708319.66 -33708319.47 0.0089 0.0044

Mercury -97002-10-02 13:54 J -33708283.05 -33708282.92 -33708282.78 0.0089 0.0039

Mercury -97002-12-29 15:49 J -33708194.97 -33708194.84 -33708194.70 0.0089 0.0044

Mercury -97001-03-26 17:30 J -33708106.88 -33708106.77 -33708106.63 0.0089 0.0049

Venus -97001-04-08 08:08 J -33708094.35 -33708094.16 -33708093.95 0.0089 0.0034

Mercury -97001-06-22 19:39 J -33708018.79 -33708018.68 -33708018.55 0.0089 0.0053

Mercury -97001-09-18 21:35 J -33707930.71 -33707930.60 -33707930.48 0.0089 0.0058

Venus -97001-11-19 20:51 J -33707868.84 -33707868.63 -33707868.42 0.0089 0.0022

Mercury -97001-12-15 23:30 J -33707842.62 -33707842.52 -33707842.40 0.0089 0.0063

97TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 97th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	-97000-03-14 01:39 J	-33707754.52	-33707754.43	-33707754.33	0.0089	0.0067		
Mercury	-97000-06-10 03:35 J	-33707666.43	-33707666.35	-33707666.25	0.0089	0.0072		
Venus	-97000-07-03 09:06 J	-33707643.33	-33707643.12	-33707642.90	0.0089	0.0011		
Mercury	-97000-09-06 05:30 J	-33707578.33	-33707578.27	-33707578.18	0.0089	0.0077		
Mercury	-97000-12-03 07:39 J	-33707490.23	-33707490.18	-33707490.11	0.0089	0.0081		
Venus	-96999-02-13 21:35 J	-33707417.82	-33707417.60	-33707417.38	0.0089	0.0000		
Mercury	-96999-03-01 09:35 J	-33707402.13	-33707402.10	-33707402.05	0.0089	0.0086		
Venus	-96999-09-27 10:03 J	-33707192.29	-33707192.08	-33707191.86	0.0089	0.0011		
Venus	-96998-05-10 22:32 J	-33706966.77	-33706966.56	-33706966.35	0.0089	0.0022		
Venus	-96998-12-22 10:32 J	-33706741.25	-33706741.06	-33706740.84	0.0089	0.0034		
Venus	-96997-08-03 22:47 J	-33706515.71	-33706515.55	-33706515.34	0.0089	0.0045		
Venus	-96996-03-17 11:15 J	-33706290.17	-33706290.03	-33706289.84	0.0089	0.0056		
Venus	-96996-10-28 23:59 J	-33706064.62	-33706064.50	-33706064.34	0.0089	0.0067		
Venus	-96995-06-11 12:27 J	-33705839.06	-33705838.98	-33705838.85	0.0089	0.0078		
Venus	-96994-01-23 01:11 J	-33705613.45	-33705613.45	-33705613.43	0.0089	0.0089		
Moon	-96973-02-18 16:47 J	-33697916.93	-33697916.80	-33697916.67	0.0089	0.0076		
Earth	-96973-02-18 17:59 J	-33697916.86	-33697916.75	-33697916.61	0.0089	0.0078	*	
Earth	-96972-02-20 07:11 J	-33697549.40	-33697549.20	-33697548.95	0.0089	0.0046		
Moon	-96972-02-20 07:25 J	-33697549.40	-33697549.19	-33697548.95	0.0089	0.0049	*	
Earth	-96971-02-22 21:06 J	-33697181.87	-33697181.62	-33697181.35	0.0089	0.0013		
Moon	-96971-02-22 22:32 J	-33697181.81	-33697181.56	-33697181.31	0.0089	0.0010	*	
Moon	-96970-02-25 08:51 J	-33696814.39	-33696814.13	-33696813.85	0.0089	0.0017		
Earth	-96970-02-25 11:01 J	-33696814.29	-33696814.04	-33696813.78	0.0089	0.0020	*	
Earth	-96969-02-28 00:27 J	-33696446.67	-33696446.48	-33696446.25	0.0089	0.0052		

Moon	-96969-02-28 03:35 J	-33696446.53	-33696446.35	-33696446.13	0.0089	0.0056 *
Moon	-96968-03-01 10:32 J	-33696079.13	-33696079.06	-33696078.93	0.0089	0.0082
Earth	-96968-03-01 14:08 J	-33696078.96	-33696078.91	-33696078.81	0.0089	0.0085 *
Mars	-96960-07-26 06:42 J	-33693010.48	-33693010.22	-33693009.91	0.0089	0.0042
Mars	-96958-06-21 10:03 J	-33692315.38	-33692315.08	-33692314.77	0.0089	0.0027
Mercury	-96926-07-08 19:54 J	-33680609.68	-33680609.67	-33680609.62	0.0089	0.0087
Mercury	-96926-10-04 22:47 J	-33680521.60	-33680521.55	-33680521.47	0.0089	0.0082
Mercury	-96925-01-01 01:54 J	-33680433.51	-33680433.42	-33680433.34	0.0089	0.0076
Mercury	-96925-03-29 04:18 J	-33680345.41	-33680345.32	-33680345.21	0.0089	0.0071
Mercury	-96925-06-25 06:56 J	-33680257.31	-33680257.21	-33680257.08	0.0089	0.0066
Mercury	-96925-09-21 09:35 J	-33680169.21	-33680169.10	-33680168.96	0.0089	0.0061
Mercury	-96925-12-18 12:13 J	-33680081.10	-33680080.99	-33680080.84	0.0089	0.0056
Mercury	-96924-03-16 15:20 J	-33679993.00	-33679992.86	-33679992.72	0.0089	0.0050
Mercury	-96924-06-12 17:59 J	-33679904.90	-33679904.75	-33679904.60	0.0089	0.0045
Mercury	-96924-09-08 20:37 J	-33679816.79	-33679816.64	-33679816.48	0.0089	0.0040
Mercury	-96924-12-05 23:15 J	-33679728.68	-33679728.53	-33679728.37	0.0089	0.0035
Mercury	-96923-03-04 01:54 J	-33679640.58	-33679640.42	-33679640.26	0.0089	0.0029
Mercury	-96923-05-31 04:18 J	-33679552.47	-33679552.32	-33679552.15	0.0089	0.0025
Mercury	-96923-08-27 06:56 J	-33679464.37	-33679464.21	-33679464.03	0.0089	0.0020
Mercury	-96923-11-23 09:35 J	-33679376.26	-33679376.10	-33679375.92	0.0089	0.0015
Mercury	-96922-02-19 12:13 J	-33679288.15	-33679287.99	-33679287.82	0.0089	0.0009
Venus	-96922-04-27 17:01 J	-33679220.82	-33679220.79	-33679220.71	0.0089	0.0086
Mercury	-96922-05-18 14:51 J	-33679200.05	-33679199.88	-33679199.71	0.0089	0.0004
Mercury	-96922-08-14 17:30 J	-33679111.94	-33679111.77	-33679111.60	0.0089	0.0001
Mercury	-96922-11-10 19:54 J	-33679023.83	-33679023.67	-33679023.50	0.0089	0.0006
Venus	-96922-12-09 06:42 J	-33678995.31	-33678995.22	-33678995.07	0.0089	0.0075
Mercury	-96921-02-06 22:32 J	-33678935.73	-33678935.56	-33678935.39	0.0088	0.0011
Mercury	-96921-05-05 00:56 J	-33678847.62	-33678847.46	-33678847.29	0.0088	0.0016
Venus	-96921-07-21 20:51 J	-33678769.78	-33678769.63	-33678769.46	0.0088	0.0063
Mercury	-96921-08-01 03:35 J	-33678759.52	-33678759.35	-33678759.19	0.0088	0.0021

Mercury -96921-10-28 05:59 J -33678671.41 -33678671.25 -33678671.09 0.0088 0.0026

Mercury -96920-01-24 08:23 J -33678583.30 -33678583.15 -33678582.99 0.0088 0.0031

Venus -96920-03-04 10:18 J -33678544.23 -33678544.07 -33678543.87 0.0088 0.0052

Mercury -96920-04-22 10:47 J -33678495.20 -33678495.05 -33678494.89 0.0088 0.0036

Mercury -96920-07-19 13:11 J -33678407.09 -33678406.95 -33678406.79 0.0088 0.0040

Mercury -96920-10-15 15:35 J -33678318.98 -33678318.85 -33678318.70 0.0088 0.0045

Venus -96920-10-15 23:59 J -33678318.68 -33678318.50 -33678318.28 0.0088 0.0041

Mercury -96919-01-11 18:13 J -33678230.87 -33678230.74 -33678230.60 0.0088 0.0050

Mercury -96919-04-09 20:23 J -33678142.77 -33678142.65 -33678142.51 0.0088 0.0055

Venus -96919-05-29 13:54 J -33678093.12 -33678092.92 -33678092.70 0.0088 0.0029

Mercury -96919-07-06 22:47 J -33678054.66 -33678054.55 -33678054.42 0.0088 0.0060

Mercury -96919-10-03 01:11 J -33677966.55 -33677966.45 -33677966.33 0.0088 0.0064

Mercury -96919-12-30 03:35 J -33677878.44 -33677878.35 -33677878.24 0.0088 0.0069

Venus -96918-01-10 03:35 J -33677867.57 -33677867.35 -33677867.13 0.0088 0.0017

Mercury -96918-03-28 05:59 J -33677790.33 -33677790.25 -33677790.15 0.0088 0.0074

Mercury -96918-06-24 08:08 J -33677702.22 -33677702.16 -33677702.07 0.0088 0.0079

Venus -96918-08-23 17:15 J -33677642.00 -33677641.78 -33677641.56 0.0088 0.0006

Mercury -96918-09-20 10:47 J -33677614.10 -33677614.05 -33677613.99 0.0088 0.0083

Mercury -96918-12-17 12:56 J -33677525.97 -33677525.96 -33677525.92 0.0088 0.0088

Venus -96917-04-05 06:56 J -33677416.43 -33677416.21 -33677415.99 0.0088 0.0006

Venus -96917-11-16 20:37 J -33677190.86 -33677190.64 -33677190.42 0.0088 0.0017

Venus -96916-06-30 09:49 J -33676965.29 -33676965.09 -33676964.87 0.0088 0.0028

Venus -96915-02-10 23:15 J -33676739.72 -33676739.53 -33676739.32 0.0088 0.0040

Venus -96915-09-24 12:56 J -33676514.14 -33676513.96 -33676513.78 0.0088 0.0051

Venus -96914-05-08 02:08 J -33676288.55 -33676288.41 -33676288.23 0.0088 0.0062

Venus -96914-12-19 15:35 J -33676062.95 -33676062.85 -33676062.71 0.0088 0.0074

Venus -96913-08-01 05:01 J -33675837.34 -33675837.29 -33675837.21 0.0088 0.0085

Jupiter -96913-08-01 22:03 J -33675837.07 -33675836.58 -33675836.03 0.0088 0.0021

Earth -96891-08-29 09:35 J -33667774.25 -33667774.10 -33667773.92 0.0088 0.0067

Moon -96891-08-29 12:27 J -33667774.11 -33667773.98 -33667773.80 0.0088 0.0070 *

Moon -96890-08-31 15:35 J -33667407.07 -33667406.85 -33667406.61 0.0088 0.0035
 Earth -96890-08-31 19:25 J -33667406.92 -33667406.69 -33667406.45 0.0088 0.0037 *
 Earth -96889-09-02 05:01 J -33667039.55 -33667039.29 -33667039.04 0.0088 0.0006
 Moon -96889-09-02 08:08 J -33667039.42 -33667039.16 -33667038.90 0.0088 0.0007 *
 Moon -96888-09-04 11:44 J -33666672.23 -33666672.01 -33666671.76 0.0088 0.0027
 Earth -96888-09-04 14:23 J -33666672.14 -33666671.90 -33666671.65 0.0088 0.0025 *
 Earth -96887-09-06 23:15 J -33666304.70 -33666304.53 -33666304.31 0.0088 0.0056
 Moon -96887-09-07 01:11 J -33666304.64 -33666304.45 -33666304.23 0.0088 0.0054 *
 Earth -96886-09-09 08:37 J -33665937.17 -33665937.14 -33665937.07 0.0088 0.0087
 Moon -96886-09-09 08:51 J -33665937.13 -33665937.13 -33665937.11 0.0088 0.0088 *
 Mars -96878-04-10 12:56 J -33663167.15 -33663166.96 -33663166.74 0.0088 0.0066
 Mars -96876-03-05 00:13 J -33662472.80 -33662472.49 -33662472.18 0.0088 0.0001
 Mars -96874-01-28 13:54 J -33661778.13 -33661777.92 -33661777.70 0.0088 0.0065
 Mercury -96844-07-01 08:23 J -33650666.17 -33650666.15 -33650666.11 0.0089 0.0086
 Mercury -96844-09-27 10:03 J -33650578.12 -33650578.08 -33650578.02 0.0089 0.0082
 Mercury -96844-12-24 11:44 J -33650490.07 -33650490.01 -33650489.93 0.0089 0.0078
 Mercury -96843-03-22 13:25 J -33650402.01 -33650401.94 -33650401.85 0.0089 0.0074
 Mercury -96843-06-18 15:06 J -33650313.94 -33650313.87 -33650313.77 0.0089 0.0070
 Mercury -96843-09-14 17:01 J -33650225.88 -33650225.79 -33650225.69 0.0089 0.0065
 Mercury -96843-12-11 18:42 J -33650137.82 -33650137.72 -33650137.61 0.0089 0.0061
 Mercury -96842-03-09 20:23 J -33650049.75 -33650049.65 -33650049.53 0.0089 0.0057
 Mercury -96842-06-05 22:03 J -33649961.68 -33649961.58 -33649961.45 0.0089 0.0053
 Mercury -96842-09-02 00:13 J -33649873.62 -33649873.49 -33649873.37 0.0089 0.0048
 Mercury -96842-11-29 01:54 J -33649785.55 -33649785.42 -33649785.29 0.0089 0.0044
 Mercury -96841-02-25 03:35 J -33649697.48 -33649697.35 -33649697.21 0.0089 0.0040
 Mercury -96841-05-23 05:30 J -33649609.41 -33649609.27 -33649609.14 0.0089 0.0035
 Mercury -96841-08-19 07:11 J -33649521.33 -33649521.20 -33649521.06 0.0089 0.0031
 Mercury -96841-11-15 08:51 J -33649433.26 -33649433.13 -33649432.98 0.0089 0.0027
 Mercury -96840-02-11 10:47 J -33649345.19 -33649345.05 -33649344.90 0.0089 0.0022
 Mercury -96840-05-10 12:42 J -33649257.12 -33649256.97 -33649256.83 0.0089 0.0018

Mercury -96840-08-06 14:23 J -33649169.04 -33649168.90 -33649168.75 0.0089 0.0014

Mercury -96840-11-02 16:18 J -33649080.97 -33649080.82 -33649080.67 0.0089 0.0009

Venus -96839-01-20 17:15 J -33649001.85 -33649001.78 -33649001.67 0.0089 0.0081

Mercury -96839-01-29 18:13 J -33648992.89 -33648992.74 -33648992.59 0.0089 0.0005

Mercury -96839-04-27 19:54 J -33648904.81 -33648904.67 -33648904.52 0.0089 0.0002

Mercury -96839-07-24 21:49 J -33648816.74 -33648816.59 -33648816.44 0.0089 0.0004

Venus -96839-09-03 05:30 J -33648776.38 -33648776.27 -33648776.11 0.0089 0.0070

Mercury -96839-10-20 23:44 J -33648728.66 -33648728.51 -33648728.36 0.0089 0.0009

Mercury -96838-01-17 01:25 J -33648640.58 -33648640.44 -33648640.28 0.0089 0.0014

Mercury -96838-04-15 03:35 J -33648552.50 -33648552.35 -33648552.21 0.0089 0.0018

Venus -96838-04-16 17:59 J -33648550.90 -33648550.75 -33648550.57 0.0089 0.0059

Mercury -96838-07-12 05:15 J -33648464.42 -33648464.28 -33648464.13 0.0089 0.0023

Mercury -96838-10-08 07:11 J -33648376.34 -33648376.20 -33648376.05 0.0089 0.0027

Venus -96838-11-28 06:13 J -33648325.40 -33648325.24 -33648325.04 0.0089 0.0048

Mercury -96837-01-04 09:06 J -33648288.26 -33648288.12 -33648287.97 0.0089 0.0032

Mercury -96837-04-01 11:01 J -33648200.17 -33648200.04 -33648199.90 0.0089 0.0036

Mercury -96837-06-28 12:56 J -33648112.09 -33648111.96 -33648111.82 0.0089 0.0041

Venus -96837-07-10 18:27 J -33648099.91 -33648099.73 -33648099.51 0.0089 0.0037

Mercury -96837-09-24 14:51 J -33648024.00 -33648023.88 -33648023.74 0.0089 0.0046

Mercury -96837-12-21 16:47 J -33647935.92 -33647935.80 -33647935.67 0.0089 0.0050

Venus -96836-02-21 07:11 J -33647874.40 -33647874.20 -33647873.99 0.0089 0.0025

Mercury -96836-03-19 18:42 J -33647847.83 -33647847.72 -33647847.59 0.0089 0.0055

Mercury -96836-06-15 20:51 J -33647759.74 -33647759.63 -33647759.52 0.0089 0.0059

Mercury -96836-09-11 22:47 J -33647671.65 -33647671.55 -33647671.44 0.0089 0.0064

Venus -96836-10-04 19:39 J -33647648.89 -33647648.68 -33647648.46 0.0089 0.0014

Mercury -96836-12-09 00:27 J -33647583.56 -33647583.48 -33647583.37 0.0089 0.0069

Mercury -96835-03-07 02:51 J -33647495.46 -33647495.38 -33647495.30 0.0089 0.0073

Venus -96835-05-18 08:08 J -33647423.38 -33647423.16 -33647422.94 0.0089 0.0003

Mercury -96835-06-03 04:47 J -33647407.37 -33647407.30 -33647407.22 0.0089 0.0078

Mercury -96835-08-30 06:27 J -33647319.27 -33647319.23 -33647319.16 0.0089 0.0083

Mercury -96835-11-26 08:23 J -33647231.15 -33647231.15 -33647231.10 0.0089 0.0088

Venus -96835-12-29 20:23 J -33647197.86 -33647197.65 -33647197.43 0.0089 0.0009

Venus -96834-08-12 08:37 J -33646972.34 -33646972.14 -33646971.92 0.0089 0.0020

Venus -96833-03-24 21:06 J -33646746.81 -33646746.62 -33646746.40 0.0089 0.0031

Venus -96833-11-05 09:49 J -33646521.27 -33646521.09 -33646520.89 0.0089 0.0042

Venus -96832-06-18 22:18 J -33646295.74 -33646295.57 -33646295.39 0.0089 0.0053

Venus -96831-01-30 10:47 J -33646070.19 -33646070.05 -33646069.90 0.0089 0.0064

Venus -96831-09-12 22:47 J -33645844.63 -33645844.55 -33645844.41 0.0089 0.0076

Venus -96830-04-26 11:30 J -33645619.04 -33645619.02 -33645618.95 0.0089 0.0087

Earth -96808-02-19 13:11 J -33637649.12 -33637648.95 -33637648.75 0.0089 0.0062

Moon -96808-02-19 14:51 J -33637649.05 -33637648.88 -33637648.67 0.0089 0.0059 *

Moon -96807-02-21 23:59 J -33637281.75 -33637281.50 -33637281.25 0.0089 0.0032

Earth -96807-02-22 02:51 J -33637281.61 -33637281.38 -33637281.12 0.0089 0.0030 *

Earth -96806-02-24 16:47 J -33636914.06 -33636913.80 -33636913.54 0.0089 0.0003

Moon -96806-02-24 19:54 J -33636913.92 -33636913.67 -33636913.41 0.0089 0.0006 *

Moon -96805-02-27 02:23 J -33636546.63 -33636546.40 -33636546.14 0.0089 0.0032

Earth -96805-02-27 05:59 J -33636546.47 -33636546.25 -33636545.99 0.0089 0.0036 *

Earth -96804-02-28 19:54 J -33636178.82 -33636178.67 -33636178.49 0.0089 0.0068

Moon -96804-02-28 23:01 J -33636178.67 -33636178.54 -33636178.36 0.0089 0.0072 *

Saturn -96798-02-02 22:18 J -33634014.18 -33634013.57 -33634012.86 0.0089 0.0022

Mars -96796-03-09 11:44 J -33633248.15 -33633248.01 -33633247.79 0.0089 0.0074

Mars -96794-02-02 18:42 J -33632553.04 -33632552.72 -33632552.40 0.0089 0.0004

Mars -96793-12-28 21:06 J -33631857.82 -33631857.62 -33631857.39 0.0089 0.0065

Mercury -96761-04-03 18:13 J -33620438.76 -33620438.74 -33620438.68 0.0089 0.0086

Mercury -96761-06-30 21:35 J -33620350.68 -33620350.60 -33620350.53 0.0089 0.0080

Mercury -96761-09-26 23:59 J -33620262.58 -33620262.50 -33620262.40 0.0089 0.0075

Mercury -96761-12-24 02:37 J -33620174.48 -33620174.39 -33620174.27 0.0089 0.0070

Mercury -96760-03-22 05:15 J -33620086.38 -33620086.28 -33620086.14 0.0089 0.0065

Mercury -96760-06-18 07:54 J -33619998.28 -33619998.17 -33619998.02 0.0089 0.0060

Mercury -96760-09-14 11:01 J -33619910.17 -33619910.04 -33619909.90 0.0089 0.0054

Mercury -96760-12-11 13:39 J -33619822.07 -33619821.93 -33619821.78 0.0088 0.0049

Mercury -96759-03-09 16:18 J -33619733.96 -33619733.82 -33619733.66 0.0088 0.0044

Mercury -96759-06-05 18:56 J -33619645.86 -33619645.71 -33619645.55 0.0088 0.0039

Mercury -96759-09-01 21:35 J -33619557.75 -33619557.60 -33619557.43 0.0088 0.0033

Mercury -96759-11-29 00:13 J -33619469.64 -33619469.49 -33619469.32 0.0088 0.0028

Mercury -96758-02-25 03:06 J -33619381.54 -33619381.37 -33619381.21 0.0088 0.0023

Mercury -96758-05-24 05:44 J -33619293.43 -33619293.26 -33619293.10 0.0088 0.0018

Mercury -96758-08-20 08:23 J -33619205.32 -33619205.15 -33619204.99 0.0088 0.0013

Mercury -96758-11-16 10:47 J -33619117.21 -33619117.05 -33619116.88 0.0088 0.0008

Mercury -96757-02-12 13:25 J -33619029.11 -33619028.94 -33619028.77 0.0088 0.0003

Venus -96757-03-11 15:35 J -33619000.94 -33619000.85 -33619000.73 0.0088 0.0078

Mercury -96757-05-10 16:03 J -33618941.00 -33618940.83 -33618940.66 0.0088 0.0002

Mercury -96757-08-06 18:27 J -33618852.89 -33618852.73 -33618852.56 0.0088 0.0008

Venus -96757-10-23 05:15 J -33618775.40 -33618775.28 -33618775.11 0.0088 0.0067

Mercury -96757-11-02 21:06 J -33618764.79 -33618764.62 -33618764.45 0.0088 0.0012

Mercury -96756-01-29 23:30 J -33618676.68 -33618676.52 -33618676.35 0.0088 0.0018

Mercury -96756-04-28 02:08 J -33618588.57 -33618588.41 -33618588.25 0.0088 0.0022

Venus -96756-06-05 19:25 J -33618549.86 -33618549.69 -33618549.51 0.0088 0.0055

Mercury -96756-07-25 04:32 J -33618500.46 -33618500.31 -33618500.15 0.0088 0.0027

Mercury -96756-10-21 06:56 J -33618412.36 -33618412.21 -33618412.05 0.0088 0.0032

Venus -96755-01-17 08:51 J -33618324.31 -33618324.13 -33618323.92 0.0088 0.0044

Mercury -96755-01-17 09:35 J -33618324.25 -33618324.10 -33618323.95 0.0088 0.0037 *

Mercury -96755-04-15 11:59 J -33618236.14 -33618236.00 -33618235.85 0.0088 0.0042

Mercury -96755-07-12 14:23 J -33618148.03 -33618147.90 -33618147.75 0.0088 0.0047

Venus -96755-08-30 22:47 J -33618098.75 -33618098.55 -33618098.34 0.0088 0.0032

Mercury -96755-10-08 16:47 J -33618059.93 -33618059.80 -33618059.66 0.0088 0.0052

Mercury -96754-01-04 19:11 J -33617971.82 -33617971.70 -33617971.56 0.0088 0.0056

Mercury -96754-04-02 21:49 J -33617883.71 -33617883.59 -33617883.47 0.0088 0.0061

Venus -96754-04-13 12:27 J -33617873.19 -33617872.98 -33617872.75 0.0088 0.0021

Mercury -96754-06-29 23:59 J -33617795.60 -33617795.50 -33617795.38 0.0088 0.0066

Mercury -96754-09-26 02:23 J -33617707.49 -33617707.40 -33617707.29 0.0088 0.0071

Venus -96754-11-25 02:23 J -33617647.63 -33617647.40 -33617647.18 0.0088 0.0009

Mercury -96754-12-23 04:32 J -33617619.38 -33617619.31 -33617619.21 0.0088 0.0076

Mercury -96753-03-20 07:11 J -33617531.26 -33617531.20 -33617531.13 0.0088 0.0080

Mercury -96753-06-16 09:20 J -33617443.14 -33617443.11 -33617443.05 0.0088 0.0085

Venus -96753-07-07 15:49 J -33617422.06 -33617421.84 -33617421.61 0.0088 0.0003

Venus -96752-02-18 05:15 J -33617196.50 -33617196.28 -33617196.05 0.0088 0.0014

Venus -96752-10-01 18:42 J -33616970.93 -33616970.72 -33616970.50 0.0088 0.0026

Venus -96751-05-15 08:23 J -33616745.35 -33616745.15 -33616744.94 0.0088 0.0037

Venus -96751-12-26 21:35 J -33616519.77 -33616519.60 -33616519.40 0.0088 0.0049

Venus -96750-08-09 11:01 J -33616294.19 -33616294.04 -33616293.86 0.0088 0.0060

Venus -96749-03-22 00:42 J -33616068.59 -33616068.47 -33616068.33 0.0088 0.0071

Venus -96749-11-02 14:23 J -33615842.98 -33615842.90 -33615842.82 0.0088 0.0082

Moon -96727-08-28 14:51 J -33607873.89 -33607873.88 -33607873.83 0.0088 0.0088

Earth -96727-08-28 17:44 J -33607873.81 -33607873.76 -33607873.64 0.0088 0.0084

Earth -96726-08-31 03:49 J -33607506.52 -33607506.34 -33607506.12 0.0088 0.0053

Moon -96726-08-31 06:56 J -33607506.40 -33607506.21 -33607505.97 0.0088 0.0049 *

Moon -96725-09-01 11:59 J -33607139.23 -33607139.00 -33607138.76 0.0088 0.0026

Earth -96725-09-01 13:54 J -33607139.16 -33607138.92 -33607138.66 0.0088 0.0021 *

Earth -96724-09-03 23:30 J -33606771.77 -33606771.52 -33606771.26 0.0088 0.0010

Moon -96724-09-04 00:13 J -33606771.75 -33606771.49 -33606771.23 0.0088 0.0014 *

Earth -96723-09-06 08:37 J -33606404.35 -33606404.14 -33606403.90 0.0088 0.0041

Moon -96723-09-06 08:51 J -33606404.34 -33606404.13 -33606403.90 0.0088 0.0037 *

Moon -96722-09-08 16:03 J -33606036.94 -33606036.83 -33606036.67 0.0088 0.0076

Earth -96722-09-08 17:44 J -33606036.88 -33606036.76 -33606036.58 0.0088 0.0071 *

Mars -96713-10-17 17:59 J -33602710.02 -33602709.75 -33602709.44 0.0088 0.0031

Mars -96711-09-12 05:01 J -33602015.56 -33602015.29 -33602014.99 0.0088 0.0036

Mercury -96680-12-30 05:59 J -33590583.25 -33590583.25 -33590583.24 0.0089 0.0089

Mercury -96679-03-28 07:25 J -33590495.21 -33590495.19 -33590495.13 0.0089 0.0085

Mercury -96679-06-24 09:06 J -33590407.16 -33590407.12 -33590407.04 0.0089 0.0081

Mercury -96679-09-20 11:15 J -33590319.10 -33590319.03 -33590318.96 0.0089 0.0076

Mercury -96679-12-17 12:42 J -33590231.04 -33590230.97 -33590230.88 0.0089 0.0072

Mercury -96678-03-15 14:23 J -33590142.98 -33590142.90 -33590142.80 0.0089 0.0068

Mercury -96678-06-11 16:03 J -33590054.92 -33590054.83 -33590054.72 0.0089 0.0064

Mercury -96678-09-07 17:44 J -33589966.85 -33589966.76 -33589966.64 0.0089 0.0060

Mercury -96678-12-04 19:54 J -33589878.79 -33589878.67 -33589878.56 0.0089 0.0055

Mercury -96677-03-01 21:20 J -33589790.72 -33589790.61 -33589790.48 0.0089 0.0051

Mercury -96677-05-28 23:15 J -33589702.65 -33589702.53 -33589702.40 0.0089 0.0047

Mercury -96677-08-25 00:56 J -33589614.58 -33589614.46 -33589614.33 0.0089 0.0042

Mercury -96677-11-21 02:51 J -33589526.51 -33589526.38 -33589526.25 0.0089 0.0038

Mercury -96676-02-17 04:32 J -33589438.44 -33589438.31 -33589438.17 0.0089 0.0034

Mercury -96676-05-16 06:13 J -33589350.37 -33589350.24 -33589350.09 0.0089 0.0030

Mercury -96676-08-12 08:08 J -33589262.30 -33589262.16 -33589262.02 0.0089 0.0025

Mercury -96676-11-08 09:49 J -33589174.23 -33589174.09 -33589173.94 0.0089 0.0021

Mercury -96675-02-04 11:44 J -33589086.15 -33589086.01 -33589085.86 0.0089 0.0016

Venus -96675-04-24 03:49 J -33589007.39 -33589007.34 -33589007.25 0.0089 0.0084

Mercury -96675-05-03 13:39 J -33588998.08 -33588997.93 -33588997.79 0.0089 0.0012

Mercury -96675-07-30 15:20 J -33588910.00 -33588909.86 -33588909.71 0.0089 0.0008

Mercury -96675-10-26 17:15 J -33588821.93 -33588821.78 -33588821.63 0.0089 0.0003

Venus -96675-12-05 16:03 J -33588781.93 -33588781.83 -33588781.69 0.0089 0.0073

Mercury -96674-01-22 19:11 J -33588733.85 -33588733.70 -33588733.56 0.0089 0.0003

Mercury -96674-04-20 20:51 J -33588645.78 -33588645.63 -33588645.48 0.0089 0.0006

Mercury -96674-07-17 22:47 J -33588557.70 -33588557.55 -33588557.40 0.0089 0.0010

Venus -96674-07-19 04:18 J -33588556.46 -33588556.32 -33588556.15 0.0089 0.0062

Mercury -96674-10-14 00:42 J -33588469.62 -33588469.47 -33588469.32 0.0089 0.0015

Mercury -96673-01-10 02:23 J -33588381.54 -33588381.40 -33588381.25 0.0089 0.0020

Venus -96673-02-29 16:32 J -33588330.98 -33588330.81 -33588330.62 0.0089 0.0051

Mercury -96673-04-07 04:18 J -33588293.46 -33588293.32 -33588293.17 0.0089 0.0024

Mercury -96673-07-04 06:13 J -33588205.38 -33588205.24 -33588205.09 0.0089 0.0029

Mercury -96673-09-30 08:08 J -33588117.30 -33588117.16 -33588117.02 0.0089 0.0033

Venus -96673-10-12 04:47 J -33588105.48 -33588105.30 -33588105.09 0.0089 0.0040
 Mercury -96673-12-27 09:49 J -33588029.21 -33588029.09 -33588028.94 0.0089 0.0038
 Mercury -96672-03-25 11:59 J -33587941.13 -33587941.00 -33587940.86 0.0089 0.0042
 Venus -96672-05-25 17:15 J -33587879.98 -33587879.78 -33587879.57 0.0089 0.0029
 Mercury -96672-06-21 13:54 J -33587853.04 -33587852.92 -33587852.79 0.0089 0.0047
 Mercury -96672-09-17 15:35 J -33587764.96 -33587764.85 -33587764.71 0.0089 0.0052
 Mercury -96672-12-14 17:44 J -33587676.87 -33587676.76 -33587676.64 0.0089 0.0056
 Venus -96671-01-06 05:44 J -33587654.47 -33587654.26 -33587654.05 0.0089 0.0017
 Mercury -96671-03-12 19:39 J -33587588.78 -33587588.68 -33587588.56 0.0089 0.0061
 Mercury -96671-06-08 21:49 J -33587500.69 -33587500.59 -33587500.49 0.0089 0.0065
 Venus -96671-08-19 17:59 J -33587428.96 -33587428.75 -33587428.53 0.0089 0.0006
 Mercury -96671-09-04 23:30 J -33587412.60 -33587412.52 -33587412.41 0.0089 0.0070
 Mercury -96671-12-02 01:25 J -33587324.51 -33587324.44 -33587324.34 0.0089 0.0075
 Mercury -96670-02-28 03:49 J -33587236.41 -33587236.34 -33587236.27 0.0089 0.0079
 Venus -96670-04-02 06:27 J -33587203.44 -33587203.23 -33587203.01 0.0089 0.0005
 Mercury -96670-05-27 05:30 J -33587148.30 -33587148.27 -33587148.21 0.0089 0.0084
 Mercury -96670-08-23 07:39 J -33587060.18 -33587060.18 -33587060.17 0.0089 0.0089
 Venus -96670-11-13 18:56 J -33586977.92 -33586977.71 -33586977.49 0.0089 0.0017
 Venus -96669-06-26 07:11 J -33586752.40 -33586752.20 -33586751.98 0.0089 0.0028
 Venus -96668-02-06 19:39 J -33586526.87 -33586526.68 -33586526.48 0.0089 0.0039
 Venus -96668-09-20 07:54 J -33586301.33 -33586301.17 -33586300.97 0.0089 0.0051
 Venus -96667-05-03 20:23 J -33586075.79 -33586075.65 -33586075.48 0.0089 0.0062
 Venus -96667-12-15 08:51 J -33585850.23 -33585850.13 -33585849.99 0.0089 0.0073
 Venus -96666-07-28 21:35 J -33585624.66 -33585624.60 -33585624.52 0.0089 0.0084
 Moon -96644-02-18 15:49 J -33577748.96 -33577748.84 -33577748.68 0.0089 0.0075
 Earth -96644-02-18 18:42 J -33577748.81 -33577748.72 -33577748.57 0.0089 0.0079 *
 Earth -96643-02-21 08:08 J -33577381.36 -33577381.16 -33577380.92 0.0089 0.0047
 Moon -96643-02-21 12:13 J -33577381.20 -33577380.99 -33577380.77 0.0089 0.0050 *
 Moon -96642-02-23 18:42 J -33577013.98 -33577013.72 -33577013.46 0.0089 0.0010
 Earth -96642-02-23 22:03 J -33577013.84 -33577013.58 -33577013.32 0.0089 0.0014 *

Earth -96641-02-26 11:15 J -33576646.27 -33576646.03 -33576645.76 0.0089 0.0019
 Moon -96641-02-26 14:37 J -33576646.15 -33576645.89 -33576645.62 0.0089 0.0016 *
 Moon -96640-02-27 23:01 J -33576278.74 -33576278.54 -33576278.34 0.0089 0.0054
 Earth -96640-02-28 00:56 J -33576278.66 -33576278.46 -33576278.23 0.0089 0.0051 *
 Earth -96639-03-02 14:23 J -33575910.95 -33575910.90 -33575910.78 0.0089 0.0085
 Moon -96639-03-02 15:49 J -33575910.94 -33575910.84 -33575910.71 0.0089 0.0080 *
 Mars -96631-09-16 22:18 J -33572790.87 -33572790.57 -33572790.28 0.0089 0.0036
 Mars -96629-08-12 02:51 J -33572095.65 -33572095.38 -33572095.06 0.0089 0.0034
 Mercury -96597-12-29 16:18 J -33560267.85 -33560267.82 -33560267.75 0.0089 0.0085
 Mercury -96596-03-27 19:11 J -33560179.76 -33560179.70 -33560179.61 0.0089 0.0080
 Mercury -96596-06-23 22:18 J -33560091.66 -33560091.57 -33560091.48 0.0089 0.0074
 Mercury -96596-09-20 00:42 J -33560003.56 -33560003.47 -33560003.35 0.0089 0.0069
 Mercury -96596-12-17 03:20 J -33559915.46 -33559915.36 -33559915.22 0.0089 0.0064
 Mercury -96595-03-15 06:13 J -33559827.36 -33559827.24 -33559827.10 0.0089 0.0058
 Mercury -96595-06-11 08:51 J -33559739.25 -33559739.13 -33559738.98 0.0089 0.0053
 Mercury -96595-09-07 11:44 J -33559651.15 -33559651.01 -33559650.86 0.0089 0.0048
 Mercury -96595-12-04 14:23 J -33559563.04 -33559562.90 -33559562.74 0.0089 0.0043
 Mercury -96594-03-02 17:01 J -33559474.94 -33559474.79 -33559474.63 0.0089 0.0038
 Mercury -96594-05-29 19:39 J -33559386.83 -33559386.68 -33559386.51 0.0088 0.0033
 Mercury -96594-08-25 22:18 J -33559298.72 -33559298.57 -33559298.40 0.0088 0.0028
 Mercury -96594-11-22 00:56 J -33559210.62 -33559210.46 -33559210.29 0.0088 0.0023
 Mercury -96593-02-18 03:49 J -33559122.51 -33559122.34 -33559122.17 0.0088 0.0017
 Mercury -96593-05-16 06:27 J -33559034.40 -33559034.23 -33559034.06 0.0088 0.0012
 Venus -96593-06-12 23:30 J -33559006.60 -33559006.52 -33559006.44 0.0088 0.0082
 Mercury -96593-08-12 09:06 J -33558946.29 -33558946.12 -33558945.95 0.0088 0.0007
 Mercury -96593-11-08 11:30 J -33558858.18 -33558858.02 -33558857.85 0.0088 0.0003
 Venus -96592-01-24 12:56 J -33558781.08 -33558780.96 -33558780.81 0.0088 0.0071
 Mercury -96592-02-04 14:08 J -33558770.08 -33558769.91 -33558769.74 0.0088 0.0003
 Mercury -96592-05-03 16:47 J -33558681.97 -33558681.80 -33558681.63 0.0088 0.0008
 Mercury -96592-07-30 19:11 J -33558593.86 -33558593.70 -33558593.53 0.0088 0.0014

Venus -96592-09-07 03:06 J -33558555.54 -33558555.37 -33558555.20 0.0088 0.0059
 Mercury -96592-10-26 21:49 J -33558505.75 -33558505.59 -33558505.42 0.0088 0.0018
 Mercury -96591-01-23 00:13 J -33558417.65 -33558417.49 -33558417.32 0.0088 0.0023
 Venus -96591-04-20 16:47 J -33558329.98 -33558329.80 -33558329.60 0.0088 0.0048
 Mercury -96591-04-21 02:37 J -33558329.54 -33558329.39 -33558329.22 0.0088 0.0029
 Mercury -96591-07-18 05:15 J -33558241.43 -33558241.28 -33558241.12 0.0088 0.0033
 Mercury -96591-10-14 07:54 J -33558153.32 -33558153.17 -33558153.02 0.0088 0.0038
 Venus -96591-12-02 06:42 J -33558104.42 -33558104.22 -33558104.01 0.0088 0.0036
 Mercury -96590-01-10 10:18 J -33558065.21 -33558065.07 -33558064.92 0.0088 0.0043
 Mercury -96590-04-08 12:42 J -33557977.10 -33557976.97 -33557976.83 0.0088 0.0048
 Mercury -96590-07-05 15:06 J -33557889.00 -33557888.87 -33557888.73 0.0088 0.0053
 Venus -96590-07-15 20:08 J -33557878.86 -33557878.66 -33557878.43 0.0088 0.0025
 Mercury -96590-10-01 17:30 J -33557800.89 -33557800.77 -33557800.64 0.0088 0.0057
 Mercury -96590-12-28 19:39 J -33557712.78 -33557712.68 -33557712.54 0.0088 0.0063
 Venus -96589-02-26 10:03 J -33557653.30 -33557653.08 -33557652.85 0.0088 0.0013
 Mercury -96589-03-25 22:32 J -33557624.67 -33557624.56 -33557624.45 0.0088 0.0067
 Mercury -96589-06-22 00:42 J -33557536.56 -33557536.47 -33557536.36 0.0088 0.0072
 Mercury -96589-09-18 02:51 J -33557448.44 -33557448.38 -33557448.28 0.0088 0.0077
 Venus -96589-10-08 23:44 J -33557427.73 -33557427.51 -33557427.28 0.0088 0.0001
 Mercury -96589-12-15 05:30 J -33557360.32 -33557360.27 -33557360.20 0.0088 0.0081
 Mercury -96588-03-13 07:39 J -33557272.20 -33557272.18 -33557272.12 0.0088 0.0086
 Venus -96588-05-22 13:25 J -33557202.16 -33557201.94 -33557201.72 0.0088 0.0010
 Venus -96587-01-03 02:37 J -33556976.59 -33556976.39 -33556976.16 0.0088 0.0023
 Venus -96587-08-16 16:18 J -33556751.02 -33556750.82 -33556750.61 0.0088 0.0033
 Venus -96586-03-30 05:59 J -33556525.44 -33556525.25 -33556525.05 0.0088 0.0045
 Venus -96586-11-10 19:11 J -33556299.85 -33556299.70 -33556299.51 0.0088 0.0057
 Venus -96585-06-23 08:37 J -33556074.27 -33556074.14 -33556073.98 0.0088 0.0068
 Venus -96584-02-03 22:18 J -33555848.66 -33555848.57 -33555848.47 0.0088 0.0079
 Moon -96562-08-30 10:18 J -33547606.20 -33547606.07 -33547605.90 0.0088 0.0070
 Earth -96562-08-30 11:44 J -33547606.15 -33547606.01 -33547605.83 0.0088 0.0068 *

Earth	-96561-08-31 21:35 J	-33547238.82	-33547238.60	-33547238.36	0.0088	0.0038
Moon	-96561-08-31 22:03 J	-33547238.81	-33547238.58	-33547238.32	0.0088	0.0036 *
Earth	-96560-09-03 07:25 J	-33546871.44	-33546871.19	-33546870.93	0.0088	0.0007
Moon	-96560-09-03 08:51 J	-33546871.38	-33546871.13	-33546870.89	0.0088	0.0008 *
Moon	-96559-09-05 14:37 J	-33546504.14	-33546503.89	-33546503.64	0.0088	0.0025
Earth	-96559-09-05 16:32 J	-33546504.04	-33546503.81	-33546503.55	0.0088	0.0025 *
Earth	-96558-09-08 02:08 J	-33546136.60	-33546136.41	-33546136.21	0.0088	0.0055
Moon	-96558-09-08 04:47 J	-33546136.48	-33546136.30	-33546136.08	0.0088	0.0053 *
Moon	-96557-09-09 07:11 J	-33545769.22	-33545769.20	-33545769.11	0.0088	0.0087
Earth	-96557-09-09 11:01 J	-33545769.08	-33545769.04	-33545768.95	0.0088	0.0086
Mars	-96549-06-01 10:18 J	-33542947.26	-33542947.07	-33542946.81	0.0088	0.0061
Mars	-96547-04-26 20:23 J	-33542252.95	-33542252.65	-33542252.34	0.0088	0.0005
Mars	-96545-03-21 06:56 J	-33541558.36	-33541558.21	-33541558.00	0.0088	0.0072
Mercury	-96515-09-26 04:47 J	-33530412.31	-33530412.30	-33530412.27	0.0089	0.0088
Mercury	-96515-12-23 06:27 J	-33530324.26	-33530324.23	-33530324.17	0.0089	0.0084
Mercury	-96514-03-21 08:08 J	-33530236.21	-33530236.16	-33530236.08	0.0089	0.0080
Mercury	-96514-06-17 10:03 J	-33530148.15	-33530148.08	-33530148.00	0.0089	0.0075
Mercury	-96514-09-13 11:44 J	-33530060.09	-33530060.01	-33530059.92	0.0089	0.0071
Mercury	-96514-12-10 13:25 J	-33529972.03	-33529971.94	-33529971.84	0.0089	0.0067
Mercury	-96513-03-07 15:06 J	-33529883.96	-33529883.87	-33529883.76	0.0089	0.0063
Mercury	-96513-06-03 16:47 J	-33529795.90	-33529795.80	-33529795.68	0.0089	0.0059
Mercury	-96513-08-30 18:42 J	-33529707.83	-33529707.72	-33529707.60	0.0089	0.0054
Mercury	-96513-11-26 20:23 J	-33529619.76	-33529619.65	-33529619.52	0.0089	0.0050
Mercury	-96512-02-22 22:03 J	-33529531.69	-33529531.58	-33529531.45	0.0089	0.0046
Mercury	-96512-05-21 23:44 J	-33529443.63	-33529443.51	-33529443.37	0.0089	0.0042
Mercury	-96512-08-18 01:39 J	-33529355.56	-33529355.43	-33529355.29	0.0089	0.0037
Mercury	-96512-11-14 03:20 J	-33529267.49	-33529267.36	-33529267.21	0.0089	0.0033
Mercury	-96511-02-10 05:15 J	-33529179.42	-33529179.28	-33529179.14	0.0089	0.0028
Mercury	-96511-05-09 07:11 J	-33529091.34	-33529091.20	-33529091.06	0.0089	0.0024
Venus	-96511-07-26 13:39 J	-33529012.94	-33529012.93	-33529012.88	0.0089	0.0088

Mercury -96511-08-05 08:51 J -33529003.27 -33529003.13 -33529002.98 0.0089 0.0020

Mercury -96511-11-01 10:47 J -33528915.20 -33528915.05 -33528914.91 0.0089 0.0015

Mercury -96510-01-28 12:27 J -33528827.12 -33528826.98 -33528826.83 0.0089 0.0011

Venus -96510-03-09 01:39 J -33528787.51 -33528787.43 -33528787.30 0.0089 0.0077

Mercury -96510-04-26 14:23 J -33528739.05 -33528738.90 -33528738.75 0.0089 0.0006

Mercury -96510-07-23 16:18 J -33528650.97 -33528650.82 -33528650.68 0.0089 0.0003

Mercury -96510-10-19 17:59 J -33528562.90 -33528562.75 -33528562.60 0.0089 0.0003

Venus -96510-10-20 14:08 J -33528562.04 -33528561.91 -33528561.75 0.0089 0.0066

Mercury -96509-01-15 19:54 J -33528474.82 -33528474.67 -33528474.52 0.0089 0.0007

Mercury -96509-04-12 21:35 J -33528386.74 -33528386.60 -33528386.45 0.0089 0.0012

Venus -96509-06-02 02:08 J -33528336.56 -33528336.41 -33528336.22 0.0089 0.0055

Mercury -96509-07-09 23:30 J -33528298.66 -33528298.52 -33528298.37 0.0089 0.0016

Mercury -96509-10-06 01:25 J -33528210.58 -33528210.44 -33528210.29 0.0089 0.0020

Mercury -96508-01-02 03:20 J -33528122.50 -33528122.36 -33528122.22 0.0089 0.0025

Venus -96508-01-13 14:51 J -33528111.07 -33528110.88 -33528110.69 0.0089 0.0043

Mercury -96508-03-31 05:01 J -33528034.42 -33528034.29 -33528034.14 0.0089 0.0030

Mercury -96508-06-27 06:56 J -33527946.34 -33527946.21 -33527946.07 0.0089 0.0034

Venus -96508-08-27 03:06 J -33527885.57 -33527885.37 -33527885.17 0.0089 0.0032

Mercury -96508-09-23 08:51 J -33527858.26 -33527858.13 -33527857.99 0.0089 0.0039

Mercury -96508-12-20 10:47 J -33527770.18 -33527770.05 -33527769.91 0.0089 0.0043

Mercury -96507-03-18 12:42 J -33527682.09 -33527681.97 -33527681.84 0.0089 0.0048

Venus -96507-04-09 15:20 J -33527660.07 -33527659.86 -33527659.65 0.0089 0.0021

Mercury -96507-06-14 14:23 J -33527594.01 -33527593.90 -33527593.76 0.0089 0.0053

Mercury -96507-09-10 16:32 J -33527505.92 -33527505.81 -33527505.69 0.0089 0.0057

Venus -96507-11-21 03:35 J -33527434.56 -33527434.35 -33527434.13 0.0089 0.0010

Mercury -96507-12-07 18:27 J -33527417.83 -33527417.73 -33527417.61 0.0089 0.0062

Mercury -96506-03-05 20:37 J -33527329.74 -33527329.64 -33527329.54 0.0089 0.0066

Mercury -96506-06-01 22:18 J -33527241.65 -33527241.57 -33527241.47 0.0089 0.0071

Venus -96506-07-04 16:03 J -33527209.04 -33527208.83 -33527208.61 0.0089 0.0002

Mercury -96506-08-29 00:13 J -33527153.55 -33527153.49 -33527153.40 0.0089 0.0076

Mercury -96506-11-25 02:37 J -33527065.46 -33527065.39 -33527065.33 0.0089 0.0080
 Venus -96505-02-15 04:32 J -33526983.53 -33526983.31 -33526983.10 0.0089 0.0013
 Mercury -96505-02-21 04:18 J -33526977.35 -33526977.32 -33526977.27 0.0089 0.0085
 Venus -96505-09-27 16:47 J -33526758.00 -33526757.80 -33526757.58 0.0089 0.0025
 Venus -96504-05-11 05:15 J -33526532.47 -33526532.28 -33526532.07 0.0089 0.0036
 Venus -96504-12-22 17:59 J -33526306.94 -33526306.75 -33526306.57 0.0089 0.0047
 Venus -96503-08-05 05:59 J -33526081.40 -33526081.25 -33526081.07 0.0089 0.0059
 Venus -96502-03-18 18:27 J -33525855.85 -33525855.73 -33525855.58 0.0089 0.0070
 Venus -96502-10-30 07:25 J -33525630.27 -33525630.19 -33525630.10 0.0089 0.0081
 Moon -96479-02-20 09:20 J -33517481.28 -33517481.11 -33517480.91 0.0089 0.0061
 Earth -96479-02-20 12:27 J -33517481.14 -33517480.98 -33517480.78 0.0089 0.0064 *
 Earth -96478-02-23 01:54 J -33517113.65 -33517113.42 -33517113.16 0.0089 0.0032
 Moon -96478-02-23 04:32 J -33517113.55 -33517113.31 -33517113.05 0.0089 0.0034 *
 Moon -96477-02-25 14:37 J -33516746.15 -33516745.89 -33516745.64 0.0089 0.0003
 Earth -96477-02-25 15:35 J -33516746.11 -33516745.85 -33516745.58 0.0089 0.0002 *
 Earth -96476-02-27 05:15 J -33516378.52 -33516378.28 -33516378.03 0.0089 0.0033
 Moon -96476-02-27 05:44 J -33516378.51 -33516378.26 -33516377.99 0.0089 0.0030 *
 Earth -96475-03-01 18:42 J -33516010.88 -33516010.72 -33516010.53 0.0089 0.0066
 Moon -96475-03-01 19:39 J -33516010.82 -33516010.68 -33516010.50 0.0089 0.0069 *
 Mars -96467-04-30 22:32 J -33513028.74 -33513028.56 -33513028.34 0.0089 0.0070
 Mars -96465-03-26 06:13 J -33512333.56 -33512333.24 -33512332.92 0.0089 0.0001
 Mars -96463-02-19 10:32 J -33511638.22 -33511638.06 -33511637.84 0.0089 0.0071
 Mercury -96432-09-25 14:37 J -33500096.94 -33500096.89 -33500096.84 0.0089 0.0084
 Mercury -96432-12-22 17:01 J -33500008.85 -33500008.79 -33500008.70 0.0089 0.0079
 Mercury -96431-03-20 19:54 J -33499920.75 -33499920.67 -33499920.56 0.0089 0.0074
 Mercury -96431-06-16 22:32 J -33499832.65 -33499832.56 -33499832.44 0.0089 0.0069
 Mercury -96431-09-13 01:39 J -33499744.55 -33499744.43 -33499744.31 0.0089 0.0063
 Mercury -96431-12-10 04:03 J -33499656.45 -33499656.33 -33499656.19 0.0089 0.0058
 Mercury -96430-03-08 06:56 J -33499568.34 -33499568.21 -33499568.07 0.0089 0.0053
 Mercury -96430-06-04 09:35 J -33499480.24 -33499480.10 -33499479.95 0.0089 0.0047

Mercury -96430-08-31 12:13 J -33499392.13 -33499391.99 -33499391.83 0.0089 0.0042

Mercury -96430-11-27 15:06 J -33499304.02 -33499303.87 -33499303.71 0.0089 0.0037

Mercury -96429-02-23 17:44 J -33499215.92 -33499215.76 -33499215.60 0.0088 0.0032

Mercury -96429-05-21 20:23 J -33499127.81 -33499127.65 -33499127.48 0.0088 0.0027

Mercury -96429-08-17 23:01 J -33499039.70 -33499039.54 -33499039.37 0.0088 0.0022

Venus -96429-09-14 06:13 J -33499012.27 -33499012.24 -33499012.18 0.0088 0.0087

Mercury -96429-11-14 01:39 J -33498951.59 -33498951.43 -33498951.26 0.0088 0.0016

Mercury -96428-02-10 04:18 J -33498863.48 -33498863.32 -33498863.15 0.0088 0.0011

Venus -96428-04-27 20:23 J -33498786.76 -33498786.65 -33498786.52 0.0088 0.0075

Mercury -96428-05-09 06:56 J -33498775.38 -33498775.21 -33498775.04 0.0088 0.0006

Mercury -96428-08-05 09:35 J -33498687.27 -33498687.10 -33498686.93 0.0088 0.0001

Mercury -96428-11-01 12:13 J -33498599.16 -33498598.99 -33498598.82 0.0088 0.0004

Venus -96428-12-09 10:03 J -33498561.22 -33498561.08 -33498560.91 0.0088 0.0064

Mercury -96427-01-28 14:37 J -33498511.05 -33498510.89 -33498510.72 0.0088 0.0010

Mercury -96427-04-26 17:15 J -33498422.94 -33498422.78 -33498422.61 0.0088 0.0014

Venus -96427-07-22 23:59 J -33498335.67 -33498335.50 -33498335.31 0.0088 0.0052

Mercury -96427-07-23 19:39 J -33498334.84 -33498334.68 -33498334.51 0.0088 0.0019

Mercury -96427-10-19 22:18 J -33498246.73 -33498246.57 -33498246.40 0.0088 0.0024

Mercury -96426-01-16 00:56 J -33498158.62 -33498158.46 -33498158.30 0.0088 0.0029

Venus -96426-03-05 14:08 J -33498110.11 -33498109.91 -33498109.71 0.0088 0.0040

Mercury -96426-04-14 03:20 J -33498070.51 -33498070.36 -33498070.20 0.0088 0.0034

Mercury -96426-07-11 05:44 J -33497982.40 -33497982.26 -33497982.10 0.0088 0.0039

Mercury -96426-10-07 08:23 J -33497894.29 -33497894.15 -33497894.00 0.0088 0.0044

Venus -96426-10-17 03:35 J -33497884.55 -33497884.35 -33497884.13 0.0088 0.0029

Mercury -96425-01-03 10:47 J -33497806.18 -33497806.05 -33497805.91 0.0088 0.0048

Mercury -96425-03-31 13:11 J -33497718.07 -33497717.95 -33497717.81 0.0088 0.0053

Venus -96425-05-29 17:30 J -33497658.99 -33497658.77 -33497658.55 0.0088 0.0017

Mercury -96425-06-27 15:35 J -33497629.96 -33497629.85 -33497629.72 0.0088 0.0058

Mercury -96425-09-23 18:13 J -33497541.85 -33497541.74 -33497541.62 0.0088 0.0063

Mercury -96425-12-20 20:23 J -33497453.74 -33497453.65 -33497453.53 0.0088 0.0068

Venus -96424-01-10 07:11 J -33497433.42 -33497433.20 -33497432.97 0.0088 0.0005
 Mercury -96424-03-18 22:47 J -33497365.63 -33497365.55 -33497365.44 0.0088 0.0073
 Mercury -96424-06-15 01:11 J -33497277.51 -33497277.45 -33497277.36 0.0088 0.0077
 Venus -96424-08-23 20:51 J -33497207.85 -33497207.63 -33497207.41 0.0088 0.0007
 Mercury -96424-09-11 03:49 J -33497189.40 -33497189.34 -33497189.28 0.0088 0.0082
 Mercury -96424-12-08 05:59 J -33497101.27 -33497101.25 -33497101.21 0.0088 0.0087
 Venus -96423-04-06 10:32 J -33496982.28 -33496982.06 -33496981.84 0.0088 0.0018
 Venus -96423-11-18 00:13 J -33496756.70 -33496756.49 -33496756.28 0.0088 0.0030
 Venus -96422-07-01 13:25 J -33496531.13 -33496530.94 -33496530.73 0.0088 0.0042
 Venus -96421-02-12 03:06 J -33496305.55 -33496305.37 -33496305.19 0.0088 0.0053
 Venus -96421-09-24 16:03 J -33496079.96 -33496079.83 -33496079.66 0.0088 0.0065
 Venus -96420-05-08 05:44 J -33495854.36 -33495854.26 -33495854.13 0.0088 0.0076
 Venus -96420-12-19 18:42 J -33495628.72 -33495628.72 -33495628.65 0.0088 0.0088
 Earth -96398-08-29 18:13 J -33487705.78 -33487705.74 -33487705.65 0.0088 0.0085
 Earth -96397-08-31 04:18 J -33487338.50 -33487338.32 -33487338.10 0.0088 0.0055
 Moon -96397-08-31 05:44 J -33487338.44 -33487338.26 -33487338.04 0.0088 0.0051 *
 Moon -96396-09-02 11:15 J -33486971.26 -33486971.03 -33486970.77 0.0088 0.0029
 Earth -96396-09-02 14:23 J -33486971.14 -33486970.90 -33486970.65 0.0088 0.0023 *
 Earth -96395-09-04 23:59 J -33486603.75 -33486603.50 -33486603.24 0.0088 0.0007
 Moon -96395-09-05 03:20 J -33486603.60 -33486603.36 -33486603.10 0.0088 0.0012 *
 Moon -96394-09-07 05:59 J -33486236.47 -33486236.25 -33486236.00 0.0088 0.0034
 Earth -96394-09-07 09:20 J -33486236.32 -33486236.11 -33486235.87 0.0088 0.0038 *
 Earth -96393-09-08 18:27 J -33485868.87 -33485868.73 -33485868.55 0.0088 0.0069
 Moon -96393-09-08 21:49 J -33485868.71 -33485868.59 -33485868.42 0.0088 0.0073 *
 Mars -96384-12-09 10:47 J -33482490.34 -33482490.05 -33482489.75 0.0088 0.0026
 Mars -96382-11-03 20:37 J -33481795.89 -33481795.64 -33481795.34 0.0088 0.0041
 Mercury -96350-06-23 03:49 J -33470241.36 -33470241.34 -33470241.31 0.0089 0.0087
 Mercury -96350-09-19 05:15 J -33470153.31 -33470153.28 -33470153.21 0.0089 0.0083
 Mercury -96350-12-16 06:56 J -33470065.26 -33470065.21 -33470065.13 0.0089 0.0079
 Mercury -96349-03-13 08:37 J -33469977.20 -33469977.14 -33469977.05 0.0089 0.0075

Mercury -96349-06-09 10:47 J -33469889.14 -33469889.05 -33469888.96 0.0089 0.0070

Mercury -96349-09-05 12:13 J -33469801.08 -33469800.99 -33469800.88 0.0089 0.0066

Mercury -96349-12-02 13:54 J -33469713.01 -33469712.92 -33469712.81 0.0089 0.0062

Mercury -96348-02-28 15:35 J -33469624.95 -33469624.85 -33469624.73 0.0089 0.0058

Mercury -96348-05-27 17:15 J -33469536.88 -33469536.78 -33469536.65 0.0089 0.0054

Mercury -96348-08-23 19:11 J -33469448.81 -33469448.70 -33469448.57 0.0089 0.0049

Mercury -96348-11-19 20:51 J -33469360.75 -33469360.63 -33469360.49 0.0089 0.0045

Mercury -96347-02-15 22:32 J -33469272.68 -33469272.56 -33469272.42 0.0089 0.0041

Mercury -96347-05-15 00:27 J -33469184.61 -33469184.48 -33469184.34 0.0089 0.0036

Mercury -96347-08-11 02:08 J -33469096.54 -33469096.41 -33469096.26 0.0089 0.0032

Mercury -96347-11-07 04:03 J -33469008.47 -33469008.33 -33469008.19 0.0089 0.0027

Mercury -96346-02-03 05:59 J -33468920.39 -33468920.25 -33468920.11 0.0089 0.0023

Mercury -96346-05-02 07:39 J -33468832.32 -33468832.18 -33468832.03 0.0089 0.0019

Venus -96346-06-10 11:15 J -33468793.10 -33468793.03 -33468792.92 0.0089 0.0081

Mercury -96346-07-29 09:20 J -33468744.25 -33468744.11 -33468743.96 0.0089 0.0015

Mercury -96346-10-25 11:15 J -33468656.18 -33468656.03 -33468655.88 0.0089 0.0010

Mercury -96345-01-21 13:11 J -33468568.10 -33468567.95 -33468567.81 0.0089 0.0006

Venus -96345-01-21 23:15 J -33468567.64 -33468567.53 -33468567.38 0.0089 0.0070

Mercury -96345-04-18 14:51 J -33468480.03 -33468479.88 -33468479.73 0.0089 0.0002

Mercury -96345-07-15 16:47 J -33468391.95 -33468391.80 -33468391.65 0.0089 0.0003

Venus -96345-09-03 11:59 J -33468342.16 -33468342.00 -33468341.84 0.0089 0.0058

Mercury -96345-10-11 18:27 J -33468303.87 -33468303.73 -33468303.58 0.0089 0.0008

Mercury -96344-01-07 20:23 J -33468215.80 -33468215.65 -33468215.50 0.0089 0.0012

Mercury -96344-04-05 22:18 J -33468127.72 -33468127.57 -33468127.42 0.0089 0.0017

Venus -96344-04-16 23:59 J -33468116.67 -33468116.50 -33468116.31 0.0089 0.0047

Mercury -96344-07-02 23:59 J -33468039.64 -33468039.50 -33468039.35 0.0089 0.0022

Mercury -96344-09-29 01:54 J -33467951.56 -33467951.42 -33467951.27 0.0089 0.0026

Venus -96344-11-28 12:13 J -33467891.18 -33467890.99 -33467890.79 0.0089 0.0036

Mercury -96344-12-26 03:49 J -33467863.48 -33467863.34 -33467863.20 0.0089 0.0030

Mercury -96343-03-24 05:44 J -33467775.40 -33467775.26 -33467775.12 0.0089 0.0035

Mercury -96343-06-20 07:25 J -33467687.31 -33467687.19 -33467687.05 0.0089 0.0040
 Venus -96343-07-12 00:13 J -33467665.68 -33467665.49 -33467665.27 0.0089 0.0025
 Mercury -96343-09-16 09:20 J -33467599.23 -33467599.11 -33467598.97 0.0089 0.0044
 Mercury -96343-12-13 11:15 J -33467511.15 -33467511.03 -33467510.90 0.0089 0.0049
 Venus -96342-02-22 12:42 J -33467440.18 -33467439.97 -33467439.75 0.0089 0.0013
 Mercury -96342-03-11 13:11 J -33467423.06 -33467422.95 -33467422.82 0.0089 0.0053
 Mercury -96342-06-07 15:06 J -33467334.98 -33467334.87 -33467334.75 0.0089 0.0058
 Mercury -96342-09-03 17:15 J -33467246.89 -33467246.78 -33467246.67 0.0089 0.0062
 Venus -96342-10-06 01:11 J -33467214.67 -33467214.45 -33467214.23 0.0089 0.0002
 Mercury -96342-11-30 18:56 J -33467158.80 -33467158.71 -33467158.60 0.0089 0.0067
 Mercury -96341-02-26 20:51 J -33467070.71 -33467070.63 -33467070.53 0.0089 0.0072
 Venus -96341-05-18 13:25 J -33466989.15 -33466988.94 -33466988.72 0.0089 0.0010
 Mercury -96341-05-24 23:01 J -33466982.61 -33466982.54 -33466982.46 0.0089 0.0076
 Mercury -96341-08-21 00:56 J -33466894.51 -33466894.46 -33466894.39 0.0089 0.0081
 Mercury -96341-11-17 02:37 J -33466806.41 -33466806.39 -33466806.33 0.0089 0.0086
 Venus -96341-12-30 01:39 J -33466763.63 -33466763.43 -33466763.21 0.0089 0.0021
 Venus -96340-08-12 14:08 J -33466538.11 -33466537.91 -33466537.71 0.0089 0.0032
 Venus -96339-03-26 02:23 J -33466312.58 -33466312.40 -33466312.20 0.0089 0.0044
 Venus -96339-11-06 15:06 J -33466087.03 -33466086.87 -33466086.70 0.0089 0.0055
 Venus -96338-06-20 03:06 J -33465861.49 -33465861.37 -33465861.20 0.0089 0.0067
 Venus -96337-01-31 15:49 J -33465635.93 -33465635.84 -33465635.72 0.0089 0.0078
 Earth -96315-02-19 17:01 J -33457580.89 -33457580.79 -33457580.68 0.0089 0.0081
 Moon -96315-02-19 18:42 J -33457580.84 -33457580.72 -33457580.58 0.0089 0.0077 *
 Moon -96314-02-22 05:15 J -33457213.47 -33457213.28 -33457213.07 0.0089 0.0053
 Earth -96314-02-22 05:59 J -33457213.46 -33457213.25 -33457213.02 0.0089 0.0049 *
 Moon -96313-02-24 18:13 J -33456846.00 -33456845.74 -33456845.46 0.0089 0.0013
 Earth -96313-02-24 19:25 J -33456845.94 -33456845.69 -33456845.43 0.0089 0.0017 *
 Earth -96312-02-26 08:51 J -33456478.38 -33456478.13 -33456477.87 0.0089 0.0015
 Moon -96312-02-26 10:32 J -33456478.30 -33456478.06 -33456477.80 0.0089 0.0012 *
 Moon -96311-02-28 19:11 J -33456110.89 -33456110.70 -33456110.46 0.0089 0.0052

Earth -96311-02-28 22:03 J -33456110.78 -33456110.58 -33456110.34 0.0089 0.0048 *
 Earth -96310-03-03 11:44 J -33455743.11 -33455743.01 -33455742.88 0.0089 0.0080
 Moon -96310-03-03 15:20 J -33455742.98 -33455742.86 -33455742.72 0.0089 0.0076 *
 Mars -96302-11-08 05:59 J -33452571.54 -33452571.25 -33452570.94 0.0089 0.0033
 Mars -96300-10-03 11:59 J -33451876.27 -33451876.00 -33451875.69 0.0089 0.0038
 Mercury -96267-06-22 11:59 J -33439926.05 -33439926.00 -33439925.94 0.0089 0.0084
 Mercury -96267-09-18 14:37 J -33439837.95 -33439837.89 -33439837.80 0.0089 0.0079
 Mercury -96267-12-15 17:15 J -33439749.86 -33439749.78 -33439749.67 0.0089 0.0074
 Mercury -96266-03-13 20:08 J -33439661.76 -33439661.66 -33439661.54 0.0089 0.0068
 Mercury -96266-06-09 23:01 J -33439573.65 -33439573.54 -33439573.41 0.0089 0.0063
 Mercury -96266-09-06 01:39 J -33439485.55 -33439485.43 -33439485.29 0.0089 0.0058
 Mercury -96266-12-03 04:18 J -33439397.44 -33439397.32 -33439397.17 0.0089 0.0053
 Mercury -96265-02-29 07:11 J -33439309.34 -33439309.20 -33439309.05 0.0089 0.0047
 Mercury -96265-05-27 10:03 J -33439221.23 -33439221.08 -33439220.93 0.0089 0.0042
 Mercury -96265-08-23 12:42 J -33439133.12 -33439132.97 -33439132.81 0.0088 0.0037
 Mercury -96265-11-19 15:20 J -33439045.02 -33439044.86 -33439044.69 0.0088 0.0032
 Mercury -96264-02-15 17:59 J -33438956.91 -33438956.75 -33438956.58 0.0088 0.0027
 Mercury -96264-05-14 20:37 J -33438868.80 -33438868.64 -33438868.47 0.0088 0.0022
 Venus -96264-07-30 02:51 J -33438792.47 -33438792.38 -33438792.28 0.0088 0.0080
 Mercury -96264-08-10 23:15 J -33438780.69 -33438780.53 -33438780.36 0.0088 0.0017
 Mercury -96264-11-07 01:54 J -33438692.58 -33438692.42 -33438692.24 0.0088 0.0011
 Mercury -96263-02-03 04:32 J -33438604.47 -33438604.31 -33438604.13 0.0088 0.0007
 Venus -96263-03-12 16:18 J -33438566.94 -33438566.82 -33438566.65 0.0088 0.0069
 Mercury -96263-05-02 07:11 J -33438516.37 -33438516.20 -33438516.03 0.0088 0.0002
 Mercury -96263-07-29 09:49 J -33438428.26 -33438428.09 -33438427.92 0.0088 0.0004
 Venus -96263-10-24 06:27 J -33438341.39 -33438341.23 -33438341.05 0.0088 0.0057
 Mercury -96263-10-25 12:27 J -33438340.15 -33438339.98 -33438339.81 0.0088 0.0009
 Mercury -96262-01-21 14:51 J -33438252.04 -33438251.88 -33438251.71 0.0088 0.0015
 Mercury -96262-04-19 17:30 J -33438163.93 -33438163.77 -33438163.60 0.0088 0.0019
 Venus -96262-06-06 20:23 J -33438115.84 -33438115.65 -33438115.45 0.0088 0.0045

Mercury -96262-07-16 19:54 J -33438075.82 -33438075.67 -33438075.50 0.0088 0.0025

Mercury -96262-10-12 22:32 J -33437987.71 -33437987.56 -33437987.40 0.0088 0.0029

Mercury -96261-01-09 00:56 J -33437899.60 -33437899.46 -33437899.30 0.0088 0.0034

Venus -96261-01-18 09:49 J -33437890.28 -33437890.09 -33437889.86 0.0088 0.0034

Mercury -96261-04-06 03:20 J -33437811.49 -33437811.36 -33437811.19 0.0088 0.0040

Mercury -96261-07-03 06:13 J -33437723.39 -33437723.24 -33437723.10 0.0088 0.0044

Venus -96261-08-30 23:44 J -33437664.72 -33437664.51 -33437664.28 0.0088 0.0022

Mercury -96261-09-29 08:37 J -33437635.28 -33437635.14 -33437635.00 0.0088 0.0049

Mercury -96261-12-26 11:01 J -33437547.17 -33437547.04 -33437546.90 0.0088 0.0054

Mercury -96260-03-24 13:25 J -33437459.05 -33437458.94 -33437458.81 0.0088 0.0058

Venus -96260-04-13 13:54 J -33437439.14 -33437438.92 -33437438.69 0.0088 0.0009

Mercury -96260-06-20 15:49 J -33437370.94 -33437370.84 -33437370.71 0.0088 0.0063

Mercury -96260-09-16 18:27 J -33437282.83 -33437282.73 -33437282.62 0.0088 0.0068

Venus -96260-11-25 03:35 J -33437213.57 -33437213.35 -33437213.12 0.0088 0.0003

Mercury -96260-12-13 20:51 J -33437194.72 -33437194.63 -33437194.53 0.0088 0.0073

Mercury -96259-03-11 23:01 J -33437106.60 -33437106.54 -33437106.45 0.0088 0.0078

Mercury -96259-06-08 01:25 J -33437018.48 -33437018.44 -33437018.37 0.0088 0.0082

Venus -96259-07-08 17:01 J -33436988.00 -33436987.79 -33436987.56 0.0088 0.0015

Mercury -96259-09-04 04:03 J -33436930.35 -33436930.33 -33436930.30 0.0088 0.0087

Venus -96258-02-19 06:56 J -33436762.43 -33436762.21 -33436762.00 0.0088 0.0026

Venus -96258-10-02 20:08 J -33436536.85 -33436536.66 -33436536.44 0.0088 0.0038

Venus -96257-05-15 09:35 J -33436311.26 -33436311.10 -33436310.89 0.0088 0.0050

Venus -96257-12-26 23:15 J -33436085.67 -33436085.53 -33436085.35 0.0088 0.0061

Venus -96256-08-09 12:27 J -33435860.08 -33435859.98 -33435859.82 0.0088 0.0073

Venus -96255-03-23 02:08 J -33435634.46 -33435634.41 -33435634.32 0.0088 0.0084

Moon -96233-08-30 06:27 J -33427438.36 -33427438.23 -33427438.06 0.0088 0.0072

Earth -96233-08-30 09:20 J -33427438.22 -33427438.11 -33427437.93 0.0088 0.0073 *

Earth -96232-09-01 19:39 J -33427070.89 -33427070.68 -33427070.44 0.0088 0.0041

Moon -96232-09-01 23:01 J -33427070.75 -33427070.54 -33427070.30 0.0088 0.0041 *

Moon -96231-09-04 02:23 J -33426703.65 -33426703.40 -33426703.15 0.0088 0.0010

Earth -96231-09-04 05:44 J -33426703.50 -33426703.26 -33426703.00 0.0088 0.0011 *
 Earth -96230-09-06 15:20 J -33426336.10 -33426335.86 -33426335.61 0.0088 0.0021
 Moon -96230-09-06 17:59 J -33426335.99 -33426335.75 -33426335.49 0.0088 0.0021 *
 Moon -96229-09-07 22:32 J -33425968.75 -33425968.56 -33425968.34 0.0088 0.0050
 Earth -96229-09-08 00:27 J -33425968.66 -33425968.48 -33425968.25 0.0088 0.0052 *
 Earth -96228-09-10 10:03 J -33425601.16 -33425601.08 -33425600.97 0.0088 0.0082
 Moon -96228-09-10 10:47 J -33425601.13 -33425601.05 -33425600.94 0.0088 0.0082 *
 Mars -96220-07-24 00:27 J -33422727.69 -33422727.48 -33422727.23 0.0088 0.0058
 Mars -96218-06-18 09:06 J -33422033.42 -33422033.12 -33422032.81 0.0088 0.0009
 Mars -96216-05-12 18:56 J -33421338.84 -33421338.71 -33421338.51 0.0088 0.0076
 Mercury -96185-03-19 02:37 J -33410070.42 -33410070.39 -33410070.36 0.0089 0.0086
 Mercury -96185-06-15 04:18 J -33409982.37 -33409982.32 -33409982.27 0.0089 0.0082
 Mercury -96185-09-11 05:59 J -33409894.31 -33409894.25 -33409894.18 0.0089 0.0078
 Mercury -96185-12-08 07:25 J -33409806.25 -33409806.19 -33409806.10 0.0089 0.0074
 Mercury -96184-03-06 09:06 J -33409718.19 -33409718.12 -33409718.02 0.0089 0.0070
 Mercury -96184-06-02 10:47 J -33409630.13 -33409630.05 -33409629.94 0.0089 0.0066
 Mercury -96184-08-29 12:56 J -33409542.07 -33409541.96 -33409541.86 0.0089 0.0061
 Mercury -96184-11-25 14:23 J -33409454.00 -33409453.90 -33409453.78 0.0089 0.0057
 Mercury -96183-02-21 16:03 J -33409365.94 -33409365.83 -33409365.70 0.0089 0.0053
 Mercury -96183-05-20 17:44 J -33409277.87 -33409277.76 -33409277.63 0.0089 0.0049
 Mercury -96183-08-16 19:39 J -33409189.80 -33409189.68 -33409189.55 0.0089 0.0044
 Mercury -96183-11-12 21:20 J -33409101.73 -33409101.61 -33409101.47 0.0089 0.0040
 Mercury -96182-02-08 23:01 J -33409013.66 -33409013.54 -33409013.40 0.0089 0.0036
 Mercury -96182-05-08 00:42 J -33408925.59 -33408925.47 -33408925.32 0.0089 0.0032
 Mercury -96182-08-04 02:37 J -33408837.52 -33408837.39 -33408837.24 0.0089 0.0027
 Venus -96182-09-11 20:23 J -33408798.69 -33408798.65 -33408798.57 0.0089 0.0085
 Mercury -96182-10-31 04:32 J -33408749.45 -33408749.31 -33408749.17 0.0089 0.0022
 Mercury -96181-01-27 06:13 J -33408661.38 -33408661.24 -33408661.09 0.0089 0.0018
 Mercury -96181-04-24 08:08 J -33408573.30 -33408573.16 -33408573.01 0.0089 0.0014
 Venus -96181-04-24 08:23 J -33408573.24 -33408573.15 -33408573.01 0.0089 0.0074 *

Mercury -96181-07-21 09:49 J -33408485.23 -33408485.09 -33408484.94 0.0089 0.0010

Mercury -96181-10-17 11:44 J -33408397.16 -33408397.01 -33408396.86 0.0089 0.0005

Venus -96181-12-05 20:37 J -33408347.77 -33408347.64 -33408347.47 0.0089 0.0063

Mercury -96180-01-13 13:39 J -33408309.08 -33408308.93 -33408308.79 0.0089 0.0002

Mercury -96180-04-11 15:20 J -33408221.01 -33408220.86 -33408220.71 0.0089 0.0004

Mercury -96180-07-08 17:15 J -33408132.93 -33408132.78 -33408132.63 0.0089 0.0008

Venus -96180-07-19 09:06 J -33408122.29 -33408122.12 -33408121.94 0.0089 0.0051

Mercury -96180-10-04 18:56 J -33408044.85 -33408044.71 -33408044.56 0.0089 0.0013

Mercury -96180-12-31 20:51 J -33407956.77 -33407956.63 -33407956.48 0.0089 0.0017

Venus -96179-03-01 21:06 J -33407896.80 -33407896.62 -33407896.42 0.0089 0.0040

Mercury -96179-03-29 22:47 J -33407868.70 -33407868.55 -33407868.41 0.0089 0.0022

Mercury -96179-06-26 00:27 J -33407780.62 -33407780.48 -33407780.33 0.0089 0.0027

Mercury -96179-09-22 02:23 J -33407692.54 -33407692.40 -33407692.26 0.0089 0.0031

Venus -96179-10-13 09:20 J -33407671.30 -33407671.11 -33407670.89 0.0089 0.0029

Mercury -96179-12-19 04:03 J -33407604.45 -33407604.33 -33407604.18 0.0089 0.0036

Mercury -96178-03-17 06:13 J -33407516.37 -33407516.24 -33407516.10 0.0089 0.0040

Venus -96178-05-26 21:49 J -33407445.80 -33407445.59 -33407445.37 0.0089 0.0017

Mercury -96178-06-13 07:54 J -33407428.29 -33407428.17 -33407428.03 0.0089 0.0045

Mercury -96178-09-09 10:03 J -33407340.20 -33407340.08 -33407339.96 0.0089 0.0049

Mercury -96178-12-06 11:44 J -33407252.12 -33407252.01 -33407251.88 0.0089 0.0054

Venus -96177-01-07 10:03 J -33407220.29 -33407220.08 -33407219.86 0.0089 0.0006

Mercury -96177-03-03 13:54 J -33407164.03 -33407163.92 -33407163.81 0.0089 0.0058

Mercury -96177-05-30 15:35 J -33407075.95 -33407075.85 -33407075.73 0.0089 0.0063

Venus -96177-08-19 22:18 J -33406994.78 -33406994.57 -33406994.35 0.0089 0.0006

Mercury -96177-08-26 17:30 J -33406987.86 -33406987.77 -33406987.66 0.0089 0.0068

Mercury -96177-11-22 19:39 J -33406899.77 -33406899.68 -33406899.59 0.0089 0.0072

Mercury -96176-02-18 21:20 J -33406811.67 -33406811.61 -33406811.52 0.0089 0.0077

Venus -96176-04-02 10:32 J -33406769.27 -33406769.06 -33406768.84 0.0089 0.0017

Mercury -96176-05-17 23:15 J -33406723.57 -33406723.53 -33406723.46 0.0089 0.0082

Mercury -96176-08-14 01:25 J -33406635.47 -33406635.44 -33406635.40 0.0089 0.0086

Venus	-96176-11-13 22:47 J	-33406543.74	-33406543.55	-33406543.33	0.0089	0.0029
Venus	-96175-06-27 11:15 J	-33406318.22	-33406318.03	-33406317.83	0.0089	0.0040
Venus	-96174-02-07 23:44 J	-33406092.68	-33406092.51	-33406092.33	0.0089	0.0051
Venus	-96174-09-21 11:59 J	-33405867.14	-33405867.00	-33405866.84	0.0089	0.0063
Venus	-96173-05-04 00:42 J	-33405641.58	-33405641.47	-33405641.35	0.0089	0.0074
Venus	-96173-12-15 12:42 J	-33405416.00	-33405415.97	-33405415.89	0.0089	0.0086
Jupiter	-96172-06-23 00:27 J	-33405227.00	-33405226.48	-33405225.94	0.0089	0.0024
Moon	-96150-02-21 07:54 J	-33397313.32	-33397313.17	-33397312.96	0.0089	0.0066
Earth	-96150-02-21 09:35 J	-33397313.25	-33397313.10	-33397312.91	0.0089	0.0067 *
Earth	-96149-02-23 22:47 J	-33396945.78	-33396945.55	-33396945.30	0.0089	0.0035
Moon	-96149-02-24 01:25 J	-33396945.66	-33396945.44	-33396945.20	0.0089	0.0037 *
Moon	-96148-02-25 08:51 J	-33396578.40	-33396578.13	-33396577.87	0.0089	0.0002
Earth	-96148-02-25 12:13 J	-33396578.25	-33396577.99	-33396577.73	0.0089	0.0003 *
Earth	-96147-02-28 01:11 J	-33396210.68	-33396210.45	-33396210.19	0.0089	0.0030
Moon	-96147-02-28 04:47 J	-33396210.53	-33396210.30	-33396210.04	0.0089	0.0027 *
Moon	-96146-03-02 11:15 J	-33395843.20	-33395843.03	-33395842.84	0.0089	0.0064
Earth	-96146-03-02 14:51 J	-33395843.05	-33395842.88	-33395842.67	0.0089	0.0062 *
Mars	-96138-06-22 02:23 J	-33392809.56	-33392809.40	-33392809.15	0.0089	0.0069
Mars	-96136-05-17 11:44 J	-33392114.33	-33392114.01	-33392113.69	0.0089	0.0004
Mars	-96134-04-12 16:18 J	-33391418.95	-33391418.82	-33391418.61	0.0089	0.0075
Mercury	-96102-03-19 09:35 J	-33379755.15	-33379755.10	-33379755.04	0.0089	0.0084
Mercury	-96102-06-15 12:13 J	-33379667.06	-33379666.99	-33379666.90	0.0089	0.0079
Mercury	-96102-09-11 14:51 J	-33379578.96	-33379578.88	-33379578.77	0.0089	0.0074
Mercury	-96102-12-08 17:59 J	-33379490.86	-33379490.75	-33379490.64	0.0089	0.0068
Mercury	-96101-03-05 20:37 J	-33379402.76	-33379402.64	-33379402.51	0.0089	0.0063
Mercury	-96101-06-01 23:15 J	-33379314.65	-33379314.53	-33379314.39	0.0089	0.0058
Mercury	-96101-08-29 01:54 J	-33379226.55	-33379226.42	-33379226.27	0.0089	0.0053
Mercury	-96101-11-25 04:32 J	-33379138.44	-33379138.31	-33379138.15	0.0089	0.0048
Mercury	-96100-02-21 07:39 J	-33379050.33	-33379050.18	-33379050.03	0.0089	0.0042
Mercury	-96100-05-20 10:18 J	-33378962.22	-33378962.07	-33378961.91	0.0089	0.0037

Mercury -96100-08-16 12:56 J -33378874.12 -33378873.96 -33378873.80 0.0089 0.0032

Venus -96100-10-31 09:20 J -33378798.17 -33378798.11 -33378798.05 0.0088 0.0085

Mercury -96100-11-12 15:35 J -33378786.01 -33378785.85 -33378785.68 0.0088 0.0026

Mercury -96099-02-08 18:13 J -33378697.90 -33378697.74 -33378697.57 0.0088 0.0021

Mercury -96099-05-07 20:51 J -33378609.79 -33378609.63 -33378609.46 0.0088 0.0016

Venus -96099-06-13 22:32 J -33378572.66 -33378572.56 -33378572.41 0.0088 0.0074

Mercury -96099-08-03 23:30 J -33378521.68 -33378521.52 -33378521.35 0.0088 0.0011

Mercury -96099-10-31 02:08 J -33378433.58 -33378433.41 -33378433.24 0.0088 0.0006

Venus -96098-01-25 12:27 J -33378347.12 -33378346.98 -33378346.80 0.0088 0.0062

Mercury -96098-01-27 04:47 J -33378345.47 -33378345.30 -33378345.13 0.0088 0.0002

Mercury -96098-04-25 07:25 J -33378257.36 -33378257.19 -33378257.02 0.0088 0.0004

Mercury -96098-07-22 10:03 J -33378169.25 -33378169.08 -33378168.91 0.0088 0.0009

Venus -96098-09-08 02:23 J -33378121.58 -33378121.40 -33378121.20 0.0088 0.0050

Mercury -96098-10-18 12:27 J -33378081.14 -33378080.98 -33378080.81 0.0088 0.0015

Mercury -96097-01-14 15:06 J -33377993.03 -33377992.87 -33377992.70 0.0088 0.0019

Mercury -96097-04-11 17:30 J -33377904.92 -33377904.77 -33377904.60 0.0088 0.0025

Venus -96097-04-20 16:32 J -33377896.01 -33377895.81 -33377895.61 0.0088 0.0038

Mercury -96097-07-08 20:08 J -33377816.81 -33377816.66 -33377816.50 0.0088 0.0029

Mercury -96097-10-04 22:32 J -33377728.70 -33377728.56 -33377728.39 0.0088 0.0035

Venus -96097-12-02 05:59 J -33377670.45 -33377670.25 -33377670.02 0.0088 0.0027

Mercury -96096-01-01 00:56 J -33377640.59 -33377640.46 -33377640.29 0.0088 0.0040

Mercury -96096-03-30 03:49 J -33377552.48 -33377552.34 -33377552.19 0.0088 0.0044

Mercury -96096-06-26 06:13 J -33377464.37 -33377464.24 -33377464.10 0.0088 0.0049

Venus -96096-07-15 19:54 J -33377444.89 -33377444.67 -33377444.44 0.0088 0.0014

Mercury -96096-09-22 08:37 J -33377376.26 -33377376.14 -33377376.00 0.0088 0.0054

Mercury -96096-12-19 11:01 J -33377288.15 -33377288.04 -33377287.90 0.0088 0.0059

Venus -96095-02-26 09:49 J -33377219.32 -33377219.09 -33377218.87 0.0088 0.0003

Mercury -96095-03-17 13:25 J -33377200.04 -33377199.94 -33377199.81 0.0088 0.0064

Mercury -96095-06-13 15:49 J -33377111.93 -33377111.84 -33377111.72 0.0088 0.0068

Mercury -96095-09-09 18:27 J -33377023.81 -33377023.73 -33377023.63 0.0088 0.0073

Venus -96095-10-09 23:15 J -33376993.74 -33376993.53 -33376993.30 0.0088 0.0010
 Mercury -96095-12-06 20:51 J -33376935.70 -33376935.63 -33376935.54 0.0088 0.0078
 Mercury -96094-03-04 23:01 J -33376847.58 -33376847.54 -33376847.46 0.0088 0.0083
 Venus -96094-05-23 12:56 J -33376768.17 -33376767.96 -33376767.73 0.0088 0.0022
 Mercury -96094-06-01 01:54 J -33376759.45 -33376759.42 -33376759.39 0.0088 0.0087
 Venus -96093-01-04 02:51 J -33376542.59 -33376542.38 -33376542.17 0.0088 0.0033
 Venus -96093-08-16 16:18 J -33376317.01 -33376316.82 -33376316.62 0.0088 0.0045
 Venus -96092-03-30 05:44 J -33376091.42 -33376091.26 -33376091.07 0.0088 0.0057
 Venus -96092-11-10 19:39 J -33375865.82 -33375865.68 -33375865.54 0.0088 0.0068
 Venus -96091-06-24 08:37 J -33375640.21 -33375640.14 -33375640.02 0.0088 0.0080
 Moon -96068-08-31 22:03 J -33367170.77 -33367170.58 -33367170.38 0.0088 0.0055
 Earth -96068-09-01 00:42 J -33367170.64 -33367170.47 -33367170.26 0.0088 0.0059 *
 Earth -96067-09-03 10:47 J -33366803.28 -33366803.05 -33366802.79 0.0088 0.0028
 Moon -96067-09-03 13:39 J -33366803.16 -33366802.93 -33366802.68 0.0088 0.0033 *
 Moon -96066-09-05 19:54 J -33366435.91 -33366435.67 -33366435.42 0.0088 0.0007
 Earth -96066-09-05 20:51 J -33366435.88 -33366435.63 -33366435.37 0.0088 0.0003 *
 Moon -96065-09-07 06:13 J -33366068.48 -33366068.24 -33366067.98 0.0088 0.0030
 Earth -96065-09-07 06:13 J -33366068.46 -33366068.24 -33366067.99 0.0088 0.0034 *
 Earth -96064-09-09 15:49 J -33365701.01 -33365700.84 -33365700.66 0.0088 0.0064
 Moon -96064-09-09 16:47 J -33365700.94 -33365700.80 -33365700.64 0.0088 0.0069 *
 Mars -96054-01-30 20:23 J -33362270.93 -33362270.65 -33362270.34 0.0088 0.0025
 Mars -96053-12-25 04:47 J -33361576.55 -33361576.30 -33361576.02 0.0088 0.0043
 Mercury -96021-12-14 01:11 J -33349899.48 -33349899.45 -33349899.42 0.0089 0.0086
 Mercury -96020-03-12 02:37 J -33349811.43 -33349811.39 -33349811.33 0.0089 0.0082
 Mercury -96020-06-08 04:18 J -33349723.38 -33349723.32 -33349723.24 0.0089 0.0078
 Mercury -96020-09-04 05:59 J -33349635.32 -33349635.25 -33349635.16 0.0089 0.0074
 Mercury -96020-12-01 07:39 J -33349547.26 -33349547.18 -33349547.08 0.0089 0.0070
 Mercury -96019-02-27 09:20 J -33349459.19 -33349459.11 -33349459.00 0.0089 0.0066
 Mercury -96019-05-26 11:15 J -33349371.13 -33349371.03 -33349370.92 0.0089 0.0061
 Mercury -96019-08-22 12:56 J -33349283.07 -33349282.96 -33349282.85 0.0089 0.0057

Mercury -96019-11-18 14:37 J -33349195.00 -33349194.89 -33349194.77 0.0089 0.0053

Mercury -96018-02-14 16:18 J -33349106.93 -33349106.82 -33349106.69 0.0089 0.0049

Mercury -96018-05-13 18:13 J -33349018.87 -33349018.74 -33349018.61 0.0089 0.0044

Mercury -96018-08-09 19:54 J -33348930.80 -33348930.67 -33348930.54 0.0089 0.0040

Mercury -96018-11-05 21:35 J -33348842.73 -33348842.60 -33348842.46 0.0089 0.0036

Mercury -96017-02-01 23:30 J -33348754.66 -33348754.52 -33348754.38 0.0089 0.0031

Mercury -96017-04-30 01:11 J -33348666.59 -33348666.45 -33348666.31 0.0089 0.0027

Venus -96017-07-26 16:47 J -33348578.88 -33348578.80 -33348578.68 0.0089 0.0079

Mercury -96017-07-27 02:51 J -33348578.51 -33348578.38 -33348578.23 0.0089 0.0023

Mercury -96017-10-23 04:47 J -33348490.44 -33348490.30 -33348490.16 0.0089 0.0018

Mercury -96016-01-19 06:27 J -33348402.37 -33348402.23 -33348402.08 0.0089 0.0014

Venus -96016-03-09 04:47 J -33348353.41 -33348353.30 -33348353.14 0.0089 0.0068

Mercury -96016-04-17 08:23 J -33348314.30 -33348314.15 -33348314.00 0.0089 0.0009

Mercury -96016-07-14 10:03 J -33348226.22 -33348226.08 -33348225.93 0.0089 0.0006

Mercury -96016-10-10 11:59 J -33348138.15 -33348138.00 -33348137.85 0.0089 0.0001

Venus -96016-10-20 17:30 J -33348127.93 -33348127.77 -33348127.60 0.0089 0.0056

Mercury -96015-01-06 13:54 J -33348050.07 -33348049.92 -33348049.78 0.0089 0.0005

Mercury -96015-04-04 15:35 J -33347962.00 -33347961.85 -33347961.70 0.0089 0.0009

Venus -96015-06-03 05:30 J -33347902.44 -33347902.27 -33347902.07 0.0089 0.0045

Mercury -96015-07-01 17:30 J -33347873.92 -33347873.77 -33347873.62 0.0089 0.0013

Mercury -96015-09-27 19:11 J -33347785.84 -33347785.70 -33347785.55 0.0089 0.0018

Mercury -96015-12-24 21:06 J -33347697.76 -33347697.62 -33347697.47 0.0089 0.0022

Venus -96014-01-14 17:59 J -33347676.95 -33347676.75 -33347676.55 0.0089 0.0033

Mercury -96014-03-22 22:47 J -33347609.68 -33347609.55 -33347609.40 0.0089 0.0027

Mercury -96014-06-19 00:56 J -33347521.60 -33347521.46 -33347521.32 0.0089 0.0031

Venus -96014-08-28 05:59 J -33347451.45 -33347451.25 -33347451.03 0.0089 0.0022

Mercury -96014-09-15 02:37 J -33347433.52 -33347433.39 -33347433.25 0.0089 0.0036

Mercury -96014-12-12 04:32 J -33347345.44 -33347345.31 -33347345.17 0.0089 0.0040

Mercury -96013-03-09 06:27 J -33347257.36 -33347257.23 -33347257.10 0.0089 0.0045

Venus -96013-04-09 18:27 J -33347225.94 -33347225.73 -33347225.51 0.0089 0.0010

Mercury -96013-06-05 08:08 J -33347169.27 -33347169.16 -33347169.02 0.0089 0.0050

Mercury -96013-09-01 10:18 J -33347081.19 -33347081.07 -33347080.95 0.0089 0.0054

Venus -96013-11-21 06:56 J -33347000.43 -33347000.21 -33347000.00 0.0089 0.0002

Mercury -96013-11-28 11:59 J -33346993.10 -33346993.00 -33346992.88 0.0089 0.0059

Mercury -96012-02-24 14:08 J -33346905.01 -33346904.91 -33346904.80 0.0089 0.0063

Mercury -96012-05-23 15:49 J -33346816.92 -33346816.84 -33346816.73 0.0089 0.0068

Venus -96012-07-04 18:56 J -33346774.92 -33346774.71 -33346774.49 0.0089 0.0013

Mercury -96012-08-19 17:44 J -33346728.83 -33346728.76 -33346728.66 0.0089 0.0073

Mercury -96012-11-15 19:54 J -33346640.74 -33346640.67 -33346640.59 0.0089 0.0077

Mercury -96011-02-11 21:35 J -33346552.64 -33346552.60 -33346552.53 0.0089 0.0082

Venus -96011-02-15 07:25 J -33346549.40 -33346549.19 -33346548.98 0.0089 0.0024

Mercury -96011-05-10 23:59 J -33346464.53 -33346464.50 -33346464.47 0.0089 0.0086

Venus -96011-09-28 19:25 J -33346323.87 -33346323.69 -33346323.48 0.0089 0.0036

Venus -96010-05-12 08:08 J -33346098.34 -33346098.16 -33346097.98 0.0089 0.0047

Venus -96010-12-23 20:08 J -33345872.80 -33345872.66 -33345872.48 0.0089 0.0059

Venus -96009-08-05 08:51 J -33345647.26 -33345647.13 -33345647.00 0.0089 0.0070

Venus -96008-03-18 20:51 J -33345421.69 -33345421.63 -33345421.53 0.0089 0.0082

Jupiter -96006-08-20 13:11 J -33344537.20 -33344536.95 -33344536.59 0.0089 0.0074

96TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 96th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth	-95986-02-20 12:56 J	-33337413.01	-33337412.96	-33337412.86	0.0089	0.0085
Moon	-95986-02-20 16:03 J	-33337412.91	-33337412.83	-33337412.70	0.0089	0.0081 *
Moon	-95985-02-22 22:18 J	-33337045.74	-33337045.57	-33337045.34	0.0089	0.0058
Earth	-95985-02-23 02:08 J	-33337045.61	-33337045.41	-33337045.19	0.0089	0.0053 *
Earth	-95984-02-24 15:06 J	-33336678.12	-33336677.87	-33336677.61	0.0089	0.0021
Moon	-95984-02-24 18:56 J	-33336677.96	-33336677.71	-33336677.45	0.0089	0.0016 *
Moon	-95983-02-27 01:25 J	-33336310.69	-33336310.44	-33336310.18	0.0089	0.0007
Earth	-95983-02-27 04:18 J	-33336310.57	-33336310.32	-33336310.05	0.0089	0.0011 *
Earth	-95982-03-01 17:44 J	-33335942.98	-33335942.76	-33335942.53	0.0089	0.0043
Moon	-95982-03-01 20:23 J	-33335942.87	-33335942.65	-33335942.41	0.0089	0.0047 *
Moon	-95981-03-03 06:13 J	-33335575.39	-33335575.24	-33335575.09	0.0089	0.0071
Earth	-95981-03-03 06:42 J	-33335575.32	-33335575.22	-33335575.05	0.0089	0.0076 *
Mars	-95973-12-29 08:23 J	-33332352.43	-33332352.15	-33332351.82	0.0089	0.0032
Mars	-95971-11-24 16:47 J	-33331657.06	-33331656.80	-33331656.49	0.0089	0.0041
Mercury	-95938-12-14 06:56 J	-33319584.26	-33319584.21	-33319584.15	0.0088	0.0084
Mercury	-95937-03-11 09:35 J	-33319496.17	-33319496.10	-33319496.01	0.0088	0.0079
Mercury	-95937-06-07 12:13 J	-33319408.07	-33319407.99	-33319407.88	0.0088	0.0074
Mercury	-95937-09-03 15:06 J	-33319319.97	-33319319.87	-33319319.75	0.0088	0.0068
Mercury	-95937-11-30 17:59 J	-33319231.86	-33319231.75	-33319231.62	0.0088	0.0063
Mercury	-95936-02-26 20:37 J	-33319143.76	-33319143.64	-33319143.50	0.0088	0.0058
Mercury	-95936-05-25 23:30 J	-33319055.65	-33319055.52	-33319055.37	0.0088	0.0052
Mercury	-95936-08-22 02:08 J	-33318967.54	-33318967.41	-33318967.25	0.0088	0.0047
Mercury	-95936-11-18 04:47 J	-33318879.44	-33318879.30	-33318879.13	0.0088	0.0043
Mercury	-95935-02-14 07:39 J	-33318791.33	-33318791.18	-33318791.02	0.0088	0.0037
Mercury	-95935-05-13 10:18 J	-33318703.22	-33318703.07	-33318702.90	0.0088	0.0032
Mercury	-95935-08-09 13:11 J	-33318615.11	-33318614.95	-33318614.78	0.0088	0.0026
Venus	-95935-09-15 04:47 J	-33318578.38	-33318578.30	-33318578.18	0.0088	0.0079
Mercury	-95935-11-05 15:49 J	-33318527.00	-33318526.84	-33318526.67	0.0088	0.0021
Mercury	-95934-02-01 18:27 J	-33318438.90	-33318438.73	-33318438.56	0.0088	0.0016
Venus	-95934-04-28 18:56 J	-33318352.85	-33318352.71	-33318352.55	0.0088	0.0067

Mercury -95934-04-30 21:06 J -33318350.79 -33318350.62 -33318350.45 0.0088 0.0011
 Mercury -95934-07-27 23:44 J -33318262.68 -33318262.51 -33318262.34 0.0088 0.0006
 Mercury -95934-10-24 02:23 J -33318174.57 -33318174.40 -33318174.23 0.0088 0.0001
 Venus -95934-12-10 08:51 J -33318127.30 -33318127.13 -33318126.95 0.0088 0.0055
 Mercury -95933-01-20 05:01 J -33318086.46 -33318086.29 -33318086.12 0.0088 0.0004
 Mercury -95933-04-17 07:39 J -33317998.35 -33317998.18 -33317998.01 0.0088 0.0009
 Mercury -95933-07-14 10:03 J -33317910.24 -33317910.08 -33317909.91 0.0088 0.0014
 Venus -95933-07-22 22:18 J -33317901.75 -33317901.57 -33317901.36 0.0088 0.0044
 Mercury -95933-10-10 12:42 J -33317822.13 -33317821.97 -33317821.80 0.0088 0.0019
 Mercury -95932-01-06 15:06 J -33317734.02 -33317733.87 -33317733.70 0.0088 0.0025
 Venus -95932-03-05 12:13 J -33317676.19 -33317675.99 -33317675.77 0.0088 0.0031
 Mercury -95932-04-04 17:44 J -33317645.91 -33317645.76 -33317645.59 0.0088 0.0029
 Mercury -95932-07-01 20:08 J -33317557.80 -33317557.66 -33317557.49 0.0088 0.0035
 Mercury -95932-09-27 22:47 J -33317469.69 -33317469.55 -33317469.39 0.0088 0.0039
 Venus -95932-10-17 02:08 J -33317450.62 -33317450.41 -33317450.19 0.0088 0.0019
 Mercury -95932-12-25 01:25 J -33317381.58 -33317381.44 -33317381.29 0.0088 0.0044
 Mercury -95931-03-23 03:49 J -33317293.47 -33317293.34 -33317293.19 0.0088 0.0049
 Venus -95931-05-30 15:49 J -33317225.06 -33317224.84 -33317224.61 0.0088 0.0008
 Mercury -95931-06-19 06:13 J -33317205.36 -33317205.24 -33317205.10 0.0088 0.0054
 Mercury -95931-09-15 08:37 J -33317117.25 -33317117.14 -33317117.00 0.0088 0.0059
 Mercury -95931-12-12 11:01 J -33317029.14 -33317029.04 -33317028.91 0.0088 0.0064
 Venus -95930-01-11 05:44 J -33316999.49 -33316999.26 -33316999.04 0.0088 0.0005
 Mercury -95930-03-10 13:25 J -33316941.02 -33316940.94 -33316940.82 0.0088 0.0069
 Mercury -95930-06-06 16:18 J -33316852.91 -33316852.82 -33316852.73 0.0088 0.0073
 Venus -95930-08-24 19:11 J -33316773.91 -33316773.70 -33316773.47 0.0088 0.0017
 Mercury -95930-09-02 18:27 J -33316764.79 -33316764.73 -33316764.64 0.0088 0.0078
 Mercury -95930-11-29 20:51 J -33316676.67 -33316676.63 -33316676.56 0.0088 0.0083
 Mercury -95929-02-25 23:15 J -33316588.54 -33316588.53 -33316588.49 0.0088 0.0087
 Venus -95929-04-06 08:51 J -33316548.33 -33316548.13 -33316547.90 0.0088 0.0029
 Venus -95929-11-17 22:32 J -33316322.75 -33316322.56 -33316322.35 0.0088 0.0040

Venus	-95928-07-01 11:59 J	-33316097.16	-33316097.00	-33316096.80	0.0088	0.0052
Venus	-95927-02-12 01:39 J	-33315871.57	-33315871.43	-33315871.26	0.0088	0.0064
Venus	-95927-09-25 15:06 J	-33315645.97	-33315645.87	-33315645.74	0.0088	0.0076
Venus	-95926-05-09 04:32 J	-33315420.32	-33315420.31	-33315420.25	0.0088	0.0088
Earth	-95904-08-31 04:32 J	-33307270.41	-33307270.31	-33307270.17	0.0088	0.0077
Moon	-95904-08-31 05:59 J	-33307270.36	-33307270.25	-33307270.09	0.0088	0.0076 *
Moon	-95903-09-02 14:37 J	-33306903.10	-33306902.89	-33306902.68	0.0088	0.0047
Earth	-95903-09-02 15:06 J	-33306903.07	-33306902.87	-33306902.64	0.0088	0.0047 *
Moon	-95902-09-05 00:27 J	-33306535.73	-33306535.48	-33306535.21	0.0088	0.0015
Earth	-95902-09-05 01:25 J	-33306535.69	-33306535.44	-33306535.19	0.0088	0.0016 *
Earth	-95901-09-06 11:15 J	-33306168.27	-33306168.03	-33306167.77	0.0088	0.0015
Moon	-95901-09-06 13:25 J	-33306168.18	-33306167.94	-33306167.69	0.0088	0.0014 *
Moon	-95900-09-08 17:59 J	-33305800.95	-33305800.75	-33305800.50	0.0088	0.0047
Earth	-95900-09-08 21:20 J	-33305800.83	-33305800.61	-33305800.40	0.0088	0.0046 *
Earth	-95899-09-11 06:13 J	-33305433.35	-33305433.24	-33305433.09	0.0088	0.0076
Moon	-95899-09-11 09:35 J	-33305433.20	-33305433.10	-33305432.95	0.0088	0.0077 *
Mars	-95891-09-14 09:49 J	-33302508.29	-33302508.09	-33302507.83	0.0088	0.0058
Mars	-95889-08-08 17:01 J	-33301814.09	-33301813.79	-33301813.48	0.0088	0.0009
Mars	-95887-07-04 00:42 J	-33301119.60	-33301119.47	-33301119.29	0.0088	0.0077
Mercury	-95856-09-09 23:30 J	-33289728.54	-33289728.52	-33289728.48	0.0089	0.0086
Mercury	-95856-12-07 01:11 J	-33289640.49	-33289640.45	-33289640.39	0.0089	0.0082
Mercury	-95855-03-05 02:51 J	-33289552.44	-33289552.38	-33289552.31	0.0089	0.0078
Mercury	-95855-06-01 04:32 J	-33289464.38	-33289464.31	-33289464.22	0.0089	0.0074
Mercury	-95855-08-28 05:59 J	-33289376.32	-33289376.25	-33289376.14	0.0089	0.0070
Mercury	-95855-11-24 08:08 J	-33289288.26	-33289288.16	-33289288.07	0.0089	0.0065
Mercury	-95854-02-20 09:35 J	-33289200.19	-33289200.10	-33289199.99	0.0089	0.0061
Mercury	-95854-05-19 11:15 J	-33289112.13	-33289112.03	-33289111.91	0.0089	0.0057
Mercury	-95854-08-15 12:56 J	-33289024.06	-33289023.96	-33289023.83	0.0089	0.0053
Mercury	-95854-11-11 14:51 J	-33288936.00	-33288935.88	-33288935.76	0.0089	0.0048
Mercury	-95853-02-07 16:32 J	-33288847.93	-33288847.81	-33288847.68	0.0089	0.0044

Mercury -95853-05-05 18:13 J -33288759.86 -33288759.74 -33288759.60 0.0089 0.0040

Mercury -95853-08-01 20:08 J -33288671.79 -33288671.66 -33288671.53 0.0089 0.0035

Venus -95853-10-28 00:56 J -33288584.50 -33288584.46 -33288584.36 0.0089 0.0084

Mercury -95853-10-28 21:49 J -33288583.72 -33288583.59 -33288583.45 0.0089 0.0031

Mercury -95852-01-24 23:30 J -33288495.65 -33288495.52 -33288495.37 0.0089 0.0027

Mercury -95852-04-23 01:25 J -33288407.58 -33288407.44 -33288407.30 0.0089 0.0022

Venus -95852-06-10 13:39 J -33288359.05 -33288358.93 -33288358.80 0.0089 0.0072

Mercury -95852-07-20 03:06 J -33288319.51 -33288319.37 -33288319.22 0.0089 0.0018

Mercury -95852-10-16 05:01 J -33288231.43 -33288231.29 -33288231.14 0.0089 0.0013

Mercury -95851-01-12 06:42 J -33288143.36 -33288143.22 -33288143.07 0.0089 0.0009

Venus -95851-01-22 01:39 J -33288133.58 -33288133.43 -33288133.27 0.0089 0.0061

Mercury -95851-04-10 08:37 J -33288055.29 -33288055.14 -33288054.99 0.0089 0.0005

Mercury -95851-07-07 10:18 J -33287967.21 -33287967.07 -33287966.92 0.0089 0.0003

Venus -95851-09-04 13:39 J -33287908.09 -33287907.93 -33287907.73 0.0089 0.0050

Mercury -95851-10-03 12:13 J -33287879.14 -33287878.99 -33287878.84 0.0089 0.0004

Mercury -95851-12-30 14:08 J -33287791.06 -33287790.91 -33287790.77 0.0089 0.0009

Mercury -95850-03-28 15:49 J -33287702.98 -33287702.84 -33287702.69 0.0089 0.0013

Venus -95850-04-18 02:08 J -33287682.60 -33287682.41 -33287682.21 0.0089 0.0038

Mercury -95850-06-24 17:44 J -33287614.91 -33287614.76 -33287614.62 0.0089 0.0018

Mercury -95850-09-20 19:25 J -33287526.83 -33287526.69 -33287526.54 0.0089 0.0022

Venus -95850-11-29 14:37 J -33287457.10 -33287456.89 -33287456.68 0.0089 0.0026

Mercury -95850-12-17 21:20 J -33287438.75 -33287438.61 -33287438.47 0.0089 0.0027

Mercury -95849-03-14 23:15 J -33287350.67 -33287350.53 -33287350.39 0.0089 0.0031

Mercury -95849-06-11 00:56 J -33287262.59 -33287262.46 -33287262.32 0.0089 0.0036

Venus -95849-07-12 02:37 J -33287231.59 -33287231.39 -33287231.17 0.0089 0.0015

Mercury -95849-09-07 02:51 J -33287174.51 -33287174.38 -33287174.24 0.0089 0.0041

Mercury -95849-12-04 04:47 J -33287086.42 -33287086.30 -33287086.17 0.0089 0.0045

Venus -95848-02-22 15:06 J -33287006.09 -33287005.87 -33287005.66 0.0089 0.0003

Mercury -95848-03-02 06:27 J -33286998.34 -33286998.23 -33286998.09 0.0089 0.0050

Mercury -95848-05-29 08:37 J -33286910.26 -33286910.14 -33286910.02 0.0089 0.0054

Mercury -95848-08-25 10:18 J -33286822.17 -33286822.07 -33286821.95 0.0089 0.0059

Venus -95848-10-06 03:20 J -33286780.57 -33286780.36 -33286780.14 0.0089 0.0009

Mercury -95848-11-21 12:27 J -33286734.08 -33286733.98 -33286733.87 0.0089 0.0063

Mercury -95847-02-17 14:08 J -33286645.99 -33286645.91 -33286645.80 0.0089 0.0068

Mercury -95847-05-16 16:03 J -33286557.90 -33286557.83 -33286557.73 0.0089 0.0073

Venus -95847-05-19 15:35 J -33286555.06 -33286554.85 -33286554.63 0.0089 0.0020

Mercury -95847-08-12 18:13 J -33286469.81 -33286469.74 -33286469.66 0.0089 0.0077

Mercury -95847-11-08 19:54 J -33286381.71 -33286381.67 -33286381.60 0.0089 0.0082

Venus -95847-12-31 03:35 J -33286329.54 -33286329.35 -33286329.13 0.0089 0.0032

Mercury -95846-02-04 21:49 J -33286293.60 -33286293.59 -33286293.54 0.0089 0.0087

Venus -95846-08-13 16:03 J -33286104.01 -33286103.83 -33286103.63 0.0089 0.0043

Venus -95845-03-26 04:18 J -33285878.48 -33285878.32 -33285878.14 0.0089 0.0055

Venus -95845-11-06 17:01 J -33285652.93 -33285652.79 -33285652.64 0.0089 0.0066

Venus -95844-06-20 05:01 J -33285427.37 -33285427.29 -33285427.17 0.0089 0.0078

Earth -95821-02-22 05:44 J -33277145.39 -33277145.26 -33277145.08 0.0089 0.0071

Moon -95821-02-22 09:06 J -33277145.26 -33277145.12 -33277144.94 0.0089 0.0070 *

Moon -95820-02-23 16:03 J -33276778.05 -33276777.83 -33276777.59 0.0089 0.0040

Earth -95820-02-23 18:42 J -33276777.94 -33276777.72 -33276777.47 0.0089 0.0039 *

Earth -95819-02-26 07:54 J -33276410.42 -33276410.17 -33276409.90 0.0089 0.0007

Moon -95819-02-26 09:20 J -33276410.37 -33276410.11 -33276409.84 0.0089 0.0007 *

Moon -95818-02-28 20:23 J -33276042.88 -33276042.65 -33276042.40 0.0089 0.0024

Earth -95818-02-28 20:51 J -33276042.87 -33276042.63 -33276042.37 0.0089 0.0025 *

Moon -95817-03-02 09:06 J -33275675.30 -33275675.12 -33275674.89 0.0089 0.0059

Earth -95817-03-02 10:03 J -33275675.27 -33275675.08 -33275674.87 0.0089 0.0057 *

Moon -95816-03-05 01:25 J -33275307.44 -33275307.44 -33275307.40 0.0089 0.0089

Mars -95809-08-12 02:51 J -33272590.57 -33272590.38 -33272590.15 0.0089 0.0067

Mars -95807-07-08 12:56 J -33271895.28 -33271894.96 -33271894.63 0.0089 0.0006

Mars -95805-06-02 20:23 J -33271199.77 -33271199.65 -33271199.46 0.0089 0.0078

Mercury -95773-09-09 04:03 J -33259413.37 -33259413.33 -33259413.26 0.0088 0.0084

Mercury -95773-12-06 07:11 J -33259325.27 -33259325.20 -33259325.12 0.0088 0.0079

Mercury -95772-03-04 09:49 J -33259237.18 -33259237.09 -33259236.98 0.0088 0.0074

Mercury -95772-05-31 12:27 J -33259149.07 -33259148.98 -33259148.85 0.0088 0.0069

Mercury -95772-08-27 15:35 J -33259060.97 -33259060.85 -33259060.73 0.0088 0.0063

Mercury -95772-11-23 18:13 J -33258972.86 -33258972.74 -33258972.60 0.0088 0.0058

Mercury -95771-02-19 20:51 J -33258884.76 -33258884.63 -33258884.48 0.0088 0.0053

Mercury -95771-05-18 23:30 J -33258796.65 -33258796.52 -33258796.36 0.0088 0.0048

Mercury -95771-08-15 02:23 J -33258708.54 -33258708.40 -33258708.24 0.0088 0.0042

Mercury -95771-11-11 05:15 J -33258620.43 -33258620.28 -33258620.12 0.0088 0.0037

Venus -95771-12-17 11:15 J -33258584.09 -33258584.03 -33258583.95 0.0088 0.0084

Mercury -95770-02-07 07:54 J -33258532.33 -33258532.17 -33258532.00 0.0088 0.0032

Mercury -95770-05-06 10:32 J -33258444.22 -33258444.06 -33258443.89 0.0088 0.0027

Venus -95770-07-31 01:11 J -33258358.57 -33258358.45 -33258358.31 0.0088 0.0072

Mercury -95770-08-02 13:11 J -33258356.11 -33258355.95 -33258355.78 0.0088 0.0022

Mercury -95770-10-29 15:49 J -33258268.00 -33258267.84 -33258267.66 0.0088 0.0017

Mercury -95769-01-25 18:42 J -33258179.89 -33258179.72 -33258179.55 0.0088 0.0011

Venus -95769-03-12 14:37 J -33258133.03 -33258132.89 -33258132.70 0.0088 0.0061

Mercury -95769-04-22 21:20 J -33258091.78 -33258091.61 -33258091.44 0.0088 0.0006

Mercury -95769-07-19 23:59 J -33258003.67 -33258003.50 -33258003.33 0.0088 0.0001

Mercury -95769-10-16 02:37 J -33257915.56 -33257915.39 -33257915.22 0.0088 0.0004

Venus -95769-10-24 04:32 J -33257907.48 -33257907.31 -33257907.10 0.0088 0.0049

Mercury -95768-01-12 05:01 J -33257827.45 -33257827.29 -33257827.12 0.0088 0.0010

Mercury -95768-04-10 07:39 J -33257739.34 -33257739.18 -33257739.01 0.0088 0.0014

Venus -95768-06-06 18:13 J -33257681.93 -33257681.74 -33257681.52 0.0088 0.0037

Mercury -95768-07-07 10:18 J -33257651.23 -33257651.07 -33257650.90 0.0088 0.0019

Mercury -95768-10-03 12:42 J -33257563.12 -33257562.97 -33257562.80 0.0088 0.0024

Mercury -95768-12-30 15:20 J -33257475.01 -33257474.86 -33257474.70 0.0088 0.0029

Venus -95767-01-18 08:08 J -33257456.37 -33257456.16 -33257455.93 0.0088 0.0025

Mercury -95767-03-28 17:44 J -33257386.90 -33257386.76 -33257386.59 0.0088 0.0034

Mercury -95767-06-24 20:08 J -33257298.79 -33257298.66 -33257298.49 0.0088 0.0040

Venus -95767-08-31 22:03 J -33257230.80 -33257230.58 -33257230.36 0.0088 0.0012

Mercury -95767-09-20 23:01 J -33257210.68 -33257210.54 -33257210.39 0.0088 0.0044

Mercury -95767-12-18 01:25 J -33257122.57 -33257122.44 -33257122.29 0.0088 0.0049

Mercury -95766-03-16 03:49 J -33257034.46 -33257034.34 -33257034.20 0.0088 0.0054

Venus -95766-04-14 11:59 J -33257005.23 -33257005.00 -33257004.78 0.0088 0.0000

Mercury -95766-06-12 06:13 J -33256946.35 -33256946.24 -33256946.10 0.0088 0.0059

Mercury -95766-09-08 08:37 J -33256858.24 -33256858.14 -33256858.01 0.0088 0.0064

Venus -95766-11-26 01:39 J -33256779.65 -33256779.43 -33256779.21 0.0088 0.0012

Mercury -95766-12-05 11:01 J -33256770.12 -33256770.04 -33256769.91 0.0088 0.0069

Mercury -95765-03-02 13:54 J -33256682.01 -33256681.92 -33256681.82 0.0088 0.0073

Mercury -95765-05-29 16:18 J -33256593.89 -33256593.82 -33256593.74 0.0088 0.0078

Venus -95765-07-08 15:06 J -33256554.08 -33256553.87 -33256553.65 0.0088 0.0024

Mercury -95765-08-25 18:27 J -33256505.77 -33256505.73 -33256505.66 0.0088 0.0083

Mercury -95765-11-21 20:51 J -33256417.64 -33256417.63 -33256417.59 0.0088 0.0087

Venus -95764-02-19 04:32 J -33256328.50 -33256328.31 -33256328.09 0.0088 0.0036

Venus -95764-10-02 18:13 J -33256102.92 -33256102.74 -33256102.54 0.0088 0.0047

Venus -95763-05-16 07:39 J -33255877.32 -33255877.18 -33255876.99 0.0088 0.0060

Venus -95763-12-27 21:49 J -33255651.72 -33255651.59 -33255651.46 0.0088 0.0071

Venus -95762-08-10 11:01 J -33255426.10 -33255426.04 -33255425.95 0.0088 0.0083

Moon -95739-09-01 17:30 J -33247002.95 -33247002.77 -33247002.57 0.0088 0.0061

Earth -95739-09-01 19:11 J -33247002.86 -33247002.70 -33247002.51 0.0088 0.0065 *

Earth -95738-09-04 05:30 J -33246635.50 -33246635.27 -33246635.03 0.0088 0.0034

Moon -95738-09-04 07:39 J -33246635.39 -33246635.18 -33246634.94 0.0088 0.0038 *

Moon -95737-09-05 12:27 J -33246268.24 -33246267.98 -33246267.72 0.0088 0.0002

Earth -95737-09-05 15:49 J -33246268.09 -33246267.84 -33246267.58 0.0088 0.0003 *

Earth -95736-09-08 01:39 J -33245900.67 -33245900.43 -33245900.18 0.0088 0.0028

Moon -95736-09-08 05:01 J -33245900.53 -33245900.29 -33245900.04 0.0088 0.0023 *

Moon -95735-09-10 08:08 J -33245533.33 -33245533.16 -33245532.98 0.0088 0.0063

Earth -95735-09-10 11:01 J -33245533.20 -33245533.04 -33245532.82 0.0088 0.0059 *

Moon -95734-09-12 23:44 J -33245165.58 -33245165.51 -33245165.43 0.0088 0.0084

Mars -95725-03-23 04:03 J -33242051.61 -33242051.33 -33242051.02 0.0088 0.0024

Mars -95723-02-15 11:30 J -33241357.26 -33241357.02 -33241356.73 0.0088 0.0044
 Mercury -95691-06-06 22:03 J -33229557.61 -33229557.58 -33229557.54 0.0089 0.0086
 Mercury -95691-09-02 23:30 J -33229469.56 -33229469.52 -33229469.45 0.0089 0.0082
 Mercury -95691-11-30 01:11 J -33229381.50 -33229381.45 -33229381.37 0.0089 0.0078
 Mercury -95690-02-26 02:51 J -33229293.45 -33229293.38 -33229293.29 0.0089 0.0074
 Mercury -95690-05-25 04:32 J -33229205.39 -33229205.31 -33229205.21 0.0089 0.0070
 Mercury -95690-08-21 06:27 J -33229117.32 -33229117.23 -33229117.13 0.0089 0.0065
 Mercury -95690-11-17 08:08 J -33229029.26 -33229029.16 -33229029.05 0.0089 0.0061
 Mercury -95689-02-13 09:49 J -33228941.20 -33228941.09 -33228940.98 0.0089 0.0057
 Mercury -95689-05-11 11:15 J -33228853.13 -33228853.03 -33228852.90 0.0089 0.0053
 Mercury -95689-08-07 12:56 J -33228765.06 -33228764.96 -33228764.82 0.0089 0.0049
 Mercury -95689-11-03 14:51 J -33228677.00 -33228676.88 -33228676.75 0.0089 0.0044
 Mercury -95688-01-30 16:32 J -33228588.93 -33228588.81 -33228588.67 0.0089 0.0040
 Mercury -95688-04-28 18:13 J -33228500.86 -33228500.74 -33228500.59 0.0089 0.0036
 Mercury -95688-07-25 20:08 J -33228412.79 -33228412.66 -33228412.52 0.0089 0.0031
 Venus -95688-09-11 21:06 J -33228364.70 -33228364.62 -33228364.49 0.0089 0.0078
 Mercury -95688-10-21 21:49 J -33228324.72 -33228324.59 -33228324.44 0.0089 0.0027
 Mercury -95687-01-17 23:44 J -33228236.65 -33228236.51 -33228236.37 0.0089 0.0022
 Mercury -95687-04-16 01:39 J -33228148.58 -33228148.43 -33228148.29 0.0089 0.0018
 Venus -95687-04-25 09:35 J -33228139.23 -33228139.10 -33228138.94 0.0089 0.0066
 Mercury -95687-07-13 03:20 J -33228060.50 -33228060.36 -33228060.21 0.0089 0.0014
 Mercury -95687-10-09 05:01 J -33227972.43 -33227972.29 -33227972.14 0.0089 0.0010
 Venus -95687-12-06 21:35 J -33227913.75 -33227913.60 -33227913.41 0.0089 0.0055
 Mercury -95686-01-05 06:56 J -33227884.36 -33227884.21 -33227884.06 0.0089 0.0005
 Mercury -95686-04-03 08:37 J -33227796.28 -33227796.14 -33227795.99 0.0089 0.0003
 Mercury -95686-06-30 10:32 J -33227708.21 -33227708.06 -33227707.91 0.0089 0.0004
 Venus -95686-07-20 10:03 J -33227688.26 -33227688.08 -33227687.88 0.0089 0.0043
 Mercury -95686-09-26 12:27 J -33227620.13 -33227619.98 -33227619.84 0.0089 0.0009
 Mercury -95686-12-23 14:08 J -33227532.05 -33227531.91 -33227531.76 0.0089 0.0013
 Venus -95685-03-01 22:32 J -33227462.76 -33227462.56 -33227462.36 0.0089 0.0031

Mercury -95685-03-20 16:03 J -33227443.98 -33227443.83 -33227443.69 0.0089 0.0018
 Mercury -95685-06-16 17:59 J -33227355.90 -33227355.75 -33227355.61 0.0089 0.0022
 Mercury -95685-09-12 19:39 J -33227267.82 -33227267.68 -33227267.54 0.0089 0.0027
 Venus -95685-10-13 10:47 J -33227237.25 -33227237.05 -33227236.83 0.0089 0.0020
 Mercury -95685-12-09 21:35 J -33227179.74 -33227179.60 -33227179.46 0.0089 0.0031
 Mercury -95684-03-07 23:15 J -33227091.66 -33227091.53 -33227091.39 0.0089 0.0036
 Venus -95684-05-26 23:15 J -33227011.75 -33227011.53 -33227011.32 0.0089 0.0008
 Mercury -95684-06-04 01:11 J -33227003.58 -33227003.45 -33227003.31 0.0089 0.0041
 Mercury -95684-08-31 03:06 J -33226915.49 -33226915.37 -33226915.24 0.0089 0.0045
 Mercury -95684-11-27 04:47 J -33226827.41 -33226827.30 -33226827.16 0.0089 0.0050
 Venus -95683-01-07 11:30 J -33226786.24 -33226786.02 -33226785.81 0.0089 0.0004
 Mercury -95683-02-23 06:56 J -33226739.33 -33226739.21 -33226739.09 0.0089 0.0054
 Mercury -95683-05-22 08:37 J -33226651.24 -33226651.14 -33226651.02 0.0089 0.0059
 Mercury -95683-08-18 10:47 J -33226563.15 -33226563.05 -33226562.94 0.0089 0.0063
 Venus -95683-08-20 23:30 J -33226560.72 -33226560.52 -33226560.30 0.0089 0.0016
 Mercury -95683-11-14 12:27 J -33226475.06 -33226474.98 -33226474.87 0.0089 0.0068
 Mercury -95682-02-10 14:23 J -33226386.97 -33226386.90 -33226386.80 0.0089 0.0073
 Venus -95682-04-03 11:59 J -33226335.20 -33226335.00 -33226334.79 0.0089 0.0027
 Mercury -95682-05-09 16:32 J -33226298.88 -33226298.81 -33226298.73 0.0089 0.0077
 Mercury -95682-08-05 18:13 J -33226210.78 -33226210.74 -33226210.67 0.0089 0.0082
 Mercury -95682-11-01 20:08 J -33226122.67 -33226122.66 -33226122.61 0.0089 0.0087
 Venus -95682-11-15 00:13 J -33226109.67 -33226109.49 -33226109.28 0.0089 0.0039
 Venus -95681-06-27 12:27 J -33225884.14 -33225883.98 -33225883.79 0.0089 0.0051
 Venus -95680-02-08 00:56 J -33225658.60 -33225658.46 -33225658.29 0.0089 0.0062
 Venus -95680-09-21 13:11 J -33225433.05 -33225432.95 -33225432.81 0.0089 0.0074
 Venus -95679-05-05 01:54 J -33225207.47 -33225207.42 -33225207.35 0.0089 0.0085
 Moon -95657-02-21 08:08 J -33217245.23 -33217245.16 -33217245.08 0.0089 0.0084
 Earth -95657-02-21 09:20 J -33217245.11 -33217245.11 -33217245.07 0.0089 0.0089 *
 Earth -95656-02-22 22:03 J -33216877.76 -33216877.58 -33216877.36 0.0089 0.0057
 Moon -95656-02-22 23:01 J -33216877.71 -33216877.54 -33216877.32 0.0089 0.0061 *

Earth -95655-02-25 11:15 J -33216510.27 -33216510.03 -33216509.77 0.0089 0.0025
 Moon -95655-02-25 11:30 J -33216510.25 -33216510.02 -33216509.76 0.0089 0.0021 *
 Moon -95654-02-27 22:18 J -33216142.83 -33216142.57 -33216142.30 0.0089 0.0003
 Earth -95654-02-28 00:13 J -33216142.74 -33216142.49 -33216142.22 0.0089 0.0007 *
 Earth -95653-03-01 13:11 J -33215775.17 -33215774.95 -33215774.70 0.0089 0.0039
 Moon -95653-03-01 15:35 J -33215775.06 -33215774.85 -33215774.62 0.0089 0.0043 *
 Moon -95652-03-03 23:01 J -33215407.70 -33215407.54 -33215407.35 0.0089 0.0066
 Earth -95652-03-04 02:23 J -33215407.54 -33215407.40 -33215407.23 0.0089 0.0071 *
 Mars -95643-02-19 09:35 J -33212133.41 -33212133.10 -33212132.79 0.0089 0.0029
 Mars -95641-01-15 18:42 J -33211437.98 -33211437.72 -33211437.42 0.0089 0.0044
 Mercury -95608-06-06 01:25 J -33199242.47 -33199242.44 -33199242.37 0.0088 0.0085
 Mercury -95608-09-02 04:47 J -33199154.38 -33199154.30 -33199154.22 0.0088 0.0079
 Mercury -95608-11-29 07:25 J -33199066.28 -33199066.19 -33199066.09 0.0088 0.0074
 Mercury -95607-02-25 10:03 J -33198978.17 -33198978.08 -33198977.95 0.0088 0.0069
 Mercury -95607-05-24 13:11 J -33198890.07 -33198889.95 -33198889.83 0.0088 0.0063
 Mercury -95607-08-20 15:49 J -33198801.96 -33198801.84 -33198801.70 0.0088 0.0058
 Mercury -95607-11-16 18:27 J -33198713.86 -33198713.73 -33198713.58 0.0088 0.0053
 Mercury -95606-02-12 21:20 J -33198625.75 -33198625.61 -33198625.45 0.0088 0.0047
 Mercury -95606-05-12 00:13 J -33198537.64 -33198537.49 -33198537.33 0.0088 0.0042
 Mercury -95606-08-08 02:51 J -33198449.53 -33198449.38 -33198449.22 0.0088 0.0037
 Venus -95606-11-01 08:08 J -33198364.27 -33198364.16 -33198364.05 0.0088 0.0077
 Mercury -95606-11-04 05:30 J -33198361.42 -33198361.27 -33198361.10 0.0088 0.0032
 Mercury -95605-01-31 08:08 J -33198273.31 -33198273.16 -33198272.98 0.0088 0.0027
 Mercury -95605-04-28 11:01 J -33198185.20 -33198185.04 -33198184.87 0.0088 0.0021
 Venus -95605-06-13 21:20 J -33198138.74 -33198138.61 -33198138.43 0.0088 0.0066
 Mercury -95605-07-25 13:39 J -33198097.09 -33198096.93 -33198096.76 0.0088 0.0016
 Mercury -95605-10-21 16:18 J -33198008.98 -33198008.82 -33198008.64 0.0088 0.0011
 Mercury -95604-01-17 18:56 J -33197920.88 -33197920.71 -33197920.53 0.0088 0.0006
 Venus -95604-01-25 11:01 J -33197913.19 -33197913.04 -33197912.83 0.0088 0.0054
 Mercury -95604-04-15 21:49 J -33197832.77 -33197832.59 -33197832.42 0.0088 0.0002

Mercury -95604-07-13 00:13 J -33197744.66 -33197744.49 -33197744.31 0.0088 0.0005

Venus -95604-09-08 00:56 J -33197687.64 -33197687.46 -33197687.24 0.0088 0.0042

Mercury -95604-10-09 02:51 J -33197656.55 -33197656.38 -33197656.21 0.0088 0.0010

Mercury -95603-01-05 05:30 J -33197568.44 -33197568.27 -33197568.10 0.0088 0.0015

Mercury -95603-04-03 08:08 J -33197480.33 -33197480.16 -33197479.99 0.0088 0.0019

Venus -95603-04-21 15:06 J -33197462.07 -33197461.87 -33197461.65 0.0088 0.0029

Mercury -95603-06-30 10:32 J -33197392.22 -33197392.06 -33197391.89 0.0088 0.0025

Mercury -95603-09-26 13:11 J -33197304.11 -33197303.95 -33197303.79 0.0088 0.0029

Venus -95603-12-03 04:47 J -33197236.51 -33197236.30 -33197236.07 0.0088 0.0018

Mercury -95603-12-23 15:35 J -33197216.00 -33197215.85 -33197215.68 0.0088 0.0035

Mercury -95602-03-21 18:13 J -33197127.88 -33197127.74 -33197127.58 0.0088 0.0039

Mercury -95602-06-17 20:37 J -33197039.77 -33197039.64 -33197039.48 0.0088 0.0045

Venus -95602-07-16 18:42 J -33197010.95 -33197010.72 -33197010.50 0.0088 0.0005

Mercury -95602-09-13 23:01 J -33196951.66 -33196951.54 -33196951.38 0.0088 0.0050

Mercury -95602-12-11 01:39 J -33196863.55 -33196863.43 -33196863.29 0.0088 0.0054

Venus -95601-02-27 08:08 J -33196785.38 -33196785.16 -33196784.93 0.0088 0.0007

Mercury -95601-03-08 04:18 J -33196775.44 -33196775.32 -33196775.19 0.0088 0.0059

Mercury -95601-06-04 06:42 J -33196687.33 -33196687.22 -33196687.10 0.0088 0.0064

Mercury -95601-08-31 09:06 J -33196599.21 -33196599.12 -33196599.00 0.0088 0.0069

Venus -95601-10-09 21:35 J -33196559.80 -33196559.60 -33196559.36 0.0088 0.0020

Mercury -95601-11-27 11:30 J -33196511.10 -33196511.02 -33196510.91 0.0088 0.0073

Mercury -95600-02-23 14:23 J -33196422.98 -33196422.90 -33196422.83 0.0088 0.0078

Mercury -95600-05-22 16:32 J -33196334.86 -33196334.81 -33196334.75 0.0088 0.0083

Venus -95600-05-23 11:15 J -33196334.22 -33196334.03 -33196333.80 0.0088 0.0032

Mercury -95600-08-18 18:42 J -33196246.72 -33196246.72 -33196246.68 0.0088 0.0088

Venus -95599-01-04 01:11 J -33196108.64 -33196108.45 -33196108.25 0.0088 0.0043

Venus -95599-08-17 14:37 J -33195883.06 -33195882.89 -33195882.71 0.0088 0.0055

Venus -95598-03-31 04:18 J -33195657.46 -33195657.32 -33195657.17 0.0088 0.0067

Venus -95598-11-11 17:44 J -33195431.85 -33195431.76 -33195431.64 0.0088 0.0079

Jupiter -95596-02-14 14:23 J -33194971.18 -33194970.90 -33194970.54 0.0088 0.0071

Earth	-95575-08-31 23:30 J	-33187102.59	-33187102.52	-33187102.41	0.0088	0.0083
Moon	-95575-09-01 02:37 J	-33187102.46	-33187102.39	-33187102.26	0.0088	0.0081 *
Moon	-95574-09-03 06:42 J	-33186735.41	-33186735.22	-33186735.00	0.0088	0.0053
Earth	-95574-09-03 10:18 J	-33186735.27	-33186735.07	-33186734.85	0.0088	0.0052 *
Earth	-95573-09-04 20:37 J	-33186367.89	-33186367.64	-33186367.39	0.0088	0.0021
Moon	-95573-09-05 00:13 J	-33186367.74	-33186367.49	-33186367.24	0.0088	0.0020 *
Moon	-95572-09-07 03:49 J	-33186000.58	-33186000.34	-33186000.09	0.0088	0.0008
Earth	-95572-09-07 06:42 J	-33186000.47	-33186000.22	-33185999.96	0.0088	0.0010 *
Earth	-95571-09-09 16:18 J	-33185633.03	-33185632.82	-33185632.58	0.0088	0.0041
Moon	-95571-09-09 18:27 J	-33185632.94	-33185632.73	-33185632.48	0.0088	0.0042 *
Moon	-95570-09-12 00:42 J	-33185265.59	-33185265.47	-33185265.29	0.0088	0.0071
Earth	-95570-09-12 01:54 J	-33185265.54	-33185265.42	-33185265.24	0.0088	0.0072 *
Mars	-95562-11-05 18:56 J	-33182288.94	-33182288.71	-33182288.48	0.0088	0.0057
Mars	-95560-09-29 23:59 J	-33181594.79	-33181594.50	-33181594.19	0.0088	0.0011
Mars	-95558-08-25 07:54 J	-33180900.30	-33180900.17	-33180900.01	0.0088	0.0078
Mercury	-95526-03-03 20:23 J	-33169386.67	-33169386.65	-33169386.60	0.0089	0.0086
Mercury	-95526-05-30 22:03 J	-33169298.62	-33169298.58	-33169298.51	0.0089	0.0082
Mercury	-95526-08-26 23:44 J	-33169210.56	-33169210.51	-33169210.43	0.0089	0.0078
Mercury	-95526-11-23 01:25 J	-33169122.51	-33169122.44	-33169122.35	0.0089	0.0074
Mercury	-95525-02-19 03:20 J	-33169034.45	-33169034.36	-33169034.27	0.0089	0.0069
Mercury	-95525-05-17 05:01 J	-33168946.39	-33168946.29	-33168946.19	0.0089	0.0065
Mercury	-95525-08-13 06:27 J	-33168858.32	-33168858.23	-33168858.12	0.0089	0.0061
Mercury	-95525-11-09 08:08 J	-33168770.26	-33168770.16	-33168770.04	0.0089	0.0057
Mercury	-95524-02-05 09:49 J	-33168682.19	-33168682.09	-33168681.96	0.0089	0.0053
Mercury	-95524-05-04 11:44 J	-33168594.13	-33168594.01	-33168593.89	0.0089	0.0048
Mercury	-95524-07-31 13:25 J	-33168506.06	-33168505.94	-33168505.81	0.0089	0.0044
Mercury	-95524-10-27 15:06 J	-33168417.99	-33168417.87	-33168417.73	0.0089	0.0040
Venus	-95524-12-14 05:30 J	-33168370.33	-33168370.27	-33168370.18	0.0089	0.0083
Mercury	-95523-01-23 17:01 J	-33168329.93	-33168329.79	-33168329.66	0.0089	0.0035
Mercury	-95523-04-21 18:42 J	-33168241.86	-33168241.72	-33168241.58	0.0089	0.0031

Mercury -95523-07-18 20:23 J -33168153.79 -33168153.65 -33168153.51 0.0089 0.0027
 Venus -95523-07-27 17:44 J -33168144.88 -33168144.76 -33168144.62 0.0089 0.0071
 Mercury -95523-10-14 22:03 J -33168065.72 -33168065.58 -33168065.43 0.0089 0.0023
 Mercury -95522-01-10 23:59 J -33167977.64 -33167977.50 -33167977.36 0.0089 0.0018
 Venus -95522-03-10 05:44 J -33167919.40 -33167919.26 -33167919.08 0.0089 0.0060
 Mercury -95522-04-09 01:39 J -33167889.57 -33167889.43 -33167889.28 0.0089 0.0014
 Mercury -95522-07-06 03:35 J -33167801.50 -33167801.35 -33167801.21 0.0089 0.0009
 Mercury -95522-10-02 05:15 J -33167713.42 -33167713.28 -33167713.13 0.0089 0.0005
 Venus -95522-10-21 18:13 J -33167693.91 -33167693.74 -33167693.55 0.0089 0.0048
 Mercury -95522-12-29 07:11 J -33167625.35 -33167625.20 -33167625.06 0.0089 0.0002
 Mercury -95521-03-26 08:51 J -33167537.28 -33167537.13 -33167536.98 0.0089 0.0004
 Venus -95521-06-03 06:42 J -33167468.42 -33167468.22 -33167468.02 0.0089 0.0036
 Mercury -95521-06-22 10:47 J -33167449.20 -33167449.05 -33167448.91 0.0089 0.0009
 Mercury -95521-09-18 12:27 J -33167361.12 -33167360.98 -33167360.83 0.0089 0.0013
 Mercury -95521-12-15 14:23 J -33167273.05 -33167272.90 -33167272.76 0.0089 0.0018
 Venus -95520-01-14 18:42 J -33167242.92 -33167242.72 -33167242.50 0.0089 0.0025
 Mercury -95520-03-13 16:18 J -33167184.97 -33167184.82 -33167184.68 0.0089 0.0022
 Mercury -95520-06-09 17:59 J -33167096.89 -33167096.75 -33167096.61 0.0089 0.0027
 Venus -95520-08-28 07:11 J -33167017.41 -33167017.20 -33167016.99 0.0089 0.0013
 Mercury -95520-09-05 19:54 J -33167008.81 -33167008.67 -33167008.53 0.0089 0.0031
 Mercury -95520-12-02 21:35 J -33166920.73 -33166920.60 -33166920.46 0.0089 0.0036
 Mercury -95519-02-28 23:15 J -33166832.65 -33166832.53 -33166832.38 0.0089 0.0041
 Venus -95519-04-10 19:25 J -33166791.90 -33166791.69 -33166791.47 0.0089 0.0002
 Mercury -95519-05-28 01:25 J -33166744.57 -33166744.44 -33166744.31 0.0089 0.0045
 Mercury -95519-08-24 03:06 J -33166656.48 -33166656.37 -33166656.23 0.0089 0.0050
 Mercury -95519-11-20 05:15 J -33166568.40 -33166568.28 -33166568.16 0.0089 0.0054
 Venus -95519-11-22 07:54 J -33166566.38 -33166566.17 -33166565.96 0.0089 0.0011
 Mercury -95518-02-16 06:56 J -33166480.31 -33166480.21 -33166480.09 0.0089 0.0059
 Mercury -95518-05-15 09:06 J -33166392.23 -33166392.12 -33166392.02 0.0089 0.0063
 Venus -95518-07-05 19:54 J -33166340.87 -33166340.67 -33166340.45 0.0089 0.0023

Mercury -95518-08-11 10:47 J -33166304.14 -33166304.05 -33166303.95 0.0089 0.0068

Mercury -95518-11-07 12:42 J -33166216.05 -33166215.97 -33166215.88 0.0089 0.0073

Mercury -95517-02-03 14:51 J -33166127.95 -33166127.88 -33166127.81 0.0089 0.0077

Venus -95517-02-16 08:23 J -33166115.34 -33166115.15 -33166114.95 0.0089 0.0034

Mercury -95517-05-01 16:32 J -33166039.86 -33166039.81 -33166039.74 0.0089 0.0082

Mercury -95517-07-28 18:27 J -33165951.75 -33165951.73 -33165951.69 0.0089 0.0087

Venus -95517-09-28 20:37 J -33165889.81 -33165889.64 -33165889.44 0.0089 0.0046

Venus -95516-05-12 08:51 J -33165664.27 -33165664.13 -33165663.95 0.0089 0.0058

Venus -95516-12-23 21:06 J -33165438.73 -33165438.62 -33165438.46 0.0089 0.0070

Venus -95515-08-06 09:49 J -33165213.17 -33165213.09 -33165212.99 0.0089 0.0081

Earth -95492-02-22 02:37 J -33156977.52 -33156977.39 -33156977.24 0.0089 0.0074

Moon -95492-02-22 03:49 J -33156977.46 -33156977.34 -33156977.19 0.0089 0.0075 *

Moon -95491-02-24 12:42 J -33156610.18 -33156609.97 -33156609.71 0.0089 0.0043

Earth -95491-02-24 15:06 J -33156610.08 -33156609.87 -33156609.63 0.0089 0.0043 *

Earth -95490-02-27 04:03 J -33156242.58 -33156242.33 -33156242.06 0.0089 0.0011

Moon -95490-02-27 07:39 J -33156242.44 -33156242.18 -33156241.93 0.0089 0.0011 *

Moon -95489-02-29 13:39 J -33155875.18 -33155874.93 -33155874.67 0.0089 0.0021

Earth -95489-02-29 17:15 J -33155875.03 -33155874.78 -33155874.53 0.0089 0.0021 *

Earth -95488-03-03 05:59 J -33155507.44 -33155507.25 -33155507.02 0.0089 0.0053

Moon -95488-03-03 09:49 J -33155507.28 -33155507.09 -33155506.87 0.0089 0.0054 *

Moon -95487-03-05 16:03 J -33155139.88 -33155139.83 -33155139.73 0.0089 0.0085

Earth -95487-03-05 19:11 J -33155139.75 -33155139.70 -33155139.60 0.0089 0.0085 *

Mars -95480-10-03 04:03 J -33152371.55 -33152371.33 -33152371.11 0.0089 0.0065

Mars -95478-08-29 15:49 J -33151676.16 -33151675.84 -33151675.51 0.0089 0.0009

Mars -95476-07-25 00:13 J -33150980.59 -33150980.49 -33150980.35 0.0089 0.0082

Mercury -95443-03-02 23:01 J -33139071.57 -33139071.54 -33139071.46 0.0088 0.0085

Mercury -95443-05-30 02:08 J -33138983.48 -33138983.41 -33138983.32 0.0088 0.0079

Mercury -95443-08-26 05:01 J -33138895.38 -33138895.29 -33138895.18 0.0088 0.0073

Mercury -95443-11-22 07:39 J -33138807.27 -33138807.18 -33138807.05 0.0088 0.0068

Mercury -95442-02-18 10:47 J -33138719.17 -33138719.05 -33138718.92 0.0088 0.0063

Mercury -95442-05-17 13:25 J -33138631.06 -33138630.94 -33138630.80 0.0088 0.0058
 Mercury -95442-08-13 16:03 J -33138542.95 -33138542.83 -33138542.67 0.0088 0.0053
 Mercury -95442-11-09 19:11 J -33138454.85 -33138454.70 -33138454.55 0.0088 0.0047
 Venus -95441-02-02 14:08 J -33138369.96 -33138369.91 -33138369.80 0.0088 0.0083
 Mercury -95441-02-05 21:49 J -33138366.74 -33138366.59 -33138366.43 0.0088 0.0042
 Mercury -95441-05-04 00:27 J -33138278.63 -33138278.48 -33138278.31 0.0088 0.0037
 Mercury -95441-07-31 03:20 J -33138190.52 -33138190.36 -33138190.19 0.0088 0.0031
 Venus -95441-09-15 04:03 J -33138144.44 -33138144.33 -33138144.17 0.0088 0.0071
 Mercury -95441-10-27 05:59 J -33138102.41 -33138102.25 -33138102.08 0.0088 0.0026
 Mercury -95440-01-23 08:51 J -33138014.30 -33138014.13 -33138013.96 0.0088 0.0021
 Mercury -95440-04-21 11:30 J -33137926.19 -33137926.02 -33137925.85 0.0088 0.0016
 Venus -95440-04-28 18:13 J -33137918.89 -33137918.74 -33137918.55 0.0088 0.0058
 Mercury -95440-07-18 14:08 J -33137838.08 -33137837.91 -33137837.74 0.0088 0.0011
 Mercury -95440-10-14 16:47 J -33137749.97 -33137749.80 -33137749.62 0.0088 0.0006
 Venus -95440-12-10 08:08 J -33137693.34 -33137693.16 -33137692.95 0.0088 0.0046
 Mercury -95439-01-10 19:25 J -33137661.86 -33137661.69 -33137661.51 0.0088 0.0003
 Mercury -95439-04-08 22:03 J -33137573.75 -33137573.58 -33137573.40 0.0088 0.0005
 Mercury -95439-07-06 00:42 J -33137485.64 -33137485.47 -33137485.30 0.0088 0.0010
 Venus -95439-07-23 22:18 J -33137467.78 -33137467.57 -33137467.36 0.0088 0.0034
 Mercury -95439-10-02 03:20 J -33137397.52 -33137397.36 -33137397.19 0.0088 0.0015
 Mercury -95439-12-29 05:44 J -33137309.41 -33137309.26 -33137309.08 0.0088 0.0021
 Venus -95438-03-06 11:59 J -33137242.22 -33137242.00 -33137241.78 0.0088 0.0022
 Mercury -95438-03-27 08:23 J -33137221.30 -33137221.15 -33137220.98 0.0088 0.0025
 Mercury -95438-06-23 11:01 J -33137133.19 -33137133.04 -33137132.87 0.0088 0.0030
 Mercury -95438-09-19 13:39 J -33137045.08 -33137044.93 -33137044.77 0.0088 0.0035
 Venus -95438-10-18 01:39 J -33137016.65 -33137016.43 -33137016.20 0.0088 0.0010
 Mercury -95438-12-16 16:18 J -33136956.97 -33136956.82 -33136956.67 0.0088 0.0040
 Mercury -95437-03-13 18:42 J -33136868.86 -33136868.72 -33136868.57 0.0088 0.0045
 Venus -95437-05-30 15:20 J -33136791.08 -33136790.86 -33136790.63 0.0088 0.0003
 Mercury -95437-06-09 21:06 J -33136780.75 -33136780.62 -33136780.47 0.0088 0.0050

Mercury -95437-09-05 23:44 J -33136692.64 -33136692.51 -33136692.37 0.0088 0.0054

Mercury -95437-12-03 02:08 J -33136604.52 -33136604.41 -33136604.28 0.0088 0.0059

Venus -95436-01-11 05:01 J -33136565.51 -33136565.29 -33136565.07 0.0088 0.0014

Mercury -95436-03-01 04:32 J -33136516.41 -33136516.31 -33136516.18 0.0088 0.0064

Mercury -95436-05-28 07:25 J -33136428.30 -33136428.19 -33136428.09 0.0088 0.0069

Mercury -95436-08-24 09:35 J -33136340.18 -33136340.10 -33136340.00 0.0088 0.0074

Venus -95436-08-24 18:27 J -33136339.93 -33136339.73 -33136339.51 0.0088 0.0027

Mercury -95436-11-20 11:59 J -33136252.06 -33136252.00 -33136251.91 0.0088 0.0079

Mercury -95435-02-16 14:23 J -33136163.94 -33136163.90 -33136163.83 0.0088 0.0083

Venus -95435-04-07 08:08 J -33136114.35 -33136114.16 -33136113.94 0.0088 0.0039

Mercury -95435-05-15 17:01 J -33136075.80 -33136075.79 -33136075.77 0.0088 0.0088

Venus -95435-11-18 21:49 J -33135888.76 -33135888.59 -33135888.40 0.0088 0.0051

Venus -95434-07-02 11:15 J -33135663.17 -33135663.03 -33135662.86 0.0088 0.0063

Venus -95433-02-13 00:42 J -33135437.57 -33135437.47 -33135437.33 0.0088 0.0075

Venus -95433-09-25 14:08 J -33135211.93 -33135211.91 -33135211.84 0.0088 0.0086

Jupiter -95430-04-18 23:30 J -33134277.02 -33134276.52 -33134275.97 0.0088 0.0020

Earth -95410-09-02 15:35 J -33126835.01 -33126834.85 -33126834.69 0.0088 0.0069

Moon -95410-09-02 18:27 J -33126834.89 -33126834.73 -33126834.54 0.0088 0.0065 *

Moon -95409-09-03 23:01 J -33126467.75 -33126467.54 -33126467.31 0.0088 0.0042

Earth -95409-09-04 01:39 J -33126467.65 -33126467.43 -33126467.19 0.0088 0.0038 *

Earth -95408-09-06 11:59 J -33126100.26 -33126100.00 -33126099.75 0.0088 0.0008

Moon -95408-09-06 13:39 J -33126100.20 -33126099.93 -33126099.67 0.0088 0.0003 *

Earth -95407-09-08 21:49 J -33125732.83 -33125732.59 -33125732.33 0.0088 0.0023

Moon -95407-09-08 21:49 J -33125732.82 -33125732.59 -33125732.34 0.0088 0.0020 *

Moon -95406-09-11 06:42 J -33125365.40 -33125365.22 -33125365.00 0.0088 0.0058

Earth -95406-09-11 07:39 J -33125365.37 -33125365.18 -33125364.96 0.0088 0.0054 *

Earth -95405-09-12 17:44 J -33124997.84 -33124997.76 -33124997.68 0.0088 0.0084

Moon -95405-09-12 19:39 J -33124997.77 -33124997.68 -33124997.56 0.0088 0.0080 *

Saturn -95399-01-04 14:23 J -33123058.56 -33123057.90 -33123057.19 0.0088 0.0018

Mars -95396-05-14 15:35 J -33121832.14 -33121831.85 -33121831.55 0.0088 0.0023

Mars -95394-04-08 20:08 J -33121137.90 -33121137.66 -33121137.37 0.0088 0.0045
 Mercury -95362-11-28 18:56 J -33109215.73 -33109215.71 -33109215.66 0.0089 0.0086
 Mercury -95361-02-24 20:37 J -33109127.68 -33109127.64 -33109127.57 0.0089 0.0082
 Mercury -95361-05-22 22:47 J -33109039.62 -33109039.55 -33109039.49 0.0089 0.0077
 Mercury -95361-08-19 00:13 J -33108951.56 -33108951.49 -33108951.41 0.0089 0.0073
 Mercury -95361-11-15 01:54 J -33108863.50 -33108863.42 -33108863.33 0.0089 0.0069
 Mercury -95360-02-11 03:20 J -33108775.44 -33108775.36 -33108775.25 0.0089 0.0065
 Mercury -95360-05-10 05:01 J -33108687.38 -33108687.29 -33108687.17 0.0089 0.0061
 Mercury -95360-08-06 06:42 J -33108599.32 -33108599.22 -33108599.10 0.0089 0.0057
 Mercury -95360-11-02 08:37 J -33108511.25 -33108511.14 -33108511.02 0.0089 0.0052
 Mercury -95359-01-29 10:18 J -33108423.19 -33108423.07 -33108422.94 0.0089 0.0048
 Venus -95359-03-17 14:08 J -33108375.92 -33108375.91 -33108375.86 0.0089 0.0088
 Mercury -95359-04-27 11:59 J -33108335.12 -33108335.00 -33108334.87 0.0089 0.0044
 Mercury -95359-07-24 13:54 J -33108247.05 -33108246.92 -33108246.79 0.0089 0.0039
 Mercury -95359-10-20 15:35 J -33108158.98 -33108158.85 -33108158.72 0.0089 0.0035
 Venus -95359-10-29 02:37 J -33108150.49 -33108150.39 -33108150.28 0.0089 0.0076
 Mercury -95358-01-16 17:15 J -33108070.91 -33108070.78 -33108070.64 0.0089 0.0031
 Mercury -95358-04-14 18:56 J -33107982.84 -33107982.71 -33107982.57 0.0089 0.0026
 Venus -95358-06-11 14:23 J -33107925.03 -33107924.90 -33107924.73 0.0089 0.0065
 Mercury -95358-07-11 20:37 J -33107894.77 -33107894.64 -33107894.49 0.0089 0.0022
 Mercury -95358-10-07 22:32 J -33107806.70 -33107806.56 -33107806.42 0.0089 0.0018
 Mercury -95357-01-04 00:13 J -33107718.63 -33107718.49 -33107718.34 0.0089 0.0013
 Venus -95357-01-23 02:37 J -33107699.55 -33107699.39 -33107699.20 0.0089 0.0053
 Mercury -95357-04-01 02:08 J -33107630.56 -33107630.41 -33107630.27 0.0089 0.0009
 Mercury -95357-06-28 03:49 J -33107542.49 -33107542.34 -33107542.19 0.0089 0.0004
 Venus -95357-09-04 15:06 J -33107474.06 -33107473.87 -33107473.68 0.0089 0.0041
 Mercury -95357-09-24 05:30 J -33107454.41 -33107454.27 -33107454.12 0.0089 0.0003
 Mercury -95357-12-21 07:25 J -33107366.34 -33107366.19 -33107366.04 0.0089 0.0004
 Mercury -95356-03-19 09:06 J -33107278.26 -33107278.12 -33107277.97 0.0089 0.0009
 Venus -95356-04-18 03:06 J -33107248.56 -33107248.37 -33107248.15 0.0089 0.0030

Mercury -95356-06-15 11:01 J -33107190.19 -33107190.04 -33107189.89 0.0089 0.0013
 Mercury -95356-09-11 12:42 J -33107102.11 -33107101.97 -33107101.82 0.0089 0.0018
 Venus -95356-11-29 15:35 J -33107023.06 -33107022.85 -33107022.63 0.0089 0.0018
 Mercury -95356-12-08 14:37 J -33107014.03 -33107013.89 -33107013.74 0.0089 0.0022
 Mercury -95355-03-06 16:18 J -33106925.95 -33106925.82 -33106925.67 0.0089 0.0027
 Mercury -95355-06-02 18:13 J -33106837.87 -33106837.74 -33106837.60 0.0089 0.0032
 Venus -95355-07-13 03:49 J -33106797.55 -33106797.34 -33106797.12 0.0089 0.0006
 Mercury -95355-08-29 20:08 J -33106749.79 -33106749.66 -33106749.52 0.0089 0.0036
 Mercury -95355-11-25 21:49 J -33106661.71 -33106661.59 -33106661.45 0.0089 0.0041
 Mercury -95354-02-21 23:59 J -33106573.63 -33106573.50 -33106573.37 0.0089 0.0045
 Venus -95354-02-23 16:18 J -33106572.04 -33106571.82 -33106571.61 0.0089 0.0006
 Mercury -95354-05-21 01:39 J -33106485.55 -33106485.43 -33106485.30 0.0089 0.0050
 Mercury -95354-08-17 03:49 J -33106397.46 -33106397.34 -33106397.23 0.0089 0.0054
 Venus -95354-10-07 04:32 J -33106346.51 -33106346.31 -33106346.09 0.0089 0.0018
 Mercury -95354-11-13 05:30 J -33106309.38 -33106309.27 -33106309.15 0.0089 0.0059
 Mercury -95353-02-09 07:11 J -33106221.29 -33106221.20 -33106221.08 0.0089 0.0064
 Mercury -95353-05-07 09:20 J -33106133.20 -33106133.11 -33106133.01 0.0089 0.0068
 Venus -95353-05-19 16:47 J -33106120.99 -33106120.80 -33106120.59 0.0089 0.0030
 Mercury -95353-08-03 11:01 J -33106045.11 -33106045.04 -33106044.94 0.0089 0.0073
 Mercury -95353-10-30 12:56 J -33105957.02 -33105956.96 -33105956.87 0.0089 0.0078
 Venus -95353-12-31 05:01 J -33105895.47 -33105895.29 -33105895.08 0.0089 0.0042
 Mercury -95352-01-26 15:06 J -33105868.92 -33105868.87 -33105868.81 0.0089 0.0082
 Mercury -95352-04-24 16:47 J -33105780.81 -33105780.80 -33105780.75 0.0089 0.0087
 Venus -95352-08-13 17:15 J -33105669.93 -33105669.78 -33105669.59 0.0089 0.0054
 Venus -95351-03-27 05:59 J -33105444.39 -33105444.25 -33105444.10 0.0089 0.0065
 Venus -95351-11-07 18:27 J -33105218.83 -33105218.73 -33105218.62 0.0089 0.0077
 Venus -95350-06-21 07:11 J -33104993.20 -33104993.20 -33104993.20 0.0089 0.0089
 Moon -95328-02-21 03:20 J -33097077.39 -33097077.36 -33097077.29 0.0089 0.0087
 Earth -95327-02-23 19:25 J -33096709.87 -33096709.69 -33096709.48 0.0089 0.0060
 Moon -95327-02-23 22:18 J -33096709.71 -33096709.57 -33096709.36 0.0089 0.0065 *

Moon -95326-02-26 04:32 J -33096342.55 -33096342.31 -33096342.05 0.0089 0.0024
 Earth -95326-02-26 08:37 J -33096342.39 -33096342.14 -33096341.89 0.0089 0.0028 *
 Earth -95325-02-28 21:20 J -33095974.86 -33095974.61 -33095974.34 0.0089 0.0004
 Moon -95325-02-29 00:42 J -33095974.73 -33095974.47 -33095974.20 0.0089 0.0001 *
 Moon -95324-03-02 07:39 J -33095607.39 -33095607.18 -33095606.94 0.0089 0.0040
 Earth -95324-03-02 10:47 J -33095607.29 -33095607.05 -33095606.81 0.0089 0.0035 *
 Earth -95323-03-04 23:01 J -33095239.68 -33095239.54 -33095239.34 0.0089 0.0068
 Moon -95323-03-05 00:56 J -33095239.62 -33095239.46 -33095239.24 0.0089 0.0063 *
 Mars -95314-04-12 11:59 J -33091914.31 -33091914.00 -33091913.68 0.0089 0.0026
 Mars -95312-03-07 23:44 J -33091218.77 -33091218.51 -33091218.23 0.0089 0.0048
 Mercury -95279-11-27 21:06 J -33078900.66 -33078900.62 -33078900.55 0.0088 0.0084
 Mercury -95278-02-23 23:59 J -33078812.56 -33078812.50 -33078812.40 0.0088 0.0078
 Mercury -95278-05-23 03:06 J -33078724.46 -33078724.37 -33078724.27 0.0088 0.0073
 Mercury -95278-08-19 05:44 J -33078636.36 -33078636.26 -33078636.13 0.0088 0.0068
 Mercury -95278-11-15 08:23 J -33078548.25 -33078548.15 -33078548.01 0.0088 0.0063
 Mercury -95277-02-11 11:30 J -33078460.15 -33078460.02 -33078459.88 0.0088 0.0057
 Venus -95277-05-05 21:35 J -33078375.60 -33078375.60 -33078375.53 0.0088 0.0088
 Mercury -95277-05-09 14:08 J -33078372.04 -33078371.91 -33078371.76 0.0088 0.0052
 Mercury -95277-08-05 17:01 J -33078283.93 -33078283.79 -33078283.63 0.0088 0.0046
 Mercury -95277-11-01 19:39 J -33078195.82 -33078195.68 -33078195.51 0.0088 0.0041
 Venus -95277-12-17 12:13 J -33078150.10 -33078149.99 -33078149.87 0.0088 0.0075
 Mercury -95276-01-28 22:32 J -33078107.71 -33078107.56 -33078107.39 0.0088 0.0036
 Mercury -95276-04-27 01:25 J -33078019.60 -33078019.44 -33078019.28 0.0088 0.0030
 Mercury -95276-07-24 04:03 J -33077931.49 -33077931.33 -33077931.16 0.0088 0.0025
 Venus -95276-07-31 01:54 J -33077924.57 -33077924.42 -33077924.25 0.0088 0.0063
 Mercury -95276-10-20 06:42 J -33077843.38 -33077843.22 -33077843.04 0.0088 0.0021
 Mercury -95275-01-16 09:35 J -33077755.27 -33077755.10 -33077754.93 0.0088 0.0015
 Venus -95275-03-13 15:49 J -33077699.01 -33077698.84 -33077698.64 0.0088 0.0051
 Mercury -95275-04-14 12:13 J -33077667.16 -33077666.99 -33077666.82 0.0088 0.0010
 Mercury -95275-07-11 14:51 J -33077579.05 -33077578.88 -33077578.70 0.0088 0.0005

Mercury -95275-10-07 17:44 J -33077490.94 -33077490.76 -33077490.59 0.0088 0.0002

Venus -95275-10-25 05:44 J -33077473.45 -33077473.26 -33077473.05 0.0088 0.0038

Mercury -95274-01-03 20:23 J -33077402.82 -33077402.65 -33077402.48 0.0088 0.0006

Mercury -95274-04-01 23:01 J -33077314.71 -33077314.54 -33077314.37 0.0088 0.0011

Venus -95274-06-07 19:25 J -33077247.89 -33077247.69 -33077247.46 0.0088 0.0026

Mercury -95274-06-29 01:39 J -33077226.60 -33077226.43 -33077226.27 0.0088 0.0016

Mercury -95274-09-25 04:03 J -33077138.49 -33077138.33 -33077138.16 0.0088 0.0021

Mercury -95274-12-22 06:42 J -33077050.38 -33077050.22 -33077050.05 0.0088 0.0026

Venus -95273-01-19 09:06 J -33077022.33 -33077022.12 -33077021.88 0.0088 0.0015

Mercury -95273-03-19 09:20 J -33076962.27 -33076962.11 -33076961.95 0.0088 0.0031

Mercury -95273-06-15 11:59 J -33076874.16 -33076874.00 -33076873.85 0.0088 0.0036

Venus -95273-08-31 23:01 J -33076796.76 -33076796.54 -33076796.31 0.0088 0.0003

Mercury -95273-09-11 14:23 J -33076786.05 -33076785.90 -33076785.75 0.0088 0.0041

Mercury -95273-12-08 17:01 J -33076697.93 -33076697.79 -33076697.65 0.0088 0.0046

Mercury -95272-03-06 19:25 J -33076609.82 -33076609.69 -33076609.55 0.0088 0.0051

Venus -95272-04-14 12:56 J -33076571.18 -33076570.96 -33076570.73 0.0088 0.0010

Mercury -95272-06-02 21:49 J -33076521.71 -33076521.59 -33076521.45 0.0088 0.0056

Mercury -95272-08-30 00:13 J -33076433.60 -33076433.49 -33076433.35 0.0088 0.0061

Venus -95272-11-26 02:37 J -33076345.61 -33076345.39 -33076345.17 0.0088 0.0023

Mercury -95272-11-26 02:37 J -33076345.48 -33076345.39 -33076345.26 0.0088 0.0066 *

Mercury -95271-02-22 05:30 J -33076257.37 -33076257.27 -33076257.17 0.0088 0.0070

Mercury -95271-05-21 07:54 J -33076169.25 -33076169.17 -33076169.08 0.0088 0.0075

Venus -95271-07-09 16:03 J -33076120.03 -33076119.83 -33076119.62 0.0088 0.0035

Mercury -95271-08-17 10:18 J -33076081.13 -33076081.07 -33076080.99 0.0088 0.0079

Mercury -95271-11-13 12:27 J -33075993.01 -33075992.98 -33075992.91 0.0088 0.0085

Venus -95270-02-20 05:30 J -33075894.45 -33075894.27 -33075894.07 0.0088 0.0047

Venus -95270-10-03 18:56 J -33075668.86 -33075668.71 -33075668.53 0.0088 0.0059

Venus -95269-05-16 08:37 J -33075443.26 -33075443.14 -33075442.99 0.0088 0.0071

Venus -95269-12-27 22:03 J -33075217.64 -33075217.58 -33075217.48 0.0088 0.0083

Moon -95246-09-01 19:54 J -33066934.74 -33066934.67 -33066934.57 0.0088 0.0083

Earth -95246-09-01 21:20 J -33066934.64 -33066934.61 -33066934.51 0.0088 0.0086 *
 Earth -95245-09-03 07:54 J -33066567.35 -33066567.17 -33066566.95 0.0088 0.0055
 Moon -95245-09-03 08:51 J -33066567.32 -33066567.13 -33066566.92 0.0088 0.0057 *
 Earth -95244-09-05 18:13 J -33066199.97 -33066199.74 -33066199.48 0.0088 0.0024
 Moon -95244-09-05 18:27 J -33066199.96 -33066199.73 -33066199.48 0.0088 0.0022 *
 Moon -95243-09-08 02:37 J -33065832.65 -33065832.39 -33065832.12 0.0088 0.0004
 Earth -95243-09-08 04:47 J -33065832.56 -33065832.30 -33065832.05 0.0088 0.0006 *
 Earth -95242-09-10 14:37 J -33065465.12 -33065464.89 -33065464.66 0.0088 0.0037
 Moon -95242-09-10 16:47 J -33065465.00 -33065464.80 -33065464.56 0.0088 0.0040 *
 Moon -95241-09-11 20:37 J -33065097.79 -33065097.64 -33065097.44 0.0088 0.0066
 Earth -95241-09-11 23:59 J -33065097.64 -33065097.50 -33065097.31 0.0088 0.0068 *
 Mars -95233-12-27 09:35 J -33062069.31 -33062069.10 -33062068.83 0.0088 0.0055
 Mars -95231-11-21 14:08 J -33061375.21 -33061374.91 -33061374.61 0.0088 0.0013
 Mars -95229-10-15 19:25 J -33060680.80 -33060680.69 -33060680.56 0.0088 0.0081
 Mercury -95197-08-24 17:59 J -33049044.78 -33049044.75 -33049044.71 0.0089 0.0085
 Mercury -95197-11-20 19:39 J -33048956.73 -33048956.68 -33048956.62 0.0089 0.0081
 Mercury -95196-02-16 21:06 J -33048868.68 -33048868.62 -33048868.54 0.0089 0.0077
 Mercury -95196-05-15 22:47 J -33048780.62 -33048780.55 -33048780.46 0.0089 0.0073
 Mercury -95196-08-12 00:27 J -33048692.56 -33048692.48 -33048692.38 0.0089 0.0069
 Mercury -95196-11-08 02:23 J -33048604.50 -33048604.40 -33048604.30 0.0089 0.0064
 Mercury -95195-02-04 04:03 J -33048516.43 -33048516.33 -33048516.23 0.0089 0.0060
 Mercury -95195-05-03 05:30 J -33048428.37 -33048428.27 -33048428.15 0.0089 0.0056
 Mercury -95195-07-30 07:11 J -33048340.31 -33048340.20 -33048340.07 0.0089 0.0052
 Mercury -95195-10-26 08:51 J -33048252.24 -33048252.13 -33048252.00 0.0089 0.0048
 Mercury -95194-01-22 10:47 J -33048164.17 -33048164.05 -33048163.92 0.0089 0.0043
 Venus -95194-01-30 11:15 J -33048156.10 -33048156.03 -33048155.93 0.0089 0.0081
 Mercury -95194-04-20 12:27 J -33048076.11 -33048075.98 -33048075.85 0.0089 0.0039
 Mercury -95194-07-17 14:08 J -33047988.04 -33047987.91 -33047987.77 0.0089 0.0035
 Venus -95194-09-12 23:44 J -33047930.64 -33047930.51 -33047930.37 0.0089 0.0069
 Mercury -95194-10-13 16:03 J -33047899.97 -33047899.83 -33047899.70 0.0089 0.0030

Mercury -95193-01-09 17:44 J -33047811.90 -33047811.76 -33047811.62 0.0089 0.0026

Mercury -95193-04-06 19:25 J -33047723.83 -33047723.69 -33047723.55 0.0089 0.0022

Venus -95193-04-25 11:30 J -33047705.16 -33047705.02 -33047704.84 0.0089 0.0058

Mercury -95193-07-03 21:06 J -33047635.76 -33047635.62 -33047635.47 0.0089 0.0017

Mercury -95193-09-29 22:47 J -33047547.69 -33047547.55 -33047547.40 0.0089 0.0013

Venus -95193-12-06 23:44 J -33047479.68 -33047479.51 -33047479.31 0.0089 0.0046

Mercury -95193-12-27 00:42 J -33047459.62 -33047459.47 -33047459.32 0.0089 0.0008

Mercury -95192-03-25 02:23 J -33047371.54 -33047371.40 -33047371.25 0.0089 0.0004

Mercury -95192-06-21 04:18 J -33047283.47 -33047283.32 -33047283.18 0.0089 0.0002

Venus -95192-07-20 11:59 J -33047254.19 -33047254.00 -33047253.79 0.0089 0.0034

Mercury -95192-09-17 05:59 J -33047195.40 -33047195.25 -33047195.10 0.0089 0.0005

Mercury -95192-12-14 07:39 J -33047107.32 -33047107.18 -33047107.03 0.0089 0.0010

Venus -95191-03-03 00:27 J -33047028.69 -33047028.48 -33047028.28 0.0089 0.0022

Mercury -95191-03-12 09:35 J -33047019.24 -33047019.10 -33047018.95 0.0089 0.0014

Mercury -95191-06-08 11:30 J -33046931.17 -33046931.02 -33046930.88 0.0089 0.0018

Mercury -95191-09-04 13:11 J -33046843.09 -33046842.95 -33046842.81 0.0089 0.0023

Venus -95191-10-14 12:27 J -33046803.18 -33046802.98 -33046802.76 0.0089 0.0011

Mercury -95191-12-01 15:06 J -33046755.01 -33046754.87 -33046754.73 0.0089 0.0027

Mercury -95190-02-27 16:47 J -33046666.93 -33046666.80 -33046666.66 0.0089 0.0032

Mercury -95190-05-26 18:42 J -33046578.85 -33046578.72 -33046578.58 0.0089 0.0036

Venus -95190-05-28 00:56 J -33046577.67 -33046577.46 -33046577.24 0.0089 0.0001

Mercury -95190-08-22 20:23 J -33046490.77 -33046490.65 -33046490.51 0.0089 0.0041

Mercury -95190-11-18 22:18 J -33046402.69 -33046402.57 -33046402.44 0.0089 0.0046

Venus -95189-01-08 13:11 J -33046352.16 -33046351.95 -33046351.74 0.0089 0.0013

Mercury -95189-02-15 00:13 J -33046314.61 -33046314.49 -33046314.36 0.0089 0.0050

Mercury -95189-05-13 01:54 J -33046226.52 -33046226.42 -33046226.29 0.0089 0.0055

Mercury -95189-08-09 04:03 J -33046138.44 -33046138.33 -33046138.22 0.0089 0.0059

Venus -95189-08-21 01:25 J -33046126.64 -33046126.44 -33046126.23 0.0089 0.0025

Mercury -95189-11-05 05:44 J -33046050.35 -33046050.26 -33046050.15 0.0089 0.0064

Mercury -95188-02-01 07:39 J -33045962.26 -33045962.18 -33045962.07 0.0089 0.0069

Venus -95188-04-03 13:54 J -33045901.11 -33045900.92 -33045900.72 0.0089 0.0037
 Mercury -95188-04-30 09:35 J -33045874.17 -33045874.10 -33045874.01 0.0089 0.0073
 Mercury -95188-07-27 11:30 J -33045786.08 -33045786.02 -33045785.94 0.0089 0.0078
 Mercury -95188-10-23 13:11 J -33045697.98 -33045697.95 -33045697.87 0.0089 0.0083
 Venus -95188-11-15 02:23 J -33045675.58 -33045675.40 -33045675.22 0.0089 0.0049
 Mercury -95187-01-19 15:20 J -33045609.87 -33045609.86 -33045609.82 0.0089 0.0087
 Venus -95187-06-28 14:37 J -33045450.04 -33045449.89 -33045449.73 0.0089 0.0061
 Venus -95186-02-09 02:51 J -33045224.49 -33045224.38 -33045224.24 0.0089 0.0073
 Venus -95186-09-22 15:20 J -33044998.90 -33044998.86 -33044998.78 0.0089 0.0085
 Moon -95163-02-22 20:51 J -33036809.72 -33036809.63 -33036809.49 0.0089 0.0079
 Earth -95163-02-23 00:13 J -33036809.60 -33036809.49 -33036809.34 0.0089 0.0077 *
 Earth -95162-02-25 13:11 J -33036442.16 -33036441.95 -33036441.72 0.0089 0.0045
 Moon -95162-02-25 16:18 J -33036442.04 -33036441.82 -33036441.58 0.0089 0.0045 *
 Moon -95161-02-28 00:13 J -33036074.73 -33036074.49 -33036074.23 0.0089 0.0015
 Earth -95161-02-28 02:08 J -33036074.66 -33036074.41 -33036074.14 0.0089 0.0014 *
 Earth -95160-03-01 15:06 J -33035707.12 -33035706.87 -33035706.61 0.0089 0.0018
 Moon -95160-03-01 15:35 J -33035707.10 -33035706.85 -33035706.58 0.0089 0.0019 *
 Earth -95159-03-04 04:03 J -33035339.53 -33035339.33 -33035339.10 0.0089 0.0050
 Moon -95159-03-04 04:18 J -33035339.52 -33035339.32 -33035339.11 0.0089 0.0050 *
 Moon -95158-03-06 15:49 J -33034971.94 -33034971.84 -33034971.74 0.0089 0.0082
 Earth -95158-03-06 17:15 J -33034971.86 -33034971.78 -33034971.67 0.0089 0.0082 *
 Mars -95151-11-24 07:39 J -33032152.38 -33032152.18 -33032151.91 0.0089 0.0062
 Mars -95149-10-19 21:49 J -33031456.90 -33031456.59 -33031456.25 0.0089 0.0014
 Mars -95147-09-15 09:06 J -33030761.14 -33030761.12 -33030761.06 0.0089 0.0088
 Mercury -95114-05-28 16:32 J -33018817.82 -33018817.81 -33018817.78 0.0088 0.0088
 Mercury -95114-08-24 19:25 J -33018729.74 -33018729.69 -33018729.62 0.0088 0.0083
 Mercury -95114-11-20 22:03 J -33018641.64 -33018641.58 -33018641.48 0.0088 0.0078
 Mercury -95113-02-17 01:11 J -33018553.54 -33018553.45 -33018553.34 0.0088 0.0072
 Mercury -95113-05-15 03:49 J -33018465.44 -33018465.34 -33018465.21 0.0088 0.0067
 Mercury -95113-08-11 06:42 J -33018377.33 -33018377.22 -33018377.08 0.0088 0.0061

Mercury -95113-11-07 09:49 J -33018289.22 -33018289.09 -33018288.95 0.0088 0.0056

Mercury -95112-02-03 12:27 J -33018201.11 -33018200.98 -33018200.83 0.0088 0.0051

Venus -95112-03-20 19:54 J -33018155.75 -33018155.67 -33018155.55 0.0088 0.0080

Mercury -95112-05-02 15:06 J -33018113.01 -33018112.87 -33018112.71 0.0088 0.0046

Mercury -95112-07-29 17:59 J -33018024.90 -33018024.75 -33018024.59 0.0088 0.0040

Mercury -95112-10-25 20:51 J -33017936.79 -33017936.63 -33017936.47 0.0088 0.0035

Venus -95112-11-01 09:49 J -33017930.22 -33017930.09 -33017929.93 0.0088 0.0067

Mercury -95111-01-21 23:30 J -33017848.67 -33017848.52 -33017848.35 0.0088 0.0030

Mercury -95111-04-20 02:23 J -33017760.56 -33017760.40 -33017760.23 0.0088 0.0024

Venus -95111-06-14 23:59 J -33017704.67 -33017704.50 -33017704.32 0.0088 0.0055

Mercury -95111-07-17 05:01 J -33017672.45 -33017672.29 -33017672.11 0.0088 0.0019

Mercury -95111-10-13 07:54 J -33017584.34 -33017584.17 -33017584.00 0.0088 0.0014

Mercury -95110-01-09 10:32 J -33017496.23 -33017496.06 -33017495.89 0.0088 0.0009

Venus -95110-01-26 13:39 J -33017479.11 -33017478.93 -33017478.72 0.0088 0.0043

Mercury -95110-04-07 13:11 J -33017408.12 -33017407.95 -33017407.77 0.0088 0.0004

Mercury -95110-07-04 16:03 J -33017320.01 -33017319.83 -33017319.66 0.0088 0.0003

Venus -95110-09-09 03:35 J -33017253.55 -33017253.35 -33017253.13 0.0088 0.0030

Mercury -95110-09-30 18:27 J -33017231.89 -33017231.73 -33017231.55 0.0088 0.0007

Mercury -95110-12-27 21:06 J -33017143.78 -33017143.62 -33017143.44 0.0088 0.0012

Mercury -95109-03-24 23:44 J -33017055.67 -33017055.51 -33017055.33 0.0088 0.0017

Venus -95109-04-21 17:30 J -33017027.98 -33017027.77 -33017027.54 0.0088 0.0019

Mercury -95109-06-21 02:23 J -33016967.56 -33016967.40 -33016967.23 0.0088 0.0022

Mercury -95109-09-17 05:01 J -33016879.45 -33016879.29 -33016879.12 0.0088 0.0027

Venus -95109-12-03 07:39 J -33016802.41 -33016802.18 -33016801.96 0.0088 0.0006

Mercury -95109-12-14 07:25 J -33016791.33 -33016791.19 -33016791.02 0.0088 0.0033

Mercury -95108-03-12 10:03 J -33016703.22 -33016703.08 -33016702.91 0.0088 0.0037

Mercury -95108-06-08 12:42 J -33016615.11 -33016614.97 -33016614.81 0.0088 0.0042

Venus -95108-07-16 21:20 J -33016576.83 -33016576.61 -33016576.39 0.0088 0.0007

Mercury -95108-09-04 15:06 J -33016527.00 -33016526.87 -33016526.71 0.0088 0.0048

Mercury -95108-12-01 17:59 J -33016438.88 -33016438.75 -33016438.61 0.0088 0.0052

Venus -95107-02-27 11:01 J -33016351.26 -33016351.04 -33016350.82 0.0088 0.0019
 Mercury -95107-02-27 20:23 J -33016350.77 -33016350.65 -33016350.51 0.0088 0.0057
 Mercury -95107-05-26 22:47 J -33016262.66 -33016262.55 -33016262.42 0.0088 0.0062
 Mercury -95107-08-23 01:25 J -33016174.54 -33016174.44 -33016174.32 0.0088 0.0066
 Venus -95107-10-11 00:13 J -33016125.68 -33016125.49 -33016125.26 0.0088 0.0032
 Mercury -95107-11-19 03:49 J -33016086.43 -33016086.34 -33016086.23 0.0088 0.0071
 Mercury -95106-02-15 06:13 J -33015998.31 -33015998.24 -33015998.14 0.0088 0.0076
 Mercury -95106-05-14 08:51 J -33015910.19 -33015910.13 -33015910.06 0.0088 0.0081
 Venus -95106-05-24 14:08 J -33015900.09 -33015899.91 -33015899.70 0.0088 0.0043
 Mercury -95106-08-10 11:15 J -33015822.06 -33015822.03 -33015821.98 0.0088 0.0086
 Venus -95105-01-05 03:35 J -33015674.51 -33015674.35 -33015674.16 0.0088 0.0056
 Venus -95105-08-17 17:01 J -33015448.91 -33015448.79 -33015448.62 0.0088 0.0068
 Venus -95104-03-31 06:42 J -33015223.30 -33015223.22 -33015223.10 0.0088 0.0080
 Earth -95081-09-02 15:06 J -33006667.01 -33006666.87 -33006666.70 0.0088 0.0071
 Moon -95081-09-02 16:32 J -33006666.95 -33006666.81 -33006666.64 0.0088 0.0068 *
 Moon -95080-09-04 23:15 J -33006299.74 -33006299.53 -33006299.28 0.0088 0.0044
 Earth -95080-09-05 01:25 J -33006299.65 -33006299.44 -33006299.19 0.0088 0.0040 *
 Earth -95079-09-07 11:59 J -33005932.25 -33005932.00 -33005931.74 0.0088 0.0010
 Moon -95079-09-07 15:06 J -33005932.12 -33005931.87 -33005931.62 0.0088 0.0005 *
 Moon -95078-09-09 18:27 J -33005564.97 -33005564.73 -33005564.47 0.0088 0.0018
 Earth -95078-09-09 21:49 J -33005564.82 -33005564.59 -33005564.33 0.0088 0.0022 *
 Earth -95077-09-11 07:39 J -33005197.37 -33005197.18 -33005196.96 0.0088 0.0051
 Moon -95077-09-11 11:01 J -33005197.22 -33005197.04 -33005196.82 0.0088 0.0055 *
 Moon -95076-09-13 14:23 J -33004830.00 -33004829.90 -33004829.76 0.0088 0.0078
 Earth -95076-09-13 17:30 J -33004829.84 -33004829.77 -33004829.65 0.0088 0.0082 *
 Mars -95069-08-11 07:54 J -33002306.21 -33002306.17 -33002306.06 0.0088 0.0086
 Mars -95067-07-06 10:47 J -33001612.33 -33001612.05 -33001611.74 0.0088 0.0019
 Mars -95065-05-30 14:51 J -33000918.12 -33000917.88 -33000917.62 0.0088 0.0050
 Mercury -95032-02-22 15:06 J -32988961.87 -32988961.87 -32988961.84 0.0089 0.0089
 Mercury -95032-05-21 17:01 J -32988873.83 -32988873.79 -32988873.74 0.0089 0.0084

Mercury -95032-08-17 18:42 J -32988785.78 -32988785.72 -32988785.66 0.0089 0.0080

Mercury -95032-11-13 20:08 J -32988697.72 -32988697.66 -32988697.58 0.0089 0.0076

Mercury -95031-02-09 21:49 J -32988609.66 -32988609.59 -32988609.50 0.0089 0.0072

Mercury -95031-05-08 23:30 J -32988521.60 -32988521.52 -32988521.42 0.0089 0.0068

Mercury -95031-08-05 00:56 J -32988433.54 -32988433.46 -32988433.34 0.0089 0.0064

Mercury -95031-11-01 02:51 J -32988345.48 -32988345.38 -32988345.27 0.0089 0.0059

Mercury -95030-01-28 04:32 J -32988257.41 -32988257.31 -32988257.19 0.0089 0.0055

Mercury -95030-04-26 06:13 J -32988169.35 -32988169.24 -32988169.12 0.0089 0.0051

Venus -95030-05-03 21:20 J -32988161.66 -32988161.61 -32988161.55 0.0089 0.0085

Mercury -95030-07-23 07:54 J -32988081.28 -32988081.17 -32988081.04 0.0089 0.0047

Mercury -95030-10-19 09:49 J -32987993.22 -32987993.09 -32987992.97 0.0089 0.0042

Venus -95030-12-15 09:06 J -32987936.22 -32987936.12 -32987935.98 0.0089 0.0074

Mercury -95029-01-15 11:15 J -32987905.15 -32987905.03 -32987904.89 0.0089 0.0038

Mercury -95029-04-12 12:56 J -32987817.08 -32987816.96 -32987816.82 0.0089 0.0034

Mercury -95029-07-09 14:51 J -32987729.01 -32987728.88 -32987728.74 0.0089 0.0029

Venus -95029-07-27 21:20 J -32987710.75 -32987710.61 -32987710.44 0.0089 0.0062

Mercury -95029-10-05 16:32 J -32987640.94 -32987640.81 -32987640.67 0.0089 0.0025

Mercury -95028-01-01 18:13 J -32987552.87 -32987552.74 -32987552.59 0.0089 0.0021

Venus -95028-03-10 09:35 J -32987485.27 -32987485.10 -32987484.92 0.0089 0.0050

Mercury -95028-03-30 20:08 J -32987464.80 -32987464.66 -32987464.52 0.0089 0.0016

Mercury -95028-06-26 21:49 J -32987376.73 -32987376.59 -32987376.44 0.0089 0.0012

Mercury -95028-09-22 23:30 J -32987288.66 -32987288.52 -32987288.37 0.0089 0.0008

Venus -95028-10-21 21:49 J -32987259.78 -32987259.59 -32987259.39 0.0089 0.0038

Mercury -95028-12-20 01:25 J -32987200.59 -32987200.44 -32987200.30 0.0089 0.0003

Mercury -95027-03-18 03:06 J -32987112.51 -32987112.37 -32987112.22 0.0089 0.0002

Venus -95027-06-04 10:03 J -32987034.28 -32987034.08 -32987033.87 0.0089 0.0026

Mercury -95027-06-14 05:01 J -32987024.44 -32987024.29 -32987024.15 0.0089 0.0006

Mercury -95027-09-10 06:42 J -32986936.37 -32986936.22 -32986936.07 0.0089 0.0010

Mercury -95027-12-07 08:23 J -32986848.29 -32986848.15 -32986848.00 0.0089 0.0015

Venus -95026-01-15 22:03 J -32986808.78 -32986808.58 -32986808.36 0.0089 0.0015

Mercury -95026-03-05 10:18 J -32986760.21 -32986760.07 -32986759.93 0.0089 0.0019

Mercury -95026-06-01 11:59 J -32986672.14 -32986672.00 -32986671.85 0.0089 0.0024

Mercury -95026-08-28 13:54 J -32986584.06 -32986583.92 -32986583.78 0.0089 0.0028

Venus -95026-08-29 10:32 J -32986583.28 -32986583.06 -32986582.85 0.0089 0.0003

Mercury -95026-11-24 15:35 J -32986495.98 -32986495.85 -32986495.71 0.0089 0.0033

Mercury -95025-02-20 17:30 J -32986407.90 -32986407.77 -32986407.63 0.0089 0.0037

Venus -95025-04-10 22:47 J -32986357.77 -32986357.55 -32986357.34 0.0089 0.0009

Mercury -95025-05-18 19:11 J -32986319.82 -32986319.70 -32986319.56 0.0089 0.0042

Mercury -95025-08-14 21:20 J -32986231.74 -32986231.61 -32986231.49 0.0089 0.0046

Mercury -95025-11-10 23:01 J -32986143.66 -32986143.54 -32986143.41 0.0089 0.0051

Venus -95025-11-22 11:01 J -32986132.25 -32986132.04 -32986131.83 0.0089 0.0021

Mercury -95024-02-07 00:42 J -32986055.57 -32986055.47 -32986055.34 0.0089 0.0056

Mercury -95024-05-06 02:37 J -32985967.49 -32985967.39 -32985967.27 0.0089 0.0060

Venus -95024-07-05 23:15 J -32985906.73 -32985906.53 -32985906.33 0.0089 0.0033

Mercury -95024-08-02 04:32 J -32985879.40 -32985879.31 -32985879.20 0.0089 0.0065

Mercury -95024-10-29 06:42 J -32985791.31 -32985791.22 -32985791.13 0.0089 0.0069

Mercury -95023-01-25 08:23 J -32985703.22 -32985703.15 -32985703.06 0.0089 0.0074

Venus -95023-02-16 11:30 J -32985681.20 -32985681.02 -32985680.83 0.0089 0.0045

Mercury -95023-04-23 10:03 J -32985615.13 -32985615.08 -32985614.99 0.0089 0.0079

Mercury -95023-07-20 12:13 J -32985527.03 -32985526.99 -32985526.93 0.0089 0.0083

Venus -95023-09-29 23:59 J -32985455.66 -32985455.50 -32985455.33 0.0089 0.0057

Mercury -95023-10-16 14:08 J -32985438.92 -32985438.91 -32985438.88 0.0089 0.0088

Venus -95022-05-13 12:27 J -32985230.11 -32985229.98 -32985229.84 0.0089 0.0069

Venus -95022-12-25 00:42 J -32985004.54 -32985004.47 -32985004.38 0.0089 0.0081

95TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 95th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-94999-02-22 08:23 J	-32976909.15	-32976909.15	-32976909.11	0.0089	0.0089		
Moon	-94998-02-24 17:44 J	-32976541.90	-32976541.76	-32976541.57	0.0089	0.0066		
Earth	-94998-02-24 18:42 J	-32976541.88	-32976541.72	-32976541.50	0.0089	0.0062	*	
Earth	-94997-02-27 07:54 J	-32976174.41	-32976174.17	-32976173.92	0.0089	0.0030		
Moon	-94997-02-27 07:54 J	-32976174.41	-32976174.17	-32976173.90	0.0089	0.0026	*	
Earth	-94996-02-28 21:06 J	-32975806.88	-32975806.62	-32975806.36	0.0089	0.0002		
Moon	-94996-02-28 22:32 J	-32975806.81	-32975806.56	-32975806.31	0.0089	0.0003	*	
Moon	-94995-03-03 07:39 J	-32975439.42	-32975439.18	-32975438.93	0.0089	0.0038		
Earth	-94995-03-03 10:03 J	-32975439.32	-32975439.08	-32975438.84	0.0089	0.0033	*	
Earth	-94994-03-05 23:01 J	-32975071.71	-32975071.54	-32975071.35	0.0089	0.0065		
Moon	-94994-03-06 01:39 J	-32975071.59	-32975071.43	-32975071.22	0.0089	0.0061	*	
Mars	-94985-06-02 19:39 J	-32971694.98	-32971694.68	-32971694.34	0.0089	0.0021		
Mars	-94983-04-29 08:37 J	-32970999.37	-32970999.14	-32970998.86	0.0089	0.0055		
Mercury	-94949-02-22 14:51 J	-32958646.90	-32958646.88	-32958646.83	0.0088	0.0087		
Mercury	-94949-05-20 18:13 J	-32958558.81	-32958558.74	-32958558.67	0.0088	0.0081		
Mercury	-94949-08-16 20:37 J	-32958470.71	-32958470.64	-32958470.53	0.0088	0.0076		
Mercury	-94949-11-12 23:30 J	-32958382.61	-32958382.52	-32958382.40	0.0088	0.0071		
Mercury	-94948-02-09 02:37 J	-32958294.51	-32958294.39	-32958294.27	0.0088	0.0065		
Mercury	-94948-05-08 05:15 J	-32958206.40	-32958206.28	-32958206.14	0.0088	0.0060		
Venus	-94948-06-22 04:32 J	-32958161.37	-32958161.31	-32958161.22	0.0088	0.0084		
Mercury	-94948-08-04 07:54 J	-32958118.29	-32958118.17	-32958118.02	0.0088	0.0055		
Mercury	-94948-10-31 10:47 J	-32958030.18	-32958030.05	-32958029.89	0.0088	0.0049		
Mercury	-94947-01-27 13:54 J	-32957942.07	-32957941.92	-32957941.77	0.0088	0.0044		
Venus	-94947-02-02 18:13 J	-32957935.85	-32957935.74	-32957935.59	0.0088	0.0072		

Mercury -94947-04-25 16:32 J -32957853.96 -32957853.81 -32957853.65 0.0088 0.0039

Mercury -94947-07-22 19:11 J -32957765.85 -32957765.70 -32957765.53 0.0088 0.0034

Venus -94947-09-16 08:37 J -32957710.31 -32957710.14 -32957709.97 0.0088 0.0059

Mercury -94947-10-18 22:03 J -32957677.74 -32957677.58 -32957677.41 0.0088 0.0028

Mercury -94946-01-15 00:56 J -32957589.63 -32957589.46 -32957589.29 0.0088 0.0023

Mercury -94946-04-13 03:35 J -32957501.52 -32957501.35 -32957501.18 0.0088 0.0018

Venus -94946-04-29 22:32 J -32957484.75 -32957484.56 -32957484.36 0.0088 0.0047

Mercury -94946-07-10 06:13 J -32957413.40 -32957413.24 -32957413.06 0.0088 0.0013

Mercury -94946-10-06 09:06 J -32957325.29 -32957325.12 -32957324.95 0.0088 0.0007

Venus -94946-12-11 12:13 J -32957259.18 -32957258.99 -32957258.77 0.0088 0.0035

Mercury -94945-01-02 11:44 J -32957237.18 -32957237.01 -32957236.84 0.0088 0.0002

Mercury -94945-03-30 14:23 J -32957149.07 -32957148.90 -32957148.72 0.0088 0.0003

Mercury -94945-06-26 17:01 J -32957060.96 -32957060.79 -32957060.61 0.0088 0.0009

Venus -94945-07-24 02:23 J -32957033.62 -32957033.40 -32957033.18 0.0088 0.0022

Mercury -94945-09-22 19:39 J -32956972.84 -32956972.68 -32956972.51 0.0088 0.0014

Mercury -94945-12-19 22:18 J -32956884.73 -32956884.57 -32956884.40 0.0088 0.0019

Venus -94944-03-06 16:03 J -32956808.05 -32956807.83 -32956807.60 0.0088 0.0010

Mercury -94944-03-18 00:56 J -32956796.62 -32956796.46 -32956796.29 0.0088 0.0024

Mercury -94944-06-14 03:35 J -32956708.51 -32956708.35 -32956708.18 0.0088 0.0029

Mercury -94944-09-10 06:13 J -32956620.39 -32956620.24 -32956620.08 0.0088 0.0033

Venus -94944-10-18 05:59 J -32956582.48 -32956582.25 -32956582.03 0.0088 0.0003

Mercury -94944-12-07 08:51 J -32956532.28 -32956532.13 -32956531.98 0.0088 0.0038

Mercury -94943-03-05 11:15 J -32956444.17 -32956444.03 -32956443.87 0.0088 0.0044

Venus -94943-05-31 19:39 J -32956356.90 -32956356.68 -32956356.45 0.0088 0.0015

Mercury -94943-06-01 13:54 J -32956356.05 -32956355.92 -32956355.77 0.0088 0.0048

Mercury -94943-08-28 16:18 J -32956267.94 -32956267.82 -32956267.67 0.0088 0.0054

Mercury -94943-11-24 18:56 J -32956179.83 -32956179.71 -32956179.57 0.0088 0.0058

Venus -94942-01-12 09:20 J -32956131.32 -32956131.11 -32956130.89 0.0088 0.0028

Mercury -94942-02-20 21:20 J -32956091.71 -32956091.61 -32956091.48 0.0088 0.0064

Mercury -94942-05-19 23:44 J -32956003.60 -32956003.51 -32956003.38 0.0088 0.0069

Mercury -94942-08-16 02:37 J -32955915.48 -32955915.39 -32955915.29 0.0088 0.0073

Venus -94942-08-25 23:01 J -32955905.73 -32955905.54 -32955905.33 0.0088 0.0040

Mercury -94942-11-12 05:01 J -32955827.36 -32955827.29 -32955827.20 0.0088 0.0078

Mercury -94941-02-08 07:25 J -32955739.23 -32955739.19 -32955739.12 0.0088 0.0083

Venus -94941-04-07 12:27 J -32955680.14 -32955679.98 -32955679.78 0.0088 0.0053

Mercury -94941-05-06 09:49 J -32955651.10 -32955651.09 -32955651.05 0.0088 0.0087

Venus -94941-11-19 02:08 J -32955454.54 -32955454.41 -32955454.24 0.0088 0.0065

Venus -94940-07-02 15:35 J -32955228.94 -32955228.85 -32955228.72 0.0088 0.0077

Venus -94939-02-13 05:30 J -32955003.27 -32955003.27 -32955003.26 0.0088 0.0088

Moon -94917-09-01 20:08 J -32946766.72 -32946766.66 -32946766.54 0.0088 0.0083

Earth -94917-09-01 23:44 J -32946766.56 -32946766.51 -32946766.45 0.0088 0.0086 *

Earth -94916-09-04 09:49 J -32946399.27 -32946399.09 -32946398.87 0.0088 0.0055

Moon -94916-09-04 13:11 J -32946399.12 -32946398.95 -32946398.74 0.0088 0.0059 *

Moon -94915-09-06 17:01 J -32946032.03 -32946031.79 -32946031.54 0.0088 0.0022

Earth -94915-09-06 20:37 J -32946031.88 -32946031.64 -32946031.39 0.0088 0.0025 *

Earth -94914-09-09 06:42 J -32945664.48 -32945664.22 -32945663.97 0.0088 0.0006

Moon -94914-09-09 10:03 J -32945664.34 -32945664.08 -32945663.82 0.0088 0.0003 *

Moon -94913-09-10 14:08 J -32945297.12 -32945296.91 -32945296.67 0.0088 0.0039

Earth -94913-09-10 16:18 J -32945297.03 -32945296.82 -32945296.57 0.0088 0.0037 *

Earth -94912-09-13 02:08 J -32944929.55 -32944929.41 -32944929.22 0.0088 0.0067

Moon -94912-09-13 03:49 J -32944929.49 -32944929.34 -32944929.13 0.0088 0.0065 *

Mars -94903-02-18 10:03 J -32941849.33 -32941849.08 -32941848.83 0.0088 0.0049

Mars -94901-01-13 12:27 J -32941155.26 -32941154.98 -32941154.67 0.0088 0.0020

Mars -94900-12-07 17:01 J -32940460.80 -32940460.79 -32940460.72 0.0088 0.0088

Mercury -94868-11-19 14:37 J -32928790.92 -32928790.89 -32928790.87 0.0089 0.0087

Mercury -94867-02-15 16:03 J -32928702.87 -32928702.83 -32928702.78 0.0089 0.0083

Mercury -94867-05-14 17:44 J -32928614.82 -32928614.76 -32928614.69 0.0089 0.0079

Mercury -94867-08-10 19:11 J -32928526.76 -32928526.70 -32928526.61 0.0089 0.0075

Mercury -94867-11-06 20:51 J -32928438.70 -32928438.63 -32928438.53 0.0089 0.0071

Mercury -94866-02-02 22:32 J -32928350.64 -32928350.56 -32928350.46 0.0089 0.0067

Mercury -94866-05-02 00:27 J -32928262.58 -32928262.48 -32928262.38 0.0089 0.0062

Mercury -94866-07-29 02:08 J -32928174.52 -32928174.41 -32928174.30 0.0089 0.0058

Mercury -94866-10-25 03:35 J -32928086.45 -32928086.35 -32928086.23 0.0089 0.0054

Mercury -94865-01-21 05:15 J -32927998.39 -32927998.28 -32927998.15 0.0089 0.0050

Venus -94865-03-17 19:11 J -32927941.78 -32927941.70 -32927941.58 0.0089 0.0078

Mercury -94865-04-18 07:11 J -32927910.32 -32927910.20 -32927910.08 0.0089 0.0045

Mercury -94865-07-15 08:51 J -32927822.26 -32927822.13 -32927822.00 0.0089 0.0041

Mercury -94865-10-11 10:18 J -32927734.19 -32927734.07 -32927733.93 0.0089 0.0037

Venus -94865-10-29 07:25 J -32927716.31 -32927716.19 -32927716.03 0.0089 0.0066

Mercury -94864-01-07 11:59 J -32927646.12 -32927646.00 -32927645.85 0.0089 0.0033

Mercury -94864-04-05 13:54 J -32927558.05 -32927557.92 -32927557.78 0.0089 0.0028

Venus -94864-06-11 19:39 J -32927490.84 -32927490.68 -32927490.50 0.0089 0.0054

Mercury -94864-07-02 15:35 J -32927469.98 -32927469.85 -32927469.70 0.0089 0.0024

Mercury -94864-09-28 17:15 J -32927381.91 -32927381.78 -32927381.63 0.0089 0.0020

Mercury -94864-12-25 19:11 J -32927293.84 -32927293.70 -32927293.56 0.0089 0.0015

Venus -94863-01-23 07:54 J -32927265.35 -32927265.17 -32927264.98 0.0089 0.0042

Mercury -94863-03-23 20:51 J -32927205.77 -32927205.63 -32927205.48 0.0089 0.0011

Mercury -94863-06-19 22:32 J -32927117.70 -32927117.56 -32927117.41 0.0089 0.0007

Venus -94863-09-05 20:08 J -32927039.86 -32927039.66 -32927039.45 0.0089 0.0030

Mercury -94863-09-16 00:27 J -32927029.63 -32927029.48 -32927029.33 0.0089 0.0002

Mercury -94863-12-13 02:08 J -32926941.55 -32926941.41 -32926941.26 0.0089 0.0003

Mercury -94862-03-11 04:03 J -32926853.48 -32926853.33 -32926853.19 0.0089 0.0007

Venus -94862-04-19 08:23 J -32926814.36 -32926814.15 -32926813.94 0.0089 0.0018

Mercury -94862-06-07 05:44 J -32926765.41 -32926765.26 -32926765.11 0.0089 0.0011

Mercury -94862-09-03 07:25 J -32926677.33 -32926677.19 -32926677.04 0.0089 0.0016

Mercury -94862-11-30 09:20 J -32926589.25 -32926589.11 -32926588.97 0.0089 0.0020

Venus -94862-11-30 20:37 J -32926588.85 -32926588.64 -32926588.42 0.0089 0.0006

Mercury -94861-02-26 11:01 J -32926501.18 -32926501.04 -32926500.89 0.0089 0.0025

Mercury -94861-05-24 12:56 J -32926413.10 -32926412.96 -32926412.82 0.0089 0.0029

Venus -94861-07-13 08:51 J -32926363.35 -32926363.13 -32926362.92 0.0089 0.0006

Mercury -94861-08-20 14:37 J -32926325.02 -32926324.89 -32926324.75 0.0089 0.0034

Mercury -94861-11-16 16:18 J -32926236.94 -32926236.82 -32926236.67 0.0089 0.0039

Mercury -94860-02-12 18:13 J -32926148.86 -32926148.74 -32926148.60 0.0089 0.0043

Venus -94860-02-23 20:51 J -32926137.83 -32926137.63 -32926137.41 0.0089 0.0018

Mercury -94860-05-11 19:54 J -32926060.78 -32926060.67 -32926060.53 0.0089 0.0048

Mercury -94860-08-07 22:03 J -32925972.70 -32925972.58 -32925972.46 0.0089 0.0052

Venus -94860-10-07 09:06 J -32925912.31 -32925912.12 -32925911.90 0.0089 0.0030

Mercury -94860-11-03 23:44 J -32925884.61 -32925884.51 -32925884.39 0.0089 0.0057

Mercury -94859-01-31 01:54 J -32925796.53 -32925796.42 -32925796.31 0.0089 0.0061

Mercury -94859-04-29 03:35 J -32925708.44 -32925708.35 -32925708.24 0.0089 0.0066

Venus -94859-05-20 21:20 J -32925686.78 -32925686.61 -32925686.40 0.0089 0.0042

Mercury -94859-07-26 05:15 J -32925620.35 -32925620.28 -32925620.17 0.0089 0.0071

Mercury -94859-10-22 07:25 J -32925532.26 -32925532.19 -32925532.11 0.0089 0.0075

Venus -94858-01-01 09:35 J -32925461.25 -32925461.10 -32925460.91 0.0089 0.0054

Mercury -94858-01-18 09:06 J -32925444.17 -32925444.12 -32925444.04 0.0089 0.0080

Mercury -94858-04-16 11:15 J -32925356.07 -32925356.03 -32925355.98 0.0089 0.0084

Venus -94858-08-14 22:03 J -32925235.71 -32925235.58 -32925235.43 0.0089 0.0066

Venus -94857-03-27 10:18 J -32925010.15 -32925010.07 -32925009.95 0.0089 0.0078

Moon -94834-02-24 00:13 J -32916641.58 -32916641.49 -32916641.34 0.0089 0.0080

Earth -94834-02-24 01:54 J -32916641.54 -32916641.42 -32916641.29 0.0089 0.0078 *

Earth -94833-02-26 14:08 J -32916274.11 -32916273.91 -32916273.67 0.0089 0.0047

Moon -94833-02-26 15:49 J -32916274.04 -32916273.84 -32916273.60 0.0089 0.0045 *

Moon -94832-02-28 00:13 J -32915906.75 -32915906.49 -32915906.23 0.0089 0.0016

Earth -94832-02-28 03:20 J -32915906.62 -32915906.36 -32915906.11 0.0089 0.0015 *

Earth -94831-03-02 16:03 J -32915539.08 -32915538.83 -32915538.57 0.0089 0.0017

Moon -94831-03-02 19:39 J -32915538.93 -32915538.68 -32915538.43 0.0089 0.0019 *

Moon -94830-03-05 01:25 J -32915171.64 -32915171.44 -32915171.20 0.0089 0.0048

Earth -94830-03-05 05:01 J -32915171.49 -32915171.29 -32915171.06 0.0089 0.0049 *

Earth -94829-03-06 17:44 J -32914803.84 -32914803.76 -32914803.62 0.0089 0.0081

Moon -94829-03-06 22:03 J -32914803.68 -32914803.58 -32914803.47 0.0089 0.0081 *

Mars -94821-01-15 18:13 J -32911932.96 -32911932.74 -32911932.44 0.0089 0.0056
 Mars -94820-12-11 10:47 J -32911237.36 -32911237.05 -32911236.72 0.0089 0.0021
 Mercury -94785-11-18 13:39 J -32898475.96 -32898475.93 -32898475.86 0.0088 0.0085
 Mercury -94784-02-14 16:18 J -32898387.87 -32898387.82 -32898387.72 0.0088 0.0080
 Mercury -94784-05-13 19:39 J -32898299.77 -32898299.68 -32898299.58 0.0088 0.0074
 Mercury -94784-08-09 22:18 J -32898211.67 -32898211.57 -32898211.45 0.0088 0.0069
 Venus -94784-09-23 13:39 J -32898166.93 -32898166.93 -32898166.87 0.0088 0.0088
 Mercury -94784-11-06 00:56 J -32898123.56 -32898123.46 -32898123.32 0.0088 0.0064
 Mercury -94783-02-02 04:03 J -32898035.45 -32898035.33 -32898035.19 0.0088 0.0058
 Mercury -94783-05-01 06:56 J -32897947.34 -32897947.21 -32897947.06 0.0088 0.0052
 Venus -94783-05-07 04:18 J -32897941.44 -32897941.32 -32897941.20 0.0088 0.0075
 Mercury -94783-07-28 09:35 J -32897859.23 -32897859.10 -32897858.94 0.0088 0.0048
 Mercury -94783-10-24 12:42 J -32897771.12 -32897770.97 -32897770.82 0.0088 0.0042
 Venus -94783-12-18 17:59 J -32897715.90 -32897715.75 -32897715.58 0.0088 0.0063
 Mercury -94782-01-20 15:20 J -32897683.01 -32897682.86 -32897682.70 0.0088 0.0037
 Mercury -94782-04-18 17:59 J -32897594.90 -32897594.75 -32897594.58 0.0088 0.0032
 Mercury -94782-07-15 20:51 J -32897506.79 -32897506.63 -32897506.46 0.0088 0.0026
 Venus -94782-08-01 07:39 J -32897490.35 -32897490.18 -32897489.98 0.0088 0.0051
 Mercury -94782-10-11 23:44 J -32897418.68 -32897418.51 -32897418.34 0.0088 0.0021
 Mercury -94781-01-08 02:23 J -32897330.57 -32897330.40 -32897330.22 0.0088 0.0016
 Venus -94781-03-13 21:49 J -32897264.79 -32897264.59 -32897264.38 0.0088 0.0038
 Mercury -94781-04-05 05:15 J -32897242.45 -32897242.28 -32897242.11 0.0088 0.0010
 Mercury -94781-07-02 07:54 J -32897154.34 -32897154.17 -32897154.00 0.0088 0.0005
 Mercury -94781-09-28 10:32 J -32897066.23 -32897066.06 -32897065.88 0.0088 0.0002
 Venus -94781-10-25 11:30 J -32897039.22 -32897039.02 -32897038.79 0.0088 0.0026
 Mercury -94781-12-25 13:11 J -32896978.12 -32896977.95 -32896977.77 0.0088 0.0006
 Mercury -94780-03-23 15:49 J -32896890.00 -32896889.84 -32896889.66 0.0088 0.0011
 Venus -94780-06-08 01:39 J -32896813.65 -32896813.43 -32896813.21 0.0088 0.0013
 Mercury -94780-06-19 18:27 J -32896801.89 -32896801.73 -32896801.55 0.0088 0.0016
 Mercury -94780-09-15 21:06 J -32896713.78 -32896713.62 -32896713.44 0.0088 0.0021

Mercury -94780-12-12 23:44 J -32896625.66 -32896625.51 -32896625.34 0.0088 0.0026

Venus -94779-01-19 15:20 J -32896588.08 -32896587.86 -32896587.63 0.0088 0.0002

Mercury -94779-03-11 02:23 J -32896537.55 -32896537.40 -32896537.23 0.0088 0.0031

Mercury -94779-06-07 05:01 J -32896449.44 -32896449.29 -32896449.13 0.0088 0.0036

Venus -94779-09-02 05:01 J -32896362.50 -32896362.29 -32896362.06 0.0088 0.0013

Mercury -94779-09-03 07:39 J -32896361.33 -32896361.18 -32896361.02 0.0088 0.0041

Mercury -94779-11-30 10:18 J -32896273.21 -32896273.07 -32896272.92 0.0088 0.0045

Mercury -94778-02-26 12:42 J -32896185.10 -32896184.97 -32896184.82 0.0088 0.0051

Venus -94778-04-15 18:56 J -32896136.92 -32896136.71 -32896136.48 0.0088 0.0025

Mercury -94778-05-25 15:20 J -32896096.98 -32896096.86 -32896096.72 0.0088 0.0055

Mercury -94778-08-21 17:44 J -32896008.87 -32896008.76 -32896008.62 0.0088 0.0061

Mercury -94778-11-17 20:23 J -32895920.75 -32895920.65 -32895920.53 0.0088 0.0065

Venus -94778-11-27 08:51 J -32895911.33 -32895911.13 -32895910.92 0.0088 0.0037

Mercury -94777-02-13 22:47 J -32895832.63 -32895832.55 -32895832.43 0.0088 0.0070

Mercury -94777-05-12 01:39 J -32895744.52 -32895744.43 -32895744.34 0.0088 0.0075

Venus -94777-07-09 22:18 J -32895685.74 -32895685.57 -32895685.37 0.0088 0.0049

Mercury -94777-08-08 04:03 J -32895656.39 -32895656.33 -32895656.25 0.0088 0.0080

Mercury -94777-11-04 06:27 J -32895568.27 -32895568.23 -32895568.17 0.0088 0.0085

Venus -94776-02-20 11:59 J -32895460.15 -32895460.00 -32895459.83 0.0088 0.0062

Venus -94776-10-04 01:39 J -32895234.54 -32895234.43 -32895234.30 0.0088 0.0074

Venus -94775-05-17 15:35 J -32895008.90 -32895008.85 -32895008.80 0.0088 0.0086

Moon -94752-09-03 15:20 J -32886498.99 -32886498.86 -32886498.67 0.0088 0.0068

Earth -94752-09-03 18:42 J -32886498.84 -32886498.72 -32886498.53 0.0088 0.0071 *

Earth -94751-09-06 05:44 J -32886131.48 -32886131.26 -32886131.02 0.0088 0.0039

Moon -94751-09-06 08:51 J -32886131.36 -32886131.13 -32886130.90 0.0088 0.0043 *

Moon -94750-09-08 14:08 J -32885764.16 -32885763.91 -32885763.66 0.0088 0.0005

Earth -94750-09-08 16:18 J -32885764.07 -32885763.82 -32885763.56 0.0088 0.0009 *

Earth -94749-09-10 02:37 J -32885396.63 -32885396.39 -32885396.14 0.0088 0.0021

Moon -94749-09-10 03:06 J -32885396.62 -32885396.37 -32885396.10 0.0088 0.0019 *

Earth -94748-09-12 12:27 J -32885029.18 -32885028.98 -32885028.76 0.0088 0.0052

Moon -94748-09-12 12:27 J -32885029.15 -32885028.98 -32885028.76 0.0088 0.0055 *
 Moon -94747-09-14 21:06 J -32884661.74 -32884661.62 -32884661.50 0.0088 0.0078
 Earth -94747-09-14 22:18 J -32884661.65 -32884661.57 -32884661.46 0.0088 0.0082 *
 Mars -94740-10-03 14:23 J -32882086.01 -32882085.90 -32882085.74 0.0088 0.0079
 Mars -94738-08-28 15:06 J -32881392.16 -32881391.87 -32881391.56 0.0088 0.0011
 Mars -94736-07-22 17:15 J -32880697.99 -32880697.78 -32880697.53 0.0088 0.0058
 Mercury -94703-08-16 13:39 J -32868619.95 -32868619.93 -32868619.89 0.0089 0.0086
 Mercury -94703-11-12 15:20 J -32868531.90 -32868531.86 -32868531.80 0.0089 0.0082
 Mercury -94702-02-08 16:47 J -32868443.85 -32868443.80 -32868443.72 0.0089 0.0078
 Mercury -94702-05-07 18:27 J -32868355.79 -32868355.73 -32868355.64 0.0089 0.0074
 Mercury -94702-08-03 20:23 J -32868267.73 -32868267.65 -32868267.56 0.0089 0.0069
 Mercury -94702-10-30 22:03 J -32868179.67 -32868179.58 -32868179.48 0.0089 0.0065
 Mercury -94701-01-26 23:30 J -32868091.61 -32868091.52 -32868091.41 0.0089 0.0061
 Mercury -94701-04-24 01:11 J -32868003.55 -32868003.45 -32868003.33 0.0089 0.0057
 Venus -94701-06-19 05:59 J -32867947.31 -32867947.25 -32867947.15 0.0089 0.0082
 Mercury -94701-07-21 03:06 J -32867915.48 -32867915.37 -32867915.25 0.0089 0.0052
 Mercury -94701-10-17 04:47 J -32867827.42 -32867827.30 -32867827.18 0.0089 0.0048
 Mercury -94700-01-13 06:13 J -32867739.35 -32867739.24 -32867739.10 0.0089 0.0044
 Venus -94700-01-30 17:59 J -32867721.86 -32867721.75 -32867721.59 0.0089 0.0070
 Mercury -94700-04-11 07:54 J -32867651.29 -32867651.17 -32867651.03 0.0089 0.0040
 Mercury -94700-07-08 09:49 J -32867563.22 -32867563.09 -32867562.96 0.0089 0.0035
 Venus -94700-09-13 06:13 J -32867496.38 -32867496.24 -32867496.05 0.0089 0.0058
 Mercury -94700-10-04 11:30 J -32867475.15 -32867475.02 -32867474.88 0.0089 0.0031
 Mercury -94700-12-31 13:11 J -32867387.08 -32867386.95 -32867386.81 0.0089 0.0027
 Mercury -94699-03-29 15:06 J -32867299.01 -32867298.87 -32867298.73 0.0089 0.0022
 Venus -94699-04-26 18:27 J -32867270.89 -32867270.73 -32867270.53 0.0089 0.0046
 Mercury -94699-06-25 16:47 J -32867210.94 -32867210.80 -32867210.66 0.0089 0.0018
 Mercury -94699-09-21 18:27 J -32867122.87 -32867122.73 -32867122.59 0.0089 0.0013
 Venus -94699-12-08 06:42 J -32867045.40 -32867045.22 -32867045.01 0.0089 0.0034
 Mercury -94699-12-18 20:08 J -32867034.80 -32867034.66 -32867034.51 0.0089 0.0009

Mercury -94698-03-16 21:49 J -32866946.73 -32866946.59 -32866946.44 0.0089 0.0006

Mercury -94698-06-12 23:44 J -32866858.66 -32866858.51 -32866858.37 0.0089 0.0001

Venus -94698-07-21 18:56 J -32866819.91 -32866819.71 -32866819.49 0.0089 0.0022

Mercury -94698-09-09 01:25 J -32866770.58 -32866770.44 -32866770.29 0.0089 0.0004

Mercury -94698-12-06 03:06 J -32866682.51 -32866682.37 -32866682.22 0.0089 0.0009

Mercury -94697-03-03 05:01 J -32866594.44 -32866594.29 -32866594.15 0.0089 0.0013

Venus -94697-03-03 07:11 J -32866594.41 -32866594.20 -32866593.98 0.0089 0.0010 *

Mercury -94697-05-30 06:42 J -32866506.36 -32866506.22 -32866506.07 0.0089 0.0018

Mercury -94697-08-26 08:37 J -32866418.28 -32866418.14 -32866418.00 0.0089 0.0022

Venus -94697-10-14 19:39 J -32866368.90 -32866368.68 -32866368.47 0.0089 0.0003

Mercury -94697-11-22 10:18 J -32866330.21 -32866330.07 -32866329.93 0.0089 0.0027

Mercury -94696-02-18 12:13 J -32866242.13 -32866241.99 -32866241.85 0.0089 0.0031

Mercury -94696-05-17 13:54 J -32866154.05 -32866153.92 -32866153.78 0.0089 0.0036

Venus -94696-05-28 07:39 J -32866143.39 -32866143.18 -32866142.96 0.0089 0.0015

Mercury -94696-08-13 15:49 J -32866065.97 -32866065.84 -32866065.71 0.0089 0.0040

Mercury -94696-11-09 17:30 J -32865977.89 -32865977.77 -32865977.64 0.0089 0.0045

Venus -94695-01-08 19:39 J -32865917.87 -32865917.68 -32865917.46 0.0089 0.0027

Mercury -94695-02-05 19:25 J -32865889.81 -32865889.69 -32865889.56 0.0089 0.0049

Mercury -94695-05-04 21:06 J -32865801.73 -32865801.62 -32865801.49 0.0089 0.0054

Mercury -94695-07-31 23:01 J -32865713.64 -32865713.54 -32865713.42 0.0089 0.0058

Venus -94695-08-22 07:54 J -32865692.35 -32865692.17 -32865691.96 0.0089 0.0039

Mercury -94695-10-28 00:42 J -32865625.56 -32865625.47 -32865625.35 0.0089 0.0063

Mercury -94694-01-24 02:51 J -32865537.47 -32865537.38 -32865537.28 0.0089 0.0067

Venus -94694-04-04 20:08 J -32865466.82 -32865466.66 -32865466.47 0.0089 0.0051

Mercury -94694-04-22 04:32 J -32865449.38 -32865449.31 -32865449.21 0.0089 0.0072

Mercury -94694-07-19 06:27 J -32865361.29 -32865361.23 -32865361.15 0.0089 0.0077

Mercury -94694-10-15 08:23 J -32865273.20 -32865273.15 -32865273.08 0.0089 0.0081

Venus -94694-11-16 08:37 J -32865241.28 -32865241.14 -32865240.98 0.0089 0.0063

Mercury -94693-01-11 10:18 J -32865185.10 -32865185.07 -32865185.03 0.0089 0.0086

Venus -94693-06-28 20:51 J -32865015.73 -32865015.63 -32865015.50 0.0089 0.0075

Venus	-94692-02-09 09:06 J	-32864790.14	-32864790.12	-32864790.06	0.0089	0.0087
Jupiter	-94689-02-29 17:01 J	-32863675.32	-32863674.79	-32863674.24	0.0089	0.0016
Moon	-94670-02-23 12:42 J	-32856740.97	-32856740.97	-32856740.92	0.0089	0.0089
Moon	-94669-02-25 18:56 J	-32856373.86	-32856373.71	-32856373.51	0.0089	0.0065
Earth	-94669-02-25 22:32 J	-32856373.73	-32856373.56	-32856373.36	0.0089	0.0061 *
Earth	-94668-02-27 11:01 J	-32856006.27	-32856006.04	-32856005.78	0.0089	0.0030
Moon	-94668-02-27 14:51 J	-32856006.13	-32856005.88	-32856005.63	0.0089	0.0025 *
Moon	-94667-03-01 20:23 J	-32855638.90	-32855638.65	-32855638.39	0.0089	0.0003
Earth	-94667-03-01 23:59 J	-32855638.76	-32855638.50	-32855638.24	0.0089	0.0002 *
Earth	-94666-03-04 12:27 J	-32855271.21	-32855270.98	-32855270.73	0.0089	0.0033
Moon	-94666-03-04 15:20 J	-32855271.09	-32855270.86	-32855270.61	0.0089	0.0038 *
Moon	-94665-03-05 22:47 J	-32854903.71	-32854903.55	-32854903.34	0.0089	0.0061
Earth	-94665-03-06 01:25 J	-32854903.60	-32854903.44	-32854903.25	0.0089	0.0065 *
Mars	-94656-07-25 10:03 J	-32851475.39	-32851475.08	-32851474.74	0.0089	0.0013
Mars	-94654-06-21 01:11 J	-32850779.65	-32850779.45	-32850779.20	0.0089	0.0064
Mercury	-94620-05-19 09:49 J	-32838393.10	-32838393.09	-32838393.06	0.0088	0.0088
Mercury	-94620-08-15 12:27 J	-32838305.02	-32838304.98	-32838304.90	0.0088	0.0083
Mercury	-94620-11-11 15:35 J	-32838216.92	-32838216.85	-32838216.75	0.0088	0.0077
Mercury	-94619-02-07 18:27 J	-32838128.82	-32838128.73	-32838128.62	0.0088	0.0072
Mercury	-94619-05-06 21:06 J	-32838040.72	-32838040.62	-32838040.49	0.0088	0.0067
Mercury	-94619-08-03 00:13 J	-32837952.61	-32837952.49	-32837952.36	0.0088	0.0061
Venus	-94619-08-08 13:39 J	-32837947.01	-32837946.93	-32837946.81	0.0088	0.0079
Mercury	-94619-10-30 02:51 J	-32837864.50	-32837864.38	-32837864.23	0.0088	0.0056
Mercury	-94618-01-26 05:44 J	-32837776.39	-32837776.26	-32837776.10	0.0088	0.0051
Venus	-94618-03-22 04:03 J	-32837721.48	-32837721.33	-32837721.18	0.0088	0.0066
Mercury	-94618-04-24 08:51 J	-32837688.28	-32837688.13	-32837687.98	0.0088	0.0045
Mercury	-94618-07-21 11:30 J	-32837600.17	-32837600.02	-32837599.86	0.0088	0.0040
Mercury	-94618-10-17 14:08 J	-32837512.06	-32837511.91	-32837511.74	0.0088	0.0035
Venus	-94618-11-02 17:30 J	-32837495.93	-32837495.77	-32837495.57	0.0088	0.0054
Mercury	-94617-01-13 17:01 J	-32837423.95	-32837423.79	-32837423.62	0.0088	0.0029

Mercury -94617-04-10 19:54 J -32837335.83 -32837335.67 -32837335.50 0.0088 0.0024

Venus -94617-06-15 07:25 J -32837270.38 -32837270.19 -32837269.98 0.0088 0.0041

Mercury -94617-07-07 22:32 J -32837247.72 -32837247.56 -32837247.38 0.0088 0.0019

Mercury -94617-10-04 01:25 J -32837159.61 -32837159.44 -32837159.27 0.0088 0.0013

Mercury -94617-12-31 04:03 J -32837071.50 -32837071.33 -32837071.15 0.0088 0.0009

Venus -94616-01-26 21:20 J -32837044.81 -32837044.61 -32837044.39 0.0088 0.0029

Mercury -94616-03-29 06:56 J -32836983.38 -32836983.21 -32836983.04 0.0088 0.0003

Mercury -94616-06-25 09:35 J -32836895.27 -32836895.10 -32836894.93 0.0088 0.0002

Venus -94616-09-09 11:15 J -32836819.25 -32836819.03 -32836818.80 0.0088 0.0016

Mercury -94616-09-21 12:13 J -32836807.16 -32836806.99 -32836806.82 0.0088 0.0007

Mercury -94616-12-18 14:51 J -32836719.05 -32836718.88 -32836718.70 0.0088 0.0013

Mercury -94615-03-16 17:30 J -32836630.93 -32836630.77 -32836630.60 0.0088 0.0018

Venus -94615-04-23 01:25 J -32836593.67 -32836593.44 -32836593.22 0.0088 0.0004

Mercury -94615-06-12 20:08 J -32836542.82 -32836542.66 -32836542.49 0.0088 0.0023

Mercury -94615-09-08 22:47 J -32836454.71 -32836454.55 -32836454.38 0.0088 0.0028

Venus -94615-12-04 15:06 J -32836368.09 -32836367.87 -32836367.64 0.0088 0.0009

Mercury -94615-12-06 01:25 J -32836366.59 -32836366.44 -32836366.27 0.0088 0.0033

Mercury -94614-03-04 04:03 J -32836278.48 -32836278.33 -32836278.17 0.0088 0.0038

Mercury -94614-05-31 06:42 J -32836190.36 -32836190.22 -32836190.07 0.0088 0.0043

Venus -94614-07-18 04:47 J -32836142.51 -32836142.30 -32836142.08 0.0088 0.0022

Mercury -94614-08-27 09:20 J -32836102.25 -32836102.11 -32836101.96 0.0088 0.0048

Mercury -94614-11-23 11:44 J -32836014.13 -32836014.01 -32836013.86 0.0088 0.0053

Mercury -94613-02-19 14:23 J -32835926.02 -32835925.90 -32835925.76 0.0088 0.0058

Venus -94613-02-28 18:13 J -32835916.93 -32835916.74 -32835916.51 0.0088 0.0035

Mercury -94613-05-17 16:47 J -32835837.90 -32835837.80 -32835837.67 0.0088 0.0063

Mercury -94613-08-13 19:25 J -32835749.79 -32835749.69 -32835749.57 0.0088 0.0068

Venus -94613-10-11 08:08 J -32835691.34 -32835691.16 -32835690.96 0.0088 0.0046

Mercury -94613-11-09 21:49 J -32835661.67 -32835661.59 -32835661.48 0.0088 0.0073

Mercury -94612-02-06 00:13 J -32835573.55 -32835573.49 -32835573.39 0.0088 0.0078

Mercury -94612-05-05 03:20 J -32835485.42 -32835485.36 -32835485.30 0.0088 0.0082

Venus -94612-05-24 22:03 J -32835465.74 -32835465.58 -32835465.41 0.0088 0.0059
 Mercury -94612-08-01 05:30 J -32835397.29 -32835397.27 -32835397.23 0.0088 0.0087
 Venus -94611-01-05 11:15 J -32835240.13 -32835240.03 -32835239.87 0.0088 0.0072
 Venus -94611-08-19 01:11 J -32835014.51 -32835014.45 -32835014.36 0.0088 0.0084
 Earth -94588-09-03 04:18 J -32826598.37 -32826598.32 -32826598.22 0.0088 0.0085
 Moon -94588-09-03 07:25 J -32826598.28 -32826598.19 -32826598.07 0.0088 0.0081 *
 Moon -94587-09-05 14:08 J -32826231.08 -32826230.91 -32826230.70 0.0088 0.0057
 Earth -94587-09-05 15:35 J -32826231.05 -32826230.85 -32826230.64 0.0088 0.0054 *
 Earth -94586-09-08 02:08 J -32825863.64 -32825863.41 -32825863.15 0.0088 0.0024
 Moon -94586-09-08 02:51 J -32825863.63 -32825863.38 -32825863.12 0.0088 0.0021 *
 Earth -94585-09-09 12:42 J -32825496.22 -32825495.97 -32825495.71 0.0088 0.0008
 Moon -94585-09-09 13:54 J -32825496.17 -32825495.92 -32825495.67 0.0088 0.0004 *
 Moon -94584-09-11 20:08 J -32825128.87 -32825128.66 -32825128.40 0.0088 0.0042
 Earth -94584-09-11 23:01 J -32825128.76 -32825128.54 -32825128.30 0.0088 0.0037 *
 Earth -94583-09-14 08:51 J -32824761.28 -32824761.13 -32824760.96 0.0088 0.0068
 Moon -94583-09-14 11:15 J -32824761.17 -32824761.03 -32824760.84 0.0088 0.0065 *
 Mars -94574-04-12 19:25 J -32821628.94 -32821628.69 -32821628.41 0.0088 0.0041
 Mars -94572-03-06 21:06 J -32820934.91 -32820934.62 -32820934.33 0.0088 0.0028
 Mercury -94538-02-14 11:44 J -32808537.02 -32808537.01 -32808536.99 0.0089 0.0088
 Mercury -94538-05-13 13:11 J -32808448.98 -32808448.95 -32808448.90 0.0089 0.0084
 Mercury -94538-08-09 14:51 J -32808360.93 -32808360.88 -32808360.81 0.0089 0.0080
 Mercury -94538-11-05 16:18 J -32808272.88 -32808272.82 -32808272.73 0.0089 0.0076
 Mercury -94537-02-01 17:59 J -32808184.82 -32808184.75 -32808184.65 0.0089 0.0072
 Mercury -94537-04-29 19:39 J -32808096.76 -32808096.68 -32808096.58 0.0089 0.0068
 Mercury -94537-07-26 21:35 J -32808008.70 -32808008.60 -32808008.50 0.0089 0.0063
 Venus -94537-09-20 17:30 J -32807952.81 -32807952.77 -32807952.70 0.0089 0.0085
 Mercury -94537-10-22 23:01 J -32807920.64 -32807920.54 -32807920.42 0.0089 0.0059
 Mercury -94536-01-19 00:42 J -32807832.57 -32807832.47 -32807832.35 0.0089 0.0055
 Mercury -94536-04-17 02:23 J -32807744.51 -32807744.40 -32807744.27 0.0089 0.0051
 Venus -94536-05-04 05:44 J -32807727.37 -32807727.26 -32807727.13 0.0089 0.0073

Mercury -94536-07-14 04:18 J -32807656.44 -32807656.32 -32807656.20 0.0089 0.0046

Mercury -94536-10-10 05:59 J -32807568.38 -32807568.25 -32807568.12 0.0089 0.0042

Venus -94536-12-15 17:59 J -32807501.90 -32807501.75 -32807501.59 0.0089 0.0061

Mercury -94535-01-06 07:25 J -32807480.31 -32807480.19 -32807480.05 0.0089 0.0038

Mercury -94535-04-04 09:06 J -32807392.24 -32807392.12 -32807391.98 0.0089 0.0034

Mercury -94535-07-01 11:01 J -32807304.17 -32807304.04 -32807303.90 0.0089 0.0029

Venus -94535-07-29 05:59 J -32807276.42 -32807276.25 -32807276.06 0.0089 0.0049

Mercury -94535-09-27 12:42 J -32807216.11 -32807215.97 -32807215.83 0.0089 0.0025

Mercury -94535-12-24 14:23 J -32807128.04 -32807127.90 -32807127.75 0.0089 0.0021

Venus -94534-03-11 18:13 J -32807050.93 -32807050.74 -32807050.54 0.0089 0.0037

Mercury -94534-03-22 16:18 J -32807039.97 -32807039.82 -32807039.68 0.0089 0.0016

Mercury -94534-06-18 17:59 J -32806951.89 -32806951.75 -32806951.61 0.0089 0.0012

Mercury -94534-09-14 19:39 J -32806863.82 -32806863.68 -32806863.53 0.0089 0.0007

Venus -94534-10-23 06:27 J -32806825.43 -32806825.23 -32806825.01 0.0089 0.0025

Mercury -94534-12-11 21:20 J -32806775.75 -32806775.61 -32806775.46 0.0089 0.0004

Mercury -94533-03-08 23:15 J -32806687.68 -32806687.53 -32806687.39 0.0089 0.0002

Venus -94533-06-04 18:42 J -32806599.93 -32806599.72 -32806599.50 0.0089 0.0013

Mercury -94533-06-05 00:56 J -32806599.60 -32806599.46 -32806599.31 0.0089 0.0006 *

Mercury -94533-09-01 02:37 J -32806511.53 -32806511.39 -32806511.24 0.0089 0.0011

Mercury -94533-11-28 04:32 J -32806423.46 -32806423.31 -32806423.17 0.0089 0.0015

Venus -94532-01-16 06:56 J -32806374.42 -32806374.21 -32806373.99 0.0089 0.0002

Mercury -94532-02-24 06:13 J -32806335.38 -32806335.24 -32806335.09 0.0089 0.0020

Mercury -94532-05-23 08:08 J -32806247.30 -32806247.16 -32806247.02 0.0089 0.0024

Mercury -94532-08-19 09:49 J -32806159.23 -32806159.09 -32806158.95 0.0089 0.0029

Venus -94532-08-29 19:11 J -32806148.91 -32806148.70 -32806148.48 0.0089 0.0012

Mercury -94532-11-15 11:30 J -32806071.15 -32806071.02 -32806070.88 0.0089 0.0033

Mercury -94531-02-11 13:11 J -32805983.07 -32805982.95 -32805982.80 0.0089 0.0038

Venus -94531-04-12 07:25 J -32805923.39 -32805923.19 -32805922.98 0.0089 0.0024

Mercury -94531-05-10 15:06 J -32805894.99 -32805894.87 -32805894.73 0.0089 0.0042

Mercury -94531-08-06 17:01 J -32805806.91 -32805806.79 -32805806.66 0.0089 0.0047

Mercury -94531-11-02 18:56 J -32805718.83 -32805718.71 -32805718.59 0.0089 0.0051
 Venus -94531-11-23 19:39 J -32805697.87 -32805697.68 -32805697.48 0.0089 0.0036
 Mercury -94530-01-29 20:37 J -32805630.75 -32805630.64 -32805630.52 0.0089 0.0056
 Mercury -94530-04-27 22:32 J -32805542.66 -32805542.56 -32805542.45 0.0089 0.0060
 Venus -94530-07-07 07:54 J -32805472.34 -32805472.17 -32805471.98 0.0089 0.0048
 Mercury -94530-07-25 00:13 J -32805454.58 -32805454.49 -32805454.38 0.0089 0.0065
 Mercury -94530-10-21 02:08 J -32805366.49 -32805366.41 -32805366.31 0.0089 0.0070
 Mercury -94529-01-17 04:03 J -32805278.40 -32805278.33 -32805278.24 0.0089 0.0074
 Venus -94529-02-17 20:08 J -32805246.81 -32805246.66 -32805246.50 0.0089 0.0060
 Mercury -94529-04-14 05:44 J -32805190.31 -32805190.26 -32805190.17 0.0089 0.0079
 Mercury -94529-07-11 07:54 J -32805102.21 -32805102.17 -32805102.11 0.0089 0.0083
 Venus -94529-09-30 08:08 J -32805021.26 -32805021.16 -32805021.01 0.0089 0.0073
 Mercury -94529-10-07 09:49 J -32805014.10 -32805014.09 -32805014.06 0.0089 0.0088
 Venus -94528-05-13 20:23 J -32804795.69 -32804795.65 -32804795.56 0.0089 0.0085
 Jupiter -94523-05-06 23:15 J -32802976.77 -32802976.53 -32802976.20 0.0089 0.0076
 Earth -94505-02-25 06:56 J -32796473.31 -32796473.21 -32796473.05 0.0089 0.0077
 Moon -94505-02-25 10:32 J -32796473.15 -32796473.06 -32796472.91 0.0089 0.0079 *
 Moon -94504-02-26 16:32 J -32796106.01 -32796105.81 -32796105.57 0.0089 0.0043
 Earth -94504-02-26 19:39 J -32796105.88 -32796105.68 -32796105.44 0.0089 0.0045 *
 Earth -94503-03-01 08:23 J -32795738.40 -32795738.15 -32795737.89 0.0089 0.0013
 Moon -94503-03-01 11:15 J -32795738.29 -32795738.03 -32795737.76 0.0089 0.0015 *
 Moon -94502-03-03 20:08 J -32795370.90 -32795370.66 -32795370.41 0.0089 0.0020
 Earth -94502-03-03 21:06 J -32795370.87 -32795370.62 -32795370.36 0.0089 0.0018 *
 Earth -94501-03-05 09:35 J -32795003.29 -32795003.10 -32795002.86 0.0089 0.0050
 Moon -94501-03-05 10:18 J -32795003.29 -32795003.07 -32795002.83 0.0089 0.0048 *
 Earth -94500-03-07 23:01 J -32794635.63 -32794635.54 -32794635.43 0.0089 0.0081
 Moon -94500-03-07 23:30 J -32794635.59 -32794635.52 -32794635.41 0.0089 0.0083 *
 Mars -94492-03-08 11:01 J -32791713.31 -32791713.04 -32791712.75 0.0089 0.0046
 Mars -94490-02-02 04:03 J -32791017.63 -32791017.33 -32791017.01 0.0089 0.0031
 Mercury -94455-02-13 09:06 J -32778222.16 -32778222.12 -32778222.06 0.0089 0.0085

Mercury -94455-05-12 11:59 J -32778134.07 -32778134.00 -32778133.92 0.0088 0.0080

Mercury -94455-08-08 14:37 J -32778045.97 -32778045.89 -32778045.78 0.0088 0.0075

Mercury -94455-11-04 17:44 J -32777957.86 -32777957.76 -32777957.64 0.0088 0.0069

Venus -94455-11-10 00:13 J -32777952.55 -32777952.49 -32777952.38 0.0088 0.0082

Mercury -94454-01-31 20:37 J -32777869.75 -32777869.64 -32777869.51 0.0088 0.0063

Mercury -94454-04-29 23:15 J -32777781.64 -32777781.53 -32777781.38 0.0088 0.0059

Venus -94454-06-23 14:23 J -32777727.03 -32777726.90 -32777726.75 0.0088 0.0069

Mercury -94454-07-27 02:23 J -32777693.53 -32777693.40 -32777693.25 0.0088 0.0053

Mercury -94454-10-23 05:01 J -32777605.42 -32777605.29 -32777605.13 0.0088 0.0048

Mercury -94453-01-19 07:54 J -32777517.31 -32777517.17 -32777517.01 0.0088 0.0042

Venus -94453-02-04 04:03 J -32777501.49 -32777501.33 -32777501.14 0.0088 0.0057

Mercury -94453-04-16 10:47 J -32777429.20 -32777429.05 -32777428.88 0.0088 0.0037

Mercury -94453-07-13 13:39 J -32777341.09 -32777340.93 -32777340.76 0.0088 0.0032

Venus -94453-09-16 18:13 J -32777275.93 -32777275.74 -32777275.54 0.0088 0.0044

Mercury -94453-10-09 16:18 J -32777252.98 -32777252.82 -32777252.64 0.0088 0.0027

Mercury -94452-01-05 19:11 J -32777164.87 -32777164.70 -32777164.53 0.0088 0.0021

Mercury -94452-04-03 22:03 J -32777076.75 -32777076.58 -32777076.41 0.0088 0.0016

Venus -94452-04-30 07:54 J -32777050.37 -32777050.17 -32777049.94 0.0088 0.0032

Mercury -94452-07-01 00:42 J -32776988.64 -32776988.47 -32776988.29 0.0088 0.0011

Mercury -94452-09-27 03:35 J -32776900.53 -32776900.35 -32776900.18 0.0088 0.0006

Venus -94452-12-11 22:03 J -32776824.80 -32776824.58 -32776824.36 0.0088 0.0019

Mercury -94452-12-24 06:13 J -32776812.41 -32776812.24 -32776812.07 0.0088 0.0001

Mercury -94451-03-22 08:51 J -32776724.30 -32776724.13 -32776723.96 0.0088 0.0005

Mercury -94451-06-18 11:30 J -32776636.19 -32776636.02 -32776635.84 0.0088 0.0010

Venus -94451-07-25 11:44 J -32776599.23 -32776599.01 -32776598.78 0.0088 0.0006

Mercury -94451-09-14 14:08 J -32776548.07 -32776547.91 -32776547.73 0.0088 0.0015

Mercury -94451-12-11 16:47 J -32776459.96 -32776459.80 -32776459.63 0.0088 0.0020

Venus -94450-03-08 01:39 J -32776373.66 -32776373.43 -32776373.21 0.0088 0.0006

Mercury -94450-03-09 19:25 J -32776371.85 -32776371.69 -32776371.52 0.0088 0.0026

Mercury -94450-06-05 22:03 J -32776283.73 -32776283.58 -32776283.41 0.0088 0.0031

Mercury -94450-09-02 00:42 J -32776195.62 -32776195.47 -32776195.31 0.0088 0.0036

Venus -94450-10-19 15:06 J -32776148.08 -32776147.87 -32776147.64 0.0088 0.0019

Mercury -94450-11-29 03:20 J -32776107.50 -32776107.36 -32776107.20 0.0088 0.0041

Mercury -94449-02-25 05:59 J -32776019.39 -32776019.25 -32776019.10 0.0088 0.0045

Mercury -94449-05-23 08:23 J -32775931.28 -32775931.15 -32775931.00 0.0088 0.0051

Venus -94449-06-01 05:01 J -32775922.49 -32775922.29 -32775922.07 0.0088 0.0032

Mercury -94449-08-19 11:01 J -32775843.16 -32775843.04 -32775842.90 0.0088 0.0056

Mercury -94449-11-15 13:39 J -32775755.04 -32775754.93 -32775754.80 0.0088 0.0060

Venus -94448-01-12 18:27 J -32775696.91 -32775696.73 -32775696.52 0.0088 0.0045

Mercury -94448-02-11 16:03 J -32775666.93 -32775666.83 -32775666.70 0.0088 0.0066

Mercury -94448-05-10 18:27 J -32775578.81 -32775578.73 -32775578.61 0.0088 0.0071

Mercury -94448-08-06 21:35 J -32775490.69 -32775490.60 -32775490.51 0.0088 0.0075

Venus -94448-08-26 08:23 J -32775471.31 -32775471.15 -32775470.97 0.0088 0.0057

Mercury -94448-11-02 23:59 J -32775402.57 -32775402.50 -32775402.43 0.0088 0.0080

Mercury -94447-01-30 02:23 J -32775314.44 -32775314.40 -32775314.35 0.0088 0.0085

Venus -94447-04-08 21:49 J -32775245.70 -32775245.59 -32775245.43 0.0088 0.0070

Venus -94447-11-20 11:30 J -32775020.08 -32775020.02 -32775019.91 0.0088 0.0082

Moon -94423-09-05 01:54 J -32766330.59 -32766330.42 -32766330.23 0.0088 0.0064

Earth -94423-09-05 02:23 J -32766330.55 -32766330.40 -32766330.22 0.0088 0.0067 *

Earth -94422-09-07 12:56 J -32765963.17 -32765962.96 -32765962.71 0.0088 0.0037

Moon -94422-09-07 14:51 J -32765963.10 -32765962.88 -32765962.65 0.0088 0.0039 *

Moon -94421-09-08 21:35 J -32765595.86 -32765595.60 -32765595.33 0.0088 0.0003

Earth -94421-09-08 23:59 J -32765595.75 -32765595.50 -32765595.24 0.0088 0.0007 *

Earth -94420-09-11 10:03 J -32765228.31 -32765228.08 -32765227.82 0.0088 0.0024

Moon -94420-09-11 13:54 J -32765228.17 -32765227.92 -32765227.68 0.0088 0.0021 *

Moon -94419-09-13 17:15 J -32764860.97 -32764860.78 -32764860.58 0.0088 0.0057

Earth -94419-09-13 20:08 J -32764860.83 -32764860.66 -32764860.43 0.0088 0.0055 *

Earth -94418-09-16 06:13 J -32764493.29 -32764493.24 -32764493.13 0.0088 0.0084

Moon -94418-09-16 09:49 J -32764493.17 -32764493.09 -32764492.96 0.0088 0.0080 *

Mars -94411-11-26 01:25 J -32761865.59 -32761865.44 -32761865.23 0.0088 0.0070

Mars -94409-10-20 02:23 J -32761171.70 -32761171.40 -32761171.10 0.0088 0.0002
 Mars -94407-09-14 04:18 J -32760477.49 -32760477.32 -32760477.11 0.0088 0.0068
 Mercury -94374-11-11 11:15 J -32748366.05 -32748366.03 -32748365.99 0.0089 0.0086
 Mercury -94373-02-07 12:56 J -32748278.00 -32748277.96 -32748277.90 0.0089 0.0082
 Mercury -94373-05-05 14:23 J -32748189.95 -32748189.90 -32748189.82 0.0089 0.0078
 Mercury -94373-08-01 16:03 J -32748101.90 -32748101.83 -32748101.74 0.0089 0.0074
 Mercury -94373-10-28 17:44 J -32748013.84 -32748013.76 -32748013.66 0.0089 0.0070
 Venus -94373-12-23 05:30 J -32747958.28 -32747958.27 -32747958.24 0.0089 0.0088
 Mercury -94372-01-24 19:11 J -32747925.78 -32747925.70 -32747925.59 0.0089 0.0066
 Mercury -94372-04-22 21:06 J -32747837.72 -32747837.62 -32747837.51 0.0089 0.0061
 Mercury -94372-07-19 22:47 J -32747749.65 -32747749.55 -32747749.44 0.0089 0.0057
 Venus -94372-08-05 17:30 J -32747732.87 -32747732.77 -32747732.66 0.0089 0.0076
 Mercury -94372-10-16 00:13 J -32747661.59 -32747661.49 -32747661.36 0.0089 0.0053
 Mercury -94371-01-12 01:54 J -32747573.53 -32747573.42 -32747573.29 0.0089 0.0049
 Venus -94371-03-19 05:44 J -32747507.41 -32747507.26 -32747507.11 0.0089 0.0064
 Mercury -94371-04-10 03:49 J -32747485.46 -32747485.34 -32747485.21 0.0089 0.0044
 Mercury -94371-07-07 05:30 J -32747397.39 -32747397.27 -32747397.14 0.0089 0.0040
 Mercury -94371-10-03 07:11 J -32747309.33 -32747309.20 -32747309.07 0.0089 0.0036
 Venus -94371-10-30 17:44 J -32747281.92 -32747281.76 -32747281.58 0.0089 0.0052
 Mercury -94371-12-30 08:37 J -32747221.26 -32747221.14 -32747220.99 0.0089 0.0032
 Mercury -94370-03-28 10:32 J -32747133.19 -32747133.06 -32747132.92 0.0089 0.0027
 Venus -94370-06-13 05:59 J -32747056.43 -32747056.25 -32747056.05 0.0089 0.0040
 Mercury -94370-06-24 12:13 J -32747045.12 -32747044.99 -32747044.84 0.0089 0.0023
 Mercury -94370-09-20 14:08 J -32746957.05 -32746956.91 -32746956.77 0.0089 0.0018
 Mercury -94370-12-17 15:49 J -32746868.98 -32746868.84 -32746868.70 0.0089 0.0014
 Venus -94369-01-24 17:59 J -32746830.94 -32746830.75 -32746830.53 0.0089 0.0028
 Mercury -94369-03-14 17:30 J -32746780.91 -32746780.77 -32746780.62 0.0089 0.0010
 Mercury -94369-06-10 19:11 J -32746692.84 -32746692.70 -32746692.55 0.0089 0.0006
 Venus -94369-09-06 06:13 J -32746605.44 -32746605.24 -32746605.02 0.0089 0.0016
 Mercury -94369-09-06 21:06 J -32746604.77 -32746604.62 -32746604.48 0.0089 0.0002

Mercury -94369-12-03 22:47 J -32746516.70 -32746516.55 -32746516.40 0.0089 0.0004

Mercury -94368-03-02 00:27 J -32746428.62 -32746428.48 -32746428.33 0.0089 0.0008

Venus -94368-04-19 18:42 J -32746379.93 -32746379.72 -32746379.50 0.0089 0.0003

Mercury -94368-05-29 02:08 J -32746340.55 -32746340.41 -32746340.26 0.0089 0.0013

Mercury -94368-08-25 04:03 J -32746252.47 -32746252.33 -32746252.19 0.0089 0.0017

Mercury -94368-11-21 05:44 J -32746164.40 -32746164.26 -32746164.11 0.0089 0.0022

Venus -94368-12-01 06:56 J -32746154.42 -32746154.21 -32746153.99 0.0089 0.0009

Mercury -94367-02-17 07:39 J -32746076.32 -32746076.18 -32746076.04 0.0089 0.0026

Mercury -94367-05-16 09:20 J -32745988.24 -32745988.11 -32745987.97 0.0089 0.0031

Venus -94367-07-14 19:11 J -32745928.91 -32745928.70 -32745928.49 0.0089 0.0021

Mercury -94367-08-12 11:15 J -32745900.16 -32745900.03 -32745899.89 0.0089 0.0035

Mercury -94367-11-08 12:56 J -32745812.09 -32745811.96 -32745811.82 0.0089 0.0040

Mercury -94366-02-04 14:51 J -32745724.01 -32745723.88 -32745723.75 0.0089 0.0044

Venus -94366-02-25 07:11 J -32745703.39 -32745703.20 -32745702.99 0.0089 0.0034

Mercury -94366-05-03 16:32 J -32745635.93 -32745635.81 -32745635.68 0.0089 0.0049

Mercury -94366-07-30 18:27 J -32745547.84 -32745547.73 -32745547.61 0.0089 0.0053

Venus -94366-10-08 19:25 J -32745477.86 -32745477.69 -32745477.49 0.0089 0.0046

Mercury -94366-10-26 20:08 J -32745459.76 -32745459.66 -32745459.54 0.0089 0.0058

Mercury -94365-01-22 21:49 J -32745371.68 -32745371.59 -32745371.47 0.0089 0.0063

Mercury -94365-04-19 23:59 J -32745283.59 -32745283.50 -32745283.40 0.0089 0.0067

Venus -94365-05-21 07:39 J -32745252.33 -32745252.18 -32745252.00 0.0089 0.0058

Mercury -94365-07-17 01:39 J -32745195.50 -32745195.43 -32745195.33 0.0089 0.0072

Mercury -94365-10-13 03:49 J -32745107.41 -32745107.34 -32745107.26 0.0089 0.0076

Venus -94364-01-01 20:08 J -32745026.78 -32745026.66 -32745026.52 0.0089 0.0070

Mercury -94364-01-09 05:30 J -32745019.32 -32745019.27 -32745019.20 0.0089 0.0081

Mercury -94364-04-07 07:11 J -32744931.22 -32744931.20 -32744931.14 0.0089 0.0086

Venus -94364-08-15 08:23 J -32744801.22 -32744801.15 -32744801.06 0.0089 0.0082

Moon -94341-02-24 14:37 J -32736572.94 -32736572.89 -32736572.82 0.0089 0.0086

Earth -94340-02-26 05:30 J -32736205.45 -32736205.27 -32736205.06 0.0089 0.0059

Moon -94340-02-26 07:25 J -32736205.37 -32736205.19 -32736204.99 0.0089 0.0063 *

Moon -94339-02-28 17:01 J -32735838.02 -32735837.79 -32735837.54 0.0089 0.0024
 Earth -94339-02-28 17:59 J -32735837.98 -32735837.75 -32735837.49 0.0089 0.0028 *
 Moon -94338-03-03 06:13 J -32735470.51 -32735470.24 -32735469.97 0.0089 0.0001
 Earth -94338-03-03 06:42 J -32735470.48 -32735470.22 -32735469.96 0.0089 0.0004 *
 Earth -94337-03-04 19:11 J -32735102.92 -32735102.70 -32735102.45 0.0089 0.0035
 Moon -94337-03-04 20:51 J -32735102.84 -32735102.63 -32735102.39 0.0089 0.0039 *
 Moon -94336-03-07 05:44 J -32734735.44 -32734735.26 -32734735.06 0.0089 0.0062
 Earth -94336-03-07 07:39 J -32734735.32 -32734735.18 -32734734.98 0.0089 0.0068 *
 Mars -94329-10-20 10:47 J -32731951.15 -32731951.05 -32731950.87 0.0089 0.0081
 Mars -94327-09-16 06:42 J -32731255.55 -32731255.22 -32731254.89 0.0089 0.0002
 Mars -94325-08-11 22:03 J -32730559.72 -32730559.58 -32730559.38 0.0089 0.0076
 Mercury -94291-08-14 05:15 J -32718139.29 -32718139.28 -32718139.24 0.0088 0.0088
 Mercury -94291-11-10 08:08 J -32718051.21 -32718051.16 -32718051.08 0.0088 0.0083
 Mercury -94290-02-06 11:15 J -32717963.11 -32717963.03 -32717962.94 0.0088 0.0077
 Venus -94290-02-11 10:47 J -32717958.10 -32717958.05 -32717957.97 0.0088 0.0085
 Mercury -94290-05-05 14:08 J -32717875.00 -32717874.91 -32717874.80 0.0088 0.0072
 Mercury -94290-08-01 16:47 J -32717786.90 -32717786.80 -32717786.66 0.0088 0.0067
 Venus -94290-09-25 01:11 J -32717732.58 -32717732.45 -32717732.32 0.0088 0.0072
 Mercury -94290-10-28 19:54 J -32717698.79 -32717698.67 -32717698.53 0.0088 0.0061
 Mercury -94289-01-24 22:47 J -32717610.68 -32717610.55 -32717610.40 0.0088 0.0055
 Mercury -94289-04-22 01:54 J -32717522.57 -32717522.42 -32717522.28 0.0088 0.0050
 Venus -94289-05-07 14:51 J -32717507.03 -32717506.88 -32717506.70 0.0088 0.0060
 Mercury -94289-07-19 04:32 J -32717434.46 -32717434.31 -32717434.15 0.0088 0.0045
 Mercury -94289-10-15 07:11 J -32717346.34 -32717346.20 -32717346.03 0.0088 0.0040
 Venus -94289-12-19 05:01 J -32717281.47 -32717281.29 -32717281.09 0.0088 0.0047
 Mercury -94288-01-11 10:18 J -32717258.23 -32717258.07 -32717257.91 0.0088 0.0034
 Mercury -94288-04-09 12:56 J -32717170.12 -32717169.96 -32717169.79 0.0088 0.0029
 Mercury -94288-07-06 15:49 J -32717082.00 -32717081.84 -32717081.67 0.0088 0.0023
 Venus -94288-08-01 18:42 J -32717055.91 -32717055.72 -32717055.50 0.0088 0.0034
 Mercury -94288-10-02 18:27 J -32716993.89 -32716993.73 -32716993.55 0.0088 0.0019

Mercury -94288-12-29 21:20 J -32716905.78 -32716905.61 -32716905.43 0.0088 0.0013
 Venus -94287-03-15 08:37 J -32716830.34 -32716830.14 -32716829.91 0.0088 0.0022
 Mercury -94287-03-28 00:13 J -32716817.66 -32716817.49 -32716817.32 0.0088 0.0008
 Mercury -94287-06-24 02:51 J -32716729.55 -32716729.38 -32716729.20 0.0088 0.0003
 Mercury -94287-09-20 05:44 J -32716641.44 -32716641.26 -32716641.09 0.0088 0.0003
 Venus -94287-10-26 22:47 J -32716604.77 -32716604.55 -32716604.33 0.0088 0.0009
 Mercury -94287-12-17 08:23 J -32716553.32 -32716553.15 -32716552.98 0.0088 0.0008
 Mercury -94286-03-15 11:01 J -32716465.21 -32716465.04 -32716464.87 0.0088 0.0013
 Venus -94286-06-09 12:27 J -32716379.20 -32716378.98 -32716378.75 0.0088 0.0004
 Mercury -94286-06-11 13:39 J -32716377.10 -32716376.93 -32716376.76 0.0088 0.0018
 Mercury -94286-09-07 16:18 J -32716288.98 -32716288.82 -32716288.65 0.0088 0.0023
 Mercury -94286-12-04 18:56 J -32716200.87 -32716200.71 -32716200.54 0.0088 0.0028
 Venus -94285-01-21 02:08 J -32716153.62 -32716153.41 -32716153.18 0.0088 0.0017
 Mercury -94285-03-01 21:35 J -32716112.75 -32716112.60 -32716112.44 0.0088 0.0033
 Mercury -94285-05-29 00:13 J -32716024.64 -32716024.49 -32716024.33 0.0088 0.0038
 Mercury -94285-08-25 02:37 J -32715936.52 -32715936.39 -32715936.23 0.0088 0.0044
 Venus -94285-09-02 15:49 J -32715928.04 -32715927.84 -32715927.62 0.0088 0.0030
 Mercury -94285-11-21 05:15 J -32715848.41 -32715848.28 -32715848.12 0.0088 0.0049
 Mercury -94284-02-17 07:54 J -32715760.29 -32715760.17 -32715760.02 0.0088 0.0054
 Venus -94284-04-16 05:59 J -32715702.45 -32715702.25 -32715702.05 0.0088 0.0042
 Mercury -94284-05-16 10:32 J -32715672.18 -32715672.06 -32715671.92 0.0088 0.0058
 Mercury -94284-08-12 12:56 J -32715584.06 -32715583.96 -32715583.83 0.0088 0.0064
 Mercury -94284-11-08 15:35 J -32715495.94 -32715495.85 -32715495.73 0.0088 0.0068
 Venus -94284-11-27 19:25 J -32715476.85 -32715476.69 -32715476.50 0.0088 0.0055
 Mercury -94283-02-04 18:27 J -32715407.82 -32715407.73 -32715407.64 0.0088 0.0073
 Mercury -94283-05-03 20:51 J -32715319.70 -32715319.63 -32715319.54 0.0088 0.0078
 Venus -94283-07-11 09:20 J -32715251.25 -32715251.11 -32715250.96 0.0088 0.0067
 Mercury -94283-07-30 23:15 J -32715231.57 -32715231.53 -32715231.46 0.0088 0.0083
 Mercury -94283-10-27 01:39 J -32715143.43 -32715143.43 -32715143.39 0.0088 0.0088
 Venus -94282-02-21 22:32 J -32715025.64 -32715025.56 -32715025.44 0.0088 0.0080

Earth	-94259-09-04 13:39 J	-32706430.02	-32706429.93	-32706429.82	0.0088	0.0081
Moon	-94259-09-04 15:20 J	-32706429.96	-32706429.86	-32706429.72	0.0088	0.0078 *
Moon	-94258-09-06 21:06 J	-32706062.80	-32706062.62	-32706062.39	0.0088	0.0055
Earth	-94258-09-07 00:27 J	-32706062.67	-32706062.48	-32706062.25	0.0088	0.0051 *
Earth	-94257-09-08 11:01 J	-32705695.28	-32705695.04	-32705694.78	0.0088	0.0020
Moon	-94257-09-08 14:23 J	-32705695.14	-32705694.90	-32705694.64	0.0088	0.0017 *
Moon	-94256-09-10 18:13 J	-32705327.99	-32705327.74	-32705327.49	0.0088	0.0007
Earth	-94256-09-10 21:49 J	-32705327.84	-32705327.59	-32705327.33	0.0088	0.0010 *
Earth	-94255-09-13 08:08 J	-32704960.38	-32704960.16	-32704959.92	0.0088	0.0040
Moon	-94255-09-13 11:01 J	-32704960.25	-32704960.04	-32704959.80	0.0088	0.0044 *
Moon	-94254-09-15 16:18 J	-32704592.98	-32704592.82	-32704592.66	0.0088	0.0068
Earth	-94254-09-15 18:27 J	-32704592.87	-32704592.73	-32704592.57	0.0088	0.0071 *
Mars	-94245-06-04 09:49 J	-32701408.35	-32701408.09	-32701407.79	0.0088	0.0030
Mars	-94243-04-29 09:35 J	-32700714.35	-32700714.10	-32700713.81	0.0088	0.0039
Mercury	-94209-05-11 09:35 J	-32688283.11	-32688283.10	-32688283.07	0.0089	0.0088
Mercury	-94209-08-07 11:01 J	-32688195.07	-32688195.04	-32688194.98	0.0089	0.0084
Mercury	-94209-11-03 12:42 J	-32688107.02	-32688106.97	-32688106.90	0.0089	0.0080
Mercury	-94208-01-30 14:08 J	-32688018.96	-32688018.91	-32688018.82	0.0089	0.0076
Mercury	-94208-04-28 16:18 J	-32687930.91	-32687930.82	-32687930.74	0.0089	0.0071
Mercury	-94208-07-25 17:44 J	-32687842.85	-32687842.76	-32687842.66	0.0089	0.0067
Mercury	-94208-10-21 19:11 J	-32687754.79	-32687754.70	-32687754.59	0.0089	0.0063
Venus	-94208-11-07 05:59 J	-32687738.33	-32687738.25	-32687738.14	0.0089	0.0079
Mercury	-94207-01-17 20:51 J	-32687666.73	-32687666.63	-32687666.51	0.0089	0.0059
Mercury	-94207-04-15 22:32 J	-32687578.66	-32687578.56	-32687578.44	0.0089	0.0055
Venus	-94207-06-20 17:59 J	-32687512.88	-32687512.75	-32687512.60	0.0089	0.0067
Mercury	-94207-07-13 00:27 J	-32687490.60	-32687490.48	-32687490.37	0.0089	0.0050
Mercury	-94207-10-09 01:54 J	-32687402.53	-32687402.42	-32687402.29	0.0089	0.0046
Mercury	-94206-01-05 03:35 J	-32687314.47	-32687314.35	-32687314.22	0.0089	0.0042
Venus	-94206-02-01 05:59 J	-32687287.40	-32687287.25	-32687287.07	0.0089	0.0055
Mercury	-94206-04-03 05:15 J	-32687226.40	-32687226.28	-32687226.14	0.0089	0.0038

Mercury -94206-06-30 07:11 J -32687138.34 -32687138.20 -32687138.07 0.0089 0.0033

Venus -94206-09-14 18:13 J -32687061.92 -32687061.74 -32687061.54 0.0089 0.0043

Mercury -94206-09-26 08:37 J -32687050.27 -32687050.14 -32687050.00 0.0089 0.0029

Mercury -94206-12-23 10:18 J -32686962.20 -32686962.07 -32686961.92 0.0089 0.0025

Mercury -94205-03-20 12:13 J -32686874.13 -32686873.99 -32686873.85 0.0089 0.0020

Venus -94205-04-27 06:13 J -32686836.42 -32686836.24 -32686836.02 0.0089 0.0031

Mercury -94205-06-16 13:54 J -32686786.06 -32686785.92 -32686785.78 0.0089 0.0016

Mercury -94205-09-12 15:35 J -32686697.99 -32686697.85 -32686697.71 0.0089 0.0011

Venus -94205-12-08 18:42 J -32686610.92 -32686610.72 -32686610.50 0.0089 0.0018

Mercury -94205-12-09 17:15 J -32686609.92 -32686609.78 -32686609.63 0.0089 0.0007

Mercury -94204-03-07 18:56 J -32686521.85 -32686521.71 -32686521.56 0.0089 0.0004

Mercury -94204-06-03 20:51 J -32686433.78 -32686433.63 -32686433.49 0.0089 0.0002

Venus -94204-07-22 06:56 J -32686385.42 -32686385.21 -32686384.99 0.0089 0.0006

Mercury -94204-08-30 22:32 J -32686345.70 -32686345.56 -32686345.41 0.0089 0.0006

Mercury -94204-11-27 00:13 J -32686257.63 -32686257.49 -32686257.34 0.0089 0.0011

Mercury -94203-02-23 02:08 J -32686169.56 -32686169.41 -32686169.27 0.0089 0.0015

Venus -94203-03-04 19:11 J -32686159.91 -32686159.70 -32686159.48 0.0089 0.0006

Mercury -94203-05-22 03:49 J -32686081.48 -32686081.34 -32686081.20 0.0089 0.0020

Mercury -94203-08-18 05:44 J -32685993.40 -32685993.26 -32685993.12 0.0089 0.0024

Venus -94203-10-16 07:25 J -32685934.40 -32685934.19 -32685933.97 0.0089 0.0019

Mercury -94203-11-14 07:11 J -32685905.33 -32685905.20 -32685905.05 0.0089 0.0029

Mercury -94202-02-10 09:06 J -32685817.25 -32685817.12 -32685816.98 0.0089 0.0033

Mercury -94202-05-09 10:47 J -32685729.17 -32685729.05 -32685728.91 0.0089 0.0038

Venus -94202-05-29 19:39 J -32685708.88 -32685708.68 -32685708.47 0.0089 0.0031

Mercury -94202-08-05 12:42 J -32685641.09 -32685640.97 -32685640.83 0.0089 0.0042

Mercury -94202-11-01 14:23 J -32685553.01 -32685552.90 -32685552.76 0.0089 0.0047

Venus -94201-01-10 07:39 J -32685483.35 -32685483.18 -32685482.98 0.0089 0.0044

Mercury -94201-01-28 16:32 J -32685464.93 -32685464.81 -32685464.69 0.0089 0.0051

Mercury -94201-04-25 18:13 J -32685376.85 -32685376.74 -32685376.62 0.0089 0.0056

Mercury -94201-07-22 19:54 J -32685288.77 -32685288.67 -32685288.55 0.0089 0.0061

Venus -94201-08-22 19:54 J -32685257.82 -32685257.67 -32685257.49 0.0089 0.0056
 Mercury -94201-10-18 21:49 J -32685200.68 -32685200.59 -32685200.48 0.0089 0.0065
 Mercury -94200-01-14 23:30 J -32685112.60 -32685112.52 -32685112.41 0.0089 0.0070
 Venus -94200-04-05 08:23 J -32685032.28 -32685032.15 -32685032.01 0.0089 0.0068
 Mercury -94200-04-13 01:39 J -32685024.51 -32685024.43 -32685024.35 0.0089 0.0074
 Mercury -94200-07-10 03:20 J -32684936.42 -32684936.36 -32684936.28 0.0089 0.0079
 Mercury -94200-10-06 05:01 J -32684848.32 -32684848.29 -32684848.22 0.0089 0.0084
 Venus -94200-11-16 20:23 J -32684806.71 -32684806.65 -32684806.54 0.0089 0.0081
 Mercury -94199-01-02 07:11 J -32684760.21 -32684760.20 -32684760.18 0.0089 0.0088
 Earth -94176-02-25 16:03 J -32676304.95 -32676304.83 -32676304.66 0.0089 0.0073
 Moon -94176-02-25 16:18 J -32676304.93 -32676304.82 -32676304.67 0.0089 0.0076 *
 Moon -94175-02-28 03:20 J -32675937.59 -32675937.36 -32675937.11 0.0089 0.0039
 Earth -94175-02-28 04:18 J -32675937.52 -32675937.32 -32675937.07 0.0089 0.0042 *
 Earth -94174-03-02 17:15 J -32675570.03 -32675569.78 -32675569.52 0.0089 0.0010
 Moon -94174-03-02 18:56 J -32675569.95 -32675569.71 -32675569.45 0.0089 0.0014 *
 Moon -94173-03-04 02:23 J -32675202.64 -32675202.40 -32675202.13 0.0089 0.0024
 Earth -94173-03-04 05:44 J -32675202.50 -32675202.26 -32675202.00 0.0089 0.0021 *
 Earth -94172-03-06 18:27 J -32674834.93 -32674834.73 -32674834.52 0.0089 0.0053
 Moon -94172-03-06 21:49 J -32674834.80 -32674834.59 -32674834.37 0.0089 0.0051 *
 Moon -94171-03-09 03:49 J -32674467.41 -32674467.34 -32674467.27 0.0089 0.0086
 Earth -94171-03-09 06:56 J -32674467.27 -32674467.21 -32674467.10 0.0089 0.0084 *
 Mars -94163-04-30 08:08 J -32671493.46 -32671493.16 -32671492.85 0.0089 0.0035
 Mars -94161-03-26 02:51 J -32670797.66 -32670797.38 -32670797.09 0.0089 0.0044
 Mercury -94126-05-11 04:47 J -32657968.34 -32657968.30 -32657968.24 0.0089 0.0085
 Venus -94126-05-15 21:49 J -32657963.60 -32657963.59 -32657963.54 0.0089 0.0088
 Mercury -94126-08-07 07:25 J -32657880.24 -32657880.19 -32657880.09 0.0089 0.0080
 Mercury -94126-11-03 10:47 J -32657792.14 -32657792.05 -32657791.95 0.0089 0.0074
 Venus -94126-12-27 11:59 J -32657738.11 -32657738.00 -32657737.87 0.0089 0.0075
 Mercury -94125-01-30 13:25 J -32657704.03 -32657703.94 -32657703.81 0.0089 0.0069
 Mercury -94125-04-27 16:18 J -32657615.93 -32657615.82 -32657615.68 0.0089 0.0064

Mercury -94125-07-24 19:25 J -32657527.82 -32657527.69 -32657527.55 0.0088 0.0058

Venus -94125-08-09 01:39 J -32657512.57 -32657512.43 -32657512.25 0.0088 0.0063

Mercury -94125-10-20 22:03 J -32657439.70 -32657439.58 -32657439.42 0.0088 0.0053

Mercury -94124-01-17 01:11 J -32657351.59 -32657351.45 -32657351.30 0.0088 0.0047

Venus -94124-03-22 15:49 J -32657287.01 -32657286.84 -32657286.63 0.0088 0.0050

Mercury -94124-04-15 04:03 J -32657263.48 -32657263.33 -32657263.17 0.0088 0.0042

Mercury -94124-07-12 06:42 J -32657175.37 -32657175.22 -32657175.05 0.0088 0.0037

Mercury -94124-10-08 09:49 J -32657087.25 -32657087.09 -32657086.93 0.0088 0.0031

Venus -94124-11-03 05:59 J -32657061.45 -32657061.25 -32657061.04 0.0088 0.0037

Mercury -94123-01-04 12:27 J -32656999.14 -32656998.98 -32656998.81 0.0088 0.0026

Mercury -94123-04-02 15:20 J -32656911.03 -32656910.86 -32656910.69 0.0088 0.0020

Venus -94123-06-16 19:54 J -32656835.88 -32656835.67 -32656835.45 0.0088 0.0024

Mercury -94123-06-29 17:59 J -32656822.91 -32656822.75 -32656822.57 0.0088 0.0016

Mercury -94123-09-25 20:51 J -32656734.80 -32656734.63 -32656734.45 0.0088 0.0010

Mercury -94123-12-22 23:44 J -32656646.68 -32656646.51 -32656646.34 0.0088 0.0005

Venus -94122-01-28 09:49 J -32656610.31 -32656610.09 -32656609.86 0.0088 0.0011

Mercury -94122-03-21 02:23 J -32656558.57 -32656558.40 -32656558.22 0.0088 0.0002

Mercury -94122-06-17 05:15 J -32656470.46 -32656470.28 -32656470.11 0.0088 0.0006

Venus -94122-09-10 23:44 J -32656384.74 -32656384.51 -32656384.29 0.0088 0.0002

Mercury -94122-09-13 07:54 J -32656382.34 -32656382.17 -32656382.00 0.0088 0.0011

Mercury -94122-12-10 10:32 J -32656294.23 -32656294.06 -32656293.89 0.0088 0.0016

Mercury -94121-03-07 13:11 J -32656206.11 -32656205.95 -32656205.78 0.0088 0.0021

Venus -94121-04-23 13:39 J -32656159.15 -32656158.93 -32656158.71 0.0088 0.0014

Mercury -94121-06-03 15:49 J -32656118.00 -32656117.84 -32656117.67 0.0088 0.0026

Mercury -94121-08-30 18:27 J -32656029.88 -32656029.73 -32656029.56 0.0088 0.0031

Mercury -94121-11-26 21:06 J -32655941.77 -32655941.62 -32655941.46 0.0088 0.0037

Venus -94121-12-05 03:06 J -32655933.57 -32655933.37 -32655933.14 0.0088 0.0028

Mercury -94120-02-22 23:44 J -32655853.65 -32655853.51 -32655853.35 0.0088 0.0042

Mercury -94120-05-22 02:23 J -32655765.54 -32655765.40 -32655765.25 0.0088 0.0046

Venus -94120-07-18 17:01 J -32655707.99 -32655707.79 -32655707.58 0.0088 0.0040

Mercury -94120-08-18 04:47 J -32655677.42 -32655677.30 -32655677.15 0.0088 0.0052

Mercury -94120-11-14 07:25 J -32655589.31 -32655589.19 -32655589.05 0.0088 0.0057

Mercury -94119-02-10 10:03 J -32655501.19 -32655501.08 -32655500.95 0.0088 0.0062

Venus -94119-03-01 06:27 J -32655482.40 -32655482.23 -32655482.03 0.0088 0.0053

Mercury -94119-05-09 12:27 J -32655413.07 -32655412.98 -32655412.85 0.0088 0.0067

Mercury -94119-08-05 15:06 J -32655324.95 -32655324.87 -32655324.75 0.0088 0.0072

Venus -94119-10-12 20:23 J -32655256.80 -32655256.65 -32655256.49 0.0088 0.0065

Mercury -94119-11-01 17:59 J -32655236.83 -32655236.75 -32655236.66 0.0088 0.0076

Mercury -94118-01-28 20:23 J -32655148.71 -32655148.65 -32655148.58 0.0088 0.0081

Mercury -94118-04-26 22:47 J -32655060.57 -32655060.55 -32655060.50 0.0088 0.0086

Venus -94118-05-26 09:49 J -32655031.18 -32655031.09 -32655030.96 0.0088 0.0078

Jupiter -94114-11-16 05:30 J -32653396.75 -32653396.27 -32653395.75 0.0088 0.0035

Earth -94094-09-06 12:13 J -32646162.14 -32646161.99 -32646161.79 0.0088 0.0064

Moon -94094-09-06 16:18 J -32646161.99 -32646161.82 -32646161.62 0.0088 0.0060 *

Moon -94093-09-07 20:08 J -32645794.88 -32645794.66 -32645794.42 0.0088 0.0036

Earth -94093-09-07 23:15 J -32645794.75 -32645794.53 -32645794.28 0.0088 0.0033 *

Earth -94092-09-10 10:03 J -32645427.33 -32645427.08 -32645426.82 0.0088 0.0003

Moon -94092-09-10 13:11 J -32645427.21 -32645426.95 -32645426.69 0.0088 0.0001 *

Moon -94091-09-12 18:42 J -32645059.96 -32645059.72 -32645059.48 0.0088 0.0025

Earth -94091-09-12 20:23 J -32645059.88 -32645059.65 -32645059.40 0.0088 0.0028 *

Earth -94090-09-15 06:27 J -32644692.40 -32644692.23 -32644692.02 0.0088 0.0058

Moon -94090-09-15 07:25 J -32644692.38 -32644692.19 -32644692.00 0.0088 0.0060 *

Moon -94089-09-16 17:01 J -32644324.84 -32644324.79 -32644324.70 0.0088 0.0085

Earth -94089-09-16 16:32 J -32644324.82 -32644324.81 -32644324.75 0.0088 0.0088 *

Mars -94081-01-18 19:11 J -32641644.90 -32641644.70 -32641644.45 0.0088 0.0058

Mars -94080-12-12 17:59 J -32640951.04 -32640950.75 -32640950.45 0.0088 0.0010

Mars -94078-11-06 18:13 J -32640256.85 -32640256.74 -32640256.60 0.0088 0.0080

Mercury -94044-02-05 09:35 J -32628112.13 -32628112.10 -32628112.06 0.0089 0.0085

Mercury -94044-05-04 11:15 J -32628024.08 -32628024.03 -32628023.97 0.0089 0.0081

Mercury -94044-07-31 12:42 J -32627936.03 -32627935.97 -32627935.89 0.0089 0.0077

Mercury -94044-10-27 14:23 J -32627847.97 -32627847.90 -32627847.82 0.0089 0.0073

Mercury -94043-01-23 15:49 J -32627759.92 -32627759.84 -32627759.74 0.0089 0.0069

Venus -94043-02-08 18:27 J -32627743.79 -32627743.73 -32627743.63 0.0089 0.0082

Mercury -94043-04-21 17:30 J -32627671.86 -32627671.77 -32627671.66 0.0089 0.0065

Mercury -94043-07-18 19:11 J -32627583.79 -32627583.70 -32627583.59 0.0089 0.0061

Venus -94043-09-22 06:27 J -32627518.34 -32627518.23 -32627518.08 0.0089 0.0070

Mercury -94043-10-14 21:06 J -32627495.73 -32627495.62 -32627495.51 0.0089 0.0056

Mercury -94042-01-10 22:32 J -32627407.67 -32627407.56 -32627407.44 0.0089 0.0052

Mercury -94042-04-09 00:13 J -32627319.61 -32627319.49 -32627319.37 0.0089 0.0048

Venus -94042-05-05 18:27 J -32627292.87 -32627292.73 -32627292.54 0.0089 0.0058

Mercury -94042-07-06 01:39 J -32627231.54 -32627231.43 -32627231.29 0.0089 0.0044

Mercury -94042-10-02 03:35 J -32627143.48 -32627143.35 -32627143.22 0.0089 0.0039

Venus -94042-12-17 06:42 J -32627067.39 -32627067.22 -32627067.02 0.0089 0.0046

Mercury -94042-12-29 05:15 J -32627055.41 -32627055.28 -32627055.15 0.0089 0.0035

Mercury -94041-03-26 06:42 J -32626967.34 -32626967.22 -32626967.08 0.0089 0.0031

Mercury -94041-06-22 08:23 J -32626879.28 -32626879.15 -32626879.00 0.0089 0.0027

Venus -94041-07-29 18:56 J -32626841.90 -32626841.71 -32626841.50 0.0089 0.0033

Mercury -94041-09-18 10:18 J -32626791.21 -32626791.07 -32626790.93 0.0089 0.0022

Mercury -94041-12-15 11:59 J -32626703.14 -32626703.00 -32626702.86 0.0089 0.0018

Venus -94040-03-12 06:56 J -32626616.41 -32626616.21 -32626615.99 0.0089 0.0021

Mercury -94040-03-13 13:39 J -32626615.07 -32626614.93 -32626614.78 0.0089 0.0013

Mercury -94040-06-09 15:20 J -32626527.00 -32626526.86 -32626526.71 0.0089 0.0009

Mercury -94040-09-05 17:15 J -32626438.93 -32626438.78 -32626438.64 0.0089 0.0005

Venus -94040-10-23 19:25 J -32626390.90 -32626390.69 -32626390.47 0.0089 0.0008

Mercury -94040-12-02 18:56 J -32626350.86 -32626350.71 -32626350.57 0.0089 0.0001

Mercury -94039-02-28 20:37 J -32626262.78 -32626262.64 -32626262.49 0.0089 0.0004

Mercury -94039-05-27 22:18 J -32626174.71 -32626174.57 -32626174.42 0.0089 0.0009

Venus -94039-06-06 07:39 J -32626165.40 -32626165.18 -32626164.97 0.0089 0.0004

Mercury -94039-08-24 00:13 J -32626086.64 -32626086.49 -32626086.35 0.0089 0.0013

Mercury -94039-11-20 01:54 J -32625998.56 -32625998.42 -32625998.28 0.0089 0.0018

Venus -94038-01-17 19:54 J -32625939.88 -32625939.67 -32625939.46 0.0089 0.0016
 Mercury -94038-02-16 03:35 J -32625910.49 -32625910.35 -32625910.20 0.0089 0.0022
 Mercury -94038-05-15 05:15 J -32625822.41 -32625822.28 -32625822.13 0.0089 0.0027
 Mercury -94038-08-11 07:11 J -32625734.33 -32625734.20 -32625734.06 0.0089 0.0031
 Venus -94038-08-31 07:54 J -32625714.37 -32625714.17 -32625713.96 0.0089 0.0029
 Mercury -94038-11-07 08:51 J -32625646.26 -32625646.13 -32625645.99 0.0089 0.0036
 Mercury -94037-02-03 10:47 J -32625558.18 -32625558.05 -32625557.92 0.0089 0.0040
 Venus -94037-04-12 20:08 J -32625488.84 -32625488.66 -32625488.46 0.0089 0.0041
 Mercury -94037-05-01 12:27 J -32625470.10 -32625469.98 -32625469.84 0.0089 0.0045
 Mercury -94037-07-28 14:23 J -32625382.02 -32625381.90 -32625381.77 0.0089 0.0049
 Mercury -94037-10-24 16:03 J -32625293.94 -32625293.83 -32625293.70 0.0089 0.0054
 Venus -94037-11-24 08:23 J -32625263.30 -32625263.15 -32625262.96 0.0089 0.0054
 Mercury -94036-01-20 17:44 J -32625205.85 -32625205.76 -32625205.63 0.0089 0.0059
 Mercury -94036-04-18 19:54 J -32625117.77 -32625117.67 -32625117.56 0.0089 0.0063
 Venus -94036-07-07 20:37 J -32625037.76 -32625037.64 -32625037.48 0.0089 0.0066
 Mercury -94036-07-15 21:35 J -32625029.68 -32625029.60 -32625029.49 0.0089 0.0068
 Mercury -94036-10-11 23:30 J -32624941.60 -32624941.52 -32624941.43 0.0089 0.0072
 Mercury -94035-01-08 01:11 J -32624853.51 -32624853.45 -32624853.36 0.0089 0.0077
 Venus -94035-02-18 09:20 J -32624812.21 -32624812.11 -32624812.01 0.0089 0.0078
 Mercury -94035-04-06 03:06 J -32624765.41 -32624765.37 -32624765.30 0.0089 0.0082
 Mercury -94035-07-03 05:01 J -32624677.31 -32624677.29 -32624677.24 0.0089 0.0086
 Moon -94012-02-25 00:56 J -32616404.53 -32616404.46 -32616404.34 0.0089 0.0083
 Earth -94012-02-25 03:20 J -32616404.42 -32616404.36 -32616404.30 0.0089 0.0087 *
 Earth -94011-02-27 15:35 J -32616037.05 -32616036.85 -32616036.65 0.0089 0.0055
 Moon -94011-02-27 17:59 J -32616036.92 -32616036.75 -32616036.54 0.0089 0.0059 *
 Moon -94010-03-02 00:56 J -32615669.72 -32615669.46 -32615669.21 0.0089 0.0021
 Earth -94010-03-02 04:03 J -32615669.58 -32615669.33 -32615669.08 0.0089 0.0024 *
 Earth -94009-03-03 16:18 J -32615302.07 -32615301.82 -32615301.55 0.0089 0.0007
 Moon -94009-03-03 20:08 J -32615301.91 -32615301.66 -32615301.40 0.0089 0.0003 *
 Moon -94008-03-06 01:39 J -32614934.64 -32614934.43 -32614934.19 0.0089 0.0042

Earth -94008-03-06 05:01 J -32614934.52 -32614934.29 -32614934.05 0.0089 0.0038 *

Earth -94007-03-08 17:15 J -32614566.91 -32614566.78 -32614566.59 0.0089 0.0070

Moon -94007-03-08 20:51 J -32614566.80 -32614566.63 -32614566.45 0.0089 0.0066 *

94TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 94th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-94000-12-12 08:51 J	-32611731.31	-32611731.13	-32611730.90	0.0089	0.0069		
Mars	-93998-11-08 05:59 J	-32611035.57	-32611035.25	-32611034.91	0.0089	0.0011		
Mercury	-93962-11-09 01:11 J	-32597885.46	-32597885.45	-32597885.40	0.0089	0.0088		
Mercury	-93961-02-05 04:18 J	-32597797.37	-32597797.32	-32597797.24	0.0089	0.0082		
Venus	-93961-03-29 23:01 J	-32597743.63	-32597743.54	-32597743.42	0.0089	0.0078		
Mercury	-93961-05-03 07:11 J	-32597709.27	-32597709.20	-32597709.10	0.0089	0.0076		
Mercury	-93961-07-30 10:18 J	-32597621.17	-32597621.07	-32597620.96	0.0089	0.0071		
Mercury	-93961-10-26 12:56 J	-32597533.06	-32597532.96	-32597532.82	0.0088	0.0066		
Venus	-93961-11-10 13:11 J	-32597518.09	-32597517.95	-32597517.79	0.0088	0.0065		
Mercury	-93960-01-22 16:18 J	-32597444.95	-32597444.82	-32597444.69	0.0088	0.0060		
Mercury	-93960-04-20 18:56 J	-32597356.84	-32597356.71	-32597356.56	0.0088	0.0055		
Venus	-93960-06-24 03:20 J	-32597292.54	-32597292.36	-32597292.17	0.0088	0.0052		
Mercury	-93960-07-17 21:35 J	-32597268.73	-32597268.60	-32597268.43	0.0088	0.0050		
Mercury	-93960-10-14 00:42 J	-32597180.61	-32597180.47	-32597180.31	0.0088	0.0044		
Mercury	-93959-01-10 03:35 J	-32597092.50	-32597092.35	-32597092.18	0.0088	0.0039		

Venus -93959-02-04 17:01 J -32597066.98 -32597066.79 -32597066.57 0.0088 0.0039

Mercury -93959-04-08 06:27 J -32597004.39 -32597004.23 -32597004.06 0.0088 0.0033

Mercury -93959-07-05 09:20 J -32596916.27 -32596916.11 -32596915.94 0.0088 0.0028

Venus -93959-09-18 07:11 J -32596841.41 -32596841.20 -32596840.98 0.0088 0.0026

Mercury -93959-10-01 12:13 J -32596828.16 -32596827.99 -32596827.82 0.0088 0.0022

Mercury -93959-12-28 14:51 J -32596740.04 -32596739.88 -32596739.70 0.0088 0.0018

Mercury -93958-03-26 17:44 J -32596651.93 -32596651.76 -32596651.58 0.0088 0.0012

Venus -93958-05-01 21:20 J -32596615.83 -32596615.61 -32596615.38 0.0088 0.0013

Mercury -93958-06-22 20:37 J -32596563.81 -32596563.64 -32596563.47 0.0088 0.0007

Mercury -93958-09-18 23:30 J -32596475.70 -32596475.52 -32596475.35 0.0088 0.0002

Venus -93958-12-13 11:15 J -32596390.25 -32596390.03 -32596389.80 0.0088 0.0002

Mercury -93958-12-16 02:08 J -32596387.58 -32596387.41 -32596387.24 0.0088 0.0004

Mercury -93957-03-13 04:47 J -32596299.47 -32596299.30 -32596299.12 0.0088 0.0009

Mercury -93957-06-09 07:25 J -32596211.35 -32596211.19 -32596211.01 0.0088 0.0015

Venus -93957-07-26 01:11 J -32596164.67 -32596164.45 -32596164.23 0.0088 0.0012

Mercury -93957-09-05 10:18 J -32596123.24 -32596123.07 -32596122.90 0.0088 0.0019

Mercury -93957-12-02 12:56 J -32596035.12 -32596034.96 -32596034.79 0.0088 0.0025

Mercury -93956-02-28 15:35 J -32595947.01 -32595946.85 -32595946.68 0.0088 0.0030

Venus -93956-03-08 14:37 J -32595939.09 -32595938.89 -32595938.66 0.0088 0.0026

Mercury -93956-05-27 18:13 J -32595858.89 -32595858.74 -32595858.58 0.0088 0.0035

Mercury -93956-08-23 20:51 J -32595770.78 -32595770.63 -32595770.47 0.0088 0.0040

Venus -93956-10-20 04:47 J -32595713.50 -32595713.30 -32595713.10 0.0088 0.0038

Mercury -93956-11-19 23:30 J -32595682.66 -32595682.52 -32595682.37 0.0088 0.0045

Mercury -93955-02-16 02:08 J -32595594.54 -32595594.41 -32595594.26 0.0088 0.0050

Mercury -93955-05-15 04:47 J -32595506.43 -32595506.30 -32595506.16 0.0088 0.0055

Venus -93955-06-02 18:27 J -32595487.91 -32595487.73 -32595487.54 0.0088 0.0051

Mercury -93955-08-11 07:25 J -32595418.31 -32595418.19 -32595418.06 0.0088 0.0060

Mercury -93955-11-07 10:03 J -32595330.19 -32595330.08 -32595329.96 0.0088 0.0065

Venus -93954-01-14 07:54 J -32595262.31 -32595262.17 -32595262.00 0.0088 0.0064

Mercury -93954-02-03 12:27 J -32595242.07 -32595241.98 -32595241.87 0.0088 0.0070

Mercury -93954-05-02 15:06 J -32595153.95 -32595153.87 -32595153.77 0.0088 0.0075

Mercury -93954-07-29 17:30 J -32595065.83 -32595065.77 -32595065.68 0.0088 0.0080

Venus -93954-08-27 21:49 J -32595036.70 -32595036.59 -32595036.47 0.0088 0.0076

Mercury -93954-10-25 19:54 J -32594977.70 -32594977.67 -32594977.60 0.0088 0.0085

Jupiter -93947-01-14 14:23 J -32592705.29 -32592704.90 -32592704.42 0.0088 0.0053

Moon -93930-09-05 21:20 J -32586261.74 -32586261.61 -32586261.45 0.0088 0.0072

Earth -93930-09-06 00:27 J -32586261.58 -32586261.48 -32586261.32 0.0088 0.0077 *

Earth -93929-09-07 11:44 J -32585894.22 -32585894.01 -32585893.78 0.0088 0.0046

Moon -93929-09-07 14:08 J -32585894.12 -32585893.91 -32585893.68 0.0088 0.0050 *

Moon -93928-09-09 21:20 J -32585526.86 -32585526.61 -32585526.36 0.0088 0.0012

Earth -93928-09-09 22:47 J -32585526.80 -32585526.55 -32585526.30 0.0088 0.0016 *

Earth -93927-09-12 09:20 J -32585159.36 -32585159.11 -32585158.86 0.0088 0.0015

Moon -93927-09-12 09:35 J -32585159.36 -32585159.10 -32585158.83 0.0088 0.0011 *

Earth -93926-09-14 19:25 J -32584791.90 -32584791.69 -32584791.46 0.0088 0.0045

Moon -93926-09-14 20:37 J -32584791.83 -32584791.64 -32584791.42 0.0088 0.0049 *

Moon -93925-09-16 03:49 J -32584424.49 -32584424.34 -32584424.18 0.0088 0.0071

Earth -93925-09-16 05:44 J -32584424.38 -32584424.26 -32584424.11 0.0088 0.0075 *

Mars -93918-09-03 06:56 J -32581881.27 -32581881.21 -32581881.13 0.0088 0.0086

Mars -93916-07-28 04:47 J -32581187.59 -32581187.30 -32581187.00 0.0088 0.0018

Mars -93914-06-22 03:06 J -32580493.59 -32580493.37 -32580493.11 0.0088 0.0052

Mercury -93880-08-06 07:54 J -32568029.19 -32568029.17 -32568029.13 0.0089 0.0087

Mercury -93880-11-02 09:20 J -32567941.14 -32567941.11 -32567941.04 0.0089 0.0083

Mercury -93879-01-29 11:01 J -32567853.09 -32567853.04 -32567852.96 0.0089 0.0079

Mercury -93879-04-27 12:56 J -32567765.03 -32567764.96 -32567764.88 0.0089 0.0074

Venus -93879-05-13 07:25 J -32567749.23 -32567749.19 -32567749.10 0.0089 0.0085

Mercury -93879-07-24 14:23 J -32567676.98 -32567676.90 -32567676.81 0.0089 0.0070

Mercury -93879-10-20 16:03 J -32567588.92 -32567588.83 -32567588.73 0.0089 0.0066

Venus -93879-12-24 19:54 J -32567523.79 -32567523.67 -32567523.54 0.0089 0.0072

Mercury -93878-01-16 17:30 J -32567500.86 -32567500.77 -32567500.66 0.0089 0.0062

Mercury -93878-04-14 19:11 J -32567412.80 -32567412.70 -32567412.58 0.0089 0.0058

Mercury -93878-07-11 20:51 J -32567324.74 -32567324.63 -32567324.51 0.0089 0.0054

Venus -93878-08-07 07:39 J -32567298.32 -32567298.18 -32567298.01 0.0089 0.0060

Mercury -93878-10-07 22:32 J -32567236.67 -32567236.56 -32567236.44 0.0089 0.0049

Mercury -93877-01-04 00:13 J -32567148.61 -32567148.49 -32567148.36 0.0089 0.0045

Venus -93877-03-19 19:39 J -32567072.84 -32567072.68 -32567072.48 0.0089 0.0048

Mercury -93877-04-01 01:54 J -32567060.54 -32567060.42 -32567060.29 0.0089 0.0041

Mercury -93877-06-28 03:20 J -32566972.48 -32566972.36 -32566972.22 0.0089 0.0037

Mercury -93877-09-24 05:15 J -32566884.41 -32566884.28 -32566884.15 0.0089 0.0032

Venus -93877-10-31 07:54 J -32566847.35 -32566847.17 -32566846.96 0.0089 0.0036

Mercury -93877-12-21 06:56 J -32566796.35 -32566796.21 -32566796.07 0.0089 0.0028

Mercury -93876-03-19 08:37 J -32566708.28 -32566708.14 -32566708.00 0.0089 0.0024

Venus -93876-06-13 20:08 J -32566621.86 -32566621.66 -32566621.45 0.0089 0.0023

Mercury -93876-06-15 10:18 J -32566620.21 -32566620.07 -32566619.93 0.0089 0.0019

Mercury -93876-09-11 11:59 J -32566532.14 -32566532.00 -32566531.86 0.0089 0.0015

Mercury -93876-12-08 13:39 J -32566444.07 -32566443.93 -32566443.78 0.0089 0.0011

Venus -93875-01-25 08:08 J -32566396.37 -32566396.16 -32566395.94 0.0089 0.0011

Mercury -93875-03-06 15:20 J -32566356.00 -32566355.86 -32566355.71 0.0089 0.0007

Mercury -93875-06-02 17:15 J -32566267.93 -32566267.78 -32566267.64 0.0089 0.0003

Mercury -93875-08-29 18:56 J -32566179.86 -32566179.71 -32566179.57 0.0089 0.0003

Venus -93875-09-07 20:23 J -32566170.86 -32566170.65 -32566170.43 0.0089 0.0002

Mercury -93875-11-25 20:37 J -32566091.79 -32566091.64 -32566091.50 0.0089 0.0007

Mercury -93874-02-21 22:18 J -32566003.71 -32566003.57 -32566003.42 0.0089 0.0011

Venus -93874-04-21 08:37 J -32565945.35 -32565945.14 -32565944.93 0.0089 0.0014

Mercury -93874-05-20 23:59 J -32565915.64 -32565915.50 -32565915.35 0.0089 0.0016

Mercury -93874-08-17 01:54 J -32565827.56 -32565827.42 -32565827.28 0.0089 0.0020

Mercury -93874-11-13 03:35 J -32565739.49 -32565739.35 -32565739.21 0.0089 0.0025

Venus -93874-12-02 20:37 J -32565719.84 -32565719.64 -32565719.43 0.0089 0.0027

Mercury -93873-02-09 05:15 J -32565651.41 -32565651.28 -32565651.14 0.0089 0.0029

Mercury -93873-05-07 06:56 J -32565563.34 -32565563.21 -32565563.07 0.0089 0.0034

Venus -93873-07-15 08:51 J -32565494.32 -32565494.13 -32565493.93 0.0089 0.0039

Mercury -93873-08-03 08:51 J -32565475.26 -32565475.13 -32565474.99 0.0089 0.0038

Mercury -93873-10-30 10:32 J -32565387.18 -32565387.06 -32565386.92 0.0089 0.0043

Mercury -93872-01-26 12:13 J -32565299.10 -32565298.99 -32565298.85 0.0089 0.0048

Venus -93872-02-25 20:51 J -32565268.79 -32565268.63 -32565268.44 0.0089 0.0052

Mercury -93872-04-24 14:08 J -32565211.02 -32565210.91 -32565210.78 0.0089 0.0052

Mercury -93872-07-21 15:49 J -32565122.94 -32565122.84 -32565122.71 0.0089 0.0057

Venus -93872-10-09 09:20 J -32565043.25 -32565043.11 -32565042.95 0.0089 0.0064

Mercury -93872-10-17 17:59 J -32565034.85 -32565034.75 -32565034.64 0.0089 0.0061

Mercury -93871-01-13 19:39 J -32564946.77 -32564946.68 -32564946.57 0.0089 0.0066

Mercury -93871-04-11 21:35 J -32564858.68 -32564858.60 -32564858.51 0.0089 0.0070

Venus -93871-05-22 21:20 J -32564817.69 -32564817.61 -32564817.48 0.0089 0.0077

Mercury -93871-07-08 23:15 J -32564770.60 -32564770.53 -32564770.44 0.0089 0.0075

Mercury -93871-10-05 00:56 J -32564682.50 -32564682.46 -32564682.38 0.0089 0.0080

Mercury -93870-01-01 03:06 J -32564594.41 -32564594.37 -32564594.32 0.0089 0.0084

Venus -93870-01-03 10:18 J -32564592.07 -32564592.07 -32564592.07 0.0089 0.0089

Mercury -93870-03-30 05:01 J -32564506.29 -32564506.29 -32564506.28 0.0089 0.0089

Moon -93847-02-26 23:01 J -32556136.67 -32556136.54 -32556136.37 0.0089 0.0073

Earth -93847-02-27 02:37 J -32556136.53 -32556136.39 -32556136.20 0.0089 0.0069 *

Earth -93846-03-01 15:06 J -32555769.09 -32555768.87 -32555768.62 0.0089 0.0038

Moon -93846-03-01 18:27 J -32555768.95 -32555768.73 -32555768.48 0.0089 0.0035 *

Moon -93845-03-03 00:27 J -32555401.73 -32555401.48 -32555401.22 0.0089 0.0009

Earth -93845-03-03 03:49 J -32555401.59 -32555401.34 -32555401.08 0.0089 0.0007 *

Earth -93844-03-05 16:03 J -32555034.07 -32555033.83 -32555033.57 0.0089 0.0025

Moon -93844-03-05 18:42 J -32555033.97 -32555033.72 -32555033.46 0.0089 0.0027 *

Moon -93843-03-08 03:20 J -32554666.53 -32554666.36 -32554666.14 0.0089 0.0055

Earth -93843-03-08 04:47 J -32554666.48 -32554666.30 -32554666.08 0.0089 0.0056 *

Earth -93842-03-10 17:30 J -32554298.80 -32554298.77 -32554298.70 0.0089 0.0088

Moon -93842-03-10 18:13 J -32554298.74 -32554298.74 -32554298.71 0.0089 0.0089 *

Mars -93834-06-22 06:56 J -32551273.52 -32551273.21 -32551272.87 0.0089 0.0023

Mars -93832-05-18 02:51 J -32550577.61 -32550577.38 -32550577.11 0.0089 0.0057

Venus -93797-07-01 10:03 J -32537749.15 -32537749.08 -32537748.97 0.0089 0.0081
 Mercury -93797-08-05 01:11 J -32537714.50 -32537714.45 -32537714.40 0.0089 0.0084
 Mercury -93797-11-01 03:49 J -32537626.41 -32537626.34 -32537626.25 0.0089 0.0079
 Mercury -93796-01-28 06:27 J -32537538.30 -32537538.23 -32537538.11 0.0089 0.0074
 Venus -93796-02-12 00:13 J -32537523.62 -32537523.49 -32537523.33 0.0089 0.0068
 Mercury -93796-04-26 09:49 J -32537450.20 -32537450.09 -32537449.97 0.0089 0.0068
 Mercury -93796-07-23 12:27 J -32537362.09 -32537361.98 -32537361.84 0.0089 0.0063
 Venus -93796-09-25 14:23 J -32537298.07 -32537297.90 -32537297.72 0.0089 0.0055
 Mercury -93796-10-19 15:35 J -32537273.98 -32537273.85 -32537273.71 0.0089 0.0057
 Mercury -93795-01-15 18:27 J -32537185.86 -32537185.73 -32537185.58 0.0089 0.0052
 Mercury -93795-04-13 21:20 J -32537097.75 -32537097.61 -32537097.45 0.0089 0.0046
 Venus -93795-05-09 04:32 J -32537072.50 -32537072.31 -32537072.11 0.0088 0.0042
 Mercury -93795-07-11 00:13 J -32537009.64 -32537009.49 -32537009.32 0.0088 0.0041
 Mercury -93795-10-07 03:06 J -32536921.52 -32536921.37 -32536921.20 0.0088 0.0036
 Venus -93795-12-20 18:27 J -32536846.94 -32536846.73 -32536846.51 0.0088 0.0029
 Mercury -93794-01-03 06:13 J -32536833.41 -32536833.24 -32536833.08 0.0088 0.0030
 Mercury -93794-04-01 08:51 J -32536745.29 -32536745.13 -32536744.96 0.0088 0.0025
 Mercury -93794-06-28 11:44 J -32536657.18 -32536657.01 -32536656.84 0.0088 0.0019
 Venus -93794-08-03 08:37 J -32536621.36 -32536621.14 -32536620.92 0.0088 0.0016
 Mercury -93794-09-24 14:23 J -32536569.06 -32536568.90 -32536568.72 0.0088 0.0015
 Mercury -93794-12-21 17:30 J -32536480.95 -32536480.77 -32536480.60 0.0088 0.0009
 Venus -93793-03-15 22:32 J -32536395.79 -32536395.56 -32536395.33 0.0088 0.0003
 Mercury -93793-03-18 20:08 J -32536392.83 -32536392.66 -32536392.48 0.0088 0.0004
 Mercury -93793-06-14 23:01 J -32536304.72 -32536304.54 -32536304.37 0.0088 0.0002
 Mercury -93793-09-11 01:39 J -32536216.60 -32536216.43 -32536216.25 0.0088 0.0007
 Venus -93793-10-27 12:13 J -32536170.20 -32536169.99 -32536169.76 0.0088 0.0011
 Mercury -93793-12-08 04:18 J -32536128.48 -32536128.32 -32536128.14 0.0088 0.0013
 Mercury -93792-03-06 07:11 J -32536040.37 -32536040.20 -32536040.03 0.0088 0.0017
 Mercury -93792-06-02 09:49 J -32535952.25 -32535952.09 -32535951.92 0.0088 0.0023
 Venus -93792-06-10 02:23 J -32535944.62 -32535944.40 -32535944.18 0.0088 0.0023

Mercury -93792-08-29 12:27 J -32535864.14 -32535863.98 -32535863.81 0.0088 0.0028

Mercury -93792-11-25 15:20 J -32535776.02 -32535775.86 -32535775.70 0.0088 0.0033

Venus -93791-01-21 16:03 J -32535719.03 -32535718.83 -32535718.62 0.0088 0.0036

Mercury -93791-02-21 17:59 J -32535687.90 -32535687.75 -32535687.59 0.0088 0.0038

Mercury -93791-05-20 20:37 J -32535599.79 -32535599.64 -32535599.49 0.0088 0.0043

Mercury -93791-08-16 23:01 J -32535511.67 -32535511.54 -32535511.38 0.0088 0.0048

Venus -93791-09-04 05:44 J -32535493.44 -32535493.26 -32535493.06 0.0088 0.0049

Mercury -93791-11-13 01:39 J -32535423.55 -32535423.43 -32535423.28 0.0088 0.0053

Mercury -93790-02-09 04:18 J -32535335.43 -32535335.32 -32535335.18 0.0088 0.0058

Venus -93790-04-17 19:39 J -32535267.83 -32535267.68 -32535267.51 0.0088 0.0062

Mercury -93790-05-08 07:11 J -32535247.32 -32535247.20 -32535247.08 0.0088 0.0063

Mercury -93790-08-04 09:49 J -32535159.20 -32535159.09 -32535158.98 0.0088 0.0068

Mercury -93790-10-31 12:13 J -32535071.08 -32535070.99 -32535070.89 0.0088 0.0073

Venus -93790-11-29 09:06 J -32535042.22 -32535042.12 -32535041.98 0.0088 0.0075

Mercury -93789-01-27 14:51 J -32534982.95 -32534982.88 -32534982.79 0.0088 0.0078

Mercury -93789-04-24 17:15 J -32534894.82 -32534894.78 -32534894.71 0.0088 0.0083

Venus -93789-07-11 23:15 J -32534816.57 -32534816.53 -32534816.49 0.0088 0.0087

Mercury -93789-07-21 19:39 J -32534806.68 -32534806.68 -32534806.64 0.0088 0.0088

Moon -93765-09-06 23:01 J -32525993.71 -32525993.54 -32525993.32 0.0088 0.0057

Earth -93765-09-07 00:13 J -32525993.67 -32525993.49 -32525993.28 0.0088 0.0059 *

Moon -93764-09-09 10:18 J -32525626.30 -32525626.07 -32525625.80 0.0088 0.0031

Earth -93764-09-09 11:01 J -32525626.27 -32525626.04 -32525625.78 0.0088 0.0029 *

Earth -93763-09-11 21:49 J -32525258.85 -32525258.59 -32525258.33 0.0088 0.0002

Moon -93763-09-11 23:15 J -32525258.78 -32525258.53 -32525258.29 0.0088 0.0005 *

Moon -93762-09-14 05:15 J -32524891.51 -32524891.28 -32524891.02 0.0088 0.0030

Earth -93762-09-14 07:54 J -32524891.39 -32524891.17 -32524890.91 0.0088 0.0033 *

Earth -93761-09-15 18:27 J -32524523.90 -32524523.73 -32524523.53 0.0088 0.0062

Moon -93761-09-15 21:35 J -32524523.75 -32524523.60 -32524523.40 0.0088 0.0064 *

Moon -93760-09-18 01:25 J -32524156.44 -32524156.44 -32524156.43 0.0088 0.0088

Mars -93752-03-12 14:23 J -32521424.14 -32521423.90 -32521423.64 0.0088 0.0046

Mars -93750-02-04 12:42 J -32520730.25 -32520729.97 -32520729.68 0.0088 0.0023
 Mercury -93715-02-04 06:27 J -32507946.24 -32507946.23 -32507946.21 0.0089 0.0088
 Mercury -93715-05-03 08:08 J -32507858.20 -32507858.16 -32507858.12 0.0089 0.0084
 Mercury -93715-07-30 09:35 J -32507770.15 -32507770.10 -32507770.03 0.0089 0.0080
 Venus -93715-08-14 20:51 J -32507754.66 -32507754.63 -32507754.59 0.0089 0.0087
 Mercury -93715-10-26 11:15 J -32507682.10 -32507682.03 -32507681.96 0.0089 0.0076
 Mercury -93714-01-22 12:42 J -32507594.04 -32507593.97 -32507593.88 0.0089 0.0072
 Venus -93714-03-28 08:37 J -32507529.24 -32507529.14 -32507529.01 0.0089 0.0075
 Mercury -93714-04-20 14:23 J -32507505.98 -32507505.90 -32507505.80 0.0089 0.0068
 Mercury -93714-07-17 15:49 J -32507417.92 -32507417.84 -32507417.73 0.0089 0.0064
 Mercury -93714-10-13 17:44 J -32507329.86 -32507329.76 -32507329.65 0.0089 0.0059
 Venus -93714-11-08 20:37 J -32507303.77 -32507303.64 -32507303.47 0.0089 0.0063
 Mercury -93713-01-09 19:25 J -32507241.80 -32507241.69 -32507241.58 0.0089 0.0055
 Mercury -93713-04-06 20:51 J -32507153.74 -32507153.63 -32507153.51 0.0089 0.0051
 Venus -93713-06-21 09:06 J -32507078.30 -32507078.12 -32507077.94 0.0089 0.0050
 Mercury -93713-07-03 22:32 J -32507065.67 -32507065.56 -32507065.43 0.0089 0.0047
 Mercury -93713-09-29 23:59 J -32506977.61 -32506977.50 -32506977.36 0.0089 0.0043
 Mercury -93713-12-27 01:54 J -32506889.55 -32506889.42 -32506889.29 0.0089 0.0038
 Venus -93712-02-01 20:51 J -32506852.81 -32506852.63 -32506852.43 0.0089 0.0038
 Mercury -93712-03-25 03:35 J -32506801.48 -32506801.35 -32506801.22 0.0089 0.0034
 Mercury -93712-06-21 05:15 J -32506713.41 -32506713.28 -32506713.14 0.0089 0.0030
 Venus -93712-09-15 08:51 J -32506627.32 -32506627.13 -32506626.91 0.0089 0.0026
 Mercury -93712-09-17 06:56 J -32506625.35 -32506625.21 -32506625.07 0.0089 0.0025
 Mercury -93712-12-14 08:37 J -32506537.28 -32506537.14 -32506537.00 0.0089 0.0021
 Mercury -93711-03-12 10:18 J -32506449.21 -32506449.07 -32506448.93 0.0089 0.0017
 Venus -93711-04-28 21:20 J -32506401.82 -32506401.61 -32506401.40 0.0089 0.0013
 Mercury -93711-06-08 11:59 J -32506361.14 -32506361.00 -32506360.85 0.0089 0.0012
 Mercury -93711-09-04 13:39 J -32506273.07 -32506272.93 -32506272.78 0.0089 0.0008
 Mercury -93711-12-01 15:20 J -32506185.00 -32506184.86 -32506184.71 0.0089 0.0004
 Venus -93711-12-10 09:20 J -32506176.32 -32506176.11 -32506175.89 0.0089 0.0002

Mercury -93710-02-27 17:15 J -32506096.93 -32506096.78 -32506096.64 0.0089 0.0003

Mercury -93710-05-26 18:56 J -32506008.86 -32506008.71 -32506008.57 0.0089 0.0006

Venus -93710-07-23 21:35 J -32505950.81 -32505950.60 -32505950.39 0.0089 0.0012

Mercury -93710-08-22 20:37 J -32505920.78 -32505920.64 -32505920.50 0.0089 0.0010

Mercury -93710-11-18 22:18 J -32505832.71 -32505832.57 -32505832.42 0.0089 0.0014

Mercury -93709-02-14 23:59 J -32505744.64 -32505744.50 -32505744.35 0.0089 0.0019

Venus -93709-03-05 09:20 J -32505725.30 -32505725.11 -32505724.89 0.0089 0.0025

Mercury -93709-05-13 01:54 J -32505656.56 -32505656.42 -32505656.28 0.0089 0.0023

Mercury -93709-08-09 03:20 J -32505568.49 -32505568.36 -32505568.21 0.0089 0.0028

Venus -93709-10-16 21:49 J -32505499.78 -32505499.59 -32505499.39 0.0089 0.0037

Mercury -93709-11-05 05:15 J -32505480.41 -32505480.28 -32505480.14 0.0089 0.0032

Mercury -93708-02-01 06:56 J -32505392.34 -32505392.21 -32505392.07 0.0089 0.0037

Mercury -93708-04-30 08:51 J -32505304.26 -32505304.13 -32505304.00 0.0089 0.0041

Venus -93708-05-30 09:49 J -32505274.25 -32505274.09 -32505273.90 0.0089 0.0050

Mercury -93708-07-27 10:32 J -32505216.18 -32505216.06 -32505215.93 0.0089 0.0046

Mercury -93708-10-23 12:27 J -32505128.10 -32505127.98 -32505127.86 0.0089 0.0050

Venus -93707-01-10 22:03 J -32505048.72 -32505048.58 -32505048.42 0.0089 0.0062

Mercury -93707-01-19 14:08 J -32505040.02 -32505039.91 -32505039.79 0.0089 0.0055

Mercury -93707-04-17 16:03 J -32504951.94 -32504951.83 -32504951.72 0.0089 0.0059

Mercury -93707-07-14 17:44 J -32504863.85 -32504863.76 -32504863.65 0.0089 0.0064

Venus -93707-08-24 10:03 J -32504823.17 -32504823.08 -32504822.94 0.0089 0.0075

Mercury -93707-10-10 19:25 J -32504775.77 -32504775.69 -32504775.58 0.0089 0.0069

Mercury -93706-01-06 21:35 J -32504687.68 -32504687.60 -32504687.51 0.0089 0.0073

Mercury -93706-04-04 23:15 J -32504599.59 -32504599.53 -32504599.45 0.0089 0.0078

Venus -93706-04-06 22:32 J -32504597.58 -32504597.56 -32504597.50 0.0089 0.0087

Mercury -93706-07-02 01:11 J -32504511.50 -32504511.45 -32504511.39 0.0089 0.0082

Mercury -93706-09-28 02:51 J -32504423.39 -32504423.38 -32504423.34 0.0089 0.0087

Earth -93683-02-26 14:08 J -32496235.99 -32496235.91 -32496235.79 0.0089 0.0082

Moon -93683-02-26 17:44 J -32496235.86 -32496235.76 -32496235.61 0.0089 0.0078 *

Moon -93682-02-28 23:59 J -32495868.69 -32495868.50 -32495868.29 0.0089 0.0055

Earth -93682-03-01 02:23 J -32495868.59 -32495868.40 -32495868.17 0.0089 0.0051 *
 Earth -93681-03-02 14:51 J -32495501.13 -32495500.88 -32495500.63 0.0089 0.0020
 Moon -93681-03-02 17:01 J -32495501.06 -32495500.79 -32495500.53 0.0089 0.0017 *
 Moon -93680-03-05 02:37 J -32495133.64 -32495133.39 -32495133.14 0.0089 0.0007
 Earth -93680-03-05 03:20 J -32495133.61 -32495133.36 -32495133.10 0.0089 0.0011 *
 Moon -93679-03-07 15:06 J -32494766.09 -32494765.87 -32494765.63 0.0089 0.0045
 Earth -93679-03-07 15:49 J -32494766.05 -32494765.84 -32494765.60 0.0089 0.0042 *
 Earth -93678-03-10 04:32 J -32494398.44 -32494398.31 -32494398.15 0.0089 0.0074
 Moon -93678-03-10 05:44 J -32494398.39 -32494398.26 -32494398.08 0.0089 0.0070 *
 Mars -93670-02-03 07:54 J -32491511.39 -32491511.17 -32491510.88 0.0089 0.0057
 Mars -93669-12-30 06:56 J -32490815.53 -32490815.21 -32490814.88 0.0089 0.0024
 Venus -93633-10-02 21:35 J -32477754.65 -32477754.60 -32477754.51 0.0089 0.0084
 Mercury -93632-02-02 21:20 J -32477631.63 -32477631.61 -32477631.55 0.0089 0.0087
 Mercury -93632-05-02 00:27 J -32477543.54 -32477543.48 -32477543.39 0.0089 0.0081
 Venus -93632-05-16 11:30 J -32477529.13 -32477529.02 -32477528.86 0.0089 0.0071
 Mercury -93632-07-29 03:20 J -32477455.43 -32477455.36 -32477455.25 0.0089 0.0076
 Mercury -93632-10-25 06:27 J -32477367.33 -32477367.23 -32477367.11 0.0089 0.0070
 Venus -93632-12-28 01:39 J -32477303.58 -32477303.43 -32477303.24 0.0089 0.0058
 Mercury -93631-01-21 09:20 J -32477279.22 -32477279.11 -32477278.98 0.0089 0.0065
 Mercury -93631-04-19 12:27 J -32477191.11 -32477190.98 -32477190.84 0.0089 0.0059
 Mercury -93631-07-16 15:20 J -32477102.99 -32477102.86 -32477102.71 0.0089 0.0054
 Venus -93631-08-10 15:49 J -32477078.02 -32477077.84 -32477077.64 0.0089 0.0045
 Mercury -93631-10-12 17:59 J -32477014.88 -32477014.75 -32477014.59 0.0089 0.0049
 Mercury -93630-01-08 21:06 J -32476926.77 -32476926.62 -32476926.46 0.0089 0.0043
 Venus -93630-03-24 05:44 J -32476852.45 -32476852.26 -32476852.03 0.0089 0.0032
 Mercury -93630-04-06 23:59 J -32476838.65 -32476838.50 -32476838.33 0.0089 0.0037
 Mercury -93630-07-04 02:37 J -32476750.54 -32476750.39 -32476750.21 0.0089 0.0033
 Mercury -93630-09-30 05:44 J -32476662.42 -32476662.26 -32476662.09 0.0088 0.0027
 Venus -93630-11-04 19:54 J -32476626.88 -32476626.67 -32476626.44 0.0088 0.0019
 Mercury -93630-12-27 08:37 J -32476574.31 -32476574.14 -32476573.97 0.0088 0.0021

Mercury -93629-03-24 11:30 J -32476486.19 -32476486.02 -32476485.85 0.0088 0.0016

Venus -93629-06-17 10:03 J -32476401.31 -32476401.08 -32476400.86 0.0088 0.0005

Mercury -93629-06-20 14:23 J -32476398.08 -32476397.90 -32476397.73 0.0088 0.0011

Mercury -93629-09-16 17:01 J -32476309.96 -32476309.79 -32476309.61 0.0088 0.0006

Mercury -93629-12-13 19:54 J -32476221.84 -32476221.67 -32476221.50 0.0088 0.0000

Venus -93628-01-28 23:59 J -32476175.73 -32476175.50 -32476175.28 0.0088 0.0008

Mercury -93628-03-11 22:32 J -32476133.73 -32476133.56 -32476133.38 0.0088 0.0006

Mercury -93628-06-08 01:25 J -32476045.61 -32476045.44 -32476045.27 0.0088 0.0010

Mercury -93628-09-04 04:03 J -32475957.50 -32475957.33 -32475957.15 0.0088 0.0016

Venus -93628-09-11 13:39 J -32475950.14 -32475949.93 -32475949.70 0.0088 0.0021

Mercury -93628-12-01 06:56 J -32475869.38 -32475869.21 -32475869.04 0.0088 0.0021

Mercury -93627-02-27 09:35 J -32475781.26 -32475781.10 -32475780.93 0.0088 0.0026

Venus -93627-04-25 03:49 J -32475724.55 -32475724.34 -32475724.13 0.0088 0.0034

Mercury -93627-05-26 11:59 J -32475693.15 -32475693.00 -32475692.82 0.0088 0.0032

Mercury -93627-08-22 14:51 J -32475605.03 -32475604.88 -32475604.72 0.0088 0.0036

Mercury -93627-11-18 17:30 J -32475516.91 -32475516.77 -32475516.61 0.0088 0.0041

Venus -93627-12-06 17:30 J -32475498.95 -32475498.77 -32475498.57 0.0088 0.0047

Mercury -93626-02-14 20:08 J -32475428.79 -32475428.66 -32475428.50 0.0088 0.0047

Mercury -93626-05-13 22:47 J -32475340.68 -32475340.55 -32475340.40 0.0088 0.0052

Venus -93626-07-20 07:11 J -32475273.35 -32475273.20 -32475273.02 0.0088 0.0060

Mercury -93626-08-10 01:25 J -32475252.56 -32475252.44 -32475252.30 0.0088 0.0057

Mercury -93626-11-06 04:03 J -32475164.44 -32475164.33 -32475164.20 0.0088 0.0062

Mercury -93625-02-02 06:42 J -32475076.32 -32475076.22 -32475076.10 0.0088 0.0067

Venus -93625-03-01 20:51 J -32475047.74 -32475047.63 -32475047.49 0.0088 0.0073

Mercury -93625-04-30 09:20 J -32474988.20 -32474988.11 -32474988.00 0.0088 0.0071

Mercury -93625-07-27 11:44 J -32474900.07 -32474900.01 -32474899.91 0.0088 0.0077

Venus -93625-10-13 10:32 J -32474822.10 -32474822.06 -32474821.98 0.0088 0.0086

Mercury -93625-10-23 14:23 J -32474811.95 -32474811.90 -32474811.82 0.0088 0.0082

Mercury -93624-01-19 17:15 J -32474723.81 -32474723.78 -32474723.74 0.0088 0.0086

Moon -93601-09-06 11:30 J -32466093.16 -32466093.02 -32466092.82 0.0088 0.0068

Earth	-93601-09-06 12:13 J	-32466093.11	-32466092.99	-32466092.81	0.0088	0.0072	*
Earth	-93600-09-08 23:15 J	-32465725.74	-32465725.53	-32465725.28	0.0088	0.0041	
Moon	-93600-09-09 01:39 J	-32465725.63	-32465725.43	-32465725.20	0.0088	0.0045	*
Moon	-93599-09-11 07:39 J	-32465358.44	-32465358.18	-32465357.92	0.0088	0.0007	
Earth	-93599-09-11 10:32 J	-32465358.31	-32465358.06	-32465357.80	0.0088	0.0011	*
Earth	-93598-09-13 21:06 J	-32464990.86	-32464990.62	-32464990.36	0.0088	0.0020	
Moon	-93598-09-14 00:27 J	-32464990.72	-32464990.48	-32464990.22	0.0088	0.0016	*
Moon	-93597-09-15 04:03 J	-32464623.52	-32464623.33	-32464623.12	0.0088	0.0054	
Earth	-93597-09-15 07:25 J	-32464623.38	-32464623.19	-32464622.96	0.0088	0.0050	*
Earth	-93596-09-17 17:30 J	-32464255.85	-32464255.77	-32464255.63	0.0088	0.0079	
Moon	-93596-09-17 20:51 J	-32464255.75	-32464255.63	-32464255.48	0.0088	0.0075	*
Mars	-93589-10-26 03:06 J	-32461660.49	-32461660.37	-32461660.18	0.0088	0.0075	
Mars	-93587-09-19 23:30 J	-32460966.81	-32460966.52	-32460966.21	0.0088	0.0006	
Mars	-93585-08-13 21:35 J	-32460272.79	-32460272.60	-32460272.39	0.0088	0.0065	
Mercury	-93551-11-01 06:13 J	-32447775.26	-32447775.24	-32447775.19	0.0089	0.0086	
Mercury	-93550-01-28 07:54 J	-32447687.21	-32447687.17	-32447687.11	0.0089	0.0082	
Mercury	-93550-04-26 09:20 J	-32447599.16	-32447599.11	-32447599.03	0.0089	0.0078	
Venus	-93550-06-29 21:35 J	-32447534.69	-32447534.60	-32447534.48	0.0089	0.0078	
Mercury	-93550-07-23 11:01 J	-32447511.10	-32447511.04	-32447510.95	0.0089	0.0074	
Mercury	-93550-10-19 12:56 J	-32447423.05	-32447422.96	-32447422.87	0.0089	0.0069	
Mercury	-93549-01-15 14:23 J	-32447334.99	-32447334.90	-32447334.80	0.0089	0.0065	
Venus	-93549-02-10 10:03 J	-32447309.23	-32447309.08	-32447308.94	0.0089	0.0065	
Mercury	-93549-04-12 16:03 J	-32447246.93	-32447246.83	-32447246.72	0.0089	0.0061	
Mercury	-93549-07-09 17:30 J	-32447158.87	-32447158.77	-32447158.65	0.0089	0.0057	
Venus	-93549-09-22 21:49 J	-32447083.75	-32447083.59	-32447083.41	0.0089	0.0053	
Mercury	-93549-10-05 19:11 J	-32447070.80	-32447070.70	-32447070.58	0.0089	0.0053	
Mercury	-93548-01-01 21:06 J	-32446982.74	-32446982.62	-32446982.50	0.0089	0.0048	
Mercury	-93548-03-30 22:32 J	-32446894.68	-32446894.56	-32446894.43	0.0089	0.0044	
Venus	-93548-05-06 09:49 J	-32446858.27	-32446858.09	-32446857.89	0.0089	0.0041	
Mercury	-93548-06-27 00:13 J	-32446806.61	-32446806.49	-32446806.36	0.0089	0.0040	

Mercury -93548-09-23 01:39 J -32446718.55 -32446718.43 -32446718.29 0.0089 0.0036

Venus -93548-12-17 22:03 J -32446632.78 -32446632.58 -32446632.37 0.0089 0.0028

Mercury -93548-12-20 03:35 J -32446630.48 -32446630.35 -32446630.21 0.0089 0.0031

Mercury -93547-03-18 05:15 J -32446542.42 -32446542.28 -32446542.14 0.0089 0.0027

Mercury -93547-06-14 06:56 J -32446454.35 -32446454.21 -32446454.07 0.0089 0.0022

Venus -93547-07-31 10:03 J -32446407.29 -32446407.08 -32446406.86 0.0089 0.0015

Mercury -93547-09-10 08:37 J -32446366.28 -32446366.14 -32446366.00 0.0089 0.0018

Mercury -93547-12-07 10:18 J -32446278.21 -32446278.07 -32446277.93 0.0089 0.0014

Mercury -93546-03-05 11:59 J -32446190.14 -32446190.00 -32446189.86 0.0089 0.0009

Venus -93546-03-13 22:18 J -32446181.79 -32446181.57 -32446181.36 0.0089 0.0003

Mercury -93546-06-01 13:39 J -32446102.07 -32446101.93 -32446101.78 0.0089 0.0005

Mercury -93546-08-28 15:20 J -32446014.00 -32446013.86 -32446013.71 0.0089 0.0002

Venus -93546-10-25 10:18 J -32445956.28 -32445956.07 -32445955.85 0.0089 0.0010

Mercury -93546-11-24 17:01 J -32445925.93 -32445925.79 -32445925.64 0.0089 0.0005

Mercury -93545-02-20 18:42 J -32445837.86 -32445837.72 -32445837.57 0.0089 0.0009

Mercury -93545-05-18 20:23 J -32445749.79 -32445749.65 -32445749.50 0.0089 0.0013

Venus -93545-06-06 22:32 J -32445730.77 -32445730.56 -32445730.35 0.0089 0.0022

Mercury -93545-08-14 22:18 J -32445661.71 -32445661.57 -32445661.43 0.0089 0.0017

Mercury -93545-11-10 23:59 J -32445573.64 -32445573.50 -32445573.36 0.0089 0.0021

Venus -93544-01-18 10:18 J -32445505.25 -32445505.07 -32445504.86 0.0089 0.0035

Mercury -93544-02-07 01:39 J -32445485.56 -32445485.43 -32445485.29 0.0089 0.0026

Mercury -93544-05-06 03:35 J -32445397.49 -32445397.35 -32445397.22 0.0089 0.0030

Mercury -93544-08-02 05:01 J -32445309.41 -32445309.29 -32445309.14 0.0089 0.0035

Venus -93544-08-31 22:47 J -32445279.73 -32445279.55 -32445279.37 0.0089 0.0047

Mercury -93544-10-29 06:56 J -32445221.34 -32445221.21 -32445221.07 0.0089 0.0039

Mercury -93543-01-25 08:37 J -32445133.26 -32445133.14 -32445133.00 0.0089 0.0044

Venus -93543-04-14 10:32 J -32445054.20 -32445054.06 -32445053.88 0.0089 0.0060

Mercury -93543-04-23 10:32 J -32445045.18 -32445045.06 -32445044.93 0.0089 0.0048

Mercury -93543-07-20 12:13 J -32444957.10 -32444956.99 -32444956.87 0.0089 0.0053

Mercury -93543-10-16 14:08 J -32444869.02 -32444868.91 -32444868.80 0.0089 0.0057

Venus -93543-11-25 22:47 J -32444828.65 -32444828.55 -32444828.41 0.0089 0.0073
 Mercury -93542-01-12 15:49 J -32444780.94 -32444780.84 -32444780.73 0.0089 0.0062
 Mercury -93542-04-10 17:30 J -32444692.85 -32444692.77 -32444692.66 0.0089 0.0067
 Mercury -93542-07-07 19:25 J -32444604.77 -32444604.69 -32444604.59 0.0089 0.0071
 Venus -93542-07-09 11:01 J -32444603.08 -32444603.04 -32444602.96 0.0089 0.0085
 Mercury -93542-10-03 21:06 J -32444516.68 -32444516.62 -32444516.53 0.0089 0.0076
 Mercury -93542-12-30 23:15 J -32444428.59 -32444428.53 -32444428.47 0.0089 0.0080
 Mercury -93541-03-28 00:56 J -32444340.49 -32444340.46 -32444340.41 0.0089 0.0085
 Earth -93518-02-28 14:08 J -32435968.07 -32435967.91 -32435967.72 0.0089 0.0065
 Moon -93518-02-28 15:35 J -32435968.01 -32435967.85 -32435967.66 0.0089 0.0068 *
 Earth -93517-03-02 02:08 J -32435600.63 -32435600.41 -32435600.15 0.0089 0.0034
 Moon -93517-03-02 02:23 J -32435600.62 -32435600.40 -32435600.15 0.0089 0.0031 *
 Moon -93516-03-04 13:54 J -32435233.19 -32435232.92 -32435232.65 0.0089 0.0005
 Earth -93516-03-04 14:37 J -32435233.14 -32435232.89 -32435232.63 0.0089 0.0003 *
 Earth -93515-03-07 02:51 J -32434865.62 -32434865.38 -32434865.13 0.0089 0.0029
 Moon -93515-03-07 05:15 J -32434865.51 -32434865.28 -32434865.04 0.0089 0.0032 *
 Moon -93514-03-09 12:13 J -32434498.18 -32434497.99 -32434497.77 0.0089 0.0057
 Earth -93514-03-09 15:06 J -32434498.03 -32434497.87 -32434497.65 0.0089 0.0060 *
 Mars -93505-08-13 07:11 J -32431053.53 -32431053.20 -32431052.87 0.0089 0.0009
 Mars -93503-07-10 04:18 J -32430357.50 -32430357.32 -32430357.10 0.0089 0.0072
 Venus -93468-01-04 08:37 J -32417760.16 -32417760.14 -32417760.07 0.0089 0.0087
 Venus -93468-08-17 22:47 J -32417534.66 -32417534.55 -32417534.41 0.0089 0.0074
 Mercury -93468-10-30 20:51 J -32417460.67 -32417460.63 -32417460.55 0.0089 0.0084
 Mercury -93467-01-26 23:59 J -32417372.57 -32417372.50 -32417372.40 0.0089 0.0078
 Venus -93467-03-31 12:56 J -32417309.11 -32417308.96 -32417308.78 0.0089 0.0061
 Mercury -93467-04-25 02:51 J -32417284.46 -32417284.38 -32417284.26 0.0089 0.0073
 Mercury -93467-07-22 05:59 J -32417196.35 -32417196.25 -32417196.12 0.0089 0.0067
 Mercury -93467-10-18 08:51 J -32417108.24 -32417108.13 -32417107.99 0.0089 0.0062
 Venus -93467-11-12 02:51 J -32417083.55 -32417083.38 -32417083.17 0.0089 0.0048
 Mercury -93466-01-14 11:59 J -32417020.13 -32417020.00 -32417019.86 0.0089 0.0056

Mercury -93466-04-12 14:51 J -32416932.02 -32416931.88 -32416931.73 0.0089 0.0051
 Venus -93466-06-25 16:47 J -32416857.99 -32416857.80 -32416857.57 0.0089 0.0035
 Mercury -93466-07-09 17:30 J -32416843.91 -32416843.77 -32416843.60 0.0089 0.0046
 Mercury -93466-10-05 20:37 J -32416755.79 -32416755.64 -32416755.47 0.0089 0.0040
 Mercury -93465-01-01 23:30 J -32416667.68 -32416667.52 -32416667.35 0.0089 0.0034
 Venus -93465-02-06 06:56 J -32416632.42 -32416632.21 -32416631.98 0.0089 0.0021
 Mercury -93465-03-30 02:37 J -32416579.56 -32416579.39 -32416579.23 0.0089 0.0029
 Mercury -93465-06-26 05:15 J -32416491.44 -32416491.28 -32416491.11 0.0088 0.0024
 Venus -93465-09-18 21:06 J -32416406.85 -32416406.62 -32416406.40 0.0088 0.0008
 Mercury -93465-09-22 08:08 J -32416403.33 -32416403.16 -32416402.98 0.0088 0.0018
 Mercury -93465-12-19 11:01 J -32416315.21 -32416315.04 -32416314.87 0.0088 0.0013
 Mercury -93464-03-17 13:54 J -32416227.10 -32416226.92 -32416226.75 0.0088 0.0008
 Venus -93464-05-02 11:01 J -32416181.26 -32416181.04 -32416180.81 0.0088 0.0006
 Mercury -93464-06-13 16:32 J -32416138.98 -32416138.81 -32416138.63 0.0088 0.0004
 Mercury -93464-09-09 19:25 J -32416050.86 -32416050.69 -32416050.51 0.0088 0.0003
 Mercury -93464-12-06 22:03 J -32415962.75 -32415962.58 -32415962.40 0.0088 0.0009
 Venus -93464-12-14 00:56 J -32415955.67 -32415955.46 -32415955.23 0.0088 0.0018
 Mercury -93463-03-05 00:56 J -32415874.63 -32415874.46 -32415874.29 0.0088 0.0013
 Mercury -93463-06-01 03:35 J -32415786.51 -32415786.35 -32415786.17 0.0088 0.0019
 Venus -93463-07-27 14:37 J -32415730.08 -32415729.89 -32415729.66 0.0088 0.0032
 Mercury -93463-08-28 06:27 J -32415698.40 -32415698.23 -32415698.06 0.0088 0.0024
 Mercury -93463-11-24 08:51 J -32415610.28 -32415610.13 -32415609.95 0.0088 0.0030
 Mercury -93462-02-20 11:44 J -32415522.16 -32415522.01 -32415521.84 0.0088 0.0034
 Venus -93462-03-10 04:32 J -32415504.49 -32415504.31 -32415504.10 0.0088 0.0045
 Mercury -93462-05-19 14:23 J -32415434.04 -32415433.90 -32415433.73 0.0088 0.0040
 Mercury -93462-08-15 17:01 J -32415345.92 -32415345.79 -32415345.63 0.0088 0.0045
 Venus -93462-10-21 18:27 J -32415278.89 -32415278.73 -32415278.55 0.0088 0.0058
 Mercury -93462-11-11 19:54 J -32415257.81 -32415257.67 -32415257.52 0.0088 0.0049
 Mercury -93461-02-07 22:32 J -32415169.69 -32415169.56 -32415169.42 0.0088 0.0054
 Mercury -93461-05-06 01:11 J -32415081.57 -32415081.45 -32415081.32 0.0088 0.0060

Venus -93461-06-03 08:08 J -32415053.27 -32415053.16 -32415053.00 0.0088 0.0071
 Mercury -93461-08-02 03:49 J -32414993.45 -32414993.34 -32414993.22 0.0088 0.0065
 Mercury -93461-10-29 06:27 J -32414905.33 -32414905.23 -32414905.12 0.0088 0.0070
 Venus -93460-01-14 21:49 J -32414827.64 -32414827.59 -32414827.49 0.0088 0.0084
 Mercury -93460-01-25 08:51 J -32414817.20 -32414817.13 -32414817.02 0.0088 0.0075
 Mercury -93460-04-23 11:30 J -32414729.08 -32414729.02 -32414728.93 0.0088 0.0080
 Mercury -93460-07-20 14:08 J -32414640.94 -32414640.91 -32414640.85 0.0088 0.0085
 Earth -93437-09-06 00:13 J -32406192.57 -32406192.49 -32406192.41 0.0088 0.0084
 Moon -93437-09-06 01:54 J -32406192.45 -32406192.42 -32406192.34 0.0088 0.0086 *
 Moon -93436-09-08 07:54 J -32405825.37 -32405825.17 -32405824.95 0.0088 0.0051
 Earth -93436-09-08 11:30 J -32405825.22 -32405825.02 -32405824.82 0.0088 0.0054 *
 Earth -93435-09-10 22:32 J -32405457.80 -32405457.56 -32405457.31 0.0088 0.0024
 Moon -93435-09-11 02:08 J -32405457.65 -32405457.41 -32405457.16 0.0088 0.0026 *
 Moon -93434-09-13 06:13 J -32405090.49 -32405090.24 -32405089.98 0.0088 0.0009
 Earth -93434-09-13 09:35 J -32405090.35 -32405090.10 -32405089.84 0.0088 0.0007 *
 Earth -93433-09-14 20:08 J -32404722.89 -32404722.66 -32404722.42 0.0088 0.0036
 Moon -93433-09-14 23:15 J -32404722.77 -32404722.53 -32404722.28 0.0088 0.0034 *
 Moon -93432-09-17 04:47 J -32404355.44 -32404355.30 -32404355.13 0.0088 0.0069
 Earth -93432-09-17 06:13 J -32404355.39 -32404355.24 -32404355.05 0.0088 0.0067 *
 Mars -93423-05-05 11:30 J -32401203.28 -32401203.02 -32401202.74 0.0088 0.0034
 Mars -93421-03-29 07:39 J -32400509.43 -32400509.18 -32400508.89 0.0088 0.0036
 Mercury -93386-05-02 04:32 J -32387692.31 -32387692.31 -32387692.27 0.0089 0.0088
 Mercury -93386-07-29 06:27 J -32387604.27 -32387604.23 -32387604.18 0.0089 0.0083
 Venus -93386-10-01 10:18 J -32387540.13 -32387540.07 -32387539.96 0.0089 0.0081
 Mercury -93386-10-25 08:08 J -32387516.22 -32387516.16 -32387516.10 0.0089 0.0079
 Mercury -93385-01-21 09:35 J -32387428.17 -32387428.10 -32387428.02 0.0089 0.0075
 Mercury -93385-04-18 11:01 J -32387340.11 -32387340.04 -32387339.94 0.0089 0.0071
 Venus -93385-05-13 22:47 J -32387314.68 -32387314.55 -32387314.41 0.0089 0.0068
 Mercury -93385-07-15 12:42 J -32387252.05 -32387251.97 -32387251.87 0.0089 0.0067
 Mercury -93385-10-11 14:08 J -32387163.99 -32387163.91 -32387163.79 0.0089 0.0063

Venus -93385-12-25 10:32 J -32387089.21 -32387089.06 -32387088.88 0.0089 0.0056

Mercury -93384-01-07 15:49 J -32387075.93 -32387075.84 -32387075.72 0.0089 0.0059

Mercury -93384-04-05 17:44 J -32386987.87 -32386987.76 -32386987.65 0.0089 0.0054

Mercury -93384-07-02 19:11 J -32386899.81 -32386899.70 -32386899.57 0.0089 0.0050

Venus -93384-08-07 22:47 J -32386863.73 -32386863.55 -32386863.36 0.0089 0.0043

Mercury -93384-09-28 20:51 J -32386811.74 -32386811.63 -32386811.50 0.0089 0.0046

Mercury -93384-12-25 22:32 J -32386723.68 -32386723.56 -32386723.43 0.0089 0.0041

Venus -93383-03-21 10:47 J -32386638.24 -32386638.05 -32386637.84 0.0089 0.0031

Mercury -93383-03-24 00:13 J -32386635.62 -32386635.49 -32386635.36 0.0089 0.0037

Mercury -93383-06-20 01:54 J -32386547.55 -32386547.42 -32386547.28 0.0089 0.0033

Mercury -93383-09-16 03:20 J -32386459.48 -32386459.36 -32386459.21 0.0089 0.0029

Venus -93383-11-01 23:01 J -32386412.74 -32386412.54 -32386412.32 0.0089 0.0018

Mercury -93383-12-13 05:15 J -32386371.42 -32386371.28 -32386371.14 0.0089 0.0024

Mercury -93382-03-11 06:56 J -32386283.35 -32386283.21 -32386283.07 0.0089 0.0020

Mercury -93382-06-07 08:37 J -32386195.28 -32386195.14 -32386195.00 0.0089 0.0015

Venus -93382-06-15 11:15 J -32386187.24 -32386187.03 -32386186.81 0.0089 0.0005

Mercury -93382-09-03 10:18 J -32386107.21 -32386107.07 -32386106.93 0.0089 0.0011

Mercury -93382-11-30 11:59 J -32386019.14 -32386019.00 -32386018.86 0.0089 0.0007

Venus -93381-01-26 23:15 J -32385961.74 -32385961.53 -32385961.31 0.0089 0.0007

Mercury -93381-02-26 13:39 J -32385931.07 -32385930.93 -32385930.78 0.0089 0.0003

Mercury -93381-05-24 15:20 J -32385843.00 -32385842.86 -32385842.71 0.0089 0.0003

Mercury -93381-08-20 17:01 J -32385754.93 -32385754.79 -32385754.64 0.0089 0.0007

Venus -93381-09-08 11:15 J -32385736.23 -32385736.03 -32385735.81 0.0089 0.0020

Mercury -93381-11-16 18:42 J -32385666.86 -32385666.72 -32385666.57 0.0089 0.0011

Mercury -93380-02-12 20:23 J -32385578.79 -32385578.65 -32385578.50 0.0089 0.0016

Venus -93380-04-21 23:15 J -32385510.72 -32385510.53 -32385510.32 0.0089 0.0033

Mercury -93380-05-11 22:18 J -32385490.71 -32385490.57 -32385490.43 0.0089 0.0020

Mercury -93380-08-07 23:59 J -32385402.64 -32385402.50 -32385402.36 0.0089 0.0024

Mercury -93380-11-04 01:39 J -32385314.56 -32385314.43 -32385314.29 0.0089 0.0029

Venus -93380-12-03 11:44 J -32385285.19 -32385285.01 -32385284.82 0.0089 0.0045

Mercury -93379-01-31 03:20 J -32385226.49 -32385226.36 -32385226.22 0.0089 0.0033

Mercury -93379-04-29 05:01 J -32385138.41 -32385138.29 -32385138.15 0.0089 0.0038

Venus -93379-07-16 23:30 J -32385059.66 -32385059.52 -32385059.34 0.0089 0.0058

Mercury -93379-07-26 06:56 J -32385050.33 -32385050.21 -32385050.08 0.0089 0.0042

Mercury -93379-10-22 08:37 J -32384962.26 -32384962.14 -32384962.01 0.0089 0.0047

Mercury -93378-01-18 10:32 J -32384874.18 -32384874.06 -32384873.94 0.0089 0.0051

Venus -93378-02-27 11:30 J -32384834.13 -32384834.02 -32384833.87 0.0089 0.0071

Mercury -93378-04-16 11:59 J -32384786.10 -32384786.00 -32384785.87 0.0089 0.0056

Mercury -93378-07-13 14:08 J -32384698.02 -32384697.91 -32384697.80 0.0089 0.0060

Mercury -93378-10-09 15:49 J -32384609.93 -32384609.84 -32384609.73 0.0089 0.0065

Venus -93378-10-10 23:59 J -32384608.56 -32384608.50 -32384608.41 0.0089 0.0083

Mercury -93377-01-05 17:44 J -32384521.85 -32384521.76 -32384521.67 0.0089 0.0069

Mercury -93377-04-02 19:25 J -32384433.76 -32384433.69 -32384433.60 0.0089 0.0074

Mercury -93377-06-29 21:06 J -32384345.67 -32384345.62 -32384345.54 0.0089 0.0079

Mercury -93377-09-25 23:01 J -32384257.58 -32384257.54 -32384257.48 0.0089 0.0083

Mercury -93377-12-23 00:42 J -32384169.47 -32384169.47 -32384169.43 0.0089 0.0088

Jupiter -93373-10-10 18:56 J -32382782.10 -32382781.71 -32382781.32 0.0089 0.0061

Earth -93354-02-28 01:54 J -32376067.54 -32376067.42 -32376067.29 0.0089 0.0078

Moon -93354-02-28 01:54 J -32376067.54 -32376067.42 -32376067.27 0.0089 0.0075 *

Moon -93353-03-01 11:44 J -32375700.22 -32375700.01 -32375699.78 0.0089 0.0050

Earth -93353-03-01 13:25 J -32375700.14 -32375699.94 -32375699.70 0.0089 0.0047 *

Earth -93352-03-04 01:39 J -32375332.67 -32375332.43 -32375332.17 0.0089 0.0016

Moon -93352-03-04 04:18 J -32375332.56 -32375332.32 -32375332.06 0.0089 0.0013 *

Moon -93351-03-06 10:47 J -32374965.31 -32374965.05 -32374964.79 0.0089 0.0011

Earth -93351-03-06 13:54 J -32374965.16 -32374964.92 -32374964.65 0.0089 0.0015 *

Earth -93350-03-09 01:54 J -32374597.62 -32374597.42 -32374597.18 0.0089 0.0046

Moon -93350-03-09 05:44 J -32374597.46 -32374597.26 -32374597.03 0.0089 0.0050 *

Moon -93349-03-10 11:30 J -32374230.15 -32374230.02 -32374229.86 0.0089 0.0073

Earth -93349-03-10 14:37 J -32374229.99 -32374229.89 -32374229.74 0.0089 0.0077 *

Mars -93341-03-27 06:13 J -32371291.52 -32371291.24 -32371290.94 0.0089 0.0044

Mars -93339-02-21 05:01 J -32370595.57 -32370595.29 -32370594.96 0.0089 0.0038
 Venus -93304-11-19 10:03 J -32357540.17 -32357540.08 -32357539.95 0.0089 0.0077
 Mercury -93303-04-30 17:30 J -32357377.80 -32357377.77 -32357377.71 0.0089 0.0086
 Venus -93303-07-02 23:59 J -32357314.64 -32357314.50 -32357314.32 0.0089 0.0064
 Mercury -93303-07-27 20:51 J -32357289.70 -32357289.63 -32357289.55 0.0089 0.0080
 Mercury -93303-10-23 23:30 J -32357201.60 -32357201.52 -32357201.41 0.0089 0.0075
 Mercury -93302-01-20 02:51 J -32357113.49 -32357113.38 -32357113.27 0.0089 0.0069
 Venus -93302-02-13 14:23 J -32357089.09 -32357088.90 -32357088.71 0.0089 0.0050
 Mercury -93302-04-18 05:30 J -32357025.38 -32357025.27 -32357025.13 0.0089 0.0064
 Mercury -93302-07-15 08:23 J -32356937.27 -32356937.15 -32356937.00 0.0089 0.0059
 Venus -93302-09-27 04:18 J -32356863.52 -32356863.32 -32356863.11 0.0089 0.0037
 Mercury -93302-10-11 11:30 J -32356849.16 -32356849.02 -32356848.87 0.0089 0.0053
 Mercury -93301-01-07 14:08 J -32356761.04 -32356760.91 -32356760.74 0.0089 0.0048
 Mercury -93301-04-04 17:30 J -32356672.93 -32356672.77 -32356672.62 0.0089 0.0042
 Venus -93301-05-09 18:13 J -32356637.95 -32356637.74 -32356637.51 0.0089 0.0024
 Mercury -93301-07-01 20:08 J -32356584.81 -32356584.66 -32356584.49 0.0089 0.0037
 Mercury -93301-09-27 23:01 J -32356496.70 -32356496.54 -32356496.37 0.0089 0.0031
 Venus -93301-12-21 08:23 J -32356412.38 -32356412.15 -32356411.93 0.0089 0.0011
 Mercury -93301-12-25 01:54 J -32356408.58 -32356408.42 -32356408.25 0.0089 0.0026
 Mercury -93300-03-23 04:47 J -32356320.47 -32356320.30 -32356320.12 0.0089 0.0021
 Mercury -93300-06-19 07:39 J -32356232.35 -32356232.18 -32356232.00 0.0089 0.0015
 Venus -93300-08-03 22:18 J -32356186.80 -32356186.57 -32356186.35 0.0089 0.0003
 Mercury -93300-09-15 10:32 J -32356144.23 -32356144.06 -32356143.88 0.0089 0.0010
 Mercury -93300-12-12 13:25 J -32356056.12 -32356055.94 -32356055.77 0.0089 0.0005
 Mercury -93299-03-10 16:03 J -32355968.00 -32355967.83 -32355967.65 0.0089 0.0002
 Venus -93299-03-17 11:59 J -32355961.21 -32355961.00 -32355960.77 0.0089 0.0016
 Mercury -93299-06-06 18:56 J -32355879.88 -32355879.71 -32355879.53 0.0089 0.0006
 Mercury -93299-09-02 21:35 J -32355791.77 -32355791.60 -32355791.42 0.0088 0.0012
 Venus -93299-10-29 01:54 J -32355735.63 -32355735.42 -32355735.20 0.0088 0.0029
 Mercury -93299-11-30 00:27 J -32355703.65 -32355703.48 -32355703.31 0.0088 0.0016

Mercury -93298-02-26 03:06 J -32355615.53 -32355615.37 -32355615.19 0.0088 0.0022

Mercury -93298-05-25 05:59 J -32355527.41 -32355527.25 -32355527.08 0.0088 0.0027

Venus -93298-06-11 15:35 J -32355510.03 -32355509.85 -32355509.64 0.0088 0.0042

Mercury -93298-08-21 08:23 J -32355439.30 -32355439.15 -32355438.97 0.0088 0.0033

Mercury -93298-11-17 11:15 J -32355351.18 -32355351.03 -32355350.86 0.0088 0.0037

Venus -93297-01-23 05:15 J -32355284.43 -32355284.28 -32355284.08 0.0088 0.0056

Mercury -93297-02-13 13:54 J -32355263.06 -32355262.92 -32355262.76 0.0088 0.0043

Mercury -93297-05-11 16:32 J -32355174.94 -32355174.81 -32355174.65 0.0088 0.0048

Mercury -93297-08-07 19:11 J -32355086.82 -32355086.70 -32355086.55 0.0088 0.0053

Venus -93297-09-04 18:56 J -32355058.82 -32355058.71 -32355058.54 0.0088 0.0069

Mercury -93297-11-03 22:03 J -32354998.70 -32354998.58 -32354998.44 0.0088 0.0057

Mercury -93296-01-31 00:42 J -32354910.58 -32354910.47 -32354910.34 0.0088 0.0063

Venus -93296-04-18 08:51 J -32354833.19 -32354833.13 -32354833.01 0.0088 0.0082

Mercury -93296-04-29 03:20 J -32354822.46 -32354822.36 -32354822.24 0.0088 0.0067

Mercury -93296-07-26 05:44 J -32354734.34 -32354734.26 -32354734.15 0.0088 0.0073

Mercury -93296-10-22 08:23 J -32354646.21 -32354646.15 -32354646.05 0.0088 0.0078

Mercury -93295-01-18 11:01 J -32354558.08 -32354558.04 -32354557.96 0.0088 0.0083

Mercury -93295-04-16 13:39 J -32354469.94 -32354469.93 -32354469.89 0.0088 0.0087

Earth -93272-09-07 22:47 J -32345924.71 -32345924.55 -32345924.37 0.0088 0.0067

Moon -93272-09-08 02:37 J -32345924.57 -32345924.39 -32345924.21 0.0088 0.0063 *

Moon -93271-09-10 06:42 J -32345557.43 -32345557.22 -32345556.98 0.0088 0.0041

Earth -93271-09-10 10:03 J -32345557.30 -32345557.08 -32345556.83 0.0088 0.0037 *

Earth -93270-09-12 21:20 J -32345189.86 -32345189.61 -32345189.35 0.0088 0.0007

Moon -93270-09-12 23:44 J -32345189.77 -32345189.51 -32345189.24 0.0088 0.0003 *

Moon -93269-09-14 06:13 J -32344822.47 -32344822.24 -32344821.98 0.0088 0.0021

Earth -93269-09-14 08:08 J -32344822.40 -32344822.16 -32344821.91 0.0088 0.0024 *

Earth -93268-09-16 18:42 J -32344454.91 -32344454.72 -32344454.50 0.0088 0.0053

Moon -93268-09-16 18:27 J -32344454.91 -32344454.73 -32344454.50 0.0088 0.0058 *

Earth -93267-09-19 04:47 J -32344087.35 -32344087.30 -32344087.18 0.0088 0.0084

Moon -93267-09-19 06:27 J -32344087.32 -32344087.23 -32344087.11 0.0088 0.0080 *

Mars -93260-12-18 22:18 J -32341439.76 -32341439.57 -32341439.35 0.0088 0.0063
 Mars -93258-11-12 18:56 J -32340746.00 -32340745.71 -32340745.41 0.0088 0.0007
 Mars -93256-10-06 16:03 J -32340051.94 -32340051.83 -32340051.66 0.0088 0.0078
 Venus -93221-01-02 22:47 J -32327545.60 -32327545.55 -32327545.47 0.0089 0.0084
 Mercury -93221-01-27 04:47 J -32327521.33 -32327521.30 -32327521.26 0.0089 0.0085
 Mercury -93221-04-24 06:13 J -32327433.29 -32327433.24 -32327433.18 0.0089 0.0081
 Mercury -93221-07-21 07:39 J -32327345.23 -32327345.18 -32327345.10 0.0089 0.0077
 Venus -93221-08-15 10:32 J -32327320.16 -32327320.06 -32327319.91 0.0089 0.0072
 Mercury -93221-10-17 09:20 J -32327257.18 -32327257.11 -32327257.02 0.0089 0.0073
 Mercury -93220-01-13 10:47 J -32327169.12 -32327169.05 -32327168.95 0.0089 0.0069
 Venus -93220-03-28 22:47 J -32327094.69 -32327094.55 -32327094.37 0.0089 0.0059
 Mercury -93220-04-11 12:27 J -32327081.06 -32327080.98 -32327080.87 0.0089 0.0065
 Mercury -93220-07-08 14:23 J -32326993.00 -32326992.90 -32326992.80 0.0089 0.0060
 Mercury -93220-10-04 15:49 J -32326904.94 -32326904.84 -32326904.73 0.0089 0.0056
 Venus -93220-11-09 11:15 J -32326869.21 -32326869.03 -32326868.84 0.0089 0.0046
 Mercury -93220-12-31 17:30 J -32326816.88 -32326816.77 -32326816.65 0.0089 0.0052
 Mercury -93219-03-29 18:56 J -32326728.82 -32326728.71 -32326728.58 0.0089 0.0048
 Venus -93219-06-22 23:01 J -32326643.72 -32326643.54 -32326643.33 0.0089 0.0034
 Mercury -93219-06-25 20:51 J -32326640.75 -32326640.63 -32326640.51 0.0089 0.0043
 Mercury -93219-09-21 22:32 J -32326552.69 -32326552.56 -32326552.43 0.0089 0.0039
 Mercury -93219-12-18 23:59 J -32326464.62 -32326464.50 -32326464.36 0.0089 0.0035
 Venus -93218-02-03 11:15 J -32326418.23 -32326418.03 -32326417.81 0.0089 0.0021
 Mercury -93218-03-17 01:39 J -32326376.56 -32326376.43 -32326376.29 0.0089 0.0031
 Mercury -93218-06-13 03:20 J -32326288.49 -32326288.36 -32326288.22 0.0089 0.0026
 Mercury -93218-09-09 05:01 J -32326200.42 -32326200.29 -32326200.15 0.0089 0.0022
 Venus -93218-09-16 23:30 J -32326192.73 -32326192.52 -32326192.30 0.0089 0.0008
 Mercury -93218-12-06 06:42 J -32326112.36 -32326112.22 -32326112.08 0.0089 0.0018
 Mercury -93217-03-03 08:23 J -32326024.29 -32326024.15 -32326024.01 0.0089 0.0013
 Venus -93217-04-29 11:44 J -32325967.22 -32325967.01 -32325966.80 0.0089 0.0005
 Mercury -93217-05-30 10:03 J -32325936.22 -32325936.08 -32325935.93 0.0089 0.0009

Mercury -93217-08-26 11:44 J -32325848.15 -32325848.01 -32325847.86 0.0089 0.0005

Mercury -93217-11-22 13:25 J -32325760.08 -32325759.94 -32325759.79 0.0089 0.0002

Venus -93217-12-10 23:44 J -32325741.71 -32325741.51 -32325741.29 0.0089 0.0017

Mercury -93216-02-18 15:06 J -32325672.01 -32325671.87 -32325671.72 0.0089 0.0005

Mercury -93216-05-17 17:01 J -32325583.94 -32325583.79 -32325583.65 0.0089 0.0009

Venus -93216-07-24 11:44 J -32325516.20 -32325516.01 -32325515.80 0.0089 0.0030

Mercury -93216-08-13 18:42 J -32325495.87 -32325495.72 -32325495.58 0.0089 0.0013

Mercury -93216-11-09 20:23 J -32325407.79 -32325407.65 -32325407.51 0.0089 0.0018

Mercury -93215-02-05 22:03 J -32325319.72 -32325319.58 -32325319.44 0.0089 0.0022

Venus -93215-03-06 23:44 J -32325290.68 -32325290.51 -32325290.31 0.0089 0.0043

Mercury -93215-05-04 23:44 J -32325231.65 -32325231.51 -32325231.37 0.0089 0.0027

Mercury -93215-08-01 01:25 J -32325143.57 -32325143.44 -32325143.30 0.0089 0.0031

Venus -93215-10-18 11:59 J -32325065.15 -32325065.00 -32325064.82 0.0089 0.0056

Mercury -93215-10-28 03:06 J -32325055.49 -32325055.37 -32325055.23 0.0089 0.0036

Mercury -93214-01-24 05:01 J -32324967.42 -32324967.29 -32324967.16 0.0089 0.0040

Mercury -93214-04-22 06:42 J -32324879.34 -32324879.22 -32324879.09 0.0089 0.0045

Venus -93214-06-01 00:13 J -32324839.61 -32324839.49 -32324839.34 0.0089 0.0068

Mercury -93214-07-19 08:23 J -32324791.26 -32324791.15 -32324791.02 0.0089 0.0049

Mercury -93214-10-15 10:03 J -32324703.18 -32324703.08 -32324702.95 0.0089 0.0054

Mercury -93213-01-11 11:59 J -32324615.10 -32324615.00 -32324614.88 0.0089 0.0058

Venus -93213-01-12 12:13 J -32324614.06 -32324613.99 -32324613.88 0.0089 0.0081

Mercury -93213-04-08 13:39 J -32324527.02 -32324526.93 -32324526.81 0.0089 0.0063

Mercury -93213-07-05 15:35 J -32324438.94 -32324438.85 -32324438.75 0.0089 0.0067

Mercury -93213-10-01 17:15 J -32324350.85 -32324350.78 -32324350.68 0.0089 0.0072

Mercury -93213-12-28 19:25 J -32324262.76 -32324262.69 -32324262.62 0.0089 0.0076

Mercury -93212-03-26 21:06 J -32324174.67 -32324174.62 -32324174.56 0.0089 0.0081

Mercury -93212-06-22 22:47 J -32324086.57 -32324086.55 -32324086.50 0.0089 0.0086

Jupiter -93207-12-10 18:13 J -32322090.25 -32322089.74 -32322089.20 0.0089 0.0025

Moon -93190-02-27 10:47 J -32316167.09 -32316167.05 -32316166.99 0.0089 0.0087

Earth -93189-03-01 00:27 J -32315799.65 -32315799.48 -32315799.28 0.0089 0.0060

Moon -93189-03-01 03:20 J -32315799.51 -32315799.36 -32315799.16 0.0089 0.0064 *
 Moon -93188-03-03 08:51 J -32315432.36 -32315432.13 -32315431.87 0.0089 0.0026
 Earth -93188-03-03 12:27 J -32315432.21 -32315431.98 -32315431.72 0.0089 0.0030 *
 Earth -93187-03-06 00:42 J -32315064.73 -32315064.47 -32315064.21 0.0089 0.0001
 Moon -93187-03-06 04:03 J -32315064.58 -32315064.33 -32315064.07 0.0089 0.0003 *
 Moon -93186-03-08 09:20 J -32314697.33 -32314697.11 -32314696.86 0.0089 0.0035
 Earth -93186-03-08 12:27 J -32314697.20 -32314696.98 -32314696.72 0.0089 0.0033 *
 Earth -93185-03-10 00:42 J -32314329.63 -32314329.47 -32314329.26 0.0089 0.0063
 Moon -93185-03-10 03:20 J -32314329.55 -32314329.36 -32314329.16 0.0089 0.0060 *
 Mars -93178-11-09 03:06 J -32311529.49 -32311529.37 -32311529.18 0.0089 0.0080
 Mars -93176-10-05 04:47 J -32310833.63 -32310833.30 -32310832.96 0.0089 0.0004
 Mars -93174-09-01 02:23 J -32310137.46 -32310137.40 -32310137.28 0.0089 0.0085
 Venus -93139-02-20 20:51 J -32297545.72 -32297545.63 -32297545.53 0.0089 0.0080
 Venus -93139-10-04 10:47 J -32297320.18 -32297320.05 -32297319.89 0.0089 0.0067
 Mercury -93139-10-29 13:54 J -32297294.92 -32297294.92 -32297294.89 0.0089 0.0088
 Mercury -93138-01-25 17:01 J -32297206.84 -32297206.79 -32297206.72 0.0089 0.0083
 Mercury -93138-04-23 19:54 J -32297118.74 -32297118.67 -32297118.57 0.0089 0.0077
 Venus -93138-05-18 00:42 J -32297094.63 -32297094.47 -32297094.27 0.0089 0.0054
 Mercury -93138-07-20 23:01 J -32297030.63 -32297030.54 -32297030.43 0.0089 0.0072
 Mercury -93138-10-17 01:54 J -32296942.52 -32296942.42 -32296942.29 0.0089 0.0066
 Venus -93138-12-29 15:20 J -32296869.06 -32296868.86 -32296868.66 0.0089 0.0040
 Mercury -93137-01-13 05:01 J -32296854.41 -32296854.29 -32296854.16 0.0089 0.0061
 Mercury -93137-04-10 07:39 J -32296766.30 -32296766.18 -32296766.02 0.0089 0.0056
 Mercury -93137-07-07 11:01 J -32296678.19 -32296678.04 -32296677.89 0.0089 0.0050
 Venus -93137-08-11 05:01 J -32296643.50 -32296643.29 -32296643.07 0.0089 0.0027
 Mercury -93137-10-03 13:39 J -32296590.07 -32296589.93 -32296589.76 0.0089 0.0045
 Mercury -93137-12-30 16:47 J -32296501.96 -32296501.80 -32296501.64 0.0089 0.0039
 Venus -93136-03-24 19:11 J -32296417.92 -32296417.70 -32296417.47 0.0089 0.0014
 Mercury -93136-03-28 19:39 J -32296413.84 -32296413.68 -32296413.51 0.0089 0.0034
 Mercury -93136-06-24 22:18 J -32296325.73 -32296325.57 -32296325.39 0.0089 0.0029

Mercury -93136-09-21 01:25 J -32296237.61 -32296237.44 -32296237.27 0.0089 0.0023
 Venus -93136-11-05 09:06 J -32296192.34 -32296192.12 -32296191.89 0.0089 0.0002
 Mercury -93136-12-18 04:18 J -32296149.49 -32296149.32 -32296149.15 0.0089 0.0018
 Mercury -93135-03-16 06:56 J -32296061.38 -32296061.21 -32296061.03 0.0089 0.0013
 Mercury -93135-06-12 09:49 J -32295973.26 -32295973.09 -32295972.91 0.0089 0.0008
 Venus -93135-06-18 22:47 J -32295966.76 -32295966.55 -32295966.31 0.0089 0.0014
 Mercury -93135-09-08 12:42 J -32295885.14 -32295884.97 -32295884.79 0.0089 0.0003
 Mercury -93135-12-05 15:35 J -32295797.02 -32295796.85 -32295796.67 0.0089 0.0004
 Venus -93134-01-30 12:42 J -32295741.18 -32295740.97 -32295740.74 0.0089 0.0026
 Mercury -93134-03-03 18:27 J -32295708.91 -32295708.73 -32295708.56 0.0088 0.0009
 Mercury -93134-05-30 21:06 J -32295620.79 -32295620.62 -32295620.44 0.0088 0.0014
 Mercury -93134-08-26 23:44 J -32295532.67 -32295532.51 -32295532.33 0.0088 0.0020
 Venus -93134-09-13 02:23 J -32295515.58 -32295515.40 -32295515.18 0.0088 0.0040
 Mercury -93134-11-23 02:37 J -32295444.55 -32295444.39 -32295444.22 0.0088 0.0025
 Mercury -93133-02-19 05:15 J -32295356.44 -32295356.28 -32295356.11 0.0088 0.0030
 Venus -93133-04-25 16:32 J -32295289.98 -32295289.81 -32295289.62 0.0088 0.0053
 Mercury -93133-05-17 08:08 J -32295268.32 -32295268.16 -32295268.00 0.0088 0.0035
 Mercury -93133-08-13 10:32 J -32295180.20 -32295180.06 -32295179.89 0.0088 0.0041
 Mercury -93133-11-09 13:25 J -32295092.08 -32295091.94 -32295091.78 0.0088 0.0045
 Venus -93133-12-07 06:27 J -32295064.37 -32295064.23 -32295064.07 0.0088 0.0066
 Mercury -93132-02-05 16:03 J -32295003.96 -32295003.83 -32295003.68 0.0088 0.0050
 Mercury -93132-05-04 18:42 J -32294915.84 -32294915.72 -32294915.57 0.0088 0.0056
 Venus -93132-07-20 20:08 J -32294838.75 -32294838.66 -32294838.54 0.0088 0.0079
 Mercury -93132-07-31 21:20 J -32294827.72 -32294827.61 -32294827.47 0.0088 0.0061
 Mercury -93132-10-27 23:59 J -32294739.60 -32294739.50 -32294739.37 0.0088 0.0066
 Mercury -93131-01-24 02:37 J -32294651.48 -32294651.39 -32294651.27 0.0088 0.0071
 Mercury -93131-04-22 05:15 J -32294563.35 -32294563.28 -32294563.18 0.0088 0.0076
 Mercury -93131-07-19 07:54 J -32294475.22 -32294475.17 -32294475.09 0.0088 0.0081
 Mercury -93131-10-15 10:32 J -32294387.09 -32294387.06 -32294387.00 0.0088 0.0085
 Moon -93108-09-07 06:42 J -32286024.30 -32286024.22 -32286024.12 0.0088 0.0082

Earth	-93108-09-07 09:35 J	-32286024.20	-32286024.10	-32286023.98	0.0088	0.0080	*
Earth	-93107-09-09 21:06 J	-32285656.83	-32285656.62	-32285656.41	0.0088	0.0050	
Moon	-93107-09-09 23:01 J	-32285656.75	-32285656.54	-32285656.30	0.0088	0.0048	*
Moon	-93106-09-12 07:25 J	-32285289.42	-32285289.19	-32285288.94	0.0088	0.0022	
Earth	-93106-09-12 08:08 J	-32285289.41	-32285289.16	-32285288.91	0.0088	0.0020	*
Moon	-93105-09-13 18:42 J	-32284921.98	-32284921.72	-32284921.45	0.0088	0.0012	
Earth	-93105-09-13 19:11 J	-32284921.95	-32284921.70	-32284921.44	0.0088	0.0010	*
Earth	-93104-09-16 05:44 J	-32284554.47	-32284554.26	-32284554.01	0.0088	0.0041	
Moon	-93104-09-16 07:39 J	-32284554.40	-32284554.18	-32284553.95	0.0088	0.0038	*
Moon	-93103-09-18 13:25 J	-32284187.07	-32284186.94	-32284186.76	0.0088	0.0072	
Earth	-93103-09-18 16:47 J	-32284186.94	-32284186.80	-32284186.63	0.0088	0.0070	*
Mars	-93094-06-28 06:13 J	-32280982.51	-32280982.24	-32280981.94	0.0088	0.0022	
Mars	-93092-05-22 01:39 J	-32280288.65	-32280288.43	-32280288.16	0.0088	0.0049	
Venus	-93057-04-05 11:30 J	-32267551.05	-32267551.02	-32267550.97	0.0089	0.0087	
Mercury	-93057-07-27 02:51 J	-32267438.39	-32267438.38	-32267438.34	0.0089	0.0087	
Mercury	-93057-10-23 04:32 J	-32267350.35	-32267350.31	-32267350.26	0.0089	0.0083	
Venus	-93057-11-16 23:15 J	-32267325.63	-32267325.53	-32267325.40	0.0089	0.0075	
Mercury	-93056-01-19 05:59 J	-32267262.30	-32267262.25	-32267262.18	0.0089	0.0079	
Mercury	-93056-04-17 07:39 J	-32267174.25	-32267174.18	-32267174.10	0.0089	0.0075	
Venus	-93056-06-30 11:15 J	-32267100.17	-32267100.03	-32267099.86	0.0089	0.0062	
Mercury	-93056-07-14 09:06 J	-32267086.19	-32267086.12	-32267086.02	0.0089	0.0071	
Mercury	-93056-10-10 10:32 J	-32266998.13	-32266998.06	-32266997.95	0.0089	0.0067	
Mercury	-93055-01-06 12:27 J	-32266910.07	-32266909.98	-32266909.88	0.0089	0.0062	
Venus	-93055-02-10 23:15 J	-32266874.69	-32266874.53	-32266874.34	0.0089	0.0050	
Mercury	-93055-04-04 14:08 J	-32266822.01	-32266821.91	-32266821.80	0.0089	0.0058	
Mercury	-93055-07-01 15:35 J	-32266733.95	-32266733.85	-32266733.73	0.0089	0.0054	
Venus	-93055-09-24 11:30 J	-32266649.21	-32266649.02	-32266648.82	0.0089	0.0037	
Mercury	-93055-09-27 17:15 J	-32266645.89	-32266645.78	-32266645.66	0.0089	0.0050	
Mercury	-93055-12-24 18:42 J	-32266557.83	-32266557.72	-32266557.59	0.0089	0.0046	
Mercury	-93054-03-22 20:37 J	-32266469.76	-32266469.64	-32266469.51	0.0089	0.0041	

Venus -93054-05-07 23:44 J -32266423.71 -32266423.51 -32266423.30 0.0089 0.0024
 Mercury -93054-06-18 22:03 J -32266381.70 -32266381.58 -32266381.44 0.0089 0.0037
 Mercury -93054-09-14 23:44 J -32266293.63 -32266293.51 -32266293.37 0.0089 0.0033
 Mercury -93054-12-12 01:39 J -32266205.57 -32266205.43 -32266205.30 0.0089 0.0028
 Venus -93054-12-19 11:44 J -32266198.22 -32266198.01 -32266197.79 0.0089 0.0011
 Mercury -93053-03-09 03:06 J -32266117.50 -32266117.37 -32266117.23 0.0089 0.0024
 Mercury -93053-06-05 04:47 J -32266029.44 -32266029.30 -32266029.16 0.0089 0.0020
 Venus -93053-07-31 23:59 J -32265972.72 -32265972.50 -32265972.29 0.0089 0.0002
 Mercury -93053-09-01 06:27 J -32265941.37 -32265941.23 -32265941.08 0.0089 0.0015
 Mercury -93053-11-28 08:08 J -32265853.30 -32265853.16 -32265853.01 0.0089 0.0011
 Mercury -93052-02-24 09:49 J -32265765.23 -32265765.09 -32265764.94 0.0089 0.0007
 Venus -93052-03-14 11:44 J -32265747.21 -32265747.01 -32265746.79 0.0089 0.0015
 Mercury -93052-05-23 11:30 J -32265677.16 -32265677.02 -32265676.87 0.0089 0.0003
 Mercury -93052-08-19 13:11 J -32265589.09 -32265588.95 -32265588.80 0.0089 0.0003
 Venus -93052-10-26 00:13 J -32265521.69 -32265521.49 -32265521.28 0.0089 0.0027
 Mercury -93052-11-15 15:06 J -32265501.02 -32265500.87 -32265500.73 0.0089 0.0007
 Mercury -93051-02-11 16:32 J -32265412.95 -32265412.81 -32265412.66 0.0089 0.0012
 Mercury -93051-05-10 18:13 J -32265324.88 -32265324.74 -32265324.59 0.0089 0.0016
 Venus -93051-06-08 12:13 J -32265296.17 -32265295.99 -32265295.79 0.0089 0.0040
 Mercury -93051-08-06 20:08 J -32265236.80 -32265236.66 -32265236.52 0.0089 0.0020
 Mercury -93051-11-02 21:35 J -32265148.73 -32265148.60 -32265148.45 0.0089 0.0025
 Venus -93050-01-20 00:13 J -32265070.65 -32265070.49 -32265070.31 0.0089 0.0053
 Mercury -93050-01-29 23:30 J -32265060.65 -32265060.52 -32265060.38 0.0089 0.0029
 Mercury -93050-04-28 01:11 J -32264972.58 -32264972.45 -32264972.31 0.0089 0.0034
 Mercury -93050-07-25 02:51 J -32264884.50 -32264884.38 -32264884.24 0.0089 0.0038
 Venus -93050-09-02 12:13 J -32264845.12 -32264844.99 -32264844.83 0.0089 0.0066
 Mercury -93050-10-21 04:32 J -32264796.43 -32264796.31 -32264796.17 0.0089 0.0043
 Mercury -93049-01-17 06:27 J -32264708.35 -32264708.23 -32264708.10 0.0089 0.0047
 Mercury -93049-04-14 08:08 J -32264620.27 -32264620.16 -32264620.03 0.0089 0.0052
 Venus -93049-04-15 00:42 J -32264619.56 -32264619.47 -32264619.37 0.0089 0.0078

Mercury	-93049-07-11 10:03 J	-32264532.19	-32264532.08	-32264531.96	0.0089	0.0056
Mercury	-93049-10-07 11:30 J	-32264444.11	-32264444.02	-32264443.90	0.0089	0.0061
Mercury	-93048-01-03 13:25 J	-32264356.03	-32264355.94	-32264355.83	0.0089	0.0065
Mercury	-93048-04-01 15:06 J	-32264267.94	-32264267.87	-32264267.76	0.0089	0.0070
Mercury	-93048-06-28 17:15 J	-32264179.86	-32264179.78	-32264179.70	0.0089	0.0074
Mercury	-93048-09-24 18:42 J	-32264091.77	-32264091.72	-32264091.64	0.0089	0.0079
Mercury	-93048-12-21 20:51 J	-32264003.68	-32264003.63	-32264003.58	0.0089	0.0083
Mercury	-93047-03-19 22:32 J	-32263915.57	-32263915.56	-32263915.53	0.0089	0.0088
Moon	-93025-02-29 07:11 J	-32255899.32	-32255899.20	-32255899.02	0.0089	0.0072
Earth	-93025-02-29 11:01 J	-32255899.16	-32255899.04	-32255898.88	0.0089	0.0074 *
Earth	-93024-03-02 22:32 J	-32255531.76	-32255531.56	-32255531.31	0.0089	0.0044
Moon	-93024-03-03 01:54 J	-32255531.61	-32255531.42	-32255531.17	0.0089	0.0048 *
Moon	-93023-03-05 08:23 J	-32255164.39	-32255164.15	-32255163.89	0.0089	0.0010
Earth	-93023-03-05 11:01 J	-32255164.29	-32255164.04	-32255163.78	0.0089	0.0013 *
Earth	-93022-03-07 23:01 J	-32254796.79	-32254796.54	-32254796.28	0.0089	0.0018
Moon	-93022-03-08 01:11 J	-32254796.70	-32254796.45	-32254796.18	0.0089	0.0014 *
Moon	-93021-03-09 10:18 J	-32254429.25	-32254429.07	-32254428.84	0.0089	0.0052
Earth	-93021-03-09 11:15 J	-32254429.24	-32254429.03	-32254428.81	0.0089	0.0048 *
Moon	-93020-03-11 22:32 J	-32254061.67	-32254061.56	-32254061.40	0.0089	0.0076
Earth	-93020-03-11 23:15 J	-32254061.63	-32254061.53	-32254061.39	0.0089	0.0080 *
Mars	-93012-05-19 00:13 J	-32251071.79	-32251071.49	-32251071.16	0.0089	0.0032
Mars	-93010-04-15 00:27 J	-32250375.73	-32250375.48	-32250375.18	0.0089	0.0051

93RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 93rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-92975-05-25 06:42 J	-32237551.28	-32237551.22	-32237551.13	0.0089	0.0084		
Venus	-92974-01-05 20:37 J	-32237325.75	-32237325.64	-32237325.48	0.0089	0.0071		
Mercury	-92974-07-26 12:56 J	-32237123.99	-32237123.96	-32237123.90	0.0089	0.0086		
Venus	-92974-08-19 11:01 J	-32237100.20	-32237100.04	-32237099.86	0.0089	0.0057		
Mercury	-92974-10-22 15:49 J	-32237035.89	-32237035.84	-32237035.75	0.0089	0.0081		
Mercury	-92973-01-18 19:11 J	-32236947.79	-32236947.70	-32236947.60	0.0089	0.0075		
Venus	-92973-04-01 01:11 J	-32236874.63	-32236874.45	-32236874.24	0.0089	0.0044		
Mercury	-92973-04-15 21:49 J	-32236859.68	-32236859.59	-32236859.46	0.0089	0.0070		
Mercury	-92973-07-13 01:11 J	-32236771.57	-32236771.45	-32236771.32	0.0089	0.0064		
Mercury	-92973-10-09 03:49 J	-32236683.46	-32236683.34	-32236683.19	0.0089	0.0059		
Venus	-92973-11-12 15:06 J	-32236649.07	-32236648.87	-32236648.64	0.0089	0.0031		
Mercury	-92972-01-05 06:56 J	-32236595.34	-32236595.21	-32236595.06	0.0089	0.0053		
Mercury	-92972-04-03 09:49 J	-32236507.23	-32236507.09	-32236506.93	0.0089	0.0048		
Venus	-92972-06-26 05:15 J	-32236423.49	-32236423.28	-32236423.05	0.0089	0.0017		
Mercury	-92972-06-30 12:56 J	-32236419.11	-32236418.96	-32236418.80	0.0089	0.0042		
Mercury	-92972-09-26 15:49 J	-32236331.00	-32236330.84	-32236330.67	0.0089	0.0037		
Mercury	-92972-12-23 18:42 J	-32236242.88	-32236242.72	-32236242.55	0.0089	0.0031		
Venus	-92971-02-06 19:25 J	-32236197.92	-32236197.69	-32236197.47	0.0089	0.0004		
Mercury	-92971-03-21 21:35 J	-32236154.76	-32236154.60	-32236154.42	0.0089	0.0026		
Mercury	-92971-06-18 00:27 J	-32236066.65	-32236066.48	-32236066.30	0.0089	0.0021		
Mercury	-92971-09-14 03:20 J	-32235978.53	-32235978.36	-32235978.18	0.0089	0.0015		
Venus	-92971-09-20 09:20 J	-32235972.34	-32235972.11	-32235971.89	0.0089	0.0010		
Mercury	-92971-12-11 06:13 J	-32235890.41	-32235890.24	-32235890.06	0.0089	0.0010		
Mercury	-92970-03-09 09:06 J	-32235802.29	-32235802.12	-32235801.94	0.0089	0.0004		
Venus	-92970-05-03 23:01 J	-32235746.74	-32235746.54	-32235746.31	0.0089	0.0024		
Mercury	-92970-06-05 11:59 J	-32235714.18	-32235714.00	-32235713.83	0.0089	0.0001		

Mercury -92970-09-01 14:37 J -32235626.06 -32235625.89 -32235625.71 0.0089 0.0007

Mercury -92970-11-28 17:30 J -32235537.94 -32235537.77 -32235537.59 0.0089 0.0011

Venus -92970-12-15 12:56 J -32235521.15 -32235520.96 -32235520.74 0.0089 0.0037

Mercury -92969-02-24 20:23 J -32235449.82 -32235449.65 -32235449.48 0.0089 0.0017

Mercury -92969-05-22 23:01 J -32235361.71 -32235361.54 -32235361.37 0.0089 0.0022

Venus -92969-07-28 02:37 J -32235295.56 -32235295.39 -32235295.19 0.0088 0.0050

Mercury -92969-08-19 01:39 J -32235273.59 -32235273.43 -32235273.26 0.0088 0.0027

Mercury -92969-11-15 04:18 J -32235185.47 -32235185.32 -32235185.15 0.0088 0.0033

Mercury -92968-02-11 07:11 J -32235097.35 -32235097.20 -32235097.04 0.0088 0.0037

Venus -92968-03-10 16:32 J -32235069.96 -32235069.81 -32235069.64 0.0088 0.0063

Mercury -92968-05-10 09:49 J -32235009.23 -32235009.09 -32235008.93 0.0088 0.0043

Mercury -92968-08-06 12:42 J -32234921.11 -32234920.97 -32234920.82 0.0088 0.0048

Venus -92968-10-22 06:27 J -32234844.34 -32234844.23 -32234844.11 0.0088 0.0076

Mercury -92968-11-02 15:20 J -32234832.99 -32234832.86 -32234832.72 0.0088 0.0053

Mercury -92967-01-29 17:59 J -32234744.87 -32234744.75 -32234744.61 0.0088 0.0058

Mercury -92967-04-27 20:37 J -32234656.75 -32234656.64 -32234656.51 0.0088 0.0063

Mercury -92967-07-24 23:15 J -32234568.63 -32234568.53 -32234568.41 0.0088 0.0068

Mercury -92967-10-21 01:54 J -32234480.50 -32234480.42 -32234480.31 0.0088 0.0073

Mercury -92966-01-17 04:32 J -32234392.38 -32234392.31 -32234392.22 0.0088 0.0078

Mercury -92966-04-15 07:11 J -32234304.25 -32234304.20 -32234304.13 0.0088 0.0083

Mercury -92966-07-12 09:49 J -32234216.10 -32234216.09 -32234216.06 0.0088 0.0088

Moon -92943-09-09 06:27 J -32225756.40 -32225756.23 -32225756.03 0.0088 0.0060

Earth -92943-09-09 06:42 J -32225756.37 -32225756.22 -32225756.02 0.0088 0.0064 *

Moon -92942-09-11 17:15 J -32225389.02 -32225388.78 -32225388.53 0.0088 0.0038

Earth -92942-09-11 18:13 J -32225388.97 -32225388.74 -32225388.49 0.0088 0.0033 *

Earth -92941-09-13 05:30 J -32225021.52 -32225021.27 -32225021.01 0.0088 0.0004

Moon -92941-09-13 07:54 J -32225021.42 -32225021.17 -32225020.92 0.0088 0.0001 *

Moon -92940-09-15 13:25 J -32224654.18 -32224653.94 -32224653.67 0.0088 0.0023

Earth -92940-09-15 16:32 J -32224654.05 -32224653.81 -32224653.56 0.0088 0.0026 *

Earth -92939-09-18 02:51 J -32224286.56 -32224286.38 -32224286.16 0.0088 0.0056

Moon	-92939-09-18 06:42 J	-32224286.39	-32224286.22	-32224286.02	0.0088	0.0061 *
Moon	-92938-09-20 10:18 J	-32223919.15	-32223919.07	-32223918.96	0.0088	0.0082
Earth	-92938-09-20 13:54 J	-32223918.97	-32223918.92	-32223918.85	0.0088	0.0086 *
Mars	-92930-02-10 18:13 J	-32221218.98	-32221218.74	-32221218.50	0.0088	0.0052
Mars	-92928-01-04 11:44 J	-32220525.28	-32220525.01	-32220524.71	0.0088	0.0019
Venus	-92892-02-18 11:30 J	-32207331.11	-32207331.02	-32207330.92	0.0089	0.0078
Mercury	-92892-04-23 02:37 J	-32207267.42	-32207267.39	-32207267.34	0.0089	0.0085
Mercury	-92892-07-20 04:18 J	-32207179.37	-32207179.32	-32207179.26	0.0089	0.0081
Venus	-92892-10-01 23:15 J	-32207105.66	-32207105.53	-32207105.37	0.0089	0.0066
Mercury	-92892-10-16 05:44 J	-32207091.32	-32207091.26	-32207091.18	0.0089	0.0077
Mercury	-92891-01-12 07:11 J	-32207003.27	-32207003.20	-32207003.11	0.0089	0.0073
Mercury	-92891-04-10 08:51 J	-32206915.21	-32206915.13	-32206915.03	0.0089	0.0069
Venus	-92891-05-15 11:15 J	-32206880.19	-32206880.03	-32206879.84	0.0089	0.0053
Mercury	-92891-07-07 10:18 J	-32206827.15	-32206827.07	-32206826.96	0.0089	0.0065
Mercury	-92891-10-03 12:13 J	-32206739.09	-32206738.99	-32206738.89	0.0089	0.0060
Venus	-92891-12-26 23:30 J	-32206654.71	-32206654.52	-32206654.33	0.0089	0.0040
Mercury	-92891-12-30 13:39 J	-32206651.03	-32206650.93	-32206650.81	0.0089	0.0056
Mercury	-92890-03-28 15:20 J	-32206562.97	-32206562.86	-32206562.74	0.0089	0.0052
Mercury	-92890-06-24 16:47 J	-32206474.91	-32206474.80	-32206474.67	0.0089	0.0048
Venus	-92890-08-09 11:15 J	-32206429.22	-32206429.03	-32206428.82	0.0089	0.0028
Mercury	-92890-09-20 18:27 J	-32206386.85	-32206386.73	-32206386.60	0.0089	0.0044
Mercury	-92890-12-17 20:08 J	-32206298.78	-32206298.66	-32206298.53	0.0089	0.0039
Mercury	-92889-03-14 21:49 J	-32206210.72	-32206210.59	-32206210.46	0.0089	0.0035
Venus	-92889-03-21 23:30 J	-32206203.73	-32206203.52	-32206203.31	0.0089	0.0015
Mercury	-92889-06-10 23:30 J	-32206122.65	-32206122.52	-32206122.38	0.0089	0.0031
Mercury	-92889-09-07 01:11 J	-32206034.59	-32206034.45	-32206034.31	0.0089	0.0026
Venus	-92889-11-02 11:44 J	-32205978.23	-32205978.01	-32205977.80	0.0089	0.0002
Mercury	-92889-12-04 02:51 J	-32205946.52	-32205946.38	-32205946.24	0.0089	0.0022
Mercury	-92888-03-02 04:32 J	-32205858.45	-32205858.31	-32205858.17	0.0089	0.0018
Mercury	-92888-05-29 05:59 J	-32205770.38	-32205770.25	-32205770.10	0.0089	0.0014

Venus -92888-06-15 23:44 J -32205752.72 -32205752.51 -32205752.29 0.0089 0.0011
 Mercury -92888-08-25 07:54 J -32205682.32 -32205682.17 -32205682.03 0.0089 0.0009
 Mercury -92888-11-21 09:35 J -32205594.25 -32205594.10 -32205593.96 0.0089 0.0005
 Venus -92887-01-27 11:44 J -32205527.21 -32205527.01 -32205526.80 0.0089 0.0024
 Mercury -92887-02-17 11:15 J -32205506.18 -32205506.03 -32205505.89 0.0089 0.0002
 Mercury -92887-05-16 12:56 J -32205418.11 -32205417.96 -32205417.82 0.0089 0.0004
 Mercury -92887-08-12 14:37 J -32205330.04 -32205329.89 -32205329.75 0.0089 0.0009
 Venus -92887-09-09 23:44 J -32205301.69 -32205301.51 -32205301.30 0.0089 0.0037
 Mercury -92887-11-08 16:18 J -32205241.96 -32205241.82 -32205241.68 0.0089 0.0013
 Mercury -92886-02-04 17:59 J -32205153.89 -32205153.75 -32205153.61 0.0089 0.0018
 Venus -92886-04-23 11:59 J -32205076.17 -32205076.00 -32205075.81 0.0089 0.0050
 Mercury -92886-05-03 19:39 J -32205065.82 -32205065.68 -32205065.54 0.0089 0.0022
 Mercury -92886-07-30 21:20 J -32204977.74 -32204977.61 -32204977.47 0.0089 0.0027
 Mercury -92886-10-26 23:01 J -32204889.67 -32204889.54 -32204889.40 0.0089 0.0031
 Venus -92886-12-04 23:59 J -32204850.63 -32204850.50 -32204850.33 0.0089 0.0063
 Mercury -92885-01-23 00:42 J -32204801.59 -32204801.47 -32204801.33 0.0089 0.0036
 Mercury -92885-04-20 02:37 J -32204713.52 -32204713.39 -32204713.26 0.0089 0.0040
 Mercury -92885-07-17 04:03 J -32204625.44 -32204625.33 -32204625.19 0.0089 0.0045
 Venus -92885-07-17 11:59 J -32204625.08 -32204625.00 -32204624.86 0.0089 0.0076
 Mercury -92885-10-13 05:59 J -32204537.36 -32204537.25 -32204537.12 0.0089 0.0049
 Mercury -92884-01-09 07:39 J -32204449.28 -32204449.18 -32204449.05 0.0089 0.0054
 Venus -92884-02-28 00:42 J -32204399.49 -32204399.47 -32204399.44 0.0089 0.0088
 Mercury -92884-04-07 09:35 J -32204361.20 -32204361.10 -32204360.98 0.0089 0.0058
 Mercury -92884-07-04 11:15 J -32204273.12 -32204273.03 -32204272.92 0.0089 0.0063
 Mercury -92884-09-30 13:11 J -32204185.04 -32204184.95 -32204184.85 0.0089 0.0067
 Mercury -92884-12-27 14:51 J -32204096.96 -32204096.88 -32204096.78 0.0089 0.0072
 Mercury -92883-03-25 16:47 J -32204008.87 -32204008.80 -32204008.72 0.0089 0.0076
 Mercury -92883-06-21 18:27 J -32203920.78 -32203920.73 -32203920.66 0.0089 0.0081
 Mercury -92883-09-17 20:08 J -32203832.68 -32203832.66 -32203832.61 0.0089 0.0086
 Earth -92861-02-28 20:08 J -32195998.67 -32195998.66 -32195998.61 0.0089 0.0089

Moon	-92861-02-28 23:15 J	-32195998.58	-32195998.53	-32195998.43	0.0089	0.0085
Moon	-92860-03-02 05:30 J	-32195631.43	-32195631.27	-32195631.07	0.0089	0.0062
Earth	-92860-03-02 07:54 J	-32195631.34	-32195631.17	-32195630.95	0.0089	0.0059 *
Earth	-92859-03-04 20:23 J	-32195263.90	-32195263.65	-32195263.41	0.0089	0.0028
Moon	-92859-03-04 20:51 J	-32195263.87	-32195263.63	-32195263.36	0.0089	0.0024 *
Earth	-92858-03-07 08:23 J	-32194896.41	-32194896.15	-32194895.90	0.0089	0.0003
Moon	-92858-03-07 08:08 J	-32194896.41	-32194896.16	-32194895.91	0.0089	0.0000 *
Moon	-92857-03-08 18:56 J	-32194528.94	-32194528.71	-32194528.45	0.0089	0.0037
Earth	-92857-03-08 19:54 J	-32194528.89	-32194528.67	-32194528.41	0.0089	0.0035 *
Earth	-92856-03-11 08:37 J	-32194161.32	-32194161.14	-32194160.96	0.0089	0.0065
Moon	-92856-03-11 10:47 J	-32194161.22	-32194161.05	-32194160.85	0.0089	0.0061 *
Mars	-92849-12-30 17:01 J	-32191309.97	-32191309.79	-32191309.55	0.0089	0.0069
Mars	-92847-11-26 20:08 J	-32190613.97	-32190613.66	-32190613.31	0.0089	0.0015
Venus	-92811-08-26 16:18 J	-32177556.84	-32177556.82	-32177556.78	0.0089	0.0088
Venus	-92810-04-09 06:13 J	-32177331.33	-32177331.24	-32177331.09	0.0089	0.0075
Venus	-92810-11-20 20:51 J	-32177105.79	-32177105.63	-32177105.46	0.0089	0.0061
Mercury	-92809-04-21 11:44 J	-32176953.05	-32176953.01	-32176952.94	0.0089	0.0084
Venus	-92809-07-03 10:47 J	-32176880.23	-32176880.05	-32176879.85	0.0089	0.0048
Mercury	-92809-07-18 14:37 J	-32176864.95	-32176864.89	-32176864.79	0.0089	0.0079
Mercury	-92809-10-14 17:59 J	-32176776.84	-32176776.75	-32176776.64	0.0089	0.0073
Mercury	-92808-01-10 20:37 J	-32176688.73	-32176688.64	-32176688.50	0.0089	0.0068
Venus	-92808-02-14 01:11 J	-32176654.66	-32176654.45	-32176654.25	0.0089	0.0034
Mercury	-92808-04-08 23:59 J	-32176600.62	-32176600.50	-32176600.36	0.0089	0.0062
Mercury	-92808-07-06 02:37 J	-32176512.51	-32176512.39	-32176512.23	0.0089	0.0057
Venus	-92808-09-27 14:51 J	-32176429.09	-32176428.88	-32176428.65	0.0089	0.0021
Mercury	-92808-10-02 05:59 J	-32176424.39	-32176424.25	-32176424.10	0.0089	0.0051
Mercury	-92808-12-29 08:37 J	-32176336.28	-32176336.14	-32176335.97	0.0089	0.0046
Mercury	-92807-03-27 11:44 J	-32176248.16	-32176248.01	-32176247.84	0.0089	0.0040
Venus	-92807-05-11 05:15 J	-32176203.50	-32176203.28	-32176203.05	0.0089	0.0007
Mercury	-92807-06-23 14:37 J	-32176160.04	-32176159.89	-32176159.71	0.0089	0.0035

Mercury -92807-09-19 17:44 J -32176071.92 -32176071.76 -32176071.59 0.0089 0.0029
 Mercury -92807-12-16 20:37 J -32175983.81 -32175983.64 -32175983.47 0.0089 0.0023
 Venus -92807-12-22 19:11 J -32175977.92 -32175977.70 -32175977.47 0.0089 0.0007
 Mercury -92806-03-14 23:30 J -32175895.69 -32175895.52 -32175895.34 0.0089 0.0018
 Mercury -92806-06-11 02:23 J -32175807.57 -32175807.40 -32175807.22 0.0089 0.0013
 Venus -92806-08-05 09:06 J -32175752.34 -32175752.12 -32175751.90 0.0089 0.0020
 Mercury -92806-09-07 05:15 J -32175719.45 -32175719.28 -32175719.10 0.0089 0.0007
 Mercury -92806-12-04 08:08 J -32175631.34 -32175631.16 -32175630.98 0.0089 0.0002
 Mercury -92805-03-01 11:01 J -32175543.22 -32175543.04 -32175542.87 0.0089 0.0003
 Venus -92805-03-17 22:47 J -32175526.74 -32175526.55 -32175526.33 0.0089 0.0034
 Mercury -92805-05-28 13:39 J -32175455.10 -32175454.93 -32175454.75 0.0089 0.0009
 Mercury -92805-08-24 16:32 J -32175366.98 -32175366.81 -32175366.63 0.0089 0.0014
 Venus -92805-10-29 12:42 J -32175301.15 -32175300.97 -32175300.77 0.0089 0.0047
 Mercury -92805-11-20 19:11 J -32175278.86 -32175278.70 -32175278.52 0.0089 0.0019
 Mercury -92804-02-16 22:03 J -32175190.74 -32175190.58 -32175190.41 0.0089 0.0024
 Mercury -92804-05-16 00:42 J -32175102.62 -32175102.47 -32175102.30 0.0089 0.0030
 Venus -92804-06-12 02:37 J -32175075.54 -32175075.39 -32175075.21 0.0089 0.0060
 Mercury -92804-08-12 03:35 J -32175014.51 -32175014.35 -32175014.19 0.0089 0.0035
 Mercury -92804-11-08 06:13 J -32174926.39 -32174926.24 -32174926.08 0.0089 0.0040
 Venus -92803-01-23 16:32 J -32174849.93 -32174849.81 -32174849.68 0.0088 0.0073
 Mercury -92803-02-04 09:06 J -32174838.27 -32174838.12 -32174837.97 0.0088 0.0045
 Mercury -92803-05-03 11:44 J -32174750.15 -32174750.01 -32174749.86 0.0088 0.0050
 Mercury -92803-07-30 14:08 J -32174662.03 -32174661.91 -32174661.76 0.0088 0.0056
 Venus -92803-09-06 05:44 J -32174624.28 -32174624.26 -32174624.18 0.0088 0.0087
 Mercury -92803-10-26 16:47 J -32174573.91 -32174573.80 -32174573.66 0.0088 0.0061
 Mercury -92802-01-22 19:25 J -32174485.78 -32174485.69 -32174485.55 0.0088 0.0066
 Mercury -92802-04-20 22:03 J -32174397.66 -32174397.58 -32174397.46 0.0088 0.0071
 Mercury -92802-07-18 00:42 J -32174309.54 -32174309.47 -32174309.36 0.0088 0.0076
 Mercury -92802-10-14 03:20 J -32174221.41 -32174221.36 -32174221.27 0.0088 0.0081
 Mercury -92801-01-10 05:59 J -32174133.27 -32174133.25 -32174133.18 0.0088 0.0086

Jupiter -92797-06-24 13:25 J -32172506.05 -32172505.94 -32172505.79 0.0088 0.0086
 Moon -92779-09-08 14:37 J -32165856.00 -32165855.89 -32165855.75 0.0088 0.0078
 Earth -92779-09-08 16:03 J -32165855.93 -32165855.83 -32165855.68 0.0088 0.0077 *
 Earth -92778-09-11 03:35 J -32165488.55 -32165488.35 -32165488.11 0.0088 0.0047
 Moon -92778-09-11 06:13 J -32165488.44 -32165488.24 -32165488.01 0.0088 0.0045 *
 Moon -92777-09-12 11:30 J -32165121.26 -32165121.02 -32165120.75 0.0088 0.0019
 Earth -92777-09-12 15:06 J -32165121.11 -32165120.87 -32165120.61 0.0088 0.0018 *
 Earth -92776-09-15 02:23 J -32164753.65 -32164753.40 -32164753.14 0.0088 0.0012
 Moon -92776-09-15 05:44 J -32164753.51 -32164753.26 -32164753.00 0.0088 0.0014 *
 Moon -92775-09-17 09:20 J -32164386.32 -32164386.11 -32164385.87 0.0088 0.0040
 Earth -92775-09-17 12:56 J -32164386.17 -32164385.96 -32164385.72 0.0088 0.0042 *
 Earth -92774-09-19 23:44 J -32164018.64 -32164018.51 -32164018.35 0.0088 0.0072
 Moon -92774-09-20 02:08 J -32164018.53 -32164018.41 -32164018.24 0.0088 0.0074 *
 Mars -92767-09-26 05:15 J -32161455.38 -32161455.28 -32161455.16 0.0088 0.0082
 Mars -92765-08-19 23:15 J -32160761.82 -32160761.53 -32160761.23 0.0088 0.0012
 Mars -92763-07-14 17:01 J -32160067.99 -32160067.79 -32160067.54 0.0088 0.0059
 Venus -92728-05-22 23:01 J -32147336.60 -32147336.54 -32147336.44 0.0089 0.0082
 Mercury -92728-10-22 00:56 J -32147184.48 -32147184.46 -32147184.44 0.0089 0.0087
 Venus -92727-01-03 11:01 J -32147111.16 -32147111.04 -32147110.90 0.0089 0.0069
 Mercury -92727-01-18 02:23 J -32147096.44 -32147096.40 -32147096.35 0.0089 0.0083
 Mercury -92727-04-16 03:49 J -32147008.39 -32147008.34 -32147008.27 0.0089 0.0079
 Mercury -92727-07-13 05:15 J -32146920.34 -32146920.28 -32146920.20 0.0089 0.0075
 Venus -92727-08-16 22:47 J -32146885.70 -32146885.55 -32146885.37 0.0089 0.0057
 Mercury -92727-10-09 06:56 J -32146832.29 -32146832.21 -32146832.12 0.0089 0.0071
 Mercury -92726-01-05 08:23 J -32146744.23 -32146744.15 -32146744.05 0.0089 0.0067
 Venus -92726-03-30 10:47 J -32146660.22 -32146660.05 -32146659.85 0.0089 0.0044
 Mercury -92726-04-03 10:03 J -32146656.17 -32146656.08 -32146655.97 0.0089 0.0063
 Mercury -92726-06-30 11:30 J -32146568.11 -32146568.02 -32146567.90 0.0089 0.0059
 Mercury -92726-09-26 13:25 J -32146480.05 -32146479.94 -32146479.83 0.0089 0.0054
 Venus -92726-11-10 23:01 J -32146434.74 -32146434.54 -32146434.33 0.0089 0.0031

Mercury -92726-12-23 14:51 J -32146391.99 -32146391.88 -32146391.76 0.0089 0.0050
 Mercury -92725-03-20 16:32 J -32146303.93 -32146303.81 -32146303.69 0.0089 0.0046
 Mercury -92725-06-16 17:59 J -32146215.86 -32146215.75 -32146215.62 0.0089 0.0042
 Venus -92725-06-23 11:01 J -32146209.25 -32146209.04 -32146208.83 0.0089 0.0018
 Mercury -92725-09-12 19:39 J -32146127.80 -32146127.68 -32146127.55 0.0089 0.0038
 Mercury -92725-12-09 21:20 J -32146039.74 -32146039.61 -32146039.47 0.0089 0.0033
 Venus -92724-02-03 23:01 J -32145983.75 -32145983.54 -32145983.33 0.0089 0.0005
 Mercury -92724-03-07 23:01 J -32145951.67 -32145951.54 -32145951.40 0.0089 0.0029
 Mercury -92724-06-04 00:27 J -32145863.61 -32145863.48 -32145863.33 0.0089 0.0025
 Mercury -92724-08-31 02:23 J -32145775.54 -32145775.40 -32145775.26 0.0089 0.0020
 Venus -92724-09-17 11:01 J -32145758.25 -32145758.04 -32145757.82 0.0089 0.0008
 Mercury -92724-11-27 03:49 J -32145687.47 -32145687.34 -32145687.19 0.0089 0.0016
 Mercury -92723-02-23 05:30 J -32145599.41 -32145599.27 -32145599.12 0.0089 0.0012
 Venus -92723-04-30 23:01 J -32145532.74 -32145532.54 -32145532.33 0.0089 0.0021
 Mercury -92723-05-22 07:11 J -32145511.34 -32145511.20 -32145511.05 0.0089 0.0008
 Mercury -92723-08-18 08:51 J -32145423.27 -32145423.13 -32145422.98 0.0089 0.0004
 Mercury -92723-11-14 10:32 J -32145335.20 -32145335.06 -32145334.91 0.0089 0.0003
 Venus -92723-12-12 11:01 J -32145307.23 -32145307.04 -32145306.83 0.0089 0.0034
 Mercury -92722-02-10 12:13 J -32145247.13 -32145246.99 -32145246.84 0.0089 0.0006
 Mercury -92722-05-09 13:54 J -32145159.06 -32145158.92 -32145158.77 0.0089 0.0011
 Venus -92722-07-25 23:01 J -32145081.71 -32145081.54 -32145081.34 0.0089 0.0047
 Mercury -92722-08-05 15:35 J -32145070.99 -32145070.85 -32145070.70 0.0089 0.0015
 Mercury -92722-11-01 17:15 J -32144982.91 -32144982.78 -32144982.63 0.0089 0.0020
 Mercury -92721-01-28 18:56 J -32144894.84 -32144894.71 -32144894.56 0.0089 0.0024
 Venus -92721-03-07 11:30 J -32144856.18 -32144856.02 -32144855.86 0.0089 0.0059
 Mercury -92721-04-25 20:51 J -32144806.77 -32144806.63 -32144806.49 0.0089 0.0028
 Mercury -92721-07-22 22:32 J -32144718.69 -32144718.56 -32144718.42 0.0089 0.0033
 Venus -92721-10-18 23:30 J -32144630.63 -32144630.52 -32144630.39 0.0089 0.0072
 Mercury -92721-10-19 00:13 J -32144630.62 -32144630.49 -32144630.35 0.0089 0.0037 *
 Mercury -92720-01-15 01:54 J -32144542.54 -32144542.42 -32144542.29 0.0089 0.0042

Mercury -92720-04-13 03:49 J -32144454.46 -32144454.34 -32144454.22 0.0089 0.0046
 Venus -92720-06-01 11:44 J -32144405.06 -32144405.01 -32144404.94 0.0089 0.0085
 Mercury -92720-07-10 05:15 J -32144366.39 -32144366.28 -32144366.15 0.0089 0.0051
 Mercury -92720-10-06 07:11 J -32144278.31 -32144278.20 -32144278.08 0.0089 0.0055
 Mercury -92719-01-02 08:51 J -32144190.23 -32144190.13 -32144190.01 0.0089 0.0060
 Mercury -92719-03-31 10:47 J -32144102.15 -32144102.05 -32144101.95 0.0089 0.0064
 Mercury -92719-06-27 12:27 J -32144014.06 -32144013.98 -32144013.88 0.0089 0.0069
 Mercury -92719-09-23 14:08 J -32143925.98 -32143925.91 -32143925.81 0.0089 0.0074
 Mercury -92719-12-20 16:03 J -32143837.89 -32143837.83 -32143837.75 0.0089 0.0078
 Mercury -92718-03-18 17:44 J -32143749.80 -32143749.76 -32143749.69 0.0089 0.0083
 Mercury -92718-06-14 19:39 J -32143661.70 -32143661.68 -32143661.64 0.0089 0.0087
 Earth -92696-03-01 17:15 J -32135730.92 -32135730.78 -32135730.63 0.0089 0.0072
 Moon -92696-03-01 18:13 J -32135730.90 -32135730.74 -32135730.57 0.0089 0.0070 *
 Earth -92695-03-04 04:47 J -32135363.51 -32135363.30 -32135363.06 0.0089 0.0042
 Moon -92695-03-04 05:30 J -32135363.47 -32135363.27 -32135363.04 0.0089 0.0045 *
 Moon -92694-03-06 14:51 J -32134996.14 -32134995.88 -32134995.61 0.0089 0.0010
 Earth -92694-03-06 16:47 J -32134996.04 -32134995.80 -32134995.53 0.0089 0.0013 *
 Earth -92693-03-08 04:32 J -32134628.55 -32134628.31 -32134628.04 0.0089 0.0019
 Moon -92693-03-08 07:11 J -32134628.44 -32134628.20 -32134627.94 0.0089 0.0016 *
 Moon -92692-03-10 12:56 J -32134261.15 -32134260.96 -32134260.73 0.0089 0.0052
 Earth -92692-03-10 16:47 J -32134261.00 -32134260.80 -32134260.57 0.0089 0.0049 *
 Earth -92691-03-13 04:47 J -32133893.39 -32133893.30 -32133893.17 0.0089 0.0080
 Moon -92691-03-13 08:23 J -32133893.26 -32133893.15 -32133893.00 0.0089 0.0077 *
 Mars -92683-07-10 10:18 J -32130852.38 -32130852.07 -32130851.73 0.0089 0.0023
 Mars -92681-06-05 11:44 J -32130156.22 -32130156.01 -32130155.73 0.0089 0.0061
 Venus -92646-07-11 15:20 J -32117336.95 -32117336.86 -32117336.75 0.0089 0.0079
 Venus -92645-02-22 05:15 J -32117111.42 -32117111.28 -32117111.12 0.0089 0.0066
 Venus -92645-10-04 19:39 J -32116885.86 -32116885.68 -32116885.50 0.0089 0.0052
 Mercury -92645-10-20 07:11 J -32116870.21 -32116870.20 -32116870.17 0.0089 0.0088
 Mercury -92644-01-16 10:03 J -32116782.12 -32116782.08 -32116782.00 0.0089 0.0083

Mercury -92644-04-14 13:25 J -32116694.02 -32116693.94 -32116693.84 0.0089 0.0077

Venus -92644-05-18 09:35 J -32116660.29 -32116660.10 -32116659.88 0.0089 0.0039

Mercury -92644-07-11 16:03 J -32116605.91 -32116605.83 -32116605.70 0.0089 0.0072

Mercury -92644-10-07 19:25 J -32116517.80 -32116517.69 -32116517.56 0.0089 0.0066

Venus -92644-12-29 23:59 J -32116434.72 -32116434.50 -32116434.28 0.0089 0.0025

Mercury -92643-01-03 22:03 J -32116429.69 -32116429.58 -32116429.43 0.0089 0.0061

Mercury -92643-04-02 01:25 J -32116341.57 -32116341.44 -32116341.29 0.0089 0.0055

Mercury -92643-06-29 04:18 J -32116253.46 -32116253.32 -32116253.16 0.0089 0.0049

Venus -92643-08-12 13:54 J -32116209.14 -32116208.92 -32116208.69 0.0089 0.0012

Mercury -92643-09-25 07:25 J -32116165.34 -32116165.19 -32116165.03 0.0089 0.0044

Mercury -92643-12-22 10:03 J -32116077.22 -32116077.08 -32116076.90 0.0089 0.0039

Mercury -92642-03-20 13:11 J -32115989.11 -32115988.95 -32115988.78 0.0089 0.0033

Venus -92642-03-26 04:03 J -32115983.55 -32115983.33 -32115983.10 0.0089 0.0003

Mercury -92642-06-16 16:03 J -32115900.99 -32115900.83 -32115900.65 0.0089 0.0028

Mercury -92642-09-12 19:11 J -32115812.87 -32115812.70 -32115812.53 0.0089 0.0022

Venus -92642-11-06 17:59 J -32115757.96 -32115757.75 -32115757.52 0.0089 0.0016

Mercury -92642-12-09 22:03 J -32115724.75 -32115724.58 -32115724.40 0.0089 0.0016

Mercury -92641-03-07 00:56 J -32115636.63 -32115636.46 -32115636.28 0.0089 0.0011

Mercury -92641-06-03 03:49 J -32115548.51 -32115548.34 -32115548.16 0.0088 0.0006

Venus -92641-06-19 07:54 J -32115532.37 -32115532.17 -32115531.95 0.0088 0.0029

Mercury -92641-08-30 06:42 J -32115460.39 -32115460.22 -32115460.04 0.0088 0.0001

Mercury -92641-11-26 09:35 J -32115372.28 -32115372.10 -32115371.92 0.0088 0.0005

Venus -92640-01-30 21:49 J -32115306.78 -32115306.59 -32115306.38 0.0088 0.0043

Mercury -92640-02-22 12:13 J -32115284.16 -32115283.99 -32115283.81 0.0088 0.0011

Mercury -92640-05-21 15:06 J -32115196.04 -32115195.87 -32115195.69 0.0088 0.0016

Mercury -92640-08-17 17:59 J -32115107.92 -32115107.75 -32115107.58 0.0088 0.0021

Venus -92640-09-13 11:30 J -32115081.18 -32115081.02 -32115080.83 0.0088 0.0056

Mercury -92640-11-13 20:37 J -32115019.80 -32115019.64 -32115019.46 0.0088 0.0026

Mercury -92639-02-09 23:15 J -32114931.68 -32114931.53 -32114931.35 0.0088 0.0032

Venus -92639-04-27 01:25 J -32114855.55 -32114855.44 -32114855.28 0.0088 0.0070

Mercury -92639-05-09 02:08 J -32114843.56 -32114843.41 -32114843.24 0.0088 0.0037

Mercury -92639-08-05 05:01 J -32114755.44 -32114755.29 -32114755.13 0.0088 0.0042

Mercury -92639-11-01 07:39 J -32114667.32 -32114667.18 -32114667.03 0.0088 0.0047

Venus -92639-12-08 15:35 J -32114629.92 -32114629.85 -32114629.76 0.0088 0.0083

Mercury -92638-01-28 10:32 J -32114579.20 -32114579.06 -32114578.92 0.0088 0.0052

Mercury -92638-04-26 13:11 J -32114491.08 -32114490.95 -32114490.81 0.0088 0.0057

Mercury -92638-07-23 16:03 J -32114402.96 -32114402.83 -32114402.71 0.0088 0.0062

Mercury -92638-10-19 18:42 J -32114314.83 -32114314.72 -32114314.61 0.0088 0.0067

Mercury -92637-01-15 21:20 J -32114226.71 -32114226.61 -32114226.51 0.0088 0.0072

Mercury -92637-04-12 23:59 J -32114138.58 -32114138.50 -32114138.42 0.0088 0.0077

Mercury -92637-07-10 02:37 J -32114050.45 -32114050.39 -32114050.33 0.0088 0.0082

Mercury -92637-10-06 05:15 J -32113962.31 -32113962.28 -32113962.25 0.0088 0.0087

Jupiter -92631-08-29 05:15 J -32111809.80 -32111809.28 -32111808.72 0.0088 0.0008

Moon -92614-09-10 08:23 J -32105588.33 -32105588.15 -32105587.93 0.0088 0.0058

Earth -92614-09-10 11:59 J -32105588.17 -32105588.00 -32105587.80 0.0088 0.0062 *

Earth -92613-09-11 23:30 J -32105220.76 -32105220.52 -32105220.27 0.0088 0.0032

Moon -92613-09-12 03:06 J -32105220.59 -32105220.37 -32105220.12 0.0088 0.0036 *

Moon -92612-09-14 07:54 J -32104853.42 -32104853.17 -32104852.92 0.0088 0.0002

Earth -92612-09-14 10:47 J -32104853.31 -32104853.05 -32104852.79 0.0088 0.0002 *

Earth -92611-09-16 21:35 J -32104485.84 -32104485.60 -32104485.35 0.0088 0.0028

Moon -92611-09-17 00:13 J -32104485.74 -32104485.49 -32104485.24 0.0088 0.0024 *

Moon -92610-09-19 07:11 J -32104118.36 -32104118.20 -32104118.01 0.0088 0.0062

Earth -92610-09-19 08:08 J -32104118.33 -32104118.16 -32104117.94 0.0088 0.0058 *

Moon -92609-09-20 18:27 J -32103750.80 -32103750.73 -32103750.61 0.0088 0.0082

Earth -92609-09-20 18:56 J -32103750.74 -32103750.71 -32103750.64 0.0088 0.0087 *

Mars -92601-04-04 06:42 J -32100998.45 -32100998.22 -32100997.94 0.0088 0.0044

Mars -92599-02-27 01:11 J -32100304.71 -32100304.45 -32100304.15 0.0088 0.0028

Venus -92564-08-24 10:18 J -32087342.11 -32087342.07 -32087342.01 0.0089 0.0086

Venus -92563-04-06 21:49 J -32087116.68 -32087116.59 -32087116.45 0.0089 0.0074

Mercury -92563-07-18 23:59 J -32087013.52 -32087013.50 -32087013.45 0.0089 0.0086

Mercury -92563-10-15 01:39 J -32086925.47 -32086925.43 -32086925.37 0.0089 0.0082
 Venus -92563-11-18 10:03 J -32086891.22 -32086891.08 -32086890.91 0.0089 0.0061
 Mercury -92562-01-11 03:06 J -32086837.42 -32086837.37 -32086837.29 0.0089 0.0078
 Mercury -92562-04-09 04:47 J -32086749.37 -32086749.30 -32086749.21 0.0089 0.0074
 Venus -92562-07-01 22:03 J -32086665.75 -32086665.58 -32086665.39 0.0089 0.0048
 Mercury -92562-07-06 06:13 J -32086661.31 -32086661.24 -32086661.14 0.0089 0.0070
 Mercury -92562-10-02 08:08 J -32086573.25 -32086573.16 -32086573.07 0.0089 0.0065
 Mercury -92562-12-29 09:35 J -32086485.20 -32086485.10 -32086484.99 0.0089 0.0061
 Venus -92561-02-12 10:03 J -32086440.27 -32086440.08 -32086439.88 0.0089 0.0035
 Mercury -92561-03-26 11:01 J -32086397.14 -32086397.04 -32086396.92 0.0089 0.0057
 Mercury -92561-06-22 12:42 J -32086309.08 -32086308.97 -32086308.85 0.0089 0.0053
 Mercury -92561-09-18 14:08 J -32086221.01 -32086220.91 -32086220.78 0.0089 0.0049
 Venus -92561-09-24 22:03 J -32086214.78 -32086214.58 -32086214.36 0.0089 0.0022
 Mercury -92561-12-15 16:03 J -32086132.95 -32086132.83 -32086132.71 0.0089 0.0044
 Mercury -92560-03-13 17:30 J -32086044.89 -32086044.77 -32086044.64 0.0089 0.0040
 Venus -92560-05-08 10:18 J -32085989.29 -32085989.07 -32085988.86 0.0089 0.0009
 Mercury -92560-06-09 19:11 J -32085956.83 -32085956.70 -32085956.57 0.0089 0.0036
 Mercury -92560-09-05 20:37 J -32085868.76 -32085868.64 -32085868.50 0.0089 0.0032
 Mercury -92560-12-02 22:32 J -32085780.70 -32085780.56 -32085780.43 0.0089 0.0027
 Venus -92560-12-19 22:18 J -32085763.79 -32085763.57 -32085763.36 0.0089 0.0004
 Mercury -92559-02-28 23:59 J -32085692.63 -32085692.50 -32085692.36 0.0089 0.0023
 Mercury -92559-05-28 01:39 J -32085604.57 -32085604.43 -32085604.29 0.0089 0.0019
 Venus -92559-08-02 10:03 J -32085538.29 -32085538.08 -32085537.86 0.0089 0.0017
 Mercury -92559-08-24 03:20 J -32085516.50 -32085516.36 -32085516.22 0.0089 0.0014
 Mercury -92559-11-20 05:01 J -32085428.43 -32085428.29 -32085428.15 0.0089 0.0010
 Mercury -92558-02-16 06:42 J -32085340.36 -32085340.22 -32085340.08 0.0089 0.0006
 Venus -92558-03-15 22:03 J -32085312.78 -32085312.58 -32085312.37 0.0089 0.0030
 Mercury -92558-05-15 08:23 J -32085252.30 -32085252.15 -32085252.01 0.0089 0.0002
 Mercury -92558-08-11 10:03 J -32085164.23 -32085164.08 -32085163.94 0.0089 0.0003
 Venus -92558-10-27 10:03 J -32085087.25 -32085087.08 -32085086.88 0.0089 0.0043

Mercury -92558-11-07 11:44 J -32085076.16 -32085076.01 -32085075.87 0.0089 0.0008
 Mercury -92557-02-03 13:25 J -32084988.08 -32084987.94 -32084987.80 0.0089 0.0012
 Mercury -92557-05-01 14:51 J -32084900.01 -32084899.88 -32084899.73 0.0089 0.0017
 Venus -92557-06-08 22:03 J -32084861.73 -32084861.58 -32084861.40 0.0089 0.0056
 Mercury -92557-07-28 16:47 J -32084811.94 -32084811.80 -32084811.66 0.0089 0.0021
 Mercury -92557-10-24 18:27 J -32084723.87 -32084723.73 -32084723.59 0.0089 0.0025
 Venus -92556-01-20 10:03 J -32084636.20 -32084636.08 -32084635.93 0.0089 0.0069
 Mercury -92556-01-20 20:08 J -32084635.79 -32084635.66 -32084635.52 0.0089 0.0030
 Mercury -92556-04-18 21:49 J -32084547.72 -32084547.59 -32084547.45 0.0089 0.0034
 Mercury -92556-07-15 23:30 J -32084459.64 -32084459.52 -32084459.38 0.0089 0.0039
 Venus -92556-09-02 22:03 J -32084410.64 -32084410.58 -32084410.47 0.0089 0.0082
 Mercury -92556-10-12 01:25 J -32084371.57 -32084371.44 -32084371.32 0.0089 0.0043
 Mercury -92555-01-08 02:51 J -32084283.49 -32084283.38 -32084283.25 0.0089 0.0048
 Mercury -92555-04-06 04:47 J -32084195.41 -32084195.30 -32084195.18 0.0089 0.0052
 Mercury -92555-07-03 06:27 J -32084107.33 -32084107.23 -32084107.11 0.0089 0.0057
 Mercury -92555-09-29 08:23 J -32084019.25 -32084019.15 -32084019.04 0.0089 0.0061
 Mercury -92555-12-26 10:03 J -32083931.17 -32083931.08 -32083930.98 0.0089 0.0066
 Mercury -92554-03-24 11:59 J -32083843.09 -32083843.00 -32083842.91 0.0089 0.0070
 Mercury -92554-06-20 13:39 J -32083755.00 -32083754.93 -32083754.85 0.0089 0.0075
 Mercury -92554-09-16 15:06 J -32083666.91 -32083666.87 -32083666.79 0.0089 0.0080
 Mercury -92554-12-13 17:15 J -32083578.82 -32083578.78 -32083578.73 0.0089 0.0084
 Mercury -92553-03-10 18:56 J -32083490.71 -32083490.71 -32083490.69 0.0089 0.0089
 Earth -92532-03-01 01:11 J -32075830.48 -32075830.45 -32075830.39 0.0089 0.0087
 Moon -92532-03-01 02:08 J -32075830.46 -32075830.41 -32075830.30 0.0089 0.0084 *
 Moon -92531-03-03 10:18 J -32075463.24 -32075463.07 -32075462.86 0.0089 0.0061
 Earth -92531-03-03 12:42 J -32075463.15 -32075462.97 -32075462.76 0.0089 0.0057 *
 Earth -92530-03-06 00:27 J -32075095.72 -32075095.48 -32075095.23 0.0089 0.0027
 Moon -92530-03-06 03:49 J -32075095.58 -32075095.34 -32075095.09 0.0089 0.0023 *
 Moon -92529-03-07 09:06 J -32074728.37 -32074728.12 -32074727.86 0.0089 0.0002
 Earth -92529-03-07 12:42 J -32074728.23 -32074727.97 -32074727.71 0.0089 0.0003 *

Earth -92528-03-10 00:13 J -32074360.71 -32074360.49 -32074360.23 0.0089 0.0034
 Moon -92528-03-10 04:18 J -32074360.55 -32074360.32 -32074360.08 0.0089 0.0037 *
 Moon -92527-03-12 09:49 J -32073993.27 -32073993.09 -32073992.90 0.0089 0.0060
 Earth -92527-03-12 12:27 J -32073993.14 -32073992.98 -32073992.79 0.0089 0.0064 *
 Mars -92519-02-20 22:03 J -32071090.79 -32071090.58 -32071090.31 0.0089 0.0062
 Mars -92517-01-18 02:08 J -32070394.72 -32070394.41 -32070394.07 0.0089 0.0023
 Venus -92482-10-12 23:44 J -32057342.58 -32057342.51 -32057342.44 0.0089 0.0084
 Venus -92481-05-25 13:25 J -32057117.05 -32057116.94 -32057116.78 0.0089 0.0071
 Venus -92480-01-06 03:49 J -32056891.50 -32056891.34 -32056891.16 0.0089 0.0057
 Mercury -92480-07-17 05:15 J -32056699.30 -32056699.28 -32056699.23 0.0089 0.0087
 Venus -92480-08-19 17:44 J -32056665.94 -32056665.76 -32056665.55 0.0089 0.0044
 Mercury -92480-10-13 08:37 J -32056611.20 -32056611.14 -32056611.06 0.0089 0.0081
 Mercury -92479-01-09 11:30 J -32056523.10 -32056523.02 -32056522.91 0.0089 0.0076
 Venus -92479-04-02 08:08 J -32056440.37 -32056440.16 -32056439.94 0.0089 0.0030
 Mercury -92479-04-07 14:37 J -32056434.99 -32056434.89 -32056434.77 0.0089 0.0070
 Mercury -92479-07-04 17:30 J -32056346.88 -32056346.77 -32056346.63 0.0089 0.0065
 Mercury -92479-09-30 20:37 J -32056258.76 -32056258.64 -32056258.50 0.0089 0.0059
 Venus -92479-11-13 22:18 J -32056214.79 -32056214.57 -32056214.34 0.0089 0.0016
 Mercury -92479-12-27 23:30 J -32056170.65 -32056170.52 -32056170.36 0.0089 0.0054
 Mercury -92478-03-26 02:37 J -32056082.53 -32056082.39 -32056082.23 0.0089 0.0048
 Mercury -92478-06-22 05:30 J -32055994.42 -32055994.27 -32055994.10 0.0089 0.0043
 Venus -92478-06-27 12:27 J -32055989.21 -32055988.98 -32055988.76 0.0089 0.0003
 Mercury -92478-09-18 08:37 J -32055906.30 -32055906.14 -32055905.97 0.0089 0.0037
 Mercury -92478-12-15 11:30 J -32055818.18 -32055818.02 -32055817.85 0.0089 0.0032
 Venus -92477-02-08 02:08 J -32055763.63 -32055763.41 -32055763.18 0.0089 0.0012
 Mercury -92477-03-12 14:37 J -32055730.06 -32055729.89 -32055729.72 0.0089 0.0026
 Mercury -92477-06-08 17:30 J -32055641.94 -32055641.77 -32055641.60 0.0089 0.0021
 Mercury -92477-09-04 20:23 J -32055553.82 -32055553.65 -32055553.47 0.0089 0.0015
 Venus -92477-09-20 16:18 J -32055538.03 -32055537.82 -32055537.60 0.0089 0.0025
 Mercury -92477-12-01 23:15 J -32055465.70 -32055465.53 -32055465.35 0.0089 0.0010

Mercury -92476-02-28 02:08 J -32055377.58 -32055377.41 -32055377.23 0.0089 0.0004

Venus -92476-05-04 06:13 J -32055312.43 -32055312.24 -32055312.02 0.0089 0.0039

Mercury -92476-05-27 05:01 J -32055289.47 -32055289.29 -32055289.11 0.0089 0.0001

Mercury -92476-08-23 07:54 J -32055201.35 -32055201.17 -32055200.99 0.0089 0.0006

Mercury -92476-11-19 10:47 J -32055113.23 -32055113.05 -32055112.88 0.0088 0.0012

Venus -92476-12-15 20:23 J -32055086.83 -32055086.65 -32055086.46 0.0088 0.0052

Mercury -92475-02-15 13:39 J -32055025.11 -32055024.93 -32055024.76 0.0088 0.0017

Mercury -92475-05-14 16:18 J -32054936.99 -32054936.82 -32054936.65 0.0088 0.0022

Venus -92475-07-29 09:49 J -32054861.22 -32054861.09 -32054860.92 0.0088 0.0066

Mercury -92475-08-10 18:56 J -32054848.87 -32054848.71 -32054848.53 0.0088 0.0028

Mercury -92475-11-06 21:49 J -32054760.75 -32054760.59 -32054760.42 0.0088 0.0033

Mercury -92474-02-03 00:42 J -32054672.62 -32054672.47 -32054672.31 0.0088 0.0038

Venus -92474-03-11 23:59 J -32054635.59 -32054635.50 -32054635.39 0.0088 0.0079

Mercury -92474-05-02 03:06 J -32054584.50 -32054584.37 -32054584.20 0.0088 0.0044

Mercury -92474-07-29 05:59 J -32054496.38 -32054496.25 -32054496.09 0.0088 0.0048

Mercury -92474-10-25 08:37 J -32054408.26 -32054408.14 -32054407.99 0.0088 0.0054

Mercury -92473-01-21 11:30 J -32054320.14 -32054320.02 -32054319.88 0.0088 0.0059

Mercury -92473-04-18 14:08 J -32054232.02 -32054231.91 -32054231.78 0.0088 0.0064

Mercury -92473-07-15 16:47 J -32054143.89 -32054143.80 -32054143.68 0.0088 0.0069

Mercury -92473-10-11 19:25 J -32054055.77 -32054055.69 -32054055.58 0.0088 0.0074

Mercury -92472-01-07 22:03 J -32053967.64 -32053967.58 -32053967.49 0.0088 0.0079

Mercury -92472-04-06 00:42 J -32053879.51 -32053879.47 -32053879.40 0.0088 0.0084

Mercury -92472-07-03 03:35 J -32053791.35 -32053791.35 -32053791.34 0.0088 0.0088

Jupiter -92465-10-28 20:37 J -32051116.92 -32051116.64 -32051116.24 0.0088 0.0069

Earth -92450-09-09 19:11 J -32045687.82 -32045687.70 -32045687.56 0.0088 0.0077

Moon -92450-09-09 22:03 J -32045687.68 -32045687.58 -32045687.43 0.0088 0.0078 *

Moon -92449-09-11 03:49 J -32045320.54 -32045320.34 -32045320.11 0.0088 0.0046

Earth -92449-09-11 06:56 J -32045320.43 -32045320.21 -32045319.99 0.0088 0.0047 *

Earth -92448-09-13 17:59 J -32044952.99 -32044952.75 -32044952.48 0.0088 0.0018

Moon -92448-09-13 19:54 J -32044952.93 -32044952.67 -32044952.41 0.0088 0.0018 *

Moon -92447-09-16 05:01 J -32044585.53 -32044585.29 -32044585.04 0.0088 0.0014
 Earth -92447-09-16 05:30 J -32044585.52 -32044585.27 -32044585.01 0.0088 0.0013 *
 Moon -92446-09-18 16:03 J -32044218.07 -32044217.83 -32044217.59 0.0088 0.0041
 Earth -92446-09-18 16:03 J -32044218.03 -32044217.83 -32044217.58 0.0088 0.0043 *
 Earth -92445-09-20 03:06 J -32043850.51 -32043850.37 -32043850.21 0.0088 0.0072
 Moon -92445-09-20 05:15 J -32043850.41 -32043850.28 -32043850.13 0.0088 0.0073 *
 Mars -92438-11-18 15:06 J -32041234.99 -32041234.87 -32041234.69 0.0088 0.0076
 Mars -92436-10-12 07:54 J -32040541.46 -32040541.17 -32040540.87 0.0088 0.0005
 Mars -92434-09-06 01:39 J -32039847.59 -32039847.43 -32039847.20 0.0088 0.0067
 Venus -92399-07-09 08:37 J -32027122.23 -32027122.14 -32027122.02 0.0089 0.0078
 Mercury -92398-01-16 22:03 J -32026930.58 -32026930.58 -32026930.58 0.0089 0.0089
 Venus -92398-02-19 20:37 J -32026896.77 -32026896.64 -32026896.49 0.0089 0.0065
 Mercury -92398-04-14 23:15 J -32026842.56 -32026842.53 -32026842.48 0.0089 0.0085
 Mercury -92398-07-12 00:56 J -32026754.51 -32026754.46 -32026754.40 0.0089 0.0081
 Venus -92398-10-03 08:51 J -32026671.30 -32026671.13 -32026670.96 0.0089 0.0052
 Mercury -92398-10-08 02:23 J -32026666.46 -32026666.40 -32026666.32 0.0089 0.0077
 Mercury -92397-01-04 04:18 J -32026578.40 -32026578.32 -32026578.24 0.0089 0.0072
 Mercury -92397-04-01 05:44 J -32026490.35 -32026490.26 -32026490.17 0.0089 0.0068
 Venus -92397-05-15 20:51 J -32026445.82 -32026445.63 -32026445.44 0.0089 0.0039
 Mercury -92397-06-28 07:11 J -32026402.29 -32026402.20 -32026402.10 0.0089 0.0064
 Mercury -92397-09-24 08:51 J -32026314.23 -32026314.13 -32026314.02 0.0089 0.0060
 Mercury -92397-12-21 10:18 J -32026226.17 -32026226.07 -32026225.95 0.0089 0.0056
 Venus -92397-12-27 08:23 J -32026220.34 -32026220.15 -32026219.93 0.0089 0.0027
 Mercury -92396-03-19 11:44 J -32026138.11 -32026138.01 -32026137.88 0.0089 0.0052
 Mercury -92396-06-15 13:39 J -32026050.05 -32026049.93 -32026049.81 0.0089 0.0047
 Venus -92396-08-09 20:23 J -32025994.85 -32025994.65 -32025994.43 0.0089 0.0014
 Mercury -92396-09-11 15:06 J -32025961.99 -32025961.87 -32025961.74 0.0089 0.0043
 Mercury -92396-12-08 16:47 J -32025873.92 -32025873.80 -32025873.67 0.0089 0.0039
 Mercury -92395-03-06 18:13 J -32025785.86 -32025785.74 -32025785.60 0.0089 0.0035
 Venus -92395-03-23 08:37 J -32025769.35 -32025769.14 -32025768.93 0.0089 0.0000

Mercury -92395-06-02 19:54 J -32025697.80 -32025697.67 -32025697.53 0.0089 0.0031

Mercury -92395-08-29 21:35 J -32025609.73 -32025609.60 -32025609.46 0.0089 0.0026

Venus -92395-11-03 20:37 J -32025543.85 -32025543.64 -32025543.42 0.0089 0.0013

Mercury -92395-11-25 23:15 J -32025521.67 -32025521.53 -32025521.39 0.0089 0.0022

Mercury -92394-02-22 00:56 J -32025433.60 -32025433.46 -32025433.32 0.0089 0.0017

Mercury -92394-05-21 02:37 J -32025345.53 -32025345.39 -32025345.25 0.0089 0.0013

Venus -92394-06-17 08:23 J -32025318.34 -32025318.15 -32025317.93 0.0089 0.0026

Mercury -92394-08-17 04:18 J -32025257.47 -32025257.32 -32025257.18 0.0089 0.0009

Mercury -92394-11-13 05:44 J -32025169.40 -32025169.26 -32025169.11 0.0089 0.0005

Venus -92393-01-28 20:23 J -32025092.83 -32025092.65 -32025092.45 0.0089 0.0039

Mercury -92393-02-09 07:25 J -32025081.33 -32025081.19 -32025081.04 0.0089 0.0002

Mercury -92393-05-07 09:06 J -32024993.26 -32024993.12 -32024992.97 0.0089 0.0005

Mercury -92393-08-03 10:47 J -32024905.19 -32024905.05 -32024904.91 0.0089 0.0009

Venus -92393-09-10 08:23 J -32024867.31 -32024867.15 -32024866.96 0.0089 0.0052

Mercury -92393-10-30 12:27 J -32024817.12 -32024816.98 -32024816.84 0.0089 0.0013

Mercury -92392-01-26 14:08 J -32024729.05 -32024728.91 -32024728.77 0.0089 0.0018

Venus -92392-04-23 20:23 J -32024641.78 -32024641.65 -32024641.49 0.0089 0.0065

Mercury -92392-04-24 15:49 J -32024640.98 -32024640.84 -32024640.70 0.0089 0.0022

Mercury -92392-07-21 17:30 J -32024552.90 -32024552.77 -32024552.63 0.0089 0.0026

Mercury -92392-10-17 19:11 J -32024464.83 -32024464.70 -32024464.56 0.0089 0.0031

Venus -92392-12-05 08:23 J -32024416.23 -32024416.15 -32024416.02 0.0089 0.0078

Mercury -92391-01-13 20:51 J -32024376.76 -32024376.63 -32024376.49 0.0089 0.0035

Mercury -92391-04-11 22:32 J -32024288.68 -32024288.56 -32024288.42 0.0089 0.0040

Mercury -92391-07-09 00:27 J -32024200.61 -32024200.48 -32024200.35 0.0089 0.0044

Mercury -92391-10-05 01:54 J -32024112.53 -32024112.42 -32024112.29 0.0089 0.0049

Mercury -92390-01-01 03:49 J -32024024.45 -32024024.34 -32024024.22 0.0089 0.0053

Mercury -92390-03-30 05:30 J -32023936.37 -32023936.27 -32023936.15 0.0089 0.0058

Mercury -92390-06-26 07:25 J -32023848.29 -32023848.19 -32023848.09 0.0089 0.0062

Mercury -92390-09-22 09:06 J -32023760.21 -32023760.12 -32023760.02 0.0089 0.0067

Mercury -92390-12-19 10:32 J -32023672.13 -32023672.06 -32023671.96 0.0089 0.0072

Mercury -92389-03-16 12:42 J -32023584.04 -32023583.97 -32023583.89 0.0089 0.0076
 Mercury -92389-06-12 14:08 J -32023495.95 -32023495.91 -32023495.83 0.0089 0.0081
 Mercury -92389-09-08 16:18 J -32023407.85 -32023407.82 -32023407.78 0.0089 0.0085
 Earth -92367-03-02 19:54 J -32015562.79 -32015562.67 -32015562.50 0.0089 0.0073
 Moon -92367-03-02 23:30 J -32015562.66 -32015562.52 -32015562.36 0.0089 0.0070 *
 Moon -92366-03-05 03:49 J -32015195.55 -32015195.34 -32015195.10 0.0089 0.0045
 Earth -92366-03-05 07:25 J -32015195.39 -32015195.19 -32015194.94 0.0089 0.0043 *
 Earth -92365-03-06 19:11 J -32014827.94 -32014827.70 -32014827.43 0.0089 0.0013
 Moon -92365-03-06 22:18 J -32014827.82 -32014827.57 -32014827.30 0.0089 0.0011 *
 Moon -92364-03-09 04:32 J -32014460.55 -32014460.31 -32014460.06 0.0089 0.0015
 Earth -92364-03-09 06:56 J -32014460.45 -32014460.21 -32014459.94 0.0089 0.0018 *
 Earth -92363-03-11 18:56 J -32014092.91 -32014092.71 -32014092.48 0.0089 0.0048
 Moon -92363-03-11 20:51 J -32014092.85 -32014092.63 -32014092.41 0.0089 0.0050 *
 Moon -92362-03-14 06:42 J -32013725.32 -32013725.22 -32013725.07 0.0089 0.0077
 Earth -92362-03-14 07:25 J -32013725.31 -32013725.19 -32013725.07 0.0089 0.0078 *
 Mars -92354-08-31 11:44 J -32010633.33 -32010633.01 -32010632.66 0.0089 0.0017
 Mars -92352-07-27 14:37 J -32009937.08 -32009936.89 -32009936.65 0.0089 0.0068
 Venus -92317-08-26 21:06 J -31997122.73 -31997122.62 -31997122.50 0.0089 0.0076
 Venus -92316-04-09 11:01 J -31996897.18 -31996897.04 -31996896.86 0.0089 0.0063
 Venus -92316-11-21 01:25 J -31996671.62 -31996671.44 -31996671.24 0.0089 0.0049
 Mercury -92315-04-13 03:20 J -31996528.39 -31996528.36 -31996528.31 0.0089 0.0086
 Venus -92315-07-04 15:35 J -31996446.05 -31996445.85 -31996445.64 0.0089 0.0035
 Mercury -92315-07-10 06:13 J -31996440.30 -31996440.24 -31996440.15 0.0089 0.0081
 Mercury -92315-10-06 09:20 J -31996352.19 -31996352.11 -31996352.00 0.0089 0.0075
 Mercury -92314-01-02 12:13 J -31996264.08 -31996263.99 -31996263.86 0.0089 0.0070
 Venus -92314-02-15 05:30 J -31996220.48 -31996220.27 -31996220.04 0.0089 0.0022
 Mercury -92314-03-31 15:35 J -31996175.97 -31996175.85 -31996175.72 0.0089 0.0064
 Mercury -92314-06-27 18:13 J -31996087.85 -31996087.74 -31996087.58 0.0089 0.0059
 Mercury -92314-09-23 21:35 J -31995999.74 -31995999.60 -31995999.45 0.0089 0.0053
 Venus -92314-09-28 19:39 J -31995994.90 -31995994.68 -31995994.45 0.0089 0.0008

Mercury -92314-12-21 00:13 J -31995911.62 -31995911.49 -31995911.32 0.0089 0.0048

Mercury -92313-03-18 03:35 J -31995823.50 -31995823.35 -31995823.19 0.0089 0.0042

Venus -92313-05-11 09:49 J -31995769.31 -31995769.09 -31995768.86 0.0089 0.0006

Mercury -92313-06-14 06:27 J -31995735.39 -31995735.23 -31995735.06 0.0089 0.0036

Mercury -92313-09-10 09:35 J -31995647.27 -31995647.10 -31995646.93 0.0089 0.0031

Mercury -92313-12-07 12:13 J -31995559.15 -31995558.99 -31995558.81 0.0088 0.0026

Venus -92313-12-22 23:59 J -31995543.72 -31995543.50 -31995543.28 0.0088 0.0020

Mercury -92312-03-05 15:20 J -31995471.03 -31995470.86 -31995470.68 0.0088 0.0020

Mercury -92312-06-01 18:13 J -31995382.91 -31995382.74 -31995382.56 0.0088 0.0015

Venus -92312-08-05 13:39 J -31995318.13 -31995317.93 -31995317.71 0.0088 0.0034

Mercury -92312-08-28 21:06 J -31995294.79 -31995294.62 -31995294.44 0.0088 0.0010

Mercury -92312-11-25 00:13 J -31995206.67 -31995206.49 -31995206.32 0.0088 0.0004

Mercury -92311-02-21 03:06 J -31995118.55 -31995118.37 -31995118.20 0.0088 0.0002

Venus -92311-03-19 03:35 J -31995092.52 -31995092.35 -31995092.14 0.0088 0.0047

Mercury -92311-05-20 05:44 J -31995030.43 -31995030.26 -31995030.08 0.0088 0.0008

Mercury -92311-08-16 08:37 J -31994942.31 -31994942.14 -31994941.96 0.0088 0.0013

Venus -92311-10-30 17:44 J -31994866.91 -31994866.76 -31994866.59 0.0088 0.0061

Mercury -92311-11-12 11:30 J -31994854.19 -31994854.02 -31994853.84 0.0088 0.0018

Mercury -92310-02-08 14:08 J -31994766.07 -31994765.91 -31994765.73 0.0088 0.0024

Mercury -92310-05-07 17:01 J -31994677.95 -31994677.79 -31994677.61 0.0088 0.0029

Venus -92310-06-13 07:25 J -31994641.29 -31994641.19 -31994641.05 0.0088 0.0075

Mercury -92310-08-03 19:54 J -31994589.82 -31994589.67 -31994589.50 0.0088 0.0034

Mercury -92310-10-30 22:47 J -31994501.70 -31994501.55 -31994501.39 0.0088 0.0039

Venus -92309-01-24 21:20 J -31994415.62 -31994415.61 -31994415.56 0.0088 0.0088

Mercury -92309-01-27 01:39 J -31994413.58 -31994413.43 -31994413.28 0.0088 0.0044

Mercury -92309-04-24 04:03 J -31994325.46 -31994325.33 -31994325.17 0.0088 0.0050

Mercury -92309-07-21 06:56 J -31994237.34 -31994237.21 -31994237.07 0.0088 0.0054

Mercury -92309-10-17 09:35 J -31994149.21 -31994149.10 -31994148.96 0.0088 0.0060

Mercury -92308-01-13 12:13 J -31994061.09 -31994060.99 -31994060.86 0.0088 0.0065

Mercury -92308-04-11 15:06 J -31993972.97 -31993972.87 -31993972.76 0.0088 0.0070

Mercury -92308-07-08 17:44 J -31993884.84 -31993884.76 -31993884.66 0.0088 0.0075

Mercury -92308-10-04 20:23 J -31993796.71 -31993796.65 -31993796.56 0.0088 0.0080

Mercury -92308-12-31 23:01 J -31993708.57 -31993708.54 -31993708.48 0.0088 0.0085

Earth -92285-09-10 12:13 J -31985420.16 -31985419.99 -31985419.80 0.0088 0.0063

Moon -92285-09-10 13:11 J -31985420.13 -31985419.95 -31985419.73 0.0088 0.0059 *

Earth -92284-09-13 00:13 J -31985052.73 -31985052.49 -31985052.25 0.0088 0.0033

Moon -92284-09-12 23:59 J -31985052.71 -31985052.50 -31985052.26 0.0088 0.0038 *

Moon -92283-09-15 09:49 J -31984685.36 -31984685.09 -31984684.82 0.0088 0.0001

Earth -92283-09-15 11:44 J -31984685.27 -31984685.01 -31984684.75 0.0088 0.0003 *

Earth -92282-09-17 22:47 J -31984317.79 -31984317.55 -31984317.30 0.0088 0.0027

Moon -92282-09-18 01:11 J -31984317.69 -31984317.45 -31984317.20 0.0088 0.0022 *

Moon -92281-09-19 06:13 J -31983950.41 -31983950.24 -31983950.04 0.0088 0.0061

Earth -92281-09-19 09:20 J -31983950.28 -31983950.11 -31983949.89 0.0088 0.0056 *

Earth -92280-09-21 20:08 J -31983582.70 -31983582.66 -31983582.57 0.0088 0.0086

Moon -92280-09-21 23:59 J -31983582.58 -31983582.50 -31983582.38 0.0088 0.0081 *

Mars -92272-05-27 13:54 J -31980778.16 -31980777.92 -31980777.64 0.0088 0.0039

Mars -92270-04-21 05:59 J -31980084.50 -31980084.25 -31980083.96 0.0088 0.0033

Venus -92235-10-10 18:42 J -31967127.78 -31967127.72 -31967127.63 0.0089 0.0083

Venus -92234-05-24 06:56 J -31966902.33 -31966902.21 -31966902.07 0.0089 0.0070

Mercury -92234-10-13 20:51 J -31966759.63 -31966759.63 -31966759.60 0.0089 0.0088

Venus -92233-01-04 18:42 J -31966676.87 -31966676.72 -31966676.55 0.0089 0.0057

Mercury -92233-01-09 22:32 J -31966671.59 -31966671.56 -31966671.51 0.0089 0.0084

Mercury -92233-04-06 23:59 J -31966583.55 -31966583.50 -31966583.43 0.0089 0.0080

Mercury -92233-07-04 01:25 J -31966495.49 -31966495.44 -31966495.35 0.0089 0.0076

Venus -92233-08-17 06:42 J -31966451.40 -31966451.22 -31966451.03 0.0089 0.0044

Mercury -92233-09-30 03:06 J -31966407.44 -31966407.37 -31966407.28 0.0089 0.0072

Mercury -92233-12-27 05:01 J -31966319.38 -31966319.29 -31966319.20 0.0089 0.0067

Mercury -92232-03-25 06:27 J -31966231.33 -31966231.23 -31966231.13 0.0089 0.0063

Venus -92232-03-30 18:42 J -31966225.91 -31966225.72 -31966225.51 0.0089 0.0031

Mercury -92232-06-21 07:54 J -31966143.27 -31966143.17 -31966143.06 0.0089 0.0059

Mercury -92232-09-17 09:20 J -31966055.21 -31966055.11 -31966054.99 0.0089 0.0055

Venus -92232-11-11 06:56 J -31966000.42 -31966000.21 -31966000.00 0.0089 0.0018

Mercury -92232-12-14 11:01 J -31965967.15 -31965967.04 -31965966.92 0.0089 0.0051

Mercury -92231-03-12 12:27 J -31965879.08 -31965878.98 -31965878.85 0.0089 0.0047

Mercury -92231-06-08 14:23 J -31965791.02 -31965790.90 -31965790.78 0.0089 0.0042

Venus -92231-06-24 18:56 J -31965774.93 -31965774.71 -31965774.50 0.0089 0.0005

Mercury -92231-09-04 15:49 J -31965702.96 -31965702.84 -31965702.71 0.0089 0.0038

Mercury -92231-12-01 17:30 J -31965614.90 -31965614.77 -31965614.64 0.0089 0.0034

Venus -92230-02-05 06:42 J -31965549.43 -31965549.22 -31965549.00 0.0089 0.0008

Mercury -92230-02-27 19:11 J -31965526.83 -31965526.70 -31965526.57 0.0089 0.0029

Mercury -92230-05-26 20:51 J -31965438.77 -31965438.63 -31965438.50 0.0089 0.0025

Mercury -92230-08-22 22:18 J -31965350.70 -31965350.57 -31965350.43 0.0089 0.0021

Venus -92230-09-18 18:27 J -31965323.92 -31965323.73 -31965323.51 0.0089 0.0022

Mercury -92230-11-18 23:59 J -31965262.64 -31965262.50 -31965262.36 0.0089 0.0016

Mercury -92229-02-15 01:39 J -31965174.57 -31965174.43 -31965174.29 0.0089 0.0012

Venus -92229-05-01 06:27 J -31965098.41 -31965098.23 -31965098.02 0.0089 0.0035

Mercury -92229-05-13 03:20 J -31965086.50 -31965086.36 -31965086.22 0.0089 0.0008

Mercury -92229-08-09 05:01 J -31964998.44 -31964998.29 -31964998.15 0.0089 0.0004

Mercury -92229-11-05 06:42 J -31964910.37 -31964910.22 -31964910.08 0.0089 0.0003

Venus -92229-12-12 18:27 J -31964872.89 -31964872.73 -31964872.53 0.0089 0.0048

Mercury -92228-02-01 08:08 J -31964822.30 -31964822.16 -31964822.01 0.0089 0.0006

Mercury -92228-04-30 09:49 J -31964734.23 -31964734.09 -31964733.94 0.0089 0.0010

Venus -92228-07-26 06:27 J -31964647.37 -31964647.23 -31964647.06 0.0089 0.0061

Mercury -92228-07-27 11:30 J -31964646.16 -31964646.02 -31964645.87 0.0089 0.0014

Mercury -92228-10-23 13:11 J -31964558.09 -31964557.95 -31964557.81 0.0089 0.0019

Mercury -92227-01-19 14:51 J -31964470.02 -31964469.88 -31964469.74 0.0089 0.0023

Venus -92227-03-08 18:13 J -31964421.83 -31964421.74 -31964421.59 0.0089 0.0074

Mercury -92227-04-17 16:32 J -31964381.94 -31964381.81 -31964381.67 0.0089 0.0027

Mercury -92227-07-14 18:13 J -31964293.87 -31964293.74 -31964293.60 0.0089 0.0032

Mercury -92227-10-10 19:54 J -31964205.80 -31964205.67 -31964205.53 0.0089 0.0036

Venus -92227-10-20 06:27 J -31964196.25 -31964196.23 -31964196.16 0.0089 0.0087
 Mercury -92226-01-06 21:35 J -31964117.72 -31964117.60 -31964117.47 0.0089 0.0041
 Mercury -92226-04-04 23:30 J -31964029.65 -31964029.52 -31964029.40 0.0089 0.0045
 Mercury -92226-07-02 00:56 J -31963941.57 -31963941.46 -31963941.33 0.0089 0.0050
 Mercury -92226-09-28 02:51 J -31963853.49 -31963853.38 -31963853.26 0.0089 0.0054
 Mercury -92226-12-25 04:32 J -31963765.41 -31963765.31 -31963765.20 0.0089 0.0059
 Mercury -92225-03-22 06:27 J -31963677.33 -31963677.23 -31963677.13 0.0089 0.0063
 Mercury -92225-06-18 07:54 J -31963589.25 -31963589.17 -31963589.07 0.0089 0.0068
 Mercury -92225-09-14 09:35 J -31963501.17 -31963501.10 -31963501.00 0.0089 0.0073
 Mercury -92225-12-11 11:30 J -31963413.08 -31963413.02 -31963412.94 0.0089 0.0077
 Mercury -92224-03-09 13:11 J -31963324.99 -31963324.95 -31963324.88 0.0089 0.0082
 Mercury -92224-06-05 15:06 J -31963236.90 -31963236.87 -31963236.83 0.0089 0.0086
 Moon -92203-03-01 23:44 J -31955662.56 -31955662.51 -31955662.40 0.0089 0.0084
 Earth -92203-03-02 03:06 J -31955662.38 -31955662.37 -31955662.31 0.0089 0.0088
 Earth -92202-03-04 14:37 J -31955295.07 -31955294.89 -31955294.69 0.0089 0.0058
 Moon -92202-03-04 17:44 J -31955294.93 -31955294.76 -31955294.56 0.0089 0.0062 *
 Moon -92201-03-06 00:27 J -31954927.72 -31954927.48 -31954927.24 0.0089 0.0024
 Earth -92201-03-06 01:54 J -31954927.65 -31954927.42 -31954927.16 0.0089 0.0029 *
 Earth -92200-03-08 13:39 J -31954560.18 -31954559.93 -31954559.67 0.0089 0.0002
 Moon -92200-03-08 14:37 J -31954560.16 -31954559.89 -31954559.63 0.0089 0.0002 *
 Earth -92199-03-11 00:56 J -31954192.68 -31954192.46 -31954192.20 0.0089 0.0032
 Moon -92199-03-11 01:11 J -31954192.66 -31954192.45 -31954192.20 0.0089 0.0036 *
 Moon -92198-03-13 11:30 J -31953825.22 -31953825.02 -31953824.82 0.0089 0.0057
 Earth -92198-03-13 13:11 J -31953825.12 -31953824.95 -31953824.75 0.0089 0.0062 *
 Mars -92190-04-13 17:30 J -31950872.00 -31950871.77 -31950871.48 0.0089 0.0057
 Mars -92188-03-09 22:47 J -31950175.86 -31950175.55 -31950175.22 0.0089 0.0028
 Venus -92153-11-28 04:03 J -31937128.40 -31937128.33 -31937128.23 0.0089 0.0082
 Venus -92152-07-11 18:27 J -31936902.87 -31936902.73 -31936902.58 0.0089 0.0068
 Venus -92151-02-22 08:08 J -31936677.32 -31936677.16 -31936676.97 0.0089 0.0055
 Venus -92151-10-05 22:18 J -31936451.76 -31936451.57 -31936451.36 0.0089 0.0041

Mercury -92150-01-08 00:42 J -31936357.50 -31936357.47 -31936357.41 0.0089 0.0086

Mercury -92150-04-06 04:03 J -31936269.40 -31936269.33 -31936269.25 0.0089 0.0080

Venus -92150-05-19 12:42 J -31936226.18 -31936225.97 -31936225.75 0.0089 0.0027

Mercury -92150-07-03 06:56 J -31936181.29 -31936181.21 -31936181.10 0.0089 0.0075

Mercury -92150-09-29 10:03 J -31936093.18 -31936093.08 -31936092.96 0.0089 0.0069

Mercury -92150-12-26 12:56 J -31936005.07 -31936004.96 -31936004.82 0.0089 0.0064

Venus -92150-12-31 02:37 J -31936000.61 -31936000.39 -31936000.16 0.0089 0.0013

Mercury -92149-03-23 16:03 J -31935916.96 -31935916.83 -31935916.68 0.0089 0.0058

Mercury -92149-06-19 18:56 J -31935828.84 -31935828.71 -31935828.55 0.0089 0.0053

Venus -92149-08-12 16:47 J -31935775.03 -31935774.80 -31935774.58 0.0089 0.0001

Mercury -92149-09-15 22:03 J -31935740.72 -31935740.58 -31935740.42 0.0089 0.0047

Mercury -92149-12-13 00:56 J -31935652.60 -31935652.46 -31935652.29 0.0089 0.0042

Mercury -92148-03-11 04:03 J -31935564.49 -31935564.33 -31935564.16 0.0089 0.0036

Venus -92148-03-26 06:42 J -31935549.44 -31935549.22 -31935548.99 0.0089 0.0014

Mercury -92148-06-07 06:56 J -31935476.37 -31935476.21 -31935476.03 0.0089 0.0031

Mercury -92148-09-03 10:03 J -31935388.25 -31935388.08 -31935387.91 0.0089 0.0025

Venus -92148-11-06 20:51 J -31935323.85 -31935323.63 -31935323.42 0.0089 0.0028

Mercury -92148-11-30 12:56 J -31935300.13 -31935299.96 -31935299.78 0.0089 0.0020

Mercury -92147-02-26 15:49 J -31935212.01 -31935211.84 -31935211.66 0.0089 0.0014

Mercury -92147-05-25 18:56 J -31935123.89 -31935123.71 -31935123.53 0.0088 0.0009

Venus -92147-06-20 10:32 J -31935098.25 -31935098.06 -31935097.85 0.0088 0.0042

Mercury -92147-08-21 21:49 J -31935035.77 -31935035.59 -31935035.41 0.0088 0.0003

Mercury -92147-11-18 00:42 J -31934947.65 -31934947.47 -31934947.29 0.0088 0.0002

Venus -92146-02-01 00:13 J -31934872.64 -31934872.49 -31934872.29 0.0088 0.0056

Mercury -92146-02-14 03:35 J -31934859.53 -31934859.35 -31934859.18 0.0088 0.0008

Mercury -92146-05-13 06:27 J -31934771.41 -31934771.23 -31934771.06 0.0088 0.0013

Mercury -92146-08-09 09:06 J -31934683.29 -31934683.12 -31934682.94 0.0088 0.0018

Venus -92146-09-14 14:37 J -31934647.03 -31934646.89 -31934646.75 0.0088 0.0069

Mercury -92146-11-05 11:59 J -31934595.16 -31934595.00 -31934594.83 0.0088 0.0024

Mercury -92145-02-01 14:51 J -31934507.04 -31934506.88 -31934506.71 0.0088 0.0029

Venus -92145-04-27 04:18 J -31934421.38 -31934421.32 -31934421.22 0.0088 0.0083
 Mercury -92145-04-29 17:44 J -31934418.92 -31934418.76 -31934418.60 0.0088 0.0034
 Mercury -92145-07-26 20:08 J -31934330.80 -31934330.66 -31934330.49 0.0088 0.0040
 Mercury -92145-10-22 23:01 J -31934242.68 -31934242.54 -31934242.38 0.0088 0.0045
 Mercury -92144-01-19 01:54 J -31934154.56 -31934154.42 -31934154.27 0.0088 0.0050
 Mercury -92144-04-17 04:47 J -31934066.43 -31934066.30 -31934066.16 0.0088 0.0055
 Mercury -92144-07-14 07:25 J -31933978.31 -31933978.19 -31933978.06 0.0088 0.0060
 Mercury -92144-10-10 10:18 J -31933890.18 -31933890.07 -31933889.95 0.0088 0.0065
 Mercury -92143-01-06 12:42 J -31933802.06 -31933801.97 -31933801.85 0.0088 0.0070
 Mercury -92143-04-04 15:20 J -31933713.93 -31933713.86 -31933713.75 0.0088 0.0076
 Mercury -92143-07-01 17:59 J -31933625.80 -31933625.75 -31933625.66 0.0088 0.0081
 Mercury -92143-09-27 20:37 J -31933537.66 -31933537.64 -31933537.57 0.0088 0.0086
 Earth -92121-09-09 16:18 J -31925519.91 -31925519.82 -31925519.68 0.0088 0.0079
 Moon -92121-09-09 17:44 J -31925519.85 -31925519.76 -31925519.62 0.0088 0.0079 *
 Moon -92120-09-12 02:23 J -31925152.60 -31925152.40 -31925152.16 0.0088 0.0049
 Earth -92120-09-12 04:32 J -31925152.51 -31925152.31 -31925152.08 0.0088 0.0049 *
 Earth -92119-09-14 16:32 J -31924785.06 -31924784.81 -31924784.56 0.0088 0.0020
 Moon -92119-09-14 19:39 J -31924784.93 -31924784.68 -31924784.43 0.0088 0.0020 *
 Moon -92118-09-17 00:27 J -31924417.74 -31924417.48 -31924417.22 0.0088 0.0009
 Earth -92118-09-17 03:49 J -31924417.59 -31924417.34 -31924417.08 0.0088 0.0010 *
 Earth -92117-09-18 15:06 J -31924050.10 -31924049.87 -31924049.63 0.0088 0.0040
 Moon -92117-09-18 18:42 J -31924049.95 -31924049.72 -31924049.48 0.0088 0.0039 *
 Moon -92116-09-20 22:32 J -31923682.69 -31923682.56 -31923682.38 0.0088 0.0070
 Earth -92116-09-21 01:39 J -31923682.56 -31923682.43 -31923682.24 0.0088 0.0070 *
 Mars -92108-01-09 16:47 J -31921014.94 -31921014.80 -31921014.61 0.0088 0.0072
 Mars -92107-12-04 10:03 J -31920321.37 -31920321.08 -31920320.79 0.0088 0.0001
 Mars -92105-10-28 02:37 J -31919627.53 -31919627.39 -31919627.18 0.0088 0.0071
 Venus -92070-01-12 04:03 J -31907133.33 -31907133.33 -31907133.31 0.0089 0.0089
 Venus -92070-08-25 15:49 J -31906907.93 -31906907.84 -31906907.71 0.0089 0.0076
 Venus -92069-04-07 03:49 J -31906682.47 -31906682.34 -31906682.17 0.0089 0.0063

Mercury -92069-07-09 19:39 J -31906588.68 -31906588.68 -31906588.64 0.0089 0.0088

Mercury -92069-10-05 21:35 J -31906500.64 -31906500.60 -31906500.55 0.0089 0.0083

Venus -92069-11-18 15:49 J -31906457.00 -31906456.84 -31906456.65 0.0089 0.0050

Mercury -92068-01-01 23:01 J -31906412.59 -31906412.54 -31906412.47 0.0089 0.0079

Mercury -92068-03-31 00:42 J -31906324.54 -31906324.47 -31906324.40 0.0089 0.0075

Mercury -92068-06-27 02:08 J -31906236.49 -31906236.41 -31906236.32 0.0089 0.0071

Venus -92068-07-02 03:49 J -31906231.52 -31906231.34 -31906231.13 0.0089 0.0037

Mercury -92068-09-23 03:35 J -31906148.43 -31906148.35 -31906148.25 0.0089 0.0067

Mercury -92068-12-20 05:15 J -31906060.37 -31906060.28 -31906060.18 0.0089 0.0063

Venus -92067-02-12 15:49 J -31906006.03 -31906005.84 -31906005.62 0.0089 0.0024

Mercury -92067-03-18 06:42 J -31905972.31 -31905972.22 -31905972.10 0.0089 0.0059

Mercury -92067-06-14 08:37 J -31905884.25 -31905884.14 -31905884.03 0.0089 0.0054

Mercury -92067-09-10 10:03 J -31905796.19 -31905796.08 -31905795.96 0.0089 0.0050

Venus -92067-09-26 04:03 J -31905780.54 -31905780.33 -31905780.11 0.0089 0.0010

Mercury -92067-12-07 11:30 J -31905708.13 -31905708.02 -31905707.89 0.0089 0.0046

Mercury -92066-03-05 13:11 J -31905620.07 -31905619.95 -31905619.82 0.0089 0.0042

Venus -92066-05-09 16:03 J -31905555.04 -31905554.83 -31905554.61 0.0089 0.0004

Mercury -92066-06-01 14:51 J -31905532.01 -31905531.88 -31905531.75 0.0089 0.0037

Mercury -92066-08-28 16:32 J -31905443.94 -31905443.81 -31905443.68 0.0089 0.0033

Mercury -92066-11-24 17:59 J -31905355.88 -31905355.75 -31905355.61 0.0089 0.0029

Venus -92066-12-21 04:03 J -31905329.53 -31905329.33 -31905329.11 0.0089 0.0016

Mercury -92065-02-20 19:25 J -31905267.82 -31905267.69 -31905267.54 0.0089 0.0025

Mercury -92065-05-18 21:20 J -31905179.75 -31905179.61 -31905179.47 0.0089 0.0020

Venus -92065-08-02 15:49 J -31905104.03 -31905103.84 -31905103.62 0.0089 0.0030

Mercury -92065-08-14 22:47 J -31905091.68 -31905091.55 -31905091.40 0.0089 0.0016

Mercury -92065-11-11 00:27 J -31905003.62 -31905003.48 -31905003.34 0.0089 0.0012

Mercury -92064-02-07 02:08 J -31904915.55 -31904915.41 -31904915.27 0.0089 0.0007

Venus -92064-03-16 03:49 J -31904878.51 -31904878.34 -31904878.14 0.0089 0.0043

Mercury -92064-05-06 03:49 J -31904827.48 -31904827.34 -31904827.20 0.0089 0.0003

Mercury -92064-08-02 05:30 J -31904739.41 -31904739.27 -31904739.13 0.0089 0.0002

Venus -92064-10-27 16:03 J -31904652.99 -31904652.83 -31904652.65 0.0089 0.0056
 Mercury -92064-10-29 07:11 J -31904651.34 -31904651.20 -31904651.06 0.0089 0.0006
 Mercury -92063-01-25 08:37 J -31904563.28 -31904563.14 -31904562.99 0.0089 0.0011
 Mercury -92063-04-23 10:18 J -31904475.21 -31904475.07 -31904474.92 0.0089 0.0015
 Venus -92063-06-10 04:03 J -31904427.45 -31904427.33 -31904427.18 0.0089 0.0069
 Mercury -92063-07-20 11:59 J -31904387.13 -31904387.00 -31904386.85 0.0089 0.0019
 Mercury -92063-10-16 13:39 J -31904299.06 -31904298.93 -31904298.78 0.0089 0.0024
 Mercury -92062-01-12 15:20 J -31904210.99 -31904210.86 -31904210.72 0.0089 0.0028
 Venus -92062-01-21 16:03 J -31904201.90 -31904201.83 -31904201.74 0.0089 0.0082
 Mercury -92062-04-10 17:01 J -31904122.92 -31904122.79 -31904122.65 0.0089 0.0033
 Mercury -92062-07-07 18:42 J -31904034.84 -31904034.72 -31904034.58 0.0089 0.0037
 Mercury -92062-10-03 20:23 J -31903946.77 -31903946.65 -31903946.51 0.0089 0.0042
 Mercury -92062-12-30 22:03 J -31903858.69 -31903858.58 -31903858.45 0.0089 0.0046
 Mercury -92061-03-27 23:44 J -31903770.62 -31903770.51 -31903770.38 0.0089 0.0051
 Mercury -92061-06-24 01:39 J -31903682.54 -31903682.43 -31903682.31 0.0089 0.0055
 Mercury -92061-09-20 03:06 J -31903594.46 -31903594.37 -31903594.25 0.0089 0.0060
 Mercury -92061-12-17 05:01 J -31903506.38 -31903506.29 -31903506.18 0.0089 0.0064
 Mercury -92060-03-15 06:42 J -31903418.30 -31903418.22 -31903418.12 0.0089 0.0069
 Mercury -92060-06-11 08:37 J -31903330.22 -31903330.14 -31903330.05 0.0089 0.0073
 Mercury -92060-09-07 10:03 J -31903242.13 -31903242.08 -31903241.99 0.0089 0.0078
 Mercury -92060-12-04 11:59 J -31903154.04 -31903154.00 -31903153.93 0.0089 0.0082
 Mercury -92059-03-02 13:39 J -31903065.94 -31903065.93 -31903065.88 0.0089 0.0087
 Moon -92038-03-03 19:25 J -31895394.82 -31895394.69 -31895394.54 0.0089 0.0073
 Earth -92038-03-03 20:51 J -31895394.76 -31895394.63 -31895394.48 0.0089 0.0074 *
 Earth -92037-03-05 07:54 J -31895027.37 -31895027.17 -31895026.93 0.0089 0.0045
 Moon -92037-03-05 08:08 J -31895027.37 -31895027.16 -31895026.92 0.0089 0.0046 *
 Earth -92036-03-07 19:25 J -31894659.94 -31894659.69 -31894659.43 0.0089 0.0015
 Moon -92036-03-07 20:51 J -31894659.87 -31894659.63 -31894659.37 0.0089 0.0014 *
 Moon -92035-03-10 04:47 J -31894292.55 -31894292.30 -31894292.03 0.0089 0.0014
 Earth -92035-03-10 07:11 J -31894292.45 -31894292.20 -31894291.95 0.0089 0.0015 *

Earth	-92034-03-12 18:27 J	-31893924.94	-31893924.73	-31893924.49	0.0089	0.0045
Moon	-92034-03-12 21:35 J	-31893924.80	-31893924.60	-31893924.37	0.0089	0.0047 *
Moon	-92033-03-14 02:51 J	-31893557.51	-31893557.38	-31893557.23	0.0089	0.0074
Earth	-92033-03-14 06:27 J	-31893557.36	-31893557.23	-31893557.09	0.0089	0.0075 *
Mars	-92025-10-21 04:32 J	-31890414.63	-31890414.31	-31890413.96	0.0089	0.0013
Mars	-92023-09-17 08:51 J	-31889718.31	-31889718.13	-31889717.93	0.0089	0.0072

92ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 92nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-91988-03-01 10:47 J	-31877134.07	-31877134.05	-31877134.03	0.0089	0.0088		
Venus	-91988-10-13 00:27 J	-31876908.58	-31876908.48	-31876908.34	0.0089	0.0075		
Venus	-91987-05-26 14:51 J	-31876683.03	-31876682.88	-31876682.70	0.0089	0.0061		
Venus	-91986-01-07 05:01 J	-31876457.47	-31876457.29	-31876457.09	0.0089	0.0047		
Venus	-91986-08-20 19:11 J	-31876231.91	-31876231.70	-31876231.49	0.0089	0.0033		
Mercury	-91986-10-04 22:03 J	-31876186.60	-31876186.58	-31876186.52	0.0089	0.0086		
Mercury	-91985-01-01 01:25 J	-31876098.51	-31876098.44	-31876098.36	0.0089	0.0080		
Mercury	-91985-03-29 04:18 J	-31876010.40	-31876010.32	-31876010.21	0.0089	0.0075		
Venus	-91985-04-02 09:06 J	-31876006.33	-31876006.12	-31876005.89	0.0089	0.0020		
Mercury	-91985-06-25 07:25 J	-31875922.29	-31875922.19	-31875922.07	0.0089	0.0069		
Mercury	-91985-09-21 10:18 J	-31875834.18	-31875834.07	-31875833.93	0.0089	0.0064		
Venus	-91985-11-13 23:15 J	-31875780.75	-31875780.53	-31875780.30	0.0089	0.0006		

Mercury -91985-12-18 13:25 J -31875746.06 -31875745.94 -31875745.79 0.0089 0.0058

Mercury -91984-03-16 16:18 J -31875657.95 -31875657.82 -31875657.66 0.0089 0.0053

Mercury -91984-06-12 19:39 J -31875569.83 -31875569.68 -31875569.52 0.0089 0.0047

Venus -91984-06-27 13:25 J -31875555.17 -31875554.94 -31875554.72 0.0089 0.0009

Mercury -91984-09-08 22:32 J -31875481.71 -31875481.56 -31875481.39 0.0089 0.0041

Mercury -91984-12-06 01:39 J -31875393.59 -31875393.43 -31875393.26 0.0089 0.0036

Venus -91983-02-08 03:06 J -31875329.58 -31875329.37 -31875329.14 0.0089 0.0023

Mercury -91983-03-04 04:32 J -31875305.47 -31875305.31 -31875305.14 0.0089 0.0030

Mercury -91983-05-31 07:39 J -31875217.35 -31875217.18 -31875217.01 0.0089 0.0025

Mercury -91983-08-27 10:32 J -31875129.23 -31875129.06 -31875128.88 0.0089 0.0019

Venus -91983-09-21 17:01 J -31875103.98 -31875103.79 -31875103.57 0.0088 0.0036

Mercury -91983-11-23 13:25 J -31875041.11 -31875040.94 -31875040.76 0.0088 0.0014

Mercury -91982-02-19 16:18 J -31874952.99 -31874952.82 -31874952.64 0.0088 0.0009

Venus -91982-05-05 07:11 J -31874878.37 -31874878.20 -31874878.00 0.0088 0.0050

Mercury -91982-05-18 19:25 J -31874864.87 -31874864.69 -31874864.52 0.0088 0.0004

Mercury -91982-08-14 22:18 J -31874776.75 -31874776.57 -31874776.40 0.0088 0.0003

Mercury -91982-11-11 01:11 J -31874688.63 -31874688.45 -31874688.28 0.0088 0.0008

Venus -91982-12-16 21:06 J -31874652.76 -31874652.62 -31874652.45 0.0088 0.0064

Mercury -91981-02-07 03:49 J -31874600.51 -31874600.34 -31874600.16 0.0088 0.0013

Mercury -91981-05-05 06:42 J -31874512.39 -31874512.22 -31874512.04 0.0088 0.0018

Venus -91981-07-29 10:47 J -31874427.14 -31874427.05 -31874426.92 0.0088 0.0078

Mercury -91981-08-01 09:35 J -31874424.27 -31874424.10 -31874423.93 0.0088 0.0024

Mercury -91981-10-28 12:27 J -31874336.14 -31874335.98 -31874335.81 0.0088 0.0029

Mercury -91980-01-24 15:06 J -31874248.02 -31874247.87 -31874247.70 0.0088 0.0034

Mercury -91980-04-22 17:59 J -31874159.90 -31874159.75 -31874159.59 0.0088 0.0040

Mercury -91980-07-19 20:51 J -31874071.78 -31874071.63 -31874071.48 0.0088 0.0045

Mercury -91980-10-15 23:44 J -31873983.66 -31873983.51 -31873983.37 0.0088 0.0050

Mercury -91979-01-12 02:08 J -31873895.53 -31873895.41 -31873895.26 0.0088 0.0055

Mercury -91979-04-10 04:47 J -31873807.41 -31873807.30 -31873807.15 0.0088 0.0061

Mercury -91979-07-07 07:39 J -31873719.28 -31873719.18 -31873719.05 0.0088 0.0066

Mercury -91979-10-03 10:18 J -31873631.16 -31873631.07 -31873630.95 0.0088 0.0071
 Mercury -91979-12-30 13:11 J -31873543.03 -31873542.95 -31873542.85 0.0088 0.0076
 Mercury -91978-03-28 15:49 J -31873454.89 -31873454.84 -31873454.76 0.0088 0.0081
 Mercury -91978-06-24 18:27 J -31873366.75 -31873366.73 -31873366.67 0.0088 0.0086
 Earth -91956-09-11 07:54 J -31865252.32 -31865252.17 -31865251.98 0.0088 0.0066
 Moon -91956-09-11 11:30 J -31865252.20 -31865252.02 -31865251.83 0.0088 0.0062 *
 Moon -91955-09-13 16:03 J -31864885.04 -31864884.83 -31864884.59 0.0088 0.0041
 Earth -91955-09-13 19:54 J -31864884.90 -31864884.67 -31864884.42 0.0088 0.0036 *
 Earth -91954-09-16 07:39 J -31864517.43 -31864517.18 -31864516.92 0.0088 0.0007
 Moon -91954-09-16 11:01 J -31864517.30 -31864517.04 -31864516.78 0.0088 0.0002 *
 Moon -91953-09-17 16:47 J -31864150.04 -31864149.80 -31864149.55 0.0088 0.0018
 Earth -91953-09-17 19:25 J -31864149.94 -31864149.69 -31864149.44 0.0088 0.0023 *
 Earth -91952-09-20 06:13 J -31863782.42 -31863782.24 -31863782.01 0.0088 0.0053
 Moon -91952-09-20 08:23 J -31863782.34 -31863782.15 -31863781.93 0.0088 0.0057 *
 Moon -91951-09-22 17:15 J -31863414.88 -31863414.78 -31863414.64 0.0088 0.0077
 Earth -91951-09-22 17:30 J -31863414.85 -31863414.77 -31863414.65 0.0088 0.0082 *
 Mars -91943-07-19 12:27 J -31860558.23 -31860557.98 -31860557.70 0.0088 0.0036
 Mars -91941-06-12 04:47 J -31859864.55 -31859864.30 -31859864.02 0.0088 0.0035
 Venus -91906-11-27 00:42 J -31846913.52 -31846913.47 -31846913.36 0.0089 0.0082
 Venus -91905-07-09 12:42 J -31846688.08 -31846687.97 -31846687.81 0.0089 0.0069
 Venus -91904-02-20 01:11 J -31846462.62 -31846462.45 -31846462.28 0.0089 0.0055
 Mercury -91904-04-05 18:42 J -31846417.73 -31846417.72 -31846417.69 0.0089 0.0087
 Mercury -91904-07-02 20:23 J -31846329.69 -31846329.65 -31846329.60 0.0089 0.0083
 Mercury -91904-09-28 21:49 J -31846241.64 -31846241.59 -31846241.52 0.0089 0.0079
 Venus -91904-10-03 13:11 J -31846237.14 -31846236.95 -31846236.76 0.0089 0.0042
 Mercury -91904-12-25 23:15 J -31846153.59 -31846153.53 -31846153.45 0.0089 0.0075
 Mercury -91903-03-24 00:42 J -31846065.54 -31846065.47 -31846065.37 0.0089 0.0071
 Venus -91903-05-17 00:56 J -31846011.65 -31846011.46 -31846011.25 0.0089 0.0029
 Mercury -91903-06-20 02:23 J -31845977.48 -31845977.40 -31845977.30 0.0089 0.0067
 Mercury -91903-09-16 03:49 J -31845889.42 -31845889.34 -31845889.23 0.0089 0.0063

Mercury -91903-12-13 05:44 J -31845801.36 -31845801.26 -31845801.15 0.0089 0.0058

Venus -91903-12-28 12:56 J -31845786.16 -31845785.96 -31845785.74 0.0089 0.0016

Mercury -91902-03-11 07:11 J -31845713.30 -31845713.20 -31845713.08 0.0089 0.0054

Mercury -91902-06-07 08:37 J -31845625.24 -31845625.14 -31845625.01 0.0089 0.0050

Venus -91902-08-11 01:11 J -31845560.67 -31845560.45 -31845560.24 0.0089 0.0003

Mercury -91902-09-03 10:18 J -31845537.18 -31845537.07 -31845536.94 0.0089 0.0046

Mercury -91902-11-30 11:59 J -31845449.12 -31845449.00 -31845448.87 0.0089 0.0041

Mercury -91901-02-26 13:39 J -31845361.06 -31845360.93 -31845360.80 0.0089 0.0037

Venus -91901-03-23 12:56 J -31845335.17 -31845334.96 -31845334.74 0.0089 0.0011

Mercury -91901-05-24 15:06 J -31845273.00 -31845272.87 -31845272.73 0.0089 0.0033

Mercury -91901-08-20 16:47 J -31845184.93 -31845184.80 -31845184.66 0.0089 0.0028

Venus -91901-11-04 01:11 J -31845109.65 -31845109.45 -31845109.24 0.0089 0.0024

Mercury -91901-11-16 18:27 J -31845096.87 -31845096.73 -31845096.59 0.0089 0.0024

Mercury -91900-02-12 19:54 J -31845008.80 -31845008.67 -31845008.53 0.0089 0.0020

Mercury -91900-05-11 21:35 J -31844920.74 -31844920.60 -31844920.46 0.0089 0.0016

Venus -91900-06-17 12:56 J -31844884.14 -31844883.96 -31844883.75 0.0089 0.0038

Mercury -91900-08-07 23:15 J -31844832.67 -31844832.53 -31844832.39 0.0089 0.0011

Mercury -91900-11-04 00:56 J -31844744.60 -31844744.46 -31844744.32 0.0089 0.0007

Venus -91899-01-29 00:42 J -31844658.62 -31844658.47 -31844658.27 0.0089 0.0051

Mercury -91899-01-31 02:37 J -31844656.53 -31844656.39 -31844656.25 0.0089 0.0003

Mercury -91899-04-29 04:18 J -31844568.47 -31844568.32 -31844568.18 0.0089 0.0003

Mercury -91899-07-26 05:44 J -31844480.40 -31844480.26 -31844480.11 0.0089 0.0007

Venus -91899-09-11 12:56 J -31844433.09 -31844432.96 -31844432.80 0.0089 0.0064

Mercury -91899-10-22 07:25 J -31844392.33 -31844392.19 -31844392.04 0.0089 0.0011

Mercury -91898-01-18 09:06 J -31844304.26 -31844304.12 -31844303.98 0.0089 0.0015

Mercury -91898-04-16 10:47 J -31844216.19 -31844216.05 -31844215.91 0.0089 0.0020

Venus -91898-04-25 00:56 J -31844207.55 -31844207.46 -31844207.34 0.0089 0.0077

Mercury -91898-07-13 12:27 J -31844128.12 -31844127.98 -31844127.84 0.0089 0.0024

Mercury -91898-10-09 13:54 J -31844040.04 -31844039.92 -31844039.77 0.0089 0.0029

Mercury -91897-01-05 15:49 J -31843951.97 -31843951.84 -31843951.70 0.0089 0.0033

Mercury -91897-04-02 17:30 J -31843863.90 -31843863.77 -31843863.64 0.0089 0.0037
 Mercury -91897-06-29 19:11 J -31843775.82 -31843775.70 -31843775.57 0.0089 0.0042
 Mercury -91897-09-25 20:51 J -31843687.75 -31843687.63 -31843687.50 0.0089 0.0046
 Mercury -91897-12-22 22:32 J -31843599.67 -31843599.56 -31843599.44 0.0089 0.0051
 Mercury -91896-03-21 00:27 J -31843511.59 -31843511.48 -31843511.37 0.0089 0.0055
 Mercury -91896-06-17 01:54 J -31843423.52 -31843423.42 -31843423.30 0.0089 0.0060
 Mercury -91896-09-13 03:49 J -31843335.44 -31843335.34 -31843335.24 0.0089 0.0064
 Mercury -91896-12-10 05:15 J -31843247.36 -31843247.28 -31843247.17 0.0089 0.0069
 Mercury -91895-03-08 07:11 J -31843159.27 -31843159.20 -31843159.11 0.0089 0.0073
 Mercury -91895-06-04 08:51 J -31843071.19 -31843071.13 -31843071.05 0.0089 0.0078
 Mercury -91895-08-31 10:47 J -31842983.10 -31842983.05 -31842982.99 0.0089 0.0082
 Mercury -91895-11-27 12:27 J -31842895.00 -31842894.98 -31842894.94 0.0089 0.0087
 Jupiter -91890-07-04 14:37 J -31841215.21 -31841214.89 -31841214.56 0.0089 0.0071
 Moon -91874-03-03 01:54 J -31835494.46 -31835494.42 -31835494.34 0.0089 0.0086
 Earth -91873-03-04 13:39 J -31835127.09 -31835126.93 -31835126.72 0.0089 0.0061
 Moon -91873-03-04 15:49 J -31835127.01 -31835126.84 -31835126.67 0.0089 0.0065 *
 Moon -91872-03-06 22:03 J -31834759.81 -31834759.58 -31834759.32 0.0089 0.0027
 Earth -91872-03-07 01:25 J -31834759.68 -31834759.44 -31834759.20 0.0089 0.0031 *
 Earth -91871-03-09 12:42 J -31834392.22 -31834391.97 -31834391.71 0.0089 0.0002
 Moon -91871-03-09 16:03 J -31834392.08 -31834391.83 -31834391.57 0.0089 0.0006 *
 Moon -91870-03-11 20:23 J -31834024.87 -31834024.65 -31834024.40 0.0089 0.0033
 Earth -91870-03-12 00:13 J -31834024.73 -31834024.49 -31834024.24 0.0089 0.0028 *
 Earth -91869-03-13 11:44 J -31833657.20 -31833657.01 -31833656.81 0.0089 0.0058
 Moon -91869-03-13 14:51 J -31833657.07 -31833656.88 -31833656.65 0.0089 0.0054 *
 Earth -91868-03-15 23:15 J -31833289.54 -31833289.53 -31833289.48 0.0089 0.0088
 Mars -91861-06-03 06:56 J -31830653.45 -31830653.21 -31830652.91 0.0089 0.0055
 Mars -91859-04-30 12:56 J -31829957.26 -31829956.96 -31829956.62 0.0089 0.0032
 Venus -91823-01-14 06:42 J -31816914.30 -31816914.22 -31816914.12 0.0089 0.0081
 Venus -91823-08-27 20:23 J -31816688.77 -31816688.65 -31816688.48 0.0089 0.0068
 Venus -91822-04-10 10:47 J -31816463.21 -31816463.05 -31816462.85 0.0089 0.0054

Venus -91822-11-22 00:56 J -31816237.64 -31816237.46 -31816237.24 0.0089 0.0040
 Mercury -91821-06-30 19:25 J -31816015.72 -31816015.69 -31816015.64 0.0089 0.0086
 Venus -91821-07-04 15:06 J -31816012.08 -31816011.87 -31816011.64 0.0089 0.0026
 Mercury -91821-09-26 22:18 J -31815927.62 -31815927.57 -31815927.48 0.0089 0.0081
 Mercury -91821-12-24 01:39 J -31815839.52 -31815839.43 -31815839.33 0.0089 0.0075
 Venus -91820-02-15 05:15 J -31815786.50 -31815786.28 -31815786.05 0.0089 0.0012
 Mercury -91820-03-22 04:18 J -31815751.41 -31815751.32 -31815751.18 0.0089 0.0070
 Mercury -91820-06-18 07:39 J -31815663.29 -31815663.18 -31815663.04 0.0089 0.0064
 Mercury -91820-09-14 10:47 J -31815575.18 -31815575.05 -31815574.91 0.0089 0.0058
 Venus -91820-09-28 19:25 J -31815560.92 -31815560.69 -31815560.47 0.0089 0.0002
 Mercury -91820-12-11 13:39 J -31815487.06 -31815486.93 -31815486.77 0.0089 0.0053
 Mercury -91819-03-09 17:01 J -31815398.94 -31815398.79 -31815398.64 0.0089 0.0047
 Venus -91819-05-12 09:20 J -31815335.33 -31815335.11 -31815334.88 0.0089 0.0016
 Mercury -91819-06-05 19:39 J -31815310.83 -31815310.68 -31815310.51 0.0089 0.0042
 Mercury -91819-09-01 23:01 J -31815222.71 -31815222.54 -31815222.38 0.0089 0.0036
 Mercury -91819-11-29 01:39 J -31815134.59 -31815134.43 -31815134.25 0.0088 0.0031
 Venus -91819-12-23 23:30 J -31815109.73 -31815109.52 -31815109.31 0.0088 0.0030
 Mercury -91818-02-25 04:32 J -31815046.47 -31815046.31 -31815046.12 0.0088 0.0026
 Mercury -91818-05-24 07:39 J -31814958.35 -31814958.18 -31814958.00 0.0088 0.0020
 Venus -91818-08-06 13:11 J -31814884.14 -31814883.95 -31814883.75 0.0088 0.0044
 Mercury -91818-08-20 10:32 J -31814870.23 -31814870.06 -31814869.88 0.0088 0.0015
 Mercury -91818-11-16 13:39 J -31814782.11 -31814781.93 -31814781.75 0.0088 0.0009
 Mercury -91817-02-12 16:32 J -31814693.99 -31814693.81 -31814693.63 0.0088 0.0003
 Venus -91817-03-19 02:51 J -31814658.53 -31814658.38 -31814658.19 0.0088 0.0058
 Mercury -91817-05-10 19:25 J -31814605.86 -31814605.69 -31814605.51 0.0088 0.0002
 Mercury -91817-08-06 22:18 J -31814517.74 -31814517.57 -31814517.39 0.0088 0.0008
 Venus -91817-10-30 16:47 J -31814432.91 -31814432.80 -31814432.65 0.0088 0.0072
 Mercury -91817-11-03 01:11 J -31814429.62 -31814429.45 -31814429.27 0.0088 0.0013
 Mercury -91816-01-30 04:03 J -31814341.50 -31814341.33 -31814341.16 0.0088 0.0018
 Mercury -91816-04-28 06:56 J -31814253.38 -31814253.21 -31814253.04 0.0088 0.0023

Venus -91816-06-13 07:11 J -31814207.26 -31814207.20 -31814207.14 0.0088 0.0085
 Mercury -91816-07-25 09:49 J -31814165.26 -31814165.09 -31814164.92 0.0088 0.0029
 Mercury -91816-10-21 12:27 J -31814077.13 -31814076.98 -31814076.81 0.0088 0.0034
 Mercury -91815-01-17 15:06 J -31813989.01 -31813988.87 -31813988.70 0.0088 0.0040
 Mercury -91815-04-15 17:59 J -31813900.89 -31813900.75 -31813900.59 0.0088 0.0045
 Mercury -91815-07-12 20:51 J -31813812.77 -31813812.63 -31813812.48 0.0088 0.0050
 Mercury -91815-10-08 23:44 J -31813724.64 -31813724.51 -31813724.37 0.0088 0.0055
 Mercury -91814-01-05 02:08 J -31813636.52 -31813636.41 -31813636.26 0.0088 0.0061
 Mercury -91814-04-03 05:01 J -31813548.39 -31813548.29 -31813548.16 0.0088 0.0065
 Mercury -91814-06-30 07:39 J -31813460.26 -31813460.18 -31813460.06 0.0088 0.0071
 Mercury -91814-09-26 10:32 J -31813372.14 -31813372.06 -31813371.96 0.0088 0.0076
 Mercury -91814-12-23 13:11 J -31813284.00 -31813283.95 -31813283.86 0.0088 0.0081
 Mercury -91813-03-20 15:49 J -31813195.86 -31813195.84 -31813195.78 0.0088 0.0086
 Moon -91792-09-10 07:25 J -31805352.27 -31805352.19 -31805352.07 0.0088 0.0082
 Earth -91792-09-10 10:32 J -31805352.11 -31805352.06 -31805351.94 0.0088 0.0084 *
 Earth -91791-09-12 22:47 J -31804984.75 -31804984.55 -31804984.33 0.0088 0.0054
 Moon -91791-09-13 01:25 J -31804984.62 -31804984.44 -31804984.20 0.0088 0.0055 *
 Moon -91790-09-15 08:23 J -31804617.38 -31804617.15 -31804616.89 0.0088 0.0024
 Earth -91790-09-15 10:32 J -31804617.30 -31804617.06 -31804616.80 0.0088 0.0024 *
 Earth -91789-09-16 22:18 J -31804249.83 -31804249.57 -31804249.31 0.0088 0.0006
 Moon -91789-09-16 23:01 J -31804249.81 -31804249.54 -31804249.27 0.0088 0.0004 *
 Earth -91788-09-19 09:49 J -31803882.32 -31803882.09 -31803881.85 0.0088 0.0035
 Moon -91788-09-19 09:49 J -31803882.31 -31803882.09 -31803881.85 0.0088 0.0035 *
 Moon -91787-09-21 18:56 J -31803514.87 -31803514.71 -31803514.50 0.0088 0.0064
 Earth -91787-09-21 20:37 J -31803514.79 -31803514.64 -31803514.44 0.0088 0.0064 *
 Mars -91779-03-03 15:35 J -31800795.00 -31800794.85 -31800794.66 0.0088 0.0072
 Mars -91777-01-26 06:13 J -31800101.53 -31800101.24 -31800100.95 0.0088 0.0001
 Mars -91776-12-19 21:49 J -31799407.74 -31799407.59 -31799407.39 0.0088 0.0072
 Venus -91741-02-28 09:35 J -31786919.11 -31786919.10 -31786919.05 0.0089 0.0088
 Venus -91741-10-10 21:35 J -31786693.70 -31786693.60 -31786693.47 0.0089 0.0075

Venus -91740-05-24 09:20 J -31786468.24 -31786468.11 -31786467.94 0.0089 0.0062
 Mercury -91740-12-31 17:30 J -31786246.79 -31786246.77 -31786246.74 0.0089 0.0087
 Venus -91739-01-04 21:20 J -31786242.77 -31786242.61 -31786242.42 0.0089 0.0049
 Mercury -91739-03-29 18:56 J -31786158.75 -31786158.71 -31786158.66 0.0089 0.0083
 Mercury -91739-06-25 20:23 J -31786070.70 -31786070.65 -31786070.58 0.0089 0.0079
 Venus -91739-08-18 09:35 J -31786017.29 -31786017.10 -31786016.90 0.0089 0.0035
 Mercury -91739-09-21 22:03 J -31785982.65 -31785982.58 -31785982.50 0.0089 0.0075
 Mercury -91739-12-18 23:30 J -31785894.59 -31785894.52 -31785894.43 0.0089 0.0071
 Mercury -91738-03-17 00:56 J -31785806.54 -31785806.46 -31785806.35 0.0089 0.0067
 Venus -91738-03-31 21:20 J -31785791.81 -31785791.61 -31785791.39 0.0089 0.0022
 Mercury -91738-06-13 02:51 J -31785718.48 -31785718.38 -31785718.28 0.0089 0.0062
 Mercury -91738-09-09 04:18 J -31785630.42 -31785630.32 -31785630.21 0.0089 0.0058
 Venus -91738-11-12 09:35 J -31785566.31 -31785566.10 -31785565.88 0.0089 0.0009
 Mercury -91738-12-06 05:44 J -31785542.36 -31785542.26 -31785542.14 0.0089 0.0054
 Mercury -91737-03-03 07:25 J -31785454.30 -31785454.19 -31785454.07 0.0089 0.0050
 Mercury -91737-05-30 08:51 J -31785366.24 -31785366.13 -31785366.00 0.0089 0.0046
 Venus -91737-06-24 21:35 J -31785340.81 -31785340.60 -31785340.38 0.0089 0.0005
 Mercury -91737-08-26 10:47 J -31785278.18 -31785278.05 -31785277.93 0.0089 0.0041
 Mercury -91737-11-22 12:13 J -31785190.11 -31785189.99 -31785189.86 0.0089 0.0037
 Venus -91736-02-05 09:20 J -31785115.31 -31785115.11 -31785114.89 0.0089 0.0019
 Mercury -91736-02-18 13:39 J -31785102.05 -31785101.93 -31785101.79 0.0089 0.0033
 Mercury -91736-05-17 15:20 J -31785013.99 -31785013.86 -31785013.72 0.0089 0.0029
 Mercury -91736-08-13 17:01 J -31784925.92 -31784925.79 -31784925.65 0.0089 0.0024
 Venus -91736-09-18 21:35 J -31784889.79 -31784889.60 -31784889.39 0.0089 0.0032
 Mercury -91736-11-09 18:42 J -31784837.86 -31784837.72 -31784837.58 0.0089 0.0020
 Mercury -91735-02-05 20:08 J -31784749.79 -31784749.66 -31784749.51 0.0089 0.0016
 Venus -91735-05-02 09:35 J -31784664.27 -31784664.10 -31784663.90 0.0089 0.0045
 Mercury -91735-05-04 21:49 J -31784661.73 -31784661.59 -31784661.44 0.0089 0.0011
 Mercury -91735-07-31 23:30 J -31784573.66 -31784573.52 -31784573.38 0.0089 0.0007
 Mercury -91735-10-28 01:11 J -31784485.59 -31784485.45 -31784485.31 0.0089 0.0002

Venus -91735-12-13 22:03 J -31784438.74 -31784438.58 -31784438.42 0.0089 0.0058
 Mercury -91734-01-24 02:51 J -31784397.52 -31784397.38 -31784397.24 0.0089 0.0002
 Mercury -91734-04-22 04:32 J -31784309.45 -31784309.31 -31784309.17 0.0089 0.0007
 Mercury -91734-07-19 06:13 J -31784221.38 -31784221.24 -31784221.10 0.0089 0.0011
 Venus -91734-07-27 09:35 J -31784213.21 -31784213.10 -31784212.96 0.0089 0.0072
 Mercury -91734-10-15 07:39 J -31784133.32 -31784133.18 -31784133.03 0.0089 0.0016
 Mercury -91733-01-11 09:20 J -31784045.24 -31784045.11 -31784044.97 0.0089 0.0020
 Venus -91733-03-08 21:35 J -31783987.64 -31783987.60 -31783987.52 0.0089 0.0085
 Mercury -91733-04-08 11:01 J -31783957.17 -31783957.04 -31783956.90 0.0089 0.0024
 Mercury -91733-07-05 12:42 J -31783869.10 -31783868.97 -31783868.83 0.0089 0.0029
 Mercury -91733-10-01 14:23 J -31783781.03 -31783780.90 -31783780.76 0.0089 0.0033
 Mercury -91733-12-28 16:03 J -31783692.96 -31783692.83 -31783692.69 0.0089 0.0038
 Mercury -91732-03-26 17:44 J -31783604.88 -31783604.76 -31783604.63 0.0089 0.0042
 Mercury -91732-06-22 19:25 J -31783516.81 -31783516.69 -31783516.56 0.0089 0.0047
 Mercury -91732-09-18 21:06 J -31783428.73 -31783428.62 -31783428.49 0.0089 0.0051
 Mercury -91732-12-15 22:47 J -31783340.65 -31783340.55 -31783340.43 0.0089 0.0056
 Mercury -91731-03-14 00:27 J -31783252.57 -31783252.48 -31783252.36 0.0089 0.0060
 Mercury -91731-06-10 02:08 J -31783164.49 -31783164.41 -31783164.30 0.0089 0.0065
 Mercury -91731-09-06 04:03 J -31783076.41 -31783076.33 -31783076.23 0.0089 0.0069
 Mercury -91731-12-03 05:30 J -31782988.33 -31782988.27 -31782988.17 0.0089 0.0074
 Mercury -91730-03-01 07:25 J -31782900.25 -31782900.19 -31782900.11 0.0089 0.0078
 Mercury -91730-05-28 09:06 J -31782812.16 -31782812.12 -31782812.05 0.0089 0.0083
 Mercury -91730-08-24 11:01 J -31782724.06 -31782724.04 -31782724.00 0.0089 0.0087
 Jupiter -91724-09-05 21:35 J -31780520.14 -31780519.60 -31780519.06 0.0089 0.0002
 Moon -91709-03-03 16:03 J -31775226.94 -31775226.83 -31775226.69 0.0089 0.0077
 Earth -91709-03-03 19:25 J -31775226.81 -31775226.69 -31775226.56 0.0089 0.0077 *
 Earth -91708-03-06 06:13 J -31774859.44 -31774859.24 -31774859.01 0.0089 0.0048
 Moon -91708-03-06 09:49 J -31774859.29 -31774859.09 -31774858.86 0.0089 0.0049 *
 Moon -91707-03-08 14:37 J -31774492.14 -31774491.89 -31774491.64 0.0089 0.0018
 Earth -91707-03-08 17:44 J -31774492.00 -31774491.76 -31774491.50 0.0089 0.0018 *

Earth -91706-03-11 05:01 J -31774124.53 -31774124.29 -31774124.02 0.0089 0.0012
 Moon -91706-03-11 08:08 J -31774124.42 -31774124.16 -31774123.90 0.0089 0.0011 *
 Moon -91705-03-12 14:08 J -31773757.11 -31773756.91 -31773756.67 0.0089 0.0043
 Earth -91705-03-12 16:47 J -31773757.02 -31773756.80 -31773756.57 0.0089 0.0041 *
 Earth -91704-03-15 04:18 J -31773389.46 -31773389.32 -31773389.16 0.0089 0.0071
 Moon -91704-03-15 05:01 J -31773389.44 -31773389.29 -31773389.12 0.0089 0.0070 *
 Mars -91696-12-11 17:01 J -31770196.11 -31770195.79 -31770195.44 0.0089 0.0011
 Mars -91694-11-07 22:03 J -31769499.72 -31769499.58 -31769499.36 0.0089 0.0076
 Venus -91659-04-17 12:42 J -31756919.98 -31756919.97 -31756919.93 0.0089 0.0088
 Venus -91659-11-29 03:06 J -31756694.49 -31756694.37 -31756694.24 0.0089 0.0074
 Venus -91658-07-12 17:15 J -31756468.94 -31756468.78 -31756468.61 0.0089 0.0060
 Venus -91657-02-23 07:25 J -31756243.38 -31756243.19 -31756243.00 0.0089 0.0046
 Venus -91657-10-05 21:35 J -31756017.81 -31756017.60 -31756017.39 0.0089 0.0032
 Mercury -91656-03-27 16:18 J -31755844.83 -31755844.82 -31755844.76 0.0089 0.0087
 Venus -91656-05-19 11:44 J -31755792.23 -31755792.01 -31755791.79 0.0089 0.0018
 Mercury -91656-06-23 19:39 J -31755756.74 -31755756.68 -31755756.59 0.0089 0.0081
 Mercury -91656-09-19 22:47 J -31755668.63 -31755668.55 -31755668.44 0.0088 0.0075
 Mercury -91656-12-17 01:39 J -31755580.52 -31755580.43 -31755580.30 0.0088 0.0070
 Venus -91656-12-31 01:39 J -31755566.65 -31755566.43 -31755566.20 0.0088 0.0004
 Mercury -91655-03-15 05:01 J -31755492.41 -31755492.29 -31755492.16 0.0088 0.0064
 Mercury -91655-06-11 07:54 J -31755404.29 -31755404.17 -31755404.02 0.0088 0.0058
 Venus -91655-08-13 15:35 J -31755341.07 -31755340.85 -31755340.62 0.0088 0.0010
 Mercury -91655-09-07 11:01 J -31755316.18 -31755316.04 -31755315.89 0.0088 0.0053
 Mercury -91655-12-04 13:54 J -31755228.06 -31755227.92 -31755227.75 0.0088 0.0048
 Mercury -91654-03-02 17:01 J -31755139.94 -31755139.79 -31755139.62 0.0088 0.0042
 Venus -91654-03-27 05:44 J -31755115.48 -31755115.26 -31755115.04 0.0088 0.0024
 Mercury -91654-05-29 19:54 J -31755051.82 -31755051.67 -31755051.49 0.0088 0.0037
 Mercury -91654-08-25 23:01 J -31754963.70 -31754963.54 -31754963.36 0.0088 0.0031
 Venus -91654-11-07 19:39 J -31754889.88 -31754889.68 -31754889.48 0.0088 0.0038
 Mercury -91654-11-22 01:54 J -31754875.58 -31754875.42 -31754875.24 0.0088 0.0026

Mercury -91653-02-18 05:01 J -31754787.46 -31754787.29 -31754787.11 0.0088 0.0020

Mercury -91653-05-16 07:54 J -31754699.34 -31754699.17 -31754698.99 0.0088 0.0015

Venus -91653-06-20 09:20 J -31754664.28 -31754664.11 -31754663.92 0.0088 0.0052

Mercury -91653-08-12 11:01 J -31754611.22 -31754611.04 -31754610.86 0.0088 0.0009

Mercury -91653-11-08 13:54 J -31754523.10 -31754522.92 -31754522.74 0.0088 0.0003

Venus -91652-01-31 23:01 J -31754438.67 -31754438.54 -31754438.37 0.0088 0.0066

Mercury -91652-02-04 16:47 J -31754434.98 -31754434.80 -31754434.62 0.0088 0.0002

Mercury -91652-05-03 19:39 J -31754346.86 -31754346.68 -31754346.50 0.0088 0.0007

Mercury -91652-07-30 22:32 J -31754258.73 -31754258.56 -31754258.38 0.0088 0.0013

Venus -91652-09-14 12:42 J -31754213.04 -31754212.97 -31754212.84 0.0088 0.0080

Mercury -91652-10-27 01:11 J -31754170.61 -31754170.45 -31754170.27 0.0088 0.0019

Mercury -91651-01-23 04:03 J -31754082.49 -31754082.33 -31754082.15 0.0088 0.0024

Mercury -91651-04-21 06:56 J -31753994.37 -31753994.21 -31753994.04 0.0088 0.0029

Mercury -91651-07-18 10:03 J -31753906.25 -31753906.08 -31753905.92 0.0088 0.0034

Mercury -91651-10-14 12:27 J -31753818.12 -31753817.98 -31753817.81 0.0088 0.0040

Mercury -91650-01-10 15:20 J -31753730.00 -31753729.86 -31753729.70 0.0088 0.0045

Mercury -91650-04-08 18:13 J -31753641.88 -31753641.74 -31753641.59 0.0088 0.0050

Mercury -91650-07-05 21:06 J -31753553.75 -31753553.62 -31753553.48 0.0088 0.0055

Mercury -91650-10-01 23:59 J -31753465.63 -31753465.50 -31753465.37 0.0088 0.0060

Mercury -91650-12-29 02:23 J -31753377.50 -31753377.40 -31753377.27 0.0088 0.0065

Mercury -91649-03-26 05:01 J -31753289.37 -31753289.29 -31753289.17 0.0088 0.0071

Mercury -91649-06-22 07:54 J -31753201.25 -31753201.17 -31753201.07 0.0088 0.0076

Mercury -91649-09-18 10:32 J -31753113.11 -31753113.06 -31753112.97 0.0088 0.0081

Mercury -91649-12-15 13:25 J -31753024.97 -31753024.94 -31753024.89 0.0088 0.0085

Moon -91627-09-12 00:13 J -31745084.63 -31745084.49 -31745084.30 0.0088 0.0068

Earth -91627-09-12 01:39 J -31745084.58 -31745084.43 -31745084.27 0.0088 0.0071 *

Earth -91626-09-14 13:25 J -31744717.15 -31744716.94 -31744716.70 0.0088 0.0041

Moon -91626-09-14 13:39 J -31744717.14 -31744716.93 -31744716.68 0.0088 0.0046 *

Earth -91625-09-16 01:11 J -31744349.69 -31744349.45 -31744349.18 0.0088 0.0013

Moon -91625-09-16 02:51 J -31744349.63 -31744349.38 -31744349.13 0.0088 0.0008 *

Moon -91624-09-18 10:32 J -31743982.32 -31743982.06 -31743981.80 0.0088 0.0014
 Earth -91624-09-18 12:56 J -31743982.21 -31743981.96 -31743981.70 0.0088 0.0018 *
 Earth -91623-09-21 00:13 J -31743614.70 -31743614.49 -31743614.26 0.0088 0.0047
 Moon -91623-09-21 02:51 J -31743614.57 -31743614.38 -31743614.16 0.0088 0.0052 *
 Moon -91622-09-23 07:39 J -31743247.31 -31743247.18 -31743247.01 0.0088 0.0072
 Earth -91622-09-23 11:01 J -31743247.13 -31743247.04 -31743246.87 0.0088 0.0077 *
 Mars -91614-09-10 09:35 J -31740338.35 -31740338.10 -31740337.82 0.0088 0.0036
 Mars -91612-08-03 23:59 J -31739644.76 -31739644.50 -31739644.22 0.0088 0.0036
 Venus -91576-01-12 05:59 J -31726699.32 -31726699.25 -31726699.15 0.0089 0.0081
 Venus -91576-08-25 17:44 J -31726473.88 -31726473.76 -31726473.61 0.0089 0.0068
 Venus -91575-04-08 05:30 J -31726248.42 -31726248.27 -31726248.08 0.0089 0.0055
 Mercury -91575-09-27 16:03 J -31726075.85 -31726075.83 -31726075.80 0.0089 0.0087
 Venus -91575-11-19 17:30 J -31726022.94 -31726022.77 -31726022.56 0.0089 0.0042
 Mercury -91575-12-24 17:44 J -31725987.81 -31725987.76 -31725987.71 0.0089 0.0083
 Mercury -91574-03-22 19:11 J -31725899.76 -31725899.70 -31725899.64 0.0089 0.0079
 Mercury -91574-06-18 20:37 J -31725811.71 -31725811.64 -31725811.56 0.0089 0.0075
 Venus -91574-07-03 05:44 J -31725797.46 -31725797.26 -31725797.05 0.0089 0.0028
 Mercury -91574-09-14 22:03 J -31725723.65 -31725723.58 -31725723.49 0.0089 0.0071
 Mercury -91574-12-11 23:30 J -31725635.60 -31725635.52 -31725635.41 0.0089 0.0067
 Venus -91573-02-13 17:44 J -31725571.97 -31725571.76 -31725571.55 0.0089 0.0015
 Mercury -91573-03-09 01:11 J -31725547.54 -31725547.45 -31725547.34 0.0089 0.0063
 Mercury -91573-06-05 02:37 J -31725459.48 -31725459.39 -31725459.27 0.0089 0.0059
 Mercury -91573-09-01 04:32 J -31725371.42 -31725371.31 -31725371.20 0.0089 0.0054
 Venus -91573-09-26 05:44 J -31725346.47 -31725346.26 -31725346.04 0.0089 0.0002
 Mercury -91573-11-28 05:59 J -31725283.36 -31725283.25 -31725283.13 0.0089 0.0050
 Mercury -91572-02-24 07:25 J -31725195.30 -31725195.19 -31725195.06 0.0089 0.0046
 Venus -91572-05-09 17:44 J -31725120.97 -31725120.76 -31725120.54 0.0089 0.0012
 Mercury -91572-05-23 09:06 J -31725107.24 -31725107.12 -31725106.99 0.0089 0.0041
 Mercury -91572-08-19 10:47 J -31725019.18 -31725019.05 -31725018.92 0.0089 0.0037
 Mercury -91572-11-15 12:13 J -31724931.11 -31724930.99 -31724930.85 0.0089 0.0033

Venus -91572-12-21 05:30 J -31724895.46 -31724895.27 -31724895.05 0.0089 0.0026

Mercury -91571-02-11 13:54 J -31724843.05 -31724842.92 -31724842.78 0.0089 0.0029

Mercury -91571-05-10 15:35 J -31724754.99 -31724754.85 -31724754.71 0.0089 0.0024

Venus -91571-08-03 17:30 J -31724669.95 -31724669.77 -31724669.56 0.0089 0.0039

Mercury -91571-08-06 17:15 J -31724666.92 -31724666.78 -31724666.65 0.0089 0.0020

Mercury -91571-11-02 18:42 J -31724578.86 -31724578.72 -31724578.58 0.0089 0.0016

Mercury -91570-01-29 20:23 J -31724490.79 -31724490.65 -31724490.51 0.0089 0.0011

Venus -91570-03-17 05:59 J -31724444.43 -31724444.25 -31724444.08 0.0089 0.0052

Mercury -91570-04-27 22:03 J -31724402.72 -31724402.58 -31724402.44 0.0089 0.0007

Mercury -91570-07-24 23:44 J -31724314.65 -31724314.51 -31724314.37 0.0089 0.0003

Mercury -91570-10-21 01:25 J -31724226.59 -31724226.44 -31724226.30 0.0089 0.0003

Venus -91570-10-28 17:44 J -31724218.89 -31724218.76 -31724218.60 0.0089 0.0066

Mercury -91569-01-17 02:51 J -31724138.52 -31724138.38 -31724138.23 0.0089 0.0007

Mercury -91569-04-14 04:32 J -31724050.45 -31724050.31 -31724050.17 0.0089 0.0011

Venus -91569-06-10 05:59 J -31723993.34 -31723993.25 -31723993.14 0.0089 0.0079

Mercury -91569-07-11 06:13 J -31723962.38 -31723962.24 -31723962.10 0.0089 0.0015

Mercury -91569-10-07 07:54 J -31723874.31 -31723874.17 -31723874.03 0.0089 0.0019

Mercury -91568-01-03 09:35 J -31723786.24 -31723786.10 -31723785.96 0.0089 0.0024

Mercury -91568-04-01 11:15 J -31723698.17 -31723698.03 -31723697.89 0.0089 0.0028

Mercury -91568-06-28 12:56 J -31723610.09 -31723609.96 -31723609.83 0.0089 0.0033

Mercury -91568-09-24 14:37 J -31723522.02 -31723521.89 -31723521.76 0.0089 0.0037

Mercury -91568-12-21 16:03 J -31723433.95 -31723433.83 -31723433.69 0.0089 0.0042

Mercury -91567-03-19 17:59 J -31723345.87 -31723345.75 -31723345.63 0.0089 0.0046

Mercury -91567-06-15 19:25 J -31723257.79 -31723257.69 -31723257.56 0.0089 0.0051

Mercury -91567-09-11 21:20 J -31723169.72 -31723169.61 -31723169.49 0.0089 0.0055

Mercury -91567-12-08 23:01 J -31723081.64 -31723081.54 -31723081.43 0.0089 0.0060

Mercury -91566-03-07 00:56 J -31722993.56 -31722993.46 -31722993.36 0.0089 0.0064

Mercury -91566-06-03 02:23 J -31722905.48 -31722905.40 -31722905.30 0.0089 0.0069

Mercury -91566-08-30 04:18 J -31722817.40 -31722817.32 -31722817.24 0.0089 0.0073

Mercury -91566-11-26 05:59 J -31722729.31 -31722729.25 -31722729.18 0.0089 0.0078

Mercury -91565-02-22 07:54 J -31722641.22 -31722641.17 -31722641.12 0.0089 0.0082
 Mercury -91565-05-20 09:20 J -31722553.12 -31722553.11 -31722553.07 0.0089 0.0087
 Jupiter -91558-11-06 05:30 J -31719827.61 -31719827.27 -31719826.89 0.0089 0.0066
 Moon -91544-03-05 08:08 J -31714959.29 -31714959.16 -31714958.98 0.0089 0.0069
 Earth -91544-03-05 11:44 J -31714959.18 -31714959.01 -31714958.83 0.0089 0.0064 *
 Earth -91543-03-07 22:47 J -31714591.77 -31714591.55 -31714591.30 0.0089 0.0035
 Moon -91543-03-08 01:25 J -31714591.68 -31714591.44 -31714591.19 0.0089 0.0030 *
 Moon -91542-03-10 09:06 J -31714224.36 -31714224.12 -31714223.87 0.0089 0.0010
 Earth -91542-03-10 10:18 J -31714224.33 -31714224.07 -31714223.81 0.0089 0.0005 *
 Earth -91541-03-11 21:35 J -31713856.84 -31713856.60 -31713856.35 0.0089 0.0024
 Moon -91541-03-11 21:35 J -31713856.83 -31713856.60 -31713856.33 0.0089 0.0029 *
 Earth -91540-03-14 09:06 J -31713489.32 -31713489.12 -31713488.91 0.0089 0.0054
 Moon -91540-03-14 10:03 J -31713489.27 -31713489.08 -31713488.86 0.0089 0.0050 *
 Moon -91539-03-16 17:44 J -31713121.77 -31713121.76 -31713121.70 0.0089 0.0088
 Earth -91539-03-16 20:08 J -31713121.71 -31713121.66 -31713121.55 0.0089 0.0084 *
 Mars -91532-07-24 16:47 J -31710435.04 -31710434.80 -31710434.49 0.0089 0.0054
 Mars -91530-06-21 00:42 J -31709738.76 -31709738.47 -31709738.13 0.0089 0.0034
 Venus -91494-03-02 08:37 J -31696700.22 -31696700.14 -31696700.04 0.0088 0.0081
 Venus -91494-10-13 23:01 J -31696474.68 -31696474.54 -31696474.39 0.0088 0.0067
 Venus -91493-05-26 13:11 J -31696249.12 -31696248.95 -31696248.76 0.0088 0.0053
 Venus -91492-01-07 03:20 J -31696023.56 -31696023.36 -31696023.15 0.0088 0.0039
 Venus -91492-08-20 17:30 J -31695797.98 -31695797.77 -31695797.55 0.0088 0.0025
 Mercury -91492-12-22 13:39 J -31695673.95 -31695673.93 -31695673.88 0.0088 0.0087
 Mercury -91491-03-20 17:01 J -31695585.86 -31695585.79 -31695585.72 0.0088 0.0081
 Venus -91491-04-03 07:39 J -31695572.40 -31695572.18 -31695571.95 0.0088 0.0011
 Mercury -91491-06-16 19:39 J -31695497.75 -31695497.68 -31695497.56 0.0088 0.0076
 Mercury -91491-09-12 23:01 J -31695409.64 -31695409.54 -31695409.42 0.0088 0.0070
 Venus -91491-11-14 21:49 J -31695346.81 -31695346.59 -31695346.36 0.0088 0.0004
 Mercury -91491-12-10 01:54 J -31695321.52 -31695321.42 -31695321.28 0.0088 0.0065
 Mercury -91490-03-08 05:01 J -31695233.41 -31695233.29 -31695233.14 0.0088 0.0059

Mercury -91490-06-04 08:23 J -31695145.29 -31695145.15 -31695145.00 0.0088 0.0053

Venus -91490-06-28 11:44 J -31695121.23 -31695121.01 -31695120.78 0.0088 0.0018

Mercury -91490-08-31 11:15 J -31695057.17 -31695057.03 -31695056.87 0.0088 0.0048

Mercury -91490-11-27 14:23 J -31694969.05 -31694968.90 -31694968.74 0.0088 0.0042

Venus -91489-02-09 01:39 J -31694895.64 -31694895.43 -31694895.21 0.0088 0.0032

Mercury -91489-02-23 17:15 J -31694880.93 -31694880.78 -31694880.61 0.0088 0.0037

Mercury -91489-05-21 20:23 J -31694792.81 -31694792.65 -31694792.48 0.0088 0.0031

Mercury -91489-08-17 23:15 J -31694704.69 -31694704.53 -31694704.35 0.0088 0.0026

Venus -91489-09-21 15:35 J -31694670.03 -31694669.85 -31694669.65 0.0088 0.0046

Mercury -91489-11-14 02:23 J -31694616.57 -31694616.40 -31694616.22 0.0088 0.0020

Mercury -91488-02-10 05:15 J -31694528.45 -31694528.28 -31694528.10 0.0088 0.0015

Venus -91488-05-05 05:30 J -31694444.42 -31694444.27 -31694444.09 0.0088 0.0060

Mercury -91488-05-09 08:08 J -31694440.33 -31694440.16 -31694439.97 0.0088 0.0010

Mercury -91488-08-05 11:15 J -31694352.21 -31694352.03 -31694351.85 0.0088 0.0004

Mercury -91488-11-01 14:08 J -31694264.09 -31694263.91 -31694263.73 0.0088 0.0002

Venus -91488-12-16 19:25 J -31694218.80 -31694218.69 -31694218.55 0.0088 0.0074

Mercury -91487-01-28 17:01 J -31694175.97 -31694175.79 -31694175.61 0.0088 0.0007

Mercury -91487-04-26 19:54 J -31694087.84 -31694087.67 -31694087.49 0.0088 0.0013

Mercury -91487-07-23 22:32 J -31693999.72 -31693999.56 -31693999.37 0.0088 0.0019

Venus -91487-07-30 09:06 J -31693993.13 -31693993.12 -31693993.06 0.0088 0.0088

Mercury -91487-10-20 01:25 J -31693911.60 -31693911.44 -31693911.26 0.0088 0.0024

Mercury -91486-01-16 04:32 J -31693823.48 -31693823.31 -31693823.14 0.0088 0.0029

Mercury -91486-04-14 07:25 J -31693735.35 -31693735.19 -31693735.03 0.0088 0.0034

Mercury -91486-07-11 09:49 J -31693647.23 -31693647.09 -31693646.92 0.0088 0.0040

Mercury -91486-10-07 12:42 J -31693559.11 -31693558.97 -31693558.80 0.0088 0.0045

Mercury -91485-01-03 15:35 J -31693470.98 -31693470.85 -31693470.69 0.0088 0.0050

Mercury -91485-03-31 18:27 J -31693382.86 -31693382.73 -31693382.59 0.0088 0.0055

Mercury -91485-06-27 21:20 J -31693294.73 -31693294.61 -31693294.48 0.0088 0.0060

Mercury -91485-09-23 23:44 J -31693206.61 -31693206.51 -31693206.37 0.0088 0.0066

Mercury -91485-12-21 02:37 J -31693118.48 -31693118.39 -31693118.27 0.0088 0.0070

Mercury -91484-03-19 05:15 J -31693030.35 -31693030.28 -31693030.17 0.0088 0.0076
 Mercury -91484-06-15 08:08 J -31692942.22 -31692942.16 -31692942.08 0.0088 0.0081
 Mercury -91484-09-11 10:47 J -31692854.07 -31692854.05 -31692853.99 0.0088 0.0086
 Moon -91463-09-11 02:37 J -31685184.45 -31685184.39 -31685184.30 0.0088 0.0085
 Earth -91463-09-11 03:49 J -31685184.35 -31685184.34 -31685184.29 0.0088 0.0088 *
 Earth -91462-09-13 15:49 J -31684817.02 -31684816.84 -31684816.63 0.0088 0.0058
 Moon -91462-09-13 17:44 J -31684816.93 -31684816.76 -31684816.56 0.0088 0.0061 *
 Moon -91461-09-15 00:42 J -31684449.71 -31684449.47 -31684449.20 0.0088 0.0027
 Earth -91461-09-15 03:35 J -31684449.58 -31684449.35 -31684449.09 0.0088 0.0030 *
 Earth -91460-09-17 15:35 J -31684082.11 -31684081.85 -31684081.59 0.0088 0.0000
 Moon -91460-09-17 19:11 J -31684081.96 -31684081.70 -31684081.44 0.0088 0.0002 *
 Moon -91459-09-19 23:30 J -31683714.75 -31683714.52 -31683714.27 0.0088 0.0031
 Earth -91459-09-20 03:06 J -31683714.61 -31683714.37 -31683714.12 0.0088 0.0030 *
 Earth -91458-09-22 14:23 J -31683347.08 -31683346.90 -31683346.70 0.0088 0.0059
 Moon -91458-09-22 17:44 J -31683346.94 -31683346.76 -31683346.55 0.0088 0.0057 *
 Earth -91457-09-24 01:25 J -31682979.45 -31682979.44 -31682979.39 0.0088 0.0088
 Mars -91450-04-25 12:13 J -31680575.14 -31680574.99 -31680574.80 0.0088 0.0072
 Mars -91448-03-19 03:20 J -31679881.65 -31679881.36 -31679881.07 0.0088 0.0001
 Mars -91446-02-10 17:44 J -31679187.92 -31679187.76 -31679187.58 0.0088 0.0072
 Venus -91412-04-15 14:08 J -31666704.92 -31666704.91 -31666704.85 0.0089 0.0088
 Venus -91412-11-27 02:37 J -31666479.50 -31666479.39 -31666479.27 0.0089 0.0074
 Venus -91411-07-10 14:23 J -31666254.05 -31666253.90 -31666253.74 0.0089 0.0061
 Venus -91410-02-21 02:08 J -31666028.58 -31666028.41 -31666028.22 0.0089 0.0048
 Mercury -91410-06-24 14:51 J -31665904.90 -31665904.88 -31665904.86 0.0089 0.0087
 Mercury -91410-09-20 16:18 J -31665816.86 -31665816.82 -31665816.77 0.0089 0.0083
 Venus -91410-10-04 13:54 J -31665803.10 -31665802.92 -31665802.70 0.0089 0.0035
 Mercury -91410-12-17 17:44 J -31665728.81 -31665728.76 -31665728.69 0.0089 0.0079
 Mercury -91409-03-14 19:11 J -31665640.76 -31665640.70 -31665640.62 0.0089 0.0075
 Venus -91409-05-17 02:08 J -31665577.61 -31665577.41 -31665577.20 0.0089 0.0021
 Mercury -91409-06-10 20:51 J -31665552.71 -31665552.63 -31665552.54 0.0089 0.0071

Mercury -91409-09-06 22:18 J -31665464.65 -31665464.57 -31665464.47 0.0089 0.0067

Mercury -91409-12-03 23:44 J -31665376.60 -31665376.51 -31665376.40 0.0089 0.0063

Venus -91409-12-28 14:08 J -31665352.12 -31665351.91 -31665351.69 0.0089 0.0008

Mercury -91408-03-02 01:11 J -31665288.54 -31665288.45 -31665288.33 0.0089 0.0059

Mercury -91408-05-29 03:06 J -31665200.48 -31665200.37 -31665200.26 0.0089 0.0054

Venus -91408-08-11 02:08 J -31665126.62 -31665126.41 -31665126.20 0.0089 0.0006

Mercury -91408-08-25 04:32 J -31665112.42 -31665112.31 -31665112.19 0.0089 0.0050

Mercury -91408-11-21 05:59 J -31665024.36 -31665024.25 -31665024.12 0.0089 0.0046

Mercury -91407-02-17 07:39 J -31664936.30 -31664936.18 -31664936.05 0.0089 0.0042

Venus -91407-03-24 13:54 J -31664901.12 -31664900.92 -31664900.70 0.0089 0.0020

Mercury -91407-05-16 09:20 J -31664848.24 -31664848.11 -31664847.98 0.0089 0.0037

Mercury -91407-08-12 10:47 J -31664760.17 -31664760.05 -31664759.91 0.0089 0.0033

Venus -91407-11-05 01:54 J -31664675.61 -31664675.42 -31664675.21 0.0089 0.0033

Mercury -91407-11-08 12:27 J -31664672.11 -31664671.98 -31664671.84 0.0089 0.0029

Mercury -91406-02-04 13:54 J -31664584.05 -31664583.92 -31664583.78 0.0089 0.0025

Mercury -91406-05-03 15:49 J -31664495.98 -31664495.84 -31664495.71 0.0089 0.0020

Venus -91406-06-18 14:08 J -31664450.09 -31664449.91 -31664449.72 0.0089 0.0046

Mercury -91406-07-30 17:15 J -31664407.92 -31664407.78 -31664407.64 0.0089 0.0016

Mercury -91406-10-26 18:56 J -31664319.85 -31664319.71 -31664319.57 0.0089 0.0011

Mercury -91405-01-22 20:37 J -31664231.78 -31664231.64 -31664231.50 0.0089 0.0007

Venus -91405-01-30 01:54 J -31664224.56 -31664224.42 -31664224.25 0.0089 0.0060

Mercury -91405-04-19 22:03 J -31664143.72 -31664143.58 -31664143.43 0.0089 0.0004

Mercury -91405-07-16 23:44 J -31664055.65 -31664055.51 -31664055.36 0.0089 0.0003

Venus -91405-09-11 14:08 J -31663999.02 -31663998.91 -31663998.78 0.0089 0.0073

Mercury -91405-10-13 01:25 J -31663967.58 -31663967.44 -31663967.30 0.0089 0.0006

Mercury -91404-01-09 03:06 J -31663879.51 -31663879.37 -31663879.23 0.0089 0.0010

Mercury -91404-04-07 04:47 J -31663791.44 -31663791.30 -31663791.16 0.0089 0.0015

Venus -91404-04-25 01:54 J -31663773.44 -31663773.42 -31663773.35 0.0089 0.0087

Mercury -91404-07-04 06:27 J -31663703.37 -31663703.23 -31663703.09 0.0089 0.0019

Mercury -91404-09-30 07:54 J -31663615.30 -31663615.17 -31663615.02 0.0089 0.0024

Mercury -91404-12-27 09:49 J -31663527.23 -31663527.09 -31663526.96 0.0089 0.0028

Mercury -91403-03-25 11:15 J -31663439.16 -31663439.03 -31663438.89 0.0089 0.0033

Mercury -91403-06-21 13:11 J -31663351.08 -31663350.95 -31663350.82 0.0089 0.0037

Mercury -91403-09-17 14:37 J -31663263.01 -31663262.89 -31663262.76 0.0089 0.0042

Mercury -91403-12-14 16:18 J -31663174.93 -31663174.82 -31663174.69 0.0089 0.0046

Mercury -91402-03-12 17:59 J -31663086.86 -31663086.75 -31663086.62 0.0089 0.0051

Mercury -91402-06-08 19:54 J -31662998.78 -31662998.67 -31662998.56 0.0089 0.0055

Mercury -91402-09-04 21:20 J -31662910.70 -31662910.61 -31662910.49 0.0089 0.0060

Mercury -91402-12-01 23:15 J -31662822.63 -31662822.53 -31662822.43 0.0089 0.0064

Mercury -91401-02-28 00:42 J -31662734.54 -31662734.47 -31662734.36 0.0089 0.0069

Mercury -91401-05-26 02:37 J -31662646.46 -31662646.39 -31662646.30 0.0089 0.0073

Mercury -91401-08-22 04:18 J -31662558.38 -31662558.32 -31662558.24 0.0089 0.0078

Mercury -91401-11-18 06:13 J -31662470.29 -31662470.24 -31662470.18 0.0089 0.0082

Mercury -91400-02-14 07:54 J -31662382.19 -31662382.17 -31662382.13 0.0089 0.0087

Earth -91380-03-04 16:18 J -31655058.90 -31655058.82 -31655058.69 0.0089 0.0081

Moon -91380-03-04 17:59 J -31655058.83 -31655058.75 -31655058.61 0.0089 0.0081 *

Moon -91379-03-07 03:06 J -31654691.57 -31654691.37 -31654691.16 0.0089 0.0051

Earth -91379-03-07 03:49 J -31654691.54 -31654691.34 -31654691.12 0.0089 0.0051 *

Moon -91378-03-09 13:54 J -31654324.16 -31654323.92 -31654323.65 0.0089 0.0023

Earth -91378-03-09 15:06 J -31654324.11 -31654323.87 -31654323.61 0.0089 0.0022 *

Earth -91377-03-11 02:37 J -31653956.64 -31653956.39 -31653956.13 0.0089 0.0008

Moon -91377-03-11 04:32 J -31653956.56 -31653956.31 -31653956.06 0.0089 0.0008 *

Moon -91376-03-13 11:15 J -31653589.26 -31653589.03 -31653588.78 0.0089 0.0037

Earth -91376-03-13 14:08 J -31653589.14 -31653588.91 -31653588.67 0.0089 0.0037 *

Earth -91375-03-16 01:11 J -31653221.59 -31653221.45 -31653221.26 0.0089 0.0067

Moon -91375-03-16 05:15 J -31653221.44 -31653221.28 -31653221.11 0.0089 0.0067 *

Mars -91366-02-01 03:20 J -31649977.70 -31649977.36 -31649977.02 0.0089 0.0009

Mars -91365-12-28 10:47 J -31649281.20 -31649281.05 -31649280.88 0.0089 0.0078

Venus -91330-06-03 14:51 J -31636705.89 -31636705.88 -31636705.83 0.0089 0.0088

Venus -91329-01-15 05:01 J -31636480.40 -31636480.29 -31636480.15 0.0088 0.0074

Venus -91329-08-27 19:11 J -31636254.85 -31636254.70 -31636254.52 0.0088 0.0060
 Venus -91328-04-10 09:20 J -31636029.28 -31636029.11 -31636028.89 0.0088 0.0046
 Venus -91328-11-21 23:30 J -31635803.71 -31635803.52 -31635803.29 0.0088 0.0032
 Venus -91327-07-05 13:54 J -31635578.14 -31635577.92 -31635577.69 0.0088 0.0017
 Mercury -91327-09-18 11:01 J -31635503.06 -31635503.04 -31635503.00 0.0088 0.0087
 Mercury -91327-12-15 13:54 J -31635414.97 -31635414.92 -31635414.83 0.0088 0.0081
 Venus -91326-02-16 04:03 J -31635352.56 -31635352.33 -31635352.11 0.0088 0.0003
 Mercury -91326-03-13 17:01 J -31635326.86 -31635326.79 -31635326.68 0.0088 0.0076
 Mercury -91326-06-09 20:23 J -31635238.75 -31635238.65 -31635238.53 0.0088 0.0070
 Mercury -91326-09-05 23:15 J -31635150.64 -31635150.53 -31635150.39 0.0088 0.0065
 Venus -91326-09-29 17:59 J -31635126.97 -31635126.75 -31635126.52 0.0088 0.0011
 Mercury -91326-12-03 02:23 J -31635062.52 -31635062.40 -31635062.25 0.0088 0.0059
 Mercury -91325-02-29 05:15 J -31634974.40 -31634974.28 -31634974.11 0.0088 0.0054
 Venus -91325-05-12 08:08 J -31634901.37 -31634901.16 -31634900.94 0.0088 0.0026
 Mercury -91325-05-27 08:37 J -31634886.28 -31634886.14 -31634885.98 0.0088 0.0048
 Mercury -91325-08-23 11:44 J -31634798.16 -31634798.01 -31634797.85 0.0088 0.0042
 Mercury -91325-11-19 14:37 J -31634710.04 -31634709.89 -31634709.72 0.0088 0.0037
 Venus -91325-12-23 22:03 J -31634675.77 -31634675.58 -31634675.37 0.0088 0.0040
 Mercury -91324-02-15 17:44 J -31634621.92 -31634621.76 -31634621.59 0.0088 0.0031
 Mercury -91324-05-14 20:37 J -31634533.80 -31634533.64 -31634533.46 0.0088 0.0026
 Venus -91324-08-06 11:59 J -31634450.17 -31634450.00 -31634449.81 0.0088 0.0054
 Mercury -91324-08-10 23:44 J -31634445.68 -31634445.51 -31634445.33 0.0088 0.0020
 Mercury -91324-11-07 02:37 J -31634357.56 -31634357.39 -31634357.21 0.0088 0.0015
 Mercury -91323-02-03 05:44 J -31634269.44 -31634269.26 -31634269.08 0.0088 0.0009
 Venus -91323-03-20 01:54 J -31634224.55 -31634224.42 -31634224.26 0.0088 0.0068
 Mercury -91323-05-02 08:37 J -31634181.32 -31634181.14 -31634180.96 0.0088 0.0004
 Mercury -91323-07-29 11:30 J -31634093.19 -31634093.02 -31634092.84 0.0088 0.0003
 Mercury -91323-10-25 14:23 J -31634005.07 -31634004.90 -31634004.72 0.0088 0.0008
 Venus -91323-10-31 15:35 J -31633998.91 -31633998.85 -31633998.74 0.0088 0.0082
 Mercury -91322-01-21 17:30 J -31633916.95 -31633916.77 -31633916.60 0.0088 0.0013

Mercury -91322-04-19 20:08 J -31633828.83 -31633828.66 -31633828.48 0.0088 0.0018

Mercury -91322-07-16 23:01 J -31633740.70 -31633740.54 -31633740.36 0.0088 0.0024

Mercury -91322-10-13 01:54 J -31633652.58 -31633652.42 -31633652.25 0.0088 0.0029

Mercury -91321-01-09 04:32 J -31633564.46 -31633564.31 -31633564.13 0.0088 0.0035

Mercury -91321-04-06 07:25 J -31633476.33 -31633476.19 -31633476.02 0.0088 0.0040

Mercury -91321-07-03 10:18 J -31633388.21 -31633388.07 -31633387.91 0.0088 0.0045

Mercury -91321-09-29 13:11 J -31633300.09 -31633299.95 -31633299.80 0.0088 0.0050

Mercury -91321-12-26 16:03 J -31633211.96 -31633211.83 -31633211.69 0.0088 0.0055

Mercury -91320-03-24 18:27 J -31633123.84 -31633123.73 -31633123.58 0.0088 0.0061

Mercury -91320-06-20 21:20 J -31633035.71 -31633035.61 -31633035.48 0.0088 0.0066

Mercury -91320-09-17 00:13 J -31632947.58 -31632947.49 -31632947.37 0.0088 0.0070

Mercury -91320-12-14 02:51 J -31632859.45 -31632859.38 -31632859.28 0.0088 0.0076

Mercury -91319-03-12 05:44 J -31632771.32 -31632771.26 -31632771.18 0.0088 0.0081

Mercury -91319-06-08 08:23 J -31632683.18 -31632683.15 -31632683.09 0.0088 0.0086

Moon -91298-09-12 15:35 J -31624916.98 -31624916.85 -31624916.68 0.0088 0.0072

Earth -91298-09-12 19:25 J -31624916.82 -31624916.69 -31624916.55 0.0088 0.0075 *

Earth -91297-09-14 06:56 J -31624549.42 -31624549.21 -31624548.97 0.0088 0.0046

Moon -91297-09-14 10:47 J -31624549.26 -31624549.05 -31624548.83 0.0088 0.0050 *

Moon -91296-09-16 15:35 J -31624182.10 -31624181.85 -31624181.59 0.0088 0.0012

Earth -91296-09-16 18:56 J -31624181.95 -31624181.71 -31624181.44 0.0088 0.0017 *

Earth -91295-09-19 06:27 J -31623814.47 -31623814.23 -31623813.96 0.0088 0.0014

Moon -91295-09-19 09:20 J -31623814.37 -31623814.11 -31623813.84 0.0088 0.0009 *

Moon -91294-09-21 15:35 J -31623447.04 -31623446.85 -31623446.61 0.0088 0.0047

Earth -91294-09-21 18:13 J -31623446.96 -31623446.74 -31623446.51 0.0088 0.0042 *

Earth -91293-09-23 05:30 J -31623079.42 -31623079.27 -31623079.12 0.0088 0.0071

Moon -91293-09-23 05:44 J -31623079.41 -31623079.26 -31623079.07 0.0088 0.0067 *

Mars -91285-11-01 06:27 J -31620118.49 -31620118.23 -31620117.96 0.0088 0.0036

Mars -91283-09-25 21:20 J -31619424.86 -31619424.61 -31619424.33 0.0088 0.0037

Venus -91247-02-28 10:32 J -31606485.13 -31606485.06 -31606484.96 0.0089 0.0081

Venus -91247-10-11 22:32 J -31606259.68 -31606259.56 -31606259.41 0.0089 0.0068

Venus -91246-05-25 10:47 J -31606034.22 -31606034.05 -31606033.88 0.0089 0.0054

Venus -91245-01-05 22:18 J -31605808.74 -31605808.57 -31605808.37 0.0089 0.0041

Mercury -91245-03-20 13:11 J -31605733.96 -31605733.95 -31605733.92 0.0089 0.0088

Mercury -91245-06-16 14:37 J -31605645.92 -31605645.89 -31605645.83 0.0089 0.0084

Venus -91245-08-18 10:18 J -31605583.26 -31605583.07 -31605582.86 0.0089 0.0028

Mercury -91245-09-12 16:32 J -31605557.87 -31605557.81 -31605557.75 0.0089 0.0079

Mercury -91245-12-09 17:59 J -31605469.82 -31605469.75 -31605469.68 0.0089 0.0075

Mercury -91244-03-07 19:25 J -31605381.77 -31605381.69 -31605381.60 0.0089 0.0071

Venus -91244-03-31 22:18 J -31605357.77 -31605357.57 -31605357.35 0.0089 0.0014

Mercury -91244-06-03 20:51 J -31605293.71 -31605293.63 -31605293.53 0.0089 0.0067

Mercury -91244-08-30 22:18 J -31605205.65 -31605205.57 -31605205.46 0.0089 0.0063

Venus -91244-11-12 10:32 J -31605132.28 -31605132.06 -31605131.85 0.0089 0.0001

Mercury -91244-11-26 23:59 J -31605117.60 -31605117.50 -31605117.39 0.0089 0.0059

Mercury -91243-02-23 01:25 J -31605029.54 -31605029.44 -31605029.32 0.0089 0.0055

Mercury -91243-05-22 03:06 J -31604941.48 -31604941.37 -31604941.25 0.0089 0.0050

Venus -91243-06-25 22:18 J -31604906.78 -31604906.57 -31604906.35 0.0089 0.0013

Mercury -91243-08-18 04:47 J -31604853.42 -31604853.30 -31604853.18 0.0089 0.0046

Mercury -91243-11-14 06:13 J -31604765.36 -31604765.24 -31604765.11 0.0089 0.0042

Venus -91242-02-06 10:03 J -31604681.27 -31604681.08 -31604680.86 0.0089 0.0027

Mercury -91242-02-10 07:39 J -31604677.30 -31604677.18 -31604677.04 0.0089 0.0038

Mercury -91242-05-09 09:35 J -31604589.23 -31604589.10 -31604588.97 0.0089 0.0033

Mercury -91242-08-05 11:01 J -31604501.17 -31604501.04 -31604500.90 0.0089 0.0029

Venus -91242-09-19 22:18 J -31604455.76 -31604455.57 -31604455.37 0.0089 0.0040

Mercury -91242-11-01 12:27 J -31604413.11 -31604412.98 -31604412.84 0.0089 0.0025

Mercury -91241-01-28 14:08 J -31604325.04 -31604324.91 -31604324.77 0.0089 0.0021

Mercury -91241-04-25 15:49 J -31604236.98 -31604236.84 -31604236.70 0.0089 0.0016

Venus -91241-05-02 10:03 J -31604230.23 -31604230.08 -31604229.89 0.0089 0.0054

Mercury -91241-07-22 17:30 J -31604148.91 -31604148.77 -31604148.63 0.0089 0.0012

Mercury -91241-10-18 18:56 J -31604060.85 -31604060.71 -31604060.56 0.0089 0.0008

Venus -91241-12-13 22:18 J -31604004.70 -31604004.57 -31604004.42 0.0089 0.0067

Mercury -91240-01-14 20:37 J -31603972.78 -31603972.64 -31603972.49 0.0089 0.0004
 Mercury -91240-04-12 22:18 J -31603884.71 -31603884.57 -31603884.43 0.0089 0.0002
 Mercury -91240-07-09 23:59 J -31603796.64 -31603796.50 -31603796.36 0.0089 0.0006
 Venus -91240-07-27 10:03 J -31603779.14 -31603779.08 -31603778.97 0.0089 0.0081
 Mercury -91240-10-06 01:39 J -31603708.57 -31603708.43 -31603708.29 0.0089 0.0010
 Mercury -91239-01-02 03:06 J -31603620.50 -31603620.37 -31603620.22 0.0089 0.0015
 Mercury -91239-03-31 04:47 J -31603532.43 -31603532.30 -31603532.16 0.0089 0.0019
 Mercury -91239-06-27 06:27 J -31603444.36 -31603444.23 -31603444.09 0.0089 0.0024
 Mercury -91239-09-23 08:08 J -31603356.29 -31603356.16 -31603356.02 0.0089 0.0028
 Mercury -91239-12-20 09:35 J -31603268.22 -31603268.10 -31603267.95 0.0089 0.0033
 Mercury -91238-03-18 11:30 J -31603180.15 -31603180.02 -31603179.89 0.0089 0.0037
 Mercury -91238-06-14 12:56 J -31603092.07 -31603091.96 -31603091.82 0.0089 0.0042
 Mercury -91238-09-10 14:51 J -31603004.00 -31603003.88 -31603003.75 0.0089 0.0046
 Mercury -91238-12-07 16:18 J -31602915.92 -31602915.82 -31602915.69 0.0089 0.0051
 Mercury -91237-03-04 18:13 J -31602827.85 -31602827.74 -31602827.62 0.0089 0.0055
 Mercury -91237-05-31 19:54 J -31602739.77 -31602739.67 -31602739.56 0.0089 0.0060
 Mercury -91237-08-27 21:35 J -31602651.69 -31602651.60 -31602651.49 0.0089 0.0064
 Mercury -91237-11-23 23:15 J -31602563.61 -31602563.53 -31602563.43 0.0089 0.0069
 Mercury -91236-02-20 01:11 J -31602475.53 -31602475.45 -31602475.36 0.0089 0.0073
 Mercury -91236-05-19 02:37 J -31602387.44 -31602387.39 -31602387.30 0.0089 0.0078
 Mercury -91236-08-15 04:32 J -31602299.35 -31602299.31 -31602299.25 0.0089 0.0082
 Mercury -91236-11-11 06:13 J -31602211.25 -31602211.24 -31602211.20 0.0089 0.0087
 Moon -91215-03-06 07:11 J -31594791.33 -31594791.20 -31594791.02 0.0089 0.0072
 Earth -91215-03-06 08:23 J -31594791.28 -31594791.15 -31594790.95 0.0089 0.0068 *
 Earth -91214-03-08 20:08 J -31594423.89 -31594423.66 -31594423.43 0.0089 0.0038
 Moon -91214-03-08 22:18 J -31594423.79 -31594423.57 -31594423.32 0.0089 0.0034 *
 Moon -91213-03-10 04:03 J -31594056.58 -31594056.33 -31594056.07 0.0089 0.0013
 Earth -91213-03-10 07:25 J -31594056.44 -31594056.19 -31594055.93 0.0089 0.0009 *
 Earth -91212-03-12 18:27 J -31593688.96 -31593688.73 -31593688.46 0.0089 0.0021
 Moon -91212-03-12 22:03 J -31593688.81 -31593688.58 -31593688.32 0.0089 0.0025 *

Moon	-91211-03-15 02:37 J	-31593321.60	-31593321.39	-31593321.16	0.0089	0.0045
Earth	-91211-03-15 06:13 J	-31593321.44	-31593321.24	-31593321.02	0.0089	0.0050 *
Earth	-91210-03-17 17:30 J	-31592953.86	-31592953.77	-31592953.63	0.0089	0.0080
Moon	-91210-03-17 20:23 J	-31592953.71	-31592953.65	-31592953.55	0.0089	0.0084 *
Mars	-91203-09-14 04:32 J	-31590216.56	-31590216.31	-31590216.00	0.0089	0.0052
Mars	-91201-08-10 13:25 J	-31589520.22	-31589519.94	-31589519.60	0.0089	0.0037
Venus	-91165-04-17 12:13 J	-31576486.08	-31576485.99	-31576485.89	0.0088	0.0080
Venus	-91165-11-29 02:08 J	-31576260.54	-31576260.41	-31576260.24	0.0088	0.0066
Venus	-91164-07-12 16:18 J	-31576034.99	-31576034.82	-31576034.62	0.0088	0.0052
Venus	-91163-02-23 06:27 J	-31575809.43	-31575809.23	-31575809.02	0.0088	0.0037
Venus	-91163-10-06 20:37 J	-31575583.85	-31575583.64	-31575583.41	0.0088	0.0023
Venus	-91162-05-20 11:01 J	-31575358.27	-31575358.04	-31575357.82	0.0088	0.0009
Mercury	-91162-06-15 08:23 J	-31575332.17	-31575332.15	-31575332.10	0.0088	0.0087
Mercury	-91162-09-11 11:44 J	-31575244.08	-31575244.01	-31575243.93	0.0088	0.0081
Mercury	-91162-12-08 14:37 J	-31575155.97	-31575155.89	-31575155.78	0.0088	0.0076
Venus	-91161-01-01 00:56 J	-31575132.68	-31575132.46	-31575132.23	0.0088	0.0006
Mercury	-91161-03-05 17:44 J	-31575067.86	-31575067.76	-31575067.63	0.0088	0.0070
Mercury	-91161-06-01 20:37 J	-31574979.74	-31574979.64	-31574979.49	0.0088	0.0065
Venus	-91161-08-13 14:51 J	-31574907.09	-31574906.88	-31574906.65	0.0088	0.0020
Mercury	-91161-08-28 23:59 J	-31574891.62	-31574891.50	-31574891.35	0.0088	0.0059
Mercury	-91161-11-25 03:20 J	-31574803.51	-31574803.36	-31574803.22	0.0088	0.0053
Mercury	-91160-02-21 05:59 J	-31574715.39	-31574715.25	-31574715.08	0.0088	0.0048
Venus	-91160-03-27 05:01 J	-31574681.49	-31574681.29	-31574681.07	0.0088	0.0034
Mercury	-91160-05-20 09:20 J	-31574627.27	-31574627.11	-31574626.95	0.0088	0.0042
Mercury	-91160-08-16 12:13 J	-31574539.14	-31574538.99	-31574538.82	0.0088	0.0036
Venus	-91160-11-07 19:11 J	-31574455.89	-31574455.70	-31574455.51	0.0088	0.0048
Mercury	-91160-11-12 15:20 J	-31574451.02	-31574450.86	-31574450.69	0.0088	0.0031
Mercury	-91159-02-08 18:13 J	-31574362.90	-31574362.74	-31574362.56	0.0088	0.0026
Mercury	-91159-05-07 21:20 J	-31574274.78	-31574274.61	-31574274.43	0.0088	0.0020
Venus	-91159-06-21 08:37 J	-31574230.27	-31574230.14	-31574229.95	0.0088	0.0063

Mercury -91159-08-04 00:13 J -31574186.66 -31574186.49 -31574186.30 0.0088 0.0015

Mercury -91159-10-31 03:20 J -31574098.54 -31574098.36 -31574098.18 0.0088 0.0009

Mercury -91158-01-27 06:27 J -31574010.41 -31574010.23 -31574010.05 0.0088 0.0004

Venus -91158-02-01 22:32 J -31574004.65 -31574004.56 -31574004.42 0.0088 0.0077

Mercury -91158-04-25 09:20 J -31573922.29 -31573922.11 -31573921.93 0.0088 0.0002

Mercury -91158-07-22 12:13 J -31573834.17 -31573833.99 -31573833.81 0.0088 0.0008

Mercury -91158-10-18 15:06 J -31573746.04 -31573745.87 -31573745.69 0.0088 0.0013

Mercury -91157-01-14 17:59 J -31573657.92 -31573657.75 -31573657.57 0.0088 0.0019

Mercury -91157-04-11 20:51 J -31573569.80 -31573569.63 -31573569.46 0.0088 0.0024

Mercury -91157-07-08 23:30 J -31573481.67 -31573481.52 -31573481.34 0.0088 0.0030

Mercury -91157-10-05 02:37 J -31573393.55 -31573393.39 -31573393.22 0.0088 0.0034

Mercury -91156-01-01 05:30 J -31573305.43 -31573305.27 -31573305.11 0.0088 0.0040

Mercury -91156-03-30 08:08 J -31573217.30 -31573217.16 -31573217.00 0.0088 0.0045

Mercury -91156-06-26 11:01 J -31573129.18 -31573129.04 -31573128.89 0.0088 0.0050

Mercury -91156-09-22 13:39 J -31573041.05 -31573040.93 -31573040.78 0.0088 0.0056

Mercury -91156-12-19 16:32 J -31572952.93 -31572952.81 -31572952.67 0.0088 0.0061

Mercury -91155-03-17 19:25 J -31572864.80 -31572864.69 -31572864.57 0.0088 0.0066

Mercury -91155-06-13 22:18 J -31572776.67 -31572776.57 -31572776.47 0.0088 0.0071

Mercury -91155-09-10 00:42 J -31572688.54 -31572688.47 -31572688.37 0.0088 0.0076

Mercury -91155-12-07 03:20 J -31572600.40 -31572600.36 -31572600.27 0.0088 0.0082

Mercury -91154-03-05 06:13 J -31572512.26 -31572512.24 -31572512.19 0.0088 0.0086

Jupiter -91148-05-03 17:30 J -31570261.14 -31570260.77 -31570260.39 0.0088 0.0064

Moon -91134-09-12 01:54 J -31565016.43 -31565016.42 -31565016.36 0.0088 0.0088

Moon -91133-09-13 07:54 J -31564649.33 -31564649.17 -31564648.99 0.0088 0.0065

Earth -91133-09-13 10:47 J -31564649.22 -31564649.05 -31564648.85 0.0088 0.0062 *

Earth -91132-09-15 22:47 J -31564281.78 -31564281.55 -31564281.30 0.0088 0.0033

Moon -91132-09-16 01:11 J -31564281.68 -31564281.45 -31564281.18 0.0088 0.0031 *

Moon -91131-09-18 10:03 J -31563914.33 -31563914.08 -31563913.83 0.0088 0.0006

Earth -91131-09-18 11:01 J -31563914.30 -31563914.04 -31563913.78 0.0088 0.0003 *

Moon -91130-09-20 21:49 J -31563546.82 -31563546.59 -31563546.31 0.0088 0.0029

Earth	-91130-09-20 22:18 J	-31563546.81	-31563546.57	-31563546.32	0.0088	0.0026	*
Earth	-91129-09-22 09:35 J	-31563179.29	-31563179.10	-31563178.88	0.0088	0.0055	
Moon	-91129-09-22 10:32 J	-31563179.24	-31563179.06	-31563178.84	0.0088	0.0053	*
Moon	-91128-09-24 17:59 J	-31562811.78	-31562811.75	-31562811.67	0.0088	0.0086	
Earth	-91128-09-24 20:51 J	-31562811.69	-31562811.63	-31562811.52	0.0088	0.0083	*
Mars	-91121-06-16 13:39 J	-31560355.08	-31560354.93	-31560354.74	0.0088	0.0071	
Mars	-91119-05-11 02:23 J	-31559661.69	-31559661.40	-31559661.11	0.0088	0.0001	
Mars	-91117-04-03 16:32 J	-31558967.95	-31558967.81	-31558967.63	0.0088	0.0074	
Venus	-91083-06-01 19:11 J	-31546490.71	-31546490.70	-31546490.64	0.0089	0.0088	
Venus	-91082-01-13 07:11 J	-31546265.30	-31546265.20	-31546265.07	0.0089	0.0074	
Venus	-91082-08-26 18:56 J	-31546039.84	-31546039.71	-31546039.53	0.0089	0.0061	
Venus	-91081-04-08 07:11 J	-31545814.37	-31545814.20	-31545814.01	0.0089	0.0047	
Venus	-91081-11-19 19:11 J	-31545588.89	-31545588.70	-31545588.49	0.0089	0.0034	
Mercury	-91081-12-15 11:59 J	-31545563.01	-31545563.00	-31545562.97	0.0089	0.0088	
Mercury	-91080-03-13 13:39 J	-31545474.97	-31545474.93	-31545474.88	0.0089	0.0083	
Mercury	-91080-06-09 15:06 J	-31545386.92	-31545386.87	-31545386.80	0.0089	0.0079	
Venus	-91080-07-03 07:11 J	-31545363.40	-31545363.20	-31545362.99	0.0089	0.0020	
Mercury	-91080-09-05 16:32 J	-31545298.87	-31545298.81	-31545298.73	0.0089	0.0075	
Mercury	-91080-12-02 18:13 J	-31545210.82	-31545210.74	-31545210.65	0.0089	0.0071	
Venus	-91079-02-13 19:11 J	-31545137.91	-31545137.70	-31545137.49	0.0089	0.0006	
Mercury	-91079-02-28 19:39 J	-31545122.76	-31545122.68	-31545122.58	0.0089	0.0067	
Mercury	-91079-05-27 21:06 J	-31545034.71	-31545034.62	-31545034.51	0.0089	0.0063	
Mercury	-91079-08-23 22:32 J	-31544946.65	-31544946.56	-31544946.44	0.0089	0.0059	
Venus	-91079-09-27 07:11 J	-31544912.41	-31544912.20	-31544911.99	0.0089	0.0007	
Mercury	-91079-11-20 00:27 J	-31544858.59	-31544858.48	-31544858.37	0.0089	0.0054	
Mercury	-91078-02-16 01:54 J	-31544770.53	-31544770.42	-31544770.30	0.0089	0.0050	
Venus	-91078-05-10 18:56 J	-31544686.91	-31544686.71	-31544686.49	0.0089	0.0021	
Mercury	-91078-05-15 03:20 J	-31544682.47	-31544682.36	-31544682.23	0.0089	0.0046	
Mercury	-91078-08-11 04:47 J	-31544594.41	-31544594.30	-31544594.16	0.0089	0.0042	
Mercury	-91078-11-07 06:42 J	-31544506.35	-31544506.22	-31544506.10	0.0089	0.0037	

Venus -91078-12-22 06:42 J -31544461.40 -31544461.22 -31544461.00 0.0089 0.0035

Mercury -91077-02-03 08:08 J -31544418.29 -31544418.16 -31544418.03 0.0089 0.0033

Mercury -91077-05-01 09:35 J -31544330.22 -31544330.10 -31544329.96 0.0089 0.0029

Mercury -91077-07-28 11:15 J -31544242.16 -31544242.03 -31544241.89 0.0089 0.0025

Venus -91077-08-03 18:42 J -31544235.88 -31544235.72 -31544235.52 0.0089 0.0048

Mercury -91077-10-24 12:56 J -31544154.10 -31544153.96 -31544153.82 0.0089 0.0020

Mercury -91076-01-20 14:37 J -31544066.03 -31544065.89 -31544065.75 0.0089 0.0016

Venus -91076-03-17 06:27 J -31544010.36 -31544010.23 -31544010.05 0.0089 0.0062

Mercury -91076-04-18 16:03 J -31543977.97 -31543977.83 -31543977.69 0.0089 0.0012

Mercury -91076-07-15 17:44 J -31543889.90 -31543889.76 -31543889.62 0.0089 0.0007

Mercury -91076-10-11 19:25 J -31543801.83 -31543801.69 -31543801.55 0.0089 0.0003

Venus -91076-10-28 18:56 J -31543784.81 -31543784.71 -31543784.59 0.0089 0.0075

Mercury -91075-01-07 20:51 J -31543713.77 -31543713.63 -31543713.48 0.0089 0.0003

Mercury -91075-04-05 22:32 J -31543625.70 -31543625.56 -31543625.42 0.0089 0.0006

Venus -91075-06-11 06:56 J -31543559.21 -31543559.21 -31543559.18 0.0089 0.0089

Mercury -91075-07-03 00:13 J -31543537.63 -31543537.49 -31543537.35 0.0089 0.0010

Mercury -91075-09-29 01:54 J -31543449.56 -31543449.42 -31543449.28 0.0089 0.0015

Mercury -91075-12-26 03:35 J -31543361.49 -31543361.35 -31543361.21 0.0089 0.0019

Mercury -91074-03-24 05:01 J -31543273.42 -31543273.29 -31543273.15 0.0089 0.0024

Mercury -91074-06-20 06:42 J -31543185.35 -31543185.22 -31543185.08 0.0089 0.0028

Mercury -91074-09-16 08:23 J -31543097.28 -31543097.15 -31543097.01 0.0089 0.0032

Mercury -91074-12-13 10:03 J -31543009.21 -31543009.08 -31543008.95 0.0089 0.0037

Mercury -91073-03-10 11:44 J -31542921.13 -31542921.01 -31542920.88 0.0089 0.0041

Mercury -91073-06-06 13:25 J -31542833.06 -31542832.94 -31542832.81 0.0089 0.0046

Mercury -91073-09-02 15:06 J -31542744.98 -31542744.87 -31542744.75 0.0089 0.0050

Mercury -91073-11-29 16:47 J -31542656.91 -31542656.80 -31542656.68 0.0089 0.0055

Mercury -91072-02-25 18:42 J -31542568.83 -31542568.72 -31542568.62 0.0089 0.0059

Mercury -91072-05-24 20:08 J -31542480.75 -31542480.66 -31542480.55 0.0089 0.0064

Mercury -91072-08-20 21:49 J -31542392.67 -31542392.59 -31542392.49 0.0089 0.0069

Mercury -91072-11-16 23:30 J -31542304.59 -31542304.52 -31542304.43 0.0089 0.0073

Mercury -91071-02-13 01:11 J -31542216.50 -31542216.45 -31542216.37 0.0089 0.0078

Mercury -91071-05-12 03:06 J -31542128.42 -31542128.37 -31542128.31 0.0089 0.0082

Mercury -91071-08-08 04:47 J -31542040.32 -31542040.30 -31542040.26 0.0089 0.0087

Earth -91051-03-05 15:06 J -31534890.95 -31534890.87 -31534890.77 0.0089 0.0083

Moon -91051-03-05 17:59 J -31534890.80 -31534890.75 -31534890.67 0.0089 0.0085 *

Moon -91050-03-07 22:32 J -31534523.75 -31534523.56 -31534523.34 0.0089 0.0053

Earth -91050-03-08 02:08 J -31534523.60 -31534523.41 -31534523.20 0.0089 0.0054 *

Earth -91049-03-09 13:11 J -31534156.19 -31534155.95 -31534155.70 0.0089 0.0025

Moon -91049-03-09 17:01 J -31534156.04 -31534155.79 -31534155.55 0.0089 0.0026 *

Moon -91048-03-11 21:35 J -31533788.85 -31533788.60 -31533788.35 0.0089 0.0006

Earth -91048-03-12 00:27 J -31533788.73 -31533788.48 -31533788.22 0.0089 0.0004 *

Earth -91047-03-14 11:30 J -31533421.24 -31533421.02 -31533420.76 0.0089 0.0034

Moon -91047-03-14 14:37 J -31533421.13 -31533420.89 -31533420.64 0.0089 0.0033 *

Moon -91046-03-16 22:32 J -31533053.73 -31533053.56 -31533053.39 0.0089 0.0064

Earth -91046-03-16 23:15 J -31533053.69 -31533053.53 -31533053.33 0.0089 0.0063 *

Mars -91037-03-23 16:18 J -31529759.15 -31529758.82 -31529758.47 0.0089 0.0006

Mars -91035-02-18 01:25 J -31529062.57 -31529062.44 -31529062.32 0.0089 0.0082

Venus -91001-07-19 19:25 J -31516491.73 -31516491.69 -31516491.63 0.0089 0.0086

91ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 91st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Venus -91000-03-02 09:35 J -31516266.22 -31516266.10 -31516265.96 0.0089 0.0072
 Venus -91000-10-13 23:30 J -31516040.68 -31516040.52 -31516040.33 0.0088 0.0058
 Venus -90999-05-27 13:39 J -31515815.11 -31515814.93 -31515814.72 0.0088 0.0044
 Venus -90998-01-08 03:49 J -31515589.54 -31515589.34 -31515589.12 0.0088 0.0029
 Venus -90998-08-21 18:13 J -31515363.97 -31515363.74 -31515363.52 0.0088 0.0015
 Mercury -90997-03-11 05:59 J -31515161.27 -31515161.25 -31515161.19 0.0088 0.0086
 Venus -90997-04-03 08:23 J -31515138.38 -31515138.15 -31515137.93 0.0088 0.0001
 Mercury -90997-06-07 09:06 J -31515073.18 -31515073.12 -31515073.03 0.0088 0.0081
 Mercury -90997-09-03 12:27 J -31514985.07 -31514984.98 -31514984.88 0.0088 0.0075
 Venus -90997-11-14 22:18 J -31514912.79 -31514912.57 -31514912.34 0.0088 0.0014
 Mercury -90997-11-30 15:20 J -31514896.96 -31514896.86 -31514896.73 0.0088 0.0070
 Mercury -90996-02-26 18:42 J -31514808.84 -31514808.72 -31514808.59 0.0088 0.0064
 Mercury -90996-05-25 21:35 J -31514720.72 -31514720.60 -31514720.45 0.0088 0.0058
 Venus -90996-06-28 11:59 J -31514687.20 -31514687.00 -31514686.77 0.0088 0.0029
 Mercury -90996-08-22 00:42 J -31514632.60 -31514632.47 -31514632.31 0.0088 0.0053
 Mercury -90996-11-18 04:03 J -31514544.48 -31514544.33 -31514544.18 0.0088 0.0047
 Venus -90995-02-09 01:54 J -31514461.60 -31514461.42 -31514461.20 0.0088 0.0043
 Mercury -90995-02-14 06:56 J -31514456.36 -31514456.21 -31514456.04 0.0088 0.0041
 Mercury -90995-05-13 10:03 J -31514368.24 -31514368.08 -31514367.91 0.0088 0.0036
 Mercury -90995-08-09 12:56 J -31514280.12 -31514279.96 -31514279.78 0.0088 0.0030
 Venus -90995-09-22 16:03 J -31514235.99 -31514235.83 -31514235.64 0.0088 0.0057
 Mercury -90995-11-05 16:03 J -31514192.00 -31514191.83 -31514191.65 0.0088 0.0025
 Mercury -90994-02-01 18:56 J -31514103.87 -31514103.71 -31514103.52 0.0088 0.0020
 Mercury -90994-04-30 22:03 J -31514015.75 -31514015.58 -31514015.40 0.0088 0.0014
 Venus -90994-05-06 06:13 J -31514010.36 -31514010.24 -31514010.09 0.0088 0.0071
 Mercury -90994-07-28 01:11 J -31513927.63 -31513927.45 -31513927.27 0.0088 0.0008
 Mercury -90994-10-24 04:03 J -31513839.51 -31513839.33 -31513839.15 0.0088 0.0003
 Venus -90994-12-17 20:08 J -31513784.70 -31513784.66 -31513784.58 0.0088 0.0085
 Mercury -90993-01-20 07:11 J -31513751.38 -31513751.20 -31513751.02 0.0088 0.0003
 Mercury -90993-04-17 10:03 J -31513663.26 -31513663.08 -31513662.90 0.0088 0.0008

Mercury -90993-07-14 12:56 J -31513575.13 -31513574.96 -31513574.78 0.0088 0.0014

Mercury -90993-10-10 15:49 J -31513487.01 -31513486.84 -31513486.66 0.0088 0.0019

Mercury -90992-01-06 18:42 J -31513398.89 -31513398.72 -31513398.55 0.0088 0.0024

Mercury -90992-04-04 21:35 J -31513310.76 -31513310.60 -31513310.43 0.0088 0.0030

Mercury -90992-07-02 00:13 J -31513222.64 -31513222.49 -31513222.31 0.0088 0.0036

Mercury -90992-09-28 03:20 J -31513134.51 -31513134.36 -31513134.20 0.0088 0.0040

Mercury -90992-12-25 06:13 J -31513046.39 -31513046.24 -31513046.09 0.0088 0.0046

Mercury -90991-03-23 09:06 J -31512958.26 -31512958.12 -31512957.98 0.0088 0.0051

Mercury -90991-06-19 11:30 J -31512870.14 -31512870.02 -31512869.87 0.0088 0.0057

Mercury -90991-09-15 14:23 J -31512782.01 -31512781.90 -31512781.76 0.0088 0.0062

Mercury -90991-12-12 17:15 J -31512693.88 -31512693.78 -31512693.65 0.0088 0.0067

Mercury -90990-03-10 20:08 J -31512605.75 -31512605.66 -31512605.55 0.0088 0.0072

Mercury -90990-06-06 23:01 J -31512517.62 -31512517.54 -31512517.45 0.0088 0.0077

Mercury -90990-09-03 01:54 J -31512429.48 -31512429.42 -31512429.36 0.0088 0.0082

Mercury -90990-11-30 04:32 J -31512341.33 -31512341.31 -31512341.28 0.0088 0.0087

Jupiter -90982-07-04 20:08 J -31509568.20 -31509567.66 -31509567.11 0.0088 0.0001

Earth -90969-09-12 14:51 J -31504748.98 -31504748.88 -31504748.73 0.0088 0.0078

Moon -90969-09-12 16:03 J -31504748.95 -31504748.83 -31504748.66 0.0088 0.0075 *

Moon -90968-09-15 02:51 J -31504381.57 -31504381.38 -31504381.17 0.0088 0.0051

Earth -90968-09-15 03:06 J -31504381.56 -31504381.37 -31504381.13 0.0088 0.0049 *

Moon -90967-09-17 14:37 J -31504014.16 -31504013.89 -31504013.63 0.0088 0.0016

Earth -90967-09-17 15:20 J -31504014.11 -31504013.86 -31504013.60 0.0088 0.0019 *

Earth -90966-09-20 03:06 J -31503646.62 -31503646.37 -31503646.10 0.0088 0.0010

Moon -90966-09-20 05:30 J -31503646.52 -31503646.27 -31503646.02 0.0088 0.0007 *

Moon -90965-09-21 11:44 J -31503279.22 -31503279.01 -31503278.76 0.0088 0.0043

Earth -90965-09-21 14:37 J -31503279.11 -31503278.89 -31503278.64 0.0088 0.0039 *

Earth -90964-09-24 02:08 J -31502911.57 -31502911.41 -31502911.24 0.0088 0.0068

Moon -90964-09-24 05:15 J -31502911.43 -31502911.28 -31502911.07 0.0088 0.0065 *

Mars -90956-12-24 10:03 J -31499898.33 -31499898.08 -31499897.79 0.0088 0.0034

Mars -90954-11-17 22:47 J -31499204.79 -31499204.55 -31499204.27 0.0088 0.0040

Venus -90918-04-16 16:32 J -31486270.90 -31486270.81 -31486270.72 0.0089 0.0080
 Venus -90918-11-28 04:18 J -31486045.45 -31486045.32 -31486045.17 0.0089 0.0067
 Venus -90917-07-10 16:18 J -31485819.98 -31485819.82 -31485819.64 0.0089 0.0053
 Venus -90916-02-21 04:03 J -31485594.51 -31485594.33 -31485594.12 0.0089 0.0040
 Mercury -90916-09-11 11:01 J -31485392.06 -31485392.04 -31485392.01 0.0089 0.0087
 Venus -90916-10-04 16:18 J -31485369.02 -31485368.82 -31485368.61 0.0089 0.0026
 Mercury -90916-12-08 12:27 J -31485304.02 -31485303.98 -31485303.93 0.0089 0.0083
 Mercury -90915-03-06 13:54 J -31485215.97 -31485215.92 -31485215.85 0.0089 0.0079
 Venus -90915-05-18 04:32 J -31485143.53 -31485143.31 -31485143.10 0.0089 0.0012
 Mercury -90915-06-02 15:20 J -31485127.92 -31485127.86 -31485127.77 0.0089 0.0075
 Mercury -90915-08-29 17:01 J -31485039.87 -31485039.79 -31485039.70 0.0089 0.0071
 Mercury -90915-11-25 18:27 J -31484951.81 -31484951.73 -31484951.63 0.0089 0.0067
 Venus -90915-12-29 16:18 J -31484918.03 -31484917.82 -31484917.60 0.0089 0.0002
 Mercury -90914-02-21 20:08 J -31484863.75 -31484863.66 -31484863.56 0.0089 0.0062
 Mercury -90914-05-20 21:35 J -31484775.70 -31484775.60 -31484775.49 0.0089 0.0058
 Venus -90914-08-12 04:18 J -31484692.53 -31484692.32 -31484692.11 0.0089 0.0015
 Mercury -90914-08-16 23:15 J -31484687.64 -31484687.53 -31484687.42 0.0089 0.0054
 Mercury -90914-11-13 00:42 J -31484599.58 -31484599.47 -31484599.35 0.0089 0.0050
 Mercury -90913-02-09 02:08 J -31484511.52 -31484511.41 -31484511.28 0.0089 0.0046
 Venus -90913-03-24 16:03 J -31484467.02 -31484466.83 -31484466.62 0.0089 0.0029
 Mercury -90913-05-07 04:03 J -31484423.46 -31484423.33 -31484423.21 0.0089 0.0041
 Mercury -90913-08-03 05:30 J -31484335.40 -31484335.27 -31484335.14 0.0089 0.0037
 Mercury -90913-10-30 06:56 J -31484247.33 -31484247.21 -31484247.07 0.0089 0.0033
 Venus -90913-11-05 04:03 J -31484241.51 -31484241.33 -31484241.13 0.0089 0.0043
 Mercury -90912-01-26 08:23 J -31484159.27 -31484159.15 -31484159.01 0.0089 0.0029
 Mercury -90912-04-24 10:18 J -31484071.21 -31484071.07 -31484070.94 0.0089 0.0024
 Venus -90912-06-18 16:03 J -31484015.98 -31484015.83 -31484015.65 0.0089 0.0056
 Mercury -90912-07-21 11:44 J -31483983.14 -31483983.01 -31483982.87 0.0089 0.0020
 Mercury -90912-10-17 13:25 J -31483895.08 -31483894.94 -31483894.80 0.0089 0.0016
 Mercury -90911-01-13 14:51 J -31483807.01 -31483806.88 -31483806.73 0.0089 0.0012

Venus -90911-01-30 03:49 J -31483790.45 -31483790.34 -31483790.19 0.0089 0.0070
 Mercury -90911-04-11 16:32 J -31483718.95 -31483718.81 -31483718.67 0.0089 0.0007
 Mercury -90911-07-08 18:13 J -31483630.88 -31483630.74 -31483630.60 0.0089 0.0003
 Venus -90911-09-12 16:18 J -31483564.89 -31483564.82 -31483564.75 0.0089 0.0083
 Mercury -90911-10-04 19:54 J -31483542.82 -31483542.67 -31483542.53 0.0089 0.0003
 Mercury -90911-12-31 21:20 J -31483454.75 -31483454.61 -31483454.47 0.0089 0.0006
 Mercury -90910-03-29 23:01 J -31483366.68 -31483366.54 -31483366.40 0.0089 0.0011
 Mercury -90910-06-26 00:42 J -31483278.61 -31483278.47 -31483278.33 0.0089 0.0015
 Mercury -90910-09-22 02:08 J -31483190.54 -31483190.41 -31483190.26 0.0089 0.0020
 Mercury -90910-12-19 03:49 J -31483102.47 -31483102.34 -31483102.20 0.0089 0.0024
 Mercury -90909-03-16 05:30 J -31483014.40 -31483014.27 -31483014.13 0.0089 0.0028
 Mercury -90909-06-12 07:11 J -31482926.33 -31482926.20 -31482926.07 0.0089 0.0033
 Mercury -90909-09-08 08:51 J -31482838.26 -31482838.13 -31482838.00 0.0089 0.0037
 Mercury -90909-12-05 10:18 J -31482750.18 -31482750.07 -31482749.93 0.0089 0.0042
 Mercury -90908-03-03 12:13 J -31482662.11 -31482661.99 -31482661.87 0.0089 0.0046
 Mercury -90908-05-30 13:39 J -31482574.04 -31482573.93 -31482573.80 0.0089 0.0051
 Mercury -90908-08-26 15:35 J -31482485.96 -31482485.85 -31482485.74 0.0089 0.0055
 Mercury -90908-11-22 17:01 J -31482397.88 -31482397.79 -31482397.67 0.0089 0.0060
 Mercury -90907-02-18 18:56 J -31482309.80 -31482309.71 -31482309.61 0.0089 0.0064
 Mercury -90907-05-17 20:37 J -31482221.72 -31482221.64 -31482221.54 0.0089 0.0069
 Mercury -90907-08-13 22:32 J -31482133.64 -31482133.56 -31482133.48 0.0089 0.0073
 Mercury -90907-11-09 23:59 J -31482045.56 -31482045.50 -31482045.42 0.0089 0.0078
 Mercury -90906-02-06 01:39 J -31481957.47 -31481957.43 -31481957.36 0.0089 0.0083
 Mercury -90906-05-05 03:35 J -31481869.37 -31481869.35 -31481869.32 0.0089 0.0087
 Earth -90886-03-07 08:08 J -31474623.29 -31474623.16 -31474622.97 0.0089 0.0070
 Moon -90886-03-07 11:30 J -31474623.14 -31474623.02 -31474622.85 0.0089 0.0074 *
 Moon -90885-03-08 16:32 J -31474256.03 -31474255.81 -31474255.57 0.0089 0.0037
 Earth -90885-03-08 19:11 J -31474255.90 -31474255.70 -31474255.45 0.0089 0.0041 *
 Earth -90884-03-11 06:42 J -31473888.47 -31473888.22 -31473887.96 0.0089 0.0012
 Moon -90884-03-11 07:54 J -31473888.41 -31473888.17 -31473887.89 0.0089 0.0016 *

Moon	-90883-03-13 17:01 J	-31473521.01	-31473520.79	-31473520.53	0.0089	0.0022
Earth	-90883-03-13 17:44 J	-31473521.00	-31473520.76	-31473520.50	0.0089	0.0018 *
Moon	-90882-03-16 04:18 J	-31473153.53	-31473153.32	-31473153.06	0.0089	0.0043
Earth	-90882-03-16 05:15 J	-31473153.49	-31473153.28	-31473153.06	0.0089	0.0047 *
Earth	-90881-03-17 17:01 J	-31472785.92	-31472785.79	-31472785.66	0.0089	0.0076
Moon	-90881-03-17 18:27 J	-31472785.80	-31472785.73	-31472785.60	0.0089	0.0081 *
Mars	-90874-11-04 19:25 J	-31469997.95	-31469997.69	-31469997.37	0.0089	0.0048
Mars	-90872-10-01 05:59 J	-31469301.53	-31469301.25	-31469300.93	0.0089	0.0041
Venus	-90836-06-03 17:15 J	-31456271.86	-31456271.78	-31456271.64	0.0089	0.0078
Venus	-90835-01-15 07:54 J	-31456046.32	-31456046.17	-31456046.01	0.0089	0.0063
Venus	-90835-08-28 21:49 J	-31455820.77	-31455820.59	-31455820.39	0.0089	0.0049
Venus	-90834-04-11 11:59 J	-31455595.20	-31455595.00	-31455594.78	0.0088	0.0035
Venus	-90834-11-23 02:08 J	-31455369.62	-31455369.41	-31455369.18	0.0088	0.0020
Venus	-90833-07-05 16:18 J	-31455144.04	-31455143.82	-31455143.59	0.0088	0.0006
Mercury	-90833-12-06 04:03 J	-31454990.36	-31454990.33	-31454990.27	0.0088	0.0085
Venus	-90832-02-16 06:13 J	-31454918.46	-31454918.24	-31454918.01	0.0088	0.0009
Mercury	-90832-03-04 07:11 J	-31454902.26	-31454902.20	-31454902.11	0.0088	0.0080
Mercury	-90832-05-31 10:32 J	-31454814.15	-31454814.06	-31454813.95	0.0088	0.0074
Mercury	-90832-08-27 13:25 J	-31454726.04	-31454725.94	-31454725.81	0.0088	0.0069
Venus	-90832-09-29 20:23 J	-31454692.87	-31454692.65	-31454692.43	0.0088	0.0023
Mercury	-90832-11-23 16:47 J	-31454637.92	-31454637.80	-31454637.67	0.0088	0.0063
Mercury	-90831-02-19 19:39 J	-31454549.80	-31454549.68	-31454549.53	0.0088	0.0057
Venus	-90831-05-13 10:18 J	-31454467.26	-31454467.07	-31454466.85	0.0088	0.0037
Mercury	-90831-05-18 22:47 J	-31454461.68	-31454461.55	-31454461.39	0.0088	0.0052
Mercury	-90831-08-15 02:08 J	-31454373.56	-31454373.41	-31454373.25	0.0088	0.0046
Mercury	-90831-11-11 05:01 J	-31454285.44	-31454285.29	-31454285.12	0.0088	0.0040
Venus	-90831-12-25 00:13 J	-31454241.66	-31454241.49	-31454241.29	0.0088	0.0052
Mercury	-90830-02-07 08:08 J	-31454197.32	-31454197.16	-31454196.99	0.0088	0.0035
Mercury	-90830-05-06 11:01 J	-31454109.20	-31454109.04	-31454108.86	0.0088	0.0029
Mercury	-90830-08-02 14:08 J	-31454021.08	-31454020.91	-31454020.73	0.0088	0.0024

Venus -90830-08-07 14:23 J -31454016.04 -31454015.90 -31454015.74 0.0088 0.0066
 Mercury -90830-10-29 17:15 J -31453932.95 -31453932.78 -31453932.60 0.0088 0.0018
 Mercury -90829-01-25 20:23 J -31453844.83 -31453844.65 -31453844.47 0.0088 0.0013
 Venus -90829-03-20 04:32 J -31453790.40 -31453790.31 -31453790.22 0.0088 0.0080
 Mercury -90829-04-22 23:15 J -31453756.71 -31453756.53 -31453756.35 0.0088 0.0007
 Mercury -90829-07-20 02:23 J -31453668.58 -31453668.40 -31453668.23 0.0088 0.0003
 Mercury -90829-10-16 05:15 J -31453580.46 -31453580.28 -31453580.10 0.0088 0.0004
 Mercury -90828-01-12 08:08 J -31453492.34 -31453492.16 -31453491.98 0.0088 0.0009
 Mercury -90828-04-10 11:01 J -31453404.21 -31453404.04 -31453403.86 0.0088 0.0015
 Mercury -90828-07-07 13:54 J -31453316.09 -31453315.92 -31453315.74 0.0088 0.0020
 Mercury -90828-10-03 16:47 J -31453227.96 -31453227.80 -31453227.62 0.0088 0.0026
 Mercury -90828-12-30 19:39 J -31453139.84 -31453139.68 -31453139.50 0.0088 0.0031
 Mercury -90827-03-28 22:32 J -31453051.71 -31453051.56 -31453051.39 0.0088 0.0037
 Mercury -90827-06-25 01:25 J -31452963.59 -31452963.44 -31452963.28 0.0088 0.0042
 Mercury -90827-09-21 04:32 J -31452875.46 -31452875.31 -31452875.16 0.0088 0.0047
 Mercury -90827-12-18 06:56 J -31452787.33 -31452787.21 -31452787.05 0.0088 0.0053
 Mercury -90826-03-16 09:49 J -31452699.21 -31452699.09 -31452698.94 0.0088 0.0058
 Mercury -90826-06-12 12:42 J -31452611.08 -31452610.97 -31452610.83 0.0088 0.0063
 Mercury -90826-09-08 15:49 J -31452522.95 -31452522.84 -31452522.73 0.0088 0.0068
 Mercury -90826-12-05 18:13 J -31452434.82 -31452434.74 -31452434.63 0.0088 0.0073
 Mercury -90825-03-02 20:51 J -31452346.69 -31452346.63 -31452346.53 0.0088 0.0079
 Mercury -90825-05-29 23:44 J -31452258.55 -31452258.51 -31452258.44 0.0088 0.0084
 Mercury -90825-08-26 02:51 J -31452170.38 -31452170.38 -31452170.37 0.0088 0.0088
 Jupiter -90816-09-05 11:44 J -31448873.34 -31448873.01 -31448872.58 0.0088 0.0064
 Moon -90804-09-14 06:56 J -31444481.37 -31444481.21 -31444481.02 0.0088 0.0067
 Earth -90804-09-14 08:37 J -31444481.30 -31444481.14 -31444480.94 0.0088 0.0063 *
 Earth -90803-09-16 20:51 J -31444113.85 -31444113.63 -31444113.37 0.0088 0.0035
 Moon -90803-09-16 23:15 J -31444113.75 -31444113.53 -31444113.27 0.0088 0.0032 *
 Moon -90802-09-19 05:44 J -31443746.52 -31443746.26 -31443745.99 0.0088 0.0009
 Earth -90802-09-19 09:20 J -31443746.36 -31443746.11 -31443745.84 0.0088 0.0005 *

Earth	-90801-09-20 20:51 J	-31443378.86	-31443378.63	-31443378.36	0.0088	0.0025
Moon	-90801-09-21 00:27 J	-31443378.71	-31443378.48	-31443378.22	0.0088	0.0028 *
Moon	-90800-09-23 05:30 J	-31443011.48	-31443011.27	-31443011.06	0.0088	0.0050
Earth	-90800-09-23 08:51 J	-31443011.33	-31443011.13	-31443010.91	0.0088	0.0053 *
Earth	-90799-09-25 19:39 J	-31442643.75	-31442643.68	-31442643.55	0.0088	0.0082
Moon	-90799-09-25 22:47 J	-31442643.61	-31442643.55	-31442643.46	0.0088	0.0085 *
Mars	-90792-08-08 19:25 J	-31440134.84	-31440134.69	-31440134.47	0.0088	0.0068
Mars	-90790-07-03 09:06 J	-31439441.40	-31439441.12	-31439440.82	0.0088	0.0006
Mars	-90788-05-26 22:03 J	-31438747.71	-31438747.58	-31438747.43	0.0088	0.0078
Venus	-90754-07-19 01:54 J	-31426276.45	-31426276.42	-31426276.35	0.0089	0.0086
Venus	-90753-02-29 13:39 J	-31426051.03	-31426050.93	-31426050.79	0.0089	0.0073
Venus	-90753-10-12 01:54 J	-31425825.57	-31425825.42	-31425825.25	0.0089	0.0059
Venus	-90752-05-25 14:08 J	-31425600.09	-31425599.91	-31425599.72	0.0089	0.0045
Venus	-90751-01-06 01:39 J	-31425374.61	-31425374.43	-31425374.21	0.0089	0.0032
Mercury	-90751-06-08 09:49 J	-31425221.10	-31425221.09	-31425221.05	0.0089	0.0087
Venus	-90751-08-19 13:54 J	-31425149.12	-31425148.92	-31425148.71	0.0089	0.0018
Mercury	-90751-09-04 11:15 J	-31425133.06	-31425133.03	-31425132.96	0.0089	0.0083
Mercury	-90751-12-01 13:11 J	-31425045.01	-31425044.95	-31425044.89	0.0089	0.0078
Mercury	-90750-02-27 14:37 J	-31424956.96	-31424956.89	-31424956.81	0.0089	0.0074
Venus	-90750-04-02 01:54 J	-31424923.63	-31424923.42	-31424923.20	0.0089	0.0004
Mercury	-90750-05-26 16:03 J	-31424868.91	-31424868.83	-31424868.74	0.0089	0.0070
Mercury	-90750-08-22 17:30 J	-31424780.85	-31424780.77	-31424780.67	0.0089	0.0066
Venus	-90750-11-13 13:54 J	-31424698.13	-31424697.92	-31424697.70	0.0089	0.0010
Mercury	-90750-11-18 18:56 J	-31424692.80	-31424692.71	-31424692.60	0.0089	0.0062
Mercury	-90749-02-14 20:37 J	-31424604.74	-31424604.64	-31424604.53	0.0089	0.0058
Mercury	-90749-05-12 22:18 J	-31424516.68	-31424516.57	-31424516.46	0.0089	0.0053
Venus	-90749-06-26 01:39 J	-31424472.62	-31424472.43	-31424472.21	0.0089	0.0024
Mercury	-90749-08-08 23:44 J	-31424428.62	-31424428.51	-31424428.39	0.0089	0.0049
Mercury	-90749-11-05 01:11 J	-31424340.56	-31424340.45	-31424340.32	0.0089	0.0045
Mercury	-90748-02-01 02:51 J	-31424252.50	-31424252.38	-31424252.25	0.0089	0.0041

Venus -90748-02-06 13:54 J -31424247.11 -31424246.92 -31424246.73 0.0089 0.0037

Mercury -90748-04-30 04:32 J -31424164.44 -31424164.31 -31424164.18 0.0089 0.0036

Mercury -90748-07-27 05:59 J -31424076.38 -31424076.25 -31424076.12 0.0089 0.0032

Venus -90748-09-20 01:39 J -31424021.59 -31424021.43 -31424021.24 0.0089 0.0051

Mercury -90748-10-23 07:25 J -31423988.31 -31423988.19 -31423988.05 0.0089 0.0028

Mercury -90747-01-19 09:06 J -31423900.25 -31423900.12 -31423899.98 0.0089 0.0024

Mercury -90747-04-17 10:47 J -31423812.19 -31423812.05 -31423811.91 0.0089 0.0019

Venus -90747-05-03 13:25 J -31423796.06 -31423795.94 -31423795.77 0.0089 0.0065

Mercury -90747-07-14 12:13 J -31423724.12 -31423723.99 -31423723.85 0.0089 0.0015

Mercury -90747-10-10 13:54 J -31423636.06 -31423635.92 -31423635.78 0.0089 0.0011

Venus -90747-12-15 01:25 J -31423570.51 -31423570.44 -31423570.32 0.0089 0.0079

Mercury -90746-01-06 15:35 J -31423547.99 -31423547.85 -31423547.71 0.0089 0.0006

Mercury -90746-04-04 17:01 J -31423459.93 -31423459.79 -31423459.64 0.0089 0.0004

Mercury -90746-07-01 18:42 J -31423371.86 -31423371.72 -31423371.58 0.0089 0.0003

Mercury -90746-09-27 20:23 J -31423283.79 -31423283.65 -31423283.51 0.0089 0.0007

Mercury -90746-12-24 21:49 J -31423195.72 -31423195.59 -31423195.44 0.0089 0.0012

Mercury -90745-03-21 23:30 J -31423107.66 -31423107.52 -31423107.38 0.0089 0.0016

Mercury -90745-06-18 01:11 J -31423019.59 -31423019.45 -31423019.31 0.0089 0.0020

Mercury -90745-09-14 02:37 J -31422931.52 -31422931.39 -31422931.24 0.0089 0.0025

Mercury -90745-12-11 04:18 J -31422843.45 -31422843.32 -31422843.18 0.0089 0.0029

Mercury -90744-03-09 06:13 J -31422755.37 -31422755.24 -31422755.11 0.0089 0.0033

Mercury -90744-06-05 07:39 J -31422667.30 -31422667.18 -31422667.04 0.0089 0.0038

Mercury -90744-09-01 09:20 J -31422579.23 -31422579.11 -31422578.98 0.0089 0.0042

Mercury -90744-11-28 11:01 J -31422491.16 -31422491.04 -31422490.91 0.0089 0.0047

Mercury -90743-02-24 12:42 J -31422403.08 -31422402.97 -31422402.85 0.0089 0.0051

Mercury -90743-05-23 14:23 J -31422315.01 -31422314.90 -31422314.78 0.0089 0.0056

Mercury -90743-08-19 16:03 J -31422226.93 -31422226.83 -31422226.72 0.0089 0.0060

Mercury -90743-11-15 17:44 J -31422138.85 -31422138.76 -31422138.66 0.0089 0.0065

Mercury -90742-02-11 19:39 J -31422050.77 -31422050.68 -31422050.59 0.0089 0.0069

Mercury -90742-05-10 21:06 J -31421962.69 -31421962.62 -31421962.53 0.0089 0.0074

Mercury -90742-08-06 23:01 J -31421874.60 -31421874.54 -31421874.47 0.0089 0.0078

Mercury -90742-11-03 00:27 J -31421786.51 -31421786.48 -31421786.42 0.0089 0.0083

Mercury -90741-01-30 02:08 J -31421698.42 -31421698.41 -31421698.37 0.0089 0.0088

Moon -90722-03-06 13:54 J -31414722.94 -31414722.92 -31414722.84 0.0089 0.0087

Earth -90722-03-06 16:18 J -31414722.89 -31414722.82 -31414722.73 0.0089 0.0084 *

Earth -90721-03-08 02:37 J -31414355.56 -31414355.39 -31414355.16 0.0089 0.0056

Moon -90721-03-08 04:18 J -31414355.51 -31414355.32 -31414355.09 0.0089 0.0054 *

Earth -90720-03-10 13:54 J -31413988.15 -31413987.92 -31413987.66 0.0089 0.0027

Moon -90720-03-10 14:08 J -31413988.13 -31413987.91 -31413987.66 0.0089 0.0029 *

Moon -90719-03-12 23:30 J -31413620.78 -31413620.52 -31413620.25 0.0089 0.0005

Earth -90719-03-13 01:11 J -31413620.70 -31413620.45 -31413620.19 0.0089 0.0003 *

Earth -90718-03-15 11:59 J -31413253.22 -31413253.00 -31413252.74 0.0089 0.0033

Moon -90718-03-15 14:23 J -31413253.12 -31413252.90 -31413252.65 0.0089 0.0031 *

Moon -90717-03-16 19:54 J -31412885.83 -31412885.67 -31412885.47 0.0089 0.0063

Earth -90717-03-16 23:15 J -31412885.69 -31412885.53 -31412885.32 0.0089 0.0061 *

Moon -90716-03-19 14:37 J -31412517.91 -31412517.89 -31412517.85 0.0089 0.0088

Mars -90708-05-14 10:32 J -31409540.41 -31409540.06 -31409539.72 0.0089 0.0000

Mars -90706-04-10 19:54 J -31408843.67 -31408843.67 -31408843.63 0.0089 0.0089

Venus -90672-09-05 01:54 J -31396277.48 -31396277.42 -31396277.33 0.0089 0.0083

Venus -90671-04-18 16:03 J -31396051.95 -31396051.83 -31396051.67 0.0089 0.0069

Venus -90671-11-30 06:27 J -31395826.40 -31395826.23 -31395826.04 0.0089 0.0054

Venus -90670-07-13 20:23 J -31395600.84 -31395600.65 -31395600.43 0.0089 0.0040

Venus -90669-02-24 10:32 J -31395375.27 -31395375.06 -31395374.83 0.0088 0.0025

Venus -90669-10-07 00:42 J -31395149.69 -31395149.47 -31395149.24 0.0088 0.0011

Venus -90668-05-20 14:51 J -31394924.10 -31394923.88 -31394923.65 0.0088 0.0004

Mercury -90668-09-02 02:37 J -31394819.44 -31394819.39 -31394819.33 0.0088 0.0084

Mercury -90668-11-29 05:15 J -31394731.34 -31394731.28 -31394731.17 0.0088 0.0079

Venus -90667-01-01 04:47 J -31394698.51 -31394698.30 -31394698.07 0.0088 0.0018

Mercury -90667-02-25 08:37 J -31394643.23 -31394643.14 -31394643.02 0.0088 0.0073

Mercury -90667-05-24 11:59 J -31394555.11 -31394555.00 -31394554.88 0.0088 0.0067

Venus -90667-08-14 18:42 J -31394472.92 -31394472.72 -31394472.50 0.0088 0.0033

Mercury -90667-08-20 14:51 J -31394467.00 -31394466.88 -31394466.74 0.0088 0.0062

Mercury -90667-11-16 17:59 J -31394378.88 -31394378.75 -31394378.60 0.0088 0.0056

Mercury -90666-02-12 21:06 J -31394290.76 -31394290.62 -31394290.46 0.0088 0.0050

Venus -90666-03-28 08:51 J -31394247.31 -31394247.13 -31394246.93 0.0088 0.0047

Mercury -90666-05-12 00:13 J -31394202.64 -31394202.49 -31394202.32 0.0088 0.0045

Mercury -90666-08-08 03:35 J -31394114.52 -31394114.35 -31394114.19 0.0088 0.0039

Mercury -90666-11-04 06:13 J -31394026.39 -31394026.24 -31394026.06 0.0088 0.0034

Venus -90666-11-08 22:32 J -31394021.70 -31394021.56 -31394021.37 0.0088 0.0062

Mercury -90665-01-31 09:35 J -31393938.27 -31393938.10 -31393937.93 0.0088 0.0028

Mercury -90665-04-28 12:27 J -31393850.15 -31393849.98 -31393849.80 0.0088 0.0022

Venus -90665-06-21 12:42 J -31393796.07 -31393795.97 -31393795.84 0.0088 0.0076

Mercury -90665-07-25 15:35 J -31393762.02 -31393761.85 -31393761.67 0.0088 0.0017

Mercury -90665-10-21 18:27 J -31393673.90 -31393673.73 -31393673.54 0.0088 0.0012

Mercury -90664-01-17 21:35 J -31393585.78 -31393585.60 -31393585.42 0.0088 0.0006

Mercury -90664-04-16 00:42 J -31393497.65 -31393497.47 -31393497.29 0.0088 0.0001

Mercury -90664-07-13 03:35 J -31393409.53 -31393409.35 -31393409.17 0.0088 0.0005

Mercury -90664-10-09 06:27 J -31393321.40 -31393321.23 -31393321.05 0.0088 0.0011

Mercury -90663-01-05 09:20 J -31393233.28 -31393233.11 -31393232.93 0.0088 0.0017

Mercury -90663-04-03 12:27 J -31393145.15 -31393144.98 -31393144.81 0.0088 0.0022

Mercury -90663-06-30 15:06 J -31393057.03 -31393056.87 -31393056.69 0.0088 0.0028

Mercury -90663-09-26 18:13 J -31392968.90 -31392968.74 -31392968.57 0.0088 0.0032

Mercury -90663-12-23 21:06 J -31392880.78 -31392880.62 -31392880.46 0.0088 0.0038

Mercury -90662-03-21 23:44 J -31392792.65 -31392792.51 -31392792.34 0.0088 0.0044

Mercury -90662-06-18 02:37 J -31392704.52 -31392704.39 -31392704.23 0.0088 0.0049

Mercury -90662-09-14 05:44 J -31392616.40 -31392616.26 -31392616.12 0.0088 0.0054

Mercury -90662-12-11 08:37 J -31392528.27 -31392528.14 -31392528.01 0.0088 0.0059

Mercury -90661-03-08 11:01 J -31392440.14 -31392440.04 -31392439.90 0.0088 0.0065

Mercury -90661-06-04 13:54 J -31392352.01 -31392351.92 -31392351.80 0.0088 0.0070

Mercury -90661-08-31 16:47 J -31392263.88 -31392263.80 -31392263.69 0.0088 0.0075

Mercury -90661-11-27 19:39 J -31392175.74 -31392175.68 -31392175.60 0.0088 0.0080
 Mercury -90660-02-23 22:32 J -31392087.60 -31392087.56 -31392087.51 0.0088 0.0085
 Earth -90640-09-13 15:06 J -31384580.97 -31384580.87 -31384580.73 0.0088 0.0078
 Moon -90640-09-13 18:27 J -31384580.84 -31384580.73 -31384580.58 0.0088 0.0076 *
 Moon -90639-09-15 23:44 J -31384213.70 -31384213.51 -31384213.27 0.0088 0.0052
 Earth -90639-09-16 03:35 J -31384213.56 -31384213.35 -31384213.12 0.0088 0.0048 *
 Earth -90638-09-18 15:49 J -31383846.09 -31383845.84 -31383845.58 0.0088 0.0020
 Moon -90638-09-18 19:25 J -31383845.94 -31383845.69 -31383845.42 0.0088 0.0017 *
 Moon -90637-09-20 00:56 J -31383478.71 -31383478.46 -31383478.20 0.0088 0.0007
 Earth -90637-09-20 04:03 J -31383478.59 -31383478.33 -31383478.07 0.0088 0.0009 *
 Earth -90636-09-22 15:20 J -31383111.08 -31383110.86 -31383110.61 0.0088 0.0038
 Moon -90636-09-22 17:44 J -31383110.98 -31383110.76 -31383110.51 0.0088 0.0042 *
 Moon -90635-09-25 02:08 J -31382743.58 -31382743.41 -31382743.24 0.0088 0.0064
 Earth -90635-09-25 03:35 J -31382743.52 -31382743.35 -31382743.18 0.0088 0.0067 *
 Mars -90626-02-15 19:54 J -31379677.94 -31379677.67 -31379677.40 0.0088 0.0028
 Mars -90624-01-09 08:37 J -31378984.38 -31378984.14 -31378983.89 0.0088 0.0045
 Venus -90589-06-02 00:13 J -31366056.57 -31366056.49 -31366056.37 0.0089 0.0078
 Venus -90588-01-13 12:13 J -31365831.12 -31365830.99 -31365830.83 0.0089 0.0064
 Venus -90588-08-26 23:59 J -31365605.66 -31365605.50 -31365605.31 0.0089 0.0051
 Venus -90587-04-09 11:59 J -31365380.18 -31365380.00 -31365379.79 0.0089 0.0037
 Venus -90587-11-21 00:13 J -31365154.69 -31365154.49 -31365154.28 0.0089 0.0023
 Mercury -90586-03-05 09:06 J -31365050.14 -31365050.12 -31365050.07 0.0089 0.0086
 Mercury -90586-06-01 10:32 J -31364962.10 -31364962.06 -31364961.99 0.0089 0.0082
 Venus -90586-07-04 12:13 J -31364929.20 -31364928.99 -31364928.77 0.0089 0.0009
 Mercury -90586-08-28 12:27 J -31364874.05 -31364873.98 -31364873.92 0.0089 0.0077
 Mercury -90586-11-24 13:54 J -31364785.99 -31364785.92 -31364785.84 0.0089 0.0073
 Venus -90585-02-15 00:13 J -31364703.70 -31364703.49 -31364703.27 0.0089 0.0005
 Mercury -90585-02-20 15:20 J -31364697.94 -31364697.86 -31364697.77 0.0089 0.0069
 Mercury -90585-05-18 16:47 J -31364609.88 -31364609.80 -31364609.70 0.0089 0.0065
 Mercury -90585-08-14 18:13 J -31364521.83 -31364521.74 -31364521.63 0.0089 0.0061

Venus -90585-09-27 12:13 J -31364478.19 -31364477.99 -31364477.77 0.0089 0.0019
 Mercury -90585-11-10 19:39 J -31364433.77 -31364433.68 -31364433.56 0.0089 0.0057
 Mercury -90584-02-06 21:35 J -31364345.71 -31364345.60 -31364345.49 0.0089 0.0052
 Mercury -90584-05-05 23:01 J -31364257.65 -31364257.54 -31364257.42 0.0089 0.0048
 Venus -90584-05-10 23:59 J -31364252.68 -31364252.50 -31364252.28 0.0089 0.0033
 Mercury -90584-08-02 00:27 J -31364169.59 -31364169.48 -31364169.35 0.0089 0.0044
 Mercury -90584-10-29 01:54 J -31364081.53 -31364081.42 -31364081.28 0.0089 0.0040
 Venus -90584-12-22 11:59 J -31364027.16 -31364027.00 -31364026.80 0.0089 0.0047
 Mercury -90583-01-25 03:49 J -31363993.47 -31363993.34 -31363993.21 0.0089 0.0035
 Mercury -90583-04-23 05:15 J -31363905.41 -31363905.28 -31363905.15 0.0089 0.0031
 Mercury -90583-07-20 06:42 J -31363817.35 -31363817.22 -31363817.08 0.0089 0.0027
 Venus -90583-08-05 00:13 J -31363801.64 -31363801.49 -31363801.33 0.0089 0.0060
 Mercury -90583-10-16 08:23 J -31363729.28 -31363729.15 -31363729.01 0.0089 0.0022
 Mercury -90582-01-12 10:03 J -31363641.22 -31363641.08 -31363640.94 0.0089 0.0018
 Venus -90582-03-18 11:59 J -31363576.10 -31363576.00 -31363575.87 0.0089 0.0074
 Mercury -90582-04-10 11:30 J -31363553.15 -31363553.02 -31363552.88 0.0089 0.0014
 Mercury -90582-07-07 13:11 J -31363465.09 -31363464.95 -31363464.81 0.0089 0.0009
 Mercury -90582-10-03 14:51 J -31363377.02 -31363376.88 -31363376.74 0.0089 0.0005
 Venus -90582-10-29 23:59 J -31363350.51 -31363350.50 -31363350.45 0.0089 0.0088
 Mercury -90582-12-30 16:18 J -31363288.96 -31363288.82 -31363288.68 0.0089 0.0002
 Mercury -90581-03-27 17:59 J -31363200.89 -31363200.75 -31363200.61 0.0089 0.0004
 Mercury -90581-06-23 19:39 J -31363112.82 -31363112.68 -31363112.54 0.0089 0.0008
 Mercury -90581-09-19 21:06 J -31363024.76 -31363024.62 -31363024.48 0.0089 0.0013
 Mercury -90581-12-16 22:47 J -31362936.69 -31362936.55 -31362936.41 0.0089 0.0017
 Mercury -90580-03-15 00:27 J -31362848.62 -31362848.48 -31362848.34 0.0089 0.0021
 Mercury -90580-06-11 01:54 J -31362760.55 -31362760.42 -31362760.28 0.0089 0.0026
 Mercury -90580-09-07 03:35 J -31362672.48 -31362672.35 -31362672.21 0.0089 0.0030
 Mercury -90580-12-04 05:15 J -31362584.41 -31362584.28 -31362584.14 0.0089 0.0035
 Mercury -90579-03-02 06:56 J -31362496.33 -31362496.21 -31362496.08 0.0089 0.0039
 Mercury -90579-05-29 08:23 J -31362408.26 -31362408.15 -31362408.01 0.0089 0.0044

Mercury -90579-08-25 10:18 J -31362320.19 -31362320.07 -31362319.95 0.0089 0.0048
 Mercury -90579-11-21 11:44 J -31362232.11 -31362232.01 -31362231.88 0.0089 0.0053
 Mercury -90578-02-17 13:25 J -31362144.04 -31362143.94 -31362143.82 0.0089 0.0057
 Mercury -90578-05-16 15:20 J -31362055.96 -31362055.86 -31362055.76 0.0089 0.0061
 Mercury -90578-08-12 16:47 J -31361967.88 -31361967.80 -31361967.69 0.0089 0.0066
 Mercury -90578-11-08 18:27 J -31361879.80 -31361879.73 -31361879.63 0.0089 0.0071
 Mercury -90577-02-04 20:23 J -31361791.72 -31361791.65 -31361791.57 0.0089 0.0075
 Mercury -90577-05-02 21:49 J -31361703.64 -31361703.59 -31361703.51 0.0089 0.0080
 Mercury -90577-07-29 23:44 J -31361615.55 -31361615.51 -31361615.46 0.0089 0.0084
 Mercury -90577-10-26 01:25 J -31361527.44 -31361527.44 -31361527.42 0.0089 0.0089
 Earth -90557-03-07 11:15 J -31354455.17 -31354455.03 -31354454.86 0.0089 0.0070
 Moon -90557-03-07 11:44 J -31354455.12 -31354455.01 -31354454.84 0.0089 0.0074 *
 Moon -90556-03-09 20:23 J -31354087.87 -31354087.65 -31354087.39 0.0089 0.0037
 Earth -90556-03-09 22:18 J -31354087.78 -31354087.57 -31354087.33 0.0089 0.0041 *
 Earth -90555-03-12 09:35 J -31353720.35 -31353720.10 -31353719.84 0.0089 0.0012
 Moon -90555-03-12 12:27 J -31353720.21 -31353719.98 -31353719.72 0.0089 0.0016 *
 Moon -90554-03-14 17:01 J -31353353.02 -31353352.79 -31353352.52 0.0089 0.0022
 Earth -90554-03-14 20:37 J -31353352.88 -31353352.64 -31353352.38 0.0089 0.0017 *
 Earth -90553-03-16 07:39 J -31352985.38 -31352985.18 -31352984.94 0.0089 0.0046
 Moon -90553-03-16 11:44 J -31352985.24 -31352985.01 -31352984.78 0.0089 0.0041 *
 Moon -90552-03-18 16:03 J -31352617.93 -31352617.83 -31352617.70 0.0089 0.0079
 Earth -90552-03-18 19:11 J -31352617.82 -31352617.70 -31352617.55 0.0089 0.0075 *
 Mars -90545-12-25 16:18 J -31349779.11 -31349778.82 -31349778.51 0.0089 0.0041
 Mars -90543-11-22 03:35 J -31349082.61 -31349082.35 -31349082.04 0.0089 0.0049
 Venus -90508-12-07 11:01 J -31336283.05 -31336283.04 -31336282.99 0.0089 0.0088
 Venus -90507-07-21 00:56 J -31336057.56 -31336057.46 -31336057.30 0.0089 0.0074
 Venus -90506-03-03 15:35 J -31335832.01 -31335831.85 -31335831.67 0.0089 0.0059
 Venus -90506-10-15 05:30 J -31335606.45 -31335606.27 -31335606.06 0.0089 0.0045
 Venus -90505-05-27 19:54 J -31335380.87 -31335380.67 -31335380.45 0.0089 0.0030
 Venus -90504-01-08 10:03 J -31335155.30 -31335155.08 -31335154.85 0.0089 0.0015

Venus -90504-08-22 00:13 J -31334929.72 -31334929.49 -31334929.26 0.0089 0.0001
 Mercury -90503-03-02 21:49 J -31334736.60 -31334736.59 -31334736.55 0.0089 0.0088
 Venus -90503-04-04 14:23 J -31334704.13 -31334703.90 -31334703.68 0.0089 0.0014
 Mercury -90503-05-30 01:11 J -31334648.51 -31334648.45 -31334648.38 0.0089 0.0082
 Mercury -90503-08-26 04:03 J -31334560.41 -31334560.33 -31334560.22 0.0088 0.0077
 Venus -90503-11-16 04:03 J -31334478.53 -31334478.33 -31334478.10 0.0088 0.0029
 Mercury -90503-11-22 07:11 J -31334472.29 -31334472.20 -31334472.08 0.0088 0.0071
 Mercury -90502-02-18 10:18 J -31334384.18 -31334384.07 -31334383.93 0.0088 0.0065
 Mercury -90502-05-17 13:25 J -31334296.06 -31334295.94 -31334295.79 0.0088 0.0060
 Venus -90502-06-29 18:13 J -31334252.93 -31334252.74 -31334252.54 0.0088 0.0043
 Mercury -90502-08-13 16:47 J -31334207.94 -31334207.80 -31334207.65 0.0088 0.0054
 Mercury -90502-11-09 19:39 J -31334119.82 -31334119.68 -31334119.52 0.0088 0.0048
 Mercury -90501-02-05 22:47 J -31334031.70 -31334031.55 -31334031.38 0.0088 0.0043
 Venus -90501-02-10 07:39 J -31334027.33 -31334027.18 -31334026.98 0.0088 0.0058
 Mercury -90501-05-04 02:08 J -31333943.58 -31333943.41 -31333943.25 0.0088 0.0037
 Mercury -90501-07-31 05:01 J -31333855.45 -31333855.29 -31333855.12 0.0088 0.0031
 Venus -90501-09-22 21:49 J -31333801.70 -31333801.59 -31333801.44 0.0088 0.0072
 Mercury -90501-10-27 08:08 J -31333767.33 -31333767.16 -31333766.98 0.0088 0.0026
 Mercury -90500-01-23 11:01 J -31333679.21 -31333679.04 -31333678.86 0.0088 0.0021
 Mercury -90500-04-21 14:08 J -31333591.08 -31333590.91 -31333590.73 0.0088 0.0015
 Venus -90500-05-06 11:59 J -31333576.04 -31333576.00 -31333575.93 0.0088 0.0086
 Mercury -90500-07-18 17:15 J -31333502.96 -31333502.78 -31333502.60 0.0088 0.0009
 Mercury -90500-10-14 20:08 J -31333414.84 -31333414.66 -31333414.48 0.0088 0.0004
 Mercury -90499-01-10 23:15 J -31333326.71 -31333326.53 -31333326.35 0.0088 0.0002
 Mercury -90499-04-09 02:08 J -31333238.59 -31333238.41 -31333238.23 0.0088 0.0007
 Mercury -90499-07-06 05:15 J -31333150.46 -31333150.28 -31333150.11 0.0088 0.0013
 Mercury -90499-10-02 07:54 J -31333062.34 -31333062.17 -31333061.99 0.0088 0.0019
 Mercury -90499-12-29 11:01 J -31332974.21 -31332974.04 -31332973.87 0.0088 0.0023
 Mercury -90498-03-27 13:54 J -31332886.08 -31332885.92 -31332885.75 0.0088 0.0029
 Mercury -90498-06-23 16:47 J -31332797.96 -31332797.80 -31332797.63 0.0088 0.0034

Mercury -90498-09-19 19:39 J -31332709.83 -31332709.68 -31332709.52 0.0088 0.0040
 Mercury -90498-12-16 22:18 J -31332621.71 -31332621.57 -31332621.40 0.0088 0.0046
 Mercury -90497-03-14 01:11 J -31332533.58 -31332533.45 -31332533.29 0.0088 0.0051
 Mercury -90497-06-10 04:18 J -31332445.45 -31332445.32 -31332445.18 0.0088 0.0056
 Mercury -90497-09-06 07:11 J -31332357.32 -31332357.20 -31332357.07 0.0088 0.0061
 Mercury -90497-12-03 09:49 J -31332269.19 -31332269.09 -31332268.96 0.0088 0.0066
 Mercury -90496-03-01 12:42 J -31332181.06 -31332180.97 -31332180.86 0.0088 0.0071
 Mercury -90496-05-28 15:20 J -31332092.93 -31332092.86 -31332092.76 0.0088 0.0077
 Mercury -90496-08-24 18:13 J -31332004.79 -31332004.74 -31332004.66 0.0088 0.0082
 Mercury -90496-11-20 21:06 J -31331916.64 -31331916.62 -31331916.58 0.0088 0.0087
 Moon -90476-09-12 19:11 J -31324680.73 -31324680.70 -31324680.63 0.0088 0.0087
 Earth -90475-09-15 11:15 J -31324313.19 -31324313.03 -31324312.83 0.0088 0.0062
 Moon -90475-09-15 14:23 J -31324313.05 -31324312.90 -31324312.70 0.0088 0.0066 *
 Moon -90474-09-17 20:51 J -31323945.86 -31323945.63 -31323945.38 0.0088 0.0030
 Earth -90474-09-17 23:44 J -31323945.74 -31323945.51 -31323945.26 0.0088 0.0034 *
 Earth -90473-09-19 11:59 J -31323578.26 -31323578.00 -31323577.74 0.0088 0.0005
 Moon -90473-09-19 13:39 J -31323578.20 -31323577.93 -31323577.66 0.0088 0.0008 *
 Moon -90472-09-21 23:30 J -31323210.75 -31323210.52 -31323210.28 0.0088 0.0028
 Earth -90472-09-21 23:30 J -31323210.75 -31323210.52 -31323210.25 0.0088 0.0025 *
 Moon -90471-09-24 11:01 J -31322843.25 -31322843.04 -31322842.80 0.0088 0.0050
 Earth -90471-09-24 11:15 J -31322843.21 -31322843.03 -31322842.80 0.0088 0.0053 *
 Earth -90470-09-26 22:47 J -31322475.62 -31322475.55 -31322475.42 0.0088 0.0082
 Moon -90470-09-27 00:56 J -31322475.50 -31322475.46 -31322475.38 0.0088 0.0085 *
 Mars -90463-10-01 10:03 J -31319914.26 -31319914.08 -31319913.84 0.0088 0.0060
 Mars -90461-08-24 21:35 J -31319220.88 -31319220.60 -31319220.31 0.0088 0.0012
 Mars -90459-07-19 09:20 J -31318527.16 -31318527.11 -31318527.01 0.0088 0.0085
 Venus -90425-09-03 11:01 J -31306062.09 -31306062.04 -31306061.94 0.0089 0.0083
 Venus -90424-04-16 23:01 J -31305836.66 -31305836.54 -31305836.39 0.0089 0.0069
 Venus -90424-11-28 11:15 J -31305611.19 -31305611.03 -31305610.86 0.0089 0.0055
 Venus -90423-07-11 22:47 J -31305385.72 -31305385.55 -31305385.34 0.0089 0.0042

Venus -90422-02-22 10:47 J -31305160.24 -31305160.05 -31305159.83 0.0089 0.0028

Mercury -90422-09-03 07:11 J -31304967.20 -31304967.20 -31304967.19 0.0089 0.0088

Venus -90422-10-05 23:01 J -31304934.75 -31304934.54 -31304934.32 0.0089 0.0014

Mercury -90422-11-30 08:23 J -31304879.17 -31304879.15 -31304879.09 0.0089 0.0085

Mercury -90421-02-26 10:18 J -31304791.13 -31304791.07 -31304791.01 0.0089 0.0080

Venus -90421-05-18 11:01 J -31304709.25 -31304709.04 -31304708.82 0.0089 0.0001

Mercury -90421-05-24 11:44 J -31304703.08 -31304703.01 -31304702.94 0.0089 0.0076

Mercury -90421-08-20 13:11 J -31304615.02 -31304614.95 -31304614.87 0.0089 0.0072

Mercury -90421-11-16 14:37 J -31304526.97 -31304526.89 -31304526.79 0.0089 0.0068

Venus -90421-12-29 23:01 J -31304483.75 -31304483.54 -31304483.33 0.0089 0.0014

Mercury -90420-02-12 16:03 J -31304438.91 -31304438.83 -31304438.72 0.0089 0.0064

Mercury -90420-05-11 17:30 J -31304350.86 -31304350.77 -31304350.65 0.0089 0.0060

Mercury -90420-08-07 19:25 J -31304262.80 -31304262.69 -31304262.58 0.0089 0.0055

Venus -90420-08-12 10:47 J -31304258.24 -31304258.05 -31304257.84 0.0089 0.0028

Mercury -90420-11-03 20:51 J -31304174.74 -31304174.63 -31304174.51 0.0089 0.0051

Mercury -90419-01-30 22:18 J -31304086.68 -31304086.57 -31304086.45 0.0089 0.0047

Venus -90419-03-25 22:47 J -31304032.73 -31304032.55 -31304032.35 0.0089 0.0042

Mercury -90419-04-28 23:44 J -31303998.62 -31303998.51 -31303998.38 0.0089 0.0043

Mercury -90419-07-26 01:39 J -31303910.56 -31303910.43 -31303910.31 0.0089 0.0038

Mercury -90419-10-22 03:06 J -31303822.50 -31303822.37 -31303822.24 0.0089 0.0034

Venus -90419-11-06 10:47 J -31303807.20 -31303807.05 -31303806.87 0.0089 0.0056

Mercury -90418-01-18 04:32 J -31303734.44 -31303734.31 -31303734.17 0.0089 0.0030

Mercury -90418-04-16 05:59 J -31303646.37 -31303646.25 -31303646.11 0.0089 0.0026

Venus -90418-06-19 22:47 J -31303581.66 -31303581.55 -31303581.40 0.0089 0.0070

Mercury -90418-07-13 07:54 J -31303558.31 -31303558.17 -31303558.04 0.0089 0.0021

Mercury -90418-10-09 09:20 J -31303470.25 -31303470.11 -31303469.97 0.0089 0.0017

Mercury -90417-01-05 10:47 J -31303382.18 -31303382.05 -31303381.90 0.0089 0.0013

Venus -90417-01-31 10:32 J -31303356.10 -31303356.06 -31303355.96 0.0089 0.0084

Mercury -90417-04-02 12:27 J -31303294.12 -31303293.98 -31303293.84 0.0089 0.0008

Mercury -90417-06-29 14:08 J -31303206.05 -31303205.91 -31303205.77 0.0089 0.0004

Mercury -90417-09-25 15:49 J -31303117.98 -31303117.84 -31303117.70 0.0089 0.0002

Mercury -90417-12-22 17:15 J -31303029.92 -31303029.78 -31303029.64 0.0089 0.0005

Mercury -90416-03-20 18:56 J -31302941.85 -31302941.71 -31302941.57 0.0089 0.0009

Mercury -90416-06-16 20:37 J -31302853.78 -31302853.64 -31302853.50 0.0089 0.0014

Mercury -90416-09-12 22:03 J -31302765.71 -31302765.58 -31302765.44 0.0089 0.0018

Mercury -90416-12-09 23:44 J -31302677.64 -31302677.51 -31302677.37 0.0089 0.0023

Mercury -90415-03-08 01:25 J -31302589.57 -31302589.44 -31302589.30 0.0089 0.0027

Mercury -90415-06-04 02:51 J -31302501.50 -31302501.38 -31302501.24 0.0089 0.0032

Mercury -90415-08-31 04:32 J -31302413.43 -31302413.31 -31302413.17 0.0089 0.0036

Mercury -90415-11-27 06:13 J -31302325.36 -31302325.24 -31302325.11 0.0089 0.0041

Mercury -90414-02-23 07:54 J -31302237.29 -31302237.17 -31302237.04 0.0089 0.0045

Mercury -90414-05-22 09:20 J -31302149.21 -31302149.11 -31302148.98 0.0089 0.0050

Mercury -90414-08-18 11:15 J -31302061.14 -31302061.03 -31302060.91 0.0089 0.0054

Mercury -90414-11-14 12:56 J -31301973.06 -31301972.96 -31301972.85 0.0089 0.0058

Mercury -90413-02-10 14:37 J -31301884.99 -31301884.89 -31301884.79 0.0089 0.0063

Mercury -90413-05-08 16:18 J -31301796.91 -31301796.82 -31301796.72 0.0089 0.0067

Mercury -90413-08-04 17:59 J -31301708.83 -31301708.75 -31301708.66 0.0089 0.0072

Mercury -90413-10-31 19:25 J -31301620.75 -31301620.69 -31301620.60 0.0089 0.0077

Mercury -90412-01-27 21:20 J -31301532.66 -31301532.61 -31301532.55 0.0089 0.0081

Mercury -90412-04-25 22:47 J -31301444.57 -31301444.55 -31301444.49 0.0089 0.0086

Moon -90393-03-06 17:59 J -31294554.78 -31294554.75 -31294554.68 0.0089 0.0087

Earth -90393-03-06 20:37 J -31294554.70 -31294554.64 -31294554.53 0.0089 0.0084 *

Earth -90392-03-09 07:39 J -31294187.36 -31294187.18 -31294186.97 0.0089 0.0055

Moon -90392-03-09 10:32 J -31294187.24 -31294187.06 -31294186.84 0.0089 0.0053 *

Moon -90391-03-11 14:51 J -31293820.11 -31293819.88 -31293819.63 0.0089 0.0029

Earth -90391-03-11 18:42 J -31293819.96 -31293819.72 -31293819.47 0.0089 0.0026 *

Earth -90390-03-14 05:44 J -31293452.51 -31293452.26 -31293452.00 0.0089 0.0003

Moon -90390-03-14 09:06 J -31293452.37 -31293452.12 -31293451.86 0.0089 0.0005 *

Moon -90389-03-15 13:39 J -31293085.15 -31293084.93 -31293084.67 0.0089 0.0031

Earth -90389-03-15 16:47 J -31293085.03 -31293084.80 -31293084.55 0.0089 0.0032 *

Earth	-90388-03-18 03:35 J	-31292717.51	-31292717.35	-31292717.14	0.0089	0.0061
Moon	-90388-03-18 05:44 J	-31292717.42	-31292717.26	-31292717.05	0.0089	0.0063 *
Moon	-90387-03-20 15:06 J	-31292349.91	-31292349.87	-31292349.82	0.0089	0.0088
Mars	-90381-08-07 21:20 J	-31290017.73	-31290017.61	-31290017.47	0.0089	0.0082
Mars	-90379-07-05 10:47 J	-31289321.39	-31289321.05	-31289320.71	0.0089	0.0008
Venus	-90343-10-22 10:47 J	-31276063.15	-31276063.05	-31276062.94	0.0089	0.0078
Venus	-90342-06-05 00:42 J	-31275837.61	-31275837.47	-31275837.29	0.0089	0.0064
Venus	-90341-01-16 15:06 J	-31275612.05	-31275611.87	-31275611.67	0.0089	0.0049
Venus	-90341-08-29 05:15 J	-31275386.48	-31275386.28	-31275386.06	0.0089	0.0035
Venus	-90340-04-11 19:39 J	-31275160.89	-31275160.68	-31275160.45	0.0089	0.0020
Venus	-90340-11-23 10:03 J	-31274935.31	-31274935.08	-31274934.86	0.0089	0.0005
Venus	-90339-07-06 23:59 J	-31274709.72	-31274709.50	-31274709.27	0.0089	0.0010
Mercury	-90339-11-27 20:37 J	-31274565.67	-31274565.64	-31274565.58	0.0088	0.0086
Venus	-90338-02-17 13:54 J	-31274484.13	-31274483.92	-31274483.69	0.0088	0.0024
Mercury	-90338-02-23 23:59 J	-31274477.57	-31274477.50	-31274477.42	0.0088	0.0080
Mercury	-90338-05-23 02:51 J	-31274389.46	-31274389.38	-31274389.26	0.0088	0.0075
Mercury	-90338-08-19 05:59 J	-31274301.35	-31274301.25	-31274301.12	0.0088	0.0069
Venus	-90338-10-01 04:03 J	-31274258.53	-31274258.33	-31274258.12	0.0088	0.0039
Mercury	-90338-11-15 09:20 J	-31274213.23	-31274213.11	-31274212.97	0.0088	0.0063
Mercury	-90337-02-11 12:13 J	-31274125.11	-31274124.99	-31274124.83	0.0088	0.0058
Mercury	-90337-05-09 15:35 J	-31274036.99	-31274036.85	-31274036.69	0.0088	0.0052
Venus	-90337-05-13 17:59 J	-31274032.92	-31274032.75	-31274032.56	0.0088	0.0053
Mercury	-90337-08-05 18:42 J	-31273948.87	-31273948.72	-31273948.56	0.0088	0.0046
Mercury	-90337-11-01 21:35 J	-31273860.75	-31273860.60	-31273860.42	0.0088	0.0041
Venus	-90337-12-25 07:54 J	-31273807.30	-31273807.17	-31273807.01	0.0088	0.0068
Mercury	-90336-01-29 00:56 J	-31273772.62	-31273772.46	-31273772.29	0.0088	0.0035
Mercury	-90336-04-27 03:49 J	-31273684.50	-31273684.34	-31273684.16	0.0088	0.0029
Mercury	-90336-07-24 06:56 J	-31273596.38	-31273596.21	-31273596.03	0.0088	0.0024
Venus	-90336-08-07 22:18 J	-31273581.65	-31273581.57	-31273581.49	0.0088	0.0082
Mercury	-90336-10-20 10:03 J	-31273508.25	-31273508.08	-31273507.90	0.0088	0.0018

Mercury -90335-01-16 13:11 J -31273420.13 -31273419.95 -31273419.77 0.0088 0.0012

Mercury -90335-04-14 16:03 J -31273332.00 -31273331.83 -31273331.64 0.0088 0.0007

Mercury -90335-07-11 19:11 J -31273243.88 -31273243.70 -31273243.52 0.0088 0.0001

Mercury -90335-10-07 22:03 J -31273155.75 -31273155.58 -31273155.39 0.0088 0.0005

Mercury -90334-01-04 01:11 J -31273067.63 -31273067.45 -31273067.27 0.0088 0.0010

Mercury -90334-04-02 04:03 J -31272979.50 -31272979.33 -31272979.15 0.0088 0.0015

Mercury -90334-06-29 06:56 J -31272891.38 -31272891.21 -31272891.03 0.0088 0.0021

Mercury -90334-09-25 10:03 J -31272803.25 -31272803.08 -31272802.91 0.0088 0.0026

Mercury -90334-12-22 12:42 J -31272715.13 -31272714.97 -31272714.79 0.0088 0.0032

Mercury -90333-03-19 15:49 J -31272627.00 -31272626.84 -31272626.68 0.0088 0.0037

Mercury -90333-06-15 18:27 J -31272538.87 -31272538.73 -31272538.56 0.0088 0.0042

Mercury -90333-09-11 21:20 J -31272450.75 -31272450.61 -31272450.45 0.0088 0.0048

Mercury -90333-12-09 00:27 J -31272362.62 -31272362.48 -31272362.33 0.0088 0.0053

Mercury -90332-03-07 03:20 J -31272274.49 -31272274.36 -31272274.22 0.0088 0.0058

Mercury -90332-06-03 05:59 J -31272186.36 -31272186.25 -31272186.11 0.0088 0.0063

Mercury -90332-08-30 08:51 J -31272098.23 -31272098.13 -31272098.01 0.0088 0.0069

Mercury -90332-11-26 11:44 J -31272010.10 -31272010.01 -31272009.90 0.0088 0.0074

Mercury -90331-02-22 14:37 J -31271921.96 -31271921.89 -31271921.81 0.0088 0.0079

Mercury -90331-05-21 17:01 J -31271833.82 -31271833.79 -31271833.71 0.0088 0.0085

Moon -90311-09-14 17:44 J -31264412.86 -31264412.76 -31264412.59 0.0088 0.0075

Earth -90311-09-14 19:54 J -31264412.78 -31264412.67 -31264412.51 0.0088 0.0076 *

Earth -90310-09-17 08:23 J -31264045.36 -31264045.15 -31264044.92 0.0088 0.0047

Moon -90310-09-17 09:20 J -31264045.32 -31264045.11 -31264044.87 0.0088 0.0049 *

Earth -90309-09-18 20:23 J -31263677.89 -31263677.65 -31263677.38 0.0088 0.0019

Moon -90309-09-18 20:37 J -31263677.89 -31263677.64 -31263677.39 0.0088 0.0016 *

Moon -90308-09-21 06:56 J -31263310.47 -31263310.21 -31263309.94 0.0088 0.0009

Earth -90308-09-21 08:37 J -31263310.39 -31263310.14 -31263309.87 0.0088 0.0011 *

Earth -90307-09-23 20:23 J -31262942.87 -31262942.65 -31262942.41 0.0088 0.0040

Moon -90307-09-23 22:47 J -31262942.77 -31262942.55 -31262942.32 0.0088 0.0042 *

Moon -90306-09-26 04:47 J -31262575.46 -31262575.30 -31262575.10 0.0088 0.0065

Earth	-90306-09-26 07:54 J	-31262575.31	-31262575.17	-31262574.98	0.0088	0.0068	*
Mars	-90297-04-09 12:56 J	-31259457.23	-31259456.96	-31259456.67	0.0088	0.0020	
Mars	-90295-03-04 00:13 J	-31258763.71	-31258763.49	-31258763.25	0.0088	0.0054	
Venus	-90261-12-05 23:01 J	-31246067.56	-31246067.54	-31246067.48	0.0089	0.0087	
Venus	-90260-07-19 11:01 J	-31245842.15	-31245842.04	-31245841.91	0.0089	0.0073	
Venus	-90259-03-01 22:32 J	-31245616.69	-31245616.56	-31245616.38	0.0089	0.0060	
Venus	-90259-10-13 10:47 J	-31245391.22	-31245391.05	-31245390.85	0.0089	0.0046	
Venus	-90258-05-26 22:47 J	-31245165.74	-31245165.55	-31245165.34	0.0089	0.0032	
Venus	-90257-01-07 10:47 J	-31244940.26	-31244940.05	-31244939.84	0.0089	0.0018	
Mercury	-90257-05-30 06:42 J	-31244796.23	-31244796.22	-31244796.18	0.0089	0.0087	
Venus	-90257-08-19 22:47 J	-31244714.77	-31244714.55	-31244714.34	0.0089	0.0004	
Mercury	-90257-08-26 08:08 J	-31244708.19	-31244708.16	-31244708.10	0.0089	0.0083	
Mercury	-90257-11-22 09:35 J	-31244620.15	-31244620.10	-31244620.02	0.0089	0.0079	
Mercury	-90256-02-18 11:01 J	-31244532.10	-31244532.04	-31244531.95	0.0089	0.0075	
Venus	-90256-04-02 10:32 J	-31244489.27	-31244489.06	-31244488.84	0.0089	0.0010	
Mercury	-90256-05-17 12:56 J	-31244444.04	-31244443.96	-31244443.88	0.0089	0.0070	
Mercury	-90256-08-13 14:23 J	-31244355.99	-31244355.90	-31244355.81	0.0089	0.0066	
Mercury	-90256-11-09 15:49 J	-31244267.93	-31244267.84	-31244267.74	0.0089	0.0062	
Venus	-90256-11-13 22:32 J	-31244263.76	-31244263.56	-31244263.35	0.0089	0.0024	
Mercury	-90255-02-05 17:15 J	-31244179.88	-31244179.78	-31244179.67	0.0089	0.0058	
Mercury	-90255-05-04 18:42 J	-31244091.82	-31244091.72	-31244091.60	0.0089	0.0054	
Venus	-90255-06-27 10:32 J	-31244038.25	-31244038.06	-31244037.86	0.0089	0.0038	
Mercury	-90255-07-31 20:37 J	-31244003.76	-31244003.64	-31244003.53	0.0089	0.0049	
Mercury	-90255-10-27 22:03 J	-31243915.70	-31243915.58	-31243915.46	0.0089	0.0045	
Mercury	-90254-01-23 23:30 J	-31243827.64	-31243827.52	-31243827.39	0.0089	0.0041	
Venus	-90254-02-07 22:18 J	-31243812.73	-31243812.57	-31243812.38	0.0089	0.0052	
Mercury	-90254-04-22 00:56 J	-31243739.58	-31243739.46	-31243739.33	0.0089	0.0037	
Mercury	-90254-07-19 02:37 J	-31243651.52	-31243651.39	-31243651.26	0.0089	0.0032	
Venus	-90254-09-21 10:18 J	-31243587.20	-31243587.07	-31243586.91	0.0089	0.0066	
Mercury	-90254-10-15 04:18 J	-31243563.45	-31243563.32	-31243563.19	0.0089	0.0028	

Mercury -90253-01-11 05:44 J -31243475.39 -31243475.26 -31243475.12 0.0089 0.0024

Mercury -90253-04-08 07:11 J -31243387.33 -31243387.20 -31243387.06 0.0089 0.0020

Venus -90253-05-03 22:18 J -31243361.64 -31243361.57 -31243361.46 0.0089 0.0080

Mercury -90253-07-05 08:51 J -31243299.26 -31243299.13 -31243298.99 0.0089 0.0015

Mercury -90253-10-01 10:32 J -31243211.20 -31243211.06 -31243210.92 0.0089 0.0011

Mercury -90253-12-28 11:59 J -31243123.13 -31243123.00 -31243122.85 0.0089 0.0007

Mercury -90252-03-26 13:39 J -31243035.07 -31243034.93 -31243034.79 0.0089 0.0002

Mercury -90252-06-22 15:20 J -31242947.00 -31242946.86 -31242946.72 0.0089 0.0003

Mercury -90252-09-18 16:47 J -31242858.94 -31242858.80 -31242858.66 0.0089 0.0007

Mercury -90252-12-15 18:27 J -31242770.87 -31242770.73 -31242770.59 0.0089 0.0011

Mercury -90251-03-13 20:08 J -31242682.80 -31242682.66 -31242682.52 0.0089 0.0016

Mercury -90251-06-09 21:35 J -31242594.73 -31242594.60 -31242594.46 0.0089 0.0020

Mercury -90251-09-05 23:15 J -31242506.66 -31242506.53 -31242506.39 0.0089 0.0025

Mercury -90251-12-03 00:56 J -31242418.59 -31242418.46 -31242418.32 0.0089 0.0029

Mercury -90250-03-01 02:37 J -31242330.52 -31242330.39 -31242330.26 0.0089 0.0033

Mercury -90250-05-28 04:03 J -31242242.45 -31242242.33 -31242242.19 0.0089 0.0038

Mercury -90250-08-24 05:59 J -31242154.38 -31242154.25 -31242154.13 0.0089 0.0042

Mercury -90250-11-20 07:25 J -31242066.31 -31242066.19 -31242066.06 0.0089 0.0047

Mercury -90249-02-16 09:06 J -31241978.23 -31241978.12 -31241978.00 0.0089 0.0051

Mercury -90249-05-14 10:32 J -31241890.16 -31241890.06 -31241889.93 0.0089 0.0056

Mercury -90249-08-10 12:27 J -31241802.08 -31241801.98 -31241801.87 0.0089 0.0060

Mercury -90249-11-06 13:54 J -31241714.00 -31241713.92 -31241713.81 0.0089 0.0065

Mercury -90248-02-02 15:49 J -31241625.92 -31241625.84 -31241625.75 0.0089 0.0069

Mercury -90248-05-01 17:15 J -31241537.84 -31241537.78 -31241537.69 0.0089 0.0074

Mercury -90248-07-28 19:11 J -31241449.76 -31241449.70 -31241449.63 0.0089 0.0078

Mercury -90248-10-24 20:37 J -31241361.67 -31241361.64 -31241361.57 0.0089 0.0083

Mercury -90247-01-20 22:47 J -31241273.58 -31241273.55 -31241273.53 0.0089 0.0087

Jupiter -90241-05-18 19:54 J -31238964.06 -31238963.67 -31238963.27 0.0089 0.0060

Moon -90228-03-08 14:23 J -31234287.02 -31234286.90 -31234286.73 0.0089 0.0072

Earth -90228-03-08 17:44 J -31234286.90 -31234286.76 -31234286.57 0.0089 0.0069 *

Earth	-90227-03-11 04:47 J	-31233919.51	-31233919.30	-31233919.06	0.0089	0.0040
Moon	-90227-03-11 08:08 J	-31233919.37	-31233919.16	-31233918.90	0.0089	0.0037 *
Moon	-90226-03-13 13:39 J	-31233552.16	-31233551.93	-31233551.67	0.0089	0.0015
Earth	-90226-03-13 16:03 J	-31233552.08	-31233551.83	-31233551.57	0.0089	0.0011 *
Earth	-90225-03-15 03:06 J	-31233184.61	-31233184.37	-31233184.11	0.0089	0.0018
Moon	-90225-03-15 04:32 J	-31233184.56	-31233184.31	-31233184.05	0.0089	0.0021 *
Moon	-90224-03-17 13:39 J	-31232817.13	-31232816.93	-31232816.70	0.0089	0.0043
Earth	-90224-03-17 14:08 J	-31232817.11	-31232816.91	-31232816.68	0.0089	0.0047 *
Moon	-90223-03-19 23:59 J	-31232449.60	-31232449.50	-31232449.36	0.0089	0.0079
Earth	-90223-03-20 01:11 J	-31232449.56	-31232449.45	-31232449.29	0.0089	0.0076 *
Mars	-90215-02-15 17:44 J	-31229560.07	-31229559.76	-31229559.42	0.0089	0.0032
Mars	-90213-01-13 06:27 J	-31228863.46	-31228863.23	-31228862.94	0.0089	0.0059
Venus	-90178-01-23 20:08 J	-31216068.71	-31216068.66	-31216068.55	0.0089	0.0083
Venus	-90178-09-06 10:47 J	-31215843.19	-31215843.05	-31215842.90	0.0089	0.0068
Venus	-90177-04-19 00:56 J	-31215617.62	-31215617.46	-31215617.26	0.0089	0.0054
Venus	-90177-11-30 15:20 J	-31215392.05	-31215391.86	-31215391.65	0.0089	0.0039
Venus	-90176-07-14 05:30 J	-31215166.48	-31215166.27	-31215166.04	0.0089	0.0024
Venus	-90175-02-24 19:39 J	-31214940.90	-31214940.68	-31214940.45	0.0089	0.0009
Venus	-90175-10-08 10:03 J	-31214715.31	-31214715.08	-31214714.86	0.0089	0.0006
Venus	-90174-05-21 23:59 J	-31214489.71	-31214489.50	-31214489.27	0.0089	0.0021
Mercury	-90174-08-24 19:25 J	-31214394.73	-31214394.69	-31214394.61	0.0089	0.0084
Mercury	-90174-11-20 22:47 J	-31214306.62	-31214306.55	-31214306.45	0.0089	0.0078
Venus	-90173-01-02 14:23 J	-31214264.11	-31214263.90	-31214263.69	0.0089	0.0035
Mercury	-90173-02-17 01:54 J	-31214218.51	-31214218.42	-31214218.30	0.0089	0.0072
Mercury	-90173-05-15 05:15 J	-31214130.39	-31214130.28	-31214130.15	0.0089	0.0066
Mercury	-90173-08-11 08:08 J	-31214042.28	-31214042.16	-31214042.01	0.0089	0.0061
Venus	-90173-08-15 04:03 J	-31214038.50	-31214038.33	-31214038.13	0.0089	0.0050
Mercury	-90173-11-07 11:30 J	-31213954.16	-31213954.02	-31213953.87	0.0089	0.0055
Mercury	-90172-02-03 14:51 J	-31213866.03	-31213865.88	-31213865.73	0.0088	0.0049
Venus	-90172-03-28 17:44 J	-31213812.89	-31213812.76	-31213812.58	0.0088	0.0065

Mercury -90172-05-02 17:44 J -31213777.91 -31213777.76 -31213777.59 0.0088 0.0043

Mercury -90172-07-29 20:51 J -31213689.79 -31213689.63 -31213689.46 0.0088 0.0038

Mercury -90172-10-25 23:44 J -31213601.67 -31213601.51 -31213601.33 0.0088 0.0033

Venus -90172-11-09 08:08 J -31213587.25 -31213587.16 -31213587.05 0.0088 0.0079

Mercury -90171-01-22 03:06 J -31213513.54 -31213513.37 -31213513.20 0.0088 0.0026

Mercury -90171-04-20 06:13 J -31213425.42 -31213425.24 -31213425.07 0.0088 0.0021

Mercury -90171-07-17 09:06 J -31213337.29 -31213337.12 -31213336.94 0.0088 0.0016

Mercury -90171-10-13 12:13 J -31213249.17 -31213248.99 -31213248.81 0.0088 0.0010

Mercury -90170-01-09 15:20 J -31213161.04 -31213160.86 -31213160.68 0.0088 0.0005

Mercury -90170-04-07 18:13 J -31213072.92 -31213072.74 -31213072.56 0.0088 0.0001

Mercury -90170-07-04 21:20 J -31212984.79 -31212984.61 -31212984.43 0.0088 0.0007

Mercury -90170-10-01 00:13 J -31212896.67 -31212896.49 -31212896.31 0.0088 0.0012

Mercury -90170-12-28 03:06 J -31212808.54 -31212808.37 -31212808.19 0.0088 0.0018

Mercury -90169-03-25 05:59 J -31212720.42 -31212720.25 -31212720.07 0.0088 0.0023

Mercury -90169-06-21 08:51 J -31212632.29 -31212632.13 -31212631.95 0.0088 0.0029

Mercury -90169-09-17 11:59 J -31212544.16 -31212544.00 -31212543.83 0.0088 0.0034

Mercury -90169-12-14 14:37 J -31212456.04 -31212455.89 -31212455.72 0.0088 0.0040

Mercury -90168-03-12 17:44 J -31212367.91 -31212367.76 -31212367.60 0.0088 0.0045

Mercury -90168-06-08 20:37 J -31212279.78 -31212279.64 -31212279.49 0.0088 0.0050

Mercury -90168-09-04 23:15 J -31212191.65 -31212191.53 -31212191.38 0.0088 0.0056

Mercury -90168-12-02 02:08 J -31212103.52 -31212103.41 -31212103.27 0.0088 0.0061

Mercury -90167-02-28 05:15 J -31212015.39 -31212015.28 -31212015.16 0.0088 0.0066

Mercury -90167-05-27 08:08 J -31211927.26 -31211927.16 -31211927.05 0.0088 0.0071

Mercury -90167-08-23 10:32 J -31211839.12 -31211839.06 -31211838.95 0.0088 0.0077

Mercury -90167-11-19 13:25 J -31211750.99 -31211750.94 -31211750.85 0.0088 0.0082

Mercury -90166-02-15 16:18 J -31211662.84 -31211662.82 -31211662.77 0.0088 0.0087

Moon -90147-09-14 05:44 J -31204512.32 -31204512.26 -31204512.15 0.0088 0.0084

Earth -90147-09-14 05:30 J -31204512.27 -31204512.27 -31204512.23 0.0088 0.0088 *

Earth -90146-09-16 17:44 J -31204144.93 -31204144.76 -31204144.54 0.0088 0.0060

Moon -90146-09-16 18:56 J -31204144.87 -31204144.71 -31204144.52 0.0088 0.0064 *

Moon	-90145-09-18 04:47 J	-31203777.56	-31203777.30	-31203777.05	0.0088	0.0027
Earth	-90145-09-18 06:27 J	-31203777.47	-31203777.23	-31203776.98	0.0088	0.0031 *
Earth	-90144-09-20 18:27 J	-31203409.98	-31203409.73	-31203409.46	0.0088	0.0003
Moon	-90144-09-20 21:35 J	-31203409.85	-31203409.60	-31203409.35	0.0088	0.0006 *
Moon	-90143-09-23 03:06 J	-31203042.61	-31203042.37	-31203042.12	0.0088	0.0031
Earth	-90143-09-23 06:27 J	-31203042.47	-31203042.23	-31203041.97	0.0088	0.0026 *
Earth	-90142-09-25 17:44 J	-31202674.94	-31202674.76	-31202674.54	0.0088	0.0055
Moon	-90142-09-25 21:20 J	-31202674.80	-31202674.61	-31202674.38	0.0088	0.0052 *
Moon	-90141-09-27 02:08 J	-31202307.42	-31202307.41	-31202307.35	0.0088	0.0088
Earth	-90141-09-27 05:30 J	-31202307.33	-31202307.27	-31202307.16	0.0088	0.0083
Mars	-90134-11-24 04:18 J	-31199693.53	-31199693.32	-31199693.06	0.0088	0.0051
Mars	-90132-10-17 17:01 J	-31199000.06	-31198999.79	-31198999.51	0.0088	0.0023
Venus	-90096-10-20 23:30 J	-31185847.62	-31185847.52	-31185847.42	0.0089	0.0077
Venus	-90095-06-03 10:47 J	-31185622.17	-31185622.05	-31185621.88	0.0089	0.0064
Venus	-90094-01-14 22:47 J	-31185396.71	-31185396.55	-31185396.36	0.0089	0.0050
Venus	-90094-08-28 10:47 J	-31185171.24	-31185171.05	-31185170.84	0.0089	0.0036
Venus	-90093-04-09 22:47 J	-31184945.75	-31184945.55	-31184945.34	0.0089	0.0022
Venus	-90093-11-21 10:47 J	-31184720.26	-31184720.05	-31184719.83	0.0089	0.0008
Mercury	-90092-02-24 06:27 J	-31184625.26	-31184625.23	-31184625.18	0.0089	0.0085
Mercury	-90092-05-23 07:54 J	-31184537.21	-31184537.17	-31184537.10	0.0089	0.0081
Venus	-90092-07-04 22:47 J	-31184494.77	-31184494.55	-31184494.34	0.0089	0.0006
Mercury	-90092-08-19 09:20 J	-31184449.16	-31184449.11	-31184449.03	0.0089	0.0077
Mercury	-90092-11-15 10:47 J	-31184361.11	-31184361.05	-31184360.95	0.0089	0.0073
Mercury	-90091-02-11 12:27 J	-31184273.06	-31184272.98	-31184272.88	0.0089	0.0069
Venus	-90091-02-15 10:32 J	-31184269.27	-31184269.06	-31184268.85	0.0089	0.0020
Mercury	-90091-05-10 14:08 J	-31184185.00	-31184184.91	-31184184.81	0.0089	0.0064
Mercury	-90091-08-06 15:35 J	-31184096.95	-31184096.85	-31184096.74	0.0089	0.0060
Venus	-90091-09-28 22:32 J	-31184043.75	-31184043.56	-31184043.36	0.0089	0.0034
Mercury	-90091-11-02 17:01 J	-31184008.89	-31184008.79	-31184008.68	0.0089	0.0056
Mercury	-90090-01-29 18:27 J	-31183920.83	-31183920.73	-31183920.61	0.0089	0.0052

Mercury -90090-04-27 19:54 J -31183832.77 -31183832.67 -31183832.54 0.0089 0.0048

Venus -90090-05-12 10:32 J -31183818.24 -31183818.06 -31183817.88 0.0089 0.0048

Mercury -90090-07-24 21:49 J -31183744.71 -31183744.59 -31183744.47 0.0089 0.0043

Mercury -90090-10-20 23:15 J -31183656.65 -31183656.53 -31183656.40 0.0089 0.0039

Venus -90090-12-23 22:32 J -31183592.71 -31183592.56 -31183592.41 0.0089 0.0062

Mercury -90089-01-17 00:42 J -31183568.59 -31183568.47 -31183568.34 0.0089 0.0035

Mercury -90089-04-14 02:23 J -31183480.53 -31183480.40 -31183480.27 0.0089 0.0030

Mercury -90089-07-11 03:49 J -31183392.47 -31183392.34 -31183392.20 0.0089 0.0026

Venus -90089-08-05 10:32 J -31183367.16 -31183367.06 -31183366.95 0.0089 0.0076

Mercury -90089-10-07 05:30 J -31183304.41 -31183304.27 -31183304.13 0.0089 0.0022

Mercury -90088-01-03 06:56 J -31183216.34 -31183216.21 -31183216.07 0.0089 0.0018

Mercury -90088-04-01 08:37 J -31183128.28 -31183128.14 -31183128.00 0.0089 0.0013

Mercury -90088-06-28 10:18 J -31183040.21 -31183040.07 -31183039.93 0.0089 0.0009

Mercury -90088-09-24 11:44 J -31182952.15 -31182952.01 -31182951.87 0.0089 0.0005

Mercury -90088-12-21 13:25 J -31182864.08 -31182863.94 -31182863.80 0.0089 0.0001

Mercury -90087-03-19 15:06 J -31182776.01 -31182775.87 -31182775.73 0.0089 0.0005

Mercury -90087-06-15 16:32 J -31182687.95 -31182687.81 -31182687.67 0.0089 0.0009

Mercury -90087-09-11 18:13 J -31182599.88 -31182599.74 -31182599.60 0.0089 0.0013

Mercury -90087-12-08 19:39 J -31182511.81 -31182511.68 -31182511.53 0.0089 0.0018

Mercury -90086-03-06 21:20 J -31182423.74 -31182423.61 -31182423.47 0.0089 0.0022

Mercury -90086-06-02 23:01 J -31182335.67 -31182335.54 -31182335.40 0.0089 0.0027

Mercury -90086-08-30 00:42 J -31182247.60 -31182247.47 -31182247.34 0.0089 0.0031

Mercury -90086-11-26 02:08 J -31182159.53 -31182159.41 -31182159.27 0.0089 0.0036

Mercury -90085-02-22 03:49 J -31182071.46 -31182071.34 -31182071.21 0.0089 0.0040

Mercury -90085-05-20 05:15 J -31181983.39 -31181983.28 -31181983.14 0.0089 0.0045

Mercury -90085-08-16 07:11 J -31181895.31 -31181895.20 -31181895.08 0.0089 0.0049

Mercury -90085-11-12 08:51 J -31181807.24 -31181807.13 -31181807.01 0.0089 0.0053

Mercury -90084-02-08 10:18 J -31181719.17 -31181719.07 -31181718.95 0.0089 0.0058

Mercury -90084-05-07 12:13 J -31181631.09 -31181630.99 -31181630.89 0.0089 0.0062

Mercury -90084-08-03 13:39 J -31181543.01 -31181542.93 -31181542.82 0.0089 0.0067

Mercury -90084-10-30 15:35 J -31181454.93 -31181454.85 -31181454.76 0.0089 0.0071

Mercury -90083-01-26 17:01 J -31181366.85 -31181366.79 -31181366.70 0.0089 0.0076

Mercury -90083-04-24 18:42 J -31181278.77 -31181278.72 -31181278.65 0.0089 0.0081

Mercury -90083-07-21 20:37 J -31181190.67 -31181190.64 -31181190.60 0.0089 0.0085

Jupiter -90075-07-22 18:42 J -31178268.26 -31178267.72 -31178267.18 0.0089 0.0000

Earth -90064-03-08 05:01 J -31174386.38 -31174386.29 -31174386.18 0.0089 0.0082

Moon -90064-03-08 07:11 J -31174386.25 -31174386.20 -31174386.09 0.0089 0.0085 *

Moon -90063-03-10 13:25 J -31174019.12 -31174018.94 -31174018.72 0.0089 0.0051

Earth -90063-03-10 15:35 J -31174019.04 -31174018.85 -31174018.63 0.0089 0.0053 *

Earth -90062-03-13 02:51 J -31173651.62 -31173651.38 -31173651.13 0.0089 0.0024

Moon -90062-03-13 03:49 J -31173651.58 -31173651.34 -31173651.08 0.0089 0.0027 *

Earth -90061-03-14 14:08 J -31173284.17 -31173283.91 -31173283.66 0.0089 0.0005

Moon -90061-03-14 14:37 J -31173284.13 -31173283.89 -31173283.64 0.0089 0.0007 *

Moon -90060-03-16 23:44 J -31172916.76 -31172916.51 -31172916.26 0.0089 0.0031

Earth -90060-03-17 00:56 J -31172916.69 -31172916.46 -31172916.21 0.0089 0.0033 *

Earth -90059-03-19 11:59 J -31172549.16 -31172549.00 -31172548.80 0.0089 0.0062

Moon -90059-03-19 14:23 J -31172549.04 -31172548.90 -31172548.70 0.0089 0.0065 *

Moon -90058-03-21 20:23 J -31172181.69 -31172181.65 -31172181.60 0.0089 0.0088

Mars -90052-09-29 02:37 J -31169798.56 -31169798.39 -31169798.16 0.0089 0.0072

Mars -90050-08-26 17:01 J -31169102.12 -31169101.79 -31169101.45 0.0089 0.0020

Venus -90014-04-27 06:56 J -31156074.23 -31156074.21 -31156074.15 0.0089 0.0087

Venus -90014-12-08 21:20 J -31155848.73 -31155848.61 -31155848.47 0.0089 0.0072

Venus -90013-07-21 11:15 J -31155623.18 -31155623.03 -31155622.84 0.0089 0.0058

Venus -90012-03-04 01:39 J -31155397.62 -31155397.43 -31155397.22 0.0089 0.0043

Venus -90012-10-15 16:03 J -31155172.04 -31155171.83 -31155171.61 0.0089 0.0028

Venus -90011-05-29 06:27 J -31154946.45 -31154946.23 -31154946.01 0.0089 0.0013

Venus -90010-01-09 20:37 J -31154720.87 -31154720.64 -31154720.41 0.0089 0.0002

Venus -90010-08-23 10:47 J -31154495.27 -31154495.05 -31154494.83 0.0089 0.0017

Mercury -90009-02-22 15:49 J -31154311.87 -31154311.84 -31154311.79 0.0089 0.0086

Venus -90009-04-05 00:42 J -31154269.67 -31154269.47 -31154269.25 0.0089 0.0032

Mercury -90009-05-20 18:42 J -31154223.78 -31154223.72 -31154223.63 0.0089 0.0081

Mercury -90009-08-16 22:03 J -31154135.67 -31154135.58 -31154135.47 0.0089 0.0075

Mercury -90009-11-13 01:25 J -31154047.55 -31154047.44 -31154047.32 0.0089 0.0069

Venus -90009-11-16 14:37 J -31154044.06 -31154043.89 -31154043.68 0.0089 0.0047

Mercury -90008-02-09 04:18 J -31153959.43 -31153959.32 -31153959.18 0.0089 0.0064

Mercury -90008-05-08 07:25 J -31153871.31 -31153871.19 -31153871.03 0.0089 0.0058

Venus -90008-06-30 05:01 J -31153818.45 -31153818.29 -31153818.12 0.0089 0.0061

Mercury -90008-08-04 10:47 J -31153783.19 -31153783.05 -31153782.89 0.0089 0.0052

Mercury -90008-10-31 13:39 J -31153695.07 -31153694.93 -31153694.76 0.0089 0.0047

Mercury -90007-01-27 17:01 J -31153606.94 -31153606.79 -31153606.62 0.0089 0.0041

Venus -90007-02-10 18:42 J -31153592.81 -31153592.72 -31153592.58 0.0089 0.0076

Mercury -90007-04-25 20:08 J -31153518.82 -31153518.66 -31153518.48 0.0089 0.0035

Mercury -90007-07-22 23:15 J -31153430.70 -31153430.53 -31153430.35 0.0088 0.0029

Mercury -90007-10-19 02:23 J -31153342.57 -31153342.40 -31153342.22 0.0088 0.0024

Mercury -90006-01-15 05:30 J -31153254.45 -31153254.27 -31153254.09 0.0088 0.0018

Mercury -90006-04-13 08:37 J -31153166.32 -31153166.14 -31153165.96 0.0088 0.0012

Mercury -90006-07-10 11:30 J -31153078.20 -31153078.02 -31153077.83 0.0088 0.0007

Mercury -90006-10-06 14:37 J -31152990.07 -31152989.89 -31152989.71 0.0088 0.0001

Mercury -90005-01-02 17:44 J -31152901.94 -31152901.76 -31152901.58 0.0088 0.0005

Mercury -90005-03-30 20:37 J -31152813.82 -31152813.64 -31152813.46 0.0088 0.0010

Mercury -90005-06-26 23:30 J -31152725.69 -31152725.52 -31152725.34 0.0088 0.0015

Mercury -90005-09-23 02:37 J -31152637.57 -31152637.39 -31152637.22 0.0088 0.0021

Mercury -90005-12-20 05:15 J -31152549.44 -31152549.28 -31152549.10 0.0088 0.0027

Mercury -90004-03-18 08:23 J -31152461.31 -31152461.15 -31152460.98 0.0088 0.0032

Mercury -90004-06-14 11:30 J -31152373.19 -31152373.02 -31152372.86 0.0088 0.0037

Mercury -90004-09-10 14:08 J -31152285.06 -31152284.91 -31152284.75 0.0088 0.0042

Mercury -90004-12-07 17:01 J -31152196.93 -31152196.79 -31152196.63 0.0088 0.0048

Mercury -90003-03-05 20:08 J -31152108.80 -31152108.66 -31152108.52 0.0088 0.0053

Mercury -90003-06-01 22:47 J -31152020.67 -31152020.55 -31152020.41 0.0088 0.0058

Mercury -90003-08-29 01:39 J -31151932.54 -31151932.43 -31151932.30 0.0088 0.0064

Mercury -90003-11-25 04:32 J -31151844.41 -31151844.31 -31151844.19 0.0088 0.0069

Mercury -90002-02-21 07:39 J -31151756.28 -31151756.18 -31151756.09 0.0088 0.0074

Mercury -90002-05-20 10:03 J -31151668.14 -31151668.08 -31151667.99 0.0088 0.0080

Mercury -90002-08-16 12:56 J -31151579.99 -31151579.96 -31151579.90 0.0088 0.0085

90TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 90th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-89982-09-16 01:11 J	-31144244.59	-31144244.45	-31144244.27	0.0088	0.0071		
Earth	-89982-09-16 04:03 J	-31144244.46	-31144244.33	-31144244.16	0.0088	0.0072	*	
Earth	-89981-09-17 16:18 J	-31143877.02	-31143876.82	-31143876.57	0.0088	0.0044		
Moon	-89981-09-17 19:39 J	-31143876.89	-31143876.68	-31143876.44	0.0088	0.0045	*	
Moon	-89980-09-20 01:25 J	-31143509.69	-31143509.44	-31143509.17	0.0088	0.0013		
Earth	-89980-09-20 05:15 J	-31143509.54	-31143509.28	-31143509.02	0.0088	0.0014	*	
Earth	-89979-09-22 16:47 J	-31143142.04	-31143141.80	-31143141.53	0.0088	0.0015		
Moon	-89979-09-22 20:37 J	-31143141.90	-31143141.64	-31143141.38	0.0088	0.0012	*	
Moon	-89978-09-25 01:54 J	-31142774.63	-31142774.42	-31142774.19	0.0088	0.0045		
Earth	-89978-09-25 04:47 J	-31142774.51	-31142774.30	-31142774.06	0.0088	0.0043	*	
Earth	-89977-09-26 16:32 J	-31142406.95	-31142406.81	-31142406.64	0.0088	0.0071		
Moon	-89977-09-26 19:25 J	-31142406.86	-31142406.69	-31142406.52	0.0088	0.0068	*	
Mars	-89970-07-09 23:30 J	-31139929.59	-31139929.52	-31139929.37	0.0088	0.0082		
Mars	-89968-06-02 09:49 J	-31139236.37	-31139236.09	-31139235.79	0.0088	0.0009		

Mars -89966-04-26 21:49 J -31138542.78 -31138542.59 -31138542.39 0.0088 0.0065
 Venus -89931-01-22 11:44 J -31125853.08 -31125853.01 -31125852.91 0.0089 0.0081
 Venus -89931-09-04 23:44 J -31125627.64 -31125627.51 -31125627.36 0.0089 0.0067
 Venus -89930-04-18 11:44 J -31125402.18 -31125402.01 -31125401.84 0.0089 0.0053
 Venus -89930-11-29 23:44 J -31125176.70 -31125176.51 -31125176.32 0.0089 0.0039
 Venus -89929-07-12 11:30 J -31124951.22 -31124951.02 -31124950.81 0.0089 0.0025
 Venus -89928-02-22 23:15 J -31124725.74 -31124725.53 -31124725.31 0.0089 0.0011
 Mercury -89928-08-25 04:47 J -31124542.31 -31124542.30 -31124542.26 0.0089 0.0087
 Venus -89928-10-06 11:15 J -31124500.24 -31124500.03 -31124499.81 0.0089 0.0003
 Mercury -89928-11-21 06:27 J -31124454.27 -31124454.23 -31124454.17 0.0089 0.0083
 Mercury -89927-02-17 07:54 J -31124366.22 -31124366.17 -31124366.10 0.0089 0.0079
 Mercury -89927-05-16 09:20 J -31124278.17 -31124278.11 -31124278.03 0.0089 0.0075
 Venus -89927-05-19 23:01 J -31124274.74 -31124274.54 -31124274.32 0.0089 0.0017
 Mercury -89927-08-12 11:01 J -31124190.12 -31124190.04 -31124189.95 0.0089 0.0070
 Mercury -89927-11-08 12:27 J -31124102.07 -31124101.98 -31124101.88 0.0089 0.0066
 Venus -89927-12-31 11:01 J -31124049.24 -31124049.04 -31124048.84 0.0089 0.0031
 Mercury -89926-02-04 13:54 J -31124014.01 -31124013.92 -31124013.81 0.0089 0.0062
 Mercury -89926-05-03 15:20 J -31123925.95 -31123925.86 -31123925.75 0.0089 0.0058
 Mercury -89926-07-30 16:47 J -31123837.90 -31123837.80 -31123837.68 0.0089 0.0054
 Venus -89926-08-13 22:47 J -31123823.73 -31123823.55 -31123823.36 0.0089 0.0045
 Mercury -89926-10-26 18:13 J -31123749.84 -31123749.74 -31123749.61 0.0089 0.0050
 Mercury -89925-01-22 20:08 J -31123661.78 -31123661.66 -31123661.54 0.0089 0.0045
 Venus -89925-03-26 10:32 J -31123598.20 -31123598.06 -31123597.89 0.0089 0.0059
 Mercury -89925-04-19 21:35 J -31123573.72 -31123573.60 -31123573.47 0.0089 0.0041
 Mercury -89925-07-16 23:01 J -31123485.66 -31123485.54 -31123485.41 0.0089 0.0037
 Mercury -89925-10-13 00:27 J -31123397.60 -31123397.48 -31123397.34 0.0089 0.0033
 Venus -89925-11-06 22:32 J -31123372.66 -31123372.56 -31123372.42 0.0089 0.0073
 Mercury -89924-01-09 02:08 J -31123309.54 -31123309.41 -31123309.27 0.0089 0.0028
 Mercury -89924-04-07 03:35 J -31123221.48 -31123221.35 -31123221.21 0.0089 0.0024
 Venus -89924-06-20 10:32 J -31123147.08 -31123147.06 -31123147.00 0.0089 0.0087

Mercury -89924-07-04 05:15 J -31123133.41 -31123133.28 -31123133.14 0.0089 0.0020
 Mercury -89924-09-30 06:56 J -31123045.35 -31123045.21 -31123045.07 0.0089 0.0015
 Mercury -89924-12-27 08:23 J -31122957.29 -31122957.15 -31122957.01 0.0089 0.0011
 Mercury -89923-03-25 10:03 J -31122869.22 -31122869.08 -31122868.94 0.0089 0.0007
 Mercury -89923-06-21 11:30 J -31122781.16 -31122781.02 -31122780.88 0.0089 0.0004
 Mercury -89923-09-17 13:11 J -31122693.09 -31122692.95 -31122692.81 0.0089 0.0002
 Mercury -89923-12-14 14:51 J -31122605.02 -31122604.88 -31122604.74 0.0089 0.0007
 Mercury -89922-03-12 16:18 J -31122516.96 -31122516.82 -31122516.68 0.0089 0.0011
 Mercury -89922-06-08 17:59 J -31122428.89 -31122428.75 -31122428.61 0.0089 0.0015
 Mercury -89922-09-04 19:39 J -31122340.82 -31122340.68 -31122340.54 0.0089 0.0020
 Mercury -89922-12-01 21:06 J -31122252.75 -31122252.62 -31122252.48 0.0089 0.0024
 Mercury -89921-02-27 22:47 J -31122164.68 -31122164.55 -31122164.41 0.0089 0.0029
 Mercury -89921-05-26 00:27 J -31122076.61 -31122076.48 -31122076.35 0.0089 0.0033
 Mercury -89921-08-22 01:54 J -31121988.54 -31121988.42 -31121988.28 0.0089 0.0038
 Mercury -89921-11-18 03:35 J -31121900.47 -31121900.35 -31121900.22 0.0089 0.0042
 Mercury -89920-02-14 05:15 J -31121812.39 -31121812.28 -31121812.15 0.0089 0.0047
 Mercury -89920-05-13 06:56 J -31121724.32 -31121724.21 -31121724.09 0.0089 0.0051
 Mercury -89920-08-09 08:23 J -31121636.25 -31121636.15 -31121636.03 0.0089 0.0056
 Mercury -89920-11-05 10:18 J -31121548.17 -31121548.07 -31121547.96 0.0089 0.0060
 Mercury -89919-02-01 11:44 J -31121460.09 -31121460.01 -31121459.90 0.0089 0.0065
 Mercury -89919-04-30 13:39 J -31121372.02 -31121371.93 -31121371.84 0.0089 0.0069
 Mercury -89919-07-27 15:06 J -31121283.94 -31121283.87 -31121283.78 0.0089 0.0074
 Mercury -89919-10-23 17:01 J -31121195.85 -31121195.79 -31121195.72 0.0089 0.0078
 Mercury -89918-01-19 18:27 J -31121107.77 -31121107.73 -31121107.67 0.0089 0.0083
 Mercury -89918-04-17 20:23 J -31121019.67 -31121019.65 -31121019.62 0.0089 0.0087
 Jupiter -89909-09-27 07:11 J -31117569.53 -31117569.20 -31117568.76 0.0089 0.0063
 Earth -89899-03-10 03:35 J -31114118.50 -31114118.35 -31114118.15 0.0089 0.0066
 Moon -89899-03-10 04:03 J -31114118.49 -31114118.33 -31114118.15 0.0089 0.0068 *
 Earth -89898-03-12 14:37 J -31113751.11 -31113750.89 -31113750.65 0.0089 0.0037
 Moon -89898-03-12 15:06 J -31113751.08 -31113750.87 -31113750.62 0.0089 0.0034 *

Moon -89897-03-13 23:15 J -31113383.79 -31113383.53 -31113383.27 0.0089 0.0012
 Earth -89897-03-14 01:39 J -31113383.68 -31113383.43 -31113383.17 0.0089 0.0009 *
 Earth -89896-03-16 12:27 J -31113016.21 -31113015.98 -31113015.72 0.0089 0.0021
 Moon -89896-03-16 15:35 J -31113016.09 -31113015.85 -31113015.60 0.0089 0.0023 *
 Moon -89895-03-18 20:08 J -31112648.86 -31112648.66 -31112648.42 0.0089 0.0045
 Earth -89895-03-18 23:30 J -31112648.71 -31112648.52 -31112648.28 0.0089 0.0050 *
 Earth -89894-03-21 11:01 J -31112281.15 -31112281.04 -31112280.91 0.0089 0.0078
 Moon -89894-03-21 14:37 J -31112280.98 -31112280.89 -31112280.78 0.0089 0.0081 *
 Mars -89886-04-09 02:37 J -31109340.71 -31109340.39 -31109340.04 0.0089 0.0020
 Mars -89884-03-05 15:49 J -31108644.01 -31108643.84 -31108643.60 0.0089 0.0072
 Venus -89849-03-11 07:54 J -31095854.28 -31095854.17 -31095854.05 0.0089 0.0076
 Venus -89849-10-22 21:49 J -31095628.73 -31095628.59 -31095628.41 0.0089 0.0062
 Venus -89848-06-05 12:13 J -31095403.17 -31095402.99 -31095402.78 0.0089 0.0047
 Venus -89847-01-17 02:23 J -31095177.60 -31095177.40 -31095177.17 0.0089 0.0032
 Venus -89847-08-30 16:47 J -31094952.02 -31094951.80 -31094951.57 0.0089 0.0017
 Venus -89846-04-13 07:11 J -31094726.42 -31094726.20 -31094725.97 0.0089 0.0002
 Venus -89846-11-24 21:06 J -31094500.83 -31094500.62 -31094500.38 0.0089 0.0014
 Venus -89845-07-07 11:30 J -31094275.23 -31094275.02 -31094274.80 0.0089 0.0028
 Mercury -89845-11-18 14:37 J -31094140.93 -31094140.89 -31094140.81 0.0089 0.0084
 Mercury -89844-02-14 17:59 J -31094052.82 -31094052.75 -31094052.65 0.0089 0.0078
 Venus -89844-02-18 01:25 J -31094049.63 -31094049.44 -31094049.23 0.0089 0.0043
 Mercury -89844-05-13 21:20 J -31093964.71 -31093964.61 -31093964.49 0.0089 0.0072
 Mercury -89844-08-10 00:42 J -31093876.59 -31093876.47 -31093876.35 0.0089 0.0066
 Venus -89844-10-01 15:20 J -31093824.01 -31093823.86 -31093823.67 0.0089 0.0058
 Mercury -89844-11-06 03:35 J -31093788.47 -31093788.35 -31093788.20 0.0089 0.0061
 Mercury -89843-02-02 06:56 J -31093700.35 -31093700.21 -31093700.06 0.0089 0.0055
 Mercury -89843-05-01 10:03 J -31093612.22 -31093612.08 -31093611.92 0.0088 0.0049
 Venus -89843-05-15 05:30 J -31093598.37 -31093598.27 -31093598.12 0.0088 0.0073
 Mercury -89843-07-28 13:11 J -31093524.10 -31093523.95 -31093523.78 0.0088 0.0043
 Mercury -89843-10-24 16:18 J -31093435.98 -31093435.82 -31093435.65 0.0088 0.0038

Venus -89843-12-26 19:54 J -31093372.70 -31093372.67 -31093372.62 0.0088 0.0087

Mercury -89842-01-20 19:39 J -31093347.85 -31093347.68 -31093347.51 0.0088 0.0032

Mercury -89842-04-18 22:32 J -31093259.73 -31093259.56 -31093259.38 0.0088 0.0026

Mercury -89842-07-16 01:39 J -31093171.60 -31093171.43 -31093171.25 0.0088 0.0021

Mercury -89842-10-12 04:47 J -31093083.47 -31093083.30 -31093083.12 0.0088 0.0015

Mercury -89841-01-08 07:54 J -31092995.35 -31092995.17 -31092994.99 0.0088 0.0009

Mercury -89841-04-05 11:01 J -31092907.22 -31092907.04 -31092906.86 0.0088 0.0004

Mercury -89841-07-02 14:08 J -31092819.09 -31092818.91 -31092818.73 0.0088 0.0003

Mercury -89841-09-28 17:01 J -31092730.97 -31092730.79 -31092730.61 0.0088 0.0007

Mercury -89841-12-25 20:08 J -31092642.84 -31092642.66 -31092642.48 0.0088 0.0013

Mercury -89840-03-23 23:01 J -31092554.71 -31092554.54 -31092554.36 0.0088 0.0018

Mercury -89840-06-20 01:54 J -31092466.59 -31092466.42 -31092466.24 0.0088 0.0024

Mercury -89840-09-16 04:47 J -31092378.46 -31092378.30 -31092378.12 0.0088 0.0030

Mercury -89840-12-13 07:54 J -31092290.33 -31092290.17 -31092290.00 0.0088 0.0035

Mercury -89839-03-11 10:32 J -31092202.20 -31092202.06 -31092201.89 0.0088 0.0041

Mercury -89839-06-07 13:39 J -31092114.08 -31092113.93 -31092113.77 0.0088 0.0045

Mercury -89839-09-03 16:32 J -31092025.95 -31092025.81 -31092025.66 0.0088 0.0051

Mercury -89839-11-30 19:11 J -31091937.82 -31091937.70 -31091937.54 0.0088 0.0057

Mercury -89838-02-26 22:18 J -31091849.69 -31091849.57 -31091849.43 0.0088 0.0062

Mercury -89838-05-26 01:11 J -31091761.55 -31091761.45 -31091761.32 0.0088 0.0067

Mercury -89838-08-22 04:18 J -31091673.42 -31091673.32 -31091673.22 0.0088 0.0072

Mercury -89838-11-18 06:42 J -31091585.29 -31091585.22 -31091585.12 0.0088 0.0078

Mercury -89837-02-14 09:35 J -31091497.14 -31091497.10 -31091497.02 0.0088 0.0083

Mercury -89837-05-12 12:27 J -31091408.99 -31091408.98 -31091408.94 0.0088 0.0088

Earth -89818-09-15 14:23 J -31084343.97 -31084343.90 -31084343.81 0.0088 0.0084

Moon -89818-09-15 17:30 J -31084343.85 -31084343.77 -31084343.63 0.0088 0.0080 *

Moon -89817-09-16 23:15 J -31083976.70 -31083976.53 -31083976.32 0.0088 0.0060

Earth -89817-09-17 02:51 J -31083976.56 -31083976.38 -31083976.16 0.0088 0.0056 *

Earth -89816-09-19 15:35 J -31083609.10 -31083608.85 -31083608.60 0.0088 0.0027

Moon -89816-09-19 18:56 J -31083608.96 -31083608.71 -31083608.45 0.0088 0.0023 *

Moon	-89815-09-22 01:11 J	-31083241.71	-31083241.45	-31083241.20	0.0088	0.0003
Earth	-89815-09-22 03:49 J	-31083241.60	-31083241.34	-31083241.08	0.0088	0.0002 *
Earth	-89814-09-24 15:35 J	-31082874.08	-31082873.85	-31082873.59	0.0088	0.0030
Moon	-89814-09-24 17:01 J	-31082874.03	-31082873.79	-31082873.53	0.0088	0.0034 *
Moon	-89813-09-26 02:37 J	-31082506.56	-31082506.39	-31082506.17	0.0088	0.0055
Earth	-89813-09-26 03:20 J	-31082506.53	-31082506.36	-31082506.15	0.0088	0.0059 *
Earth	-89812-09-28 15:06 J	-31082138.90	-31082138.87	-31082138.80	0.0088	0.0086
Mars	-89804-01-16 05:30 J	-31079472.51	-31079472.27	-31079472.00	0.0088	0.0039
Mars	-89803-12-10 15:20 J	-31078779.11	-31078778.86	-31078778.58	0.0088	0.0035
Venus	-89767-04-26 00:42 J	-31065858.51	-31065858.47	-31065858.39	0.0089	0.0085
Venus	-89767-12-07 12:42 J	-31065633.09	-31065632.97	-31065632.83	0.0089	0.0071
Venus	-89766-07-21 00:27 J	-31065407.63	-31065407.48	-31065407.30	0.0089	0.0057
Venus	-89765-03-02 12:27 J	-31065182.16	-31065181.98	-31065181.79	0.0089	0.0043
Venus	-89765-10-14 00:27 J	-31064956.67	-31064956.48	-31064956.27	0.0089	0.0029
Venus	-89764-05-27 12:27 J	-31064731.19	-31064730.98	-31064730.77	0.0089	0.0015
Venus	-89763-01-08 00:27 J	-31064505.70	-31064505.48	-31064505.27	0.0089	0.0001
Mercury	-89763-02-23 03:35 J	-31064459.35	-31064459.35	-31064459.33	0.0089	0.0088
Mercury	-89763-05-22 05:15 J	-31064371.32	-31064371.28	-31064371.24	0.0089	0.0084
Mercury	-89763-08-18 06:42 J	-31064283.28	-31064283.22	-31064283.16	0.0089	0.0080
Venus	-89763-08-21 11:59 J	-31064280.20	-31064280.00	-31064279.78	0.0089	0.0014
Mercury	-89763-11-14 08:08 J	-31064195.23	-31064195.16	-31064195.09	0.0089	0.0076
Mercury	-89762-02-10 09:35 J	-31064107.18	-31064107.10	-31064107.02	0.0089	0.0072
Venus	-89762-04-03 23:59 J	-31064054.70	-31064054.50	-31064054.29	0.0089	0.0028
Mercury	-89762-05-09 11:01 J	-31064019.12	-31064019.04	-31064018.95	0.0089	0.0068
Mercury	-89762-08-05 12:27 J	-31063931.07	-31063930.98	-31063930.88	0.0089	0.0064
Mercury	-89762-11-01 13:54 J	-31063843.01	-31063842.92	-31063842.81	0.0089	0.0060
Venus	-89762-11-15 11:59 J	-31063829.18	-31063829.00	-31063828.81	0.0089	0.0042
Mercury	-89761-01-28 15:35 J	-31063754.96	-31063754.85	-31063754.74	0.0089	0.0055
Mercury	-89761-04-25 17:01 J	-31063666.90	-31063666.79	-31063666.67	0.0089	0.0051
Venus	-89761-06-27 23:44 J	-31063603.66	-31063603.51	-31063603.33	0.0089	0.0056

Mercury -89761-07-22 18:27 J -31063578.84 -31063578.73 -31063578.61 0.0089 0.0047

Mercury -89761-10-18 19:54 J -31063490.78 -31063490.67 -31063490.54 0.0089 0.0043

Mercury -89760-01-14 21:20 J -31063402.72 -31063402.61 -31063402.47 0.0089 0.0039

Venus -89760-02-08 11:44 J -31063378.13 -31063378.01 -31063377.87 0.0089 0.0070

Mercury -89760-04-12 23:15 J -31063314.66 -31063314.53 -31063314.41 0.0089 0.0034

Mercury -89760-07-10 00:42 J -31063226.60 -31063226.47 -31063226.34 0.0089 0.0030

Venus -89760-09-21 23:44 J -31063152.57 -31063152.51 -31063152.44 0.0089 0.0084

Mercury -89760-10-06 02:08 J -31063138.54 -31063138.41 -31063138.27 0.0089 0.0026

Mercury -89759-01-02 03:49 J -31063050.48 -31063050.34 -31063050.21 0.0089 0.0021

Mercury -89759-03-31 05:15 J -31062962.41 -31062962.28 -31062962.14 0.0089 0.0017

Mercury -89759-06-27 06:56 J -31062874.35 -31062874.21 -31062874.07 0.0089 0.0013

Mercury -89759-09-23 08:23 J -31062786.29 -31062786.15 -31062786.01 0.0089 0.0009

Mercury -89759-12-20 10:03 J -31062698.22 -31062698.08 -31062697.94 0.0089 0.0004

Mercury -89758-03-18 11:30 J -31062610.16 -31062610.02 -31062609.88 0.0089 0.0002

Mercury -89758-06-14 13:11 J -31062522.09 -31062521.95 -31062521.81 0.0089 0.0005

Mercury -89758-09-10 14:37 J -31062434.02 -31062433.89 -31062433.74 0.0089 0.0010

Mercury -89758-12-07 16:18 J -31062345.96 -31062345.82 -31062345.68 0.0089 0.0014

Mercury -89757-03-04 17:59 J -31062257.89 -31062257.75 -31062257.61 0.0089 0.0018

Mercury -89757-05-31 19:25 J -31062169.82 -31062169.69 -31062169.55 0.0089 0.0023

Mercury -89757-08-27 21:06 J -31062081.75 -31062081.62 -31062081.48 0.0089 0.0027

Mercury -89757-11-23 22:47 J -31061993.68 -31061993.55 -31061993.42 0.0089 0.0031

Mercury -89756-02-20 00:13 J -31061905.61 -31061905.49 -31061905.35 0.0089 0.0036

Mercury -89756-05-19 01:54 J -31061817.54 -31061817.42 -31061817.29 0.0089 0.0040

Mercury -89756-08-15 03:35 J -31061729.47 -31061729.35 -31061729.22 0.0089 0.0045

Mercury -89756-11-11 05:15 J -31061641.39 -31061641.28 -31061641.16 0.0089 0.0049

Mercury -89755-02-07 06:42 J -31061553.32 -31061553.22 -31061553.10 0.0089 0.0054

Mercury -89755-05-06 08:37 J -31061465.25 -31061465.14 -31061465.03 0.0089 0.0058

Mercury -89755-08-02 10:03 J -31061377.17 -31061377.08 -31061376.97 0.0089 0.0063

Mercury -89755-10-29 11:44 J -31061289.09 -31061289.01 -31061288.91 0.0089 0.0067

Mercury -89754-01-25 13:25 J -31061201.01 -31061200.94 -31061200.85 0.0089 0.0072

Mercury -89754-04-23 15:20 J -31061112.93 -31061112.86 -31061112.79 0.0089 0.0076

Mercury -89754-07-20 16:47 J -31061024.85 -31061024.80 -31061024.73 0.0089 0.0081

Mercury -89754-10-16 18:42 J -31060936.76 -31060936.72 -31060936.68 0.0089 0.0085

Earth -89735-03-09 16:03 J -31054217.92 -31054217.83 -31054217.68 0.0089 0.0078

Moon -89735-03-09 17:59 J -31054217.83 -31054217.75 -31054217.63 0.0089 0.0082 *

Moon -89734-03-12 00:27 J -31053850.69 -31053850.48 -31053850.24 0.0089 0.0047

Earth -89734-03-12 03:06 J -31053850.58 -31053850.37 -31053850.15 0.0089 0.0050 *

Earth -89733-03-13 13:39 J -31053483.17 -31053482.93 -31053482.67 0.0089 0.0021

Moon -89733-03-13 17:01 J -31053483.03 -31053482.79 -31053482.55 0.0089 0.0024 *

Moon -89732-03-15 21:06 J -31053115.87 -31053115.62 -31053115.36 0.0089 0.0011

Earth -89732-03-16 00:56 J -31053115.72 -31053115.46 -31053115.21 0.0089 0.0008 *

Earth -89731-03-18 11:30 J -31052748.24 -31052748.02 -31052747.77 0.0089 0.0036

Moon -89731-03-18 15:06 J -31052748.10 -31052747.87 -31052747.63 0.0089 0.0034 *

Moon -89730-03-20 20:08 J -31052380.82 -31052380.66 -31052380.50 0.0089 0.0068

Earth -89730-03-20 22:32 J -31052380.71 -31052380.56 -31052380.36 0.0089 0.0065 *

Mars -89723-11-20 14:23 J -31049579.14 -31049578.90 -31049578.63 0.0089 0.0059

Mars -89721-10-17 05:01 J -31048882.59 -31048882.29 -31048881.95 0.0089 0.0033

Venus -89685-06-12 18:56 J -31035859.79 -31035859.71 -31035859.60 0.0089 0.0080

Venus -89684-01-24 09:06 J -31035634.26 -31035634.12 -31035633.95 0.0089 0.0065

Venus -89684-09-06 23:30 J -31035408.70 -31035408.52 -31035408.33 0.0089 0.0050

Venus -89683-04-20 13:54 J -31035183.12 -31035182.92 -31035182.71 0.0089 0.0035

Venus -89683-12-02 03:49 J -31034957.55 -31034957.34 -31034957.10 0.0089 0.0021

Venus -89682-07-15 18:13 J -31034731.96 -31034731.74 -31034731.51 0.0089 0.0005

Venus -89681-02-26 08:23 J -31034506.38 -31034506.15 -31034505.93 0.0089 0.0010

Venus -89681-10-08 22:18 J -31034280.78 -31034280.57 -31034280.34 0.0089 0.0025

Mercury -89680-05-19 11:15 J -31034058.07 -31034058.03 -31034057.98 0.0089 0.0086

Venus -89680-05-22 12:27 J -31034055.17 -31034054.98 -31034054.76 0.0089 0.0040

Mercury -89680-08-15 14:08 J -31033969.97 -31033969.91 -31033969.81 0.0089 0.0081

Mercury -89680-11-11 17:30 J -31033881.85 -31033881.77 -31033881.66 0.0089 0.0075

Venus -89679-01-03 02:37 J -31033829.55 -31033829.39 -31033829.20 0.0089 0.0055

Mercury -89679-02-07 20:51 J -31033793.74 -31033793.63 -31033793.51 0.0089 0.0069

Mercury -89679-05-06 23:59 J -31033705.62 -31033705.50 -31033705.36 0.0089 0.0063

Mercury -89679-08-03 03:06 J -31033617.50 -31033617.37 -31033617.22 0.0089 0.0057

Venus -89679-08-16 16:32 J -31033603.93 -31033603.81 -31033603.65 0.0089 0.0070

Mercury -89679-10-30 06:13 J -31033529.37 -31033529.24 -31033529.08 0.0089 0.0052

Mercury -89678-01-26 09:35 J -31033441.25 -31033441.10 -31033440.94 0.0089 0.0046

Venus -89678-03-30 06:56 J -31033378.27 -31033378.21 -31033378.13 0.0089 0.0084

Mercury -89678-04-24 12:27 J -31033353.13 -31033352.98 -31033352.80 0.0089 0.0041

Mercury -89678-07-21 15:49 J -31033265.00 -31033264.84 -31033264.66 0.0089 0.0034

Mercury -89678-10-17 18:56 J -31033176.88 -31033176.71 -31033176.53 0.0089 0.0029

Mercury -89677-01-13 22:03 J -31033088.75 -31033088.58 -31033088.40 0.0089 0.0023

Mercury -89677-04-11 01:11 J -31033000.62 -31033000.45 -31033000.27 0.0089 0.0018

Mercury -89677-07-08 04:18 J -31032912.50 -31032912.32 -31032912.14 0.0088 0.0012

Mercury -89677-10-04 07:25 J -31032824.37 -31032824.19 -31032824.01 0.0088 0.0006

Mercury -89677-12-31 10:32 J -31032736.24 -31032736.06 -31032735.88 0.0088 0.0001

Mercury -89676-03-29 13:25 J -31032648.12 -31032647.94 -31032647.75 0.0088 0.0006

Mercury -89676-06-25 16:32 J -31032559.99 -31032559.81 -31032559.63 0.0088 0.0011

Mercury -89676-09-21 19:25 J -31032471.86 -31032471.69 -31032471.51 0.0088 0.0016

Mercury -89676-12-18 22:32 J -31032383.73 -31032383.56 -31032383.38 0.0088 0.0022

Mercury -89675-03-17 01:25 J -31032295.60 -31032295.44 -31032295.26 0.0088 0.0027

Mercury -89675-06-13 04:18 J -31032207.48 -31032207.32 -31032207.14 0.0088 0.0033

Mercury -89675-09-09 07:25 J -31032119.35 -31032119.19 -31032119.02 0.0088 0.0038

Mercury -89675-12-06 10:18 J -31032031.22 -31032031.07 -31032030.91 0.0088 0.0043

Mercury -89674-03-04 13:11 J -31031943.09 -31031942.95 -31031942.79 0.0088 0.0049

Mercury -89674-05-31 15:49 J -31031854.96 -31031854.84 -31031854.68 0.0088 0.0055

Mercury -89674-08-27 18:56 J -31031766.83 -31031766.71 -31031766.57 0.0088 0.0060

Mercury -89674-11-23 21:49 J -31031678.70 -31031678.59 -31031678.46 0.0088 0.0065

Mercury -89673-02-20 00:56 J -31031590.56 -31031590.46 -31031590.35 0.0088 0.0070

Mercury -89673-05-18 03:35 J -31031502.43 -31031502.35 -31031502.25 0.0088 0.0075

Mercury -89673-08-14 06:27 J -31031414.29 -31031414.23 -31031414.15 0.0088 0.0081

Mercury -89673-11-10 09:20 J -31031326.14 -31031326.11 -31031326.06 0.0088 0.0086
 Earth -89653-09-16 13:25 J -31024076.09 -31024075.94 -31024075.75 0.0088 0.0067
 Moon -89653-09-16 16:18 J -31024075.97 -31024075.82 -31024075.61 0.0088 0.0067 *
 Moon -89652-09-19 00:13 J -31023708.70 -31023708.49 -31023708.24 0.0088 0.0040
 Earth -89652-09-19 02:37 J -31023708.62 -31023708.39 -31023708.15 0.0088 0.0039 *
 Earth -89651-09-21 15:06 J -31023341.13 -31023340.87 -31023340.61 0.0088 0.0010
 Moon -89651-09-21 16:32 J -31023341.08 -31023340.81 -31023340.54 0.0088 0.0008 *
 Earth -89650-09-24 03:20 J -31022973.61 -31022973.36 -31022973.10 0.0088 0.0018
 Moon -89650-09-24 03:35 J -31022973.58 -31022973.35 -31022973.09 0.0088 0.0018 *
 Moon -89649-09-25 13:39 J -31022606.14 -31022605.93 -31022605.69 0.0088 0.0048
 Earth -89649-09-25 15:20 J -31022606.07 -31022605.86 -31022605.63 0.0088 0.0046 *
 Earth -89648-09-28 02:51 J -31022238.50 -31022238.38 -31022238.22 0.0088 0.0075
 Moon -89648-09-28 05:01 J -31022238.41 -31022238.29 -31022238.13 0.0088 0.0073 *
 Mars -89641-09-01 01:39 J -31019708.59 -31019708.43 -31019708.24 0.0088 0.0070
 Mars -89639-07-26 12:42 J -31019015.25 -31019014.97 -31019014.68 0.0088 0.0004
 Mars -89637-06-18 22:03 J -31018321.69 -31018321.58 -31018321.41 0.0088 0.0078
 Venus -89603-07-28 13:39 J -31005863.93 -31005863.93 -31005863.90 0.0089 0.0089
 Venus -89602-03-11 01:11 J -31005638.54 -31005638.45 -31005638.31 0.0089 0.0075
 Venus -89602-10-22 13:11 J -31005413.08 -31005412.95 -31005412.77 0.0089 0.0061
 Venus -89601-06-04 01:39 J -31005187.61 -31005187.43 -31005187.25 0.0089 0.0046
 Venus -89600-01-15 13:25 J -31004962.14 -31004961.94 -31004961.74 0.0089 0.0032
 Venus -89600-08-29 01:11 J -31004736.65 -31004736.45 -31004736.23 0.0089 0.0018
 Venus -89599-04-11 13:11 J -31004511.16 -31004510.95 -31004510.73 0.0089 0.0004
 Mercury -89599-11-20 03:35 J -31004288.37 -31004288.35 -31004288.31 0.0089 0.0086
 Venus -89599-11-23 01:11 J -31004285.66 -31004285.45 -31004285.24 0.0089 0.0010
 Mercury -89598-02-16 05:01 J -31004200.33 -31004200.29 -31004200.23 0.0089 0.0082
 Mercury -89598-05-15 06:27 J -31004112.28 -31004112.23 -31004112.16 0.0089 0.0078
 Venus -89598-07-06 12:56 J -31004060.16 -31004059.96 -31004059.75 0.0089 0.0025
 Mercury -89598-08-11 07:54 J -31004024.23 -31004024.17 -31004024.08 0.0089 0.0074
 Mercury -89598-11-07 09:20 J -31003936.18 -31003936.11 -31003936.01 0.0089 0.0070

Mercury -89597-02-03 10:47 J -31003848.13 -31003848.05 -31003847.94 0.0089 0.0066

Venus -89597-02-17 00:42 J -31003834.65 -31003834.47 -31003834.27 0.0089 0.0039

Mercury -89597-05-01 12:42 J -31003760.07 -31003759.97 -31003759.87 0.0089 0.0061

Mercury -89597-07-28 14:08 J -31003672.02 -31003671.91 -31003671.81 0.0089 0.0057

Venus -89597-09-29 12:42 J -31003609.13 -31003608.97 -31003608.79 0.0089 0.0053

Mercury -89597-10-24 15:35 J -31003583.96 -31003583.85 -31003583.74 0.0089 0.0053

Mercury -89596-01-20 17:01 J -31003495.90 -31003495.79 -31003495.67 0.0089 0.0049

Mercury -89596-04-18 18:27 J -31003407.84 -31003407.73 -31003407.60 0.0089 0.0045

Venus -89596-05-13 00:42 J -31003383.60 -31003383.47 -31003383.32 0.0089 0.0067

Mercury -89596-07-15 20:08 J -31003319.78 -31003319.66 -31003319.54 0.0089 0.0040

Mercury -89596-10-11 21:35 J -31003231.72 -31003231.60 -31003231.47 0.0089 0.0036

Venus -89596-12-24 12:42 J -31003158.05 -31003157.97 -31003157.88 0.0089 0.0081

Mercury -89595-01-07 23:01 J -31003143.66 -31003143.54 -31003143.40 0.0089 0.0032

Mercury -89595-04-06 00:27 J -31003055.60 -31003055.48 -31003055.34 0.0089 0.0028

Mercury -89595-07-03 02:08 J -31002967.54 -31002967.41 -31002967.27 0.0089 0.0023

Mercury -89595-09-29 03:49 J -31002879.48 -31002879.34 -31002879.21 0.0089 0.0019

Mercury -89595-12-26 05:15 J -31002791.41 -31002791.28 -31002791.14 0.0089 0.0015

Mercury -89594-03-24 06:56 J -31002703.35 -31002703.21 -31002703.07 0.0089 0.0010

Mercury -89594-06-20 08:23 J -31002615.29 -31002615.15 -31002615.01 0.0089 0.0006

Mercury -89594-09-16 10:03 J -31002527.22 -31002527.08 -31002526.94 0.0089 0.0002

Mercury -89594-12-13 11:30 J -31002439.16 -31002439.02 -31002438.88 0.0089 0.0003

Mercury -89593-03-10 13:11 J -31002351.09 -31002350.95 -31002350.81 0.0089 0.0007

Mercury -89593-06-06 14:37 J -31002263.02 -31002262.89 -31002262.75 0.0089 0.0012

Mercury -89593-09-02 16:18 J -31002174.96 -31002174.82 -31002174.68 0.0089 0.0016

Mercury -89593-11-29 17:44 J -31002086.89 -31002086.76 -31002086.62 0.0089 0.0021

Mercury -89592-02-25 19:25 J -31001998.82 -31001998.69 -31001998.55 0.0089 0.0025

Mercury -89592-05-24 21:06 J -31001910.75 -31001910.62 -31001910.49 0.0089 0.0029

Mercury -89592-08-20 22:32 J -31001822.68 -31001822.56 -31001822.42 0.0089 0.0034

Mercury -89592-11-17 00:13 J -31001734.61 -31001734.49 -31001734.36 0.0089 0.0038

Mercury -89591-02-13 01:39 J -31001646.54 -31001646.43 -31001646.29 0.0089 0.0043

Mercury -89591-05-12 03:35 J -31001558.47 -31001558.35 -31001558.23 0.0089 0.0047
 Mercury -89591-08-08 05:01 J -31001470.40 -31001470.29 -31001470.16 0.0089 0.0052
 Mercury -89591-11-04 06:42 J -31001382.32 -31001382.22 -31001382.10 0.0089 0.0056
 Mercury -89590-01-31 08:23 J -31001294.25 -31001294.15 -31001294.04 0.0089 0.0061
 Mercury -89590-04-29 10:03 J -31001206.17 -31001206.08 -31001205.98 0.0089 0.0065
 Mercury -89590-07-26 11:30 J -31001118.09 -31001118.02 -31001117.92 0.0089 0.0070
 Mercury -89590-10-22 13:25 J -31001030.01 -31001029.94 -31001029.86 0.0089 0.0074
 Mercury -89589-01-18 14:51 J -31000941.93 -31000941.88 -31000941.80 0.0089 0.0079
 Mercury -89589-04-15 16:47 J -31000853.84 -31000853.80 -31000853.75 0.0089 0.0083
 Mercury -89589-07-12 18:27 J -31000765.74 -31000765.73 -31000765.70 0.0089 0.0088
 Moon -89571-03-09 02:23 J -30994317.45 -30994317.40 -30994317.32 0.0089 0.0086
 Earth -89570-03-11 15:49 J -30993950.01 -30993949.84 -30993949.64 0.0089 0.0062
 Moon -89570-03-11 19:11 J -30993949.86 -30993949.70 -30993949.51 0.0089 0.0064 *
 Moon -89569-03-12 22:47 J -30993582.77 -30993582.55 -30993582.29 0.0089 0.0030
 Earth -89569-03-13 02:37 J -30993582.62 -30993582.39 -30993582.15 0.0089 0.0033 *
 Earth -89568-03-15 13:11 J -30993215.20 -30993214.95 -30993214.69 0.0089 0.0006
 Moon -89568-03-15 16:47 J -30993215.06 -30993214.80 -30993214.54 0.0089 0.0008 *
 Moon -89567-03-17 22:03 J -30992847.82 -30992847.58 -30992847.34 0.0089 0.0027
 Earth -89567-03-18 00:13 J -30992847.73 -30992847.49 -30992847.24 0.0089 0.0023 *
 Earth -89566-03-20 10:47 J -30992480.24 -30992480.05 -30992479.83 0.0089 0.0052
 Moon -89566-03-20 12:42 J -30992480.18 -30992479.97 -30992479.74 0.0089 0.0048 *
 Earth -89565-03-21 22:03 J -30992112.67 -30992112.58 -30992112.46 0.0089 0.0081
 Moon -89565-03-21 21:49 J -30992112.65 -30992112.59 -30992112.49 0.0089 0.0084 *
 Mars -89557-05-30 16:47 J -30989121.14 -30989120.80 -30989120.44 0.0089 0.0006
 Mars -89555-04-27 06:42 J -30988424.28 -30988424.22 -30988424.11 0.0089 0.0086
 Venus -89521-09-14 05:59 J -30975865.31 -30975865.25 -30975865.16 0.0089 0.0084
 Venus -89520-04-27 20:23 J -30975639.78 -30975639.65 -30975639.49 0.0089 0.0069
 Venus -89520-12-09 10:32 J -30975414.22 -30975414.06 -30975413.86 0.0089 0.0054
 Venus -89519-07-23 00:56 J -30975188.66 -30975188.46 -30975188.25 0.0089 0.0039
 Venus -89518-03-05 15:06 J -30974963.08 -30974962.87 -30974962.65 0.0089 0.0024

Venus -89518-10-17 05:15 J -30974737.50 -30974737.28 -30974737.05 0.0089 0.0009
 Venus -89517-05-29 19:39 J -30974511.91 -30974511.68 -30974511.45 0.0089 0.0006
 Venus -89516-01-10 09:35 J -30974286.31 -30974286.10 -30974285.87 0.0089 0.0022
 Venus -89516-08-23 23:30 J -30974060.71 -30974060.52 -30974060.30 0.0089 0.0037
 Mercury -89516-11-17 07:39 J -30973975.18 -30973975.18 -30973975.18 0.0089 0.0089
 Mercury -89515-02-13 10:32 J -30973887.11 -30973887.06 -30973886.98 0.0089 0.0083
 Venus -89515-04-06 13:39 J -30973835.09 -30973834.93 -30973834.73 0.0089 0.0052
 Mercury -89515-05-12 14:08 J -30973799.00 -30973798.91 -30973798.82 0.0089 0.0077
 Mercury -89515-08-08 16:47 J -30973710.88 -30973710.80 -30973710.67 0.0089 0.0072
 Mercury -89515-11-04 20:08 J -30973622.77 -30973622.66 -30973622.52 0.0089 0.0066
 Venus -89515-11-18 03:35 J -30973609.47 -30973609.35 -30973609.17 0.0089 0.0067
 Mercury -89514-01-31 23:30 J -30973534.64 -30973534.52 -30973534.38 0.0089 0.0060
 Mercury -89514-04-30 02:51 J -30973446.52 -30973446.38 -30973446.23 0.0089 0.0054
 Venus -89514-07-01 18:13 J -30973383.82 -30973383.74 -30973383.64 0.0089 0.0081
 Mercury -89514-07-27 05:44 J -30973358.40 -30973358.26 -30973358.09 0.0089 0.0049
 Mercury -89514-10-23 09:06 J -30973270.27 -30973270.12 -30973269.95 0.0089 0.0043
 Mercury -89513-01-19 12:13 J -30973182.15 -30973181.99 -30973181.82 0.0089 0.0037
 Mercury -89513-04-16 15:20 J -30973094.02 -30973093.86 -30973093.68 0.0089 0.0031
 Mercury -89513-07-13 18:27 J -30973005.90 -30973005.73 -30973005.55 0.0088 0.0026
 Mercury -89513-10-09 21:49 J -30972917.77 -30972917.59 -30972917.42 0.0088 0.0020
 Mercury -89512-01-06 00:42 J -30972829.64 -30972829.47 -30972829.28 0.0088 0.0014
 Mercury -89512-04-04 03:49 J -30972741.52 -30972741.34 -30972741.15 0.0088 0.0009
 Mercury -89512-07-01 06:56 J -30972653.39 -30972653.21 -30972653.03 0.0088 0.0003
 Mercury -89512-09-27 10:03 J -30972565.26 -30972565.08 -30972564.90 0.0088 0.0003
 Mercury -89512-12-24 12:56 J -30972477.13 -30972476.96 -30972476.77 0.0088 0.0009
 Mercury -89511-03-22 16:03 J -30972389.00 -30972388.83 -30972388.65 0.0088 0.0014
 Mercury -89511-06-18 18:56 J -30972300.88 -30972300.71 -30972300.52 0.0088 0.0020
 Mercury -89511-09-14 22:03 J -30972212.75 -30972212.58 -30972212.40 0.0088 0.0025
 Mercury -89511-12-12 00:56 J -30972124.62 -30972124.46 -30972124.28 0.0088 0.0031
 Mercury -89510-03-10 04:03 J -30972036.49 -30972036.33 -30972036.16 0.0088 0.0036

Mercury -89510-06-06 06:56 J -30971948.36 -30971948.21 -30971948.04 0.0088 0.0041
 Mercury -89510-09-02 10:03 J -30971860.23 -30971860.08 -30971859.93 0.0088 0.0047
 Mercury -89510-11-29 12:42 J -30971772.10 -30971771.97 -30971771.81 0.0088 0.0053
 Mercury -89509-02-25 15:49 J -30971683.97 -30971683.84 -30971683.70 0.0088 0.0058
 Mercury -89509-05-23 18:42 J -30971595.83 -30971595.72 -30971595.59 0.0088 0.0063
 Mercury -89509-08-19 21:20 J -30971507.70 -30971507.61 -30971507.48 0.0088 0.0069
 Mercury -89509-11-16 00:27 J -30971419.57 -30971419.48 -30971419.37 0.0088 0.0074
 Mercury -89508-02-12 03:20 J -30971331.43 -30971331.36 -30971331.27 0.0088 0.0079
 Mercury -89508-05-11 06:27 J -30971243.28 -30971243.23 -30971243.18 0.0088 0.0084
 Jupiter -89499-04-09 13:39 J -30967988.41 -30967987.93 -30967987.45 0.0088 0.0042
 Moon -89489-09-15 22:18 J -30964175.69 -30964175.57 -30964175.42 0.0088 0.0075
 Earth -89489-09-15 23:44 J -30964175.60 -30964175.51 -30964175.37 0.0088 0.0079 *
 Earth -89488-09-18 12:42 J -30963808.17 -30963807.97 -30963807.74 0.0088 0.0051
 Moon -89488-09-18 12:56 J -30963808.16 -30963807.96 -30963807.74 0.0088 0.0055 *
 Earth -89487-09-21 01:25 J -30963440.68 -30963440.44 -30963440.17 0.0088 0.0023
 Moon -89487-09-21 02:08 J -30963440.65 -30963440.41 -30963440.15 0.0088 0.0019 *
 Moon -89486-09-23 12:13 J -30963073.25 -30963072.99 -30963072.72 0.0088 0.0002
 Earth -89486-09-23 14:08 J -30963073.16 -30963072.91 -30963072.64 0.0088 0.0007 *
 Earth -89485-09-25 02:08 J -30962705.64 -30962705.41 -30962705.16 0.0088 0.0034
 Moon -89485-09-25 05:30 J -30962705.50 -30962705.27 -30962705.04 0.0088 0.0039 *
 Moon -89484-09-27 10:47 J -30962338.22 -30962338.05 -30962337.83 0.0088 0.0059
 Earth -89484-09-27 14:23 J -30962338.07 -30962337.90 -30962337.70 0.0088 0.0062 *
 Mars -89475-03-11 08:37 J -30959251.41 -30959251.14 -30959250.87 0.0088 0.0027
 Mars -89473-02-02 19:25 J -30958557.93 -30958557.69 -30958557.44 0.0088 0.0047
 Venus -89438-06-12 14:51 J -30945643.97 -30945643.88 -30945643.77 0.0089 0.0078
 Venus -89437-01-24 02:37 J -30945418.53 -30945418.39 -30945418.23 0.0089 0.0064
 Venus -89437-09-05 14:23 J -30945193.06 -30945192.90 -30945192.71 0.0089 0.0050
 Venus -89436-04-19 02:23 J -30944967.58 -30944967.40 -30944967.19 0.0089 0.0036
 Venus -89436-11-30 14:23 J -30944742.10 -30944741.90 -30944741.68 0.0089 0.0022
 Venus -89435-07-14 02:23 J -30944516.61 -30944516.40 -30944516.18 0.0089 0.0007

Venus -89434-02-24 14:08 J -30944291.11 -30944290.91 -30944290.69 0.0089 0.0008
 Mercury -89434-05-21 02:08 J -30944205.42 -30944205.41 -30944205.38 0.0089 0.0088
 Mercury -89434-08-17 03:35 J -30944117.38 -30944117.35 -30944117.29 0.0089 0.0084
 Venus -89434-10-08 02:08 J -30944065.61 -30944065.41 -30944065.19 0.0089 0.0022
 Mercury -89434-11-13 05:01 J -30944029.33 -30944029.29 -30944029.22 0.0089 0.0080
 Mercury -89433-02-09 06:27 J -30943941.29 -30943941.23 -30943941.14 0.0089 0.0076
 Mercury -89433-05-07 08:08 J -30943853.23 -30943853.16 -30943853.07 0.0089 0.0071
 Venus -89433-05-20 14:08 J -30943840.10 -30943839.91 -30943839.71 0.0089 0.0036
 Mercury -89433-08-03 09:35 J -30943765.18 -30943765.10 -30943765.00 0.0089 0.0067
 Mercury -89433-10-30 11:01 J -30943677.13 -30943677.04 -30943676.93 0.0089 0.0063
 Venus -89432-01-01 02:08 J -30943614.58 -30943614.41 -30943614.23 0.0089 0.0050
 Mercury -89432-01-26 12:27 J -30943589.07 -30943588.98 -30943588.87 0.0089 0.0059
 Mercury -89432-04-24 13:54 J -30943501.01 -30943500.92 -30943500.80 0.0089 0.0055
 Mercury -89432-07-21 15:49 J -30943412.96 -30943412.84 -30943412.73 0.0089 0.0050
 Venus -89432-08-14 13:39 J -30943389.06 -30943388.93 -30943388.77 0.0089 0.0065
 Mercury -89432-10-17 17:15 J -30943324.90 -30943324.78 -30943324.66 0.0089 0.0046
 Mercury -89431-01-13 18:42 J -30943236.84 -30943236.72 -30943236.60 0.0089 0.0042
 Venus -89431-03-28 01:25 J -30943163.51 -30943163.44 -30943163.32 0.0089 0.0079
 Mercury -89431-04-11 20:08 J -30943148.78 -30943148.66 -30943148.53 0.0089 0.0038
 Mercury -89431-07-08 21:49 J -30943060.72 -30943060.59 -30943060.46 0.0089 0.0033
 Mercury -89431-10-04 23:15 J -30942972.66 -30942972.53 -30942972.40 0.0089 0.0029
 Mercury -89430-01-01 00:42 J -30942884.60 -30942884.47 -30942884.33 0.0089 0.0025
 Mercury -89430-03-30 02:08 J -30942796.54 -30942796.41 -30942796.27 0.0089 0.0021
 Mercury -89430-06-26 03:49 J -30942708.47 -30942708.34 -30942708.20 0.0089 0.0016
 Mercury -89430-09-22 05:30 J -30942620.41 -30942620.27 -30942620.13 0.0089 0.0012
 Mercury -89430-12-19 06:56 J -30942532.35 -30942532.21 -30942532.07 0.0089 0.0008
 Mercury -89429-03-16 08:37 J -30942444.28 -30942444.14 -30942444.00 0.0089 0.0004
 Mercury -89429-06-12 10:03 J -30942356.22 -30942356.08 -30942355.94 0.0089 0.0002
 Mercury -89429-09-08 11:44 J -30942268.15 -30942268.01 -30942267.87 0.0089 0.0006
 Mercury -89429-12-05 13:11 J -30942180.09 -30942179.95 -30942179.81 0.0089 0.0010

Mercury -89428-03-03 14:51 J -30942092.02 -30942091.88 -30942091.74 0.0089 0.0014
 Mercury -89428-05-30 16:18 J -30942003.95 -30942003.82 -30942003.68 0.0089 0.0019
 Mercury -89428-08-26 17:59 J -30941915.89 -30941915.75 -30941915.61 0.0089 0.0023
 Mercury -89428-11-22 19:25 J -30941827.82 -30941827.69 -30941827.55 0.0089 0.0028
 Mercury -89427-02-18 21:06 J -30941739.75 -30941739.62 -30941739.49 0.0089 0.0032
 Mercury -89427-05-17 22:47 J -30941651.68 -30941651.55 -30941651.42 0.0089 0.0036
 Mercury -89427-08-14 00:13 J -30941563.61 -30941563.49 -30941563.36 0.0089 0.0041
 Mercury -89427-11-10 01:54 J -30941475.54 -30941475.42 -30941475.29 0.0089 0.0045
 Mercury -89426-02-06 03:20 J -30941387.47 -30941387.36 -30941387.23 0.0089 0.0050
 Mercury -89426-05-05 05:15 J -30941299.39 -30941299.28 -30941299.17 0.0089 0.0054
 Mercury -89426-08-01 06:42 J -30941211.32 -30941211.22 -30941211.11 0.0089 0.0059
 Mercury -89426-10-28 08:23 J -30941123.24 -30941123.15 -30941123.04 0.0089 0.0063
 Mercury -89425-01-24 09:49 J -30941035.17 -30941035.09 -30941034.98 0.0089 0.0068
 Mercury -89425-04-21 11:44 J -30940947.09 -30940947.01 -30940946.92 0.0089 0.0072
 Mercury -89425-07-18 13:11 J -30940859.01 -30940858.95 -30940858.87 0.0089 0.0077
 Mercury -89425-10-14 15:06 J -30940770.92 -30940770.87 -30940770.81 0.0089 0.0081
 Mercury -89424-01-10 16:32 J -30940682.83 -30940682.81 -30940682.76 0.0089 0.0086
 Moon -89406-03-11 01:25 J -30934049.54 -30934049.44 -30934049.29 0.0089 0.0077
 Earth -89406-03-11 04:47 J -30934049.42 -30934049.30 -30934049.13 0.0089 0.0073 *
 Earth -89405-03-12 15:35 J -30933682.06 -30933681.85 -30933681.62 0.0089 0.0045
 Moon -89405-03-12 18:27 J -30933681.94 -30933681.73 -30933681.48 0.0089 0.0042 *
 Moon -89404-03-14 23:59 J -30933314.73 -30933314.50 -30933314.25 0.0089 0.0021
 Earth -89404-03-15 02:23 J -30933314.64 -30933314.40 -30933314.14 0.0089 0.0017 *
 Earth -89403-03-17 13:11 J -30932947.20 -30932946.95 -30932946.70 0.0089 0.0011
 Moon -89403-03-17 13:39 J -30932947.18 -30932946.93 -30932946.66 0.0089 0.0015 *
 Earth -89402-03-19 23:30 J -30932579.72 -30932579.52 -30932579.27 0.0089 0.0041
 Moon -89402-03-19 23:59 J -30932579.71 -30932579.50 -30932579.26 0.0089 0.0037 *
 Moon -89401-03-21 09:06 J -30932212.25 -30932212.12 -30932211.93 0.0089 0.0071
 Earth -89401-03-21 10:32 J -30932212.20 -30932212.06 -30932211.87 0.0089 0.0068 *
 Mars -89393-01-12 05:01 J -30929359.56 -30929359.29 -30929358.97 0.0089 0.0046

Mars	-89392-12-08 20:23 J	-30928662.91	-30928662.65	-30928662.33	0.0089	0.0048
Venus	-89357-12-16 17:01 J	-30915870.80	-30915870.79	-30915870.73	0.0089	0.0088
Venus	-89356-07-30 07:25 J	-30915645.30	-30915645.19	-30915645.04	0.0089	0.0073
Venus	-89355-03-12 21:35 J	-30915419.75	-30915419.60	-30915419.41	0.0089	0.0058
Venus	-89355-10-24 11:59 J	-30915194.18	-30915194.00	-30915193.79	0.0089	0.0043
Venus	-89354-06-07 02:37 J	-30914968.61	-30914968.39	-30914968.18	0.0089	0.0027
Venus	-89353-01-18 16:47 J	-30914743.03	-30914742.80	-30914742.58	0.0089	0.0012
Venus	-89353-08-31 06:42 J	-30914517.44	-30914517.22	-30914516.99	0.0089	0.0004
Venus	-89352-04-13 21:06 J	-30914291.84	-30914291.62	-30914291.40	0.0089	0.0018
Venus	-89352-11-25 11:15 J	-30914066.24	-30914066.03	-30914065.82	0.0089	0.0033
Venus	-89351-07-09 01:11 J	-30913840.64	-30913840.45	-30913840.26	0.0089	0.0048
Mercury	-89351-08-14 06:42 J	-30913804.25	-30913804.22	-30913804.15	0.0089	0.0086
Mercury	-89351-11-10 10:03 J	-30913716.14	-30913716.08	-30913715.99	0.0089	0.0080
Mercury	-89350-02-06 13:25 J	-30913628.03	-30913627.94	-30913627.83	0.0089	0.0074
Venus	-89350-02-19 15:06 J	-30913615.02	-30913614.87	-30913614.70	0.0089	0.0063
Mercury	-89350-05-05 16:47 J	-30913539.91	-30913539.80	-30913539.68	0.0089	0.0068
Mercury	-89350-08-01 19:39 J	-30913451.79	-30913451.68	-30913451.53	0.0089	0.0063
Venus	-89350-10-03 05:15 J	-30913389.38	-30913389.28	-30913389.17	0.0089	0.0078
Mercury	-89350-10-28 23:01 J	-30913363.67	-30913363.54	-30913363.39	0.0089	0.0057
Mercury	-89349-01-25 02:08 J	-30913275.55	-30913275.41	-30913275.25	0.0089	0.0051
Mercury	-89349-04-22 05:15 J	-30913187.43	-30913187.28	-30913187.11	0.0089	0.0045
Mercury	-89349-07-19 08:23 J	-30913099.30	-30913099.15	-30913098.97	0.0089	0.0040
Mercury	-89349-10-15 11:44 J	-30913011.17	-30913011.01	-30913010.84	0.0089	0.0034
Mercury	-89348-01-11 14:37 J	-30912923.05	-30912922.89	-30912922.70	0.0089	0.0029
Mercury	-89348-04-09 17:59 J	-30912834.92	-30912834.75	-30912834.57	0.0089	0.0022
Mercury	-89348-07-06 21:06 J	-30912746.79	-30912746.62	-30912746.44	0.0089	0.0017
Mercury	-89348-10-03 00:13 J	-30912658.67	-30912658.49	-30912658.30	0.0089	0.0011
Mercury	-89348-12-30 03:20 J	-30912570.54	-30912570.36	-30912570.18	0.0089	0.0006
Mercury	-89347-03-28 06:27 J	-30912482.41	-30912482.23	-30912482.05	0.0088	0.0000
Mercury	-89347-06-24 09:35 J	-30912394.28	-30912394.10	-30912393.92	0.0088	0.0006

Mercury -89347-09-20 12:27 J -30912306.15 -30912305.98 -30912305.79 0.0088 0.0012
 Mercury -89347-12-17 15:35 J -30912218.03 -30912217.85 -30912217.67 0.0088 0.0017
 Mercury -89346-03-15 18:27 J -30912129.90 -30912129.73 -30912129.55 0.0088 0.0023
 Mercury -89346-06-11 21:20 J -30912041.77 -30912041.61 -30912041.43 0.0088 0.0029
 Mercury -89346-09-08 00:27 J -30911953.64 -30911953.48 -30911953.30 0.0088 0.0034
 Mercury -89346-12-05 03:35 J -30911865.51 -30911865.35 -30911865.19 0.0088 0.0039
 Mercury -89345-03-02 06:27 J -30911777.38 -30911777.23 -30911777.07 0.0088 0.0045
 Mercury -89345-05-29 09:35 J -30911689.25 -30911689.10 -30911688.95 0.0088 0.0050
 Mercury -89345-08-25 12:13 J -30911601.11 -30911600.99 -30911600.84 0.0088 0.0056
 Mercury -89345-11-21 15:20 J -30911512.98 -30911512.86 -30911512.72 0.0088 0.0061
 Mercury -89344-02-17 18:27 J -30911424.85 -30911424.73 -30911424.61 0.0088 0.0066
 Mercury -89344-05-16 21:06 J -30911336.71 -30911336.62 -30911336.50 0.0088 0.0071
 Mercury -89344-08-12 23:59 J -30911248.57 -30911248.50 -30911248.40 0.0088 0.0077
 Mercury -89344-11-09 03:06 J -30911160.43 -30911160.37 -30911160.30 0.0088 0.0082
 Mercury -89343-02-05 05:30 J -30911072.27 -30911072.27 -30911072.22 0.0088 0.0088
 Jupiter -89333-06-09 15:49 J -30907295.35 -30907294.84 -30907294.28 0.0088 0.0014
 Earth -89324-09-17 23:30 J -30903907.69 -30903907.52 -30903907.32 0.0088 0.0062
 Moon -89324-09-18 00:56 J -30903907.61 -30903907.46 -30903907.25 0.0088 0.0063 *
 Moon -89323-09-20 09:35 J -30903540.33 -30903540.10 -30903539.83 0.0088 0.0035
 Earth -89323-09-20 12:13 J -30903540.21 -30903539.99 -30903539.73 0.0088 0.0035 *
 Earth -89322-09-23 00:56 J -30903172.72 -30903172.46 -30903172.20 0.0088 0.0006
 Moon -89322-09-23 04:03 J -30903172.59 -30903172.33 -30903172.07 0.0088 0.0004 *
 Moon -89321-09-24 09:35 J -30902805.35 -30902805.10 -30902804.84 0.0088 0.0022
 Earth -89321-09-24 13:25 J -30902805.19 -30902804.94 -30902804.68 0.0088 0.0022 *
 Earth -89320-09-27 01:25 J -30902437.64 -30902437.44 -30902437.21 0.0088 0.0051
 Moon -89320-09-27 05:01 J -30902437.49 -30902437.29 -30902437.07 0.0088 0.0052 *
 Moon -89319-09-29 10:18 J -30902070.18 -30902070.07 -30902069.92 0.0088 0.0077
 Earth -89319-09-29 13:25 J -30902070.03 -30902069.94 -30902069.80 0.0088 0.0079 *
 Mars -89312-10-25 06:13 J -30899487.44 -30899487.24 -30899487.00 0.0088 0.0058
 Mars -89310-09-18 15:49 J -30898794.11 -30898793.84 -30898793.55 0.0088 0.0016

Venus -89274-09-14 03:49 J -30885649.41 -30885649.34 -30885649.25 0.0089 0.0082

Venus -89273-04-26 15:35 J -30885423.97 -30885423.85 -30885423.70 0.0089 0.0068

Venus -89273-12-08 03:20 J -30885198.51 -30885198.36 -30885198.17 0.0089 0.0054

Venus -89272-07-21 15:35 J -30884973.04 -30884972.85 -30884972.66 0.0089 0.0039

Venus -89271-03-04 03:20 J -30884747.56 -30884747.36 -30884747.15 0.0089 0.0025

Venus -89271-10-15 15:20 J -30884522.07 -30884521.86 -30884521.64 0.0089 0.0011

Venus -89270-05-29 03:20 J -30884296.57 -30884296.36 -30884296.15 0.0089 0.0004

Venus -89269-01-09 15:20 J -30884071.07 -30884070.86 -30884070.65 0.0089 0.0018

Mercury -89269-02-15 02:08 J -30884034.43 -30884034.41 -30884034.36 0.0089 0.0086

Mercury -89269-05-13 03:35 J -30883946.39 -30883946.35 -30883946.28 0.0089 0.0082

Mercury -89269-08-09 05:15 J -30883858.34 -30883858.28 -30883858.21 0.0089 0.0077

Venus -89269-08-22 02:51 J -30883845.57 -30883845.38 -30883845.17 0.0089 0.0033

Mercury -89269-11-05 06:42 J -30883770.29 -30883770.22 -30883770.14 0.0089 0.0073

Mercury -89268-02-01 08:08 J -30883682.24 -30883682.16 -30883682.07 0.0089 0.0069

Venus -89268-04-04 14:51 J -30883620.05 -30883619.88 -30883619.69 0.0089 0.0047

Mercury -89268-04-30 09:35 J -30883594.18 -30883594.10 -30883594.00 0.0089 0.0065

Mercury -89268-07-27 11:01 J -30883506.13 -30883506.04 -30883505.93 0.0089 0.0061

Mercury -89268-10-23 12:27 J -30883418.07 -30883417.98 -30883417.86 0.0089 0.0057

Venus -89268-11-16 03:06 J -30883394.52 -30883394.37 -30883394.21 0.0089 0.0061

Mercury -89267-01-19 14:08 J -30883330.02 -30883329.91 -30883329.79 0.0089 0.0052

Mercury -89267-04-17 15:35 J -30883241.96 -30883241.85 -30883241.73 0.0089 0.0048

Venus -89267-06-29 14:37 J -30883168.98 -30883168.89 -30883168.76 0.0089 0.0076

Mercury -89267-07-14 17:01 J -30883153.90 -30883153.79 -30883153.66 0.0089 0.0044

Mercury -89267-10-10 18:27 J -30883065.84 -30883065.73 -30883065.59 0.0089 0.0040

Mercury -89266-01-06 20:08 J -30882977.78 -30882977.66 -30882977.53 0.0089 0.0035

Mercury -89266-04-04 21:49 J -30882889.72 -30882889.59 -30882889.46 0.0089 0.0031

Mercury -89266-07-01 23:15 J -30882801.66 -30882801.53 -30882801.39 0.0089 0.0027

Mercury -89266-09-28 00:42 J -30882713.60 -30882713.47 -30882713.33 0.0089 0.0023

Mercury -89266-12-25 02:23 J -30882625.54 -30882625.40 -30882625.26 0.0089 0.0018

Mercury -89265-03-22 03:49 J -30882537.47 -30882537.34 -30882537.20 0.0089 0.0014

Mercury -89265-06-18 05:30 J -30882449.41 -30882449.27 -30882449.13 0.0089 0.0009

Mercury -89265-09-14 06:56 J -30882361.35 -30882361.21 -30882361.07 0.0089 0.0006

Mercury -89265-12-11 08:37 J -30882273.28 -30882273.14 -30882273.00 0.0089 0.0001

Mercury -89264-03-09 10:03 J -30882185.22 -30882185.08 -30882184.94 0.0089 0.0004

Mercury -89264-06-05 11:44 J -30882097.15 -30882097.01 -30882096.87 0.0089 0.0008

Mercury -89264-09-01 13:11 J -30882009.08 -30882008.95 -30882008.81 0.0089 0.0013

Mercury -89264-11-28 14:51 J -30881921.02 -30881920.88 -30881920.74 0.0089 0.0017

Mercury -89263-02-24 16:18 J -30881832.95 -30881832.82 -30881832.68 0.0089 0.0022

Mercury -89263-05-23 17:59 J -30881744.88 -30881744.75 -30881744.61 0.0089 0.0026

Mercury -89263-08-19 19:39 J -30881656.81 -30881656.68 -30881656.55 0.0089 0.0030

Mercury -89263-11-15 21:06 J -30881568.75 -30881568.62 -30881568.49 0.0089 0.0035

Mercury -89262-02-11 22:47 J -30881480.68 -30881480.55 -30881480.42 0.0089 0.0039

Mercury -89262-05-11 00:13 J -30881392.60 -30881392.49 -30881392.36 0.0089 0.0044

Mercury -89262-08-07 01:54 J -30881304.53 -30881304.42 -30881304.30 0.0089 0.0048

Mercury -89262-11-03 03:20 J -30881216.46 -30881216.36 -30881216.23 0.0089 0.0053

Mercury -89261-01-30 05:01 J -30881128.39 -30881128.29 -30881128.17 0.0089 0.0057

Mercury -89261-04-27 06:56 J -30881040.31 -30881040.21 -30881040.11 0.0089 0.0061

Mercury -89261-07-24 08:23 J -30880952.24 -30880952.15 -30880952.05 0.0089 0.0066

Mercury -89261-10-20 10:18 J -30880864.16 -30880864.07 -30880863.99 0.0089 0.0070

Mercury -89260-01-16 11:44 J -30880776.08 -30880776.01 -30880775.93 0.0089 0.0075

Mercury -89260-04-14 13:11 J -30880688.00 -30880687.95 -30880687.87 0.0089 0.0080

Mercury -89260-07-11 15:06 J -30880599.91 -30880599.87 -30880599.82 0.0089 0.0084

Mercury -89260-10-07 16:47 J -30880511.80 -30880511.80 -30880511.79 0.0089 0.0089

Earth -89242-03-10 17:30 J -30874148.81 -30874148.77 -30874148.67 0.0089 0.0085

Moon -89242-03-10 20:51 J -30874148.72 -30874148.63 -30874148.52 0.0089 0.0082 *

Moon -89241-03-12 02:37 J -30873781.54 -30873781.39 -30873781.18 0.0089 0.0060

Earth -89241-03-12 04:18 J -30873781.50 -30873781.32 -30873781.11 0.0089 0.0057 *

Earth -89240-03-14 14:51 J -30873414.11 -30873413.88 -30873413.63 0.0089 0.0029

Moon -89240-03-14 15:35 J -30873414.09 -30873413.85 -30873413.59 0.0089 0.0026 *

Earth -89239-03-17 01:39 J -30873046.68 -30873046.43 -30873046.17 0.0089 0.0001

Moon -89239-03-17 02:37 J -30873046.64 -30873046.39 -30873046.14 0.0089 0.0004 *
 Moon -89238-03-19 09:49 J -30872679.32 -30872679.09 -30872678.82 0.0089 0.0031
 Earth -89238-03-19 12:27 J -30872679.22 -30872678.98 -30872678.73 0.0089 0.0027 *
 Earth -89237-03-20 23:15 J -30872311.72 -30872311.53 -30872311.33 0.0089 0.0056
 Moon -89237-03-21 01:39 J -30872311.62 -30872311.43 -30872311.22 0.0089 0.0052 *
 Moon -89236-03-23 05:59 J -30871944.27 -30871944.25 -30871944.16 0.0089 0.0088
 Earth -89236-03-23 09:35 J -30871944.15 -30871944.10 -30871943.98 0.0089 0.0085
 Mars -89230-08-25 15:35 J -30869597.92 -30869597.85 -30869597.71 0.0089 0.0085
 Mars -89228-07-22 08:37 J -30868901.47 -30868901.14 -30868900.78 0.0089 0.0009
 Venus -89192-10-31 18:13 J -30855650.83 -30855650.74 -30855650.60 0.0089 0.0077
 Venus -89191-06-14 08:37 J -30855425.28 -30855425.14 -30855424.96 0.0089 0.0062
 Venus -89190-01-25 23:15 J -30855199.72 -30855199.53 -30855199.33 0.0089 0.0046
 Venus -89190-09-08 13:25 J -30854974.14 -30854973.94 -30854973.72 0.0089 0.0031
 Venus -89189-04-21 03:49 J -30854748.56 -30854748.34 -30854748.11 0.0089 0.0016
 Venus -89189-12-02 18:13 J -30854522.97 -30854522.74 -30854522.51 0.0089 0.0001
 Venus -89188-07-16 08:08 J -30854297.38 -30854297.16 -30854296.93 0.0089 0.0015
 Venus -89187-02-26 22:18 J -30854071.78 -30854071.57 -30854071.35 0.0089 0.0030
 Venus -89187-10-10 12:27 J -30853846.17 -30853845.98 -30853845.78 0.0089 0.0045
 Mercury -89186-02-12 03:20 J -30853721.37 -30853721.36 -30853721.33 0.0089 0.0088
 Mercury -89186-05-11 06:42 J -30853633.29 -30853633.22 -30853633.15 0.0089 0.0082
 Venus -89186-05-24 02:37 J -30853620.55 -30853620.39 -30853620.22 0.0089 0.0060
 Mercury -89186-08-07 09:35 J -30853545.18 -30853545.10 -30853544.99 0.0089 0.0077
 Mercury -89186-11-03 12:56 J -30853457.06 -30853456.96 -30853456.84 0.0089 0.0071
 Venus -89185-01-04 16:32 J -30853394.91 -30853394.81 -30853394.68 0.0089 0.0075
 Mercury -89185-01-30 16:03 J -30853368.94 -30853368.83 -30853368.69 0.0089 0.0065
 Mercury -89185-04-27 19:25 J -30853280.82 -30853280.69 -30853280.55 0.0089 0.0059
 Mercury -89185-07-24 22:18 J -30853192.70 -30853192.57 -30853192.40 0.0089 0.0054
 Mercury -89185-10-21 01:39 J -30853104.57 -30853104.43 -30853104.26 0.0089 0.0048
 Mercury -89184-01-17 05:01 J -30853016.45 -30853016.29 -30853016.12 0.0089 0.0042
 Mercury -89184-04-15 07:54 J -30852928.32 -30852928.17 -30852927.99 0.0089 0.0037

Mercury -89184-07-12 11:15 J -30852840.20 -30852840.03 -30852839.85 0.0089 0.0031

Mercury -89184-10-08 14:23 J -30852752.07 -30852751.90 -30852751.72 0.0089 0.0025

Mercury -89183-01-04 17:44 J -30852663.94 -30852663.76 -30852663.58 0.0089 0.0019

Mercury -89183-04-02 20:37 J -30852575.81 -30852575.64 -30852575.45 0.0089 0.0014

Mercury -89183-06-29 23:59 J -30852487.69 -30852487.50 -30852487.32 0.0089 0.0008

Mercury -89183-09-26 02:51 J -30852399.56 -30852399.38 -30852399.19 0.0089 0.0003

Mercury -89183-12-23 05:59 J -30852311.43 -30852311.25 -30852311.07 0.0089 0.0004

Mercury -89182-03-21 09:06 J -30852223.30 -30852223.12 -30852222.94 0.0089 0.0009

Mercury -89182-06-17 12:13 J -30852135.17 -30852134.99 -30852134.81 0.0088 0.0015

Mercury -89182-09-13 15:06 J -30852047.04 -30852046.87 -30852046.69 0.0088 0.0020

Mercury -89182-12-10 18:13 J -30851958.91 -30851958.74 -30851958.57 0.0088 0.0026

Mercury -89181-03-07 21:06 J -30851870.78 -30851870.62 -30851870.45 0.0088 0.0031

Mercury -89181-06-04 00:13 J -30851782.65 -30851782.49 -30851782.33 0.0088 0.0037

Mercury -89181-08-31 02:51 J -30851694.52 -30851694.38 -30851694.21 0.0088 0.0043

Mercury -89181-11-27 05:59 J -30851606.39 -30851606.25 -30851606.09 0.0088 0.0048

Mercury -89180-02-23 08:51 J -30851518.26 -30851518.13 -30851517.97 0.0088 0.0054

Mercury -89180-05-22 11:59 J -30851430.13 -30851430.00 -30851429.86 0.0088 0.0059

Mercury -89180-08-18 15:06 J -30851341.99 -30851341.87 -30851341.75 0.0088 0.0064

Mercury -89180-11-14 17:44 J -30851253.86 -30851253.76 -30851253.64 0.0088 0.0069

Mercury -89179-02-10 20:37 J -30851165.72 -30851165.64 -30851165.53 0.0088 0.0075

Mercury -89179-05-09 23:44 J -30851077.58 -30851077.51 -30851077.43 0.0088 0.0080

Mercury -89179-08-06 02:23 J -30850989.43 -30850989.40 -30850989.34 0.0088 0.0085

Jupiter -89167-08-11 19:25 J -30846600.99 -30846600.69 -30846600.31 0.0088 0.0069

Moon -89160-09-17 06:56 J -30844007.35 -30844007.21 -30844007.02 0.0088 0.0070

Earth -89160-09-17 09:49 J -30844007.20 -30844007.09 -30844006.92 0.0088 0.0075 *

Earth -89159-09-19 23:01 J -30843639.76 -30843639.54 -30843639.31 0.0088 0.0046

Moon -89159-09-20 02:23 J -30843639.60 -30843639.40 -30843639.17 0.0088 0.0051 *

Moon -89158-09-22 08:08 J -30843272.41 -30843272.16 -30843271.89 0.0088 0.0014

Earth -89158-09-22 11:44 J -30843272.26 -30843272.01 -30843271.75 0.0088 0.0018 *

Earth -89157-09-24 00:13 J -30842904.75 -30842904.49 -30842904.23 0.0088 0.0011

Moon	-89157-09-24 03:49 J	-30842904.60	-30842904.34	-30842904.07	0.0088	0.0006	*
Moon	-89156-09-26 09:49 J	-30842537.29	-30842537.09	-30842536.85	0.0088	0.0044	
Earth	-89156-09-26 12:27 J	-30842537.20	-30842536.98	-30842536.73	0.0088	0.0039	*
Earth	-89155-09-29 00:27 J	-30842169.63	-30842169.48	-30842169.29	0.0088	0.0067	
Moon	-89155-09-29 02:23 J	-30842169.57	-30842169.40	-30842169.19	0.0088	0.0063	*
Mars	-89148-06-10 04:03 J	-30839723.35	-30839723.33	-30839723.29	0.0088	0.0088	
Mars	-89146-05-04 13:39 J	-30839030.21	-30839029.93	-30839029.64	0.0088	0.0014	
Mars	-89144-03-27 22:18 J	-30838336.76	-30838336.57	-30838336.34	0.0088	0.0060	
Venus	-89110-12-16 16:47 J	-30825654.83	-30825654.80	-30825654.72	0.0089	0.0086	
Venus	-89109-07-29 05:01 J	-30825429.41	-30825429.29	-30825429.16	0.0089	0.0071	
Venus	-89108-03-11 16:47 J	-30825203.96	-30825203.80	-30825203.63	0.0089	0.0057	
Venus	-89108-10-23 04:32 J	-30824978.48	-30824978.31	-30824978.11	0.0089	0.0043	
Venus	-89107-06-05 16:18 J	-30824753.01	-30824752.82	-30824752.60	0.0089	0.0029	
Venus	-89106-01-17 04:18 J	-30824527.53	-30824527.32	-30824527.10	0.0089	0.0014	
Venus	-89106-08-30 16:18 J	-30824302.04	-30824301.82	-30824301.61	0.0089	0.0001	
Venus	-89105-04-12 04:03 J	-30824076.54	-30824076.33	-30824076.12	0.0089	0.0015	
Mercury	-89105-08-15 00:56 J	-30823951.48	-30823951.46	-30823951.44	0.0089	0.0087	
Mercury	-89105-11-11 02:23 J	-30823863.44	-30823863.40	-30823863.35	0.0089	0.0083	
Venus	-89105-11-23 16:03 J	-30823851.03	-30823850.83	-30823850.63	0.0089	0.0029	
Mercury	-89104-02-07 03:49 J	-30823775.40	-30823775.34	-30823775.28	0.0089	0.0079	
Mercury	-89104-05-06 05:15 J	-30823687.35	-30823687.28	-30823687.20	0.0089	0.0075	
Venus	-89104-07-07 03:35 J	-30823625.52	-30823625.35	-30823625.15	0.0089	0.0044	
Mercury	-89104-08-02 06:42 J	-30823599.30	-30823599.22	-30823599.13	0.0089	0.0071	
Mercury	-89104-10-29 08:08 J	-30823511.24	-30823511.16	-30823511.06	0.0089	0.0067	
Mercury	-89103-01-25 09:35 J	-30823423.19	-30823423.10	-30823423.00	0.0089	0.0063	
Venus	-89103-02-17 15:35 J	-30823400.00	-30823399.85	-30823399.68	0.0089	0.0058	
Mercury	-89103-04-23 11:15 J	-30823335.13	-30823335.03	-30823334.93	0.0089	0.0058	
Mercury	-89103-07-20 12:42 J	-30823247.08	-30823246.97	-30823246.86	0.0089	0.0054	
Venus	-89103-10-01 03:20 J	-30823174.46	-30823174.36	-30823174.21	0.0089	0.0073	
Mercury	-89103-10-16 14:08 J	-30823159.02	-30823158.91	-30823158.79	0.0089	0.0050	

Mercury -89102-01-12 15:35 J -30823070.96 -30823070.85 -30823070.72 0.0089 0.0046

Mercury -89102-04-10 17:15 J -30822982.90 -30822982.78 -30822982.66 0.0089 0.0041

Venus -89102-05-14 15:20 J -30822948.88 -30822948.86 -30822948.79 0.0089 0.0087

Mercury -89102-07-07 18:42 J -30822894.84 -30822894.72 -30822894.59 0.0089 0.0037

Mercury -89102-10-03 20:08 J -30822806.78 -30822806.66 -30822806.53 0.0089 0.0033

Mercury -89102-12-30 21:35 J -30822718.72 -30822718.60 -30822718.46 0.0089 0.0029

Mercury -89101-03-27 23:15 J -30822630.66 -30822630.53 -30822630.39 0.0089 0.0024

Mercury -89101-06-24 00:42 J -30822542.60 -30822542.47 -30822542.33 0.0089 0.0020

Mercury -89101-09-20 02:23 J -30822454.54 -30822454.40 -30822454.26 0.0089 0.0016

Mercury -89101-12-17 03:49 J -30822366.47 -30822366.34 -30822366.20 0.0089 0.0012

Mercury -89100-03-15 05:30 J -30822278.41 -30822278.27 -30822278.13 0.0089 0.0007

Mercury -89100-06-11 06:56 J -30822190.35 -30822190.21 -30822190.07 0.0089 0.0003

Mercury -89100-09-07 08:37 J -30822102.28 -30822102.14 -30822102.00 0.0089 0.0003

Mercury -89100-12-04 10:03 J -30822014.22 -30822014.08 -30822013.94 0.0089 0.0006

Mercury -89099-03-02 11:44 J -30821926.15 -30821926.01 -30821925.87 0.0089 0.0011

Mercury -89099-05-29 13:11 J -30821838.09 -30821837.95 -30821837.81 0.0089 0.0015

Mercury -89099-08-25 14:37 J -30821750.02 -30821749.89 -30821749.75 0.0089 0.0020

Mercury -89099-11-21 16:18 J -30821661.95 -30821661.82 -30821661.68 0.0089 0.0024

Mercury -89098-02-17 17:59 J -30821573.88 -30821573.75 -30821573.62 0.0089 0.0028

Mercury -89098-05-16 19:25 J -30821485.81 -30821485.69 -30821485.55 0.0089 0.0033

Mercury -89098-08-12 21:06 J -30821397.75 -30821397.62 -30821397.49 0.0089 0.0037

Mercury -89098-11-08 22:32 J -30821309.68 -30821309.56 -30821309.43 0.0089 0.0042

Mercury -89097-02-05 00:13 J -30821221.60 -30821221.49 -30821221.36 0.0089 0.0046

Mercury -89097-05-03 01:39 J -30821133.53 -30821133.43 -30821133.30 0.0089 0.0051

Mercury -89097-07-30 03:20 J -30821045.46 -30821045.36 -30821045.24 0.0089 0.0055

Mercury -89097-10-26 05:15 J -30820957.39 -30820957.28 -30820957.18 0.0089 0.0059

Mercury -89096-01-22 06:42 J -30820869.31 -30820869.22 -30820869.12 0.0089 0.0064

Mercury -89096-04-20 08:37 J -30820781.23 -30820781.14 -30820781.05 0.0089 0.0068

Mercury -89096-07-17 09:49 J -30820693.16 -30820693.09 -30820693.00 0.0089 0.0073

Mercury -89096-10-13 11:44 J -30820605.08 -30820605.01 -30820604.94 0.0089 0.0077

Mercury -89095-01-09 13:11 J -30820516.99 -30820516.95 -30820516.89 0.0089 0.0082
 Mercury -89095-04-07 15:06 J -30820428.90 -30820428.87 -30820428.84 0.0089 0.0086
 Moon -89077-03-11 16:47 J -30813880.94 -30813880.80 -30813880.64 0.0089 0.0072
 Earth -89077-03-11 16:47 J -30813880.94 -30813880.80 -30813880.62 0.0089 0.0069 *
 Earth -89076-03-14 03:35 J -30813513.56 -30813513.35 -30813513.11 0.0089 0.0041
 Moon -89076-03-14 04:32 J -30813513.51 -30813513.31 -30813513.07 0.0089 0.0038 *
 Moon -89075-03-16 12:13 J -30813146.25 -30813145.99 -30813145.74 0.0089 0.0016
 Earth -89075-03-16 14:23 J -30813146.15 -30813145.90 -30813145.65 0.0089 0.0013 *
 Earth -89074-03-19 00:56 J -30812778.71 -30812778.46 -30812778.20 0.0089 0.0015
 Moon -89074-03-19 04:03 J -30812778.56 -30812778.33 -30812778.07 0.0089 0.0020 *
 Moon -89073-03-20 08:08 J -30812411.37 -30812411.16 -30812410.92 0.0089 0.0040
 Earth -89073-03-20 11:44 J -30812411.22 -30812411.01 -30812410.78 0.0089 0.0043 *
 Earth -89072-03-22 22:18 J -30812043.71 -30812043.57 -30812043.40 0.0089 0.0071
 Moon -89072-03-23 01:54 J -30812043.54 -30812043.42 -30812043.26 0.0089 0.0075 *
 Mars -89064-03-04 18:13 J -30809140.06 -30809139.74 -30809139.40 0.0089 0.0031
 Mars -89062-01-30 10:18 J -30808443.30 -30808443.07 -30808442.80 0.0089 0.0062
 Venus -89027-02-02 05:01 J -30795656.37 -30795656.29 -30795656.19 0.0089 0.0081
 Venus -89027-09-15 19:11 J -30795430.83 -30795430.70 -30795430.53 0.0089 0.0066
 Venus -89026-04-29 09:35 J -30795205.26 -30795205.10 -30795204.89 0.0089 0.0051
 Venus -89026-12-11 00:13 J -30794979.69 -30794979.49 -30794979.28 0.0089 0.0035
 Venus -89025-07-23 14:23 J -30794754.11 -30794753.90 -30794753.67 0.0089 0.0020
 Venus -89024-03-06 04:47 J -30794528.53 -30794528.30 -30794528.07 0.0089 0.0005
 Venus -89024-10-17 18:56 J -30794302.93 -30794302.71 -30794302.48 0.0089 0.0011
 Venus -89023-05-31 09:20 J -30794077.33 -30794077.11 -30794076.90 0.0089 0.0026
 Venus -89022-01-11 23:01 J -30793851.72 -30793851.54 -30793851.32 0.0089 0.0042
 Venus -89022-08-25 13:11 J -30793626.11 -30793625.95 -30793625.76 0.0089 0.0057
 Mercury -89022-11-09 02:37 J -30793550.43 -30793550.39 -30793550.33 0.0089 0.0085
 Mercury -89021-02-05 05:30 J -30793462.33 -30793462.27 -30793462.17 0.0089 0.0080
 Venus -89021-04-07 03:20 J -30793400.48 -30793400.36 -30793400.21 0.0089 0.0072
 Mercury -89021-05-03 08:51 J -30793374.21 -30793374.13 -30793374.01 0.0089 0.0074

Mercury -89021-07-30 12:13 J -30793286.10 -30793285.99 -30793285.86 0.0089 0.0068

Mercury -89021-10-26 15:35 J -30793197.97 -30793197.85 -30793197.71 0.0089 0.0062

Venus -89021-11-18 17:15 J -30793174.80 -30793174.78 -30793174.71 0.0089 0.0087

Mercury -89020-01-22 18:56 J -30793109.85 -30793109.71 -30793109.57 0.0089 0.0056

Mercury -89020-04-20 21:49 J -30793021.73 -30793021.59 -30793021.43 0.0089 0.0051

Mercury -89020-07-18 01:11 J -30792933.60 -30792933.45 -30792933.29 0.0089 0.0045

Mercury -89020-10-14 04:18 J -30792845.48 -30792845.32 -30792845.15 0.0089 0.0039

Mercury -89019-01-10 07:25 J -30792757.35 -30792757.19 -30792757.01 0.0089 0.0033

Mercury -89019-04-08 10:32 J -30792669.22 -30792669.06 -30792668.88 0.0089 0.0028

Mercury -89019-07-05 13:54 J -30792581.10 -30792580.92 -30792580.74 0.0089 0.0022

Mercury -89019-10-01 17:01 J -30792492.97 -30792492.79 -30792492.61 0.0089 0.0016

Mercury -89019-12-28 20:08 J -30792404.84 -30792404.66 -30792404.48 0.0089 0.0010

Mercury -89018-03-26 23:15 J -30792316.71 -30792316.53 -30792316.35 0.0089 0.0005

Mercury -89018-06-23 02:23 J -30792228.58 -30792228.40 -30792228.22 0.0089 0.0001

Mercury -89018-09-19 05:30 J -30792140.46 -30792140.27 -30792140.09 0.0089 0.0007

Mercury -89018-12-16 08:23 J -30792052.33 -30792052.15 -30792051.97 0.0089 0.0012

Mercury -89017-03-13 11:30 J -30791964.20 -30791964.02 -30791963.84 0.0088 0.0018

Mercury -89017-06-09 14:23 J -30791876.07 -30791875.90 -30791875.72 0.0088 0.0024

Mercury -89017-09-05 17:30 J -30791787.94 -30791787.77 -30791787.59 0.0088 0.0029

Mercury -89017-12-02 20:23 J -30791699.81 -30791699.65 -30791699.47 0.0088 0.0035

Mercury -89016-02-28 23:30 J -30791611.67 -30791611.52 -30791611.35 0.0088 0.0040

Mercury -89016-05-28 02:23 J -30791523.54 -30791523.40 -30791523.24 0.0088 0.0045

Mercury -89016-08-24 05:30 J -30791435.41 -30791435.27 -30791435.12 0.0088 0.0051

Mercury -89016-11-20 08:08 J -30791347.28 -30791347.16 -30791347.00 0.0088 0.0057

Mercury -89015-02-16 11:15 J -30791259.14 -30791259.03 -30791258.89 0.0088 0.0062

Mercury -89015-05-15 14:23 J -30791171.01 -30791170.90 -30791170.78 0.0088 0.0067

Mercury -89015-08-11 17:01 J -30791082.87 -30791082.79 -30791082.67 0.0088 0.0073

Mercury -89015-11-07 20:08 J -30790994.73 -30790994.66 -30790994.57 0.0088 0.0078

Mercury -89014-02-03 23:15 J -30790906.59 -30790906.53 -30790906.47 0.0088 0.0083

Mercury -89014-05-03 01:54 J -30790818.42 -30790818.42 -30790818.40 0.0088 0.0088

89TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 89th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Earth	-88996-09-16 20:08 J	-30784106.70	-30784106.66	-30784106.58	0.0088	0.0086		
Moon	-88996-09-16 23:30 J	-30784106.55	-30784106.52	-30784106.44	0.0088	0.0087		
Moon	-88995-09-19 05:30 J	-30783739.45	-30783739.27	-30783739.06	0.0088	0.0058		
Earth	-88995-09-19 09:06 J	-30783739.30	-30783739.12	-30783738.91	0.0088	0.0058	*	
Earth	-88994-09-21 21:49 J	-30783371.83	-30783371.59	-30783371.34	0.0088	0.0030		
Moon	-88994-09-22 00:27 J	-30783371.71	-30783371.48	-30783371.21	0.0088	0.0030	*	
Moon	-88993-09-23 08:08 J	-30783004.41	-30783004.16	-30783003.90	0.0088	0.0001		
Earth	-88993-09-23 10:32 J	-30783004.32	-30783004.06	-30783003.80	0.0088	0.0002	*	
Earth	-88992-09-25 22:47 J	-30782636.79	-30782636.55	-30782636.29	0.0088	0.0027		
Moon	-88992-09-25 23:59 J	-30782636.75	-30782636.50	-30782636.24	0.0088	0.0026	*	
Earth	-88991-09-28 10:47 J	-30782269.24	-30782269.05	-30782268.83	0.0088	0.0054		
Moon	-88991-09-28 10:47 J	-30782269.22	-30782269.05	-30782268.82	0.0088	0.0056	*	
Moon	-88990-09-30 21:49 J	-30781901.68	-30781901.59	-30781901.46	0.0088	0.0081		
Earth	-88990-09-30 23:30 J	-30781901.62	-30781901.52	-30781901.43	0.0088	0.0082	*	
Mars	-88983-12-18 09:06 J	-30779266.35	-30779266.12	-30779265.86	0.0088	0.0045		
Mars	-88981-11-10 19:25 J	-30778572.95	-30778572.69	-30778572.41	0.0088	0.0029		
Venus	-88945-10-30 17:59 J	-30765434.86	-30765434.75	-30765434.63	0.0089	0.0075		
Venus	-88944-06-13 05:30 J	-30765209.41	-30765209.27	-30765209.10	0.0089	0.0061		

Venus -88943-01-24 17:15 J -30764983.95 -30764983.78 -30764983.58 0.0089 0.0047
 Venus -88943-09-07 05:15 J -30764758.47 -30764758.28 -30764758.08 0.0089 0.0032
 Venus -88942-04-20 17:01 J -30764532.99 -30764532.79 -30764532.57 0.0089 0.0018
 Venus -88942-12-02 05:01 J -30764307.50 -30764307.29 -30764307.07 0.0089 0.0004
 Venus -88941-07-14 17:01 J -30764082.01 -30764081.79 -30764081.58 0.0089 0.0011
 Venus -88940-02-25 04:32 J -30763856.51 -30763856.31 -30763856.10 0.0089 0.0026
 Mercury -88940-05-12 00:42 J -30763780.50 -30763780.47 -30763780.42 0.0089 0.0085
 Mercury -88940-08-08 02:08 J -30763692.45 -30763692.41 -30763692.35 0.0089 0.0081
 Venus -88940-10-08 16:32 J -30763630.99 -30763630.81 -30763630.61 0.0089 0.0040
 Mercury -88940-11-04 03:35 J -30763604.40 -30763604.35 -30763604.27 0.0089 0.0077
 Mercury -88939-01-31 05:01 J -30763516.35 -30763516.29 -30763516.20 0.0089 0.0073
 Mercury -88939-04-29 06:27 J -30763428.30 -30763428.23 -30763428.13 0.0089 0.0069
 Venus -88939-05-22 04:18 J -30763405.47 -30763405.32 -30763405.14 0.0089 0.0055
 Mercury -88939-07-26 07:54 J -30763340.25 -30763340.17 -30763340.06 0.0089 0.0065
 Mercury -88939-10-22 09:35 J -30763252.19 -30763252.10 -30763251.99 0.0089 0.0060
 Venus -88938-01-02 16:18 J -30763179.94 -30763179.82 -30763179.68 0.0089 0.0069
 Mercury -88938-01-18 11:01 J -30763164.14 -30763164.04 -30763163.93 0.0089 0.0056
 Mercury -88938-04-16 12:27 J -30763076.08 -30763075.98 -30763075.86 0.0089 0.0052
 Mercury -88938-07-13 13:54 J -30762988.02 -30762987.92 -30762987.79 0.0089 0.0048
 Venus -88938-08-16 03:49 J -30762954.38 -30762954.34 -30762954.24 0.0089 0.0084
 Mercury -88938-10-09 15:20 J -30762899.97 -30762899.86 -30762899.73 0.0089 0.0044
 Mercury -88937-01-05 17:01 J -30762811.91 -30762811.79 -30762811.66 0.0089 0.0039
 Mercury -88937-04-02 18:42 J -30762723.85 -30762723.72 -30762723.59 0.0089 0.0035
 Mercury -88937-06-29 20:08 J -30762635.79 -30762635.66 -30762635.53 0.0089 0.0031
 Mercury -88937-09-25 21:49 J -30762547.73 -30762547.59 -30762547.46 0.0089 0.0026
 Mercury -88937-12-22 23:15 J -30762459.66 -30762459.53 -30762459.40 0.0089 0.0022
 Mercury -88936-03-21 00:42 J -30762371.60 -30762371.47 -30762371.33 0.0089 0.0018
 Mercury -88936-06-17 02:23 J -30762283.54 -30762283.40 -30762283.26 0.0089 0.0013
 Mercury -88936-09-13 03:49 J -30762195.48 -30762195.34 -30762195.20 0.0089 0.0009
 Mercury -88936-12-10 05:30 J -30762107.41 -30762107.27 -30762107.13 0.0089 0.0005

Mercury -88935-03-08 06:56 J -30762019.35 -30762019.21 -30762019.07 0.0089 0.0001

Mercury -88935-06-04 08:37 J -30761931.28 -30761931.14 -30761931.00 0.0089 0.0005

Mercury -88935-08-31 10:03 J -30761843.22 -30761843.08 -30761842.94 0.0089 0.0009

Mercury -88935-11-27 11:30 J -30761755.15 -30761755.02 -30761754.88 0.0089 0.0013

Mercury -88934-02-23 13:11 J -30761667.09 -30761666.95 -30761666.81 0.0089 0.0017

Mercury -88934-05-22 14:37 J -30761579.02 -30761578.89 -30761578.75 0.0089 0.0022

Mercury -88934-08-18 16:18 J -30761490.95 -30761490.82 -30761490.68 0.0089 0.0026

Mercury -88934-11-14 17:44 J -30761402.88 -30761402.76 -30761402.62 0.0089 0.0031

Mercury -88933-02-10 19:25 J -30761314.82 -30761314.69 -30761314.56 0.0089 0.0035

Mercury -88933-05-08 20:51 J -30761226.75 -30761226.63 -30761226.49 0.0089 0.0040

Mercury -88933-08-04 22:32 J -30761138.67 -30761138.56 -30761138.43 0.0089 0.0044

Mercury -88933-10-31 23:59 J -30761050.60 -30761050.50 -30761050.37 0.0089 0.0049

Mercury -88932-01-28 01:39 J -30760962.53 -30760962.43 -30760962.31 0.0089 0.0053

Mercury -88932-04-26 03:20 J -30760874.46 -30760874.36 -30760874.24 0.0089 0.0058

Mercury -88932-07-23 05:01 J -30760786.38 -30760786.29 -30760786.18 0.0089 0.0062

Mercury -88932-10-19 06:27 J -30760698.31 -30760698.23 -30760698.12 0.0089 0.0067

Mercury -88931-01-15 08:08 J -30760610.23 -30760610.16 -30760610.06 0.0089 0.0071

Mercury -88931-04-13 10:03 J -30760522.15 -30760522.08 -30760522.01 0.0089 0.0075

Mercury -88931-07-10 11:30 J -30760434.07 -30760434.02 -30760433.95 0.0089 0.0080

Mercury -88931-10-06 12:56 J -30760345.98 -30760345.96 -30760345.90 0.0089 0.0085

Earth -88913-03-11 04:32 J -30753980.38 -30753980.31 -30753980.17 0.0089 0.0081

Moon -88913-03-11 06:42 J -30753980.32 -30753980.22 -30753980.09 0.0089 0.0078 *

Moon -88912-03-13 12:13 J -30753613.17 -30753612.99 -30753612.76 0.0089 0.0055

Earth -88912-03-13 15:20 J -30753613.05 -30753612.86 -30753612.64 0.0089 0.0053 *

Earth -88911-03-16 02:08 J -30753245.65 -30753245.41 -30753245.16 0.0089 0.0025

Moon -88911-03-16 05:15 J -30753245.52 -30753245.28 -30753245.03 0.0089 0.0022 *

Moon -88910-03-18 09:20 J -30752878.36 -30752878.11 -30752877.86 0.0089 0.0000

Earth -88910-03-18 12:56 J -30752878.21 -30752877.96 -30752877.70 0.0089 0.0003 *

Earth -88909-03-19 23:30 J -30752510.75 -30752510.52 -30752510.28 0.0089 0.0031

Moon -88909-03-20 02:37 J -30752510.62 -30752510.39 -30752510.14 0.0089 0.0033 *

Moon	-88908-03-22 07:39 J	-30752143.37	-30752143.18	-30752142.98	0.0089	0.0055
Earth	-88908-03-22 10:32 J	-30752143.25	-30752143.06	-30752142.87	0.0089	0.0058 *
Earth	-88907-03-24 21:06 J	-30751775.66	-30751775.62	-30751775.54	0.0089	0.0087
Mars	-88901-10-16 02:37 J	-30749378.56	-30749378.39	-30749378.15	0.0089	0.0073
Mars	-88899-09-12 20:08 J	-30748681.99	-30748681.66	-30748681.32	0.0089	0.0022
Venus	-88863-05-06 15:20 J	-30735661.89	-30735661.86	-30735661.77	0.0089	0.0086
Venus	-88863-12-18 05:59 J	-30735436.38	-30735436.25	-30735436.10	0.0089	0.0070
Venus	-88862-07-31 20:08 J	-30735210.82	-30735210.66	-30735210.47	0.0089	0.0055
Venus	-88861-03-13 10:18 J	-30734985.25	-30734985.07	-30734984.85	0.0089	0.0040
Venus	-88861-10-25 00:56 J	-30734759.67	-30734759.46	-30734759.24	0.0089	0.0024
Venus	-88860-06-07 15:20 J	-30734534.09	-30734533.86	-30734533.63	0.0089	0.0009
Venus	-88859-01-19 05:30 J	-30734308.49	-30734308.27	-30734308.04	0.0089	0.0007
Venus	-88859-09-01 19:25 J	-30734082.89	-30734082.69	-30734082.45	0.0089	0.0023
Venus	-88858-04-15 09:49 J	-30733857.28	-30733857.09	-30733856.87	0.0089	0.0038
Venus	-88858-11-26 23:59 J	-30733631.67	-30733631.50	-30733631.30	0.0089	0.0053
Mercury	-88857-05-08 22:32 J	-30733467.57	-30733467.56	-30733467.53	0.0089	0.0088
Venus	-88857-07-09 14:23 J	-30733406.04	-30733405.90	-30733405.75	0.0089	0.0068
Mercury	-88857-08-05 02:08 J	-30733379.48	-30733379.41	-30733379.35	0.0089	0.0082
Mercury	-88857-11-01 04:47 J	-30733291.37	-30733291.30	-30733291.18	0.0089	0.0077
Mercury	-88856-01-28 08:08 J	-30733203.25	-30733203.16	-30733203.03	0.0089	0.0071
Venus	-88856-02-20 03:49 J	-30733180.39	-30733180.34	-30733180.24	0.0089	0.0084
Mercury	-88856-04-26 11:30 J	-30733115.13	-30733115.02	-30733114.88	0.0089	0.0065
Mercury	-88856-07-23 14:51 J	-30733027.01	-30733026.88	-30733026.74	0.0089	0.0059
Mercury	-88856-10-19 18:13 J	-30732938.89	-30732938.74	-30732938.59	0.0089	0.0053
Mercury	-88855-01-15 21:06 J	-30732850.76	-30732850.62	-30732850.45	0.0089	0.0048
Mercury	-88855-04-14 00:27 J	-30732762.64	-30732762.48	-30732762.31	0.0089	0.0042
Mercury	-88855-07-11 03:35 J	-30732674.51	-30732674.35	-30732674.17	0.0089	0.0036
Mercury	-88855-10-07 06:42 J	-30732586.38	-30732586.22	-30732586.04	0.0089	0.0030
Mercury	-88854-01-03 09:49 J	-30732498.26	-30732498.09	-30732497.90	0.0089	0.0025
Mercury	-88854-04-01 13:11 J	-30732410.13	-30732409.95	-30732409.77	0.0089	0.0019

Mercury -88854-06-28 16:18 J -30732322.00 -30732321.82 -30732321.64 0.0089 0.0013

Mercury -88854-09-24 19:25 J -30732233.87 -30732233.69 -30732233.51 0.0089 0.0007

Mercury -88854-12-21 22:32 J -30732145.74 -30732145.56 -30732145.38 0.0089 0.0002

Mercury -88853-03-19 01:39 J -30732057.61 -30732057.43 -30732057.25 0.0089 0.0004

Mercury -88853-06-15 04:32 J -30731969.48 -30731969.31 -30731969.12 0.0089 0.0010

Mercury -88853-09-11 07:39 J -30731881.35 -30731881.18 -30731881.00 0.0089 0.0015

Mercury -88853-12-08 10:47 J -30731793.22 -30731793.05 -30731792.87 0.0089 0.0021

Mercury -88852-03-06 13:39 J -30731705.09 -30731704.93 -30731704.75 0.0089 0.0026

Mercury -88852-06-02 16:47 J -30731616.96 -30731616.80 -30731616.63 0.0089 0.0032

Mercury -88852-08-29 19:39 J -30731528.83 -30731528.68 -30731528.51 0.0089 0.0037

Mercury -88852-11-25 22:47 J -30731440.70 -30731440.55 -30731440.39 0.0089 0.0043

Mercury -88851-02-22 01:39 J -30731352.57 -30731352.43 -30731352.27 0.0088 0.0048

Mercury -88851-05-21 04:47 J -30731264.44 -30731264.30 -30731264.15 0.0088 0.0054

Mercury -88851-08-17 07:54 J -30731176.30 -30731176.17 -30731176.04 0.0088 0.0059

Mercury -88851-11-13 10:32 J -30731088.17 -30731088.06 -30731087.93 0.0088 0.0065

Mercury -88850-02-09 13:39 J -30731000.03 -30730999.93 -30730999.82 0.0088 0.0070

Mercury -88850-05-08 16:18 J -30730911.89 -30730911.82 -30730911.71 0.0088 0.0076

Mercury -88850-08-04 19:11 J -30730823.75 -30730823.70 -30730823.61 0.0088 0.0081

Mercury -88850-10-31 22:18 J -30730735.60 -30730735.57 -30730735.52 0.0088 0.0086

Earth -88831-09-18 18:42 J -30723838.86 -30723838.72 -30723838.54 0.0088 0.0070

Moon -88831-09-18 21:49 J -30723838.76 -30723838.59 -30723838.40 0.0088 0.0065 *

Moon -88830-09-21 06:13 J -30723471.44 -30723471.24 -30723471.01 0.0088 0.0046

Earth -88830-09-21 07:39 J -30723471.40 -30723471.18 -30723470.93 0.0088 0.0042 *

Earth -88829-09-22 20:37 J -30723103.90 -30723103.64 -30723103.38 0.0088 0.0014

Moon -88829-09-22 21:06 J -30723103.88 -30723103.62 -30723103.34 0.0088 0.0010 *

Earth -88828-09-25 08:51 J -30722736.38 -30722736.13 -30722735.86 0.0088 0.0015

Moon -88828-09-25 09:35 J -30722736.35 -30722736.10 -30722735.85 0.0088 0.0010 *

Moon -88827-09-27 18:42 J -30722368.93 -30722368.72 -30722368.47 0.0088 0.0047

Earth -88827-09-27 20:51 J -30722368.83 -30722368.63 -30722368.37 0.0088 0.0043 *

Earth -88826-09-30 09:20 J -30722001.25 -30722001.11 -30722000.93 0.0088 0.0070

Moon -88826-09-30 11:59 J -30722001.15 -30722001.00 -30722000.81 0.0088 0.0066 *
 Mars -88819-08-03 05:59 J -30719502.38 -30719502.25 -30719502.10 0.0088 0.0077
 Mars -88817-06-26 14:37 J -30718809.17 -30718808.89 -30718808.60 0.0088 0.0003
 Mars -88815-05-21 00:13 J -30718115.64 -30718115.49 -30718115.30 0.0088 0.0071
 Venus -88780-02-01 06:42 J -30705440.31 -30705440.22 -30705440.13 0.0089 0.0079
 Venus -88780-09-14 18:13 J -30705214.87 -30705214.74 -30705214.58 0.0089 0.0065
 Venus -88779-04-28 05:44 J -30704989.41 -30704989.26 -30704989.06 0.0089 0.0051
 Venus -88779-12-09 17:59 J -30704763.94 -30704763.75 -30704763.55 0.0089 0.0036
 Venus -88778-07-23 05:30 J -30704538.46 -30704538.27 -30704538.05 0.0089 0.0022
 Venus -88777-03-04 17:30 J -30704312.98 -30704312.77 -30704312.55 0.0089 0.0007
 Venus -88777-10-16 05:30 J -30704087.48 -30704087.27 -30704087.06 0.0089 0.0007
 Venus -88776-05-29 17:15 J -30703861.98 -30703861.78 -30703861.57 0.0089 0.0022
 Mercury -88776-11-09 23:15 J -30703697.55 -30703697.53 -30703697.50 0.0089 0.0087
 Venus -88775-01-10 04:47 J -30703636.48 -30703636.30 -30703636.09 0.0089 0.0037
 Mercury -88775-02-06 00:42 J -30703609.51 -30703609.47 -30703609.42 0.0089 0.0083
 Mercury -88775-05-05 02:08 J -30703521.47 -30703521.41 -30703521.35 0.0089 0.0079
 Mercury -88775-08-01 03:35 J -30703433.42 -30703433.35 -30703433.27 0.0089 0.0075
 Venus -88775-08-23 16:32 J -30703410.97 -30703410.81 -30703410.62 0.0089 0.0051
 Mercury -88775-10-28 04:47 J -30703345.37 -30703345.30 -30703345.20 0.0089 0.0071
 Mercury -88774-01-24 06:13 J -30703257.31 -30703257.24 -30703257.13 0.0089 0.0067
 Venus -88774-04-06 04:32 J -30703185.44 -30703185.31 -30703185.16 0.0089 0.0065
 Mercury -88774-04-22 07:39 J -30703169.26 -30703169.18 -30703169.07 0.0089 0.0063
 Mercury -88774-07-19 09:35 J -30703081.20 -30703081.10 -30703081.00 0.0089 0.0058
 Mercury -88774-10-15 11:01 J -30702993.15 -30702993.04 -30702992.93 0.0089 0.0054
 Venus -88774-11-17 16:18 J -30702959.89 -30702959.82 -30702959.71 0.0089 0.0080
 Mercury -88773-01-11 12:13 J -30702905.09 -30702904.99 -30702904.87 0.0089 0.0050
 Mercury -88773-04-08 13:54 J -30702817.03 -30702816.92 -30702816.80 0.0089 0.0046
 Mercury -88773-07-05 15:20 J -30702728.98 -30702728.86 -30702728.73 0.0089 0.0041
 Mercury -88773-10-01 17:01 J -30702640.92 -30702640.79 -30702640.67 0.0089 0.0037
 Mercury -88773-12-28 18:27 J -30702552.86 -30702552.73 -30702552.60 0.0089 0.0033

Mercury -88772-03-26 19:54 J -30702464.80 -30702464.67 -30702464.54 0.0089 0.0029

Mercury -88772-06-22 21:35 J -30702376.74 -30702376.60 -30702376.47 0.0089 0.0024

Mercury -88772-09-18 23:01 J -30702288.67 -30702288.54 -30702288.40 0.0089 0.0020

Mercury -88772-12-16 00:27 J -30702200.61 -30702200.48 -30702200.34 0.0089 0.0016

Mercury -88771-03-14 01:54 J -30702112.55 -30702112.42 -30702112.27 0.0089 0.0012

Mercury -88771-06-10 03:35 J -30702024.49 -30702024.35 -30702024.21 0.0089 0.0007

Mercury -88771-09-06 05:15 J -30701936.42 -30701936.28 -30701936.14 0.0089 0.0003

Mercury -88771-12-03 06:42 J -30701848.36 -30701848.22 -30701848.08 0.0089 0.0002

Mercury -88770-03-01 08:08 J -30701760.29 -30701760.16 -30701760.02 0.0089 0.0007

Mercury -88770-05-28 09:49 J -30701672.23 -30701672.09 -30701671.95 0.0089 0.0011

Mercury -88770-08-24 11:30 J -30701584.16 -30701584.02 -30701583.89 0.0089 0.0015

Mercury -88770-11-20 12:56 J -30701496.10 -30701495.96 -30701495.82 0.0089 0.0019

Mercury -88769-02-16 14:23 J -30701408.03 -30701407.90 -30701407.76 0.0089 0.0024

Mercury -88769-05-14 16:03 J -30701319.96 -30701319.83 -30701319.70 0.0089 0.0028

Mercury -88769-08-10 17:30 J -30701231.89 -30701231.77 -30701231.63 0.0089 0.0033

Mercury -88769-11-06 19:11 J -30701143.82 -30701143.70 -30701143.57 0.0089 0.0037

Mercury -88768-02-02 20:37 J -30701055.75 -30701055.64 -30701055.51 0.0089 0.0042

Mercury -88768-05-01 22:18 J -30700967.68 -30700967.57 -30700967.44 0.0089 0.0046

Mercury -88768-07-28 23:44 J -30700879.61 -30700879.51 -30700879.38 0.0089 0.0051

Mercury -88768-10-25 01:39 J -30700791.54 -30700791.43 -30700791.32 0.0089 0.0055

Mercury -88767-01-21 03:06 J -30700703.46 -30700703.37 -30700703.26 0.0089 0.0060

Mercury -88767-04-19 04:47 J -30700615.39 -30700615.30 -30700615.20 0.0089 0.0064

Mercury -88767-07-16 06:13 J -30700527.31 -30700527.24 -30700527.14 0.0089 0.0069

Mercury -88767-10-12 08:08 J -30700439.24 -30700439.16 -30700439.08 0.0089 0.0073

Mercury -88766-01-08 09:35 J -30700351.16 -30700351.10 -30700351.02 0.0089 0.0078

Mercury -88766-04-06 11:15 J -30700263.07 -30700263.03 -30700262.97 0.0089 0.0082

Mercury -88766-07-03 12:42 J -30700174.98 -30700174.97 -30700174.92 0.0089 0.0087

Moon -88749-03-10 13:54 J -30694079.92 -30694079.92 -30694079.88 0.0089 0.0089

Earth -88748-03-13 03:06 J -30693712.53 -30693712.37 -30693712.18 0.0089 0.0065

Moon -88748-03-13 07:11 J -30693712.36 -30693712.20 -30693712.05 0.0089 0.0070 *

Moon	-88747-03-15 10:18 J	-30693345.29	-30693345.07	-30693344.83	0.0089	0.0034
Earth	-88747-03-15 13:25 J	-30693345.15	-30693344.94	-30693344.69	0.0089	0.0038 *
Earth	-88746-03-18 00:13 J	-30692977.74	-30692977.49	-30692977.24	0.0089	0.0010
Moon	-88746-03-18 03:35 J	-30692977.60	-30692977.35	-30692977.09	0.0089	0.0014 *
Moon	-88745-03-19 08:37 J	-30692610.36	-30692610.14	-30692609.88	0.0089	0.0022
Earth	-88745-03-19 10:47 J	-30692610.29	-30692610.05	-30692609.79	0.0089	0.0018 *
Earth	-88744-03-21 21:49 J	-30692242.81	-30692242.59	-30692242.37	0.0089	0.0046
Moon	-88744-03-21 22:32 J	-30692242.78	-30692242.56	-30692242.31	0.0089	0.0042 *
Earth	-88743-03-24 08:23 J	-30691875.28	-30691875.15	-30691875.00	0.0089	0.0073
Moon	-88743-03-24 07:54 J	-30691875.27	-30691875.17	-30691875.02	0.0089	0.0077 *
Mars	-88735-04-26 01:54 J	-30688920.74	-30688920.42	-30688920.07	0.0089	0.0019
Mars	-88733-03-22 18:13 J	-30688223.89	-30688223.74	-30688223.53	0.0089	0.0075
Venus	-88698-03-21 15:35 J	-30675441.96	-30675441.85	-30675441.72	0.0089	0.0075
Venus	-88698-11-02 05:44 J	-30675216.41	-30675216.26	-30675216.07	0.0089	0.0060
Venus	-88697-06-14 20:23 J	-30674990.84	-30674990.65	-30674990.45	0.0089	0.0044
Venus	-88696-01-26 10:32 J	-30674765.27	-30674765.06	-30674764.84	0.0089	0.0029
Venus	-88696-09-09 00:42 J	-30674539.68	-30674539.47	-30674539.23	0.0089	0.0014
Venus	-88695-04-22 15:20 J	-30674314.09	-30674313.86	-30674313.63	0.0089	0.0002
Venus	-88695-12-04 05:30 J	-30674088.49	-30674088.27	-30674088.04	0.0089	0.0018
Venus	-88694-07-17 19:54 J	-30673862.88	-30673862.67	-30673862.46	0.0089	0.0033
Venus	-88693-02-28 09:35 J	-30673637.27	-30673637.10	-30673636.89	0.0089	0.0049
Venus	-88693-10-10 23:59 J	-30673411.65	-30673411.50	-30673411.33	0.0089	0.0064
Mercury	-88692-02-02 21:20 J	-30673296.64	-30673296.61	-30673296.55	0.0089	0.0086
Mercury	-88692-05-02 00:42 J	-30673208.54	-30673208.47	-30673208.38	0.0089	0.0080
Venus	-88692-05-24 14:23 J	-30673185.99	-30673185.90	-30673185.79	0.0089	0.0079
Mercury	-88692-07-29 04:03 J	-30673120.42	-30673120.33	-30673120.22	0.0089	0.0074
Mercury	-88692-10-25 06:56 J	-30673032.30	-30673032.21	-30673032.07	0.0089	0.0069
Mercury	-88691-01-21 10:18 J	-30672944.18	-30672944.07	-30672943.92	0.0089	0.0063
Mercury	-88691-04-19 13:39 J	-30672856.06	-30672855.93	-30672855.77	0.0089	0.0057
Mercury	-88691-07-16 17:01 J	-30672767.93	-30672767.79	-30672767.63	0.0089	0.0051

Mercury -88691-10-12 20:23 J -30672679.81 -30672679.65 -30672679.49 0.0089 0.0045
 Mercury -88690-01-08 23:15 J -30672591.68 -30672591.53 -30672591.35 0.0089 0.0040
 Mercury -88690-04-07 02:37 J -30672503.55 -30672503.39 -30672503.21 0.0089 0.0033
 Mercury -88690-07-04 05:44 J -30672415.42 -30672415.26 -30672415.08 0.0089 0.0028
 Mercury -88690-09-30 09:06 J -30672327.30 -30672327.12 -30672326.94 0.0089 0.0022
 Mercury -88690-12-27 12:13 J -30672239.17 -30672238.99 -30672238.81 0.0089 0.0016
 Mercury -88689-03-24 15:20 J -30672151.04 -30672150.86 -30672150.68 0.0089 0.0011
 Mercury -88689-06-20 18:27 J -30672062.91 -30672062.73 -30672062.54 0.0089 0.0005
 Mercury -88689-09-16 21:35 J -30671974.78 -30671974.60 -30671974.42 0.0089 0.0001
 Mercury -88689-12-14 00:42 J -30671886.65 -30671886.47 -30671886.29 0.0089 0.0006
 Mercury -88688-03-12 03:35 J -30671798.52 -30671798.35 -30671798.16 0.0089 0.0013
 Mercury -88688-06-08 06:42 J -30671710.39 -30671710.22 -30671710.03 0.0089 0.0018
 Mercury -88688-09-04 09:49 J -30671622.26 -30671622.09 -30671621.91 0.0089 0.0023
 Mercury -88688-12-01 12:56 J -30671534.13 -30671533.96 -30671533.79 0.0089 0.0029
 Mercury -88687-02-27 15:49 J -30671446.00 -30671445.84 -30671445.67 0.0089 0.0035
 Mercury -88687-05-26 18:56 J -30671357.87 -30671357.71 -30671357.55 0.0089 0.0040
 Mercury -88687-08-22 21:49 J -30671269.73 -30671269.59 -30671269.43 0.0088 0.0046
 Mercury -88687-11-19 00:56 J -30671181.60 -30671181.46 -30671181.31 0.0088 0.0051
 Mercury -88686-02-15 03:35 J -30671093.47 -30671093.35 -30671093.19 0.0088 0.0057
 Mercury -88686-05-14 06:42 J -30671005.33 -30671005.22 -30671005.08 0.0088 0.0062
 Mercury -88686-08-10 09:35 J -30670917.20 -30670917.10 -30670916.97 0.0088 0.0067
 Mercury -88686-11-06 12:42 J -30670829.06 -30670828.97 -30670828.86 0.0088 0.0073
 Mercury -88685-02-02 15:35 J -30670740.92 -30670740.85 -30670740.75 0.0088 0.0078
 Mercury -88685-04-30 18:13 J -30670652.77 -30670652.74 -30670652.66 0.0088 0.0084
 Mercury -88685-07-27 21:35 J -30670564.60 -30670564.60 -30670564.59 0.0088 0.0088
 Moon -88667-09-18 01:39 J -30663938.49 -30663938.43 -30663938.31 0.0088 0.0083
 Earth -88667-09-18 03:35 J -30663938.44 -30663938.35 -30663938.25 0.0088 0.0082 *
 Moon -88666-09-20 15:49 J -30663571.03 -30663570.84 -30663570.60 0.0088 0.0055
 Earth -88666-09-20 16:03 J -30663571.01 -30663570.83 -30663570.60 0.0088 0.0055 *
 Earth -88665-09-22 05:01 J -30663203.52 -30663203.29 -30663203.02 0.0088 0.0027

Moon	-88665-09-22 06:56 J	-30663203.45	-30663203.21	-30663202.96	0.0088	0.0026	*
Moon	-88664-09-24 15:49 J	-30662836.11	-30662835.84	-30662835.57	0.0088	0.0002	
Earth	-88664-09-24 17:59 J	-30662836.01	-30662835.75	-30662835.49	0.0088	0.0002	*
Earth	-88663-09-27 06:13 J	-30662468.47	-30662468.24	-30662467.98	0.0088	0.0030	
Moon	-88663-09-27 09:35 J	-30662468.33	-30662468.10	-30662467.85	0.0088	0.0029	*
Moon	-88662-09-29 15:20 J	-30662101.06	-30662100.86	-30662100.66	0.0088	0.0057	
Earth	-88662-09-29 18:27 J	-30662100.91	-30662100.73	-30662100.51	0.0088	0.0057	*
Earth	-88661-10-01 06:42 J	-30661733.28	-30661733.22	-30661733.13	0.0088	0.0085	
Moon	-88661-10-01 10:03 J	-30661733.14	-30661733.08	-30661732.96	0.0088	0.0083	*
Mars	-88653-02-10 09:49 J	-30659045.35	-30659045.09	-30659044.83	0.0088	0.0035	
Mars	-88651-01-03 17:44 J	-30658352.00	-30658351.76	-30658351.49	0.0088	0.0040	
Venus	-88616-05-05 18:27 J	-30645445.78	-30645445.73	-30645445.64	0.0089	0.0084	
Venus	-88616-12-17 06:13 J	-30645220.35	-30645220.24	-30645220.08	0.0089	0.0070	
Venus	-88615-07-30 18:13 J	-30644994.89	-30644994.74	-30644994.56	0.0089	0.0055	
Venus	-88614-03-13 05:59 J	-30644769.42	-30644769.25	-30644769.04	0.0089	0.0041	
Venus	-88614-10-24 17:59 J	-30644543.94	-30644543.75	-30644543.53	0.0089	0.0026	
Venus	-88613-06-06 05:59 J	-30644318.46	-30644318.25	-30644318.03	0.0089	0.0011	
Venus	-88612-01-17 17:44 J	-30644092.97	-30644092.76	-30644092.54	0.0089	0.0004	
Venus	-88612-08-31 05:30 J	-30643867.48	-30643867.27	-30643867.06	0.0089	0.0018	
Venus	-88611-04-13 17:01 J	-30643641.97	-30643641.79	-30643641.58	0.0089	0.0033	
Mercury	-88611-08-06 23:15 J	-30643526.57	-30643526.53	-30643526.50	0.0089	0.0085	
Mercury	-88611-11-03 00:27 J	-30643438.53	-30643438.48	-30643438.42	0.0089	0.0081	
Venus	-88611-11-25 05:01 J	-30643416.46	-30643416.29	-30643416.10	0.0089	0.0047	
Mercury	-88610-01-30 01:54 J	-30643350.48	-30643350.42	-30643350.35	0.0089	0.0077	
Mercury	-88610-04-28 03:20 J	-30643262.43	-30643262.36	-30643262.28	0.0089	0.0073	
Venus	-88610-07-08 16:32 J	-30643190.94	-30643190.81	-30643190.63	0.0089	0.0062	
Mercury	-88610-07-25 04:47 J	-30643174.38	-30643174.30	-30643174.21	0.0089	0.0069	
Mercury	-88610-10-21 06:13 J	-30643086.32	-30643086.24	-30643086.14	0.0089	0.0065	
Mercury	-88609-01-17 07:39 J	-30642998.27	-30642998.18	-30642998.07	0.0089	0.0061	
Venus	-88609-02-19 04:32 J	-30642965.40	-30642965.31	-30642965.18	0.0089	0.0076	

Mercury -88609-04-14 09:20 J -30642910.22 -30642910.11 -30642910.00 0.0089 0.0056

Mercury -88609-07-11 10:47 J -30642822.16 -30642822.05 -30642821.94 0.0089 0.0052

Mercury -88609-10-07 12:13 J -30642734.10 -30642733.99 -30642733.87 0.0089 0.0048

Mercury -88608-01-03 13:39 J -30642646.04 -30642645.93 -30642645.81 0.0089 0.0044

Mercury -88608-04-01 15:06 J -30642557.99 -30642557.87 -30642557.74 0.0089 0.0040

Mercury -88608-06-28 16:47 J -30642469.93 -30642469.80 -30642469.68 0.0089 0.0035

Mercury -88608-09-24 18:13 J -30642381.87 -30642381.74 -30642381.61 0.0089 0.0031

Mercury -88608-12-21 19:39 J -30642293.81 -30642293.68 -30642293.54 0.0089 0.0027

Mercury -88607-03-19 21:06 J -30642205.75 -30642205.62 -30642205.48 0.0089 0.0023

Mercury -88607-06-15 22:47 J -30642117.69 -30642117.55 -30642117.41 0.0089 0.0018

Mercury -88607-09-12 00:13 J -30642029.62 -30642029.49 -30642029.35 0.0089 0.0014

Mercury -88607-12-09 01:39 J -30641941.56 -30641941.43 -30641941.29 0.0089 0.0010

Mercury -88606-03-07 03:20 J -30641853.50 -30641853.36 -30641853.22 0.0089 0.0005

Mercury -88606-06-03 04:47 J -30641765.44 -30641765.30 -30641765.16 0.0089 0.0003

Mercury -88606-08-30 06:27 J -30641677.37 -30641677.23 -30641677.09 0.0089 0.0004

Mercury -88606-11-26 07:54 J -30641589.31 -30641589.17 -30641589.03 0.0089 0.0008

Mercury -88605-02-22 09:35 J -30641501.24 -30641501.10 -30641500.96 0.0089 0.0013

Mercury -88605-05-20 11:01 J -30641413.17 -30641413.04 -30641412.90 0.0089 0.0017

Mercury -88605-08-16 12:27 J -30641325.11 -30641324.98 -30641324.84 0.0089 0.0022

Mercury -88605-11-12 14:08 J -30641237.04 -30641236.91 -30641236.77 0.0089 0.0026

Mercury -88604-02-08 15:49 J -30641148.97 -30641148.84 -30641148.71 0.0089 0.0030

Mercury -88604-05-07 17:15 J -30641060.90 -30641060.78 -30641060.65 0.0089 0.0035

Mercury -88604-08-03 18:56 J -30640972.83 -30640972.71 -30640972.58 0.0089 0.0039

Mercury -88604-10-30 20:23 J -30640884.76 -30640884.65 -30640884.52 0.0089 0.0044

Mercury -88603-01-26 22:03 J -30640796.69 -30640796.58 -30640796.46 0.0089 0.0048

Mercury -88603-04-24 23:30 J -30640708.62 -30640708.52 -30640708.40 0.0089 0.0053

Mercury -88603-07-22 01:11 J -30640620.55 -30640620.45 -30640620.33 0.0089 0.0057

Mercury -88603-10-18 02:37 J -30640532.48 -30640532.39 -30640532.27 0.0089 0.0062

Mercury -88602-01-14 04:32 J -30640444.40 -30640444.31 -30640444.21 0.0089 0.0066

Mercury -88602-04-12 05:59 J -30640356.32 -30640356.25 -30640356.15 0.0089 0.0071

Mercury -88602-07-09 07:39 J -30640268.24 -30640268.18 -30640268.10 0.0089 0.0075

Mercury -88602-10-05 09:06 J -30640180.16 -30640180.12 -30640180.04 0.0089 0.0080

Mercury -88601-01-01 11:01 J -30640092.08 -30640092.04 -30640091.99 0.0089 0.0084

Mercury -88601-03-29 12:42 J -30640003.97 -30640003.97 -30640003.96 0.0089 0.0089

Jupiter -88592-05-06 02:08 J -30636679.81 -30636679.41 -30636678.91 0.0089 0.0049

Moon -88584-03-12 11:01 J -30633812.16 -30633812.04 -30633811.90 0.0089 0.0075

Earth -88584-03-12 14:08 J -30633812.00 -30633811.91 -30633811.76 0.0089 0.0078 *

Earth -88583-03-15 00:42 J -30633444.67 -30633444.47 -30633444.26 0.0089 0.0050

Moon -88583-03-15 03:06 J -30633444.57 -30633444.37 -30633444.15 0.0089 0.0053 *

Moon -88582-03-17 09:06 J -30633077.35 -30633077.12 -30633076.87 0.0089 0.0020

Earth -88582-03-17 11:01 J -30633077.28 -30633077.04 -30633076.79 0.0089 0.0023 *

Earth -88581-03-18 21:35 J -30632709.85 -30632709.60 -30632709.35 0.0089 0.0005

Moon -88581-03-18 22:18 J -30632709.84 -30632709.57 -30632709.31 0.0089 0.0002 *

Earth -88580-03-21 08:08 J -30632342.39 -30632342.16 -30632341.92 0.0089 0.0032

Moon -88580-03-21 09:06 J -30632342.34 -30632342.12 -30632341.89 0.0089 0.0035 *

Moon -88579-03-23 17:15 J -30631974.97 -30631974.78 -30631974.57 0.0089 0.0057

Earth -88579-03-23 18:42 J -30631974.89 -30631974.72 -30631974.51 0.0089 0.0060 *

Earth -88578-03-26 05:15 J -30631607.29 -30631607.28 -30631607.21 0.0089 0.0088

Mars -88572-12-07 06:13 J -30629159.46 -30629159.24 -30629158.96 0.0089 0.0062

Mars -88570-11-04 00:13 J -30628462.81 -30628462.49 -30628462.16 0.0089 0.0033

Venus -88534-06-23 01:11 J -30615447.53 -30615447.45 -30615447.34 0.0089 0.0080

Venus -88533-02-03 15:06 J -30615222.00 -30615221.87 -30615221.69 0.0089 0.0065

Venus -88533-09-16 05:44 J -30614996.44 -30614996.26 -30614996.06 0.0089 0.0049

Venus -88532-04-29 20:08 J -30614770.86 -30614770.66 -30614770.44 0.0089 0.0034

Venus -88532-12-11 10:18 J -30614545.28 -30614545.07 -30614544.84 0.0089 0.0019

Venus -88531-07-25 00:42 J -30614319.70 -30614319.47 -30614319.24 0.0089 0.0003

Venus -88530-03-07 14:51 J -30614094.10 -30614093.88 -30614093.65 0.0089 0.0013

Venus -88530-10-19 04:47 J -30613868.50 -30613868.30 -30613868.07 0.0089 0.0029

Venus -88529-05-31 19:11 J -30613642.88 -30613642.70 -30613642.49 0.0089 0.0044

Venus -88528-01-12 09:06 J -30613417.26 -30613417.12 -30613416.93 0.0089 0.0060

Venus -88528-08-25 23:15 J -30613191.63 -30613191.53 -30613191.39 0.0089 0.0075

Mercury -88528-10-30 19:54 J -30613125.71 -30613125.67 -30613125.59 0.0089 0.0084

Mercury -88527-01-26 23:15 J -30613037.60 -30613037.53 -30613037.43 0.0089 0.0078

Mercury -88527-04-25 02:37 J -30612949.49 -30612949.39 -30612949.27 0.0089 0.0072

Mercury -88527-07-22 05:44 J -30612861.37 -30612861.26 -30612861.12 0.0089 0.0066

Mercury -88527-10-18 09:06 J -30612773.24 -30612773.12 -30612772.97 0.0089 0.0060

Mercury -88526-01-14 12:13 J -30612685.12 -30612684.99 -30612684.83 0.0089 0.0055

Mercury -88526-04-12 15:35 J -30612596.99 -30612596.85 -30612596.68 0.0089 0.0049

Mercury -88526-07-09 18:56 J -30612508.87 -30612508.71 -30612508.54 0.0089 0.0043

Mercury -88526-10-05 22:18 J -30612420.74 -30612420.57 -30612420.40 0.0089 0.0037

Mercury -88525-01-02 01:11 J -30612332.61 -30612332.45 -30612332.27 0.0089 0.0032

Mercury -88525-03-30 04:32 J -30612244.48 -30612244.31 -30612244.13 0.0089 0.0026

Mercury -88525-06-26 07:39 J -30612156.35 -30612156.18 -30612155.99 0.0089 0.0020

Mercury -88525-09-22 10:47 J -30612068.22 -30612068.05 -30612067.86 0.0089 0.0015

Mercury -88525-12-19 14:08 J -30611980.09 -30611979.91 -30611979.73 0.0089 0.0008

Mercury -88524-03-17 17:15 J -30611891.96 -30611891.78 -30611891.60 0.0089 0.0003

Mercury -88524-06-13 20:23 J -30611803.83 -30611803.65 -30611803.47 0.0089 0.0003

Mercury -88524-09-09 23:30 J -30611715.70 -30611715.52 -30611715.34 0.0089 0.0009

Mercury -88524-12-07 02:23 J -30611627.57 -30611627.40 -30611627.21 0.0089 0.0015

Mercury -88523-03-05 05:44 J -30611539.44 -30611539.26 -30611539.09 0.0089 0.0020

Mercury -88523-06-01 08:37 J -30611451.31 -30611451.14 -30611450.96 0.0089 0.0025

Mercury -88523-08-28 11:44 J -30611363.18 -30611363.01 -30611362.84 0.0089 0.0031

Mercury -88523-11-24 14:37 J -30611275.05 -30611274.89 -30611274.72 0.0089 0.0037

Mercury -88522-02-20 17:30 J -30611186.91 -30611186.77 -30611186.60 0.0089 0.0043

Mercury -88522-05-19 20:37 J -30611098.78 -30611098.64 -30611098.48 0.0089 0.0048

Mercury -88522-08-15 23:44 J -30611010.65 -30611010.51 -30611010.36 0.0089 0.0053

Mercury -88522-11-12 02:37 J -30610922.52 -30610922.39 -30610922.25 0.0089 0.0059

Mercury -88521-02-08 05:44 J -30610834.38 -30610834.26 -30610834.13 0.0088 0.0064

Mercury -88521-05-06 08:23 J -30610746.24 -30610746.15 -30610746.02 0.0088 0.0070

Mercury -88521-08-02 11:30 J -30610658.10 -30610658.02 -30610657.92 0.0088 0.0075

Mercury -88521-10-29 14:37 J -30610569.96 -30610569.89 -30610569.81 0.0088 0.0080

Mercury -88520-01-25 17:15 J -30610481.81 -30610481.78 -30610481.72 0.0088 0.0085

Earth -88502-09-20 00:13 J -30603670.65 -30603670.49 -30603670.31 0.0088 0.0067

Moon -88502-09-20 01:54 J -30603670.58 -30603670.42 -30603670.23 0.0088 0.0062 *

Moon -88501-09-21 10:03 J -30603303.30 -30603303.08 -30603302.84 0.0088 0.0044

Earth -88501-09-21 12:56 J -30603303.17 -30603302.96 -30603302.70 0.0088 0.0040 *

Earth -88500-09-24 02:08 J -30602935.66 -30602935.41 -30602935.14 0.0088 0.0012

Moon -88500-09-24 05:30 J -30602935.52 -30602935.27 -30602935.00 0.0088 0.0007 *

Moon -88499-09-26 11:15 J -30602568.28 -30602568.03 -30602567.76 0.0088 0.0012

Earth -88499-09-26 15:06 J -30602568.12 -30602567.87 -30602567.61 0.0088 0.0017 *

Earth -88498-09-29 03:06 J -30602200.57 -30602200.37 -30602200.12 0.0088 0.0045

Moon -88498-09-29 06:42 J -30602200.43 -30602200.22 -30602199.99 0.0088 0.0049 *

Moon -88497-09-30 12:42 J -30601833.11 -30601832.97 -30601832.78 0.0088 0.0068

Earth -88497-09-30 15:20 J -30601832.99 -30601832.86 -30601832.69 0.0088 0.0072 *

Mars -88490-09-26 02:37 J -30599281.56 -30599281.39 -30599281.20 0.0088 0.0068

Mars -88488-08-19 12:13 J -30598588.27 -30598587.99 -30598587.70 0.0088 0.0007

Mars -88486-07-13 19:39 J -30597894.76 -30597894.68 -30597894.54 0.0088 0.0082

Venus -88452-08-07 06:27 J -30585451.23 -30585451.23 -30585451.23 0.0089 0.0089

Venus -88451-03-20 17:44 J -30585225.85 -30585225.76 -30585225.62 0.0089 0.0075

Venus -88451-11-01 05:44 J -30585000.40 -30585000.26 -30585000.09 0.0089 0.0060

Venus -88450-06-14 17:59 J -30584774.93 -30584774.75 -30584774.57 0.0089 0.0045

Venus -88449-01-26 05:30 J -30584549.46 -30584549.27 -30584549.06 0.0089 0.0031

Venus -88449-09-07 17:30 J -30584323.98 -30584323.77 -30584323.56 0.0089 0.0016

Venus -88448-04-21 05:15 J -30584098.49 -30584098.28 -30584098.06 0.0089 0.0002

Venus -88448-12-02 17:01 J -30583872.99 -30583872.79 -30583872.57 0.0089 0.0014

Venus -88447-07-16 04:47 J -30583647.49 -30583647.30 -30583647.09 0.0089 0.0028

Mercury -88446-02-04 21:06 J -30583443.63 -30583443.62 -30583443.59 0.0089 0.0088

Venus -88446-02-26 16:32 J -30583421.99 -30583421.81 -30583421.61 0.0089 0.0043

Mercury -88446-05-03 22:32 J -30583355.59 -30583355.56 -30583355.51 0.0089 0.0084

Mercury -88446-07-30 23:59 J -30583267.55 -30583267.50 -30583267.43 0.0089 0.0080

Venus -88446-10-10 04:32 J -30583196.46 -30583196.31 -30583196.14 0.0089 0.0057

Mercury -88446-10-27 01:25 J -30583179.50 -30583179.44 -30583179.36 0.0089 0.0076

Mercury -88445-01-23 02:51 J -30583091.45 -30583091.38 -30583091.29 0.0089 0.0072

Mercury -88445-04-20 04:32 J -30583003.40 -30583003.31 -30583003.22 0.0089 0.0067

Venus -88445-05-22 16:03 J -30582970.93 -30582970.83 -30582970.68 0.0089 0.0072

Mercury -88445-07-17 05:59 J -30582915.34 -30582915.25 -30582915.15 0.0089 0.0063

Mercury -88445-10-13 07:25 J -30582827.29 -30582827.19 -30582827.08 0.0089 0.0059

Venus -88444-01-03 04:18 J -30582745.36 -30582745.32 -30582745.27 0.0089 0.0086

Mercury -88444-01-09 08:51 J -30582739.23 -30582739.13 -30582739.02 0.0089 0.0055

Mercury -88444-04-07 10:18 J -30582651.18 -30582651.07 -30582650.95 0.0089 0.0051

Mercury -88444-07-04 11:59 J -30582563.12 -30582563.00 -30582562.89 0.0089 0.0046

Mercury -88444-09-30 13:25 J -30582475.06 -30582474.94 -30582474.82 0.0089 0.0042

Mercury -88444-12-27 14:51 J -30582387.00 -30582386.88 -30582386.76 0.0089 0.0038

Mercury -88443-03-25 16:18 J -30582298.95 -30582298.82 -30582298.69 0.0089 0.0033

Mercury -88443-06-21 17:44 J -30582210.89 -30582210.76 -30582210.63 0.0089 0.0029

Mercury -88443-09-17 19:11 J -30582122.83 -30582122.70 -30582122.56 0.0089 0.0025

Mercury -88443-12-14 20:51 J -30582034.77 -30582034.63 -30582034.50 0.0089 0.0021

Mercury -88442-03-12 22:18 J -30581946.70 -30581946.57 -30581946.43 0.0089 0.0016

Mercury -88442-06-08 23:44 J -30581858.64 -30581858.51 -30581858.37 0.0089 0.0012

Mercury -88442-09-05 01:25 J -30581770.58 -30581770.44 -30581770.30 0.0089 0.0008

Mercury -88442-12-02 02:51 J -30581682.52 -30581682.38 -30581682.24 0.0089 0.0003

Mercury -88441-02-28 04:32 J -30581594.45 -30581594.31 -30581594.18 0.0089 0.0003

Mercury -88441-05-26 05:59 J -30581506.39 -30581506.25 -30581506.11 0.0089 0.0005

Mercury -88441-08-22 07:25 J -30581418.33 -30581418.19 -30581418.05 0.0089 0.0010

Mercury -88441-11-18 09:06 J -30581330.26 -30581330.12 -30581329.98 0.0089 0.0014

Mercury -88440-02-14 10:32 J -30581242.19 -30581242.06 -30581241.92 0.0089 0.0019

Mercury -88440-05-13 12:13 J -30581154.13 -30581153.99 -30581153.86 0.0089 0.0023

Mercury -88440-08-09 13:39 J -30581066.06 -30581065.93 -30581065.79 0.0089 0.0027

Mercury -88440-11-05 15:06 J -30580977.99 -30580977.87 -30580977.73 0.0089 0.0032

Mercury -88439-02-01 16:47 J -30580889.92 -30580889.80 -30580889.67 0.0089 0.0036

Mercury -88439-04-30 18:27 J -30580801.85 -30580801.73 -30580801.60 0.0089 0.0041
 Mercury -88439-07-27 20:08 J -30580713.78 -30580713.66 -30580713.54 0.0089 0.0045
 Mercury -88439-10-23 21:35 J -30580625.71 -30580625.60 -30580625.48 0.0089 0.0050
 Mercury -88438-01-19 23:15 J -30580537.64 -30580537.53 -30580537.42 0.0089 0.0054
 Mercury -88438-04-18 00:42 J -30580449.57 -30580449.47 -30580449.36 0.0089 0.0059
 Mercury -88438-07-15 02:23 J -30580361.49 -30580361.40 -30580361.30 0.0089 0.0063
 Mercury -88438-10-11 03:49 J -30580273.42 -30580273.34 -30580273.24 0.0089 0.0068
 Mercury -88437-01-07 05:44 J -30580185.34 -30580185.26 -30580185.18 0.0089 0.0072
 Mercury -88437-04-04 07:11 J -30580097.26 -30580097.20 -30580097.12 0.0089 0.0077
 Mercury -88437-07-01 08:51 J -30580009.18 -30580009.13 -30580009.07 0.0089 0.0081
 Mercury -88437-09-27 10:18 J -30579921.09 -30579921.07 -30579921.02 0.0089 0.0086
 Jupiter -88426-07-05 18:13 J -30575988.28 -30575987.74 -30575987.19 0.0089 0.0001
 Moon -88420-03-12 03:35 J -30573911.39 -30573911.35 -30573911.27 0.0089 0.0086
 Moon -88419-03-14 10:18 J -30573544.23 -30573544.07 -30573543.91 0.0089 0.0068
 Earth -88419-03-14 11:01 J -30573544.20 -30573544.04 -30573543.85 0.0089 0.0063 *
 Moon -88418-03-16 21:06 J -30573176.85 -30573176.62 -30573176.36 0.0089 0.0032
 Earth -88418-03-16 21:06 J -30573176.84 -30573176.62 -30573176.37 0.0089 0.0036 *
 Earth -88417-03-18 07:25 J -30572809.43 -30572809.19 -30572808.93 0.0089 0.0009
 Moon -88417-03-18 08:37 J -30572809.38 -30572809.14 -30572808.89 0.0089 0.0012 *
 Moon -88416-03-20 15:20 J -30572442.11 -30572441.86 -30572441.60 0.0089 0.0023
 Earth -88416-03-20 17:59 J -30572441.99 -30572441.75 -30572441.49 0.0089 0.0019 *
 Earth -88415-03-23 04:32 J -30572074.53 -30572074.31 -30572074.09 0.0089 0.0046
 Moon -88415-03-23 07:11 J -30572074.40 -30572074.20 -30572073.96 0.0089 0.0043 *
 Moon -88414-03-25 11:15 J -30571707.13 -30571707.03 -30571706.88 0.0089 0.0078
 Earth -88414-03-25 14:51 J -30571706.99 -30571706.88 -30571706.71 0.0089 0.0074 *
 Mars -88406-06-17 01:54 J -30568701.76 -30568701.42 -30568701.07 0.0089 0.0009
 Mars -88404-05-13 18:13 J -30568004.80 -30568004.74 -30568004.61 0.0089 0.0086
 Venus -88370-09-24 09:49 J -30555453.13 -30555453.09 -30555453.02 0.0089 0.0086
 Venus -88369-05-07 00:42 J -30555227.61 -30555227.47 -30555227.34 0.0089 0.0070
 Venus -88369-12-18 14:37 J -30555002.06 -30555001.89 -30555001.70 0.0089 0.0055

Venus	-88368-08-01 04:32 J	-30554776.49	-30554776.31	-30554776.09	0.0089	0.0040
Venus	-88367-03-14 19:11 J	-30554550.92	-30554550.70	-30554550.48	0.0089	0.0024
Venus	-88367-10-26 09:20 J	-30554325.33	-30554325.11	-30554324.88	0.0089	0.0009
Venus	-88366-06-08 23:44 J	-30554099.73	-30554099.51	-30554099.28	0.0089	0.0007
Venus	-88365-01-20 13:54 J	-30553874.14	-30553873.92	-30553873.70	0.0089	0.0023
Venus	-88365-09-02 03:49 J	-30553648.53	-30553648.34	-30553648.12	0.0089	0.0039
Venus	-88364-04-15 18:27 J	-30553422.91	-30553422.73	-30553422.55	0.0089	0.0054
Venus	-88364-11-27 08:08 J	-30553197.27	-30553197.16	-30553197.00	0.0089	0.0070
Mercury	-88363-04-30 15:20 J	-30553042.88	-30553042.86	-30553042.84	0.0089	0.0088
Venus	-88363-07-10 22:32 J	-30552971.61	-30552971.56	-30552971.48	0.0089	0.0085
Mercury	-88363-07-27 18:42 J	-30552954.79	-30552954.72	-30552954.65	0.0089	0.0082
Mercury	-88363-10-23 21:35 J	-30552866.68	-30552866.60	-30552866.49	0.0089	0.0077
Mercury	-88362-01-20 00:56 J	-30552778.56	-30552778.46	-30552778.34	0.0089	0.0071
Mercury	-88362-04-18 04:18 J	-30552690.44	-30552690.32	-30552690.18	0.0089	0.0065
Mercury	-88362-07-15 07:25 J	-30552602.31	-30552602.19	-30552602.04	0.0089	0.0059
Mercury	-88362-10-11 10:47 J	-30552514.19	-30552514.05	-30552513.89	0.0089	0.0053
Mercury	-88361-01-07 14:08 J	-30552426.06	-30552425.91	-30552425.75	0.0089	0.0047
Mercury	-88361-04-04 17:15 J	-30552337.93	-30552337.78	-30552337.61	0.0089	0.0041
Mercury	-88361-07-01 20:23 J	-30552249.81	-30552249.65	-30552249.47	0.0089	0.0036
Mercury	-88361-09-27 23:44 J	-30552161.68	-30552161.51	-30552161.33	0.0089	0.0030
Mercury	-88361-12-25 03:06 J	-30552073.55	-30552073.37	-30552073.19	0.0089	0.0024
Mercury	-88360-03-23 05:59 J	-30551985.42	-30551985.25	-30551985.06	0.0089	0.0019
Mercury	-88360-06-19 09:20 J	-30551897.29	-30551897.11	-30551896.92	0.0089	0.0012
Mercury	-88360-09-15 12:42 J	-30551809.16	-30551808.97	-30551808.79	0.0089	0.0007
Mercury	-88360-12-12 15:49 J	-30551721.03	-30551720.84	-30551720.66	0.0089	0.0002
Mercury	-88359-03-10 18:56 J	-30551632.90	-30551632.71	-30551632.53	0.0089	0.0005
Mercury	-88359-06-06 22:03 J	-30551544.76	-30551544.58	-30551544.40	0.0089	0.0011
Mercury	-88359-09-03 00:56 J	-30551456.63	-30551456.46	-30551456.27	0.0089	0.0016
Mercury	-88359-11-30 04:03 J	-30551368.50	-30551368.33	-30551368.15	0.0089	0.0022
Mercury	-88358-02-26 07:11 J	-30551280.37	-30551280.20	-30551280.02	0.0089	0.0027

Mercury -88358-05-25 10:18 J -30551192.24 -30551192.07 -30551191.90 0.0089 0.0033

Mercury -88358-08-21 13:11 J -30551104.10 -30551103.95 -30551103.78 0.0089 0.0039

Mercury -88358-11-17 16:32 J -30551015.97 -30551015.81 -30551015.66 0.0089 0.0044

Mercury -88357-02-13 19:11 J -30550927.84 -30550927.70 -30550927.54 0.0089 0.0050

Mercury -88357-05-11 22:32 J -30550839.70 -30550839.56 -30550839.42 0.0089 0.0055

Mercury -88357-08-08 01:11 J -30550751.57 -30550751.45 -30550751.31 0.0089 0.0061

Mercury -88357-11-04 04:18 J -30550663.43 -30550663.32 -30550663.19 0.0088 0.0066

Mercury -88356-01-31 06:56 J -30550575.29 -30550575.21 -30550575.09 0.0088 0.0072

Mercury -88356-04-29 10:03 J -30550487.15 -30550487.08 -30550486.98 0.0088 0.0077

Mercury -88356-07-26 13:11 J -30550399.01 -30550398.95 -30550398.88 0.0088 0.0082

Mercury -88356-10-22 15:49 J -30550310.85 -30550310.84 -30550310.80 0.0088 0.0088

Moon -88338-09-19 02:37 J -30543770.47 -30543770.39 -30543770.24 0.0088 0.0080

Earth -88338-09-19 05:59 J -30543770.33 -30543770.25 -30543770.11 0.0088 0.0081 *

Earth -88337-09-20 19:11 J -30543402.89 -30543402.70 -30543402.47 0.0088 0.0053

Moon -88337-09-20 23:01 J -30543402.73 -30543402.54 -30543402.31 0.0088 0.0053 *

Moon -88336-09-23 05:30 J -30543035.51 -30543035.27 -30543035.02 0.0088 0.0024

Earth -88336-09-23 08:51 J -30543035.38 -30543035.13 -30543034.87 0.0088 0.0025 *

Earth -88335-09-25 21:49 J -30542667.85 -30542667.59 -30542667.33 0.0088 0.0003

Moon -88335-09-26 00:56 J -30542667.72 -30542667.46 -30542667.19 0.0088 0.0004 *

Moon -88334-09-28 07:54 J -30542300.39 -30542300.17 -30542299.91 0.0088 0.0032

Earth -88334-09-28 10:18 J -30542300.30 -30542300.07 -30542299.81 0.0088 0.0031 *

Earth -88333-09-29 22:32 J -30541932.73 -30541932.56 -30541932.34 0.0088 0.0058

Moon -88333-09-29 23:30 J -30541932.71 -30541932.52 -30541932.30 0.0088 0.0058 *

Earth -88332-10-02 10:47 J -30541565.08 -30541565.05 -30541564.95 0.0088 0.0086

Moon -88332-10-02 10:47 J -30541565.08 -30541565.05 -30541564.95 0.0088 0.0086 *

Mars -88324-04-04 02:23 J -30538824.65 -30538824.40 -30538824.11 0.0088 0.0028

Mars -88322-02-26 12:13 J -30538131.22 -30538130.99 -30538130.74 0.0088 0.0048

Venus -88287-06-22 05:01 J -30525231.36 -30525231.29 -30525231.17 0.0089 0.0080

Venus -88286-02-02 17:01 J -30525005.92 -30525005.79 -30525005.63 0.0089 0.0065

Venus -88286-09-16 04:47 J -30524780.46 -30524780.30 -30524780.11 0.0089 0.0051

Venus -88285-04-28 16:47 J -30524554.98 -30524554.80 -30524554.59 0.0089 0.0036

Venus -88285-12-10 04:47 J -30524329.50 -30524329.30 -30524329.09 0.0089 0.0021

Venus -88284-07-23 16:32 J -30524104.02 -30524103.81 -30524103.59 0.0089 0.0007

Venus -88283-03-06 04:18 J -30523878.52 -30523878.32 -30523878.10 0.0089 0.0009

Venus -88283-10-17 16:03 J -30523653.02 -30523652.83 -30523652.61 0.0089 0.0024

Venus -88282-05-31 04:03 J -30523427.51 -30523427.33 -30523427.13 0.0089 0.0038

Mercury -88282-11-01 20:37 J -30523272.66 -30523272.64 -30523272.60 0.0089 0.0087

Venus -88281-01-11 15:35 J -30523202.00 -30523201.85 -30523201.66 0.0089 0.0053

Mercury -88281-01-28 22:18 J -30523184.62 -30523184.57 -30523184.52 0.0089 0.0082

Mercury -88281-04-25 23:44 J -30523096.57 -30523096.51 -30523096.45 0.0089 0.0078

Mercury -88281-07-23 01:11 J -30523008.52 -30523008.45 -30523008.38 0.0089 0.0074

Venus -88281-08-24 03:49 J -30522976.48 -30522976.34 -30522976.20 0.0089 0.0067

Mercury -88281-10-19 02:23 J -30522920.47 -30522920.40 -30522920.31 0.0089 0.0070

Mercury -88280-01-15 03:49 J -30522832.42 -30522832.34 -30522832.24 0.0089 0.0066

Venus -88280-04-06 15:20 J -30522750.93 -30522750.86 -30522750.77 0.0089 0.0082

Mercury -88280-04-13 05:15 J -30522744.36 -30522744.28 -30522744.17 0.0089 0.0062

Mercury -88280-07-10 06:42 J -30522656.31 -30522656.22 -30522656.10 0.0089 0.0058

Mercury -88280-10-06 08:23 J -30522568.25 -30522568.15 -30522568.04 0.0089 0.0053

Mercury -88279-01-02 09:49 J -30522480.20 -30522480.09 -30522479.97 0.0089 0.0049

Mercury -88279-03-31 11:15 J -30522392.14 -30522392.03 -30522391.91 0.0089 0.0045

Mercury -88279-06-27 12:42 J -30522304.08 -30522303.97 -30522303.84 0.0089 0.0041

Mercury -88279-09-23 14:23 J -30522216.03 -30522215.90 -30522215.78 0.0089 0.0036

Mercury -88279-12-20 15:49 J -30522127.97 -30522127.84 -30522127.71 0.0089 0.0032

Mercury -88278-03-18 17:15 J -30522039.91 -30522039.78 -30522039.65 0.0089 0.0028

Mercury -88278-06-14 18:42 J -30521951.85 -30521951.72 -30521951.58 0.0089 0.0024

Mercury -88278-09-10 20:23 J -30521863.79 -30521863.65 -30521863.52 0.0089 0.0019

Mercury -88278-12-07 21:49 J -30521775.73 -30521775.59 -30521775.45 0.0089 0.0015

Mercury -88277-03-04 23:15 J -30521687.67 -30521687.53 -30521687.39 0.0089 0.0011

Mercury -88277-06-01 00:42 J -30521599.60 -30521599.47 -30521599.33 0.0089 0.0007

Mercury -88277-08-28 02:23 J -30521511.54 -30521511.40 -30521511.26 0.0089 0.0002

Mercury -88277-11-24 03:49 J -30521423.48 -30521423.34 -30521423.20 0.0089 0.0003

Mercury -88276-02-20 05:15 J -30521335.41 -30521335.28 -30521335.14 0.0089 0.0007

Mercury -88276-05-19 06:56 J -30521247.35 -30521247.21 -30521247.07 0.0089 0.0011

Mercury -88276-08-15 08:23 J -30521159.28 -30521159.15 -30521159.01 0.0089 0.0016

Mercury -88276-11-11 10:03 J -30521071.22 -30521071.08 -30521070.95 0.0089 0.0020

Mercury -88275-02-07 11:30 J -30520983.15 -30520983.02 -30520982.88 0.0089 0.0024

Mercury -88275-05-06 12:56 J -30520895.09 -30520894.96 -30520894.82 0.0089 0.0029

Mercury -88275-08-02 14:37 J -30520807.02 -30520806.89 -30520806.76 0.0089 0.0033

Mercury -88275-10-29 16:03 J -30520718.95 -30520718.83 -30520718.69 0.0089 0.0038

Mercury -88274-01-25 17:44 J -30520630.88 -30520630.76 -30520630.63 0.0089 0.0042

Mercury -88274-04-23 19:11 J -30520542.81 -30520542.70 -30520542.57 0.0089 0.0047

Mercury -88274-07-20 20:51 J -30520454.74 -30520454.63 -30520454.51 0.0089 0.0051

Mercury -88274-10-16 22:18 J -30520366.67 -30520366.57 -30520366.45 0.0089 0.0056

Mercury -88273-01-12 23:59 J -30520278.59 -30520278.50 -30520278.39 0.0089 0.0060

Mercury -88273-04-10 01:25 J -30520190.52 -30520190.44 -30520190.33 0.0089 0.0065

Mercury -88273-07-07 03:20 J -30520102.44 -30520102.36 -30520102.27 0.0089 0.0069

Mercury -88273-10-03 04:47 J -30520014.36 -30520014.30 -30520014.21 0.0089 0.0074

Mercury -88273-12-30 06:27 J -30519926.28 -30519926.23 -30519926.15 0.0089 0.0078

Mercury -88272-03-28 07:54 J -30519838.20 -30519838.17 -30519838.10 0.0089 0.0083

Mercury -88272-06-24 09:49 J -30519750.11 -30519750.09 -30519750.06 0.0089 0.0087

Jupiter -88260-09-05 22:47 J -30515293.99 -30515293.55 -30515293.07 0.0089 0.0046

Moon -88255-03-13 20:23 J -30513643.77 -30513643.65 -30513643.49 0.0089 0.0074

Earth -88255-03-13 20:51 J -30513643.74 -30513643.63 -30513643.48 0.0089 0.0076 *

Earth -88254-03-16 07:11 J -30513276.40 -30513276.20 -30513275.98 0.0089 0.0049

Moon -88254-03-16 08:51 J -30513276.31 -30513276.13 -30513275.90 0.0089 0.0051 *

Moon -88253-03-17 14:51 J -30512909.13 -30512908.88 -30512908.62 0.0089 0.0020

Earth -88253-03-17 17:30 J -30512909.01 -30512908.77 -30512908.52 0.0089 0.0022 *

Earth -88252-03-20 03:49 J -30512541.60 -30512541.34 -30512541.09 0.0089 0.0005

Moon -88252-03-20 07:11 J -30512541.45 -30512541.20 -30512540.95 0.0089 0.0003 *

Moon -88251-03-22 10:18 J -30512174.29 -30512174.07 -30512173.82 0.0089 0.0034

Earth -88251-03-22 14:08 J -30512174.14 -30512173.91 -30512173.67 0.0089 0.0032 *
 Earth -88250-03-25 00:13 J -30511806.66 -30511806.49 -30511806.29 0.0089 0.0060
 Moon -88250-03-25 03:35 J -30511806.53 -30511806.35 -30511806.14 0.0089 0.0057 *
 Earth -88249-03-26 11:01 J -30511439.07 -30511439.04 -30511438.98 0.0089 0.0087
 Mars -88242-01-28 01:39 J -30508940.69 -30508940.43 -30508940.13 0.0089 0.0053
 Mars -88241-12-24 18:42 J -30508244.00 -30508243.72 -30508243.38 0.0089 0.0042
 Venus -88205-08-08 07:54 J -30495233.26 -30495233.17 -30495233.03 0.0089 0.0077
 Venus -88204-03-21 22:32 J -30495007.71 -30495007.56 -30495007.38 0.0089 0.0061
 Venus -88204-11-02 12:42 J -30494782.15 -30494781.97 -30494781.76 0.0089 0.0046
 Venus -88203-06-16 03:06 J -30494556.58 -30494556.37 -30494556.15 0.0089 0.0030
 Venus -88202-01-27 17:30 J -30494330.99 -30494330.77 -30494330.55 0.0089 0.0014
 Venus -88202-09-10 07:39 J -30494105.41 -30494105.18 -30494104.95 0.0089 0.0002
 Venus -88201-04-22 21:49 J -30493879.80 -30493879.59 -30493879.36 0.0089 0.0017
 Venus -88201-12-04 11:59 J -30493654.20 -30493654.00 -30493653.78 0.0089 0.0033
 Venus -88200-07-18 01:54 J -30493428.59 -30493428.42 -30493428.21 0.0089 0.0049
 Venus -88199-02-28 16:03 J -30493202.97 -30493202.83 -30493202.66 0.0089 0.0064
 Venus -88199-10-12 05:59 J -30492977.32 -30492977.25 -30492977.12 0.0089 0.0080
 Mercury -88198-01-25 13:11 J -30492871.98 -30492871.95 -30492871.92 0.0089 0.0087
 Mercury -88198-04-23 16:03 J -30492783.88 -30492783.83 -30492783.74 0.0089 0.0082
 Mercury -88198-07-20 19:25 J -30492695.77 -30492695.69 -30492695.57 0.0089 0.0076
 Mercury -88198-10-16 22:47 J -30492607.65 -30492607.55 -30492607.42 0.0089 0.0070
 Mercury -88197-01-13 02:08 J -30492519.53 -30492519.41 -30492519.27 0.0089 0.0064
 Mercury -88197-04-10 05:30 J -30492431.40 -30492431.27 -30492431.12 0.0089 0.0058
 Mercury -88197-07-07 08:51 J -30492343.28 -30492343.13 -30492342.98 0.0089 0.0052
 Mercury -88197-10-03 12:13 J -30492255.15 -30492254.99 -30492254.83 0.0089 0.0046
 Mercury -88197-12-30 15:06 J -30492167.02 -30492166.87 -30492166.69 0.0089 0.0041
 Mercury -88196-03-28 18:27 J -30492078.89 -30492078.73 -30492078.55 0.0089 0.0035
 Mercury -88196-06-24 21:49 J -30491990.76 -30491990.59 -30491990.41 0.0089 0.0029
 Mercury -88196-09-21 00:56 J -30491902.63 -30491902.46 -30491902.28 0.0089 0.0023
 Mercury -88196-12-18 04:03 J -30491814.50 -30491814.33 -30491814.14 0.0089 0.0017

Mercury -88195-03-16 07:25 J -30491726.37 -30491726.19 -30491726.01 0.0089 0.0011

Mercury -88195-06-12 10:32 J -30491638.24 -30491638.06 -30491637.87 0.0089 0.0006

Mercury -88195-09-08 13:39 J -30491550.11 -30491549.93 -30491549.74 0.0089 0.0002

Mercury -88195-12-05 16:47 J -30491461.98 -30491461.80 -30491461.61 0.0088 0.0006

Mercury -88194-03-03 19:54 J -30491373.85 -30491373.67 -30491373.48 0.0088 0.0012

Mercury -88194-05-30 23:01 J -30491285.71 -30491285.54 -30491285.36 0.0088 0.0017

Mercury -88194-08-27 02:08 J -30491197.58 -30491197.41 -30491197.23 0.0088 0.0023

Mercury -88194-11-23 05:15 J -30491109.45 -30491109.28 -30491109.10 0.0088 0.0029

Mercury -88193-02-19 08:08 J -30491021.32 -30491021.16 -30491020.98 0.0088 0.0035

Mercury -88193-05-17 11:15 J -30490933.18 -30490933.03 -30490932.86 0.0088 0.0040

Mercury -88193-08-13 14:08 J -30490845.05 -30490844.91 -30490844.74 0.0088 0.0046

Mercury -88193-11-09 17:30 J -30490756.91 -30490756.77 -30490756.62 0.0088 0.0051

Mercury -88192-02-05 20:23 J -30490668.78 -30490668.65 -30490668.50 0.0088 0.0056

Mercury -88192-05-04 23:30 J -30490580.64 -30490580.52 -30490580.39 0.0088 0.0062

Mercury -88192-08-01 02:08 J -30490492.50 -30490492.41 -30490492.27 0.0088 0.0068

Mercury -88192-10-28 05:15 J -30490404.37 -30490404.28 -30490404.16 0.0088 0.0073

Mercury -88191-01-24 08:37 J -30490316.22 -30490316.14 -30490316.06 0.0088 0.0078

Mercury -88191-04-22 11:15 J -30490228.07 -30490228.03 -30490227.96 0.0088 0.0084

Moon -88173-09-19 21:49 J -30483502.77 -30483502.59 -30483502.40 0.0088 0.0062

Earth -88173-09-20 00:42 J -30483502.62 -30483502.47 -30483502.27 0.0088 0.0067 *

Earth -88172-09-22 14:08 J -30483135.14 -30483134.91 -30483134.67 0.0088 0.0039

Moon -88172-09-22 16:18 J -30483135.04 -30483134.82 -30483134.57 0.0088 0.0043 *

Moon -88171-09-25 01:54 J -30482767.67 -30482767.42 -30482767.16 0.0088 0.0007

Earth -88171-09-25 03:06 J -30482767.62 -30482767.37 -30482767.10 0.0088 0.0011 *

Earth -88170-09-27 16:03 J -30482400.08 -30482399.83 -30482399.57 0.0088 0.0016

Moon -88170-09-27 16:32 J -30482400.07 -30482399.81 -30482399.54 0.0088 0.0012 *

Earth -88169-09-29 04:47 J -30482032.52 -30482032.30 -30482032.07 0.0088 0.0044

Moon -88169-09-29 05:44 J -30482032.45 -30482032.26 -30482032.03 0.0088 0.0049 *

Moon -88168-10-01 15:20 J -30481665.03 -30481664.86 -30481664.68 0.0088 0.0067

Earth -88168-10-01 17:01 J -30481664.92 -30481664.79 -30481664.61 0.0088 0.0072 *

Mars	-88161-11-17 16:47 J	-30479060.99	-30479060.80	-30479060.58	0.0088	0.0062
Mars	-88159-10-12 01:25 J	-30478367.71	-30478367.44	-30478367.15	0.0088	0.0014
Mars	-88157-09-04 11:01 J	-30477674.06	-30477674.04	-30477674.00	0.0088	0.0088
Venus	-88123-09-23 15:35 J	-30465236.88	-30465236.85	-30465236.77	0.0089	0.0086
Venus	-88122-05-07 03:35 J	-30465011.46	-30465011.35	-30465011.20	0.0089	0.0071
Venus	-88122-12-18 15:35 J	-30464786.01	-30464785.85	-30464785.68	0.0089	0.0056
Venus	-88121-07-31 03:06 J	-30464560.54	-30464560.37	-30464560.16	0.0089	0.0042
Venus	-88120-03-13 15:06 J	-30464335.06	-30464334.87	-30464334.66	0.0089	0.0027
Venus	-88120-10-25 03:20 J	-30464109.57	-30464109.36	-30464109.15	0.0089	0.0012
Venus	-88119-06-07 15:06 J	-30463884.08	-30463883.87	-30463883.65	0.0089	0.0003
Venus	-88118-01-19 02:51 J	-30463658.58	-30463658.38	-30463658.17	0.0089	0.0018
Venus	-88118-09-01 14:37 J	-30463433.08	-30463432.89	-30463432.68	0.0089	0.0033
Venus	-88117-04-14 02:37 J	-30463207.57	-30463207.39	-30463207.21	0.0089	0.0047
Mercury	-88117-07-28 19:54 J	-30463101.69	-30463101.67	-30463101.62	0.0089	0.0086
Mercury	-88117-10-24 21:20 J	-30463013.65	-30463013.61	-30463013.54	0.0089	0.0082
Venus	-88117-11-25 14:23 J	-30462982.04	-30462981.90	-30462981.74	0.0089	0.0062
Mercury	-88116-01-20 23:01 J	-30462925.60	-30462925.54	-30462925.47	0.0089	0.0077
Mercury	-88116-04-19 00:27 J	-30462837.55	-30462837.48	-30462837.40	0.0089	0.0073
Venus	-88116-07-09 01:54 J	-30462756.50	-30462756.42	-30462756.29	0.0089	0.0077
Mercury	-88116-07-16 01:54 J	-30462749.50	-30462749.42	-30462749.33	0.0089	0.0069
Mercury	-88116-10-12 03:20 J	-30462661.45	-30462661.36	-30462661.26	0.0089	0.0065
Mercury	-88115-01-08 04:32 J	-30462573.39	-30462573.31	-30462573.20	0.0089	0.0061
Mercury	-88115-04-06 05:59 J	-30462485.34	-30462485.25	-30462485.13	0.0089	0.0057
Mercury	-88115-07-03 07:54 J	-30462397.28	-30462397.17	-30462397.06	0.0089	0.0052
Mercury	-88115-09-29 09:06 J	-30462309.23	-30462309.12	-30462309.00	0.0089	0.0048
Mercury	-88115-12-26 10:32 J	-30462221.17	-30462221.06	-30462220.93	0.0089	0.0044
Mercury	-88114-03-24 11:59 J	-30462133.11	-30462133.00	-30462132.87	0.0089	0.0040
Mercury	-88114-06-20 13:39 J	-30462045.05	-30462044.93	-30462044.80	0.0089	0.0035
Mercury	-88114-09-16 15:06 J	-30461956.99	-30461956.87	-30461956.74	0.0089	0.0031
Mercury	-88114-12-13 16:32 J	-30461868.94	-30461868.81	-30461868.67	0.0089	0.0027

Mercury -88113-03-10 17:59 J -30461780.88 -30461780.75 -30461780.61 0.0089 0.0023

Mercury -88113-06-06 19:39 J -30461692.82 -30461692.68 -30461692.54 0.0089 0.0018

Mercury -88113-09-02 21:06 J -30461604.75 -30461604.62 -30461604.48 0.0089 0.0014

Mercury -88113-11-29 22:32 J -30461516.69 -30461516.56 -30461516.42 0.0089 0.0010

Mercury -88112-02-26 00:13 J -30461428.63 -30461428.49 -30461428.35 0.0089 0.0005

Mercury -88112-05-25 01:39 J -30461340.57 -30461340.43 -30461340.29 0.0089 0.0001

Mercury -88112-08-21 03:06 J -30461252.50 -30461252.37 -30461252.23 0.0089 0.0004

Mercury -88112-11-17 04:47 J -30461164.44 -30461164.30 -30461164.16 0.0089 0.0008

Mercury -88111-02-13 06:13 J -30461076.38 -30461076.24 -30461076.10 0.0089 0.0012

Mercury -88111-05-12 07:39 J -30460988.31 -30460988.18 -30460988.04 0.0089 0.0017

Mercury -88111-08-08 09:20 J -30460900.25 -30460900.11 -30460899.98 0.0089 0.0021

Mercury -88111-11-04 10:47 J -30460812.18 -30460812.05 -30460811.91 0.0089 0.0026

Mercury -88110-01-31 12:27 J -30460724.11 -30460723.98 -30460723.85 0.0089 0.0030

Mercury -88110-04-29 13:54 J -30460636.05 -30460635.92 -30460635.79 0.0089 0.0034

Mercury -88110-07-26 15:20 J -30460547.98 -30460547.86 -30460547.73 0.0089 0.0039

Mercury -88110-10-22 17:01 J -30460459.91 -30460459.79 -30460459.66 0.0089 0.0043

Mercury -88109-01-18 18:27 J -30460371.84 -30460371.73 -30460371.60 0.0089 0.0048

Mercury -88109-04-15 20:08 J -30460283.77 -30460283.66 -30460283.54 0.0089 0.0052

Mercury -88109-07-12 21:35 J -30460195.70 -30460195.60 -30460195.48 0.0089 0.0057

Mercury -88109-10-08 23:30 J -30460107.62 -30460107.52 -30460107.42 0.0089 0.0061

Mercury -88108-01-05 00:42 J -30460019.55 -30460019.47 -30460019.36 0.0089 0.0066

Mercury -88108-04-03 02:37 J -30459931.47 -30459931.39 -30459931.30 0.0089 0.0070

Mercury -88108-06-30 04:03 J -30459843.39 -30459843.33 -30459843.24 0.0089 0.0075

Mercury -88108-09-26 05:44 J -30459755.31 -30459755.26 -30459755.19 0.0089 0.0079

Mercury -88108-12-23 07:11 J -30459667.23 -30459667.20 -30459667.14 0.0089 0.0084

Mercury -88107-03-21 09:06 J -30459579.13 -30459579.12 -30459579.10 0.0089 0.0088

Moon -88091-03-13 07:25 J -30453743.22 -30453743.19 -30453743.09 0.0089 0.0086

Moon -88090-03-15 12:42 J -30453376.12 -30453375.97 -30453375.79 0.0089 0.0067

Earth -88090-03-15 15:49 J -30453376.00 -30453375.84 -30453375.64 0.0089 0.0063 *

Earth -88089-03-17 01:39 J -30453008.64 -30453008.43 -30453008.18 0.0089 0.0036

Moon	-88089-03-17 05:30 J	-30453008.50	-30453008.27	-30453008.03	0.0089	0.0031	*
Moon	-88088-03-19 08:37 J	-30452641.38	-30452641.14	-30452640.88	0.0089	0.0013	
Earth	-88088-03-19 12:13 J	-30452641.24	-30452640.99	-30452640.73	0.0089	0.0009	*
Earth	-88087-03-21 22:32 J	-30452273.81	-30452273.56	-30452273.31	0.0089	0.0018	
Moon	-88087-03-22 01:25 J	-30452273.68	-30452273.44	-30452273.18	0.0089	0.0023	*
Moon	-88086-03-24 06:42 J	-30451906.42	-30451906.22	-30451905.98	0.0089	0.0042	
Earth	-88086-03-24 08:37 J	-30451906.34	-30451906.14	-30451905.91	0.0089	0.0046	*
Earth	-88085-03-25 18:56 J	-30451538.83	-30451538.71	-30451538.54	0.0089	0.0073	
Moon	-88085-03-25 20:37 J	-30451538.77	-30451538.64	-30451538.50	0.0089	0.0076	*
Mars	-88077-08-06 17:59 J	-30448483.09	-30448482.75	-30448482.40	0.0089	0.0003	
Venus	-88041-11-09 15:20 J	-30435238.91	-30435238.86	-30435238.76	0.0089	0.0084	
Venus	-88040-06-23 05:44 J	-30435013.38	-30435013.26	-30435013.09	0.0089	0.0068	
Venus	-88039-02-03 20:08 J	-30434787.83	-30434787.66	-30434787.46	0.0089	0.0052	
Venus	-88039-09-17 10:47 J	-30434562.26	-30434562.05	-30434561.84	0.0089	0.0036	
Venus	-88038-05-01 00:56 J	-30434336.67	-30434336.46	-30434336.23	0.0089	0.0021	
Venus	-88038-12-12 15:20 J	-30434111.08	-30434110.86	-30434110.63	0.0089	0.0005	
Venus	-88037-07-25 05:30 J	-30433885.49	-30433885.27	-30433885.04	0.0089	0.0011	
Venus	-88036-03-07 19:25 J	-30433659.89	-30433659.69	-30433659.46	0.0089	0.0027	
Venus	-88036-10-19 09:35 J	-30433434.28	-30433434.10	-30433433.89	0.0089	0.0043	
Venus	-88035-06-01 23:59 J	-30433208.66	-30433208.50	-30433208.32	0.0089	0.0058	
Venus	-88034-01-13 13:54 J	-30432983.03	-30432982.92	-30432982.78	0.0089	0.0074	
Mercury	-88034-10-22 10:32 J	-30432701.08	-30432701.06	-30432701.00	0.0089	0.0087	
Mercury	-88033-01-18 13:54 J	-30432612.98	-30432612.92	-30432612.83	0.0089	0.0081	
Mercury	-88033-04-15 17:15 J	-30432524.86	-30432524.78	-30432524.67	0.0089	0.0075	
Mercury	-88033-07-12 20:37 J	-30432436.75	-30432436.64	-30432436.51	0.0089	0.0069	
Mercury	-88033-10-08 23:59 J	-30432348.62	-30432348.50	-30432348.36	0.0089	0.0063	
Mercury	-88032-01-05 03:20 J	-30432260.50	-30432260.36	-30432260.21	0.0089	0.0057	
Mercury	-88032-04-03 06:13 J	-30432172.37	-30432172.24	-30432172.07	0.0089	0.0052	
Mercury	-88032-06-30 09:35 J	-30432084.24	-30432084.10	-30432083.93	0.0089	0.0046	
Mercury	-88032-09-26 12:56 J	-30431996.12	-30431995.96	-30431995.78	0.0089	0.0040	

Mercury -88032-12-23 16:18 J -30431907.99 -30431907.82 -30431907.64 0.0089 0.0034
 Mercury -88031-03-21 19:39 J -30431819.86 -30431819.68 -30431819.51 0.0089 0.0028
 Mercury -88031-06-17 22:32 J -30431731.73 -30431731.56 -30431731.37 0.0089 0.0023
 Mercury -88031-09-14 01:54 J -30431643.60 -30431643.42 -30431643.23 0.0089 0.0016
 Mercury -88031-12-11 05:15 J -30431555.47 -30431555.28 -30431555.10 0.0089 0.0011
 Mercury -88030-03-09 08:23 J -30431467.33 -30431467.15 -30431466.97 0.0089 0.0005
 Mercury -88030-06-05 11:30 J -30431379.20 -30431379.02 -30431378.83 0.0089 0.0001
 Mercury -88030-09-01 14:37 J -30431291.07 -30431290.89 -30431290.70 0.0089 0.0007
 Mercury -88030-11-28 17:44 J -30431202.94 -30431202.76 -30431202.57 0.0089 0.0012
 Mercury -88029-02-24 20:51 J -30431114.80 -30431114.63 -30431114.45 0.0088 0.0018
 Mercury -88029-05-22 23:59 J -30431026.67 -30431026.50 -30431026.32 0.0088 0.0024
 Mercury -88029-08-19 02:51 J -30430938.54 -30430938.38 -30430938.20 0.0088 0.0030
 Mercury -88029-11-15 06:13 J -30430850.41 -30430850.24 -30430850.07 0.0088 0.0035
 Mercury -88028-02-11 09:06 J -30430762.27 -30430762.12 -30430761.95 0.0088 0.0041
 Mercury -88028-05-10 11:59 J -30430674.14 -30430674.00 -30430673.83 0.0088 0.0047
 Mercury -88028-08-06 15:20 J -30430586.00 -30430585.86 -30430585.71 0.0088 0.0052
 Mercury -88028-11-02 17:59 J -30430497.87 -30430497.75 -30430497.59 0.0088 0.0058
 Mercury -88027-01-29 21:20 J -30430409.73 -30430409.61 -30430409.48 0.0088 0.0063
 Mercury -88027-04-27 23:59 J -30430321.59 -30430321.50 -30430321.36 0.0088 0.0069
 Mercury -88027-07-25 03:06 J -30430233.45 -30430233.37 -30430233.25 0.0088 0.0074
 Mercury -88027-10-21 06:27 J -30430145.31 -30430145.23 -30430145.15 0.0088 0.0079
 Mercury -88026-01-17 09:06 J -30430057.15 -30430057.12 -30430057.05 0.0088 0.0085
 Earth -88009-09-19 05:15 J -30423602.37 -30423602.28 -30423602.16 0.0088 0.0081
 Moon -88009-09-19 06:56 J -30423602.30 -30423602.21 -30423602.07 0.0088 0.0079 *
 Moon -88008-09-21 17:59 J -30423234.94 -30423234.75 -30423234.55 0.0088 0.0055
 Earth -88008-09-21 18:13 J -30423234.93 -30423234.74 -30423234.51 0.0088 0.0054 *
 Moon -88007-09-24 06:42 J -30422867.48 -30422867.22 -30422866.95 0.0088 0.0024
 Earth -88007-09-24 07:39 J -30422867.42 -30422867.18 -30422866.92 0.0088 0.0026 *
 Earth -88006-09-26 20:37 J -30422499.90 -30422499.64 -30422499.37 0.0088 0.0003
 Moon -88006-09-26 22:18 J -30422499.82 -30422499.57 -30422499.32 0.0088 0.0001 *

Moon	-88005-09-28 06:42 J	-30422132.46	-30422132.22	-30422131.96	0.0088	0.0030
Earth	-88005-09-28 09:20 J	-30422132.34	-30422132.11	-30422131.85	0.0088	0.0030 *
Earth	-88004-09-30 22:03 J	-30421764.76	-30421764.58	-30421764.36	0.0088	0.0057
Moon	-88004-10-01 01:25 J	-30421764.62	-30421764.44	-30421764.22	0.0088	0.0055 *
Moon	-88003-10-03 06:42 J	-30421397.26	-30421397.22	-30421397.11	0.0088	0.0085
Earth	-88003-10-03 10:32 J	-30421397.12	-30421397.06	-30421396.95	0.0088	0.0084 *

88TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 88th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-87995-05-27 14:51 J	-30418604.15	-30418603.88	-30418603.60	0.0088	0.0022		
Mars	-87993-04-19 22:18 J	-30417910.78	-30417910.57	-30417910.32	0.0088	0.0053		
Venus	-87958-08-08 13:54 J	-30405017.01	-30405016.92	-30405016.80	0.0089	0.0077		
Venus	-87957-03-21 01:54 J	-30404791.57	-30404791.42	-30404791.27	0.0089	0.0062		
Venus	-87957-11-01 13:25 J	-30404566.10	-30404565.94	-30404565.74	0.0089	0.0048		
Venus	-87956-06-15 01:25 J	-30404340.63	-30404340.44	-30404340.24	0.0089	0.0033		
Venus	-87955-01-26 13:11 J	-30404115.16	-30404114.95	-30404114.74	0.0089	0.0018		
Venus	-87955-09-09 00:56 J	-30403889.67	-30403889.46	-30403889.24	0.0089	0.0004		
Venus	-87954-04-22 12:42 J	-30403664.17	-30403663.97	-30403663.75	0.0089	0.0012		
Venus	-87954-12-04 00:27 J	-30403438.67	-30403438.48	-30403438.26	0.0089	0.0027		
Venus	-87953-07-16 12:13 J	-30403213.16	-30403212.99	-30403212.78	0.0089	0.0042		
Venus	-87952-02-27 00:27 J	-30402987.64	-30402987.48	-30402987.32	0.0089	0.0056		

Mercury -87952-04-24 19:11 J -30402930.73 -30402930.70 -30402930.65 0.0089 0.0085

Mercury -87952-07-21 20:37 J -30402842.68 -30402842.64 -30402842.58 0.0089 0.0081

Venus -87952-10-10 12:13 J -30402762.11 -30402761.99 -30402761.86 0.0089 0.0071

Mercury -87952-10-17 22:03 J -30402754.64 -30402754.58 -30402754.50 0.0089 0.0077

Mercury -87951-01-13 23:30 J -30402666.59 -30402666.52 -30402666.43 0.0089 0.0073

Mercury -87951-04-12 01:11 J -30402578.54 -30402578.45 -30402578.37 0.0089 0.0068

Venus -87951-05-23 23:59 J -30402536.54 -30402536.50 -30402536.44 0.0089 0.0086

Mercury -87951-07-09 02:37 J -30402490.48 -30402490.39 -30402490.30 0.0089 0.0064

Mercury -87951-10-05 03:49 J -30402402.43 -30402402.34 -30402402.23 0.0089 0.0060

Mercury -87950-01-01 05:15 J -30402314.37 -30402314.28 -30402314.16 0.0089 0.0056

Mercury -87950-03-30 06:42 J -30402226.32 -30402226.22 -30402226.10 0.0089 0.0052

Mercury -87950-06-26 08:23 J -30402138.26 -30402138.15 -30402138.03 0.0089 0.0047

Mercury -87950-09-22 09:49 J -30402050.21 -30402050.09 -30402049.97 0.0089 0.0043

Mercury -87950-12-19 11:15 J -30401962.15 -30401962.03 -30401961.90 0.0089 0.0039

Mercury -87949-03-16 12:42 J -30401874.09 -30401873.97 -30401873.84 0.0089 0.0035

Mercury -87949-06-12 14:23 J -30401786.03 -30401785.90 -30401785.77 0.0089 0.0030

Mercury -87949-09-08 15:49 J -30401697.97 -30401697.84 -30401697.71 0.0089 0.0026

Mercury -87949-12-05 17:15 J -30401609.91 -30401609.78 -30401609.65 0.0089 0.0022

Mercury -87948-03-03 18:42 J -30401521.85 -30401521.72 -30401521.58 0.0089 0.0017

Mercury -87948-05-30 20:08 J -30401433.79 -30401433.66 -30401433.52 0.0089 0.0013

Mercury -87948-08-26 21:49 J -30401345.73 -30401345.59 -30401345.45 0.0089 0.0009

Mercury -87948-11-22 23:15 J -30401257.67 -30401257.53 -30401257.39 0.0089 0.0004

Mercury -87947-02-19 00:42 J -30401169.60 -30401169.47 -30401169.33 0.0089 0.0002

Mercury -87947-05-18 02:23 J -30401081.54 -30401081.40 -30401081.26 0.0089 0.0005

Mercury -87947-08-14 03:49 J -30400993.48 -30400993.34 -30400993.20 0.0089 0.0009

Mercury -87947-11-10 05:15 J -30400905.41 -30400905.28 -30400905.14 0.0089 0.0013

Mercury -87946-02-06 06:42 J -30400817.35 -30400817.22 -30400817.08 0.0089 0.0018

Mercury -87946-05-05 08:23 J -30400729.28 -30400729.15 -30400729.01 0.0089 0.0022

Mercury -87946-08-01 09:49 J -30400641.22 -30400641.09 -30400640.95 0.0089 0.0027

Mercury -87946-10-28 11:30 J -30400553.15 -30400553.02 -30400552.89 0.0089 0.0031

Mercury -87945-01-24 12:56 J -30400465.08 -30400464.96 -30400464.83 0.0089 0.0035
 Mercury -87945-04-21 14:23 J -30400377.01 -30400376.90 -30400376.76 0.0089 0.0040
 Mercury -87945-07-18 16:03 J -30400288.95 -30400288.83 -30400288.70 0.0089 0.0044
 Mercury -87945-10-14 17:30 J -30400200.88 -30400200.77 -30400200.64 0.0089 0.0049
 Mercury -87944-01-10 19:11 J -30400112.81 -30400112.70 -30400112.58 0.0089 0.0053
 Mercury -87944-04-08 20:37 J -30400024.73 -30400024.64 -30400024.52 0.0089 0.0058
 Mercury -87944-07-05 22:18 J -30399936.66 -30399936.57 -30399936.46 0.0089 0.0062
 Mercury -87944-10-02 00:13 J -30399848.59 -30399848.49 -30399848.40 0.0089 0.0066
 Mercury -87944-12-29 01:25 J -30399760.51 -30399760.44 -30399760.34 0.0089 0.0071
 Mercury -87943-03-27 03:20 J -30399672.43 -30399672.36 -30399672.29 0.0089 0.0075
 Mercury -87943-06-23 04:47 J -30399584.35 -30399584.30 -30399584.23 0.0089 0.0080
 Mercury -87943-09-19 06:27 J -30399496.27 -30399496.23 -30399496.18 0.0089 0.0084
 Mercury -87943-12-16 08:08 J -30399408.16 -30399408.16 -30399408.16 0.0089 0.0089
 Earth -87926-03-15 00:42 J -30393475.60 -30393475.47 -30393475.35 0.0089 0.0076
 Moon -87926-03-15 03:49 J -30393475.45 -30393475.34 -30393475.18 0.0089 0.0075 *
 Moon -87925-03-16 06:56 J -30393108.39 -30393108.21 -30393107.98 0.0089 0.0051
 Earth -87925-03-16 10:18 J -30393108.26 -30393108.07 -30393107.84 0.0089 0.0050 *
 Earth -87924-03-18 20:23 J -30392740.89 -30392740.65 -30392740.40 0.0089 0.0023
 Moon -87924-03-18 23:01 J -30392740.78 -30392740.54 -30392740.28 0.0089 0.0021 *
 Moon -87923-03-21 05:01 J -30392373.53 -30392373.29 -30392373.04 0.0089 0.0003
 Earth -87923-03-21 06:42 J -30392373.47 -30392373.22 -30392372.96 0.0089 0.0004 *
 Moon -87922-03-23 16:47 J -30392006.04 -30392005.80 -30392005.55 0.0089 0.0032
 Earth -87922-03-23 16:47 J -30392006.03 -30392005.80 -30392005.55 0.0089 0.0031 *
 Earth -87921-03-25 03:06 J -30391638.55 -30391638.37 -30391638.17 0.0089 0.0058
 Moon -87921-03-25 03:35 J -30391638.52 -30391638.35 -30391638.14 0.0089 0.0057 *
 Moon -87920-03-27 11:01 J -30391271.07 -30391271.04 -30391270.96 0.0089 0.0087
 Earth -87920-03-27 13:25 J -30391270.99 -30391270.94 -30391270.85 0.0089 0.0085 *
 Mars -87913-03-19 12:42 J -30388722.23 -30388721.97 -30388721.64 0.0089 0.0049
 Mars -87911-02-14 06:42 J -30388025.49 -30388025.22 -30388024.90 0.0089 0.0047
 Venus -87876-09-24 12:27 J -30375019.09 -30375018.98 -30375018.85 0.0089 0.0075

Venus -87875-05-08 02:37 J -30374793.53 -30374793.39 -30374793.20 0.0089 0.0060

Venus -87875-12-19 17:15 J -30374567.97 -30374567.78 -30374567.57 0.0089 0.0044

Venus -87874-08-02 07:39 J -30374342.39 -30374342.18 -30374341.96 0.0089 0.0028

Venus -87873-03-14 22:03 J -30374116.81 -30374116.58 -30374116.36 0.0089 0.0012

Venus -87873-10-26 12:13 J -30373891.22 -30373890.99 -30373890.76 0.0089 0.0004

Venus -87872-06-09 02:23 J -30373665.61 -30373665.40 -30373665.17 0.0089 0.0020

Venus -87871-01-20 16:32 J -30373440.01 -30373439.81 -30373439.59 0.0089 0.0036

Venus -87871-09-03 06:56 J -30373214.40 -30373214.21 -30373214.03 0.0089 0.0051

Venus -87870-04-16 20:51 J -30372988.76 -30372988.63 -30372988.47 0.0089 0.0067

Venus -87870-11-28 10:47 J -30372763.11 -30372763.05 -30372762.95 0.0089 0.0083

Mercury -87869-07-18 07:54 J -30372530.19 -30372530.17 -30372530.11 0.0089 0.0087

Mercury -87869-10-14 11:15 J -30372442.09 -30372442.03 -30372441.94 0.0089 0.0081

Mercury -87868-01-10 14:37 J -30372353.98 -30372353.89 -30372353.78 0.0089 0.0075

Mercury -87868-04-08 17:59 J -30372265.86 -30372265.75 -30372265.62 0.0089 0.0069

Mercury -87868-07-05 21:20 J -30372177.73 -30372177.61 -30372177.47 0.0089 0.0063

Mercury -87868-10-02 00:42 J -30372089.61 -30372089.47 -30372089.32 0.0089 0.0057

Mercury -87868-12-29 04:03 J -30372001.48 -30372001.33 -30372001.18 0.0089 0.0051

Mercury -87867-03-27 06:56 J -30371913.35 -30371913.21 -30371913.03 0.0089 0.0046

Mercury -87867-06-23 10:18 J -30371825.22 -30371825.07 -30371824.89 0.0089 0.0040

Mercury -87867-09-19 13:39 J -30371737.10 -30371736.93 -30371736.75 0.0089 0.0034

Mercury -87867-12-16 17:01 J -30371648.97 -30371648.79 -30371648.61 0.0089 0.0028

Mercury -87866-03-14 20:08 J -30371560.83 -30371560.66 -30371560.48 0.0089 0.0022

Mercury -87866-06-10 23:15 J -30371472.70 -30371472.53 -30371472.34 0.0089 0.0016

Mercury -87866-09-07 02:37 J -30371384.57 -30371384.39 -30371384.21 0.0089 0.0010

Mercury -87866-12-04 05:44 J -30371296.44 -30371296.26 -30371296.07 0.0088 0.0005

Mercury -87865-03-01 08:51 J -30371208.31 -30371208.13 -30371207.94 0.0088 0.0003

Mercury -87865-05-28 11:59 J -30371120.18 -30371120.00 -30371119.81 0.0088 0.0008

Mercury -87865-08-24 15:20 J -30371032.04 -30371031.86 -30371031.68 0.0088 0.0013

Mercury -87865-11-20 18:13 J -30370943.91 -30370943.74 -30370943.55 0.0088 0.0019

Mercury -87864-02-16 21:35 J -30370855.78 -30370855.60 -30370855.43 0.0088 0.0024

Mercury -87864-05-16 00:27 J -30370767.64 -30370767.48 -30370767.30 0.0088 0.0030
 Mercury -87864-08-12 03:35 J -30370679.51 -30370679.35 -30370679.18 0.0088 0.0035
 Mercury -87864-11-08 06:42 J -30370591.37 -30370591.22 -30370591.05 0.0088 0.0041
 Mercury -87863-02-04 09:35 J -30370503.24 -30370503.10 -30370502.93 0.0088 0.0047
 Mercury -87863-05-03 12:56 J -30370415.10 -30370414.96 -30370414.81 0.0088 0.0052
 Mercury -87863-07-30 15:49 J -30370326.97 -30370326.84 -30370326.69 0.0088 0.0058
 Mercury -87863-10-26 18:42 J -30370238.83 -30370238.72 -30370238.58 0.0088 0.0063
 Mercury -87862-01-22 21:49 J -30370150.69 -30370150.59 -30370150.47 0.0088 0.0069
 Mercury -87862-04-21 01:11 J -30370062.55 -30370062.45 -30370062.36 0.0088 0.0074
 Mercury -87862-07-18 03:49 J -30369974.40 -30369974.34 -30369974.25 0.0088 0.0080
 Mercury -87862-10-14 06:56 J -30369886.25 -30369886.21 -30369886.15 0.0088 0.0085
 Jupiter -87850-03-12 16:32 J -30365719.16 -30365718.81 -30365718.46 0.0088 0.0068
 Moon -87844-09-20 20:23 J -30363334.83 -30363334.65 -30363334.46 0.0088 0.0064
 Earth -87844-09-20 21:06 J -30363334.76 -30363334.62 -30363334.43 0.0088 0.0069 *
 Earth -87843-09-23 10:32 J -30362967.28 -30362967.06 -30362966.82 0.0088 0.0041
 Moon -87843-09-23 13:25 J -30362967.16 -30362966.94 -30362966.72 0.0088 0.0045 *
 Moon -87842-09-25 20:37 J -30362599.90 -30362599.64 -30362599.37 0.0088 0.0010
 Earth -87842-09-25 23:44 J -30362599.76 -30362599.51 -30362599.24 0.0088 0.0014 *
 Earth -87841-09-27 12:42 J -30362232.22 -30362231.97 -30362231.71 0.0088 0.0014
 Moon -87841-09-27 16:18 J -30362232.08 -30362231.82 -30362231.56 0.0088 0.0009 *
 Moon -87840-09-29 21:49 J -30361864.81 -30361864.59 -30361864.36 0.0088 0.0046
 Earth -87840-09-30 01:11 J -30361864.66 -30361864.45 -30361864.20 0.0088 0.0041 *
 Earth -87839-10-02 13:39 J -30361497.07 -30361496.93 -30361496.74 0.0088 0.0069
 Moon -87839-10-02 16:32 J -30361496.96 -30361496.81 -30361496.60 0.0088 0.0065 *
 Mars -87831-01-10 01:54 J -30358840.63 -30358840.42 -30358840.20 0.0088 0.0059
 Mars -87830-12-04 10:32 J -30358147.33 -30358147.06 -30358146.77 0.0088 0.0016
 Venus -87794-11-09 23:30 J -30345022.57 -30345022.52 -30345022.43 0.0089 0.0084
 Venus -87793-06-22 11:15 J -30344797.15 -30344797.03 -30344796.88 0.0089 0.0069
 Venus -87792-02-02 23:15 J -30344571.69 -30344571.53 -30344571.36 0.0089 0.0054
 Venus -87792-09-16 10:47 J -30344346.22 -30344346.05 -30344345.84 0.0089 0.0040

Venus -87791-04-29 22:47 J -30344120.75 -30344120.55 -30344120.34 0.0089 0.0025
 Venus -87791-12-11 10:47 J -30343895.26 -30343895.05 -30343894.84 0.0089 0.0010
 Venus -87790-07-24 22:32 J -30343669.77 -30343669.56 -30343669.35 0.0089 0.0005
 Venus -87789-03-06 10:03 J -30343444.28 -30343444.08 -30343443.86 0.0089 0.0021
 Venus -87789-10-17 22:18 J -30343218.77 -30343218.57 -30343218.38 0.0089 0.0035
 Venus -87788-05-31 10:03 J -30342993.25 -30342993.08 -30342992.90 0.0089 0.0050
 Mercury -87788-10-23 16:47 J -30342847.80 -30342847.80 -30342847.78 0.0089 0.0089
 Venus -87787-01-11 21:49 J -30342767.73 -30342767.59 -30342767.44 0.0089 0.0065
 Mercury -87787-01-19 18:13 J -30342759.77 -30342759.74 -30342759.69 0.0089 0.0085
 Mercury -87787-04-17 19:54 J -30342671.73 -30342671.67 -30342671.62 0.0089 0.0080
 Mercury -87787-07-14 21:20 J -30342583.68 -30342583.61 -30342583.54 0.0089 0.0076
 Venus -87787-08-25 09:20 J -30342542.18 -30342542.11 -30342542.00 0.0089 0.0080
 Mercury -87787-10-10 22:32 J -30342495.63 -30342495.56 -30342495.47 0.0089 0.0072
 Mercury -87786-01-06 23:59 J -30342407.58 -30342407.50 -30342407.40 0.0089 0.0068
 Mercury -87786-04-05 01:25 J -30342319.52 -30342319.44 -30342319.34 0.0089 0.0064
 Mercury -87786-07-02 02:51 J -30342231.47 -30342231.38 -30342231.27 0.0089 0.0060
 Mercury -87786-09-28 04:32 J -30342143.42 -30342143.31 -30342143.20 0.0089 0.0055
 Mercury -87786-12-25 05:59 J -30342055.36 -30342055.25 -30342055.14 0.0089 0.0051
 Mercury -87785-03-22 07:25 J -30341967.30 -30341967.19 -30341967.07 0.0089 0.0047
 Mercury -87785-06-18 08:51 J -30341879.25 -30341879.13 -30341879.01 0.0089 0.0042
 Mercury -87785-09-14 10:03 J -30341791.19 -30341791.08 -30341790.94 0.0089 0.0039
 Mercury -87785-12-11 11:44 J -30341703.13 -30341703.01 -30341702.88 0.0089 0.0034
 Mercury -87784-03-09 13:11 J -30341615.07 -30341614.95 -30341614.81 0.0089 0.0030
 Mercury -87784-06-05 14:37 J -30341527.01 -30341526.89 -30341526.75 0.0089 0.0026
 Mercury -87784-09-01 16:18 J -30341438.95 -30341438.82 -30341438.69 0.0089 0.0021
 Mercury -87784-11-28 17:44 J -30341350.89 -30341350.76 -30341350.62 0.0089 0.0017
 Mercury -87783-02-24 19:11 J -30341262.83 -30341262.70 -30341262.56 0.0089 0.0013
 Mercury -87783-05-23 20:51 J -30341174.77 -30341174.63 -30341174.49 0.0089 0.0008
 Mercury -87783-08-19 22:18 J -30341086.71 -30341086.57 -30341086.43 0.0089 0.0004
 Mercury -87783-11-15 23:44 J -30340998.65 -30340998.51 -30340998.37 0.0089 0.0002

Mercury -87782-02-12 01:11 J -30340910.58 -30340910.45 -30340910.31 0.0089 0.0006

Mercury -87782-05-11 02:51 J -30340822.52 -30340822.38 -30340822.24 0.0089 0.0009

Mercury -87782-08-07 04:18 J -30340734.45 -30340734.32 -30340734.18 0.0089 0.0014

Mercury -87782-11-03 05:59 J -30340646.39 -30340646.25 -30340646.12 0.0089 0.0018

Mercury -87781-01-30 07:25 J -30340558.32 -30340558.19 -30340558.06 0.0089 0.0022

Mercury -87781-04-27 08:51 J -30340470.26 -30340470.13 -30340469.99 0.0089 0.0027

Mercury -87781-07-24 10:32 J -30340382.19 -30340382.06 -30340381.93 0.0089 0.0031

Mercury -87781-10-20 11:59 J -30340294.12 -30340294.00 -30340293.87 0.0089 0.0036

Mercury -87780-01-16 13:39 J -30340206.06 -30340205.93 -30340205.81 0.0089 0.0040

Mercury -87780-04-14 14:51 J -30340117.99 -30340117.88 -30340117.75 0.0089 0.0045

Mercury -87780-07-11 16:32 J -30340029.92 -30340029.81 -30340029.68 0.0089 0.0049

Mercury -87780-10-07 17:59 J -30339941.85 -30339941.75 -30339941.62 0.0089 0.0054

Mercury -87779-01-03 19:39 J -30339853.78 -30339853.68 -30339853.56 0.0089 0.0058

Mercury -87779-04-01 21:06 J -30339765.70 -30339765.62 -30339765.51 0.0089 0.0063

Mercury -87779-06-28 22:47 J -30339677.63 -30339677.55 -30339677.45 0.0089 0.0067

Mercury -87779-09-25 00:42 J -30339589.55 -30339589.47 -30339589.39 0.0089 0.0071

Mercury -87779-12-22 01:54 J -30339501.48 -30339501.42 -30339501.33 0.0089 0.0076

Mercury -87778-03-20 03:49 J -30339413.40 -30339413.34 -30339413.28 0.0089 0.0080

Mercury -87778-06-16 05:15 J -30339325.31 -30339325.28 -30339325.23 0.0089 0.0085

Moon -87762-03-14 04:32 J -30333575.35 -30333575.31 -30333575.23 0.0089 0.0086

Earth -87761-03-15 17:30 J -30333207.93 -30333207.77 -30333207.58 0.0089 0.0064

Moon -87761-03-15 19:54 J -30333207.83 -30333207.67 -30333207.50 0.0089 0.0068 *

Moon -87760-03-18 03:06 J -30332840.59 -30332840.37 -30332840.13 0.0089 0.0033

Earth -87760-03-18 03:49 J -30332840.56 -30332840.34 -30332840.10 0.0089 0.0037 *

Moon -87759-03-20 13:54 J -30332473.17 -30332472.92 -30332472.65 0.0089 0.0015

Earth -87759-03-20 14:08 J -30332473.16 -30332472.91 -30332472.66 0.0089 0.0010 *

Earth -87758-03-23 00:13 J -30332105.74 -30332105.49 -30332105.24 0.0089 0.0016

Moon -87758-03-23 01:54 J -30332105.66 -30332105.42 -30332105.18 0.0089 0.0021 *

Moon -87757-03-24 07:25 J -30331738.41 -30331738.19 -30331737.94 0.0089 0.0039

Earth -87757-03-24 10:03 J -30331738.28 -30331738.08 -30331737.84 0.0089 0.0044 *

Earth	-87756-03-26 20:37 J	-30331370.78	-30331370.64	-30331370.47	0.0089	0.0070
Moon	-87756-03-26 23:30 J	-30331370.63	-30331370.52	-30331370.36	0.0089	0.0075 *
Mars	-87748-09-27 02:51 J	-30328264.73	-30328264.38	-30328264.03	0.0089	0.0001
Venus	-87712-12-26 18:42 J	-30315024.78	-30315024.72	-30315024.62	0.0089	0.0083
Venus	-87711-08-09 09:06 J	-30314799.26	-30314799.12	-30314798.96	0.0089	0.0067
Venus	-87710-03-22 23:30 J	-30314573.70	-30314573.52	-30314573.33	0.0089	0.0051
Venus	-87710-11-03 13:39 J	-30314348.12	-30314347.93	-30314347.71	0.0089	0.0036
Venus	-87709-06-16 04:03 J	-30314122.54	-30314122.33	-30314122.10	0.0089	0.0020
Venus	-87708-01-27 18:27 J	-30313896.95	-30313896.73	-30313896.50	0.0089	0.0004
Venus	-87708-09-10 08:37 J	-30313671.36	-30313671.14	-30313670.91	0.0089	0.0013
Venus	-87707-04-23 22:47 J	-30313445.75	-30313445.55	-30313445.32	0.0089	0.0029
Venus	-87707-12-05 13:25 J	-30313220.14	-30313219.94	-30313219.75	0.0089	0.0044
Venus	-87706-07-19 03:20 J	-30312994.52	-30312994.36	-30312994.19	0.0089	0.0060
Venus	-87705-02-29 17:15 J	-30312768.88	-30312768.78	-30312768.65	0.0089	0.0076
Mercury	-87704-04-14 05:01 J	-30312359.31	-30312359.29	-30312359.23	0.0089	0.0087
Mercury	-87704-07-11 08:23 J	-30312271.21	-30312271.15	-30312271.06	0.0089	0.0081
Mercury	-87704-10-07 11:44 J	-30312183.09	-30312183.01	-30312182.90	0.0089	0.0075
Mercury	-87703-01-03 15:06 J	-30312094.97	-30312094.87	-30312094.74	0.0089	0.0069
Mercury	-87703-04-01 18:27 J	-30312006.85	-30312006.73	-30312006.59	0.0089	0.0063
Mercury	-87703-06-28 21:49 J	-30311918.73	-30311918.59	-30311918.44	0.0089	0.0057
Mercury	-87703-09-25 01:11 J	-30311830.60	-30311830.45	-30311830.30	0.0089	0.0051
Mercury	-87703-12-22 04:03 J	-30311742.47	-30311742.33	-30311742.15	0.0089	0.0046
Mercury	-87702-03-20 07:25 J	-30311654.34	-30311654.19	-30311654.01	0.0089	0.0040
Mercury	-87702-06-16 10:47 J	-30311566.21	-30311566.05	-30311565.87	0.0089	0.0034
Mercury	-87702-09-12 14:08 J	-30311478.08	-30311477.91	-30311477.73	0.0089	0.0028
Mercury	-87702-12-09 17:30 J	-30311389.95	-30311389.77	-30311389.59	0.0089	0.0022
Mercury	-87701-03-06 20:23 J	-30311301.82	-30311301.65	-30311301.46	0.0089	0.0017
Mercury	-87701-06-02 23:44 J	-30311213.69	-30311213.51	-30311213.32	0.0089	0.0011
Mercury	-87701-08-30 03:06 J	-30311125.56	-30311125.37	-30311125.19	0.0089	0.0005
Mercury	-87701-11-26 06:13 J	-30311037.43	-30311037.24	-30311037.06	0.0089	0.0001

Mercury -87700-02-22 09:20 J -30310949.29 -30310949.11 -30310948.93 0.0088 0.0007

Mercury -87700-05-21 12:27 J -30310861.16 -30310860.98 -30310860.80 0.0088 0.0013

Mercury -87700-08-17 15:35 J -30310773.03 -30310772.85 -30310772.67 0.0088 0.0018

Mercury -87700-11-13 18:42 J -30310684.89 -30310684.72 -30310684.54 0.0088 0.0024

Mercury -87699-02-09 21:49 J -30310596.76 -30310596.59 -30310596.42 0.0088 0.0030

Mercury -87699-05-09 00:42 J -30310508.63 -30310508.47 -30310508.29 0.0088 0.0036

Mercury -87699-08-05 04:03 J -30310420.49 -30310420.33 -30310420.17 0.0088 0.0041

Mercury -87699-11-01 06:56 J -30310332.36 -30310332.21 -30310332.05 0.0088 0.0047

Mercury -87698-01-28 10:18 J -30310244.22 -30310244.07 -30310243.93 0.0088 0.0052

Mercury -87698-04-26 12:56 J -30310156.08 -30310155.96 -30310155.81 0.0088 0.0058

Mercury -87698-07-23 16:18 J -30310067.94 -30310067.82 -30310067.69 0.0088 0.0063

Mercury -87698-10-19 18:56 J -30309979.81 -30309979.71 -30309979.58 0.0088 0.0069

Mercury -87697-01-15 22:18 J -30309891.66 -30309891.57 -30309891.47 0.0088 0.0074

Mercury -87697-04-13 00:56 J -30309803.52 -30309803.46 -30309803.36 0.0088 0.0080

Mercury -87697-07-10 04:18 J -30309715.36 -30309715.32 -30309715.27 0.0088 0.0085

Jupiter -87684-05-10 15:06 J -30305028.37 -30305027.87 -30305027.33 0.0088 0.0028

Earth -87680-09-19 23:15 J -30303434.58 -30303434.53 -30303434.41 0.0088 0.0084

Moon -87680-09-20 02:37 J -30303434.48 -30303434.39 -30303434.27 0.0088 0.0081 *

Moon -87679-09-22 09:20 J -30303067.29 -30303067.11 -30303066.89 0.0088 0.0059

Earth -87679-09-22 13:25 J -30303067.14 -30303066.94 -30303066.73 0.0088 0.0056 *

Earth -87678-09-25 02:23 J -30302699.64 -30302699.40 -30302699.14 0.0088 0.0029

Moon -87678-09-25 06:13 J -30302699.49 -30302699.24 -30302698.99 0.0088 0.0026 *

Moon -87677-09-26 12:27 J -30302332.24 -30302331.98 -30302331.73 0.0088 0.0004

Earth -87677-09-26 15:35 J -30302332.11 -30302331.85 -30302331.59 0.0088 0.0001 *

Earth -87676-09-29 04:18 J -30301964.57 -30301964.32 -30301964.07 0.0088 0.0026

Moon -87676-09-29 06:56 J -30301964.45 -30301964.21 -30301963.94 0.0088 0.0028 *

Moon -87675-10-01 15:49 J -30301597.04 -30301596.84 -30301596.62 0.0088 0.0051

Earth -87675-10-01 17:01 J -30301596.99 -30301596.79 -30301596.57 0.0088 0.0053 *

Earth -87674-10-04 05:30 J -30301229.36 -30301229.27 -30301229.14 0.0088 0.0080

Moon -87674-10-04 06:13 J -30301229.34 -30301229.24 -30301229.12 0.0088 0.0081 *

Mars	-87666-07-19 20:37 J	-30298383.90	-30298383.64	-30298383.35	0.0088	0.0021
Mars	-87664-06-12 05:01 J	-30297690.49	-30297690.29	-30297690.04	0.0088	0.0055
Venus	-87629-09-23 20:23 J	-30284802.74	-30284802.65	-30284802.52	0.0089	0.0076
Venus	-87628-05-07 08:23 J	-30284577.30	-30284577.15	-30284576.99	0.0089	0.0061
Venus	-87628-12-18 19:54 J	-30284351.83	-30284351.67	-30284351.47	0.0089	0.0047
Venus	-87627-08-01 07:39 J	-30284126.36	-30284126.18	-30284125.97	0.0089	0.0032
Venus	-87626-03-14 19:39 J	-30283900.89	-30283900.68	-30283900.47	0.0089	0.0017
Venus	-87626-10-26 07:39 J	-30283675.39	-30283675.18	-30283674.97	0.0089	0.0002
Venus	-87625-06-07 19:11 J	-30283449.90	-30283449.70	-30283449.48	0.0089	0.0014
Venus	-87624-01-19 06:56 J	-30283224.40	-30283224.21	-30283224.00	0.0089	0.0028
Venus	-87624-09-01 18:56 J	-30282998.90	-30282998.71	-30282998.52	0.0089	0.0043
Venus	-87623-04-15 06:42 J	-30282773.38	-30282773.22	-30282773.06	0.0089	0.0058
Mercury	-87623-07-20 15:49 J	-30282676.84	-30282676.84	-30282676.83	0.0089	0.0089
Mercury	-87623-10-16 17:01 J	-30282588.82	-30282588.79	-30282588.74	0.0089	0.0085
Venus	-87623-11-26 18:27 J	-30282547.84	-30282547.73	-30282547.60	0.0089	0.0073
Mercury	-87622-01-12 18:27 J	-30282500.77	-30282500.73	-30282500.66	0.0089	0.0081
Mercury	-87622-04-10 20:08 J	-30282412.73	-30282412.66	-30282412.59	0.0089	0.0076
Mercury	-87622-07-07 21:35 J	-30282324.68	-30282324.60	-30282324.52	0.0089	0.0072
Venus	-87622-07-10 06:13 J	-30282322.25	-30282322.24	-30282322.20	0.0089	0.0088
Mercury	-87622-10-03 22:47 J	-30282236.63	-30282236.55	-30282236.45	0.0089	0.0068
Mercury	-87622-12-31 00:13 J	-30282148.57	-30282148.49	-30282148.39	0.0089	0.0064
Mercury	-87621-03-28 01:39 J	-30282060.52	-30282060.43	-30282060.32	0.0089	0.0060
Mercury	-87621-06-24 03:20 J	-30281972.46	-30281972.36	-30281972.25	0.0089	0.0055
Mercury	-87621-09-20 04:47 J	-30281884.41	-30281884.30	-30281884.19	0.0089	0.0051
Mercury	-87621-12-17 06:13 J	-30281796.35	-30281796.24	-30281796.12	0.0089	0.0047
Mercury	-87620-03-15 07:39 J	-30281708.30	-30281708.18	-30281708.06	0.0089	0.0043
Mercury	-87620-06-11 09:06 J	-30281620.24	-30281620.12	-30281619.99	0.0089	0.0038
Mercury	-87620-09-07 10:32 J	-30281532.18	-30281532.06	-30281531.93	0.0089	0.0034
Mercury	-87620-12-04 11:59 J	-30281444.12	-30281444.00	-30281443.86	0.0089	0.0030
Mercury	-87619-03-02 13:25 J	-30281356.06	-30281355.94	-30281355.80	0.0089	0.0026

Mercury -87619-05-29 15:06 J -30281268.00 -30281267.87 -30281267.74 0.0089 0.0021
 Mercury -87619-08-25 16:32 J -30281179.94 -30281179.81 -30281179.67 0.0089 0.0017
 Mercury -87619-11-21 17:59 J -30281091.88 -30281091.75 -30281091.61 0.0089 0.0013
 Mercury -87618-02-17 19:39 J -30281003.82 -30281003.68 -30281003.55 0.0089 0.0008
 Mercury -87618-05-16 21:06 J -30280915.76 -30280915.62 -30280915.48 0.0089 0.0004
 Mercury -87618-08-12 22:32 J -30280827.69 -30280827.56 -30280827.42 0.0089 0.0002
 Mercury -87618-11-09 00:13 J -30280739.63 -30280739.49 -30280739.36 0.0089 0.0005
 Mercury -87617-02-05 01:39 J -30280651.57 -30280651.43 -30280651.29 0.0089 0.0009
 Mercury -87617-05-03 03:06 J -30280563.50 -30280563.37 -30280563.23 0.0089 0.0014
 Mercury -87617-07-30 04:32 J -30280475.44 -30280475.31 -30280475.17 0.0089 0.0019
 Mercury -87617-10-26 06:13 J -30280387.37 -30280387.24 -30280387.10 0.0089 0.0023
 Mercury -87616-01-22 07:39 J -30280299.31 -30280299.18 -30280299.04 0.0089 0.0027
 Mercury -87616-04-20 09:06 J -30280211.24 -30280211.12 -30280210.98 0.0089 0.0032
 Mercury -87616-07-17 10:47 J -30280123.17 -30280123.05 -30280122.92 0.0089 0.0036
 Mercury -87616-10-13 12:27 J -30280035.11 -30280034.98 -30280034.86 0.0089 0.0040
 Mercury -87615-01-09 13:54 J -30279947.04 -30279946.92 -30279946.80 0.0089 0.0045
 Mercury -87615-04-07 15:35 J -30279858.97 -30279858.85 -30279858.74 0.0089 0.0049
 Mercury -87615-07-04 16:47 J -30279770.90 -30279770.80 -30279770.68 0.0089 0.0054
 Mercury -87615-09-30 18:42 J -30279682.83 -30279682.72 -30279682.62 0.0089 0.0058
 Mercury -87615-12-27 19:54 J -30279594.75 -30279594.67 -30279594.56 0.0089 0.0063
 Mercury -87614-03-25 21:49 J -30279506.68 -30279506.59 -30279506.50 0.0089 0.0067
 Mercury -87614-06-21 23:01 J -30279418.60 -30279418.54 -30279418.44 0.0089 0.0072
 Mercury -87614-09-18 00:56 J -30279330.53 -30279330.46 -30279330.39 0.0089 0.0076
 Mercury -87614-12-15 02:23 J -30279242.45 -30279242.40 -30279242.33 0.0089 0.0081
 Mercury -87613-03-12 04:03 J -30279154.36 -30279154.33 -30279154.28 0.0089 0.0085
 Moon -87597-03-14 23:44 J -30273307.60 -30273307.51 -30273307.37 0.0089 0.0078
 Earth -87597-03-15 00:27 J -30273307.58 -30273307.48 -30273307.35 0.0089 0.0078 *
 Moon -87596-03-17 08:51 J -30272940.32 -30272940.13 -30272939.90 0.0089 0.0052
 Earth -87596-03-17 10:18 J -30272940.26 -30272940.07 -30272939.85 0.0089 0.0052 *
 Earth -87595-03-19 20:23 J -30272572.88 -30272572.65 -30272572.40 0.0089 0.0025

Moon	-87595-03-19 22:18 J	-30272572.79	-30272572.57	-30272572.32	0.0089	0.0025	*
Moon	-87594-03-22 03:49 J	-30272205.60	-30272205.34	-30272205.08	0.0089	0.0001	
Earth	-87594-03-22 06:42 J	-30272205.47	-30272205.22	-30272204.96	0.0089	0.0002	*
Earth	-87593-03-23 17:01 J	-30271838.03	-30271837.79	-30271837.55	0.0089	0.0028	
Moon	-87593-03-23 20:08 J	-30271837.88	-30271837.66	-30271837.41	0.0089	0.0029	*
Moon	-87592-03-25 23:59 J	-30271470.70	-30271470.50	-30271470.30	0.0089	0.0054	
Earth	-87592-03-26 03:06 J	-30271470.56	-30271470.37	-30271470.16	0.0089	0.0055	*
Earth	-87591-03-28 13:11 J	-30271103.03	-30271102.95	-30271102.84	0.0089	0.0082	
Moon	-87591-03-28 16:32 J	-30271102.88	-30271102.81	-30271102.71	0.0089	0.0083	*
Mars	-87584-05-09 19:25 J	-30268503.96	-30268503.69	-30268503.36	0.0089	0.0047	
Mars	-87582-04-06 13:39 J	-30267807.21	-30267806.93	-30267806.63	0.0089	0.0049	
Venus	-87547-11-10 15:06 J	-30254804.98	-30254804.87	-30254804.75	0.0089	0.0075	
Venus	-87546-06-24 05:30 J	-30254579.44	-30254579.27	-30254579.10	0.0089	0.0059	
Venus	-87545-02-04 19:25 J	-30254353.87	-30254353.69	-30254353.48	0.0089	0.0044	
Venus	-87545-09-17 09:49 J	-30254128.30	-30254128.09	-30254127.86	0.0089	0.0028	
Venus	-87544-05-01 00:27 J	-30253902.70	-30253902.48	-30253902.25	0.0089	0.0011	
Venus	-87544-12-12 14:51 J	-30253677.11	-30253676.88	-30253676.66	0.0089	0.0005	
Venus	-87543-07-26 04:47 J	-30253451.51	-30253451.30	-30253451.07	0.0089	0.0021	
Venus	-87542-03-08 18:56 J	-30253225.91	-30253225.71	-30253225.49	0.0089	0.0037	
Venus	-87542-10-20 09:06 J	-30253000.29	-30253000.12	-30252999.92	0.0089	0.0053	
Venus	-87541-06-01 23:15 J	-30252774.65	-30252774.53	-30252774.36	0.0089	0.0069	
Venus	-87540-01-13 13:39 J	-30252548.99	-30252548.93	-30252548.85	0.0089	0.0084	
Mercury	-87539-01-09 02:08 J	-30252188.43	-30252188.41	-30252188.36	0.0089	0.0087	
Mercury	-87539-04-07 05:30 J	-30252100.33	-30252100.27	-30252100.18	0.0089	0.0081	
Mercury	-87539-07-04 09:06 J	-30252012.21	-30252012.12	-30252012.02	0.0089	0.0075	
Mercury	-87539-09-30 12:27 J	-30251924.09	-30251923.98	-30251923.86	0.0089	0.0069	
Mercury	-87539-12-27 15:49 J	-30251835.97	-30251835.84	-30251835.71	0.0089	0.0063	
Mercury	-87538-03-25 18:42 J	-30251747.85	-30251747.72	-30251747.56	0.0089	0.0058	
Mercury	-87538-06-21 22:03 J	-30251659.72	-30251659.58	-30251659.42	0.0089	0.0052	
Mercury	-87538-09-18 01:25 J	-30251571.59	-30251571.44	-30251571.27	0.0089	0.0046	

Mercury -87538-12-15 04:47 J -30251483.46 -30251483.30 -30251483.13 0.0089 0.0040

Mercury -87537-03-12 07:54 J -30251395.33 -30251395.17 -30251394.99 0.0089 0.0034

Mercury -87537-06-08 11:15 J -30251307.20 -30251307.03 -30251306.85 0.0089 0.0028

Mercury -87537-09-04 14:23 J -30251219.07 -30251218.90 -30251218.71 0.0088 0.0022

Mercury -87537-12-01 17:44 J -30251130.94 -30251130.76 -30251130.58 0.0088 0.0016

Mercury -87536-02-27 20:51 J -30251042.81 -30251042.63 -30251042.44 0.0088 0.0011

Mercury -87536-05-27 00:13 J -30250954.68 -30250954.49 -30250954.31 0.0088 0.0005

Mercury -87536-08-23 03:20 J -30250866.54 -30250866.36 -30250866.18 0.0088 0.0001

Mercury -87536-11-19 06:27 J -30250778.41 -30250778.23 -30250778.04 0.0088 0.0007

Mercury -87535-02-15 09:35 J -30250690.28 -30250690.10 -30250689.91 0.0088 0.0012

Mercury -87535-05-14 12:42 J -30250602.15 -30250601.97 -30250601.79 0.0088 0.0018

Mercury -87535-08-10 15:49 J -30250514.01 -30250513.84 -30250513.66 0.0088 0.0024

Mercury -87535-11-06 18:56 J -30250425.88 -30250425.71 -30250425.53 0.0088 0.0029

Mercury -87534-02-02 21:49 J -30250337.74 -30250337.59 -30250337.41 0.0088 0.0036

Mercury -87534-05-02 01:11 J -30250249.61 -30250249.45 -30250249.28 0.0088 0.0041

Mercury -87534-07-29 04:03 J -30250161.47 -30250161.33 -30250161.16 0.0088 0.0047

Mercury -87534-10-25 07:25 J -30250073.34 -30250073.19 -30250073.04 0.0088 0.0052

Mercury -87533-01-21 10:18 J -30249985.20 -30249985.07 -30249984.92 0.0088 0.0057

Mercury -87533-04-18 13:25 J -30249897.06 -30249896.94 -30249896.81 0.0088 0.0063

Mercury -87533-07-15 16:18 J -30249808.92 -30249808.82 -30249808.69 0.0088 0.0069

Mercury -87533-10-11 19:39 J -30249720.78 -30249720.68 -30249720.58 0.0088 0.0074

Mercury -87532-01-07 22:18 J -30249632.63 -30249632.57 -30249632.48 0.0088 0.0080

Mercury -87532-04-06 01:25 J -30249544.48 -30249544.44 -30249544.38 0.0088 0.0085

Jupiter -87518-07-06 10:03 J -30244340.60 -30244340.08 -30244339.51 0.0088 0.0011

Earth -87515-09-21 14:08 J -30243167.03 -30243166.91 -30243166.73 0.0088 0.0072

Moon -87515-09-21 17:44 J -30243166.90 -30243166.76 -30243166.56 0.0088 0.0068 *

Moon -87514-09-24 01:11 J -30242799.66 -30242799.45 -30242799.22 0.0088 0.0048

Earth -87514-09-24 03:35 J -30242799.55 -30242799.35 -30242799.10 0.0088 0.0045 *

Earth -87513-09-25 17:01 J -30242432.04 -30242431.79 -30242431.53 0.0088 0.0017

Moon -87513-09-25 18:42 J -30242431.98 -30242431.72 -30242431.45 0.0088 0.0014 *

Moon	-87512-09-28 05:15 J	-30242064.53	-30242064.28	-30242064.03	0.0088	0.0006
Earth	-87512-09-28 05:59 J	-30242064.50	-30242064.25	-30242063.98	0.0088	0.0011 *
Moon	-87511-09-30 18:13 J	-30241696.98	-30241696.74	-30241696.50	0.0088	0.0041
Earth	-87511-09-30 18:42 J	-30241696.94	-30241696.72	-30241696.47	0.0088	0.0037 *
Earth	-87510-10-03 07:11 J	-30241329.35	-30241329.20	-30241328.99	0.0088	0.0065
Moon	-87510-10-03 09:35 J	-30241329.28	-30241329.10	-30241328.91	0.0088	0.0061 *
Mars	-87502-03-04 06:27 J	-30238620.44	-30238620.23	-30238620.01	0.0088	0.0059
Mars	-87500-01-25 14:23 J	-30237927.18	-30237926.90	-30237926.62	0.0088	0.0017
Venus	-87465-12-26 05:01 J	-30224808.34	-30224808.29	-30224808.20	0.0089	0.0084
Venus	-87464-08-08 16:47 J	-30224582.91	-30224582.80	-30224582.64	0.0089	0.0069
Venus	-87463-03-22 04:47 J	-30224357.46	-30224357.30	-30224357.12	0.0089	0.0054
Venus	-87463-11-02 16:47 J	-30224131.99	-30224131.80	-30224131.60	0.0089	0.0039
Venus	-87462-06-16 04:32 J	-30223906.51	-30223906.31	-30223906.10	0.0089	0.0024
Venus	-87461-01-27 16:18 J	-30223681.03	-30223680.82	-30223680.60	0.0089	0.0009
Venus	-87461-09-09 04:03 J	-30223455.54	-30223455.33	-30223455.11	0.0089	0.0007
Venus	-87460-04-22 15:35 J	-30223230.04	-30223229.85	-30223229.63	0.0089	0.0022
Venus	-87460-12-04 03:49 J	-30223004.54	-30223004.34	-30223004.15	0.0089	0.0036
Venus	-87459-07-17 15:35 J	-30222779.02	-30222778.85	-30222778.68	0.0089	0.0051
Venus	-87458-02-28 03:20 J	-30222553.50	-30222553.36	-30222553.22	0.0089	0.0066
Mercury	-87458-04-16 14:37 J	-30222505.89	-30222505.89	-30222505.89	0.0089	0.0089
Mercury	-87458-07-13 15:49 J	-30222417.87	-30222417.84	-30222417.79	0.0089	0.0085
Mercury	-87458-10-09 17:15 J	-30222329.82	-30222329.78	-30222329.71	0.0089	0.0081
Venus	-87458-10-11 15:06 J	-30222327.95	-30222327.87	-30222327.78	0.0089	0.0081
Mercury	-87457-01-05 18:27 J	-30222241.78	-30222241.73	-30222241.64	0.0089	0.0077
Mercury	-87457-04-02 20:23 J	-30222153.73	-30222153.65	-30222153.57	0.0089	0.0072
Mercury	-87457-06-29 21:35 J	-30222065.68	-30222065.60	-30222065.51	0.0089	0.0068
Mercury	-87457-09-25 23:01 J	-30221977.62	-30221977.54	-30221977.44	0.0089	0.0064
Mercury	-87457-12-23 00:27 J	-30221889.57	-30221889.48	-30221889.37	0.0089	0.0060
Mercury	-87456-03-21 01:54 J	-30221801.52	-30221801.42	-30221801.31	0.0089	0.0056
Mercury	-87456-06-17 03:35 J	-30221713.46	-30221713.35	-30221713.24	0.0089	0.0051

Mercury -87456-09-13 05:01 J -30221625.41 -30221625.29 -30221625.17 0.0089 0.0047

Mercury -87456-12-10 06:13 J -30221537.35 -30221537.24 -30221537.11 0.0089 0.0043

Mercury -87455-03-08 07:39 J -30221449.29 -30221449.18 -30221449.05 0.0089 0.0039

Mercury -87455-06-04 09:20 J -30221361.23 -30221361.11 -30221360.98 0.0089 0.0034

Mercury -87455-08-31 10:47 J -30221273.17 -30221273.05 -30221272.92 0.0089 0.0030

Mercury -87455-11-27 12:13 J -30221185.12 -30221184.99 -30221184.85 0.0089 0.0026

Mercury -87454-02-23 13:54 J -30221097.06 -30221096.92 -30221096.79 0.0089 0.0021

Mercury -87454-05-22 15:20 J -30221009.00 -30221008.86 -30221008.73 0.0089 0.0017

Mercury -87454-08-18 16:47 J -30220920.94 -30220920.80 -30220920.66 0.0089 0.0013

Mercury -87454-11-14 18:13 J -30220832.87 -30220832.74 -30220832.60 0.0089 0.0009

Mercury -87453-02-10 19:54 J -30220744.81 -30220744.67 -30220744.54 0.0089 0.0004

Mercury -87453-05-08 21:20 J -30220656.75 -30220656.61 -30220656.47 0.0089 0.0001

Mercury -87453-08-04 22:47 J -30220568.69 -30220568.55 -30220568.41 0.0089 0.0005

Mercury -87453-11-01 00:13 J -30220480.62 -30220480.49 -30220480.35 0.0089 0.0010

Mercury -87452-01-28 01:54 J -30220392.56 -30220392.42 -30220392.28 0.0089 0.0014

Mercury -87452-04-26 03:20 J -30220304.49 -30220304.36 -30220304.22 0.0089 0.0018

Mercury -87452-07-23 04:47 J -30220216.43 -30220216.30 -30220216.16 0.0089 0.0023

Mercury -87452-10-19 06:27 J -30220128.36 -30220128.23 -30220128.10 0.0089 0.0027

Mercury -87451-01-15 07:54 J -30220040.30 -30220040.17 -30220040.04 0.0089 0.0031

Mercury -87451-04-13 09:20 J -30219952.23 -30219952.11 -30219951.97 0.0089 0.0036

Mercury -87451-07-10 11:01 J -30219864.16 -30219864.04 -30219863.91 0.0089 0.0040

Mercury -87451-10-06 12:27 J -30219776.09 -30219775.98 -30219775.85 0.0089 0.0045

Mercury -87450-01-02 14:08 J -30219688.02 -30219687.91 -30219687.79 0.0089 0.0049

Mercury -87450-03-31 15:35 J -30219599.95 -30219599.85 -30219599.73 0.0089 0.0054

Mercury -87450-06-27 17:15 J -30219511.88 -30219511.78 -30219511.67 0.0089 0.0058

Mercury -87450-09-23 18:42 J -30219423.81 -30219423.72 -30219423.61 0.0089 0.0063

Mercury -87450-12-20 20:23 J -30219335.74 -30219335.65 -30219335.56 0.0089 0.0067

Mercury -87449-03-17 21:49 J -30219247.66 -30219247.59 -30219247.50 0.0089 0.0072

Mercury -87449-06-13 23:30 J -30219159.58 -30219159.52 -30219159.44 0.0089 0.0076

Mercury -87449-09-10 00:56 J -30219071.50 -30219071.46 -30219071.39 0.0089 0.0081

Mercury -87449-12-07 02:37 J -30218983.42 -30218983.39 -30218983.34 0.0089 0.0085
 Moon -87433-03-14 05:30 J -30213407.28 -30213407.27 -30213407.20 0.0089 0.0088
 Earth -87432-03-16 16:47 J -30213039.95 -30213039.80 -30213039.62 0.0089 0.0066
 Moon -87432-03-16 19:25 J -30213039.82 -30213039.69 -30213039.52 0.0089 0.0071 *
 Moon -87431-03-18 23:30 J -30212672.74 -30212672.52 -30212672.28 0.0089 0.0035
 Earth -87431-03-19 02:37 J -30212672.60 -30212672.39 -30212672.15 0.0089 0.0040 *
 Earth -87430-03-21 12:56 J -30212305.21 -30212304.96 -30212304.71 0.0089 0.0013
 Moon -87430-03-21 16:18 J -30212305.06 -30212304.82 -30212304.57 0.0089 0.0018 *
 Moon -87429-03-22 19:54 J -30211937.91 -30211937.67 -30211937.42 0.0089 0.0018
 Earth -87429-03-22 23:15 J -30211937.78 -30211937.53 -30211937.28 0.0089 0.0013 *
 Earth -87428-03-25 09:20 J -30211570.33 -30211570.11 -30211569.88 0.0089 0.0040
 Moon -87428-03-25 11:30 J -30211570.24 -30211570.02 -30211569.76 0.0089 0.0036 *
 Moon -87427-03-27 17:44 J -30211202.89 -30211202.76 -30211202.60 0.0089 0.0071
 Earth -87427-03-27 19:11 J -30211202.84 -30211202.70 -30211202.50 0.0089 0.0067 *
 Moon -87426-03-30 06:27 J -30210835.25 -30210835.23 -30210835.19 0.0089 0.0088
 Mars -87419-11-17 07:25 J -30208046.54 -30208046.19 -30208045.84 0.0089 0.0002
 Venus -87382-02-11 21:06 J -30194810.69 -30194810.62 -30194810.54 0.0089 0.0083
 Venus -87382-09-25 10:47 J -30194585.17 -30194585.05 -30194584.88 0.0089 0.0068
 Venus -87381-05-08 01:25 J -30194359.61 -30194359.44 -30194359.24 0.0089 0.0052
 Venus -87381-12-19 15:49 J -30194134.04 -30194133.84 -30194133.62 0.0089 0.0035
 Venus -87380-08-02 05:59 J -30193908.46 -30193908.25 -30193908.02 0.0089 0.0020
 Venus -87379-03-15 20:23 J -30193682.87 -30193682.65 -30193682.42 0.0089 0.0004
 Venus -87379-10-27 10:32 J -30193457.28 -30193457.06 -30193456.83 0.0089 0.0013
 Venus -87378-06-10 00:56 J -30193231.67 -30193231.46 -30193231.24 0.0089 0.0029
 Venus -87377-01-21 14:51 J -30193006.06 -30193005.88 -30193005.67 0.0089 0.0045
 Venus -87377-09-03 05:01 J -30192780.44 -30192780.29 -30192780.11 0.0089 0.0061
 Venus -87376-04-16 19:11 J -30192554.79 -30192554.70 -30192554.56 0.0089 0.0077
 Mercury -87375-10-05 22:47 J -30192017.55 -30192017.55 -30192017.50 0.0088 0.0088
 Mercury -87374-01-02 02:23 J -30191929.46 -30191929.40 -30191929.31 0.0088 0.0082
 Mercury -87374-03-31 05:44 J -30191841.34 -30191841.26 -30191841.15 0.0088 0.0076

Mercury -87374-06-27 09:06 J -30191753.22 -30191753.12 -30191752.99 0.0088 0.0070
 Mercury -87374-09-23 12:27 J -30191665.10 -30191664.98 -30191664.84 0.0088 0.0064
 Mercury -87374-12-20 15:49 J -30191576.97 -30191576.84 -30191576.69 0.0088 0.0058
 Mercury -87373-03-17 19:11 J -30191488.85 -30191488.70 -30191488.55 0.0088 0.0052
 Mercury -87373-06-13 22:32 J -30191400.72 -30191400.56 -30191400.40 0.0088 0.0046
 Mercury -87373-09-10 01:25 J -30191312.59 -30191312.44 -30191312.26 0.0088 0.0041
 Mercury -87373-12-07 04:47 J -30191224.46 -30191224.30 -30191224.12 0.0088 0.0035
 Mercury -87372-03-05 08:08 J -30191136.33 -30191136.16 -30191135.98 0.0088 0.0029
 Mercury -87372-06-01 11:30 J -30191048.20 -30191048.02 -30191047.84 0.0088 0.0023
 Mercury -87372-08-28 14:37 J -30190960.07 -30190959.89 -30190959.70 0.0088 0.0017
 Mercury -87372-11-24 17:44 J -30190871.93 -30190871.76 -30190871.57 0.0088 0.0012
 Mercury -87371-02-20 21:06 J -30190783.80 -30190783.62 -30190783.43 0.0088 0.0005
 Mercury -87371-05-20 00:13 J -30190695.67 -30190695.49 -30190695.30 0.0088 0.0002
 Mercury -87371-08-16 03:35 J -30190607.54 -30190607.35 -30190607.17 0.0088 0.0006
 Mercury -87371-11-12 06:27 J -30190519.40 -30190519.23 -30190519.04 0.0088 0.0013
 Mercury -87370-02-08 09:49 J -30190431.27 -30190431.09 -30190430.91 0.0088 0.0018
 Mercury -87370-05-07 12:42 J -30190343.14 -30190342.97 -30190342.78 0.0088 0.0024
 Mercury -87370-08-03 15:49 J -30190255.00 -30190254.84 -30190254.66 0.0088 0.0029
 Mercury -87370-10-30 19:11 J -30190166.87 -30190166.70 -30190166.53 0.0088 0.0035
 Mercury -87369-01-26 22:03 J -30190078.73 -30190078.58 -30190078.41 0.0088 0.0041
 Mercury -87369-04-24 01:25 J -30189990.60 -30189990.44 -30189990.29 0.0088 0.0046
 Mercury -87369-07-21 04:18 J -30189902.46 -30189902.32 -30189902.16 0.0088 0.0052
 Mercury -87369-10-17 07:11 J -30189814.32 -30189814.20 -30189814.05 0.0088 0.0057
 Mercury -87368-01-13 10:18 J -30189726.18 -30189726.07 -30189725.93 0.0088 0.0063
 Mercury -87368-04-11 13:11 J -30189638.04 -30189637.95 -30189637.82 0.0088 0.0069
 Mercury -87368-07-08 16:32 J -30189549.90 -30189549.81 -30189549.70 0.0088 0.0074
 Mercury -87368-10-04 19:11 J -30189461.75 -30189461.70 -30189461.60 0.0088 0.0080
 Mercury -87368-12-31 22:18 J -30189373.60 -30189373.57 -30189373.50 0.0088 0.0085
 Jupiter -87352-08-30 00:42 J -30183653.92 -30183653.47 -30183653.00 0.0088 0.0047
 Moon -87351-09-20 13:25 J -30183267.00 -30183266.94 -30183266.83 0.0088 0.0084

Earth	-87351-09-20 15:20 J	-30183266.89	-30183266.86	-30183266.78	0.0088	0.0087	*
Earth	-87350-09-23 05:01 J	-30182899.47	-30182899.29	-30182899.08	0.0088	0.0060	
Moon	-87350-09-23 06:13 J	-30182899.41	-30182899.24	-30182899.03	0.0088	0.0063	*
Earth	-87349-09-24 18:27 J	-30182531.97	-30182531.73	-30182531.48	0.0088	0.0033	
Moon	-87349-09-24 18:56 J	-30182531.94	-30182531.71	-30182531.46	0.0088	0.0029	*
Moon	-87348-09-27 06:27 J	-30182164.50	-30182164.23	-30182163.96	0.0088	0.0008	
Earth	-87348-09-27 07:54 J	-30182164.43	-30182164.17	-30182163.91	0.0088	0.0005	*
Earth	-87347-09-29 20:37 J	-30181796.88	-30181796.64	-30181796.38	0.0088	0.0022	
Moon	-87347-09-29 23:01 J	-30181796.78	-30181796.54	-30181796.29	0.0088	0.0024	*
Moon	-87346-10-02 05:44 J	-30181429.48	-30181429.26	-30181429.02	0.0088	0.0045	
Earth	-87346-10-02 09:06 J	-30181429.32	-30181429.12	-30181428.88	0.0088	0.0049	*
Earth	-87345-10-03 22:03 J	-30181061.71	-30181061.58	-30181061.44	0.0088	0.0075	
Moon	-87345-10-04 01:11 J	-30181061.55	-30181061.45	-30181061.31	0.0088	0.0078	*
Mars	-87337-09-10 00:27 J	-30178163.75	-30178163.48	-30178163.19	0.0088	0.0022	
Mars	-87335-08-04 07:11 J	-30177470.39	-30177470.20	-30177469.94	0.0088	0.0055	
Venus	-87300-11-10 01:11 J	-30164588.54	-30164588.45	-30164588.33	0.0089	0.0077	
Venus	-87299-06-23 12:56 J	-30164363.09	-30164362.96	-30164362.79	0.0089	0.0062	
Venus	-87298-02-04 00:42 J	-30164137.63	-30164137.47	-30164137.27	0.0089	0.0047	
Venus	-87298-09-17 12:42 J	-30163912.16	-30163911.97	-30163911.76	0.0089	0.0032	
Venus	-87297-04-30 00:27 J	-30163686.68	-30163686.48	-30163686.26	0.0089	0.0017	
Venus	-87297-12-11 12:27 J	-30163461.19	-30163460.98	-30163460.76	0.0089	0.0002	
Venus	-87296-07-25 00:13 J	-30163235.70	-30163235.49	-30163235.27	0.0089	0.0014	
Venus	-87295-03-07 11:59 J	-30163010.20	-30163010.00	-30163009.79	0.0089	0.0029	
Venus	-87295-10-18 23:44 J	-30162784.68	-30162784.51	-30162784.31	0.0089	0.0044	
Venus	-87294-06-01 11:30 J	-30162559.17	-30162559.02	-30162558.85	0.0089	0.0059	
Venus	-87293-01-12 23:15 J	-30162333.63	-30162333.53	-30162333.40	0.0089	0.0074	
Mercury	-87293-04-08 14:37 J	-30162246.92	-30162246.89	-30162246.85	0.0089	0.0085	
Mercury	-87293-07-05 16:03 J	-30162158.88	-30162158.83	-30162158.77	0.0089	0.0081	
Mercury	-87293-10-01 17:15 J	-30162070.83	-30162070.78	-30162070.70	0.0089	0.0077	
Mercury	-87293-12-28 18:42 J	-30161982.78	-30161982.72	-30161982.63	0.0089	0.0073	

Mercury -87292-03-26 20:08 J -30161894.73 -30161894.66 -30161894.56 0.0089 0.0069

Mercury -87292-06-22 21:49 J -30161806.68 -30161806.59 -30161806.49 0.0089 0.0064

Mercury -87292-09-18 23:15 J -30161718.63 -30161718.53 -30161718.43 0.0089 0.0060

Mercury -87292-12-16 00:42 J -30161630.57 -30161630.47 -30161630.36 0.0089 0.0056

Mercury -87291-03-14 01:54 J -30161542.52 -30161542.42 -30161542.30 0.0089 0.0052

Mercury -87291-06-10 03:20 J -30161454.46 -30161454.36 -30161454.23 0.0089 0.0048

Mercury -87291-09-06 05:01 J -30161366.41 -30161366.29 -30161366.17 0.0089 0.0043

Mercury -87291-12-03 06:27 J -30161278.35 -30161278.23 -30161278.10 0.0089 0.0039

Mercury -87290-03-01 07:54 J -30161190.29 -30161190.17 -30161190.04 0.0089 0.0035

Mercury -87290-05-28 09:35 J -30161102.23 -30161102.10 -30161101.97 0.0089 0.0030

Mercury -87290-08-24 11:01 J -30161014.17 -30161014.04 -30161013.91 0.0089 0.0026

Mercury -87290-11-20 12:27 J -30160926.11 -30160925.98 -30160925.85 0.0089 0.0022

Mercury -87289-02-16 13:54 J -30160838.05 -30160837.92 -30160837.78 0.0089 0.0017

Mercury -87289-05-14 15:20 J -30160749.99 -30160749.86 -30160749.72 0.0089 0.0013

Mercury -87289-08-10 17:01 J -30160661.93 -30160661.79 -30160661.66 0.0089 0.0009

Mercury -87289-11-06 18:27 J -30160573.87 -30160573.73 -30160573.59 0.0089 0.0004

Mercury -87288-02-02 19:54 J -30160485.81 -30160485.67 -30160485.53 0.0089 0.0001

Mercury -87288-05-01 21:20 J -30160397.74 -30160397.61 -30160397.47 0.0089 0.0006

Mercury -87288-07-28 23:01 J -30160309.68 -30160309.54 -30160309.40 0.0089 0.0009

Mercury -87288-10-25 00:27 J -30160221.62 -30160221.48 -30160221.34 0.0089 0.0013

Mercury -87287-01-21 01:54 J -30160133.55 -30160133.42 -30160133.28 0.0089 0.0018

Mercury -87287-04-19 03:35 J -30160045.49 -30160045.35 -30160045.22 0.0089 0.0022

Mercury -87287-07-16 05:01 J -30159957.42 -30159957.29 -30159957.15 0.0089 0.0027

Mercury -87287-10-12 06:42 J -30159869.35 -30159869.22 -30159869.09 0.0089 0.0031

Mercury -87286-01-08 07:54 J -30159781.29 -30159781.17 -30159781.03 0.0089 0.0036

Mercury -87286-04-06 09:35 J -30159693.22 -30159693.10 -30159692.97 0.0089 0.0040

Mercury -87286-07-03 11:01 J -30159605.15 -30159605.04 -30159604.91 0.0089 0.0045

Mercury -87286-09-29 12:42 J -30159517.08 -30159516.97 -30159516.85 0.0089 0.0049

Mercury -87286-12-26 14:08 J -30159429.01 -30159428.91 -30159428.79 0.0089 0.0054

Mercury -87285-03-23 15:49 J -30159340.94 -30159340.84 -30159340.73 0.0089 0.0058

Mercury -87285-06-19 17:15 J -30159252.87 -30159252.78 -30159252.67 0.0089 0.0063
 Mercury -87285-09-15 18:56 J -30159164.79 -30159164.71 -30159164.61 0.0089 0.0067
 Mercury -87285-12-12 20:23 J -30159076.72 -30159076.65 -30159076.55 0.0089 0.0072
 Mercury -87284-03-10 22:03 J -30158988.64 -30158988.58 -30158988.50 0.0089 0.0076
 Mercury -87284-06-06 23:30 J -30158900.56 -30158900.52 -30158900.45 0.0089 0.0081
 Mercury -87284-09-03 01:11 J -30158812.48 -30158812.45 -30158812.40 0.0089 0.0085
 Moon -87268-03-15 19:25 J -30153139.77 -30153139.69 -30153139.56 0.0089 0.0081
 Earth -87268-03-15 22:47 J -30153139.62 -30153139.55 -30153139.41 0.0089 0.0081 *
 Earth -87267-03-18 08:51 J -30152772.32 -30152772.13 -30152771.92 0.0089 0.0054
 Moon -87267-03-18 11:59 J -30152772.18 -30152772.00 -30152771.77 0.0089 0.0054 *
 Moon -87266-03-20 16:03 J -30152405.06 -30152404.83 -30152404.59 0.0089 0.0028
 Earth -87266-03-20 18:42 J -30152404.95 -30152404.72 -30152404.47 0.0089 0.0028 *
 Earth -87265-03-22 05:01 J -30152037.55 -30152037.29 -30152037.04 0.0089 0.0002
 Moon -87265-03-22 07:25 J -30152037.45 -30152037.19 -30152036.93 0.0089 0.0002 *
 Moon -87264-03-24 14:23 J -30151670.14 -30151669.90 -30151669.67 0.0089 0.0024
 Earth -87264-03-24 14:51 J -30151670.12 -30151669.88 -30151669.63 0.0089 0.0025 *
 Moon -87263-03-27 01:11 J -30151302.67 -30151302.45 -30151302.24 0.0089 0.0051
 Earth -87263-03-27 01:11 J -30151302.65 -30151302.45 -30151302.24 0.0089 0.0051 *
 Earth -87262-03-29 11:15 J -30150935.13 -30150935.03 -30150934.89 0.0089 0.0078
 Moon -87262-03-29 12:56 J -30150935.07 -30150934.96 -30150934.84 0.0089 0.0078 *
 Mars -87255-06-29 23:01 J -30148285.81 -30148285.54 -30148285.21 0.0089 0.0046
 Mars -87253-05-26 17:30 J -30147589.05 -30147588.77 -30147588.47 0.0089 0.0050
 Venus -87218-12-27 17:01 J -30134590.88 -30134590.79 -30134590.64 0.0089 0.0076
 Venus -87217-08-09 07:25 J -30134365.34 -30134365.19 -30134365.00 0.0089 0.0060
 Venus -87216-03-22 21:35 J -30134139.78 -30134139.60 -30134139.38 0.0089 0.0044
 Venus -87216-11-03 11:59 J -30133914.20 -30133914.00 -30133913.77 0.0089 0.0028
 Venus -87215-06-17 02:23 J -30133688.62 -30133688.40 -30133688.17 0.0089 0.0012
 Venus -87214-01-28 16:47 J -30133463.03 -30133462.80 -30133462.57 0.0089 0.0005
 Venus -87214-09-11 06:56 J -30133237.43 -30133237.21 -30133236.99 0.0089 0.0021
 Venus -87213-04-23 21:20 J -30133011.81 -30133011.61 -30133011.40 0.0089 0.0037

Venus -87213-12-05 11:30 J -30132786.20 -30132786.02 -30132785.83 0.0088 0.0053

Venus -87212-07-19 01:39 J -30132560.57 -30132560.43 -30132560.28 0.0088 0.0069

Venus -87211-03-01 15:35 J -30132334.90 -30132334.85 -30132334.77 0.0088 0.0085

Mercury -87210-07-02 20:08 J -30131846.67 -30131846.66 -30131846.63 0.0088 0.0088

Mercury -87210-09-28 23:30 J -30131758.58 -30131758.52 -30131758.44 0.0088 0.0082

Mercury -87210-12-26 02:51 J -30131670.47 -30131670.38 -30131670.28 0.0088 0.0076

Mercury -87209-03-23 06:13 J -30131582.35 -30131582.24 -30131582.12 0.0088 0.0070

Mercury -87209-06-19 09:35 J -30131494.22 -30131494.10 -30131493.97 0.0088 0.0064

Mercury -87209-09-15 12:42 J -30131406.10 -30131405.97 -30131405.82 0.0088 0.0058

Mercury -87209-12-12 16:03 J -30131317.97 -30131317.83 -30131317.67 0.0088 0.0052

Mercury -87208-03-10 19:25 J -30131229.84 -30131229.69 -30131229.52 0.0088 0.0046

Mercury -87208-06-06 22:32 J -30131141.71 -30131141.56 -30131141.38 0.0088 0.0041

Mercury -87208-09-03 01:54 J -30131053.58 -30131053.42 -30131053.24 0.0088 0.0035

Mercury -87208-11-30 05:15 J -30130965.45 -30130965.28 -30130965.10 0.0088 0.0029

Mercury -87207-02-26 08:37 J -30130877.32 -30130877.14 -30130876.96 0.0088 0.0023

Mercury -87207-05-25 11:44 J -30130789.18 -30130789.01 -30130788.82 0.0088 0.0017

Mercury -87207-08-21 15:06 J -30130701.05 -30130700.87 -30130700.69 0.0088 0.0011

Mercury -87207-11-17 18:13 J -30130612.92 -30130612.74 -30130612.55 0.0088 0.0006

Mercury -87206-02-13 21:35 J -30130524.79 -30130524.60 -30130524.42 0.0088 0.0002

Mercury -87206-05-13 00:42 J -30130436.65 -30130436.47 -30130436.29 0.0088 0.0006

Mercury -87206-08-09 03:49 J -30130348.52 -30130348.34 -30130348.16 0.0088 0.0012

Mercury -87206-11-05 06:56 J -30130260.39 -30130260.21 -30130260.03 0.0088 0.0018

Mercury -87205-02-01 10:03 J -30130172.25 -30130172.08 -30130171.90 0.0088 0.0023

Mercury -87205-04-29 12:56 J -30130084.12 -30130083.96 -30130083.77 0.0088 0.0030

Mercury -87205-07-26 16:18 J -30129995.98 -30129995.82 -30129995.65 0.0088 0.0035

Mercury -87205-10-22 19:11 J -30129907.85 -30129907.70 -30129907.52 0.0088 0.0041

Mercury -87204-01-18 22:32 J -30129819.71 -30129819.56 -30129819.40 0.0088 0.0046

Mercury -87204-04-17 01:25 J -30129731.58 -30129731.44 -30129731.28 0.0088 0.0052

Mercury -87204-07-14 04:47 J -30129643.44 -30129643.30 -30129643.16 0.0088 0.0057

Mercury -87204-10-10 07:39 J -30129555.30 -30129555.18 -30129555.05 0.0088 0.0063

Mercury -87203-01-06 10:32 J -30129467.16 -30129467.06 -30129466.93 0.0088 0.0068

Mercury -87203-04-04 13:39 J -30129379.02 -30129378.93 -30129378.82 0.0088 0.0074

Mercury -87203-07-01 17:01 J -30129290.87 -30129290.79 -30129290.71 0.0088 0.0079

Mercury -87203-09-27 19:39 J -30129202.72 -30129202.68 -30129202.62 0.0088 0.0085

Earth -87186-09-22 05:59 J -30122999.38 -30122999.25 -30122999.10 0.0088 0.0075

Moon -87186-09-22 06:42 J -30122999.34 -30122999.22 -30122999.05 0.0088 0.0073 *

Jupiter -87186-10-29 09:06 J -30122962.18 -30122962.12 -30122961.97 0.0088 0.0087

Moon -87185-09-23 17:01 J -30122632.00 -30122631.79 -30122631.55 0.0088 0.0050

Earth -87185-09-23 19:54 J -30122631.89 -30122631.67 -30122631.45 0.0088 0.0048 *

Earth -87184-09-26 09:06 J -30122264.37 -30122264.12 -30122263.86 0.0088 0.0021

Moon -87184-09-26 12:27 J -30122264.23 -30122263.98 -30122263.72 0.0088 0.0019 *

Moon -87183-09-28 18:56 J -30121896.97 -30121896.71 -30121896.44 0.0088 0.0003

Earth -87183-09-28 22:18 J -30121896.82 -30121896.57 -30121896.30 0.0088 0.0006 *

Earth -87182-10-01 11:15 J -30121529.27 -30121529.03 -30121528.78 0.0088 0.0033

Moon -87182-10-01 14:51 J -30121529.11 -30121528.88 -30121528.63 0.0088 0.0036 *

Moon -87181-10-02 21:06 J -30121161.81 -30121161.62 -30121161.41 0.0088 0.0057

Earth -87181-10-02 23:59 J -30121161.68 -30121161.50 -30121161.29 0.0088 0.0059 *

Earth -87180-10-05 12:42 J -30120794.02 -30120793.97 -30120793.90 0.0088 0.0086

Mars -87173-04-25 08:37 J -30118400.33 -30118400.14 -30118399.91 0.0088 0.0060

Mars -87171-03-19 17:44 J -30117707.03 -30117706.76 -30117706.47 0.0088 0.0016

Venus -87135-02-11 09:20 J -30104594.15 -30104594.11 -30104594.03 0.0089 0.0085

Venus -87135-09-24 21:20 J -30104368.73 -30104368.61 -30104368.47 0.0089 0.0070

Venus -87134-05-08 09:06 J -30104143.27 -30104143.12 -30104142.94 0.0089 0.0055

Venus -87134-12-19 20:51 J -30103917.80 -30103917.63 -30103917.42 0.0089 0.0040

Venus -87133-08-01 08:51 J -30103692.33 -30103692.13 -30103691.91 0.0089 0.0025

Venus -87132-03-14 20:51 J -30103466.84 -30103466.63 -30103466.42 0.0089 0.0009

Venus -87132-10-26 08:51 J -30103241.34 -30103241.13 -30103240.92 0.0089 0.0006

Venus -87131-06-08 20:23 J -30103015.85 -30103015.65 -30103015.43 0.0089 0.0022

Venus -87130-01-20 08:08 J -30102790.34 -30102790.16 -30102789.96 0.0089 0.0037

Venus -87130-09-02 19:39 J -30102564.83 -30102564.68 -30102564.49 0.0089 0.0052

Venus -87129-04-15 07:25 J -30102339.31 -30102339.19 -30102339.03 0.0089 0.0067

Venus -87129-11-26 19:25 J -30102113.75 -30102113.69 -30102113.59 0.0089 0.0082

Mercury -87128-01-03 13:11 J -30102075.97 -30102075.95 -30102075.90 0.0089 0.0086

Mercury -87128-04-01 14:51 J -30101987.93 -30101987.88 -30101987.83 0.0089 0.0081

Mercury -87128-06-28 16:03 J -30101899.88 -30101899.83 -30101899.75 0.0089 0.0077

Mercury -87128-09-24 17:30 J -30101811.84 -30101811.77 -30101811.69 0.0089 0.0073

Mercury -87128-12-21 18:56 J -30101723.79 -30101723.71 -30101723.62 0.0089 0.0069

Mercury -87127-03-19 20:23 J -30101635.73 -30101635.65 -30101635.55 0.0089 0.0065

Mercury -87127-06-15 21:49 J -30101547.68 -30101547.59 -30101547.48 0.0089 0.0061

Mercury -87127-09-11 23:15 J -30101459.63 -30101459.53 -30101459.42 0.0089 0.0056

Mercury -87127-12-09 00:42 J -30101371.57 -30101371.47 -30101371.35 0.0089 0.0052

Mercury -87126-03-07 02:08 J -30101283.52 -30101283.41 -30101283.29 0.0089 0.0048

Mercury -87126-06-03 03:35 J -30101195.46 -30101195.35 -30101195.22 0.0089 0.0044

Mercury -87126-08-30 05:15 J -30101107.40 -30101107.28 -30101107.16 0.0089 0.0039

Mercury -87126-11-26 06:27 J -30101019.35 -30101019.23 -30101019.10 0.0089 0.0035

Mercury -87125-02-22 07:54 J -30100931.29 -30100931.17 -30100931.03 0.0089 0.0031

Mercury -87125-05-20 09:35 J -30100843.23 -30100843.10 -30100842.97 0.0089 0.0026

Mercury -87125-08-16 11:01 J -30100755.17 -30100755.04 -30100754.91 0.0089 0.0022

Mercury -87125-11-12 12:27 J -30100667.11 -30100666.98 -30100666.84 0.0089 0.0018

Mercury -87124-02-08 13:54 J -30100579.05 -30100578.92 -30100578.78 0.0089 0.0014

Mercury -87124-05-07 15:35 J -30100490.99 -30100490.85 -30100490.72 0.0089 0.0009

Mercury -87124-08-03 17:01 J -30100402.93 -30100402.79 -30100402.65 0.0089 0.0005

Mercury -87124-10-30 18:27 J -30100314.87 -30100314.73 -30100314.59 0.0089 0.0001

Mercury -87123-01-26 19:54 J -30100226.80 -30100226.67 -30100226.53 0.0089 0.0005

Mercury -87123-04-24 21:35 J -30100138.74 -30100138.60 -30100138.47 0.0089 0.0009

Mercury -87123-07-21 23:01 J -30100050.68 -30100050.54 -30100050.40 0.0089 0.0013

Mercury -87123-10-18 00:27 J -30099962.61 -30099962.48 -30099962.34 0.0089 0.0018

Mercury -87122-01-14 01:54 J -30099874.55 -30099874.42 -30099874.28 0.0089 0.0022

Mercury -87122-04-12 03:35 J -30099786.48 -30099786.35 -30099786.22 0.0089 0.0026

Mercury -87122-07-09 05:01 J -30099698.41 -30099698.29 -30099698.15 0.0089 0.0031

Mercury -87122-10-05 06:42 J -30099610.35 -30099610.22 -30099610.09 0.0089 0.0035
 Mercury -87121-01-01 08:08 J -30099522.28 -30099522.16 -30099522.03 0.0089 0.0040
 Mercury -87121-03-29 09:35 J -30099434.21 -30099434.10 -30099433.97 0.0089 0.0044
 Mercury -87121-06-25 11:01 J -30099346.14 -30099346.04 -30099345.91 0.0089 0.0049
 Mercury -87121-09-21 12:42 J -30099258.07 -30099257.97 -30099257.85 0.0089 0.0053
 Mercury -87121-12-18 14:08 J -30099170.00 -30099169.91 -30099169.79 0.0089 0.0058
 Mercury -87120-03-16 15:49 J -30099081.93 -30099081.84 -30099081.73 0.0089 0.0062
 Mercury -87120-06-12 17:15 J -30098993.86 -30098993.78 -30098993.67 0.0089 0.0067
 Mercury -87120-09-08 18:56 J -30098905.78 -30098905.71 -30098905.62 0.0089 0.0071
 Mercury -87120-12-05 20:23 J -30098817.70 -30098817.65 -30098817.56 0.0089 0.0076
 Mercury -87119-03-03 22:18 J -30098729.62 -30098729.57 -30098729.51 0.0089 0.0080
 Mercury -87119-05-30 23:30 J -30098641.54 -30098641.52 -30098641.46 0.0089 0.0085
 Moon -87103-03-17 12:56 J -30092872.09 -30092871.96 -30092871.82 0.0089 0.0073
 Earth -87103-03-17 15:06 J -30092872.00 -30092871.87 -30092871.68 0.0089 0.0069 *
 Earth -87102-03-20 00:56 J -30092504.66 -30092504.46 -30092504.22 0.0089 0.0043
 Moon -87102-03-20 02:37 J -30092504.62 -30092504.39 -30092504.15 0.0089 0.0038 *
 Moon -87101-03-21 10:18 J -30092137.29 -30092137.07 -30092136.82 0.0089 0.0021
 Earth -87101-03-21 11:15 J -30092137.28 -30092137.03 -30092136.78 0.0089 0.0016 *
 Moon -87100-03-23 20:08 J -30091769.92 -30091769.66 -30091769.40 0.0089 0.0014
 Earth -87100-03-23 21:06 J -30091769.87 -30091769.62 -30091769.37 0.0089 0.0010 *
 Earth -87099-03-26 07:11 J -30091402.43 -30091402.20 -30091401.97 0.0089 0.0036
 Moon -87099-03-26 09:20 J -30091402.33 -30091402.11 -30091401.87 0.0089 0.0032 *
 Moon -87098-03-28 14:23 J -30091035.06 -30091034.90 -30091034.72 0.0089 0.0067
 Earth -87098-03-28 17:01 J -30091034.95 -30091034.79 -30091034.59 0.0089 0.0063 *
 Moon -87097-03-30 07:11 J -30090667.26 -30090667.20 -30090667.11 0.0089 0.0084
 Mars -87089-01-07 09:35 J -30087828.45 -30087828.10 -30087827.75 0.0089 0.0003
 Venus -87053-03-29 23:59 J -30074596.58 -30074596.50 -30074596.42 0.0089 0.0083
 Venus -87053-11-10 14:08 J -30074371.05 -30074370.91 -30074370.76 0.0089 0.0067
 Venus -87052-06-24 04:18 J -30074145.50 -30074145.32 -30074145.13 0.0089 0.0051
 Venus -87051-02-04 18:27 J -30073919.94 -30073919.73 -30073919.52 0.0089 0.0035

Venus -87051-09-18 08:23 J -30073694.36 -30073694.15 -30073693.91 0.0089 0.0020

Venus -87050-05-01 23:01 J -30073468.76 -30073468.54 -30073468.31 0.0089 0.0003

Venus -87050-12-13 13:11 J -30073243.17 -30073242.95 -30073242.72 0.0089 0.0013

Venus -87049-07-26 03:06 J -30073017.57 -30073017.37 -30073017.14 0.0089 0.0030

Venus -87048-03-08 17:15 J -30072791.96 -30072791.78 -30072791.57 0.0088 0.0045

Venus -87048-10-20 07:11 J -30072566.34 -30072566.20 -30072566.01 0.0088 0.0062

Venus -87047-06-02 21:35 J -30072340.69 -30072340.60 -30072340.47 0.0088 0.0078

Mercury -87045-03-28 17:01 J -30071675.79 -30071675.79 -30071675.76 0.0088 0.0088

Mercury -87045-06-24 20:08 J -30071587.70 -30071587.66 -30071587.57 0.0088 0.0083

Mercury -87045-09-20 23:30 J -30071499.59 -30071499.52 -30071499.40 0.0088 0.0077

Mercury -87045-12-18 03:06 J -30071411.47 -30071411.37 -30071411.24 0.0088 0.0070

Mercury -87044-03-16 06:27 J -30071323.35 -30071323.23 -30071323.09 0.0088 0.0065

Mercury -87044-06-12 09:49 J -30071235.22 -30071235.09 -30071234.94 0.0088 0.0059

Mercury -87044-09-08 13:11 J -30071147.09 -30071146.95 -30071146.79 0.0088 0.0053

Mercury -87044-12-05 16:32 J -30071058.96 -30071058.81 -30071058.64 0.0088 0.0047

Mercury -87043-03-03 19:54 J -30070970.83 -30070970.67 -30070970.50 0.0088 0.0041

Mercury -87043-05-30 23:15 J -30070882.70 -30070882.53 -30070882.36 0.0088 0.0035

Mercury -87043-08-27 02:37 J -30070794.57 -30070794.39 -30070794.22 0.0088 0.0029

Mercury -87043-11-23 05:30 J -30070706.44 -30070706.27 -30070706.08 0.0088 0.0024

Mercury -87042-02-19 08:51 J -30070618.30 -30070618.13 -30070617.94 0.0088 0.0018

Mercury -87042-05-18 12:13 J -30070530.17 -30070529.99 -30070529.80 0.0088 0.0011

Mercury -87042-08-14 15:35 J -30070442.04 -30070441.85 -30070441.67 0.0088 0.0006

Mercury -87042-11-10 18:42 J -30070353.90 -30070353.72 -30070353.53 0.0088 0.0001

Mercury -87041-02-06 21:49 J -30070265.77 -30070265.59 -30070265.40 0.0088 0.0006

Mercury -87041-05-05 01:11 J -30070177.64 -30070177.45 -30070177.27 0.0088 0.0012

Mercury -87041-08-01 04:18 J -30070089.50 -30070089.32 -30070089.14 0.0088 0.0017

Mercury -87041-10-28 07:11 J -30070001.37 -30070001.20 -30070001.01 0.0088 0.0024

Mercury -87040-01-24 10:32 J -30069913.23 -30069913.06 -30069912.88 0.0088 0.0029

Mercury -87040-04-22 13:39 J -30069825.10 -30069824.93 -30069824.76 0.0088 0.0035

Mercury -87040-07-19 16:32 J -30069736.96 -30069736.81 -30069736.64 0.0088 0.0041

Mercury -87040-10-15 19:54 J -30069648.82 -30069648.67 -30069648.51 0.0088 0.0046
 Mercury -87039-01-11 22:47 J -30069560.69 -30069560.55 -30069560.39 0.0088 0.0052
 Mercury -87039-04-10 01:39 J -30069472.55 -30069472.43 -30069472.27 0.0088 0.0058
 Mercury -87039-07-07 05:01 J -30069384.41 -30069384.29 -30069384.16 0.0088 0.0063
 Mercury -87039-10-03 07:54 J -30069296.27 -30069296.17 -30069296.04 0.0088 0.0068
 Mercury -87039-12-30 11:01 J -30069208.13 -30069208.04 -30069207.93 0.0088 0.0074
 Mercury -87038-03-28 13:54 J -30069119.98 -30069119.92 -30069119.82 0.0088 0.0080
 Mercury -87038-06-24 17:01 J -30069031.82 -30069031.79 -30069031.72 0.0088 0.0085
 Moon -87022-09-21 04:03 J -30063099.37 -30063099.33 -30063099.23 0.0088 0.0086
 Earth -87021-09-22 21:06 J -30062731.80 -30062731.62 -30062731.43 0.0088 0.0063
 Moon -87021-09-23 00:42 J -30062731.64 -30062731.47 -30062731.30 0.0088 0.0067 *
 Moon -87020-09-25 06:56 J -30062364.45 -30062364.21 -30062363.96 0.0088 0.0031
 Earth -87020-09-25 10:18 J -30062364.29 -30062364.07 -30062363.81 0.0088 0.0036 *
 Earth -87019-09-27 23:59 J -30061996.76 -30061996.50 -30061996.24 0.0088 0.0009
 Moon -87019-09-28 03:06 J -30061996.62 -30061996.37 -30061996.10 0.0088 0.0013 *
 Moon -87018-09-30 10:03 J -30061629.32 -30061629.08 -30061628.82 0.0088 0.0022
 Earth -87018-09-30 13:11 J -30061629.20 -30061628.95 -30061628.69 0.0088 0.0018 *
 Earth -87017-10-02 01:54 J -30061261.63 -30061261.42 -30061261.17 0.0088 0.0045
 Moon -87017-10-02 03:35 J -30061261.57 -30061261.35 -30061261.09 0.0088 0.0041 *
 Moon -87016-10-04 13:54 J -30060894.02 -30060893.92 -30060893.75 0.0088 0.0075
 Earth -87016-10-04 14:51 J -30060894.02 -30060893.88 -30060893.71 0.0088 0.0071 *
 Mars -87008-11-02 02:08 J -30057943.66 -30057943.41 -30057943.11 0.0088 0.0023
 Mars -87006-09-26 11:59 J -30057250.22 -30057250.00 -30057249.77 0.0088 0.0054

87TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 87th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-86971-12-27 05:30 J	-30044374.35	-30044374.27	-30044374.15	0.0089	0.0078		
Venus	-86970-08-09 17:15 J	-30044148.91	-30044148.78	-30044148.61	0.0089	0.0063		
Venus	-86969-03-22 05:01 J	-30043923.45	-30043923.29	-30043923.09	0.0089	0.0048		
Venus	-86969-11-02 17:30 J	-30043697.97	-30043697.77	-30043697.57	0.0089	0.0032		
Venus	-86968-06-16 05:15 J	-30043472.49	-30043472.28	-30043472.07	0.0089	0.0017		
Venus	-86967-01-27 17:01 J	-30043247.00	-30043246.79	-30043246.57	0.0089	0.0003		
Venus	-86967-09-10 04:47 J	-30043021.50	-30043021.30	-30043021.08	0.0089	0.0014		
Venus	-86966-04-23 16:32 J	-30042796.00	-30042795.81	-30042795.60	0.0089	0.0029		
Venus	-86966-12-05 04:32 J	-30042570.49	-30042570.31	-30042570.12	0.0089	0.0044		
Venus	-86965-07-17 16:03 J	-30042344.97	-30042344.83	-30042344.65	0.0089	0.0060		
Venus	-86964-02-28 03:49 J	-30042119.43	-30042119.34	-30042119.20	0.0089	0.0075		
Mercury	-86964-09-30 11:59 J	-30041905.02	-30041905.00	-30041904.96	0.0089	0.0086		
Mercury	-86964-12-27 13:25 J	-30041816.98	-30041816.94	-30041816.88	0.0089	0.0082		
Mercury	-86963-03-25 15:06 J	-30041728.94	-30041728.87	-30041728.81	0.0089	0.0077		
Mercury	-86963-06-21 16:18 J	-30041640.89	-30041640.82	-30041640.74	0.0089	0.0073		
Mercury	-86963-09-17 17:44 J	-30041552.84	-30041552.76	-30041552.67	0.0089	0.0069		
Mercury	-86963-12-14 19:11 J	-30041464.79	-30041464.70	-30041464.60	0.0089	0.0065		
Mercury	-86962-03-12 20:23 J	-30041376.73	-30041376.65	-30041376.54	0.0089	0.0061		
Mercury	-86962-06-08 21:49 J	-30041288.68	-30041288.59	-30041288.47	0.0089	0.0057		
Mercury	-86962-09-04 23:30 J	-30041200.62	-30041200.52	-30041200.41	0.0089	0.0052		
Mercury	-86962-12-02 00:56 J	-30041112.57	-30041112.46	-30041112.34	0.0089	0.0048		
Mercury	-86961-02-28 02:23 J	-30041024.51	-30041024.40	-30041024.28	0.0089	0.0044		
Mercury	-86961-05-26 03:49 J	-30040936.46	-30040936.34	-30040936.21	0.0089	0.0039		
Mercury	-86961-08-22 05:15 J	-30040848.40	-30040848.28	-30040848.15	0.0089	0.0035		
Mercury	-86961-11-18 06:42 J	-30040760.34	-30040760.22	-30040760.09	0.0089	0.0031		

Mercury -86960-02-14 08:08 J -30040672.28 -30040672.16 -30040672.02 0.0089 0.0027

Mercury -86960-05-13 09:49 J -30040584.22 -30040584.09 -30040583.96 0.0089 0.0022

Mercury -86960-08-09 11:15 J -30040496.16 -30040496.03 -30040495.90 0.0089 0.0018

Mercury -86960-11-05 12:42 J -30040408.10 -30040407.97 -30040407.83 0.0089 0.0014

Mercury -86959-02-01 14:08 J -30040320.04 -30040319.91 -30040319.77 0.0089 0.0009

Mercury -86959-04-30 15:35 J -30040231.98 -30040231.85 -30040231.71 0.0089 0.0006

Mercury -86959-07-27 17:15 J -30040143.92 -30040143.78 -30040143.65 0.0089 0.0002

Mercury -86959-10-23 18:42 J -30040055.86 -30040055.72 -30040055.58 0.0089 0.0004

Mercury -86958-01-19 20:08 J -30039967.80 -30039967.66 -30039967.52 0.0089 0.0008

Mercury -86958-04-17 21:35 J -30039879.73 -30039879.60 -30039879.46 0.0089 0.0013

Mercury -86958-07-14 23:15 J -30039791.67 -30039791.53 -30039791.40 0.0089 0.0017

Mercury -86958-10-11 00:42 J -30039703.60 -30039703.47 -30039703.33 0.0089 0.0022

Mercury -86957-01-07 02:08 J -30039615.54 -30039615.41 -30039615.27 0.0089 0.0026

Mercury -86957-04-04 03:35 J -30039527.47 -30039527.35 -30039527.21 0.0089 0.0031

Mercury -86957-07-01 05:15 J -30039439.41 -30039439.28 -30039439.15 0.0089 0.0035

Mercury -86957-09-27 06:42 J -30039351.34 -30039351.22 -30039351.09 0.0089 0.0039

Mercury -86957-12-24 08:08 J -30039263.27 -30039263.16 -30039263.03 0.0089 0.0044

Mercury -86956-03-22 09:49 J -30039175.20 -30039175.09 -30039174.97 0.0089 0.0048

Mercury -86956-06-18 11:15 J -30039087.13 -30039087.03 -30039086.91 0.0089 0.0053

Mercury -86956-09-14 12:56 J -30038999.06 -30038998.96 -30038998.85 0.0089 0.0057

Mercury -86956-12-11 14:23 J -30038910.99 -30038910.90 -30038910.79 0.0089 0.0062

Mercury -86955-03-09 16:03 J -30038822.91 -30038822.83 -30038822.73 0.0089 0.0066

Mercury -86955-06-05 17:30 J -30038734.84 -30038734.77 -30038734.67 0.0089 0.0071

Mercury -86955-09-01 19:25 J -30038646.76 -30038646.69 -30038646.62 0.0089 0.0075

Mercury -86955-11-28 20:37 J -30038558.68 -30038558.64 -30038558.57 0.0089 0.0080

Mercury -86954-02-24 22:32 J -30038470.60 -30038470.56 -30038470.52 0.0089 0.0084

Mercury -86954-05-24 00:13 J -30038382.49 -30038382.49 -30038382.49 0.0089 0.0089

Earth -86939-03-16 21:20 J -30032971.67 -30032971.61 -30032971.49 0.0089 0.0083

Moon -86939-03-16 23:01 J -30032971.62 -30032971.54 -30032971.44 0.0089 0.0083 *

Earth -86938-03-19 07:11 J -30032604.37 -30032604.20 -30032603.99 0.0089 0.0057

Moon	-86938-03-19 07:54 J	-30032604.35	-30032604.17	-30032603.97	0.0089	0.0055	*
Moon	-86937-03-20 15:35 J	-30032237.08	-30032236.85	-30032236.60	0.0089	0.0032	
Earth	-86937-03-20 17:01 J	-30032237.01	-30032236.79	-30032236.53	0.0089	0.0031	*
Earth	-86936-03-23 03:06 J	-30031869.61	-30031869.37	-30031869.11	0.0089	0.0005	
Moon	-86936-03-23 05:44 J	-30031869.51	-30031869.26	-30031869.02	0.0089	0.0004	*
Moon	-86935-03-25 09:35 J	-30031502.34	-30031502.10	-30031501.84	0.0089	0.0020	
Earth	-86935-03-25 13:11 J	-30031502.19	-30031501.95	-30031501.70	0.0089	0.0022	*
Earth	-86934-03-27 23:01 J	-30031134.74	-30031134.54	-30031134.31	0.0089	0.0048	
Moon	-86934-03-28 02:23 J	-30031134.59	-30031134.40	-30031134.17	0.0089	0.0049	*
Moon	-86933-03-29 06:13 J	-30030767.38	-30030767.24	-30030767.10	0.0089	0.0073	
Earth	-86933-03-29 09:20 J	-30030767.23	-30030767.11	-30030766.96	0.0089	0.0074	*
Mars	-86926-08-20 02:37 J	-30028067.67	-30028067.39	-30028067.06	0.0089	0.0044	
Mars	-86924-07-16 20:51 J	-30027370.90	-30027370.63	-30027370.34	0.0089	0.0052	
Venus	-86888-02-11 20:37 J	-30014376.74	-30014376.64	-30014376.50	0.0089	0.0075	
Venus	-86888-09-25 11:01 J	-30014151.20	-30014151.04	-30014150.86	0.0089	0.0059	
Venus	-86887-05-09 01:25 J	-30013925.63	-30013925.44	-30013925.23	0.0089	0.0043	
Venus	-86887-12-20 15:35 J	-30013700.05	-30013699.85	-30013699.62	0.0089	0.0027	
Venus	-86886-08-03 05:44 J	-30013474.47	-30013474.26	-30013474.02	0.0089	0.0011	
Venus	-86885-03-15 20:08 J	-30013248.89	-30013248.66	-30013248.43	0.0089	0.0006	
Venus	-86885-10-27 10:03 J	-30013023.29	-30013023.08	-30013022.85	0.0089	0.0022	
Venus	-86884-06-10 00:13 J	-30012797.68	-30012797.49	-30012797.27	0.0089	0.0039	
Venus	-86883-01-21 14:23 J	-30012572.06	-30012571.90	-30012571.71	0.0089	0.0055	
Venus	-86883-09-04 04:18 J	-30012346.43	-30012346.32	-30012346.16	0.0089	0.0071	
Venus	-86882-04-17 18:27 J	-30012120.75	-30012120.73	-30012120.66	0.0088	0.0087	
Mercury	-86881-12-23 14:23 J	-30011504.90	-30011504.90	-30011504.88	0.0088	0.0088	
Mercury	-86880-03-21 17:30 J	-30011416.82	-30011416.77	-30011416.68	0.0088	0.0083	
Mercury	-86880-06-17 20:51 J	-30011328.70	-30011328.63	-30011328.52	0.0088	0.0077	
Mercury	-86880-09-14 00:13 J	-30011240.58	-30011240.49	-30011240.36	0.0088	0.0071	
Mercury	-86880-12-11 03:35 J	-30011152.46	-30011152.35	-30011152.20	0.0088	0.0065	
Mercury	-86879-03-09 06:56 J	-30011064.33	-30011064.21	-30011064.05	0.0088	0.0059	

Mercury -86879-06-05 10:18 J -30010976.20 -30010976.07 -30010975.90 0.0088 0.0053

Mercury -86879-09-01 13:39 J -30010888.07 -30010887.93 -30010887.76 0.0088 0.0047

Mercury -86879-11-28 17:15 J -30010799.94 -30010799.78 -30010799.61 0.0088 0.0041

Mercury -86878-02-24 20:23 J -30010711.81 -30010711.65 -30010711.47 0.0088 0.0035

Mercury -86878-05-23 23:44 J -30010623.68 -30010623.51 -30010623.33 0.0088 0.0029

Mercury -86878-08-20 03:06 J -30010535.55 -30010535.37 -30010535.19 0.0088 0.0023

Mercury -86878-11-16 06:13 J -30010447.42 -30010447.24 -30010447.05 0.0088 0.0017

Mercury -86877-02-12 09:35 J -30010359.28 -30010359.10 -30010358.91 0.0088 0.0011

Mercury -86877-05-10 12:56 J -30010271.15 -30010270.96 -30010270.78 0.0088 0.0006

Mercury -86877-08-06 16:03 J -30010183.01 -30010182.83 -30010182.64 0.0088 0.0001

Mercury -86877-11-02 19:11 J -30010094.88 -30010094.70 -30010094.51 0.0088 0.0007

Mercury -86876-01-29 22:18 J -30010006.74 -30010006.57 -30010006.38 0.0088 0.0013

Mercury -86876-04-28 01:39 J -30009918.61 -30009918.43 -30009918.25 0.0088 0.0018

Mercury -86876-07-25 04:47 J -30009830.47 -30009830.30 -30009830.12 0.0088 0.0023

Mercury -86876-10-21 07:54 J -30009742.34 -30009742.17 -30009741.99 0.0088 0.0029

Mercury -86875-01-17 11:15 J -30009654.20 -30009654.03 -30009653.87 0.0088 0.0035

Mercury -86875-04-15 14:08 J -30009566.07 -30009565.91 -30009565.74 0.0088 0.0041

Mercury -86875-07-12 17:01 J -30009477.93 -30009477.79 -30009477.62 0.0088 0.0047

Mercury -86875-10-08 20:23 J -30009389.79 -30009389.65 -30009389.50 0.0088 0.0052

Mercury -86874-01-04 23:15 J -30009301.65 -30009301.53 -30009301.38 0.0088 0.0058

Mercury -86874-04-03 02:37 J -30009213.51 -30009213.39 -30009213.26 0.0088 0.0063

Mercury -86874-06-30 05:30 J -30009125.37 -30009125.27 -30009125.14 0.0088 0.0069

Mercury -86874-09-26 08:23 J -30009037.23 -30009037.15 -30009037.03 0.0088 0.0074

Mercury -86874-12-23 11:30 J -30008949.08 -30008949.02 -30008948.93 0.0088 0.0080

Mercury -86873-03-20 14:51 J -30008860.92 -30008860.88 -30008860.83 0.0088 0.0085

Moon -86857-09-21 19:54 J -30002831.78 -30002831.67 -30002831.51 0.0088 0.0076

Earth -86857-09-21 23:15 J -30002831.63 -30002831.53 -30002831.37 0.0088 0.0077 *

Earth -86856-09-24 12:56 J -30002464.16 -30002463.96 -30002463.73 0.0088 0.0051

Moon -86856-09-24 16:03 J -30002464.03 -30002463.83 -30002463.59 0.0088 0.0052 *

Moon -86855-09-27 00:56 J -30002096.70 -30002096.46 -30002096.21 0.0088 0.0022

Earth	-86855-09-27 02:51 J	-30002096.64	-30002096.38	-30002096.13	0.0088	0.0024	*
Earth	-86854-09-29 16:03 J	-30001729.09	-30001728.83	-30001728.57	0.0088	0.0003	
Moon	-86854-09-29 17:15 J	-30001729.05	-30001728.78	-30001728.50	0.0088	0.0001	*
Earth	-86853-10-01 05:01 J	-30001361.52	-30001361.29	-30001361.03	0.0088	0.0030	
Moon	-86853-10-01 05:30 J	-30001361.50	-30001361.27	-30001361.03	0.0088	0.0032	*
Moon	-86852-10-03 15:49 J	-30000994.02	-30000993.84	-30000993.60	0.0088	0.0055	
Earth	-86852-10-03 18:13 J	-30000993.94	-30000993.74	-30000993.53	0.0088	0.0056	*
Earth	-86851-10-06 06:27 J	-30000626.29	-30000626.23	-30000626.11	0.0088	0.0082	
Moon	-86851-10-06 09:06 J	-30000626.18	-30000626.12	-30000626.04	0.0088	0.0085	*
Mars	-86844-06-17 13:11 J	-29998180.13	-29998179.95	-29998179.71	0.0088	0.0059	
Mars	-86842-05-11 21:20 J	-29997486.89	-29997486.61	-29997486.33	0.0088	0.0017	
Venus	-86806-03-30 13:54 J	-29984379.95	-29984379.92	-29984379.84	0.0089	0.0086	
Venus	-86806-11-11 01:54 J	-29984154.53	-29984154.42	-29984154.27	0.0089	0.0071	
Venus	-86805-06-23 14:08 J	-29983929.07	-29983928.91	-29983928.74	0.0089	0.0055	
Venus	-86804-02-04 01:39 J	-29983703.61	-29983703.43	-29983703.23	0.0089	0.0040	
Venus	-86804-09-17 13:39 J	-29983478.13	-29983477.93	-29983477.72	0.0089	0.0025	
Venus	-86803-05-01 01:25 J	-29983252.64	-29983252.44	-29983252.22	0.0089	0.0010	
Venus	-86803-12-12 13:25 J	-29983027.15	-29983026.94	-29983026.72	0.0089	0.0006	
Venus	-86802-07-26 01:11 J	-29982801.65	-29982801.45	-29982801.24	0.0089	0.0022	
Venus	-86801-03-07 12:56 J	-29982576.14	-29982575.96	-29982575.76	0.0089	0.0037	
Venus	-86801-10-19 00:56 J	-29982350.62	-29982350.46	-29982350.28	0.0089	0.0052	
Venus	-86800-06-01 12:56 J	-29982125.09	-29982124.96	-29982124.82	0.0089	0.0067	
Venus	-86799-01-13 00:13 J	-29981899.54	-29981899.49	-29981899.39	0.0089	0.0083	
Mercury	-86799-06-27 10:47 J	-29981734.07	-29981734.05	-29981734.01	0.0089	0.0086	
Mercury	-86799-09-23 12:13 J	-29981646.03	-29981645.99	-29981645.93	0.0089	0.0082	
Mercury	-86799-12-20 13:25 J	-29981557.99	-29981557.94	-29981557.86	0.0089	0.0078	
Mercury	-86798-03-18 14:51 J	-29981469.94	-29981469.88	-29981469.79	0.0089	0.0074	
Mercury	-86798-06-14 16:32 J	-29981381.89	-29981381.81	-29981381.72	0.0089	0.0069	
Mercury	-86798-09-10 17:59 J	-29981293.84	-29981293.75	-29981293.65	0.0089	0.0065	
Mercury	-86798-12-07 19:25 J	-29981205.78	-29981205.69	-29981205.59	0.0089	0.0061	

Mercury -86797-03-04 20:37 J -29981117.73 -29981117.64 -29981117.52 0.0089 0.0057

Mercury -86797-05-31 22:18 J -29981029.68 -29981029.57 -29981029.46 0.0089 0.0052

Mercury -86797-08-27 23:44 J -29980941.62 -29980941.51 -29980941.39 0.0089 0.0048

Mercury -86797-11-24 01:11 J -29980853.56 -29980853.45 -29980853.33 0.0089 0.0044

Mercury -86796-02-20 02:37 J -29980765.51 -29980765.39 -29980765.26 0.0089 0.0040

Mercury -86796-05-19 04:03 J -29980677.45 -29980677.33 -29980677.20 0.0089 0.0035

Mercury -86796-08-15 05:30 J -29980589.39 -29980589.27 -29980589.14 0.0089 0.0031

Mercury -86796-11-11 06:56 J -29980501.34 -29980501.21 -29980501.07 0.0089 0.0027

Mercury -86795-02-07 08:23 J -29980413.28 -29980413.15 -29980413.01 0.0089 0.0023

Mercury -86795-05-06 10:03 J -29980325.22 -29980325.08 -29980324.95 0.0089 0.0018

Mercury -86795-08-02 11:30 J -29980237.16 -29980237.02 -29980236.89 0.0089 0.0014

Mercury -86795-10-29 12:56 J -29980149.10 -29980148.96 -29980148.82 0.0089 0.0009

Mercury -86794-01-25 14:23 J -29980061.04 -29980060.90 -29980060.76 0.0089 0.0005

Mercury -86794-04-23 15:49 J -29979972.97 -29979972.84 -29979972.70 0.0089 0.0003

Mercury -86794-07-20 17:15 J -29979884.91 -29979884.78 -29979884.64 0.0089 0.0005

Mercury -86794-10-16 18:56 J -29979796.85 -29979796.71 -29979796.57 0.0089 0.0008

Mercury -86793-01-12 20:23 J -29979708.79 -29979708.65 -29979708.51 0.0089 0.0013

Mercury -86793-04-09 21:49 J -29979620.72 -29979620.59 -29979620.45 0.0089 0.0017

Mercury -86793-07-06 23:15 J -29979532.66 -29979532.53 -29979532.39 0.0089 0.0022

Mercury -86793-10-03 00:42 J -29979444.59 -29979444.47 -29979444.33 0.0089 0.0026

Mercury -86793-12-30 02:23 J -29979356.53 -29979356.40 -29979356.27 0.0089 0.0030

Mercury -86792-03-28 03:49 J -29979268.46 -29979268.34 -29979268.21 0.0089 0.0035

Mercury -86792-06-24 05:30 J -29979180.39 -29979180.27 -29979180.14 0.0089 0.0039

Mercury -86792-09-20 06:56 J -29979092.33 -29979092.21 -29979092.08 0.0089 0.0044

Mercury -86792-12-17 08:23 J -29979004.26 -29979004.15 -29979004.02 0.0089 0.0048

Mercury -86791-03-15 09:49 J -29978916.19 -29978916.09 -29978915.96 0.0089 0.0053

Mercury -86791-06-11 11:30 J -29978828.12 -29978828.02 -29978827.90 0.0089 0.0057

Mercury -86791-09-07 12:56 J -29978740.04 -29978739.96 -29978739.85 0.0089 0.0062

Mercury -86791-12-04 14:37 J -29978651.97 -29978651.89 -29978651.79 0.0089 0.0066

Mercury -86790-03-02 16:03 J -29978563.90 -29978563.83 -29978563.73 0.0089 0.0071

Mercury -86790-05-29 17:59 J -29978475.82 -29978475.75 -29978475.67 0.0089 0.0075

Mercury -86790-08-25 19:25 J -29978387.74 -29978387.69 -29978387.62 0.0089 0.0080

Mercury -86790-11-21 21:06 J -29978299.66 -29978299.62 -29978299.57 0.0089 0.0084

Mercury -86789-02-17 22:47 J -29978211.55 -29978211.55 -29978211.54 0.0089 0.0089

Jupiter -86777-05-23 20:37 J -29973732.81 -29973732.64 -29973732.33 0.0089 0.0080

Moon -86774-03-18 11:59 J -29972704.11 -29972704.00 -29972703.84 0.0089 0.0075

Earth -86774-03-18 14:08 J -29972704.04 -29972703.91 -29972703.73 0.0089 0.0071 *

Earth -86773-03-19 23:59 J -29972336.70 -29972336.50 -29972336.27 0.0089 0.0045

Moon -86773-03-20 03:06 J -29972336.58 -29972336.37 -29972336.14 0.0089 0.0041 *

Moon -86772-03-22 06:42 J -29971969.46 -29971969.22 -29971968.96 0.0089 0.0023

Earth -86772-03-22 10:03 J -29971969.32 -29971969.08 -29971968.82 0.0089 0.0019 *

Earth -86771-03-24 20:08 J -29971601.91 -29971601.66 -29971601.41 0.0089 0.0007

Moon -86771-03-24 23:44 J -29971601.76 -29971601.51 -29971601.26 0.0089 0.0012 *

Moon -86770-03-27 03:06 J -29971234.59 -29971234.37 -29971234.12 0.0089 0.0030

Earth -86770-03-27 05:59 J -29971234.48 -29971234.25 -29971234.01 0.0089 0.0033 *

Earth -86769-03-28 16:03 J -29970867.01 -29970866.83 -29970866.64 0.0089 0.0059

Moon -86769-03-28 17:59 J -29970866.90 -29970866.75 -29970866.54 0.0089 0.0064 *

Moon -86768-03-31 01:11 J -29970499.54 -29970499.45 -29970499.34 0.0089 0.0081

Earth -86768-03-31 01:39 J -29970499.46 -29970499.43 -29970499.33 0.0089 0.0086 *

Mars -86760-02-26 13:54 J -29967610.27 -29967609.92 -29967609.58 0.0089 0.0006

Venus -86724-05-16 03:35 J -29954382.41 -29954382.35 -29954382.24 0.0089 0.0083

Venus -86724-12-27 18:13 J -29954156.88 -29954156.74 -29954156.58 0.0089 0.0066

Venus -86723-08-10 08:23 J -29953931.32 -29953931.15 -29953930.95 0.0089 0.0050

Venus -86722-03-23 22:47 J -29953705.75 -29953705.55 -29953705.33 0.0089 0.0034

Venus -86722-11-04 12:56 J -29953480.17 -29953479.96 -29953479.73 0.0089 0.0018

Venus -86721-06-17 03:20 J -29953254.58 -29953254.36 -29953254.13 0.0089 0.0002

Venus -86720-01-28 17:30 J -29953028.99 -29953028.77 -29953028.54 0.0089 0.0015

Venus -86720-09-11 07:25 J -29952803.39 -29952803.19 -29952802.96 0.0089 0.0032

Venus -86719-04-24 21:49 J -29952577.77 -29952577.59 -29952577.39 0.0089 0.0048

Venus -86719-12-06 11:59 J -29952352.15 -29952352.00 -29952351.83 0.0089 0.0064

Venus -86718-07-20 01:54 J -29952126.50 -29952126.42 -29952126.30 0.0088 0.0080

Mercury -86716-09-19 11:59 J -29951334.01 -29951334.00 -29951333.97 0.0088 0.0088

Mercury -86716-12-16 15:20 J -29951245.92 -29951245.86 -29951245.78 0.0088 0.0082

Mercury -86715-03-14 18:42 J -29951157.81 -29951157.72 -29951157.62 0.0088 0.0076

Mercury -86715-06-10 22:03 J -29951069.69 -29951069.58 -29951069.46 0.0088 0.0070

Mercury -86715-09-07 01:25 J -29950981.56 -29950981.44 -29950981.30 0.0088 0.0064

Mercury -86715-12-04 05:01 J -29950893.43 -29950893.29 -29950893.15 0.0088 0.0058

Mercury -86714-03-02 08:23 J -29950805.30 -29950805.15 -29950805.00 0.0088 0.0052

Mercury -86714-05-29 11:15 J -29950717.17 -29950717.03 -29950716.86 0.0088 0.0046

Mercury -86714-08-25 14:37 J -29950629.04 -29950628.89 -29950628.71 0.0088 0.0040

Mercury -86714-11-21 17:59 J -29950540.91 -29950540.75 -29950540.57 0.0088 0.0034

Mercury -86713-02-17 21:20 J -29950452.78 -29950452.61 -29950452.43 0.0088 0.0028

Mercury -86713-05-16 00:42 J -29950364.65 -29950364.47 -29950364.29 0.0088 0.0022

Mercury -86713-08-12 04:03 J -29950276.51 -29950276.33 -29950276.15 0.0088 0.0016

Mercury -86713-11-08 07:11 J -29950188.38 -29950188.20 -29950188.01 0.0088 0.0011

Mercury -86712-02-04 10:32 J -29950100.25 -29950100.06 -29950099.87 0.0088 0.0005

Mercury -86712-05-03 13:39 J -29950012.11 -29950011.93 -29950011.74 0.0088 0.0003

Mercury -86712-07-30 17:01 J -29949923.98 -29949923.79 -29949923.61 0.0088 0.0007

Mercury -86712-10-26 20:08 J -29949835.84 -29949835.66 -29949835.47 0.0088 0.0013

Mercury -86711-01-22 23:15 J -29949747.70 -29949747.53 -29949747.34 0.0088 0.0019

Mercury -86711-04-21 02:23 J -29949659.57 -29949659.40 -29949659.21 0.0088 0.0024

Mercury -86711-07-18 05:44 J -29949571.43 -29949571.26 -29949571.09 0.0088 0.0030

Mercury -86711-10-14 08:51 J -29949483.29 -29949483.13 -29949482.96 0.0088 0.0036

Mercury -86710-01-10 11:44 J -29949395.16 -29949395.01 -29949394.83 0.0088 0.0042

Mercury -86710-04-08 14:51 J -29949307.02 -29949306.88 -29949306.71 0.0088 0.0047

Mercury -86710-07-05 18:13 J -29949218.88 -29949218.74 -29949218.59 0.0088 0.0053

Mercury -86710-10-01 21:06 J -29949130.74 -29949130.62 -29949130.47 0.0088 0.0059

Mercury -86710-12-29 00:27 J -29949042.60 -29949042.48 -29949042.35 0.0088 0.0064

Mercury -86709-03-26 03:20 J -29948954.46 -29948954.36 -29948954.24 0.0088 0.0070

Mercury -86709-06-22 06:42 J -29948866.31 -29948866.22 -29948866.12 0.0088 0.0075

Mercury -86709-09-18 09:20 J -29948778.16 -29948778.11 -29948778.02 0.0088 0.0081

Mercury -86709-12-15 12:42 J -29948690.00 -29948689.97 -29948689.92 0.0088 0.0086

Moon -86693-09-21 04:47 J -29942931.33 -29942931.30 -29942931.22 0.0088 0.0086

Moon -86692-09-23 14:37 J -29942564.03 -29942563.89 -29942563.71 0.0088 0.0069

Earth -86692-09-23 16:03 J -29942563.99 -29942563.83 -29942563.63 0.0088 0.0064 *

Moon -86691-09-26 05:30 J -29942196.51 -29942196.27 -29942196.00 0.0088 0.0033

Earth -86691-09-26 05:59 J -29942196.49 -29942196.25 -29942196.01 0.0088 0.0038 *

Earth -86690-09-28 19:11 J -29941828.95 -29941828.70 -29941828.43 0.0088 0.0012

Moon -86690-09-28 20:23 J -29941828.89 -29941828.65 -29941828.39 0.0088 0.0015 *

Moon -86689-09-30 06:13 J -29941461.49 -29941461.24 -29941460.96 0.0088 0.0020

Earth -86689-09-30 08:23 J -29941461.40 -29941461.15 -29941460.88 0.0088 0.0015 *

Earth -86688-10-02 21:35 J -29941093.83 -29941093.60 -29941093.37 0.0088 0.0042

Moon -86688-10-03 00:27 J -29941093.69 -29941093.48 -29941093.23 0.0088 0.0038 *

Moon -86687-10-05 06:42 J -29940726.34 -29940726.22 -29940726.04 0.0088 0.0072

Earth -86687-10-05 10:47 J -29940726.21 -29940726.05 -29940725.88 0.0088 0.0068 *

Mars -86679-12-25 10:03 J -29937723.36 -29937723.08 -29937722.80 0.0088 0.0020

Mars -86677-11-17 16:47 J -29937029.99 -29937029.80 -29937029.55 0.0088 0.0057

Venus -86641-02-12 11:15 J -29924160.11 -29924160.03 -29924159.91 0.0089 0.0078

Venus -86641-09-24 23:01 J -29923934.66 -29923934.54 -29923934.36 0.0089 0.0063

Venus -86640-05-08 11:15 J -29923709.20 -29923709.03 -29923708.84 0.0089 0.0047

Venus -86640-12-19 23:01 J -29923483.73 -29923483.54 -29923483.33 0.0089 0.0032

Venus -86639-08-02 10:47 J -29923258.25 -29923258.05 -29923257.83 0.0089 0.0017

Venus -86638-03-15 22:47 J -29923032.76 -29923032.55 -29923032.34 0.0089 0.0001

Venus -86638-10-27 10:32 J -29922807.26 -29922807.06 -29922806.84 0.0089 0.0015

Venus -86637-06-08 22:18 J -29922581.76 -29922581.57 -29922581.36 0.0089 0.0030

Venus -86636-01-20 10:18 J -29922356.25 -29922356.07 -29922355.88 0.0089 0.0045

Venus -86636-09-02 21:49 J -29922130.73 -29922130.59 -29922130.42 0.0089 0.0061

Venus -86635-04-16 09:49 J -29921905.19 -29921905.09 -29921904.97 0.0089 0.0076

Mercury -86634-03-24 09:49 J -29921563.11 -29921563.09 -29921563.05 0.0089 0.0086

Mercury -86634-06-20 11:01 J -29921475.07 -29921475.04 -29921474.97 0.0089 0.0082

Mercury -86634-09-16 12:42 J -29921387.03 -29921386.97 -29921386.90 0.0089 0.0077

Mercury -86634-12-13 14:08 J -29921298.98 -29921298.91 -29921298.83 0.0089 0.0073

Mercury -86633-03-10 15:35 J -29921210.93 -29921210.85 -29921210.76 0.0089 0.0069

Mercury -86633-06-06 16:47 J -29921122.88 -29921122.80 -29921122.70 0.0089 0.0065

Mercury -86633-09-02 18:13 J -29921034.83 -29921034.74 -29921034.63 0.0089 0.0061

Mercury -86633-11-29 19:54 J -29920946.77 -29920946.67 -29920946.57 0.0089 0.0056

Mercury -86632-02-25 21:20 J -29920858.72 -29920858.61 -29920858.50 0.0089 0.0052

Mercury -86632-05-24 22:32 J -29920770.66 -29920770.56 -29920770.44 0.0089 0.0048

Mercury -86632-08-20 23:59 J -29920682.61 -29920682.50 -29920682.37 0.0089 0.0044

Mercury -86632-11-17 01:39 J -29920594.55 -29920594.43 -29920594.31 0.0089 0.0039

Mercury -86631-02-13 03:06 J -29920506.49 -29920506.37 -29920506.24 0.0089 0.0035

Mercury -86631-05-12 04:32 J -29920418.44 -29920418.31 -29920418.18 0.0089 0.0031

Mercury -86631-08-08 05:59 J -29920330.38 -29920330.25 -29920330.12 0.0089 0.0026

Mercury -86631-11-04 07:25 J -29920242.32 -29920242.19 -29920242.06 0.0089 0.0022

Mercury -86630-01-31 08:51 J -29920154.26 -29920154.13 -29920153.99 0.0089 0.0018

Mercury -86630-04-29 10:18 J -29920066.20 -29920066.07 -29920065.93 0.0089 0.0014

Mercury -86630-07-26 11:44 J -29919978.14 -29919978.01 -29919977.87 0.0089 0.0010

Mercury -86630-10-22 13:25 J -29919890.08 -29919889.94 -29919889.81 0.0089 0.0005

Mercury -86629-01-18 14:51 J -29919802.02 -29919801.88 -29919801.74 0.0089 0.0001

Mercury -86629-04-15 16:18 J -29919713.96 -29919713.82 -29919713.68 0.0089 0.0004

Mercury -86629-07-12 17:44 J -29919625.89 -29919625.76 -29919625.62 0.0089 0.0009

Mercury -86629-10-08 19:11 J -29919537.83 -29919537.70 -29919537.56 0.0089 0.0013

Mercury -86628-01-04 20:51 J -29919449.77 -29919449.63 -29919449.50 0.0089 0.0017

Mercury -86628-04-02 22:03 J -29919361.70 -29919361.58 -29919361.44 0.0089 0.0022

Mercury -86628-06-29 23:44 J -29919273.64 -29919273.51 -29919273.37 0.0089 0.0026

Mercury -86628-09-26 01:11 J -29919185.57 -29919185.45 -29919185.31 0.0089 0.0031

Mercury -86628-12-23 02:37 J -29919097.51 -29919097.39 -29919097.25 0.0089 0.0035

Mercury -86627-03-21 04:18 J -29919009.44 -29919009.32 -29919009.19 0.0089 0.0039

Mercury -86627-06-17 05:44 J -29918921.37 -29918921.26 -29918921.13 0.0089 0.0044

Mercury -86627-09-13 07:25 J -29918833.31 -29918833.19 -29918833.07 0.0089 0.0048

Mercury -86627-12-10 08:51 J -29918745.24 -29918745.13 -29918745.01 0.0089 0.0053
 Mercury -86626-03-08 10:32 J -29918657.17 -29918657.06 -29918656.95 0.0089 0.0057
 Mercury -86626-06-04 11:44 J -29918569.10 -29918569.01 -29918568.90 0.0089 0.0062
 Mercury -86626-08-31 13:39 J -29918481.02 -29918480.93 -29918480.84 0.0089 0.0066
 Mercury -86626-11-27 14:51 J -29918392.95 -29918392.88 -29918392.78 0.0089 0.0071
 Mercury -86625-02-23 16:47 J -29918304.87 -29918304.80 -29918304.73 0.0089 0.0075
 Mercury -86625-05-21 17:59 J -29918216.79 -29918216.75 -29918216.67 0.0089 0.0080
 Mercury -86625-08-17 19:54 J -29918128.71 -29918128.67 -29918128.63 0.0089 0.0084
 Mercury -86625-11-13 21:35 J -29918040.60 -29918040.60 -29918040.60 0.0089 0.0089
 Jupiter -86611-07-22 07:54 J -29913042.60 -29913042.17 -29913041.65 0.0089 0.0044
 Earth -86610-03-17 21:35 J -29912803.66 -29912803.60 -29912803.50 0.0089 0.0084
 Moon -86610-03-18 00:42 J -29912803.51 -29912803.47 -29912803.38 0.0089 0.0086 *
 Moon -86609-03-19 03:49 J -29912436.51 -29912436.34 -29912436.12 0.0089 0.0056
 Earth -86609-03-19 07:54 J -29912436.35 -29912436.17 -29912435.98 0.0089 0.0058 *
 Earth -86608-03-21 17:44 J -29912068.99 -29912068.76 -29912068.52 0.0089 0.0033
 Moon -86608-03-21 20:51 J -29912068.86 -29912068.63 -29912068.39 0.0089 0.0034 *
 Moon -86607-03-24 00:42 J -29911701.71 -29911701.47 -29911701.22 0.0089 0.0005
 Earth -86607-03-24 03:35 J -29911701.60 -29911701.35 -29911701.09 0.0089 0.0007 *
 Earth -86606-03-26 13:39 J -29911334.18 -29911333.93 -29911333.69 0.0089 0.0019
 Moon -86606-03-26 15:06 J -29911334.12 -29911333.87 -29911333.61 0.0089 0.0017 *
 Moon -86605-03-27 23:01 J -29910966.73 -29910966.54 -29910966.32 0.0089 0.0048
 Earth -86605-03-27 23:30 J -29910966.73 -29910966.52 -29910966.29 0.0089 0.0045 *
 Moon -86604-03-30 08:37 J -29910599.27 -29910599.14 -29910598.95 0.0089 0.0070
 Earth -86604-03-30 09:35 J -29910599.24 -29910599.10 -29910598.94 0.0089 0.0071 *
 Mars -86597-10-09 08:23 J -29907849.45 -29907849.15 -29907848.83 0.0089 0.0041
 Mars -86595-09-06 02:23 J -29907152.64 -29907152.40 -29907152.10 0.0089 0.0056
 Venus -86559-03-31 01:54 J -29894162.54 -29894162.42 -29894162.29 0.0089 0.0073
 Venus -86559-11-11 16:03 J -29893936.99 -29893936.83 -29893936.64 0.0089 0.0057
 Venus -86558-06-25 06:13 J -29893711.43 -29893711.24 -29893711.02 0.0089 0.0041
 Venus -86557-02-05 20:51 J -29893485.85 -29893485.63 -29893485.41 0.0089 0.0024

Venus	-86557-09-18 11:01 J	-29893260.26	-29893260.04	-29893259.81	0.0089	0.0008
Venus	-86556-05-02 01:25 J	-29893034.66	-29893034.44	-29893034.21	0.0089	0.0009
Venus	-86556-12-13 15:35 J	-29892809.06	-29892808.85	-29892808.63	0.0089	0.0025
Venus	-86555-07-27 05:30 J	-29892583.46	-29892583.27	-29892583.06	0.0089	0.0042
Venus	-86554-03-09 19:25 J	-29892357.84	-29892357.69	-29892357.50	0.0089	0.0058
Venus	-86554-10-21 09:35 J	-29892132.20	-29892132.10	-29892131.95	0.0089	0.0074
Mercury	-86551-06-16 09:49 J	-29891163.12	-29891163.09	-29891163.05	0.0088	0.0087
Mercury	-86551-09-12 12:42 J	-29891075.02	-29891074.97	-29891074.87	0.0088	0.0082
Mercury	-86551-12-09 16:03 J	-29890986.90	-29890986.83	-29890986.71	0.0088	0.0076
Mercury	-86550-03-07 19:39 J	-29890898.78	-29890898.68	-29890898.55	0.0088	0.0069
Mercury	-86550-06-03 23:01 J	-29890810.66	-29890810.54	-29890810.39	0.0088	0.0063
Mercury	-86550-08-31 02:23 J	-29890722.53	-29890722.40	-29890722.24	0.0088	0.0057
Mercury	-86550-11-27 05:44 J	-29890634.40	-29890634.26	-29890634.09	0.0088	0.0052
Mercury	-86549-02-23 09:06 J	-29890546.27	-29890546.12	-29890545.95	0.0088	0.0046
Mercury	-86549-05-21 12:27 J	-29890458.14	-29890457.98	-29890457.80	0.0088	0.0040
Mercury	-86549-08-17 15:49 J	-29890370.01	-29890369.84	-29890369.66	0.0088	0.0034
Mercury	-86549-11-13 19:11 J	-29890281.87	-29890281.70	-29890281.52	0.0088	0.0028
Mercury	-86548-02-09 22:32 J	-29890193.74	-29890193.56	-29890193.38	0.0088	0.0022
Mercury	-86548-05-09 01:54 J	-29890105.61	-29890105.42	-29890105.24	0.0088	0.0016
Mercury	-86548-08-05 05:01 J	-29890017.47	-29890017.29	-29890017.10	0.0088	0.0010
Mercury	-86548-11-01 08:23 J	-29889929.34	-29889929.15	-29889928.96	0.0088	0.0004
Mercury	-86547-01-28 11:30 J	-29889841.20	-29889841.02	-29889840.83	0.0088	0.0003
Mercury	-86547-04-26 14:51 J	-29889753.07	-29889752.88	-29889752.70	0.0088	0.0008
Mercury	-86547-07-23 17:59 J	-29889664.93	-29889664.75	-29889664.56	0.0088	0.0014
Mercury	-86547-10-19 21:06 J	-29889576.79	-29889576.62	-29889576.43	0.0088	0.0019
Mercury	-86546-01-16 00:13 J	-29889488.66	-29889488.49	-29889488.30	0.0088	0.0025
Mercury	-86546-04-14 03:35 J	-29889400.52	-29889400.35	-29889400.18	0.0088	0.0031
Mercury	-86546-07-11 06:42 J	-29889312.38	-29889312.22	-29889312.05	0.0088	0.0036
Mercury	-86546-10-07 09:35 J	-29889224.24	-29889224.10	-29889223.92	0.0088	0.0043
Mercury	-86545-01-03 13:11 J	-29889136.11	-29889135.95	-29889135.80	0.0088	0.0048

Mercury -86545-03-31 16:03 J -29889047.97 -29889047.83 -29889047.68 0.0088 0.0054

Mercury -86545-06-27 18:56 J -29888959.83 -29888959.71 -29888959.56 0.0088 0.0060

Mercury -86545-09-23 22:18 J -29888871.68 -29888871.57 -29888871.44 0.0088 0.0065

Mercury -86545-12-21 01:11 J -29888783.54 -29888783.45 -29888783.32 0.0088 0.0071

Mercury -86544-03-19 04:47 J -29888695.39 -29888695.30 -29888695.21 0.0088 0.0076

Mercury -86544-06-15 07:25 J -29888607.24 -29888607.19 -29888607.11 0.0088 0.0082

Mercury -86544-09-11 10:47 J -29888519.08 -29888519.05 -29888519.02 0.0088 0.0087

Moon -86528-09-22 20:23 J -29882663.76 -29882663.65 -29882663.49 0.0088 0.0077

Earth -86528-09-22 20:51 J -29882663.72 -29882663.63 -29882663.47 0.0088 0.0078 *

Earth -86527-09-25 10:32 J -29882296.25 -29882296.06 -29882295.82 0.0088 0.0051

Moon -86527-09-25 12:13 J -29882296.17 -29882295.99 -29882295.75 0.0088 0.0053 *

Moon -86526-09-27 21:06 J -29881928.87 -29881928.62 -29881928.36 0.0088 0.0024

Earth -86526-09-28 00:13 J -29881928.74 -29881928.49 -29881928.23 0.0088 0.0025 *

Earth -86525-09-29 13:25 J -29881561.20 -29881560.94 -29881560.67 0.0088 0.0003

Moon -86525-09-29 16:47 J -29881561.06 -29881560.80 -29881560.54 0.0088 0.0000 *

Moon -86524-10-01 22:47 J -29881193.79 -29881193.55 -29881193.30 0.0088 0.0029

Earth -86524-10-02 02:23 J -29881193.63 -29881193.40 -29881193.13 0.0088 0.0029 *

Earth -86523-10-04 15:20 J -29880826.05 -29880825.86 -29880825.63 0.0088 0.0055

Moon -86523-10-04 18:42 J -29880825.91 -29880825.72 -29880825.49 0.0088 0.0053 *

Moon -86522-10-07 01:25 J -29880458.51 -29880458.44 -29880458.33 0.0088 0.0082

Earth -86522-10-07 04:18 J -29880458.40 -29880458.32 -29880458.19 0.0088 0.0080 *

Mars -86515-08-09 23:01 J -29877959.74 -29877959.54 -29877959.29 0.0088 0.0056

Mars -86513-07-03 07:39 J -29877266.45 -29877266.18 -29877265.90 0.0088 0.0020

Venus -86477-05-15 21:06 J -29864165.66 -29864165.62 -29864165.53 0.0089 0.0085

Venus -86477-12-27 09:20 J -29863940.24 -29863940.11 -29863939.97 0.0089 0.0069

Venus -86476-08-09 20:51 J -29863714.78 -29863714.63 -29863714.45 0.0089 0.0054

Venus -86475-03-23 08:37 J -29863489.32 -29863489.14 -29863488.93 0.0089 0.0039

Venus -86475-11-03 20:51 J -29863263.84 -29863263.63 -29863263.42 0.0089 0.0023

Venus -86474-06-17 08:37 J -29863038.35 -29863038.14 -29863037.93 0.0089 0.0008

Venus -86473-01-28 20:23 J -29862812.86 -29862812.65 -29862812.44 0.0089 0.0008

Venus -86473-09-10 08:08 J -29862587.36 -29862587.16 -29862586.95 0.0089 0.0023

Venus -86472-04-23 19:39 J -29862361.86 -29862361.68 -29862361.47 0.0089 0.0039

Venus -86472-12-05 07:39 J -29862136.34 -29862136.18 -29862136.00 0.0089 0.0054

Venus -86471-07-18 19:11 J -29861910.81 -29861910.70 -29861910.54 0.0089 0.0070

Venus -86470-03-01 07:11 J -29861685.24 -29861685.20 -29861685.12 0.0089 0.0085

Mercury -86470-12-19 09:06 J -29861392.15 -29861392.12 -29861392.09 0.0089 0.0085

Mercury -86469-03-16 10:18 J -29861304.11 -29861304.07 -29861304.01 0.0089 0.0081

Mercury -86469-06-12 11:44 J -29861216.07 -29861216.01 -29861215.94 0.0089 0.0077

Mercury -86469-09-08 13:11 J -29861128.02 -29861127.95 -29861127.87 0.0089 0.0073

Mercury -86469-12-05 14:23 J -29861039.97 -29861039.90 -29861039.80 0.0089 0.0069

Mercury -86468-03-03 16:03 J -29860951.92 -29860951.83 -29860951.73 0.0089 0.0064

Mercury -86468-05-30 17:30 J -29860863.86 -29860863.77 -29860863.67 0.0089 0.0060

Mercury -86468-08-26 18:56 J -29860775.81 -29860775.71 -29860775.60 0.0089 0.0056

Mercury -86468-11-22 20:08 J -29860687.76 -29860687.66 -29860687.54 0.0089 0.0052

Mercury -86467-02-18 21:49 J -29860599.70 -29860599.59 -29860599.47 0.0089 0.0047

Mercury -86467-05-17 23:15 J -29860511.65 -29860511.53 -29860511.41 0.0089 0.0043

Mercury -86467-08-14 00:42 J -29860423.59 -29860423.47 -29860423.34 0.0089 0.0039

Mercury -86467-11-10 02:08 J -29860335.53 -29860335.41 -29860335.28 0.0089 0.0034

Mercury -86466-02-06 03:35 J -29860247.47 -29860247.35 -29860247.22 0.0089 0.0030

Mercury -86466-05-05 05:01 J -29860159.42 -29860159.29 -29860159.16 0.0089 0.0026

Mercury -86466-08-01 06:27 J -29860071.36 -29860071.23 -29860071.09 0.0089 0.0022

Mercury -86466-10-28 08:08 J -29859983.30 -29859983.16 -29859983.03 0.0089 0.0017

Mercury -86465-01-24 09:35 J -29859895.24 -29859895.10 -29859894.97 0.0089 0.0013

Mercury -86465-04-21 11:01 J -29859807.18 -29859807.04 -29859806.91 0.0089 0.0009

Mercury -86465-07-18 12:27 J -29859719.12 -29859718.98 -29859718.84 0.0089 0.0004

Mercury -86465-10-14 13:54 J -29859631.06 -29859630.92 -29859630.78 0.0089 0.0001

Mercury -86464-01-10 15:20 J -29859542.99 -29859542.86 -29859542.72 0.0089 0.0005

Mercury -86464-04-08 16:47 J -29859454.93 -29859454.80 -29859454.66 0.0089 0.0009

Mercury -86464-07-05 18:13 J -29859366.87 -29859366.74 -29859366.60 0.0089 0.0014

Mercury -86464-10-01 19:54 J -29859278.81 -29859278.67 -29859278.54 0.0089 0.0018

Mercury -86464-12-28 21:20 J -29859190.74 -29859190.61 -29859190.47 0.0089 0.0022

Mercury -86463-03-26 22:47 J -29859102.68 -29859102.55 -29859102.41 0.0089 0.0027

Mercury -86463-06-23 00:27 J -29859014.61 -29859014.48 -29859014.35 0.0089 0.0031

Mercury -86463-09-19 01:39 J -29858926.55 -29858926.43 -29858926.29 0.0089 0.0036

Mercury -86463-12-16 03:20 J -29858838.48 -29858838.36 -29858838.23 0.0089 0.0040

Mercury -86462-03-14 04:47 J -29858750.41 -29858750.30 -29858750.17 0.0089 0.0045

Mercury -86462-06-10 06:27 J -29858662.34 -29858662.23 -29858662.11 0.0089 0.0049

Mercury -86462-09-06 07:39 J -29858574.27 -29858574.18 -29858574.05 0.0089 0.0054

Mercury -86462-12-03 09:20 J -29858486.20 -29858486.11 -29858485.99 0.0089 0.0058

Mercury -86461-02-29 11:15 J -29858398.13 -29858398.03 -29858397.94 0.0089 0.0062

Mercury -86461-05-27 12:27 J -29858310.06 -29858309.98 -29858309.88 0.0089 0.0067

Mercury -86461-08-23 14:08 J -29858221.99 -29858221.91 -29858221.82 0.0089 0.0071

Mercury -86461-11-19 15:35 J -29858133.91 -29858133.85 -29858133.77 0.0089 0.0076

Mercury -86460-02-15 17:30 J -29858045.83 -29858045.77 -29858045.72 0.0089 0.0080

Mercury -86460-05-14 18:42 J -29857957.75 -29857957.72 -29857957.67 0.0089 0.0085

Earth -86445-03-18 15:49 J -29852535.98 -29852535.84 -29852535.68 0.0089 0.0071

Moon -86445-03-18 18:27 J -29852535.83 -29852535.73 -29852535.56 0.0089 0.0077 *

Jupiter -86445-09-19 03:06 J -29852351.91 -29852351.37 -29852350.82 0.0089 0.0004

Moon -86444-03-20 23:44 J -29852168.72 -29852168.51 -29852168.29 0.0089 0.0042

Earth -86444-03-21 01:25 J -29852168.64 -29852168.44 -29852168.21 0.0089 0.0046 *

Earth -86443-03-23 11:30 J -29851801.26 -29851801.02 -29851800.77 0.0089 0.0020

Moon -86443-03-23 12:42 J -29851801.21 -29851800.97 -29851800.71 0.0089 0.0024 *

Earth -86442-03-25 21:35 J -29851433.85 -29851433.60 -29851433.35 0.0089 0.0006

Moon -86442-03-25 21:35 J -29851433.84 -29851433.60 -29851433.35 0.0089 0.0010 *

Moon -86441-03-27 05:30 J -29851066.50 -29851066.27 -29851066.01 0.0089 0.0029

Earth -86441-03-27 07:11 J -29851066.42 -29851066.20 -29851065.95 0.0089 0.0032 *

Earth -86440-03-29 17:30 J -29850698.95 -29850698.77 -29850698.57 0.0089 0.0058

Moon -86440-03-29 19:54 J -29850698.85 -29850698.67 -29850698.49 0.0089 0.0062 *

Moon -86439-03-31 23:59 J -29850331.59 -29850331.50 -29850331.36 0.0089 0.0079

Earth -86439-04-01 03:49 J -29850331.42 -29850331.34 -29850331.25 0.0089 0.0083 *

Mars	-86433-05-22 04:03 J	-29848088.36	-29848088.33	-29848088.23	0.0089	0.0088
Mars	-86431-04-18 22:47 J	-29847391.89	-29847391.55	-29847391.20	0.0089	0.0010
Venus	-86395-07-02 09:49 J	-29834168.17	-29834168.09	-29834167.98	0.0089	0.0080
Venus	-86394-02-12 23:59 J	-29833942.64	-29833942.50	-29833942.32	0.0089	0.0064
Venus	-86394-09-26 14:37 J	-29833717.08	-29833716.89	-29833716.69	0.0089	0.0047
Venus	-86393-05-09 05:01 J	-29833491.49	-29833491.29	-29833491.07	0.0089	0.0031
Venus	-86393-12-20 19:11 J	-29833265.91	-29833265.70	-29833265.46	0.0089	0.0015
Venus	-86392-08-03 09:49 J	-29833040.32	-29833040.09	-29833039.87	0.0089	0.0003
Venus	-86391-03-16 23:59 J	-29832814.72	-29832814.50	-29832814.28	0.0089	0.0019
Venus	-86391-10-28 13:54 J	-29832589.11	-29832588.92	-29832588.70	0.0089	0.0036
Venus	-86390-06-11 04:18 J	-29832363.49	-29832363.32	-29832363.12	0.0089	0.0052
Venus	-86389-01-22 18:27 J	-29832137.86	-29832137.73	-29832137.57	0.0089	0.0068
Venus	-86389-09-04 08:23 J	-29831912.19	-29831912.15	-29831912.06	0.0089	0.0085
Mercury	-86386-03-13 07:39 J	-29830992.21	-29830992.18	-29830992.12	0.0088	0.0086
Mercury	-86386-06-09 11:15 J	-29830904.10	-29830904.03	-29830903.94	0.0088	0.0080
Mercury	-86386-09-05 14:37 J	-29830815.98	-29830815.89	-29830815.78	0.0088	0.0074
Mercury	-86386-12-02 17:59 J	-29830727.86	-29830727.75	-29830727.62	0.0088	0.0068
Mercury	-86385-02-28 21:20 J	-29830639.73	-29830639.61	-29830639.47	0.0088	0.0062
Mercury	-86385-05-27 00:42 J	-29830551.61	-29830551.47	-29830551.31	0.0088	0.0056
Mercury	-86385-08-23 04:03 J	-29830463.48	-29830463.33	-29830463.17	0.0088	0.0050
Mercury	-86385-11-19 07:25 J	-29830375.35	-29830375.19	-29830375.02	0.0088	0.0044
Mercury	-86384-02-15 10:47 J	-29830287.21	-29830287.05	-29830286.88	0.0088	0.0038
Mercury	-86384-05-14 14:08 J	-29830199.08	-29830198.91	-29830198.73	0.0088	0.0032
Mercury	-86384-08-10 17:15 J	-29830110.95	-29830110.78	-29830110.59	0.0088	0.0026
Mercury	-86384-11-06 20:37 J	-29830022.81	-29830022.64	-29830022.45	0.0088	0.0020
Mercury	-86383-02-02 23:59 J	-29829934.68	-29829934.50	-29829934.31	0.0088	0.0014
Mercury	-86383-05-02 03:20 J	-29829846.55	-29829846.36	-29829846.17	0.0088	0.0008
Mercury	-86383-07-29 06:27 J	-29829758.41	-29829758.23	-29829758.04	0.0088	0.0004
Mercury	-86383-10-25 09:49 J	-29829670.27	-29829670.09	-29829669.90	0.0088	0.0003
Mercury	-86382-01-21 12:56 J	-29829582.14	-29829581.96	-29829581.77	0.0088	0.0010

Mercury -86382-04-19 16:03 J -29829494.00 -29829493.83 -29829493.64 0.0088 0.0016

Mercury -86382-07-16 19:25 J -29829405.87 -29829405.69 -29829405.51 0.0088 0.0021

Mercury -86382-10-12 22:32 J -29829317.73 -29829317.56 -29829317.38 0.0088 0.0027

Mercury -86381-01-09 01:39 J -29829229.59 -29829229.43 -29829229.25 0.0088 0.0033

Mercury -86381-04-06 04:47 J -29829141.45 -29829141.30 -29829141.12 0.0088 0.0038

Mercury -86381-07-03 08:08 J -29829053.31 -29829053.16 -29829053.00 0.0088 0.0044

Mercury -86381-09-29 11:15 J -29828965.18 -29828965.03 -29828964.87 0.0088 0.0049

Mercury -86381-12-26 14:08 J -29828877.04 -29828876.91 -29828876.75 0.0088 0.0056

Mercury -86380-03-24 17:30 J -29828788.89 -29828788.77 -29828788.63 0.0088 0.0061

Mercury -86380-06-20 20:23 J -29828700.75 -29828700.65 -29828700.51 0.0088 0.0067

Mercury -86380-09-16 23:30 J -29828612.61 -29828612.52 -29828612.40 0.0088 0.0072

Mercury -86380-12-14 02:37 J -29828524.46 -29828524.39 -29828524.29 0.0088 0.0078

Mercury -86379-03-12 05:30 J -29828436.31 -29828436.27 -29828436.19 0.0088 0.0084

Moon -86364-09-22 05:15 J -29822763.32 -29822763.28 -29822763.19 0.0088 0.0086

Moon -86363-09-24 13:39 J -29822396.10 -29822395.93 -29822395.76 0.0088 0.0068

Earth -86363-09-24 16:18 J -29822395.98 -29822395.82 -29822395.62 0.0088 0.0064 *

Earth -86362-09-27 05:44 J -29822028.48 -29822028.26 -29822028.00 0.0088 0.0038

Moon -86362-09-27 09:35 J -29822028.33 -29822028.10 -29822027.84 0.0088 0.0033 *

Moon -86361-09-28 16:03 J -29821661.08 -29821660.83 -29821660.57 0.0088 0.0015

Earth -86361-09-28 19:25 J -29821660.95 -29821660.69 -29821660.43 0.0088 0.0011 *

Earth -86360-10-01 08:23 J -29821293.40 -29821293.15 -29821292.88 0.0088 0.0016

Moon -86360-10-01 11:59 J -29821293.26 -29821293.00 -29821292.73 0.0088 0.0019 *

Moon -86359-10-03 19:39 J -29820925.91 -29820925.68 -29820925.44 0.0088 0.0037

Earth -86359-10-03 21:35 J -29820925.82 -29820925.60 -29820925.35 0.0088 0.0041 *

Earth -86358-10-06 10:03 J -29820558.22 -29820558.08 -29820557.88 0.0088 0.0068

Moon -86358-10-06 11:15 J -29820558.16 -29820558.03 -29820557.84 0.0088 0.0071 *

Mars -86349-02-16 22:18 J -29817502.84 -29817502.57 -29817502.28 0.0088 0.0014

Mars -86347-01-10 06:42 J -29816809.41 -29816809.22 -29816809.01 0.0088 0.0062

Venus -86312-03-30 20:08 J -29803945.77 -29803945.66 -29803945.55 0.0089 0.0075

Venus -86312-11-11 07:39 J -29803720.32 -29803720.18 -29803720.01 0.0089 0.0060

Venus	-86311-06-24 19:25 J	-29803494.86	-29803494.69	-29803494.49	0.0089	0.0045
Venus	-86310-02-05 07:25 J	-29803269.39	-29803269.19	-29803268.99	0.0089	0.0029
Venus	-86310-09-18 19:11 J	-29803043.91	-29803043.70	-29803043.49	0.0089	0.0014
Venus	-86309-05-01 06:56 J	-29802818.42	-29802818.21	-29802817.99	0.0089	0.0002
Venus	-86309-12-12 18:42 J	-29802592.92	-29802592.72	-29802592.51	0.0089	0.0017
Venus	-86308-07-26 06:13 J	-29802367.42	-29802367.24	-29802367.03	0.0089	0.0033
Venus	-86307-03-08 18:13 J	-29802141.91	-29802141.74	-29802141.56	0.0089	0.0048
Venus	-86307-10-20 05:44 J	-29801916.39	-29801916.26	-29801916.09	0.0089	0.0064
Venus	-86306-06-02 17:44 J	-29801690.84	-29801690.76	-29801690.65	0.0089	0.0079
Mercury	-86305-06-18 06:56 J	-29801309.21	-29801309.21	-29801309.20	0.0089	0.0089
Mercury	-86305-09-14 08:08 J	-29801221.19	-29801221.16	-29801221.11	0.0089	0.0085
Mercury	-86305-12-11 09:49 J	-29801133.15	-29801133.09	-29801133.04	0.0089	0.0080
Mercury	-86304-03-09 11:01 J	-29801045.10	-29801045.04	-29801044.97	0.0089	0.0076
Mercury	-86304-06-05 12:27 J	-29800957.05	-29800956.98	-29800956.90	0.0089	0.0072
Mercury	-86304-09-01 13:54 J	-29800869.00	-29800868.92	-29800868.83	0.0089	0.0068
Mercury	-86304-11-28 15:06 J	-29800780.95	-29800780.87	-29800780.76	0.0089	0.0064
Mercury	-86303-02-24 16:47 J	-29800692.90	-29800692.80	-29800692.70	0.0089	0.0059
Mercury	-86303-05-23 18:13 J	-29800604.84	-29800604.74	-29800604.63	0.0089	0.0055
Mercury	-86303-08-19 19:39 J	-29800516.79	-29800516.68	-29800516.57	0.0089	0.0051
Mercury	-86303-11-15 20:51 J	-29800428.73	-29800428.63	-29800428.50	0.0089	0.0047
Mercury	-86302-02-11 22:32 J	-29800340.68	-29800340.56	-29800340.44	0.0089	0.0042
Mercury	-86302-05-10 23:59 J	-29800252.62	-29800252.50	-29800252.37	0.0089	0.0038
Mercury	-86302-08-07 01:25 J	-29800164.56	-29800164.44	-29800164.31	0.0089	0.0034
Mercury	-86302-11-03 02:51 J	-29800076.51	-29800076.38	-29800076.25	0.0089	0.0029
Mercury	-86301-01-30 04:18 J	-29799988.45	-29799988.32	-29799988.19	0.0089	0.0025
Mercury	-86301-04-27 05:44 J	-29799900.39	-29799900.26	-29799900.12	0.0089	0.0021
Mercury	-86301-07-24 07:11 J	-29799812.33	-29799812.20	-29799812.06	0.0089	0.0017
Mercury	-86301-10-20 08:51 J	-29799724.27	-29799724.13	-29799724.00	0.0089	0.0012
Mercury	-86300-01-16 10:18 J	-29799636.21	-29799636.07	-29799635.94	0.0089	0.0008
Mercury	-86300-04-14 11:44 J	-29799548.15	-29799548.01	-29799547.87	0.0089	0.0003

Mercury -86300-07-11 13:11 J -29799460.09 -29799459.95 -29799459.81 0.0089 0.0001

Mercury -86300-10-07 14:37 J -29799372.03 -29799371.89 -29799371.75 0.0089 0.0006

Mercury -86299-01-03 16:03 J -29799283.96 -29799283.83 -29799283.69 0.0089 0.0010

Mercury -86299-04-01 17:30 J -29799195.90 -29799195.77 -29799195.63 0.0089 0.0015

Mercury -86299-06-28 18:56 J -29799107.84 -29799107.71 -29799107.57 0.0089 0.0019

Mercury -86299-09-24 20:37 J -29799019.77 -29799019.64 -29799019.51 0.0089 0.0023

Mercury -86299-12-21 22:03 J -29798931.71 -29798931.58 -29798931.45 0.0089 0.0028

Mercury -86298-03-19 23:30 J -29798843.64 -29798843.52 -29798843.39 0.0089 0.0032

Mercury -86298-06-16 00:56 J -29798755.58 -29798755.46 -29798755.33 0.0089 0.0037

Mercury -86298-09-12 02:37 J -29798667.51 -29798667.39 -29798667.27 0.0089 0.0041

Mercury -86298-12-09 03:49 J -29798579.44 -29798579.34 -29798579.21 0.0089 0.0046

Mercury -86297-03-06 05:30 J -29798491.38 -29798491.27 -29798491.15 0.0089 0.0050

Mercury -86297-06-02 07:11 J -29798403.31 -29798403.20 -29798403.09 0.0089 0.0054

Mercury -86297-08-29 08:37 J -29798315.24 -29798315.14 -29798315.03 0.0089 0.0059

Mercury -86297-11-25 10:18 J -29798227.17 -29798227.07 -29798226.97 0.0089 0.0063

Mercury -86296-02-21 11:44 J -29798139.09 -29798139.01 -29798138.92 0.0089 0.0068

Mercury -86296-05-20 13:25 J -29798051.02 -29798050.94 -29798050.86 0.0089 0.0072

Mercury -86296-08-16 14:37 J -29797962.94 -29797962.89 -29797962.81 0.0089 0.0077

Mercury -86296-11-12 16:32 J -29797874.86 -29797874.81 -29797874.75 0.0089 0.0081

Mercury -86295-02-08 17:44 J -29797786.78 -29797786.76 -29797786.71 0.0089 0.0086

Moon -86281-03-17 23:01 J -29792635.58 -29792635.54 -29792635.47 0.0089 0.0086

Earth -86281-03-18 00:56 J -29792635.52 -29792635.46 -29792635.36 0.0089 0.0084 *

Earth -86280-03-20 11:01 J -29792268.22 -29792268.04 -29792267.85 0.0089 0.0059

Moon -86280-03-20 11:30 J -29792268.22 -29792268.02 -29792267.82 0.0089 0.0056 *

Earth -86279-03-22 20:37 J -29791900.86 -29791900.64 -29791900.39 0.0089 0.0033

Moon -86279-03-22 21:49 J -29791900.82 -29791900.59 -29791900.37 0.0089 0.0036 *

Jupiter -86279-11-19 13:39 J -29791659.42 -29791658.93 -29791658.43 0.0089 0.0037

Moon -86278-03-25 05:15 J -29791533.54 -29791533.28 -29791533.02 0.0089 0.0005

Earth -86278-03-25 06:56 J -29791533.46 -29791533.21 -29791532.96 0.0089 0.0007 *

Earth -86277-03-26 17:01 J -29791166.04 -29791165.79 -29791165.55 0.0089 0.0019

Moon	-86277-03-26 19:39 J	-29791165.91	-29791165.68	-29791165.42	0.0089	0.0016	*
Moon	-86276-03-28 23:15 J	-29790798.73	-29790798.53	-29790798.30	0.0089	0.0047	
Earth	-86276-03-29 02:37 J	-29790798.59	-29790798.39	-29790798.15	0.0089	0.0045	*
Earth	-86275-03-31 12:42 J	-29790431.11	-29790430.97	-29790430.80	0.0089	0.0070	
Moon	-86275-03-31 16:18 J	-29790430.97	-29790430.82	-29790430.64	0.0089	0.0068	*
Mars	-86268-11-29 21:06 J	-29787630.93	-29787630.62	-29787630.29	0.0089	0.0035	
Mars	-86266-10-27 15:06 J	-29786934.09	-29786933.87	-29786933.59	0.0089	0.0062	
Venus	-86231-10-03 18:27 J	-29774173.77	-29774173.73	-29774173.66	0.0089	0.0086	
Venus	-86230-05-17 08:37 J	-29773948.25	-29773948.14	-29773947.98	0.0089	0.0070	
Venus	-86230-12-28 23:30 J	-29773722.70	-29773722.52	-29773722.34	0.0089	0.0053	
Venus	-86229-08-10 13:25 J	-29773497.13	-29773496.94	-29773496.72	0.0089	0.0037	
Venus	-86228-03-24 03:49 J	-29773271.55	-29773271.34	-29773271.11	0.0089	0.0020	
Venus	-86228-11-04 18:13 J	-29773045.96	-29773045.74	-29773045.51	0.0089	0.0004	
Venus	-86227-06-18 08:37 J	-29772820.36	-29772820.14	-29772819.91	0.0089	0.0013	
Venus	-86226-01-29 22:32 J	-29772594.76	-29772594.56	-29772594.33	0.0089	0.0030	
Venus	-86226-09-12 12:56 J	-29772369.14	-29772368.96	-29772368.76	0.0089	0.0046	
Venus	-86225-04-25 03:06 J	-29772143.51	-29772143.37	-29772143.19	0.0089	0.0063	
Venus	-86225-12-06 17:15 J	-29771917.86	-29771917.78	-29771917.66	0.0089	0.0079	
Mercury	-86222-12-08 06:27 J	-29770821.29	-29770821.23	-29770821.17	0.0089	0.0084	
Mercury	-86221-03-05 09:49 J	-29770733.17	-29770733.09	-29770733.00	0.0089	0.0078	
Mercury	-86221-06-01 13:11 J	-29770645.06	-29770644.95	-29770644.84	0.0088	0.0072	
Mercury	-86221-08-28 16:32 J	-29770556.93	-29770556.81	-29770556.68	0.0088	0.0066	
Mercury	-86221-11-24 19:54 J	-29770468.80	-29770468.67	-29770468.53	0.0088	0.0060	
Mercury	-86220-02-20 23:15 J	-29770380.68	-29770380.53	-29770380.38	0.0088	0.0054	
Mercury	-86220-05-20 02:23 J	-29770292.55	-29770292.40	-29770292.23	0.0088	0.0048	
Mercury	-86220-08-16 05:44 J	-29770204.41	-29770204.26	-29770204.08	0.0088	0.0042	
Mercury	-86220-11-12 09:06 J	-29770116.28	-29770116.12	-29770115.94	0.0088	0.0036	
Mercury	-86219-02-08 12:27 J	-29770028.15	-29770027.98	-29770027.80	0.0088	0.0030	
Mercury	-86219-05-07 15:49 J	-29769940.02	-29769939.84	-29769939.66	0.0088	0.0024	
Mercury	-86219-08-03 19:11 J	-29769851.88	-29769851.70	-29769851.52	0.0088	0.0018	

Mercury -86219-10-30 22:32 J -29769763.75 -29769763.56 -29769763.38 0.0088 0.0012

Mercury -86218-01-27 01:39 J -29769675.61 -29769675.43 -29769675.24 0.0088 0.0007

Mercury -86218-04-25 05:01 J -29769587.48 -29769587.29 -29769587.10 0.0088 0.0001

Mercury -86218-07-22 08:08 J -29769499.34 -29769499.16 -29769498.97 0.0088 0.0006

Mercury -86218-10-18 11:30 J -29769411.20 -29769411.02 -29769410.83 0.0088 0.0011

Mercury -86217-01-14 14:51 J -29769323.07 -29769322.88 -29769322.70 0.0088 0.0017

Mercury -86217-04-11 17:59 J -29769234.93 -29769234.75 -29769234.57 0.0088 0.0023

Mercury -86217-07-08 21:06 J -29769146.79 -29769146.62 -29769146.44 0.0088 0.0028

Mercury -86217-10-05 00:13 J -29769058.65 -29769058.49 -29769058.31 0.0088 0.0034

Mercury -86216-01-01 03:35 J -29768970.52 -29768970.35 -29768970.19 0.0088 0.0040

Mercury -86216-03-30 06:27 J -29768882.38 -29768882.23 -29768882.06 0.0088 0.0046

Mercury -86216-06-26 09:35 J -29768794.24 -29768794.10 -29768793.94 0.0088 0.0052

Mercury -86216-09-22 12:42 J -29768706.09 -29768705.97 -29768705.82 0.0088 0.0057

Mercury -86216-12-19 16:03 J -29768617.95 -29768617.83 -29768617.70 0.0088 0.0063

Mercury -86215-03-17 18:56 J -29768529.81 -29768529.71 -29768529.58 0.0088 0.0069

Mercury -86215-06-13 22:18 J -29768441.66 -29768441.57 -29768441.47 0.0088 0.0074

Mercury -86215-09-10 01:11 J -29768353.51 -29768353.45 -29768353.36 0.0088 0.0080

Mercury -86215-12-07 04:03 J -29768265.35 -29768265.33 -29768265.26 0.0088 0.0086

Earth -86199-09-23 23:01 J -29762495.66 -29762495.54 -29762495.39 0.0088 0.0075

Moon -86199-09-24 02:23 J -29762495.51 -29762495.40 -29762495.24 0.0088 0.0076 *

Moon -86198-09-26 09:06 J -29762128.32 -29762128.12 -29762127.89 0.0088 0.0050

Earth -86198-09-26 12:27 J -29762128.18 -29762127.98 -29762127.74 0.0088 0.0050 *

Earth -86197-09-28 02:08 J -29761760.65 -29761760.41 -29761760.14 0.0088 0.0023

Moon -86197-09-28 04:32 J -29761760.56 -29761760.31 -29761760.03 0.0088 0.0024 *

Moon -86196-09-30 13:54 J -29761393.17 -29761392.92 -29761392.66 0.0088 0.0003

Earth -86196-09-30 15:49 J -29761393.11 -29761392.84 -29761392.58 0.0088 0.0003 *

Earth -86195-10-03 04:47 J -29761025.55 -29761025.30 -29761025.05 0.0088 0.0029

Moon -86195-10-03 05:15 J -29761025.53 -29761025.28 -29761025.02 0.0088 0.0029 *

Earth -86194-10-05 17:30 J -29760657.96 -29760657.77 -29760657.55 0.0088 0.0055

Moon -86194-10-05 18:27 J -29760657.91 -29760657.73 -29760657.51 0.0088 0.0055 *

Moon	-86193-10-07 04:18 J	-29760290.39	-29760290.32	-29760290.18	0.0088	0.0082
Earth	-86193-10-07 06:13 J	-29760290.32	-29760290.24	-29760290.11	0.0088	0.0081 *
Mars	-86186-10-02 15:35 J	-29757739.07	-29757738.85	-29757738.59	0.0088	0.0049
Mars	-86184-08-25 23:15 J	-29757045.78	-29757045.53	-29757045.24	0.0088	0.0029
Venus	-86148-07-02 07:25 J	-29743951.28	-29743951.19	-29743951.11	0.0089	0.0081
Venus	-86147-02-12 18:42 J	-29743725.84	-29743725.72	-29743725.56	0.0089	0.0066
Venus	-86147-09-26 06:56 J	-29743500.38	-29743500.21	-29743500.03	0.0089	0.0050
Venus	-86146-05-09 18:27 J	-29743274.91	-29743274.73	-29743274.52	0.0089	0.0035
Venus	-86146-12-21 06:13 J	-29743049.44	-29743049.24	-29743049.02	0.0089	0.0020
Venus	-86145-08-02 18:13 J	-29742823.95	-29742823.74	-29742823.53	0.0089	0.0004
Venus	-86144-03-16 05:59 J	-29742598.46	-29742598.25	-29742598.04	0.0089	0.0012
Venus	-86144-10-27 17:30 J	-29742372.96	-29742372.77	-29742372.55	0.0089	0.0028
Venus	-86143-06-10 05:30 J	-29742147.45	-29742147.27	-29742147.08	0.0089	0.0043
Venus	-86142-01-21 17:01 J	-29741921.93	-29741921.79	-29741921.61	0.0089	0.0059
Venus	-86142-09-04 04:47 J	-29741696.40	-29741696.30	-29741696.17	0.0089	0.0074
Mercury	-86140-03-15 06:13 J	-29741138.25	-29741138.24	-29741138.21	0.0089	0.0088
Mercury	-86140-06-11 07:54 J	-29741050.22	-29741050.17	-29741050.13	0.0089	0.0083
Mercury	-86140-09-07 09:06 J	-29740962.17	-29740962.12	-29740962.05	0.0089	0.0079
Mercury	-86140-12-04 10:32 J	-29740874.12	-29740874.06	-29740873.98	0.0089	0.0075
Mercury	-86139-03-02 11:44 J	-29740786.07	-29740786.01	-29740785.91	0.0089	0.0071
Mercury	-86139-05-29 13:11 J	-29740698.02	-29740697.95	-29740697.85	0.0089	0.0067
Mercury	-86139-08-25 14:51 J	-29740609.97	-29740609.88	-29740609.78	0.0089	0.0062
Mercury	-86139-11-21 16:18 J	-29740521.92	-29740521.82	-29740521.72	0.0089	0.0058
Mercury	-86138-02-17 17:30 J	-29740433.86	-29740433.77	-29740433.65	0.0089	0.0054
Mercury	-86138-05-16 18:56 J	-29740345.81	-29740345.71	-29740345.59	0.0089	0.0050
Mercury	-86138-08-12 20:37 J	-29740257.76	-29740257.64	-29740257.52	0.0089	0.0045
Mercury	-86138-11-08 22:03 J	-29740169.70	-29740169.58	-29740169.46	0.0089	0.0041
Mercury	-86137-02-04 23:15 J	-29740081.64	-29740081.53	-29740081.40	0.0089	0.0037
Mercury	-86137-05-03 00:56 J	-29739993.58	-29739993.46	-29739993.33	0.0089	0.0032
Mercury	-86137-07-30 02:23 J	-29739905.53	-29739905.40	-29739905.27	0.0089	0.0028

Mercury -86137-10-26 03:49 J -29739817.47 -29739817.34 -29739817.21 0.0089 0.0024

Mercury -86136-01-22 05:15 J -29739729.41 -29739729.28 -29739729.14 0.0089 0.0019

Mercury -86136-04-20 06:42 J -29739641.35 -29739641.22 -29739641.08 0.0089 0.0015

Mercury -86136-07-17 08:08 J -29739553.29 -29739553.16 -29739553.02 0.0089 0.0011

Mercury -86136-10-13 09:35 J -29739465.23 -29739465.10 -29739464.96 0.0089 0.0007

Mercury -86135-01-09 11:15 J -29739377.17 -29739377.03 -29739376.90 0.0089 0.0003

Mercury -86135-04-07 12:42 J -29739289.11 -29739288.97 -29739288.83 0.0089 0.0003

Mercury -86135-07-04 14:08 J -29739201.05 -29739200.91 -29739200.77 0.0089 0.0007

Mercury -86135-09-30 15:35 J -29739112.98 -29739112.85 -29739112.71 0.0089 0.0011

Mercury -86135-12-27 17:01 J -29739024.92 -29739024.79 -29739024.65 0.0089 0.0016

Mercury -86134-03-25 18:42 J -29738936.86 -29738936.72 -29738936.59 0.0089 0.0020

Mercury -86134-06-21 19:54 J -29738848.79 -29738848.67 -29738848.53 0.0089 0.0025

Mercury -86134-09-17 21:35 J -29738760.73 -29738760.60 -29738760.47 0.0089 0.0029

Mercury -86134-12-14 23:01 J -29738672.66 -29738672.54 -29738672.41 0.0089 0.0034

Mercury -86133-03-12 00:27 J -29738584.60 -29738584.48 -29738584.35 0.0089 0.0038

Mercury -86133-06-08 02:08 J -29738496.53 -29738496.41 -29738496.29 0.0089 0.0042

Mercury -86133-09-04 03:35 J -29738408.46 -29738408.35 -29738408.23 0.0089 0.0047

Mercury -86133-12-01 05:15 J -29738320.40 -29738320.28 -29738320.17 0.0089 0.0051

Mercury -86132-02-27 06:27 J -29738232.33 -29738232.23 -29738232.11 0.0089 0.0056

Mercury -86132-05-26 08:08 J -29738144.26 -29738144.16 -29738144.05 0.0089 0.0060

Mercury -86132-08-22 09:35 J -29738056.18 -29738056.10 -29738056.00 0.0089 0.0065

Mercury -86132-11-18 11:15 J -29737968.11 -29737968.03 -29737967.94 0.0089 0.0069

Mercury -86131-02-14 12:42 J -29737880.04 -29737879.97 -29737879.89 0.0089 0.0074

Mercury -86131-05-13 14:23 J -29737791.96 -29737791.90 -29737791.83 0.0089 0.0078

Mercury -86131-08-09 15:49 J -29737703.88 -29737703.84 -29737703.78 0.0089 0.0083

Mercury -86131-11-05 17:30 J -29737615.79 -29737615.77 -29737615.74 0.0089 0.0087

Earth -86116-03-19 21:06 J -29732367.77 -29732367.62 -29732367.46 0.0089 0.0071

Moon -86116-03-19 22:03 J -29732367.70 -29732367.58 -29732367.44 0.0089 0.0075 *

Moon -86115-03-22 04:03 J -29732000.55 -29732000.33 -29732000.09 0.0089 0.0042

Earth -86115-03-22 06:42 J -29732000.43 -29732000.22 -29731999.99 0.0089 0.0045 *

Earth	-86114-03-24 16:18 J	-29731633.05	-29731632.82	-29731632.56	0.0089	0.0020
Moon	-86114-03-24 19:25 J	-29731632.92	-29731632.69	-29731632.44	0.0089	0.0023 *
Moon	-86113-03-25 22:47 J	-29731265.79	-29731265.55	-29731265.29	0.0089	0.0010
Earth	-86113-03-26 02:37 J	-29731265.64	-29731265.39	-29731265.14	0.0089	0.0006 *
Jupiter	-86112-01-24 07:11 J	-29730961.41	-29730961.20	-29730960.86	0.0089	0.0077
Earth	-86112-03-28 12:42 J	-29730898.21	-29730897.97	-29730897.73	0.0089	0.0031
Moon	-86112-03-28 15:49 J	-29730898.07	-29730897.84	-29730897.59	0.0089	0.0028 *
Moon	-86111-03-30 19:39 J	-29730530.84	-29730530.68	-29730530.48	0.0089	0.0061
Earth	-86111-03-30 22:32 J	-29730530.74	-29730530.56	-29730530.35	0.0089	0.0057 *
Earth	-86110-04-02 08:23 J	-29730163.21	-29730163.15	-29730163.03	0.0089	0.0083
Moon	-86110-04-02 11:15 J	-29730163.15	-29730163.03	-29730162.91	0.0089	0.0079 *
Mars	-86104-07-12 21:49 J	-29727869.71	-29727869.59	-29727869.40	0.0089	0.0080
Mars	-86102-06-09 16:47 J	-29727173.14	-29727172.80	-29727172.46	0.0089	0.0018
Venus	-86066-08-18 17:59 J	-29713953.84	-29713953.75	-29713953.61	0.0089	0.0076
Venus	-86065-03-31 08:37 J	-29713728.30	-29713728.14	-29713727.96	0.0089	0.0059
Venus	-86065-11-11 22:47 J	-29713502.73	-29713502.55	-29713502.34	0.0089	0.0043
Venus	-86064-06-25 13:11 J	-29713277.16	-29713276.95	-29713276.72	0.0089	0.0026
Venus	-86063-02-06 03:35 J	-29713051.57	-29713051.35	-29713051.12	0.0089	0.0009
Venus	-86063-09-19 17:59 J	-29712825.98	-29712825.75	-29712825.53	0.0089	0.0007
Venus	-86062-05-03 08:23 J	-29712600.37	-29712600.15	-29712599.93	0.0089	0.0024
Venus	-86062-12-14 22:18 J	-29712374.76	-29712374.57	-29712374.35	0.0089	0.0041
Venus	-86061-07-27 12:56 J	-29712149.14	-29712148.96	-29712148.79	0.0089	0.0057
Venus	-86060-03-10 02:37 J	-29711923.49	-29711923.39	-29711923.25	0.0089	0.0074
Mercury	-86057-06-07 01:25 J	-29710738.45	-29710738.44	-29710738.40	0.0089	0.0088
Mercury	-86057-09-03 05:01 J	-29710650.35	-29710650.29	-29710650.21	0.0089	0.0082
Mercury	-86057-11-30 08:23 J	-29710562.24	-29710562.15	-29710562.04	0.0089	0.0076
Mercury	-86056-02-26 11:44 J	-29710474.12	-29710474.01	-29710473.88	0.0089	0.0070
Mercury	-86056-05-25 15:06 J	-29710385.99	-29710385.87	-29710385.73	0.0089	0.0064
Mercury	-86056-08-21 18:27 J	-29710297.86	-29710297.73	-29710297.58	0.0089	0.0058
Mercury	-86056-11-17 21:49 J	-29710209.73	-29710209.59	-29710209.43	0.0089	0.0052

Mercury -86055-02-14 01:11 J -29710121.60 -29710121.45 -29710121.28 0.0089 0.0046

Mercury -86055-05-13 04:32 J -29710033.47 -29710033.31 -29710033.13 0.0089 0.0040

Mercury -86055-08-09 07:54 J -29709945.34 -29709945.17 -29709944.99 0.0089 0.0034

Mercury -86055-11-05 11:15 J -29709857.20 -29709857.03 -29709856.85 0.0089 0.0028

Mercury -86054-02-01 14:37 J -29709769.07 -29709768.89 -29709768.71 0.0088 0.0022

Mercury -86054-04-30 17:44 J -29709680.93 -29709680.76 -29709680.57 0.0088 0.0017

Mercury -86054-07-27 21:06 J -29709592.80 -29709592.62 -29709592.43 0.0088 0.0010

Mercury -86054-10-24 00:27 J -29709504.66 -29709504.48 -29709504.29 0.0088 0.0004

Mercury -86053-01-20 03:49 J -29709416.53 -29709416.34 -29709416.16 0.0088 0.0002

Mercury -86053-04-17 06:56 J -29709328.39 -29709328.21 -29709328.02 0.0088 0.0008

Mercury -86053-07-14 10:03 J -29709240.26 -29709240.08 -29709239.89 0.0088 0.0014

Mercury -86053-10-10 13:25 J -29709152.12 -29709151.94 -29709151.76 0.0088 0.0019

Mercury -86052-01-06 16:47 J -29709063.98 -29709063.80 -29709063.63 0.0088 0.0025

Mercury -86052-04-04 19:54 J -29708975.84 -29708975.67 -29708975.50 0.0088 0.0031

Mercury -86052-07-01 22:47 J -29708887.70 -29708887.55 -29708887.37 0.0088 0.0037

Mercury -86052-09-28 01:54 J -29708799.57 -29708799.42 -29708799.24 0.0088 0.0043

Mercury -86052-12-25 05:30 J -29708711.43 -29708711.27 -29708711.12 0.0088 0.0048

Mercury -86051-03-23 08:23 J -29708623.29 -29708623.15 -29708622.99 0.0088 0.0054

Mercury -86051-06-19 11:30 J -29708535.14 -29708535.02 -29708534.87 0.0088 0.0059

Mercury -86051-09-15 14:51 J -29708447.00 -29708446.88 -29708446.75 0.0088 0.0065

Mercury -86051-12-12 17:44 J -29708358.86 -29708358.76 -29708358.64 0.0088 0.0071

Mercury -86050-03-10 20:37 J -29708270.71 -29708270.64 -29708270.53 0.0088 0.0077

Mercury -86050-06-06 23:59 J -29708182.55 -29708182.50 -29708182.42 0.0088 0.0082

Mercury -86050-09-03 02:51 J -29708094.38 -29708094.38 -29708094.33 0.0088 0.0088

Moon -86035-09-23 04:03 J -29702595.41 -29702595.33 -29702595.24 0.0088 0.0083

Earth -86035-09-23 05:59 J -29702595.26 -29702595.25 -29702595.17 0.0088 0.0088 *

Earth -86034-09-25 19:54 J -29702227.83 -29702227.67 -29702227.45 0.0088 0.0062

Moon -86034-09-25 22:32 J -29702227.72 -29702227.56 -29702227.36 0.0088 0.0066 *

Moon -86033-09-27 09:20 J -29701860.34 -29701860.11 -29701859.86 0.0088 0.0031

Earth -86033-09-27 10:03 J -29701860.31 -29701860.08 -29701859.82 0.0088 0.0035 *

Moon	-86032-09-29 23:15 J	-29701492.80	-29701492.53	-29701492.25	0.0088	0.0013
Earth	-86032-09-29 23:44 J	-29701492.77	-29701492.51	-29701492.25	0.0088	0.0009 *
Earth	-86031-10-02 12:42 J	-29701125.21	-29701124.97	-29701124.70	0.0088	0.0018
Moon	-86031-10-02 13:54 J	-29701125.16	-29701124.92	-29701124.66	0.0088	0.0022 *
Moon	-86030-10-04 23:01 J	-29700757.76	-29700757.54	-29700757.28	0.0088	0.0038
Earth	-86030-10-05 02:08 J	-29700757.63	-29700757.41	-29700757.17	0.0088	0.0043 *
Earth	-86029-10-06 14:37 J	-29700390.03	-29700389.89	-29700389.70	0.0088	0.0069
Moon	-86029-10-06 18:13 J	-29700389.88	-29700389.74	-29700389.59	0.0088	0.0073 *
Mars	-86022-05-18 10:32 J	-29697975.17	-29697975.06	-29697974.96	0.0088	0.0082
Mars	-86020-04-10 19:11 J	-29697281.99	-29697281.70	-29697281.42	0.0088	0.0006
Mars	-86018-03-05 01:39 J	-29696588.58	-29696588.43	-29696588.24	0.0088	0.0071

86TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 86th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-85984-10-03 18:42 J	-29683956.74	-29683956.72	-29683956.66	0.0089	0.0087		
Venus	-85983-05-17 06:42 J	-29683731.33	-29683731.22	-29683731.08	0.0089	0.0071		
Venus	-85983-12-28 18:27 J	-29683505.88	-29683505.73	-29683505.55	0.0089	0.0056		
Venus	-85982-08-11 06:13 J	-29683280.42	-29683280.24	-29683280.04	0.0089	0.0040		
Venus	-85981-03-23 17:59 J	-29683054.94	-29683054.75	-29683054.53	0.0089	0.0025		
Venus	-85981-11-04 06:13 J	-29682829.46	-29682829.24	-29682829.03	0.0089	0.0009		
Venus	-85980-06-17 17:59 J	-29682603.97	-29682603.75	-29682603.54	0.0089	0.0007		

Venus	-85979-01-29 05:30 J	-29682378.47	-29682378.27	-29682378.06	0.0089	0.0022
Venus	-85979-09-11 17:15 J	-29682152.97	-29682152.78	-29682152.58	0.0089	0.0038
Venus	-85978-04-25 04:47 J	-29681927.45	-29681927.30	-29681927.12	0.0089	0.0054
Venus	-85978-12-06 16:47 J	-29681701.92	-29681701.80	-29681701.66	0.0089	0.0069
Venus	-85977-07-19 04:03 J	-29681476.36	-29681476.33	-29681476.24	0.0089	0.0085
Mercury	-85976-12-10 05:59 J	-29680967.27	-29680967.25	-29680967.21	0.0089	0.0086
Mercury	-85975-03-08 07:11 J	-29680879.24	-29680879.20	-29680879.14	0.0089	0.0082
Mercury	-85975-06-04 08:37 J	-29680791.19	-29680791.14	-29680791.06	0.0089	0.0078
Mercury	-85975-08-31 10:03 J	-29680703.14	-29680703.08	-29680703.00	0.0089	0.0074
Mercury	-85975-11-27 11:44 J	-29680615.09	-29680615.01	-29680614.93	0.0089	0.0069
Mercury	-85974-02-23 12:56 J	-29680527.04	-29680526.96	-29680526.86	0.0089	0.0065
Mercury	-85974-05-22 14:23 J	-29680438.99	-29680438.90	-29680438.80	0.0089	0.0061
Mercury	-85974-08-18 15:49 J	-29680350.94	-29680350.84	-29680350.73	0.0089	0.0057
Mercury	-85974-11-14 17:01 J	-29680262.88	-29680262.79	-29680262.67	0.0089	0.0053
Mercury	-85973-02-10 18:42 J	-29680174.83	-29680174.72	-29680174.60	0.0089	0.0048
Mercury	-85973-05-08 20:08 J	-29680086.77	-29680086.66	-29680086.54	0.0089	0.0044
Mercury	-85973-08-04 21:35 J	-29679998.72	-29679998.60	-29679998.47	0.0089	0.0039
Mercury	-85973-10-31 23:01 J	-29679910.66	-29679910.54	-29679910.41	0.0089	0.0035
Mercury	-85972-01-28 00:27 J	-29679822.60	-29679822.48	-29679822.35	0.0089	0.0031
Mercury	-85972-04-26 01:54 J	-29679734.55	-29679734.42	-29679734.29	0.0089	0.0027
Mercury	-85972-07-23 03:20 J	-29679646.49	-29679646.36	-29679646.22	0.0089	0.0022
Mercury	-85972-10-19 04:47 J	-29679558.43	-29679558.30	-29679558.16	0.0089	0.0018
Mercury	-85971-01-15 06:13 J	-29679470.37	-29679470.24	-29679470.10	0.0089	0.0014
Mercury	-85971-04-13 07:39 J	-29679382.31	-29679382.18	-29679382.04	0.0089	0.0010
Mercury	-85971-07-10 09:20 J	-29679294.25	-29679294.11	-29679293.98	0.0089	0.0005
Mercury	-85971-10-06 10:47 J	-29679206.19	-29679206.05	-29679205.91	0.0089	0.0000
Mercury	-85970-01-02 12:13 J	-29679118.13	-29679117.99	-29679117.85	0.0089	0.0004
Mercury	-85970-03-31 13:39 J	-29679030.06	-29679029.93	-29679029.79	0.0089	0.0009
Mercury	-85970-06-27 15:06 J	-29678942.00	-29678941.87	-29678941.73	0.0089	0.0013
Mercury	-85970-09-23 16:32 J	-29678853.94	-29678853.81	-29678853.67	0.0089	0.0018

Mercury -85970-12-20 18:13 J -29678765.87 -29678765.74 -29678765.61 0.0089 0.0022

Mercury -85969-03-17 19:39 J -29678677.81 -29678677.68 -29678677.55 0.0089 0.0026

Mercury -85969-06-13 21:06 J -29678589.75 -29678589.62 -29678589.49 0.0089 0.0031

Mercury -85969-09-09 22:32 J -29678501.68 -29678501.56 -29678501.43 0.0089 0.0035

Mercury -85969-12-06 23:59 J -29678413.61 -29678413.50 -29678413.37 0.0089 0.0040

Mercury -85968-03-05 01:39 J -29678325.55 -29678325.43 -29678325.31 0.0089 0.0044

Mercury -85968-06-01 03:06 J -29678237.48 -29678237.37 -29678237.25 0.0089 0.0049

Mercury -85968-08-28 04:32 J -29678149.41 -29678149.31 -29678149.19 0.0089 0.0053

Mercury -85968-11-24 05:59 J -29678061.34 -29678061.25 -29678061.13 0.0089 0.0058

Mercury -85967-02-20 07:39 J -29677973.27 -29677973.18 -29677973.07 0.0089 0.0062

Mercury -85967-05-19 09:06 J -29677885.20 -29677885.12 -29677885.02 0.0089 0.0067

Mercury -85967-08-15 10:47 J -29677797.13 -29677797.05 -29677796.96 0.0089 0.0071

Mercury -85967-11-11 12:13 J -29677709.05 -29677708.99 -29677708.91 0.0089 0.0076

Mercury -85966-02-07 13:54 J -29677620.97 -29677620.92 -29677620.86 0.0089 0.0080

Mercury -85966-05-06 15:20 J -29677532.89 -29677532.86 -29677532.81 0.0089 0.0085

Moon -85952-03-19 05:44 J -29672467.31 -29672467.26 -29672467.15 0.0089 0.0085

Earth -85952-03-19 08:23 J -29672467.22 -29672467.15 -29672467.03 0.0089 0.0082 *

Earth -85951-03-21 17:59 J -29672099.92 -29672099.75 -29672099.54 0.0089 0.0057

Moon -85951-03-21 21:49 J -29672099.79 -29672099.59 -29672099.39 0.0089 0.0054 *

Moon -85950-03-24 00:13 J -29671732.70 -29671732.49 -29671732.24 0.0089 0.0035

Earth -85950-03-24 04:03 J -29671732.57 -29671732.33 -29671732.10 0.0089 0.0032 *

Earth -85949-03-25 13:39 J -29671365.18 -29671364.93 -29671364.68 0.0089 0.0006

Moon -85949-03-25 17:01 J -29671365.04 -29671364.79 -29671364.53 0.0089 0.0004 *

Moon -85948-03-27 20:51 J -29670997.86 -29670997.63 -29670997.38 0.0089 0.0017

Earth -85948-03-27 23:30 J -29670997.76 -29670997.52 -29670997.27 0.0089 0.0019 *

Earth -85947-03-30 09:06 J -29670630.32 -29670630.12 -29670629.88 0.0089 0.0045

Moon -85947-03-30 10:47 J -29670630.26 -29670630.05 -29670629.82 0.0089 0.0047 *

Moon -85946-04-01 18:42 J -29670262.85 -29670262.72 -29670262.54 0.0089 0.0069

Earth -85946-04-01 19:25 J -29670262.83 -29670262.69 -29670262.52 0.0089 0.0071 *

Mars -85938-01-20 19:11 J -29667412.02 -29667411.70 -29667411.36 0.0089 0.0026

Mars	-85937-12-17 13:25 J	-29666715.13	-29666714.94	-29666714.71	0.0089	0.0071
Venus	-85902-11-20 03:49 J	-29653959.41	-29653959.34	-29653959.23	0.0089	0.0081
Venus	-85901-07-02 17:59 J	-29653733.88	-29653733.75	-29653733.57	0.0089	0.0065
Venus	-85900-02-13 08:23 J	-29653508.32	-29653508.15	-29653507.94	0.0089	0.0048
Venus	-85900-09-26 23:01 J	-29653282.75	-29653282.54	-29653282.33	0.0089	0.0031
Venus	-85899-05-10 13:25 J	-29653057.16	-29653056.94	-29653056.71	0.0089	0.0015
Venus	-85899-12-22 03:49 J	-29652831.57	-29652831.34	-29652831.12	0.0089	0.0002
Venus	-85898-08-04 17:44 J	-29652605.97	-29652605.76	-29652605.53	0.0089	0.0019
Venus	-85897-03-17 07:54 J	-29652380.37	-29652380.17	-29652379.95	0.0089	0.0036
Venus	-85897-10-28 22:18 J	-29652154.74	-29652154.57	-29652154.38	0.0089	0.0052
Venus	-85896-06-11 12:27 J	-29651929.10	-29651928.98	-29651928.82	0.0089	0.0069
Venus	-85895-01-23 03:06 J	-29651703.43	-29651703.37	-29651703.31	0.0089	0.0085
Mercury	-85892-03-04 00:13 J	-29650567.52	-29650567.49	-29650567.42	0.0089	0.0086
Mercury	-85892-05-31 03:35 J	-29650479.41	-29650479.35	-29650479.25	0.0089	0.0080
Mercury	-85892-08-27 06:56 J	-29650391.29	-29650391.21	-29650391.08	0.0089	0.0074
Mercury	-85892-11-23 10:32 J	-29650303.17	-29650303.06	-29650302.92	0.0089	0.0067
Mercury	-85891-02-19 13:54 J	-29650215.04	-29650214.92	-29650214.77	0.0089	0.0062
Mercury	-85891-05-18 17:15 J	-29650126.91	-29650126.78	-29650126.62	0.0089	0.0056
Mercury	-85891-08-14 20:37 J	-29650038.78	-29650038.64	-29650038.47	0.0089	0.0050
Mercury	-85891-11-10 23:59 J	-29649950.65	-29649950.50	-29649950.32	0.0089	0.0044
Mercury	-85890-02-07 03:20 J	-29649862.51	-29649862.36	-29649862.17	0.0089	0.0038
Mercury	-85890-05-06 06:42 J	-29649774.38	-29649774.22	-29649774.03	0.0089	0.0032
Mercury	-85890-08-02 10:03 J	-29649686.25	-29649686.08	-29649685.89	0.0088	0.0026
Mercury	-85890-10-29 13:39 J	-29649598.11	-29649597.93	-29649597.75	0.0088	0.0019
Mercury	-85889-01-25 16:47 J	-29649509.98	-29649509.80	-29649509.61	0.0088	0.0014
Mercury	-85889-04-22 20:08 J	-29649421.84	-29649421.66	-29649421.47	0.0088	0.0008
Mercury	-85889-07-19 23:30 J	-29649333.70	-29649333.52	-29649333.33	0.0088	0.0002
Mercury	-85889-10-16 02:51 J	-29649245.57	-29649245.38	-29649245.19	0.0088	0.0004
Mercury	-85888-01-12 05:59 J	-29649157.43	-29649157.25	-29649157.06	0.0088	0.0010
Mercury	-85888-04-10 09:06 J	-29649069.29	-29649069.12	-29649068.93	0.0088	0.0017

Mercury -85888-07-07 12:27 J -29648981.16 -29648980.98 -29648980.80 0.0088 0.0022

Mercury -85888-10-03 15:35 J -29648893.02 -29648892.85 -29648892.67 0.0088 0.0028

Mercury -85888-12-30 18:42 J -29648804.88 -29648804.72 -29648804.54 0.0088 0.0034

Mercury -85887-03-28 21:49 J -29648716.74 -29648716.59 -29648716.41 0.0088 0.0040

Mercury -85887-06-25 01:25 J -29648628.60 -29648628.44 -29648628.28 0.0088 0.0045

Mercury -85887-09-21 04:18 J -29648540.46 -29648540.32 -29648540.16 0.0088 0.0051

Mercury -85887-12-18 07:25 J -29648452.32 -29648452.19 -29648452.04 0.0088 0.0057

Mercury -85886-03-16 10:32 J -29648364.18 -29648364.06 -29648363.92 0.0088 0.0062

Mercury -85886-06-12 13:54 J -29648276.03 -29648275.92 -29648275.80 0.0088 0.0068

Mercury -85886-09-08 16:47 J -29648187.89 -29648187.80 -29648187.68 0.0088 0.0074

Mercury -85886-12-05 20:08 J -29648099.73 -29648099.66 -29648099.57 0.0088 0.0079

Mercury -85885-03-02 23:01 J -29648011.58 -29648011.54 -29648011.47 0.0088 0.0085

Moon -85870-09-25 03:35 J -29642327.46 -29642327.35 -29642327.18 0.0088 0.0073

Earth -85870-09-25 03:49 J -29642327.46 -29642327.34 -29642327.16 0.0088 0.0073 *

Jupiter -85869-05-25 08:08 J -29642084.34 -29642084.16 -29642083.86 0.0088 0.0080

Moon -85869-09-26 17:30 J -29641960.01 -29641959.77 -29641959.54 0.0088 0.0046

Earth -85869-09-26 17:59 J -29641959.96 -29641959.75 -29641959.51 0.0088 0.0046 *

Earth -85868-09-29 07:39 J -29641592.43 -29641592.18 -29641591.91 0.0088 0.0021

Moon -85868-09-29 10:03 J -29641592.32 -29641592.08 -29641591.82 0.0088 0.0022 *

Moon -85867-10-01 18:27 J -29641224.99 -29641224.73 -29641224.46 0.0088 0.0006

Earth -85867-10-01 21:20 J -29641224.87 -29641224.61 -29641224.34 0.0088 0.0006 *

Earth -85866-10-04 10:32 J -29640857.29 -29640857.06 -29640856.80 0.0088 0.0031

Moon -85866-10-04 14:08 J -29640857.14 -29640856.91 -29640856.66 0.0088 0.0032 *

Moon -85865-10-05 19:54 J -29640489.84 -29640489.67 -29640489.45 0.0088 0.0058

Earth -85865-10-05 23:59 J -29640489.69 -29640489.50 -29640489.29 0.0088 0.0057 *

Earth -85864-10-08 12:13 J -29640122.05 -29640121.99 -29640121.87 0.0088 0.0083

Moon -85864-10-08 15:35 J -29640121.91 -29640121.85 -29640121.73 0.0088 0.0084 *

Mars -85857-11-24 14:23 J -29637518.15 -29637517.90 -29637517.64 0.0088 0.0039

Mars -85855-10-18 23:59 J -29636824.75 -29636824.50 -29636824.24 0.0088 0.0038

Venus -85819-08-18 18:56 J -29623736.81 -29623736.71 -29623736.60 0.0089 0.0076

Venus	-85818-04-01 06:28 J	-29623511.37	-29623511.23	-29623511.06	0.0089	0.0061
Venus	-85818-11-12 18:42 J	-29623285.90	-29623285.72	-29623285.53	0.0089	0.0045
Venus	-85817-06-25 06:28 J	-29623060.42	-29623060.23	-29623060.02	0.0089	0.0029
Venus	-85816-02-05 18:13 J	-29622834.94	-29622834.74	-29622834.52	0.0089	0.0014
Venus	-85816-09-19 06:13 J	-29622609.45	-29622609.24	-29622609.03	0.0089	0.0002
Venus	-85815-05-02 17:59 J	-29622383.96	-29622383.75	-29622383.54	0.0089	0.0018
Venus	-85815-12-14 05:30 J	-29622158.45	-29622158.27	-29622158.06	0.0089	0.0034
Venus	-85814-07-27 17:30 J	-29621932.94	-29621932.77	-29621932.59	0.0089	0.0049
Venus	-85813-03-09 05:01 J	-29621707.42	-29621707.29	-29621707.13	0.0089	0.0065
Venus	-85813-10-20 16:32 J	-29621481.87	-29621481.81	-29621481.69	0.0089	0.0081
Mercury	-85811-06-10 04:32 J	-29620884.32	-29620884.31	-29620884.29	0.0089	0.0088
Mercury	-85811-09-06 05:44 J	-29620796.29	-29620796.26	-29620796.21	0.0089	0.0084
Mercury	-85811-12-03 07:11 J	-29620708.25	-29620708.20	-29620708.13	0.0089	0.0080
Mercury	-85810-03-01 08:37 J	-29620620.20	-29620620.14	-29620620.06	0.0089	0.0076
Mercury	-85810-05-28 09:49 J	-29620532.15	-29620532.09	-29620532.00	0.0089	0.0072
Mercury	-85810-08-24 11:30 J	-29620444.10	-29620444.02	-29620443.93	0.0089	0.0067
Mercury	-85810-11-20 12:56 J	-29620356.05	-29620355.96	-29620355.86	0.0089	0.0063
Mercury	-85809-02-16 14:08 J	-29620268.00	-29620267.91	-29620267.80	0.0089	0.0059
Mercury	-85809-05-14 15:35 J	-29620179.95	-29620179.85	-29620179.74	0.0089	0.0055
Mercury	-85809-08-10 17:16 J	-29620091.89	-29620091.78	-29620091.67	0.0089	0.0050
Mercury	-85809-11-06 18:28 J	-29620003.84	-29620003.73	-29620003.61	0.0089	0.0046
Mercury	-85808-02-02 19:54 J	-29619915.78	-29619915.67	-29619915.54	0.0089	0.0042
Mercury	-85808-05-01 21:20 J	-29619827.73	-29619827.61	-29619827.48	0.0089	0.0038
Mercury	-85808-07-28 23:01 J	-29619739.67	-29619739.54	-29619739.42	0.0089	0.0033
Mercury	-85808-10-25 00:13 J	-29619651.61	-29619651.49	-29619651.36	0.0089	0.0029
Mercury	-85807-01-21 01:40 J	-29619563.56	-29619563.43	-29619563.29	0.0089	0.0025
Mercury	-85807-04-19 03:06 J	-29619475.50	-29619475.37	-29619475.23	0.0089	0.0020
Mercury	-85807-07-16 04:32 J	-29619387.44	-29619387.31	-29619387.17	0.0089	0.0016
Mercury	-85807-10-12 05:59 J	-29619299.38	-29619299.25	-29619299.11	0.0089	0.0012
Mercury	-85806-01-08 07:40 J	-29619211.32	-29619211.18	-29619211.05	0.0089	0.0007

Mercury -85806-04-06 09:06 J -29619123.26 -29619123.12 -29619122.98 0.0089 0.0003

Mercury -85806-07-03 10:32 J -29619035.20 -29619035.06 -29619034.92 0.0089 0.0002

Mercury -85806-09-29 11:59 J -29618947.14 -29618947.00 -29618946.86 0.0089 0.0006

Mercury -85806-12-26 13:25 J -29618859.07 -29618858.94 -29618858.80 0.0089 0.0011

Mercury -85805-03-23 14:52 J -29618771.01 -29618770.88 -29618770.74 0.0089 0.0015

Mercury -85805-06-19 16:18 J -29618682.95 -29618682.82 -29618682.68 0.0089 0.0020

Mercury -85805-09-15 17:59 J -29618594.88 -29618594.75 -29618594.62 0.0089 0.0024

Mercury -85805-12-12 19:25 J -29618506.82 -29618506.69 -29618506.56 0.0089 0.0028

Mercury -85804-03-10 20:52 J -29618418.75 -29618418.63 -29618418.50 0.0089 0.0033

Mercury -85804-06-06 22:18 J -29618330.69 -29618330.57 -29618330.44 0.0089 0.0037

Mercury -85804-09-02 23:44 J -29618242.62 -29618242.51 -29618242.38 0.0089 0.0042

Mercury -85804-11-30 01:25 J -29618154.55 -29618154.44 -29618154.32 0.0089 0.0046

Mercury -85803-02-26 02:52 J -29618066.49 -29618066.38 -29618066.26 0.0089 0.0051

Mercury -85803-05-25 04:18 J -29617978.42 -29617978.32 -29617978.20 0.0089 0.0055

Mercury -85803-08-21 05:44 J -29617890.35 -29617890.26 -29617890.14 0.0089 0.0060

Mercury -85803-11-17 07:25 J -29617802.28 -29617802.19 -29617802.09 0.0089 0.0064

Mercury -85802-02-13 08:52 J -29617714.21 -29617714.13 -29617714.03 0.0089 0.0069

Mercury -85802-05-12 10:32 J -29617626.13 -29617626.06 -29617625.98 0.0089 0.0073

Mercury -85802-08-08 11:59 J -29617538.06 -29617538.00 -29617537.92 0.0089 0.0078

Mercury -85802-11-04 13:40 J -29617449.98 -29617449.93 -29617449.87 0.0089 0.0082

Mercury -85801-01-31 14:52 J -29617361.89 -29617361.88 -29617361.83 0.0089 0.0087

Moon -85787-03-21 02:37 J -29612199.52 -29612199.39 -29612199.22 0.0089 0.0072

Earth -85787-03-21 05:59 J -29612199.38 -29612199.25 -29612199.06 0.0089 0.0068 *

Earth -85786-03-23 15:35 J -29611832.05 -29611831.85 -29611831.60 0.0089 0.0044

Moon -85786-03-23 18:56 J -29611831.93 -29611831.71 -29611831.47 0.0089 0.0040 *

Moon -85785-03-24 23:30 J -29611464.75 -29611464.52 -29611464.28 0.0089 0.0021

Earth -85785-03-25 01:54 J -29611464.67 -29611464.42 -29611464.17 0.0089 0.0017 *

Earth -85784-03-27 11:30 J -29611097.27 -29611097.02 -29611096.76 0.0089 0.0008

Moon -85784-03-27 12:42 J -29611097.22 -29611096.97 -29611096.70 0.0089 0.0012 *

Earth -85783-03-29 21:06 J -29610729.84 -29610729.62 -29610729.37 0.0089 0.0034

Moon	-85783-03-29 21:49 J	-29610729.81	-29610729.59	-29610729.35	0.0089	0.0030 *
Moon	-85782-04-01 05:44 J	-29610362.43	-29610362.26	-29610362.06	0.0089	0.0061
Earth	-85782-04-01 07:11 J	-29610362.38	-29610362.20	-29610362.00	0.0089	0.0058 *
Earth	-85781-04-02 17:01 J	-29609994.85	-29609994.79	-29609994.68	0.0089	0.0084
Moon	-85781-04-02 19:40 J	-29609994.77	-29609994.68	-29609994.55	0.0089	0.0080 *
Mars	-85775-09-03 01:54 J	-29607650.60	-29607650.42	-29607650.16	0.0089	0.0069
Mars	-85773-07-30 19:54 J	-29606954.00	-29606953.67	-29606953.34	0.0089	0.0029
Venus	-85737-02-21 14:08 J	-29593964.94	-29593964.91	-29593964.83	0.0089	0.0086
Venus	-85737-10-04 05:01 J	-29593739.43	-29593739.29	-29593739.15	0.0089	0.0069
Venus	-85736-05-17 18:56 J	-29593513.87	-29593513.71	-29593513.51	0.0089	0.0053
Venus	-85736-12-29 09:20 J	-29593288.31	-29593288.11	-29593287.89	0.0089	0.0036
Venus	-85735-08-11 23:30 J	-29593062.73	-29593062.52	-29593062.29	0.0089	0.0020
Venus	-85734-03-25 14:08 J	-29592837.14	-29592836.91	-29592836.69	0.0089	0.0003
Venus	-85734-11-06 04:18 J	-29592611.54	-29592611.32	-29592611.10	0.0089	0.0014
Venus	-85733-06-18 18:28 J	-29592385.94	-29592385.73	-29592385.51	0.0089	0.0031
Venus	-85732-01-30 08:23 J	-29592160.32	-29592160.15	-29592159.94	0.0089	0.0048
Venus	-85732-09-12 22:47 J	-29591934.69	-29591934.55	-29591934.38	0.0089	0.0064
Venus	-85731-04-26 12:56 J	-29591709.03	-29591708.96	-29591708.85	0.0089	0.0081
Mercury	-85728-11-28 23:16 J	-29590396.58	-29590396.53	-29590396.45	0.0089	0.0083
Mercury	-85727-02-25 02:52 J	-29590308.46	-29590308.38	-29590308.28	0.0089	0.0077
Mercury	-85727-05-24 06:13 J	-29590220.34	-29590220.24	-29590220.12	0.0089	0.0071
Mercury	-85727-08-20 09:35 J	-29590132.21	-29590132.10	-29590131.96	0.0089	0.0065
Mercury	-85727-11-16 12:56 J	-29590044.09	-29590043.96	-29590043.80	0.0089	0.0059
Mercury	-85726-02-12 16:18 J	-29589955.95	-29589955.82	-29589955.65	0.0089	0.0053
Mercury	-85726-05-11 19:54 J	-29589867.82	-29589867.67	-29589867.50	0.0089	0.0047
Mercury	-85726-08-07 23:16 J	-29589779.69	-29589779.53	-29589779.36	0.0089	0.0041
Mercury	-85726-11-04 02:37 J	-29589691.56	-29589691.39	-29589691.21	0.0089	0.0035
Mercury	-85725-01-31 05:59 J	-29589603.42	-29589603.25	-29589603.07	0.0089	0.0029
Mercury	-85725-04-28 09:20 J	-29589515.29	-29589515.11	-29589514.92	0.0089	0.0023
Mercury	-85725-07-25 12:42 J	-29589427.15	-29589426.97	-29589426.78	0.0089	0.0017

Mercury -85725-10-21 16:04 J -29589339.01 -29589338.83 -29589338.64 0.0089 0.0011

Mercury -85724-01-17 19:25 J -29589250.88 -29589250.69 -29589250.50 0.0089 0.0005

Mercury -85724-04-15 22:47 J -29589162.74 -29589162.55 -29589162.37 0.0089 0.0002

Mercury -85724-07-13 01:54 J -29589074.60 -29589074.42 -29589074.23 0.0088 0.0007

Mercury -85724-10-09 05:01 J -29588986.47 -29588986.29 -29588986.10 0.0088 0.0014

Mercury -85723-01-05 08:23 J -29588898.33 -29588898.15 -29588897.96 0.0088 0.0019

Mercury -85723-04-03 11:44 J -29588810.19 -29588810.01 -29588809.83 0.0088 0.0025

Mercury -85723-06-30 14:52 J -29588722.05 -29588721.88 -29588721.70 0.0088 0.0031

Mercury -85723-09-26 17:59 J -29588633.91 -29588633.75 -29588633.57 0.0088 0.0036

Mercury -85723-12-23 21:06 J -29588545.77 -29588545.62 -29588545.45 0.0088 0.0042

Mercury -85722-03-22 00:28 J -29588457.63 -29588457.48 -29588457.32 0.0088 0.0048

Mercury -85722-06-18 03:35 J -29588369.49 -29588369.35 -29588369.20 0.0088 0.0054

Mercury -85722-09-14 06:28 J -29588281.35 -29588281.23 -29588281.08 0.0088 0.0060

Mercury -85722-12-11 10:04 J -29588193.20 -29588193.08 -29588192.96 0.0088 0.0065

Mercury -85721-03-08 12:56 J -29588105.06 -29588104.96 -29588104.84 0.0088 0.0071

Mercury -85721-06-04 15:49 J -29588016.91 -29588016.84 -29588016.73 0.0088 0.0077

Mercury -85721-08-31 19:11 J -29587928.76 -29587928.70 -29587928.62 0.0088 0.0082

Mercury -85721-11-27 22:04 J -29587840.58 -29587840.58 -29587840.53 0.0088 0.0088

Moon -85706-09-24 10:47 J -29582427.14 -29582427.05 -29582426.90 0.0088 0.0080

Earth -85706-09-24 12:42 J -29582427.02 -29582426.97 -29582426.85 0.0088 0.0084 *

Earth -85705-09-26 02:52 J -29582059.56 -29582059.38 -29582059.16 0.0088 0.0057

Moon -85705-09-26 05:30 J -29582059.45 -29582059.27 -29582059.08 0.0088 0.0062 *

Moon -85704-09-28 12:56 J -29581692.20 -29581691.96 -29581691.69 0.0088 0.0028

Earth -85704-09-28 16:47 J -29581692.04 -29581691.80 -29581691.55 0.0088 0.0032 *

Jupiter -85703-07-23 10:18 J -29581394.50 -29581394.07 -29581393.55 0.0088 0.0045

Earth -85703-10-01 06:28 J -29581324.49 -29581324.23 -29581323.96 0.0088 0.0006

Moon -85703-10-01 10:04 J -29581324.34 -29581324.08 -29581323.81 0.0088 0.0010 *

Moon -85702-10-03 16:32 J -29580957.06 -29580956.81 -29580956.55 0.0088 0.0024

Earth -85702-10-03 19:54 J -29580956.91 -29580956.67 -29580956.40 0.0088 0.0020 *

Earth -85701-10-05 09:06 J -29580589.33 -29580589.12 -29580588.88 0.0088 0.0046

Moon	-85701-10-05 12:28 J	-29580589.21	-29580588.98	-29580588.73	0.0088	0.0041 *
Moon	-85700-10-07 20:08 J	-29580221.77	-29580221.66	-29580221.51	0.0088	0.0075
Earth	-85700-10-07 22:32 J	-29580221.71	-29580221.56	-29580221.40	0.0088	0.0071 *
Mars	-85693-07-10 11:30 J	-29577754.16	-29577754.02	-29577753.83	0.0088	0.0072
Mars	-85691-06-03 19:54 J	-29577060.95	-29577060.67	-29577060.38	0.0088	0.0005
Mars	-85689-04-27 04:04 J	-29576367.41	-29576367.33	-29576367.19	0.0088	0.0082
Venus	-85655-11-20 07:25 J	-29563742.26	-29563742.19	-29563742.09	0.0089	0.0081
Venus	-85654-07-03 18:56 J	-29563516.83	-29563516.71	-29563516.54	0.0089	0.0066
Venus	-85653-02-14 06:56 J	-29563291.37	-29563291.21	-29563291.02	0.0089	0.0050
Venus	-85653-09-26 18:56 J	-29563065.90	-29563065.71	-29563065.51	0.0089	0.0034
Venus	-85652-05-10 06:42 J	-29562840.42	-29562840.22	-29562840.00	0.0089	0.0019
Venus	-85652-12-21 18:42 J	-29562614.93	-29562614.72	-29562614.50	0.0089	0.0003
Venus	-85651-08-04 06:28 J	-29562389.44	-29562389.23	-29562389.01	0.0089	0.0013
Venus	-85650-03-17 18:13 J	-29562163.94	-29562163.74	-29562163.53	0.0089	0.0029
Venus	-85650-10-29 05:59 J	-29561938.42	-29561938.25	-29561938.05	0.0089	0.0045
Venus	-85649-06-10 17:44 J	-29561712.90	-29561712.76	-29561712.59	0.0089	0.0061
Venus	-85648-01-22 05:44 J	-29561487.36	-29561487.26	-29561487.15	0.0089	0.0076
Mercury	-85646-03-07 04:32 J	-29560713.34	-29560713.31	-29560713.28	0.0089	0.0086
Mercury	-85646-06-03 05:44 J	-29560625.30	-29560625.26	-29560625.20	0.0089	0.0082
Mercury	-85646-08-30 07:11 J	-29560537.26	-29560537.20	-29560537.13	0.0089	0.0078
Mercury	-85646-11-26 08:23 J	-29560449.21	-29560449.15	-29560449.06	0.0089	0.0074
Mercury	-85645-02-22 09:49 J	-29560361.16	-29560361.09	-29560361.00	0.0089	0.0070
Mercury	-85645-05-20 11:30 J	-29560273.11	-29560273.02	-29560272.93	0.0089	0.0065
Mercury	-85645-08-16 12:42 J	-29560185.06	-29560184.97	-29560184.86	0.0089	0.0061
Mercury	-85645-11-12 14:08 J	-29560097.01	-29560096.91	-29560096.80	0.0089	0.0057
Mercury	-85644-02-08 15:35 J	-29560008.95	-29560008.85	-29560008.74	0.0089	0.0053
Mercury	-85644-05-07 16:47 J	-29559920.90	-29559920.80	-29559920.67	0.0089	0.0049
Mercury	-85644-08-03 18:28 J	-29559832.84	-29559832.73	-29559832.61	0.0089	0.0044
Mercury	-85644-10-30 19:54 J	-29559744.79	-29559744.67	-29559744.55	0.0089	0.0040
Mercury	-85643-01-26 21:06 J	-29559656.73	-29559656.62	-29559656.48	0.0089	0.0036

Mercury -85643-04-24 22:47 J -29559568.68 -29559568.55 -29559568.42 0.0089 0.0031

Mercury -85643-07-22 00:13 J -29559480.62 -29559480.49 -29559480.36 0.0089 0.0027

Mercury -85643-10-18 01:40 J -29559392.56 -29559392.43 -29559392.30 0.0089 0.0022

Mercury -85642-01-14 03:06 J -29559304.50 -29559304.37 -29559304.24 0.0089 0.0018

Mercury -85642-04-12 04:32 J -29559216.44 -29559216.31 -29559216.17 0.0089 0.0014

Mercury -85642-07-09 05:59 J -29559128.38 -29559128.25 -29559128.11 0.0089 0.0009

Mercury -85642-10-05 07:25 J -29559040.32 -29559040.19 -29559040.05 0.0089 0.0005

Mercury -85641-01-01 08:52 J -29558952.26 -29558952.13 -29558951.99 0.0089 0.0002

Mercury -85641-03-29 10:18 J -29558864.20 -29558864.07 -29558863.93 0.0089 0.0005

Mercury -85641-06-25 11:44 J -29558776.14 -29558776.01 -29558775.87 0.0089 0.0009

Mercury -85641-09-21 13:25 J -29558688.08 -29558687.94 -29558687.81 0.0089 0.0013

Mercury -85641-12-18 14:52 J -29558600.02 -29558599.88 -29558599.75 0.0089 0.0017

Mercury -85640-03-16 16:18 J -29558511.95 -29558511.82 -29558511.68 0.0089 0.0021

Mercury -85640-06-12 17:44 J -29558423.89 -29558423.76 -29558423.62 0.0089 0.0026

Mercury -85640-09-08 19:11 J -29558335.82 -29558335.70 -29558335.56 0.0089 0.0031

Mercury -85640-12-05 20:37 J -29558247.76 -29558247.64 -29558247.50 0.0089 0.0035

Mercury -85639-03-03 22:18 J -29558159.69 -29558159.57 -29558159.44 0.0089 0.0039

Mercury -85639-05-30 23:44 J -29558071.62 -29558071.51 -29558071.39 0.0089 0.0044

Mercury -85639-08-27 01:25 J -29557983.56 -29557983.44 -29557983.33 0.0089 0.0048

Mercury -85639-11-23 02:37 J -29557895.49 -29557895.39 -29557895.27 0.0089 0.0053

Mercury -85638-02-19 04:18 J -29557807.42 -29557807.32 -29557807.21 0.0089 0.0057

Mercury -85638-05-18 05:44 J -29557719.35 -29557719.26 -29557719.15 0.0089 0.0062

Mercury -85638-08-14 07:25 J -29557631.28 -29557631.19 -29557631.10 0.0089 0.0066

Mercury -85638-11-10 08:52 J -29557543.20 -29557543.13 -29557543.04 0.0089 0.0071

Mercury -85637-02-06 10:32 J -29557455.13 -29557455.06 -29557454.99 0.0089 0.0075

Mercury -85637-05-04 11:59 J -29557367.05 -29557367.00 -29557366.94 0.0089 0.0080

Mercury -85637-07-31 13:40 J -29557278.97 -29557278.93 -29557278.89 0.0089 0.0084

Mercury -85637-10-27 15:20 J -29557190.86 -29557190.86 -29557190.86 0.0089 0.0089

Earth -85623-03-20 19:11 J -29552298.80 -29552298.70 -29552298.56 0.0089 0.0078

Moon -85623-03-20 22:04 J -29552298.66 -29552298.58 -29552298.45 0.0089 0.0081 *

Moon	-85622-03-23 02:52 J	-29551931.56	-29551931.38	-29551931.16	0.0089	0.0051
Earth	-85622-03-23 05:01 J	-29551931.49	-29551931.29	-29551931.09	0.0089	0.0053 *
Earth	-85621-03-24 14:37 J	-29551564.13	-29551563.89	-29551563.65	0.0089	0.0028
Moon	-85621-03-24 15:06 J	-29551564.11	-29551563.87	-29551563.62	0.0089	0.0031 *
Earth	-85620-03-27 00:13 J	-29551196.74	-29551196.49	-29551196.23	0.0089	0.0004
Moon	-85620-03-27 00:42 J	-29551196.71	-29551196.47	-29551196.23	0.0089	0.0001 *
Moon	-85619-03-29 07:40 J	-29550829.42	-29550829.18	-29550828.91	0.0089	0.0019
Earth	-85619-03-29 09:49 J	-29550829.32	-29550829.09	-29550828.84	0.0089	0.0022 *
Earth	-85618-03-31 19:25 J	-29550461.89	-29550461.69	-29550461.46	0.0089	0.0047
Moon	-85618-03-31 22:18 J	-29550461.76	-29550461.57	-29550461.35	0.0089	0.0051 *
Moon	-85617-04-02 02:08 J	-29550094.55	-29550094.41	-29550094.23	0.0089	0.0069
Earth	-85617-04-02 05:30 J	-29550094.40	-29550094.27	-29550094.11	0.0089	0.0072 *
Mars	-85609-03-13 03:06 J	-29547192.70	-29547192.37	-29547192.01	0.0089	0.0014
Mars	-85607-02-07 20:23 J	-29546495.73	-29546495.65	-29546495.50	0.0089	0.0085
Venus	-85572-01-05 14:52 J	-29533744.97	-29533744.88	-29533744.73	0.0089	0.0075
Venus	-85572-08-19 05:30 J	-29533519.43	-29533519.27	-29533519.09	0.0089	0.0058
Venus	-85571-04-01 19:54 J	-29533293.86	-29533293.67	-29533293.46	0.0089	0.0041
Venus	-85571-11-13 10:18 J	-29533068.28	-29533068.07	-29533067.84	0.0089	0.0024
Venus	-85570-06-27 00:42 J	-29532842.70	-29532842.47	-29532842.24	0.0089	0.0007
Venus	-85569-02-07 14:52 J	-29532617.10	-29532616.88	-29532616.65	0.0089	0.0010
Venus	-85569-09-20 04:47 J	-29532391.50	-29532391.30	-29532391.06	0.0089	0.0027
Venus	-85568-05-03 19:25 J	-29532165.88	-29532165.69	-29532165.48	0.0089	0.0043
Venus	-85568-12-15 09:35 J	-29531940.26	-29531940.10	-29531939.92	0.0089	0.0060
Venus	-85567-07-28 23:30 J	-29531714.61	-29531714.52	-29531714.38	0.0089	0.0077
Mercury	-85563-05-29 19:11 J	-29530313.73	-29530313.70	-29530313.64	0.0089	0.0086
Mercury	-85563-08-25 22:32 J	-29530225.62	-29530225.56	-29530225.46	0.0089	0.0080
Mercury	-85563-11-22 02:08 J	-29530137.50	-29530137.41	-29530137.30	0.0089	0.0074
Mercury	-85562-02-18 05:30 J	-29530049.38	-29530049.27	-29530049.14	0.0089	0.0068
Mercury	-85562-05-17 08:52 J	-29529961.25	-29529961.13	-29529960.98	0.0089	0.0062
Mercury	-85562-08-13 12:13 J	-29529873.12	-29529872.99	-29529872.83	0.0089	0.0056

Mercury -85562-11-09 15:35 J -29529784.99 -29529784.85 -29529784.68 0.0089 0.0050

Mercury -85561-02-05 19:11 J -29529696.86 -29529696.70 -29529696.53 0.0089 0.0043

Mercury -85561-05-03 22:32 J -29529608.72 -29529608.56 -29529608.38 0.0089 0.0037

Mercury -85561-07-31 01:54 J -29529520.59 -29529520.42 -29529520.23 0.0089 0.0032

Mercury -85561-10-27 05:16 J -29529432.45 -29529432.28 -29529432.09 0.0089 0.0026

Mercury -85560-01-23 08:37 J -29529344.32 -29529344.14 -29529343.95 0.0089 0.0020

Mercury -85560-04-21 11:59 J -29529256.18 -29529256.00 -29529255.81 0.0089 0.0014

Mercury -85560-07-18 15:20 J -29529168.04 -29529167.86 -29529167.67 0.0089 0.0008

Mercury -85560-10-14 18:42 J -29529079.90 -29529079.72 -29529079.53 0.0089 0.0002

Mercury -85559-01-10 22:04 J -29528991.77 -29528991.58 -29528991.39 0.0089 0.0005

Mercury -85559-04-09 01:25 J -29528903.63 -29528903.44 -29528903.26 0.0089 0.0011

Mercury -85559-07-06 04:32 J -29528815.49 -29528815.31 -29528815.12 0.0089 0.0016

Mercury -85559-10-02 07:40 J -29528727.35 -29528727.18 -29528726.99 0.0089 0.0023

Mercury -85559-12-29 10:47 J -29528639.21 -29528639.05 -29528638.86 0.0088 0.0029

Mercury -85558-03-27 14:23 J -29528551.07 -29528550.90 -29528550.73 0.0088 0.0034

Mercury -85558-06-23 17:30 J -29528462.93 -29528462.77 -29528462.60 0.0088 0.0040

Mercury -85558-09-19 20:37 J -29528374.79 -29528374.64 -29528374.47 0.0088 0.0046

Mercury -85558-12-16 23:44 J -29528286.65 -29528286.51 -29528286.35 0.0088 0.0051

Mercury -85557-03-14 03:06 J -29528198.51 -29528198.37 -29528198.23 0.0088 0.0057

Mercury -85557-06-10 06:13 J -29528110.36 -29528110.24 -29528110.11 0.0088 0.0063

Mercury -85557-09-06 09:06 J -29528022.22 -29528022.12 -29528021.99 0.0088 0.0069

Mercury -85557-12-03 12:42 J -29527934.07 -29527933.97 -29527933.87 0.0088 0.0074

Mercury -85556-03-01 15:35 J -29527845.92 -29527845.85 -29527845.76 0.0088 0.0080

Mercury -85556-05-28 18:28 J -29527757.76 -29527757.73 -29527757.67 0.0088 0.0086

Moon -85541-09-25 08:23 J -29522159.29 -29522159.15 -29522158.96 0.0088 0.0069

Earth -85541-09-25 11:30 J -29522159.15 -29522159.02 -29522158.82 0.0088 0.0069 *

Earth -85540-09-28 01:40 J -29521791.64 -29521791.43 -29521791.18 0.0088 0.0043

Moon -85540-09-28 05:44 J -29521791.49 -29521791.26 -29521791.02 0.0088 0.0042 *

Moon -85539-09-30 12:28 J -29521424.22 -29521423.98 -29521423.72 0.0088 0.0018

Earth -85539-09-30 15:49 J -29521424.10 -29521423.84 -29521423.58 0.0088 0.0017 *

Earth	-85538-10-03 05:16 J	-29521056.54	-29521056.28	-29521056.02	0.0088	0.0009
Moon	-85538-10-03 07:54 J	-29521056.43	-29521056.17	-29521055.89	0.0088	0.0009 *
Jupiter	-85537-09-20 05:44 J	-29520703.79	-29520703.26	-29520702.71	0.0088	0.0006
Moon	-85537-10-04 16:47 J	-29520689.03	-29520688.80	-29520688.56	0.0088	0.0034
Earth	-85537-10-04 18:42 J	-29520688.95	-29520688.72	-29520688.47	0.0088	0.0034 *
Earth	-85536-10-07 08:23 J	-29520321.34	-29520321.15	-29520320.96	0.0088	0.0060
Moon	-85536-10-07 08:08 J	-29520321.34	-29520321.16	-29520320.94	0.0088	0.0061 *
Earth	-85535-10-09 20:52 J	-29519953.66	-29519953.63	-29519953.53	0.0088	0.0086
Moon	-85535-10-09 21:35 J	-29519953.64	-29519953.60	-29519953.51	0.0088	0.0086 *
Mars	-85527-01-17 18:28 J	-29517296.99	-29517296.73	-29517296.44	0.0088	0.0028
Mars	-85526-12-12 01:54 J	-29516603.63	-29516603.42	-29516603.16	0.0088	0.0050
Venus	-85490-02-21 20:23 J	-29503747.68	-29503747.65	-29503747.57	0.0089	0.0086
Venus	-85490-10-05 08:23 J	-29503522.27	-29503522.15	-29503522.00	0.0089	0.0070
Venus	-85489-05-17 20:23 J	-29503296.81	-29503296.65	-29503296.48	0.0089	0.0054
Venus	-85489-12-29 07:54 J	-29503071.35	-29503071.17	-29503070.96	0.0089	0.0039
Venus	-85488-08-11 19:54 J	-29502845.87	-29502845.67	-29502845.46	0.0089	0.0023
Venus	-85487-03-25 07:40 J	-29502620.39	-29502620.18	-29502619.96	0.0089	0.0007
Venus	-85487-11-05 19:40 J	-29502394.89	-29502394.68	-29502394.47	0.0089	0.0009
Venus	-85486-06-19 07:25 J	-29502169.39	-29502169.19	-29502168.98	0.0089	0.0025
Venus	-85485-01-30 18:56 J	-29501943.88	-29501943.71	-29501943.50	0.0089	0.0041
Venus	-85485-09-12 06:42 J	-29501718.37	-29501718.22	-29501718.04	0.0089	0.0057
Venus	-85484-04-25 18:42 J	-29501492.83	-29501492.72	-29501492.59	0.0089	0.0072
Venus	-85484-12-07 06:28 J	-29501267.24	-29501267.23	-29501267.19	0.0089	0.0088
Mercury	-85482-09-05 03:06 J	-29500630.38	-29500630.37	-29500630.35	0.0089	0.0088
Mercury	-85482-12-02 04:18 J	-29500542.35	-29500542.32	-29500542.27	0.0089	0.0084
Mercury	-85481-02-28 05:44 J	-29500454.31	-29500454.26	-29500454.19	0.0089	0.0080
Mercury	-85481-05-26 07:11 J	-29500366.26	-29500366.20	-29500366.12	0.0089	0.0076
Mercury	-85481-08-22 08:23 J	-29500278.21	-29500278.15	-29500278.06	0.0089	0.0072
Mercury	-85481-11-18 10:04 J	-29500190.16	-29500190.08	-29500189.99	0.0089	0.0067
Mercury	-85480-02-14 11:30 J	-29500102.11	-29500102.02	-29500101.92	0.0089	0.0063

Mercury -85480-05-13 12:42 J -29500014.06 -29500013.97 -29500013.86 0.0089 0.0059

Mercury -85480-08-09 14:08 J -29499926.01 -29499925.91 -29499925.79 0.0089 0.0055

Mercury -85480-11-05 15:49 J -29499837.95 -29499837.84 -29499837.73 0.0089 0.0050

Mercury -85479-02-01 17:01 J -29499749.90 -29499749.79 -29499749.67 0.0089 0.0046

Mercury -85479-04-30 18:28 J -29499661.84 -29499661.73 -29499661.61 0.0089 0.0042

Mercury -85479-07-27 19:54 J -29499573.79 -29499573.67 -29499573.54 0.0089 0.0037

Mercury -85479-10-23 21:20 J -29499485.73 -29499485.61 -29499485.48 0.0089 0.0033

Mercury -85478-01-19 22:47 J -29499397.68 -29499397.55 -29499397.42 0.0089 0.0029

Mercury -85478-04-18 00:13 J -29499309.62 -29499309.49 -29499309.36 0.0089 0.0024

Mercury -85478-07-15 01:40 J -29499221.56 -29499221.43 -29499221.30 0.0089 0.0020

Mercury -85478-10-11 03:06 J -29499133.50 -29499133.37 -29499133.23 0.0089 0.0016

Mercury -85477-01-07 04:32 J -29499045.44 -29499045.31 -29499045.17 0.0089 0.0011

Mercury -85477-04-04 05:59 J -29498957.38 -29498957.25 -29498957.11 0.0089 0.0007

Mercury -85477-07-01 07:25 J -29498869.32 -29498869.19 -29498869.05 0.0089 0.0003

Mercury -85477-09-27 08:52 J -29498781.26 -29498781.13 -29498780.99 0.0089 0.0003

Mercury -85477-12-24 10:18 J -29498693.20 -29498693.07 -29498692.93 0.0089 0.0006

Mercury -85476-03-22 11:44 J -29498605.14 -29498605.01 -29498604.87 0.0089 0.0011

Mercury -85476-06-18 13:11 J -29498517.08 -29498516.95 -29498516.81 0.0089 0.0015

Mercury -85476-09-14 14:37 J -29498429.02 -29498428.89 -29498428.75 0.0089 0.0020

Mercury -85476-12-11 16:18 J -29498340.95 -29498340.82 -29498340.69 0.0089 0.0024

Mercury -85475-03-09 17:44 J -29498252.89 -29498252.76 -29498252.63 0.0089 0.0028

Mercury -85475-06-05 19:11 J -29498164.82 -29498164.70 -29498164.57 0.0089 0.0033

Mercury -85475-09-01 20:37 J -29498076.76 -29498076.64 -29498076.51 0.0089 0.0037

Mercury -85475-11-28 22:04 J -29497988.69 -29497988.58 -29497988.45 0.0089 0.0042

Mercury -85474-02-24 23:44 J -29497900.63 -29497900.51 -29497900.39 0.0089 0.0046

Mercury -85474-05-24 00:56 J -29497812.56 -29497812.46 -29497812.33 0.0089 0.0051

Mercury -85474-08-20 02:37 J -29497724.49 -29497724.39 -29497724.27 0.0089 0.0055

Mercury -85474-11-16 04:04 J -29497636.42 -29497636.33 -29497636.22 0.0089 0.0060

Mercury -85473-02-12 05:44 J -29497548.35 -29497548.26 -29497548.16 0.0089 0.0064

Mercury -85473-05-10 07:11 J -29497460.28 -29497460.20 -29497460.10 0.0089 0.0069

Mercury -85473-08-06 08:52 J -29497372.20 -29497372.13 -29497372.05 0.0089 0.0073

Mercury -85473-11-02 10:04 J -29497284.13 -29497284.08 -29497284.00 0.0089 0.0078

Mercury -85472-01-29 11:59 J -29497196.05 -29497196.00 -29497195.95 0.0089 0.0082

Mercury -85472-04-27 13:11 J -29497107.96 -29497107.95 -29497107.91 0.0089 0.0087

Moon -85459-03-20 07:40 J -29492398.25 -29492398.18 -29492398.12 0.0089 0.0086

Earth -85459-03-20 08:52 J -29492398.14 -29492398.13 -29492398.09 0.0089 0.0088 *

Earth -85458-03-22 17:59 J -29492030.90 -29492030.75 -29492030.55 0.0089 0.0064

Moon -85458-03-22 18:28 J -29492030.88 -29492030.73 -29492030.53 0.0089 0.0067 *

Earth -85457-03-24 03:49 J -29491663.55 -29491663.34 -29491663.10 0.0089 0.0039

Moon -85457-03-24 05:30 J -29491663.49 -29491663.27 -29491663.05 0.0089 0.0036 *

Moon -85456-03-26 11:30 J -29491296.27 -29491296.02 -29491295.76 0.0089 0.0017

Earth -85456-03-26 13:40 J -29491296.17 -29491295.93 -29491295.68 0.0089 0.0014 *

Earth -85455-03-28 23:16 J -29490928.77 -29490928.53 -29490928.27 0.0089 0.0011

Moon -85455-03-29 02:23 J -29490928.64 -29490928.40 -29490928.15 0.0089 0.0015 *

Moon -85454-03-31 05:30 J -29490561.49 -29490561.27 -29490561.03 0.0089 0.0033

Earth -85454-03-31 08:52 J -29490561.34 -29490561.13 -29490560.88 0.0089 0.0037 *

Earth -85453-04-01 18:28 J -29490193.89 -29490193.73 -29490193.52 0.0089 0.0062

Moon -85453-04-01 22:18 J -29490193.74 -29490193.57 -29490193.39 0.0089 0.0065 *

Moon -85452-04-04 01:54 J -29489826.50 -29489826.42 -29489826.32 0.0089 0.0082

Earth -85452-04-04 04:32 J -29489826.35 -29489826.31 -29489826.22 0.0089 0.0086 *

Mars -85446-10-25 12:42 J -29487431.23 -29487430.97 -29487430.69 0.0089 0.0056

Mars -85444-09-21 05:30 J -29486734.56 -29486734.27 -29486733.94 0.0089 0.0043

Venus -85408-04-09 02:08 J -29473750.50 -29473750.41 -29473750.30 0.0089 0.0079

Venus -85408-11-20 16:04 J -29473524.97 -29473524.83 -29473524.65 0.0089 0.0063

Venus -85407-07-04 06:28 J -29473299.41 -29473299.23 -29473299.02 0.0089 0.0046

Venus -85406-02-14 20:52 J -29473073.83 -29473073.63 -29473073.40 0.0089 0.0029

Venus -85406-09-28 11:30 J -29472848.25 -29472848.02 -29472847.79 0.0089 0.0012

Venus -85405-05-11 01:54 J -29472622.64 -29472622.42 -29472622.19 0.0089 0.0005

Venus -85405-12-22 16:04 J -29472397.04 -29472396.83 -29472396.60 0.0089 0.0022

Venus -85404-08-05 06:13 J -29472171.44 -29472171.24 -29472171.03 0.0089 0.0039

Venus -85403-03-18 20:08 J -29471945.82 -29471945.66 -29471945.46 0.0089 0.0056

Venus -85403-10-30 10:47 J -29471720.18 -29471720.05 -29471719.92 0.0089 0.0072

Mercury -85398-02-23 18:28 J -29470142.78 -29470142.73 -29470142.66 0.0089 0.0083

Mercury -85398-05-22 21:49 J -29470054.67 -29470054.59 -29470054.48 0.0089 0.0077

Mercury -85398-08-19 01:25 J -29469966.54 -29469966.44 -29469966.32 0.0089 0.0071

Mercury -85398-11-15 04:47 J -29469878.42 -29469878.30 -29469878.16 0.0089 0.0065

Mercury -85397-02-11 08:08 J -29469790.29 -29469790.16 -29469790.01 0.0089 0.0059

Mercury -85397-05-09 11:30 J -29469702.16 -29469702.02 -29469701.85 0.0089 0.0053

Mercury -85397-08-05 14:52 J -29469614.02 -29469613.88 -29469613.70 0.0089 0.0047

Mercury -85397-11-01 18:28 J -29469525.89 -29469525.73 -29469525.55 0.0089 0.0040

Mercury -85396-01-28 21:49 J -29469437.75 -29469437.59 -29469437.41 0.0089 0.0034

Mercury -85396-04-27 01:11 J -29469349.62 -29469349.45 -29469349.26 0.0089 0.0029

Mercury -85396-07-24 04:32 J -29469261.48 -29469261.31 -29469261.12 0.0089 0.0023

Mercury -85396-10-20 07:54 J -29469173.35 -29469173.17 -29469172.98 0.0089 0.0017

Mercury -85395-01-16 11:16 J -29469085.21 -29469085.03 -29469084.83 0.0089 0.0011

Mercury -85395-04-14 14:52 J -29468997.07 -29468996.88 -29468996.70 0.0088 0.0004

Mercury -85395-07-11 18:13 J -29468908.93 -29468908.74 -29468908.56 0.0088 0.0003

Mercury -85395-10-07 21:20 J -29468820.79 -29468820.61 -29468820.42 0.0088 0.0008

Mercury -85394-01-04 00:42 J -29468732.65 -29468732.47 -29468732.28 0.0088 0.0014

Mercury -85394-04-02 03:49 J -29468644.51 -29468644.34 -29468644.15 0.0088 0.0020

Mercury -85394-06-29 07:11 J -29468556.38 -29468556.20 -29468556.02 0.0088 0.0025

Mercury -85394-09-25 10:18 J -29468468.23 -29468468.07 -29468467.89 0.0088 0.0032

Mercury -85394-12-22 13:25 J -29468380.09 -29468379.94 -29468379.76 0.0088 0.0038

Mercury -85393-03-19 17:01 J -29468291.95 -29468291.79 -29468291.63 0.0088 0.0043

Mercury -85393-06-15 20:08 J -29468203.81 -29468203.66 -29468203.50 0.0088 0.0049

Mercury -85393-09-11 23:16 J -29468115.67 -29468115.53 -29468115.38 0.0088 0.0055

Mercury -85393-12-09 02:23 J -29468027.52 -29468027.40 -29468027.26 0.0088 0.0060

Mercury -85392-03-07 05:44 J -29467939.38 -29467939.26 -29467939.13 0.0088 0.0066

Mercury -85392-06-03 08:52 J -29467851.23 -29467851.13 -29467851.02 0.0088 0.0072

Mercury -85392-08-30 11:44 J -29467763.08 -29467763.01 -29467762.91 0.0088 0.0078

Mercury -85392-11-26 15:20 J -29467674.92 -29467674.86 -29467674.80 0.0088 0.0083

Earth -85377-09-24 21:35 J -29462258.69 -29462258.60 -29462258.45 0.0088 0.0079

Moon -85377-09-25 01:40 J -29462258.58 -29462258.43 -29462258.29 0.0088 0.0074 *

Moon -85376-09-27 08:23 J -29461891.32 -29461891.15 -29461890.93 0.0088 0.0058

Earth -85376-09-27 11:59 J -29461891.21 -29461891.00 -29461890.78 0.0088 0.0053 *

Earth -85375-09-30 01:25 J -29461523.68 -29461523.44 -29461523.18 0.0088 0.0027

Moon -85375-09-30 03:49 J -29461523.60 -29461523.34 -29461523.07 0.0088 0.0023 *

Moon -85374-10-02 14:23 J -29461156.15 -29461155.90 -29461155.64 0.0088 0.0006

Earth -85374-10-02 15:20 J -29461156.12 -29461155.86 -29461155.60 0.0088 0.0002 *

Earth -85373-10-04 04:47 J -29460788.55 -29460788.30 -29460788.05 0.0088 0.0024

Moon -85373-10-04 04:32 J -29460788.55 -29460788.31 -29460788.03 0.0088 0.0029 *

Earth -85372-10-06 17:44 J -29460420.95 -29460420.76 -29460420.52 0.0088 0.0050

Moon -85372-10-06 19:25 J -29460420.90 -29460420.69 -29460420.46 0.0088 0.0045 *

Moon -85371-10-09 04:32 J -29460053.41 -29460053.31 -29460053.16 0.0088 0.0079

Earth -85371-10-09 07:11 J -29460053.32 -29460053.20 -29460053.04 0.0088 0.0074 *

Jupiter -85371-11-24 00:56 J -29460007.93 -29460007.46 -29460006.93 0.0088 0.0035

Mars -85364-09-02 17:01 J -29457532.98 -29457532.79 -29457532.56 0.0088 0.0060

Mars -85362-07-28 01:54 J -29456839.69 -29456839.42 -29456839.13 0.0088 0.0017

Venus -85325-01-06 21:49 J -29443527.70 -29443527.59 -29443527.47 0.0089 0.0074

Venus -85325-08-19 09:06 J -29443302.26 -29443302.12 -29443301.94 0.0089 0.0059

Venus -85324-04-01 21:06 J -29443076.80 -29443076.62 -29443076.42 0.0089 0.0043

Venus -85324-11-13 09:06 J -29442851.32 -29442851.12 -29442850.91 0.0089 0.0027

Venus -85323-06-26 20:52 J -29442625.84 -29442625.63 -29442625.41 0.0089 0.0011

Venus -85322-02-07 08:37 J -29442400.35 -29442400.14 -29442399.92 0.0089 0.0005

Venus -85322-09-20 20:23 J -29442174.85 -29442174.65 -29442174.44 0.0089 0.0021

Venus -85321-05-03 07:54 J -29441949.35 -29441949.17 -29441948.96 0.0089 0.0037

Venus -85321-12-14 19:40 J -29441723.83 -29441723.68 -29441723.49 0.0089 0.0053

Venus -85320-07-28 07:54 J -29441498.30 -29441498.17 -29441498.03 0.0089 0.0068

Venus -85319-03-10 19:25 J -29441272.74 -29441272.69 -29441272.61 0.0089 0.0084

Mercury -85317-06-01 03:06 J -29440459.39 -29440459.37 -29440459.33 0.0089 0.0086

Mercury -85317-08-28 04:32 J -29440371.35 -29440371.31 -29440371.25 0.0089 0.0082

Mercury -85317-11-24 05:44 J -29440283.31 -29440283.26 -29440283.18 0.0089 0.0078

Mercury -85316-02-20 07:25 J -29440195.26 -29440195.19 -29440195.11 0.0089 0.0073

Mercury -85316-05-19 08:37 J -29440107.21 -29440107.14 -29440107.05 0.0089 0.0069

Mercury -85316-08-15 10:04 J -29440019.16 -29440019.08 -29440018.98 0.0089 0.0065

Mercury -85316-11-11 11:30 J -29439931.11 -29439931.02 -29439930.92 0.0089 0.0061

Mercury -85315-02-07 12:56 J -29439843.06 -29439842.96 -29439842.85 0.0089 0.0056

Mercury -85315-05-06 14:23 J -29439755.00 -29439754.90 -29439754.79 0.0089 0.0052

Mercury -85315-08-02 15:49 J -29439666.95 -29439666.84 -29439666.72 0.0089 0.0048

Mercury -85315-10-29 17:01 J -29439578.90 -29439578.79 -29439578.66 0.0089 0.0044

Mercury -85314-01-25 18:42 J -29439490.84 -29439490.72 -29439490.60 0.0089 0.0039

Mercury -85314-04-23 19:54 J -29439402.79 -29439402.67 -29439402.54 0.0089 0.0035

Mercury -85314-07-20 21:20 J -29439314.73 -29439314.61 -29439314.47 0.0089 0.0031

Mercury -85314-10-16 23:01 J -29439226.67 -29439226.54 -29439226.41 0.0089 0.0026

Mercury -85313-01-13 00:13 J -29439138.61 -29439138.49 -29439138.35 0.0089 0.0022

Mercury -85313-04-10 01:40 J -29439050.56 -29439050.43 -29439050.29 0.0089 0.0018

Mercury -85313-07-07 03:06 J -29438962.50 -29438962.37 -29438962.23 0.0089 0.0014

Mercury -85313-10-03 04:47 J -29438874.44 -29438874.30 -29438874.17 0.0089 0.0009

Mercury -85313-12-30 06:13 J -29438786.38 -29438786.24 -29438786.11 0.0089 0.0005

Mercury -85312-03-28 07:40 J -29438698.32 -29438698.18 -29438698.05 0.0089 0.0002

Mercury -85312-06-24 09:06 J -29438610.26 -29438610.12 -29438609.99 0.0089 0.0005

Mercury -85312-09-20 10:32 J -29438522.20 -29438522.06 -29438521.93 0.0089 0.0009

Mercury -85312-12-17 11:59 J -29438434.14 -29438434.00 -29438433.86 0.0089 0.0013

Mercury -85311-03-15 13:25 J -29438346.07 -29438345.94 -29438345.81 0.0089 0.0018

Mercury -85311-06-11 14:52 J -29438258.01 -29438257.88 -29438257.75 0.0089 0.0022

Mercury -85311-09-07 16:18 J -29438169.95 -29438169.82 -29438169.69 0.0089 0.0026

Mercury -85311-12-04 17:44 J -29438081.88 -29438081.76 -29438081.63 0.0089 0.0031

Mercury -85310-03-02 19:25 J -29437993.82 -29437993.69 -29437993.57 0.0089 0.0035

Mercury -85310-05-29 20:37 J -29437905.75 -29437905.64 -29437905.51 0.0089 0.0040

Mercury -85310-08-25 22:18 J -29437817.69 -29437817.57 -29437817.45 0.0089 0.0044

Mercury -85310-11-21 23:44 J -29437729.62 -29437729.51 -29437729.39 0.0089 0.0049

Mercury -85309-02-18 01:11 J -29437641.55 -29437641.45 -29437641.33 0.0089 0.0053

Mercury -85309-05-16 02:37 J -29437553.48 -29437553.39 -29437553.28 0.0089 0.0058

Mercury -85309-08-12 04:18 J -29437465.41 -29437465.32 -29437465.22 0.0089 0.0062

Mercury -85309-11-08 05:44 J -29437377.34 -29437377.26 -29437377.16 0.0089 0.0067

Mercury -85308-02-04 07:25 J -29437289.27 -29437289.19 -29437289.11 0.0089 0.0071

Mercury -85308-05-03 08:37 J -29437201.20 -29437201.14 -29437201.05 0.0089 0.0076

Mercury -85308-07-30 10:18 J -29437113.12 -29437113.07 -29437113.00 0.0089 0.0080

Mercury -85308-10-26 11:44 J -29437025.04 -29437025.01 -29437024.96 0.0089 0.0085

Earth -85294-03-22 07:25 J -29432130.30 -29432130.19 -29432130.02 0.0089 0.0074

Moon -85294-03-22 08:37 J -29432130.24 -29432130.14 -29432130.00 0.0089 0.0077 *

Moon -85293-03-23 14:37 J -29431763.10 -29431762.89 -29431762.66 0.0089 0.0045

Earth -85293-03-23 17:16 J -29431762.97 -29431762.78 -29431762.56 0.0089 0.0049 *

Earth -85292-03-26 03:06 J -29431395.61 -29431395.37 -29431395.12 0.0089 0.0024

Moon -85292-03-26 05:59 J -29431395.47 -29431395.25 -29431395.00 0.0089 0.0029 *

Moon -85291-03-28 09:20 J -29431028.36 -29431028.11 -29431027.86 0.0089 0.0004

Earth -85291-03-28 12:56 J -29431028.21 -29431027.96 -29431027.71 0.0089 0.0001 *

Earth -85290-03-30 22:32 J -29430660.80 -29430660.56 -29430660.32 0.0089 0.0025

Moon -85290-03-31 01:40 J -29430660.66 -29430660.43 -29430660.17 0.0089 0.0022 *

Moon -85289-04-01 05:59 J -29430293.44 -29430293.25 -29430293.05 0.0089 0.0053

Earth -85289-04-01 08:08 J -29430293.35 -29430293.16 -29430292.94 0.0089 0.0050 *

Earth -85288-04-03 17:44 J -29429925.87 -29429925.76 -29429925.60 0.0089 0.0075

Moon -85288-04-03 19:54 J -29429925.80 -29429925.67 -29429925.50 0.0089 0.0072 *

Mars -85280-05-04 15:35 J -29426973.20 -29426972.85 -29426972.50 0.0089 0.0001

Venus -85244-07-11 12:56 J -29413756.02 -29413755.96 -29413755.88 0.0089 0.0084

Venus -85243-02-22 02:52 J -29413530.50 -29413530.38 -29413530.21 0.0089 0.0068

Venus -85243-10-05 17:16 J -29413304.94 -29413304.78 -29413304.57 0.0089 0.0051

Venus -85242-05-19 08:08 J -29413079.36 -29413079.16 -29413078.94 0.0089 0.0034

Venus -85242-12-30 22:32 J -29412853.78 -29412853.56 -29412853.33 0.0089 0.0017

Venus -85241-08-12 12:56 J -29412628.19 -29412627.96 -29412627.73 0.0089 0.0001

Venus	-85240-03-26 03:06 J	-29412402.58	-29412402.37	-29412402.14	0.0089	0.0018
Venus	-85240-11-06 17:16 J	-29412176.97	-29412176.78	-29412176.56	0.0089	0.0035
Venus	-85239-06-20 07:25 J	-29411951.35	-29411951.19	-29411950.98	0.0089	0.0052
Venus	-85238-01-31 21:35 J	-29411725.72	-29411725.60	-29411725.43	0.0089	0.0069
Venus	-85238-09-14 12:13 J	-29411500.04	-29411499.99	-29411499.92	0.0089	0.0085
Mercury	-85234-08-24 14:23 J	-29410059.93	-29410059.90	-29410059.84	0.0089	0.0086
Mercury	-85234-11-20 17:44 J	-29409971.82	-29409971.76	-29409971.66	0.0089	0.0080
Mercury	-85233-02-16 21:20 J	-29409883.70	-29409883.61	-29409883.49	0.0089	0.0074
Mercury	-85233-05-15 00:42 J	-29409795.58	-29409795.47	-29409795.33	0.0089	0.0068
Mercury	-85233-08-11 04:04 J	-29409707.45	-29409707.33	-29409707.18	0.0089	0.0062
Mercury	-85233-11-07 07:25 J	-29409619.32	-29409619.19	-29409619.02	0.0089	0.0056
Mercury	-85232-02-03 11:01 J	-29409531.18	-29409531.04	-29409530.87	0.0089	0.0049
Mercury	-85232-05-02 14:37 J	-29409443.05	-29409442.89	-29409442.72	0.0089	0.0043
Mercury	-85232-07-29 17:59 J	-29409354.92	-29409354.75	-29409354.57	0.0089	0.0037
Mercury	-85232-10-25 21:35 J	-29409266.78	-29409266.60	-29409266.43	0.0089	0.0031
Mercury	-85231-01-22 00:56 J	-29409178.64	-29409178.46	-29409178.28	0.0089	0.0025
Mercury	-85231-04-20 04:18 J	-29409090.51	-29409090.32	-29409090.14	0.0089	0.0019
Mercury	-85231-07-17 07:40 J	-29409002.37	-29409002.18	-29409002.00	0.0089	0.0013
Mercury	-85231-10-13 10:47 J	-29408914.23	-29408914.05	-29408913.86	0.0089	0.0007
Mercury	-85230-01-09 14:08 J	-29408826.09	-29408825.91	-29408825.72	0.0089	0.0002
Mercury	-85230-04-07 17:30 J	-29408737.95	-29408737.77	-29408737.58	0.0089	0.0005
Mercury	-85230-07-04 20:52 J	-29408649.82	-29408649.63	-29408649.44	0.0089	0.0011
Mercury	-85230-10-01 00:13 J	-29408561.68	-29408561.49	-29408561.31	0.0089	0.0017
Mercury	-85230-12-28 03:20 J	-29408473.54	-29408473.36	-29408473.18	0.0089	0.0023
Mercury	-85229-03-25 06:42 J	-29408385.39	-29408385.22	-29408385.04	0.0088	0.0029
Mercury	-85229-06-21 09:49 J	-29408297.25	-29408297.09	-29408296.91	0.0088	0.0035
Mercury	-85229-09-17 12:56 J	-29408209.11	-29408208.96	-29408208.78	0.0088	0.0041
Mercury	-85229-12-14 16:04 J	-29408120.97	-29408120.83	-29408120.66	0.0088	0.0047
Mercury	-85228-03-12 19:25 J	-29408032.83	-29408032.69	-29408032.53	0.0088	0.0052
Mercury	-85228-06-08 22:47 J	-29407944.68	-29407944.55	-29407944.40	0.0088	0.0058

Mercury -85228-09-05 01:54 J -29407856.54 -29407856.42 -29407856.28 0.0088 0.0064

Mercury -85228-12-02 05:01 J -29407768.39 -29407768.29 -29407768.16 0.0088 0.0070

Mercury -85227-02-28 08:08 J -29407680.24 -29407680.16 -29407680.05 0.0088 0.0075

Mercury -85227-05-27 11:30 J -29407592.08 -29407592.02 -29407591.94 0.0088 0.0081

Mercury -85227-08-23 14:23 J -29407503.92 -29407503.90 -29407503.85 0.0088 0.0087

Moon -85213-09-24 05:44 J -29402358.31 -29402358.26 -29402358.20 0.0088 0.0086

Earth -85213-09-24 07:40 J -29402358.18 -29402358.18 -29402358.14 0.0088 0.0088

Earth -85212-09-26 21:49 J -29401990.77 -29401990.59 -29401990.40 0.0088 0.0063

Moon -85212-09-26 23:30 J -29401990.70 -29401990.52 -29401990.32 0.0088 0.0064 *

Moon -85211-09-29 10:47 J -29401623.27 -29401623.05 -29401622.80 0.0088 0.0037

Earth -85211-09-29 11:30 J -29401623.25 -29401623.02 -29401622.77 0.0088 0.0038 *

Moon -85210-10-01 23:59 J -29401255.76 -29401255.50 -29401255.22 0.0088 0.0014

Earth -85210-10-02 01:11 J -29401255.70 -29401255.45 -29401255.18 0.0088 0.0012 *

Earth -85209-10-03 14:52 J -29400888.13 -29400887.88 -29400887.61 0.0088 0.0013

Moon -85209-10-03 16:32 J -29400888.05 -29400887.81 -29400887.55 0.0088 0.0014 *

Moon -85208-10-06 01:25 J -29400520.67 -29400520.44 -29400520.18 0.0088 0.0038

Earth -85208-10-06 04:18 J -29400520.54 -29400520.32 -29400520.07 0.0088 0.0038 *

Earth -85207-10-08 17:16 J -29400152.94 -29400152.78 -29400152.58 0.0088 0.0064

Moon -85207-10-08 21:06 J -29400152.78 -29400152.62 -29400152.43 0.0088 0.0065 *

Moon -85206-10-11 03:06 J -29399785.37 -29399785.37 -29399785.33 0.0088 0.0088

Earth -85206-10-11 07:11 J -29399785.20 -29399785.20 -29399785.20 0.0088 0.0088

Jupiter -85204-01-28 20:52 J -29399309.91 -29399309.63 -29399309.30 0.0088 0.0073

Mars -85198-03-12 23:59 J -29397075.78 -29397075.50 -29397075.22 0.0088 0.0015

Mars -85196-02-03 08:52 J -29396382.33 -29396382.13 -29396381.93 0.0088 0.0062

Venus -85161-04-09 10:47 J -29383533.12 -29383533.05 -29383532.93 0.0089 0.0079

Venus -85161-11-20 22:47 J -29383307.68 -29383307.55 -29383307.38 0.0089 0.0063

Venus -85160-07-04 10:32 J -29383082.23 -29383082.06 -29383081.87 0.0089 0.0047

Venus -85159-02-14 22:32 J -29382856.76 -29382856.56 -29382856.36 0.0089 0.0031

Venus -85159-09-28 10:18 J -29382631.28 -29382631.07 -29382630.86 0.0089 0.0015

Venus -85158-05-11 22:04 J -29382405.79 -29382405.58 -29382405.37 0.0089 0.0001

Venus	-85158-12-23 09:35 J	-29382180.30	-29382180.10	-29382179.88	0.0089	0.0017
Venus	-85157-08-04 21:20 J	-29381954.80	-29381954.61	-29381954.40	0.0089	0.0033
Venus	-85156-03-18 08:52 J	-29381729.29	-29381729.13	-29381728.93	0.0089	0.0049
Venus	-85156-10-29 20:37 J	-29381503.76	-29381503.64	-29381503.47	0.0089	0.0065
Venus	-85155-06-12 08:52 J	-29381278.21	-29381278.13	-29381278.04	0.0089	0.0080
Mercury	-85153-11-30 01:40 J	-29380376.43	-29380376.43	-29380376.40	0.0089	0.0088
Mercury	-85152-02-26 03:06 J	-29380288.40	-29380288.37	-29380288.31	0.0089	0.0084
Mercury	-85152-05-25 04:47 J	-29380200.36	-29380200.30	-29380200.24	0.0089	0.0079
Mercury	-85152-08-21 05:59 J	-29380112.31	-29380112.25	-29380112.17	0.0089	0.0075
Mercury	-85152-11-17 07:25 J	-29380024.26	-29380024.19	-29380024.10	0.0089	0.0071
Mercury	-85151-02-13 08:37 J	-29379936.21	-29379936.14	-29379936.04	0.0089	0.0067
Mercury	-85151-05-12 10:04 J	-29379848.16	-29379848.08	-29379847.97	0.0089	0.0063
Mercury	-85151-08-08 11:44 J	-29379760.11	-29379760.01	-29379759.91	0.0089	0.0058
Mercury	-85151-11-04 12:56 J	-29379672.06	-29379671.96	-29379671.85	0.0089	0.0054
Mercury	-85150-01-31 14:23 J	-29379584.00	-29379583.90	-29379583.78	0.0089	0.0050
Mercury	-85150-04-29 15:35 J	-29379495.95	-29379495.85	-29379495.72	0.0089	0.0046
Mercury	-85150-07-26 17:16 J	-29379407.90	-29379407.78	-29379407.66	0.0089	0.0041
Mercury	-85150-10-22 18:42 J	-29379319.84	-29379319.72	-29379319.59	0.0089	0.0037
Mercury	-85149-01-18 19:54 J	-29379231.78	-29379231.67	-29379231.53	0.0089	0.0033
Mercury	-85149-04-15 21:35 J	-29379143.73	-29379143.60	-29379143.47	0.0089	0.0028
Mercury	-85149-07-12 23:01 J	-29379055.67	-29379055.54	-29379055.41	0.0089	0.0024
Mercury	-85149-10-09 00:13 J	-29378967.61	-29378967.49	-29378967.35	0.0089	0.0020
Mercury	-85148-01-05 01:54 J	-29378879.55	-29378879.42	-29378879.29	0.0089	0.0015
Mercury	-85148-04-03 03:20 J	-29378791.50	-29378791.36	-29378791.23	0.0089	0.0011
Mercury	-85148-06-30 04:47 J	-29378703.44	-29378703.30	-29378703.16	0.0089	0.0006
Mercury	-85148-09-26 06:13 J	-29378615.38	-29378615.24	-29378615.10	0.0089	0.0002
Mercury	-85148-12-23 07:40 J	-29378527.32	-29378527.18	-29378527.04	0.0089	0.0002
Mercury	-85147-03-21 09:06 J	-29378439.26	-29378439.12	-29378438.98	0.0089	0.0007
Mercury	-85147-06-17 10:32 J	-29378351.19	-29378351.06	-29378350.92	0.0089	0.0011
Mercury	-85147-09-13 11:59 J	-29378263.13	-29378263.00	-29378262.86	0.0089	0.0016

Mercury -85147-12-10 13:25 J -29378175.07 -29378174.94 -29378174.80 0.0089 0.0020
 Mercury -85146-03-08 14:52 J -29378087.01 -29378086.88 -29378086.74 0.0089 0.0025
 Mercury -85146-06-04 16:18 J -29377998.94 -29377998.82 -29377998.68 0.0089 0.0029
 Mercury -85146-08-31 17:59 J -29377910.88 -29377910.75 -29377910.63 0.0089 0.0033
 Mercury -85146-11-27 19:11 J -29377822.82 -29377822.70 -29377822.57 0.0089 0.0038
 Mercury -85145-02-23 20:52 J -29377734.75 -29377734.63 -29377734.51 0.0089 0.0042
 Mercury -85145-05-21 22:04 J -29377646.68 -29377646.58 -29377646.45 0.0089 0.0047
 Mercury -85145-08-17 23:44 J -29377558.62 -29377558.51 -29377558.39 0.0089 0.0051
 Mercury -85145-11-14 01:11 J -29377470.55 -29377470.45 -29377470.34 0.0089 0.0056
 Mercury -85144-02-10 02:52 J -29377382.48 -29377382.38 -29377382.28 0.0089 0.0060
 Mercury -85144-05-09 04:04 J -29377294.41 -29377294.33 -29377294.22 0.0089 0.0065
 Mercury -85144-08-05 05:44 J -29377206.34 -29377206.26 -29377206.17 0.0089 0.0069
 Mercury -85144-11-01 07:11 J -29377118.26 -29377118.20 -29377118.11 0.0089 0.0074
 Mercury -85143-01-28 08:52 J -29377030.19 -29377030.13 -29377030.06 0.0089 0.0078
 Mercury -85143-04-26 10:18 J -29376942.11 -29376942.07 -29376942.01 0.0089 0.0083
 Mercury -85143-07-23 11:59 J -29376854.02 -29376854.00 -29376853.97 0.0089 0.0087
 Moon -85130-03-21 18:42 J -29372229.80 -29372229.72 -29372229.59 0.0089 0.0081
 Earth -85130-03-21 22:04 J -29372229.67 -29372229.58 -29372229.50 0.0089 0.0084 *
 Earth -85129-03-23 06:56 J -29371862.38 -29371862.21 -29371862.00 0.0089 0.0059
 Moon -85129-03-23 10:47 J -29371862.23 -29371862.05 -29371861.87 0.0089 0.0062 *
 Moon -85128-03-25 13:25 J -29371495.17 -29371494.94 -29371494.70 0.0089 0.0032
 Earth -85128-03-25 16:32 J -29371495.02 -29371494.81 -29371494.56 0.0089 0.0035 *
 Earth -85127-03-28 02:37 J -29371127.64 -29371127.39 -29371127.14 0.0089 0.0010
 Moon -85127-03-28 05:44 J -29371127.51 -29371127.26 -29371127.00 0.0089 0.0013 *
 Moon -85126-03-30 09:49 J -29370760.33 -29370760.09 -29370759.84 0.0089 0.0018
 Earth -85126-03-30 12:13 J -29370760.23 -29370759.99 -29370759.73 0.0089 0.0015 *
 Earth -85125-03-31 22:04 J -29370392.80 -29370392.58 -29370392.35 0.0089 0.0039
 Moon -85125-03-31 22:47 J -29370392.77 -29370392.55 -29370392.29 0.0089 0.0037 *
 Earth -85124-04-03 07:40 J -29370025.34 -29370025.18 -29370024.99 0.0089 0.0064
 Moon -85124-04-03 07:25 J -29370025.33 -29370025.19 -29370025.02 0.0089 0.0067 *

Moon	-85123-04-05 16:32 J	-29369657.87	-29369657.81	-29369657.72	0.0089	0.0086
Earth	-85123-04-05 17:44 J	-29369657.76	-29369657.76	-29369657.74	0.0089	0.0089 *
Mars	-85117-12-16 00:42 J	-29367211.75	-29367211.47	-29367211.14	0.0089	0.0041
Mars	-85115-11-12 17:30 J	-29366515.01	-29366514.77	-29366514.47	0.0089	0.0057
Venus	-85079-05-26 14:23 J	-29353536.03	-29353535.90	-29353535.77	0.0089	0.0072
Venus	-85078-01-07 04:04 J	-29353310.48	-29353310.33	-29353310.13	0.0089	0.0056
Venus	-85078-08-20 18:28 J	-29353084.91	-29353084.73	-29353084.50	0.0089	0.0039
Venus	-85077-04-02 09:06 J	-29352859.33	-29352859.12	-29352858.89	0.0089	0.0022
Venus	-85077-11-13 23:44 J	-29352633.74	-29352633.51	-29352633.28	0.0089	0.0004
Venus	-85076-06-27 13:54 J	-29352408.14	-29352407.92	-29352407.69	0.0089	0.0013
Venus	-85075-02-08 04:18 J	-29352182.53	-29352182.32	-29352182.10	0.0089	0.0030
Venus	-85075-09-21 18:28 J	-29351956.91	-29351956.73	-29351956.53	0.0089	0.0047
Venus	-85074-05-05 08:52 J	-29351731.27	-29351731.13	-29351730.96	0.0089	0.0064
Venus	-85074-12-16 23:01 J	-29351505.61	-29351505.54	-29351505.43	0.0089	0.0081
Mercury	-85069-02-22 10:47 J	-29349977.05	-29349977.05	-29349977.05	0.0089	0.0089
Mercury	-85069-05-20 13:40 J	-29349888.98	-29349888.93	-29349888.84	0.0089	0.0083
Mercury	-85069-08-16 17:16 J	-29349800.86	-29349800.78	-29349800.67	0.0089	0.0077
Mercury	-85069-11-12 20:37 J	-29349712.74	-29349712.64	-29349712.51	0.0089	0.0071
Mercury	-85068-02-08 23:59 J	-29349624.61	-29349624.50	-29349624.35	0.0089	0.0065
Mercury	-85068-05-08 03:49 J	-29349536.48	-29349536.34	-29349536.19	0.0089	0.0058
Mercury	-85068-08-04 07:11 J	-29349448.35	-29349448.20	-29349448.04	0.0089	0.0052
Mercury	-85068-10-31 10:32 J	-29349360.21	-29349360.06	-29349359.89	0.0089	0.0046
Mercury	-85067-01-27 14:08 J	-29349272.08	-29349271.91	-29349271.74	0.0089	0.0040
Mercury	-85067-04-25 17:30 J	-29349183.94	-29349183.77	-29349183.59	0.0089	0.0034
Mercury	-85067-07-22 20:52 J	-29349095.81	-29349095.63	-29349095.45	0.0089	0.0028
Mercury	-85067-10-19 00:13 J	-29349007.67	-29349007.49	-29349007.30	0.0089	0.0022
Mercury	-85066-01-15 03:35 J	-29348919.53	-29348919.35	-29348919.16	0.0089	0.0016
Mercury	-85066-04-13 06:56 J	-29348831.39	-29348831.21	-29348831.02	0.0089	0.0010
Mercury	-85066-07-10 10:18 J	-29348743.25	-29348743.07	-29348742.88	0.0089	0.0004
Mercury	-85066-10-06 13:40 J	-29348655.12	-29348654.93	-29348654.74	0.0089	0.0003

Mercury -85065-01-02 17:01 J -29348566.98 -29348566.79 -29348566.60 0.0089 0.0008

Mercury -85065-03-30 20:08 J -29348478.84 -29348478.66 -29348478.47 0.0089 0.0015

Mercury -85065-06-26 23:30 J -29348390.70 -29348390.52 -29348390.33 0.0088 0.0021

Mercury -85065-09-23 02:37 J -29348302.55 -29348302.39 -29348302.20 0.0088 0.0027

Mercury -85065-12-20 05:59 J -29348214.41 -29348214.25 -29348214.07 0.0088 0.0032

Mercury -85064-03-18 09:06 J -29348126.27 -29348126.12 -29348125.94 0.0088 0.0039

Mercury -85064-06-14 12:42 J -29348038.13 -29348037.97 -29348037.81 0.0088 0.0044

Mercury -85064-09-10 15:49 J -29347949.99 -29347949.84 -29347949.68 0.0088 0.0050

Mercury -85064-12-07 18:56 J -29347861.84 -29347861.71 -29347861.55 0.0088 0.0056

Mercury -85063-03-05 22:04 J -29347773.70 -29347773.58 -29347773.43 0.0088 0.0062

Mercury -85063-06-02 01:11 J -29347685.55 -29347685.45 -29347685.31 0.0088 0.0068

Mercury -85063-08-29 04:47 J -29347597.40 -29347597.30 -29347597.19 0.0088 0.0073

Mercury -85063-11-25 07:40 J -29347509.25 -29347509.18 -29347509.08 0.0088 0.0079

Mercury -85062-02-21 10:47 J -29347421.08 -29347421.05 -29347420.98 0.0088 0.0085

Earth -85048-09-26 07:25 J -29342090.32 -29342090.19 -29342090.02 0.0088 0.0073

Moon -85048-09-26 07:54 J -29342090.31 -29342090.17 -29342089.99 0.0088 0.0069 *

Moon -85047-09-28 19:54 J -29341722.87 -29341722.67 -29341722.43 0.0088 0.0052

Earth -85047-09-28 21:20 J -29341722.82 -29341722.61 -29341722.38 0.0088 0.0048 *

Earth -85046-10-01 11:16 J -29341355.28 -29341355.03 -29341354.77 0.0088 0.0022

Moon -85046-10-01 13:40 J -29341355.17 -29341354.93 -29341354.67 0.0088 0.0018 *

Moon -85045-10-02 21:49 J -29340987.86 -29340987.59 -29340987.32 0.0088 0.0001

Earth -85045-10-03 00:56 J -29340987.72 -29340987.46 -29340987.19 0.0088 0.0004 *

Earth -85044-10-05 14:23 J -29340620.15 -29340619.90 -29340619.65 0.0088 0.0028

Moon -85044-10-05 17:44 J -29340620.00 -29340619.76 -29340619.51 0.0088 0.0033 *

Moon -85043-10-07 23:44 J -29340252.71 -29340252.51 -29340252.27 0.0088 0.0049

Earth -85043-10-08 03:20 J -29340252.55 -29340252.36 -29340252.12 0.0088 0.0053 *

Earth -85042-10-10 17:01 J -29339884.90 -29339884.79 -29339884.66 0.0088 0.0078

Moon -85042-10-10 19:25 J -29339884.75 -29339884.69 -29339884.56 0.0088 0.0083 *

Mars -85035-10-26 21:20 J -29337311.84 -29337311.61 -29337311.36 0.0088 0.0047

Mars -85033-09-19 06:42 J -29336618.48 -29336618.22 -29336617.94 0.0088 0.0030

85TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 85th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-84997-07-12 00:28 J	-29323538.54	-29323538.48	-29323538.39	0.0089	0.0083		
Venus	-84996-02-22 12:13 J	-29323313.12	-29323312.99	-29323312.84	0.0089	0.0067		
Venus	-84996-10-06 00:13 J	-29323087.66	-29323087.49	-29323087.31	0.0089	0.0051		
Venus	-84995-05-19 11:59 J	-29322862.19	-29322862.00	-29322861.80	0.0089	0.0035		
Venus	-84995-12-30 23:30 J	-29322636.72	-29322636.52	-29322636.30	0.0089	0.0020		
Venus	-84994-08-13 11:30 J	-29322411.23	-29322411.02	-29322410.81	0.0089	0.0003		
Venus	-84993-03-25 23:01 J	-29322185.74	-29322185.54	-29322185.32	0.0089	0.0013		
Venus	-84993-11-06 10:47 J	-29321960.24	-29321960.05	-29321959.84	0.0089	0.0029		
Venus	-84992-06-19 22:32 J	-29321734.73	-29321734.56	-29321734.36	0.0089	0.0045		
Venus	-84991-01-31 10:04 J	-29321509.22	-29321509.08	-29321508.90	0.0089	0.0061		
Venus	-84991-09-13 22:18 J	-29321283.68	-29321283.57	-29321283.46	0.0089	0.0076		
Mercury	-84988-08-27 01:40 J	-29320205.44	-29320205.43	-29320205.38	0.0089	0.0086		
Mercury	-84988-11-23 03:20 J	-29320117.40	-29320117.36	-29320117.30	0.0089	0.0081		
Mercury	-84987-02-19 04:47 J	-29320029.36	-29320029.30	-29320029.23	0.0089	0.0077		
Mercury	-84987-05-18 05:59 J	-29319941.31	-29319941.25	-29319941.16	0.0089	0.0073		
Mercury	-84987-08-14 07:25 J	-29319853.26	-29319853.19	-29319853.10	0.0089	0.0069		
Mercury	-84987-11-10 09:06 J	-29319765.21	-29319765.12	-29319765.03	0.0089	0.0064		
Mercury	-84986-02-06 10:18 J	-29319677.16	-29319677.07	-29319676.96	0.0089	0.0060		

Mercury -84986-05-05 11:44 J -29319589.11 -29319589.01 -29319588.90 0.0089 0.0056

Mercury -84986-08-01 12:56 J -29319501.06 -29319500.96 -29319500.84 0.0089 0.0052

Mercury -84986-10-28 14:37 J -29319413.00 -29319412.89 -29319412.77 0.0089 0.0047

Mercury -84985-01-24 16:04 J -29319324.95 -29319324.83 -29319324.71 0.0089 0.0043

Mercury -84985-04-21 17:16 J -29319236.89 -29319236.78 -29319236.65 0.0089 0.0039

Mercury -84985-07-18 18:56 J -29319148.84 -29319148.71 -29319148.59 0.0089 0.0034

Mercury -84985-10-14 20:08 J -29319060.78 -29319060.66 -29319060.53 0.0089 0.0030

Mercury -84984-01-10 21:35 J -29318972.72 -29318972.60 -29318972.46 0.0089 0.0026

Mercury -84984-04-08 23:01 J -29318884.67 -29318884.54 -29318884.40 0.0089 0.0022

Mercury -84984-07-06 00:28 J -29318796.61 -29318796.48 -29318796.34 0.0089 0.0017

Mercury -84984-10-02 01:54 J -29318708.55 -29318708.42 -29318708.28 0.0089 0.0013

Mercury -84984-12-29 03:20 J -29318620.49 -29318620.36 -29318620.22 0.0089 0.0009

Mercury -84983-03-27 04:47 J -29318532.43 -29318532.30 -29318532.16 0.0089 0.0005

Mercury -84983-06-23 06:13 J -29318444.37 -29318444.24 -29318444.10 0.0089 0.0003

Mercury -84983-09-19 07:40 J -29318356.31 -29318356.18 -29318356.04 0.0089 0.0006

Mercury -84983-12-16 09:06 J -29318268.25 -29318268.12 -29318267.98 0.0089 0.0010

Mercury -84982-03-14 10:32 J -29318180.19 -29318180.06 -29318179.92 0.0089 0.0014

Mercury -84982-06-10 12:13 J -29318092.13 -29318091.99 -29318091.86 0.0089 0.0018

Mercury -84982-09-06 13:25 J -29318004.06 -29318003.94 -29318003.80 0.0089 0.0023

Mercury -84982-12-03 15:06 J -29317916.00 -29317915.87 -29317915.74 0.0089 0.0027

Mercury -84981-02-29 16:18 J -29317827.94 -29317827.82 -29317827.68 0.0089 0.0032

Mercury -84981-05-27 17:59 J -29317739.87 -29317739.75 -29317739.62 0.0089 0.0036

Mercury -84981-08-23 19:11 J -29317651.81 -29317651.70 -29317651.56 0.0089 0.0041

Mercury -84981-11-19 20:52 J -29317563.74 -29317563.63 -29317563.51 0.0089 0.0045

Mercury -84980-02-15 22:32 J -29317475.68 -29317475.56 -29317475.45 0.0089 0.0049

Mercury -84980-05-14 23:44 J -29317387.61 -29317387.51 -29317387.39 0.0089 0.0054

Mercury -84980-08-11 01:25 J -29317299.54 -29317299.44 -29317299.34 0.0089 0.0058

Mercury -84980-11-07 02:37 J -29317211.47 -29317211.39 -29317211.28 0.0089 0.0063

Mercury -84979-02-03 04:18 J -29317123.40 -29317123.32 -29317123.22 0.0089 0.0067

Mercury -84979-05-02 05:44 J -29317035.33 -29317035.26 -29317035.17 0.0089 0.0072

Mercury -84979-07-29 07:25 J -29316947.26 -29316947.19 -29316947.12 0.0089 0.0076

Mercury -84979-10-25 08:52 J -29316859.18 -29316859.13 -29316859.07 0.0089 0.0081

Mercury -84978-01-21 10:32 J -29316771.09 -29316771.06 -29316771.02 0.0089 0.0085

Moon -84965-03-22 17:16 J -29311961.91 -29311961.78 -29311961.63 0.0089 0.0073

Earth -84965-03-22 20:23 J -29311961.78 -29311961.65 -29311961.47 0.0089 0.0070 *

Earth -84964-03-25 05:59 J -29311594.45 -29311594.25 -29311594.02 0.0089 0.0045

Moon -84964-03-25 09:06 J -29311594.33 -29311594.12 -29311593.88 0.0089 0.0041 *

Moon -84963-03-27 13:54 J -29311227.14 -29311226.92 -29311226.67 0.0089 0.0024

Earth -84963-03-27 15:49 J -29311227.08 -29311226.84 -29311226.58 0.0089 0.0020 *

Earth -84962-03-30 01:40 J -29310859.68 -29310859.43 -29310859.18 0.0089 0.0004

Moon -84962-03-30 03:06 J -29310859.63 -29310859.37 -29310859.11 0.0089 0.0007 *

Earth -84961-03-31 11:16 J -29310492.26 -29310492.03 -29310491.78 0.0089 0.0029

Moon -84961-03-31 11:44 J -29310492.23 -29310492.01 -29310491.76 0.0089 0.0026 *

Moon -84960-04-02 19:11 J -29310124.88 -29310124.70 -29310124.48 0.0089 0.0057

Earth -84960-04-02 21:20 J -29310124.81 -29310124.61 -29310124.40 0.0089 0.0053 *

Earth -84959-04-05 06:42 J -29309757.31 -29309757.22 -29309757.07 0.0089 0.0079

Moon -84959-04-05 09:06 J -29309757.23 -29309757.12 -29309756.97 0.0089 0.0075 *

Mars -84953-07-29 11:16 J -29307450.13 -29307450.03 -29307449.87 0.0089 0.0083

Mars -84951-06-26 03:49 J -29306753.68 -29306753.34 -29306752.99 0.0089 0.0015

Venus -84915-08-28 00:56 J -29293541.55 -29293541.46 -29293541.33 0.0089 0.0077

Venus -84914-04-10 15:20 J -29293316.01 -29293315.86 -29293315.68 0.0089 0.0060

Venus -84914-11-22 05:44 J -29293090.45 -29293090.26 -29293090.05 0.0089 0.0043

Venus -84913-07-04 20:08 J -29292864.87 -29292864.66 -29292864.44 0.0089 0.0026

Venus -84912-02-15 10:32 J -29292639.28 -29292639.06 -29292638.83 0.0089 0.0009

Venus -84912-09-29 00:42 J -29292413.69 -29292413.47 -29292413.23 0.0089 0.0009

Venus -84911-05-12 15:06 J -29292188.07 -29292187.87 -29292187.64 0.0089 0.0026

Venus -84911-12-24 05:16 J -29291962.46 -29291962.28 -29291962.06 0.0089 0.0043

Venus -84910-08-06 19:40 J -29291736.83 -29291736.68 -29291736.50 0.0089 0.0060

Venus -84909-03-19 09:49 J -29291511.18 -29291511.09 -29291510.96 0.0089 0.0077

Mercury -84905-11-18 09:35 J -29289806.13 -29289806.10 -29289806.03 0.0089 0.0086

Mercury -84904-02-14 12:56 J -29289718.02 -29289717.96 -29289717.85 0.0089 0.0080

Mercury -84904-05-13 17:01 J -29289629.90 -29289629.79 -29289629.68 0.0089 0.0073

Mercury -84904-08-09 20:23 J -29289541.77 -29289541.65 -29289541.52 0.0089 0.0067

Mercury -84904-11-05 23:44 J -29289453.64 -29289453.51 -29289453.37 0.0089 0.0061

Mercury -84903-02-02 03:06 J -29289365.51 -29289365.37 -29289365.21 0.0089 0.0055

Mercury -84903-05-01 06:28 J -29289277.38 -29289277.23 -29289277.06 0.0089 0.0049

Mercury -84903-07-28 09:49 J -29289189.24 -29289189.09 -29289188.91 0.0089 0.0043

Mercury -84903-10-24 13:25 J -29289101.11 -29289100.94 -29289100.76 0.0089 0.0037

Mercury -84902-01-20 16:47 J -29289012.97 -29289012.80 -29289012.62 0.0089 0.0031

Mercury -84902-04-18 20:08 J -29288924.83 -29288924.66 -29288924.47 0.0089 0.0025

Mercury -84902-07-15 23:30 J -29288836.70 -29288836.52 -29288836.33 0.0089 0.0019

Mercury -84902-10-12 02:52 J -29288748.56 -29288748.38 -29288748.19 0.0089 0.0013

Mercury -84901-01-08 06:28 J -29288660.42 -29288660.23 -29288660.04 0.0089 0.0006

Mercury -84901-04-05 09:49 J -29288572.28 -29288572.09 -29288571.91 0.0089 0.0002

Mercury -84901-07-02 12:56 J -29288484.14 -29288483.96 -29288483.77 0.0089 0.0006

Mercury -84901-09-28 16:18 J -29288396.00 -29288395.82 -29288395.63 0.0089 0.0012

Mercury -84901-12-25 19:40 J -29288307.86 -29288307.68 -29288307.49 0.0089 0.0018

Mercury -84900-03-23 22:47 J -29288219.72 -29288219.55 -29288219.36 0.0089 0.0024

Mercury -84900-06-20 02:08 J -29288131.58 -29288131.41 -29288131.23 0.0089 0.0030

Mercury -84900-09-16 05:16 J -29288043.44 -29288043.28 -29288043.10 0.0089 0.0036

Mercury -84900-12-13 08:37 J -29287955.29 -29287955.14 -29287954.97 0.0088 0.0041

Mercury -84899-03-11 11:44 J -29287867.15 -29287867.01 -29287866.84 0.0088 0.0048

Mercury -84899-06-07 15:20 J -29287779.01 -29287778.86 -29287778.71 0.0088 0.0053

Mercury -84899-09-03 18:28 J -29287690.86 -29287690.73 -29287690.59 0.0088 0.0059

Mercury -84899-11-30 21:35 J -29287602.72 -29287602.60 -29287602.46 0.0088 0.0065

Mercury -84898-02-27 00:42 J -29287514.57 -29287514.47 -29287514.35 0.0088 0.0071

Mercury -84898-05-26 04:18 J -29287426.41 -29287426.32 -29287426.23 0.0088 0.0076

Mercury -84898-08-22 07:11 J -29287338.26 -29287338.20 -29287338.12 0.0088 0.0082

Mercury -84898-11-18 10:18 J -29287250.08 -29287250.07 -29287250.03 0.0088 0.0088

Moon -84884-09-25 14:37 J -29282189.99 -29282189.89 -29282189.76 0.0088 0.0080

Earth	-84884-09-25 17:01 J	-29282189.86	-29282189.79	-29282189.68	0.0088	0.0083	*
Earth	-84883-09-28 07:11 J	-29281822.39	-29281822.20	-29281821.99	0.0088	0.0058	
Moon	-84883-09-28 10:04 J	-29281822.26	-29281822.08	-29281821.88	0.0088	0.0060	*
Moon	-84882-09-30 17:59 J	-29281455.00	-29281454.75	-29281454.50	0.0088	0.0031	
Earth	-84882-09-30 21:20 J	-29281454.85	-29281454.61	-29281454.35	0.0088	0.0033	*
Earth	-84881-10-02 11:01 J	-29281087.30	-29281087.04	-29281086.77	0.0088	0.0008	
Moon	-84881-10-02 14:52 J	-29281087.14	-29281086.88	-29281086.61	0.0088	0.0010	*
Moon	-84880-10-04 21:35 J	-29280719.86	-29280719.60	-29280719.35	0.0088	0.0019	
Earth	-84880-10-05 00:42 J	-29280719.72	-29280719.47	-29280719.20	0.0088	0.0018	*
Earth	-84879-10-07 13:54 J	-29280352.13	-29280351.92	-29280351.67	0.0088	0.0043	
Moon	-84879-10-07 17:16 J	-29280352.01	-29280351.78	-29280351.54	0.0088	0.0042	*
Moon	-84878-10-10 01:54 J	-29279984.57	-29279984.42	-29279984.25	0.0088	0.0069	
Earth	-84878-10-10 03:06 J	-29279984.51	-29279984.37	-29279984.17	0.0088	0.0068	*
Mars	-84871-06-11 18:13 J	-29277547.83	-29277547.74	-29277547.58	0.0088	0.0080	
Mars	-84869-05-05 04:18 J	-29276854.61	-29276854.32	-29276854.03	0.0088	0.0002	
Mars	-84867-03-29 12:13 J	-29276161.14	-29276160.99	-29276160.84	0.0088	0.0075	
Venus	-84833-10-13 13:25 J	-29263543.95	-29263543.94	-29263543.89	0.0089	0.0088	
Venus	-84832-05-27 01:11 J	-29263318.55	-29263318.45	-29263318.30	0.0089	0.0072	
Venus	-84831-01-07 12:56 J	-29263093.10	-29263092.96	-29263092.77	0.0089	0.0056	
Venus	-84831-08-21 00:56 J	-29262867.64	-29262867.46	-29262867.26	0.0089	0.0040	
Venus	-84830-04-03 12:42 J	-29262642.17	-29262641.97	-29262641.76	0.0089	0.0024	
Venus	-84830-11-15 00:42 J	-29262416.68	-29262416.47	-29262416.26	0.0089	0.0008	
Venus	-84829-06-27 12:28 J	-29262191.19	-29262190.98	-29262190.77	0.0089	0.0008	
Venus	-84828-02-07 23:59 J	-29261965.70	-29261965.50	-29261965.29	0.0089	0.0024	
Venus	-84828-09-21 11:30 J	-29261740.20	-29261740.02	-29261739.82	0.0089	0.0041	
Venus	-84827-05-04 23:01 J	-29261514.68	-29261514.54	-29261514.35	0.0089	0.0057	
Venus	-84827-12-16 11:16 J	-29261289.15	-29261289.03	-29261288.90	0.0089	0.0072	
Venus	-84826-07-29 22:47 J	-29261063.56	-29261063.55	-29261063.52	0.0089	0.0088	
Mercury	-84823-02-25 00:28 J	-29260122.49	-29260122.48	-29260122.45	0.0089	0.0088	
Mercury	-84823-05-24 02:08 J	-29260034.45	-29260034.41	-29260034.37	0.0089	0.0083	

Mercury -84823-08-20 03:20 J -29259946.41 -29259946.36 -29259946.29 0.0089 0.0079

Mercury -84823-11-16 04:47 J -29259858.37 -29259858.30 -29259858.23 0.0089 0.0075

Mercury -84822-02-12 05:59 J -29259770.32 -29259770.25 -29259770.16 0.0089 0.0071

Mercury -84822-05-11 07:25 J -29259682.27 -29259682.19 -29259682.09 0.0089 0.0067

Mercury -84822-08-07 09:06 J -29259594.22 -29259594.12 -29259594.03 0.0089 0.0062

Mercury -84822-11-03 10:18 J -29259506.16 -29259506.07 -29259505.96 0.0089 0.0058

Mercury -84821-01-30 11:44 J -29259418.11 -29259418.01 -29259417.90 0.0089 0.0054

Mercury -84821-04-27 12:56 J -29259330.06 -29259329.96 -29259329.84 0.0089 0.0050

Mercury -84821-07-24 14:37 J -29259242.00 -29259241.89 -29259241.77 0.0089 0.0045

Mercury -84821-10-20 15:49 J -29259153.95 -29259153.84 -29259153.71 0.0089 0.0041

Mercury -84820-01-16 17:16 J -29259065.89 -29259065.78 -29259065.65 0.0089 0.0037

Mercury -84820-04-14 18:56 J -29258977.84 -29258977.71 -29258977.59 0.0089 0.0032

Mercury -84820-07-11 20:08 J -29258889.78 -29258889.66 -29258889.52 0.0089 0.0028

Mercury -84820-10-07 21:35 J -29258801.72 -29258801.60 -29258801.46 0.0089 0.0024

Mercury -84819-01-03 23:16 J -29258713.67 -29258713.53 -29258713.40 0.0089 0.0019

Mercury -84819-04-02 00:28 J -29258625.61 -29258625.48 -29258625.34 0.0089 0.0015

Mercury -84819-06-29 01:54 J -29258537.55 -29258537.42 -29258537.28 0.0089 0.0011

Mercury -84819-09-25 03:20 J -29258449.49 -29258449.36 -29258449.22 0.0089 0.0007

Mercury -84819-12-22 05:01 J -29258361.43 -29258361.29 -29258361.16 0.0089 0.0003

Mercury -84818-03-20 06:28 J -29258273.37 -29258273.23 -29258273.10 0.0089 0.0004

Mercury -84818-06-16 07:40 J -29258185.31 -29258185.18 -29258185.04 0.0089 0.0008

Mercury -84818-09-12 09:20 J -29258097.25 -29258097.11 -29258096.98 0.0089 0.0012

Mercury -84818-12-09 10:47 J -29258009.19 -29258009.05 -29258008.92 0.0089 0.0016

Mercury -84817-03-06 11:59 J -29257921.13 -29257921.00 -29257920.86 0.0089 0.0021

Mercury -84817-06-02 13:40 J -29257833.06 -29257832.93 -29257832.80 0.0089 0.0025

Mercury -84817-08-29 14:52 J -29257745.00 -29257744.88 -29257744.74 0.0089 0.0030

Mercury -84817-11-25 16:32 J -29257656.94 -29257656.81 -29257656.68 0.0089 0.0034

Mercury -84816-02-21 17:44 J -29257568.87 -29257568.76 -29257568.62 0.0089 0.0039

Mercury -84816-05-20 19:25 J -29257480.81 -29257480.69 -29257480.57 0.0089 0.0043

Mercury -84816-08-16 20:37 J -29257392.74 -29257392.64 -29257392.51 0.0089 0.0048

Mercury -84816-11-12 22:18 J -29257304.67 -29257304.57 -29257304.45 0.0089 0.0052

Mercury -84815-02-08 23:59 J -29257216.60 -29257216.50 -29257216.39 0.0089 0.0056

Mercury -84815-05-08 01:11 J -29257128.54 -29257128.45 -29257128.34 0.0089 0.0061

Mercury -84815-08-04 02:52 J -29257040.47 -29257040.38 -29257040.28 0.0089 0.0065

Mercury -84815-10-31 04:18 J -29256952.40 -29256952.32 -29256952.23 0.0089 0.0070

Mercury -84814-01-27 05:59 J -29256864.32 -29256864.25 -29256864.17 0.0089 0.0074

Mercury -84814-04-25 07:11 J -29256776.25 -29256776.20 -29256776.12 0.0089 0.0079

Mercury -84814-07-22 09:06 J -29256688.17 -29256688.12 -29256688.08 0.0089 0.0083

Mercury -84814-10-18 10:18 J -29256600.08 -29256600.07 -29256600.04 0.0089 0.0088

Earth -84801-03-22 10:04 J -29252061.16 -29252061.08 -29252060.93 0.0089 0.0080

Moon -84801-03-22 12:56 J -29252061.06 -29252060.96 -29252060.80 0.0089 0.0076 *

Moon -84800-03-24 17:44 J -29251693.93 -29251693.76 -29251693.56 0.0089 0.0058

Earth -84800-03-24 19:40 J -29251693.86 -29251693.68 -29251693.46 0.0089 0.0055 *

Earth -84799-03-27 05:30 J -29251326.51 -29251326.27 -29251326.04 0.0089 0.0030

Moon -84799-03-27 05:30 J -29251326.51 -29251326.27 -29251326.01 0.0089 0.0028 *

Earth -84798-03-29 14:52 J -29250959.13 -29250958.88 -29250958.63 0.0089 0.0006

Moon -84798-03-29 15:20 J -29250959.10 -29250958.86 -29250958.61 0.0089 0.0009 *

Moon -84797-03-30 22:32 J -29250591.81 -29250591.56 -29250591.30 0.0089 0.0021

Earth -84797-03-31 00:28 J -29250591.72 -29250591.48 -29250591.23 0.0089 0.0018 *

Earth -84796-04-02 09:49 J -29250224.29 -29250224.09 -29250223.85 0.0089 0.0043

Moon -84796-04-02 13:11 J -29250224.16 -29250223.95 -29250223.72 0.0089 0.0041 *

Jupiter -84796-09-03 05:44 J -29250070.33 -29250070.26 -29250070.05 0.0089 0.0087

Moon -84795-04-04 16:32 J -29249856.94 -29249856.81 -29249856.63 0.0089 0.0070

Earth -84795-04-04 19:54 J -29249856.82 -29249856.67 -29249856.49 0.0089 0.0067 *

Moon -84794-04-07 09:20 J -29249489.12 -29249489.11 -29249489.05 0.0089 0.0088

Mars -84787-02-06 11:30 J -29246992.33 -29246992.02 -29246991.67 0.0089 0.0027

Mars -84785-01-04 03:49 J -29246295.52 -29246295.34 -29246295.10 0.0089 0.0072

Venus -84751-11-29 11:44 J -29233547.08 -29233547.01 -29233546.91 0.0089 0.0082

Venus -84750-07-13 02:08 J -29233321.56 -29233321.41 -29233321.25 0.0089 0.0065

Venus -84749-02-23 16:18 J -29233096.00 -29233095.82 -29233095.62 0.0089 0.0048

Venus	-84749-10-06 06:42 J	-29232870.43	-29232870.22	-29232870.00	0.0089	0.0031
Venus	-84748-05-19 21:20 J	-29232644.84	-29232644.61	-29232644.39	0.0089	0.0014
Venus	-84748-12-31 11:30 J	-29232419.24	-29232419.02	-29232418.79	0.0089	0.0004
Venus	-84747-08-14 01:40 J	-29232193.64	-29232193.43	-29232193.20	0.0089	0.0021
Venus	-84746-03-27 15:49 J	-29231968.03	-29231967.84	-29231967.62	0.0089	0.0038
Venus	-84746-11-08 06:13 J	-29231742.40	-29231742.24	-29231742.05	0.0089	0.0055
Venus	-84745-06-20 20:37 J	-29231516.76	-29231516.64	-29231516.49	0.0089	0.0072
Mercury	-84740-05-19 05:44 J	-29229723.26	-29229723.26	-29229723.24	0.0089	0.0088
Mercury	-84740-08-15 08:52 J	-29229635.17	-29229635.13	-29229635.04	0.0089	0.0083
Mercury	-84740-11-11 12:56 J	-29229547.05	-29229546.96	-29229546.86	0.0089	0.0076
Mercury	-84739-02-07 16:18 J	-29229458.93	-29229458.82	-29229458.70	0.0089	0.0070
Mercury	-84739-05-06 19:40 J	-29229370.80	-29229370.68	-29229370.54	0.0089	0.0064
Mercury	-84739-08-02 23:01 J	-29229282.67	-29229282.54	-29229282.38	0.0089	0.0058
Mercury	-84739-10-30 02:23 J	-29229194.54	-29229194.40	-29229194.23	0.0089	0.0052
Mercury	-84738-01-26 05:44 J	-29229106.41	-29229106.26	-29229106.08	0.0089	0.0046
Mercury	-84738-04-24 09:20 J	-29229018.27	-29229018.11	-29229017.93	0.0089	0.0040
Mercury	-84738-07-21 12:42 J	-29228930.13	-29228929.97	-29228929.78	0.0089	0.0034
Mercury	-84738-10-17 16:04 J	-29228842.00	-29228841.83	-29228841.64	0.0089	0.0028
Mercury	-84737-01-13 19:25 J	-29228753.86	-29228753.69	-29228753.49	0.0089	0.0022
Mercury	-84737-04-10 23:01 J	-29228665.72	-29228665.54	-29228665.35	0.0089	0.0015
Mercury	-84737-07-08 02:23 J	-29228577.59	-29228577.40	-29228577.21	0.0089	0.0009
Mercury	-84737-10-04 05:44 J	-29228489.45	-29228489.26	-29228489.07	0.0089	0.0003
Mercury	-84737-12-31 09:06 J	-29228401.31	-29228401.12	-29228400.93	0.0089	0.0003
Mercury	-84736-03-29 12:28 J	-29228313.17	-29228312.98	-29228312.79	0.0089	0.0009
Mercury	-84736-06-25 15:49 J	-29228225.03	-29228224.84	-29228224.66	0.0089	0.0015
Mercury	-84736-09-21 19:11 J	-29228136.89	-29228136.70	-29228136.52	0.0089	0.0021
Mercury	-84736-12-18 22:18 J	-29228048.74	-29228048.57	-29228048.39	0.0089	0.0027
Mercury	-84735-03-17 01:40 J	-29227960.60	-29227960.43	-29227960.26	0.0089	0.0033
Mercury	-84735-06-13 04:47 J	-29227872.46	-29227872.30	-29227872.12	0.0089	0.0039
Mercury	-84735-09-09 07:54 J	-29227784.32	-29227784.17	-29227784.00	0.0089	0.0045

Mercury -84735-12-06 11:16 J -29227696.17 -29227696.03 -29227695.87 0.0089 0.0051

Mercury -84734-03-04 14:23 J -29227608.03 -29227607.90 -29227607.74 0.0088 0.0057

Mercury -84734-05-31 17:59 J -29227519.88 -29227519.75 -29227519.62 0.0088 0.0062

Mercury -84734-08-27 21:06 J -29227431.73 -29227431.62 -29227431.50 0.0088 0.0068

Mercury -84734-11-24 00:13 J -29227343.58 -29227343.49 -29227343.38 0.0088 0.0074

Mercury -84733-02-20 03:20 J -29227255.43 -29227255.36 -29227255.27 0.0088 0.0079

Mercury -84733-05-18 06:13 J -29227167.26 -29227167.24 -29227167.17 0.0088 0.0086

Moon -84719-09-27 12:13 J -29221922.15 -29221921.99 -29221921.79 0.0088 0.0064

Earth -84719-09-27 16:04 J -29221921.99 -29221921.83 -29221921.65 0.0088 0.0068 *

Earth -84718-09-30 06:13 J -29221554.47 -29221554.24 -29221554.01 0.0088 0.0043

Moon -84718-09-30 09:20 J -29221554.31 -29221554.11 -29221553.86 0.0088 0.0048 *

Moon -84717-10-01 17:01 J -29221187.04 -29221186.79 -29221186.53 0.0088 0.0014

Earth -84717-10-01 19:54 J -29221186.91 -29221186.67 -29221186.39 0.0088 0.0019 *

Earth -84716-10-04 09:49 J -29220819.34 -29220819.09 -29220818.82 0.0088 0.0008

Moon -84716-10-04 12:13 J -29220819.26 -29220818.99 -29220818.72 0.0088 0.0003 *

Moon -84715-10-06 21:49 J -29220451.81 -29220451.59 -29220451.34 0.0088 0.0037

Earth -84715-10-06 23:16 J -29220451.75 -29220451.53 -29220451.26 0.0088 0.0033 *

Moon -84714-10-09 12:56 J -29220084.16 -29220083.96 -29220083.72 0.0088 0.0052

Earth -84714-10-09 13:11 J -29220084.14 -29220083.95 -29220083.74 0.0088 0.0057 *

Earth -84713-10-11 01:54 J -29219716.49 -29219716.42 -29219716.29 0.0088 0.0081

Moon -84713-10-11 03:06 J -29219716.41 -29219716.37 -29219716.28 0.0088 0.0086 *

Mars -84706-12-20 00:13 J -29217090.74 -29217090.49 -29217090.21 0.0088 0.0035

Mars -84704-11-12 10:18 J -29216397.31 -29216397.07 -29216396.81 0.0088 0.0043

Venus -84668-08-28 13:54 J -29203324.00 -29203323.92 -29203323.78 0.0089 0.0077

Venus -84667-04-11 01:54 J -29203098.56 -29203098.42 -29203098.24 0.0089 0.0061

Venus -84667-11-22 13:54 J -29202873.09 -29202872.92 -29202872.72 0.0089 0.0045

Venus -84666-07-06 01:40 J -29202647.62 -29202647.43 -29202647.21 0.0089 0.0029

Venus -84665-02-16 13:40 J -29202422.14 -29202421.93 -29202421.71 0.0089 0.0012

Venus -84665-09-29 01:25 J -29202196.65 -29202196.44 -29202196.22 0.0089 0.0005

Venus -84664-05-12 12:56 J -29201971.15 -29201970.96 -29201970.74 0.0089 0.0021

Venus -84664-12-24 00:42 J -29201745.65 -29201745.47 -29201745.26 0.0089 0.0037

Venus -84663-08-06 12:13 J -29201520.14 -29201519.99 -29201519.80 0.0089 0.0053

Venus -84662-03-20 00:28 J -29201294.62 -29201294.48 -29201294.35 0.0089 0.0068

Venus -84662-10-31 12:13 J -29201069.05 -29201068.99 -29201068.92 0.0089 0.0084

Mercury -84659-11-22 00:42 J -29199951.50 -29199951.47 -29199951.43 0.0089 0.0085

Mercury -84658-02-18 02:08 J -29199863.46 -29199863.41 -29199863.36 0.0089 0.0081

Mercury -84658-05-17 03:20 J -29199775.42 -29199775.36 -29199775.29 0.0089 0.0077

Mercury -84658-08-13 04:32 J -29199687.37 -29199687.31 -29199687.22 0.0089 0.0073

Mercury -84658-11-09 05:59 J -29199599.32 -29199599.25 -29199599.15 0.0089 0.0069

Mercury -84657-02-05 07:40 J -29199511.27 -29199511.18 -29199511.09 0.0089 0.0064

Mercury -84657-05-03 08:52 J -29199423.22 -29199423.13 -29199423.02 0.0089 0.0060

Mercury -84657-07-30 10:18 J -29199335.17 -29199335.07 -29199334.96 0.0089 0.0056

Mercury -84657-10-26 11:30 J -29199247.12 -29199247.02 -29199246.90 0.0089 0.0052

Mercury -84656-01-22 13:11 J -29199159.06 -29199158.95 -29199158.83 0.0089 0.0047

Mercury -84656-04-20 14:23 J -29199071.01 -29199070.90 -29199070.77 0.0089 0.0043

Mercury -84656-07-17 15:49 J -29198982.95 -29198982.84 -29198982.71 0.0089 0.0039

Mercury -84656-10-13 17:30 J -29198894.90 -29198894.77 -29198894.65 0.0089 0.0034

Mercury -84655-01-09 18:42 J -29198806.84 -29198806.72 -29198806.59 0.0089 0.0030

Mercury -84655-04-07 20:08 J -29198718.78 -29198718.66 -29198718.52 0.0089 0.0026

Mercury -84655-07-04 21:35 J -29198630.73 -29198630.60 -29198630.46 0.0089 0.0021

Mercury -84655-09-30 23:01 J -29198542.67 -29198542.54 -29198542.40 0.0089 0.0017

Mercury -84655-12-28 00:28 J -29198454.61 -29198454.48 -29198454.34 0.0089 0.0013

Mercury -84654-03-26 01:54 J -29198366.55 -29198366.42 -29198366.28 0.0089 0.0008

Mercury -84654-06-22 03:20 J -29198278.49 -29198278.36 -29198278.22 0.0089 0.0004

Mercury -84654-09-18 04:47 J -29198190.43 -29198190.30 -29198190.16 0.0089 0.0002

Mercury -84654-12-15 06:13 J -29198102.37 -29198102.24 -29198102.10 0.0089 0.0006

Mercury -84653-03-12 07:40 J -29198014.31 -29198014.18 -29198014.04 0.0089 0.0010

Mercury -84653-06-08 09:06 J -29197926.25 -29197926.12 -29197925.98 0.0089 0.0014

Mercury -84653-09-04 10:32 J -29197838.19 -29197838.06 -29197837.92 0.0089 0.0019

Mercury -84653-12-01 11:59 J -29197750.13 -29197750.00 -29197749.86 0.0089 0.0023

Mercury -84652-02-27 13:25 J -29197662.06 -29197661.94 -29197661.80 0.0089 0.0028

Mercury -84652-05-26 14:52 J -29197574.00 -29197573.88 -29197573.74 0.0089 0.0032

Mercury -84652-08-22 16:32 J -29197485.94 -29197485.81 -29197485.69 0.0089 0.0036

Mercury -84652-11-18 17:44 J -29197397.87 -29197397.76 -29197397.63 0.0089 0.0041

Mercury -84651-02-14 19:25 J -29197309.81 -29197309.69 -29197309.57 0.0089 0.0045

Mercury -84651-05-13 20:37 J -29197221.74 -29197221.64 -29197221.51 0.0089 0.0050

Mercury -84651-08-09 22:18 J -29197133.67 -29197133.57 -29197133.46 0.0089 0.0054

Mercury -84651-11-05 23:44 J -29197045.61 -29197045.51 -29197045.40 0.0089 0.0059

Mercury -84650-02-02 01:25 J -29196957.54 -29196957.44 -29196957.34 0.0089 0.0063

Mercury -84650-05-01 02:37 J -29196869.47 -29196869.39 -29196869.29 0.0089 0.0068

Mercury -84650-07-28 04:18 J -29196781.39 -29196781.32 -29196781.24 0.0089 0.0072

Mercury -84650-10-24 05:44 J -29196693.32 -29196693.26 -29196693.18 0.0089 0.0077

Mercury -84649-01-20 07:25 J -29196605.24 -29196605.19 -29196605.13 0.0089 0.0081

Mercury -84649-04-17 08:37 J -29196517.16 -29196517.14 -29196517.09 0.0089 0.0086

Moon -84637-03-21 22:32 J -29192160.61 -29192160.56 -29192160.47 0.0089 0.0085

Earth -84637-03-21 23:59 J -29192160.51 -29192160.50 -29192160.46 0.0089 0.0088 *

Earth -84636-03-24 09:20 J -29191793.28 -29191793.11 -29191792.93 0.0089 0.0064

Moon -84636-03-24 09:20 J -29191793.25 -29191793.11 -29191792.92 0.0089 0.0068 *

Earth -84635-03-26 18:13 J -29191425.94 -29191425.74 -29191425.49 0.0089 0.0041

Moon -84635-03-26 19:40 J -29191425.89 -29191425.68 -29191425.44 0.0089 0.0037 *

Moon -84634-03-29 01:40 J -29191058.68 -29191058.43 -29191058.17 0.0089 0.0020

Earth -84634-03-29 04:04 J -29191058.57 -29191058.33 -29191058.08 0.0089 0.0017 *

Earth -84633-03-30 13:25 J -29190691.18 -29190690.94 -29190690.68 0.0089 0.0008

Moon -84633-03-30 16:32 J -29190691.06 -29190690.81 -29190690.57 0.0089 0.0011 *

Moon -84632-04-01 19:25 J -29190323.92 -29190323.69 -29190323.44 0.0089 0.0028

Earth -84632-04-01 23:01 J -29190323.76 -29190323.54 -29190323.29 0.0089 0.0032 *

Earth -84631-04-04 08:37 J -29189956.32 -29189956.14 -29189955.93 0.0089 0.0056

Moon -84631-04-04 11:44 J -29189956.17 -29189956.01 -29189955.80 0.0089 0.0060 *

Moon -84630-04-06 15:35 J -29189588.96 -29189588.85 -29189588.71 0.0089 0.0077

Earth -84630-04-06 18:42 J -29189588.81 -29189588.72 -29189588.60 0.0089 0.0080 *

Jupiter -84630-11-01 11:30 J -29189380.46 -29189380.02 -29189379.54 0.0089 0.0047
 Mars -84624-09-19 21:20 J -29187230.80 -29187230.61 -29187230.36 0.0089 0.0068
 Mars -84622-08-17 11:59 J -29186534.31 -29186534.00 -29186533.65 0.0089 0.0029
 Venus -84586-03-02 21:49 J -29173552.60 -29173552.59 -29173552.53 0.0089 0.0088
 Venus -84586-10-14 12:42 J -29173327.11 -29173326.97 -29173326.83 0.0089 0.0070
 Venus -84585-05-27 03:06 J -29173101.55 -29173101.37 -29173101.19 0.0089 0.0053
 Venus -84584-01-07 17:16 J -29172875.98 -29172875.78 -29172875.57 0.0089 0.0036
 Venus -84584-08-21 07:25 J -29172650.40 -29172650.19 -29172649.96 0.0089 0.0019
 Venus -84583-04-03 21:49 J -29172424.81 -29172424.59 -29172424.36 0.0089 0.0002
 Venus -84583-11-15 11:59 J -29172199.22 -29172199.00 -29172198.77 0.0089 0.0016
 Venus -84582-06-29 02:08 J -29171973.61 -29171973.41 -29171973.18 0.0089 0.0033
 Venus -84581-02-09 16:32 J -29171747.99 -29171747.81 -29171747.61 0.0089 0.0050
 Venus -84581-09-22 06:42 J -29171522.35 -29171522.22 -29171522.06 0.0089 0.0067
 Venus -84580-05-05 21:20 J -29171296.67 -29171296.61 -29171296.53 0.0089 0.0084
 Mercury -84575-02-13 04:47 J -29169552.34 -29169552.30 -29169552.24 0.0089 0.0086
 Mercury -84575-05-12 08:08 J -29169464.23 -29169464.16 -29169464.06 0.0089 0.0080
 Mercury -84575-08-08 11:30 J -29169376.10 -29169376.02 -29169375.89 0.0089 0.0074
 Mercury -84575-11-04 15:06 J -29169287.98 -29169287.87 -29169287.73 0.0089 0.0068
 Mercury -84574-01-31 18:56 J -29169199.85 -29169199.71 -29169199.57 0.0089 0.0061
 Mercury -84574-04-29 22:18 J -29169111.72 -29169111.57 -29169111.42 0.0089 0.0055
 Mercury -84574-07-27 01:40 J -29169023.58 -29169023.43 -29169023.27 0.0089 0.0049
 Mercury -84574-10-23 05:01 J -29168935.45 -29168935.29 -29168935.12 0.0089 0.0043
 Mercury -84573-01-19 08:23 J -29168847.31 -29168847.15 -29168846.97 0.0089 0.0037
 Mercury -84573-04-16 11:44 J -29168759.17 -29168759.01 -29168758.82 0.0089 0.0031
 Mercury -84573-07-13 15:20 J -29168671.04 -29168670.86 -29168670.67 0.0089 0.0024
 Mercury -84573-10-09 18:42 J -29168582.90 -29168582.72 -29168582.53 0.0089 0.0018
 Mercury -84572-01-05 22:04 J -29168494.76 -29168494.58 -29168494.39 0.0089 0.0013
 Mercury -84572-04-04 01:25 J -29168406.62 -29168406.44 -29168406.25 0.0089 0.0007
 Mercury -84572-07-01 04:47 J -29168318.48 -29168318.30 -29168318.11 0.0089 0.0003
 Mercury -84572-09-27 08:08 J -29168230.34 -29168230.16 -29168229.97 0.0089 0.0006

Mercury -84572-12-24 11:30 J -29168142.20 -29168142.02 -29168141.83 0.0089 0.0012
 Mercury -84571-03-22 14:52 J -29168054.06 -29168053.88 -29168053.69 0.0089 0.0018
 Mercury -84571-06-18 18:13 J -29167965.92 -29167965.74 -29167965.56 0.0089 0.0024
 Mercury -84571-09-14 21:20 J -29167877.78 -29167877.61 -29167877.43 0.0089 0.0030
 Mercury -84571-12-12 00:42 J -29167789.64 -29167789.47 -29167789.29 0.0089 0.0036
 Mercury -84570-03-10 03:49 J -29167701.49 -29167701.34 -29167701.16 0.0089 0.0042
 Mercury -84570-06-06 07:11 J -29167613.35 -29167613.20 -29167613.04 0.0089 0.0047
 Mercury -84570-09-02 10:18 J -29167525.20 -29167525.07 -29167524.91 0.0089 0.0054
 Mercury -84570-11-29 13:54 J -29167437.06 -29167436.92 -29167436.78 0.0088 0.0059
 Mercury -84569-02-25 17:01 J -29167348.91 -29167348.79 -29167348.66 0.0088 0.0065
 Mercury -84569-05-23 20:08 J -29167260.76 -29167260.66 -29167260.54 0.0088 0.0071
 Mercury -84569-08-19 23:16 J -29167172.61 -29167172.53 -29167172.43 0.0088 0.0077
 Mercury -84569-11-16 02:23 J -29167084.45 -29167084.40 -29167084.32 0.0088 0.0082
 Mercury -84568-02-12 05:44 J -29166996.27 -29166996.26 -29166996.23 0.0088 0.0088
 Earth -84555-09-26 23:59 J -29162021.59 -29162021.50 -29162021.34 0.0088 0.0079
 Moon -84555-09-27 04:04 J -29162021.46 -29162021.33 -29162021.18 0.0088 0.0075 *
 Moon -84554-09-29 11:59 J -29161654.18 -29161654.00 -29161653.78 0.0088 0.0056
 Earth -84554-09-29 14:37 J -29161654.08 -29161653.89 -29161653.66 0.0088 0.0053 *
 Earth -84553-10-01 04:47 J -29161286.54 -29161286.30 -29161286.04 0.0088 0.0028
 Moon -84553-10-01 06:42 J -29161286.47 -29161286.22 -29161285.95 0.0088 0.0027 *
 Moon -84552-10-03 18:28 J -29160918.98 -29160918.73 -29160918.47 0.0088 0.0006
 Earth -84552-10-03 18:56 J -29160918.97 -29160918.71 -29160918.44 0.0088 0.0004 *
 Moon -84551-10-06 08:23 J -29160551.41 -29160551.15 -29160550.88 0.0088 0.0023
 Earth -84551-10-06 08:37 J -29160551.39 -29160551.14 -29160550.87 0.0088 0.0021 *
 Earth -84550-10-08 22:18 J -29160183.79 -29160183.57 -29160183.34 0.0088 0.0046
 Moon -84550-10-08 23:30 J -29160183.72 -29160183.52 -29160183.28 0.0088 0.0045 *
 Moon -84549-10-10 08:23 J -29159816.28 -29159816.15 -29159815.97 0.0088 0.0073
 Earth -84549-10-10 11:30 J -29159816.16 -29159816.02 -29159815.84 0.0088 0.0070 *
 Mars -84542-08-04 19:11 J -29157326.87 -29157326.70 -29157326.50 0.0088 0.0068
 Mars -84540-06-28 05:16 J -29156633.56 -29156633.28 -29156632.99 0.0088 0.0010

Mars	-84538-05-22 14:23 J	-29155939.93	-29155939.90	-29155939.82	0.0088	0.0087
Venus	-84504-11-30 02:37 J	-29143329.45	-29143329.39	-29143329.29	0.0089	0.0082
Venus	-84503-07-13 14:23 J	-29143104.02	-29143103.90	-29143103.74	0.0089	0.0066
Venus	-84502-02-24 02:08 J	-29142878.57	-29142878.41	-29142878.21	0.0089	0.0050
Venus	-84502-10-07 14:08 J	-29142653.09	-29142652.91	-29142652.70	0.0089	0.0034
Venus	-84501-05-20 02:23 J	-29142427.61	-29142427.40	-29142427.19	0.0089	0.0017
Venus	-84501-12-31 14:08 J	-29142202.13	-29142201.91	-29142201.70	0.0089	0.0001
Venus	-84500-08-14 01:40 J	-29141976.63	-29141976.43	-29141976.21	0.0089	0.0016
Venus	-84499-03-27 13:11 J	-29141751.13	-29141750.95	-29141750.73	0.0089	0.0032
Venus	-84499-11-08 01:11 J	-29141525.62	-29141525.45	-29141525.26	0.0089	0.0048
Venus	-84498-06-21 12:56 J	-29141300.09	-29141299.96	-29141299.80	0.0089	0.0064
Venus	-84497-02-02 00:28 J	-29141074.55	-29141074.48	-29141074.37	0.0089	0.0080
Mercury	-84494-05-22 23:01 J	-29139868.54	-29139868.54	-29139868.51	0.0089	0.0088
Mercury	-84494-08-19 00:28 J	-29139780.51	-29139780.48	-29139780.43	0.0089	0.0084
Mercury	-84494-11-15 01:54 J	-29139692.47	-29139692.42	-29139692.35	0.0089	0.0079
Mercury	-84493-02-11 03:20 J	-29139604.42	-29139604.36	-29139604.29	0.0089	0.0075
Mercury	-84493-05-09 04:32 J	-29139516.38	-29139516.31	-29139516.22	0.0089	0.0071
Mercury	-84493-08-05 05:59 J	-29139428.33	-29139428.25	-29139428.15	0.0089	0.0067
Mercury	-84493-11-01 07:40 J	-29139340.28	-29139340.18	-29139340.09	0.0089	0.0062
Mercury	-84492-01-28 08:52 J	-29139252.23	-29139252.13	-29139252.02	0.0089	0.0058
Mercury	-84492-04-26 10:04 J	-29139164.17	-29139164.08	-29139163.96	0.0089	0.0054
Mercury	-84492-07-23 11:30 J	-29139076.12	-29139076.02	-29139075.90	0.0089	0.0050
Mercury	-84492-10-19 13:11 J	-29138988.07	-29138987.95	-29138987.84	0.0089	0.0045
Mercury	-84491-01-15 14:23 J	-29138900.01	-29138899.90	-29138899.77	0.0089	0.0041
Mercury	-84491-04-13 15:49 J	-29138811.96	-29138811.84	-29138811.71	0.0089	0.0037
Mercury	-84491-07-10 17:16 J	-29138723.90	-29138723.78	-29138723.65	0.0089	0.0032
Mercury	-84491-10-06 18:42 J	-29138635.85	-29138635.72	-29138635.59	0.0089	0.0028
Mercury	-84490-01-02 20:08 J	-29138547.79	-29138547.66	-29138547.53	0.0089	0.0023
Mercury	-84490-03-31 21:35 J	-29138459.73	-29138459.60	-29138459.47	0.0089	0.0019
Mercury	-84490-06-27 23:01 J	-29138371.67	-29138371.54	-29138371.41	0.0089	0.0015

Mercury -84490-09-24 00:28 J -29138283.62 -29138283.48 -29138283.35 0.0089 0.0010

Mercury -84490-12-21 01:54 J -29138195.56 -29138195.42 -29138195.29 0.0089 0.0006

Mercury -84489-03-18 03:20 J -29138107.50 -29138107.36 -29138107.23 0.0089 0.0002

Mercury -84489-06-14 04:47 J -29138019.44 -29138019.30 -29138019.17 0.0089 0.0003

Mercury -84489-09-10 06:13 J -29137931.38 -29137931.24 -29137931.11 0.0089 0.0007

Mercury -84489-12-07 07:40 J -29137843.32 -29137843.18 -29137843.05 0.0089 0.0012

Mercury -84488-03-05 09:06 J -29137755.25 -29137755.12 -29137754.99 0.0089 0.0016

Mercury -84488-06-01 10:32 J -29137667.19 -29137667.06 -29137666.93 0.0089 0.0021

Mercury -84488-08-28 11:59 J -29137579.13 -29137579.00 -29137578.87 0.0089 0.0025

Mercury -84488-11-24 13:25 J -29137491.07 -29137490.94 -29137490.81 0.0089 0.0029

Mercury -84487-02-20 14:52 J -29137403.00 -29137402.88 -29137402.75 0.0089 0.0034

Mercury -84487-05-19 16:18 J -29137314.94 -29137314.82 -29137314.69 0.0089 0.0038

Mercury -84487-08-15 17:44 J -29137226.87 -29137226.76 -29137226.63 0.0089 0.0043

Mercury -84487-11-11 19:11 J -29137138.81 -29137138.70 -29137138.58 0.0089 0.0048

Mercury -84486-02-07 20:37 J -29137050.74 -29137050.64 -29137050.52 0.0089 0.0052

Mercury -84486-05-06 22:18 J -29136962.67 -29136962.57 -29136962.46 0.0089 0.0056

Mercury -84486-08-02 23:44 J -29136874.61 -29136874.51 -29136874.41 0.0089 0.0061

Mercury -84486-10-30 00:56 J -29136786.54 -29136786.46 -29136786.35 0.0089 0.0066

Mercury -84485-01-26 02:37 J -29136698.47 -29136698.39 -29136698.30 0.0089 0.0070

Mercury -84485-04-23 04:18 J -29136610.39 -29136610.32 -29136610.25 0.0089 0.0074

Mercury -84485-07-20 05:30 J -29136522.32 -29136522.27 -29136522.19 0.0089 0.0079

Mercury -84485-10-16 06:56 J -29136434.24 -29136434.21 -29136434.15 0.0089 0.0084

Mercury -84484-01-12 08:37 J -29136346.15 -29136346.14 -29136346.11 0.0089 0.0088

Earth -84472-03-23 21:20 J -29131892.71 -29131892.61 -29131892.44 0.0089 0.0075

Moon -84472-03-23 23:30 J -29131892.66 -29131892.52 -29131892.38 0.0089 0.0072 *

Moon -84471-03-26 04:18 J -29131525.51 -29131525.32 -29131525.09 0.0089 0.0054

Earth -84471-03-26 06:56 J -29131525.40 -29131525.21 -29131524.99 0.0089 0.0051 *

Earth -84470-03-28 16:18 J -29131158.05 -29131157.82 -29131157.57 0.0089 0.0027

Moon -84470-03-28 19:40 J -29131157.90 -29131157.68 -29131157.43 0.0089 0.0025 *

Moon -84469-03-29 22:47 J -29130790.80 -29130790.55 -29130790.30 0.0089 0.0005

Earth	-84469-03-30 02:08 J	-29130790.66	-29130790.41	-29130790.16	0.0089	0.0003	*
Earth	-84468-04-01 11:16 J	-29130423.27	-29130423.03	-29130422.78	0.0089	0.0021	
Moon	-84468-04-01 14:52 J	-29130423.12	-29130422.88	-29130422.63	0.0089	0.0024	*
Moon	-84467-04-03 18:28 J	-29130055.93	-29130055.73	-29130055.50	0.0089	0.0043	
Earth	-84467-04-03 20:52 J	-29130055.84	-29130055.63	-29130055.40	0.0089	0.0045	*
Earth	-84466-04-06 06:28 J	-29129688.37	-29129688.23	-29129688.06	0.0089	0.0069	
Moon	-84466-04-06 07:54 J	-29129688.30	-29129688.17	-29129687.99	0.0089	0.0072	*
Jupiter	-84463-01-04 06:13 J	-29128684.78	-29128684.24	-29128683.69	0.0089	0.0008	
Mars	-84458-03-30 19:40 J	-29126773.01	-29126772.68	-29126772.33	0.0089	0.0014	
Mars	-84456-02-24 10:04 J	-29126076.15	-29126076.08	-29126075.93	0.0089	0.0085	
Venus	-84421-01-15 22:32 J	-29113332.67	-29113332.56	-29113332.44	0.0089	0.0076	
Venus	-84421-08-28 12:42 J	-29113107.13	-29113106.97	-29113106.79	0.0089	0.0059	
Venus	-84420-04-11 03:06 J	-29112881.56	-29112881.37	-29112881.16	0.0089	0.0042	
Venus	-84420-11-22 17:16 J	-29112655.98	-29112655.78	-29112655.54	0.0089	0.0025	
Venus	-84419-07-06 07:54 J	-29112430.40	-29112430.17	-29112429.94	0.0089	0.0007	
Venus	-84418-02-16 22:04 J	-29112204.80	-29112204.58	-29112204.35	0.0089	0.0010	
Venus	-84418-09-30 12:13 J	-29111979.20	-29111978.99	-29111978.76	0.0089	0.0028	
Venus	-84417-05-13 02:37 J	-29111753.58	-29111753.39	-29111753.18	0.0089	0.0045	
Venus	-84417-12-24 16:47 J	-29111527.95	-29111527.80	-29111527.62	0.0089	0.0062	
Venus	-84416-08-07 07:11 J	-29111302.29	-29111302.20	-29111302.09	0.0089	0.0079	
Mercury	-84411-11-10 03:20 J	-29109381.40	-29109381.36	-29109381.27	0.0089	0.0084	
Mercury	-84410-02-06 07:11 J	-29109293.28	-29109293.20	-29109293.10	0.0089	0.0077	
Mercury	-84410-05-05 10:47 J	-29109205.16	-29109205.05	-29109204.93	0.0089	0.0071	
Mercury	-84410-08-01 14:08 J	-29109117.03	-29109116.91	-29109116.77	0.0089	0.0065	
Mercury	-84410-10-28 17:30 J	-29109028.90	-29109028.77	-29109028.61	0.0089	0.0059	
Mercury	-84409-01-24 20:52 J	-29108940.77	-29108940.63	-29108940.46	0.0089	0.0053	
Mercury	-84409-04-22 00:28 J	-29108852.63	-29108852.48	-29108852.31	0.0089	0.0046	
Mercury	-84409-07-19 04:04 J	-29108764.49	-29108764.33	-29108764.16	0.0089	0.0040	
Mercury	-84409-10-15 07:25 J	-29108676.36	-29108676.19	-29108676.01	0.0089	0.0034	
Mercury	-84408-01-11 11:01 J	-29108588.22	-29108588.04	-29108587.86	0.0089	0.0028	

Mercury -84408-04-09 14:23 J -29108500.08 -29108499.90 -29108499.72 0.0089 0.0022
 Mercury -84408-07-06 17:44 J -29108411.94 -29108411.76 -29108411.57 0.0089 0.0016
 Mercury -84408-10-02 21:06 J -29108323.80 -29108323.62 -29108323.43 0.0089 0.0010
 Mercury -84408-12-30 00:28 J -29108235.67 -29108235.48 -29108235.29 0.0089 0.0004
 Mercury -84407-03-28 03:49 J -29108147.53 -29108147.34 -29108147.15 0.0089 0.0003
 Mercury -84407-06-24 07:11 J -29108059.38 -29108059.20 -29108059.01 0.0089 0.0009
 Mercury -84407-09-20 10:32 J -29107971.24 -29107971.06 -29107970.87 0.0089 0.0015
 Mercury -84407-12-17 13:54 J -29107883.10 -29107882.92 -29107882.74 0.0089 0.0021
 Mercury -84406-03-15 17:01 J -29107794.96 -29107794.79 -29107794.60 0.0089 0.0027
 Mercury -84406-06-11 20:23 J -29107706.82 -29107706.65 -29107706.47 0.0089 0.0033
 Mercury -84406-09-07 23:30 J -29107618.68 -29107618.52 -29107618.34 0.0089 0.0039
 Mercury -84406-12-05 02:52 J -29107530.53 -29107530.38 -29107530.21 0.0089 0.0044
 Mercury -84405-03-02 05:59 J -29107442.39 -29107442.25 -29107442.08 0.0089 0.0051
 Mercury -84405-05-29 09:35 J -29107354.24 -29107354.10 -29107353.95 0.0089 0.0056
 Mercury -84405-08-25 12:42 J -29107266.09 -29107265.97 -29107265.83 0.0089 0.0062
 Mercury -84405-11-21 15:49 J -29107177.95 -29107177.84 -29107177.71 0.0089 0.0068
 Mercury -84404-02-17 18:56 J -29107089.80 -29107089.71 -29107089.59 0.0089 0.0074
 Mercury -84404-05-16 22:04 J -29107001.64 -29107001.58 -29107001.48 0.0089 0.0080
 Mercury -84404-08-13 01:40 J -29106913.48 -29106913.43 -29106913.38 0.0089 0.0085
 Earth -84391-09-26 08:23 J -29102121.15 -29102121.15 -29102121.14 0.0088 0.0088
 Earth -84390-09-28 22:18 J -29101753.74 -29101753.57 -29101753.38 0.0088 0.0064
 Moon -84390-09-28 22:47 J -29101753.73 -29101753.55 -29101753.33 0.0088 0.0061 *
 Earth -84389-09-30 12:13 J -29101386.21 -29101385.99 -29101385.74 0.0088 0.0039
 Moon -84389-09-30 11:59 J -29101386.20 -29101386.00 -29101385.76 0.0088 0.0043 *
 Moon -84388-10-03 01:11 J -29101018.72 -29101018.45 -29101018.18 0.0088 0.0011
 Earth -84388-10-03 02:37 J -29101018.65 -29101018.39 -29101018.13 0.0088 0.0015 *
 Earth -84387-10-05 16:18 J -29100651.07 -29100650.82 -29100650.55 0.0088 0.0011
 Moon -84387-10-05 18:56 J -29100650.97 -29100650.71 -29100650.45 0.0088 0.0007 *
 Moon -84386-10-08 03:20 J -29100283.60 -29100283.36 -29100283.11 0.0088 0.0039
 Earth -84386-10-08 06:13 J -29100283.47 -29100283.24 -29100282.99 0.0088 0.0035 *

Earth	-84385-10-09 19:40 J	-29099915.86	-29099915.68	-29099915.47	0.0088	0.0059
Moon	-84385-10-09 23:16 J	-29099915.71	-29099915.53	-29099915.30	0.0088	0.0055 *
Moon	-84384-10-12 05:59 J	-29099548.27	-29099548.25	-29099548.20	0.0088	0.0088
Earth	-84384-10-12 09:20 J	-29099548.17	-29099548.11	-29099548.00	0.0088	0.0084
Mars	-84376-02-10 23:30 J	-29096869.78	-29096869.52	-29096869.23	0.0088	0.0024
Mars	-84374-01-05 08:37 J	-29096176.35	-29096176.14	-29096175.90	0.0088	0.0054
Venus	-84339-03-03 15:06 J	-29083334.90	-29083334.87	-29083334.81	0.0089	0.0087
Venus	-84339-10-15 02:52 J	-29083109.49	-29083109.38	-29083109.23	0.0089	0.0071
Venus	-84338-05-28 14:37 J	-29082884.04	-29082883.89	-29082883.70	0.0089	0.0055
Venus	-84337-01-09 02:23 J	-29082658.57	-29082658.40	-29082658.19	0.0089	0.0039
Venus	-84337-08-21 14:08 J	-29082433.10	-29082432.91	-29082432.69	0.0089	0.0023
Venus	-84336-04-04 02:08 J	-29082207.62	-29082207.41	-29082207.19	0.0089	0.0006
Venus	-84336-11-15 14:08 J	-29081982.12	-29081981.91	-29081981.70	0.0089	0.0010
Venus	-84335-06-29 01:40 J	-29081756.62	-29081756.43	-29081756.21	0.0089	0.0027
Venus	-84334-02-09 13:25 J	-29081531.11	-29081530.94	-29081530.74	0.0089	0.0043
Venus	-84334-09-23 01:11 J	-29081305.60	-29081305.45	-29081305.28	0.0089	0.0059
Venus	-84333-05-05 12:56 J	-29081080.06	-29081079.96	-29081079.84	0.0089	0.0075
Mercury	-84329-02-16 23:01 J	-29079697.56	-29079697.54	-29079697.50	0.0089	0.0086
Mercury	-84329-05-15 00:13 J	-29079609.53	-29079609.49	-29079609.43	0.0089	0.0082
Mercury	-84329-08-11 01:40 J	-29079521.48	-29079521.43	-29079521.36	0.0089	0.0078
Mercury	-84329-11-07 03:06 J	-29079433.44	-29079433.37	-29079433.29	0.0089	0.0073
Mercury	-84328-02-03 04:32 J	-29079345.39	-29079345.31	-29079345.22	0.0089	0.0069
Mercury	-84328-05-02 05:44 J	-29079257.34	-29079257.26	-29079257.16	0.0089	0.0065
Mercury	-84328-07-29 07:11 J	-29079169.29	-29079169.20	-29079169.09	0.0089	0.0061
Mercury	-84328-10-25 08:37 J	-29079081.24	-29079081.14	-29079081.03	0.0089	0.0056
Mercury	-84327-01-21 10:04 J	-29078993.19	-29078993.08	-29078992.97	0.0089	0.0052
Mercury	-84327-04-19 11:16 J	-29078905.13	-29078905.03	-29078904.91	0.0089	0.0048
Mercury	-84327-07-16 12:42 J	-29078817.08	-29078816.97	-29078816.84	0.0089	0.0044
Mercury	-84327-10-12 14:08 J	-29078729.02	-29078728.91	-29078728.78	0.0089	0.0039
Mercury	-84326-01-08 15:35 J	-29078640.97	-29078640.85	-29078640.72	0.0089	0.0035

Mercury -84326-04-06 17:01 J -29078552.91 -29078552.79 -29078552.66 0.0089 0.0030

Mercury -84326-07-03 18:28 J -29078464.86 -29078464.73 -29078464.60 0.0089 0.0026

Mercury -84326-09-29 19:54 J -29078376.80 -29078376.67 -29078376.54 0.0089 0.0022

Mercury -84326-12-26 21:06 J -29078288.74 -29078288.62 -29078288.48 0.0089 0.0018

Mercury -84325-03-23 22:47 J -29078200.69 -29078200.55 -29078200.42 0.0089 0.0013

Mercury -84325-06-20 00:13 J -29078112.63 -29078112.49 -29078112.36 0.0089 0.0009

Mercury -84325-09-16 01:40 J -29078024.57 -29078024.43 -29078024.30 0.0089 0.0005

Mercury -84325-12-13 03:06 J -29077936.51 -29077936.37 -29077936.24 0.0089 0.0002

Mercury -84324-03-11 04:18 J -29077848.45 -29077848.32 -29077848.18 0.0089 0.0006

Mercury -84324-06-07 05:44 J -29077760.39 -29077760.26 -29077760.12 0.0089 0.0010

Mercury -84324-09-03 07:11 J -29077672.33 -29077672.20 -29077672.06 0.0089 0.0014

Mercury -84324-11-30 08:52 J -29077584.27 -29077584.13 -29077584.00 0.0089 0.0018

Mercury -84323-02-26 10:04 J -29077496.21 -29077496.08 -29077495.94 0.0089 0.0023

Mercury -84323-05-25 11:30 J -29077408.14 -29077408.02 -29077407.88 0.0089 0.0027

Mercury -84323-08-21 13:11 J -29077320.08 -29077319.95 -29077319.82 0.0089 0.0031

Mercury -84323-11-17 14:23 J -29077232.01 -29077231.90 -29077231.76 0.0089 0.0036

Mercury -84322-02-13 16:04 J -29077143.95 -29077143.83 -29077143.71 0.0089 0.0040

Mercury -84322-05-12 17:16 J -29077055.89 -29077055.78 -29077055.65 0.0089 0.0045

Mercury -84322-08-08 18:56 J -29076967.82 -29076967.71 -29076967.59 0.0089 0.0049

Mercury -84322-11-04 20:23 J -29076879.75 -29076879.65 -29076879.53 0.0089 0.0054

Mercury -84321-01-31 22:04 J -29076791.68 -29076791.58 -29076791.48 0.0089 0.0058

Mercury -84321-04-28 23:16 J -29076703.62 -29076703.53 -29076703.42 0.0089 0.0063

Mercury -84321-07-26 00:56 J -29076615.55 -29076615.46 -29076615.37 0.0089 0.0067

Mercury -84321-10-22 02:08 J -29076527.47 -29076527.41 -29076527.31 0.0089 0.0072

Mercury -84320-01-18 03:49 J -29076439.40 -29076439.34 -29076439.26 0.0089 0.0076

Mercury -84320-04-16 05:16 J -29076351.32 -29076351.28 -29076351.21 0.0089 0.0081

Mercury -84320-07-13 06:56 J -29076263.24 -29076263.21 -29076263.17 0.0089 0.0085

Moon -84308-03-23 07:25 J -29071992.29 -29071992.19 -29071992.07 0.0089 0.0080

Earth -84308-03-23 09:49 J -29071992.13 -29071992.09 -29071991.99 0.0089 0.0085 *

Earth -84307-03-25 19:11 J -29071624.86 -29071624.70 -29071624.50 0.0089 0.0061

Moon	-84307-03-25 22:32 J	-29071624.71	-29071624.56	-29071624.38	0.0089	0.0065	*
Moon	-84306-03-28 01:11 J	-29071257.67	-29071257.45	-29071257.21	0.0089	0.0033	
Earth	-84306-03-28 05:01 J	-29071257.52	-29071257.29	-29071257.06	0.0089	0.0037	*
Earth	-84305-03-29 13:54 J	-29070890.16	-29070889.92	-29070889.66	0.0089	0.0014	
Moon	-84305-03-29 17:16 J	-29070890.03	-29070889.78	-29070889.53	0.0089	0.0017	*
Moon	-84304-03-31 20:52 J	-29070522.86	-29070522.63	-29070522.38	0.0089	0.0014	
Earth	-84304-03-31 23:30 J	-29070522.76	-29070522.52	-29070522.26	0.0089	0.0010	*
Earth	-84303-04-03 08:52 J	-29070155.35	-29070155.13	-29070154.89	0.0089	0.0034	
Moon	-84303-04-03 09:49 J	-29070155.32	-29070155.09	-29070154.83	0.0089	0.0030	*
Earth	-84302-04-05 18:13 J	-29069787.91	-29069787.74	-29069787.53	0.0089	0.0058	
Moon	-84302-04-05 18:13 J	-29069787.89	-29069787.74	-29069787.54	0.0089	0.0063	*
Moon	-84301-04-07 02:37 J	-29069420.49	-29069420.39	-29069420.24	0.0089	0.0078	
Earth	-84301-04-07 03:49 J	-29069420.41	-29069420.34	-29069420.22	0.0089	0.0082	*
Jupiter	-84297-03-12 08:23 J	-29067985.65	-29067985.15	-29067984.62	0.0089	0.0030	
Mars	-84295-11-11 01:11 J	-29067011.68	-29067011.45	-29067011.14	0.0089	0.0058	
Mars	-84293-10-07 15:35 J	-29066315.13	-29066314.85	-29066314.51	0.0089	0.0042	
Venus	-84257-04-18 07:11 J	-29053338.25	-29053338.20	-29053338.09	0.0089	0.0083	
Venus	-84257-11-29 22:04 J	-29053112.72	-29053112.58	-29053112.42	0.0089	0.0065	
Venus	-84256-07-13 12:13 J	-29052887.17	-29052886.99	-29052886.79	0.0089	0.0048	
Venus	-84255-02-24 02:23 J	-29052661.60	-29052661.40	-29052661.17	0.0089	0.0031	
Venus	-84255-10-07 16:47 J	-29052436.01	-29052435.80	-29052435.56	0.0089	0.0014	
Venus	-84254-05-21 07:25 J	-29052210.41	-29052210.19	-29052209.96	0.0089	0.0005	
Venus	-84253-01-01 21:35 J	-29051984.81	-29051984.60	-29051984.37	0.0089	0.0022	
Venus	-84253-08-14 11:44 J	-29051759.20	-29051759.01	-29051758.79	0.0089	0.0039	
Venus	-84252-03-28 02:08 J	-29051533.58	-29051533.41	-29051533.23	0.0089	0.0056	
Venus	-84252-11-08 16:32 J	-29051307.93	-29051307.81	-29051307.68	0.0089	0.0073	
Mercury	-84246-05-10 22:32 J	-29049298.57	-29049298.56	-29049298.52	0.0089	0.0088	
Mercury	-84246-08-07 01:54 J	-29049210.47	-29049210.42	-29049210.33	0.0089	0.0082	
Mercury	-84246-11-03 05:16 J	-29049122.35	-29049122.28	-29049122.16	0.0089	0.0076	
Mercury	-84245-01-30 09:06 J	-29049034.23	-29049034.12	-29049033.99	0.0089	0.0069	

Mercury -84245-04-27 12:42 J -29048946.10 -29048945.97 -29048945.83 0.0089 0.0063

Mercury -84245-07-24 16:04 J -29048857.96 -29048857.83 -29048857.67 0.0089 0.0057

Mercury -84245-10-20 19:25 J -29048769.83 -29048769.69 -29048769.52 0.0089 0.0051

Mercury -84244-01-16 22:47 J -29048681.70 -29048681.55 -29048681.37 0.0089 0.0045

Mercury -84244-04-15 02:37 J -29048593.56 -29048593.39 -29048593.22 0.0089 0.0038

Mercury -84244-07-12 05:59 J -29048505.42 -29048505.25 -29048505.07 0.0089 0.0032

Mercury -84244-10-08 09:35 J -29048417.28 -29048417.10 -29048416.92 0.0089 0.0026

Mercury -84243-01-04 12:56 J -29048329.14 -29048328.96 -29048328.77 0.0089 0.0020

Mercury -84243-04-02 16:18 J -29048241.00 -29048240.82 -29048240.63 0.0089 0.0014

Mercury -84243-06-29 19:40 J -29048152.86 -29048152.68 -29048152.49 0.0089 0.0008

Mercury -84243-09-25 23:16 J -29048064.72 -29048064.53 -29048064.34 0.0089 0.0002

Mercury -84243-12-23 02:37 J -29047976.58 -29047976.39 -29047976.20 0.0089 0.0005

Mercury -84242-03-21 05:59 J -29047888.44 -29047888.25 -29047888.07 0.0089 0.0011

Mercury -84242-06-17 09:06 J -29047800.30 -29047800.12 -29047799.93 0.0089 0.0017

Mercury -84242-09-13 12:28 J -29047712.16 -29047711.98 -29047711.79 0.0089 0.0023

Mercury -84242-12-10 15:49 J -29047624.01 -29047623.84 -29047623.66 0.0089 0.0029

Mercury -84241-03-07 19:11 J -29047535.87 -29047535.70 -29047535.53 0.0089 0.0035

Mercury -84241-06-03 22:18 J -29047447.73 -29047447.57 -29047447.39 0.0089 0.0041

Mercury -84241-08-31 01:40 J -29047359.58 -29047359.43 -29047359.26 0.0089 0.0047

Mercury -84241-11-27 04:47 J -29047271.44 -29047271.30 -29047271.14 0.0089 0.0053

Mercury -84240-02-23 07:54 J -29047183.29 -29047183.17 -29047183.01 0.0089 0.0059

Mercury -84240-05-22 11:16 J -29047095.14 -29047095.03 -29047094.89 0.0089 0.0065

Mercury -84240-08-18 14:52 J -29047006.99 -29047006.88 -29047006.77 0.0089 0.0070

Mercury -84240-11-14 17:59 J -29046918.84 -29046918.75 -29046918.65 0.0089 0.0076

Mercury -84239-02-10 21:06 J -29046830.68 -29046830.62 -29046830.54 0.0088 0.0082

Mercury -84239-05-09 23:59 J -29046742.50 -29046742.50 -29046742.45 0.0088 0.0088

Earth -84226-09-28 05:01 J -29041853.42 -29041853.29 -29041853.14 0.0088 0.0075

Moon -84226-09-28 05:59 J -29041853.38 -29041853.25 -29041853.08 0.0088 0.0072 *

Moon -84225-09-29 16:47 J -29041485.99 -29041485.80 -29041485.55 0.0088 0.0054

Earth -84225-09-29 18:56 J -29041485.91 -29041485.71 -29041485.47 0.0088 0.0051 *

Earth	-84224-10-02 09:20 J	-29041118.36	-29041118.11	-29041117.86	0.0088	0.0026
Moon	-84224-10-02 11:44 J	-29041118.24	-29041118.01	-29041117.74	0.0088	0.0024 *
Moon	-84223-10-04 19:40 J	-29040750.94	-29040750.68	-29040750.41	0.0088	0.0004
Earth	-84223-10-04 23:16 J	-29040750.79	-29040750.53	-29040750.26	0.0088	0.0002 *
Earth	-84222-10-07 12:56 J	-29040383.21	-29040382.96	-29040382.70	0.0088	0.0023
Moon	-84222-10-07 16:32 J	-29040383.06	-29040382.81	-29040382.55	0.0088	0.0025 *
Moon	-84221-10-08 23:16 J	-29040015.75	-29040015.53	-29040015.30	0.0088	0.0046
Earth	-84221-10-09 02:52 J	-29040015.59	-29040015.38	-29040015.15	0.0088	0.0048 *
Earth	-84220-10-11 16:47 J	-29039647.95	-29039647.80	-29039647.65	0.0088	0.0072
Moon	-84220-10-11 18:56 J	-29039647.83	-29039647.71	-29039647.54	0.0088	0.0074 *
Mars	-84213-09-26 16:32 J	-29037106.00	-29037105.81	-29037105.57	0.0088	0.0059
Mars	-84211-08-21 03:06 J	-29036412.64	-29036412.37	-29036412.08	0.0088	0.0020
Venus	-84174-01-16 14:37 J	-29023114.97	-29023114.89	-29023114.76	0.0089	0.0077
Venus	-84174-08-30 02:23 J	-29022889.54	-29022889.40	-29022889.23	0.0089	0.0061
Venus	-84173-04-11 14:08 J	-29022664.08	-29022663.91	-29022663.71	0.0089	0.0045
Venus	-84173-11-23 02:23 J	-29022438.60	-29022438.40	-29022438.20	0.0089	0.0028
Venus	-84172-07-06 14:08 J	-29022213.12	-29022212.91	-29022212.70	0.0089	0.0012
Venus	-84171-02-17 01:54 J	-29021987.64	-29021987.42	-29021987.21	0.0089	0.0005
Venus	-84171-09-30 13:25 J	-29021762.14	-29021761.94	-29021761.72	0.0089	0.0021
Venus	-84170-05-14 01:25 J	-29021536.63	-29021536.44	-29021536.25	0.0089	0.0037
Venus	-84170-12-25 12:42 J	-29021311.12	-29021310.97	-29021310.78	0.0089	0.0054
Venus	-84169-08-07 00:28 J	-29021085.59	-29021085.48	-29021085.33	0.0089	0.0070
Venus	-84168-03-20 12:28 J	-29020860.02	-29020859.98	-29020859.92	0.0089	0.0086
Mercury	-84165-08-16 21:20 J	-29019614.61	-29019614.61	-29019614.59	0.0089	0.0088
Mercury	-84165-11-12 22:47 J	-29019526.58	-29019526.55	-29019526.50	0.0089	0.0084
Mercury	-84164-02-08 23:59 J	-29019438.54	-29019438.50	-29019438.43	0.0089	0.0080
Mercury	-84164-05-08 01:25 J	-29019350.50	-29019350.44	-29019350.36	0.0089	0.0076
Mercury	-84164-08-04 02:37 J	-29019262.45	-29019262.39	-29019262.30	0.0089	0.0072
Mercury	-84164-10-31 04:18 J	-29019174.40	-29019174.32	-29019174.23	0.0089	0.0067
Mercury	-84163-01-27 05:44 J	-29019086.35	-29019086.26	-29019086.17	0.0089	0.0063

Mercury -84163-04-25 06:56 J -29018998.30 -29018998.21 -29018998.10 0.0089 0.0059

Mercury -84163-07-22 08:23 J -29018910.25 -29018910.15 -29018910.04 0.0089 0.0055

Mercury -84163-10-18 09:49 J -29018822.20 -29018822.09 -29018821.98 0.0089 0.0050

Mercury -84162-01-14 11:16 J -29018734.14 -29018734.03 -29018733.92 0.0089 0.0046

Mercury -84162-04-12 12:28 J -29018646.09 -29018645.98 -29018645.85 0.0089 0.0042

Mercury -84162-07-09 13:54 J -29018558.04 -29018557.92 -29018557.79 0.0089 0.0037

Mercury -84162-10-05 15:20 J -29018469.98 -29018469.86 -29018469.73 0.0089 0.0033

Mercury -84161-01-01 16:47 J -29018381.93 -29018381.80 -29018381.67 0.0089 0.0029

Mercury -84161-03-29 17:59 J -29018293.87 -29018293.75 -29018293.61 0.0089 0.0025

Mercury -84161-06-25 19:40 J -29018205.81 -29018205.68 -29018205.55 0.0089 0.0020

Mercury -84161-09-21 20:52 J -29018117.76 -29018117.63 -29018117.49 0.0089 0.0016

Mercury -84161-12-18 22:18 J -29018029.70 -29018029.57 -29018029.43 0.0089 0.0012

Mercury -84160-03-16 23:44 J -29017941.64 -29017941.51 -29017941.37 0.0089 0.0007

Mercury -84160-06-13 01:11 J -29017853.58 -29017853.45 -29017853.31 0.0089 0.0003

Mercury -84160-09-09 02:37 J -29017765.52 -29017765.39 -29017765.25 0.0089 0.0003

Mercury -84160-12-06 04:04 J -29017677.46 -29017677.33 -29017677.19 0.0089 0.0006

Mercury -84159-03-04 05:30 J -29017589.40 -29017589.27 -29017589.13 0.0089 0.0011

Mercury -84159-05-31 06:56 J -29017501.34 -29017501.21 -29017501.07 0.0089 0.0015

Mercury -84159-08-27 08:23 J -29017413.28 -29017413.15 -29017413.02 0.0089 0.0020

Mercury -84159-11-23 09:49 J -29017325.22 -29017325.09 -29017324.96 0.0089 0.0024

Mercury -84158-02-19 11:16 J -29017237.16 -29017237.03 -29017236.90 0.0089 0.0028

Mercury -84158-05-18 12:42 J -29017149.09 -29017148.97 -29017148.84 0.0089 0.0033

Mercury -84158-08-14 14:08 J -29017061.03 -29017060.91 -29017060.78 0.0089 0.0037

Mercury -84158-11-10 15:35 J -29016972.97 -29016972.85 -29016972.72 0.0089 0.0042

Mercury -84157-02-06 17:01 J -29016884.90 -29016884.79 -29016884.67 0.0089 0.0047

Mercury -84157-05-04 18:28 J -29016796.83 -29016796.73 -29016796.61 0.0089 0.0051

Mercury -84157-07-31 20:08 J -29016708.77 -29016708.66 -29016708.55 0.0089 0.0055

Mercury -84157-10-27 21:20 J -29016620.70 -29016620.61 -29016620.50 0.0089 0.0060

Mercury -84156-01-23 22:47 J -29016532.63 -29016532.55 -29016532.44 0.0089 0.0065

Mercury -84156-04-22 00:28 J -29016444.56 -29016444.48 -29016444.39 0.0089 0.0069

Mercury -84156-07-19 02:08 J -29016356.49 -29016356.41 -29016356.33 0.0089 0.0073
 Mercury -84156-10-15 03:20 J -29016268.41 -29016268.36 -29016268.28 0.0089 0.0078
 Mercury -84155-01-11 04:47 J -29016180.33 -29016180.30 -29016180.24 0.0089 0.0083
 Mercury -84155-04-09 06:28 J -29016092.25 -29016092.23 -29016092.20 0.0089 0.0087
 Moon -84143-03-25 02:52 J -29011724.51 -29011724.38 -29011724.20 0.0089 0.0070
 Earth -84143-03-25 06:13 J -29011724.36 -29011724.24 -29011724.07 0.0089 0.0072 *
 Earth -84142-03-27 15:49 J -29011357.04 -29011356.84 -29011356.62 0.0089 0.0048
 Moon -84142-03-27 18:28 J -29011356.91 -29011356.73 -29011356.49 0.0089 0.0051 *
 Moon -84141-03-28 23:30 J -29010989.74 -29010989.52 -29010989.27 0.0089 0.0023
 Earth -84141-03-29 00:56 J -29010989.68 -29010989.46 -29010989.20 0.0089 0.0025 *
 Earth -84140-03-31 10:32 J -29010622.31 -29010622.06 -29010621.80 0.0089 0.0002
 Moon -84140-03-31 11:30 J -29010622.28 -29010622.02 -29010621.76 0.0089 0.0003 *
 Earth -84139-04-02 19:54 J -29010254.90 -29010254.67 -29010254.42 0.0089 0.0023
 Moon -84139-04-02 20:23 J -29010254.88 -29010254.65 -29010254.41 0.0089 0.0025 *
 Moon -84138-04-05 03:06 J -29009887.57 -29009887.37 -29009887.13 0.0089 0.0046
 Earth -84138-04-05 05:44 J -29009887.48 -29009887.26 -29009887.05 0.0089 0.0046 *
 Earth -84137-04-06 14:52 J -29009520.02 -29009519.88 -29009519.71 0.0089 0.0070
 Moon -84137-04-06 17:30 J -29009519.90 -29009519.77 -29009519.62 0.0089 0.0072 *
 Jupiter -84131-05-16 19:25 J -29007289.01 -29007288.69 -29007288.31 0.0089 0.0069
 Mars -84129-05-20 21:06 J -29006553.96 -29006553.62 -29006553.27 0.0089 0.0004
 Venus -84092-03-03 06:28 J -28993118.35 -28993118.23 -28993118.08 0.0089 0.0072
 Venus -84092-10-14 20:52 J -28992892.80 -28992892.63 -28992892.44 0.0089 0.0055
 Venus -84091-05-28 11:44 J -28992667.22 -28992667.01 -28992666.81 0.0089 0.0037
 Venus -84090-01-09 01:54 J -28992441.64 -28992441.42 -28992441.20 0.0089 0.0020
 Venus -84090-08-22 16:18 J -28992216.05 -28992215.82 -28992215.60 0.0089 0.0003
 Venus -84089-04-04 06:28 J -28991990.45 -28991990.23 -28991990.00 0.0089 0.0015
 Venus -84089-11-15 20:37 J -28991764.84 -28991764.64 -28991764.42 0.0089 0.0033
 Venus -84088-06-29 11:01 J -28991539.22 -28991539.04 -28991538.84 0.0089 0.0050
 Venus -84087-02-10 01:25 J -28991313.59 -28991313.44 -28991313.29 0.0089 0.0067
 Venus -84087-09-23 15:06 J -28991087.91 -28991087.87 -28991087.78 0.0089 0.0085

Mercury -84081-02-04 20:52 J -28989127.67 -28989127.63 -28989127.58 0.0089 0.0086

Mercury -84081-05-03 00:13 J -28989039.56 -28989039.49 -28989039.40 0.0089 0.0080

Mercury -84081-07-30 03:35 J -28988951.44 -28988951.35 -28988951.23 0.0089 0.0074

Mercury -84081-10-26 07:11 J -28988863.31 -28988863.20 -28988863.06 0.0089 0.0068

Mercury -84080-01-22 10:32 J -28988775.18 -28988775.06 -28988774.90 0.0089 0.0062

Mercury -84080-04-20 14:23 J -28988687.04 -28988686.90 -28988686.75 0.0089 0.0055

Mercury -84080-07-17 17:44 J -28988598.91 -28988598.76 -28988598.59 0.0089 0.0049

Mercury -84080-10-13 21:20 J -28988510.77 -28988510.61 -28988510.44 0.0089 0.0043

Mercury -84079-01-10 00:42 J -28988422.64 -28988422.47 -28988422.29 0.0089 0.0037

Mercury -84079-04-08 04:04 J -28988334.50 -28988334.33 -28988334.14 0.0089 0.0031

Mercury -84079-07-05 07:25 J -28988246.36 -28988246.19 -28988245.99 0.0089 0.0025

Mercury -84079-10-01 11:01 J -28988158.22 -28988158.04 -28988157.85 0.0089 0.0018

Mercury -84079-12-28 14:37 J -28988070.08 -28988069.89 -28988069.70 0.0089 0.0012

Mercury -84078-03-26 17:59 J -28987981.94 -28987981.75 -28987981.56 0.0089 0.0006

Mercury -84078-06-22 21:20 J -28987893.80 -28987893.61 -28987893.42 0.0089 0.0001

Mercury -84078-09-19 00:42 J -28987805.66 -28987805.47 -28987805.28 0.0089 0.0006

Mercury -84078-12-16 04:04 J -28987717.51 -28987717.33 -28987717.14 0.0089 0.0012

Mercury -84077-03-13 07:25 J -28987629.37 -28987629.19 -28987629.00 0.0089 0.0018

Mercury -84077-06-09 10:47 J -28987541.23 -28987541.05 -28987540.87 0.0089 0.0024

Mercury -84077-09-05 13:54 J -28987453.08 -28987452.92 -28987452.73 0.0089 0.0031

Mercury -84077-12-02 17:16 J -28987364.94 -28987364.78 -28987364.60 0.0089 0.0037

Mercury -84076-02-28 20:37 J -28987276.79 -28987276.64 -28987276.47 0.0089 0.0043

Mercury -84076-05-27 23:44 J -28987188.65 -28987188.51 -28987188.34 0.0089 0.0049

Mercury -84076-08-24 03:06 J -28987100.50 -28987100.37 -28987100.21 0.0089 0.0055

Mercury -84076-11-20 06:13 J -28987012.36 -28987012.24 -28987012.08 0.0089 0.0061

Mercury -84075-02-16 09:49 J -28986924.21 -28986924.09 -28986923.96 0.0089 0.0066

Mercury -84075-05-15 12:56 J -28986836.06 -28986835.96 -28986835.84 0.0089 0.0072

Mercury -84075-08-11 16:04 J -28986747.90 -28986747.83 -28986747.73 0.0089 0.0078

Mercury -84075-11-07 19:11 J -28986659.74 -28986659.70 -28986659.62 0.0089 0.0084

Moon -84062-09-27 08:23 J -28981953.15 -28981953.15 -28981953.14 0.0088 0.0088

Earth	-84062-09-27 10:47 J	-28981953.09	-28981953.05	-28981952.97	0.0088	0.0086
Earth	-84061-09-29 00:56 J	-28981585.63	-28981585.46	-28981585.25	0.0088	0.0062
Moon	-84061-09-29 04:32 J	-28981585.49	-28981585.31	-28981585.11	0.0088	0.0059 *
Moon	-84060-10-01 11:44 J	-28981218.24	-28981218.01	-28981217.77	0.0088	0.0041
Earth	-84060-10-01 15:06 J	-28981218.09	-28981217.87	-28981217.61	0.0088	0.0038 *
Earth	-84059-10-04 05:01 J	-28980850.54	-28980850.29	-28980850.02	0.0088	0.0013
Moon	-84059-10-04 08:52 J	-28980850.39	-28980850.13	-28980849.86	0.0088	0.0010 *
Moon	-84058-10-06 16:18 J	-28980483.07	-28980482.82	-28980482.56	0.0088	0.0009
Earth	-84058-10-06 19:11 J	-28980482.96	-28980482.70	-28980482.43	0.0088	0.0012 *
Earth	-84057-10-08 09:06 J	-28980115.36	-28980115.12	-28980114.88	0.0088	0.0036
Moon	-84057-10-08 11:44 J	-28980115.25	-28980115.01	-28980114.76	0.0088	0.0040 *
Moon	-84056-10-10 21:06 J	-28979747.80	-28979747.62	-28979747.40	0.0088	0.0057
Earth	-84056-10-10 22:04 J	-28979747.74	-28979747.58	-28979747.36	0.0088	0.0061 *
Earth	-84055-10-13 12:28 J	-28979380.06	-28979379.98	-28979379.90	0.0088	0.0084
Moon	-84055-10-13 11:30 J	-28979380.03	-28979380.02	-28979379.94	0.0088	0.0088 *
Mars	-84047-04-05 18:28 J	-28976649.01	-28976648.73	-28976648.44	0.0088	0.0016
Mars	-84045-02-28 04:18 J	-28975955.51	-28975955.32	-28975955.10	0.0088	0.0062
Venus	-84010-04-20 02:08 J	-28963120.47	-28963120.41	-28963120.32	0.0089	0.0083
Venus	-84010-12-01 13:54 J	-28962895.04	-28962894.92	-28962894.76	0.0089	0.0067
Venus	-84009-07-14 01:25 J	-28962669.59	-28962669.44	-28962669.24	0.0089	0.0051
Venus	-84008-02-24 13:40 J	-28962444.13	-28962443.93	-28962443.73	0.0089	0.0034
Venus	-84008-10-08 01:25 J	-28962218.65	-28962218.44	-28962218.23	0.0089	0.0018
Venus	-84007-05-21 13:11 J	-28961993.16	-28961992.95	-28961992.74	0.0089	0.0001
Venus	-84006-01-02 00:56 J	-28961767.67	-28961767.46	-28961767.25	0.0089	0.0015
Venus	-84006-08-15 12:13 J	-28961542.17	-28961541.99	-28961541.77	0.0089	0.0032
Venus	-84005-03-27 23:59 J	-28961316.67	-28961316.50	-28961316.31	0.0089	0.0048
Venus	-84005-11-08 11:59 J	-28961091.14	-28961091.00	-28961090.84	0.0089	0.0064
Venus	-84004-06-21 23:44 J	-28960865.59	-28960865.51	-28960865.41	0.0089	0.0080

84TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 84th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-84000-05-13 21:06 J	-28959443.64	-28959443.62	-28959443.60	0.0089	0.0087		
Mercury	-84000-08-09 22:18 J	-28959355.61	-28959355.57	-28959355.52	0.0089	0.0083		
Mercury	-84000-11-05 23:30 J	-28959267.57	-28959267.52	-28959267.45	0.0089	0.0079		
Mercury	-83999-02-02 00:56 J	-28959179.52	-28959179.46	-28959179.38	0.0089	0.0075		
Mercury	-83999-05-01 02:08 J	-28959091.47	-28959091.41	-28959091.31	0.0089	0.0071		
Mercury	-83999-07-28 03:49 J	-28959003.43	-28959003.34	-28959003.25	0.0089	0.0066		
Mercury	-83999-10-24 05:01 J	-28958915.37	-28958915.29	-28958915.18	0.0089	0.0062		
Mercury	-83998-01-20 06:28 J	-28958827.32	-28958827.23	-28958827.12	0.0089	0.0058		
Mercury	-83998-04-18 07:40 J	-28958739.27	-28958739.18	-28958739.06	0.0089	0.0054		
Mercury	-83998-07-15 09:20 J	-28958651.22	-28958651.11	-28958651.00	0.0089	0.0049		
Mercury	-83998-10-11 10:32 J	-28958563.17	-28958563.06	-28958562.93	0.0089	0.0045		
Mercury	-83997-01-07 11:59 J	-28958475.11	-28958475.00	-28958474.87	0.0089	0.0041		
Mercury	-83997-04-04 13:25 J	-28958387.06	-28958386.94	-28958386.81	0.0089	0.0036		
Mercury	-83997-07-01 14:52 J	-28958299.00	-28958298.88	-28958298.75	0.0089	0.0032		
Mercury	-83997-09-27 16:18 J	-28958210.95	-28958210.82	-28958210.69	0.0089	0.0027		
Mercury	-83997-12-24 17:44 J	-28958122.89	-28958122.76	-28958122.63	0.0089	0.0023		
Mercury	-83996-03-22 19:11 J	-28958034.83	-28958034.70	-28958034.57	0.0089	0.0019		
Mercury	-83996-06-18 20:23 J	-28957946.78	-28957946.65	-28957946.51	0.0089	0.0015		
Mercury	-83996-09-14 21:49 J	-28957858.72	-28957858.59	-28957858.45	0.0089	0.0010		

Mercury -83996-12-11 23:16 J -28957770.66 -28957770.53 -28957770.39 0.0089 0.0006

Mercury -83995-03-10 00:42 J -28957682.60 -28957682.47 -28957682.33 0.0089 0.0002

Mercury -83995-06-06 02:08 J -28957594.54 -28957594.41 -28957594.27 0.0089 0.0003

Mercury -83995-09-02 03:35 J -28957506.48 -28957506.35 -28957506.21 0.0089 0.0008

Mercury -83995-11-29 05:01 J -28957418.42 -28957418.29 -28957418.15 0.0089 0.0012

Mercury -83994-02-25 06:28 J -28957330.36 -28957330.23 -28957330.10 0.0089 0.0016

Mercury -83994-05-24 07:54 J -28957242.30 -28957242.17 -28957242.04 0.0089 0.0021

Mercury -83994-08-20 09:20 J -28957154.24 -28957154.11 -28957153.98 0.0089 0.0025

Mercury -83994-11-16 10:47 J -28957066.18 -28957066.05 -28957065.92 0.0089 0.0030

Mercury -83993-02-12 12:13 J -28956978.12 -28956977.99 -28956977.86 0.0089 0.0034

Mercury -83993-05-10 13:40 J -28956890.05 -28956889.93 -28956889.81 0.0089 0.0039

Mercury -83993-08-06 15:06 J -28956801.99 -28956801.87 -28956801.75 0.0089 0.0043

Mercury -83993-11-02 16:32 J -28956713.92 -28956713.81 -28956713.69 0.0089 0.0048

Mercury -83992-01-29 17:59 J -28956625.86 -28956625.75 -28956625.63 0.0089 0.0052

Mercury -83992-04-27 19:25 J -28956537.79 -28956537.69 -28956537.58 0.0089 0.0057

Mercury -83992-07-24 21:06 J -28956449.72 -28956449.62 -28956449.52 0.0089 0.0061

Mercury -83992-10-20 22:18 J -28956361.65 -28956361.57 -28956361.47 0.0089 0.0066

Mercury -83991-01-16 23:59 J -28956273.58 -28956273.50 -28956273.41 0.0089 0.0070

Mercury -83991-04-15 01:11 J -28956185.51 -28956185.45 -28956185.36 0.0089 0.0075

Mercury -83991-07-12 02:52 J -28956097.43 -28956097.38 -28956097.31 0.0089 0.0079

Mercury -83991-10-08 04:18 J -28956009.35 -28956009.32 -28956009.27 0.0089 0.0084

Mercury -83990-01-04 05:59 J -28955921.26 -28955921.25 -28955921.23 0.0089 0.0088

Earth -83979-03-24 17:16 J -28951823.87 -28951823.78 -28951823.69 0.0089 0.0082

Moon -83979-03-24 19:25 J -28951823.79 -28951823.69 -28951823.55 0.0089 0.0078 *

Moon -83978-03-27 00:28 J -28951456.63 -28951456.48 -28951456.29 0.0089 0.0063

Earth -83978-03-27 02:23 J -28951456.58 -28951456.40 -28951456.20 0.0089 0.0059 *

Earth -83977-03-28 11:30 J -28951089.24 -28951089.02 -28951088.78 0.0089 0.0036

Moon -83977-03-28 11:59 J -28951089.24 -28951089.00 -28951088.76 0.0089 0.0031 *

Earth -83976-03-30 21:06 J -28950721.87 -28950721.62 -28950721.37 0.0089 0.0012

Moon -83976-03-30 22:18 J -28950721.81 -28950721.57 -28950721.33 0.0089 0.0016 *

Moon	-83975-04-02 04:32 J	-28950354.56	-28950354.31	-28950354.05	0.0089	0.0015
Earth	-83975-04-02 06:28 J	-28950354.47	-28950354.23	-28950353.97	0.0089	0.0011 *
Earth	-83974-04-04 15:35 J	-28949987.07	-28949986.85	-28949986.61	0.0089	0.0035
Moon	-83974-04-04 18:56 J	-28949986.94	-28949986.71	-28949986.47	0.0089	0.0030 *
Moon	-83973-04-05 21:20 J	-28949619.76	-28949619.61	-28949619.40	0.0089	0.0063
Earth	-83973-04-06 01:11 J	-28949619.63	-28949619.45	-28949619.25	0.0089	0.0058 *
Earth	-83972-04-08 10:18 J	-28949252.14	-28949252.07	-28949251.95	0.0089	0.0082
Moon	-83972-04-08 13:54 J	-28949252.02	-28949251.92	-28949251.78	0.0089	0.0078 *
Mars	-83965-01-02 00:28 J	-28946792.75	-28946792.48	-28946792.17	0.0089	0.0049
Mars	-83964-11-28 13:25 J	-28946096.20	-28946095.94	-28946095.63	0.0089	0.0049
Venus	-83928-06-04 14:08 J	-28933123.99	-28933123.91	-28933123.79	0.0089	0.0080
Venus	-83927-01-16 04:47 J	-28932898.45	-28932898.30	-28932898.13	0.0089	0.0062
Venus	-83927-08-29 18:56 J	-28932672.89	-28932672.71	-28932672.50	0.0089	0.0045
Venus	-83926-04-12 09:20 J	-28932447.31	-28932447.11	-28932446.88	0.0089	0.0028
Venus	-83926-11-23 23:59 J	-28932221.73	-28932221.50	-28932221.27	0.0089	0.0010
Venus	-83925-07-06 14:23 J	-28931996.13	-28931995.90	-28931995.68	0.0089	0.0008
Venus	-83924-02-17 04:18 J	-28931770.52	-28931770.32	-28931770.09	0.0089	0.0026
Venus	-83924-09-30 18:42 J	-28931544.91	-28931544.72	-28931544.51	0.0089	0.0043
Venus	-83923-05-14 09:20 J	-28931319.27	-28931319.11	-28931318.94	0.0089	0.0060
Venus	-83923-12-25 23:16 J	-28931093.62	-28931093.53	-28931093.40	0.0089	0.0078
Mercury	-83917-10-31 18:42 J	-28928956.76	-28928956.72	-28928956.66	0.0089	0.0085
Mercury	-83916-01-27 22:04 J	-28928868.65	-28928868.58	-28928868.48	0.0089	0.0079
Mercury	-83916-04-26 01:40 J	-28928780.53	-28928780.43	-28928780.31	0.0089	0.0073
Mercury	-83916-07-23 05:01 J	-28928692.40	-28928692.29	-28928692.15	0.0089	0.0067
Mercury	-83916-10-19 08:23 J	-28928604.27	-28928604.15	-28928603.99	0.0089	0.0061
Mercury	-83915-01-15 12:13 J	-28928516.13	-28928515.99	-28928515.83	0.0089	0.0054
Mercury	-83915-04-13 15:35 J	-28928428.00	-28928427.85	-28928427.68	0.0089	0.0048
Mercury	-83915-07-10 19:11 J	-28928339.86	-28928339.70	-28928339.53	0.0089	0.0042
Mercury	-83915-10-06 22:32 J	-28928251.72	-28928251.56	-28928251.37	0.0089	0.0036
Mercury	-83914-01-03 01:54 J	-28928163.59	-28928163.42	-28928163.23	0.0089	0.0030

Mercury -83914-04-01 05:44 J -28928075.45 -28928075.26 -28928075.08 0.0089 0.0023

Mercury -83914-06-28 09:06 J -28927987.31 -28927987.12 -28927986.93 0.0089 0.0017

Mercury -83914-09-24 12:28 J -28927899.17 -28927898.98 -28927898.79 0.0089 0.0011

Mercury -83914-12-21 15:49 J -28927811.02 -28927810.84 -28927810.65 0.0089 0.0005

Mercury -83913-03-18 19:25 J -28927722.88 -28927722.69 -28927722.50 0.0089 0.0002

Mercury -83913-06-14 22:47 J -28927634.74 -28927634.55 -28927634.36 0.0089 0.0008

Mercury -83913-09-11 02:08 J -28927546.60 -28927546.41 -28927546.22 0.0089 0.0014

Mercury -83913-12-08 05:30 J -28927458.45 -28927458.27 -28927458.09 0.0089 0.0020

Mercury -83912-03-06 08:52 J -28927370.31 -28927370.13 -28927369.95 0.0089 0.0026

Mercury -83912-06-02 12:13 J -28927282.17 -28927281.99 -28927281.81 0.0089 0.0032

Mercury -83912-08-29 15:20 J -28927194.02 -28927193.86 -28927193.68 0.0089 0.0038

Mercury -83912-11-25 18:42 J -28927105.88 -28927105.72 -28927105.55 0.0089 0.0044

Mercury -83911-02-21 22:04 J -28927017.73 -28927017.58 -28927017.42 0.0089 0.0050

Mercury -83911-05-21 01:11 J -28926929.58 -28926929.45 -28926929.29 0.0089 0.0056

Mercury -83911-08-17 04:32 J -28926841.43 -28926841.31 -28926841.17 0.0088 0.0062

Mercury -83911-11-13 07:40 J -28926753.28 -28926753.18 -28926753.04 0.0088 0.0068

Mercury -83910-02-09 10:47 J -28926665.13 -28926665.05 -28926664.92 0.0088 0.0074

Mercury -83910-05-08 14:08 J -28926576.97 -28926576.91 -28926576.81 0.0088 0.0079

Mercury -83910-08-04 17:44 J -28926488.81 -28926488.76 -28926488.71 0.0088 0.0085

Moon -83897-09-28 01:25 J -28921685.57 -28921685.44 -28921685.24 0.0088 0.0070

Earth -83897-09-28 05:16 J -28921685.40 -28921685.28 -28921685.11 0.0088 0.0074 *

Earth -83896-09-30 19:11 J -28921317.89 -28921317.70 -28921317.45 0.0088 0.0050

Moon -83896-09-30 22:32 J -28921317.75 -28921317.56 -28921317.32 0.0088 0.0052 *

Moon -83895-10-03 06:56 J -28920950.45 -28920950.21 -28920949.95 0.0088 0.0022

Earth -83895-10-03 09:35 J -28920950.34 -28920950.10 -28920949.83 0.0088 0.0025 *

Earth -83894-10-05 23:59 J -28920582.77 -28920582.50 -28920582.24 0.0088 0.0002

Moon -83894-10-06 01:11 J -28920582.72 -28920582.45 -28920582.17 0.0088 0.0004 *

Moon -83893-10-07 12:56 J -28920215.19 -28920214.96 -28920214.71 0.0088 0.0026

Earth -83893-10-07 13:25 J -28920215.18 -28920214.94 -28920214.68 0.0088 0.0024 *

Moon -83892-10-10 02:52 J -28919847.61 -28919847.38 -28919847.14 0.0088 0.0045

Earth -83892-10-10 03:06 J -28919847.58 -28919847.37 -28919847.13 0.0088 0.0048 *
 Earth -83891-10-12 16:47 J -28919479.94 -28919479.80 -28919479.63 0.0088 0.0072
 Moon -83891-10-12 18:56 J -28919479.83 -28919479.71 -28919479.56 0.0088 0.0075 *
 Mars -83884-11-19 07:11 J -28916885.43 -28916885.20 -28916884.96 0.0088 0.0052
 Mars -83882-10-13 18:42 J -28916191.98 -28916191.72 -28916191.43 0.0088 0.0026
 Venus -83845-03-04 00:56 J -28902900.57 -28902900.46 -28902900.33 0.0089 0.0073
 Venus -83845-10-15 12:42 J -28902675.12 -28902674.97 -28902674.79 0.0089 0.0057
 Venus -83844-05-29 00:28 J -28902449.66 -28902449.48 -28902449.28 0.0089 0.0041
 Venus -83843-01-09 12:28 J -28902224.19 -28902223.98 -28902223.78 0.0089 0.0024
 Venus -83843-08-22 23:59 J -28901998.71 -28901998.50 -28901998.28 0.0089 0.0008
 Venus -83842-04-05 11:44 J -28901773.22 -28901773.01 -28901772.80 0.0089 0.0009
 Venus -83842-11-16 23:30 J -28901547.72 -28901547.52 -28901547.31 0.0089 0.0025
 Venus -83841-06-29 11:01 J -28901322.21 -28901322.04 -28901321.84 0.0089 0.0042
 Venus -83840-02-09 22:32 J -28901096.70 -28901096.56 -28901096.38 0.0089 0.0058
 Venus -83840-09-23 10:32 J -28900871.17 -28900871.06 -28900870.94 0.0089 0.0074
 Mercury -83835-02-07 20:37 J -28899272.67 -28899272.64 -28899272.62 0.0089 0.0086
 Mercury -83835-05-06 21:49 J -28899184.64 -28899184.59 -28899184.54 0.0089 0.0082
 Mercury -83835-08-02 23:01 J -28899096.59 -28899096.54 -28899096.47 0.0089 0.0078
 Mercury -83835-10-30 00:13 J -28899008.55 -28899008.49 -28899008.40 0.0089 0.0074
 Mercury -83834-01-26 01:40 J -28898920.50 -28898920.43 -28898920.34 0.0089 0.0070
 Mercury -83834-04-24 03:20 J -28898832.45 -28898832.36 -28898832.27 0.0089 0.0065
 Mercury -83834-07-21 04:32 J -28898744.40 -28898744.31 -28898744.21 0.0089 0.0061
 Mercury -83834-10-17 05:44 J -28898656.35 -28898656.26 -28898656.14 0.0089 0.0057
 Mercury -83833-01-13 07:25 J -28898568.30 -28898568.19 -28898568.08 0.0089 0.0052
 Mercury -83833-04-10 08:37 J -28898480.24 -28898480.14 -28898480.02 0.0089 0.0048
 Mercury -83833-07-07 10:04 J -28898392.19 -28898392.08 -28898391.96 0.0089 0.0044
 Mercury -83833-10-03 11:16 J -28898304.14 -28898304.03 -28898303.90 0.0089 0.0040
 Mercury -83833-12-30 12:56 J -28898216.08 -28898215.96 -28898215.84 0.0089 0.0035
 Mercury -83832-03-28 14:08 J -28898128.03 -28898127.91 -28898127.78 0.0089 0.0031
 Mercury -83832-06-24 15:35 J -28898039.97 -28898039.85 -28898039.71 0.0089 0.0027

Mercury -83832-09-20 17:01 J -28897951.92 -28897951.79 -28897951.65 0.0089 0.0022

Mercury -83832-12-17 18:28 J -28897863.86 -28897863.73 -28897863.60 0.0089 0.0018

Mercury -83831-03-15 19:54 J -28897775.80 -28897775.67 -28897775.54 0.0089 0.0013

Mercury -83831-06-11 21:20 J -28897687.75 -28897687.61 -28897687.48 0.0089 0.0009

Mercury -83831-09-07 22:47 J -28897599.69 -28897599.55 -28897599.42 0.0089 0.0005

Mercury -83831-12-05 00:13 J -28897511.63 -28897511.49 -28897511.36 0.0089 0.0002

Mercury -83830-03-03 01:40 J -28897423.57 -28897423.43 -28897423.30 0.0089 0.0005

Mercury -83830-05-30 02:52 J -28897335.51 -28897335.38 -28897335.24 0.0089 0.0009

Mercury -83830-08-26 04:18 J -28897247.45 -28897247.32 -28897247.18 0.0089 0.0013

Mercury -83830-11-22 05:44 J -28897159.39 -28897159.26 -28897159.12 0.0089 0.0018

Mercury -83829-02-18 07:11 J -28897071.33 -28897071.20 -28897071.07 0.0089 0.0022

Mercury -83829-05-16 08:37 J -28896983.27 -28896983.14 -28896983.01 0.0089 0.0026

Mercury -83829-08-12 10:04 J -28896895.20 -28896895.08 -28896894.95 0.0089 0.0031

Mercury -83829-11-08 11:16 J -28896807.14 -28896807.03 -28896806.89 0.0089 0.0036

Mercury -83828-02-04 12:56 J -28896719.08 -28896718.96 -28896718.83 0.0089 0.0040

Mercury -83828-05-03 14:23 J -28896631.01 -28896630.90 -28896630.78 0.0089 0.0044

Mercury -83828-07-30 15:49 J -28896542.95 -28896542.84 -28896542.72 0.0089 0.0049

Mercury -83828-10-26 17:16 J -28896454.88 -28896454.78 -28896454.66 0.0089 0.0053

Mercury -83827-01-22 18:42 J -28896366.82 -28896366.72 -28896366.61 0.0089 0.0058

Mercury -83827-04-20 20:08 J -28896278.75 -28896278.66 -28896278.55 0.0089 0.0062

Mercury -83827-07-17 21:35 J -28896190.68 -28896190.60 -28896190.50 0.0089 0.0067

Mercury -83827-10-13 23:16 J -28896102.61 -28896102.53 -28896102.45 0.0089 0.0071

Mercury -83826-01-10 00:28 J -28896014.54 -28896014.48 -28896014.40 0.0089 0.0076

Mercury -83826-04-08 02:08 J -28895926.46 -28895926.41 -28895926.35 0.0089 0.0080

Mercury -83826-07-05 03:35 J -28895838.38 -28895838.35 -28895838.30 0.0089 0.0085

Moon -83814-03-26 11:30 J -28891556.16 -28891556.02 -28891555.83 0.0089 0.0069

Earth -83814-03-26 11:59 J -28891556.14 -28891556.00 -28891555.84 0.0089 0.0070 *

Earth -83813-03-27 21:06 J -28891188.82 -28891188.62 -28891188.40 0.0089 0.0047

Moon -83813-03-27 22:18 J -28891188.76 -28891188.57 -28891188.35 0.0089 0.0049 *

Moon -83812-03-30 03:35 J -28890821.59 -28890821.35 -28890821.09 0.0089 0.0023

Earth	-83812-03-30 06:28 J	-28890821.46	-28890821.23	-28890820.98	0.0089	0.0024	*
Earth	-83811-04-01 16:04 J	-28890454.08	-28890453.83	-28890453.58	0.0089	0.0001	
Moon	-83811-04-01 18:56 J	-28890453.95	-28890453.71	-28890453.46	0.0089	0.0003	*
Moon	-83810-04-03 21:35 J	-28890086.83	-28890086.60	-28890086.35	0.0089	0.0025	
Earth	-83810-04-04 01:11 J	-28890086.68	-28890086.45	-28890086.19	0.0089	0.0023	*
Earth	-83809-04-05 10:47 J	-28889719.26	-28889719.05	-28889718.83	0.0089	0.0046	
Moon	-83809-04-05 13:54 J	-28889719.13	-28889718.92	-28889718.69	0.0089	0.0045	*
Moon	-83808-04-07 17:16 J	-28889351.90	-28889351.78	-28889351.61	0.0089	0.0072	
Earth	-83808-04-07 19:54 J	-28889351.80	-28889351.67	-28889351.49	0.0089	0.0070	*
Mars	-83800-07-11 16:32 J	-28886335.15	-28886334.81	-28886334.46	0.0089	0.0003	
Venus	-83764-09-05 21:20 J	-28873129.62	-28873129.61	-28873129.55	0.0089	0.0088	
Venus	-83763-04-19 11:59 J	-28872904.12	-28872904.00	-28872903.85	0.0089	0.0070	
Venus	-83763-12-01 02:08 J	-28872678.57	-28872678.41	-28872678.21	0.0089	0.0053	
Venus	-83762-07-14 16:47 J	-28872453.00	-28872452.80	-28872452.59	0.0089	0.0035	
Venus	-83761-02-25 06:56 J	-28872227.42	-28872227.21	-28872226.98	0.0089	0.0018	
Venus	-83761-10-07 21:35 J	-28872001.83	-28872001.60	-28872001.37	0.0089	0.0001	
Venus	-83760-05-21 11:44 J	-28871776.22	-28871776.01	-28871775.78	0.0089	0.0018	
Venus	-83759-01-02 02:23 J	-28871550.61	-28871550.40	-28871550.19	0.0089	0.0035	
Venus	-83759-08-15 16:18 J	-28871324.99	-28871324.82	-28871324.62	0.0089	0.0053	
Venus	-83758-03-29 06:42 J	-28871099.35	-28871099.22	-28871099.07	0.0089	0.0070	
Venus	-83758-11-09 20:37 J	-28870873.65	-28870873.64	-28870873.58	0.0089	0.0088	
Mercury	-83752-07-28 15:49 J	-28868785.87	-28868785.84	-28868785.77	0.0089	0.0085	
Mercury	-83752-10-24 19:25 J	-28868697.76	-28868697.69	-28868697.59	0.0089	0.0079	
Mercury	-83751-01-20 22:47 J	-28868609.64	-28868609.55	-28868609.42	0.0089	0.0073	
Mercury	-83751-04-19 02:37 J	-28868521.51	-28868521.39	-28868521.25	0.0089	0.0066	
Mercury	-83751-07-16 06:13 J	-28868433.38	-28868433.24	-28868433.09	0.0089	0.0060	
Mercury	-83751-10-12 09:35 J	-28868345.24	-28868345.10	-28868344.94	0.0089	0.0054	
Mercury	-83750-01-08 12:56 J	-28868257.11	-28868256.96	-28868256.78	0.0089	0.0048	
Mercury	-83750-04-06 16:18 J	-28868168.97	-28868168.82	-28868168.63	0.0089	0.0042	
Mercury	-83750-07-03 20:08 J	-28868080.83	-28868080.66	-28868080.48	0.0089	0.0035	

Mercury -83750-09-29 23:30 J -28867992.69 -28867992.52 -28867992.33 0.0089 0.0029

Mercury -83750-12-27 03:06 J -28867904.55 -28867904.37 -28867904.18 0.0089 0.0023

Mercury -83749-03-24 06:28 J -28867816.41 -28867816.23 -28867816.04 0.0089 0.0017

Mercury -83749-06-20 09:49 J -28867728.27 -28867728.09 -28867727.89 0.0089 0.0011

Mercury -83749-09-16 13:25 J -28867640.13 -28867639.94 -28867639.75 0.0089 0.0004

Mercury -83749-12-13 16:47 J -28867551.99 -28867551.80 -28867551.61 0.0089 0.0002

Mercury -83748-03-11 20:08 J -28867463.85 -28867463.66 -28867463.47 0.0089 0.0008

Mercury -83748-06-07 23:30 J -28867375.70 -28867375.52 -28867375.33 0.0089 0.0014

Mercury -83748-09-04 02:52 J -28867287.56 -28867287.38 -28867287.19 0.0089 0.0020

Mercury -83748-12-01 06:13 J -28867199.41 -28867199.24 -28867199.05 0.0088 0.0026

Mercury -83747-02-27 09:35 J -28867111.27 -28867111.10 -28867110.92 0.0088 0.0032

Mercury -83747-05-26 12:42 J -28867023.12 -28867022.97 -28867022.79 0.0088 0.0039

Mercury -83747-08-22 16:04 J -28866934.98 -28866934.83 -28866934.65 0.0088 0.0045

Mercury -83747-11-18 19:25 J -28866846.83 -28866846.69 -28866846.52 0.0088 0.0051

Mercury -83746-02-14 22:47 J -28866758.68 -28866758.55 -28866758.40 0.0088 0.0056

Mercury -83746-05-14 01:54 J -28866670.53 -28866670.42 -28866670.27 0.0088 0.0063

Mercury -83746-08-10 05:16 J -28866582.38 -28866582.28 -28866582.15 0.0088 0.0068

Mercury -83746-11-06 08:52 J -28866494.23 -28866494.13 -28866494.03 0.0088 0.0074

Mercury -83745-02-02 11:59 J -28866406.07 -28866406.00 -28866405.91 0.0088 0.0080

Mercury -83745-04-30 15:06 J -28866317.90 -28866317.87 -28866317.81 0.0088 0.0086

Earth -83733-09-27 08:23 J -28861785.19 -28861785.15 -28861785.05 0.0088 0.0086

Moon -83733-09-27 11:30 J -28861785.03 -28861785.02 -28861784.96 0.0088 0.0088

Moon -83732-09-29 21:35 J -28861417.77 -28861417.60 -28861417.39 0.0088 0.0059

Earth -83732-09-29 23:01 J -28861417.71 -28861417.54 -28861417.33 0.0088 0.0062 *

Earth -83731-10-02 13:11 J -28861050.17 -28861049.95 -28861049.69 0.0088 0.0038

Moon -83731-10-02 14:52 J -28861050.13 -28861049.88 -28861049.64 0.0088 0.0040 *

Earth -83730-10-05 03:35 J -28860682.61 -28860682.35 -28860682.08 0.0088 0.0013

Moon -83730-10-05 04:04 J -28860682.58 -28860682.33 -28860682.07 0.0088 0.0010 *

Moon -83729-10-06 15:49 J -28860315.11 -28860314.84 -28860314.57 0.0088 0.0009

Earth -83729-10-06 17:30 J -28860315.03 -28860314.77 -28860314.50 0.0088 0.0011 *

Earth	-83728-10-09 06:56 J	-28859947.44	-28859947.21	-28859946.95	0.0088	0.0035
Moon	-83728-10-09 09:06 J	-28859947.33	-28859947.12	-28859946.87	0.0088	0.0039 *
Moon	-83727-10-11 17:16 J	-28859579.97	-28859579.78	-28859579.55	0.0088	0.0056
Earth	-83727-10-11 21:06 J	-28859579.81	-28859579.62	-28859579.42	0.0088	0.0059 *
Earth	-83726-10-14 10:18 J	-28859212.14	-28859212.07	-28859211.96	0.0088	0.0083
Moon	-83726-10-14 13:54 J	-28859211.96	-28859211.92	-28859211.84	0.0088	0.0086 *
Jupiter	-83722-10-27 11:44 J	-28857738.37	-28857738.01	-28857737.57	0.0088	0.0060
Mars	-83718-05-29 06:13 J	-28856428.52	-28856428.24	-28856427.95	0.0088	0.0011
Mars	-83716-04-21 16:04 J	-28855734.99	-28855734.83	-28855734.62	0.0088	0.0067
Venus	-83681-06-05 10:47 J	-28842906.11	-28842906.05	-28842905.94	0.0089	0.0081
Venus	-83680-01-16 23:01 J	-28842680.68	-28842680.54	-28842680.39	0.0089	0.0064
Venus	-83680-08-30 10:32 J	-28842455.23	-28842455.06	-28842454.87	0.0089	0.0048
Venus	-83679-04-12 22:04 J	-28842229.76	-28842229.58	-28842229.36	0.0089	0.0032
Venus	-83679-11-24 10:18 J	-28842004.28	-28842004.07	-28842003.86	0.0089	0.0015
Venus	-83678-07-07 22:04 J	-28841778.80	-28841778.58	-28841778.37	0.0089	0.0002
Venus	-83677-02-18 09:35 J	-28841553.30	-28841553.10	-28841552.89	0.0089	0.0018
Venus	-83677-09-30 21:06 J	-28841327.80	-28841327.62	-28841327.41	0.0089	0.0035
Venus	-83676-05-14 08:52 J	-28841102.29	-28841102.13	-28841101.94	0.0089	0.0051
Venus	-83676-12-25 20:37 J	-28840876.77	-28840876.64	-28840876.49	0.0089	0.0067
Venus	-83675-08-08 07:54 J	-28840651.21	-28840651.17	-28840651.07	0.0089	0.0084
Mercury	-83671-11-04 19:25 J	-28839101.71	-28839101.69	-28839101.65	0.0089	0.0086
Mercury	-83670-01-31 20:52 J	-28839013.67	-28839013.63	-28839013.57	0.0089	0.0082
Mercury	-83670-04-29 22:04 J	-28838925.63	-28838925.58	-28838925.50	0.0089	0.0078
Mercury	-83670-07-26 23:44 J	-28838837.58	-28838837.51	-28838837.43	0.0089	0.0073
Mercury	-83670-10-23 00:56 J	-28838749.53	-28838749.46	-28838749.37	0.0089	0.0069
Mercury	-83669-01-19 02:23 J	-28838661.48	-28838661.40	-28838661.30	0.0089	0.0065
Mercury	-83669-04-16 03:35 J	-28838573.43	-28838573.35	-28838573.24	0.0089	0.0061
Mercury	-83669-07-13 05:16 J	-28838485.38	-28838485.28	-28838485.18	0.0089	0.0056
Mercury	-83669-10-09 06:28 J	-28838397.33	-28838397.23	-28838397.11	0.0089	0.0052
Mercury	-83668-01-05 07:54 J	-28838309.28	-28838309.17	-28838309.05	0.0089	0.0047

Mercury -83668-04-03 09:20 J -28838221.22 -28838221.11 -28838220.99 0.0089 0.0043

Mercury -83668-06-30 10:47 J -28838133.17 -28838133.05 -28838132.93 0.0089 0.0039

Mercury -83668-09-26 11:59 J -28838045.12 -28838045.00 -28838044.87 0.0089 0.0035

Mercury -83668-12-23 13:40 J -28837957.06 -28837956.93 -28837956.81 0.0089 0.0030

Mercury -83667-03-21 14:52 J -28837869.00 -28837868.88 -28837868.75 0.0089 0.0026

Mercury -83667-06-17 16:18 J -28837780.95 -28837780.82 -28837780.69 0.0089 0.0021

Mercury -83667-09-13 17:44 J -28837692.89 -28837692.76 -28837692.63 0.0089 0.0017

Mercury -83667-12-10 19:11 J -28837604.83 -28837604.70 -28837604.57 0.0089 0.0013

Mercury -83666-03-08 20:37 J -28837516.78 -28837516.64 -28837516.51 0.0089 0.0008

Mercury -83666-06-04 21:49 J -28837428.72 -28837428.59 -28837428.45 0.0089 0.0005

Mercury -83666-08-31 23:16 J -28837340.66 -28837340.53 -28837340.39 0.0089 0.0003

Mercury -83666-11-28 00:42 J -28837252.60 -28837252.47 -28837252.33 0.0089 0.0006

Mercury -83665-02-24 02:08 J -28837164.54 -28837164.41 -28837164.27 0.0089 0.0010

Mercury -83665-05-22 03:35 J -28837076.48 -28837076.35 -28837076.21 0.0089 0.0014

Mercury -83665-08-18 05:01 J -28836988.42 -28836988.29 -28836988.16 0.0089 0.0018

Mercury -83665-11-14 06:28 J -28836900.36 -28836900.23 -28836900.10 0.0089 0.0023

Mercury -83664-02-10 07:54 J -28836812.30 -28836812.17 -28836812.04 0.0089 0.0027

Mercury -83664-05-09 09:20 J -28836724.24 -28836724.11 -28836723.98 0.0089 0.0032

Mercury -83664-08-05 10:47 J -28836636.17 -28836636.05 -28836635.92 0.0089 0.0036

Mercury -83664-11-01 11:59 J -28836548.11 -28836548.00 -28836547.87 0.0089 0.0041

Mercury -83663-01-28 13:40 J -28836460.04 -28836459.93 -28836459.81 0.0089 0.0045

Mercury -83663-04-26 14:52 J -28836371.98 -28836371.88 -28836371.75 0.0089 0.0050

Mercury -83663-07-23 16:32 J -28836283.91 -28836283.81 -28836283.70 0.0089 0.0054

Mercury -83663-10-19 17:44 J -28836195.85 -28836195.76 -28836195.64 0.0089 0.0059

Mercury -83662-01-15 19:25 J -28836107.78 -28836107.69 -28836107.59 0.0089 0.0063

Mercury -83662-04-13 20:37 J -28836019.71 -28836019.64 -28836019.53 0.0089 0.0068

Mercury -83662-07-10 22:18 J -28835931.64 -28835931.57 -28835931.48 0.0089 0.0072

Mercury -83662-10-06 23:44 J -28835843.57 -28835843.51 -28835843.43 0.0089 0.0077

Mercury -83661-01-03 01:11 J -28835755.49 -28835755.45 -28835755.38 0.0089 0.0081

Mercury -83661-03-31 02:37 J -28835667.41 -28835667.39 -28835667.34 0.0089 0.0086

Earth	-83650-03-25 20:37 J	-28831655.71	-28831655.64	-28831655.51	0.0089	0.0082
Moon	-83650-03-25 22:32 J	-28831655.65	-28831655.56	-28831655.41	0.0089	0.0078 *
Moon	-83649-03-27 03:06 J	-28831288.53	-28831288.37	-28831288.17	0.0089	0.0063
Earth	-83649-03-27 05:44 J	-28831288.42	-28831288.26	-28831288.05	0.0089	0.0059 *
Earth	-83648-03-29 14:52 J	-28830921.09	-28830920.88	-28830920.63	0.0089	0.0036
Moon	-83648-03-29 18:28 J	-28830920.95	-28830920.73	-28830920.48	0.0089	0.0031 *
Moon	-83647-03-31 21:06 J	-28830553.86	-28830553.62	-28830553.37	0.0089	0.0017
Earth	-83647-04-01 00:28 J	-28830553.72	-28830553.48	-28830553.23	0.0089	0.0013 *
Earth	-83646-04-03 09:35 J	-28830186.34	-28830186.10	-28830185.84	0.0089	0.0011
Moon	-83646-04-03 12:56 J	-28830186.20	-28830185.96	-28830185.70	0.0089	0.0015 *
Moon	-83645-04-04 17:16 J	-28829819.01	-28829818.78	-28829818.55	0.0089	0.0029
Earth	-83645-04-04 19:11 J	-28829818.92	-28829818.70	-28829818.46	0.0089	0.0034 *
Earth	-83644-04-07 04:32 J	-28829451.49	-28829451.31	-28829451.10	0.0089	0.0057
Moon	-83644-04-07 05:30 J	-28829451.44	-28829451.27	-28829451.06	0.0089	0.0061 *
Moon	-83643-04-09 13:40 J	-28829084.02	-28829083.93	-28829083.78	0.0089	0.0077
Earth	-83643-04-09 14:23 J	-28829084.00	-28829083.90	-28829083.79	0.0089	0.0080 *
Mars	-83636-02-21 16:47 J	-28826574.08	-28826573.80	-28826573.48	0.0089	0.0043
Mars	-83634-01-19 04:32 J	-28825877.55	-28825877.31	-28825877.00	0.0089	0.0054
Venus	-83599-07-21 18:28 J	-28812909.81	-28812909.73	-28812909.60	0.0089	0.0079
Venus	-83598-03-04 09:06 J	-28812684.28	-28812684.12	-28812683.95	0.0089	0.0061
Venus	-83598-10-15 23:16 J	-28812458.71	-28812458.53	-28812458.32	0.0089	0.0044
Venus	-83597-05-28 13:54 J	-28812233.13	-28812232.92	-28812232.70	0.0089	0.0026
Venus	-83596-01-09 04:18 J	-28812007.55	-28812007.32	-28812007.09	0.0089	0.0008
Venus	-83596-08-22 18:28 J	-28811781.95	-28811781.73	-28811781.50	0.0089	0.0009
Venus	-83595-04-05 08:52 J	-28811556.34	-28811556.13	-28811555.91	0.0089	0.0027
Venus	-83595-11-16 22:47 J	-28811330.73	-28811330.55	-28811330.33	0.0089	0.0045
Venus	-83594-06-30 13:25 J	-28811105.09	-28811104.94	-28811104.77	0.0089	0.0062
Venus	-83593-02-11 03:20 J	-28810879.43	-28810879.36	-28810879.24	0.0089	0.0080
Mercury	-83587-04-24 13:11 J	-28808614.99	-28808614.95	-28808614.88	0.0089	0.0085
Mercury	-83587-07-21 16:32 J	-28808526.87	-28808526.81	-28808526.70	0.0089	0.0079

Mercury -83587-10-17 20:23 J -28808438.75 -28808438.65 -28808438.53 0.0089 0.0072

Mercury -83586-01-13 23:59 J -28808350.62 -28808350.50 -28808350.37 0.0089 0.0066

Mercury -83586-04-12 03:20 J -28808262.49 -28808262.36 -28808262.21 0.0089 0.0060

Mercury -83586-07-09 06:42 J -28808174.35 -28808174.22 -28808174.05 0.0089 0.0054

Mercury -83586-10-05 10:32 J -28808086.22 -28808086.06 -28808085.90 0.0089 0.0047

Mercury -83585-01-01 13:54 J -28807998.08 -28807997.92 -28807997.74 0.0089 0.0041

Mercury -83585-03-29 17:16 J -28807909.94 -28807909.78 -28807909.59 0.0089 0.0035

Mercury -83585-06-25 20:52 J -28807821.80 -28807821.63 -28807821.44 0.0089 0.0029

Mercury -83585-09-22 00:13 J -28807733.67 -28807733.49 -28807733.30 0.0089 0.0023

Mercury -83585-12-19 03:49 J -28807645.52 -28807645.34 -28807645.15 0.0089 0.0016

Mercury -83584-03-17 07:11 J -28807557.38 -28807557.20 -28807557.01 0.0089 0.0010

Mercury -83584-06-13 10:47 J -28807469.24 -28807469.05 -28807468.86 0.0089 0.0004

Mercury -83584-09-09 14:08 J -28807381.10 -28807380.91 -28807380.72 0.0089 0.0002

Mercury -83584-12-06 17:30 J -28807292.96 -28807292.77 -28807292.58 0.0089 0.0008

Mercury -83583-03-04 20:52 J -28807204.81 -28807204.63 -28807204.44 0.0089 0.0015

Mercury -83583-06-01 00:13 J -28807116.67 -28807116.49 -28807116.30 0.0089 0.0021

Mercury -83583-08-28 03:35 J -28807028.53 -28807028.35 -28807028.17 0.0089 0.0027

Mercury -83583-11-24 06:56 J -28806940.38 -28806940.21 -28806940.03 0.0088 0.0033

Mercury -83582-02-20 10:18 J -28806852.23 -28806852.07 -28806851.90 0.0088 0.0039

Mercury -83582-05-19 13:40 J -28806764.09 -28806763.93 -28806763.77 0.0088 0.0045

Mercury -83582-08-15 16:47 J -28806675.94 -28806675.80 -28806675.64 0.0088 0.0051

Mercury -83582-11-11 20:08 J -28806587.79 -28806587.66 -28806587.51 0.0088 0.0057

Mercury -83581-02-07 23:30 J -28806499.64 -28806499.52 -28806499.38 0.0088 0.0063

Mercury -83581-05-06 02:37 J -28806411.49 -28806411.39 -28806411.26 0.0088 0.0069

Mercury -83581-08-02 05:59 J -28806323.34 -28806323.25 -28806323.14 0.0088 0.0074

Mercury -83581-10-29 09:06 J -28806235.18 -28806235.12 -28806235.03 0.0088 0.0081

Mercury -83580-01-25 12:13 J -28806147.01 -28806146.99 -28806146.93 0.0088 0.0087

Moon -83568-09-29 00:13 J -28801517.63 -28801517.49 -28801517.29 0.0088 0.0070

Earth -83568-09-29 00:56 J -28801517.59 -28801517.46 -28801517.30 0.0088 0.0074 *

Earth -83567-10-01 15:20 J -28801150.06 -28801149.86 -28801149.63 0.0088 0.0050

Moon	-83567-10-01 16:32 J	-28801150.00	-28801149.81	-28801149.59	0.0088	0.0054	*
Moon	-83566-10-04 03:35 J	-28800782.61	-28800782.35	-28800782.08	0.0088	0.0022	
Earth	-83566-10-04 05:59 J	-28800782.51	-28800782.25	-28800782.00	0.0088	0.0026	*
Earth	-83565-10-05 19:54 J	-28800414.94	-28800414.67	-28800414.41	0.0088	0.0002	
Moon	-83565-10-05 23:01 J	-28800414.79	-28800414.54	-28800414.27	0.0088	0.0006	*
Moon	-83564-10-08 06:28 J	-28800047.48	-28800047.23	-28800046.97	0.0088	0.0026	
Earth	-83564-10-08 09:35 J	-28800047.34	-28800047.10	-28800046.83	0.0088	0.0023	*
Earth	-83563-10-10 23:44 J	-28799679.73	-28799679.51	-28799679.28	0.0088	0.0046	
Moon	-83563-10-11 03:06 J	-28799679.58	-28799679.37	-28799679.12	0.0088	0.0043	*
Moon	-83562-10-13 09:35 J	-28799312.21	-28799312.10	-28799311.93	0.0088	0.0074	
Earth	-83562-10-13 12:56 J	-28799312.10	-28799311.96	-28799311.78	0.0088	0.0069	*
Jupiter	-83556-12-24 08:23 J	-28797048.64	-28797048.15	-28797047.61	0.0088	0.0026	
Mars	-83554-01-11 15:49 J	-28796665.06	-28796664.84	-28796664.58	0.0088	0.0049	
Mars	-83553-12-05 03:20 J	-28795971.61	-28795971.36	-28795971.06	0.0088	0.0030	
Venus	-83517-09-06 20:37 J	-28782911.64	-28782911.64	-28782911.62	0.0089	0.0088	
Venus	-83516-04-20 08:23 J	-28782686.26	-28782686.15	-28782686.02	0.0089	0.0072	
Venus	-83516-12-01 20:08 J	-28782460.81	-28782460.66	-28782460.48	0.0089	0.0056	
Venus	-83515-07-15 08:08 J	-28782235.35	-28782235.16	-28782234.96	0.0089	0.0039	
Venus	-83514-02-25 19:54 J	-28782009.87	-28782009.67	-28782009.46	0.0089	0.0023	
Venus	-83514-10-09 07:40 J	-28781784.39	-28781784.18	-28781783.96	0.0089	0.0006	
Venus	-83513-05-21 19:25 J	-28781558.90	-28781558.69	-28781558.47	0.0089	0.0011	
Venus	-83512-01-02 07:11 J	-28781333.40	-28781333.20	-28781332.99	0.0089	0.0027	
Venus	-83512-08-15 18:28 J	-28781107.90	-28781107.73	-28781107.53	0.0089	0.0044	
Venus	-83511-03-29 06:13 J	-28780882.38	-28780882.24	-28780882.07	0.0089	0.0060	
Venus	-83511-11-09 18:28 J	-28780656.84	-28780656.73	-28780656.62	0.0089	0.0076	
Mercury	-83506-08-01 18:28 J	-28778930.75	-28778930.73	-28778930.69	0.0089	0.0086	
Mercury	-83506-10-28 19:54 J	-28778842.71	-28778842.67	-28778842.61	0.0089	0.0082	
Mercury	-83505-01-24 21:20 J	-28778754.67	-28778754.61	-28778754.54	0.0089	0.0077	
Mercury	-83505-04-21 22:47 J	-28778666.62	-28778666.55	-28778666.47	0.0089	0.0073	
Mercury	-83505-07-18 23:59 J	-28778578.57	-28778578.50	-28778578.41	0.0089	0.0069	

Mercury -83505-10-15 01:11 J -28778490.52 -28778490.45 -28778490.34 0.0089 0.0065

Mercury -83504-01-11 02:52 J -28778402.47 -28778402.38 -28778402.28 0.0089 0.0060

Mercury -83504-04-09 04:04 J -28778314.42 -28778314.33 -28778314.22 0.0089 0.0056

Mercury -83504-07-06 05:30 J -28778226.37 -28778226.27 -28778226.15 0.0089 0.0052

Mercury -83504-10-02 06:42 J -28778138.32 -28778138.22 -28778138.09 0.0089 0.0048

Mercury -83504-12-29 08:23 J -28778050.26 -28778050.15 -28778050.03 0.0089 0.0043

Mercury -83503-03-27 09:35 J -28777962.21 -28777962.10 -28777961.97 0.0089 0.0039

Mercury -83503-06-23 11:16 J -28777874.16 -28777874.03 -28777873.91 0.0089 0.0034

Mercury -83503-09-19 12:28 J -28777786.10 -28777785.98 -28777785.85 0.0089 0.0030

Mercury -83503-12-16 13:54 J -28777698.05 -28777697.92 -28777697.79 0.0089 0.0026

Mercury -83502-03-14 15:20 J -28777609.99 -28777609.86 -28777609.73 0.0089 0.0021

Mercury -83502-06-10 16:47 J -28777521.93 -28777521.80 -28777521.67 0.0089 0.0017

Mercury -83502-09-06 17:59 J -28777433.88 -28777433.75 -28777433.61 0.0089 0.0013

Mercury -83502-12-03 19:40 J -28777345.82 -28777345.68 -28777345.55 0.0089 0.0008

Mercury -83501-02-29 20:52 J -28777257.76 -28777257.63 -28777257.49 0.0089 0.0005

Mercury -83501-05-27 22:18 J -28777169.70 -28777169.57 -28777169.43 0.0089 0.0003

Mercury -83501-08-23 23:44 J -28777081.64 -28777081.51 -28777081.37 0.0089 0.0006

Mercury -83501-11-20 01:11 J -28776993.58 -28776993.45 -28776993.31 0.0089 0.0010

Mercury -83500-02-16 02:37 J -28776905.52 -28776905.39 -28776905.25 0.0089 0.0014

Mercury -83500-05-15 04:04 J -28776817.46 -28776817.33 -28776817.20 0.0089 0.0019

Mercury -83500-08-11 05:30 J -28776729.40 -28776729.27 -28776729.14 0.0089 0.0023

Mercury -83500-11-07 06:42 J -28776641.34 -28776641.22 -28776641.08 0.0089 0.0028

Mercury -83499-02-03 08:23 J -28776553.28 -28776553.15 -28776553.02 0.0089 0.0032

Mercury -83499-05-02 09:35 J -28776465.21 -28776465.10 -28776464.97 0.0089 0.0037

Mercury -83499-07-29 11:01 J -28776377.15 -28776377.04 -28776376.91 0.0089 0.0041

Mercury -83499-10-25 12:42 J -28776289.09 -28776288.97 -28776288.85 0.0089 0.0045

Mercury -83498-01-21 13:54 J -28776201.02 -28776200.92 -28776200.80 0.0089 0.0050

Mercury -83498-04-19 15:35 J -28776112.96 -28776112.85 -28776112.74 0.0089 0.0054

Mercury -83498-07-16 16:47 J -28776024.89 -28776024.80 -28776024.69 0.0089 0.0059

Mercury -83498-10-12 18:28 J -28775936.82 -28775936.73 -28775936.63 0.0089 0.0063

Mercury -83497-01-08 19:40 J -28775848.75 -28775848.68 -28775848.58 0.0089 0.0068

Mercury -83497-04-05 21:20 J -28775760.68 -28775760.61 -28775760.53 0.0089 0.0072

Mercury -83497-07-02 22:47 J -28775672.61 -28775672.55 -28775672.48 0.0089 0.0077

Mercury -83497-09-29 00:28 J -28775584.53 -28775584.48 -28775584.43 0.0089 0.0081

Mercury -83497-12-26 01:40 J -28775496.45 -28775496.43 -28775496.39 0.0089 0.0086

Earth -83485-03-26 14:23 J -28771388.03 -28771387.90 -28771387.73 0.0089 0.0070

Moon -83485-03-26 17:44 J -28771387.90 -28771387.76 -28771387.59 0.0089 0.0069 *

Moon -83484-03-28 20:23 J -28771020.86 -28771020.65 -28771020.44 0.0089 0.0048

Earth -83484-03-28 23:59 J -28771020.71 -28771020.50 -28771020.29 0.0089 0.0047 *

Earth -83483-03-31 08:37 J -28770653.37 -28770653.14 -28770652.89 0.0089 0.0025

Moon -83483-03-31 11:16 J -28770653.27 -28770653.03 -28770652.77 0.0089 0.0024 *

Moon -83482-04-02 16:18 J -28770286.06 -28770285.82 -28770285.58 0.0089 0.0003

Earth -83482-04-02 18:13 J -28770286.00 -28770285.74 -28770285.49 0.0089 0.0002 *

Earth -83481-04-04 03:06 J -28769918.60 -28769918.37 -28769918.11 0.0089 0.0022

Moon -83481-04-04 03:49 J -28769918.58 -28769918.34 -28769918.07 0.0089 0.0023 *

Earth -83480-04-06 12:13 J -28769551.18 -28769550.99 -28769550.75 0.0089 0.0045

Moon -83480-04-06 13:40 J -28769551.13 -28769550.93 -28769550.71 0.0089 0.0044 *

Moon -83479-04-08 20:08 J -28769183.81 -28769183.66 -28769183.48 0.0089 0.0068

Earth -83479-04-08 21:49 J -28769183.73 -28769183.59 -28769183.40 0.0089 0.0068 *

Mars -83473-10-04 19:11 J -28766812.70 -28766812.70 -28766812.68 0.0089 0.0089

Mars -83471-09-01 04:18 J -28766116.65 -28766116.32 -28766115.97 0.0089 0.0007

Venus -83435-10-23 00:42 J -28752915.47 -28752915.47 -28752915.40 0.0089 0.0088

Venus -83434-06-05 15:20 J -28752689.98 -28752689.86 -28752689.70 0.0089 0.0070

Venus -83433-01-17 05:30 J -28752464.43 -28752464.27 -28752464.07 0.0089 0.0053

Venus -83433-08-29 19:54 J -28752238.87 -28752238.67 -28752238.45 0.0089 0.0035

Venus -83432-04-12 10:32 J -28752013.28 -28752013.06 -28752012.84 0.0089 0.0017

Venus -83432-11-24 00:42 J -28751787.69 -28751787.47 -28751787.24 0.0089 0.0001

Venus -83431-07-07 14:52 J -28751562.09 -28751561.88 -28751561.65 0.0089 0.0018

Venus -83430-02-18 05:01 J -28751336.49 -28751336.29 -28751336.07 0.0089 0.0036

Venus -83430-10-01 19:11 J -28751110.86 -28751110.70 -28751110.50 0.0089 0.0054

Venus -83429-05-14 09:49 J -28750885.21 -28750885.09 -28750884.95 0.0089 0.0071

Venus -83429-12-26 00:13 J -28750659.49 -28750659.49 -28750659.47 0.0089 0.0088

Mercury -83422-01-19 10:18 J -28748444.11 -28748444.07 -28748444.01 0.0089 0.0085

Mercury -83422-04-17 13:40 J -28748356.00 -28748355.93 -28748355.83 0.0089 0.0079

Mercury -83422-07-14 17:01 J -28748267.88 -28748267.79 -28748267.66 0.0089 0.0073

Mercury -83422-10-10 21:06 J -28748179.75 -28748179.62 -28748179.49 0.0089 0.0066

Mercury -83421-01-07 00:28 J -28748091.61 -28748091.48 -28748091.33 0.0089 0.0060

Mercury -83421-04-04 03:49 J -28748003.48 -28748003.34 -28748003.18 0.0089 0.0054

Mercury -83421-07-01 07:11 J -28747915.34 -28747915.20 -28747915.02 0.0089 0.0048

Mercury -83421-09-27 10:47 J -28747827.21 -28747827.05 -28747826.87 0.0089 0.0041

Mercury -83421-12-24 14:23 J -28747739.07 -28747738.90 -28747738.72 0.0089 0.0035

Mercury -83420-03-22 17:59 J -28747650.93 -28747650.75 -28747650.57 0.0089 0.0029

Mercury -83420-06-18 21:20 J -28747562.79 -28747562.61 -28747562.42 0.0089 0.0023

Mercury -83420-09-15 00:42 J -28747474.65 -28747474.47 -28747474.28 0.0089 0.0017

Mercury -83420-12-12 04:18 J -28747386.51 -28747386.32 -28747386.13 0.0089 0.0010

Mercury -83419-03-10 07:40 J -28747298.37 -28747298.18 -28747297.99 0.0089 0.0004

Mercury -83419-06-06 11:16 J -28747210.22 -28747210.03 -28747209.84 0.0088 0.0003

Mercury -83419-09-02 14:23 J -28747122.08 -28747121.90 -28747121.70 0.0088 0.0009

Mercury -83419-11-29 17:44 J -28747033.94 -28747033.76 -28747033.56 0.0088 0.0015

Mercury -83418-02-25 21:06 J -28746945.79 -28746945.62 -28746945.43 0.0088 0.0021

Mercury -83418-05-25 00:28 J -28746857.65 -28746857.48 -28746857.29 0.0088 0.0027

Mercury -83418-08-21 03:49 J -28746769.50 -28746769.34 -28746769.15 0.0088 0.0033

Mercury -83418-11-17 07:11 J -28746681.36 -28746681.20 -28746681.02 0.0088 0.0039

Mercury -83417-02-13 10:32 J -28746593.21 -28746593.06 -28746592.89 0.0088 0.0045

Mercury -83417-05-11 13:54 J -28746505.06 -28746504.92 -28746504.76 0.0088 0.0051

Mercury -83417-08-07 17:16 J -28746416.92 -28746416.78 -28746416.63 0.0088 0.0057

Mercury -83417-11-03 20:23 J -28746328.77 -28746328.65 -28746328.50 0.0088 0.0063

Mercury -83416-01-30 23:44 J -28746240.61 -28746240.51 -28746240.38 0.0088 0.0069

Mercury -83416-04-29 02:52 J -28746152.46 -28746152.38 -28746152.26 0.0088 0.0075

Mercury -83416-07-26 06:13 J -28746064.30 -28746064.24 -28746064.15 0.0088 0.0081

Mercury -83416-10-22 09:20 J -28745976.12 -28745976.11 -28745976.04 0.0088 0.0087
 Earth -83404-09-28 01:54 J -28741617.45 -28741617.42 -28741617.34 0.0088 0.0087
 Moon -83404-09-28 04:18 J -28741617.33 -28741617.32 -28741617.27 0.0088 0.0088
 Moon -83403-09-30 12:56 J -28741250.12 -28741249.96 -28741249.73 0.0088 0.0063
 Earth -83403-09-30 16:32 J -28741249.98 -28741249.81 -28741249.60 0.0088 0.0063 *
 Earth -83402-10-03 06:56 J -28740882.44 -28740882.21 -28740881.97 0.0088 0.0039
 Moon -83402-10-03 09:49 J -28740882.30 -28740882.09 -28740881.83 0.0088 0.0042 *
 Moon -83401-10-04 17:30 J -28740515.03 -28740514.77 -28740514.50 0.0088 0.0013
 Earth -83401-10-04 21:20 J -28740514.87 -28740514.61 -28740514.34 0.0088 0.0015 *
 Earth -83400-10-07 11:30 J -28740147.28 -28740147.02 -28740146.75 0.0088 0.0009
 Moon -83400-10-07 14:37 J -28740147.15 -28740146.89 -28740146.61 0.0088 0.0008 *
 Moon -83399-10-09 22:04 J -28739779.80 -28739779.58 -28739779.32 0.0088 0.0036
 Earth -83399-10-10 01:11 J -28739779.68 -28739779.45 -28739779.19 0.0088 0.0033 *
 Earth -83398-10-12 14:37 J -28739412.07 -28739411.89 -28739411.66 0.0088 0.0057
 Moon -83398-10-12 16:47 J -28739412.00 -28739411.80 -28739411.56 0.0088 0.0054 *
 Moon -83397-10-14 04:18 J -28739044.41 -28739044.32 -28739044.22 0.0088 0.0082
 Earth -83397-10-14 04:18 J -28739044.41 -28739044.32 -28739044.18 0.0088 0.0080 *
 Mars -83391-08-26 22:32 J -28736901.56 -28736901.56 -28736901.51 0.0088 0.0088
 Jupiter -83389-02-23 17:01 J -28736356.33 -28736355.79 -28736355.25 0.0088 0.0007
 Mars -83389-07-20 11:30 J -28736208.29 -28736208.02 -28736207.72 0.0088 0.0011
 Mars -83387-06-13 22:47 J -28735514.70 -28735514.55 -28735514.34 0.0088 0.0068
 Venus -83352-07-22 17:01 J -28722691.86 -28722691.79 -28722691.69 0.0089 0.0081
 Venus -83351-03-05 04:47 J -28722466.43 -28722466.30 -28722466.14 0.0089 0.0064
 Venus -83351-10-16 16:47 J -28722240.96 -28722240.80 -28722240.61 0.0089 0.0048
 Venus -83350-05-30 05:01 J -28722015.49 -28722015.29 -28722015.09 0.0089 0.0031
 Venus -83349-01-10 16:32 J -28721790.01 -28721789.81 -28721789.59 0.0089 0.0015
 Venus -83349-08-23 04:32 J -28721564.53 -28721564.31 -28721564.10 0.0089 0.0002
 Venus -83348-04-05 16:04 J -28721339.03 -28721338.83 -28721338.61 0.0089 0.0019
 Venus -83348-11-17 03:49 J -28721113.52 -28721113.34 -28721113.13 0.0089 0.0036
 Venus -83347-06-30 15:35 J -28720888.01 -28720887.85 -28720887.67 0.0089 0.0052

Venus -83346-02-11 03:06 J -28720662.49 -28720662.37 -28720662.22 0.0089 0.0069

Venus -83346-09-24 14:52 J -28720436.92 -28720436.88 -28720436.80 0.0089 0.0085

Mercury -83341-04-27 17:30 J -28718759.79 -28718759.77 -28718759.73 0.0089 0.0086

Mercury -83341-07-24 18:42 J -28718671.76 -28718671.72 -28718671.66 0.0089 0.0082

Mercury -83341-10-20 20:23 J -28718583.71 -28718583.65 -28718583.59 0.0089 0.0077

Mercury -83340-01-16 21:35 J -28718495.67 -28718495.60 -28718495.52 0.0089 0.0073

Mercury -83340-04-14 23:01 J -28718407.62 -28718407.54 -28718407.45 0.0089 0.0069

Mercury -83340-07-12 00:13 J -28718319.57 -28718319.49 -28718319.39 0.0089 0.0065

Mercury -83340-10-08 01:54 J -28718231.52 -28718231.42 -28718231.32 0.0089 0.0060

Mercury -83339-01-04 03:06 J -28718143.47 -28718143.37 -28718143.26 0.0089 0.0056

Mercury -83339-04-02 04:18 J -28718055.42 -28718055.32 -28718055.20 0.0089 0.0052

Mercury -83339-06-29 05:59 J -28717967.36 -28717967.25 -28717967.14 0.0089 0.0047

Mercury -83339-09-25 07:11 J -28717879.31 -28717879.20 -28717879.08 0.0089 0.0043

Mercury -83339-12-22 08:37 J -28717791.26 -28717791.14 -28717791.01 0.0089 0.0039

Mercury -83338-03-20 10:04 J -28717703.20 -28717703.08 -28717702.95 0.0089 0.0034

Mercury -83338-06-16 11:30 J -28717615.15 -28717615.02 -28717614.89 0.0089 0.0030

Mercury -83338-09-12 12:42 J -28717527.09 -28717526.97 -28717526.83 0.0089 0.0026

Mercury -83338-12-09 14:23 J -28717439.03 -28717438.90 -28717438.77 0.0089 0.0021

Mercury -83337-03-06 15:35 J -28717350.98 -28717350.85 -28717350.71 0.0089 0.0017

Mercury -83337-06-02 17:01 J -28717262.92 -28717262.79 -28717262.65 0.0089 0.0013

Mercury -83337-08-29 18:28 J -28717174.86 -28717174.73 -28717174.59 0.0089 0.0008

Mercury -83337-11-25 19:54 J -28717086.80 -28717086.67 -28717086.53 0.0089 0.0003

Mercury -83336-02-21 21:20 J -28716998.75 -28716998.61 -28716998.48 0.0089 0.0001

Mercury -83336-05-20 22:47 J -28716910.69 -28716910.55 -28716910.42 0.0089 0.0005

Mercury -83336-08-17 00:13 J -28716822.63 -28716822.49 -28716822.36 0.0089 0.0010

Mercury -83336-11-13 01:25 J -28716734.57 -28716734.44 -28716734.30 0.0089 0.0015

Mercury -83335-02-09 02:52 J -28716646.51 -28716646.38 -28716646.24 0.0089 0.0019

Mercury -83335-05-08 04:18 J -28716558.45 -28716558.32 -28716558.18 0.0089 0.0023

Mercury -83335-08-04 05:44 J -28716470.38 -28716470.26 -28716470.13 0.0089 0.0028

Mercury -83335-10-31 07:11 J -28716382.32 -28716382.20 -28716382.07 0.0089 0.0032

Mercury -83334-01-27 08:37 J -28716294.26 -28716294.14 -28716294.01 0.0089 0.0037
 Mercury -83334-04-25 10:04 J -28716206.20 -28716206.08 -28716205.95 0.0089 0.0041
 Mercury -83334-07-22 11:30 J -28716118.13 -28716118.02 -28716117.90 0.0089 0.0046
 Mercury -83334-10-18 12:56 J -28716030.07 -28716029.96 -28716029.84 0.0089 0.0050
 Mercury -83333-01-14 14:23 J -28715942.00 -28715941.90 -28715941.79 0.0089 0.0055
 Mercury -83333-04-11 15:49 J -28715853.93 -28715853.84 -28715853.73 0.0089 0.0059
 Mercury -83333-07-08 17:16 J -28715765.87 -28715765.78 -28715765.68 0.0089 0.0064
 Mercury -83333-10-04 18:42 J -28715677.80 -28715677.72 -28715677.62 0.0089 0.0068
 Mercury -83333-12-31 20:08 J -28715589.73 -28715589.66 -28715589.57 0.0089 0.0073
 Mercury -83332-03-29 21:35 J -28715501.66 -28715501.60 -28715501.52 0.0089 0.0077
 Mercury -83332-06-25 23:01 J -28715413.58 -28715413.54 -28715413.48 0.0089 0.0082
 Mercury -83332-09-22 00:42 J -28715325.50 -28715325.47 -28715325.43 0.0089 0.0086
 Moon -83321-03-25 19:25 J -28711487.80 -28711487.69 -28711487.57 0.0089 0.0077
 Earth -83321-03-25 21:49 J -28711487.66 -28711487.59 -28711487.47 0.0089 0.0082 *
 Earth -83320-03-28 06:56 J -28711120.38 -28711120.21 -28711120.01 0.0089 0.0059
 Moon -83320-03-28 09:20 J -28711120.26 -28711120.11 -28711119.90 0.0089 0.0064 *
 Moon -83319-03-30 15:06 J -28710753.09 -28710752.87 -28710752.64 0.0089 0.0032
 Earth -83319-03-30 16:04 J -28710753.04 -28710752.83 -28710752.59 0.0089 0.0037 *
 Moon -83318-04-02 01:11 J -28710385.70 -28710385.45 -28710385.19 0.0089 0.0018
 Earth -83318-04-02 01:25 J -28710385.68 -28710385.44 -28710385.19 0.0089 0.0014 *
 Earth -83317-04-03 10:32 J -28710018.31 -28710018.06 -28710017.81 0.0089 0.0009
 Moon -83317-04-03 11:16 J -28710018.26 -28710018.03 -28710017.78 0.0089 0.0014 *
 Moon -83316-04-05 17:01 J -28709651.02 -28709650.79 -28709650.53 0.0089 0.0027
 Earth -83316-04-05 19:40 J -28709650.90 -28709650.68 -28709650.43 0.0089 0.0032 *
 Earth -83315-04-08 04:47 J -28709283.48 -28709283.30 -28709283.08 0.0089 0.0055
 Moon -83315-04-08 08:08 J -28709283.33 -28709283.16 -28709282.97 0.0089 0.0059 *
 Moon -83314-04-10 11:01 J -28708916.17 -28708916.04 -28708915.88 0.0089 0.0073
 Earth -83314-04-10 14:08 J -28708916.00 -28708915.91 -28708915.76 0.0089 0.0078 *
 Saturn -83312-11-02 19:40 J -28707979.26 -28707978.68 -28707978.03 0.0089 0.0045
 Mars -83307-04-14 04:18 J -28706355.60 -28706355.32 -28706354.99 0.0089 0.0040

Mars	-83305-03-10 14:23 J	-28705659.15	-28705658.90	-28705658.62	0.0089	0.0056
Venus	-83270-09-06 21:49 J	-28692695.68	-28692695.59	-28692695.48	0.0089	0.0079
Venus	-83269-04-19 12:28 J	-28692470.14	-28692469.98	-28692469.82	0.0089	0.0061
Venus	-83269-12-01 02:23 J	-28692244.59	-28692244.40	-28692244.19	0.0089	0.0044
Venus	-83268-07-14 16:47 J	-28692019.02	-28692018.80	-28692018.58	0.0089	0.0026
Venus	-83267-02-25 06:56 J	-28691793.43	-28691793.21	-28691792.98	0.0089	0.0008
Venus	-83267-10-08 21:06 J	-28691567.84	-28691567.62	-28691567.39	0.0089	0.0010
Venus	-83266-05-22 11:30 J	-28691342.23	-28691342.02	-28691341.80	0.0089	0.0027
Venus	-83265-01-03 01:40 J	-28691116.62	-28691116.43	-28691116.22	0.0089	0.0045
Venus	-83265-08-15 15:35 J	-28690890.99	-28690890.85	-28690890.67	0.0089	0.0063
Venus	-83264-03-29 05:59 J	-28690665.33	-28690665.25	-28690665.14	0.0089	0.0080
Mercury	-83258-10-16 06:56 J	-28688273.24	-28688273.21	-28688273.14	0.0089	0.0086
Mercury	-83257-01-12 10:47 J	-28688185.13	-28688185.05	-28688184.96	0.0089	0.0079
Mercury	-83257-04-09 14:08 J	-28688097.00	-28688096.91	-28688096.79	0.0089	0.0073
Mercury	-83257-07-06 17:30 J	-28688008.88	-28688008.77	-28688008.62	0.0089	0.0067
Mercury	-83257-10-02 21:06 J	-28687920.74	-28687920.62	-28687920.46	0.0089	0.0061
Mercury	-83257-12-30 00:56 J	-28687832.61	-28687832.46	-28687832.31	0.0089	0.0054
Mercury	-83256-03-28 04:18 J	-28687744.47	-28687744.32	-28687744.15	0.0089	0.0048
Mercury	-83256-06-24 07:40 J	-28687656.34	-28687656.18	-28687656.00	0.0089	0.0042
Mercury	-83256-09-20 11:01 J	-28687568.20	-28687568.04	-28687567.85	0.0089	0.0036
Mercury	-83256-12-17 14:37 J	-28687480.06	-28687479.89	-28687479.70	0.0089	0.0029
Mercury	-83255-03-15 18:13 J	-28687391.92	-28687391.74	-28687391.55	0.0089	0.0023
Mercury	-83255-06-11 21:49 J	-28687303.78	-28687303.59	-28687303.41	0.0089	0.0017
Mercury	-83255-09-08 01:11 J	-28687215.64	-28687215.45	-28687215.26	0.0089	0.0011
Mercury	-83255-12-05 04:32 J	-28687127.50	-28687127.31	-28687127.12	0.0089	0.0005
Mercury	-83254-03-03 07:54 J	-28687039.36	-28687039.17	-28687038.98	0.0089	0.0003
Mercury	-83254-05-30 11:30 J	-28686951.21	-28686951.02	-28686950.83	0.0088	0.0008
Mercury	-83254-08-26 14:52 J	-28686863.07	-28686862.88	-28686862.69	0.0088	0.0014
Mercury	-83254-11-22 18:13 J	-28686774.92	-28686774.74	-28686774.56	0.0088	0.0020
Mercury	-83253-02-18 21:20 J	-28686686.78	-28686686.61	-28686686.42	0.0088	0.0026

Mercury -83253-05-17 00:42 J -28686598.64 -28686598.47 -28686598.28 0.0088 0.0032
 Mercury -83253-08-13 04:04 J -28686510.49 -28686510.33 -28686510.15 0.0088 0.0038
 Mercury -83253-11-09 07:25 J -28686422.34 -28686422.19 -28686422.02 0.0088 0.0044
 Mercury -83252-02-05 10:32 J -28686334.20 -28686334.06 -28686333.89 0.0088 0.0051
 Mercury -83252-05-04 13:54 J -28686246.05 -28686245.92 -28686245.76 0.0088 0.0057
 Mercury -83252-07-31 17:16 J -28686157.90 -28686157.78 -28686157.63 0.0088 0.0062
 Mercury -83252-10-27 20:23 J -28686069.74 -28686069.65 -28686069.51 0.0088 0.0069
 Mercury -83251-01-24 00:13 J -28685981.59 -28685981.49 -28685981.39 0.0088 0.0074
 Mercury -83251-04-22 03:20 J -28685893.43 -28685893.36 -28685893.27 0.0088 0.0080
 Mercury -83251-07-19 06:42 J -28685805.26 -28685805.22 -28685805.17 0.0088 0.0086
 Earth -83239-09-29 16:47 J -28681349.91 -28681349.80 -28681349.64 0.0088 0.0076
 Moon -83239-09-29 20:52 J -28681349.77 -28681349.63 -28681349.46 0.0088 0.0071 *
 Moon -83238-10-02 04:04 J -28680982.51 -28680982.33 -28680982.11 0.0088 0.0056
 Earth -83238-10-02 07:40 J -28680982.39 -28680982.18 -28680981.96 0.0088 0.0052 *
 Earth -83237-10-03 21:49 J -28680614.83 -28680614.59 -28680614.33 0.0088 0.0028
 Moon -83237-10-04 00:56 J -28680614.70 -28680614.46 -28680614.18 0.0088 0.0025 *
 Moon -83236-10-06 10:18 J -28680247.32 -28680247.07 -28680246.81 0.0088 0.0009
 Earth -83236-10-06 12:13 J -28680247.25 -28680246.99 -28680246.72 0.0088 0.0005 *
 Earth -83235-10-09 02:08 J -28679879.66 -28679879.41 -28679879.14 0.0088 0.0019
 Moon -83235-10-09 03:20 J -28679879.62 -28679879.36 -28679879.09 0.0088 0.0023 *
 Earth -83234-10-11 16:18 J -28679512.05 -28679511.82 -28679511.58 0.0088 0.0043
 Moon -83234-10-11 16:04 J -28679512.05 -28679511.83 -28679511.59 0.0088 0.0039 *
 Moon -83233-10-13 04:04 J -28679144.47 -28679144.33 -28679144.14 0.0088 0.0070
 Earth -83233-10-13 06:13 J -28679144.41 -28679144.24 -28679144.06 0.0088 0.0066 *
 Moon -83232-10-15 21:49 J -28678776.63 -28678776.59 -28678776.51 0.0088 0.0086
 Mars -83225-03-04 17:01 J -28676445.00 -28676444.79 -28676444.52 0.0088 0.0049
 Mars -83223-01-27 05:16 J -28675751.53 -28675751.28 -28675750.99 0.0088 0.0030
 Jupiter -83223-04-24 21:06 J -28675664.06 -28675663.62 -28675663.09 0.0088 0.0040
 Venus -83187-06-06 13:40 J -28662472.04 -28662471.93 -28662471.80 0.0089 0.0073
 Venus -83186-01-18 01:11 J -28662246.60 -28662246.45 -28662246.27 0.0089 0.0057

Venus	-83186-08-31 13:11 J	-28662021.13	-28662020.95	-28662020.75	0.0089	0.0040
Venus	-83185-04-13 00:56 J	-28661795.66	-28661795.46	-28661795.25	0.0089	0.0023
Venus	-83185-11-24 12:56 J	-28661570.17	-28661569.96	-28661569.74	0.0089	0.0007
Venus	-83184-07-08 00:42 J	-28661344.68	-28661344.47	-28661344.25	0.0089	0.0010
Venus	-83183-02-18 12:28 J	-28661119.18	-28661118.98	-28661118.77	0.0089	0.0027
Venus	-83183-10-01 23:59 J	-28660893.67	-28660893.50	-28660893.30	0.0089	0.0044
Venus	-83182-05-15 11:44 J	-28660668.15	-28660668.01	-28660667.84	0.0089	0.0060
Venus	-83182-12-26 23:16 J	-28660442.61	-28660442.53	-28660442.40	0.0089	0.0077
Mercury	-83176-01-22 16:32 J	-28658588.84	-28658588.81	-28658588.78	0.0089	0.0086
Mercury	-83176-04-20 17:44 J	-28658500.80	-28658500.76	-28658500.71	0.0089	0.0082
Mercury	-83176-07-17 18:56 J	-28658412.76	-28658412.71	-28658412.64	0.0089	0.0078
Mercury	-83176-10-13 20:08 J	-28658324.72	-28658324.66	-28658324.57	0.0089	0.0074
Mercury	-83175-01-09 21:49 J	-28658236.67	-28658236.59	-28658236.50	0.0089	0.0069
Mercury	-83175-04-07 23:01 J	-28658148.62	-28658148.54	-28658148.44	0.0089	0.0065
Mercury	-83175-07-05 00:28 J	-28658060.57	-28658060.48	-28658060.38	0.0089	0.0061
Mercury	-83175-10-01 01:40 J	-28657972.52	-28657972.43	-28657972.31	0.0089	0.0057
Mercury	-83175-12-28 03:20 J	-28657884.47	-28657884.36	-28657884.25	0.0089	0.0052
Mercury	-83174-03-26 04:32 J	-28657796.41	-28657796.31	-28657796.19	0.0089	0.0048
Mercury	-83174-06-22 05:59 J	-28657708.36	-28657708.25	-28657708.13	0.0089	0.0043
Mercury	-83174-09-18 07:25 J	-28657620.31	-28657620.19	-28657620.07	0.0089	0.0039
Mercury	-83174-12-15 08:37 J	-28657532.25	-28657532.14	-28657532.01	0.0089	0.0035
Mercury	-83173-03-12 10:04 J	-28657444.20	-28657444.08	-28657443.95	0.0089	0.0031
Mercury	-83173-06-08 11:30 J	-28657356.14	-28657356.02	-28657355.89	0.0089	0.0026
Mercury	-83173-09-04 12:56 J	-28657268.09	-28657267.96	-28657267.83	0.0089	0.0022
Mercury	-83173-12-01 14:23 J	-28657180.03	-28657179.90	-28657179.77	0.0089	0.0017
Mercury	-83172-02-27 15:49 J	-28657091.97	-28657091.84	-28657091.71	0.0089	0.0013
Mercury	-83172-05-26 17:16 J	-28657003.92	-28657003.78	-28657003.65	0.0089	0.0008
Mercury	-83172-08-22 18:42 J	-28656915.86	-28656915.72	-28656915.59	0.0089	0.0004
Mercury	-83172-11-18 20:08 J	-28656827.80	-28656827.66	-28656827.53	0.0089	0.0002
Mercury	-83171-02-14 21:20 J	-28656739.74	-28656739.61	-28656739.47	0.0089	0.0006

Mercury -83171-05-13 22:47 J -28656651.68 -28656651.55 -28656651.41 0.0089 0.0010

Mercury -83171-08-10 00:13 J -28656563.62 -28656563.49 -28656563.35 0.0089 0.0014

Mercury -83171-11-06 01:40 J -28656475.56 -28656475.43 -28656475.29 0.0089 0.0019

Mercury -83170-02-02 03:06 J -28656387.50 -28656387.37 -28656387.24 0.0089 0.0023

Mercury -83170-05-01 04:32 J -28656299.44 -28656299.31 -28656299.18 0.0089 0.0027

Mercury -83170-07-28 05:59 J -28656211.37 -28656211.25 -28656211.12 0.0089 0.0032

Mercury -83170-10-24 07:25 J -28656123.31 -28656123.19 -28656123.06 0.0089 0.0036

Mercury -83169-01-20 08:52 J -28656035.25 -28656035.13 -28656035.01 0.0089 0.0041

Mercury -83169-04-17 10:18 J -28655947.18 -28655947.07 -28655946.95 0.0089 0.0045

Mercury -83169-07-14 11:44 J -28655859.12 -28655859.01 -28655858.90 0.0089 0.0050

Mercury -83169-10-10 13:11 J -28655771.05 -28655770.95 -28655770.84 0.0089 0.0054

Mercury -83168-01-06 14:37 J -28655682.99 -28655682.89 -28655682.78 0.0089 0.0059

Mercury -83168-04-04 16:04 J -28655594.92 -28655594.83 -28655594.73 0.0089 0.0063

Mercury -83168-07-01 17:30 J -28655506.85 -28655506.77 -28655506.68 0.0089 0.0068

Mercury -83168-09-27 19:11 J -28655418.78 -28655418.70 -28655418.63 0.0089 0.0072

Mercury -83168-12-24 20:23 J -28655330.71 -28655330.65 -28655330.57 0.0089 0.0077

Mercury -83167-03-22 22:04 J -28655242.63 -28655242.58 -28655242.53 0.0089 0.0081

Mercury -83167-06-18 23:16 J -28655154.55 -28655154.53 -28655154.49 0.0089 0.0086

Moon -83156-03-27 13:40 J -28651220.06 -28651219.93 -28651219.77 0.0089 0.0071

Earth -83156-03-27 14:23 J -28651220.03 -28651219.90 -28651219.73 0.0089 0.0071 *

Moon -83155-03-29 23:16 J -28650852.74 -28650852.53 -28650852.31 0.0089 0.0048

Earth -83155-03-29 23:16 J -28650852.72 -28650852.53 -28650852.30 0.0089 0.0049 *

Earth -83154-04-01 08:23 J -28650485.38 -28650485.15 -28650484.89 0.0089 0.0026

Moon -83154-04-01 10:32 J -28650485.28 -28650485.06 -28650484.82 0.0089 0.0027 *

Moon -83153-04-02 15:20 J -28650118.12 -28650117.86 -28650117.61 0.0089 0.0003

Earth -83153-04-02 17:59 J -28650118.00 -28650117.75 -28650117.50 0.0089 0.0003 *

Earth -83152-04-05 02:52 J -28649750.62 -28649750.38 -28649750.13 0.0089 0.0019

Moon -83152-04-05 06:13 J -28649750.48 -28649750.24 -28649749.99 0.0089 0.0020 *

Moon -83151-04-07 08:23 J -28649383.35 -28649383.15 -28649382.91 0.0089 0.0043

Earth -83151-04-07 11:59 J -28649383.21 -28649383.00 -28649382.76 0.0089 0.0042 *

Earth	-83150-04-09 21:06 J	-28649015.77	-28649015.62	-28649015.43	0.0089	0.0065
Moon	-83150-04-10 00:28 J	-28649015.64	-28649015.48	-28649015.29	0.0089	0.0065 *
Moon	-83149-04-11 04:18 J	-28648648.35	-28648648.32	-28648648.27	0.0089	0.0087
Earth	-83149-04-11 06:56 J	-28648648.25	-28648648.21	-28648648.16	0.0089	0.0087
Mars	-83144-11-25 02:52 J	-28646594.42	-28646594.38	-28646594.27	0.0089	0.0087
Mars	-83142-10-22 12:28 J	-28645898.32	-28645897.98	-28645897.63	0.0089	0.0009
Venus	-83106-12-09 04:04 J	-28632701.35	-28632701.33	-28632701.31	0.0089	0.0088
Venus	-83105-07-21 17:44 J	-28632475.87	-28632475.76	-28632475.60	0.0089	0.0071
Venus	-83104-03-04 08:08 J	-28632250.33	-28632250.16	-28632249.96	0.0089	0.0053
Venus	-83104-10-15 22:18 J	-28632024.76	-28632024.57	-28632024.34	0.0089	0.0036
Venus	-83103-05-29 12:56 J	-28631799.18	-28631798.96	-28631798.73	0.0089	0.0018
Venus	-83102-01-10 03:20 J	-28631573.59	-28631573.36	-28631573.13	0.0089	0.0001
Venus	-83102-08-23 17:16 J	-28631347.99	-28631347.78	-28631347.55	0.0089	0.0018
Venus	-83101-04-05 07:25 J	-28631122.39	-28631122.19	-28631121.97	0.0089	0.0036
Venus	-83101-11-16 21:20 J	-28630896.77	-28630896.61	-28630896.40	0.0089	0.0054
Venus	-83100-06-30 11:59 J	-28630671.12	-28630671.00	-28630670.86	0.0089	0.0071
Venus	-83099-02-11 02:08 J	-28630445.41	-28630445.41	-28630445.39	0.0089	0.0089
Mercury	-83093-07-12 03:49 J	-28628102.37	-28628102.34	-28628102.28	0.0088	0.0086
Mercury	-83093-10-08 07:25 J	-28628014.26	-28628014.19	-28628014.10	0.0088	0.0080
Mercury	-83092-01-04 10:47 J	-28627926.14	-28627926.05	-28627925.92	0.0088	0.0074
Mercury	-83092-04-02 14:37 J	-28627838.01	-28627837.89	-28627837.76	0.0088	0.0067
Mercury	-83092-06-29 17:59 J	-28627749.88	-28627749.75	-28627749.60	0.0088	0.0061
Mercury	-83092-09-25 21:35 J	-28627661.74	-28627661.60	-28627661.44	0.0088	0.0055
Mercury	-83092-12-23 00:56 J	-28627573.60	-28627573.46	-28627573.28	0.0088	0.0049
Mercury	-83091-03-21 04:47 J	-28627485.47	-28627485.30	-28627485.13	0.0088	0.0042
Mercury	-83091-06-17 08:08 J	-28627397.33	-28627397.16	-28627396.98	0.0088	0.0036
Mercury	-83091-09-13 11:30 J	-28627309.19	-28627309.02	-28627308.83	0.0088	0.0030
Mercury	-83091-12-10 15:06 J	-28627221.05	-28627220.87	-28627220.68	0.0088	0.0023
Mercury	-83090-03-08 18:28 J	-28627132.91	-28627132.73	-28627132.53	0.0088	0.0018
Mercury	-83090-06-04 22:04 J	-28627044.77	-28627044.58	-28627044.39	0.0088	0.0011

Mercury -83090-09-01 01:25 J -28626956.63 -28626956.44 -28626956.24 0.0088 0.0005

Mercury -83090-11-28 05:01 J -28626868.48 -28626868.29 -28626868.10 0.0088 0.0002

Mercury -83089-02-24 08:23 J -28626780.34 -28626780.15 -28626779.96 0.0088 0.0008

Mercury -83089-05-22 11:44 J -28626692.20 -28626692.01 -28626691.82 0.0088 0.0014

Mercury -83089-08-18 15:06 J -28626604.05 -28626603.87 -28626603.68 0.0088 0.0020

Mercury -83089-11-14 18:28 J -28626515.91 -28626515.73 -28626515.55 0.0088 0.0026

Mercury -83088-02-10 21:49 J -28626427.76 -28626427.59 -28626427.41 0.0088 0.0032

Mercury -83088-05-10 01:11 J -28626339.62 -28626339.45 -28626339.28 0.0088 0.0038

Mercury -83088-08-06 04:32 J -28626251.47 -28626251.31 -28626251.14 0.0088 0.0044

Mercury -83088-11-02 07:54 J -28626163.32 -28626163.17 -28626163.01 0.0088 0.0050

Mercury -83087-01-29 11:16 J -28626075.17 -28626075.03 -28626074.88 0.0088 0.0056

Mercury -83087-04-27 14:37 J -28625987.02 -28625986.89 -28625986.76 0.0088 0.0062

Mercury -83087-07-24 17:44 J -28625898.87 -28625898.76 -28625898.63 0.0088 0.0068

Mercury -83087-10-20 21:06 J -28625810.72 -28625810.62 -28625810.51 0.0088 0.0074

Mercury -83086-01-17 00:13 J -28625722.56 -28625722.49 -28625722.40 0.0088 0.0080

Mercury -83086-04-15 03:35 J -28625634.38 -28625634.35 -28625634.30 0.0088 0.0086

Moon -83075-09-28 14:08 J -28621449.91 -28621449.91 -28621449.88 0.0088 0.0088

Earth -83075-09-28 17:16 J -28621449.78 -28621449.78 -28621449.73 0.0088 0.0088

Earth -83074-10-01 07:40 J -28621082.34 -28621082.18 -28621081.98 0.0088 0.0065

Moon -83074-10-01 09:35 J -28621082.26 -28621082.10 -28621081.89 0.0088 0.0065 *

Moon -83073-10-02 20:23 J -28620714.85 -28620714.65 -28620714.40 0.0088 0.0043

Earth -83073-10-02 21:49 J -28620714.80 -28620714.59 -28620714.33 0.0088 0.0042 *

Earth -83072-10-05 12:28 J -28620347.24 -28620346.98 -28620346.72 0.0088 0.0018

Moon -83072-10-05 12:13 J -28620347.24 -28620346.99 -28620346.70 0.0088 0.0018 *

Earth -83071-10-08 02:37 J -28619979.66 -28619979.39 -28619979.13 0.0088 0.0006

Moon -83071-10-08 04:04 J -28619979.59 -28619979.33 -28619979.08 0.0088 0.0005 *

Moon -83070-10-10 14:23 J -28619612.14 -28619611.90 -28619611.63 0.0088 0.0031

Earth -83070-10-10 16:32 J -28619612.05 -28619611.81 -28619611.55 0.0088 0.0029 *

Earth -83069-10-12 06:28 J -28619244.43 -28619244.23 -28619244.00 0.0088 0.0052

Moon -83069-10-12 09:20 J -28619244.30 -28619244.11 -28619243.87 0.0088 0.0052 *

Moon	-83068-10-14 16:32 J	-28618876.92	-28618876.81	-28618876.66	0.0088	0.0076
Earth	-83068-10-14 20:08 J	-28618876.77	-28618876.66	-28618876.50	0.0088	0.0076 *
Mars	-83060-09-11 12:13 J	-28615988.27	-28615987.99	-28615987.70	0.0088	0.0010
Mars	-83058-08-05 23:30 J	-28615294.69	-28615294.52	-28615294.32	0.0088	0.0068
Jupiter	-83057-06-22 11:30 J	-28614973.30	-28614973.02	-28614972.63	0.0088	0.0070
Venus	-83023-09-07 21:20 J	-28602477.66	-28602477.61	-28602477.51	0.0089	0.0083
Venus	-83022-04-21 09:35 J	-28602252.23	-28602252.10	-28602251.95	0.0089	0.0066
Venus	-83022-12-02 21:06 J	-28602026.77	-28602026.62	-28602026.42	0.0089	0.0050
Venus	-83021-07-15 09:06 J	-28601801.30	-28601801.12	-28601800.91	0.0089	0.0033
Venus	-83020-02-25 21:06 J	-28601575.82	-28601575.62	-28601575.40	0.0089	0.0016
Venus	-83020-10-09 09:06 J	-28601350.33	-28601350.12	-28601349.91	0.0089	0.0001
Venus	-83019-05-22 20:52 J	-28601124.84	-28601124.63	-28601124.42	0.0089	0.0018
Venus	-83018-01-03 08:23 J	-28600899.33	-28600899.15	-28600898.94	0.0089	0.0035
Venus	-83018-08-16 20:23 J	-28600673.82	-28600673.65	-28600673.47	0.0089	0.0051
Venus	-83017-03-29 07:54 J	-28600448.29	-28600448.17	-28600448.02	0.0089	0.0068
Venus	-83017-11-09 19:40 J	-28600222.72	-28600222.68	-28600222.59	0.0089	0.0085
Mercury	-83012-10-19 15:06 J	-28598417.89	-28598417.87	-28598417.84	0.0089	0.0087
Mercury	-83011-01-15 16:18 J	-28598329.85	-28598329.82	-28598329.76	0.0089	0.0083
Mercury	-83011-04-13 17:59 J	-28598241.81	-28598241.75	-28598241.69	0.0089	0.0078
Mercury	-83011-07-10 19:11 J	-28598153.77	-28598153.70	-28598153.62	0.0089	0.0074
Mercury	-83011-10-06 20:23 J	-28598065.72	-28598065.65	-28598065.56	0.0089	0.0070
Mercury	-83010-01-02 21:49 J	-28597977.67	-28597977.59	-28597977.49	0.0089	0.0066
Mercury	-83010-03-31 23:16 J	-28597889.62	-28597889.53	-28597889.43	0.0089	0.0061
Mercury	-83010-06-28 00:28 J	-28597801.57	-28597801.48	-28597801.37	0.0089	0.0057
Mercury	-83010-09-24 01:54 J	-28597713.52	-28597713.42	-28597713.30	0.0089	0.0053
Mercury	-83010-12-21 03:20 J	-28597625.47	-28597625.36	-28597625.24	0.0089	0.0048
Mercury	-83009-03-18 04:47 J	-28597537.41	-28597537.30	-28597537.18	0.0089	0.0044
Mercury	-83009-06-14 05:59 J	-28597449.36	-28597449.25	-28597449.12	0.0089	0.0040
Mercury	-83009-09-10 07:40 J	-28597361.31	-28597361.18	-28597361.06	0.0089	0.0035
Mercury	-83009-12-07 08:52 J	-28597273.25	-28597273.13	-28597273.00	0.0089	0.0031

Mercury -83008-03-05 10:18 J -28597185.20 -28597185.07 -28597184.94 0.0089 0.0026

Mercury -83008-06-01 11:44 J -28597097.14 -28597097.01 -28597096.88 0.0089 0.0022

Mercury -83008-08-28 12:56 J -28597009.08 -28597008.96 -28597008.82 0.0089 0.0018

Mercury -83008-11-24 14:23 J -28596921.03 -28596920.90 -28596920.76 0.0089 0.0014

Mercury -83007-02-20 15:49 J -28596832.97 -28596832.84 -28596832.70 0.0089 0.0009

Mercury -83007-05-19 17:16 J -28596744.91 -28596744.78 -28596744.64 0.0089 0.0005

Mercury -83007-08-15 18:42 J -28596656.85 -28596656.72 -28596656.58 0.0089 0.0001

Mercury -83007-11-11 20:08 J -28596568.79 -28596568.66 -28596568.52 0.0089 0.0005

Mercury -83006-02-07 21:35 J -28596480.73 -28596480.60 -28596480.47 0.0089 0.0009

Mercury -83006-05-06 23:01 J -28596392.67 -28596392.54 -28596392.41 0.0089 0.0013

Mercury -83006-08-03 00:28 J -28596304.61 -28596304.48 -28596304.35 0.0089 0.0018

Mercury -83006-10-30 01:40 J -28596216.55 -28596216.43 -28596216.29 0.0089 0.0023

Mercury -83005-01-26 03:06 J -28596128.49 -28596128.37 -28596128.23 0.0089 0.0027

Mercury -83005-04-23 04:32 J -28596040.43 -28596040.31 -28596040.18 0.0089 0.0032

Mercury -83005-07-20 05:59 J -28595952.37 -28595952.25 -28595952.12 0.0089 0.0036

Mercury -83005-10-16 07:25 J -28595864.30 -28595864.19 -28595864.06 0.0089 0.0041

Mercury -83004-01-12 08:52 J -28595776.24 -28595776.13 -28595776.01 0.0089 0.0045

Mercury -83004-04-10 10:18 J -28595688.18 -28595688.07 -28595687.95 0.0089 0.0050

Mercury -83004-07-07 11:44 J -28595600.11 -28595600.01 -28595599.89 0.0089 0.0054

Mercury -83004-10-03 13:11 J -28595512.04 -28595511.95 -28595511.84 0.0089 0.0059

Mercury -83004-12-30 14:37 J -28595423.98 -28595423.89 -28595423.79 0.0089 0.0063

Mercury -83003-03-28 16:04 J -28595335.91 -28595335.83 -28595335.73 0.0089 0.0068

Mercury -83003-06-24 17:30 J -28595247.84 -28595247.77 -28595247.68 0.0089 0.0072

Mercury -83003-09-20 18:56 J -28595159.77 -28595159.71 -28595159.63 0.0089 0.0077

Mercury -83003-12-17 20:37 J -28595071.69 -28595071.64 -28595071.58 0.0089 0.0081

Mercury -83002-03-15 21:49 J -28594983.61 -28594983.59 -28594983.54 0.0089 0.0086

83RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 83rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-82992-03-26 19:11 J	-28591319.79	-28591319.70	-28591319.55	0.0089	0.0079		
Earth	-82992-03-26 20:37 J	-28591319.70	-28591319.64	-28591319.52	0.0089	0.0083	*	
Earth	-82991-03-29 06:13 J	-28590952.42	-28590952.24	-28590952.05	0.0089	0.0060		
Moon	-82991-03-29 07:54 J	-28590952.32	-28590952.17	-28590951.99	0.0089	0.0065	*	
Moon	-82990-03-31 11:59 J	-28590585.23	-28590585.00	-28590584.76	0.0089	0.0033		
Earth	-82990-03-31 15:20 J	-28590585.08	-28590584.86	-28590584.63	0.0089	0.0038	*	
Earth	-82989-04-02 00:13 J	-28590217.73	-28590217.49	-28590217.23	0.0089	0.0016		
Moon	-82989-04-02 03:35 J	-28590217.58	-28590217.35	-28590217.10	0.0089	0.0020	*	
Moon	-82988-04-04 05:59 J	-28589850.48	-28589850.25	-28589849.99	0.0089	0.0012		
Earth	-82988-04-04 09:35 J	-28589850.34	-28589850.10	-28589849.84	0.0089	0.0007	*	
Earth	-82987-04-06 18:28 J	-28589482.95	-28589482.73	-28589482.47	0.0089	0.0030		
Moon	-82987-04-06 21:35 J	-28589482.83	-28589482.60	-28589482.34	0.0089	0.0025	*	
Moon	-82986-04-09 02:23 J	-28589115.58	-28589115.40	-28589115.20	0.0089	0.0056		
Earth	-82986-04-09 03:49 J	-28589115.53	-28589115.34	-28589115.12	0.0089	0.0052	*	
Earth	-82985-04-10 13:40 J	-28588748.07	-28588747.93	-28588747.79	0.0089	0.0074		
Moon	-82985-04-10 14:08 J	-28588748.05	-28588747.91	-28588747.73	0.0089	0.0070	*	
Mars	-82978-06-04 10:18 J	-28586137.34	-28586137.07	-28586136.73	0.0089	0.0039		
Mars	-82976-04-30 19:25 J	-28585440.91	-28585440.69	-28585440.39	0.0089	0.0058		
Venus	-82941-10-22 23:59 J	-28572481.58	-28572481.50	-28572481.38	0.0089	0.0080		
Venus	-82940-06-05 14:37 J	-28572256.04	-28572255.89	-28572255.72	0.0089	0.0062		
Venus	-82939-01-17 04:32 J	-28572030.49	-28572030.31	-28572030.09	0.0089	0.0045		

Venus -82939-08-30 18:56 J -28571804.91 -28571804.71 -28571804.48 0.0089 0.0027

Venus -82938-04-13 09:20 J -28571579.33 -28571579.11 -28571578.88 0.0089 0.0009

Venus -82938-11-24 23:44 J -28571353.74 -28571353.51 -28571353.28 0.0089 0.0009

Venus -82937-07-07 13:54 J -28571128.13 -28571127.92 -28571127.70 0.0089 0.0027

Venus -82936-02-18 03:49 J -28570902.52 -28570902.34 -28570902.13 0.0089 0.0045

Venus -82936-10-01 17:44 J -28570676.90 -28570676.76 -28570676.58 0.0089 0.0063

Venus -82935-05-15 08:23 J -28570451.23 -28570451.15 -28570451.04 0.0089 0.0080

Mercury -82928-04-08 00:28 J -28567931.50 -28567931.48 -28567931.43 0.0088 0.0087

Mercury -82928-07-05 03:49 J -28567843.39 -28567843.34 -28567843.24 0.0088 0.0081

Mercury -82928-10-01 07:54 J -28567755.27 -28567755.17 -28567755.06 0.0088 0.0074

Mercury -82928-12-28 11:16 J -28567667.14 -28567667.03 -28567666.90 0.0088 0.0068

Mercury -82927-03-26 14:37 J -28567579.01 -28567578.89 -28567578.74 0.0088 0.0062

Mercury -82927-06-22 18:13 J -28567490.88 -28567490.74 -28567490.58 0.0088 0.0055

Mercury -82927-09-18 22:04 J -28567402.74 -28567402.58 -28567402.42 0.0088 0.0049

Mercury -82927-12-16 01:25 J -28567314.60 -28567314.44 -28567314.27 0.0088 0.0043

Mercury -82926-03-14 04:47 J -28567226.46 -28567226.30 -28567226.11 0.0088 0.0037

Mercury -82926-06-10 08:23 J -28567138.32 -28567138.15 -28567137.96 0.0088 0.0030

Mercury -82926-09-06 11:59 J -28567050.18 -28567050.00 -28567049.81 0.0088 0.0024

Mercury -82926-12-03 15:20 J -28566962.04 -28566961.86 -28566961.67 0.0088 0.0018

Mercury -82925-02-29 18:56 J -28566873.90 -28566873.71 -28566873.52 0.0088 0.0011

Mercury -82925-05-27 22:18 J -28566785.76 -28566785.57 -28566785.38 0.0088 0.0005

Mercury -82925-08-24 01:40 J -28566697.62 -28566697.43 -28566697.23 0.0088 0.0003

Mercury -82925-11-20 05:01 J -28566609.47 -28566609.29 -28566609.09 0.0088 0.0008

Mercury -82924-02-16 08:23 J -28566521.33 -28566521.15 -28566520.95 0.0088 0.0014

Mercury -82924-05-15 11:59 J -28566433.18 -28566433.00 -28566432.81 0.0088 0.0019

Mercury -82924-08-11 15:20 J -28566345.04 -28566344.86 -28566344.68 0.0088 0.0025

Mercury -82924-11-07 18:42 J -28566256.89 -28566256.72 -28566256.54 0.0088 0.0031

Mercury -82923-02-03 22:04 J -28566168.75 -28566168.58 -28566168.41 0.0088 0.0037

Mercury -82923-05-03 01:25 J -28566080.60 -28566080.44 -28566080.27 0.0088 0.0044

Mercury -82923-07-30 04:32 J -28565992.45 -28565992.31 -28565992.14 0.0088 0.0050

Mercury -82923-10-26 07:54 J -28565904.30 -28565904.17 -28565904.01 0.0088 0.0056

Mercury -82922-01-22 11:16 J -28565816.15 -28565816.03 -28565815.88 0.0088 0.0062

Mercury -82922-04-20 14:37 J -28565728.00 -28565727.89 -28565727.76 0.0088 0.0068

Mercury -82922-07-17 17:44 J -28565639.85 -28565639.76 -28565639.64 0.0088 0.0074

Mercury -82922-10-13 21:06 J -28565551.69 -28565551.62 -28565551.52 0.0088 0.0080

Mercury -82921-01-10 00:13 J -28565463.51 -28565463.49 -28565463.42 0.0088 0.0086

Moon -82910-09-30 08:52 J -28561182.26 -28561182.13 -28561181.97 0.0088 0.0073

Earth -82910-09-30 08:23 J -28561182.24 -28561182.15 -28561181.99 0.0088 0.0078 *

Moon -82909-10-01 22:04 J -28560814.78 -28560814.58 -28560814.36 0.0088 0.0058

Earth -82909-10-01 23:16 J -28560814.73 -28560814.53 -28560814.31 0.0088 0.0054 *

Earth -82908-10-04 13:11 J -28560447.19 -28560446.95 -28560446.69 0.0088 0.0031

Moon -82908-10-04 14:52 J -28560447.11 -28560446.88 -28560446.62 0.0088 0.0026 *

Moon -82907-10-07 00:13 J -28560079.75 -28560079.49 -28560079.21 0.0088 0.0012

Earth -82907-10-07 03:35 J -28560079.61 -28560079.35 -28560079.08 0.0088 0.0007 *

Earth -82906-10-09 17:30 J -28559712.02 -28559711.77 -28559711.50 0.0088 0.0016

Moon -82906-10-09 20:52 J -28559711.88 -28559711.63 -28559711.37 0.0088 0.0020 *

Moon -82905-10-11 03:35 J -28559344.58 -28559344.35 -28559344.09 0.0088 0.0035

Earth -82905-10-11 07:11 J -28559344.41 -28559344.20 -28559343.94 0.0088 0.0040 *

Earth -82904-10-13 20:52 J -28558976.79 -28558976.63 -28558976.41 0.0088 0.0063

Moon -82904-10-14 00:56 J -28558976.63 -28558976.46 -28558976.28 0.0088 0.0067 *

Moon -82903-10-16 08:08 J -28558609.23 -28558609.16 -28558609.03 0.0088 0.0081

Earth -82903-10-16 10:47 J -28558609.09 -28558609.05 -28558608.95 0.0088 0.0086 *

Mars -82896-04-26 16:32 J -28556225.04 -28556224.81 -28556224.56 0.0088 0.0050

Mars -82894-03-21 05:44 J -28555531.53 -28555531.26 -28555530.99 0.0088 0.0029

Venus -82858-07-23 17:44 J -28542257.86 -28542257.76 -28542257.64 0.0089 0.0075

Venus -82857-03-05 05:16 J -28542032.42 -28542032.28 -28542032.10 0.0089 0.0059

Venus -82857-10-16 17:16 J -28541806.95 -28541806.78 -28541806.58 0.0089 0.0042

Venus -82856-05-30 05:16 J -28541581.48 -28541581.28 -28541581.07 0.0089 0.0025

Venus -82855-01-10 17:01 J -28541356.00 -28541355.79 -28541355.57 0.0089 0.0009

Venus -82855-08-24 04:47 J -28541130.51 -28541130.30 -28541130.08 0.0089 0.0009

Venus -82854-04-06 16:18 J -28540905.01 -28540904.82 -28540904.60 0.0089 0.0026

Venus -82854-11-18 04:32 J -28540679.49 -28540679.31 -28540679.12 0.0089 0.0042

Venus -82853-06-30 16:04 J -28540453.97 -28540453.83 -28540453.66 0.0089 0.0059

Venus -82852-02-11 03:35 J -28540228.43 -28540228.35 -28540228.21 0.0089 0.0076

Mercury -82847-07-16 13:54 J -28538246.94 -28538246.92 -28538246.89 0.0089 0.0087

Mercury -82847-10-12 15:06 J -28538158.90 -28538158.87 -28538158.81 0.0089 0.0083

Mercury -82846-01-08 16:32 J -28538070.86 -28538070.81 -28538070.74 0.0089 0.0079

Mercury -82846-04-06 17:44 J -28537982.82 -28537982.76 -28537982.68 0.0089 0.0075

Mercury -82846-07-03 19:25 J -28537894.77 -28537894.69 -28537894.61 0.0089 0.0070

Mercury -82846-09-29 20:37 J -28537806.72 -28537806.64 -28537806.55 0.0089 0.0066

Mercury -82846-12-26 21:49 J -28537718.67 -28537718.59 -28537718.48 0.0089 0.0062

Mercury -82845-03-23 23:30 J -28537630.62 -28537630.52 -28537630.42 0.0089 0.0057

Mercury -82845-06-20 00:42 J -28537542.57 -28537542.47 -28537542.36 0.0089 0.0053

Mercury -82845-09-16 01:54 J -28537454.52 -28537454.42 -28537454.30 0.0089 0.0049

Mercury -82845-12-13 03:20 J -28537366.47 -28537366.36 -28537366.24 0.0089 0.0045

Mercury -82844-03-11 04:47 J -28537278.41 -28537278.30 -28537278.17 0.0089 0.0040

Mercury -82844-06-07 06:13 J -28537190.36 -28537190.24 -28537190.11 0.0089 0.0036

Mercury -82844-09-03 07:40 J -28537102.31 -28537102.18 -28537102.05 0.0089 0.0031

Mercury -82844-11-30 08:52 J -28537014.25 -28537014.13 -28537013.99 0.0089 0.0027

Mercury -82843-02-26 10:18 J -28536926.19 -28536926.07 -28536925.93 0.0089 0.0023

Mercury -82843-05-25 11:44 J -28536838.14 -28536838.01 -28536837.87 0.0089 0.0018

Mercury -82843-08-21 13:11 J -28536750.08 -28536749.95 -28536749.82 0.0089 0.0014

Mercury -82843-11-17 14:37 J -28536662.02 -28536661.89 -28536661.76 0.0089 0.0009

Mercury -82842-02-13 16:04 J -28536573.97 -28536573.83 -28536573.70 0.0089 0.0005

Mercury -82842-05-12 17:30 J -28536485.91 -28536485.77 -28536485.64 0.0089 0.0002

Mercury -82842-08-08 18:42 J -28536397.85 -28536397.72 -28536397.58 0.0089 0.0005

Mercury -82842-11-04 20:08 J -28536309.79 -28536309.66 -28536309.52 0.0089 0.0009

Mercury -82841-01-31 21:35 J -28536221.73 -28536221.60 -28536221.46 0.0089 0.0013

Mercury -82841-04-28 23:01 J -28536133.67 -28536133.54 -28536133.40 0.0089 0.0017

Mercury -82841-07-26 00:28 J -28536045.61 -28536045.48 -28536045.35 0.0089 0.0022

Mercury -82841-10-22 01:40 J -28535957.55 -28535957.43 -28535957.29 0.0089 0.0027

Mercury -82840-01-18 03:20 J -28535869.49 -28535869.36 -28535869.23 0.0089 0.0031

Mercury -82840-04-16 04:32 J -28535781.42 -28535781.31 -28535781.17 0.0089 0.0036

Mercury -82840-07-13 06:13 J -28535693.36 -28535693.24 -28535693.12 0.0089 0.0040

Mercury -82840-10-09 07:25 J -28535605.30 -28535605.19 -28535605.06 0.0089 0.0045

Mercury -82839-01-05 09:06 J -28535517.23 -28535517.12 -28535517.01 0.0089 0.0049

Mercury -82839-04-03 10:18 J -28535429.17 -28535429.07 -28535428.95 0.0089 0.0054

Mercury -82839-06-30 11:59 J -28535341.10 -28535341.00 -28535340.90 0.0089 0.0058

Mercury -82839-09-26 13:11 J -28535253.03 -28535252.95 -28535252.84 0.0089 0.0063

Mercury -82839-12-23 14:52 J -28535164.96 -28535164.88 -28535164.79 0.0089 0.0067

Mercury -82838-03-21 16:04 J -28535076.89 -28535076.83 -28535076.74 0.0089 0.0072

Mercury -82838-06-17 17:44 J -28534988.82 -28534988.76 -28534988.69 0.0089 0.0076

Mercury -82838-09-13 19:11 J -28534900.75 -28534900.70 -28534900.64 0.0089 0.0081

Mercury -82838-12-10 20:52 J -28534812.67 -28534812.63 -28534812.59 0.0089 0.0085

Moon -82827-03-28 09:20 J -28531052.24 -28531052.11 -28531051.96 0.0089 0.0073

Earth -82827-03-28 12:28 J -28531052.11 -28531051.98 -28531051.82 0.0089 0.0072 *

Earth -82826-03-30 21:35 J -28530684.80 -28530684.60 -28530684.38 0.0089 0.0050

Moon -82826-03-31 01:25 J -28530684.65 -28530684.44 -28530684.23 0.0089 0.0049 *

Moon -82825-04-01 04:04 J -28530317.56 -28530317.33 -28530317.10 0.0089 0.0029

Earth -82825-04-01 06:42 J -28530317.44 -28530317.22 -28530316.97 0.0089 0.0028 *

Earth -82824-04-03 16:04 J -28529950.08 -28529949.83 -28529949.57 0.0089 0.0006

Moon -82824-04-03 18:42 J -28529949.97 -28529949.72 -28529949.46 0.0089 0.0005 *

Moon -82823-04-05 23:44 J -28529582.75 -28529582.51 -28529582.27 0.0089 0.0016

Earth -82823-04-06 01:11 J -28529582.69 -28529582.45 -28529582.20 0.0089 0.0017 *

Moon -82822-04-08 09:49 J -28529215.30 -28529215.09 -28529214.83 0.0089 0.0041

Earth -82822-04-08 10:32 J -28529215.28 -28529215.06 -28529214.83 0.0089 0.0039 *

Earth -82821-04-09 19:25 J -28528847.85 -28528847.69 -28528847.49 0.0089 0.0062

Moon -82821-04-09 20:37 J -28528847.80 -28528847.64 -28528847.45 0.0089 0.0061 *

Moon -82820-04-12 02:23 J -28528480.45 -28528480.40 -28528480.29 0.0089 0.0085

Earth -82820-04-12 04:47 J -28528480.36 -28528480.30 -28528480.20 0.0089 0.0084 *

Mars	-82814-01-15 10:18 J	-28526376.16	-28526376.07	-28526375.98	0.0089	0.0085
Mars	-82813-12-11 17:16 J	-28525680.12	-28525679.78	-28525679.44	0.0089	0.0010
Venus	-82776-09-06 20:23 J	-28512261.76	-28512261.65	-28512261.50	0.0089	0.0072
Venus	-82775-04-20 10:47 J	-28512036.21	-28512036.05	-28512035.85	0.0089	0.0054
Venus	-82775-12-02 01:11 J	-28511810.64	-28511810.45	-28511810.23	0.0089	0.0036
Venus	-82774-07-15 15:35 J	-28511585.07	-28511584.85	-28511584.62	0.0089	0.0018
Venus	-82773-02-26 05:59 J	-28511359.48	-28511359.25	-28511359.02	0.0089	0.0001
Venus	-82773-10-08 20:08 J	-28511133.88	-28511133.66	-28511133.43	0.0089	0.0018
Venus	-82772-05-22 10:18 J	-28510908.26	-28510908.07	-28510907.85	0.0089	0.0036
Venus	-82771-01-03 00:28 J	-28510682.64	-28510682.48	-28510682.28	0.0089	0.0054
Venus	-82771-08-16 14:23 J	-28510457.01	-28510456.90	-28510456.74	0.0089	0.0072
Mercury	-82763-01-02 21:35 J	-28507760.62	-28507760.60	-28507760.56	0.0088	0.0087
Mercury	-82763-04-01 00:56 J	-28507672.52	-28507672.46	-28507672.36	0.0088	0.0081
Mercury	-82763-06-28 04:32 J	-28507584.40	-28507584.31	-28507584.19	0.0088	0.0074
Mercury	-82763-09-24 08:23 J	-28507496.27	-28507496.15	-28507496.02	0.0088	0.0068
Mercury	-82763-12-21 11:44 J	-28507408.14	-28507408.01	-28507407.86	0.0088	0.0062
Mercury	-82762-03-19 15:06 J	-28507320.00	-28507319.87	-28507319.70	0.0088	0.0056
Mercury	-82762-06-15 18:42 J	-28507231.86	-28507231.72	-28507231.55	0.0088	0.0049
Mercury	-82762-09-11 22:32 J	-28507143.73	-28507143.56	-28507143.39	0.0088	0.0043
Mercury	-82762-12-09 01:54 J	-28507055.59	-28507055.42	-28507055.24	0.0088	0.0037
Mercury	-82761-03-06 05:16 J	-28506967.45	-28506967.28	-28506967.09	0.0088	0.0031
Mercury	-82761-06-02 08:52 J	-28506879.31	-28506879.13	-28506878.94	0.0088	0.0024
Mercury	-82761-08-29 12:28 J	-28506791.16	-28506790.98	-28506790.79	0.0088	0.0018
Mercury	-82761-11-25 16:04 J	-28506703.02	-28506702.83	-28506702.64	0.0088	0.0012
Mercury	-82760-02-21 19:25 J	-28506614.88	-28506614.69	-28506614.50	0.0088	0.0005
Mercury	-82760-05-20 22:47 J	-28506526.74	-28506526.55	-28506526.36	0.0088	0.0002
Mercury	-82760-08-17 02:08 J	-28506438.59	-28506438.41	-28506438.21	0.0088	0.0008
Mercury	-82760-11-13 05:30 J	-28506350.45	-28506350.27	-28506350.07	0.0088	0.0014
Mercury	-82759-02-09 09:06 J	-28506262.30	-28506262.12	-28506261.93	0.0088	0.0019
Mercury	-82759-05-08 12:28 J	-28506174.16	-28506173.98	-28506173.79	0.0088	0.0025

Mercury -82759-08-04 15:49 J -28506086.01 -28506085.84 -28506085.66 0.0088 0.0032
 Mercury -82759-10-31 19:11 J -28505997.87 -28505997.70 -28505997.52 0.0088 0.0038
 Mercury -82758-01-27 22:32 J -28505909.72 -28505909.56 -28505909.39 0.0088 0.0044
 Mercury -82758-04-26 01:54 J -28505821.57 -28505821.42 -28505821.26 0.0088 0.0050
 Mercury -82758-07-23 05:16 J -28505733.42 -28505733.28 -28505733.13 0.0088 0.0056
 Mercury -82758-10-19 08:23 J -28505645.27 -28505645.15 -28505645.00 0.0088 0.0062
 Mercury -82757-01-15 11:44 J -28505557.12 -28505557.01 -28505556.88 0.0088 0.0068
 Mercury -82757-04-12 15:06 J -28505468.96 -28505468.87 -28505468.76 0.0088 0.0074
 Mercury -82757-07-09 18:13 J -28505380.80 -28505380.74 -28505380.64 0.0088 0.0080
 Mercury -82757-10-05 21:35 J -28505292.63 -28505292.60 -28505292.54 0.0088 0.0086
 Moon -82746-09-29 07:40 J -28501282.19 -28501282.18 -28501282.11 0.0088 0.0088
 Earth -82745-10-01 00:13 J -28500914.66 -28500914.49 -28500914.31 0.0088 0.0066
 Moon -82745-10-01 02:52 J -28500914.53 -28500914.38 -28500914.19 0.0088 0.0068 *
 Moon -82744-10-03 10:47 J -28500547.26 -28500547.05 -28500546.79 0.0088 0.0043
 Earth -82744-10-03 14:08 J -28500547.12 -28500546.91 -28500546.66 0.0088 0.0043 *
 Earth -82743-10-06 04:18 J -28500179.56 -28500179.32 -28500179.04 0.0088 0.0021
 Moon -82743-10-06 08:23 J -28500179.40 -28500179.15 -28500178.88 0.0088 0.0020 *
 Moon -82742-10-08 15:20 J -28499812.12 -28499811.86 -28499811.59 0.0088 0.0004
 Earth -82742-10-08 18:42 J -28499811.98 -28499811.72 -28499811.45 0.0088 0.0004 *
 Earth -82741-10-10 08:37 J -28499444.39 -28499444.14 -28499443.88 0.0088 0.0026
 Moon -82741-10-10 11:44 J -28499444.26 -28499444.01 -28499443.74 0.0088 0.0027 *
 Moon -82740-10-12 20:08 J -28499076.86 -28499076.66 -28499076.43 0.0088 0.0049
 Earth -82740-10-12 22:18 J -28499076.77 -28499076.57 -28499076.33 0.0088 0.0050 *
 Earth -82739-10-15 12:13 J -28498709.12 -28498708.99 -28498708.82 0.0088 0.0072
 Moon -82739-10-15 12:56 J -28498709.09 -28498708.96 -28498708.77 0.0088 0.0073 *
 Mars -82733-12-09 20:08 J -28496461.66 -28496461.66 -28496461.61 0.0088 0.0088
 Mars -82731-11-03 11:30 J -28495768.30 -28495768.02 -28495767.72 0.0088 0.0010
 Mars -82729-09-27 00:28 J -28495074.63 -28495074.48 -28495074.27 0.0088 0.0069
 Venus -82694-10-25 02:23 J -28482263.45 -28482263.40 -28482263.32 0.0089 0.0084
 Venus -82693-06-06 13:54 J -28482038.03 -28482037.92 -28482037.76 0.0089 0.0068

Venus	-82692-01-18 01:54 J	-28481812.58	-28481812.42	-28481812.23	0.0089	0.0051
Venus	-82692-08-31 13:40 J	-28481587.12	-28481586.93	-28481586.72	0.0089	0.0034
Venus	-82691-04-14 01:40 J	-28481361.64	-28481361.43	-28481361.22	0.0089	0.0017
Venus	-82691-11-25 13:40 J	-28481136.15	-28481135.93	-28481135.72	0.0089	0.0002
Venus	-82690-07-09 01:11 J	-28480910.65	-28480910.45	-28480910.24	0.0089	0.0017
Venus	-82689-02-19 12:42 J	-28480685.15	-28480684.97	-28480684.76	0.0089	0.0034
Venus	-82689-10-02 00:42 J	-28480459.64	-28480459.47	-28480459.29	0.0089	0.0050
Venus	-82688-05-15 12:13 J	-28480234.11	-28480233.99	-28480233.84	0.0089	0.0067
Venus	-82688-12-26 23:59 J	-28480008.55	-28480008.50	-28480008.41	0.0089	0.0084
Mercury	-82682-04-12 12:28 J	-28478075.98	-28478075.98	-28478075.95	0.0089	0.0088
Mercury	-82682-07-09 13:54 J	-28477987.95	-28477987.92	-28477987.87	0.0089	0.0084
Mercury	-82682-10-05 15:20 J	-28477899.91	-28477899.86	-28477899.80	0.0089	0.0079
Mercury	-82681-01-01 16:32 J	-28477811.87	-28477811.81	-28477811.73	0.0089	0.0075
Mercury	-82681-03-29 17:59 J	-28477723.82	-28477723.75	-28477723.66	0.0089	0.0071
Mercury	-82681-06-25 19:11 J	-28477635.77	-28477635.70	-28477635.60	0.0089	0.0067
Mercury	-82681-09-21 20:52 J	-28477547.72	-28477547.63	-28477547.54	0.0089	0.0062
Mercury	-82681-12-18 22:04 J	-28477459.67	-28477459.58	-28477459.47	0.0089	0.0058
Mercury	-82680-03-16 23:16 J	-28477371.62	-28477371.53	-28477371.41	0.0089	0.0054
Mercury	-82680-06-13 00:56 J	-28477283.57	-28477283.46	-28477283.35	0.0089	0.0049
Mercury	-82680-09-09 02:08 J	-28477195.52	-28477195.41	-28477195.29	0.0089	0.0045
Mercury	-82680-12-06 03:20 J	-28477107.47	-28477107.36	-28477107.23	0.0089	0.0041
Mercury	-82679-03-04 05:01 J	-28477019.41	-28477019.29	-28477019.17	0.0089	0.0036
Mercury	-82679-05-31 06:13 J	-28476931.36	-28476931.24	-28476931.11	0.0089	0.0032
Mercury	-82679-08-27 07:40 J	-28476843.30	-28476843.18	-28476843.05	0.0089	0.0028
Mercury	-82679-11-23 09:06 J	-28476755.25	-28476755.12	-28476754.99	0.0089	0.0023
Mercury	-82678-02-19 10:32 J	-28476667.19	-28476667.06	-28476666.93	0.0089	0.0019
Mercury	-82678-05-18 11:59 J	-28476579.13	-28476579.00	-28476578.87	0.0089	0.0014
Mercury	-82678-08-14 13:25 J	-28476491.08	-28476490.94	-28476490.81	0.0089	0.0010
Mercury	-82678-11-10 14:37 J	-28476403.02	-28476402.89	-28476402.75	0.0089	0.0006
Mercury	-82677-02-06 16:04 J	-28476314.96	-28476314.83	-28476314.69	0.0089	0.0001

Mercury -82677-05-04 17:30 J -28476226.90 -28476226.77 -28476226.63 0.0089 0.0004

Mercury -82677-07-31 18:56 J -28476138.85 -28476138.71 -28476138.58 0.0089 0.0008

Mercury -82677-10-27 20:23 J -28476050.79 -28476050.65 -28476050.52 0.0089 0.0013

Mercury -82676-01-23 21:49 J -28475962.73 -28475962.59 -28475962.46 0.0089 0.0017

Mercury -82676-04-21 23:01 J -28475874.67 -28475874.54 -28475874.40 0.0089 0.0022

Mercury -82676-07-19 00:28 J -28475786.61 -28475786.48 -28475786.35 0.0089 0.0026

Mercury -82676-10-15 01:54 J -28475698.54 -28475698.42 -28475698.29 0.0089 0.0030

Mercury -82675-01-11 03:20 J -28475610.48 -28475610.36 -28475610.23 0.0089 0.0035

Mercury -82675-04-09 04:32 J -28475522.42 -28475522.31 -28475522.18 0.0089 0.0040

Mercury -82675-07-06 06:13 J -28475434.35 -28475434.24 -28475434.12 0.0089 0.0044

Mercury -82675-10-02 07:25 J -28475346.29 -28475346.19 -28475346.06 0.0089 0.0049

Mercury -82675-12-29 09:06 J -28475258.22 -28475258.12 -28475258.01 0.0089 0.0053

Mercury -82674-03-27 10:18 J -28475170.16 -28475170.07 -28475169.95 0.0089 0.0058

Mercury -82674-06-23 11:59 J -28475082.09 -28475082.00 -28475081.90 0.0089 0.0062

Mercury -82674-09-19 13:11 J -28474994.02 -28474993.95 -28474993.84 0.0089 0.0067

Mercury -82674-12-16 14:52 J -28474905.95 -28474905.88 -28474905.79 0.0089 0.0071

Mercury -82673-03-13 16:18 J -28474817.88 -28474817.82 -28474817.74 0.0089 0.0076

Mercury -82673-06-09 17:44 J -28474729.81 -28474729.76 -28474729.69 0.0089 0.0080

Mercury -82673-09-05 19:11 J -28474641.73 -28474641.70 -28474641.65 0.0089 0.0085

Earth -82663-03-27 18:42 J -28471151.78 -28471151.72 -28471151.62 0.0089 0.0084

Moon -82663-03-27 22:32 J -28471151.67 -28471151.56 -28471151.45 0.0089 0.0079 *

Moon -82662-03-30 01:11 J -28470784.60 -28470784.45 -28470784.28 0.0089 0.0066

Earth -82662-03-30 03:49 J -28470784.49 -28470784.34 -28470784.13 0.0089 0.0062 *

Earth -82661-03-31 13:11 J -28470417.16 -28470416.95 -28470416.71 0.0089 0.0040

Moon -82661-03-31 15:20 J -28470417.08 -28470416.86 -28470416.61 0.0089 0.0035 *

Moon -82660-04-02 22:18 J -28470049.81 -28470049.57 -28470049.34 0.0089 0.0021

Earth -82660-04-02 22:47 J -28470049.79 -28470049.55 -28470049.30 0.0089 0.0017 *

Moon -82659-04-05 07:54 J -28469682.42 -28469682.17 -28469681.91 0.0089 0.0009

Earth -82659-04-05 08:08 J -28469682.41 -28469682.16 -28469681.91 0.0089 0.0005 *

Earth -82658-04-07 17:16 J -28469315.01 -28469314.78 -28469314.53 0.0089 0.0027

Moon	-82658-04-07 18:56 J	-28469314.94	-28469314.71	-28469314.46	0.0089	0.0023	*
Moon	-82657-04-08 23:44 J	-28468947.71	-28468947.51	-28468947.30	0.0089	0.0053	
Earth	-82657-04-09 02:37 J	-28468947.59	-28468947.39	-28468947.17	0.0089	0.0049	*
Earth	-82656-04-11 11:30 J	-28468580.14	-28468580.02	-28468579.84	0.0089	0.0072	
Moon	-82656-04-11 14:52 J	-28468580.02	-28468579.88	-28468579.70	0.0089	0.0067	*
Mars	-82649-07-24 17:01 J	-28465919.08	-28465918.79	-28465918.47	0.0089	0.0037	
Jupiter	-82648-01-24 01:11 J	-28465735.47	-28465735.45	-28465735.29	0.0089	0.0088	
Mars	-82647-06-21 00:28 J	-28465222.71	-28465222.48	-28465222.20	0.0089	0.0059	
Venus	-82612-12-09 03:35 J	-28452267.45	-28452267.35	-28452267.26	0.0089	0.0080	
Venus	-82611-07-22 17:16 J	-28452041.92	-28452041.78	-28452041.60	0.0089	0.0063	
Venus	-82610-03-05 07:40 J	-28451816.36	-28451816.18	-28451815.97	0.0089	0.0045	
Venus	-82610-10-16 22:04 J	-28451590.79	-28451590.58	-28451590.36	0.0089	0.0027	
Venus	-82609-05-29 12:28 J	-28451365.20	-28451364.98	-28451364.75	0.0089	0.0009	
Venus	-82608-01-10 02:37 J	-28451139.61	-28451139.39	-28451139.15	0.0089	0.0010	
Venus	-82608-08-23 17:01 J	-28450914.00	-28450913.79	-28450913.57	0.0089	0.0027	
Venus	-82607-04-06 07:11 J	-28450688.39	-28450688.20	-28450688.00	0.0089	0.0045	
Venus	-82607-11-17 21:20 J	-28450462.76	-28450462.61	-28450462.44	0.0089	0.0063	
Venus	-82606-07-01 11:30 J	-28450237.10	-28450237.02	-28450236.91	0.0089	0.0081	
Mercury	-82599-09-29 18:13 J	-28447589.75	-28447589.74	-28447589.68	0.0088	0.0088	
Mercury	-82599-12-26 22:04 J	-28447501.64	-28447501.58	-28447501.49	0.0088	0.0081	
Mercury	-82598-03-25 01:40 J	-28447413.52	-28447413.43	-28447413.32	0.0088	0.0075	
Mercury	-82598-06-21 05:01 J	-28447325.39	-28447325.29	-28447325.15	0.0088	0.0069	
Mercury	-82598-09-17 08:52 J	-28447237.26	-28447237.13	-28447236.99	0.0088	0.0062	
Mercury	-82598-12-14 12:13 J	-28447149.12	-28447148.99	-28447148.83	0.0088	0.0056	
Mercury	-82597-03-11 15:49 J	-28447060.99	-28447060.84	-28447060.67	0.0088	0.0049	
Mercury	-82597-06-07 19:40 J	-28446972.85	-28446972.68	-28446972.51	0.0088	0.0043	
Mercury	-82597-09-03 23:01 J	-28446884.71	-28446884.54	-28446884.36	0.0088	0.0037	
Mercury	-82597-12-01 02:23 J	-28446796.57	-28446796.40	-28446796.21	0.0088	0.0031	
Mercury	-82596-02-27 05:59 J	-28446708.43	-28446708.25	-28446708.06	0.0088	0.0024	
Mercury	-82596-05-26 09:35 J	-28446620.29	-28446620.10	-28446619.91	0.0088	0.0018	

Mercury -82596-08-22 13:11 J -28446532.14 -28446531.95 -28446531.76 0.0088 0.0012
 Mercury -82596-11-18 16:32 J -28446444.00 -28446443.81 -28446443.62 0.0088 0.0005
 Mercury -82595-02-14 19:54 J -28446355.86 -28446355.67 -28446355.47 0.0088 0.0003
 Mercury -82595-05-13 23:30 J -28446267.71 -28446267.52 -28446267.33 0.0088 0.0007
 Mercury -82595-08-10 02:52 J -28446179.57 -28446179.38 -28446179.19 0.0088 0.0013
 Mercury -82595-11-06 06:13 J -28446091.42 -28446091.24 -28446091.05 0.0088 0.0019
 Mercury -82594-02-02 09:35 J -28446003.27 -28446003.10 -28446002.91 0.0088 0.0026
 Mercury -82594-05-01 12:56 J -28445915.13 -28445914.96 -28445914.77 0.0088 0.0032
 Mercury -82594-07-28 16:32 J -28445826.98 -28445826.81 -28445826.64 0.0088 0.0038
 Mercury -82594-10-24 19:54 J -28445738.83 -28445738.67 -28445738.50 0.0088 0.0044
 Mercury -82593-01-20 23:16 J -28445650.68 -28445650.53 -28445650.37 0.0088 0.0050
 Mercury -82593-04-18 02:37 J -28445562.53 -28445562.39 -28445562.24 0.0088 0.0056
 Mercury -82593-07-15 05:59 J -28445474.38 -28445474.25 -28445474.11 0.0088 0.0062
 Mercury -82593-10-11 09:20 J -28445386.23 -28445386.11 -28445385.99 0.0088 0.0068
 Mercury -82592-01-07 12:42 J -28445298.07 -28445297.97 -28445297.87 0.0088 0.0074
 Mercury -82592-04-05 15:49 J -28445209.91 -28445209.84 -28445209.75 0.0088 0.0080
 Mercury -82592-07-02 19:11 J -28445121.74 -28445121.70 -28445121.65 0.0088 0.0086
 Moon -82581-09-29 22:18 J -28441014.69 -28441014.57 -28441014.39 0.0088 0.0073
 Earth -82581-09-30 02:08 J -28441014.51 -28441014.41 -28441014.26 0.0088 0.0078 *
 Earth -82580-10-02 16:32 J -28440647.00 -28440646.81 -28440646.58 0.0088 0.0055
 Moon -82580-10-02 20:08 J -28440646.84 -28440646.66 -28440646.45 0.0088 0.0059 *
 Moon -82579-10-05 03:35 J -28440279.59 -28440279.35 -28440279.09 0.0088 0.0027
 Earth -82579-10-05 07:11 J -28440279.45 -28440279.20 -28440278.95 0.0088 0.0032 *
 Earth -82578-10-07 20:52 J -28439911.88 -28439911.63 -28439911.35 0.0088 0.0010
 Moon -82578-10-07 23:30 J -28439911.79 -28439911.52 -28439911.25 0.0088 0.0013 *
 Moon -82577-10-09 09:35 J -28439544.34 -28439544.10 -28439543.84 0.0088 0.0018
 Earth -82577-10-09 10:47 J -28439544.30 -28439544.05 -28439543.77 0.0088 0.0015 *
 Earth -82576-10-12 00:42 J -28439176.69 -28439176.47 -28439176.21 0.0088 0.0037
 Moon -82576-10-12 01:25 J -28439176.68 -28439176.44 -28439176.17 0.0088 0.0032 *
 Earth -82575-10-14 14:37 J -28438809.07 -28438808.89 -28438808.68 0.0088 0.0060

Moon	-82575-10-14 15:35 J	-28438809.00	-28438808.85	-28438808.65	0.0088	0.0065 *
Moon	-82574-10-17 02:23 J	-28438441.52	-28438441.40	-28438441.26	0.0088	0.0078
Earth	-82574-10-17 04:04 J	-28438441.40	-28438441.33	-28438441.21	0.0088	0.0082 *
Mars	-82567-06-18 17:01 J	-28436005.02	-28436004.79	-28436004.53	0.0088	0.0048
Mars	-82565-05-12 06:56 J	-28435311.47	-28435311.21	-28435310.93	0.0088	0.0030
Venus	-82529-09-07 23:01 J	-28422043.64	-28422043.54	-28422043.43	0.0089	0.0076
Venus	-82528-04-21 10:32 J	-28421818.20	-28421818.06	-28421817.89	0.0089	0.0060
Venus	-82528-12-02 22:32 J	-28421592.74	-28421592.56	-28421592.36	0.0089	0.0043
Venus	-82527-07-16 10:18 J	-28421367.27	-28421367.07	-28421366.86	0.0089	0.0026
Venus	-82526-02-26 22:18 J	-28421141.79	-28421141.57	-28421141.36	0.0089	0.0009
Venus	-82526-10-10 10:04 J	-28420916.29	-28420916.08	-28420915.87	0.0089	0.0008
Venus	-82525-05-22 21:35 J	-28420690.80	-28420690.60	-28420690.39	0.0089	0.0025
Venus	-82524-01-03 09:20 J	-28420465.29	-28420465.11	-28420464.91	0.0089	0.0042
Venus	-82524-08-16 20:52 J	-28420239.77	-28420239.63	-28420239.45	0.0089	0.0059
Venus	-82523-03-30 08:52 J	-28420014.23	-28420014.13	-28420014.01	0.0089	0.0075
Mercury	-82517-01-07 11:30 J	-28417905.03	-28417905.02	-28417905.00	0.0089	0.0088
Mercury	-82517-04-04 12:42 J	-28417817.00	-28417816.97	-28417816.92	0.0089	0.0084
Mercury	-82517-07-01 14:08 J	-28417728.96	-28417728.91	-28417728.84	0.0089	0.0080
Mercury	-82517-09-27 15:35 J	-28417640.91	-28417640.85	-28417640.78	0.0089	0.0075
Mercury	-82517-12-24 16:47 J	-28417552.87	-28417552.80	-28417552.71	0.0089	0.0071
Mercury	-82516-03-22 18:13 J	-28417464.82	-28417464.74	-28417464.65	0.0089	0.0067
Mercury	-82516-06-18 19:40 J	-28417376.77	-28417376.68	-28417376.58	0.0089	0.0062
Mercury	-82516-09-14 20:52 J	-28417288.72	-28417288.63	-28417288.52	0.0089	0.0058
Mercury	-82516-12-11 22:18 J	-28417200.67	-28417200.57	-28417200.46	0.0089	0.0054
Mercury	-82515-03-09 23:44 J	-28417112.62	-28417112.51	-28417112.40	0.0089	0.0049
Mercury	-82515-06-06 00:56 J	-28417024.56	-28417024.46	-28417024.34	0.0089	0.0045
Mercury	-82515-09-02 02:23 J	-28416936.51	-28416936.40	-28416936.27	0.0089	0.0041
Mercury	-82515-11-29 03:49 J	-28416848.46	-28416848.34	-28416848.21	0.0089	0.0036
Mercury	-82514-02-25 05:16 J	-28416760.40	-28416760.28	-28416760.15	0.0089	0.0032
Mercury	-82514-05-24 06:28 J	-28416672.35	-28416672.23	-28416672.09	0.0089	0.0028

Mercury -82514-08-20 08:08 J -28416584.29 -28416584.16 -28416584.03 0.0089 0.0023

Mercury -82514-11-16 09:20 J -28416496.24 -28416496.11 -28416495.97 0.0089 0.0019

Mercury -82513-02-12 10:47 J -28416408.18 -28416408.05 -28416407.92 0.0089 0.0014

Mercury -82513-05-10 12:13 J -28416320.12 -28416319.99 -28416319.86 0.0089 0.0010

Mercury -82513-08-06 13:40 J -28416232.07 -28416231.93 -28416231.80 0.0089 0.0006

Mercury -82513-11-02 15:06 J -28416144.01 -28416143.87 -28416143.74 0.0089 0.0003

Mercury -82512-01-29 16:18 J -28416055.95 -28416055.82 -28416055.68 0.0089 0.0004

Mercury -82512-04-27 17:44 J -28415967.89 -28415967.76 -28415967.62 0.0089 0.0008

Mercury -82512-07-24 19:11 J -28415879.83 -28415879.70 -28415879.57 0.0089 0.0012

Mercury -82512-10-20 20:37 J -28415791.77 -28415791.64 -28415791.51 0.0089 0.0017

Mercury -82511-01-16 21:49 J -28415703.71 -28415703.59 -28415703.45 0.0089 0.0022

Mercury -82511-04-14 23:16 J -28415615.65 -28415615.53 -28415615.39 0.0089 0.0026

Mercury -82511-07-12 00:42 J -28415527.59 -28415527.47 -28415527.34 0.0089 0.0030

Mercury -82511-10-08 02:08 J -28415439.53 -28415439.41 -28415439.28 0.0089 0.0035

Mercury -82510-01-04 03:35 J -28415351.47 -28415351.35 -28415351.22 0.0089 0.0039

Mercury -82510-04-02 05:01 J -28415263.40 -28415263.29 -28415263.17 0.0089 0.0044

Mercury -82510-06-29 06:28 J -28415175.34 -28415175.23 -28415175.11 0.0089 0.0048

Mercury -82510-09-25 07:54 J -28415087.28 -28415087.17 -28415087.06 0.0089 0.0053

Mercury -82510-12-22 09:20 J -28414999.21 -28414999.11 -28414999.00 0.0089 0.0057

Mercury -82509-03-19 10:47 J -28414911.14 -28414911.05 -28414910.95 0.0089 0.0062

Mercury -82509-06-15 11:59 J -28414823.07 -28414823.00 -28414822.90 0.0089 0.0067

Mercury -82509-09-11 13:40 J -28414735.00 -28414734.93 -28414734.84 0.0089 0.0071

Mercury -82509-12-08 14:52 J -28414646.93 -28414646.88 -28414646.79 0.0089 0.0076

Mercury -82508-03-06 16:32 J -28414558.86 -28414558.81 -28414558.74 0.0089 0.0080

Mercury -82508-06-02 17:59 J -28414470.78 -28414470.75 -28414470.70 0.0089 0.0085

Earth -82498-03-29 10:47 J -28410884.17 -28410884.05 -28410883.89 0.0089 0.0073

Moon -82498-03-29 12:42 J -28410884.10 -28410883.97 -28410883.82 0.0089 0.0074 *

Moon -82497-03-30 19:25 J -28410516.87 -28410516.69 -28410516.47 0.0089 0.0050

Earth -82497-03-30 20:08 J -28410516.86 -28410516.66 -28410516.45 0.0089 0.0051 *

Moon -82496-04-02 04:04 J -28410149.57 -28410149.33 -28410149.08 0.0089 0.0031

Earth	-82496-04-02 05:16 J	-28410149.51	-28410149.28	-28410149.03	0.0089	0.0029 *
Earth	-82495-04-04 14:37 J	-28409782.14	-28409781.89	-28409781.64	0.0089	0.0007
Moon	-82495-04-04 16:47 J	-28409782.05	-28409781.80	-28409781.56	0.0089	0.0006 *
Moon	-82494-04-06 21:06 J	-28409414.87	-28409414.62	-28409414.37	0.0089	0.0013
Earth	-82494-04-06 23:59 J	-28409414.74	-28409414.50	-28409414.24	0.0089	0.0015 *
Earth	-82493-04-08 09:20 J	-28409047.33	-28409047.11	-28409046.87	0.0089	0.0037
Moon	-82493-04-08 12:56 J	-28409047.18	-28409046.96	-28409046.73	0.0089	0.0039 *
Moon	-82492-04-10 15:06 J	-28408680.04	-28408679.87	-28408679.66	0.0089	0.0058
Earth	-82492-04-10 18:42 J	-28408679.89	-28408679.72	-28408679.52	0.0089	0.0059 *
Earth	-82491-04-13 04:04 J	-28408312.42	-28408312.33	-28408312.22	0.0089	0.0081
Moon	-82491-04-13 07:25 J	-28408312.28	-28408312.19	-28408312.09	0.0089	0.0082 *
Mars	-82485-03-06 18:13 J	-28406157.83	-28406157.74	-28406157.60	0.0089	0.0084
Mars	-82483-02-01 00:56 J	-28405461.79	-28405461.46	-28405461.11	0.0089	0.0012
Jupiter	-82482-03-29 05:01 J	-28405040.69	-28405040.29	-28405039.78	0.0089	0.0050
Venus	-82447-10-24 00:28 J	-28392047.60	-28392047.48	-28392047.33	0.0089	0.0071
Venus	-82446-06-06 15:06 J	-28391822.05	-28391821.87	-28391821.69	0.0089	0.0053
Venus	-82445-01-18 05:16 J	-28391596.48	-28391596.28	-28391596.07	0.0089	0.0035
Venus	-82445-08-30 19:25 J	-28391370.91	-28391370.69	-28391370.46	0.0089	0.0017
Venus	-82444-04-13 09:49 J	-28391145.31	-28391145.09	-28391144.86	0.0089	0.0001
Venus	-82444-11-25 00:13 J	-28390919.71	-28390919.49	-28390919.27	0.0089	0.0019
Venus	-82443-07-08 14:23 J	-28390694.10	-28390693.90	-28390693.69	0.0089	0.0037
Venus	-82442-02-19 04:32 J	-28390468.48	-28390468.31	-28390468.12	0.0089	0.0055
Venus	-82442-10-02 18:42 J	-28390242.84	-28390242.72	-28390242.58	0.0089	0.0073
Mercury	-82434-06-26 15:49 J	-28387418.86	-28387418.84	-28387418.79	0.0088	0.0087
Mercury	-82434-09-22 19:25 J	-28387330.75	-28387330.69	-28387330.60	0.0088	0.0081
Mercury	-82434-12-19 22:47 J	-28387242.63	-28387242.55	-28387242.42	0.0088	0.0075
Mercury	-82433-03-17 02:37 J	-28387154.50	-28387154.39	-28387154.26	0.0088	0.0068
Mercury	-82433-06-13 06:13 J	-28387066.37	-28387066.24	-28387066.09	0.0088	0.0062
Mercury	-82433-09-09 09:35 J	-28386978.23	-28386978.10	-28386977.93	0.0088	0.0056
Mercury	-82433-12-06 13:25 J	-28386890.10	-28386889.94	-28386889.78	0.0088	0.0049

Mercury -82432-03-04 16:47 J -28386801.96 -28386801.80 -28386801.62 0.0088 0.0043

Mercury -82432-05-31 20:23 J -28386713.82 -28386713.65 -28386713.47 0.0088 0.0036

Mercury -82432-08-27 23:44 J -28386625.68 -28386625.51 -28386625.32 0.0088 0.0030

Mercury -82432-11-24 03:35 J -28386537.54 -28386537.35 -28386537.17 0.0088 0.0024

Mercury -82431-02-20 06:56 J -28386449.39 -28386449.21 -28386449.02 0.0088 0.0018

Mercury -82431-05-19 10:18 J -28386361.25 -28386361.07 -28386360.87 0.0088 0.0012

Mercury -82431-08-15 13:54 J -28386273.11 -28386272.92 -28386272.73 0.0088 0.0005

Mercury -82431-11-11 17:30 J -28386184.96 -28386184.77 -28386184.58 0.0088 0.0002

Mercury -82430-02-07 20:52 J -28386096.82 -28386096.63 -28386096.44 0.0088 0.0007

Mercury -82430-05-07 00:13 J -28386008.67 -28386008.49 -28386008.30 0.0088 0.0014

Mercury -82430-08-03 03:49 J -28385920.53 -28385920.34 -28385920.16 0.0088 0.0020

Mercury -82430-10-30 06:56 J -28385832.38 -28385832.21 -28385832.02 0.0088 0.0026

Mercury -82429-01-26 10:18 J -28385744.23 -28385744.07 -28385743.88 0.0088 0.0033

Mercury -82429-04-23 13:40 J -28385656.09 -28385655.93 -28385655.74 0.0088 0.0039

Mercury -82429-07-20 17:16 J -28385567.94 -28385567.78 -28385567.61 0.0088 0.0044

Mercury -82429-10-16 20:37 J -28385479.79 -28385479.64 -28385479.48 0.0088 0.0050

Mercury -82428-01-12 23:59 J -28385391.64 -28385391.50 -28385391.35 0.0088 0.0057

Mercury -82428-04-11 03:20 J -28385303.48 -28385303.36 -28385303.22 0.0088 0.0063

Mercury -82428-07-08 06:42 J -28385215.33 -28385215.22 -28385215.09 0.0088 0.0069

Mercury -82428-10-04 09:49 J -28385127.17 -28385127.09 -28385126.97 0.0088 0.0075

Mercury -82428-12-31 13:11 J -28385039.01 -28385038.95 -28385038.86 0.0088 0.0081

Mercury -82427-03-29 16:32 J -28384950.83 -28384950.81 -28384950.76 0.0088 0.0087

Earth -82417-09-29 05:16 J -28381114.28 -28381114.28 -28381114.26 0.0088 0.0088

Moon -82417-09-29 08:23 J -28381114.18 -28381114.15 -28381114.07 0.0088 0.0087

Moon -82416-10-01 17:01 J -28380746.93 -28380746.79 -28380746.60 0.0088 0.0068

Earth -82416-10-01 19:40 J -28380746.84 -28380746.68 -28380746.49 0.0088 0.0066 *

Earth -82415-10-04 09:49 J -28380379.30 -28380379.09 -28380378.84 0.0088 0.0043

Moon -82415-10-04 12:13 J -28380379.23 -28380378.99 -28380378.75 0.0088 0.0042 *

Moon -82414-10-06 23:30 J -28380011.76 -28380011.52 -28380011.27 0.0088 0.0022

Earth -82414-10-06 23:59 J -28380011.74 -28380011.50 -28380011.23 0.0088 0.0021 *

Moon	-82413-10-08 13:25 J	-28379644.21	-28379643.94	-28379643.66	0.0088	0.0004
Earth	-82413-10-08 14:23 J	-28379644.16	-28379643.90	-28379643.63	0.0088	0.0003 *
Earth	-82412-10-11 04:04 J	-28379276.57	-28379276.33	-28379276.06	0.0088	0.0026
Moon	-82412-10-11 05:44 J	-28379276.50	-28379276.26	-28379276.01	0.0088	0.0024 *
Moon	-82411-10-13 15:06 J	-28378909.08	-28378908.87	-28378908.63	0.0088	0.0049
Earth	-82411-10-13 18:13 J	-28378908.96	-28378908.74	-28378908.52	0.0088	0.0048 *
Earth	-82410-10-16 07:25 J	-28378541.32	-28378541.19	-28378541.00	0.0088	0.0071
Moon	-82410-10-16 10:47 J	-28378541.18	-28378541.05	-28378540.86	0.0088	0.0070 *
Mars	-82403-02-01 00:42 J	-28376241.52	-28376241.47	-28376241.37	0.0088	0.0085
Mars	-82402-12-26 15:35 J	-28375548.14	-28375547.85	-28375547.56	0.0088	0.0007
Mars	-82400-11-19 04:04 J	-28374854.48	-28374854.33	-28374854.14	0.0088	0.0071
Venus	-82365-12-10 08:08 J	-28362049.20	-28362049.16	-28362049.08	0.0089	0.0085
Venus	-82364-07-23 19:54 J	-28361823.79	-28361823.67	-28361823.51	0.0089	0.0068
Venus	-82363-03-06 07:54 J	-28361598.34	-28361598.17	-28361597.99	0.0089	0.0051
Venus	-82363-10-17 19:54 J	-28361372.86	-28361372.67	-28361372.47	0.0089	0.0034
Venus	-82362-05-31 07:40 J	-28361147.39	-28361147.18	-28361146.97	0.0089	0.0017
Venus	-82361-01-11 19:25 J	-28360921.90	-28360921.69	-28360921.47	0.0089	0.0001
Venus	-82361-08-24 07:11 J	-28360696.41	-28360696.20	-28360695.99	0.0089	0.0017
Venus	-82360-04-06 18:42 J	-28360470.91	-28360470.72	-28360470.51	0.0089	0.0034
Venus	-82360-11-18 06:28 J	-28360245.39	-28360245.23	-28360245.04	0.0089	0.0051
Venus	-82359-07-01 18:28 J	-28360019.86	-28360019.73	-28360019.59	0.0089	0.0067
Venus	-82358-02-12 05:59 J	-28359794.30	-28359794.25	-28359794.17	0.0089	0.0084
Mercury	-82353-10-03 10:32 J	-28357734.07	-28357734.06	-28357734.04	0.0089	0.0088
Mercury	-82353-12-30 11:44 J	-28357646.04	-28357646.01	-28357645.96	0.0089	0.0084
Mercury	-82352-03-28 12:56 J	-28357558.00	-28357557.96	-28357557.89	0.0089	0.0080
Mercury	-82352-06-24 14:37 J	-28357469.96	-28357469.89	-28357469.82	0.0089	0.0075
Mercury	-82352-09-20 15:49 J	-28357381.91	-28357381.84	-28357381.75	0.0089	0.0071
Mercury	-82352-12-17 17:01 J	-28357293.86	-28357293.79	-28357293.69	0.0089	0.0067
Mercury	-82351-03-15 18:42 J	-28357205.81	-28357205.72	-28357205.63	0.0089	0.0062
Mercury	-82351-06-11 19:54 J	-28357117.76	-28357117.67	-28357117.56	0.0089	0.0058

Mercury -82351-09-07 21:06 J -28357029.71 -28357029.62 -28357029.50 0.0089 0.0054

Mercury -82351-12-04 22:47 J -28356941.66 -28356941.55 -28356941.44 0.0089 0.0049

Mercury -82350-03-02 23:59 J -28356853.61 -28356853.50 -28356853.38 0.0089 0.0045

Mercury -82350-05-30 01:25 J -28356765.55 -28356765.44 -28356765.32 0.0089 0.0041

Mercury -82350-08-26 02:52 J -28356677.50 -28356677.38 -28356677.26 0.0089 0.0036

Mercury -82350-11-22 04:04 J -28356589.45 -28356589.33 -28356589.20 0.0089 0.0032

Mercury -82349-02-18 05:30 J -28356501.39 -28356501.27 -28356501.14 0.0089 0.0028

Mercury -82349-05-16 06:56 J -28356413.34 -28356413.21 -28356413.08 0.0089 0.0023

Mercury -82349-08-12 08:23 J -28356325.28 -28356325.15 -28356325.02 0.0089 0.0019

Mercury -82349-11-08 09:49 J -28356237.23 -28356237.09 -28356236.96 0.0089 0.0014

Mercury -82348-02-04 11:01 J -28356149.17 -28356149.04 -28356148.90 0.0089 0.0010

Mercury -82348-05-03 12:28 J -28356061.11 -28356060.98 -28356060.84 0.0089 0.0006

Mercury -82348-07-30 13:54 J -28355973.05 -28355972.92 -28355972.78 0.0089 0.0001

Mercury -82348-10-26 15:20 J -28355885.00 -28355884.86 -28355884.73 0.0089 0.0004

Mercury -82347-01-22 16:47 J -28355796.94 -28355796.80 -28355796.67 0.0089 0.0008

Mercury -82347-04-20 17:59 J -28355708.88 -28355708.75 -28355708.61 0.0089 0.0013

Mercury -82347-07-17 19:25 J -28355620.82 -28355620.69 -28355620.55 0.0089 0.0017

Mercury -82347-10-13 20:52 J -28355532.76 -28355532.63 -28355532.50 0.0089 0.0021

Mercury -82346-01-09 22:18 J -28355444.70 -28355444.57 -28355444.44 0.0089 0.0026

Mercury -82346-04-07 23:44 J -28355356.64 -28355356.51 -28355356.38 0.0089 0.0030

Mercury -82346-07-05 00:56 J -28355268.57 -28355268.46 -28355268.33 0.0089 0.0035

Mercury -82346-10-01 02:37 J -28355180.51 -28355180.39 -28355180.27 0.0089 0.0039

Mercury -82346-12-28 03:49 J -28355092.45 -28355092.34 -28355092.21 0.0089 0.0044

Mercury -82345-03-25 05:30 J -28355004.39 -28355004.27 -28355004.16 0.0089 0.0048

Mercury -82345-06-21 06:42 J -28354916.32 -28354916.22 -28354916.10 0.0089 0.0053

Mercury -82345-09-17 08:08 J -28354828.25 -28354828.16 -28354828.05 0.0089 0.0058

Mercury -82345-12-14 09:35 J -28354740.19 -28354740.10 -28354740.00 0.0089 0.0062

Mercury -82344-03-12 11:01 J -28354652.12 -28354652.04 -28354651.94 0.0089 0.0067

Mercury -82344-06-08 12:28 J -28354564.05 -28354563.98 -28354563.89 0.0089 0.0071

Mercury -82344-09-04 13:54 J -28354475.98 -28354475.92 -28354475.84 0.0089 0.0076

Mercury -82344-12-01 15:35 J -28354387.91 -28354387.85 -28354387.79 0.0089 0.0080

Mercury -82343-02-27 16:47 J -28354299.83 -28354299.80 -28354299.75 0.0089 0.0085

Earth -82334-03-28 18:56 J -28350983.77 -28350983.71 -28350983.61 0.0089 0.0084

Moon -82334-03-28 19:11 J -28350983.77 -28350983.70 -28350983.57 0.0089 0.0081 *

Moon -82333-03-30 02:52 J -28350616.54 -28350616.38 -28350616.20 0.0089 0.0066

Earth -82333-03-30 04:04 J -28350616.49 -28350616.33 -28350616.14 0.0089 0.0063 *

Earth -82332-04-01 12:56 J -28350249.17 -28350248.96 -28350248.72 0.0089 0.0041

Moon -82332-04-01 15:35 J -28350249.06 -28350248.85 -28350248.61 0.0089 0.0037 *

Moon -82331-04-03 19:11 J -28349881.94 -28349881.70 -28349881.45 0.0089 0.0022

Earth -82331-04-03 22:18 J -28349881.81 -28349881.57 -28349881.32 0.0089 0.0019 *

Earth -82330-04-06 07:40 J -28349514.43 -28349514.18 -28349513.93 0.0089 0.0003

Moon -82330-04-06 11:01 J -28349514.28 -28349514.04 -28349513.78 0.0089 0.0008 *

Moon -82329-04-07 13:40 J -28349147.16 -28349146.93 -28349146.68 0.0089 0.0021

Earth -82329-04-07 17:01 J -28349147.03 -28349146.79 -28349146.54 0.0089 0.0025 *

Earth -82328-04-10 02:23 J -28348779.61 -28348779.40 -28348779.18 0.0089 0.0047

Moon -82328-04-10 04:32 J -28348779.50 -28348779.31 -28348779.08 0.0089 0.0051 *

Moon -82327-04-12 10:04 J -28348412.24 -28348412.08 -28348411.91 0.0089 0.0065

Earth -82327-04-12 11:44 J -28348412.15 -28348412.01 -28348411.84 0.0089 0.0069 *

Mars -82320-09-14 03:20 J -28345700.65 -28345700.36 -28345700.03 0.0089 0.0035

Mars -82318-08-11 10:47 J -28345004.29 -28345004.05 -28345003.80 0.0089 0.0062

Jupiter -82316-05-31 06:56 J -28344345.73 -28344345.21 -28344344.65 0.0089 0.0013

Venus -82282-01-25 08:08 J -28332053.25 -28332053.16 -28332053.05 0.0089 0.0079

Venus -82282-09-07 21:49 J -28331827.73 -28331827.59 -28331827.40 0.0089 0.0062

Venus -82281-04-20 12:13 J -28331602.17 -28331601.99 -28331601.77 0.0089 0.0044

Venus -82281-12-02 02:37 J -28331376.59 -28331376.39 -28331376.16 0.0089 0.0026

Venus -82280-07-15 17:01 J -28331151.01 -28331150.79 -28331150.56 0.0089 0.0008

Venus -82279-02-26 07:25 J -28330925.42 -28330925.19 -28330924.96 0.0089 0.0011

Venus -82279-10-09 21:35 J -28330699.81 -28330699.60 -28330699.38 0.0089 0.0029

Venus -82278-05-23 11:59 J -28330474.19 -28330474.00 -28330473.80 0.0089 0.0047

Venus -82277-01-04 02:08 J -28330248.55 -28330248.41 -28330248.24 0.0089 0.0065

Venus -82277-08-16 16:18 J -28330022.88 -28330022.82 -28330022.73 0.0089 0.0083

Mercury -82269-03-22 13:54 J -28327247.96 -28327247.92 -28327247.88 0.0088 0.0086

Mercury -82269-06-18 17:01 J -28327159.85 -28327159.79 -28327159.69 0.0088 0.0080

Mercury -82269-09-14 20:37 J -28327071.73 -28327071.64 -28327071.52 0.0088 0.0074

Mercury -82269-12-12 00:28 J -28326983.60 -28326983.48 -28326983.35 0.0088 0.0067

Mercury -82268-03-10 03:49 J -28326895.47 -28326895.34 -28326895.19 0.0088 0.0061

Mercury -82268-06-06 07:25 J -28326807.33 -28326807.19 -28326807.03 0.0088 0.0054

Mercury -82268-09-02 10:47 J -28326719.19 -28326719.05 -28326718.87 0.0088 0.0049

Mercury -82268-11-29 14:37 J -28326631.06 -28326630.89 -28326630.72 0.0088 0.0042

Mercury -82267-02-25 17:59 J -28326542.91 -28326542.75 -28326542.56 0.0088 0.0036

Mercury -82267-05-24 21:35 J -28326454.77 -28326454.60 -28326454.41 0.0088 0.0029

Mercury -82267-08-21 01:11 J -28326366.63 -28326366.45 -28326366.26 0.0088 0.0023

Mercury -82267-11-17 04:47 J -28326278.49 -28326278.30 -28326278.11 0.0088 0.0017

Mercury -82266-02-13 08:08 J -28326190.35 -28326190.16 -28326189.97 0.0088 0.0010

Mercury -82266-05-12 11:44 J -28326102.20 -28326102.01 -28326101.82 0.0088 0.0004

Mercury -82266-08-08 15:06 J -28326014.06 -28326013.87 -28326013.67 0.0088 0.0003

Mercury -82266-11-04 18:42 J -28325925.91 -28325925.72 -28325925.53 0.0088 0.0008

Mercury -82265-01-31 22:04 J -28325837.77 -28325837.58 -28325837.39 0.0088 0.0015

Mercury -82265-04-29 01:40 J -28325749.62 -28325749.43 -28325749.25 0.0088 0.0021

Mercury -82265-07-26 04:47 J -28325661.47 -28325661.30 -28325661.11 0.0088 0.0027

Mercury -82265-10-22 08:08 J -28325573.32 -28325573.16 -28325572.97 0.0088 0.0034

Mercury -82264-01-18 11:30 J -28325485.18 -28325485.02 -28325484.84 0.0088 0.0040

Mercury -82264-04-16 15:06 J -28325397.03 -28325396.87 -28325396.70 0.0088 0.0045

Mercury -82264-07-13 18:28 J -28325308.88 -28325308.73 -28325308.57 0.0088 0.0052

Mercury -82264-10-09 21:49 J -28325220.72 -28325220.59 -28325220.44 0.0088 0.0058

Mercury -82263-01-06 01:11 J -28325132.57 -28325132.45 -28325132.31 0.0088 0.0064

Mercury -82263-04-04 04:32 J -28325044.42 -28325044.31 -28325044.19 0.0088 0.0070

Mercury -82263-07-01 07:54 J -28324956.26 -28324956.17 -28324956.07 0.0088 0.0076

Mercury -82263-09-27 11:16 J -28324868.09 -28324868.03 -28324867.95 0.0088 0.0082

Mercury -82263-12-24 14:37 J -28324779.90 -28324779.89 -28324779.86 0.0088 0.0088

Earth	-82252-09-30 23:16 J	-28320846.64	-28320846.53	-28320846.38	0.0088	0.0077
Moon	-82252-09-30 23:59 J	-28320846.63	-28320846.50	-28320846.32	0.0088	0.0073 *
Earth	-82251-10-03 13:54 J	-28320479.13	-28320478.92	-28320478.71	0.0088	0.0054
Moon	-82251-10-03 13:54 J	-28320479.09	-28320478.92	-28320478.71	0.0088	0.0058 *
Moon	-82250-10-06 02:52 J	-28320111.63	-28320111.38	-28320111.11	0.0088	0.0027
Earth	-82250-10-06 04:04 J	-28320111.57	-28320111.33	-28320111.07	0.0088	0.0031 *
Earth	-82249-10-07 18:28 J	-28319743.99	-28319743.73	-28319743.46	0.0088	0.0009
Moon	-82249-10-07 20:52 J	-28319743.87	-28319743.63	-28319743.36	0.0088	0.0014 *
Moon	-82248-10-10 05:01 J	-28319376.54	-28319376.29	-28319376.01	0.0088	0.0019
Earth	-82248-10-10 08:23 J	-28319376.40	-28319376.15	-28319375.88	0.0088	0.0014 *
Earth	-82247-10-12 22:18 J	-28319008.80	-28319008.57	-28319008.32	0.0088	0.0036
Moon	-82247-10-13 02:08 J	-28319008.66	-28319008.41	-28319008.17	0.0088	0.0032 *
Moon	-82246-10-15 08:08 J	-28318641.32	-28318641.16	-28318640.95	0.0088	0.0064
Earth	-82246-10-15 12:13 J	-28318641.18	-28318640.99	-28318640.79	0.0088	0.0059 *
Earth	-82245-10-17 01:25 J	-28318273.51	-28318273.44	-28318273.31	0.0088	0.0081
Moon	-82245-10-17 05:01 J	-28318273.41	-28318273.29	-28318273.14	0.0088	0.0077 *
Mars	-82238-08-11 01:11 J	-28315784.69	-28315784.45	-28315784.18	0.0088	0.0044
Mars	-82236-07-04 15:35 J	-28315091.10	-28315090.85	-28315090.56	0.0088	0.0035
Venus	-82200-10-25 05:44 J	-28301829.35	-28301829.26	-28301829.13	0.0089	0.0076
Venus	-82199-06-07 17:44 J	-28301603.90	-28301603.76	-28301603.59	0.0089	0.0059
Venus	-82198-01-19 05:44 J	-28301378.44	-28301378.26	-28301378.07	0.0089	0.0042
Venus	-82198-09-01 17:30 J	-28301152.97	-28301152.77	-28301152.56	0.0089	0.0025
Venus	-82197-04-14 05:30 J	-28300927.49	-28300927.27	-28300927.06	0.0089	0.0008
Venus	-82197-11-25 17:16 J	-28300701.99	-28300701.78	-28300701.56	0.0089	0.0009
Venus	-82196-07-09 05:01 J	-28300476.49	-28300476.29	-28300476.08	0.0089	0.0026
Venus	-82195-02-19 16:47 J	-28300250.99	-28300250.80	-28300250.61	0.0089	0.0043
Venus	-82195-10-03 04:18 J	-28300025.47	-28300025.32	-28300025.15	0.0089	0.0060
Venus	-82194-05-16 15:49 J	-28299799.93	-28299799.84	-28299799.72	0.0089	0.0077
Mercury	-82188-06-30 09:35 J	-28297563.11	-28297563.10	-28297563.07	0.0089	0.0088
Mercury	-82188-09-26 10:47 J	-28297475.08	-28297475.05	-28297474.99	0.0089	0.0084

Mercury -82188-12-23 12:28 J -28297387.04 -28297386.98 -28297386.92 0.0089 0.0079

Mercury -82187-03-21 13:40 J -28297298.99 -28297298.93 -28297298.85 0.0089 0.0075

Mercury -82187-06-17 14:52 J -28297210.94 -28297210.88 -28297210.79 0.0089 0.0071

Mercury -82187-09-13 16:32 J -28297122.90 -28297122.81 -28297122.72 0.0089 0.0066

Mercury -82187-12-10 17:44 J -28297034.85 -28297034.76 -28297034.66 0.0089 0.0062

Mercury -82186-03-08 18:56 J -28296946.80 -28296946.71 -28296946.60 0.0089 0.0058

Mercury -82186-06-04 20:37 J -28296858.75 -28296858.64 -28296858.53 0.0089 0.0053

Mercury -82186-08-31 21:49 J -28296770.69 -28296770.59 -28296770.47 0.0089 0.0049

Mercury -82186-11-27 23:01 J -28296682.64 -28296682.54 -28296682.41 0.0089 0.0045

Mercury -82185-02-24 00:42 J -28296594.59 -28296594.47 -28296594.35 0.0089 0.0040

Mercury -82185-05-22 01:54 J -28296506.53 -28296506.42 -28296506.29 0.0089 0.0036

Mercury -82185-08-18 03:20 J -28296418.48 -28296418.36 -28296418.23 0.0089 0.0031

Mercury -82185-11-14 04:47 J -28296330.43 -28296330.30 -28296330.17 0.0089 0.0027

Mercury -82184-02-10 05:59 J -28296242.37 -28296242.25 -28296242.11 0.0089 0.0023

Mercury -82184-05-09 07:40 J -28296154.32 -28296154.18 -28296154.05 0.0089 0.0018

Mercury -82184-08-05 08:52 J -28296066.26 -28296066.13 -28296065.99 0.0089 0.0014

Mercury -82184-11-01 10:18 J -28295978.20 -28295978.07 -28295977.94 0.0089 0.0009

Mercury -82183-01-28 11:44 J -28295890.15 -28295890.01 -28295889.88 0.0089 0.0005

Mercury -82183-04-26 13:11 J -28295802.09 -28295801.95 -28295801.82 0.0089 0.0003

Mercury -82183-07-23 14:23 J -28295714.03 -28295713.90 -28295713.76 0.0089 0.0005

Mercury -82183-10-19 15:49 J -28295625.97 -28295625.84 -28295625.70 0.0089 0.0009

Mercury -82182-01-15 17:16 J -28295537.91 -28295537.78 -28295537.65 0.0089 0.0013

Mercury -82182-04-13 18:28 J -28295449.85 -28295449.73 -28295449.59 0.0089 0.0018

Mercury -82182-07-10 20:08 J -28295361.79 -28295361.66 -28295361.53 0.0089 0.0022

Mercury -82182-10-06 21:20 J -28295273.73 -28295273.61 -28295273.48 0.0089 0.0027

Mercury -82181-01-02 22:47 J -28295185.67 -28295185.55 -28295185.42 0.0089 0.0031

Mercury -82181-03-30 23:59 J -28295097.61 -28295097.50 -28295097.36 0.0089 0.0036

Mercury -82181-06-27 01:40 J -28295009.55 -28295009.43 -28295009.31 0.0089 0.0040

Mercury -82181-09-23 02:52 J -28294921.48 -28294921.38 -28294921.25 0.0089 0.0045

Mercury -82181-12-20 04:32 J -28294833.42 -28294833.31 -28294833.20 0.0089 0.0049

Mercury -82180-03-18 05:44 J -28294745.36 -28294745.26 -28294745.14 0.0089 0.0054

Mercury -82180-06-14 07:11 J -28294657.29 -28294657.20 -28294657.09 0.0089 0.0058

Mercury -82180-09-10 08:37 J -28294569.22 -28294569.14 -28294569.03 0.0089 0.0063

Mercury -82180-12-07 10:04 J -28294481.16 -28294481.08 -28294480.98 0.0089 0.0067

Mercury -82179-03-05 11:30 J -28294393.09 -28294393.02 -28294392.93 0.0089 0.0072

Mercury -82179-06-01 12:56 J -28294305.02 -28294304.96 -28294304.88 0.0089 0.0076

Mercury -82179-08-28 14:23 J -28294216.94 -28294216.90 -28294216.83 0.0089 0.0081

Mercury -82179-11-24 16:04 J -28294128.86 -28294128.83 -28294128.79 0.0089 0.0085

Earth -82169-03-29 12:13 J -28290716.10 -28290715.99 -28290715.82 0.0089 0.0073

Moon -82169-03-29 15:20 J -28290715.98 -28290715.86 -28290715.72 0.0089 0.0075 *

Moon -82168-03-31 17:59 J -28290348.94 -28290348.75 -28290348.52 0.0089 0.0049

Earth -82168-03-31 21:49 J -28290348.79 -28290348.59 -28290348.38 0.0089 0.0051 *

Earth -82167-04-03 06:42 J -28289981.44 -28289981.22 -28289980.97 0.0089 0.0030

Moon -82167-04-03 10:32 J -28289981.30 -28289981.06 -28289980.83 0.0089 0.0032 *

Moon -82166-04-05 13:11 J -28289614.20 -28289613.95 -28289613.70 0.0089 0.0006

Earth -82166-04-05 16:04 J -28289614.07 -28289613.83 -28289613.57 0.0089 0.0008 *

Earth -82165-04-07 01:11 J -28289246.69 -28289246.45 -28289246.19 0.0089 0.0014

Moon -82165-04-07 03:49 J -28289246.59 -28289246.34 -28289246.08 0.0089 0.0012 *

Moon -82164-04-09 09:35 J -28288879.30 -28288879.10 -28288878.87 0.0089 0.0039

Earth -82164-04-09 10:18 J -28288879.28 -28288879.07 -28288878.82 0.0089 0.0036 *

Moon -82163-04-11 19:54 J -28288511.86 -28288511.67 -28288511.46 0.0089 0.0055

Earth -82163-04-11 19:40 J -28288511.85 -28288511.68 -28288511.47 0.0089 0.0058 *

Earth -82162-04-14 05:30 J -28288144.37 -28288144.27 -28288144.14 0.0089 0.0079

Moon -82162-04-14 06:28 J -28288144.29 -28288144.23 -28288144.11 0.0089 0.0082 *

Mars -82156-04-27 11:59 J -28285939.14 -28285939.00 -28285938.83 0.0089 0.0079

Mars -82154-03-24 15:49 J -28285243.16 -28285242.84 -28285242.49 0.0089 0.0017

Jupiter -82150-08-01 22:04 J -28283652.07 -28283651.58 -28283651.01 0.0089 0.0026

Venus -82118-04-28 16:04 J -28272058.85 -28272058.83 -28272058.76 0.0089 0.0087

Venus -82118-12-10 06:28 J -28271833.35 -28271833.23 -28271833.07 0.0089 0.0069

Venus -82117-07-22 20:37 J -28271607.81 -28271607.64 -28271607.44 0.0089 0.0051

Venus	-82116-03-05 11:01 J	-28271382.24	-28271382.04	-28271381.82	0.0089	0.0033
Venus	-82116-10-17 01:11 J	-28271156.66	-28271156.45	-28271156.22	0.0089	0.0015
Venus	-82115-05-30 15:49 J	-28270931.07	-28270930.84	-28270930.61	0.0089	0.0004
Venus	-82114-01-11 05:44 J	-28270705.47	-28270705.26	-28270705.03	0.0089	0.0022
Venus	-82114-08-24 19:54 J	-28270479.86	-28270479.67	-28270479.45	0.0089	0.0040
Venus	-82113-04-06 10:04 J	-28270254.23	-28270254.08	-28270253.89	0.0089	0.0058
Venus	-82113-11-18 00:28 J	-28270028.58	-28270028.48	-28270028.35	0.0089	0.0076
Mercury	-82105-12-17 11:30 J	-28267077.06	-28267077.02	-28267076.95	0.0089	0.0085
Mercury	-82104-03-15 14:52 J	-28266988.95	-28266988.88	-28266988.77	0.0089	0.0079
Mercury	-82104-06-11 18:28 J	-28266900.82	-28266900.73	-28266900.60	0.0089	0.0073
Mercury	-82104-09-07 22:18 J	-28266812.69	-28266812.57	-28266812.43	0.0089	0.0066
Mercury	-82104-12-05 01:40 J	-28266724.56	-28266724.43	-28266724.27	0.0088	0.0060
Mercury	-82103-03-03 05:16 J	-28266636.42	-28266636.28	-28266636.11	0.0088	0.0053
Mercury	-82103-05-30 09:06 J	-28266548.28	-28266548.12	-28266547.96	0.0088	0.0047
Mercury	-82103-08-26 12:28 J	-28266460.14	-28266459.98	-28266459.80	0.0088	0.0041
Mercury	-82103-11-22 15:49 J	-28266372.00	-28266371.84	-28266371.65	0.0088	0.0035
Mercury	-82102-02-18 19:40 J	-28266283.86	-28266283.68	-28266283.50	0.0088	0.0028
Mercury	-82102-05-17 23:01 J	-28266195.72	-28266195.54	-28266195.35	0.0088	0.0022
Mercury	-82102-08-14 02:37 J	-28266107.58	-28266107.39	-28266107.20	0.0088	0.0015
Mercury	-82102-11-10 05:59 J	-28266019.43	-28266019.25	-28266019.05	0.0088	0.0010
Mercury	-82101-02-06 09:35 J	-28265931.29	-28265931.10	-28265930.91	0.0088	0.0003
Mercury	-82101-05-04 13:11 J	-28265843.14	-28265842.95	-28265842.76	0.0088	0.0004
Mercury	-82101-07-31 16:32 J	-28265755.00	-28265754.81	-28265754.62	0.0088	0.0010
Mercury	-82101-10-27 20:08 J	-28265666.85	-28265666.66	-28265666.48	0.0088	0.0016
Mercury	-82100-01-23 23:16 J	-28265578.70	-28265578.53	-28265578.33	0.0088	0.0023
Mercury	-82100-04-22 02:37 J	-28265490.56	-28265490.39	-28265490.20	0.0088	0.0029
Mercury	-82100-07-19 06:13 J	-28265402.41	-28265402.24	-28265402.06	0.0088	0.0035
Mercury	-82100-10-15 09:35 J	-28265314.26	-28265314.10	-28265313.92	0.0088	0.0041
Mercury	-82099-01-11 13:11 J	-28265226.11	-28265225.95	-28265225.79	0.0088	0.0047
Mercury	-82099-04-09 16:32 J	-28265137.96	-28265137.81	-28265137.66	0.0088	0.0053

Mercury -82099-07-06 19:54 J -28265049.81 -28265049.67 -28265049.53 0.0088 0.0059

Mercury -82099-10-02 23:01 J -28264961.65 -28264961.54 -28264961.40 0.0088 0.0065

Mercury -82099-12-30 02:23 J -28264873.49 -28264873.40 -28264873.27 0.0088 0.0071

Mercury -82098-03-28 05:30 J -28264785.33 -28264785.27 -28264785.15 0.0088 0.0078

Mercury -82098-06-24 08:52 J -28264697.17 -28264697.13 -28264697.04 0.0088 0.0084

Earth -82088-09-30 04:04 J -28260946.36 -28260946.33 -28260946.26 0.0088 0.0087

Moon -82088-09-30 05:16 J -28260946.35 -28260946.28 -28260946.19 0.0088 0.0084 *

Moon -82087-10-02 15:49 J -28260578.99 -28260578.84 -28260578.63 0.0088 0.0068

Earth -82087-10-02 18:28 J -28260578.89 -28260578.73 -28260578.52 0.0088 0.0064 *

Earth -82086-10-05 09:20 J -28260211.34 -28260211.11 -28260210.87 0.0088 0.0042

Moon -82086-10-05 11:59 J -28260211.22 -28260211.00 -28260210.76 0.0088 0.0040 *

Moon -82085-10-06 20:08 J -28259843.92 -28259843.66 -28259843.40 0.0088 0.0022

Earth -82085-10-06 23:30 J -28259843.76 -28259843.52 -28259843.25 0.0088 0.0020 *

Earth -82084-10-09 13:54 J -28259476.18 -28259475.92 -28259475.65 0.0088 0.0003

Moon -82084-10-09 17:30 J -28259476.03 -28259475.77 -28259475.50 0.0088 0.0006 *

Moon -82083-10-12 00:28 J -28259108.72 -28259108.48 -28259108.22 0.0088 0.0024

Earth -82083-10-12 04:04 J -28259108.58 -28259108.33 -28259108.07 0.0088 0.0026 *

Earth -82082-10-14 17:30 J -28258740.97 -28258740.77 -28258740.52 0.0088 0.0048

Moon -82082-10-14 20:37 J -28258740.84 -28258740.64 -28258740.39 0.0088 0.0050 *

Moon -82081-10-16 05:59 J -28258373.39 -28258373.25 -28258373.07 0.0088 0.0069

Earth -82081-10-16 07:25 J -28258373.32 -28258373.19 -28258373.01 0.0088 0.0070 *

Mars -82074-03-26 10:18 J -28256021.17 -28256021.07 -28256020.92 0.0088 0.0080

Mars -82072-02-17 02:52 J -28255327.67 -28255327.38 -28255327.09 0.0088 0.0001

Mars -82070-01-11 17:01 J -28254633.91 -28254633.79 -28254633.63 0.0088 0.0077

Venus -82035-01-26 16:18 J -28241834.88 -28241834.82 -28241834.73 0.0089 0.0083

Venus -82035-09-09 04:18 J -28241609.46 -28241609.32 -28241609.17 0.0089 0.0066

Venus -82034-04-22 16:04 J -28241384.00 -28241383.83 -28241383.64 0.0089 0.0049

Venus -82034-12-04 04:04 J -28241158.52 -28241158.33 -28241158.13 0.0089 0.0032

Venus -82033-07-16 16:04 J -28240933.04 -28240932.83 -28240932.62 0.0089 0.0015

Venus -82032-02-27 03:49 J -28240707.56 -28240707.34 -28240707.13 0.0089 0.0002

Venus	-82032-10-10 15:35 J	-28240482.06	-28240481.85	-28240481.64	0.0089	0.0019
Venus	-82031-05-24 03:20 J	-28240256.55	-28240256.36	-28240256.16	0.0089	0.0036
Venus	-82030-01-04 15:06 J	-28240031.04	-28240030.87	-28240030.70	0.0089	0.0053
Venus	-82030-08-18 02:37 J	-28239805.51	-28239805.39	-28239805.25	0.0089	0.0070
Venus	-82029-03-30 14:08 J	-28239579.93	-28239579.91	-28239579.85	0.0089	0.0087
Mercury	-82023-03-27 08:52 J	-28237392.14	-28237392.13	-28237392.10	0.0089	0.0087
Mercury	-82023-06-23 10:18 J	-28237304.11	-28237304.07	-28237304.02	0.0089	0.0083
Mercury	-82023-09-19 11:30 J	-28237216.07	-28237216.02	-28237215.95	0.0089	0.0079
Mercury	-82023-12-16 12:56 J	-28237128.02	-28237127.96	-28237127.88	0.0089	0.0074
Mercury	-82022-03-14 14:23 J	-28237039.98	-28237039.90	-28237039.81	0.0089	0.0070
Mercury	-82022-06-10 15:35 J	-28236951.93	-28236951.85	-28236951.75	0.0089	0.0066
Mercury	-82022-09-06 17:16 J	-28236863.88	-28236863.78	-28236863.69	0.0089	0.0061
Mercury	-82022-12-03 18:28 J	-28236775.83	-28236775.73	-28236775.62	0.0089	0.0057
Mercury	-82021-02-29 19:40 J	-28236687.78	-28236687.68	-28236687.56	0.0089	0.0053
Mercury	-82021-05-27 21:20 J	-28236599.72	-28236599.61	-28236599.50	0.0089	0.0048
Mercury	-82021-08-23 22:32 J	-28236511.67	-28236511.56	-28236511.44	0.0089	0.0044
Mercury	-82021-11-19 23:59 J	-28236423.62	-28236423.50	-28236423.38	0.0089	0.0039
Mercury	-82020-02-16 01:25 J	-28236335.56	-28236335.44	-28236335.32	0.0089	0.0035
Mercury	-82020-05-15 02:37 J	-28236247.51	-28236247.39	-28236247.26	0.0089	0.0031
Mercury	-82020-08-11 04:04 J	-28236159.45	-28236159.33	-28236159.20	0.0089	0.0026
Mercury	-82020-11-07 05:30 J	-28236071.40	-28236071.27	-28236071.14	0.0089	0.0022
Mercury	-82019-02-03 06:56 J	-28235983.34	-28235983.21	-28235983.08	0.0089	0.0017
Mercury	-82019-05-02 08:08 J	-28235895.29	-28235895.16	-28235895.02	0.0089	0.0013
Mercury	-82019-07-29 09:35 J	-28235807.23	-28235807.10	-28235806.96	0.0089	0.0008
Mercury	-82019-10-25 11:01 J	-28235719.17	-28235719.04	-28235718.91	0.0089	0.0004
Mercury	-82018-01-21 12:28 J	-28235631.12	-28235630.98	-28235630.85	0.0089	0.0001
Mercury	-82018-04-19 13:40 J	-28235543.06	-28235542.93	-28235542.79	0.0089	0.0006
Mercury	-82018-07-16 15:06 J	-28235455.00	-28235454.87	-28235454.73	0.0089	0.0010
Mercury	-82018-10-12 16:32 J	-28235366.94	-28235366.81	-28235366.67	0.0089	0.0014
Mercury	-82017-01-08 17:59 J	-28235278.88	-28235278.75	-28235278.62	0.0089	0.0018

Mercury -82017-04-05 19:25 J -28235190.82 -28235190.69 -28235190.56 0.0089 0.0023

Mercury -82017-07-02 20:37 J -28235102.76 -28235102.64 -28235102.50 0.0089 0.0028

Mercury -82017-09-28 22:04 J -28235014.70 -28235014.58 -28235014.45 0.0089 0.0032

Mercury -82017-12-25 23:30 J -28234926.64 -28234926.52 -28234926.39 0.0089 0.0037

Mercury -82016-03-24 00:56 J -28234838.57 -28234838.46 -28234838.34 0.0089 0.0041

Mercury -82016-06-20 02:08 J -28234750.51 -28234750.41 -28234750.28 0.0089 0.0046

Mercury -82016-09-16 03:49 J -28234662.45 -28234662.34 -28234662.23 0.0089 0.0050

Mercury -82016-12-13 05:01 J -28234574.38 -28234574.29 -28234574.17 0.0089 0.0055

Mercury -82015-03-11 06:42 J -28234486.32 -28234486.22 -28234486.12 0.0089 0.0059

Mercury -82015-06-07 07:54 J -28234398.25 -28234398.17 -28234398.06 0.0089 0.0064

Mercury -82015-09-03 09:35 J -28234310.18 -28234310.10 -28234310.01 0.0089 0.0068

Mercury -82015-11-30 10:47 J -28234222.11 -28234222.05 -28234221.96 0.0089 0.0073

Mercury -82014-02-26 12:28 J -28234134.04 -28234133.98 -28234133.91 0.0089 0.0077

Mercury -82014-05-25 13:40 J -28234045.97 -28234045.93 -28234045.86 0.0089 0.0082

Mercury -82014-08-21 15:20 J -28233957.89 -28233957.86 -28233957.83 0.0089 0.0086

Moon -82005-03-28 19:25 J -28230815.79 -28230815.69 -28230815.57 0.0089 0.0079

Earth -82005-03-28 22:18 J -28230815.63 -28230815.57 -28230815.45 0.0089 0.0083 *

Earth -82004-03-31 07:40 J -28230448.35 -28230448.18 -28230447.99 0.0089 0.0061

Moon -82004-03-31 11:16 J -28230448.20 -28230448.03 -28230447.86 0.0089 0.0065 *

Moon -82003-04-02 13:54 J -28230081.13 -28230080.92 -28230080.69 0.0089 0.0036

Earth -82003-04-02 16:32 J -28230081.02 -28230080.81 -28230080.57 0.0089 0.0040 *

Earth -82002-04-05 01:54 J -28229713.66 -28229713.42 -28229713.17 0.0089 0.0018

Moon -82002-04-05 03:20 J -28229713.60 -28229713.36 -28229713.10 0.0089 0.0022 *

Moon -82001-04-06 10:04 J -28229346.32 -28229346.08 -28229345.84 0.0089 0.0007

Earth -82001-04-06 11:01 J -28229346.29 -28229346.04 -28229345.79 0.0089 0.0003 *

82ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 82nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-82000-04-08 19:11 J		-28228978.95	-28228978.70	-28228978.44	0.0089	0.0021	
Earth	-82000-04-08 19:54 J		-28228978.90	-28228978.67	-28228978.42	0.0089	0.0025	*
Earth	-81999-04-11 05:16 J		-28228611.48	-28228611.28	-28228611.06	0.0089	0.0047	
Moon	-81999-04-11 06:56 J		-28228611.39	-28228611.21	-28228610.98	0.0089	0.0050	*
Moon	-81998-04-13 11:44 J		-28228244.17	-28228244.01	-28228243.81	0.0089	0.0064	
Earth	-81998-04-13 14:23 J		-28228244.04	-28228243.90	-28228243.72	0.0089	0.0069	*
Mars	-81991-11-05 00:56 J		-28225481.76	-28225481.46	-28225481.12	0.0089	0.0028	
Mars	-81989-10-01 05:44 J		-28224785.46	-28224785.26	-28224785.02	0.0089	0.0067	
Jupiter	-81984-10-01 02:37 J		-28222959.72	-28222959.39	-28222958.98	0.0089	0.0066	
Venus	-81953-03-12 15:06 J		-28211838.97	-28211838.87	-28211838.74	0.0089	0.0076	
Venus	-81953-10-24 05:16 J		-28211613.44	-28211613.28	-28211613.10	0.0089	0.0058	
Venus	-81952-06-06 19:40 J		-28211387.87	-28211387.68	-28211387.47	0.0089	0.0040	
Venus	-81951-01-18 10:04 J		-28211162.30	-28211162.08	-28211161.86	0.0089	0.0022	
Venus	-81951-09-01 00:13 J		-28210936.71	-28210936.49	-28210936.26	0.0089	0.0004	
Venus	-81950-04-14 14:23 J		-28210711.12	-28210710.90	-28210710.67	0.0089	0.0015	
Venus	-81950-11-26 04:32 J		-28210485.51	-28210485.31	-28210485.09	0.0089	0.0033	
Venus	-81949-07-08 18:42 J		-28210259.89	-28210259.72	-28210259.52	0.0089	0.0051	
Venus	-81948-02-19 09:06 J		-28210034.25	-28210034.12	-28210033.97	0.0089	0.0069	
Venus	-81948-10-02 23:16 J		-28209808.56	-28209808.53	-28209808.48	0.0089	0.0087	
Mercury	-81940-09-13 10:04 J		-28206906.14	-28206906.08	-28206906.01	0.0089	0.0083	
Mercury	-81940-12-10 13:25 J		-28206818.02	-28206817.94	-28206817.83	0.0089	0.0077	

Mercury -81939-03-08 16:47 J -28206729.89 -28206729.80 -28206729.66 0.0089 0.0071
 Mercury -81939-06-04 20:37 J -28206641.76 -28206641.64 -28206641.50 0.0089 0.0064
 Mercury -81939-09-01 00:13 J -28206553.63 -28206553.49 -28206553.34 0.0089 0.0058
 Mercury -81939-11-28 03:35 J -28206465.49 -28206465.35 -28206465.18 0.0089 0.0052
 Mercury -81938-02-24 07:25 J -28206377.35 -28206377.19 -28206377.02 0.0089 0.0045
 Mercury -81938-05-23 10:47 J -28206289.21 -28206289.05 -28206288.87 0.0089 0.0039
 Mercury -81938-08-19 14:23 J -28206201.07 -28206200.90 -28206200.71 0.0089 0.0032
 Mercury -81938-11-15 17:59 J -28206112.93 -28206112.75 -28206112.56 0.0088 0.0026
 Mercury -81937-02-11 21:35 J -28206024.79 -28206024.60 -28206024.41 0.0088 0.0020
 Mercury -81937-05-10 00:56 J -28205936.64 -28205936.46 -28205936.26 0.0088 0.0014
 Mercury -81937-08-06 04:32 J -28205848.50 -28205848.31 -28205848.12 0.0088 0.0007
 Mercury -81937-11-02 08:08 J -28205760.36 -28205760.16 -28205759.97 0.0088 0.0002
 Mercury -81936-01-29 11:30 J -28205672.21 -28205672.02 -28205671.83 0.0088 0.0005
 Mercury -81936-04-27 14:52 J -28205584.06 -28205583.88 -28205583.68 0.0088 0.0012
 Mercury -81936-07-24 18:28 J -28205495.92 -28205495.73 -28205495.54 0.0088 0.0018
 Mercury -81936-10-20 21:35 J -28205407.77 -28205407.60 -28205407.40 0.0088 0.0025
 Mercury -81935-01-17 01:11 J -28205319.62 -28205319.45 -28205319.26 0.0088 0.0030
 Mercury -81935-04-15 04:32 J -28205231.47 -28205231.31 -28205231.13 0.0088 0.0037
 Mercury -81935-07-12 08:08 J -28205143.32 -28205143.16 -28205142.99 0.0088 0.0043
 Mercury -81935-10-08 11:30 J -28205055.17 -28205055.02 -28205054.86 0.0088 0.0049
 Mercury -81934-01-04 14:52 J -28204967.02 -28204966.88 -28204966.73 0.0088 0.0055
 Mercury -81934-04-02 18:28 J -28204878.87 -28204878.73 -28204878.60 0.0088 0.0061
 Mercury -81934-06-29 21:20 J -28204790.71 -28204790.61 -28204790.47 0.0088 0.0068
 Mercury -81934-09-26 00:42 J -28204702.55 -28204702.47 -28204702.35 0.0088 0.0074
 Mercury -81934-12-23 04:04 J -28204614.39 -28204614.33 -28204614.23 0.0088 0.0080
 Mercury -81933-03-20 07:25 J -28204526.22 -28204526.19 -28204526.12 0.0088 0.0086
 Earth -81923-10-02 00:28 J -28200678.62 -28200678.48 -28200678.33 0.0088 0.0074
 Moon -81923-10-02 03:49 J -28200678.48 -28200678.34 -28200678.16 0.0088 0.0071 *
 Moon -81922-10-04 11:30 J -28200311.22 -28200311.02 -28200310.81 0.0088 0.0055
 Earth -81922-10-04 14:52 J -28200311.08 -28200310.88 -28200310.65 0.0088 0.0052 *

Earth	-81921-10-06 05:16 J	-28199943.52	-28199943.28	-28199943.02	0.0088	0.0029
Moon	-81921-10-06 08:52 J	-28199943.37	-28199943.13	-28199942.86	0.0088	0.0025 *
Moon	-81920-10-08 16:32 J	-28199576.06	-28199575.81	-28199575.54	0.0088	0.0011
Earth	-81920-10-08 19:40 J	-28199575.94	-28199575.68	-28199575.41	0.0088	0.0007 *
Earth	-81919-10-11 09:49 J	-28199208.34	-28199208.09	-28199207.82	0.0088	0.0015
Moon	-81919-10-11 11:59 J	-28199208.26	-28199208.00	-28199207.72	0.0088	0.0019 *
Moon	-81918-10-13 22:32 J	-28198840.79	-28198840.56	-28198840.31	0.0088	0.0033
Earth	-81918-10-13 23:59 J	-28198840.73	-28198840.50	-28198840.25	0.0088	0.0037 *
Moon	-81917-10-15 13:25 J	-28198473.11	-28198472.94	-28198472.73	0.0088	0.0063
Earth	-81917-10-15 13:40 J	-28198473.10	-28198472.93	-28198472.71	0.0088	0.0060 *
Earth	-81916-10-18 03:35 J	-28198105.43	-28198105.35	-28198105.23	0.0088	0.0082
Moon	-81916-10-18 05:01 J	-28198105.40	-28198105.29	-28198105.16	0.0088	0.0078 *
Mars	-81909-10-02 15:49 J	-28195564.11	-28195563.84	-28195563.57	0.0088	0.0036
Mars	-81907-08-27 07:11 J	-28194870.45	-28194870.20	-28194869.94	0.0088	0.0043
Venus	-81871-12-11 15:20 J	-28181614.96	-28181614.86	-28181614.72	0.0089	0.0073
Venus	-81870-07-25 03:20 J	-28181389.52	-28181389.36	-28181389.19	0.0089	0.0056
Venus	-81869-03-06 15:06 J	-28181164.05	-28181163.87	-28181163.67	0.0089	0.0039
Venus	-81869-10-18 03:06 J	-28180938.57	-28180938.37	-28180938.16	0.0089	0.0022
Venus	-81868-05-31 15:06 J	-28180713.08	-28180712.87	-28180712.66	0.0089	0.0004
Venus	-81867-01-12 02:52 J	-28180487.59	-28180487.38	-28180487.17	0.0089	0.0013
Venus	-81867-08-25 14:37 J	-28180262.09	-28180261.89	-28180261.69	0.0089	0.0030
Venus	-81866-04-08 02:08 J	-28180036.58	-28180036.41	-28180036.22	0.0089	0.0047
Venus	-81866-11-19 14:08 J	-28179811.05	-28179810.91	-28179810.75	0.0089	0.0064
Venus	-81865-07-02 01:40 J	-28179585.50	-28179585.43	-28179585.32	0.0089	0.0081
Mercury	-81859-12-22 08:23 J	-28177221.17	-28177221.15	-28177221.11	0.0089	0.0086
Mercury	-81858-03-20 09:35 J	-28177133.13	-28177133.10	-28177133.03	0.0089	0.0082
Mercury	-81858-06-16 11:16 J	-28177045.09	-28177045.03	-28177044.96	0.0089	0.0077
Mercury	-81858-09-12 12:28 J	-28176957.04	-28176956.98	-28176956.90	0.0089	0.0073
Mercury	-81858-12-09 13:54 J	-28176869.00	-28176868.92	-28176868.83	0.0089	0.0069
Mercury	-81857-03-06 15:06 J	-28176780.95	-28176780.87	-28176780.77	0.0089	0.0065

Mercury -81857-06-02 16:32 J -28176692.90 -28176692.81 -28176692.71 0.0089 0.0060

Mercury -81857-08-29 17:44 J -28176604.85 -28176604.76 -28176604.64 0.0089 0.0056

Mercury -81857-11-25 19:25 J -28176516.80 -28176516.69 -28176516.58 0.0089 0.0051

Mercury -81856-02-21 20:37 J -28176428.75 -28176428.64 -28176428.52 0.0089 0.0047

Mercury -81856-05-20 22:04 J -28176340.69 -28176340.58 -28176340.46 0.0089 0.0043

Mercury -81856-08-16 23:30 J -28176252.64 -28176252.52 -28176252.40 0.0089 0.0038

Mercury -81856-11-13 00:42 J -28176164.59 -28176164.47 -28176164.34 0.0089 0.0034

Mercury -81855-02-09 02:08 J -28176076.53 -28176076.41 -28176076.28 0.0089 0.0029

Mercury -81855-05-08 03:35 J -28175988.48 -28175988.35 -28175988.22 0.0089 0.0025

Mercury -81855-08-04 04:47 J -28175900.42 -28175900.30 -28175900.16 0.0089 0.0021

Mercury -81855-10-31 06:28 J -28175812.37 -28175812.23 -28175812.10 0.0089 0.0016

Mercury -81854-01-27 07:40 J -28175724.31 -28175724.18 -28175724.04 0.0089 0.0012

Mercury -81854-04-25 09:06 J -28175636.25 -28175636.12 -28175635.99 0.0089 0.0007

Mercury -81854-07-22 10:32 J -28175548.20 -28175548.06 -28175547.93 0.0089 0.0003

Mercury -81854-10-18 11:59 J -28175460.14 -28175460.00 -28175459.87 0.0089 0.0003

Mercury -81853-01-14 13:11 J -28175372.08 -28175371.95 -28175371.81 0.0089 0.0007

Mercury -81853-04-11 14:37 J -28175284.02 -28175283.89 -28175283.75 0.0089 0.0011

Mercury -81853-07-08 16:04 J -28175195.96 -28175195.83 -28175195.70 0.0089 0.0015

Mercury -81853-10-04 17:30 J -28175107.90 -28175107.77 -28175107.64 0.0089 0.0020

Mercury -81853-12-31 18:56 J -28175019.84 -28175019.71 -28175019.58 0.0089 0.0024

Mercury -81852-03-29 20:08 J -28174931.78 -28174931.66 -28174931.53 0.0089 0.0029

Mercury -81852-06-25 21:35 J -28174843.72 -28174843.60 -28174843.47 0.0089 0.0033

Mercury -81852-09-21 23:01 J -28174755.66 -28174755.54 -28174755.41 0.0089 0.0038

Mercury -81852-12-19 00:28 J -28174667.60 -28174667.48 -28174667.36 0.0089 0.0042

Mercury -81851-03-17 01:40 J -28174579.53 -28174579.43 -28174579.30 0.0089 0.0047

Mercury -81851-06-13 03:20 J -28174491.47 -28174491.36 -28174491.25 0.0089 0.0051

Mercury -81851-09-09 04:32 J -28174403.40 -28174403.31 -28174403.19 0.0089 0.0056

Mercury -81851-12-06 06:13 J -28174315.34 -28174315.24 -28174315.14 0.0089 0.0060

Mercury -81850-03-04 07:25 J -28174227.27 -28174227.19 -28174227.09 0.0089 0.0065

Mercury -81850-05-31 09:06 J -28174139.20 -28174139.12 -28174139.04 0.0089 0.0069

Mercury -81850-08-27 10:18 J -28174051.13 -28174051.07 -28174050.99 0.0089 0.0074
 Mercury -81850-11-23 11:59 J -28173963.06 -28173963.00 -28173962.94 0.0089 0.0078
 Mercury -81849-02-19 13:11 J -28173874.99 -28173874.95 -28173874.89 0.0089 0.0083
 Mercury -81849-05-17 14:37 J -28173786.90 -28173786.89 -28173786.86 0.0089 0.0088
 Moon -81841-03-28 12:42 J -28170914.99 -28170914.97 -28170914.95 0.0089 0.0088
 Moon -81840-03-30 16:04 J -28170547.96 -28170547.83 -28170547.69 0.0089 0.0073
 Earth -81840-03-30 17:59 J -28170547.87 -28170547.75 -28170547.57 0.0089 0.0071 *
 Earth -81839-04-02 03:06 J -28170180.55 -28170180.37 -28170180.14 0.0089 0.0050
 Moon -81839-04-02 04:47 J -28170180.49 -28170180.30 -28170180.06 0.0089 0.0047 *
 Earth -81838-04-04 12:28 J -28169813.21 -28169812.98 -28169812.73 0.0089 0.0028
 Moon -81838-04-04 12:42 J -28169813.19 -28169812.97 -28169812.74 0.0089 0.0031 *
 Moon -81837-04-05 20:52 J -28169445.89 -28169445.63 -28169445.37 0.0089 0.0004
 Earth -81837-04-05 21:49 J -28169445.84 -28169445.59 -28169445.34 0.0089 0.0007 *
 Earth -81836-04-08 06:42 J -28169078.46 -28169078.22 -28169077.96 0.0089 0.0015
 Moon -81836-04-08 08:52 J -28169078.36 -28169078.13 -28169077.88 0.0089 0.0012 *
 Moon -81835-04-10 12:56 J -28168711.19 -28168710.96 -28168710.73 0.0089 0.0040
 Earth -81835-04-10 15:49 J -28168711.05 -28168710.84 -28168710.59 0.0089 0.0036 *
 Earth -81834-04-13 01:25 J -28168343.63 -28168343.44 -28168343.25 0.0089 0.0057
 Moon -81834-04-13 04:18 J -28168343.50 -28168343.32 -28168343.10 0.0089 0.0055 *
 Moon -81833-04-14 06:42 J -28167976.29 -28167976.22 -28167976.10 0.0089 0.0082
 Earth -81833-04-14 10:18 J -28167976.16 -28167976.07 -28167975.93 0.0089 0.0079 *
 Mars -81827-06-18 13:54 J -28165720.10 -28165719.92 -28165719.69 0.0089 0.0071
 Mars -81825-05-14 17:30 J -28165024.08 -28165023.77 -28165023.43 0.0089 0.0024
 Venus -81789-06-14 00:13 J -28151844.55 -28151844.49 -28151844.39 0.0089 0.0083
 Venus -81788-01-25 14:37 J -28151619.03 -28151618.89 -28151618.72 0.0089 0.0065
 Venus -81788-09-08 04:47 J -28151393.48 -28151393.30 -28151393.09 0.0089 0.0047
 Venus -81787-04-21 19:11 J -28151167.90 -28151167.70 -28151167.48 0.0089 0.0029
 Venus -81787-12-03 09:35 J -28150942.32 -28150942.10 -28150941.87 0.0089 0.0010
 Venus -81786-07-16 23:44 J -28150716.73 -28150716.51 -28150716.28 0.0089 0.0008
 Venus -81785-02-27 13:40 J -28150491.13 -28150490.93 -28150490.70 0.0089 0.0027

Venus -81785-10-10 03:49 J -28150265.52 -28150265.34 -28150265.13 0.0089 0.0045

Venus -81784-05-23 18:13 J -28150039.88 -28150039.74 -28150039.56 0.0089 0.0063

Venus -81783-01-04 08:23 J -28149814.22 -28149814.15 -28149814.04 0.0089 0.0081

Mercury -81775-03-14 04:32 J -28146823.32 -28146823.31 -28146823.26 0.0089 0.0088

Mercury -81775-06-10 08:37 J -28146735.21 -28146735.14 -28146735.06 0.0089 0.0081

Mercury -81775-09-06 11:59 J -28146647.09 -28146647.00 -28146646.89 0.0089 0.0075

Mercury -81775-12-03 15:20 J -28146558.96 -28146558.86 -28146558.72 0.0089 0.0069

Mercury -81774-03-01 19:11 J -28146470.83 -28146470.70 -28146470.55 0.0089 0.0062

Mercury -81774-05-28 22:32 J -28146382.69 -28146382.56 -28146382.39 0.0089 0.0056

Mercury -81774-08-25 02:08 J -28146294.55 -28146294.41 -28146294.23 0.0089 0.0050

Mercury -81774-11-21 05:59 J -28146206.42 -28146206.25 -28146206.08 0.0089 0.0043

Mercury -81773-02-17 09:20 J -28146118.28 -28146118.11 -28146117.92 0.0089 0.0037

Mercury -81773-05-15 12:56 J -28146030.13 -28146029.96 -28146029.77 0.0089 0.0030

Mercury -81773-08-11 16:32 J -28145941.99 -28145941.81 -28145941.62 0.0089 0.0024

Mercury -81773-11-07 19:54 J -28145853.85 -28145853.67 -28145853.47 0.0089 0.0018

Mercury -81772-02-03 23:30 J -28145765.70 -28145765.52 -28145765.32 0.0089 0.0011

Mercury -81772-05-03 03:06 J -28145677.56 -28145677.37 -28145677.18 0.0088 0.0005

Mercury -81772-07-30 06:42 J -28145589.42 -28145589.22 -28145589.03 0.0088 0.0002

Mercury -81772-10-26 10:04 J -28145501.27 -28145501.08 -28145500.89 0.0088 0.0008

Mercury -81771-01-22 13:25 J -28145413.12 -28145412.94 -28145412.75 0.0088 0.0014

Mercury -81771-04-20 16:47 J -28145324.98 -28145324.80 -28145324.60 0.0088 0.0021

Mercury -81771-07-17 20:23 J -28145236.83 -28145236.65 -28145236.46 0.0088 0.0026

Mercury -81771-10-13 23:44 J -28145148.68 -28145148.51 -28145148.33 0.0088 0.0033

Mercury -81770-01-10 03:06 J -28145060.53 -28145060.37 -28145060.19 0.0088 0.0039

Mercury -81770-04-08 06:42 J -28144972.38 -28144972.22 -28144972.05 0.0088 0.0045

Mercury -81770-07-05 09:49 J -28144884.23 -28144884.09 -28144883.92 0.0088 0.0051

Mercury -81770-10-01 13:11 J -28144796.08 -28144795.95 -28144795.79 0.0088 0.0058

Mercury -81770-12-28 16:32 J -28144707.92 -28144707.81 -28144707.66 0.0088 0.0064

Mercury -81769-03-25 19:54 J -28144619.77 -28144619.67 -28144619.53 0.0088 0.0070

Mercury -81769-06-21 23:30 J -28144531.61 -28144531.52 -28144531.41 0.0088 0.0076

Mercury -81769-09-18 02:52 J -28144443.44 -28144443.38 -28144443.30 0.0088 0.0082

Mercury -81769-12-15 06:13 J -28144355.25 -28144355.24 -28144355.20 0.0088 0.0088

Moon -81759-10-01 03:49 J -28140778.44 -28140778.34 -28140778.21 0.0088 0.0080

Earth -81759-10-01 07:11 J -28140778.25 -28140778.20 -28140778.07 0.0088 0.0084 *

Earth -81758-10-03 21:35 J -28140410.76 -28140410.60 -28140410.38 0.0088 0.0062

Moon -81758-10-04 00:56 J -28140410.62 -28140410.46 -28140410.25 0.0088 0.0065 *

Moon -81757-10-05 09:35 J -28140043.32 -28140043.10 -28140042.85 0.0088 0.0037

Earth -81757-10-05 11:59 J -28140043.21 -28140043.00 -28140042.74 0.0088 0.0040 *

Earth -81756-10-08 02:37 J -28139675.64 -28139675.39 -28139675.12 0.0088 0.0017

Moon -81756-10-08 04:32 J -28139675.57 -28139675.31 -28139675.04 0.0088 0.0020 *

Moon -81755-10-10 16:47 J -28139308.05 -28139307.80 -28139307.54 0.0088 0.0009

Earth -81755-10-10 17:01 J -28139308.05 -28139307.79 -28139307.52 0.0088 0.0006 *

Moon -81754-10-13 06:28 J -28138940.48 -28138940.23 -28138939.95 0.0088 0.0025

Earth -81754-10-13 06:56 J -28138940.45 -28138940.21 -28138939.94 0.0088 0.0028 *

Earth -81753-10-14 20:52 J -28138572.83 -28138572.63 -28138572.39 0.0088 0.0050

Moon -81753-10-14 23:01 J -28138572.74 -28138572.54 -28138572.32 0.0088 0.0052 *

Moon -81752-10-17 07:54 J -28138205.32 -28138205.17 -28138204.98 0.0088 0.0069

Earth -81752-10-17 10:47 J -28138205.18 -28138205.05 -28138204.87 0.0088 0.0072 *

Mars -81745-05-18 04:04 J -28135800.48 -28135800.33 -28135800.13 0.0088 0.0071

Mars -81743-04-11 20:52 J -28135106.92 -28135106.63 -28135106.34 0.0088 0.0009

Mars -81741-03-05 10:47 J -28134413.09 -28134413.05 -28134412.97 0.0088 0.0086

Venus -81706-03-15 03:20 J -28121620.45 -28121620.36 -28121620.27 0.0089 0.0079

Venus -81706-10-26 15:06 J -28121395.02 -28121394.87 -28121394.71 0.0089 0.0062

Venus -81705-06-08 02:52 J -28121169.56 -28121169.38 -28121169.19 0.0089 0.0045

Venus -81704-01-19 14:37 J -28120944.08 -28120943.89 -28120943.68 0.0089 0.0028

Venus -81704-09-02 02:37 J -28120718.60 -28120718.39 -28120718.18 0.0089 0.0011

Venus -81703-04-15 14:23 J -28120493.11 -28120492.90 -28120492.69 0.0089 0.0006

Venus -81703-11-27 02:08 J -28120267.61 -28120267.41 -28120267.19 0.0089 0.0024

Venus -81702-07-10 13:54 J -28120042.10 -28120041.92 -28120041.72 0.0089 0.0041

Venus -81701-02-21 01:40 J -28119816.58 -28119816.43 -28119816.26 0.0089 0.0058

Venus -81701-10-03 13:25 J -28119591.04 -28119590.94 -28119590.81 0.0089 0.0075

Mercury -81694-06-22 06:56 J -28117138.21 -28117138.21 -28117138.20 0.0089 0.0089

Mercury -81694-09-18 08:08 J -28117050.19 -28117050.16 -28117050.11 0.0089 0.0085

Mercury -81694-12-15 09:35 J -28116962.15 -28116962.10 -28116962.04 0.0089 0.0080

Mercury -81693-03-12 10:47 J -28116874.11 -28116874.05 -28116873.97 0.0089 0.0076

Mercury -81693-06-08 11:59 J -28116786.06 -28116786.00 -28116785.91 0.0089 0.0072

Mercury -81693-09-04 13:40 J -28116698.01 -28116697.93 -28116697.84 0.0089 0.0067

Mercury -81693-12-01 14:52 J -28116609.96 -28116609.88 -28116609.78 0.0089 0.0063

Mercury -81692-02-27 16:04 J -28116521.91 -28116521.83 -28116521.72 0.0089 0.0059

Mercury -81692-05-26 17:44 J -28116433.86 -28116433.76 -28116433.65 0.0089 0.0054

Mercury -81692-08-22 18:56 J -28116345.81 -28116345.71 -28116345.59 0.0089 0.0050

Mercury -81692-11-18 20:08 J -28116257.76 -28116257.66 -28116257.53 0.0089 0.0046

Mercury -81691-02-14 21:49 J -28116169.71 -28116169.59 -28116169.47 0.0089 0.0041

Mercury -81691-05-13 23:01 J -28116081.65 -28116081.54 -28116081.41 0.0089 0.0037

Mercury -81691-08-10 00:28 J -28115993.60 -28115993.48 -28115993.35 0.0089 0.0032

Mercury -81691-11-06 01:54 J -28115905.55 -28115905.42 -28115905.29 0.0089 0.0028

Mercury -81690-02-02 03:06 J -28115817.49 -28115817.37 -28115817.23 0.0089 0.0024

Mercury -81690-05-01 04:32 J -28115729.44 -28115729.31 -28115729.17 0.0089 0.0019

Mercury -81690-07-28 05:59 J -28115641.38 -28115641.25 -28115641.12 0.0089 0.0015

Mercury -81690-10-24 07:25 J -28115553.32 -28115553.19 -28115553.06 0.0089 0.0010

Mercury -81689-01-20 08:52 J -28115465.27 -28115465.13 -28115465.00 0.0089 0.0006

Mercury -81689-04-17 10:18 J -28115377.21 -28115377.07 -28115376.94 0.0089 0.0003

Mercury -81689-07-14 11:30 J -28115289.15 -28115289.02 -28115288.88 0.0089 0.0004

Mercury -81689-10-10 12:56 J -28115201.09 -28115200.96 -28115200.82 0.0089 0.0008

Mercury -81688-01-06 14:23 J -28115113.03 -28115112.90 -28115112.77 0.0089 0.0012

Mercury -81688-04-04 15:49 J -28115024.97 -28115024.84 -28115024.71 0.0089 0.0017

Mercury -81688-07-01 17:01 J -28114936.91 -28114936.79 -28114936.65 0.0089 0.0022

Mercury -81688-09-27 18:28 J -28114848.85 -28114848.73 -28114848.60 0.0089 0.0026

Mercury -81688-12-24 19:54 J -28114760.79 -28114760.67 -28114760.54 0.0089 0.0030

Mercury -81687-03-22 21:20 J -28114672.73 -28114672.61 -28114672.48 0.0089 0.0035

Mercury -81687-06-18 22:32 J -28114584.67 -28114584.56 -28114584.43 0.0089 0.0040
 Mercury -81687-09-15 00:13 J -28114496.61 -28114496.49 -28114496.37 0.0089 0.0044
 Mercury -81687-12-12 01:25 J -28114408.54 -28114408.44 -28114408.32 0.0089 0.0049
 Mercury -81686-03-10 02:52 J -28114320.48 -28114320.38 -28114320.26 0.0089 0.0053
 Mercury -81686-06-06 04:18 J -28114232.41 -28114232.32 -28114232.21 0.0089 0.0058
 Mercury -81686-09-02 05:44 J -28114144.35 -28114144.26 -28114144.16 0.0089 0.0062
 Mercury -81686-11-29 07:11 J -28114056.28 -28114056.20 -28114056.10 0.0089 0.0067
 Mercury -81685-02-25 08:37 J -28113968.21 -28113968.14 -28113968.05 0.0089 0.0071
 Mercury -81685-05-23 10:04 J -28113880.14 -28113880.08 -28113880.00 0.0089 0.0076
 Mercury -81685-08-19 11:30 J -28113792.07 -28113792.02 -28113791.96 0.0089 0.0080
 Mercury -81685-11-15 12:56 J -28113703.99 -28113703.96 -28113703.91 0.0089 0.0085
 Earth -81676-03-30 05:44 J -28110647.35 -28110647.26 -28110647.13 0.0089 0.0080
 Moon -81676-03-30 06:28 J -28110647.33 -28110647.23 -28110647.07 0.0089 0.0077 *
 Earth -81675-04-01 14:37 J -28110280.05 -28110279.89 -28110279.68 0.0089 0.0059
 Moon -81675-04-01 14:52 J -28110280.04 -28110279.88 -28110279.70 0.0089 0.0062 *
 Moon -81674-04-03 22:32 J -28109912.79 -28109912.56 -28109912.32 0.0089 0.0034
 Earth -81674-04-03 23:59 J -28109912.71 -28109912.50 -28109912.26 0.0089 0.0038 *
 Earth -81673-04-05 09:20 J -28109545.35 -28109545.11 -28109544.86 0.0089 0.0016
 Moon -81673-04-05 11:44 J -28109545.24 -28109545.01 -28109544.76 0.0089 0.0019 *
 Moon -81672-04-07 15:20 J -28109178.11 -28109177.86 -28109177.61 0.0089 0.0009
 Earth -81672-04-07 18:28 J -28109177.98 -28109177.73 -28109177.48 0.0089 0.0005 *
 Earth -81671-04-10 03:20 J -28108810.59 -28108810.36 -28108810.11 0.0089 0.0026
 Moon -81671-04-10 06:56 J -28108810.44 -28108810.21 -28108809.95 0.0089 0.0023 *
 Moon -81670-04-12 09:49 J -28108443.29 -28108443.09 -28108442.89 0.0089 0.0051
 Earth -81670-04-12 12:42 J -28108443.18 -28108442.97 -28108442.75 0.0089 0.0047 *
 Earth -81669-04-13 21:35 J -28108075.74 -28108075.60 -28108075.42 0.0089 0.0069
 Moon -81669-04-14 00:28 J -28108075.63 -28108075.48 -28108075.28 0.0089 0.0065 *
 Mars -81662-12-27 07:11 J -28105262.52 -28105262.20 -28105261.85 0.0089 0.0019
 Mars -81660-11-22 10:47 J -28104566.18 -28104566.05 -28104565.84 0.0089 0.0078
 Venus -81624-04-28 23:59 J -28091624.61 -28091624.50 -28091624.34 0.0089 0.0072

Venus -81624-12-10 14:37 J -28091399.06 -28091398.89 -28091398.70 0.0089 0.0053
 Venus -81623-07-24 04:47 J -28091173.49 -28091173.30 -28091173.08 0.0089 0.0035
 Venus -81622-03-06 19:11 J -28090947.92 -28090947.70 -28090947.47 0.0089 0.0017
 Venus -81622-10-18 09:35 J -28090722.33 -28090722.10 -28090721.87 0.0089 0.0002
 Venus -81621-05-30 23:59 J -28090496.72 -28090496.50 -28090496.28 0.0089 0.0020
 Venus -81620-01-11 13:54 J -28090271.11 -28090270.92 -28090270.70 0.0089 0.0039
 Venus -81620-08-25 04:04 J -28090045.49 -28090045.33 -28090045.14 0.0089 0.0057
 Venus -81619-04-07 18:13 J -28089819.84 -28089819.74 -28089819.60 0.0089 0.0075
 Mercury -81611-12-09 03:35 J -28086652.39 -28086652.35 -28086652.29 0.0089 0.0085
 Mercury -81610-03-07 06:56 J -28086564.28 -28086564.21 -28086564.10 0.0089 0.0079
 Mercury -81610-06-03 11:01 J -28086476.15 -28086476.04 -28086475.93 0.0089 0.0072
 Mercury -81610-08-30 14:23 J -28086388.02 -28086387.90 -28086387.76 0.0089 0.0066
 Mercury -81610-11-26 17:44 J -28086299.88 -28086299.76 -28086299.60 0.0089 0.0060
 Mercury -81609-02-22 21:35 J -28086211.75 -28086211.60 -28086211.44 0.0089 0.0053
 Mercury -81609-05-21 01:11 J -28086123.61 -28086123.45 -28086123.28 0.0089 0.0047
 Mercury -81609-08-17 04:32 J -28086035.47 -28086035.31 -28086035.12 0.0089 0.0041
 Mercury -81609-11-13 08:23 J -28085947.33 -28085947.15 -28085946.97 0.0089 0.0034
 Mercury -81608-02-09 11:44 J -28085859.18 -28085859.01 -28085858.82 0.0089 0.0028
 Mercury -81608-05-08 15:20 J -28085771.04 -28085770.86 -28085770.67 0.0089 0.0021
 Mercury -81608-08-04 18:56 J -28085682.90 -28085682.71 -28085682.52 0.0089 0.0015
 Mercury -81608-10-31 22:32 J -28085594.75 -28085594.56 -28085594.37 0.0089 0.0008
 Mercury -81607-01-28 02:08 J -28085506.61 -28085506.41 -28085506.22 0.0089 0.0003
 Mercury -81607-04-26 05:30 J -28085418.46 -28085418.27 -28085418.08 0.0089 0.0004
 Mercury -81607-07-23 08:52 J -28085330.31 -28085330.13 -28085329.93 0.0089 0.0011
 Mercury -81607-10-19 12:28 J -28085242.17 -28085241.98 -28085241.79 0.0089 0.0017
 Mercury -81606-01-15 15:49 J -28085154.02 -28085153.84 -28085153.65 0.0089 0.0023
 Mercury -81606-04-13 19:11 J -28085065.87 -28085065.70 -28085065.51 0.0089 0.0029
 Mercury -81606-07-10 22:32 J -28084977.72 -28084977.56 -28084977.37 0.0089 0.0036
 Mercury -81606-10-07 01:54 J -28084889.57 -28084889.42 -28084889.24 0.0088 0.0042
 Mercury -81605-01-03 05:30 J -28084801.42 -28084801.27 -28084801.10 0.0088 0.0048

Mercury -81605-03-31 08:52 J -28084713.27 -28084713.13 -28084712.97 0.0088 0.0054

Mercury -81605-06-27 12:28 J -28084625.12 -28084624.98 -28084624.84 0.0088 0.0060

Mercury -81605-09-23 15:20 J -28084536.96 -28084536.86 -28084536.71 0.0088 0.0067

Mercury -81605-12-20 18:42 J -28084448.80 -28084448.72 -28084448.59 0.0088 0.0073

Mercury -81604-03-18 22:04 J -28084360.64 -28084360.58 -28084360.47 0.0088 0.0079

Mercury -81604-06-15 01:25 J -28084272.47 -28084272.44 -28084272.36 0.0088 0.0085

Moon -81594-10-03 03:35 J -28080510.50 -28080510.35 -28080510.17 0.0088 0.0067

Earth -81594-10-03 05:01 J -28080510.42 -28080510.29 -28080510.10 0.0088 0.0071 *

Earth -81593-10-04 19:40 J -28080142.88 -28080142.68 -28080142.44 0.0088 0.0048

Moon -81593-10-04 20:52 J -28080142.85 -28080142.63 -28080142.40 0.0088 0.0051 *

Earth -81592-10-07 10:18 J -28079775.32 -28079775.07 -28079774.81 0.0088 0.0026

Moon -81592-10-07 10:32 J -28079775.31 -28079775.06 -28079774.81 0.0088 0.0023 *

Moon -81591-10-09 23:01 J -28079407.81 -28079407.54 -28079407.27 0.0088 0.0007

Earth -81591-10-10 00:42 J -28079407.73 -28079407.47 -28079407.20 0.0088 0.0004 *

Earth -81590-10-12 14:52 J -28079040.14 -28079039.88 -28079039.62 0.0088 0.0018

Moon -81590-10-12 17:01 J -28079040.03 -28079039.79 -28079039.53 0.0088 0.0021 *

Moon -81589-10-14 01:54 J -28078672.66 -28078672.42 -28078672.17 0.0088 0.0035

Earth -81589-10-14 05:01 J -28078672.52 -28078672.29 -28078672.05 0.0088 0.0040 *

Earth -81588-10-16 18:42 J -28078304.88 -28078304.72 -28078304.50 0.0088 0.0062

Moon -81588-10-16 22:32 J -28078304.71 -28078304.56 -28078304.36 0.0088 0.0065 *

Moon -81587-10-19 05:16 J -28077937.36 -28077937.28 -28077937.13 0.0088 0.0080

Earth -81587-10-19 08:52 J -28077937.19 -28077937.13 -28077937.01 0.0088 0.0083 *

Mars -81580-11-25 11:30 J -28075343.30 -28075343.02 -28075342.73 0.0088 0.0025

Mars -81578-10-20 03:35 J -28074649.56 -28074649.35 -28074649.09 0.0088 0.0054

Jupiter -81574-03-02 20:52 J -28073420.00 -28073419.63 -28073419.18 0.0088 0.0058

Venus -81542-06-16 15:35 J -28061625.89 -28061625.85 -28061625.77 0.0089 0.0085

Venus -81541-01-28 03:20 J -28061400.48 -28061400.36 -28061400.21 0.0089 0.0068

Venus -81541-09-09 15:06 J -28061175.03 -28061174.87 -28061174.68 0.0089 0.0051

Venus -81540-04-23 02:52 J -28060949.56 -28060949.38 -28060949.17 0.0089 0.0034

Venus -81540-12-04 14:52 J -28060724.08 -28060723.88 -28060723.66 0.0089 0.0017

Venus	-81539-07-18 02:52 J	-28060498.59	-28060498.38	-28060498.16	0.0089	0.0001
Venus	-81538-02-28 14:37 J	-28060273.10	-28060272.89	-28060272.68	0.0089	0.0018
Venus	-81538-10-12 02:08 J	-28060047.59	-28060047.41	-28060047.20	0.0089	0.0036
Venus	-81537-05-24 13:54 J	-28059822.08	-28059821.92	-28059821.73	0.0089	0.0053
Venus	-81536-01-05 01:40 J	-28059596.54	-28059596.43	-28059596.28	0.0089	0.0070
Venus	-81536-08-18 13:25 J	-28059370.96	-28059370.94	-28059370.88	0.0089	0.0087
Mercury	-81529-03-18 06:42 J	-28056967.23	-28056967.22	-28056967.19	0.0089	0.0087
Mercury	-81529-06-14 07:54 J	-28056879.20	-28056879.17	-28056879.11	0.0089	0.0083
Mercury	-81529-09-10 09:06 J	-28056791.16	-28056791.12	-28056791.04	0.0089	0.0079
Mercury	-81529-12-07 10:47 J	-28056703.12	-28056703.05	-28056702.97	0.0089	0.0074
Mercury	-81528-03-05 11:59 J	-28056615.07	-28056615.00	-28056614.91	0.0089	0.0070
Mercury	-81528-06-01 13:11 J	-28056527.02	-28056526.95	-28056526.85	0.0089	0.0066
Mercury	-81528-08-28 14:52 J	-28056438.97	-28056438.88	-28056438.78	0.0089	0.0061
Mercury	-81528-11-24 16:04 J	-28056350.92	-28056350.83	-28056350.72	0.0089	0.0057
Mercury	-81527-02-20 17:16 J	-28056262.87	-28056262.78	-28056262.66	0.0089	0.0053
Mercury	-81527-05-19 18:56 J	-28056174.82	-28056174.71	-28056174.60	0.0089	0.0048
Mercury	-81527-08-15 20:08 J	-28056086.77	-28056086.66	-28056086.54	0.0089	0.0044
Mercury	-81527-11-11 21:35 J	-28055998.72	-28055998.60	-28055998.48	0.0089	0.0039
Mercury	-81526-02-07 22:47 J	-28055910.66	-28055910.55	-28055910.42	0.0089	0.0035
Mercury	-81526-05-07 00:13 J	-28055822.61	-28055822.49	-28055822.36	0.0089	0.0031
Mercury	-81526-08-03 01:40 J	-28055734.56	-28055734.43	-28055734.30	0.0089	0.0026
Mercury	-81526-10-30 02:52 J	-28055646.50	-28055646.38	-28055646.24	0.0089	0.0022
Mercury	-81525-01-26 04:18 J	-28055558.45	-28055558.32	-28055558.18	0.0089	0.0017
Mercury	-81525-04-23 05:44 J	-28055470.39	-28055470.26	-28055470.13	0.0089	0.0013
Mercury	-81525-07-20 07:11 J	-28055382.33	-28055382.20	-28055382.07	0.0089	0.0008
Mercury	-81525-10-16 08:37 J	-28055294.28	-28055294.14	-28055294.01	0.0089	0.0004
Mercury	-81524-01-12 10:04 J	-28055206.22	-28055206.08	-28055205.95	0.0089	0.0003
Mercury	-81524-04-10 11:16 J	-28055118.16	-28055118.03	-28055117.89	0.0089	0.0005
Mercury	-81524-07-07 12:42 J	-28055030.10	-28055029.97	-28055029.84	0.0089	0.0010
Mercury	-81524-10-03 14:08 J	-28054942.04	-28054941.91	-28054941.78	0.0089	0.0014

Mercury -81524-12-30 15:35 J -28054853.98 -28054853.85 -28054853.72 0.0089 0.0019
 Mercury -81523-03-28 17:01 J -28054765.92 -28054765.79 -28054765.66 0.0089 0.0023
 Mercury -81523-06-24 18:13 J -28054677.86 -28054677.74 -28054677.61 0.0089 0.0028
 Mercury -81523-09-20 19:40 J -28054589.80 -28054589.68 -28054589.55 0.0089 0.0032
 Mercury -81523-12-17 21:06 J -28054501.74 -28054501.62 -28054501.49 0.0089 0.0037
 Mercury -81522-03-15 22:32 J -28054413.68 -28054413.56 -28054413.44 0.0089 0.0041
 Mercury -81522-06-11 23:44 J -28054325.61 -28054325.51 -28054325.38 0.0089 0.0046
 Mercury -81522-09-08 01:25 J -28054237.55 -28054237.44 -28054237.33 0.0089 0.0050
 Mercury -81522-12-05 02:37 J -28054149.49 -28054149.39 -28054149.28 0.0089 0.0055
 Mercury -81521-03-02 04:04 J -28054061.42 -28054061.33 -28054061.22 0.0089 0.0060
 Mercury -81521-05-29 05:30 J -28053973.35 -28053973.27 -28053973.17 0.0089 0.0064
 Mercury -81521-08-25 06:56 J -28053885.29 -28053885.21 -28053885.12 0.0089 0.0069
 Mercury -81521-11-21 08:23 J -28053797.22 -28053797.15 -28053797.07 0.0089 0.0073
 Mercury -81520-02-17 09:49 J -28053709.15 -28053709.09 -28053709.02 0.0089 0.0078
 Mercury -81520-05-16 11:16 J -28053621.07 -28053621.03 -28053620.97 0.0089 0.0082
 Mercury -81520-08-12 12:42 J -28053532.99 -28053532.97 -28053532.94 0.0089 0.0087
 Earth -81512-03-29 18:28 J -28050746.75 -28050746.73 -28050746.69 0.0089 0.0088
 Moon -81512-03-29 18:56 J -28050746.75 -28050746.71 -28050746.62 0.0089 0.0085 *
 Moon -81511-04-01 01:54 J -28050379.57 -28050379.42 -28050379.25 0.0089 0.0070
 Earth -81511-04-01 03:35 J -28050379.50 -28050379.35 -28050379.18 0.0089 0.0067 *
 Earth -81510-04-03 12:56 J -28050012.17 -28050011.96 -28050011.75 0.0089 0.0046
 Moon -81510-04-03 15:20 J -28050012.06 -28050011.86 -28050011.63 0.0089 0.0043 *
 Moon -81509-04-04 18:28 J -28049644.96 -28049644.73 -28049644.48 0.0089 0.0029
 Earth -81509-04-04 22:04 J -28049644.82 -28049644.58 -28049644.34 0.0089 0.0025 *
 Earth -81508-04-07 07:11 J -28049277.45 -28049277.20 -28049276.95 0.0089 0.0004
 Moon -81508-04-07 10:32 J -28049277.31 -28049277.06 -28049276.81 0.0089 0.0002 *
 Moon -81507-04-09 12:56 J -28048910.20 -28048909.96 -28048909.71 0.0089 0.0014
 Earth -81507-04-09 16:04 J -28048910.06 -28048909.83 -28048909.57 0.0089 0.0017 *
 Earth -81506-04-12 01:11 J -28048542.66 -28048542.45 -28048542.21 0.0089 0.0038
 Moon -81506-04-12 03:20 J -28048542.57 -28048542.36 -28048542.12 0.0089 0.0041 *

Moon	-81505-04-13 09:20 J	-28048175.29	-28048175.11	-28048174.91	0.0089	0.0056
Earth	-81505-04-13 10:18 J	-28048175.23	-28048175.07	-28048174.86	0.0089	0.0060 *
Earth	-81504-04-15 19:25 J	-28047807.77	-28047807.69	-28047807.55	0.0089	0.0080
Moon	-81504-04-15 19:25 J	-28047807.75	-28047807.69	-28047807.57	0.0089	0.0083 *
Mars	-81498-08-10 00:56 J	-28045500.68	-28045500.46	-28045500.18	0.0089	0.0059
Mars	-81496-07-06 02:37 J	-28044804.68	-28044804.39	-28044804.06	0.0089	0.0035
Venus	-81460-07-31 10:04 J	-28031630.17	-28031630.08	-28031629.96	0.0089	0.0078
Venus	-81459-03-14 00:13 J	-28031404.64	-28031404.49	-28031404.30	0.0089	0.0060
Venus	-81459-10-25 14:52 J	-28031179.08	-28031178.88	-28031178.67	0.0089	0.0041
Venus	-81458-06-08 05:16 J	-28030953.49	-28030953.28	-28030953.06	0.0089	0.0023
Venus	-81457-01-19 19:40 J	-28030727.91	-28030727.68	-28030727.45	0.0089	0.0004
Venus	-81457-09-01 09:49 J	-28030502.31	-28030502.09	-28030501.86	0.0089	0.0014
Venus	-81456-04-14 23:59 J	-28030276.70	-28030276.50	-28030276.28	0.0089	0.0033
Venus	-81456-11-26 14:08 J	-28030051.08	-28030050.91	-28030050.71	0.0089	0.0051
Venus	-81455-07-10 04:47 J	-28029825.44	-28029825.30	-28029825.16	0.0089	0.0069
Venus	-81454-02-20 18:28 J	-28029599.74	-28029599.73	-28029599.67	0.0089	0.0088
Mercury	-81446-09-05 02:08 J	-28026481.45	-28026481.41	-28026481.31	0.0089	0.0083
Mercury	-81446-12-02 06:13 J	-28026393.33	-28026393.24	-28026393.13	0.0089	0.0076
Mercury	-81445-02-28 09:35 J	-28026305.20	-28026305.10	-28026304.96	0.0089	0.0070
Mercury	-81445-05-26 13:25 J	-28026217.07	-28026216.94	-28026216.80	0.0089	0.0063
Mercury	-81445-08-22 16:47 J	-28026128.93	-28026128.80	-28026128.64	0.0089	0.0057
Mercury	-81445-11-18 20:23 J	-28026040.79	-28026040.65	-28026040.47	0.0089	0.0051
Mercury	-81444-02-15 00:13 J	-28025952.65	-28025952.49	-28025952.32	0.0089	0.0044
Mercury	-81444-05-14 03:35 J	-28025864.51	-28025864.35	-28025864.16	0.0089	0.0038
Mercury	-81444-08-10 07:25 J	-28025776.37	-28025776.19	-28025776.01	0.0089	0.0031
Mercury	-81444-11-06 10:47 J	-28025688.22	-28025688.05	-28025687.85	0.0089	0.0025
Mercury	-81443-02-02 14:23 J	-28025600.08	-28025599.90	-28025599.70	0.0089	0.0018
Mercury	-81443-05-01 17:59 J	-28025511.94	-28025511.75	-28025511.55	0.0089	0.0012
Mercury	-81443-07-28 21:35 J	-28025423.79	-28025423.60	-28025423.41	0.0089	0.0005
Mercury	-81443-10-25 01:11 J	-28025335.64	-28025335.45	-28025335.26	0.0089	0.0001

Mercury -81442-01-21 04:32 J -28025247.50 -28025247.31 -28025247.11 0.0089 0.0007
 Mercury -81442-04-19 08:08 J -28025159.35 -28025159.16 -28025158.97 0.0089 0.0013
 Mercury -81442-07-16 11:30 J -28025071.20 -28025071.02 -28025070.83 0.0089 0.0020
 Mercury -81442-10-12 15:06 J -28024983.05 -28024982.87 -28024982.69 0.0089 0.0026
 Mercury -81441-01-08 18:13 J -28024894.90 -28024894.74 -28024894.55 0.0089 0.0033
 Mercury -81441-04-05 21:49 J -28024806.75 -28024806.59 -28024806.41 0.0089 0.0039
 Mercury -81441-07-03 01:11 J -28024718.60 -28024718.45 -28024718.28 0.0088 0.0045
 Mercury -81441-09-29 04:47 J -28024630.45 -28024630.30 -28024630.14 0.0088 0.0051
 Mercury -81441-12-26 07:54 J -28024542.30 -28024542.17 -28024542.01 0.0088 0.0057
 Mercury -81440-03-24 11:16 J -28024454.14 -28024454.03 -28024453.88 0.0088 0.0064
 Mercury -81440-06-20 14:37 J -28024365.99 -28024365.89 -28024365.75 0.0088 0.0070
 Mercury -81440-09-16 17:59 J -28024277.83 -28024277.75 -28024277.63 0.0088 0.0076
 Mercury -81440-12-13 21:20 J -28024189.66 -28024189.61 -28024189.52 0.0088 0.0082
 Mercury -81439-03-12 00:42 J -28024101.47 -28024101.47 -28024101.42 0.0088 0.0088
 Moon -81430-10-02 14:08 J -28020610.03 -28020609.91 -28020609.74 0.0088 0.0075
 Earth -81430-10-02 13:54 J -28020610.02 -28020609.92 -28020609.78 0.0088 0.0079 *
 Earth -81429-10-04 04:32 J -28020242.50 -28020242.31 -28020242.09 0.0088 0.0057
 Moon -81429-10-04 05:44 J -28020242.43 -28020242.26 -28020242.06 0.0088 0.0061 *
 Moon -81428-10-06 17:16 J -28019875.03 -28019874.78 -28019874.52 0.0088 0.0032
 Earth -81428-10-06 18:42 J -28019874.94 -28019874.72 -28019874.46 0.0088 0.0036 *
 Earth -81427-10-09 09:06 J -28019507.37 -28019507.12 -28019506.85 0.0088 0.0014
 Moon -81427-10-09 12:13 J -28019507.24 -28019506.99 -28019506.73 0.0088 0.0017 *
 Moon -81426-10-11 19:40 J -28019139.93 -28019139.68 -28019139.40 0.0088 0.0012
 Earth -81426-10-11 23:30 J -28019139.78 -28019139.52 -28019139.26 0.0088 0.0008 *
 Earth -81425-10-13 13:25 J -28018772.18 -28018771.94 -28018771.68 0.0088 0.0030
 Moon -81425-10-13 16:47 J -28018772.03 -28018771.80 -28018771.53 0.0088 0.0028 *
 Moon -81424-10-16 00:13 J -28018404.69 -28018404.49 -28018404.28 0.0088 0.0055
 Earth -81424-10-16 03:49 J -28018404.55 -28018404.34 -28018404.12 0.0088 0.0052 *
 Earth -81423-10-18 17:16 J -28018036.91 -28018036.78 -28018036.62 0.0088 0.0074
 Moon -81423-10-18 20:08 J -28018036.81 -28018036.66 -28018036.49 0.0088 0.0071 *

Mars -81416-07-11 00:42 J -28015579.68 -28015579.47 -28015579.24 0.0088 0.0059
 Mars -81414-06-04 18:28 J -28014886.00 -28014885.73 -28014885.43 0.0088 0.0021
 Jupiter -81408-05-08 17:30 J -28012721.30 -28012720.77 -28012720.24 0.0088 0.0016
 Venus -81377-04-30 16:32 J -28001405.93 -28001405.81 -28001405.69 0.0089 0.0073
 Venus -81377-12-12 04:18 J -28001180.48 -28001180.32 -28001180.15 0.0089 0.0056
 Venus -81376-07-25 16:04 J -28000955.02 -28000954.83 -28000954.63 0.0089 0.0039
 Venus -81375-03-08 03:49 J -28000729.54 -28000729.34 -28000729.13 0.0089 0.0022
 Venus -81375-10-19 15:35 J -28000504.06 -28000503.85 -28000503.63 0.0089 0.0005
 Venus -81374-06-02 03:35 J -28000278.56 -28000278.35 -28000278.14 0.0089 0.0013
 Venus -81373-01-13 15:20 J -28000053.06 -28000052.86 -28000052.66 0.0089 0.0030
 Venus -81373-08-26 02:37 J -27999827.55 -27999827.39 -27999827.19 0.0089 0.0048
 Venus -81372-04-08 14:23 J -27999602.03 -27999601.90 -27999601.74 0.0089 0.0065
 Venus -81372-11-20 02:08 J -27999376.47 -27999376.41 -27999376.31 0.0089 0.0082
 Mercury -81365-12-13 06:42 J -27996796.25 -27996796.22 -27996796.17 0.0089 0.0085
 Mercury -81364-03-11 07:54 J -27996708.21 -27996708.17 -27996708.10 0.0089 0.0081
 Mercury -81364-06-07 09:35 J -27996620.17 -27996620.10 -27996620.03 0.0089 0.0076
 Mercury -81364-09-03 10:47 J -27996532.12 -27996532.05 -27996531.97 0.0089 0.0072
 Mercury -81364-11-30 11:59 J -27996444.07 -27996444.00 -27996443.90 0.0089 0.0068
 Mercury -81363-02-26 13:40 J -27996356.03 -27996355.93 -27996355.84 0.0089 0.0063
 Mercury -81363-05-25 14:52 J -27996267.98 -27996267.88 -27996267.78 0.0089 0.0059
 Mercury -81363-08-21 16:04 J -27996179.93 -27996179.83 -27996179.72 0.0089 0.0055
 Mercury -81363-11-17 17:30 J -27996091.87 -27996091.77 -27996091.66 0.0089 0.0050
 Mercury -81362-02-13 18:42 J -27996003.82 -27996003.72 -27996003.60 0.0089 0.0046
 Mercury -81362-05-12 20:08 J -27995915.77 -27995915.66 -27995915.54 0.0089 0.0042
 Mercury -81362-08-08 21:35 J -27995827.72 -27995827.60 -27995827.48 0.0089 0.0037
 Mercury -81362-11-04 22:47 J -27995739.67 -27995739.55 -27995739.42 0.0089 0.0033
 Mercury -81361-02-01 00:13 J -27995651.61 -27995651.49 -27995651.36 0.0089 0.0028
 Mercury -81361-04-29 01:40 J -27995563.56 -27995563.43 -27995563.30 0.0089 0.0024
 Mercury -81361-07-26 02:52 J -27995475.50 -27995475.38 -27995475.24 0.0089 0.0020
 Mercury -81361-10-22 04:18 J -27995387.45 -27995387.32 -27995387.18 0.0089 0.0015

Mercury -81360-01-18 05:44 J -27995299.39 -27995299.26 -27995299.13 0.0089 0.0011

Mercury -81360-04-16 07:11 J -27995211.34 -27995211.20 -27995211.07 0.0089 0.0006

Mercury -81360-07-13 08:37 J -27995123.28 -27995123.14 -27995123.01 0.0089 0.0003

Mercury -81360-10-09 09:49 J -27995035.22 -27995035.09 -27995034.95 0.0089 0.0004

Mercury -81359-01-05 11:16 J -27994947.16 -27994947.03 -27994946.89 0.0089 0.0007

Mercury -81359-04-03 12:42 J -27994859.10 -27994858.97 -27994858.84 0.0089 0.0012

Mercury -81359-06-30 13:54 J -27994771.05 -27994770.92 -27994770.78 0.0089 0.0017

Mercury -81359-09-26 15:20 J -27994682.99 -27994682.86 -27994682.72 0.0089 0.0021

Mercury -81359-12-23 16:47 J -27994594.93 -27994594.80 -27994594.67 0.0089 0.0025

Mercury -81358-03-21 18:13 J -27994506.86 -27994506.74 -27994506.61 0.0089 0.0030

Mercury -81358-06-17 19:25 J -27994418.80 -27994418.69 -27994418.56 0.0089 0.0035

Mercury -81358-09-13 21:06 J -27994330.74 -27994330.62 -27994330.50 0.0089 0.0039

Mercury -81358-12-10 22:18 J -27994242.68 -27994242.57 -27994242.44 0.0089 0.0044

Mercury -81357-03-07 23:44 J -27994154.62 -27994154.51 -27994154.39 0.0089 0.0048

Mercury -81357-06-04 01:11 J -27994066.55 -27994066.45 -27994066.34 0.0089 0.0053

Mercury -81357-08-31 02:37 J -27993978.49 -27993978.39 -27993978.28 0.0089 0.0057

Mercury -81357-11-27 03:49 J -27993890.42 -27993890.34 -27993890.23 0.0089 0.0062

Mercury -81356-02-23 05:30 J -27993802.35 -27993802.27 -27993802.18 0.0089 0.0066

Mercury -81356-05-22 06:42 J -27993714.29 -27993714.22 -27993714.12 0.0089 0.0071

Mercury -81356-08-18 08:23 J -27993626.22 -27993626.15 -27993626.08 0.0089 0.0075

Mercury -81356-11-14 09:49 J -27993538.14 -27993538.09 -27993538.03 0.0089 0.0080

Mercury -81355-02-10 11:01 J -27993450.06 -27993450.04 -27993449.99 0.0089 0.0085

Earth -81347-03-31 16:04 J -27990478.94 -27990478.83 -27990478.68 0.0089 0.0076

Moon -81347-03-31 19:11 J -27990478.82 -27990478.70 -27990478.54 0.0089 0.0073 *

Moon -81346-04-02 22:04 J -27990111.76 -27990111.58 -27990111.38 0.0089 0.0058

Earth -81346-04-03 01:11 J -27990111.62 -27990111.45 -27990111.23 0.0089 0.0055 *

Earth -81345-04-04 10:32 J -27989744.28 -27989744.06 -27989743.82 0.0089 0.0034

Moon -81345-04-04 14:08 J -27989744.14 -27989743.91 -27989743.66 0.0089 0.0031 *

Moon -81344-04-06 17:16 J -27989377.02 -27989376.78 -27989376.54 0.0089 0.0016

Earth -81344-04-06 19:54 J -27989376.91 -27989376.67 -27989376.42 0.0089 0.0013 *

Earth	-81343-04-09 05:16 J	-27989009.53	-27989009.28	-27989009.03	0.0089	0.0008
Moon	-81343-04-09 07:40 J	-27989009.44	-27989009.18	-27989008.93	0.0089	0.0011 *
Moon	-81342-04-11 13:40 J	-27988642.15	-27988641.93	-27988641.68	0.0089	0.0026
Earth	-81342-04-11 14:23 J	-27988642.13	-27988641.90	-27988641.65	0.0089	0.0029 *
Moon	-81341-04-12 22:47 J	-27988274.74	-27988274.55	-27988274.32	0.0089	0.0053
Earth	-81341-04-12 23:16 J	-27988274.71	-27988274.53	-27988274.30	0.0089	0.0050 *
Earth	-81340-04-15 08:23 J	-27987907.27	-27987907.15	-27987906.97	0.0089	0.0071
Moon	-81340-04-15 10:18 J	-27987907.22	-27987907.07	-27987906.90	0.0089	0.0068 *
Mars	-81332-02-16 21:49 J	-27985042.92	-27985042.59	-27985042.25	0.0089	0.0006
Mars	-81330-01-13 23:59 J	-27984346.50	-27984346.50	-27984346.47	0.0089	0.0089
Venus	-81296-11-01 20:23 J	-27971635.70	-27971635.65	-27971635.55	0.0089	0.0084
Venus	-81295-06-15 11:16 J	-27971410.18	-27971410.03	-27971409.87	0.0089	0.0065
Venus	-81294-01-27 01:25 J	-27971184.62	-27971184.44	-27971184.24	0.0089	0.0047
Venus	-81294-09-09 15:35 J	-27970959.05	-27970958.85	-27970958.62	0.0089	0.0029
Venus	-81293-04-22 06:13 J	-27970733.47	-27970733.24	-27970733.02	0.0089	0.0010
Venus	-81293-12-03 20:23 J	-27970507.87	-27970507.65	-27970507.42	0.0089	0.0009
Venus	-81292-07-17 10:47 J	-27970282.27	-27970282.05	-27970281.83	0.0089	0.0027
Venus	-81291-02-28 00:42 J	-27970056.65	-27970056.47	-27970056.26	0.0089	0.0046
Venus	-81291-10-11 15:06 J	-27969831.02	-27969830.87	-27969830.70	0.0089	0.0064
Venus	-81290-05-25 05:44 J	-27969605.34	-27969605.26	-27969605.18	0.0089	0.0082
Mercury	-81281-03-04 21:49 J	-27966398.62	-27966398.59	-27966398.53	0.0089	0.0086
Mercury	-81281-06-01 01:25 J	-27966310.51	-27966310.44	-27966310.34	0.0089	0.0080
Mercury	-81281-08-28 05:16 J	-27966222.38	-27966222.28	-27966222.16	0.0089	0.0073
Mercury	-81281-11-24 08:37 J	-27966134.25	-27966134.14	-27966133.99	0.0089	0.0067
Mercury	-81280-02-20 12:42 J	-27966046.11	-27966045.97	-27966045.83	0.0089	0.0060
Mercury	-81280-05-19 16:04 J	-27965957.97	-27965957.83	-27965957.67	0.0089	0.0054
Mercury	-81280-08-15 19:25 J	-27965869.83	-27965869.69	-27965869.51	0.0089	0.0048
Mercury	-81280-11-11 23:16 J	-27965781.69	-27965781.53	-27965781.35	0.0089	0.0041
Mercury	-81279-02-08 02:37 J	-27965693.55	-27965693.39	-27965693.20	0.0089	0.0035
Mercury	-81279-05-07 06:28 J	-27965605.41	-27965605.23	-27965605.04	0.0089	0.0028

Mercury -81279-08-03 10:04 J -27965517.26 -27965517.08 -27965516.89 0.0089 0.0022

Mercury -81279-10-30 13:25 J -27965429.12 -27965428.94 -27965428.74 0.0089 0.0016

Mercury -81278-01-26 17:16 J -27965340.97 -27965340.78 -27965340.59 0.0089 0.0009

Mercury -81278-04-24 20:37 J -27965252.83 -27965252.64 -27965252.44 0.0089 0.0003

Mercury -81278-07-22 00:13 J -27965164.68 -27965164.49 -27965164.30 0.0089 0.0004

Mercury -81278-10-18 03:35 J -27965076.53 -27965076.35 -27965076.15 0.0089 0.0011

Mercury -81277-01-14 07:11 J -27964988.38 -27964988.20 -27964988.01 0.0089 0.0017

Mercury -81277-04-11 10:47 J -27964900.24 -27964900.05 -27964899.87 0.0089 0.0023

Mercury -81277-07-08 13:54 J -27964812.09 -27964811.92 -27964811.72 0.0089 0.0030

Mercury -81277-10-04 17:30 J -27964723.94 -27964723.77 -27964723.59 0.0089 0.0036

Mercury -81277-12-31 20:52 J -27964635.79 -27964635.63 -27964635.45 0.0089 0.0042

Mercury -81276-03-30 00:28 J -27964547.63 -27964547.48 -27964547.31 0.0089 0.0048

Mercury -81276-06-26 03:35 J -27964459.48 -27964459.35 -27964459.18 0.0089 0.0055

Mercury -81276-09-22 07:11 J -27964371.33 -27964371.20 -27964371.05 0.0089 0.0060

Mercury -81276-12-19 10:32 J -27964283.17 -27964283.06 -27964282.92 0.0089 0.0067

Mercury -81275-03-17 13:54 J -27964195.01 -27964194.92 -27964194.80 0.0088 0.0073

Mercury -81275-06-13 17:16 J -27964106.85 -27964106.78 -27964106.68 0.0088 0.0079

Mercury -81275-09-09 20:52 J -27964018.67 -27964018.63 -27964018.57 0.0088 0.0085

Earth -81266-10-01 22:32 J -27960709.59 -27960709.56 -27960709.48 0.0088 0.0087

Moon -81265-10-03 10:32 J -27960342.23 -27960342.06 -27960341.85 0.0088 0.0063

Earth -81265-10-03 13:54 J -27960342.10 -27960341.92 -27960341.74 0.0088 0.0065 *

Earth -81264-10-06 03:49 J -27959974.55 -27959974.34 -27959974.09 0.0088 0.0044

Moon -81264-10-06 06:56 J -27959974.41 -27959974.21 -27959973.96 0.0088 0.0047 *

Moon -81263-10-08 14:37 J -27959607.14 -27959606.89 -27959606.62 0.0088 0.0019

Earth -81263-10-08 18:42 J -27959606.98 -27959606.72 -27959606.47 0.0088 0.0022 *

Earth -81262-10-11 08:52 J -27959239.40 -27959239.13 -27959238.87 0.0088 0.0001

Moon -81262-10-11 12:28 J -27959239.25 -27959238.98 -27959238.71 0.0088 0.0003 *

Moon -81261-10-12 19:54 J -27958871.91 -27958871.67 -27958871.41 0.0088 0.0025

Earth -81261-10-12 22:47 J -27958871.79 -27958871.55 -27958871.28 0.0088 0.0022 *

Earth -81260-10-15 13:11 J -27958504.19 -27958503.95 -27958503.72 0.0088 0.0043

Moon	-81260-10-15 15:49 J	-27958504.08	-27958503.84	-27958503.59	0.0088	0.0039 *
Moon	-81259-10-18 01:54 J	-27958136.58	-27958136.42	-27958136.25	0.0088	0.0068
Earth	-81259-10-18 02:37 J	-27958136.55	-27958136.39	-27958136.18	0.0088	0.0065 *
Moon	-81258-10-20 17:30 J	-27957768.87	-27957768.77	-27957768.67	0.0088	0.0082
Earth	-81258-10-20 16:47 J	-27957768.84	-27957768.80	-27957768.72	0.0088	0.0086 *
Mars	-81250-01-18 09:35 J	-27955122.39	-27955122.10	-27955121.81	0.0088	0.0013
Mars	-81249-12-12 02:08 J	-27954428.59	-27954428.41	-27954428.20	0.0088	0.0066
Jupiter	-81242-07-12 19:11 J	-27952025.17	-27952024.70	-27952024.14	0.0088	0.0027
Venus	-81213-08-02 05:01 J	-27941411.36	-27941411.29	-27941411.16	0.0089	0.0079
Venus	-81212-03-15 17:16 J	-27941185.92	-27941185.78	-27941185.62	0.0089	0.0061
Venus	-81212-10-27 05:01 J	-27940960.46	-27940960.29	-27940960.09	0.0089	0.0044
Venus	-81211-06-09 17:01 J	-27940734.99	-27940734.79	-27940734.58	0.0089	0.0027
Venus	-81210-01-21 04:47 J	-27940509.51	-27940509.30	-27940509.08	0.0089	0.0009
Venus	-81210-09-03 16:32 J	-27940284.02	-27940283.81	-27940283.60	0.0089	0.0008
Venus	-81209-04-16 04:18 J	-27940058.52	-27940058.32	-27940058.12	0.0089	0.0025
Venus	-81209-11-27 15:49 J	-27939833.01	-27939832.84	-27939832.64	0.0089	0.0043
Venus	-81208-07-11 03:35 J	-27939607.49	-27939607.35	-27939607.18	0.0089	0.0060
Venus	-81207-02-21 15:06 J	-27939381.95	-27939381.87	-27939381.74	0.0089	0.0077
Mercury	-81200-06-13 05:30 J	-27936713.29	-27936713.27	-27936713.24	0.0089	0.0087
Mercury	-81200-09-09 06:42 J	-27936625.25	-27936625.22	-27936625.16	0.0089	0.0083
Mercury	-81200-12-06 07:54 J	-27936537.21	-27936537.17	-27936537.09	0.0089	0.0079
Mercury	-81199-03-04 09:35 J	-27936449.17	-27936449.10	-27936449.03	0.0089	0.0074
Mercury	-81199-05-31 10:47 J	-27936361.12	-27936361.05	-27936360.96	0.0089	0.0070
Mercury	-81199-08-27 11:59 J	-27936273.08	-27936273.00	-27936272.90	0.0089	0.0066
Mercury	-81199-11-23 13:25 J	-27936185.03	-27936184.94	-27936184.84	0.0089	0.0061
Mercury	-81198-02-19 14:52 J	-27936096.98	-27936096.88	-27936096.77	0.0089	0.0057
Mercury	-81198-05-18 16:18 J	-27936008.93	-27936008.82	-27936008.71	0.0089	0.0052
Mercury	-81198-08-14 17:30 J	-27935920.88	-27935920.77	-27935920.65	0.0089	0.0048
Mercury	-81198-11-10 18:42 J	-27935832.82	-27935832.72	-27935832.59	0.0089	0.0044
Mercury	-81197-02-06 20:23 J	-27935744.77	-27935744.65	-27935744.53	0.0089	0.0039

Mercury -81197-05-04 21:35 J -27935656.72 -27935656.60 -27935656.47 0.0089 0.0035

Mercury -81197-07-31 22:47 J -27935568.67 -27935568.55 -27935568.41 0.0089 0.0031

Mercury -81197-10-28 00:13 J -27935480.61 -27935480.49 -27935480.36 0.0089 0.0026

Mercury -81196-01-24 01:40 J -27935392.56 -27935392.43 -27935392.30 0.0089 0.0022

Mercury -81196-04-22 03:06 J -27935304.50 -27935304.37 -27935304.24 0.0089 0.0017

Mercury -81196-07-19 04:18 J -27935216.45 -27935216.32 -27935216.18 0.0089 0.0013

Mercury -81196-10-15 05:44 J -27935128.39 -27935128.26 -27935128.12 0.0089 0.0008

Mercury -81195-01-11 07:11 J -27935040.33 -27935040.20 -27935040.07 0.0089 0.0004

Mercury -81195-04-09 08:37 J -27934952.28 -27934952.14 -27934952.01 0.0089 0.0001

Mercury -81195-07-06 09:49 J -27934864.22 -27934864.09 -27934863.95 0.0089 0.0006

Mercury -81195-10-02 11:16 J -27934776.16 -27934776.03 -27934775.89 0.0089 0.0010

Mercury -81195-12-29 12:42 J -27934688.10 -27934687.97 -27934687.84 0.0089 0.0014

Mercury -81194-03-27 14:08 J -27934600.04 -27934599.91 -27934599.78 0.0089 0.0019

Mercury -81194-06-23 15:20 J -27934511.98 -27934511.86 -27934511.72 0.0089 0.0024

Mercury -81194-09-19 16:47 J -27934423.92 -27934423.80 -27934423.67 0.0089 0.0028

Mercury -81194-12-16 18:13 J -27934335.86 -27934335.74 -27934335.61 0.0089 0.0032

Mercury -81193-03-13 19:40 J -27934247.80 -27934247.68 -27934247.56 0.0089 0.0037

Mercury -81193-06-09 21:06 J -27934159.74 -27934159.62 -27934159.50 0.0089 0.0041

Mercury -81193-09-05 22:18 J -27934071.68 -27934071.57 -27934071.45 0.0089 0.0046

Mercury -81193-12-02 23:44 J -27933983.61 -27933983.51 -27933983.39 0.0089 0.0051

Mercury -81192-03-01 01:11 J -27933895.55 -27933895.45 -27933895.34 0.0089 0.0055

Mercury -81192-05-28 02:23 J -27933807.48 -27933807.40 -27933807.29 0.0089 0.0060

Mercury -81192-08-24 04:04 J -27933719.42 -27933719.33 -27933719.23 0.0089 0.0064

Mercury -81192-11-20 05:16 J -27933631.35 -27933631.28 -27933631.18 0.0089 0.0069

Mercury -81191-02-16 06:56 J -27933543.28 -27933543.21 -27933543.13 0.0089 0.0073

Mercury -81191-05-15 08:08 J -27933455.21 -27933455.16 -27933455.08 0.0089 0.0078

Mercury -81191-08-11 09:49 J -27933367.13 -27933367.09 -27933367.04 0.0089 0.0082

Mercury -81191-11-07 11:16 J -27933279.05 -27933279.03 -27933279.00 0.0089 0.0087

Moon -81183-03-31 03:06 J -27930578.47 -27930578.37 -27930578.25 0.0089 0.0079

Earth -81183-03-31 06:42 J -27930578.30 -27930578.22 -27930578.13 0.0089 0.0083 *

Earth	-81182-04-02 15:06 J	-27930211.02	-27930210.87	-27930210.67	0.0089	0.0064
Moon	-81182-04-02 18:28 J	-27930210.87	-27930210.73	-27930210.54	0.0089	0.0066 *
Moon	-81181-04-03 21:20 J	-27929843.81	-27929843.61	-27929843.37	0.0089	0.0039
Earth	-81181-04-04 00:28 J	-27929843.69	-27929843.48	-27929843.25	0.0089	0.0042 *
Earth	-81180-04-06 09:20 J	-27929476.34	-27929476.11	-27929475.85	0.0089	0.0022
Moon	-81180-04-06 11:01 J	-27929476.28	-27929476.04	-27929475.79	0.0089	0.0025 *
Moon	-81179-04-08 18:13 J	-27929108.98	-27929108.74	-27929108.50	0.0089	0.0002
Earth	-81179-04-08 18:56 J	-27929108.96	-27929108.71	-27929108.46	0.0089	0.0001 *
Moon	-81178-04-11 03:20 J	-27928741.61	-27928741.36	-27928741.10	0.0089	0.0016
Earth	-81178-04-11 03:49 J	-27928741.57	-27928741.34	-27928741.08	0.0089	0.0020 *
Earth	-81177-04-12 12:56 J	-27928374.16	-27928373.96	-27928373.72	0.0089	0.0041
Moon	-81177-04-12 15:35 J	-27928374.06	-27928373.85	-27928373.64	0.0089	0.0045 *
Moon	-81176-04-14 19:40 J	-27928006.86	-27928006.68	-27928006.47	0.0089	0.0058
Earth	-81176-04-14 22:04 J	-27928006.73	-27928006.58	-27928006.37	0.0089	0.0062 *
Earth	-81175-04-17 07:25 J	-27927639.26	-27927639.19	-27927639.07	0.0089	0.0083
Moon	-81175-04-17 10:47 J	-27927639.08	-27927639.05	-27927638.95	0.0089	0.0086 *
Mars	-81169-09-30 17:30 J	-27925281.04	-27925280.77	-27925280.46	0.0089	0.0045
Mars	-81167-08-27 18:28 J	-27924585.01	-27924584.73	-27924584.44	0.0089	0.0049
Venus	-81131-09-16 21:35 J	-27911415.72	-27911415.60	-27911415.45	0.0089	0.0071
Venus	-81130-04-30 11:44 J	-27911190.17	-27911190.01	-27911189.81	0.0089	0.0053
Venus	-81130-12-12 02:23 J	-27910964.61	-27910964.40	-27910964.19	0.0089	0.0034
Venus	-81129-07-24 16:32 J	-27910739.03	-27910738.81	-27910738.58	0.0089	0.0016
Venus	-81128-03-07 06:56 J	-27910513.44	-27910513.21	-27910512.98	0.0089	0.0003
Venus	-81128-10-18 20:52 J	-27910287.83	-27910287.63	-27910287.39	0.0089	0.0022
Venus	-81127-06-01 11:30 J	-27910062.21	-27910062.02	-27910061.81	0.0089	0.0040
Venus	-81126-01-13 01:25 J	-27909836.58	-27909836.44	-27909836.24	0.0089	0.0059
Venus	-81126-08-26 15:49 J	-27909610.93	-27909610.84	-27909610.71	0.0089	0.0077
Mercury	-81117-11-29 21:06 J	-27906227.67	-27906227.62	-27906227.53	0.0089	0.0083
Mercury	-81116-02-26 01:11 J	-27906139.55	-27906139.45	-27906139.35	0.0089	0.0076
Mercury	-81116-05-25 04:32 J	-27906051.42	-27906051.31	-27906051.18	0.0089	0.0070

Mercury -81116-08-21 07:54 J -27905963.28 -27905963.17 -27905963.01 0.0089 0.0064

Mercury -81116-11-17 11:44 J -27905875.15 -27905875.01 -27905874.85 0.0089 0.0057

Mercury -81115-02-13 15:20 J -27905787.01 -27905786.86 -27905786.69 0.0089 0.0050

Mercury -81115-05-12 18:56 J -27905698.87 -27905698.71 -27905698.53 0.0089 0.0044

Mercury -81115-08-08 22:32 J -27905610.72 -27905610.56 -27905610.37 0.0089 0.0038

Mercury -81115-11-05 02:23 J -27905522.58 -27905522.40 -27905522.22 0.0089 0.0031

Mercury -81114-02-01 05:44 J -27905434.44 -27905434.26 -27905434.07 0.0089 0.0025

Mercury -81114-04-30 09:20 J -27905346.29 -27905346.11 -27905345.91 0.0089 0.0018

Mercury -81114-07-27 12:56 J -27905258.15 -27905257.96 -27905257.76 0.0089 0.0012

Mercury -81114-10-23 16:32 J -27905170.00 -27905169.81 -27905169.62 0.0089 0.0005

Mercury -81113-01-19 20:08 J -27905081.85 -27905081.66 -27905081.47 0.0089 0.0001

Mercury -81113-04-16 23:30 J -27904993.71 -27904993.52 -27904993.32 0.0089 0.0008

Mercury -81113-07-14 03:06 J -27904905.56 -27904905.37 -27904905.18 0.0089 0.0014

Mercury -81113-10-10 06:28 J -27904817.41 -27904817.23 -27904817.03 0.0089 0.0020

Mercury -81112-01-06 10:04 J -27904729.26 -27904729.08 -27904728.89 0.0089 0.0026

Mercury -81112-04-04 13:25 J -27904641.11 -27904640.94 -27904640.75 0.0089 0.0033

Mercury -81112-07-01 17:01 J -27904552.96 -27904552.79 -27904552.61 0.0089 0.0039

Mercury -81112-09-27 20:08 J -27904464.80 -27904464.66 -27904464.48 0.0089 0.0046

Mercury -81112-12-24 23:44 J -27904376.65 -27904376.51 -27904376.34 0.0089 0.0052

Mercury -81111-03-23 03:20 J -27904288.50 -27904288.36 -27904288.21 0.0089 0.0058

Mercury -81111-06-19 06:42 J -27904200.34 -27904200.22 -27904200.08 0.0089 0.0064

Mercury -81111-09-15 10:18 J -27904112.18 -27904112.07 -27904111.95 0.0089 0.0070

Mercury -81111-12-12 13:11 J -27904024.02 -27904023.95 -27904023.83 0.0089 0.0077

Mercury -81110-03-10 16:47 J -27903935.85 -27903935.80 -27903935.72 0.0089 0.0083

Mercury -81110-06-06 20:23 J -27903847.65 -27903847.65 -27903847.63 0.0088 0.0088

Earth -81101-10-02 22:04 J -27900441.70 -27900441.58 -27900441.40 0.0088 0.0074

Moon -81101-10-03 02:23 J -27900441.56 -27900441.40 -27900441.23 0.0088 0.0069 *

Moon -81100-10-05 09:35 J -27900074.30 -27900074.10 -27900073.89 0.0088 0.0056

Earth -81100-10-05 12:56 J -27900074.16 -27900073.96 -27900073.73 0.0088 0.0052 *

Earth -81099-10-08 03:20 J -27899706.59 -27899706.36 -27899706.09 0.0088 0.0031

Moon	-81099-10-08 06:56 J	-27899706.45	-27899706.21	-27899705.94	0.0088	0.0027	*
Moon	-81098-10-10 15:06 J	-27899339.12	-27899338.87	-27899338.60	0.0088	0.0013	
Earth	-81098-10-10 18:13 J	-27899339.00	-27899338.74	-27899338.48	0.0088	0.0009	*
Earth	-81097-10-12 08:23 J	-27898971.41	-27898971.15	-27898970.89	0.0088	0.0013	
Moon	-81097-10-12 09:49 J	-27898971.35	-27898971.09	-27898970.81	0.0088	0.0016	*
Moon	-81096-10-14 21:20 J	-27898603.84	-27898603.61	-27898603.36	0.0088	0.0032	
Earth	-81096-10-14 22:18 J	-27898603.80	-27898603.57	-27898603.31	0.0088	0.0034	*
Moon	-81095-10-17 11:44 J	-27898236.20	-27898236.01	-27898235.79	0.0088	0.0058	
Earth	-81095-10-17 12:13 J	-27898236.18	-27898235.99	-27898235.77	0.0088	0.0055	*
Earth	-81094-10-20 02:08 J	-27897868.52	-27897868.41	-27897868.26	0.0088	0.0077	
Moon	-81094-10-20 04:04 J	-27897868.45	-27897868.33	-27897868.17	0.0088	0.0074	*
Mars	-81087-09-03 00:56 J	-27895358.70	-27895358.46	-27895358.20	0.0088	0.0046	
Mars	-81085-07-27 18:56 J	-27894664.97	-27894664.71	-27894664.43	0.0088	0.0034	
Jupiter	-81076-09-07 23:44 J	-27891335.77	-27891335.51	-27891335.12	0.0088	0.0071	
Venus	-81049-11-03 18:28 J	-27881416.77	-27881416.73	-27881416.63	0.0088	0.0084	
Venus	-81048-06-17 06:56 J	-27881191.35	-27881191.21	-27881191.07	0.0089	0.0066	
Venus	-81047-01-28 18:28 J	-27880965.90	-27880965.73	-27880965.54	0.0089	0.0049	
Venus	-81047-09-11 06:13 J	-27880740.43	-27880740.24	-27880740.03	0.0089	0.0032	
Venus	-81046-04-24 17:59 J	-27880514.95	-27880514.75	-27880514.53	0.0089	0.0015	
Venus	-81046-12-06 06:13 J	-27880289.46	-27880289.24	-27880289.03	0.0089	0.0003	
Venus	-81045-07-18 17:44 J	-27880063.96	-27880063.76	-27880063.55	0.0089	0.0021	
Venus	-81044-03-01 05:30 J	-27879838.46	-27879838.27	-27879838.07	0.0089	0.0038	
Venus	-81044-10-12 17:16 J	-27879612.94	-27879612.78	-27879612.61	0.0089	0.0055	
Venus	-81043-05-26 04:32 J	-27879387.41	-27879387.31	-27879387.16	0.0089	0.0073	
Mercury	-81035-03-10 05:30 J	-27876542.29	-27876542.27	-27876542.22	0.0089	0.0085	
Mercury	-81035-06-06 06:42 J	-27876454.26	-27876454.22	-27876454.15	0.0089	0.0081	
Mercury	-81035-09-02 08:23 J	-27876366.21	-27876366.15	-27876366.08	0.0089	0.0076	
Mercury	-81035-11-29 09:35 J	-27876278.17	-27876278.10	-27876278.02	0.0089	0.0072	
Mercury	-81034-02-25 10:47 J	-27876190.12	-27876190.05	-27876189.95	0.0089	0.0068	
Mercury	-81034-05-24 12:13 J	-27876102.07	-27876101.99	-27876101.89	0.0089	0.0063	

Mercury -81034-08-20 13:25 J -27876014.03 -27876013.94 -27876013.83 0.0089 0.0059

Mercury -81034-11-16 15:06 J -27875925.98 -27875925.87 -27875925.77 0.0089 0.0054

Mercury -81033-02-12 16:18 J -27875837.92 -27875837.82 -27875837.71 0.0089 0.0050

Mercury -81033-05-10 17:30 J -27875749.87 -27875749.77 -27875749.65 0.0089 0.0046

Mercury -81033-08-06 18:56 J -27875661.82 -27875661.71 -27875661.59 0.0089 0.0041

Mercury -81033-11-02 20:23 J -27875573.77 -27875573.65 -27875573.53 0.0089 0.0037

Mercury -81032-01-29 21:49 J -27875485.72 -27875485.59 -27875485.47 0.0089 0.0032

Mercury -81032-04-27 23:01 J -27875397.66 -27875397.54 -27875397.41 0.0089 0.0028

Mercury -81032-07-25 00:28 J -27875309.61 -27875309.48 -27875309.35 0.0089 0.0023

Mercury -81032-10-21 01:54 J -27875221.55 -27875221.42 -27875221.29 0.0089 0.0019

Mercury -81031-01-17 03:06 J -27875133.50 -27875133.37 -27875133.23 0.0089 0.0015

Mercury -81031-04-15 04:32 J -27875045.44 -27875045.31 -27875045.18 0.0089 0.0010

Mercury -81031-07-12 05:59 J -27874957.39 -27874957.25 -27874957.12 0.0089 0.0006

Mercury -81031-10-08 07:25 J -27874869.33 -27874869.19 -27874869.06 0.0089 0.0003

Mercury -81030-01-04 08:37 J -27874781.27 -27874781.14 -27874781.00 0.0089 0.0003

Mercury -81030-04-02 10:04 J -27874693.21 -27874693.08 -27874692.95 0.0089 0.0008

Mercury -81030-06-29 11:16 J -27874605.16 -27874605.03 -27874604.89 0.0089 0.0013

Mercury -81030-09-25 12:42 J -27874517.10 -27874516.97 -27874516.83 0.0089 0.0017

Mercury -81030-12-22 14:08 J -27874429.04 -27874428.91 -27874428.78 0.0089 0.0021

Mercury -81029-03-19 15:20 J -27874340.98 -27874340.86 -27874340.72 0.0089 0.0026

Mercury -81029-06-15 17:01 J -27874252.92 -27874252.79 -27874252.67 0.0089 0.0030

Mercury -81029-09-11 18:13 J -27874164.86 -27874164.74 -27874164.61 0.0089 0.0035

Mercury -81029-12-08 19:40 J -27874076.80 -27874076.68 -27874076.56 0.0089 0.0039

Mercury -81028-03-06 20:52 J -27873988.74 -27873988.63 -27873988.50 0.0089 0.0044

Mercury -81028-06-02 22:32 J -27873900.67 -27873900.56 -27873900.45 0.0089 0.0048

Mercury -81028-08-29 23:44 J -27873812.61 -27873812.51 -27873812.39 0.0089 0.0053

Mercury -81028-11-26 01:11 J -27873724.54 -27873724.45 -27873724.34 0.0089 0.0058

Mercury -81027-02-22 02:37 J -27873636.48 -27873636.39 -27873636.29 0.0089 0.0062

Mercury -81027-05-21 03:49 J -27873548.41 -27873548.34 -27873548.24 0.0089 0.0067

Mercury -81027-08-17 05:30 J -27873460.35 -27873460.27 -27873460.19 0.0089 0.0071

Mercury -81027-11-13 06:42 J -27873372.27 -27873372.22 -27873372.14 0.0089 0.0076

Mercury -81026-02-09 08:23 J -27873284.20 -27873284.15 -27873284.09 0.0089 0.0080

Mercury -81026-05-08 09:35 J -27873196.12 -27873196.10 -27873196.05 0.0089 0.0085

Moon -81018-04-02 02:52 J -27870310.51 -27870310.38 -27870310.20 0.0089 0.0068

Earth -81018-04-02 05:44 J -27870310.41 -27870310.26 -27870310.10 0.0089 0.0070 *

Earth -81017-04-03 14:23 J -27869943.09 -27869942.90 -27869942.68 0.0089 0.0050

Moon -81017-04-03 16:18 J -27869943.02 -27869942.82 -27869942.60 0.0089 0.0053 *

Earth -81016-04-05 23:16 J -27869575.75 -27869575.53 -27869575.27 0.0089 0.0030

Moon -81016-04-05 23:30 J -27869575.74 -27869575.52 -27869575.28 0.0089 0.0027 *

Moon -81015-04-08 07:25 J -27869208.44 -27869208.19 -27869207.93 0.0089 0.0011

Earth -81015-04-08 08:37 J -27869208.38 -27869208.14 -27869207.88 0.0089 0.0009 *

Earth -81014-04-10 17:44 J -27868841.00 -27868840.76 -27868840.50 0.0089 0.0012

Moon -81014-04-10 19:40 J -27868840.91 -27868840.68 -27868840.43 0.0089 0.0015 *

Moon -81013-04-11 23:30 J -27868473.75 -27868473.52 -27868473.27 0.0089 0.0030

Earth -81013-04-12 02:52 J -27868473.60 -27868473.38 -27868473.13 0.0089 0.0032 *

Earth -81012-04-14 11:59 J -27868106.18 -27868106.00 -27868105.78 0.0089 0.0053

Moon -81012-04-14 15:49 J -27868106.03 -27868105.84 -27868105.65 0.0089 0.0056 *

Moon -81011-04-16 17:59 J -27867738.88 -27867738.75 -27867738.57 0.0089 0.0070

Earth -81011-04-16 21:49 J -27867738.72 -27867738.59 -27867738.44 0.0089 0.0073 *

Mars -81005-05-14 18:28 J -27865518.84 -27865518.73 -27865518.61 0.0089 0.0084

Mars -81003-04-10 15:35 J -27864823.17 -27864822.85 -27864822.51 0.0089 0.0009

81ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 81st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-80967-12-19 08:37 J	-27851421.23	-27851421.14	-27851421.00	0.0089	0.0077		
Venus	-80966-08-01 23:01 J	-27851195.70	-27851195.54	-27851195.36	0.0089	0.0058		
Venus	-80965-03-14 13:11 J	-27850970.14	-27850969.95	-27850969.74	0.0089	0.0040		
Venus	-80965-10-26 03:35 J	-27850744.57	-27850744.35	-27850744.13	0.0089	0.0021		
Venus	-80964-06-08 17:59 J	-27850518.97	-27850518.75	-27850518.52	0.0089	0.0003		
Venus	-80963-01-20 08:08 J	-27850293.38	-27850293.16	-27850292.93	0.0089	0.0016		
Venus	-80963-09-02 22:04 J	-27850067.77	-27850067.58	-27850067.35	0.0089	0.0035		
Venus	-80962-04-16 12:42 J	-27849842.15	-27849841.97	-27849841.78	0.0089	0.0053		
Venus	-80962-11-28 02:37 J	-27849616.50	-27849616.39	-27849616.23	0.0089	0.0072		
Mercury	-80952-05-30 16:47 J	-27846144.83	-27846144.80	-27846144.74	0.0089	0.0086		
Mercury	-80952-08-26 20:23 J	-27846056.72	-27846056.65	-27846056.55	0.0089	0.0080		
Mercury	-80952-11-23 00:13 J	-27845968.59	-27845968.49	-27845968.37	0.0089	0.0073		
Mercury	-80951-02-19 03:35 J	-27845880.46	-27845880.35	-27845880.20	0.0089	0.0067		
Mercury	-80951-05-18 07:40 J	-27845792.32	-27845792.18	-27845792.04	0.0089	0.0060		
Mercury	-80951-08-14 11:01 J	-27845704.18	-27845704.04	-27845703.88	0.0089	0.0054		
Mercury	-80951-11-10 14:52 J	-27845616.04	-27845615.88	-27845615.72	0.0089	0.0047		
Mercury	-80950-02-06 18:13 J	-27845527.90	-27845527.74	-27845527.56	0.0089	0.0041		
Mercury	-80950-05-05 21:49 J	-27845439.76	-27845439.59	-27845439.40	0.0089	0.0034		
Mercury	-80950-08-02 01:25 J	-27845351.61	-27845351.44	-27845351.25	0.0089	0.0028		
Mercury	-80950-10-29 05:01 J	-27845263.47	-27845263.29	-27845263.09	0.0089	0.0022		
Mercury	-80949-01-25 08:52 J	-27845175.32	-27845175.13	-27845174.94	0.0089	0.0015		
Mercury	-80949-04-22 12:13 J	-27845087.18	-27845086.99	-27845086.79	0.0089	0.0009		
Mercury	-80949-07-19 15:49 J	-27844999.03	-27844998.84	-27844998.65	0.0089	0.0002		
Mercury	-80949-10-15 19:25 J	-27844910.88	-27844910.69	-27844910.50	0.0089	0.0004		
Mercury	-80948-01-11 23:01 J	-27844822.73	-27844822.54	-27844822.35	0.0089	0.0011		
Mercury	-80948-04-10 02:08 J	-27844734.59	-27844734.41	-27844734.21	0.0089	0.0018		
Mercury	-80948-07-07 05:44 J	-27844646.44	-27844646.26	-27844646.07	0.0089	0.0024		

Mercury -80948-10-03 09:20 J -27844558.28 -27844558.11 -27844557.92 0.0089 0.0030

Mercury -80948-12-30 12:56 J -27844470.13 -27844469.96 -27844469.78 0.0089 0.0036

Mercury -80947-03-28 16:04 J -27844381.98 -27844381.83 -27844381.65 0.0089 0.0043

Mercury -80947-06-24 19:40 J -27844293.83 -27844293.68 -27844293.51 0.0088 0.0049

Mercury -80947-09-20 23:16 J -27844205.67 -27844205.53 -27844205.38 0.0088 0.0055

Mercury -80947-12-18 02:52 J -27844117.52 -27844117.38 -27844117.24 0.0088 0.0061

Mercury -80946-03-16 05:59 J -27844029.36 -27844029.25 -27844029.11 0.0088 0.0067

Mercury -80946-06-12 09:20 J -27843941.20 -27843941.11 -27843940.99 0.0088 0.0074

Mercury -80946-09-08 12:56 J -27843853.03 -27843852.96 -27843852.87 0.0088 0.0080

Mercury -80946-12-05 16:18 J -27843764.85 -27843764.82 -27843764.76 0.0088 0.0086

Moon -80937-10-02 03:35 J -27840541.40 -27840541.35 -27840541.23 0.0088 0.0084

Earth -80937-10-02 07:40 J -27840541.26 -27840541.18 -27840541.05 0.0088 0.0081 *

Earth -80936-10-04 22:18 J -27840173.75 -27840173.57 -27840173.36 0.0088 0.0060

Moon -80936-10-05 01:11 J -27840173.63 -27840173.45 -27840173.22 0.0088 0.0058 *

Moon -80935-10-07 11:01 J -27839806.26 -27839806.04 -27839805.80 0.0088 0.0041

Earth -80935-10-07 12:56 J -27839806.18 -27839805.96 -27839805.70 0.0088 0.0039 *

Earth -80934-10-10 03:35 J -27839438.60 -27839438.35 -27839438.08 0.0088 0.0017

Moon -80934-10-10 05:16 J -27839438.54 -27839438.28 -27839438.00 0.0088 0.0014 *

Earth -80933-10-11 18:13 J -27839071.00 -27839070.74 -27839070.47 0.0088 0.0005

Moon -80933-10-11 18:28 J -27839070.99 -27839070.73 -27839070.47 0.0088 0.0002 *

Moon -80932-10-14 06:56 J -27838703.45 -27838703.21 -27838702.93 0.0088 0.0029

Earth -80932-10-14 08:23 J -27838703.40 -27838703.15 -27838702.89 0.0088 0.0026 *

Earth -80931-10-16 22:32 J -27838335.78 -27838335.56 -27838335.33 0.0088 0.0047

Moon -80931-10-17 00:13 J -27838335.70 -27838335.49 -27838335.25 0.0088 0.0044 *

Moon -80930-10-19 09:06 J -27837968.26 -27837968.12 -27837967.94 0.0088 0.0071

Earth -80930-10-19 12:28 J -27837968.13 -27837967.98 -27837967.79 0.0088 0.0068 *

Moon -80929-10-21 05:16 J -27837600.32 -27837600.28 -27837600.18 0.0088 0.0086

Mars -80923-04-18 12:42 J -27835595.08 -27835594.97 -27835594.82 0.0088 0.0079

Mars -80921-03-12 09:49 J -27834901.39 -27834901.09 -27834900.80 0.0088 0.0001

Mars -80919-02-04 03:06 J -27834207.47 -27834207.37 -27834207.21 0.0088 0.0080

Venus	-80884-02-05 08:08 J	-27821422.16	-27821422.16	-27821422.15	0.0088	0.0088
Venus	-80884-09-18 19:25 J	-27821196.79	-27821196.69	-27821196.54	0.0089	0.0072
Venus	-80883-05-02 07:40 J	-27820971.34	-27820971.18	-27820971.00	0.0089	0.0054
Venus	-80883-12-13 19:40 J	-27820745.87	-27820745.68	-27820745.48	0.0089	0.0037
Venus	-80882-07-27 07:25 J	-27820520.39	-27820520.19	-27820519.97	0.0089	0.0019
Venus	-80881-03-08 19:25 J	-27820294.91	-27820294.69	-27820294.48	0.0089	0.0002
Venus	-80881-10-20 07:11 J	-27820069.41	-27820069.20	-27820068.99	0.0089	0.0016
Venus	-80880-06-02 18:56 J	-27819843.91	-27819843.71	-27819843.51	0.0089	0.0033
Venus	-80879-01-14 06:13 J	-27819618.39	-27819618.24	-27819618.04	0.0089	0.0051
Venus	-80879-08-27 17:59 J	-27819392.87	-27819392.75	-27819392.59	0.0089	0.0068
Venus	-80878-04-10 05:44 J	-27819167.30	-27819167.26	-27819167.18	0.0089	0.0085
Mercury	-80871-09-08 04:18 J	-27816459.33	-27816459.32	-27816459.28	0.0089	0.0087
Mercury	-80871-12-05 05:30 J	-27816371.30	-27816371.27	-27816371.21	0.0089	0.0083
Mercury	-80870-03-03 07:11 J	-27816283.26	-27816283.20	-27816283.14	0.0089	0.0078
Mercury	-80870-05-30 08:23 J	-27816195.21	-27816195.15	-27816195.07	0.0089	0.0074
Mercury	-80870-08-26 09:35 J	-27816107.17	-27816107.10	-27816107.01	0.0089	0.0070
Mercury	-80870-11-22 11:01 J	-27816019.12	-27816019.04	-27816018.94	0.0089	0.0065
Mercury	-80869-02-18 12:13 J	-27815931.07	-27815930.99	-27815930.88	0.0089	0.0061
Mercury	-80869-05-16 13:54 J	-27815843.02	-27815842.92	-27815842.82	0.0089	0.0056
Mercury	-80869-08-12 15:06 J	-27815754.97	-27815754.87	-27815754.76	0.0089	0.0052
Mercury	-80869-11-08 16:18 J	-27815666.92	-27815666.82	-27815666.70	0.0089	0.0048
Mercury	-80868-02-04 17:44 J	-27815578.87	-27815578.76	-27815578.64	0.0089	0.0043
Mercury	-80868-05-03 19:11 J	-27815490.82	-27815490.70	-27815490.58	0.0089	0.0039
Mercury	-80868-07-30 20:37 J	-27815402.76	-27815402.64	-27815402.52	0.0089	0.0034
Mercury	-80868-10-26 21:49 J	-27815314.71	-27815314.59	-27815314.46	0.0089	0.0030
Mercury	-80867-01-22 23:16 J	-27815226.66	-27815226.53	-27815226.40	0.0089	0.0025
Mercury	-80867-04-21 00:42 J	-27815138.60	-27815138.47	-27815138.34	0.0089	0.0021
Mercury	-80867-07-18 01:54 J	-27815050.55	-27815050.42	-27815050.28	0.0089	0.0017
Mercury	-80867-10-14 03:20 J	-27814962.49	-27814962.36	-27814962.23	0.0089	0.0012
Mercury	-80866-01-10 04:47 J	-27814874.44	-27814874.30	-27814874.17	0.0089	0.0008

Mercury -80866-04-08 05:59 J -27814786.38 -27814786.25 -27814786.11 0.0089 0.0004

Mercury -80866-07-05 07:25 J -27814698.32 -27814698.19 -27814698.05 0.0089 0.0002

Mercury -80866-10-01 08:52 J -27814610.27 -27814610.13 -27814610.00 0.0089 0.0006

Mercury -80866-12-28 10:04 J -27814522.21 -27814522.08 -27814521.94 0.0089 0.0011

Mercury -80865-03-25 11:30 J -27814434.15 -27814434.02 -27814433.88 0.0089 0.0015

Mercury -80865-06-21 12:56 J -27814346.09 -27814345.96 -27814345.83 0.0089 0.0019

Mercury -80865-09-17 14:23 J -27814258.03 -27814257.90 -27814257.77 0.0089 0.0024

Mercury -80865-12-14 15:35 J -27814169.97 -27814169.85 -27814169.72 0.0089 0.0029

Mercury -80864-03-12 17:01 J -27814081.91 -27814081.79 -27814081.66 0.0089 0.0033

Mercury -80864-06-08 18:13 J -27813993.85 -27813993.74 -27813993.61 0.0089 0.0038

Mercury -80864-09-04 19:40 J -27813905.79 -27813905.68 -27813905.55 0.0089 0.0042

Mercury -80864-12-01 21:06 J -27813817.73 -27813817.62 -27813817.50 0.0089 0.0047

Mercury -80863-02-27 22:32 J -27813729.66 -27813729.56 -27813729.44 0.0089 0.0051

Mercury -80863-05-26 23:44 J -27813641.60 -27813641.51 -27813641.39 0.0089 0.0056

Mercury -80863-08-23 01:25 J -27813553.54 -27813553.44 -27813553.34 0.0089 0.0060

Mercury -80863-11-19 02:37 J -27813465.47 -27813465.39 -27813465.29 0.0089 0.0065

Mercury -80862-02-15 04:18 J -27813377.40 -27813377.32 -27813377.24 0.0089 0.0069

Mercury -80862-05-14 05:30 J -27813289.33 -27813289.27 -27813289.19 0.0089 0.0074

Mercury -80862-08-10 07:11 J -27813201.26 -27813201.20 -27813201.14 0.0089 0.0078

Mercury -80862-11-06 08:23 J -27813113.19 -27813113.15 -27813113.09 0.0089 0.0083

Mercury -80861-02-02 09:35 J -27813025.10 -27813025.10 -27813025.06 0.0089 0.0088

Earth -80854-04-01 19:40 J -27810409.77 -27810409.68 -27810409.54 0.0089 0.0078

Moon -80854-04-01 20:37 J -27810409.76 -27810409.64 -27810409.47 0.0089 0.0074 *

Earth -80853-04-03 04:32 J -27810042.48 -27810042.31 -27810042.10 0.0089 0.0058

Moon -80853-04-03 04:32 J -27810042.47 -27810042.31 -27810042.12 0.0089 0.0061 *

Moon -80852-04-05 11:59 J -27809675.21 -27809675.00 -27809674.74 0.0089 0.0034

Earth -80852-04-05 13:54 J -27809675.14 -27809674.92 -27809674.69 0.0089 0.0037 *

Earth -80851-04-07 22:47 J -27809307.79 -27809307.55 -27809307.30 0.0089 0.0017

Moon -80851-04-08 01:25 J -27809307.67 -27809307.44 -27809307.20 0.0089 0.0021 *

Moon -80850-04-10 04:47 J -27808940.55 -27808940.30 -27808940.04 0.0089 0.0007

Earth	-80850-04-10 07:54 J	-27808940.42	-27808940.17	-27808939.92	0.0089	0.0003	*
Earth	-80849-04-11 16:32 J	-27808573.04	-27808572.81	-27808572.55	0.0089	0.0024	
Moon	-80849-04-11 20:23 J	-27808572.88	-27808572.65	-27808572.40	0.0089	0.0020	*
Moon	-80848-04-13 22:47 J	-27808205.74	-27808205.55	-27808205.33	0.0089	0.0048	
Earth	-80848-04-14 01:54 J	-27808205.62	-27808205.42	-27808205.19	0.0089	0.0044	*
Earth	-80847-04-16 11:30 J	-27807838.19	-27807838.02	-27807837.85	0.0089	0.0065	
Moon	-80847-04-16 14:08 J	-27807838.09	-27807837.91	-27807837.72	0.0089	0.0061	*
Moon	-80846-04-18 18:42 J	-27807470.72	-27807470.72	-27807470.68	0.0089	0.0089	
Earth	-80846-04-18 20:08 J	-27807470.70	-27807470.66	-27807470.55	0.0089	0.0086	*
Mars	-80840-11-22 14:37 J	-27805061.18	-27805060.89	-27805060.55	0.0089	0.0030	
Mars	-80838-10-19 12:56 J	-27804365.17	-27804364.96	-27804364.70	0.0089	0.0063	
Venus	-80802-03-22 19:54 J	-27791426.74	-27791426.67	-27791426.58	0.0089	0.0082	
Venus	-80802-11-03 09:49 J	-27791201.22	-27791201.09	-27791200.91	0.0089	0.0064	
Venus	-80801-06-16 00:28 J	-27790975.67	-27790975.48	-27790975.28	0.0089	0.0045	
Venus	-80800-01-27 14:37 J	-27790750.10	-27790749.89	-27790749.67	0.0089	0.0027	
Venus	-80800-09-10 05:01 J	-27790524.52	-27790524.29	-27790524.07	0.0089	0.0008	
Venus	-80799-04-23 19:11 J	-27790298.92	-27790298.70	-27790298.47	0.0089	0.0011	
Venus	-80799-12-05 09:35 J	-27790073.32	-27790073.10	-27790072.89	0.0089	0.0029	
Venus	-80798-07-18 23:30 J	-27789847.70	-27789847.52	-27789847.32	0.0089	0.0048	
Venus	-80797-02-29 13:25 J	-27789622.06	-27789621.94	-27789621.76	0.0089	0.0067	
Venus	-80797-10-12 04:04 J	-27789396.38	-27789396.33	-27789396.25	0.0089	0.0085	
Mercury	-80787-02-24 16:04 J	-27785973.87	-27785973.83	-27785973.73	0.0089	0.0083	
Mercury	-80787-05-23 19:54 J	-27785885.75	-27785885.67	-27785885.55	0.0089	0.0076	
Mercury	-80787-08-19 23:30 J	-27785797.62	-27785797.52	-27785797.38	0.0089	0.0070	
Mercury	-80787-11-16 03:20 J	-27785709.49	-27785709.36	-27785709.22	0.0089	0.0063	
Mercury	-80786-02-12 06:42 J	-27785621.35	-27785621.22	-27785621.05	0.0089	0.0057	
Mercury	-80786-05-11 10:32 J	-27785533.21	-27785533.06	-27785532.89	0.0089	0.0050	
Mercury	-80786-08-07 14:08 J	-27785445.07	-27785444.91	-27785444.73	0.0089	0.0044	
Mercury	-80786-11-03 17:59 J	-27785356.93	-27785356.75	-27785356.58	0.0089	0.0037	
Mercury	-80785-01-30 21:20 J	-27785268.79	-27785268.61	-27785268.42	0.0089	0.0031	

Mercury -80785-04-28 00:42 J -27785180.64 -27785180.47 -27785180.27 0.0089 0.0025

Mercury -80785-07-25 04:32 J -27785092.50 -27785092.31 -27785092.12 0.0089 0.0018

Mercury -80785-10-21 08:08 J -27785004.35 -27785004.16 -27785003.97 0.0089 0.0011

Mercury -80784-01-17 11:44 J -27784916.20 -27784916.01 -27784915.82 0.0089 0.0005

Mercury -80784-04-15 15:20 J -27784828.06 -27784827.86 -27784827.67 0.0089 0.0002

Mercury -80784-07-12 18:42 J -27784739.91 -27784739.72 -27784739.52 0.0089 0.0008

Mercury -80784-10-08 22:18 J -27784651.76 -27784651.57 -27784651.38 0.0089 0.0014

Mercury -80783-01-05 01:40 J -27784563.61 -27784563.43 -27784563.23 0.0089 0.0021

Mercury -80783-04-03 05:16 J -27784475.46 -27784475.28 -27784475.09 0.0089 0.0027

Mercury -80783-06-30 08:37 J -27784387.31 -27784387.14 -27784386.95 0.0089 0.0034

Mercury -80783-09-26 12:13 J -27784299.15 -27784298.99 -27784298.81 0.0089 0.0040

Mercury -80783-12-23 15:49 J -27784211.00 -27784210.84 -27784210.68 0.0089 0.0046

Mercury -80782-03-21 18:56 J -27784122.85 -27784122.71 -27784122.54 0.0089 0.0053

Mercury -80782-06-17 22:32 J -27784034.69 -27784034.56 -27784034.41 0.0089 0.0059

Mercury -80782-09-14 01:54 J -27783946.53 -27783946.42 -27783946.28 0.0089 0.0065

Mercury -80782-12-11 05:30 J -27783858.37 -27783858.27 -27783858.15 0.0089 0.0071

Mercury -80781-03-08 09:06 J -27783770.21 -27783770.12 -27783770.03 0.0088 0.0077

Mercury -80781-06-04 11:59 J -27783682.04 -27783682.00 -27783681.91 0.0088 0.0084

Earth -80773-10-01 16:47 J -27780640.80 -27780640.80 -27780640.76 0.0088 0.0088

Moon -80772-10-04 05:30 J -27780273.43 -27780273.27 -27780273.07 0.0088 0.0063

Earth -80772-10-04 07:11 J -27780273.35 -27780273.20 -27780273.00 0.0088 0.0068 *

Earth -80771-10-06 21:49 J -27779905.79 -27779905.59 -27779905.34 0.0088 0.0047

Moon -80771-10-06 22:47 J -27779905.78 -27779905.55 -27779905.32 0.0088 0.0050 *

Earth -80770-10-09 12:42 J -27779538.21 -27779537.97 -27779537.70 0.0088 0.0025

Moon -80770-10-09 13:11 J -27779538.20 -27779537.95 -27779537.70 0.0088 0.0022 *

Moon -80769-10-11 01:25 J -27779170.71 -27779170.44 -27779170.16 0.0088 0.0008

Earth -80769-10-11 03:20 J -27779170.62 -27779170.36 -27779170.09 0.0088 0.0004 *

Earth -80768-10-13 17:30 J -27778803.02 -27778802.77 -27778802.49 0.0088 0.0018

Moon -80768-10-13 20:23 J -27778802.89 -27778802.65 -27778802.39 0.0088 0.0021 *

Moon -80767-10-16 05:16 J -27778435.53 -27778435.28 -27778435.04 0.0088 0.0035

Earth -80767-10-16 07:54 J -27778435.39 -27778435.17 -27778434.91 0.0088 0.0039 *
 Earth -80766-10-18 21:49 J -27778067.76 -27778067.59 -27778067.37 0.0088 0.0060
 Moon -80766-10-19 02:08 J -27778067.59 -27778067.41 -27778067.22 0.0088 0.0063 *
 Moon -80765-10-20 08:52 J -27777700.24 -27777700.13 -27777699.99 0.0088 0.0077
 Earth -80765-10-20 12:42 J -27777700.08 -27777699.97 -27777699.86 0.0088 0.0080 *
 Mars -80758-10-26 23:30 J -27775137.80 -27775137.52 -27775137.24 0.0088 0.0032
 Mars -80756-09-19 19:11 J -27774443.93 -27774443.70 -27774443.43 0.0088 0.0048
 Venus -80720-12-21 08:52 J -27761202.21 -27761202.13 -27761202.00 0.0088 0.0077
 Venus -80719-08-03 21:06 J -27760976.77 -27760976.62 -27760976.45 0.0089 0.0059
 Venus -80718-03-17 08:52 J -27760751.31 -27760751.13 -27760750.93 0.0089 0.0042
 Venus -80718-10-28 21:06 J -27760525.83 -27760525.62 -27760525.42 0.0089 0.0024
 Venus -80717-06-10 08:52 J -27760300.34 -27760300.13 -27760299.91 0.0089 0.0007
 Venus -80716-01-21 20:37 J -27760074.85 -27760074.64 -27760074.42 0.0089 0.0011
 Venus -80716-09-04 08:08 J -27759849.35 -27759849.16 -27759848.94 0.0089 0.0029
 Venus -80715-04-17 19:54 J -27759623.84 -27759623.67 -27759623.47 0.0089 0.0046
 Venus -80715-11-29 08:08 J -27759398.31 -27759398.16 -27759398.01 0.0089 0.0063
 Venus -80714-07-12 19:25 J -27759172.76 -27759172.69 -27759172.58 0.0089 0.0081
 Mercury -80706-06-05 04:18 J -27756288.34 -27756288.32 -27756288.27 0.0089 0.0085
 Mercury -80706-09-01 05:59 J -27756200.30 -27756200.25 -27756200.20 0.0089 0.0080
 Mercury -80706-11-28 07:11 J -27756112.26 -27756112.20 -27756112.13 0.0089 0.0076
 Mercury -80705-02-24 08:23 J -27756024.22 -27756024.15 -27756024.06 0.0089 0.0072
 Mercury -80705-05-22 09:49 J -27755936.17 -27755936.09 -27755936.00 0.0089 0.0067
 Mercury -80705-08-18 11:01 J -27755848.12 -27755848.04 -27755847.94 0.0089 0.0063
 Mercury -80705-11-14 12:28 J -27755760.07 -27755759.98 -27755759.87 0.0089 0.0059
 Mercury -80704-02-10 13:54 J -27755672.02 -27755671.92 -27755671.81 0.0089 0.0054
 Mercury -80704-05-09 15:06 J -27755583.97 -27755583.87 -27755583.75 0.0089 0.0050
 Mercury -80704-08-05 16:32 J -27755495.92 -27755495.81 -27755495.69 0.0089 0.0045
 Mercury -80704-11-01 17:59 J -27755407.87 -27755407.75 -27755407.63 0.0089 0.0041
 Mercury -80703-01-28 19:11 J -27755319.81 -27755319.70 -27755319.57 0.0089 0.0037
 Mercury -80703-04-26 20:37 J -27755231.76 -27755231.64 -27755231.51 0.0089 0.0032

Mercury -80703-07-23 21:49 J -27755143.71 -27755143.59 -27755143.45 0.0089 0.0028
 Mercury -80703-10-19 23:16 J -27755055.65 -27755055.53 -27755055.40 0.0089 0.0023
 Mercury -80702-01-16 00:42 J -27754967.60 -27754967.47 -27754967.34 0.0089 0.0019
 Mercury -80702-04-14 02:08 J -27754879.54 -27754879.41 -27754879.28 0.0089 0.0014
 Mercury -80702-07-11 03:20 J -27754791.49 -27754791.36 -27754791.22 0.0089 0.0010
 Mercury -80702-10-07 04:47 J -27754703.43 -27754703.30 -27754703.17 0.0089 0.0005
 Mercury -80701-01-03 06:13 J -27754615.38 -27754615.24 -27754615.11 0.0089 0.0001
 Mercury -80701-03-31 07:25 J -27754527.32 -27754527.19 -27754527.05 0.0089 0.0005
 Mercury -80701-06-27 08:52 J -27754439.26 -27754439.13 -27754438.99 0.0089 0.0008
 Mercury -80701-09-23 10:18 J -27754351.20 -27754351.07 -27754350.94 0.0089 0.0013
 Mercury -80701-12-20 11:30 J -27754263.15 -27754263.02 -27754262.88 0.0089 0.0018
 Mercury -80700-03-18 12:56 J -27754175.09 -27754174.96 -27754174.83 0.0089 0.0022
 Mercury -80700-06-14 14:23 J -27754087.03 -27754086.90 -27754086.77 0.0089 0.0026
 Mercury -80700-09-10 15:49 J -27753998.97 -27753998.84 -27753998.72 0.0089 0.0031
 Mercury -80700-12-07 17:01 J -27753910.91 -27753910.79 -27753910.66 0.0089 0.0036
 Mercury -80699-03-05 18:28 J -27753822.85 -27753822.73 -27753822.61 0.0089 0.0040
 Mercury -80699-06-01 19:40 J -27753734.78 -27753734.68 -27753734.55 0.0089 0.0045
 Mercury -80699-08-28 21:20 J -27753646.72 -27753646.61 -27753646.50 0.0089 0.0049
 Mercury -80699-11-24 22:32 J -27753558.66 -27753558.56 -27753558.44 0.0089 0.0054
 Mercury -80698-02-20 23:59 J -27753470.59 -27753470.50 -27753470.39 0.0089 0.0058
 Mercury -80698-05-20 01:25 J -27753382.53 -27753382.44 -27753382.34 0.0089 0.0063
 Mercury -80698-08-16 02:52 J -27753294.46 -27753294.38 -27753294.29 0.0089 0.0067
 Mercury -80698-11-12 04:04 J -27753206.39 -27753206.33 -27753206.24 0.0089 0.0072
 Mercury -80697-02-08 05:44 J -27753118.32 -27753118.26 -27753118.19 0.0089 0.0076
 Mercury -80697-05-06 06:56 J -27753030.25 -27753030.21 -27753030.14 0.0089 0.0081
 Mercury -80697-08-02 08:23 J -27752942.17 -27752942.15 -27752942.10 0.0089 0.0086
 Earth -80690-04-01 09:49 J -27750509.13 -27750509.09 -27750508.99 0.0089 0.0085
 Moon -80690-04-01 11:01 J -27750509.08 -27750509.04 -27750508.99 0.0089 0.0087 *
 Moon -80689-04-02 17:16 J -27750141.94 -27750141.78 -27750141.58 0.0089 0.0063
 Earth -80689-04-02 18:56 J -27750141.86 -27750141.71 -27750141.52 0.0089 0.0065 *

Earth	-80688-04-05 04:04 J	-27749774.53	-27749774.33	-27749774.10	0.0089	0.0045
Moon	-80688-04-05 06:28 J	-27749774.42	-27749774.23	-27749774.01	0.0089	0.0048 *
Moon	-80687-04-07 09:20 J	-27749407.34	-27749407.11	-27749406.85	0.0089	0.0023
Earth	-80687-04-07 12:56 J	-27749407.19	-27749406.96	-27749406.70	0.0089	0.0025 *
Earth	-80686-04-09 22:04 J	-27749039.82	-27749039.58	-27749039.32	0.0089	0.0005
Moon	-80686-04-10 01:40 J	-27749039.68	-27749039.43	-27749039.18	0.0089	0.0007 *
Moon	-80685-04-11 03:49 J	-27748672.57	-27748672.34	-27748672.09	0.0089	0.0019
Earth	-80685-04-11 07:25 J	-27748672.44	-27748672.19	-27748671.94	0.0089	0.0015 *
Earth	-80684-04-13 16:04 J	-27748305.05	-27748304.83	-27748304.59	0.0089	0.0036
Moon	-80684-04-13 18:28 J	-27748304.96	-27748304.73	-27748304.48	0.0089	0.0033 *
Moon	-80683-04-15 23:44 J	-27747937.67	-27747937.51	-27747937.30	0.0089	0.0059
Earth	-80683-04-16 01:11 J	-27747937.63	-27747937.45	-27747937.24	0.0089	0.0056 *
Earth	-80682-04-18 10:18 J	-27747570.18	-27747570.07	-27747569.92	0.0089	0.0076
Moon	-80682-04-18 10:32 J	-27747570.18	-27747570.06	-27747569.89	0.0089	0.0073 *
Mars	-80676-07-06 14:52 J	-27745299.05	-27745298.88	-27745298.63	0.0089	0.0069
Mars	-80674-06-02 12:28 J	-27744603.30	-27744602.98	-27744602.65	0.0089	0.0024
Jupiter	-80667-05-05 17:59 J	-27742073.99	-27742073.75	-27742073.38	0.0089	0.0075
Venus	-80638-06-24 06:42 J	-27731432.23	-27731432.22	-27731432.16	0.0089	0.0088
Venus	-80637-02-04 21:06 J	-27731206.75	-27731206.62	-27731206.47	0.0089	0.0069
Venus	-80637-09-17 11:16 J	-27730981.20	-27730981.03	-27730980.83	0.0089	0.0051
Venus	-80636-05-01 01:40 J	-27730755.63	-27730755.43	-27730755.21	0.0089	0.0032
Venus	-80636-12-12 15:49 J	-27730530.05	-27730529.84	-27730529.61	0.0089	0.0014
Venus	-80635-07-26 06:13 J	-27730304.47	-27730304.24	-27730304.01	0.0089	0.0005
Venus	-80634-03-08 20:08 J	-27730078.87	-27730078.66	-27730078.43	0.0089	0.0024
Venus	-80634-10-20 10:04 J	-27729853.26	-27729853.08	-27729852.86	0.0089	0.0043
Venus	-80633-06-02 00:42 J	-27729627.62	-27729627.47	-27729627.29	0.0089	0.0061
Venus	-80632-01-13 14:37 J	-27729401.96	-27729401.89	-27729401.77	0.0089	0.0080
Mercury	-80623-08-25 11:59 J	-27725891.03	-27725891.00	-27725890.93	0.0089	0.0086
Mercury	-80623-11-21 15:49 J	-27725802.92	-27725802.84	-27725802.75	0.0089	0.0079
Mercury	-80622-02-17 19:11 J	-27725714.79	-27725714.70	-27725714.57	0.0089	0.0073

Mercury -80622-05-16 23:16 J -27725626.66 -27725626.53 -27725626.40 0.0089 0.0066

Mercury -80622-08-13 02:37 J -27725538.52 -27725538.39 -27725538.24 0.0089 0.0060

Mercury -80622-11-09 06:28 J -27725450.38 -27725450.23 -27725450.07 0.0089 0.0053

Mercury -80621-02-05 09:49 J -27725362.24 -27725362.09 -27725361.91 0.0089 0.0047

Mercury -80621-05-03 13:25 J -27725274.10 -27725273.94 -27725273.76 0.0089 0.0040

Mercury -80621-07-30 17:01 J -27725185.96 -27725185.79 -27725185.60 0.0089 0.0034

Mercury -80621-10-26 20:37 J -27725097.82 -27725097.64 -27725097.45 0.0089 0.0027

Mercury -80620-01-23 00:28 J -27725009.67 -27725009.48 -27725009.29 0.0089 0.0021

Mercury -80620-04-21 03:49 J -27724921.52 -27724921.34 -27724921.14 0.0089 0.0015

Mercury -80620-07-18 07:25 J -27724833.38 -27724833.19 -27724832.99 0.0089 0.0008

Mercury -80620-10-14 11:01 J -27724745.23 -27724745.04 -27724744.84 0.0089 0.0002

Mercury -80619-01-10 14:37 J -27724657.08 -27724656.89 -27724656.70 0.0089 0.0005

Mercury -80619-04-08 17:59 J -27724568.93 -27724568.75 -27724568.55 0.0089 0.0012

Mercury -80619-07-05 21:35 J -27724480.78 -27724480.60 -27724480.41 0.0089 0.0018

Mercury -80619-10-02 01:11 J -27724392.63 -27724392.45 -27724392.26 0.0089 0.0024

Mercury -80619-12-29 04:32 J -27724304.48 -27724304.31 -27724304.12 0.0089 0.0031

Mercury -80618-03-27 08:08 J -27724216.33 -27724216.16 -27724215.98 0.0089 0.0037

Mercury -80618-06-23 11:44 J -27724128.18 -27724128.01 -27724127.84 0.0089 0.0043

Mercury -80618-09-19 14:52 J -27724040.02 -27724039.88 -27724039.71 0.0089 0.0050

Mercury -80618-12-16 18:28 J -27723951.87 -27723951.73 -27723951.57 0.0089 0.0056

Mercury -80617-03-13 22:04 J -27723863.71 -27723863.58 -27723863.44 0.0089 0.0062

Mercury -80617-06-10 01:11 J -27723775.55 -27723775.45 -27723775.31 0.0088 0.0069

Mercury -80617-09-06 04:47 J -27723687.39 -27723687.30 -27723687.18 0.0088 0.0075

Mercury -80617-12-03 08:08 J -27723599.22 -27723599.16 -27723599.07 0.0088 0.0081

Mercury -80616-03-01 11:44 J -27723511.03 -27723511.01 -27723510.96 0.0088 0.0087

Earth -80608-10-03 17:01 J -27720372.92 -27720372.79 -27720372.64 0.0088 0.0075

Moon -80608-10-03 17:01 J -27720372.91 -27720372.79 -27720372.63 0.0088 0.0077 *

Earth -80607-10-06 07:11 J -27720005.38 -27720005.20 -27720004.96 0.0088 0.0055

Moon -80607-10-06 09:06 J -27720005.31 -27720005.12 -27720004.90 0.0088 0.0053 *

Moon -80606-10-08 19:40 J -27719637.92 -27719637.68 -27719637.42 0.0088 0.0035

Earth	-80606-10-08 21:49 J	-27719637.82	-27719637.59	-27719637.33	0.0088	0.0033	*
Earth	-80605-10-10 12:28 J	-27719270.23	-27719269.98	-27719269.71	0.0088	0.0012	
Moon	-80605-10-10 15:35 J	-27719270.11	-27719269.85	-27719269.59	0.0088	0.0009	*
Moon	-80604-10-12 23:16 J	-27718902.79	-27718902.53	-27718902.25	0.0088	0.0007	
Earth	-80604-10-13 03:06 J	-27718902.63	-27718902.37	-27718902.10	0.0088	0.0009	*
Earth	-80603-10-15 17:16 J	-27718535.02	-27718534.78	-27718534.52	0.0088	0.0030	
Moon	-80603-10-15 20:52 J	-27718534.87	-27718534.63	-27718534.38	0.0088	0.0033	*
Moon	-80602-10-18 03:49 J	-27718167.54	-27718167.34	-27718167.10	0.0088	0.0048	
Earth	-80602-10-18 07:40 J	-27718167.39	-27718167.18	-27718166.95	0.0088	0.0051	*
Earth	-80601-10-19 21:20 J	-27717799.74	-27717799.61	-27717799.43	0.0088	0.0072	
Moon	-80601-10-19 23:59 J	-27717799.62	-27717799.50	-27717799.33	0.0088	0.0074	*
Mars	-80594-06-11 11:44 J	-27715374.18	-27715374.01	-27715373.77	0.0088	0.0066	
Mars	-80592-05-05 08:52 J	-27714680.42	-27714680.13	-27714679.84	0.0088	0.0015	
Venus	-80555-03-24 22:04 J	-27701207.65	-27701207.58	-27701207.49	0.0088	0.0082	
Venus	-80555-11-05 09:49 J	-27700982.21	-27700982.09	-27700981.92	0.0088	0.0065	
Venus	-80554-06-18 22:04 J	-27700756.75	-27700756.58	-27700756.39	0.0088	0.0047	
Venus	-80553-01-30 09:49 J	-27700531.28	-27700531.09	-27700530.88	0.0089	0.0029	
Venus	-80553-09-11 21:49 J	-27700305.80	-27700305.59	-27700305.38	0.0089	0.0012	
Venus	-80552-04-25 09:35 J	-27700080.31	-27700080.10	-27700079.88	0.0089	0.0006	
Venus	-80552-12-06 21:20 J	-27699854.81	-27699854.61	-27699854.39	0.0089	0.0024	
Venus	-80551-07-20 09:06 J	-27699629.30	-27699629.12	-27699628.92	0.0089	0.0041	
Venus	-80550-03-02 21:06 J	-27699403.78	-27699403.62	-27699403.45	0.0089	0.0058	
Venus	-80550-10-14 08:37 J	-27699178.23	-27699178.14	-27699178.01	0.0089	0.0076	
Mercury	-80542-12-04 03:06 J	-27696205.38	-27696205.37	-27696205.33	0.0089	0.0087	
Mercury	-80541-03-01 04:47 J	-27696117.35	-27696117.30	-27696117.25	0.0089	0.0082	
Mercury	-80541-05-28 05:59 J	-27696029.31	-27696029.25	-27696029.19	0.0089	0.0078	
Mercury	-80541-08-24 07:11 J	-27695941.26	-27695941.20	-27695941.12	0.0089	0.0074	
Mercury	-80541-11-20 08:37 J	-27695853.22	-27695853.14	-27695853.05	0.0089	0.0069	
Mercury	-80540-02-16 09:49 J	-27695765.17	-27695765.09	-27695764.99	0.0089	0.0065	
Mercury	-80540-05-15 11:01 J	-27695677.12	-27695677.04	-27695676.93	0.0089	0.0061	

Mercury -80540-08-11 12:42 J -27695589.07 -27695588.97 -27695588.87 0.0089 0.0056

Mercury -80540-11-07 13:54 J -27695501.02 -27695500.92 -27695500.81 0.0089 0.0052

Mercury -80539-02-03 15:20 J -27695412.97 -27695412.86 -27695412.75 0.0089 0.0047

Mercury -80539-05-02 16:32 J -27695324.92 -27695324.81 -27695324.69 0.0089 0.0043

Mercury -80539-07-29 17:59 J -27695236.87 -27695236.75 -27695236.63 0.0089 0.0038

Mercury -80539-10-25 19:25 J -27695148.81 -27695148.69 -27695148.57 0.0089 0.0034

Mercury -80538-01-21 20:37 J -27695060.76 -27695060.64 -27695060.51 0.0089 0.0030

Mercury -80538-04-19 22:04 J -27694972.70 -27694972.58 -27694972.45 0.0089 0.0025

Mercury -80538-07-16 23:30 J -27694884.65 -27694884.52 -27694884.39 0.0089 0.0021

Mercury -80538-10-13 00:56 J -27694796.60 -27694796.46 -27694796.33 0.0089 0.0016

Mercury -80537-01-09 02:08 J -27694708.54 -27694708.41 -27694708.28 0.0089 0.0012

Mercury -80537-04-06 03:35 J -27694620.48 -27694620.35 -27694620.22 0.0089 0.0007

Mercury -80537-07-03 05:01 J -27694532.43 -27694532.29 -27694532.16 0.0089 0.0003

Mercury -80537-09-29 06:13 J -27694444.37 -27694444.24 -27694444.10 0.0089 0.0003

Mercury -80537-12-26 07:40 J -27694356.31 -27694356.18 -27694356.05 0.0089 0.0006

Mercury -80536-03-24 09:06 J -27694268.26 -27694268.12 -27694267.99 0.0089 0.0011

Mercury -80536-06-20 10:18 J -27694180.20 -27694180.07 -27694179.93 0.0089 0.0016

Mercury -80536-09-16 11:44 J -27694092.14 -27694092.01 -27694091.88 0.0089 0.0020

Mercury -80536-12-13 12:56 J -27694004.08 -27694003.96 -27694003.82 0.0089 0.0025

Mercury -80535-03-11 14:23 J -27693916.02 -27693915.90 -27693915.77 0.0089 0.0029

Mercury -80535-06-07 15:49 J -27693827.96 -27693827.84 -27693827.71 0.0089 0.0034

Mercury -80535-09-03 17:16 J -27693739.90 -27693739.78 -27693739.66 0.0089 0.0038

Mercury -80535-11-30 18:28 J -27693651.84 -27693651.73 -27693651.60 0.0089 0.0043

Mercury -80534-02-26 19:54 J -27693563.78 -27693563.67 -27693563.55 0.0089 0.0047

Mercury -80534-05-25 21:20 J -27693475.71 -27693475.61 -27693475.50 0.0089 0.0052

Mercury -80534-08-21 22:47 J -27693387.65 -27693387.55 -27693387.44 0.0089 0.0056

Mercury -80534-11-17 23:59 J -27693299.59 -27693299.50 -27693299.39 0.0089 0.0061

Mercury -80533-02-14 01:40 J -27693211.52 -27693211.43 -27693211.34 0.0089 0.0065

Mercury -80533-05-12 02:52 J -27693123.45 -27693123.38 -27693123.29 0.0089 0.0070

Mercury -80533-08-08 04:32 J -27693035.38 -27693035.31 -27693035.24 0.0089 0.0074

Mercury -80533-11-04 05:44 J -27692947.31 -27692947.26 -27692947.19 0.0089 0.0079

Mercury -80532-01-31 06:56 J -27692859.24 -27692859.21 -27692859.15 0.0089 0.0084

Mercury -80532-04-29 08:37 J -27692771.15 -27692771.14 -27692771.12 0.0089 0.0088

Earth -80525-04-02 09:06 J -27690241.26 -27690241.12 -27690240.97 0.0089 0.0072

Moon -80525-04-02 11:59 J -27690241.15 -27690241.00 -27690240.84 0.0089 0.0068 *

Moon -80524-04-04 14:37 J -27689874.07 -27689873.89 -27689873.68 0.0089 0.0056

Earth -80524-04-04 17:59 J -27689873.94 -27689873.75 -27689873.54 0.0089 0.0052 *

Earth -80523-04-07 02:37 J -27689506.61 -27689506.39 -27689506.14 0.0089 0.0033

Moon -80523-04-07 06:13 J -27689506.46 -27689506.24 -27689505.98 0.0089 0.0029 *

Moon -80522-04-09 09:20 J -27689139.35 -27689139.11 -27689138.87 0.0089 0.0016

Earth -80522-04-09 11:44 J -27689139.24 -27689139.01 -27689138.75 0.0089 0.0013 *

Earth -80521-04-10 20:52 J -27688771.87 -27688771.63 -27688771.37 0.0089 0.0008

Moon -80521-04-10 23:16 J -27688771.78 -27688771.53 -27688771.27 0.0089 0.0011 *

Moon -80520-04-13 04:47 J -27688404.52 -27688404.30 -27688404.05 0.0089 0.0024

Earth -80520-04-13 05:44 J -27688404.48 -27688404.26 -27688404.01 0.0089 0.0028 *

Moon -80519-04-15 14:08 J -27688037.10 -27688036.91 -27688036.68 0.0089 0.0051

Earth -80519-04-15 15:06 J -27688037.08 -27688036.87 -27688036.66 0.0089 0.0047 *

Earth -80518-04-18 00:13 J -27687669.65 -27687669.49 -27687669.32 0.0089 0.0067

Moon -80518-04-18 01:11 J -27687669.60 -27687669.45 -27687669.27 0.0089 0.0064 *

Earth -80517-04-19 09:20 J -27687302.14 -27687302.11 -27687302.05 0.0089 0.0087

Mars -80510-01-14 11:16 J -27684841.34 -27684841.03 -27684840.69 0.0089 0.0015

Mars -80509-12-10 08:37 J -27684145.27 -27684145.14 -27684144.95 0.0089 0.0079

Jupiter -80501-07-11 19:11 J -27681375.20 -27681374.70 -27681374.14 0.0089 0.0025

Venus -80473-05-08 07:54 J -27671212.27 -27671212.17 -27671212.03 0.0089 0.0075

Venus -80473-12-19 22:04 J -27670986.74 -27670986.58 -27670986.39 0.0089 0.0057

Venus -80472-08-02 12:28 J -27670761.18 -27670760.98 -27670760.77 0.0089 0.0038

Venus -80471-03-16 02:52 J -27670535.60 -27670535.38 -27670535.16 0.0089 0.0019

Venus -80471-10-27 17:01 J -27670310.01 -27670309.79 -27670309.56 0.0089 0.0001

Venus -80470-06-10 07:11 J -27670084.41 -27670084.20 -27670083.97 0.0089 0.0019

Venus -80469-01-21 21:35 J -27669858.80 -27669858.60 -27669858.39 0.0089 0.0037

Venus -80469-09-03 11:30 J -27669633.18 -27669633.02 -27669632.83 0.0089 0.0056

Venus -80468-04-17 01:25 J -27669407.53 -27669407.44 -27669407.29 0.0089 0.0075

Mercury -80458-05-22 11:01 J -27665720.08 -27665720.04 -27665719.94 0.0089 0.0083

Mercury -80458-08-18 14:52 J -27665631.96 -27665631.88 -27665631.76 0.0089 0.0076

Mercury -80458-11-14 18:28 J -27665543.83 -27665543.73 -27665543.59 0.0089 0.0070

Mercury -80457-02-10 22:18 J -27665455.70 -27665455.57 -27665455.42 0.0089 0.0063

Mercury -80457-05-09 01:40 J -27665367.56 -27665367.43 -27665367.26 0.0089 0.0057

Mercury -80457-08-05 05:30 J -27665279.42 -27665279.27 -27665279.10 0.0089 0.0050

Mercury -80457-11-01 09:06 J -27665191.28 -27665191.12 -27665190.94 0.0089 0.0044

Mercury -80456-01-28 12:42 J -27665103.14 -27665102.97 -27665102.78 0.0089 0.0037

Mercury -80456-04-26 16:18 J -27665014.99 -27665014.82 -27665014.63 0.0089 0.0031

Mercury -80456-07-23 20:08 J -27664926.85 -27664926.66 -27664926.48 0.0089 0.0024

Mercury -80456-10-19 23:30 J -27664838.70 -27664838.52 -27664838.32 0.0089 0.0018

Mercury -80455-01-16 03:06 J -27664750.56 -27664750.37 -27664750.17 0.0089 0.0011

Mercury -80455-04-14 06:42 J -27664662.41 -27664662.22 -27664662.02 0.0089 0.0005

Mercury -80455-07-11 10:18 J -27664574.26 -27664574.07 -27664573.88 0.0089 0.0002

Mercury -80455-10-07 13:40 J -27664486.11 -27664485.93 -27664485.73 0.0089 0.0009

Mercury -80454-01-03 17:16 J -27664397.96 -27664397.78 -27664397.58 0.0089 0.0015

Mercury -80454-04-01 20:52 J -27664309.82 -27664309.63 -27664309.44 0.0089 0.0021

Mercury -80454-06-29 00:13 J -27664221.66 -27664221.49 -27664221.30 0.0089 0.0028

Mercury -80454-09-25 03:49 J -27664133.51 -27664133.34 -27664133.16 0.0089 0.0034

Mercury -80454-12-22 07:25 J -27664045.36 -27664045.19 -27664045.02 0.0089 0.0040

Mercury -80453-03-19 10:32 J -27663957.21 -27663957.06 -27663956.88 0.0089 0.0047

Mercury -80453-06-15 14:08 J -27663869.05 -27663868.91 -27663868.75 0.0089 0.0053

Mercury -80453-09-11 17:44 J -27663780.90 -27663780.76 -27663780.61 0.0089 0.0059

Mercury -80453-12-08 20:52 J -27663692.74 -27663692.63 -27663692.48 0.0089 0.0066

Mercury -80452-03-07 00:28 J -27663604.58 -27663604.48 -27663604.35 0.0089 0.0072

Mercury -80452-06-03 03:49 J -27663516.41 -27663516.34 -27663516.23 0.0089 0.0078

Mercury -80452-08-30 07:25 J -27663428.24 -27663428.19 -27663428.12 0.0089 0.0084

Earth -80444-10-03 01:25 J -27660472.50 -27660472.44 -27660472.31 0.0088 0.0083

Moon	-80444-10-03 03:06 J	-27660472.39	-27660472.37	-27660472.29	0.0088	0.0087	*
Moon	-80443-10-05 13:40 J	-27660105.14	-27660104.93	-27660104.73	0.0088	0.0057	
Earth	-80443-10-05 16:18 J	-27660105.00	-27660104.82	-27660104.62	0.0088	0.0062	*
Earth	-80442-10-08 06:28 J	-27659737.44	-27659737.23	-27659736.97	0.0088	0.0042	
Moon	-80442-10-08 10:04 J	-27659737.29	-27659737.08	-27659736.84	0.0088	0.0046	*
Moon	-80441-10-09 17:44 J	-27659370.01	-27659369.76	-27659369.49	0.0088	0.0016	
Earth	-80441-10-09 21:20 J	-27659369.86	-27659369.61	-27659369.34	0.0088	0.0021	*
Earth	-80440-10-12 11:59 J	-27659002.27	-27659002.00	-27659001.74	0.0088	0.0001	
Moon	-80440-10-12 15:35 J	-27659002.11	-27659001.85	-27659001.58	0.0088	0.0004	*
Moon	-80439-10-14 23:16 J	-27658634.76	-27658634.53	-27658634.26	0.0088	0.0026	
Earth	-80439-10-15 02:08 J	-27658634.65	-27658634.41	-27658634.14	0.0088	0.0022	*
Earth	-80438-10-17 16:04 J	-27658267.04	-27658266.83	-27658266.57	0.0088	0.0043	
Moon	-80438-10-17 19:11 J	-27658266.94	-27658266.70	-27658266.45	0.0088	0.0039	*
Moon	-80437-10-19 05:30 J	-27657899.41	-27657899.27	-27657899.08	0.0088	0.0067	
Earth	-80437-10-19 06:42 J	-27657899.39	-27657899.22	-27657899.01	0.0088	0.0063	*
Moon	-80436-10-21 20:52 J	-27657531.73	-27657531.63	-27657531.49	0.0088	0.0080	
Earth	-80436-10-21 21:35 J	-27657531.69	-27657531.60	-27657531.51	0.0088	0.0083	*
Mars	-80429-12-18 22:04 J	-27654916.86	-27654916.58	-27654916.28	0.0088	0.0019	
Mars	-80427-11-12 17:59 J	-27654222.95	-27654222.75	-27654222.52	0.0088	0.0061	
Venus	-80391-06-26 11:30 J	-27641213.05	-27641213.02	-27641212.97	0.0088	0.0087	
Venus	-80390-02-06 23:01 J	-27640987.65	-27640987.54	-27640987.39	0.0089	0.0070	
Venus	-80390-09-20 11:16 J	-27640762.20	-27640762.03	-27640761.86	0.0089	0.0052	
Venus	-80389-05-02 22:47 J	-27640536.74	-27640536.55	-27640536.34	0.0089	0.0035	
Venus	-80389-12-14 10:47 J	-27640311.25	-27640311.05	-27640310.83	0.0089	0.0017	
Venus	-80388-07-27 22:47 J	-27640085.77	-27640085.55	-27640085.34	0.0089	0.0002	
Venus	-80387-03-10 10:32 J	-27639860.27	-27639860.06	-27639859.85	0.0089	0.0018	
Venus	-80387-10-21 22:04 J	-27639634.76	-27639634.58	-27639634.37	0.0089	0.0036	
Venus	-80386-06-04 10:04 J	-27639409.25	-27639409.08	-27639408.91	0.0089	0.0053	
Venus	-80385-01-15 21:35 J	-27639183.71	-27639183.60	-27639183.46	0.0089	0.0071	
Venus	-80385-08-28 09:20 J	-27638958.12	-27638958.11	-27638958.07	0.0089	0.0088	

Mercury -80377-08-30 03:06 J -27636034.39 -27636034.37 -27636034.32 0.0089 0.0085

Mercury -80377-11-26 04:47 J -27635946.36 -27635946.30 -27635946.25 0.0089 0.0080

Mercury -80376-02-22 05:59 J -27635858.31 -27635858.25 -27635858.18 0.0089 0.0076

Mercury -80376-05-21 07:11 J -27635770.27 -27635770.20 -27635770.12 0.0089 0.0072

Mercury -80376-08-17 08:37 J -27635682.22 -27635682.14 -27635682.05 0.0089 0.0067

Mercury -80376-11-13 09:49 J -27635594.17 -27635594.09 -27635593.99 0.0089 0.0063

Mercury -80375-02-09 11:01 J -27635506.13 -27635506.04 -27635505.93 0.0089 0.0059

Mercury -80375-05-08 12:42 J -27635418.08 -27635417.97 -27635417.87 0.0089 0.0054

Mercury -80375-08-04 13:54 J -27635330.02 -27635329.92 -27635329.81 0.0089 0.0050

Mercury -80375-10-31 15:20 J -27635241.97 -27635241.86 -27635241.75 0.0089 0.0045

Mercury -80374-01-27 16:32 J -27635153.92 -27635153.81 -27635153.69 0.0089 0.0041

Mercury -80374-04-25 17:44 J -27635065.87 -27635065.76 -27635065.63 0.0089 0.0037

Mercury -80374-07-22 19:25 J -27634977.81 -27634977.69 -27634977.57 0.0089 0.0032

Mercury -80374-10-18 20:37 J -27634889.76 -27634889.64 -27634889.51 0.0089 0.0028

Mercury -80373-01-14 22:04 J -27634801.71 -27634801.58 -27634801.45 0.0089 0.0023

Mercury -80373-04-11 23:16 J -27634713.65 -27634713.53 -27634713.39 0.0089 0.0019

Mercury -80373-07-09 00:42 J -27634625.60 -27634625.47 -27634625.33 0.0089 0.0014

Mercury -80373-10-05 02:08 J -27634537.54 -27634537.41 -27634537.28 0.0089 0.0010

Mercury -80372-01-01 03:35 J -27634449.49 -27634449.35 -27634449.22 0.0089 0.0005

Mercury -80372-03-30 04:47 J -27634361.43 -27634361.30 -27634361.16 0.0089 0.0003

Mercury -80372-06-26 06:13 J -27634273.37 -27634273.24 -27634273.10 0.0089 0.0004

Mercury -80372-09-22 07:40 J -27634185.31 -27634185.18 -27634185.05 0.0089 0.0009

Mercury -80372-12-19 09:06 J -27634097.26 -27634097.12 -27634096.99 0.0089 0.0013

Mercury -80371-03-17 10:18 J -27634009.20 -27634009.07 -27634008.94 0.0089 0.0018

Mercury -80371-06-13 11:44 J -27633921.14 -27633921.01 -27633920.88 0.0089 0.0022

Mercury -80371-09-09 12:56 J -27633833.08 -27633832.96 -27633832.82 0.0089 0.0027

Mercury -80371-12-06 14:37 J -27633745.02 -27633744.89 -27633744.77 0.0089 0.0031

Mercury -80370-03-04 15:49 J -27633656.96 -27633656.84 -27633656.71 0.0089 0.0036

Mercury -80370-05-31 17:16 J -27633568.90 -27633568.78 -27633568.66 0.0089 0.0040

Mercury -80370-08-27 18:28 J -27633480.84 -27633480.73 -27633480.61 0.0089 0.0045

Mercury -80370-11-23 19:54 J -27633392.77 -27633392.67 -27633392.55 0.0089 0.0050
 Mercury -80369-02-19 21:20 J -27633304.71 -27633304.61 -27633304.50 0.0089 0.0054
 Mercury -80369-05-17 22:32 J -27633216.65 -27633216.56 -27633216.45 0.0089 0.0059
 Mercury -80369-08-14 00:13 J -27633128.58 -27633128.49 -27633128.39 0.0089 0.0063
 Mercury -80369-11-10 01:25 J -27633040.52 -27633040.44 -27633040.34 0.0089 0.0068
 Mercury -80368-02-06 03:06 J -27632952.45 -27632952.37 -27632952.29 0.0089 0.0072
 Mercury -80368-05-05 04:18 J -27632864.38 -27632864.32 -27632864.25 0.0089 0.0077
 Mercury -80368-08-01 05:59 J -27632776.30 -27632776.25 -27632776.20 0.0089 0.0081
 Mercury -80368-10-28 07:11 J -27632688.23 -27632688.20 -27632688.16 0.0089 0.0086
 Moon -80361-04-01 19:11 J -27630340.80 -27630340.70 -27630340.60 0.0089 0.0081
 Earth -80361-04-01 22:04 J -27630340.66 -27630340.58 -27630340.44 0.0089 0.0080 *
 Earth -80360-04-04 07:11 J -27629973.36 -27629973.20 -27629973.00 0.0089 0.0060
 Moon -80360-04-04 10:47 J -27629973.23 -27629973.05 -27629972.85 0.0089 0.0057 *
 Moon -80359-04-06 13:25 J -27629606.14 -27629605.94 -27629605.71 0.0089 0.0043
 Earth -80359-04-06 16:32 J -27629606.02 -27629605.81 -27629605.58 0.0089 0.0040 *
 Earth -80358-04-09 01:40 J -27629238.67 -27629238.43 -27629238.18 0.0089 0.0020
 Moon -80358-04-09 03:20 J -27629238.61 -27629238.36 -27629238.10 0.0089 0.0018 *
 Moon -80357-04-10 10:04 J -27628871.32 -27628871.08 -27628870.84 0.0089 0.0003
 Earth -80357-04-10 10:47 J -27628871.30 -27628871.05 -27628870.80 0.0089 0.0001 *
 Moon -80356-04-12 18:56 J -27628503.95 -27628503.71 -27628503.45 0.0089 0.0022
 Earth -80356-04-12 19:40 J -27628503.92 -27628503.68 -27628503.43 0.0089 0.0019 *
 Earth -80355-04-15 04:18 J -27628136.53 -27628136.32 -27628136.08 0.0089 0.0039
 Moon -80355-04-15 06:28 J -27628136.44 -27628136.23 -27628136.00 0.0089 0.0037 *
 Moon -80354-04-17 10:32 J -27627769.22 -27627769.06 -27627768.85 0.0089 0.0061
 Earth -80354-04-17 13:25 J -27627769.11 -27627768.94 -27627768.73 0.0089 0.0059 *
 Earth -80353-04-18 22:04 J -27627401.66 -27627401.58 -27627401.43 0.0089 0.0080
 Moon -80353-04-19 01:40 J -27627401.53 -27627401.43 -27627401.27 0.0089 0.0076 *
 Mars -80347-08-28 11:59 J -27625079.25 -27625079.00 -27625078.73 0.0089 0.0054
 Mars -80345-07-24 06:42 J -27624383.51 -27624383.22 -27624382.91 0.0089 0.0038
 Jupiter -80335-09-17 17:44 J -27620676.26 -27620675.76 -27620675.21 0.0089 0.0025

Venus	-80309-08-09 17:44 J	-27611217.82	-27611217.76	-27611217.65	0.0089	0.0082
Venus	-80308-03-23 08:08 J	-27610992.30	-27610992.16	-27610991.98	0.0089	0.0063
Venus	-80308-11-03 22:32 J	-27610766.74	-27610766.56	-27610766.35	0.0089	0.0044
Venus	-80307-06-17 13:11 J	-27610541.17	-27610540.95	-27610540.73	0.0089	0.0025
Venus	-80306-01-29 03:20 J	-27610315.58	-27610315.36	-27610315.13	0.0089	0.0007
Venus	-80306-09-11 17:30 J	-27610089.99	-27610089.77	-27610089.54	0.0089	0.0012
Venus	-80305-04-24 07:54 J	-27609864.38	-27609864.17	-27609863.96	0.0089	0.0031
Venus	-80305-12-05 21:49 J	-27609638.76	-27609638.59	-27609638.39	0.0089	0.0050
Venus	-80304-07-19 11:59 J	-27609413.12	-27609413.00	-27609412.84	0.0089	0.0069
Venus	-80303-03-02 02:37 J	-27609187.43	-27609187.39	-27609187.35	0.0089	0.0087
Mercury	-80294-11-20 06:42 J	-27605637.25	-27605637.22	-27605637.16	0.0089	0.0086
Mercury	-80293-02-16 10:18 J	-27605549.14	-27605549.07	-27605548.97	0.0089	0.0080
Mercury	-80293-05-14 14:08 J	-27605461.01	-27605460.91	-27605460.79	0.0089	0.0073
Mercury	-80293-08-10 17:30 J	-27605372.88	-27605372.77	-27605372.62	0.0089	0.0067
Mercury	-80293-11-06 21:20 J	-27605284.74	-27605284.61	-27605284.45	0.0089	0.0060
Mercury	-80292-02-03 00:56 J	-27605196.60	-27605196.46	-27605196.29	0.0089	0.0054
Mercury	-80292-05-02 04:47 J	-27605108.46	-27605108.30	-27605108.13	0.0089	0.0047
Mercury	-80292-07-29 08:08 J	-27605020.32	-27605020.16	-27605019.97	0.0089	0.0041
Mercury	-80292-10-25 11:59 J	-27604932.17	-27604932.00	-27604931.82	0.0089	0.0034
Mercury	-80291-01-21 15:20 J	-27604844.03	-27604843.86	-27604843.66	0.0089	0.0028
Mercury	-80291-04-19 19:11 J	-27604755.89	-27604755.70	-27604755.51	0.0089	0.0021
Mercury	-80291-07-16 22:47 J	-27604667.74	-27604667.55	-27604667.36	0.0089	0.0014
Mercury	-80291-10-13 02:23 J	-27604579.59	-27604579.40	-27604579.21	0.0089	0.0008
Mercury	-80290-01-09 05:59 J	-27604491.44	-27604491.25	-27604491.06	0.0089	0.0001
Mercury	-80290-04-07 09:20 J	-27604403.30	-27604403.11	-27604402.91	0.0089	0.0006
Mercury	-80290-07-04 12:56 J	-27604315.15	-27604314.96	-27604314.76	0.0089	0.0012
Mercury	-80290-09-30 16:32 J	-27604227.00	-27604226.81	-27604226.62	0.0089	0.0018
Mercury	-80290-12-27 19:54 J	-27604138.85	-27604138.67	-27604138.48	0.0089	0.0024
Mercury	-80289-03-24 23:30 J	-27604050.70	-27604050.52	-27604050.33	0.0089	0.0031
Mercury	-80289-06-21 03:06 J	-27603962.54	-27603962.37	-27603962.19	0.0089	0.0037

Mercury -80289-09-17 06:13 J -27603874.39 -27603874.24 -27603874.06 0.0089 0.0044
 Mercury -80289-12-14 09:49 J -27603786.24 -27603786.09 -27603785.92 0.0089 0.0050
 Mercury -80288-03-12 13:25 J -27603698.08 -27603697.94 -27603697.78 0.0089 0.0056
 Mercury -80288-06-08 16:32 J -27603609.92 -27603609.81 -27603609.65 0.0089 0.0063
 Mercury -80288-09-04 20:08 J -27603521.76 -27603521.66 -27603521.52 0.0089 0.0069
 Mercury -80288-12-01 23:44 J -27603433.60 -27603433.51 -27603433.40 0.0089 0.0075
 Mercury -80287-02-28 03:20 J -27603345.43 -27603345.36 -27603345.28 0.0089 0.0081
 Mercury -80287-05-27 06:56 J -27603257.24 -27603257.21 -27603257.18 0.0089 0.0087
 Earth -80279-10-05 00:13 J -27600204.62 -27600204.49 -27600204.30 0.0088 0.0070
 Moon -80279-10-05 03:49 J -27600204.46 -27600204.34 -27600204.15 0.0088 0.0072 *
 Moon -80278-10-07 11:16 J -27599837.23 -27599837.03 -27599836.79 0.0088 0.0049
 Earth -80278-10-07 15:20 J -27599837.07 -27599836.86 -27599836.63 0.0088 0.0049 *
 Earth -80277-10-09 05:30 J -27599469.50 -27599469.27 -27599469.00 0.0088 0.0029
 Moon -80277-10-09 08:52 J -27599469.37 -27599469.13 -27599468.86 0.0088 0.0031 *
 Moon -80276-10-11 17:30 J -27599102.03 -27599101.77 -27599101.51 0.0088 0.0006
 Earth -80276-10-11 20:08 J -27599101.92 -27599101.66 -27599101.39 0.0088 0.0008 *
 Earth -80275-10-14 10:32 J -27598734.32 -27598734.06 -27598733.80 0.0088 0.0013
 Moon -80275-10-14 11:44 J -27598734.27 -27598734.01 -27598733.73 0.0088 0.0011 *
 Moon -80274-10-16 23:59 J -27598366.72 -27598366.50 -27598366.25 0.0088 0.0036
 Earth -80274-10-17 00:28 J -27598366.71 -27598366.48 -27598366.21 0.0088 0.0034 *
 Moon -80273-10-18 14:37 J -27597999.11 -27597998.89 -27597998.66 0.0088 0.0051
 Earth -80273-10-18 15:06 J -27597999.07 -27597998.87 -27597998.65 0.0088 0.0054 *
 Earth -80272-10-21 04:47 J -27597631.42 -27597631.30 -27597631.13 0.0088 0.0074
 Moon -80272-10-21 06:56 J -27597631.31 -27597631.21 -27597631.06 0.0088 0.0077 *
 Mars -80265-08-03 07:40 J -27595153.39 -27595153.18 -27595152.91 0.0088 0.0053
 Mars -80263-06-28 06:42 J -27594459.49 -27594459.22 -27594458.92 0.0088 0.0028
 Venus -80226-05-11 11:30 J -27580993.10 -27580993.02 -27580992.88 0.0088 0.0076
 Venus -80226-12-22 23:44 J -27580767.66 -27580767.51 -27580767.34 0.0088 0.0058
 Venus -80225-08-04 11:30 J -27580542.20 -27580542.02 -27580541.82 0.0089 0.0040
 Venus -80224-03-17 23:30 J -27580316.72 -27580316.52 -27580316.31 0.0089 0.0023

Venus -80224-10-29 11:30 J -27580091.23 -27580091.02 -27580090.81 0.0089 0.0005
 Venus -80223-06-11 23:16 J -27579865.74 -27579865.53 -27579865.32 0.0089 0.0013
 Venus -80222-01-23 10:47 J -27579640.24 -27579640.05 -27579639.84 0.0089 0.0030
 Venus -80222-09-05 22:32 J -27579414.73 -27579414.56 -27579414.37 0.0089 0.0048
 Venus -80221-04-18 10:04 J -27579189.20 -27579189.08 -27579188.91 0.0089 0.0066
 Venus -80221-11-29 22:04 J -27578963.63 -27578963.58 -27578963.49 0.0089 0.0083
 Mercury -80212-02-28 01:54 J -27575951.44 -27575951.42 -27575951.39 0.0089 0.0087
 Mercury -80212-05-27 03:06 J -27575863.40 -27575863.37 -27575863.31 0.0089 0.0083
 Mercury -80212-08-23 04:47 J -27575775.36 -27575775.30 -27575775.24 0.0089 0.0078
 Mercury -80212-11-19 05:59 J -27575687.32 -27575687.25 -27575687.18 0.0089 0.0074
 Mercury -80211-02-15 07:11 J -27575599.27 -27575599.20 -27575599.11 0.0089 0.0070
 Mercury -80211-05-14 08:37 J -27575511.23 -27575511.14 -27575511.05 0.0089 0.0065
 Mercury -80211-08-10 09:49 J -27575423.18 -27575423.09 -27575422.99 0.0089 0.0061
 Mercury -80211-11-06 11:01 J -27575335.13 -27575335.04 -27575334.93 0.0089 0.0057
 Mercury -80210-02-02 12:28 J -27575247.08 -27575246.98 -27575246.87 0.0089 0.0052
 Mercury -80210-05-01 13:40 J -27575159.03 -27575158.93 -27575158.81 0.0089 0.0048
 Mercury -80210-07-28 15:20 J -27575070.98 -27575070.86 -27575070.75 0.0089 0.0043
 Mercury -80210-10-24 16:32 J -27574982.92 -27574982.81 -27574982.69 0.0089 0.0039
 Mercury -80209-01-20 17:59 J -27574894.87 -27574894.75 -27574894.63 0.0089 0.0034
 Mercury -80209-04-17 19:11 J -27574806.82 -27574806.70 -27574806.57 0.0089 0.0030
 Mercury -80209-07-14 20:37 J -27574718.77 -27574718.64 -27574718.51 0.0089 0.0025
 Mercury -80209-10-10 22:04 J -27574630.71 -27574630.58 -27574630.45 0.0089 0.0021
 Mercury -80208-01-06 23:16 J -27574542.66 -27574542.53 -27574542.39 0.0089 0.0017
 Mercury -80208-04-05 00:42 J -27574454.60 -27574454.47 -27574454.34 0.0089 0.0012
 Mercury -80208-07-02 02:08 J -27574366.55 -27574366.41 -27574366.28 0.0089 0.0008
 Mercury -80208-09-28 03:20 J -27574278.49 -27574278.36 -27574278.22 0.0089 0.0004
 Mercury -80208-12-25 04:47 J -27574190.43 -27574190.30 -27574190.17 0.0089 0.0002
 Mercury -80207-03-23 06:13 J -27574102.38 -27574102.24 -27574102.11 0.0089 0.0006
 Mercury -80207-06-19 07:25 J -27574014.32 -27574014.19 -27574014.05 0.0089 0.0011
 Mercury -80207-09-15 08:52 J -27573926.26 -27573926.13 -27573926.00 0.0089 0.0015

Mercury -80207-12-12 10:18 J -27573838.20 -27573838.07 -27573837.94 0.0089 0.0020

Mercury -80206-03-10 11:44 J -27573750.14 -27573750.01 -27573749.88 0.0089 0.0024

Mercury -80206-06-06 12:56 J -27573662.08 -27573661.96 -27573661.83 0.0089 0.0029

Mercury -80206-09-02 14:23 J -27573574.02 -27573573.90 -27573573.78 0.0089 0.0033

Mercury -80206-11-29 15:35 J -27573485.96 -27573485.85 -27573485.72 0.0089 0.0038

Mercury -80205-02-25 17:01 J -27573397.90 -27573397.79 -27573397.67 0.0089 0.0043

Mercury -80205-05-23 18:28 J -27573309.84 -27573309.73 -27573309.61 0.0089 0.0047

Mercury -80205-08-19 19:40 J -27573221.78 -27573221.68 -27573221.56 0.0089 0.0052

Mercury -80205-11-15 21:20 J -27573133.71 -27573133.61 -27573133.51 0.0089 0.0056

Mercury -80204-02-11 22:32 J -27573045.65 -27573045.56 -27573045.45 0.0089 0.0061

Mercury -80204-05-10 23:59 J -27572957.58 -27572957.50 -27572957.40 0.0089 0.0065

Mercury -80204-08-07 01:25 J -27572869.52 -27572869.44 -27572869.35 0.0089 0.0070

Mercury -80204-11-03 02:52 J -27572781.45 -27572781.38 -27572781.30 0.0089 0.0074

Mercury -80203-01-30 04:04 J -27572693.38 -27572693.33 -27572693.26 0.0089 0.0079

Mercury -80203-04-28 05:30 J -27572605.30 -27572605.27 -27572605.21 0.0089 0.0084

Mercury -80203-07-25 06:56 J -27572517.21 -27572517.21 -27572517.18 0.0089 0.0088

Earth -80197-04-01 10:47 J -27570440.07 -27570440.05 -27570439.97 0.0089 0.0087

Moon -80196-04-03 17:16 J -27570072.92 -27570072.78 -27570072.58 0.0089 0.0064

Earth -80196-04-03 19:40 J -27570072.81 -27570072.68 -27570072.49 0.0089 0.0068 *

Earth -80195-04-06 04:47 J -27569705.49 -27569705.30 -27569705.07 0.0089 0.0048

Moon -80195-04-06 06:56 J -27569705.41 -27569705.21 -27569704.99 0.0089 0.0051 *

Moon -80194-04-08 14:08 J -27569338.15 -27569337.91 -27569337.68 0.0089 0.0024

Earth -80194-04-08 14:23 J -27569338.14 -27569337.90 -27569337.66 0.0089 0.0028 *

Moon -80193-04-09 22:04 J -27568970.83 -27568970.58 -27568970.32 0.0089 0.0013

Earth -80193-04-09 23:16 J -27568970.77 -27568970.53 -27568970.27 0.0089 0.0009 *

Earth -80192-04-12 08:23 J -27568603.39 -27568603.15 -27568602.90 0.0089 0.0011

Moon -80192-04-12 10:04 J -27568603.31 -27568603.08 -27568602.83 0.0089 0.0015 *

Moon -80191-04-14 14:23 J -27568236.14 -27568235.90 -27568235.65 0.0089 0.0026

Earth -80191-04-14 17:16 J -27568236.00 -27568235.78 -27568235.53 0.0089 0.0031 *

Earth -80190-04-17 02:23 J -27567868.60 -27567868.40 -27567868.18 0.0089 0.0050

Moon	-80190-04-17 05:59 J	-27567868.44	-27567868.25	-27567868.05	0.0089	0.0054 *
Moon	-80189-04-18 08:08 J	-27567501.31	-27567501.16	-27567500.98	0.0089	0.0066
Earth	-80189-04-18 11:16 J	-27567501.16	-27567501.03	-27567500.85	0.0089	0.0070 *
Mars	-80181-03-07 06:42 J	-27564621.55	-27564621.22	-27564620.89	0.0089	0.0002
Jupiter	-80169-11-18 14:23 J	-27559982.12	-27559981.90	-27559981.60	0.0089	0.0079
Venus	-80145-11-11 04:04 J	-27551223.34	-27551223.33	-27551223.29	0.0089	0.0088
Venus	-80144-06-24 18:28 J	-27550997.86	-27550997.73	-27550997.58	0.0089	0.0069
Venus	-80143-02-05 08:23 J	-27550772.32	-27550772.15	-27550771.95	0.0089	0.0051
Venus	-80143-09-18 22:47 J	-27550546.75	-27550546.55	-27550546.33	0.0089	0.0032
Venus	-80142-05-02 13:11 J	-27550321.17	-27550320.95	-27550320.72	0.0089	0.0013
Venus	-80142-12-14 03:35 J	-27550095.57	-27550095.35	-27550095.12	0.0089	0.0006
Venus	-80141-07-26 17:44 J	-27549869.97	-27549869.76	-27549869.54	0.0089	0.0025
Venus	-80140-03-09 07:40 J	-27549644.36	-27549644.18	-27549643.97	0.0089	0.0044
Venus	-80140-10-20 21:49 J	-27549418.73	-27549418.59	-27549418.41	0.0089	0.0063
Venus	-80139-06-03 12:42 J	-27549193.06	-27549192.97	-27549192.88	0.0089	0.0081
Mercury	-80129-08-16 05:16 J	-27545466.32	-27545466.28	-27545466.20	0.0089	0.0084
Mercury	-80129-11-12 09:20 J	-27545378.20	-27545378.11	-27545378.01	0.0089	0.0077
Mercury	-80128-02-08 12:42 J	-27545290.07	-27545289.97	-27545289.84	0.0089	0.0071
Mercury	-80128-05-07 16:32 J	-27545201.94	-27545201.81	-27545201.67	0.0089	0.0064
Mercury	-80128-08-03 19:54 J	-27545113.80	-27545113.67	-27545113.51	0.0089	0.0058
Mercury	-80128-10-30 23:44 J	-27545025.66	-27545025.51	-27545025.34	0.0089	0.0051
Mercury	-80127-01-27 03:20 J	-27544937.52	-27544937.36	-27544937.18	0.0089	0.0045
Mercury	-80127-04-25 06:56 J	-27544849.37	-27544849.21	-27544849.02	0.0089	0.0038
Mercury	-80127-07-22 10:32 J	-27544761.23	-27544761.06	-27544760.87	0.0089	0.0032
Mercury	-80127-10-18 14:23 J	-27544673.09	-27544672.90	-27544672.71	0.0089	0.0025
Mercury	-80126-01-14 17:44 J	-27544584.94	-27544584.76	-27544584.56	0.0089	0.0019
Mercury	-80126-04-12 21:35 J	-27544496.79	-27544496.60	-27544496.41	0.0089	0.0012
Mercury	-80126-07-10 01:11 J	-27544408.64	-27544408.45	-27544408.26	0.0089	0.0005
Mercury	-80126-10-06 04:47 J	-27544320.50	-27544320.30	-27544320.11	0.0089	0.0001
Mercury	-80125-01-02 08:08 J	-27544232.35	-27544232.16	-27544231.96	0.0089	0.0008

Mercury -80125-03-30 11:44 J -27544144.20 -27544144.01 -27544143.82 0.0089 0.0014

Mercury -80125-06-26 15:20 J -27544056.05 -27544055.86 -27544055.67 0.0089 0.0020

Mercury -80125-09-22 18:56 J -27543967.89 -27543967.71 -27543967.53 0.0089 0.0027

Mercury -80125-12-19 22:04 J -27543879.74 -27543879.58 -27543879.39 0.0089 0.0034

Mercury -80124-03-18 01:40 J -27543791.59 -27543791.43 -27543791.25 0.0089 0.0040

Mercury -80124-06-14 05:16 J -27543703.44 -27543703.28 -27543703.11 0.0089 0.0046

Mercury -80124-09-10 08:37 J -27543615.28 -27543615.14 -27543614.97 0.0089 0.0053

Mercury -80124-12-07 12:13 J -27543527.12 -27543526.99 -27543526.84 0.0089 0.0059

Mercury -80123-03-05 15:35 J -27543438.97 -27543438.85 -27543438.71 0.0089 0.0065

Mercury -80123-06-01 19:25 J -27543350.80 -27543350.69 -27543350.58 0.0089 0.0071

Mercury -80123-08-28 22:18 J -27543262.64 -27543262.57 -27543262.46 0.0089 0.0078

Mercury -80123-11-25 01:54 J -27543174.46 -27543174.42 -27543174.34 0.0089 0.0084

Moon -80115-10-04 04:32 J -27540304.39 -27540304.31 -27540304.19 0.0088 0.0082

Earth -80115-10-04 07:54 J -27540304.27 -27540304.17 -27540304.01 0.0088 0.0078 *

Earth -80114-10-06 23:16 J -27539936.73 -27539936.53 -27539936.33 0.0088 0.0057

Moon -80114-10-07 01:40 J -27539936.62 -27539936.43 -27539936.19 0.0088 0.0053 *

Moon -80113-10-08 11:59 J -27539569.23 -27539569.00 -27539568.77 0.0088 0.0041

Earth -80113-10-08 13:40 J -27539569.16 -27539568.93 -27539568.68 0.0088 0.0037 *

Earth -80112-10-11 03:49 J -27539201.59 -27539201.34 -27539201.07 0.0088 0.0017

Moon -80112-10-11 05:16 J -27539201.55 -27539201.28 -27539201.00 0.0088 0.0012 *

Earth -80111-10-13 18:28 J -27538833.99 -27538833.73 -27538833.46 0.0088 0.0004

Moon -80111-10-13 18:42 J -27538833.97 -27538833.72 -27538833.46 0.0088 0.0002 *

Moon -80110-10-16 06:56 J -27538466.46 -27538466.21 -27538465.94 0.0088 0.0029

Earth -80110-10-16 08:37 J -27538466.38 -27538466.14 -27538465.87 0.0088 0.0025 *

Earth -80109-10-17 22:47 J -27538098.77 -27538098.55 -27538098.31 0.0088 0.0045

Moon -80109-10-18 00:42 J -27538098.68 -27538098.47 -27538098.23 0.0088 0.0041 *

Moon -80108-10-20 09:20 J -27537731.25 -27537731.11 -27537730.92 0.0088 0.0069

Earth -80108-10-20 13:11 J -27537731.12 -27537730.95 -27537730.76 0.0088 0.0065 *

Earth -80107-10-23 02:37 J -27537363.42 -27537363.39 -27537363.29 0.0088 0.0086

Moon -80107-10-23 06:13 J -27537363.31 -27537363.24 -27537363.11 0.0088 0.0082 *

Mars	-80101-03-18 16:32 J	-27535389.84	-27535389.81	-27535389.72	0.0088	0.0087
Mars	-80099-02-10 16:04 J	-27534696.12	-27534695.83	-27534695.53	0.0088	0.0006
Mars	-80097-01-05 13:25 J	-27534002.08	-27534001.94	-27534001.75	0.0088	0.0073
Venus	-80062-08-12 23:59 J	-27520998.56	-27520998.50	-27520998.39	0.0088	0.0082
Venus	-80061-03-25 11:59 J	-27520773.13	-27520773.00	-27520772.84	0.0088	0.0064
Venus	-80061-11-06 00:13 J	-27520547.67	-27520547.49	-27520547.31	0.0089	0.0046
Venus	-80060-06-19 11:44 J	-27520322.20	-27520322.01	-27520321.79	0.0089	0.0029
Venus	-80059-01-30 23:44 J	-27520096.72	-27520096.51	-27520096.29	0.0089	0.0011
Venus	-80059-09-13 11:30 J	-27519871.23	-27519871.02	-27519870.81	0.0089	0.0007
Venus	-80058-04-26 23:01 J	-27519645.73	-27519645.54	-27519645.32	0.0089	0.0025
Venus	-80058-12-08 11:01 J	-27519420.22	-27519420.04	-27519419.85	0.0089	0.0042
Venus	-80057-07-20 22:32 J	-27519194.70	-27519194.56	-27519194.39	0.0089	0.0060
Venus	-80056-03-03 10:18 J	-27518969.16	-27518969.07	-27518968.95	0.0089	0.0077
Mercury	-80048-11-25 01:54 J	-27515780.45	-27515780.42	-27515780.38	0.0089	0.0085
Mercury	-80047-02-21 03:06 J	-27515692.41	-27515692.37	-27515692.31	0.0089	0.0081
Mercury	-80047-05-20 04:18 J	-27515604.37	-27515604.32	-27515604.24	0.0089	0.0077
Mercury	-80047-08-16 05:44 J	-27515516.33	-27515516.26	-27515516.18	0.0089	0.0072
Mercury	-80047-11-12 06:56 J	-27515428.28	-27515428.21	-27515428.11	0.0089	0.0068
Mercury	-80046-02-08 08:08 J	-27515340.23	-27515340.16	-27515340.05	0.0089	0.0064
Mercury	-80046-05-07 09:49 J	-27515252.19	-27515252.09	-27515251.99	0.0089	0.0059
Mercury	-80046-08-03 11:01 J	-27515164.14	-27515164.04	-27515163.93	0.0089	0.0055
Mercury	-80046-10-30 12:28 J	-27515076.09	-27515075.98	-27515075.87	0.0089	0.0050
Mercury	-80045-01-26 13:40 J	-27514988.04	-27514987.93	-27514987.81	0.0089	0.0046
Mercury	-80045-04-23 14:52 J	-27514899.98	-27514899.88	-27514899.75	0.0089	0.0042
Mercury	-80045-07-20 16:18 J	-27514811.93	-27514811.82	-27514811.69	0.0089	0.0037
Mercury	-80045-10-16 17:44 J	-27514723.88	-27514723.76	-27514723.63	0.0089	0.0032
Mercury	-80044-01-12 19:11 J	-27514635.83	-27514635.70	-27514635.57	0.0089	0.0028
Mercury	-80044-04-10 20:23 J	-27514547.77	-27514547.65	-27514547.52	0.0089	0.0024
Mercury	-80044-07-07 21:49 J	-27514459.72	-27514459.59	-27514459.46	0.0089	0.0019
Mercury	-80044-10-03 23:16 J	-27514371.66	-27514371.53	-27514371.40	0.0089	0.0015

Mercury -80044-12-31 00:28 J -27514283.61 -27514283.48 -27514283.34 0.0089 0.0010

Mercury -80043-03-29 01:54 J -27514195.55 -27514195.42 -27514195.29 0.0089 0.0006

Mercury -80043-06-25 03:20 J -27514107.50 -27514107.36 -27514107.23 0.0089 0.0003

Mercury -80043-09-21 04:32 J -27514019.44 -27514019.31 -27514019.17 0.0089 0.0004

Mercury -80043-12-18 05:59 J -27513931.38 -27513931.25 -27513931.12 0.0089 0.0008

Mercury -80042-03-16 07:11 J -27513843.33 -27513843.20 -27513843.06 0.0089 0.0013

Mercury -80042-06-12 08:37 J -27513755.27 -27513755.14 -27513755.01 0.0089 0.0017

Mercury -80042-09-08 10:04 J -27513667.21 -27513667.08 -27513666.95 0.0089 0.0022

Mercury -80042-12-05 11:30 J -27513579.15 -27513579.02 -27513578.89 0.0089 0.0026

Mercury -80041-03-02 12:42 J -27513491.09 -27513490.97 -27513490.84 0.0089 0.0031

Mercury -80041-05-29 14:08 J -27513403.03 -27513402.91 -27513402.78 0.0089 0.0035

Mercury -80041-08-25 15:35 J -27513314.97 -27513314.85 -27513314.73 0.0089 0.0040

Mercury -80041-11-21 17:01 J -27513226.91 -27513226.79 -27513226.68 0.0089 0.0044

Mercury -80040-02-17 18:13 J -27513138.85 -27513138.74 -27513138.62 0.0089 0.0049

Mercury -80040-05-16 19:25 J -27513050.78 -27513050.69 -27513050.57 0.0089 0.0054

Mercury -80040-08-12 21:06 J -27512962.72 -27512962.62 -27512962.52 0.0089 0.0058

Mercury -80040-11-08 22:18 J -27512874.65 -27512874.57 -27512874.46 0.0089 0.0063

Mercury -80039-02-04 23:59 J -27512786.59 -27512786.50 -27512786.41 0.0089 0.0067

Mercury -80039-05-04 01:11 J -27512698.52 -27512698.45 -27512698.36 0.0089 0.0072

Mercury -80039-07-31 02:52 J -27512610.45 -27512610.38 -27512610.32 0.0089 0.0076

Mercury -80039-10-27 04:04 J -27512522.38 -27512522.33 -27512522.27 0.0089 0.0081

Mercury -80038-01-23 05:16 J -27512434.30 -27512434.28 -27512434.23 0.0089 0.0086

Earth -80032-04-03 08:37 J -27510172.26 -27510172.14 -27510171.99 0.0089 0.0075

Moon -80032-04-03 09:20 J -27510172.21 -27510172.11 -27510171.96 0.0089 0.0077 *

Earth -80031-04-05 17:30 J -27509804.95 -27509804.77 -27509804.56 0.0089 0.0056

Moon -80031-04-05 17:30 J -27509804.95 -27509804.77 -27509804.57 0.0089 0.0054 *

Moon -80030-04-08 00:56 J -27509437.67 -27509437.46 -27509437.21 0.0089 0.0039

Earth -80030-04-08 02:08 J -27509437.62 -27509437.41 -27509437.16 0.0089 0.0037 *

Earth -80029-04-09 11:16 J -27509070.27 -27509070.03 -27509069.77 0.0089 0.0017

Moon -80029-04-09 13:54 J -27509070.15 -27509069.92 -27509069.67 0.0089 0.0016 *

Moon	-80028-04-11 17:30 J	-27508703.02	-27508702.77	-27508702.51	0.0089	0.0001
Earth	-80028-04-11 20:37 J	-27508702.89	-27508702.64	-27508702.39	0.0089	0.0002 *
Earth	-80027-04-14 05:30 J	-27508335.51	-27508335.27	-27508335.02	0.0089	0.0022
Moon	-80027-04-14 08:52 J	-27508335.35	-27508335.13	-27508334.87	0.0089	0.0025 *
Moon	-80026-04-16 11:16 J	-27507968.23	-27507968.03	-27507967.79	0.0089	0.0040
Earth	-80026-04-16 14:52 J	-27507968.10	-27507967.88	-27507967.66	0.0089	0.0041 *
Earth	-80025-04-17 23:16 J	-27507600.69	-27507600.53	-27507600.32	0.0089	0.0061
Moon	-80025-04-18 02:23 J	-27507600.57	-27507600.40	-27507600.21	0.0089	0.0063 *
Moon	-80024-04-20 06:42 J	-27507233.32	-27507233.22	-27507233.08	0.0089	0.0078
Earth	-80024-04-20 08:37 J	-27507233.23	-27507233.14	-27507233.02	0.0089	0.0081 *
Mars	-80018-10-20 04:32 J	-27504859.58	-27504859.31	-27504859.00	0.0089	0.0041
Mars	-80016-09-14 22:18 J	-27504163.82	-27504163.57	-27504163.28	0.0089	0.0050

80TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 80th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-79980-09-26 03:06 J	-27491003.46	-27491003.37	-27491003.23	0.0089	0.0077		
Venus	-79979-05-09 17:44 J	-27490777.92	-27490777.76	-27490777.58	0.0089	0.0058		
Venus	-79979-12-21 08:08 J	-27490552.36	-27490552.16	-27490551.95	0.0089	0.0039		
Venus	-79978-08-03 22:18 J	-27490326.78	-27490326.57	-27490326.34	0.0089	0.0020		
Venus	-79977-03-16 12:42 J	-27490101.20	-27490100.97	-27490100.74	0.0089	0.0001		
Venus	-79977-10-28 02:52 J	-27489875.60	-27489875.38	-27489875.15	0.0089	0.0018		

Venus -79976-06-10 17:01 J -27489649.98 -27489649.79 -27489649.57 0.0089 0.0037

Venus -79975-01-22 07:11 J -27489424.36 -27489424.20 -27489424.00 0.0089 0.0056

Venus -79975-09-04 21:49 J -27489198.71 -27489198.59 -27489198.46 0.0089 0.0074

Mercury -79964-02-14 00:28 J -27485383.50 -27485383.48 -27485383.46 0.0089 0.0088

Mercury -79964-05-13 03:49 J -27485295.40 -27485295.34 -27485295.25 0.0089 0.0082

Mercury -79964-08-09 07:40 J -27485207.27 -27485207.18 -27485207.07 0.0089 0.0075

Mercury -79964-11-05 11:01 J -27485119.14 -27485119.04 -27485118.90 0.0089 0.0069

Mercury -79963-02-01 14:52 J -27485031.00 -27485030.88 -27485030.73 0.0089 0.0062

Mercury -79963-04-30 18:28 J -27484942.87 -27484942.73 -27484942.56 0.0089 0.0056

Mercury -79963-07-27 22:18 J -27484854.72 -27484854.57 -27484854.40 0.0089 0.0049

Mercury -79963-10-24 02:08 J -27484766.58 -27484766.41 -27484766.24 0.0089 0.0042

Mercury -79962-01-20 05:30 J -27484678.44 -27484678.27 -27484678.08 0.0089 0.0036

Mercury -79962-04-18 09:20 J -27484590.29 -27484590.11 -27484589.93 0.0089 0.0029

Mercury -79962-07-15 12:42 J -27484502.15 -27484501.97 -27484501.77 0.0089 0.0023

Mercury -79962-10-11 16:32 J -27484414.00 -27484413.81 -27484413.62 0.0089 0.0016

Mercury -79961-01-07 20:08 J -27484325.85 -27484325.66 -27484325.47 0.0089 0.0009

Mercury -79961-04-04 23:44 J -27484237.70 -27484237.51 -27484237.32 0.0089 0.0003

Mercury -79961-07-02 03:20 J -27484149.55 -27484149.36 -27484149.17 0.0089 0.0004

Mercury -79961-09-28 06:56 J -27484061.40 -27484061.21 -27484061.02 0.0089 0.0010

Mercury -79961-12-25 10:18 J -27483973.25 -27483973.07 -27483972.87 0.0089 0.0017

Mercury -79960-03-23 13:54 J -27483885.10 -27483884.92 -27483884.73 0.0089 0.0023

Mercury -79960-06-19 17:16 J -27483796.95 -27483796.78 -27483796.59 0.0089 0.0030

Mercury -79960-09-15 20:52 J -27483708.80 -27483708.63 -27483708.45 0.0089 0.0036

Mercury -79960-12-13 00:28 J -27483620.64 -27483620.48 -27483620.31 0.0089 0.0042

Mercury -79959-03-11 03:49 J -27483532.49 -27483532.34 -27483532.17 0.0089 0.0049

Mercury -79959-06-07 07:25 J -27483444.33 -27483444.19 -27483444.03 0.0089 0.0055

Mercury -79959-09-03 11:01 J -27483356.18 -27483356.04 -27483355.90 0.0089 0.0061

Mercury -79959-11-30 14:08 J -27483268.02 -27483267.91 -27483267.77 0.0089 0.0068

Mercury -79958-02-26 17:44 J -27483179.85 -27483179.76 -27483179.64 0.0089 0.0074

Mercury -79958-05-25 21:20 J -27483091.68 -27483091.61 -27483091.52 0.0089 0.0080

Mercury -79958-08-22 00:56 J -27483003.50 -27483003.46 -27483003.42 0.0089 0.0086

Earth -79951-10-03 13:54 J -27480403.96 -27480403.92 -27480403.82 0.0088 0.0086

Moon -79951-10-03 16:32 J -27480403.86 -27480403.81 -27480403.71 0.0088 0.0085 *

Moon -79950-10-06 03:20 J -27480036.51 -27480036.36 -27480036.17 0.0088 0.0066

Earth -79950-10-06 04:47 J -27480036.45 -27480036.30 -27480036.09 0.0088 0.0066 *

Moon -79949-10-07 19:25 J -27479668.91 -27479668.69 -27479668.44 0.0088 0.0045

Earth -79949-10-07 19:25 J -27479668.90 -27479668.69 -27479668.44 0.0088 0.0045 *

Earth -79948-10-10 10:32 J -27479301.32 -27479301.06 -27479300.81 0.0088 0.0025

Moon -79948-10-10 11:16 J -27479301.27 -27479301.03 -27479300.78 0.0088 0.0026 *

Moon -79947-10-12 23:01 J -27478933.81 -27478933.54 -27478933.27 0.0088 0.0003

Earth -79947-10-13 00:56 J -27478933.72 -27478933.46 -27478933.19 0.0088 0.0005 *

Earth -79946-10-15 15:20 J -27478566.12 -27478565.86 -27478565.60 0.0088 0.0016

Moon -79946-10-15 18:28 J -27478565.98 -27478565.73 -27478565.47 0.0088 0.0015 *

Moon -79945-10-17 01:54 J -27478198.64 -27478198.42 -27478198.16 0.0088 0.0038

Earth -79945-10-17 05:30 J -27478198.50 -27478198.27 -27478198.02 0.0088 0.0036 *

Earth -79944-10-19 19:40 J -27477830.88 -27477830.68 -27477830.47 0.0088 0.0056

Moon -79944-10-19 23:16 J -27477830.72 -27477830.53 -27477830.30 0.0088 0.0054 *

Moon -79943-10-22 06:13 J -27477463.34 -27477463.24 -27477463.09 0.0088 0.0078

Earth -79943-10-22 09:49 J -27477463.21 -27477463.09 -27477462.94 0.0088 0.0076 *

Mars -79936-09-26 00:42 J -27474932.72 -27474932.47 -27474932.19 0.0088 0.0042

Mars -79934-08-20 23:16 J -27474238.78 -27474238.53 -27474238.24 0.0088 0.0039

Venus -79898-11-14 12:13 J -27461004.00 -27461003.99 -27461003.95 0.0088 0.0088

Venus -79897-06-27 00:28 J -27460778.61 -27460778.48 -27460778.35 0.0088 0.0070

Venus -79896-02-07 11:59 J -27460553.16 -27460553.00 -27460552.81 0.0088 0.0053

Venus -79896-09-20 23:59 J -27460327.69 -27460327.50 -27460327.30 0.0088 0.0035

Venus -79895-05-04 11:44 J -27460102.22 -27460102.01 -27460101.80 0.0089 0.0017

Venus -79895-12-15 23:44 J -27459876.72 -27459876.51 -27459876.30 0.0089 0.0001

Venus -79894-07-29 11:16 J -27459651.23 -27459651.03 -27459650.81 0.0089 0.0019

Venus -79893-03-10 23:01 J -27459425.73 -27459425.54 -27459425.34 0.0089 0.0036

Venus -79893-10-22 10:32 J -27459200.21 -27459200.06 -27459199.87 0.0089 0.0054

Venus -79892-06-04 22:32 J -27458974.68 -27458974.56 -27458974.42 0.0089 0.0071

Venus -79891-01-16 10:18 J -27458749.07 -27458749.07 -27458749.05 0.0089 0.0088

Mercury -79883-05-26 00:13 J -27455697.50 -27455697.49 -27455697.47 0.0089 0.0088

Mercury -79883-08-22 01:25 J -27455609.47 -27455609.44 -27455609.39 0.0089 0.0084

Mercury -79883-11-18 02:37 J -27455521.43 -27455521.39 -27455521.32 0.0089 0.0080

Mercury -79882-02-14 04:04 J -27455433.39 -27455433.33 -27455433.25 0.0089 0.0075

Mercury -79882-05-13 05:16 J -27455345.34 -27455345.28 -27455345.19 0.0089 0.0071

Mercury -79882-08-09 06:56 J -27455257.30 -27455257.21 -27455257.12 0.0089 0.0066

Mercury -79882-11-05 08:08 J -27455169.25 -27455169.16 -27455169.06 0.0089 0.0062

Mercury -79881-02-01 09:20 J -27455081.20 -27455081.11 -27455081.00 0.0089 0.0058

Mercury -79881-04-29 10:47 J -27454993.15 -27454993.05 -27454992.94 0.0089 0.0053

Mercury -79881-07-26 11:59 J -27454905.10 -27454905.00 -27454904.88 0.0089 0.0049

Mercury -79881-10-22 13:40 J -27454817.05 -27454816.93 -27454816.82 0.0089 0.0044

Mercury -79880-01-18 14:52 J -27454729.00 -27454728.88 -27454728.76 0.0089 0.0040

Mercury -79880-04-16 16:04 J -27454640.95 -27454640.83 -27454640.70 0.0089 0.0035

Mercury -79880-07-13 17:30 J -27454552.89 -27454552.77 -27454552.64 0.0089 0.0031

Mercury -79880-10-09 18:42 J -27454464.84 -27454464.72 -27454464.59 0.0089 0.0027

Mercury -79879-01-05 20:08 J -27454376.79 -27454376.66 -27454376.53 0.0089 0.0022

Mercury -79879-04-03 21:20 J -27454288.73 -27454288.61 -27454288.47 0.0089 0.0018

Mercury -79879-06-30 22:47 J -27454200.68 -27454200.55 -27454200.41 0.0089 0.0013

Mercury -79879-09-27 00:13 J -27454112.62 -27454112.49 -27454112.36 0.0089 0.0009

Mercury -79879-12-24 01:40 J -27454024.57 -27454024.43 -27454024.30 0.0089 0.0005

Mercury -79878-03-22 02:52 J -27453936.51 -27453936.38 -27453936.24 0.0089 0.0001

Mercury -79878-06-18 04:18 J -27453848.45 -27453848.32 -27453848.19 0.0089 0.0005

Mercury -79878-09-14 05:30 J -27453760.40 -27453760.27 -27453760.13 0.0089 0.0010

Mercury -79878-12-11 06:56 J -27453672.34 -27453672.21 -27453672.08 0.0089 0.0014

Mercury -79877-03-08 08:08 J -27453584.28 -27453584.16 -27453584.02 0.0089 0.0019

Mercury -79877-06-04 09:35 J -27453496.22 -27453496.10 -27453495.97 0.0089 0.0023

Mercury -79877-08-31 11:01 J -27453408.16 -27453408.04 -27453407.91 0.0089 0.0028

Mercury -79877-11-27 12:28 J -27453320.11 -27453319.98 -27453319.86 0.0089 0.0032

Mercury -79876-02-23 13:40 J -27453232.05 -27453231.93 -27453231.80 0.0089 0.0037

Mercury -79876-05-22 14:52 J -27453143.98 -27453143.88 -27453143.75 0.0089 0.0042

Mercury -79876-08-18 16:32 J -27453055.92 -27453055.81 -27453055.69 0.0089 0.0046

Mercury -79876-11-14 17:44 J -27452967.86 -27452967.76 -27452967.64 0.0089 0.0051

Mercury -79875-02-10 19:11 J -27452879.80 -27452879.70 -27452879.59 0.0089 0.0055

Mercury -79875-05-09 20:37 J -27452791.73 -27452791.64 -27452791.54 0.0089 0.0060

Mercury -79875-08-05 22:04 J -27452703.67 -27452703.58 -27452703.48 0.0089 0.0064

Mercury -79875-11-01 23:16 J -27452615.60 -27452615.53 -27452615.43 0.0089 0.0069

Mercury -79874-01-29 00:56 J -27452527.53 -27452527.46 -27452527.38 0.0089 0.0073

Mercury -79874-04-27 02:08 J -27452439.46 -27452439.41 -27452439.34 0.0089 0.0078

Mercury -79874-07-24 03:20 J -27452351.39 -27452351.36 -27452351.29 0.0089 0.0083

Mercury -79874-10-20 05:01 J -27452263.31 -27452263.29 -27452263.26 0.0089 0.0087

Earth -79868-04-02 20:08 J -27450271.72 -27450271.66 -27450271.54 0.0089 0.0083

Moon -79868-04-02 20:52 J -27450271.66 -27450271.63 -27450271.57 0.0089 0.0087 *

Moon -79867-04-05 03:06 J -27449904.54 -27449904.37 -27449904.15 0.0089 0.0060

Earth -79867-04-05 05:01 J -27449904.44 -27449904.29 -27449904.10 0.0089 0.0064 *

Earth -79866-04-07 13:54 J -27449537.12 -27449536.92 -27449536.69 0.0089 0.0045

Moon -79866-04-07 16:18 J -27449537.01 -27449536.82 -27449536.60 0.0089 0.0049 *

Moon -79865-04-08 19:25 J -27449169.93 -27449169.69 -27449169.43 0.0089 0.0021

Earth -79865-04-08 23:16 J -27449169.77 -27449169.53 -27449169.29 0.0089 0.0025 *

Earth -79864-04-11 07:54 J -27448802.41 -27448802.17 -27448801.91 0.0089 0.0006

Moon -79864-04-11 11:30 J -27448802.27 -27448802.02 -27448801.77 0.0089 0.0010 *

Moon -79863-04-13 13:54 J -27448435.16 -27448434.92 -27448434.68 0.0089 0.0017

Earth -79863-04-13 17:01 J -27448435.03 -27448434.79 -27448434.54 0.0089 0.0013 *

Earth -79862-04-16 01:40 J -27448067.64 -27448067.43 -27448067.18 0.0089 0.0033

Moon -79862-04-16 04:32 J -27448067.55 -27448067.31 -27448067.06 0.0089 0.0028 *

Moon -79861-04-17 09:49 J -27447700.26 -27447700.09 -27447699.88 0.0089 0.0056

Earth -79861-04-17 11:01 J -27447700.23 -27447700.04 -27447699.82 0.0089 0.0052 *

Earth -79860-04-19 20:08 J -27447332.79 -27447332.66 -27447332.49 0.0089 0.0071

Moon -79860-04-19 20:37 J -27447332.79 -27447332.64 -27447332.45 0.0089 0.0067 *

Mars -79854-06-03 05:01 J -27445097.38 -27445097.29 -27445097.11 0.0089 0.0081
 Mars -79852-04-28 19:40 J -27444402.00 -27444401.68 -27444401.35 0.0089 0.0009
 Venus -79816-12-28 12:28 J -27431009.04 -27431008.98 -27431008.90 0.0089 0.0084
 Venus -79815-08-11 02:08 J -27430783.53 -27430783.41 -27430783.23 0.0089 0.0066
 Venus -79814-03-24 16:32 J -27430557.99 -27430557.81 -27430557.60 0.0089 0.0047
 Venus -79814-11-05 06:56 J -27430332.42 -27430332.21 -27430331.99 0.0089 0.0028
 Venus -79813-06-17 21:20 J -27430106.83 -27430106.61 -27430106.38 0.0089 0.0009
 Venus -79812-01-29 11:30 J -27429881.24 -27429881.02 -27429880.79 0.0089 0.0010
 Venus -79812-09-12 01:40 J -27429655.64 -27429655.43 -27429655.21 0.0089 0.0029
 Venus -79811-04-25 15:49 J -27429430.02 -27429429.84 -27429429.64 0.0089 0.0048
 Venus -79811-12-07 05:59 J -27429204.38 -27429204.25 -27429204.08 0.0089 0.0067
 Venus -79810-07-20 20:08 J -27428978.69 -27428978.66 -27428978.58 0.0089 0.0086
 Mercury -79800-11-10 22:04 J -27425212.60 -27425212.58 -27425212.52 0.0089 0.0087
 Mercury -79799-02-07 02:08 J -27425124.49 -27425124.41 -27425124.32 0.0089 0.0080
 Mercury -79799-05-06 05:30 J -27425036.36 -27425036.27 -27425036.15 0.0089 0.0074
 Mercury -79799-08-02 09:20 J -27424948.23 -27424948.11 -27424947.97 0.0089 0.0067
 Mercury -79799-10-29 12:42 J -27424860.09 -27424859.97 -27424859.81 0.0089 0.0061
 Mercury -79798-01-25 16:32 J -27424771.95 -27424771.81 -27424771.64 0.0089 0.0054
 Mercury -79798-04-23 20:08 J -27424683.81 -27424683.66 -27424683.48 0.0089 0.0048
 Mercury -79798-07-20 23:59 J -27424595.67 -27424595.50 -27424595.32 0.0089 0.0041
 Mercury -79798-10-17 03:49 J -27424507.52 -27424507.34 -27424507.16 0.0089 0.0034
 Mercury -79797-01-13 07:11 J -27424419.37 -27424419.20 -27424419.01 0.0089 0.0028
 Mercury -79797-04-10 11:01 J -27424331.23 -27424331.04 -27424330.85 0.0089 0.0021
 Mercury -79797-07-07 14:37 J -27424243.08 -27424242.89 -27424242.70 0.0089 0.0014
 Mercury -79797-10-03 18:13 J -27424154.93 -27424154.74 -27424154.55 0.0089 0.0008
 Mercury -79797-12-30 21:49 J -27424066.78 -27424066.59 -27424066.40 0.0089 0.0001
 Mercury -79796-03-29 01:25 J -27423978.63 -27423978.44 -27423978.25 0.0089 0.0005
 Mercury -79796-06-25 05:01 J -27423890.48 -27423890.29 -27423890.10 0.0089 0.0012
 Mercury -79796-09-21 08:23 J -27423802.33 -27423802.15 -27423801.95 0.0089 0.0018
 Mercury -79796-12-18 11:59 J -27423714.18 -27423714.00 -27423713.81 0.0089 0.0025

Mercury -79795-03-16 15:35 J -27423626.03 -27423625.85 -27423625.66 0.0089 0.0031
 Mercury -79795-06-12 18:56 J -27423537.87 -27423537.71 -27423537.52 0.0089 0.0038
 Mercury -79795-09-08 22:32 J -27423449.72 -27423449.56 -27423449.38 0.0089 0.0044
 Mercury -79795-12-06 01:54 J -27423361.56 -27423361.42 -27423361.25 0.0089 0.0051
 Mercury -79794-03-04 05:30 J -27423273.40 -27423273.27 -27423273.11 0.0089 0.0057
 Mercury -79794-05-31 09:06 J -27423185.24 -27423185.12 -27423184.98 0.0089 0.0063
 Mercury -79794-08-27 12:28 J -27423097.08 -27423096.98 -27423096.85 0.0089 0.0069
 Mercury -79794-11-23 15:49 J -27423008.92 -27423008.84 -27423008.72 0.0089 0.0076
 Mercury -79793-02-19 19:25 J -27422920.75 -27422920.69 -27422920.60 0.0089 0.0082
 Mercury -79793-05-17 23:16 J -27422832.55 -27422832.53 -27422832.51 0.0089 0.0088
 Moon -79786-10-05 10:18 J -27420136.19 -27420136.07 -27420135.93 0.0088 0.0078
 Earth -79786-10-05 10:18 J -27420136.19 -27420136.07 -27420135.90 0.0088 0.0074 *
 Earth -79785-10-07 01:11 J -27419768.65 -27419768.45 -27419768.23 0.0088 0.0054
 Moon -79785-10-07 02:52 J -27419768.57 -27419768.38 -27419768.15 0.0088 0.0050 *
 Moon -79784-10-09 12:56 J -27419401.19 -27419400.96 -27419400.70 0.0088 0.0038
 Earth -79784-10-09 16:04 J -27419401.07 -27419400.83 -27419400.58 0.0088 0.0034 *
 Earth -79783-10-12 06:42 J -27419033.48 -27419033.22 -27419032.96 0.0088 0.0014
 Moon -79783-10-12 09:49 J -27419033.35 -27419033.09 -27419032.83 0.0088 0.0009 *
 Moon -79782-10-14 17:30 J -27418666.04 -27418665.77 -27418665.51 0.0088 0.0002
 Earth -79782-10-14 21:20 J -27418665.88 -27418665.61 -27418665.35 0.0088 0.0006 *
 Earth -79781-10-16 11:16 J -27418298.27 -27418298.03 -27418297.77 0.0088 0.0026
 Moon -79781-10-16 14:37 J -27418298.13 -27418297.89 -27418297.63 0.0088 0.0031 *
 Moon -79780-10-18 22:04 J -27417930.79 -27417930.58 -27417930.33 0.0088 0.0043
 Earth -79780-10-19 01:25 J -27417930.65 -27417930.44 -27417930.19 0.0088 0.0047 *
 Earth -79779-10-21 16:04 J -27417563.01 -27417562.83 -27417562.65 0.0088 0.0066
 Moon -79779-10-21 17:44 J -27417562.89 -27417562.76 -27417562.57 0.0088 0.0071 *
 Moon -79778-10-24 04:04 J -27417195.39 -27417195.33 -27417195.20 0.0088 0.0083
 Earth -79778-10-24 05:44 J -27417195.31 -27417195.26 -27417195.18 0.0088 0.0086 *
 Mars -79772-05-11 02:52 J -27415169.49 -27415169.38 -27415169.21 0.0088 0.0078
 Mars -79770-04-05 05:16 J -27414475.58 -27414475.28 -27414474.98 0.0088 0.0003

Mars -79768-02-27 03:20 J -27413781.45 -27413781.36 -27413781.23 0.0088 0.0082
 Jupiter -79759-04-07 23:59 J -27410454.90 -27410454.50 -27410453.99 0.0088 0.0048
 Venus -79733-09-28 11:01 J -27400784.12 -27400784.04 -27400783.92 0.0088 0.0078
 Venus -79732-05-11 23:01 J -27400558.68 -27400558.54 -27400558.37 0.0088 0.0060
 Venus -79732-12-23 11:16 J -27400333.22 -27400333.03 -27400332.84 0.0088 0.0042
 Venus -79731-08-05 22:47 J -27400107.74 -27400107.55 -27400107.33 0.0088 0.0025
 Venus -79730-03-19 10:47 J -27399882.26 -27399882.05 -27399881.83 0.0088 0.0007
 Venus -79730-10-30 22:47 J -27399656.76 -27399656.55 -27399656.34 0.0089 0.0011
 Venus -79729-06-12 10:18 J -27399431.26 -27399431.07 -27399430.86 0.0089 0.0029
 Venus -79728-01-23 22:04 J -27399205.75 -27399205.58 -27399205.39 0.0089 0.0047
 Venus -79728-09-06 09:35 J -27398980.23 -27398980.10 -27398979.93 0.0089 0.0065
 Venus -79727-04-19 21:35 J -27398754.67 -27398754.60 -27398754.51 0.0089 0.0082
 Mercury -79718-02-19 23:44 J -27395526.52 -27395526.51 -27395526.48 0.0089 0.0087
 Mercury -79718-05-19 00:56 J -27395438.49 -27395438.46 -27395438.40 0.0089 0.0083
 Mercury -79718-08-15 02:37 J -27395350.45 -27395350.39 -27395350.33 0.0089 0.0078
 Mercury -79718-11-11 03:35 J -27395262.41 -27395262.35 -27395262.26 0.0089 0.0074
 Mercury -79717-02-07 05:16 J -27395174.36 -27395174.28 -27395174.20 0.0089 0.0069
 Mercury -79717-05-05 06:28 J -27395086.31 -27395086.23 -27395086.14 0.0089 0.0065
 Mercury -79717-08-01 07:40 J -27394998.27 -27394998.18 -27394998.07 0.0089 0.0061
 Mercury -79717-10-28 09:06 J -27394910.22 -27394910.12 -27394910.01 0.0089 0.0056
 Mercury -79716-01-24 10:18 J -27394822.17 -27394822.07 -27394821.95 0.0089 0.0052
 Mercury -79716-04-22 11:30 J -27394734.12 -27394734.02 -27394733.89 0.0089 0.0048
 Mercury -79716-07-19 12:56 J -27394646.07 -27394645.96 -27394645.83 0.0089 0.0043
 Mercury -79716-10-15 14:23 J -27394558.01 -27394557.90 -27394557.78 0.0089 0.0038
 Mercury -79715-01-11 15:49 J -27394469.96 -27394469.84 -27394469.72 0.0089 0.0034
 Mercury -79715-04-09 17:01 J -27394381.91 -27394381.79 -27394381.66 0.0089 0.0030
 Mercury -79715-07-06 18:28 J -27394293.86 -27394293.73 -27394293.60 0.0089 0.0025
 Mercury -79715-10-02 19:40 J -27394205.80 -27394205.68 -27394205.54 0.0089 0.0021
 Mercury -79715-12-29 21:06 J -27394117.75 -27394117.62 -27394117.49 0.0089 0.0016
 Mercury -79714-03-27 22:32 J -27394029.69 -27394029.56 -27394029.43 0.0089 0.0012

Mercury -79714-06-23 23:44 J -27393941.64 -27393941.51 -27393941.37 0.0089 0.0007

Mercury -79714-09-20 01:11 J -27393853.58 -27393853.45 -27393853.32 0.0089 0.0003

Mercury -79714-12-17 02:37 J -27393765.53 -27393765.39 -27393765.26 0.0089 0.0003

Mercury -79713-03-14 03:49 J -27393677.47 -27393677.34 -27393677.20 0.0089 0.0007

Mercury -79713-06-10 05:16 J -27393589.41 -27393589.28 -27393589.15 0.0089 0.0011

Mercury -79713-09-06 06:28 J -27393501.36 -27393501.23 -27393501.09 0.0089 0.0016

Mercury -79713-12-03 07:54 J -27393413.30 -27393413.17 -27393413.04 0.0089 0.0020

Mercury -79712-03-01 09:06 J -27393325.24 -27393325.12 -27393324.98 0.0089 0.0025

Mercury -79712-05-28 10:32 J -27393237.18 -27393237.06 -27393236.93 0.0089 0.0029

Mercury -79712-08-24 11:59 J -27393149.12 -27393149.00 -27393148.87 0.0089 0.0034

Mercury -79712-11-20 13:25 J -27393061.06 -27393060.94 -27393060.82 0.0089 0.0038

Mercury -79711-02-16 14:37 J -27392973.00 -27392972.89 -27392972.77 0.0089 0.0043

Mercury -79711-05-15 15:49 J -27392884.94 -27392884.84 -27392884.71 0.0089 0.0048

Mercury -79711-08-11 17:16 J -27392796.88 -27392796.78 -27392796.66 0.0089 0.0052

Mercury -79711-11-07 18:42 J -27392708.81 -27392708.72 -27392708.61 0.0089 0.0057

Mercury -79710-02-03 20:08 J -27392620.75 -27392620.66 -27392620.56 0.0089 0.0061

Mercury -79710-05-02 21:20 J -27392532.68 -27392532.61 -27392532.51 0.0089 0.0066

Mercury -79710-07-29 23:01 J -27392444.62 -27392444.54 -27392444.46 0.0089 0.0070

Mercury -79710-10-26 00:13 J -27392356.55 -27392356.49 -27392356.41 0.0089 0.0075

Mercury -79709-01-22 01:54 J -27392268.48 -27392268.42 -27392268.36 0.0089 0.0079

Mercury -79709-04-19 03:06 J -27392180.40 -27392180.37 -27392180.32 0.0089 0.0084

Mercury -79709-07-16 04:32 J -27392092.31 -27392092.31 -27392092.29 0.0089 0.0089

Moon -79704-04-02 05:44 J -27390371.28 -27390371.26 -27390371.23 0.0089 0.0088

Earth -79703-04-04 15:49 J -27390003.96 -27390003.84 -27390003.67 0.0089 0.0072

Moon -79703-04-04 18:56 J -27390003.82 -27390003.71 -27390003.55 0.0089 0.0073 *

Moon -79702-04-06 21:35 J -27389636.79 -27389636.60 -27389636.38 0.0089 0.0051

Earth -79702-04-07 00:42 J -27389636.65 -27389636.47 -27389636.25 0.0089 0.0053 *

Earth -79701-04-08 09:35 J -27389269.32 -27389269.10 -27389268.85 0.0089 0.0034

Moon -79701-04-08 13:25 J -27389269.16 -27389268.94 -27389268.70 0.0089 0.0036 *

Moon -79700-04-10 15:49 J -27388902.07 -27388901.84 -27388901.58 0.0089 0.0014

Earth	-79700-04-10 18:42 J	-27388901.96	-27388901.72	-27388901.46	0.0089	0.0015	*
Earth	-79699-04-13 03:35 J	-27388534.60	-27388534.35	-27388534.10	0.0089	0.0004	
Moon	-79699-04-13 05:44 J	-27388534.51	-27388534.26	-27388534.00	0.0089	0.0003	*
Moon	-79698-04-15 11:30 J	-27388167.25	-27388167.02	-27388166.79	0.0089	0.0025	
Earth	-79698-04-15 12:13 J	-27388167.22	-27388166.99	-27388166.73	0.0089	0.0024	*
Moon	-79697-04-16 20:52 J	-27387799.85	-27387799.63	-27387799.39	0.0089	0.0041	
Earth	-79697-04-16 21:06 J	-27387799.82	-27387799.62	-27387799.38	0.0089	0.0043	*
Earth	-79696-04-19 06:13 J	-27387432.40	-27387432.24	-27387432.04	0.0089	0.0062	
Moon	-79696-04-19 08:08 J	-27387432.33	-27387432.16	-27387431.99	0.0089	0.0063	*
Moon	-79695-04-21 12:42 J	-27387065.06	-27387064.97	-27387064.82	0.0089	0.0079	
Earth	-79695-04-21 15:20 J	-27387064.93	-27387064.86	-27387064.73	0.0089	0.0081	*
Mars	-79689-12-10 17:16 J	-27384640.06	-27384639.78	-27384639.45	0.0089	0.0032	
Mars	-79687-11-06 07:40 J	-27383944.40	-27383944.18	-27383943.90	0.0089	0.0059	
Venus	-79651-11-12 10:32 J	-27370789.16	-27370789.06	-27370788.91	0.0089	0.0074	
Venus	-79650-06-26 00:56 J	-27370563.62	-27370563.46	-27370563.27	0.0089	0.0055	
Venus	-79649-02-06 15:06 J	-27370338.06	-27370337.87	-27370337.65	0.0089	0.0036	
Venus	-79649-09-19 05:30 J	-27370112.49	-27370112.27	-27370112.05	0.0089	0.0017	
Venus	-79648-05-02 19:40 J	-27369886.90	-27369886.68	-27369886.45	0.0089	0.0003	
Venus	-79648-12-14 09:49 J	-27369661.30	-27369661.09	-27369660.86	0.0089	0.0021	
Venus	-79647-07-27 23:59 J	-27369435.69	-27369435.50	-27369435.29	0.0089	0.0040	
Venus	-79646-03-10 14:08 J	-27369210.07	-27369209.91	-27369209.73	0.0089	0.0059	
Venus	-79646-10-22 04:18 J	-27368984.41	-27368984.32	-27368984.20	0.0089	0.0078	
Mercury	-79635-08-07 19:54 J	-27365041.70	-27365041.67	-27365041.60	0.0089	0.0086	
Mercury	-79635-11-03 23:44 J	-27364953.59	-27364953.51	-27364953.41	0.0089	0.0079	
Mercury	-79634-01-31 03:06 J	-27364865.46	-27364865.37	-27364865.24	0.0089	0.0073	
Mercury	-79634-04-29 07:11 J	-27364777.32	-27364777.20	-27364777.07	0.0089	0.0066	
Mercury	-79634-07-26 10:32 J	-27364689.19	-27364689.06	-27364688.90	0.0089	0.0060	
Mercury	-79634-10-22 14:23 J	-27364601.05	-27364600.90	-27364600.73	0.0089	0.0053	
Mercury	-79633-01-18 18:13 J	-27364512.90	-27364512.74	-27364512.57	0.0089	0.0046	
Mercury	-79633-04-15 21:35 J	-27364424.76	-27364424.60	-27364424.41	0.0089	0.0040	

Mercury -79633-07-13 01:25 J -27364336.62 -27364336.44 -27364336.26 0.0089 0.0033

Mercury -79633-10-09 05:01 J -27364248.47 -27364248.29 -27364248.10 0.0089 0.0026

Mercury -79632-01-05 08:37 J -27364160.32 -27364160.14 -27364159.94 0.0089 0.0020

Mercury -79632-04-03 12:13 J -27364072.18 -27364071.99 -27364071.79 0.0089 0.0014

Mercury -79632-06-30 16:04 J -27363984.03 -27363983.83 -27363983.64 0.0089 0.0007

Mercury -79632-09-26 19:40 J -27363895.88 -27363895.68 -27363895.49 0.0089 0.0001

Mercury -79632-12-23 23:01 J -27363807.73 -27363807.54 -27363807.34 0.0089 0.0007

Mercury -79631-03-22 02:37 J -27363719.58 -27363719.39 -27363719.19 0.0089 0.0013

Mercury -79631-06-18 06:13 J -27363631.42 -27363631.24 -27363631.05 0.0089 0.0019

Mercury -79631-09-14 09:49 J -27363543.27 -27363543.09 -27363542.90 0.0089 0.0026

Mercury -79631-12-11 13:11 J -27363455.12 -27363454.95 -27363454.76 0.0089 0.0033

Mercury -79630-03-09 16:47 J -27363366.96 -27363366.80 -27363366.62 0.0089 0.0039

Mercury -79630-06-05 20:37 J -27363278.81 -27363278.64 -27363278.48 0.0089 0.0045

Mercury -79630-09-01 23:44 J -27363190.65 -27363190.51 -27363190.34 0.0089 0.0052

Mercury -79630-11-29 03:20 J -27363102.49 -27363102.36 -27363102.20 0.0089 0.0058

Mercury -79629-02-25 06:42 J -27363014.33 -27363014.22 -27363014.07 0.0089 0.0065

Mercury -79629-05-23 10:18 J -27362926.17 -27362926.07 -27362925.94 0.0089 0.0071

Mercury -79629-08-19 13:54 J -27362838.00 -27362837.92 -27362837.82 0.0089 0.0077

Mercury -79629-11-15 17:30 J -27362749.83 -27362749.77 -27362749.70 0.0089 0.0083

Earth -79622-10-04 14:08 J -27360235.98 -27360235.91 -27360235.79 0.0088 0.0083

Moon -79622-10-04 17:01 J -27360235.88 -27360235.79 -27360235.70 0.0088 0.0083 *

Moon -79621-10-06 01:25 J -27359868.60 -27359868.44 -27359868.22 0.0088 0.0063

Earth -79621-10-06 05:01 J -27359868.46 -27359868.29 -27359868.09 0.0088 0.0063 *

Earth -79620-10-08 19:54 J -27359500.90 -27359500.67 -27359500.43 0.0088 0.0043

Moon -79620-10-08 23:16 J -27359500.74 -27359500.53 -27359500.28 0.0088 0.0044 *

Moon -79619-10-11 06:56 J -27359133.45 -27359133.21 -27359132.94 0.0088 0.0024

Earth -79619-10-11 10:32 J -27359133.30 -27359133.06 -27359132.79 0.0088 0.0023 *

Earth -79618-10-14 01:11 J -27358765.71 -27358765.45 -27358765.18 0.0088 0.0003

Moon -79618-10-14 04:47 J -27358765.57 -27358765.30 -27358765.03 0.0088 0.0002 *

Moon -79617-10-15 13:25 J -27358398.19 -27358397.94 -27358397.68 0.0088 0.0016

Earth	-79617-10-15 15:49 J	-27358398.10	-27358397.84	-27358397.58	0.0088	0.0017	*
Earth	-79616-10-18 05:59 J	-27358030.47	-27358030.25	-27358029.99	0.0088	0.0037	
Moon	-79616-10-18 08:08 J	-27358030.40	-27358030.16	-27358029.90	0.0088	0.0038	*
Moon	-79615-10-20 19:25 J	-27357662.86	-27357662.69	-27357662.46	0.0088	0.0056	
Earth	-79615-10-20 20:08 J	-27357662.84	-27357662.66	-27357662.43	0.0088	0.0057	*
Moon	-79614-10-23 09:20 J	-27357295.22	-27357295.11	-27357294.95	0.0088	0.0077	
Earth	-79614-10-23 10:32 J	-27357295.18	-27357295.06	-27357294.91	0.0088	0.0076	*
Mars	-79607-11-18 06:42 J	-27354712.48	-27354712.22	-27354711.92	0.0088	0.0034	
Mars	-79605-10-12 08:08 J	-27354018.40	-27354018.16	-27354017.89	0.0088	0.0046	
Jupiter	-79593-06-12 03:35 J	-27349757.88	-27349757.35	-27349756.81	0.0088	0.0001	
Venus	-79569-12-30 21:49 J	-27340789.63	-27340789.59	-27340789.52	0.0088	0.0085	
Venus	-79568-08-13 09:35 J	-27340564.22	-27340564.10	-27340563.94	0.0088	0.0067	
Venus	-79567-03-26 21:35 J	-27340338.76	-27340338.60	-27340338.41	0.0088	0.0050	
Venus	-79567-11-07 09:49 J	-27340113.29	-27340113.09	-27340112.89	0.0088	0.0032	
Venus	-79566-06-20 21:49 J	-27339887.80	-27339887.59	-27339887.38	0.0088	0.0014	
Venus	-79565-02-01 09:35 J	-27339662.31	-27339662.10	-27339661.88	0.0088	0.0004	
Venus	-79565-09-13 21:20 J	-27339436.82	-27339436.61	-27339436.40	0.0089	0.0022	
Venus	-79564-04-27 08:52 J	-27339211.31	-27339211.13	-27339210.93	0.0089	0.0040	
Venus	-79564-12-08 20:37 J	-27338985.78	-27338985.64	-27338985.46	0.0089	0.0058	
Venus	-79563-07-22 08:37 J	-27338760.24	-27338760.14	-27338760.02	0.0089	0.0075	
Mercury	-79554-11-16 23:16 J	-27335355.55	-27335355.53	-27335355.50	0.0089	0.0086	
Mercury	-79553-02-13 00:28 J	-27335267.52	-27335267.48	-27335267.42	0.0089	0.0082	
Mercury	-79553-05-11 01:40 J	-27335179.48	-27335179.43	-27335179.35	0.0089	0.0078	
Mercury	-79553-08-07 03:06 J	-27335091.43	-27335091.37	-27335091.29	0.0089	0.0073	
Mercury	-79553-11-03 04:18 J	-27335003.39	-27335003.32	-27335003.22	0.0089	0.0069	
Mercury	-79552-01-30 05:59 J	-27334915.34	-27334915.25	-27334915.16	0.0089	0.0064	
Mercury	-79552-04-28 07:11 J	-27334827.29	-27334827.20	-27334827.10	0.0089	0.0060	
Mercury	-79552-07-25 08:23 J	-27334739.24	-27334739.15	-27334739.04	0.0089	0.0055	
Mercury	-79552-10-21 09:49 J	-27334651.19	-27334651.09	-27334650.98	0.0089	0.0051	
Mercury	-79551-01-17 11:01 J	-27334563.14	-27334563.04	-27334562.92	0.0089	0.0047	

Mercury -79551-04-15 12:28 J -27334475.09 -27334474.98 -27334474.86 0.0089 0.0042

Mercury -79551-07-12 13:40 J -27334387.04 -27334386.93 -27334386.80 0.0089 0.0038

Mercury -79551-10-08 15:06 J -27334298.99 -27334298.87 -27334298.74 0.0089 0.0033

Mercury -79550-01-04 16:32 J -27334210.93 -27334210.81 -27334210.68 0.0089 0.0029

Mercury -79550-04-02 17:59 J -27334122.88 -27334122.75 -27334122.63 0.0089 0.0024

Mercury -79550-06-29 19:11 J -27334034.83 -27334034.70 -27334034.57 0.0089 0.0020

Mercury -79550-09-25 20:37 J -27333946.77 -27333946.64 -27333946.51 0.0089 0.0015

Mercury -79550-12-22 21:49 J -27333858.72 -27333858.59 -27333858.45 0.0089 0.0011

Mercury -79549-03-19 23:16 J -27333770.66 -27333770.53 -27333770.40 0.0089 0.0006

Mercury -79549-06-16 00:28 J -27333682.61 -27333682.48 -27333682.34 0.0089 0.0003

Mercury -79549-09-12 01:54 J -27333594.55 -27333594.42 -27333594.29 0.0089 0.0003

Mercury -79549-12-09 03:20 J -27333506.50 -27333506.36 -27333506.23 0.0089 0.0008

Mercury -79548-03-07 04:32 J -27333418.44 -27333418.31 -27333418.17 0.0089 0.0012

Mercury -79548-06-03 05:59 J -27333330.38 -27333330.25 -27333330.12 0.0089 0.0016

Mercury -79548-08-30 07:25 J -27333242.32 -27333242.19 -27333242.06 0.0089 0.0021

Mercury -79548-11-26 08:37 J -27333154.27 -27333154.14 -27333154.01 0.0089 0.0026

Mercury -79547-02-22 10:04 J -27333066.21 -27333066.08 -27333065.95 0.0089 0.0030

Mercury -79547-05-21 11:16 J -27332978.15 -27332978.03 -27332977.90 0.0089 0.0035

Mercury -79547-08-17 12:42 J -27332890.09 -27332889.97 -27332889.85 0.0089 0.0039

Mercury -79547-11-13 13:54 J -27332802.03 -27332801.92 -27332801.79 0.0089 0.0044

Mercury -79546-02-09 15:35 J -27332713.96 -27332713.85 -27332713.74 0.0089 0.0048

Mercury -79546-05-08 16:47 J -27332625.90 -27332625.80 -27332625.69 0.0089 0.0053

Mercury -79546-08-04 17:59 J -27332537.84 -27332537.75 -27332537.64 0.0089 0.0058

Mercury -79546-10-31 19:25 J -27332449.77 -27332449.69 -27332449.58 0.0089 0.0062

Mercury -79545-01-27 20:52 J -27332361.71 -27332361.63 -27332361.53 0.0089 0.0067

Mercury -79545-04-24 22:18 J -27332273.64 -27332273.57 -27332273.48 0.0089 0.0071

Mercury -79545-07-21 23:30 J -27332185.57 -27332185.52 -27332185.44 0.0089 0.0076

Mercury -79545-10-18 01:11 J -27332097.50 -27332097.45 -27332097.39 0.0089 0.0080

Mercury -79544-01-14 02:23 J -27332009.43 -27332009.40 -27332009.35 0.0089 0.0085

Moon -79539-04-03 23:01 J -27330103.61 -27330103.54 -27330103.45 0.0089 0.0084

Earth	-79539-04-04 02:08 J	-27330103.49	-27330103.41	-27330103.27	0.0089	0.0080	*
Earth	-79538-04-06 11:16 J	-27329736.20	-27329736.03	-27329735.84	0.0089	0.0061	
Moon	-79538-04-06 14:23 J	-27329736.08	-27329735.90	-27329735.69	0.0089	0.0057	*
Moon	-79537-04-07 17:01 J	-27329368.98	-27329368.79	-27329368.56	0.0089	0.0047	
Earth	-79537-04-07 20:23 J	-27329368.86	-27329368.65	-27329368.42	0.0089	0.0042	*
Earth	-79536-04-10 04:47 J	-27329001.53	-27329001.30	-27329001.04	0.0089	0.0024	
Moon	-79536-04-10 06:42 J	-27329001.46	-27329001.22	-27329000.96	0.0089	0.0019	*
Moon	-79535-04-12 13:25 J	-27328634.17	-27328633.94	-27328633.69	0.0089	0.0009	
Earth	-79535-04-12 13:54 J	-27328634.16	-27328633.92	-27328633.66	0.0089	0.0005	*
Moon	-79534-04-14 22:32 J	-27328266.82	-27328266.56	-27328266.31	0.0089	0.0018	
Earth	-79534-04-14 23:01 J	-27328266.79	-27328266.54	-27328266.30	0.0089	0.0014	*
Earth	-79533-04-16 07:40 J	-27327899.41	-27327899.18	-27327898.94	0.0089	0.0033	
Moon	-79533-04-16 09:35 J	-27327899.32	-27327899.10	-27327898.86	0.0089	0.0029	*
Moon	-79532-04-18 13:54 J	-27327532.12	-27327531.92	-27327531.72	0.0089	0.0056	
Earth	-79532-04-18 16:32 J	-27327532.00	-27327531.81	-27327531.59	0.0089	0.0052	*
Earth	-79531-04-21 01:25 J	-27327164.57	-27327164.44	-27327164.28	0.0089	0.0071	
Moon	-79531-04-21 04:32 J	-27327164.45	-27327164.31	-27327164.13	0.0089	0.0067	*
Mars	-79525-07-24 14:23 J	-27324878.06	-27324877.90	-27324877.68	0.0089	0.0072	
Mars	-79523-06-20 03:49 J	-27324182.65	-27324182.34	-27324182.01	0.0089	0.0017	
Venus	-79486-02-13 18:42 J	-27310794.80	-27310794.72	-27310794.64	0.0089	0.0082	
Venus	-79486-09-27 08:08 J	-27310569.29	-27310569.16	-27310568.98	0.0089	0.0064	
Venus	-79485-05-09 22:32 J	-27310343.74	-27310343.56	-27310343.35	0.0089	0.0045	
Venus	-79485-12-21 12:56 J	-27310118.17	-27310117.96	-27310117.74	0.0089	0.0026	
Venus	-79484-08-04 03:06 J	-27309892.59	-27309892.37	-27309892.14	0.0089	0.0007	
Venus	-79483-03-17 17:16 J	-27309667.00	-27309666.78	-27309666.55	0.0089	0.0012	
Venus	-79483-10-29 07:25 J	-27309441.40	-27309441.19	-27309440.98	0.0089	0.0031	
Venus	-79482-06-11 21:35 J	-27309215.78	-27309215.60	-27309215.41	0.0089	0.0050	
Venus	-79481-01-23 11:44 J	-27308990.14	-27308990.01	-27308989.86	0.0089	0.0069	
Venus	-79481-09-05 01:54 J	-27308764.43	-27308764.42	-27308764.38	0.0089	0.0088	
Mercury	-79470-05-04 17:30 J	-27304870.81	-27304870.77	-27304870.71	0.0089	0.0085	

Mercury -79470-07-31 20:52 J -27304782.69 -27304782.63 -27304782.52 0.0089 0.0079

Mercury -79470-10-28 00:56 J -27304694.57 -27304694.46 -27304694.34 0.0089 0.0072

Mercury -79469-01-24 04:18 J -27304606.43 -27304606.32 -27304606.17 0.0089 0.0066

Mercury -79469-04-21 08:08 J -27304518.29 -27304518.16 -27304518.00 0.0089 0.0059

Mercury -79469-07-18 11:59 J -27304430.15 -27304430.00 -27304429.84 0.0089 0.0052

Mercury -79469-10-14 15:20 J -27304342.01 -27304341.86 -27304341.68 0.0089 0.0046

Mercury -79468-01-10 19:11 J -27304253.87 -27304253.70 -27304253.52 0.0089 0.0039

Mercury -79468-04-08 22:47 J -27304165.72 -27304165.55 -27304165.36 0.0089 0.0033

Mercury -79468-07-06 02:37 J -27304077.58 -27304077.39 -27304077.20 0.0089 0.0026

Mercury -79468-10-02 05:59 J -27303989.43 -27303989.25 -27303989.05 0.0089 0.0020

Mercury -79468-12-29 09:49 J -27303901.28 -27303901.09 -27303900.90 0.0089 0.0013

Mercury -79467-03-27 13:25 J -27303813.13 -27303812.94 -27303812.74 0.0089 0.0006

Mercury -79467-06-23 17:01 J -27303724.98 -27303724.79 -27303724.59 0.0089 0.0001

Mercury -79467-09-19 20:37 J -27303636.83 -27303636.64 -27303636.45 0.0089 0.0007

Mercury -79467-12-17 00:13 J -27303548.68 -27303548.49 -27303548.30 0.0089 0.0013

Mercury -79466-03-15 03:49 J -27303460.53 -27303460.34 -27303460.15 0.0089 0.0020

Mercury -79466-06-11 07:11 J -27303372.37 -27303372.20 -27303372.01 0.0089 0.0027

Mercury -79466-09-07 11:01 J -27303284.22 -27303284.04 -27303283.86 0.0089 0.0033

Mercury -79466-12-04 14:08 J -27303196.07 -27303195.91 -27303195.72 0.0089 0.0040

Mercury -79465-03-01 17:59 J -27303107.91 -27303107.75 -27303107.58 0.0089 0.0046

Mercury -79465-05-28 21:20 J -27303019.75 -27303019.61 -27303019.44 0.0089 0.0052

Mercury -79465-08-25 00:56 J -27302931.59 -27302931.46 -27302931.31 0.0089 0.0059

Mercury -79465-11-21 04:32 J -27302843.43 -27302843.31 -27302843.18 0.0088 0.0065

Mercury -79464-02-17 07:40 J -27302755.27 -27302755.18 -27302755.05 0.0088 0.0072

Mercury -79464-05-16 11:30 J -27302667.10 -27302667.02 -27302666.92 0.0088 0.0078

Mercury -79464-08-12 15:06 J -27302578.92 -27302578.87 -27302578.81 0.0088 0.0084

Moon -79458-10-03 14:37 J -27300335.94 -27300335.89 -27300335.85 0.0088 0.0087

Earth -79457-10-05 08:23 J -27299968.29 -27299968.15 -27299967.98 0.0088 0.0072

Moon -79457-10-05 11:44 J -27299968.12 -27299968.01 -27299967.85 0.0088 0.0077 *

Moon -79456-10-07 19:25 J -27299600.89 -27299600.69 -27299600.45 0.0088 0.0048

Earth	-79456-10-07 22:47 J	-27299600.74	-27299600.55	-27299600.31	0.0088	0.0053	*
Earth	-79455-10-10 13:25 J	-27299233.17	-27299232.94	-27299232.68	0.0088	0.0033	
Moon	-79455-10-10 16:18 J	-27299233.06	-27299232.82	-27299232.57	0.0088	0.0037	*
Moon	-79454-10-13 02:08 J	-27298865.67	-27298865.41	-27298865.15	0.0088	0.0008	
Earth	-79454-10-13 04:04 J	-27298865.58	-27298865.33	-27298865.05	0.0088	0.0014	*
Earth	-79453-10-14 18:42 J	-27298497.98	-27298497.72	-27298497.45	0.0088	0.0007	
Moon	-79453-10-14 19:40 J	-27298497.96	-27298497.68	-27298497.41	0.0088	0.0002	*
Earth	-79452-10-17 09:06 J	-27298130.36	-27298130.12	-27298129.85	0.0088	0.0027	
Moon	-79452-10-17 09:35 J	-27298130.33	-27298130.10	-27298129.85	0.0088	0.0031	*
Moon	-79451-10-19 22:18 J	-27297762.79	-27297762.57	-27297762.31	0.0088	0.0042	
Earth	-79451-10-19 23:30 J	-27297762.73	-27297762.52	-27297762.28	0.0088	0.0046	*
Earth	-79450-10-22 13:40 J	-27297395.09	-27297394.93	-27297394.73	0.0088	0.0066	
Moon	-79450-10-22 16:18 J	-27297394.95	-27297394.82	-27297394.64	0.0088	0.0070	*
Moon	-79449-10-24 00:42 J	-27297027.55	-27297027.47	-27297027.33	0.0088	0.0081	
Earth	-79449-10-24 04:18 J	-27297027.38	-27297027.32	-27297027.24	0.0088	0.0085	*
Mars	-79443-07-03 05:44 J	-27294949.40	-27294949.26	-27294949.05	0.0088	0.0073	
Mars	-79441-05-27 08:08 J	-27294255.45	-27294255.16	-27294254.86	0.0088	0.0008	
Mars	-79439-04-21 07:40 J	-27293561.19	-27293561.18	-27293561.10	0.0088	0.0087	
Jupiter	-79427-08-13 05:44 J	-27289064.66	-27289064.26	-27289063.76	0.0088	0.0049	
Venus	-79404-11-14 19:40 J	-27280569.78	-27280569.68	-27280569.56	0.0088	0.0076	
Venus	-79403-06-28 07:40 J	-27280344.33	-27280344.18	-27280344.01	0.0088	0.0058	
Venus	-79402-02-08 19:25 J	-27280118.87	-27280118.69	-27280118.48	0.0088	0.0040	
Venus	-79402-09-22 07:25 J	-27279893.39	-27279893.19	-27279892.97	0.0088	0.0022	
Venus	-79401-05-04 19:25 J	-27279667.90	-27279667.69	-27279667.47	0.0088	0.0005	
Venus	-79401-12-16 07:25 J	-27279442.40	-27279442.19	-27279441.97	0.0088	0.0014	
Venus	-79400-07-29 19:11 J	-27279216.89	-27279216.70	-27279216.49	0.0088	0.0031	
Venus	-79399-03-12 06:42 J	-27278991.38	-27278991.22	-27278991.02	0.0089	0.0050	
Venus	-79399-10-23 18:56 J	-27278765.84	-27278765.71	-27278765.57	0.0089	0.0067	
Venus	-79398-06-06 06:28 J	-27278540.27	-27278540.23	-27278540.16	0.0089	0.0085	
Mercury	-79389-08-12 22:18 J	-27275184.59	-27275184.57	-27275184.52	0.0089	0.0086	

Mercury -79389-11-08 23:59 J -27275096.55 -27275096.50 -27275096.45 0.0089 0.0081

Mercury -79388-02-05 01:11 J -27275008.51 -27275008.45 -27275008.38 0.0089 0.0077

Mercury -79388-05-04 02:23 J -27274920.46 -27274920.40 -27274920.32 0.0089 0.0073

Mercury -79388-07-31 03:49 J -27274832.42 -27274832.34 -27274832.25 0.0089 0.0068

Mercury -79388-10-27 05:01 J -27274744.37 -27274744.29 -27274744.19 0.0089 0.0064

Mercury -79387-01-23 06:28 J -27274656.32 -27274656.23 -27274656.13 0.0089 0.0059

Mercury -79387-04-21 07:40 J -27274568.27 -27274568.18 -27274568.07 0.0089 0.0055

Mercury -79387-07-18 08:52 J -27274480.22 -27274480.13 -27274480.01 0.0089 0.0051

Mercury -79387-10-14 10:18 J -27274392.17 -27274392.07 -27274391.95 0.0089 0.0046

Mercury -79386-01-10 11:44 J -27274304.12 -27274304.01 -27274303.89 0.0089 0.0041

Mercury -79386-04-08 13:11 J -27274216.07 -27274215.95 -27274215.83 0.0089 0.0037

Mercury -79386-07-05 14:23 J -27274128.02 -27274127.90 -27274127.77 0.0089 0.0033

Mercury -79386-10-01 15:49 J -27274039.97 -27274039.84 -27274039.71 0.0089 0.0028

Mercury -79386-12-28 17:01 J -27273951.91 -27273951.79 -27273951.66 0.0089 0.0024

Mercury -79385-03-25 18:28 J -27273863.86 -27273863.73 -27273863.60 0.0089 0.0019

Mercury -79385-06-21 19:40 J -27273775.80 -27273775.68 -27273775.54 0.0089 0.0015

Mercury -79385-09-17 21:06 J -27273687.75 -27273687.62 -27273687.48 0.0089 0.0010

Mercury -79385-12-14 22:32 J -27273599.69 -27273599.56 -27273599.43 0.0089 0.0005

Mercury -79384-03-12 23:44 J -27273511.64 -27273511.51 -27273511.37 0.0089 0.0003

Mercury -79384-06-09 01:11 J -27273423.58 -27273423.45 -27273423.32 0.0089 0.0004

Mercury -79384-09-05 02:37 J -27273335.53 -27273335.39 -27273335.26 0.0089 0.0008

Mercury -79384-12-02 03:49 J -27273247.47 -27273247.34 -27273247.20 0.0089 0.0013

Mercury -79383-02-28 05:16 J -27273159.41 -27273159.28 -27273159.15 0.0089 0.0017

Mercury -79383-05-27 06:28 J -27273071.35 -27273071.23 -27273071.10 0.0089 0.0022

Mercury -79383-08-23 07:54 J -27272983.30 -27272983.17 -27272983.04 0.0089 0.0026

Mercury -79383-11-19 09:20 J -27272895.24 -27272895.11 -27272894.99 0.0089 0.0031

Mercury -79382-02-15 10:32 J -27272807.18 -27272807.06 -27272806.93 0.0089 0.0035

Mercury -79382-05-14 11:59 J -27272719.12 -27272719.00 -27272718.88 0.0089 0.0040

Mercury -79382-08-10 13:11 J -27272631.06 -27272630.95 -27272630.83 0.0089 0.0045

Mercury -79382-11-06 14:37 J -27272542.99 -27272542.89 -27272542.77 0.0089 0.0049

Mercury -79381-02-02 15:49 J -27272454.93 -27272454.84 -27272454.72 0.0089 0.0054
 Mercury -79381-04-30 17:30 J -27272366.87 -27272366.77 -27272366.67 0.0089 0.0058
 Mercury -79381-07-27 18:42 J -27272278.81 -27272278.72 -27272278.62 0.0089 0.0063
 Mercury -79381-10-23 20:23 J -27272190.74 -27272190.65 -27272190.57 0.0089 0.0067
 Mercury -79380-01-19 21:35 J -27272102.67 -27272102.60 -27272102.52 0.0089 0.0072
 Mercury -79380-04-17 22:47 J -27272014.60 -27272014.55 -27272014.47 0.0089 0.0077
 Mercury -79380-07-15 00:13 J -27271926.53 -27271926.49 -27271926.43 0.0089 0.0081
 Mercury -79380-10-11 01:25 J -27271838.45 -27271838.44 -27271838.39 0.0089 0.0086
 Earth -79375-04-03 11:16 J -27270203.04 -27270203.03 -27270202.97 0.0089 0.0088
 Moon -79375-04-03 14:52 J -27270202.92 -27270202.88 -27270202.80 0.0089 0.0086
 Moon -79374-04-05 18:13 J -27269835.87 -27269835.74 -27269835.58 0.0089 0.0070
 Earth -79374-04-05 20:37 J -27269835.79 -27269835.64 -27269835.48 0.0089 0.0069 *
 Earth -79373-04-07 05:01 J -27269468.47 -27269468.29 -27269468.06 0.0089 0.0051
 Moon -79373-04-07 06:56 J -27269468.42 -27269468.21 -27269467.99 0.0089 0.0049 *
 Moon -79372-04-09 14:08 J -27269101.13 -27269100.91 -27269100.69 0.0089 0.0033
 Earth -79372-04-09 14:08 J -27269101.13 -27269100.91 -27269100.67 0.0089 0.0032 *
 Moon -79371-04-11 21:35 J -27268733.85 -27268733.60 -27268733.34 0.0089 0.0013
 Earth -79371-04-11 23:01 J -27268733.78 -27268733.54 -27268733.29 0.0089 0.0014 *
 Earth -79370-04-14 07:54 J -27268366.42 -27268366.17 -27268365.91 0.0089 0.0006
 Moon -79370-04-14 10:04 J -27268366.32 -27268366.08 -27268365.83 0.0089 0.0004 *
 Moon -79369-04-15 13:40 J -27267999.17 -27267998.93 -27267998.68 0.0089 0.0025
 Earth -79369-04-15 16:47 J -27267999.03 -27267998.80 -27267998.55 0.0089 0.0024 *
 Earth -79368-04-18 01:25 J -27267631.64 -27267631.44 -27267631.21 0.0089 0.0043
 Moon -79368-04-18 05:01 J -27267631.50 -27267631.29 -27267631.06 0.0089 0.0042 *
 Moon -79367-04-20 06:56 J -27267264.36 -27267264.21 -27267264.01 0.0089 0.0063
 Earth -79367-04-20 10:32 J -27267264.23 -27267264.06 -27267263.86 0.0089 0.0061 *
 Earth -79366-04-22 19:25 J -27266896.78 -27266896.69 -27266896.56 0.0089 0.0080
 Moon -79366-04-22 22:32 J -27266896.66 -27266896.56 -27266896.42 0.0089 0.0078 *
 Mars -79359-01-31 22:32 J -27264420.86 -27264420.56 -27264420.23 0.0089 0.0025
 Mars -79358-12-28 11:59 J -27263725.20 -27263725.00 -27263724.75 0.0089 0.0065

Venus	-79322-12-29 15:35 J	-27250574.95	-27250574.85	-27250574.70	0.0089	0.0073
Venus	-79321-08-11 05:44 J	-27250349.42	-27250349.26	-27250349.06	0.0089	0.0054
Venus	-79320-03-24 19:54 J	-27250123.86	-27250123.67	-27250123.45	0.0089	0.0035
Venus	-79320-11-05 10:18 J	-27249898.29	-27249898.07	-27249897.84	0.0089	0.0016
Venus	-79319-06-19 00:42 J	-27249672.70	-27249672.47	-27249672.25	0.0089	0.0003
Venus	-79318-01-30 14:23 J	-27249447.10	-27249446.90	-27249446.67	0.0089	0.0023
Venus	-79318-09-13 04:47 J	-27249221.50	-27249221.30	-27249221.10	0.0089	0.0041
Venus	-79317-04-25 18:28 J	-27248995.87	-27248995.73	-27248995.54	0.0089	0.0061
Venus	-79317-12-07 09:06 J	-27248770.21	-27248770.12	-27248770.01	0.0089	0.0079
Mercury	-79305-01-29 14:37 J	-27244699.93	-27244699.89	-27244699.83	0.0089	0.0085
Mercury	-79305-04-26 17:59 J	-27244611.82	-27244611.75	-27244611.64	0.0089	0.0079
Mercury	-79305-07-23 21:49 J	-27244523.69	-27244523.59	-27244523.46	0.0089	0.0072
Mercury	-79305-10-20 01:25 J	-27244435.55	-27244435.44	-27244435.29	0.0089	0.0066
Mercury	-79304-01-16 05:16 J	-27244347.42	-27244347.28	-27244347.13	0.0089	0.0059
Mercury	-79304-04-14 09:06 J	-27244259.28	-27244259.12	-27244258.96	0.0089	0.0052
Mercury	-79304-07-11 12:28 J	-27244171.13	-27244170.98	-27244170.80	0.0089	0.0046
Mercury	-79304-10-07 16:18 J	-27244082.99	-27244082.82	-27244082.64	0.0089	0.0039
Mercury	-79303-01-03 19:40 J	-27243994.85	-27243994.68	-27243994.48	0.0089	0.0033
Mercury	-79303-04-01 23:30 J	-27243906.70	-27243906.52	-27243906.33	0.0089	0.0026
Mercury	-79303-06-29 03:06 J	-27243818.55	-27243818.37	-27243818.17	0.0089	0.0019
Mercury	-79303-09-25 06:56 J	-27243730.40	-27243730.21	-27243730.02	0.0089	0.0013
Mercury	-79303-12-22 10:32 J	-27243642.26	-27243642.06	-27243641.87	0.0089	0.0006
Mercury	-79302-03-20 14:08 J	-27243554.11	-27243553.91	-27243553.72	0.0089	0.0001
Mercury	-79302-06-16 17:44 J	-27243465.96	-27243465.76	-27243465.57	0.0089	0.0007
Mercury	-79302-09-12 21:06 J	-27243377.80	-27243377.62	-27243377.42	0.0089	0.0014
Mercury	-79302-12-10 00:56 J	-27243289.65	-27243289.46	-27243289.27	0.0089	0.0020
Mercury	-79301-03-07 04:18 J	-27243201.50	-27243201.32	-27243201.13	0.0089	0.0027
Mercury	-79301-06-03 07:54 J	-27243113.34	-27243113.17	-27243112.99	0.0089	0.0033
Mercury	-79301-08-30 11:16 J	-27243025.19	-27243025.03	-27243024.84	0.0089	0.0040
Mercury	-79301-11-26 15:06 J	-27242937.03	-27242936.87	-27242936.70	0.0088	0.0046

Mercury -79300-02-22 18:13 J -27242848.88 -27242848.74 -27242848.57 0.0088 0.0053

Mercury -79300-05-21 22:04 J -27242760.72 -27242760.58 -27242760.43 0.0088 0.0059

Mercury -79300-08-18 01:11 J -27242672.56 -27242672.45 -27242672.30 0.0088 0.0066

Mercury -79300-11-14 04:47 J -27242584.39 -27242584.30 -27242584.17 0.0088 0.0072

Mercury -79299-02-10 08:37 J -27242496.22 -27242496.14 -27242496.04 0.0088 0.0078

Mercury -79299-05-09 11:44 J -27242408.04 -27242408.01 -27242407.93 0.0088 0.0085

Moon -79293-10-04 07:11 J -27240068.26 -27240068.20 -27240068.07 0.0088 0.0083

Earth -79293-10-04 10:47 J -27240068.14 -27240068.05 -27240067.93 0.0088 0.0081 *

Earth -79292-10-07 00:56 J -27239700.63 -27239700.46 -27239700.25 0.0088 0.0062

Moon -79292-10-07 03:20 J -27239700.53 -27239700.36 -27239700.14 0.0088 0.0061 *

Moon -79291-10-09 14:52 J -27239333.09 -27239332.88 -27239332.64 0.0088 0.0044

Earth -79291-10-09 15:35 J -27239333.06 -27239332.85 -27239332.60 0.0088 0.0042 *

Moon -79290-10-12 06:28 J -27238965.49 -27238965.23 -27238964.95 0.0088 0.0022

Earth -79290-10-12 06:28 J -27238965.48 -27238965.23 -27238964.97 0.0088 0.0023 *

Earth -79289-10-13 21:06 J -27238597.89 -27238597.62 -27238597.35 0.0088 0.0003

Moon -79289-10-13 22:04 J -27238597.83 -27238597.58 -27238597.32 0.0088 0.0004 *

Moon -79288-10-16 08:52 J -27238230.39 -27238230.13 -27238229.85 0.0088 0.0018

Earth -79288-10-16 11:30 J -27238230.27 -27238230.02 -27238229.75 0.0088 0.0016 *

Earth -79287-10-19 01:54 J -27237862.66 -27237862.42 -27237862.17 0.0088 0.0036

Moon -79287-10-19 04:18 J -27237862.54 -27237862.32 -27237862.06 0.0088 0.0037 *

Moon -79286-10-21 12:42 J -27237495.17 -27237494.97 -27237494.75 0.0088 0.0055

Earth -79286-10-21 16:04 J -27237495.01 -27237494.83 -27237494.60 0.0088 0.0055 *

Earth -79285-10-23 06:28 J -27237127.35 -27237127.23 -27237127.06 0.0088 0.0074

Moon -79285-10-23 10:04 J -27237127.20 -27237127.08 -27237126.91 0.0088 0.0075 *

Mars -79277-01-10 05:44 J -27234492.53 -27234492.26 -27234491.96 0.0088 0.0031

Mars -79276-12-04 06:56 J -27233798.43 -27233798.21 -27233797.94 0.0088 0.0050

Venus -79239-02-16 05:01 J -27220575.34 -27220575.29 -27220575.22 0.0088 0.0085

Venus -79239-09-29 17:01 J -27220349.92 -27220349.79 -27220349.64 0.0088 0.0067

Venus -79238-05-13 05:01 J -27220124.47 -27220124.29 -27220124.11 0.0088 0.0049

Venus -79238-12-24 16:32 J -27219898.99 -27219898.81 -27219898.59 0.0088 0.0032

Venus -79237-08-06 04:47 J -27219673.51 -27219673.30 -27219673.09 0.0088 0.0013

Venus -79236-03-19 16:47 J -27219448.02 -27219447.80 -27219447.59 0.0089 0.0005

Venus -79236-10-31 04:32 J -27219222.51 -27219222.31 -27219222.10 0.0089 0.0023

Venus -79235-06-13 16:18 J -27218997.00 -27218996.82 -27218996.62 0.0089 0.0041

Venus -79234-01-25 03:49 J -27218771.48 -27218771.34 -27218771.16 0.0089 0.0059

Venus -79234-09-07 15:35 J -27218545.93 -27218545.85 -27218545.72 0.0089 0.0077

Mercury -79224-05-09 21:20 J -27215013.63 -27215013.61 -27215013.56 0.0089 0.0086

Mercury -79224-08-05 23:01 J -27214925.59 -27214925.54 -27214925.49 0.0089 0.0081

Mercury -79224-11-02 00:13 J -27214837.55 -27214837.49 -27214837.42 0.0089 0.0077

Mercury -79223-01-29 01:25 J -27214749.50 -27214749.44 -27214749.36 0.0089 0.0073

Mercury -79223-04-27 02:52 J -27214661.46 -27214661.38 -27214661.29 0.0089 0.0068

Mercury -79223-07-24 04:04 J -27214573.41 -27214573.33 -27214573.23 0.0089 0.0064

Mercury -79223-10-20 05:30 J -27214485.36 -27214485.27 -27214485.17 0.0089 0.0059

Mercury -79222-01-16 06:42 J -27214397.31 -27214397.22 -27214397.11 0.0089 0.0055

Mercury -79222-04-14 08:23 J -27214309.26 -27214309.15 -27214309.05 0.0089 0.0050

Mercury -79222-07-11 09:35 J -27214221.21 -27214221.10 -27214220.99 0.0089 0.0046

Mercury -79222-10-07 10:47 J -27214133.16 -27214133.05 -27214132.93 0.0089 0.0041

Mercury -79221-01-03 12:13 J -27214045.11 -27214044.99 -27214044.87 0.0089 0.0037

Mercury -79221-03-31 13:25 J -27213957.06 -27213956.94 -27213956.81 0.0089 0.0033

Mercury -79221-06-27 14:52 J -27213869.00 -27213868.88 -27213868.75 0.0089 0.0028

Mercury -79221-09-23 16:04 J -27213780.95 -27213780.83 -27213780.69 0.0089 0.0024

Mercury -79221-12-20 17:30 J -27213692.90 -27213692.77 -27213692.64 0.0089 0.0019

Mercury -79220-03-18 18:56 J -27213604.84 -27213604.71 -27213604.58 0.0089 0.0014

Mercury -79220-06-14 20:23 J -27213516.79 -27213516.65 -27213516.52 0.0089 0.0010

Mercury -79220-09-10 21:35 J -27213428.73 -27213428.60 -27213428.47 0.0089 0.0005

Mercury -79220-12-07 23:01 J -27213340.68 -27213340.54 -27213340.41 0.0089 0.0002

Mercury -79219-03-06 00:13 J -27213252.62 -27213252.49 -27213252.35 0.0089 0.0004

Mercury -79219-06-02 01:40 J -27213164.56 -27213164.43 -27213164.30 0.0089 0.0008

Mercury -79219-08-29 02:52 J -27213076.51 -27213076.38 -27213076.24 0.0089 0.0013

Mercury -79219-11-25 04:18 J -27212988.45 -27212988.32 -27212988.19 0.0089 0.0018

Mercury -79218-02-21 05:44 J -27212900.39 -27212900.26 -27212900.13 0.0089 0.0022

Mercury -79218-05-20 06:56 J -27212812.33 -27212812.21 -27212812.08 0.0089 0.0027

Mercury -79218-08-16 08:23 J -27212724.27 -27212724.15 -27212724.02 0.0089 0.0031

Mercury -79218-11-12 09:35 J -27212636.21 -27212636.10 -27212635.97 0.0089 0.0036

Mercury -79217-02-08 11:01 J -27212548.15 -27212548.04 -27212547.92 0.0089 0.0040

Mercury -79217-05-06 12:28 J -27212460.09 -27212459.98 -27212459.86 0.0089 0.0045

Mercury -79217-08-02 13:40 J -27212372.03 -27212371.93 -27212371.81 0.0089 0.0050

Mercury -79217-10-29 15:06 J -27212283.97 -27212283.87 -27212283.76 0.0089 0.0054

Mercury -79216-01-25 16:18 J -27212195.91 -27212195.82 -27212195.71 0.0089 0.0059

Mercury -79216-04-23 17:59 J -27212107.84 -27212107.75 -27212107.66 0.0089 0.0063

Mercury -79216-07-20 19:11 J -27212019.78 -27212019.70 -27212019.61 0.0089 0.0068

Mercury -79216-10-16 20:52 J -27211931.71 -27211931.63 -27211931.56 0.0089 0.0072

Mercury -79215-01-12 22:04 J -27211843.64 -27211843.58 -27211843.51 0.0089 0.0077

Mercury -79215-04-10 23:16 J -27211755.57 -27211755.53 -27211755.47 0.0089 0.0082

Mercury -79215-07-08 00:42 J -27211667.49 -27211667.47 -27211667.43 0.0089 0.0086

Earth -79210-04-05 04:32 J -27209935.41 -27209935.31 -27209935.17 0.0089 0.0078

Moon -79210-04-05 05:30 J -27209935.35 -27209935.27 -27209935.16 0.0089 0.0082 *

Earth -79209-04-06 13:25 J -27209568.10 -27209567.94 -27209567.73 0.0089 0.0060

Moon -79209-04-06 13:54 J -27209568.08 -27209567.92 -27209567.71 0.0089 0.0056 *

Moon -79208-04-08 21:20 J -27209200.82 -27209200.61 -27209200.38 0.0089 0.0045

Earth -79208-04-08 22:32 J -27209200.77 -27209200.56 -27209200.32 0.0089 0.0041 *

Earth -79207-04-11 07:25 J -27208833.42 -27208833.19 -27208832.93 0.0089 0.0023

Moon -79207-04-11 10:18 J -27208833.30 -27208833.07 -27208832.82 0.0089 0.0018 *

Moon -79206-04-13 13:11 J -27208466.19 -27208465.95 -27208465.69 0.0089 0.0009

Earth -79206-04-13 16:47 J -27208466.05 -27208465.80 -27208465.55 0.0089 0.0004 *

Earth -79205-04-15 01:11 J -27208098.69 -27208098.45 -27208098.19 0.0089 0.0015

Moon -79205-04-15 04:47 J -27208098.54 -27208098.30 -27208098.05 0.0089 0.0019 *

Moon -79204-04-17 07:11 J -27207731.43 -27207731.20 -27207730.97 0.0089 0.0028

Earth -79204-04-17 10:04 J -27207731.30 -27207731.08 -27207730.84 0.0089 0.0033 *

Earth -79203-04-19 19:11 J -27207363.90 -27207363.70 -27207363.49 0.0089 0.0051

Moon	-79203-04-19 21:06 J	-27207363.80	-27207363.62	-27207363.40	0.0089	0.0056 *
Moon	-79202-04-22 02:08 J	-27206996.55	-27206996.41	-27206996.23	0.0089	0.0066
Earth	-79202-04-22 03:49 J	-27206996.48	-27206996.34	-27206996.17	0.0089	0.0070 *
Earth	-79201-04-23 12:56 J	-27206628.98	-27206628.96	-27206628.92	0.0089	0.0088
Mars	-79196-09-14 17:30 J	-27204658.95	-27204658.77	-27204658.52	0.0089	0.0067
Mars	-79194-08-11 04:04 J	-27203963.63	-27203963.33	-27203963.00	0.0089	0.0022
Venus	-79157-03-31 22:04 J	-27190580.64	-27190580.58	-27190580.48	0.0089	0.0083
Venus	-79157-11-12 12:13 J	-27190355.13	-27190354.99	-27190354.81	0.0089	0.0064
Venus	-79156-06-26 02:37 J	-27190129.57	-27190129.39	-27190129.18	0.0089	0.0045
Venus	-79155-02-06 16:47 J	-27189904.01	-27189903.80	-27189903.57	0.0089	0.0026
Venus	-79155-09-20 06:56 J	-27189678.43	-27189678.21	-27189677.98	0.0089	0.0007
Venus	-79154-05-03 21:06 J	-27189452.84	-27189452.62	-27189452.39	0.0089	0.0013
Venus	-79154-12-15 11:16 J	-27189227.23	-27189227.03	-27189226.81	0.0089	0.0032
Venus	-79153-07-28 01:11 J	-27189001.62	-27189001.45	-27189001.25	0.0089	0.0051
Venus	-79152-03-10 15:20 J	-27188775.98	-27188775.86	-27188775.71	0.0089	0.0070
Venus	-79152-10-22 05:44 J	-27188550.26	-27188550.26	-27188550.25	0.0089	0.0089
Mercury	-79141-10-25 11:44 J	-27184529.06	-27184529.01	-27184528.95	0.0089	0.0085
Mercury	-79140-01-21 15:06 J	-27184440.94	-27184440.87	-27184440.76	0.0089	0.0079
Mercury	-79140-04-19 18:56 J	-27184352.81	-27184352.71	-27184352.59	0.0089	0.0072
Mercury	-79140-07-16 22:18 J	-27184264.68	-27184264.57	-27184264.42	0.0089	0.0066
Mercury	-79140-10-13 02:08 J	-27184176.54	-27184176.41	-27184176.25	0.0089	0.0059
Mercury	-79139-01-09 05:44 J	-27184088.40	-27184088.26	-27184088.09	0.0089	0.0053
Mercury	-79139-04-07 09:35 J	-27184000.26	-27184000.10	-27183999.93	0.0089	0.0046
Mercury	-79139-07-04 13:25 J	-27183912.12	-27183911.94	-27183911.77	0.0089	0.0039
Mercury	-79139-09-30 16:47 J	-27183823.97	-27183823.80	-27183823.61	0.0089	0.0033
Mercury	-79139-12-27 20:37 J	-27183735.83	-27183735.64	-27183735.45	0.0089	0.0026
Mercury	-79138-03-25 23:59 J	-27183647.68	-27183647.50	-27183647.30	0.0089	0.0020
Mercury	-79138-06-22 03:49 J	-27183559.53	-27183559.34	-27183559.15	0.0089	0.0013
Mercury	-79138-09-18 07:25 J	-27183471.38	-27183471.19	-27183470.99	0.0089	0.0006
Mercury	-79138-12-15 11:01 J	-27183383.23	-27183383.04	-27183382.84	0.0089	0.0001

Mercury -79137-03-12 14:37 J -27183295.08 -27183294.89 -27183294.69 0.0089 0.0007

Mercury -79137-06-08 18:13 J -27183206.93 -27183206.74 -27183206.55 0.0089 0.0013

Mercury -79137-09-04 21:49 J -27183118.78 -27183118.59 -27183118.40 0.0089 0.0020

Mercury -79137-12-02 01:11 J -27183030.63 -27183030.45 -27183030.26 0.0089 0.0027

Mercury -79136-02-28 05:01 J -27182942.47 -27182942.29 -27182942.11 0.0089 0.0033

Mercury -79136-05-27 08:08 J -27182854.32 -27182854.16 -27182853.97 0.0089 0.0040

Mercury -79136-08-23 11:59 J -27182766.16 -27182766.00 -27182765.83 0.0088 0.0046

Mercury -79136-11-19 15:20 J -27182678.00 -27182677.86 -27182677.69 0.0088 0.0052

Mercury -79135-02-15 18:56 J -27182589.84 -27182589.71 -27182589.56 0.0088 0.0059

Mercury -79135-05-14 22:18 J -27182501.68 -27182501.57 -27182501.42 0.0088 0.0065

Mercury -79135-08-11 01:54 J -27182413.52 -27182413.42 -27182413.30 0.0088 0.0072

Mercury -79135-11-07 05:30 J -27182325.35 -27182325.27 -27182325.17 0.0088 0.0078

Mercury -79134-02-03 08:37 J -27182237.17 -27182237.14 -27182237.06 0.0088 0.0085

Moon -79129-10-03 13:11 J -27180168.00 -27180167.95 -27180167.87 0.0088 0.0086

Moon -79128-10-06 02:23 J -27179800.54 -27179800.40 -27179800.27 0.0088 0.0075

Earth -79128-10-06 02:23 J -27179800.54 -27179800.40 -27179800.22 0.0088 0.0071 *

Moon -79127-10-08 15:35 J -27179433.06 -27179432.85 -27179432.60 0.0088 0.0048

Earth -79127-10-08 17:01 J -27179432.99 -27179432.79 -27179432.56 0.0088 0.0052 *

Earth -79126-10-11 07:25 J -27179065.42 -27179065.19 -27179064.93 0.0088 0.0033

Moon -79126-10-11 09:35 J -27179065.32 -27179065.10 -27179064.85 0.0088 0.0037 *

Moon -79125-10-12 19:25 J -27178697.96 -27178697.69 -27178697.41 0.0088 0.0009

Earth -79125-10-12 22:04 J -27178697.83 -27178697.58 -27178697.31 0.0088 0.0014 *

Earth -79124-10-15 12:28 J -27178330.24 -27178329.98 -27178329.71 0.0088 0.0006

Moon -79124-10-15 16:04 J -27178330.09 -27178329.83 -27178329.56 0.0088 0.0003 *

Moon -79123-10-17 23:30 J -27177962.77 -27177962.52 -27177962.27 0.0088 0.0030

Earth -79123-10-18 02:52 J -27177962.62 -27177962.38 -27177962.11 0.0088 0.0025 *

Earth -79122-10-20 17:16 J -27177595.00 -27177594.78 -27177594.54 0.0088 0.0045

Moon -79122-10-20 21:06 J -27177594.85 -27177594.62 -27177594.38 0.0088 0.0040 *

Moon -79121-10-22 04:32 J -27177227.45 -27177227.31 -27177227.12 0.0088 0.0069

Earth -79121-10-22 07:40 J -27177227.35 -27177227.18 -27177226.98 0.0088 0.0064 *

Earth	-79120-10-24 21:49 J	-27176859.66	-27176859.59	-27176859.48	0.0088	0.0083
Moon	-79120-10-24 23:44 J	-27176859.61	-27176859.51	-27176859.36	0.0088	0.0079 *
Mars	-79114-08-24 23:30 J	-27174729.69	-27174729.52	-27174729.32	0.0088	0.0070
Mars	-79112-07-19 04:32 J	-27174035.61	-27174035.31	-27174035.01	0.0088	0.0010
Venus	-79074-01-01 01:40 J	-27160355.52	-27160355.43	-27160355.31	0.0088	0.0077
Venus	-79074-08-14 13:40 J	-27160130.08	-27160129.93	-27160129.76	0.0088	0.0059
Venus	-79073-03-27 01:40 J	-27159904.61	-27159904.43	-27159904.23	0.0089	0.0041
Venus	-79073-11-07 13:40 J	-27159679.13	-27159678.93	-27159678.72	0.0089	0.0023
Venus	-79072-06-21 01:40 J	-27159453.64	-27159453.43	-27159453.21	0.0089	0.0005
Venus	-79071-02-01 13:25 J	-27159228.15	-27159227.94	-27159227.72	0.0089	0.0013
Venus	-79071-09-15 00:56 J	-27159002.64	-27159002.46	-27159002.24	0.0089	0.0032
Venus	-79070-04-28 12:42 J	-27158777.13	-27158776.97	-27158776.77	0.0089	0.0050
Venus	-79070-12-10 01:11 J	-27158551.59	-27158551.45	-27158551.31	0.0089	0.0067
Venus	-79069-07-22 12:42 J	-27158326.01	-27158325.97	-27158325.90	0.0089	0.0085
Mercury	-79059-02-03 20:23 J	-27154842.67	-27154842.65	-27154842.61	0.0089	0.0086
Mercury	-79059-05-02 21:35 J	-27154754.63	-27154754.60	-27154754.53	0.0089	0.0082
Mercury	-79059-07-29 23:16 J	-27154666.59	-27154666.53	-27154666.47	0.0089	0.0077
Mercury	-79059-10-26 00:28 J	-27154578.55	-27154578.48	-27154578.40	0.0089	0.0073
Mercury	-79058-01-22 01:54 J	-27154490.50	-27154490.42	-27154490.34	0.0089	0.0068
Mercury	-79058-04-20 03:06 J	-27154402.46	-27154402.37	-27154402.27	0.0089	0.0064
Mercury	-79058-07-17 04:18 J	-27154314.41	-27154314.32	-27154314.21	0.0089	0.0060
Mercury	-79058-10-13 05:44 J	-27154226.36	-27154226.26	-27154226.15	0.0089	0.0055
Mercury	-79057-01-09 06:56 J	-27154138.31	-27154138.21	-27154138.09	0.0089	0.0051
Mercury	-79057-04-06 08:23 J	-27154050.26	-27154050.15	-27154050.03	0.0089	0.0046
Mercury	-79057-07-03 09:35 J	-27153962.21	-27153962.10	-27153961.97	0.0089	0.0042
Mercury	-79057-09-29 11:01 J	-27153874.15	-27153874.04	-27153873.91	0.0089	0.0037
Mercury	-79057-12-26 12:28 J	-27153786.10	-27153785.98	-27153785.86	0.0089	0.0032
Mercury	-79056-03-24 13:54 J	-27153698.05	-27153697.92	-27153697.80	0.0089	0.0028
Mercury	-79056-06-20 15:06 J	-27153610.00	-27153609.87	-27153609.74	0.0089	0.0023
Mercury	-79056-09-16 16:32 J	-27153521.94	-27153521.81	-27153521.68	0.0089	0.0019

Mercury -79056-12-13 17:44 J -27153433.89 -27153433.76 -27153433.62 0.0089 0.0015

Mercury -79055-03-11 19:11 J -27153345.83 -27153345.70 -27153345.57 0.0089 0.0010

Mercury -79055-06-07 20:37 J -27153257.78 -27153257.64 -27153257.51 0.0089 0.0006

Mercury -79055-09-03 21:49 J -27153169.72 -27153169.59 -27153169.46 0.0089 0.0001

Mercury -79055-11-30 23:16 J -27153081.67 -27153081.53 -27153081.40 0.0089 0.0004

Mercury -79054-02-27 00:28 J -27152993.61 -27152993.48 -27152993.34 0.0089 0.0009

Mercury -79054-05-26 01:54 J -27152905.55 -27152905.42 -27152905.29 0.0089 0.0013

Mercury -79054-08-22 03:06 J -27152817.49 -27152817.37 -27152817.23 0.0089 0.0018

Mercury -79054-11-18 04:32 J -27152729.44 -27152729.31 -27152729.18 0.0089 0.0022

Mercury -79053-02-14 05:44 J -27152641.38 -27152641.26 -27152641.12 0.0089 0.0027

Mercury -79053-05-12 07:25 J -27152553.32 -27152553.19 -27152553.07 0.0089 0.0031

Mercury -79053-08-08 08:37 J -27152465.26 -27152465.14 -27152465.01 0.0089 0.0036

Mercury -79053-11-04 10:04 J -27152377.20 -27152377.08 -27152376.96 0.0089 0.0040

Mercury -79052-01-31 11:16 J -27152289.14 -27152289.03 -27152288.91 0.0089 0.0045

Mercury -79052-04-29 12:28 J -27152201.08 -27152200.98 -27152200.86 0.0089 0.0050

Mercury -79052-07-26 14:08 J -27152113.01 -27152112.91 -27152112.80 0.0089 0.0054

Mercury -79052-10-22 15:20 J -27152024.95 -27152024.86 -27152024.75 0.0089 0.0059

Mercury -79051-01-18 16:47 J -27151936.89 -27151936.80 -27151936.70 0.0089 0.0063

Mercury -79051-04-16 17:59 J -27151848.82 -27151848.75 -27151848.65 0.0089 0.0068

Mercury -79051-07-13 19:40 J -27151760.76 -27151760.68 -27151760.60 0.0089 0.0072

Mercury -79051-10-09 20:52 J -27151672.69 -27151672.63 -27151672.56 0.0089 0.0077

Mercury -79050-01-05 22:04 J -27151584.62 -27151584.58 -27151584.51 0.0089 0.0082

Mercury -79050-04-03 23:44 J -27151496.54 -27151496.51 -27151496.48 0.0089 0.0086

Earth -79046-04-04 11:59 J -27150035.04 -27150035.00 -27150034.92 0.0089 0.0086

Moon -79046-04-04 12:42 J -27150035.01 -27150034.97 -27150034.89 0.0089 0.0086 *

Moon -79045-04-05 18:42 J -27149667.88 -27149667.72 -27149667.55 0.0089 0.0067

Earth -79045-04-05 20:52 J -27149667.78 -27149667.63 -27149667.46 0.0089 0.0068 *

Earth -79044-04-08 05:44 J -27149300.45 -27149300.26 -27149300.04 0.0089 0.0050

Moon -79044-04-08 08:52 J -27149300.33 -27149300.13 -27149299.93 0.0089 0.0049 *

Moon -79043-04-10 11:16 J -27148933.25 -27148933.03 -27148932.78 0.0089 0.0032

Earth	-79043-04-10 14:52 J	-27148933.10	-27148932.88	-27148932.63	0.0089	0.0032	*
Earth	-79042-04-12 23:59 J	-27148565.74	-27148565.50	-27148565.25	0.0089	0.0013	
Moon	-79042-04-13 03:35 J	-27148565.60	-27148565.35	-27148565.10	0.0089	0.0013	*
Moon	-79041-04-14 05:59 J	-27148198.49	-27148198.25	-27148198.00	0.0089	0.0005	
Earth	-79041-04-14 09:06 J	-27148198.37	-27148198.12	-27148197.87	0.0089	0.0005	*
Earth	-79040-04-16 17:44 J	-27147830.99	-27147830.76	-27147830.50	0.0089	0.0024	
Moon	-79040-04-16 20:08 J	-27147830.90	-27147830.66	-27147830.40	0.0089	0.0024	*
Moon	-79039-04-19 02:08 J	-27147463.61	-27147463.41	-27147463.18	0.0089	0.0042	
Earth	-79039-04-19 02:37 J	-27147463.59	-27147463.39	-27147463.15	0.0089	0.0042	*
Moon	-79038-04-21 11:44 J	-27147096.20	-27147096.01	-27147095.82	0.0089	0.0060	
Earth	-79038-04-21 11:44 J	-27147096.18	-27147096.01	-27147095.81	0.0089	0.0060	*
Earth	-79037-04-22 20:37 J	-27146728.74	-27146728.64	-27146728.51	0.0089	0.0078	
Moon	-79037-04-22 22:04 J	-27146728.67	-27146728.58	-27146728.44	0.0089	0.0078	*
Mars	-79030-03-24 22:47 J	-27144201.85	-27144201.55	-27144201.22	0.0089	0.0021	
Mars	-79028-02-17 09:06 J	-27143506.30	-27143506.12	-27143505.88	0.0089	0.0068	

79TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 79th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-78992-02-13 18:42 J	-27130360.83	-27130360.72	-27130360.58	0.0089	0.0074		
Venus	-78992-09-27 08:52 J	-27130135.29	-27130135.13	-27130134.94	0.0089	0.0055		
Venus	-78991-05-10 23:01 J	-27129909.73	-27129909.54	-27129909.32	0.0089	0.0036		

Venus -78991-12-22 13:25 J -27129684.16 -27129683.94 -27129683.71 0.0089 0.0017
 Venus -78990-08-05 03:35 J -27129458.57 -27129458.35 -27129458.12 0.0089 0.0003
 Venus -78989-03-17 17:30 J -27129232.98 -27129232.77 -27129232.54 0.0089 0.0022
 Venus -78989-10-29 07:40 J -27129007.37 -27129007.18 -27129006.97 0.0089 0.0041
 Venus -78988-06-11 21:49 J -27128781.74 -27128781.59 -27128781.41 0.0089 0.0060
 Venus -78987-01-23 11:59 J -27128556.09 -27128556.00 -27128555.89 0.0089 0.0079
 Mercury -78976-07-22 08:08 J -27124358.19 -27124358.16 -27124358.10 0.0089 0.0086
 Mercury -78976-10-18 11:44 J -27124270.08 -27124270.01 -27124269.91 0.0089 0.0079
 Mercury -78975-01-14 15:35 J -27124181.95 -27124181.85 -27124181.73 0.0089 0.0073
 Mercury -78975-04-12 19:25 J -27124093.82 -27124093.69 -27124093.56 0.0089 0.0066
 Mercury -78975-07-09 22:47 J -27124005.68 -27124005.55 -27124005.39 0.0089 0.0060
 Mercury -78975-10-06 02:37 J -27123917.54 -27123917.39 -27123917.23 0.0089 0.0053
 Mercury -78974-01-02 05:59 J -27123829.40 -27123829.25 -27123829.06 0.0089 0.0047
 Mercury -78974-03-31 09:49 J -27123741.25 -27123741.09 -27123740.90 0.0089 0.0040
 Mercury -78974-06-27 13:40 J -27123653.11 -27123652.93 -27123652.75 0.0089 0.0033
 Mercury -78974-09-23 17:16 J -27123564.96 -27123564.78 -27123564.59 0.0089 0.0026
 Mercury -78974-12-20 20:52 J -27123476.81 -27123476.63 -27123476.44 0.0089 0.0020
 Mercury -78973-03-18 00:28 J -27123388.67 -27123388.48 -27123388.28 0.0089 0.0013
 Mercury -78973-06-14 04:18 J -27123300.52 -27123300.32 -27123300.13 0.0089 0.0007
 Mercury -78973-09-10 07:54 J -27123212.37 -27123212.17 -27123211.98 0.0089 0.0002
 Mercury -78973-12-07 11:16 J -27123124.22 -27123124.03 -27123123.83 0.0088 0.0007
 Mercury -78972-03-05 14:52 J -27123036.07 -27123035.88 -27123035.68 0.0088 0.0013
 Mercury -78972-06-01 18:28 J -27122947.91 -27122947.73 -27122947.54 0.0088 0.0020
 Mercury -78972-08-28 22:04 J -27122859.76 -27122859.58 -27122859.39 0.0088 0.0026
 Mercury -78972-11-25 01:25 J -27122771.61 -27122771.44 -27122771.25 0.0088 0.0033
 Mercury -78971-02-21 05:16 J -27122683.45 -27122683.28 -27122683.11 0.0088 0.0039
 Mercury -78971-05-20 08:37 J -27122595.30 -27122595.14 -27122594.97 0.0088 0.0045
 Mercury -78971-08-16 12:13 J -27122507.14 -27122506.99 -27122506.83 0.0088 0.0052
 Mercury -78971-11-12 15:35 J -27122418.98 -27122418.85 -27122418.69 0.0088 0.0059
 Mercury -78970-02-08 19:11 J -27122330.82 -27122330.70 -27122330.56 0.0088 0.0065

Mercury -78970-05-07 22:32 J -27122242.66 -27122242.56 -27122242.43 0.0088 0.0071
 Mercury -78970-08-04 02:08 J -27122154.49 -27122154.41 -27122154.30 0.0088 0.0078
 Mercury -78970-10-31 05:44 J -27122066.31 -27122066.26 -27122066.19 0.0088 0.0084
 Moon -78964-10-05 01:25 J -27119900.51 -27119900.44 -27119900.31 0.0088 0.0083
 Earth -78964-10-05 03:35 J -27119900.45 -27119900.35 -27119900.22 0.0088 0.0080 *
 Earth -78963-10-07 17:44 J -27119532.92 -27119532.76 -27119532.54 0.0088 0.0062
 Moon -78963-10-07 21:06 J -27119532.81 -27119532.62 -27119532.42 0.0088 0.0059 *
 Moon -78962-10-10 05:30 J -27119165.50 -27119165.27 -27119165.04 0.0088 0.0045
 Earth -78962-10-10 08:37 J -27119165.35 -27119165.14 -27119164.89 0.0088 0.0042 *
 Earth -78961-10-11 23:01 J -27118797.78 -27118797.54 -27118797.27 0.0088 0.0023
 Moon -78961-10-12 02:37 J -27118797.64 -27118797.39 -27118797.13 0.0088 0.0022 *
 Moon -78960-10-14 10:04 J -27118430.34 -27118430.08 -27118429.82 0.0088 0.0006
 Earth -78960-10-14 13:40 J -27118430.19 -27118429.93 -27118429.66 0.0088 0.0004 *
 Earth -78959-10-17 03:49 J -27118062.59 -27118062.34 -27118062.07 0.0088 0.0015
 Moon -78959-10-17 06:56 J -27118062.47 -27118062.21 -27118061.94 0.0088 0.0017 *
 Moon -78958-10-19 15:49 J -27117695.07 -27117694.84 -27117694.59 0.0088 0.0034
 Earth -78958-10-19 17:59 J -27117694.97 -27117694.75 -27117694.48 0.0088 0.0035 *
 Earth -78957-10-21 08:08 J -27117327.34 -27117327.16 -27117326.92 0.0088 0.0054
 Moon -78957-10-21 10:04 J -27117327.29 -27117327.08 -27117326.85 0.0088 0.0054 *
 Earth -78956-10-23 23:01 J -27116959.69 -27116959.54 -27116959.38 0.0088 0.0072
 Moon -78956-10-23 22:32 J -27116959.68 -27116959.56 -27116959.38 0.0088 0.0072 *
 Mars -78948-03-02 19:54 J -27114272.93 -27114272.67 -27114272.36 0.0088 0.0030
 Mars -78946-01-26 00:13 J -27113578.72 -27113578.49 -27113578.22 0.0088 0.0051
 Venus -78910-04-04 09:49 J -27100361.11 -27100361.09 -27100361.02 0.0089 0.0087
 Venus -78910-11-15 22:04 J -27100135.70 -27100135.58 -27100135.43 0.0089 0.0069
 Venus -78909-06-28 10:04 J -27099910.25 -27099910.08 -27099909.90 0.0089 0.0051
 Venus -78908-02-08 21:49 J -27099684.78 -27099684.59 -27099684.38 0.0089 0.0033
 Venus -78908-09-22 09:49 J -27099459.30 -27099459.09 -27099458.87 0.0089 0.0015
 Venus -78907-05-05 21:49 J -27099233.81 -27099233.59 -27099233.38 0.0089 0.0003
 Venus -78907-12-17 09:35 J -27099008.30 -27099008.10 -27099007.89 0.0089 0.0021

Venus -78906-07-30 21:06 J -27098782.79 -27098782.62 -27098782.41 0.0089 0.0040

Venus -78905-03-12 08:52 J -27098557.27 -27098557.13 -27098556.95 0.0089 0.0058

Venus -78905-10-23 21:20 J -27098331.72 -27098331.61 -27098331.50 0.0089 0.0075

Mercury -78895-10-31 19:11 J -27094671.71 -27094671.70 -27094671.66 0.0089 0.0087

Mercury -78894-01-27 20:37 J -27094583.68 -27094583.64 -27094583.58 0.0089 0.0082

Mercury -78894-04-25 21:49 J -27094495.64 -27094495.59 -27094495.51 0.0089 0.0078

Mercury -78894-07-22 23:16 J -27094407.60 -27094407.53 -27094407.45 0.0089 0.0073

Mercury -78894-10-19 00:28 J -27094319.55 -27094319.48 -27094319.39 0.0089 0.0069

Mercury -78893-01-15 02:08 J -27094231.50 -27094231.41 -27094231.32 0.0089 0.0064

Mercury -78893-04-12 03:06 J -27094143.45 -27094143.37 -27094143.26 0.0089 0.0060

Mercury -78893-07-09 04:32 J -27094055.41 -27094055.31 -27094055.20 0.0089 0.0055

Mercury -78893-10-05 05:59 J -27093967.36 -27093967.25 -27093967.14 0.0089 0.0051

Mercury -78892-01-01 07:11 J -27093879.31 -27093879.20 -27093879.08 0.0089 0.0047

Mercury -78892-03-30 08:37 J -27093791.25 -27093791.14 -27093791.02 0.0089 0.0042

Mercury -78892-06-26 09:49 J -27093703.20 -27093703.09 -27093702.96 0.0089 0.0038

Mercury -78892-09-22 11:16 J -27093615.15 -27093615.03 -27093614.90 0.0089 0.0033

Mercury -78892-12-19 12:28 J -27093527.10 -27093526.98 -27093526.85 0.0089 0.0029

Mercury -78891-03-17 13:54 J -27093439.04 -27093438.92 -27093438.79 0.0089 0.0024

Mercury -78891-06-13 15:20 J -27093350.99 -27093350.86 -27093350.73 0.0089 0.0019

Mercury -78891-09-09 16:32 J -27093262.94 -27093262.81 -27093262.67 0.0089 0.0015

Mercury -78891-12-06 17:59 J -27093174.88 -27093174.75 -27093174.62 0.0089 0.0010

Mercury -78890-03-04 19:25 J -27093086.83 -27093086.69 -27093086.56 0.0089 0.0006

Mercury -78890-05-31 20:37 J -27092998.77 -27092998.64 -27092998.50 0.0089 0.0003

Mercury -78890-08-27 22:04 J -27092910.71 -27092910.58 -27092910.45 0.0089 0.0003

Mercury -78890-11-23 23:16 J -27092822.66 -27092822.53 -27092822.39 0.0089 0.0009

Mercury -78889-02-20 00:42 J -27092734.60 -27092734.47 -27092734.34 0.0089 0.0013

Mercury -78889-05-18 02:08 J -27092646.54 -27092646.41 -27092646.28 0.0089 0.0017

Mercury -78889-08-14 03:20 J -27092558.48 -27092558.36 -27092558.23 0.0089 0.0022

Mercury -78889-11-10 04:47 J -27092470.43 -27092470.30 -27092470.17 0.0089 0.0026

Mercury -78888-02-06 05:59 J -27092382.37 -27092382.25 -27092382.12 0.0089 0.0031

Mercury -78888-05-05 07:25 J -27092294.31 -27092294.19 -27092294.06 0.0089 0.0036

Mercury -78888-08-01 08:52 J -27092206.25 -27092206.13 -27092206.01 0.0089 0.0040

Mercury -78888-10-28 10:04 J -27092118.19 -27092118.08 -27092117.96 0.0089 0.0045

Mercury -78887-01-24 11:30 J -27092030.13 -27092030.02 -27092029.90 0.0089 0.0049

Mercury -78887-04-22 12:56 J -27091942.06 -27091941.96 -27091941.85 0.0089 0.0054

Mercury -78887-07-19 14:08 J -27091854.00 -27091853.91 -27091853.80 0.0089 0.0059

Mercury -78887-10-15 15:35 J -27091765.94 -27091765.85 -27091765.75 0.0089 0.0063

Mercury -78886-01-11 16:47 J -27091677.87 -27091677.80 -27091677.70 0.0089 0.0068

Mercury -78886-04-09 18:28 J -27091589.80 -27091589.73 -27091589.65 0.0089 0.0072

Mercury -78886-07-06 19:40 J -27091501.74 -27091501.68 -27091501.61 0.0089 0.0077

Mercury -78886-10-02 20:52 J -27091413.66 -27091413.63 -27091413.56 0.0089 0.0082

Mercury -78886-12-29 22:32 J -27091325.58 -27091325.56 -27091325.52 0.0089 0.0086

Earth -78881-04-05 03:20 J -27089767.45 -27089767.36 -27089767.20 0.0089 0.0077

Moon -78881-04-05 06:42 J -27089767.29 -27089767.22 -27089767.09 0.0089 0.0082 *

Moon -78880-04-07 09:35 J -27089400.29 -27089400.10 -27089399.90 0.0089 0.0054

Earth -78880-04-07 12:28 J -27089400.14 -27089399.98 -27089399.77 0.0089 0.0059 *

Earth -78879-04-09 21:20 J -27089032.81 -27089032.61 -27089032.37 0.0089 0.0041

Moon -78879-04-10 01:11 J -27089032.66 -27089032.45 -27089032.23 0.0089 0.0045 *

Moon -78878-04-12 04:04 J -27088665.56 -27088665.33 -27088665.08 0.0089 0.0018

Earth -78878-04-12 06:28 J -27088665.46 -27088665.23 -27088664.97 0.0089 0.0023 *

Earth -78877-04-13 15:49 J -27088298.09 -27088297.84 -27088297.59 0.0089 0.0004

Moon -78877-04-13 17:16 J -27088298.03 -27088297.78 -27088297.52 0.0089 0.0009 *

Moon -78876-04-16 00:13 J -27087930.73 -27087930.49 -27087930.25 0.0089 0.0018

Earth -78876-04-16 00:42 J -27087930.71 -27087930.47 -27087930.22 0.0089 0.0014 *

Moon -78875-04-18 08:08 J -27087563.38 -27087563.16 -27087562.89 0.0089 0.0028

Earth -78875-04-18 09:35 J -27087563.32 -27087563.10 -27087562.85 0.0089 0.0032 *

Earth -78874-04-20 18:28 J -27087195.93 -27087195.73 -27087195.51 0.0089 0.0050

Moon -78874-04-20 20:08 J -27087195.82 -27087195.66 -27087195.44 0.0089 0.0055 *

Moon -78873-04-22 00:56 J -27086828.64 -27086828.46 -27086828.28 0.0089 0.0063

Earth -78873-04-22 03:35 J -27086828.50 -27086828.35 -27086828.18 0.0089 0.0068 *

Earth	-78872-04-24 12:28 J	-27086461.02	-27086460.98	-27086460.91	0.0089	0.0086
Mars	-78867-11-05 16:47 J	-27084440.02	-27084439.80	-27084439.57	0.0089	0.0063
Mars	-78865-10-01 02:08 J	-27083744.72	-27083744.41	-27083744.09	0.0089	0.0024
Jupiter	-78852-06-01 21:20 J	-27079117.95	-27079117.61	-27079117.16	0.0089	0.0062
Venus	-78828-05-18 01:11 J	-27070366.51	-27070366.45	-27070366.37	0.0089	0.0084
Venus	-78828-12-29 15:06 J	-27070141.01	-27070140.87	-27070140.70	0.0089	0.0065
Venus	-78827-08-12 05:16 J	-27069915.46	-27069915.28	-27069915.08	0.0089	0.0046
Venus	-78826-03-25 19:25 J	-27069689.90	-27069689.69	-27069689.47	0.0089	0.0027
Venus	-78826-11-06 09:35 J	-27069464.32	-27069464.10	-27069463.87	0.0089	0.0008
Venus	-78825-06-18 23:59 J	-27069238.72	-27069238.50	-27069238.27	0.0089	0.0012
Venus	-78824-01-30 13:54 J	-27069013.12	-27069012.92	-27069012.70	0.0089	0.0031
Venus	-78824-09-13 04:04 J	-27068787.51	-27068787.33	-27068787.13	0.0089	0.0050
Venus	-78823-04-26 18:13 J	-27068561.87	-27068561.74	-27068561.59	0.0089	0.0069
Venus	-78823-12-08 08:37 J	-27068336.16	-27068336.14	-27068336.12	0.0089	0.0088
Mercury	-78811-04-18 04:47 J	-27064187.32	-27064187.30	-27064187.25	0.0089	0.0087
Mercury	-78811-07-15 08:37 J	-27064099.21	-27064099.14	-27064099.05	0.0089	0.0080
Mercury	-78811-10-11 11:59 J	-27064011.09	-27064011.00	-27064010.87	0.0089	0.0074
Mercury	-78810-01-07 15:49 J	-27063922.95	-27063922.84	-27063922.70	0.0089	0.0067
Mercury	-78810-04-05 19:40 J	-27063834.81	-27063834.68	-27063834.53	0.0089	0.0060
Mercury	-78810-07-02 23:01 J	-27063746.67	-27063746.54	-27063746.36	0.0089	0.0054
Mercury	-78810-09-29 02:52 J	-27063658.53	-27063658.38	-27063658.20	0.0089	0.0047
Mercury	-78810-12-26 06:28 J	-27063570.39	-27063570.23	-27063570.04	0.0089	0.0041
Mercury	-78809-03-23 10:18 J	-27063482.24	-27063482.07	-27063481.88	0.0089	0.0034
Mercury	-78809-06-19 14:08 J	-27063394.10	-27063393.91	-27063393.73	0.0089	0.0027
Mercury	-78809-09-15 17:30 J	-27063305.95	-27063305.77	-27063305.57	0.0089	0.0021
Mercury	-78809-12-12 21:20 J	-27063217.80	-27063217.61	-27063217.42	0.0088	0.0014
Mercury	-78808-03-11 00:56 J	-27063129.65	-27063129.46	-27063129.27	0.0088	0.0007
Mercury	-78808-06-07 04:32 J	-27063041.51	-27063041.31	-27063041.12	0.0088	0.0001
Mercury	-78808-09-03 08:08 J	-27062953.35	-27062953.16	-27062952.97	0.0088	0.0006
Mercury	-78808-11-30 11:44 J	-27062865.20	-27062865.01	-27062864.82	0.0088	0.0013

Mercury -78807-02-26 15:06 J -27062777.05 -27062776.87 -27062776.67 0.0088 0.0019

Mercury -78807-05-25 18:42 J -27062688.90 -27062688.72 -27062688.53 0.0088 0.0026

Mercury -78807-08-21 22:04 J -27062600.75 -27062600.58 -27062600.38 0.0088 0.0033

Mercury -78807-11-18 01:40 J -27062512.59 -27062512.43 -27062512.24 0.0088 0.0039

Mercury -78806-02-14 05:30 J -27062424.43 -27062424.27 -27062424.10 0.0088 0.0045

Mercury -78806-05-13 08:52 J -27062336.28 -27062336.13 -27062335.96 0.0088 0.0052

Mercury -78806-08-09 12:28 J -27062248.12 -27062247.98 -27062247.83 0.0088 0.0058

Mercury -78806-11-05 15:49 J -27062159.96 -27062159.84 -27062159.70 0.0088 0.0064

Mercury -78805-02-01 19:25 J -27062071.79 -27062071.69 -27062071.57 0.0088 0.0071

Mercury -78805-04-29 22:32 J -27061983.63 -27061983.56 -27061983.44 0.0088 0.0078

Mercury -78805-07-27 02:08 J -27061895.45 -27061895.41 -27061895.33 0.0088 0.0084

Moon -78800-10-04 07:11 J -27060000.25 -27060000.20 -27060000.13 0.0088 0.0086

Moon -78799-10-06 15:06 J -27059633.01 -27059632.87 -27059632.72 0.0088 0.0074

Earth -78799-10-06 18:13 J -27059632.87 -27059632.74 -27059632.55 0.0088 0.0071 *

Earth -78798-10-09 08:52 J -27059265.33 -27059265.13 -27059264.90 0.0088 0.0052

Moon -78798-10-09 12:42 J -27059265.18 -27059264.97 -27059264.73 0.0088 0.0048 *

Moon -78797-10-10 20:23 J -27058897.87 -27058897.65 -27058897.39 0.0088 0.0037

Earth -78797-10-10 23:44 J -27058897.75 -27058897.51 -27058897.26 0.0088 0.0033 *

Earth -78796-10-13 14:23 J -27058530.17 -27058529.90 -27058529.64 0.0088 0.0014

Moon -78796-10-13 17:01 J -27058530.06 -27058529.79 -27058529.51 0.0088 0.0010 *

Moon -78795-10-16 03:35 J -27058162.61 -27058162.35 -27058162.10 0.0088 0.0002

Earth -78795-10-16 04:47 J -27058162.56 -27058162.30 -27058162.03 0.0088 0.0005 *

Earth -78794-10-18 19:11 J -27057794.96 -27057794.70 -27057794.45 0.0088 0.0024

Moon -78794-10-18 19:11 J -27057794.95 -27057794.70 -27057794.43 0.0088 0.0028 *

Earth -78793-10-20 09:06 J -27057427.34 -27057427.12 -27057426.88 0.0088 0.0043

Moon -78793-10-20 09:35 J -27057427.32 -27057427.10 -27057426.86 0.0088 0.0039 *

Moon -78792-10-22 20:52 J -27057059.79 -27057059.63 -27057059.42 0.0088 0.0066

Earth -78792-10-22 23:16 J -27057059.70 -27057059.53 -27057059.32 0.0088 0.0061 *

Earth -78791-10-25 13:54 J -27056692.02 -27056691.92 -27056691.80 0.0088 0.0080

Moon -78791-10-25 16:47 J -27056691.93 -27056691.80 -27056691.67 0.0088 0.0076 *

Mars -78785-10-15 12:56 J -27054510.14 -27054509.96 -27054509.76 0.0088 0.0069
 Mars -78783-09-09 18:28 J -27053816.03 -27053815.73 -27053815.43 0.0088 0.0012
 Venus -78745-02-17 06:13 J -27040141.32 -27040141.24 -27040141.13 0.0089 0.0079
 Venus -78745-09-29 18:13 J -27039915.88 -27039915.74 -27039915.57 0.0089 0.0061
 Venus -78744-05-13 06:13 J -27039690.42 -27039690.24 -27039690.05 0.0089 0.0043
 Venus -78744-12-24 18:13 J -27039464.94 -27039464.74 -27039464.53 0.0089 0.0025
 Venus -78743-08-07 06:13 J -27039239.46 -27039239.24 -27039239.03 0.0089 0.0007
 Venus -78742-03-20 17:59 J -27039013.96 -27039013.75 -27039013.54 0.0089 0.0011
 Venus -78742-11-01 05:44 J -27038788.45 -27038788.26 -27038788.05 0.0089 0.0030
 Venus -78741-06-13 17:30 J -27038562.94 -27038562.77 -27038562.58 0.0089 0.0048
 Venus -78740-01-25 05:01 J -27038337.41 -27038337.29 -27038337.12 0.0089 0.0066
 Venus -78740-09-07 16:47 J -27038111.85 -27038111.80 -27038111.71 0.0089 0.0084
 Mercury -78730-07-28 18:13 J -27034500.76 -27034500.74 -27034500.72 0.0089 0.0087
 Mercury -78730-10-24 19:25 J -27034412.73 -27034412.69 -27034412.64 0.0089 0.0083
 Mercury -78729-01-20 20:52 J -27034324.69 -27034324.63 -27034324.57 0.0089 0.0078
 Mercury -78729-04-17 22:04 J -27034236.65 -27034236.58 -27034236.50 0.0089 0.0074
 Mercury -78729-07-14 23:16 J -27034148.60 -27034148.53 -27034148.44 0.0089 0.0070
 Mercury -78729-10-11 00:42 J -27034060.55 -27034060.47 -27034060.38 0.0089 0.0065
 Mercury -78728-01-07 01:54 J -27033972.51 -27033972.42 -27033972.32 0.0089 0.0061
 Mercury -78728-04-05 03:20 J -27033884.46 -27033884.36 -27033884.25 0.0089 0.0056
 Mercury -78728-07-02 04:32 J -27033796.41 -27033796.31 -27033796.19 0.0089 0.0052
 Mercury -78728-09-28 05:59 J -27033708.36 -27033708.25 -27033708.13 0.0089 0.0047
 Mercury -78728-12-25 07:11 J -27033620.31 -27033620.20 -27033620.08 0.0089 0.0043
 Mercury -78727-03-23 08:37 J -27033532.26 -27033532.14 -27033532.02 0.0089 0.0038
 Mercury -78727-06-19 09:49 J -27033444.20 -27033444.09 -27033443.96 0.0089 0.0034
 Mercury -78727-09-15 11:16 J -27033356.15 -27033356.03 -27033355.90 0.0089 0.0029
 Mercury -78727-12-12 12:42 J -27033268.10 -27033267.97 -27033267.84 0.0089 0.0025
 Mercury -78726-03-10 13:54 J -27033180.04 -27033179.92 -27033179.79 0.0089 0.0020
 Mercury -78726-06-06 15:20 J -27033091.99 -27033091.86 -27033091.73 0.0089 0.0015
 Mercury -78726-09-02 16:47 J -27033003.94 -27033003.80 -27033003.67 0.0089 0.0011

Mercury -78726-11-29 17:59 J -27032915.88 -27032915.75 -27032915.61 0.0089 0.0007

Mercury -78725-02-25 19:25 J -27032827.82 -27032827.69 -27032827.56 0.0089 0.0002

Mercury -78725-05-23 20:37 J -27032739.77 -27032739.64 -27032739.50 0.0089 0.0004

Mercury -78725-08-19 22:04 J -27032651.71 -27032651.58 -27032651.45 0.0089 0.0007

Mercury -78725-11-15 23:30 J -27032563.65 -27032563.52 -27032563.39 0.0089 0.0012

Mercury -78724-02-12 00:42 J -27032475.60 -27032475.47 -27032475.34 0.0089 0.0017

Mercury -78724-05-11 02:08 J -27032387.54 -27032387.41 -27032387.28 0.0089 0.0021

Mercury -78724-08-07 03:20 J -27032299.48 -27032299.36 -27032299.23 0.0089 0.0026

Mercury -78724-11-03 04:47 J -27032211.42 -27032211.30 -27032211.17 0.0089 0.0030

Mercury -78723-01-30 06:13 J -27032123.36 -27032123.24 -27032123.12 0.0089 0.0035

Mercury -78723-04-28 07:25 J -27032035.30 -27032035.19 -27032035.06 0.0089 0.0040

Mercury -78723-07-25 08:52 J -27031947.24 -27031947.13 -27031947.01 0.0089 0.0044

Mercury -78723-10-21 10:04 J -27031859.18 -27031859.08 -27031858.96 0.0089 0.0049

Mercury -78722-01-17 11:44 J -27031771.12 -27031771.01 -27031770.90 0.0089 0.0053

Mercury -78722-04-15 12:56 J -27031683.05 -27031682.96 -27031682.85 0.0089 0.0058

Mercury -78722-07-12 14:08 J -27031594.99 -27031594.91 -27031594.80 0.0089 0.0063

Mercury -78722-10-08 15:35 J -27031506.93 -27031506.85 -27031506.75 0.0089 0.0067

Mercury -78721-01-04 17:01 J -27031418.86 -27031418.79 -27031418.70 0.0089 0.0072

Mercury -78721-04-01 18:42 J -27031330.79 -27031330.72 -27031330.66 0.0089 0.0076

Mercury -78721-06-28 19:40 J -27031242.72 -27031242.68 -27031242.61 0.0089 0.0081

Mercury -78721-09-24 21:06 J -27031154.64 -27031154.62 -27031154.58 0.0089 0.0086

Moon -78717-04-04 06:28 J -27029867.26 -27029867.23 -27029867.14 0.0089 0.0086

Earth -78717-04-04 10:18 J -27029867.12 -27029867.07 -27029866.98 0.0089 0.0085

Earth -78716-04-06 19:25 J -27029499.85 -27029499.69 -27029499.53 0.0089 0.0067

Moon -78716-04-06 22:18 J -27029499.73 -27029499.57 -27029499.40 0.0089 0.0066 *

Moon -78715-04-09 01:40 J -27029132.62 -27029132.43 -27029132.21 0.0089 0.0050

Earth -78715-04-09 03:49 J -27029132.52 -27029132.34 -27029132.11 0.0089 0.0050 *

Earth -78714-04-11 12:42 J -27028765.18 -27028764.97 -27028764.72 0.0089 0.0032

Moon -78714-04-11 14:08 J -27028765.14 -27028764.91 -27028764.66 0.0089 0.0031 *

Earth -78713-04-12 22:04 J -27028397.82 -27028397.58 -27028397.33 0.0089 0.0014

Moon	-78713-04-12 22:18 J	-27028397.80	-27028397.57	-27028397.32	0.0089	0.0015	*
Moon	-78712-04-15 05:59 J	-27028030.51	-27028030.25	-27028029.99	0.0089	0.0005	
Earth	-78712-04-15 07:11 J	-27028030.45	-27028030.20	-27028029.95	0.0089	0.0005	*
Earth	-78711-04-17 16:18 J	-27027663.06	-27027662.82	-27027662.58	0.0089	0.0022	
Moon	-78711-04-17 18:28 J	-27027662.95	-27027662.73	-27027662.48	0.0089	0.0022	*
Moon	-78710-04-19 21:35 J	-27027295.80	-27027295.60	-27027295.35	0.0089	0.0042	
Earth	-78710-04-20 01:25 J	-27027295.66	-27027295.44	-27027295.21	0.0089	0.0040	*
Earth	-78709-04-21 10:18 J	-27026928.25	-27026928.07	-27026927.87	0.0089	0.0058	
Moon	-78709-04-21 13:54 J	-27026928.11	-27026927.92	-27026927.73	0.0089	0.0058	*
Moon	-78708-04-23 15:35 J	-27026560.95	-27026560.85	-27026560.70	0.0089	0.0077	
Earth	-78708-04-23 19:25 J	-27026560.81	-27026560.69	-27026560.55	0.0089	0.0076	*
Mars	-78701-05-14 18:56 J	-27023983.01	-27023982.71	-27023982.38	0.0089	0.0019	
Mars	-78699-04-10 04:47 J	-27023287.49	-27023287.30	-27023287.09	0.0089	0.0069	
Jupiter	-78686-08-07 01:25 J	-27018420.97	-27018420.44	-27018419.88	0.0089	0.0008	
Venus	-78663-04-01 21:35 J	-27010146.72	-27010146.60	-27010146.48	0.0089	0.0075	
Venus	-78663-11-13 11:30 J	-27009921.19	-27009921.02	-27009920.84	0.0089	0.0056	
Venus	-78662-06-27 01:40 J	-27009695.63	-27009695.43	-27009695.22	0.0089	0.0037	
Venus	-78661-02-07 15:49 J	-27009470.06	-27009469.84	-27009469.62	0.0089	0.0018	
Venus	-78661-09-20 05:59 J	-27009244.48	-27009244.25	-27009244.02	0.0089	0.0001	
Venus	-78660-05-03 19:54 J	-27009018.88	-27009018.67	-27009018.44	0.0089	0.0021	
Venus	-78660-12-15 10:04 J	-27008793.27	-27008793.08	-27008792.87	0.0089	0.0040	
Venus	-78659-07-29 00:13 J	-27008567.65	-27008567.49	-27008567.31	0.0089	0.0059	
Venus	-78658-03-11 14:23 J	-27008342.00	-27008341.90	-27008341.79	0.0089	0.0078	
Mercury	-78646-01-13 01:11 J	-27004016.46	-27004016.45	-27004016.39	0.0088	0.0088	
Mercury	-78646-04-11 05:01 J	-27003928.35	-27003928.29	-27003928.19	0.0088	0.0081	
Mercury	-78646-07-08 09:06 J	-27003840.22	-27003840.12	-27003840.01	0.0088	0.0074	
Mercury	-78646-10-04 12:28 J	-27003752.09	-27003751.98	-27003751.84	0.0088	0.0068	
Mercury	-78646-12-31 16:18 J	-27003663.95	-27003663.82	-27003663.67	0.0088	0.0061	
Mercury	-78645-03-28 20:08 J	-27003575.81	-27003575.66	-27003575.50	0.0088	0.0054	
Mercury	-78645-06-24 23:30 J	-27003487.67	-27003487.52	-27003487.34	0.0088	0.0048	

Mercury -78645-09-21 03:20 J -27003399.53 -27003399.36 -27003399.18 0.0088 0.0041

Mercury -78645-12-18 07:11 J -27003311.38 -27003311.20 -27003311.02 0.0088 0.0034

Mercury -78644-03-16 10:32 J -27003223.23 -27003223.06 -27003222.86 0.0088 0.0028

Mercury -78644-06-12 14:23 J -27003135.09 -27003134.90 -27003134.71 0.0088 0.0021

Mercury -78644-09-08 17:59 J -27003046.94 -27003046.75 -27003046.55 0.0088 0.0014

Mercury -78644-12-05 21:49 J -27002958.79 -27002958.59 -27002958.40 0.0088 0.0008

Mercury -78643-03-04 01:25 J -27002870.64 -27002870.44 -27002870.25 0.0088 0.0002

Mercury -78643-05-31 05:01 J -27002782.49 -27002782.29 -27002782.10 0.0088 0.0006

Mercury -78643-08-27 08:23 J -27002694.34 -27002694.15 -27002693.95 0.0088 0.0012

Mercury -78643-11-23 11:59 J -27002606.18 -27002606.00 -27002605.80 0.0088 0.0019

Mercury -78642-02-19 15:35 J -27002518.03 -27002517.85 -27002517.66 0.0088 0.0025

Mercury -78642-05-18 19:11 J -27002429.88 -27002429.70 -27002429.51 0.0088 0.0032

Mercury -78642-08-14 22:32 J -27002341.72 -27002341.56 -27002341.37 0.0088 0.0039

Mercury -78642-11-11 02:23 J -27002253.57 -27002253.40 -27002253.23 0.0088 0.0045

Mercury -78641-02-07 05:30 J -27002165.41 -27002165.27 -27002165.09 0.0088 0.0052

Mercury -78641-05-05 09:20 J -27002077.25 -27002077.11 -27002076.96 0.0088 0.0058

Mercury -78641-08-01 12:28 J -27001989.09 -27001988.98 -27001988.82 0.0088 0.0065

Mercury -78641-10-28 16:18 J -27001900.92 -27001900.82 -27001900.69 0.0088 0.0071

Mercury -78640-01-24 19:54 J -27001812.76 -27001812.67 -27001812.57 0.0088 0.0077

Mercury -78640-04-22 23:01 J -27001724.58 -27001724.54 -27001724.45 0.0088 0.0084

Earth -78635-10-05 19:25 J -26999732.80 -26999732.69 -26999732.56 0.0088 0.0079

Moon -78635-10-05 22:47 J -26999732.64 -26999732.55 -26999732.44 0.0088 0.0082 *

Moon -78634-10-08 06:56 J -26999365.38 -26999365.21 -26999364.99 0.0088 0.0058

Earth -78634-10-08 09:49 J -26999365.26 -26999365.09 -26999364.87 0.0088 0.0061 *

Earth -78633-10-10 00:42 J -26998997.70 -26998997.47 -26998997.23 0.0088 0.0042

Moon -78633-10-10 02:08 J -26998997.64 -26998997.41 -26998997.17 0.0088 0.0045 *

Moon -78632-10-12 14:37 J -26998630.14 -26998629.89 -26998629.64 0.0088 0.0021

Earth -78632-10-12 15:06 J -26998630.11 -26998629.87 -26998629.60 0.0088 0.0024 *

Moon -78631-10-15 05:16 J -26998262.55 -26998262.28 -26998262.00 0.0088 0.0007

Earth -78631-10-15 05:44 J -26998262.52 -26998262.26 -26998261.99 0.0088 0.0005 *

Earth	-78630-10-17 19:40 J	-26997894.93	-26997894.68	-26997894.40	0.0088	0.0015
Moon	-78630-10-17 21:35 J	-26997894.84	-26997894.60	-26997894.33	0.0088	0.0018 *
Moon	-78629-10-19 07:25 J	-26997527.43	-26997527.19	-26997526.92	0.0088	0.0031
Earth	-78629-10-19 10:04 J	-26997527.31	-26997527.08	-26997526.82	0.0088	0.0033 *
Earth	-78628-10-21 23:59 J	-26997159.69	-26997159.50	-26997159.26	0.0088	0.0052
Moon	-78628-10-22 03:35 J	-26997159.54	-26997159.35	-26997159.12	0.0088	0.0053 *
Moon	-78627-10-24 10:18 J	-26996792.21	-26996792.07	-26996791.87	0.0088	0.0068
Earth	-78627-10-24 14:23 J	-26996792.05	-26996791.90	-26996791.72	0.0088	0.0070 *
Earth	-78626-10-27 04:32 J	-26996424.32	-26996424.31	-26996424.27	0.0088	0.0088
Mars	-78619-04-24 10:04 J	-26994053.35	-26994053.08	-26994052.77	0.0088	0.0029
Mars	-78617-03-18 14:23 J	-26993359.11	-26993358.90	-26993358.62	0.0088	0.0053
Venus	-78580-01-01 02:23 J	-26979921.52	-26979921.40	-26979921.27	0.0088	0.0071
Venus	-78580-08-14 14:23 J	-26979696.07	-26979695.90	-26979695.73	0.0089	0.0053
Venus	-78579-03-28 02:08 J	-26979470.60	-26979470.41	-26979470.20	0.0089	0.0035
Venus	-78579-11-08 14:23 J	-26979245.11	-26979244.90	-26979244.69	0.0089	0.0017
Venus	-78578-06-22 02:08 J	-26979019.62	-26979019.41	-26979019.19	0.0089	0.0002
Venus	-78577-02-02 13:54 J	-26978794.12	-26978793.92	-26978793.70	0.0089	0.0020
Venus	-78577-09-15 01:40 J	-26978568.62	-26978568.43	-26978568.23	0.0089	0.0038
Venus	-78576-04-28 13:11 J	-26978343.10	-26978342.95	-26978342.76	0.0089	0.0056
Venus	-78576-12-10 01:11 J	-26978117.55	-26978117.45	-26978117.31	0.0089	0.0074
Mercury	-78565-04-23 16:47 J	-26974329.81	-26974329.80	-26974329.77	0.0089	0.0088
Mercury	-78565-07-20 18:28 J	-26974241.78	-26974241.73	-26974241.69	0.0089	0.0083
Mercury	-78565-10-16 19:25 J	-26974153.74	-26974153.69	-26974153.62	0.0089	0.0079
Mercury	-78564-01-12 20:37 J	-26974065.69	-26974065.64	-26974065.55	0.0089	0.0075
Mercury	-78564-04-10 22:04 J	-26973977.65	-26973977.58	-26973977.49	0.0089	0.0070
Mercury	-78564-07-07 23:16 J	-26973889.60	-26973889.53	-26973889.43	0.0089	0.0066
Mercury	-78564-10-04 00:42 J	-26973801.56	-26973801.47	-26973801.37	0.0089	0.0061
Mercury	-78564-12-31 01:54 J	-26973713.51	-26973713.42	-26973713.31	0.0089	0.0057
Mercury	-78563-03-29 03:35 J	-26973625.46	-26973625.35	-26973625.25	0.0089	0.0052
Mercury	-78563-06-25 04:32 J	-26973537.41	-26973537.31	-26973537.19	0.0089	0.0048

Mercury -78563-09-21 06:13 J -26973449.36 -26973449.24 -26973449.13 0.0089 0.0043

Mercury -78563-12-18 07:25 J -26973361.31 -26973361.19 -26973361.07 0.0089 0.0039

Mercury -78562-03-16 08:52 J -26973273.25 -26973273.13 -26973273.01 0.0089 0.0034

Mercury -78562-06-12 10:04 J -26973185.20 -26973185.08 -26973184.95 0.0089 0.0030

Mercury -78562-09-08 11:30 J -26973097.15 -26973097.02 -26973096.90 0.0089 0.0025

Mercury -78562-12-05 12:42 J -26973009.10 -26973008.97 -26973008.84 0.0089 0.0021

Mercury -78561-03-02 14:08 J -26972921.04 -26972920.91 -26972920.78 0.0089 0.0016

Mercury -78561-05-29 15:20 J -26972832.99 -26972832.86 -26972832.72 0.0089 0.0012

Mercury -78561-08-25 16:47 J -26972744.93 -26972744.80 -26972744.67 0.0089 0.0007

Mercury -78561-11-21 17:59 J -26972656.88 -26972656.75 -26972656.61 0.0089 0.0004

Mercury -78560-02-17 19:25 J -26972568.82 -26972568.69 -26972568.56 0.0089 0.0002

Mercury -78560-05-16 20:52 J -26972480.77 -26972480.63 -26972480.50 0.0089 0.0007

Mercury -78560-08-12 22:04 J -26972392.71 -26972392.58 -26972392.44 0.0089 0.0011

Mercury -78560-11-08 23:30 J -26972304.65 -26972304.52 -26972304.39 0.0089 0.0016

Mercury -78559-02-05 00:42 J -26972216.59 -26972216.47 -26972216.33 0.0089 0.0021

Mercury -78559-05-04 02:08 J -26972128.54 -26972128.41 -26972128.28 0.0089 0.0025

Mercury -78559-07-31 03:20 J -26972040.48 -26972040.36 -26972040.23 0.0089 0.0030

Mercury -78559-10-27 04:47 J -26971952.42 -26971952.30 -26971952.17 0.0089 0.0034

Mercury -78558-01-23 06:13 J -26971864.36 -26971864.24 -26971864.12 0.0089 0.0039

Mercury -78558-04-21 07:25 J -26971776.30 -26971776.19 -26971776.06 0.0089 0.0044

Mercury -78558-07-18 08:52 J -26971688.24 -26971688.13 -26971688.01 0.0089 0.0048

Mercury -78558-10-14 10:04 J -26971600.17 -26971600.08 -26971599.96 0.0089 0.0053

Mercury -78557-01-10 11:44 J -26971512.11 -26971512.01 -26971511.91 0.0089 0.0057

Mercury -78557-04-07 12:56 J -26971424.05 -26971423.96 -26971423.86 0.0089 0.0062

Mercury -78557-07-04 14:08 J -26971335.98 -26971335.91 -26971335.81 0.0089 0.0067

Mercury -78557-09-30 15:49 J -26971247.92 -26971247.84 -26971247.76 0.0089 0.0071

Mercury -78557-12-27 17:01 J -26971159.85 -26971159.79 -26971159.71 0.0089 0.0076

Mercury -78556-03-25 18:42 J -26971071.78 -26971071.72 -26971071.67 0.0089 0.0080

Mercury -78556-06-21 19:54 J -26970983.70 -26970983.67 -26970983.63 0.0089 0.0085

Moon -78553-04-03 19:40 J -26969966.70 -26969966.68 -26969966.65 0.0089 0.0088

Moon	-78552-04-05 23:44 J	-26969599.60	-26969599.51	-26969599.39	0.0089	0.0080
Earth	-78552-04-06 00:56 J	-26969599.56	-26969599.46	-26969599.30	0.0089	0.0076 *
Earth	-78551-04-08 10:18 J	-26969232.25	-26969232.07	-26969231.88	0.0089	0.0058
Moon	-78551-04-08 10:47 J	-26969232.25	-26969232.05	-26969231.83	0.0089	0.0054 *
Earth	-78550-04-10 18:56 J	-26968864.92	-26968864.71	-26968864.47	0.0089	0.0041
Moon	-78550-04-10 19:25 J	-26968864.88	-26968864.69	-26968864.47	0.0089	0.0045 *
Moon	-78549-04-12 01:40 J	-26968497.66	-26968497.43	-26968497.16	0.0089	0.0019
Earth	-78549-04-12 04:04 J	-26968497.56	-26968497.33	-26968497.08	0.0089	0.0023 *
Earth	-78548-04-14 12:56 J	-26968130.20	-26968129.96	-26968129.70	0.0089	0.0005
Moon	-78548-04-14 15:49 J	-26968130.08	-26968129.84	-26968129.59	0.0089	0.0009 *
Moon	-78547-04-16 18:28 J	-26967762.96	-26967762.73	-26967762.47	0.0089	0.0018
Earth	-78547-04-16 22:04 J	-26967762.82	-26967762.58	-26967762.33	0.0089	0.0013 *
Earth	-78546-04-19 06:56 J	-26967395.43	-26967395.21	-26967394.96	0.0089	0.0031
Moon	-78546-04-19 10:32 J	-26967395.29	-26967395.06	-26967394.81	0.0089	0.0026 *
Moon	-78545-04-20 13:11 J	-26967028.13	-26967027.95	-26967027.74	0.0089	0.0053
Earth	-78545-04-20 15:49 J	-26967028.02	-26967027.84	-26967027.60	0.0089	0.0049 *
Earth	-78544-04-23 01:25 J	-26966660.60	-26966660.44	-26966660.26	0.0089	0.0066
Moon	-78544-04-23 03:35 J	-26966660.51	-26966660.35	-26966660.14	0.0089	0.0062 *
Earth	-78543-04-25 10:18 J	-26966293.13	-26966293.07	-26966292.97	0.0089	0.0084
Moon	-78543-04-25 09:35 J	-26966293.10	-26966293.10	-26966293.06	0.0089	0.0089 *
Saturn	-78542-12-05 13:40 J	-26965704.62	-26965703.93	-26965703.20	0.0089	0.0010
Mars	-78538-12-27 15:06 J	-26964221.08	-26964220.87	-26964220.62	0.0089	0.0061
Mars	-78536-11-21 21:06 J	-26963525.91	-26963525.62	-26963525.29	0.0089	0.0026
Jupiter	-78520-10-10 10:32 J	-26957724.48	-26957724.06	-26957723.57	0.0089	0.0049
Venus	-78499-07-04 04:04 J	-26950152.38	-26950152.33	-26950152.26	0.0089	0.0085
Venus	-78498-02-14 18:13 J	-26949926.89	-26949926.74	-26949926.59	0.0089	0.0066
Venus	-78498-09-28 08:08 J	-26949701.34	-26949701.16	-26949700.96	0.0089	0.0047
Venus	-78497-05-10 22:18 J	-26949475.78	-26949475.57	-26949475.35	0.0089	0.0028
Venus	-78497-12-22 12:28 J	-26949250.20	-26949249.98	-26949249.75	0.0089	0.0009
Venus	-78496-08-05 02:23 J	-26949024.62	-26949024.40	-26949024.17	0.0089	0.0011

Venus -78495-03-18 16:32 J -26948799.02 -26948798.81 -26948798.59 0.0089 0.0030

Venus -78495-10-30 06:42 J -26948573.40 -26948573.22 -26948573.03 0.0089 0.0049

Venus -78494-06-12 20:37 J -26948347.76 -26948347.64 -26948347.48 0.0089 0.0069

Venus -78493-01-24 10:47 J -26948122.06 -26948122.05 -26948122.00 0.0089 0.0088

Mercury -78482-10-09 22:18 J -26943845.58 -26943845.57 -26943845.54 0.0088 0.0088

Mercury -78481-01-06 01:40 J -26943757.48 -26943757.43 -26943757.33 0.0088 0.0082

Mercury -78481-04-03 05:30 J -26943669.36 -26943669.27 -26943669.15 0.0088 0.0075

Mercury -78481-06-30 09:20 J -26943581.23 -26943581.11 -26943580.98 0.0088 0.0068

Mercury -78481-09-26 12:42 J -26943493.09 -26943492.97 -26943492.81 0.0088 0.0062

Mercury -78481-12-23 16:32 J -26943404.95 -26943404.81 -26943404.64 0.0088 0.0055

Mercury -78480-03-21 20:23 J -26943316.81 -26943316.65 -26943316.48 0.0088 0.0048

Mercury -78480-06-17 23:59 J -26943228.66 -26943228.50 -26943228.32 0.0088 0.0041

Mercury -78480-09-14 03:49 J -26943140.52 -26943140.34 -26943140.16 0.0088 0.0035

Mercury -78480-12-11 07:40 J -26943052.37 -26943052.18 -26943052.00 0.0088 0.0028

Mercury -78479-03-09 11:01 J -26942964.22 -26942964.04 -26942963.84 0.0088 0.0022

Mercury -78479-06-05 14:52 J -26942876.07 -26942875.88 -26942875.69 0.0088 0.0015

Mercury -78479-09-01 18:28 J -26942787.92 -26942787.73 -26942787.54 0.0088 0.0008

Mercury -78479-11-28 22:04 J -26942699.77 -26942699.58 -26942699.38 0.0088 0.0002

Mercury -78478-02-25 01:40 J -26942611.62 -26942611.43 -26942611.23 0.0088 0.0005

Mercury -78478-05-24 05:16 J -26942523.47 -26942523.28 -26942523.08 0.0088 0.0012

Mercury -78478-08-20 08:52 J -26942435.32 -26942435.13 -26942434.94 0.0088 0.0018

Mercury -78478-11-16 12:28 J -26942347.16 -26942346.98 -26942346.79 0.0088 0.0025

Mercury -78477-02-12 15:49 J -26942259.01 -26942258.84 -26942258.65 0.0088 0.0032

Mercury -78477-05-10 19:40 J -26942170.85 -26942170.68 -26942170.50 0.0088 0.0038

Mercury -78477-08-06 23:01 J -26942082.70 -26942082.54 -26942082.36 0.0088 0.0045

Mercury -78477-11-03 02:52 J -26941994.54 -26941994.38 -26941994.22 0.0088 0.0051

Mercury -78476-01-30 05:59 J -26941906.38 -26941906.25 -26941906.09 0.0088 0.0058

Mercury -78476-04-28 09:49 J -26941818.22 -26941818.09 -26941817.95 0.0088 0.0064

Mercury -78476-07-25 12:56 J -26941730.05 -26941729.96 -26941729.82 0.0088 0.0071

Mercury -78476-10-21 16:47 J -26941641.89 -26941641.80 -26941641.70 0.0088 0.0077

Mercury -78475-01-17 19:54 J -26941553.71 -26941553.67 -26941553.58 0.0088 0.0084
 Moon -78471-10-04 18:28 J -26939832.76 -26939832.73 -26939832.63 0.0088 0.0086
 Earth -78471-10-04 20:08 J -26939832.67 -26939832.66 -26939832.59 0.0088 0.0088 *
 Earth -78470-10-07 11:16 J -26939465.19 -26939465.03 -26939464.86 0.0088 0.0069
 Moon -78470-10-07 12:13 J -26939465.14 -26939464.99 -26939464.82 0.0088 0.0072 *
 Earth -78469-10-09 01:40 J -26939097.63 -26939097.43 -26939097.20 0.0088 0.0051
 Moon -78469-10-09 02:08 J -26939097.61 -26939097.41 -26939097.18 0.0088 0.0048 *
 Moon -78468-10-11 14:37 J -26938730.13 -26938729.89 -26938729.62 0.0088 0.0035
 Earth -78468-10-11 16:18 J -26938730.06 -26938729.82 -26938729.56 0.0088 0.0032 *
 Earth -78467-10-14 06:42 J -26938362.47 -26938362.22 -26938361.95 0.0088 0.0014
 Moon -78467-10-14 09:06 J -26938362.38 -26938362.12 -26938361.86 0.0088 0.0010 *
 Moon -78466-10-16 17:59 J -26937995.02 -26937994.75 -26937994.48 0.0088 0.0002
 Earth -78466-10-16 21:20 J -26937994.87 -26937994.61 -26937994.34 0.0088 0.0005 *
 Earth -78465-10-18 11:30 J -26937627.26 -26937627.02 -26937626.75 0.0088 0.0023
 Moon -78465-10-18 15:06 J -26937627.11 -26937626.87 -26937626.61 0.0088 0.0027 *
 Moon -78464-10-20 22:04 J -26937259.80 -26937259.58 -26937259.32 0.0088 0.0038
 Earth -78464-10-21 01:54 J -26937259.64 -26937259.42 -26937259.17 0.0088 0.0042 *
 Earth -78463-10-23 16:04 J -26936892.01 -26936891.83 -26936891.62 0.0088 0.0060
 Moon -78463-10-23 19:11 J -26936891.87 -26936891.70 -26936891.49 0.0088 0.0064 *
 Moon -78462-10-26 03:35 J -26936524.47 -26936524.35 -26936524.19 0.0088 0.0074
 Earth -78462-10-26 06:28 J -26936524.35 -26936524.23 -26936524.10 0.0088 0.0078 *
 Mars -78456-12-07 00:28 J -26934290.64 -26934290.48 -26934290.25 0.0088 0.0068
 Mars -78454-11-01 09:06 J -26933596.41 -26933596.12 -26933595.81 0.0088 0.0014
 Venus -78416-04-04 10:04 J -26919927.14 -26919927.08 -26919926.97 0.0088 0.0082
 Venus -78416-11-15 22:47 J -26919701.70 -26919701.55 -26919701.40 0.0088 0.0063
 Venus -78415-06-29 10:32 J -26919476.24 -26919476.06 -26919475.87 0.0089 0.0045
 Venus -78414-02-09 22:32 J -26919250.76 -26919250.56 -26919250.35 0.0089 0.0027
 Venus -78414-09-23 10:32 J -26919025.28 -26919025.06 -26919024.85 0.0089 0.0009
 Venus -78413-05-05 22:18 J -26918799.78 -26918799.57 -26918799.35 0.0089 0.0010
 Venus -78413-12-17 10:04 J -26918574.27 -26918574.08 -26918573.87 0.0089 0.0028

Venus -78412-07-30 21:49 J -26918348.76 -26918348.59 -26918348.39 0.0089 0.0046

Venus -78411-03-13 09:35 J -26918123.23 -26918123.10 -26918122.94 0.0089 0.0064

Venus -78411-10-24 21:20 J -26917897.67 -26917897.61 -26917897.51 0.0089 0.0082

Mercury -78400-01-18 15:35 J -26914158.85 -26914158.85 -26914158.83 0.0089 0.0089

Mercury -78400-04-16 17:01 J -26914070.82 -26914070.79 -26914070.74 0.0089 0.0084

Mercury -78400-07-13 18:13 J -26913982.79 -26913982.74 -26913982.67 0.0089 0.0080

Mercury -78400-10-09 19:40 J -26913894.74 -26913894.68 -26913894.61 0.0089 0.0075

Mercury -78399-01-05 20:52 J -26913806.70 -26913806.63 -26913806.54 0.0089 0.0071

Mercury -78399-04-03 22:18 J -26913718.65 -26913718.57 -26913718.48 0.0089 0.0066

Mercury -78399-06-30 23:30 J -26913630.61 -26913630.52 -26913630.42 0.0089 0.0062

Mercury -78399-09-27 00:56 J -26913542.56 -26913542.46 -26913542.36 0.0089 0.0057

Mercury -78399-12-24 02:08 J -26913454.51 -26913454.41 -26913454.30 0.0089 0.0053

Mercury -78398-03-22 03:35 J -26913366.46 -26913366.35 -26913366.24 0.0089 0.0048

Mercury -78398-06-18 04:47 J -26913278.41 -26913278.30 -26913278.18 0.0089 0.0044

Mercury -78398-09-14 06:13 J -26913190.36 -26913190.24 -26913190.12 0.0089 0.0039

Mercury -78398-12-11 07:25 J -26913102.30 -26913102.19 -26913102.06 0.0089 0.0035

Mercury -78397-03-08 08:52 J -26913014.25 -26913014.13 -26913014.00 0.0089 0.0030

Mercury -78397-06-04 10:04 J -26912926.20 -26912926.08 -26912925.95 0.0089 0.0026

Mercury -78397-08-31 11:30 J -26912838.15 -26912838.02 -26912837.89 0.0089 0.0021

Mercury -78397-11-27 12:42 J -26912750.09 -26912749.97 -26912749.83 0.0089 0.0017

Mercury -78396-02-23 14:08 J -26912662.04 -26912661.91 -26912661.78 0.0089 0.0012

Mercury -78396-05-22 15:35 J -26912573.98 -26912573.85 -26912573.72 0.0089 0.0007

Mercury -78396-08-18 16:47 J -26912485.93 -26912485.80 -26912485.66 0.0089 0.0004

Mercury -78396-11-14 18:13 J -26912397.87 -26912397.74 -26912397.61 0.0089 0.0002

Mercury -78395-02-10 19:25 J -26912309.82 -26912309.69 -26912309.55 0.0089 0.0007

Mercury -78395-05-09 20:52 J -26912221.76 -26912221.63 -26912221.50 0.0089 0.0011

Mercury -78395-08-05 22:04 J -26912133.70 -26912133.58 -26912133.44 0.0089 0.0016

Mercury -78395-11-01 23:30 J -26912045.65 -26912045.52 -26912045.39 0.0089 0.0020

Mercury -78394-01-29 00:42 J -26911957.59 -26911957.47 -26911957.33 0.0089 0.0025

Mercury -78394-04-27 02:23 J -26911869.53 -26911869.40 -26911869.28 0.0089 0.0029

Mercury -78394-07-24 03:35 J -26911781.47 -26911781.35 -26911781.22 0.0089 0.0034

Mercury -78394-10-20 04:47 J -26911693.41 -26911693.30 -26911693.17 0.0089 0.0039

Mercury -78393-01-16 06:13 J -26911605.35 -26911605.24 -26911605.12 0.0089 0.0043

Mercury -78393-04-13 07:25 J -26911517.29 -26911517.19 -26911517.07 0.0089 0.0048

Mercury -78393-07-10 09:06 J -26911429.23 -26911429.12 -26911429.01 0.0089 0.0052

Mercury -78393-10-06 10:18 J -26911341.16 -26911341.07 -26911340.96 0.0089 0.0057

Mercury -78392-01-02 11:30 J -26911253.10 -26911253.02 -26911252.91 0.0089 0.0062

Mercury -78392-03-31 13:11 J -26911165.04 -26911164.95 -26911164.86 0.0089 0.0066

Mercury -78392-06-27 14:23 J -26911076.97 -26911076.90 -26911076.81 0.0089 0.0071

Mercury -78392-09-23 16:04 J -26910988.90 -26910988.83 -26910988.76 0.0089 0.0075

Mercury -78392-12-20 17:16 J -26910900.83 -26910900.78 -26910900.72 0.0089 0.0080

Mercury -78391-03-18 18:28 J -26910812.75 -26910812.73 -26910812.68 0.0089 0.0085

Earth -78388-04-05 07:40 J -26909699.24 -26909699.18 -26909699.08 0.0089 0.0084

Moon -78388-04-05 07:54 J -26909699.22 -26909699.17 -26909699.08 0.0089 0.0085 *

Earth -78387-04-07 16:32 J -26909331.95 -26909331.81 -26909331.62 0.0089 0.0067

Moon -78387-04-07 17:59 J -26909331.90 -26909331.75 -26909331.57 0.0089 0.0065 *

Moon -78386-04-09 23:59 J -26908964.71 -26908964.50 -26908964.29 0.0089 0.0050

Earth -78386-04-10 01:40 J -26908964.62 -26908964.43 -26908964.21 0.0089 0.0049 *

Earth -78385-04-11 10:18 J -26908597.28 -26908597.07 -26908596.82 0.0089 0.0032

Moon -78385-04-11 13:54 J -26908597.15 -26908596.92 -26908596.68 0.0089 0.0030 *

Moon -78384-04-13 16:18 J -26908230.06 -26908229.82 -26908229.57 0.0089 0.0016

Earth -78384-04-13 19:40 J -26908229.92 -26908229.68 -26908229.43 0.0089 0.0014 *

Earth -78383-04-16 04:32 J -26907862.56 -26907862.31 -26907862.05 0.0089 0.0004

Moon -78383-04-16 07:54 J -26907862.42 -26907862.17 -26907861.91 0.0089 0.0005 *

Moon -78382-04-18 10:32 J -26907495.29 -26907495.06 -26907494.81 0.0089 0.0020

Earth -78382-04-18 13:40 J -26907495.17 -26907494.93 -26907494.68 0.0089 0.0021 *

Earth -78381-04-19 22:18 J -26907127.78 -26907127.57 -26907127.33 0.0089 0.0039

Moon -78381-04-20 00:13 J -26907127.72 -26907127.49 -26907127.26 0.0089 0.0040 *

Moon -78380-04-22 06:28 J -26906760.40 -26906760.23 -26906760.02 0.0089 0.0056

Earth -78380-04-22 07:11 J -26906760.37 -26906760.20 -26906759.98 0.0089 0.0057 *

Moon	-78379-04-24 16:04 J	-26906392.96	-26906392.83	-26906392.69	0.0089	0.0075
Earth	-78379-04-24 16:32 J	-26906392.93	-26906392.81	-26906392.65	0.0089	0.0074 *
Mars	-78372-07-05 17:30 J	-26903764.07	-26903763.77	-26903763.44	0.0089	0.0017
Mars	-78370-05-31 23:44 J	-26903068.67	-26903068.51	-26903068.28	0.0089	0.0071
Venus	-78334-05-19 00:42 J	-26889932.57	-26889932.47	-26889932.34	0.0089	0.0076
Venus	-78334-12-30 14:52 J	-26889707.04	-26889706.88	-26889706.70	0.0089	0.0057
Venus	-78333-08-12 04:47 J	-26889481.49	-26889481.30	-26889481.09	0.0089	0.0038
Venus	-78332-03-25 18:42 J	-26889255.93	-26889255.72	-26889255.49	0.0089	0.0019
Venus	-78332-11-06 09:06 J	-26889030.35	-26889030.12	-26889029.90	0.0089	0.0001
Venus	-78331-06-19 23:16 J	-26888804.75	-26888804.53	-26888804.31	0.0089	0.0020
Venus	-78330-01-31 12:56 J	-26888579.15	-26888578.96	-26888578.74	0.0089	0.0040
Venus	-78330-09-14 03:06 J	-26888353.52	-26888353.37	-26888353.19	0.0089	0.0059
Venus	-78329-04-26 17:16 J	-26888127.87	-26888127.78	-26888127.66	0.0089	0.0078
Mercury	-78317-07-05 19:25 J	-26883674.71	-26883674.69	-26883674.66	0.0088	0.0088
Mercury	-78317-10-01 22:47 J	-26883586.61	-26883586.55	-26883586.46	0.0088	0.0081
Mercury	-78317-12-29 02:37 J	-26883498.48	-26883498.39	-26883498.27	0.0088	0.0075
Mercury	-78316-03-27 06:28 J	-26883410.35	-26883410.23	-26883410.10	0.0088	0.0068
Mercury	-78316-06-23 09:49 J	-26883322.21	-26883322.09	-26883321.93	0.0088	0.0062
Mercury	-78316-09-19 13:40 J	-26883234.07	-26883233.93	-26883233.76	0.0088	0.0055
Mercury	-78316-12-16 17:30 J	-26883145.93	-26883145.77	-26883145.60	0.0088	0.0048
Mercury	-78315-03-14 20:52 J	-26883057.78	-26883057.63	-26883057.44	0.0088	0.0042
Mercury	-78315-06-11 00:42 J	-26882969.64	-26882969.47	-26882969.28	0.0088	0.0035
Mercury	-78315-09-07 04:32 J	-26882881.49	-26882881.31	-26882881.12	0.0088	0.0028
Mercury	-78315-12-04 08:08 J	-26882793.34	-26882793.16	-26882792.96	0.0088	0.0021
Mercury	-78314-03-02 11:44 J	-26882705.20	-26882705.01	-26882704.81	0.0088	0.0015
Mercury	-78314-05-29 15:35 J	-26882617.05	-26882616.85	-26882616.66	0.0088	0.0008
Mercury	-78314-08-25 19:11 J	-26882528.89	-26882528.70	-26882528.50	0.0088	0.0001
Mercury	-78314-11-21 22:47 J	-26882440.74	-26882440.55	-26882440.35	0.0088	0.0005
Mercury	-78313-02-18 02:23 J	-26882352.59	-26882352.40	-26882352.20	0.0088	0.0012
Mercury	-78313-05-16 05:59 J	-26882264.44	-26882264.25	-26882264.06	0.0088	0.0019

Mercury -78313-08-12 09:20 J -26882176.28 -26882176.11 -26882175.91 0.0088 0.0026

Mercury -78313-11-08 13:11 J -26882088.13 -26882087.95 -26882087.77 0.0088 0.0032

Mercury -78312-02-04 16:32 J -26881999.97 -26881999.81 -26881999.62 0.0088 0.0039

Mercury -78312-05-03 20:23 J -26881911.82 -26881911.65 -26881911.48 0.0088 0.0045

Mercury -78312-07-30 23:44 J -26881823.66 -26881823.51 -26881823.34 0.0088 0.0051

Mercury -78312-10-27 03:20 J -26881735.50 -26881735.36 -26881735.21 0.0088 0.0058

Mercury -78311-01-23 06:42 J -26881647.33 -26881647.22 -26881647.07 0.0088 0.0065

Mercury -78311-04-21 10:18 J -26881559.17 -26881559.07 -26881558.94 0.0088 0.0071

Mercury -78311-07-18 13:40 J -26881471.00 -26881470.93 -26881470.82 0.0088 0.0078

Mercury -78311-10-14 17:16 J -26881382.82 -26881382.78 -26881382.70 0.0088 0.0084

Earth -78306-10-06 12:42 J -26879565.07 -26879564.97 -26879564.81 0.0088 0.0078

Moon -78306-10-06 13:40 J -26879565.00 -26879564.93 -26879564.80 0.0088 0.0082 *

Moon -78305-10-08 01:25 J -26879197.65 -26879197.44 -26879197.22 0.0088 0.0055

Earth -78305-10-08 03:20 J -26879197.53 -26879197.36 -26879197.14 0.0088 0.0060 *

Earth -78304-10-10 18:13 J -26878829.98 -26878829.74 -26878829.50 0.0088 0.0041

Moon -78304-10-10 20:52 J -26878829.83 -26878829.63 -26878829.38 0.0088 0.0046 *

Moon -78303-10-13 05:01 J -26878462.54 -26878462.29 -26878462.01 0.0088 0.0020

Earth -78303-10-13 08:37 J -26878462.39 -26878462.14 -26878461.88 0.0088 0.0023 *

Earth -78302-10-15 23:01 J -26878094.80 -26878094.54 -26878094.27 0.0088 0.0005

Moon -78302-10-16 02:52 J -26878094.64 -26878094.38 -26878094.11 0.0088 0.0008 *

Moon -78301-10-17 10:32 J -26877727.31 -26877727.06 -26877726.80 0.0088 0.0018

Earth -78301-10-17 13:25 J -26877727.19 -26877726.94 -26877726.66 0.0088 0.0015 *

Earth -78300-10-20 03:49 J -26877359.58 -26877359.34 -26877359.08 0.0088 0.0032

Moon -78300-10-20 06:56 J -26877359.46 -26877359.21 -26877358.95 0.0088 0.0030 *

Moon -78299-10-22 16:04 J -26876992.02 -26876991.83 -26876991.61 0.0088 0.0054

Earth -78299-10-22 17:44 J -26876991.95 -26876991.76 -26876991.52 0.0088 0.0051 *

Earth -78298-10-25 08:08 J -26876624.31 -26876624.16 -26876623.97 0.0088 0.0068

Moon -78298-10-25 08:37 J -26876624.30 -26876624.14 -26876623.94 0.0088 0.0065 *

Earth -78297-10-26 22:04 J -26876256.61 -26876256.58 -26876256.49 0.0088 0.0087

Mars -78290-06-16 01:40 J -26873833.71 -26873833.43 -26873833.12 0.0088 0.0025

Mars -78288-05-10 08:52 J -26873139.36 -26873139.13 -26873138.88 0.0088 0.0055
 Venus -78251-02-17 07:11 J -26859707.32 -26859707.20 -26859707.08 0.0088 0.0073
 Venus -78251-09-30 18:56 J -26859481.87 -26859481.71 -26859481.53 0.0088 0.0055
 Venus -78250-05-14 06:56 J -26859256.39 -26859256.21 -26859256.00 0.0088 0.0037
 Venus -78250-12-25 19:11 J -26859030.91 -26859030.70 -26859030.49 0.0089 0.0018
 Venus -78249-08-07 07:11 J -26858805.41 -26858805.20 -26858804.99 0.0089 0.0000
 Venus -78248-03-20 18:56 J -26858579.91 -26858579.71 -26858579.49 0.0089 0.0018
 Venus -78248-11-01 06:42 J -26858354.40 -26858354.22 -26858354.01 0.0089 0.0037
 Venus -78247-06-14 18:28 J -26858128.88 -26858128.73 -26858128.54 0.0089 0.0055
 Venus -78246-01-26 06:13 J -26857903.34 -26857903.24 -26857903.10 0.0089 0.0073
 Mercury -78236-10-15 14:37 J -26853987.89 -26853987.89 -26853987.88 0.0089 0.0089
 Mercury -78235-01-11 16:04 J -26853899.87 -26853899.83 -26853899.79 0.0089 0.0084
 Mercury -78235-04-09 17:01 J -26853811.83 -26853811.79 -26853811.72 0.0089 0.0080
 Mercury -78235-07-06 18:13 J -26853723.79 -26853723.74 -26853723.65 0.0089 0.0076
 Mercury -78235-10-02 19:54 J -26853635.75 -26853635.67 -26853635.59 0.0089 0.0071
 Mercury -78235-12-29 20:52 J -26853547.70 -26853547.63 -26853547.53 0.0089 0.0067
 Mercury -78234-03-27 22:32 J -26853459.65 -26853459.56 -26853459.47 0.0089 0.0062
 Mercury -78234-06-23 23:44 J -26853371.60 -26853371.51 -26853371.40 0.0089 0.0058
 Mercury -78234-09-20 01:11 J -26853283.55 -26853283.45 -26853283.34 0.0089 0.0053
 Mercury -78234-12-17 02:23 J -26853195.51 -26853195.40 -26853195.29 0.0089 0.0049
 Mercury -78233-03-14 03:49 J -26853107.45 -26853107.34 -26853107.23 0.0089 0.0044
 Mercury -78233-06-10 05:01 J -26853019.40 -26853019.29 -26853019.17 0.0089 0.0040
 Mercury -78233-09-06 06:28 J -26852931.35 -26852931.23 -26852931.11 0.0089 0.0035
 Mercury -78233-12-03 07:40 J -26852843.30 -26852843.18 -26852843.05 0.0089 0.0031
 Mercury -78232-03-01 09:06 J -26852755.25 -26852755.12 -26852754.99 0.0089 0.0026
 Mercury -78232-05-28 10:18 J -26852667.19 -26852667.07 -26852666.94 0.0089 0.0022
 Mercury -78232-08-24 11:44 J -26852579.14 -26852579.01 -26852578.88 0.0089 0.0017
 Mercury -78232-11-20 12:56 J -26852491.09 -26852490.96 -26852490.82 0.0089 0.0013
 Mercury -78231-02-16 14:23 J -26852403.03 -26852402.90 -26852402.77 0.0089 0.0008
 Mercury -78231-05-15 15:49 J -26852314.98 -26852314.84 -26852314.71 0.0089 0.0004

Mercury -78231-08-11 17:01 J -26852226.92 -26852226.79 -26852226.66 0.0089 0.0002

Mercury -78231-11-07 18:28 J -26852138.87 -26852138.73 -26852138.60 0.0089 0.0006

Mercury -78230-02-03 19:40 J -26852050.81 -26852050.68 -26852050.55 0.0089 0.0011

Mercury -78230-05-02 21:06 J -26851962.75 -26851962.62 -26851962.49 0.0089 0.0015

Mercury -78230-07-29 22:18 J -26851874.70 -26851874.57 -26851874.44 0.0089 0.0020

Mercury -78230-10-25 23:44 J -26851786.64 -26851786.51 -26851786.38 0.0089 0.0024

Mercury -78229-01-22 00:56 J -26851698.58 -26851698.46 -26851698.33 0.0089 0.0029

Mercury -78229-04-19 02:23 J -26851610.52 -26851610.40 -26851610.27 0.0089 0.0033

Mercury -78229-07-16 03:49 J -26851522.46 -26851522.34 -26851522.22 0.0089 0.0038

Mercury -78229-10-12 05:01 J -26851434.40 -26851434.29 -26851434.17 0.0089 0.0043

Mercury -78228-01-08 06:28 J -26851346.34 -26851346.23 -26851346.11 0.0089 0.0047

Mercury -78228-04-06 07:40 J -26851258.28 -26851258.18 -26851258.06 0.0089 0.0052

Mercury -78228-07-03 08:52 J -26851170.22 -26851170.13 -26851170.01 0.0089 0.0057

Mercury -78228-09-29 10:32 J -26851082.15 -26851082.06 -26851081.96 0.0089 0.0061

Mercury -78228-12-26 11:44 J -26850994.09 -26850994.01 -26850993.91 0.0089 0.0066

Mercury -78227-03-24 13:25 J -26850906.02 -26850905.94 -26850905.86 0.0089 0.0070

Mercury -78227-06-20 14:37 J -26850817.95 -26850817.89 -26850817.81 0.0089 0.0075

Mercury -78227-09-16 15:49 J -26850729.88 -26850729.84 -26850729.77 0.0089 0.0080

Mercury -78227-12-13 17:30 J -26850641.81 -26850641.77 -26850641.73 0.0089 0.0084

Mercury -78226-03-11 18:56 J -26850553.71 -26850553.71 -26850553.71 0.0089 0.0089

Moon -78224-04-04 15:20 J -26849798.86 -26849798.86 -26849798.79 0.0089 0.0088

Moon -78223-04-06 20:37 J -26849431.75 -26849431.64 -26849431.52 0.0089 0.0078

Earth -78223-04-06 23:01 J -26849431.64 -26849431.54 -26849431.37 0.0089 0.0075 *

Earth -78222-04-09 08:23 J -26849064.33 -26849064.15 -26849063.95 0.0089 0.0057

Moon -78222-04-09 11:44 J -26849064.21 -26849064.01 -26849063.81 0.0089 0.0053 *

Moon -78221-04-10 14:08 J -26848697.13 -26848696.91 -26848696.70 0.0089 0.0044

Earth -78221-04-10 17:16 J -26848696.99 -26848696.78 -26848696.54 0.0089 0.0040 *

Earth -78220-04-13 02:08 J -26848329.64 -26848329.41 -26848329.15 0.0089 0.0023

Moon -78220-04-13 05:30 J -26848329.51 -26848329.27 -26848329.02 0.0089 0.0018 *

Moon -78219-04-15 09:06 J -26847962.36 -26847962.12 -26847961.87 0.0089 0.0009

Earth	-78219-04-15 11:30 J	-26847962.27	-26847962.02	-26847961.77	0.0089	0.0005	*
Earth	-78218-04-17 20:23 J	-26847594.89	-26847594.65	-26847594.40	0.0089	0.0012	
Moon	-78218-04-17 21:49 J	-26847594.83	-26847594.59	-26847594.32	0.0089	0.0017	*
Earth	-78217-04-19 05:01 J	-26847227.51	-26847227.29	-26847227.03	0.0089	0.0030	
Moon	-78217-04-19 05:30 J	-26847227.49	-26847227.27	-26847227.03	0.0089	0.0026	*
Moon	-78216-04-21 12:42 J	-26846860.16	-26846859.97	-26846859.73	0.0089	0.0051	
Earth	-78216-04-21 14:08 J	-26846860.10	-26846859.91	-26846859.68	0.0089	0.0047	*
Earth	-78215-04-23 23:01 J	-26846492.68	-26846492.54	-26846492.34	0.0089	0.0065	
Moon	-78215-04-24 01:40 J	-26846492.60	-26846492.43	-26846492.24	0.0089	0.0060	*
Moon	-78214-04-26 04:47 J	-26846125.33	-26846125.30	-26846125.20	0.0089	0.0086	
Earth	-78214-04-26 08:23 J	-26846125.22	-26846125.15	-26846125.03	0.0089	0.0082	*
Mars	-78208-02-16 15:35 J	-26844002.06	-26844001.85	-26844001.57	0.0089	0.0059	
Mars	-78206-01-12 21:20 J	-26843306.91	-26843306.61	-26843306.30	0.0089	0.0029	
Venus	-78170-08-20 08:23 J	-26829938.21	-26829938.15	-26829938.09	0.0089	0.0085	
Venus	-78169-04-01 22:04 J	-26829712.72	-26829712.58	-26829712.42	0.0089	0.0066	
Venus	-78169-11-13 12:13 J	-26829487.17	-26829486.99	-26829486.79	0.0089	0.0047	
Venus	-78168-06-27 02:08 J	-26829261.61	-26829261.41	-26829261.18	0.0089	0.0028	
Venus	-78167-02-07 16:18 J	-26829036.04	-26829035.82	-26829035.59	0.0089	0.0009	
Venus	-78167-09-21 06:28 J	-26828810.46	-26828810.23	-26828810.01	0.0089	0.0011	
Venus	-78166-05-04 20:37 J	-26828584.86	-26828584.64	-26828584.43	0.0089	0.0030	
Venus	-78166-12-16 10:04 J	-26828359.24	-26828359.08	-26828358.87	0.0089	0.0050	
Venus	-78165-07-29 00:13 J	-26828133.61	-26828133.49	-26828133.33	0.0089	0.0069	
Venus	-78164-03-11 14:37 J	-26827907.91	-26827907.89	-26827907.86	0.0089	0.0088	
Mercury	-78152-04-01 16:18 J	-26823503.83	-26823503.82	-26823503.78	0.0088	0.0088	
Mercury	-78152-06-28 20:23 J	-26823415.73	-26823415.65	-26823415.57	0.0088	0.0081	
Mercury	-78152-09-24 23:44 J	-26823327.60	-26823327.51	-26823327.39	0.0088	0.0075	
Mercury	-78152-12-22 03:35 J	-26823239.47	-26823239.35	-26823239.22	0.0088	0.0068	
Mercury	-78151-03-20 07:25 J	-26823151.33	-26823151.19	-26823151.05	0.0088	0.0061	
Mercury	-78151-06-16 10:47 J	-26823063.19	-26823063.05	-26823062.88	0.0088	0.0055	
Mercury	-78151-09-12 14:37 J	-26822975.05	-26822974.89	-26822974.72	0.0088	0.0048	

Mercury -78151-12-09 18:28 J -26822886.90 -26822886.73 -26822886.56 0.0088 0.0041

Mercury -78150-03-07 21:49 J -26822798.76 -26822798.59 -26822798.40 0.0088 0.0035

Mercury -78150-06-04 01:40 J -26822710.61 -26822710.43 -26822710.24 0.0088 0.0028

Mercury -78150-08-31 05:16 J -26822622.46 -26822622.28 -26822622.08 0.0088 0.0021

Mercury -78150-11-27 09:06 J -26822534.31 -26822534.12 -26822533.93 0.0088 0.0014

Mercury -78149-02-23 12:42 J -26822446.16 -26822445.97 -26822445.77 0.0088 0.0008

Mercury -78149-05-21 16:18 J -26822358.01 -26822357.82 -26822357.62 0.0088 0.0002

Mercury -78149-08-17 19:54 J -26822269.86 -26822269.67 -26822269.47 0.0088 0.0006

Mercury -78149-11-13 23:30 J -26822181.71 -26822181.52 -26822181.32 0.0088 0.0013

Mercury -78148-02-10 03:20 J -26822093.55 -26822093.36 -26822093.17 0.0088 0.0019

Mercury -78148-05-09 06:42 J -26822005.40 -26822005.22 -26822005.03 0.0088 0.0026

Mercury -78148-08-05 10:18 J -26821917.24 -26821917.07 -26821916.88 0.0088 0.0032

Mercury -78148-11-01 13:54 J -26821829.09 -26821828.92 -26821828.74 0.0088 0.0039

Mercury -78147-01-28 17:16 J -26821740.93 -26821740.78 -26821740.60 0.0088 0.0046

Mercury -78147-04-26 21:06 J -26821652.77 -26821652.62 -26821652.46 0.0088 0.0052

Mercury -78147-07-24 00:28 J -26821564.61 -26821564.48 -26821564.32 0.0088 0.0059

Mercury -78147-10-20 04:18 J -26821476.45 -26821476.32 -26821476.18 0.0088 0.0065

Mercury -78146-01-16 07:25 J -26821388.28 -26821388.19 -26821388.05 0.0088 0.0072

Mercury -78146-04-14 11:16 J -26821300.11 -26821300.03 -26821299.93 0.0088 0.0078

Mercury -78146-07-11 14:37 J -26821211.93 -26821211.89 -26821211.81 0.0088 0.0084

Moon -78142-10-05 13:25 J -26819665.01 -26819664.94 -26819664.84 0.0088 0.0084

Earth -78142-10-05 16:32 J -26819664.87 -26819664.81 -26819664.73 0.0088 0.0085 *

Earth -78141-10-07 06:56 J -26819297.38 -26819297.21 -26819297.03 0.0088 0.0067

Moon -78141-10-07 09:49 J -26819297.23 -26819297.09 -26819296.91 0.0088 0.0070 *

Moon -78140-10-09 17:16 J -26818929.99 -26818929.78 -26818929.54 0.0088 0.0048

Earth -78140-10-09 20:52 J -26818929.82 -26818929.63 -26818929.38 0.0088 0.0050 *

Earth -78139-10-12 11:16 J -26818562.26 -26818562.03 -26818561.76 0.0088 0.0032

Moon -78139-10-12 14:52 J -26818562.11 -26818561.88 -26818561.62 0.0088 0.0033 *

Moon -78138-10-14 23:01 J -26818194.79 -26818194.54 -26818194.27 0.0088 0.0010

Earth -78138-10-15 02:08 J -26818194.66 -26818194.41 -26818194.14 0.0088 0.0013 *

Earth	-78137-10-16 16:47 J	-26817827.07	-26817826.80	-26817826.54	0.0088	0.0005
Moon	-78137-10-16 18:42 J	-26817826.99	-26817826.72	-26817826.44	0.0088	0.0003 *
Moon	-78136-10-19 05:44 J	-26817459.49	-26817459.26	-26817459.00	0.0088	0.0026
Earth	-78136-10-19 06:42 J	-26817459.46	-26817459.22	-26817458.95	0.0088	0.0024 *
Earth	-78135-10-21 21:06 J	-26817091.84	-26817091.62	-26817091.37	0.0088	0.0042
Moon	-78135-10-21 21:06 J	-26817091.84	-26817091.62	-26817091.35	0.0088	0.0039 *
Earth	-78134-10-24 11:16 J	-26816724.20	-26816724.03	-26816723.81	0.0088	0.0060
Moon	-78134-10-24 12:56 J	-26816724.12	-26816723.96	-26816723.76	0.0088	0.0062 *
Moon	-78133-10-25 23:01 J	-26816356.66	-26816356.54	-26816356.36	0.0088	0.0074
Earth	-78133-10-26 01:25 J	-26816356.54	-26816356.44	-26816356.28	0.0088	0.0077 *
Mars	-78126-01-28 18:56 J	-26814070.89	-26814070.71	-26814070.46	0.0088	0.0063
Mars	-78125-12-23 03:35 J	-26813376.64	-26813376.35	-26813376.04	0.0088	0.0018
Venus	-78087-05-21 15:35 J	-26799712.90	-26799712.85	-26799712.75	0.0088	0.0083
Venus	-78086-01-02 03:35 J	-26799487.47	-26799487.35	-26799487.18	0.0088	0.0065
Venus	-78086-08-15 16:04 J	-26799262.01	-26799261.83	-26799261.64	0.0088	0.0046
Venus	-78085-03-28 04:04 J	-26799036.53	-26799036.33	-26799036.13	0.0088	0.0028
Venus	-78085-11-08 16:04 J	-26798811.04	-26798810.83	-26798810.61	0.0088	0.0010
Venus	-78084-06-22 04:04 J	-26798585.54	-26798585.33	-26798585.11	0.0089	0.0009
Venus	-78083-02-02 15:49 J	-26798360.03	-26798359.84	-26798359.63	0.0089	0.0027
Venus	-78083-09-16 03:35 J	-26798134.52	-26798134.35	-26798134.15	0.0089	0.0046
Venus	-78082-04-29 15:20 J	-26797908.99	-26797908.86	-26797908.69	0.0089	0.0064
Venus	-78082-12-11 03:20 J	-26797683.42	-26797683.36	-26797683.26	0.0089	0.0082
Mercury	-78071-10-08 14:37 J	-26793728.91	-26793728.89	-26793728.83	0.0089	0.0085
Mercury	-78070-01-04 16:18 J	-26793640.87	-26793640.82	-26793640.76	0.0089	0.0080
Mercury	-78070-04-02 17:16 J	-26793552.83	-26793552.78	-26793552.70	0.0089	0.0076
Mercury	-78070-06-29 18:56 J	-26793464.79	-26793464.71	-26793464.63	0.0089	0.0071
Mercury	-78070-09-25 20:08 J	-26793376.74	-26793376.66	-26793376.57	0.0089	0.0067
Mercury	-78070-12-22 21:35 J	-26793288.69	-26793288.60	-26793288.51	0.0089	0.0062
Mercury	-78069-03-19 22:47 J	-26793200.64	-26793200.55	-26793200.44	0.0089	0.0058
Mercury	-78069-06-16 00:13 J	-26793112.59	-26793112.49	-26793112.38	0.0089	0.0053

Mercury -78069-09-12 01:25 J -26793024.54 -26793024.44 -26793024.32 0.0089 0.0049

Mercury -78069-12-09 02:52 J -26792936.49 -26792936.38 -26792936.26 0.0089 0.0044

Mercury -78068-03-07 04:04 J -26792848.44 -26792848.33 -26792848.21 0.0089 0.0040

Mercury -78068-06-03 05:30 J -26792760.39 -26792760.27 -26792760.15 0.0089 0.0035

Mercury -78068-08-30 06:42 J -26792672.34 -26792672.22 -26792672.09 0.0089 0.0031

Mercury -78068-11-26 08:08 J -26792584.29 -26792584.16 -26792584.03 0.0089 0.0026

Mercury -78067-02-22 09:20 J -26792496.23 -26792496.11 -26792495.98 0.0089 0.0022

Mercury -78067-05-21 10:47 J -26792408.18 -26792408.05 -26792407.92 0.0089 0.0017

Mercury -78067-08-17 11:59 J -26792320.13 -26792320.00 -26792319.86 0.0089 0.0013

Mercury -78067-11-13 13:25 J -26792232.07 -26792231.94 -26792231.81 0.0089 0.0008

Mercury -78066-02-09 14:52 J -26792144.02 -26792143.88 -26792143.75 0.0089 0.0004

Mercury -78066-05-08 16:04 J -26792055.96 -26792055.83 -26792055.70 0.0089 0.0002

Mercury -78066-08-04 17:30 J -26791967.91 -26791967.77 -26791967.64 0.0089 0.0006

Mercury -78066-10-31 18:42 J -26791879.85 -26791879.72 -26791879.58 0.0089 0.0011

Mercury -78065-01-27 20:08 J -26791791.79 -26791791.66 -26791791.53 0.0089 0.0015

Mercury -78065-04-24 21:20 J -26791703.73 -26791703.61 -26791703.48 0.0089 0.0020

Mercury -78065-07-21 22:32 J -26791615.68 -26791615.56 -26791615.42 0.0089 0.0025

Mercury -78065-10-17 23:59 J -26791527.62 -26791527.50 -26791527.37 0.0089 0.0029

Mercury -78064-01-14 01:25 J -26791439.56 -26791439.44 -26791439.31 0.0089 0.0034

Mercury -78064-04-12 02:52 J -26791351.50 -26791351.38 -26791351.26 0.0089 0.0038

Mercury -78064-07-09 04:04 J -26791263.44 -26791263.33 -26791263.21 0.0089 0.0043

Mercury -78064-10-05 05:16 J -26791175.38 -26791175.28 -26791175.16 0.0089 0.0048

Mercury -78063-01-01 06:42 J -26791087.32 -26791087.22 -26791087.10 0.0089 0.0052

Mercury -78063-03-30 08:08 J -26790999.26 -26790999.16 -26790999.05 0.0089 0.0057

Mercury -78063-06-26 09:35 J -26790911.19 -26790911.10 -26790911.00 0.0089 0.0061

Mercury -78063-09-22 10:47 J -26790823.13 -26790823.05 -26790822.95 0.0089 0.0066

Mercury -78063-12-19 11:59 J -26790735.06 -26790735.00 -26790734.90 0.0089 0.0071

Mercury -78062-03-17 13:40 J -26790647.00 -26790646.93 -26790646.86 0.0089 0.0075

Mercury -78062-06-13 14:52 J -26790558.92 -26790558.88 -26790558.81 0.0089 0.0080

Mercury -78062-09-09 16:04 J -26790470.85 -26790470.83 -26790470.77 0.0089 0.0085

Earth	-78059-04-06 06:42 J	-26789531.29	-26789531.22	-26789531.11	0.0089	0.0082
Moon	-78059-04-06 10:04 J	-26789531.12	-26789531.08	-26789530.98	0.0089	0.0085 *
Moon	-78058-04-08 12:28 J	-26789164.13	-26789163.98	-26789163.78	0.0089	0.0063
Earth	-78058-04-08 16:04 J	-26789163.99	-26789163.83	-26789163.65	0.0089	0.0065 *
Earth	-78057-04-10 00:56 J	-26788796.66	-26788796.46	-26788796.24	0.0089	0.0048
Moon	-78057-04-10 03:49 J	-26788796.53	-26788796.34	-26788796.11	0.0089	0.0050 *
Moon	-78056-04-12 08:08 J	-26788429.39	-26788429.16	-26788428.93	0.0089	0.0028
Earth	-78056-04-12 09:49 J	-26788429.31	-26788429.09	-26788428.84	0.0089	0.0031 *
Earth	-78055-04-14 18:56 J	-26788061.95	-26788061.71	-26788061.45	0.0089	0.0014
Moon	-78055-04-14 19:40 J	-26788061.93	-26788061.68	-26788061.42	0.0089	0.0016 *
Earth	-78054-04-17 04:04 J	-26787694.58	-26787694.33	-26787694.08	0.0089	0.0004
Moon	-78054-04-17 04:04 J	-26787694.57	-26787694.33	-26787694.08	0.0089	0.0006 *
Moon	-78053-04-18 11:01 J	-26787327.28	-26787327.04	-26787326.78	0.0089	0.0018
Earth	-78053-04-18 12:42 J	-26787327.20	-26787326.97	-26787326.71	0.0089	0.0022 *
Earth	-78052-04-20 21:49 J	-26786959.81	-26786959.59	-26786959.35	0.0089	0.0038
Moon	-78052-04-21 00:28 J	-26786959.68	-26786959.48	-26786959.25	0.0089	0.0041 *
Moon	-78051-04-23 03:35 J	-26786592.54	-26786592.35	-26786592.13	0.0089	0.0053
Earth	-78051-04-23 06:56 J	-26786592.40	-26786592.21	-26786592.01	0.0089	0.0055 *
Earth	-78050-04-25 16:04 J	-26786224.97	-26786224.83	-26786224.68	0.0089	0.0073
Moon	-78050-04-25 19:11 J	-26786224.81	-26786224.70	-26786224.54	0.0089	0.0076 *
Moon	-78049-04-26 22:04 J	-26785857.61	-26785857.58	-26785857.52	0.0089	0.0087
Mars	-78043-08-26 19:54 J	-26783544.98	-26783544.67	-26783544.34	0.0089	0.0013
Mars	-78041-07-22 01:40 J	-26782849.58	-26782849.43	-26782849.22	0.0089	0.0074
Venus	-78005-07-04 05:59 J	-26769718.37	-26769718.25	-26769718.13	0.0089	0.0075
Venus	-78004-02-14 19:40 J	-26769492.84	-26769492.68	-26769492.49	0.0089	0.0056
Venus	-78004-09-28 09:35 J	-26769267.29	-26769267.10	-26769266.88	0.0089	0.0037
Venus	-78003-05-11 23:44 J	-26769041.72	-26769041.51	-26769041.27	0.0089	0.0018
Venus	-78003-12-23 14:08 J	-26768816.14	-26768815.91	-26768815.68	0.0089	0.0002
Venus	-78002-08-06 03:49 J	-26768590.55	-26768590.34	-26768590.11	0.0089	0.0022
Venus	-78001-03-18 17:44 J	-26768364.94	-26768364.76	-26768364.54	0.0089	0.0041

Venus -78001-10-30 07:54 J -26768139.32 -26768139.17 -26768138.99 0.0089 0.0060

78TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 78th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-78000-06-12 22:32 J	-26767913.66	-26767913.56	-26767913.46	0.0089	0.0079		
Mercury	-77988-12-27 14:08 J	-26763332.94	-26763332.91	-26763332.87	0.0089	0.0087		
Mercury	-77987-03-25 17:30 J	-26763244.83	-26763244.77	-26763244.67	0.0089	0.0081		
Mercury	-77987-06-21 21:20 J	-26763156.70	-26763156.61	-26763156.49	0.0089	0.0074		
Mercury	-77987-09-18 01:11 J	-26763068.57	-26763068.45	-26763068.32	0.0089	0.0067		
Mercury	-77987-12-15 04:32 J	-26762980.43	-26762980.31	-26762980.15	0.0089	0.0061		
Mercury	-77986-03-13 08:23 J	-26762892.29	-26762892.15	-26762891.98	0.0088	0.0054		
Mercury	-77986-06-09 12:13 J	-26762804.15	-26762803.99	-26762803.82	0.0088	0.0047		
Mercury	-77986-09-05 15:35 J	-26762716.00	-26762715.85	-26762715.66	0.0088	0.0041		
Mercury	-77986-12-02 19:25 J	-26762627.86	-26762627.69	-26762627.50	0.0088	0.0034		
Mercury	-77985-02-28 23:16 J	-26762539.71	-26762539.53	-26762539.34	0.0088	0.0027		
Mercury	-77985-05-27 02:52 J	-26762451.56	-26762451.38	-26762451.18	0.0088	0.0020		
Mercury	-77985-08-23 06:42 J	-26762363.41	-26762363.22	-26762363.03	0.0088	0.0013		
Mercury	-77985-11-19 10:18 J	-26762275.26	-26762275.07	-26762274.87	0.0088	0.0007		
Mercury	-77984-02-15 13:54 J	-26762187.11	-26762186.92	-26762186.72	0.0088	0.0001		
Mercury	-77984-05-14 17:30 J	-26762098.96	-26762098.77	-26762098.57	0.0088	0.0007		
Mercury	-77984-08-10 21:06 J	-26762010.81	-26762010.62	-26762010.42	0.0088	0.0013		

Mercury -77984-11-07 00:42 J -26761922.65 -26761922.47 -26761922.27 0.0088 0.0020
 Mercury -77983-02-03 04:18 J -26761834.50 -26761834.32 -26761834.13 0.0088 0.0027
 Mercury -77983-05-02 07:40 J -26761746.34 -26761746.18 -26761745.98 0.0088 0.0034
 Mercury -77983-07-29 11:30 J -26761658.19 -26761658.02 -26761657.84 0.0088 0.0040
 Mercury -77983-10-25 14:52 J -26761570.03 -26761569.88 -26761569.70 0.0088 0.0047
 Mercury -77982-01-21 18:42 J -26761481.87 -26761481.72 -26761481.56 0.0088 0.0053
 Mercury -77982-04-19 22:04 J -26761393.71 -26761393.58 -26761393.42 0.0088 0.0060
 Mercury -77982-07-17 01:54 J -26761305.54 -26761305.42 -26761305.29 0.0088 0.0066
 Mercury -77982-10-13 05:01 J -26761217.38 -26761217.29 -26761217.16 0.0088 0.0073
 Mercury -77981-01-09 08:52 J -26761129.20 -26761129.13 -26761129.03 0.0088 0.0079
 Mercury -77981-04-06 12:13 J -26761041.02 -26761040.99 -26761040.92 0.0088 0.0085
 Moon -77978-10-04 23:30 J -26759764.53 -26759764.52 -26759764.45 0.0088 0.0088
 Moon -77977-10-06 06:56 J -26759397.30 -26759397.21 -26759397.07 0.0088 0.0079
 Earth -77977-10-06 10:18 J -26759397.18 -26759397.07 -26759396.90 0.0088 0.0075 *
 Earth -77976-10-09 00:56 J -26759029.65 -26759029.46 -26759029.24 0.0088 0.0057
 Moon -77976-10-09 04:04 J -26759029.52 -26759029.33 -26759029.09 0.0088 0.0053 *
 Moon -77975-10-11 13:11 J -26758662.16 -26758661.95 -26758661.71 0.0088 0.0044
 Earth -77975-10-11 15:35 J -26758662.08 -26758661.85 -26758661.61 0.0088 0.0039 *
 Earth -77974-10-14 05:44 J -26758294.50 -26758294.26 -26758293.99 0.0088 0.0021
 Moon -77974-10-14 07:40 J -26758294.44 -26758294.18 -26758293.91 0.0088 0.0017 *
 Moon -77973-10-15 19:54 J -26757926.92 -26757926.67 -26757926.41 0.0088 0.0008
 Earth -77973-10-15 20:23 J -26757926.92 -26757926.65 -26757926.39 0.0088 0.0003 *
 Moon -77972-10-18 09:35 J -26757559.37 -26757559.10 -26757558.83 0.0088 0.0019
 Earth -77972-10-18 10:47 J -26757559.31 -26757559.05 -26757558.79 0.0088 0.0015 *
 Earth -77971-10-21 01:11 J -26757191.69 -26757191.45 -26757191.20 0.0088 0.0033
 Moon -77971-10-21 02:37 J -26757191.62 -26757191.39 -26757191.13 0.0088 0.0030 *
 Moon -77970-10-23 11:59 J -26756824.19 -26756824.00 -26756823.76 0.0088 0.0055
 Earth -77970-10-23 15:20 J -26756824.06 -26756823.86 -26756823.63 0.0088 0.0050 *
 Earth -77969-10-25 05:16 J -26756456.42 -26756456.28 -26756456.08 0.0088 0.0069
 Moon -77969-10-25 09:06 J -26756456.28 -26756456.12 -26756455.93 0.0088 0.0064 *

Earth -77968-10-27 19:54 J -26756088.72 -26756088.67 -26756088.59 0.0088 0.0086
 Mars -77961-08-07 00:42 J -26753613.76 -26753613.47 -26753613.16 0.0088 0.0020
 Mars -77959-07-02 07:54 J -26752919.37 -26752919.17 -26752918.93 0.0088 0.0060
 Jupiter -77944-04-08 07:25 J -26747525.64 -26747525.19 -26747524.66 0.0088 0.0038
 Venus -77922-04-05 13:40 J -26739493.04 -26739492.93 -26739492.80 0.0088 0.0073
 Venus -77922-11-17 01:40 J -26739267.58 -26739267.43 -26739267.24 0.0088 0.0055
 Venus -77921-06-29 13:40 J -26739042.11 -26739041.93 -26739041.72 0.0088 0.0037
 Venus -77920-02-10 01:54 J -26738816.63 -26738816.42 -26738816.21 0.0088 0.0018
 Venus -77920-09-23 13:54 J -26738591.14 -26738590.92 -26738590.71 0.0088 0.0001
 Venus -77919-05-07 01:40 J -26738365.63 -26738365.43 -26738365.21 0.0089 0.0019
 Venus -77919-12-18 13:54 J -26738140.12 -26738139.92 -26738139.73 0.0089 0.0037
 Venus -77918-08-01 01:11 J -26737914.59 -26737914.45 -26737914.26 0.0089 0.0056
 Venus -77917-03-13 13:11 J -26737689.05 -26737688.95 -26737688.81 0.0089 0.0074
 Mercury -77906-04-08 12:42 J -26733645.97 -26733645.97 -26733645.96 0.0089 0.0089
 Mercury -77906-07-05 14:08 J -26733557.95 -26733557.91 -26733557.87 0.0089 0.0084
 Mercury -77906-10-01 15:20 J -26733469.91 -26733469.86 -26733469.80 0.0089 0.0080
 Mercury -77906-12-28 16:47 J -26733381.87 -26733381.80 -26733381.73 0.0089 0.0075
 Mercury -77905-03-25 17:59 J -26733293.82 -26733293.75 -26733293.67 0.0089 0.0071
 Mercury -77905-06-21 19:25 J -26733205.78 -26733205.69 -26733205.60 0.0089 0.0066
 Mercury -77905-09-17 20:37 J -26733117.73 -26733117.64 -26733117.54 0.0089 0.0062
 Mercury -77905-12-14 22:04 J -26733029.68 -26733029.58 -26733029.48 0.0089 0.0057
 Mercury -77904-03-12 23:16 J -26732941.63 -26732941.53 -26732941.42 0.0089 0.0053
 Mercury -77904-06-09 00:42 J -26732853.58 -26732853.47 -26732853.36 0.0089 0.0048
 Mercury -77904-09-05 01:54 J -26732765.53 -26732765.42 -26732765.30 0.0089 0.0044
 Mercury -77904-12-02 03:20 J -26732677.48 -26732677.36 -26732677.24 0.0089 0.0039
 Mercury -77903-02-28 04:32 J -26732589.43 -26732589.31 -26732589.18 0.0089 0.0035
 Mercury -77903-05-27 05:59 J -26732501.37 -26732501.25 -26732501.13 0.0089 0.0030
 Mercury -77903-08-23 07:11 J -26732413.32 -26732413.20 -26732413.07 0.0089 0.0026
 Mercury -77903-11-19 08:37 J -26732325.27 -26732325.14 -26732325.01 0.0089 0.0021
 Mercury -77902-02-15 09:49 J -26732237.22 -26732237.09 -26732236.95 0.0089 0.0017

Mercury -77902-05-14 11:16 J -26732149.16 -26732149.03 -26732148.90 0.0089 0.0012

Mercury -77902-08-10 12:28 J -26732061.11 -26732060.98 -26732060.84 0.0089 0.0008

Mercury -77902-11-06 13:54 J -26731973.05 -26731972.92 -26731972.79 0.0089 0.0003

Mercury -77901-02-02 15:20 J -26731885.00 -26731884.86 -26731884.73 0.0089 0.0003

Mercury -77901-04-30 16:32 J -26731796.94 -26731796.81 -26731796.68 0.0089 0.0007

Mercury -77901-07-27 17:59 J -26731708.88 -26731708.75 -26731708.62 0.0089 0.0011

Mercury -77901-10-23 19:11 J -26731620.83 -26731620.70 -26731620.57 0.0089 0.0016

Mercury -77900-01-19 20:37 J -26731532.77 -26731532.64 -26731532.51 0.0089 0.0020

Mercury -77900-04-17 21:49 J -26731444.71 -26731444.59 -26731444.46 0.0089 0.0025

Mercury -77900-07-14 23:01 J -26731356.65 -26731356.54 -26731356.40 0.0089 0.0030

Mercury -77900-10-11 00:28 J -26731268.60 -26731268.48 -26731268.35 0.0089 0.0034

Mercury -77899-01-07 01:54 J -26731180.54 -26731180.42 -26731180.30 0.0089 0.0039

Mercury -77899-04-05 03:20 J -26731092.48 -26731092.36 -26731092.24 0.0089 0.0043

Mercury -77899-07-02 04:32 J -26731004.42 -26731004.31 -26731004.19 0.0089 0.0048

Mercury -77899-09-28 05:44 J -26730916.35 -26730916.26 -26730916.14 0.0089 0.0053

Mercury -77899-12-25 07:25 J -26730828.29 -26730828.19 -26730828.09 0.0089 0.0057

Mercury -77898-03-23 08:37 J -26730740.23 -26730740.14 -26730740.04 0.0089 0.0062

Mercury -77898-06-19 09:49 J -26730652.16 -26730652.09 -26730651.99 0.0089 0.0067

Mercury -77898-09-15 11:16 J -26730564.10 -26730564.03 -26730563.94 0.0089 0.0071

Mercury -77898-12-12 12:42 J -26730476.03 -26730475.97 -26730475.89 0.0089 0.0076

Mercury -77897-03-09 14:08 J -26730387.96 -26730387.91 -26730387.85 0.0089 0.0080

Mercury -77897-06-05 15:20 J -26730299.88 -26730299.86 -26730299.81 0.0089 0.0085

Moon -77895-04-05 11:44 J -26729631.07 -26729631.01 -26729630.93 0.0089 0.0085

Earth -77894-04-07 23:44 J -26729263.63 -26729263.51 -26729263.34 0.0089 0.0073

Moon -77894-04-08 02:23 J -26729263.51 -26729263.40 -26729263.25 0.0089 0.0076 *

Moon -77893-04-09 07:40 J -26728896.36 -26728896.18 -26728895.97 0.0089 0.0052

Earth -77893-04-09 09:06 J -26728896.30 -26728896.12 -26728895.91 0.0089 0.0056 *

Earth -77892-04-11 18:13 J -26728528.94 -26728528.74 -26728528.49 0.0089 0.0039

Moon -77892-04-11 19:25 J -26728528.92 -26728528.69 -26728528.47 0.0089 0.0042 *

Earth -77891-04-14 03:20 J -26728161.59 -26728161.36 -26728161.10 0.0089 0.0022

Moon	-77891-04-14 04:47 J	-26728161.53	-26728161.30	-26728161.06	0.0089	0.0018	*
Moon	-77890-04-16 10:32 J	-26727794.31	-26727794.06	-26727793.79	0.0089	0.0008	
Earth	-77890-04-16 12:42 J	-26727794.22	-26727793.97	-26727793.71	0.0089	0.0005	*
Earth	-77889-04-17 21:35 J	-26727426.84	-26727426.60	-26727426.34	0.0089	0.0013	
Moon	-77889-04-18 00:28 J	-26727426.71	-26727426.48	-26727426.23	0.0089	0.0017	*
Moon	-77888-04-20 03:06 J	-26727059.60	-26727059.37	-26727059.12	0.0089	0.0026	
Earth	-77888-04-20 06:28 J	-26727059.45	-26727059.23	-26727058.98	0.0089	0.0030	*
Earth	-77887-04-22 15:20 J	-26726692.05	-26726691.86	-26726691.62	0.0089	0.0047	
Moon	-77887-04-22 18:42 J	-26726691.91	-26726691.72	-26726691.49	0.0089	0.0051	*
Moon	-77886-04-24 21:20 J	-26726324.77	-26726324.61	-26726324.41	0.0089	0.0060	
Earth	-77886-04-25 00:28 J	-26726324.63	-26726324.48	-26726324.29	0.0089	0.0064	*
Earth	-77885-04-26 10:04 J	-26725957.19	-26725957.08	-26725956.98	0.0089	0.0081	
Moon	-77885-04-26 11:16 J	-26725957.09	-26725957.03	-26725956.92	0.0089	0.0085	*
Mars	-77879-04-09 23:44 J	-26723782.74	-26723782.51	-26723782.23	0.0089	0.0053	
Mars	-77877-03-05 02:08 J	-26723087.69	-26723087.41	-26723087.09	0.0089	0.0033	
Venus	-77841-10-05 13:40 J	-26709723.99	-26709723.93	-26709723.85	0.0089	0.0084	
Venus	-77840-05-19 03:35 J	-26709498.48	-26709498.35	-26709498.18	0.0089	0.0065	
Venus	-77840-12-30 17:44 J	-26709272.94	-26709272.76	-26709272.55	0.0089	0.0046	
Venus	-77839-08-13 07:54 J	-26709047.38	-26709047.17	-26709046.95	0.0089	0.0026	
Venus	-77838-03-26 22:04 J	-26708821.80	-26708821.58	-26708821.35	0.0089	0.0007	
Venus	-77838-11-07 11:59 J	-26708596.22	-26708596.00	-26708595.77	0.0089	0.0013	
Venus	-77837-06-20 02:23 J	-26708370.61	-26708370.40	-26708370.19	0.0089	0.0032	
Venus	-77836-01-31 16:04 J	-26708145.00	-26708144.83	-26708144.63	0.0089	0.0052	
Venus	-77836-09-14 06:13 J	-26707919.37	-26707919.24	-26707919.10	0.0089	0.0071	
Mercury	-77823-09-23 11:44 J	-26703162.04	-26703162.01	-26703161.95	0.0089	0.0086	
Mercury	-77823-12-20 15:49 J	-26703073.93	-26703073.84	-26703073.75	0.0089	0.0079	
Mercury	-77822-03-18 19:11 J	-26702985.80	-26702985.70	-26702985.57	0.0089	0.0073	
Mercury	-77822-06-14 23:01 J	-26702897.66	-26702897.54	-26702897.40	0.0089	0.0066	
Mercury	-77822-09-11 02:52 J	-26702809.52	-26702809.38	-26702809.23	0.0089	0.0059	
Mercury	-77822-12-08 06:13 J	-26702721.38	-26702721.24	-26702721.07	0.0089	0.0053	

Mercury -77821-03-05 10:04 J -26702633.24 -26702633.08 -26702632.90 0.0089 0.0046

Mercury -77821-06-01 13:54 J -26702545.09 -26702544.92 -26702544.74 0.0088 0.0039

Mercury -77821-08-28 17:16 J -26702456.95 -26702456.78 -26702456.58 0.0088 0.0033

Mercury -77821-11-24 21:06 J -26702368.80 -26702368.62 -26702368.43 0.0088 0.0026

Mercury -77820-02-21 00:56 J -26702280.65 -26702280.46 -26702280.27 0.0088 0.0019

Mercury -77820-05-20 04:32 J -26702192.50 -26702192.31 -26702192.12 0.0088 0.0012

Mercury -77820-08-16 08:08 J -26702104.35 -26702104.16 -26702103.96 0.0088 0.0006

Mercury -77820-11-12 11:44 J -26702016.20 -26702016.01 -26702015.81 0.0088 0.0002

Mercury -77819-02-08 15:20 J -26701928.05 -26701927.86 -26701927.66 0.0088 0.0008

Mercury -77819-05-07 19:11 J -26701839.89 -26701839.70 -26701839.51 0.0088 0.0015

Mercury -77819-08-03 22:32 J -26701751.74 -26701751.56 -26701751.36 0.0088 0.0022

Mercury -77819-10-31 02:23 J -26701663.58 -26701663.40 -26701663.22 0.0088 0.0028

Mercury -77818-01-27 05:44 J -26701575.43 -26701575.26 -26701575.07 0.0088 0.0035

Mercury -77818-04-25 09:20 J -26701487.27 -26701487.11 -26701486.93 0.0088 0.0041

Mercury -77818-07-22 12:56 J -26701399.11 -26701398.96 -26701398.79 0.0088 0.0048

Mercury -77818-10-18 16:18 J -26701310.95 -26701310.82 -26701310.65 0.0088 0.0055

Mercury -77817-01-14 20:08 J -26701222.79 -26701222.66 -26701222.51 0.0088 0.0061

Mercury -77817-04-11 23:30 J -26701134.62 -26701134.52 -26701134.38 0.0088 0.0068

Mercury -77817-07-09 03:20 J -26701046.46 -26701046.36 -26701046.25 0.0088 0.0074

Mercury -77817-10-05 06:42 J -26700958.28 -26700958.22 -26700958.12 0.0088 0.0081

Mercury -77816-01-01 10:32 J -26700870.09 -26700870.06 -26700870.02 0.0088 0.0087

Earth -77813-10-05 15:35 J -26699496.92 -26699496.85 -26699496.72 0.0088 0.0082

Moon -77813-10-05 18:13 J -26699496.82 -26699496.74 -26699496.59 0.0088 0.0081 *

Moon -77812-10-08 04:04 J -26699129.47 -26699129.33 -26699129.13 0.0088 0.0066

Earth -77812-10-08 06:28 J -26699129.40 -26699129.23 -26699129.03 0.0088 0.0064 *

Earth -77811-10-10 20:37 J -26698761.84 -26698761.64 -26698761.39 0.0088 0.0047

Moon -77811-10-10 21:06 J -26698761.84 -26698761.62 -26698761.36 0.0088 0.0045 *

Earth -77810-10-13 11:01 J -26698394.28 -26698394.04 -26698393.77 0.0088 0.0029

Moon -77810-10-13 11:44 J -26698394.24 -26698394.01 -26698393.76 0.0088 0.0030 *

Moon -77809-10-14 23:59 J -26698026.77 -26698026.50 -26698026.22 0.0088 0.0009

Earth	-77809-10-15 01:25 J	-26698026.69	-26698026.44	-26698026.17	0.0088	0.0011	*
Earth	-77808-10-17 15:49 J	-26697659.10	-26697658.84	-26697658.57	0.0088	0.0007	
Moon	-77808-10-17 18:42 J	-26697658.97	-26697658.72	-26697658.46	0.0088	0.0006	*
Moon	-77807-10-20 02:52 J	-26697291.63	-26697291.38	-26697291.11	0.0088	0.0026	
Earth	-77807-10-20 06:13 J	-26697291.49	-26697291.24	-26697290.98	0.0088	0.0025	*
Earth	-77806-10-22 20:08 J	-26696923.87	-26696923.66	-26696923.41	0.0088	0.0042	
Moon	-77806-10-22 23:59 J	-26696923.72	-26696923.50	-26696923.25	0.0088	0.0039	*
Moon	-77805-10-24 07:11 J	-26696556.38	-26696556.20	-26696556.01	0.0088	0.0062	
Earth	-77805-10-24 10:32 J	-26696556.24	-26696556.06	-26696555.85	0.0088	0.0060	*
Earth	-77804-10-27 00:28 J	-26696188.58	-26696188.48	-26696188.32	0.0088	0.0078	
Moon	-77804-10-27 03:35 J	-26696188.46	-26696188.35	-26696188.17	0.0088	0.0075	*
Mars	-77797-03-21 17:44 J	-26693850.96	-26693850.76	-26693850.49	0.0088	0.0057	
Mars	-77795-02-14 05:30 J	-26693156.56	-26693156.27	-26693155.96	0.0088	0.0024	
Jupiter	-77778-06-11 00:56 J	-26686830.96	-26686830.46	-26686829.91	0.0088	0.0023	
Venus	-77758-07-08 00:13 J	-26679498.56	-26679498.49	-26679498.39	0.0088	0.0081	
Venus	-77757-02-18 12:13 J	-26679273.13	-26679272.99	-26679272.83	0.0088	0.0063	
Venus	-77757-09-30 23:59 J	-26679047.67	-26679047.50	-26679047.30	0.0088	0.0045	
Venus	-77756-05-14 11:59 J	-26678822.19	-26678822.00	-26678821.78	0.0088	0.0027	
Venus	-77756-12-26 00:13 J	-26678596.70	-26678596.49	-26678596.27	0.0088	0.0008	
Venus	-77755-08-08 12:13 J	-26678371.20	-26678370.99	-26678370.78	0.0088	0.0011	
Venus	-77754-03-21 23:59 J	-26678145.70	-26678145.50	-26678145.29	0.0088	0.0029	
Venus	-77754-11-02 11:44 J	-26677920.18	-26677920.01	-26677919.81	0.0089	0.0048	
Venus	-77753-06-14 23:30 J	-26677694.64	-26677694.52	-26677694.35	0.0089	0.0066	
Venus	-77752-01-26 11:30 J	-26677469.07	-26677469.02	-26677468.93	0.0089	0.0084	
Mercury	-77741-01-03 11:59 J	-26673475.00	-26673475.00	-26673474.97	0.0089	0.0088	
Mercury	-77741-03-31 13:11 J	-26673386.98	-26673386.95	-26673386.89	0.0089	0.0084	
Mercury	-77741-06-27 14:37 J	-26673298.94	-26673298.89	-26673298.82	0.0089	0.0079	
Mercury	-77741-09-23 15:49 J	-26673210.89	-26673210.84	-26673210.76	0.0089	0.0075	
Mercury	-77741-12-20 17:16 J	-26673122.85	-26673122.78	-26673122.69	0.0089	0.0070	
Mercury	-77740-03-18 18:28 J	-26673034.80	-26673034.73	-26673034.63	0.0089	0.0066	

Mercury -77740-06-14 20:08 J -26672946.75 -26672946.66 -26672946.57 0.0089 0.0061

Mercury -77740-09-10 21:06 J -26672858.71 -26672858.62 -26672858.50 0.0089 0.0057

Mercury -77740-12-07 22:32 J -26672770.66 -26672770.56 -26672770.44 0.0089 0.0052

Mercury -77739-03-05 23:44 J -26672682.61 -26672682.51 -26672682.38 0.0089 0.0048

Mercury -77739-06-02 01:25 J -26672594.56 -26672594.44 -26672594.33 0.0089 0.0043

Mercury -77739-08-29 02:37 J -26672506.50 -26672506.39 -26672506.27 0.0089 0.0038

Mercury -77739-11-25 03:49 J -26672418.45 -26672418.34 -26672418.21 0.0089 0.0034

Mercury -77738-02-21 05:16 J -26672330.40 -26672330.28 -26672330.15 0.0089 0.0029

Mercury -77738-05-20 06:42 J -26672242.35 -26672242.22 -26672242.09 0.0089 0.0025

Mercury -77738-08-16 07:54 J -26672154.29 -26672154.17 -26672154.04 0.0089 0.0020

Mercury -77738-11-12 09:20 J -26672066.24 -26672066.11 -26672065.98 0.0089 0.0016

Mercury -77737-02-08 10:32 J -26671978.19 -26671978.06 -26671977.92 0.0089 0.0011

Mercury -77737-05-06 11:59 J -26671890.13 -26671890.00 -26671889.87 0.0089 0.0006

Mercury -77737-08-02 13:11 J -26671802.08 -26671801.95 -26671801.81 0.0089 0.0004

Mercury -77737-10-29 14:37 J -26671714.02 -26671713.89 -26671713.76 0.0089 0.0003

Mercury -77736-01-25 15:49 J -26671625.97 -26671625.84 -26671625.70 0.0089 0.0008

Mercury -77736-04-23 17:16 J -26671537.91 -26671537.78 -26671537.65 0.0089 0.0012

Mercury -77736-07-20 18:28 J -26671449.85 -26671449.73 -26671449.59 0.0089 0.0017

Mercury -77736-10-16 19:54 J -26671361.80 -26671361.67 -26671361.54 0.0089 0.0021

Mercury -77735-01-12 21:20 J -26671273.74 -26671273.61 -26671273.48 0.0089 0.0026

Mercury -77735-04-10 22:32 J -26671185.68 -26671185.56 -26671185.43 0.0089 0.0031

Mercury -77735-07-07 23:59 J -26671097.62 -26671097.50 -26671097.38 0.0089 0.0035

Mercury -77735-10-04 01:11 J -26671009.56 -26671009.45 -26671009.32 0.0089 0.0040

Mercury -77735-12-31 02:37 J -26670921.50 -26670921.39 -26670921.27 0.0089 0.0044

Mercury -77734-03-29 03:49 J -26670833.44 -26670833.34 -26670833.22 0.0089 0.0049

Mercury -77734-06-25 05:16 J -26670745.38 -26670745.28 -26670745.17 0.0089 0.0054

Mercury -77734-09-21 06:42 J -26670657.32 -26670657.22 -26670657.12 0.0089 0.0058

Mercury -77734-12-18 07:54 J -26670569.25 -26670569.17 -26670569.07 0.0089 0.0063

Mercury -77733-03-15 09:06 J -26670481.19 -26670481.12 -26670481.02 0.0089 0.0068

Mercury -77733-06-11 10:47 J -26670393.12 -26670393.05 -26670392.97 0.0089 0.0072

Mercury -77733-09-07 11:59 J -26670305.06 -26670305.00 -26670304.92 0.0089 0.0077
 Mercury -77733-12-04 13:25 J -26670216.98 -26670216.94 -26670216.88 0.0089 0.0081
 Mercury -77732-03-02 14:37 J -26670128.91 -26670128.89 -26670128.84 0.0089 0.0086
 Moon -77730-04-07 07:54 J -26669363.23 -26669363.17 -26669363.05 0.0089 0.0083
 Earth -77730-04-07 09:35 J -26669363.20 -26669363.10 -26669362.98 0.0089 0.0079 *
 Moon -77729-04-08 17:59 J -26668995.92 -26668995.75 -26668995.53 0.0089 0.0060
 Earth -77729-04-08 18:13 J -26668995.89 -26668995.74 -26668995.54 0.0089 0.0063 *
 Earth -77728-04-11 03:20 J -26668628.56 -26668628.36 -26668628.13 0.0089 0.0046
 Moon -77728-04-11 04:18 J -26668628.50 -26668628.32 -26668628.10 0.0089 0.0049 *
 Moon -77727-04-13 10:04 J -26668261.31 -26668261.08 -26668260.82 0.0089 0.0026
 Earth -77727-04-13 12:42 J -26668261.19 -26668260.97 -26668260.72 0.0089 0.0029 *
 Earth -77726-04-15 21:49 J -26667893.83 -26667893.59 -26667893.33 0.0089 0.0012
 Moon -77726-04-16 01:11 J -26667893.69 -26667893.45 -26667893.21 0.0089 0.0015 *
 Moon -77725-04-17 03:35 J -26667526.59 -26667526.35 -26667526.09 0.0089 0.0008
 Earth -77725-04-17 07:11 J -26667526.45 -26667526.20 -26667525.95 0.0089 0.0005 *
 Earth -77724-04-19 15:49 J -26667159.07 -26667158.84 -26667158.58 0.0089 0.0022
 Moon -77724-04-19 19:25 J -26667158.93 -26667158.69 -26667158.43 0.0089 0.0019 *
 Moon -77723-04-21 22:18 J -26666791.77 -26666791.57 -26666791.33 0.0089 0.0042
 Earth -77723-04-22 00:42 J -26666791.67 -26666791.47 -26666791.22 0.0089 0.0039 *
 Earth -77722-04-24 10:04 J -26666424.27 -26666424.08 -26666423.88 0.0089 0.0055
 Moon -77722-04-24 11:59 J -26666424.19 -26666424.00 -26666423.78 0.0089 0.0053 *
 Moon -77721-04-25 18:42 J -26666056.83 -26666056.72 -26666056.58 0.0089 0.0076
 Earth -77721-04-25 18:56 J -26666056.83 -26666056.71 -26666056.54 0.0089 0.0072 *
 Moon -77720-04-28 02:37 J -26665689.42 -26665689.39 -26665689.29 0.0089 0.0086
 Earth -77720-04-28 04:18 J -26665689.32 -26665689.32 -26665689.30 0.0089 0.0089 *
 Mars -77714-10-18 07:40 J -26663325.49 -26663325.18 -26663324.86 0.0089 0.0007
 Mars -77712-09-12 10:18 J -26662630.19 -26662630.07 -26662629.91 0.0089 0.0079
 Venus -77676-08-20 12:28 J -26649504.10 -26649503.98 -26649503.85 0.0089 0.0073
 Venus -77675-04-03 02:08 J -26649278.57 -26649278.41 -26649278.21 0.0089 0.0054
 Venus -77675-11-14 16:47 J -26649053.01 -26649052.80 -26649052.59 0.0089 0.0034

Venus -77674-06-28 06:42 J -26648827.43 -26648827.22 -26648826.99 0.0089 0.0015

Venus -77673-02-08 20:52 J -26648601.85 -26648601.63 -26648601.40 0.0089 0.0005

Venus -77673-09-21 11:01 J -26648376.26 -26648376.04 -26648375.82 0.0089 0.0024

Venus -77672-05-05 00:56 J -26648150.65 -26648150.46 -26648150.25 0.0089 0.0044

Venus -77672-12-16 14:37 J -26647925.02 -26647924.89 -26647924.70 0.0089 0.0064

Venus -77671-07-30 05:01 J -26647699.35 -26647699.29 -26647699.20 0.0089 0.0083

Mercury -77658-06-20 10:18 J -26642991.13 -26642991.07 -26642991.01 0.0089 0.0084

Mercury -77658-09-16 13:25 J -26642903.01 -26642902.94 -26642902.82 0.0089 0.0078

Mercury -77658-12-13 17:16 J -26642814.88 -26642814.78 -26642814.65 0.0089 0.0071

Mercury -77657-03-10 21:06 J -26642726.74 -26642726.62 -26642726.47 0.0089 0.0064

Mercury -77657-06-07 00:42 J -26642638.60 -26642638.47 -26642638.31 0.0089 0.0057

Mercury -77657-09-03 04:18 J -26642550.46 -26642550.32 -26642550.14 0.0089 0.0051

Mercury -77657-11-30 08:08 J -26642462.32 -26642462.16 -26642461.98 0.0089 0.0044

Mercury -77656-02-26 11:44 J -26642374.17 -26642374.01 -26642373.82 0.0089 0.0038

Mercury -77656-05-25 15:35 J -26642286.03 -26642285.85 -26642285.66 0.0089 0.0030

Mercury -77656-08-21 19:11 J -26642197.88 -26642197.70 -26642197.50 0.0089 0.0024

Mercury -77656-11-17 23:01 J -26642109.73 -26642109.54 -26642109.35 0.0089 0.0017

Mercury -77655-02-14 02:37 J -26642021.58 -26642021.39 -26642021.19 0.0089 0.0010

Mercury -77655-05-13 06:13 J -26641933.43 -26641933.24 -26641933.04 0.0089 0.0004

Mercury -77655-08-09 10:04 J -26641845.28 -26641845.08 -26641844.89 0.0089 0.0003

Mercury -77655-11-05 13:40 J -26641757.13 -26641756.93 -26641756.74 0.0088 0.0010

Mercury -77654-02-01 17:01 J -26641668.97 -26641668.79 -26641668.59 0.0088 0.0017

Mercury -77654-04-30 20:52 J -26641580.82 -26641580.63 -26641580.44 0.0088 0.0023

Mercury -77654-07-28 00:13 J -26641492.66 -26641492.49 -26641492.30 0.0088 0.0030

Mercury -77654-10-24 03:49 J -26641404.51 -26641404.34 -26641404.15 0.0088 0.0037

Mercury -77653-01-20 07:40 J -26641316.35 -26641316.18 -26641316.01 0.0088 0.0043

Mercury -77653-04-17 11:01 J -26641228.19 -26641228.04 -26641227.87 0.0088 0.0050

Mercury -77653-07-14 14:52 J -26641140.03 -26641139.88 -26641139.73 0.0088 0.0056

Mercury -77653-10-10 18:13 J -26641051.86 -26641051.74 -26641051.59 0.0088 0.0063

Mercury -77652-01-06 21:35 J -26640963.70 -26640963.60 -26640963.46 0.0088 0.0070

Mercury -77652-04-05 01:25 J -26640875.53 -26640875.44 -26640875.33 0.0088 0.0076

Mercury -77652-07-02 04:47 J -26640787.35 -26640787.30 -26640787.21 0.0088 0.0082

Moon -77649-10-04 20:52 J -26639596.69 -26639596.63 -26639596.53 0.0088 0.0084

Earth -77649-10-04 21:35 J -26639596.62 -26639596.60 -26639596.55 0.0088 0.0088 *

Earth -77648-10-07 11:59 J -26639229.14 -26639229.00 -26639228.82 0.0088 0.0071

Moon -77648-10-07 11:59 J -26639229.12 -26639229.00 -26639228.82 0.0088 0.0075 *

Earth -77647-10-10 02:52 J -26638861.59 -26638861.38 -26638861.17 0.0088 0.0053

Moon -77647-10-10 03:49 J -26638861.54 -26638861.34 -26638861.11 0.0088 0.0049 *

Moon -77646-10-12 14:37 J -26638494.13 -26638493.89 -26638493.64 0.0088 0.0040

Earth -77646-10-12 17:01 J -26638494.02 -26638493.79 -26638493.53 0.0088 0.0036 *

Earth -77645-10-14 07:25 J -26638126.44 -26638126.19 -26638125.92 0.0088 0.0018

Moon -77645-10-14 10:32 J -26638126.32 -26638126.06 -26638125.80 0.0088 0.0014 *

Moon -77644-10-16 18:13 J -26637759.00 -26637758.74 -26637758.47 0.0088 0.0006

Earth -77644-10-16 22:04 J -26637758.84 -26637758.58 -26637758.31 0.0088 0.0002 *

Earth -77643-10-19 12:28 J -26637391.24 -26637390.98 -26637390.72 0.0088 0.0017

Moon -77643-10-19 15:49 J -26637391.09 -26637390.84 -26637390.57 0.0088 0.0021 *

Moon -77642-10-21 23:01 J -26637023.78 -26637023.54 -26637023.29 0.0088 0.0030

Earth -77642-10-22 02:23 J -26637023.63 -26637023.40 -26637023.14 0.0088 0.0034 *

Earth -77641-10-23 16:47 J -26636656.01 -26636655.80 -26636655.58 0.0088 0.0052

Moon -77641-10-23 19:40 J -26636655.88 -26636655.68 -26636655.46 0.0088 0.0056 *

Moon -77640-10-26 05:30 J -26636288.43 -26636288.27 -26636288.08 0.0088 0.0065

Earth -77640-10-26 06:42 J -26636288.35 -26636288.22 -26636288.03 0.0088 0.0070 *

Earth -77639-10-28 20:52 J -26635920.66 -26635920.63 -26635920.54 0.0088 0.0087

Mars -77632-09-29 02:52 J -26633393.67 -26633393.38 -26633393.06 0.0088 0.0011

Mars -77630-08-24 13:11 J -26632699.13 -26632698.95 -26632698.74 0.0088 0.0069

Jupiter -77612-08-14 02:52 J -26626134.47 -26626134.38 -26626134.22 0.0088 0.0086

Venus -77594-10-09 11:16 J -26619504.03 -26619504.03 -26619503.99 0.0088 0.0088

Venus -77593-05-21 23:30 J -26619278.64 -26619278.52 -26619278.38 0.0088 0.0070

Venus -77592-01-02 11:16 J -26619053.19 -26619053.03 -26619052.84 0.0088 0.0052

Venus -77592-08-15 23:16 J -26618827.72 -26618827.53 -26618827.32 0.0088 0.0034

Venus -77591-03-29 11:30 J -26618602.23 -26618602.02 -26618601.81 0.0088 0.0015

Venus -77591-11-09 23:30 J -26618376.74 -26618376.52 -26618376.31 0.0089 0.0003

Venus -77590-06-23 11:16 J -26618151.23 -26618151.03 -26618150.82 0.0089 0.0022

Venus -77589-02-03 23:16 J -26617925.72 -26617925.53 -26617925.34 0.0089 0.0040

Venus -77589-09-16 10:32 J -26617700.20 -26617700.06 -26617699.88 0.0089 0.0059

Venus -77588-04-29 22:32 J -26617474.65 -26617474.56 -26617474.44 0.0089 0.0077

Mercury -77577-09-29 11:30 J -26613304.03 -26613304.02 -26613303.99 0.0089 0.0087

Mercury -77577-12-26 12:42 J -26613216.00 -26613215.97 -26613215.91 0.0089 0.0083

Mercury -77576-03-24 14:08 J -26613127.96 -26613127.91 -26613127.84 0.0089 0.0078

Mercury -77576-06-20 15:20 J -26613039.92 -26613039.86 -26613039.77 0.0089 0.0074

Mercury -77576-09-16 16:47 J -26612951.87 -26612951.80 -26612951.71 0.0089 0.0069

Mercury -77576-12-13 17:59 J -26612863.83 -26612863.75 -26612863.65 0.0089 0.0065

Mercury -77575-03-11 19:25 J -26612775.78 -26612775.69 -26612775.59 0.0089 0.0060

Mercury -77575-06-07 20:37 J -26612687.73 -26612687.64 -26612687.52 0.0089 0.0056

Mercury -77575-09-03 22:04 J -26612599.68 -26612599.58 -26612599.46 0.0089 0.0051

Mercury -77575-11-30 23:16 J -26612511.63 -26612511.53 -26612511.40 0.0089 0.0047

Mercury -77574-02-27 00:42 J -26612423.58 -26612423.47 -26612423.35 0.0089 0.0042

Mercury -77574-05-26 01:54 J -26612335.53 -26612335.42 -26612335.29 0.0089 0.0038

Mercury -77574-08-22 03:20 J -26612247.47 -26612247.36 -26612247.23 0.0089 0.0033

Mercury -77574-11-18 04:47 J -26612159.42 -26612159.30 -26612159.17 0.0089 0.0028

Mercury -77573-02-14 05:59 J -26612071.37 -26612071.25 -26612071.11 0.0089 0.0024

Mercury -77573-05-12 07:25 J -26611983.32 -26611983.19 -26611983.06 0.0089 0.0019

Mercury -77573-08-08 08:52 J -26611895.26 -26611895.13 -26611895.00 0.0089 0.0014

Mercury -77573-11-04 10:04 J -26611807.21 -26611807.08 -26611806.94 0.0089 0.0010

Mercury -77572-01-31 11:30 J -26611719.15 -26611719.02 -26611718.89 0.0089 0.0005

Mercury -77572-04-29 12:42 J -26611631.10 -26611630.97 -26611630.83 0.0089 0.0003

Mercury -77572-07-26 14:08 J -26611543.04 -26611542.91 -26611542.78 0.0089 0.0004

Mercury -77572-10-22 15:35 J -26611454.99 -26611454.85 -26611454.72 0.0089 0.0009

Mercury -77571-01-18 16:47 J -26611366.93 -26611366.80 -26611366.67 0.0089 0.0013

Mercury -77571-04-16 18:13 J -26611278.87 -26611278.74 -26611278.61 0.0089 0.0018

Mercury -77571-07-13 19:25 J -26611190.82 -26611190.69 -26611190.56 0.0089 0.0023

Mercury -77571-10-09 20:52 J -26611102.76 -26611102.63 -26611102.50 0.0089 0.0027

Mercury -77570-01-05 22:04 J -26611014.70 -26611014.58 -26611014.45 0.0089 0.0032

Mercury -77570-04-03 23:16 J -26610926.64 -26610926.53 -26610926.40 0.0089 0.0037

Mercury -77570-07-01 00:42 J -26610838.58 -26610838.47 -26610838.34 0.0089 0.0041

Mercury -77570-09-27 02:08 J -26610750.52 -26610750.41 -26610750.29 0.0089 0.0046

Mercury -77570-12-24 03:35 J -26610662.46 -26610662.35 -26610662.24 0.0089 0.0050

Mercury -77569-03-21 04:47 J -26610574.40 -26610574.30 -26610574.19 0.0089 0.0055

Mercury -77569-06-17 05:59 J -26610486.33 -26610486.25 -26610486.14 0.0089 0.0060

Mercury -77569-09-13 07:40 J -26610398.27 -26610398.18 -26610398.09 0.0089 0.0064

Mercury -77569-12-10 08:52 J -26610310.21 -26610310.13 -26610310.04 0.0089 0.0069

Mercury -77568-03-08 10:04 J -26610222.14 -26610222.08 -26610221.99 0.0089 0.0074

Mercury -77568-06-04 11:30 J -26610134.07 -26610134.02 -26610133.95 0.0089 0.0078

Mercury -77568-08-31 12:56 J -26610046.00 -26610045.96 -26610045.91 0.0089 0.0083

Mercury -77568-11-27 14:23 J -26609957.92 -26609957.90 -26609957.87 0.0089 0.0087

Moon -77566-04-06 19:54 J -26609462.75 -26609462.67 -26609462.55 0.0089 0.0082

Earth -77566-04-06 19:54 J -26609462.70 -26609462.67 -26609462.58 0.0089 0.0086 *

Earth -77565-04-08 05:16 J -26609095.42 -26609095.28 -26609095.11 0.0089 0.0069

Moon -77565-04-08 07:11 J -26609095.33 -26609095.20 -26609095.05 0.0089 0.0072 *

Moon -77564-04-10 11:59 J -26608728.21 -26608728.00 -26608727.79 0.0089 0.0049

Earth -77564-04-10 14:08 J -26608728.09 -26608727.91 -26608727.69 0.0089 0.0053 *

Earth -77563-04-12 23:01 J -26608360.75 -26608360.54 -26608360.29 0.0089 0.0036

Moon -77563-04-13 02:23 J -26608360.60 -26608360.40 -26608360.16 0.0089 0.0040 *

Moon -77562-04-15 05:01 J -26607993.53 -26607993.29 -26607993.04 0.0089 0.0016

Earth -77562-04-15 08:37 J -26607993.38 -26607993.14 -26607992.89 0.0089 0.0019 *

Earth -77561-04-16 17:44 J -26607626.01 -26607625.76 -26607625.51 0.0089 0.0003

Moon -77561-04-16 20:52 J -26607625.88 -26607625.63 -26607625.37 0.0089 0.0006 *

Moon -77560-04-19 00:13 J -26607258.73 -26607258.49 -26607258.25 0.0089 0.0018

Earth -77560-04-19 02:52 J -26607258.63 -26607258.38 -26607258.13 0.0089 0.0014 *

Earth -77559-04-21 11:44 J -26606891.23 -26606891.01 -26606890.76 0.0089 0.0031

Moon -77559-04-21 12:42 J -26606891.20 -26606890.97 -26606890.71 0.0089 0.0028 *
 Earth -77558-04-23 20:37 J -26606523.83 -26606523.64 -26606523.41 0.0089 0.0048
 Moon -77558-04-23 20:37 J -26606523.82 -26606523.64 -26606523.43 0.0089 0.0051 *
 Moon -77557-04-25 05:01 J -26606156.48 -26606156.29 -26606156.10 0.0089 0.0061
 Earth -77557-04-25 05:59 J -26606156.41 -26606156.25 -26606156.07 0.0089 0.0064 *
 Earth -77556-04-27 14:37 J -26605788.97 -26605788.89 -26605788.76 0.0089 0.0081
 Moon -77556-04-27 17:16 J -26605788.83 -26605788.78 -26605788.68 0.0089 0.0084 *
 Mars -77550-06-01 15:06 J -26603563.12 -26603562.87 -26603562.57 0.0089 0.0045
 Mars -77548-04-26 16:47 J -26602868.07 -26602867.80 -26602867.50 0.0089 0.0041
 Venus -77512-11-21 21:20 J -26589509.69 -26589509.61 -26589509.51 0.0089 0.0081
 Venus -77511-07-05 11:16 J -26589284.17 -26589284.03 -26589283.85 0.0089 0.0062
 Venus -77510-02-16 01:25 J -26589058.63 -26589058.44 -26589058.23 0.0089 0.0042
 Venus -77510-09-29 15:35 J -26588833.06 -26588832.85 -26588832.63 0.0089 0.0023
 Venus -77509-05-12 05:59 J -26588607.48 -26588607.25 -26588607.03 0.0089 0.0003
 Venus -77509-12-23 19:54 J -26588381.89 -26588381.67 -26588381.44 0.0089 0.0017
 Venus -77508-08-06 10:04 J -26588156.28 -26588156.08 -26588155.87 0.0089 0.0036
 Venus -77507-03-19 23:44 J -26587930.67 -26587930.51 -26587930.32 0.0089 0.0056
 Venus -77507-10-31 14:08 J -26587705.02 -26587704.91 -26587704.78 0.0089 0.0075
 Mercury -77494-12-19 05:01 J -26582908.29 -26582908.29 -26582908.29 0.0089 0.0089
 Mercury -77493-03-16 08:37 J -26582820.21 -26582820.14 -26582820.06 0.0089 0.0082
 Mercury -77493-06-12 12:28 J -26582732.08 -26582731.98 -26582731.88 0.0089 0.0075
 Mercury -77493-09-08 15:49 J -26582643.95 -26582643.84 -26582643.70 0.0089 0.0069
 Mercury -77493-12-05 19:40 J -26582555.81 -26582555.68 -26582555.53 0.0089 0.0062
 Mercury -77492-03-03 23:30 J -26582467.67 -26582467.52 -26582467.36 0.0089 0.0055
 Mercury -77492-05-31 02:52 J -26582379.53 -26582379.38 -26582379.20 0.0089 0.0049
 Mercury -77492-08-27 06:42 J -26582291.38 -26582291.22 -26582291.04 0.0089 0.0042
 Mercury -77492-11-23 10:32 J -26582203.24 -26582203.06 -26582202.88 0.0089 0.0035
 Mercury -77491-02-19 14:23 J -26582115.09 -26582114.90 -26582114.72 0.0089 0.0028
 Mercury -77491-05-18 17:44 J -26582026.94 -26582026.76 -26582026.56 0.0089 0.0022
 Mercury -77491-08-14 21:35 J -26581938.79 -26581938.60 -26581938.41 0.0089 0.0015

Mercury -77491-11-11 01:11 J -26581850.64 -26581850.45 -26581850.25 0.0089 0.0008

Mercury -77490-02-07 04:47 J -26581762.49 -26581762.30 -26581762.10 0.0089 0.0003

Mercury -77490-05-06 08:37 J -26581674.34 -26581674.14 -26581673.95 0.0089 0.0006

Mercury -77490-08-02 11:59 J -26581586.18 -26581586.00 -26581585.80 0.0089 0.0013

Mercury -77490-10-29 15:49 J -26581498.03 -26581497.84 -26581497.65 0.0089 0.0019

Mercury -77489-01-25 19:11 J -26581409.88 -26581409.70 -26581409.50 0.0089 0.0026

Mercury -77489-04-22 22:47 J -26581321.72 -26581321.55 -26581321.36 0.0089 0.0033

Mercury -77489-07-20 02:37 J -26581233.56 -26581233.39 -26581233.21 0.0089 0.0039

Mercury -77489-10-16 05:59 J -26581145.40 -26581145.25 -26581145.07 0.0088 0.0046

Mercury -77488-01-12 09:49 J -26581057.24 -26581057.09 -26581056.93 0.0088 0.0052

Mercury -77488-04-10 13:11 J -26580969.08 -26580968.95 -26580968.79 0.0088 0.0059

Mercury -77488-07-07 16:32 J -26580880.92 -26580880.81 -26580880.66 0.0088 0.0066

Mercury -77488-10-03 20:23 J -26580792.75 -26580792.65 -26580792.53 0.0088 0.0072

Mercury -77488-12-30 23:44 J -26580704.58 -26580704.51 -26580704.40 0.0088 0.0079

Mercury -77487-03-29 03:35 J -26580616.39 -26580616.35 -26580616.29 0.0088 0.0085

Earth -77484-10-06 18:42 J -26579328.82 -26579328.72 -26579328.56 0.0088 0.0077

Moon -77484-10-06 20:52 J -26579328.74 -26579328.63 -26579328.49 0.0088 0.0077 *

Moon -77483-10-09 06:42 J -26578961.40 -26578961.22 -26578961.00 0.0088 0.0060

Earth -77483-10-09 09:20 J -26578961.28 -26578961.11 -26578960.89 0.0088 0.0060 *

Earth -77482-10-11 23:44 J -26578593.72 -26578593.51 -26578593.26 0.0088 0.0043

Moon -77482-10-12 03:20 J -26578593.57 -26578593.36 -26578593.11 0.0088 0.0043 *

Moon -77481-10-13 11:01 J -26578226.28 -26578226.04 -26578225.78 0.0088 0.0026

Earth -77481-10-13 14:52 J -26578226.14 -26578225.88 -26578225.63 0.0088 0.0025 *

Earth -77480-10-16 05:01 J -26577858.55 -26577858.29 -26577858.02 0.0088 0.0008

Moon -77480-10-16 08:52 J -26577858.39 -26577858.13 -26577857.86 0.0088 0.0006 *

Moon -77479-10-18 16:32 J -26577491.07 -26577490.81 -26577490.55 0.0088 0.0009

Earth -77479-10-18 19:25 J -26577490.96 -26577490.69 -26577490.43 0.0088 0.0010 *

Earth -77478-10-21 09:35 J -26577123.35 -26577123.10 -26577122.85 0.0088 0.0027

Moon -77478-10-21 11:44 J -26577123.26 -26577123.01 -26577122.74 0.0088 0.0029 *

Moon -77477-10-22 22:18 J -26576755.78 -26576755.57 -26576755.33 0.0088 0.0042

Earth -77477-10-22 23:30 J -26576755.73 -26576755.52 -26576755.27 0.0088 0.0044 *
 Moon -77476-10-25 13:25 J -26576388.12 -26576387.94 -26576387.73 0.0088 0.0063
 Earth -77476-10-25 13:40 J -26576388.10 -26576387.93 -26576387.72 0.0088 0.0061 *
 Earth -77475-10-28 03:49 J -26576020.44 -26576020.34 -26576020.20 0.0088 0.0078
 Moon -77475-10-28 05:01 J -26576020.40 -26576020.29 -26576020.15 0.0088 0.0077 *
 Mars -77468-05-14 00:28 J -26573630.74 -26573630.48 -26573630.20 0.0088 0.0046
 Mars -77466-04-08 11:44 J -26572936.29 -26572936.01 -26572935.72 0.0088 0.0035
 Venus -77429-08-23 11:16 J -26559284.13 -26559284.03 -26559283.92 0.0088 0.0077
 Venus -77428-04-05 23:01 J -26559058.68 -26559058.54 -26559058.36 0.0088 0.0059
 Venus -77428-11-17 11:01 J -26558833.21 -26558833.04 -26558832.83 0.0088 0.0041
 Venus -77427-06-30 23:16 J -26558607.73 -26558607.53 -26558607.31 0.0088 0.0022
 Venus -77426-02-11 11:16 J -26558382.24 -26558382.03 -26558381.81 0.0088 0.0004
 Venus -77426-09-24 23:01 J -26558156.74 -26558156.54 -26558156.32 0.0088 0.0015
 Venus -77425-05-07 10:47 J -26557931.24 -26557931.05 -26557930.84 0.0089 0.0034
 Venus -77425-12-18 22:47 J -26557705.71 -26557705.55 -26557705.36 0.0089 0.0052
 Venus -77424-08-01 10:47 J -26557480.17 -26557480.05 -26557479.91 0.0089 0.0070
 Venus -77423-03-14 22:32 J -26557254.56 -26557254.56 -26557254.53 0.0089 0.0088
 Mercury -77412-06-26 11:16 J -26553133.05 -26553133.03 -26553132.99 0.0089 0.0086
 Mercury -77412-09-22 12:42 J -26553045.02 -26553044.97 -26553044.91 0.0089 0.0081
 Mercury -77412-12-19 13:54 J -26552956.97 -26552956.92 -26552956.85 0.0089 0.0077
 Mercury -77411-03-17 15:20 J -26552868.93 -26552868.86 -26552868.78 0.0089 0.0072
 Mercury -77411-06-13 16:32 J -26552780.89 -26552780.81 -26552780.72 0.0089 0.0068
 Mercury -77411-09-09 17:59 J -26552692.84 -26552692.75 -26552692.66 0.0089 0.0063
 Mercury -77411-12-06 19:11 J -26552604.79 -26552604.70 -26552604.59 0.0089 0.0059
 Mercury -77410-03-04 20:37 J -26552516.74 -26552516.64 -26552516.53 0.0089 0.0054
 Mercury -77410-05-31 21:49 J -26552428.69 -26552428.59 -26552428.48 0.0089 0.0050
 Mercury -77410-08-27 23:16 J -26552340.64 -26552340.53 -26552340.42 0.0089 0.0045
 Mercury -77410-11-24 00:28 J -26552252.59 -26552252.48 -26552252.36 0.0089 0.0040
 Mercury -77409-02-20 01:54 J -26552164.54 -26552164.42 -26552164.30 0.0089 0.0036
 Mercury -77409-05-18 03:06 J -26552076.49 -26552076.37 -26552076.24 0.0089 0.0031

Mercury -77409-08-14 04:18 J -26551988.44 -26551988.32 -26551988.19 0.0089 0.0027
 Mercury -77409-11-10 05:44 J -26551900.38 -26551900.26 -26551900.13 0.0089 0.0022
 Mercury -77408-02-06 07:11 J -26551812.33 -26551812.20 -26551812.07 0.0089 0.0017
 Mercury -77408-05-05 08:23 J -26551724.28 -26551724.15 -26551724.01 0.0089 0.0013
 Mercury -77408-08-01 09:49 J -26551636.22 -26551636.09 -26551635.96 0.0089 0.0008
 Mercury -77408-10-28 11:01 J -26551548.17 -26551548.04 -26551547.90 0.0089 0.0005
 Mercury -77407-01-24 12:28 J -26551460.11 -26551459.98 -26551459.85 0.0089 0.0001
 Mercury -77407-04-22 13:54 J -26551372.06 -26551371.92 -26551371.79 0.0089 0.0006
 Mercury -77407-07-19 15:06 J -26551284.00 -26551283.87 -26551283.74 0.0089 0.0010
 Mercury -77407-10-15 16:32 J -26551195.94 -26551195.81 -26551195.68 0.0089 0.0015
 Mercury -77406-01-11 17:44 J -26551107.89 -26551107.76 -26551107.63 0.0089 0.0020
 Mercury -77406-04-09 19:11 J -26551019.83 -26551019.70 -26551019.57 0.0089 0.0024
 Mercury -77406-07-06 20:23 J -26550931.77 -26550931.65 -26550931.52 0.0089 0.0029
 Mercury -77406-10-02 21:49 J -26550843.71 -26550843.59 -26550843.47 0.0089 0.0033
 Mercury -77406-12-29 23:01 J -26550755.65 -26550755.54 -26550755.41 0.0089 0.0038
 Mercury -77405-03-27 00:28 J -26550667.59 -26550667.48 -26550667.36 0.0089 0.0043
 Mercury -77405-06-23 01:54 J -26550579.53 -26550579.42 -26550579.31 0.0089 0.0047
 Mercury -77405-09-19 03:06 J -26550491.47 -26550491.37 -26550491.26 0.0089 0.0052
 Mercury -77405-12-16 04:18 J -26550403.41 -26550403.32 -26550403.21 0.0089 0.0057
 Mercury -77404-03-14 05:59 J -26550315.35 -26550315.25 -26550315.16 0.0089 0.0061
 Mercury -77404-06-10 07:11 J -26550227.28 -26550227.20 -26550227.11 0.0089 0.0066
 Mercury -77404-09-06 08:23 J -26550139.22 -26550139.15 -26550139.06 0.0089 0.0071
 Mercury -77404-12-03 09:49 J -26550051.15 -26550051.09 -26550051.01 0.0089 0.0075
 Mercury -77403-03-01 11:01 J -26549963.08 -26549963.04 -26549962.97 0.0089 0.0080
 Mercury -77403-05-28 12:42 J -26549875.01 -26549874.97 -26549874.93 0.0089 0.0084
 Moon -77402-04-06 09:35 J -26549562.12 -26549562.10 -26549562.07 0.0089 0.0088
 Moon -77401-04-07 13:25 J -26549195.03 -26549194.94 -26549194.80 0.0089 0.0079
 Earth -77401-04-07 16:47 J -26549194.92 -26549194.80 -26549194.65 0.0089 0.0075 *
 Earth -77400-04-10 01:25 J -26548827.61 -26548827.44 -26548827.23 0.0089 0.0059
 Moon -77400-04-10 05:16 J -26548827.48 -26548827.28 -26548827.09 0.0089 0.0055 *

Moon	-77399-04-12 07:25 J	-26548460.40	-26548460.19	-26548459.97	0.0089	0.0045
Earth	-77399-04-12 11:01 J	-26548460.26	-26548460.04	-26548459.82	0.0089	0.0042 *
Earth	-77398-04-14 19:40 J	-26548092.91	-26548092.68	-26548092.43	0.0089	0.0026
Moon	-77398-04-14 23:01 J	-26548092.79	-26548092.54	-26548092.29	0.0089	0.0022 *
Moon	-77397-04-16 02:52 J	-26547725.61	-26547725.38	-26547725.13	0.0089	0.0013
Earth	-77397-04-16 05:01 J	-26547725.54	-26547725.29	-26547725.04	0.0089	0.0009 *
Earth	-77396-04-18 14:08 J	-26547358.16	-26547357.91	-26547357.66	0.0089	0.0007
Moon	-77396-04-18 15:20 J	-26547358.11	-26547357.86	-26547357.60	0.0089	0.0010 *
Earth	-77395-04-20 23:01 J	-26546990.77	-26546990.54	-26546990.29	0.0089	0.0024
Moon	-77395-04-20 23:44 J	-26546990.75	-26546990.51	-26546990.27	0.0089	0.0020 *
Moon	-77394-04-23 06:13 J	-26546623.44	-26546623.24	-26546622.99	0.0089	0.0044
Earth	-77394-04-23 08:23 J	-26546623.37	-26546623.15	-26546622.92	0.0089	0.0040 *
Earth	-77393-04-24 17:16 J	-26546255.95	-26546255.78	-26546255.57	0.0089	0.0057
Moon	-77393-04-24 19:40 J	-26546255.86	-26546255.68	-26546255.47	0.0089	0.0054 *
Moon	-77392-04-26 22:47 J	-26545888.65	-26545888.55	-26545888.40	0.0089	0.0077
Earth	-77392-04-27 02:23 J	-26545888.52	-26545888.40	-26545888.24	0.0089	0.0073 *
Moon	-77391-04-29 14:52 J	-26545520.92	-26545520.88	-26545520.80	0.0089	0.0086
Mars	-77386-01-14 03:49 J	-26543800.44	-26543800.34	-26543800.19	0.0089	0.0081
Mars	-77385-12-09 02:23 J	-26543105.72	-26543105.40	-26543105.08	0.0089	0.0003
Mars	-77383-11-04 04:04 J	-26542410.34	-26542410.33	-26542410.25	0.0089	0.0088
Venus	-77347-02-23 07:11 J	-26529515.21	-26529515.20	-26529515.17	0.0089	0.0088
Venus	-77347-10-06 21:06 J	-26529289.75	-26529289.62	-26529289.47	0.0089	0.0069
Venus	-77346-05-20 11:30 J	-26529064.21	-26529064.02	-26529063.83	0.0089	0.0049
Venus	-77345-01-01 01:25 J	-26528838.65	-26528838.44	-26528838.22	0.0089	0.0030
Venus	-77345-08-13 15:35 J	-26528613.07	-26528612.85	-26528612.63	0.0089	0.0010
Venus	-77344-03-27 05:30 J	-26528387.49	-26528387.27	-26528387.04	0.0089	0.0010
Venus	-77344-11-07 19:40 J	-26528161.89	-26528161.68	-26528161.46	0.0089	0.0029
Venus	-77343-06-21 09:35 J	-26527936.27	-26527936.10	-26527935.89	0.0089	0.0049
Venus	-77342-02-01 23:59 J	-26527710.64	-26527710.50	-26527710.35	0.0089	0.0068
Venus	-77342-09-15 13:40 J	-26527484.94	-26527484.93	-26527484.87	0.0089	0.0088

Mercury -77329-09-14 03:06 J -26522737.39 -26522737.37 -26522737.31 0.0089 0.0087
 Mercury -77329-12-11 06:56 J -26522649.28 -26522649.21 -26522649.11 0.0089 0.0080
 Mercury -77328-03-09 10:47 J -26522561.15 -26522561.05 -26522560.93 0.0089 0.0073
 Mercury -77328-06-05 14:37 J -26522473.01 -26522472.89 -26522472.75 0.0089 0.0066
 Mercury -77328-09-01 17:59 J -26522384.87 -26522384.75 -26522384.58 0.0089 0.0060
 Mercury -77328-11-28 21:49 J -26522296.73 -26522296.59 -26522296.42 0.0089 0.0053
 Mercury -77327-02-25 01:40 J -26522208.59 -26522208.43 -26522208.25 0.0089 0.0046
 Mercury -77327-05-24 05:30 J -26522120.44 -26522120.27 -26522120.09 0.0089 0.0039
 Mercury -77327-08-20 09:06 J -26522032.29 -26522032.12 -26522031.93 0.0089 0.0032
 Mercury -77327-11-16 12:42 J -26521944.15 -26521943.97 -26521943.77 0.0089 0.0026
 Mercury -77326-02-12 16:32 J -26521856.00 -26521855.81 -26521855.61 0.0089 0.0019
 Mercury -77326-05-11 20:08 J -26521767.85 -26521767.66 -26521767.46 0.0089 0.0012
 Mercury -77326-08-07 23:59 J -26521679.70 -26521679.50 -26521679.31 0.0089 0.0005
 Mercury -77326-11-04 03:35 J -26521591.54 -26521591.35 -26521591.15 0.0089 0.0002
 Mercury -77325-01-31 07:11 J -26521503.39 -26521503.20 -26521503.00 0.0089 0.0008
 Mercury -77325-04-28 10:47 J -26521415.24 -26521415.05 -26521414.85 0.0089 0.0015
 Mercury -77325-07-25 14:23 J -26521327.08 -26521326.90 -26521326.70 0.0089 0.0022
 Mercury -77325-10-21 17:59 J -26521238.93 -26521238.75 -26521238.56 0.0089 0.0028
 Mercury -77324-01-17 21:35 J -26521150.77 -26521150.60 -26521150.41 0.0089 0.0035
 Mercury -77324-04-16 01:11 J -26521062.61 -26521062.45 -26521062.27 0.0089 0.0042
 Mercury -77324-07-13 04:32 J -26520974.45 -26520974.31 -26520974.13 0.0089 0.0049
 Mercury -77324-10-09 08:23 J -26520886.29 -26520886.15 -26520885.99 0.0089 0.0055
 Mercury -77323-01-05 11:44 J -26520798.13 -26520798.01 -26520797.85 0.0089 0.0062
 Mercury -77323-04-03 15:35 J -26520709.96 -26520709.85 -26520709.72 0.0088 0.0068
 Mercury -77323-06-30 18:56 J -26520621.79 -26520621.71 -26520621.59 0.0088 0.0075
 Mercury -77323-09-26 22:47 J -26520533.62 -26520533.55 -26520533.47 0.0088 0.0081
 Mercury -77323-12-24 02:08 J -26520445.42 -26520445.41 -26520445.37 0.0088 0.0088
 Moon -77320-10-05 23:16 J -26519428.64 -26519428.53 -26519428.39 0.0088 0.0078
 Earth -77320-10-06 02:08 J -26519428.47 -26519428.41 -26519428.28 0.0088 0.0083 *
 Earth -77319-10-08 16:32 J -26519060.96 -26519060.81 -26519060.60 0.0088 0.0066

Moon	-77319-10-08 20:37 J	-26519060.79	-26519060.64	-26519060.47	0.0088	0.0070	*
Moon	-77318-10-11 03:49 J	-26518693.55	-26518693.34	-26518693.10	0.0088	0.0044	
Earth	-77318-10-11 07:40 J	-26518693.39	-26518693.18	-26518692.94	0.0088	0.0048	*
Earth	-77317-10-12 22:04 J	-26518325.81	-26518325.58	-26518325.31	0.0088	0.0032	
Moon	-77317-10-13 01:25 J	-26518325.68	-26518325.44	-26518325.19	0.0088	0.0036	*
Moon	-77316-10-15 10:04 J	-26517958.33	-26517958.08	-26517957.82	0.0088	0.0010	
Earth	-77316-10-15 12:42 J	-26517958.22	-26517957.97	-26517957.70	0.0088	0.0014	*
Earth	-77315-10-18 03:20 J	-26517590.62	-26517590.36	-26517590.09	0.0088	0.0003	
Moon	-77315-10-18 05:01 J	-26517590.57	-26517590.29	-26517590.02	0.0088	0.0002	*
Earth	-77314-10-20 17:30 J	-26517223.02	-26517222.77	-26517222.50	0.0088	0.0020	
Moon	-77314-10-20 17:16 J	-26517223.01	-26517222.78	-26517222.52	0.0088	0.0024	*
Moon	-77313-10-22 07:11 J	-26516855.43	-26516855.20	-26516854.92	0.0088	0.0034	
Earth	-77313-10-22 07:40 J	-26516855.40	-26516855.18	-26516854.92	0.0088	0.0038	*
Earth	-77312-10-24 22:18 J	-26516487.78	-26516487.57	-26516487.36	0.0088	0.0054	
Moon	-77312-10-24 23:59 J	-26516487.67	-26516487.50	-26516487.29	0.0088	0.0059	*
Moon	-77311-10-27 09:20 J	-26516120.27	-26516120.11	-26516119.92	0.0088	0.0067	
Earth	-77311-10-27 12:28 J	-26516120.13	-26516119.98	-26516119.82	0.0088	0.0071	*
Earth	-77310-10-30 02:08 J	-26515752.42	-26515752.41	-26515752.35	0.0088	0.0088	
Mars	-77305-12-26 20:08 J	-26513867.76	-26513867.66	-26513867.50	0.0088	0.0080	
Mars	-77303-11-21 11:44 J	-26513173.32	-26513173.01	-26513172.70	0.0088	0.0001	
Mars	-77301-10-15 21:49 J	-26512478.68	-26512478.59	-26512478.43	0.0088	0.0081	
Venus	-77265-11-24 23:16 J	-26499289.58	-26499289.53	-26499289.44	0.0088	0.0084	
Venus	-77264-07-08 11:44 J	-26499064.15	-26499064.01	-26499063.86	0.0088	0.0065	
Venus	-77263-02-18 23:30 J	-26498838.69	-26498838.52	-26498838.33	0.0088	0.0047	
Venus	-77263-10-02 11:16 J	-26498613.22	-26498613.03	-26498612.81	0.0088	0.0029	
Venus	-77262-05-15 23:30 J	-26498387.73	-26498387.52	-26498387.30	0.0088	0.0010	
Venus	-77262-12-27 11:30 J	-26498162.23	-26498162.02	-26498161.80	0.0088	0.0009	
Venus	-77261-08-08 23:16 J	-26497936.73	-26497936.53	-26497936.32	0.0089	0.0027	
Venus	-77260-03-22 11:01 J	-26497711.21	-26497711.04	-26497710.84	0.0089	0.0046	
Venus	-77260-11-02 23:01 J	-26497485.68	-26497485.54	-26497485.38	0.0089	0.0064	

Venus -77259-06-16 10:32 J -26497260.11 -26497260.06 -26497259.96 0.0089 0.0083

Mercury -77248-12-25 10:04 J -26493050.09 -26493050.08 -26493050.07 0.0089 0.0088

Mercury -77247-03-23 11:16 J -26492962.06 -26492962.03 -26492961.98 0.0089 0.0084

Mercury -77247-06-19 12:42 J -26492874.03 -26492873.97 -26492873.91 0.0089 0.0079

Mercury -77247-09-15 13:40 J -26492785.98 -26492785.93 -26492785.85 0.0089 0.0075

Mercury -77247-12-12 15:20 J -26492697.94 -26492697.86 -26492697.78 0.0089 0.0070

Mercury -77246-03-10 16:18 J -26492609.89 -26492609.82 -26492609.72 0.0089 0.0066

Mercury -77246-06-06 17:59 J -26492521.85 -26492521.75 -26492521.66 0.0089 0.0061

Mercury -77246-09-02 18:56 J -26492433.80 -26492433.71 -26492433.60 0.0089 0.0057

Mercury -77246-11-29 20:23 J -26492345.75 -26492345.65 -26492345.54 0.0089 0.0052

Mercury -77245-02-25 21:35 J -26492257.70 -26492257.60 -26492257.48 0.0089 0.0048

Mercury -77245-05-23 23:01 J -26492169.65 -26492169.54 -26492169.42 0.0089 0.0043

Mercury -77245-08-20 00:13 J -26492081.60 -26492081.49 -26492081.36 0.0089 0.0039

Mercury -77245-11-16 01:40 J -26491993.55 -26491993.43 -26491993.30 0.0089 0.0034

Mercury -77244-02-12 03:06 J -26491905.50 -26491905.37 -26491905.25 0.0089 0.0029

Mercury -77244-05-11 04:18 J -26491817.44 -26491817.32 -26491817.19 0.0089 0.0025

Mercury -77244-08-07 05:44 J -26491729.39 -26491729.26 -26491729.13 0.0089 0.0020

Mercury -77244-11-03 06:56 J -26491641.34 -26491641.21 -26491641.08 0.0089 0.0016

Mercury -77243-01-30 08:23 J -26491553.28 -26491553.15 -26491553.02 0.0089 0.0011

Mercury -77243-04-28 09:35 J -26491465.23 -26491465.10 -26491464.96 0.0089 0.0007

Mercury -77243-07-25 11:01 J -26491377.17 -26491377.04 -26491376.91 0.0089 0.0002

Mercury -77243-10-21 12:13 J -26491289.12 -26491288.99 -26491288.85 0.0089 0.0004

Mercury -77242-01-17 13:40 J -26491201.06 -26491200.93 -26491200.80 0.0089 0.0008

Mercury -77242-04-15 14:52 J -26491113.01 -26491112.88 -26491112.74 0.0089 0.0013

Mercury -77242-07-12 16:18 J -26491024.95 -26491024.82 -26491024.69 0.0089 0.0017

Mercury -77242-10-08 17:30 J -26490936.89 -26490936.77 -26490936.63 0.0089 0.0022

Mercury -77241-01-04 18:56 J -26490848.83 -26490848.71 -26490848.58 0.0089 0.0026

Mercury -77241-04-01 20:08 J -26490760.77 -26490760.66 -26490760.53 0.0089 0.0031

Mercury -77241-06-28 21:35 J -26490672.72 -26490672.60 -26490672.47 0.0089 0.0036

Mercury -77241-09-24 23:01 J -26490584.66 -26490584.54 -26490584.42 0.0089 0.0040

Mercury -77241-12-22 00:13 J -26490496.60 -26490496.49 -26490496.37 0.0089 0.0045

Mercury -77240-03-20 01:25 J -26490408.54 -26490408.44 -26490408.32 0.0089 0.0050

Mercury -77240-06-16 03:06 J -26490320.47 -26490320.37 -26490320.26 0.0089 0.0054

Mercury -77240-09-12 04:18 J -26490232.41 -26490232.32 -26490232.21 0.0089 0.0059

Mercury -77240-12-09 05:44 J -26490144.35 -26490144.26 -26490144.16 0.0089 0.0063

Mercury -77239-03-07 06:56 J -26490056.28 -26490056.21 -26490056.12 0.0089 0.0068

Mercury -77239-06-03 08:08 J -26489968.22 -26489968.16 -26489968.07 0.0089 0.0073

Mercury -77239-08-30 09:49 J -26489880.15 -26489880.09 -26489880.02 0.0089 0.0077

Mercury -77239-11-26 11:01 J -26489792.08 -26489792.04 -26489791.98 0.0089 0.0082

Mercury -77238-02-22 12:13 J -26489704.00 -26489703.99 -26489703.95 0.0089 0.0087

Earth -77237-04-07 05:44 J -26489294.36 -26489294.26 -26489294.16 0.0089 0.0080

Moon -77237-04-07 08:52 J -26489294.23 -26489294.13 -26489293.99 0.0089 0.0077 *

Moon -77236-04-09 11:01 J -26488927.18 -26488927.04 -26488926.86 0.0089 0.0067

Earth -77236-04-09 14:37 J -26488927.06 -26488926.89 -26488926.71 0.0089 0.0064 *

Earth -77235-04-11 23:30 J -26488559.72 -26488559.52 -26488559.30 0.0089 0.0048

Moon -77235-04-12 02:08 J -26488559.61 -26488559.41 -26488559.17 0.0089 0.0045 *

Moon -77234-04-14 06:28 J -26488192.44 -26488192.23 -26488192.00 0.0089 0.0035

Earth -77234-04-14 08:23 J -26488192.37 -26488192.15 -26488191.91 0.0089 0.0032 *

Earth -77233-04-15 17:16 J -26487825.01 -26487824.78 -26487824.52 0.0089 0.0016

Moon -77233-04-15 17:44 J -26487825.01 -26487824.76 -26487824.49 0.0089 0.0013 *

Earth -77232-04-18 02:23 J -26487457.65 -26487457.40 -26487457.14 0.0089 0.0002

Moon -77232-04-18 02:52 J -26487457.62 -26487457.38 -26487457.13 0.0089 0.0003 *

Moon -77231-04-20 09:35 J -26487090.35 -26487090.10 -26487089.84 0.0089 0.0020

Earth -77231-04-20 11:30 J -26487090.26 -26487090.02 -26487089.77 0.0089 0.0017 *

Earth -77230-04-22 20:37 J -26486722.87 -26486722.64 -26486722.41 0.0089 0.0033

Moon -77230-04-22 23:16 J -26486722.74 -26486722.53 -26486722.28 0.0089 0.0031 *

Moon -77229-04-24 02:08 J -26486355.60 -26486355.41 -26486355.19 0.0089 0.0053

Earth -77229-04-24 05:16 J -26486355.46 -26486355.28 -26486355.05 0.0089 0.0050 *

Earth -77228-04-26 14:23 J -26485988.04 -26485987.90 -26485987.71 0.0089 0.0066

Moon -77228-04-26 18:28 J -26485987.90 -26485987.73 -26485987.54 0.0089 0.0062 *

Moon	-77227-04-28 20:52 J	-26485620.67	-26485620.63	-26485620.53	0.0089	0.0085
Earth	-77227-04-28 23:44 J	-26485620.58	-26485620.51	-26485620.39	0.0089	0.0082 *
Mars	-77221-07-23 16:04 J	-26483343.12	-26483342.83	-26483342.54	0.0089	0.0034
Mars	-77219-06-18 14:23 J	-26482648.13	-26482647.90	-26482647.61	0.0089	0.0051
Jupiter	-77203-04-23 12:13 J	-26476860.35	-26476859.99	-26476859.61	0.0089	0.0066
Venus	-77182-01-08 07:11 J	-26469295.30	-26469295.20	-26469295.07	0.0089	0.0076
Venus	-77182-08-21 21:06 J	-26469069.77	-26469069.62	-26469069.43	0.0089	0.0057
Venus	-77181-04-03 11:16 J	-26468844.22	-26468844.03	-26468843.81	0.0089	0.0037
Venus	-77181-11-15 01:25 J	-26468618.65	-26468618.44	-26468618.21	0.0089	0.0018
Venus	-77180-06-28 15:49 J	-26468393.07	-26468392.84	-26468392.62	0.0089	0.0003
Venus	-77179-02-09 05:44 J	-26468167.48	-26468167.26	-26468167.04	0.0089	0.0022
Venus	-77179-09-22 19:40 J	-26467941.87	-26467941.68	-26467941.47	0.0089	0.0042
Venus	-77178-05-06 10:04 J	-26467716.24	-26467716.08	-26467715.92	0.0089	0.0061
Venus	-77178-12-17 23:59 J	-26467490.58	-26467490.50	-26467490.40	0.0089	0.0081
Mercury	-77164-06-11 02:08 J	-26462566.46	-26462566.41	-26462566.33	0.0089	0.0084
Mercury	-77164-09-07 05:59 J	-26462478.33	-26462478.25	-26462478.14	0.0089	0.0077
Mercury	-77164-12-04 09:49 J	-26462390.20	-26462390.09	-26462389.96	0.0089	0.0070
Mercury	-77163-03-02 13:40 J	-26462302.06	-26462301.93	-26462301.79	0.0089	0.0063
Mercury	-77163-05-29 17:01 J	-26462213.92	-26462213.79	-26462213.62	0.0089	0.0057
Mercury	-77163-08-25 20:52 J	-26462125.78	-26462125.63	-26462125.46	0.0089	0.0050
Mercury	-77163-11-22 00:42 J	-26462037.64	-26462037.47	-26462037.29	0.0089	0.0043
Mercury	-77162-02-18 04:32 J	-26461949.49	-26461949.31	-26461949.13	0.0089	0.0036
Mercury	-77162-05-17 07:54 J	-26461861.34	-26461861.17	-26461860.97	0.0089	0.0030
Mercury	-77162-08-13 11:44 J	-26461773.19	-26461773.01	-26461772.81	0.0089	0.0023
Mercury	-77162-11-09 15:35 J	-26461685.04	-26461684.85	-26461684.66	0.0089	0.0016
Mercury	-77161-02-05 19:11 J	-26461596.89	-26461596.70	-26461596.50	0.0089	0.0009
Mercury	-77161-05-03 23:01 J	-26461508.74	-26461508.54	-26461508.35	0.0089	0.0002
Mercury	-77161-07-31 02:37 J	-26461420.59	-26461420.39	-26461420.19	0.0089	0.0005
Mercury	-77161-10-27 06:13 J	-26461332.43	-26461332.24	-26461332.04	0.0089	0.0011
Mercury	-77160-01-23 09:49 J	-26461244.28	-26461244.09	-26461243.89	0.0089	0.0018

Mercury -77160-04-21 13:25 J -26461156.12 -26461155.94 -26461155.75 0.0089 0.0025

Mercury -77160-07-18 17:01 J -26461067.96 -26461067.79 -26461067.60 0.0089 0.0032

Mercury -77160-10-14 20:52 J -26460979.81 -26460979.63 -26460979.46 0.0089 0.0038

Mercury -77159-01-11 00:13 J -26460891.65 -26460891.49 -26460891.31 0.0089 0.0045

Mercury -77159-04-09 03:35 J -26460803.49 -26460803.35 -26460803.17 0.0089 0.0052

Mercury -77159-07-06 07:40 J -26460715.33 -26460715.18 -26460715.03 0.0089 0.0058

Mercury -77159-10-02 11:01 J -26460627.16 -26460627.04 -26460626.90 0.0089 0.0065

Mercury -77159-12-29 14:23 J -26460538.99 -26460538.90 -26460538.77 0.0089 0.0072

Mercury -77158-03-27 18:13 J -26460450.82 -26460450.74 -26460450.64 0.0089 0.0078

Mercury -77158-06-23 21:20 J -26460362.64 -26460362.61 -26460362.53 0.0089 0.0085

Earth -77156-10-05 10:18 J -26459528.08 -26459528.07 -26459528.01 0.0088 0.0088

Moon -77156-10-05 13:54 J -26459527.95 -26459527.92 -26459527.83 0.0088 0.0087

Moon -77155-10-07 21:35 J -26459160.73 -26459160.60 -26459160.42 0.0088 0.0072

Earth -77155-10-08 01:11 J -26459160.60 -26459160.45 -26459160.28 0.0088 0.0071 *

Earth -77154-10-10 15:20 J -26458793.04 -26458792.86 -26458792.63 0.0088 0.0055

Moon -77154-10-10 18:28 J -26458792.92 -26458792.73 -26458792.49 0.0088 0.0055 *

Moon -77153-10-12 04:32 J -26458425.53 -26458425.31 -26458425.07 0.0088 0.0038

Earth -77153-10-12 05:59 J -26458425.47 -26458425.25 -26458424.99 0.0088 0.0038 *

Earth -77152-10-14 20:37 J -26458057.88 -26458057.64 -26458057.37 0.0088 0.0021

Moon -77152-10-14 22:04 J -26458057.85 -26458057.58 -26458057.31 0.0088 0.0021 *

Earth -77151-10-17 11:30 J -26457690.29 -26457690.02 -26457689.76 0.0088 0.0003

Moon -77151-10-17 11:30 J -26457690.27 -26457690.02 -26457689.76 0.0088 0.0003 *

Moon -77150-10-19 23:59 J -26457322.76 -26457322.50 -26457322.22 0.0088 0.0014

Earth -77150-10-20 01:54 J -26457322.68 -26457322.42 -26457322.15 0.0088 0.0014 *

Earth -77149-10-21 16:04 J -26456955.06 -26456954.83 -26456954.56 0.0088 0.0031

Moon -77149-10-21 18:28 J -26456954.96 -26456954.73 -26456954.48 0.0088 0.0031 *

Moon -77148-10-24 03:20 J -26456587.59 -26456587.36 -26456587.13 0.0088 0.0046

Earth -77148-10-24 06:13 J -26456587.44 -26456587.24 -26456586.99 0.0088 0.0048 *

Earth -77147-10-26 20:52 J -26456219.81 -26456219.63 -26456219.44 0.0088 0.0064

Moon -77147-10-27 00:28 J -26456219.65 -26456219.48 -26456219.29 0.0088 0.0065 *

Moon	-77146-10-29 07:25 J	-26455852.29	-26455852.19	-26455852.05	0.0088	0.0079
Earth	-77146-10-29 10:47 J	-26455852.13	-26455852.05	-26455851.92	0.0088	0.0081 *
Mars	-77139-07-06 09:20 J	-26453410.38	-26453410.11	-26453409.80	0.0088	0.0033
Mars	-77137-05-30 23:16 J	-26452715.76	-26452715.53	-26452715.24	0.0088	0.0048
Venus	-77100-10-10 00:28 J	-26439069.61	-26439069.48	-26439069.35	0.0088	0.0071
Venus	-77099-05-23 12:13 J	-26438844.15	-26438843.99	-26438843.81	0.0088	0.0053
Venus	-77098-01-04 00:28 J	-26438618.68	-26438618.48	-26438618.28	0.0088	0.0034
Venus	-77098-08-17 12:28 J	-26438393.19	-26438392.98	-26438392.77	0.0088	0.0015
Venus	-77097-03-30 00:28 J	-26438167.70	-26438167.48	-26438167.27	0.0088	0.0003
Venus	-77097-11-10 12:13 J	-26437942.19	-26437941.99	-26437941.77	0.0088	0.0022
Venus	-77096-06-23 23:59 J	-26437716.68	-26437716.50	-26437716.29	0.0088	0.0040
Venus	-77095-02-04 11:44 J	-26437491.15	-26437491.01	-26437490.83	0.0089	0.0059
Venus	-77095-09-17 23:44 J	-26437265.60	-26437265.51	-26437265.39	0.0089	0.0077
Mercury	-77083-09-21 10:04 J	-26432879.11	-26432879.08	-26432879.05	0.0089	0.0086
Mercury	-77083-12-18 11:01 J	-26432791.07	-26432791.04	-26432790.98	0.0089	0.0082
Mercury	-77082-03-16 12:42 J	-26432703.03	-26432702.97	-26432702.91	0.0089	0.0077
Mercury	-77082-06-12 13:40 J	-26432614.99	-26432614.93	-26432614.84	0.0089	0.0073
Mercury	-77082-09-08 15:20 J	-26432526.94	-26432526.86	-26432526.78	0.0089	0.0068
Mercury	-77082-12-05 16:18 J	-26432438.90	-26432438.82	-26432438.72	0.0089	0.0064
Mercury	-77081-03-02 17:44 J	-26432350.85	-26432350.76	-26432350.66	0.0089	0.0059
Mercury	-77081-05-29 18:56 J	-26432262.80	-26432262.71	-26432262.60	0.0089	0.0055
Mercury	-77081-08-25 20:23 J	-26432174.75	-26432174.65	-26432174.54	0.0089	0.0050
Mercury	-77081-11-21 21:35 J	-26432086.70	-26432086.60	-26432086.48	0.0089	0.0046
Mercury	-77080-02-17 23:01 J	-26431998.65	-26431998.54	-26431998.42	0.0089	0.0041
Mercury	-77080-05-17 00:13 J	-26431910.60	-26431910.49	-26431910.36	0.0089	0.0037
Mercury	-77080-08-13 01:40 J	-26431822.55	-26431822.43	-26431822.30	0.0089	0.0032
Mercury	-77080-11-09 03:06 J	-26431734.50	-26431734.37	-26431734.25	0.0089	0.0027
Mercury	-77079-02-05 04:18 J	-26431646.45	-26431646.32	-26431646.19	0.0089	0.0023
Mercury	-77079-05-04 05:44 J	-26431558.39	-26431558.26	-26431558.13	0.0089	0.0018
Mercury	-77079-07-31 06:56 J	-26431470.34	-26431470.21	-26431470.08	0.0089	0.0013

Mercury -77079-10-27 08:23 J -26431382.29 -26431382.15 -26431382.02 0.0089 0.0009

Mercury -77078-01-23 09:35 J -26431294.23 -26431294.10 -26431293.97 0.0089 0.0004

Mercury -77078-04-21 11:01 J -26431206.18 -26431206.04 -26431205.91 0.0089 0.0003

Mercury -77078-07-18 12:13 J -26431118.12 -26431117.99 -26431117.86 0.0089 0.0005

Mercury -77078-10-14 13:40 J -26431030.06 -26431029.93 -26431029.80 0.0089 0.0010

Mercury -77077-01-10 14:52 J -26430942.01 -26430941.88 -26430941.75 0.0089 0.0014

Mercury -77077-04-07 16:18 J -26430853.95 -26430853.82 -26430853.69 0.0089 0.0019

Mercury -77077-07-04 17:30 J -26430765.89 -26430765.77 -26430765.64 0.0089 0.0024

Mercury -77077-09-30 18:56 J -26430677.84 -26430677.71 -26430677.58 0.0089 0.0028

Mercury -77077-12-27 20:08 J -26430589.78 -26430589.66 -26430589.53 0.0089 0.0033

Mercury -77076-03-25 21:20 J -26430501.72 -26430501.61 -26430501.48 0.0089 0.0038

Mercury -77076-06-21 22:47 J -26430413.66 -26430413.55 -26430413.43 0.0089 0.0042

Mercury -77076-09-18 00:13 J -26430325.60 -26430325.49 -26430325.37 0.0089 0.0047

Mercury -77076-12-15 01:25 J -26430237.54 -26430237.44 -26430237.32 0.0089 0.0052

Mercury -77075-03-13 02:52 J -26430149.48 -26430149.38 -26430149.27 0.0089 0.0056

Mercury -77075-06-09 04:04 J -26430061.41 -26430061.33 -26430061.22 0.0089 0.0061

Mercury -77075-09-05 05:30 J -26429973.35 -26429973.27 -26429973.17 0.0089 0.0066

Mercury -77075-12-02 06:56 J -26429885.28 -26429885.21 -26429885.12 0.0089 0.0070

Mercury -77074-02-28 08:08 J -26429797.22 -26429797.16 -26429797.08 0.0089 0.0075

Mercury -77074-05-27 09:35 J -26429709.15 -26429709.10 -26429709.03 0.0089 0.0080

Mercury -77074-08-23 11:01 J -26429621.07 -26429621.04 -26429620.99 0.0089 0.0084

Mercury -77074-11-19 12:28 J -26429532.98 -26429532.98 -26429532.97 0.0089 0.0089

Moon -77073-04-06 14:52 J -26429393.95 -26429393.88 -26429393.77 0.0089 0.0082

Earth -77073-04-06 18:42 J -26429393.78 -26429393.72 -26429393.65 0.0089 0.0085 *

Earth -77072-04-09 03:49 J -26429026.49 -26429026.34 -26429026.18 0.0089 0.0069

Moon -77072-04-09 05:59 J -26429026.37 -26429026.25 -26429026.09 0.0089 0.0073 *

Moon -77071-04-11 10:47 J -26428659.22 -26428659.05 -26428658.83 0.0089 0.0051

Earth -77071-04-11 12:13 J -26428659.16 -26428658.99 -26428658.76 0.0089 0.0054 *

Earth -77070-04-13 21:20 J -26428291.81 -26428291.61 -26428291.36 0.0089 0.0038

Moon -77070-04-13 22:04 J -26428291.79 -26428291.58 -26428291.33 0.0089 0.0041 *

Earth	-77069-04-15 06:28 J	-26427924.46	-26427924.23	-26427923.97	0.0089	0.0022
Moon	-77069-04-15 07:40 J	-26427924.41	-26427924.18	-26427923.93	0.0089	0.0018 *
Moon	-77068-04-17 13:40 J	-26427557.19	-26427556.93	-26427556.67	0.0089	0.0009
Earth	-77068-04-17 15:49 J	-26427557.09	-26427556.84	-26427556.59	0.0089	0.0005 *
Earth	-77067-04-20 00:42 J	-26427189.71	-26427189.47	-26427189.21	0.0089	0.0011
Moon	-77067-04-20 03:35 J	-26427189.59	-26427189.35	-26427189.10	0.0089	0.0014 *
Moon	-77066-04-22 05:59 J	-26426822.48	-26426822.25	-26426821.99	0.0089	0.0023
Earth	-77066-04-22 09:35 J	-26426822.33	-26426822.10	-26426821.85	0.0089	0.0027 *
Earth	-77065-04-23 18:28 J	-26426454.93	-26426454.73	-26426454.49	0.0089	0.0043
Moon	-77065-04-23 22:04 J	-26426454.79	-26426454.58	-26426454.36	0.0089	0.0046 *
Moon	-77064-04-26 00:42 J	-26426087.65	-26426087.47	-26426087.26	0.0089	0.0056
Earth	-77064-04-26 03:49 J	-26426087.51	-26426087.34	-26426087.14	0.0089	0.0059 *
Earth	-77063-04-28 12:42 J	-26425720.08	-26425719.97	-26425719.81	0.0089	0.0076
Moon	-77063-04-28 15:06 J	-26425719.98	-26425719.87	-26425719.74	0.0089	0.0079 *
Moon	-77062-04-30 21:20 J	-26425352.62	-26425352.61	-26425352.55	0.0089	0.0088
Mars	-77057-03-07 08:37 J	-26423580.31	-26423580.14	-26423579.91	0.0089	0.0068
Mars	-77055-01-31 05:59 J	-26422885.55	-26422885.25	-26422884.93	0.0089	0.0015
Jupiter	-77037-06-25 10:32 J	-26416165.59	-26416165.06	-26416164.50	0.0089	0.0007
Venus	-77018-04-11 18:28 J	-26409300.81	-26409300.73	-26409300.65	0.0089	0.0082
Venus	-77018-11-23 07:54 J	-26409075.31	-26409075.17	-26409074.99	0.0089	0.0063
Venus	-77017-07-05 22:18 J	-26408849.76	-26408849.57	-26408849.37	0.0089	0.0043
Venus	-77016-02-16 11:59 J	-26408624.20	-26408624.00	-26408623.77	0.0089	0.0024
Venus	-77016-09-30 02:08 J	-26408398.63	-26408398.41	-26408398.18	0.0089	0.0005
Venus	-77015-05-13 16:18 J	-26408173.04	-26408172.82	-26408172.59	0.0089	0.0016
Venus	-77015-12-25 06:28 J	-26407947.44	-26407947.23	-26407947.02	0.0089	0.0035
Venus	-77014-08-07 20:08 J	-26407721.82	-26407721.66	-26407721.47	0.0089	0.0055
Venus	-77013-03-20 10:04 J	-26407496.18	-26407496.08	-26407495.94	0.0089	0.0075

77TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 77th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-77000-12-09 21:20 J	-26402483.62	-26402483.61	-26402483.56	0.0089	0.0088		
Mercury	-76999-03-08 01:11 J	-26402395.51	-26402395.45	-26402395.35	0.0089	0.0081		
Mercury	-76999-06-04 05:01 J	-26402307.39	-26402307.29	-26402307.17	0.0089	0.0074		
Mercury	-76999-08-31 08:52 J	-26402219.25	-26402219.13	-26402219.00	0.0089	0.0067		
Mercury	-76999-11-27 12:42 J	-26402131.11	-26402130.97	-26402130.82	0.0089	0.0060		
Mercury	-76998-02-23 16:04 J	-26402042.97	-26402042.83	-26402042.66	0.0089	0.0054		
Mercury	-76998-05-22 19:54 J	-26401954.82	-26401954.67	-26401954.49	0.0089	0.0047		
Mercury	-76998-08-18 23:44 J	-26401866.68	-26401866.51	-26401866.33	0.0089	0.0040		
Mercury	-76998-11-15 03:35 J	-26401778.53	-26401778.35	-26401778.17	0.0089	0.0033		
Mercury	-76997-02-11 06:56 J	-26401690.38	-26401690.21	-26401690.01	0.0089	0.0027		
Mercury	-76997-05-09 10:47 J	-26401602.23	-26401602.05	-26401601.85	0.0089	0.0020		
Mercury	-76997-08-05 14:37 J	-26401514.08	-26401513.89	-26401513.69	0.0089	0.0013		
Mercury	-76997-11-01 18:28 J	-26401425.93	-26401425.73	-26401425.54	0.0089	0.0006		
Mercury	-76996-01-28 22:04 J	-26401337.78	-26401337.58	-26401337.38	0.0089	0.0001		
Mercury	-76996-04-27 01:40 J	-26401249.62	-26401249.43	-26401249.23	0.0089	0.0008		
Mercury	-76996-07-24 05:16 J	-26401161.47	-26401161.28	-26401161.08	0.0089	0.0015		
Mercury	-76996-10-20 08:52 J	-26401073.31	-26401073.13	-26401072.93	0.0089	0.0022		
Mercury	-76995-01-16 12:28 J	-26400985.15	-26400984.98	-26400984.78	0.0089	0.0028		
Mercury	-76995-04-14 16:18 J	-26400897.00	-26400896.82	-26400896.64	0.0089	0.0035		
Mercury	-76995-07-11 19:40 J	-26400808.84	-26400808.68	-26400808.49	0.0089	0.0042		
Mercury	-76995-10-07 23:16 J	-26400720.68	-26400720.53	-26400720.35	0.0089	0.0049		

Mercury -76994-01-04 03:06 J -26400632.52 -26400632.37 -26400632.21 0.0089 0.0055

Mercury -76994-04-02 06:28 J -26400544.35 -26400544.23 -26400544.07 0.0089 0.0062

Mercury -76994-06-29 10:04 J -26400456.19 -26400456.08 -26400455.94 0.0089 0.0068

Mercury -76994-09-25 13:54 J -26400368.01 -26400367.92 -26400367.81 0.0089 0.0075

Mercury -76994-12-22 17:16 J -26400279.84 -26400279.78 -26400279.69 0.0089 0.0082

Mercury -76993-03-19 21:06 J -26400191.63 -26400191.62 -26400191.59 0.0089 0.0088

Earth -76991-10-07 09:49 J -26399260.19 -26399260.09 -26399259.92 0.0088 0.0077

Moon -76991-10-07 12:28 J -26399260.12 -26399259.98 -26399259.80 0.0088 0.0072 *

Moon -76990-10-09 23:16 J -26398892.70 -26398892.53 -26398892.35 0.0088 0.0064

Earth -76990-10-10 00:28 J -26398892.65 -26398892.48 -26398892.26 0.0088 0.0060 *

Moon -76989-10-11 15:06 J -26398525.10 -26398524.87 -26398524.60 0.0088 0.0039

Earth -76989-10-11 15:20 J -26398525.09 -26398524.86 -26398524.62 0.0088 0.0043 *

Earth -76988-10-14 05:30 J -26398157.51 -26398157.27 -26398157.00 0.0088 0.0027

Moon -76988-10-14 06:42 J -26398157.45 -26398157.22 -26398156.97 0.0088 0.0030 *

Moon -76987-10-16 18:42 J -26397789.99 -26397789.72 -26397789.45 0.0088 0.0005

Earth -76987-10-16 20:23 J -26397789.91 -26397789.65 -26397789.38 0.0088 0.0010 *

Earth -76986-10-19 10:47 J -26397422.31 -26397422.05 -26397421.78 0.0088 0.0008

Moon -76986-10-19 13:54 J -26397422.17 -26397421.92 -26397421.66 0.0088 0.0003 *

Moon -76985-10-20 21:35 J -26397054.84 -26397054.60 -26397054.33 0.0088 0.0029

Earth -76985-10-21 01:25 J -26397054.70 -26397054.44 -26397054.19 0.0088 0.0024 *

Earth -76984-10-23 15:35 J -26396687.08 -26396686.85 -26396686.61 0.0088 0.0041

Moon -76984-10-23 18:56 J -26396686.93 -26396686.71 -26396686.45 0.0088 0.0037 *

Moon -76983-10-26 02:08 J -26396319.57 -26396319.41 -26396319.20 0.0088 0.0062

Earth -76983-10-26 05:44 J -26396319.44 -26396319.26 -26396319.04 0.0088 0.0058 *

Earth -76982-10-28 20:08 J -26395951.79 -26395951.66 -26395951.50 0.0088 0.0074

Moon -76982-10-28 23:01 J -26395951.69 -26395951.54 -26395951.36 0.0088 0.0070 *

Mars -76975-02-18 06:28 J -26393647.40 -26393647.23 -26393646.99 0.0088 0.0068

Mars -76973-01-13 22:18 J -26392952.86 -26392952.57 -26392952.24 0.0088 0.0015

Venus -76935-01-11 13:11 J -26379075.06 -26379074.95 -26379074.85 0.0088 0.0077

Venus -76935-08-25 00:42 J -26378849.61 -26378849.47 -26378849.29 0.0088 0.0059

Venus -76934-04-07 13:11 J -26378624.14 -26378623.95 -26378623.76 0.0088 0.0040
 Venus -76934-11-19 01:11 J -26378398.65 -26378398.45 -26378398.23 0.0088 0.0022
 Venus -76933-07-01 13:25 J -26378173.16 -26378172.94 -26378172.73 0.0088 0.0003
 Venus -76932-02-12 01:11 J -26377947.66 -26377947.45 -26377947.23 0.0088 0.0016
 Venus -76932-09-25 12:56 J -26377722.15 -26377721.96 -26377721.75 0.0088 0.0035
 Venus -76931-05-09 00:56 J -26377496.62 -26377496.46 -26377496.28 0.0088 0.0053
 Venus -76931-12-20 12:42 J -26377271.08 -26377270.97 -26377270.82 0.0088 0.0072
 Mercury -76918-03-22 08:37 J -26372796.14 -26372796.14 -26372796.12 0.0089 0.0089
 Mercury -76918-06-18 10:04 J -26372708.11 -26372708.08 -26372708.03 0.0089 0.0084
 Mercury -76918-09-14 11:30 J -26372620.08 -26372620.02 -26372619.96 0.0089 0.0079
 Mercury -76918-12-11 12:42 J -26372532.03 -26372531.97 -26372531.90 0.0089 0.0075
 Mercury -76917-03-08 14:08 J -26372443.99 -26372443.91 -26372443.83 0.0089 0.0070
 Mercury -76917-06-04 15:06 J -26372355.94 -26372355.87 -26372355.77 0.0089 0.0066
 Mercury -76917-08-31 16:47 J -26372267.90 -26372267.80 -26372267.71 0.0089 0.0061
 Mercury -76917-11-27 17:44 J -26372179.85 -26372179.76 -26372179.65 0.0089 0.0057
 Mercury -76916-02-23 19:11 J -26372091.80 -26372091.70 -26372091.59 0.0089 0.0052
 Mercury -76916-05-22 20:23 J -26372003.75 -26372003.65 -26372003.53 0.0089 0.0048
 Mercury -76916-08-18 21:49 J -26371915.70 -26371915.59 -26371915.47 0.0089 0.0043
 Mercury -76916-11-14 23:01 J -26371827.65 -26371827.54 -26371827.41 0.0089 0.0039
 Mercury -76915-02-11 00:28 J -26371739.60 -26371739.48 -26371739.36 0.0089 0.0034
 Mercury -76915-05-10 01:40 J -26371651.55 -26371651.43 -26371651.30 0.0089 0.0030
 Mercury -76915-08-06 03:06 J -26371563.50 -26371563.37 -26371563.24 0.0089 0.0025
 Mercury -76915-11-02 04:32 J -26371475.44 -26371475.31 -26371475.18 0.0089 0.0020
 Mercury -76914-01-29 05:44 J -26371387.39 -26371387.26 -26371387.13 0.0089 0.0016
 Mercury -76914-04-27 07:11 J -26371299.34 -26371299.20 -26371299.07 0.0089 0.0011
 Mercury -76914-07-24 08:23 J -26371211.28 -26371211.15 -26371211.02 0.0089 0.0006
 Mercury -76914-10-20 09:35 J -26371123.23 -26371123.10 -26371122.96 0.0089 0.0004
 Mercury -76913-01-16 11:01 J -26371035.17 -26371035.04 -26371034.91 0.0089 0.0003
 Mercury -76913-04-13 12:28 J -26370947.12 -26370946.98 -26370946.85 0.0089 0.0008
 Mercury -76913-07-10 13:40 J -26370859.06 -26370858.93 -26370858.80 0.0089 0.0012

Mercury -76913-10-06 14:52 J -26370771.00 -26370770.88 -26370770.74 0.0089 0.0017
 Mercury -76912-01-02 16:18 J -26370682.95 -26370682.82 -26370682.69 0.0089 0.0021
 Mercury -76912-03-31 17:44 J -26370594.89 -26370594.76 -26370594.64 0.0089 0.0026
 Mercury -76912-06-27 18:56 J -26370506.83 -26370506.71 -26370506.58 0.0089 0.0031
 Mercury -76912-09-23 20:23 J -26370418.77 -26370418.65 -26370418.53 0.0089 0.0035
 Mercury -76912-12-20 21:35 J -26370330.71 -26370330.60 -26370330.48 0.0089 0.0040
 Mercury -76911-03-18 22:47 J -26370242.65 -26370242.55 -26370242.43 0.0089 0.0045
 Mercury -76911-06-15 00:28 J -26370154.59 -26370154.48 -26370154.37 0.0089 0.0049
 Mercury -76911-09-11 01:40 J -26370066.53 -26370066.43 -26370066.32 0.0089 0.0054
 Mercury -76911-12-08 02:52 J -26369978.47 -26369978.38 -26369978.27 0.0089 0.0059
 Mercury -76910-03-06 04:18 J -26369890.41 -26369890.32 -26369890.22 0.0089 0.0063
 Mercury -76910-06-02 05:30 J -26369802.34 -26369802.27 -26369802.17 0.0089 0.0068
 Mercury -76910-08-29 06:56 J -26369714.28 -26369714.21 -26369714.13 0.0089 0.0073
 Mercury -76910-11-25 08:23 J -26369626.21 -26369626.15 -26369626.08 0.0089 0.0077
 Mercury -76909-02-21 09:35 J -26369538.14 -26369538.10 -26369538.04 0.0089 0.0082
 Mercury -76909-05-19 10:47 J -26369450.06 -26369450.05 -26369450.01 0.0089 0.0087
 Moon -76908-04-08 15:35 J -26369125.97 -26369125.85 -26369125.68 0.0089 0.0072
 Earth -76908-04-08 17:16 J -26369125.91 -26369125.78 -26369125.63 0.0089 0.0074 *
 Moon -76907-04-11 01:54 J -26368758.59 -26368758.42 -26368758.21 0.0089 0.0061
 Earth -76907-04-11 01:54 J -26368758.58 -26368758.42 -26368758.20 0.0089 0.0059 *
 Earth -76906-04-13 11:01 J -26368391.24 -26368391.04 -26368390.80 0.0089 0.0043
 Moon -76906-04-13 12:13 J -26368391.20 -26368390.99 -26368390.76 0.0089 0.0040 *
 Moon -76905-04-14 17:44 J -26368023.99 -26368023.76 -26368023.51 0.0089 0.0030
 Earth -76905-04-14 20:23 J -26368023.88 -26368023.65 -26368023.40 0.0089 0.0027 *
 Earth -76904-04-17 05:30 J -26367656.52 -26367656.27 -26367656.02 0.0089 0.0011
 Moon -76904-04-17 08:37 J -26367656.38 -26367656.14 -26367655.89 0.0089 0.0009 *
 Moon -76903-04-19 11:01 J -26367289.29 -26367289.04 -26367288.79 0.0089 0.0002
 Earth -76903-04-19 14:23 J -26367289.15 -26367288.90 -26367288.65 0.0089 0.0005 *
 Earth -76902-04-21 23:01 J -26366921.77 -26366921.54 -26366921.28 0.0089 0.0021
 Moon -76902-04-22 02:37 J -26366921.62 -26366921.39 -26366921.13 0.0089 0.0024 *

Moon	-76901-04-23 05:59 J	-26366554.47	-26366554.25	-26366554.02	0.0089	0.0034
Earth	-76901-04-23 08:08 J	-26366554.37	-26366554.16	-26366553.92	0.0089	0.0037 *
Earth	-76900-04-25 17:01 J	-26366186.97	-26366186.79	-26366186.57	0.0089	0.0053
Moon	-76900-04-25 18:56 J	-26366186.89	-26366186.71	-26366186.49	0.0089	0.0056 *
Moon	-76899-04-28 01:40 J	-26365819.57	-26365819.43	-26365819.25	0.0089	0.0066
Earth	-76899-04-28 02:23 J	-26365819.55	-26365819.40	-26365819.23	0.0089	0.0069 *
Moon	-76898-04-30 10:04 J	-26365452.12	-26365452.08	-26365452.00	0.0089	0.0086
Earth	-76898-04-30 11:16 J	-26365452.09	-26365452.03	-26365451.93	0.0089	0.0084 *
Mars	-76892-09-14 22:32 J	-26363122.85	-26363122.56	-26363122.24	0.0089	0.0020
Mars	-76890-08-10 20:08 J	-26362427.84	-26362427.66	-26362427.40	0.0089	0.0065
Jupiter	-76871-09-02 16:18 J	-26355464.98	-26355464.82	-26355464.52	0.0089	0.0081
Venus	-76854-07-14 05:16 J	-26349306.28	-26349306.28	-26349306.26	0.0089	0.0089
Venus	-76853-02-24 19:11 J	-26349080.83	-26349080.70	-26349080.55	0.0089	0.0069
Venus	-76853-10-07 08:52 J	-26348855.29	-26348855.13	-26348854.92	0.0089	0.0050
Venus	-76852-05-20 23:16 J	-26348629.73	-26348629.53	-26348629.31	0.0089	0.0030
Venus	-76851-01-01 13:25 J	-26348404.16	-26348403.94	-26348403.72	0.0089	0.0010
Venus	-76851-08-15 03:20 J	-26348178.58	-26348178.36	-26348178.13	0.0089	0.0009
Venus	-76850-03-28 17:16 J	-26347952.99	-26347952.78	-26347952.56	0.0089	0.0029
Venus	-76850-11-09 07:11 J	-26347727.38	-26347727.20	-26347727.00	0.0089	0.0049
Venus	-76849-06-21 21:06 J	-26347501.74	-26347501.62	-26347501.45	0.0089	0.0069
Venus	-76848-02-02 11:30 J	-26347276.03	-26347276.02	-26347275.99	0.0089	0.0088
Mercury	-76835-09-05 20:52 J	-26342312.68	-26342312.63	-26342312.56	0.0089	0.0084
Mercury	-76835-12-03 00:13 J	-26342224.56	-26342224.49	-26342224.37	0.0089	0.0078
Mercury	-76834-03-01 04:04 J	-26342136.43	-26342136.33	-26342136.19	0.0089	0.0071
Mercury	-76834-05-28 07:54 J	-26342048.29	-26342048.17	-26342048.02	0.0089	0.0064
Mercury	-76834-08-24 11:44 J	-26341960.15	-26341960.01	-26341959.85	0.0089	0.0057
Mercury	-76834-11-20 15:35 J	-26341872.01	-26341871.85	-26341871.69	0.0089	0.0050
Mercury	-76833-02-16 18:56 J	-26341783.86	-26341783.71	-26341783.52	0.0089	0.0044
Mercury	-76833-05-14 22:47 J	-26341695.72	-26341695.55	-26341695.36	0.0089	0.0037
Mercury	-76833-08-11 02:37 J	-26341607.57	-26341607.39	-26341607.20	0.0089	0.0030

Mercury -76833-11-07 06:28 J -26341519.42 -26341519.23 -26341519.04 0.0089 0.0023

Mercury -76832-02-03 10:04 J -26341431.27 -26341431.08 -26341430.88 0.0089 0.0016

Mercury -76832-05-02 13:40 J -26341343.12 -26341342.93 -26341342.73 0.0089 0.0010

Mercury -76832-07-29 17:30 J -26341254.96 -26341254.77 -26341254.57 0.0089 0.0003

Mercury -76832-10-25 21:06 J -26341166.81 -26341166.62 -26341166.42 0.0089 0.0005

Mercury -76831-01-22 00:42 J -26341078.66 -26341078.47 -26341078.27 0.0089 0.0012

Mercury -76831-04-20 04:32 J -26340990.50 -26340990.31 -26340990.12 0.0089 0.0018

Mercury -76831-07-17 08:08 J -26340902.34 -26340902.16 -26340901.97 0.0089 0.0025

Mercury -76831-10-13 11:44 J -26340814.19 -26340814.01 -26340813.82 0.0089 0.0032

Mercury -76830-01-09 15:20 J -26340726.03 -26340725.86 -26340725.68 0.0089 0.0038

Mercury -76830-04-07 19:11 J -26340637.87 -26340637.70 -26340637.53 0.0089 0.0045

Mercury -76830-07-04 22:32 J -26340549.70 -26340549.56 -26340549.39 0.0089 0.0052

Mercury -76830-10-01 02:08 J -26340461.54 -26340461.41 -26340461.25 0.0089 0.0059

Mercury -76830-12-28 05:59 J -26340373.38 -26340373.25 -26340373.11 0.0089 0.0065

Mercury -76829-03-25 09:20 J -26340285.21 -26340285.11 -26340284.98 0.0089 0.0072

Mercury -76829-06-21 12:42 J -26340197.03 -26340196.97 -26340196.86 0.0089 0.0079

Mercury -76829-09-17 16:47 J -26340108.85 -26340108.80 -26340108.74 0.0089 0.0085

Moon -76827-10-06 18:42 J -26339359.80 -26339359.72 -26339359.58 0.0088 0.0080

Earth -76827-10-06 19:25 J -26339359.78 -26339359.69 -26339359.57 0.0088 0.0081 *

Moon -76826-10-09 09:20 J -26338992.27 -26338992.11 -26338991.90 0.0088 0.0066

Earth -76826-10-09 09:49 J -26338992.25 -26338992.09 -26338991.89 0.0088 0.0065 *

Earth -76825-10-10 23:59 J -26338624.70 -26338624.50 -26338624.26 0.0088 0.0049

Moon -76825-10-11 01:40 J -26338624.63 -26338624.43 -26338624.20 0.0088 0.0048 *

Moon -76824-10-13 12:13 J -26338257.24 -26338256.99 -26338256.74 0.0088 0.0033

Earth -76824-10-13 14:52 J -26338257.12 -26338256.88 -26338256.63 0.0088 0.0032 *

Earth -76823-10-16 05:16 J -26337889.53 -26337889.28 -26337889.01 0.0088 0.0015

Moon -76823-10-16 08:23 J -26337889.40 -26337889.15 -26337888.89 0.0088 0.0015 *

Moon -76822-10-18 16:04 J -26337522.10 -26337521.83 -26337521.56 0.0088 0.0001

Earth -76822-10-18 19:54 J -26337521.93 -26337521.67 -26337521.40 0.0088 0.0001 *

Earth -76821-10-20 10:18 J -26337154.33 -26337154.07 -26337153.81 0.0088 0.0018

Moon	-76821-10-20 13:40 J	-26337154.18	-26337153.93	-26337153.66	0.0088	0.0018	*
Moon	-76820-10-22 21:20 J	-26336786.83	-26336786.61	-26336786.36	0.0088	0.0036	
Earth	-76820-10-23 00:42 J	-26336786.70	-26336786.47	-26336786.21	0.0088	0.0035	*
Earth	-76819-10-25 15:20 J	-26336419.07	-26336418.86	-26336418.64	0.0088	0.0051	
Moon	-76819-10-25 17:59 J	-26336418.96	-26336418.75	-26336418.51	0.0088	0.0050	*
Moon	-76818-10-28 04:32 J	-26336051.47	-26336051.31	-26336051.14	0.0088	0.0068	
Earth	-76818-10-28 05:16 J	-26336051.42	-26336051.28	-26336051.08	0.0088	0.0068	*
Earth	-76817-10-29 19:40 J	-26335683.74	-26335683.68	-26335683.57	0.0088	0.0084	
Moon	-76817-10-29 20:23 J	-26335683.73	-26335683.65	-26335683.52	0.0088	0.0082	*
Mars	-76810-08-28 23:01 J	-26333189.83	-26333189.54	-26333189.22	0.0088	0.0020	
Mars	-76808-07-23 12:56 J	-26332495.15	-26332494.96	-26332494.70	0.0088	0.0062	
Venus	-76771-04-15 01:54 J	-26319080.48	-26319080.42	-26319080.33	0.0088	0.0083	
Venus	-76771-11-26 13:54 J	-26318855.04	-26318854.92	-26318854.75	0.0088	0.0065	
Venus	-76770-07-10 02:08 J	-26318629.58	-26318629.41	-26318629.21	0.0088	0.0046	
Venus	-76769-02-20 14:37 J	-26318404.10	-26318403.89	-26318403.69	0.0088	0.0027	
Venus	-76769-10-03 02:23 J	-26318178.61	-26318178.40	-26318178.18	0.0088	0.0008	
Venus	-76768-05-16 14:23 J	-26317953.11	-26317952.90	-26317952.68	0.0088	0.0010	
Venus	-76768-12-28 02:37 J	-26317727.60	-26317727.39	-26317727.19	0.0088	0.0029	
Venus	-76767-08-10 14:08 J	-26317502.07	-26317501.91	-26317501.71	0.0088	0.0048	
Venus	-76766-03-24 02:08 J	-26317276.54	-26317276.41	-26317276.26	0.0088	0.0066	
Venus	-76766-11-04 13:54 J	-26317050.96	-26317050.92	-26317050.84	0.0089	0.0085	
Mercury	-76754-12-17 08:52 J	-26312625.15	-26312625.13	-26312625.09	0.0089	0.0086	
Mercury	-76753-03-14 10:04 J	-26312537.12	-26312537.08	-26312537.02	0.0089	0.0082	
Mercury	-76753-06-10 11:30 J	-26312449.08	-26312449.02	-26312448.95	0.0089	0.0077	
Mercury	-76753-09-06 12:42 J	-26312361.04	-26312360.97	-26312360.89	0.0089	0.0073	
Mercury	-76753-12-03 14:08 J	-26312272.99	-26312272.91	-26312272.82	0.0089	0.0068	
Mercury	-76752-03-01 15:20 J	-26312184.94	-26312184.86	-26312184.76	0.0089	0.0064	
Mercury	-76752-05-28 16:47 J	-26312096.90	-26312096.80	-26312096.70	0.0089	0.0059	
Mercury	-76752-08-24 17:44 J	-26312008.85	-26312008.76	-26312008.64	0.0089	0.0055	
Mercury	-76752-11-20 19:11 J	-26311920.80	-26311920.70	-26311920.58	0.0089	0.0050	

Mercury -76751-02-16 20:37 J -26311832.75 -26311832.64 -26311832.52 0.0089 0.0045

Mercury -76751-05-15 21:49 J -26311744.70 -26311744.59 -26311744.46 0.0089 0.0041

Mercury -76751-08-11 23:16 J -26311656.65 -26311656.53 -26311656.41 0.0089 0.0036

Mercury -76751-11-08 00:28 J -26311568.60 -26311568.48 -26311568.35 0.0089 0.0032

Mercury -76750-02-04 01:54 J -26311480.54 -26311480.42 -26311480.29 0.0089 0.0027

Mercury -76750-05-03 03:06 J -26311392.49 -26311392.37 -26311392.24 0.0089 0.0023

Mercury -76750-07-30 04:32 J -26311304.44 -26311304.31 -26311304.18 0.0089 0.0018

Mercury -76750-10-26 05:44 J -26311216.39 -26311216.26 -26311216.12 0.0089 0.0014

Mercury -76749-01-22 07:11 J -26311128.33 -26311128.20 -26311128.07 0.0089 0.0008

Mercury -76749-04-19 08:37 J -26311040.28 -26311040.14 -26311040.01 0.0089 0.0005

Mercury -76749-07-16 09:49 J -26310952.22 -26310952.09 -26310951.96 0.0089 0.0001

Mercury -76749-10-12 11:16 J -26310864.17 -26310864.03 -26310863.90 0.0089 0.0006

Mercury -76748-01-08 12:28 J -26310776.11 -26310775.98 -26310775.85 0.0089 0.0010

Mercury -76748-04-06 13:40 J -26310688.05 -26310687.93 -26310687.79 0.0089 0.0015

Mercury -76748-07-03 15:06 J -26310600.00 -26310599.87 -26310599.74 0.0089 0.0019

Mercury -76748-09-29 16:18 J -26310511.94 -26310511.82 -26310511.69 0.0089 0.0024

Mercury -76748-12-26 17:44 J -26310423.88 -26310423.76 -26310423.63 0.0089 0.0029

Mercury -76747-03-24 19:11 J -26310335.83 -26310335.70 -26310335.58 0.0089 0.0033

Mercury -76747-06-20 20:23 J -26310247.77 -26310247.65 -26310247.53 0.0089 0.0038

Mercury -76747-09-16 21:35 J -26310159.71 -26310159.60 -26310159.48 0.0089 0.0043

Mercury -76747-12-13 23:01 J -26310071.65 -26310071.54 -26310071.42 0.0089 0.0047

Mercury -76746-03-12 00:13 J -26309983.59 -26309983.49 -26309983.37 0.0089 0.0052

Mercury -76746-06-08 01:40 J -26309895.53 -26309895.43 -26309895.32 0.0089 0.0057

Mercury -76746-09-04 03:06 J -26309807.46 -26309807.37 -26309807.27 0.0089 0.0061

Mercury -76746-12-01 04:18 J -26309719.40 -26309719.32 -26309719.22 0.0089 0.0066

Mercury -76745-02-27 05:30 J -26309631.34 -26309631.27 -26309631.18 0.0089 0.0071

Mercury -76745-05-25 07:11 J -26309543.27 -26309543.20 -26309543.13 0.0089 0.0075

Mercury -76745-08-21 08:23 J -26309455.20 -26309455.15 -26309455.09 0.0089 0.0080

Mercury -76745-11-17 09:35 J -26309367.12 -26309367.10 -26309367.05 0.0089 0.0085

Moon -76744-04-08 06:42 J -26309225.34 -26309225.22 -26309225.06 0.0089 0.0075

Earth	-76744-04-08 06:42 J	-26309225.31	-26309225.22	-26309225.08	0.0089	0.0079	*
Earth	-76743-04-10 16:04 J	-26308858.00	-26308857.83	-26308857.65	0.0089	0.0063	
Moon	-76743-04-10 17:59 J	-26308857.91	-26308857.75	-26308857.59	0.0089	0.0067	*
Moon	-76742-04-12 22:32 J	-26308490.76	-26308490.56	-26308490.32	0.0089	0.0044	
Earth	-76742-04-13 01:11 J	-26308490.65	-26308490.45	-26308490.23	0.0089	0.0048	*
Earth	-76741-04-14 10:18 J	-26308123.29	-26308123.07	-26308122.82	0.0089	0.0032	
Moon	-76741-04-14 13:25 J	-26308123.15	-26308122.94	-26308122.70	0.0089	0.0036	*
Moon	-76740-04-16 16:04 J	-26307756.07	-26307755.83	-26307755.58	0.0089	0.0012	
Earth	-76740-04-16 19:40 J	-26307755.92	-26307755.68	-26307755.43	0.0089	0.0016	*
Earth	-76739-04-19 04:47 J	-26307388.55	-26307388.30	-26307388.05	0.0089	0.0001	
Moon	-76739-04-19 07:54 J	-26307388.42	-26307388.17	-26307387.92	0.0089	0.0004	*
Moon	-76738-04-21 10:47 J	-26307021.28	-26307021.05	-26307020.80	0.0089	0.0019	
Earth	-76738-04-21 13:40 J	-26307021.17	-26307020.93	-26307020.68	0.0089	0.0015	*
Earth	-76737-04-22 22:18 J	-26306653.79	-26306653.57	-26306653.32	0.0089	0.0031	
Moon	-76737-04-22 23:44 J	-26306653.74	-26306653.51	-26306653.25	0.0089	0.0027	*
Earth	-76736-04-25 07:40 J	-26306286.39	-26306286.18	-26306285.96	0.0089	0.0046	
Moon	-76736-04-25 07:11 J	-26306286.38	-26306286.20	-26306285.98	0.0089	0.0050	*
Moon	-76735-04-27 15:35 J	-26305919.03	-26305918.85	-26305918.64	0.0089	0.0058	
Earth	-76735-04-27 16:18 J	-26305918.98	-26305918.82	-26305918.62	0.0089	0.0062	*
Earth	-76734-04-30 01:54 J	-26305551.54	-26305551.42	-26305551.30	0.0089	0.0077	
Moon	-76734-04-30 03:35 J	-26305551.42	-26305551.35	-26305551.23	0.0089	0.0082	*
Mars	-76728-04-29 19:11 J	-26303359.94	-26303359.70	-26303359.45	0.0089	0.0053	
Mars	-76726-03-25 13:40 J	-26302665.21	-26302664.93	-26302664.62	0.0089	0.0029	
Venus	-76689-05-28 05:59 J	-26289086.34	-26289086.25	-26289086.11	0.0089	0.0076	
Venus	-76688-01-08 20:08 J	-26288860.82	-26288860.66	-26288860.47	0.0089	0.0056	
Venus	-76688-08-22 10:18 J	-26288635.27	-26288635.07	-26288634.86	0.0089	0.0036	
Venus	-76687-04-05 00:13 J	-26288409.70	-26288409.49	-26288409.26	0.0089	0.0017	
Venus	-76687-11-16 14:23 J	-26288184.12	-26288183.90	-26288183.67	0.0089	0.0004	
Venus	-76686-06-30 04:32 J	-26287958.53	-26287958.31	-26287958.09	0.0089	0.0023	
Venus	-76685-02-10 18:13 J	-26287732.92	-26287732.74	-26287732.53	0.0089	0.0043	

Venus -76685-09-23 07:54 J -26287507.30 -26287507.17 -26287506.98 0.0089 0.0063
 Venus -76684-05-06 22:32 J -26287281.64 -26287281.56 -26287281.47 0.0089 0.0082
 Mercury -76670-03-06 16:04 J -26282229.84 -26282229.83 -26282229.77 0.0089 0.0088
 Mercury -76670-06-02 19:54 J -26282141.73 -26282141.67 -26282141.57 0.0089 0.0081
 Mercury -76670-08-29 23:44 J -26282053.60 -26282053.51 -26282053.39 0.0089 0.0074
 Mercury -76670-11-26 03:35 J -26281965.47 -26281965.35 -26281965.21 0.0089 0.0067
 Mercury -76669-02-22 07:25 J -26281877.33 -26281877.19 -26281877.04 0.0089 0.0060
 Mercury -76669-05-20 10:47 J -26281789.18 -26281789.05 -26281788.87 0.0089 0.0054
 Mercury -76669-08-16 14:37 J -26281701.04 -26281700.89 -26281700.71 0.0089 0.0047
 Mercury -76669-11-12 18:28 J -26281612.89 -26281612.73 -26281612.54 0.0089 0.0040
 Mercury -76668-02-08 22:18 J -26281524.75 -26281524.57 -26281524.38 0.0089 0.0033
 Mercury -76668-05-08 02:08 J -26281436.60 -26281436.41 -26281436.22 0.0089 0.0026
 Mercury -76668-08-04 05:44 J -26281348.45 -26281348.26 -26281348.06 0.0089 0.0019
 Mercury -76668-10-31 09:20 J -26281260.30 -26281260.11 -26281259.91 0.0089 0.0013
 Mercury -76667-01-27 13:11 J -26281172.14 -26281171.95 -26281171.75 0.0089 0.0006
 Mercury -76667-04-25 16:47 J -26281083.99 -26281083.80 -26281083.60 0.0089 0.0003
 Mercury -76667-07-22 20:37 J -26280995.84 -26280995.64 -26280995.45 0.0089 0.0008
 Mercury -76667-10-19 00:13 J -26280907.68 -26280907.49 -26280907.29 0.0089 0.0015
 Mercury -76666-01-15 03:49 J -26280819.52 -26280819.34 -26280819.14 0.0089 0.0022
 Mercury -76666-04-13 07:25 J -26280731.37 -26280731.19 -26280731.00 0.0089 0.0029
 Mercury -76666-07-10 11:01 J -26280643.21 -26280643.04 -26280642.85 0.0089 0.0036
 Mercury -76666-10-06 14:52 J -26280555.05 -26280554.88 -26280554.70 0.0089 0.0042
 Mercury -76665-01-02 18:28 J -26280466.89 -26280466.73 -26280466.56 0.0089 0.0049
 Mercury -76665-03-30 21:49 J -26280378.72 -26280378.59 -26280378.42 0.0089 0.0056
 Mercury -76665-06-27 01:25 J -26280290.56 -26280290.44 -26280290.28 0.0089 0.0063
 Mercury -76665-09-23 05:16 J -26280202.39 -26280202.28 -26280202.15 0.0089 0.0069
 Mercury -76665-12-20 08:37 J -26280114.22 -26280114.14 -26280114.02 0.0089 0.0076
 Mercury -76664-03-18 12:42 J -26280026.04 -26280025.97 -26280025.90 0.0089 0.0082
 Earth -76663-10-06 05:01 J -26279459.33 -26279459.29 -26279459.19 0.0089 0.0086
 Earth -76662-10-08 19:25 J -26279091.83 -26279091.69 -26279091.50 0.0088 0.0070

Moon	-76662-10-08 21:35 J	-26279091.75	-26279091.60	-26279091.40	0.0088	0.0066	*
Moon	-76661-10-10 07:11 J	-26278724.38	-26278724.20	-26278723.97	0.0088	0.0058	
Earth	-76661-10-10 10:32 J	-26278724.27	-26278724.06	-26278723.85	0.0088	0.0053	*
Earth	-76660-10-13 00:42 J	-26278356.71	-26278356.47	-26278356.22	0.0088	0.0037	
Moon	-76660-10-13 04:04 J	-26278356.55	-26278356.33	-26278356.07	0.0088	0.0033	*
Moon	-76659-10-15 11:30 J	-26277989.27	-26277989.02	-26277988.76	0.0088	0.0025	
Earth	-76659-10-15 14:52 J	-26277989.12	-26277988.88	-26277988.61	0.0088	0.0021	*
Earth	-76658-10-18 05:30 J	-26277621.54	-26277621.27	-26277621.01	0.0088	0.0004	
Moon	-76658-10-18 09:06 J	-26277621.39	-26277621.12	-26277620.85	0.0088	0.0001	*
Moon	-76657-10-19 17:01 J	-26277254.04	-26277253.79	-26277253.53	0.0088	0.0008	
Earth	-76657-10-19 19:40 J	-26277253.93	-26277253.68	-26277253.41	0.0088	0.0013	*
Earth	-76656-10-22 10:04 J	-26276886.32	-26276886.08	-26276885.82	0.0088	0.0028	
Moon	-76656-10-22 11:59 J	-26276886.24	-26276886.00	-26276885.73	0.0088	0.0033	*
Moon	-76655-10-24 23:16 J	-26276518.74	-26276518.53	-26276518.29	0.0088	0.0040	
Earth	-76655-10-25 00:28 J	-26276518.69	-26276518.48	-26276518.24	0.0088	0.0045	*
Moon	-76654-10-27 13:54 J	-26276151.08	-26276150.92	-26276150.71	0.0088	0.0066	
Earth	-76654-10-27 14:52 J	-26276151.06	-26276150.88	-26276150.68	0.0088	0.0061	*
Earth	-76653-10-29 05:16 J	-26275783.40	-26275783.28	-26275783.14	0.0088	0.0077	
Moon	-76653-10-29 06:42 J	-26275783.36	-26275783.22	-26275783.07	0.0088	0.0073	*
Mars	-76646-04-12 19:11 J	-26273426.93	-26273426.70	-26273426.43	0.0088	0.0053	
Mars	-76644-03-07 13:25 J	-26272732.22	-26272731.94	-26272731.63	0.0088	0.0029	
Venus	-76607-07-17 15:20 J	-26259085.86	-26259085.86	-26259085.84	0.0088	0.0088	
Venus	-76606-02-28 03:20 J	-26258860.48	-26258860.36	-26258860.22	0.0088	0.0070	
Venus	-76606-10-11 15:06 J	-26258635.02	-26258634.87	-26258634.67	0.0088	0.0052	
Venus	-76605-05-24 03:20 J	-26258409.55	-26258409.36	-26258409.15	0.0088	0.0033	
Venus	-76604-01-04 15:35 J	-26258184.06	-26258183.85	-26258183.63	0.0088	0.0014	
Venus	-76604-08-18 03:35 J	-26257958.56	-26257958.35	-26257958.13	0.0088	0.0005	
Venus	-76603-03-31 15:20 J	-26257733.05	-26257732.86	-26257732.64	0.0088	0.0024	
Venus	-76603-11-12 03:49 J	-26257507.53	-26257507.34	-26257507.15	0.0088	0.0042	
Venus	-76602-06-25 15:20 J	-26257282.00	-26257281.86	-26257281.69	0.0088	0.0061	

Venus -76601-02-06 03:35 J -26257056.44 -26257056.35 -26257056.25 0.0088 0.0079

Mercury -76589-06-16 07:54 J -26252542.18 -26252542.17 -26252542.16 0.0089 0.0088

Mercury -76589-09-12 08:52 J -26252454.16 -26252454.13 -26252454.08 0.0089 0.0084

Mercury -76589-12-09 10:32 J -26252366.12 -26252366.06 -26252366.01 0.0089 0.0079

Mercury -76588-03-07 11:30 J -26252278.08 -26252278.02 -26252277.94 0.0089 0.0075

Mercury -76588-06-03 12:56 J -26252190.03 -26252189.96 -26252189.88 0.0089 0.0070

Mercury -76588-08-30 14:08 J -26252101.99 -26252101.91 -26252101.81 0.0089 0.0066

Mercury -76588-11-26 15:35 J -26252013.94 -26252013.85 -26252013.75 0.0089 0.0061

Mercury -76587-02-22 16:47 J -26251925.89 -26251925.80 -26251925.69 0.0089 0.0057

Mercury -76587-05-21 18:13 J -26251837.84 -26251837.74 -26251837.63 0.0089 0.0052

Mercury -76587-08-17 19:25 J -26251749.79 -26251749.69 -26251749.57 0.0089 0.0047

Mercury -76587-11-13 20:37 J -26251661.74 -26251661.64 -26251661.51 0.0089 0.0043

Mercury -76586-02-09 22:04 J -26251573.69 -26251573.58 -26251573.46 0.0089 0.0038

Mercury -76586-05-08 23:16 J -26251485.64 -26251485.53 -26251485.40 0.0089 0.0034

Mercury -76586-08-05 00:42 J -26251397.59 -26251397.47 -26251397.34 0.0089 0.0029

Mercury -76586-11-01 01:54 J -26251309.54 -26251309.42 -26251309.28 0.0089 0.0025

Mercury -76585-01-28 03:20 J -26251221.49 -26251221.36 -26251221.23 0.0089 0.0020

Mercury -76585-04-25 04:47 J -26251133.43 -26251133.30 -26251133.17 0.0089 0.0015

Mercury -76585-07-22 05:59 J -26251045.38 -26251045.25 -26251045.12 0.0089 0.0011

Mercury -76585-10-18 07:25 J -26250957.32 -26250957.19 -26250957.06 0.0089 0.0006

Mercury -76584-01-14 08:37 J -26250869.27 -26250869.14 -26250869.01 0.0089 0.0002

Mercury -76584-04-12 10:04 J -26250781.22 -26250781.08 -26250780.95 0.0089 0.0004

Mercury -76584-07-09 11:16 J -26250693.16 -26250693.03 -26250692.90 0.0089 0.0008

Mercury -76584-10-05 12:42 J -26250605.10 -26250604.97 -26250604.84 0.0089 0.0013

Mercury -76583-01-01 13:54 J -26250517.05 -26250516.92 -26250516.79 0.0089 0.0017

Mercury -76583-03-30 15:20 J -26250428.99 -26250428.86 -26250428.73 0.0089 0.0022

Mercury -76583-06-26 16:32 J -26250340.93 -26250340.81 -26250340.68 0.0089 0.0027

Mercury -76583-09-22 17:59 J -26250252.88 -26250252.75 -26250252.63 0.0089 0.0031

Mercury -76583-12-19 19:11 J -26250164.82 -26250164.70 -26250164.58 0.0089 0.0036

Mercury -76582-03-17 20:23 J -26250076.76 -26250076.65 -26250076.52 0.0089 0.0041

Mercury -76582-06-13 21:49 J -26249988.70 -26249988.59 -26249988.47 0.0089 0.0045

Mercury -76582-09-09 23:01 J -26249900.64 -26249900.54 -26249900.42 0.0089 0.0050

Mercury -76582-12-07 00:13 J -26249812.58 -26249812.49 -26249812.37 0.0089 0.0055

Mercury -76581-03-04 01:54 J -26249724.52 -26249724.42 -26249724.32 0.0089 0.0059

Mercury -76581-05-31 03:06 J -26249636.46 -26249636.37 -26249636.27 0.0089 0.0064

Mercury -76581-08-27 04:18 J -26249548.39 -26249548.32 -26249548.22 0.0089 0.0069

Mercury -76581-11-23 05:44 J -26249460.32 -26249460.26 -26249460.18 0.0089 0.0073

Mercury -76580-02-19 06:56 J -26249372.26 -26249372.21 -26249372.13 0.0089 0.0078

Earth -76580-04-07 20:37 J -26249324.71 -26249324.64 -26249324.54 0.0089 0.0083

Moon -76580-04-07 22:04 J -26249324.62 -26249324.58 -26249324.50 0.0089 0.0086 *

Mercury -76580-05-18 08:23 J -26249284.19 -26249284.15 -26249284.09 0.0089 0.0083

Mercury -76580-08-14 09:49 J -26249196.11 -26249196.09 -26249196.06 0.0089 0.0087

Moon -76579-04-10 02:23 J -26248957.54 -26248957.40 -26248957.20 0.0089 0.0066

Earth -76579-04-10 05:30 J -26248957.41 -26248957.27 -26248957.09 0.0089 0.0068 *

Earth -76578-04-12 15:06 J -26248590.07 -26248589.87 -26248589.67 0.0089 0.0052

Moon -76578-04-12 17:59 J -26248589.93 -26248589.75 -26248589.54 0.0089 0.0055 *

Moon -76577-04-13 20:37 J -26248222.86 -26248222.64 -26248222.40 0.0089 0.0034

Earth -76577-04-13 23:59 J -26248222.71 -26248222.50 -26248222.26 0.0089 0.0037 *

Earth -76576-04-16 09:06 J -26247855.35 -26247855.12 -26247854.86 0.0089 0.0022

Moon -76576-04-16 12:28 J -26247855.21 -26247854.98 -26247854.72 0.0089 0.0024 *

Moon -76575-04-18 16:32 J -26247488.06 -26247487.81 -26247487.57 0.0089 0.0004

Earth -76575-04-18 18:28 J -26247487.98 -26247487.73 -26247487.47 0.0089 0.0006 *

Earth -76574-04-21 03:35 J -26247120.60 -26247120.35 -26247120.10 0.0089 0.0010

Moon -76574-04-21 05:01 J -26247120.54 -26247120.29 -26247120.02 0.0089 0.0007 *

Earth -76573-04-22 12:42 J -26246753.21 -26246752.97 -26246752.73 0.0089 0.0025

Moon -76573-04-22 12:42 J -26246753.19 -26246752.97 -26246752.73 0.0089 0.0028 *

Moon -76572-04-24 19:40 J -26246385.89 -26246385.68 -26246385.43 0.0089 0.0039

Earth -76572-04-24 21:20 J -26246385.82 -26246385.61 -26246385.37 0.0089 0.0041 *

Earth -76571-04-27 06:13 J -26246018.41 -26246018.24 -26246018.02 0.0089 0.0056

Moon -76571-04-27 08:23 J -26246018.31 -26246018.15 -26246017.95 0.0089 0.0059 *

Moon	-76570-04-29 11:59 J	-26245651.14	-26245651.00	-26245650.82	0.0089	0.0069
Earth	-76570-04-29 15:49 J	-26245650.98	-26245650.84	-26245650.69	0.0089	0.0071 *
Earth	-76569-05-01 00:13 J	-26245283.51	-26245283.49	-26245283.41	0.0089	0.0087
Moon	-76569-05-01 04:18 J	-26245283.32	-26245283.32	-26245283.31	0.0089	0.0089
Mars	-76565-12-12 17:01 J	-26243596.84	-26243596.79	-26243596.70	0.0089	0.0087
Mars	-76563-11-07 10:18 J	-26242902.38	-26242902.07	-26242901.75	0.0089	0.0005
Mars	-76561-10-02 05:01 J	-26242207.40	-26242207.29	-26242207.10	0.0089	0.0078
Venus	-76525-08-29 17:16 J	-26229091.84	-26229091.78	-26229091.67	0.0089	0.0082
Venus	-76524-04-12 07:25 J	-26228866.33	-26228866.19	-26228866.01	0.0089	0.0062
Venus	-76524-11-23 21:49 J	-26228640.79	-26228640.59	-26228640.39	0.0089	0.0042
Venus	-76523-07-07 11:44 J	-26228415.22	-26228415.01	-26228414.78	0.0089	0.0023
Venus	-76522-02-18 01:54 J	-26228189.64	-26228189.42	-26228189.19	0.0089	0.0003
Venus	-76522-10-01 15:49 J	-26227964.06	-26227963.84	-26227963.62	0.0089	0.0017
Venus	-76521-05-14 05:44 J	-26227738.45	-26227738.26	-26227738.04	0.0089	0.0037
Venus	-76521-12-25 19:40 J	-26227512.84	-26227512.68	-26227512.49	0.0089	0.0057
Venus	-76520-08-08 09:35 J	-26227287.19	-26227287.10	-26227286.97	0.0089	0.0077
Mercury	-76506-12-01 15:49 J	-26222058.89	-26222058.84	-26222058.77	0.0089	0.0084
Mercury	-76505-02-27 19:40 J	-26221970.77	-26221970.68	-26221970.58	0.0089	0.0077
Mercury	-76505-05-25 23:01 J	-26221882.64	-26221882.54	-26221882.40	0.0089	0.0071
Mercury	-76505-08-22 02:37 J	-26221794.50	-26221794.39	-26221794.23	0.0089	0.0064
Mercury	-76505-11-18 06:28 J	-26221706.36	-26221706.23	-26221706.06	0.0089	0.0057
Mercury	-76504-02-14 10:18 J	-26221618.22	-26221618.07	-26221617.90	0.0089	0.0050
Mercury	-76504-05-13 14:08 J	-26221530.08	-26221529.91	-26221529.73	0.0089	0.0043
Mercury	-76504-08-09 17:59 J	-26221441.93	-26221441.75	-26221441.57	0.0089	0.0036
Mercury	-76504-11-05 21:20 J	-26221353.78	-26221353.61	-26221353.41	0.0089	0.0030
Mercury	-76503-02-02 01:11 J	-26221265.63	-26221265.45	-26221265.25	0.0089	0.0023
Mercury	-76503-05-01 05:01 J	-26221177.48	-26221177.29	-26221177.09	0.0089	0.0016
Mercury	-76503-07-28 08:52 J	-26221089.33	-26221089.13	-26221088.94	0.0089	0.0009
Mercury	-76503-10-24 12:28 J	-26221001.17	-26221000.98	-26221000.78	0.0089	0.0002
Mercury	-76502-01-20 16:04 J	-26220913.02	-26220912.83	-26220912.63	0.0089	0.0005

Mercury -76502-04-18 19:54 J -26220824.87 -26220824.67 -26220824.48 0.0089 0.0012

Mercury -76502-07-15 23:30 J -26220736.71 -26220736.52 -26220736.33 0.0089 0.0018

Mercury -76502-10-12 02:52 J -26220648.55 -26220648.38 -26220648.18 0.0089 0.0026

Mercury -76501-01-08 06:56 J -26220560.39 -26220560.21 -26220560.03 0.0089 0.0032

Mercury -76501-04-05 10:18 J -26220472.23 -26220472.07 -26220471.88 0.0089 0.0039

Mercury -76501-07-02 13:54 J -26220384.07 -26220383.92 -26220383.74 0.0089 0.0046

Mercury -76501-09-28 17:30 J -26220295.91 -26220295.77 -26220295.60 0.0089 0.0053

Mercury -76501-12-25 21:20 J -26220207.75 -26220207.61 -26220207.46 0.0089 0.0059

Mercury -76500-03-24 00:56 J -26220119.58 -26220119.46 -26220119.32 0.0089 0.0066

Mercury -76500-06-20 04:18 J -26220031.41 -26220031.32 -26220031.19 0.0089 0.0073

Mercury -76500-09-16 08:23 J -26219943.23 -26219943.15 -26219943.06 0.0089 0.0079

Mercury -76500-12-13 11:44 J -26219855.04 -26219855.01 -26219854.95 0.0089 0.0086

Moon -76498-10-08 01:25 J -26219191.57 -26219191.44 -26219191.26 0.0088 0.0072

Earth -76498-10-08 05:01 J -26219191.41 -26219191.29 -26219191.12 0.0088 0.0074 *

Earth -76497-10-09 19:40 J -26218823.87 -26218823.68 -26218823.47 0.0088 0.0058

Moon -76497-10-09 23:01 J -26218823.71 -26218823.54 -26218823.32 0.0088 0.0059 *

Moon -76496-10-12 06:13 J -26218456.45 -26218456.24 -26218455.99 0.0088 0.0041

Earth -76496-10-12 10:18 J -26218456.29 -26218456.07 -26218455.83 0.0088 0.0042 *

Earth -76495-10-15 00:42 J -26218088.72 -26218088.47 -26218088.21 0.0088 0.0026

Moon -76495-10-15 03:49 J -26218088.59 -26218088.34 -26218088.08 0.0088 0.0027 *

Moon -76494-10-17 12:28 J -26217721.23 -26217720.98 -26217720.72 0.0088 0.0010

Earth -76494-10-17 15:06 J -26217721.13 -26217720.87 -26217720.60 0.0088 0.0010 *

Earth -76493-10-19 05:30 J -26217353.53 -26217353.27 -26217353.00 0.0088 0.0007

Moon -76493-10-19 07:11 J -26217353.47 -26217353.20 -26217352.92 0.0088 0.0006 *

Earth -76492-10-21 19:54 J -26216985.92 -26216985.67 -26216985.41 0.0088 0.0023

Moon -76492-10-21 19:40 J -26216985.91 -26216985.68 -26216985.42 0.0088 0.0024 *

Moon -76491-10-24 09:35 J -26216618.34 -26216618.10 -26216617.85 0.0088 0.0039

Earth -76491-10-24 10:04 J -26216618.31 -26216618.08 -26216617.83 0.0088 0.0039 *

Earth -76490-10-27 00:28 J -26216250.67 -26216250.48 -26216250.26 0.0088 0.0055

Moon -76490-10-27 02:23 J -26216250.58 -26216250.40 -26216250.18 0.0088 0.0055 *

Moon	-76489-10-28 11:30 J	-26215883.15	-26215883.02	-26215882.83	0.0088	0.0071
Earth	-76489-10-28 14:52 J	-26215883.02	-26215882.88	-26215882.70	0.0088	0.0071 *
Earth	-76488-10-31 05:01 J	-26215515.32	-26215515.29	-26215515.21	0.0088	0.0086
Moon	-76488-10-31 08:08 J	-26215515.20	-26215515.16	-26215515.06	0.0088	0.0086
Mars	-76483-11-25 15:35 J	-26213663.89	-26213663.85	-26213663.73	0.0088	0.0086
Mars	-76481-10-20 11:44 J	-26212969.32	-26212969.01	-26212968.69	0.0088	0.0004
Mars	-76479-09-15 05:01 J	-26212274.43	-26212274.29	-26212274.11	0.0088	0.0076
Jupiter	-76461-01-16 14:08 J	-26205942.30	-26205941.91	-26205941.44	0.0088	0.0054
Venus	-76442-06-01 16:18 J	-26198865.91	-26198865.82	-26198865.68	0.0088	0.0076
Venus	-76441-01-13 04:32 J	-26198640.46	-26198640.31	-26198640.13	0.0088	0.0057
Venus	-76441-08-25 16:32 J	-26198414.99	-26198414.81	-26198414.60	0.0088	0.0038
Venus	-76440-04-08 04:47 J	-26198189.51	-26198189.30	-26198189.09	0.0088	0.0019
Venus	-76440-11-19 17:01 J	-26197964.01	-26197963.79	-26197963.58	0.0088	0.0001
Venus	-76439-07-03 05:01 J	-26197738.50	-26197738.29	-26197738.08	0.0088	0.0018
Venus	-76438-02-13 16:32 J	-26197512.99	-26197512.81	-26197512.60	0.0088	0.0037
Venus	-76438-09-27 04:18 J	-26197287.47	-26197287.32	-26197287.13	0.0088	0.0056
Venus	-76437-05-09 16:18 J	-26197061.92	-26197061.82	-26197061.69	0.0088	0.0074
Mercury	-76424-03-13 07:54 J	-26192371.20	-26192371.17	-26192371.14	0.0089	0.0086
Mercury	-76424-06-09 08:52 J	-26192283.16	-26192283.13	-26192283.06	0.0089	0.0082
Mercury	-76424-09-05 10:18 J	-26192195.12	-26192195.07	-26192195.00	0.0089	0.0077
Mercury	-76424-12-02 11:30 J	-26192107.08	-26192107.02	-26192106.93	0.0089	0.0073
Mercury	-76423-02-28 12:56 J	-26192019.03	-26192018.96	-26192018.87	0.0089	0.0068
Mercury	-76423-05-27 14:23 J	-26191930.99	-26191930.90	-26191930.80	0.0089	0.0063
Mercury	-76423-08-23 15:35 J	-26191842.94	-26191842.85	-26191842.74	0.0089	0.0059
Mercury	-76423-11-19 17:01 J	-26191754.89	-26191754.79	-26191754.68	0.0089	0.0054
Mercury	-76422-02-15 18:13 J	-26191666.84	-26191666.74	-26191666.62	0.0089	0.0050
Mercury	-76422-05-14 19:40 J	-26191578.79	-26191578.68	-26191578.56	0.0089	0.0045
Mercury	-76422-08-10 20:52 J	-26191490.74	-26191490.63	-26191490.51	0.0089	0.0040
Mercury	-76422-11-06 22:18 J	-26191402.69	-26191402.57	-26191402.45	0.0089	0.0036
Mercury	-76421-02-02 23:30 J	-26191314.64	-26191314.52	-26191314.39	0.0089	0.0031

Mercury -76421-05-01 00:42 J -26191226.59 -26191226.47 -26191226.33 0.0089 0.0027

Mercury -76421-07-28 02:08 J -26191138.53 -26191138.41 -26191138.28 0.0089 0.0022

Mercury -76421-10-24 03:35 J -26191050.48 -26191050.35 -26191050.22 0.0089 0.0017

Mercury -76420-01-20 04:47 J -26190962.43 -26190962.30 -26190962.16 0.0089 0.0013

Mercury -76420-04-18 06:13 J -26190874.37 -26190874.24 -26190874.11 0.0089 0.0008

Mercury -76420-07-15 07:25 J -26190786.32 -26190786.19 -26190786.05 0.0089 0.0004

Mercury -76420-10-11 08:52 J -26190698.26 -26190698.13 -26190698.00 0.0089 0.0002

Mercury -76419-01-07 10:04 J -26190610.21 -26190610.08 -26190609.94 0.0089 0.0007

Mercury -76419-04-05 11:30 J -26190522.15 -26190522.02 -26190521.89 0.0089 0.0011

Mercury -76419-07-02 12:42 J -26190434.10 -26190433.97 -26190433.84 0.0089 0.0016

Mercury -76419-09-28 14:08 J -26190346.04 -26190345.91 -26190345.78 0.0089 0.0020

Mercury -76419-12-25 15:20 J -26190257.98 -26190257.86 -26190257.73 0.0089 0.0025

Mercury -76418-03-23 16:47 J -26190169.93 -26190169.80 -26190169.68 0.0089 0.0029

Mercury -76418-06-19 17:59 J -26190081.87 -26190081.75 -26190081.62 0.0089 0.0034

Mercury -76418-09-15 19:11 J -26189993.81 -26189993.70 -26189993.57 0.0089 0.0039

Mercury -76418-12-12 20:37 J -26189905.75 -26189905.64 -26189905.52 0.0089 0.0043

Mercury -76417-03-09 22:04 J -26189817.69 -26189817.58 -26189817.47 0.0089 0.0048

Mercury -76417-06-05 23:16 J -26189729.63 -26189729.53 -26189729.42 0.0089 0.0053

Mercury -76417-09-02 00:42 J -26189641.57 -26189641.47 -26189641.37 0.0089 0.0057

Mercury -76417-11-29 01:54 J -26189553.51 -26189553.42 -26189553.32 0.0089 0.0062

Mercury -76416-02-25 03:06 J -26189465.44 -26189465.37 -26189465.27 0.0089 0.0067

Earth -76416-04-07 11:01 J -26189424.07 -26189424.04 -26189423.98 0.0089 0.0087

Mercury -76416-05-24 04:47 J -26189377.38 -26189377.30 -26189377.22 0.0089 0.0071

Mercury -76416-08-20 05:59 J -26189289.31 -26189289.25 -26189289.18 0.0089 0.0076

Mercury -76416-11-16 07:11 J -26189201.24 -26189201.20 -26189201.13 0.0089 0.0081

Mercury -76415-02-12 08:37 J -26189113.17 -26189113.14 -26189113.10 0.0089 0.0085

Earth -76415-04-09 19:54 J -26189056.80 -26189056.67 -26189056.51 0.0089 0.0072

Moon -76415-04-09 23:30 J -26189056.67 -26189056.52 -26189056.35 0.0089 0.0068 *

Moon -76414-04-12 01:54 J -26188689.59 -26188689.42 -26188689.24 0.0089 0.0061

Earth -76414-04-12 05:01 J -26188689.47 -26188689.29 -26188689.08 0.0089 0.0057 *

Earth	-76413-04-13 13:54 J	-26188322.12	-26188321.92	-26188321.68	0.0089	0.0042
Moon	-76413-04-13 17:16 J	-26188322.01	-26188321.78	-26188321.55	0.0089	0.0038 *
Moon	-76412-04-15 21:06 J	-26187954.85	-26187954.62	-26187954.39	0.0089	0.0030
Earth	-76412-04-15 23:16 J	-26187954.77	-26187954.53	-26187954.29	0.0089	0.0026 *
Earth	-76411-04-18 08:23 J	-26187587.39	-26187587.15	-26187586.90	0.0089	0.0011
Moon	-76411-04-18 09:06 J	-26187587.38	-26187587.12	-26187586.86	0.0089	0.0007 *
Earth	-76410-04-20 17:44 J	-26187220.01	-26187219.76	-26187219.51	0.0089	0.0004
Moon	-76410-04-20 17:59 J	-26187219.99	-26187219.75	-26187219.51	0.0089	0.0001 *
Moon	-76409-04-22 01:11 J	-26186852.70	-26186852.45	-26186852.20	0.0089	0.0023
Earth	-76409-04-22 02:37 J	-26186852.63	-26186852.39	-26186852.14	0.0089	0.0020 *
Earth	-76408-04-24 11:30 J	-26186485.24	-26186485.02	-26186484.77	0.0089	0.0035
Moon	-76408-04-24 14:23 J	-26186485.12	-26186484.90	-26186484.66	0.0089	0.0031 *
Moon	-76407-04-26 17:30 J	-26186117.96	-26186117.77	-26186117.55	0.0089	0.0054
Earth	-76407-04-26 20:37 J	-26186117.83	-26186117.64	-26186117.42	0.0089	0.0050 *
Earth	-76406-04-29 05:59 J	-26185750.42	-26185750.25	-26185750.08	0.0089	0.0065
Moon	-76406-04-29 09:06 J	-26185750.28	-26185750.12	-26185749.92	0.0089	0.0062 *
Moon	-76405-04-30 11:30 J	-26185383.07	-26185383.02	-26185382.92	0.0089	0.0085
Earth	-76405-04-30 14:52 J	-26185382.97	-26185382.88	-26185382.76	0.0089	0.0080 *
Mars	-76399-06-22 06:42 J	-26183139.47	-26183139.22	-26183138.92	0.0089	0.0039
Mars	-76397-05-17 01:11 J	-26182444.71	-26182444.45	-26182444.16	0.0089	0.0043
Venus	-76361-12-01 04:32 J	-26169097.32	-26169097.31	-26169097.27	0.0089	0.0088
Venus	-76360-07-14 18:42 J	-26168871.86	-26168871.72	-26168871.57	0.0089	0.0068
Venus	-76359-02-25 08:23 J	-26168646.32	-26168646.15	-26168645.95	0.0089	0.0049
Venus	-76359-10-08 22:32 J	-26168420.76	-26168420.56	-26168420.34	0.0089	0.0029
Venus	-76358-05-22 12:56 J	-26168195.19	-26168194.96	-26168194.74	0.0089	0.0009
Venus	-76357-01-03 02:52 J	-26167969.60	-26167969.38	-26167969.15	0.0089	0.0011
Venus	-76357-08-15 16:32 J	-26167744.01	-26167743.81	-26167743.58	0.0089	0.0031
Venus	-76356-03-29 06:28 J	-26167518.39	-26167518.23	-26167518.03	0.0089	0.0051
Venus	-76356-11-09 20:23 J	-26167292.76	-26167292.65	-26167292.49	0.0089	0.0071
Mercury	-76341-05-31 11:30 J	-26161976.05	-26161976.02	-26161975.98	0.0089	0.0087

Mercury -76341-08-27 14:52 J -26161887.94 -26161887.88 -26161887.78 0.0089 0.0081
 Mercury -76341-11-23 18:42 J -26161799.81 -26161799.72 -26161799.59 0.0089 0.0074
 Mercury -76340-02-19 22:32 J -26161711.68 -26161711.56 -26161711.42 0.0089 0.0067
 Mercury -76340-05-19 02:23 J -26161623.54 -26161623.40 -26161623.25 0.0089 0.0060
 Mercury -76340-08-15 05:59 J -26161535.39 -26161535.25 -26161535.08 0.0089 0.0053
 Mercury -76340-11-11 09:49 J -26161447.25 -26161447.09 -26161446.91 0.0089 0.0046
 Mercury -76339-02-07 13:25 J -26161359.10 -26161358.94 -26161358.75 0.0089 0.0039
 Mercury -76339-05-06 17:01 J -26161270.96 -26161270.79 -26161270.59 0.0089 0.0033
 Mercury -76339-08-02 20:52 J -26161182.81 -26161182.63 -26161182.43 0.0089 0.0026
 Mercury -76339-10-30 00:42 J -26161094.66 -26161094.47 -26161094.27 0.0089 0.0019
 Mercury -76338-01-26 04:32 J -26161006.51 -26161006.31 -26161006.12 0.0089 0.0012
 Mercury -76338-04-24 08:08 J -26160918.35 -26160918.16 -26160917.96 0.0089 0.0005
 Mercury -76338-07-21 11:44 J -26160830.20 -26160830.01 -26160829.81 0.0089 0.0003
 Mercury -76338-10-17 15:35 J -26160742.05 -26160741.85 -26160741.66 0.0089 0.0009
 Mercury -76337-01-13 19:11 J -26160653.89 -26160653.70 -26160653.51 0.0089 0.0015
 Mercury -76337-04-10 22:47 J -26160565.73 -26160565.55 -26160565.36 0.0089 0.0022
 Mercury -76337-07-08 02:37 J -26160477.58 -26160477.39 -26160477.21 0.0089 0.0029
 Mercury -76337-10-04 05:59 J -26160389.42 -26160389.25 -26160389.06 0.0089 0.0036
 Mercury -76337-12-31 09:35 J -26160301.26 -26160301.10 -26160300.92 0.0089 0.0043
 Mercury -76336-03-29 13:11 J -26160213.10 -26160212.95 -26160212.77 0.0089 0.0050
 Mercury -76336-06-25 17:01 J -26160124.93 -26160124.79 -26160124.63 0.0089 0.0056
 Mercury -76336-09-21 20:37 J -26160036.77 -26160036.64 -26160036.49 0.0089 0.0063
 Mercury -76336-12-18 23:59 J -26159948.60 -26159948.50 -26159948.36 0.0089 0.0070
 Mercury -76335-03-17 04:04 J -26159860.43 -26159860.33 -26159860.23 0.0089 0.0076
 Mercury -76335-06-13 07:25 J -26159772.24 -26159772.19 -26159772.11 0.0089 0.0083
 Earth -76334-10-07 14:37 J -26159291.01 -26159290.89 -26159290.76 0.0089 0.0078
 Moon -76334-10-07 18:28 J -26159290.82 -26159290.73 -26159290.63 0.0089 0.0082 *
 Moon -76333-10-09 01:40 J -26158923.60 -26158923.43 -26158923.21 0.0088 0.0059
 Earth -76333-10-09 04:47 J -26158923.46 -26158923.30 -26158923.09 0.0088 0.0063 *
 Earth -76332-10-11 19:25 J -26158555.90 -26158555.69 -26158555.45 0.0088 0.0047

Moon	-76332-10-11 22:47 J	-26158555.76	-26158555.55	-26158555.32	0.0088	0.0051	*
Moon	-76331-10-14 08:23 J	-26158188.39	-26158188.15	-26158187.90	0.0088	0.0027	
Earth	-76331-10-14 10:04 J	-26158188.32	-26158188.08	-26158187.82	0.0088	0.0031	*
Earth	-76330-10-17 00:42 J	-26157820.73	-26157820.47	-26157820.21	0.0088	0.0015	
Moon	-76330-10-17 01:25 J	-26157820.70	-26157820.44	-26157820.17	0.0088	0.0019	*
Earth	-76329-10-18 15:06 J	-26157453.13	-26157452.87	-26157452.60	0.0088	0.0001	
Moon	-76329-10-18 15:06 J	-26157453.12	-26157452.87	-26157452.61	0.0088	0.0006	*
Moon	-76328-10-21 03:20 J	-26157085.63	-26157085.36	-26157085.08	0.0088	0.0013	
Earth	-76328-10-21 05:01 J	-26157085.54	-26157085.29	-26157085.02	0.0088	0.0018	*
Earth	-76327-10-23 19:25 J	-26156717.93	-26156717.69	-26156717.43	0.0088	0.0033	
Moon	-76327-10-23 21:35 J	-26156717.82	-26156717.60	-26156717.35	0.0088	0.0037	*
Moon	-76326-10-26 06:42 J	-26156350.45	-26156350.22	-26156349.98	0.0088	0.0044	
Earth	-76326-10-26 09:49 J	-26156350.30	-26156350.09	-26156349.86	0.0088	0.0049	*
Earth	-76325-10-27 23:44 J	-26155982.67	-26155982.51	-26155982.30	0.0088	0.0065	
Moon	-76325-10-28 04:04 J	-26155982.49	-26155982.33	-26155982.17	0.0088	0.0069	*
Moon	-76324-10-30 10:47 J	-26155615.16	-26155615.05	-26155614.89	0.0088	0.0076	
Earth	-76324-10-30 14:37 J	-26155614.99	-26155614.89	-26155614.77	0.0088	0.0080	*
Mars	-76317-06-04 08:37 J	-26153206.41	-26153206.14	-26153205.83	0.0088	0.0038	
Mars	-76315-04-30 02:52 J	-26152511.63	-26152511.38	-26152511.09	0.0088	0.0044	
Jupiter	-76295-03-14 12:42 J	-26145253.46	-26145252.97	-26145252.42	0.0088	0.0023	
Venus	-76278-09-03 05:59 J	-26138871.33	-26138871.25	-26138871.16	0.0088	0.0081	
Venus	-76277-04-15 17:44 J	-26138645.90	-26138645.76	-26138645.59	0.0088	0.0062	
Venus	-76277-11-27 05:59 J	-26138420.42	-26138420.25	-26138420.05	0.0088	0.0044	
Venus	-76276-07-10 18:13 J	-26138194.94	-26138194.74	-26138194.53	0.0088	0.0025	
Venus	-76275-02-21 06:13 J	-26137969.45	-26137969.24	-26137969.02	0.0088	0.0006	
Venus	-76275-10-04 17:59 J	-26137743.96	-26137743.75	-26137743.53	0.0088	0.0013	
Venus	-76274-05-18 05:44 J	-26137518.45	-26137518.26	-26137518.04	0.0088	0.0032	
Venus	-76274-12-29 17:59 J	-26137292.92	-26137292.75	-26137292.57	0.0088	0.0050	
Venus	-76273-08-11 05:30 J	-26137067.38	-26137067.27	-26137067.11	0.0088	0.0069	
Venus	-76272-03-24 17:44 J	-26136841.79	-26136841.76	-26136841.71	0.0088	0.0087	

Mercury -76260-09-11 06:42 J -26132288.23 -26132288.22 -26132288.21 0.0089 0.0088

Mercury -76260-12-08 07:54 J -26132200.20 -26132200.17 -26132200.12 0.0089 0.0084

Mercury -76259-03-06 09:20 J -26132112.17 -26132112.11 -26132112.05 0.0089 0.0079

Mercury -76259-06-02 10:18 J -26132024.13 -26132024.07 -26132023.99 0.0089 0.0075

Mercury -76259-08-29 11:44 J -26131936.08 -26131936.01 -26131935.92 0.0089 0.0070

Mercury -76259-11-25 12:56 J -26131848.03 -26131847.96 -26131847.86 0.0089 0.0066

Mercury -76258-02-21 14:23 J -26131759.99 -26131759.90 -26131759.80 0.0089 0.0061

Mercury -76258-05-20 15:35 J -26131671.94 -26131671.85 -26131671.74 0.0089 0.0057

Mercury -76258-08-16 17:01 J -26131583.89 -26131583.79 -26131583.68 0.0089 0.0052

Mercury -76258-11-12 18:28 J -26131495.84 -26131495.73 -26131495.62 0.0089 0.0047

Mercury -76257-02-08 19:40 J -26131407.79 -26131407.68 -26131407.56 0.0089 0.0043

Mercury -76257-05-06 21:06 J -26131319.74 -26131319.62 -26131319.50 0.0089 0.0038

Mercury -76257-08-02 22:18 J -26131231.69 -26131231.57 -26131231.44 0.0089 0.0033

Mercury -76257-10-29 23:30 J -26131143.64 -26131143.52 -26131143.39 0.0089 0.0029

Mercury -76256-01-26 00:56 J -26131055.58 -26131055.46 -26131055.33 0.0089 0.0024

Mercury -76256-04-24 02:08 J -26130967.53 -26130967.41 -26130967.27 0.0089 0.0020

Mercury -76256-07-21 03:35 J -26130879.48 -26130879.35 -26130879.22 0.0089 0.0015

Mercury -76256-10-17 04:47 J -26130791.42 -26130791.30 -26130791.16 0.0089 0.0011

Mercury -76255-01-13 06:13 J -26130703.37 -26130703.24 -26130703.11 0.0089 0.0006

Mercury -76255-04-11 07:40 J -26130615.32 -26130615.18 -26130615.05 0.0089 0.0002

Mercury -76255-07-08 08:52 J -26130527.26 -26130527.13 -26130527.00 0.0089 0.0004

Mercury -76255-10-04 10:18 J -26130439.21 -26130439.07 -26130438.94 0.0089 0.0009

Mercury -76255-12-31 11:30 J -26130351.15 -26130351.02 -26130350.89 0.0089 0.0013

Mercury -76254-03-29 12:42 J -26130263.09 -26130262.97 -26130262.83 0.0089 0.0018

Mercury -76254-06-25 14:08 J -26130175.04 -26130174.91 -26130174.78 0.0089 0.0022

Mercury -76254-09-21 15:35 J -26130086.98 -26130086.85 -26130086.73 0.0089 0.0027

Mercury -76254-12-18 16:47 J -26129998.92 -26129998.80 -26129998.67 0.0089 0.0032

Mercury -76253-03-15 17:59 J -26129910.86 -26129910.75 -26129910.62 0.0089 0.0037

Mercury -76253-06-11 19:25 J -26129822.80 -26129822.69 -26129822.57 0.0089 0.0041

Mercury -76253-09-07 20:37 J -26129734.75 -26129734.64 -26129734.52 0.0089 0.0046

Mercury -76253-12-04 21:49 J -26129646.69 -26129646.59 -26129646.47 0.0089 0.0051

Mercury -76252-03-02 23:16 J -26129558.62 -26129558.53 -26129558.42 0.0089 0.0055

Mercury -76252-05-30 00:42 J -26129470.56 -26129470.47 -26129470.37 0.0089 0.0060

Mercury -76252-08-26 01:54 J -26129382.50 -26129382.42 -26129382.32 0.0089 0.0065

Mercury -76252-11-22 03:20 J -26129294.44 -26129294.36 -26129294.27 0.0089 0.0069

Mercury -76251-02-18 04:32 J -26129206.37 -26129206.31 -26129206.23 0.0089 0.0074

Moon -76251-04-09 05:59 J -26129156.34 -26129156.25 -26129156.12 0.0089 0.0079

Earth -76251-04-09 09:35 J -26129156.21 -26129156.10 -26129155.95 0.0089 0.0076 *

Mercury -76251-05-17 05:44 J -26129118.30 -26129118.26 -26129118.18 0.0089 0.0079

Mercury -76251-08-13 07:25 J -26129030.23 -26129030.19 -26129030.14 0.0089 0.0083

Mercury -76251-11-09 08:37 J -26128942.15 -26128942.14 -26128942.11 0.0089 0.0088

Earth -76250-04-11 18:56 J -26128788.89 -26128788.71 -26128788.53 0.0089 0.0061

Moon -76250-04-11 21:20 J -26128788.78 -26128788.61 -26128788.40 0.0089 0.0059 *

Moon -76249-04-13 01:54 J -26128421.61 -26128421.42 -26128421.20 0.0089 0.0049

Earth -76249-04-13 03:49 J -26128421.55 -26128421.34 -26128421.12 0.0089 0.0046 *

Earth -76248-04-15 12:56 J -26128054.19 -26128053.96 -26128053.72 0.0089 0.0031

Moon -76248-04-15 13:40 J -26128054.16 -26128053.93 -26128053.67 0.0089 0.0029 *

Earth -76247-04-17 22:04 J -26127686.83 -26127686.58 -26127686.33 0.0089 0.0016

Moon -76247-04-17 23:01 J -26127686.78 -26127686.54 -26127686.30 0.0089 0.0018 *

Moon -76246-04-20 05:01 J -26127319.55 -26127319.29 -26127319.03 0.0089 0.0001

Earth -76246-04-20 07:11 J -26127319.45 -26127319.20 -26127318.95 0.0089 0.0001 *

Earth -76245-04-21 16:18 J -26126952.07 -26126951.82 -26126951.57 0.0089 0.0014

Moon -76245-04-21 18:42 J -26126951.96 -26126951.72 -26126951.47 0.0089 0.0012 *

Moon -76244-04-23 21:49 J -26126584.82 -26126584.59 -26126584.35 0.0089 0.0031

Earth -76244-04-24 01:25 J -26126584.67 -26126584.44 -26126584.20 0.0089 0.0029 *

Earth -76243-04-26 10:47 J -26126217.27 -26126217.05 -26126216.84 0.0089 0.0044

Moon -76243-04-26 13:54 J -26126217.13 -26126216.92 -26126216.69 0.0089 0.0042 *

Moon -76242-04-28 16:32 J -26125849.98 -26125849.81 -26125849.63 0.0089 0.0062

Earth -76242-04-28 19:54 J -26125849.85 -26125849.67 -26125849.48 0.0089 0.0059 *

Earth -76241-04-30 04:47 J -26125482.43 -26125482.30 -26125482.16 0.0089 0.0074

Moon -76241-04-30 06:28 J -26125482.35 -26125482.23 -26125482.05 0.0089 0.0072 *
 Mars -76235-02-04 05:16 J -26123376.42 -26123376.28 -26123376.06 0.0089 0.0072
 Mars -76234-12-30 21:06 J -26122681.92 -26122681.62 -26122681.30 0.0089 0.0009
 Venus -76196-10-16 05:16 J -26108877.38 -26108877.28 -26108877.14 0.0089 0.0075
 Venus -76195-05-29 19:25 J -26108651.85 -26108651.69 -26108651.50 0.0089 0.0055
 Venus -76194-01-10 09:35 J -26108426.30 -26108426.10 -26108425.88 0.0089 0.0035
 Venus -76194-08-23 23:44 J -26108200.73 -26108200.51 -26108200.29 0.0089 0.0015
 Venus -76193-04-05 13:40 J -26107975.15 -26107974.93 -26107974.70 0.0089 0.0005
 Venus -76193-11-17 03:20 J -26107749.56 -26107749.36 -26107749.13 0.0089 0.0025
 Venus -76192-06-30 17:59 J -26107523.95 -26107523.75 -26107523.56 0.0089 0.0044
 Venus -76191-02-11 07:54 J -26107298.32 -26107298.17 -26107298.01 0.0089 0.0064
 Venus -76191-09-24 21:35 J -26107072.65 -26107072.60 -26107072.51 0.0089 0.0084
 Mercury -76176-02-25 10:32 J -26101805.11 -26101805.06 -26101804.99 0.0089 0.0084
 Mercury -76176-05-24 14:23 J -26101716.99 -26101716.90 -26101716.80 0.0089 0.0077
 Mercury -76176-08-20 18:13 J -26101628.85 -26101628.74 -26101628.62 0.0089 0.0070
 Mercury -76176-11-16 21:35 J -26101540.72 -26101540.60 -26101540.44 0.0089 0.0064
 Mercury -76175-02-13 01:25 J -26101452.58 -26101452.44 -26101452.27 0.0089 0.0057
 Mercury -76175-05-12 05:16 J -26101364.43 -26101364.28 -26101364.11 0.0089 0.0050
 Mercury -76175-08-08 08:52 J -26101276.29 -26101276.13 -26101275.94 0.0089 0.0043
 Mercury -76175-11-04 12:42 J -26101188.14 -26101187.97 -26101187.78 0.0089 0.0036
 Mercury -76174-01-31 16:32 J -26101099.99 -26101099.81 -26101099.62 0.0089 0.0029
 Mercury -76174-04-29 20:08 J -26101011.84 -26101011.66 -26101011.46 0.0089 0.0022
 Mercury -76174-07-26 23:44 J -26100923.69 -26100923.51 -26100923.31 0.0089 0.0016
 Mercury -76174-10-23 03:35 J -26100835.54 -26100835.35 -26100835.15 0.0089 0.0009
 Mercury -76173-01-19 07:25 J -26100747.39 -26100747.19 -26100747.00 0.0089 0.0002
 Mercury -76173-04-16 11:01 J -26100659.23 -26100659.04 -26100658.84 0.0089 0.0005
 Mercury -76173-07-13 14:37 J -26100571.08 -26100570.89 -26100570.69 0.0089 0.0012
 Mercury -76173-10-09 18:28 J -26100482.92 -26100482.73 -26100482.54 0.0089 0.0019
 Mercury -76172-01-05 22:04 J -26100394.77 -26100394.58 -26100394.39 0.0089 0.0026
 Mercury -76172-04-04 01:25 J -26100306.61 -26100306.44 -26100306.24 0.0089 0.0033

Mercury -76172-07-01 05:01 J -26100218.45 -26100218.29 -26100218.10 0.0089 0.0040

Mercury -76172-09-27 09:06 J -26100130.29 -26100130.12 -26100129.95 0.0089 0.0046

Mercury -76172-12-24 12:28 J -26100042.12 -26100041.98 -26100041.81 0.0089 0.0053

Mercury -76171-03-22 16:04 J -26099953.96 -26099953.83 -26099953.67 0.0089 0.0060

Mercury -76171-06-18 19:40 J -26099865.79 -26099865.68 -26099865.54 0.0089 0.0067

Mercury -76171-09-14 23:30 J -26099777.62 -26099777.52 -26099777.40 0.0089 0.0073

Mercury -76171-12-12 02:52 J -26099689.44 -26099689.38 -26099689.28 0.0089 0.0080

Mercury -76170-03-10 06:28 J -26099601.25 -26099601.23 -26099601.17 0.0089 0.0087

Moon -76170-10-06 20:23 J -26099390.70 -26099390.65 -26099390.56 0.0089 0.0085

Earth -76170-10-06 23:16 J -26099390.59 -26099390.53 -26099390.40 0.0089 0.0083 *

Earth -76169-10-08 14:08 J -26099023.07 -26099022.91 -26099022.72 0.0088 0.0067

Moon -76169-10-08 16:04 J -26099022.99 -26099022.83 -26099022.62 0.0088 0.0065 *

Moon -76168-10-11 03:06 J -26098655.56 -26098655.37 -26098655.15 0.0088 0.0053

Earth -76168-10-11 04:18 J -26098655.51 -26098655.32 -26098655.08 0.0088 0.0052 *

Moon -76167-10-13 19:25 J -26098287.94 -26098287.69 -26098287.43 0.0088 0.0034

Earth -76167-10-13 19:11 J -26098287.93 -26098287.70 -26098287.45 0.0088 0.0036 *

Earth -76166-10-16 10:04 J -26097920.34 -26097920.08 -26097919.83 0.0088 0.0020

Moon -76166-10-16 11:01 J -26097920.28 -26097920.04 -26097919.78 0.0088 0.0022 *

Moon -76165-10-17 22:18 J -26097552.84 -26097552.57 -26097552.29 0.0088 0.0004

Earth -76165-10-18 00:13 J -26097552.75 -26097552.49 -26097552.22 0.0088 0.0005 *

Earth -76164-10-20 14:37 J -26097185.15 -26097184.89 -26097184.62 0.0088 0.0012

Moon -76164-10-20 17:44 J -26097185.01 -26097184.76 -26097184.50 0.0088 0.0011 *

Moon -76163-10-23 01:25 J -26096817.68 -26096817.44 -26096817.18 0.0088 0.0028

Earth -76163-10-23 04:47 J -26096817.54 -26096817.30 -26096817.03 0.0088 0.0028 *

Earth -76162-10-25 19:11 J -26096449.92 -26096449.70 -26096449.46 0.0088 0.0043

Moon -76162-10-25 23:01 J -26096449.77 -26096449.54 -26096449.30 0.0088 0.0043 *

Moon -76161-10-27 05:59 J -26096082.43 -26096082.25 -26096082.04 0.0088 0.0059

Earth -76161-10-27 09:20 J -26096082.29 -26096082.11 -26096081.89 0.0088 0.0058 *

Earth -76160-10-29 23:30 J -26095714.65 -26095714.52 -26095714.36 0.0088 0.0074

Moon -76160-10-30 02:08 J -26095714.53 -26095714.41 -26095714.24 0.0088 0.0074 *

Moon	-76159-11-01 11:44 J	-26095347.01	-26095347.01	-26095346.98	0.0088	0.0088
Mars	-76153-01-18 02:23 J	-26093443.58	-26093443.40	-26093443.20	0.0088	0.0071
Mars	-76152-12-13 00:13 J	-26092748.79	-26092748.49	-26092748.17	0.0088	0.0011
Venus	-76114-12-05 18:56 J	-26078876.74	-26078876.71	-26078876.67	0.0088	0.0087
Venus	-76113-07-18 06:42 J	-26078651.34	-26078651.22	-26078651.07	0.0088	0.0068
Venus	-76112-02-28 18:42 J	-26078425.88	-26078425.72	-26078425.53	0.0088	0.0050
Venus	-76112-10-12 06:56 J	-26078200.41	-26078200.21	-26078200.00	0.0088	0.0031
Venus	-76111-05-25 18:56 J	-26077974.92	-26077974.71	-26077974.49	0.0088	0.0012
Venus	-76110-01-06 07:11 J	-26077749.42	-26077749.20	-26077748.99	0.0088	0.0007
Venus	-76110-08-19 18:42 J	-26077523.91	-26077523.72	-26077523.50	0.0088	0.0026
Venus	-76109-04-01 06:56 J	-26077298.40	-26077298.21	-26077298.02	0.0088	0.0044
Venus	-76109-11-12 18:42 J	-26077072.86	-26077072.72	-26077072.56	0.0088	0.0063
Venus	-76108-06-26 06:13 J	-26076847.29	-26076847.24	-26076847.13	0.0088	0.0082
Mercury	-76095-06-08 06:42 J	-26072117.24	-26072117.22	-26072117.19	0.0089	0.0086
Mercury	-76095-09-04 07:54 J	-26072029.21	-26072029.17	-26072029.11	0.0089	0.0082
Mercury	-76095-12-01 09:20 J	-26071941.17	-26071941.11	-26071941.04	0.0089	0.0077
Mercury	-76094-02-27 10:18 J	-26071853.13	-26071853.07	-26071852.98	0.0089	0.0073
Mercury	-76094-05-26 11:44 J	-26071765.08	-26071765.01	-26071764.92	0.0089	0.0068
Mercury	-76094-08-22 12:56 J	-26071677.04	-26071676.96	-26071676.85	0.0089	0.0064
Mercury	-76094-11-18 14:23 J	-26071588.99	-26071588.90	-26071588.79	0.0089	0.0059
Mercury	-76093-02-14 15:49 J	-26071500.94	-26071500.84	-26071500.73	0.0089	0.0054
Mercury	-76093-05-12 17:01 J	-26071412.89	-26071412.79	-26071412.67	0.0089	0.0050
Mercury	-76093-08-08 18:28 J	-26071324.84	-26071324.73	-26071324.61	0.0089	0.0045
Mercury	-76093-11-04 19:40 J	-26071236.79	-26071236.68	-26071236.56	0.0089	0.0040
Mercury	-76092-01-31 21:06 J	-26071148.74	-26071148.62	-26071148.50	0.0089	0.0036
Mercury	-76092-04-29 22:18 J	-26071060.69	-26071060.57	-26071060.44	0.0089	0.0031
Mercury	-76092-07-26 23:30 J	-26070972.64	-26070972.52	-26070972.38	0.0089	0.0027
Mercury	-76092-10-23 00:56 J	-26070884.58	-26070884.46	-26070884.33	0.0089	0.0022
Mercury	-76091-01-19 02:23 J	-26070796.53	-26070796.40	-26070796.27	0.0089	0.0017
Mercury	-76091-04-17 03:35 J	-26070708.48	-26070708.35	-26070708.21	0.0089	0.0013

Mercury -76091-07-14 05:01 J -26070620.42 -26070620.29 -26070620.16 0.0089 0.0008
 Mercury -76091-10-10 06:13 J -26070532.37 -26070532.24 -26070532.10 0.0089 0.0004
 Mercury -76090-01-06 07:40 J -26070444.31 -26070444.18 -26070444.05 0.0089 0.0002
 Mercury -76090-04-04 08:52 J -26070356.26 -26070356.13 -26070355.99 0.0089 0.0007
 Mercury -76090-07-01 10:18 J -26070268.20 -26070268.07 -26070267.94 0.0089 0.0011
 Mercury -76090-09-27 11:30 J -26070180.15 -26070180.02 -26070179.89 0.0089 0.0016
 Mercury -76090-12-24 12:56 J -26070092.09 -26070091.96 -26070091.83 0.0089 0.0020
 Mercury -76089-03-21 14:08 J -26070004.03 -26070003.91 -26070003.78 0.0089 0.0025
 Mercury -76089-06-17 15:20 J -26069915.98 -26069915.86 -26069915.73 0.0089 0.0030
 Mercury -76089-09-13 16:47 J -26069827.92 -26069827.80 -26069827.67 0.0089 0.0034
 Mercury -76089-12-10 18:13 J -26069739.86 -26069739.74 -26069739.62 0.0089 0.0039
 Mercury -76088-03-08 19:25 J -26069651.80 -26069651.69 -26069651.57 0.0089 0.0044
 Mercury -76088-06-04 20:52 J -26069563.74 -26069563.63 -26069563.52 0.0089 0.0048
 Mercury -76088-08-31 22:04 J -26069475.68 -26069475.58 -26069475.47 0.0089 0.0053
 Mercury -76088-11-27 23:16 J -26069387.62 -26069387.53 -26069387.42 0.0089 0.0058
 Mercury -76087-02-24 00:56 J -26069299.56 -26069299.46 -26069299.37 0.0089 0.0062
 Earth -76087-04-08 23:30 J -26069255.62 -26069255.52 -26069255.41 0.0089 0.0080
 Moon -76087-04-09 01:54 J -26069255.48 -26069255.42 -26069255.31 0.0089 0.0084 *
 Mercury -76087-05-23 02:08 J -26069211.49 -26069211.41 -26069211.32 0.0089 0.0067
 Mercury -76087-08-19 03:20 J -26069123.43 -26069123.36 -26069123.27 0.0089 0.0072
 Mercury -76087-11-15 04:32 J -26069035.36 -26069035.31 -26069035.23 0.0089 0.0077
 Mercury -76086-02-11 05:59 J -26068947.29 -26068947.25 -26068947.19 0.0089 0.0081
 Moon -76086-04-11 06:28 J -26068888.38 -26068888.23 -26068888.03 0.0089 0.0062
 Earth -76086-04-11 08:08 J -26068888.31 -26068888.16 -26068887.97 0.0089 0.0066 *
 Mercury -76086-05-10 07:25 J -26068859.21 -26068859.19 -26068859.15 0.0089 0.0086
 Earth -76085-04-12 17:16 J -26068520.97 -26068520.78 -26068520.56 0.0089 0.0051
 Moon -76085-04-12 17:01 J -26068520.97 -26068520.79 -26068520.56 0.0089 0.0055 *
 Earth -76084-04-15 02:23 J -26068153.62 -26068153.40 -26068153.16 0.0089 0.0036
 Moon -76084-04-15 02:52 J -26068153.58 -26068153.38 -26068153.13 0.0089 0.0033 *
 Moon -76083-04-17 09:20 J -26067786.35 -26067786.11 -26067785.86 0.0089 0.0025

Earth	-76083-04-17 11:30 J	-26067786.26	-26067786.02	-26067785.77	0.0089	0.0021	*
Earth	-76082-04-19 20:37 J	-26067418.89	-26067418.64	-26067418.39	0.0089	0.0006	
Moon	-76082-04-19 23:44 J	-26067418.76	-26067418.51	-26067418.27	0.0089	0.0002	*
Moon	-76081-04-21 02:08 J	-26067051.66	-26067051.41	-26067051.16	0.0089	0.0005	
Earth	-76081-04-21 05:30 J	-26067051.52	-26067051.27	-26067051.02	0.0089	0.0009	*
Earth	-76080-04-23 14:08 J	-26066684.14	-26066683.91	-26066683.65	0.0089	0.0024	
Moon	-76080-04-23 17:59 J	-26066683.98	-26066683.75	-26066683.50	0.0089	0.0028	*
Moon	-76079-04-25 20:37 J	-26066316.84	-26066316.64	-26066316.39	0.0089	0.0035	
Earth	-76079-04-25 23:16 J	-26066316.73	-26066316.53	-26066316.28	0.0089	0.0039	*
Earth	-76078-04-28 08:52 J	-26065949.33	-26065949.13	-26065948.93	0.0089	0.0053	
Moon	-76078-04-28 10:32 J	-26065949.24	-26065949.06	-26065948.84	0.0089	0.0057	*
Moon	-76077-04-29 17:16 J	-26065581.95	-26065581.78	-26065581.62	0.0089	0.0064	
Earth	-76077-04-29 17:44 J	-26065581.91	-26065581.76	-26065581.59	0.0089	0.0068	*
Moon	-76076-05-02 01:40 J	-26065214.45	-26065214.43	-26065214.34	0.0089	0.0087	
Earth	-76076-05-02 02:37 J	-26065214.45	-26065214.39	-26065214.27	0.0089	0.0083	*
Mars	-76070-08-14 18:13 J	-26062919.02	-26062918.74	-26062918.42	0.0089	0.0025	
Mars	-76068-07-09 10:04 J	-26062224.30	-26062224.08	-26062223.82	0.0089	0.0056	
Venus	-76031-01-17 15:49 J	-26048882.90	-26048882.84	-26048882.73	0.0089	0.0082	
Venus	-76031-08-31 05:59 J	-26048657.40	-26048657.25	-26048657.08	0.0089	0.0062	
Venus	-76030-04-13 20:08 J	-26048431.85	-26048431.66	-26048431.46	0.0089	0.0042	
Venus	-76030-11-25 10:04 J	-26048206.29	-26048206.08	-26048205.86	0.0089	0.0022	
Venus	-76029-07-08 00:13 J	-26047980.71	-26047980.49	-26047980.26	0.0089	0.0002	
Venus	-76028-02-18 14:08 J	-26047755.12	-26047754.91	-26047754.68	0.0089	0.0018	
Venus	-76028-10-02 03:49 J	-26047529.52	-26047529.34	-26047529.12	0.0089	0.0038	
Venus	-76027-05-15 17:59 J	-26047303.90	-26047303.75	-26047303.56	0.0089	0.0058	
Venus	-76027-12-27 07:54 J	-26047078.25	-26047078.17	-26047078.03	0.0089	0.0078	
Mercury	-76012-08-26 05:44 J	-26041722.27	-26041722.26	-26041722.22	0.0089	0.0088	
Mercury	-76012-11-22 09:35 J	-26041634.17	-26041634.10	-26041634.01	0.0089	0.0081	
Mercury	-76011-02-18 13:25 J	-26041546.04	-26041545.94	-26041545.83	0.0089	0.0074	
Mercury	-76011-05-17 17:16 J	-26041457.90	-26041457.78	-26041457.65	0.0089	0.0067	

Mercury -76011-08-13 21:06 J -26041369.76 -26041369.62 -26041369.48 0.0089 0.0060

Mercury -76011-11-10 00:28 J -26041281.62 -26041281.48 -26041281.31 0.0089 0.0054

Mercury -76010-02-06 04:04 J -26041193.48 -26041193.33 -26041193.14 0.0089 0.0047

Mercury -76010-05-05 07:54 J -26041105.33 -26041105.17 -26041104.98 0.0089 0.0040

Mercury -76010-08-01 11:44 J -26041017.18 -26041017.01 -26041016.82 0.0089 0.0033

Mercury -76010-10-28 15:35 J -26040929.03 -26040928.85 -26040928.66 0.0089 0.0026

Mercury -76009-01-24 19:25 J -26040840.88 -26040840.69 -26040840.50 0.0089 0.0019

Mercury -76009-04-21 23:01 J -26040752.73 -26040752.54 -26040752.34 0.0089 0.0012

Mercury -76009-07-19 02:37 J -26040664.58 -26040664.39 -26040664.19 0.0089 0.0006

Mercury -76009-10-15 06:28 J -26040576.43 -26040576.23 -26040576.03 0.0089 0.0002

Mercury -76008-01-11 10:04 J -26040488.27 -26040488.08 -26040487.88 0.0089 0.0009

Mercury -76008-04-09 13:40 J -26040400.12 -26040399.93 -26040399.73 0.0089 0.0016

Mercury -76008-07-06 17:16 J -26040311.96 -26040311.78 -26040311.58 0.0089 0.0022

Mercury -76008-10-02 21:06 J -26040223.80 -26040223.62 -26040223.43 0.0089 0.0029

Mercury -76008-12-30 00:42 J -26040135.64 -26040135.47 -26040135.29 0.0089 0.0036

Mercury -76007-03-28 04:18 J -26040047.48 -26040047.32 -26040047.14 0.0089 0.0043

Mercury -76007-06-24 07:40 J -26039959.32 -26039959.18 -26039959.00 0.0089 0.0050

Mercury -76007-09-20 11:44 J -26039871.16 -26039871.01 -26039870.86 0.0089 0.0056

Mercury -76007-12-17 15:06 J -26039782.99 -26039782.87 -26039782.72 0.0089 0.0063

Mercury -76006-03-15 18:42 J -26039694.83 -26039694.72 -26039694.59 0.0089 0.0070

Mercury -76006-06-11 22:04 J -26039606.65 -26039606.58 -26039606.46 0.0089 0.0077

Mercury -76006-09-08 02:08 J -26039518.47 -26039518.41 -26039518.34 0.0089 0.0083

Earth -76006-10-06 07:40 J -26039490.20 -26039490.18 -26039490.10 0.0089 0.0087

Moon -76006-10-06 09:49 J -26039490.16 -26039490.09 -26039489.97 0.0089 0.0083 *

Moon -76005-10-07 22:18 J -26039122.71 -26039122.57 -26039122.44 0.0089 0.0075

Earth -76005-10-07 21:49 J -26039122.71 -26039122.59 -26039122.40 0.0089 0.0072 *

Moon -76004-10-10 11:59 J -26038755.20 -26038755.00 -26038754.76 0.0088 0.0053

Earth -76004-10-10 12:56 J -26038755.16 -26038754.96 -26038754.75 0.0088 0.0056 *

Earth -76003-10-13 03:06 J -26038387.59 -26038387.37 -26038387.12 0.0088 0.0041

Moon -76003-10-13 04:47 J -26038387.51 -26038387.30 -26038387.07 0.0088 0.0045 *

Moon	-76002-10-15 14:37 J	-26038020.14	-26038019.89	-26038019.61	0.0088	0.0022	
Earth	-76002-10-15 17:44 J	-26038020.00	-26038019.76	-26038019.49	0.0088	0.0025	*
Earth	-76001-10-17 08:23 J	-26037652.41	-26037652.15	-26037651.88	0.0088	0.0010	
Moon	-76001-10-17 11:30 J	-26037652.27	-26037652.02	-26037651.76	0.0088	0.0014	*

76TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 76th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-76000-10-19 19:11 J	-26037284.96	-26037284.70	-26037284.43	0.0088	0.0011		
Earth	-76000-10-19 23:01 J	-26037284.80	-26037284.54	-26037284.28	0.0088	0.0006	*	
Earth	-75999-10-22 13:11 J	-26036917.19	-26036916.95	-26036916.68	0.0088	0.0022		
Moon	-75999-10-22 16:47 J	-26036917.05	-26036916.80	-26036916.52	0.0088	0.0017	*	
Moon	-75998-10-25 00:28 J	-26036549.69	-26036549.48	-26036549.23	0.0088	0.0042		
Earth	-75998-10-25 03:49 J	-26036549.57	-26036549.34	-26036549.09	0.0088	0.0037	*	
Earth	-75997-10-26 17:44 J	-26036181.95	-26036181.76	-26036181.53	0.0088	0.0052		
Moon	-75997-10-26 20:23 J	-26036181.86	-26036181.65	-26036181.40	0.0088	0.0048	*	
Moon	-75996-10-29 07:11 J	-26035814.33	-26035814.20	-26035814.04	0.0088	0.0072		
Earth	-75996-10-29 07:54 J	-26035814.31	-26035814.17	-26035813.97	0.0088	0.0068	*	
Moon	-75995-10-31 22:32 J	-26035446.65	-26035446.56	-26035446.40	0.0088	0.0079		
Earth	-75995-10-31 22:18 J	-26035446.64	-26035446.57	-26035446.45	0.0088	0.0083	*	
Saturn	-75993-03-31 03:49 J	-26034930.65	-26034930.34	-26034929.92	0.0088	0.0075		
Mars	-75988-07-27 17:44 J	-26032986.05	-26032985.76	-26032985.44	0.0088	0.0024		

Mars -75986-06-22 14:23 J -26032291.11 -26032290.90 -26032290.63 0.0088 0.0058
 Venus -75949-10-19 19:11 J -26018656.79 -26018656.70 -26018656.56 0.0088 0.0075
 Venus -75948-06-02 07:40 J -26018431.34 -26018431.18 -26018431.01 0.0088 0.0056
 Venus -75947-01-13 19:54 J -26018205.87 -26018205.67 -26018205.47 0.0088 0.0037
 Venus -75947-08-27 07:40 J -26017980.38 -26017980.18 -26017979.96 0.0088 0.0018
 Venus -75946-04-09 19:54 J -26017754.89 -26017754.67 -26017754.45 0.0088 0.0001
 Venus -75946-11-21 07:54 J -26017529.38 -26017529.17 -26017528.96 0.0088 0.0020
 Venus -75945-07-03 19:40 J -26017303.86 -26017303.68 -26017303.47 0.0088 0.0038
 Venus -75944-02-14 07:40 J -26017078.34 -26017078.18 -26017078.01 0.0088 0.0057
 Venus -75944-09-27 19:11 J -26016852.79 -26016852.70 -26016852.57 0.0088 0.0076
 Mercury -75931-12-07 05:30 J -26012034.27 -26012034.27 -26012034.27 0.0089 0.0089
 Mercury -75930-03-05 06:42 J -26011946.26 -26011946.22 -26011946.18 0.0089 0.0084
 Mercury -75930-06-01 07:54 J -26011858.22 -26011858.17 -26011858.11 0.0089 0.0080
 Mercury -75930-08-28 09:20 J -26011770.18 -26011770.11 -26011770.04 0.0089 0.0075
 Mercury -75930-11-24 10:18 J -26011682.13 -26011682.07 -26011681.98 0.0089 0.0071
 Mercury -75929-02-20 11:44 J -26011594.09 -26011594.01 -26011593.91 0.0089 0.0066
 Mercury -75929-05-18 12:56 J -26011506.04 -26011505.96 -26011505.85 0.0089 0.0062
 Mercury -75929-08-14 14:23 J -26011417.99 -26011417.90 -26011417.79 0.0089 0.0057
 Mercury -75929-11-10 15:49 J -26011329.94 -26011329.84 -26011329.73 0.0089 0.0052
 Mercury -75928-02-06 17:01 J -26011241.90 -26011241.79 -26011241.67 0.0089 0.0048
 Mercury -75928-05-05 18:13 J -26011153.85 -26011153.74 -26011153.62 0.0089 0.0043
 Mercury -75928-08-01 19:40 J -26011065.79 -26011065.68 -26011065.56 0.0089 0.0038
 Mercury -75928-10-28 20:52 J -26010977.74 -26010977.63 -26010977.50 0.0089 0.0034
 Mercury -75927-01-24 22:18 J -26010889.69 -26010889.57 -26010889.44 0.0089 0.0029
 Mercury -75927-04-22 23:30 J -26010801.64 -26010801.52 -26010801.39 0.0089 0.0025
 Mercury -75927-07-20 00:56 J -26010713.59 -26010713.46 -26010713.33 0.0089 0.0020
 Mercury -75927-10-16 02:08 J -26010625.53 -26010625.41 -26010625.27 0.0089 0.0016
 Mercury -75926-01-12 03:35 J -26010537.48 -26010537.35 -26010537.22 0.0089 0.0010
 Mercury -75926-04-10 04:47 J -26010449.43 -26010449.30 -26010449.16 0.0089 0.0007
 Mercury -75926-07-07 06:13 J -26010361.37 -26010361.24 -26010361.11 0.0089 0.0001

Mercury -75926-10-03 07:25 J -26010273.32 -26010273.19 -26010273.05 0.0089 0.0005

Mercury -75926-12-30 08:52 J -26010185.26 -26010185.13 -26010185.00 0.0089 0.0008

Mercury -75925-03-27 10:04 J -26010097.21 -26010097.08 -26010096.94 0.0089 0.0013

Mercury -75925-06-23 11:30 J -26010009.15 -26010009.02 -26010008.89 0.0089 0.0018

Mercury -75925-09-19 12:42 J -26009921.09 -26009920.97 -26009920.84 0.0089 0.0022

Mercury -75925-12-16 14:08 J -26009833.04 -26009832.91 -26009832.78 0.0089 0.0027

Mercury -75924-03-14 15:20 J -26009744.98 -26009744.86 -26009744.73 0.0089 0.0032

Mercury -75924-06-10 16:32 J -26009656.92 -26009656.81 -26009656.68 0.0089 0.0037

Mercury -75924-09-06 17:59 J -26009568.86 -26009568.75 -26009568.63 0.0089 0.0041

Mercury -75924-12-03 19:25 J -26009480.80 -26009480.69 -26009480.57 0.0089 0.0046

Mercury -75923-03-01 20:37 J -26009392.74 -26009392.64 -26009392.52 0.0089 0.0051

Moon -75923-04-08 10:32 J -26009355.12 -26009355.06 -26009354.94 0.0089 0.0083

Earth -75923-04-08 12:13 J -26009355.06 -26009354.99 -26009354.90 0.0089 0.0084 *

Mercury -75923-05-28 22:04 J -26009304.68 -26009304.58 -26009304.47 0.0089 0.0055

Mercury -75923-08-24 23:16 J -26009216.62 -26009216.53 -26009216.42 0.0089 0.0060

Mercury -75923-11-21 00:28 J -26009128.56 -26009128.48 -26009128.38 0.0089 0.0065

Mercury -75922-02-17 02:08 J -26009040.49 -26009040.41 -26009040.33 0.0089 0.0069

Earth -75922-04-10 21:06 J -26008987.75 -26008987.62 -26008987.45 0.0089 0.0070

Moon -75922-04-10 21:06 J -26008987.74 -26008987.62 -26008987.44 0.0089 0.0072 *

Mercury -75922-05-16 03:20 J -26008952.42 -26008952.36 -26008952.28 0.0089 0.0074

Mercury -75922-08-12 04:32 J -26008864.36 -26008864.31 -26008864.24 0.0089 0.0079

Mercury -75922-11-08 06:13 J -26008776.28 -26008776.24 -26008776.20 0.0089 0.0083

Mercury -75921-02-04 07:25 J -26008688.20 -26008688.19 -26008688.17 0.0089 0.0088

Earth -75921-04-12 06:28 J -26008620.42 -26008620.23 -26008620.03 0.0089 0.0055

Moon -75921-04-12 07:40 J -26008620.35 -26008620.18 -26008619.96 0.0089 0.0054 *

Moon -75920-04-14 12:56 J -26008253.17 -26008252.96 -26008252.72 0.0089 0.0042

Earth -75920-04-14 15:20 J -26008253.07 -26008252.86 -26008252.62 0.0089 0.0041 *

Earth -75919-04-17 00:28 J -26007885.71 -26007885.48 -26007885.23 0.0089 0.0026

Moon -75919-04-17 03:20 J -26007885.58 -26007885.36 -26007885.10 0.0089 0.0024 *

Moon -75918-04-19 05:59 J -26007518.49 -26007518.25 -26007518.00 0.0089 0.0013

Earth	-75918-04-19 09:35 J	-26007518.34	-26007518.10	-26007517.85	0.0089	0.0011	*
Earth	-75917-04-20 18:42 J	-26007150.97	-26007150.72	-26007150.47	0.0089	0.0003	
Moon	-75917-04-20 21:49 J	-26007150.84	-26007150.59	-26007150.33	0.0089	0.0006	*
Moon	-75916-04-23 00:42 J	-26006783.70	-26006783.47	-26006783.22	0.0089	0.0016	
Earth	-75916-04-23 03:49 J	-26006783.59	-26006783.34	-26006783.09	0.0089	0.0018	*
Earth	-75915-04-25 12:28 J	-26006416.20	-26006415.98	-26006415.74	0.0089	0.0033	
Moon	-75915-04-25 13:54 J	-26006416.14	-26006415.92	-26006415.67	0.0089	0.0035	*
Moon	-75914-04-27 21:06 J	-26006048.81	-26006048.62	-26006048.40	0.0089	0.0046	
Earth	-75914-04-27 21:20 J	-26006048.80	-26006048.61	-26006048.38	0.0089	0.0048	*
Moon	-75913-04-29 05:59 J	-26005681.41	-26005681.25	-26005681.06	0.0089	0.0064	
Earth	-75913-04-29 06:42 J	-26005681.39	-26005681.22	-26005681.03	0.0089	0.0062	*
Earth	-75912-05-01 15:35 J	-26005313.95	-26005313.85	-26005313.70	0.0089	0.0077	
Moon	-75912-05-01 18:13 J	-26005313.86	-26005313.74	-26005313.60	0.0089	0.0075	*
Mars	-75906-03-29 17:01 J	-26003156.00	-26003155.79	-26003155.53	0.0089	0.0059	
Mars	-75904-02-21 06:56 J	-26002461.51	-26002461.21	-26002460.91	0.0089	0.0022	
Venus	-75867-04-21 02:23 J	-25988888.40	-25988888.40	-25988888.37	0.0089	0.0089	
Venus	-75867-12-02 16:18 J	-25988662.95	-25988662.82	-25988662.67	0.0089	0.0069	
Venus	-75866-07-16 06:13 J	-25988437.41	-25988437.24	-25988437.04	0.0089	0.0049	
Venus	-75865-02-26 20:23 J	-25988211.86	-25988211.65	-25988211.44	0.0089	0.0029	
Venus	-75865-10-09 10:04 J	-25987986.30	-25987986.08	-25987985.85	0.0089	0.0010	
Venus	-75864-05-23 00:13 J	-25987760.71	-25987760.49	-25987760.26	0.0089	0.0011	
Venus	-75863-01-03 13:54 J	-25987535.11	-25987534.92	-25987534.69	0.0089	0.0031	
Venus	-75863-08-17 03:49 J	-25987309.51	-25987309.34	-25987309.14	0.0089	0.0051	
Venus	-75862-03-30 18:13 J	-25987083.87	-25987083.74	-25987083.60	0.0089	0.0070	
Mercury	-75847-05-23 04:47 J	-25981551.35	-25981551.30	-25981551.24	0.0089	0.0085	
Mercury	-75847-08-19 08:37 J	-25981463.23	-25981463.14	-25981463.05	0.0089	0.0078	
Mercury	-75847-11-15 11:44 J	-25981375.10	-25981375.01	-25981374.87	0.0089	0.0072	
Mercury	-75846-02-11 15:35 J	-25981286.96	-25981286.85	-25981286.69	0.0089	0.0065	
Mercury	-75846-05-10 19:25 J	-25981198.82	-25981198.69	-25981198.52	0.0089	0.0058	
Mercury	-75846-08-06 23:16 J	-25981110.68	-25981110.53	-25981110.36	0.0089	0.0051	

Mercury -75846-11-03 03:06 J -25981022.53 -25981022.37 -25981022.19 0.0089 0.0044

Mercury -75845-01-30 06:56 J -25980934.38 -25980934.21 -25980934.03 0.0089 0.0037

Mercury -75845-04-27 10:32 J -25980846.24 -25980846.06 -25980845.87 0.0089 0.0030

Mercury -75845-07-24 14:23 J -25980758.09 -25980757.90 -25980757.71 0.0089 0.0023

Mercury -75845-10-20 18:13 J -25980669.93 -25980669.74 -25980669.55 0.0089 0.0016

Mercury -75844-01-16 21:49 J -25980581.78 -25980581.59 -25980581.39 0.0089 0.0009

Mercury -75844-04-15 01:40 J -25980493.63 -25980493.43 -25980493.24 0.0089 0.0002

Mercury -75844-07-12 05:16 J -25980405.47 -25980405.28 -25980405.08 0.0089 0.0005

Mercury -75844-10-08 08:52 J -25980317.32 -25980317.13 -25980316.93 0.0089 0.0012

Mercury -75843-01-04 12:28 J -25980229.16 -25980228.98 -25980228.78 0.0089 0.0019

Mercury -75843-04-02 16:04 J -25980141.00 -25980140.83 -25980140.63 0.0089 0.0026

Mercury -75843-06-29 20:08 J -25980052.85 -25980052.66 -25980052.48 0.0089 0.0032

Mercury -75843-09-25 23:30 J -25979964.69 -25979964.52 -25979964.34 0.0089 0.0039

Mercury -75843-12-23 03:06 J -25979876.53 -25979876.37 -25979876.19 0.0089 0.0046

Mercury -75842-03-21 06:42 J -25979788.36 -25979788.22 -25979788.05 0.0089 0.0053

Mercury -75842-06-17 10:18 J -25979700.20 -25979700.07 -25979699.91 0.0089 0.0060

Mercury -75842-09-13 14:08 J -25979612.03 -25979611.91 -25979611.77 0.0089 0.0066

Moon -75842-10-05 16:04 J -25979589.83 -25979589.83 -25979589.80 0.0089 0.0088

Mercury -75842-12-10 17:44 J -25979523.86 -25979523.76 -25979523.64 0.0089 0.0073

Mercury -75841-03-07 21:06 J -25979435.68 -25979435.62 -25979435.52 0.0089 0.0080

Mercury -75841-06-04 01:11 J -25979347.49 -25979347.45 -25979347.41 0.0089 0.0086

Moon -75841-10-07 05:01 J -25979222.39 -25979222.29 -25979222.15 0.0089 0.0079

Earth -75841-10-07 06:28 J -25979222.35 -25979222.23 -25979222.08 0.0089 0.0076 *

Earth -75840-10-09 20:52 J -25978854.81 -25978854.63 -25978854.43 0.0089 0.0061

Moon -75840-10-09 23:30 J -25978854.71 -25978854.52 -25978854.33 0.0089 0.0058 *

Moon -75839-10-12 08:08 J -25978487.37 -25978487.16 -25978486.91 0.0089 0.0048

Earth -75839-10-12 11:16 J -25978487.24 -25978487.03 -25978486.79 0.0089 0.0046 *

Earth -75838-10-15 01:25 J -25978119.67 -25978119.44 -25978119.17 0.0088 0.0031

Moon -75838-10-15 05:30 J -25978119.51 -25978119.27 -25978119.02 0.0088 0.0028 *

Moon -75837-10-16 12:28 J -25977752.23 -25977751.98 -25977751.71 0.0088 0.0018

Earth	-75837-10-16 16:04 J	-25977752.08	-25977751.83	-25977751.56	0.0088	0.0015	*
Earth	-75836-10-19 06:42 J	-25977384.48	-25977384.22	-25977383.95	0.0088	0.0001	
Moon	-75836-10-19 10:18 J	-25977384.34	-25977384.07	-25977383.80	0.0088	0.0001	*
Moon	-75835-10-21 18:28 J	-25977016.98	-25977016.73	-25977016.47	0.0088	0.0014	
Earth	-75835-10-21 21:06 J	-25977016.87	-25977016.62	-25977016.35	0.0088	0.0016	*
Earth	-75834-10-24 11:30 J	-25976649.26	-25976649.02	-25976648.77	0.0088	0.0031	
Moon	-75834-10-24 13:11 J	-25976649.20	-25976648.95	-25976648.69	0.0088	0.0032	*
Moon	-75833-10-26 00:42 J	-25976281.68	-25976281.47	-25976281.24	0.0088	0.0046	
Earth	-75833-10-26 01:25 J	-25976281.64	-25976281.44	-25976281.19	0.0088	0.0047	*
Moon	-75832-10-28 15:06 J	-25975914.04	-25975913.87	-25975913.65	0.0088	0.0063	
Earth	-75832-10-28 15:49 J	-25975914.00	-25975913.84	-25975913.62	0.0088	0.0062	*
Earth	-75831-10-31 05:59 J	-25975546.35	-25975546.25	-25975546.09	0.0088	0.0077	
Moon	-75831-10-31 07:54 J	-25975546.28	-25975546.17	-25975546.02	0.0088	0.0076	*
Mars	-75824-03-11 06:42 J	-25973223.43	-25973223.22	-25973222.95	0.0088	0.0059	
Mars	-75822-02-04 05:44 J	-25972528.54	-25972528.26	-25972527.93	0.0088	0.0024	
Venus	-75784-01-21 06:56 J	-25958662.27	-25958662.21	-25958662.10	0.0088	0.0082	
Venus	-75784-09-03 19:25 J	-25958436.83	-25958436.69	-25958436.53	0.0088	0.0063	
Venus	-75783-04-17 07:40 J	-25958211.36	-25958211.18	-25958210.99	0.0088	0.0044	
Venus	-75783-11-28 20:08 J	-25957985.87	-25957985.66	-25957985.46	0.0088	0.0025	
Venus	-75782-07-12 08:08 J	-25957760.38	-25957760.16	-25957759.94	0.0088	0.0006	
Venus	-75781-02-22 20:08 J	-25957534.87	-25957534.66	-25957534.45	0.0088	0.0013	
Venus	-75781-10-05 07:54 J	-25957309.36	-25957309.17	-25957308.96	0.0088	0.0032	
Venus	-75780-05-18 19:40 J	-25957083.84	-25957083.68	-25957083.49	0.0088	0.0051	
Venus	-75780-12-30 07:40 J	-25956858.29	-25956858.18	-25956858.03	0.0088	0.0070	
Venus	-75779-08-12 19:40 J	-25956632.69	-25956632.68	-25956632.64	0.0088	0.0088	
Mercury	-75766-09-03 05:16 J	-25951863.30	-25951863.28	-25951863.25	0.0089	0.0087	
Mercury	-75766-11-30 06:42 J	-25951775.27	-25951775.22	-25951775.17	0.0089	0.0082	
Mercury	-75765-02-26 07:40 J	-25951687.23	-25951687.18	-25951687.11	0.0089	0.0078	
Mercury	-75765-05-24 09:06 J	-25951599.19	-25951599.12	-25951599.04	0.0089	0.0073	
Mercury	-75765-08-20 10:18 J	-25951511.14	-25951511.07	-25951510.98	0.0089	0.0069	

Mercury -75765-11-16 11:44 J -25951423.09 -25951423.01 -25951422.91 0.0089 0.0064

Mercury -75764-02-12 12:56 J -25951335.05 -25951334.96 -25951334.85 0.0089 0.0060

Mercury -75764-05-11 14:23 J -25951247.00 -25951246.90 -25951246.79 0.0089 0.0055

Mercury -75764-08-07 15:49 J -25951158.95 -25951158.84 -25951158.74 0.0089 0.0050

Mercury -75764-11-03 16:47 J -25951070.90 -25951070.80 -25951070.68 0.0089 0.0046

Mercury -75763-01-30 18:13 J -25950982.85 -25950982.74 -25950982.62 0.0089 0.0041

Mercury -75763-04-28 19:25 J -25950894.80 -25950894.69 -25950894.56 0.0089 0.0037

Mercury -75763-07-25 20:52 J -25950806.75 -25950806.63 -25950806.50 0.0089 0.0032

Mercury -75763-10-21 22:18 J -25950718.70 -25950718.57 -25950718.45 0.0089 0.0027

Mercury -75762-01-17 23:30 J -25950630.65 -25950630.52 -25950630.39 0.0089 0.0022

Mercury -75762-04-16 00:42 J -25950542.59 -25950542.47 -25950542.33 0.0089 0.0018

Mercury -75762-07-13 02:08 J -25950454.54 -25950454.41 -25950454.28 0.0089 0.0013

Mercury -75762-10-09 03:20 J -25950366.49 -25950366.36 -25950366.22 0.0089 0.0009

Mercury -75761-01-05 04:47 J -25950278.43 -25950278.30 -25950278.17 0.0089 0.0004

Mercury -75761-04-02 05:59 J -25950190.38 -25950190.25 -25950190.11 0.0089 0.0003

Mercury -75761-06-29 07:25 J -25950102.32 -25950102.19 -25950102.06 0.0089 0.0006

Mercury -75761-09-25 08:37 J -25950014.27 -25950014.14 -25950014.01 0.0089 0.0010

Mercury -75761-12-22 10:04 J -25949926.21 -25949926.08 -25949925.95 0.0089 0.0015

Mercury -75760-03-20 11:16 J -25949838.16 -25949838.03 -25949837.90 0.0089 0.0020

Mercury -75760-06-16 12:28 J -25949750.10 -25949749.98 -25949749.85 0.0089 0.0025

Mercury -75760-09-12 13:54 J -25949662.04 -25949661.92 -25949661.79 0.0089 0.0029

Mercury -75760-12-09 15:06 J -25949573.99 -25949573.87 -25949573.74 0.0089 0.0034

Mercury -75759-03-07 16:18 J -25949485.93 -25949485.82 -25949485.69 0.0089 0.0039

Moon -75759-04-07 23:16 J -25949454.59 -25949454.53 -25949454.43 0.0089 0.0084

Earth -75759-04-08 00:13 J -25949454.51 -25949454.49 -25949454.46 0.0089 0.0088 *

Mercury -75759-06-03 17:59 J -25949397.87 -25949397.75 -25949397.64 0.0089 0.0043

Mercury -75759-08-30 19:11 J -25949309.81 -25949309.70 -25949309.58 0.0089 0.0048

Mercury -75759-11-26 20:23 J -25949221.75 -25949221.65 -25949221.53 0.0089 0.0053

Mercury -75758-02-22 21:49 J -25949133.69 -25949133.59 -25949133.48 0.0089 0.0057

Earth -75758-04-10 09:06 J -25949087.24 -25949087.12 -25949086.96 0.0089 0.0074

Moon -75758-04-10 10:32 J -25949087.16 -25949087.06 -25949086.93 0.0089 0.0078 *
 Mercury -75758-05-21 23:01 J -25949045.62 -25949045.54 -25949045.43 0.0089 0.0062
 Mercury -75758-08-18 00:28 J -25948957.56 -25948957.48 -25948957.39 0.0089 0.0067
 Mercury -75758-11-14 01:54 J -25948869.49 -25948869.42 -25948869.34 0.0089 0.0071
 Mercury -75757-02-10 03:06 J -25948781.43 -25948781.37 -25948781.29 0.0089 0.0076
 Moon -75757-04-11 15:49 J -25948720.03 -25948719.84 -25948719.63 0.0089 0.0055
 Earth -75757-04-11 18:28 J -25948719.90 -25948719.73 -25948719.53 0.0089 0.0060 *
 Mercury -75757-05-08 04:18 J -25948693.36 -25948693.32 -25948693.25 0.0089 0.0081
 Mercury -75757-08-04 05:59 J -25948605.28 -25948605.25 -25948605.21 0.0089 0.0085
 Earth -75756-04-14 03:49 J -25948352.55 -25948352.34 -25948352.12 0.0089 0.0045
 Moon -75756-04-14 06:42 J -25948352.40 -25948352.22 -25948351.99 0.0089 0.0050 *
 Moon -75755-04-16 09:06 J -25947985.34 -25947985.12 -25947984.86 0.0089 0.0027
 Earth -75755-04-16 12:42 J -25947985.20 -25947984.97 -25947984.72 0.0089 0.0031 *
 Earth -75754-04-18 21:49 J -25947617.83 -25947617.59 -25947617.34 0.0089 0.0016
 Moon -75754-04-19 00:56 J -25947617.69 -25947617.46 -25947617.20 0.0089 0.0021 *
 Moon -75753-04-20 04:47 J -25947250.54 -25947250.30 -25947250.05 0.0089 0.0002
 Earth -75753-04-20 06:56 J -25947250.46 -25947250.21 -25947249.96 0.0089 0.0002 *
 Earth -75752-04-22 15:35 J -25946883.09 -25946882.85 -25946882.59 0.0089 0.0013
 Moon -75752-04-22 17:30 J -25946883.03 -25946882.77 -25946882.51 0.0089 0.0009 *
 Earth -75751-04-25 00:42 J -25946515.70 -25946515.47 -25946515.22 0.0089 0.0027
 Moon -75751-04-25 00:28 J -25946515.69 -25946515.48 -25946515.24 0.0089 0.0032 *
 Moon -75750-04-27 07:54 J -25946148.39 -25946148.17 -25946147.92 0.0089 0.0038
 Earth -75750-04-27 09:20 J -25946148.31 -25946148.11 -25946147.87 0.0089 0.0042 *
 Earth -75749-04-28 18:28 J -25945780.91 -25945780.73 -25945780.52 0.0089 0.0056
 Moon -75749-04-28 20:37 J -25945780.81 -25945780.64 -25945780.45 0.0089 0.0060 *
 Moon -75748-05-01 00:13 J -25945413.64 -25945413.49 -25945413.30 0.0089 0.0066
 Earth -75748-05-01 03:20 J -25945413.48 -25945413.36 -25945413.18 0.0089 0.0071 *
 Earth -75747-05-03 12:13 J -25945046.03 -25945045.99 -25945045.88 0.0089 0.0085
 Mars -75741-10-06 02:37 J -25942698.68 -25942698.39 -25942698.07 0.0089 0.0014
 Mars -75739-08-31 17:01 J -25942003.97 -25942003.79 -25942003.57 0.0089 0.0067

Jupiter -75720-02-10 17:44 J -25935266.08 -25935265.76 -25935265.33 0.0089 0.0065
 Venus -75702-03-06 01:54 J -25928668.51 -25928668.42 -25928668.28 0.0089 0.0077
 Venus -75702-10-17 15:49 J -25928442.99 -25928442.84 -25928442.65 0.0089 0.0057
 Venus -75701-05-30 05:59 J -25928217.44 -25928217.25 -25928217.03 0.0089 0.0037
 Venus -75700-01-10 20:08 J -25927991.88 -25927991.66 -25927991.44 0.0089 0.0017
 Venus -75700-08-24 10:04 J -25927766.31 -25927766.08 -25927765.86 0.0089 0.0003
 Venus -75699-04-06 23:44 J -25927540.72 -25927540.51 -25927540.28 0.0089 0.0023
 Venus -75699-11-18 13:40 J -25927315.12 -25927314.93 -25927314.72 0.0089 0.0043
 Venus -75698-07-02 03:35 J -25927089.49 -25927089.35 -25927089.17 0.0089 0.0063
 Venus -75697-02-12 17:30 J -25926863.83 -25926863.77 -25926863.67 0.0089 0.0083
 Mercury -75682-02-17 03:06 J -25921380.43 -25921380.37 -25921380.30 0.0089 0.0083
 Mercury -75682-05-16 06:56 J -25921292.31 -25921292.21 -25921292.11 0.0089 0.0076
 Mercury -75682-08-12 10:04 J -25921204.18 -25921204.08 -25921203.93 0.0089 0.0070
 Mercury -75682-11-08 13:54 J -25921116.04 -25921115.92 -25921115.76 0.0089 0.0063
 Mercury -75681-02-04 17:44 J -25921027.90 -25921027.76 -25921027.59 0.0089 0.0056
 Mercury -75681-05-02 21:35 J -25920939.75 -25920939.60 -25920939.42 0.0089 0.0049
 Mercury -75681-07-30 01:25 J -25920851.60 -25920851.44 -25920851.26 0.0089 0.0042
 Mercury -75681-10-26 05:16 J -25920763.46 -25920763.28 -25920763.09 0.0089 0.0035
 Mercury -75680-01-22 08:52 J -25920675.31 -25920675.13 -25920674.93 0.0089 0.0028
 Mercury -75680-04-20 12:42 J -25920587.16 -25920586.97 -25920586.77 0.0089 0.0021
 Mercury -75680-07-17 16:32 J -25920499.00 -25920498.81 -25920498.62 0.0089 0.0014
 Mercury -75680-10-13 20:08 J -25920410.85 -25920410.66 -25920410.46 0.0089 0.0007
 Mercury -75679-01-09 23:59 J -25920322.70 -25920322.50 -25920322.30 0.0089 0.0000
 Mercury -75679-04-08 03:35 J -25920234.54 -25920234.35 -25920234.15 0.0089 0.0007
 Mercury -75679-07-05 07:25 J -25920146.39 -25920146.19 -25920146.00 0.0089 0.0014
 Mercury -75679-10-01 11:01 J -25920058.23 -25920058.04 -25920057.85 0.0089 0.0021
 Mercury -75679-12-28 14:37 J -25919970.07 -25919969.89 -25919969.70 0.0089 0.0028
 Mercury -75678-03-26 18:13 J -25919881.91 -25919881.74 -25919881.55 0.0089 0.0035
 Mercury -75678-06-22 21:49 J -25919793.75 -25919793.59 -25919793.40 0.0089 0.0042
 Mercury -75678-09-19 01:40 J -25919705.59 -25919705.43 -25919705.26 0.0089 0.0048

Mercury -75678-12-16 05:16 J -25919617.42 -25919617.28 -25919617.12 0.0089 0.0055

Mercury -75677-03-13 08:52 J -25919529.26 -25919529.13 -25919528.98 0.0089 0.0062

Mercury -75677-06-09 12:13 J -25919441.09 -25919440.99 -25919440.84 0.0089 0.0069

Mercury -75677-09-05 16:18 J -25919352.92 -25919352.82 -25919352.71 0.0089 0.0075

Earth -75677-10-06 12:56 J -25919322.04 -25919321.96 -25919321.82 0.0089 0.0081

Moon -75677-10-06 16:04 J -25919321.94 -25919321.83 -25919321.69 0.0089 0.0077 *

Mercury -75677-12-02 19:54 J -25919264.74 -25919264.67 -25919264.59 0.0089 0.0082

Mercury -75676-02-28 23:30 J -25919176.52 -25919176.52 -25919176.51 0.0089 0.0088

Moon -75676-10-08 23:44 J -25918954.65 -25918954.51 -25918954.31 0.0089 0.0069

Earth -75676-10-09 03:35 J -25918954.50 -25918954.35 -25918954.15 0.0089 0.0066 *

Earth -75675-10-11 17:59 J -25918586.95 -25918586.75 -25918586.52 0.0089 0.0051

Moon -75675-10-11 21:35 J -25918586.81 -25918586.60 -25918586.36 0.0089 0.0047 *

Moon -75674-10-14 04:32 J -25918219.53 -25918219.31 -25918219.06 0.0088 0.0040

Earth -75674-10-14 08:23 J -25918219.38 -25918219.15 -25918218.90 0.0088 0.0036 *

Earth -75673-10-15 22:47 J -25917851.80 -25917851.55 -25917851.29 0.0088 0.0021

Moon -75673-10-16 01:40 J -25917851.69 -25917851.43 -25917851.16 0.0088 0.0017 *

Moon -75672-10-18 11:01 J -25917484.29 -25917484.04 -25917483.78 0.0088 0.0010

Earth -75672-10-18 13:25 J -25917484.20 -25917483.94 -25917483.67 0.0088 0.0005 *

Earth -75671-10-21 03:49 J -25917116.60 -25917116.34 -25917116.08 0.0088 0.0010

Moon -75671-10-21 04:47 J -25917116.55 -25917116.30 -25917116.01 0.0088 0.0015 *

Earth -75670-10-23 18:13 J -25916748.99 -25916748.74 -25916748.48 0.0088 0.0025

Moon -75670-10-23 18:28 J -25916748.97 -25916748.73 -25916748.47 0.0088 0.0021 *

Moon -75669-10-25 07:40 J -25916381.41 -25916381.18 -25916380.93 0.0088 0.0044

Earth -75669-10-25 08:37 J -25916381.37 -25916381.14 -25916380.89 0.0088 0.0040 *

Earth -75668-10-27 23:01 J -25916013.73 -25916013.54 -25916013.32 0.0088 0.0055

Moon -75668-10-28 01:11 J -25916013.65 -25916013.45 -25916013.22 0.0088 0.0050 *

Moon -75667-10-30 10:04 J -25915646.21 -25915646.08 -25915645.91 0.0088 0.0074

Earth -75667-10-30 13:25 J -25915646.08 -25915645.94 -25915645.76 0.0088 0.0070 *

Earth -75666-11-02 03:20 J -25915278.41 -25915278.36 -25915278.25 0.0088 0.0085

Moon -75666-11-02 07:11 J -25915278.30 -25915278.20 -25915278.08 0.0088 0.0080 *

Mars	-75659-09-18 20:08 J	-25912765.97	-25912765.66	-25912765.34	0.0088	0.0012
Mars	-75657-08-13 17:16 J	-25912070.94	-25912070.78	-25912070.54	0.0088	0.0069
Venus	-75620-04-24 18:56 J	-25898667.71	-25898667.71	-25898667.70	0.0088	0.0088
Venus	-75620-12-06 07:11 J	-25898442.32	-25898442.20	-25898442.06	0.0088	0.0070
Venus	-75619-07-19 19:25 J	-25898216.86	-25898216.69	-25898216.51	0.0088	0.0051
Venus	-75618-03-02 07:40 J	-25897991.38	-25897991.18	-25897990.98	0.0088	0.0032
Venus	-75618-10-13 19:25 J	-25897765.89	-25897765.69	-25897765.47	0.0088	0.0014
Venus	-75617-05-26 07:40 J	-25897540.39	-25897540.18	-25897539.96	0.0088	0.0006
Venus	-75616-01-06 19:54 J	-25897314.88	-25897314.67	-25897314.46	0.0088	0.0025
Venus	-75616-08-20 07:40 J	-25897089.36	-25897089.18	-25897088.98	0.0088	0.0044
Venus	-75615-04-02 19:25 J	-25896863.82	-25896863.69	-25896863.52	0.0088	0.0063
Venus	-75615-11-14 07:11 J	-25896638.25	-25896638.20	-25896638.09	0.0088	0.0082
Mercury	-75601-05-30 04:47 J	-25891692.32	-25891692.30	-25891692.25	0.0089	0.0086
Mercury	-75601-08-26 06:13 J	-25891604.28	-25891604.24	-25891604.18	0.0089	0.0081
Mercury	-75601-11-22 07:40 J	-25891516.24	-25891516.18	-25891516.11	0.0089	0.0076
Mercury	-75600-02-18 08:52 J	-25891428.20	-25891428.13	-25891428.05	0.0089	0.0072
Mercury	-75600-05-17 10:18 J	-25891340.15	-25891340.07	-25891339.98	0.0089	0.0067
Mercury	-75600-08-13 11:16 J	-25891252.11	-25891252.03	-25891251.92	0.0089	0.0063
Mercury	-75600-11-09 12:42 J	-25891164.06	-25891163.97	-25891163.86	0.0089	0.0058
Mercury	-75599-02-05 14:08 J	-25891076.01	-25891075.91	-25891075.80	0.0089	0.0053
Mercury	-75599-05-04 15:20 J	-25890987.96	-25890987.86	-25890987.74	0.0089	0.0049
Mercury	-75599-07-31 16:47 J	-25890899.91	-25890899.80	-25890899.69	0.0089	0.0044
Mercury	-75599-10-27 17:59 J	-25890811.86	-25890811.75	-25890811.63	0.0089	0.0039
Mercury	-75598-01-23 19:11 J	-25890723.81	-25890723.70	-25890723.57	0.0089	0.0035
Mercury	-75598-04-21 20:37 J	-25890635.76	-25890635.64	-25890635.51	0.0089	0.0030
Mercury	-75598-07-18 21:49 J	-25890547.71	-25890547.59	-25890547.46	0.0089	0.0026
Mercury	-75598-10-14 23:16 J	-25890459.66	-25890459.53	-25890459.40	0.0089	0.0021
Mercury	-75597-01-11 00:28 J	-25890371.60	-25890371.48	-25890371.34	0.0089	0.0016
Mercury	-75597-04-08 01:54 J	-25890283.55	-25890283.42	-25890283.29	0.0089	0.0011
Mercury	-75597-07-05 03:06 J	-25890195.50	-25890195.37	-25890195.23	0.0089	0.0007

Mercury -75597-10-01 04:32 J -25890107.44 -25890107.31 -25890107.18 0.0089 0.0002

Mercury -75597-12-28 05:44 J -25890019.39 -25890019.26 -25890019.13 0.0089 0.0003

Mercury -75596-03-26 07:11 J -25889931.33 -25889931.20 -25889931.07 0.0089 0.0007

Mercury -75596-06-22 08:23 J -25889843.28 -25889843.15 -25889843.02 0.0089 0.0012

Mercury -75596-09-18 09:35 J -25889755.22 -25889755.10 -25889754.96 0.0089 0.0017

Mercury -75596-12-15 11:01 J -25889667.17 -25889667.04 -25889666.91 0.0089 0.0021

Mercury -75595-03-13 12:13 J -25889579.11 -25889578.99 -25889578.86 0.0089 0.0026

Mercury -75595-06-09 13:40 J -25889491.05 -25889490.93 -25889490.80 0.0089 0.0031

Mercury -75595-09-05 14:52 J -25889402.99 -25889402.88 -25889402.75 0.0089 0.0036

Mercury -75595-12-02 16:18 J -25889314.94 -25889314.82 -25889314.70 0.0089 0.0040

Mercury -75594-02-28 17:30 J -25889226.88 -25889226.77 -25889226.65 0.0089 0.0045

Moon -75594-04-09 17:59 J -25889186.86 -25889186.75 -25889186.61 0.0089 0.0077

Earth -75594-04-09 20:52 J -25889186.74 -25889186.63 -25889186.50 0.0089 0.0078 *

Mercury -75594-05-27 18:42 J -25889138.82 -25889138.72 -25889138.60 0.0089 0.0050

Mercury -75594-08-23 20:23 J -25889050.76 -25889050.65 -25889050.55 0.0089 0.0054

Mercury -75594-11-19 21:35 J -25888962.69 -25888962.60 -25888962.50 0.0089 0.0059

Mercury -75593-02-15 22:47 J -25888874.63 -25888874.55 -25888874.45 0.0089 0.0064

Earth -75593-04-11 05:59 J -25888819.41 -25888819.25 -25888819.06 0.0089 0.0064

Moon -75593-04-11 09:35 J -25888819.26 -25888819.10 -25888818.93 0.0089 0.0066 *

Mercury -75593-05-14 00:13 J -25888786.57 -25888786.49 -25888786.40 0.0089 0.0068

Mercury -75593-08-10 01:25 J -25888698.50 -25888698.44 -25888698.36 0.0089 0.0073

Mercury -75593-11-06 02:52 J -25888610.43 -25888610.38 -25888610.31 0.0089 0.0078

Mercury -75592-02-02 04:04 J -25888522.36 -25888522.33 -25888522.27 0.0089 0.0083

Moon -75592-04-13 11:44 J -25888452.21 -25888452.01 -25888451.79 0.0089 0.0049

Earth -75592-04-13 15:06 J -25888452.06 -25888451.87 -25888451.65 0.0089 0.0050 *

Mercury -75592-05-01 05:30 J -25888434.28 -25888434.27 -25888434.24 0.0089 0.0087

Earth -75591-04-16 00:13 J -25888084.70 -25888084.49 -25888084.24 0.0089 0.0036

Moon -75591-04-16 03:06 J -25888084.58 -25888084.37 -25888084.12 0.0089 0.0038 *

Moon -75590-04-18 07:11 J -25887717.43 -25887717.20 -25887716.95 0.0089 0.0020

Earth -75590-04-18 09:35 J -25887717.33 -25887717.10 -25887716.85 0.0089 0.0022 *

Earth	-75589-04-19 18:42 J	-25887349.97	-25887349.72	-25887349.46	0.0089	0.0007
Moon	-75589-04-19 19:40 J	-25887349.94	-25887349.68	-25887349.42	0.0089	0.0008 *
Earth	-75588-04-22 03:49 J	-25886982.59	-25886982.34	-25886982.09	0.0089	0.0007
Moon	-75588-04-22 03:49 J	-25886982.57	-25886982.34	-25886982.09	0.0089	0.0009 *
Moon	-75587-04-24 11:16 J	-25886615.28	-25886615.03	-25886614.77	0.0089	0.0020
Earth	-75587-04-24 12:28 J	-25886615.21	-25886614.98	-25886614.72	0.0089	0.0022 *
Earth	-75586-04-26 21:20 J	-25886247.82	-25886247.61	-25886247.36	0.0089	0.0036
Moon	-75586-04-27 00:13 J	-25886247.70	-25886247.49	-25886247.25	0.0089	0.0037 *
Moon	-75585-04-28 03:06 J	-25885880.56	-25885880.37	-25885880.13	0.0089	0.0049
Earth	-75585-04-28 06:28 J	-25885880.42	-25885880.23	-25885880.01	0.0089	0.0050 *
Earth	-75584-04-30 15:20 J	-25885513.02	-25885512.86	-25885512.67	0.0089	0.0064
Moon	-75584-04-30 19:11 J	-25885512.86	-25885512.70	-25885512.53	0.0089	0.0066 *
Moon	-75583-05-02 21:20 J	-25885145.72	-25885145.61	-25885145.48	0.0089	0.0077
Earth	-75583-05-03 00:28 J	-25885145.58	-25885145.48	-25885145.35	0.0089	0.0078 *
Mars	-75577-05-20 23:01 J	-25882935.79	-25882935.54	-25882935.27	0.0089	0.0047
Mars	-75575-04-15 10:47 J	-25882241.32	-25882241.05	-25882240.75	0.0089	0.0032
Jupiter	-75554-04-12 18:13 J	-25874574.24	-25874573.74	-25874573.17	0.0089	0.0018
Venus	-75538-06-07 11:16 J	-25868674.07	-25868674.03	-25868673.95	0.0089	0.0085
Venus	-75537-01-19 01:11 J	-25868448.59	-25868448.45	-25868448.28	0.0089	0.0065
Venus	-75537-08-31 15:06 J	-25868223.05	-25868222.87	-25868222.67	0.0089	0.0045
Venus	-75536-04-14 05:01 J	-25867997.50	-25867997.29	-25867997.07	0.0089	0.0025
Venus	-75536-11-25 18:56 J	-25867771.93	-25867771.71	-25867771.48	0.0089	0.0006
Venus	-75535-07-09 08:52 J	-25867546.34	-25867546.13	-25867545.90	0.0089	0.0015
Venus	-75534-02-19 22:32 J	-25867320.75	-25867320.56	-25867320.34	0.0089	0.0035
Venus	-75534-10-03 12:28 J	-25867095.14	-25867094.98	-25867094.79	0.0089	0.0055
Venus	-75533-05-16 02:23 J	-25866869.50	-25866869.40	-25866869.26	0.0089	0.0075
Mercury	-75518-08-17 21:06 J	-25861297.62	-25861297.62	-25861297.58	0.0089	0.0089
Mercury	-75518-11-14 00:42 J	-25861209.52	-25861209.47	-25861209.37	0.0089	0.0082
Mercury	-75517-02-10 04:32 J	-25861121.39	-25861121.31	-25861121.18	0.0089	0.0075
Mercury	-75517-05-08 08:23 J	-25861033.26	-25861033.15	-25861033.01	0.0089	0.0068

Mercury -75517-08-04 12:13 J -25860945.12 -25860944.99 -25860944.83 0.0089 0.0061

Mercury -75517-10-31 16:04 J -25860856.98 -25860856.83 -25860856.66 0.0089 0.0054

Mercury -75516-01-27 19:40 J -25860768.83 -25860768.68 -25860768.50 0.0089 0.0047

Mercury -75516-04-25 23:30 J -25860680.68 -25860680.52 -25860680.33 0.0089 0.0040

Mercury -75516-07-23 03:20 J -25860592.54 -25860592.36 -25860592.17 0.0089 0.0033

Mercury -75516-10-19 07:11 J -25860504.39 -25860504.20 -25860504.01 0.0089 0.0026

Mercury -75515-01-15 11:01 J -25860416.23 -25860416.04 -25860415.85 0.0089 0.0019

Mercury -75515-04-13 14:37 J -25860328.08 -25860327.89 -25860327.69 0.0089 0.0012

Mercury -75515-07-10 18:28 J -25860239.93 -25860239.73 -25860239.54 0.0089 0.0005

Mercury -75515-10-06 22:04 J -25860151.77 -25860151.58 -25860151.38 0.0089 0.0002

Mercury -75514-01-03 01:54 J -25860063.62 -25860063.42 -25860063.23 0.0089 0.0009

Mercury -75514-04-01 05:30 J -25859975.46 -25859975.27 -25859975.08 0.0089 0.0016

Mercury -75514-06-28 09:06 J -25859887.30 -25859887.12 -25859886.92 0.0089 0.0023

Mercury -75514-09-24 12:42 J -25859799.14 -25859798.97 -25859798.78 0.0089 0.0030

Mercury -75514-12-21 16:18 J -25859710.98 -25859710.82 -25859710.63 0.0089 0.0037

Mercury -75513-03-18 19:54 J -25859622.82 -25859622.67 -25859622.48 0.0089 0.0044

Mercury -75513-06-14 23:59 J -25859534.66 -25859534.50 -25859534.34 0.0089 0.0050

Mercury -75513-09-11 03:35 J -25859446.50 -25859446.35 -25859446.20 0.0089 0.0057

Moon -75513-10-05 15:49 J -25859421.92 -25859421.84 -25859421.71 0.0089 0.0082

Earth -75513-10-05 19:40 J -25859421.74 -25859421.68 -25859421.59 0.0089 0.0085 *

Mercury -75513-12-08 06:56 J -25859358.33 -25859358.21 -25859358.06 0.0089 0.0064

Mercury -75512-03-06 10:32 J -25859270.16 -25859270.06 -25859269.92 0.0089 0.0071

Mercury -75512-06-02 14:08 J -25859181.98 -25859181.91 -25859181.80 0.0089 0.0078

Mercury -75512-08-29 17:59 J -25859093.80 -25859093.75 -25859093.68 0.0089 0.0084

Earth -75512-10-08 09:35 J -25859054.23 -25859054.10 -25859053.91 0.0089 0.0071

Moon -75512-10-08 13:40 J -25859054.06 -25859053.93 -25859053.77 0.0089 0.0074 *

Moon -75511-10-10 21:06 J -25858686.81 -25858686.62 -25858686.40 0.0089 0.0053

Earth -75511-10-10 23:59 J -25858686.68 -25858686.50 -25858686.27 0.0089 0.0056 *

Earth -75510-10-13 14:23 J -25858319.12 -25858318.90 -25858318.65 0.0089 0.0041

Moon -75510-10-13 17:01 J -25858319.00 -25858318.79 -25858318.53 0.0089 0.0044 *

Moon	-75509-10-15 03:20 J	-25857951.59	-25857951.36	-25857951.10	0.0089	0.0024
Earth	-75509-10-15 04:32 J	-25857951.54	-25857951.31	-25857951.04	0.0089	0.0027 *
Earth	-75508-10-17 18:56 J	-25857583.96	-25857583.71	-25857583.43	0.0088	0.0012
Moon	-75508-10-17 19:25 J	-25857583.96	-25857583.69	-25857583.41	0.0088	0.0014 *
Earth	-75507-10-20 09:35 J	-25857216.37	-25857216.10	-25857215.84	0.0088	0.0004
Moon	-75507-10-20 10:04 J	-25857216.34	-25857216.08	-25857215.83	0.0088	0.0006 *
Moon	-75506-10-22 21:20 J	-25856848.86	-25856848.61	-25856848.33	0.0088	0.0017
Earth	-75506-10-22 23:44 J	-25856848.76	-25856848.51	-25856848.24	0.0088	0.0019 *
Earth	-75505-10-24 13:54 J	-25856481.15	-25856480.92	-25856480.66	0.0088	0.0034
Moon	-75505-10-24 16:47 J	-25856481.02	-25856480.80	-25856480.55	0.0088	0.0036 *
Moon	-75504-10-27 01:11 J	-25856113.67	-25856113.45	-25856113.21	0.0088	0.0047
Earth	-75504-10-27 04:18 J	-25856113.52	-25856113.32	-25856113.08	0.0088	0.0049 *
Earth	-75503-10-29 18:56 J	-25855745.89	-25855745.71	-25855745.52	0.0088	0.0063
Moon	-75503-10-29 22:32 J	-25855745.72	-25855745.56	-25855745.36	0.0088	0.0065 *
Moon	-75502-11-01 05:30 J	-25855378.37	-25855378.27	-25855378.11	0.0088	0.0077
Earth	-75502-11-01 09:06 J	-25855378.22	-25855378.12	-25855377.97	0.0088	0.0078 *
Mars	-75495-05-03 03:49 J	-25853003.60	-25853003.34	-25853003.06	0.0088	0.0049
Mars	-75493-03-28 05:01 J	-25852308.57	-25852308.29	-25852307.98	0.0088	0.0033
Venus	-75455-03-09 17:59 J	-25838447.84	-25838447.75	-25838447.63	0.0088	0.0078
Venus	-75455-10-21 06:13 J	-25838222.39	-25838222.24	-25838222.07	0.0088	0.0059
Venus	-75454-06-03 18:28 J	-25837996.92	-25837996.73	-25837996.53	0.0088	0.0040
Venus	-75453-01-15 06:42 J	-25837771.43	-25837771.22	-25837771.01	0.0088	0.0021
Venus	-75453-08-27 18:42 J	-25837545.93	-25837545.72	-25837545.50	0.0088	0.0003
Venus	-75452-04-10 06:42 J	-25837320.42	-25837320.22	-25837320.00	0.0088	0.0017
Venus	-75452-11-21 18:42 J	-25837094.90	-25837094.72	-25837094.51	0.0088	0.0037
Venus	-75451-07-05 07:11 J	-25836869.37	-25836869.20	-25836869.03	0.0088	0.0055
Venus	-75450-02-15 18:56 J	-25836643.82	-25836643.71	-25836643.58	0.0088	0.0074
Mercury	-75437-11-28 03:20 J	-25831609.36	-25831609.36	-25831609.35	0.0089	0.0089
Mercury	-75436-02-24 04:32 J	-25831521.34	-25831521.31	-25831521.26	0.0089	0.0084
Mercury	-75436-05-23 05:44 J	-25831433.30	-25831433.26	-25831433.19	0.0089	0.0080

Mercury -75436-08-19 07:11 J -25831345.26 -25831345.20 -25831345.12 0.0089 0.0075

Mercury -75436-11-15 08:37 J -25831257.22 -25831257.14 -25831257.06 0.0089 0.0070

Mercury -75435-02-11 09:49 J -25831169.17 -25831169.09 -25831169.00 0.0089 0.0066

Mercury -75435-05-10 11:16 J -25831081.13 -25831081.03 -25831080.94 0.0089 0.0061

Mercury -75435-08-06 12:13 J -25830993.08 -25830992.99 -25830992.88 0.0089 0.0057

Mercury -75435-11-02 13:40 J -25830905.03 -25830904.93 -25830904.82 0.0089 0.0052

Mercury -75434-01-29 15:06 J -25830816.98 -25830816.87 -25830816.76 0.0089 0.0047

Mercury -75434-04-27 16:18 J -25830728.93 -25830728.82 -25830728.70 0.0089 0.0043

Mercury -75434-07-24 17:44 J -25830640.88 -25830640.76 -25830640.64 0.0089 0.0038

Mercury -75434-10-20 18:56 J -25830552.83 -25830552.71 -25830552.59 0.0089 0.0033

Mercury -75433-01-16 20:08 J -25830464.78 -25830464.66 -25830464.53 0.0089 0.0029

Mercury -75433-04-13 21:35 J -25830376.73 -25830376.60 -25830376.47 0.0089 0.0024

Mercury -75433-07-10 22:47 J -25830288.67 -25830288.55 -25830288.42 0.0089 0.0020

Mercury -75433-10-07 00:13 J -25830200.62 -25830200.49 -25830200.36 0.0089 0.0015

Mercury -75432-01-03 01:25 J -25830112.57 -25830112.44 -25830112.31 0.0089 0.0010

Mercury -75432-04-01 02:52 J -25830024.52 -25830024.38 -25830024.25 0.0089 0.0006

Mercury -75432-06-28 04:04 J -25829936.46 -25829936.33 -25829936.20 0.0089 0.0001

Mercury -75432-09-24 05:30 J -25829848.41 -25829848.27 -25829848.14 0.0089 0.0005

Mercury -75432-12-21 06:42 J -25829760.35 -25829760.22 -25829760.09 0.0089 0.0009

Mercury -75431-03-19 07:54 J -25829672.30 -25829672.17 -25829672.04 0.0089 0.0013

Mercury -75431-06-15 09:20 J -25829584.24 -25829584.11 -25829583.98 0.0089 0.0018

Mercury -75431-09-11 10:32 J -25829496.18 -25829496.06 -25829495.93 0.0089 0.0023

Mercury -75431-12-08 11:44 J -25829408.13 -25829408.01 -25829407.88 0.0089 0.0028

Mercury -75430-03-06 13:11 J -25829320.07 -25829319.95 -25829319.82 0.0089 0.0032

Earth -75430-04-09 06:56 J -25829286.27 -25829286.21 -25829286.09 0.0089 0.0083

Moon -75430-04-09 10:47 J -25829286.16 -25829286.05 -25829285.92 0.0089 0.0078 *

Mercury -75430-06-02 14:23 J -25829232.01 -25829231.90 -25829231.77 0.0089 0.0037

Mercury -75430-08-29 15:35 J -25829143.95 -25829143.85 -25829143.72 0.0089 0.0042

Mercury -75430-11-25 17:16 J -25829055.89 -25829055.78 -25829055.67 0.0089 0.0046

Mercury -75429-02-21 18:28 J -25828967.83 -25828967.73 -25828967.62 0.0089 0.0051

Moon -75429-04-10 12:56 J -25828919.09 -25828918.96 -25828918.81 0.0089 0.0073
 Earth -75429-04-10 16:04 J -25828918.96 -25828918.83 -25828918.64 0.0089 0.0069 *
 Mercury -75429-05-19 19:40 J -25828879.77 -25828879.68 -25828879.57 0.0089 0.0056
 Mercury -75429-08-15 21:06 J -25828791.71 -25828791.62 -25828791.52 0.0089 0.0060
 Mercury -75429-11-11 22:18 J -25828703.65 -25828703.57 -25828703.47 0.0089 0.0065
 Mercury -75428-02-07 23:30 J -25828615.59 -25828615.52 -25828615.42 0.0089 0.0070
 Earth -75428-04-13 01:11 J -25828551.62 -25828551.45 -25828551.23 0.0089 0.0055
 Moon -75428-04-13 04:18 J -25828551.52 -25828551.32 -25828551.09 0.0089 0.0050 *
 Mercury -75428-05-07 01:11 J -25828527.52 -25828527.45 -25828527.38 0.0089 0.0074
 Mercury -75428-08-03 02:23 J -25828439.45 -25828439.40 -25828439.34 0.0089 0.0079
 Mercury -75428-10-30 03:35 J -25828351.38 -25828351.35 -25828351.30 0.0089 0.0084
 Mercury -75427-01-26 05:01 J -25828263.29 -25828263.29 -25828263.27 0.0089 0.0088
 Moon -75427-04-15 09:06 J -25828184.32 -25828184.12 -25828183.90 0.0089 0.0045
 Earth -75427-04-15 10:32 J -25828184.26 -25828184.06 -25828183.82 0.0089 0.0041 *
 Earth -75426-04-17 19:54 J -25827816.90 -25827816.67 -25827816.42 0.0089 0.0027
 Moon -75426-04-17 20:52 J -25827816.87 -25827816.63 -25827816.37 0.0089 0.0023 *
 Earth -75425-04-19 05:16 J -25827449.52 -25827449.28 -25827449.02 0.0089 0.0013
 Moon -75425-04-19 05:59 J -25827449.48 -25827449.25 -25827449.00 0.0089 0.0017 *
 Moon -75424-04-21 12:28 J -25827082.24 -25827081.98 -25827081.73 0.0089 0.0006
 Earth -75424-04-21 14:23 J -25827082.15 -25827081.90 -25827081.64 0.0089 0.0002 *
 Earth -75423-04-23 23:30 J -25826714.76 -25826714.52 -25826714.27 0.0089 0.0016
 Moon -75423-04-24 01:54 J -25826714.65 -25826714.42 -25826714.17 0.0089 0.0012 *
 Moon -75422-04-26 04:47 J -25826347.52 -25826347.30 -25826347.05 0.0089 0.0035
 Earth -75422-04-26 08:23 J -25826347.37 -25826347.15 -25826346.90 0.0089 0.0030 *
 Earth -75421-04-27 17:16 J -25825979.99 -25825979.78 -25825979.55 0.0089 0.0044
 Moon -75421-04-27 20:23 J -25825979.85 -25825979.65 -25825979.40 0.0089 0.0040 *
 Moon -75420-04-29 23:01 J -25825612.70 -25825612.54 -25825612.35 0.0089 0.0062
 Earth -75420-04-30 02:08 J -25825612.58 -25825612.41 -25825612.20 0.0089 0.0058 *
 Earth -75419-05-02 11:01 J -25825245.16 -25825245.04 -25825244.87 0.0089 0.0072
 Moon -75419-05-02 13:40 J -25825245.09 -25825244.93 -25825244.75 0.0089 0.0067 *

Earth	-75418-05-04 19:54 J	-25824877.70	-25824877.67	-25824877.57	0.0089	0.0086
Mars	-75413-01-03 20:37 J	-25823172.75	-25823172.64	-25823172.51	0.0089	0.0081
Mars	-75412-11-28 05:44 J	-25822478.56	-25822478.26	-25822477.94	0.0089	0.0004
Mars	-75410-10-23 17:30 J	-25821783.90	-25821783.77	-25821783.59	0.0089	0.0076
Venus	-75373-04-21 09:35 J	-25808454.20	-25808454.10	-25808453.95	0.0089	0.0074
Venus	-75373-12-02 23:44 J	-25808228.67	-25808228.51	-25808228.32	0.0089	0.0054
Venus	-75372-07-16 13:40 J	-25808003.12	-25808002.93	-25808002.71	0.0089	0.0034
Venus	-75371-02-27 03:35 J	-25807777.56	-25807777.35	-25807777.12	0.0089	0.0014
Venus	-75371-10-10 17:44 J	-25807551.99	-25807551.76	-25807551.54	0.0089	0.0006
Venus	-75370-05-24 07:40 J	-25807326.39	-25807326.18	-25807325.96	0.0089	0.0026
Venus	-75369-01-04 21:35 J	-25807100.79	-25807100.60	-25807100.41	0.0089	0.0046
Venus	-75369-08-17 11:16 J	-25806875.17	-25806875.03	-25806874.87	0.0089	0.0066
Venus	-75368-03-31 01:11 J	-25806649.49	-25806649.45	-25806649.39	0.0089	0.0086
Mercury	-75353-05-13 18:42 J	-25801126.73	-25801126.72	-25801126.67	0.0089	0.0088
Mercury	-75353-08-09 22:32 J	-25801038.62	-25801038.56	-25801038.46	0.0089	0.0081
Mercury	-75353-11-06 02:08 J	-25800950.50	-25800950.41	-25800950.28	0.0089	0.0074
Mercury	-75352-02-02 05:59 J	-25800862.36	-25800862.25	-25800862.10	0.0089	0.0067
Mercury	-75352-05-01 09:49 J	-25800774.22	-25800774.09	-25800773.93	0.0089	0.0060
Mercury	-75352-07-28 13:40 J	-25800686.08	-25800685.93	-25800685.76	0.0089	0.0053
Mercury	-75352-10-24 17:30 J	-25800597.93	-25800597.77	-25800597.59	0.0089	0.0046
Mercury	-75351-01-20 21:06 J	-25800509.78	-25800509.62	-25800509.43	0.0089	0.0039
Mercury	-75351-04-19 00:56 J	-25800421.64	-25800421.46	-25800421.27	0.0089	0.0032
Mercury	-75351-07-16 04:47 J	-25800333.48	-25800333.30	-25800333.11	0.0089	0.0025
Mercury	-75351-10-12 08:37 J	-25800245.33	-25800245.14	-25800244.95	0.0089	0.0018
Mercury	-75350-01-08 12:13 J	-25800157.18	-25800156.99	-25800156.79	0.0089	0.0011
Mercury	-75350-04-06 16:04 J	-25800069.03	-25800068.83	-25800068.63	0.0089	0.0004
Mercury	-75350-07-03 19:40 J	-25799980.87	-25799980.68	-25799980.48	0.0089	0.0004
Mercury	-75350-09-29 23:30 J	-25799892.72	-25799892.52	-25799892.32	0.0089	0.0010
Mercury	-75350-12-27 03:06 J	-25799804.56	-25799804.37	-25799804.17	0.0089	0.0017
Mercury	-75349-03-24 06:42 J	-25799716.40	-25799716.22	-25799716.02	0.0089	0.0024

Mercury -75349-06-20 10:32 J -25799628.24 -25799628.06 -25799627.87 0.0089 0.0031
 Mercury -75349-09-16 14:08 J -25799540.08 -25799539.91 -25799539.73 0.0089 0.0038
 Mercury -75349-12-13 17:44 J -25799451.92 -25799451.76 -25799451.58 0.0089 0.0045
 Mercury -75348-03-11 21:20 J -25799363.75 -25799363.61 -25799363.44 0.0089 0.0052
 Mercury -75348-06-08 01:25 J -25799275.59 -25799275.44 -25799275.29 0.0089 0.0058
 Mercury -75348-09-04 05:01 J -25799187.42 -25799187.29 -25799187.16 0.0089 0.0065
 Moon -75348-10-07 12:13 J -25799154.14 -25799153.99 -25799153.85 0.0089 0.0072
 Earth -75348-10-07 14:52 J -25799154.01 -25799153.88 -25799153.73 0.0089 0.0075 *
 Mercury -75348-12-01 08:23 J -25799099.25 -25799099.15 -25799099.02 0.0089 0.0072
 Mercury -75347-02-27 11:59 J -25799011.07 -25799011.00 -25799010.89 0.0089 0.0079
 Mercury -75347-05-26 15:35 J -25798922.88 -25798922.85 -25798922.78 0.0089 0.0086
 Earth -75347-10-10 04:47 J -25798786.47 -25798786.30 -25798786.08 0.0089 0.0061
 Moon -75347-10-10 06:56 J -25798786.40 -25798786.21 -25798786.02 0.0089 0.0063 *
 Moon -75346-10-12 18:13 J -25798418.94 -25798418.74 -25798418.49 0.0089 0.0044
 Earth -75346-10-12 19:40 J -25798418.90 -25798418.68 -25798418.45 0.0089 0.0046 *
 Moon -75345-10-14 09:20 J -25798051.35 -25798051.11 -25798050.84 0.0089 0.0035
 Earth -75345-10-14 09:35 J -25798051.33 -25798051.10 -25798050.83 0.0089 0.0032 *
 Earth -75344-10-17 00:13 J -25797683.75 -25797683.49 -25797683.23 0.0088 0.0017
 Moon -75344-10-17 01:54 J -25797683.66 -25797683.42 -25797683.16 0.0088 0.0014 *
 Moon -75343-10-19 12:13 J -25797316.27 -25797315.99 -25797315.72 0.0088 0.0006
 Earth -75343-10-19 14:37 J -25797316.16 -25797315.89 -25797315.63 0.0088 0.0002 *
 Earth -75342-10-22 04:47 J -25796948.56 -25796948.30 -25796948.03 0.0088 0.0012
 Moon -75342-10-22 07:54 J -25796948.41 -25796948.17 -25796947.90 0.0088 0.0017 *
 Moon -75341-10-23 15:20 J -25796581.10 -25796580.86 -25796580.59 0.0088 0.0024
 Earth -75341-10-23 18:56 J -25796580.95 -25796580.71 -25796580.44 0.0088 0.0027 *
 Earth -75340-10-26 09:06 J -25796213.34 -25796213.12 -25796212.87 0.0088 0.0042
 Moon -75340-10-26 12:56 J -25796213.18 -25796212.96 -25796212.73 0.0088 0.0046 *
 Moon -75339-10-28 20:23 J -25795845.85 -25795845.65 -25795845.43 0.0088 0.0052
 Earth -75339-10-28 23:16 J -25795845.70 -25795845.53 -25795845.30 0.0088 0.0057 *
 Earth -75338-10-31 13:54 J -25795478.06 -25795477.92 -25795477.74 0.0088 0.0071

Moon -75338-10-31 16:04 J -25795477.95 -25795477.83 -25795477.66 0.0088 0.0075 *
 Moon -75337-11-02 02:52 J -25795110.47 -25795110.38 -25795110.27 0.0088 0.0081
 Earth -75337-11-02 04:32 J -25795110.37 -25795110.31 -25795110.23 0.0088 0.0085 *
 Mars -75332-12-15 08:08 J -25793241.22 -25793241.16 -25793241.06 0.0088 0.0086
 Mars -75330-11-10 11:44 J -25792546.33 -25792546.01 -25792545.68 0.0088 0.0005
 Mars -75328-10-05 12:42 J -25791851.12 -25791850.97 -25791850.80 0.0088 0.0076
 Venus -75291-06-11 04:32 J -25778453.35 -25778453.31 -25778453.25 0.0088 0.0086
 Venus -75290-01-22 16:47 J -25778227.93 -25778227.80 -25778227.66 0.0088 0.0067
 Venus -75290-09-05 04:32 J -25778002.47 -25778002.31 -25778002.11 0.0088 0.0048
 Venus -75289-04-17 16:47 J -25777776.99 -25777776.80 -25777776.58 0.0088 0.0029
 Venus -75289-11-29 05:16 J -25777551.49 -25777551.28 -25777551.06 0.0088 0.0010
 Venus -75288-07-12 17:16 J -25777325.99 -25777325.78 -25777325.56 0.0088 0.0009
 Venus -75287-02-23 05:16 J -25777100.48 -25777100.28 -25777100.07 0.0088 0.0028
 Venus -75287-10-06 17:01 J -25776874.96 -25776874.79 -25776874.59 0.0088 0.0047
 Venus -75286-05-20 05:01 J -25776649.42 -25776649.29 -25776649.13 0.0088 0.0066
 Venus -75286-12-31 17:01 J -25776423.83 -25776423.79 -25776423.71 0.0088 0.0085
 Mercury -75272-08-25 02:37 J -25771438.39 -25771438.39 -25771438.36 0.0089 0.0088
 Mercury -75272-11-21 04:18 J -25771350.37 -25771350.32 -25771350.28 0.0089 0.0083
 Mercury -75271-02-17 05:16 J -25771262.33 -25771262.28 -25771262.21 0.0089 0.0079
 Mercury -75271-05-16 06:42 J -25771174.29 -25771174.22 -25771174.14 0.0089 0.0074
 Mercury -75271-08-12 07:54 J -25771086.24 -25771086.17 -25771086.08 0.0089 0.0070
 Mercury -75271-11-08 09:20 J -25770998.20 -25770998.11 -25770998.02 0.0089 0.0065
 Mercury -75270-02-04 10:47 J -25770910.15 -25770910.05 -25770909.96 0.0089 0.0060
 Mercury -75270-05-03 11:44 J -25770822.10 -25770822.01 -25770821.90 0.0089 0.0056
 Mercury -75270-07-30 13:11 J -25770734.05 -25770733.95 -25770733.84 0.0089 0.0051
 Mercury -75270-10-26 14:37 J -25770646.00 -25770645.89 -25770645.78 0.0089 0.0046
 Mercury -75269-01-22 15:49 J -25770557.95 -25770557.84 -25770557.72 0.0089 0.0042
 Mercury -75269-04-19 17:01 J -25770469.90 -25770469.79 -25770469.66 0.0089 0.0037
 Mercury -75269-07-16 18:13 J -25770381.85 -25770381.74 -25770381.61 0.0089 0.0033
 Mercury -75269-10-12 19:40 J -25770293.80 -25770293.68 -25770293.55 0.0089 0.0028

Mercury -75268-01-08 21:06 J -25770205.75 -25770205.62 -25770205.49 0.0089 0.0023
 Mercury -75268-04-06 22:18 J -25770117.70 -25770117.57 -25770117.44 0.0089 0.0018
 Mercury -75268-07-03 23:44 J -25770029.64 -25770029.51 -25770029.38 0.0089 0.0014
 Mercury -75268-09-30 00:56 J -25769941.59 -25769941.46 -25769941.33 0.0089 0.0009
 Mercury -75268-12-27 02:23 J -25769853.54 -25769853.40 -25769853.27 0.0089 0.0005
 Mercury -75267-03-25 03:35 J -25769765.48 -25769765.35 -25769765.22 0.0089 0.0000
 Mercury -75267-06-21 04:47 J -25769677.43 -25769677.30 -25769677.16 0.0089 0.0006
 Mercury -75267-09-17 06:13 J -25769589.37 -25769589.24 -25769589.11 0.0089 0.0010
 Mercury -75267-12-14 07:25 J -25769501.32 -25769501.19 -25769501.06 0.0089 0.0015
 Mercury -75266-03-12 08:52 J -25769413.26 -25769413.13 -25769413.00 0.0089 0.0019
 Moon -75266-04-08 14:08 J -25769385.94 -25769385.91 -25769385.85 0.0089 0.0087
 Earth -75266-04-08 17:01 J -25769385.81 -25769385.79 -25769385.71 0.0089 0.0087
 Mercury -75266-06-08 10:04 J -25769325.20 -25769325.08 -25769324.95 0.0089 0.0024
 Mercury -75266-09-04 11:16 J -25769237.15 -25769237.03 -25769236.90 0.0089 0.0029
 Mercury -75266-12-01 12:42 J -25769149.09 -25769148.97 -25769148.85 0.0089 0.0033
 Mercury -75265-02-27 13:54 J -25769061.03 -25769060.92 -25769060.79 0.0089 0.0038
 Earth -75265-04-10 02:23 J -25769018.53 -25769018.40 -25769018.24 0.0089 0.0073
 Moon -75265-04-10 04:47 J -25769018.42 -25769018.30 -25769018.12 0.0089 0.0072 *
 Mercury -75265-05-25 15:06 J -25768972.97 -25768972.87 -25768972.74 0.0089 0.0043
 Mercury -75265-08-21 16:32 J -25768884.92 -25768884.81 -25768884.69 0.0089 0.0047
 Mercury -75265-11-17 17:59 J -25768796.86 -25768796.75 -25768796.64 0.0089 0.0052
 Mercury -75264-02-13 19:11 J -25768708.79 -25768708.70 -25768708.59 0.0089 0.0057
 Moon -75264-04-12 09:35 J -25768651.25 -25768651.10 -25768650.90 0.0089 0.0061
 Earth -75264-04-12 11:16 J -25768651.19 -25768651.03 -25768650.82 0.0089 0.0060 *
 Mercury -75264-05-12 20:23 J -25768620.73 -25768620.65 -25768620.54 0.0089 0.0062
 Mercury -75264-08-08 21:49 J -25768532.67 -25768532.59 -25768532.50 0.0089 0.0066
 Mercury -75264-11-04 23:01 J -25768444.61 -25768444.54 -25768444.45 0.0089 0.0071
 Mercury -75263-02-01 00:13 J -25768356.54 -25768356.49 -25768356.40 0.0089 0.0076
 Moon -75263-04-14 20:37 J -25768283.86 -25768283.64 -25768283.41 0.0089 0.0045
 Earth -75263-04-14 20:23 J -25768283.84 -25768283.65 -25768283.41 0.0089 0.0046 *

Mercury -75263-04-30 01:54 J -25768268.47 -25768268.42 -25768268.36 0.0089 0.0080

Mercury -75263-07-27 03:06 J -25768180.40 -25768180.37 -25768180.33 0.0089 0.0085

Earth -75262-04-17 05:44 J -25767916.48 -25767916.26 -25767916.01 0.0089 0.0032

Moon -75262-04-17 06:42 J -25767916.44 -25767916.22 -25767915.98 0.0089 0.0033 *

Moon -75261-04-18 12:42 J -25767549.22 -25767548.97 -25767548.71 0.0089 0.0017

Earth -75261-04-18 14:52 J -25767549.12 -25767548.88 -25767548.63 0.0089 0.0018 *

Earth -75260-04-21 00:13 J -25767181.74 -25767181.49 -25767181.24 0.0089 0.0004

Moon -75260-04-21 03:20 J -25767181.60 -25767181.36 -25767181.11 0.0089 0.0004 *

Moon -75259-04-23 05:59 J -25766814.49 -25766814.25 -25766813.99 0.0089 0.0011

Earth -75259-04-23 09:35 J -25766814.35 -25766814.10 -25766813.85 0.0089 0.0010 *

Earth -75258-04-25 18:13 J -25766446.97 -25766446.74 -25766446.49 0.0089 0.0024

Moon -75258-04-25 21:49 J -25766446.82 -25766446.59 -25766446.33 0.0089 0.0023 *

Moon -75257-04-27 00:28 J -25766079.68 -25766079.48 -25766079.24 0.0089 0.0039

Earth -75257-04-27 03:20 J -25766079.58 -25766079.36 -25766079.12 0.0089 0.0038 *

Earth -75256-04-29 11:59 J -25765712.18 -25765712.00 -25765711.77 0.0089 0.0052

Moon -75256-04-29 14:23 J -25765712.10 -25765711.90 -25765711.68 0.0089 0.0050 *

Moon -75255-05-01 20:08 J -25765344.79 -25765344.66 -25765344.48 0.0089 0.0067

Earth -75255-05-01 21:35 J -25765344.77 -25765344.60 -25765344.43 0.0089 0.0065 *

Moon -75254-05-04 05:30 J -25764977.38 -25764977.27 -25764977.14 0.0089 0.0078

Earth -75254-05-04 06:13 J -25764977.34 -25764977.24 -25764977.11 0.0089 0.0079 *

Mars -75248-07-12 23:59 J -25762715.76 -25762715.50 -25762715.21 0.0089 0.0039

Mars -75246-06-07 10:47 J -25762021.31 -25762021.05 -25762020.76 0.0089 0.0039

Venus -75209-07-23 17:59 J -25748459.82 -25748459.75 -25748459.67 0.0089 0.0083

Venus -75208-03-06 07:54 J -25748234.33 -25748234.17 -25748234.01 0.0089 0.0063

Venus -75208-10-17 21:20 J -25748008.79 -25748008.61 -25748008.40 0.0089 0.0044

Venus -75207-05-31 11:44 J -25747783.23 -25747783.01 -25747782.79 0.0089 0.0023

Venus -75206-01-12 01:40 J -25747557.66 -25747557.43 -25747557.21 0.0089 0.0003

Venus -75206-08-25 15:20 J -25747332.07 -25747331.86 -25747331.63 0.0089 0.0017

Venus -75205-04-07 05:01 J -25747106.48 -25747106.29 -25747106.07 0.0089 0.0037

Venus -75205-11-18 18:56 J -25746880.87 -25746880.71 -25746880.52 0.0089 0.0057

Venus -75204-07-02 08:52 J -25746655.22 -25746655.13 -25746655.00 0.0089 0.0077

Mercury -75188-02-07 16:18 J -25740955.84 -25740955.82 -25740955.77 0.0089 0.0087

Mercury -75188-05-06 19:54 J -25740867.73 -25740867.67 -25740867.57 0.0089 0.0080

Mercury -75188-08-02 23:44 J -25740779.61 -25740779.51 -25740779.38 0.0089 0.0073

Mercury -75188-10-30 03:35 J -25740691.47 -25740691.35 -25740691.21 0.0089 0.0066

Mercury -75187-01-26 07:25 J -25740603.33 -25740603.19 -25740603.04 0.0089 0.0059

Mercury -75187-04-24 11:16 J -25740515.19 -25740515.03 -25740514.87 0.0089 0.0052

Mercury -75187-07-21 14:52 J -25740427.04 -25740426.88 -25740426.70 0.0089 0.0045

Mercury -75187-10-17 18:42 J -25740338.89 -25740338.72 -25740338.54 0.0089 0.0038

Mercury -75186-01-13 22:32 J -25740250.75 -25740250.56 -25740250.38 0.0089 0.0031

Mercury -75186-04-12 01:54 J -25740162.59 -25740162.42 -25740162.22 0.0089 0.0025

Mercury -75186-07-09 05:44 J -25740074.44 -25740074.26 -25740074.06 0.0089 0.0018

Mercury -75186-10-05 09:35 J -25739986.29 -25739986.10 -25739985.90 0.0089 0.0010

Mercury -75185-01-01 13:25 J -25739898.14 -25739897.94 -25739897.74 0.0089 0.0003

Mercury -75185-03-29 17:01 J -25739809.98 -25739809.79 -25739809.59 0.0089 0.0004

Mercury -75185-06-25 20:52 J -25739721.83 -25739721.63 -25739721.44 0.0089 0.0011

Mercury -75185-09-22 00:28 J -25739633.67 -25739633.48 -25739633.28 0.0089 0.0018

Mercury -75185-12-19 04:04 J -25739545.51 -25739545.33 -25739545.13 0.0089 0.0025

Mercury -75184-03-17 07:40 J -25739457.35 -25739457.18 -25739456.98 0.0089 0.0032

Mercury -75184-06-13 11:16 J -25739369.19 -25739369.03 -25739368.84 0.0089 0.0039

Mercury -75184-09-09 15:20 J -25739281.03 -25739280.86 -25739280.69 0.0089 0.0045

Earth -75184-10-06 18:13 J -25739253.83 -25739253.74 -25739253.61 0.0089 0.0080

Moon -75184-10-06 19:54 J -25739253.80 -25739253.67 -25739253.52 0.0089 0.0076 *

Mercury -75184-12-06 18:56 J -25739192.86 -25739192.71 -25739192.55 0.0089 0.0052

Mercury -75183-03-04 22:32 J -25739104.70 -25739104.56 -25739104.41 0.0089 0.0059

Mercury -75183-06-01 02:08 J -25739016.53 -25739016.41 -25739016.27 0.0089 0.0066

Mercury -75183-08-28 05:44 J -25738928.36 -25738928.26 -25738928.14 0.0089 0.0073

Earth -75183-10-09 08:23 J -25738886.30 -25738886.15 -25738885.95 0.0089 0.0066

Moon -75183-10-09 08:52 J -25738886.27 -25738886.13 -25738885.96 0.0089 0.0070 *

Mercury -75183-11-24 09:20 J -25738840.18 -25738840.11 -25738840.01 0.0089 0.0080

Mercury -75182-02-20 13:25 J -25738751.98 -25738751.94 -25738751.90 0.0089 0.0086
 Moon -75182-10-11 21:35 J -25738518.82 -25738518.60 -25738518.36 0.0089 0.0048
 Earth -75182-10-11 22:47 J -25738518.74 -25738518.55 -25738518.31 0.0089 0.0052 *
 Earth -75181-10-13 13:40 J -25738151.17 -25738150.93 -25738150.69 0.0088 0.0037
 Moon -75181-10-13 15:20 J -25738151.08 -25738150.86 -25738150.62 0.0088 0.0041 *
 Moon -75180-10-16 00:13 J -25737783.74 -25737783.49 -25737783.22 0.0088 0.0019
 Earth -75180-10-16 03:49 J -25737783.59 -25737783.34 -25737783.08 0.0088 0.0023 *
 Earth -75179-10-18 17:59 J -25737416.01 -25737415.75 -25737415.48 0.0088 0.0009
 Moon -75179-10-18 21:35 J -25737415.86 -25737415.60 -25737415.34 0.0088 0.0012 *
 Moon -75178-10-21 04:32 J -25737048.56 -25737048.31 -25737048.04 0.0088 0.0010
 Earth -75178-10-21 08:23 J -25737048.41 -25737048.15 -25737047.88 0.0088 0.0007 *
 Earth -75177-10-22 22:32 J -25736680.81 -25736680.56 -25736680.30 0.0088 0.0021
 Moon -75177-10-23 01:54 J -25736680.68 -25736680.42 -25736680.15 0.0088 0.0017 *
 Moon -75176-10-25 10:04 J -25736313.30 -25736313.08 -25736312.83 0.0088 0.0038
 Earth -75176-10-25 12:56 J -25736313.20 -25736312.96 -25736312.71 0.0088 0.0035 *
 Earth -75175-10-28 02:52 J -25735945.58 -25735945.38 -25735945.15 0.0088 0.0050
 Moon -75175-10-28 04:47 J -25735945.50 -25735945.30 -25735945.04 0.0088 0.0048 *
 Moon -75174-10-30 16:32 J -25735577.95 -25735577.81 -25735577.61 0.0088 0.0067
 Earth -75174-10-30 17:16 J -25735577.95 -25735577.78 -25735577.58 0.0088 0.0064 *
 Moon -75173-11-01 06:56 J -25735210.33 -25735210.21 -25735210.04 0.0088 0.0076
 Earth -75173-11-01 07:40 J -25735210.29 -25735210.18 -25735210.04 0.0088 0.0078 *
 Mars -75166-06-24 15:06 J -25732784.13 -25732783.87 -25732783.56 0.0088 0.0043
 Mars -75164-05-19 17:30 J -25732089.04 -25732088.77 -25732088.46 0.0088 0.0039
 Venus -75126-04-26 02:37 J -25718233.49 -25718233.39 -25718233.28 0.0088 0.0076
 Venus -75126-12-07 15:06 J -25718008.04 -25718007.87 -25718007.71 0.0088 0.0057
 Venus -75125-07-20 02:52 J -25717782.56 -25717782.38 -25717782.17 0.0088 0.0038
 Venus -75124-03-02 14:52 J -25717557.08 -25717556.88 -25717556.66 0.0088 0.0020
 Venus -75124-10-14 03:06 J -25717331.58 -25717331.37 -25717331.15 0.0088 0.0002
 Venus -75123-05-27 15:20 J -25717106.07 -25717105.86 -25717105.65 0.0088 0.0019
 Venus -75122-01-08 03:20 J -25716880.55 -25716880.36 -25716880.16 0.0088 0.0038

Venus -75122-08-21 15:20 J -25716655.02 -25716654.86 -25716654.69 0.0088 0.0057

Venus -75121-04-03 03:06 J -25716429.47 -25716429.37 -25716429.25 0.0088 0.0076

Mercury -75107-05-22 01:54 J -25711267.43 -25711267.42 -25711267.39 0.0089 0.0088

Mercury -75107-08-18 03:20 J -25711179.40 -25711179.36 -25711179.31 0.0089 0.0083

Mercury -75107-11-14 04:18 J -25711091.36 -25711091.32 -25711091.24 0.0089 0.0079

Mercury -75106-02-10 05:44 J -25711003.32 -25711003.26 -25711003.18 0.0089 0.0074

Mercury -75106-05-09 07:11 J -25710915.27 -25710915.20 -25710915.11 0.0089 0.0069

Mercury -75106-08-05 08:23 J -25710827.23 -25710827.15 -25710827.05 0.0089 0.0065

Mercury -75106-11-01 09:49 J -25710739.18 -25710739.09 -25710738.99 0.0089 0.0060

Mercury -75105-01-28 11:16 J -25710651.13 -25710651.03 -25710650.93 0.0089 0.0055

Mercury -75105-04-25 12:13 J -25710563.08 -25710562.99 -25710562.87 0.0089 0.0051

Mercury -75105-07-22 13:40 J -25710475.04 -25710474.93 -25710474.81 0.0089 0.0046

Mercury -75105-10-18 15:06 J -25710386.98 -25710386.87 -25710386.75 0.0089 0.0041

Mercury -75104-01-14 16:18 J -25710298.93 -25710298.82 -25710298.69 0.0089 0.0037

Mercury -75104-04-12 17:44 J -25710210.88 -25710210.76 -25710210.64 0.0089 0.0032

Mercury -75104-07-09 18:56 J -25710122.83 -25710122.71 -25710122.58 0.0089 0.0027

Mercury -75104-10-05 20:08 J -25710034.78 -25710034.66 -25710034.53 0.0089 0.0023

Mercury -75103-01-01 21:35 J -25709946.73 -25709946.60 -25709946.47 0.0089 0.0018

Mercury -75103-03-30 22:47 J -25709858.67 -25709858.55 -25709858.41 0.0089 0.0014

Mercury -75103-06-27 00:13 J -25709770.62 -25709770.49 -25709770.36 0.0089 0.0008

Mercury -75103-09-23 01:25 J -25709682.57 -25709682.44 -25709682.30 0.0089 0.0005

Mercury -75103-12-20 02:52 J -25709594.51 -25709594.38 -25709594.25 0.0089 0.0001

Mercury -75102-03-18 04:04 J -25709506.46 -25709506.33 -25709506.19 0.0089 0.0006

Mercury -75102-06-14 05:30 J -25709418.40 -25709418.27 -25709418.14 0.0089 0.0010

Mercury -75102-09-10 06:42 J -25709330.35 -25709330.22 -25709330.09 0.0089 0.0015

Mercury -75102-12-07 07:54 J -25709242.29 -25709242.17 -25709242.03 0.0089 0.0020

Mercury -75101-03-04 09:20 J -25709154.24 -25709154.11 -25709153.98 0.0089 0.0024

Moon -75101-04-09 09:49 J -25709118.20 -25709118.09 -25709117.93 0.0089 0.0074

Earth -75101-04-09 10:47 J -25709118.15 -25709118.05 -25709117.90 0.0089 0.0078 *

Mercury -75101-05-31 10:47 J -25709066.18 -25709066.05 -25709065.93 0.0089 0.0029

Mercury -75101-08-27 11:59 J -25708978.12 -25708978.00 -25708977.88 0.0089 0.0034
 Mercury -75101-11-23 13:11 J -25708890.06 -25708889.95 -25708889.83 0.0089 0.0039
 Mercury -75100-02-19 14:37 J -25708802.00 -25708801.89 -25708801.77 0.0089 0.0043
 Earth -75100-04-11 20:08 J -25708750.82 -25708750.66 -25708750.47 0.0089 0.0064
 Moon -75100-04-11 20:23 J -25708750.81 -25708750.65 -25708750.47 0.0089 0.0068 *
 Mercury -75100-05-18 15:49 J -25708713.95 -25708713.84 -25708713.72 0.0089 0.0048
 Mercury -75100-08-14 17:01 J -25708625.88 -25708625.79 -25708625.67 0.0089 0.0053
 Mercury -75100-11-10 18:13 J -25708537.82 -25708537.74 -25708537.62 0.0089 0.0058
 Mercury -75099-02-06 19:54 J -25708449.76 -25708449.67 -25708449.58 0.0089 0.0062
 Earth -75099-04-14 05:16 J -25708383.47 -25708383.28 -25708383.05 0.0089 0.0051
 Moon -75099-04-14 07:11 J -25708383.40 -25708383.20 -25708382.98 0.0089 0.0046 *
 Mercury -75099-05-05 21:06 J -25708361.70 -25708361.62 -25708361.53 0.0089 0.0067
 Mercury -75099-08-01 22:18 J -25708273.64 -25708273.57 -25708273.48 0.0089 0.0072
 Mercury -75099-10-28 23:44 J -25708185.57 -25708185.51 -25708185.44 0.0089 0.0076
 Mercury -75098-01-25 00:56 J -25708097.50 -25708097.46 -25708097.40 0.0089 0.0081
 Moon -75098-04-16 11:59 J -25708016.22 -25708016.00 -25708015.77 0.0089 0.0041
 Earth -75098-04-16 14:23 J -25708016.11 -25708015.90 -25708015.65 0.0089 0.0037 *
 Mercury -75098-04-23 02:08 J -25708009.42 -25708009.41 -25708009.36 0.0089 0.0086
 Earth -75097-04-17 23:44 J -25707648.75 -25707648.51 -25707648.26 0.0089 0.0023
 Moon -75097-04-18 02:37 J -25707648.62 -25707648.39 -25707648.14 0.0089 0.0019 *
 Moon -75096-04-20 05:30 J -25707281.52 -25707281.27 -25707281.03 0.0089 0.0014
 Earth -75096-04-20 08:52 J -25707281.37 -25707281.13 -25707280.87 0.0089 0.0010 *
 Earth -75095-04-22 17:59 J -25706913.99 -25706913.75 -25706913.49 0.0089 0.0005
 Moon -75095-04-22 21:06 J -25706913.87 -25706913.62 -25706913.36 0.0089 0.0009 *
 Moon -75094-04-25 00:28 J -25706546.71 -25706546.48 -25706546.23 0.0089 0.0014
 Earth -75094-04-25 03:20 J -25706546.60 -25706546.36 -25706546.11 0.0089 0.0018 *
 Earth -75093-04-26 12:13 J -25706179.21 -25706178.99 -25706178.74 0.0089 0.0032
 Moon -75093-04-26 13:54 J -25706179.15 -25706178.92 -25706178.68 0.0089 0.0036 *
 Earth -75092-04-28 21:20 J -25705811.81 -25705811.61 -25705811.38 0.0089 0.0046
 Moon -75092-04-28 21:06 J -25705811.81 -25705811.62 -25705811.38 0.0089 0.0042 *

Moon	-75091-05-01 05:44 J	-25705444.43	-25705444.26	-25705444.06	0.0089	0.0063
Earth	-75091-05-01 06:28 J	-25705444.40	-25705444.23	-25705444.02	0.0089	0.0059 *
Earth	-75090-05-03 15:06 J	-25705076.98	-25705076.87	-25705076.70	0.0089	0.0073
Moon	-75090-05-03 17:44 J	-25705076.90	-25705076.76	-25705076.59	0.0089	0.0068 *
Earth	-75089-05-05 00:13 J	-25704709.53	-25704709.49	-25704709.40	0.0089	0.0086
Mars	-75084-02-24 19:11 J	-25702952.85	-25702952.70	-25702952.52	0.0089	0.0074
Mars	-75082-01-20 03:35 J	-25702258.66	-25702258.35	-25702258.05	0.0089	0.0003
Mars	-75081-12-14 14:23 J	-25701564.01	-25701563.90	-25701563.76	0.0089	0.0081
Venus	-75044-06-07 15:20 J	-25688239.98	-25688239.86	-25688239.73	0.0089	0.0073
Venus	-75043-01-19 05:16 J	-25688014.46	-25688014.28	-25688014.10	0.0089	0.0053
Venus	-75043-09-01 19:11 J	-25687788.91	-25687788.70	-25687788.50	0.0089	0.0033
Venus	-75042-04-15 08:37 J	-25687563.35	-25687563.14	-25687562.90	0.0089	0.0014
Venus	-75042-11-26 22:47 J	-25687337.77	-25687337.55	-25687337.32	0.0089	0.0007
Venus	-75041-07-09 12:42 J	-25687112.18	-25687111.97	-25687111.75	0.0089	0.0027
Venus	-75040-02-20 02:23 J	-25686886.58	-25686886.40	-25686886.20	0.0089	0.0047
Venus	-75040-10-03 16:18 J	-25686660.95	-25686660.82	-25686660.66	0.0089	0.0067
Venus	-75039-05-17 06:28 J	-25686435.26	-25686435.23	-25686435.18	0.0089	0.0087
Mercury	-75024-11-04 13:11 J	-25680784.97	-25680784.95	-25680784.88	0.0089	0.0087
Mercury	-75023-01-31 17:01 J	-25680696.85	-25680696.79	-25680696.68	0.0089	0.0080
Mercury	-75023-04-29 20:52 J	-25680608.72	-25680608.63	-25680608.50	0.0089	0.0073
Mercury	-75023-07-27 00:42 J	-25680520.59	-25680520.47	-25680520.33	0.0089	0.0066
Mercury	-75023-10-23 04:32 J	-25680432.45	-25680432.31	-25680432.16	0.0089	0.0059
Mercury	-75022-01-19 08:08 J	-25680344.31	-25680344.16	-25680343.99	0.0089	0.0052
Mercury	-75022-04-17 11:59 J	-25680256.16	-25680256.00	-25680255.82	0.0089	0.0045
Mercury	-75022-07-14 15:49 J	-25680168.01	-25680167.84	-25680167.66	0.0089	0.0038
Mercury	-75022-10-10 19:40 J	-25680079.87	-25680079.68	-25680079.50	0.0089	0.0031
Mercury	-75021-01-06 23:16 J	-25679991.72	-25679991.53	-25679991.34	0.0089	0.0024
Mercury	-75021-04-04 03:06 J	-25679903.56	-25679903.37	-25679903.18	0.0089	0.0017
Mercury	-75021-07-01 06:42 J	-25679815.41	-25679815.22	-25679815.02	0.0089	0.0010
Mercury	-75021-09-27 10:32 J	-25679727.26	-25679727.06	-25679726.86	0.0089	0.0003

Mercury -75021-12-24 14:08 J -25679639.10 -25679638.91 -25679638.71 0.0089 0.0004
 Mercury -75020-03-22 17:59 J -25679550.95 -25679550.75 -25679550.56 0.0089 0.0011
 Mercury -75020-06-18 21:35 J -25679462.79 -25679462.60 -25679462.40 0.0089 0.0018
 Mercury -75020-09-15 01:11 J -25679374.63 -25679374.45 -25679374.25 0.0089 0.0025
 Earth -75020-10-05 20:52 J -25679353.68 -25679353.63 -25679353.52 0.0089 0.0085
 Moon -75020-10-05 21:35 J -25679353.62 -25679353.60 -25679353.52 0.0089 0.0087 *
 Mercury -75020-12-12 04:47 J -25679286.47 -25679286.30 -25679286.10 0.0089 0.0032
 Mercury -75019-03-10 08:37 J -25679198.31 -25679198.14 -25679197.96 0.0089 0.0039
 Mercury -75019-06-06 12:13 J -25679110.15 -25679109.99 -25679109.81 0.0089 0.0046
 Mercury -75019-09-02 15:49 J -25679021.98 -25679021.84 -25679021.67 0.0089 0.0053
 Moon -75019-10-08 09:20 J -25678986.26 -25678986.11 -25678985.92 0.0089 0.0069
 Earth -75019-10-08 11:30 J -25678986.16 -25678986.02 -25678985.84 0.0089 0.0071 *
 Mercury -75019-11-29 19:25 J -25678933.82 -25678933.69 -25678933.53 0.0089 0.0060
 Mercury -75018-02-25 23:30 J -25678845.65 -25678845.52 -25678845.39 0.0089 0.0066
 Mercury -75018-05-25 03:06 J -25678757.48 -25678757.37 -25678757.26 0.0089 0.0073
 Mercury -75018-08-21 06:28 J -25678669.30 -25678669.23 -25678669.13 0.0088 0.0080
 Earth -75018-10-11 01:54 J -25678618.61 -25678618.42 -25678618.21 0.0088 0.0057
 Moon -75018-10-11 04:47 J -25678618.47 -25678618.30 -25678618.09 0.0088 0.0059 *
 Mercury -75018-11-17 10:04 J -25678581.10 -25678581.08 -25678581.02 0.0088 0.0087
 Moon -75017-10-12 12:42 J -25678251.19 -25678250.97 -25678250.71 0.0088 0.0041
 Earth -75017-10-12 16:04 J -25678251.04 -25678250.83 -25678250.58 0.0088 0.0043 *
 Earth -75016-10-15 06:28 J -25677883.47 -25677883.23 -25677882.97 0.0088 0.0029
 Moon -75016-10-15 10:18 J -25677883.30 -25677883.07 -25677882.81 0.0088 0.0032 *
 Moon -75015-10-17 17:44 J -25677516.01 -25677515.76 -25677515.50 0.0088 0.0012
 Earth -75015-10-17 20:52 J -25677515.88 -25677515.63 -25677515.35 0.0088 0.0015 *
 Earth -75014-10-20 11:16 J -25677148.29 -25677148.03 -25677147.76 0.0088 0.0001
 Moon -75014-10-20 14:23 J -25677148.16 -25677147.90 -25677147.63 0.0088 0.0004 *
 Moon -75013-10-21 23:16 J -25676780.77 -25676780.53 -25676780.27 0.0088 0.0018
 Earth -75013-10-22 01:25 J -25676780.69 -25676780.44 -25676780.17 0.0088 0.0015 *
 Earth -75012-10-24 15:35 J -25676413.09 -25676412.85 -25676412.59 0.0088 0.0029

Moon	-75012-10-24 16:18 J	-25676413.07	-25676412.82	-25676412.54	0.0088	0.0026	*
Earth	-75011-10-27 05:44 J	-25676045.47	-25676045.26	-25676045.01	0.0088	0.0043	
Moon	-75011-10-27 05:59 J	-25676045.46	-25676045.25	-25676045.03	0.0088	0.0046	*
Moon	-75010-10-29 18:42 J	-25675677.93	-25675677.72	-25675677.49	0.0088	0.0053	
Earth	-75010-10-29 19:54 J	-25675677.85	-25675677.67	-25675677.45	0.0088	0.0057	*
Earth	-75009-10-31 09:49 J	-25675310.22	-25675310.09	-25675309.90	0.0088	0.0071	
Moon	-75009-10-31 12:42 J	-25675310.10	-25675309.97	-25675309.82	0.0088	0.0074	*
Moon	-75008-11-02 21:20 J	-25674942.70	-25674942.61	-25674942.48	0.0088	0.0081	
Earth	-75008-11-03 00:13 J	-25674942.54	-25674942.49	-25674942.39	0.0088	0.0085	*
Mars	-75002-02-05 13:25 J	-25673022.03	-25673021.94	-25673021.78	0.0088	0.0082	
Mars	-75001-12-31 19:54 J	-25672326.99	-25672326.67	-25672326.35	0.0088	0.0000	

75TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 75th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-74999-11-26 20:23 J	-25671631.74	-25671631.65	-25671631.48	0.0088	0.0081		
Jupiter	-74979-10-05 21:35 J	-25664378.92	-25664378.60	-25664378.17	0.0088	0.0064		
Venus	-74962-07-28 11:44 J	-25658239.05	-25658239.01	-25658238.96	0.0088	0.0086		
Venus	-74961-03-09 23:44 J	-25658013.64	-25658013.51	-25658013.36	0.0088	0.0067		
Venus	-74961-10-21 11:59 J	-25657788.18	-25657788.00	-25657787.81	0.0088	0.0048		
Venus	-74960-06-04 00:13 J	-25657562.69	-25657562.49	-25657562.29	0.0088	0.0029		
Venus	-74959-01-15 12:13 J	-25657337.20	-25657336.99	-25657336.77	0.0088	0.0010		

Venus -74959-08-29 00:13 J -25657111.70 -25657111.49 -25657111.27 0.0088 0.0010
 Venus -74958-04-11 12:13 J -25656886.18 -25656885.99 -25656885.78 0.0088 0.0028
 Venus -74958-11-23 00:13 J -25656660.66 -25656660.49 -25656660.29 0.0088 0.0048
 Venus -74957-07-05 11:59 J -25656435.11 -25656435.00 -25656434.83 0.0088 0.0067
 Venus -74956-02-16 00:28 J -25656209.53 -25656209.48 -25656209.42 0.0088 0.0085
 Mercury -74942-02-16 00:56 J -25651096.47 -25651096.46 -25651096.43 0.0089 0.0088
 Mercury -74942-05-15 02:23 J -25651008.44 -25651008.40 -25651008.35 0.0089 0.0083
 Mercury -74942-08-11 03:49 J -25650920.40 -25650920.34 -25650920.28 0.0089 0.0078
 Mercury -74942-11-07 04:47 J -25650832.36 -25650832.30 -25650832.21 0.0089 0.0074
 Mercury -74941-02-03 06:13 J -25650744.31 -25650744.24 -25650744.15 0.0089 0.0069
 Mercury -74941-05-01 07:25 J -25650656.27 -25650656.19 -25650656.09 0.0089 0.0065
 Mercury -74941-07-28 08:52 J -25650568.22 -25650568.13 -25650568.03 0.0089 0.0060
 Mercury -74941-10-24 10:18 J -25650480.17 -25650480.07 -25650479.97 0.0089 0.0055
 Mercury -74940-01-20 11:30 J -25650392.12 -25650392.02 -25650391.91 0.0089 0.0050
 Mercury -74940-04-18 12:42 J -25650304.07 -25650303.97 -25650303.85 0.0089 0.0046
 Mercury -74940-07-15 14:08 J -25650216.02 -25650215.91 -25650215.79 0.0089 0.0041
 Mercury -74940-10-11 15:20 J -25650127.97 -25650127.86 -25650127.73 0.0089 0.0037
 Mercury -74939-01-07 16:47 J -25650039.92 -25650039.80 -25650039.67 0.0089 0.0032
 Mercury -74939-04-05 18:13 J -25649951.87 -25649951.74 -25649951.62 0.0089 0.0027
 Mercury -74939-07-02 19:25 J -25649863.82 -25649863.69 -25649863.56 0.0089 0.0022
 Mercury -74939-09-28 20:37 J -25649775.76 -25649775.64 -25649775.50 0.0089 0.0018
 Mercury -74939-12-25 22:04 J -25649687.71 -25649687.58 -25649687.45 0.0089 0.0013
 Mercury -74938-03-23 23:16 J -25649599.66 -25649599.53 -25649599.39 0.0089 0.0009
 Mercury -74938-06-20 00:42 J -25649511.60 -25649511.47 -25649511.34 0.0089 0.0003
 Mercury -74938-09-16 01:54 J -25649423.55 -25649423.42 -25649423.28 0.0089 0.0003
 Mercury -74938-12-13 03:20 J -25649335.49 -25649335.36 -25649335.23 0.0089 0.0006
 Mercury -74937-03-10 04:32 J -25649247.44 -25649247.31 -25649247.18 0.0089 0.0011
 Moon -74937-04-08 17:59 J -25649217.84 -25649217.75 -25649217.63 0.0089 0.0081
 Earth -74937-04-08 18:56 J -25649217.79 -25649217.71 -25649217.60 0.0089 0.0082 *
 Mercury -74937-06-06 05:44 J -25649159.38 -25649159.26 -25649159.12 0.0089 0.0016

Mercury -74937-09-02 07:11 J -25649071.33 -25649071.20 -25649071.07 0.0089 0.0020
 Mercury -74937-11-29 08:23 J -25648983.27 -25648983.15 -25648983.02 0.0089 0.0025
 Mercury -74936-02-25 09:35 J -25648895.21 -25648895.10 -25648894.97 0.0089 0.0030
 Earth -74936-04-11 04:04 J -25648850.47 -25648850.33 -25648850.15 0.0089 0.0069
 Moon -74936-04-11 05:44 J -25648850.39 -25648850.26 -25648850.08 0.0089 0.0069 *
 Mercury -74936-05-24 11:01 J -25648807.16 -25648807.04 -25648806.91 0.0089 0.0034
 Mercury -74936-08-20 12:28 J -25648719.10 -25648718.98 -25648718.86 0.0089 0.0039
 Mercury -74936-11-16 13:40 J -25648631.04 -25648630.93 -25648630.81 0.0089 0.0044
 Mercury -74935-02-12 14:52 J -25648542.98 -25648542.88 -25648542.76 0.0089 0.0049
 Moon -74935-04-13 10:32 J -25648483.25 -25648483.06 -25648482.85 0.0089 0.0055
 Earth -74935-04-13 13:40 J -25648483.12 -25648482.93 -25648482.73 0.0089 0.0055 *
 Mercury -74935-05-11 16:18 J -25648454.92 -25648454.82 -25648454.71 0.0089 0.0053
 Mercury -74935-08-07 17:30 J -25648366.86 -25648366.77 -25648366.66 0.0089 0.0058
 Mercury -74935-11-03 18:42 J -25648278.80 -25648278.72 -25648278.61 0.0089 0.0063
 Mercury -74934-01-30 20:23 J -25648190.74 -25648190.65 -25648190.57 0.0089 0.0067
 Earth -74934-04-15 22:32 J -25648115.77 -25648115.56 -25648115.33 0.0089 0.0042
 Moon -74934-04-16 01:40 J -25648115.63 -25648115.43 -25648115.19 0.0089 0.0043 *
 Mercury -74934-04-28 21:35 J -25648102.67 -25648102.60 -25648102.52 0.0089 0.0072
 Mercury -74934-07-25 22:47 J -25648014.61 -25648014.55 -25648014.48 0.0089 0.0077
 Mercury -74934-10-22 00:28 J -25647926.54 -25647926.48 -25647926.43 0.0089 0.0081
 Mercury -74933-01-18 01:25 J -25647838.46 -25647838.44 -25647838.40 0.0089 0.0086
 Moon -74933-04-17 04:18 J -25647748.55 -25647748.32 -25647748.08 0.0089 0.0029
 Earth -74933-04-17 07:25 J -25647748.41 -25647748.19 -25647747.93 0.0089 0.0029 *
 Earth -74932-04-19 16:47 J -25647381.04 -25647380.80 -25647380.55 0.0089 0.0015
 Moon -74932-04-19 19:54 J -25647380.91 -25647380.67 -25647380.41 0.0089 0.0015 *
 Moon -74931-04-22 00:13 J -25647013.74 -25647013.49 -25647013.25 0.0089 0.0002
 Earth -74931-04-22 01:54 J -25647013.67 -25647013.42 -25647013.16 0.0089 0.0002 *
 Earth -74930-04-24 11:01 J -25646646.29 -25646646.04 -25646645.79 0.0089 0.0012
 Moon -74930-04-24 11:59 J -25646646.25 -25646646.00 -25646645.73 0.0089 0.0013 *
 Earth -74929-04-25 19:54 J -25646278.90 -25646278.67 -25646278.42 0.0089 0.0026

Moon	-74929-04-25 19:54 J	-25646278.89	-25646278.67	-25646278.42	0.0089	0.0026	*
Moon	-74928-04-28 03:06 J	-25645911.58	-25645911.37	-25645911.12	0.0089	0.0039	
Earth	-74928-04-28 05:16 J	-25645911.50	-25645911.28	-25645911.05	0.0089	0.0039	*
Earth	-74927-04-30 13:54 J	-25645544.10	-25645543.92	-25645543.69	0.0089	0.0053	
Moon	-74927-04-30 16:47 J	-25645543.99	-25645543.80	-25645543.60	0.0089	0.0052	*
Moon	-74926-05-02 19:54 J	-25645176.82	-25645176.67	-25645176.48	0.0089	0.0066	
Earth	-74926-05-02 23:16 J	-25645176.68	-25645176.53	-25645176.34	0.0089	0.0066	*
Earth	-74925-05-04 08:23 J	-25644809.24	-25644809.15	-25644809.02	0.0089	0.0079	
Moon	-74925-05-04 12:13 J	-25644809.09	-25644808.99	-25644808.87	0.0089	0.0079	*
Mars	-74919-09-03 20:08 J	-25642495.92	-25642495.66	-25642495.36	0.0089	0.0034	
Mars	-74917-07-29 04:18 J	-25641801.57	-25641801.32	-25641801.03	0.0089	0.0044	
Venus	-74880-09-08 22:04 J	-25628245.63	-25628245.58	-25628245.48	0.0089	0.0084	
Venus	-74879-04-22 11:59 J	-25628020.14	-25628020.00	-25628019.83	0.0089	0.0064	
Venus	-74879-12-04 01:54 J	-25627794.60	-25627794.42	-25627794.21	0.0089	0.0044	
Venus	-74878-07-17 15:49 J	-25627569.04	-25627568.84	-25627568.61	0.0089	0.0024	
Venus	-74877-02-28 05:59 J	-25627343.48	-25627343.25	-25627343.03	0.0089	0.0004	
Venus	-74877-10-10 19:40 J	-25627117.90	-25627117.68	-25627117.45	0.0089	0.0017	
Venus	-74876-05-24 09:35 J	-25626892.30	-25626892.10	-25626891.89	0.0089	0.0037	
Venus	-74875-01-04 23:16 J	-25626666.68	-25626666.53	-25626666.34	0.0089	0.0057	
Venus	-74875-08-18 13:11 J	-25626441.04	-25626440.95	-25626440.82	0.0089	0.0077	
Mercury	-74859-08-01 10:18 J	-25620614.09	-25620614.07	-25620614.02	0.0089	0.0087	
Mercury	-74859-10-28 14:08 J	-25620525.98	-25620525.91	-25620525.82	0.0089	0.0080	
Mercury	-74858-01-24 17:44 J	-25620437.86	-25620437.76	-25620437.63	0.0089	0.0073	
Mercury	-74858-04-22 21:35 J	-25620349.72	-25620349.60	-25620349.46	0.0089	0.0066	
Mercury	-74858-07-20 01:25 J	-25620261.58	-25620261.44	-25620261.29	0.0089	0.0059	
Mercury	-74858-10-16 05:16 J	-25620173.44	-25620173.28	-25620173.12	0.0089	0.0052	
Mercury	-74857-01-12 09:06 J	-25620085.29	-25620085.12	-25620084.95	0.0089	0.0045	
Mercury	-74857-04-09 12:42 J	-25619997.15	-25619996.97	-25619996.79	0.0089	0.0038	
Mercury	-74857-07-06 16:04 J	-25619909.00	-25619908.83	-25619908.63	0.0089	0.0032	
Mercury	-74857-10-02 19:54 J	-25619820.85	-25619820.67	-25619820.47	0.0089	0.0025	

Mercury -74857-12-29 23:44 J -25619732.70 -25619732.51 -25619732.31 0.0089 0.0017

Mercury -74856-03-28 03:35 J -25619644.55 -25619644.35 -25619644.15 0.0089 0.0010

Mercury -74856-06-24 07:11 J -25619556.39 -25619556.20 -25619556.00 0.0089 0.0004

Mercury -74856-09-20 11:01 J -25619468.24 -25619468.04 -25619467.84 0.0089 0.0004

Mercury -74856-12-17 14:37 J -25619380.08 -25619379.89 -25619379.69 0.0089 0.0011

Mercury -74855-03-15 18:13 J -25619291.92 -25619291.74 -25619291.54 0.0089 0.0018

Mercury -74855-06-11 21:49 J -25619203.77 -25619203.59 -25619203.39 0.0089 0.0025

Mercury -74855-09-08 01:40 J -25619115.61 -25619115.43 -25619115.24 0.0089 0.0031

Earth -74855-10-07 13:11 J -25619086.06 -25619085.95 -25619085.79 0.0089 0.0076

Moon -74855-10-07 16:18 J -25619085.94 -25619085.82 -25619085.64 0.0089 0.0072 *

Mercury -74855-12-05 05:16 J -25619027.45 -25619027.28 -25619027.09 0.0089 0.0038

Mercury -74854-03-03 08:52 J -25618939.28 -25618939.13 -25618938.95 0.0089 0.0045

Mercury -74854-05-30 12:56 J -25618851.12 -25618850.96 -25618850.80 0.0089 0.0052

Mercury -74854-08-26 16:32 J -25618762.95 -25618762.81 -25618762.66 0.0088 0.0059

Moon -74854-10-09 23:30 J -25618718.67 -25618718.52 -25618718.32 0.0088 0.0067

Earth -74854-10-10 03:35 J -25618718.53 -25618718.35 -25618718.15 0.0088 0.0062 *

Mercury -74854-11-22 19:54 J -25618674.79 -25618674.67 -25618674.53 0.0088 0.0066

Mercury -74853-02-18 23:30 J -25618586.61 -25618586.52 -25618586.39 0.0088 0.0073

Mercury -74853-05-17 03:06 J -25618498.43 -25618498.37 -25618498.27 0.0088 0.0080

Mercury -74853-08-13 06:42 J -25618410.24 -25618410.22 -25618410.16 0.0088 0.0087

Earth -74853-10-11 17:59 J -25618350.97 -25618350.75 -25618350.53 0.0088 0.0048

Moon -74853-10-11 21:20 J -25618350.83 -25618350.61 -25618350.37 0.0088 0.0044 *

Moon -74852-10-14 04:32 J -25617983.52 -25617983.31 -25617983.05 0.0088 0.0039

Earth -74852-10-14 08:23 J -25617983.39 -25617983.15 -25617982.90 0.0088 0.0034 *

Earth -74851-10-16 22:18 J -25617615.81 -25617615.57 -25617615.30 0.0088 0.0021

Moon -74851-10-17 00:56 J -25617615.73 -25617615.46 -25617615.19 0.0088 0.0016 *

Moon -74850-10-19 11:44 J -25617248.26 -25617248.01 -25617247.75 0.0088 0.0010

Earth -74850-10-19 12:56 J -25617248.22 -25617247.96 -25617247.69 0.0088 0.0006 *

Earth -74849-10-21 03:20 J -25616880.62 -25616880.36 -25616880.10 0.0088 0.0008

Moon -74849-10-21 03:35 J -25616880.61 -25616880.35 -25616880.07 0.0088 0.0012 *

Earth	-74848-10-23 17:44 J	-25616513.02	-25616512.76	-25616512.50	0.0088	0.0022
Moon	-74848-10-23 18:42 J	-25616512.96	-25616512.72	-25616512.45	0.0088	0.0019 *
Moon	-74847-10-26 05:30 J	-25616145.49	-25616145.27	-25616145.01	0.0088	0.0040
Earth	-74847-10-26 07:54 J	-25616145.40	-25616145.17	-25616144.92	0.0088	0.0036 *
Earth	-74846-10-28 21:49 J	-25615777.79	-25615777.59	-25615777.36	0.0088	0.0050
Moon	-74846-10-29 00:42 J	-25615777.68	-25615777.47	-25615777.24	0.0088	0.0047 *
Moon	-74845-10-30 08:08 J	-25615410.31	-25615410.16	-25615409.96	0.0088	0.0068
Earth	-74845-10-30 11:59 J	-25615410.16	-25615410.00	-25615409.79	0.0088	0.0064 *
Earth	-74844-11-02 01:54 J	-25615042.52	-25615042.42	-25615042.26	0.0088	0.0078
Moon	-74844-11-02 05:44 J	-25615042.38	-25615042.26	-25615042.10	0.0088	0.0075 *
Mars	-74837-08-14 17:44 J	-25612565.02	-25612564.76	-25612564.44	0.0088	0.0040
Mars	-74835-07-10 23:01 J	-25611869.80	-25611869.54	-25611869.23	0.0088	0.0042
Jupiter	-74813-12-08 03:49 J	-25603683.86	-25603683.34	-25603682.79	0.0088	0.0017
Venus	-74797-06-11 08:08 J	-25598019.24	-25598019.16	-25598019.04	0.0088	0.0077
Venus	-74796-01-22 20:23 J	-25597793.79	-25597793.65	-25597793.47	0.0088	0.0058
Venus	-74796-09-05 08:52 J	-25597568.32	-25597568.13	-25597567.93	0.0088	0.0039
Venus	-74795-04-18 21:06 J	-25597342.83	-25597342.62	-25597342.41	0.0088	0.0020
Venus	-74795-11-30 09:20 J	-25597117.33	-25597117.11	-25597116.90	0.0088	0.0001
Venus	-74794-07-13 21:06 J	-25596891.82	-25596891.62	-25596891.40	0.0088	0.0019
Venus	-74793-02-24 09:06 J	-25596666.31	-25596666.12	-25596665.91	0.0088	0.0037
Venus	-74793-10-06 20:52 J	-25596440.78	-25596440.63	-25596440.45	0.0088	0.0057
Venus	-74792-05-20 09:20 J	-25596215.22	-25596215.11	-25596215.00	0.0088	0.0075
Mercury	-74778-11-12 23:59 J	-25590925.51	-25590925.50	-25590925.48	0.0089	0.0088
Mercury	-74777-02-09 01:25 J	-25590837.48	-25590837.44	-25590837.39	0.0089	0.0083
Mercury	-74777-05-07 02:37 J	-25590749.44	-25590749.39	-25590749.32	0.0089	0.0079
Mercury	-74777-08-03 04:04 J	-25590661.40	-25590661.33	-25590661.26	0.0089	0.0074
Mercury	-74777-10-30 05:01 J	-25590573.36	-25590573.29	-25590573.19	0.0089	0.0070
Mercury	-74776-01-26 06:28 J	-25590485.31	-25590485.23	-25590485.13	0.0089	0.0065
Mercury	-74776-04-24 07:54 J	-25590397.26	-25590397.17	-25590397.07	0.0089	0.0060
Mercury	-74776-07-21 09:06 J	-25590309.21	-25590309.12	-25590309.01	0.0089	0.0055

Mercury -74776-10-17 10:18 J -25590221.17 -25590221.07 -25590220.95 0.0089 0.0051
 Mercury -74775-01-13 11:44 J -25590133.12 -25590133.01 -25590132.89 0.0089 0.0046
 Mercury -74775-04-11 12:56 J -25590045.07 -25590044.96 -25590044.83 0.0089 0.0042
 Mercury -74775-07-08 14:23 J -25589957.02 -25589956.90 -25589956.78 0.0089 0.0037
 Mercury -74775-10-04 15:49 J -25589868.96 -25589868.84 -25589868.72 0.0089 0.0032
 Mercury -74775-12-31 17:01 J -25589780.91 -25589780.79 -25589780.66 0.0089 0.0027
 Mercury -74774-03-29 18:13 J -25589692.86 -25589692.74 -25589692.61 0.0089 0.0023
 Mercury -74774-06-25 19:40 J -25589604.81 -25589604.68 -25589604.55 0.0089 0.0018
 Mercury -74774-09-21 20:52 J -25589516.75 -25589516.63 -25589516.49 0.0089 0.0014
 Mercury -74774-12-18 22:18 J -25589428.70 -25589428.57 -25589428.44 0.0089 0.0008
 Mercury -74773-03-15 23:30 J -25589340.65 -25589340.52 -25589340.38 0.0089 0.0005
 Earth -74773-04-08 01:40 J -25589317.47 -25589317.43 -25589317.36 0.0089 0.0086
 Mercury -74773-06-12 00:56 J -25589252.59 -25589252.46 -25589252.33 0.0089 0.0001
 Mercury -74773-09-08 02:08 J -25589164.54 -25589164.41 -25589164.27 0.0089 0.0006
 Mercury -74773-12-05 03:35 J -25589076.48 -25589076.35 -25589076.22 0.0089 0.0011
 Mercury -74772-03-03 04:47 J -25588988.43 -25588988.30 -25588988.17 0.0089 0.0015
 Moon -74772-04-10 07:40 J -25588950.31 -25588950.18 -25588949.99 0.0089 0.0069
 Earth -74772-04-10 11:16 J -25588950.16 -25588950.03 -25588949.88 0.0089 0.0073 *
 Mercury -74772-05-30 06:13 J -25588900.37 -25588900.24 -25588900.11 0.0089 0.0020
 Mercury -74772-08-26 07:25 J -25588812.31 -25588812.19 -25588812.06 0.0089 0.0025
 Mercury -74772-11-22 08:37 J -25588724.26 -25588724.14 -25588724.01 0.0089 0.0030
 Mercury -74771-02-18 10:04 J -25588636.20 -25588636.08 -25588635.96 0.0089 0.0034
 Earth -74771-04-12 20:23 J -25588582.82 -25588582.65 -25588582.45 0.0089 0.0060
 Moon -74771-04-12 23:44 J -25588582.66 -25588582.51 -25588582.32 0.0089 0.0065 *
 Mercury -74771-05-17 11:16 J -25588548.14 -25588548.03 -25588547.90 0.0089 0.0039
 Mercury -74771-08-13 12:42 J -25588460.08 -25588459.97 -25588459.85 0.0089 0.0044
 Mercury -74771-11-09 13:54 J -25588372.02 -25588371.92 -25588371.80 0.0089 0.0049
 Mercury -74770-02-05 15:20 J -25588283.96 -25588283.86 -25588283.75 0.0089 0.0053
 Moon -74770-04-15 02:23 J -25588215.61 -25588215.40 -25588215.17 0.0089 0.0042
 Earth -74770-04-15 05:30 J -25588215.47 -25588215.27 -25588215.04 0.0089 0.0047 *

Mercury -74770-05-04 16:32 J -25588195.90 -25588195.81 -25588195.70 0.0089 0.0058

Mercury -74770-07-31 17:44 J -25588107.84 -25588107.76 -25588107.66 0.0089 0.0063

Mercury -74770-10-27 19:25 J -25588019.78 -25588019.69 -25588019.61 0.0089 0.0067

Mercury -74769-01-23 20:37 J -25587931.71 -25587931.64 -25587931.56 0.0089 0.0072

Earth -74769-04-16 14:37 J -25587848.11 -25587847.89 -25587847.64 0.0089 0.0034

Moon -74769-04-16 17:30 J -25587847.99 -25587847.77 -25587847.53 0.0089 0.0038 *

Mercury -74769-04-20 21:49 J -25587843.65 -25587843.59 -25587843.52 0.0089 0.0077

Mercury -74769-07-17 23:01 J -25587755.58 -25587755.54 -25587755.48 0.0089 0.0082

Mercury -74769-10-14 00:28 J -25587667.50 -25587667.48 -25587667.44 0.0089 0.0086

Moon -74768-04-18 22:04 J -25587480.81 -25587480.58 -25587480.33 0.0089 0.0016

Earth -74768-04-18 23:59 J -25587480.73 -25587480.50 -25587480.24 0.0089 0.0021 *

Earth -74767-04-21 09:20 J -25587113.36 -25587113.11 -25587112.86 0.0089 0.0007

Moon -74767-04-21 09:20 J -25587113.36 -25587113.11 -25587112.84 0.0089 0.0012 *

Earth -74766-04-23 18:28 J -25586745.98 -25586745.73 -25586745.48 0.0089 0.0006

Moon -74766-04-23 19:11 J -25586745.94 -25586745.70 -25586745.46 0.0089 0.0010 *

Moon -74765-04-25 01:40 J -25586378.68 -25586378.43 -25586378.17 0.0089 0.0015

Earth -74765-04-25 03:20 J -25586378.60 -25586378.36 -25586378.11 0.0089 0.0020 *

Earth -74764-04-27 12:13 J -25586011.21 -25586010.99 -25586010.74 0.0089 0.0033

Moon -74764-04-27 15:06 J -25586011.07 -25586010.87 -25586010.63 0.0089 0.0038 *

Moon -74763-04-29 17:59 J -25585643.95 -25585643.75 -25585643.51 0.0089 0.0042

Earth -74763-04-29 21:35 J -25585643.81 -25585643.60 -25585643.38 0.0089 0.0046 *

Earth -74762-05-02 06:42 J -25585276.40 -25585276.22 -25585276.03 0.0089 0.0059

Moon -74762-05-02 10:04 J -25585276.24 -25585276.08 -25585275.89 0.0089 0.0064 *

Moon -74761-05-03 12:42 J -25584909.10 -25584908.97 -25584908.79 0.0089 0.0068

Earth -74761-05-03 16:18 J -25584908.97 -25584908.82 -25584908.68 0.0089 0.0072 *

Earth -74760-05-06 01:11 J -25584541.51 -25584541.45 -25584541.37 0.0089 0.0085

Mars -74755-04-18 15:35 J -25582733.03 -25582732.85 -25582732.66 0.0089 0.0069

Mars -74753-03-12 21:06 J -25582038.92 -25582038.62 -25582038.31 0.0089 0.0007

Mars -74751-02-05 04:47 J -25581344.37 -25581344.30 -25581344.18 0.0089 0.0084

Venus -74715-07-24 19:11 J -25568025.82 -25568025.70 -25568025.57 0.0089 0.0074

Venus	-74714-03-07 08:23 J	-25567800.30	-25567800.15	-25567799.95	0.0089	0.0055
Venus	-74714-10-18 22:18 J	-25567574.76	-25567574.57	-25567574.35	0.0089	0.0035
Venus	-74713-05-31 12:28 J	-25567349.20	-25567348.98	-25567348.75	0.0089	0.0014
Venus	-74712-01-12 02:23 J	-25567123.62	-25567123.40	-25567123.18	0.0089	0.0006
Venus	-74712-08-25 16:04 J	-25566898.04	-25566897.83	-25566897.61	0.0089	0.0026
Venus	-74711-04-08 05:44 J	-25566672.44	-25566672.26	-25566672.06	0.0089	0.0046
Venus	-74711-11-19 19:40 J	-25566446.82	-25566446.68	-25566446.52	0.0089	0.0066
Venus	-74710-07-03 09:49 J	-25566221.13	-25566221.09	-25566221.03	0.0089	0.0086
Mercury	-74694-04-28 07:25 J	-25560443.22	-25560443.19	-25560443.16	0.0089	0.0087
Mercury	-74694-07-25 10:32 J	-25560355.12	-25560355.06	-25560354.95	0.0089	0.0081
Mercury	-74694-10-21 14:23 J	-25560266.99	-25560266.90	-25560266.77	0.0089	0.0074
Mercury	-74693-01-17 18:13 J	-25560178.85	-25560178.74	-25560178.59	0.0089	0.0067
Mercury	-74693-04-14 21:49 J	-25560090.71	-25560090.59	-25560090.42	0.0089	0.0060
Mercury	-74693-07-12 01:40 J	-25560002.57	-25560002.43	-25560002.25	0.0089	0.0053
Mercury	-74693-10-08 05:30 J	-25559914.43	-25559914.27	-25559914.09	0.0089	0.0046
Mercury	-74692-01-04 09:20 J	-25559826.28	-25559826.11	-25559825.92	0.0089	0.0039
Mercury	-74692-04-02 12:56 J	-25559738.13	-25559737.96	-25559737.76	0.0089	0.0032
Mercury	-74692-06-29 16:47 J	-25559649.98	-25559649.80	-25559649.60	0.0089	0.0025
Mercury	-74692-09-25 20:37 J	-25559561.83	-25559561.64	-25559561.44	0.0089	0.0018
Mercury	-74692-12-23 00:28 J	-25559473.68	-25559473.48	-25559473.29	0.0089	0.0011
Mercury	-74691-03-21 04:04 J	-25559385.52	-25559385.33	-25559385.13	0.0089	0.0004
Mercury	-74691-06-17 07:54 J	-25559297.37	-25559297.17	-25559296.98	0.0089	0.0004
Mercury	-74691-09-13 11:30 J	-25559209.22	-25559209.02	-25559208.82	0.0089	0.0010
Moon	-74691-10-06 12:13 J	-25559186.09	-25559185.99	-25559185.88	0.0089	0.0081
Earth	-74691-10-06 15:20 J	-25559185.94	-25559185.86	-25559185.72	0.0089	0.0081 *
Mercury	-74691-12-10 15:06 J	-25559121.06	-25559120.87	-25559120.67	0.0089	0.0017
Mercury	-74690-03-08 18:42 J	-25559032.90	-25559032.72	-25559032.52	0.0089	0.0024
Mercury	-74690-06-04 22:18 J	-25558944.74	-25558944.57	-25558944.37	0.0089	0.0032
Mercury	-74690-09-01 01:54 J	-25558856.58	-25558856.42	-25558856.23	0.0089	0.0039
Earth	-74690-10-09 05:30 J	-25558818.42	-25558818.27	-25558818.08	0.0089	0.0067

Moon -74690-10-09 09:06 J -25558818.28 -25558818.12 -25558817.93 0.0089 0.0066 *
 Mercury -74690-11-28 05:59 J -25558768.42 -25558768.25 -25558768.08 0.0089 0.0045
 Mercury -74689-02-24 09:35 J -25558680.26 -25558680.10 -25558679.94 0.0088 0.0052
 Mercury -74689-05-22 13:11 J -25558592.09 -25558591.95 -25558591.80 0.0088 0.0059
 Mercury -74689-08-18 16:47 J -25558503.92 -25558503.80 -25558503.66 0.0088 0.0066
 Moon -74689-10-10 17:30 J -25558450.96 -25558450.77 -25558450.56 0.0088 0.0054
 Earth -74689-10-10 19:25 J -25558450.88 -25558450.69 -25558450.46 0.0088 0.0054 *
 Mercury -74689-11-14 20:08 J -25558415.75 -25558415.66 -25558415.53 0.0088 0.0073
 Mercury -74688-02-10 23:44 J -25558327.57 -25558327.51 -25558327.40 0.0088 0.0080
 Mercury -74688-05-10 04:04 J -25558239.38 -25558239.33 -25558239.29 0.0088 0.0086
 Earth -74688-10-13 09:49 J -25558083.32 -25558083.09 -25558082.84 0.0088 0.0040
 Moon -74688-10-13 11:44 J -25558083.25 -25558083.01 -25558082.75 0.0088 0.0038 *
 Moon -74687-10-15 23:30 J -25557715.75 -25557715.52 -25557715.26 0.0088 0.0028
 Earth -74687-10-16 00:13 J -25557715.74 -25557715.49 -25557715.23 0.0088 0.0026 *
 Moon -74686-10-18 13:11 J -25557348.22 -25557347.95 -25557347.67 0.0088 0.0011
 Earth -74686-10-18 14:08 J -25557348.16 -25557347.91 -25557347.64 0.0088 0.0013 *
 Earth -74685-10-20 04:47 J -25556980.57 -25556980.30 -25556980.04 0.0088 0.0002
 Moon -74685-10-20 06:13 J -25556980.49 -25556980.24 -25556979.98 0.0088 0.0001 *
 Moon -74684-10-22 15:49 J -25556613.09 -25556612.84 -25556612.56 0.0088 0.0018
 Earth -74684-10-22 18:56 J -25556612.96 -25556612.71 -25556612.44 0.0088 0.0016 *
 Earth -74683-10-25 08:52 J -25556245.37 -25556245.13 -25556244.87 0.0088 0.0030
 Moon -74683-10-25 12:28 J -25556245.22 -25556244.98 -25556244.72 0.0088 0.0028 *
 Moon -74682-10-27 19:40 J -25555877.90 -25555877.68 -25555877.44 0.0088 0.0046
 Earth -74682-10-27 23:30 J -25555877.75 -25555877.52 -25555877.29 0.0088 0.0043 *
 Earth -74681-10-29 13:25 J -25555510.13 -25555509.94 -25555509.73 0.0088 0.0057
 Moon -74681-10-29 17:16 J -25555509.98 -25555509.78 -25555509.56 0.0088 0.0054 *
 Moon -74680-11-01 00:56 J -25555142.60 -25555142.46 -25555142.30 0.0088 0.0073
 Earth -74680-11-01 03:20 J -25555142.49 -25555142.36 -25555142.17 0.0088 0.0071 *
 Earth -74679-11-03 17:30 J -25554774.83 -25554774.77 -25554774.66 0.0088 0.0084
 Moon -74679-11-03 20:23 J -25554774.75 -25554774.65 -25554774.52 0.0088 0.0080 *

Mars	-74673-03-28 11:59 J	-25552803.14	-25552803.00	-25552802.85	0.0088	0.0079
Mars	-74671-02-21 19:54 J	-25552108.00	-25552107.67	-25552107.35	0.0088	0.0003
Mars	-74669-01-17 23:59 J	-25551412.59	-25551412.50	-25551412.36	0.0088	0.0083
Venus	-74633-09-12 16:04 J	-25538024.83	-25538024.83	-25538024.80	0.0088	0.0088
Venus	-74632-04-26 04:04 J	-25537799.44	-25537799.33	-25537799.17	0.0088	0.0070
Venus	-74632-12-07 17:01 J	-25537573.97	-25537573.79	-25537573.61	0.0088	0.0050
Venus	-74631-07-21 05:16 J	-25537348.48	-25537348.28	-25537348.08	0.0088	0.0031
Venus	-74630-03-03 17:16 J	-25537122.99	-25537122.78	-25537122.56	0.0088	0.0012
Venus	-74630-10-15 05:30 J	-25536897.49	-25536897.27	-25536897.06	0.0088	0.0008
Venus	-74629-05-27 17:30 J	-25536671.97	-25536671.77	-25536671.56	0.0088	0.0027
Venus	-74628-01-08 05:30 J	-25536446.45	-25536446.27	-25536446.08	0.0088	0.0046
Venus	-74628-08-21 17:30 J	-25536220.91	-25536220.77	-25536220.61	0.0088	0.0065
Venus	-74627-04-04 05:16 J	-25535995.33	-25535995.28	-25535995.19	0.0088	0.0084
Mercury	-74613-08-08 22:47 J	-25530754.55	-25530754.55	-25530754.53	0.0089	0.0089
Mercury	-74613-11-05 00:13 J	-25530666.52	-25530666.49	-25530666.44	0.0089	0.0084
Mercury	-74612-02-01 01:40 J	-25530578.49	-25530578.43	-25530578.37	0.0089	0.0079
Mercury	-74612-04-30 02:37 J	-25530490.45	-25530490.39	-25530490.31	0.0089	0.0075
Mercury	-74612-07-27 04:04 J	-25530402.40	-25530402.33	-25530402.24	0.0089	0.0070
Mercury	-74612-10-23 05:30 J	-25530314.36	-25530314.27	-25530314.18	0.0089	0.0065
Mercury	-74611-01-19 06:42 J	-25530226.31	-25530226.22	-25530226.12	0.0089	0.0061
Mercury	-74611-04-17 07:54 J	-25530138.26	-25530138.17	-25530138.06	0.0089	0.0056
Mercury	-74611-07-14 09:20 J	-25530050.21	-25530050.11	-25530050.00	0.0089	0.0051
Mercury	-74611-10-10 10:32 J	-25529962.17	-25529962.06	-25529961.94	0.0089	0.0047
Mercury	-74610-01-06 11:59 J	-25529874.11	-25529874.00	-25529873.88	0.0089	0.0042
Mercury	-74610-04-04 13:11 J	-25529786.06	-25529785.95	-25529785.83	0.0089	0.0037
Mercury	-74610-07-01 14:23 J	-25529698.01	-25529697.90	-25529697.77	0.0089	0.0033
Mercury	-74610-09-27 15:49 J	-25529609.96	-25529609.84	-25529609.71	0.0089	0.0028
Mercury	-74610-12-24 17:16 J	-25529521.91	-25529521.78	-25529521.66	0.0089	0.0023
Mercury	-74609-03-21 18:28 J	-25529433.86	-25529433.73	-25529433.60	0.0089	0.0018
Mercury	-74609-06-17 19:40 J	-25529345.80	-25529345.68	-25529345.54	0.0089	0.0014

Mercury -74609-09-13 21:06 J -25529257.75 -25529257.62 -25529257.49 0.0089 0.0009

Mercury -74609-12-10 22:18 J -25529169.70 -25529169.57 -25529169.43 0.0089 0.0005

Mercury -74608-03-08 23:44 J -25529081.64 -25529081.51 -25529081.38 0.0089 0.0001

Earth -74608-04-09 16:18 J -25529049.91 -25529049.82 -25529049.67 0.0089 0.0078

Moon -74608-04-09 20:08 J -25529049.78 -25529049.66 -25529049.52 0.0089 0.0076 *

Mercury -74608-06-05 00:56 J -25528993.59 -25528993.46 -25528993.32 0.0089 0.0006

Mercury -74608-09-01 02:23 J -25528905.53 -25528905.40 -25528905.27 0.0089 0.0010

Mercury -74608-11-28 03:35 J -25528817.48 -25528817.35 -25528817.22 0.0089 0.0015

Mercury -74607-02-24 04:47 J -25528729.42 -25528729.30 -25528729.16 0.0089 0.0020

Moon -74607-04-11 23:01 J -25528682.70 -25528682.54 -25528682.36 0.0089 0.0065

Earth -74607-04-12 01:54 J -25528682.57 -25528682.42 -25528682.23 0.0089 0.0065 *

Mercury -74607-05-23 06:13 J -25528641.36 -25528641.24 -25528641.11 0.0089 0.0024

Mercury -74607-08-19 07:40 J -25528553.31 -25528553.18 -25528553.06 0.0089 0.0029

Mercury -74607-11-15 08:52 J -25528465.25 -25528465.13 -25528465.00 0.0089 0.0034

Mercury -74606-02-11 10:04 J -25528377.19 -25528377.08 -25528376.95 0.0089 0.0039

Earth -74606-04-14 11:16 J -25528315.21 -25528315.03 -25528314.80 0.0089 0.0052

Moon -74606-04-14 14:08 J -25528315.11 -25528314.91 -25528314.69 0.0089 0.0051 *

Mercury -74606-05-10 11:30 J -25528289.13 -25528289.02 -25528288.90 0.0089 0.0043

Mercury -74606-08-06 12:42 J -25528201.07 -25528200.97 -25528200.85 0.0089 0.0048

Mercury -74606-11-02 13:54 J -25528113.01 -25528112.92 -25528112.80 0.0089 0.0053

Mercury -74605-01-29 15:20 J -25528024.95 -25528024.86 -25528024.75 0.0089 0.0058

Moon -74605-04-15 19:54 J -25527947.88 -25527947.67 -25527947.44 0.0089 0.0040

Earth -74605-04-15 20:52 J -25527947.84 -25527947.63 -25527947.39 0.0089 0.0039 *

Mercury -74605-04-26 16:47 J -25527936.89 -25527936.80 -25527936.70 0.0089 0.0062

Mercury -74605-07-23 17:59 J -25527848.83 -25527848.75 -25527848.66 0.0089 0.0067

Mercury -74605-10-19 19:11 J -25527760.76 -25527760.70 -25527760.61 0.0089 0.0072

Mercury -74604-01-15 20:23 J -25527672.70 -25527672.65 -25527672.57 0.0089 0.0077

Mercury -74604-04-13 22:04 J -25527584.63 -25527584.58 -25527584.53 0.0089 0.0081

Earth -74604-04-18 05:59 J -25527580.48 -25527580.25 -25527580.00 0.0089 0.0026

Moon -74604-04-18 06:28 J -25527580.48 -25527580.23 -25527579.98 0.0089 0.0025 *

Mercury -74604-07-10 23:16 J -25527496.55 -25527496.53 -25527496.49 0.0089 0.0086

Earth -74603-04-20 15:06 J -25527213.11 -25527212.87 -25527212.61 0.0089 0.0013

Moon -74603-04-20 16:18 J -25527213.05 -25527212.82 -25527212.56 0.0089 0.0014 *

Moon -74602-04-22 21:49 J -25526845.84 -25526845.59 -25526845.33 0.0089 0.0003

Earth -74602-04-23 00:42 J -25526845.72 -25526845.47 -25526845.22 0.0089 0.0001 *

Earth -74601-04-24 09:35 J -25526478.34 -25526478.10 -25526477.85 0.0089 0.0014

Moon -74601-04-24 12:42 J -25526478.22 -25526477.97 -25526477.73 0.0089 0.0013 *

Moon -74600-04-26 14:52 J -25526111.10 -25526110.88 -25526110.63 0.0089 0.0028

Earth -74600-04-26 18:28 J -25526110.95 -25526110.73 -25526110.47 0.0089 0.0027 *

Earth -74599-04-29 03:35 J -25525743.56 -25525743.35 -25525743.11 0.0089 0.0040

Moon -74599-04-29 06:42 J -25525743.43 -25525743.22 -25525742.97 0.0089 0.0039 *

Moon -74598-05-01 10:04 J -25525376.27 -25525376.08 -25525375.87 0.0089 0.0053

Earth -74598-05-01 12:42 J -25525376.15 -25525375.97 -25525375.75 0.0089 0.0053 *

Earth -74597-05-02 21:49 J -25525008.74 -25525008.59 -25525008.40 0.0089 0.0066

Moon -74597-05-02 23:44 J -25525008.66 -25525008.51 -25525008.32 0.0089 0.0065 *

Moon -74596-05-05 06:42 J -25524641.30 -25524641.22 -25524641.09 0.0089 0.0080

Earth -74596-05-05 06:42 J -25524641.30 -25524641.22 -25524641.07 0.0089 0.0079 *

Mars -74590-10-26 13:40 J -25522276.20 -25522275.93 -25522275.63 0.0089 0.0030

Mars -74588-09-19 20:23 J -25521581.90 -25521581.65 -25521581.38 0.0089 0.0046

Venus -74551-10-26 01:54 J -25508031.47 -25508031.42 -25508031.34 0.0089 0.0085

Venus -74550-06-08 15:49 J -25507805.98 -25507805.84 -25507805.68 0.0089 0.0065

Venus -74549-01-20 05:30 J -25507580.45 -25507580.27 -25507580.07 0.0089 0.0045

Venus -74549-09-01 19:11 J -25507354.91 -25507354.70 -25507354.48 0.0089 0.0025

Venus -74548-04-15 09:06 J -25507129.34 -25507129.12 -25507128.90 0.0089 0.0005

Venus -74548-11-26 22:47 J -25506903.77 -25506903.55 -25506903.32 0.0089 0.0015

Venus -74547-07-10 12:28 J -25506678.17 -25506677.98 -25506677.76 0.0089 0.0036

Venus -74546-02-21 02:08 J -25506452.56 -25506452.41 -25506452.22 0.0089 0.0056

Venus -74546-10-04 15:49 J -25506226.93 -25506226.84 -25506226.70 0.0089 0.0076

Mercury -74529-01-23 03:49 J -25500272.35 -25500272.34 -25500272.32 0.0089 0.0088

Mercury -74529-04-20 07:40 J -25500184.26 -25500184.18 -25500184.10 0.0089 0.0081

Mercury -74529-07-17 11:30 J -25500096.13 -25500096.02 -25500095.92 0.0089 0.0074
 Mercury -74529-10-13 15:06 J -25500007.99 -25500007.87 -25500007.74 0.0089 0.0067
 Mercury -74528-01-09 18:28 J -25499919.86 -25499919.73 -25499919.57 0.0089 0.0061
 Mercury -74528-04-07 22:18 J -25499831.71 -25499831.57 -25499831.40 0.0089 0.0053
 Mercury -74528-07-05 01:54 J -25499743.57 -25499743.42 -25499743.23 0.0089 0.0047
 Mercury -74528-10-01 05:44 J -25499655.42 -25499655.26 -25499655.07 0.0089 0.0040
 Mercury -74528-12-28 09:35 J -25499567.27 -25499567.10 -25499566.91 0.0089 0.0032
 Mercury -74527-03-26 13:25 J -25499479.12 -25499478.94 -25499478.75 0.0089 0.0025
 Mercury -74527-06-22 17:01 J -25499390.97 -25499390.79 -25499390.59 0.0088 0.0019
 Mercury -74527-09-18 20:52 J -25499302.82 -25499302.63 -25499302.43 0.0088 0.0011
 Earth -74527-10-05 17:01 J -25499285.84 -25499285.79 -25499285.69 0.0088 0.0085
 Moon -74527-10-05 20:23 J -25499285.65 -25499285.65 -25499285.65 0.0088 0.0088
 Mercury -74527-12-16 00:42 J -25499214.67 -25499214.47 -25499214.27 0.0088 0.0004
 Mercury -74526-03-14 04:18 J -25499126.51 -25499126.32 -25499126.12 0.0088 0.0004
 Mercury -74526-06-10 08:08 J -25499038.36 -25499038.16 -25499037.96 0.0088 0.0010
 Mercury -74526-09-06 11:44 J -25498950.20 -25498950.01 -25498949.81 0.0088 0.0017
 Moon -74526-10-08 05:16 J -25498918.43 -25498918.28 -25498918.10 0.0088 0.0067
 Earth -74526-10-08 06:56 J -25498918.34 -25498918.21 -25498918.03 0.0088 0.0072 *
 Mercury -74526-12-03 15:20 J -25498862.04 -25498861.86 -25498861.66 0.0088 0.0024
 Mercury -74525-02-29 18:56 J -25498773.88 -25498773.71 -25498773.51 0.0088 0.0031
 Mercury -74525-05-27 22:47 J -25498685.72 -25498685.55 -25498685.37 0.0088 0.0038
 Mercury -74525-08-24 02:23 J -25498597.56 -25498597.40 -25498597.22 0.0088 0.0045
 Earth -74525-10-09 21:35 J -25498550.80 -25498550.60 -25498550.40 0.0088 0.0058
 Moon -74525-10-09 21:35 J -25498550.77 -25498550.60 -25498550.39 0.0088 0.0063 *
 Mercury -74525-11-20 05:59 J -25498509.40 -25498509.25 -25498509.08 0.0088 0.0051
 Mercury -74524-02-16 09:35 J -25498421.23 -25498421.10 -25498420.94 0.0088 0.0058
 Mercury -74524-05-15 13:11 J -25498333.06 -25498332.95 -25498332.80 0.0088 0.0065
 Mercury -74524-08-11 17:16 J -25498244.89 -25498244.78 -25498244.67 0.0088 0.0072
 Earth -74524-10-12 11:16 J -25498183.24 -25498183.03 -25498182.79 0.0088 0.0045
 Moon -74524-10-12 11:59 J -25498183.22 -25498183.00 -25498182.77 0.0088 0.0041 *

Mercury -74524-11-07 20:37 J -25498156.71 -25498156.64 -25498156.54 0.0088 0.0079

Mercury -74523-02-04 00:13 J -25498068.52 -25498068.49 -25498068.43 0.0088 0.0086

Moon -74523-10-14 23:44 J -25497815.75 -25497815.51 -25497815.25 0.0088 0.0036

Earth -74523-10-15 01:11 J -25497815.68 -25497815.45 -25497815.19 0.0088 0.0031 *

Earth -74522-10-17 15:35 J -25497448.11 -25497447.85 -25497447.59 0.0088 0.0018

Moon -74522-10-17 18:13 J -25497447.98 -25497447.74 -25497447.47 0.0088 0.0014 *

Moon -74521-10-19 02:37 J -25497080.65 -25497080.39 -25497080.12 0.0088 0.0008

Earth -74521-10-19 05:59 J -25497080.52 -25497080.25 -25497079.99 0.0088 0.0004 *

Earth -74520-10-21 19:54 J -25496712.93 -25496712.67 -25496712.40 0.0088 0.0010

Moon -74520-10-21 23:44 J -25496712.77 -25496712.51 -25496712.25 0.0088 0.0014 *

Moon -74519-10-24 06:42 J -25496345.47 -25496345.22 -25496344.95 0.0088 0.0019

Earth -74519-10-24 10:04 J -25496345.32 -25496345.08 -25496344.81 0.0088 0.0024 *

Earth -74518-10-27 00:28 J -25495977.71 -25495977.48 -25495977.23 0.0088 0.0037

Moon -74518-10-27 03:20 J -25495977.58 -25495977.36 -25495977.10 0.0088 0.0041 *

Moon -74517-10-28 11:59 J -25495610.20 -25495610.00 -25495609.76 0.0088 0.0047

Earth -74517-10-28 14:37 J -25495610.09 -25495609.89 -25495609.65 0.0088 0.0050 *

Earth -74516-10-31 04:47 J -25495242.46 -25495242.30 -25495242.09 0.0088 0.0064

Moon -74516-10-31 05:44 J -25495242.40 -25495242.26 -25495242.05 0.0088 0.0068 *

Moon -74515-11-02 18:28 J -25494874.85 -25494874.73 -25494874.56 0.0088 0.0074

Earth -74515-11-02 18:56 J -25494874.82 -25494874.71 -25494874.56 0.0088 0.0077 *

Mars -74508-10-05 14:37 J -25492346.17 -25492345.89 -25492345.57 0.0088 0.0038

Mars -74506-08-31 21:35 J -25491650.86 -25491650.60 -25491650.30 0.0088 0.0044

Venus -74468-07-28 11:44 J -25477805.07 -25477805.01 -25477804.90 0.0088 0.0081

Venus -74467-03-10 23:59 J -25477579.63 -25477579.50 -25477579.32 0.0088 0.0062

Venus -74467-10-22 12:28 J -25477354.16 -25477353.98 -25477353.78 0.0088 0.0042

Venus -74466-06-05 00:56 J -25477128.67 -25477128.46 -25477128.25 0.0088 0.0023

Venus -74465-01-16 13:11 J -25476903.16 -25476902.95 -25476902.73 0.0088 0.0004

Venus -74465-08-29 01:25 J -25476677.65 -25476677.44 -25476677.23 0.0088 0.0016

Venus -74464-04-11 13:25 J -25476452.14 -25476451.94 -25476451.74 0.0088 0.0035

Venus -74464-11-23 01:40 J -25476226.60 -25476226.43 -25476226.26 0.0088 0.0054

Venus -74463-07-06 13:40 J -25476001.05 -25476000.93 -25476000.81 0.0088 0.0073
 Mercury -74448-08-01 22:47 J -25470495.57 -25470495.55 -25470495.50 0.0089 0.0085
 Mercury -74448-10-29 00:13 J -25470407.54 -25470407.49 -25470407.43 0.0089 0.0080
 Mercury -74447-01-25 01:40 J -25470319.49 -25470319.43 -25470319.36 0.0089 0.0075
 Mercury -74447-04-23 02:52 J -25470231.45 -25470231.38 -25470231.30 0.0089 0.0071
 Mercury -74447-07-20 04:04 J -25470143.41 -25470143.33 -25470143.23 0.0089 0.0066
 Mercury -74447-10-16 05:30 J -25470055.36 -25470055.27 -25470055.17 0.0089 0.0061
 Mercury -74446-01-12 06:42 J -25469967.31 -25469967.22 -25469967.11 0.0089 0.0057
 Mercury -74446-04-10 08:08 J -25469879.26 -25469879.16 -25469879.05 0.0089 0.0052
 Mercury -74446-07-07 09:35 J -25469791.21 -25469791.10 -25469790.99 0.0089 0.0047
 Mercury -74446-10-03 10:32 J -25469703.17 -25469703.06 -25469702.94 0.0089 0.0043
 Mercury -74446-12-30 11:59 J -25469615.12 -25469615.00 -25469614.88 0.0089 0.0038
 Mercury -74445-03-27 13:25 J -25469527.06 -25469526.94 -25469526.82 0.0089 0.0033
 Mercury -74445-06-23 14:37 J -25469439.01 -25469438.89 -25469438.76 0.0089 0.0028
 Mercury -74445-09-19 15:49 J -25469350.96 -25469350.84 -25469350.71 0.0089 0.0024
 Mercury -74445-12-16 17:16 J -25469262.91 -25469262.78 -25469262.65 0.0089 0.0019
 Mercury -74444-03-14 18:28 J -25469174.86 -25469174.73 -25469174.60 0.0089 0.0015
 Moon -74444-04-08 18:56 J -25469149.73 -25469149.71 -25469149.63 0.0089 0.0087
 Earth -74444-04-08 21:49 J -25469149.66 -25469149.59 -25469149.47 0.0089 0.0082 *
 Mercury -74444-06-10 19:54 J -25469086.80 -25469086.67 -25469086.54 0.0089 0.0009
 Mercury -74444-09-06 21:06 J -25468998.75 -25468998.62 -25468998.48 0.0089 0.0005
 Mercury -74444-12-03 22:32 J -25468910.69 -25468910.56 -25468910.43 0.0089 0.0001
 Mercury -74443-03-01 23:44 J -25468822.64 -25468822.51 -25468822.38 0.0089 0.0005
 Earth -74443-04-11 07:11 J -25468782.33 -25468782.20 -25468782.02 0.0089 0.0070
 Moon -74443-04-11 09:35 J -25468782.27 -25468782.10 -25468781.92 0.0089 0.0065 *
 Mercury -74443-05-29 01:11 J -25468734.58 -25468734.45 -25468734.32 0.0089 0.0010
 Mercury -74443-08-25 02:23 J -25468646.53 -25468646.40 -25468646.27 0.0089 0.0014
 Mercury -74443-11-21 03:49 J -25468558.47 -25468558.34 -25468558.21 0.0089 0.0019
 Mercury -74442-02-17 05:01 J -25468470.42 -25468470.29 -25468470.16 0.0089 0.0024
 Moon -74442-04-13 16:04 J -25468414.99 -25468414.83 -25468414.64 0.0089 0.0061

Earth -74442-04-13 16:47 J -25468414.97 -25468414.80 -25468414.58 0.0089 0.0057 *
 Mercury -74442-05-16 06:13 J -25468382.36 -25468382.24 -25468382.11 0.0089 0.0029
 Mercury -74442-08-12 07:40 J -25468294.30 -25468294.18 -25468294.06 0.0089 0.0033
 Mercury -74442-11-08 08:52 J -25468206.24 -25468206.13 -25468206.00 0.0089 0.0038
 Mercury -74441-02-04 10:18 J -25468118.18 -25468118.07 -25468117.95 0.0089 0.0043
 Moon -74441-04-15 01:25 J -25468047.65 -25468047.44 -25468047.19 0.0089 0.0040
 Earth -74441-04-15 02:23 J -25468047.60 -25468047.40 -25468047.17 0.0089 0.0044 *
 Mercury -74441-05-02 11:30 J -25468030.12 -25468030.02 -25468029.90 0.0089 0.0048
 Mercury -74441-07-29 12:56 J -25467942.06 -25467941.96 -25467941.85 0.0089 0.0052
 Mercury -74441-10-25 14:08 J -25467854.00 -25467853.91 -25467853.80 0.0089 0.0057
 Mercury -74440-01-21 15:20 J -25467765.94 -25467765.86 -25467765.75 0.0089 0.0062
 Earth -74440-04-17 11:44 J -25467680.23 -25467680.01 -25467679.76 0.0089 0.0031
 Moon -74440-04-17 13:25 J -25467680.15 -25467679.94 -25467679.70 0.0089 0.0035 *
 Mercury -74440-04-19 16:47 J -25467677.88 -25467677.80 -25467677.71 0.0089 0.0067
 Mercury -74440-07-16 18:13 J -25467589.81 -25467589.74 -25467589.66 0.0089 0.0071
 Mercury -74440-10-12 19:25 J -25467501.75 -25467501.69 -25467501.62 0.0089 0.0076
 Mercury -74439-01-08 20:37 J -25467413.68 -25467413.64 -25467413.57 0.0089 0.0081
 Mercury -74439-04-06 21:49 J -25467325.60 -25467325.59 -25467325.54 0.0089 0.0086
 Moon -74439-04-19 18:28 J -25467312.97 -25467312.73 -25467312.46 0.0089 0.0014
 Earth -74439-04-19 21:20 J -25467312.85 -25467312.61 -25467312.36 0.0089 0.0018 *
 Earth -74438-04-22 06:28 J -25466945.48 -25466945.23 -25466944.97 0.0089 0.0005
 Moon -74438-04-22 09:49 J -25466945.33 -25466945.09 -25466944.83 0.0089 0.0010 *
 Moon -74437-04-23 12:28 J -25466578.23 -25466577.98 -25466577.73 0.0089 0.0012
 Earth -74437-04-23 15:49 J -25466578.09 -25466577.84 -25466577.59 0.0089 0.0008 *
 Earth -74436-04-26 00:42 J -25466210.71 -25466210.47 -25466210.22 0.0089 0.0021
 Moon -74436-04-26 04:04 J -25466210.57 -25466210.33 -25466210.07 0.0089 0.0016 *
 Moon -74435-04-28 07:40 J -25465843.39 -25465843.18 -25465842.95 0.0089 0.0038
 Earth -74435-04-28 09:35 J -25465843.31 -25465843.10 -25465842.85 0.0089 0.0034 *
 Earth -74434-04-30 18:42 J -25465475.91 -25465475.72 -25465475.49 0.0089 0.0047
 Moon -74434-04-30 20:23 J -25465475.87 -25465475.65 -25465475.42 0.0089 0.0042 *

Earth	-74433-05-02 03:49 J	-25465108.51	-25465108.34	-25465108.14	0.0089	0.0059
Moon	-74433-05-02 03:20 J	-25465108.50	-25465108.36	-25465108.17	0.0089	0.0064 *
Moon	-74432-05-04 11:01 J	-25464741.18	-25464741.04	-25464740.84	0.0089	0.0068
Earth	-74432-05-04 12:56 J	-25464741.09	-25464740.96	-25464740.80	0.0089	0.0072 *
Earth	-74431-05-06 22:32 J	-25464373.63	-25464373.56	-25464373.48	0.0089	0.0084
Moon	-74431-05-07 00:28 J	-25464373.48	-25464373.48	-25464373.45	0.0089	0.0089 *
Mars	-74426-06-10 06:28 J	-25462513.42	-25462513.23	-25462513.02	0.0089	0.0066
Mars	-74424-05-04 11:30 J	-25461819.31	-25461819.02	-25461818.71	0.0089	0.0009
Mars	-74422-03-29 18:56 J	-25461124.78	-25461124.71	-25461124.61	0.0089	0.0085
Venus	-74386-09-09 22:18 J	-25447811.67	-25447811.57	-25447811.44	0.0089	0.0076
Venus	-74385-04-22 11:59 J	-25447586.16	-25447586.00	-25447585.81	0.0089	0.0056
Venus	-74385-12-04 01:54 J	-25447360.62	-25447360.42	-25447360.21	0.0089	0.0036
Venus	-74384-07-17 15:35 J	-25447135.06	-25447134.85	-25447134.62	0.0089	0.0016
Venus	-74383-02-28 05:30 J	-25446909.49	-25446909.27	-25446909.05	0.0089	0.0004
Venus	-74383-10-11 18:56 J	-25446683.91	-25446683.71	-25446683.48	0.0089	0.0025
Venus	-74382-05-25 08:37 J	-25446458.31	-25446458.14	-25446457.93	0.0089	0.0045
Venus	-74381-01-05 22:32 J	-25446232.70	-25446232.56	-25446232.39	0.0089	0.0065
Venus	-74381-08-18 12:13 J	-25446007.03	-25446006.99	-25446006.90	0.0089	0.0085
Mercury	-74364-01-15 04:04 J	-25440013.39	-25440013.33	-25440013.25	0.0089	0.0082
Mercury	-74364-04-13 07:40 J	-25439925.27	-25439925.18	-25439925.06	0.0089	0.0075
Mercury	-74364-07-10 11:30 J	-25439837.13	-25439837.02	-25439836.88	0.0089	0.0068
Mercury	-74364-10-06 15:20 J	-25439748.99	-25439748.86	-25439748.71	0.0089	0.0061
Mercury	-74363-01-02 18:56 J	-25439660.85	-25439660.71	-25439660.54	0.0088	0.0054
Mercury	-74363-03-31 22:47 J	-25439572.71	-25439572.55	-25439572.37	0.0088	0.0047
Mercury	-74363-06-28 02:37 J	-25439484.56	-25439484.39	-25439484.21	0.0088	0.0040
Mercury	-74363-09-24 06:28 J	-25439396.41	-25439396.23	-25439396.05	0.0088	0.0033
Earth	-74363-10-04 19:25 J	-25439385.69	-25439385.69	-25439385.67	0.0088	0.0088
Mercury	-74363-12-21 10:04 J	-25439308.26	-25439308.08	-25439307.88	0.0088	0.0026
Mercury	-74362-03-19 13:54 J	-25439220.11	-25439219.92	-25439219.73	0.0088	0.0019
Mercury	-74362-06-15 17:44 J	-25439131.96	-25439131.76	-25439131.57	0.0088	0.0012

Mercury -74362-09-11 21:20 J -25439043.80 -25439043.61 -25439043.41 0.0088 0.0005

Moon -74362-10-07 08:52 J -25439018.24 -25439018.13 -25439017.95 0.0088 0.0076

Earth -74362-10-07 09:06 J -25439018.23 -25439018.12 -25439017.96 0.0088 0.0076 *

Mercury -74362-12-09 01:11 J -25438955.65 -25438955.45 -25438955.26 0.0088 0.0003

Mercury -74361-03-06 04:47 J -25438867.49 -25438867.30 -25438867.10 0.0088 0.0009

Mercury -74361-06-02 08:23 J -25438779.34 -25438779.15 -25438778.95 0.0088 0.0016

Mercury -74361-08-29 11:59 J -25438691.18 -25438691.00 -25438690.80 0.0088 0.0024

Earth -74361-10-08 23:01 J -25438650.70 -25438650.54 -25438650.33 0.0088 0.0063

Moon -74361-10-09 00:13 J -25438650.64 -25438650.49 -25438650.28 0.0088 0.0064 *

Mercury -74361-11-25 15:35 J -25438603.02 -25438602.85 -25438602.65 0.0088 0.0031

Mercury -74360-02-21 19:11 J -25438514.86 -25438514.70 -25438514.50 0.0088 0.0038

Mercury -74360-05-20 22:47 J -25438426.70 -25438426.55 -25438426.36 0.0088 0.0045

Mercury -74360-08-17 02:52 J -25438338.54 -25438338.38 -25438338.22 0.0088 0.0051

Moon -74360-10-11 10:18 J -25438283.28 -25438283.07 -25438282.83 0.0088 0.0049

Earth -74360-10-11 12:56 J -25438283.16 -25438282.96 -25438282.72 0.0088 0.0050 *

Mercury -74360-11-13 06:28 J -25438250.37 -25438250.23 -25438250.07 0.0088 0.0058

Mercury -74359-02-09 10:04 J -25438162.20 -25438162.08 -25438161.94 0.0088 0.0065

Mercury -74359-05-08 13:40 J -25438074.03 -25438073.93 -25438073.80 0.0088 0.0072

Mercury -74359-08-04 17:16 J -25437985.85 -25437985.78 -25437985.68 0.0088 0.0079

Earth -74359-10-14 02:52 J -25437915.60 -25437915.38 -25437915.12 0.0088 0.0037

Moon -74359-10-14 05:59 J -25437915.48 -25437915.25 -25437915.01 0.0088 0.0036 *

Mercury -74359-10-31 20:52 J -25437897.66 -25437897.63 -25437897.56 0.0088 0.0086

Moon -74358-10-16 13:11 J -25437548.19 -25437547.95 -25437547.68 0.0088 0.0023

Earth -74358-10-16 17:01 J -25437548.03 -25437547.79 -25437547.52 0.0088 0.0023 *

Earth -74357-10-18 07:11 J -25437180.46 -25437180.20 -25437179.94 0.0088 0.0010

Moon -74357-10-18 10:32 J -25437180.31 -25437180.06 -25437179.79 0.0088 0.0010 *

Moon -74356-10-20 17:59 J -25436813.01 -25436812.75 -25436812.49 0.0088 0.0002

Earth -74356-10-20 21:20 J -25436812.87 -25436812.61 -25436812.34 0.0088 0.0004 *

Earth -74355-10-23 11:01 J -25436445.28 -25436445.04 -25436444.77 0.0088 0.0018

Moon -74355-10-23 13:54 J -25436445.18 -25436444.92 -25436444.65 0.0088 0.0018 *

Moon	-74354-10-25 23:59 J	-25436077.73	-25436077.50	-25436077.24	0.0088	0.0030
Earth	-74354-10-26 01:25 J	-25436077.68	-25436077.44	-25436077.18	0.0088	0.0031 *
Earth	-74353-10-27 15:35 J	-25435710.06	-25435709.85	-25435709.60	0.0088	0.0044
Moon	-74353-10-27 16:18 J	-25435710.03	-25435709.82	-25435709.56	0.0088	0.0046 *
Earth	-74352-10-30 05:59 J	-25435342.45	-25435342.25	-25435342.04	0.0088	0.0057
Moon	-74352-10-30 06:28 J	-25435342.41	-25435342.23	-25435342.01	0.0088	0.0056 *
Moon	-74351-11-01 17:30 J	-25434974.89	-25434974.77	-25434974.57	0.0088	0.0072
Earth	-74351-11-01 20:23 J	-25434974.81	-25434974.65	-25434974.49	0.0088	0.0070 *
Earth	-74350-11-04 10:32 J	-25434607.15	-25434607.06	-25434606.97	0.0088	0.0083
Moon	-74350-11-04 12:42 J	-25434607.06	-25434606.97	-25434606.85	0.0088	0.0081 *
Mars	-74344-05-19 07:11 J	-25432584.33	-25432584.20	-25432584.01	0.0088	0.0077
Mars	-74342-04-14 17:44 J	-25431889.09	-25431888.76	-25431888.43	0.0088	0.0004
Mars	-74340-03-09 23:30 J	-25431193.61	-25431193.52	-25431193.42	0.0088	0.0084
Venus	-74303-06-12 07:54 J	-25417585.28	-25417585.17	-25417585.03	0.0088	0.0072
Venus	-74302-01-23 20:08 J	-25417359.82	-25417359.66	-25417359.47	0.0088	0.0053
Venus	-74302-09-06 08:37 J	-25417134.33	-25417134.14	-25417133.93	0.0088	0.0034
Venus	-74301-04-18 20:52 J	-25416908.84	-25416908.63	-25416908.41	0.0088	0.0015
Venus	-74301-11-30 09:20 J	-25416683.33	-25416683.11	-25416682.89	0.0088	0.0005
Venus	-74300-07-13 21:35 J	-25416457.81	-25416457.60	-25416457.39	0.0088	0.0024
Venus	-74299-02-24 09:06 J	-25416232.29	-25416232.12	-25416231.91	0.0088	0.0044
Venus	-74299-10-07 21:06 J	-25416006.75	-25416006.62	-25416006.44	0.0088	0.0063
Venus	-74298-05-21 09:06 J	-25415781.17	-25415781.12	-25415781.01	0.0088	0.0082
Mercury	-74283-04-28 21:35 J	-25410324.62	-25410324.60	-25410324.56	0.0089	0.0086
Mercury	-74283-07-25 23:01 J	-25410236.59	-25410236.54	-25410236.48	0.0089	0.0081
Mercury	-74283-10-22 00:13 J	-25410148.55	-25410148.49	-25410148.42	0.0089	0.0076
Mercury	-74282-01-18 01:25 J	-25410060.50	-25410060.44	-25410060.35	0.0089	0.0072
Mercury	-74282-04-16 02:52 J	-25409972.46	-25409972.38	-25409972.29	0.0089	0.0067
Mercury	-74282-07-13 04:18 J	-25409884.41	-25409884.32	-25409884.23	0.0089	0.0062
Mercury	-74282-10-09 05:16 J	-25409796.36	-25409796.28	-25409796.17	0.0089	0.0058
Mercury	-74281-01-05 06:42 J	-25409708.32	-25409708.22	-25409708.11	0.0089	0.0053

Mercury -74281-04-02 08:08 J -25409620.27 -25409620.16 -25409620.05 0.0089 0.0048
 Mercury -74281-06-29 09:20 J -25409532.22 -25409532.11 -25409531.99 0.0089 0.0043
 Mercury -74281-09-25 10:32 J -25409444.17 -25409444.06 -25409443.93 0.0089 0.0039
 Mercury -74281-12-22 11:59 J -25409356.12 -25409356.00 -25409355.87 0.0089 0.0034
 Mercury -74280-03-20 13:25 J -25409268.07 -25409267.94 -25409267.82 0.0089 0.0029
 Earth -74280-04-08 02:52 J -25409249.42 -25409249.38 -25409249.31 0.0089 0.0086
 Moon -74280-04-08 04:18 J -25409249.33 -25409249.32 -25409249.26 0.0089 0.0088 *
 Mercury -74280-06-16 14:37 J -25409180.01 -25409179.89 -25409179.76 0.0089 0.0025
 Mercury -74280-09-12 16:04 J -25409091.96 -25409091.83 -25409091.70 0.0089 0.0020
 Mercury -74280-12-09 17:16 J -25409003.91 -25409003.78 -25409003.65 0.0089 0.0015
 Mercury -74279-03-07 18:28 J -25408915.86 -25408915.73 -25408915.59 0.0089 0.0011
 Earth -74279-04-10 12:13 J -25408882.11 -25408881.99 -25408881.83 0.0089 0.0074
 Moon -74279-04-10 12:28 J -25408882.11 -25408881.98 -25408881.82 0.0089 0.0072 *
 Mercury -74279-06-03 19:54 J -25408827.80 -25408827.67 -25408827.54 0.0089 0.0006
 Mercury -74279-08-30 21:06 J -25408739.75 -25408739.62 -25408739.48 0.0089 0.0003
 Mercury -74279-11-26 22:32 J -25408651.69 -25408651.56 -25408651.43 0.0089 0.0004
 Mercury -74278-02-22 23:44 J -25408563.64 -25408563.51 -25408563.38 0.0089 0.0009
 Moon -74278-04-12 20:52 J -25408514.79 -25408514.63 -25408514.43 0.0089 0.0063
 Earth -74278-04-12 21:49 J -25408514.76 -25408514.59 -25408514.39 0.0089 0.0061 *
 Mercury -74278-05-22 00:56 J -25408475.58 -25408475.46 -25408475.32 0.0089 0.0014
 Mercury -74278-08-18 02:23 J -25408387.53 -25408387.40 -25408387.27 0.0089 0.0018
 Mercury -74278-11-14 03:49 J -25408299.47 -25408299.34 -25408299.22 0.0089 0.0023
 Mercury -74277-02-10 05:01 J -25408211.41 -25408211.29 -25408211.16 0.0089 0.0028
 Earth -74277-04-14 07:11 J -25408147.39 -25408147.20 -25408146.97 0.0089 0.0049
 Moon -74277-04-14 09:20 J -25408147.30 -25408147.11 -25408146.88 0.0089 0.0047 *
 Mercury -74277-05-08 06:13 J -25408123.36 -25408123.24 -25408123.11 0.0089 0.0033
 Mercury -74277-08-04 07:40 J -25408035.30 -25408035.18 -25408035.06 0.0089 0.0037
 Mercury -74277-10-31 08:52 J -25407947.24 -25407947.13 -25407947.01 0.0089 0.0042
 Mercury -74276-01-27 10:04 J -25407859.18 -25407859.08 -25407858.96 0.0089 0.0047
 Moon -74276-04-16 13:25 J -25407780.15 -25407779.94 -25407779.69 0.0089 0.0039

Earth -74276-04-16 16:47 J -25407780.02 -25407779.80 -25407779.56 0.0089 0.0036 *
 Mercury -74276-04-25 11:30 J -25407771.12 -25407771.02 -25407770.91 0.0089 0.0052
 Mercury -74276-07-22 12:56 J -25407683.06 -25407682.96 -25407682.86 0.0089 0.0056
 Mercury -74276-10-18 14:08 J -25407595.00 -25407594.91 -25407594.81 0.0089 0.0061
 Mercury -74275-01-14 15:20 J -25407506.93 -25407506.86 -25407506.76 0.0089 0.0066
 Mercury -74275-04-12 16:47 J -25407418.87 -25407418.80 -25407418.71 0.0089 0.0071
 Earth -74275-04-19 02:23 J -25407412.64 -25407412.40 -25407412.15 0.0089 0.0023
 Moon -74275-04-19 05:44 J -25407412.50 -25407412.26 -25407412.01 0.0089 0.0022 *
 Mercury -74275-07-09 18:13 J -25407330.80 -25407330.74 -25407330.67 0.0089 0.0075
 Mercury -74275-10-05 19:25 J -25407242.74 -25407242.69 -25407242.63 0.0089 0.0080
 Mercury -74274-01-01 20:37 J -25407154.66 -25407154.64 -25407154.59 0.0089 0.0085
 Moon -74274-04-21 08:23 J -25407045.39 -25407045.15 -25407044.90 0.0089 0.0013
 Earth -74274-04-21 11:59 J -25407045.25 -25407045.00 -25407044.75 0.0089 0.0010 *
 Earth -74273-04-22 21:06 J -25406677.87 -25406677.62 -25406677.36 0.0089 0.0003
 Moon -74273-04-22 23:59 J -25406677.76 -25406677.50 -25406677.24 0.0089 0.0004 *
 Moon -74272-04-25 04:18 J -25406310.56 -25406310.32 -25406310.07 0.0089 0.0014
 Earth -74272-04-25 06:28 J -25406310.47 -25406310.23 -25406309.98 0.0089 0.0015 *
 Earth -74271-04-27 15:35 J -25405943.08 -25405942.85 -25405942.60 0.0089 0.0028
 Moon -74271-04-27 16:32 J -25405943.05 -25405942.81 -25405942.56 0.0089 0.0029 *
 Earth -74270-04-30 00:56 J -25405575.68 -25405575.46 -25405575.24 0.0089 0.0040
 Moon -74270-04-30 01:11 J -25405575.65 -25405575.45 -25405575.21 0.0089 0.0039 *
 Moon -74269-05-01 08:23 J -25405208.35 -25405208.15 -25405207.94 0.0089 0.0054
 Earth -74269-05-01 09:49 J -25405208.28 -25405208.09 -25405207.88 0.0089 0.0053 *
 Earth -74268-05-03 19:11 J -25404840.86 -25404840.70 -25404840.53 0.0089 0.0065
 Moon -74268-05-03 21:35 J -25404840.75 -25404840.60 -25404840.41 0.0089 0.0064 *
 Moon -74267-05-06 00:42 J -25404473.56 -25404473.47 -25404473.34 0.0089 0.0080
 Earth -74267-05-06 04:04 J -25404473.43 -25404473.33 -25404473.19 0.0089 0.0078 *
 Mars -74261-12-17 04:04 J -25402056.60 -25402056.33 -25402056.03 0.0089 0.0028
 Mars -74259-11-11 08:52 J -25401362.36 -25401362.13 -25401361.85 0.0089 0.0048
 Venus -74222-12-12 05:01 J -25387817.31 -25387817.29 -25387817.21 0.0089 0.0087

Venus -74221-07-24 18:42 J -25387591.84 -25387591.72 -25387591.55 0.0089 0.0067

Venus -74220-03-07 08:37 J -25387366.32 -25387366.14 -25387365.94 0.0089 0.0047

Venus -74220-10-18 22:18 J -25387140.77 -25387140.57 -25387140.34 0.0089 0.0027

Venus -74219-06-01 12:28 J -25386915.20 -25386914.98 -25386914.76 0.0089 0.0006

Venus -74218-01-13 02:08 J -25386689.63 -25386689.41 -25386689.19 0.0089 0.0014

Venus -74218-08-26 15:35 J -25386464.05 -25386463.85 -25386463.63 0.0089 0.0034

Venus -74217-04-08 05:16 J -25386238.45 -25386238.28 -25386238.09 0.0089 0.0054

Venus -74217-11-19 19:11 J -25386012.81 -25386012.70 -25386012.57 0.0089 0.0074

Mercury -74200-10-12 00:28 J -25379842.53 -25379842.48 -25379842.39 0.0088 0.0083

Mercury -74199-01-08 04:18 J -25379754.40 -25379754.32 -25379754.20 0.0088 0.0076

Mercury -74199-04-06 08:08 J -25379666.27 -25379666.16 -25379666.02 0.0088 0.0068

Mercury -74199-07-03 11:44 J -25379578.13 -25379578.01 -25379577.85 0.0088 0.0062

Mercury -74199-09-29 15:35 J -25379489.99 -25379489.85 -25379489.68 0.0088 0.0055

Moon -74199-10-03 20:23 J -25379485.67 -25379485.65 -25379485.61 0.0088 0.0088

Mercury -74199-12-26 19:25 J -25379401.84 -25379401.69 -25379401.51 0.0088 0.0047

Mercury -74198-03-24 23:01 J -25379313.70 -25379313.54 -25379313.34 0.0088 0.0041

Mercury -74198-06-21 02:52 J -25379225.55 -25379225.38 -25379225.18 0.0088 0.0034

Mercury -74198-09-17 06:42 J -25379137.40 -25379137.22 -25379137.02 0.0088 0.0026

Earth -74198-10-06 11:16 J -25379118.11 -25379118.03 -25379117.89 0.0088 0.0080

Moon -74198-10-06 13:25 J -25379118.00 -25379117.94 -25379117.84 0.0088 0.0084 *

Mercury -74198-12-14 10:32 J -25379049.25 -25379049.06 -25379048.86 0.0088 0.0019

Mercury -74197-03-11 14:23 J -25378961.09 -25378960.90 -25378960.70 0.0088 0.0012

Mercury -74197-06-07 17:59 J -25378872.94 -25378872.75 -25378872.55 0.0088 0.0006

Mercury -74197-09-03 21:49 J -25378784.78 -25378784.59 -25378784.39 0.0088 0.0002

Moon -74197-10-07 22:47 J -25378750.73 -25378750.55 -25378750.35 0.0088 0.0062

Earth -74197-10-08 01:25 J -25378750.59 -25378750.44 -25378750.25 0.0088 0.0067 *

Mercury -74197-12-01 01:25 J -25378696.63 -25378696.44 -25378696.24 0.0088 0.0010

Mercury -74196-02-27 05:01 J -25378608.47 -25378608.29 -25378608.08 0.0088 0.0017

Mercury -74196-05-26 08:52 J -25378520.31 -25378520.13 -25378519.93 0.0088 0.0023

Mercury -74196-08-22 12:28 J -25378432.15 -25378431.98 -25378431.78 0.0088 0.0030

Earth -74196-10-10 15:35 J -25378383.05 -25378382.85 -25378382.63 0.0088 0.0054
 Moon -74196-10-10 18:56 J -25378382.88 -25378382.71 -25378382.49 0.0088 0.0059 *
 Mercury -74196-11-18 16:04 J -25378343.99 -25378343.83 -25378343.64 0.0088 0.0038
 Mercury -74195-02-14 20:08 J -25378255.83 -25378255.66 -25378255.49 0.0088 0.0044
 Mercury -74195-05-13 23:44 J -25378167.67 -25378167.51 -25378167.35 0.0088 0.0051
 Mercury -74195-08-10 03:20 J -25378079.50 -25378079.36 -25378079.20 0.0088 0.0058
 Moon -74195-10-13 01:54 J -25378015.64 -25378015.42 -25378015.16 0.0088 0.0037
 Earth -74195-10-13 05:44 J -25378015.49 -25378015.26 -25378015.02 0.0088 0.0041 *
 Mercury -74195-11-06 06:56 J -25377991.33 -25377991.21 -25377991.07 0.0088 0.0065
 Mercury -74194-02-02 10:32 J -25377903.16 -25377903.06 -25377902.93 0.0088 0.0072
 Mercury -74194-05-01 14:08 J -25377814.98 -25377814.91 -25377814.80 0.0088 0.0079
 Mercury -74194-07-28 17:44 J -25377726.79 -25377726.76 -25377726.69 0.0088 0.0086
 Earth -74194-10-15 19:40 J -25377647.93 -25377647.68 -25377647.43 0.0088 0.0028
 Moon -74194-10-15 23:16 J -25377647.77 -25377647.53 -25377647.28 0.0088 0.0033 *
 Moon -74193-10-17 06:56 J -25377280.46 -25377280.21 -25377279.95 0.0088 0.0011
 Earth -74193-10-17 09:49 J -25377280.35 -25377280.09 -25377279.83 0.0088 0.0015 *
 Earth -74192-10-19 23:30 J -25376912.78 -25376912.52 -25376912.25 0.0088 0.0002
 Moon -74192-10-20 01:25 J -25376912.70 -25376912.44 -25376912.16 0.0088 0.0007 *
 Moon -74191-10-22 12:13 J -25376545.23 -25376544.99 -25376544.72 0.0088 0.0017
 Earth -74191-10-22 13:25 J -25376545.19 -25376544.94 -25376544.67 0.0088 0.0012 *
 Moon -74190-10-25 02:37 J -25376177.64 -25376177.39 -25376177.10 0.0088 0.0021
 Earth -74190-10-25 03:35 J -25376177.60 -25376177.35 -25376177.09 0.0088 0.0025 *
 Earth -74189-10-26 17:30 J -25375810.00 -25375809.77 -25375809.52 0.0088 0.0038
 Moon -74189-10-26 18:56 J -25375809.93 -25375809.71 -25375809.48 0.0088 0.0042 *
 Moon -74188-10-29 05:30 J -25375442.50 -25375442.27 -25375442.04 0.0088 0.0046
 Earth -74188-10-29 07:40 J -25375442.38 -25375442.18 -25375441.95 0.0088 0.0051 *
 Earth -74187-10-31 21:49 J -25375074.76 -25375074.59 -25375074.39 0.0088 0.0064
 Moon -74187-11-01 00:56 J -25375074.60 -25375074.46 -25375074.27 0.0088 0.0068 *
 Moon -74186-11-03 08:23 J -25374707.28 -25374707.15 -25374706.97 0.0088 0.0072
 Earth -74186-11-03 11:59 J -25374707.11 -25374707.00 -25374706.85 0.0088 0.0077 *

Mars	-74179-11-26 10:47 J	-25372127.33	-25372127.05	-25372126.73	0.0088	0.0036
Mars	-74177-10-21 20:23 J	-25371431.91	-25371431.65	-25371431.35	0.0088	0.0046
Venus	-74139-09-13 15:20 J	-25357590.91	-25357590.86	-25357590.77	0.0088	0.0084
Venus	-74138-04-27 03:35 J	-25357365.47	-25357365.35	-25357365.18	0.0088	0.0065
Venus	-74138-12-08 16:32 J	-25357139.99	-25357139.81	-25357139.62	0.0088	0.0045
Venus	-74137-07-21 04:47 J	-25356914.51	-25356914.30	-25356914.09	0.0088	0.0026
Venus	-74136-03-03 17:01 J	-25356689.01	-25356688.79	-25356688.58	0.0088	0.0006
Venus	-74136-10-15 05:01 J	-25356463.50	-25356463.29	-25356463.07	0.0088	0.0013
Venus	-74135-05-28 17:01 J	-25356237.98	-25356237.79	-25356237.58	0.0088	0.0032
Venus	-74134-01-09 05:16 J	-25356012.44	-25356012.28	-25356012.09	0.0088	0.0051
Venus	-74134-08-22 17:16 J	-25355786.89	-25355786.78	-25355786.63	0.0088	0.0071
Mercury	-74118-01-23 20:37 J	-25350153.67	-25350153.64	-25350153.61	0.0089	0.0086
Mercury	-74118-04-21 21:35 J	-25350065.63	-25350065.60	-25350065.53	0.0089	0.0082
Mercury	-74118-07-18 23:01 J	-25349977.59	-25349977.54	-25349977.47	0.0089	0.0077
Mercury	-74118-10-15 00:28 J	-25349889.55	-25349889.48	-25349889.40	0.0089	0.0072
Mercury	-74117-01-11 01:54 J	-25349801.51	-25349801.42	-25349801.34	0.0089	0.0067
Mercury	-74117-04-08 02:52 J	-25349713.46	-25349713.38	-25349713.28	0.0089	0.0063
Mercury	-74117-07-05 04:18 J	-25349625.41	-25349625.32	-25349625.22	0.0089	0.0058
Mercury	-74117-10-01 05:44 J	-25349537.36	-25349537.26	-25349537.16	0.0089	0.0053
Mercury	-74117-12-28 06:56 J	-25349449.32	-25349449.21	-25349449.10	0.0089	0.0049
Mercury	-74116-03-26 08:08 J	-25349361.27	-25349361.16	-25349361.04	0.0089	0.0044
Moon	-74116-04-07 08:52 J	-25349349.17	-25349349.13	-25349349.07	0.0089	0.0086
Mercury	-74116-06-22 09:35 J	-25349273.22	-25349273.10	-25349272.98	0.0089	0.0039
Mercury	-74116-09-18 10:47 J	-25349185.17	-25349185.05	-25349184.92	0.0089	0.0035
Mercury	-74116-12-15 12:13 J	-25349097.11	-25349096.99	-25349096.87	0.0089	0.0030
Mercury	-74115-03-13 13:25 J	-25349009.06	-25349008.94	-25349008.81	0.0089	0.0025
Moon	-74115-04-09 16:04 J	-25348981.92	-25348981.83	-25348981.71	0.0089	0.0081
Earth	-74115-04-09 17:59 J	-25348981.85	-25348981.75	-25348981.61	0.0089	0.0078 *
Mercury	-74115-06-09 14:52 J	-25348921.01	-25348920.88	-25348920.75	0.0089	0.0020
Mercury	-74115-09-05 16:04 J	-25348832.96	-25348832.83	-25348832.70	0.0089	0.0016

Mercury -74115-12-02 17:30 J -25348744.90 -25348744.77 -25348744.64 0.0089 0.0011
 Mercury -74114-02-28 18:42 J -25348656.85 -25348656.72 -25348656.59 0.0089 0.0006
 Earth -74114-04-12 03:20 J -25348614.51 -25348614.36 -25348614.17 0.0089 0.0066
 Moon -74114-04-12 05:59 J -25348614.41 -25348614.25 -25348614.06 0.0089 0.0062 *
 Mercury -74114-05-27 19:54 J -25348568.80 -25348568.67 -25348568.53 0.0089 0.0003
 Mercury -74114-08-23 21:20 J -25348480.74 -25348480.61 -25348480.48 0.0089 0.0004
 Mercury -74114-11-19 22:32 J -25348392.69 -25348392.56 -25348392.43 0.0089 0.0008
 Mercury -74113-02-15 23:59 J -25348304.63 -25348304.50 -25348304.37 0.0089 0.0013
 Moon -74113-04-13 09:49 J -25348247.28 -25348247.09 -25348246.90 0.0089 0.0057
 Earth -74113-04-13 12:56 J -25348247.15 -25348246.96 -25348246.75 0.0089 0.0053 *
 Mercury -74113-05-14 01:11 J -25348216.58 -25348216.45 -25348216.32 0.0089 0.0018
 Mercury -74113-08-10 02:23 J -25348128.52 -25348128.40 -25348128.27 0.0089 0.0023
 Mercury -74113-11-06 03:49 J -25348040.47 -25348040.34 -25348040.21 0.0089 0.0027
 Mercury -74112-02-02 05:01 J -25347952.41 -25347952.29 -25347952.16 0.0089 0.0032
 Earth -74112-04-15 22:04 J -25347879.78 -25347879.58 -25347879.34 0.0089 0.0041
 Moon -74112-04-16 01:54 J -25347879.64 -25347879.42 -25347879.18 0.0089 0.0037 *
 Mercury -74112-05-01 06:13 J -25347864.35 -25347864.24 -25347864.11 0.0089 0.0037
 Mercury -74112-07-28 07:40 J -25347776.29 -25347776.18 -25347776.06 0.0089 0.0042
 Mercury -74112-10-24 09:06 J -25347688.23 -25347688.12 -25347688.01 0.0089 0.0046
 Mercury -74111-01-20 10:18 J -25347600.17 -25347600.07 -25347599.96 0.0089 0.0051
 Moon -74111-04-18 04:47 J -25347512.53 -25347512.30 -25347512.06 0.0089 0.0032
 Earth -74111-04-18 07:54 J -25347512.40 -25347512.17 -25347511.93 0.0089 0.0028 *
 Mercury -74111-04-18 11:30 J -25347512.11 -25347512.02 -25347511.91 0.0089 0.0056 *
 Mercury -74111-07-15 12:42 J -25347424.05 -25347423.97 -25347423.86 0.0089 0.0061
 Mercury -74111-10-11 14:23 J -25347335.99 -25347335.90 -25347335.81 0.0089 0.0065
 Mercury -74110-01-07 15:35 J -25347247.92 -25347247.85 -25347247.77 0.0089 0.0070
 Mercury -74110-04-05 16:47 J -25347159.86 -25347159.80 -25347159.72 0.0089 0.0075
 Earth -74110-04-20 17:01 J -25347145.03 -25347144.79 -25347144.53 0.0089 0.0016
 Moon -74110-04-20 20:08 J -25347144.92 -25347144.66 -25347144.41 0.0089 0.0011 *
 Mercury -74110-07-02 17:59 J -25347071.79 -25347071.75 -25347071.68 0.0089 0.0080

Mercury -74110-09-28 19:40 J -25346983.72 -25346983.68 -25346983.64 0.0089 0.0084
 Moon -74109-04-22 01:25 J -25346777.68 -25346777.44 -25346777.19 0.0089 0.0007
 Earth -74109-04-22 02:37 J -25346777.64 -25346777.39 -25346777.13 0.0089 0.0004 *
 Earth -74108-04-24 11:59 J -25346410.24 -25346410.00 -25346409.74 0.0089 0.0010
 Moon -74108-04-24 12:28 J -25346410.24 -25346409.98 -25346409.72 0.0089 0.0013 *
 Earth -74107-04-26 21:20 J -25346042.85 -25346042.61 -25346042.36 0.0089 0.0022
 Moon -74107-04-26 22:04 J -25346042.81 -25346042.58 -25346042.33 0.0089 0.0018 *
 Moon -74106-04-29 03:49 J -25345675.56 -25345675.34 -25345675.09 0.0089 0.0038
 Earth -74106-04-29 06:13 J -25345675.45 -25345675.24 -25345674.99 0.0089 0.0035 *
 Earth -74105-04-30 15:35 J -25345308.05 -25345307.85 -25345307.63 0.0089 0.0047
 Moon -74105-04-30 18:28 J -25345307.93 -25345307.73 -25345307.50 0.0089 0.0043 *
 Moon -74104-05-02 20:52 J -25344940.78 -25344940.63 -25344940.43 0.0089 0.0064
 Earth -74104-05-03 00:56 J -25344940.64 -25344940.46 -25344940.27 0.0089 0.0059 *
 Earth -74103-05-05 09:35 J -25344573.22 -25344573.10 -25344572.92 0.0089 0.0072
 Moon -74103-05-05 13:40 J -25344573.09 -25344572.93 -25344572.76 0.0089 0.0067 *
 Moon -74102-05-07 16:04 J -25344205.84 -25344205.83 -25344205.77 0.0089 0.0088
 Earth -74102-05-07 18:42 J -25344205.77 -25344205.72 -25344205.61 0.0089 0.0084 *
 Mars -74097-07-31 22:32 J -25342293.75 -25342293.56 -25342293.34 0.0089 0.0064
 Mars -74095-06-26 01:54 J -25341599.71 -25341599.42 -25341599.11 0.0089 0.0011
 Mars -74093-05-20 07:25 J -25340905.25 -25340905.19 -25340905.12 0.0089 0.0087
 Jupiter -74072-12-22 00:13 J -25333020.03 -25333019.49 -25333018.94 0.0089 0.0005
 Venus -74057-10-26 02:08 J -25327597.51 -25327597.41 -25327597.30 0.0089 0.0077
 Venus -74056-06-08 15:49 J -25327372.00 -25327371.84 -25327371.66 0.0089 0.0057
 Venus -74055-01-20 05:30 J -25327146.46 -25327146.27 -25327146.06 0.0089 0.0037
 Venus -74055-09-02 19:11 J -25326920.91 -25326920.70 -25326920.47 0.0089 0.0017
 Venus -74054-04-16 09:06 J -25326695.34 -25326695.12 -25326694.89 0.0089 0.0003
 Venus -74054-11-27 22:32 J -25326469.76 -25326469.56 -25326469.33 0.0089 0.0024
 Venus -74053-07-10 12:28 J -25326244.16 -25326243.98 -25326243.77 0.0089 0.0044
 Venus -74052-02-21 02:08 J -25326018.55 -25326018.41 -25326018.24 0.0089 0.0064
 Venus -74052-10-04 16:04 J -25325792.89 -25325792.83 -25325792.75 0.0089 0.0084

Mercury -74035-07-08 21:20 J -25319671.66 -25319671.61 -25319671.52 0.0089 0.0083

Mercury -74035-10-05 01:11 J -25319583.53 -25319583.45 -25319583.33 0.0088 0.0076

Mercury -74034-01-01 05:01 J -25319495.40 -25319495.29 -25319495.15 0.0088 0.0069

Mercury -74034-03-30 08:52 J -25319407.26 -25319407.13 -25319406.98 0.0088 0.0062

Mercury -74034-06-26 12:28 J -25319319.12 -25319318.98 -25319318.81 0.0088 0.0055

Mercury -74034-09-22 16:18 J -25319230.97 -25319230.82 -25319230.64 0.0088 0.0048

Moon -74034-10-05 10:32 J -25319218.10 -25319218.06 -25319217.97 0.0088 0.0086

Earth -74034-10-05 14:37 J -25319217.98 -25319217.89 -25319217.80 0.0088 0.0083 *

Mercury -74034-12-19 20:08 J -25319142.83 -25319142.66 -25319142.48 0.0088 0.0040

Mercury -74033-03-16 23:44 J -25319054.68 -25319054.51 -25319054.31 0.0088 0.0034

Mercury -74033-06-13 03:35 J -25318966.53 -25318966.35 -25318966.15 0.0088 0.0027

Mercury -74033-09-09 07:25 J -25318878.38 -25318878.19 -25318877.99 0.0088 0.0019

Earth -74033-10-07 04:04 J -25318850.47 -25318850.33 -25318850.16 0.0088 0.0071

Moon -74033-10-07 07:25 J -25318850.33 -25318850.19 -25318850.00 0.0088 0.0070 *

Mercury -74033-12-06 11:16 J -25318790.22 -25318790.03 -25318789.83 0.0088 0.0012

Mercury -74032-03-04 14:52 J -25318702.07 -25318701.88 -25318701.68 0.0088 0.0006

Mercury -74032-05-31 18:42 J -25318613.92 -25318613.72 -25318613.52 0.0088 0.0002

Mercury -74032-08-27 22:18 J -25318525.76 -25318525.57 -25318525.37 0.0088 0.0009

Moon -74032-10-09 14:23 J -25318483.08 -25318482.90 -25318482.69 0.0088 0.0060

Earth -74032-10-09 18:13 J -25318482.93 -25318482.74 -25318482.53 0.0088 0.0058 *

Mercury -74032-11-24 02:08 J -25318437.60 -25318437.41 -25318437.21 0.0088 0.0016

Mercury -74031-02-20 05:59 J -25318349.44 -25318349.25 -25318349.06 0.0088 0.0023

Mercury -74031-05-19 09:35 J -25318261.28 -25318261.10 -25318260.91 0.0088 0.0030

Mercury -74031-08-15 13:11 J -25318173.12 -25318172.95 -25318172.77 0.0088 0.0037

Earth -74031-10-12 07:54 J -25318115.38 -25318115.17 -25318114.92 0.0088 0.0046

Moon -74031-10-12 11:16 J -25318115.26 -25318115.03 -25318114.79 0.0088 0.0044 *

Mercury -74031-11-11 17:01 J -25318084.96 -25318084.79 -25318084.62 0.0088 0.0044

Mercury -74030-02-07 20:37 J -25317996.80 -25317996.64 -25317996.48 0.0088 0.0051

Mercury -74030-05-07 00:13 J -25317908.63 -25317908.49 -25317908.33 0.0088 0.0058

Mercury -74030-08-03 03:49 J -25317820.46 -25317820.34 -25317820.19 0.0088 0.0065

Moon -74030-10-14 19:54 J -25317747.90 -25317747.67 -25317747.43 0.0088 0.0033
 Earth -74030-10-14 22:04 J -25317747.81 -25317747.58 -25317747.32 0.0088 0.0033 *
 Mercury -74030-10-30 07:25 J -25317732.29 -25317732.19 -25317732.06 0.0088 0.0072
 Mercury -74029-01-26 11:01 J -25317644.11 -25317644.04 -25317643.93 0.0088 0.0079
 Mercury -74029-04-23 14:37 J -25317555.92 -25317555.89 -25317555.82 0.0088 0.0086
 Earth -74029-10-16 11:59 J -25317380.25 -25317380.00 -25317379.73 0.0088 0.0020
 Moon -74029-10-16 13:11 J -25317380.21 -25317379.95 -25317379.67 0.0088 0.0019 *
 Earth -74028-10-19 02:08 J -25317012.67 -25317012.41 -25317012.14 0.0088 0.0007
 Moon -74028-10-19 02:23 J -25317012.65 -25317012.40 -25317012.14 0.0088 0.0007 *
 Moon -74027-10-21 15:20 J -25316645.13 -25316644.86 -25316644.58 0.0088 0.0006
 Earth -74027-10-21 16:18 J -25316645.08 -25316644.82 -25316644.56 0.0088 0.0006 *
 Earth -74026-10-24 05:59 J -25316277.50 -25316277.25 -25316276.98 0.0088 0.0019
 Moon -74026-10-24 08:37 J -25316277.39 -25316277.14 -25316276.89 0.0088 0.0019 *
 Moon -74025-10-25 16:47 J -25315910.04 -25315909.80 -25315909.54 0.0088 0.0033
 Earth -74025-10-25 19:54 J -25315909.90 -25315909.67 -25315909.41 0.0088 0.0032 *
 Earth -74024-10-28 10:04 J -25315542.30 -25315542.08 -25315541.85 0.0088 0.0045
 Moon -74024-10-28 13:40 J -25315542.15 -25315541.93 -25315541.71 0.0088 0.0046 *
 Moon -74023-10-30 20:08 J -25315174.84 -25315174.66 -25315174.44 0.0088 0.0058
 Earth -74023-10-31 00:13 J -25315174.68 -25315174.49 -25315174.28 0.0088 0.0058 *
 Earth -74022-11-02 13:54 J -25314807.05 -25314806.92 -25314806.73 0.0088 0.0071
 Moon -74022-11-02 17:16 J -25314806.91 -25314806.78 -25314806.59 0.0088 0.0071 *
 Moon -74021-11-04 01:11 J -25314439.52 -25314439.45 -25314439.32 0.0088 0.0082
 Earth -74021-11-04 04:32 J -25314439.39 -25314439.31 -25314439.21 0.0088 0.0083 *
 Mars -74015-07-10 05:01 J -25312365.44 -25312365.29 -25312365.08 0.0088 0.0074
 Mars -74013-06-04 16:47 J -25311670.12 -25311669.80 -25311669.47 0.0088 0.0007
 Mars -74011-05-01 00:28 J -25310974.49 -25310974.48 -25310974.38 0.0088 0.0088

74TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 74th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-73974-07-29 12:28 J	-25297371.08	-25297370.98	-25297370.85	0.0088	0.0075		
Venus	-73973-03-11 00:28 J	-25297145.63	-25297145.48	-25297145.29	0.0088	0.0056		
Venus	-73973-10-22 12:42 J	-25296920.15	-25296919.97	-25296919.75	0.0088	0.0037		
Venus	-73972-06-05 01:25 J	-25296694.66	-25296694.44	-25296694.23	0.0088	0.0017		
Venus	-73971-01-16 13:40 J	-25296469.15	-25296468.93	-25296468.72	0.0088	0.0003		
Venus	-73971-08-30 01:40 J	-25296243.64	-25296243.43	-25296243.22	0.0088	0.0022		
Venus	-73970-04-12 13:54 J	-25296018.11	-25296017.92	-25296017.73	0.0088	0.0041		
Venus	-73970-11-24 01:40 J	-25295792.57	-25295792.43	-25295792.25	0.0088	0.0061		
Venus	-73969-07-06 13:40 J	-25295567.00	-25295566.93	-25295566.81	0.0088	0.0080		
Mercury	-73954-10-20 19:11 J	-25289982.71	-25289982.70	-25289982.66	0.0089	0.0087		
Mercury	-73953-01-16 20:37 J	-25289894.68	-25289894.64	-25289894.58	0.0089	0.0082		
Mercury	-73953-04-13 22:04 J	-25289806.64	-25289806.58	-25289806.51	0.0089	0.0077		
Mercury	-73953-07-10 23:01 J	-25289718.60	-25289718.54	-25289718.45	0.0089	0.0073		
Mercury	-73953-10-07 00:28 J	-25289630.55	-25289630.48	-25289630.39	0.0089	0.0068		
Mercury	-73952-01-03 01:54 J	-25289542.51	-25289542.42	-25289542.32	0.0089	0.0063		
Mercury	-73952-04-01 03:06 J	-25289454.46	-25289454.37	-25289454.26	0.0089	0.0059		
Mercury	-73952-06-28 04:32 J	-25289366.41	-25289366.31	-25289366.20	0.0089	0.0054		
Mercury	-73952-09-24 05:44 J	-25289278.36	-25289278.26	-25289278.14	0.0089	0.0049		
Mercury	-73952-12-21 07:11 J	-25289190.31	-25289190.20	-25289190.09	0.0089	0.0044		
Mercury	-73951-03-19 08:23 J	-25289102.26	-25289102.15	-25289102.03	0.0089	0.0040		
Earth	-73951-04-08 23:30 J	-25289081.59	-25289081.52	-25289081.39	0.0089	0.0082		

Moon -73951-04-09 02:37 J -25289081.43 -25289081.39 -25289081.29 0.0089 0.0085 *
 Mercury -73951-06-15 09:35 J -25289014.21 -25289014.10 -25289013.97 0.0089 0.0035
 Mercury -73951-09-11 11:01 J -25288926.16 -25288926.04 -25288925.91 0.0089 0.0030
 Mercury -73951-12-08 12:13 J -25288838.11 -25288837.99 -25288837.86 0.0089 0.0026
 Mercury -73950-03-06 13:40 J -25288750.06 -25288749.93 -25288749.80 0.0089 0.0021
 Moon -73950-04-11 05:59 J -25288714.41 -25288714.25 -25288714.07 0.0089 0.0066
 Earth -73950-04-11 09:06 J -25288714.25 -25288714.12 -25288713.94 0.0089 0.0070 *
 Mercury -73950-06-02 14:52 J -25288662.00 -25288661.88 -25288661.74 0.0089 0.0016
 Mercury -73950-08-29 16:18 J -25288573.95 -25288573.82 -25288573.69 0.0089 0.0011
 Mercury -73950-11-25 17:30 J -25288485.90 -25288485.77 -25288485.64 0.0089 0.0007
 Mercury -73949-02-21 18:56 J -25288397.84 -25288397.71 -25288397.58 0.0089 0.0002
 Earth -73949-04-12 18:28 J -25288346.89 -25288346.73 -25288346.51 0.0089 0.0058
 Moon -73949-04-12 22:04 J -25288346.74 -25288346.58 -25288346.37 0.0089 0.0060 *
 Mercury -73949-05-19 20:08 J -25288309.79 -25288309.66 -25288309.53 0.0089 0.0003
 Mercury -73949-08-15 21:35 J -25288221.74 -25288221.60 -25288221.47 0.0089 0.0008
 Mercury -73949-11-11 22:47 J -25288133.68 -25288133.55 -25288133.42 0.0089 0.0013
 Mercury -73948-02-07 23:59 J -25288045.62 -25288045.50 -25288045.37 0.0089 0.0018
 Moon -73948-04-15 01:40 J -25287979.65 -25287979.43 -25287979.21 0.0089 0.0042
 Earth -73948-04-15 04:32 J -25287979.52 -25287979.31 -25287979.09 0.0089 0.0045 *
 Mercury -73948-05-07 01:25 J -25287957.57 -25287957.44 -25287957.31 0.0089 0.0022
 Mercury -73948-08-03 02:37 J -25287869.51 -25287869.39 -25287869.26 0.0089 0.0027
 Mercury -73948-10-30 03:49 J -25287781.45 -25287781.34 -25287781.21 0.0089 0.0032
 Mercury -73947-01-26 05:01 J -25287693.40 -25287693.29 -25287693.16 0.0089 0.0037
 Earth -73947-04-17 13:40 J -25287612.15 -25287611.93 -25287611.68 0.0089 0.0033
 Moon -73947-04-17 15:35 J -25287612.07 -25287611.85 -25287611.60 0.0089 0.0036 *
 Mercury -73947-04-24 06:42 J -25287605.34 -25287605.22 -25287605.11 0.0089 0.0041
 Mercury -73947-07-21 07:54 J -25287517.28 -25287517.17 -25287517.06 0.0089 0.0046
 Mercury -73947-10-17 09:06 J -25287429.22 -25287429.12 -25287429.01 0.0089 0.0051
 Mercury -73946-01-13 10:18 J -25287341.16 -25287341.07 -25287340.96 0.0089 0.0056
 Mercury -73946-04-11 11:59 J -25287253.10 -25287253.00 -25287252.91 0.0089 0.0060

Moon -73946-04-19 21:49 J -25287244.82 -25287244.59 -25287244.34 0.0089 0.0019
 Earth -73946-04-19 23:01 J -25287244.77 -25287244.54 -25287244.28 0.0089 0.0021 *
 Mercury -73946-07-08 13:11 J -25287165.04 -25287164.95 -25287164.86 0.0089 0.0065
 Mercury -73946-10-04 14:23 J -25287076.97 -25287076.90 -25287076.81 0.0089 0.0070
 Mercury -73946-12-31 15:35 J -25286988.91 -25286988.85 -25286988.77 0.0089 0.0075
 Mercury -73945-03-28 17:16 J -25286900.84 -25286900.78 -25286900.73 0.0089 0.0079
 Moon -73945-04-21 08:23 J -25286877.41 -25286877.15 -25286876.89 0.0089 0.0011
 Earth -73945-04-21 08:52 J -25286877.38 -25286877.13 -25286876.88 0.0089 0.0008 *
 Mercury -73945-06-24 18:28 J -25286812.77 -25286812.73 -25286812.69 0.0089 0.0084
 Earth -73944-04-23 18:13 J -25286509.99 -25286509.74 -25286509.49 0.0089 0.0004
 Moon -73944-04-23 19:54 J -25286509.91 -25286509.67 -25286509.42 0.0089 0.0007 *
 Moon -73943-04-26 01:11 J -25286142.70 -25286142.45 -25286142.19 0.0089 0.0014
 Earth -73943-04-26 03:35 J -25286142.59 -25286142.35 -25286142.09 0.0089 0.0017 *
 Earth -73942-04-28 12:42 J -25285775.19 -25285774.97 -25285774.72 0.0089 0.0029
 Moon -73942-04-28 16:04 J -25285775.04 -25285774.83 -25285774.58 0.0089 0.0032 *
 Moon -73941-04-29 18:56 J -25285407.93 -25285407.71 -25285407.48 0.0089 0.0038
 Earth -73941-04-29 22:18 J -25285407.78 -25285407.57 -25285407.34 0.0089 0.0041 *
 Earth -73940-05-02 07:40 J -25285040.38 -25285040.18 -25285039.98 0.0089 0.0053
 Moon -73940-05-02 11:01 J -25285040.23 -25285040.04 -25285039.84 0.0089 0.0055 *
 Moon -73939-05-04 13:54 J -25284673.07 -25284672.92 -25284672.73 0.0089 0.0063
 Earth -73939-05-04 17:01 J -25284672.96 -25284672.79 -25284672.62 0.0089 0.0065 *
 Earth -73938-05-07 01:54 J -25284305.53 -25284305.42 -25284305.29 0.0089 0.0077
 Moon -73938-05-07 02:37 J -25284305.47 -25284305.39 -25284305.24 0.0089 0.0080 *
 Moon -73937-05-08 10:04 J -25283938.09 -25283938.08 -25283938.01 0.0089 0.0088
 Mars -73931-02-07 20:23 J -25281836.92 -25281836.65 -25281836.34 0.0089 0.0026
 Mars -73929-01-03 00:13 J -25281142.73 -25281142.49 -25281142.23 0.0089 0.0049
 Jupiter -73905-02-25 00:28 J -25272323.59 -25272323.48 -25272323.26 0.0089 0.0085
 Venus -73892-01-27 08:52 J -25267603.13 -25267603.13 -25267603.07 0.0089 0.0088
 Venus -73892-09-09 22:32 J -25267377.68 -25267377.56 -25267377.39 0.0089 0.0068
 Venus -73891-04-23 12:28 J -25267152.15 -25267151.98 -25267151.77 0.0089 0.0048

Venus -73891-12-05 02:37 J -25266926.60 -25266926.39 -25266926.18 0.0089 0.0027
 Venus -73890-07-18 16:18 J -25266701.04 -25266700.82 -25266700.59 0.0089 0.0007
 Venus -73889-02-29 05:59 J -25266475.47 -25266475.25 -25266475.02 0.0089 0.0013
 Venus -73889-10-11 19:25 J -25266249.88 -25266249.69 -25266249.46 0.0089 0.0034
 Venus -73888-05-25 09:20 J -25266024.27 -25266024.11 -25266023.92 0.0089 0.0054
 Venus -73887-01-05 23:16 J -25265798.64 -25265798.53 -25265798.40 0.0089 0.0074
 Mercury -73870-04-04 19:11 J -25259500.77 -25259500.70 -25259500.63 0.0089 0.0082
 Mercury -73870-07-01 22:18 J -25259412.65 -25259412.57 -25259412.44 0.0089 0.0076
 Mercury -73870-09-28 02:37 J -25259324.52 -25259324.39 -25259324.27 0.0089 0.0068
 Earth -73870-10-04 17:44 J -25259317.78 -25259317.76 -25259317.68 0.0089 0.0087
 Moon -73870-10-04 21:35 J -25259317.67 -25259317.60 -25259317.48 0.0089 0.0083
 Mercury -73870-12-25 06:13 J -25259236.38 -25259236.24 -25259236.09 0.0089 0.0061
 Mercury -73869-03-22 10:04 J -25259148.23 -25259148.08 -25259147.92 0.0088 0.0054
 Mercury -73869-06-18 13:54 J -25259060.09 -25259059.92 -25259059.76 0.0088 0.0047
 Mercury -73869-09-14 17:30 J -25258971.94 -25258971.77 -25258971.59 0.0088 0.0040
 Moon -73869-10-06 04:18 J -25258950.41 -25258950.32 -25258950.17 0.0088 0.0079
 Earth -73869-10-06 08:23 J -25258950.30 -25258950.15 -25258950.01 0.0088 0.0074 *
 Mercury -73869-12-11 21:20 J -25258883.79 -25258883.61 -25258883.43 0.0088 0.0033
 Mercury -73868-03-10 00:56 J -25258795.64 -25258795.46 -25258795.27 0.0088 0.0026
 Mercury -73868-06-06 04:47 J -25258707.49 -25258707.30 -25258707.11 0.0088 0.0019
 Mercury -73868-09-02 08:23 J -25258619.34 -25258619.15 -25258618.95 0.0088 0.0012
 Earth -73868-10-08 21:49 J -25258582.76 -25258582.59 -25258582.39 0.0088 0.0062
 Moon -73868-10-09 00:28 J -25258582.66 -25258582.48 -25258582.25 0.0088 0.0058 *
 Mercury -73868-11-29 12:13 J -25258531.19 -25258530.99 -25258530.79 0.0088 0.0005
 Mercury -73867-02-25 16:04 J -25258443.03 -25258442.83 -25258442.64 0.0088 0.0003
 Mercury -73867-05-24 19:40 J -25258354.87 -25258354.68 -25258354.48 0.0088 0.0009
 Mercury -73867-08-20 23:16 J -25258266.72 -25258266.53 -25258266.33 0.0088 0.0017
 Moon -73867-10-11 10:32 J -25258215.25 -25258215.06 -25258214.84 0.0088 0.0054
 Earth -73867-10-11 11:44 J -25258215.21 -25258215.01 -25258214.77 0.0088 0.0049 *
 Mercury -73867-11-17 03:06 J -25258178.56 -25258178.37 -25258178.18 0.0088 0.0023

Mercury -73866-02-13 06:42 J -25258090.40 -25258090.22 -25258090.03 0.0088 0.0031

Mercury -73866-05-12 10:18 J -25258002.24 -25258002.07 -25258001.88 0.0088 0.0038

Mercury -73866-08-08 14:08 J -25257914.07 -25257913.91 -25257913.73 0.0088 0.0044

Earth -73866-10-14 01:54 J -25257847.65 -25257847.42 -25257847.17 0.0088 0.0037

Moon -73866-10-14 02:23 J -25257847.65 -25257847.40 -25257847.14 0.0088 0.0033 *

Mercury -73866-11-04 17:44 J -25257825.91 -25257825.76 -25257825.59 0.0088 0.0052

Mercury -73865-01-31 21:20 J -25257737.74 -25257737.61 -25257737.45 0.0088 0.0059

Mercury -73865-04-29 00:56 J -25257649.57 -25257649.46 -25257649.31 0.0088 0.0066

Mercury -73865-07-26 04:32 J -25257561.40 -25257561.31 -25257561.18 0.0088 0.0073

Earth -73865-10-15 16:04 J -25257480.08 -25257479.83 -25257479.58 0.0088 0.0024

Moon -73865-10-15 16:18 J -25257480.05 -25257479.82 -25257479.56 0.0088 0.0029 *

Mercury -73865-10-22 08:23 J -25257473.22 -25257473.15 -25257473.05 0.0088 0.0079

Mercury -73864-01-18 11:59 J -25257385.02 -25257385.00 -25257384.94 0.0088 0.0086

Moon -73864-10-18 03:35 J -25257112.61 -25257112.35 -25257112.07 0.0088 0.0008

Earth -73864-10-18 05:59 J -25257112.51 -25257112.25 -25257111.98 0.0088 0.0011 *

Earth -73863-10-20 19:54 J -25256744.93 -25256744.67 -25256744.40 0.0088 0.0002

Moon -73863-10-20 22:32 J -25256744.82 -25256744.56 -25256744.30 0.0088 0.0003 *

Moon -73862-10-23 06:28 J -25256377.49 -25256377.23 -25256376.97 0.0088 0.0019

Earth -73862-10-23 09:49 J -25256377.34 -25256377.09 -25256376.82 0.0088 0.0014 *

Earth -73861-10-24 23:44 J -25256009.76 -25256009.51 -25256009.26 0.0088 0.0027

Moon -73861-10-25 03:06 J -25256009.61 -25256009.37 -25256009.10 0.0088 0.0023 *

Moon -73860-10-27 10:18 J -25255642.29 -25255642.07 -25255641.84 0.0088 0.0044

Earth -73860-10-27 13:25 J -25255642.16 -25255641.94 -25255641.68 0.0088 0.0040 *

Earth -73859-10-30 03:49 J -25255274.55 -25255274.34 -25255274.13 0.0088 0.0052

Moon -73859-10-30 06:28 J -25255274.43 -25255274.23 -25255273.98 0.0088 0.0048 *

Moon -73858-11-01 15:49 J -25254906.99 -25254906.84 -25254906.68 0.0088 0.0069

Earth -73858-11-01 17:16 J -25254906.94 -25254906.78 -25254906.58 0.0088 0.0065 *

Earth -73857-11-03 07:40 J -25254539.30 -25254539.18 -25254539.04 0.0088 0.0077

Moon -73857-11-03 08:52 J -25254539.27 -25254539.13 -25254538.96 0.0088 0.0073 *

Mars -73849-01-17 11:59 J -25251908.30 -25251908.00 -25251907.68 0.0088 0.0030

Mars	-73848-12-12 22:18 J	-25251212.83	-25251212.57	-25251212.29	0.0088	0.0050
Venus	-73810-10-30 21:06 J	-25237376.67	-25237376.62	-25237376.54	0.0088	0.0085
Venus	-73809-06-12 09:20 J	-25237151.24	-25237151.11	-25237150.95	0.0088	0.0066
Venus	-73808-01-23 21:35 J	-25236925.77	-25236925.60	-25236925.40	0.0088	0.0046
Venus	-73808-09-06 10:04 J	-25236700.28	-25236700.08	-25236699.87	0.0088	0.0027
Venus	-73807-04-19 22:18 J	-25236474.78	-25236474.57	-25236474.35	0.0088	0.0008
Venus	-73807-12-01 10:47 J	-25236249.27	-25236249.05	-25236248.84	0.0088	0.0012
Venus	-73806-07-14 22:32 J	-25236023.75	-25236023.56	-25236023.34	0.0088	0.0031
Venus	-73805-02-25 10:32 J	-25235798.22	-25235798.06	-25235797.86	0.0088	0.0051
Venus	-73805-10-07 22:47 J	-25235572.67	-25235572.55	-25235572.41	0.0088	0.0070
Mercury	-73789-07-16 18:13 J	-25229811.75	-25229811.74	-25229811.70	0.0089	0.0087
Mercury	-73789-10-12 19:40 J	-25229723.72	-25229723.68	-25229723.63	0.0089	0.0082
Mercury	-73788-01-08 20:52 J	-25229635.68	-25229635.63	-25229635.56	0.0089	0.0078
Mercury	-73788-04-06 22:18 J	-25229547.64	-25229547.57	-25229547.49	0.0089	0.0073
Mercury	-73788-07-03 23:30 J	-25229459.59	-25229459.52	-25229459.43	0.0089	0.0068
Mercury	-73788-09-30 00:56 J	-25229371.55	-25229371.46	-25229371.36	0.0089	0.0063
Mercury	-73788-12-27 02:08 J	-25229283.50	-25229283.41	-25229283.30	0.0089	0.0059
Mercury	-73787-03-25 03:35 J	-25229195.45	-25229195.35	-25229195.24	0.0089	0.0054
Moon	-73787-04-08 03:06 J	-25229181.46	-25229181.37	-25229181.26	0.0089	0.0081
Earth	-73787-04-08 06:28 J	-25229181.28	-25229181.23	-25229181.14	0.0089	0.0085 *
Mercury	-73787-06-21 04:47 J	-25229107.40	-25229107.30	-25229107.18	0.0089	0.0049
Mercury	-73787-09-17 06:13 J	-25229019.35	-25229019.24	-25229019.13	0.0089	0.0044
Mercury	-73787-12-14 07:25 J	-25228931.30	-25228931.19	-25228931.07	0.0089	0.0040
Mercury	-73786-03-12 08:37 J	-25228843.25	-25228843.14	-25228843.01	0.0089	0.0035
Earth	-73786-04-10 16:04 J	-25228813.95	-25228813.83	-25228813.67	0.0089	0.0073
Moon	-73786-04-10 19:25 J	-25228813.81	-25228813.69	-25228813.55	0.0089	0.0076 *
Mercury	-73786-06-08 10:04 J	-25228755.20	-25228755.08	-25228754.95	0.0089	0.0030
Mercury	-73786-09-04 11:16 J	-25228667.15	-25228667.03	-25228666.90	0.0089	0.0026
Mercury	-73786-12-01 12:42 J	-25228579.10	-25228578.97	-25228578.84	0.0089	0.0021
Mercury	-73785-02-27 13:54 J	-25228491.05	-25228490.92	-25228490.79	0.0089	0.0016

Moon -73785-04-11 23:01 J -25228446.71 -25228446.54 -25228446.34 0.0089 0.0058
 Earth -73785-04-12 01:54 J -25228446.59 -25228446.42 -25228446.23 0.0089 0.0061 *
 Mercury -73785-05-25 15:20 J -25228402.99 -25228402.86 -25228402.73 0.0089 0.0011
 Mercury -73785-08-21 16:32 J -25228314.94 -25228314.81 -25228314.68 0.0089 0.0007
 Mercury -73785-11-17 17:59 J -25228226.89 -25228226.75 -25228226.62 0.0089 0.0003
 Mercury -73784-02-13 19:11 J -25228138.83 -25228138.70 -25228138.57 0.0089 0.0003
 Earth -73784-04-14 11:16 J -25228079.23 -25228079.03 -25228078.82 0.0089 0.0049
 Moon -73784-04-14 12:56 J -25228079.15 -25228078.96 -25228078.73 0.0089 0.0053 *
 Mercury -73784-05-12 20:23 J -25228050.78 -25228050.65 -25228050.51 0.0089 0.0008
 Mercury -73784-08-08 21:49 J -25227962.72 -25227962.59 -25227962.46 0.0089 0.0013
 Mercury -73784-11-04 23:01 J -25227874.67 -25227874.54 -25227874.41 0.0089 0.0018
 Mercury -73783-02-01 00:28 J -25227786.61 -25227786.48 -25227786.35 0.0089 0.0022
 Earth -73783-04-16 20:37 J -25227711.86 -25227711.64 -25227711.40 0.0089 0.0037
 Moon -73783-04-16 20:37 J -25227711.86 -25227711.64 -25227711.41 0.0089 0.0034 *
 Mercury -73783-04-30 01:40 J -25227698.55 -25227698.43 -25227698.30 0.0089 0.0027
 Mercury -73783-07-27 02:52 J -25227610.50 -25227610.38 -25227610.25 0.0089 0.0032
 Mercury -73783-10-23 04:04 J -25227522.44 -25227522.33 -25227522.20 0.0089 0.0037
 Mercury -73782-01-19 05:30 J -25227434.38 -25227434.27 -25227434.15 0.0089 0.0041
 Mercury -73782-04-17 06:56 J -25227346.32 -25227346.21 -25227346.10 0.0089 0.0046
 Moon -73782-04-19 05:16 J -25227344.52 -25227344.28 -25227344.02 0.0089 0.0028
 Earth -73782-04-19 05:59 J -25227344.48 -25227344.25 -25227344.00 0.0089 0.0025 *
 Mercury -73782-07-14 08:08 J -25227258.26 -25227258.16 -25227258.05 0.0089 0.0051
 Mercury -73782-10-10 09:20 J -25227170.20 -25227170.11 -25227170.00 0.0089 0.0056
 Mercury -73781-01-06 10:47 J -25227082.14 -25227082.05 -25227081.95 0.0089 0.0060
 Mercury -73781-04-03 11:59 J -25226994.08 -25226994.00 -25226993.90 0.0089 0.0065
 Earth -73781-04-20 15:20 J -25226977.10 -25226976.86 -25226976.60 0.0089 0.0013
 Moon -73781-04-20 17:30 J -25226977.02 -25226976.77 -25226976.53 0.0089 0.0009 *
 Mercury -73781-06-30 13:11 J -25226906.02 -25226905.95 -25226905.86 0.0089 0.0070
 Mercury -73781-09-26 14:37 J -25226817.95 -25226817.89 -25226817.81 0.0089 0.0075
 Mercury -73781-12-23 16:04 J -25226729.88 -25226729.83 -25226729.77 0.0089 0.0079

Mercury -73780-03-21 17:16 J -25226641.81 -25226641.78 -25226641.73 0.0089 0.0084
 Moon -73780-04-22 21:35 J -25226609.85 -25226609.60 -25226609.34 0.0089 0.0004
 Earth -73780-04-23 00:56 J -25226609.71 -25226609.46 -25226609.21 0.0089 0.0001 *
 Earth -73779-04-25 09:49 J -25226242.33 -25226242.09 -25226241.83 0.0089 0.0012
 Moon -73779-04-25 13:11 J -25226242.19 -25226241.95 -25226241.70 0.0089 0.0015 *
 Moon -73778-04-27 15:49 J -25225875.08 -25225874.84 -25225874.59 0.0089 0.0020
 Earth -73778-04-27 19:25 J -25225874.92 -25225874.69 -25225874.44 0.0089 0.0024 *
 Earth -73777-04-29 04:47 J -25225507.52 -25225507.30 -25225507.06 0.0089 0.0036
 Moon -73777-04-29 07:40 J -25225507.40 -25225507.18 -25225506.94 0.0089 0.0039 *
 Moon -73776-05-01 12:13 J -25225140.20 -25225139.99 -25225139.77 0.0089 0.0044
 Earth -73776-05-01 14:08 J -25225140.11 -25225139.91 -25225139.68 0.0089 0.0048 *
 Earth -73775-05-03 23:16 J -25224772.69 -25224772.53 -25224772.32 0.0089 0.0060
 Moon -73775-05-04 00:56 J -25224772.64 -25224772.46 -25224772.27 0.0089 0.0063 *
 Earth -73774-05-06 08:37 J -25224405.26 -25224405.14 -25224404.97 0.0089 0.0072
 Moon -73774-05-06 09:06 J -25224405.25 -25224405.12 -25224404.94 0.0089 0.0069 *
 Moon -73773-05-07 16:47 J -25224037.85 -25224037.80 -25224037.73 0.0089 0.0086
 Earth -73773-05-07 18:13 J -25224037.81 -25224037.74 -25224037.64 0.0089 0.0083 *
 Mars -73768-09-22 17:16 J -25222073.96 -25222073.78 -25222073.53 0.0089 0.0061
 Mars -73766-08-17 19:25 J -25221379.98 -25221379.69 -25221379.39 0.0089 0.0013
 Mars -73764-07-11 23:59 J -25220685.52 -25220685.50 -25220685.44 0.0089 0.0088
 Venus -73728-12-12 06:13 J -25207383.32 -25207383.24 -25207383.10 0.0089 0.0078
 Venus -73727-07-25 20:37 J -25207157.81 -25207157.64 -25207157.47 0.0089 0.0057
 Venus -73726-03-08 10:04 J -25206932.27 -25206932.08 -25206931.87 0.0089 0.0037
 Venus -73726-10-19 23:59 J -25206706.72 -25206706.50 -25206706.28 0.0089 0.0017
 Venus -73725-06-01 13:54 J -25206481.14 -25206480.92 -25206480.69 0.0089 0.0004
 Venus -73724-01-13 03:35 J -25206255.56 -25206255.35 -25206255.13 0.0089 0.0024
 Venus -73724-08-26 17:16 J -25206029.97 -25206029.78 -25206029.58 0.0089 0.0044
 Venus -73723-04-09 06:42 J -25205804.35 -25205804.22 -25205804.04 0.0089 0.0065
 Venus -73723-11-20 20:23 J -25205578.69 -25205578.65 -25205578.56 0.0089 0.0085
 Mercury -73706-10-03 12:42 J -25199417.97 -25199417.97 -25199417.96 0.0089 0.0088

Moon -73706-10-03 19:25 J -25199417.72 -25199417.69 -25199417.61 0.0089 0.0087
 Mercury -73706-12-30 16:04 J -25199329.89 -25199329.83 -25199329.74 0.0089 0.0082
 Mercury -73705-03-27 19:54 J -25199241.76 -25199241.67 -25199241.55 0.0089 0.0075
 Mercury -73705-06-23 23:30 J -25199153.63 -25199153.52 -25199153.37 0.0089 0.0068
 Mercury -73705-09-20 03:20 J -25199065.49 -25199065.36 -25199065.20 0.0089 0.0061
 Earth -73705-10-05 11:59 J -25199050.10 -25199050.00 -25199049.85 0.0089 0.0078
 Moon -73705-10-05 13:54 J -25199050.02 -25199049.92 -25199049.78 0.0089 0.0080 *
 Mercury -73705-12-17 07:11 J -25198977.35 -25198977.20 -25198977.03 0.0089 0.0054
 Mercury -73704-03-15 10:47 J -25198889.20 -25198889.05 -25198888.87 0.0089 0.0047
 Mercury -73704-06-11 14:37 J -25198801.05 -25198800.89 -25198800.70 0.0089 0.0040
 Mercury -73704-09-07 18:28 J -25198712.91 -25198712.73 -25198712.54 0.0088 0.0032
 Moon -73704-10-08 00:42 J -25198682.62 -25198682.47 -25198682.27 0.0088 0.0064
 Earth -73704-10-08 01:40 J -25198682.57 -25198682.43 -25198682.22 0.0088 0.0066 *
 Mercury -73704-12-04 22:04 J -25198624.76 -25198624.58 -25198624.38 0.0088 0.0026
 Mercury -73703-03-03 01:54 J -25198536.60 -25198536.42 -25198536.22 0.0088 0.0019
 Mercury -73703-05-30 05:44 J -25198448.45 -25198448.26 -25198448.06 0.0088 0.0011
 Mercury -73703-08-26 09:35 J -25198360.30 -25198360.10 -25198359.90 0.0088 0.0004
 Moon -73703-10-10 15:06 J -25198315.06 -25198314.87 -25198314.63 0.0088 0.0056
 Earth -73703-10-10 15:49 J -25198315.03 -25198314.84 -25198314.61 0.0088 0.0053 *
 Mercury -73703-11-22 13:25 J -25198272.14 -25198271.94 -25198271.75 0.0088 0.0003
 Mercury -73702-02-18 17:01 J -25198183.98 -25198183.79 -25198183.59 0.0088 0.0010
 Mercury -73702-05-17 20:37 J -25198095.83 -25198095.64 -25198095.44 0.0088 0.0017
 Mercury -73702-08-14 00:13 J -25198007.67 -25198007.49 -25198007.29 0.0088 0.0025
 Earth -73702-10-13 05:44 J -25197947.48 -25197947.26 -25197947.01 0.0088 0.0041
 Moon -73702-10-13 07:25 J -25197947.40 -25197947.19 -25197946.95 0.0088 0.0039 *
 Mercury -73702-11-10 04:04 J -25197919.51 -25197919.33 -25197919.14 0.0088 0.0031
 Mercury -73701-02-06 07:40 J -25197831.34 -25197831.18 -25197830.99 0.0088 0.0039
 Mercury -73701-05-04 11:16 J -25197743.18 -25197743.03 -25197742.84 0.0088 0.0046
 Mercury -73701-07-31 15:06 J -25197655.02 -25197654.87 -25197654.70 0.0088 0.0052
 Moon -73701-10-14 17:44 J -25197580.01 -25197579.76 -25197579.50 0.0088 0.0030

Earth -73701-10-14 20:08 J -25197579.91 -25197579.66 -25197579.41 0.0088 0.0028 *
 Mercury -73701-10-27 18:42 J -25197566.85 -25197566.72 -25197566.56 0.0088 0.0060
 Mercury -73700-01-23 22:18 J -25197478.68 -25197478.57 -25197478.42 0.0088 0.0067
 Mercury -73700-04-22 01:54 J -25197390.50 -25197390.42 -25197390.29 0.0088 0.0074
 Mercury -73700-07-19 05:44 J -25197302.32 -25197302.26 -25197302.16 0.0088 0.0080
 Mercury -73700-10-15 09:20 J -25197214.12 -25197214.11 -25197214.06 0.0088 0.0087
 Earth -73700-10-17 10:04 J -25197212.33 -25197212.08 -25197211.81 0.0088 0.0016
 Moon -73700-10-17 13:40 J -25197212.19 -25197211.93 -25197211.67 0.0088 0.0014 *
 Moon -73699-10-19 20:52 J -25196844.89 -25196844.63 -25196844.37 0.0088 0.0005
 Earth -73699-10-20 00:28 J -25196844.75 -25196844.48 -25196844.22 0.0088 0.0003 *
 Earth -73698-10-22 14:08 J -25196477.17 -25196476.91 -25196476.64 0.0088 0.0010
 Moon -73698-10-22 17:44 J -25196477.01 -25196476.76 -25196476.48 0.0088 0.0011 *
 Moon -73697-10-24 01:11 J -25196109.70 -25196109.45 -25196109.19 0.0088 0.0020
 Earth -73697-10-24 04:32 J -25196109.57 -25196109.31 -25196109.06 0.0088 0.0022 *
 Earth -73696-10-26 17:59 J -25195741.97 -25195741.75 -25195741.49 0.0088 0.0035
 Moon -73696-10-26 20:52 J -25195741.88 -25195741.63 -25195741.38 0.0088 0.0035 *
 Moon -73695-10-29 06:28 J -25195374.44 -25195374.23 -25195374.01 0.0088 0.0047
 Earth -73695-10-29 08:08 J -25195374.37 -25195374.16 -25195373.92 0.0088 0.0047 *
 Earth -73694-10-31 22:18 J -25195006.76 -25195006.57 -25195006.37 0.0088 0.0059
 Moon -73694-10-31 22:04 J -25195006.76 -25195006.58 -25195006.36 0.0088 0.0060 *
 Earth -73693-11-02 11:44 J -25194639.14 -25194639.01 -25194638.83 0.0088 0.0072
 Moon -73693-11-02 12:42 J -25194639.09 -25194638.97 -25194638.79 0.0088 0.0071 *
 Moon -73692-11-05 00:28 J -25194271.56 -25194271.48 -25194271.37 0.0088 0.0083
 Earth -73692-11-05 01:54 J -25194271.48 -25194271.42 -25194271.31 0.0088 0.0084 *
 Mars -73686-08-31 07:54 J -25192146.36 -25192146.17 -25192145.93 0.0088 0.0068
 Mars -73684-07-26 21:49 J -25191450.90 -25191450.59 -25191450.25 0.0088 0.0014
 Venus -73645-09-13 18:56 J -25177156.81 -25177156.71 -25177156.58 0.0088 0.0075
 Venus -73644-04-27 07:11 J -25176931.35 -25176931.20 -25176931.02 0.0088 0.0055
 Venus -73644-12-08 19:54 J -25176705.87 -25176705.67 -25176705.47 0.0088 0.0036
 Venus -73643-07-22 07:54 J -25176480.38 -25176480.17 -25176479.95 0.0088 0.0017

Venus -73642-03-04 20:08 J -25176254.87 -25176254.66 -25176254.44 0.0088 0.0003
 Venus -73642-10-16 08:23 J -25176029.36 -25176029.15 -25176028.94 0.0088 0.0022
 Venus -73641-05-28 20:08 J -25175803.84 -25175803.66 -25175803.46 0.0088 0.0041
 Venus -73640-01-09 08:23 J -25175578.29 -25175578.15 -25175577.98 0.0088 0.0061
 Venus -73640-08-22 20:23 J -25175352.72 -25175352.65 -25175352.54 0.0088 0.0080
 Mercury -73624-04-12 17:30 J -25169640.79 -25169640.77 -25169640.74 0.0089 0.0087
 Mercury -73624-07-09 18:42 J -25169552.76 -25169552.72 -25169552.66 0.0089 0.0082
 Mercury -73624-10-05 20:08 J -25169464.72 -25169464.66 -25169464.59 0.0089 0.0077
 Mercury -73623-01-01 21:20 J -25169376.67 -25169376.61 -25169376.52 0.0089 0.0073
 Mercury -73623-03-30 22:47 J -25169288.63 -25169288.55 -25169288.46 0.0089 0.0068
 Earth -73623-04-07 13:54 J -25169280.93 -25169280.92 -25169280.86 0.0089 0.0088
 Moon -73623-04-07 17:16 J -25169280.83 -25169280.78 -25169280.68 0.0089 0.0085
 Mercury -73623-06-26 23:59 J -25169200.58 -25169200.50 -25169200.40 0.0089 0.0063
 Mercury -73623-09-23 01:25 J -25169112.53 -25169112.44 -25169112.34 0.0089 0.0058
 Mercury -73623-12-20 02:37 J -25169024.49 -25169024.39 -25169024.28 0.0089 0.0054
 Mercury -73622-03-18 04:04 J -25168936.44 -25168936.33 -25168936.22 0.0089 0.0049
 Moon -73622-04-09 21:49 J -25168913.68 -25168913.59 -25168913.47 0.0089 0.0080
 Earth -73622-04-09 23:59 J -25168913.61 -25168913.50 -25168913.35 0.0089 0.0076 *
 Mercury -73622-06-14 05:16 J -25168848.39 -25168848.28 -25168848.16 0.0089 0.0044
 Mercury -73622-09-10 06:42 J -25168760.34 -25168760.22 -25168760.10 0.0089 0.0039
 Mercury -73622-12-07 07:54 J -25168672.29 -25168672.17 -25168672.04 0.0089 0.0035
 Mercury -73621-03-04 09:20 J -25168584.23 -25168584.11 -25168583.99 0.0089 0.0030
 Earth -73621-04-11 09:20 J -25168546.26 -25168546.11 -25168545.91 0.0089 0.0065
 Moon -73621-04-11 11:01 J -25168546.22 -25168546.04 -25168545.85 0.0089 0.0061 *
 Mercury -73621-05-31 10:32 J -25168496.18 -25168496.06 -25168495.93 0.0089 0.0025
 Mercury -73621-08-27 11:59 J -25168408.13 -25168408.00 -25168407.87 0.0089 0.0020
 Mercury -73621-11-23 13:11 J -25168320.08 -25168319.95 -25168319.82 0.0089 0.0015
 Mercury -73620-02-19 14:23 J -25168232.03 -25168231.90 -25168231.76 0.0089 0.0011
 Moon -73620-04-13 18:42 J -25168178.89 -25168178.72 -25168178.51 0.0089 0.0056
 Earth -73620-04-13 18:56 J -25168178.89 -25168178.71 -25168178.49 0.0089 0.0053 *

Mercury -73620-05-18 15:49 J -25168143.97 -25168143.84 -25168143.71 0.0089 0.0006

Mercury -73620-08-14 17:01 J -25168055.92 -25168055.79 -25168055.65 0.0089 0.0002

Mercury -73620-11-10 18:28 J -25167967.86 -25167967.73 -25167967.60 0.0089 0.0004

Mercury -73619-02-06 19:40 J -25167879.81 -25167879.68 -25167879.55 0.0089 0.0009

Moon -73619-04-16 03:06 J -25167811.59 -25167811.37 -25167811.12 0.0089 0.0037

Earth -73619-04-16 04:32 J -25167811.52 -25167811.31 -25167811.07 0.0089 0.0041 *

Mercury -73619-05-05 20:52 J -25167791.75 -25167791.63 -25167791.49 0.0089 0.0014

Mercury -73619-08-01 22:18 J -25167703.70 -25167703.57 -25167703.44 0.0089 0.0018

Mercury -73619-10-28 23:30 J -25167615.64 -25167615.52 -25167615.39 0.0089 0.0023

Mercury -73618-01-25 00:42 J -25167527.59 -25167527.47 -25167527.34 0.0089 0.0028

Earth -73618-04-18 14:08 J -25167444.14 -25167443.91 -25167443.66 0.0089 0.0029

Moon -73618-04-18 16:18 J -25167444.03 -25167443.82 -25167443.58 0.0089 0.0033 *

Mercury -73618-04-23 02:08 J -25167439.53 -25167439.41 -25167439.28 0.0089 0.0032

Mercury -73618-07-20 03:35 J -25167351.47 -25167351.35 -25167351.23 0.0089 0.0037

Mercury -73618-10-16 04:47 J -25167263.41 -25167263.30 -25167263.18 0.0089 0.0042

Mercury -73617-01-12 05:59 J -25167175.35 -25167175.25 -25167175.13 0.0089 0.0047

Mercury -73617-04-09 07:11 J -25167087.29 -25167087.20 -25167087.08 0.0089 0.0052

Moon -73617-04-19 20:37 J -25167076.89 -25167076.64 -25167076.38 0.0089 0.0014

Earth -73617-04-19 23:44 J -25167076.76 -25167076.51 -25167076.26 0.0089 0.0017 *

Mercury -73617-07-06 08:37 J -25166999.23 -25166999.14 -25166999.03 0.0089 0.0056

Mercury -73617-10-02 09:49 J -25166911.17 -25166911.09 -25166910.98 0.0089 0.0061

Mercury -73617-12-29 11:16 J -25166823.11 -25166823.03 -25166822.94 0.0089 0.0066

Mercury -73616-03-27 12:28 J -25166735.05 -25166734.98 -25166734.89 0.0089 0.0071

Earth -73616-04-22 08:52 J -25166709.38 -25166709.13 -25166708.87 0.0089 0.0005

Moon -73616-04-22 12:28 J -25166709.22 -25166708.98 -25166708.72 0.0089 0.0009 *

Mercury -73616-06-23 13:54 J -25166646.98 -25166646.92 -25166646.85 0.0089 0.0075

Mercury -73616-09-19 15:06 J -25166558.91 -25166558.87 -25166558.80 0.0089 0.0080

Mercury -73616-12-16 16:18 J -25166470.84 -25166470.82 -25166470.77 0.0089 0.0085

Moon -73615-04-24 15:06 J -25166342.11 -25166341.87 -25166341.62 0.0089 0.0010

Earth -73615-04-24 18:13 J -25166341.98 -25166341.74 -25166341.48 0.0089 0.0007 *

Earth -73614-04-27 03:35 J -25165974.59 -25165974.35 -25165974.10 0.0089 0.0019
 Moon -73614-04-27 06:42 J -25165974.47 -25165974.22 -25165973.96 0.0089 0.0016 *
 Moon -73613-04-28 11:16 J -25165607.25 -25165607.03 -25165606.80 0.0089 0.0034
 Earth -73613-04-28 12:42 J -25165607.19 -25165606.97 -25165606.72 0.0089 0.0031 *
 Earth -73612-04-30 21:49 J -25165239.79 -25165239.59 -25165239.35 0.0089 0.0043
 Moon -73612-04-30 22:18 J -25165239.78 -25165239.57 -25165239.31 0.0089 0.0040 *
 Earth -73611-05-03 07:40 J -25164872.37 -25164872.18 -25164871.97 0.0089 0.0054
 Moon -73611-05-03 08:08 J -25164872.34 -25164872.16 -25164871.97 0.0089 0.0057 *
 Moon -73610-05-05 15:06 J -25164505.05 -25164504.87 -25164504.69 0.0089 0.0062
 Earth -73610-05-05 17:01 J -25164504.94 -25164504.79 -25164504.61 0.0089 0.0066 *
 Earth -73609-05-07 01:54 J -25164137.51 -25164137.42 -25164137.27 0.0089 0.0078
 Moon -73609-05-07 05:01 J -25164137.37 -25164137.29 -25164137.17 0.0089 0.0081 *
 Moon -73608-05-09 08:08 J -25163770.20 -25163770.16 -25163770.08 0.0089 0.0086
 Mars -73602-04-01 18:13 J -25161617.02 -25161616.74 -25161616.44 0.0089 0.0022
 Mars -73600-02-23 19:54 J -25160922.91 -25160922.67 -25160922.43 0.0089 0.0052
 Venus -73563-03-15 14:37 J -25147388.92 -25147388.89 -25147388.83 0.0089 0.0087
 Venus -73563-10-27 04:18 J -25147163.45 -25147163.32 -25147163.16 0.0089 0.0067
 Venus -73562-06-09 17:59 J -25146937.92 -25146937.75 -25146937.54 0.0089 0.0047
 Venus -73561-01-21 07:54 J -25146712.37 -25146712.17 -25146711.95 0.0089 0.0027
 Venus -73561-09-02 21:49 J -25146486.81 -25146486.59 -25146486.37 0.0089 0.0006
 Venus -73560-04-16 11:30 J -25146261.24 -25146261.02 -25146260.80 0.0089 0.0014
 Venus -73560-11-28 00:56 J -25146035.65 -25146035.46 -25146035.23 0.0089 0.0035
 Venus -73559-07-11 14:52 J -25145810.04 -25145809.88 -25145809.69 0.0089 0.0055
 Venus -73558-02-22 05:01 J -25145584.40 -25145584.29 -25145584.17 0.0089 0.0075
 Mercury -73541-06-29 10:04 J -25139247.09 -25139247.08 -25139247.03 0.0089 0.0088
 Mercury -73541-09-25 13:40 J -25139158.98 -25139158.93 -25139158.82 0.0089 0.0081
 Earth -73541-10-04 18:28 J -25139149.84 -25139149.73 -25139149.62 0.0089 0.0080
 Moon -73541-10-04 17:59 J -25139149.84 -25139149.75 -25139149.60 0.0089 0.0078 *
 Mercury -73541-12-22 17:30 J -25139070.86 -25139070.77 -25139070.64 0.0089 0.0074
 Mercury -73540-03-20 21:49 J -25138982.72 -25138982.59 -25138982.46 0.0089 0.0066

Mercury -73540-06-17 01:25 J -25138894.58 -25138894.44 -25138894.29 0.0089 0.0059
 Mercury -73540-09-13 05:16 J -25138806.44 -25138806.28 -25138806.12 0.0089 0.0052
 Moon -73540-10-07 06:28 J -25138782.36 -25138782.23 -25138782.04 0.0089 0.0072
 Earth -73540-10-07 08:08 J -25138782.33 -25138782.16 -25138782.00 0.0089 0.0068 *
 Mercury -73540-12-10 08:52 J -25138718.29 -25138718.13 -25138717.95 0.0089 0.0045
 Mercury -73539-03-08 12:42 J -25138630.15 -25138629.97 -25138629.79 0.0089 0.0038
 Mercury -73539-06-04 16:18 J -25138542.00 -25138541.82 -25138541.63 0.0089 0.0031
 Mercury -73539-08-31 20:08 J -25138453.85 -25138453.66 -25138453.47 0.0089 0.0024
 Earth -73539-10-09 21:06 J -25138414.79 -25138414.62 -25138414.39 0.0089 0.0057
 Moon -73539-10-09 23:30 J -25138414.71 -25138414.52 -25138414.30 0.0089 0.0053 *
 Mercury -73539-11-27 23:44 J -25138365.70 -25138365.51 -25138365.31 0.0089 0.0017
 Mercury -73538-02-24 03:35 J -25138277.54 -25138277.35 -25138277.15 0.0089 0.0010
 Mercury -73538-05-23 07:25 J -25138189.39 -25138189.19 -25138188.99 0.0089 0.0003
 Mercury -73538-08-19 11:01 J -25138101.23 -25138101.04 -25138100.84 0.0089 0.0005
 Moon -73538-10-12 07:40 J -25138047.38 -25138047.18 -25138046.93 0.0089 0.0048
 Earth -73538-10-12 11:30 J -25138047.24 -25138047.02 -25138046.79 0.0089 0.0044 *
 Mercury -73538-11-15 14:52 J -25138013.08 -25138012.88 -25138012.69 0.0089 0.0012
 Mercury -73537-02-11 18:28 J -25137924.92 -25137924.73 -25137924.53 0.0088 0.0019
 Mercury -73537-05-09 22:04 J -25137836.76 -25137836.58 -25137836.38 0.0088 0.0026
 Mercury -73537-08-06 01:54 J -25137748.60 -25137748.42 -25137748.23 0.0088 0.0033
 Earth -73537-10-14 01:25 J -25137679.68 -25137679.44 -25137679.19 0.0088 0.0032
 Moon -73537-10-14 04:47 J -25137679.55 -25137679.30 -25137679.05 0.0088 0.0028 *
 Mercury -73537-11-02 05:30 J -25137660.44 -25137660.27 -25137660.09 0.0088 0.0040
 Mercury -73536-01-29 09:20 J -25137572.27 -25137572.11 -25137571.94 0.0088 0.0047
 Mercury -73536-04-27 12:56 J -25137484.11 -25137483.96 -25137483.80 0.0088 0.0054
 Mercury -73536-07-24 16:32 J -25137395.94 -25137395.81 -25137395.66 0.0088 0.0061
 Moon -73536-10-16 11:30 J -25137312.26 -25137312.02 -25137311.76 0.0088 0.0024
 Earth -73536-10-16 15:20 J -25137312.11 -25137311.86 -25137311.59 0.0088 0.0020 *
 Mercury -73536-10-20 20:23 J -25137307.77 -25137307.65 -25137307.52 0.0088 0.0068
 Mercury -73535-01-16 23:59 J -25137219.59 -25137219.50 -25137219.39 0.0088 0.0075

Mercury -73535-04-15 03:35 J -25137131.41 -25137131.35 -25137131.26 0.0088 0.0082

Mercury -73535-07-12 07:40 J -25137043.18 -25137043.18 -25137043.18 0.0088 0.0088

Earth -73535-10-19 05:16 J -25136944.54 -25136944.28 -25136944.01 0.0088 0.0007

Moon -73535-10-19 08:37 J -25136944.41 -25136944.14 -25136943.87 0.0088 0.0003 *

Moon -73534-10-21 16:47 J -25136577.06 -25136576.80 -25136576.55 0.0088 0.0002

Earth -73534-10-21 19:25 J -25136576.95 -25136576.69 -25136576.42 0.0088 0.0005 *

Earth -73533-10-23 09:20 J -25136209.36 -25136209.11 -25136208.84 0.0088 0.0018

Moon -73533-10-23 11:30 J -25136209.28 -25136209.02 -25136208.75 0.0088 0.0022 *

Moon -73532-10-25 23:01 J -25135841.78 -25135841.54 -25135841.29 0.0088 0.0026

Earth -73532-10-25 23:30 J -25135841.77 -25135841.52 -25135841.27 0.0088 0.0030 *

Moon -73531-10-28 13:25 J -25135474.17 -25135473.94 -25135473.70 0.0088 0.0046

Earth -73531-10-28 13:25 J -25135474.16 -25135473.94 -25135473.70 0.0088 0.0042 *

Earth -73530-10-31 03:06 J -25135106.56 -25135106.37 -25135106.14 0.0088 0.0054

Moon -73530-10-31 04:47 J -25135106.49 -25135106.30 -25135106.07 0.0088 0.0050 *

Moon -73529-11-01 14:08 J -25134739.04 -25134738.91 -25134738.71 0.0088 0.0071

Earth -73529-11-01 17:44 J -25134738.93 -25134738.76 -25134738.59 0.0088 0.0066 *

Earth -73528-11-04 07:40 J -25134371.30 -25134371.18 -25134371.06 0.0088 0.0078

Moon -73528-11-04 10:18 J -25134371.20 -25134371.07 -25134370.91 0.0088 0.0074 *

Mars -73520-03-09 18:28 J -25131689.03 -25131688.73 -25131688.39 0.0088 0.0024

Mars -73518-02-03 07:25 J -25130993.40 -25130993.19 -25130992.90 0.0088 0.0058

Jupiter -73496-06-08 10:47 J -25122832.10 -25122832.05 -25122831.87 0.0088 0.0087

Venus -73481-12-16 05:01 J -25117162.33 -25117162.29 -25117162.19 0.0088 0.0084

Venus -73480-07-29 17:44 J -25116936.90 -25116936.76 -25116936.60 0.0088 0.0064

Venus -73479-03-12 05:59 J -25116711.43 -25116711.25 -25116711.05 0.0088 0.0045

Venus -73479-10-23 18:13 J -25116485.94 -25116485.74 -25116485.53 0.0088 0.0025

Venus -73478-06-06 06:28 J -25116260.44 -25116260.23 -25116260.01 0.0088 0.0006

Venus -73477-01-17 18:42 J -25116034.93 -25116034.72 -25116034.50 0.0088 0.0014

Venus -73477-08-30 06:56 J -25115809.41 -25115809.21 -25115809.01 0.0088 0.0033

Venus -73476-04-12 18:42 J -25115583.88 -25115583.72 -25115583.53 0.0088 0.0052

Venus -73476-11-24 06:56 J -25115358.32 -25115358.21 -25115358.07 0.0088 0.0072

Mercury -73459-01-07 16:47 J -25109469.82 -25109469.80 -25109469.76 0.0089 0.0086

Mercury -73459-04-05 18:13 J -25109381.79 -25109381.74 -25109381.69 0.0089 0.0081

Mercury -73459-07-02 19:25 J -25109293.75 -25109293.69 -25109293.62 0.0089 0.0077

Mercury -73459-09-28 20:37 J -25109205.70 -25109205.64 -25109205.55 0.0089 0.0072

Mercury -73459-12-25 22:04 J -25109117.66 -25109117.58 -25109117.49 0.0089 0.0067

Mercury -73458-03-23 23:16 J -25109029.61 -25109029.53 -25109029.43 0.0089 0.0063

Earth -73458-04-09 08:08 J -25109013.25 -25109013.16 -25109013.02 0.0089 0.0079

Moon -73458-04-09 09:06 J -25109013.23 -25109013.12 -25109012.96 0.0089 0.0076 *

Mercury -73458-06-20 00:42 J -25108941.56 -25108941.47 -25108941.37 0.0089 0.0058

Mercury -73458-09-16 01:54 J -25108853.52 -25108853.42 -25108853.31 0.0089 0.0053

Mercury -73458-12-13 03:20 J -25108765.47 -25108765.36 -25108765.25 0.0089 0.0048

Mercury -73457-03-10 04:32 J -25108677.42 -25108677.31 -25108677.19 0.0089 0.0044

Earth -73457-04-10 18:28 J -25108645.89 -25108645.73 -25108645.57 0.0089 0.0067

Moon -73457-04-10 18:42 J -25108645.85 -25108645.72 -25108645.55 0.0089 0.0070 *

Mercury -73457-06-06 05:59 J -25108589.37 -25108589.25 -25108589.13 0.0089 0.0039

Mercury -73457-09-02 07:11 J -25108501.32 -25108501.20 -25108501.07 0.0089 0.0034

Mercury -73457-11-29 08:37 J -25108413.26 -25108413.14 -25108413.02 0.0089 0.0029

Mercury -73456-02-25 09:49 J -25108325.21 -25108325.09 -25108324.96 0.0089 0.0024

Moon -73456-04-13 02:08 J -25108278.60 -25108278.41 -25108278.19 0.0089 0.0053

Earth -73456-04-13 03:35 J -25108278.53 -25108278.35 -25108278.13 0.0089 0.0056 *

Mercury -73456-05-24 11:16 J -25108237.16 -25108237.03 -25108236.90 0.0089 0.0019

Mercury -73456-08-20 12:28 J -25108149.11 -25108148.98 -25108148.85 0.0089 0.0015

Mercury -73456-11-16 13:54 J -25108061.05 -25108060.92 -25108060.79 0.0089 0.0010

Mercury -73455-02-12 15:06 J -25107973.00 -25107972.87 -25107972.74 0.0089 0.0005

Earth -73455-04-15 13:25 J -25107911.15 -25107910.94 -25107910.71 0.0089 0.0044

Moon -73455-04-15 16:18 J -25107911.03 -25107910.82 -25107910.61 0.0089 0.0047 *

Mercury -73455-05-11 16:32 J -25107884.95 -25107884.81 -25107884.68 0.0089 0.0003

Mercury -73455-08-07 17:44 J -25107796.89 -25107796.76 -25107796.63 0.0089 0.0004

Mercury -73455-11-03 18:56 J -25107708.84 -25107708.71 -25107708.58 0.0089 0.0010

Mercury -73454-01-30 20:23 J -25107620.78 -25107620.65 -25107620.52 0.0089 0.0014

Moon -73454-04-17 19:54 J -25107543.91 -25107543.67 -25107543.43 0.0089 0.0030
 Earth -73454-04-17 22:47 J -25107543.76 -25107543.55 -25107543.30 0.0089 0.0033 *
 Mercury -73454-04-28 21:35 J -25107532.73 -25107532.60 -25107532.47 0.0089 0.0019
 Mercury -73454-07-25 22:47 J -25107444.67 -25107444.55 -25107444.42 0.0089 0.0024
 Mercury -73454-10-22 00:13 J -25107356.61 -25107356.49 -25107356.36 0.0089 0.0028
 Mercury -73453-01-18 01:25 J -25107268.56 -25107268.44 -25107268.31 0.0089 0.0033
 Mercury -73453-04-15 02:52 J -25107180.50 -25107180.38 -25107180.26 0.0089 0.0038
 Earth -73453-04-19 08:23 J -25107176.39 -25107176.15 -25107175.90 0.0089 0.0021
 Moon -73453-04-19 11:44 J -25107176.24 -25107176.01 -25107175.76 0.0089 0.0024 *
 Mercury -73453-07-12 04:04 J -25107092.44 -25107092.33 -25107092.21 0.0089 0.0043
 Mercury -73453-10-08 05:16 J -25107004.38 -25107004.28 -25107004.16 0.0089 0.0048
 Mercury -73452-01-04 06:42 J -25106916.32 -25106916.22 -25106916.11 0.0089 0.0052
 Mercury -73452-04-02 07:54 J -25106828.26 -25106828.17 -25106828.06 0.0089 0.0057
 Moon -73452-04-21 14:37 J -25106809.14 -25106808.89 -25106808.64 0.0089 0.0006
 Earth -73452-04-21 17:59 J -25106809.00 -25106808.75 -25106808.50 0.0089 0.0009 *
 Mercury -73452-06-29 09:20 J -25106740.20 -25106740.11 -25106740.01 0.0089 0.0062
 Mercury -73452-09-25 10:32 J -25106652.14 -25106652.06 -25106651.97 0.0089 0.0067
 Mercury -73452-12-22 11:44 J -25106564.07 -25106564.01 -25106563.92 0.0089 0.0072
 Mercury -73451-03-20 13:11 J -25106476.01 -25106475.95 -25106475.88 0.0089 0.0076
 Earth -73451-04-24 03:20 J -25106441.61 -25106441.36 -25106441.11 0.0089 0.0003
 Moon -73451-04-24 05:30 J -25106441.52 -25106441.27 -25106441.01 0.0089 0.0002 *
 Mercury -73451-06-16 14:23 J -25106387.94 -25106387.90 -25106387.84 0.0089 0.0081
 Mercury -73451-09-12 15:49 J -25106299.86 -25106299.84 -25106299.80 0.0089 0.0086
 Moon -73450-04-26 11:01 J -25106074.27 -25106074.04 -25106073.79 0.0089 0.0018
 Earth -73450-04-26 12:42 J -25106074.22 -25106073.97 -25106073.72 0.0089 0.0014 *
 Earth -73449-04-27 21:49 J -25105706.82 -25105706.59 -25105706.34 0.0089 0.0026
 Moon -73449-04-27 22:04 J -25105706.82 -25105706.58 -25105706.32 0.0089 0.0023 *
 Earth -73448-04-30 06:56 J -25105339.42 -25105339.21 -25105338.97 0.0089 0.0038
 Moon -73448-04-30 08:37 J -25105339.35 -25105339.14 -25105338.92 0.0089 0.0040 *
 Moon -73447-05-02 14:08 J -25104972.11 -25104971.91 -25104971.67 0.0089 0.0047

Earth -73447-05-02 16:18 J -25104972.01 -25104971.82 -25104971.59 0.0089 0.0050 *
 Earth -73446-05-05 01:40 J -25104604.59 -25104604.43 -25104604.23 0.0089 0.0061
 Moon -73446-05-05 05:16 J -25104604.45 -25104604.28 -25104604.11 0.0089 0.0064 *
 Moon -73445-05-06 07:40 J -25104237.32 -25104237.18 -25104237.01 0.0089 0.0070
 Earth -73445-05-06 11:30 J -25104237.16 -25104237.02 -25104236.87 0.0089 0.0072 *
 Earth -73444-05-08 20:23 J -25103869.71 -25103869.65 -25103869.54 0.0089 0.0084
 Moon -73444-05-08 23:59 J -25103869.53 -25103869.50 -25103869.44 0.0089 0.0087
 Mars -73439-11-14 21:06 J -25101853.83 -25101853.62 -25101853.36 0.0089 0.0055
 Mars -73437-10-08 21:06 J -25101159.91 -25101159.62 -25101159.32 0.0089 0.0018
 Venus -73398-01-28 13:11 J -25087169.04 -25087168.95 -25087168.81 0.0089 0.0076
 Venus -73398-09-11 02:52 J -25086943.54 -25086943.38 -25086943.19 0.0089 0.0056
 Venus -73397-04-23 16:47 J -25086718.00 -25086717.80 -25086717.59 0.0089 0.0035
 Venus -73397-12-05 06:28 J -25086492.44 -25086492.23 -25086492.00 0.0089 0.0015
 Venus -73396-07-18 20:23 J -25086266.87 -25086266.65 -25086266.43 0.0089 0.0005
 Venus -73395-03-01 09:49 J -25086041.29 -25086041.09 -25086040.86 0.0089 0.0026
 Venus -73395-10-12 23:44 J -25085815.69 -25085815.51 -25085815.31 0.0089 0.0046
 Venus -73394-05-26 13:11 J -25085590.07 -25085589.95 -25085589.78 0.0089 0.0067
 Venus -73393-01-07 03:06 J -25085364.39 -25085364.37 -25085364.30 0.0089 0.0087
 Moon -73377-10-03 22:04 J -25079249.67 -25079249.58 -25079249.42 0.0089 0.0079
 Earth -73377-10-04 00:13 J -25079249.56 -25079249.49 -25079249.37 0.0089 0.0083 *
 Mercury -73376-03-26 08:08 J -25079076.19 -25079076.16 -25079076.09 0.0089 0.0086
 Mercury -73376-06-22 11:59 J -25078988.07 -25078988.00 -25078987.89 0.0089 0.0079
 Mercury -73376-09-18 15:49 J -25078899.94 -25078899.84 -25078899.71 0.0089 0.0072
 Earth -73376-10-06 14:08 J -25078882.05 -25078881.91 -25078881.73 0.0089 0.0071
 Moon -73376-10-06 17:01 J -25078881.92 -25078881.79 -25078881.64 0.0089 0.0074 *
 Mercury -73376-12-15 19:25 J -25078811.81 -25078811.69 -25078811.54 0.0089 0.0065
 Mercury -73375-03-13 23:16 J -25078723.66 -25078723.53 -25078723.37 0.0089 0.0058
 Mercury -73375-06-10 02:52 J -25078635.52 -25078635.38 -25078635.20 0.0089 0.0051
 Mercury -73375-09-06 06:42 J -25078547.38 -25078547.22 -25078547.03 0.0089 0.0044
 Moon -73375-10-09 00:42 J -25078514.67 -25078514.47 -25078514.25 0.0089 0.0056

Earth -73375-10-09 04:04 J -25078514.52 -25078514.33 -25078514.13 0.0089 0.0059 *
 Mercury -73375-12-03 10:32 J -25078459.23 -25078459.06 -25078458.87 0.0089 0.0036
 Mercury -73374-03-01 14:37 J -25078371.08 -25078370.89 -25078370.71 0.0089 0.0029
 Mercury -73374-05-28 18:13 J -25078282.93 -25078282.74 -25078282.55 0.0089 0.0022
 Mercury -73374-08-24 22:04 J -25078194.78 -25078194.58 -25078194.39 0.0089 0.0015
 Earth -73374-10-11 17:59 J -25078146.97 -25078146.75 -25078146.53 0.0089 0.0047
 Moon -73374-10-11 21:20 J -25078146.80 -25078146.61 -25078146.37 0.0089 0.0051 *
 Mercury -73374-11-21 01:40 J -25078106.62 -25078106.43 -25078106.23 0.0089 0.0008
 Mercury -73373-02-17 05:30 J -25078018.47 -25078018.27 -25078018.07 0.0089 0.0001
 Mercury -73373-05-15 09:06 J -25077930.31 -25077930.12 -25077929.92 0.0089 0.0007
 Mercury -73373-08-11 12:56 J -25077842.16 -25077841.96 -25077841.77 0.0089 0.0013
 Moon -73373-10-13 04:04 J -25077779.55 -25077779.33 -25077779.07 0.0089 0.0033
 Earth -73373-10-13 07:25 J -25077779.41 -25077779.19 -25077778.93 0.0089 0.0036 *
 Mercury -73373-11-07 16:32 J -25077754.00 -25077753.81 -25077753.61 0.0089 0.0021
 Mercury -73372-02-03 20:08 J -25077665.84 -25077665.66 -25077665.46 0.0089 0.0028
 Mercury -73372-05-02 23:59 J -25077577.68 -25077577.50 -25077577.31 0.0089 0.0035
 Mercury -73372-07-30 03:35 J -25077489.51 -25077489.35 -25077489.17 0.0088 0.0042
 Earth -73372-10-15 21:35 J -25077411.85 -25077411.60 -25077411.34 0.0088 0.0023
 Moon -73372-10-16 00:56 J -25077411.71 -25077411.46 -25077411.20 0.0088 0.0025 *
 Mercury -73372-10-26 07:25 J -25077401.35 -25077401.19 -25077401.02 0.0088 0.0049
 Mercury -73371-01-22 11:01 J -25077313.18 -25077313.04 -25077312.88 0.0088 0.0056
 Mercury -73371-04-20 14:37 J -25077225.01 -25077224.89 -25077224.74 0.0088 0.0063
 Mercury -73371-07-17 18:28 J -25077136.84 -25077136.73 -25077136.60 0.0088 0.0070
 Mercury -73371-10-13 22:04 J -25077048.66 -25077048.58 -25077048.47 0.0088 0.0077
 Moon -73371-10-18 09:35 J -25077044.35 -25077044.10 -25077043.84 0.0088 0.0008
 Earth -73371-10-18 11:30 J -25077044.27 -25077044.02 -25077043.75 0.0088 0.0011 *
 Mercury -73370-01-10 01:40 J -25076960.47 -25076960.43 -25076960.35 0.0088 0.0084
 Earth -73370-10-21 01:40 J -25076676.69 -25076676.43 -25076676.16 0.0088 0.0001
 Moon -73370-10-21 02:52 J -25076676.65 -25076676.38 -25076676.10 0.0088 0.0001 *
 Moon -73369-10-22 15:06 J -25076309.11 -25076308.87 -25076308.60 0.0088 0.0016

Earth	-73369-10-22 15:35 J	-25076309.10	-25076308.85	-25076308.58	0.0088	0.0014	*
Moon	-73368-10-25 04:04 J	-25075941.58	-25075941.33	-25075941.05	0.0088	0.0024	
Earth	-73368-10-25 05:44 J	-25075941.50	-25075941.26	-25075941.00	0.0088	0.0026	*
Earth	-73367-10-27 19:40 J	-25075573.90	-25075573.68	-25075573.43	0.0088	0.0038	
Moon	-73367-10-27 21:35 J	-25075573.81	-25075573.60	-25075573.35	0.0088	0.0040	*
Moon	-73366-10-30 06:42 J	-25075206.42	-25075206.22	-25075205.97	0.0088	0.0049	
Earth	-73366-10-30 09:49 J	-25075206.29	-25075206.09	-25075205.85	0.0088	0.0050	*
Earth	-73365-10-31 23:44 J	-25074838.68	-25074838.51	-25074838.30	0.0088	0.0062	
Moon	-73365-11-01 03:49 J	-25074838.52	-25074838.34	-25074838.15	0.0088	0.0063	*
Moon	-73364-11-03 10:04 J	-25074471.20	-25074471.08	-25074470.90	0.0088	0.0073	
Earth	-73364-11-03 14:08 J	-25074471.05	-25074470.91	-25074470.76	0.0088	0.0073	*
Earth	-73363-11-06 03:49 J	-25074103.40	-25074103.34	-25074103.25	0.0088	0.0085	
Moon	-73363-11-06 07:25 J	-25074103.24	-25074103.19	-25074103.09	0.0088	0.0085	
Mars	-73357-10-21 15:20 J	-25071927.07	-25071926.86	-25071926.57	0.0088	0.0060	
Mars	-73355-09-17 07:54 J	-25071231.48	-25071231.17	-25071230.84	0.0088	0.0022	
Jupiter	-73330-08-03 09:49 J	-25062145.64	-25062145.09	-25062144.55	0.0088	0.0003	
Venus	-73316-10-31 04:04 J	-25056942.43	-25056942.33	-25056942.18	0.0088	0.0072	
Venus	-73315-06-13 16:47 J	-25056716.97	-25056716.80	-25056716.62	0.0088	0.0053	
Venus	-73314-01-25 05:01 J	-25056491.48	-25056491.29	-25056491.08	0.0088	0.0033	
Venus	-73314-09-07 17:30 J	-25056265.99	-25056265.77	-25056265.56	0.0088	0.0014	
Venus	-73313-04-20 05:45 J	-25056040.48	-25056040.26	-25056040.05	0.0088	0.0006	
Venus	-73313-12-01 17:45 J	-25055814.96	-25055814.76	-25055814.54	0.0088	0.0025	
Venus	-73312-07-15 05:45 J	-25055589.43	-25055589.26	-25055589.06	0.0088	0.0045	
Venus	-73311-02-25 17:45 J	-25055363.89	-25055363.76	-25055363.59	0.0088	0.0064	
Venus	-73311-10-09 05:59 J	-25055138.31	-25055138.25	-25055138.16	0.0088	0.0083	
Mercury	-73295-10-04 16:18 J	-25049298.84	-25049298.82	-25049298.77	0.0089	0.0085	
Mercury	-73295-12-31 17:45 J	-25049210.81	-25049210.76	-25049210.70	0.0089	0.0080	
Mercury	-73294-03-29 18:57 J	-25049122.77	-25049122.71	-25049122.63	0.0089	0.0076	
Earth	-73294-04-08 18:28 J	-25049112.82	-25049112.73	-25049112.62	0.0089	0.0081	
Moon	-73294-04-08 18:42 J	-25049112.81	-25049112.72	-25049112.58	0.0089	0.0078	*

Mercury -73294-06-25 20:09 J -25049034.72 -25049034.66 -25049034.57 0.0089 0.0071
 Mercury -73294-09-21 21:35 J -25048946.68 -25048946.60 -25048946.50 0.0089 0.0066
 Mercury -73294-12-18 23:01 J -25048858.63 -25048858.54 -25048858.44 0.0089 0.0061
 Mercury -73293-03-16 00:13 J -25048770.58 -25048770.49 -25048770.38 0.0089 0.0056
 Moon -73293-04-10 01:25 J -25048745.56 -25048745.44 -25048745.28 0.0089 0.0074
 Earth -73293-04-10 03:49 J -25048745.48 -25048745.34 -25048745.17 0.0089 0.0070 *
 Mercury -73293-06-12 01:25 J -25048682.54 -25048682.44 -25048682.32 0.0089 0.0052
 Mercury -73293-09-08 02:52 J -25048594.49 -25048594.38 -25048594.26 0.0089 0.0047
 Mercury -73293-12-05 04:18 J -25048506.44 -25048506.32 -25048506.21 0.0089 0.0042
 Mercury -73292-03-03 05:30 J -25048418.39 -25048418.27 -25048418.15 0.0089 0.0037
 Earth -73292-04-12 13:25 J -25048378.11 -25048377.94 -25048377.73 0.0089 0.0059
 Moon -73292-04-12 16:18 J -25048377.99 -25048377.82 -25048377.61 0.0089 0.0055 *
 Mercury -73292-05-30 06:42 J -25048330.33 -25048330.22 -25048330.09 0.0089 0.0033
 Mercury -73292-08-26 08:09 J -25048242.28 -25048242.16 -25048242.03 0.0089 0.0028
 Mercury -73292-11-22 09:35 J -25048154.23 -25048154.10 -25048153.98 0.0089 0.0023
 Mercury -73291-02-18 10:47 J -25048066.18 -25048066.05 -25048065.92 0.0089 0.0018
 Moon -73291-04-14 19:54 J -25048010.86 -25048010.67 -25048010.44 0.0089 0.0051
 Earth -73291-04-14 23:30 J -25048010.72 -25048010.52 -25048010.29 0.0089 0.0047 *
 Mercury -73291-05-17 11:59 J -25047978.13 -25047978.00 -25047977.87 0.0089 0.0014
 Mercury -73291-08-13 13:25 J -25047890.07 -25047889.94 -25047889.81 0.0089 0.0009
 Mercury -73291-11-09 14:37 J -25047802.02 -25047801.89 -25047801.76 0.0089 0.0004
 Mercury -73290-02-05 16:04 J -25047713.96 -25047713.83 -25047713.70 0.0089 0.0002
 Earth -73290-04-17 08:52 J -25047643.34 -25047643.13 -25047642.88 0.0089 0.0036
 Moon -73290-04-17 12:28 J -25047643.20 -25047642.98 -25047642.73 0.0089 0.0032 *
 Mercury -73290-05-04 17:16 J -25047625.91 -25047625.78 -25047625.65 0.0089 0.0006
 Mercury -73290-07-31 18:42 J -25047537.85 -25047537.72 -25047537.59 0.0089 0.0011
 Mercury -73290-10-27 19:54 J -25047449.80 -25047449.67 -25047449.54 0.0089 0.0015
 Mercury -73289-01-23 21:06 J -25047361.74 -25047361.62 -25047361.49 0.0089 0.0020
 Moon -73289-04-18 15:35 J -25047276.07 -25047275.85 -25047275.60 0.0089 0.0028
 Earth -73289-04-18 18:42 J -25047275.96 -25047275.72 -25047275.47 0.0089 0.0024 *

Mercury -73289-04-20 22:33 J -25047273.69 -25047273.56 -25047273.43 0.0089 0.0025

Mercury -73289-07-17 23:45 J -25047185.63 -25047185.51 -25047185.38 0.0089 0.0030

Mercury -73289-10-14 00:57 J -25047097.57 -25047097.46 -25047097.33 0.0089 0.0035

Mercury -73288-01-10 02:09 J -25047009.51 -25047009.41 -25047009.28 0.0089 0.0040

Mercury -73288-04-08 03:35 J -25046921.46 -25046921.35 -25046921.23 0.0089 0.0044

Earth -73288-04-21 04:04 J -25046908.57 -25046908.33 -25046908.07 0.0089 0.0013

Moon -73288-04-21 06:42 J -25046908.48 -25046908.22 -25046907.96 0.0089 0.0009 *

Mercury -73288-07-05 05:01 J -25046833.40 -25046833.29 -25046833.18 0.0089 0.0049

Mercury -73288-10-01 06:13 J -25046745.34 -25046745.24 -25046745.13 0.0089 0.0054

Mercury -73288-12-28 07:25 J -25046657.28 -25046657.19 -25046657.08 0.0089 0.0059

Mercury -73287-03-26 08:52 J -25046569.22 -25046569.13 -25046569.03 0.0089 0.0063

Moon -73287-04-23 12:42 J -25046541.21 -25046540.97 -25046540.72 0.0089 0.0005

Earth -73287-04-23 13:40 J -25046541.18 -25046540.93 -25046540.68 0.0089 0.0001 *

Mercury -73287-06-22 10:04 J -25046481.15 -25046481.08 -25046480.99 0.0089 0.0068

Mercury -73287-09-18 11:30 J -25046393.09 -25046393.02 -25046392.94 0.0089 0.0073

Mercury -73287-12-15 12:42 J -25046305.02 -25046304.97 -25046304.90 0.0089 0.0078

Mercury -73286-03-13 13:54 J -25046216.95 -25046216.92 -25046216.86 0.0089 0.0083

Moon -73286-04-25 22:33 J -25046173.81 -25046173.56 -25046173.29 0.0089 0.0014

Earth -73286-04-25 22:47 J -25046173.79 -25046173.55 -25046173.29 0.0089 0.0011 *

Mercury -73286-06-09 15:21 J -25046128.87 -25046128.86 -25046128.83 0.0089 0.0087

Earth -73285-04-27 08:09 J -25045806.40 -25045806.16 -25045805.91 0.0089 0.0022

Moon -73285-04-27 09:06 J -25045806.35 -25045806.12 -25045805.87 0.0089 0.0019 *

Moon -73284-04-29 14:09 J -25045439.12 -25045438.91 -25045438.65 0.0089 0.0038

Earth -73284-04-29 17:30 J -25045439.00 -25045438.77 -25045438.53 0.0089 0.0033 *

Earth -73283-05-02 02:37 J -25045071.60 -25045071.39 -25045071.16 0.0089 0.0045

Moon -73283-05-02 05:59 J -25045071.47 -25045071.25 -25045071.03 0.0089 0.0041 *

Moon -73282-05-04 08:09 J -25044704.33 -25044704.16 -25044703.96 0.0089 0.0060

Earth -73282-05-04 11:59 J -25044704.19 -25044704.00 -25044703.80 0.0089 0.0056 *

Earth -73281-05-05 20:52 J -25044336.77 -25044336.63 -25044336.45 0.0089 0.0068

Moon -73281-05-05 23:59 J -25044336.65 -25044336.50 -25044336.29 0.0089 0.0064 *

Moon	-73280-05-08 04:04 J	-25043969.40	-25043969.33	-25043969.22	0.0089	0.0082
Earth	-73280-05-08 06:13 J	-25043969.33	-25043969.24	-25043969.10	0.0089	0.0079 *
Moon	-73279-05-10 17:30 J	-25043601.80	-25043601.77	-25043601.68	0.0089	0.0087
Mars	-73275-06-30 01:54 J	-25042090.48	-25042090.42	-25042090.34	0.0089	0.0087
Mars	-73273-05-24 00:57 J	-25041396.74	-25041396.46	-25041396.15	0.0089	0.0015
Mars	-73271-04-18 01:40 J	-25040702.64	-25040702.43	-25040702.20	0.0089	0.0058
Venus	-73234-05-01 22:47 J	-25027174.60	-25027174.55	-25027174.47	0.0089	0.0084
Venus	-73234-12-13 12:28 J	-25026949.12	-25026948.98	-25026948.82	0.0089	0.0064
Venus	-73233-07-26 01:54 J	-25026723.60	-25026723.42	-25026723.21	0.0089	0.0044
Venus	-73232-03-08 15:35 J	-25026498.05	-25026497.85	-25026497.62	0.0089	0.0024
Venus	-73232-10-20 05:30 J	-25026272.49	-25026272.27	-25026272.04	0.0089	0.0004
Venus	-73231-06-02 19:25 J	-25026046.91	-25026046.69	-25026046.47	0.0089	0.0017
Venus	-73230-01-14 08:52 J	-25025821.32	-25025821.13	-25025820.91	0.0089	0.0038
Venus	-73230-08-27 22:33 J	-25025595.71	-25025595.56	-25025595.37	0.0089	0.0058
Venus	-73229-04-09 12:42 J	-25025370.07	-25025369.97	-25025369.86	0.0089	0.0078
Earth	-73213-10-03 08:09 J	-25019349.24	-25019349.16	-25019349.08	0.0089	0.0084
Moon	-73213-10-03 10:33 J	-25019349.07	-25019349.06	-25019348.98	0.0089	0.0088
Moon	-73212-10-05 17:45 J	-25018981.90	-25018981.76	-25018981.58	0.0089	0.0071
Earth	-73212-10-05 21:21 J	-25018981.74	-25018981.61	-25018981.44	0.0089	0.0073 *
Mercury	-73212-12-21 06:28 J	-25018905.27	-25018905.23	-25018905.14	0.0089	0.0084
Mercury	-73211-03-19 10:18 J	-25018817.15	-25018817.07	-25018816.95	0.0089	0.0077
Mercury	-73211-06-15 13:54 J	-25018729.02	-25018728.92	-25018728.77	0.0089	0.0070
Mercury	-73211-09-11 17:45 J	-25018640.88	-25018640.76	-25018640.60	0.0089	0.0063
Earth	-73211-10-08 10:47 J	-25018614.21	-25018614.05	-25018613.83	0.0089	0.0062
Moon	-73211-10-08 14:37 J	-25018614.05	-25018613.89	-25018613.69	0.0089	0.0065 *
Mercury	-73211-12-08 21:35 J	-25018552.74	-25018552.60	-25018552.43	0.0089	0.0056
Mercury	-73210-03-07 01:40 J	-25018464.59	-25018464.43	-25018464.26	0.0089	0.0048
Mercury	-73210-06-03 05:16 J	-25018376.45	-25018376.28	-25018376.10	0.0089	0.0041
Mercury	-73210-08-30 09:06 J	-25018288.30	-25018288.12	-25018287.93	0.0089	0.0034
Moon	-73210-10-10 21:21 J	-25018246.81	-25018246.61	-25018246.36	0.0089	0.0047

Earth -73210-10-11 00:57 J -25018246.66 -25018246.46 -25018246.22 0.0089 0.0050 *
 Mercury -73210-11-26 12:42 J -25018200.15 -25018199.97 -25018199.77 0.0089 0.0027
 Mercury -73209-02-22 16:33 J -25018112.00 -25018111.81 -25018111.61 0.0089 0.0020
 Mercury -73209-05-20 20:23 J -25018023.85 -25018023.65 -25018023.45 0.0089 0.0013
 Mercury -73209-08-16 23:59 J -25017935.69 -25017935.50 -25017935.30 0.0089 0.0006
 Earth -73209-10-12 14:52 J -25017879.11 -25017878.88 -25017878.64 0.0089 0.0038
 Moon -73209-10-12 17:16 J -25017879.01 -25017878.78 -25017878.53 0.0089 0.0041 *
 Mercury -73209-11-13 03:49 J -25017847.54 -25017847.34 -25017847.14 0.0089 0.0002
 Mercury -73208-02-09 07:25 J -25017759.38 -25017759.19 -25017758.99 0.0089 0.0009
 Mercury -73208-05-08 11:16 J -25017671.22 -25017671.03 -25017670.84 0.0089 0.0016
 Mercury -73208-08-04 14:52 J -25017583.06 -25017582.88 -25017582.68 0.0089 0.0023
 Moon -73208-10-15 02:52 J -25017511.62 -25017511.38 -25017511.13 0.0089 0.0023
 Earth -73208-10-15 04:33 J -25017511.55 -25017511.31 -25017511.05 0.0089 0.0026 *
 Mercury -73208-10-31 18:42 J -25017494.90 -25017494.72 -25017494.53 0.0089 0.0030
 Mercury -73207-01-27 22:18 J -25017406.74 -25017406.57 -25017406.39 0.0089 0.0037
 Mercury -73207-04-26 02:09 J -25017318.58 -25017318.41 -25017318.24 0.0089 0.0044
 Mercury -73207-07-23 05:45 J -25017230.42 -25017230.26 -25017230.10 0.0089 0.0051
 Earth -73207-10-17 18:28 J -25017143.98 -25017143.73 -25017143.46 0.0089 0.0014
 Moon -73207-10-17 19:11 J -25017143.97 -25017143.70 -25017143.43 0.0089 0.0018 *
 Mercury -73207-10-19 09:35 J -25017142.25 -25017142.10 -25017141.95 0.0089 0.0058
 Mercury -73206-01-15 13:11 J -25017054.08 -25017053.95 -25017053.81 0.0089 0.0065
 Mercury -73206-04-13 17:01 J -25016965.90 -25016965.79 -25016965.68 0.0089 0.0072
 Mercury -73206-07-10 20:37 J -25016877.72 -25016877.64 -25016877.55 0.0089 0.0079
 Mercury -73206-10-07 00:13 J -25016789.53 -25016789.49 -25016789.44 0.0088 0.0086
 Earth -73206-10-20 08:37 J -25016776.41 -25016776.14 -25016775.88 0.0088 0.0002
 Moon -73206-10-20 09:35 J -25016776.36 -25016776.10 -25016775.85 0.0088 0.0002 *
 Moon -73205-10-21 21:06 J -25016408.89 -25016408.62 -25016408.35 0.0088 0.0006
 Earth -73205-10-21 22:33 J -25016408.82 -25016408.56 -25016408.29 0.0088 0.0010 *
 Earth -73204-10-24 12:13 J -25016041.23 -25016040.99 -25016040.72 0.0088 0.0022
 Moon -73204-10-24 15:06 J -25016041.11 -25016040.87 -25016040.61 0.0088 0.0026 *

Moon	-73203-10-26 23:01 J	-25015673.78	-25015673.54	-25015673.27	0.0088	0.0030
Earth	-73203-10-27 02:23 J	-25015673.63	-25015673.40	-25015673.14	0.0088	0.0034 *
Earth	-73202-10-29 16:18 J	-25015306.02	-25015305.82	-25015305.57	0.0088	0.0046
Moon	-73202-10-29 20:09 J	-25015305.86	-25015305.66	-25015305.43	0.0088	0.0050 *
Moon	-73201-10-31 02:52 J	-25014938.57	-25014938.38	-25014938.15	0.0088	0.0053
Earth	-73201-10-31 06:57 J	-25014938.41	-25014938.21	-25014938.00	0.0088	0.0057 *
Earth	-73200-11-02 20:37 J	-25014570.78	-25014570.64	-25014570.45	0.0088	0.0069
Moon	-73200-11-02 23:30 J	-25014570.65	-25014570.52	-25014570.34	0.0088	0.0073 *
Moon	-73199-11-05 08:23 J	-25014203.26	-25014203.15	-25014203.00	0.0088	0.0076
Earth	-73199-11-05 11:16 J	-25014203.14	-25014203.03	-25014202.91	0.0088	0.0080 *
Mars	-73191-05-01 08:09 J	-25011469.48	-25011469.16	-25011468.82	0.0088	0.0013
Mars	-73189-03-26 22:18 J	-25010773.76	-25010773.57	-25010773.33	0.0088	0.0067
Venus	-73151-02-01 15:35 J	-24996947.92	-24996947.85	-24996947.74	0.0088	0.0080
Venus	-73151-09-15 03:49 J	-24996722.48	-24996722.34	-24996722.16	0.0088	0.0061
Venus	-73150-04-28 16:33 J	-24996497.00	-24996496.81	-24996496.61	0.0088	0.0041
Venus	-73150-12-10 05:01 J	-24996271.49	-24996271.29	-24996271.07	0.0088	0.0021
Venus	-73149-07-22 17:30 J	-24996045.99	-24996045.77	-24996045.56	0.0088	0.0002
Venus	-73148-03-05 05:30 J	-24995820.48	-24995820.27	-24995820.05	0.0088	0.0018
Venus	-73148-10-16 17:30 J	-24995594.96	-24995594.77	-24995594.56	0.0088	0.0037
Venus	-73147-05-30 05:30 J	-24995369.42	-24995369.27	-24995369.09	0.0088	0.0057
Venus	-73146-01-10 17:59 J	-24995143.85	-24995143.75	-24995143.63	0.0088	0.0076
Mercury	-73130-04-04 14:52 J	-24989215.89	-24989215.88	-24989215.86	0.0089	0.0088
Moon	-73130-04-08 02:23 J	-24989212.45	-24989212.40	-24989212.30	0.0089	0.0085
Earth	-73130-04-08 04:33 J	-24989212.37	-24989212.31	-24989212.20	0.0089	0.0083 *
Mercury	-73130-07-01 16:04 J	-24989127.86	-24989127.83	-24989127.78	0.0089	0.0084
Mercury	-73130-09-27 17:16 J	-24989039.82	-24989039.78	-24989039.71	0.0089	0.0079
Mercury	-73130-12-24 18:42 J	-24988951.78	-24988951.72	-24988951.64	0.0089	0.0074
Mercury	-73129-03-21 20:09 J	-24988863.74	-24988863.66	-24988863.58	0.0089	0.0069
Earth	-73129-04-09 14:23 J	-24988845.03	-24988844.90	-24988844.74	0.0089	0.0072
Moon	-73129-04-09 17:30 J	-24988844.90	-24988844.77	-24988844.59	0.0089	0.0070 *

Mercury -73129-06-17 21:06 J -24988775.69 -24988775.62 -24988775.52 0.0089 0.0065

Mercury -73129-09-13 22:33 J -24988687.65 -24988687.56 -24988687.45 0.0089 0.0060

Mercury -73129-12-10 23:59 J -24988599.60 -24988599.50 -24988599.39 0.0089 0.0055

Mercury -73128-03-09 01:25 J -24988511.55 -24988511.44 -24988511.34 0.0089 0.0050

Moon -73128-04-11 20:23 J -24988477.80 -24988477.65 -24988477.44 0.0089 0.0063

Earth -73128-04-11 23:59 J -24988477.66 -24988477.50 -24988477.29 0.0089 0.0061 *

Mercury -73128-06-05 02:23 J -24988423.50 -24988423.40 -24988423.28 0.0089 0.0046

Mercury -73128-09-01 03:49 J -24988335.45 -24988335.34 -24988335.22 0.0089 0.0041

Mercury -73128-11-28 05:16 J -24988247.40 -24988247.28 -24988247.16 0.0089 0.0036

Mercury -73127-02-24 06:28 J -24988159.35 -24988159.23 -24988159.10 0.0089 0.0031

Earth -73127-04-14 09:35 J -24988110.29 -24988110.10 -24988109.87 0.0089 0.0050

Moon -73127-04-14 13:11 J -24988110.15 -24988109.95 -24988109.72 0.0089 0.0047 *

Mercury -73127-05-23 07:40 J -24988071.30 -24988071.18 -24988071.05 0.0089 0.0027

Mercury -73127-08-19 09:06 J -24987983.25 -24987983.12 -24987982.99 0.0089 0.0022

Mercury -73127-11-15 10:18 J -24987895.19 -24987895.07 -24987894.93 0.0089 0.0017

Mercury -73126-02-11 11:45 J -24987807.14 -24987807.01 -24987806.88 0.0089 0.0012

Moon -73126-04-16 16:33 J -24987743.01 -24987742.81 -24987742.57 0.0089 0.0041

Earth -73126-04-16 19:40 J -24987742.90 -24987742.68 -24987742.44 0.0089 0.0038 *

Mercury -73126-05-10 12:57 J -24987719.09 -24987718.96 -24987718.82 0.0089 0.0008

Mercury -73126-08-06 14:23 J -24987631.03 -24987630.90 -24987630.77 0.0089 0.0003

Mercury -73126-11-02 15:35 J -24987542.98 -24987542.85 -24987542.71 0.0089 0.0003

Mercury -73125-01-29 17:01 J -24987454.92 -24987454.79 -24987454.66 0.0089 0.0007

Earth -73125-04-18 05:16 J -24987375.51 -24987375.28 -24987375.03 0.0089 0.0027

Moon -73125-04-18 06:57 J -24987375.45 -24987375.21 -24987374.95 0.0089 0.0025 *

Mercury -73125-04-26 18:13 J -24987366.87 -24987366.74 -24987366.61 0.0089 0.0012

Mercury -73125-07-23 19:40 J -24987278.81 -24987278.68 -24987278.55 0.0089 0.0017

Mercury -73125-10-19 20:52 J -24987190.76 -24987190.63 -24987190.50 0.0089 0.0022

Mercury -73124-01-15 22:04 J -24987102.70 -24987102.58 -24987102.45 0.0089 0.0027

Mercury -73124-04-13 23:16 J -24987014.64 -24987014.53 -24987014.40 0.0089 0.0032

Moon -73124-04-20 14:23 J -24987008.14 -24987007.90 -24987007.66 0.0089 0.0018

Earth -73124-04-20 15:06 J -24987008.11 -24987007.87 -24987007.62 0.0089 0.0016 *
 Mercury -73124-07-11 00:42 J -24986926.58 -24986926.47 -24986926.34 0.0089 0.0036
 Mercury -73124-10-07 02:09 J -24986838.53 -24986838.41 -24986838.29 0.0089 0.0041
 Mercury -73123-01-03 03:21 J -24986750.47 -24986750.36 -24986750.24 0.0089 0.0046
 Mercury -73123-04-01 04:33 J -24986662.41 -24986662.31 -24986662.19 0.0089 0.0051
 Moon -73123-04-23 00:13 J -24986640.75 -24986640.49 -24986640.23 0.0089 0.0002
 Earth -73123-04-23 00:42 J -24986640.72 -24986640.47 -24986640.21 0.0089 0.0005 *
 Mercury -73123-06-28 05:45 J -24986574.35 -24986574.26 -24986574.14 0.0089 0.0056
 Mercury -73123-09-24 07:25 J -24986486.29 -24986486.19 -24986486.10 0.0089 0.0060
 Mercury -73123-12-21 08:37 J -24986398.23 -24986398.14 -24986398.05 0.0089 0.0065
 Mercury -73122-03-19 09:49 J -24986310.16 -24986310.09 -24986310.00 0.0089 0.0070
 Earth -73122-04-25 10:04 J -24986273.33 -24986273.08 -24986272.83 0.0089 0.0007
 Moon -73122-04-25 11:59 J -24986273.24 -24986273.00 -24986272.75 0.0089 0.0006 *
 Mercury -73122-06-15 11:01 J -24986222.10 -24986222.04 -24986221.96 0.0089 0.0075
 Mercury -73122-09-11 12:13 J -24986134.03 -24986133.99 -24986133.92 0.0089 0.0080
 Mercury -73122-12-08 13:54 J -24986045.96 -24986045.92 -24986045.88 0.0089 0.0084
 Moon -73121-04-26 16:47 J -24985906.04 -24985905.80 -24985905.54 0.0089 0.0021
 Earth -73121-04-26 19:25 J -24985905.93 -24985905.69 -24985905.44 0.0089 0.0019 *
 Earth -73120-04-29 04:33 J -24985538.53 -24985538.31 -24985538.06 0.0089 0.0030
 Moon -73120-04-29 08:23 J -24985538.38 -24985538.15 -24985537.91 0.0089 0.0027 *
 Moon -73119-05-01 10:33 J -24985171.26 -24985171.06 -24985170.82 0.0089 0.0043
 Earth -73119-05-01 13:54 J -24985171.13 -24985170.92 -24985170.68 0.0089 0.0041 *
 Earth -73118-05-03 23:16 J -24984803.72 -24984803.53 -24984803.32 0.0089 0.0052
 Moon -73118-05-04 02:23 J -24984803.59 -24984803.40 -24984803.17 0.0089 0.0049 *
 Moon -73117-05-05 05:59 J -24984436.39 -24984436.25 -24984436.06 0.0089 0.0066
 Earth -73117-05-05 08:37 J -24984436.30 -24984436.14 -24984435.95 0.0089 0.0063 *
 Earth -73116-05-07 17:59 J -24984068.88 -24984068.75 -24984068.60 0.0089 0.0074
 Moon -73116-05-07 18:42 J -24984068.85 -24984068.72 -24984068.55 0.0089 0.0072 *
 Earth -73115-05-10 03:06 J -24983701.42 -24983701.37 -24983701.28 0.0089 0.0085
 Moon -73115-05-10 02:52 J -24983701.39 -24983701.38 -24983701.33 0.0089 0.0088 *

Mars	-73109-01-07 07:25 J	-24981633.43	-24981633.19	-24981632.92	0.0089	0.0046
Mars	-73108-12-01 06:28 J	-24980939.50	-24980939.23	-24980938.93	0.0089	0.0027
Venus	-73069-03-15 22:18 J	-24966954.68	-24966954.57	-24966954.42	0.0089	0.0072
Venus	-73069-10-27 11:59 J	-24966729.17	-24966729.00	-24966728.81	0.0089	0.0052
Venus	-73068-06-10 01:40 J	-24966503.62	-24966503.43	-24966503.21	0.0089	0.0032
Venus	-73067-01-21 15:35 J	-24966278.07	-24966277.85	-24966277.63	0.0089	0.0011
Venus	-73067-09-04 05:16 J	-24966052.50	-24966052.28	-24966052.06	0.0089	0.0009
Venus	-73066-04-17 18:42 J	-24965826.92	-24965826.72	-24965826.50	0.0089	0.0030
Venus	-73066-11-29 08:23 J	-24965601.32	-24965601.15	-24965600.95	0.0089	0.0050
Venus	-73065-07-11 22:33 J	-24965375.70	-24965375.56	-24965375.43	0.0089	0.0070
Earth	-73049-10-02 15:35 J	-24959448.89	-24959448.85	-24959448.76	0.0089	0.0086
Earth	-73048-10-05 05:30 J	-24959081.39	-24959081.27	-24959081.11	0.0089	0.0075
Moon	-73048-10-05 08:52 J	-24959081.26	-24959081.13	-24959080.94	0.0089	0.0071 *
Mercury	-73047-06-21 01:40 J	-24958822.44	-24958822.43	-24958822.40	0.0089	0.0088
Mercury	-73047-09-17 05:30 J	-24958734.34	-24958734.27	-24958734.19	0.0089	0.0081
Moon	-73047-10-07 16:33 J	-24958713.96	-24958713.81	-24958713.62	0.0089	0.0067
Earth	-73047-10-07 19:40 J	-24958713.85	-24958713.68	-24958713.49	0.0089	0.0063 *
Mercury	-73047-12-14 09:06 J	-24958646.22	-24958646.12	-24958646.00	0.0089	0.0074
Mercury	-73046-03-12 12:57 J	-24958558.08	-24958557.96	-24958557.82	0.0089	0.0067
Mercury	-73046-06-08 16:33 J	-24958469.94	-24958469.81	-24958469.65	0.0089	0.0060
Mercury	-73046-09-04 20:23 J	-24958381.80	-24958381.65	-24958381.48	0.0089	0.0053
Earth	-73046-10-10 09:06 J	-24958346.31	-24958346.12	-24958345.89	0.0089	0.0052
Moon	-73046-10-10 11:30 J	-24958346.22	-24958346.02	-24958345.77	0.0089	0.0049 *
Mercury	-73046-12-01 23:59 J	-24958293.65	-24958293.50	-24958293.31	0.0089	0.0046
Mercury	-73045-02-28 03:49 J	-24958205.50	-24958205.34	-24958205.15	0.0089	0.0039
Mercury	-73045-05-26 07:54 J	-24958117.36	-24958117.17	-24958116.99	0.0089	0.0031
Mercury	-73045-08-22 11:30 J	-24958029.20	-24958029.02	-24958028.82	0.0089	0.0024
Moon	-73045-10-11 22:18 J	-24957978.78	-24957978.57	-24957978.34	0.0089	0.0044
Earth	-73045-10-11 22:47 J	-24957978.76	-24957978.55	-24957978.29	0.0089	0.0041 *
Mercury	-73045-11-18 15:21 J	-24957941.05	-24957940.86	-24957940.66	0.0089	0.0017

Mercury -73044-02-14 19:11 J -24957852.90 -24957852.70 -24957852.51 0.0089 0.0010

Mercury -73044-05-13 22:47 J -24957764.74 -24957764.55 -24957764.35 0.0089 0.0003

Mercury -73044-08-10 02:37 J -24957676.59 -24957676.39 -24957676.19 0.0089 0.0005

Moon -73044-10-14 12:57 J -24957611.21 -24957610.96 -24957610.69 0.0089 0.0026

Earth -73044-10-14 12:57 J -24957611.20 -24957610.96 -24957610.70 0.0089 0.0029 *

Mercury -73044-11-06 06:13 J -24957588.43 -24957588.24 -24957588.04 0.0089 0.0012

Mercury -73043-02-02 10:04 J -24957500.27 -24957500.08 -24957499.89 0.0089 0.0019

Mercury -73043-05-01 13:40 J -24957412.11 -24957411.93 -24957411.74 0.0089 0.0026

Mercury -73043-07-28 17:30 J -24957323.95 -24957323.77 -24957323.59 0.0089 0.0033

Earth -73043-10-17 03:06 J -24957243.63 -24957243.37 -24957243.11 0.0089 0.0017

Moon -73043-10-17 04:04 J -24957243.58 -24957243.33 -24957243.08 0.0089 0.0020 *

Mercury -73043-10-24 21:06 J -24957235.79 -24957235.62 -24957235.44 0.0089 0.0040

Mercury -73042-01-21 00:57 J -24957147.63 -24957147.46 -24957147.30 0.0089 0.0047

Mercury -73042-04-19 04:04 J -24957059.46 -24957059.33 -24957059.15 0.0089 0.0055

Mercury -73042-07-16 07:54 J -24956971.29 -24956971.17 -24956971.01 0.0089 0.0062

Mercury -73042-10-12 11:30 J -24956883.12 -24956883.02 -24956882.87 0.0089 0.0069

Moon -73042-10-19 14:09 J -24956876.17 -24956875.91 -24956875.63 0.0089 0.0003

Earth -73042-10-19 17:01 J -24956876.05 -24956875.79 -24956875.53 0.0089 0.0006 *

Mercury -73041-01-08 15:06 J -24956794.95 -24956794.87 -24956794.74 0.0089 0.0076

Mercury -73041-04-05 18:57 J -24956706.76 -24956706.71 -24956706.62 0.0089 0.0083

Earth -73041-10-21 06:28 J -24956508.48 -24956508.23 -24956507.96 0.0089 0.0007

Moon -73041-10-21 09:35 J -24956508.36 -24956508.10 -24956507.84 0.0089 0.0004 *

Moon -73040-10-23 16:47 J -24956141.05 -24956140.80 -24956140.53 0.0088 0.0021

Earth -73040-10-23 20:37 J -24956140.89 -24956140.64 -24956140.38 0.0088 0.0018 *

Earth -73039-10-26 10:18 J -24955773.30 -24955773.07 -24955772.81 0.0088 0.0030

Moon -73039-10-26 14:09 J -24955773.15 -24955772.91 -24955772.65 0.0088 0.0027 *

Moon -73038-10-28 21:35 J -24955405.83 -24955405.60 -24955405.38 0.0088 0.0043

Earth -73038-10-29 00:13 J -24955405.70 -24955405.49 -24955405.23 0.0088 0.0042 *

Earth -73037-10-30 14:37 J -24955038.09 -24955037.89 -24955037.67 0.0088 0.0053

Moon -73037-10-30 17:16 J -24955037.98 -24955037.78 -24955037.54 0.0088 0.0052 *

Moon	-73036-11-02 03:06 J	-24954670.52	-24954670.37	-24954670.18	0.0088	0.0067
Earth	-73036-11-02 04:18 J	-24954670.47	-24954670.32	-24954670.11	0.0088	0.0065 *
Earth	-73035-11-04 18:42 J	-24954302.83	-24954302.72	-24954302.56	0.0088	0.0076
Moon	-73035-11-04 19:25 J	-24954302.81	-24954302.69	-24954302.52	0.0088	0.0075 *
Earth	-73034-11-07 08:52 J	-24953935.16	-24953935.13	-24953935.06	0.0088	0.0087
Moon	-73034-11-07 09:49 J	-24953935.11	-24953935.09	-24953935.07	0.0088	0.0088 *
Mars	-73028-12-13 06:42 J	-24951707.47	-24951707.22	-24951706.91	0.0088	0.0049
Mars	-73026-11-09 00:42 J	-24951011.77	-24951011.47	-24951011.15	0.0088	0.0033

73RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 73rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-72987-05-06 03:21 J	-24936953.39	-24936953.36	-24936953.31	0.0088	0.0087		
Venus	-72987-12-17 15:35 J	-24936727.96	-24936727.85	-24936727.69	0.0088	0.0068		
Venus	-72986-07-31 04:18 J	-24936502.49	-24936502.32	-24936502.13	0.0088	0.0048		
Venus	-72985-03-12 16:33 J	-24936277.00	-24936276.81	-24936276.59	0.0088	0.0029		
Venus	-72985-10-24 05:01 J	-24936051.50	-24936051.29	-24936051.07	0.0088	0.0009		
Venus	-72984-06-06 17:30 J	-24935825.99	-24935825.77	-24935825.56	0.0088	0.0011		
Venus	-72983-01-18 05:30 J	-24935600.46	-24935600.27	-24935600.06	0.0088	0.0030		
Venus	-72983-08-31 17:45 J	-24935374.93	-24935374.76	-24935374.57	0.0088	0.0050		
Venus	-72982-04-14 06:13 J	-24935149.38	-24935149.24	-24935149.11	0.0088	0.0069		
Venus	-72982-11-25 18:13 J	-24934923.74	-24934923.74	-24934923.72	0.0088	0.0088		

Earth -72966-04-07 16:47 J -24929311.87 -24929311.80 -24929311.71 0.0089 0.0084
 Moon -72966-04-07 19:54 J -24929311.69 -24929311.67 -24929311.63 0.0089 0.0088
 Mercury -72966-12-30 14:52 J -24929044.91 -24929044.88 -24929044.85 0.0089 0.0086
 Mercury -72965-03-27 15:49 J -24928956.87 -24928956.84 -24928956.78 0.0089 0.0082
 Moon -72965-04-08 23:01 J -24928944.69 -24928944.54 -24928944.38 0.0089 0.0069
 Earth -72965-04-09 02:09 J -24928944.52 -24928944.41 -24928944.24 0.0089 0.0074 *
 Mercury -72965-06-23 17:16 J -24928868.83 -24928868.78 -24928868.71 0.0089 0.0077
 Mercury -72965-09-19 18:42 J -24928780.79 -24928780.72 -24928780.64 0.0089 0.0072
 Mercury -72965-12-16 20:09 J -24928692.75 -24928692.66 -24928692.58 0.0089 0.0067
 Mercury -72964-03-14 21:06 J -24928604.70 -24928604.62 -24928604.52 0.0089 0.0063
 Earth -72964-04-11 11:45 J -24928577.16 -24928577.01 -24928576.80 0.0089 0.0063
 Moon -72964-04-11 15:06 J -24928577.01 -24928576.87 -24928576.68 0.0089 0.0067 *
 Mercury -72964-06-10 22:33 J -24928516.65 -24928516.56 -24928516.46 0.0089 0.0058
 Mercury -72964-09-06 23:45 J -24928428.61 -24928428.51 -24928428.40 0.0089 0.0053
 Mercury -72964-12-04 01:11 J -24928340.56 -24928340.45 -24928340.34 0.0089 0.0048
 Mercury -72963-03-02 02:23 J -24928252.51 -24928252.40 -24928252.28 0.0089 0.0044
 Moon -72963-04-13 19:11 J -24928209.89 -24928209.70 -24928209.48 0.0089 0.0048
 Earth -72963-04-13 21:35 J -24928209.78 -24928209.60 -24928209.37 0.0089 0.0052 *
 Mercury -72963-05-29 03:35 J -24928164.46 -24928164.35 -24928164.22 0.0089 0.0039
 Mercury -72963-08-25 05:01 J -24928076.41 -24928076.29 -24928076.17 0.0089 0.0034
 Mercury -72963-11-21 06:28 J -24927988.36 -24927988.23 -24927988.11 0.0089 0.0029
 Mercury -72962-02-17 07:40 J -24927900.30 -24927900.18 -24927900.05 0.0089 0.0024
 Earth -72962-04-16 06:57 J -24927842.41 -24927842.21 -24927841.96 0.0089 0.0041
 Moon -72962-04-16 09:21 J -24927842.33 -24927842.11 -24927841.88 0.0089 0.0044 *
 Mercury -72962-05-16 08:52 J -24927812.25 -24927812.13 -24927812.00 0.0089 0.0020
 Mercury -72962-08-12 10:18 J -24927724.20 -24927724.07 -24927723.94 0.0089 0.0015
 Mercury -72962-11-08 11:30 J -24927636.15 -24927636.02 -24927635.89 0.0089 0.0010
 Mercury -72961-02-04 12:57 J -24927548.09 -24927547.96 -24927547.83 0.0089 0.0005
 Earth -72961-04-17 16:47 J -24927475.02 -24927474.80 -24927474.54 0.0089 0.0030
 Moon -72961-04-17 16:47 J -24927475.02 -24927474.80 -24927474.55 0.0089 0.0026 *

Mercury -72961-05-02 14:09 J -24927460.04 -24927459.91 -24927459.78 0.0089 0.0001
 Mercury -72961-07-29 15:35 J -24927371.99 -24927371.85 -24927371.72 0.0089 0.0005
 Mercury -72961-10-25 16:47 J -24927283.93 -24927283.80 -24927283.67 0.0089 0.0009
 Mercury -72960-01-21 17:59 J -24927195.88 -24927195.75 -24927195.62 0.0089 0.0014
 Mercury -72960-04-19 19:25 J -24927107.82 -24927107.69 -24927107.56 0.0089 0.0019
 Moon -72960-04-20 01:40 J -24927107.67 -24927107.43 -24927107.16 0.0089 0.0022 *
 Earth -72960-04-20 02:52 J -24927107.63 -24927107.38 -24927107.13 0.0089 0.0018 *
 Mercury -72960-07-16 20:37 J -24927019.76 -24927019.64 -24927019.51 0.0089 0.0024
 Mercury -72960-10-12 21:49 J -24926931.71 -24926931.59 -24926931.46 0.0089 0.0029
 Mercury -72959-01-08 23:01 J -24926843.65 -24926843.54 -24926843.41 0.0089 0.0034
 Mercury -72959-04-07 00:42 J -24926755.59 -24926755.47 -24926755.35 0.0089 0.0038
 Earth -72959-04-22 12:13 J -24926740.24 -24926739.99 -24926739.74 0.0089 0.0007
 Moon -72959-04-22 14:09 J -24926740.15 -24926739.91 -24926739.66 0.0089 0.0003 *
 Mercury -72959-07-04 01:54 J -24926667.53 -24926667.42 -24926667.30 0.0089 0.0043
 Mercury -72959-09-30 03:06 J -24926579.47 -24926579.37 -24926579.25 0.0089 0.0048
 Mercury -72959-12-27 04:18 J -24926491.41 -24926491.32 -24926491.20 0.0089 0.0053
 Mercury -72958-03-25 05:30 J -24926403.35 -24926403.27 -24926403.15 0.0089 0.0058
 Moon -72958-04-24 18:42 J -24926372.98 -24926372.72 -24926372.47 0.0089 0.0001
 Earth -72958-04-24 21:49 J -24926372.84 -24926372.59 -24926372.33 0.0089 0.0004 *
 Mercury -72958-06-21 07:11 J -24926315.29 -24926315.20 -24926315.11 0.0089 0.0062
 Mercury -72958-09-17 08:23 J -24926227.23 -24926227.15 -24926227.06 0.0089 0.0067
 Mercury -72958-12-14 09:35 J -24926139.17 -24926139.10 -24926139.01 0.0089 0.0072
 Mercury -72957-03-11 10:47 J -24926051.10 -24926051.05 -24926050.97 0.0089 0.0077
 Earth -72957-04-26 07:25 J -24926005.44 -24926005.19 -24926004.94 0.0089 0.0015
 Moon -72957-04-26 10:33 J -24926005.30 -24926005.06 -24926004.81 0.0089 0.0019 *
 Mercury -72957-06-07 12:13 J -24925963.03 -24925962.99 -24925962.93 0.0089 0.0082
 Mercury -72957-09-03 13:40 J -24925874.95 -24925874.93 -24925874.90 0.0089 0.0086
 Moon -72956-04-28 12:57 J -24925638.19 -24925637.96 -24925637.70 0.0089 0.0023
 Earth -72956-04-28 16:33 J -24925638.04 -24925637.81 -24925637.56 0.0089 0.0027 *
 Earth -72955-05-01 02:09 J -24925270.64 -24925270.41 -24925270.18 0.0089 0.0037

Moon	-72955-05-01 04:33 J	-24925270.52	-24925270.31	-24925270.06	0.0089	0.0042	*
Moon	-72954-05-03 09:06 J	-24924903.32	-24924903.12	-24924902.90	0.0089	0.0045	
Earth	-72954-05-03 11:30 J	-24924903.23	-24924903.02	-24924902.81	0.0089	0.0048	*
Earth	-72953-05-04 20:37 J	-24924535.82	-24924535.64	-24924535.45	0.0089	0.0059	
Moon	-72953-05-04 21:21 J	-24924535.77	-24924535.61	-24924535.40	0.0089	0.0063	*
Earth	-72952-05-07 05:45 J	-24924168.40	-24924168.26	-24924168.09	0.0089	0.0070	
Moon	-72952-05-07 06:28 J	-24924168.38	-24924168.23	-24924168.05	0.0089	0.0066	*
Moon	-72951-05-09 13:25 J	-24923801.00	-24923800.94	-24923800.84	0.0089	0.0084	
Earth	-72951-05-09 14:37 J	-24923800.96	-24923800.89	-24923800.76	0.0089	0.0081	*
Moon	-72950-05-12 02:23 J	-24923433.40	-24923433.40	-24923433.33	0.0089	0.0088	
Mars	-72946-08-22 18:13 J	-24921869.87	-24921869.74	-24921869.58	0.0089	0.0076	
Mars	-72944-07-16 14:52 J	-24921176.17	-24921175.88	-24921175.58	0.0089	0.0005	
Mars	-72942-06-10 14:23 J	-24920482.09	-24920481.90	-24920481.70	0.0089	0.0068	
Venus	-72905-06-17 08:52 J	-24906960.20	-24906960.13	-24906960.01	0.0089	0.0080	
Venus	-72904-01-28 22:47 J	-24906734.70	-24906734.55	-24906734.37	0.0089	0.0059	
Venus	-72904-09-11 12:13 J	-24906509.17	-24906508.99	-24906508.77	0.0089	0.0039	
Venus	-72903-04-25 01:54 J	-24906283.62	-24906283.42	-24906283.19	0.0089	0.0019	
Venus	-72903-12-06 15:49 J	-24906058.06	-24906057.84	-24906057.61	0.0089	0.0003	
Venus	-72902-07-20 05:45 J	-24905832.48	-24905832.26	-24905832.05	0.0089	0.0022	
Venus	-72901-03-01 18:57 J	-24905606.89	-24905606.71	-24905606.50	0.0089	0.0043	
Venus	-72901-10-13 08:52 J	-24905381.28	-24905381.13	-24905380.97	0.0089	0.0063	
Venus	-72900-05-26 22:18 J	-24905155.62	-24905155.57	-24905155.47	0.0089	0.0084	
Earth	-72885-10-02 00:13 J	-24899548.52	-24899548.49	-24899548.42	0.0089	0.0087	
Moon	-72885-10-02 04:04 J	-24899548.41	-24899548.33	-24899548.24	0.0089	0.0084	
Moon	-72884-10-04 11:45 J	-24899181.12	-24899181.01	-24899180.89	0.0089	0.0078	
Earth	-72884-10-04 13:54 J	-24899181.03	-24899180.92	-24899180.76	0.0089	0.0076	*
Earth	-72883-10-07 03:49 J	-24898813.50	-24898813.34	-24898813.15	0.0089	0.0065	
Moon	-72883-10-07 05:01 J	-24898813.46	-24898813.29	-24898813.07	0.0089	0.0063	*
Mercury	-72882-03-17 23:59 J	-24898651.52	-24898651.50	-24898651.42	0.0089	0.0086	
Mercury	-72882-06-14 03:49 J	-24898563.41	-24898563.34	-24898563.23	0.0089	0.0079	

Mercury -72882-09-10 08:09 J -24898475.28 -24898475.16 -24898475.05 0.0089 0.0071
 Moon -72882-10-09 16:47 J -24898445.97 -24898445.80 -24898445.58 0.0089 0.0057
 Earth -72882-10-09 17:30 J -24898445.96 -24898445.77 -24898445.54 0.0089 0.0054 *
 Mercury -72882-12-07 11:45 J -24898387.14 -24898387.01 -24898386.87 0.0089 0.0064
 Mercury -72881-03-04 15:21 J -24898299.00 -24898298.86 -24898298.70 0.0089 0.0057
 Mercury -72881-05-31 19:11 J -24898210.85 -24898210.70 -24898210.53 0.0089 0.0050
 Mercury -72881-08-27 22:47 J -24898122.71 -24898122.55 -24898122.36 0.0089 0.0043
 Moon -72881-10-11 06:28 J -24898078.45 -24898078.23 -24898077.97 0.0089 0.0040
 Earth -72881-10-11 07:25 J -24898078.40 -24898078.19 -24898077.94 0.0089 0.0043 *
 Mercury -72881-11-24 02:37 J -24898034.56 -24898034.39 -24898034.20 0.0089 0.0036
 Mercury -72880-02-20 06:28 J -24897946.41 -24897946.23 -24897946.04 0.0089 0.0028
 Mercury -72880-05-19 10:04 J -24897858.26 -24897858.08 -24897857.87 0.0089 0.0022
 Mercury -72880-08-15 14:09 J -24897770.10 -24897769.91 -24897769.71 0.0089 0.0014
 Earth -72880-10-13 21:35 J -24897710.84 -24897710.60 -24897710.35 0.0089 0.0031
 Moon -72880-10-13 23:16 J -24897710.75 -24897710.53 -24897710.28 0.0089 0.0034 *
 Mercury -72880-11-11 17:59 J -24897681.95 -24897681.75 -24897681.56 0.0089 0.0007
 Mercury -72879-02-07 21:35 J -24897593.79 -24897593.60 -24897593.40 0.0089 0.0001
 Mercury -72879-05-07 01:25 J -24897505.64 -24897505.44 -24897505.24 0.0089 0.0008
 Mercury -72879-08-03 05:01 J -24897417.48 -24897417.29 -24897417.09 0.0089 0.0015
 Moon -72879-10-16 08:52 J -24897343.38 -24897343.13 -24897342.85 0.0089 0.0017
 Earth -72879-10-16 11:30 J -24897343.27 -24897343.02 -24897342.75 0.0089 0.0020 *
 Mercury -72879-10-30 08:52 J -24897329.32 -24897329.13 -24897328.94 0.0089 0.0022
 Mercury -72878-01-26 12:28 J -24897241.16 -24897240.98 -24897240.79 0.0089 0.0029
 Mercury -72878-04-24 16:18 J -24897153.00 -24897152.82 -24897152.64 0.0089 0.0036
 Mercury -72878-07-21 19:40 J -24897064.84 -24897064.68 -24897064.49 0.0089 0.0044
 Mercury -72878-10-17 23:16 J -24896976.67 -24896976.53 -24896976.35 0.0089 0.0051
 Earth -72878-10-19 01:25 J -24896975.70 -24896975.44 -24896975.18 0.0089 0.0008
 Moon -72878-10-19 04:47 J -24896975.55 -24896975.30 -24896975.03 0.0089 0.0012 *
 Mercury -72877-01-14 03:06 J -24896888.50 -24896888.37 -24896888.20 0.0089 0.0058
 Mercury -72877-04-11 06:42 J -24896800.33 -24896800.22 -24896800.07 0.0089 0.0065

Mercury -72877-07-08 10:33 J -24896712.16 -24896712.06 -24896711.93 0.0089 0.0072

Mercury -72877-10-04 14:09 J -24896623.98 -24896623.91 -24896623.80 0.0089 0.0079

Moon -72877-10-20 11:45 J -24896608.27 -24896608.01 -24896607.74 0.0089 0.0007

Earth -72877-10-20 15:21 J -24896608.12 -24896607.86 -24896607.59 0.0089 0.0003 *

Mercury -72877-12-31 17:45 J -24896535.78 -24896535.76 -24896535.69 0.0089 0.0086

Earth -72876-10-23 05:16 J -24896240.54 -24896240.28 -24896240.02 0.0089 0.0015

Moon -72876-10-23 08:52 J -24896240.39 -24896240.13 -24896239.86 0.0089 0.0011 *

Moon -72875-10-25 16:18 J -24895873.06 -24895872.82 -24895872.58 0.0089 0.0030

Earth -72875-10-25 18:57 J -24895872.95 -24895872.71 -24895872.44 0.0089 0.0027 *

Earth -72874-10-28 08:52 J -24895505.35 -24895505.13 -24895504.88 0.0088 0.0038

Moon -72874-10-28 11:16 J -24895505.28 -24895505.03 -24895504.78 0.0088 0.0034 *

Moon -72873-10-29 21:21 J -24895137.79 -24895137.61 -24895137.38 0.0088 0.0054

Earth -72873-10-29 23:16 J -24895137.75 -24895137.53 -24895137.31 0.0088 0.0049 *

Moon -72872-11-01 12:42 J -24894770.16 -24894769.97 -24894769.74 0.0088 0.0056

Earth -72872-11-01 12:57 J -24894770.13 -24894769.96 -24894769.74 0.0088 0.0061 *

Earth -72871-11-04 03:06 J -24894402.50 -24894402.37 -24894402.19 0.0088 0.0072

Moon -72871-11-04 04:18 J -24894402.43 -24894402.32 -24894402.16 0.0088 0.0076 *

Moon -72870-11-06 15:35 J -24894034.97 -24894034.85 -24894034.72 0.0088 0.0078

Earth -72870-11-06 17:16 J -24894034.85 -24894034.78 -24894034.66 0.0088 0.0083 *

Mars -72864-07-27 06:28 J -24891945.32 -24891945.23 -24891945.07 0.0088 0.0083

Mars -72862-06-23 03:06 J -24891249.70 -24891249.37 -24891249.03 0.0088 0.0001

Mars -72860-05-18 19:11 J -24890553.81 -24890553.70 -24890553.51 0.0088 0.0079

Venus -72822-03-21 04:18 J -24876733.43 -24876733.32 -24876733.19 0.0088 0.0074

Venus -72822-11-01 16:33 J -24876507.97 -24876507.81 -24876507.62 0.0088 0.0054

Venus -72821-06-14 05:01 J -24876282.48 -24876282.29 -24876282.08 0.0088 0.0035

Venus -72820-01-25 17:16 J -24876056.98 -24876056.78 -24876056.56 0.0088 0.0016

Venus -72820-09-08 05:45 J -24875831.47 -24875831.26 -24875831.04 0.0088 0.0004

Venus -72819-04-21 17:59 J -24875605.96 -24875605.75 -24875605.54 0.0088 0.0024

Venus -72819-12-03 05:59 J -24875380.42 -24875380.25 -24875380.04 0.0088 0.0044

Venus -72818-07-16 18:28 J -24875154.87 -24875154.73 -24875154.57 0.0088 0.0063

Venus -72817-02-27 06:42 J -24874929.29 -24874929.22 -24874929.14 0.0088 0.0082
 Moon -72802-04-07 01:25 J -24869411.49 -24869411.44 -24869411.33 0.0089 0.0084
 Earth -72802-04-07 05:01 J -24869411.34 -24869411.29 -24869411.20 0.0089 0.0085 *
 Earth -72801-04-08 15:21 J -24869044.00 -24869043.86 -24869043.73 0.0089 0.0074
 Moon -72801-04-08 18:13 J -24869043.85 -24869043.74 -24869043.60 0.0089 0.0077 *
 Mercury -72801-06-29 13:40 J -24868961.93 -24868961.93 -24868961.93 0.0089 0.0089
 Mercury -72801-09-25 14:52 J -24868873.92 -24868873.88 -24868873.84 0.0089 0.0084
 Mercury -72801-12-22 15:49 J -24868785.88 -24868785.84 -24868785.77 0.0089 0.0080
 Mercury -72800-03-20 17:16 J -24868697.84 -24868697.78 -24868697.70 0.0089 0.0075
 Moon -72800-04-10 22:33 J -24868676.73 -24868676.56 -24868676.38 0.0089 0.0062
 Earth -72800-04-11 00:42 J -24868676.63 -24868676.47 -24868676.28 0.0089 0.0064 *
 Mercury -72800-06-16 18:42 J -24868609.80 -24868609.72 -24868609.64 0.0089 0.0070
 Mercury -72800-09-12 19:54 J -24868521.75 -24868521.67 -24868521.58 0.0089 0.0065
 Mercury -72800-12-09 21:21 J -24868433.70 -24868433.61 -24868433.51 0.0089 0.0060
 Mercury -72799-03-07 22:33 J -24868345.66 -24868345.56 -24868345.45 0.0089 0.0056
 Earth -72799-04-13 10:18 J -24868309.26 -24868309.07 -24868308.86 0.0089 0.0053
 Moon -72799-04-13 11:16 J -24868309.22 -24868309.03 -24868308.81 0.0089 0.0055 *
 Mercury -72799-06-03 23:45 J -24868257.61 -24868257.51 -24868257.39 0.0089 0.0051
 Mercury -72799-08-31 01:11 J -24868169.56 -24868169.45 -24868169.34 0.0089 0.0046
 Mercury -72799-11-27 02:37 J -24868081.51 -24868081.39 -24868081.28 0.0089 0.0041
 Mercury -72798-02-23 03:35 J -24867993.46 -24867993.35 -24867993.22 0.0089 0.0037
 Moon -72798-04-15 19:54 J -24867941.89 -24867941.67 -24867941.45 0.0089 0.0040
 Earth -72798-04-15 19:40 J -24867941.88 -24867941.68 -24867941.43 0.0089 0.0043 *
 Mercury -72798-05-22 05:01 J -24867905.41 -24867905.29 -24867905.16 0.0089 0.0032
 Mercury -72798-08-18 06:28 J -24867817.36 -24867817.23 -24867817.11 0.0089 0.0027
 Mercury -72798-11-14 07:40 J -24867729.31 -24867729.18 -24867729.05 0.0089 0.0022
 Mercury -72797-02-10 08:52 J -24867641.25 -24867641.13 -24867641.00 0.0089 0.0018
 Moon -72797-04-17 04:18 J -24867574.56 -24867574.32 -24867574.07 0.0089 0.0033
 Earth -72797-04-17 05:30 J -24867574.49 -24867574.27 -24867574.02 0.0089 0.0032 *
 Mercury -72797-05-08 10:18 J -24867553.20 -24867553.07 -24867552.94 0.0089 0.0012

Mercury -72797-08-04 11:30 J -24867465.15 -24867465.02 -24867464.88 0.0089 0.0008

Mercury -72797-10-31 12:57 J -24867377.09 -24867376.96 -24867376.83 0.0089 0.0003

Mercury -72796-01-27 14:09 J -24867289.04 -24867288.91 -24867288.78 0.0089 0.0002

Earth -72796-04-19 15:06 J -24867207.11 -24867206.87 -24867206.61 0.0089 0.0021

Moon -72796-04-19 17:45 J -24867207.00 -24867206.76 -24867206.52 0.0089 0.0019 *

Mercury -72796-04-25 15:21 J -24867200.99 -24867200.86 -24867200.72 0.0089 0.0008

Mercury -72796-07-22 16:47 J -24867112.93 -24867112.80 -24867112.67 0.0089 0.0012

Mercury -72796-10-18 17:59 J -24867024.87 -24867024.75 -24867024.62 0.0089 0.0017

Mercury -72795-01-14 19:25 J -24866936.82 -24866936.69 -24866936.56 0.0089 0.0021

Mercury -72795-04-12 20:37 J -24866848.76 -24866848.64 -24866848.51 0.0089 0.0026

Moon -72795-04-21 21:49 J -24866839.84 -24866839.59 -24866839.33 0.0089 0.0012

Earth -72795-04-22 00:42 J -24866839.71 -24866839.47 -24866839.21 0.0089 0.0010 *

Mercury -72795-07-09 21:49 J -24866760.71 -24866760.59 -24866760.46 0.0089 0.0031

Mercury -72795-10-05 23:16 J -24866672.65 -24866672.53 -24866672.41 0.0089 0.0036

Mercury -72794-01-02 00:28 J -24866584.59 -24866584.48 -24866584.36 0.0089 0.0041

Mercury -72794-03-31 01:54 J -24866496.53 -24866496.42 -24866496.31 0.0089 0.0045

Earth -72794-04-24 10:33 J -24866472.32 -24866472.06 -24866471.81 0.0089 0.0002

Moon -72794-04-24 14:09 J -24866472.16 -24866471.91 -24866471.66 0.0089 0.0004 *

Mercury -72794-06-27 03:06 J -24866408.47 -24866408.37 -24866408.26 0.0089 0.0050

Mercury -72794-09-23 04:33 J -24866320.41 -24866320.31 -24866320.21 0.0089 0.0055

Mercury -72794-12-20 05:45 J -24866232.35 -24866232.26 -24866232.16 0.0089 0.0060

Mercury -72793-03-17 06:57 J -24866144.29 -24866144.21 -24866144.11 0.0089 0.0065

Moon -72793-04-25 16:47 J -24866105.04 -24866104.80 -24866104.54 0.0089 0.0011

Earth -72793-04-25 19:54 J -24866104.91 -24866104.67 -24866104.41 0.0089 0.0013 *

Mercury -72793-06-13 08:09 J -24866056.23 -24866056.16 -24866056.07 0.0089 0.0070

Mercury -72793-09-09 09:49 J -24865968.16 -24865968.09 -24865968.02 0.0089 0.0074

Mercury -72793-12-06 11:01 J -24865880.09 -24865880.04 -24865879.98 0.0089 0.0079

Mercury -72792-03-04 12:13 J -24865792.02 -24865791.99 -24865791.94 0.0089 0.0084

Earth -72792-04-28 05:45 J -24865737.50 -24865737.26 -24865737.02 0.0089 0.0023

Moon -72792-04-28 08:37 J -24865737.38 -24865737.14 -24865736.89 0.0089 0.0026 *

Mercury -72792-05-31 13:40 J -24865703.93 -24865703.93 -24865703.92 0.0089 0.0089
 Moon -72791-04-30 13:25 J -24865370.17 -24865369.94 -24865369.71 0.0089 0.0032
 Earth -72791-04-30 15:06 J -24865370.10 -24865369.87 -24865369.64 0.0089 0.0034 *
 Earth -72790-05-03 00:13 J -24865002.69 -24865002.49 -24865002.26 0.0089 0.0045
 Moon -72790-05-03 00:28 J -24865002.68 -24865002.48 -24865002.23 0.0089 0.0047 *
 Earth -72789-05-04 09:21 J -24864635.28 -24864635.11 -24864634.89 0.0089 0.0056
 Moon -72789-05-04 10:18 J -24864635.26 -24864635.07 -24864634.87 0.0089 0.0053 *
 Moon -72788-05-06 16:33 J -24864267.95 -24864267.81 -24864267.62 0.0089 0.0068
 Earth -72788-05-06 18:57 J -24864267.86 -24864267.71 -24864267.53 0.0089 0.0066 *
 Earth -72787-05-09 03:49 J -24863900.44 -24863900.34 -24863900.19 0.0089 0.0077
 Moon -72787-05-09 06:57 J -24863900.33 -24863900.21 -24863900.07 0.0089 0.0075 *
 Earth -72786-05-11 13:25 J -24863532.97 -24863532.94 -24863532.88 0.0089 0.0087
 Mars -72780-03-01 02:23 J -24861412.66 -24861412.40 -24861412.12 0.0089 0.0035
 Mars -72778-01-23 23:45 J -24860718.78 -24860718.51 -24860718.24 0.0089 0.0036
 Jupiter -72755-07-20 14:52 J -24852140.15 -24852139.88 -24852139.53 0.0089 0.0074
 Venus -72741-09-18 19:40 J -24846965.70 -24846965.68 -24846965.61 0.0089 0.0087
 Venus -72740-05-02 09:49 J -24846740.24 -24846740.09 -24846739.94 0.0089 0.0067
 Venus -72740-12-13 23:16 J -24846514.71 -24846514.53 -24846514.33 0.0089 0.0046
 Venus -72739-07-27 12:57 J -24846289.17 -24846288.96 -24846288.74 0.0089 0.0026
 Venus -72738-03-10 02:37 J -24846063.61 -24846063.39 -24846063.16 0.0089 0.0006
 Venus -72738-10-21 16:18 J -24845838.04 -24845837.82 -24845837.60 0.0089 0.0015
 Venus -72737-06-03 05:45 J -24845612.45 -24845612.26 -24845612.04 0.0089 0.0036
 Venus -72736-01-14 19:40 J -24845386.84 -24845386.68 -24845386.50 0.0089 0.0056
 Venus -72736-08-28 08:52 J -24845161.21 -24845161.13 -24845160.99 0.0089 0.0077
 Moon -72721-10-01 08:09 J -24839648.23 -24839648.16 -24839648.07 0.0089 0.0084
 Earth -72721-10-01 10:04 J -24839648.09 -24839648.08 -24839648.02 0.0089 0.0088 *
 Earth -72720-10-03 23:45 J -24839280.62 -24839280.51 -24839280.36 0.0089 0.0077
 Moon -72720-10-04 00:57 J -24839280.55 -24839280.46 -24839280.33 0.0089 0.0081 *
 Earth -72719-10-06 13:40 J -24838913.10 -24838912.93 -24838912.75 0.0089 0.0066
 Moon -72719-10-06 14:09 J -24838913.09 -24838912.91 -24838912.73 0.0089 0.0062 *

Moon -72718-10-09 01:40 J -24838545.61 -24838545.43 -24838545.20 0.0089 0.0059
 Earth -72718-10-09 03:21 J -24838545.56 -24838545.36 -24838545.15 0.0089 0.0055 *
 Mercury -72718-12-12 23:30 J -24838480.58 -24838480.52 -24838480.44 0.0089 0.0082
 Mercury -72717-03-10 03:06 J -24838392.46 -24838392.37 -24838392.25 0.0089 0.0075
 Mercury -72717-06-06 06:57 J -24838304.33 -24838304.21 -24838304.07 0.0089 0.0068
 Mercury -72717-09-02 10:33 J -24838216.19 -24838216.06 -24838215.90 0.0089 0.0061
 Earth -72717-10-10 17:16 J -24838178.01 -24838177.78 -24838177.55 0.0089 0.0044
 Moon -72717-10-10 18:57 J -24838177.91 -24838177.71 -24838177.46 0.0089 0.0041 *
 Mercury -72717-11-29 14:23 J -24838128.04 -24838127.90 -24838127.73 0.0089 0.0054
 Mercury -72716-02-25 17:59 J -24838039.90 -24838039.75 -24838039.56 0.0089 0.0047
 Mercury -72716-05-24 21:49 J -24837951.75 -24837951.59 -24837951.40 0.0089 0.0040
 Mercury -72716-08-21 01:54 J -24837863.60 -24837863.42 -24837863.23 0.0089 0.0032
 Moon -72716-10-13 03:49 J -24837810.58 -24837810.34 -24837810.09 0.0089 0.0037
 Earth -72716-10-13 06:57 J -24837810.44 -24837810.21 -24837809.95 0.0089 0.0033 *
 Mercury -72716-11-17 05:45 J -24837775.45 -24837775.26 -24837775.07 0.0089 0.0025
 Mercury -72715-02-13 09:21 J -24837687.30 -24837687.11 -24837686.91 0.0089 0.0018
 Mercury -72715-05-12 13:11 J -24837599.14 -24837598.95 -24837598.75 0.0089 0.0011
 Mercury -72715-08-08 17:01 J -24837510.99 -24837510.79 -24837510.59 0.0089 0.0003
 Earth -72715-10-15 20:52 J -24837442.88 -24837442.63 -24837442.37 0.0089 0.0022
 Moon -72715-10-16 00:13 J -24837442.74 -24837442.49 -24837442.23 0.0089 0.0018 *
 Mercury -72715-11-04 20:37 J -24837422.83 -24837422.64 -24837422.44 0.0089 0.0004
 Mercury -72714-02-01 00:28 J -24837334.68 -24837334.48 -24837334.28 0.0089 0.0011
 Mercury -72714-04-30 04:04 J -24837246.52 -24837246.33 -24837246.13 0.0089 0.0018
 Mercury -72714-07-27 07:40 J -24837158.36 -24837158.18 -24837157.98 0.0089 0.0026
 Moon -72714-10-18 07:11 J -24837075.46 -24837075.20 -24837074.94 0.0089 0.0014
 Earth -72714-10-18 10:47 J -24837075.30 -24837075.05 -24837074.78 0.0089 0.0011 *
 Mercury -72714-10-23 11:30 J -24837070.19 -24837070.02 -24837069.83 0.0089 0.0033
 Mercury -72713-01-19 15:06 J -24836982.03 -24836981.87 -24836981.68 0.0089 0.0040
 Mercury -72713-04-16 18:57 J -24836893.87 -24836893.71 -24836893.53 0.0089 0.0047
 Mercury -72713-07-13 22:47 J -24836805.70 -24836805.55 -24836805.39 0.0089 0.0054

Mercury -72713-10-10 02:23 J -24836717.53 -24836717.40 -24836717.25 0.0089 0.0061
 Earth -72713-10-20 00:42 J -24836707.73 -24836707.47 -24836707.20 0.0089 0.0001
 Moon -72713-10-20 03:49 J -24836707.60 -24836707.34 -24836707.06 0.0089 0.0005 *
 Mercury -72712-01-06 06:13 J -24836629.36 -24836629.24 -24836629.11 0.0089 0.0068
 Mercury -72712-04-04 10:04 J -24836541.18 -24836541.08 -24836540.98 0.0089 0.0075
 Mercury -72712-07-01 13:40 J -24836453.00 -24836452.93 -24836452.85 0.0089 0.0082
 Moon -72712-10-22 11:59 J -24836340.25 -24836340.00 -24836339.74 0.0089 0.0010
 Earth -72712-10-22 14:37 J -24836340.15 -24836339.89 -24836339.62 0.0089 0.0012 *
 Earth -72711-10-25 04:18 J -24835972.56 -24835972.32 -24835972.05 0.0089 0.0024
 Moon -72711-10-25 06:28 J -24835972.49 -24835972.23 -24835971.97 0.0089 0.0026 *
 Moon -72710-10-27 17:59 J -24835604.98 -24835604.75 -24835604.50 0.0089 0.0032
 Earth -72710-10-27 18:13 J -24835604.97 -24835604.74 -24835604.49 0.0089 0.0035 *
 Moon -72709-10-29 07:40 J -24835237.39 -24835237.18 -24835236.93 0.0089 0.0048
 Earth -72709-10-29 08:09 J -24835237.37 -24835237.16 -24835236.92 0.0089 0.0046 *
 Earth -72708-10-31 22:04 J -24834869.76 -24834869.58 -24834869.36 0.0088 0.0057
 Moon -72708-10-31 23:45 J -24834869.69 -24834869.51 -24834869.29 0.0088 0.0055 *
 Moon -72707-11-03 08:52 J -24834502.27 -24834502.13 -24834501.94 0.0088 0.0071
 Earth -72707-11-03 11:59 J -24834502.15 -24834502.00 -24834501.81 0.0088 0.0068 *
 Earth -72706-11-06 01:54 J -24834134.51 -24834134.42 -24834134.27 0.0088 0.0079
 Moon -72706-11-06 04:47 J -24834134.39 -24834134.30 -24834134.14 0.0088 0.0078 *
 Mars -72698-02-04 03:35 J -24831487.65 -24831487.35 -24831487.03 0.0088 0.0035
 Mars -72697-12-30 22:04 J -24830791.84 -24830791.58 -24830791.27 0.0088 0.0045
 Venus -72658-06-22 16:33 J -24816738.87 -24816738.81 -24816738.69 0.0088 0.0081
 Venus -72657-02-03 05:16 J -24816513.42 -24816513.28 -24816513.11 0.0088 0.0061
 Venus -72657-09-15 17:30 J -24816287.95 -24816287.77 -24816287.56 0.0088 0.0041
 Venus -72656-04-29 05:59 J -24816062.45 -24816062.25 -24816062.03 0.0088 0.0022
 Venus -72656-12-10 18:42 J -24815836.94 -24815836.72 -24815836.50 0.0088 0.0002
 Venus -72655-07-24 06:57 J -24815611.42 -24815611.21 -24815611.00 0.0088 0.0017
 Venus -72654-03-06 18:42 J -24815385.90 -24815385.72 -24815385.51 0.0088 0.0038
 Venus -72654-10-18 06:57 J -24815160.36 -24815160.21 -24815160.03 0.0088 0.0057

Venus -72653-05-30 19:25 J -24814934.79 -24814934.69 -24814934.57 0.0088 0.0076
 Earth -72638-04-06 17:30 J -24809510.80 -24809510.77 -24809510.67 0.0089 0.0086
 Moon -72638-04-06 20:37 J -24809510.72 -24809510.64 -24809510.52 0.0089 0.0081 *
 Moon -72637-04-08 01:40 J -24809143.53 -24809143.43 -24809143.31 0.0089 0.0079
 Earth -72637-04-08 04:04 J -24809143.46 -24809143.33 -24809143.19 0.0089 0.0075 *
 Mercury -72636-03-26 13:25 J -24808790.96 -24808790.94 -24808790.90 0.0089 0.0087
 Earth -72636-04-10 13:25 J -24808776.09 -24808775.94 -24808775.75 0.0089 0.0065
 Moon -72636-04-10 14:23 J -24808776.07 -24808775.90 -24808775.68 0.0089 0.0061 *
 Mercury -72636-06-22 14:52 J -24808702.92 -24808702.88 -24808702.83 0.0089 0.0082
 Mercury -72636-09-18 16:04 J -24808614.89 -24808614.83 -24808614.76 0.0089 0.0077
 Mercury -72636-12-15 17:30 J -24808526.84 -24808526.77 -24808526.69 0.0089 0.0072
 Mercury -72635-03-13 18:28 J -24808438.80 -24808438.73 -24808438.63 0.0089 0.0068
 Earth -72635-04-12 23:30 J -24808408.72 -24808408.52 -24808408.32 0.0089 0.0054
 Moon -72635-04-12 23:30 J -24808408.68 -24808408.52 -24808408.31 0.0089 0.0059 *
 Mercury -72635-06-09 19:54 J -24808350.75 -24808350.67 -24808350.57 0.0089 0.0063
 Mercury -72635-09-05 21:21 J -24808262.71 -24808262.61 -24808262.51 0.0089 0.0058
 Mercury -72635-12-02 22:47 J -24808174.66 -24808174.55 -24808174.45 0.0089 0.0053
 Mercury -72634-02-28 23:45 J -24808086.61 -24808086.51 -24808086.39 0.0089 0.0049
 Moon -72634-04-15 07:25 J -24808041.41 -24808041.19 -24808040.94 0.0089 0.0040
 Earth -72634-04-15 08:52 J -24808041.33 -24808041.13 -24808040.89 0.0089 0.0044 *
 Mercury -72634-05-28 01:11 J -24807998.56 -24807998.45 -24807998.33 0.0089 0.0044
 Mercury -72634-08-24 02:23 J -24807910.51 -24807910.40 -24807910.27 0.0089 0.0039
 Mercury -72634-11-20 03:49 J -24807822.46 -24807822.34 -24807822.22 0.0089 0.0034
 Mercury -72633-02-16 05:01 J -24807734.41 -24807734.29 -24807734.16 0.0089 0.0029
 Earth -72633-04-16 18:28 J -24807673.95 -24807673.73 -24807673.48 0.0089 0.0033
 Moon -72633-04-16 20:52 J -24807673.84 -24807673.63 -24807673.39 0.0089 0.0038 *
 Mercury -72633-05-14 06:13 J -24807646.36 -24807646.24 -24807646.10 0.0089 0.0025
 Mercury -72633-08-10 07:40 J -24807558.30 -24807558.18 -24807558.05 0.0089 0.0020
 Mercury -72633-11-06 09:06 J -24807470.25 -24807470.12 -24807469.99 0.0089 0.0015
 Mercury -72632-02-02 10:18 J -24807382.20 -24807382.07 -24807381.94 0.0089 0.0010

Moon -72632-04-19 00:42 J -24807306.71 -24807306.47 -24807306.21 0.0089 0.0018
 Earth -72632-04-19 04:04 J -24807306.56 -24807306.33 -24807306.07 0.0089 0.0023 *
 Mercury -72632-05-01 11:45 J -24807294.15 -24807294.01 -24807293.88 0.0089 0.0006
 Mercury -72632-07-28 12:57 J -24807206.09 -24807205.96 -24807205.83 0.0089 0.0001
 Mercury -72632-10-24 14:09 J -24807118.04 -24807117.91 -24807117.77 0.0089 0.0005
 Mercury -72631-01-20 15:35 J -24807029.98 -24807029.85 -24807029.72 0.0089 0.0009
 Mercury -72631-04-18 16:47 J -24806941.93 -24806941.80 -24806941.67 0.0089 0.0014
 Earth -72631-04-21 13:40 J -24806939.18 -24806938.93 -24806938.67 0.0089 0.0012
 Moon -72631-04-21 17:01 J -24806939.03 -24806938.79 -24806938.54 0.0089 0.0016 *
 Mercury -72631-07-15 17:59 J -24806853.87 -24806853.75 -24806853.62 0.0089 0.0019
 Mercury -72631-10-11 19:25 J -24806765.82 -24806765.69 -24806765.56 0.0089 0.0024
 Mercury -72630-01-07 20:37 J -24806677.76 -24806677.64 -24806677.51 0.0089 0.0029
 Mercury -72630-04-05 22:04 J -24806589.70 -24806589.58 -24806589.46 0.0089 0.0033
 Moon -72630-04-23 19:54 J -24806571.92 -24806571.67 -24806571.42 0.0089 0.0004
 Earth -72630-04-23 23:30 J -24806571.78 -24806571.52 -24806571.27 0.0089 0.0001 *
 Mercury -72630-07-02 23:16 J -24806501.65 -24806501.53 -24806501.41 0.0089 0.0038
 Mercury -72630-09-29 00:28 J -24806413.59 -24806413.48 -24806413.36 0.0089 0.0043
 Mercury -72630-12-26 01:40 J -24806325.53 -24806325.43 -24806325.31 0.0089 0.0048
 Mercury -72629-03-23 03:06 J -24806237.47 -24806237.37 -24806237.26 0.0089 0.0053
 Earth -72629-04-25 08:52 J -24806204.38 -24806204.13 -24806203.88 0.0089 0.0010
 Moon -72629-04-25 11:16 J -24806204.29 -24806204.03 -24806203.77 0.0089 0.0006 *
 Mercury -72629-06-19 04:18 J -24806149.41 -24806149.32 -24806149.21 0.0089 0.0058
 Mercury -72629-09-15 05:45 J -24806061.35 -24806061.26 -24806061.16 0.0089 0.0062
 Mercury -72629-12-12 06:57 J -24805973.29 -24805973.21 -24805973.12 0.0089 0.0067
 Mercury -72628-03-10 08:23 J -24805885.22 -24805885.15 -24805885.07 0.0089 0.0072
 Moon -72628-04-27 16:33 J -24805837.04 -24805836.81 -24805836.57 0.0089 0.0024
 Earth -72628-04-27 17:59 J -24805836.98 -24805836.75 -24805836.49 0.0089 0.0021 *
 Mercury -72628-06-06 09:35 J -24805797.16 -24805797.10 -24805797.03 0.0089 0.0077
 Mercury -72628-09-02 10:47 J -24805709.09 -24805709.05 -24805708.99 0.0089 0.0082
 Mercury -72628-11-29 12:28 J -24805621.01 -24805620.98 -24805620.95 0.0089 0.0086

Earth	-72627-04-30 03:49 J	-24805469.57	-24805469.34	-24805469.10	0.0089	0.0031
Moon	-72627-04-30 04:18 J	-24805469.57	-24805469.32	-24805469.07	0.0089	0.0027 *
Earth	-72626-05-02 13:11 J	-24805102.16	-24805101.95	-24805101.71	0.0089	0.0042
Moon	-72626-05-02 14:23 J	-24805102.09	-24805101.90	-24805101.68	0.0089	0.0046 *
Moon	-72625-05-03 20:23 J	-24804734.84	-24804734.65	-24804734.41	0.0089	0.0049
Earth	-72625-05-03 22:33 J	-24804734.74	-24804734.56	-24804734.34	0.0089	0.0053 *
Earth	-72624-05-06 07:54 J	-24804367.33	-24804367.17	-24804366.97	0.0089	0.0063
Moon	-72624-05-06 11:01 J	-24804367.19	-24804367.04	-24804366.86	0.0089	0.0067 *
Moon	-72623-05-08 13:40 J	-24804000.06	-24803999.93	-24803999.75	0.0089	0.0069
Earth	-72623-05-08 17:30 J	-24803999.90	-24803999.77	-24803999.62	0.0089	0.0073 *
Earth	-72622-05-11 03:06 J	-24803632.45	-24803632.37	-24803632.29	0.0089	0.0083
Moon	-72622-05-11 05:59 J	-24803632.28	-24803632.25	-24803632.18	0.0089	0.0087
Mars	-72617-10-14 14:52 J	-24801649.06	-24801648.88	-24801648.66	0.0089	0.0064
Mars	-72615-09-08 11:30 J	-24800955.31	-24800955.02	-24800954.72	0.0089	0.0007
Mars	-72613-08-02 09:21 J	-24800261.23	-24800261.11	-24800260.95	0.0089	0.0078
Jupiter	-72589-09-18 11:59 J	-24791448.48	-24791448.00	-24791447.45	0.0089	0.0030
Venus	-72576-08-03 20:52 J	-24786745.74	-24786745.63	-24786745.49	0.0089	0.0073
Venus	-72575-03-17 10:18 J	-24786520.23	-24786520.07	-24786519.87	0.0089	0.0053
Venus	-72575-10-29 00:28 J	-24786294.69	-24786294.48	-24786294.28	0.0089	0.0032
Venus	-72574-06-11 14:09 J	-24786069.13	-24786068.91	-24786068.69	0.0089	0.0012
Venus	-72573-01-23 03:35 J	-24785843.56	-24785843.35	-24785843.12	0.0089	0.0009
Venus	-72573-09-04 17:16 J	-24785617.98	-24785617.78	-24785617.56	0.0089	0.0029
Venus	-72572-04-18 06:42 J	-24785392.39	-24785392.22	-24785392.02	0.0089	0.0050
Venus	-72572-11-29 20:23 J	-24785166.77	-24785166.65	-24785166.49	0.0089	0.0070
Earth	-72557-09-30 20:23 J	-24779747.67	-24779747.65	-24779747.61	0.0089	0.0088
Earth	-72556-10-03 09:35 J	-24779380.20	-24779380.10	-24779379.95	0.0089	0.0078
Moon	-72556-10-03 10:04 J	-24779380.19	-24779380.08	-24779379.93	0.0089	0.0076 *
Moon	-72555-10-05 20:37 J	-24779012.78	-24779012.64	-24779012.44	0.0089	0.0069
Earth	-72555-10-05 23:16 J	-24779012.69	-24779012.53	-24779012.35	0.0089	0.0067 *
Earth	-72554-10-08 12:28 J	-24778645.15	-24778644.98	-24778644.75	0.0089	0.0057

Moon -72554-10-08 15:35 J -24778645.04 -24778644.85 -24778644.64 0.0089 0.0055 *
 Mercury -72553-06-11 18:42 J -24778397.75 -24778397.72 -24778397.66 0.0089 0.0086
 Mercury -72553-09-07 22:33 J -24778309.64 -24778309.56 -24778309.46 0.0089 0.0079
 Moon -72553-10-09 23:16 J -24778277.74 -24778277.53 -24778277.29 0.0089 0.0048
 Earth -72553-10-10 02:23 J -24778277.60 -24778277.40 -24778277.15 0.0089 0.0046 *
 Mercury -72553-12-05 02:09 J -24778221.51 -24778221.41 -24778221.28 0.0089 0.0072
 Mercury -72552-03-03 05:59 J -24778133.37 -24778133.25 -24778133.10 0.0089 0.0065
 Mercury -72552-05-30 09:35 J -24778045.23 -24778045.10 -24778044.93 0.0089 0.0058
 Mercury -72552-08-26 13:54 J -24777957.09 -24777956.92 -24777956.76 0.0089 0.0050
 Earth -72552-10-12 16:18 J -24777910.05 -24777909.82 -24777909.56 0.0089 0.0035
 Moon -72552-10-12 20:23 J -24777909.89 -24777909.65 -24777909.40 0.0089 0.0032 *
 Mercury -72552-11-22 17:30 J -24777868.94 -24777868.77 -24777868.59 0.0089 0.0043
 Mercury -72551-02-18 21:06 J -24777780.79 -24777780.62 -24777780.43 0.0089 0.0036
 Mercury -72551-05-18 00:57 J -24777692.64 -24777692.46 -24777692.27 0.0089 0.0029
 Mercury -72551-08-14 04:47 J -24777604.49 -24777604.30 -24777604.11 0.0089 0.0021
 Moon -72551-10-15 03:06 J -24777542.61 -24777542.37 -24777542.11 0.0089 0.0026
 Earth -72551-10-15 06:13 J -24777542.48 -24777542.24 -24777541.97 0.0089 0.0024 *
 Mercury -72551-11-10 08:23 J -24777516.33 -24777516.15 -24777515.94 0.0089 0.0015
 Mercury -72550-02-06 12:13 J -24777428.18 -24777427.99 -24777427.79 0.0089 0.0008
 Mercury -72550-05-05 16:04 J -24777340.02 -24777339.83 -24777339.63 0.0089 0.0001
 Mercury -72550-08-01 19:54 J -24777251.87 -24777251.67 -24777251.47 0.0089 0.0007
 Earth -72550-10-17 20:23 J -24777174.91 -24777174.65 -24777174.39 0.0089 0.0012
 Moon -72550-10-17 23:45 J -24777174.77 -24777174.51 -24777174.24 0.0089 0.0009 *
 Mercury -72550-10-28 23:30 J -24777163.71 -24777163.52 -24777163.32 0.0089 0.0015
 Mercury -72549-01-25 03:21 J -24777075.55 -24777075.36 -24777075.17 0.0089 0.0022
 Mercury -72549-04-22 07:11 J -24776987.39 -24776987.20 -24776987.02 0.0089 0.0029
 Mercury -72549-07-19 10:33 J -24776899.23 -24776899.06 -24776898.87 0.0089 0.0037
 Mercury -72549-10-15 14:23 J -24776811.06 -24776810.90 -24776810.72 0.0089 0.0043
 Moon -72549-10-19 08:23 J -24776807.40 -24776807.15 -24776806.89 0.0089 0.0005
 Earth -72549-10-19 10:33 J -24776807.32 -24776807.06 -24776806.79 0.0089 0.0002 *

Mercury -72548-01-11 17:59 J -24776722.90 -24776722.75 -24776722.57 0.0089 0.0051

Mercury -72548-04-09 21:49 J -24776634.73 -24776634.59 -24776634.43 0.0089 0.0058

Mercury -72548-07-07 01:25 J -24776546.56 -24776546.44 -24776546.29 0.0089 0.0065

Mercury -72548-10-03 05:16 J -24776458.38 -24776458.28 -24776458.15 0.0089 0.0072

Earth -72548-10-22 00:28 J -24776439.74 -24776439.48 -24776439.21 0.0089 0.0010

Moon -72548-10-22 01:25 J -24776439.70 -24776439.44 -24776439.16 0.0089 0.0013 *

Mercury -72548-12-30 09:06 J -24776370.20 -24776370.12 -24776370.02 0.0089 0.0079

Mercury -72547-03-28 12:57 J -24776282.00 -24776281.96 -24776281.91 0.0089 0.0086

Moon -72547-10-24 13:54 J -24776072.16 -24776071.92 -24776071.66 0.0089 0.0018

Earth -72547-10-24 14:23 J -24776072.15 -24776071.90 -24776071.64 0.0089 0.0021 *

Moon -72546-10-27 02:37 J -24775704.63 -24775704.39 -24775704.13 0.0089 0.0035

Earth -72546-10-27 04:18 J -24775704.56 -24775704.32 -24775704.07 0.0089 0.0032 *

Earth -72545-10-28 17:59 J -24775336.96 -24775336.75 -24775336.50 0.0089 0.0043

Moon -72545-10-28 20:09 J -24775336.87 -24775336.66 -24775336.41 0.0089 0.0040 *

Moon -72544-10-31 04:47 J -24774969.48 -24774969.30 -24774969.07 0.0089 0.0058

Earth -72544-10-31 07:54 J -24774969.36 -24774969.17 -24774968.94 0.0089 0.0054 *

Earth -72543-11-02 21:35 J -24774601.75 -24774601.60 -24774601.39 0.0088 0.0065

Moon -72543-11-03 01:25 J -24774601.60 -24774601.44 -24774601.22 0.0088 0.0061 *

Moon -72542-11-05 08:23 J -24774234.24 -24774234.15 -24774234.01 0.0088 0.0079

Earth -72542-11-05 12:13 J -24774234.12 -24774233.99 -24774233.84 0.0088 0.0075 *

Earth -72541-11-07 01:54 J -24773866.46 -24773866.42 -24773866.33 0.0088 0.0086

Moon -72541-11-07 05:45 J -24773866.35 -24773866.26 -24773866.14 0.0088 0.0081 *

Mars -72535-09-18 04:18 J -24771725.53 -24771725.32 -24771725.10 0.0088 0.0068

Mars -72533-08-14 02:09 J -24771029.73 -24771029.41 -24771029.07 0.0088 0.0013

Venus -72494-09-24 05:30 J -24756744.29 -24756744.27 -24756744.20 0.0088 0.0086

Venus -72493-05-06 18:13 J -24756518.87 -24756518.74 -24756518.59 0.0088 0.0067

Venus -72493-12-18 06:28 J -24756293.40 -24756293.23 -24756293.03 0.0088 0.0048

Venus -72492-07-31 19:11 J -24756067.91 -24756067.70 -24756067.49 0.0088 0.0028

Venus -72491-03-14 07:25 J -24755842.41 -24755842.19 -24755841.97 0.0088 0.0008

Venus -72491-10-25 19:40 J -24755616.90 -24755616.68 -24755616.46 0.0088 0.0011

Venus -72490-06-08 07:54 J -24755391.37 -24755391.17 -24755390.97 0.0088 0.0031
 Venus -72489-01-19 19:54 J -24755165.83 -24755165.67 -24755165.48 0.0088 0.0051
 Venus -72489-09-01 08:09 J -24754940.28 -24754940.16 -24754940.02 0.0088 0.0070
 Moon -72474-04-06 05:30 J -24749610.31 -24749610.27 -24749610.22 0.0089 0.0087
 Earth -72474-04-06 06:42 J -24749610.26 -24749610.22 -24749610.13 0.0089 0.0086 *
 Earth -72473-04-07 16:47 J -24749242.91 -24749242.80 -24749242.65 0.0089 0.0076
 Moon -72473-04-07 17:45 J -24749242.90 -24749242.76 -24749242.61 0.0089 0.0074 *
 Earth -72472-04-10 02:37 J -24748875.53 -24748875.39 -24748875.19 0.0089 0.0066
 Moon -72472-04-10 02:52 J -24748875.51 -24748875.38 -24748875.19 0.0089 0.0068 *
 Mercury -72472-12-21 13:40 J -24748619.96 -24748619.93 -24748619.88 0.0089 0.0084
 Mercury -72471-03-19 15:06 J -24748531.93 -24748531.87 -24748531.81 0.0089 0.0079
 Moon -72471-04-12 10:33 J -24748508.25 -24748508.06 -24748507.84 0.0089 0.0054
 Earth -72471-04-12 12:57 J -24748508.15 -24748507.96 -24748507.75 0.0089 0.0055 *
 Mercury -72471-06-15 16:04 J -24748443.88 -24748443.83 -24748443.75 0.0089 0.0075
 Mercury -72471-09-11 17:30 J -24748355.84 -24748355.77 -24748355.68 0.0089 0.0070
 Mercury -72471-12-08 18:57 J -24748267.80 -24748267.71 -24748267.62 0.0089 0.0065
 Mercury -72470-03-06 20:09 J -24748179.75 -24748179.66 -24748179.56 0.0089 0.0060
 Earth -72470-04-14 22:33 J -24748140.77 -24748140.56 -24748140.33 0.0089 0.0045
 Moon -72470-04-15 01:25 J -24748140.65 -24748140.44 -24748140.23 0.0089 0.0046 *
 Mercury -72470-06-02 21:21 J -24748091.70 -24748091.61 -24748091.50 0.0089 0.0056
 Mercury -72470-08-29 22:47 J -24748003.65 -24748003.55 -24748003.44 0.0089 0.0051
 Mercury -72470-11-25 23:59 J -24747915.60 -24747915.50 -24747915.38 0.0089 0.0046
 Mercury -72469-02-22 01:25 J -24747827.55 -24747827.44 -24747827.32 0.0089 0.0041
 Moon -72469-04-16 04:47 J -24747773.52 -24747773.30 -24747773.05 0.0089 0.0033
 Earth -72469-04-16 08:09 J -24747773.38 -24747773.16 -24747772.91 0.0089 0.0035 *
 Mercury -72469-05-20 02:52 J -24747739.50 -24747739.38 -24747739.26 0.0089 0.0036
 Mercury -72469-08-16 03:49 J -24747651.45 -24747651.34 -24747651.21 0.0089 0.0032
 Mercury -72469-11-12 05:16 J -24747563.40 -24747563.28 -24747563.15 0.0089 0.0027
 Mercury -72468-02-08 06:28 J -24747475.35 -24747475.23 -24747475.09 0.0089 0.0022
 Earth -72468-04-18 17:45 J -24747406.00 -24747405.76 -24747405.51 0.0089 0.0024

Moon -72468-04-18 21:06 J -24747405.85 -24747405.62 -24747405.36 0.0089 0.0026 *
 Mercury -72468-05-07 07:54 J -24747387.30 -24747387.17 -24747387.04 0.0089 0.0017
 Mercury -72468-08-03 09:06 J -24747299.25 -24747299.12 -24747298.98 0.0089 0.0012
 Mercury -72468-10-30 10:33 J -24747211.19 -24747211.06 -24747210.93 0.0089 0.0007
 Mercury -72467-01-26 11:45 J -24747123.14 -24747123.01 -24747122.87 0.0089 0.0003
 Moon -72467-04-21 00:28 J -24747038.72 -24747038.48 -24747038.23 0.0089 0.0012
 Earth -72467-04-21 03:21 J -24747038.60 -24747038.36 -24747038.10 0.0089 0.0014 *
 Mercury -72467-04-24 13:11 J -24747035.08 -24747034.95 -24747034.82 0.0089 0.0003
 Mercury -72467-07-21 14:23 J -24746947.03 -24746946.90 -24746946.77 0.0089 0.0007
 Mercury -72467-10-17 15:35 J -24746858.98 -24746858.85 -24746858.71 0.0089 0.0012
 Mercury -72466-01-13 17:01 J -24746770.92 -24746770.79 -24746770.66 0.0089 0.0017
 Mercury -72466-04-11 18:13 J -24746682.86 -24746682.74 -24746682.61 0.0089 0.0022
 Earth -72466-04-23 12:57 J -24746671.21 -24746670.96 -24746670.70 0.0089 0.0004
 Moon -72466-04-23 15:35 J -24746671.10 -24746670.85 -24746670.58 0.0089 0.0006 *
 Mercury -72466-07-08 19:25 J -24746594.81 -24746594.69 -24746594.56 0.0089 0.0027
 Mercury -72466-10-04 20:52 J -24746506.75 -24746506.63 -24746506.51 0.0089 0.0031
 Mercury -72466-12-31 22:04 J -24746418.70 -24746418.58 -24746418.46 0.0089 0.0036
 Mercury -72465-03-28 23:30 J -24746330.64 -24746330.52 -24746330.40 0.0089 0.0041
 Moon -72465-04-24 21:21 J -24746303.85 -24746303.61 -24746303.36 0.0089 0.0009
 Earth -72465-04-24 22:18 J -24746303.81 -24746303.57 -24746303.31 0.0089 0.0008 *
 Mercury -72465-06-25 00:42 J -24746242.58 -24746242.47 -24746242.35 0.0089 0.0046
 Mercury -72465-09-21 01:54 J -24746154.52 -24746154.42 -24746154.31 0.0089 0.0051
 Mercury -72465-12-18 03:06 J -24746066.46 -24746066.37 -24746066.26 0.0089 0.0056
 Mercury -72464-03-16 04:33 J -24745978.40 -24745978.31 -24745978.21 0.0089 0.0060
 Moon -72464-04-27 07:40 J -24745936.43 -24745936.18 -24745935.91 0.0089 0.0017
 Earth -72464-04-27 07:54 J -24745936.42 -24745936.17 -24745935.92 0.0089 0.0018 *
 Mercury -72464-06-12 05:59 J -24745890.34 -24745890.25 -24745890.16 0.0089 0.0065
 Mercury -72464-09-08 07:11 J -24745802.28 -24745802.20 -24745802.12 0.0089 0.0070
 Mercury -72464-12-05 08:23 J -24745714.21 -24745714.15 -24745714.07 0.0089 0.0075
 Mercury -72463-03-03 09:35 J -24745626.14 -24745626.10 -24745626.03 0.0089 0.0080

Earth -72463-04-29 17:01 J -24745569.01 -24745568.79 -24745568.53 0.0089 0.0029
 Moon -72463-04-29 18:13 J -24745568.96 -24745568.74 -24745568.50 0.0089 0.0031 *
 Mercury -72463-05-30 11:16 J -24745538.07 -24745538.03 -24745537.99 0.0089 0.0084
 Moon -72462-05-01 23:45 J -24745201.72 -24745201.51 -24745201.26 0.0089 0.0038
 Earth -72462-05-02 02:37 J -24745201.60 -24745201.39 -24745201.15 0.0089 0.0039 *
 Earth -72461-05-03 12:28 J -24744834.19 -24744833.98 -24744833.77 0.0089 0.0049
 Moon -72461-05-03 15:06 J -24744834.06 -24744833.87 -24744833.65 0.0089 0.0051 *
 Moon -72460-05-05 18:13 J -24744466.93 -24744466.74 -24744466.54 0.0089 0.0057
 Earth -72460-05-05 21:21 J -24744466.77 -24744466.61 -24744466.40 0.0089 0.0060 *
 Earth -72459-05-08 06:57 J -24744099.35 -24744099.21 -24744099.04 0.0089 0.0070
 Moon -72459-05-08 10:18 J -24744099.20 -24744099.07 -24744098.90 0.0089 0.0072 *
 Moon -72458-05-10 13:54 J -24743732.02 -24743731.92 -24743731.79 0.0089 0.0078
 Earth -72458-05-10 16:18 J -24743731.90 -24743731.82 -24743731.69 0.0089 0.0080 *
 Mars -72451-04-24 00:28 J -24741191.75 -24741191.48 -24741191.18 0.0089 0.0023
 Mars -72449-03-17 20:37 J -24740497.87 -24740497.64 -24740497.38 0.0089 0.0048
 Venus -72412-11-05 08:09 J -24726751.24 -24726751.16 -24726751.05 0.0089 0.0080
 Venus -72411-06-18 21:35 J -24726525.74 -24726525.60 -24726525.41 0.0089 0.0060
 Venus -72410-01-30 11:45 J -24726300.21 -24726300.01 -24726299.81 0.0089 0.0039
 Venus -72410-09-13 01:11 J -24726074.66 -24726074.45 -24726074.23 0.0089 0.0019
 Venus -72409-04-25 15:06 J -24725849.10 -24725848.87 -24725848.65 0.0089 0.0002
 Venus -72409-12-07 04:47 J -24725623.52 -24725623.30 -24725623.09 0.0089 0.0022
 Venus -72408-07-20 18:13 J -24725397.92 -24725397.74 -24725397.53 0.0089 0.0043
 Venus -72407-03-03 08:09 J -24725172.31 -24725172.16 -24725172.00 0.0089 0.0063
 Venus -72407-10-14 21:35 J -24724946.66 -24724946.60 -24724946.51 0.0089 0.0084
 Earth -72393-09-30 07:11 J -24719847.22 -24719847.20 -24719847.17 0.0089 0.0088
 Moon -72392-10-02 17:59 J -24719479.87 -24719479.75 -24719479.58 0.0089 0.0074
 Earth -72392-10-02 20:23 J -24719479.76 -24719479.65 -24719479.52 0.0089 0.0078 *
 Earth -72391-10-05 09:35 J -24719112.25 -24719112.10 -24719111.91 0.0089 0.0068
 Moon -72391-10-05 12:57 J -24719112.10 -24719111.96 -24719111.80 0.0089 0.0072 *
 Moon -72390-10-07 19:25 J -24718744.88 -24718744.69 -24718744.45 0.0089 0.0053

Earth -72390-10-07 23:30 J -24718744.71 -24718744.52 -24718744.31 0.0089 0.0057 *
 Earth -72389-10-09 12:42 J -24718377.18 -24718376.97 -24718376.73 0.0089 0.0047
 Moon -72389-10-09 16:04 J -24718377.02 -24718376.83 -24718376.59 0.0089 0.0051 *
 Mercury -72388-03-08 17:45 J -24718226.81 -24718226.76 -24718226.66 0.0089 0.0083
 Mercury -72388-06-04 22:04 J -24718138.68 -24718138.58 -24718138.48 0.0089 0.0075
 Mercury -72388-09-01 01:40 J -24718050.55 -24718050.43 -24718050.30 0.0089 0.0068
 Moon -72388-10-11 23:01 J -24718009.77 -24718009.54 -24718009.28 0.0089 0.0032
 Earth -72388-10-12 02:37 J -24718009.62 -24718009.39 -24718009.14 0.0089 0.0036 *
 Mercury -72388-11-28 05:16 J -24717962.41 -24717962.28 -24717962.12 0.0089 0.0061
 Mercury -72387-02-24 09:06 J -24717874.27 -24717874.12 -24717873.95 0.0089 0.0054
 Mercury -72387-05-23 12:42 J -24717786.12 -24717785.97 -24717785.79 0.0089 0.0047
 Mercury -72387-08-19 16:33 J -24717697.97 -24717697.81 -24717697.62 0.0089 0.0040
 Earth -72387-10-14 16:18 J -24717642.07 -24717641.82 -24717641.56 0.0089 0.0025
 Moon -72387-10-14 18:42 J -24717641.97 -24717641.72 -24717641.46 0.0089 0.0029 *
 Mercury -72387-11-15 20:37 J -24717609.83 -24717609.64 -24717609.46 0.0089 0.0032
 Mercury -72386-02-12 00:13 J -24717521.67 -24717521.49 -24717521.30 0.0089 0.0025
 Mercury -72386-05-11 04:04 J -24717433.52 -24717433.33 -24717433.14 0.0089 0.0018
 Mercury -72386-08-07 07:40 J -24717345.37 -24717345.18 -24717344.98 0.0089 0.0011
 Moon -72386-10-17 04:33 J -24717274.57 -24717274.31 -24717274.06 0.0089 0.0011
 Earth -72386-10-17 06:13 J -24717274.49 -24717274.24 -24717273.97 0.0089 0.0014 *
 Mercury -72386-11-03 11:30 J -24717257.21 -24717257.02 -24717256.82 0.0089 0.0004
 Mercury -72385-01-30 15:21 J -24717169.06 -24717168.86 -24717168.66 0.0089 0.0004
 Mercury -72385-04-27 18:57 J -24717080.90 -24717080.71 -24717080.51 0.0089 0.0012
 Mercury -72385-07-24 22:47 J -24716992.74 -24716992.55 -24716992.35 0.0089 0.0018
 Earth -72385-10-18 20:09 J -24716906.92 -24716906.66 -24716906.39 0.0089 0.0004
 Moon -72385-10-18 20:52 J -24716906.90 -24716906.63 -24716906.36 0.0089 0.0007 *
 Mercury -72385-10-21 02:23 J -24716904.58 -24716904.40 -24716904.20 0.0089 0.0026
 Mercury -72384-01-17 06:13 J -24716816.42 -24716816.24 -24716816.05 0.0089 0.0033
 Mercury -72384-04-15 10:04 J -24716728.25 -24716728.08 -24716727.90 0.0089 0.0040
 Mercury -72384-07-12 13:40 J -24716640.09 -24716639.93 -24716639.76 0.0089 0.0047

Mercury -72384-10-08 17:01 J -24716551.92 -24716551.79 -24716551.61 0.0089 0.0055

Earth -72384-10-21 10:04 J -24716539.34 -24716539.08 -24716538.81 0.0089 0.0007

Moon -72384-10-21 11:01 J -24716539.29 -24716539.04 -24716538.79 0.0089 0.0011 *

Mercury -72383-01-04 20:52 J -24716463.75 -24716463.63 -24716463.47 0.0089 0.0062

Mercury -72383-04-03 00:42 J -24716375.58 -24716375.47 -24716375.33 0.0089 0.0069

Mercury -72383-06-30 04:18 J -24716287.40 -24716287.32 -24716287.20 0.0089 0.0076

Mercury -72383-09-26 08:09 J -24716199.21 -24716199.16 -24716199.08 0.0089 0.0083

Moon -72383-10-23 22:18 J -24716171.82 -24716171.57 -24716171.29 0.0089 0.0016

Earth -72383-10-23 23:59 J -24716171.75 -24716171.50 -24716171.23 0.0089 0.0019 *

Earth -72382-10-26 14:09 J -24715804.16 -24715803.91 -24715803.66 0.0089 0.0029

Moon -72382-10-26 16:33 J -24715804.03 -24715803.81 -24715803.55 0.0089 0.0033 *

Moon -72381-10-28 00:13 J -24715436.71 -24715436.49 -24715436.22 0.0089 0.0037

Earth -72381-10-28 04:04 J -24715436.56 -24715436.33 -24715436.09 0.0089 0.0040 *

Earth -72380-10-30 17:45 J -24715068.96 -24715068.76 -24715068.53 0.0089 0.0051

Moon -72380-10-30 21:35 J -24715068.80 -24715068.60 -24715068.38 0.0089 0.0053 *

Moon -72379-11-02 04:18 J -24714701.51 -24714701.32 -24714701.12 0.0089 0.0058

Earth -72379-11-02 08:09 J -24714701.35 -24714701.16 -24714700.97 0.0089 0.0061 *

Earth -72378-11-04 21:35 J -24714333.73 -24714333.60 -24714333.42 0.0088 0.0072

Moon -72378-11-05 00:42 J -24714333.60 -24714333.47 -24714333.31 0.0088 0.0074 *

Moon -72377-11-06 09:06 J -24713966.20 -24713966.12 -24713965.99 0.0088 0.0081

Earth -72377-11-06 11:59 J -24713966.09 -24713966.00 -24713965.89 0.0088 0.0082 *

Mars -72369-03-28 02:37 J -24711267.71 -24711267.39 -24711267.05 0.0088 0.0020

Mars -72367-02-21 23:30 J -24710571.74 -24710571.52 -24710571.25 0.0088 0.0060

Venus -72329-08-08 07:25 J -24696524.30 -24696524.19 -24696524.06 0.0088 0.0073

Venus -72328-03-21 19:25 J -24696298.84 -24696298.69 -24696298.49 0.0088 0.0054

Venus -72328-11-02 08:09 J -24696073.35 -24696073.16 -24696072.95 0.0088 0.0033

Venus -72327-06-15 20:37 J -24695847.85 -24695847.64 -24695847.42 0.0088 0.0014

Venus -72326-01-27 08:52 J -24695622.34 -24695622.13 -24695621.91 0.0088 0.0006

Venus -72326-09-09 20:52 J -24695396.82 -24695396.63 -24695396.41 0.0088 0.0026

Venus -72325-04-22 09:21 J -24695171.29 -24695171.11 -24695170.92 0.0088 0.0045

Venus -72325-12-03 21:21 J -24694945.74 -24694945.61 -24694945.45 0.0088 0.0064
 Venus -72324-07-17 09:35 J -24694720.15 -24694720.10 -24694720.02 0.0088 0.0084
 Earth -72310-04-05 19:40 J -24689709.72 -24689709.68 -24689709.60 0.0089 0.0086
 Earth -72309-04-07 05:45 J -24689342.38 -24689342.26 -24689342.12 0.0089 0.0076
 Moon -72309-04-07 06:57 J -24689342.34 -24689342.21 -24689342.06 0.0089 0.0072 *
 Moon -72308-04-09 13:54 J -24688975.07 -24688974.92 -24688974.75 0.0089 0.0070
 Earth -72308-04-09 15:35 J -24688975.00 -24688974.85 -24688974.66 0.0089 0.0066 *
 Earth -72307-04-12 01:40 J -24688607.61 -24688607.43 -24688607.22 0.0089 0.0056
 Moon -72307-04-12 04:33 J -24688607.49 -24688607.31 -24688607.09 0.0089 0.0052 *
 Mercury -72307-06-21 12:13 J -24688537.00 -24688536.99 -24688536.95 0.0089 0.0087
 Mercury -72307-09-17 13:40 J -24688448.97 -24688448.93 -24688448.87 0.0089 0.0082
 Mercury -72307-12-14 15:06 J -24688360.93 -24688360.87 -24688360.80 0.0089 0.0077
 Mercury -72306-03-12 16:33 J -24688272.89 -24688272.81 -24688272.74 0.0089 0.0072
 Moon -72306-04-14 08:23 J -24688240.35 -24688240.15 -24688239.93 0.0089 0.0050
 Earth -72306-04-14 11:30 J -24688240.21 -24688240.02 -24688239.78 0.0089 0.0046 *
 Mercury -72306-06-08 17:30 J -24688184.84 -24688184.77 -24688184.67 0.0089 0.0068
 Mercury -72306-09-04 18:57 J -24688096.80 -24688096.71 -24688096.61 0.0089 0.0063
 Mercury -72306-12-01 20:09 J -24688008.75 -24688008.66 -24688008.55 0.0089 0.0058
 Mercury -72305-02-27 21:35 J -24687920.70 -24687920.60 -24687920.49 0.0089 0.0053
 Earth -72305-04-15 21:21 J -24687872.83 -24687872.61 -24687872.37 0.0089 0.0036
 Moon -72305-04-16 00:42 J -24687872.69 -24687872.47 -24687872.21 0.0089 0.0032 *
 Mercury -72305-05-25 23:01 J -24687832.65 -24687832.54 -24687832.43 0.0089 0.0048
 Mercury -72305-08-21 23:59 J -24687744.60 -24687744.50 -24687744.37 0.0089 0.0044
 Mercury -72305-11-18 01:25 J -24687656.55 -24687656.44 -24687656.31 0.0089 0.0039
 Mercury -72304-02-14 02:52 J -24687568.50 -24687568.38 -24687568.26 0.0089 0.0034
 Moon -72304-04-18 04:04 J -24687505.55 -24687505.33 -24687505.08 0.0089 0.0030
 Earth -72304-04-18 07:25 J -24687505.43 -24687505.19 -24687504.95 0.0089 0.0025 *
 Mercury -72304-05-13 04:04 J -24687480.45 -24687480.33 -24687480.20 0.0089 0.0029
 Mercury -72304-08-09 05:30 J -24687392.40 -24687392.27 -24687392.14 0.0089 0.0024
 Mercury -72304-11-05 06:42 J -24687304.35 -24687304.22 -24687304.09 0.0089 0.0019

Mercury -72303-02-01 07:54 J -24687216.29 -24687216.17 -24687216.03 0.0089 0.0015

Earth -72303-04-20 17:01 J -24687138.04 -24687137.79 -24687137.54 0.0089 0.0015

Moon -72303-04-20 18:57 J -24687137.96 -24687137.71 -24687137.45 0.0089 0.0011 *

Mercury -72303-04-30 09:21 J -24687128.24 -24687128.11 -24687127.98 0.0089 0.0009

Mercury -72303-07-27 10:33 J -24687040.19 -24687040.06 -24687039.92 0.0089 0.0006

Mercury -72303-10-23 11:59 J -24686952.13 -24686952.00 -24686951.87 0.0089 0.0001

Mercury -72302-01-19 13:11 J -24686864.08 -24686863.95 -24686863.82 0.0089 0.0005

Mercury -72302-04-17 14:37 J -24686776.02 -24686775.89 -24686775.76 0.0089 0.0010

Moon -72302-04-23 01:11 J -24686770.69 -24686770.45 -24686770.20 0.0089 0.0009

Earth -72302-04-23 02:37 J -24686770.64 -24686770.39 -24686770.14 0.0089 0.0005 *

Mercury -72302-07-14 15:49 J -24686687.97 -24686687.84 -24686687.71 0.0089 0.0015

Mercury -72302-10-10 17:01 J -24686599.91 -24686599.79 -24686599.66 0.0089 0.0020

Mercury -72301-01-06 18:13 J -24686511.86 -24686511.74 -24686511.61 0.0089 0.0025

Mercury -72301-04-03 19:40 J -24686423.80 -24686423.68 -24686423.55 0.0089 0.0029

Moon -72301-04-24 11:45 J -24686403.27 -24686403.01 -24686402.75 0.0089 0.0010

Earth -72301-04-24 11:59 J -24686403.25 -24686403.00 -24686402.74 0.0089 0.0006 *

Mercury -72301-06-30 20:52 J -24686335.74 -24686335.63 -24686335.50 0.0089 0.0034

Mercury -72301-09-26 22:18 J -24686247.69 -24686247.57 -24686247.45 0.0089 0.0039

Mercury -72301-12-23 23:30 J -24686159.63 -24686159.52 -24686159.40 0.0089 0.0044

Mercury -72300-03-22 00:42 J -24686071.57 -24686071.47 -24686071.35 0.0089 0.0049

Earth -72300-04-26 21:35 J -24686035.85 -24686035.60 -24686035.35 0.0089 0.0016

Moon -72300-04-26 23:16 J -24686035.77 -24686035.53 -24686035.29 0.0089 0.0012 *

Mercury -72300-06-18 01:54 J -24685983.51 -24685983.42 -24685983.30 0.0089 0.0054

Mercury -72300-09-14 03:21 J -24685895.45 -24685895.36 -24685895.25 0.0089 0.0058

Mercury -72300-12-11 04:47 J -24685807.39 -24685807.30 -24685807.21 0.0089 0.0063

Mercury -72299-03-09 05:59 J -24685719.33 -24685719.25 -24685719.16 0.0089 0.0068

Moon -72299-04-29 04:47 J -24685668.54 -24685668.30 -24685668.06 0.0089 0.0030

Earth -72299-04-29 07:11 J -24685668.44 -24685668.20 -24685667.96 0.0089 0.0026 *

Mercury -72299-06-05 07:11 J -24685631.26 -24685631.20 -24685631.12 0.0089 0.0073

Mercury -72299-09-01 08:23 J -24685543.20 -24685543.15 -24685543.07 0.0089 0.0078

Mercury -72299-11-28 10:04 J -24685455.13 -24685455.08 -24685455.03 0.0089 0.0082
 Mercury -72298-02-24 11:16 J -24685367.05 -24685367.03 -24685367.00 0.0089 0.0087
 Earth -72298-05-01 16:04 J -24685301.04 -24685300.83 -24685300.58 0.0089 0.0037
 Moon -72298-05-01 19:54 J -24685300.90 -24685300.67 -24685300.43 0.0089 0.0032 *
 Moon -72297-05-02 22:18 J -24684933.76 -24684933.57 -24684933.35 0.0089 0.0051
 Earth -72297-05-03 01:25 J -24684933.63 -24684933.44 -24684933.20 0.0089 0.0047 *
 Earth -72296-05-05 11:01 J -24684566.21 -24684566.04 -24684565.83 0.0089 0.0057
 Moon -72296-05-05 14:23 J -24684566.08 -24684565.90 -24684565.68 0.0089 0.0053 *
 Moon -72295-05-07 18:13 J -24684198.88 -24684198.74 -24684198.58 0.0089 0.0071
 Earth -72295-05-07 20:37 J -24684198.79 -24684198.64 -24684198.46 0.0089 0.0067 *
 Earth -72294-05-10 05:45 J -24683831.35 -24683831.26 -24683831.10 0.0089 0.0077
 Moon -72294-05-10 07:11 J -24683831.32 -24683831.20 -24683831.02 0.0089 0.0073 *
 Earth -72293-05-11 15:49 J -24683463.89 -24683463.84 -24683463.78 0.0089 0.0086
 Mars -72288-12-07 16:18 J -24681428.04 -24681427.82 -24681427.56 0.0089 0.0051
 Mars -72286-11-01 10:33 J -24680734.34 -24680734.06 -24680733.76 0.0089 0.0019
 Venus -72247-02-06 19:40 J -24666756.70 -24666756.68 -24666756.61 0.0089 0.0087
 Venus -72247-09-20 09:21 J -24666531.24 -24666531.11 -24666530.95 0.0089 0.0066
 Venus -72246-05-03 22:47 J -24666305.72 -24666305.55 -24666305.34 0.0089 0.0046
 Venus -72246-12-15 12:42 J -24666080.18 -24666079.97 -24666079.75 0.0089 0.0026
 Venus -72245-07-28 02:23 J -24665854.62 -24665854.40 -24665854.17 0.0089 0.0005
 Venus -72244-03-10 16:04 J -24665629.05 -24665628.83 -24665628.61 0.0089 0.0016
 Venus -72244-10-22 05:45 J -24665403.46 -24665403.26 -24665403.05 0.0089 0.0036
 Venus -72243-06-04 19:11 J -24665177.85 -24665177.70 -24665177.51 0.0089 0.0057
 Venus -72242-01-16 09:21 J -24664952.22 -24664952.11 -24664952.00 0.0089 0.0077
 Moon -72229-09-29 14:09 J -24659946.92 -24659946.91 -24659946.84 0.0089 0.0088
 Earth -72229-09-29 17:30 J -24659946.79 -24659946.77 -24659946.73 0.0089 0.0088
 Earth -72228-10-02 06:57 J -24659579.32 -24659579.21 -24659579.08 0.0089 0.0078
 Moon -72228-10-02 10:04 J -24659579.18 -24659579.08 -24659578.95 0.0089 0.0079 *
 Moon -72227-10-04 16:47 J -24659211.96 -24659211.80 -24659211.62 0.0089 0.0066
 Earth -72227-10-04 20:23 J -24659211.80 -24659211.65 -24659211.47 0.0089 0.0068 *

Earth -72226-10-07 09:35 J -24658844.27 -24658844.10 -24658843.88 0.0089 0.0058
 Moon -72226-10-07 13:25 J -24658844.12 -24658843.94 -24658843.73 0.0089 0.0059 *
 Moon -72225-10-08 20:37 J -24658476.85 -24658476.64 -24658476.41 0.0089 0.0046
 Earth -72225-10-08 23:16 J -24658476.73 -24658476.53 -24658476.29 0.0089 0.0048 *
 Mercury -72224-09-06 13:25 J -24658143.96 -24658143.94 -24658143.87 0.0089 0.0086
 Earth -72224-10-11 12:57 J -24658109.19 -24658108.96 -24658108.71 0.0089 0.0037
 Moon -72224-10-11 15:21 J -24658109.08 -24658108.86 -24658108.60 0.0089 0.0040 *
 Mercury -72224-12-03 17:16 J -24658055.85 -24658055.78 -24658055.67 0.0089 0.0079
 Mercury -72223-03-01 20:52 J -24657967.72 -24657967.63 -24657967.49 0.0089 0.0072
 Mercury -72223-05-29 01:11 J -24657879.58 -24657879.45 -24657879.31 0.0089 0.0064
 Mercury -72223-08-25 04:47 J -24657791.44 -24657791.30 -24657791.14 0.0089 0.0057
 Moon -72223-10-14 01:54 J -24657741.66 -24657741.42 -24657741.17 0.0089 0.0025
 Earth -72223-10-14 02:37 J -24657741.63 -24657741.39 -24657741.13 0.0089 0.0027 *
 Mercury -72223-11-21 08:23 J -24657703.30 -24657703.15 -24657702.97 0.0089 0.0050
 Mercury -72222-02-17 12:13 J -24657615.15 -24657614.99 -24657614.81 0.0089 0.0043
 Mercury -72222-05-16 15:49 J -24657527.00 -24657526.84 -24657526.64 0.0089 0.0036
 Mercury -72222-08-12 19:40 J -24657438.85 -24657438.68 -24657438.48 0.0089 0.0029
 Moon -72222-10-16 16:33 J -24657374.07 -24657373.81 -24657373.53 0.0089 0.0018
 Earth -72222-10-16 16:33 J -24657374.06 -24657373.81 -24657373.55 0.0089 0.0016 *
 Mercury -72222-11-08 23:45 J -24657350.70 -24657350.51 -24657350.32 0.0089 0.0021
 Mercury -72221-02-05 03:21 J -24657262.55 -24657262.36 -24657262.16 0.0089 0.0014
 Mercury -72221-05-03 07:11 J -24657174.40 -24657174.20 -24657174.00 0.0089 0.0007
 Mercury -72221-07-30 11:01 J -24657086.24 -24657086.04 -24657085.84 0.0089 0.0001
 Earth -72221-10-18 06:13 J -24657006.50 -24657006.24 -24657005.97 0.0089 0.0006
 Moon -72221-10-18 07:25 J -24657006.45 -24657006.19 -24657005.94 0.0089 0.0003 *
 Mercury -72221-10-26 14:37 J -24656998.08 -24656997.89 -24656997.69 0.0089 0.0008
 Mercury -72220-01-22 18:28 J -24656909.92 -24656909.73 -24656909.54 0.0089 0.0015
 Mercury -72220-04-20 22:04 J -24656821.76 -24656821.58 -24656821.38 0.0089 0.0022
 Mercury -72220-07-18 01:40 J -24656733.60 -24656733.43 -24656733.23 0.0089 0.0030
 Mercury -72220-10-14 05:30 J -24656645.44 -24656645.27 -24656645.08 0.0089 0.0037

Moon -72220-10-20 17:45 J -24656639.03 -24656638.76 -24656638.49 0.0089 0.0003
 Earth -72220-10-20 20:23 J -24656638.91 -24656638.65 -24656638.39 0.0089 0.0005 *
 Mercury -72219-01-10 09:21 J -24656557.28 -24656557.11 -24656556.93 0.0089 0.0044
 Mercury -72219-04-08 13:11 J -24656469.11 -24656468.95 -24656468.79 0.0089 0.0051
 Mercury -72219-07-05 16:33 J -24656380.94 -24656380.81 -24656380.65 0.0089 0.0059
 Mercury -72219-10-01 20:09 J -24656292.77 -24656292.66 -24656292.51 0.0089 0.0066
 Earth -72219-10-23 10:18 J -24656271.33 -24656271.07 -24656270.81 0.0089 0.0016
 Moon -72219-10-23 12:57 J -24656271.20 -24656270.96 -24656270.70 0.0089 0.0019 *
 Mercury -72219-12-28 23:59 J -24656204.59 -24656204.50 -24656204.37 0.0089 0.0073
 Mercury -72218-03-27 03:49 J -24656116.41 -24656116.34 -24656116.24 0.0089 0.0080
 Mercury -72218-06-23 07:40 J -24656028.21 -24656028.18 -24656028.13 0.0089 0.0087
 Moon -72218-10-25 20:23 J -24655903.89 -24655903.65 -24655903.38 0.0089 0.0024
 Earth -72218-10-26 00:13 J -24655903.74 -24655903.49 -24655903.23 0.0089 0.0027 *
 Earth -72217-10-27 13:54 J -24655536.14 -24655535.92 -24655535.66 0.0089 0.0038
 Moon -72217-10-27 17:30 J -24655535.98 -24655535.77 -24655535.51 0.0089 0.0041 *
 Moon -72216-10-30 00:42 J -24655168.68 -24655168.47 -24655168.23 0.0089 0.0045
 Earth -72216-10-30 04:04 J -24655168.54 -24655168.33 -24655168.09 0.0089 0.0048 *
 Earth -72215-11-01 18:13 J -24654800.93 -24654800.74 -24654800.53 0.0089 0.0058
 Moon -72215-11-01 21:06 J -24654800.80 -24654800.62 -24654800.41 0.0089 0.0062 *
 Moon -72214-11-04 06:28 J -24654433.38 -24654433.23 -24654433.03 0.0089 0.0066
 Earth -72214-11-04 07:54 J -24654433.31 -24654433.17 -24654432.98 0.0089 0.0069 *
 Earth -72213-11-05 21:49 J -24654065.69 -24654065.59 -24654065.45 0.0088 0.0079
 Moon -72213-11-05 22:47 J -24654065.63 -24654065.55 -24654065.43 0.0088 0.0082 *
 Moon -72212-11-08 12:28 J -24653698.04 -24653697.98 -24653697.90 0.0088 0.0085
 Mars -72206-11-10 00:42 J -24651505.71 -24651505.47 -24651505.17 0.0088 0.0054
 Mars -72204-10-06 00:28 J -24650809.78 -24650809.48 -24650809.14 0.0088 0.0028
 Venus -72165-11-09 20:09 J -24636529.75 -24636529.66 -24636529.55 0.0088 0.0079
 Venus -72164-06-23 08:23 J -24636304.29 -24636304.15 -24636303.97 0.0088 0.0060
 Venus -72163-02-03 20:52 J -24636078.81 -24636078.63 -24636078.42 0.0088 0.0040
 Venus -72163-09-17 09:35 J -24635853.31 -24635853.10 -24635852.89 0.0088 0.0020

Venus	-72162-04-30 21:49 J	-24635627.81	-24635627.59	-24635627.37	0.0088	0.0000
Venus	-72162-12-12 10:04 J	-24635402.28	-24635402.08	-24635401.86	0.0088	0.0020
Venus	-72161-07-24 22:33 J	-24635176.76	-24635176.56	-24635176.37	0.0088	0.0039
Venus	-72160-03-07 10:18 J	-24634951.21	-24634951.07	-24634950.89	0.0088	0.0059
Venus	-72160-10-18 22:33 J	-24634725.65	-24634725.56	-24634725.45	0.0088	0.0078
Earth	-72146-04-05 09:06 J	-24629809.16	-24629809.12	-24629809.04	0.0089	0.0086
Moon	-72146-04-05 10:04 J	-24629809.13	-24629809.08	-24629808.99	0.0089	0.0085 *
Moon	-72145-04-06 16:04 J	-24629441.93	-24629441.83	-24629441.67	0.0089	0.0077
Earth	-72145-04-06 19:25 J	-24629441.81	-24629441.69	-24629441.56	0.0089	0.0076 *
Earth	-72144-04-09 04:47 J	-24629074.44	-24629074.30	-24629074.11	0.0089	0.0067
Moon	-72144-04-09 08:23 J	-24629074.32	-24629074.15	-24629073.98	0.0089	0.0065 *
Moon	-72143-04-11 11:30 J	-24628707.20	-24628707.02	-24628706.82	0.0089	0.0058
Earth	-72143-04-11 14:52 J	-24628707.05	-24628706.88	-24628706.66	0.0089	0.0057 *
Mercury	-72143-12-20 11:30 J	-24628454.02	-24628454.02	-24628454.02	0.0089	0.0089
Mercury	-72142-03-18 12:42 J	-24628366.01	-24628365.97	-24628365.93	0.0089	0.0084
Earth	-72142-04-14 00:42 J	-24628339.67	-24628339.47	-24628339.24	0.0089	0.0047
Moon	-72142-04-14 04:04 J	-24628339.53	-24628339.33	-24628339.09	0.0089	0.0046 *
Mercury	-72142-06-14 13:54 J	-24628277.97	-24628277.92	-24628277.86	0.0089	0.0079
Mercury	-72142-09-10 15:06 J	-24628189.93	-24628189.87	-24628189.79	0.0089	0.0075
Mercury	-72142-12-07 16:18 J	-24628101.89	-24628101.82	-24628101.73	0.0089	0.0070
Mercury	-72141-03-04 17:45 J	-24628013.84	-24628013.76	-24628013.66	0.0089	0.0065
Moon	-72141-04-15 08:09 J	-24627972.38	-24627972.16	-24627971.93	0.0089	0.0038
Earth	-72141-04-15 10:47 J	-24627972.27	-24627972.05	-24627971.81	0.0089	0.0037 *
Mercury	-72141-05-31 19:11 J	-24627925.79	-24627925.70	-24627925.60	0.0089	0.0060
Mercury	-72141-08-27 20:37 J	-24627837.75	-24627837.64	-24627837.54	0.0089	0.0055
Mercury	-72141-11-23 21:35 J	-24627749.70	-24627749.60	-24627749.48	0.0089	0.0051
Mercury	-72140-02-19 23:01 J	-24627661.65	-24627661.54	-24627661.42	0.0089	0.0046
Earth	-72140-04-17 20:37 J	-24627604.87	-24627604.64	-24627604.39	0.0089	0.0027
Moon	-72140-04-17 22:47 J	-24627604.78	-24627604.55	-24627604.28	0.0089	0.0025 *
Mercury	-72140-05-19 00:13 J	-24627573.60	-24627573.49	-24627573.36	0.0089	0.0041

Mercury -72140-08-15 01:40 J -24627485.55 -24627485.43 -24627485.31 0.0089 0.0036
 Mercury -72140-11-11 03:06 J -24627397.50 -24627397.37 -24627397.25 0.0089 0.0031
 Mercury -72139-02-07 04:18 J -24627309.44 -24627309.32 -24627309.19 0.0089 0.0026
 Moon -72139-04-20 05:59 J -24627237.48 -24627237.25 -24627237.00 0.0089 0.0018
 Earth -72139-04-20 06:42 J -24627237.47 -24627237.22 -24627236.97 0.0089 0.0016 *
 Mercury -72139-05-06 05:30 J -24627221.39 -24627221.27 -24627221.14 0.0089 0.0022
 Mercury -72139-08-02 06:57 J -24627133.34 -24627133.21 -24627133.08 0.0089 0.0016
 Mercury -72139-10-29 08:09 J -24627045.29 -24627045.16 -24627045.03 0.0089 0.0012
 Mercury -72138-01-25 09:35 J -24626957.23 -24626957.10 -24626956.97 0.0089 0.0007
 Moon -72138-04-22 15:49 J -24626870.10 -24626869.84 -24626869.58 0.0089 0.0005
 Earth -72138-04-22 16:18 J -24626870.07 -24626869.82 -24626869.57 0.0089 0.0006 *
 Mercury -72138-04-23 10:47 J -24626869.18 -24626869.05 -24626868.92 0.0089 0.0002
 Mercury -72138-07-20 12:13 J -24626781.13 -24626780.99 -24626780.86 0.0089 0.0004
 Mercury -72138-10-16 13:25 J -24626693.07 -24626692.94 -24626692.81 0.0089 0.0008
 Mercury -72137-01-12 14:37 J -24626605.02 -24626604.89 -24626604.76 0.0089 0.0013
 Mercury -72137-04-09 15:49 J -24626516.96 -24626516.84 -24626516.70 0.0089 0.0018
 Earth -72137-04-24 01:40 J -24626502.68 -24626502.43 -24626502.17 0.0089 0.0004
 Moon -72137-04-24 03:21 J -24626502.61 -24626502.36 -24626502.11 0.0089 0.0002 *
 Mercury -72137-07-06 17:16 J -24626428.91 -24626428.78 -24626428.65 0.0089 0.0022
 Mercury -72137-10-02 18:42 J -24626340.85 -24626340.72 -24626340.60 0.0089 0.0027
 Mercury -72137-12-29 19:54 J -24626252.79 -24626252.67 -24626252.55 0.0089 0.0032
 Mercury -72136-03-27 21:06 J -24626164.74 -24626164.62 -24626164.50 0.0089 0.0037
 Moon -72136-04-26 08:09 J -24626135.41 -24626135.16 -24626134.90 0.0089 0.0015
 Earth -72136-04-26 11:16 J -24626135.28 -24626135.03 -24626134.78 0.0089 0.0014 *
 Mercury -72136-06-23 22:18 J -24626076.68 -24626076.57 -24626076.45 0.0089 0.0042
 Mercury -72136-09-19 23:30 J -24625988.62 -24625988.52 -24625988.40 0.0089 0.0047
 Mercury -72136-12-17 00:42 J -24625900.56 -24625900.47 -24625900.35 0.0089 0.0052
 Mercury -72135-03-15 02:23 J -24625812.50 -24625812.40 -24625812.30 0.0089 0.0056
 Earth -72135-04-28 20:37 J -24625767.88 -24625767.64 -24625767.39 0.0089 0.0024
 Moon -72135-04-28 23:30 J -24625767.74 -24625767.52 -24625767.26 0.0089 0.0023 *

Mercury -72135-06-11 03:35 J -24625724.44 -24625724.35 -24625724.25 0.0089 0.0061
 Mercury -72135-09-07 04:47 J -24625636.38 -24625636.30 -24625636.21 0.0089 0.0066
 Mercury -72135-12-04 05:59 J -24625548.32 -24625548.25 -24625548.16 0.0089 0.0071
 Mercury -72134-03-02 07:11 J -24625460.25 -24625460.20 -24625460.12 0.0089 0.0076
 Moon -72134-05-01 02:09 J -24625400.63 -24625400.41 -24625400.17 0.0089 0.0036
 Earth -72134-05-01 05:59 J -24625400.48 -24625400.25 -24625400.01 0.0089 0.0034 *
 Mercury -72134-05-29 08:52 J -24625372.18 -24625372.13 -24625372.07 0.0089 0.0080
 Mercury -72134-08-25 10:04 J -24625284.11 -24625284.08 -24625284.04 0.0089 0.0085
 Earth -72133-05-02 15:06 J -24625033.07 -24625032.87 -24625032.64 0.0089 0.0044
 Moon -72133-05-02 18:13 J -24625032.95 -24625032.74 -24625032.50 0.0089 0.0043 *
 Moon -72132-05-04 22:18 J -24624665.75 -24624665.57 -24624665.37 0.0089 0.0056
 Earth -72132-05-05 00:42 J -24624665.66 -24624665.47 -24624665.26 0.0089 0.0054 *
 Earth -72131-05-07 09:49 J -24624298.24 -24624298.09 -24624297.90 0.0089 0.0064
 Moon -72131-05-07 11:16 J -24624298.19 -24624298.03 -24624297.82 0.0089 0.0062 *
 Earth -72130-05-09 18:57 J -24623930.82 -24623930.71 -24623930.54 0.0089 0.0074
 Moon -72130-05-09 19:40 J -24623930.80 -24623930.68 -24623930.54 0.0089 0.0075 *
 Moon -72129-05-11 03:21 J -24623563.43 -24623563.36 -24623563.23 0.0089 0.0082
 Earth -72129-05-11 05:01 J -24623563.37 -24623563.29 -24623563.19 0.0089 0.0083 *
 Mars -72124-07-23 06:42 J -24621664.32 -24621664.22 -24621664.05 0.0089 0.0079
 Mars -72122-06-17 01:40 J -24620970.71 -24620970.43 -24620970.13 0.0089 0.0010
 Mars -72120-05-10 20:23 J -24620276.84 -24620276.65 -24620276.41 0.0089 0.0060
 Venus -72083-12-22 20:52 J -24606536.73 -24606536.63 -24606536.48 0.0089 0.0073
 Venus -72082-08-05 10:47 J -24606311.22 -24606311.05 -24606310.87 0.0089 0.0052
 Venus -72081-03-18 00:13 J -24606085.69 -24606085.49 -24606085.28 0.0089 0.0032
 Venus -72081-10-29 13:54 J -24605860.14 -24605859.92 -24605859.70 0.0089 0.0011
 Venus -72080-06-12 03:35 J -24605634.57 -24605634.35 -24605634.13 0.0089 0.0009
 Venus -72079-01-23 17:01 J -24605408.99 -24605408.79 -24605408.57 0.0089 0.0030
 Venus -72079-09-06 06:42 J -24605183.39 -24605183.22 -24605183.03 0.0089 0.0050
 Venus -72078-04-19 20:09 J -24604957.77 -24604957.66 -24604957.51 0.0089 0.0071
 Earth -72065-09-29 03:49 J -24600046.36 -24600046.34 -24600046.30 0.0089 0.0088

Moon -72065-09-29 07:40 J -24600046.26 -24600046.18 -24600046.09 0.0089 0.0083
 Moon -72064-10-01 13:25 J -24599679.01 -24599678.94 -24599678.82 0.0089 0.0083
 Earth -72064-10-01 17:16 J -24599678.89 -24599678.78 -24599678.65 0.0089 0.0078 *
 Earth -72063-10-04 06:57 J -24599311.38 -24599311.21 -24599311.04 0.0089 0.0068
 Moon -72063-10-04 10:04 J -24599311.25 -24599311.08 -24599310.88 0.0089 0.0064 *
 Moon -72062-10-06 17:30 J -24598943.94 -24598943.77 -24598943.58 0.0089 0.0063
 Earth -72062-10-06 20:23 J -24598943.84 -24598943.65 -24598943.45 0.0089 0.0058 *
 Earth -72061-10-08 09:35 J -24598576.31 -24598576.10 -24598575.87 0.0089 0.0048
 Moon -72061-10-08 11:01 J -24598576.26 -24598576.04 -24598575.79 0.0089 0.0044 *
 Moon -72060-10-10 22:18 J -24598208.78 -24598208.57 -24598208.33 0.0089 0.0042
 Earth -72060-10-10 23:16 J -24598208.76 -24598208.53 -24598208.28 0.0089 0.0038 *
 Mercury -72059-06-03 12:57 J -24597973.02 -24597972.96 -24597972.87 0.0089 0.0082
 Mercury -72059-08-30 16:47 J -24597884.89 -24597884.80 -24597884.69 0.0089 0.0075
 Moon -72059-10-13 12:28 J -24597841.24 -24597840.98 -24597840.72 0.0089 0.0023
 Earth -72059-10-13 12:42 J -24597841.20 -24597840.97 -24597840.70 0.0089 0.0028 *
 Mercury -72059-11-26 20:23 J -24597796.76 -24597796.65 -24597796.51 0.0089 0.0068
 Mercury -72058-02-22 23:59 J -24597708.62 -24597708.50 -24597708.34 0.0089 0.0061
 Mercury -72058-05-22 03:49 J -24597620.48 -24597620.34 -24597620.17 0.0089 0.0054
 Mercury -72058-08-18 07:54 J -24597532.33 -24597532.17 -24597532.00 0.0089 0.0046
 Earth -72058-10-16 02:37 J -24597473.65 -24597473.39 -24597473.13 0.0089 0.0017
 Moon -72058-10-16 04:04 J -24597473.56 -24597473.33 -24597473.07 0.0089 0.0022 *
 Mercury -72058-11-14 11:30 J -24597444.19 -24597444.02 -24597443.83 0.0089 0.0039
 Mercury -72057-02-10 15:21 J -24597356.04 -24597355.86 -24597355.67 0.0089 0.0032
 Mercury -72057-05-08 18:57 J -24597267.89 -24597267.71 -24597267.51 0.0089 0.0025
 Mercury -72057-08-04 22:47 J -24597179.74 -24597179.55 -24597179.35 0.0089 0.0018
 Moon -72057-10-17 13:54 J -24597106.19 -24597105.92 -24597105.65 0.0089 0.0003
 Earth -72057-10-17 16:18 J -24597106.08 -24597105.82 -24597105.55 0.0089 0.0007 *
 Mercury -72057-11-01 02:37 J -24597091.58 -24597091.39 -24597091.19 0.0089 0.0010
 Mercury -72056-01-28 06:28 J -24597003.43 -24597003.23 -24597003.03 0.0089 0.0003
 Mercury -72056-04-26 10:04 J -24596915.27 -24596915.08 -24596914.88 0.0089 0.0005

Mercury -72056-07-23 13:54 J -24596827.11 -24596826.92 -24596826.72 0.0089 0.0012

Mercury -72056-10-19 17:30 J -24596738.96 -24596738.77 -24596738.57 0.0089 0.0019

Earth -72056-10-20 05:59 J -24596738.51 -24596738.25 -24596737.98 0.0089 0.0004

Moon -72056-10-20 09:35 J -24596738.36 -24596738.10 -24596737.84 0.0089 0.0001 *

Mercury -72055-01-15 21:21 J -24596650.80 -24596650.61 -24596650.42 0.0089 0.0026

Mercury -72055-04-14 00:57 J -24596562.63 -24596562.46 -24596562.27 0.0089 0.0033

Mercury -72055-07-11 04:33 J -24596474.47 -24596474.31 -24596474.12 0.0089 0.0041

Mercury -72055-10-07 08:23 J -24596386.30 -24596386.15 -24596385.97 0.0089 0.0048

Moon -72055-10-22 16:33 J -24596371.07 -24596370.81 -24596370.55 0.0089 0.0018

Earth -72055-10-22 19:54 J -24596370.92 -24596370.67 -24596370.40 0.0089 0.0014 *

Mercury -72054-01-03 12:13 J -24596298.14 -24596297.99 -24596297.83 0.0089 0.0055

Mercury -72054-04-01 16:04 J -24596209.97 -24596209.83 -24596209.69 0.0089 0.0062

Mercury -72054-06-28 19:54 J -24596121.79 -24596121.67 -24596121.55 0.0089 0.0069

Mercury -72054-09-24 23:01 J -24596033.61 -24596033.54 -24596033.42 0.0089 0.0077

Earth -72054-10-25 09:35 J -24596003.34 -24596003.10 -24596002.83 0.0089 0.0025

Moon -72054-10-25 13:11 J -24596003.19 -24596002.95 -24596002.68 0.0089 0.0022 *

Mercury -72054-12-22 02:52 J -24595945.42 -24595945.38 -24595945.30 0.0089 0.0084

Moon -72053-10-26 20:37 J -24595635.86 -24595635.64 -24595635.40 0.0089 0.0039

Earth -72053-10-26 23:30 J -24595635.75 -24595635.52 -24595635.26 0.0089 0.0035 *

Earth -72052-10-29 13:54 J -24595268.14 -24595267.92 -24595267.69 0.0089 0.0045

Moon -72052-10-29 16:04 J -24595268.07 -24595267.83 -24595267.59 0.0089 0.0042 *

Moon -72051-11-01 01:54 J -24594900.58 -24594900.42 -24594900.20 0.0088 0.0059

Earth -72051-11-01 03:35 J -24594900.53 -24594900.35 -24594900.12 0.0088 0.0056 *

Moon -72050-11-03 17:59 J -24594532.94 -24594532.75 -24594532.56 0.0088 0.0062

Earth -72050-11-03 17:30 J -24594532.92 -24594532.77 -24594532.57 0.0088 0.0066 *

Earth -72049-11-05 07:25 J -24594165.29 -24594165.19 -24594165.02 0.0088 0.0076

Moon -72049-11-05 08:37 J -24594165.23 -24594165.14 -24594164.99 0.0088 0.0079 *

Moon -72048-11-07 19:54 J -24593797.75 -24593797.67 -24593797.56 0.0088 0.0083

Earth -72048-11-07 21:35 J -24593797.64 -24593797.60 -24593797.50 0.0088 0.0086 *

Mars -72042-06-23 22:18 J -24591743.60 -24591743.57 -24591743.45 0.0088 0.0087

Mars -72040-05-20 00:42 J -24591047.81 -24591047.47 -24591047.13 0.0088 0.0006

Mars -72038-04-15 22:33 J -24590351.72 -24590351.56 -24590351.35 0.0088 0.0074

Jupiter -72013-03-16 07:11 J -24581250.71 -24581250.20 -24581249.65 0.0088 0.0022

72ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 72nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-72000-02-11 09:06 J	-24576535.18	-24576535.12	-24576535.06	0.0088	0.0085		
Venus	-72000-09-24 21:06 J	-24576309.75	-24576309.62	-24576309.45	0.0088	0.0066		
Venus	-71999-05-08 09:49 J	-24576084.27	-24576084.09	-24576083.89	0.0088	0.0046		
Venus	-71999-12-19 22:33 J	-24575858.77	-24575858.56	-24575858.35	0.0088	0.0026		
Venus	-71998-08-02 11:01 J	-24575633.26	-24575633.04	-24575632.83	0.0088	0.0006		
Venus	-71997-03-14 23:16 J	-24575407.75	-24575407.53	-24575407.32	0.0088	0.0013		
Venus	-71997-10-26 11:16 J	-24575182.22	-24575182.03	-24575181.82	0.0088	0.0033		
Venus	-71996-06-08 23:30 J	-24574956.68	-24574956.52	-24574956.34	0.0088	0.0053		
Venus	-71995-01-20 11:30 J	-24574731.12	-24574731.02	-24574730.87	0.0088	0.0073		
Moon	-71982-04-04 19:40 J	-24569908.77	-24569908.68	-24569908.56	0.0089	0.0081		
Earth	-71982-04-04 21:49 J	-24569908.63	-24569908.59	-24569908.50	0.0089	0.0086	*	
Earth	-71981-04-06 08:09 J	-24569541.28	-24569541.16	-24569541.02	0.0089	0.0076		
Moon	-71981-04-06 11:30 J	-24569541.11	-24569541.02	-24569540.91	0.0089	0.0081	*	
Moon	-71980-04-08 14:52 J	-24569174.05	-24569173.88	-24569173.69	0.0089	0.0062		
Earth	-71980-04-08 17:59 J	-24569173.90	-24569173.75	-24569173.56	0.0089	0.0067	*	

Earth -71979-04-11 03:49 J -24568806.52 -24568806.34 -24568806.13 0.0089 0.0057
 Moon -71979-04-11 07:40 J -24568806.36 -24568806.18 -24568806.00 0.0089 0.0061 *
 Moon -71978-04-13 11:01 J -24568439.24 -24568439.04 -24568438.80 0.0089 0.0043
 Earth -71978-04-13 14:09 J -24568439.13 -24568438.91 -24568438.70 0.0089 0.0047 *
 Mercury -71978-09-16 11:16 J -24568283.05 -24568283.03 -24568282.99 0.0089 0.0087
 Mercury -71978-12-13 12:28 J -24568195.01 -24568194.98 -24568194.92 0.0089 0.0082
 Mercury -71977-03-10 13:54 J -24568106.97 -24568106.92 -24568106.85 0.0089 0.0077
 Earth -71977-04-14 23:30 J -24568071.73 -24568071.52 -24568071.27 0.0089 0.0038
 Moon -71977-04-15 00:57 J -24568071.67 -24568071.46 -24568071.20 0.0089 0.0042 *
 Mercury -71977-06-06 15:21 J -24568018.93 -24568018.86 -24568018.78 0.0089 0.0072
 Mercury -71977-09-02 16:47 J -24567930.89 -24567930.80 -24567930.72 0.0089 0.0067
 Mercury -71977-11-29 17:45 J -24567842.84 -24567842.76 -24567842.66 0.0089 0.0063
 Mercury -71976-02-25 19:11 J -24567754.79 -24567754.70 -24567754.59 0.0089 0.0058
 Moon -71976-04-17 08:52 J -24567704.36 -24567704.13 -24567703.88 0.0089 0.0024
 Earth -71976-04-17 09:35 J -24567704.33 -24567704.10 -24567703.85 0.0089 0.0028 *
 Mercury -71976-05-24 20:23 J -24567666.75 -24567666.65 -24567666.53 0.0089 0.0053
 Mercury -71976-08-20 21:49 J -24567578.70 -24567578.59 -24567578.48 0.0089 0.0048
 Mercury -71976-11-16 23:16 J -24567490.65 -24567490.53 -24567490.42 0.0089 0.0043
 Mercury -71975-02-13 00:28 J -24567402.60 -24567402.48 -24567402.36 0.0089 0.0038
 Moon -71975-04-19 18:28 J -24567336.98 -24567336.73 -24567336.47 0.0089 0.0022
 Earth -71975-04-19 19:25 J -24567336.93 -24567336.69 -24567336.43 0.0089 0.0018 *
 Mercury -71975-05-12 01:40 J -24567314.54 -24567314.43 -24567314.30 0.0089 0.0034
 Mercury -71975-08-08 03:06 J -24567226.49 -24567226.37 -24567226.24 0.0089 0.0028
 Mercury -71975-11-04 04:18 J -24567138.44 -24567138.32 -24567138.19 0.0089 0.0024
 Mercury -71974-01-31 05:45 J -24567050.39 -24567050.26 -24567050.13 0.0089 0.0019
 Earth -71974-04-22 05:16 J -24566969.53 -24566969.28 -24566969.02 0.0089 0.0008
 Moon -71974-04-22 07:25 J -24566969.43 -24566969.19 -24566968.94 0.0089 0.0004 *
 Mercury -71974-04-29 06:57 J -24566962.34 -24566962.21 -24566962.08 0.0089 0.0014
 Mercury -71974-07-26 08:23 J -24566874.28 -24566874.15 -24566874.02 0.0089 0.0009
 Mercury -71974-10-22 09:35 J -24566786.23 -24566786.10 -24566785.97 0.0089 0.0004

Mercury -71973-01-18 11:01 J -24566698.17 -24566698.04 -24566697.91 0.0089 0.0002

Mercury -71973-04-15 12:13 J -24566610.12 -24566609.99 -24566609.86 0.0089 0.0006

Moon -71973-04-23 12:28 J -24566602.24 -24566601.98 -24566601.72 0.0089 0.0002

Earth -71973-04-23 15:21 J -24566602.11 -24566601.86 -24566601.61 0.0089 0.0002 *

Mercury -71973-07-12 13:25 J -24566522.07 -24566521.94 -24566521.80 0.0089 0.0011

Mercury -71973-10-08 14:52 J -24566434.01 -24566433.88 -24566433.75 0.0089 0.0015

Mercury -71972-01-04 16:04 J -24566345.96 -24566345.83 -24566345.70 0.0089 0.0020

Mercury -71972-04-02 17:30 J -24566257.90 -24566257.77 -24566257.65 0.0089 0.0025

Earth -71972-04-26 00:57 J -24566234.71 -24566234.46 -24566234.21 0.0089 0.0012

Moon -71972-04-26 04:18 J -24566234.56 -24566234.32 -24566234.07 0.0089 0.0017 *

Mercury -71972-06-29 18:42 J -24566169.84 -24566169.72 -24566169.60 0.0089 0.0030

Mercury -71972-09-25 19:54 J -24566081.79 -24566081.67 -24566081.54 0.0089 0.0035

Mercury -71972-12-22 21:06 J -24565993.73 -24565993.62 -24565993.49 0.0089 0.0040

Mercury -71971-03-20 22:18 J -24565905.67 -24565905.57 -24565905.44 0.0089 0.0045

Moon -71971-04-28 06:57 J -24565867.45 -24565867.21 -24565866.96 0.0089 0.0018

Earth -71971-04-28 10:18 J -24565867.31 -24565867.07 -24565866.82 0.0089 0.0022 *

Mercury -71971-06-16 23:59 J -24565817.61 -24565817.50 -24565817.39 0.0089 0.0049

Mercury -71971-09-13 01:11 J -24565729.55 -24565729.45 -24565729.35 0.0089 0.0054

Mercury -71971-12-10 02:23 J -24565641.49 -24565641.40 -24565641.30 0.0089 0.0059

Mercury -71970-03-08 03:35 J -24565553.43 -24565553.35 -24565553.25 0.0089 0.0064

Earth -71970-04-30 19:25 J -24565499.91 -24565499.69 -24565499.44 0.0089 0.0032

Moon -71970-04-30 22:47 J -24565499.77 -24565499.55 -24565499.30 0.0089 0.0036 *

Mercury -71970-06-04 04:47 J -24565465.37 -24565465.30 -24565465.20 0.0089 0.0069

Mercury -71970-08-31 06:13 J -24565377.30 -24565377.24 -24565377.16 0.0089 0.0074

Mercury -71970-11-27 07:40 J -24565289.24 -24565289.18 -24565289.12 0.0089 0.0078

Mercury -71969-02-23 08:52 J -24565201.17 -24565201.13 -24565201.08 0.0089 0.0083

Moon -71969-05-02 03:06 J -24565132.58 -24565132.37 -24565132.14 0.0089 0.0037

Earth -71969-05-02 05:01 J -24565132.50 -24565132.29 -24565132.05 0.0089 0.0042 *

Mercury -71969-05-21 10:04 J -24565113.08 -24565113.08 -24565113.05 0.0089 0.0088

Earth -71968-05-04 14:37 J -24564765.09 -24564764.89 -24564764.68 0.0089 0.0051

Moon	-71968-05-04 15:21 J	-24564765.05	-24564764.86	-24564764.64	0.0089	0.0055 *
Earth	-71967-05-06 23:45 J	-24564397.68	-24564397.51	-24564397.31	0.0089	0.0061
Moon	-71967-05-06 23:45 J	-24564397.68	-24564397.51	-24564397.31	0.0089	0.0057 *
Moon	-71966-05-09 07:11 J	-24564030.31	-24564030.20	-24564030.04	0.0089	0.0075
Earth	-71966-05-09 08:52 J	-24564030.26	-24564030.13	-24564029.95	0.0089	0.0071 *
Earth	-71965-05-10 18:28 J	-24563662.82	-24563662.73	-24563662.61	0.0089	0.0080
Moon	-71965-05-10 20:52 J	-24563662.73	-24563662.63	-24563662.48	0.0089	0.0076 *
Mars	-71958-01-30 15:35 J	-24561207.10	-24561206.85	-24561206.57	0.0089	0.0038
Mars	-71957-12-24 09:49 J	-24560513.35	-24560513.09	-24560512.81	0.0089	0.0031
Venus	-71918-03-26 08:09 J	-24546542.23	-24546542.16	-24546542.04	0.0089	0.0080
Venus	-71918-11-06 22:04 J	-24546316.74	-24546316.58	-24546316.41	0.0089	0.0059
Venus	-71917-06-19 11:30 J	-24546091.21	-24546091.02	-24546090.81	0.0089	0.0039
Venus	-71916-01-31 01:11 J	-24545865.66	-24545865.45	-24545865.23	0.0089	0.0018
Venus	-71916-09-13 14:52 J	-24545640.11	-24545639.88	-24545639.66	0.0089	0.0002
Venus	-71915-04-27 04:04 J	-24545414.53	-24545414.33	-24545414.10	0.0089	0.0023
Venus	-71915-12-08 17:45 J	-24545188.94	-24545188.76	-24545188.55	0.0089	0.0043
Venus	-71914-07-22 07:25 J	-24544963.33	-24544963.19	-24544963.02	0.0089	0.0064
Venus	-71913-03-03 21:21 J	-24544737.67	-24544737.61	-24544737.54	0.0089	0.0084
Moon	-71901-09-28 10:33 J	-24540146.08	-24540146.06	-24540146.04	0.0089	0.0088
Earth	-71901-09-28 13:40 J	-24540145.94	-24540145.93	-24540145.87	0.0089	0.0088
Earth	-71900-10-01 03:21 J	-24539778.47	-24539778.36	-24539778.23	0.0089	0.0078
Moon	-71900-10-01 06:13 J	-24539778.35	-24539778.24	-24539778.09	0.0089	0.0078 *
Moon	-71899-10-03 14:09 J	-24539411.04	-24539410.91	-24539410.72	0.0089	0.0070
Earth	-71899-10-03 16:33 J	-24539410.95	-24539410.81	-24539410.62	0.0089	0.0069 *
Earth	-71898-10-06 05:59 J	-24539043.42	-24539043.25	-24539043.03	0.0089	0.0059
Moon	-71898-10-06 07:54 J	-24539043.37	-24539043.17	-24539042.95	0.0089	0.0057 *
Earth	-71897-10-07 19:40 J	-24538675.88	-24538675.68	-24538675.44	0.0089	0.0049
Moon	-71897-10-07 19:54 J	-24538675.86	-24538675.67	-24538675.44	0.0089	0.0050 *
Moon	-71896-10-10 08:09 J	-24538308.38	-24538308.16	-24538307.89	0.0089	0.0038
Earth	-71896-10-10 09:21 J	-24538308.33	-24538308.11	-24538307.86	0.0089	0.0039 *

Earth -71895-10-12 23:01 J -24537940.78 -24537940.54 -24537940.28 0.0089 0.0029
 Moon -71895-10-13 00:57 J -24537940.68 -24537940.46 -24537940.20 0.0089 0.0031 *
 Mercury -71895-12-02 08:23 J -24537890.18 -24537890.15 -24537890.08 0.0089 0.0086
 Mercury -71894-02-28 11:59 J -24537802.07 -24537802.00 -24537801.88 0.0089 0.0079
 Mercury -71894-05-27 16:04 J -24537713.94 -24537713.83 -24537713.70 0.0089 0.0071
 Mercury -71894-08-23 19:54 J -24537625.80 -24537625.67 -24537625.53 0.0089 0.0064
 Moon -71894-10-15 09:21 J -24537573.36 -24537573.11 -24537572.83 0.0089 0.0018
 Earth -71894-10-15 12:42 J -24537573.21 -24537572.97 -24537572.70 0.0089 0.0019 *
 Mercury -71894-11-19 23:30 J -24537537.66 -24537537.52 -24537537.36 0.0089 0.0057
 Mercury -71893-02-16 03:06 J -24537449.51 -24537449.37 -24537449.19 0.0089 0.0050
 Mercury -71893-05-14 06:57 J -24537361.37 -24537361.21 -24537361.02 0.0089 0.0043
 Mercury -71893-08-10 11:01 J -24537273.22 -24537273.04 -24537272.86 0.0089 0.0035
 Earth -71893-10-17 02:23 J -24537205.66 -24537205.40 -24537205.13 0.0089 0.0008
 Moon -71893-10-17 05:45 J -24537205.51 -24537205.26 -24537205.00 0.0089 0.0010 *
 Mercury -71893-11-06 14:37 J -24537185.07 -24537184.89 -24537184.70 0.0089 0.0028
 Mercury -71892-02-02 18:28 J -24537096.92 -24537096.73 -24537096.54 0.0089 0.0021
 Mercury -71892-05-01 22:04 J -24537008.77 -24537008.58 -24537008.38 0.0089 0.0014
 Mercury -71892-07-29 01:54 J -24536920.61 -24536920.42 -24536920.22 0.0089 0.0006
 Moon -71892-10-19 12:28 J -24536838.24 -24536837.98 -24536837.72 0.0089 0.0004
 Earth -71892-10-19 16:18 J -24536838.08 -24536837.82 -24536837.56 0.0089 0.0002 *
 Mercury -71892-10-25 05:45 J -24536832.46 -24536832.26 -24536832.06 0.0089 0.0001
 Mercury -71891-01-21 09:21 J -24536744.30 -24536744.11 -24536743.91 0.0089 0.0009
 Mercury -71891-04-19 13:11 J -24536656.14 -24536655.95 -24536655.75 0.0089 0.0015
 Mercury -71891-07-16 16:47 J -24536567.98 -24536567.80 -24536567.60 0.0089 0.0023
 Mercury -71891-10-12 20:37 J -24536479.82 -24536479.64 -24536479.45 0.0089 0.0030
 Earth -71891-10-22 05:59 J -24536470.51 -24536470.25 -24536469.99 0.0089 0.0012
 Moon -71891-10-22 09:06 J -24536470.38 -24536470.12 -24536469.85 0.0089 0.0010 *
 Mercury -71890-01-09 00:28 J -24536391.66 -24536391.48 -24536391.30 0.0089 0.0037
 Mercury -71890-04-07 03:49 J -24536303.50 -24536303.34 -24536303.16 0.0089 0.0045
 Mercury -71890-07-04 07:25 J -24536215.33 -24536215.19 -24536215.01 0.0089 0.0052

Mercury -71890-09-30 11:16 J -24536127.16 -24536127.03 -24536126.87 0.0089 0.0059

Moon -71890-10-24 16:47 J -24536103.04 -24536102.80 -24536102.55 0.0089 0.0025

Earth -71890-10-24 19:11 J -24536102.94 -24536102.70 -24536102.43 0.0089 0.0023 *

Mercury -71890-12-27 15:06 J -24536038.99 -24536038.87 -24536038.73 0.0089 0.0066

Mercury -71889-03-24 18:57 J -24535950.81 -24535950.71 -24535950.59 0.0089 0.0073

Mercury -71889-06-20 22:47 J -24535862.63 -24535862.55 -24535862.47 0.0089 0.0080

Mercury -71889-09-17 01:54 J -24535774.42 -24535774.42 -24535774.36 0.0089 0.0088

Earth -71889-10-26 09:06 J -24535735.35 -24535735.12 -24535734.86 0.0089 0.0033

Moon -71889-10-26 11:01 J -24535735.28 -24535735.04 -24535734.76 0.0089 0.0030 *

Moon -71888-10-28 23:01 J -24535367.76 -24535367.54 -24535367.32 0.0089 0.0045

Earth -71888-10-28 23:01 J -24535367.75 -24535367.54 -24535367.29 0.0089 0.0043 *

Moon -71887-10-31 12:42 J -24535000.18 -24534999.97 -24534999.73 0.0089 0.0050

Earth -71887-10-31 12:57 J -24535000.15 -24534999.96 -24534999.73 0.0089 0.0053 *

Earth -71886-11-03 02:52 J -24534632.54 -24534632.38 -24534632.17 0.0089 0.0063

Moon -71886-11-03 04:47 J -24534632.46 -24534632.30 -24534632.12 0.0089 0.0066 *

Moon -71885-11-04 14:09 J -24534265.06 -24534264.91 -24534264.72 0.0088 0.0070

Earth -71885-11-04 17:01 J -24534264.92 -24534264.79 -24534264.62 0.0088 0.0073 *

Earth -71884-11-07 07:25 J -24533897.28 -24533897.19 -24533897.08 0.0088 0.0082

Moon -71884-11-07 10:18 J -24533897.12 -24533897.07 -24533896.99 0.0088 0.0086 *

Moon -71883-11-09 17:30 J -24533529.78 -24533529.77 -24533529.72 0.0088 0.0088

Mars -71877-12-31 20:23 J -24531285.93 -24531285.65 -24531285.32 0.0088 0.0040

Mars -71875-11-27 21:35 J -24530589.89 -24530589.60 -24530589.29 0.0088 0.0041

Jupiter -71847-05-19 18:57 J -24520554.79 -24520554.71 -24520554.53 0.0088 0.0086

Venus -71836-12-27 09:49 J -24516315.21 -24516315.09 -24516314.96 0.0088 0.0072

Venus -71835-08-09 22:04 J -24516089.74 -24516089.58 -24516089.39 0.0088 0.0053

Venus -71834-03-23 10:47 J -24515864.25 -24515864.05 -24515863.84 0.0088 0.0032

Venus -71834-11-03 23:16 J -24515638.74 -24515638.53 -24515638.31 0.0088 0.0013

Venus -71833-06-16 11:45 J -24515413.22 -24515413.01 -24515412.79 0.0088 0.0007

Venus -71832-01-28 00:13 J -24515187.70 -24515187.49 -24515187.28 0.0088 0.0027

Venus -71832-09-10 12:13 J -24514962.16 -24514961.99 -24514961.79 0.0088 0.0047

Venus -71831-04-24 00:13 J -24514736.61 -24514736.49 -24514736.32 0.0088 0.0067
 Venus -71831-12-05 12:42 J -24514511.00 -24514510.97 -24514510.90 0.0088 0.0086
 Earth -71818-04-04 10:18 J -24510008.10 -24510008.07 -24510007.97 0.0089 0.0086
 Moon -71818-04-04 13:40 J -24510007.95 -24510007.93 -24510007.85 0.0089 0.0087
 Moon -71817-04-05 17:45 J -24509640.90 -24509640.76 -24509640.63 0.0089 0.0075
 Earth -71817-04-05 21:06 J -24509640.74 -24509640.62 -24509640.48 0.0089 0.0076 *
 Earth -71816-04-08 06:42 J -24509273.37 -24509273.22 -24509273.03 0.0089 0.0067
 Moon -71816-04-08 10:04 J -24509273.24 -24509273.08 -24509272.90 0.0089 0.0067 *
 Moon -71815-04-10 14:23 J -24508906.08 -24508905.90 -24508905.70 0.0089 0.0056
 Earth -71815-04-10 16:33 J -24508905.98 -24508905.81 -24508905.59 0.0089 0.0058 *
 Earth -71814-04-13 02:37 J -24508538.59 -24508538.39 -24508538.16 0.0089 0.0048
 Moon -71814-04-13 04:04 J -24508538.53 -24508538.33 -24508538.09 0.0089 0.0049 *
 Earth -71813-04-14 12:42 J -24508171.19 -24508170.97 -24508170.74 0.0089 0.0038
 Moon -71813-04-14 12:42 J -24508171.18 -24508170.97 -24508170.74 0.0089 0.0038 *
 Mercury -71813-06-12 11:30 J -24508112.06 -24508112.02 -24508111.98 0.0089 0.0084
 Mercury -71813-09-08 12:28 J -24508024.02 -24508023.98 -24508023.91 0.0089 0.0080
 Mercury -71813-12-05 13:54 J -24507935.98 -24507935.92 -24507935.84 0.0089 0.0075
 Mercury -71812-03-03 15:21 J -24507847.93 -24507847.86 -24507847.77 0.0089 0.0070
 Moon -71812-04-16 21:21 J -24507803.85 -24507803.61 -24507803.35 0.0089 0.0030
 Earth -71812-04-16 22:18 J -24507803.80 -24507803.57 -24507803.32 0.0089 0.0029 *
 Mercury -71812-05-30 16:33 J -24507759.89 -24507759.81 -24507759.71 0.0089 0.0065
 Mercury -71812-08-26 17:59 J -24507671.84 -24507671.75 -24507671.65 0.0089 0.0060
 Mercury -71812-11-22 19:25 J -24507583.79 -24507583.69 -24507583.59 0.0089 0.0055
 Mercury -71811-02-18 20:23 J -24507495.75 -24507495.65 -24507495.53 0.0089 0.0051
 Earth -71811-04-19 08:09 J -24507436.40 -24507436.16 -24507435.91 0.0089 0.0019
 Moon -71811-04-19 10:18 J -24507436.30 -24507436.07 -24507435.82 0.0089 0.0018 *
 Mercury -71811-05-17 21:49 J -24507407.70 -24507407.59 -24507407.47 0.0089 0.0046
 Mercury -71811-08-13 23:01 J -24507319.65 -24507319.54 -24507319.41 0.0089 0.0041
 Mercury -71811-11-10 00:28 J -24507231.60 -24507231.48 -24507231.36 0.0089 0.0036
 Mercury -71810-02-06 01:54 J -24507143.55 -24507143.42 -24507143.30 0.0089 0.0031

Moon -71810-04-21 14:37 J -24507069.14 -24507068.89 -24507068.63 0.0089 0.0009
 Earth -71810-04-21 17:59 J -24507069.00 -24507068.75 -24507068.49 0.0089 0.0009 *
 Mercury -71810-05-05 03:06 J -24507055.49 -24507055.37 -24507055.24 0.0089 0.0026
 Mercury -71810-08-01 04:18 J -24506967.44 -24506967.32 -24506967.19 0.0089 0.0022
 Mercury -71810-10-28 05:45 J -24506879.39 -24506879.26 -24506879.13 0.0089 0.0016
 Mercury -71809-01-24 06:57 J -24506791.34 -24506791.21 -24506791.08 0.0089 0.0012
 Mercury -71809-04-21 08:23 J -24506703.28 -24506703.15 -24506703.02 0.0089 0.0007
 Earth -71809-04-23 03:49 J -24506701.59 -24506701.34 -24506701.09 0.0089 0.0001
 Moon -71809-04-23 07:11 J -24506701.45 -24506701.20 -24506700.95 0.0089 0.0002 *
 Mercury -71809-07-18 09:35 J -24506615.23 -24506615.10 -24506614.97 0.0089 0.0002
 Mercury -71809-10-14 11:01 J -24506527.18 -24506527.04 -24506526.91 0.0089 0.0004
 Mercury -71808-01-10 12:13 J -24506439.12 -24506438.99 -24506438.86 0.0089 0.0008
 Mercury -71808-04-08 13:25 J -24506351.07 -24506350.94 -24506350.80 0.0089 0.0013
 Moon -71808-04-25 10:04 J -24506334.33 -24506334.08 -24506333.83 0.0089 0.0009
 Earth -71808-04-25 13:25 J -24506334.18 -24506333.94 -24506333.68 0.0089 0.0011 *
 Mercury -71808-07-05 14:52 J -24506263.01 -24506262.88 -24506262.75 0.0089 0.0018
 Mercury -71808-10-01 16:04 J -24506174.95 -24506174.83 -24506174.70 0.0089 0.0023
 Mercury -71808-12-28 17:16 J -24506086.90 -24506086.78 -24506086.65 0.0089 0.0028
 Mercury -71807-03-26 18:42 J -24505998.84 -24505998.72 -24505998.60 0.0089 0.0032
 Earth -71807-04-27 23:01 J -24505966.78 -24505966.54 -24505966.29 0.0089 0.0020
 Moon -71807-04-28 01:54 J -24505966.67 -24505966.42 -24505966.17 0.0089 0.0021 *
 Mercury -71807-06-22 19:54 J -24505910.78 -24505910.67 -24505910.55 0.0089 0.0037
 Mercury -71807-09-18 21:21 J -24505822.73 -24505822.61 -24505822.49 0.0089 0.0042
 Mercury -71807-12-15 22:33 J -24505734.67 -24505734.56 -24505734.45 0.0089 0.0047
 Mercury -71806-03-13 23:45 J -24505646.61 -24505646.51 -24505646.40 0.0089 0.0052
 Moon -71806-04-30 06:42 J -24505599.45 -24505599.22 -24505598.99 0.0089 0.0028
 Earth -71806-04-30 08:37 J -24505599.37 -24505599.14 -24505598.89 0.0089 0.0030 *
 Mercury -71806-06-10 00:57 J -24505558.55 -24505558.46 -24505558.35 0.0089 0.0057
 Mercury -71806-09-06 02:09 J -24505470.49 -24505470.41 -24505470.30 0.0089 0.0062
 Mercury -71806-12-03 03:49 J -24505382.43 -24505382.34 -24505382.25 0.0089 0.0066

Mercury -71805-02-29 05:01 J -24505294.36 -24505294.29 -24505294.21 0.0089 0.0071
 Earth -71805-05-01 17:45 J -24505231.96 -24505231.76 -24505231.51 0.0089 0.0040
 Moon -71805-05-01 18:42 J -24505231.93 -24505231.72 -24505231.47 0.0089 0.0041 *
 Mercury -71805-05-27 06:13 J -24505206.30 -24505206.24 -24505206.16 0.0089 0.0076
 Mercury -71805-08-23 07:25 J -24505118.23 -24505118.19 -24505118.12 0.0089 0.0081
 Mercury -71805-11-19 08:52 J -24505030.15 -24505030.13 -24505030.09 0.0089 0.0086
 Earth -71804-05-04 03:21 J -24504864.55 -24504864.36 -24504864.13 0.0089 0.0049
 Moon -71804-05-04 04:18 J -24504864.51 -24504864.32 -24504864.11 0.0089 0.0048 *
 Moon -71803-05-06 10:47 J -24504497.21 -24504497.05 -24504496.83 0.0089 0.0060
 Earth -71803-05-06 12:57 J -24504497.14 -24504496.96 -24504496.76 0.0089 0.0058 *
 Earth -71802-05-08 21:49 J -24504129.72 -24504129.59 -24504129.40 0.0089 0.0068
 Moon -71802-05-09 00:57 J -24504129.61 -24504129.46 -24504129.28 0.0089 0.0066 *
 Moon -71801-05-10 03:49 J -24503762.43 -24503762.34 -24503762.19 0.0089 0.0078
 Earth -71801-05-10 07:25 J -24503762.29 -24503762.19 -24503762.04 0.0089 0.0077 *
 Earth -71800-05-12 16:47 J -24503394.84 -24503394.80 -24503394.72 0.0089 0.0086
 Moon -71800-05-12 20:09 J -24503394.72 -24503394.66 -24503394.56 0.0089 0.0084 *
 Mars -71795-09-15 07:54 J -24501443.34 -24501443.17 -24501442.95 0.0089 0.0066
 Mars -71793-08-08 23:30 J -24500749.81 -24500749.52 -24500749.23 0.0089 0.0002
 Mars -71791-07-03 17:45 J -24500055.92 -24500055.76 -24500055.57 0.0089 0.0071
 Venus -71754-06-27 20:09 J -24486547.71 -24486547.66 -24486547.61 0.0089 0.0087
 Venus -71753-02-08 09:21 J -24486322.25 -24486322.11 -24486321.95 0.0089 0.0066
 Venus -71753-09-20 22:33 J -24486096.73 -24486096.56 -24486096.35 0.0089 0.0046
 Venus -71752-05-04 12:28 J -24485871.19 -24485870.98 -24485870.76 0.0089 0.0025
 Venus -71752-12-16 02:09 J -24485645.63 -24485645.41 -24485645.19 0.0089 0.0005
 Venus -71751-07-29 15:35 J -24485420.07 -24485419.85 -24485419.63 0.0089 0.0016
 Venus -71750-03-12 05:16 J -24485194.49 -24485194.28 -24485194.08 0.0089 0.0036
 Venus -71750-10-23 18:28 J -24484968.89 -24484968.73 -24484968.55 0.0089 0.0057
 Venus -71749-06-05 07:54 J -24484743.25 -24484743.17 -24484743.04 0.0089 0.0078
 Earth -71737-09-27 23:16 J -24480245.54 -24480245.53 -24480245.46 0.0089 0.0088
 Moon -71736-09-30 10:47 J -24479878.16 -24479878.05 -24479877.88 0.0089 0.0074

Earth -71736-09-30 12:57 J -24479878.07 -24479877.96 -24479877.83 0.0089 0.0078 *
 Earth -71735-10-03 01:40 J -24479510.57 -24479510.43 -24479510.24 0.0089 0.0069
 Moon -71735-10-03 02:09 J -24479510.53 -24479510.41 -24479510.22 0.0089 0.0073 *
 Earth -71734-10-05 15:21 J -24479143.04 -24479142.86 -24479142.65 0.0089 0.0059
 Moon -71734-10-05 15:35 J -24479143.03 -24479142.85 -24479142.64 0.0089 0.0055 *
 Moon -71733-10-07 02:52 J -24478775.57 -24478775.38 -24478775.15 0.0089 0.0054
 Earth -71733-10-07 05:01 J -24478775.50 -24478775.29 -24478775.06 0.0089 0.0049 *
 Earth -71732-10-09 18:28 J -24478407.95 -24478407.73 -24478407.48 0.0089 0.0040
 Moon -71732-10-09 21:21 J -24478407.84 -24478407.61 -24478407.37 0.0089 0.0035 *
 Moon -71731-10-12 05:01 J -24478040.52 -24478040.29 -24478040.03 0.0089 0.0034
 Earth -71731-10-12 08:09 J -24478040.39 -24478040.16 -24478039.89 0.0089 0.0030 *
 Mercury -71730-08-29 07:11 J -24477719.25 -24477719.20 -24477719.11 0.0089 0.0083
 Earth -71730-10-14 21:49 J -24477672.84 -24477672.59 -24477672.33 0.0089 0.0020
 Moon -71730-10-15 01:40 J -24477672.68 -24477672.43 -24477672.17 0.0089 0.0015 *
 Mercury -71730-11-25 11:30 J -24477631.12 -24477631.02 -24477630.92 0.0089 0.0075
 Mercury -71729-02-21 15:06 J -24477542.99 -24477542.87 -24477542.74 0.0089 0.0068
 Mercury -71729-05-19 18:42 J -24477454.85 -24477454.72 -24477454.56 0.0089 0.0061
 Mercury -71729-08-15 22:18 J -24477366.71 -24477366.57 -24477366.39 0.0089 0.0054
 Moon -71729-10-16 08:23 J -24477305.40 -24477305.15 -24477304.89 0.0089 0.0014
 Earth -71729-10-16 11:45 J -24477305.27 -24477305.01 -24477304.74 0.0089 0.0010 *
 Mercury -71729-11-12 02:09 J -24477278.56 -24477278.41 -24477278.23 0.0089 0.0047
 Mercury -71728-02-08 06:13 J -24477190.41 -24477190.24 -24477190.06 0.0089 0.0039
 Mercury -71728-05-07 09:49 J -24477102.27 -24477102.09 -24477101.90 0.0089 0.0032
 Mercury -71728-08-03 13:40 J -24477014.12 -24477013.93 -24477013.74 0.0089 0.0025
 Earth -71728-10-19 01:25 J -24476937.70 -24476937.44 -24476937.17 0.0089 0.0001
 Moon -71728-10-19 04:47 J -24476937.56 -24476937.30 -24476937.03 0.0089 0.0005 *
 Mercury -71728-10-30 17:16 J -24476925.96 -24476925.78 -24476925.58 0.0089 0.0018
 Mercury -71727-01-26 21:06 J -24476837.81 -24476837.62 -24476837.42 0.0089 0.0010
 Mercury -71727-04-25 00:57 J -24476749.65 -24476749.46 -24476749.26 0.0089 0.0003
 Mercury -71727-07-22 04:47 J -24476661.50 -24476661.30 -24476661.10 0.0089 0.0004

Mercury -71727-10-18 08:23 J -24476573.34 -24476573.15 -24476572.95 0.0089 0.0012
 Moon -71727-10-21 12:57 J -24476570.21 -24476569.96 -24476569.70 0.0089 0.0006
 Earth -71727-10-21 15:06 J -24476570.13 -24476569.87 -24476569.61 0.0089 0.0010 *
 Mercury -71726-01-14 12:13 J -24476485.18 -24476484.99 -24476484.80 0.0089 0.0019
 Mercury -71726-04-12 15:35 J -24476397.02 -24476396.85 -24476396.65 0.0089 0.0027
 Mercury -71726-07-09 19:25 J -24476308.86 -24476308.69 -24476308.50 0.0089 0.0034
 Mercury -71726-10-05 23:16 J -24476220.70 -24476220.53 -24476220.35 0.0089 0.0041
 Earth -71726-10-24 04:33 J -24476202.55 -24476202.31 -24476202.04 0.0089 0.0021
 Moon -71726-10-24 05:59 J -24476202.51 -24476202.25 -24476201.98 0.0089 0.0024 *
 Mercury -71725-01-02 02:52 J -24476132.53 -24476132.38 -24476132.20 0.0089 0.0048
 Mercury -71725-03-30 06:42 J -24476044.37 -24476044.22 -24476044.06 0.0089 0.0055
 Mercury -71725-06-26 10:04 J -24475956.19 -24475956.08 -24475955.92 0.0089 0.0063
 Mercury -71725-09-22 13:54 J -24475868.02 -24475867.92 -24475867.78 0.0089 0.0070
 Moon -71725-10-25 17:59 J -24475834.98 -24475834.75 -24475834.49 0.0089 0.0027
 Earth -71725-10-25 18:13 J -24475834.97 -24475834.74 -24475834.47 0.0089 0.0031 *
 Mercury -71725-12-19 17:45 J -24475779.84 -24475779.76 -24475779.65 0.0089 0.0077
 Mercury -71724-03-17 21:21 J -24475691.65 -24475691.61 -24475691.53 0.0089 0.0084
 Moon -71724-10-28 06:57 J -24475467.44 -24475467.21 -24475466.97 0.0089 0.0044
 Earth -71724-10-28 08:23 J -24475467.38 -24475467.15 -24475466.91 0.0089 0.0040 *
 Earth -71723-10-30 22:18 J -24475099.78 -24475099.57 -24475099.35 0.0089 0.0050
 Moon -71723-10-30 23:59 J -24475099.70 -24475099.50 -24475099.26 0.0089 0.0047 *
 Moon -71722-11-02 09:21 J -24474732.29 -24474732.11 -24474731.92 0.0089 0.0063
 Earth -71722-11-02 11:59 J -24474732.18 -24474732.00 -24474731.79 0.0089 0.0060 *
 Earth -71721-11-04 01:54 J -24474364.56 -24474364.42 -24474364.23 0.0088 0.0070
 Moon -71721-11-04 05:45 J -24474364.42 -24474364.26 -24474364.07 0.0088 0.0066 *
 Moon -71720-11-06 12:57 J -24473997.05 -24473996.96 -24473996.85 0.0088 0.0082
 Earth -71720-11-06 16:18 J -24473996.92 -24473996.82 -24473996.69 0.0088 0.0079 *
 Earth -71719-11-09 06:13 J -24473629.24 -24473629.24 -24473629.21 0.0088 0.0088
 Moon -71719-11-09 09:35 J -24473629.14 -24473629.10 -24473629.00 0.0088 0.0086
 Mars -71713-08-14 14:37 J -24471524.06 -24471523.89 -24471523.68 0.0088 0.0073

Mars	-71711-07-11 18:13 J	-24470828.07	-24470827.74	-24470827.39	0.0088	0.0007
Mars	-71709-06-06 17:30 J	-24470131.80	-24470131.77	-24470131.65	0.0088	0.0087
Venus	-71671-03-30 21:49 J	-24456320.67	-24456320.59	-24456320.48	0.0088	0.0079
Venus	-71671-11-11 10:33 J	-24456095.22	-24456095.06	-24456094.89	0.0088	0.0059
Venus	-71670-06-24 22:47 J	-24455869.73	-24455869.55	-24455869.34	0.0088	0.0039
Venus	-71669-02-05 11:16 J	-24455644.23	-24455644.03	-24455643.81	0.0088	0.0020
Venus	-71669-09-17 23:59 J	-24455418.72	-24455418.50	-24455418.28	0.0088	0.0001
Venus	-71668-05-01 12:13 J	-24455193.20	-24455192.99	-24455192.77	0.0088	0.0020
Venus	-71668-12-13 00:42 J	-24454967.66	-24454967.47	-24454967.27	0.0088	0.0040
Venus	-71667-07-26 12:42 J	-24454742.11	-24454741.97	-24454741.79	0.0088	0.0060
Venus	-71666-03-09 01:25 J	-24454516.53	-24454516.44	-24454516.34	0.0088	0.0079
Earth	-71654-04-03 22:47 J	-24450107.60	-24450107.55	-24450107.46	0.0089	0.0085
Earth	-71653-04-05 08:52 J	-24449740.24	-24449740.13	-24449739.98	0.0089	0.0076
Moon	-71653-04-05 12:28 J	-24449740.12	-24449739.98	-24449739.82	0.0089	0.0071 *
Moon	-71652-04-07 17:01 J	-24449372.91	-24449372.79	-24449372.62	0.0089	0.0072
Earth	-71652-04-07 18:57 J	-24449372.85	-24449372.71	-24449372.52	0.0089	0.0067 *
Earth	-71651-04-10 04:47 J	-24449005.46	-24449005.30	-24449005.08	0.0089	0.0058
Moon	-71651-04-10 06:28 J	-24449005.44	-24449005.23	-24449005.02	0.0089	0.0053 *
Earth	-71650-04-12 15:21 J	-24448638.07	-24448637.86	-24448637.64	0.0089	0.0048
Moon	-71650-04-12 14:52 J	-24448638.05	-24448637.88	-24448637.66	0.0089	0.0053 *
Moon	-71649-04-13 23:30 J	-24448270.76	-24448270.52	-24448270.28	0.0089	0.0034
Earth	-71649-04-14 01:11 J	-24448270.67	-24448270.45	-24448270.21	0.0089	0.0039 *
Mercury	-71649-12-11 10:04 J	-24448029.09	-24448029.08	-24448029.04	0.0089	0.0087
Mercury	-71648-03-09 11:30 J	-24447941.06	-24447941.02	-24447940.97	0.0089	0.0082
Earth	-71648-04-16 10:33 J	-24447903.28	-24447903.06	-24447902.80	0.0089	0.0030
Moon	-71648-04-16 13:11 J	-24447903.17	-24447902.95	-24447902.71	0.0089	0.0034 *
Mercury	-71648-06-05 12:42 J	-24447853.02	-24447852.97	-24447852.90	0.0089	0.0077
Mercury	-71648-09-01 14:09 J	-24447764.98	-24447764.91	-24447764.83	0.0089	0.0072
Mercury	-71648-11-28 15:06 J	-24447676.94	-24447676.87	-24447676.77	0.0089	0.0068
Mercury	-71647-02-24 16:33 J	-24447588.89	-24447588.81	-24447588.71	0.0089	0.0063

Moon -71647-04-18 17:16 J -24447536.02 -24447535.78 -24447535.51 0.0089 0.0016
 Earth -71647-04-18 20:37 J -24447535.88 -24447535.64 -24447535.38 0.0089 0.0020 *
 Mercury -71647-05-23 17:59 J -24447500.84 -24447500.75 -24447500.65 0.0089 0.0058
 Mercury -71647-08-19 19:11 J -24447412.80 -24447412.70 -24447412.59 0.0089 0.0053
 Mercury -71647-11-15 20:37 J -24447324.75 -24447324.64 -24447324.53 0.0089 0.0048
 Mercury -71646-02-11 21:49 J -24447236.70 -24447236.59 -24447236.47 0.0089 0.0043
 Earth -71646-04-21 06:28 J -24447168.48 -24447168.23 -24447167.97 0.0089 0.0010
 Moon -71646-04-21 10:04 J -24447168.32 -24447168.08 -24447167.83 0.0089 0.0015 *
 Mercury -71646-05-10 23:01 J -24447148.65 -24447148.54 -24447148.41 0.0089 0.0039
 Mercury -71646-08-07 00:28 J -24447060.60 -24447060.48 -24447060.35 0.0089 0.0034
 Mercury -71646-11-03 01:40 J -24446972.55 -24446972.43 -24446972.30 0.0089 0.0029
 Mercury -71645-01-30 03:06 J -24446884.50 -24446884.37 -24446884.24 0.0089 0.0024
 Moon -71645-04-22 13:11 J -24446801.20 -24446800.95 -24446800.70 0.0089 0.0004
 Earth -71645-04-22 16:18 J -24446801.07 -24446800.82 -24446800.57 0.0089 0.0001 *
 Mercury -71645-04-27 04:33 J -24446796.44 -24446796.31 -24446796.19 0.0089 0.0019
 Mercury -71645-07-24 05:45 J -24446708.39 -24446708.26 -24446708.13 0.0089 0.0014
 Mercury -71645-10-20 06:57 J -24446620.34 -24446620.21 -24446620.08 0.0089 0.0009
 Mercury -71644-01-16 08:23 J -24446532.28 -24446532.15 -24446532.02 0.0089 0.0005
 Mercury -71644-04-14 09:35 J -24446444.23 -24446444.10 -24446443.97 0.0089 0.0001
 Earth -71644-04-25 01:54 J -24446433.67 -24446433.42 -24446433.17 0.0089 0.0009
 Moon -71644-04-25 04:47 J -24446433.55 -24446433.30 -24446433.04 0.0089 0.0005 *
 Mercury -71644-07-11 11:01 J -24446356.18 -24446356.04 -24446355.91 0.0089 0.0006
 Mercury -71644-10-07 12:13 J -24446268.12 -24446267.99 -24446267.86 0.0089 0.0010
 Mercury -71643-01-03 13:25 J -24446180.07 -24446179.94 -24446179.81 0.0089 0.0015
 Mercury -71643-04-01 14:52 J -24446092.01 -24446091.88 -24446091.75 0.0089 0.0020
 Moon -71643-04-27 10:04 J -24446066.31 -24446066.08 -24446065.84 0.0089 0.0023
 Earth -71643-04-27 11:16 J -24446066.26 -24446066.03 -24446065.77 0.0089 0.0019 *
 Mercury -71643-06-28 16:04 J -24446003.95 -24446003.83 -24446003.70 0.0089 0.0025
 Mercury -71643-09-24 17:16 J -24445915.90 -24445915.78 -24445915.65 0.0089 0.0030
 Mercury -71643-12-21 18:42 J -24445827.84 -24445827.72 -24445827.60 0.0089 0.0035

Mercury -71642-03-19 19:54 J -24445739.78 -24445739.67 -24445739.55 0.0089 0.0040

Earth -71642-04-29 21:06 J -24445698.85 -24445698.62 -24445698.37 0.0089 0.0028

Moon -71642-04-29 21:35 J -24445698.84 -24445698.60 -24445698.33 0.0089 0.0024 *

Mercury -71642-06-15 21:06 J -24445651.72 -24445651.62 -24445651.50 0.0089 0.0045

Mercury -71642-09-11 22:18 J -24445563.67 -24445563.57 -24445563.45 0.0089 0.0050

Mercury -71642-12-08 23:59 J -24445475.61 -24445475.50 -24445475.40 0.0089 0.0054

Mercury -71641-03-06 01:11 J -24445387.55 -24445387.45 -24445387.35 0.0089 0.0059

Earth -71641-05-01 06:57 J -24445331.43 -24445331.21 -24445330.97 0.0089 0.0037

Moon -71641-05-01 07:11 J -24445331.40 -24445331.20 -24445330.96 0.0089 0.0042 *

Mercury -71641-06-02 02:23 J -24445299.48 -24445299.40 -24445299.30 0.0089 0.0064

Mercury -71641-08-29 03:35 J -24445211.42 -24445211.35 -24445211.26 0.0089 0.0069

Mercury -71641-11-25 04:47 J -24445123.36 -24445123.30 -24445123.21 0.0089 0.0074

Mercury -71640-02-21 06:13 J -24445035.29 -24445035.24 -24445035.17 0.0089 0.0079

Moon -71640-05-03 13:54 J -24444964.14 -24444963.92 -24444963.68 0.0089 0.0042

Earth -71640-05-03 16:04 J -24444964.02 -24444963.83 -24444963.60 0.0089 0.0047 *

Mercury -71640-05-20 07:40 J -24444947.22 -24444947.18 -24444947.13 0.0089 0.0083

Mercury -71640-08-16 08:52 J -24444859.13 -24444859.13 -24444859.11 0.0089 0.0088

Earth -71639-05-06 01:25 J -24444596.61 -24444596.44 -24444596.22 0.0089 0.0056

Moon -71639-05-06 04:33 J -24444596.48 -24444596.31 -24444596.12 0.0089 0.0060 *

Moon -71638-05-08 07:54 J -24444229.35 -24444229.17 -24444228.98 0.0089 0.0060

Earth -71638-05-08 11:01 J -24444229.19 -24444229.04 -24444228.85 0.0089 0.0065 *

Earth -71637-05-09 20:09 J -24443861.77 -24443861.66 -24443861.50 0.0089 0.0074

Moon -71637-05-09 23:30 J -24443861.61 -24443861.52 -24443861.37 0.0089 0.0079 *

Moon -71636-05-12 02:37 J -24443494.48 -24443494.39 -24443494.25 0.0089 0.0079

Earth -71636-05-12 05:30 J -24443494.33 -24443494.27 -24443494.16 0.0089 0.0083 *

Mars -71629-03-24 14:37 J -24440986.15 -24440985.89 -24440985.60 0.0089 0.0027

Mars -71627-02-16 05:59 J -24440292.48 -24440292.25 -24440291.97 0.0089 0.0042

Venus -71589-05-11 19:40 J -24426327.78 -24426327.68 -24426327.54 0.0089 0.0074

Venus -71589-12-23 09:35 J -24426102.27 -24426102.10 -24426101.92 0.0089 0.0053

Venus -71588-08-05 22:47 J -24425876.74 -24425876.55 -24425876.33 0.0089 0.0033

Venus	-71587-03-19 12:28 J	-24425651.19	-24425650.98	-24425650.75	0.0089	0.0012
Venus	-71587-10-31 02:09 J	-24425425.63	-24425425.41	-24425425.19	0.0089	0.0008
Venus	-71586-06-13 15:35 J	-24425200.05	-24425199.85	-24425199.63	0.0089	0.0029
Venus	-71585-01-25 05:16 J	-24424974.46	-24424974.28	-24424974.09	0.0089	0.0049
Venus	-71585-09-06 18:28 J	-24424748.85	-24424748.73	-24424748.58	0.0089	0.0070
Moon	-71573-09-27 07:54 J	-24420345.21	-24420345.17	-24420345.12	0.0089	0.0087
Earth	-71573-09-27 09:06 J	-24420345.15	-24420345.12	-24420345.05	0.0089	0.0087 *
Earth	-71572-09-29 22:04 J	-24419977.68	-24419977.58	-24419977.44	0.0089	0.0078
Moon	-71572-09-29 22:04 J	-24419977.68	-24419977.58	-24419977.42	0.0089	0.0078 *
Earth	-71571-10-02 11:01 J	-24419610.18	-24419610.04	-24419609.85	0.0089	0.0069
Moon	-71571-10-02 12:57 J	-24419610.11	-24419609.96	-24419609.80	0.0089	0.0069 *
Moon	-71570-10-04 22:47 J	-24419242.75	-24419242.55	-24419242.35	0.0089	0.0059
Earth	-71570-10-05 00:42 J	-24419242.66	-24419242.47	-24419242.27	0.0089	0.0059 *
Earth	-71569-10-06 13:40 J	-24418875.12	-24418874.93	-24418874.69	0.0089	0.0050
Moon	-71569-10-06 17:16 J	-24418874.99	-24418874.78	-24418874.57	0.0089	0.0049 *
Moon	-71568-10-08 23:59 J	-24418507.73	-24418507.50	-24418507.26	0.0089	0.0040
Earth	-71568-10-09 03:35 J	-24418507.57	-24418507.35	-24418507.11	0.0089	0.0040 *
Earth	-71567-10-11 16:47 J	-24418140.03	-24418139.80	-24418139.54	0.0089	0.0031
Moon	-71567-10-11 20:37 J	-24418139.88	-24418139.64	-24418139.39	0.0089	0.0029 *
Moon	-71566-10-14 03:06 J	-24417772.61	-24417772.37	-24417772.11	0.0089	0.0022
Earth	-71566-10-14 06:42 J	-24417772.47	-24417772.22	-24417771.96	0.0089	0.0021 *
Mercury	-71565-02-27 02:23 J	-24417636.42	-24417636.40	-24417636.35	0.0089	0.0087
Mercury	-71565-05-25 05:59 J	-24417548.31	-24417548.25	-24417548.14	0.0089	0.0080
Mercury	-71565-08-21 09:49 J	-24417460.18	-24417460.09	-24417459.96	0.0089	0.0073
Earth	-71565-10-15 20:23 J	-24417404.91	-24417404.65	-24417404.38	0.0089	0.0011
Moon	-71565-10-15 23:01 J	-24417404.81	-24417404.54	-24417404.27	0.0089	0.0010 *
Mercury	-71565-11-17 13:54 J	-24417372.05	-24417371.92	-24417371.78	0.0089	0.0065
Mercury	-71564-02-13 17:30 J	-24417283.91	-24417283.77	-24417283.61	0.0089	0.0058
Mercury	-71564-05-12 21:06 J	-24417195.76	-24417195.62	-24417195.44	0.0089	0.0051
Mercury	-71564-08-09 00:57 J	-24417107.62	-24417107.46	-24417107.27	0.0089	0.0044

Moon -71564-10-18 08:09 J -24417037.41 -24417037.16 -24417036.90 0.0089 0.0003
 Earth -71564-10-18 10:04 J -24417037.34 -24417037.08 -24417036.81 0.0089 0.0002 *
 Mercury -71564-11-05 05:01 J -24417019.47 -24417019.29 -24417019.11 0.0089 0.0036
 Mercury -71563-02-01 08:37 J -24416931.32 -24416931.14 -24416930.95 0.0089 0.0029
 Mercury -71563-04-30 12:28 J -24416843.17 -24416842.98 -24416842.79 0.0089 0.0022
 Mercury -71563-07-27 16:04 J -24416755.02 -24416754.83 -24416754.63 0.0089 0.0015
 Earth -71563-10-20 23:45 J -24416669.77 -24416669.51 -24416669.25 0.0089 0.0009
 Moon -71563-10-21 00:13 J -24416669.75 -24416669.49 -24416669.21 0.0089 0.0011 *
 Mercury -71563-10-23 19:54 J -24416666.86 -24416666.67 -24416666.47 0.0089 0.0007
 Mercury -71562-01-19 23:45 J -24416578.71 -24416578.51 -24416578.31 0.0089 0.0001
 Mercury -71562-04-18 03:35 J -24416490.55 -24416490.35 -24416490.16 0.0089 0.0008
 Mercury -71562-07-15 07:11 J -24416402.39 -24416402.20 -24416402.00 0.0089 0.0015
 Mercury -71562-10-11 11:01 J -24416314.23 -24416314.04 -24416313.85 0.0089 0.0022
 Earth -71562-10-23 13:11 J -24416302.19 -24416301.95 -24416301.68 0.0089 0.0019
 Moon -71562-10-23 14:23 J -24416302.15 -24416301.90 -24416301.66 0.0089 0.0017 *
 Mercury -71561-01-07 14:23 J -24416226.07 -24416225.90 -24416225.70 0.0089 0.0030
 Mercury -71561-04-04 18:13 J -24416137.91 -24416137.74 -24416137.55 0.0089 0.0037
 Mercury -71561-07-01 22:04 J -24416049.74 -24416049.58 -24416049.40 0.0089 0.0044
 Mercury -71561-09-28 01:54 J -24415961.58 -24415961.42 -24415961.26 0.0089 0.0051
 Moon -71561-10-25 01:40 J -24415934.68 -24415934.43 -24415934.17 0.0089 0.0030
 Earth -71561-10-25 03:06 J -24415934.61 -24415934.37 -24415934.11 0.0089 0.0028 *
 Mercury -71561-12-25 05:45 J -24415873.41 -24415873.26 -24415873.11 0.0089 0.0058
 Mercury -71560-03-23 08:52 J -24415785.24 -24415785.13 -24415784.97 0.0089 0.0066
 Mercury -71560-06-19 12:42 J -24415697.06 -24415696.97 -24415696.84 0.0089 0.0073
 Mercury -71560-09-15 16:33 J -24415608.88 -24415608.81 -24415608.71 0.0089 0.0080
 Earth -71560-10-27 16:47 J -24415567.03 -24415566.80 -24415566.55 0.0089 0.0038
 Moon -71560-10-27 19:25 J -24415566.91 -24415566.69 -24415566.44 0.0089 0.0036 *
 Mercury -71560-12-12 20:23 J -24415520.68 -24415520.65 -24415520.60 0.0089 0.0087
 Moon -71559-10-30 03:06 J -24415199.58 -24415199.37 -24415199.14 0.0089 0.0049
 Earth -71559-10-30 06:13 J -24415199.44 -24415199.24 -24415199.00 0.0089 0.0048 *

Earth	-71558-11-01 20:09 J	-24414831.84	-24414831.66	-24414831.44	0.0089	0.0057
Moon	-71558-11-01 23:45 J	-24414831.70	-24414831.51	-24414831.29	0.0089	0.0054 *
Moon	-71557-11-03 06:57 J	-24414464.38	-24414464.21	-24414464.05	0.0089	0.0069
Earth	-71557-11-03 09:49 J	-24414464.23	-24414464.09	-24414463.89	0.0089	0.0067 *
Earth	-71556-11-05 23:59 J	-24414096.62	-24414096.50	-24414096.35	0.0088	0.0076
Moon	-71556-11-06 02:52 J	-24414096.51	-24414096.38	-24414096.21	0.0088	0.0073 *
Moon	-71555-11-08 11:45 J	-24413729.01	-24413729.01	-24413729.00	0.0088	0.0088
Earth	-71555-11-08 14:09 J	-24413728.97	-24413728.91	-24413728.82	0.0088	0.0085
Mars	-71547-02-22 10:33 J	-24411066.38	-24411066.06	-24411065.73	0.0088	0.0027
Mars	-71545-01-19 12:13 J	-24410370.23	-24410369.99	-24410369.68	0.0088	0.0053
Venus	-71507-07-02 09:49 J	-24396326.13	-24396326.09	-24396326.03	0.0088	0.0086
Venus	-71506-02-12 22:33 J	-24396100.70	-24396100.56	-24396100.42	0.0088	0.0066
Venus	-71506-09-26 10:33 J	-24395875.23	-24395875.06	-24395874.86	0.0088	0.0046
Venus	-71505-05-08 23:16 J	-24395649.73	-24395649.53	-24395649.32	0.0088	0.0026
Venus	-71505-12-20 11:59 J	-24395424.22	-24395424.00	-24395423.78	0.0088	0.0007
Venus	-71504-08-03 00:13 J	-24395198.70	-24395198.49	-24395198.27	0.0088	0.0013
Venus	-71503-03-16 12:42 J	-24394973.17	-24394972.97	-24394972.77	0.0088	0.0033
Venus	-71503-10-28 00:42 J	-24394747.63	-24394747.47	-24394747.28	0.0088	0.0053
Venus	-71502-06-10 12:57 J	-24394522.07	-24394521.96	-24394521.82	0.0088	0.0072
Earth	-71490-04-03 09:21 J	-24390207.15	-24390207.11	-24390207.00	0.0089	0.0085
Moon	-71490-04-03 12:42 J	-24390207.04	-24390206.97	-24390206.89	0.0089	0.0084 *
Moon	-71489-04-04 17:45 J	-24389839.86	-24389839.76	-24389839.61	0.0089	0.0077
Earth	-71489-04-04 19:54 J	-24389839.78	-24389839.67	-24389839.51	0.0089	0.0076 *
Earth	-71488-04-07 05:59 J	-24389472.39	-24389472.25	-24389472.06	0.0089	0.0067
Moon	-71488-04-07 07:11 J	-24389472.37	-24389472.20	-24389472.02	0.0089	0.0066 *
Earth	-71487-04-09 16:18 J	-24389104.99	-24389104.82	-24389104.60	0.0089	0.0058
Moon	-71487-04-09 17:16 J	-24389104.95	-24389104.78	-24389104.58	0.0089	0.0058 *
Moon	-71486-04-12 00:57 J	-24388737.66	-24388737.46	-24388737.22	0.0089	0.0048
Earth	-71486-04-12 02:23 J	-24388737.59	-24388737.40	-24388737.16	0.0089	0.0049 *
Earth	-71485-04-13 12:42 J	-24388370.20	-24388369.97	-24388369.74	0.0089	0.0039

Moon -71485-04-13 15:21 J -24388370.07 -24388369.86 -24388369.63 0.0089 0.0040 *
 Moon -71484-04-15 19:11 J -24388002.94 -24388002.70 -24388002.46 0.0089 0.0030
 Earth -71484-04-15 22:33 J -24388002.79 -24388002.56 -24388002.32 0.0089 0.0030 *
 Mercury -71484-09-07 10:04 J -24387858.11 -24387858.08 -24387858.04 0.0089 0.0085
 Mercury -71484-12-04 11:16 J -24387770.08 -24387770.03 -24387769.97 0.0089 0.0080
 Mercury -71483-03-02 12:42 J -24387682.04 -24387681.97 -24387681.90 0.0089 0.0075
 Earth -71483-04-18 08:09 J -24387635.40 -24387635.16 -24387634.90 0.0089 0.0021
 Moon -71483-04-18 11:45 J -24387635.25 -24387635.01 -24387634.76 0.0089 0.0022 *
 Mercury -71483-05-29 13:40 J -24387593.99 -24387593.93 -24387593.83 0.0089 0.0071
 Mercury -71483-08-25 15:06 J -24387505.95 -24387505.87 -24387505.77 0.0089 0.0066
 Mercury -71483-11-21 16:33 J -24387417.90 -24387417.81 -24387417.71 0.0089 0.0061
 Mercury -71482-02-17 17:45 J -24387329.85 -24387329.76 -24387329.65 0.0089 0.0056
 Moon -71482-04-20 14:52 J -24387268.12 -24387267.88 -24387267.63 0.0089 0.0011
 Earth -71482-04-20 17:59 J -24387267.99 -24387267.75 -24387267.49 0.0089 0.0012 *
 Mercury -71482-05-16 19:11 J -24387241.81 -24387241.70 -24387241.59 0.0089 0.0051
 Mercury -71482-08-12 20:37 J -24387153.76 -24387153.64 -24387153.53 0.0089 0.0046
 Mercury -71482-11-08 21:35 J -24387065.71 -24387065.60 -24387065.47 0.0089 0.0042
 Mercury -71481-02-04 23:01 J -24386977.66 -24386977.54 -24386977.42 0.0089 0.0036
 Earth -71481-04-22 03:49 J -24386900.59 -24386900.34 -24386900.08 0.0089 0.0002
 Moon -71481-04-22 06:13 J -24386900.50 -24386900.24 -24386899.98 0.0089 0.0003 *
 Mercury -71481-05-03 00:13 J -24386889.61 -24386889.49 -24386889.36 0.0089 0.0032
 Mercury -71481-07-30 01:40 J -24386801.55 -24386801.43 -24386801.30 0.0089 0.0027
 Mercury -71481-10-26 02:52 J -24386713.50 -24386713.38 -24386713.25 0.0089 0.0022
 Mercury -71480-01-22 04:18 J -24386625.45 -24386625.32 -24386625.19 0.0089 0.0017
 Mercury -71480-04-20 05:30 J -24386537.40 -24386537.27 -24386537.14 0.0089 0.0012
 Moon -71480-04-24 11:45 J -24386533.25 -24386533.01 -24386532.76 0.0089 0.0009
 Earth -71480-04-24 13:25 J -24386533.19 -24386532.94 -24386532.68 0.0089 0.0007 *
 Mercury -71480-07-17 06:57 J -24386449.34 -24386449.21 -24386449.08 0.0089 0.0008
 Mercury -71480-10-13 08:09 J -24386361.29 -24386361.16 -24386361.03 0.0089 0.0002
 Mercury -71479-01-09 09:21 J -24386273.24 -24386273.11 -24386272.97 0.0089 0.0004

Mercury -71479-04-07 10:47 J -24386185.18 -24386185.05 -24386184.92 0.0089 0.0007

Moon -71479-04-26 23:01 J -24386165.79 -24386165.54 -24386165.27 0.0089 0.0016

Earth -71479-04-26 23:01 J -24386165.78 -24386165.54 -24386165.28 0.0089 0.0017 *

Mercury -71479-07-04 11:59 J -24386097.13 -24386097.00 -24386096.87 0.0089 0.0012

Mercury -71479-09-30 13:11 J -24386009.07 -24386008.95 -24386008.82 0.0089 0.0017

Mercury -71479-12-27 14:37 J -24385921.02 -24385920.89 -24385920.76 0.0089 0.0022

Mercury -71478-03-25 15:49 J -24385832.96 -24385832.84 -24385832.71 0.0089 0.0027

Earth -71478-04-29 08:37 J -24385798.37 -24385798.14 -24385797.88 0.0089 0.0026

Moon -71478-04-29 10:18 J -24385798.30 -24385798.07 -24385797.84 0.0089 0.0026 *

Mercury -71478-06-21 17:01 J -24385744.90 -24385744.79 -24385744.66 0.0089 0.0032

Mercury -71478-09-17 18:28 J -24385656.85 -24385656.73 -24385656.61 0.0089 0.0037

Mercury -71478-12-14 19:40 J -24385568.79 -24385568.68 -24385568.56 0.0089 0.0042

Mercury -71477-03-11 20:52 J -24385480.73 -24385480.63 -24385480.51 0.0089 0.0047

Moon -71477-04-30 16:18 J -24385431.05 -24385430.82 -24385430.57 0.0089 0.0034

Earth -71477-04-30 18:28 J -24385430.96 -24385430.73 -24385430.49 0.0089 0.0035 *

Mercury -71477-06-07 22:04 J -24385392.67 -24385392.58 -24385392.46 0.0089 0.0052

Mercury -71477-09-03 23:45 J -24385304.61 -24385304.51 -24385304.41 0.0089 0.0056

Mercury -71477-12-01 00:57 J -24385216.55 -24385216.46 -24385216.36 0.0089 0.0061

Mercury -71476-02-27 02:09 J -24385128.49 -24385128.41 -24385128.31 0.0089 0.0066

Earth -71476-05-03 04:04 J -24385063.54 -24385063.33 -24385063.11 0.0089 0.0044

Moon -71476-05-03 07:11 J -24385063.40 -24385063.20 -24385062.98 0.0089 0.0045 *

Mercury -71476-05-26 03:21 J -24385040.42 -24385040.36 -24385040.27 0.0089 0.0071

Mercury -71476-08-22 04:47 J -24384952.36 -24384952.30 -24384952.23 0.0089 0.0076

Mercury -71476-11-18 05:59 J -24384864.29 -24384864.25 -24384864.18 0.0089 0.0081

Mercury -71475-02-14 07:11 J -24384776.22 -24384776.20 -24384776.15 0.0089 0.0086

Moon -71475-05-05 10:04 J -24384696.26 -24384696.08 -24384695.86 0.0089 0.0053

Earth -71475-05-05 13:54 J -24384696.12 -24384695.92 -24384695.72 0.0089 0.0053 *

Earth -71474-05-07 23:16 J -24384328.70 -24384328.53 -24384328.35 0.0089 0.0062

Moon -71474-05-08 02:23 J -24384328.55 -24384328.40 -24384328.21 0.0089 0.0064 *

Moon -71473-05-09 05:59 J -24383961.40 -24383961.25 -24383961.10 0.0089 0.0070

Earth	-71473-05-09 08:37 J	-24383961.28	-24383961.14	-24383960.98	0.0089	0.0071	*
Earth	-71472-05-11 17:45 J	-24383593.85	-24383593.76	-24383593.63	0.0089	0.0080	
Moon	-71472-05-11 19:11 J	-24383593.77	-24383593.70	-24383593.56	0.0089	0.0081	*
Moon	-71471-05-14 02:23 J	-24383226.43	-24383226.40	-24383226.34	0.0089	0.0087	
Earth	-71471-05-14 03:06 J	-24383226.37	-24383226.37	-24383226.32	0.0089	0.0089	*
Mars	-71466-11-08 04:18 J	-24381222.53	-24381222.32	-24381222.08	0.0089	0.0055	
Mars	-71464-10-01 20:09 J	-24380528.94	-24380528.66	-24380528.37	0.0089	0.0012	
Mars	-71462-08-26 12:28 J	-24379835.09	-24379834.98	-24379834.84	0.0089	0.0080	
Venus	-71425-08-13 05:59 J	-24366333.31	-24366333.25	-24366333.14	0.0089	0.0082	
Venus	-71424-03-26 19:40 J	-24366107.83	-24366107.68	-24366107.51	0.0089	0.0061	
Venus	-71424-11-07 09:06 J	-24365882.31	-24365882.12	-24365881.91	0.0089	0.0041	
Venus	-71423-06-20 22:47 J	-24365656.76	-24365656.55	-24365656.33	0.0089	0.0020	
Venus	-71422-02-01 12:28 J	-24365431.20	-24365430.98	-24365430.76	0.0089	0.0001	
Venus	-71422-09-15 01:54 J	-24365205.63	-24365205.42	-24365205.20	0.0089	0.0021	
Venus	-71421-04-27 15:06 J	-24364980.05	-24364979.87	-24364979.66	0.0089	0.0042	
Venus	-71421-12-09 04:47 J	-24364754.45	-24364754.30	-24364754.13	0.0089	0.0062	
Venus	-71420-07-22 18:13 J	-24364528.80	-24364528.74	-24364528.64	0.0089	0.0083	
Moon	-71409-09-26 16:47 J	-24360444.88	-24360444.80	-24360444.68	0.0089	0.0082	
Earth	-71409-09-26 17:01 J	-24360444.82	-24360444.79	-24360444.70	0.0089	0.0087	*
Earth	-71408-09-29 05:59 J	-24360077.34	-24360077.25	-24360077.09	0.0089	0.0078	
Moon	-71408-09-29 07:54 J	-24360077.25	-24360077.17	-24360077.07	0.0089	0.0082	*
Moon	-71407-10-01 16:33 J	-24359709.98	-24359709.81	-24359709.61	0.0089	0.0064	
Earth	-71407-10-01 19:11 J	-24359709.84	-24359709.70	-24359709.51	0.0089	0.0069	*
Earth	-71406-10-04 08:23 J	-24359342.32	-24359342.15	-24359341.93	0.0089	0.0060	
Moon	-71406-10-04 11:45 J	-24359342.17	-24359342.01	-24359341.82	0.0089	0.0064	*
Moon	-71405-10-05 17:59 J	-24358974.95	-24358974.75	-24358974.50	0.0089	0.0046	
Earth	-71405-10-05 22:18 J	-24358974.78	-24358974.57	-24358974.35	0.0089	0.0050	*
Earth	-71404-10-08 11:01 J	-24358607.26	-24358607.04	-24358606.79	0.0089	0.0041	
Moon	-71404-10-08 14:37 J	-24358607.10	-24358606.89	-24358606.65	0.0089	0.0046	*
Moon	-71403-10-10 21:49 J	-24358239.83	-24358239.59	-24358239.34	0.0089	0.0027	

Earth -71403-10-11 00:28 J -24358239.70 -24358239.48 -24358239.21 0.0089 0.0032 *
 Earth -71402-10-13 14:09 J -24357872.15 -24357871.91 -24357871.64 0.0089 0.0022
 Moon -71402-10-13 17:01 J -24357872.05 -24357871.79 -24357871.53 0.0089 0.0026 *
 Moon -71401-10-15 03:06 J -24357504.62 -24357504.37 -24357504.11 0.0089 0.0008
 Earth -71401-10-15 03:49 J -24357504.59 -24357504.34 -24357504.07 0.0089 0.0013 *
 Mercury -71401-11-23 00:42 J -24357465.51 -24357465.47 -24357465.39 0.0089 0.0085
 Mercury -71400-02-19 04:18 J -24357377.39 -24357377.32 -24357377.20 0.0089 0.0078
 Mercury -71400-05-18 08:23 J -24357289.26 -24357289.15 -24357289.02 0.0089 0.0070
 Mercury -71400-08-14 12:13 J -24357201.12 -24357200.99 -24357200.84 0.0089 0.0063
 Moon -71400-10-17 17:45 J -24357137.03 -24357136.76 -24357136.48 0.0089 0.0007
 Earth -71400-10-17 17:45 J -24357137.02 -24357136.76 -24357136.50 0.0089 0.0003 *
 Mercury -71400-11-10 15:49 J -24357112.98 -24357112.84 -24357112.67 0.0089 0.0056
 Mercury -71399-02-06 19:25 J -24357024.83 -24357024.69 -24357024.50 0.0089 0.0049
 Mercury -71399-05-05 23:30 J -24356936.69 -24356936.52 -24356936.34 0.0089 0.0041
 Mercury -71399-08-02 03:21 J -24356848.54 -24356848.36 -24356848.17 0.0089 0.0034
 Earth -71399-10-20 07:25 J -24356769.45 -24356769.19 -24356768.93 0.0089 0.0007
 Moon -71399-10-20 08:09 J -24356769.40 -24356769.16 -24356768.90 0.0089 0.0012 *
 Mercury -71399-10-29 06:57 J -24356760.39 -24356760.21 -24356760.01 0.0089 0.0027
 Mercury -71398-01-25 11:01 J -24356672.23 -24356672.04 -24356671.85 0.0089 0.0019
 Mercury -71398-04-23 14:37 J -24356584.08 -24356583.89 -24356583.69 0.0089 0.0012
 Mercury -71398-07-20 18:28 J -24356495.93 -24356495.73 -24356495.53 0.0089 0.0005
 Mercury -71398-10-16 22:18 J -24356407.77 -24356407.57 -24356407.37 0.0089 0.0003
 Moon -71398-10-22 18:42 J -24356401.98 -24356401.72 -24356401.45 0.0089 0.0012
 Earth -71398-10-22 21:06 J -24356401.87 -24356401.62 -24356401.35 0.0089 0.0017 *
 Mercury -71397-01-13 01:54 J -24356319.61 -24356319.42 -24356319.22 0.0089 0.0010
 Mercury -71397-04-10 05:30 J -24356231.45 -24356231.27 -24356231.07 0.0089 0.0018
 Mercury -71397-07-07 09:21 J -24356143.29 -24356143.11 -24356142.91 0.0089 0.0025
 Mercury -71397-10-03 13:11 J -24356055.13 -24356054.95 -24356054.76 0.0089 0.0032
 Earth -71397-10-24 11:01 J -24356034.29 -24356034.04 -24356033.79 0.0089 0.0026
 Moon -71397-10-24 13:54 J -24356034.16 -24356033.92 -24356033.68 0.0089 0.0030 *

Mercury -71397-12-30 16:47 J -24355966.97 -24355966.80 -24355966.61 0.0089 0.0039
 Mercury -71396-03-28 20:23 J -24355878.80 -24355878.65 -24355878.47 0.0089 0.0047
 Mercury -71396-06-25 00:13 J -24355790.63 -24355790.49 -24355790.32 0.0089 0.0054
 Mercury -71396-09-21 04:04 J -24355702.46 -24355702.33 -24355702.18 0.0089 0.0061
 Moon -71396-10-26 21:06 J -24355666.86 -24355666.62 -24355666.37 0.0089 0.0031
 Earth -71396-10-27 00:28 J -24355666.70 -24355666.48 -24355666.22 0.0089 0.0036 *
 Mercury -71396-12-18 07:54 J -24355614.29 -24355614.17 -24355614.04 0.0089 0.0068
 Mercury -71395-03-16 11:16 J -24355526.11 -24355526.03 -24355525.91 0.0089 0.0076
 Mercury -71395-06-12 15:06 J -24355437.92 -24355437.87 -24355437.79 0.0089 0.0083
 Earth -71395-10-29 14:09 J -24355299.12 -24355298.91 -24355298.66 0.0089 0.0045
 Moon -71395-10-29 18:13 J -24355298.96 -24355298.74 -24355298.52 0.0089 0.0049 *
 Moon -71394-11-01 00:42 J -24354931.66 -24354931.47 -24354931.24 0.0089 0.0051
 Earth -71394-11-01 04:33 J -24354931.52 -24354931.31 -24354931.10 0.0089 0.0054 *
 Earth -71393-11-02 17:30 J -24354563.92 -24354563.77 -24354563.56 0.0089 0.0064
 Moon -71393-11-02 21:06 J -24354563.79 -24354563.62 -24354563.44 0.0089 0.0067 *
 Moon -71392-11-05 06:13 J -24354196.38 -24354196.24 -24354196.06 0.0089 0.0069
 Earth -71392-11-05 07:40 J -24354196.31 -24354196.18 -24354196.01 0.0089 0.0073 *
 Earth -71391-11-07 21:35 J -24353828.68 -24353828.60 -24353828.48 0.0089 0.0082
 Moon -71391-11-07 22:18 J -24353828.62 -24353828.57 -24353828.47 0.0089 0.0085 *
 Moon -71390-11-10 11:45 J -24353461.02 -24353461.01 -24353460.95 0.0088 0.0088
 Mars -71384-10-05 23:30 J -24351304.74 -24351304.52 -24351304.25 0.0088 0.0062
 Mars -71382-09-02 04:33 J -24350608.63 -24350608.31 -24350607.96 0.0088 0.0018
 Venus -71342-05-17 09:21 J -24336106.22 -24336106.11 -24336105.98 0.0088 0.0074
 Venus -71342-12-28 22:18 J -24335880.74 -24335880.57 -24335880.40 0.0088 0.0054
 Venus -71341-08-10 10:18 J -24335655.25 -24335655.07 -24335654.85 0.0088 0.0035
 Venus -71340-03-23 23:01 J -24335429.75 -24335429.54 -24335429.32 0.0088 0.0014
 Venus -71340-11-04 11:30 J -24335204.24 -24335204.02 -24335203.80 0.0088 0.0005
 Venus -71339-06-17 23:45 J -24334978.71 -24334978.51 -24334978.30 0.0088 0.0025
 Venus -71338-01-29 11:45 J -24334753.17 -24334753.01 -24334752.80 0.0088 0.0046
 Venus -71338-09-12 00:13 J -24334527.62 -24334527.49 -24334527.33 0.0088 0.0065

Venus -71337-04-24 12:28 J -24334302.02 -24334301.98 -24334301.90 0.0088 0.0084
 Moon -71326-04-02 19:11 J -24330306.79 -24330306.70 -24330306.58 0.0089 0.0080
 Earth -71326-04-02 20:23 J -24330306.71 -24330306.65 -24330306.56 0.0089 0.0084 *
 Earth -71325-04-04 06:13 J -24329939.34 -24329939.24 -24329939.08 0.0089 0.0076
 Moon -71325-04-04 07:11 J -24329939.31 -24329939.20 -24329939.08 0.0089 0.0079 *
 Earth -71324-04-06 16:47 J -24329571.95 -24329571.80 -24329571.61 0.0089 0.0067
 Moon -71324-04-06 17:59 J -24329571.92 -24329571.75 -24329571.57 0.0089 0.0062 *
 Moon -71323-04-09 00:57 J -24329204.64 -24329204.46 -24329204.27 0.0089 0.0062
 Earth -71323-04-09 03:06 J -24329204.54 -24329204.37 -24329204.15 0.0089 0.0058 *
 Earth -71322-04-11 13:25 J -24328837.14 -24328836.94 -24328836.72 0.0089 0.0049
 Moon -71322-04-11 16:04 J -24328837.03 -24328836.83 -24328836.60 0.0089 0.0045 *
 Moon -71321-04-12 19:54 J -24328469.87 -24328469.67 -24328469.43 0.0089 0.0045
 Earth -71321-04-12 23:30 J -24328469.73 -24328469.52 -24328469.28 0.0089 0.0040 *
 Earth -71320-04-15 09:35 J -24328102.33 -24328102.10 -24328101.85 0.0089 0.0031
 Moon -71320-04-15 13:11 J -24328102.19 -24328101.95 -24328101.70 0.0089 0.0026 *
 Mercury -71319-03-08 08:23 J -24327775.15 -24327775.15 -24327775.12 0.0089 0.0088
 Moon -71319-04-17 16:33 J -24327735.04 -24327734.81 -24327734.56 0.0089 0.0026
 Earth -71319-04-17 19:25 J -24327734.92 -24327734.69 -24327734.43 0.0089 0.0022 *
 Mercury -71319-06-04 09:49 J -24327687.13 -24327687.09 -24327687.04 0.0089 0.0083
 Mercury -71319-08-31 11:16 J -24327599.09 -24327599.03 -24327598.97 0.0089 0.0078
 Mercury -71319-11-27 12:13 J -24327511.05 -24327510.99 -24327510.90 0.0089 0.0074
 Mercury -71318-02-23 13:40 J -24327423.00 -24327422.93 -24327422.84 0.0089 0.0069
 Earth -71318-04-20 05:16 J -24327367.52 -24327367.28 -24327367.02 0.0089 0.0013
 Moon -71318-04-20 07:54 J -24327367.43 -24327367.17 -24327366.91 0.0089 0.0008 *
 Mercury -71318-05-22 14:52 J -24327334.96 -24327334.88 -24327334.78 0.0089 0.0064
 Mercury -71318-08-18 16:18 J -24327246.91 -24327246.82 -24327246.72 0.0089 0.0059
 Mercury -71318-11-14 17:45 J -24327158.86 -24327158.76 -24327158.66 0.0089 0.0054
 Mercury -71317-02-10 18:57 J -24327070.81 -24327070.71 -24327070.60 0.0089 0.0049
 Moon -71317-04-21 14:23 J -24327000.14 -24326999.90 -24326999.65 0.0089 0.0008
 Earth -71317-04-21 15:06 J -24327000.12 -24326999.87 -24326999.62 0.0089 0.0003 *

Mercury -71317-05-08 20:09 J -24326982.77 -24326982.66 -24326982.54 0.0089 0.0044
 Mercury -71317-08-04 21:21 J -24326894.72 -24326894.61 -24326894.48 0.0089 0.0040
 Mercury -71317-10-31 22:47 J -24326806.67 -24326806.55 -24326806.42 0.0089 0.0035
 Mercury -71316-01-28 00:13 J -24326718.61 -24326718.49 -24326718.37 0.0089 0.0030
 Moon -71316-04-24 00:42 J -24326632.73 -24326632.47 -24326632.21 0.0089 0.0010
 Earth -71316-04-24 00:42 J -24326632.72 -24326632.47 -24326632.21 0.0089 0.0006 *
 Mercury -71316-04-26 01:25 J -24326630.56 -24326630.44 -24326630.31 0.0089 0.0025
 Mercury -71316-07-23 02:52 J -24326542.51 -24326542.38 -24326542.26 0.0089 0.0020
 Mercury -71316-10-19 04:04 J -24326454.46 -24326454.33 -24326454.20 0.0089 0.0015
 Mercury -71315-01-15 05:16 J -24326366.41 -24326366.28 -24326366.15 0.0089 0.0011
 Mercury -71315-04-13 06:42 J -24326278.35 -24326278.22 -24326278.09 0.0089 0.0006
 Earth -71315-04-26 10:18 J -24326265.31 -24326265.07 -24326264.81 0.0089 0.0015
 Moon -71315-04-26 11:45 J -24326265.25 -24326265.01 -24326264.76 0.0089 0.0010 *
 Mercury -71315-07-10 07:54 J -24326190.30 -24326190.17 -24326190.04 0.0089 0.0001
 Mercury -71315-10-06 09:06 J -24326102.25 -24326102.12 -24326101.98 0.0089 0.0005
 Mercury -71314-01-02 10:33 J -24326014.19 -24326014.06 -24326013.93 0.0089 0.0009
 Mercury -71314-03-31 11:45 J -24325926.14 -24325926.01 -24325925.88 0.0089 0.0014
 Moon -71314-04-28 16:47 J -24325898.03 -24325897.80 -24325897.54 0.0089 0.0029
 Earth -71314-04-28 19:54 J -24325897.91 -24325897.67 -24325897.42 0.0089 0.0024 *
 Mercury -71314-06-27 13:11 J -24325838.08 -24325837.95 -24325837.83 0.0089 0.0019
 Mercury -71314-09-23 14:23 J -24325750.03 -24325749.90 -24325749.77 0.0089 0.0024
 Mercury -71314-12-20 15:35 J -24325661.97 -24325661.85 -24325661.72 0.0089 0.0029
 Mercury -71313-03-17 16:47 J -24325573.91 -24325573.80 -24325573.67 0.0089 0.0034
 Earth -71313-04-30 05:16 J -24325530.50 -24325530.28 -24325530.03 0.0089 0.0033
 Moon -71313-04-30 08:23 J -24325530.38 -24325530.15 -24325529.90 0.0089 0.0029 *
 Mercury -71313-06-13 18:13 J -24325485.86 -24325485.74 -24325485.62 0.0089 0.0038
 Mercury -71313-09-09 19:25 J -24325397.80 -24325397.69 -24325397.57 0.0089 0.0043
 Mercury -71313-12-06 20:52 J -24325309.74 -24325309.63 -24325309.52 0.0089 0.0048
 Mercury -71312-03-04 22:04 J -24325221.68 -24325221.58 -24325221.47 0.0089 0.0053
 Moon -71312-05-02 11:16 J -24325163.23 -24325163.03 -24325162.80 0.0089 0.0047

Earth -71312-05-02 14:52 J -24325163.08 -24325162.88 -24325162.64 0.0089 0.0042 *
 Mercury -71312-05-31 23:16 J -24325133.62 -24325133.53 -24325133.42 0.0089 0.0058
 Mercury -71312-08-28 00:42 J -24325045.56 -24325045.47 -24325045.38 0.0089 0.0063
 Mercury -71312-11-24 01:54 J -24324957.50 -24324957.42 -24324957.33 0.0089 0.0068
 Mercury -71311-02-20 03:06 J -24324869.43 -24324869.37 -24324869.28 0.0089 0.0073
 Earth -71311-05-05 00:28 J -24324795.67 -24324795.48 -24324795.26 0.0089 0.0051
 Moon -71311-05-05 03:49 J -24324795.55 -24324795.34 -24324795.11 0.0089 0.0046 *
 Mercury -71311-05-19 04:18 J -24324781.37 -24324781.32 -24324781.24 0.0089 0.0078
 Mercury -71311-08-15 05:45 J -24324693.30 -24324693.26 -24324693.20 0.0089 0.0083
 Mercury -71311-11-11 07:11 J -24324605.22 -24324605.20 -24324605.17 0.0089 0.0087
 Moon -71310-05-07 07:25 J -24324428.34 -24324428.19 -24324428.00 0.0089 0.0064
 Earth -71310-05-07 10:04 J -24324428.25 -24324428.08 -24324427.87 0.0089 0.0060 *
 Earth -71309-05-08 19:54 J -24324060.83 -24324060.67 -24324060.51 0.0089 0.0068
 Moon -71309-05-08 21:21 J -24324060.77 -24324060.61 -24324060.41 0.0089 0.0064 *
 Earth -71308-05-11 05:01 J -24323693.39 -24323693.29 -24323693.14 0.0089 0.0077
 Moon -71308-05-11 04:47 J -24323693.37 -24323693.30 -24323693.18 0.0089 0.0082 *
 Moon -71307-05-13 13:54 J -24323326.01 -24323325.92 -24323325.80 0.0089 0.0081
 Earth -71307-05-13 14:09 J -24323325.94 -24323325.91 -24323325.81 0.0089 0.0086 *
 Mars -71302-06-23 18:57 J -24321458.78 -24321458.71 -24321458.60 0.0089 0.0084
 Mars -71300-05-17 08:37 J -24320765.42 -24320765.14 -24320764.86 0.0089 0.0017
 Mars -71298-04-10 23:59 J -24320071.72 -24320071.50 -24320071.24 0.0089 0.0050
 Jupiter -71272-04-22 23:59 J -24310563.05 -24310562.50 -24310561.95 0.0089 0.0002
 Venus -71260-06-28 05:16 J -24306113.40 -24306113.28 -24306113.13 0.0089 0.0070
 Venus -71259-02-08 18:28 J -24305887.89 -24305887.73 -24305887.52 0.0089 0.0050
 Venus -71259-09-22 08:09 J -24305662.36 -24305662.16 -24305661.94 0.0089 0.0029
 Venus -71258-05-05 22:04 J -24305436.80 -24305436.58 -24305436.36 0.0089 0.0008
 Venus -71258-12-17 11:30 J -24305211.24 -24305211.02 -24305210.80 0.0089 0.0012
 Venus -71257-07-30 00:57 J -24304985.66 -24304985.46 -24304985.24 0.0089 0.0033
 Venus -71256-03-12 14:09 J -24304760.06 -24304759.91 -24304759.71 0.0089 0.0054
 Venus -71256-10-24 04:04 J -24304534.44 -24304534.33 -24304534.20 0.0089 0.0074

Earth -71245-09-26 00:57 J -24300544.51 -24300544.46 -24300544.38 0.0089 0.0086
 Moon -71245-09-26 02:52 J -24300544.42 -24300544.38 -24300544.27 0.0089 0.0085 *
 Moon -71244-09-28 11:01 J -24300177.15 -24300177.04 -24300176.90 0.0089 0.0078
 Earth -71244-09-28 14:09 J -24300177.03 -24300176.91 -24300176.78 0.0089 0.0077 *
 Earth -71243-10-01 02:37 J -24299809.53 -24299809.39 -24299809.20 0.0089 0.0069
 Moon -71243-10-01 06:28 J -24299809.38 -24299809.23 -24299809.04 0.0089 0.0068 *
 Moon -71242-10-03 12:28 J -24299442.15 -24299441.98 -24299441.77 0.0089 0.0061
 Earth -71242-10-03 15:49 J -24299442.00 -24299441.84 -24299441.62 0.0089 0.0060 *
 Earth -71241-10-05 04:47 J -24299074.49 -24299074.30 -24299074.06 0.0089 0.0051
 Moon -71241-10-05 08:37 J -24299074.34 -24299074.14 -24299073.91 0.0089 0.0051 *
 Moon -71240-10-07 15:49 J -24298707.06 -24298706.84 -24298706.61 0.0089 0.0042
 Earth -71240-10-07 18:13 J -24298706.95 -24298706.74 -24298706.49 0.0089 0.0042 *
 Earth -71239-10-10 07:54 J -24298339.41 -24298339.17 -24298338.93 0.0089 0.0032
 Moon -71239-10-10 09:06 J -24298339.36 -24298339.12 -24298338.85 0.0089 0.0032 *
 Moon -71238-10-12 20:09 J -24297971.89 -24297971.66 -24297971.40 0.0089 0.0023
 Earth -71238-10-12 21:06 J -24297971.87 -24297971.62 -24297971.36 0.0089 0.0023 *
 Moon -71237-10-14 09:49 J -24297604.35 -24297604.09 -24297603.82 0.0089 0.0014
 Earth -71237-10-14 10:33 J -24297604.31 -24297604.06 -24297603.79 0.0089 0.0014 *
 Mercury -71236-08-19 22:47 J -24297294.60 -24297294.55 -24297294.47 0.0089 0.0083
 Earth -71236-10-16 23:59 J -24297236.76 -24297236.50 -24297236.23 0.0089 0.0005
 Moon -71236-10-17 01:54 J -24297236.67 -24297236.42 -24297236.16 0.0089 0.0005 *
 Mercury -71236-11-16 02:37 J -24297206.48 -24297206.39 -24297206.28 0.0089 0.0076
 Mercury -71235-02-12 06:13 J -24297118.34 -24297118.24 -24297118.10 0.0089 0.0069
 Mercury -71235-05-11 10:18 J -24297030.21 -24297030.07 -24297029.92 0.0089 0.0061
 Mercury -71235-08-07 13:54 J -24296942.06 -24296941.92 -24296941.75 0.0089 0.0054
 Moon -71235-10-19 11:16 J -24296869.29 -24296869.03 -24296868.76 0.0089 0.0004
 Earth -71235-10-19 13:54 J -24296869.18 -24296868.92 -24296868.66 0.0089 0.0005 *
 Mercury -71235-11-03 17:45 J -24296853.92 -24296853.76 -24296853.58 0.0089 0.0047
 Mercury -71234-01-30 21:21 J -24296765.77 -24296765.61 -24296765.42 0.0089 0.0040
 Mercury -71234-04-29 01:25 J -24296677.62 -24296677.44 -24296677.25 0.0089 0.0032

Mercury -71234-07-26 05:01 J -24296589.47 -24296589.29 -24296589.09 0.0089 0.0025

Earth -71234-10-22 03:21 J -24296501.61 -24296501.36 -24296501.09 0.0089 0.0015

Moon -71234-10-22 06:57 J -24296501.46 -24296501.21 -24296500.95 0.0089 0.0016 *

Mercury -71234-10-22 08:52 J -24296501.32 -24296501.13 -24296500.93 0.0089 0.0017 *

Mercury -71233-01-18 12:42 J -24296413.16 -24296412.97 -24296412.77 0.0089 0.0010

Mercury -71233-04-15 16:33 J -24296325.01 -24296324.81 -24296324.61 0.0089 0.0003

Mercury -71233-07-12 20:09 J -24296236.85 -24296236.66 -24296236.46 0.0089 0.0005

Mercury -71233-10-08 23:59 J -24296148.69 -24296148.50 -24296148.30 0.0089 0.0012

Moon -71233-10-23 13:25 J -24296134.18 -24296133.94 -24296133.67 0.0089 0.0024

Earth -71233-10-23 17:16 J -24296134.03 -24296133.78 -24296133.52 0.0089 0.0024 *

Mercury -71232-01-05 03:35 J -24296060.54 -24296060.35 -24296060.15 0.0089 0.0019

Mercury -71232-04-03 07:25 J -24295972.37 -24295972.19 -24295972.00 0.0089 0.0026

Mercury -71232-06-30 11:01 J -24295884.21 -24295884.04 -24295883.85 0.0089 0.0034

Mercury -71232-09-26 15:06 J -24295796.05 -24295795.87 -24295795.70 0.0089 0.0041

Earth -71232-10-26 07:11 J -24295766.45 -24295766.20 -24295765.96 0.0089 0.0033

Moon -71232-10-26 10:18 J -24295766.29 -24295766.07 -24295765.81 0.0089 0.0036 *

Mercury -71232-12-23 18:28 J -24295707.88 -24295707.73 -24295707.55 0.0089 0.0049

Mercury -71231-03-21 22:18 J -24295619.71 -24295619.57 -24295619.41 0.0089 0.0056

Mercury -71231-06-18 02:09 J -24295531.54 -24295531.41 -24295531.27 0.0089 0.0063

Mercury -71231-09-14 05:59 J -24295443.37 -24295443.25 -24295443.13 0.0089 0.0070

Moon -71231-10-28 17:59 J -24295398.98 -24295398.75 -24295398.52 0.0089 0.0041

Earth -71231-10-28 20:37 J -24295398.85 -24295398.64 -24295398.39 0.0089 0.0043 *

Mercury -71231-12-11 09:21 J -24295355.19 -24295355.11 -24295355.00 0.0089 0.0078

Mercury -71230-03-09 12:57 J -24295266.99 -24295266.96 -24295266.88 0.0089 0.0085

Earth -71230-10-31 10:18 J -24295031.26 -24295031.07 -24295030.84 0.0089 0.0052

Moon -71230-10-31 12:13 J -24295031.18 -24295030.99 -24295030.75 0.0089 0.0054 *

Moon -71229-11-01 22:33 J -24294663.72 -24294663.56 -24294663.34 0.0089 0.0059

Earth -71229-11-02 00:13 J -24294663.66 -24294663.49 -24294663.28 0.0089 0.0061 *

Moon -71228-11-04 13:25 J -24294296.07 -24294295.94 -24294295.75 0.0089 0.0072

Earth -71228-11-04 13:54 J -24294296.06 -24294295.92 -24294295.74 0.0089 0.0070 *

Earth	-71227-11-07 03:35 J	-24293928.44	-24293928.35	-24293928.20	0.0089	0.0079
Moon	-71227-11-07 05:01 J	-24293928.39	-24293928.29	-24293928.14	0.0089	0.0077 *
Earth	-71226-11-09 17:30 J	-24293560.78	-24293560.77	-24293560.69	0.0088	0.0088
Mars	-71218-04-15 16:18 J	-24290847.14	-24290846.82	-24290846.47	0.0088	0.0018
Mars	-71216-03-11 20:09 J	-24290150.87	-24290150.66	-24290150.38	0.0088	0.0062
Venus	-71178-08-18 20:23 J	-24276111.72	-24276111.65	-24276111.56	0.0088	0.0082
Venus	-71177-03-31 09:06 J	-24275886.27	-24275886.12	-24275885.96	0.0088	0.0062
Venus	-71177-11-11 21:21 J	-24275660.79	-24275660.61	-24275660.41	0.0088	0.0042
Venus	-71176-06-25 09:49 J	-24275435.29	-24275435.09	-24275434.87	0.0088	0.0023
Venus	-71175-02-05 22:33 J	-24275209.78	-24275209.56	-24275209.34	0.0088	0.0003
Venus	-71175-09-19 10:47 J	-24274984.26	-24274984.05	-24274983.83	0.0088	0.0017
Venus	-71174-05-02 22:47 J	-24274758.73	-24274758.55	-24274758.33	0.0088	0.0038
Venus	-71174-12-14 11:30 J	-24274533.18	-24274533.02	-24274532.85	0.0088	0.0057
Venus	-71173-07-26 23:30 J	-24274307.61	-24274307.52	-24274307.39	0.0088	0.0077
Moon	-71162-04-02 05:01 J	-24270406.36	-24270406.29	-24270406.17	0.0089	0.0083
Earth	-71162-04-02 05:16 J	-24270406.33	-24270406.28	-24270406.17	0.0089	0.0084 *
Earth	-71161-04-03 16:04 J	-24270038.95	-24270038.83	-24270038.69	0.0089	0.0075
Moon	-71161-04-03 17:16 J	-24270038.88	-24270038.78	-24270038.63	0.0089	0.0076 *
Moon	-71160-04-06 00:13 J	-24269671.66	-24269671.49	-24269671.31	0.0089	0.0066
Earth	-71160-04-06 01:54 J	-24269671.56	-24269671.42	-24269671.22	0.0089	0.0067 *
Earth	-71159-04-08 12:13 J	-24269304.16	-24269303.99	-24269303.78	0.0089	0.0058
Moon	-71159-04-08 16:04 J	-24269304.01	-24269303.83	-24269303.64	0.0089	0.0058 *
Moon	-71158-04-10 18:57 J	-24268936.90	-24268936.71	-24268936.47	0.0089	0.0049
Earth	-71158-04-10 22:47 J	-24268936.75	-24268936.55	-24268936.33	0.0089	0.0049 *
Earth	-71157-04-12 09:06 J	-24268569.35	-24268569.12	-24268568.89	0.0089	0.0040
Moon	-71157-04-12 12:13 J	-24268569.20	-24268568.99	-24268568.74	0.0089	0.0040 *
Moon	-71156-04-14 16:33 J	-24268202.04	-24268201.81	-24268201.57	0.0089	0.0031
Earth	-71156-04-14 18:57 J	-24268201.93	-24268201.71	-24268201.45	0.0089	0.0032 *
Earth	-71155-04-17 05:16 J	-24267834.52	-24267834.28	-24267834.02	0.0089	0.0023
Moon	-71155-04-17 07:11 J	-24267834.45	-24267834.20	-24267833.94	0.0089	0.0022 *

Mercury -71155-12-03 07:54 J -24267604.18 -24267604.17 -24267604.13 0.0089 0.0087

Mercury -71154-03-01 09:21 J -24267516.15 -24267516.11 -24267516.05 0.0089 0.0082

Moon -71154-04-19 14:23 J -24267467.14 -24267466.90 -24267466.65 0.0089 0.0014

Earth -71154-04-19 15:06 J -24267467.11 -24267466.87 -24267466.61 0.0089 0.0014 *

Mercury -71154-05-28 10:47 J -24267428.11 -24267428.05 -24267427.98 0.0089 0.0077

Mercury -71154-08-24 12:13 J -24267340.07 -24267339.99 -24267339.92 0.0089 0.0072

Mercury -71154-11-20 13:11 J -24267252.02 -24267251.95 -24267251.85 0.0089 0.0068

Mercury -71153-02-16 14:37 J -24267163.98 -24267163.89 -24267163.79 0.0089 0.0062

Moon -71153-04-21 00:13 J -24267099.75 -24267099.49 -24267099.22 0.0089 0.0005

Earth -71153-04-21 01:11 J -24267099.70 -24267099.45 -24267099.19 0.0089 0.0005 *

Mercury -71153-05-14 15:49 J -24267075.93 -24267075.84 -24267075.73 0.0089 0.0058

Mercury -71153-08-10 17:16 J -24266987.88 -24266987.78 -24266987.67 0.0089 0.0053

Mercury -71153-11-06 18:28 J -24266899.83 -24266899.73 -24266899.61 0.0089 0.0048

Mercury -71152-02-02 19:54 J -24266811.78 -24266811.67 -24266811.55 0.0089 0.0043

Earth -71152-04-23 11:01 J -24266732.29 -24266732.04 -24266731.79 0.0089 0.0004

Moon -71152-04-23 12:57 J -24266732.21 -24266731.96 -24266731.71 0.0089 0.0004 *

Mercury -71152-05-01 21:06 J -24266723.73 -24266723.62 -24266723.50 0.0089 0.0038

Mercury -71152-07-28 22:33 J -24266635.68 -24266635.56 -24266635.44 0.0089 0.0033

Mercury -71152-10-24 23:45 J -24266547.63 -24266547.51 -24266547.38 0.0089 0.0028

Mercury -71151-01-21 00:57 J -24266459.58 -24266459.46 -24266459.33 0.0089 0.0024

Mercury -71151-04-19 02:23 J -24266371.53 -24266371.40 -24266371.27 0.0089 0.0018

Moon -71151-04-25 17:59 J -24266365.00 -24266364.75 -24266364.49 0.0089 0.0014

Earth -71151-04-25 20:37 J -24266364.88 -24266364.64 -24266364.38 0.0089 0.0013 *

Mercury -71151-07-16 03:35 J -24266283.48 -24266283.35 -24266283.22 0.0089 0.0014

Mercury -71151-10-12 05:01 J -24266195.42 -24266195.29 -24266195.16 0.0089 0.0009

Mercury -71150-01-08 06:13 J -24266107.37 -24266107.24 -24266107.11 0.0089 0.0004

Mercury -71150-04-06 07:40 J -24266019.32 -24266019.18 -24266019.05 0.0089 0.0003

Earth -71150-04-28 06:13 J -24265997.48 -24265997.24 -24265996.99 0.0089 0.0022

Moon -71150-04-28 09:49 J -24265997.33 -24265997.09 -24265996.84 0.0089 0.0022 *

Mercury -71150-07-03 08:52 J -24265931.26 -24265931.13 -24265931.00 0.0089 0.0006

Mercury -71150-09-29 10:04 J -24265843.21 -24265843.08 -24265842.95 0.0089 0.0011
 Mercury -71150-12-26 11:30 J -24265755.15 -24265755.02 -24265754.89 0.0089 0.0016
 Mercury -71149-03-23 12:42 J -24265667.10 -24265666.97 -24265666.84 0.0089 0.0021
 Moon -71149-04-29 12:28 J -24265630.21 -24265629.98 -24265629.73 0.0089 0.0031
 Earth -71149-04-29 15:49 J -24265630.07 -24265629.84 -24265629.59 0.0089 0.0031 *
 Mercury -71149-06-19 13:54 J -24265579.04 -24265578.92 -24265578.79 0.0089 0.0026
 Mercury -71149-09-15 15:06 J -24265490.98 -24265490.87 -24265490.74 0.0089 0.0031
 Mercury -71149-12-12 16:33 J -24265402.93 -24265402.81 -24265402.69 0.0089 0.0035
 Mercury -71148-03-10 17:45 J -24265314.87 -24265314.76 -24265314.64 0.0089 0.0040
 Earth -71148-05-02 01:11 J -24265262.66 -24265262.45 -24265262.21 0.0089 0.0040
 Moon -71148-05-02 04:33 J -24265262.52 -24265262.31 -24265262.06 0.0089 0.0039 *
 Mercury -71148-06-06 19:11 J -24265226.81 -24265226.70 -24265226.59 0.0089 0.0045
 Mercury -71148-09-02 20:23 J -24265138.75 -24265138.65 -24265138.54 0.0089 0.0050
 Mercury -71148-11-29 21:35 J -24265050.69 -24265050.60 -24265050.49 0.0089 0.0055
 Mercury -71147-02-25 22:47 J -24264962.63 -24264962.55 -24264962.44 0.0089 0.0060
 Moon -71147-05-04 08:37 J -24264895.33 -24264895.14 -24264894.92 0.0089 0.0049
 Earth -71147-05-04 10:47 J -24264895.24 -24264895.05 -24264894.82 0.0089 0.0049 *
 Mercury -71147-05-25 00:13 J -24264874.57 -24264874.49 -24264874.39 0.0089 0.0065
 Mercury -71147-08-21 01:25 J -24264786.51 -24264786.44 -24264786.35 0.0089 0.0070
 Mercury -71147-11-17 02:52 J -24264698.44 -24264698.38 -24264698.30 0.0089 0.0074
 Mercury -71146-02-13 04:04 J -24264610.38 -24264610.33 -24264610.26 0.0089 0.0079
 Earth -71146-05-06 20:23 J -24264527.83 -24264527.65 -24264527.44 0.0089 0.0057
 Moon -71146-05-06 21:21 J -24264527.79 -24264527.61 -24264527.39 0.0089 0.0057 *
 Mercury -71146-05-12 05:30 J -24264522.31 -24264522.27 -24264522.23 0.0089 0.0084
 Mercury -71146-08-08 06:57 J -24264434.21 -24264434.21 -24264434.21 0.0089 0.0089
 Moon -71145-05-08 05:30 J -24264160.41 -24264160.27 -24264160.09 0.0089 0.0067
 Earth -71145-05-08 05:45 J -24264160.40 -24264160.26 -24264160.07 0.0089 0.0066 *
 Moon -71144-05-10 13:54 J -24263793.04 -24263792.92 -24263792.75 0.0089 0.0074
 Earth -71144-05-10 15:35 J -24263792.97 -24263792.85 -24263792.69 0.0089 0.0074 *
 Earth -71143-05-13 01:11 J -24263425.53 -24263425.45 -24263425.35 0.0089 0.0082

Moon	-71143-05-13 03:06 J	-24263425.43	-24263425.37	-24263425.25	0.0089	0.0083	*
Mars	-71137-12-30 22:04 J	-24261001.81	-24261001.58	-24261001.32	0.0089	0.0047	
Mars	-71135-11-24 11:16 J	-24260308.30	-24260308.03	-24260307.73	0.0089	0.0020	
Mars	-71133-10-18 02:37 J	-24259614.42	-24259614.39	-24259614.31	0.0089	0.0087	
Venus	-71096-09-29 14:09 J	-24246118.99	-24246118.91	-24246118.79	0.0089	0.0079	
Venus	-71095-05-13 03:35 J	-24245893.50	-24245893.35	-24245893.16	0.0089	0.0059	
Venus	-71095-12-24 17:16 J	-24245667.97	-24245667.78	-24245667.57	0.0089	0.0038	
Venus	-71094-08-07 06:42 J	-24245442.43	-24245442.22	-24245441.99	0.0089	0.0018	
Venus	-71093-03-19 20:23 J	-24245216.87	-24245216.65	-24245216.43	0.0089	0.0003	
Venus	-71093-10-31 09:35 J	-24244991.30	-24244991.10	-24244990.87	0.0089	0.0024	
Venus	-71092-06-13 23:30 J	-24244765.71	-24244765.52	-24244765.32	0.0089	0.0044	
Venus	-71091-01-25 12:42 J	-24244540.10	-24244539.97	-24244539.80	0.0089	0.0065	
Venus	-71091-09-08 02:09 J	-24244314.44	-24244314.41	-24244314.33	0.0089	0.0086	
Earth	-71081-09-25 07:25 J	-24240644.25	-24240644.19	-24240644.11	0.0089	0.0085	
Earth	-71080-09-27 20:09 J	-24240276.77	-24240276.66	-24240276.51	0.0089	0.0077	
Moon	-71080-09-27 23:30 J	-24240276.64	-24240276.52	-24240276.35	0.0089	0.0073	*
Moon	-71079-09-30 05:45 J	-24239909.39	-24239909.26	-24239909.10	0.0089	0.0073	
Earth	-71079-09-30 09:35 J	-24239909.26	-24239909.10	-24239908.93	0.0089	0.0068	*
Earth	-71078-10-02 22:04 J	-24239541.74	-24239541.58	-24239541.36	0.0089	0.0060	
Moon	-71078-10-03 01:11 J	-24239541.64	-24239541.45	-24239541.22	0.0089	0.0055	*
Moon	-71077-10-04 09:21 J	-24239174.29	-24239174.11	-24239173.89	0.0089	0.0055	
Earth	-71077-10-04 11:30 J	-24239174.21	-24239174.02	-24239173.79	0.0089	0.0051	*
Earth	-71076-10-07 00:42 J	-24238806.69	-24238806.47	-24238806.23	0.0089	0.0042	
Moon	-71076-10-07 02:09 J	-24238806.64	-24238806.41	-24238806.15	0.0089	0.0037	*
Earth	-71075-10-09 14:09 J	-24238439.15	-24238438.91	-24238438.66	0.0089	0.0033	
Moon	-71075-10-09 14:37 J	-24238439.11	-24238438.89	-24238438.66	0.0089	0.0037	*
Moon	-71074-10-12 02:09 J	-24238071.66	-24238071.41	-24238071.13	0.0089	0.0020	
Earth	-71074-10-12 03:35 J	-24238071.60	-24238071.35	-24238071.10	0.0089	0.0024	*
Earth	-71073-10-13 16:47 J	-24237704.06	-24237703.80	-24237703.54	0.0089	0.0015	
Moon	-71073-10-13 18:42 J	-24237703.96	-24237703.72	-24237703.46	0.0089	0.0020	*

Moon -71072-10-16 02:52 J -24237336.64 -24237336.38 -24237336.11 0.0089 0.0001
 Earth -71072-10-16 06:13 J -24237336.50 -24237336.24 -24237335.97 0.0089 0.0006 *
 Mercury -71071-02-17 17:01 J -24237211.79 -24237211.79 -24237211.77 0.0089 0.0089
 Mercury -71071-05-16 20:23 J -24237123.70 -24237123.65 -24237123.55 0.0089 0.0082
 Mercury -71071-08-13 00:42 J -24237035.57 -24237035.47 -24237035.36 0.0089 0.0074
 Earth -71071-10-18 19:40 J -24236968.94 -24236968.68 -24236968.41 0.0089 0.0004
 Moon -71071-10-18 23:01 J -24236968.80 -24236968.54 -24236968.28 0.0089 0.0002 *
 Mercury -71071-11-09 04:18 J -24236947.44 -24236947.32 -24236947.18 0.0089 0.0067
 Mercury -71070-02-05 07:54 J -24236859.30 -24236859.17 -24236859.01 0.0089 0.0060
 Mercury -71070-05-04 11:30 J -24236771.16 -24236771.02 -24236770.84 0.0089 0.0053
 Mercury -71070-07-31 15:35 J -24236683.01 -24236682.85 -24236682.67 0.0089 0.0045
 Moon -71070-10-21 05:16 J -24236601.52 -24236601.28 -24236601.01 0.0089 0.0018
 Earth -71070-10-21 09:06 J -24236601.37 -24236601.12 -24236600.85 0.0089 0.0013 *
 Mercury -71070-10-27 19:25 J -24236594.86 -24236594.69 -24236594.51 0.0089 0.0038
 Mercury -71069-01-23 23:01 J -24236506.72 -24236506.54 -24236506.35 0.0089 0.0031
 Mercury -71069-04-21 02:52 J -24236418.56 -24236418.38 -24236418.18 0.0089 0.0023
 Mercury -71069-07-18 06:42 J -24236330.41 -24236330.22 -24236330.02 0.0089 0.0016
 Mercury -71069-10-14 10:33 J -24236242.26 -24236242.06 -24236241.86 0.0089 0.0009
 Earth -71069-10-22 22:47 J -24236233.80 -24236233.55 -24236233.29 0.0089 0.0022
 Moon -71069-10-23 01:54 J -24236233.67 -24236233.42 -24236233.15 0.0089 0.0017 *
 Mercury -71068-01-10 14:09 J -24236154.10 -24236153.91 -24236153.71 0.0089 0.0003
 Mercury -71068-04-08 17:59 J -24236065.94 -24236065.75 -24236065.55 0.0089 0.0006
 Mercury -71068-07-05 21:35 J -24235977.79 -24235977.60 -24235977.40 0.0089 0.0014
 Mercury -71068-10-02 01:25 J -24235889.63 -24235889.44 -24235889.24 0.0089 0.0021
 Moon -71068-10-25 10:04 J -24235866.31 -24235866.08 -24235865.84 0.0089 0.0035
 Earth -71068-10-25 12:42 J -24235866.21 -24235865.97 -24235865.72 0.0089 0.0031 *
 Mercury -71068-12-29 05:16 J -24235801.47 -24235801.28 -24235801.09 0.0089 0.0028
 Mercury -71067-03-27 08:52 J -24235713.30 -24235713.13 -24235712.94 0.0089 0.0035
 Mercury -71067-06-23 12:28 J -24235625.14 -24235624.98 -24235624.79 0.0089 0.0043
 Mercury -71067-09-19 16:18 J -24235536.97 -24235536.82 -24235536.65 0.0089 0.0050

Earth -71067-10-28 02:23 J -24235498.63 -24235498.40 -24235498.16 0.0089 0.0040
 Moon -71067-10-28 04:04 J -24235498.56 -24235498.33 -24235498.07 0.0089 0.0036 *
 Mercury -71067-12-16 19:54 J -24235448.80 -24235448.67 -24235448.50 0.0089 0.0058
 Mercury -71066-03-14 23:45 J -24235360.63 -24235360.51 -24235360.36 0.0089 0.0065
 Mercury -71066-06-11 03:35 J -24235272.45 -24235272.35 -24235272.23 0.0089 0.0072
 Mercury -71066-09-07 07:25 J -24235184.27 -24235184.19 -24235184.10 0.0089 0.0079
 Earth -71066-10-30 16:04 J -24235131.03 -24235130.83 -24235130.60 0.0089 0.0049
 Moon -71066-10-30 15:49 J -24235131.02 -24235130.84 -24235130.62 0.0089 0.0054 *
 Mercury -71066-12-04 11:16 J -24235096.07 -24235096.03 -24235095.99 0.0089 0.0086
 Moon -71065-11-01 05:16 J -24234763.48 -24234763.28 -24234763.05 0.0089 0.0054
 Earth -71065-11-01 05:59 J -24234763.44 -24234763.25 -24234763.04 0.0089 0.0058 *
 Earth -71064-11-03 19:25 J -24234395.84 -24234395.69 -24234395.49 0.0089 0.0067
 Moon -71064-11-03 21:35 J -24234395.74 -24234395.60 -24234395.44 0.0089 0.0071 *
 Moon -71063-11-06 06:28 J -24234028.37 -24234028.23 -24234028.05 0.0089 0.0071
 Earth -71063-11-06 09:21 J -24234028.22 -24234028.11 -24234027.95 0.0089 0.0076 *
 Earth -71062-11-08 23:16 J -24233660.60 -24233660.53 -24233660.43 0.0089 0.0084
 Moon -71062-11-09 02:23 J -24233660.42 -24233660.40 -24233660.35 0.0089 0.0088
 Moon -71061-11-10 09:35 J -24233293.12 -24233293.10 -24233293.07 0.0089 0.0088
 Mars -71055-11-26 22:33 J -24231085.81 -24231085.56 -24231085.27 0.0088 0.0054
 Mars -71053-10-23 05:30 J -24230389.58 -24230389.27 -24230388.93 0.0088 0.0026
 Venus -71013-07-02 18:28 J -24215891.83 -24215891.73 -24215891.57 0.0088 0.0072
 Venus -71012-02-13 07:11 J -24215666.36 -24215666.20 -24215666.00 0.0088 0.0051
 Venus -71012-09-26 19:54 J -24215440.87 -24215440.67 -24215440.46 0.0088 0.0031
 Venus -71011-05-10 08:23 J -24215215.36 -24215215.15 -24215214.93 0.0088 0.0012
 Venus -71011-12-21 21:06 J -24214989.84 -24214989.62 -24214989.40 0.0088 0.0008
 Venus -71010-08-04 09:06 J -24214764.31 -24214764.12 -24214763.90 0.0088 0.0029
 Venus -71009-03-16 21:49 J -24214538.77 -24214538.59 -24214538.41 0.0088 0.0048
 Venus -71009-10-28 09:49 J -24214313.22 -24214313.09 -24214312.94 0.0088 0.0068
 Venus -71008-06-10 21:49 J -24214087.60 -24214087.59 -24214087.53 0.0088 0.0088

71ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 71st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-70999-03-30 03:06 J	-24210873.40	-24210873.37	-24210873.29	0.0088	0.0087		
Earth	-70998-04-01 14:09 J	-24210505.98	-24210505.91	-24210505.80	0.0089	0.0083		
Moon	-70998-04-01 15:49 J	-24210505.85	-24210505.84	-24210505.78	0.0089	0.0088	*	
Moon	-70997-04-02 22:04 J	-24210138.74	-24210138.58	-24210138.42	0.0089	0.0070		
Earth	-70997-04-03 00:28 J	-24210138.59	-24210138.48	-24210138.32	0.0089	0.0075	*	
Earth	-70996-04-05 11:16 J	-24209771.19	-24209771.03	-24209770.86	0.0089	0.0066		
Moon	-70996-04-05 14:09 J	-24209771.04	-24209770.91	-24209770.74	0.0089	0.0071	*	
Moon	-70995-04-07 17:45 J	-24209403.95	-24209403.76	-24209403.55	0.0089	0.0053		
Earth	-70995-04-07 21:21 J	-24209403.79	-24209403.61	-24209403.40	0.0089	0.0058	*	
Earth	-70994-04-10 07:40 J	-24209036.39	-24209036.18	-24209035.97	0.0089	0.0049		
Moon	-70994-04-10 10:18 J	-24209036.25	-24209036.07	-24209035.84	0.0089	0.0054	*	
Moon	-70993-04-11 14:52 J	-24208669.08	-24208668.88	-24208668.63	0.0089	0.0037		
Earth	-70993-04-11 17:45 J	-24208668.97	-24208668.76	-24208668.52	0.0089	0.0041	*	
Earth	-70992-04-14 03:49 J	-24208301.56	-24208301.34	-24208301.09	0.0089	0.0032		
Moon	-70992-04-14 05:16 J	-24208301.50	-24208301.28	-24208301.02	0.0089	0.0037	*	
Earth	-70991-04-16 13:54 J	-24207934.15	-24207933.92	-24207933.66	0.0089	0.0023		
Moon	-70991-04-16 14:09 J	-24207934.15	-24207933.91	-24207933.67	0.0089	0.0019	*	
Moon	-70990-04-18 23:16 J	-24207566.78	-24207566.53	-24207566.27	0.0089	0.0019		
Earth	-70990-04-18 23:59 J	-24207566.74	-24207566.50	-24207566.24	0.0089	0.0015	*	

Mercury -70990-08-30 07:25 J -24207433.21 -24207433.19 -24207433.15 0.0089 0.0086
 Mercury -70990-11-26 08:52 J -24207345.18 -24207345.13 -24207345.07 0.0089 0.0081
 Mercury -70989-02-22 10:18 J -24207257.14 -24207257.07 -24207257.00 0.0089 0.0076
 Earth -70989-04-20 10:18 J -24207199.32 -24207199.07 -24207198.82 0.0089 0.0006
 Moon -70989-04-20 12:28 J -24207199.23 -24207198.98 -24207198.73 0.0089 0.0001 *
 Mercury -70989-05-20 11:16 J -24207169.09 -24207169.03 -24207168.94 0.0089 0.0072
 Mercury -70989-08-16 12:42 J -24207081.05 -24207080.97 -24207080.87 0.0089 0.0066
 Mercury -70989-11-12 13:54 J -24206993.00 -24206992.92 -24206992.81 0.0089 0.0062
 Mercury -70988-02-08 15:21 J -24206904.95 -24206904.86 -24206904.75 0.0089 0.0057
 Moon -70988-04-22 17:01 J -24206832.05 -24206831.79 -24206831.53 0.0089 0.0002
 Earth -70988-04-22 20:09 J -24206831.91 -24206831.66 -24206831.40 0.0089 0.0003 *
 Mercury -70988-05-07 16:33 J -24206816.91 -24206816.81 -24206816.69 0.0089 0.0052
 Mercury -70988-08-03 17:59 J -24206728.86 -24206728.75 -24206728.63 0.0089 0.0047
 Mercury -70988-10-30 19:25 J -24206640.81 -24206640.69 -24206640.58 0.0089 0.0042
 Mercury -70987-01-26 20:37 J -24206552.76 -24206552.64 -24206552.52 0.0089 0.0037
 Mercury -70987-04-24 22:04 J -24206464.71 -24206464.58 -24206464.46 0.0089 0.0032
 Earth -70987-04-25 05:45 J -24206464.50 -24206464.26 -24206464.00 0.0089 0.0012 *
 Moon -70987-04-25 08:52 J -24206464.36 -24206464.13 -24206463.87 0.0089 0.0017 *
 Mercury -70987-07-21 23:01 J -24206376.65 -24206376.54 -24206376.40 0.0089 0.0028
 Mercury -70987-10-18 00:28 J -24206288.60 -24206288.48 -24206288.35 0.0089 0.0023
 Mercury -70986-01-14 01:40 J -24206200.55 -24206200.43 -24206200.29 0.0089 0.0018
 Mercury -70986-04-12 03:06 J -24206112.50 -24206112.37 -24206112.24 0.0089 0.0013
 Moon -70986-04-27 11:45 J -24206097.25 -24206097.01 -24206096.75 0.0089 0.0016
 Earth -70986-04-27 15:21 J -24206097.10 -24206096.86 -24206096.60 0.0089 0.0021 *
 Mercury -70986-07-09 04:18 J -24206024.45 -24206024.32 -24206024.18 0.0089 0.0008
 Mercury -70986-10-05 05:45 J -24205936.39 -24205936.26 -24205936.13 0.0089 0.0003
 Mercury -70985-01-01 06:57 J -24205848.34 -24205848.21 -24205848.08 0.0089 0.0003
 Mercury -70985-03-29 08:09 J -24205760.29 -24205760.16 -24205760.02 0.0089 0.0008
 Earth -70985-04-29 00:57 J -24205729.69 -24205729.46 -24205729.21 0.0089 0.0029
 Moon -70985-04-29 03:35 J -24205729.57 -24205729.35 -24205729.09 0.0089 0.0034 *

Mercury -70985-06-25 09:35 J -24205672.23 -24205672.10 -24205671.97 0.0089 0.0012
 Mercury -70985-09-21 10:47 J -24205584.18 -24205584.05 -24205583.92 0.0089 0.0017
 Mercury -70985-12-18 12:13 J -24205496.12 -24205495.99 -24205495.86 0.0089 0.0022
 Mercury -70984-03-16 13:25 J -24205408.06 -24205407.94 -24205407.81 0.0089 0.0027
 Moon -70984-05-01 08:23 J -24205362.36 -24205362.15 -24205361.91 0.0089 0.0034
 Earth -70984-05-01 10:33 J -24205362.27 -24205362.06 -24205361.82 0.0089 0.0038 *
 Mercury -70984-06-12 14:37 J -24205320.01 -24205319.89 -24205319.76 0.0089 0.0032
 Mercury -70984-09-08 15:49 J -24205231.95 -24205231.84 -24205231.71 0.0089 0.0037
 Mercury -70984-12-05 17:16 J -24205143.89 -24205143.78 -24205143.66 0.0089 0.0041
 Mercury -70983-03-03 18:42 J -24205055.83 -24205055.72 -24205055.61 0.0089 0.0046
 Earth -70983-05-03 19:54 J -24204994.87 -24204994.67 -24204994.44 0.0089 0.0046
 Moon -70983-05-03 20:52 J -24204994.83 -24204994.63 -24204994.40 0.0089 0.0051 *
 Mercury -70983-05-30 19:54 J -24204967.78 -24204967.67 -24204967.56 0.0089 0.0051
 Mercury -70983-08-26 21:06 J -24204879.72 -24204879.62 -24204879.51 0.0089 0.0056
 Mercury -70983-11-22 22:18 J -24204791.66 -24204791.57 -24204791.47 0.0089 0.0061
 Mercury -70982-02-18 23:30 J -24204703.59 -24204703.52 -24204703.42 0.0089 0.0066
 Earth -70982-05-06 05:16 J -24204627.45 -24204627.28 -24204627.06 0.0089 0.0055
 Moon -70982-05-06 05:59 J -24204627.43 -24204627.25 -24204627.03 0.0089 0.0051 *
 Mercury -70982-05-18 00:42 J -24204615.53 -24204615.47 -24204615.37 0.0089 0.0071
 Mercury -70982-08-14 02:23 J -24204527.47 -24204527.40 -24204527.33 0.0089 0.0075
 Mercury -70982-11-10 03:35 J -24204439.40 -24204439.35 -24204439.29 0.0089 0.0080
 Mercury -70981-02-06 04:47 J -24204351.33 -24204351.30 -24204351.26 0.0089 0.0085
 Moon -70981-05-07 13:40 J -24204260.09 -24204259.93 -24204259.75 0.0089 0.0067
 Earth -70981-05-07 15:06 J -24204260.03 -24204259.87 -24204259.68 0.0089 0.0063 *
 Earth -70980-05-10 00:42 J -24203892.61 -24203892.47 -24203892.31 0.0089 0.0071
 Moon -70980-05-10 03:06 J -24203892.51 -24203892.37 -24203892.19 0.0089 0.0067 *
 Moon -70979-05-12 06:28 J -24203525.28 -24203525.23 -24203525.12 0.0089 0.0084
 Earth -70979-05-12 10:18 J -24203525.17 -24203525.07 -24203524.95 0.0089 0.0079 *
 Earth -70978-05-14 19:11 J -24203157.71 -24203157.70 -24203157.62 0.0089 0.0088
 Moon -70978-05-14 23:01 J -24203157.61 -24203157.54 -24203157.43 0.0089 0.0083

Mars	-70973-08-15 09:49 J	-24201238.22	-24201238.09	-24201237.92	0.0089	0.0076
Mars	-70971-07-09 23:30 J	-24200544.80	-24200544.52	-24200544.22	0.0089	0.0011
Mars	-70969-06-02 13:25 J	-24199851.14	-24199850.94	-24199850.69	0.0089	0.0056
Venus	-70932-12-31 23:16 J	-24186124.53	-24186124.53	-24186124.50	0.0089	0.0089
Venus	-70931-08-14 12:42 J	-24185899.10	-24185898.97	-24185898.82	0.0089	0.0068
Venus	-70930-03-28 01:54 J	-24185673.59	-24185673.42	-24185673.22	0.0089	0.0048
Venus	-70930-11-08 15:35 J	-24185448.06	-24185447.85	-24185447.64	0.0089	0.0027
Venus	-70929-06-21 05:01 J	-24185222.51	-24185222.29	-24185222.06	0.0089	0.0007
Venus	-70928-02-01 18:28 J	-24184996.94	-24184996.73	-24184996.50	0.0089	0.0014
Venus	-70928-09-15 07:40 J	-24184771.37	-24184771.18	-24184770.96	0.0089	0.0035
Venus	-70927-04-28 21:35 J	-24184545.77	-24184545.60	-24184545.43	0.0089	0.0055
Venus	-70927-12-10 10:47 J	-24184320.15	-24184320.05	-24184319.92	0.0089	0.0076
Earth	-70917-09-24 12:28 J	-24180744.03	-24180743.98	-24180743.88	0.0089	0.0085
Moon	-70917-09-24 16:33 J	-24180743.84	-24180743.81	-24180743.74	0.0089	0.0087
Moon	-70916-09-26 23:01 J	-24180376.68	-24180376.54	-24180376.40	0.0089	0.0074
Earth	-70916-09-27 01:25 J	-24180376.54	-24180376.44	-24180376.28	0.0089	0.0077 *
Earth	-70915-09-29 14:23 J	-24180009.04	-24180008.90	-24180008.71	0.0089	0.0068
Moon	-70915-09-29 17:30 J	-24180008.92	-24180008.77	-24180008.59	0.0089	0.0069 *
Moon	-70914-10-02 02:09 J	-24179641.59	-24179641.41	-24179641.20	0.0089	0.0058
Earth	-70914-10-02 03:21 J	-24179641.52	-24179641.36	-24179641.14	0.0089	0.0060 *
Earth	-70913-10-03 16:33 J	-24179274.00	-24179273.81	-24179273.58	0.0089	0.0051
Moon	-70913-10-03 17:01 J	-24179274.00	-24179273.79	-24179273.56	0.0089	0.0052 *
Earth	-70912-10-06 05:59 J	-24178906.47	-24178906.25	-24178906.01	0.0089	0.0042
Moon	-70912-10-06 06:13 J	-24178906.45	-24178906.24	-24178906.00	0.0089	0.0042 *
Moon	-70911-10-08 17:01 J	-24178539.03	-24178538.79	-24178538.53	0.0089	0.0035
Earth	-70911-10-08 18:57 J	-24178538.93	-24178538.71	-24178538.45	0.0089	0.0034 *
Earth	-70910-10-11 08:09 J	-24178171.40	-24178171.16	-24178170.89	0.0089	0.0025
Moon	-70910-10-11 11:01 J	-24178171.28	-24178171.04	-24178170.78	0.0089	0.0024 *
Moon	-70909-10-12 18:28 J	-24177803.99	-24177803.73	-24177803.47	0.0089	0.0016
Earth	-70909-10-12 21:35 J	-24177803.85	-24177803.60	-24177803.33	0.0089	0.0016 *

Earth -70908-10-15 11:01 J -24177436.30 -24177436.04 -24177435.78 0.0089 0.0007
 Moon -70908-10-15 14:52 J -24177436.14 -24177435.88 -24177435.62 0.0089 0.0006 *
 Moon -70907-10-17 21:06 J -24177068.87 -24177068.62 -24177068.36 0.0089 0.0002
 Earth -70907-10-18 00:28 J -24177068.74 -24177068.48 -24177068.22 0.0089 0.0002 *
 Mercury -70907-11-14 14:23 J -24177040.91 -24177040.90 -24177040.87 0.0089 0.0088
 Mercury -70906-02-10 17:59 J -24176952.81 -24176952.75 -24176952.65 0.0089 0.0081
 Mercury -70906-05-09 21:35 J -24176864.69 -24176864.60 -24176864.47 0.0089 0.0074
 Mercury -70906-08-06 01:25 J -24176776.55 -24176776.44 -24176776.29 0.0089 0.0067
 Earth -70906-10-20 13:54 J -24176701.18 -24176700.92 -24176700.66 0.0089 0.0011
 Moon -70906-10-20 16:47 J -24176701.05 -24176700.80 -24176700.52 0.0089 0.0011 *
 Mercury -70906-11-02 05:30 J -24176688.41 -24176688.27 -24176688.12 0.0089 0.0059
 Mercury -70905-01-29 09:06 J -24176600.27 -24176600.12 -24176599.95 0.0089 0.0052
 Mercury -70905-04-26 12:42 J -24176512.12 -24176511.97 -24176511.78 0.0089 0.0045
 Mercury -70905-07-23 16:47 J -24176423.98 -24176423.80 -24176423.62 0.0089 0.0037
 Mercury -70905-10-19 20:23 J -24176335.83 -24176335.65 -24176335.46 0.0089 0.0030
 Moon -70905-10-22 01:25 J -24176333.68 -24176333.44 -24176333.19 0.0089 0.0020
 Earth -70905-10-22 03:21 J -24176333.61 -24176333.36 -24176333.10 0.0089 0.0020 *
 Mercury -70904-01-16 00:13 J -24176247.68 -24176247.49 -24176247.29 0.0089 0.0023
 Mercury -70904-04-14 03:49 J -24176159.52 -24176159.34 -24176159.13 0.0089 0.0016
 Mercury -70904-07-11 07:54 J -24176071.37 -24176071.17 -24176070.98 0.0089 0.0008
 Mercury -70904-10-07 11:30 J -24175983.21 -24175983.02 -24175982.82 0.0089 0.0002
 Earth -70904-10-24 16:47 J -24175966.04 -24175965.80 -24175965.54 0.0089 0.0029
 Moon -70904-10-24 17:30 J -24175966.01 -24175965.77 -24175965.49 0.0089 0.0029 *
 Mercury -70903-01-03 15:21 J -24175895.06 -24175894.86 -24175894.66 0.0089 0.0007
 Mercury -70903-04-01 18:57 J -24175806.90 -24175806.71 -24175806.51 0.0089 0.0014
 Mercury -70903-06-28 22:47 J -24175718.74 -24175718.55 -24175718.36 0.0089 0.0021
 Mercury -70903-09-25 02:23 J -24175630.58 -24175630.40 -24175630.20 0.0089 0.0029
 Earth -70903-10-27 06:28 J -24175598.45 -24175598.23 -24175597.98 0.0089 0.0038
 Moon -70903-10-27 06:28 J -24175598.44 -24175598.23 -24175597.99 0.0089 0.0039 *
 Mercury -70903-12-22 06:13 J -24175542.41 -24175542.24 -24175542.05 0.0089 0.0036

Mercury -70902-03-20 09:49 J -24175454.25 -24175454.09 -24175453.91 0.0089 0.0044

Mercury -70902-06-16 13:40 J -24175366.08 -24175365.93 -24175365.76 0.0089 0.0051

Mercury -70902-09-12 17:30 J -24175277.91 -24175277.77 -24175277.62 0.0089 0.0058

Moon -70902-10-29 18:42 J -24175230.95 -24175230.72 -24175230.48 0.0089 0.0046

Earth -70902-10-29 20:09 J -24175230.87 -24175230.66 -24175230.42 0.0089 0.0047 *

Mercury -70902-12-09 20:52 J -24175189.74 -24175189.63 -24175189.48 0.0089 0.0066

Mercury -70901-03-07 00:42 J -24175101.56 -24175101.47 -24175101.34 0.0089 0.0073

Mercury -70901-06-03 04:33 J -24175013.38 -24175013.31 -24175013.21 0.0089 0.0080

Mercury -70901-08-30 08:23 J -24174925.17 -24174925.15 -24174925.11 0.0089 0.0087

Earth -70901-10-31 10:18 J -24174863.27 -24174863.07 -24174862.86 0.0089 0.0055

Moon -70901-10-31 12:28 J -24174863.16 -24174862.98 -24174862.77 0.0089 0.0056 *

Moon -70900-11-02 20:37 J -24174495.80 -24174495.64 -24174495.42 0.0089 0.0063

Earth -70900-11-02 23:59 J -24174495.66 -24174495.50 -24174495.30 0.0089 0.0064 *

Earth -70899-11-05 13:25 J -24174128.06 -24174127.94 -24174127.76 0.0089 0.0073

Moon -70899-11-05 17:16 J -24174127.90 -24174127.78 -24174127.61 0.0089 0.0074 *

Moon -70898-11-07 23:59 J -24173760.59 -24173760.50 -24173760.36 0.0088 0.0080

Earth -70898-11-08 03:35 J -24173760.43 -24173760.35 -24173760.22 0.0088 0.0081 *

Mars -70889-06-05 11:45 J -24170628.35 -24170628.01 -24170627.67 0.0088 0.0011

Mars -70887-05-02 17:30 J -24169931.98 -24169931.77 -24169931.53 0.0088 0.0067

Venus -70849-10-04 04:04 J -24155897.41 -24155897.33 -24155897.23 0.0088 0.0081

Venus -70848-05-17 16:47 J -24155671.95 -24155671.80 -24155671.64 0.0088 0.0061

Venus -70848-12-29 05:30 J -24155446.46 -24155446.27 -24155446.07 0.0088 0.0041

Venus -70847-08-11 17:45 J -24155220.96 -24155220.76 -24155220.53 0.0088 0.0022

Venus -70846-03-25 06:28 J -24154995.45 -24154995.23 -24154995.01 0.0088 0.0002

Venus -70846-11-05 18:57 J -24154769.92 -24154769.71 -24154769.50 0.0088 0.0019

Venus -70845-06-18 07:11 J -24154544.39 -24154544.20 -24154544.00 0.0088 0.0039

Venus -70844-01-29 19:25 J -24154318.84 -24154318.69 -24154318.51 0.0088 0.0058

Venus -70844-09-12 08:09 J -24154093.26 -24154093.16 -24154093.06 0.0088 0.0078

Moon -70835-03-29 13:11 J -24150972.95 -24150972.95 -24150972.94 0.0088 0.0088

Moon -70834-03-31 18:28 J -24150605.80 -24150605.73 -24150605.62 0.0088 0.0083

Earth -70834-03-31 21:35 J -24150605.68 -24150605.60 -24150605.49 0.0088 0.0082 *
 Earth -70833-04-02 07:54 J -24150238.29 -24150238.17 -24150238.01 0.0089 0.0074
 Moon -70833-04-02 11:16 J -24150238.14 -24150238.03 -24150237.85 0.0089 0.0073 *
 Moon -70832-04-04 15:06 J -24149871.02 -24149870.87 -24149870.69 0.0089 0.0067
 Earth -70832-04-04 18:28 J -24149870.88 -24149870.73 -24149870.54 0.0089 0.0066 *
 Earth -70831-04-07 04:33 J -24149503.48 -24149503.31 -24149503.10 0.0089 0.0058
 Moon -70831-04-07 08:09 J -24149503.35 -24149503.16 -24149502.96 0.0089 0.0057 *
 Moon -70830-04-09 13:11 J -24149136.14 -24149135.95 -24149135.73 0.0089 0.0051
 Earth -70830-04-09 14:52 J -24149136.07 -24149135.88 -24149135.65 0.0089 0.0050 *
 Earth -70829-04-11 01:25 J -24148768.66 -24148768.44 -24148768.21 0.0089 0.0041
 Moon -70829-04-11 02:37 J -24148768.62 -24148768.39 -24148768.15 0.0089 0.0040 *
 Earth -70828-04-13 11:16 J -24148401.25 -24148401.03 -24148400.77 0.0089 0.0033
 Moon -70828-04-13 11:30 J -24148401.24 -24148401.02 -24148400.78 0.0089 0.0033 *
 Moon -70827-04-15 19:40 J -24148033.92 -24148033.68 -24148033.41 0.0089 0.0023
 Earth -70827-04-15 21:35 J -24148033.83 -24148033.60 -24148033.34 0.0089 0.0024 *
 Earth -70826-04-18 07:40 J -24147666.42 -24147666.18 -24147665.92 0.0089 0.0016
 Moon -70826-04-18 10:04 J -24147666.31 -24147666.08 -24147665.82 0.0089 0.0017 *
 Moon -70825-04-19 14:37 J -24147299.14 -24147298.89 -24147298.62 0.0089 0.0007
 Earth -70825-04-19 17:59 J -24147299.00 -24147298.75 -24147298.49 0.0089 0.0007 *
 Mercury -70825-05-26 06:42 J -24147262.24 -24147262.22 -24147262.18 0.0089 0.0086
 Mercury -70825-08-22 07:54 J -24147174.21 -24147174.17 -24147174.10 0.0089 0.0081
 Mercury -70825-11-18 09:21 J -24147086.17 -24147086.11 -24147086.03 0.0089 0.0076
 Mercury -70824-02-14 10:47 J -24146998.12 -24146998.05 -24146997.97 0.0089 0.0071
 Earth -70824-04-22 04:04 J -24146931.58 -24146931.33 -24146931.07 0.0089 0.0002
 Moon -70824-04-22 07:40 J -24146931.43 -24146931.18 -24146930.92 0.0089 0.0002 *
 Mercury -70824-05-13 11:59 J -24146910.08 -24146910.00 -24146909.90 0.0089 0.0066
 Mercury -70824-08-09 13:25 J -24146822.03 -24146821.94 -24146821.84 0.0089 0.0061
 Mercury -70824-11-05 14:52 J -24146733.98 -24146733.88 -24146733.78 0.0089 0.0056
 Mercury -70823-02-01 16:04 J -24146645.93 -24146645.83 -24146645.72 0.0089 0.0051
 Moon -70823-04-24 10:47 J -24146564.29 -24146564.05 -24146563.80 0.0089 0.0011

Earth -70823-04-24 13:54 J -24146564.16 -24146563.92 -24146563.66 0.0089 0.0011 *
 Mercury -70823-04-30 17:16 J -24146557.89 -24146557.78 -24146557.66 0.0089 0.0046
 Mercury -70823-07-27 18:28 J -24146469.84 -24146469.73 -24146469.60 0.0089 0.0042
 Mercury -70823-10-23 19:54 J -24146381.79 -24146381.67 -24146381.55 0.0089 0.0036
 Mercury -70822-01-19 21:06 J -24146293.73 -24146293.62 -24146293.49 0.0089 0.0032
 Mercury -70822-04-17 22:33 J -24146205.68 -24146205.56 -24146205.43 0.0089 0.0027
 Earth -70822-04-26 23:45 J -24146196.75 -24146196.51 -24146196.25 0.0089 0.0019
 Moon -70822-04-27 02:52 J -24146196.63 -24146196.38 -24146196.12 0.0089 0.0019 *
 Mercury -70822-07-14 23:45 J -24146117.63 -24146117.51 -24146117.38 0.0089 0.0022
 Mercury -70822-10-11 01:11 J -24146029.58 -24146029.45 -24146029.32 0.0089 0.0017
 Mercury -70821-01-07 02:23 J -24145941.53 -24145941.40 -24145941.27 0.0089 0.0012
 Mercury -70821-04-04 03:49 J -24145853.47 -24145853.34 -24145853.21 0.0089 0.0007
 Moon -70821-04-28 08:23 J -24145829.38 -24145829.15 -24145828.91 0.0089 0.0028
 Earth -70821-04-28 09:49 J -24145829.33 -24145829.09 -24145828.85 0.0089 0.0027 *
 Mercury -70821-07-01 05:01 J -24145765.42 -24145765.29 -24145765.16 0.0089 0.0002
 Mercury -70821-09-27 06:13 J -24145677.37 -24145677.24 -24145677.10 0.0089 0.0004
 Mercury -70821-12-24 07:40 J -24145589.31 -24145589.18 -24145589.05 0.0089 0.0008
 Mercury -70820-03-22 08:52 J -24145501.26 -24145501.13 -24145501.00 0.0089 0.0013
 Earth -70820-04-30 18:57 J -24145461.92 -24145461.71 -24145461.46 0.0089 0.0036
 Moon -70820-04-30 19:54 J -24145461.91 -24145461.67 -24145461.43 0.0089 0.0035 *
 Mercury -70820-06-18 10:04 J -24145413.20 -24145413.08 -24145412.94 0.0089 0.0018
 Mercury -70820-09-14 11:30 J -24145325.15 -24145325.02 -24145324.89 0.0089 0.0022
 Mercury -70820-12-11 12:42 J -24145237.09 -24145236.97 -24145236.84 0.0089 0.0028
 Mercury -70819-03-09 13:54 J -24145149.03 -24145148.92 -24145148.79 0.0089 0.0033
 Earth -70819-05-03 04:47 J -24145094.51 -24145094.30 -24145094.07 0.0089 0.0044
 Moon -70819-05-03 05:30 J -24145094.48 -24145094.27 -24145094.05 0.0089 0.0044 *
 Mercury -70819-06-05 15:21 J -24145060.98 -24145060.86 -24145060.74 0.0089 0.0037
 Mercury -70819-09-01 16:33 J -24144972.92 -24144972.81 -24144972.69 0.0089 0.0042
 Mercury -70819-11-28 17:59 J -24144884.86 -24144884.75 -24144884.64 0.0089 0.0047
 Mercury -70818-02-24 19:11 J -24144796.80 -24144796.70 -24144796.59 0.0089 0.0052

Moon -70818-05-05 11:59 J -24144727.20 -24144727.00 -24144726.77 0.0089 0.0051
 Earth -70818-05-05 14:23 J -24144727.09 -24144726.90 -24144726.68 0.0089 0.0052 *
 Mercury -70818-05-23 20:23 J -24144708.74 -24144708.65 -24144708.54 0.0089 0.0057
 Mercury -70818-08-19 21:35 J -24144620.68 -24144620.60 -24144620.49 0.0089 0.0062
 Mercury -70818-11-15 22:47 J -24144532.62 -24144532.55 -24144532.45 0.0089 0.0067
 Mercury -70817-02-12 00:13 J -24144444.56 -24144444.49 -24144444.40 0.0089 0.0072
 Earth -70817-05-07 00:13 J -24144359.68 -24144359.49 -24144359.31 0.0089 0.0060
 Moon -70817-05-07 02:37 J -24144359.55 -24144359.39 -24144359.19 0.0089 0.0061 *
 Mercury -70817-05-10 01:40 J -24144356.49 -24144356.43 -24144356.36 0.0089 0.0076
 Mercury -70817-08-06 02:52 J -24144268.42 -24144268.38 -24144268.32 0.0089 0.0081
 Mercury -70817-11-02 04:04 J -24144180.35 -24144180.33 -24144180.29 0.0089 0.0086
 Moon -70816-05-09 05:30 J -24143992.40 -24143992.27 -24143992.08 0.0089 0.0069
 Earth -70816-05-09 09:06 J -24143992.25 -24143992.12 -24143991.93 0.0089 0.0069 *
 Earth -70815-05-11 18:28 J -24143624.83 -24143624.73 -24143624.58 0.0089 0.0077
 Moon -70815-05-11 22:18 J -24143624.68 -24143624.57 -24143624.43 0.0089 0.0077 *
 Moon -70814-05-14 01:40 J -24143257.50 -24143257.43 -24143257.35 0.0089 0.0084
 Earth -70814-05-14 04:33 J -24143257.38 -24143257.31 -24143257.22 0.0089 0.0084 *
 Mars -70807-02-22 09:21 J -24140781.34 -24140781.11 -24140780.83 0.0089 0.0041
 Mars -70805-01-16 23:16 J -24140087.79 -24140087.53 -24140087.24 0.0089 0.0025
 Venus -70767-11-15 21:06 J -24125904.72 -24125904.62 -24125904.52 0.0089 0.0078
 Venus -70766-06-29 10:04 J -24125679.23 -24125679.08 -24125678.90 0.0089 0.0058
 Venus -70765-02-09 23:30 J -24125453.71 -24125453.52 -24125453.31 0.0089 0.0038
 Venus -70765-09-22 12:57 J -24125228.17 -24125227.96 -24125227.74 0.0089 0.0017
 Venus -70764-05-06 02:23 J -24125002.62 -24125002.40 -24125002.17 0.0089 0.0004
 Venus -70764-12-17 15:49 J -24124777.05 -24124776.84 -24124776.62 0.0089 0.0024
 Venus -70763-07-31 05:16 J -24124551.46 -24124551.28 -24124551.08 0.0089 0.0045
 Venus -70762-03-13 18:28 J -24124325.86 -24124325.73 -24124325.56 0.0089 0.0066
 Venus -70762-10-25 08:09 J -24124100.20 -24124100.16 -24124100.09 0.0089 0.0086
 Moon -70753-09-23 14:52 J -24120843.97 -24120843.88 -24120843.75 0.0089 0.0080
 Earth -70753-09-23 17:59 J -24120843.81 -24120843.75 -24120843.65 0.0089 0.0084 *

Earth -70752-09-26 06:28 J -24120476.34 -24120476.23 -24120476.07 0.0089 0.0076
 Moon -70752-09-26 08:37 J -24120476.25 -24120476.14 -24120476.01 0.0089 0.0079 *
 Moon -70751-09-28 18:28 J -24120108.89 -24120108.73 -24120108.54 0.0089 0.0064
 Earth -70751-09-28 19:11 J -24120108.84 -24120108.70 -24120108.50 0.0089 0.0068 *
 Earth -70750-10-01 08:37 J -24119741.33 -24119741.14 -24119740.95 0.0089 0.0059
 Moon -70750-10-01 08:23 J -24119741.33 -24119741.15 -24119740.96 0.0089 0.0063 *
 Earth -70749-10-02 21:21 J -24119373.81 -24119373.61 -24119373.38 0.0089 0.0051
 Moon -70749-10-02 22:47 J -24119373.74 -24119373.55 -24119373.31 0.0089 0.0048 *
 Moon -70748-10-05 07:54 J -24119006.37 -24119006.17 -24119005.92 0.0089 0.0047
 Earth -70748-10-05 10:18 J -24119006.27 -24119006.07 -24119005.82 0.0089 0.0043 *
 Earth -70747-10-07 23:45 J -24118638.75 -24118638.51 -24118638.26 0.0089 0.0034
 Moon -70747-10-08 02:37 J -24118638.61 -24118638.39 -24118638.13 0.0089 0.0030 *
 Moon -70746-10-10 09:06 J -24118271.35 -24118271.12 -24118270.86 0.0089 0.0030
 Earth -70746-10-10 13:11 J -24118271.20 -24118270.95 -24118270.70 0.0089 0.0025 *
 Earth -70745-10-12 02:09 J -24117903.66 -24117903.41 -24117903.15 0.0089 0.0017
 Moon -70745-10-12 05:45 J -24117903.52 -24117903.26 -24117903.00 0.0089 0.0012 *
 Moon -70744-10-14 12:13 J -24117536.24 -24117535.99 -24117535.73 0.0089 0.0013
 Earth -70744-10-14 15:35 J -24117536.11 -24117535.85 -24117535.59 0.0089 0.0008 *
 Earth -70743-10-17 04:47 J -24117168.56 -24117168.30 -24117168.04 0.0089 0.0001
 Moon -70743-10-17 06:57 J -24117168.48 -24117168.21 -24117167.94 0.0089 0.0005 *
 Mercury -70742-08-11 11:30 J -24116870.03 -24116870.02 -24116869.97 0.0089 0.0088
 Moon -70742-10-19 16:33 J -24116801.06 -24116800.81 -24116800.56 0.0089 0.0005
 Earth -70742-10-19 17:59 J -24116801.01 -24116800.75 -24116800.48 0.0089 0.0010 *
 Mercury -70742-11-07 15:06 J -24116781.93 -24116781.87 -24116781.77 0.0089 0.0081
 Mercury -70741-02-03 19:11 J -24116693.80 -24116693.70 -24116693.58 0.0089 0.0073
 Mercury -70741-05-01 22:47 J -24116605.67 -24116605.55 -24116605.41 0.0089 0.0066
 Mercury -70741-07-29 02:23 J -24116517.53 -24116517.40 -24116517.23 0.0089 0.0059
 Earth -70741-10-21 07:25 J -24116433.44 -24116433.19 -24116432.93 0.0089 0.0018
 Moon -70741-10-21 07:25 J -24116433.44 -24116433.19 -24116432.91 0.0089 0.0023 *
 Mercury -70741-10-25 06:13 J -24116429.39 -24116429.24 -24116429.07 0.0089 0.0052

Mercury -70740-01-21 10:18 J -24116341.24 -24116341.07 -24116340.90 0.0089 0.0044
 Mercury -70740-04-19 13:54 J -24116253.09 -24116252.92 -24116252.74 0.0089 0.0037
 Mercury -70740-07-16 17:30 J -24116164.95 -24116164.77 -24116164.57 0.0089 0.0030
 Mercury -70740-10-12 21:21 J -24116076.79 -24116076.61 -24116076.41 0.0089 0.0022
 Earth -70740-10-23 20:37 J -24116065.88 -24116065.64 -24116065.38 0.0089 0.0027
 Moon -70740-10-23 22:04 J -24116065.82 -24116065.58 -24116065.33 0.0089 0.0023 *
 Mercury -70739-01-09 01:11 J -24115988.64 -24115988.45 -24115988.25 0.0089 0.0015
 Mercury -70739-04-07 05:01 J -24115900.49 -24115900.29 -24115900.10 0.0089 0.0008
 Mercury -70739-07-04 08:37 J -24115812.33 -24115812.14 -24115811.94 0.0089 0.0002
 Mercury -70739-09-30 12:28 J -24115724.18 -24115723.98 -24115723.78 0.0089 0.0007
 Moon -70739-10-26 08:09 J -24115698.39 -24115698.16 -24115697.90 0.0089 0.0040
 Earth -70739-10-26 10:04 J -24115698.31 -24115698.08 -24115697.83 0.0089 0.0036 *
 Mercury -70739-12-27 16:04 J -24115636.02 -24115635.83 -24115635.63 0.0089 0.0015
 Mercury -70738-03-25 19:54 J -24115547.86 -24115547.67 -24115547.48 0.0089 0.0022
 Mercury -70738-06-21 23:45 J -24115459.70 -24115459.51 -24115459.33 0.0089 0.0029
 Mercury -70738-09-18 03:06 J -24115371.54 -24115371.37 -24115371.18 0.0089 0.0037
 Earth -70738-10-28 23:59 J -24115330.73 -24115330.50 -24115330.27 0.0089 0.0044
 Moon -70738-10-29 02:37 J -24115330.60 -24115330.39 -24115330.14 0.0089 0.0040 *
 Mercury -70738-12-15 06:57 J -24115283.37 -24115283.21 -24115283.03 0.0089 0.0044
 Mercury -70737-03-12 10:47 J -24115195.20 -24115195.05 -24115194.88 0.0089 0.0051
 Mercury -70737-06-08 14:09 J -24115107.04 -24115106.91 -24115106.74 0.0089 0.0059
 Mercury -70737-09-04 17:59 J -24115018.86 -24115018.75 -24115018.60 0.0089 0.0066
 Moon -70737-10-30 10:04 J -24114963.28 -24114963.08 -24114962.87 0.0089 0.0057
 Earth -70737-10-30 13:11 J -24114963.14 -24114962.95 -24114962.71 0.0089 0.0053 *
 Mercury -70737-12-01 21:49 J -24114930.69 -24114930.59 -24114930.47 0.0089 0.0073
 Mercury -70736-02-28 01:54 J -24114842.50 -24114842.42 -24114842.34 0.0089 0.0080
 Mercury -70736-05-27 05:01 J -24114754.29 -24114754.29 -24114754.23 0.0089 0.0088
 Earth -70736-11-02 03:21 J -24114595.55 -24114595.36 -24114595.17 0.0089 0.0061
 Moon -70736-11-02 06:42 J -24114595.41 -24114595.22 -24114595.00 0.0089 0.0057 *
 Moon -70735-11-04 13:11 J -24114228.06 -24114227.95 -24114227.78 0.0089 0.0075

Earth	-70735-11-04 16:47 J	-24114227.94	-24114227.80	-24114227.61	0.0089	0.0070	*
Earth	-70734-11-07 06:42 J	-24113860.33	-24113860.22	-24113860.08	0.0088	0.0078	
Moon	-70734-11-07 09:06 J	-24113860.24	-24113860.12	-24113859.94	0.0088	0.0074	*
Earth	-70733-11-08 20:37 J	-24113492.68	-24113492.64	-24113492.56	0.0088	0.0086	
Mars	-70725-01-17 12:28 J	-24110867.24	-24110866.98	-24110866.66	0.0088	0.0050	
Mars	-70724-12-13 20:52 J	-24110170.94	-24110170.63	-24110170.29	0.0088	0.0030	
Jupiter	-70697-09-30 23:16 J	-24100382.76	-24100382.53	-24100382.19	0.0088	0.0076	
Venus	-70684-08-19 00:57 J	-24095677.56	-24095677.46	-24095677.31	0.0088	0.0072	
Venus	-70683-04-01 13:40 J	-24095452.09	-24095451.93	-24095451.73	0.0088	0.0052	
Venus	-70683-11-13 02:23 J	-24095226.59	-24095226.40	-24095226.18	0.0088	0.0032	
Venus	-70682-06-26 15:06 J	-24095001.08	-24095000.87	-24095000.65	0.0088	0.0012	
Venus	-70681-02-07 03:49 J	-24094775.56	-24094775.34	-24094775.12	0.0088	0.0009	
Venus	-70681-09-19 16:04 J	-24094550.03	-24094549.83	-24094549.62	0.0088	0.0029	
Venus	-70680-05-03 04:18 J	-24094324.49	-24094324.32	-24094324.12	0.0088	0.0049	
Venus	-70680-12-14 16:33 J	-24094098.92	-24094098.81	-24094098.64	0.0088	0.0069	
Venus	-70679-07-28 05:16 J	-24093873.29	-24093873.28	-24093873.24	0.0088	0.0088	
Earth	-70670-03-31 03:06 J	-24090705.44	-24090705.37	-24090705.24	0.0088	0.0082	
Moon	-70670-03-31 06:57 J	-24090705.32	-24090705.21	-24090705.06	0.0088	0.0077	*
Moon	-70669-04-01 10:47 J	-24090338.15	-24090338.05	-24090337.91	0.0089	0.0078	
Earth	-70669-04-01 13:54 J	-24090338.03	-24090337.92	-24090337.74	0.0089	0.0074	*
Earth	-70668-04-04 00:28 J	-24089970.63	-24089970.48	-24089970.28	0.0089	0.0066	
Moon	-70668-04-04 03:21 J	-24089970.54	-24089970.36	-24089970.16	0.0089	0.0061	*
Moon	-70667-04-06 09:06 J	-24089603.27	-24089603.12	-24089602.92	0.0089	0.0062	
Earth	-70667-04-06 11:01 J	-24089603.21	-24089603.04	-24089602.82	0.0089	0.0058	*
Earth	-70666-04-08 21:21 J	-24089235.80	-24089235.61	-24089235.37	0.0089	0.0050	
Moon	-70666-04-08 22:04 J	-24089235.79	-24089235.58	-24089235.34	0.0089	0.0045	*
Earth	-70665-04-10 07:54 J	-24088868.39	-24088868.17	-24088867.93	0.0089	0.0041	
Moon	-70665-04-10 08:52 J	-24088868.33	-24088868.13	-24088867.91	0.0089	0.0045	*
Moon	-70664-04-12 16:18 J	-24088501.06	-24088500.82	-24088500.56	0.0089	0.0029	
Earth	-70664-04-12 17:59 J	-24088500.97	-24088500.75	-24088500.50	0.0089	0.0033	*

Earth -70663-04-15 04:04 J -24088133.56 -24088133.33 -24088133.07 0.0089 0.0025
 Moon -70663-04-15 07:25 J -24088133.43 -24088133.19 -24088132.96 0.0089 0.0029 *
 Moon -70662-04-17 11:01 J -24087766.29 -24087766.04 -24087765.78 0.0089 0.0012
 Earth -70662-04-17 14:37 J -24087766.14 -24087765.89 -24087765.64 0.0089 0.0016 *
 Earth -70661-04-19 00:28 J -24087398.73 -24087398.48 -24087398.22 0.0089 0.0008
 Moon -70661-04-19 03:49 J -24087398.58 -24087398.34 -24087398.08 0.0089 0.0013 *
 Mercury -70660-02-20 05:45 J -24087091.28 -24087091.26 -24087091.22 0.0089 0.0086
 Moon -70660-04-21 07:11 J -24087031.44 -24087031.20 -24087030.94 0.0089 0.0006
 Earth -70660-04-21 10:33 J -24087031.31 -24087031.06 -24087030.80 0.0089 0.0001 *
 Mercury -70660-05-19 06:57 J -24087003.25 -24087003.21 -24087003.14 0.0089 0.0081
 Mercury -70660-08-15 08:23 J -24086915.21 -24086915.15 -24086915.07 0.0089 0.0076
 Mercury -70660-11-11 09:49 J -24086827.16 -24086827.09 -24086827.01 0.0089 0.0071
 Mercury -70659-02-07 11:01 J -24086739.12 -24086739.04 -24086738.94 0.0089 0.0066
 Earth -70659-04-23 20:37 J -24086663.89 -24086663.64 -24086663.39 0.0089 0.0009
 Moon -70659-04-23 22:47 J -24086663.81 -24086663.55 -24086663.29 0.0089 0.0005 *
 Mercury -70659-05-06 12:28 J -24086651.07 -24086650.98 -24086650.88 0.0089 0.0061
 Mercury -70659-08-02 13:54 J -24086563.02 -24086562.92 -24086562.82 0.0089 0.0056
 Mercury -70659-10-29 15:06 J -24086474.97 -24086474.87 -24086474.76 0.0089 0.0051
 Mercury -70658-01-25 16:18 J -24086386.93 -24086386.82 -24086386.70 0.0089 0.0046
 Mercury -70658-04-23 17:30 J -24086298.88 -24086298.77 -24086298.64 0.0089 0.0042
 Moon -70658-04-26 05:01 J -24086296.52 -24086296.29 -24086296.04 0.0089 0.0022
 Earth -70658-04-26 06:28 J -24086296.47 -24086296.23 -24086295.97 0.0089 0.0018 *
 Mercury -70658-07-20 18:57 J -24086210.83 -24086210.71 -24086210.59 0.0089 0.0036
 Mercury -70658-10-16 20:09 J -24086122.77 -24086122.66 -24086122.53 0.0089 0.0032
 Mercury -70657-01-12 21:35 J -24086034.72 -24086034.60 -24086034.47 0.0089 0.0027
 Mercury -70657-04-09 22:47 J -24085946.67 -24085946.55 -24085946.41 0.0089 0.0022
 Moon -70657-04-27 16:18 J -24085929.07 -24085928.82 -24085928.56 0.0089 0.0021
 Earth -70657-04-27 16:18 J -24085929.05 -24085928.82 -24085928.56 0.0089 0.0026 *
 Mercury -70657-07-07 00:13 J -24085858.62 -24085858.49 -24085858.36 0.0089 0.0017
 Mercury -70657-10-03 01:40 J -24085770.57 -24085770.43 -24085770.30 0.0089 0.0012

Mercury -70657-12-30 02:52 J -24085682.51 -24085682.38 -24085682.25 0.0089 0.0007

Mercury -70656-03-28 04:04 J -24085594.46 -24085594.33 -24085594.19 0.0089 0.0003

Earth -70656-04-30 02:09 J -24085561.63 -24085561.41 -24085561.16 0.0089 0.0034

Moon -70656-04-30 03:35 J -24085561.56 -24085561.35 -24085561.11 0.0089 0.0038 *

Mercury -70656-06-24 05:30 J -24085506.40 -24085506.27 -24085506.14 0.0089 0.0003

Mercury -70656-09-20 06:42 J -24085418.35 -24085418.22 -24085418.09 0.0089 0.0008

Mercury -70656-12-17 08:09 J -24085330.29 -24085330.16 -24085330.03 0.0089 0.0013

Mercury -70655-03-15 09:21 J -24085242.24 -24085242.11 -24085241.98 0.0089 0.0018

Moon -70655-05-02 09:35 J -24085194.32 -24085194.10 -24085193.85 0.0089 0.0038

Earth -70655-05-02 11:59 J -24085194.21 -24085194.00 -24085193.77 0.0089 0.0042 *

Mercury -70655-06-11 10:33 J -24085154.18 -24085154.06 -24085153.93 0.0089 0.0023

Mercury -70655-09-07 11:45 J -24085066.13 -24085066.01 -24085065.88 0.0089 0.0028

Mercury -70655-12-04 13:11 J -24084978.07 -24084977.95 -24084977.83 0.0089 0.0033

Mercury -70654-03-02 14:23 J -24084890.01 -24084889.90 -24084889.78 0.0089 0.0038

Earth -70654-05-04 21:35 J -24084826.80 -24084826.60 -24084826.38 0.0089 0.0050

Moon -70654-05-05 00:42 J -24084826.65 -24084826.47 -24084826.26 0.0089 0.0055 *

Mercury -70654-05-29 15:35 J -24084801.96 -24084801.85 -24084801.73 0.0089 0.0043

Mercury -70654-08-25 16:47 J -24084713.90 -24084713.80 -24084713.68 0.0089 0.0048

Mercury -70654-11-21 18:28 J -24084625.84 -24084625.73 -24084625.63 0.0089 0.0052

Mercury -70653-02-17 19:40 J -24084537.78 -24084537.68 -24084537.58 0.0089 0.0057

Moon -70653-05-06 03:35 J -24084459.53 -24084459.35 -24084459.13 0.0089 0.0054

Earth -70653-05-06 07:11 J -24084459.37 -24084459.20 -24084458.99 0.0089 0.0058 *

Mercury -70653-05-15 20:52 J -24084449.72 -24084449.63 -24084449.53 0.0089 0.0062

Mercury -70653-08-11 22:04 J -24084361.66 -24084361.58 -24084361.49 0.0089 0.0067

Mercury -70653-11-07 23:16 J -24084273.59 -24084273.53 -24084273.44 0.0089 0.0072

Mercury -70652-02-04 00:42 J -24084185.53 -24084185.47 -24084185.40 0.0089 0.0077

Mercury -70652-05-03 01:54 J -24084097.46 -24084097.42 -24084097.36 0.0089 0.0082

Earth -70652-05-08 16:33 J -24084091.96 -24084091.81 -24084091.62 0.0089 0.0066

Moon -70652-05-08 19:40 J -24084091.80 -24084091.68 -24084091.50 0.0089 0.0071 *

Mercury -70652-07-30 03:06 J -24084009.38 -24084009.37 -24084009.33 0.0089 0.0087

Moon	-70651-05-10 23:30 J	-24083724.66	-24083724.52	-24083724.35	0.0089	0.0069
Earth	-70651-05-11 02:09 J	-24083724.53	-24083724.41	-24083724.25	0.0089	0.0074 *
Earth	-70650-05-13 11:59 J	-24083357.09	-24083357.00	-24083356.89	0.0089	0.0081
Moon	-70650-05-13 13:54 J	-24083356.99	-24083356.92	-24083356.86	0.0089	0.0085 *
Moon	-70649-05-14 20:23 J	-24082989.70	-24082989.65	-24082989.56	0.0089	0.0085
Mars	-70644-10-07 20:52 J	-24081017.78	-24081017.63	-24081017.43	0.0089	0.0071
Mars	-70642-09-01 08:09 J	-24080324.44	-24080324.16	-24080323.87	0.0089	0.0006
Mars	-70640-07-25 21:21 J	-24079630.79	-24079630.61	-24079630.37	0.0089	0.0060
Venus	-70602-02-17 05:01 J	-24065910.29	-24065910.29	-24065910.26	0.0089	0.0089
Venus	-70602-09-30 18:28 J	-24065684.87	-24065684.73	-24065684.59	0.0089	0.0068
Venus	-70601-05-13 07:25 J	-24065459.36	-24065459.19	-24065458.99	0.0089	0.0048
Venus	-70601-12-24 21:06 J	-24065233.83	-24065233.62	-24065233.41	0.0089	0.0027
Venus	-70600-08-07 10:33 J	-24065008.28	-24065008.06	-24065007.84	0.0089	0.0007
Venus	-70599-03-20 23:45 J	-24064782.73	-24064782.51	-24064782.29	0.0089	0.0014
Venus	-70599-11-01 13:11 J	-24064557.16	-24064556.95	-24064556.75	0.0089	0.0034
Venus	-70598-06-15 02:23 J	-24064331.56	-24064331.40	-24064331.21	0.0089	0.0055
Venus	-70597-01-26 15:35 J	-24064105.94	-24064105.85	-24064105.71	0.0089	0.0076
Earth	-70589-09-22 22:18 J	-24060943.64	-24060943.57	-24060943.46	0.0089	0.0083
Moon	-70589-09-23 00:28 J	-24060943.58	-24060943.48	-24060943.36	0.0089	0.0080 *
Earth	-70588-09-25 11:01 J	-24060576.16	-24060576.04	-24060575.89	0.0089	0.0075
Moon	-70588-09-25 10:33 J	-24060576.14	-24060576.06	-24060575.91	0.0089	0.0079 *
Moon	-70587-09-27 22:33 J	-24060208.73	-24060208.56	-24060208.36	0.0089	0.0064
Earth	-70587-09-27 23:45 J	-24060208.67	-24060208.51	-24060208.33	0.0089	0.0067 *
Earth	-70586-09-30 12:13 J	-24059841.17	-24059840.99	-24059840.78	0.0089	0.0059
Moon	-70586-09-30 13:54 J	-24059841.08	-24059840.92	-24059840.72	0.0089	0.0062 *
Moon	-70585-10-01 21:49 J	-24059473.80	-24059473.59	-24059473.35	0.0089	0.0048
Earth	-70585-10-02 01:11 J	-24059473.65	-24059473.45	-24059473.23	0.0089	0.0051 *
Earth	-70584-10-04 13:40 J	-24059106.13	-24059105.93	-24059105.68	0.0089	0.0043
Moon	-70584-10-04 17:16 J	-24059105.99	-24059105.78	-24059105.54	0.0089	0.0045 *
Moon	-70583-10-06 23:16 J	-24058738.75	-24058738.53	-24058738.27	0.0089	0.0033

Earth -70583-10-07 03:21 J -24058738.60 -24058738.36 -24058738.12 0.0089 0.0034 *
 Earth -70582-10-09 16:04 J -24058371.06 -24058370.83 -24058370.56 0.0089 0.0026
 Moon -70582-10-09 19:40 J -24058370.92 -24058370.68 -24058370.42 0.0089 0.0028 *
 Moon -70581-10-11 03:06 J -24058003.62 -24058003.37 -24058003.12 0.0089 0.0016
 Earth -70581-10-11 05:30 J -24058003.52 -24058003.27 -24058003.00 0.0089 0.0018 *
 Earth -70580-10-13 18:57 J -24057635.97 -24057635.71 -24057635.45 0.0089 0.0009
 Moon -70580-10-13 21:06 J -24057635.89 -24057635.62 -24057635.35 0.0089 0.0010 *
 Moon -70579-10-16 07:54 J -24057268.43 -24057268.17 -24057267.92 0.0089 0.0002
 Earth -70579-10-16 08:09 J -24057268.42 -24057268.16 -24057267.90 0.0089 0.0001 *
 Moon -70578-10-18 20:52 J -24056900.90 -24056900.63 -24056900.35 0.0089 0.0007
 Earth -70578-10-18 21:21 J -24056900.86 -24056900.61 -24056900.34 0.0089 0.0009 *
 Mercury -70577-05-07 08:23 J -24056699.15 -24056699.15 -24056699.10 0.0089 0.0088
 Mercury -70577-08-03 12:13 J -24056611.05 -24056610.99 -24056610.89 0.0089 0.0081
 Earth -70577-10-20 10:47 J -24056533.30 -24056533.05 -24056532.79 0.0089 0.0017
 Moon -70577-10-20 12:13 J -24056533.23 -24056532.99 -24056532.73 0.0089 0.0017 *
 Mercury -70577-10-30 16:18 J -24056522.93 -24056522.82 -24056522.71 0.0089 0.0073
 Mercury -70576-01-26 19:54 J -24056434.79 -24056434.67 -24056434.53 0.0089 0.0066
 Mercury -70576-04-24 23:30 J -24056346.66 -24056346.52 -24056346.36 0.0089 0.0059
 Mercury -70576-07-22 03:06 J -24056258.51 -24056258.37 -24056258.19 0.0089 0.0052
 Mercury -70576-10-18 07:11 J -24056170.37 -24056170.20 -24056170.03 0.0089 0.0044
 Moon -70576-10-22 20:52 J -24056165.87 -24056165.63 -24056165.36 0.0089 0.0024
 Earth -70576-10-23 00:13 J -24056165.74 -24056165.49 -24056165.24 0.0089 0.0025 *
 Mercury -70575-01-14 10:47 J -24056082.22 -24056082.05 -24056081.86 0.0089 0.0037
 Mercury -70575-04-12 14:23 J -24055994.07 -24055993.90 -24055993.70 0.0089 0.0030
 Mercury -70575-07-09 18:13 J -24055905.92 -24055905.74 -24055905.54 0.0089 0.0022
 Mercury -70575-10-05 22:04 J -24055817.77 -24055817.58 -24055817.38 0.0089 0.0015
 Earth -70575-10-25 13:11 J -24055798.18 -24055797.95 -24055797.69 0.0089 0.0034
 Moon -70575-10-25 16:47 J -24055798.04 -24055797.80 -24055797.56 0.0089 0.0034 *
 Mercury -70574-01-02 01:54 J -24055729.62 -24055729.42 -24055729.22 0.0089 0.0008
 Mercury -70574-03-31 05:30 J -24055641.46 -24055641.27 -24055641.07 0.0089 0.0002

Mercury -70574-06-27 09:21 J -24055553.31 -24055553.11 -24055552.91 0.0089 0.0007

Mercury -70574-09-23 12:57 J -24055465.15 -24055464.96 -24055464.76 0.0089 0.0015

Moon -70574-10-27 23:01 J -24055430.76 -24055430.54 -24055430.29 0.0089 0.0042

Earth -70574-10-28 02:52 J -24055430.60 -24055430.38 -24055430.14 0.0089 0.0042 *

Mercury -70574-12-20 16:47 J -24055376.99 -24055376.80 -24055376.61 0.0089 0.0022

Mercury -70573-03-17 20:37 J -24055288.83 -24055288.64 -24055288.46 0.0089 0.0029

Mercury -70573-06-13 23:59 J -24055200.67 -24055200.50 -24055200.31 0.0089 0.0037

Mercury -70573-09-10 03:49 J -24055112.50 -24055112.34 -24055112.16 0.0089 0.0044

Earth -70573-10-29 16:04 J -24055063.02 -24055062.83 -24055062.59 0.0089 0.0051

Moon -70573-10-29 19:54 J -24055062.87 -24055062.67 -24055062.44 0.0089 0.0051 *

Mercury -70573-12-07 07:40 J -24055024.34 -24055024.18 -24055024.01 0.0089 0.0051

Mercury -70572-03-05 11:01 J -24054936.17 -24054936.04 -24054935.87 0.0089 0.0059

Mercury -70572-06-01 14:52 J -24054847.99 -24054847.88 -24054847.73 0.0089 0.0066

Mercury -70572-08-28 18:42 J -24054759.82 -24054759.72 -24054759.60 0.0089 0.0073

Moon -70572-11-01 03:06 J -24054695.55 -24054695.37 -24054695.16 0.0089 0.0059

Earth -70572-11-01 05:59 J -24054695.43 -24054695.25 -24054695.03 0.0089 0.0059 *

Mercury -70572-11-24 22:18 J -24054671.63 -24054671.57 -24054671.47 0.0089 0.0080

Mercury -70571-02-21 01:54 J -24054583.42 -24054583.42 -24054583.37 0.0088 0.0088

Earth -70571-11-03 19:25 J -24054327.84 -24054327.69 -24054327.49 0.0088 0.0067

Moon -70571-11-03 22:18 J -24054327.74 -24054327.57 -24054327.38 0.0088 0.0066 *

Moon -70570-11-06 08:52 J -24053960.26 -24053960.13 -24053959.99 0.0088 0.0075

Earth -70570-11-06 09:21 J -24053960.22 -24053960.11 -24053959.94 0.0088 0.0075 *

Earth -70569-11-07 23:16 J -24053592.60 -24053592.53 -24053592.41 0.0088 0.0083

Moon -70569-11-07 23:30 J -24053592.60 -24053592.52 -24053592.40 0.0088 0.0082 *

Mars -70562-08-30 10:18 J -24051106.09 -24051106.07 -24051105.97 0.0088 0.0088

Mars -70560-07-26 21:49 J -24050409.92 -24050409.59 -24050409.24 0.0088 0.0009

Mars -70558-06-23 04:47 J -24049713.48 -24049713.30 -24049713.06 0.0088 0.0070

Jupiter -70531-11-22 18:42 J -24039699.20 -24039698.72 -24039698.16 0.0088 0.0027

Venus -70520-11-20 08:52 J -24035683.19 -24035683.13 -24035683.04 0.0088 0.0083

Venus -70519-07-03 21:35 J -24035457.74 -24035457.60 -24035457.43 0.0088 0.0063

Venus	-70518-02-14 10:18 J	-24035232.25	-24035232.07	-24035231.87	0.0088	0.0043
Venus	-70518-09-27 23:01 J	-24035006.75	-24035006.54	-24035006.33	0.0088	0.0023
Venus	-70517-05-10 11:30 J	-24034781.23	-24034781.02	-24034780.80	0.0088	0.0004
Venus	-70517-12-22 00:13 J	-24034555.70	-24034555.49	-24034555.27	0.0088	0.0017
Venus	-70516-08-04 12:28 J	-24034330.16	-24034329.98	-24034329.77	0.0088	0.0038
Venus	-70515-03-18 00:42 J	-24034104.61	-24034104.47	-24034104.28	0.0088	0.0058
Venus	-70515-10-29 13:25 J	-24033879.04	-24033878.94	-24033878.83	0.0088	0.0077
Earth	-70507-03-27 21:21 J	-24031172.63	-24031172.61	-24031172.57	0.0088	0.0088
Moon	-70506-03-30 05:01 J	-24030805.38	-24030805.29	-24030805.15	0.0088	0.0079
Earth	-70506-03-30 07:54 J	-24030805.24	-24030805.17	-24030805.03	0.0088	0.0081 *
Earth	-70505-03-31 18:42 J	-24030437.84	-24030437.72	-24030437.55	0.0088	0.0073
Moon	-70505-03-31 21:49 J	-24030437.73	-24030437.59	-24030437.44	0.0088	0.0074 *
Moon	-70504-04-03 04:47 J	-24030070.45	-24030070.30	-24030070.10	0.0089	0.0063
Earth	-70504-04-03 05:45 J	-24030070.42	-24030070.26	-24030070.07	0.0089	0.0065 *
Earth	-70503-04-05 16:33 J	-24029702.99	-24029702.81	-24029702.60	0.0089	0.0057
Moon	-70503-04-05 16:18 J	-24029702.99	-24029702.82	-24029702.60	0.0089	0.0059 *
Earth	-70502-04-08 03:06 J	-24029335.57	-24029335.37	-24029335.14	0.0089	0.0049
Moon	-70502-04-08 04:04 J	-24029335.52	-24029335.33	-24029335.10	0.0089	0.0048 *
Moon	-70501-04-09 10:33 J	-24028968.26	-24028968.06	-24028967.81	0.0089	0.0044
Earth	-70501-04-09 13:40 J	-24028968.15	-24028967.93	-24028967.69	0.0089	0.0041 *
Earth	-70500-04-11 23:45 J	-24028600.73	-24028600.51	-24028600.26	0.0089	0.0033
Moon	-70500-04-12 02:37 J	-24028600.61	-24028600.39	-24028600.14	0.0089	0.0032 *
Moon	-70499-04-14 06:28 J	-24028233.46	-24028233.23	-24028232.97	0.0089	0.0027
Earth	-70499-04-14 10:18 J	-24028233.31	-24028233.07	-24028232.82	0.0089	0.0025 *
Earth	-70498-04-16 20:23 J	-24027865.89	-24027865.65	-24027865.39	0.0089	0.0017
Moon	-70498-04-16 23:45 J	-24027865.76	-24027865.51	-24027865.25	0.0089	0.0015 *
Moon	-70497-04-18 03:35 J	-24027498.59	-24027498.35	-24027498.09	0.0089	0.0010
Earth	-70497-04-18 06:28 J	-24027498.48	-24027498.23	-24027497.97	0.0089	0.0009 *
Earth	-70496-04-20 16:33 J	-24027131.06	-24027130.81	-24027130.56	0.0089	0.0001
Moon	-70496-04-20 18:42 J	-24027130.98	-24027130.72	-24027130.46	0.0089	0.0001 *

Mercury -70496-11-17 04:47 J -24026920.32 -24026920.30 -24026920.26 0.0089 0.0086

Mercury -70495-02-13 06:13 J -24026832.29 -24026832.24 -24026832.18 0.0089 0.0081

Moon -70495-04-23 02:09 J -24026763.65 -24026763.41 -24026763.16 0.0089 0.0006

Earth -70495-04-23 02:37 J -24026763.64 -24026763.39 -24026763.14 0.0089 0.0008 *

Mercury -70495-05-12 07:25 J -24026744.25 -24026744.19 -24026744.12 0.0089 0.0076

Mercury -70495-08-08 08:52 J -24026656.21 -24026656.13 -24026656.05 0.0089 0.0071

Mercury -70495-11-04 10:04 J -24026568.16 -24026568.08 -24026567.99 0.0089 0.0066

Mercury -70494-01-31 11:30 J -24026480.11 -24026480.02 -24026479.93 0.0089 0.0061

Moon -70494-04-25 12:13 J -24026396.25 -24026395.99 -24026395.74 0.0089 0.0017

Earth -70494-04-25 12:28 J -24026396.22 -24026395.98 -24026395.72 0.0089 0.0016 *

Mercury -70494-04-29 12:28 J -24026392.07 -24026391.98 -24026391.86 0.0089 0.0057

Mercury -70494-07-26 13:54 J -24026304.02 -24026303.92 -24026303.80 0.0089 0.0052

Mercury -70494-10-22 15:06 J -24026215.97 -24026215.87 -24026215.75 0.0089 0.0047

Mercury -70493-01-18 16:33 J -24026127.92 -24026127.81 -24026127.69 0.0089 0.0042

Mercury -70493-04-15 17:59 J -24026039.87 -24026039.75 -24026039.63 0.0089 0.0037

Earth -70493-04-26 22:33 J -24026028.80 -24026028.56 -24026028.32 0.0089 0.0024

Moon -70493-04-26 23:59 J -24026028.73 -24026028.50 -24026028.25 0.0089 0.0023 *

Mercury -70493-07-12 19:11 J -24025951.82 -24025951.70 -24025951.57 0.0089 0.0032

Mercury -70493-10-08 20:37 J -24025863.77 -24025863.64 -24025863.51 0.0089 0.0027

Mercury -70492-01-04 21:49 J -24025775.71 -24025775.59 -24025775.46 0.0089 0.0022

Mercury -70492-04-02 23:16 J -24025687.66 -24025687.53 -24025687.40 0.0089 0.0017

Moon -70492-04-29 05:16 J -24025661.51 -24025661.28 -24025661.03 0.0089 0.0034

Earth -70492-04-29 08:23 J -24025661.38 -24025661.15 -24025660.91 0.0089 0.0032 *

Mercury -70492-06-30 00:28 J -24025599.61 -24025599.48 -24025599.35 0.0089 0.0012

Mercury -70492-09-26 01:54 J -24025511.55 -24025511.42 -24025511.29 0.0089 0.0007

Mercury -70492-12-23 03:06 J -24025423.50 -24025423.37 -24025423.24 0.0089 0.0002

Mercury -70491-03-21 04:18 J -24025335.45 -24025335.32 -24025335.18 0.0089 0.0004

Earth -70491-05-01 18:13 J -24025293.95 -24025293.74 -24025293.50 0.0089 0.0040

Moon -70491-05-01 21:35 J -24025293.82 -24025293.60 -24025293.37 0.0089 0.0039 *

Mercury -70491-06-17 05:45 J -24025247.39 -24025247.26 -24025247.13 0.0089 0.0008

Mercury -70491-09-13 06:57 J -24025159.34 -24025159.21 -24025159.08 0.0089 0.0013
 Mercury -70491-12-10 08:23 J -24025071.28 -24025071.15 -24025071.02 0.0089 0.0018
 Mercury -70490-03-08 09:35 J -24024983.23 -24024983.10 -24024982.97 0.0089 0.0023
 Moon -70490-05-04 00:28 J -24024926.68 -24024926.48 -24024926.26 0.0089 0.0049
 Earth -70490-05-04 04:04 J -24024926.53 -24024926.33 -24024926.10 0.0089 0.0048 *
 Mercury -70490-06-04 10:47 J -24024895.17 -24024895.05 -24024894.92 0.0089 0.0028
 Mercury -70490-08-31 11:59 J -24024807.11 -24024807.00 -24024806.87 0.0089 0.0033
 Mercury -70490-11-27 13:25 J -24024719.05 -24024718.94 -24024718.82 0.0089 0.0038
 Mercury -70489-02-23 14:37 J -24024631.00 -24024630.89 -24024630.77 0.0089 0.0043
 Earth -70489-05-05 13:25 J -24024559.11 -24024558.94 -24024558.72 0.0089 0.0056
 Moon -70489-05-05 17:01 J -24024558.99 -24024558.79 -24024558.59 0.0089 0.0054 *
 Mercury -70489-05-21 15:49 J -24024542.94 -24024542.84 -24024542.72 0.0089 0.0048
 Mercury -70489-08-17 17:01 J -24024454.88 -24024454.79 -24024454.67 0.0089 0.0053
 Mercury -70489-11-13 18:42 J -24024366.82 -24024366.72 -24024366.62 0.0089 0.0057
 Mercury -70488-02-09 19:54 J -24024278.76 -24024278.67 -24024278.57 0.0089 0.0062
 Moon -70488-05-07 21:06 J -24024191.78 -24024191.62 -24024191.45 0.0089 0.0064
 Earth -70488-05-07 23:01 J -24024191.69 -24024191.54 -24024191.34 0.0089 0.0064 *
 Mercury -70488-05-08 21:06 J -24024190.70 -24024190.62 -24024190.53 0.0089 0.0067
 Mercury -70488-08-04 22:18 J -24024102.63 -24024102.57 -24024102.48 0.0089 0.0072
 Mercury -70488-10-31 23:45 J -24024014.57 -24024014.51 -24024014.44 0.0089 0.0077
 Mercury -70487-01-28 00:57 J -24023926.50 -24023926.46 -24023926.40 0.0089 0.0082
 Mercury -70487-04-26 02:09 J -24023838.42 -24023838.41 -24023838.37 0.0089 0.0087
 Earth -70487-05-10 08:52 J -24023824.26 -24023824.13 -24023823.96 0.0089 0.0071
 Moon -70487-05-10 10:33 J -24023824.20 -24023824.06 -24023823.89 0.0089 0.0070 *
 Earth -70486-05-12 17:59 J -24023456.83 -24023456.75 -24023456.60 0.0089 0.0079
 Moon -70486-05-12 18:42 J -24023456.81 -24023456.72 -24023456.61 0.0089 0.0080 *
 Moon -70485-05-14 02:37 J -24023089.44 -24023089.39 -24023089.29 0.0089 0.0085
 Earth -70485-05-14 03:49 J -24023089.38 -24023089.34 -24023089.26 0.0089 0.0086 *
 Mars -70478-04-16 17:59 J -24020561.00 -24020560.75 -24020560.48 0.0089 0.0037
 Mars -70476-03-10 05:16 J -24019867.55 -24019867.28 -24019867.00 0.0089 0.0028

Venus	-70437-01-02 01:54 J	-24005690.51	-24005690.42	-24005690.31	0.0089	0.0079
Venus	-70437-08-14 15:06 J	-24005465.02	-24005464.87	-24005464.69	0.0089	0.0059
Venus	-70436-03-28 04:33 J	-24005239.50	-24005239.31	-24005239.11	0.0089	0.0038
Venus	-70436-11-08 17:45 J	-24005013.97	-24005013.76	-24005013.53	0.0089	0.0018
Venus	-70435-06-22 07:25 J	-24004788.41	-24004788.19	-24004787.97	0.0089	0.0003
Venus	-70434-02-02 20:37 J	-24004562.85	-24004562.64	-24004562.42	0.0089	0.0023
Venus	-70434-09-16 09:49 J	-24004337.27	-24004337.09	-24004336.89	0.0089	0.0044
Venus	-70433-04-28 22:47 J	-24004111.67	-24004111.55	-24004111.37	0.0089	0.0065
Venus	-70433-12-10 12:28 J	-24003886.02	-24003885.98	-24003885.90	0.0089	0.0085
Moon	-70426-09-20 14:37 J	-24001410.91	-24001410.89	-24001410.80	0.0089	0.0087
Earth	-70425-09-22 02:37 J	-24001043.46	-24001043.39	-24001043.26	0.0089	0.0082
Moon	-70425-09-22 03:06 J	-24001043.42	-24001043.37	-24001043.28	0.0089	0.0085 *
Moon	-70424-09-24 13:25 J	-24000676.07	-24000675.94	-24000675.75	0.0089	0.0071
Earth	-70424-09-24 15:21 J	-24000675.99	-24000675.86	-24000675.70	0.0089	0.0074 *
Earth	-70423-09-27 04:04 J	-24000308.50	-24000308.33	-24000308.15	0.0089	0.0066
Moon	-70423-09-27 06:42 J	-24000308.37	-24000308.22	-24000308.05	0.0089	0.0069 *
Moon	-70422-09-29 13:11 J	-23999941.14	-23999940.95	-23999940.72	0.0089	0.0055
Earth	-70422-09-29 16:18 J	-23999940.99	-23999940.82	-23999940.61	0.0089	0.0059 *
Earth	-70421-10-01 04:47 J	-23999573.49	-23999573.30	-23999573.07	0.0089	0.0051
Moon	-70421-10-01 08:23 J	-23999573.33	-23999573.15	-23999572.92	0.0089	0.0055 *
Moon	-70420-10-03 14:23 J	-23999206.11	-23999205.90	-23999205.65	0.0089	0.0040
Earth	-70420-10-03 17:45 J	-23999205.97	-23999205.76	-23999205.52	0.0089	0.0043 *
Earth	-70419-10-06 06:13 J	-23998838.46	-23998838.24	-23998837.98	0.0089	0.0035
Moon	-70419-10-06 09:35 J	-23998838.32	-23998838.10	-23998837.85	0.0089	0.0039 *
Moon	-70418-10-08 17:16 J	-23998471.01	-23998470.78	-23998470.52	0.0089	0.0023
Earth	-70418-10-08 19:54 J	-23998470.92	-23998470.67	-23998470.42	0.0089	0.0026 *
Earth	-70417-10-10 08:52 J	-23998103.38	-23998103.13	-23998102.87	0.0089	0.0018
Moon	-70417-10-10 09:21 J	-23998103.36	-23998103.11	-23998102.83	0.0089	0.0022 *
Moon	-70416-10-12 21:49 J	-23997735.84	-23997735.59	-23997735.34	0.0089	0.0006
Earth	-70416-10-12 21:49 J	-23997735.84	-23997735.59	-23997735.32	0.0089	0.0010 *

Moon -70415-10-15 09:35 J -23997368.36 -23997368.10 -23997367.82 0.0089 0.0006
 Earth -70415-10-15 11:16 J -23997368.29 -23997368.03 -23997367.77 0.0089 0.0001 *
 Earth -70414-10-18 00:28 J -23997000.74 -23997000.48 -23997000.22 0.0089 0.0007
 Moon -70414-10-18 02:52 J -23997000.63 -23997000.38 -23997000.12 0.0089 0.0011 *
 Moon -70413-10-19 10:47 J -23996633.32 -23996633.05 -23996632.79 0.0089 0.0011
 Earth -70413-10-19 13:25 J -23996633.18 -23996632.94 -23996632.67 0.0089 0.0016 *
 Mercury -70412-02-01 05:16 J -23996528.28 -23996528.28 -23996528.25 0.0089 0.0088
 Mercury -70412-04-30 09:06 J -23996440.19 -23996440.12 -23996440.03 0.0089 0.0081
 Mercury -70412-07-27 12:42 J -23996352.06 -23996351.97 -23996351.85 0.0089 0.0074
 Earth -70412-10-22 02:37 J -23996265.63 -23996265.39 -23996265.12 0.0089 0.0024
 Moon -70412-10-22 06:13 J -23996265.47 -23996265.24 -23996264.97 0.0089 0.0029 *
 Mercury -70412-10-23 16:18 J -23996263.93 -23996263.82 -23996263.67 0.0089 0.0067
 Mercury -70411-01-19 20:23 J -23996175.79 -23996175.65 -23996175.50 0.0089 0.0059
 Mercury -70411-04-17 23:59 J -23996087.65 -23996087.50 -23996087.33 0.0089 0.0052
 Mercury -70411-07-15 03:35 J -23995999.50 -23995999.35 -23995999.16 0.0089 0.0045
 Mercury -70411-10-11 07:25 J -23995911.36 -23995911.19 -23995911.00 0.0089 0.0037
 Moon -70411-10-24 12:42 J -23995898.21 -23995897.97 -23995897.71 0.0089 0.0028
 Earth -70411-10-24 16:04 J -23995898.06 -23995897.83 -23995897.57 0.0089 0.0032 *
 Mercury -70410-01-07 11:16 J -23995823.21 -23995823.03 -23995822.84 0.0089 0.0030
 Mercury -70410-04-05 14:52 J -23995735.06 -23995734.88 -23995734.68 0.0089 0.0023
 Mercury -70410-07-02 18:42 J -23995646.91 -23995646.72 -23995646.52 0.0089 0.0015
 Mercury -70410-09-28 22:33 J -23995558.75 -23995558.56 -23995558.36 0.0089 0.0008
 Earth -70410-10-27 05:30 J -23995530.50 -23995530.27 -23995530.03 0.0089 0.0040
 Moon -70410-10-27 08:37 J -23995530.35 -23995530.14 -23995529.89 0.0089 0.0045 *
 Mercury -70410-12-26 02:23 J -23995470.60 -23995470.40 -23995470.21 0.0089 0.0001
 Mercury -70409-03-23 05:59 J -23995382.44 -23995382.25 -23995382.05 0.0089 0.0007
 Mercury -70409-06-19 09:35 J -23995294.29 -23995294.10 -23995293.90 0.0089 0.0014
 Mercury -70409-09-15 13:25 J -23995206.13 -23995205.94 -23995205.75 0.0089 0.0021
 Moon -70409-10-28 16:18 J -23995163.02 -23995162.82 -23995162.58 0.0089 0.0044
 Earth -70409-10-28 19:11 J -23995162.92 -23995162.70 -23995162.48 0.0089 0.0048 *

Mercury -70409-12-12 17:01 J -23995117.97 -23995117.79 -23995117.59 0.0089 0.0029

Mercury -70408-03-10 20:52 J -23995029.81 -23995029.63 -23995029.45 0.0089 0.0036

Mercury -70408-06-07 00:28 J -23994941.64 -23994941.48 -23994941.30 0.0089 0.0043

Mercury -70408-09-03 04:04 J -23994853.48 -23994853.33 -23994853.15 0.0089 0.0051

Earth -70408-10-31 08:23 J -23994795.35 -23994795.15 -23994794.94 0.0089 0.0056

Moon -70408-10-31 09:49 J -23994795.29 -23994795.09 -23994794.89 0.0089 0.0060 *

Mercury -70408-11-30 07:54 J -23994765.31 -23994765.17 -23994765.01 0.0089 0.0058

Mercury -70407-02-26 11:30 J -23994677.14 -23994677.02 -23994676.87 0.0089 0.0065

Mercury -70407-05-25 15:06 J -23994588.96 -23994588.87 -23994588.74 0.0089 0.0073

Mercury -70407-08-21 18:57 J -23994500.78 -23994500.71 -23994500.61 0.0088 0.0080

Moon -70407-11-02 21:06 J -23994427.79 -23994427.62 -23994427.42 0.0088 0.0060

Earth -70407-11-02 22:04 J -23994427.76 -23994427.58 -23994427.40 0.0088 0.0064 *

Mercury -70407-11-17 23:01 J -23994412.57 -23994412.54 -23994412.50 0.0088 0.0087

Moon -70406-11-05 10:04 J -23994060.19 -23994060.08 -23994059.91 0.0088 0.0077

Earth -70406-11-05 11:30 J -23994060.16 -23994060.02 -23994059.85 0.0088 0.0072 *

Earth -70405-11-07 01:11 J -23993692.55 -23993692.45 -23993692.33 0.0088 0.0080

Moon -70405-11-07 03:06 J -23993692.48 -23993692.37 -23993692.22 0.0088 0.0076 *

Earth -70404-11-09 14:37 J -23993324.90 -23993324.89 -23993324.82 0.0088 0.0088

Mars -70396-03-08 18:28 J -23990649.01 -23990648.73 -23990648.42 0.0088 0.0047

Mars -70394-02-03 04:18 J -23989952.62 -23989952.32 -23989951.98 0.0088 0.0032

Venus -70355-10-05 05:16 J -23975463.39 -23975463.28 -23975463.15 0.0088 0.0074

Venus -70354-05-18 17:30 J -23975237.92 -23975237.77 -23975237.57 0.0088 0.0055

Venus -70354-12-30 06:28 J -23975012.42 -23975012.23 -23975012.01 0.0088 0.0034

Venus -70353-08-11 19:11 J -23974786.91 -23974786.70 -23974786.47 0.0088 0.0014

Venus -70352-03-25 07:54 J -23974561.39 -23974561.17 -23974560.95 0.0088 0.0006

Venus -70352-11-05 20:09 J -23974335.86 -23974335.66 -23974335.44 0.0088 0.0026

Venus -70351-06-19 08:52 J -23974110.31 -23974110.13 -23974109.94 0.0088 0.0046

Venus -70350-01-30 21:21 J -23973884.75 -23973884.61 -23973884.46 0.0088 0.0066

Venus -70350-09-13 09:35 J -23973659.14 -23973659.10 -23973659.03 0.0088 0.0086

Moon -70343-03-26 22:33 J -23971272.62 -23971272.56 -23971272.45 0.0088 0.0084

Earth -70343-03-27 01:25 J -23971272.47 -23971272.44 -23971272.38 0.0088 0.0087 *
 Earth -70342-03-29 11:59 J -23970905.09 -23970905.00 -23970904.86 0.0088 0.0080
 Moon -70342-03-29 13:40 J -23970905.00 -23970904.93 -23970904.82 0.0088 0.0083 *
 Moon -70341-03-30 21:49 J -23970537.72 -23970537.59 -23970537.40 0.0089 0.0069
 Earth -70341-03-30 23:01 J -23970537.67 -23970537.54 -23970537.38 0.0089 0.0072 *
 Moon -70340-04-02 08:37 J -23970170.29 -23970170.14 -23970169.95 0.0089 0.0068
 Earth -70340-04-02 09:21 J -23970170.25 -23970170.11 -23970169.90 0.0089 0.0065 *
 Earth -70339-04-04 20:23 J -23969802.83 -23969802.65 -23969802.43 0.0089 0.0057
 Moon -70339-04-04 22:18 J -23969802.75 -23969802.57 -23969802.35 0.0089 0.0054 *
 Moon -70338-04-07 04:33 J -23969435.50 -23969435.31 -23969435.09 0.0089 0.0053
 Earth -70338-04-07 07:11 J -23969435.40 -23969435.20 -23969434.97 0.0089 0.0049 *
 Earth -70337-04-08 17:45 J -23969067.98 -23969067.76 -23969067.52 0.0089 0.0041
 Moon -70337-04-08 21:21 J -23969067.83 -23969067.61 -23969067.37 0.0089 0.0037 *
 Moon -70336-04-11 00:57 J -23968700.68 -23968700.46 -23968700.22 0.0089 0.0037
 Earth -70336-04-11 04:33 J -23968700.54 -23968700.31 -23968700.07 0.0089 0.0033 *
 Earth -70335-04-13 14:52 J -23968333.12 -23968332.88 -23968332.63 0.0089 0.0025
 Moon -70335-04-13 18:13 J -23968332.99 -23968332.74 -23968332.48 0.0089 0.0021 *
 Moon -70334-04-15 22:33 J -23967965.79 -23967965.56 -23967965.31 0.0089 0.0021
 Earth -70334-04-16 01:11 J -23967965.70 -23967965.45 -23967965.20 0.0089 0.0017 *
 Earth -70333-04-17 11:01 J -23967598.28 -23967598.04 -23967597.78 0.0089 0.0010
 Moon -70333-04-17 12:28 J -23967598.24 -23967597.98 -23967597.71 0.0089 0.0006 *
 Moon -70332-04-19 20:52 J -23967230.87 -23967230.63 -23967230.38 0.0089 0.0006
 Earth -70332-04-19 21:21 J -23967230.86 -23967230.61 -23967230.35 0.0089 0.0002 *
 Moon -70331-04-22 05:59 J -23966863.50 -23966863.25 -23966862.98 0.0089 0.0011
 Earth -70331-04-22 07:25 J -23966863.44 -23966863.19 -23966862.93 0.0089 0.0007 *
 Mercury -70331-08-14 03:35 J -23966749.37 -23966749.35 -23966749.31 0.0089 0.0087
 Mercury -70331-11-10 04:47 J -23966661.34 -23966661.30 -23966661.24 0.0089 0.0082
 Mercury -70330-02-06 06:13 J -23966573.30 -23966573.24 -23966573.17 0.0089 0.0077
 Earth -70330-04-24 17:30 J -23966496.02 -23966495.77 -23966495.52 0.0089 0.0015
 Moon -70330-04-24 19:54 J -23966495.92 -23966495.67 -23966495.43 0.0089 0.0011 *

Mercury -70330-05-05 07:25 J -23966485.25 -23966485.19 -23966485.10 0.0089 0.0072

Mercury -70330-08-01 08:52 J -23966397.21 -23966397.13 -23966397.04 0.0089 0.0067

Mercury -70330-10-28 10:04 J -23966309.16 -23966309.08 -23966308.98 0.0089 0.0062

Mercury -70329-01-24 11:30 J -23966221.12 -23966221.02 -23966220.92 0.0089 0.0057

Mercury -70329-04-21 12:57 J -23966133.07 -23966132.96 -23966132.86 0.0089 0.0052

Moon -70329-04-26 00:28 J -23966128.72 -23966128.48 -23966128.23 0.0089 0.0027

Earth -70329-04-26 03:21 J -23966128.60 -23966128.36 -23966128.11 0.0089 0.0023 *

Mercury -70329-07-18 14:09 J -23966045.02 -23966044.91 -23966044.80 0.0089 0.0047

Mercury -70329-10-14 15:35 J -23965956.97 -23965956.85 -23965956.74 0.0089 0.0042

Mercury -70328-01-10 16:47 J -23965868.92 -23965868.80 -23965868.68 0.0089 0.0037

Mercury -70328-04-08 17:59 J -23965780.87 -23965780.75 -23965780.62 0.0089 0.0032

Earth -70328-04-28 13:11 J -23965761.17 -23965760.95 -23965760.70 0.0089 0.0031

Moon -70328-04-28 17:01 J -23965761.02 -23965760.79 -23965760.54 0.0089 0.0026 *

Mercury -70328-07-05 19:11 J -23965692.82 -23965692.70 -23965692.57 0.0089 0.0028

Mercury -70328-10-01 20:37 J -23965604.76 -23965604.64 -23965604.51 0.0089 0.0022

Mercury -70328-12-28 22:04 J -23965516.71 -23965516.58 -23965516.45 0.0089 0.0017

Mercury -70327-03-26 23:16 J -23965428.66 -23965428.53 -23965428.40 0.0089 0.0013

Moon -70327-04-30 19:54 J -23965393.87 -23965393.67 -23965393.43 0.0089 0.0043

Earth -70327-04-30 23:30 J -23965393.74 -23965393.52 -23965393.29 0.0089 0.0038 *

Mercury -70327-06-23 00:42 J -23965340.60 -23965340.47 -23965340.34 0.0089 0.0008

Mercury -70327-09-19 01:54 J -23965252.55 -23965252.42 -23965252.29 0.0089 0.0003

Mercury -70327-12-16 03:21 J -23965164.50 -23965164.36 -23965164.23 0.0089 0.0003

Mercury -70326-03-14 04:33 J -23965076.44 -23965076.31 -23965076.18 0.0089 0.0007

Earth -70326-05-03 09:21 J -23965026.32 -23965026.11 -23965025.89 0.0089 0.0046

Moon -70326-05-03 12:13 J -23965026.20 -23965025.99 -23965025.74 0.0089 0.0042 *

Mercury -70326-06-10 05:45 J -23964988.39 -23964988.26 -23964988.13 0.0089 0.0013

Mercury -70326-09-06 06:57 J -23964900.33 -23964900.21 -23964900.07 0.0089 0.0018

Mercury -70326-12-03 08:23 J -23964812.27 -23964812.15 -23964812.02 0.0089 0.0022

Mercury -70325-02-29 09:49 J -23964724.22 -23964724.09 -23964723.97 0.0089 0.0027

Moon -70325-05-04 17:16 J -23964658.95 -23964658.78 -23964658.58 0.0089 0.0058

Earth -70325-05-04 18:57 J -23964658.89 -23964658.71 -23964658.49 0.0089 0.0054 *
 Mercury -70325-05-27 11:01 J -23964636.16 -23964636.04 -23964635.92 0.0089 0.0032
 Mercury -70325-08-23 12:13 J -23964548.10 -23964547.99 -23964547.87 0.0089 0.0037
 Mercury -70325-11-19 13:40 J -23964460.05 -23964459.93 -23964459.81 0.0089 0.0042
 Mercury -70324-02-15 14:52 J -23964371.99 -23964371.88 -23964371.76 0.0089 0.0047
 Earth -70324-05-07 05:16 J -23964291.46 -23964291.28 -23964291.10 0.0089 0.0061
 Moon -70324-05-07 05:59 J -23964291.45 -23964291.25 -23964291.05 0.0089 0.0057 *
 Mercury -70324-05-14 16:04 J -23964283.93 -23964283.83 -23964283.72 0.0089 0.0052
 Mercury -70324-08-10 17:30 J -23964195.87 -23964195.77 -23964195.67 0.0089 0.0057
 Mercury -70324-11-06 18:42 J -23964107.81 -23964107.72 -23964107.62 0.0089 0.0062
 Mercury -70323-02-02 19:54 J -23964019.75 -23964019.67 -23964019.57 0.0089 0.0067
 Mercury -70323-05-01 21:06 J -23963931.68 -23963931.62 -23963931.53 0.0089 0.0072
 Earth -70323-05-09 14:37 J -23963924.03 -23963923.89 -23963923.71 0.0089 0.0069
 Moon -70323-05-09 14:52 J -23963924.00 -23963923.88 -23963923.73 0.0089 0.0073 *
 Mercury -70323-07-28 22:33 J -23963843.62 -23963843.56 -23963843.49 0.0089 0.0077
 Mercury -70323-10-24 23:45 J -23963755.55 -23963755.51 -23963755.45 0.0089 0.0082
 Mercury -70322-01-21 00:57 J -23963667.47 -23963667.46 -23963667.42 0.0089 0.0087
 Moon -70322-05-11 22:18 J -23963556.70 -23963556.57 -23963556.40 0.0089 0.0072
 Earth -70322-05-12 00:28 J -23963556.60 -23963556.48 -23963556.34 0.0089 0.0076 *
 Earth -70321-05-13 10:04 J -23963189.16 -23963189.08 -23963188.99 0.0089 0.0083
 Moon -70321-05-13 12:57 J -23963189.00 -23963188.96 -23963188.92 0.0089 0.0087 *
 Moon -70320-05-15 16:04 J -23962821.87 -23962821.83 -23962821.74 0.0089 0.0086
 Mars -70315-11-30 02:09 J -23960797.59 -23960797.41 -23960797.22 0.0089 0.0067
 Mars -70313-10-23 13:40 J -23960104.21 -23960103.93 -23960103.64 0.0089 0.0004
 Mars -70311-09-17 01:25 J -23959410.64 -23959410.44 -23959410.23 0.0089 0.0061
 Venus -70273-11-15 22:18 J -23945470.68 -23945470.57 -23945470.42 0.0089 0.0070
 Venus -70272-06-29 12:13 J -23945245.18 -23945244.99 -23945244.81 0.0089 0.0049
 Venus -70271-02-10 01:11 J -23945019.65 -23945019.45 -23945019.23 0.0089 0.0029
 Venus -70271-09-23 14:37 J -23944794.11 -23944793.89 -23944793.67 0.0089 0.0008
 Venus -70270-05-07 04:04 J -23944568.55 -23944568.33 -23944568.11 0.0089 0.0012

Venus	-70270-12-18 17:01 J	-23944342.98	-23944342.79	-23944342.57	0.0089	0.0033
Venus	-70269-07-31 06:13 J	-23944117.39	-23944117.24	-23944117.04	0.0089	0.0054
Venus	-70268-03-13 19:40 J	-23943891.78	-23943891.68	-23943891.54	0.0089	0.0074
Earth	-70262-09-19 17:59 J	-23941510.76	-23941510.75	-23941510.68	0.0089	0.0088
Moon	-70262-09-19 19:25 J	-23941510.75	-23941510.69	-23941510.59	0.0089	0.0084 *
Moon	-70261-09-21 04:18 J	-23941143.38	-23941143.32	-23941143.21	0.0089	0.0084
Earth	-70261-09-21 06:42 J	-23941143.32	-23941143.22	-23941143.10	0.0089	0.0080 *
Earth	-70260-09-23 18:57 J	-23940775.84	-23940775.71	-23940775.54	0.0089	0.0073
Moon	-70260-09-23 21:35 J	-23940775.73	-23940775.60	-23940775.41	0.0089	0.0070 *
Moon	-70259-09-26 03:35 J	-23940408.49	-23940408.35	-23940408.16	0.0089	0.0070
Earth	-70259-09-26 07:40 J	-23940408.35	-23940408.18	-23940408.00	0.0089	0.0065 *
Earth	-70258-09-28 19:54 J	-23940040.85	-23940040.67	-23940040.46	0.0089	0.0058
Moon	-70258-09-28 23:16 J	-23940040.71	-23940040.53	-23940040.30	0.0089	0.0055 *
Moon	-70257-09-30 05:30 J	-23939673.47	-23939673.27	-23939673.06	0.0089	0.0053
Earth	-70257-09-30 08:37 J	-23939673.34	-23939673.14	-23939672.91	0.0089	0.0050 *
Earth	-70256-10-02 21:21 J	-23939305.83	-23939305.61	-23939305.38	0.0089	0.0042
Moon	-70256-10-02 23:30 J	-23939305.74	-23939305.52	-23939305.26	0.0089	0.0039 *
Moon	-70255-10-05 08:37 J	-23938938.36	-23938938.14	-23938937.90	0.0089	0.0037
Earth	-70255-10-05 09:49 J	-23938938.31	-23938938.09	-23938937.83	0.0089	0.0035 *
Earth	-70254-10-07 22:47 J	-23938570.79	-23938570.55	-23938570.29	0.0089	0.0027
Moon	-70254-10-07 23:30 J	-23938570.77	-23938570.52	-23938570.25	0.0089	0.0024 *
Earth	-70253-10-09 11:30 J	-23938203.26	-23938203.02	-23938202.75	0.0089	0.0019
Moon	-70253-10-09 12:42 J	-23938203.20	-23938202.97	-23938202.71	0.0089	0.0022 *
Moon	-70252-10-11 22:47 J	-23937835.81	-23937835.55	-23937835.27	0.0089	0.0008
Earth	-70252-10-12 00:42 J	-23937835.72	-23937835.47	-23937835.20	0.0089	0.0011 *
Earth	-70251-10-14 13:54 J	-23937468.18	-23937467.92	-23937467.65	0.0089	0.0002
Moon	-70251-10-14 16:47 J	-23937468.06	-23937467.80	-23937467.54	0.0089	0.0004 *
Moon	-70250-10-16 23:30 J	-23937100.78	-23937100.52	-23937100.25	0.0089	0.0009
Earth	-70250-10-17 03:06 J	-23937100.62	-23937100.37	-23937100.10	0.0089	0.0007 *
Earth	-70249-10-18 16:18 J	-23936733.07	-23936732.82	-23936732.55	0.0089	0.0015

Moon -70249-10-18 19:54 J -23936732.92 -23936732.67 -23936732.40 0.0089 0.0013 *
 Moon -70248-10-21 01:54 J -23936365.65 -23936365.42 -23936365.16 0.0089 0.0025
 Earth -70248-10-21 05:30 J -23936365.51 -23936365.27 -23936365.00 0.0089 0.0023 *
 Mercury -70247-01-25 05:30 J -23936269.32 -23936269.27 -23936269.17 0.0089 0.0082
 Mercury -70247-04-23 09:49 J -23936181.20 -23936181.09 -23936180.99 0.0089 0.0074
 Mercury -70247-07-20 13:11 J -23936093.06 -23936092.95 -23936092.81 0.0089 0.0067
 Mercury -70247-10-16 16:47 J -23936004.93 -23936004.80 -23936004.64 0.0089 0.0060
 Earth -70247-10-23 18:42 J -23935997.95 -23935997.72 -23935997.45 0.0089 0.0031
 Moon -70247-10-23 21:21 J -23935997.84 -23935997.61 -23935997.33 0.0089 0.0029 *
 Mercury -70246-01-12 20:37 J -23935916.78 -23935916.64 -23935916.47 0.0089 0.0053
 Mercury -70246-04-11 00:28 J -23935828.64 -23935828.48 -23935828.30 0.0089 0.0045
 Mercury -70246-07-08 04:18 J -23935740.49 -23935740.32 -23935740.14 0.0089 0.0038
 Mercury -70246-10-04 07:54 J -23935652.34 -23935652.17 -23935651.97 0.0089 0.0031
 Moon -70246-10-26 06:13 J -23935630.45 -23935630.24 -23935629.99 0.0089 0.0040
 Earth -70246-10-26 08:09 J -23935630.38 -23935630.16 -23935629.90 0.0089 0.0039 *
 Mercury -70246-12-31 11:45 J -23935564.19 -23935564.01 -23935563.81 0.0089 0.0023
 Mercury -70245-03-28 15:35 J -23935476.04 -23935475.85 -23935475.65 0.0089 0.0016
 Mercury -70245-06-24 19:11 J -23935387.89 -23935387.70 -23935387.50 0.0089 0.0009
 Mercury -70245-09-20 23:01 J -23935299.74 -23935299.54 -23935299.34 0.0089 0.0001
 Earth -70245-10-27 21:21 J -23935262.81 -23935262.61 -23935262.36 0.0089 0.0047
 Moon -70245-10-27 22:33 J -23935262.78 -23935262.56 -23935262.31 0.0089 0.0045 *
 Mercury -70245-12-18 02:52 J -23935211.58 -23935211.38 -23935211.19 0.0089 0.0007
 Mercury -70244-03-16 06:28 J -23935123.42 -23935123.23 -23935123.03 0.0089 0.0014
 Mercury -70244-06-12 10:04 J -23935035.26 -23935035.08 -23935034.88 0.0089 0.0021
 Mercury -70244-09-08 13:54 J -23934947.10 -23934946.92 -23934946.73 0.0089 0.0028
 Earth -70244-10-30 11:01 J -23934895.24 -23934895.04 -23934894.82 0.0089 0.0054
 Moon -70244-10-30 11:45 J -23934895.19 -23934895.01 -23934894.80 0.0089 0.0056 *
 Mercury -70244-12-05 17:30 J -23934858.94 -23934858.77 -23934858.58 0.0089 0.0036
 Mercury -70243-03-03 21:06 J -23934770.78 -23934770.62 -23934770.43 0.0089 0.0043
 Mercury -70243-05-31 00:57 J -23934682.61 -23934682.46 -23934682.29 0.0089 0.0051

Mercury -70243-08-27 04:33 J -23934594.44 -23934594.31 -23934594.15 0.0088 0.0058

Moon -70243-11-01 22:47 J -23934527.73 -23934527.55 -23934527.33 0.0088 0.0061

Earth -70243-11-02 00:28 J -23934527.65 -23934527.48 -23934527.28 0.0088 0.0062 *

Mercury -70243-11-23 08:37 J -23934506.27 -23934506.14 -23934506.01 0.0088 0.0065

Mercury -70242-02-19 11:59 J -23934418.10 -23934418.00 -23934417.87 0.0088 0.0072

Mercury -70242-05-18 15:35 J -23934329.91 -23934329.85 -23934329.75 0.0088 0.0080

Mercury -70242-08-14 19:25 J -23934241.71 -23934241.69 -23934241.64 0.0088 0.0087

Earth -70242-11-04 13:40 J -23934160.07 -23934159.93 -23934159.75 0.0088 0.0070

Moon -70242-11-04 16:04 J -23934159.96 -23934159.83 -23934159.65 0.0088 0.0071 *

Moon -70241-11-05 23:45 J -23933792.62 -23933792.51 -23933792.35 0.0088 0.0076

Earth -70241-11-06 03:06 J -23933792.47 -23933792.37 -23933792.21 0.0088 0.0078 *

Earth -70240-11-08 16:47 J -23933424.85 -23933424.80 -23933424.70 0.0088 0.0085

Moon -70240-11-08 20:23 J -23933424.71 -23933424.65 -23933424.56 0.0088 0.0085 *

Mars -70233-10-19 13:40 J -23930888.00 -23930887.93 -23930887.79 0.0088 0.0085

Mars -70231-09-16 01:40 J -23930191.77 -23930191.43 -23930191.08 0.0088 0.0007

Mars -70229-08-12 10:18 J -23929495.25 -23929495.07 -23929494.84 0.0088 0.0071

Venus -70190-01-06 12:28 J -23915469.02 -23915468.98 -23915468.92 0.0088 0.0086

Venus -70190-08-20 01:11 J -23915243.59 -23915243.45 -23915243.30 0.0088 0.0066

Venus -70189-04-01 13:54 J -23915018.11 -23915017.92 -23915017.73 0.0088 0.0046

Venus -70189-11-13 02:23 J -23914792.60 -23914792.40 -23914792.19 0.0088 0.0026

Venus -70188-06-26 15:06 J -23914567.09 -23914566.87 -23914566.65 0.0088 0.0006

Venus -70187-02-07 03:35 J -23914341.56 -23914341.35 -23914341.13 0.0088 0.0014

Venus -70187-09-20 15:49 J -23914116.03 -23914115.84 -23914115.62 0.0088 0.0035

Venus -70186-05-04 04:18 J -23913890.48 -23913890.32 -23913890.13 0.0088 0.0054

Venus -70186-12-15 16:47 J -23913664.89 -23913664.80 -23913664.66 0.0088 0.0074

Earth -70179-03-26 04:47 J -23911372.34 -23911372.30 -23911372.21 0.0088 0.0086

Moon -70179-03-26 05:59 J -23911372.31 -23911372.25 -23911372.12 0.0088 0.0083 *

Earth -70178-03-28 15:35 J -23911004.94 -23911004.85 -23911004.70 0.0088 0.0079

Moon -70178-03-28 16:18 J -23911004.90 -23911004.82 -23911004.71 0.0088 0.0082 *

Moon -70177-03-30 01:54 J -23910637.59 -23910637.42 -23910637.25 0.0089 0.0068

Earth -70177-03-30 02:52 J -23910637.52 -23910637.38 -23910637.22 0.0089 0.0071 *
 Earth -70176-04-01 13:25 J -23910270.09 -23910269.94 -23910269.74 0.0089 0.0064
 Moon -70176-04-01 15:49 J -23910269.98 -23910269.84 -23910269.66 0.0089 0.0067 *
 Moon -70175-04-03 20:52 J -23909902.81 -23909902.63 -23909902.40 0.0089 0.0053
 Earth -70175-04-04 00:42 J -23909902.66 -23909902.47 -23909902.27 0.0089 0.0056 *
 Earth -70174-04-06 10:47 J -23909535.24 -23909535.05 -23909534.81 0.0089 0.0049
 Moon -70174-04-06 14:23 J -23909535.09 -23909534.90 -23909534.68 0.0089 0.0051 *
 Moon -70173-04-07 18:13 J -23909167.96 -23909167.74 -23909167.50 0.0089 0.0038
 Earth -70173-04-07 21:49 J -23909167.80 -23909167.59 -23909167.35 0.0089 0.0041 *
 Earth -70172-04-10 08:37 J -23908800.37 -23908800.14 -23908799.90 0.0089 0.0033
 Moon -70172-04-10 11:16 J -23908800.26 -23908800.03 -23908799.78 0.0089 0.0036 *
 Moon -70171-04-12 16:47 J -23908433.02 -23908432.80 -23908432.54 0.0089 0.0024
 Earth -70171-04-12 18:57 J -23908432.94 -23908432.71 -23908432.45 0.0089 0.0026 *
 Earth -70170-04-15 05:30 J -23908065.51 -23908065.27 -23908065.01 0.0089 0.0018
 Moon -70170-04-15 06:42 J -23908065.48 -23908065.22 -23908064.96 0.0089 0.0020 *
 Earth -70169-04-16 15:49 J -23907698.09 -23907697.84 -23907697.58 0.0089 0.0010
 Moon -70169-04-16 16:33 J -23907698.05 -23907697.81 -23907697.56 0.0089 0.0007 *
 Moon -70168-04-19 00:42 J -23907330.73 -23907330.47 -23907330.21 0.0089 0.0004
 Earth -70168-04-19 02:09 J -23907330.66 -23907330.41 -23907330.15 0.0089 0.0002 *
 Earth -70167-04-21 12:13 J -23906963.24 -23906962.99 -23906962.73 0.0089 0.0006
 Moon -70167-04-21 14:52 J -23906963.12 -23906962.88 -23906962.63 0.0089 0.0008 *
 Moon -70166-04-23 18:42 J -23906595.97 -23906595.72 -23906595.46 0.0089 0.0010
 Earth -70166-04-23 22:04 J -23906595.82 -23906595.58 -23906595.32 0.0089 0.0014 *
 Mercury -70166-05-11 02:37 J -23906578.41 -23906578.39 -23906578.37 0.0089 0.0087
 Mercury -70166-08-07 03:49 J -23906490.38 -23906490.34 -23906490.29 0.0089 0.0082
 Mercury -70166-11-03 04:47 J -23906402.35 -23906402.30 -23906402.22 0.0089 0.0078
 Mercury -70165-01-30 06:13 J -23906314.30 -23906314.24 -23906314.15 0.0089 0.0073
 Earth -70165-04-25 08:09 J -23906228.40 -23906228.16 -23906227.91 0.0089 0.0021
 Moon -70165-04-25 11:30 J -23906228.26 -23906228.02 -23906227.77 0.0089 0.0023 *
 Mercury -70165-04-27 07:25 J -23906226.26 -23906226.19 -23906226.09 0.0089 0.0068

Mercury -70165-07-24 08:52 J -23906138.21 -23906138.13 -23906138.03 0.0089 0.0063
 Mercury -70165-10-20 10:18 J -23906050.17 -23906050.07 -23906049.97 0.0089 0.0058
 Mercury -70164-01-16 11:30 J -23905962.12 -23905962.02 -23905961.91 0.0089 0.0053
 Mercury -70164-04-14 12:57 J -23905874.07 -23905873.96 -23905873.85 0.0089 0.0048
 Moon -70164-04-27 14:37 J -23905861.12 -23905860.89 -23905860.64 0.0089 0.0027
 Earth -70164-04-27 18:13 J -23905860.98 -23905860.74 -23905860.50 0.0089 0.0029 *
 Mercury -70164-07-11 14:09 J -23905786.02 -23905785.91 -23905785.79 0.0089 0.0043
 Mercury -70164-10-07 15:35 J -23905697.97 -23905697.85 -23905697.73 0.0089 0.0038
 Mercury -70163-01-03 16:47 J -23905609.92 -23905609.80 -23905609.67 0.0089 0.0033
 Mercury -70163-04-01 18:13 J -23905521.87 -23905521.74 -23905521.62 0.0089 0.0028
 Earth -70163-04-30 03:49 J -23905493.56 -23905493.34 -23905493.10 0.0089 0.0037
 Moon -70163-04-30 06:13 J -23905493.46 -23905493.24 -23905492.99 0.0089 0.0039 *
 Mercury -70163-06-28 19:25 J -23905433.82 -23905433.69 -23905433.56 0.0089 0.0023
 Mercury -70163-09-24 20:37 J -23905345.76 -23905345.64 -23905345.51 0.0089 0.0018
 Mercury -70163-12-21 22:04 J -23905257.71 -23905257.58 -23905257.45 0.0089 0.0013
 Mercury -70162-03-19 23:16 J -23905169.66 -23905169.53 -23905169.39 0.0089 0.0009
 Moon -70162-05-02 11:59 J -23905126.20 -23905126.00 -23905125.77 0.0089 0.0043
 Earth -70162-05-02 13:54 J -23905126.13 -23905125.92 -23905125.69 0.0089 0.0044 *
 Mercury -70162-06-16 00:42 J -23905081.60 -23905081.47 -23905081.34 0.0089 0.0003
 Mercury -70162-09-12 01:54 J -23904993.55 -23904993.42 -23904993.29 0.0089 0.0002
 Mercury -70162-12-09 03:21 J -23904905.49 -23904905.36 -23904905.23 0.0089 0.0007
 Mercury -70161-03-06 04:33 J -23904817.44 -23904817.31 -23904817.18 0.0089 0.0012
 Earth -70161-05-03 23:30 J -23904758.71 -23904758.52 -23904758.30 0.0089 0.0052
 Moon -70161-05-03 23:59 J -23904758.69 -23904758.50 -23904758.27 0.0089 0.0054 *
 Mercury -70161-06-02 05:45 J -23904729.38 -23904729.26 -23904729.13 0.0089 0.0017
 Mercury -70161-08-29 07:11 J -23904641.33 -23904641.20 -23904641.07 0.0089 0.0021
 Mercury -70161-11-25 08:23 J -23904553.27 -23904553.15 -23904553.02 0.0089 0.0027
 Mercury -70160-02-21 09:35 J -23904465.22 -23904465.10 -23904464.97 0.0089 0.0032
 Earth -70160-05-06 09:49 J -23904391.27 -23904391.09 -23904390.90 0.0089 0.0059
 Moon -70160-05-06 10:47 J -23904391.22 -23904391.05 -23904390.85 0.0089 0.0057 *

Mercury -70160-05-20 10:47 J -23904377.16 -23904377.05 -23904376.92 0.0089 0.0037

Mercury -70160-08-16 12:13 J -23904289.10 -23904288.99 -23904288.87 0.0089 0.0041

Mercury -70160-11-12 13:40 J -23904201.04 -23904200.93 -23904200.82 0.0089 0.0046

Mercury -70159-02-08 14:52 J -23904112.98 -23904112.88 -23904112.77 0.0089 0.0051

Mercury -70159-05-07 16:18 J -23904024.92 -23904024.82 -23904024.72 0.0089 0.0056

Moon -70159-05-08 17:59 J -23904023.92 -23904023.75 -23904023.59 0.0089 0.0068

Earth -70159-05-08 19:11 J -23904023.84 -23904023.70 -23904023.50 0.0089 0.0067 *

Mercury -70159-08-03 17:30 J -23903936.86 -23903936.77 -23903936.67 0.0089 0.0061

Mercury -70159-10-30 18:42 J -23903848.80 -23903848.72 -23903848.63 0.0089 0.0066

Mercury -70158-01-26 20:09 J -23903760.74 -23903760.66 -23903760.58 0.0089 0.0071

Mercury -70158-04-24 21:21 J -23903672.67 -23903672.61 -23903672.54 0.0089 0.0076

Earth -70158-05-11 05:01 J -23903656.41 -23903656.29 -23903656.13 0.0089 0.0074

Moon -70158-05-11 08:09 J -23903656.29 -23903656.16 -23903656.00 0.0089 0.0072 *

Mercury -70158-07-21 22:33 J -23903584.60 -23903584.56 -23903584.50 0.0089 0.0081

Mercury -70158-10-17 23:45 J -23903496.53 -23903496.51 -23903496.46 0.0089 0.0086

Moon -70157-05-12 11:16 J -23903289.09 -23903289.03 -23903288.92 0.0089 0.0084

Earth -70157-05-12 14:52 J -23903288.96 -23903288.88 -23903288.76 0.0089 0.0081 *

Earth -70156-05-15 00:28 J -23902921.49 -23902921.48 -23902921.42 0.0089 0.0088

Moon -70156-05-15 03:35 J -23902921.37 -23902921.35 -23902921.26 0.0089 0.0087

Mars -70149-06-07 19:54 J -23900340.91 -23900340.67 -23900340.39 0.0089 0.0035

Mars -70147-05-02 08:37 J -23899647.41 -23899647.14 -23899646.87 0.0089 0.0029

Venus -70108-02-17 05:45 J -23885476.33 -23885476.26 -23885476.16 0.0089 0.0081

Venus -70108-09-30 18:57 J -23885250.85 -23885250.71 -23885250.53 0.0089 0.0061

Venus -70107-05-14 08:23 J -23885025.34 -23885025.15 -23885024.94 0.0089 0.0040

Venus -70107-12-25 21:49 J -23884799.80 -23884799.59 -23884799.37 0.0089 0.0020

Venus -70106-08-08 11:16 J -23884574.25 -23884574.03 -23884573.81 0.0089 0.0001

Venus -70105-03-21 00:28 J -23884348.69 -23884348.48 -23884348.26 0.0089 0.0022

Venus -70105-11-01 13:54 J -23884123.11 -23884122.92 -23884122.72 0.0089 0.0042

Venus -70104-06-15 03:06 J -23883897.51 -23883897.37 -23883897.20 0.0089 0.0063

Venus -70103-01-26 16:18 J -23883671.87 -23883671.82 -23883671.72 0.0089 0.0084

Moon	-70098-09-18 19:11 J	-23881610.71	-23881610.70	-23881610.63	0.0089	0.0088
Earth	-70098-09-18 22:18 J	-23881610.61	-23881610.57	-23881610.49	0.0089	0.0086
Earth	-70097-09-20 10:33 J	-23881243.16	-23881243.06	-23881242.93	0.0089	0.0079
Moon	-70097-09-20 13:40 J	-23881243.02	-23881242.93	-23881242.78	0.0089	0.0078 *
Moon	-70096-09-22 19:25 J	-23880875.82	-23880875.69	-23880875.53	0.0089	0.0074
Earth	-70096-09-22 22:47 J	-23880875.68	-23880875.55	-23880875.38	0.0089	0.0072 *
Earth	-70095-09-25 11:45 J	-23880508.19	-23880508.01	-23880507.83	0.0089	0.0064
Moon	-70095-09-25 14:52 J	-23880508.05	-23880507.88	-23880507.67	0.0089	0.0062 *
Moon	-70094-09-27 21:21 J	-23880140.78	-23880140.61	-23880140.41	0.0089	0.0059
Earth	-70094-09-27 23:45 J	-23880140.69	-23880140.51	-23880140.29	0.0089	0.0057 *
Earth	-70093-09-29 12:42 J	-23879773.19	-23879772.97	-23879772.76	0.0089	0.0049
Moon	-70093-09-29 14:37 J	-23879773.10	-23879772.89	-23879772.65	0.0089	0.0046 *
Moon	-70092-10-01 23:59 J	-23879405.70	-23879405.50	-23879405.26	0.0089	0.0045
Earth	-70092-10-02 00:42 J	-23879405.68	-23879405.47	-23879405.22	0.0089	0.0042 *
Moon	-70091-10-04 12:57 J	-23879038.20	-23879037.96	-23879037.70	0.0089	0.0032
Earth	-70091-10-04 13:40 J	-23879038.16	-23879037.93	-23879037.68	0.0089	0.0034 *
Earth	-70090-10-07 02:23 J	-23878670.65	-23878670.40	-23878670.15	0.0089	0.0026
Moon	-70090-10-07 03:21 J	-23878670.58	-23878670.36	-23878670.11	0.0089	0.0030 *
Moon	-70089-10-08 12:13 J	-23878303.25	-23878302.99	-23878302.72	0.0089	0.0015
Earth	-70089-10-08 14:52 J	-23878303.12	-23878302.88	-23878302.61	0.0089	0.0019 *
Earth	-70088-10-11 03:49 J	-23877935.60	-23877935.34	-23877935.08	0.0089	0.0010
Moon	-70088-10-11 06:57 J	-23877935.46	-23877935.21	-23877934.95	0.0089	0.0014 *
Moon	-70087-10-13 13:25 J	-23877568.21	-23877567.94	-23877567.68	0.0089	0.0001
Earth	-70087-10-13 17:01 J	-23877568.05	-23877567.79	-23877567.53	0.0089	0.0003 *
Earth	-70086-10-16 05:45 J	-23877200.51	-23877200.26	-23877199.99	0.0089	0.0006
Moon	-70086-10-16 09:35 J	-23877200.36	-23877200.10	-23877199.84	0.0089	0.0002 *
Moon	-70085-10-17 16:04 J	-23876833.07	-23876832.83	-23876832.57	0.0089	0.0017
Earth	-70085-10-17 18:57 J	-23876832.96	-23876832.71	-23876832.45	0.0089	0.0013 *
Earth	-70084-10-20 07:54 J	-23876465.41	-23876465.17	-23876464.90	0.0089	0.0022
Moon	-70084-10-20 10:33 J	-23876465.31	-23876465.06	-23876464.78	0.0089	0.0018 *

Mercury -70083-10-22 02:09 J -23876098.46 -23876098.41 -23876098.32 0.0089 0.0083
 Moon -70083-10-22 20:37 J -23876097.87 -23876097.64 -23876097.40 0.0089 0.0033
 Earth -70083-10-22 21:35 J -23876097.84 -23876097.60 -23876097.35 0.0089 0.0029 *
 Mercury -70082-01-18 06:13 J -23876010.34 -23876010.24 -23876010.13 0.0089 0.0075
 Mercury -70082-04-16 09:49 J -23875922.20 -23875922.09 -23875921.95 0.0089 0.0068
 Mercury -70082-07-13 13:25 J -23875834.07 -23875833.94 -23875833.78 0.0089 0.0061
 Mercury -70082-10-09 17:30 J -23875745.93 -23875745.77 -23875745.61 0.0089 0.0053
 Moon -70082-10-25 10:18 J -23875730.30 -23875730.07 -23875729.80 0.0089 0.0034
 Earth -70082-10-25 10:47 J -23875730.28 -23875730.05 -23875729.80 0.0089 0.0037 *
 Mercury -70081-01-05 21:06 J -23875657.78 -23875657.62 -23875657.44 0.0089 0.0046
 Mercury -70081-04-03 00:42 J -23875569.63 -23875569.47 -23875569.28 0.0089 0.0039
 Mercury -70081-06-30 04:47 J -23875481.49 -23875481.30 -23875481.12 0.0088 0.0031
 Mercury -70081-09-26 08:23 J -23875393.34 -23875393.15 -23875392.96 0.0088 0.0024
 Earth -70081-10-26 23:59 J -23875362.71 -23875362.50 -23875362.26 0.0088 0.0045
 Moon -70081-10-27 00:57 J -23875362.66 -23875362.46 -23875362.24 0.0088 0.0049 *
 Mercury -70081-12-23 11:59 J -23875305.18 -23875305.00 -23875304.80 0.0088 0.0017
 Mercury -70080-03-21 15:49 J -23875217.03 -23875216.84 -23875216.64 0.0088 0.0009
 Mercury -70080-06-17 19:40 J -23875128.88 -23875128.68 -23875128.48 0.0088 0.0001
 Mercury -70080-09-13 23:16 J -23875040.72 -23875040.53 -23875040.33 0.0088 0.0006
 Moon -70080-10-29 10:33 J -23874995.26 -23874995.06 -23874994.81 0.0088 0.0049
 Earth -70080-10-29 13:11 J -23874995.14 -23874994.95 -23874994.71 0.0088 0.0053 *
 Mercury -70080-12-11 03:06 J -23874952.56 -23874952.37 -23874952.17 0.0088 0.0013
 Mercury -70079-03-09 06:42 J -23874864.40 -23874864.22 -23874864.02 0.0088 0.0021
 Mercury -70079-06-05 10:33 J -23874776.24 -23874776.06 -23874775.87 0.0088 0.0028
 Mercury -70079-09-01 14:09 J -23874688.08 -23874687.91 -23874687.72 0.0088 0.0035
 Earth -70079-11-01 02:52 J -23874627.56 -23874627.38 -23874627.18 0.0088 0.0060
 Moon -70079-11-01 05:59 J -23874627.42 -23874627.25 -23874627.07 0.0088 0.0064 *
 Mercury -70079-11-28 17:59 J -23874599.92 -23874599.75 -23874599.57 0.0088 0.0043
 Mercury -70078-02-24 21:49 J -23874511.75 -23874511.59 -23874511.43 0.0088 0.0050
 Mercury -70078-05-24 01:11 J -23874423.58 -23874423.45 -23874423.29 0.0088 0.0058

Mercury -70078-08-20 05:01 J -23874335.41 -23874335.29 -23874335.15 0.0088 0.0065

Moon -70078-11-03 12:42 J -23874260.14 -23874259.97 -23874259.76 0.0088 0.0063

Earth -70078-11-03 16:04 J -23874259.97 -23874259.83 -23874259.63 0.0088 0.0068 *

Mercury -70078-11-16 08:52 J -23874247.24 -23874247.13 -23874247.01 0.0088 0.0072

Mercury -70077-02-12 12:13 J -23874159.05 -23874158.99 -23874158.88 0.0088 0.0080

Mercury -70077-05-10 16:04 J -23874070.85 -23874070.83 -23874070.78 0.0088 0.0087

Earth -70077-11-05 05:30 J -23873892.39 -23873892.27 -23873892.11 0.0088 0.0075

Moon -70077-11-05 09:06 J -23873892.21 -23873892.12 -23873891.98 0.0088 0.0080 *

Moon -70076-11-07 16:18 J -23873524.93 -23873524.82 -23873524.69 0.0088 0.0078

Earth -70076-11-07 18:57 J -23873524.78 -23873524.71 -23873524.58 0.0088 0.0083 *

Mars -70067-04-28 22:33 J -23870430.86 -23870430.56 -23870430.26 0.0088 0.0044

Mars -70065-03-25 08:52 J -23869734.43 -23869734.13 -23869733.79 0.0088 0.0034

Venus -70026-11-21 08:09 J -23855249.24 -23855249.16 -23855249.03 0.0088 0.0078

Venus -70025-07-03 20:52 J -23855023.78 -23855023.63 -23855023.44 0.0088 0.0058

Venus -70024-02-14 09:35 J -23854798.29 -23854798.10 -23854797.89 0.0088 0.0038

Venus -70024-09-27 22:18 J -23854572.78 -23854572.57 -23854572.35 0.0088 0.0017

Venus -70023-05-11 11:01 J -23854347.26 -23854347.04 -23854346.82 0.0088 0.0003

Venus -70023-12-22 23:30 J -23854121.72 -23854121.52 -23854121.30 0.0088 0.0023

Venus -70022-08-05 11:59 J -23853896.18 -23853896.00 -23853895.80 0.0088 0.0043

Venus -70021-03-18 00:13 J -23853670.63 -23853670.49 -23853670.32 0.0088 0.0063

Venus -70021-10-29 12:28 J -23853445.03 -23853444.98 -23853444.88 0.0088 0.0083

Moon -70016-03-22 21:49 J -23851839.59 -23851839.59 -23851839.56 0.0088 0.0088

Earth -70015-03-25 08:37 J -23851472.21 -23851472.14 -23851472.06 0.0088 0.0084

Moon -70015-03-25 08:23 J -23851472.16 -23851472.15 -23851472.08 0.0088 0.0088 *

Moon -70014-03-27 16:47 J -23851104.92 -23851104.80 -23851104.63 0.0088 0.0075

Earth -70014-03-27 19:40 J -23851104.81 -23851104.68 -23851104.56 0.0088 0.0077 *

Earth -70013-03-29 06:13 J -23850737.38 -23850737.24 -23850737.07 0.0089 0.0070

Moon -70013-03-29 08:52 J -23850737.25 -23850737.13 -23850736.97 0.0089 0.0073 *

Moon -70012-03-31 13:25 J -23850370.10 -23850369.94 -23850369.72 0.0089 0.0060

Earth -70012-03-31 17:01 J -23850369.95 -23850369.79 -23850369.59 0.0089 0.0063 *

Earth -70011-04-03 03:35 J -23850002.53 -23850002.35 -23850002.13 0.0089 0.0056
 Moon -70011-04-03 07:11 J -23850002.37 -23850002.20 -23850001.99 0.0089 0.0059 *
 Moon -70010-04-05 11:45 J -23849635.22 -23849635.01 -23849634.79 0.0089 0.0045
 Earth -70010-04-05 14:52 J -23849635.09 -23849634.88 -23849634.67 0.0089 0.0048 *
 Earth -70009-04-07 00:57 J -23849267.66 -23849267.46 -23849267.21 0.0089 0.0041
 Moon -70009-04-07 04:18 J -23849267.55 -23849267.32 -23849267.09 0.0089 0.0044 *
 Moon -70008-04-09 10:47 J -23848900.28 -23848900.05 -23848899.81 0.0089 0.0030
 Earth -70008-04-09 11:59 J -23848900.23 -23848900.00 -23848899.75 0.0089 0.0033 *
 Earth -70007-04-11 22:18 J -23848532.80 -23848532.57 -23848532.31 0.0089 0.0026
 Moon -70007-04-11 22:33 J -23848532.80 -23848532.56 -23848532.29 0.0089 0.0029 *
 Earth -70006-04-14 09:06 J -23848165.36 -23848165.12 -23848164.86 0.0089 0.0018
 Moon -70006-04-14 09:49 J -23848165.33 -23848165.09 -23848164.84 0.0089 0.0014 *
 Moon -70005-04-15 17:16 J -23847798.03 -23847797.78 -23847797.52 0.0089 0.0013
 Earth -70005-04-15 19:54 J -23847797.92 -23847797.67 -23847797.42 0.0089 0.0010 *
 Earth -70004-04-18 06:13 J -23847430.49 -23847430.24 -23847429.98 0.0089 0.0003
 Moon -70004-04-18 09:06 J -23847430.36 -23847430.12 -23847429.86 0.0089 0.0002 *
 Moon -70003-04-20 12:57 J -23847063.21 -23847062.96 -23847062.70 0.0089 0.0002
 Earth -70003-04-20 16:33 J -23847063.06 -23847062.81 -23847062.56 0.0089 0.0005 *
 Earth -70002-04-23 02:37 J -23846695.64 -23846695.39 -23846695.14 0.0089 0.0013
 Moon -70002-04-23 05:59 J -23846695.49 -23846695.25 -23846694.99 0.0089 0.0017 *
 Mercury -70001-02-05 01:11 J -23846407.46 -23846407.45 -23846407.43 0.0089 0.0088
 Moon -70001-04-24 09:49 J -23846328.33 -23846328.09 -23846327.84 0.0089 0.0017
 Earth -70001-04-24 12:57 J -23846328.21 -23846327.96 -23846327.71 0.0089 0.0020 *
 Mercury -70001-05-03 02:37 J -23846319.43 -23846319.39 -23846319.35 0.0089 0.0083
 Mercury -70001-07-30 03:49 J -23846231.40 -23846231.34 -23846231.28 0.0089 0.0078
 Mercury -70001-10-26 05:16 J -23846143.35 -23846143.28 -23846143.21 0.0089 0.0073

70TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 70th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Mercury	-70000-01-22 06:28 J	-23846055.31	-23846055.23	-23846055.14	0.0089	0.0068		
Mercury	-70000-04-20 07:40 J	-23845967.26	-23845967.18	-23845967.08	0.0089	0.0063		
Earth	-70000-04-26 22:33 J	-23845960.79	-23845960.56	-23845960.31	0.0089	0.0028		
Moon	-70000-04-27 00:57 J	-23845960.68	-23845960.46	-23845960.20	0.0089	0.0032	*	
Mercury	-70000-07-17 08:52 J	-23845879.22	-23845879.13	-23845879.02	0.0089	0.0059		
Mercury	-70000-10-13 10:18 J	-23845791.17	-23845791.07	-23845790.96	0.0089	0.0053		
Mercury	-69999-01-09 11:30 J	-23845703.12	-23845703.02	-23845702.90	0.0089	0.0049		
Mercury	-69999-04-07 12:57 J	-23845615.07	-23845614.96	-23845614.84	0.0089	0.0044		
Moon	-69999-04-29 07:54 J	-23845593.39	-23845593.17	-23845592.93	0.0089	0.0032		
Earth	-69999-04-29 08:52 J	-23845593.36	-23845593.13	-23845592.90	0.0089	0.0035	*	
Mercury	-69999-07-04 14:09 J	-23845527.02	-23845526.91	-23845526.78	0.0089	0.0039		
Mercury	-69999-09-30 15:35 J	-23845438.97	-23845438.85	-23845438.73	0.0089	0.0034		
Mercury	-69999-12-27 16:47 J	-23845350.92	-23845350.80	-23845350.67	0.0089	0.0029		
Mercury	-69998-03-25 18:13 J	-23845262.87	-23845262.74	-23845262.61	0.0089	0.0024		
Moon	-69998-05-01 17:59 J	-23845225.95	-23845225.75	-23845225.50	0.0089	0.0046		
Earth	-69998-05-01 18:28 J	-23845225.94	-23845225.73	-23845225.49	0.0089	0.0043	*	
Mercury	-69998-06-21 19:25 J	-23845174.81	-23845174.69	-23845174.56	0.0089	0.0019		
Mercury	-69998-09-17 20:52 J	-23845086.76	-23845086.63	-23845086.50	0.0089	0.0014		
Mercury	-69998-12-14 22:04 J	-23844998.71	-23844998.58	-23844998.45	0.0089	0.0009		
Mercury	-69997-03-11 23:30 J	-23844910.65	-23844910.52	-23844910.39	0.0089	0.0004		
Earth	-69997-05-03 04:33 J	-23844858.51	-23844858.31	-23844858.09	0.0089	0.0050		

Moon -69997-05-03 05:59 J -23844858.46 -23844858.25 -23844858.04 0.0089 0.0046 *
 Mercury -69997-06-08 00:42 J -23844822.60 -23844822.47 -23844822.34 0.0089 0.0001
 Mercury -69997-09-04 01:54 J -23844734.55 -23844734.42 -23844734.28 0.0089 0.0007
 Mercury -69997-12-01 03:21 J -23844646.49 -23844646.36 -23844646.23 0.0089 0.0011
 Mercury -69996-02-27 04:33 J -23844558.44 -23844558.31 -23844558.18 0.0089 0.0016
 Moon -69996-05-05 11:16 J -23844491.19 -23844491.03 -23844490.82 0.0089 0.0061
 Earth -69996-05-05 14:37 J -23844491.08 -23844490.89 -23844490.69 0.0089 0.0057 *
 Mercury -69996-05-26 05:59 J -23844470.38 -23844470.25 -23844470.13 0.0089 0.0021
 Mercury -69996-08-22 07:11 J -23844382.32 -23844382.20 -23844382.07 0.0089 0.0026
 Mercury -69996-11-18 08:23 J -23844294.27 -23844294.15 -23844294.02 0.0089 0.0031
 Mercury -69995-02-14 09:35 J -23844206.21 -23844206.10 -23844205.97 0.0089 0.0036
 Earth -69995-05-07 23:45 J -23844123.65 -23844123.51 -23844123.31 0.0089 0.0065
 Moon -69995-05-08 03:06 J -23844123.53 -23844123.37 -23844123.17 0.0089 0.0061 *
 Mercury -69995-05-13 11:01 J -23844118.15 -23844118.04 -23844117.92 0.0089 0.0041
 Mercury -69995-08-09 12:13 J -23844030.09 -23844029.99 -23844029.87 0.0089 0.0046
 Mercury -69995-11-05 13:25 J -23843942.04 -23843941.94 -23843941.82 0.0089 0.0051
 Mercury -69994-02-01 14:52 J -23843853.98 -23843853.88 -23843853.77 0.0089 0.0056
 Mercury -69994-04-30 16:04 J -23843765.91 -23843765.83 -23843765.72 0.0089 0.0061
 Moon -69994-05-10 06:13 J -23843756.34 -23843756.24 -23843756.08 0.0089 0.0076
 Earth -69994-05-10 09:49 J -23843756.21 -23843756.09 -23843755.91 0.0089 0.0072 *
 Mercury -69994-07-27 17:16 J -23843677.85 -23843677.78 -23843677.68 0.0089 0.0066
 Mercury -69994-10-23 18:42 J -23843589.79 -23843589.72 -23843589.63 0.0089 0.0071
 Mercury -69993-01-19 19:54 J -23843501.72 -23843501.67 -23843501.59 0.0089 0.0076
 Mercury -69993-04-16 21:06 J -23843413.66 -23843413.62 -23843413.55 0.0089 0.0081
 Earth -69993-05-11 19:40 J -23843388.77 -23843388.68 -23843388.53 0.0089 0.0079
 Moon -69993-05-11 23:01 J -23843388.65 -23843388.54 -23843388.37 0.0089 0.0075 *
 Mercury -69993-07-13 22:47 J -23843325.58 -23843325.55 -23843325.51 0.0089 0.0085
 Earth -69992-05-14 05:59 J -23843021.31 -23843021.25 -23843021.17 0.0089 0.0085
 Moon -69991-05-16 17:01 J -23842653.80 -23842653.79 -23842653.72 0.0089 0.0088
 Mars -69985-01-22 04:18 J -23840577.48 -23840577.32 -23840577.10 0.0089 0.0066

Mars	-69984-12-15 14:09 J	-23839884.19	-23839883.91	-23839883.62	0.0089	0.0003
Mars	-69982-11-09 01:40 J	-23839190.61	-23839190.43	-23839190.20	0.0089	0.0062
Jupiter	-69956-11-11 15:06 J	-23829691.10	-23829690.87	-23829690.51	0.0089	0.0075
Venus	-69943-01-02 02:09 J	-23825256.52	-23825256.41	-23825256.27	0.0089	0.0072
Venus	-69943-08-15 15:21 J	-23825031.02	-23825030.86	-23825030.67	0.0089	0.0052
Venus	-69942-03-29 04:47 J	-23824805.50	-23824805.30	-23824805.09	0.0089	0.0031
Venus	-69942-11-09 18:13 J	-23824579.96	-23824579.74	-23824579.52	0.0089	0.0010
Venus	-69941-06-22 07:40 J	-23824354.40	-23824354.18	-23824353.96	0.0089	0.0010
Venus	-69940-02-02 20:52 J	-23824128.83	-23824128.63	-23824128.41	0.0089	0.0031
Venus	-69940-09-16 09:49 J	-23823903.25	-23823903.09	-23823902.89	0.0089	0.0052
Venus	-69939-04-29 23:30 J	-23823677.64	-23823677.52	-23823677.38	0.0089	0.0072
Moon	-69935-09-15 11:16 J	-23822078.06	-23822078.03	-23822077.95	0.0089	0.0087
Earth	-69934-09-18 02:37 J	-23821710.46	-23821710.39	-23821710.30	0.0089	0.0084
Moon	-69933-09-19 10:47 J	-23821343.17	-23821343.05	-23821342.88	0.0089	0.0073
Earth	-69933-09-19 14:09 J	-23821343.00	-23821342.91	-23821342.75	0.0089	0.0078 *
Earth	-69932-09-22 03:06 J	-23820975.52	-23820975.37	-23820975.21	0.0089	0.0070
Moon	-69932-09-22 05:59 J	-23820975.38	-23820975.25	-23820975.09	0.0089	0.0074 *
Moon	-69931-09-24 12:42 J	-23820608.14	-23820607.97	-23820607.77	0.0089	0.0059
Earth	-69931-09-24 15:21 J	-23820608.03	-23820607.86	-23820607.66	0.0089	0.0063 *
Earth	-69930-09-27 03:35 J	-23820240.53	-23820240.35	-23820240.13	0.0089	0.0056
Moon	-69930-09-27 04:33 J	-23820240.48	-23820240.31	-23820240.09	0.0089	0.0060 *
Moon	-69929-09-28 16:04 J	-23819873.03	-23819872.83	-23819872.60	0.0089	0.0045
Earth	-69929-09-28 16:04 J	-23819873.02	-23819872.83	-23819872.59	0.0089	0.0049 *
Moon	-69928-10-01 03:49 J	-23819505.55	-23819505.34	-23819505.09	0.0089	0.0045
Earth	-69928-10-01 04:47 J	-23819505.51	-23819505.30	-23819505.05	0.0089	0.0041 *
Earth	-69927-10-03 17:16 J	-23819138.00	-23819137.78	-23819137.52	0.0089	0.0034
Moon	-69927-10-03 19:40 J	-23819137.90	-23819137.68	-23819137.42	0.0089	0.0030 *
Moon	-69926-10-06 03:06 J	-23818770.60	-23818770.37	-23818770.10	0.0089	0.0030
Earth	-69926-10-06 06:13 J	-23818770.48	-23818770.24	-23818769.98	0.0089	0.0026 *
Earth	-69925-10-07 18:42 J	-23818402.96	-23818402.72	-23818402.45	0.0089	0.0019

Moon -69925-10-07 22:33 J -23818402.81 -23818402.56 -23818402.30 0.0089 0.0014 *
 Moon -69924-10-10 04:18 J -23818035.57 -23818035.32 -23818035.06 0.0089 0.0015
 Earth -69924-10-10 07:54 J -23818035.43 -23818035.17 -23818034.91 0.0089 0.0010 *
 Earth -69923-10-12 20:37 J -23817667.90 -23817667.64 -23817667.38 0.0089 0.0003
 Moon -69923-10-12 23:59 J -23817667.76 -23817667.50 -23817667.23 0.0089 0.0001 *
 Moon -69922-10-15 06:42 J -23817300.47 -23817300.22 -23817299.96 0.0089 0.0002
 Earth -69922-10-15 09:35 J -23817300.36 -23817300.10 -23817299.84 0.0089 0.0005 *
 Earth -69921-10-16 22:18 J -23816932.82 -23816932.57 -23816932.30 0.0089 0.0013
 Moon -69921-10-16 23:45 J -23816932.77 -23816932.51 -23816932.24 0.0089 0.0016 *
 Moon -69920-10-19 10:47 J -23816565.29 -23816565.05 -23816564.80 0.0089 0.0018
 Earth -69920-10-19 11:16 J -23816565.27 -23816565.03 -23816564.76 0.0089 0.0021 *
 Moon -69919-10-21 23:59 J -23816197.75 -23816197.50 -23816197.24 0.0089 0.0031
 Earth -69919-10-22 00:42 J -23816197.72 -23816197.47 -23816197.22 0.0089 0.0028 *
 Mercury -69918-07-18 23:01 J -23815927.59 -23815927.54 -23815927.45 0.0089 0.0083
 Mercury -69918-10-15 02:37 J -23815839.47 -23815839.39 -23815839.27 0.0089 0.0076
 Earth -69918-10-24 13:40 J -23815830.16 -23815829.93 -23815829.68 0.0089 0.0036
 Moon -69918-10-24 15:49 J -23815830.06 -23815829.84 -23815829.59 0.0089 0.0033 *
 Mercury -69917-01-11 06:42 J -23815751.34 -23815751.22 -23815751.09 0.0089 0.0068
 Mercury -69917-04-08 10:18 J -23815663.20 -23815663.07 -23815662.92 0.0089 0.0061
 Mercury -69917-07-05 13:54 J -23815575.06 -23815574.92 -23815574.75 0.0089 0.0054
 Mercury -69917-10-01 17:59 J -23815486.92 -23815486.75 -23815486.58 0.0089 0.0046
 Moon -69917-10-26 00:28 J -23815462.70 -23815462.48 -23815462.24 0.0089 0.0046
 Earth -69917-10-26 02:52 J -23815462.59 -23815462.38 -23815462.13 0.0089 0.0044 *
 Mercury -69917-12-28 21:35 J -23815398.77 -23815398.60 -23815398.42 0.0089 0.0039
 Mercury -69916-03-27 01:11 J -23815310.62 -23815310.45 -23815310.25 0.0088 0.0032
 Mercury -69916-06-23 05:16 J -23815222.47 -23815222.28 -23815222.09 0.0088 0.0024
 Mercury -69916-09-19 08:52 J -23815134.32 -23815134.13 -23815133.93 0.0088 0.0017
 Earth -69916-10-28 16:18 J -23815095.02 -23815094.82 -23815094.59 0.0088 0.0051
 Moon -69916-10-28 19:40 J -23815094.87 -23815094.68 -23815094.44 0.0088 0.0049 *
 Mercury -69916-12-16 12:42 J -23815046.17 -23815045.97 -23815045.77 0.0088 0.0009

Mercury -69915-03-14 16:33 J -23814958.01 -23814957.81 -23814957.62 0.0088 0.0003
 Mercury -69915-06-10 20:09 J -23814869.86 -23814869.66 -23814869.46 0.0088 0.0006
 Mercury -69915-09-06 23:45 J -23814781.70 -23814781.51 -23814781.31 0.0088 0.0013
 Moon -69915-10-31 02:37 J -23814727.58 -23814727.39 -23814727.20 0.0088 0.0061
 Earth -69915-10-31 05:30 J -23814727.44 -23814727.27 -23814727.04 0.0088 0.0059 *
 Mercury -69915-12-04 03:35 J -23814693.54 -23814693.35 -23814693.16 0.0088 0.0020
 Mercury -69914-03-02 07:11 J -23814605.38 -23814605.20 -23814605.00 0.0088 0.0028
 Mercury -69914-05-29 10:47 J -23814517.22 -23814517.05 -23814516.86 0.0088 0.0036
 Mercury -69914-08-25 14:37 J -23814429.05 -23814428.89 -23814428.71 0.0088 0.0043
 Earth -69914-11-02 18:57 J -23814359.87 -23814359.71 -23814359.51 0.0088 0.0066
 Moon -69914-11-02 23:01 J -23814359.72 -23814359.54 -23814359.36 0.0088 0.0064 *
 Mercury -69914-11-21 18:28 J -23814340.89 -23814340.73 -23814340.56 0.0088 0.0050
 Mercury -69913-02-17 21:49 J -23814252.72 -23814252.59 -23814252.42 0.0088 0.0058
 Mercury -69913-05-16 01:40 J -23814164.55 -23814164.43 -23814164.28 0.0088 0.0065
 Mercury -69913-08-12 05:30 J -23814076.37 -23814076.27 -23814076.14 0.0088 0.0072
 Moon -69913-11-04 05:30 J -23813992.39 -23813992.27 -23813992.12 0.0088 0.0075
 Earth -69913-11-04 08:37 J -23813992.27 -23813992.14 -23813991.98 0.0088 0.0073 *
 Mercury -69913-11-08 08:52 J -23813988.19 -23813988.13 -23813988.02 0.0088 0.0080
 Mercury -69912-02-04 12:42 J -23813899.99 -23813899.97 -23813899.91 0.0088 0.0087
 Earth -69912-11-06 22:04 J -23813624.68 -23813624.58 -23813624.46 0.0088 0.0080
 Moon -69912-11-06 23:59 J -23813624.62 -23813624.50 -23813624.36 0.0088 0.0078 *
 Moon -69911-11-09 10:04 J -23813257.08 -23813257.08 -23813257.03 0.0088 0.0088
 Earth -69911-11-09 11:30 J -23813257.05 -23813257.02 -23813256.96 0.0088 0.0087 *
 Mars -69904-12-09 15:35 J -23810669.95 -23810669.85 -23810669.68 0.0088 0.0082
 Mars -69902-11-06 05:45 J -23809973.60 -23809973.26 -23809972.90 0.0088 0.0004
 Mars -69900-10-02 16:04 J -23809277.00 -23809276.83 -23809276.61 0.0088 0.0073
 Venus -69861-10-05 04:33 J -23795029.44 -23795029.31 -23795029.17 0.0088 0.0069
 Venus -69860-05-18 17:16 J -23794803.96 -23794803.78 -23794803.60 0.0088 0.0049
 Venus -69860-12-30 05:59 J -23794578.45 -23794578.25 -23794578.04 0.0088 0.0029
 Venus -69859-08-12 18:42 J -23794352.94 -23794352.72 -23794352.50 0.0088 0.0009

Venus	-69858-03-26 06:57 J	-23794127.42	-23794127.21	-23794126.98	0.0088	0.0012
Venus	-69858-11-06 19:25 J	-23793901.88	-23793901.69	-23793901.48	0.0088	0.0031
Venus	-69857-06-19 07:40 J	-23793676.34	-23793676.18	-23793675.98	0.0088	0.0052
Venus	-69856-01-30 20:09 J	-23793450.76	-23793450.66	-23793450.51	0.0088	0.0072
Moon	-69852-03-22 02:09 J	-23791939.44	-23791939.41	-23791939.32	0.0088	0.0086
Moon	-69851-03-24 09:21 J	-23791572.13	-23791572.11	-23791572.02	0.0088	0.0087
Earth	-69851-03-24 11:45 J	-23791572.07	-23791572.01	-23791571.89	0.0088	0.0083 *
Earth	-69850-03-26 23:01 J	-23791204.65	-23791204.54	-23791204.39	0.0088	0.0076
Moon	-69850-03-27 02:23 J	-23791204.53	-23791204.40	-23791204.24	0.0088	0.0072 *
Moon	-69849-03-28 06:57 J	-23790837.35	-23790837.21	-23790837.06	0.0088	0.0073
Earth	-69849-03-28 10:18 J	-23790837.22	-23790837.07	-23790836.89	0.0088	0.0069 *
Earth	-69848-03-30 20:52 J	-23790469.79	-23790469.63	-23790469.42	0.0089	0.0062
Moon	-69848-03-31 00:13 J	-23790469.66	-23790469.49	-23790469.27	0.0089	0.0059 *
Moon	-69847-04-02 04:47 J	-23790102.47	-23790102.30	-23790102.09	0.0089	0.0059
Earth	-69847-04-02 07:54 J	-23790102.36	-23790102.17	-23790101.95	0.0089	0.0055 *
Earth	-69846-04-04 18:28 J	-23789734.93	-23789734.73	-23789734.49	0.0089	0.0048
Moon	-69846-04-04 20:23 J	-23789734.86	-23789734.65	-23789734.40	0.0089	0.0044 *
Moon	-69845-04-06 04:04 J	-23789367.52	-23789367.33	-23789367.09	0.0089	0.0044
Earth	-69845-04-06 05:30 J	-23789367.49	-23789367.27	-23789367.03	0.0089	0.0040 *
Moon	-69844-04-08 15:49 J	-23789000.08	-23788999.84	-23788999.58	0.0089	0.0029
Earth	-69844-04-08 16:04 J	-23789000.06	-23788999.83	-23788999.58	0.0089	0.0033 *
Earth	-69843-04-11 02:23 J	-23788632.63	-23788632.40	-23788632.14	0.0089	0.0026
Moon	-69843-04-11 04:33 J	-23788632.54	-23788632.31	-23788632.07	0.0089	0.0029 *
Moon	-69842-04-13 10:47 J	-23788265.30	-23788265.05	-23788264.78	0.0089	0.0015
Earth	-69842-04-13 13:25 J	-23788265.19	-23788264.94	-23788264.69	0.0089	0.0018 *
Earth	-69841-04-14 23:45 J	-23787897.76	-23787897.51	-23787897.25	0.0089	0.0011
Moon	-69841-04-15 03:21 J	-23787897.61	-23787897.36	-23787897.11	0.0089	0.0014 *
Moon	-69840-04-17 06:57 J	-23787530.46	-23787530.21	-23787529.96	0.0089	0.0001
Earth	-69840-04-17 10:18 J	-23787530.32	-23787530.07	-23787529.81	0.0089	0.0003 *
Earth	-69839-04-19 20:37 J	-23787162.89	-23787162.64	-23787162.38	0.0089	0.0005

Moon -69839-04-20 00:13 J -23787162.75 -23787162.49 -23787162.23 0.0089 0.0002 *
 Moon -69838-04-22 04:18 J -23786795.56 -23786795.32 -23786795.07 0.0089 0.0016
 Earth -69838-04-22 07:11 J -23786795.45 -23786795.20 -23786794.95 0.0089 0.0012 *
 Earth -69837-04-23 17:01 J -23786428.02 -23786427.79 -23786427.53 0.0089 0.0020
 Moon -69837-04-23 18:42 J -23786427.97 -23786427.72 -23786427.45 0.0089 0.0016 *
 Mercury -69836-01-28 01:11 J -23786148.48 -23786148.45 -23786148.40 0.0089 0.0084
 Moon -69836-04-26 02:23 J -23786060.61 -23786060.40 -23786060.15 0.0089 0.0030
 Earth -69836-04-26 03:21 J -23786060.60 -23786060.36 -23786060.11 0.0089 0.0027 *
 Mercury -69836-04-26 02:23 J -23786060.45 -23786060.40 -23786060.33 0.0089 0.0079 *
 Mercury -69836-07-23 03:49 J -23785972.40 -23785972.34 -23785972.26 0.0089 0.0074
 Mercury -69836-10-19 05:16 J -23785884.36 -23785884.28 -23785884.20 0.0089 0.0069
 Mercury -69835-01-15 06:28 J -23785796.32 -23785796.23 -23785796.14 0.0089 0.0064
 Mercury -69835-04-13 07:54 J -23785708.27 -23785708.17 -23785708.07 0.0089 0.0059
 Moon -69835-04-28 12:13 J -23785693.22 -23785692.99 -23785692.73 0.0089 0.0031
 Earth -69835-04-28 13:11 J -23785693.17 -23785692.95 -23785692.70 0.0089 0.0034 *
 Mercury -69835-07-10 09:06 J -23785620.22 -23785620.12 -23785620.01 0.0089 0.0054
 Mercury -69835-10-06 10:33 J -23785532.17 -23785532.06 -23785531.95 0.0089 0.0049
 Mercury -69834-01-02 11:45 J -23785444.12 -23785444.01 -23785443.89 0.0089 0.0044
 Mercury -69834-03-31 12:57 J -23785356.07 -23785355.96 -23785355.84 0.0089 0.0039
 Earth -69834-04-30 23:16 J -23785325.75 -23785325.53 -23785325.30 0.0089 0.0041
 Moon -69834-05-01 01:11 J -23785325.65 -23785325.45 -23785325.22 0.0089 0.0045 *
 Mercury -69834-06-27 14:09 J -23785268.02 -23785267.91 -23785267.78 0.0089 0.0035
 Mercury -69834-09-23 15:35 J -23785179.97 -23785179.85 -23785179.72 0.0089 0.0030
 Mercury -69834-12-20 16:47 J -23785091.92 -23785091.80 -23785091.66 0.0089 0.0025
 Mercury -69833-03-17 18:13 J -23785003.87 -23785003.74 -23785003.61 0.0089 0.0020
 Moon -69833-05-02 06:13 J -23784958.44 -23784958.24 -23784958.00 0.0089 0.0046
 Earth -69833-05-02 08:52 J -23784958.32 -23784958.13 -23784957.89 0.0089 0.0049 *
 Mercury -69833-06-13 19:25 J -23784915.81 -23784915.69 -23784915.55 0.0089 0.0015
 Mercury -69833-09-09 20:52 J -23784827.76 -23784827.63 -23784827.50 0.0089 0.0010
 Mercury -69833-12-06 22:04 J -23784739.71 -23784739.58 -23784739.44 0.0089 0.0006

Mercury -69832-03-04 23:30 J -23784651.65 -23784651.52 -23784651.39 0.0089 0.0001

Earth -69832-05-04 18:42 J -23784590.90 -23784590.72 -23784590.50 0.0089 0.0056

Moon -69832-05-04 22:18 J -23784590.74 -23784590.57 -23784590.36 0.0089 0.0059 *

Mercury -69832-06-01 00:42 J -23784563.60 -23784563.47 -23784563.34 0.0089 0.0006

Mercury -69832-08-28 01:54 J -23784475.54 -23784475.42 -23784475.28 0.0089 0.0011

Mercury -69832-11-24 03:21 J -23784387.49 -23784387.36 -23784387.23 0.0089 0.0015

Mercury -69831-02-20 04:33 J -23784299.43 -23784299.31 -23784299.18 0.0089 0.0020

Moon -69831-05-07 01:25 J -23784223.61 -23784223.44 -23784223.24 0.0089 0.0059

Earth -69831-05-07 04:33 J -23784223.46 -23784223.31 -23784223.11 0.0089 0.0063 *

Mercury -69831-05-19 05:59 J -23784211.38 -23784211.25 -23784211.13 0.0089 0.0025

Mercury -69831-08-15 07:11 J -23784123.32 -23784123.20 -23784123.07 0.0089 0.0030

Mercury -69831-11-11 08:37 J -23784035.26 -23784035.14 -23784035.02 0.0089 0.0035

Mercury -69830-02-07 09:49 J -23783947.21 -23783947.09 -23783946.97 0.0089 0.0040

Mercury -69830-05-06 11:01 J -23783859.15 -23783859.04 -23783858.92 0.0089 0.0045

Earth -69830-05-09 14:23 J -23783856.03 -23783855.90 -23783855.72 0.0089 0.0070

Moon -69830-05-09 17:45 J -23783855.89 -23783855.76 -23783855.59 0.0089 0.0072 *

Mercury -69830-08-02 12:13 J -23783771.09 -23783770.99 -23783770.87 0.0089 0.0050

Mercury -69830-10-29 13:40 J -23783683.03 -23783682.93 -23783682.83 0.0089 0.0055

Mercury -69829-01-25 14:52 J -23783594.97 -23783594.88 -23783594.78 0.0089 0.0060

Mercury -69829-04-22 16:04 J -23783506.91 -23783506.83 -23783506.73 0.0089 0.0065

Moon -69829-05-10 21:49 J -23783488.69 -23783488.59 -23783488.42 0.0089 0.0074

Earth -69829-05-11 00:57 J -23783488.59 -23783488.46 -23783488.33 0.0089 0.0076 *

Mercury -69829-07-19 17:30 J -23783418.84 -23783418.77 -23783418.69 0.0089 0.0070

Mercury -69829-10-15 18:42 J -23783330.78 -23783330.72 -23783330.64 0.0089 0.0075

Mercury -69828-01-11 19:54 J -23783242.71 -23783242.67 -23783242.60 0.0089 0.0080

Mercury -69828-04-09 21:21 J -23783154.64 -23783154.61 -23783154.56 0.0089 0.0085

Earth -69828-05-13 10:18 J -23783121.14 -23783121.07 -23783120.96 0.0089 0.0083

Moon -69828-05-13 11:01 J -23783121.08 -23783121.04 -23783120.94 0.0089 0.0086 *

Moon -69827-05-15 19:40 J -23782753.69 -23782753.68 -23782753.61 0.0089 0.0088

Saturn -69825-05-12 17:30 J -23782026.41 -23782025.77 -23782025.10 0.0089 0.0003

Mars	-69820-07-30 23:01 J	-23780120.80	-23780120.54	-23780120.27	0.0089	0.0033
Mars	-69818-06-24 08:52 J	-23779427.39	-23779427.13	-23779426.85	0.0089	0.0030
Jupiter	-69789-01-07 13:11 J	-23769003.42	-23769002.95	-23769002.41	0.0089	0.0034
Venus	-69779-04-05 09:21 J	-23765262.16	-23765262.11	-23765262.01	0.0089	0.0083
Venus	-69779-11-16 22:33 J	-23765036.69	-23765036.56	-23765036.38	0.0089	0.0063
Venus	-69778-06-30 12:13 J	-23764811.17	-23764810.99	-23764810.79	0.0089	0.0042
Venus	-69777-02-11 01:40 J	-23764585.64	-23764585.43	-23764585.21	0.0089	0.0021
Venus	-69777-09-23 14:52 J	-23764360.10	-23764359.88	-23764359.65	0.0089	0.0002
Venus	-69776-05-07 04:18 J	-23764134.53	-23764134.32	-23764134.10	0.0089	0.0020
Venus	-69776-12-18 17:16 J	-23763908.96	-23763908.78	-23763908.56	0.0089	0.0041
Venus	-69775-08-01 07:11 J	-23763683.36	-23763683.20	-23763683.04	0.0089	0.0061
Venus	-69774-03-14 20:09 J	-23763457.72	-23763457.66	-23763457.56	0.0089	0.0082
Moon	-69770-09-17 03:49 J	-23761810.43	-23761810.34	-23761810.23	0.0089	0.0081
Earth	-69770-09-17 06:57 J	-23761810.28	-23761810.21	-23761810.09	0.0089	0.0083 *
Earth	-69769-09-18 18:57 J	-23761442.82	-23761442.71	-23761442.55	0.0089	0.0076
Moon	-69769-09-18 21:49 J	-23761442.70	-23761442.59	-23761442.44	0.0089	0.0077 *
Moon	-69768-09-21 05:45 J	-23761075.41	-23761075.26	-23761075.09	0.0089	0.0068
Earth	-69768-09-21 07:11 J	-23761075.34	-23761075.20	-23761075.02	0.0089	0.0069 *
Earth	-69767-09-23 19:11 J	-23760707.86	-23760707.70	-23760707.49	0.0089	0.0062
Moon	-69767-09-23 20:09 J	-23760707.82	-23760707.66	-23760707.45	0.0089	0.0064 *
Earth	-69766-09-26 07:40 J	-23760340.37	-23760340.18	-23760339.96	0.0089	0.0055
Moon	-69766-09-26 08:09 J	-23760340.33	-23760340.16	-23760339.93	0.0089	0.0054 *
Moon	-69765-09-27 18:28 J	-23759972.95	-23759972.73	-23759972.50	0.0089	0.0048
Earth	-69765-09-27 19:54 J	-23759972.86	-23759972.67	-23759972.43	0.0089	0.0048 *
Earth	-69764-09-30 08:52 J	-23759605.36	-23759605.13	-23759604.89	0.0089	0.0040
Moon	-69764-09-30 11:16 J	-23759605.25	-23759605.03	-23759604.79	0.0089	0.0038 *
Moon	-69763-10-02 17:59 J	-23759237.99	-23759237.75	-23759237.50	0.0089	0.0034
Earth	-69763-10-02 21:21 J	-23759237.84	-23759237.61	-23759237.35	0.0089	0.0033 *
Earth	-69762-10-05 09:49 J	-23758870.32	-23758870.09	-23758869.83	0.0089	0.0026
Moon	-69762-10-05 13:25 J	-23758870.18	-23758869.94	-23758869.68	0.0089	0.0024 *

Moon -69761-10-06 19:11 J -23758502.94 -23758502.70 -23758502.44 0.0089 0.0021
 Earth -69761-10-06 22:47 J -23758502.80 -23758502.55 -23758502.29 0.0089 0.0018 *
 Earth -69760-10-09 11:30 J -23758135.27 -23758135.02 -23758134.75 0.0089 0.0011
 Moon -69760-10-09 14:37 J -23758135.15 -23758134.89 -23758134.62 0.0089 0.0008 *
 Moon -69759-10-11 22:33 J -23757767.81 -23757767.56 -23757767.31 0.0089 0.0005
 Earth -69759-10-12 00:28 J -23757767.74 -23757767.48 -23757767.22 0.0089 0.0003 *
 Earth -69758-10-14 13:11 J -23757400.21 -23757399.95 -23757399.68 0.0089 0.0005
 Moon -69758-10-14 14:37 J -23757400.16 -23757399.89 -23757399.62 0.0089 0.0008 *
 Earth -69757-10-16 01:54 J -23757032.67 -23757032.42 -23757032.15 0.0089 0.0013
 Moon -69757-10-16 02:37 J -23757032.64 -23757032.39 -23757032.14 0.0089 0.0010 *
 Moon -69756-10-18 13:40 J -23756665.19 -23756664.93 -23756664.67 0.0089 0.0022
 Earth -69756-10-18 15:06 J -23756665.12 -23756664.87 -23756664.61 0.0089 0.0020 *
 Earth -69755-10-21 03:49 J -23756297.57 -23756297.34 -23756297.08 0.0089 0.0028
 Moon -69755-10-21 06:13 J -23756297.48 -23756297.24 -23756296.99 0.0089 0.0024 *
 Moon -69754-10-23 13:25 J -23755930.16 -23755929.94 -23755929.68 0.0089 0.0038
 Earth -69754-10-23 17:01 J -23755930.02 -23755929.79 -23755929.54 0.0089 0.0035 *
 Mercury -69753-04-13 19:54 J -23755756.72 -23755756.67 -23755756.59 0.0089 0.0083
 Mercury -69753-07-10 23:30 J -23755668.60 -23755668.52 -23755668.40 0.0089 0.0076
 Mercury -69753-10-07 03:49 J -23755580.47 -23755580.34 -23755580.22 0.0089 0.0068
 Earth -69753-10-25 05:59 J -23755562.45 -23755562.25 -23755561.99 0.0089 0.0043
 Moon -69753-10-25 09:49 J -23755562.31 -23755562.09 -23755561.85 0.0089 0.0039 *
 Mercury -69752-01-03 07:11 J -23755492.33 -23755492.20 -23755492.05 0.0089 0.0061
 Mercury -69752-04-01 10:47 J -23755404.19 -23755404.05 -23755403.88 0.0088 0.0054
 Mercury -69752-06-28 14:52 J -23755316.05 -23755315.88 -23755315.71 0.0088 0.0046
 Mercury -69752-09-24 18:28 J -23755227.90 -23755227.73 -23755227.55 0.0088 0.0039
 Moon -69752-10-27 15:49 J -23755195.03 -23755194.84 -23755194.61 0.0088 0.0054
 Earth -69752-10-27 19:40 J -23755194.88 -23755194.68 -23755194.45 0.0088 0.0050 *
 Mercury -69752-12-21 22:04 J -23755139.75 -23755139.58 -23755139.38 0.0088 0.0032
 Mercury -69751-03-20 02:09 J -23755051.60 -23755051.41 -23755051.22 0.0088 0.0024
 Mercury -69751-06-16 05:45 J -23754963.45 -23754963.26 -23754963.06 0.0088 0.0017

Mercury -69751-09-12 09:35 J -23754875.30 -23754875.10 -23754874.90 0.0088 0.0009
 Earth -69751-10-30 09:06 J -23754827.31 -23754827.12 -23754826.91 0.0088 0.0057
 Moon -69751-10-30 12:28 J -23754827.19 -23754826.98 -23754826.77 0.0088 0.0053 *
 Mercury -69751-12-09 13:25 J -23754787.14 -23754786.94 -23754786.75 0.0088 0.0003
 Mercury -69750-03-07 17:01 J -23754698.99 -23754698.79 -23754698.59 0.0088 0.0006
 Mercury -69750-06-03 20:37 J -23754610.83 -23754610.64 -23754610.44 0.0088 0.0013
 Mercury -69750-08-31 00:28 J -23754522.67 -23754522.48 -23754522.28 0.0088 0.0020
 Moon -69750-11-01 20:09 J -23754459.81 -23754459.66 -23754459.48 0.0088 0.0068
 Earth -69750-11-01 22:33 J -23754459.73 -23754459.56 -23754459.36 0.0088 0.0064 *
 Mercury -69750-11-27 04:18 J -23754434.51 -23754434.32 -23754434.13 0.0088 0.0028
 Mercury -69749-02-23 07:40 J -23754346.35 -23754346.18 -23754345.98 0.0088 0.0036
 Mercury -69749-05-21 11:30 J -23754258.18 -23754258.02 -23754257.84 0.0088 0.0043
 Mercury -69749-08-17 15:21 J -23754170.02 -23754169.86 -23754169.69 0.0088 0.0050
 Earth -69749-11-03 12:13 J -23754092.14 -23754091.99 -23754091.83 0.0088 0.0071
 Moon -69749-11-03 13:40 J -23754092.09 -23754091.93 -23754091.74 0.0088 0.0067 *
 Mercury -69749-11-13 18:57 J -23754081.85 -23754081.71 -23754081.55 0.0088 0.0057
 Mercury -69748-02-09 22:47 J -23753993.67 -23753993.55 -23753993.41 0.0088 0.0065
 Mercury -69748-05-09 02:37 J -23753905.50 -23753905.39 -23753905.27 0.0088 0.0072
 Mercury -69748-08-05 05:59 J -23753817.31 -23753817.25 -23753817.14 0.0088 0.0080
 Mercury -69748-11-01 09:49 J -23753729.11 -23753729.09 -23753729.04 0.0088 0.0087
 Earth -69748-11-06 01:40 J -23753724.55 -23753724.43 -23753724.30 0.0088 0.0078
 Moon -69748-11-06 01:40 J -23753724.52 -23753724.43 -23753724.33 0.0088 0.0082 *
 Moon -69747-11-08 14:09 J -23753357.01 -23753356.91 -23753356.79 0.0088 0.0081
 Earth -69747-11-08 15:06 J -23753356.93 -23753356.87 -23753356.79 0.0088 0.0085 *
 Mars -69738-06-19 02:23 J -23750212.69 -23750212.40 -23750212.07 0.0088 0.0041
 Mars -69736-05-15 14:52 J -23749516.17 -23749515.88 -23749515.54 0.0088 0.0036
 Venus -69696-01-06 12:28 J -23735035.07 -23735034.98 -23735034.88 0.0088 0.0080
 Venus -69696-08-20 01:11 J -23734809.61 -23734809.45 -23734809.29 0.0088 0.0060
 Venus -69695-04-02 13:40 J -23734584.12 -23734583.93 -23734583.73 0.0088 0.0040
 Venus -69695-11-14 02:23 J -23734358.61 -23734358.40 -23734358.18 0.0088 0.0020

Venus	-69694-06-27 15:06 J	-23734133.09	-23734132.87	-23734132.65	0.0088	0.0001
Venus	-69693-02-08 03:21 J	-23733907.56	-23733907.36	-23733907.14	0.0088	0.0021
Venus	-69693-09-20 15:49 J	-23733682.02	-23733681.84	-23733681.63	0.0088	0.0040
Venus	-69692-05-04 04:04 J	-23733456.47	-23733456.33	-23733456.15	0.0088	0.0061
Venus	-69692-12-15 16:33 J	-23733230.87	-23733230.81	-23733230.69	0.0088	0.0081
Moon	-69688-03-21 01:11 J	-23732039.45	-23732039.45	-23732039.43	0.0088	0.0088
Earth	-69688-03-21 04:04 J	-23732039.34	-23732039.33	-23732039.27	0.0088	0.0088
Earth	-69687-03-23 15:35 J	-23731671.94	-23731671.85	-23731671.73	0.0088	0.0081
Moon	-69687-03-23 18:28 J	-23731671.81	-23731671.73	-23731671.58	0.0088	0.0080 *
Moon	-69686-03-25 23:01 J	-23731304.64	-23731304.54	-23731304.38	0.0088	0.0077
Earth	-69686-03-26 03:21 J	-23731304.50	-23731304.36	-23731304.22	0.0088	0.0074 *
Earth	-69685-03-27 13:54 J	-23730937.06	-23730936.92	-23730936.73	0.0088	0.0068
Moon	-69685-03-27 17:16 J	-23730936.93	-23730936.78	-23730936.58	0.0088	0.0066 *
Moon	-69684-03-29 22:47 J	-23730569.71	-23730569.55	-23730569.35	0.0088	0.0063
Earth	-69684-03-30 01:11 J	-23730569.61	-23730569.45	-23730569.24	0.0088	0.0061 *
Earth	-69683-04-01 11:59 J	-23730202.18	-23730202.00	-23730201.77	0.0088	0.0054
Moon	-69683-04-01 13:54 J	-23730202.11	-23730201.92	-23730201.68	0.0088	0.0051 *
Earth	-69682-04-03 23:01 J	-23729834.74	-23729834.54	-23729834.30	0.0089	0.0047
Moon	-69682-04-03 23:01 J	-23729834.73	-23729834.54	-23729834.31	0.0089	0.0049 *
Moon	-69681-04-05 09:21 J	-23729467.35	-23729467.11	-23729466.87	0.0089	0.0037
Earth	-69681-04-05 09:49 J	-23729467.30	-23729467.09	-23729466.84	0.0089	0.0040 *
Earth	-69680-04-07 20:52 J	-23729099.87	-23729099.63	-23729099.39	0.0089	0.0032
Moon	-69680-04-07 22:33 J	-23729099.78	-23729099.56	-23729099.32	0.0089	0.0035 *
Moon	-69679-04-10 04:18 J	-23728732.57	-23728732.32	-23728732.07	0.0089	0.0023
Earth	-69679-04-10 07:25 J	-23728732.43	-23728732.19	-23728731.94	0.0089	0.0025 *
Earth	-69678-04-12 17:59 J	-23728364.99	-23728364.75	-23728364.49	0.0089	0.0018
Moon	-69678-04-12 21:06 J	-23728364.85	-23728364.62	-23728364.36	0.0089	0.0021 *
Moon	-69677-04-14 00:57 J	-23727997.71	-23727997.46	-23727997.20	0.0089	0.0008
Earth	-69677-04-14 04:33 J	-23727997.55	-23727997.31	-23727997.05	0.0089	0.0011 *
Earth	-69676-04-16 15:06 J	-23727630.12	-23727629.87	-23727629.61	0.0089	0.0003

Moon -69676-04-16 18:13 J -23727630.00 -23727629.74 -23727629.48 0.0089 0.0006 *
 Moon -69675-04-18 23:16 J -23727262.77 -23727262.53 -23727262.28 0.0089 0.0007
 Earth -69675-04-19 01:40 J -23727262.68 -23727262.43 -23727262.18 0.0089 0.0004 *
 Earth -69674-04-21 11:59 J -23726895.25 -23726895.00 -23726894.74 0.0089 0.0012
 Moon -69674-04-21 13:25 J -23726895.19 -23726894.94 -23726894.67 0.0089 0.0009 *
 Earth -69673-04-22 22:18 J -23726527.81 -23726527.57 -23726527.31 0.0089 0.0019
 Moon -69673-04-22 22:33 J -23726527.78 -23726527.56 -23726527.30 0.0089 0.0022 *
 Moon -69672-04-25 07:11 J -23726160.44 -23726160.20 -23726159.93 0.0089 0.0024
 Earth -69672-04-25 08:37 J -23726160.38 -23726160.14 -23726159.89 0.0089 0.0026 *
 Mercury -69672-10-24 23:59 J -23725977.53 -23725977.50 -23725977.45 0.0089 0.0084
 Mercury -69671-01-21 01:11 J -23725889.49 -23725889.45 -23725889.38 0.0089 0.0080
 Mercury -69671-04-19 02:37 J -23725801.45 -23725801.39 -23725801.31 0.0089 0.0075
 Earth -69671-04-27 18:42 J -23725792.94 -23725792.72 -23725792.47 0.0089 0.0033
 Moon -69671-04-27 20:52 J -23725792.84 -23725792.63 -23725792.39 0.0089 0.0037 *
 Mercury -69671-07-16 03:49 J -23725713.41 -23725713.34 -23725713.25 0.0089 0.0070
 Mercury -69671-10-12 05:16 J -23725625.36 -23725625.28 -23725625.18 0.0089 0.0065
 Mercury -69670-01-08 06:28 J -23725537.31 -23725537.23 -23725537.12 0.0089 0.0060
 Mercury -69670-04-06 07:54 J -23725449.27 -23725449.17 -23725449.06 0.0089 0.0055
 Moon -69670-04-30 01:25 J -23725425.66 -23725425.44 -23725425.19 0.0089 0.0038
 Earth -69670-04-30 05:01 J -23725425.51 -23725425.29 -23725425.06 0.0089 0.0040 *
 Mercury -69670-07-03 09:06 J -23725361.22 -23725361.12 -23725361.00 0.0089 0.0050
 Mercury -69670-09-29 10:33 J -23725273.17 -23725273.06 -23725272.94 0.0089 0.0045
 Mercury -69670-12-26 11:45 J -23725185.12 -23725185.01 -23725184.88 0.0089 0.0040
 Mercury -69669-03-23 13:11 J -23725097.07 -23725096.95 -23725096.82 0.0089 0.0035
 Earth -69669-05-01 14:52 J -23725058.09 -23725057.88 -23725057.66 0.0089 0.0047
 Moon -69669-05-01 18:13 J -23725057.94 -23725057.74 -23725057.53 0.0089 0.0050 *
 Mercury -69669-06-19 14:23 J -23725009.02 -23725008.90 -23725008.77 0.0089 0.0030
 Mercury -69669-09-15 15:49 J -23724920.96 -23724920.84 -23724920.71 0.0089 0.0025
 Mercury -69669-12-12 17:01 J -23724832.91 -23724832.79 -23724832.65 0.0089 0.0020
 Mercury -69668-03-10 18:28 J -23724744.86 -23724744.73 -23724744.60 0.0089 0.0015

Moon -69668-05-03 20:52 J -23724690.81 -23724690.63 -23724690.40 0.0089 0.0051
 Earth -69668-05-04 00:42 J -23724690.66 -23724690.47 -23724690.26 0.0089 0.0054 *
 Mercury -69668-06-06 19:40 J -23724656.81 -23724656.68 -23724656.54 0.0089 0.0010
 Mercury -69668-09-02 21:06 J -23724568.75 -23724568.62 -23724568.49 0.0089 0.0005
 Mercury -69668-11-29 22:18 J -23724480.70 -23724480.57 -23724480.44 0.0089 0.0002
 Mercury -69667-02-25 23:45 J -23724392.64 -23724392.51 -23724392.38 0.0089 0.0006
 Earth -69667-05-06 10:18 J -23724323.23 -23724323.07 -23724322.86 0.0089 0.0061
 Moon -69667-05-06 12:57 J -23724323.11 -23724322.96 -23724322.76 0.0089 0.0064 *
 Mercury -69667-05-25 00:57 J -23724304.59 -23724304.46 -23724304.33 0.0089 0.0010
 Mercury -69667-08-21 02:09 J -23724216.54 -23724216.41 -23724216.28 0.0089 0.0015
 Mercury -69667-11-17 03:35 J -23724128.48 -23724128.35 -23724128.22 0.0089 0.0020
 Mercury -69666-02-13 04:47 J -23724040.42 -23724040.30 -23724040.17 0.0089 0.0025
 Moon -69666-05-08 18:28 J -23723955.88 -23723955.73 -23723955.54 0.0089 0.0065
 Earth -69666-05-08 20:09 J -23723955.80 -23723955.66 -23723955.47 0.0089 0.0068 *
 Mercury -69666-05-12 05:59 J -23723952.37 -23723952.25 -23723952.12 0.0089 0.0030
 Mercury -69666-08-08 07:25 J -23723864.31 -23723864.19 -23723864.07 0.0089 0.0035
 Mercury -69666-11-04 08:37 J -23723776.25 -23723776.14 -23723776.02 0.0089 0.0040
 Mercury -69665-01-31 09:49 J -23723688.20 -23723688.09 -23723687.97 0.0089 0.0045
 Mercury -69665-04-28 11:16 J -23723600.14 -23723600.03 -23723599.92 0.0089 0.0050
 Earth -69665-05-10 06:28 J -23723588.36 -23723588.23 -23723588.09 0.0089 0.0074
 Moon -69665-05-10 06:42 J -23723588.31 -23723588.22 -23723588.06 0.0089 0.0078 *
 Mercury -69665-07-25 12:28 J -23723512.08 -23723511.98 -23723511.87 0.0089 0.0055
 Mercury -69665-10-21 13:40 J -23723424.02 -23723423.93 -23723423.82 0.0089 0.0060
 Mercury -69664-01-17 14:52 J -23723335.95 -23723335.88 -23723335.78 0.0089 0.0065
 Mercury -69664-04-15 16:18 J -23723247.89 -23723247.82 -23723247.73 0.0089 0.0070
 Earth -69664-05-12 15:49 J -23723220.92 -23723220.84 -23723220.72 0.0089 0.0081
 Moon -69664-05-12 17:01 J -23723220.90 -23723220.79 -23723220.67 0.0089 0.0078 *
 Mercury -69664-07-12 17:30 J -23723159.83 -23723159.77 -23723159.69 0.0089 0.0075
 Mercury -69664-10-08 18:42 J -23723071.76 -23723071.72 -23723071.65 0.0089 0.0080
 Mercury -69663-01-04 20:09 J -23722983.69 -23722983.66 -23722983.61 0.0089 0.0085

Earth	-69663-05-15 01:54 J	-23722853.45	-23722853.42	-23722853.36	0.0089	0.0087
Mars	-69656-03-15 07:40 J	-23720357.37	-23720357.18	-23720356.97	0.0089	0.0063
Mars	-69654-02-06 17:45 J	-23719664.04	-23719663.76	-23719663.47	0.0089	0.0002
Mars	-69653-12-31 03:35 J	-23718970.54	-23718970.35	-23718970.13	0.0089	0.0062
Venus	-69614-02-18 05:59 J	-23705042.34	-23705042.25	-23705042.10	0.0089	0.0074
Venus	-69614-10-01 19:25 J	-23704816.85	-23704816.69	-23704816.50	0.0089	0.0053
Venus	-69613-05-14 09:06 J	-23704591.32	-23704591.12	-23704590.91	0.0089	0.0032
Venus	-69613-12-25 22:18 J	-23704365.78	-23704365.57	-23704365.35	0.0089	0.0012
Venus	-69612-08-08 11:45 J	-23704140.23	-23704140.01	-23704139.79	0.0089	0.0009
Venus	-69611-03-22 00:42 J	-23703914.66	-23703914.47	-23703914.24	0.0089	0.0030
Venus	-69611-11-02 14:23 J	-23703689.08	-23703688.90	-23703688.71	0.0089	0.0050
Venus	-69610-06-16 03:35 J	-23703463.46	-23703463.35	-23703463.20	0.0089	0.0071
Moon	-69608-09-11 16:47 J	-23702644.82	-23702644.80	-23702644.77	0.0089	0.0088
Earth	-69607-09-14 00:28 J	-23702277.51	-23702277.48	-23702277.41	0.0089	0.0087
Earth	-69606-09-16 11:59 J	-23701910.07	-23701910.00	-23701909.86	0.0089	0.0081
Moon	-69606-09-16 14:52 J	-23701909.99	-23701909.88	-23701909.72	0.0089	0.0076 *
Moon	-69605-09-17 22:47 J	-23701542.64	-23701542.55	-23701542.41	0.0089	0.0079
Earth	-69605-09-18 00:13 J	-23701542.60	-23701542.49	-23701542.32	0.0089	0.0074 *
Moon	-69604-09-20 11:59 J	-23701175.16	-23701175.00	-23701174.78	0.0089	0.0063
Earth	-69604-09-20 12:28 J	-23701175.13	-23701174.98	-23701174.80	0.0089	0.0067 *
Earth	-69603-09-23 00:42 J	-23700807.65	-23700807.47	-23700807.27	0.0089	0.0060
Moon	-69603-09-23 01:11 J	-23700807.59	-23700807.45	-23700807.25	0.0089	0.0065 *
Moon	-69602-09-25 10:18 J	-23700440.27	-23700440.07	-23700439.83	0.0089	0.0049
Earth	-69602-09-25 13:11 J	-23700440.16	-23700439.95	-23700439.75	0.0089	0.0053 *
Earth	-69601-09-27 01:11 J	-23700072.66	-23700072.45	-23700072.22	0.0089	0.0046
Moon	-69601-09-27 04:04 J	-23700072.52	-23700072.33	-23700072.10	0.0089	0.0051 *
Moon	-69600-09-29 10:18 J	-23699705.30	-23699705.07	-23699704.82	0.0089	0.0035
Earth	-69600-09-29 13:54 J	-23699705.15	-23699704.92	-23699704.68	0.0089	0.0039 *
Earth	-69599-10-02 02:09 J	-23699337.64	-23699337.41	-23699337.16	0.0089	0.0032
Moon	-69599-10-02 05:45 J	-23699337.48	-23699337.26	-23699337.01	0.0089	0.0037 *

Moon -69598-10-04 11:45 J -23698970.24 -23698970.01 -23698969.75 0.0089 0.0021
 Earth -69598-10-04 14:52 J -23698970.12 -23698969.88 -23698969.62 0.0089 0.0025 *
 Earth -69597-10-06 03:21 J -23698602.60 -23698602.36 -23698602.09 0.0089 0.0018
 Moon -69597-10-06 06:28 J -23698602.49 -23698602.23 -23698601.97 0.0089 0.0021 *
 Moon -69596-10-08 14:52 J -23698235.13 -23698234.88 -23698234.62 0.0089 0.0006
 Earth -69596-10-08 16:33 J -23698235.07 -23698234.81 -23698234.55 0.0089 0.0010 *
 Moon -69595-10-11 05:16 J -23697867.55 -23697867.28 -23697867.01 0.0089 0.0007
 Earth -69595-10-11 05:16 J -23697867.54 -23697867.28 -23697867.02 0.0089 0.0003 *
 Earth -69594-10-13 17:59 J -23697500.01 -23697499.75 -23697499.49 0.0089 0.0005
 Moon -69594-10-13 18:28 J -23697499.97 -23697499.73 -23697499.47 0.0089 0.0009 *
 Moon -69593-10-15 04:47 J -23697132.57 -23697132.30 -23697132.03 0.0089 0.0008
 Earth -69593-10-15 06:57 J -23697132.47 -23697132.21 -23697131.95 0.0089 0.0012 *
 Earth -69592-10-17 19:25 J -23696764.93 -23696764.69 -23696764.42 0.0089 0.0020
 Moon -69592-10-17 22:33 J -23696764.79 -23696764.56 -23696764.30 0.0089 0.0024 *
 Moon -69591-10-20 05:16 J -23696397.53 -23696397.28 -23696397.02 0.0089 0.0023
 Earth -69591-10-20 08:23 J -23696397.39 -23696397.15 -23696396.89 0.0089 0.0027 *
 Earth -69590-10-22 21:21 J -23696029.84 -23696029.61 -23696029.36 0.0089 0.0034
 Moon -69590-10-23 01:11 J -23696029.67 -23696029.45 -23696029.20 0.0089 0.0038 *
 Moon -69589-10-24 07:25 J -23695662.41 -23695662.19 -23695661.95 0.0089 0.0038
 Earth -69589-10-24 10:18 J -23695662.28 -23695662.07 -23695661.82 0.0089 0.0042 *
 Mercury -69588-01-08 17:01 J -23695585.84 -23695585.79 -23695585.70 0.0089 0.0083
 Mercury -69588-04-06 20:37 J -23695497.72 -23695497.64 -23695497.52 0.0089 0.0076
 Mercury -69588-07-04 00:42 J -23695409.59 -23695409.47 -23695409.34 0.0089 0.0068
 Mercury -69588-09-30 04:18 J -23695321.45 -23695321.32 -23695321.17 0.0089 0.0061
 Earth -69588-10-26 23:16 J -23695294.72 -23695294.53 -23695294.29 0.0089 0.0049
 Moon -69588-10-27 02:37 J -23695294.60 -23695294.39 -23695294.16 0.0089 0.0051 *
 Mercury -69588-12-27 07:54 J -23695233.31 -23695233.17 -23695233.00 0.0089 0.0054
 Mercury -69587-03-25 11:45 J -23695145.17 -23695145.01 -23695144.83 0.0089 0.0046
 Mercury -69587-06-21 15:21 J -23695057.02 -23695056.86 -23695056.67 0.0089 0.0039
 Mercury -69587-09-17 19:11 J -23694968.87 -23694968.70 -23694968.50 0.0089 0.0031

Moon -69587-10-29 10:47 J -23694927.23 -23694927.05 -23694926.82 0.0089 0.0053
 Earth -69587-10-29 12:42 J -23694927.15 -23694926.97 -23694926.74 0.0089 0.0056 *
 Mercury -69587-12-14 23:01 J -23694880.72 -23694880.54 -23694880.34 0.0089 0.0024
 Mercury -69586-03-13 02:52 J -23694792.57 -23694792.38 -23694792.18 0.0089 0.0016
 Mercury -69586-06-09 06:42 J -23694704.42 -23694704.22 -23694704.03 0.0088 0.0009
 Mercury -69586-09-05 10:18 J -23694616.26 -23694616.07 -23694615.87 0.0088 0.0002
 Earth -69586-11-01 02:09 J -23694559.58 -23694559.41 -23694559.21 0.0088 0.0063
 Moon -69586-11-01 02:23 J -23694559.55 -23694559.40 -23694559.19 0.0088 0.0066 *
 Mercury -69586-12-02 14:09 J -23694528.11 -23694527.91 -23694527.71 0.0088 0.0006
 Mercury -69585-02-28 17:45 J -23694439.95 -23694439.76 -23694439.56 0.0088 0.0013
 Mercury -69585-05-26 21:35 J -23694351.79 -23694351.60 -23694351.41 0.0088 0.0021
 Mercury -69585-08-23 00:57 J -23694263.63 -23694263.46 -23694263.26 0.0088 0.0029
 Earth -69585-11-02 15:35 J -23694191.99 -23694191.85 -23694191.67 0.0088 0.0070
 Moon -69585-11-02 15:35 J -23694191.99 -23694191.85 -23694191.66 0.0088 0.0068 *
 Mercury -69585-11-19 04:47 J -23694175.47 -23694175.30 -23694175.11 0.0088 0.0036
 Mercury -69584-02-15 08:37 J -23694087.30 -23694087.14 -23694086.96 0.0088 0.0043
 Mercury -69584-05-14 12:13 J -23693999.14 -23693998.99 -23693998.81 0.0088 0.0051
 Mercury -69584-08-10 16:04 J -23693910.97 -23693910.83 -23693910.67 0.0088 0.0058
 Moon -69584-11-05 03:49 J -23693824.46 -23693824.34 -23693824.22 0.0088 0.0079
 Earth -69584-11-05 04:47 J -23693824.40 -23693824.30 -23693824.13 0.0088 0.0077 *
 Mercury -69584-11-06 20:09 J -23693822.80 -23693822.66 -23693822.53 0.0088 0.0065
 Mercury -69583-02-02 23:16 J -23693734.62 -23693734.53 -23693734.40 0.0088 0.0073
 Mercury -69583-05-02 03:21 J -23693646.44 -23693646.36 -23693646.27 0.0088 0.0080
 Mercury -69583-07-29 06:42 J -23693558.23 -23693558.22 -23693558.16 0.0088 0.0088
 Earth -69583-11-07 18:42 J -23693456.80 -23693456.72 -23693456.62 0.0088 0.0083
 Moon -69583-11-07 21:06 J -23693456.70 -23693456.62 -23693456.49 0.0088 0.0081 *
 Mars -69574-01-29 23:01 J -23690451.69 -23690451.54 -23690451.34 0.0088 0.0077
 Mars -69573-12-26 13:54 J -23689755.27 -23689754.92 -23689754.57 0.0088 0.0000
 Mars -69571-11-23 02:09 J -23689058.59 -23689058.41 -23689058.23 0.0088 0.0076
 Venus -69532-11-21 09:06 J -23674815.23 -23674815.12 -23674814.96 0.0088 0.0071

Venus	-69531-07-04 22:04 J	-23674589.74	-23674589.58	-23674589.38	0.0088	0.0050
Venus	-69530-02-15 10:47 J	-23674364.24	-23674364.05	-23674363.83	0.0088	0.0030
Venus	-69530-09-28 23:30 J	-23674138.73	-23674138.52	-23674138.30	0.0088	0.0010
Venus	-69529-05-11 12:13 J	-23673913.21	-23673912.99	-23673912.77	0.0088	0.0010
Venus	-69529-12-23 00:42 J	-23673687.67	-23673687.47	-23673687.25	0.0088	0.0030
Venus	-69528-08-05 12:57 J	-23673462.12	-23673461.96	-23673461.76	0.0088	0.0051
Venus	-69527-03-19 01:11 J	-23673236.55	-23673236.45	-23673236.29	0.0088	0.0071
Moon	-69525-03-17 18:28 J	-23672506.74	-23672506.73	-23672506.66	0.0088	0.0088
Earth	-69524-03-20 08:52 J	-23672139.16	-23672139.13	-23672139.03	0.0088	0.0086
Moon	-69523-03-22 17:16 J	-23671771.89	-23671771.78	-23671771.62	0.0088	0.0075
Earth	-69523-03-22 20:52 J	-23671771.74	-23671771.63	-23671771.51	0.0088	0.0079 *
Earth	-69522-03-25 07:40 J	-23671404.30	-23671404.18	-23671404.01	0.0088	0.0073
Moon	-69522-03-25 10:47 J	-23671404.15	-23671404.05	-23671403.89	0.0088	0.0077 *
Moon	-69521-03-26 17:01 J	-23671036.95	-23671036.79	-23671036.59	0.0088	0.0062
Earth	-69521-03-26 19:11 J	-23671036.85	-23671036.70	-23671036.51	0.0088	0.0066 *
Earth	-69520-03-29 06:28 J	-23670669.41	-23670669.23	-23670669.03	0.0088	0.0059
Moon	-69520-03-29 06:57 J	-23670669.37	-23670669.21	-23670669.00	0.0088	0.0063 *
Earth	-69519-03-31 17:45 J	-23670301.96	-23670301.76	-23670301.55	0.0088	0.0052
Moon	-69519-03-31 17:30 J	-23670301.96	-23670301.77	-23670301.55	0.0088	0.0048 *
Moon	-69518-04-03 02:37 J	-23669934.58	-23669934.39	-23669934.15	0.0088	0.0050
Earth	-69518-04-03 04:47 J	-23669934.51	-23669934.30	-23669934.07	0.0088	0.0045 *
Earth	-69517-04-04 15:06 J	-23669567.08	-23669566.87	-23669566.62	0.0089	0.0039
Moon	-69517-04-04 18:13 J	-23669566.97	-23669566.74	-23669566.51	0.0089	0.0034 *
Moon	-69516-04-06 22:47 J	-23669199.77	-23669199.55	-23669199.29	0.0089	0.0036
Earth	-69516-04-07 02:23 J	-23669199.64	-23669199.40	-23669199.16	0.0089	0.0031 *
Earth	-69515-04-09 12:42 J	-23668832.20	-23668831.97	-23668831.71	0.0089	0.0024
Moon	-69515-04-09 16:33 J	-23668832.05	-23668831.81	-23668831.55	0.0089	0.0020 *
Moon	-69514-04-11 20:09 J	-23668464.89	-23668464.66	-23668464.40	0.0089	0.0022
Earth	-69514-04-11 23:45 J	-23668464.76	-23668464.51	-23668464.26	0.0089	0.0017 *
Earth	-69513-04-13 10:04 J	-23668097.33	-23668097.08	-23668096.82	0.0089	0.0010

Moon -69513-04-13 13:11 J -23668097.21 -23668096.95 -23668096.69 0.0089 0.0006 *
 Moon -69512-04-15 18:57 J -23667729.96 -23667729.71 -23667729.46 0.0089 0.0007
 Earth -69512-04-15 20:37 J -23667729.90 -23667729.64 -23667729.38 0.0089 0.0003 *
 Earth -69511-04-18 06:57 J -23667362.46 -23667362.21 -23667361.95 0.0089 0.0005
 Moon -69511-04-18 07:40 J -23667362.45 -23667362.18 -23667361.92 0.0089 0.0008 *
 Earth -69510-04-20 17:30 J -23666995.02 -23666994.77 -23666994.51 0.0089 0.0011
 Moon -69510-04-20 17:59 J -23666995.00 -23666994.75 -23666994.51 0.0089 0.0008 *
 Moon -69509-04-22 01:25 J -23666627.68 -23666627.44 -23666627.17 0.0089 0.0023
 Earth -69509-04-22 03:35 J -23666627.59 -23666627.35 -23666627.09 0.0089 0.0019 *
 Earth -69508-04-24 13:54 J -23666260.15 -23666259.92 -23666259.66 0.0089 0.0026
 Moon -69508-04-24 16:47 J -23666260.03 -23666259.80 -23666259.55 0.0089 0.0022 *
 Moon -69507-04-26 21:21 J -23665892.84 -23665892.61 -23665892.37 0.0089 0.0036
 Earth -69507-04-27 00:13 J -23665892.71 -23665892.49 -23665892.23 0.0089 0.0033 *
 Mercury -69507-07-21 22:47 J -23665806.57 -23665806.55 -23665806.50 0.0089 0.0085
 Mercury -69507-10-18 00:13 J -23665718.53 -23665718.49 -23665718.42 0.0089 0.0080
 Mercury -69506-01-14 01:40 J -23665630.49 -23665630.43 -23665630.35 0.0089 0.0075
 Mercury -69506-04-12 02:52 J -23665542.45 -23665542.38 -23665542.29 0.0089 0.0070
 Earth -69506-04-29 10:33 J -23665525.27 -23665525.06 -23665524.82 0.0089 0.0040
 Moon -69506-04-29 14:09 J -23665525.13 -23665524.91 -23665524.66 0.0089 0.0036 *
 Mercury -69506-07-09 04:18 J -23665454.40 -23665454.32 -23665454.23 0.0089 0.0065
 Mercury -69506-10-05 05:30 J -23665366.36 -23665366.27 -23665366.16 0.0089 0.0060
 Mercury -69505-01-01 06:57 J -23665278.31 -23665278.21 -23665278.10 0.0089 0.0055
 Mercury -69505-03-29 08:09 J -23665190.26 -23665190.16 -23665190.04 0.0089 0.0050
 Moon -69505-04-30 17:45 J -23665157.95 -23665157.76 -23665157.54 0.0089 0.0050
 Earth -69505-04-30 20:52 J -23665157.84 -23665157.63 -23665157.40 0.0089 0.0046 *
 Mercury -69505-06-25 09:35 J -23665102.21 -23665102.10 -23665101.98 0.0089 0.0045
 Mercury -69505-09-21 10:47 J -23665014.16 -23665014.05 -23665013.92 0.0089 0.0040
 Mercury -69505-12-18 12:13 J -23664926.11 -23664925.99 -23664925.87 0.0089 0.0035
 Mercury -69504-03-16 13:25 J -23664838.06 -23664837.94 -23664837.81 0.0089 0.0030
 Earth -69504-05-03 06:42 J -23664790.41 -23664790.22 -23664790.00 0.0089 0.0053

Moon -69504-05-03 09:21 J -23664790.30 -23664790.11 -23664789.88 0.0089 0.0050 *
 Mercury -69504-06-12 14:52 J -23664750.01 -23664749.88 -23664749.75 0.0089 0.0025
 Mercury -69504-09-08 16:04 J -23664661.95 -23664661.83 -23664661.70 0.0089 0.0020
 Mercury -69504-12-05 17:30 J -23664573.90 -23664573.77 -23664573.64 0.0089 0.0015
 Mercury -69503-03-03 18:42 J -23664485.85 -23664485.72 -23664485.59 0.0089 0.0010
 Moon -69503-05-05 15:21 J -23664423.01 -23664422.86 -23664422.67 0.0089 0.0064
 Earth -69503-05-05 16:33 J -23664422.97 -23664422.81 -23664422.60 0.0089 0.0060 *
 Mercury -69503-05-30 20:09 J -23664397.79 -23664397.66 -23664397.53 0.0089 0.0005
 Mercury -69503-08-26 21:21 J -23664309.74 -23664309.61 -23664309.48 0.0089 0.0001
 Mercury -69503-11-22 22:33 J -23664221.69 -23664221.56 -23664221.42 0.0089 0.0006
 Mercury -69502-02-18 23:59 J -23664133.63 -23664133.50 -23664133.37 0.0089 0.0010
 Moon -69502-05-08 02:23 J -23664055.56 -23664055.40 -23664055.19 0.0089 0.0063
 Earth -69502-05-08 02:52 J -23664055.54 -23664055.38 -23664055.21 0.0089 0.0066 *
 Mercury -69502-05-18 01:11 J -23664045.58 -23664045.45 -23664045.32 0.0089 0.0015
 Mercury -69502-08-14 02:37 J -23663957.52 -23663957.39 -23663957.27 0.0089 0.0020
 Mercury -69502-11-10 03:49 J -23663869.47 -23663869.34 -23663869.21 0.0089 0.0025
 Mercury -69501-02-06 05:01 J -23663781.41 -23663781.29 -23663781.16 0.0089 0.0030
 Mercury -69501-05-04 06:28 J -23663693.35 -23663693.23 -23663693.11 0.0089 0.0035
 Earth -69501-05-09 12:13 J -23663688.11 -23663687.99 -23663687.82 0.0089 0.0073
 Moon -69501-05-09 13:11 J -23663688.06 -23663687.95 -23663687.81 0.0089 0.0076 *
 Mercury -69501-07-31 07:40 J -23663605.29 -23663605.18 -23663605.06 0.0089 0.0040
 Mercury -69501-10-27 08:52 J -23663517.24 -23663517.13 -23663517.01 0.0089 0.0045
 Mercury -69500-01-23 10:18 J -23663429.18 -23663429.07 -23663428.96 0.0089 0.0050
 Mercury -69500-04-21 11:30 J -23663341.12 -23663341.02 -23663340.91 0.0089 0.0055
 Moon -69500-05-11 19:40 J -23663320.80 -23663320.68 -23663320.52 0.0089 0.0075
 Earth -69500-05-11 22:18 J -23663320.67 -23663320.57 -23663320.44 0.0089 0.0079 *
 Mercury -69500-07-18 12:42 J -23663253.06 -23663252.97 -23663252.87 0.0089 0.0060
 Mercury -69500-10-14 14:09 J -23663165.00 -23663164.91 -23663164.82 0.0089 0.0065
 Mercury -69499-01-10 15:21 J -23663076.93 -23663076.86 -23663076.77 0.0089 0.0070
 Mercury -69499-04-08 16:33 J -23662988.87 -23662988.81 -23662988.73 0.0089 0.0075

Earth -69499-05-14 08:09 J -23662953.21 -23662953.16 -23662953.08 0.0089 0.0085
 Mercury -69499-07-05 17:45 J -23662900.80 -23662900.76 -23662900.69 0.0089 0.0080
 Mercury -69499-10-01 19:11 J -23662812.73 -23662812.70 -23662812.65 0.0089 0.0085
 Moon -69498-05-16 14:23 J -23662585.91 -23662585.90 -23662585.85 0.0089 0.0088
 Mars -69491-09-22 03:06 J -23659900.61 -23659900.37 -23659900.08 0.0089 0.0031
 Mars -69489-08-15 13:25 J -23659207.19 -23659206.94 -23659206.65 0.0089 0.0032
 Venus -69450-05-22 14:23 J -23645047.95 -23645047.90 -23645047.80 0.0089 0.0084
 Venus -69449-01-03 03:49 J -23644822.48 -23644822.34 -23644822.17 0.0089 0.0064
 Venus -69449-08-15 17:01 J -23644596.97 -23644596.79 -23644596.58 0.0089 0.0043
 Venus -69448-03-29 06:13 J -23644371.44 -23644371.24 -23644371.02 0.0089 0.0022
 Venus -69448-11-09 19:40 J -23644145.90 -23644145.68 -23644145.46 0.0089 0.0002
 Venus -69447-06-23 09:06 J -23643920.34 -23643920.12 -23643919.90 0.0089 0.0019
 Venus -69446-02-03 22:04 J -23643694.76 -23643694.58 -23643694.37 0.0089 0.0040
 Venus -69446-09-17 11:16 J -23643469.17 -23643469.03 -23643468.85 0.0089 0.0061
 Venus -69445-04-30 00:57 J -23643243.54 -23643243.46 -23643243.36 0.0089 0.0081
 Earth -69443-09-13 05:59 J -23642377.30 -23642377.25 -23642377.14 0.0089 0.0085
 Moon -69443-09-13 07:40 J -23642377.23 -23642377.18 -23642377.07 0.0089 0.0085 *
 Moon -69442-09-15 17:30 J -23642009.87 -23642009.77 -23642009.64 0.0089 0.0078
 Earth -69442-09-15 18:13 J -23642009.85 -23642009.74 -23642009.61 0.0089 0.0078 *
 Moon -69441-09-17 05:45 J -23641642.40 -23641642.26 -23641642.08 0.0089 0.0071
 Earth -69441-09-17 05:45 J -23641642.38 -23641642.26 -23641642.08 0.0089 0.0072 *
 Earth -69440-09-19 18:13 J -23641274.90 -23641274.74 -23641274.55 0.0089 0.0065
 Moon -69440-09-19 20:09 J -23641274.82 -23641274.66 -23641274.48 0.0089 0.0065 *
 Moon -69439-09-22 03:06 J -23640907.54 -23640907.37 -23640907.14 0.0089 0.0059
 Earth -69439-09-22 06:28 J -23640907.42 -23640907.23 -23640907.03 0.0089 0.0058 *
 Earth -69438-09-24 18:13 J -23640539.93 -23640539.74 -23640539.51 0.0089 0.0052
 Moon -69438-09-24 21:21 J -23640539.79 -23640539.61 -23640539.38 0.0089 0.0053 *
 Moon -69437-09-26 02:52 J -23640172.58 -23640172.38 -23640172.14 0.0089 0.0045
 Earth -69437-09-26 06:42 J -23640172.43 -23640172.22 -23640171.98 0.0089 0.0045 *
 Earth -69436-09-28 18:42 J -23639804.94 -23639804.72 -23639804.47 0.0089 0.0038

Moon	-69436-09-28 22:04 J	-23639804.80	-23639804.58	-23639804.33	0.0089	0.0039	*
Moon	-69435-10-01 04:04 J	-23639437.55	-23639437.33	-23639437.07	0.0089	0.0030	
Earth	-69435-10-01 07:25 J	-23639437.42	-23639437.19	-23639436.94	0.0089	0.0031	*
Earth	-69434-10-03 19:54 J	-23639069.91	-23639069.67	-23639069.41	0.0089	0.0024	
Moon	-69434-10-03 21:35 J	-23639069.84	-23639069.60	-23639069.33	0.0089	0.0025	*
Moon	-69433-10-05 07:40 J	-23638702.41	-23638702.18	-23638701.92	0.0089	0.0016	
Earth	-69433-10-05 08:37 J	-23638702.39	-23638702.14	-23638701.88	0.0089	0.0017	*
Moon	-69432-10-07 21:21 J	-23638334.88	-23638334.61	-23638334.34	0.0089	0.0011	
Earth	-69432-10-07 21:21 J	-23638334.86	-23638334.61	-23638334.34	0.0089	0.0010	*
Earth	-69431-10-10 10:18 J	-23637967.33	-23637967.07	-23637966.81	0.0089	0.0002	
Moon	-69431-10-10 12:13 J	-23637967.25	-23637966.99	-23637966.74	0.0089	0.0002	*
Moon	-69430-10-12 20:37 J	-23637599.90	-23637599.64	-23637599.37	0.0089	0.0004	
Earth	-69430-10-12 23:16 J	-23637599.79	-23637599.53	-23637599.27	0.0089	0.0005	*
Earth	-69429-10-14 11:59 J	-23637232.25	-23637232.00	-23637231.73	0.0089	0.0012	
Moon	-69429-10-14 15:06 J	-23637232.11	-23637231.87	-23637231.61	0.0089	0.0015	*
Moon	-69428-10-16 21:06 J	-23636864.87	-23636864.62	-23636864.35	0.0089	0.0018	
Earth	-69428-10-17 00:42 J	-23636864.71	-23636864.47	-23636864.20	0.0089	0.0020	*
Earth	-69427-10-19 13:40 J	-23636497.17	-23636496.93	-23636496.67	0.0089	0.0027	
Moon	-69427-10-19 17:16 J	-23636497.02	-23636496.78	-23636496.52	0.0089	0.0029	*
Moon	-69426-10-21 23:45 J	-23636129.75	-23636129.51	-23636129.27	0.0089	0.0031	
Earth	-69426-10-22 02:52 J	-23636129.61	-23636129.38	-23636129.13	0.0089	0.0034	*
Earth	-69425-10-23 15:35 J	-23635762.06	-23635761.85	-23635761.60	0.0089	0.0041	
Moon	-69425-10-23 17:45 J	-23635761.98	-23635761.76	-23635761.51	0.0089	0.0043	*
Mercury	-69424-10-05 14:37 J	-23635414.95	-23635414.89	-23635414.80	0.0089	0.0082	
Moon	-69424-10-26 03:49 J	-23635394.55	-23635394.34	-23635394.12	0.0089	0.0045	
Earth	-69424-10-26 04:47 J	-23635394.50	-23635394.30	-23635394.06	0.0089	0.0048	*
Mercury	-69423-01-01 18:13 J	-23635326.83	-23635326.74	-23635326.62	0.0089	0.0075	
Mercury	-69423-03-30 22:04 J	-23635238.70	-23635238.58	-23635238.44	0.0089	0.0067	
Mercury	-69423-06-27 01:40 J	-23635150.56	-23635150.43	-23635150.27	0.0089	0.0060	
Mercury	-69423-09-23 05:16 J	-23635062.42	-23635062.28	-23635062.10	0.0089	0.0053	

Earth -69423-10-28 17:45 J -23635026.94 -23635026.76 -23635026.53 0.0089 0.0055
 Moon -69423-10-28 17:59 J -23635026.93 -23635026.75 -23635026.52 0.0089 0.0058 *
 Mercury -69423-12-20 09:21 J -23634974.27 -23634974.11 -23634973.94 0.0089 0.0045
 Mercury -69422-03-18 12:57 J -23634886.13 -23634885.96 -23634885.77 0.0089 0.0038
 Mercury -69422-06-14 16:33 J -23634797.98 -23634797.81 -23634797.61 0.0089 0.0031
 Mercury -69422-09-10 20:37 J -23634709.83 -23634709.64 -23634709.45 0.0089 0.0023
 Earth -69422-10-31 06:57 J -23634659.37 -23634659.21 -23634658.99 0.0089 0.0062
 Moon -69422-10-31 08:52 J -23634659.31 -23634659.13 -23634658.93 0.0089 0.0059 *
 Mercury -69422-12-08 00:13 J -23634621.68 -23634621.49 -23634621.29 0.0089 0.0016
 Mercury -69421-03-05 04:04 J -23634533.53 -23634533.33 -23634533.13 0.0089 0.0008
 Mercury -69421-06-01 07:54 J -23634445.37 -23634445.17 -23634444.98 0.0089 0.0001
 Mercury -69421-08-28 11:30 J -23634357.21 -23634357.02 -23634356.82 0.0089 0.0007
 Moon -69421-11-01 18:28 J -23634291.87 -23634291.73 -23634291.55 0.0089 0.0071
 Earth -69421-11-01 21:06 J -23634291.79 -23634291.62 -23634291.45 0.0089 0.0068 *
 Mercury -69421-11-24 15:06 J -23634269.06 -23634268.87 -23634268.67 0.0089 0.0015
 Mercury -69420-02-20 18:57 J -23634180.90 -23634180.71 -23634180.51 0.0088 0.0022
 Mercury -69420-05-19 22:33 J -23634092.74 -23634092.56 -23634092.36 0.0088 0.0029
 Mercury -69420-08-16 02:23 J -23634004.57 -23634004.40 -23634004.21 0.0088 0.0037
 Earth -69420-11-04 10:04 J -23633924.21 -23633924.08 -23633923.93 0.0088 0.0075
 Moon -69420-11-04 12:42 J -23633924.09 -23633923.97 -23633923.79 0.0088 0.0072 *
 Mercury -69420-11-12 06:13 J -23633916.41 -23633916.24 -23633916.07 0.0088 0.0044
 Mercury -69419-02-08 09:35 J -23633828.24 -23633828.10 -23633827.92 0.0088 0.0052
 Mercury -69419-05-07 13:25 J -23633740.07 -23633739.94 -23633739.78 0.0088 0.0059
 Mercury -69419-08-03 17:01 J -23633651.90 -23633651.79 -23633651.64 0.0088 0.0067
 Mercury -69419-10-30 20:52 J -23633563.72 -23633563.63 -23633563.51 0.0088 0.0074
 Moon -69419-11-06 19:40 J -23633556.73 -23633556.68 -23633556.57 0.0088 0.0085
 Earth -69419-11-06 23:16 J -23633556.60 -23633556.53 -23633556.40 0.0088 0.0082 *
 Mercury -69418-01-27 00:42 J -23633475.54 -23633475.47 -23633475.38 0.0088 0.0081
 Mercury -69418-04-25 04:33 J -23633387.31 -23633387.31 -23633387.29 0.0088 0.0088
 Earth -69418-11-09 13:11 J -23633188.97 -23633188.95 -23633188.90 0.0088 0.0088

Moon	-69418-11-09 16:47 J	-23633188.87	-23633188.80	-23633188.71	0.0088	0.0084
Mars	-69409-08-08 13:11 J	-23629994.26	-23629993.95	-23629993.62	0.0088	0.0036
Mars	-69407-07-06 03:06 J	-23629297.67	-23629297.37	-23629297.05	0.0088	0.0041
Venus	-69367-02-22 17:45 J	-23614820.82	-23614820.76	-23614820.64	0.0088	0.0081
Venus	-69367-10-06 06:42 J	-23614595.36	-23614595.22	-23614595.04	0.0088	0.0060
Venus	-69366-05-19 19:25 J	-23614369.87	-23614369.69	-23614369.48	0.0088	0.0041
Venus	-69366-12-31 08:23 J	-23614144.35	-23614144.15	-23614143.92	0.0088	0.0021
Venus	-69365-08-12 21:21 J	-23613918.83	-23613918.61	-23613918.39	0.0088	0.0000
Venus	-69364-03-26 09:49 J	-23613693.30	-23613693.09	-23613692.87	0.0088	0.0020
Venus	-69364-11-06 22:04 J	-23613467.76	-23613467.58	-23613467.37	0.0088	0.0041
Venus	-69363-06-20 10:33 J	-23613242.20	-23613242.06	-23613241.88	0.0088	0.0061
Venus	-69362-01-31 23:01 J	-23613016.61	-23613016.54	-23613016.43	0.0088	0.0081
Moon	-69360-03-19 11:59 J	-23612239.09	-23612239.00	-23612238.90	0.0088	0.0082
Earth	-69360-03-19 15:21 J	-23612238.94	-23612238.86	-23612238.76	0.0088	0.0083 *
Earth	-69359-03-22 02:23 J	-23611871.50	-23611871.40	-23611871.25	0.0088	0.0077
Moon	-69359-03-22 05:16 J	-23611871.40	-23611871.28	-23611871.15	0.0088	0.0077 *
Moon	-69358-03-24 11:59 J	-23611504.12	-23611504.00	-23611503.82	0.0088	0.0070
Earth	-69358-03-24 13:40 J	-23611504.06	-23611503.93	-23611503.75	0.0088	0.0071 *
Earth	-69357-03-26 00:57 J	-23611136.62	-23611136.46	-23611136.26	0.0088	0.0064
Moon	-69357-03-26 01:40 J	-23611136.60	-23611136.43	-23611136.23	0.0088	0.0065 *
Earth	-69356-03-28 12:42 J	-23610769.16	-23610768.97	-23610768.77	0.0088	0.0057
Moon	-69356-03-28 13:25 J	-23610769.11	-23610768.94	-23610768.73	0.0088	0.0057 *
Moon	-69355-03-30 21:35 J	-23610401.79	-23610401.60	-23610401.36	0.0088	0.0052
Earth	-69355-03-30 23:30 J	-23610401.71	-23610401.52	-23610401.29	0.0088	0.0051 *
Earth	-69354-04-02 10:47 J	-23610034.26	-23610034.05	-23610033.81	0.0088	0.0044
Moon	-69354-04-02 13:54 J	-23610034.14	-23610033.92	-23610033.70	0.0088	0.0042 *
Moon	-69353-04-03 18:13 J	-23609666.96	-23609666.74	-23609666.49	0.0088	0.0038
Earth	-69353-04-03 22:04 J	-23609666.81	-23609666.58	-23609666.34	0.0088	0.0037 *
Earth	-69352-04-06 08:52 J	-23609299.36	-23609299.13	-23609298.88	0.0088	0.0030
Moon	-69352-04-06 12:28 J	-23609299.22	-23609298.98	-23609298.73	0.0088	0.0028 *

Moon -69351-04-08 16:33 J -23608932.05 -23608931.81 -23608931.56 0.0089 0.0025
 Earth -69351-04-08 19:54 J -23608931.91 -23608931.67 -23608931.42 0.0089 0.0023 *
 Earth -69350-04-11 06:28 J -23608564.47 -23608564.23 -23608563.97 0.0089 0.0016
 Moon -69350-04-11 08:37 J -23608564.39 -23608564.14 -23608563.87 0.0089 0.0015 *
 Moon -69349-04-12 15:35 J -23608197.09 -23608196.85 -23608196.60 0.0089 0.0011
 Earth -69349-04-12 17:01 J -23608197.04 -23608196.79 -23608196.53 0.0089 0.0009 *
 Earth -69348-04-15 03:35 J -23607829.60 -23607829.35 -23607829.09 0.0089 0.0003
 Moon -69348-04-15 03:49 J -23607829.60 -23607829.34 -23607829.07 0.0089 0.0002 *
 Earth -69347-04-17 14:09 J -23607462.16 -23607461.91 -23607461.65 0.0089 0.0005
 Moon -69347-04-17 15:35 J -23607462.10 -23607461.85 -23607461.60 0.0089 0.0003 *
 Moon -69346-04-19 22:04 J -23607094.83 -23607094.58 -23607094.31 0.0089 0.0014
 Earth -69346-04-20 00:28 J -23607094.73 -23607094.48 -23607094.22 0.0089 0.0011 *
 Earth -69345-04-21 10:33 J -23606727.30 -23606727.06 -23606726.80 0.0089 0.0019
 Moon -69345-04-21 13:54 J -23606727.17 -23606726.92 -23606726.67 0.0089 0.0016 *
 Moon -69344-04-23 17:30 J -23606360.01 -23606359.77 -23606359.52 0.0089 0.0027
 Earth -69344-04-23 20:52 J -23606359.86 -23606359.63 -23606359.37 0.0089 0.0026 *
 Earth -69343-04-26 07:25 J -23605992.42 -23605992.19 -23605991.95 0.0089 0.0032
 Moon -69343-04-26 10:33 J -23605992.29 -23605992.06 -23605991.80 0.0089 0.0030 *
 Mercury -69342-04-17 22:04 J -23605635.61 -23605635.58 -23605635.53 0.0089 0.0085
 Moon -69342-04-28 14:09 J -23605625.11 -23605624.91 -23605624.67 0.0089 0.0042
 Earth -69342-04-28 17:30 J -23605624.98 -23605624.77 -23605624.53 0.0089 0.0039 *
 Mercury -69342-07-14 23:16 J -23605547.57 -23605547.53 -23605547.46 0.0089 0.0080
 Mercury -69342-10-11 00:42 J -23605459.53 -23605459.47 -23605459.39 0.0089 0.0075
 Mercury -69341-01-07 01:54 J -23605371.49 -23605371.42 -23605371.32 0.0089 0.0070
 Mercury -69341-04-04 03:21 J -23605283.44 -23605283.36 -23605283.26 0.0089 0.0065
 Earth -69341-04-30 03:35 J -23605257.55 -23605257.35 -23605257.12 0.0089 0.0046
 Moon -69341-04-30 05:16 J -23605257.48 -23605257.28 -23605257.03 0.0089 0.0044 *
 Mercury -69341-07-01 04:33 J -23605195.39 -23605195.31 -23605195.20 0.0089 0.0060
 Mercury -69341-09-27 05:59 J -23605107.34 -23605107.25 -23605107.14 0.0089 0.0055
 Mercury -69341-12-24 07:11 J -23605019.29 -23605019.20 -23605019.08 0.0089 0.0050

Mercury -69340-03-22 08:37 J -23604931.25 -23604931.14 -23604931.02 0.0089 0.0045
 Moon -69340-05-02 12:42 J -23604890.14 -23604889.97 -23604889.76 0.0089 0.0055
 Earth -69340-05-02 14:09 J -23604890.11 -23604889.91 -23604889.70 0.0089 0.0052 *
 Mercury -69340-06-18 10:04 J -23604843.19 -23604843.08 -23604842.96 0.0089 0.0039
 Mercury -69340-09-14 11:16 J -23604755.14 -23604755.03 -23604754.90 0.0089 0.0035
 Mercury -69340-12-11 12:42 J -23604667.09 -23604666.97 -23604666.84 0.0089 0.0029
 Mercury -69339-03-09 13:54 J -23604579.04 -23604578.92 -23604578.79 0.0089 0.0025
 Moon -69339-05-04 23:45 J -23604522.69 -23604522.51 -23604522.29 0.0089 0.0056
 Earth -69339-05-04 23:59 J -23604522.67 -23604522.50 -23604522.29 0.0089 0.0059 *
 Mercury -69339-06-05 15:21 J -23604490.99 -23604490.86 -23604490.73 0.0089 0.0019
 Mercury -69339-09-01 16:33 J -23604402.94 -23604402.81 -23604402.68 0.0089 0.0015
 Mercury -69339-11-28 17:59 J -23604314.88 -23604314.75 -23604314.62 0.0089 0.0009
 Mercury -69338-02-24 19:11 J -23604226.83 -23604226.70 -23604226.57 0.0089 0.0005
 Earth -69338-05-07 09:49 J -23604155.24 -23604155.09 -23604154.90 0.0089 0.0065
 Moon -69338-05-07 11:45 J -23604155.16 -23604155.01 -23604154.84 0.0089 0.0067 *
 Mercury -69338-05-23 20:37 J -23604138.78 -23604138.64 -23604138.51 0.0089 0.0003
 Mercury -69338-08-19 21:49 J -23604050.72 -23604050.59 -23604050.46 0.0089 0.0006
 Mercury -69338-11-15 23:01 J -23603962.67 -23603962.54 -23603962.40 0.0089 0.0011
 Mercury -69337-02-12 00:28 J -23603874.61 -23603874.48 -23603874.35 0.0089 0.0016
 Moon -69337-05-08 17:16 J -23603787.92 -23603787.78 -23603787.60 0.0089 0.0069
 Earth -69337-05-08 20:09 J -23603787.81 -23603787.66 -23603787.51 0.0089 0.0071 *
 Mercury -69337-05-10 01:40 J -23603786.56 -23603786.43 -23603786.30 0.0089 0.0021
 Mercury -69337-08-06 02:52 J -23603698.50 -23603698.38 -23603698.25 0.0089 0.0026
 Mercury -69337-11-02 04:04 J -23603610.44 -23603610.33 -23603610.20 0.0089 0.0031
 Mercury -69336-01-29 05:30 J -23603522.39 -23603522.27 -23603522.15 0.0089 0.0036
 Mercury -69336-04-27 06:42 J -23603434.33 -23603434.22 -23603434.10 0.0089 0.0041
 Earth -69336-05-11 05:16 J -23603420.37 -23603420.28 -23603420.13 0.0089 0.0078
 Moon -69336-05-11 08:37 J -23603420.21 -23603420.14 -23603420.01 0.0089 0.0081 *
 Mercury -69336-07-24 07:54 J -23603346.27 -23603346.17 -23603346.05 0.0089 0.0046
 Mercury -69336-10-20 09:21 J -23603258.21 -23603258.11 -23603258.00 0.0089 0.0051

Mercury -69335-01-16 10:33 J -23603170.15 -23603170.06 -23603169.95 0.0089 0.0056

Mercury -69335-04-14 11:45 J -23603082.09 -23603082.01 -23603081.90 0.0089 0.0061

Moon -69335-05-13 11:45 J -23603053.08 -23603053.01 -23603052.89 0.0089 0.0082

Earth -69335-05-13 15:21 J -23603052.92 -23603052.86 -23603052.75 0.0089 0.0084 *

Mercury -69335-07-11 13:25 J -23602994.03 -23602993.94 -23602993.85 0.0089 0.0065

Mercury -69335-10-07 14:37 J -23602905.97 -23602905.89 -23602905.81 0.0089 0.0070

Mercury -69334-01-03 15:49 J -23602817.90 -23602817.84 -23602817.77 0.0089 0.0075

Mercury -69334-04-01 17:16 J -23602729.83 -23602729.78 -23602729.73 0.0089 0.0080

Mercury -69334-06-28 18:28 J -23602641.76 -23602641.73 -23602641.69 0.0089 0.0085

Mars -69327-05-07 16:47 J -23600136.98 -23600136.80 -23600136.56 0.0089 0.0060

Mars -69325-03-31 01:11 J -23599443.73 -23599443.45 -23599443.16 0.0089 0.0003

Mars -69323-02-22 11:16 J -23598750.21 -23598750.03 -23598749.82 0.0089 0.0064

Venus -69285-04-05 12:28 J -23584828.09 -23584827.98 -23584827.84 0.0089 0.0073

Venus -69285-11-17 01:25 J -23584602.60 -23584602.44 -23584602.24 0.0089 0.0053

Venus -69284-06-30 15:06 J -23584377.07 -23584376.87 -23584376.66 0.0089 0.0032

Venus -69283-02-11 04:18 J -23584151.53 -23584151.32 -23584151.10 0.0089 0.0012

Venus -69283-09-24 17:30 J -23583925.98 -23583925.77 -23583925.55 0.0089 0.0009

Venus -69282-05-08 06:42 J -23583700.42 -23583700.22 -23583700.00 0.0089 0.0030

Venus -69282-12-19 19:54 J -23583474.84 -23583474.67 -23583474.47 0.0089 0.0051

Venus -69281-08-01 09:35 J -23583249.23 -23583249.10 -23583248.97 0.0089 0.0071

Earth -69280-09-10 00:57 J -23582844.48 -23582844.46 -23582844.40 0.0089 0.0088

Moon -69279-09-12 13:11 J -23582477.07 -23582476.95 -23582476.83 0.0089 0.0077

Earth -69279-09-12 12:42 J -23582477.05 -23582476.97 -23582476.85 0.0089 0.0082 *

Moon -69278-09-14 23:01 J -23582109.63 -23582109.54 -23582109.39 0.0089 0.0080

Earth -69278-09-15 00:28 J -23582109.58 -23582109.48 -23582109.31 0.0089 0.0076 *

Earth -69277-09-16 12:57 J -23581742.11 -23581741.96 -23581741.79 0.0089 0.0069

Moon -69277-09-16 14:52 J -23581742.04 -23581741.88 -23581741.70 0.0089 0.0065 *

Moon -69276-09-18 21:21 J -23581374.75 -23581374.61 -23581374.41 0.0089 0.0068

Earth -69276-09-19 00:42 J -23581374.63 -23581374.47 -23581374.27 0.0089 0.0063 *

Earth -69275-09-21 13:11 J -23581007.15 -23581006.95 -23581006.75 0.0089 0.0056

Moon	-69275-09-21 16:18 J	-23581007.01	-23581006.82	-23581006.59	0.0089	0.0052	*
Moon	-69274-09-23 21:49 J	-23580639.79	-23580639.59	-23580639.38	0.0089	0.0054	
Earth	-69274-09-24 00:57 J	-23580639.65	-23580639.46	-23580639.22	0.0089	0.0050	*
Earth	-69273-09-25 13:11 J	-23580272.16	-23580271.95	-23580271.71	0.0089	0.0043	
Moon	-69273-09-25 16:33 J	-23580272.03	-23580271.81	-23580271.56	0.0089	0.0038	*
Moon	-69272-09-27 23:16 J	-23579904.74	-23579904.53	-23579904.29	0.0089	0.0041	
Earth	-69272-09-28 01:40 J	-23579904.66	-23579904.43	-23579904.19	0.0089	0.0036	*
Earth	-69271-09-30 13:40 J	-23579537.16	-23579536.93	-23579536.67	0.0089	0.0030	
Moon	-69271-09-30 15:35 J	-23579537.10	-23579536.85	-23579536.58	0.0089	0.0025	*
Earth	-69270-10-03 02:09 J	-23579169.65	-23579169.41	-23579169.15	0.0089	0.0023	
Moon	-69270-10-03 02:09 J	-23579169.64	-23579169.41	-23579169.16	0.0089	0.0027	*
Moon	-69269-10-04 13:40 J	-23578802.20	-23578801.93	-23578801.66	0.0089	0.0011	
Earth	-69269-10-04 14:37 J	-23578802.13	-23578801.89	-23578801.62	0.0089	0.0016	*
Earth	-69268-10-07 03:21 J	-23578434.62	-23578434.36	-23578434.10	0.0089	0.0008	
Moon	-69268-10-07 05:01 J	-23578434.53	-23578434.29	-23578434.03	0.0089	0.0013	*
Moon	-69267-10-09 12:57 J	-23578067.22	-23578066.96	-23578066.69	0.0089	0.0003	
Earth	-69267-10-09 16:18 J	-23578067.08	-23578066.82	-23578066.56	0.0089	0.0002	*
Earth	-69266-10-12 05:01 J	-23577699.55	-23577699.29	-23577699.03	0.0089	0.0006	
Moon	-69266-10-12 08:23 J	-23577699.40	-23577699.15	-23577698.89	0.0089	0.0002	*
Moon	-69265-10-13 14:09 J	-23577332.16	-23577331.91	-23577331.65	0.0089	0.0017	
Earth	-69265-10-13 17:45 J	-23577332.01	-23577331.76	-23577331.49	0.0089	0.0013	*
Earth	-69264-10-16 06:42 J	-23576964.47	-23576964.22	-23576963.96	0.0089	0.0020	
Moon	-69264-10-16 10:18 J	-23576964.33	-23576964.07	-23576963.81	0.0089	0.0015	*
Moon	-69263-10-18 17:16 J	-23576597.01	-23576596.78	-23576596.53	0.0089	0.0031	
Earth	-69263-10-18 19:40 J	-23576596.92	-23576596.68	-23576596.42	0.0089	0.0027	*
Earth	-69262-10-21 08:23 J	-23576229.37	-23576229.15	-23576228.89	0.0089	0.0034	
Moon	-69262-10-21 10:33 J	-23576229.30	-23576229.06	-23576228.79	0.0089	0.0030	*
Moon	-69261-10-22 21:06 J	-23575861.82	-23575861.62	-23575861.38	0.0089	0.0045	
Earth	-69261-10-22 21:21 J	-23575861.82	-23575861.61	-23575861.35	0.0089	0.0041	*
Moon	-69260-10-25 09:35 J	-23575494.32	-23575494.10	-23575493.84	0.0089	0.0044	

Earth -69260-10-25 10:18 J -23575494.26 -23575494.07 -23575493.82 0.0089 0.0048 *
 Mercury -69259-04-05 08:37 J -23575332.15 -23575332.14 -23575332.10 0.0089 0.0088
 Mercury -69259-07-02 12:13 J -23575244.05 -23575243.99 -23575243.89 0.0089 0.0081
 Mercury -69259-09-28 16:18 J -23575155.93 -23575155.82 -23575155.71 0.0089 0.0073
 Earth -69259-10-27 23:45 J -23575126.70 -23575126.51 -23575126.29 0.0089 0.0054
 Moon -69259-10-28 01:11 J -23575126.63 -23575126.45 -23575126.24 0.0089 0.0058 *
 Mercury -69259-12-25 19:40 J -23575067.80 -23575067.68 -23575067.54 0.0089 0.0066
 Mercury -69258-03-23 23:16 J -23574979.66 -23574979.53 -23574979.37 0.0089 0.0059
 Mercury -69258-06-20 03:21 J -23574891.52 -23574891.36 -23574891.20 0.0089 0.0051
 Mercury -69258-09-16 06:57 J -23574803.37 -23574803.21 -23574803.03 0.0089 0.0044
 Moon -69258-10-30 09:35 J -23574759.28 -23574759.10 -23574758.87 0.0089 0.0057
 Earth -69258-10-30 12:57 J -23574759.13 -23574758.96 -23574758.75 0.0089 0.0061 *
 Mercury -69258-12-13 10:33 J -23574715.23 -23574715.06 -23574714.87 0.0089 0.0037
 Mercury -69257-03-10 14:23 J -23574627.08 -23574626.90 -23574626.71 0.0089 0.0029
 Mercury -69257-06-06 18:13 J -23574538.93 -23574538.74 -23574538.55 0.0089 0.0022
 Mercury -69257-09-02 21:49 J -23574450.78 -23574450.59 -23574450.39 0.0089 0.0014
 Earth -69257-11-01 02:09 J -23574391.57 -23574391.41 -23574391.23 0.0089 0.0067
 Moon -69257-11-01 05:16 J -23574391.41 -23574391.28 -23574391.11 0.0089 0.0071 *
 Mercury -69257-11-30 01:40 J -23574362.62 -23574362.43 -23574362.23 0.0089 0.0007
 Mercury -69256-02-26 05:30 J -23574274.47 -23574274.27 -23574274.08 0.0089 0.0001
 Mercury -69256-05-25 09:06 J -23574186.31 -23574186.12 -23574185.92 0.0089 0.0008
 Mercury -69256-08-21 12:42 J -23574098.16 -23574097.97 -23574097.77 0.0089 0.0016
 Moon -69256-11-03 11:30 J -23574024.15 -23574024.02 -23574023.83 0.0089 0.0071
 Earth -69256-11-03 15:21 J -23574023.98 -23574023.86 -23574023.69 0.0089 0.0074 *
 Mercury -69256-11-17 16:33 J -23574010.00 -23574009.81 -23574009.62 0.0089 0.0023
 Mercury -69255-02-13 20:09 J -23573921.84 -23573921.66 -23573921.47 0.0089 0.0031
 Mercury -69255-05-12 23:59 J -23573833.67 -23573833.50 -23573833.32 0.0089 0.0038
 Mercury -69255-08-09 03:35 J -23573745.51 -23573745.35 -23573745.17 0.0089 0.0045
 Mercury -69255-11-05 07:25 J -23573657.34 -23573657.19 -23573657.02 0.0088 0.0053
 Earth -69255-11-06 05:01 J -23573656.39 -23573656.29 -23573656.17 0.0088 0.0080

Moon -69255-11-06 08:23 J -23573656.22 -23573656.15 -23573656.05 0.0088 0.0084 *
 Mercury -69254-02-01 11:16 J -23573569.17 -23573569.03 -23573568.88 0.0088 0.0060
 Mercury -69254-04-30 14:37 J -23573481.00 -23573480.89 -23573480.74 0.0088 0.0068
 Mercury -69254-07-27 18:42 J -23573392.82 -23573392.72 -23573392.61 0.0088 0.0075
 Mercury -69254-10-23 22:04 J -23573304.63 -23573304.58 -23573304.49 0.0088 0.0083
 Moon -69254-11-08 15:21 J -23573288.92 -23573288.86 -23573288.75 0.0088 0.0084
 Earth -69254-11-08 17:59 J -23573288.77 -23573288.75 -23573288.66 0.0088 0.0087 *
 Saturn -69250-08-24 12:57 J -23571904.65 -23571903.96 -23571903.22 0.0088 0.0018
 Mars -69245-03-21 12:28 J -23570233.15 -23570232.98 -23570232.73 0.0088 0.0071
 Mars -69243-02-16 05:16 J -23569536.62 -23569536.28 -23569535.93 0.0088 0.0006
 Mars -69241-01-13 18:28 J -23568839.84 -23568839.73 -23568839.57 0.0088 0.0082
 Jupiter -69214-06-09 01:25 J -23558831.86 -23558831.44 -23558830.95 0.0088 0.0047
 Venus -69202-01-07 16:33 J -23554600.93 -23554600.81 -23554600.66 0.0088 0.0069
 Venus -69202-08-21 05:16 J -23554375.44 -23554375.28 -23554375.08 0.0088 0.0049
 Venus -69201-04-02 17:59 J -23554149.94 -23554149.75 -23554149.53 0.0088 0.0030
 Venus -69201-11-14 06:57 J -23553924.42 -23553924.21 -23553923.99 0.0088 0.0009
 Venus -69200-06-27 19:40 J -23553698.89 -23553698.68 -23553698.46 0.0088 0.0011
 Venus -69199-02-08 08:09 J -23553473.35 -23553473.16 -23553472.94 0.0088 0.0032
 Venus -69199-09-21 20:37 J -23553247.80 -23553247.64 -23553247.45 0.0088 0.0052
 Moon -69198-03-15 02:52 J -23553073.39 -23553073.38 -23553073.31 0.0088 0.0087
 Venus -69198-05-05 09:06 J -23553022.23 -23553022.12 -23553021.98 0.0088 0.0072
 Earth -69197-03-16 10:33 J -23552706.08 -23552706.06 -23552705.97 0.0088 0.0087
 Earth -69196-03-18 22:04 J -23552338.65 -23552338.58 -23552338.44 0.0088 0.0081
 Moon -69196-03-19 00:57 J -23552338.58 -23552338.46 -23552338.30 0.0088 0.0076 *
 Moon -69195-03-21 09:06 J -23551971.22 -23551971.12 -23551971.00 0.0088 0.0079
 Earth -69195-03-21 10:04 J -23551971.21 -23551971.08 -23551970.93 0.0088 0.0074 *
 Moon -69194-03-23 20:37 J -23551603.80 -23551603.64 -23551603.43 0.0088 0.0064
 Earth -69194-03-23 21:06 J -23551603.77 -23551603.62 -23551603.44 0.0088 0.0068 *
 Earth -69193-03-25 08:09 J -23551236.32 -23551236.16 -23551235.95 0.0088 0.0062
 Moon -69193-03-25 09:35 J -23551236.26 -23551236.10 -23551235.93 0.0088 0.0066 *

Moon	-69192-03-27 16:47 J	-23550869.00	-23550868.80	-23550868.56	0.0088	0.0050
Earth	-69192-03-27 19:54 J	-23550868.87	-23550868.67	-23550868.46	0.0088	0.0055 *
Earth	-69191-03-30 06:28 J	-23550501.42	-23550501.23	-23550500.99	0.0088	0.0049
Moon	-69191-03-30 09:49 J	-23550501.28	-23550501.09	-23550500.87	0.0088	0.0053 *
Moon	-69190-04-01 14:09 J	-23550134.12	-23550133.91	-23550133.66	0.0088	0.0038
Earth	-69190-04-01 17:59 J	-23550133.97	-23550133.75	-23550133.51	0.0088	0.0042 *
Earth	-69189-04-03 05:01 J	-23549766.52	-23549766.29	-23549766.05	0.0088	0.0035
Moon	-69189-04-03 08:23 J	-23549766.37	-23549766.15	-23549765.91	0.0088	0.0040 *
Moon	-69188-04-05 13:11 J	-23549399.17	-23549398.95	-23549398.69	0.0088	0.0025
Earth	-69188-04-05 16:04 J	-23549399.06	-23549398.83	-23549398.58	0.0088	0.0029 *
Earth	-69187-04-08 03:06 J	-23549031.61	-23549031.37	-23549031.12	0.0088	0.0022
Moon	-69187-04-08 05:30 J	-23549031.52	-23549031.27	-23549031.01	0.0088	0.0026 *
Moon	-69186-04-10 13:11 J	-23548664.19	-23548663.95	-23548663.70	0.0089	0.0011
Earth	-69186-04-10 13:54 J	-23548664.17	-23548663.92	-23548663.66	0.0089	0.0015 *
Moon	-69185-04-12 00:13 J	-23548296.75	-23548296.49	-23548296.22	0.0089	0.0012
Earth	-69185-04-12 00:28 J	-23548296.72	-23548296.48	-23548296.21	0.0089	0.0009 *
Earth	-69184-04-14 11:16 J	-23547929.28	-23547929.03	-23547928.77	0.0089	0.0002
Moon	-69184-04-14 12:42 J	-23547929.22	-23547928.97	-23547928.72	0.0089	0.0003 *
Moon	-69183-04-16 18:57 J	-23547561.97	-23547561.71	-23547561.45	0.0089	0.0001
Earth	-69183-04-16 21:49 J	-23547561.84	-23547561.59	-23547561.33	0.0089	0.0006 *
Earth	-69182-04-19 08:23 J	-23547194.41	-23547194.15	-23547193.90	0.0089	0.0012
Moon	-69182-04-19 11:16 J	-23547194.27	-23547194.03	-23547193.77	0.0089	0.0017 *
Moon	-69181-04-20 14:52 J	-23546827.12	-23546826.88	-23546826.61	0.0089	0.0015
Earth	-69181-04-20 18:42 J	-23546826.97	-23546826.72	-23546826.47	0.0089	0.0019 *
Earth	-69180-04-23 04:47 J	-23546459.53	-23546459.30	-23546459.04	0.0089	0.0026
Moon	-69180-04-23 08:23 J	-23546459.39	-23546459.15	-23546458.90	0.0089	0.0030 *
Moon	-69179-04-25 12:42 J	-23546092.19	-23546091.97	-23546091.72	0.0089	0.0029
Earth	-69179-04-25 15:35 J	-23546092.09	-23546091.85	-23546091.61	0.0089	0.0032 *
Earth	-69178-04-28 01:25 J	-23545724.66	-23545724.44	-23545724.20	0.0089	0.0039
Moon	-69178-04-28 03:21 J	-23545724.57	-23545724.36	-23545724.11	0.0089	0.0043 *

Mercury -69178-10-16 20:23 J -23545552.65 -23545552.65 -23545552.65 0.0089 0.0089
 Mercury -69177-01-12 21:21 J -23545464.64 -23545464.61 -23545464.56 0.0089 0.0084
 Mercury -69177-04-09 22:47 J -23545376.60 -23545376.55 -23545376.48 0.0089 0.0079
 Moon -69177-04-29 11:45 J -23545357.23 -23545357.01 -23545356.79 0.0089 0.0041
 Earth -69177-04-29 11:30 J -23545357.22 -23545357.02 -23545356.78 0.0089 0.0046 *
 Mercury -69177-07-06 23:59 J -23545288.56 -23545288.50 -23545288.42 0.0089 0.0074
 Mercury -69177-10-03 01:25 J -23545200.51 -23545200.44 -23545200.35 0.0089 0.0069
 Mercury -69177-12-30 02:37 J -23545112.47 -23545112.39 -23545112.29 0.0089 0.0064
 Mercury -69176-03-28 04:04 J -23545024.42 -23545024.33 -23545024.23 0.0089 0.0059
 Moon -69176-05-01 20:52 J -23544989.81 -23544989.63 -23544989.40 0.0089 0.0056
 Earth -69176-05-01 21:49 J -23544989.77 -23544989.59 -23544989.36 0.0089 0.0052 *
 Mercury -69176-06-24 05:16 J -23544936.37 -23544936.28 -23544936.16 0.0089 0.0054
 Mercury -69176-09-20 06:42 J -23544848.32 -23544848.22 -23544848.10 0.0089 0.0049
 Mercury -69176-12-17 07:54 J -23544760.27 -23544760.17 -23544760.04 0.0089 0.0044
 Mercury -69175-03-15 09:21 J -23544672.22 -23544672.11 -23544671.99 0.0089 0.0039
 Earth -69175-05-04 08:09 J -23544622.34 -23544622.16 -23544621.95 0.0089 0.0058
 Moon -69175-05-04 10:04 J -23544622.27 -23544622.08 -23544621.88 0.0089 0.0054 *
 Mercury -69175-06-11 10:33 J -23544584.17 -23544584.06 -23544583.93 0.0089 0.0034
 Mercury -69175-09-07 11:59 J -23544496.12 -23544496.00 -23544495.87 0.0089 0.0029
 Mercury -69175-12-04 13:25 J -23544408.07 -23544407.94 -23544407.81 0.0089 0.0024
 Mercury -69174-03-02 14:37 J -23544320.02 -23544319.89 -23544319.76 0.0089 0.0019
 Moon -69174-05-06 14:52 J -23544255.01 -23544254.88 -23544254.69 0.0089 0.0069
 Earth -69174-05-06 18:28 J -23544254.89 -23544254.73 -23544254.54 0.0089 0.0064 *
 Mercury -69174-05-29 16:04 J -23544231.96 -23544231.83 -23544231.70 0.0089 0.0014
 Mercury -69174-08-25 17:16 J -23544143.91 -23544143.78 -23544143.65 0.0089 0.0009
 Mercury -69174-11-21 18:42 J -23544055.86 -23544055.72 -23544055.59 0.0089 0.0004
 Mercury -69173-02-17 19:54 J -23543967.80 -23543967.67 -23543967.54 0.0089 0.0002
 Earth -69173-05-08 04:04 J -23543887.45 -23543887.33 -23543887.15 0.0089 0.0071
 Moon -69173-05-08 07:25 J -23543887.33 -23543887.19 -23543887.00 0.0089 0.0067 *
 Mercury -69173-05-15 21:06 J -23543879.75 -23543879.62 -23543879.48 0.0089 0.0007

Mercury -69173-08-11 22:33 J -23543791.69 -23543791.56 -23543791.43 0.0089 0.0012
 Mercury -69173-11-07 23:45 J -23543703.64 -23543703.51 -23543703.38 0.0089 0.0017
 Mercury -69172-02-04 00:57 J -23543615.58 -23543615.46 -23543615.33 0.0089 0.0022
 Mercury -69172-05-03 02:23 J -23543527.52 -23543527.40 -23543527.27 0.0089 0.0027
 Moon -69172-05-10 10:33 J -23543520.14 -23543520.06 -23543519.93 0.0089 0.0081
 Earth -69172-05-10 14:09 J -23543520.01 -23543519.91 -23543519.76 0.0089 0.0077 *
 Mercury -69172-07-30 03:35 J -23543439.47 -23543439.35 -23543439.22 0.0089 0.0032
 Mercury -69172-10-26 04:47 J -23543351.41 -23543351.30 -23543351.17 0.0089 0.0037
 Mercury -69171-01-22 06:13 J -23543263.35 -23543263.24 -23543263.12 0.0089 0.0042
 Mercury -69171-04-20 07:25 J -23543175.29 -23543175.19 -23543175.07 0.0089 0.0047
 Earth -69171-05-12 23:45 J -23543152.57 -23543152.51 -23543152.38 0.0089 0.0083
 Moon -69171-05-13 03:21 J -23543152.47 -23543152.36 -23543152.22 0.0089 0.0078 *
 Mercury -69171-07-17 08:37 J -23543087.24 -23543087.14 -23543087.02 0.0089 0.0052
 Mercury -69171-10-13 09:49 J -23542999.18 -23542999.09 -23542998.98 0.0089 0.0057
 Mercury -69170-01-09 11:16 J -23542911.12 -23542911.03 -23542910.93 0.0089 0.0062
 Mercury -69170-04-07 12:28 J -23542823.05 -23542822.98 -23542822.88 0.0089 0.0067
 Earth -69170-05-15 09:49 J -23542785.10 -23542785.09 -23542785.04 0.0089 0.0088
 Mercury -69170-07-04 13:40 J -23542734.99 -23542734.93 -23542734.84 0.0089 0.0072
 Mercury -69170-09-30 15:06 J -23542646.92 -23542646.87 -23542646.79 0.0089 0.0077
 Mercury -69170-12-27 16:18 J -23542558.86 -23542558.82 -23542558.76 0.0089 0.0082
 Mercury -69169-03-24 17:59 J -23542470.78 -23542470.75 -23542470.72 0.0089 0.0086
 Mars -69164-12-21 07:40 J -23540373.21 -23540373.18 -23540373.10 0.0089 0.0087
 Mars -69162-11-14 16:33 J -23539680.07 -23539679.81 -23539679.53 0.0089 0.0026
 Mars -69160-10-08 00:13 J -23538986.73 -23538986.49 -23538986.21 0.0089 0.0036
 Venus -69121-07-07 21:21 J -23524833.66 -23524833.61 -23524833.50 0.0089 0.0084
 Venus -69120-02-18 10:47 J -23524608.19 -23524608.05 -23524607.88 0.0089 0.0063
 Venus -69120-10-01 23:45 J -23524382.68 -23524382.51 -23524382.29 0.0089 0.0043
 Venus -69119-05-15 13:25 J -23524157.15 -23524156.94 -23524156.72 0.0089 0.0021
 Venus -69119-12-27 02:37 J -23523931.61 -23523931.39 -23523931.16 0.0089 0.0002
 Venus -69118-08-09 16:04 J -23523706.05 -23523705.83 -23523705.62 0.0089 0.0020

Venus	-69117-03-22 05:01 J	-23523480.48	-23523480.29	-23523480.09	0.0089	0.0041
Moon	-69117-09-06 21:35 J	-23523311.60	-23523311.60	-23523311.58	0.0089	0.0089
Venus	-69117-11-02 17:59 J	-23523254.89	-23523254.75	-23523254.57	0.0089	0.0062
Venus	-69116-06-16 07:11 J	-23523029.25	-23523029.20	-23523029.09	0.0089	0.0083
Earth	-69116-09-09 08:09 J	-23522944.21	-23522944.16	-23522944.06	0.0089	0.0085
Moon	-69116-09-09 08:52 J	-23522944.18	-23522944.13	-23522944.06	0.0089	0.0086 *
Moon	-69115-09-11 18:13 J	-23522576.84	-23522576.74	-23522576.59	0.0089	0.0078
Earth	-69115-09-11 19:54 J	-23522576.76	-23522576.67	-23522576.53	0.0089	0.0079 *
Earth	-69114-09-14 07:40 J	-23522209.30	-23522209.18	-23522209.01	0.0089	0.0073
Moon	-69114-09-14 10:33 J	-23522209.17	-23522209.06	-23522208.90	0.0089	0.0075 *
Moon	-69113-09-15 16:18 J	-23521841.97	-23521841.82	-23521841.62	0.0089	0.0066
Earth	-69113-09-15 19:40 J	-23521841.83	-23521841.68	-23521841.49	0.0089	0.0067 *
Earth	-69112-09-18 08:09 J	-23521474.34	-23521474.16	-23521473.97	0.0089	0.0060
Moon	-69112-09-18 11:16 J	-23521474.19	-23521474.03	-23521473.81	0.0089	0.0061 *
Moon	-69111-09-20 16:33 J	-23521106.99	-23521106.81	-23521106.58	0.0089	0.0053
Earth	-69111-09-20 20:09 J	-23521106.85	-23521106.66	-23521106.44	0.0089	0.0054 *
Earth	-69110-09-23 08:23 J	-23520739.36	-23520739.15	-23520738.93	0.0089	0.0047
Moon	-69110-09-23 11:16 J	-23520739.24	-23520739.03	-23520738.80	0.0089	0.0047 *
Moon	-69109-09-24 18:13 J	-23520371.95	-23520371.74	-23520371.50	0.0089	0.0041
Earth	-69109-09-24 20:23 J	-23520371.86	-23520371.65	-23520371.40	0.0089	0.0041 *
Earth	-69108-09-27 08:52 J	-23520004.36	-23520004.13	-23520003.89	0.0089	0.0034
Moon	-69108-09-27 09:06 J	-23520004.35	-23520004.12	-23520003.85	0.0089	0.0035 *
Earth	-69107-09-29 20:52 J	-23519636.86	-23519636.63	-23519636.36	0.0089	0.0028
Moon	-69107-09-29 21:21 J	-23519636.84	-23519636.61	-23519636.36	0.0089	0.0028 *
Moon	-69106-10-02 07:54 J	-23519269.41	-23519269.17	-23519268.89	0.0089	0.0021
Earth	-69106-10-02 09:35 J	-23519269.34	-23519269.10	-23519268.84	0.0089	0.0021 *
Earth	-69105-10-03 22:04 J	-23518901.84	-23518901.58	-23518901.32	0.0089	0.0014
Moon	-69105-10-04 00:42 J	-23518901.71	-23518901.47	-23518901.21	0.0089	0.0014 *
Moon	-69104-10-06 07:25 J	-23518534.45	-23518534.19	-23518533.92	0.0089	0.0007
Earth	-69104-10-06 10:33 J	-23518534.31	-23518534.06	-23518533.80	0.0089	0.0008 *

Earth	-69103-10-08 23:16 J	-23518166.79	-23518166.53	-23518166.27	0.0089	0.0001
Moon	-69103-10-09 02:52 J	-23518166.63	-23518166.38	-23518166.12	0.0089	0.0002 *
Moon	-69102-10-11 08:23 J	-23517799.40	-23517799.15	-23517798.89	0.0089	0.0007
Earth	-69102-10-11 11:45 J	-23517799.26	-23517799.01	-23517798.74	0.0089	0.0007 *
Earth	-69101-10-13 00:28 J	-23517431.73	-23517431.48	-23517431.21	0.0089	0.0014
Moon	-69101-10-13 03:49 J	-23517431.60	-23517431.34	-23517431.07	0.0089	0.0012 *
Moon	-69100-10-15 11:01 J	-23517064.27	-23517064.04	-23517063.78	0.0089	0.0022
Earth	-69100-10-15 13:40 J	-23517064.18	-23517063.93	-23517063.67	0.0089	0.0020 *
Earth	-69099-10-18 02:37 J	-23516696.63	-23516696.39	-23516696.14	0.0089	0.0027
Moon	-69099-10-18 03:21 J	-23516696.61	-23516696.36	-23516696.09	0.0089	0.0026 *
Earth	-69098-10-20 15:35 J	-23516329.08	-23516328.85	-23516328.60	0.0089	0.0034
Moon	-69098-10-20 15:21 J	-23516329.07	-23516328.86	-23516328.61	0.0089	0.0036 *
Moon	-69097-10-22 03:06 J	-23515961.59	-23515961.37	-23515961.11	0.0089	0.0039
Earth	-69097-10-22 04:18 J	-23515961.53	-23515961.32	-23515961.07	0.0089	0.0041 *
Earth	-69096-10-24 17:45 J	-23515593.97	-23515593.76	-23515593.53	0.0089	0.0047
Moon	-69096-10-24 19:54 J	-23515593.86	-23515593.67	-23515593.43	0.0089	0.0049 *
Moon	-69095-10-27 03:35 J	-23515226.54	-23515226.35	-23515226.11	0.0089	0.0052
Earth	-69095-10-27 06:42 J	-23515226.41	-23515226.22	-23515225.99	0.0089	0.0054 *
Mercury	-69095-12-31 06:42 J	-23515161.25	-23515161.22	-23515161.16	0.0089	0.0086
Mercury	-69094-03-29 10:18 J	-23515073.14	-23515073.07	-23515072.96	0.0089	0.0079
Mercury	-69094-06-25 13:54 J	-23514985.01	-23514984.92	-23514984.78	0.0089	0.0072
Mercury	-69094-09-21 17:59 J	-23514896.88	-23514896.75	-23514896.61	0.0089	0.0064
Earth	-69094-10-29 19:54 J	-23514858.85	-23514858.67	-23514858.47	0.0089	0.0060
Moon	-69094-10-29 23:30 J	-23514858.69	-23514858.52	-23514858.32	0.0089	0.0063 *
Mercury	-69094-12-18 21:21 J	-23514808.74	-23514808.61	-23514808.44	0.0089	0.0057
Mercury	-69093-03-16 01:25 J	-23514720.60	-23514720.44	-23514720.27	0.0089	0.0049
Mercury	-69093-06-12 05:01 J	-23514632.45	-23514632.29	-23514632.11	0.0089	0.0042
Mercury	-69093-09-08 08:37 J	-23514544.31	-23514544.14	-23514543.95	0.0089	0.0035
Moon	-69093-10-31 05:30 J	-23514491.43	-23514491.27	-23514491.07	0.0089	0.0065
Earth	-69093-10-31 08:52 J	-23514491.28	-23514491.13	-23514490.93	0.0089	0.0067 *

Mercury -69093-12-05 12:28 J -23514456.16 -23514455.98 -23514455.79 0.0089 0.0027
 Mercury -69092-03-03 16:18 J -23514368.01 -23514367.82 -23514367.63 0.0089 0.0020
 Mercury -69092-05-30 19:54 J -23514279.86 -23514279.67 -23514279.47 0.0089 0.0012
 Mercury -69092-08-26 23:45 J -23514191.71 -23514191.51 -23514191.31 0.0089 0.0005
 Earth -69092-11-02 22:04 J -23514123.71 -23514123.58 -23514123.41 0.0089 0.0073
 Moon -69092-11-03 01:25 J -23514123.55 -23514123.44 -23514123.28 0.0089 0.0076 *
 Mercury -69092-11-23 03:35 J -23514103.55 -23514103.35 -23514103.16 0.0089 0.0003
 Mercury -69091-02-19 07:11 J -23514015.39 -23514015.20 -23514015.00 0.0089 0.0010
 Mercury -69091-05-18 10:47 J -23513927.24 -23513927.05 -23513926.85 0.0089 0.0018
 Mercury -69091-08-14 14:37 J -23513839.08 -23513838.89 -23513838.70 0.0089 0.0025
 Moon -69091-11-05 08:37 J -23513756.24 -23513756.14 -23513755.98 0.0089 0.0077
 Earth -69091-11-05 11:45 J -23513756.12 -23513756.01 -23513755.88 0.0089 0.0079 *
 Mercury -69091-11-10 18:13 J -23513750.92 -23513750.74 -23513750.55 0.0089 0.0033
 Mercury -69090-02-06 22:04 J -23513662.75 -23513662.58 -23513662.40 0.0089 0.0040
 Mercury -69090-05-06 01:25 J -23513574.59 -23513574.44 -23513574.25 0.0089 0.0048
 Mercury -69090-08-02 05:16 J -23513486.42 -23513486.28 -23513486.11 0.0089 0.0055
 Mercury -69090-10-29 09:21 J -23513398.25 -23513398.11 -23513397.97 0.0089 0.0062
 Earth -69090-11-08 01:11 J -23513388.52 -23513388.45 -23513388.37 0.0089 0.0085
 Moon -69090-11-08 01:54 J -23513388.43 -23513388.42 -23513388.35 0.0089 0.0088 *
 Mercury -69089-01-25 12:42 J -23513310.08 -23513309.97 -23513309.83 0.0089 0.0070
 Mercury -69089-04-22 16:33 J -23513221.89 -23513221.81 -23513221.70 0.0089 0.0077
 Mercury -69089-07-19 20:09 J -23513133.70 -23513133.66 -23513133.58 0.0089 0.0085
 Moon -69089-11-09 13:40 J -23513020.93 -23513020.93 -23513020.89 0.0089 0.0088
 Mars -69080-09-29 06:42 J -23509775.52 -23509775.22 -23509774.86 0.0088 0.0029
 Mars -69078-08-26 22:18 J -23509078.84 -23509078.57 -23509078.25 0.0088 0.0048
 Jupiter -69048-08-10 15:49 J -23498137.13 -23498136.84 -23498136.44 0.0088 0.0069
 Venus -69038-04-11 03:06 J -23494606.47 -23494606.37 -23494606.27 0.0088 0.0078
 Venus -69038-11-22 15:35 J -23494381.00 -23494380.85 -23494380.67 0.0088 0.0058
 Venus -69037-07-05 04:33 J -23494155.50 -23494155.31 -23494155.11 0.0088 0.0037
 Venus -69036-02-15 17:16 J -23493929.99 -23493929.78 -23493929.56 0.0088 0.0017

Venus	-69036-09-29 05:59 J	-23493704.47	-23493704.25	-23493704.03	0.0088	0.0003
Venus	-69035-05-12 18:28 J	-23493478.93	-23493478.73	-23493478.51	0.0088	0.0023
Venus	-69035-12-24 07:11 J	-23493253.38	-23493253.20	-23493253.00	0.0088	0.0043
Venus	-69034-08-06 19:40 J	-23493027.81	-23493027.68	-23493027.51	0.0088	0.0063
Earth	-69033-03-15 19:25 J	-23492805.77	-23492805.69	-23492805.60	0.0088	0.0083
Moon	-69033-03-15 20:23 J	-23492805.71	-23492805.65	-23492805.53	0.0088	0.0084 *
Venus	-69033-03-19 08:37 J	-23492802.21	-23492802.14	-23492802.07	0.0088	0.0083
Moon	-69032-03-18 05:59 J	-23492438.35	-23492438.25	-23492438.11	0.0088	0.0078
Earth	-69032-03-18 07:11 J	-23492438.32	-23492438.20	-23492438.07	0.0088	0.0077 *
Moon	-69031-03-20 17:45 J	-23492070.91	-23492070.76	-23492070.59	0.0088	0.0071
Earth	-69031-03-20 18:28 J	-23492070.87	-23492070.73	-23492070.57	0.0088	0.0071 *
Earth	-69030-03-23 05:45 J	-23491703.42	-23491703.26	-23491703.07	0.0088	0.0065
Moon	-69030-03-23 07:40 J	-23491703.33	-23491703.18	-23491702.99	0.0088	0.0065 *
Moon	-69029-03-24 14:09 J	-23491336.08	-23491335.91	-23491335.68	0.0088	0.0059
Earth	-69029-03-24 17:01 J	-23491335.97	-23491335.79	-23491335.58	0.0088	0.0059 *
Earth	-69028-03-27 04:04 J	-23490968.52	-23490968.33	-23490968.10	0.0088	0.0053
Moon	-69028-03-27 07:54 J	-23490968.37	-23490968.17	-23490967.96	0.0088	0.0053 *
Moon	-69027-03-29 11:45 J	-23490601.20	-23490601.01	-23490600.77	0.0088	0.0047
Earth	-69027-03-29 15:49 J	-23490601.06	-23490600.84	-23490600.62	0.0088	0.0046 *
Earth	-69026-04-01 02:23 J	-23490233.61	-23490233.40	-23490233.16	0.0088	0.0040
Moon	-69026-04-01 05:59 J	-23490233.47	-23490233.25	-23490233.01	0.0088	0.0041 *
Moon	-69025-04-02 11:01 J	-23489866.26	-23489866.04	-23489865.80	0.0088	0.0032
Earth	-69025-04-02 13:25 J	-23489866.16	-23489865.94	-23489865.68	0.0088	0.0034 *
Earth	-69024-04-05 00:42 J	-23489498.70	-23489498.47	-23489498.21	0.0088	0.0027
Moon	-69024-04-05 02:23 J	-23489498.65	-23489498.40	-23489498.15	0.0088	0.0027 *
Moon	-69023-04-07 11:01 J	-23489131.28	-23489131.04	-23489130.79	0.0088	0.0019
Earth	-69023-04-07 11:45 J	-23489131.26	-23489131.01	-23489130.76	0.0088	0.0020 *
Moon	-69022-04-09 21:35 J	-23488763.85	-23488763.60	-23488763.33	0.0088	0.0015
Earth	-69022-04-09 22:33 J	-23488763.80	-23488763.56	-23488763.30	0.0088	0.0014 *
Earth	-69021-04-11 09:35 J	-23488396.35	-23488396.10	-23488395.84	0.0089	0.0007

Moon -69021-04-11 11:45 J -23488396.25 -23488396.01 -23488395.76 0.0089 0.0007 *
 Moon -69020-04-13 17:45 J -23488029.02 -23488028.76 -23488028.50 0.0089 0.0001
 Earth -69020-04-13 20:23 J -23488028.90 -23488028.65 -23488028.39 0.0089 0.0002 *
 Earth -69019-04-16 06:57 J -23487661.46 -23487661.21 -23487660.95 0.0089 0.0007
 Moon -69019-04-16 10:33 J -23487661.31 -23487661.06 -23487660.80 0.0089 0.0008 *
 Moon -69018-04-18 13:54 J -23487294.16 -23487293.92 -23487293.66 0.0089 0.0013
 Earth -69018-04-18 17:30 J -23487294.02 -23487293.77 -23487293.51 0.0089 0.0013 *
 Earth -69017-04-20 03:49 J -23486926.58 -23486926.34 -23486926.08 0.0089 0.0020
 Moon -69017-04-20 07:11 J -23486926.45 -23486926.20 -23486925.94 0.0089 0.0022 *
 Moon -69016-04-22 11:45 J -23486559.24 -23486559.01 -23486558.76 0.0089 0.0025
 Earth -69016-04-22 14:23 J -23486559.14 -23486558.90 -23486558.65 0.0089 0.0026 *
 Earth -69015-04-25 00:13 J -23486191.71 -23486191.49 -23486191.24 0.0089 0.0033
 Moon -69015-04-25 01:11 J -23486191.68 -23486191.45 -23486191.19 0.0089 0.0034 *
 Moon -69014-04-27 10:33 J -23485824.28 -23485824.06 -23485823.84 0.0089 0.0037
 Earth -69014-04-27 10:33 J -23485824.28 -23485824.06 -23485823.82 0.0089 0.0039 *
 Moon -69013-04-28 19:25 J -23485456.90 -23485456.69 -23485456.45 0.0089 0.0047
 Earth -69013-04-28 21:06 J -23485456.84 -23485456.62 -23485456.40 0.0089 0.0045 *
 Mercury -69013-07-12 19:25 J -23485381.69 -23485381.69 -23485381.66 0.0089 0.0088
 Mercury -69013-10-08 20:52 J -23485293.66 -23485293.63 -23485293.57 0.0089 0.0083
 Mercury -69012-01-04 22:18 J -23485205.63 -23485205.57 -23485205.50 0.0089 0.0078
 Mercury -69012-04-02 23:30 J -23485117.58 -23485117.52 -23485117.43 0.0089 0.0073
 Earth -69012-05-01 06:42 J -23485089.41 -23485089.22 -23485088.99 0.0089 0.0052
 Moon -69012-05-01 09:06 J -23485089.30 -23485089.12 -23485088.89 0.0089 0.0051 *
 Mercury -69012-06-30 00:57 J -23485029.54 -23485029.46 -23485029.37 0.0089 0.0068
 Mercury -69012-09-26 02:09 J -23484941.49 -23484941.41 -23484941.31 0.0089 0.0063
 Mercury -69012-12-23 03:35 J -23484853.44 -23484853.35 -23484853.25 0.0089 0.0058
 Mercury -69011-03-21 04:47 J -23484765.40 -23484765.30 -23484765.18 0.0089 0.0053
 Moon -69011-05-03 13:54 J -23484722.09 -23484721.92 -23484721.71 0.0089 0.0060
 Earth -69011-05-03 17:01 J -23484721.97 -23484721.79 -23484721.58 0.0089 0.0058 *
 Mercury -69011-06-17 06:13 J -23484677.35 -23484677.24 -23484677.13 0.0089 0.0048

Mercury -69011-09-13 07:25 J -23484589.30 -23484589.19 -23484589.07 0.0089 0.0043

Mercury -69011-12-10 08:52 J -23484501.25 -23484501.13 -23484501.01 0.0089 0.0037

Mercury -69010-03-08 10:04 J -23484413.19 -23484413.08 -23484412.95 0.0089 0.0033

Earth -69010-05-06 03:06 J -23484354.53 -23484354.37 -23484354.18 0.0089 0.0064

Moon -69010-05-06 06:57 J -23484354.38 -23484354.21 -23484354.02 0.0089 0.0062 *

Mercury -69010-06-04 11:30 J -23484325.14 -23484325.02 -23484324.89 0.0089 0.0027

Mercury -69010-08-31 12:42 J -23484237.09 -23484236.97 -23484236.84 0.0089 0.0023

Mercury -69010-11-27 14:09 J -23484149.04 -23484148.91 -23484148.78 0.0089 0.0017

Mercury -69009-02-23 15:21 J -23484060.99 -23484060.86 -23484060.72 0.0089 0.0013

Moon -69009-05-07 10:18 J -23483987.21 -23483987.07 -23483986.91 0.0089 0.0071

Earth -69009-05-07 13:25 J -23483987.08 -23483986.94 -23483986.77 0.0089 0.0070 *

Mercury -69009-05-21 16:47 J -23483972.93 -23483972.80 -23483972.67 0.0089 0.0007

Mercury -69009-08-17 17:59 J -23483884.88 -23483884.75 -23483884.61 0.0089 0.0003

Mercury -69009-11-13 19:25 J -23483796.82 -23483796.69 -23483796.56 0.0089 0.0003

Mercury -69008-02-09 20:37 J -23483708.77 -23483708.64 -23483708.51 0.0089 0.0008

Mercury -69008-05-08 22:04 J -23483620.71 -23483620.58 -23483620.45 0.0089 0.0013

Earth -69008-05-09 23:16 J -23483619.63 -23483619.53 -23483619.37 0.0089 0.0076

Moon -69008-05-10 02:37 J -23483619.52 -23483619.39 -23483619.23 0.0089 0.0073 *

Mercury -69008-08-04 23:16 J -23483532.66 -23483532.53 -23483532.40 0.0089 0.0018

Mercury -69008-11-01 00:28 J -23483444.60 -23483444.48 -23483444.35 0.0089 0.0023

Mercury -69007-01-28 01:54 J -23483356.55 -23483356.42 -23483356.30 0.0089 0.0028

Mercury -69007-04-26 03:06 J -23483268.49 -23483268.37 -23483268.24 0.0089 0.0033

Moon -69007-05-12 07:11 J -23483252.25 -23483252.20 -23483252.09 0.0089 0.0084

Earth -69007-05-12 09:06 J -23483252.19 -23483252.12 -23483251.99 0.0089 0.0082 *

Mercury -69007-07-23 04:18 J -23483180.43 -23483180.32 -23483180.19 0.0089 0.0038

Mercury -69007-10-19 05:45 J -23483092.37 -23483092.26 -23483092.14 0.0089 0.0043

Mercury -69006-01-15 06:57 J -23483004.31 -23483004.21 -23483004.09 0.0089 0.0048

Mercury -69006-04-13 08:09 J -23482916.26 -23482916.16 -23482916.05 0.0089 0.0053

Earth -69006-05-14 19:25 J -23482884.72 -23482884.69 -23482884.63 0.0089 0.0087

Moon -69006-05-14 20:09 J -23482884.72 -23482884.66 -23482884.58 0.0089 0.0085 *

Mercury -69006-07-10 09:35 J -23482828.19 -23482828.10 -23482828.00 0.0089 0.0058

Mercury -69006-10-06 10:47 J -23482740.13 -23482740.05 -23482739.95 0.0089 0.0063

Mercury -69005-01-02 11:59 J -23482652.07 -23482652.00 -23482651.90 0.0089 0.0068

Mercury -69005-03-30 13:25 J -23482564.01 -23482563.94 -23482563.86 0.0089 0.0073

Mercury -69005-06-26 14:37 J -23482475.94 -23482475.89 -23482475.82 0.0089 0.0078

Mercury -69005-09-22 15:49 J -23482387.87 -23482387.84 -23482387.78 0.0089 0.0083

Mercury -69005-12-19 17:16 J -23482299.79 -23482299.78 -23482299.76 0.0089 0.0088

69TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 69th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-68998-06-30 08:37 J	-23479916.36	-23479916.14	-23479915.91	0.0089	0.0053		
Mars	-68996-05-23 17:59 J	-23479223.02	-23479222.75	-23479222.46	0.0089	0.0008		
Mars	-68994-04-17 02:23 J	-23478529.55	-23478529.40	-23478529.20	0.0089	0.0069		
Venus	-68956-05-22 20:37 J	-23464613.75	-23464613.64	-23464613.49	0.0089	0.0071		
Venus	-68955-01-03 10:04 J	-23464388.25	-23464388.08	-23464387.89	0.0089	0.0051		
Venus	-68955-08-16 23:01 J	-23464162.73	-23464162.54	-23464162.31	0.0089	0.0031		
Venus	-68954-03-30 12:28 J	-23463937.19	-23463936.98	-23463936.75	0.0089	0.0009		
Moon	-68954-09-04 19:11 J	-23463778.72	-23463778.70	-23463778.66	0.0089	0.0089		
Venus	-68954-11-11 01:40 J	-23463711.64	-23463711.43	-23463711.20	0.0089	0.0012		
Venus	-68953-06-23 15:06 J	-23463486.07	-23463485.87	-23463485.66	0.0089	0.0032		
Earth	-68953-09-06 05:45 J	-23463411.29	-23463411.26	-23463411.20	0.0089	0.0087		

Venus	-68952-02-04 04:04 J	-23463260.49	-23463260.33	-23463260.14	0.0089	0.0054
Moon	-68952-09-08 14:52 J	-23463043.98	-23463043.88	-23463043.73	0.0089	0.0078
Earth	-68952-09-08 17:01 J	-23463043.86	-23463043.79	-23463043.66	0.0089	0.0082 *
Venus	-68952-09-17 17:16 J	-23463034.88	-23463034.78	-23463034.64	0.0089	0.0074
Earth	-68951-09-11 04:33 J	-23462676.41	-23462676.31	-23462676.15	0.0089	0.0077
Moon	-68951-09-11 07:54 J	-23462676.27	-23462676.17	-23462676.06	0.0089	0.0080 *
Moon	-68950-09-13 12:57 J	-23462309.12	-23462308.96	-23462308.77	0.0089	0.0066
Earth	-68950-09-13 16:18 J	-23462308.95	-23462308.82	-23462308.64	0.0089	0.0070 *
Earth	-68949-09-15 04:04 J	-23461941.49	-23461941.33	-23461941.13	0.0089	0.0064
Moon	-68949-09-15 07:40 J	-23461941.33	-23461941.18	-23461941.00	0.0089	0.0068 *
Moon	-68948-09-17 12:57 J	-23461574.15	-23461573.96	-23461573.75	0.0089	0.0053
Earth	-68948-09-17 16:04 J	-23461574.00	-23461573.83	-23461573.61	0.0089	0.0058 *
Earth	-68947-09-20 04:18 J	-23461206.52	-23461206.32	-23461206.10	0.0089	0.0051
Moon	-68947-09-20 06:28 J	-23461206.41	-23461206.23	-23461206.00	0.0089	0.0056 *
Moon	-68946-09-22 15:06 J	-23460839.08	-23460838.87	-23460838.63	0.0089	0.0041
Earth	-68946-09-22 16:18 J	-23460839.02	-23460838.82	-23460838.58	0.0089	0.0045 *
Earth	-68945-09-24 04:47 J	-23460471.53	-23460471.30	-23460471.06	0.0089	0.0038
Moon	-68945-09-24 05:01 J	-23460471.51	-23460471.29	-23460471.04	0.0089	0.0043 *
Earth	-68944-09-26 16:47 J	-23460104.03	-23460103.80	-23460103.54	0.0089	0.0032
Moon	-68944-09-26 17:45 J	-23460103.98	-23460103.76	-23460103.50	0.0089	0.0028 *
Moon	-68943-09-29 02:52 J	-23459736.61	-23459736.38	-23459736.11	0.0089	0.0030
Earth	-68943-09-29 05:30 J	-23459736.52	-23459736.27	-23459736.02	0.0089	0.0025 *
Earth	-68942-10-01 17:30 J	-23459369.02	-23459368.77	-23459368.51	0.0089	0.0019
Moon	-68942-10-01 20:23 J	-23459368.90	-23459368.65	-23459368.40	0.0089	0.0014 *
Moon	-68941-10-03 02:23 J	-23459001.65	-23459001.40	-23459001.14	0.0089	0.0017
Earth	-68941-10-03 06:13 J	-23459001.50	-23459001.24	-23459000.99	0.0089	0.0012 *
Earth	-68940-10-05 18:28 J	-23458633.99	-23458633.73	-23458633.47	0.0089	0.0006
Moon	-68940-10-05 22:04 J	-23458633.84	-23458633.58	-23458633.32	0.0089	0.0001 *
Moon	-68939-10-08 03:35 J	-23458266.60	-23458266.35	-23458266.09	0.0089	0.0004
Earth	-68939-10-08 06:57 J	-23458266.46	-23458266.21	-23458265.94	0.0089	0.0002 *

Earth	-68938-10-10 19:25 J	-23457898.94	-23457898.69	-23457898.42	0.0089	0.0008
Moon	-68938-10-10 22:04 J	-23457898.84	-23457898.58	-23457898.31	0.0089	0.0013 *
Moon	-68937-10-12 06:42 J	-23457531.47	-23457531.22	-23457530.97	0.0089	0.0010
Earth	-68937-10-12 08:09 J	-23457531.41	-23457531.16	-23457530.90	0.0089	0.0015 *
Earth	-68936-10-14 20:52 J	-23457163.87	-23457163.63	-23457163.37	0.0089	0.0021
Moon	-68936-10-14 21:35 J	-23457163.84	-23457163.60	-23457163.33	0.0089	0.0026 *
Earth	-68935-10-17 09:49 J	-23456796.33	-23456796.09	-23456795.83	0.0089	0.0028
Moon	-68935-10-17 11:01 J	-23456796.28	-23456796.04	-23456795.80	0.0089	0.0023 *
Moon	-68934-10-19 20:37 J	-23456428.86	-23456428.64	-23456428.38	0.0089	0.0039
Earth	-68934-10-19 23:01 J	-23456428.78	-23456428.54	-23456428.30	0.0089	0.0034 *
Earth	-68933-10-21 11:45 J	-23456061.22	-23456061.01	-23456060.76	0.0089	0.0041
Moon	-68933-10-21 14:23 J	-23456061.12	-23456060.90	-23456060.66	0.0089	0.0037 *
Moon	-68932-10-23 21:35 J	-23455693.81	-23455693.60	-23455693.38	0.0089	0.0052
Earth	-68932-10-24 00:57 J	-23455693.66	-23455693.46	-23455693.22	0.0089	0.0048 *
Earth	-68931-10-26 14:09 J	-23455326.10	-23455325.91	-23455325.69	0.0089	0.0054
Moon	-68931-10-26 17:30 J	-23455325.97	-23455325.77	-23455325.54	0.0089	0.0050 *
Mercury	-68930-09-27 05:01 J	-23454990.34	-23454990.29	-23454990.22	0.0089	0.0084
Moon	-68930-10-29 00:13 J	-23454958.67	-23454958.49	-23454958.32	0.0089	0.0064
Earth	-68930-10-29 03:35 J	-23454958.53	-23454958.35	-23454958.15	0.0089	0.0060 *
Mercury	-68930-12-24 08:23 J	-23454902.22	-23454902.15	-23454902.03	0.0089	0.0077
Mercury	-68929-03-21 12:42 J	-23454814.09	-23454813.97	-23454813.85	0.0089	0.0069
Mercury	-68929-06-17 16:04 J	-23454725.96	-23454725.83	-23454725.68	0.0089	0.0062
Mercury	-68929-09-13 19:40 J	-23454637.82	-23454637.68	-23454637.51	0.0089	0.0055
Earth	-68929-10-30 16:18 J	-23454590.97	-23454590.82	-23454590.62	0.0089	0.0067
Moon	-68929-10-30 19:25 J	-23454590.87	-23454590.69	-23454590.48	0.0089	0.0062 *
Mercury	-68929-12-10 23:45 J	-23454549.67	-23454549.51	-23454549.34	0.0089	0.0047
Mercury	-68928-03-09 03:21 J	-23454461.53	-23454461.36	-23454461.18	0.0089	0.0040
Mercury	-68928-06-05 07:11 J	-23454373.38	-23454373.20	-23454373.01	0.0089	0.0032
Mercury	-68928-09-01 10:47 J	-23454285.23	-23454285.05	-23454284.85	0.0089	0.0025
Moon	-68928-11-02 04:04 J	-23454223.45	-23454223.33	-23454223.19	0.0089	0.0076

Earth -68928-11-02 05:30 J -23454223.39 -23454223.27 -23454223.09 0.0089 0.0073 *
 Mercury -68928-11-28 14:23 J -23454197.08 -23454196.90 -23454196.70 0.0089 0.0018
 Mercury -68927-02-24 18:28 J -23454108.93 -23454108.73 -23454108.54 0.0089 0.0010
 Mercury -68927-05-23 22:04 J -23454020.78 -23454020.58 -23454020.38 0.0089 0.0002
 Mercury -68927-08-20 01:40 J -23453932.62 -23453932.43 -23453932.23 0.0089 0.0006
 Earth -68927-11-04 18:57 J -23453855.80 -23453855.71 -23453855.56 0.0089 0.0079
 Moon -68927-11-04 20:09 J -23453855.78 -23453855.66 -23453855.49 0.0089 0.0075 *
 Mercury -68927-11-16 05:30 J -23453844.46 -23453844.27 -23453844.07 0.0089 0.0013
 Mercury -68926-02-12 09:21 J -23453756.31 -23453756.11 -23453755.92 0.0089 0.0020
 Mercury -68926-05-11 12:42 J -23453668.14 -23453667.97 -23453667.77 0.0089 0.0028
 Mercury -68926-08-07 16:33 J -23453579.98 -23453579.81 -23453579.62 0.0089 0.0035
 Mercury -68926-11-03 20:09 J -23453491.82 -23453491.66 -23453491.47 0.0089 0.0043
 Earth -68926-11-07 08:37 J -23453488.21 -23453488.14 -23453488.05 0.0089 0.0084
 Moon -68926-11-07 08:52 J -23453488.13 -23453488.13 -23453488.09 0.0089 0.0088 *
 Mercury -68925-01-30 23:59 J -23453403.65 -23453403.50 -23453403.33 0.0089 0.0050
 Mercury -68925-04-28 03:35 J -23453315.49 -23453315.35 -23453315.19 0.0089 0.0057
 Mercury -68925-07-25 07:25 J -23453227.31 -23453227.19 -23453227.05 0.0089 0.0065
 Mercury -68925-10-21 11:16 J -23453139.14 -23453139.03 -23453138.91 0.0089 0.0072
 Moon -68925-11-08 20:09 J -23453120.69 -23453120.66 -23453120.57 0.0089 0.0087
 Mercury -68924-01-17 14:37 J -23453050.95 -23453050.89 -23453050.78 0.0089 0.0080
 Mercury -68924-04-15 18:42 J -23452962.75 -23452962.72 -23452962.68 0.0089 0.0087
 Mars -68916-05-12 11:30 J -23450014.25 -23450014.02 -23450013.74 0.0088 0.0061
 Mars -68914-04-09 04:18 J -23449317.66 -23449317.32 -23449316.97 0.0088 0.0015
 Venus -68874-07-13 13:54 J -23434611.96 -23434611.92 -23434611.86 0.0088 0.0086
 Venus -68873-02-24 02:37 J -23434386.53 -23434386.39 -23434386.23 0.0088 0.0065
 Venus -68873-10-06 15:21 J -23434161.04 -23434160.86 -23434160.66 0.0088 0.0045
 Venus -68872-05-20 04:04 J -23433935.53 -23433935.33 -23433935.11 0.0088 0.0025
 Venus -68872-12-31 17:01 J -23433710.01 -23433709.79 -23433709.57 0.0088 0.0005
 Moon -68871-03-11 02:23 J -23433640.45 -23433640.40 -23433640.36 0.0088 0.0087
 Venus -68871-08-14 05:30 J -23433484.48 -23433484.27 -23433484.04 0.0088 0.0016

Earth	-68870-03-13 15:49 J	-23433272.88	-23433272.84	-23433272.75	0.0088	0.0085
Venus	-68870-03-27 17:59 J	-23433258.94	-23433258.75	-23433258.53	0.0088	0.0036
Venus	-68870-11-08 06:28 J	-23433033.38	-23433033.23	-23433033.04	0.0088	0.0056
Moon	-68869-03-15 04:04 J	-23432905.44	-23432905.33	-23432905.18	0.0088	0.0075
Earth	-68869-03-15 03:49 J	-23432905.43	-23432905.34	-23432905.21	0.0088	0.0080 *
Venus	-68869-06-20 18:57 J	-23432807.80	-23432807.71	-23432807.57	0.0088	0.0076
Moon	-68868-03-17 14:23 J	-23432538.01	-23432537.90	-23432537.75	0.0088	0.0078
Earth	-68868-03-17 15:35 J	-23432537.97	-23432537.85	-23432537.69	0.0088	0.0074 *
Earth	-68867-03-20 03:21 J	-23432170.51	-23432170.36	-23432170.18	0.0088	0.0068
Moon	-68867-03-20 05:16 J	-23432170.44	-23432170.28	-23432170.09	0.0088	0.0063 *
Moon	-68866-03-22 11:16 J	-23431803.18	-23431803.03	-23431802.83	0.0088	0.0067
Earth	-68866-03-22 14:52 J	-23431803.05	-23431802.88	-23431802.68	0.0088	0.0062 *
Earth	-68865-03-24 02:23 J	-23431435.59	-23431435.40	-23431435.19	0.0088	0.0056
Moon	-68865-03-24 05:30 J	-23431435.46	-23431435.27	-23431435.04	0.0088	0.0052 *
Moon	-68864-03-26 09:49 J	-23431068.27	-23431068.09	-23431067.87	0.0088	0.0055
Earth	-68864-03-26 13:40 J	-23431068.13	-23431067.93	-23431067.70	0.0088	0.0050 *
Earth	-68863-03-29 00:42 J	-23430700.68	-23430700.47	-23430700.23	0.0088	0.0043
Moon	-68863-03-29 03:49 J	-23430700.56	-23430700.34	-23430700.09	0.0088	0.0039 *
Moon	-68862-03-31 09:35 J	-23430333.30	-23430333.10	-23430332.86	0.0088	0.0042
Earth	-68862-03-31 12:13 J	-23430333.22	-23430332.99	-23430332.75	0.0088	0.0037 *
Earth	-68861-04-01 23:16 J	-23429965.77	-23429965.53	-23429965.28	0.0088	0.0031
Moon	-68861-04-02 00:28 J	-23429965.71	-23429965.48	-23429965.21	0.0088	0.0027 *
Earth	-68860-04-04 10:04 J	-23429598.32	-23429598.08	-23429597.82	0.0088	0.0024
Moon	-68860-04-04 10:33 J	-23429598.29	-23429598.06	-23429597.82	0.0088	0.0029 *
Moon	-68859-04-06 19:54 J	-23429230.93	-23429230.67	-23429230.40	0.0088	0.0014
Earth	-68859-04-06 21:21 J	-23429230.86	-23429230.61	-23429230.36	0.0088	0.0018 *
Earth	-68858-04-09 08:09 J	-23428863.41	-23428863.16	-23428862.90	0.0088	0.0011
Moon	-68858-04-09 10:04 J	-23428863.31	-23428863.08	-23428862.82	0.0088	0.0017 *
Moon	-68857-04-10 15:49 J	-23428496.10	-23428495.84	-23428495.58	0.0088	0.0000
Earth	-68857-04-10 19:11 J	-23428495.95	-23428495.70	-23428495.44	0.0088	0.0005 *

Earth -68856-04-13 05:59 J -23428128.50 -23428128.25 -23428127.99 0.0088 0.0002
 Moon -68856-04-13 09:21 J -23428128.36 -23428128.11 -23428127.85 0.0088 0.0003 *
 Moon -68855-04-15 13:11 J -23427761.20 -23427760.95 -23427760.70 0.0089 0.0013
 Earth -68855-04-15 16:47 J -23427761.05 -23427760.80 -23427760.54 0.0089 0.0008 *
 Earth -68854-04-18 03:21 J -23427393.60 -23427393.36 -23427393.10 0.0089 0.0015
 Moon -68854-04-18 06:28 J -23427393.49 -23427393.23 -23427392.97 0.0089 0.0010 *
 Moon -68853-04-19 11:59 J -23427026.23 -23427026.00 -23427025.75 0.0089 0.0025
 Earth -68853-04-19 14:09 J -23427026.15 -23427025.91 -23427025.66 0.0089 0.0021 *
 Earth -68852-04-22 00:13 J -23426658.72 -23426658.49 -23426658.23 0.0089 0.0027
 Moon -68852-04-22 01:40 J -23426658.68 -23426658.43 -23426658.17 0.0089 0.0023 *
 Earth -68851-04-24 10:33 J -23426291.28 -23426291.06 -23426290.81 0.0089 0.0034
 Moon -68851-04-24 11:16 J -23426291.24 -23426291.03 -23426290.79 0.0089 0.0038 *
 Moon -68850-04-26 19:25 J -23425923.92 -23425923.69 -23425923.43 0.0089 0.0036
 Earth -68850-04-26 20:52 J -23425923.84 -23425923.63 -23425923.38 0.0089 0.0040 *
 Earth -68849-04-28 07:11 J -23425556.40 -23425556.20 -23425555.97 0.0089 0.0046
 Moon -68849-04-28 10:04 J -23425556.29 -23425556.08 -23425555.88 0.0089 0.0050 *
 Mercury -68848-04-08 19:25 J -23425210.71 -23425210.69 -23425210.65 0.0089 0.0086
 Moon -68848-04-30 14:09 J -23425189.12 -23425188.91 -23425188.68 0.0089 0.0047
 Earth -68848-04-30 17:30 J -23425188.96 -23425188.77 -23425188.55 0.0089 0.0052 *
 Mercury -68848-07-05 20:37 J -23425122.68 -23425122.64 -23425122.58 0.0089 0.0081
 Mercury -68848-10-01 22:04 J -23425034.64 -23425034.58 -23425034.51 0.0089 0.0076
 Mercury -68848-12-28 23:16 J -23424946.60 -23424946.53 -23424946.44 0.0089 0.0071
 Mercury -68847-03-27 00:42 J -23424858.55 -23424858.47 -23424858.38 0.0089 0.0066
 Earth -68847-05-03 03:21 J -23424821.53 -23424821.36 -23424821.15 0.0089 0.0058
 Moon -68847-05-03 06:57 J -23424821.38 -23424821.21 -23424821.02 0.0089 0.0062 *
 Mercury -68847-06-23 01:54 J -23424770.51 -23424770.42 -23424770.32 0.0089 0.0061
 Mercury -68847-09-19 03:21 J -23424682.46 -23424682.36 -23424682.25 0.0089 0.0056
 Mercury -68847-12-16 04:33 J -23424594.41 -23424594.31 -23424594.19 0.0089 0.0051
 Mercury -68846-03-14 05:59 J -23424506.36 -23424506.25 -23424506.14 0.0089 0.0046
 Moon -68846-05-05 10:04 J -23424454.24 -23424454.08 -23424453.87 0.0089 0.0060

Earth -68846-05-05 13:40 J -23424454.09 -23424453.93 -23424453.73 0.0089 0.0064 *
 Mercury -68846-06-10 07:11 J -23424418.31 -23424418.20 -23424418.08 0.0089 0.0041
 Mercury -68846-09-06 08:37 J -23424330.26 -23424330.14 -23424330.02 0.0089 0.0036
 Mercury -68846-12-03 09:49 J -23424242.21 -23424242.09 -23424241.96 0.0089 0.0031
 Mercury -68845-02-29 11:16 J -23424154.16 -23424154.03 -23424153.90 0.0089 0.0026
 Earth -68845-05-06 23:30 J -23424086.65 -23424086.52 -23424086.33 0.0089 0.0070
 Moon -68845-05-07 02:09 J -23424086.53 -23424086.41 -23424086.24 0.0089 0.0074 *
 Mercury -68845-05-27 12:28 J -23424066.10 -23424065.98 -23424065.85 0.0089 0.0021
 Mercury -68845-08-23 13:54 J -23423978.05 -23423977.92 -23423977.79 0.0089 0.0016
 Mercury -68845-11-19 15:06 J -23423890.00 -23423889.87 -23423889.74 0.0089 0.0011
 Mercury -68844-02-15 16:33 J -23423801.94 -23423801.81 -23423801.68 0.0089 0.0006
 Moon -68844-05-09 07:54 J -23423719.29 -23423719.17 -23423719.00 0.0089 0.0072
 Earth -68844-05-09 10:04 J -23423719.20 -23423719.08 -23423718.94 0.0089 0.0075 *
 Mercury -68844-05-14 17:45 J -23423713.89 -23423713.76 -23423713.63 0.0089 0.0001
 Mercury -68844-08-10 19:11 J -23423625.84 -23423625.70 -23423625.57 0.0089 0.0005
 Mercury -68844-11-06 20:23 J -23423537.78 -23423537.65 -23423537.52 0.0089 0.0010
 Mercury -68843-02-02 21:35 J -23423449.73 -23423449.60 -23423449.47 0.0089 0.0015
 Mercury -68843-05-01 23:01 J -23423361.67 -23423361.54 -23423361.41 0.0089 0.0020
 Earth -68843-05-11 19:54 J -23423351.75 -23423351.67 -23423351.55 0.0089 0.0081
 Moon -68843-05-11 20:23 J -23423351.70 -23423351.65 -23423351.55 0.0089 0.0085 *
 Mercury -68843-07-29 00:13 J -23423273.61 -23423273.49 -23423273.36 0.0089 0.0025
 Mercury -68843-10-25 01:25 J -23423185.56 -23423185.44 -23423185.31 0.0089 0.0030
 Mercury -68842-01-21 02:52 J -23423097.50 -23423097.38 -23423097.26 0.0089 0.0035
 Mercury -68842-04-19 04:04 J -23423009.44 -23423009.33 -23423009.21 0.0089 0.0040
 Earth -68842-05-14 06:28 J -23422984.28 -23422984.23 -23422984.17 0.0089 0.0086
 Moon -68842-05-14 07:25 J -23422984.27 -23422984.19 -23422984.09 0.0089 0.0082 *
 Mercury -68842-07-16 05:16 J -23422921.38 -23422921.28 -23422921.16 0.0089 0.0045
 Mercury -68842-10-12 06:42 J -23422833.32 -23422833.22 -23422833.11 0.0089 0.0050
 Mercury -68841-01-08 07:54 J -23422745.26 -23422745.17 -23422745.06 0.0089 0.0055
 Mercury -68841-04-05 09:06 J -23422657.20 -23422657.12 -23422657.01 0.0089 0.0060

Mercury -68841-07-02 10:33 J -23422569.14 -23422569.06 -23422568.96 0.0089 0.0065
 Mercury -68841-09-28 11:45 J -23422481.08 -23422481.01 -23422480.92 0.0089 0.0070
 Mercury -68841-12-25 13:11 J -23422393.01 -23422392.95 -23422392.88 0.0089 0.0075
 Mercury -68840-03-23 14:23 J -23422304.95 -23422304.90 -23422304.84 0.0089 0.0080
 Mercury -68840-06-19 15:35 J -23422216.87 -23422216.85 -23422216.80 0.0089 0.0085
 Mars -68834-02-13 04:33 J -23420152.43 -23420152.31 -23420152.18 0.0089 0.0079
 Mars -68832-01-06 11:01 J -23419459.30 -23419459.04 -23419458.75 0.0089 0.0019
 Mars -68831-11-30 19:54 J -23418765.90 -23418765.67 -23418765.40 0.0089 0.0042
 Venus -68792-08-24 06:42 J -23404619.29 -23404619.22 -23404619.10 0.0089 0.0080
 Venus -68791-04-06 19:54 J -23404393.81 -23404393.67 -23404393.49 0.0089 0.0060
 Venus -68791-11-18 09:21 J -23404168.30 -23404168.11 -23404167.90 0.0089 0.0039
 Venus -68790-07-01 22:47 J -23403942.76 -23403942.55 -23403942.33 0.0089 0.0018
 Earth -68790-09-04 04:04 J -23403878.33 -23403878.33 -23403878.33 0.0089 0.0089
 Moon -68790-09-04 05:01 J -23403878.32 -23403878.29 -23403878.23 0.0089 0.0087
 Venus -68789-02-12 11:59 J -23403717.22 -23403717.00 -23403716.77 0.0089 0.0004
 Moon -68789-09-05 12:13 J -23403511.02 -23403510.99 -23403510.88 0.0089 0.0087
 Earth -68789-09-05 14:52 J -23403510.93 -23403510.88 -23403510.76 0.0089 0.0084 *
 Venus -68789-09-25 01:11 J -23403491.66 -23403491.45 -23403491.23 0.0089 0.0024
 Venus -68788-05-08 14:09 J -23403266.08 -23403265.91 -23403265.70 0.0089 0.0045
 Earth -68788-09-08 02:37 J -23403143.49 -23403143.39 -23403143.25 0.0089 0.0078
 Moon -68788-09-08 05:45 J -23403143.36 -23403143.26 -23403143.10 0.0089 0.0076 *
 Venus -68788-12-20 03:49 J -23403040.48 -23403040.34 -23403040.19 0.0089 0.0065
 Venus -68787-08-02 17:01 J -23402814.83 -23402814.79 -23402814.73 0.0089 0.0086
 Moon -68787-09-10 10:47 J -23402776.17 -23402776.05 -23402775.89 0.0089 0.0074
 Earth -68787-09-10 14:23 J -23402776.04 -23402775.90 -23402775.74 0.0089 0.0072 *
 Earth -68786-09-13 02:09 J -23402408.57 -23402408.41 -23402408.24 0.0089 0.0067
 Moon -68786-09-13 05:30 J -23402408.43 -23402408.27 -23402408.08 0.0089 0.0065 *
 Moon -68785-09-14 10:47 J -23402041.21 -23402041.05 -23402040.85 0.0089 0.0063
 Earth -68785-09-14 13:25 J -23402041.10 -23402040.94 -23402040.73 0.0089 0.0061 *
 Earth -68784-09-17 01:11 J -23401673.63 -23401673.45 -23401673.23 0.0089 0.0055

Moon	-68784-09-17 03:35 J	-23401673.54	-23401673.35	-23401673.12	0.0089	0.0054	*
Moon	-68783-09-19 12:13 J	-23401306.18	-23401305.99	-23401305.77	0.0089	0.0050	
Earth	-68783-09-19 13:40 J	-23401306.14	-23401305.93	-23401305.71	0.0089	0.0048	*
Moon	-68782-09-22 01:11 J	-23400938.69	-23400938.45	-23400938.22	0.0089	0.0040	
Earth	-68782-09-22 01:25 J	-23400938.66	-23400938.44	-23400938.20	0.0089	0.0042	*
Earth	-68781-09-23 13:25 J	-23400571.16	-23400570.94	-23400570.69	0.0089	0.0036	
Moon	-68781-09-23 14:37 J	-23400571.10	-23400570.89	-23400570.65	0.0089	0.0037	*
Moon	-68780-09-25 23:30 J	-23400203.77	-23400203.52	-23400203.26	0.0089	0.0028	
Earth	-68780-09-26 01:40 J	-23400203.65	-23400203.43	-23400203.16	0.0089	0.0030	*
Earth	-68779-09-28 14:09 J	-23399836.15	-23399835.91	-23399835.65	0.0089	0.0023	
Moon	-68779-09-28 17:45 J	-23399836.01	-23399835.76	-23399835.52	0.0089	0.0024	*
Moon	-68778-09-30 23:16 J	-23399468.78	-23399468.53	-23399468.27	0.0089	0.0016	
Earth	-68778-10-01 02:37 J	-23399468.63	-23399468.39	-23399468.12	0.0089	0.0017	*
Earth	-68777-10-02 15:06 J	-23399101.12	-23399100.87	-23399100.61	0.0089	0.0010	
Moon	-68777-10-02 18:57 J	-23399100.97	-23399100.71	-23399100.45	0.0089	0.0010	*
Moon	-68776-10-05 00:57 J	-23398733.71	-23398733.46	-23398733.21	0.0089	0.0003	
Earth	-68776-10-05 03:35 J	-23398733.60	-23398733.35	-23398733.08	0.0089	0.0004	*
Earth	-68775-10-07 16:18 J	-23398366.08	-23398365.82	-23398365.56	0.0089	0.0003	
Moon	-68775-10-07 18:42 J	-23398365.98	-23398365.72	-23398365.45	0.0089	0.0004	*
Moon	-68774-10-10 03:35 J	-23397998.60	-23397998.35	-23397998.10	0.0089	0.0009	
Earth	-68774-10-10 04:47 J	-23397998.56	-23397998.30	-23397998.04	0.0089	0.0009	*
Moon	-68773-10-11 16:47 J	-23397631.05	-23397630.80	-23397630.52	0.0089	0.0016	
Earth	-68773-10-11 17:16 J	-23397631.03	-23397630.78	-23397630.52	0.0089	0.0016	*
Earth	-68772-10-14 05:59 J	-23397263.50	-23397263.25	-23397262.99	0.0089	0.0022	
Moon	-68772-10-14 06:42 J	-23397263.45	-23397263.22	-23397262.96	0.0089	0.0022	*
Moon	-68771-10-16 16:04 J	-23396896.07	-23396895.83	-23396895.57	0.0089	0.0029	
Earth	-68771-10-16 18:28 J	-23396895.96	-23396895.73	-23396895.47	0.0089	0.0029	*
Earth	-68770-10-19 07:25 J	-23396528.42	-23396528.19	-23396527.94	0.0089	0.0035	
Moon	-68770-10-19 10:33 J	-23396528.29	-23396528.06	-23396527.81	0.0089	0.0035	*
Moon	-68769-10-20 16:47 J	-23396161.01	-23396160.80	-23396160.55	0.0089	0.0043	

Earth -68769-10-20 20:09 J -23396160.87 -23396160.66 -23396160.41 0.0089 0.0042 *
 Earth -68768-10-23 09:21 J -23395793.32 -23395793.11 -23395792.88 0.0089 0.0048
 Moon -68768-10-23 12:57 J -23395793.16 -23395792.96 -23395792.72 0.0089 0.0047 *
 Moon -68767-10-25 19:40 J -23395425.87 -23395425.68 -23395425.47 0.0089 0.0055
 Earth -68767-10-25 22:47 J -23395425.75 -23395425.55 -23395425.34 0.0089 0.0054 *
 Earth -68766-10-28 11:59 J -23395058.19 -23395058.00 -23395057.81 0.0089 0.0060
 Moon -68766-10-28 14:37 J -23395058.08 -23395057.89 -23395057.68 0.0089 0.0058 *
 Mercury -68765-03-26 23:59 J -23394907.50 -23394907.50 -23394907.49 0.0089 0.0089
 Mercury -68765-06-23 03:21 J -23394819.42 -23394819.36 -23394819.27 0.0089 0.0082
 Mercury -68765-09-19 07:11 J -23394731.29 -23394731.20 -23394731.08 0.0089 0.0074
 Moon -68765-10-29 23:30 J -23394690.67 -23394690.52 -23394690.34 0.0089 0.0068
 Earth -68765-10-30 01:25 J -23394690.62 -23394690.44 -23394690.27 0.0089 0.0066 *
 Mercury -68765-12-16 10:47 J -23394643.16 -23394643.05 -23394642.90 0.0089 0.0067
 Mercury -68764-03-14 14:52 J -23394555.02 -23394554.88 -23394554.73 0.0089 0.0059
 Mercury -68764-06-10 18:28 J -23394466.88 -23394466.73 -23394466.56 0.0089 0.0052
 Mercury -68764-09-06 22:04 J -23394378.74 -23394378.58 -23394378.40 0.0089 0.0045
 Moon -68764-11-01 14:09 J -23394323.05 -23394322.91 -23394322.72 0.0089 0.0071
 Earth -68764-11-01 14:37 J -23394323.04 -23394322.89 -23394322.74 0.0089 0.0072 *
 Mercury -68764-12-04 01:54 J -23394290.59 -23394290.42 -23394290.23 0.0089 0.0037
 Mercury -68763-03-02 05:30 J -23394202.44 -23394202.27 -23394202.07 0.0089 0.0030
 Mercury -68763-05-29 09:21 J -23394114.29 -23394114.11 -23394113.91 0.0089 0.0022
 Mercury -68763-08-25 13:11 J -23394026.14 -23394025.95 -23394025.75 0.0089 0.0014
 Earth -68763-11-04 03:21 J -23393955.46 -23393955.36 -23393955.22 0.0089 0.0078
 Moon -68763-11-04 03:35 J -23393955.42 -23393955.35 -23393955.22 0.0089 0.0081 *
 Mercury -68763-11-21 17:01 J -23393937.99 -23393937.79 -23393937.60 0.0089 0.0007
 Mercury -68762-02-17 20:37 J -23393849.84 -23393849.64 -23393849.44 0.0089 0.0001
 Mercury -68762-05-17 00:28 J -23393761.68 -23393761.48 -23393761.29 0.0089 0.0008
 Mercury -68762-08-13 04:04 J -23393673.52 -23393673.33 -23393673.13 0.0089 0.0015
 Moon -68762-11-06 14:23 J -23393587.98 -23393587.90 -23393587.77 0.0089 0.0082
 Earth -68762-11-06 16:33 J -23393587.87 -23393587.81 -23393587.70 0.0089 0.0084 *

Mercury -68762-11-09 07:54 J -23393585.36 -23393585.17 -23393584.98 0.0089 0.0023
 Mercury -68761-02-05 11:16 J -23393497.20 -23393497.03 -23393496.83 0.0089 0.0031
 Mercury -68761-05-03 15:06 J -23393409.04 -23393408.87 -23393408.68 0.0089 0.0038
 Mercury -68761-07-30 18:42 J -23393320.88 -23393320.72 -23393320.54 0.0089 0.0046
 Mercury -68761-10-26 22:33 J -23393232.71 -23393232.56 -23393232.39 0.0089 0.0053
 Mercury -68760-01-23 01:54 J -23393144.54 -23393144.42 -23393144.25 0.0089 0.0061
 Mercury -68760-04-21 05:45 J -23393056.37 -23393056.26 -23393056.11 0.0089 0.0068
 Mercury -68760-07-18 09:49 J -23392968.19 -23392968.09 -23392967.98 0.0089 0.0075
 Mercury -68760-10-14 13:11 J -23392880.00 -23392879.95 -23392879.86 0.0089 0.0083
 Mars -68751-11-20 09:49 J -23389556.42 -23389556.09 -23389555.73 0.0088 0.0018
 Mars -68749-10-17 02:23 J -23388859.66 -23388859.40 -23388859.13 0.0088 0.0057
 Venus -68709-05-27 14:23 J -23374392.02 -23374391.90 -23374391.78 0.0088 0.0073
 Venus -68708-01-08 03:06 J -23374166.54 -23374166.37 -23374166.19 0.0088 0.0053
 Venus -68708-08-21 15:49 J -23373941.04 -23373940.84 -23373940.63 0.0088 0.0033
 Earth -68707-03-10 13:54 J -23373739.93 -23373739.92 -23373739.85 0.0088 0.0087
 Moon -68707-03-10 14:37 J -23373739.93 -23373739.89 -23373739.80 0.0088 0.0086 *
 Venus -68707-04-04 04:33 J -23373715.52 -23373715.31 -23373715.09 0.0088 0.0013
 Venus -68707-11-15 17:16 J -23373490.00 -23373489.78 -23373489.56 0.0088 0.0008
 Earth -68706-03-13 01:54 J -23373372.49 -23373372.42 -23373372.30 0.0088 0.0082
 Moon -68706-03-13 02:09 J -23373372.48 -23373372.41 -23373372.30 0.0088 0.0082 *
 Venus -68706-06-29 05:45 J -23373264.46 -23373264.26 -23373264.04 0.0088 0.0028
 Venus -68705-02-09 18:13 J -23373038.90 -23373038.74 -23373038.54 0.0088 0.0049
 Moon -68705-03-14 11:59 J -23373005.12 -23373005.00 -23373004.83 0.0088 0.0075
 Earth -68705-03-14 14:09 J -23373005.03 -23373004.91 -23373004.77 0.0088 0.0076 *
 Venus -68705-09-22 06:42 J -23372813.33 -23372813.22 -23372813.06 0.0088 0.0069
 Earth -68704-03-17 01:25 J -23372637.57 -23372637.44 -23372637.26 0.0088 0.0070
 Moon -68704-03-17 04:18 J -23372637.45 -23372637.32 -23372637.15 0.0088 0.0072 *
 Venus -68704-05-05 19:25 J -23372587.69 -23372587.69 -23372587.65 0.0088 0.0088
 Moon -68703-03-19 10:18 J -23372270.24 -23372270.07 -23372269.88 0.0088 0.0064
 Earth -68703-03-19 13:11 J -23372270.10 -23372269.95 -23372269.75 0.0088 0.0065 *

Earth	-68702-03-22 00:57 J	-23371902.63	-23371902.46	-23371902.24	0.0088	0.0059
Moon	-68702-03-22 04:33 J	-23371902.47	-23371902.31	-23371902.09	0.0088	0.0060 *
Moon	-68701-03-23 09:35 J	-23371535.29	-23371535.10	-23371534.88	0.0088	0.0052
Earth	-68701-03-23 12:42 J	-23371535.16	-23371534.97	-23371534.74	0.0088	0.0053 *
Earth	-68700-03-25 23:59 J	-23371167.70	-23371167.50	-23371167.26	0.0088	0.0047
Moon	-68700-03-26 03:21 J	-23371167.57	-23371167.36	-23371167.12	0.0088	0.0046 *
Moon	-68699-03-28 09:21 J	-23370800.31	-23370800.11	-23370799.86	0.0088	0.0041
Earth	-68699-03-28 11:30 J	-23370800.24	-23370800.02	-23370799.78	0.0088	0.0040 *
Earth	-68698-03-30 22:33 J	-23370432.78	-23370432.56	-23370432.30	0.0088	0.0035
Moon	-68698-03-30 23:16 J	-23370432.76	-23370432.53	-23370432.27	0.0088	0.0035 *
Earth	-68697-04-01 10:04 J	-23370065.32	-23370065.08	-23370064.84	0.0088	0.0028
Moon	-68697-04-01 09:49 J	-23370065.31	-23370065.09	-23370064.84	0.0088	0.0029 *
Moon	-68696-04-03 19:11 J	-23369697.96	-23369697.70	-23369697.44	0.0088	0.0022
Earth	-68696-04-03 20:52 J	-23369697.87	-23369697.63	-23369697.37	0.0088	0.0022 *
Earth	-68695-04-06 07:40 J	-23369330.42	-23369330.18	-23369329.92	0.0088	0.0016
Moon	-68695-04-06 10:33 J	-23369330.30	-23369330.06	-23369329.81	0.0088	0.0015 *
Moon	-68694-04-08 15:35 J	-23368963.10	-23368962.85	-23368962.58	0.0088	0.0009
Earth	-68694-04-08 18:57 J	-23368962.96	-23368962.71	-23368962.45	0.0088	0.0009 *
Earth	-68693-04-10 05:45 J	-23368595.51	-23368595.26	-23368595.00	0.0088	0.0003
Moon	-68693-04-10 09:35 J	-23368595.36	-23368595.10	-23368594.85	0.0088	0.0003 *
Moon	-68692-04-12 13:25 J	-23368228.19	-23368227.94	-23368227.69	0.0088	0.0004
Earth	-68692-04-12 16:33 J	-23368228.07	-23368227.81	-23368227.55	0.0088	0.0003 *
Earth	-68691-04-15 03:21 J	-23367860.62	-23367860.36	-23367860.11	0.0089	0.0010
Moon	-68691-04-15 06:13 J	-23367860.50	-23367860.24	-23367859.98	0.0089	0.0008 *
Moon	-68690-04-17 12:28 J	-23367493.22	-23367492.98	-23367492.73	0.0089	0.0016
Earth	-68690-04-17 14:09 J	-23367493.16	-23367492.91	-23367492.66	0.0089	0.0016 *
Earth	-68689-04-19 00:28 J	-23367125.71	-23367125.48	-23367125.22	0.0089	0.0023
Moon	-68689-04-19 00:57 J	-23367125.71	-23367125.46	-23367125.19	0.0089	0.0022 *
Earth	-68688-04-21 11:01 J	-23366758.27	-23366758.04	-23366757.78	0.0089	0.0029
Moon	-68688-04-21 11:30 J	-23366758.24	-23366758.02	-23366757.77	0.0089	0.0030 *

Moon -68687-04-23 19:40 J -23366390.92 -23366390.68 -23366390.43 0.0089 0.0034
 Earth -68687-04-23 21:35 J -23366390.82 -23366390.60 -23366390.35 0.0089 0.0035 *
 Earth -68686-04-26 07:54 J -23366023.38 -23366023.17 -23366022.93 0.0089 0.0041
 Moon -68686-04-26 11:16 J -23366023.25 -23366023.03 -23366022.81 0.0089 0.0041 *
 Moon -68685-04-27 15:06 J -23365656.08 -23365655.87 -23365655.64 0.0089 0.0045
 Earth -68685-04-27 18:13 J -23365655.94 -23365655.74 -23365655.50 0.0089 0.0047 *
 Earth -68684-04-30 04:04 J -23365288.51 -23365288.33 -23365288.10 0.0089 0.0053
 Moon -68684-04-30 07:54 J -23365288.35 -23365288.17 -23365287.95 0.0089 0.0054 *
 Mercury -68683-01-03 19:11 J -23365039.73 -23365039.70 -23365039.65 0.0089 0.0084
 Mercury -68683-04-01 20:37 J -23364951.69 -23364951.64 -23364951.58 0.0089 0.0079
 Moon -68683-05-02 11:30 J -23364921.19 -23364921.02 -23364920.81 0.0089 0.0058
 Earth -68683-05-02 14:52 J -23364921.06 -23364920.88 -23364920.68 0.0089 0.0058 *
 Mercury -68683-06-28 21:49 J -23364863.65 -23364863.59 -23364863.51 0.0089 0.0074
 Mercury -68683-09-24 23:16 J -23364775.61 -23364775.53 -23364775.45 0.0089 0.0069
 Mercury -68683-12-22 00:28 J -23364687.56 -23364687.48 -23364687.38 0.0089 0.0064
 Mercury -68682-03-20 01:54 J -23364599.52 -23364599.42 -23364599.32 0.0089 0.0059
 Earth -68682-05-05 00:42 J -23364553.63 -23364553.47 -23364553.27 0.0089 0.0064
 Moon -68682-05-05 03:21 J -23364553.51 -23364553.36 -23364553.16 0.0089 0.0066 *
 Mercury -68682-06-16 03:06 J -23364511.47 -23364511.37 -23364511.26 0.0089 0.0054
 Mercury -68682-09-12 04:33 J -23364423.42 -23364423.31 -23364423.20 0.0089 0.0049
 Mercury -68682-12-09 05:45 J -23364335.37 -23364335.26 -23364335.14 0.0089 0.0044
 Mercury -68681-03-06 07:11 J -23364247.32 -23364247.20 -23364247.08 0.0089 0.0039
 Moon -68681-05-06 09:35 J -23364186.23 -23364186.10 -23364185.93 0.0089 0.0069
 Earth -68681-05-06 10:33 J -23364186.19 -23364186.06 -23364185.87 0.0089 0.0070 *
 Mercury -68681-06-02 08:23 J -23364159.27 -23364159.15 -23364159.02 0.0089 0.0034
 Mercury -68681-08-29 09:35 J -23364071.22 -23364071.10 -23364070.97 0.0089 0.0029
 Mercury -68681-11-25 11:01 J -23363983.16 -23363983.04 -23363982.91 0.0089 0.0024
 Mercury -68680-02-21 12:13 J -23363895.11 -23363894.99 -23363894.85 0.0089 0.0019
 Earth -68680-05-08 21:06 J -23363818.75 -23363818.62 -23363818.48 0.0089 0.0075
 Moon -68680-05-08 20:52 J -23363818.75 -23363818.63 -23363818.48 0.0089 0.0076 *

Mercury -68680-05-20 13:40 J -23363807.06 -23363806.93 -23363806.80 0.0089 0.0014
 Mercury -68680-08-16 14:52 J -23363719.01 -23363718.88 -23363718.74 0.0089 0.0009
 Mercury -68680-11-12 16:18 J -23363630.95 -23363630.82 -23363630.69 0.0089 0.0004
 Mercury -68679-02-08 17:30 J -23363542.90 -23363542.77 -23363542.63 0.0089 0.0003
 Mercury -68679-05-07 18:57 J -23363454.84 -23363454.71 -23363454.58 0.0089 0.0007
 Earth -68679-05-11 06:42 J -23363451.30 -23363451.22 -23363451.09 0.0089 0.0081
 Moon -68679-05-11 07:54 J -23363451.26 -23363451.17 -23363451.04 0.0089 0.0079 *
 Mercury -68679-08-03 20:09 J -23363366.79 -23363366.66 -23363366.53 0.0089 0.0012
 Mercury -68679-10-30 21:21 J -23363278.73 -23363278.61 -23363278.47 0.0089 0.0017
 Mercury -68678-01-26 22:47 J -23363190.68 -23363190.55 -23363190.42 0.0089 0.0022
 Mercury -68678-04-24 23:59 J -23363102.62 -23363102.50 -23363102.37 0.0089 0.0027
 Moon -68678-05-13 14:23 J -23363083.93 -23363083.90 -23363083.82 0.0089 0.0087
 Earth -68678-05-13 17:01 J -23363083.83 -23363083.79 -23363083.71 0.0089 0.0086 *
 Mercury -68678-07-22 01:25 J -23363014.56 -23363014.44 -23363014.32 0.0089 0.0032
 Mercury -68678-10-18 02:37 J -23362926.51 -23362926.39 -23362926.27 0.0089 0.0037
 Mercury -68677-01-14 03:49 J -23362838.45 -23362838.34 -23362838.22 0.0089 0.0042
 Mercury -68677-04-11 05:16 J -23362750.39 -23362750.28 -23362750.17 0.0089 0.0047
 Mercury -68677-07-08 06:28 J -23362662.33 -23362662.23 -23362662.12 0.0089 0.0052
 Mercury -68677-10-04 07:40 J -23362574.27 -23362574.18 -23362574.07 0.0089 0.0057
 Mercury -68677-12-31 09:06 J -23362486.21 -23362486.12 -23362486.02 0.0089 0.0062
 Mercury -68676-03-29 10:18 J -23362398.15 -23362398.07 -23362397.98 0.0089 0.0067
 Mercury -68676-06-25 11:45 J -23362310.08 -23362310.01 -23362309.93 0.0089 0.0072
 Mercury -68676-09-21 12:57 J -23362222.02 -23362221.96 -23362221.89 0.0089 0.0077
 Mercury -68676-12-18 14:09 J -23362133.95 -23362133.91 -23362133.85 0.0089 0.0082
 Mercury -68675-03-16 15:35 J -23362045.87 -23362045.85 -23362045.82 0.0089 0.0087
 Mars -68669-08-22 08:23 J -23359695.37 -23359695.15 -23359694.88 0.0089 0.0045
 Mars -68667-07-16 15:21 J -23359002.13 -23359001.86 -23359001.57 0.0089 0.0016
 Mars -68665-06-09 00:28 J -23358308.60 -23358308.48 -23358308.31 0.0089 0.0076
 Venus -68628-11-25 17:59 J -23344624.78 -23344624.75 -23344624.71 0.0089 0.0087
 Venus -68627-07-09 06:57 J -23344399.34 -23344399.21 -23344399.05 0.0089 0.0067

Moon	-68627-09-01 04:47 J	-23344345.33	-23344345.30	-23344345.23	0.0089	0.0087
Venus	-68626-02-19 20:23 J	-23344173.83	-23344173.65	-23344173.46	0.0089	0.0046
Moon	-68626-09-03 11:45 J	-23343978.03	-23343978.01	-23343977.97	0.0089	0.0088
Earth	-68626-09-03 14:23 J	-23343977.96	-23343977.90	-23343977.81	0.0089	0.0085
Venus	-68626-10-03 09:21 J	-23343948.31	-23343948.11	-23343947.88	0.0089	0.0026
Venus	-68625-05-15 22:47 J	-23343722.76	-23343722.55	-23343722.32	0.0089	0.0006
Earth	-68625-09-05 01:25 J	-23343610.52	-23343610.44	-23343610.30	0.0089	0.0080
Moon	-68625-09-05 05:16 J	-23343610.41	-23343610.28	-23343610.14	0.0089	0.0076 *
Venus	-68625-12-27 11:59 J	-23343497.21	-23343497.00	-23343496.77	0.0089	0.0016
Venus	-68624-08-10 01:11 J	-23343271.64	-23343271.45	-23343271.24	0.0089	0.0037
Moon	-68624-09-07 09:35 J	-23343243.20	-23343243.10	-23343242.96	0.0089	0.0078
Earth	-68624-09-07 13:11 J	-23343243.07	-23343242.95	-23343242.79	0.0089	0.0074 *
Venus	-68623-03-23 14:09 J	-23343046.05	-23343045.91	-23343045.72	0.0089	0.0058
Earth	-68623-09-10 00:28 J	-23342875.61	-23342875.48	-23342875.29	0.0089	0.0069
Moon	-68623-09-10 04:18 J	-23342875.49	-23342875.32	-23342875.14	0.0089	0.0065 *
Venus	-68623-11-04 03:49 J	-23342820.43	-23342820.34	-23342820.23	0.0089	0.0078
Moon	-68622-09-12 09:35 J	-23342508.26	-23342508.10	-23342507.93	0.0089	0.0067
Earth	-68622-09-12 12:13 J	-23342508.15	-23342507.99	-23342507.79	0.0089	0.0063 *
Earth	-68621-09-13 23:59 J	-23342140.68	-23342140.50	-23342140.29	0.0089	0.0057
Moon	-68621-09-14 01:25 J	-23342140.63	-23342140.44	-23342140.21	0.0089	0.0053 *
Moon	-68620-09-16 11:16 J	-23341773.21	-23341773.03	-23341772.82	0.0089	0.0055
Earth	-68620-09-16 11:45 J	-23341773.21	-23341773.01	-23341772.79	0.0089	0.0051 *
Moon	-68619-09-18 22:47 J	-23341405.76	-23341405.55	-23341405.29	0.0089	0.0041
Earth	-68619-09-18 23:30 J	-23341405.73	-23341405.52	-23341405.29	0.0089	0.0045 *
Earth	-68618-09-21 11:16 J	-23341038.25	-23341038.03	-23341037.79	0.0089	0.0039
Moon	-68618-09-21 13:40 J	-23341038.15	-23341037.93	-23341037.71	0.0089	0.0043 *
Moon	-68617-09-22 20:37 J	-23340670.88	-23340670.64	-23340670.38	0.0089	0.0029
Earth	-68617-09-22 23:16 J	-23340670.75	-23340670.53	-23340670.28	0.0089	0.0033 *
Earth	-68616-09-25 11:16 J	-23340303.26	-23340303.03	-23340302.77	0.0089	0.0027
Moon	-68616-09-25 14:23 J	-23340303.12	-23340302.90	-23340302.64	0.0089	0.0032 *

Moon	-68615-09-27 20:09 J	-23339935.91	-23339935.66	-23339935.40	0.0089	0.0016
Earth	-68615-09-27 23:30 J	-23339935.75	-23339935.52	-23339935.25	0.0089	0.0021 *
Earth	-68614-09-30 11:59 J	-23339568.25	-23339568.00	-23339567.74	0.0089	0.0014
Moon	-68614-09-30 15:06 J	-23339568.11	-23339567.87	-23339567.60	0.0089	0.0019 *
Moon	-68613-10-01 21:35 J	-23339200.85	-23339200.60	-23339200.34	0.0089	0.0004
Earth	-68613-10-02 00:42 J	-23339200.73	-23339200.47	-23339200.21	0.0089	0.0008 *
Earth	-68612-10-04 13:11 J	-23338833.21	-23338832.95	-23338832.69	0.0089	0.0001
Moon	-68612-10-04 14:52 J	-23338833.15	-23338832.88	-23338832.62	0.0089	0.0006 *
Moon	-68611-10-07 00:57 J	-23338465.71	-23338465.46	-23338465.21	0.0089	0.0009
Earth	-68611-10-07 01:40 J	-23338465.69	-23338465.43	-23338465.17	0.0089	0.0005 *
Moon	-68610-10-09 13:40 J	-23338098.19	-23338097.93	-23338097.65	0.0089	0.0007
Earth	-68610-10-09 14:09 J	-23338098.17	-23338097.91	-23338097.65	0.0089	0.0011 *
Earth	-68609-10-11 02:37 J	-23337730.64	-23337730.39	-23337730.13	0.0089	0.0018
Moon	-68609-10-11 04:33 J	-23337730.54	-23337730.31	-23337730.06	0.0089	0.0022 *
Moon	-68608-10-13 12:28 J	-23337363.22	-23337362.98	-23337362.70	0.0089	0.0020
Earth	-68608-10-13 15:21 J	-23337363.10	-23337362.86	-23337362.60	0.0089	0.0024 *
Earth	-68607-10-16 03:49 J	-23336995.57	-23336995.34	-23336995.08	0.0089	0.0030
Moon	-68607-10-16 07:11 J	-23336995.42	-23336995.20	-23336994.95	0.0089	0.0035 *
Moon	-68606-10-18 12:57 J	-23336628.19	-23336627.96	-23336627.70	0.0089	0.0032
Earth	-68606-10-18 16:33 J	-23336628.03	-23336627.81	-23336627.55	0.0089	0.0037 *
Earth	-68605-10-20 05:16 J	-23336260.49	-23336260.28	-23336260.03	0.0089	0.0043
Moon	-68605-10-20 08:52 J	-23336260.34	-23336260.13	-23336259.89	0.0089	0.0047 *
Moon	-68604-10-22 15:35 J	-23335893.07	-23335892.85	-23335892.62	0.0089	0.0044
Earth	-68604-10-22 18:28 J	-23335892.93	-23335892.73	-23335892.49	0.0089	0.0049 *
Earth	-68603-10-25 07:25 J	-23335525.38	-23335525.19	-23335524.97	0.0089	0.0055
Moon	-68603-10-25 09:21 J	-23335525.29	-23335525.11	-23335524.89	0.0089	0.0059 *
Moon	-68602-10-27 19:40 J	-23335157.86	-23335157.68	-23335157.47	0.0089	0.0057
Earth	-68602-10-27 20:37 J	-23335157.81	-23335157.64	-23335157.43	0.0089	0.0061 *
Earth	-68601-10-29 09:49 J	-23334790.24	-23334790.09	-23334789.89	0.0089	0.0067
Moon	-68601-10-29 09:49 J	-23334790.23	-23334790.09	-23334789.90	0.0089	0.0071 *

Mercury -68601-12-21 22:33 J -23334736.59 -23334736.56 -23334736.50 0.0089 0.0086
 Mercury -68600-03-20 02:09 J -23334648.48 -23334648.41 -23334648.30 0.0089 0.0079
 Mercury -68600-06-16 05:59 J -23334560.35 -23334560.25 -23334560.12 0.0089 0.0071
 Mercury -68600-09-12 09:35 J -23334472.22 -23334472.10 -23334471.95 0.0089 0.0064
 Earth -68600-10-31 23:01 J -23334422.66 -23334422.54 -23334422.36 0.0089 0.0073
 Moon -68600-11-01 00:28 J -23334422.61 -23334422.48 -23334422.29 0.0089 0.0069 *
 Mercury -68600-12-09 13:40 J -23334384.08 -23334383.93 -23334383.78 0.0089 0.0056
 Mercury -68599-03-07 17:16 J -23334295.94 -23334295.78 -23334295.61 0.0089 0.0049
 Mercury -68599-06-03 21:06 J -23334207.79 -23334207.62 -23334207.44 0.0089 0.0041
 Mercury -68599-08-31 00:42 J -23334119.64 -23334119.47 -23334119.28 0.0089 0.0034
 Moon -68599-11-03 10:18 J -23334055.15 -23334055.07 -23334054.95 0.0089 0.0082
 Earth -68599-11-03 12:42 J -23334055.08 -23334054.97 -23334054.83 0.0089 0.0078 *
 Mercury -68599-11-27 04:18 J -23334031.49 -23334031.32 -23334031.12 0.0089 0.0027
 Mercury -68598-02-23 08:09 J -23333943.34 -23333943.16 -23333942.96 0.0089 0.0019
 Mercury -68598-05-22 11:59 J -23333855.19 -23333855.00 -23333854.80 0.0089 0.0011
 Mercury -68598-08-18 15:49 J -23333767.04 -23333766.84 -23333766.64 0.0089 0.0004
 Earth -68598-11-06 01:40 J -23333687.48 -23333687.43 -23333687.32 0.0089 0.0084
 Moon -68598-11-06 04:47 J -23333687.38 -23333687.30 -23333687.16 0.0089 0.0080 *
 Mercury -68598-11-14 19:25 J -23333678.88 -23333678.69 -23333678.49 0.0089 0.0005
 Mercury -68597-02-10 23:16 J -23333590.72 -23333590.53 -23333590.33 0.0089 0.0011
 Mercury -68597-05-09 02:52 J -23333502.57 -23333502.38 -23333502.18 0.0089 0.0019
 Mercury -68597-08-05 06:28 J -23333414.41 -23333414.23 -23333414.03 0.0089 0.0027
 Mercury -68597-11-01 10:18 J -23333326.24 -23333326.07 -23333325.88 0.0089 0.0034
 Mercury -68596-01-28 13:54 J -23333238.08 -23333237.92 -23333237.73 0.0089 0.0042
 Mercury -68596-04-26 17:45 J -23333149.91 -23333149.76 -23333149.59 0.0089 0.0049
 Mercury -68596-07-23 21:21 J -23333061.75 -23333061.61 -23333061.44 0.0089 0.0057
 Mercury -68596-10-20 01:11 J -23332973.58 -23332973.45 -23332973.30 0.0089 0.0064
 Mercury -68595-01-16 04:33 J -23332885.40 -23332885.31 -23332885.17 0.0089 0.0072
 Mercury -68595-04-14 08:37 J -23332797.22 -23332797.14 -23332797.04 0.0089 0.0079
 Mercury -68595-07-11 12:28 J -23332709.02 -23332708.98 -23332708.93 0.0089 0.0086

Mars	-68587-07-03 15:21 J	-23329795.12	-23329794.86	-23329794.54	0.0088	0.0050
Mars	-68585-05-30 09:49 J	-23329098.41	-23329098.09	-23329097.74	0.0088	0.0026
Venus	-68545-08-29 02:23 J	-23314397.49	-23314397.40	-23314397.31	0.0088	0.0080
Moon	-68544-03-07 13:11 J	-23314207.02	-23314206.95	-23314206.85	0.0088	0.0084
Earth	-68544-03-07 12:42 J	-23314206.97	-23314206.97	-23314206.95	0.0088	0.0088 *
Venus	-68544-04-11 14:52 J	-23314172.03	-23314171.88	-23314171.71	0.0088	0.0060
Venus	-68544-11-23 03:35 J	-23313946.53	-23313946.35	-23313946.14	0.0088	0.0040
Earth	-68543-03-10 00:57 J	-23313839.55	-23313839.46	-23313839.37	0.0088	0.0083
Moon	-68543-03-10 01:25 J	-23313839.45	-23313839.44	-23313839.37	0.0088	0.0087 *
Venus	-68543-07-06 16:33 J	-23313721.02	-23313720.81	-23313720.59	0.0088	0.0019
Venus	-68542-02-17 05:16 J	-23313495.50	-23313495.28	-23313495.06	0.0088	0.0001
Moon	-68542-03-12 10:33 J	-23313472.19	-23313472.06	-23313471.89	0.0088	0.0073
Earth	-68542-03-12 12:28 J	-23313472.09	-23313471.98	-23313471.84	0.0088	0.0078 *
Venus	-68542-09-30 17:45 J	-23313269.97	-23313269.76	-23313269.54	0.0088	0.0021
Earth	-68541-03-13 23:59 J	-23313104.62	-23313104.50	-23313104.32	0.0088	0.0072
Moon	-68541-03-14 03:21 J	-23313104.48	-23313104.36	-23313104.23	0.0088	0.0077 *
Venus	-68541-05-13 06:13 J	-23313044.42	-23313044.24	-23313044.03	0.0088	0.0041
Venus	-68541-12-24 18:42 J	-23312818.85	-23312818.72	-23312818.54	0.0088	0.0062
Moon	-68540-03-16 08:09 J	-23312737.32	-23312737.16	-23312736.95	0.0088	0.0063
Earth	-68540-03-16 11:59 J	-23312737.15	-23312737.00	-23312736.82	0.0088	0.0067 *
Venus	-68540-08-07 07:11 J	-23312593.26	-23312593.20	-23312593.09	0.0088	0.0082
Earth	-68539-03-18 23:45 J	-23312369.69	-23312369.51	-23312369.31	0.0088	0.0061
Moon	-68539-03-19 02:52 J	-23312369.53	-23312369.38	-23312369.18	0.0088	0.0066 *
Moon	-68538-03-21 07:54 J	-23312002.36	-23312002.17	-23312001.94	0.0088	0.0051
Earth	-68538-03-21 11:59 J	-23312002.21	-23312002.00	-23312001.80	0.0088	0.0055 *
Earth	-68537-03-22 23:16 J	-23311634.74	-23311634.53	-23311634.31	0.0088	0.0049
Moon	-68537-03-23 01:11 J	-23311634.64	-23311634.45	-23311634.22	0.0088	0.0054 *
Moon	-68536-03-25 09:21 J	-23311267.34	-23311267.11	-23311266.89	0.0088	0.0039
Earth	-68536-03-25 10:33 J	-23311267.27	-23311267.06	-23311266.82	0.0088	0.0043 *
Earth	-68535-03-27 22:33 J	-23310899.79	-23310899.56	-23310899.33	0.0088	0.0037

Moon	-68535-03-27 22:47 J	-23310899.77	-23310899.55	-23310899.30	0.0088	0.0042	*
Earth	-68534-03-30 09:35 J	-23310532.32	-23310532.10	-23310531.84	0.0088	0.0031	
Moon	-68534-03-30 11:01 J	-23310532.27	-23310532.04	-23310531.80	0.0088	0.0027	*
Moon	-68533-03-31 18:57 J	-23310164.94	-23310164.71	-23310164.44	0.0088	0.0030	
Earth	-68533-03-31 21:06 J	-23310164.86	-23310164.62	-23310164.37	0.0088	0.0025	*
Earth	-68532-04-03 08:09 J	-23309797.41	-23309797.16	-23309796.90	0.0088	0.0019	
Moon	-68532-04-03 11:01 J	-23309797.28	-23309797.04	-23309796.78	0.0088	0.0014	*
Moon	-68531-04-05 15:35 J	-23309430.09	-23309429.85	-23309429.58	0.0088	0.0018	
Earth	-68531-04-05 19:25 J	-23309429.94	-23309429.69	-23309429.43	0.0088	0.0013	*
Earth	-68530-04-08 06:28 J	-23309062.49	-23309062.23	-23309061.98	0.0088	0.0007	
Moon	-68530-04-08 09:49 J	-23309062.34	-23309062.09	-23309061.83	0.0088	0.0003	*
Moon	-68529-04-09 13:54 J	-23308695.17	-23308694.92	-23308694.67	0.0088	0.0005	
Earth	-68529-04-09 17:16 J	-23308695.04	-23308694.78	-23308694.52	0.0088	0.0001	*
Earth	-68528-04-12 04:04 J	-23308327.59	-23308327.33	-23308327.07	0.0088	0.0005	
Moon	-68528-04-12 06:13 J	-23308327.50	-23308327.24	-23308326.97	0.0088	0.0010	*
Moon	-68527-04-14 13:25 J	-23307960.19	-23307959.94	-23307959.69	0.0088	0.0008	
Earth	-68527-04-14 14:52 J	-23307960.13	-23307959.88	-23307959.62	0.0088	0.0012	*
Earth	-68526-04-17 01:40 J	-23307592.68	-23307592.43	-23307592.18	0.0089	0.0018	
Moon	-68526-04-17 01:40 J	-23307592.67	-23307592.43	-23307592.16	0.0089	0.0023	*
Earth	-68525-04-18 12:13 J	-23307225.23	-23307224.99	-23307224.74	0.0089	0.0024	
Moon	-68525-04-18 13:40 J	-23307225.17	-23307224.93	-23307224.69	0.0089	0.0020	*
Moon	-68524-04-20 20:23 J	-23306857.87	-23306857.65	-23306857.38	0.0089	0.0035	
Earth	-68524-04-20 22:47 J	-23306857.78	-23306857.55	-23306857.30	0.0089	0.0030	*
Earth	-68523-04-23 09:35 J	-23306490.33	-23306490.10	-23306489.86	0.0089	0.0036	
Moon	-68523-04-23 12:28 J	-23306490.20	-23306489.98	-23306489.73	0.0089	0.0031	*
Moon	-68522-04-25 16:18 J	-23306123.02	-23306122.82	-23306122.58	0.0089	0.0047	
Earth	-68522-04-25 20:09 J	-23306122.88	-23306122.66	-23306122.43	0.0089	0.0042	*
Earth	-68521-04-27 06:13 J	-23305755.44	-23305755.24	-23305755.01	0.0089	0.0048	
Moon	-68521-04-27 09:35 J	-23305755.30	-23305755.10	-23305754.86	0.0089	0.0044	*
Moon	-68520-04-29 13:40 J	-23305388.11	-23305387.93	-23305387.73	0.0089	0.0058	

Earth -68520-04-29 17:01 J -23305387.99 -23305387.79 -23305387.59 0.0089 0.0053 *
 Earth -68519-05-02 02:52 J -23305020.55 -23305020.38 -23305020.18 0.0089 0.0059
 Moon -68519-05-02 04:33 J -23305020.49 -23305020.31 -23305020.08 0.0089 0.0055 *
 Mercury -68519-07-04 17:45 J -23304956.77 -23304956.76 -23304956.72 0.0089 0.0087
 Mercury -68519-09-30 19:11 J -23304868.74 -23304868.70 -23304868.64 0.0089 0.0082
 Mercury -68519-12-27 20:23 J -23304780.70 -23304780.65 -23304780.57 0.0089 0.0077
 Mercury -68518-03-25 21:49 J -23304692.66 -23304692.59 -23304692.51 0.0089 0.0072
 Moon -68518-05-04 11:30 J -23304653.15 -23304653.02 -23304652.84 0.0089 0.0069
 Earth -68518-05-04 12:42 J -23304653.12 -23304652.97 -23304652.77 0.0089 0.0065 *
 Mercury -68518-06-21 23:01 J -23304604.61 -23304604.54 -23304604.44 0.0089 0.0067
 Mercury -68518-09-18 00:28 J -23304516.57 -23304516.48 -23304516.38 0.0089 0.0062
 Mercury -68518-12-15 01:40 J -23304428.52 -23304428.43 -23304428.32 0.0089 0.0057
 Mercury -68517-03-12 03:06 J -23304340.47 -23304340.37 -23304340.26 0.0089 0.0052
 Moon -68517-05-05 23:01 J -23304285.71 -23304285.54 -23304285.35 0.0089 0.0065
 Earth -68517-05-05 23:01 J -23304285.68 -23304285.54 -23304285.37 0.0089 0.0070 *
 Mercury -68517-06-08 04:18 J -23304252.42 -23304252.32 -23304252.20 0.0089 0.0047
 Mercury -68517-09-04 05:45 J -23304164.37 -23304164.26 -23304164.14 0.0089 0.0041
 Mercury -68517-12-01 06:57 J -23304076.32 -23304076.21 -23304076.08 0.0089 0.0037
 Mercury -68516-02-27 08:23 J -23303988.27 -23303988.15 -23303988.02 0.0089 0.0031
 Earth -68516-05-08 09:21 J -23303918.24 -23303918.11 -23303917.97 0.0089 0.0075
 Moon -68516-05-08 10:33 J -23303918.14 -23303918.06 -23303917.93 0.0089 0.0080 *
 Mercury -68516-05-26 09:35 J -23303900.22 -23303900.10 -23303899.97 0.0089 0.0027
 Mercury -68516-08-22 11:01 J -23303812.17 -23303812.04 -23303811.91 0.0089 0.0021
 Mercury -68516-11-18 12:13 J -23303724.11 -23303723.99 -23303723.85 0.0089 0.0017
 Mercury -68515-02-14 13:40 J -23303636.06 -23303635.93 -23303635.80 0.0089 0.0011
 Moon -68515-05-10 17:01 J -23303550.91 -23303550.79 -23303550.65 0.0089 0.0076
 Earth -68515-05-10 18:57 J -23303550.79 -23303550.71 -23303550.58 0.0089 0.0081 *
 Mercury -68515-05-13 14:52 J -23303548.01 -23303547.88 -23303547.74 0.0089 0.0007
 Mercury -68515-08-09 16:18 J -23303459.95 -23303459.82 -23303459.69 0.0089 0.0001
 Mercury -68515-11-05 17:30 J -23303371.90 -23303371.77 -23303371.64 0.0089 0.0004

Mercury -68514-02-01 18:57 J -23303283.84 -23303283.71 -23303283.58 0.0089 0.0009

Mercury -68514-04-30 20:09 J -23303195.79 -23303195.66 -23303195.53 0.0089 0.0014

Earth -68514-05-13 04:47 J -23303183.33 -23303183.30 -23303183.20 0.0089 0.0086

Mercury -68514-07-27 21:21 J -23303107.73 -23303107.61 -23303107.48 0.0089 0.0019

Mercury -68514-10-23 22:47 J -23303019.68 -23303019.55 -23303019.42 0.0089 0.0024

Mercury -68513-01-19 23:59 J -23302931.62 -23302931.50 -23302931.37 0.0089 0.0029

Mercury -68513-04-17 01:25 J -23302843.56 -23302843.44 -23302843.32 0.0089 0.0034

Moon -68513-05-14 11:45 J -23302816.06 -23302816.01 -23302815.94 0.0089 0.0086

Mercury -68513-07-14 02:37 J -23302755.51 -23302755.39 -23302755.27 0.0089 0.0039

Mercury -68513-10-10 03:35 J -23302667.45 -23302667.35 -23302667.22 0.0089 0.0045

Mercury -68512-01-06 05:16 J -23302579.39 -23302579.28 -23302579.17 0.0089 0.0049

Mercury -68512-04-04 06:28 J -23302491.33 -23302491.23 -23302491.12 0.0089 0.0054

Mercury -68512-07-01 07:54 J -23302403.27 -23302403.17 -23302403.08 0.0089 0.0059

Mercury -68512-09-27 09:06 J -23302315.21 -23302315.12 -23302315.03 0.0089 0.0064

Mercury -68512-12-24 10:04 J -23302227.14 -23302227.08 -23302226.98 0.0089 0.0070

Mercury -68511-03-22 11:45 J -23302139.08 -23302139.01 -23302138.94 0.0089 0.0074

Mercury -68511-06-18 12:42 J -23302051.01 -23302050.97 -23302050.90 0.0089 0.0080

Mercury -68511-09-14 14:23 J -23301962.94 -23301962.90 -23301962.86 0.0089 0.0084

Mars -68505-04-07 06:28 J -23299931.39 -23299931.23 -23299931.04 0.0089 0.0069

Mars -68503-03-01 14:09 J -23299238.19 -23299237.91 -23299237.63 0.0089 0.0010

Mars -68501-01-23 20:37 J -23298544.85 -23298544.64 -23298544.38 0.0089 0.0050

Jupiter -68473-07-24 02:09 J -23288135.94 -23288135.41 -23288134.85 0.0089 0.0010

Moon -68463-08-31 10:47 J -23284445.12 -23284445.05 -23284444.94 0.0089 0.0083

Earth -68463-08-31 14:09 J -23284444.95 -23284444.91 -23284444.84 0.0089 0.0087 *

Venus -68463-10-10 18:28 J -23284404.85 -23284404.73 -23284404.61 0.0089 0.0074

Venus -68462-05-24 07:25 J -23284179.35 -23284179.19 -23284179.00 0.0089 0.0054

Earth -68462-09-03 01:11 J -23284077.53 -23284077.45 -23284077.33 0.0089 0.0081

Moon -68462-09-03 04:33 J -23284077.37 -23284077.31 -23284077.20 0.0089 0.0085 *

Venus -68461-01-04 20:37 J -23283953.83 -23283953.64 -23283953.42 0.0089 0.0034

Venus -68461-08-17 10:04 J -23283728.29 -23283728.08 -23283727.86 0.0089 0.0012

Moon	-68461-09-04 09:35 J	-23283710.24	-23283710.10	-23283709.96	0.0089	0.0073
Earth	-68461-09-04 12:28 J	-23283710.08	-23283709.98	-23283709.82	0.0089	0.0076 *
Venus	-68460-03-30 23:16 J	-23283502.75	-23283502.53	-23283502.31	0.0089	0.0009
Earth	-68460-09-07 00:28 J	-23283342.63	-23283342.48	-23283342.32	0.0089	0.0070
Moon	-68460-09-07 03:21 J	-23283342.48	-23283342.36	-23283342.18	0.0089	0.0073 *
Venus	-68460-11-11 12:28 J	-23283277.18	-23283276.98	-23283276.77	0.0089	0.0029
Venus	-68459-06-25 01:40 J	-23283051.60	-23283051.43	-23283051.23	0.0089	0.0050
Moon	-68459-09-09 09:49 J	-23282975.26	-23282975.09	-23282974.90	0.0089	0.0062
Earth	-68459-09-09 11:45 J	-23282975.17	-23282975.01	-23282974.82	0.0089	0.0065 *
Venus	-68458-02-05 14:52 J	-23282825.99	-23282825.88	-23282825.73	0.0089	0.0071
Earth	-68458-09-11 23:30 J	-23282607.70	-23282607.52	-23282607.32	0.0089	0.0059
Moon	-68458-09-12 00:57 J	-23282607.63	-23282607.46	-23282607.24	0.0089	0.0061 *
Moon	-68457-09-13 11:16 J	-23282240.23	-23282240.03	-23282239.82	0.0089	0.0051
Earth	-68457-09-13 11:30 J	-23282240.22	-23282240.02	-23282239.81	0.0089	0.0053 *
Moon	-68456-09-15 21:21 J	-23281872.81	-23281872.61	-23281872.37	0.0089	0.0050
Earth	-68456-09-15 22:33 J	-23281872.75	-23281872.56	-23281872.32	0.0089	0.0048 *
Earth	-68455-09-18 10:33 J	-23281505.27	-23281505.06	-23281504.82	0.0089	0.0042
Moon	-68455-09-18 12:42 J	-23281505.19	-23281504.97	-23281504.75	0.0089	0.0040 *
Moon	-68454-09-20 19:11 J	-23281137.92	-23281137.70	-23281137.45	0.0089	0.0038
Earth	-68454-09-20 22:18 J	-23281137.79	-23281137.57	-23281137.32	0.0089	0.0036 *
Earth	-68453-09-22 10:18 J	-23280770.30	-23280770.07	-23280769.82	0.0089	0.0030
Moon	-68453-09-22 13:40 J	-23280770.16	-23280769.93	-23280769.67	0.0089	0.0028 *
Moon	-68452-09-24 18:42 J	-23280402.95	-23280402.72	-23280402.46	0.0089	0.0025
Earth	-68452-09-24 22:18 J	-23280402.80	-23280402.57	-23280402.31	0.0089	0.0024 *
Earth	-68451-09-27 10:18 J	-23280035.31	-23280035.07	-23280034.81	0.0089	0.0018
Moon	-68451-09-27 13:40 J	-23280035.18	-23280034.93	-23280034.66	0.0089	0.0016 *
Moon	-68450-09-29 20:23 J	-23279667.89	-23279667.65	-23279667.39	0.0089	0.0013
Earth	-68450-09-29 22:33 J	-23279667.81	-23279667.56	-23279667.29	0.0089	0.0012 *
Earth	-68449-10-01 11:01 J	-23279300.29	-23279300.04	-23279299.78	0.0089	0.0006
Moon	-68449-10-01 12:57 J	-23279300.23	-23279299.96	-23279299.69	0.0089	0.0005 *

Earth -68448-10-03 23:30 J -23278932.78 -23278932.52 -23278932.26 0.0089 0.0001
 Moon -68448-10-03 23:30 J -23278932.77 -23278932.52 -23278932.27 0.0089 0.0001 *
 Moon -68447-10-06 10:47 J -23278565.32 -23278565.05 -23278564.78 0.0089 0.0008
 Earth -68447-10-06 11:59 J -23278565.25 -23278565.00 -23278564.74 0.0089 0.0007 *
 Earth -68446-10-09 00:13 J -23278197.73 -23278197.49 -23278197.22 0.0089 0.0014
 Moon -68446-10-09 02:23 J -23278197.65 -23278197.40 -23278197.15 0.0089 0.0013 *
 Moon -68445-10-10 09:35 J -23277830.34 -23277830.10 -23277829.83 0.0089 0.0021
 Earth -68445-10-10 12:57 J -23277830.20 -23277829.96 -23277829.70 0.0089 0.0020 *
 Earth -68444-10-13 01:25 J -23277462.67 -23277462.44 -23277462.18 0.0089 0.0026
 Moon -68444-10-13 05:01 J -23277462.53 -23277462.29 -23277462.04 0.0089 0.0025 *
 Moon -68443-10-15 10:18 J -23277095.29 -23277095.07 -23277094.81 0.0089 0.0032
 Earth -68443-10-15 14:09 J -23277095.14 -23277094.91 -23277094.65 0.0089 0.0032 *
 Earth -68442-10-18 02:52 J -23276727.60 -23276727.38 -23276727.13 0.0089 0.0038
 Moon -68442-10-18 06:13 J -23276727.46 -23276727.24 -23276726.99 0.0089 0.0038 *
 Moon -68441-10-19 13:11 J -23276360.15 -23276359.95 -23276359.71 0.0089 0.0044
 Earth -68441-10-19 15:35 J -23276360.06 -23276359.85 -23276359.60 0.0089 0.0044 *
 Earth -68440-10-22 04:18 J -23275992.52 -23275992.32 -23275992.09 0.0089 0.0050
 Moon -68440-10-22 06:13 J -23275992.44 -23275992.24 -23275992.00 0.0089 0.0051 *
 Moon -68439-10-24 16:47 J -23275624.97 -23275624.80 -23275624.58 0.0089 0.0056
 Earth -68439-10-24 17:01 J -23275624.97 -23275624.79 -23275624.56 0.0089 0.0056 *
 Moon -68438-10-27 05:16 J -23275257.45 -23275257.28 -23275257.06 0.0089 0.0062
 Earth -68438-10-27 05:59 J -23275257.41 -23275257.25 -23275257.03 0.0089 0.0062 *
 Earth -68437-10-28 19:40 J -23274889.85 -23274889.68 -23274889.51 0.0089 0.0067
 Moon -68437-10-28 21:06 J -23274889.78 -23274889.62 -23274889.44 0.0089 0.0066 *
 Mercury -68436-09-17 21:21 J -23274565.66 -23274565.61 -23274565.52 0.0089 0.0083
 Moon -68436-10-31 05:16 J -23274522.40 -23274522.28 -23274522.10 0.0089 0.0074
 Earth -68436-10-31 08:37 J -23274522.27 -23274522.14 -23274521.97 0.0089 0.0073 *
 Mercury -68436-12-15 01:25 J -23274477.54 -23274477.44 -23274477.33 0.0089 0.0075
 Mercury -68435-03-13 04:47 J -23274389.41 -23274389.30 -23274389.16 0.0089 0.0068
 Mercury -68435-06-09 08:23 J -23274301.27 -23274301.15 -23274300.98 0.0089 0.0061

Mercury -68435-09-05 12:28 J -23274213.13 -23274212.98 -23274212.82 0.0089 0.0053

Earth -68435-11-02 21:35 J -23274154.69 -23274154.60 -23274154.45 0.0089 0.0079

Moon -68435-11-03 01:40 J -23274154.56 -23274154.43 -23274154.31 0.0089 0.0077 *

Mercury -68435-12-02 16:04 J -23274124.99 -23274124.83 -23274124.65 0.0089 0.0046

Mercury -68434-02-28 19:54 J -23274036.84 -23274036.67 -23274036.49 0.0089 0.0038

Mercury -68434-05-27 23:30 J -23273948.69 -23273948.52 -23273948.32 0.0089 0.0031

Mercury -68434-08-24 03:21 J -23273860.54 -23273860.36 -23273860.16 0.0089 0.0023

Moon -68434-11-05 07:25 J -23273787.23 -23273787.19 -23273787.10 0.0089 0.0086

Earth -68434-11-05 11:16 J -23273787.09 -23273787.03 -23273786.92 0.0089 0.0084

Mercury -68434-11-20 07:11 J -23273772.39 -23273772.20 -23273772.00 0.0089 0.0015

Mercury -68433-02-16 11:01 J -23273684.24 -23273684.04 -23273683.85 0.0089 0.0008

Mercury -68433-05-14 14:37 J -23273596.08 -23273595.89 -23273595.69 0.0089 0.0002

Mercury -68433-08-10 18:28 J -23273507.93 -23273507.73 -23273507.53 0.0089 0.0007

Mercury -68433-11-06 22:04 J -23273419.77 -23273419.58 -23273419.38 0.0089 0.0015

Moon -68433-11-07 04:47 J -23273419.35 -23273419.30 -23273419.26 0.0089 0.0087

Mercury -68432-02-03 01:40 J -23273331.61 -23273331.43 -23273331.23 0.0089 0.0023

Mercury -68432-05-02 05:30 J -23273243.45 -23273243.27 -23273243.08 0.0089 0.0030

Mercury -68432-07-29 09:06 J -23273155.29 -23273155.12 -23273154.93 0.0089 0.0038

Mercury -68432-10-25 12:57 J -23273067.12 -23273066.96 -23273066.78 0.0089 0.0045

Mercury -68431-01-21 16:33 J -23272978.95 -23272978.81 -23272978.64 0.0089 0.0053

Mercury -68431-04-19 20:23 J -23272890.78 -23272890.65 -23272890.49 0.0089 0.0060

Mercury -68431-07-16 23:59 J -23272802.61 -23272802.50 -23272802.36 0.0089 0.0068

Mercury -68431-10-13 03:49 J -23272714.43 -23272714.34 -23272714.22 0.0089 0.0075

Mercury -68430-01-09 07:25 J -23272626.24 -23272626.19 -23272626.10 0.0089 0.0083

Mars -68423-02-13 21:06 J -23270033.72 -23270033.62 -23270033.43 0.0088 0.0081

Mars -68421-01-11 17:30 J -23269337.12 -23269336.77 -23269336.42 0.0088 0.0006

Mars -68420-12-08 10:33 J -23268640.25 -23268640.06 -23268639.80 0.0088 0.0069

Venus -68381-11-30 14:09 J -23254402.93 -23254402.91 -23254402.84 0.0088 0.0087

Earth -68380-03-06 23:16 J -23254306.57 -23254306.53 -23254306.42 0.0088 0.0085

Moon -68380-03-07 00:42 J -23254306.54 -23254306.47 -23254306.37 0.0088 0.0083 *

Venus	-68380-07-14 03:06 J	-23254177.50	-23254177.37	-23254177.21	0.0088	0.0066
Venus	-68379-02-24 15:49 J	-23253952.01	-23253951.84	-23253951.63	0.0088	0.0047
Moon	-68379-03-09 09:21 J	-23253939.20	-23253939.11	-23253938.99	0.0088	0.0081
Earth	-68379-03-09 11:59 J	-23253939.10	-23253939.00	-23253938.87	0.0088	0.0079 *
Venus	-68379-10-08 05:01 J	-23253726.50	-23253726.29	-23253726.08	0.0088	0.0026
Earth	-68378-03-11 23:45 J	-23253571.63	-23253571.51	-23253571.35	0.0088	0.0074
Moon	-68378-03-12 02:52 J	-23253571.51	-23253571.38	-23253571.22	0.0088	0.0072 *
Venus	-68378-05-21 17:45 J	-23253500.98	-23253500.76	-23253500.54	0.0088	0.0006
Venus	-68377-01-02 06:28 J	-23253275.44	-23253275.23	-23253275.01	0.0088	0.0015
Moon	-68377-03-13 07:54 J	-23253204.31	-23253204.17	-23253203.99	0.0088	0.0069
Earth	-68377-03-13 11:16 J	-23253204.16	-23253204.03	-23253203.84	0.0088	0.0069 *
Venus	-68377-08-14 19:11 J	-23253049.90	-23253049.70	-23253049.50	0.0088	0.0035
Earth	-68376-03-15 23:16 J	-23252836.69	-23252836.53	-23252836.33	0.0088	0.0063
Moon	-68376-03-16 03:21 J	-23252836.55	-23252836.36	-23252836.17	0.0088	0.0061 *
Venus	-68376-03-28 07:40 J	-23252824.35	-23252824.18	-23252824.01	0.0088	0.0055
Venus	-68376-11-08 20:09 J	-23252598.77	-23252598.66	-23252598.54	0.0088	0.0075
Moon	-68375-03-18 08:09 J	-23252469.33	-23252469.16	-23252468.95	0.0088	0.0059
Earth	-68375-03-18 11:01 J	-23252469.21	-23252469.04	-23252468.82	0.0088	0.0057 *
Earth	-68374-03-20 22:33 J	-23252101.75	-23252101.56	-23252101.33	0.0088	0.0052
Moon	-68374-03-21 01:25 J	-23252101.64	-23252101.44	-23252101.21	0.0088	0.0051 *
Moon	-68373-03-22 09:35 J	-23251734.30	-23251734.10	-23251733.88	0.0088	0.0047
Earth	-68373-03-22 10:18 J	-23251734.27	-23251734.07	-23251733.83	0.0088	0.0046 *
Moon	-68372-03-24 21:49 J	-23251366.82	-23251366.59	-23251366.33	0.0088	0.0039
Earth	-68372-03-24 22:04 J	-23251366.80	-23251366.58	-23251366.34	0.0088	0.0040 *
Earth	-68371-03-27 09:35 J	-23250999.33	-23250999.10	-23250998.85	0.0088	0.0034
Moon	-68371-03-27 10:33 J	-23250999.28	-23250999.06	-23250998.82	0.0088	0.0034 *
Moon	-68370-03-29 18:28 J	-23250631.97	-23250631.73	-23250631.47	0.0088	0.0027
Earth	-68370-03-29 21:21 J	-23250631.85	-23250631.61	-23250631.36	0.0088	0.0028 *
Earth	-68369-03-31 08:37 J	-23250264.39	-23250264.14	-23250263.89	0.0088	0.0022
Moon	-68369-03-31 11:30 J	-23250264.26	-23250264.02	-23250263.77	0.0088	0.0022 *

Moon	-68368-04-02 16:18 J	-23249897.07	-23249896.82	-23249896.56	0.0088	0.0016
Earth	-68368-04-02 19:54 J	-23249896.92	-23249896.67	-23249896.41	0.0088	0.0016 *
Earth	-68367-04-05 07:11 J	-23249529.46	-23249529.20	-23249528.95	0.0088	0.0010
Moon	-68367-04-05 10:33 J	-23249529.31	-23249529.06	-23249528.79	0.0088	0.0011 *
Moon	-68366-04-07 15:06 J	-23249162.12	-23249161.87	-23249161.61	0.0088	0.0004
Earth	-68366-04-07 17:59 J	-23249162.00	-23249161.75	-23249161.49	0.0088	0.0004 *
Earth	-68365-04-09 05:01 J	-23248794.55	-23248794.29	-23248794.04	0.0088	0.0002
Moon	-68365-04-09 07:25 J	-23248794.45	-23248794.19	-23248793.92	0.0088	0.0003 *
Moon	-68364-04-11 14:52 J	-23248427.12	-23248426.88	-23248426.62	0.0088	0.0009
Earth	-68364-04-11 15:49 J	-23248427.09	-23248426.84	-23248426.58	0.0088	0.0008 *
Moon	-68363-04-14 02:23 J	-23248059.66	-23248059.40	-23248059.13	0.0089	0.0014
Earth	-68363-04-14 02:23 J	-23248059.64	-23248059.40	-23248059.13	0.0089	0.0015 *
Earth	-68362-04-16 13:25 J	-23247692.19	-23247691.94	-23247691.69	0.0089	0.0020
Moon	-68362-04-16 14:23 J	-23247692.13	-23247691.90	-23247691.65	0.0089	0.0020 *
Moon	-68361-04-17 20:52 J	-23247324.87	-23247324.63	-23247324.36	0.0089	0.0026
Earth	-68361-04-17 23:59 J	-23247324.74	-23247324.50	-23247324.25	0.0089	0.0026 *
Earth	-68360-04-20 10:33 J	-23246957.29	-23246957.06	-23246956.81	0.0089	0.0032
Moon	-68360-04-20 13:40 J	-23246957.16	-23246956.93	-23246956.69	0.0089	0.0032 *
Moon	-68359-04-22 17:30 J	-23246589.99	-23246589.77	-23246589.52	0.0089	0.0039
Earth	-68359-04-22 21:06 J	-23246589.83	-23246589.62	-23246589.37	0.0089	0.0038 *
Earth	-68358-04-25 07:25 J	-23246222.39	-23246222.19	-23246221.95	0.0089	0.0044
Moon	-68358-04-25 11:16 J	-23246222.25	-23246222.03	-23246221.80	0.0089	0.0043 *
Moon	-68357-04-26 15:35 J	-23245855.04	-23245854.85	-23245854.63	0.0089	0.0050
Earth	-68357-04-26 18:28 J	-23245854.93	-23245854.73	-23245854.51	0.0089	0.0049 *
Earth	-68356-04-29 04:47 J	-23245487.48	-23245487.30	-23245487.08	0.0089	0.0055
Moon	-68356-04-29 07:25 J	-23245487.40	-23245487.19	-23245486.98	0.0089	0.0053 *
Moon	-68355-05-01 14:37 J	-23245120.05	-23245119.89	-23245119.69	0.0089	0.0061
Earth	-68355-05-01 15:21 J	-23245120.04	-23245119.86	-23245119.66	0.0089	0.0060 *
Mercury	-68354-03-31 18:13 J	-23244785.78	-23244785.74	-23244785.70	0.0089	0.0084
Moon	-68354-05-04 00:42 J	-23244752.62	-23244752.47	-23244752.26	0.0089	0.0065

Earth -68354-05-04 01:11 J -23244752.59 -23244752.45 -23244752.25 0.0089 0.0066 *
 Mercury -68354-06-27 19:25 J -23244697.75 -23244697.69 -23244697.63 0.0089 0.0079
 Mercury -68354-09-23 20:37 J -23244609.70 -23244609.64 -23244609.56 0.0089 0.0074
 Mercury -68354-12-20 22:04 J -23244521.66 -23244521.58 -23244521.50 0.0089 0.0069
 Mercury -68353-03-17 23:16 J -23244433.61 -23244433.53 -23244433.43 0.0089 0.0064
 Earth -68353-05-05 11:30 J -23244385.15 -23244385.02 -23244384.85 0.0089 0.0071
 Moon -68353-05-05 13:11 J -23244385.08 -23244384.95 -23244384.79 0.0089 0.0072 *
 Mercury -68353-06-14 00:42 J -23244345.57 -23244345.47 -23244345.37 0.0089 0.0059
 Mercury -68353-09-10 01:54 J -23244257.52 -23244257.42 -23244257.31 0.0089 0.0054
 Mercury -68353-12-07 03:06 J -23244169.47 -23244169.37 -23244169.25 0.0089 0.0049
 Mercury -68352-03-05 04:33 J -23244081.42 -23244081.31 -23244081.19 0.0089 0.0044
 Moon -68352-05-07 18:28 J -23244017.83 -23244017.73 -23244017.56 0.0089 0.0076
 Earth -68352-05-07 21:49 J -23244017.70 -23244017.59 -23244017.44 0.0089 0.0076 *
 Mercury -68352-06-01 05:45 J -23243993.37 -23243993.26 -23243993.13 0.0089 0.0039
 Mercury -68352-08-28 07:11 J -23243905.32 -23243905.20 -23243905.08 0.0089 0.0034
 Mercury -68352-11-24 08:23 J -23243817.27 -23243817.15 -23243817.02 0.0089 0.0029
 Mercury -68351-02-20 09:49 J -23243729.22 -23243729.09 -23243728.96 0.0089 0.0024
 Earth -68351-05-10 07:40 J -23243650.26 -23243650.18 -23243650.05 0.0089 0.0081
 Moon -68351-05-10 11:01 J -23243650.11 -23243650.04 -23243649.92 0.0089 0.0082 *
 Mercury -68351-05-19 11:01 J -23243641.16 -23243641.04 -23243640.91 0.0089 0.0019
 Mercury -68351-08-15 12:28 J -23243553.11 -23243552.98 -23243552.85 0.0089 0.0014
 Mercury -68351-11-11 13:40 J -23243465.06 -23243464.93 -23243464.79 0.0089 0.0009
 Mercury -68350-02-07 15:06 J -23243377.00 -23243376.87 -23243376.74 0.0089 0.0004
 Mercury -68350-05-06 16:18 J -23243288.95 -23243288.82 -23243288.69 0.0089 0.0002
 Moon -68350-05-12 14:37 J -23243282.97 -23243282.89 -23243282.81 0.0089 0.0084
 Earth -68350-05-12 17:45 J -23243282.80 -23243282.76 -23243282.67 0.0089 0.0086
 Mercury -68350-08-02 17:45 J -23243200.89 -23243200.76 -23243200.63 0.0089 0.0007
 Mercury -68350-10-29 18:57 J -23243112.84 -23243112.71 -23243112.58 0.0089 0.0012
 Mercury -68349-01-25 20:09 J -23243024.79 -23243024.66 -23243024.53 0.0089 0.0017
 Mercury -68349-04-22 21:35 J -23242936.73 -23242936.60 -23242936.47 0.0089 0.0022

Mercury -68349-07-19 22:47 J -23242848.67 -23242848.55 -23242848.42 0.0089 0.0027
 Mercury -68349-10-15 23:59 J -23242760.62 -23242760.50 -23242760.37 0.0089 0.0032
 Mercury -68348-01-12 01:25 J -23242672.56 -23242672.44 -23242672.32 0.0089 0.0037
 Mercury -68348-04-10 02:37 J -23242584.50 -23242584.39 -23242584.27 0.0089 0.0042
 Mercury -68348-07-07 03:49 J -23242496.44 -23242496.34 -23242496.22 0.0089 0.0047
 Mercury -68348-10-03 05:16 J -23242408.38 -23242408.28 -23242408.17 0.0089 0.0052
 Mercury -68348-12-30 06:28 J -23242320.32 -23242320.23 -23242320.12 0.0089 0.0057
 Mercury -68347-03-28 07:54 J -23242232.26 -23242232.17 -23242232.08 0.0089 0.0062
 Mercury -68347-06-24 09:06 J -23242144.20 -23242144.12 -23242144.03 0.0089 0.0067
 Mercury -68347-09-20 10:18 J -23242056.14 -23242056.07 -23242055.99 0.0089 0.0072
 Mercury -68347-12-17 11:45 J -23241968.07 -23241968.01 -23241967.94 0.0089 0.0077
 Mercury -68346-03-15 12:57 J -23241880.00 -23241879.96 -23241879.91 0.0089 0.0082
 Mercury -68346-06-11 14:23 J -23241791.92 -23241791.90 -23241791.88 0.0089 0.0087
 Mars -68340-10-15 11:59 J -23239474.24 -23239474.00 -23239473.72 0.0089 0.0034
 Mars -68338-09-08 19:54 J -23238780.93 -23238780.67 -23238780.39 0.0089 0.0025
 Mars -68336-08-02 02:52 J -23238087.43 -23238087.38 -23238087.26 0.0089 0.0085
 Moon -68300-08-28 11:45 J -23224912.06 -23224912.01 -23224911.89 0.0089 0.0084
 Earth -68300-08-28 15:06 J -23224911.90 -23224911.87 -23224911.80 0.0089 0.0087 *
 Earth -68299-08-31 01:54 J -23224544.50 -23224544.42 -23224544.30 0.0089 0.0082
 Moon -68299-08-31 05:30 J -23224544.31 -23224544.27 -23224544.19 0.0089 0.0086 *
 Venus -68298-01-12 06:13 J -23224410.32 -23224410.24 -23224410.14 0.0089 0.0082
 Venus -68298-08-25 18:57 J -23224184.85 -23224184.71 -23224184.53 0.0089 0.0062
 Moon -68298-09-02 09:35 J -23224177.21 -23224177.10 -23224176.93 0.0089 0.0074
 Earth -68298-09-02 12:57 J -23224177.06 -23224176.96 -23224176.81 0.0089 0.0078 *
 Venus -68297-04-07 08:23 J -23223959.34 -23223959.15 -23223958.95 0.0089 0.0040
 Earth -68297-09-04 00:13 J -23223809.62 -23223809.49 -23223809.32 0.0089 0.0072
 Moon -68297-09-04 03:35 J -23223809.48 -23223809.35 -23223809.21 0.0089 0.0076 *
 Venus -68297-11-18 21:21 J -23223733.81 -23223733.61 -23223733.38 0.0089 0.0020
 Venus -68296-07-02 10:47 J -23223508.26 -23223508.05 -23223507.82 0.0089 0.0003
 Moon -68296-09-06 09:06 J -23223442.27 -23223442.12 -23223441.92 0.0089 0.0063

Earth	-68296-09-06 11:59 J	-23223442.17	-23223442.00	-23223441.83	0.0089	0.0066	*
Venus	-68295-02-12 23:59 J	-23223282.71	-23223282.50	-23223282.28	0.0089	0.0022	
Earth	-68295-09-08 23:01 J	-23223074.70	-23223074.54	-23223074.33	0.0089	0.0061	
Moon	-68295-09-08 23:59 J	-23223074.67	-23223074.50	-23223074.31	0.0089	0.0064	*
Venus	-68295-09-26 12:57 J	-23223057.14	-23223056.96	-23223056.75	0.0089	0.0043	
Venus	-68294-05-10 02:37 J	-23222831.54	-23222831.39	-23222831.24	0.0089	0.0064	
Earth	-68294-09-11 11:01 J	-23222707.23	-23222707.04	-23222706.83	0.0089	0.0055	
Moon	-68294-09-11 11:01 J	-23222707.23	-23222707.04	-23222706.83	0.0089	0.0052	*
Venus	-68294-12-21 15:35 J	-23222605.90	-23222605.85	-23222605.77	0.0089	0.0085	
Moon	-68293-09-12 20:52 J	-23222339.82	-23222339.63	-23222339.40	0.0089	0.0054	
Earth	-68293-09-12 22:18 J	-23222339.76	-23222339.57	-23222339.34	0.0089	0.0050	*
Earth	-68292-09-15 10:04 J	-23221972.29	-23221972.08	-23221971.84	0.0089	0.0044	
Moon	-68292-09-15 13:11 J	-23221972.17	-23221971.95	-23221971.73	0.0089	0.0040	*
Moon	-68291-09-17 18:42 J	-23221604.94	-23221604.72	-23221604.48	0.0089	0.0042	
Earth	-68291-09-17 21:49 J	-23221604.81	-23221604.59	-23221604.34	0.0089	0.0038	*
Earth	-68290-09-20 09:49 J	-23221237.33	-23221237.09	-23221236.85	0.0089	0.0032	
Moon	-68290-09-20 13:11 J	-23221237.18	-23221236.95	-23221236.69	0.0089	0.0028	*
Moon	-68289-09-21 18:28 J	-23220869.97	-23220869.73	-23220869.49	0.0089	0.0030	
Earth	-68289-09-21 21:49 J	-23220869.83	-23220869.59	-23220869.34	0.0089	0.0026	*
Earth	-68288-09-24 09:21 J	-23220502.35	-23220502.11	-23220501.85	0.0089	0.0021	
Moon	-68288-09-24 12:42 J	-23220502.23	-23220501.97	-23220501.71	0.0089	0.0016	*
Moon	-68287-09-26 19:25 J	-23220134.93	-23220134.69	-23220134.44	0.0089	0.0019	
Earth	-68287-09-26 21:35 J	-23220134.85	-23220134.60	-23220134.34	0.0089	0.0015	*
Earth	-68286-09-29 09:35 J	-23219767.35	-23219767.10	-23219766.83	0.0089	0.0009	
Moon	-68286-09-29 10:18 J	-23219767.33	-23219767.07	-23219766.79	0.0089	0.0005	*
Earth	-68285-09-30 21:49 J	-23219399.85	-23219399.59	-23219399.33	0.0089	0.0003	
Moon	-68285-09-30 21:49 J	-23219399.83	-23219399.59	-23219399.33	0.0089	0.0007	*
Moon	-68284-10-03 08:37 J	-23219032.40	-23219032.14	-23219031.87	0.0089	0.0008	
Earth	-68284-10-03 10:04 J	-23219032.33	-23219032.08	-23219031.81	0.0089	0.0004	*
Earth	-68283-10-05 22:33 J	-23218664.82	-23218664.56	-23218664.30	0.0089	0.0010	

Moon	-68283-10-06 01:11 J	-23218664.70	-23218664.45	-23218664.19	0.0089	0.0006	*
Moon	-68282-10-08 07:54 J	-23218297.42	-23218297.17	-23218296.90	0.0089	0.0020	
Earth	-68282-10-08 11:01 J	-23218297.29	-23218297.04	-23218296.78	0.0089	0.0016	*
Earth	-68281-10-09 23:30 J	-23217929.76	-23217929.52	-23217929.26	0.0089	0.0022	
Moon	-68281-10-10 03:21 J	-23217929.61	-23217929.36	-23217929.10	0.0089	0.0017	*
Moon	-68280-10-12 08:52 J	-23217562.36	-23217562.13	-23217561.88	0.0089	0.0032	
Earth	-68280-10-12 12:13 J	-23217562.23	-23217561.99	-23217561.73	0.0089	0.0028	*
Earth	-68279-10-15 00:42 J	-23217194.69	-23217194.47	-23217194.21	0.0089	0.0034	
Moon	-68279-10-15 04:18 J	-23217194.57	-23217194.32	-23217194.07	0.0089	0.0029	*
Moon	-68278-10-17 11:30 J	-23216827.23	-23216827.02	-23216826.79	0.0089	0.0044	
Earth	-68278-10-17 13:40 J	-23216827.15	-23216826.93	-23216826.68	0.0089	0.0040	*
Earth	-68277-10-19 02:09 J	-23216459.61	-23216459.41	-23216459.16	0.0089	0.0046	
Moon	-68277-10-19 03:21 J	-23216459.59	-23216459.36	-23216459.11	0.0089	0.0041	*
Moon	-68276-10-21 15:21 J	-23216092.06	-23216091.86	-23216091.67	0.0089	0.0055	
Earth	-68276-10-21 15:21 J	-23216092.06	-23216091.86	-23216091.64	0.0089	0.0051	*
Moon	-68275-10-24 02:52 J	-23215724.58	-23215724.38	-23215724.15	0.0089	0.0052	
Earth	-68275-10-24 04:04 J	-23215724.51	-23215724.33	-23215724.11	0.0089	0.0057	*
Earth	-68274-10-26 16:33 J	-23215356.96	-23215356.81	-23215356.59	0.0089	0.0063	
Moon	-68274-10-26 19:25 J	-23215356.84	-23215356.69	-23215356.51	0.0089	0.0067	*
Moon	-68273-10-28 02:52 J	-23214989.54	-23214989.38	-23214989.17	0.0089	0.0064	
Earth	-68273-10-28 05:59 J	-23214989.40	-23214989.25	-23214989.07	0.0089	0.0068	*
Earth	-68272-10-30 18:42 J	-23214621.84	-23214621.72	-23214621.55	0.0089	0.0074	
Moon	-68272-10-30 22:47 J	-23214621.66	-23214621.55	-23214621.42	0.0089	0.0078	*
Mercury	-68271-03-18 17:16 J	-23214482.82	-23214482.78	-23214482.73	0.0089	0.0086	
Mercury	-68271-06-14 20:37 J	-23214394.71	-23214394.64	-23214394.53	0.0089	0.0079	
Mercury	-68271-09-11 00:13 J	-23214306.58	-23214306.49	-23214306.35	0.0089	0.0072	
Moon	-68271-11-02 05:01 J	-23214254.42	-23214254.29	-23214254.14	0.0089	0.0074	
Earth	-68271-11-02 08:09 J	-23214254.25	-23214254.16	-23214254.02	0.0089	0.0079	*
Mercury	-68271-12-08 04:18 J	-23214218.45	-23214218.32	-23214218.18	0.0089	0.0064	
Mercury	-68270-03-06 07:40 J	-23214130.31	-23214130.18	-23214130.01	0.0089	0.0057	

Mercury -68270-06-02 11:45 J -23214042.17 -23214042.01 -23214041.84 0.0089 0.0049

Mercury -68270-08-29 15:21 J -23213954.02 -23213953.86 -23213953.68 0.0089 0.0042

Earth -68270-11-04 21:35 J -23213886.67 -23213886.60 -23213886.50 0.0089 0.0084

Moon -68270-11-05 00:57 J -23213886.47 -23213886.46 -23213886.41 0.0089 0.0088

Mercury -68270-11-25 19:11 J -23213865.88 -23213865.70 -23213865.51 0.0089 0.0034

Mercury -68269-02-21 22:47 J -23213777.73 -23213777.55 -23213777.35 0.0089 0.0027

Mercury -68269-05-20 02:37 J -23213689.58 -23213689.39 -23213689.19 0.0089 0.0019

Mercury -68269-08-16 06:28 J -23213601.43 -23213601.23 -23213601.03 0.0089 0.0011

Moon -68269-11-06 08:09 J -23213519.21 -23213519.16 -23213519.06 0.0089 0.0085

Mercury -68269-11-12 10:04 J -23213513.27 -23213513.08 -23213512.88 0.0089 0.0005

Mercury -68268-02-08 13:54 J -23213425.12 -23213424.92 -23213424.72 0.0089 0.0004

Mercury -68268-05-07 17:30 J -23213336.96 -23213336.77 -23213336.57 0.0089 0.0011

Mercury -68268-08-03 21:21 J -23213248.80 -23213248.61 -23213248.42 0.0089 0.0019

Mercury -68268-10-31 01:11 J -23213160.64 -23213160.45 -23213160.26 0.0089 0.0026

Mercury -68267-01-27 04:47 J -23213072.48 -23213072.30 -23213072.11 0.0089 0.0034

Mercury -68267-04-25 08:09 J -23212984.31 -23212984.16 -23212983.97 0.0089 0.0042

Mercury -68267-07-22 12:13 J -23212896.15 -23212895.99 -23212895.82 0.0089 0.0049

Mercury -68267-10-18 15:35 J -23212807.98 -23212807.85 -23212807.68 0.0089 0.0057

Mercury -68266-01-14 19:40 J -23212719.81 -23212719.68 -23212719.54 0.0089 0.0064

Mercury -68266-04-12 23:01 J -23212631.63 -23212631.54 -23212631.40 0.0089 0.0072

Mercury -68266-07-10 03:06 J -23212543.45 -23212543.37 -23212543.27 0.0089 0.0079

Mercury -68266-10-06 06:28 J -23212455.25 -23212455.23 -23212455.16 0.0089 0.0087

Mars -68258-08-25 00:13 J -23209575.79 -23209575.49 -23209575.15 0.0088 0.0037

Mars -68256-07-21 19:25 J -23208878.99 -23208878.69 -23208878.36 0.0088 0.0038

Earth -68217-03-03 22:18 J -23194773.63 -23194773.57 -23194773.49 0.0088 0.0085

Moon -68217-03-03 23:59 J -23194773.58 -23194773.50 -23194773.39 0.0088 0.0082 *

Moon -68216-03-06 07:54 J -23194406.23 -23194406.17 -23194406.06 0.0088 0.0084

Earth -68216-03-06 10:33 J -23194406.15 -23194406.06 -23194405.93 0.0088 0.0080 *

Venus -68216-10-15 14:52 J -23194182.97 -23194182.88 -23194182.73 0.0088 0.0074

Earth -68215-03-08 22:47 J -23194038.67 -23194038.55 -23194038.39 0.0088 0.0075

Moon	-68215-03-09 02:09 J	-23194038.54	-23194038.41	-23194038.23	0.0088	0.0070	*
Venus	-68215-05-29 04:18 J	-23193957.49	-23193957.32	-23193957.14	0.0088	0.0053	
Venus	-68214-01-09 17:16 J	-23193731.98	-23193731.78	-23193731.57	0.0088	0.0032	
Moon	-68214-03-11 07:11 J	-23193671.32	-23193671.20	-23193671.03	0.0088	0.0073	
Earth	-68214-03-11 10:47 J	-23193671.19	-23193671.05	-23193670.87	0.0088	0.0069	*
Venus	-68214-08-23 05:59 J	-23193506.46	-23193506.25	-23193506.02	0.0088	0.0013	
Earth	-68213-03-12 23:16 J	-23193303.71	-23193303.53	-23193303.35	0.0088	0.0064	
Moon	-68213-03-13 02:23 J	-23193303.57	-23193303.40	-23193303.19	0.0088	0.0060	*
Venus	-68213-04-04 18:42 J	-23193280.93	-23193280.72	-23193280.49	0.0088	0.0009	
Venus	-68213-11-16 07:25 J	-23193055.39	-23193055.19	-23193054.97	0.0088	0.0028	
Moon	-68212-03-15 08:23 J	-23192936.33	-23192936.15	-23192935.97	0.0088	0.0063	
Earth	-68212-03-15 10:47 J	-23192936.22	-23192936.05	-23192935.83	0.0088	0.0059	*
Venus	-68212-06-29 19:54 J	-23192829.84	-23192829.67	-23192829.47	0.0088	0.0049	
Venus	-68211-02-10 08:37 J	-23192604.26	-23192604.14	-23192603.99	0.0088	0.0069	
Earth	-68211-03-17 23:01 J	-23192568.75	-23192568.54	-23192568.33	0.0088	0.0053	
Moon	-68211-03-18 00:28 J	-23192568.69	-23192568.48	-23192568.24	0.0088	0.0049	*
Venus	-68211-09-23 21:35 J	-23192378.60	-23192378.60	-23192378.60	0.0088	0.0088	
Moon	-68210-03-20 09:21 J	-23192201.30	-23192201.11	-23192200.89	0.0088	0.0052	
Earth	-68210-03-20 10:18 J	-23192201.27	-23192201.07	-23192200.83	0.0088	0.0048	*
Moon	-68209-03-21 21:21 J	-23191833.83	-23191833.61	-23191833.35	0.0088	0.0038	
Earth	-68209-03-21 22:04 J	-23191833.80	-23191833.58	-23191833.34	0.0088	0.0042	*
Earth	-68208-03-24 10:04 J	-23191466.32	-23191466.08	-23191465.85	0.0088	0.0036	
Moon	-68208-03-24 11:16 J	-23191466.23	-23191466.03	-23191465.78	0.0088	0.0041	*
Moon	-68207-03-26 19:11 J	-23191098.95	-23191098.70	-23191098.45	0.0088	0.0026	
Earth	-68207-03-26 21:21 J	-23191098.84	-23191098.61	-23191098.36	0.0088	0.0030	*
Earth	-68206-03-29 08:37 J	-23190731.38	-23190731.14	-23190730.88	0.0088	0.0025	
Moon	-68206-03-29 11:59 J	-23190731.23	-23190731.00	-23190730.74	0.0088	0.0029	*
Moon	-68205-03-30 16:47 J	-23190364.05	-23190363.80	-23190363.54	0.0088	0.0014	
Earth	-68205-03-30 20:23 J	-23190363.90	-23190363.65	-23190363.39	0.0088	0.0019	*
Earth	-68204-04-02 07:54 J	-23189996.43	-23189996.17	-23189995.92	0.0088	0.0013	

Moon	-68204-04-02 11:16 J	-23189996.28	-23189996.03	-23189995.77	0.0088	0.0017	*
Moon	-68203-04-04 16:18 J	-23189629.07	-23189628.82	-23189628.56	0.0088	0.0003	
Earth	-68203-04-04 19:11 J	-23189628.95	-23189628.70	-23189628.44	0.0088	0.0007	*
Earth	-68202-04-07 06:28 J	-23189261.49	-23189261.23	-23189260.97	0.0088	0.0001	
Moon	-68202-04-07 08:09 J	-23189261.42	-23189261.16	-23189260.89	0.0088	0.0005	*
Moon	-68201-04-08 16:33 J	-23188894.06	-23188893.81	-23188893.56	0.0088	0.0009	
Earth	-68201-04-08 17:30 J	-23188894.02	-23188893.77	-23188893.51	0.0088	0.0005	*
Moon	-68200-04-11 03:49 J	-23188526.60	-23188526.34	-23188526.07	0.0088	0.0006	
Earth	-68200-04-11 04:33 J	-23188526.56	-23188526.31	-23188526.05	0.0088	0.0011	*
Earth	-68199-04-13 15:21 J	-23188159.11	-23188158.86	-23188158.60	0.0088	0.0016	
Moon	-68199-04-13 17:16 J	-23188159.02	-23188158.78	-23188158.54	0.0088	0.0021	*
Moon	-68198-04-15 23:30 J	-23187791.78	-23187791.52	-23187791.26	0.0089	0.0018	
Earth	-68198-04-16 01:54 J	-23187791.66	-23187791.42	-23187791.16	0.0089	0.0022	*
Earth	-68197-04-17 12:42 J	-23187424.21	-23187423.97	-23187423.72	0.0089	0.0028	
Moon	-68197-04-17 16:04 J	-23187424.06	-23187423.83	-23187423.58	0.0089	0.0033	*
Moon	-68196-04-19 20:09 J	-23187056.90	-23187056.66	-23187056.42	0.0089	0.0029	
Earth	-68196-04-19 23:16 J	-23187056.75	-23187056.53	-23187056.28	0.0089	0.0034	*
Earth	-68195-04-22 09:35 J	-23186689.31	-23186689.10	-23186688.85	0.0089	0.0040	
Moon	-68195-04-22 13:11 J	-23186689.16	-23186688.95	-23186688.71	0.0089	0.0044	*
Moon	-68194-04-24 17:30 J	-23186321.97	-23186321.77	-23186321.53	0.0089	0.0041	
Earth	-68194-04-24 20:23 J	-23186321.86	-23186321.65	-23186321.42	0.0089	0.0045	*
Earth	-68193-04-26 06:28 J	-23185954.41	-23185954.23	-23185953.99	0.0089	0.0051	
Moon	-68193-04-26 08:09 J	-23185954.35	-23185954.16	-23185953.94	0.0089	0.0055	*
Moon	-68192-04-28 16:47 J	-23185586.99	-23185586.80	-23185586.59	0.0089	0.0052	
Earth	-68192-04-28 17:30 J	-23185586.96	-23185586.77	-23185586.57	0.0089	0.0056	*
Moon	-68191-05-01 02:37 J	-23185219.55	-23185219.39	-23185219.19	0.0089	0.0066	
Earth	-68191-05-01 04:04 J	-23185219.51	-23185219.33	-23185219.14	0.0089	0.0061	*
Earth	-68190-05-03 13:54 J	-23184852.06	-23184851.92	-23184851.73	0.0089	0.0067	
Moon	-68190-05-03 16:04 J	-23184851.98	-23184851.83	-23184851.63	0.0089	0.0063	*
Mercury	-68190-09-29 16:47 J	-23184702.82	-23184702.80	-23184702.77	0.0089	0.0087	

Mercury -68190-12-26 17:59 J -23184614.79 -23184614.75 -23184614.69 0.0089 0.0082
 Mercury -68189-03-23 19:11 J -23184526.75 -23184526.70 -23184526.62 0.0089 0.0077
 Moon -68189-05-04 21:35 J -23184484.71 -23184484.60 -23184484.45 0.0089 0.0076
 Earth -68189-05-05 00:13 J -23184484.61 -23184484.49 -23184484.31 0.0089 0.0072 *
 Mercury -68189-06-19 20:37 J -23184438.71 -23184438.64 -23184438.55 0.0089 0.0072
 Mercury -68189-09-15 21:49 J -23184350.66 -23184350.59 -23184350.49 0.0089 0.0067
 Mercury -68189-12-12 23:16 J -23184262.61 -23184262.53 -23184262.43 0.0089 0.0062
 Mercury -68188-03-11 00:28 J -23184174.57 -23184174.48 -23184174.36 0.0089 0.0057
 Earth -68188-05-07 10:33 J -23184117.16 -23184117.06 -23184116.91 0.0089 0.0077
 Moon -68188-05-07 14:09 J -23184117.03 -23184116.91 -23184116.74 0.0089 0.0072 *
 Mercury -68188-06-07 01:54 J -23184086.52 -23184086.42 -23184086.30 0.0089 0.0052
 Mercury -68188-09-03 03:06 J -23183998.47 -23183998.37 -23183998.24 0.0089 0.0047
 Mercury -68188-11-30 04:47 J -23183910.42 -23183910.30 -23183910.18 0.0089 0.0041
 Mercury -68187-02-26 05:59 J -23183822.37 -23183822.25 -23183822.13 0.0089 0.0036
 Moon -68187-05-09 17:16 J -23183749.82 -23183749.78 -23183749.70 0.0089 0.0086
 Earth -68187-05-09 20:23 J -23183749.72 -23183749.65 -23183749.52 0.0089 0.0082 *
 Mercury -68187-05-25 07:25 J -23183734.32 -23183734.19 -23183734.07 0.0089 0.0031
 Mercury -68187-08-21 08:37 J -23183646.26 -23183646.14 -23183646.01 0.0089 0.0026
 Mercury -68187-11-17 10:04 J -23183558.21 -23183558.08 -23183557.96 0.0089 0.0021
 Mercury -68186-02-13 11:16 J -23183470.16 -23183470.03 -23183469.90 0.0089 0.0016
 Earth -68186-05-12 06:57 J -23183382.26 -23183382.21 -23183382.14 0.0089 0.0086
 Moon -68186-05-12 09:49 J -23183382.16 -23183382.09 -23183381.97 0.0089 0.0082 *
 Mercury -68186-05-12 12:28 J -23183382.11 -23183381.98 -23183381.85 0.0089 0.0011 *
 Mercury -68186-08-08 13:54 J -23183294.05 -23183293.92 -23183293.79 0.0089 0.0006
 Mercury -68186-11-04 15:06 J -23183206.00 -23183205.87 -23183205.74 0.0089 0.0002
 Mercury -68185-01-31 16:33 J -23183117.95 -23183117.81 -23183117.68 0.0089 0.0005
 Mercury -68185-04-28 17:45 J -23183029.89 -23183029.76 -23183029.63 0.0089 0.0009
 Mercury -68185-07-25 18:57 J -23182941.84 -23182941.71 -23182941.58 0.0089 0.0015
 Mercury -68185-10-21 20:09 J -23182853.78 -23182853.66 -23182853.52 0.0089 0.0020
 Mercury -68184-01-17 21:35 J -23182765.72 -23182765.60 -23182765.47 0.0089 0.0025

Mercury -68184-04-15 22:47 J -23182677.67 -23182677.55 -23182677.42 0.0089 0.0030
 Mercury -68184-07-12 23:59 J -23182589.61 -23182589.50 -23182589.37 0.0089 0.0035
 Mercury -68184-10-09 01:25 J -23182501.55 -23182501.44 -23182501.32 0.0089 0.0040
 Mercury -68183-01-05 02:37 J -23182413.50 -23182413.39 -23182413.27 0.0089 0.0045
 Mercury -68183-04-03 04:04 J -23182325.44 -23182325.33 -23182325.22 0.0089 0.0050
 Mercury -68183-06-30 05:16 J -23182237.38 -23182237.28 -23182237.17 0.0089 0.0055
 Mercury -68183-09-26 06:28 J -23182149.32 -23182149.23 -23182149.12 0.0089 0.0060
 Mercury -68183-12-23 07:54 J -23182061.25 -23182061.17 -23182061.08 0.0089 0.0065
 Mercury -68182-03-21 09:06 J -23181973.19 -23181973.12 -23181973.03 0.0089 0.0070
 Mercury -68182-06-17 10:18 J -23181885.13 -23181885.07 -23181884.99 0.0089 0.0075
 Mercury -68182-09-13 11:45 J -23181797.06 -23181797.01 -23181796.95 0.0089 0.0080
 Mercury -68182-12-10 12:57 J -23181708.99 -23181708.96 -23181708.92 0.0089 0.0085
 Mars -68176-05-31 12:13 J -23179710.18 -23179709.99 -23179709.76 0.0089 0.0058
 Mars -68174-04-24 18:42 J -23179017.00 -23179016.72 -23179016.43 0.0089 0.0002
 Mars -68172-03-18 02:09 J -23178323.59 -23178323.41 -23178323.17 0.0089 0.0060
 Earth -68137-08-25 16:47 J -23165378.83 -23165378.80 -23165378.74 0.0089 0.0087
 Earth -68136-08-28 03:49 J -23165011.43 -23165011.34 -23165011.24 0.0089 0.0083
 Moon -68136-08-28 06:57 J -23165011.31 -23165011.21 -23165011.08 0.0089 0.0080 *
 Moon -68135-08-30 11:30 J -23164644.12 -23164644.02 -23164643.91 0.0089 0.0081
 Earth -68135-08-30 14:23 J -23164644.00 -23164643.90 -23164643.75 0.0089 0.0078 *
 Venus -68134-04-15 18:13 J -23164415.75 -23164415.74 -23164415.70 0.0089 0.0088
 Earth -68134-09-02 01:25 J -23164276.56 -23164276.44 -23164276.27 0.0089 0.0073
 Moon -68134-09-02 04:33 J -23164276.46 -23164276.31 -23164276.13 0.0089 0.0070 *
 Venus -68134-11-27 06:57 J -23164190.32 -23164190.21 -23164190.04 0.0089 0.0068
 Venus -68133-07-09 20:23 J -23163964.82 -23163964.65 -23163964.45 0.0089 0.0047
 Moon -68133-09-03 11:30 J -23163909.16 -23163909.02 -23163908.86 0.0089 0.0071
 Earth -68133-09-03 13:11 J -23163909.11 -23163908.95 -23163908.78 0.0089 0.0068 *
 Venus -68132-02-20 09:49 J -23163739.30 -23163739.09 -23163738.88 0.0089 0.0026
 Earth -68132-09-06 00:13 J -23163541.66 -23163541.49 -23163541.30 0.0089 0.0062
 Moon -68132-09-06 00:42 J -23163541.64 -23163541.47 -23163541.25 0.0089 0.0061 *

Venus	-68132-10-03 22:47 J	-23163513.77	-23163513.55	-23163513.33	0.0089	0.0006
Venus	-68131-05-17 11:59 J	-23163288.21	-23163288.00	-23163287.78	0.0089	0.0015
Earth	-68131-09-08 11:16 J	-23163174.21	-23163174.03	-23163173.81	0.0089	0.0057
Moon	-68131-09-08 12:13 J	-23163174.16	-23163173.99	-23163173.79	0.0089	0.0060 *
Venus	-68131-12-29 00:57 J	-23163062.65	-23163062.46	-23163062.25	0.0089	0.0036
Venus	-68130-08-11 14:09 J	-23162837.06	-23162836.91	-23162836.72	0.0089	0.0057
Moon	-68130-09-10 21:06 J	-23162806.84	-23162806.62	-23162806.39	0.0089	0.0048
Earth	-68130-09-10 23:01 J	-23162806.74	-23162806.54	-23162806.32	0.0089	0.0052 *
Venus	-68129-03-24 03:49 J	-23162611.45	-23162611.34	-23162611.24	0.0089	0.0078
Earth	-68129-09-12 10:18 J	-23162439.27	-23162439.07	-23162438.83	0.0089	0.0046
Moon	-68129-09-12 12:57 J	-23162439.16	-23162438.96	-23162438.74	0.0089	0.0048 *
Moon	-68128-09-14 18:28 J	-23162071.95	-23162071.73	-23162071.48	0.0089	0.0037
Earth	-68128-09-14 22:18 J	-23162071.79	-23162071.57	-23162071.34	0.0089	0.0040 *
Earth	-68127-09-17 09:35 J	-23161704.31	-23161704.10	-23161703.84	0.0089	0.0035
Moon	-68127-09-17 13:11 J	-23161704.17	-23161703.95	-23161703.70	0.0089	0.0037 *
Moon	-68126-09-19 18:13 J	-23161336.97	-23161336.74	-23161336.48	0.0089	0.0027
Earth	-68126-09-19 21:49 J	-23161336.82	-23161336.59	-23161336.34	0.0089	0.0029 *
Earth	-68125-09-21 09:35 J	-23160969.34	-23160969.10	-23160968.85	0.0089	0.0023
Moon	-68125-09-21 12:13 J	-23160969.23	-23160968.99	-23160968.73	0.0089	0.0025 *
Moon	-68124-09-23 19:40 J	-23160601.91	-23160601.68	-23160601.42	0.0089	0.0016
Earth	-68124-09-23 21:35 J	-23160601.85	-23160601.60	-23160601.34	0.0089	0.0017 *
Earth	-68123-09-26 09:35 J	-23160234.36	-23160234.10	-23160233.85	0.0089	0.0011
Moon	-68123-09-26 10:18 J	-23160234.33	-23160234.07	-23160233.80	0.0089	0.0013 *
Earth	-68122-09-28 21:21 J	-23159866.86	-23159866.61	-23159866.35	0.0089	0.0006
Moon	-68122-09-28 22:18 J	-23159866.82	-23159866.57	-23159866.32	0.0089	0.0004 *
Moon	-68121-09-30 07:40 J	-23159499.45	-23159499.18	-23159498.91	0.0089	0.0002
Earth	-68121-09-30 09:35 J	-23159499.36	-23159499.10	-23159498.84	0.0089	0.0000 *
Earth	-68120-10-02 21:35 J	-23159131.86	-23159131.60	-23159131.34	0.0089	0.0006
Moon	-68120-10-03 00:13 J	-23159131.74	-23159131.49	-23159131.24	0.0089	0.0007 *
Moon	-68119-10-05 06:13 J	-23158764.50	-23158764.24	-23158763.98	0.0089	0.0010

Earth	-68119-10-05 09:49 J	-23158764.34	-23158764.09	-23158763.83	0.0089	0.0012	*
Earth	-68118-10-07 22:04 J	-23158396.83	-23158396.58	-23158396.32	0.0089	0.0018	
Moon	-68118-10-08 01:40 J	-23158396.68	-23158396.43	-23158396.18	0.0089	0.0019	*
Moon	-68117-10-09 07:11 J	-23158029.45	-23158029.20	-23158028.96	0.0089	0.0023	
Earth	-68117-10-09 10:33 J	-23158029.30	-23158029.06	-23158028.81	0.0089	0.0024	*
Earth	-68116-10-11 23:01 J	-23157661.78	-23157661.54	-23157661.29	0.0089	0.0030	
Moon	-68116-10-12 01:40 J	-23157661.67	-23157661.43	-23157661.17	0.0089	0.0031	*
Moon	-68115-10-14 10:04 J	-23157294.31	-23157294.08	-23157293.84	0.0089	0.0035	
Earth	-68115-10-14 11:30 J	-23157294.24	-23157294.02	-23157293.76	0.0089	0.0036	*
Earth	-68114-10-17 00:13 J	-23156926.70	-23156926.49	-23156926.24	0.0089	0.0042	
Moon	-68114-10-17 01:11 J	-23156926.66	-23156926.45	-23156926.19	0.0089	0.0042	*
Earth	-68113-10-18 13:11 J	-23156559.16	-23156558.95	-23156558.72	0.0089	0.0047	
Moon	-68113-10-18 13:40 J	-23156559.12	-23156558.93	-23156558.69	0.0089	0.0047	*
Moon	-68112-10-21 00:13 J	-23156191.69	-23156191.49	-23156191.26	0.0089	0.0053	
Earth	-68112-10-21 01:54 J	-23156191.61	-23156191.42	-23156191.20	0.0089	0.0053	*
Earth	-68111-10-23 15:06 J	-23155824.07	-23155823.87	-23155823.67	0.0089	0.0058	
Moon	-68111-10-23 17:01 J	-23155823.96	-23155823.79	-23155823.58	0.0089	0.0059	*
Moon	-68110-10-26 00:13 J	-23155456.66	-23155456.49	-23155456.29	0.0089	0.0064	
Earth	-68110-10-26 03:35 J	-23155456.51	-23155456.35	-23155456.15	0.0089	0.0064	*
Earth	-68109-10-27 16:33 J	-23155088.96	-23155088.81	-23155088.63	0.0089	0.0069	
Moon	-68109-10-27 19:54 J	-23155088.81	-23155088.67	-23155088.49	0.0089	0.0070	*
Moon	-68108-10-30 02:23 J	-23154721.54	-23154721.40	-23154721.26	0.0089	0.0073	
Earth	-68108-10-30 05:59 J	-23154721.39	-23154721.25	-23154721.10	0.0089	0.0074	*
Earth	-68107-11-01 18:28 J	-23154353.82	-23154353.73	-23154353.59	0.0089	0.0080	
Moon	-68107-11-01 21:35 J	-23154353.70	-23154353.60	-23154353.47	0.0089	0.0080	*
Mercury	-68107-12-13 16:04 J	-23154311.88	-23154311.83	-23154311.74	0.0089	0.0083	
Mercury	-68106-03-11 20:09 J	-23154223.76	-23154223.66	-23154223.55	0.0089	0.0075	
Mercury	-68106-06-07 23:30 J	-23154135.63	-23154135.52	-23154135.38	0.0089	0.0068	
Mercury	-68106-09-04 03:35 J	-23154047.49	-23154047.35	-23154047.20	0.0089	0.0060	
Moon	-68106-11-04 05:16 J	-23153986.33	-23153986.28	-23153986.16	0.0089	0.0084	

Earth -68106-11-04 07:25 J -23153986.23 -23153986.19 -23153986.08 0.0089 0.0085 *
 Mercury -68106-12-01 06:57 J -23153959.35 -23153959.21 -23153959.04 0.0089 0.0053
 Mercury -68105-02-27 10:33 J -23153871.21 -23153871.06 -23153870.87 0.0089 0.0046
 Mercury -68105-05-25 14:37 J -23153783.06 -23153782.89 -23153782.71 0.0089 0.0038
 Mercury -68105-08-21 18:13 J -23153694.91 -23153694.74 -23153694.54 0.0089 0.0031
 Mercury -68105-11-17 22:04 J -23153606.76 -23153606.58 -23153606.38 0.0089 0.0023
 Mercury -68104-02-14 01:40 J -23153518.61 -23153518.43 -23153518.23 0.0089 0.0016
 Mercury -68104-05-13 05:30 J -23153430.46 -23153430.27 -23153430.07 0.0089 0.0008
 Mercury -68104-08-09 09:21 J -23153342.31 -23153342.11 -23153341.91 0.0089 0.0001
 Mercury -68104-11-05 12:57 J -23153254.15 -23153253.96 -23153253.76 0.0089 0.0008
 Mercury -68103-02-01 16:47 J -23153165.99 -23153165.80 -23153165.60 0.0089 0.0015
 Mercury -68103-04-30 20:23 J -23153077.83 -23153077.65 -23153077.45 0.0089 0.0023
 Mercury -68103-07-28 00:13 J -23152989.67 -23152989.49 -23152989.30 0.0089 0.0030
 Mercury -68103-10-24 03:49 J -23152901.51 -23152901.34 -23152901.15 0.0089 0.0038
 Mercury -68102-01-20 07:25 J -23152813.34 -23152813.19 -23152813.00 0.0089 0.0046
 Mercury -68102-04-18 11:16 J -23152725.17 -23152725.03 -23152724.86 0.0089 0.0053
 Mercury -68102-07-15 14:52 J -23152637.00 -23152636.88 -23152636.72 0.0089 0.0061
 Mercury -68102-10-11 18:42 J -23152548.83 -23152548.72 -23152548.58 0.0089 0.0068
 Mercury -68101-01-07 22:18 J -23152460.65 -23152460.57 -23152460.45 0.0089 0.0076
 Mercury -68101-04-05 02:23 J -23152372.46 -23152372.40 -23152372.32 0.0089 0.0083
 Mars -68094-04-07 07:11 J -23149814.40 -23149814.20 -23149813.93 0.0088 0.0067
 Mars -68092-03-04 04:04 J -23149117.67 -23149117.33 -23149116.97 0.0088 0.0008
 Mars -68090-01-29 22:04 J -23148420.69 -23148420.58 -23148420.40 0.0088 0.0081
 Moon -68055-02-27 07:25 J -23135608.20 -23135608.19 -23135608.12 0.0088 0.0088
 Earth -68054-03-01 20:52 J -23135240.67 -23135240.63 -23135240.54 0.0088 0.0085
 Moon -68054-03-01 22:47 J -23135240.55 -23135240.55 -23135240.51 0.0088 0.0088 *
 Moon -68053-03-03 05:59 J -23134873.35 -23134873.25 -23134873.10 0.0088 0.0077
 Earth -68053-03-03 09:21 J -23134873.19 -23134873.11 -23134872.98 0.0088 0.0081 *
 Earth -68052-03-05 21:35 J -23134505.71 -23134505.60 -23134505.44 0.0088 0.0076
 Moon -68052-03-06 01:11 J -23134505.56 -23134505.45 -23134505.31 0.0088 0.0078 *

Venus	-68051-01-17 03:35 J	-23134188.42	-23134188.35	-23134188.23	0.0088	0.0080
Moon	-68051-03-08 05:59 J	-23134138.38	-23134138.25	-23134138.06	0.0088	0.0069
Earth	-68051-03-08 09:49 J	-23134138.22	-23134138.09	-23134137.91	0.0088	0.0071 *
Venus	-68051-08-30 16:33 J	-23133962.95	-23133962.81	-23133962.63	0.0088	0.0059
Earth	-68050-03-10 22:04 J	-23133770.73	-23133770.58	-23133770.38	0.0088	0.0065
Moon	-68050-03-11 01:25 J	-23133770.59	-23133770.44	-23133770.25	0.0088	0.0068 *
Venus	-68050-04-13 05:45 J	-23133737.45	-23133737.26	-23133737.06	0.0088	0.0039
Venus	-68050-11-24 18:42 J	-23133511.94	-23133511.72	-23133511.50	0.0088	0.0018
Moon	-68049-03-12 07:40 J	-23133403.34	-23133403.18	-23133402.96	0.0088	0.0059
Earth	-68049-03-12 10:33 J	-23133403.24	-23133403.06	-23133402.86	0.0088	0.0060 *
Venus	-68049-07-07 07:25 J	-23133286.41	-23133286.19	-23133285.97	0.0088	0.0002
Venus	-68048-02-17 20:09 J	-23133060.87	-23133060.66	-23133060.44	0.0088	0.0022
Earth	-68048-03-14 22:18 J	-23133035.75	-23133035.57	-23133035.34	0.0088	0.0055
Moon	-68048-03-15 00:28 J	-23133035.67	-23133035.48	-23133035.26	0.0088	0.0056 *
Venus	-68048-10-01 08:37 J	-23132835.32	-23132835.14	-23132834.93	0.0088	0.0042
Earth	-68047-03-17 10:47 J	-23132668.27	-23132668.05	-23132667.83	0.0088	0.0049
Moon	-68047-03-17 10:04 J	-23132668.27	-23132668.08	-23132667.84	0.0088	0.0048 *
Venus	-68047-05-14 21:06 J	-23132609.75	-23132609.62	-23132609.44	0.0088	0.0063
Venus	-68047-12-26 09:49 J	-23132384.14	-23132384.09	-23132383.99	0.0088	0.0083
Moon	-68046-03-19 21:35 J	-23132300.83	-23132300.60	-23132300.36	0.0088	0.0045
Earth	-68046-03-19 22:04 J	-23132300.79	-23132300.58	-23132300.34	0.0088	0.0044 *
Earth	-68045-03-21 10:04 J	-23131933.31	-23131933.08	-23131932.84	0.0088	0.0038
Moon	-68045-03-21 11:45 J	-23131933.23	-23131933.01	-23131932.77	0.0088	0.0037 *
Moon	-68044-03-23 18:13 J	-23131565.96	-23131565.74	-23131565.48	0.0088	0.0035
Earth	-68044-03-23 21:35 J	-23131565.83	-23131565.60	-23131565.35	0.0088	0.0032 *
Earth	-68043-03-26 09:06 J	-23131198.36	-23131198.12	-23131197.87	0.0088	0.0027
Moon	-68043-03-26 12:28 J	-23131198.22	-23131197.98	-23131197.73	0.0088	0.0026 *
Moon	-68042-03-28 16:47 J	-23130831.04	-23130830.80	-23130830.54	0.0088	0.0022
Earth	-68042-03-28 20:23 J	-23130830.88	-23130830.65	-23130830.38	0.0088	0.0022 *
Earth	-68041-03-30 07:54 J	-23130463.41	-23130463.17	-23130462.90	0.0088	0.0016

Moon	-68041-03-30 11:01 J	-23130463.28	-23130463.04	-23130462.77	0.0088	0.0015	*
Moon	-68040-04-01 17:01 J	-23130096.04	-23130095.79	-23130095.54	0.0088	0.0010	
Earth	-68040-04-01 19:25 J	-23130095.94	-23130095.69	-23130095.43	0.0088	0.0010	*
Earth	-68039-04-04 06:57 J	-23129728.47	-23129728.21	-23129727.95	0.0088	0.0004	
Moon	-68039-04-04 08:37 J	-23129728.40	-23129728.14	-23129727.87	0.0088	0.0003	*
Earth	-68038-04-06 18:13 J	-23129361.00	-23129360.74	-23129360.49	0.0088	0.0002	
Moon	-68038-04-06 18:13 J	-23129360.99	-23129360.74	-23129360.49	0.0088	0.0002	*
Moon	-68037-04-08 04:33 J	-23128993.57	-23128993.31	-23128993.04	0.0088	0.0009	
Earth	-68037-04-08 05:30 J	-23128993.53	-23128993.27	-23128993.01	0.0088	0.0008	*
Earth	-68036-04-10 16:33 J	-23128626.06	-23128625.81	-23128625.55	0.0088	0.0014	
Moon	-68036-04-10 18:28 J	-23128625.97	-23128625.73	-23128625.48	0.0088	0.0014	*
Moon	-68035-04-13 00:13 J	-23128258.74	-23128258.49	-23128258.23	0.0088	0.0020	
Earth	-68035-04-13 03:21 J	-23128258.60	-23128258.36	-23128258.10	0.0088	0.0020	*
Earth	-68034-04-15 14:23 J	-23127891.14	-23127890.90	-23127890.65	0.0088	0.0025	
Moon	-68034-04-15 17:45 J	-23127891.00	-23127890.76	-23127890.52	0.0088	0.0025	*
Moon	-68033-04-16 21:21 J	-23127523.84	-23127523.61	-23127523.36	0.0089	0.0031	
Earth	-68033-04-17 00:57 J	-23127523.68	-23127523.46	-23127523.20	0.0089	0.0031	*
Earth	-68032-04-19 11:45 J	-23127156.23	-23127156.01	-23127155.77	0.0089	0.0036	
Moon	-68032-04-19 14:37 J	-23127156.11	-23127155.89	-23127155.63	0.0089	0.0036	*
Moon	-68031-04-21 20:09 J	-23126788.87	-23126788.66	-23126788.43	0.0089	0.0041	
Earth	-68031-04-21 22:18 J	-23126788.78	-23126788.57	-23126788.33	0.0089	0.0042	*
Earth	-68030-04-24 08:52 J	-23126421.33	-23126421.13	-23126420.90	0.0089	0.0047	
Moon	-68030-04-24 10:33 J	-23126421.27	-23126421.06	-23126420.83	0.0089	0.0047	*
Earth	-68029-04-25 19:54 J	-23126053.88	-23126053.67	-23126053.46	0.0089	0.0052	
Moon	-68029-04-25 19:40 J	-23126053.86	-23126053.68	-23126053.46	0.0089	0.0053	*
Moon	-68028-04-28 04:47 J	-23125686.48	-23125686.30	-23125686.08	0.0089	0.0058	
Earth	-68028-04-28 05:59 J	-23125686.42	-23125686.25	-23125686.04	0.0089	0.0058	*
Earth	-68027-04-30 16:18 J	-23125318.98	-23125318.82	-23125318.62	0.0089	0.0063	
Moon	-68027-04-30 18:57 J	-23125318.88	-23125318.71	-23125318.53	0.0089	0.0062	*
Moon	-68026-05-02 23:45 J	-23124951.67	-23124951.51	-23124951.33	0.0089	0.0067	

Earth -68026-05-03 02:52 J -23124951.52 -23124951.38 -23124951.20 0.0089 0.0068 *
 Earth -68025-05-04 13:11 J -23124584.07 -23124583.95 -23124583.78 0.0089 0.0073
 Moon -68025-05-04 16:47 J -23124583.93 -23124583.80 -23124583.64 0.0089 0.0072 *
 Mercury -68025-06-25 17:01 J -23124531.83 -23124531.79 -23124531.75 0.0089 0.0084
 Mercury -68025-09-21 18:13 J -23124443.79 -23124443.74 -23124443.68 0.0089 0.0079
 Mercury -68025-12-18 19:40 J -23124355.75 -23124355.68 -23124355.61 0.0089 0.0074
 Mercury -68024-03-16 20:52 J -23124267.71 -23124267.63 -23124267.54 0.0089 0.0069
 Moon -68024-05-06 20:23 J -23124216.76 -23124216.65 -23124216.53 0.0089 0.0078
 Earth -68024-05-06 23:30 J -23124216.61 -23124216.52 -23124216.37 0.0089 0.0078 *
 Mercury -68024-06-12 22:04 J -23124179.66 -23124179.58 -23124179.48 0.0089 0.0064
 Mercury -68024-09-08 23:30 J -23124091.61 -23124091.52 -23124091.41 0.0089 0.0059
 Mercury -68024-12-06 00:42 J -23124003.56 -23124003.47 -23124003.35 0.0089 0.0054
 Mercury -68023-03-04 02:09 J -23123915.51 -23123915.41 -23123915.29 0.0089 0.0049
 Earth -68023-05-09 10:18 J -23123849.16 -23123849.07 -23123848.97 0.0089 0.0082
 Moon -68023-05-09 12:42 J -23123849.05 -23123848.97 -23123848.85 0.0089 0.0082 *
 Mercury -68023-05-31 03:21 J -23123827.46 -23123827.36 -23123827.23 0.0089 0.0044
 Mercury -68023-08-27 04:47 J -23123739.41 -23123739.30 -23123739.18 0.0089 0.0038
 Mercury -68023-11-23 06:13 J -23123651.36 -23123651.24 -23123651.12 0.0089 0.0033
 Mercury -68022-02-19 07:25 J -23123563.31 -23123563.19 -23123563.06 0.0089 0.0028
 Moon -68022-05-11 17:59 J -23123481.76 -23123481.75 -23123481.70 0.0089 0.0088
 Earth -68022-05-11 20:09 J -23123481.69 -23123481.66 -23123481.59 0.0089 0.0087
 Mercury -68022-05-18 08:52 J -23123475.26 -23123475.13 -23123475.00 0.0089 0.0023
 Mercury -68022-08-14 10:04 J -23123387.21 -23123387.08 -23123386.95 0.0089 0.0018
 Mercury -68022-11-10 11:30 J -23123299.15 -23123299.02 -23123298.89 0.0089 0.0013
 Mercury -68021-02-06 12:42 J -23123211.10 -23123210.97 -23123210.84 0.0089 0.0008
 Mercury -68021-05-04 14:09 J -23123123.05 -23123122.91 -23123122.78 0.0089 0.0003
 Mercury -68021-07-31 15:21 J -23123034.99 -23123034.86 -23123034.73 0.0089 0.0002
 Mercury -68021-10-27 16:33 J -23122946.94 -23122946.81 -23122946.67 0.0089 0.0008
 Mercury -68020-01-23 17:59 J -23122858.88 -23122858.75 -23122858.62 0.0089 0.0012
 Mercury -68020-04-21 19:11 J -23122770.83 -23122770.70 -23122770.57 0.0089 0.0018

Mercury	-68020-07-18 20:23 J	-23122682.77	-23122682.65	-23122682.52	0.0089	0.0023
Mercury	-68020-10-14 21:49 J	-23122594.71	-23122594.59	-23122594.46	0.0089	0.0028
Mercury	-68019-01-10 23:01 J	-23122506.66	-23122506.54	-23122506.41	0.0089	0.0033
Mercury	-68019-04-09 00:13 J	-23122418.60	-23122418.49	-23122418.36	0.0089	0.0038
Mercury	-68019-07-06 01:40 J	-23122330.54	-23122330.43	-23122330.31	0.0089	0.0043
Mercury	-68019-10-02 02:52 J	-23122242.48	-23122242.38	-23122242.26	0.0089	0.0048
Mercury	-68019-12-29 04:04 J	-23122154.43	-23122154.33	-23122154.22	0.0089	0.0053
Mercury	-68018-03-27 05:30 J	-23122066.37	-23122066.27	-23122066.17	0.0089	0.0058
Mercury	-68018-06-23 06:42 J	-23121978.30	-23121978.22	-23121978.12	0.0089	0.0063
Mercury	-68018-09-19 07:54 J	-23121890.24	-23121890.17	-23121890.08	0.0089	0.0068
Mercury	-68018-12-16 09:21 J	-23121802.18	-23121802.11	-23121802.03	0.0089	0.0073
Mercury	-68017-03-13 10:33 J	-23121714.11	-23121714.06	-23121713.99	0.0089	0.0078
Mercury	-68017-06-09 11:45 J	-23121626.04	-23121626.01	-23121625.95	0.0089	0.0083
Mercury	-68017-09-05 13:11 J	-23121537.96	-23121537.95	-23121537.93	0.0089	0.0088
Mars	-68012-01-14 12:13 J	-23119946.07	-23119945.99	-23119945.84	0.0089	0.0081
Mars	-68011-12-08 18:42 J	-23119252.98	-23119252.72	-23119252.43	0.0089	0.0023
Mars	-68009-11-01 00:28 J	-23118559.72	-23118559.48	-23118559.20	0.0089	0.0036

68TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 68th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-67974-08-23 18:42 J	-23105845.76	-23105845.72	-23105845.67	0.0089	0.0088		

Earth	-67973-08-25 05:01 J	-23105478.36	-23105478.29	-23105478.18	0.0089	0.0083
Moon	-67973-08-25 09:06 J	-23105478.23	-23105478.12	-23105478.00	0.0089	0.0080 *
Moon	-67972-08-27 12:57 J	-23105111.04	-23105110.96	-23105110.84	0.0089	0.0082
Earth	-67972-08-27 16:04 J	-23105110.93	-23105110.83	-23105110.69	0.0089	0.0079 *
Earth	-67971-08-30 03:06 J	-23104743.50	-23104743.37	-23104743.21	0.0089	0.0074
Moon	-67971-08-30 05:30 J	-23104743.40	-23104743.27	-23104743.08	0.0089	0.0070 *
Moon	-67970-09-01 12:28 J	-23104376.10	-23104375.98	-23104375.82	0.0089	0.0072
Earth	-67970-09-01 14:09 J	-23104376.06	-23104375.91	-23104375.73	0.0089	0.0069 *
Venus	-67969-02-28 19:25 J	-23104195.80	-23104195.69	-23104195.56	0.0089	0.0075
Moon	-67969-09-03 01:11 J	-23104008.63	-23104008.45	-23104008.24	0.0089	0.0060
Earth	-67969-09-03 01:11 J	-23104008.61	-23104008.45	-23104008.26	0.0089	0.0064 *
Venus	-67969-10-11 08:09 J	-23103970.31	-23103970.16	-23103969.96	0.0089	0.0055
Venus	-67968-05-24 21:35 J	-23103744.79	-23103744.60	-23103744.39	0.0089	0.0033
Earth	-67968-09-05 12:13 J	-23103641.17	-23103640.99	-23103640.78	0.0089	0.0058
Moon	-67968-09-05 13:25 J	-23103641.12	-23103640.94	-23103640.76	0.0089	0.0062 *
Venus	-67967-01-05 10:47 J	-23103519.26	-23103519.05	-23103518.83	0.0089	0.0013
Venus	-67967-08-18 23:59 J	-23103293.72	-23103293.50	-23103293.28	0.0089	0.0008
Moon	-67967-09-07 21:21 J	-23103273.81	-23103273.61	-23103273.38	0.0089	0.0049
Earth	-67967-09-07 23:30 J	-23103273.71	-23103273.52	-23103273.30	0.0089	0.0053 *
Venus	-67966-04-01 12:57 J	-23103068.16	-23103067.96	-23103067.75	0.0089	0.0029
Earth	-67966-09-10 11:01 J	-23102906.25	-23102906.04	-23102905.82	0.0089	0.0048
Moon	-67966-09-10 13:40 J	-23102906.11	-23102905.93	-23102905.70	0.0089	0.0052 *
Venus	-67966-11-13 01:40 J	-23102842.59	-23102842.43	-23102842.22	0.0089	0.0051
Venus	-67965-06-25 15:35 J	-23102616.98	-23102616.85	-23102616.72	0.0089	0.0071
Moon	-67965-09-11 18:57 J	-23102538.93	-23102538.71	-23102538.47	0.0089	0.0038
Earth	-67965-09-11 22:18 J	-23102538.78	-23102538.57	-23102538.33	0.0089	0.0042 *
Earth	-67964-09-14 10:04 J	-23102171.31	-23102171.08	-23102170.85	0.0089	0.0036
Moon	-67964-09-14 13:11 J	-23102171.15	-23102170.95	-23102170.70	0.0089	0.0041 *
Moon	-67963-09-16 18:57 J	-23101803.95	-23101803.71	-23101803.47	0.0089	0.0027
Earth	-67963-09-16 21:35 J	-23101803.83	-23101803.60	-23101803.35	0.0089	0.0031 *

Earth	-67962-09-19 09:21 J	-23101436.35	-23101436.11	-23101435.86	0.0089	0.0025
Moon	-67962-09-19 11:59 J	-23101436.24	-23101436.00	-23101435.74	0.0089	0.0029 *
Moon	-67961-09-20 19:54 J	-23101068.91	-23101068.67	-23101068.42	0.0089	0.0016
Earth	-67961-09-20 21:06 J	-23101068.86	-23101068.62	-23101068.35	0.0089	0.0020 *
Moon	-67960-09-23 09:06 J	-23100701.38	-23100701.12	-23100700.85	0.0089	0.0017
Earth	-67960-09-23 09:06 J	-23100701.36	-23100701.12	-23100700.85	0.0089	0.0014 *
Earth	-67959-09-25 21:21 J	-23100333.87	-23100333.61	-23100333.35	0.0089	0.0008
Moon	-67959-09-25 22:04 J	-23100333.83	-23100333.58	-23100333.33	0.0089	0.0004 *
Moon	-67958-09-28 06:57 J	-23099966.47	-23099966.21	-23099965.94	0.0089	0.0007
Earth	-67958-09-28 09:21 J	-23099966.37	-23099966.11	-23099965.85	0.0089	0.0002 *
Earth	-67957-09-29 21:06 J	-23099598.87	-23099598.62	-23099598.35	0.0089	0.0004
Moon	-67957-09-30 00:13 J	-23099598.74	-23099598.49	-23099598.23	0.0089	0.0008 *
Moon	-67956-10-02 05:59 J	-23099231.50	-23099231.25	-23099230.98	0.0089	0.0005
Earth	-67956-10-02 09:35 J	-23099231.36	-23099231.10	-23099230.85	0.0089	0.0009 *
Earth	-67955-10-04 21:35 J	-23098863.85	-23098863.60	-23098863.34	0.0089	0.0015
Moon	-67955-10-05 01:11 J	-23098863.69	-23098863.45	-23098863.19	0.0089	0.0020 *
Moon	-67954-10-07 06:42 J	-23098496.46	-23098496.22	-23098495.96	0.0089	0.0017
Earth	-67954-10-07 09:35 J	-23098496.34	-23098496.10	-23098495.84	0.0089	0.0021 *
Earth	-67953-10-08 22:04 J	-23098128.82	-23098128.58	-23098128.33	0.0089	0.0026
Moon	-67953-10-09 00:42 J	-23098128.71	-23098128.47	-23098128.21	0.0089	0.0031 *
Moon	-67952-10-11 08:52 J	-23097761.35	-23097761.13	-23097760.87	0.0089	0.0028
Earth	-67952-10-11 10:33 J	-23097761.30	-23097761.06	-23097760.81	0.0089	0.0032 *
Earth	-67951-10-13 22:47 J	-23097393.77	-23097393.55	-23097393.30	0.0089	0.0038
Moon	-67951-10-13 22:47 J	-23097393.77	-23097393.55	-23097393.29	0.0089	0.0042 *
Earth	-67950-10-16 11:16 J	-23097026.23	-23097026.03	-23097025.78	0.0089	0.0044
Moon	-67950-10-16 12:28 J	-23097026.20	-23097025.98	-23097025.75	0.0089	0.0039 *
Moon	-67949-10-17 21:49 J	-23096658.78	-23096658.59	-23096658.35	0.0089	0.0054
Earth	-67949-10-18 00:13 J	-23096658.69	-23096658.49	-23096658.26	0.0089	0.0049 *
Earth	-67948-10-20 12:57 J	-23096291.14	-23096290.96	-23096290.73	0.0089	0.0055
Moon	-67948-10-20 16:18 J	-23096291.02	-23096290.82	-23096290.61	0.0089	0.0050 *

Moon -67947-10-22 22:18 J -23095923.72 -23095923.57 -23095923.36 0.0089 0.0065
 Earth -67947-10-23 01:54 J -23095923.59 -23095923.42 -23095923.21 0.0089 0.0060 *
 Earth -67946-10-25 14:52 J -23095556.04 -23095555.88 -23095555.69 0.0089 0.0065
 Moon -67946-10-25 18:42 J -23095555.90 -23095555.72 -23095555.52 0.0089 0.0060 *
 Moon -67945-10-27 00:28 J -23095188.59 -23095188.48 -23095188.32 0.0089 0.0075
 Earth -67945-10-27 04:04 J -23095188.48 -23095188.33 -23095188.17 0.0089 0.0070 *
 Earth -67944-10-29 16:18 J -23094820.92 -23094820.82 -23094820.65 0.0089 0.0076
 Moon -67944-10-29 19:40 J -23094820.82 -23094820.68 -23094820.50 0.0089 0.0071 *
 Moon -67943-11-01 04:18 J -23094453.38 -23094453.32 -23094453.25 0.0089 0.0085
 Earth -67943-11-01 05:59 J -23094453.35 -23094453.25 -23094453.14 0.0089 0.0080 *
 Mercury -67942-06-13 11:59 J -23094229.03 -23094229.00 -23094228.94 0.0089 0.0086
 Mercury -67942-09-09 15:35 J -23094140.92 -23094140.85 -23094140.74 0.0089 0.0079
 Moon -67942-11-03 19:11 J -23094085.79 -23094085.70 -23094085.57 0.0089 0.0081
 Earth -67942-11-03 18:57 J -23094085.77 -23094085.71 -23094085.63 0.0089 0.0085 *
 Mercury -67942-12-06 19:25 J -23094052.80 -23094052.69 -23094052.56 0.0089 0.0071
 Mercury -67941-03-03 23:01 J -23093964.66 -23093964.54 -23093964.39 0.0089 0.0064
 Mercury -67941-05-31 02:52 J -23093876.52 -23093876.38 -23093876.22 0.0089 0.0056
 Mercury -67941-08-27 06:28 J -23093788.38 -23093788.23 -23093788.06 0.0089 0.0049
 Mercury -67941-11-23 10:18 J -23093700.24 -23093700.07 -23093699.89 0.0089 0.0041
 Mercury -67940-02-19 13:54 J -23093612.09 -23093611.92 -23093611.73 0.0089 0.0034
 Mercury -67940-05-18 17:45 J -23093523.95 -23093523.76 -23093523.57 0.0089 0.0026
 Mercury -67940-08-14 21:21 J -23093435.80 -23093435.61 -23093435.41 0.0089 0.0019
 Mercury -67940-11-11 01:11 J -23093347.64 -23093347.45 -23093347.25 0.0089 0.0011
 Mercury -67939-02-07 05:01 J -23093259.49 -23093259.29 -23093259.10 0.0089 0.0004
 Mercury -67939-05-06 08:37 J -23093171.34 -23093171.14 -23093170.94 0.0089 0.0004
 Mercury -67939-08-02 12:13 J -23093083.18 -23093082.99 -23093082.79 0.0089 0.0012
 Mercury -67939-10-29 16:04 J -23092995.02 -23092994.83 -23092994.64 0.0089 0.0019
 Mercury -67938-01-25 19:40 J -23092906.86 -23092906.68 -23092906.48 0.0089 0.0027
 Mercury -67938-04-23 23:30 J -23092818.70 -23092818.52 -23092818.34 0.0089 0.0034
 Mercury -67938-07-21 03:06 J -23092730.53 -23092730.37 -23092730.19 0.0089 0.0042

Mercury -67938-10-17 06:42 J -23092642.37 -23092642.22 -23092642.04 0.0089 0.0050

Mercury -67937-01-13 10:33 J -23092554.20 -23092554.06 -23092553.90 0.0089 0.0057

Mercury -67937-04-10 14:09 J -23092466.03 -23092465.91 -23092465.76 0.0089 0.0065

Mercury -67937-07-07 17:59 J -23092377.85 -23092377.75 -23092377.62 0.0089 0.0072

Mercury -67937-10-03 21:35 J -23092289.67 -23092289.60 -23092289.50 0.0089 0.0080

Mercury -67937-12-31 01:25 J -23092201.46 -23092201.44 -23092201.39 0.0089 0.0087

Mars -67929-10-15 11:01 J -23089356.38 -23089356.04 -23089355.70 0.0088 0.0023

Mars -67927-09-12 06:13 J -23088659.50 -23088659.24 -23088658.92 0.0088 0.0051

Jupiter -67897-01-03 20:23 J -23077954.02 -23077953.65 -23077953.22 0.0088 0.0060

Moon -67892-02-24 05:30 J -23076075.30 -23076075.27 -23076075.20 0.0088 0.0087

Earth -67891-02-26 19:25 J -23075707.73 -23075707.69 -23075707.61 0.0088 0.0086

Moon -67890-03-01 04:33 J -23075340.40 -23075340.31 -23075340.15 0.0088 0.0078

Earth -67890-03-01 07:40 J -23075340.25 -23075340.18 -23075340.04 0.0088 0.0082 *

Earth -67889-03-02 20:09 J -23074972.76 -23074972.66 -23074972.50 0.0088 0.0076

Moon -67889-03-03 00:28 J -23074972.58 -23074972.48 -23074972.36 0.0088 0.0080 *

Moon -67888-03-05 05:30 J -23074605.42 -23074605.27 -23074605.09 0.0088 0.0068

Earth -67888-03-05 08:37 J -23074605.27 -23074605.14 -23074604.96 0.0088 0.0071 *

Earth -67887-03-07 21:35 J -23074237.77 -23074237.60 -23074237.43 0.0088 0.0066

Moon -67887-03-08 00:13 J -23074237.62 -23074237.49 -23074237.30 0.0088 0.0070 *

Venus -67887-04-20 16:18 J -23074193.87 -23074193.82 -23074193.77 0.0088 0.0086

Venus -67887-12-02 05:01 J -23073968.42 -23073968.29 -23073968.13 0.0088 0.0066

Moon -67886-03-10 06:57 J -23073870.37 -23073870.21 -23073869.99 0.0088 0.0058

Earth -67886-03-10 09:35 J -23073870.28 -23073870.10 -23073869.90 0.0088 0.0061 *

Venus -67886-07-15 17:59 J -23073742.93 -23073742.75 -23073742.55 0.0088 0.0045

Venus -67885-02-26 06:42 J -23073517.42 -23073517.22 -23073516.99 0.0088 0.0026

Earth -67885-03-11 21:35 J -23073502.78 -23073502.60 -23073502.38 0.0088 0.0056

Moon -67885-03-11 22:33 J -23073502.73 -23073502.56 -23073502.33 0.0088 0.0059 *

Venus -67885-10-08 19:54 J -23073291.89 -23073291.67 -23073291.45 0.0088 0.0005

Moon -67884-03-14 09:35 J -23073135.29 -23073135.10 -23073134.87 0.0088 0.0047

Earth -67884-03-14 09:49 J -23073135.28 -23073135.09 -23073134.85 0.0088 0.0051 *

Venus	-67884-05-22 08:37 J	-23073066.35	-23073066.14	-23073065.92	0.0088	0.0016
Venus	-67883-01-02 21:21 J	-23072840.80	-23072840.61	-23072840.40	0.0088	0.0036
Moon	-67883-03-16 20:37 J	-23072767.85	-23072767.64	-23072767.41	0.0088	0.0049
Earth	-67883-03-16 22:04 J	-23072767.79	-23072767.58	-23072767.34	0.0088	0.0045 *
Venus	-67883-08-16 09:49 J	-23072615.23	-23072615.09	-23072614.90	0.0088	0.0057
Earth	-67882-03-19 10:04 J	-23072400.30	-23072400.08	-23072399.84	0.0088	0.0039
Moon	-67882-03-19 12:28 J	-23072400.20	-23072399.98	-23072399.74	0.0088	0.0036 *
Venus	-67882-03-29 22:33 J	-23072389.65	-23072389.56	-23072389.43	0.0088	0.0076
Moon	-67881-03-20 18:57 J	-23072032.93	-23072032.71	-23072032.46	0.0088	0.0038
Earth	-67881-03-20 22:18 J	-23072032.81	-23072032.57	-23072032.33	0.0088	0.0034 *
Earth	-67880-03-23 09:35 J	-23071665.33	-23071665.10	-23071664.84	0.0088	0.0029
Moon	-67880-03-23 13:40 J	-23071665.18	-23071664.93	-23071664.69	0.0088	0.0024 *
Moon	-67879-03-25 17:45 J	-23071297.99	-23071297.76	-23071297.50	0.0088	0.0027
Earth	-67879-03-25 21:21 J	-23071297.85	-23071297.61	-23071297.35	0.0088	0.0023 *
Earth	-67878-03-28 08:37 J	-23070930.38	-23070930.14	-23070929.87	0.0088	0.0018
Moon	-67878-03-28 12:13 J	-23070930.25	-23070929.99	-23070929.73	0.0088	0.0013 *
Moon	-67877-03-29 18:13 J	-23070562.98	-23070562.74	-23070562.49	0.0088	0.0016
Earth	-67877-03-29 20:23 J	-23070562.90	-23070562.65	-23070562.39	0.0088	0.0012 *
Earth	-67876-04-01 07:40 J	-23070195.43	-23070195.18	-23070194.92	0.0088	0.0006
Moon	-67876-04-01 08:52 J	-23070195.39	-23070195.13	-23070194.86	0.0088	0.0002 *
Moon	-67875-04-03 18:42 J	-23069827.97	-23069827.72	-23069827.47	0.0088	0.0005
Earth	-67875-04-03 18:57 J	-23069827.96	-23069827.71	-23069827.45	0.0088	0.0001 *
Moon	-67874-04-06 04:47 J	-23069460.56	-23069460.30	-23069460.03	0.0088	0.0010
Earth	-67874-04-06 06:13 J	-23069460.49	-23069460.24	-23069459.98	0.0088	0.0006 *
Earth	-67873-04-07 17:30 J	-23069093.02	-23069092.77	-23069092.51	0.0088	0.0011
Moon	-67873-04-07 19:54 J	-23069092.92	-23069092.67	-23069092.42	0.0088	0.0007 *
Moon	-67872-04-10 01:25 J	-23068725.68	-23068725.44	-23068725.17	0.0088	0.0021
Earth	-67872-04-10 04:33 J	-23068725.55	-23068725.31	-23068725.05	0.0088	0.0017 *
Earth	-67871-04-12 15:35 J	-23068358.09	-23068357.85	-23068357.59	0.0088	0.0022
Moon	-67871-04-12 19:25 J	-23068357.94	-23068357.69	-23068357.43	0.0088	0.0017 *

Moon -67870-04-14 23:45 J -23067990.75 -23067990.51 -23067990.27 0.0088 0.0032
 Earth -67870-04-15 02:52 J -23067990.62 -23067990.38 -23067990.13 0.0088 0.0027 *
 Earth -67869-04-16 13:54 J -23067623.16 -23067622.92 -23067622.68 0.0088 0.0033
 Moon -67869-04-16 16:47 J -23067623.03 -23067622.80 -23067622.54 0.0088 0.0029 *
 Moon -67868-04-18 22:47 J -23067255.77 -23067255.55 -23067255.33 0.0089 0.0043
 Earth -67868-04-19 00:13 J -23067255.70 -23067255.49 -23067255.24 0.0089 0.0039 *
 Earth -67867-04-21 11:01 J -23066888.25 -23066888.04 -23066887.81 0.0089 0.0044
 Moon -67867-04-21 11:45 J -23066888.23 -23066888.01 -23066887.75 0.0089 0.0040 *
 Earth -67866-04-23 21:35 J -23066520.80 -23066520.60 -23066520.37 0.0089 0.0049
 Moon -67866-04-23 21:35 J -23066520.78 -23066520.60 -23066520.39 0.0089 0.0054 *
 Moon -67865-04-25 06:13 J -23066153.44 -23066153.24 -23066153.00 0.0089 0.0050
 Earth -67865-04-25 08:23 J -23066153.34 -23066153.15 -23066152.94 0.0089 0.0054 *
 Earth -67864-04-27 18:42 J -23065785.90 -23065785.72 -23065785.52 0.0089 0.0059
 Moon -67864-04-27 20:52 J -23065785.78 -23065785.63 -23065785.43 0.0089 0.0064 *
 Moon -67863-04-30 01:40 J -23065418.60 -23065418.43 -23065418.22 0.0089 0.0060
 Earth -67863-04-30 05:16 J -23065418.45 -23065418.28 -23065418.10 0.0089 0.0064 *
 Earth -67862-05-02 15:35 J -23065051.00 -23065050.85 -23065050.68 0.0089 0.0069
 Moon -67862-05-02 18:57 J -23065050.83 -23065050.71 -23065050.55 0.0089 0.0074 *
 Moon -67861-05-03 22:33 J -23064683.69 -23064683.56 -23064683.38 0.0089 0.0070
 Earth -67861-05-04 01:54 J -23064683.54 -23064683.42 -23064683.27 0.0089 0.0074 *
 Mercury -67861-12-24 15:35 J -23064448.87 -23064448.85 -23064448.82 0.0089 0.0087
 Mercury -67860-03-22 16:47 J -23064360.84 -23064360.80 -23064360.74 0.0089 0.0082
 Earth -67860-05-06 11:59 J -23064316.09 -23064316.00 -23064315.86 0.0089 0.0079
 Moon -67860-05-06 15:06 J -23064315.94 -23064315.87 -23064315.76 0.0089 0.0083 *
 Mercury -67860-06-18 18:13 J -23064272.80 -23064272.74 -23064272.67 0.0089 0.0077
 Mercury -67860-09-14 19:25 J -23064184.75 -23064184.69 -23064184.60 0.0089 0.0072
 Mercury -67860-12-11 21:06 J -23064096.71 -23064096.62 -23064096.53 0.0089 0.0066
 Mercury -67859-03-09 22:18 J -23064008.66 -23064008.57 -23064008.47 0.0089 0.0061
 Moon -67859-05-08 20:52 J -23063948.72 -23063948.63 -23063948.50 0.0089 0.0079
 Earth -67859-05-08 22:47 J -23063948.63 -23063948.55 -23063948.46 0.0089 0.0083 *

Mercury -67859-06-05 23:45 J -23063920.61 -23063920.51 -23063920.41 0.0089 0.0056
 Mercury -67859-09-02 00:57 J -23063832.56 -23063832.46 -23063832.35 0.0089 0.0051
 Mercury -67859-11-29 02:23 J -23063744.51 -23063744.40 -23063744.29 0.0089 0.0046
 Mercury -67858-02-25 03:35 J -23063656.46 -23063656.35 -23063656.23 0.0089 0.0041
 Earth -67858-05-11 08:37 J -23063581.15 -23063581.14 -23063581.07 0.0089 0.0088
 Mercury -67858-05-24 04:47 J -23063568.41 -23063568.30 -23063568.17 0.0089 0.0036
 Mercury -67858-08-20 06:13 J -23063480.36 -23063480.24 -23063480.11 0.0089 0.0031
 Mercury -67858-11-16 07:25 J -23063392.31 -23063392.19 -23063392.05 0.0089 0.0026
 Mercury -67857-02-12 08:52 J -23063304.26 -23063304.13 -23063304.00 0.0089 0.0020
 Mercury -67857-05-10 10:04 J -23063216.20 -23063216.08 -23063215.94 0.0089 0.0016
 Moon -67857-05-12 19:25 J -23063213.70 -23063213.69 -23063213.63 0.0089 0.0088
 Mercury -67857-08-06 11:30 J -23063128.15 -23063128.02 -23063127.89 0.0089 0.0010
 Mercury -67857-11-02 12:57 J -23063040.10 -23063039.96 -23063039.83 0.0089 0.0006
 Mercury -67856-01-29 14:09 J -23062952.04 -23062951.91 -23062951.78 0.0089 0.0001
 Mercury -67856-04-27 15:21 J -23062863.99 -23062863.86 -23062863.72 0.0089 0.0006
 Mercury -67856-07-24 16:47 J -23062775.93 -23062775.80 -23062775.67 0.0089 0.0010
 Mercury -67856-10-20 17:59 J -23062687.88 -23062687.75 -23062687.62 0.0089 0.0015
 Mercury -67855-01-16 19:11 J -23062599.82 -23062599.70 -23062599.56 0.0089 0.0021
 Mercury -67855-04-14 20:37 J -23062511.76 -23062511.64 -23062511.51 0.0089 0.0025
 Mercury -67855-07-11 21:49 J -23062423.71 -23062423.59 -23062423.46 0.0089 0.0031
 Mercury -67855-10-07 23:01 J -23062335.65 -23062335.54 -23062335.41 0.0089 0.0036
 Mercury -67854-01-04 00:28 J -23062247.59 -23062247.48 -23062247.36 0.0089 0.0041
 Mercury -67854-04-02 01:40 J -23062159.54 -23062159.43 -23062159.31 0.0089 0.0046
 Mercury -67854-06-29 02:52 J -23062071.48 -23062071.38 -23062071.26 0.0089 0.0051
 Mercury -67854-09-25 04:18 J -23061983.42 -23061983.32 -23061983.21 0.0089 0.0056
 Mercury -67854-12-22 05:30 J -23061895.36 -23061895.27 -23061895.17 0.0089 0.0061
 Mercury -67853-03-19 06:42 J -23061807.29 -23061807.22 -23061807.12 0.0089 0.0066
 Mercury -67853-06-15 08:09 J -23061719.23 -23061719.16 -23061719.08 0.0089 0.0071
 Mercury -67853-09-11 09:21 J -23061631.17 -23061631.11 -23061631.03 0.0089 0.0076
 Mercury -67853-12-08 10:47 J -23061543.10 -23061543.05 -23061542.99 0.0089 0.0081

Mercury -67852-03-06 11:59 J -23061455.02 -23061455.00 -23061454.96 0.0089 0.0086
 Saturn -67852-08-21 00:13 J -23061288.13 -23061287.49 -23061286.85 0.0089 0.0002
 Mars -67847-07-24 18:28 J -23059488.96 -23059488.73 -23059488.48 0.0089 0.0046
 Mars -67845-06-17 01:40 J -23058795.71 -23058795.43 -23058795.15 0.0089 0.0012
 Mars -67843-05-11 07:25 J -23058102.33 -23058102.19 -23058101.99 0.0089 0.0070
 Moon -67811-08-20 16:47 J -23046312.88 -23046312.80 -23046312.71 0.0089 0.0084
 Earth -67811-08-20 19:54 J -23046312.68 -23046312.67 -23046312.60 0.0089 0.0088
 Earth -67810-08-23 06:42 J -23045945.29 -23045945.22 -23045945.11 0.0089 0.0083
 Moon -67810-08-23 10:33 J -23045945.12 -23045945.06 -23045945.00 0.0089 0.0087 *
 Moon -67809-08-24 14:37 J -23045578.01 -23045577.89 -23045577.75 0.0089 0.0075
 Earth -67809-08-24 17:30 J -23045577.86 -23045577.77 -23045577.63 0.0089 0.0079 *
 Earth -67808-08-27 04:33 J -23045210.43 -23045210.31 -23045210.15 0.0089 0.0074
 Moon -67808-08-27 06:57 J -23045210.33 -23045210.21 -23045210.07 0.0089 0.0077 *
 Moon -67807-08-29 14:37 J -23044843.04 -23044842.89 -23044842.71 0.0089 0.0066
 Earth -67807-08-29 15:35 J -23044842.99 -23044842.85 -23044842.67 0.0089 0.0069 *
 Earth -67806-09-01 02:37 J -23044475.54 -23044475.39 -23044475.19 0.0089 0.0064
 Moon -67806-09-01 02:52 J -23044475.53 -23044475.38 -23044475.19 0.0089 0.0067 *
 Venus -67805-06-01 07:25 J -23044201.25 -23044201.19 -23044201.08 0.0089 0.0082
 Earth -67805-09-02 13:40 J -23044108.10 -23044107.93 -23044107.72 0.0089 0.0059
 Moon -67805-09-02 15:06 J -23044108.04 -23044107.87 -23044107.65 0.0089 0.0056 *
 Venus -67804-01-12 20:52 J -23043975.78 -23043975.63 -23043975.46 0.0089 0.0060
 Venus -67804-08-26 09:35 J -23043750.28 -23043750.10 -23043749.88 0.0089 0.0041
 Moon -67804-09-04 22:33 J -23043740.74 -23043740.56 -23043740.34 0.0089 0.0057
 Earth -67804-09-05 00:42 J -23043740.65 -23043740.47 -23043740.24 0.0089 0.0055 *
 Venus -67803-04-08 22:47 J -23043524.75 -23043524.55 -23043524.32 0.0089 0.0020
 Earth -67803-09-07 11:59 J -23043373.19 -23043373.00 -23043372.77 0.0089 0.0049
 Moon -67803-09-07 15:06 J -23043373.07 -23043372.87 -23043372.64 0.0089 0.0046 *
 Venus -67803-11-20 11:59 J -23043299.22 -23043299.00 -23043298.78 0.0089 0.0002
 Venus -67802-07-04 01:11 J -23043073.66 -23043073.45 -23043073.23 0.0089 0.0022
 Moon -67802-09-09 19:40 J -23043005.88 -23043005.68 -23043005.45 0.0089 0.0047

Earth	-67802-09-09 23:30 J	-23043005.74	-23043005.52	-23043005.29	0.0089	0.0044	*
Venus	-67801-02-14 14:09 J	-23042848.09	-23042847.91	-23042847.71	0.0089	0.0043	
Earth	-67801-09-11 10:47 J	-23042638.27	-23042638.05	-23042637.81	0.0089	0.0038	
Moon	-67801-09-11 14:23 J	-23042638.14	-23042637.90	-23042637.67	0.0089	0.0036	*
Venus	-67801-09-27 03:06 J	-23042622.50	-23042622.37	-23042622.20	0.0089	0.0064	
Venus	-67800-05-10 16:04 J	-23042396.87	-23042396.83	-23042396.74	0.0089	0.0085	
Moon	-67800-09-13 19:11 J	-23042270.93	-23042270.70	-23042270.47	0.0089	0.0035	
Earth	-67800-09-13 22:04 J	-23042270.80	-23042270.58	-23042270.33	0.0089	0.0033	*
Earth	-67799-09-16 09:35 J	-23041903.34	-23041903.10	-23041902.85	0.0089	0.0027	
Moon	-67799-09-16 11:30 J	-23041903.27	-23041903.02	-23041902.76	0.0089	0.0024	*
Moon	-67798-09-18 20:09 J	-23041535.89	-23041535.66	-23041535.41	0.0089	0.0024	
Earth	-67798-09-18 21:06 J	-23041535.86	-23041535.62	-23041535.36	0.0089	0.0022	*
Moon	-67797-09-20 08:52 J	-23041168.39	-23041168.13	-23041167.86	0.0089	0.0014	
Earth	-67797-09-20 08:52 J	-23041168.37	-23041168.13	-23041167.87	0.0089	0.0016	*
Earth	-67796-09-22 20:52 J	-23040800.88	-23040800.63	-23040800.37	0.0089	0.0010	
Moon	-67796-09-22 22:33 J	-23040800.80	-23040800.56	-23040800.31	0.0089	0.0013	*
Moon	-67795-09-25 06:28 J	-23040433.49	-23040433.23	-23040432.96	0.0089	0.0002	
Earth	-67795-09-25 08:52 J	-23040433.38	-23040433.13	-23040432.87	0.0089	0.0005	*
Earth	-67794-09-27 20:37 J	-23040065.89	-23040065.64	-23040065.38	0.0089	0.0002	
Moon	-67794-09-27 23:59 J	-23040065.76	-23040065.50	-23040065.25	0.0089	0.0001	*
Moon	-67793-09-29 05:16 J	-23039698.54	-23039698.28	-23039698.02	0.0089	0.0009	
Earth	-67793-09-29 08:52 J	-23039698.39	-23039698.13	-23039697.87	0.0089	0.0007	*
Earth	-67792-10-01 20:52 J	-23039330.88	-23039330.63	-23039330.37	0.0089	0.0012	
Moon	-67792-10-02 00:13 J	-23039330.74	-23039330.49	-23039330.23	0.0089	0.0011	*
Moon	-67791-10-04 05:30 J	-23038963.50	-23038963.27	-23038963.01	0.0089	0.0020	
Earth	-67791-10-04 08:52 J	-23038963.38	-23038963.13	-23038962.87	0.0089	0.0018	*
Earth	-67790-10-06 20:52 J	-23038595.87	-23038595.63	-23038595.37	0.0089	0.0024	
Moon	-67790-10-06 22:47 J	-23038595.79	-23038595.55	-23038595.28	0.0089	0.0022	*
Moon	-67789-10-08 08:09 J	-23038228.39	-23038228.16	-23038227.92	0.0089	0.0030	
Earth	-67789-10-08 09:21 J	-23038228.35	-23038228.11	-23038227.86	0.0089	0.0029	*

Moon -67788-10-10 21:35 J -23037860.84 -23037860.60 -23037860.34 0.0089 0.0033
 Earth -67788-10-10 21:21 J -23037860.83 -23037860.61 -23037860.35 0.0089 0.0035 *
 Earth -67787-10-13 09:49 J -23037493.31 -23037493.09 -23037492.84 0.0089 0.0040
 Moon -67787-10-13 11:30 J -23037493.23 -23037493.02 -23037492.79 0.0089 0.0042 *
 Moon -67786-10-15 19:40 J -23037125.88 -23037125.68 -23037125.42 0.0089 0.0045
 Earth -67786-10-15 22:04 J -23037125.78 -23037125.58 -23037125.33 0.0089 0.0046 *
 Earth -67785-10-17 11:01 J -23036758.24 -23036758.04 -23036757.82 0.0089 0.0051
 Moon -67785-10-17 14:09 J -23036758.10 -23036757.91 -23036757.69 0.0089 0.0052 *
 Moon -67784-10-19 20:09 J -23036390.85 -23036390.66 -23036390.44 0.0089 0.0055
 Earth -67784-10-20 00:13 J -23036390.69 -23036390.49 -23036390.29 0.0089 0.0056 *
 Earth -67783-10-22 12:13 J -23036023.15 -23036022.99 -23036022.77 0.0089 0.0062
 Moon -67783-10-22 15:49 J -23036023.00 -23036022.84 -23036022.63 0.0089 0.0062 *
 Moon -67782-10-24 22:04 J -23035655.73 -23035655.58 -23035655.39 0.0089 0.0067
 Earth -67782-10-25 01:25 J -23035655.59 -23035655.44 -23035655.25 0.0089 0.0067 *
 Earth -67781-10-26 14:23 J -23035288.03 -23035287.90 -23035287.73 0.0089 0.0072
 Moon -67781-10-26 16:33 J -23035287.94 -23035287.81 -23035287.63 0.0089 0.0072 *
 Moon -67780-10-29 02:23 J -23034920.52 -23034920.40 -23034920.28 0.0089 0.0077
 Earth -67780-10-29 03:21 J -23034920.47 -23034920.36 -23034920.21 0.0089 0.0077 *
 Earth -67779-10-31 16:18 J -23034552.90 -23034552.82 -23034552.69 0.0089 0.0082
 Moon -67779-10-31 16:47 J -23034552.89 -23034552.80 -23034552.67 0.0089 0.0081 *
 Earth -67778-11-03 05:30 J -23034185.31 -23034185.27 -23034185.19 0.0089 0.0086
 Moon -67778-11-03 07:11 J -23034185.25 -23034185.20 -23034185.14 0.0089 0.0086 *
 Mercury -67777-03-09 11:16 J -23034058.09 -23034058.03 -23034057.94 0.0089 0.0082
 Mercury -67777-06-05 14:52 J -23033969.96 -23033969.88 -23033969.75 0.0089 0.0075
 Mercury -67777-09-01 18:42 J -23033881.83 -23033881.72 -23033881.58 0.0089 0.0067
 Mercury -67777-11-28 22:18 J -23033793.70 -23033793.57 -23033793.41 0.0089 0.0060
 Mercury -67776-02-25 02:09 J -23033705.56 -23033705.41 -23033705.24 0.0089 0.0052
 Mercury -67776-05-24 05:45 J -23033617.42 -23033617.26 -23033617.08 0.0089 0.0045
 Mercury -67776-08-20 09:35 J -23033529.27 -23033529.10 -23033528.91 0.0089 0.0037
 Mercury -67776-11-16 13:11 J -23033441.12 -23033440.95 -23033440.75 0.0089 0.0030

Mercury -67775-02-12 17:01 J -23033352.97 -23033352.79 -23033352.59 0.0089 0.0022

Mercury -67775-05-11 20:37 J -23033264.82 -23033264.64 -23033264.44 0.0089 0.0015

Mercury -67775-08-08 00:28 J -23033176.67 -23033176.48 -23033176.28 0.0089 0.0007

Mercury -67775-11-04 04:18 J -23033088.52 -23033088.32 -23033088.12 0.0089 0.0001

Mercury -67774-01-31 07:54 J -23033000.36 -23033000.17 -23032999.97 0.0089 0.0008

Mercury -67774-04-29 11:30 J -23032912.21 -23032912.02 -23032911.82 0.0089 0.0016

Mercury -67774-07-26 15:06 J -23032824.05 -23032823.87 -23032823.67 0.0089 0.0024

Mercury -67774-10-22 18:57 J -23032735.89 -23032735.71 -23032735.52 0.0089 0.0031

Mercury -67773-01-18 22:33 J -23032647.72 -23032647.56 -23032647.37 0.0089 0.0039

Mercury -67773-04-16 02:23 J -23032559.56 -23032559.40 -23032559.22 0.0089 0.0046

Mercury -67773-07-13 05:59 J -23032471.39 -23032471.25 -23032471.08 0.0089 0.0054

Mercury -67773-10-09 10:04 J -23032383.22 -23032383.08 -23032382.94 0.0089 0.0061

Mercury -67772-01-05 13:25 J -23032295.05 -23032294.94 -23032294.80 0.0089 0.0069

Mercury -67772-04-03 17:30 J -23032206.87 -23032206.77 -23032206.67 0.0089 0.0076

Mercury -67772-06-30 20:52 J -23032118.67 -23032118.63 -23032118.55 0.0089 0.0084

Mars -67765-05-28 17:59 J -23029595.01 -23029594.75 -23029594.44 0.0088 0.0053

Mars -67763-04-25 14:09 J -23028898.23 -23028897.91 -23028897.55 0.0088 0.0021

Jupiter -67731-02-28 03:21 J -23017266.63 -23017266.36 -23017265.98 0.0088 0.0071

Earth -67728-02-23 18:13 J -23016174.79 -23016174.74 -23016174.67 0.0088 0.0086

Moon -67728-02-23 20:52 J -23016174.70 -23016174.63 -23016174.53 0.0088 0.0083 *

Moon -67727-02-26 03:21 J -23015807.42 -23015807.36 -23015807.28 0.0088 0.0085

Earth -67727-02-26 06:28 J -23015807.30 -23015807.23 -23015807.10 0.0088 0.0081 *

Earth -67726-02-28 19:11 J -23015439.81 -23015439.70 -23015439.55 0.0088 0.0076

Moon -67726-02-28 22:47 J -23015439.68 -23015439.55 -23015439.39 0.0088 0.0074 *

Moon -67725-03-02 04:04 J -23015072.45 -23015072.33 -23015072.17 0.0088 0.0075

Earth -67725-03-02 07:40 J -23015072.31 -23015072.18 -23015072.01 0.0088 0.0072 *

Earth -67724-03-04 20:09 J -23014704.82 -23014704.66 -23014704.48 0.0088 0.0067

Moon -67724-03-04 22:47 J -23014704.72 -23014704.55 -23014704.35 0.0088 0.0064 *

Moon -67723-03-07 05:59 J -23014337.40 -23014337.25 -23014337.05 0.0088 0.0064

Earth -67723-03-07 08:23 J -23014337.33 -23014337.15 -23014336.95 0.0088 0.0062 *

Venus	-67722-03-05 17:01 J	-23013973.90	-23013973.79	-23013973.65	0.0088	0.0072
Earth	-67722-03-09 20:37 J	-23013969.83	-23013969.64	-23013969.43	0.0088	0.0057
Moon	-67722-03-09 21:06 J	-23013969.80	-23013969.62	-23013969.38	0.0088	0.0055 *
Venus	-67722-10-17 06:13 J	-23013748.41	-23013748.24	-23013748.06	0.0088	0.0052
Earth	-67721-03-11 08:37 J	-23013602.33	-23013602.14	-23013601.91	0.0088	0.0052
Moon	-67721-03-11 09:21 J	-23013602.29	-23013602.11	-23013601.89	0.0088	0.0055 *
Venus	-67721-05-29 18:57 J	-23013522.91	-23013522.71	-23013522.49	0.0088	0.0032
Venus	-67720-01-10 08:09 J	-23013297.38	-23013297.16	-23013296.94	0.0088	0.0011
Moon	-67720-03-13 19:40 J	-23013234.91	-23013234.68	-23013234.45	0.0088	0.0044
Earth	-67720-03-13 20:37 J	-23013234.84	-23013234.64	-23013234.40	0.0088	0.0047 *
Venus	-67720-08-23 20:52 J	-23013071.84	-23013071.63	-23013071.41	0.0088	0.0009
Earth	-67719-03-16 09:06 J	-23012867.35	-23012867.12	-23012866.88	0.0088	0.0041
Moon	-67719-03-16 11:30 J	-23012867.23	-23012867.02	-23012866.78	0.0088	0.0043 *
Venus	-67719-04-06 09:35 J	-23012846.30	-23012846.10	-23012845.89	0.0088	0.0029
Venus	-67719-11-17 22:18 J	-23012620.74	-23012620.57	-23012620.38	0.0088	0.0050
Moon	-67718-03-18 17:45 J	-23012500.00	-23012499.76	-23012499.51	0.0088	0.0033
Earth	-67718-03-18 21:06 J	-23012499.84	-23012499.62	-23012499.37	0.0088	0.0036 *
Venus	-67718-07-01 11:01 J	-23012395.16	-23012395.04	-23012394.90	0.0088	0.0070
Earth	-67717-03-20 09:21 J	-23012132.36	-23012132.11	-23012131.87	0.0088	0.0030
Moon	-67717-03-20 12:28 J	-23012132.21	-23012131.98	-23012131.72	0.0088	0.0032 *
Moon	-67716-03-22 17:30 J	-23011765.01	-23011764.77	-23011764.52	0.0088	0.0023
Earth	-67716-03-22 21:06 J	-23011764.86	-23011764.62	-23011764.36	0.0088	0.0024 *
Earth	-67715-03-25 08:37 J	-23011397.38	-23011397.14	-23011396.88	0.0088	0.0019
Moon	-67715-03-25 11:30 J	-23011397.27	-23011397.02	-23011396.76	0.0088	0.0021 *
Moon	-67714-03-27 18:28 J	-23011029.98	-23011029.73	-23011029.48	0.0088	0.0012
Earth	-67714-03-27 20:37 J	-23011029.89	-23011029.64	-23011029.38	0.0088	0.0013 *
Earth	-67713-03-29 07:54 J	-23010662.42	-23010662.17	-23010661.90	0.0088	0.0009
Moon	-67713-03-29 08:52 J	-23010662.39	-23010662.13	-23010661.86	0.0088	0.0010 *
Earth	-67712-03-31 19:25 J	-23010294.95	-23010294.69	-23010294.43	0.0088	0.0003
Moon	-67712-03-31 20:09 J	-23010294.91	-23010294.66	-23010294.41	0.0088	0.0001 *

Moon	-67711-04-03 05:30 J	-23009927.54	-23009927.27	-23009927.01	0.0088	0.0002
Earth	-67711-04-03 06:57 J	-23009927.47	-23009927.21	-23009926.95	0.0088	0.0003 *
Earth	-67710-04-05 18:13 J	-23009560.00	-23009559.74	-23009559.48	0.0088	0.0008
Moon	-67710-04-05 20:52 J	-23009559.88	-23009559.63	-23009559.38	0.0088	0.0010 *
Moon	-67709-04-07 01:54 J	-23009192.67	-23009192.42	-23009192.16	0.0088	0.0012
Earth	-67709-04-07 05:16 J	-23009192.53	-23009192.28	-23009192.02	0.0088	0.0014 *
Earth	-67708-04-09 16:18 J	-23008825.06	-23008824.82	-23008824.56	0.0088	0.0020
Moon	-67708-04-09 19:54 J	-23008824.91	-23008824.67	-23008824.41	0.0088	0.0020 *
Moon	-67707-04-12 00:13 J	-23008457.73	-23008457.49	-23008457.24	0.0088	0.0024
Earth	-67707-04-12 03:49 J	-23008457.59	-23008457.34	-23008457.09	0.0088	0.0025 *
Earth	-67706-04-14 14:37 J	-23008090.12	-23008089.89	-23008089.63	0.0088	0.0031
Moon	-67706-04-14 17:16 J	-23008090.01	-23008089.78	-23008089.52	0.0088	0.0031 *
Moon	-67705-04-15 23:45 J	-23007722.72	-23007722.51	-23007722.27	0.0088	0.0036
Earth	-67705-04-16 01:54 J	-23007722.64	-23007722.42	-23007722.17	0.0088	0.0036 *
Earth	-67704-04-18 12:42 J	-23007355.18	-23007354.97	-23007354.73	0.0088	0.0041
Moon	-67704-04-18 13:11 J	-23007355.16	-23007354.95	-23007354.69	0.0088	0.0042 *
Earth	-67703-04-20 23:45 J	-23006987.72	-23006987.51	-23006987.28	0.0088	0.0046
Moon	-67703-04-21 00:13 J	-23006987.68	-23006987.49	-23006987.25	0.0088	0.0046 *
Moon	-67702-04-23 09:06 J	-23006620.33	-23006620.12	-23006619.90	0.0089	0.0051
Earth	-67702-04-23 10:33 J	-23006620.26	-23006620.06	-23006619.84	0.0089	0.0051 *
Earth	-67701-04-24 21:06 J	-23006252.81	-23006252.62	-23006252.42	0.0089	0.0056
Moon	-67701-04-24 23:45 J	-23006252.69	-23006252.51	-23006252.30	0.0089	0.0056 *
Moon	-67700-04-27 04:04 J	-23005885.50	-23005885.33	-23005885.13	0.0089	0.0062
Earth	-67700-04-27 07:40 J	-23005885.36	-23005885.18	-23005884.99	0.0089	0.0061 *
Earth	-67699-04-29 17:45 J	-23005517.91	-23005517.76	-23005517.57	0.0089	0.0066
Moon	-67699-04-29 21:06 J	-23005517.76	-23005517.62	-23005517.42	0.0089	0.0067 *
Moon	-67698-05-02 00:57 J	-23005150.59	-23005150.46	-23005150.29	0.0089	0.0071
Earth	-67698-05-02 04:18 J	-23005150.45	-23005150.32	-23005150.14	0.0089	0.0071 *
Earth	-67697-05-03 15:06 J	-23004783.00	-23004782.87	-23004782.73	0.0089	0.0075
Moon	-67697-05-03 17:16 J	-23004782.91	-23004782.78	-23004782.63	0.0089	0.0075 *

Moon -67696-05-05 23:45 J -23004415.62 -23004415.51 -23004415.40 0.0089 0.0079
 Earth -67696-05-06 00:57 J -23004415.55 -23004415.46 -23004415.33 0.0089 0.0080 *
 Mercury -67696-09-20 15:49 J -23004277.88 -23004277.84 -23004277.80 0.0089 0.0084
 Mercury -67696-12-17 17:01 J -23004189.84 -23004189.79 -23004189.72 0.0089 0.0079
 Mercury -67695-03-15 18:28 J -23004101.80 -23004101.73 -23004101.65 0.0089 0.0074
 Earth -67695-05-08 11:30 J -23004048.09 -23004048.02 -23004047.93 0.0089 0.0084
 Moon -67695-05-08 11:45 J -23004048.08 -23004048.01 -23004047.92 0.0089 0.0084 *
 Mercury -67695-06-11 19:40 J -23004013.75 -23004013.68 -23004013.59 0.0089 0.0069
 Mercury -67695-09-07 20:52 J -23003925.71 -23003925.63 -23003925.52 0.0089 0.0064
 Mercury -67695-12-04 22:18 J -23003837.66 -23003837.57 -23003837.46 0.0089 0.0059
 Mercury -67694-03-02 23:30 J -23003749.61 -23003749.52 -23003749.40 0.0089 0.0054
 Earth -67694-05-10 21:35 J -23003680.60 -23003680.60 -23003680.56 0.0089 0.0089
 Moon -67694-05-10 23:16 J -23003680.53 -23003680.53 -23003680.52 0.0089 0.0089
 Mercury -67694-05-30 01:11 J -23003661.56 -23003661.45 -23003661.34 0.0089 0.0048
 Mercury -67694-08-26 02:23 J -23003573.51 -23003573.40 -23003573.28 0.0089 0.0043
 Mercury -67694-11-22 03:49 J -23003485.46 -23003485.34 -23003485.22 0.0089 0.0038
 Mercury -67693-02-18 05:01 J -23003397.41 -23003397.29 -23003397.16 0.0089 0.0033
 Mercury -67693-05-16 06:28 J -23003309.36 -23003309.23 -23003309.11 0.0089 0.0028
 Mercury -67693-08-12 07:40 J -23003221.30 -23003221.18 -23003221.05 0.0089 0.0023
 Mercury -67693-11-08 09:06 J -23003133.25 -23003133.12 -23003132.99 0.0089 0.0018
 Mercury -67692-02-04 10:18 J -23003045.20 -23003045.07 -23003044.94 0.0089 0.0013
 Mercury -67692-05-03 11:45 J -23002957.14 -23002957.01 -23002956.88 0.0089 0.0008
 Mercury -67692-07-30 12:57 J -23002869.09 -23002868.96 -23002868.83 0.0089 0.0003
 Mercury -67692-10-26 14:23 J -23002781.04 -23002780.90 -23002780.77 0.0089 0.0004
 Mercury -67691-01-22 15:35 J -23002692.98 -23002692.85 -23002692.72 0.0089 0.0008
 Mercury -67691-04-20 16:47 J -23002604.93 -23002604.80 -23002604.67 0.0089 0.0013
 Mercury -67691-07-17 18:13 J -23002516.87 -23002516.74 -23002516.61 0.0089 0.0018
 Mercury -67691-10-13 19:25 J -23002428.81 -23002428.69 -23002428.56 0.0089 0.0023
 Mercury -67690-01-09 20:37 J -23002340.76 -23002340.64 -23002340.51 0.0089 0.0029
 Mercury -67690-04-07 21:49 J -23002252.70 -23002252.59 -23002252.46 0.0089 0.0034

Mercury -67690-07-04 23:16 J -23002164.64 -23002164.53 -23002164.41 0.0089 0.0039
 Mercury -67690-10-01 00:28 J -23002076.59 -23002076.48 -23002076.36 0.0089 0.0044
 Mercury -67690-12-28 01:40 J -23001988.53 -23001988.43 -23001988.31 0.0089 0.0049
 Mercury -67689-03-25 03:06 J -23001900.47 -23001900.37 -23001900.26 0.0089 0.0054
 Mercury -67689-06-21 04:18 J -23001812.41 -23001812.32 -23001812.21 0.0089 0.0059
 Mercury -67689-09-17 05:45 J -23001724.35 -23001724.26 -23001724.17 0.0089 0.0064
 Mercury -67689-12-14 06:57 J -23001636.28 -23001636.21 -23001636.12 0.0089 0.0069
 Mercury -67688-03-12 08:09 J -23001548.22 -23001548.16 -23001548.08 0.0089 0.0074
 Mercury -67688-06-08 09:35 J -23001460.15 -23001460.10 -23001460.04 0.0089 0.0079
 Mercury -67688-09-04 10:47 J -23001372.08 -23001372.05 -23001372.00 0.0089 0.0084
 Mercury -67688-12-01 12:13 J -23001283.99 -23001283.99 -23001283.99 0.0089 0.0089
 Mars -67683-03-09 18:28 J -22999724.89 -22999724.73 -22999724.54 0.0089 0.0069
 Mars -67681-01-31 23:59 J -22999031.77 -22999031.50 -22999031.22 0.0089 0.0012
 Mars -67680-12-25 06:42 J -22998338.44 -22998338.22 -22998337.96 0.0089 0.0046
 Moon -67648-08-17 18:13 J -22986779.79 -22986779.74 -22986779.64 0.0089 0.0085
 Earth -67648-08-17 21:35 J -22986779.61 -22986779.60 -22986779.53 0.0089 0.0089
 Earth -67647-08-20 08:23 J -22986412.22 -22986412.15 -22986412.05 0.0089 0.0084
 Moon -67647-08-20 11:45 J -22986412.05 -22986412.01 -22986411.92 0.0089 0.0087 *
 Moon -67646-08-22 16:04 J -22986044.92 -22986044.83 -22986044.67 0.0089 0.0078
 Earth -67646-08-22 18:57 J -22986044.80 -22986044.71 -22986044.57 0.0089 0.0079 *
 Earth -67645-08-24 05:45 J -22985677.38 -22985677.26 -22985677.11 0.0089 0.0074
 Moon -67645-08-24 08:09 J -22985677.28 -22985677.16 -22985677.02 0.0089 0.0077 *
 Moon -67644-08-26 15:49 J -22985309.98 -22985309.84 -22985309.66 0.0089 0.0067
 Earth -67644-08-26 16:18 J -22985309.95 -22985309.82 -22985309.64 0.0089 0.0070 *
 Moon -67643-08-29 02:37 J -22984942.54 -22984942.39 -22984942.19 0.0089 0.0067
 Earth -67643-08-29 03:21 J -22984942.51 -22984942.36 -22984942.16 0.0089 0.0065 *
 Earth -67642-08-31 14:23 J -22984575.07 -22984574.90 -22984574.69 0.0089 0.0060
 Moon -67642-08-31 15:49 J -22984575.01 -22984574.84 -22984574.63 0.0089 0.0057 *
 Moon -67641-09-01 22:33 J -22984207.73 -22984207.56 -22984207.34 0.0089 0.0058
 Earth -67641-09-02 01:25 J -22984207.61 -22984207.44 -22984207.21 0.0089 0.0056 *

Venus	-67641-09-02 19:25 J	-22984206.70	-22984206.69	-22984206.65	0.0089	0.0088
Venus	-67640-04-16 08:09 J	-22983981.28	-22983981.16	-22983980.99	0.0089	0.0068
Earth	-67640-09-04 12:42 J	-22983840.16	-22983839.97	-22983839.74	0.0089	0.0050
Moon	-67640-09-04 16:04 J	-22983840.02	-22983839.83	-22983839.60	0.0089	0.0047 *
Venus	-67640-11-27 21:21 J	-22983755.78	-22983755.61	-22983755.41	0.0089	0.0047
Venus	-67639-07-11 10:47 J	-22983530.25	-22983530.05	-22983529.83	0.0089	0.0026
Moon	-67639-09-06 20:23 J	-22983472.85	-22983472.65	-22983472.42	0.0089	0.0049
Earth	-67639-09-07 00:13 J	-22983472.70	-22983472.49	-22983472.26	0.0089	0.0045 *
Venus	-67638-02-21 23:59 J	-22983304.72	-22983304.50	-22983304.28	0.0089	0.0006
Earth	-67638-09-09 11:16 J	-22983105.25	-22983105.03	-22983104.79	0.0089	0.0040
Moon	-67638-09-09 14:37 J	-22983105.11	-22983104.89	-22983104.64	0.0089	0.0036 *
Venus	-67638-10-05 12:57 J	-22983079.17	-22983078.96	-22983078.74	0.0089	0.0015
Venus	-67637-05-18 01:54 J	-22982853.61	-22982853.42	-22982853.21	0.0089	0.0036
Moon	-67637-09-10 20:09 J	-22982737.88	-22982737.66	-22982737.42	0.0089	0.0037
Earth	-67637-09-10 22:33 J	-22982737.78	-22982737.56	-22982737.31	0.0089	0.0034 *
Venus	-67637-12-29 14:52 J	-22982628.03	-22982627.88	-22982627.69	0.0089	0.0057
Venus	-67636-08-12 03:49 J	-22982402.42	-22982402.34	-22982402.20	0.0089	0.0079
Earth	-67636-09-13 09:49 J	-22982370.32	-22982370.09	-22982369.83	0.0089	0.0029
Moon	-67636-09-13 11:59 J	-22982370.24	-22982370.00	-22982369.73	0.0089	0.0025 *
Moon	-67635-09-15 20:52 J	-22982002.85	-22982002.63	-22982002.38	0.0089	0.0027
Earth	-67635-09-15 21:35 J	-22982002.84	-22982002.60	-22982002.35	0.0089	0.0023 *
Moon	-67634-09-18 07:54 J	-22981635.42	-22981635.17	-22981634.89	0.0089	0.0016
Earth	-67634-09-18 08:52 J	-22981635.37	-22981635.13	-22981634.87	0.0089	0.0018 *
Earth	-67633-09-19 20:37 J	-22981267.89	-22981267.64	-22981267.38	0.0089	0.0012
Moon	-67633-09-19 22:04 J	-22981267.82	-22981267.58	-22981267.33	0.0089	0.0016 *
Moon	-67632-09-22 05:30 J	-22980900.54	-22980900.27	-22980900.01	0.0089	0.0003
Earth	-67632-09-22 08:23 J	-22980900.40	-22980900.15	-22980899.89	0.0089	0.0007 *
Earth	-67631-09-24 20:09 J	-22980532.92	-22980532.66	-22980532.40	0.0089	0.0001
Moon	-67631-09-24 23:30 J	-22980532.78	-22980532.52	-22980532.27	0.0089	0.0005 *
Moon	-67630-09-27 04:33 J	-22980165.56	-22980165.31	-22980165.05	0.0089	0.0009

Earth	-67630-09-27 08:09 J	-22980165.41	-22980165.16	-22980164.90	0.0089	0.0004	*
Earth	-67629-09-28 20:09 J	-22979797.91	-22979797.66	-22979797.40	0.0089	0.0010	
Moon	-67629-09-28 23:30 J	-22979797.77	-22979797.52	-22979797.25	0.0089	0.0006	*
Moon	-67628-10-01 05:45 J	-22979430.50	-22979430.26	-22979430.01	0.0089	0.0019	
Earth	-67628-10-01 08:23 J	-22979430.40	-22979430.15	-22979429.90	0.0089	0.0015	*
Earth	-67627-10-03 20:23 J	-22979062.90	-22979062.65	-22979062.40	0.0089	0.0021	
Moon	-67627-10-03 22:18 J	-22979062.82	-22979062.57	-22979062.29	0.0089	0.0017	*
Moon	-67626-10-06 07:54 J	-22978695.39	-22978695.17	-22978694.92	0.0089	0.0031	
Earth	-67626-10-06 08:37 J	-22978695.39	-22978695.14	-22978694.89	0.0089	0.0026	*
Moon	-67625-10-07 19:54 J	-22978327.91	-22978327.67	-22978327.40	0.0089	0.0028	
Earth	-67625-10-07 20:37 J	-22978327.87	-22978327.64	-22978327.39	0.0089	0.0032	*
Earth	-67624-10-10 08:52 J	-22977960.35	-22977960.13	-22977959.88	0.0089	0.0037	
Moon	-67624-10-10 10:18 J	-22977960.28	-22977960.07	-22977959.83	0.0089	0.0042	*
Moon	-67623-10-12 18:13 J	-22977592.97	-22977592.74	-22977592.49	0.0089	0.0038	
Earth	-67623-10-12 20:52 J	-22977592.83	-22977592.63	-22977592.38	0.0089	0.0043	*
Earth	-67622-10-15 09:21 J	-22977225.31	-22977225.11	-22977224.87	0.0089	0.0048	
Moon	-67622-10-15 12:42 J	-22977225.16	-22977224.97	-22977224.75	0.0089	0.0052	*
Moon	-67621-10-16 18:42 J	-22976857.94	-22976857.72	-22976857.50	0.0089	0.0048	
Earth	-67621-10-16 22:04 J	-22976857.77	-22976857.58	-22976857.36	0.0089	0.0053	*
Earth	-67620-10-19 10:33 J	-22976490.24	-22976490.06	-22976489.85	0.0089	0.0058	
Moon	-67620-10-19 13:54 J	-22976490.09	-22976489.92	-22976489.72	0.0089	0.0063	*
Moon	-67619-10-21 20:37 J	-22976122.82	-22976122.64	-22976122.44	0.0089	0.0059	
Earth	-67619-10-21 23:30 J	-22976122.70	-22976122.52	-22976122.34	0.0089	0.0063	*
Earth	-67618-10-24 12:13 J	-22975755.15	-22975754.99	-22975754.82	0.0089	0.0068	
Moon	-67618-10-24 14:09 J	-22975755.04	-22975754.91	-22975754.74	0.0089	0.0073	*
Moon	-67617-10-26 00:13 J	-22975387.63	-22975387.49	-22975387.31	0.0089	0.0069	
Earth	-67617-10-26 01:11 J	-22975387.59	-22975387.45	-22975387.30	0.0089	0.0073	*
Earth	-67616-10-28 13:54 J	-22975020.03	-22975019.92	-22975019.78	0.0089	0.0078	
Moon	-67616-10-28 13:25 J	-22975020.02	-22975019.94	-22975019.82	0.0089	0.0082	*
Earth	-67615-10-31 02:37 J	-22974652.46	-22974652.39	-22974652.27	0.0089	0.0083	

Moon -67615-10-31 04:18 J -22974652.43 -22974652.32 -22974652.20 0.0089 0.0078 *
 Earth -67614-11-02 16:04 J -22974284.87 -22974284.83 -22974284.77 0.0089 0.0087
 Mercury -67613-09-07 06:42 J -22973975.25 -22973975.22 -22973975.15 0.0089 0.0086
 Moon -67613-11-04 08:23 J -22973917.19 -22973917.15 -22973917.10 0.0089 0.0087
 Mercury -67613-12-04 10:47 J -22973887.14 -22973887.05 -22973886.96 0.0089 0.0078
 Mercury -67612-03-02 14:09 J -22973799.01 -22973798.91 -22973798.78 0.0089 0.0071
 Mercury -67612-05-29 18:13 J -22973710.88 -22973710.74 -22973710.60 0.0089 0.0063
 Mercury -67612-08-25 21:35 J -22973622.74 -22973622.60 -22973622.44 0.0089 0.0056
 Mercury -67612-11-22 01:11 J -22973534.60 -22973534.45 -22973534.27 0.0089 0.0049
 Mercury -67611-02-18 05:01 J -22973446.45 -22973446.29 -22973446.11 0.0089 0.0041
 Mercury -67611-05-17 08:37 J -22973358.31 -22973358.14 -22973357.95 0.0089 0.0034
 Mercury -67611-08-13 12:28 J -22973270.16 -22973269.98 -22973269.78 0.0089 0.0026
 Mercury -67611-11-09 16:04 J -22973182.01 -22973181.83 -22973181.63 0.0089 0.0019
 Mercury -67610-02-05 19:54 J -22973093.86 -22973093.67 -22973093.47 0.0089 0.0011
 Mercury -67610-05-04 23:45 J -22973005.71 -22973005.51 -22973005.31 0.0089 0.0003
 Mercury -67610-08-01 03:21 J -22972917.55 -22972917.36 -22972917.16 0.0089 0.0005
 Mercury -67610-10-28 07:11 J -22972829.40 -22972829.20 -22972829.01 0.0089 0.0012
 Mercury -67609-01-24 10:47 J -22972741.24 -22972741.05 -22972740.85 0.0089 0.0020
 Mercury -67609-04-21 14:37 J -22972653.08 -22972652.89 -22972652.70 0.0089 0.0027
 Mercury -67609-07-18 17:59 J -22972564.92 -22972564.75 -22972564.56 0.0089 0.0035
 Mercury -67609-10-14 21:35 J -22972476.75 -22972476.60 -22972476.41 0.0089 0.0043
 Mercury -67608-01-11 01:25 J -22972388.59 -22972388.44 -22972388.26 0.0089 0.0050
 Mercury -67608-04-09 05:01 J -22972300.42 -22972300.29 -22972300.12 0.0089 0.0058
 Mercury -67608-07-06 08:52 J -22972212.25 -22972212.13 -22972211.98 0.0089 0.0065
 Mercury -67608-10-02 12:28 J -22972124.07 -22972123.98 -22972123.85 0.0089 0.0073
 Mercury -67608-12-29 16:33 J -22972035.89 -22972035.81 -22972035.72 0.0089 0.0080
 Mercury -67607-03-27 19:54 J -22971947.68 -22971947.67 -22971947.62 0.0089 0.0088
 Mars -67601-01-09 22:47 J -22969833.66 -22969833.55 -22969833.40 0.0088 0.0082
 Mars -67600-12-06 20:52 J -22969136.97 -22969136.63 -22969136.27 0.0088 0.0010
 Mars -67598-11-03 16:18 J -22968440.04 -22968439.82 -22968439.54 0.0088 0.0063

Earth	-67565-02-21 15:35 J	-22956641.90	-22956641.85	-22956641.78	0.0088	0.0086
Moon	-67565-02-21 18:13 J	-22956641.80	-22956641.74	-22956641.63	0.0088	0.0084 *
Moon	-67564-02-23 00:42 J	-22956274.52	-22956274.47	-22956274.37	0.0088	0.0084
Earth	-67564-02-23 04:04 J	-22956274.40	-22956274.33	-22956274.20	0.0088	0.0082 *
Earth	-67563-02-25 17:01 J	-22955906.90	-22955906.79	-22955906.64	0.0088	0.0077
Moon	-67563-02-25 20:52 J	-22955906.76	-22955906.63	-22955906.47	0.0088	0.0074 *
Moon	-67562-02-28 02:23 J	-22955539.50	-22955539.40	-22955539.23	0.0088	0.0076
Earth	-67562-02-28 06:13 J	-22955539.39	-22955539.24	-22955539.08	0.0088	0.0072 *
Earth	-67561-03-01 18:13 J	-22955171.88	-22955171.74	-22955171.55	0.0088	0.0067
Moon	-67561-03-01 21:06 J	-22955171.78	-22955171.62	-22955171.41	0.0088	0.0064 *
Moon	-67560-03-04 05:30 J	-22954804.42	-22954804.27	-22954804.08	0.0088	0.0066
Earth	-67560-03-04 06:42 J	-22954804.38	-22954804.22	-22954804.01	0.0088	0.0062 *
Earth	-67559-03-06 19:11 J	-22954436.88	-22954436.70	-22954436.48	0.0088	0.0057
Moon	-67559-03-06 19:11 J	-22954436.88	-22954436.70	-22954436.46	0.0088	0.0055 *
Earth	-67558-03-09 07:25 J	-22954069.38	-22954069.19	-22954068.96	0.0088	0.0053
Moon	-67558-03-09 08:09 J	-22954069.34	-22954069.16	-22954068.95	0.0088	0.0056 *
Venus	-67558-06-07 05:30 J	-22953979.36	-22953979.27	-22953979.16	0.0088	0.0079
Venus	-67557-01-18 18:13 J	-22953753.89	-22953753.74	-22953753.56	0.0088	0.0059
Moon	-67557-03-10 17:30 J	-22953701.99	-22953701.77	-22953701.53	0.0088	0.0044
Earth	-67557-03-10 19:40 J	-22953701.88	-22953701.68	-22953701.44	0.0088	0.0047 *
Venus	-67557-08-31 07:11 J	-22953528.38	-22953528.20	-22953527.99	0.0088	0.0038
Earth	-67556-03-13 07:40 J	-22953334.39	-22953334.18	-22953333.93	0.0088	0.0042
Moon	-67556-03-13 10:47 J	-22953334.26	-22953334.05	-22953333.82	0.0088	0.0045 *
Venus	-67556-04-13 20:23 J	-22953302.87	-22953302.65	-22953302.43	0.0088	0.0018
Venus	-67556-11-25 09:06 J	-22953077.34	-22953077.12	-22953076.89	0.0088	0.0003
Moon	-67555-03-15 16:33 J	-22952967.04	-22952966.81	-22952966.55	0.0088	0.0033
Earth	-67555-03-15 20:23 J	-22952966.88	-22952966.65	-22952966.41	0.0088	0.0037 *
Venus	-67555-07-08 22:04 J	-22952851.79	-22952851.58	-22952851.37	0.0088	0.0023
Venus	-67554-02-19 10:33 J	-22952626.24	-22952626.06	-22952625.86	0.0088	0.0043
Earth	-67554-03-18 08:09 J	-22952599.39	-22952599.16	-22952598.91	0.0088	0.0031

Moon	-67554-03-18 11:45 J	-22952599.23	-22952599.01	-22952598.76	0.0088	0.0035 *
Venus	-67554-10-02 23:16 J	-22952400.67	-22952400.53	-22952400.36	0.0088	0.0063
Moon	-67553-03-19 17:01 J	-22952232.02	-22952231.79	-22952231.53	0.0088	0.0022
Earth	-67553-03-19 20:09 J	-22952231.89	-22952231.66	-22952231.40	0.0088	0.0026 *
Venus	-67553-05-15 11:45 J	-22952175.06	-22952175.01	-22952174.92	0.0088	0.0084
Earth	-67552-03-22 08:09 J	-22951864.41	-22951864.16	-22951863.90	0.0088	0.0021
Moon	-67552-03-22 10:47 J	-22951864.28	-22951864.05	-22951863.78	0.0088	0.0026 *
Moon	-67551-03-24 18:57 J	-22951496.96	-22951496.71	-22951496.46	0.0088	0.0011
Earth	-67551-03-24 20:09 J	-22951496.91	-22951496.66	-22951496.40	0.0088	0.0015 *
Earth	-67550-03-27 08:09 J	-22951129.42	-22951129.16	-22951128.90	0.0088	0.0010
Moon	-67550-03-27 08:37 J	-22951129.41	-22951129.14	-22951128.87	0.0088	0.0013 *
Earth	-67549-03-28 19:40 J	-22950761.94	-22950761.68	-22950761.42	0.0088	0.0004
Moon	-67549-03-28 20:23 J	-22950761.91	-22950761.65	-22950761.40	0.0088	0.0002 *
Moon	-67548-03-31 04:47 J	-22950394.56	-22950394.30	-22950394.03	0.0088	0.0003
Earth	-67548-03-31 07:11 J	-22950394.46	-22950394.20	-22950393.94	0.0088	0.0001 *
Earth	-67547-04-02 18:28 J	-22950026.98	-22950026.73	-22950026.47	0.0088	0.0007
Moon	-67547-04-02 21:06 J	-22950026.86	-22950026.62	-22950026.36	0.0088	0.0011 *
Moon	-67546-04-05 02:23 J	-22949659.66	-22949659.40	-22949659.14	0.0088	0.0007
Earth	-67546-04-05 05:59 J	-22949659.51	-22949659.25	-22949659.00	0.0088	0.0012 *
Earth	-67545-04-06 16:47 J	-22949292.04	-22949291.80	-22949291.54	0.0088	0.0017
Moon	-67545-04-06 20:23 J	-22949291.89	-22949291.65	-22949291.39	0.0088	0.0022 *
Moon	-67544-04-09 00:57 J	-22948924.70	-22948924.46	-22948924.21	0.0088	0.0018
Earth	-67544-04-09 04:04 J	-22948924.57	-22948924.33	-22948924.07	0.0088	0.0023 *
Earth	-67543-04-11 15:06 J	-22948557.10	-22948556.87	-22948556.61	0.0088	0.0028
Moon	-67543-04-11 17:59 J	-22948556.98	-22948556.75	-22948556.49	0.0088	0.0032 *
Moon	-67542-04-14 01:11 J	-22948189.68	-22948189.45	-22948189.21	0.0088	0.0029
Earth	-67542-04-14 02:09 J	-22948189.63	-22948189.41	-22948189.15	0.0088	0.0033 *
Earth	-67541-04-15 12:57 J	-22947822.17	-22947821.96	-22947821.71	0.0088	0.0039
Moon	-67541-04-15 13:11 J	-22947822.16	-22947821.95	-22947821.69	0.0088	0.0043 *
Earth	-67540-04-17 23:59 J	-22947454.70	-22947454.50	-22947454.26	0.0088	0.0044

Moon -67540-04-18 01:11 J -22947454.67 -22947454.45 -22947454.22 0.0088 0.0039 *
 Moon -67539-04-20 08:37 J -22947087.33 -22947087.14 -22947086.91 0.0088 0.0053
 Earth -67539-04-20 11:01 J -22947087.23 -22947087.04 -22947086.80 0.0088 0.0049 *
 Earth -67538-04-22 21:49 J -22946719.77 -22946719.59 -22946719.36 0.0088 0.0054
 Moon -67538-04-23 00:42 J -22946719.66 -22946719.47 -22946719.24 0.0088 0.0050 *
 Moon -67537-04-24 05:30 J -22946352.44 -22946352.27 -22946352.08 0.0089 0.0063
 Earth -67537-04-24 08:37 J -22946352.31 -22946352.14 -22946351.92 0.0089 0.0059 *
 Earth -67536-04-26 19:40 J -22945984.85 -22945984.68 -22945984.50 0.0089 0.0063
 Moon -67536-04-26 22:47 J -22945984.72 -22945984.55 -22945984.33 0.0089 0.0059 *
 Moon -67535-04-29 03:21 J -22945617.50 -22945617.36 -22945617.21 0.0089 0.0072
 Earth -67535-04-29 05:59 J -22945617.39 -22945617.25 -22945617.06 0.0089 0.0068 *
 Earth -67534-05-01 16:18 J -22945249.94 -22945249.82 -22945249.65 0.0089 0.0073
 Moon -67534-05-01 18:57 J -22945249.85 -22945249.71 -22945249.52 0.0089 0.0068 *
 Moon -67533-05-03 01:40 J -22944882.50 -22944882.43 -22944882.30 0.0089 0.0082
 Earth -67533-05-03 02:37 J -22944882.49 -22944882.39 -22944882.24 0.0089 0.0077 *
 Moon -67532-05-05 13:11 J -22944515.06 -22944514.95 -22944514.80 0.0089 0.0077
 Earth -67532-05-05 13:25 J -22944515.03 -22944514.94 -22944514.83 0.0089 0.0081 *
 Mercury -67531-03-21 14:23 J -22944194.92 -22944194.90 -22944194.86 0.0089 0.0087
 Earth -67531-05-07 23:59 J -22944147.56 -22944147.50 -22944147.43 0.0089 0.0085
 Mercury -67531-06-17 15:35 J -22944106.88 -22944106.85 -22944106.78 0.0089 0.0082
 Mercury -67531-09-13 17:01 J -22944018.84 -22944018.79 -22944018.71 0.0089 0.0077
 Mercury -67531-12-10 18:13 J -22943930.80 -22943930.74 -22943930.65 0.0089 0.0072
 Mercury -67530-03-08 19:54 J -22943842.76 -22943842.67 -22943842.58 0.0089 0.0066
 Moon -67530-05-10 06:57 J -22943780.26 -22943780.21 -22943780.11 0.0089 0.0085
 Mercury -67530-06-04 21:06 J -22943754.71 -22943754.62 -22943754.52 0.0089 0.0061
 Mercury -67530-08-31 22:33 J -22943666.66 -22943666.56 -22943666.46 0.0089 0.0056
 Mercury -67530-11-27 23:45 J -22943578.61 -22943578.51 -22943578.40 0.0089 0.0051
 Mercury -67529-02-24 00:57 J -22943490.56 -22943490.46 -22943490.34 0.0089 0.0046
 Mercury -67529-05-22 02:23 J -22943402.51 -22943402.40 -22943402.28 0.0089 0.0041
 Mercury -67529-08-18 03:35 J -22943314.46 -22943314.35 -22943314.22 0.0089 0.0036

Mercury -67529-11-14 05:01 J -22943226.41 -22943226.29 -22943226.16 0.0089 0.0030

Mercury -67528-02-10 06:13 J -22943138.36 -22943138.24 -22943138.10 0.0089 0.0026

Mercury -67528-05-09 07:40 J -22943050.30 -22943050.18 -22943050.05 0.0089 0.0020

Mercury -67528-08-05 09:06 J -22942962.25 -22942962.12 -22942961.99 0.0089 0.0015

Mercury -67528-11-01 10:18 J -22942874.20 -22942874.07 -22942873.94 0.0089 0.0010

Mercury -67527-01-28 11:45 J -22942786.14 -22942786.01 -22942785.88 0.0089 0.0005

Mercury -67527-04-26 12:57 J -22942698.09 -22942697.96 -22942697.83 0.0089 0.0002

Mercury -67527-07-23 14:23 J -22942610.03 -22942609.90 -22942609.77 0.0089 0.0006

Mercury -67527-10-19 15:35 J -22942521.98 -22942521.85 -22942521.72 0.0089 0.0011

Mercury -67526-01-15 16:47 J -22942433.92 -22942433.80 -22942433.66 0.0089 0.0016

Mercury -67526-04-13 18:13 J -22942345.87 -22942345.74 -22942345.61 0.0089 0.0021

Mercury -67526-07-10 19:25 J -22942257.81 -22942257.69 -22942257.56 0.0089 0.0026

Mercury -67526-10-06 20:52 J -22942169.75 -22942169.63 -22942169.51 0.0089 0.0031

Mercury -67525-01-02 22:04 J -22942081.70 -22942081.58 -22942081.46 0.0089 0.0036

Mercury -67525-03-30 23:30 J -22941993.64 -22941993.52 -22941993.41 0.0089 0.0041

Mercury -67525-06-27 00:42 J -22941905.58 -22941905.47 -22941905.36 0.0089 0.0046

Mercury -67525-09-23 01:54 J -22941817.52 -22941817.42 -22941817.31 0.0089 0.0051

Mercury -67525-12-20 03:06 J -22941729.46 -22941729.37 -22941729.26 0.0089 0.0057

Mercury -67524-03-18 04:18 J -22941641.40 -22941641.32 -22941641.21 0.0089 0.0062

Mercury -67524-06-14 05:45 J -22941553.34 -22941553.26 -22941553.17 0.0089 0.0067

Mercury -67524-09-10 06:57 J -22941465.27 -22941465.21 -22941465.12 0.0089 0.0072

Mercury -67524-12-07 08:09 J -22941377.21 -22941377.16 -22941377.08 0.0089 0.0077

Mercury -67523-03-05 09:35 J -22941289.14 -22941289.10 -22941289.04 0.0089 0.0082

Mercury -67523-06-01 10:47 J -22941201.06 -22941201.05 -22941201.01 0.0089 0.0087

Mars -67518-09-16 23:45 J -22939267.74 -22939267.51 -22939267.23 0.0089 0.0036

Mars -67516-08-10 05:01 J -22938574.55 -22938574.29 -22938574.01 0.0089 0.0022

Mars -67514-07-04 11:59 J -22937881.10 -22937881.00 -22937880.84 0.0089 0.0079

Moon -67486-08-13 17:01 J -22927613.82 -22927613.79 -22927613.74 0.0089 0.0088

Earth -67485-08-15 00:13 J -22927246.53 -22927246.49 -22927246.43 0.0089 0.0087

Earth -67484-08-17 10:18 J -22926879.14 -22926879.07 -22926878.96 0.0089 0.0084

Moon	-67484-08-17 13:25 J	-22926879.02	-22926878.94	-22926878.80	0.0089	0.0080	*
Moon	-67483-08-19 17:59 J	-22926511.81	-22926511.75	-22926511.64	0.0089	0.0083	
Earth	-67483-08-19 20:37 J	-22926511.72	-22926511.64	-22926511.49	0.0089	0.0080	*
Earth	-67482-08-22 07:40 J	-22926144.31	-22926144.18	-22926144.04	0.0089	0.0075	
Moon	-67482-08-22 09:06 J	-22926144.27	-22926144.12	-22926143.96	0.0089	0.0071	*
Moon	-67481-08-23 17:30 J	-22925776.89	-22925776.77	-22925776.62	0.0089	0.0074	
Earth	-67481-08-23 17:59 J	-22925776.89	-22925776.75	-22925776.58	0.0089	0.0070	*
Moon	-67480-08-26 04:04 J	-22925409.51	-22925409.33	-22925409.13	0.0089	0.0062	
Earth	-67480-08-26 04:47 J	-22925409.46	-22925409.30	-22925409.11	0.0089	0.0066	*
Earth	-67479-08-28 15:35 J	-22925042.03	-22925041.85	-22925041.66	0.0089	0.0061	
Moon	-67479-08-28 17:59 J	-22925041.92	-22925041.75	-22925041.58	0.0089	0.0065	*
Moon	-67478-08-30 23:30 J	-22924674.71	-22924674.52	-22924674.29	0.0089	0.0052	
Earth	-67478-08-31 02:09 J	-22924674.58	-22924674.41	-22924674.19	0.0089	0.0056	*
Earth	-67477-09-01 13:11 J	-22924307.14	-22924306.95	-22924306.72	0.0089	0.0051	
Moon	-67477-09-01 17:01 J	-22924306.98	-22924306.79	-22924306.58	0.0089	0.0054	*
Venus	-67476-07-18 19:54 J	-22923986.77	-22923986.67	-22923986.53	0.0089	0.0075	
Moon	-67476-09-03 20:52 J	-22923939.83	-22923939.63	-22923939.38	0.0089	0.0042	
Earth	-67476-09-04 00:13 J	-22923939.68	-22923939.49	-22923939.25	0.0089	0.0047	*
Venus	-67475-03-01 09:06 J	-22923761.28	-22923761.12	-22923760.93	0.0089	0.0054	
Earth	-67475-09-06 11:59 J	-22923572.23	-22923572.00	-22923571.77	0.0089	0.0040	
Moon	-67475-09-06 15:06 J	-22923572.09	-22923571.87	-22923571.64	0.0089	0.0043	*
Venus	-67475-10-12 22:04 J	-22923535.77	-22923535.58	-22923535.36	0.0089	0.0034	
Venus	-67474-05-26 11:16 J	-22923310.24	-22923310.03	-22923309.80	0.0089	0.0013	
Moon	-67474-09-08 20:09 J	-22923204.87	-22923204.66	-22923204.41	0.0089	0.0033	
Earth	-67474-09-08 23:01 J	-22923204.77	-22923204.54	-22923204.30	0.0089	0.0035	*
Venus	-67473-01-07 00:28 J	-22923084.69	-22923084.48	-22923084.25	0.0089	0.0008	
Venus	-67473-08-19 13:25 J	-22922859.14	-22922858.94	-22922858.72	0.0089	0.0029	
Earth	-67473-09-10 10:04 J	-22922837.31	-22922837.08	-22922836.83	0.0089	0.0030	
Moon	-67473-09-10 11:16 J	-22922837.26	-22922837.03	-22922836.77	0.0089	0.0034	*
Venus	-67472-04-02 02:52 J	-22922633.57	-22922633.38	-22922633.20	0.0089	0.0050	

Moon	-67472-09-12 21:06 J	-22922469.85	-22922469.62	-22922469.37	0.0089	0.0022
Earth	-67472-09-12 21:21 J	-22922469.84	-22922469.61	-22922469.35	0.0089	0.0025 *
Venus	-67472-11-13 15:35 J	-22922407.97	-22922407.85	-22922407.70	0.0089	0.0070
Moon	-67471-09-15 07:54 J	-22922102.42	-22922102.17	-22922101.91	0.0089	0.0023
Earth	-67471-09-15 08:52 J	-22922102.38	-22922102.13	-22922101.88	0.0089	0.0019 *
Earth	-67470-09-17 20:09 J	-22921734.90	-22921734.66	-22921734.40	0.0089	0.0014
Moon	-67470-09-17 22:33 J	-22921734.80	-22921734.56	-22921734.31	0.0089	0.0011 *
Moon	-67469-09-19 04:47 J	-22921367.55	-22921367.30	-22921367.03	0.0089	0.0012
Earth	-67469-09-19 07:54 J	-22921367.42	-22921367.17	-22921366.91	0.0089	0.0009 *
Earth	-67468-09-21 19:25 J	-22920999.95	-22920999.69	-22920999.44	0.0089	0.0003
Moon	-67468-09-21 23:01 J	-22920999.80	-22920999.54	-22920999.29	0.0089	0.0001 *
Moon	-67467-09-24 03:35 J	-22920632.60	-22920632.35	-22920632.09	0.0089	0.0002
Earth	-67467-09-24 07:11 J	-22920632.46	-22920632.20	-22920631.95	0.0089	0.0002 *
Earth	-67466-09-26 18:42 J	-22920264.97	-22920264.72	-22920264.46	0.0089	0.0008
Moon	-67466-09-26 21:49 J	-22920264.84	-22920264.59	-22920264.32	0.0089	0.0010 *
Moon	-67465-09-28 04:04 J	-22919897.57	-22919897.33	-22919897.07	0.0089	0.0011
Earth	-67465-09-28 06:42 J	-22919897.47	-22919897.22	-22919896.96	0.0089	0.0013 *
Earth	-67464-09-30 18:28 J	-22919529.97	-22919529.73	-22919529.46	0.0089	0.0019
Moon	-67464-09-30 19:40 J	-22919529.93	-22919529.68	-22919529.41	0.0089	0.0021 *
Moon	-67463-10-03 06:28 J	-22919162.47	-22919162.23	-22919161.99	0.0089	0.0022
Earth	-67463-10-03 06:42 J	-22919162.46	-22919162.22	-22919161.96	0.0089	0.0024 *
Moon	-67462-10-05 17:30 J	-22918795.00	-22918794.77	-22918794.50	0.0089	0.0032
Earth	-67462-10-05 18:57 J	-22918794.95	-22918794.71	-22918794.46	0.0089	0.0029 *
Earth	-67461-10-07 06:57 J	-22918427.43	-22918427.21	-22918426.95	0.0089	0.0035
Moon	-67461-10-07 09:35 J	-22918427.33	-22918427.10	-22918426.86	0.0089	0.0032 *
Moon	-67460-10-09 16:18 J	-22918060.03	-22918059.82	-22918059.57	0.0089	0.0042
Earth	-67460-10-09 19:11 J	-22918059.91	-22918059.70	-22918059.45	0.0089	0.0040 *
Earth	-67459-10-12 07:40 J	-22917692.39	-22917692.18	-22917691.95	0.0089	0.0045
Moon	-67459-10-12 11:30 J	-22917692.24	-22917692.02	-22917691.79	0.0089	0.0043 *
Moon	-67458-10-14 16:18 J	-22917325.00	-22917324.82	-22917324.59	0.0089	0.0053

Earth -67458-10-14 20:09 J -22917324.86 -22917324.66 -22917324.44 0.0089 0.0050 *
 Earth -67457-10-16 08:37 J -22916957.34 -22916957.14 -22916956.93 0.0089 0.0055
 Moon -67457-10-16 11:30 J -22916957.20 -22916957.02 -22916956.79 0.0089 0.0055 *
 Moon -67456-10-18 18:13 J -22916589.90 -22916589.74 -22916589.54 0.0089 0.0062
 Earth -67456-10-18 21:06 J -22916589.80 -22916589.62 -22916589.42 0.0089 0.0060 *
 Earth -67455-10-21 09:35 J -22916222.27 -22916222.10 -22916221.92 0.0089 0.0065
 Moon -67455-10-21 10:33 J -22916222.22 -22916222.06 -22916221.85 0.0089 0.0064 *
 Moon -67454-10-23 21:21 J -22915854.74 -22915854.61 -22915854.44 0.0089 0.0071
 Earth -67454-10-23 22:04 J -22915854.72 -22915854.58 -22915854.40 0.0089 0.0070 *
 Moon -67453-10-25 09:49 J -22915487.22 -22915487.09 -22915486.92 0.0089 0.0074
 Earth -67453-10-25 10:47 J -22915487.16 -22915487.05 -22915486.89 0.0089 0.0075 *
 Earth -67452-10-27 23:30 J -22915119.61 -22915119.52 -22915119.38 0.0089 0.0080
 Moon -67452-10-28 01:40 J -22915119.51 -22915119.43 -22915119.30 0.0089 0.0081 *
 Moon -67451-10-30 09:49 J -22914752.15 -22914752.09 -22914751.97 0.0089 0.0084
 Earth -67451-10-30 12:42 J -22914752.03 -22914751.97 -22914751.86 0.0089 0.0084 *
 Earth -67450-11-02 02:09 J -22914384.43 -22914384.41 -22914384.38 0.0089 0.0088
 Moon -67450-11-02 05:45 J -22914384.26 -22914384.26 -22914384.24 0.0089 0.0089
 Mercury -67448-06-04 05:59 J -22913804.31 -22913804.25 -22913804.17 0.0089 0.0082
 Mercury -67448-08-31 09:35 J -22913716.19 -22913716.10 -22913715.98 0.0089 0.0075
 Mercury -67448-11-27 13:25 J -22913628.06 -22913627.94 -22913627.80 0.0089 0.0067
 Mercury -67447-02-23 17:01 J -22913539.92 -22913539.79 -22913539.63 0.0089 0.0060
 Mercury -67447-05-22 20:52 J -22913451.78 -22913451.63 -22913451.47 0.0089 0.0052
 Mercury -67447-08-19 00:28 J -22913363.64 -22913363.48 -22913363.30 0.0089 0.0045
 Mercury -67447-11-15 04:18 J -22913275.49 -22913275.32 -22913275.14 0.0089 0.0037
 Mercury -67446-02-11 07:54 J -22913187.35 -22913187.17 -22913186.98 0.0089 0.0030
 Mercury -67446-05-10 11:45 J -22913099.20 -22913099.01 -22913098.82 0.0089 0.0022
 Mercury -67446-08-06 15:21 J -22913011.05 -22913010.86 -22913010.66 0.0089 0.0015
 Mercury -67446-11-02 19:11 J -22912922.90 -22912922.70 -22912922.50 0.0089 0.0007
 Mercury -67445-01-29 22:47 J -22912834.74 -22912834.55 -22912834.35 0.0089 0.0002
 Mercury -67445-04-27 02:23 J -22912746.59 -22912746.40 -22912746.20 0.0089 0.0009

Mercury -67445-07-24 06:13 J -22912658.43 -22912658.24 -22912658.04 0.0089 0.0016

Mercury -67445-10-20 09:49 J -22912570.27 -22912570.09 -22912569.89 0.0089 0.0024

Mercury -67444-01-16 13:40 J -22912482.11 -22912481.93 -22912481.74 0.0089 0.0031

Mercury -67444-04-14 17:16 J -22912393.95 -22912393.78 -22912393.60 0.0089 0.0039

Mercury -67444-07-11 21:06 J -22912305.79 -22912305.62 -22912305.45 0.0089 0.0046

Mercury -67444-10-08 00:42 J -22912217.62 -22912217.47 -22912217.31 0.0089 0.0054

Mercury -67443-01-04 04:04 J -22912129.45 -22912129.33 -22912129.17 0.0089 0.0062

Mercury -67443-04-02 08:09 J -22912041.28 -22912041.16 -22912041.03 0.0089 0.0069

Mercury -67443-06-29 11:30 J -22911953.10 -22911953.02 -22911952.90 0.0089 0.0077

Mercury -67443-09-25 15:35 J -22911864.90 -22911864.85 -22911864.78 0.0089 0.0084

Mars -67436-07-20 00:28 J -22909375.78 -22909375.48 -22909375.14 0.0088 0.0040

Mars -67434-06-16 21:49 J -22908678.90 -22908678.59 -22908678.24 0.0088 0.0033

Moon -67403-02-15 20:23 J -22897476.68 -22897476.65 -22897476.56 0.0088 0.0087

Earth -67402-02-18 12:13 J -22897109.04 -22897108.99 -22897108.92 0.0088 0.0086

Moon -67401-02-20 21:21 J -22896741.71 -22896741.61 -22896741.46 0.0088 0.0077

Earth -67401-02-21 00:57 J -22896741.54 -22896741.46 -22896741.34 0.0088 0.0082 *

Earth -67400-02-22 14:09 J -22896374.04 -22896373.91 -22896373.78 0.0088 0.0077

Moon -67400-02-22 17:01 J -22896373.87 -22896373.79 -22896373.65 0.0088 0.0081 *

Moon -67399-02-24 23:45 J -22896006.66 -22896006.51 -22896006.33 0.0088 0.0069

Earth -67399-02-25 02:37 J -22896006.52 -22896006.39 -22896006.22 0.0088 0.0073 *

Earth -67398-02-27 15:35 J -22895639.00 -22895638.85 -22895638.67 0.0088 0.0068

Moon -67398-02-27 17:45 J -22895638.91 -22895638.76 -22895638.59 0.0088 0.0071 *

Moon -67397-03-01 02:37 J -22895271.55 -22895271.39 -22895271.18 0.0088 0.0061

Earth -67397-03-01 04:18 J -22895271.49 -22895271.32 -22895271.13 0.0088 0.0063 *

Moon -67396-03-03 16:18 J -22894903.99 -22894903.82 -22894903.60 0.0088 0.0062

Earth -67396-03-03 17:01 J -22894903.98 -22894903.79 -22894903.59 0.0088 0.0058 *

Earth -67395-03-06 05:01 J -22894536.47 -22894536.29 -22894536.05 0.0088 0.0054

Moon -67395-03-06 07:11 J -22894536.41 -22894536.20 -22894535.99 0.0088 0.0050 *

Moon -67394-03-08 15:35 J -22894169.06 -22894168.85 -22894168.62 0.0088 0.0051

Earth -67394-03-08 17:59 J -22894168.97 -22894168.75 -22894168.53 0.0088 0.0048 *

Venus	-67394-09-08 17:16 J	-22893984.82	-22893984.78	-22893984.72	0.0088	0.0086
Earth	-67393-03-10 06:13 J	-22893801.47	-22893801.24	-22893801.01	0.0088	0.0043
Moon	-67393-03-10 09:21 J	-22893801.33	-22893801.11	-22893800.87	0.0088	0.0040 *
Venus	-67393-04-21 05:59 J	-22893759.38	-22893759.25	-22893759.09	0.0088	0.0066
Venus	-67393-12-02 18:57 J	-22893533.89	-22893533.71	-22893533.51	0.0088	0.0045
Moon	-67392-03-12 14:23 J	-22893434.11	-22893433.90	-22893433.65	0.0088	0.0041
Earth	-67392-03-12 18:13 J	-22893433.97	-22893433.74	-22893433.49	0.0088	0.0038 *
Venus	-67392-07-16 08:09 J	-22893308.37	-22893308.16	-22893307.95	0.0088	0.0025
Venus	-67391-02-26 20:52 J	-22893082.85	-22893082.63	-22893082.41	0.0088	0.0005
Earth	-67391-03-15 06:13 J	-22893066.47	-22893066.24	-22893065.98	0.0088	0.0033
Moon	-67391-03-15 09:49 J	-22893066.32	-22893066.09	-22893065.83	0.0088	0.0031 *
Venus	-67391-10-10 09:35 J	-22892857.31	-22892857.10	-22892856.88	0.0088	0.0016
Moon	-67390-03-17 15:21 J	-22892699.09	-22892698.86	-22892698.61	0.0088	0.0030
Earth	-67390-03-17 18:28 J	-22892698.97	-22892698.73	-22892698.47	0.0088	0.0027 *
Venus	-67390-05-23 22:04 J	-22892631.76	-22892631.58	-22892631.36	0.0088	0.0037
Venus	-67389-01-04 11:01 J	-22892406.19	-22892406.04	-22892405.85	0.0088	0.0057
Earth	-67389-03-19 06:13 J	-22892331.48	-22892331.24	-22892330.98	0.0088	0.0022
Moon	-67389-03-19 08:37 J	-22892331.40	-22892331.14	-22892330.88	0.0088	0.0020 *
Venus	-67389-08-16 23:45 J	-22892180.60	-22892180.51	-22892180.38	0.0088	0.0077
Moon	-67388-03-21 17:01 J	-22891964.03	-22891963.79	-22891963.54	0.0088	0.0019
Earth	-67388-03-21 18:28 J	-22891963.98	-22891963.73	-22891963.47	0.0088	0.0017 *
Moon	-67387-03-24 06:13 J	-22891596.50	-22891596.24	-22891595.97	0.0088	0.0009
Earth	-67387-03-24 06:28 J	-22891596.48	-22891596.23	-22891595.97	0.0088	0.0011 *
Earth	-67386-03-26 18:13 J	-22891228.99	-22891228.74	-22891228.48	0.0088	0.0006
Moon	-67386-03-26 19:40 J	-22891228.93	-22891228.68	-22891228.43	0.0088	0.0008 *
Moon	-67385-03-28 04:04 J	-22890861.59	-22890861.33	-22890861.06	0.0088	0.0001
Earth	-67385-03-28 06:13 J	-22890861.50	-22890861.24	-22890860.98	0.0088	0.0001 *
Earth	-67384-03-30 17:59 J	-22890494.01	-22890493.75	-22890493.49	0.0088	0.0005
Moon	-67384-03-30 21:06 J	-22890493.87	-22890493.62	-22890493.36	0.0088	0.0003 *
Moon	-67383-04-02 02:09 J	-22890126.66	-22890126.41	-22890126.15	0.0088	0.0012

Earth	-67383-04-02 05:30 J	-22890126.52	-22890126.27	-22890126.01	0.0088	0.0010	*
Earth	-67382-04-04 16:47 J	-22889759.04	-22889758.80	-22889758.53	0.0088	0.0016	
Moon	-67382-04-04 20:37 J	-22889758.89	-22889758.64	-22889758.38	0.0088	0.0014	*
Moon	-67381-04-06 01:11 J	-22889391.69	-22889391.45	-22889391.20	0.0088	0.0022	
Earth	-67381-04-06 04:18 J	-22889391.57	-22889391.32	-22889391.07	0.0088	0.0020	*
Earth	-67380-04-08 15:35 J	-22889024.09	-22889023.85	-22889023.60	0.0088	0.0026	
Moon	-67380-04-08 17:30 J	-22889024.01	-22889023.77	-22889023.50	0.0088	0.0025	*
Moon	-67379-04-11 01:25 J	-22888656.67	-22888656.44	-22888656.20	0.0088	0.0032	
Earth	-67379-04-11 02:52 J	-22888656.62	-22888656.38	-22888656.14	0.0088	0.0031	*
Moon	-67378-04-13 13:11 J	-22888289.18	-22888288.95	-22888288.69	0.0088	0.0035	
Earth	-67378-04-13 13:54 J	-22888289.15	-22888288.92	-22888288.68	0.0088	0.0036	*
Earth	-67377-04-15 00:42 J	-22887921.69	-22887921.47	-22887921.23	0.0088	0.0041	
Moon	-67377-04-15 01:54 J	-22887921.62	-22887921.42	-22887921.18	0.0088	0.0043	*
Moon	-67376-04-17 09:49 J	-22887554.32	-22887554.09	-22887553.87	0.0088	0.0045	
Earth	-67376-04-17 11:59 J	-22887554.22	-22887554.00	-22887553.78	0.0088	0.0046	*
Earth	-67375-04-19 22:47 J	-22887186.75	-22887186.55	-22887186.33	0.0088	0.0051	
Moon	-67375-04-20 01:40 J	-22887186.60	-22887186.43	-22887186.20	0.0088	0.0053	*
Moon	-67374-04-22 05:59 J	-22886819.43	-22886819.25	-22886819.03	0.0088	0.0055	
Earth	-67374-04-22 09:35 J	-22886819.28	-22886819.10	-22886818.89	0.0088	0.0056	*
Earth	-67373-04-23 20:09 J	-22886451.82	-22886451.66	-22886451.45	0.0088	0.0061	
Moon	-67373-04-23 23:45 J	-22886451.67	-22886451.51	-22886451.30	0.0088	0.0061	*
Moon	-67372-04-26 04:04 J	-22886084.47	-22886084.33	-22886084.13	0.0089	0.0065	
Earth	-67372-04-26 07:40 J	-22886084.35	-22886084.18	-22886084.01	0.0089	0.0065	*
Earth	-67371-04-28 17:45 J	-22885716.89	-22885716.76	-22885716.58	0.0089	0.0070	
Moon	-67371-04-28 19:54 J	-22885716.81	-22885716.67	-22885716.49	0.0089	0.0070	*
Moon	-67370-05-01 02:52 J	-22885349.48	-22885349.38	-22885349.21	0.0089	0.0075	
Earth	-67370-05-01 04:33 J	-22885349.44	-22885349.31	-22885349.16	0.0089	0.0074	*
Moon	-67369-05-02 14:09 J	-22884982.01	-22884981.91	-22884981.77	0.0089	0.0079	
Earth	-67369-05-02 14:37 J	-22884981.98	-22884981.89	-22884981.74	0.0089	0.0079	*
Earth	-67368-05-05 00:57 J	-22884614.52	-22884614.46	-22884614.34	0.0089	0.0083	

Moon -67368-05-05 03:06 J -22884614.45 -22884614.37 -22884614.27 0.0089 0.0082 *
 Moon -67367-05-07 08:52 J -22884247.16 -22884247.13 -22884247.04 0.0089 0.0087
 Earth -67367-05-07 11:30 J -22884247.05 -22884247.02 -22884246.94 0.0089 0.0087 *
 Mercury -67367-12-16 14:37 J -22884023.93 -22884023.89 -22884023.85 0.0089 0.0084
 Mercury -67366-03-14 15:49 J -22883935.89 -22883935.84 -22883935.78 0.0089 0.0079
 Mercury -67366-06-10 17:01 J -22883847.85 -22883847.79 -22883847.71 0.0089 0.0074
 Mercury -67366-09-06 18:28 J -22883759.81 -22883759.73 -22883759.64 0.0089 0.0069
 Mercury -67366-12-03 19:40 J -22883671.76 -22883671.68 -22883671.58 0.0089 0.0064
 Mercury -67365-02-29 21:06 J -22883583.71 -22883583.62 -22883583.52 0.0089 0.0059
 Mercury -67365-05-27 22:18 J -22883495.66 -22883495.57 -22883495.46 0.0089 0.0054
 Mercury -67365-08-23 23:45 J -22883407.62 -22883407.51 -22883407.40 0.0089 0.0048
 Mercury -67365-11-20 00:57 J -22883319.57 -22883319.46 -22883319.34 0.0089 0.0044
 Mercury -67364-02-16 02:23 J -22883231.51 -22883231.40 -22883231.28 0.0089 0.0038
 Mercury -67364-05-15 03:49 J -22883143.46 -22883143.34 -22883143.22 0.0089 0.0033
 Mercury -67364-08-11 05:01 J -22883055.41 -22883055.29 -22883055.16 0.0089 0.0028
 Mercury -67364-11-07 06:28 J -22882967.36 -22882967.23 -22882967.10 0.0089 0.0023
 Mercury -67363-02-03 07:40 J -22882879.31 -22882879.18 -22882879.05 0.0089 0.0018
 Mercury -67363-05-02 09:06 J -22882791.25 -22882791.12 -22882790.99 0.0089 0.0013
 Mercury -67363-07-29 10:18 J -22882703.20 -22882703.07 -22882702.94 0.0089 0.0007
 Mercury -67363-10-25 11:30 J -22882615.15 -22882615.02 -22882614.88 0.0089 0.0004
 Mercury -67362-01-21 12:57 J -22882527.09 -22882526.96 -22882526.83 0.0089 0.0003
 Mercury -67362-04-19 14:09 J -22882439.04 -22882438.91 -22882438.77 0.0089 0.0008
 Mercury -67362-07-16 15:35 J -22882350.98 -22882350.85 -22882350.72 0.0089 0.0013
 Mercury -67362-10-12 16:47 J -22882262.93 -22882262.80 -22882262.67 0.0089 0.0018
 Mercury -67361-01-08 17:59 J -22882174.87 -22882174.75 -22882174.62 0.0089 0.0024
 Mercury -67361-04-05 19:11 J -22882086.81 -22882086.70 -22882086.56 0.0089 0.0029
 Mercury -67361-07-02 20:37 J -22881998.76 -22881998.64 -22881998.51 0.0089 0.0034
 Mercury -67361-09-28 21:49 J -22881910.70 -22881910.59 -22881910.46 0.0089 0.0039
 Mercury -67361-12-25 23:16 J -22881822.64 -22881822.53 -22881822.41 0.0089 0.0044
 Mercury -67360-03-24 00:28 J -22881734.58 -22881734.48 -22881734.36 0.0089 0.0049

Mercury -67360-06-20 01:54 J -22881646.52 -22881646.42 -22881646.31 0.0089 0.0054

Mercury -67360-09-16 03:06 J -22881558.46 -22881558.37 -22881558.27 0.0089 0.0059

Mercury -67360-12-13 04:18 J -22881470.40 -22881470.32 -22881470.22 0.0089 0.0064

Mercury -67359-03-11 05:45 J -22881382.34 -22881382.26 -22881382.17 0.0089 0.0069

Mercury -67359-06-07 06:57 J -22881294.27 -22881294.21 -22881294.13 0.0089 0.0074

Mercury -67359-09-03 08:23 J -22881206.20 -22881206.15 -22881206.09 0.0089 0.0079

Mercury -67359-11-30 09:35 J -22881118.13 -22881118.10 -22881118.05 0.0089 0.0084

Mars -67354-05-02 23:01 J -22879503.73 -22879503.54 -22879503.31 0.0089 0.0059

Mars -67352-03-26 05:16 J -22878810.56 -22878810.28 -22878810.00 0.0089 0.0002

Mars -67350-02-17 10:04 J -22878117.29 -22878117.08 -22878116.85 0.0089 0.0054

Earth -67322-08-13 00:57 J -22867713.49 -22867713.46 -22867713.39 0.0089 0.0088

Earth -67321-08-14 11:16 J -22867346.10 -22867346.03 -22867345.92 0.0089 0.0084

Moon -67321-08-14 14:23 J -22867345.98 -22867345.90 -22867345.77 0.0089 0.0082 *

Moon -67320-08-16 19:40 J -22866978.76 -22866978.68 -22866978.56 0.0089 0.0081

Earth -67320-08-16 21:49 J -22866978.68 -22866978.59 -22866978.45 0.0089 0.0079 *

Earth -67319-08-19 07:54 J -22866611.28 -22866611.17 -22866611.00 0.0089 0.0075

Moon -67319-08-19 09:35 J -22866611.22 -22866611.10 -22866610.92 0.0089 0.0073 *

Earth -67318-08-21 18:42 J -22866243.85 -22866243.72 -22866243.54 0.0089 0.0071

Moon -67318-08-21 18:57 J -22866243.83 -22866243.71 -22866243.55 0.0089 0.0073 *

Moon -67317-08-23 03:49 J -22865876.49 -22865876.34 -22865876.12 0.0089 0.0065

Earth -67317-08-23 05:16 J -22865876.42 -22865876.28 -22865876.08 0.0089 0.0066 *

Earth -67316-08-25 15:49 J -22865509.00 -22865508.84 -22865508.63 0.0089 0.0062

Moon -67316-08-25 17:59 J -22865508.90 -22865508.75 -22865508.56 0.0089 0.0064 *

Moon -67315-08-27 23:30 J -22865141.71 -22865141.52 -22865141.30 0.0089 0.0054

Earth -67315-08-28 02:52 J -22865141.56 -22865141.38 -22865141.17 0.0089 0.0057 *

Earth -67314-08-30 13:40 J -22864774.13 -22864773.93 -22864773.71 0.0089 0.0052

Moon -67314-08-30 16:47 J -22864773.98 -22864773.80 -22864773.58 0.0089 0.0054 *

Moon -67313-08-31 21:06 J -22864406.84 -22864406.62 -22864406.40 0.0089 0.0044

Earth -67313-09-01 00:13 J -22864406.68 -22864406.49 -22864406.25 0.0089 0.0047 *

Earth -67312-09-03 11:45 J -22864039.24 -22864039.01 -22864038.79 0.0089 0.0041

Moon	-67312-09-03 14:23 J	-22864039.11	-22864038.90	-22864038.66	0.0089	0.0044	*
Venus	-67312-10-20 07:25 J	-22863992.26	-22863992.19	-22863992.11	0.0089	0.0083	
Venus	-67311-06-02 20:09 J	-22863766.80	-22863766.66	-22863766.48	0.0089	0.0062	
Moon	-67311-09-05 20:23 J	-22863671.86	-22863671.65	-22863671.40	0.0089	0.0034	
Earth	-67311-09-05 22:47 J	-22863671.78	-22863671.55	-22863671.32	0.0089	0.0036	*
Venus	-67310-01-14 09:35 J	-22863541.29	-22863541.10	-22863540.90	0.0089	0.0041	
Venus	-67310-08-27 22:18 J	-22863315.77	-22863315.57	-22863315.34	0.0089	0.0022	
Earth	-67310-09-08 09:49 J	-22863304.32	-22863304.09	-22863303.84	0.0089	0.0031	
Moon	-67310-09-08 11:16 J	-22863304.27	-22863304.03	-22863303.78	0.0089	0.0034	*
Venus	-67309-04-09 11:45 J	-22863090.23	-22863090.01	-22863089.79	0.0089	0.0000	
Earth	-67309-09-09 21:06 J	-22862936.85	-22862936.62	-22862936.36	0.0089	0.0026	
Moon	-67309-09-09 21:49 J	-22862936.83	-22862936.59	-22862936.35	0.0089	0.0023	*
Venus	-67309-11-21 00:42 J	-22862864.68	-22862864.47	-22862864.25	0.0089	0.0021	
Venus	-67308-07-04 13:40 J	-22862639.11	-22862638.93	-22862638.72	0.0089	0.0042	
Moon	-67308-09-12 06:57 J	-22862569.46	-22862569.21	-22862568.95	0.0089	0.0023	
Earth	-67308-09-12 08:23 J	-22862569.39	-22862569.15	-22862568.89	0.0089	0.0021	*
Venus	-67307-02-15 02:37 J	-22862413.52	-22862413.39	-22862413.21	0.0089	0.0063	
Earth	-67307-09-14 19:40 J	-22862201.92	-22862201.68	-22862201.42	0.0089	0.0016	
Moon	-67307-09-14 22:04 J	-22862201.82	-22862201.58	-22862201.33	0.0089	0.0012	*
Venus	-67307-09-28 16:04 J	-22862187.89	-22862187.83	-22862187.74	0.0089	0.0083	
Moon	-67306-09-17 03:49 J	-22861834.59	-22861834.34	-22861834.08	0.0089	0.0013	
Earth	-67306-09-17 07:25 J	-22861834.44	-22861834.19	-22861833.93	0.0089	0.0010	*
Earth	-67305-09-18 18:42 J	-22861466.97	-22861466.72	-22861466.46	0.0089	0.0005	
Moon	-67305-09-18 22:04 J	-22861466.83	-22861466.58	-22861466.32	0.0089	0.0002	*
Moon	-67304-09-21 02:37 J	-22861099.64	-22861099.39	-22861099.13	0.0089	0.0004	
Earth	-67304-09-21 06:28 J	-22861099.49	-22861099.23	-22861098.98	0.0089	0.0001	*
Earth	-67303-09-23 17:45 J	-22860732.01	-22860731.76	-22860731.50	0.0089	0.0006	
Moon	-67303-09-23 20:37 J	-22860731.90	-22860731.64	-22860731.38	0.0089	0.0009	*
Moon	-67302-09-26 03:21 J	-22860364.60	-22860364.36	-22860364.10	0.0089	0.0008	
Earth	-67302-09-26 05:30 J	-22860364.52	-22860364.27	-22860364.01	0.0089	0.0011	*

Earth	-67301-09-27 17:16 J	-22859997.03	-22859996.78	-22859996.53	0.0089	0.0016
Moon	-67301-09-27 18:13 J	-22859996.99	-22859996.74	-22859996.47	0.0089	0.0020 *
Earth	-67300-09-30 04:47 J	-22859629.54	-22859629.30	-22859629.04	0.0089	0.0022
Moon	-67300-09-30 05:30 J	-22859629.51	-22859629.27	-22859629.02	0.0089	0.0018 *
Moon	-67299-10-02 15:21 J	-22859262.10	-22859261.86	-22859261.60	0.0089	0.0030
Earth	-67299-10-02 16:47 J	-22859262.04	-22859261.80	-22859261.54	0.0089	0.0027 *
Earth	-67298-10-05 05:01 J	-22858894.53	-22858894.29	-22858894.04	0.0089	0.0032
Moon	-67298-10-05 07:25 J	-22858894.43	-22858894.19	-22858893.95	0.0089	0.0028 *
Moon	-67297-10-06 13:25 J	-22858527.15	-22858526.94	-22858526.69	0.0089	0.0041
Earth	-67297-10-06 17:16 J	-22858527.01	-22858526.78	-22858526.54	0.0089	0.0037 *
Earth	-67296-10-09 05:01 J	-22858159.50	-22858159.29	-22858159.04	0.0089	0.0043
Moon	-67296-10-09 08:23 J	-22858159.36	-22858159.15	-22858158.89	0.0089	0.0039 *
Moon	-67295-10-11 13:54 J	-22857792.11	-22857791.92	-22857791.70	0.0089	0.0052
Earth	-67295-10-11 17:30 J	-22857791.97	-22857791.77	-22857791.54	0.0089	0.0048 *
Earth	-67294-10-14 05:45 J	-22857424.45	-22857424.26	-22857424.04	0.0089	0.0053
Moon	-67294-10-14 08:37 J	-22857424.34	-22857424.14	-22857423.90	0.0089	0.0049 *
Moon	-67293-10-15 16:04 J	-22857056.99	-22857056.83	-22857056.63	0.0089	0.0062
Earth	-67293-10-15 17:59 J	-22857056.92	-22857056.75	-22857056.53	0.0089	0.0058 *
Earth	-67292-10-18 06:13 J	-22856689.39	-22856689.24	-22856689.03	0.0089	0.0063
Moon	-67292-10-18 07:54 J	-22856689.36	-22856689.17	-22856688.95	0.0089	0.0058 *
Earth	-67291-10-20 19:11 J	-22856321.86	-22856321.70	-22856321.52	0.0089	0.0067
Moon	-67291-10-20 19:11 J	-22856321.82	-22856321.70	-22856321.52	0.0089	0.0072 *
Moon	-67290-10-23 06:13 J	-22855954.39	-22855954.24	-22855954.04	0.0089	0.0068
Earth	-67290-10-23 07:40 J	-22855954.31	-22855954.18	-22855954.01	0.0089	0.0072 *
Earth	-67289-10-24 19:54 J	-22855586.77	-22855586.67	-22855586.51	0.0089	0.0077
Moon	-67289-10-24 22:33 J	-22855586.65	-22855586.56	-22855586.45	0.0089	0.0081 *
Moon	-67288-10-27 05:16 J	-22855219.38	-22855219.28	-22855219.12	0.0089	0.0077
Earth	-67288-10-27 08:52 J	-22855219.21	-22855219.13	-22855219.00	0.0089	0.0081 *
Earth	-67287-10-29 22:04 J	-22854851.65	-22854851.58	-22854851.51	0.0089	0.0085
Moon	-67286-11-01 06:57 J	-22854484.26	-22854484.21	-22854484.12	0.0089	0.0085

Mercury -67284-12-03 00:42 J -22853721.48 -22853721.47 -22853721.41 0.0089 0.0087
 Mercury -67283-03-01 04:47 J -22853633.38 -22853633.30 -22853633.21 0.0089 0.0079
 Mercury -67283-05-28 08:09 J -22853545.25 -22853545.16 -22853545.03 0.0089 0.0072
 Mercury -67283-08-24 12:13 J -22853457.12 -22853456.99 -22853456.85 0.0089 0.0064
 Mercury -67283-11-20 15:35 J -22853368.98 -22853368.85 -22853368.68 0.0089 0.0057
 Mercury -67282-02-16 19:40 J -22853280.84 -22853280.68 -22853280.52 0.0089 0.0049
 Mercury -67282-05-15 23:01 J -22853192.70 -22853192.54 -22853192.35 0.0089 0.0042
 Mercury -67282-08-12 03:06 J -22853104.55 -22853104.37 -22853104.19 0.0089 0.0034
 Mercury -67282-11-08 06:28 J -22853016.40 -22853016.23 -22853016.03 0.0089 0.0027
 Mercury -67281-02-04 10:18 J -22852928.25 -22852928.07 -22852927.87 0.0089 0.0019
 Mercury -67281-05-02 14:09 J -22852840.10 -22852839.91 -22852839.71 0.0089 0.0011
 Mercury -67281-07-29 17:59 J -22852751.95 -22852751.75 -22852751.56 0.0089 0.0004
 Mercury -67281-10-25 21:35 J -22852663.80 -22852663.60 -22852663.40 0.0089 0.0004
 Mercury -67280-01-22 01:11 J -22852575.64 -22852575.45 -22852575.25 0.0089 0.0012
 Mercury -67280-04-20 05:01 J -22852487.48 -22852487.29 -22852487.10 0.0089 0.0019
 Mercury -67280-07-17 08:37 J -22852399.32 -22852399.14 -22852398.95 0.0089 0.0027
 Mercury -67280-10-13 12:13 J -22852311.16 -22852310.99 -22852310.80 0.0089 0.0035
 Mercury -67279-01-09 16:04 J -22852223.00 -22852222.83 -22852222.65 0.0089 0.0042
 Mercury -67279-04-07 19:40 J -22852134.83 -22852134.68 -22852134.51 0.0089 0.0050
 Mercury -67279-07-04 23:30 J -22852046.66 -22852046.52 -22852046.36 0.0089 0.0057
 Mercury -67279-10-01 03:06 J -22851958.49 -22851958.37 -22851958.23 0.0089 0.0065
 Mercury -67279-12-28 07:11 J -22851870.32 -22851870.20 -22851870.09 0.0089 0.0072
 Mercury -67278-03-26 10:33 J -22851782.13 -22851782.06 -22851781.96 0.0089 0.0080
 Mercury -67278-06-22 13:54 J -22851693.92 -22851693.92 -22851693.86 0.0089 0.0088
 Saturn -67277-05-29 17:16 J -22851352.48 -22851351.78 -22851351.01 0.0089 0.0013
 Mars -67272-03-02 02:37 J -22849614.58 -22849614.39 -22849614.14 0.0088 0.0070
 Mars -67270-01-28 01:11 J -22848917.80 -22848917.45 -22848917.10 0.0088 0.0002
 Mars -67269-12-24 22:04 J -22848220.76 -22848220.58 -22848220.37 0.0088 0.0073
 Earth -67239-02-15 08:09 J -22837576.20 -22837576.16 -22837576.07 0.0088 0.0086
 Moon -67239-02-15 11:30 J -22837576.03 -22837576.02 -22837575.96 0.0088 0.0088

Moon	-67238-02-17 17:16 J	-22837208.86	-22837208.78	-22837208.63	0.0088	0.0079
Earth	-67238-02-17 21:06 J	-22837208.69	-22837208.62	-22837208.49	0.0088	0.0082 *
Earth	-67237-02-20 09:49 J	-22836841.19	-22836841.09	-22836840.94	0.0088	0.0077
Moon	-67237-02-20 13:40 J	-22836841.04	-22836840.93	-22836840.81	0.0088	0.0079 *
Moon	-67236-02-21 20:23 J	-22836473.78	-22836473.65	-22836473.47	0.0088	0.0070
Earth	-67236-02-21 23:01 J	-22836473.67	-22836473.54	-22836473.37	0.0088	0.0073 *
Earth	-67235-02-24 11:45 J	-22836106.15	-22836106.01	-22836105.82	0.0088	0.0068
Moon	-67235-02-24 13:54 J	-22836106.06	-22836105.92	-22836105.74	0.0088	0.0071 *
Earth	-67234-02-27 00:28 J	-22835738.64	-22835738.48	-22835738.27	0.0088	0.0064
Moon	-67234-02-27 00:13 J	-22835738.64	-22835738.49	-22835738.28	0.0088	0.0062 *
Moon	-67233-02-29 13:11 J	-22835371.14	-22835370.95	-22835370.75	0.0088	0.0061
Earth	-67233-02-29 13:25 J	-22835371.12	-22835370.94	-22835370.73	0.0088	0.0059 *
Earth	-67232-03-03 02:23 J	-22835003.60	-22835003.40	-22835003.18	0.0088	0.0053
Moon	-67232-03-03 04:04 J	-22835003.53	-22835003.33	-22835003.11	0.0088	0.0050 *
Moon	-67231-03-05 11:30 J	-22834636.21	-22834636.02	-22834635.78	0.0088	0.0052
Earth	-67231-03-05 14:52 J	-22834636.08	-22834635.88	-22834635.64	0.0088	0.0049 *
Earth	-67230-03-08 03:35 J	-22834268.57	-22834268.35	-22834268.12	0.0088	0.0043
Moon	-67230-03-08 06:42 J	-22834268.44	-22834268.22	-22834267.98	0.0088	0.0040 *
Moon	-67229-03-09 11:45 J	-22833901.22	-22833901.01	-22833900.76	0.0088	0.0043
Earth	-67229-03-09 15:49 J	-22833901.06	-22833900.84	-22833900.59	0.0088	0.0039 *
Venus	-67229-07-23 17:45 J	-22833764.88	-22833764.76	-22833764.63	0.0088	0.0073
Venus	-67228-03-06 06:28 J	-22833539.39	-22833539.23	-22833539.04	0.0088	0.0052
Earth	-67228-03-12 04:04 J	-22833533.56	-22833533.33	-22833533.08	0.0088	0.0034
Moon	-67228-03-12 07:25 J	-22833533.43	-22833533.19	-22833532.93	0.0088	0.0030 *
Venus	-67228-10-17 19:11 J	-22833313.89	-22833313.70	-22833313.48	0.0088	0.0033
Moon	-67227-03-14 13:25 J	-22833166.16	-22833165.94	-22833165.69	0.0088	0.0032
Earth	-67227-03-14 16:18 J	-22833166.05	-22833165.82	-22833165.56	0.0088	0.0029 *
Venus	-67227-05-31 08:23 J	-22833088.36	-22833088.15	-22833087.93	0.0088	0.0012
Venus	-67226-01-11 21:21 J	-22832862.82	-22832862.61	-22832862.39	0.0088	0.0009
Earth	-67226-03-17 04:18 J	-22832798.56	-22832798.32	-22832798.06	0.0088	0.0023

Moon	-67226-03-17 06:28 J	-22832798.48	-22832798.23	-22832797.96	0.0088	0.0019	*
Venus	-67226-08-25 10:18 J	-22832637.28	-22832637.07	-22832636.86	0.0088	0.0029	
Moon	-67225-03-18 16:04 J	-22832431.07	-22832430.83	-22832430.58	0.0088	0.0021	
Earth	-67225-03-18 16:18 J	-22832431.06	-22832430.82	-22832430.55	0.0088	0.0018	*
Venus	-67225-04-06 22:33 J	-22832411.73	-22832411.56	-22832411.36	0.0088	0.0049	
Venus	-67225-11-18 11:16 J	-22832186.15	-22832186.03	-22832185.88	0.0088	0.0069	
Moon	-67224-03-21 04:04 J	-22832063.59	-22832063.33	-22832063.06	0.0088	0.0009	
Earth	-67224-03-21 04:18 J	-22832063.57	-22832063.32	-22832063.05	0.0088	0.0013	*
Earth	-67223-03-23 16:18 J	-22831696.07	-22831695.82	-22831695.56	0.0088	0.0008	
Moon	-67223-03-23 17:59 J	-22831696.00	-22831695.75	-22831695.50	0.0088	0.0011	*
Moon	-67222-03-26 01:11 J	-22831328.71	-22831328.45	-22831328.18	0.0088	0.0002	
Earth	-67222-03-26 04:18 J	-22831328.58	-22831328.32	-22831328.06	0.0088	0.0002	*
Earth	-67221-03-27 15:49 J	-22830961.09	-22830960.84	-22830960.57	0.0088	0.0004	
Moon	-67221-03-27 19:11 J	-22830960.96	-22830960.70	-22830960.45	0.0088	0.0001	*
Moon	-67220-03-29 23:59 J	-22830593.75	-22830593.50	-22830593.24	0.0088	0.0013	
Earth	-67220-03-30 03:49 J	-22830593.59	-22830593.34	-22830593.08	0.0088	0.0008	*
Earth	-67219-04-01 15:35 J	-22830226.11	-22830225.85	-22830225.59	0.0088	0.0014	
Moon	-67219-04-01 18:57 J	-22830225.97	-22830225.71	-22830225.45	0.0088	0.0010	*
Moon	-67218-04-04 00:13 J	-22829858.73	-22829858.49	-22829858.24	0.0088	0.0023	
Earth	-67218-04-04 03:06 J	-22829858.62	-22829858.37	-22829858.12	0.0088	0.0019	*
Earth	-67217-04-05 14:37 J	-22829491.14	-22829490.89	-22829490.64	0.0088	0.0024	
Moon	-67217-04-05 16:33 J	-22829491.06	-22829490.81	-22829490.54	0.0088	0.0019	*
Moon	-67216-04-08 01:40 J	-22829123.66	-22829123.43	-22829123.20	0.0088	0.0033	
Earth	-67216-04-08 01:54 J	-22829123.66	-22829123.42	-22829123.17	0.0088	0.0029	*
Moon	-67215-04-10 12:57 J	-22828756.21	-22828755.96	-22828755.71	0.0088	0.0030	
Earth	-67215-04-10 12:42 J	-22828756.19	-22828755.97	-22828755.71	0.0088	0.0035	*
Earth	-67214-04-13 00:13 J	-22828388.72	-22828388.49	-22828388.26	0.0088	0.0039	
Moon	-67214-04-13 01:40 J	-22828388.63	-22828388.43	-22828388.20	0.0088	0.0044	*
Moon	-67213-04-14 08:09 J	-22828021.38	-22828021.16	-22828020.91	0.0088	0.0040	
Earth	-67213-04-14 11:16 J	-22828021.25	-22828021.03	-22828020.80	0.0088	0.0044	*

Earth -67212-04-16 22:04 J -22827653.78 -22827653.58 -22827653.35 0.0088 0.0049
 Moon -67212-04-17 00:57 J -22827653.64 -22827653.46 -22827653.23 0.0088 0.0054 *
 Moon -67211-04-19 05:30 J -22827286.47 -22827286.27 -22827286.05 0.0088 0.0049
 Earth -67211-04-19 09:06 J -22827286.31 -22827286.12 -22827285.90 0.0088 0.0054 *
 Earth -67210-04-21 19:40 J -22826918.85 -22826918.68 -22826918.46 0.0088 0.0059
 Moon -67210-04-21 23:01 J -22826918.71 -22826918.54 -22826918.34 0.0088 0.0063 *
 Moon -67209-04-23 04:04 J -22826551.50 -22826551.33 -22826551.12 0.0088 0.0059
 Earth -67209-04-23 06:57 J -22826551.38 -22826551.21 -22826551.02 0.0088 0.0063 *
 Earth -67208-04-25 17:30 J -22826183.91 -22826183.77 -22826183.58 0.0088 0.0068
 Moon -67208-04-25 19:40 J -22826183.82 -22826183.68 -22826183.51 0.0088 0.0072 *
 Moon -67207-04-28 04:18 J -22825816.46 -22825816.32 -22825816.14 0.0089 0.0068
 Earth -67207-04-28 04:33 J -22825816.44 -22825816.31 -22825816.14 0.0089 0.0072 *
 Moon -67206-04-30 14:52 J -22825448.98 -22825448.88 -22825448.75 0.0089 0.0080
 Earth -67206-04-30 15:21 J -22825448.97 -22825448.86 -22825448.71 0.0089 0.0076 *
 Earth -67205-05-02 01:40 J -22825081.50 -22825081.43 -22825081.29 0.0089 0.0081
 Moon -67205-05-02 04:04 J -22825081.44 -22825081.33 -22825081.19 0.0089 0.0076 *
 Moon -67204-05-04 09:35 J -22824714.10 -22824714.10 -22824714.07 0.0089 0.0088
 Earth -67204-05-04 12:57 J -22824714.03 -22824713.96 -22824713.88 0.0089 0.0084
 Earth -67203-05-06 23:16 J -22824346.55 -22824346.53 -22824346.50 0.0089 0.0088
 Moon -67203-05-07 02:09 J -22824346.47 -22824346.41 -22824346.31 0.0089 0.0084
 Mercury -67202-06-16 13:11 J -22823940.97 -22823940.95 -22823940.93 0.0089 0.0087
 Mercury -67202-09-12 14:23 J -22823852.94 -22823852.90 -22823852.85 0.0089 0.0082
 Mercury -67202-12-09 15:35 J -22823764.90 -22823764.85 -22823764.78 0.0089 0.0077
 Mercury -67201-03-06 17:01 J -22823676.86 -22823676.79 -22823676.71 0.0089 0.0072
 Mercury -67201-06-02 18:13 J -22823588.81 -22823588.74 -22823588.64 0.0089 0.0067
 Mercury -67201-08-29 19:40 J -22823500.77 -22823500.68 -22823500.58 0.0089 0.0061
 Mercury -67201-11-25 20:52 J -22823412.72 -22823412.63 -22823412.52 0.0089 0.0057
 Mercury -67200-02-21 22:04 J -22823324.67 -22823324.58 -22823324.46 0.0089 0.0052
 Mercury -67200-05-20 23:45 J -22823236.62 -22823236.51 -22823236.40 0.0089 0.0046
 Mercury -67200-08-17 00:57 J -22823148.57 -22823148.46 -22823148.34 0.0089 0.0041

Mercury -67200-11-13 02:23 J -22823060.52 -22823060.40 -22823060.28 0.0089 0.0036
 Mercury -67199-02-09 03:35 J -22822972.47 -22822972.35 -22822972.22 0.0089 0.0031
 Mercury -67199-05-08 05:01 J -22822884.42 -22822884.29 -22822884.16 0.0089 0.0026
 Mercury -67199-08-04 06:13 J -22822796.36 -22822796.24 -22822796.11 0.0089 0.0021
 Mercury -67199-10-31 07:40 J -22822708.31 -22822708.18 -22822708.05 0.0089 0.0015
 Mercury -67198-01-27 08:52 J -22822620.26 -22822620.13 -22822620.00 0.0089 0.0010
 Mercury -67198-04-25 10:18 J -22822532.21 -22822532.07 -22822531.94 0.0089 0.0006
 Mercury -67198-07-22 11:30 J -22822444.15 -22822444.02 -22822443.89 0.0089 0.0001
 Mercury -67198-10-18 12:57 J -22822356.10 -22822355.96 -22822355.83 0.0089 0.0006
 Mercury -67197-01-14 14:09 J -22822268.04 -22822267.91 -22822267.78 0.0089 0.0010
 Mercury -67197-04-11 15:21 J -22822179.99 -22822179.86 -22822179.73 0.0089 0.0015
 Mercury -67197-07-08 16:33 J -22822091.93 -22822091.81 -22822091.67 0.0089 0.0021
 Mercury -67197-10-04 17:59 J -22822003.87 -22822003.75 -22822003.62 0.0089 0.0026
 Mercury -67197-12-31 19:11 J -22821915.82 -22821915.70 -22821915.57 0.0089 0.0031
 Mercury -67196-03-29 20:37 J -22821827.76 -22821827.64 -22821827.52 0.0089 0.0036
 Mercury -67196-06-25 21:49 J -22821739.70 -22821739.59 -22821739.47 0.0089 0.0041
 Mercury -67196-09-21 23:16 J -22821651.64 -22821651.53 -22821651.42 0.0089 0.0046
 Mercury -67196-12-19 00:28 J -22821563.58 -22821563.48 -22821563.37 0.0089 0.0051
 Mercury -67195-03-17 01:54 J -22821475.52 -22821475.42 -22821475.32 0.0089 0.0056
 Mercury -67195-06-13 03:06 J -22821387.46 -22821387.37 -22821387.27 0.0089 0.0061
 Mercury -67195-09-09 04:04 J -22821299.40 -22821299.33 -22821299.23 0.0089 0.0067
 Mercury -67195-12-06 05:30 J -22821211.34 -22821211.27 -22821211.18 0.0089 0.0072
 Mercury -67194-03-04 06:42 J -22821123.27 -22821123.22 -22821123.14 0.0089 0.0077
 Mercury -67194-05-31 08:09 J -22821035.20 -22821035.16 -22821035.10 0.0089 0.0082
 Mercury -67194-08-27 09:21 J -22820947.12 -22820947.11 -22820947.07 0.0089 0.0087
 Mars -67191-12-16 20:37 J -22819739.72 -22819739.64 -22819739.50 0.0089 0.0082
 Mars -67189-11-09 02:23 J -22819046.65 -22819046.40 -22819046.12 0.0089 0.0026
 Mars -67187-10-03 08:37 J -22818353.39 -22818353.14 -22818352.86 0.0089 0.0030
 Mars -67185-08-26 13:40 J -22817659.98 -22817659.93 -22817659.85 0.0089 0.0086
 Moon -67159-08-09 22:18 J -22808180.63 -22808180.57 -22808180.45 0.0089 0.0083

Earth	-67159-08-10 01:40 J	-22808180.45	-22808180.43	-22808180.36	0.0089	0.0088	*
Earth	-67158-08-12 11:59 J	-22807813.07	-22807813.00	-22807812.89	0.0089	0.0083	
Moon	-67158-08-12 14:52 J	-22807812.90	-22807812.88	-22807812.79	0.0089	0.0088	*
Moon	-67157-08-13 20:09 J	-22807445.76	-22807445.66	-22807445.50	0.0089	0.0075	
Earth	-67157-08-13 22:33 J	-22807445.66	-22807445.56	-22807445.43	0.0089	0.0079	*
Jupiter	-67156-03-07 12:57 J	-22807240.49	-22807239.96	-22807239.41	0.0089	0.0005	
Earth	-67156-08-16 08:37 J	-22807078.25	-22807078.14	-22807077.98	0.0089	0.0075	
Moon	-67156-08-16 10:04 J	-22807078.20	-22807078.08	-22807077.96	0.0089	0.0079	*
Moon	-67155-08-18 19:11 J	-22806710.84	-22806710.70	-22806710.52	0.0089	0.0068	
Earth	-67155-08-18 19:40 J	-22806710.83	-22806710.68	-22806710.52	0.0089	0.0071	*
Moon	-67154-08-21 04:18 J	-22806343.46	-22806343.32	-22806343.14	0.0089	0.0070	
Earth	-67154-08-21 05:45 J	-22806343.40	-22806343.26	-22806343.07	0.0089	0.0067	*
Earth	-67153-08-22 16:33 J	-22805975.98	-22805975.81	-22805975.62	0.0089	0.0062	
Moon	-67153-08-22 19:11 J	-22805975.88	-22805975.70	-22805975.50	0.0089	0.0058	*
Moon	-67152-08-24 23:45 J	-22805608.68	-22805608.51	-22805608.30	0.0089	0.0061	
Earth	-67152-08-25 02:52 J	-22805608.55	-22805608.38	-22805608.16	0.0089	0.0057	*
Earth	-67151-08-27 13:25 J	-22805241.13	-22805240.94	-22805240.72	0.0089	0.0053	
Moon	-67151-08-27 17:01 J	-22805240.98	-22805240.79	-22805240.55	0.0089	0.0049	*
Moon	-67150-08-29 21:21 J	-22804873.81	-22804873.61	-22804873.40	0.0089	0.0051	
Earth	-67150-08-30 00:13 J	-22804873.69	-22804873.49	-22804873.26	0.0089	0.0048	*
Earth	-67149-08-31 11:16 J	-22804506.25	-22804506.03	-22804505.81	0.0089	0.0042	
Moon	-67149-08-31 13:54 J	-22804506.14	-22804505.92	-22804505.67	0.0089	0.0039	*
Moon	-67148-09-02 19:40 J	-22804138.87	-22804138.68	-22804138.44	0.0089	0.0043	
Earth	-67148-09-02 21:49 J	-22804138.81	-22804138.59	-22804138.35	0.0089	0.0038	*
Venus	-67147-09-04 06:57 J	-22803772.33	-22803772.21	-22803772.06	0.0089	0.0070	
Earth	-67147-09-05 08:52 J	-22803771.36	-22803771.13	-22803770.89	0.0089	0.0033	
Moon	-67147-09-05 08:52 J	-22803771.36	-22803771.13	-22803770.86	0.0089	0.0029	*
Venus	-67146-04-17 19:40 J	-22803546.84	-22803546.68	-22803546.47	0.0089	0.0050	
Earth	-67146-09-07 19:54 J	-22803403.91	-22803403.67	-22803403.42	0.0089	0.0027	
Moon	-67146-09-07 19:54 J	-22803403.88	-22803403.67	-22803403.42	0.0089	0.0031	*

Venus	-67146-11-29 08:52 J	-22803321.32	-22803321.13	-22803320.91	0.0089	0.0029
Venus	-67145-07-11 22:18 J	-22803095.79	-22803095.57	-22803095.35	0.0089	0.0008
Moon	-67145-09-09 05:01 J	-22803036.54	-22803036.29	-22803036.03	0.0089	0.0018
Earth	-67145-09-09 06:57 J	-22803036.45	-22803036.21	-22803035.96	0.0089	0.0022 *
Venus	-67144-02-22 11:16 J	-22802870.24	-22802870.03	-22802869.81	0.0089	0.0013
Earth	-67144-09-11 18:13 J	-22802668.99	-22802668.74	-22802668.48	0.0089	0.0017
Moon	-67144-09-11 20:52 J	-22802668.86	-22802668.63	-22802668.37	0.0089	0.0021 *
Venus	-67144-10-06 00:13 J	-22802644.68	-22802644.49	-22802644.28	0.0089	0.0033
Venus	-67143-05-19 13:11 J	-22802419.11	-22802418.95	-22802418.76	0.0089	0.0055
Moon	-67143-09-14 02:23 J	-22802301.65	-22802301.40	-22802301.14	0.0089	0.0008
Earth	-67143-09-14 05:30 J	-22802301.51	-22802301.27	-22802301.00	0.0089	0.0012 *
Venus	-67143-12-31 02:23 J	-22802193.50	-22802193.40	-22802193.27	0.0089	0.0075
Earth	-67142-09-16 17:01 J	-22801934.04	-22801933.79	-22801933.53	0.0089	0.0006
Moon	-67142-09-16 20:37 J	-22801933.89	-22801933.64	-22801933.38	0.0089	0.0011 *
Moon	-67141-09-18 01:25 J	-22801566.69	-22801566.44	-22801566.18	0.0089	0.0003
Earth	-67141-09-18 04:33 J	-22801566.56	-22801566.31	-22801566.05	0.0089	0.0002 *
Earth	-67140-09-20 15:49 J	-22801199.09	-22801198.84	-22801198.58	0.0089	0.0004
Moon	-67140-09-20 18:57 J	-22801198.97	-22801198.71	-22801198.45	0.0089	0.0002 *
Moon	-67139-09-23 01:40 J	-22800831.66	-22800831.43	-22800831.17	0.0089	0.0013
Earth	-67139-09-23 03:35 J	-22800831.61	-22800831.35	-22800831.10	0.0089	0.0009 *
Earth	-67138-09-25 14:52 J	-22800464.12	-22800463.88	-22800463.61	0.0089	0.0015
Moon	-67138-09-25 15:35 J	-22800464.12	-22800463.85	-22800463.59	0.0089	0.0011 *
Earth	-67137-09-27 02:23 J	-22800096.63	-22800096.40	-22800096.13	0.0089	0.0020
Moon	-67137-09-27 03:06 J	-22800096.61	-22800096.37	-22800096.12	0.0089	0.0022 *
Moon	-67136-09-29 11:59 J	-22799729.24	-22799729.00	-22799728.72	0.0089	0.0022
Earth	-67136-09-29 14:23 J	-22799729.14	-22799728.90	-22799728.64	0.0089	0.0025 *
Earth	-67135-10-02 02:09 J	-22799361.64	-22799361.41	-22799361.16	0.0089	0.0030
Moon	-67135-10-02 05:01 J	-22799361.51	-22799361.29	-22799361.05	0.0089	0.0033 *
Moon	-67134-10-04 10:33 J	-22798994.28	-22798994.06	-22798993.80	0.0089	0.0033
Earth	-67134-10-04 14:09 J	-22798994.14	-22798993.91	-22798993.67	0.0089	0.0035 *

Earth	-67133-10-06 02:09 J	-22798626.63	-22798626.41	-22798626.17	0.0089	0.0040
Moon	-67133-10-06 05:59 J	-22798626.47	-22798626.25	-22798626.02	0.0089	0.0043 *
Moon	-67132-10-08 11:01 J	-22798259.24	-22798259.04	-22798258.80	0.0089	0.0043
Earth	-67132-10-08 14:09 J	-22798259.11	-22798258.91	-22798258.67	0.0089	0.0046 *
Earth	-67131-10-11 02:52 J	-22797891.59	-22797891.38	-22797891.17	0.0089	0.0050
Moon	-67131-10-11 05:30 J	-22797891.47	-22797891.27	-22797891.04	0.0089	0.0052 *
Moon	-67130-10-13 13:25 J	-22797524.13	-22797523.94	-22797523.73	0.0089	0.0053
Earth	-67130-10-13 15:06 J	-22797524.06	-22797523.87	-22797523.66	0.0089	0.0055 *
Earth	-67129-10-15 03:21 J	-22797156.54	-22797156.36	-22797156.16	0.0089	0.0060
Moon	-67129-10-15 03:35 J	-22797156.52	-22797156.35	-22797156.14	0.0089	0.0062 *
Earth	-67128-10-17 15:35 J	-22796789.00	-22796788.85	-22796788.65	0.0089	0.0065
Moon	-67128-10-17 15:49 J	-22796788.99	-22796788.84	-22796788.64	0.0089	0.0064 *
Moon	-67127-10-20 01:54 J	-22796421.55	-22796421.42	-22796421.24	0.0089	0.0072
Earth	-67127-10-20 03:49 J	-22796421.47	-22796421.34	-22796421.14	0.0089	0.0070 *
Earth	-67126-10-22 16:33 J	-22796053.93	-22796053.81	-22796053.65	0.0089	0.0074
Moon	-67126-10-22 19:25 J	-22796053.82	-22796053.69	-22796053.53	0.0089	0.0072 *
Moon	-67125-10-24 01:40 J	-22795686.51	-22795686.43	-22795686.28	0.0089	0.0080
Earth	-67125-10-24 05:30 J	-22795686.38	-22795686.27	-22795686.14	0.0089	0.0078 *
Earth	-67124-10-26 17:30 J	-22795318.83	-22795318.77	-22795318.65	0.0089	0.0083
Moon	-67124-10-26 21:35 J	-22795318.69	-22795318.60	-22795318.48	0.0089	0.0081 *
Moon	-67123-10-29 03:35 J	-22794951.37	-22794951.35	-22794951.31	0.0089	0.0088
Earth	-67123-10-29 06:28 J	-22794951.26	-22794951.23	-22794951.15	0.0089	0.0087
Mercury	-67119-08-29 23:30 J	-22793550.57	-22793550.52	-22793550.45	0.0089	0.0084
Mercury	-67119-11-26 03:06 J	-22793462.45	-22793462.37	-22793462.26	0.0089	0.0077
Mercury	-67118-02-22 06:57 J	-22793374.32	-22793374.21	-22793374.08	0.0089	0.0069
Mercury	-67118-05-21 10:18 J	-22793286.19	-22793286.07	-22793285.91	0.0089	0.0062
Mercury	-67118-08-17 14:23 J	-22793198.05	-22793197.90	-22793197.74	0.0089	0.0054
Mercury	-67118-11-13 17:45 J	-22793109.91	-22793109.76	-22793109.58	0.0089	0.0047
Mercury	-67117-02-09 21:49 J	-22793021.76	-22793021.59	-22793021.41	0.0089	0.0039
Mercury	-67117-05-08 01:11 J	-22792933.62	-22792933.45	-22792933.25	0.0089	0.0032

Mercury -67117-08-04 05:01 J -22792845.47 -22792845.29 -22792845.09 0.0089 0.0024

Mercury -67117-10-31 08:52 J -22792757.32 -22792757.13 -22792756.93 0.0089 0.0016

Mercury -67116-01-27 12:42 J -22792669.17 -22792668.97 -22792668.78 0.0089 0.0009

Mercury -67116-04-25 16:18 J -22792581.01 -22792580.82 -22792580.62 0.0089 0.0001

Mercury -67116-07-22 20:09 J -22792492.86 -22792492.66 -22792492.47 0.0089 0.0007

Mercury -67116-10-18 23:30 J -22792404.70 -22792404.52 -22792404.31 0.0089 0.0015

Mercury -67115-01-15 03:21 J -22792316.54 -22792316.36 -22792316.16 0.0089 0.0022

Mercury -67115-04-13 06:57 J -22792228.38 -22792228.21 -22792228.01 0.0089 0.0030

Mercury -67115-07-10 10:47 J -22792140.22 -22792140.05 -22792139.86 0.0089 0.0037

Mercury -67115-10-06 14:23 J -22792052.06 -22792051.90 -22792051.72 0.0089 0.0045

Mercury -67114-01-02 17:59 J -22791963.89 -22791963.75 -22791963.57 0.0089 0.0053

Mercury -67114-03-31 21:49 J -22791875.72 -22791875.59 -22791875.43 0.0089 0.0060

Mercury -67114-06-28 01:25 J -22791787.55 -22791787.44 -22791787.30 0.0089 0.0068

Mercury -67114-09-24 05:30 J -22791699.37 -22791699.27 -22791699.16 0.0089 0.0075

Mercury -67114-12-21 08:52 J -22791611.18 -22791611.13 -22791611.04 0.0089 0.0083

Mars -67107-09-10 00:42 J -22789156.78 -22789156.47 -22789156.11 0.0088 0.0029

Mars -67105-08-06 22:47 J -22788459.85 -22788459.55 -22788459.23 0.0088 0.0042

Earth -67076-02-12 03:06 J -22778043.41 -22778043.37 -22778043.29 0.0088 0.0086

Moon -67076-02-12 07:25 J -22778043.29 -22778043.19 -22778043.09 0.0088 0.0081 *

Moon -67075-02-14 13:11 J -22777676.00 -22777675.95 -22777675.88 0.0088 0.0086

Earth -67075-02-14 16:04 J -22777675.90 -22777675.83 -22777675.70 0.0088 0.0082 *

Earth -67074-02-17 04:47 J -22777308.39 -22777308.30 -22777308.14 0.0088 0.0078

Moon -67074-02-17 08:09 J -22777308.28 -22777308.16 -22777307.98 0.0088 0.0074 *

Moon -67073-02-19 15:49 J -22776940.93 -22776940.84 -22776940.69 0.0088 0.0078

Earth -67073-02-19 18:13 J -22776940.87 -22776940.74 -22776940.58 0.0088 0.0073 *

Earth -67072-02-21 06:57 J -22776573.35 -22776573.21 -22776573.02 0.0088 0.0069

Moon -67072-02-21 07:54 J -22776573.33 -22776573.17 -22776572.96 0.0088 0.0065 *

Earth -67071-02-23 19:54 J -22776205.84 -22776205.67 -22776205.48 0.0088 0.0064

Moon -67071-02-23 19:40 J -22776205.83 -22776205.68 -22776205.50 0.0088 0.0067 *

Moon -67070-02-26 07:11 J -22775838.40 -22775838.20 -22775837.98 0.0088 0.0055

Earth	-67070-02-26 08:23 J	-22775838.32	-22775838.15	-22775837.93	0.0088	0.0060	*
Earth	-67069-02-28 21:06 J	-22775470.80	-22775470.62	-22775470.39	0.0088	0.0055	
Moon	-67069-02-28 23:30 J	-22775470.69	-22775470.52	-22775470.31	0.0088	0.0058	*
Moon	-67068-03-02 07:11 J	-22775103.41	-22775103.20	-22775102.96	0.0088	0.0046	
Earth	-67068-03-02 10:04 J	-22775103.28	-22775103.08	-22775102.84	0.0088	0.0050	*
Earth	-67067-03-04 22:47 J	-22774735.76	-22774735.55	-22774735.31	0.0088	0.0044	
Moon	-67067-03-05 02:37 J	-22774735.59	-22774735.39	-22774735.16	0.0088	0.0048	*
Moon	-67066-03-07 08:23 J	-22774368.39	-22774368.15	-22774367.91	0.0088	0.0036	
Earth	-67066-03-07 11:30 J	-22774368.24	-22774368.02	-22774367.77	0.0088	0.0039	*
Earth	-67065-03-08 23:59 J	-22774000.72	-22774000.50	-22774000.24	0.0088	0.0035	
Moon	-67065-03-09 03:35 J	-22774000.58	-22774000.35	-22774000.10	0.0088	0.0037	*
Venus	-67065-10-25 03:49 J	-22773770.40	-22773770.34	-22773770.23	0.0088	0.0081	
Moon	-67064-03-11 10:33 J	-22773633.30	-22773633.06	-22773632.81	0.0088	0.0026	
Earth	-67064-03-11 12:42 J	-22773633.20	-22773632.97	-22773632.71	0.0088	0.0029	*
Venus	-67064-06-07 17:16 J	-22773544.93	-22773544.78	-22773544.61	0.0088	0.0060	
Venus	-67063-01-19 06:13 J	-22773319.42	-22773319.24	-22773319.03	0.0088	0.0040	
Earth	-67063-03-14 00:57 J	-22773265.70	-22773265.46	-22773265.20	0.0088	0.0024	
Moon	-67063-03-14 02:37 J	-22773265.65	-22773265.39	-22773265.13	0.0088	0.0027	*
Venus	-67063-09-01 19:25 J	-22773093.90	-22773093.69	-22773093.47	0.0088	0.0020	
Moon	-67062-03-16 12:42 J	-22772898.21	-22772897.97	-22772897.71	0.0088	0.0017	
Earth	-67062-03-16 13:11 J	-22772898.19	-22772897.95	-22772897.68	0.0088	0.0019	*
Venus	-67062-04-15 08:23 J	-22772868.37	-22772868.15	-22772867.93	0.0088	0.0001	
Venus	-67062-11-26 20:52 J	-22772642.83	-22772642.63	-22772642.40	0.0088	0.0022	
Moon	-67061-03-17 23:59 J	-22772530.75	-22772530.50	-22772530.22	0.0088	0.0017	
Earth	-67061-03-18 01:40 J	-22772530.69	-22772530.43	-22772530.18	0.0088	0.0014	*
Venus	-67061-07-09 09:35 J	-22772417.28	-22772417.10	-22772416.89	0.0088	0.0042	
Venus	-67060-02-19 22:33 J	-22772191.71	-22772191.56	-22772191.39	0.0088	0.0061	
Earth	-67060-03-20 13:40 J	-22772163.19	-22772162.93	-22772162.67	0.0088	0.0009	
Moon	-67060-03-20 15:35 J	-22772163.10	-22772162.85	-22772162.59	0.0088	0.0006	*
Venus	-67060-10-03 11:16 J	-22771966.10	-22771966.03	-22771965.94	0.0088	0.0082	

Moon	-67059-03-22 22:33 J	-22771795.82	-22771795.56	-22771795.29	0.0088	0.0007
Earth	-67059-03-23 01:40 J	-22771795.69	-22771795.43	-22771795.17	0.0088	0.0004 *
Earth	-67058-03-25 13:11 J	-22771428.20	-22771427.95	-22771427.68	0.0088	0.0003
Moon	-67058-03-25 17:01 J	-22771428.05	-22771427.79	-22771427.53	0.0088	0.0005 *
Moon	-67057-03-26 21:49 J	-22771060.84	-22771060.59	-22771060.33	0.0088	0.0004
Earth	-67057-03-27 01:11 J	-22771060.70	-22771060.45	-22771060.18	0.0088	0.0007 *
Earth	-67056-03-29 12:57 J	-22770693.21	-22770692.96	-22770692.70	0.0088	0.0012
Moon	-67056-03-29 16:33 J	-22770693.07	-22770692.81	-22770692.55	0.0088	0.0014 *
Moon	-67055-03-31 22:18 J	-22770325.81	-22770325.57	-22770325.32	0.0088	0.0014
Earth	-67055-04-01 00:28 J	-22770325.72	-22770325.48	-22770325.21	0.0088	0.0017 *
Earth	-67054-04-03 12:13 J	-22769958.23	-22769957.99	-22769957.73	0.0088	0.0022
Moon	-67054-04-03 13:54 J	-22769958.18	-22769957.92	-22769957.66	0.0088	0.0024 *
Moon	-67053-04-04 23:30 J	-22769590.75	-22769590.52	-22769590.28	0.0088	0.0026
Earth	-67053-04-04 23:45 J	-22769590.74	-22769590.51	-22769590.25	0.0088	0.0028 *
Moon	-67052-04-07 10:04 J	-22769223.31	-22769223.08	-22769222.82	0.0088	0.0035
Earth	-67052-04-07 11:16 J	-22769223.25	-22769223.03	-22769222.77	0.0088	0.0033 *
Earth	-67051-04-09 22:33 J	-22768855.77	-22768855.56	-22768855.30	0.0088	0.0038
Moon	-67051-04-10 00:42 J	-22768855.68	-22768855.47	-22768855.22	0.0088	0.0036 *
Moon	-67050-04-12 07:11 J	-22768488.42	-22768488.20	-22768487.96	0.0088	0.0044
Earth	-67050-04-12 09:49 J	-22768488.29	-22768488.09	-22768487.84	0.0088	0.0043 *
Earth	-67049-04-13 21:21 J	-22768120.82	-22768120.61	-22768120.38	0.0088	0.0047
Moon	-67049-04-14 00:57 J	-22768120.67	-22768120.46	-22768120.23	0.0088	0.0045 *
Moon	-67048-04-16 04:47 J	-22767753.48	-22767753.30	-22767753.08	0.0088	0.0053
Earth	-67048-04-16 08:23 J	-22767753.35	-22767753.15	-22767752.93	0.0088	0.0052 *
Earth	-67047-04-18 18:57 J	-22767385.89	-22767385.71	-22767385.49	0.0088	0.0056
Moon	-67047-04-18 22:18 J	-22767385.75	-22767385.57	-22767385.34	0.0088	0.0056 *
Moon	-67046-04-21 03:49 J	-22767018.49	-22767018.34	-22767018.14	0.0088	0.0063
Earth	-67046-04-21 05:59 J	-22767018.42	-22767018.25	-22767018.04	0.0088	0.0061 *
Earth	-67045-04-22 16:47 J	-22766650.95	-22766650.80	-22766650.60	0.0088	0.0066
Moon	-67045-04-22 18:42 J	-22766650.90	-22766650.72	-22766650.54	0.0088	0.0064 *

Moon -67044-04-25 03:35 J -22766283.49 -22766283.35 -22766283.19 0.0089 0.0071
 Earth -67044-04-25 03:35 J -22766283.48 -22766283.35 -22766283.17 0.0089 0.0070 *
 Moon -67043-04-27 13:11 J -22765916.10 -22765915.95 -22765915.79 0.0089 0.0072
 Earth -67043-04-27 14:37 J -22765916.02 -22765915.89 -22765915.74 0.0089 0.0074 *
 Earth -67042-04-30 01:25 J -22765548.55 -22765548.44 -22765548.31 0.0089 0.0078
 Moon -67042-04-30 03:06 J -22765548.45 -22765548.37 -22765548.23 0.0089 0.0080 *
 Moon -67041-05-01 09:06 J -22765181.21 -22765181.12 -22765181.01 0.0089 0.0081
 Earth -67041-05-01 12:13 J -22765181.07 -22765180.99 -22765180.89 0.0089 0.0082 *
 Earth -67040-05-03 22:47 J -22764813.60 -22764813.55 -22764813.48 0.0089 0.0086
 Moon -67040-05-04 01:54 J -22764813.43 -22764813.42 -22764813.34 0.0089 0.0088
 Mercury -67037-03-12 12:28 J -22763769.99 -22763769.98 -22763769.93 0.0089 0.0086
 Mercury -67037-06-08 14:09 J -22763681.96 -22763681.91 -22763681.85 0.0089 0.0080
 Mercury -67037-09-04 15:35 J -22763593.92 -22763593.85 -22763593.78 0.0089 0.0075
 Mercury -67037-12-01 16:47 J -22763505.88 -22763505.80 -22763505.72 0.0089 0.0070
 Mercury -67036-02-27 17:59 J -22763417.83 -22763417.75 -22763417.65 0.0089 0.0065
 Mercury -67036-05-26 19:25 J -22763329.78 -22763329.69 -22763329.59 0.0089 0.0060
 Mercury -67036-08-22 20:37 J -22763241.73 -22763241.64 -22763241.53 0.0089 0.0055
 Mercury -67036-11-18 22:04 J -22763153.68 -22763153.58 -22763153.47 0.0089 0.0049
 Mercury -67035-02-14 23:16 J -22763065.63 -22763065.53 -22763065.41 0.0089 0.0045
 Mercury -67035-05-14 00:42 J -22762977.58 -22762977.47 -22762977.35 0.0089 0.0039
 Mercury -67035-08-10 02:09 J -22762889.53 -22762889.41 -22762889.29 0.0089 0.0034
 Mercury -67035-11-06 03:21 J -22762801.48 -22762801.36 -22762801.23 0.0089 0.0029
 Mercury -67034-02-02 04:47 J -22762713.43 -22762713.30 -22762713.17 0.0089 0.0024
 Mercury -67034-05-01 05:59 J -22762625.38 -22762625.25 -22762625.12 0.0089 0.0019
 Mercury -67034-07-28 07:11 J -22762537.32 -22762537.20 -22762537.06 0.0089 0.0014
 Mercury -67034-10-24 08:37 J -22762449.27 -22762449.14 -22762449.01 0.0089 0.0008
 Mercury -67033-01-20 09:49 J -22762361.22 -22762361.09 -22762360.95 0.0089 0.0005
 Mercury -67033-04-17 11:16 J -22762273.16 -22762273.03 -22762272.90 0.0089 0.0002
 Mercury -67033-07-14 12:28 J -22762185.11 -22762184.98 -22762184.84 0.0089 0.0007
 Mercury -67033-10-10 13:54 J -22762097.05 -22762096.92 -22762096.79 0.0089 0.0012

Mercury -67032-01-06 15:06 J -22762009.00 -22762008.87 -22762008.74 0.0089 0.0017

Mercury -67032-04-04 16:18 J -22761920.94 -22761920.82 -22761920.69 0.0089 0.0023

Mercury -67032-07-01 17:45 J -22761832.88 -22761832.76 -22761832.63 0.0089 0.0027

Mercury -67032-09-27 18:57 J -22761744.83 -22761744.71 -22761744.58 0.0089 0.0033

Mercury -67032-12-24 20:09 J -22761656.77 -22761656.66 -22761656.53 0.0089 0.0038

Mercury -67031-03-22 21:35 J -22761568.71 -22761568.60 -22761568.48 0.0089 0.0043

Mercury -67031-06-18 22:47 J -22761480.65 -22761480.55 -22761480.43 0.0089 0.0048

Mercury -67031-09-15 00:13 J -22761392.59 -22761392.49 -22761392.38 0.0089 0.0053

Mercury -67031-12-12 01:25 J -22761304.53 -22761304.44 -22761304.34 0.0089 0.0058

Mercury -67030-03-10 02:52 J -22761216.47 -22761216.38 -22761216.29 0.0089 0.0063

Mercury -67030-06-06 04:04 J -22761128.41 -22761128.33 -22761128.24 0.0089 0.0068

Mercury -67030-09-02 05:30 J -22761040.34 -22761040.27 -22761040.20 0.0089 0.0073

Mercury -67030-11-29 06:28 J -22760952.28 -22760952.23 -22760952.16 0.0089 0.0079

Mercury -67029-02-25 07:40 J -22760864.21 -22760864.18 -22760864.12 0.0089 0.0084

Mercury -67029-05-23 09:06 J -22760776.12 -22760776.12 -22760776.10 0.0089 0.0089

Mars -67025-06-24 23:30 J -22759282.72 -22759282.52 -22759282.26 0.0089 0.0050

Mars -67023-05-19 05:30 J -22758589.55 -22758589.27 -22758588.99 0.0089 0.0006

Mars -67021-04-11 12:13 J -22757896.19 -22757895.99 -22757895.79 0.0089 0.0061

67TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 67th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Moon	-66996-08-06 22:47 J	-22748647.61	-22748647.55	-22748647.47	0.0089	0.0085
Earth	-66996-08-07 01:54 J	-22748647.44	-22748647.42	-22748647.34	0.0089	0.0087
Earth	-66995-08-09 11:59 J	-22748280.06	-22748280.00	-22748279.89	0.0089	0.0084
Moon	-66995-08-09 14:37 J	-22748279.95	-22748279.89	-22748279.78	0.0089	0.0085 *
Moon	-66994-08-11 20:23 J	-22747912.74	-22747912.65	-22747912.50	0.0089	0.0078
Earth	-66994-08-11 22:18 J	-22747912.66	-22747912.57	-22747912.43	0.0089	0.0080 *
Earth	-66993-08-13 08:23 J	-22747545.26	-22747545.15	-22747544.99	0.0089	0.0075
Moon	-66993-08-13 09:49 J	-22747545.22	-22747545.09	-22747544.96	0.0089	0.0077 *
Earth	-66992-08-15 18:42 J	-22747177.85	-22747177.72	-22747177.54	0.0089	0.0071
Moon	-66992-08-15 19:40 J	-22747177.80	-22747177.68	-22747177.50	0.0089	0.0070 *
Moon	-66991-08-18 03:49 J	-22746810.50	-22746810.34	-22746810.16	0.0089	0.0068
Earth	-66991-08-18 05:30 J	-22746810.42	-22746810.27	-22746810.09	0.0089	0.0066 *
Earth	-66990-08-20 15:49 J	-22746443.00	-22746442.84	-22746442.64	0.0089	0.0062
Moon	-66990-08-20 18:28 J	-22746442.89	-22746442.73	-22746442.52	0.0089	0.0060 *
Moon	-66989-08-21 23:01 J	-22746075.72	-22746075.54	-22746075.33	0.0089	0.0059
Earth	-66989-08-22 02:37 J	-22746075.57	-22746075.39	-22746075.18	0.0089	0.0057 *
Earth	-66988-08-24 12:42 J	-22745708.15	-22745707.97	-22745707.74	0.0089	0.0054
Moon	-66988-08-24 16:33 J	-22745708.01	-22745707.81	-22745707.59	0.0089	0.0051 *
Moon	-66987-08-26 20:23 J	-22745340.84	-22745340.65	-22745340.43	0.0089	0.0050
Earth	-66987-08-26 23:30 J	-22745340.71	-22745340.52	-22745340.28	0.0089	0.0049 *
Earth	-66986-08-29 10:18 J	-22744973.27	-22744973.07	-22744972.83	0.0089	0.0043
Moon	-66986-08-29 12:42 J	-22744973.19	-22744972.97	-22744972.72	0.0089	0.0041 *
Moon	-66985-08-30 19:40 J	-22744605.89	-22744605.68	-22744605.45	0.0089	0.0041
Earth	-66985-08-30 21:06 J	-22744605.84	-22744605.62	-22744605.38	0.0089	0.0038 *
Earth	-66984-09-02 07:54 J	-22744238.40	-22744238.17	-22744237.92	0.0089	0.0033
Moon	-66984-09-02 08:09 J	-22744238.39	-22744238.16	-22744237.90	0.0089	0.0031 *
Earth	-66983-09-04 18:57 J	-22743870.95	-22743870.71	-22743870.47	0.0089	0.0028
Moon	-66983-09-04 20:09 J	-22743870.88	-22743870.66	-22743870.42	0.0089	0.0030 *
Venus	-66983-12-06 17:59 J	-22743777.85	-22743777.75	-22743777.65	0.0089	0.0079
Venus	-66982-07-20 06:28 J	-22743552.38	-22743552.23	-22743552.05	0.0089	0.0058

Moon	-66982-09-07 03:35 J	-22743503.60	-22743503.35	-22743503.09	0.0089	0.0021
Earth	-66982-09-07 05:45 J	-22743503.50	-22743503.26	-22743503.01	0.0089	0.0023 *
Venus	-66981-03-01 19:40 J	-22743326.87	-22743326.68	-22743326.48	0.0089	0.0037
Earth	-66981-09-08 16:33 J	-22743136.05	-22743135.81	-22743135.55	0.0089	0.0019
Moon	-66981-09-08 19:40 J	-22743135.92	-22743135.68	-22743135.43	0.0089	0.0021 *
Venus	-66981-10-13 08:37 J	-22743101.35	-22743101.14	-22743100.92	0.0089	0.0017
Venus	-66980-05-26 21:49 J	-22742875.81	-22742875.59	-22742875.37	0.0089	0.0004
Moon	-66980-09-11 00:13 J	-22742768.74	-22742768.49	-22742768.23	0.0089	0.0011
Earth	-66980-09-11 03:49 J	-22742768.59	-22742768.34	-22742768.08	0.0089	0.0013 *
Venus	-66979-01-07 10:33 J	-22742650.26	-22742650.06	-22742649.84	0.0089	0.0025
Venus	-66979-08-20 23:30 J	-22742424.69	-22742424.52	-22742424.32	0.0089	0.0046
Earth	-66979-09-13 14:52 J	-22742401.13	-22742400.88	-22742400.62	0.0089	0.0008
Moon	-66979-09-13 18:13 J	-22742400.98	-22742400.74	-22742400.47	0.0089	0.0012 *
Venus	-66978-04-03 12:42 J	-22742199.11	-22742198.97	-22742198.81	0.0089	0.0066
Moon	-66978-09-15 23:16 J	-22742033.78	-22742033.53	-22742033.28	0.0089	0.0000
Earth	-66978-09-16 02:23 J	-22742033.65	-22742033.40	-22742033.14	0.0089	0.0003 *
Venus	-66978-11-15 01:40 J	-22741973.46	-22741973.43	-22741973.37	0.0089	0.0087
Earth	-66977-09-17 13:40 J	-22741666.18	-22741665.93	-22741665.67	0.0089	0.0003
Moon	-66977-09-17 15:49 J	-22741666.10	-22741665.84	-22741665.57	0.0089	0.0001 *
Moon	-66976-09-19 23:45 J	-22741298.75	-22741298.51	-22741298.26	0.0089	0.0011
Earth	-66976-09-20 01:11 J	-22741298.70	-22741298.45	-22741298.19	0.0089	0.0008 *
Earth	-66975-09-22 12:42 J	-22740931.22	-22740930.97	-22740930.71	0.0089	0.0013
Moon	-66975-09-22 12:42 J	-22740931.22	-22740930.97	-22740930.69	0.0089	0.0010 *
Earth	-66974-09-24 23:59 J	-22740563.74	-22740563.50	-22740563.24	0.0089	0.0018
Moon	-66974-09-25 01:25 J	-22740563.67	-22740563.44	-22740563.19	0.0089	0.0021 *
Moon	-66973-09-26 09:35 J	-22740196.35	-22740196.10	-22740195.84	0.0089	0.0020
Earth	-66973-09-26 11:45 J	-22740196.25	-22740196.01	-22740195.76	0.0089	0.0023 *
Earth	-66972-09-28 23:16 J	-22739828.77	-22739828.53	-22739828.28	0.0089	0.0028
Moon	-66972-09-29 02:09 J	-22739828.63	-22739828.41	-22739828.16	0.0089	0.0032 *
Moon	-66971-10-01 07:40 J	-22739461.42	-22739461.18	-22739460.94	0.0089	0.0030

Earth	-66971-10-01 11:01 J	-22739461.27	-22739461.04	-22739460.79	0.0089	0.0033	*
Earth	-66970-10-03 22:47 J	-22739093.78	-22739093.55	-22739093.31	0.0089	0.0038	
Moon	-66970-10-04 02:09 J	-22739093.63	-22739093.41	-22739093.17	0.0089	0.0042	*
Moon	-66969-10-05 07:11 J	-22738726.41	-22738726.20	-22738725.96	0.0089	0.0040	
Earth	-66969-10-05 10:33 J	-22738726.27	-22738726.06	-22738725.82	0.0089	0.0043	*
Earth	-66968-10-07 22:33 J	-22738358.77	-22738358.56	-22738358.34	0.0089	0.0048	
Moon	-66968-10-08 00:13 J	-22738358.68	-22738358.49	-22738358.25	0.0089	0.0052	*
Moon	-66967-10-10 09:06 J	-22737991.31	-22737991.12	-22737990.89	0.0089	0.0050	
Earth	-66967-10-10 10:33 J	-22737991.25	-22737991.06	-22737990.84	0.0089	0.0053	*
Earth	-66966-10-12 22:33 J	-22737623.73	-22737623.56	-22737623.34	0.0089	0.0058	
Moon	-66966-10-12 22:33 J	-22737623.73	-22737623.56	-22737623.34	0.0089	0.0062	*
Earth	-66965-10-14 10:47 J	-22737256.21	-22737256.05	-22737255.84	0.0089	0.0063	
Moon	-66965-10-14 12:42 J	-22737256.15	-22737255.97	-22737255.78	0.0089	0.0059	*
Moon	-66964-10-16 21:21 J	-22736888.75	-22736888.61	-22736888.43	0.0089	0.0071	
Earth	-66964-10-16 23:45 J	-22736888.67	-22736888.51	-22736888.33	0.0089	0.0067	*
Earth	-66963-10-19 11:45 J	-22736521.14	-22736521.01	-22736520.84	0.0089	0.0072	
Moon	-66963-10-19 14:52 J	-22736521.02	-22736520.88	-22736520.69	0.0089	0.0068	*
Moon	-66962-10-21 20:52 J	-22736153.72	-22736153.63	-22736153.50	0.0089	0.0080	
Earth	-66962-10-22 00:28 J	-22736153.59	-22736153.48	-22736153.33	0.0089	0.0076	*
Earth	-66961-10-23 12:42 J	-22735786.05	-22735785.97	-22735785.84	0.0089	0.0081	
Moon	-66961-10-23 16:33 J	-22735785.93	-22735785.81	-22735785.66	0.0089	0.0076	*
Earth	-66960-10-26 01:25 J	-22735418.49	-22735418.44	-22735418.34	0.0089	0.0085	
Earth	-66959-10-28 14:23 J	-22735050.90	-22735050.90	-22735050.87	0.0089	0.0089	
Moon	-66959-10-28 16:47 J	-22735050.87	-22735050.80	-22735050.71	0.0089	0.0084	*
Mercury	-66954-05-26 21:35 J	-22733379.66	-22733379.60	-22733379.51	0.0089	0.0082	
Mercury	-66954-08-23 01:11 J	-22733291.54	-22733291.45	-22733291.33	0.0089	0.0075	
Mercury	-66954-11-19 05:01 J	-22733203.41	-22733203.29	-22733203.15	0.0089	0.0067	
Mercury	-66953-02-15 08:37 J	-22733115.27	-22733115.14	-22733114.98	0.0089	0.0060	
Mercury	-66953-05-13 12:28 J	-22733027.13	-22733026.98	-22733026.82	0.0089	0.0052	
Mercury	-66953-08-09 16:04 J	-22732938.99	-22732938.83	-22732938.65	0.0089	0.0045	

Mercury -66953-11-05 19:54 J -22732850.84 -22732850.67 -22732850.49 0.0089 0.0037
 Mercury -66952-02-01 23:30 J -22732762.70 -22732762.52 -22732762.33 0.0089 0.0029
 Mercury -66952-05-01 03:21 J -22732674.55 -22732674.36 -22732674.17 0.0089 0.0022
 Mercury -66952-07-28 06:57 J -22732586.40 -22732586.21 -22732586.01 0.0089 0.0014
 Mercury -66952-10-24 10:47 J -22732498.25 -22732498.05 -22732497.85 0.0089 0.0006
 Mercury -66951-01-20 14:23 J -22732410.09 -22732409.90 -22732409.70 0.0089 0.0002
 Mercury -66951-04-18 18:13 J -22732321.94 -22732321.74 -22732321.54 0.0089 0.0009
 Mercury -66951-07-15 21:49 J -22732233.78 -22732233.59 -22732233.39 0.0089 0.0016
 Mercury -66951-10-12 01:40 J -22732145.62 -22732145.43 -22732145.24 0.0089 0.0024
 Mercury -66950-01-08 05:16 J -22732057.46 -22732057.28 -22732057.09 0.0089 0.0032
 Mercury -66950-04-06 08:52 J -22731969.30 -22731969.13 -22731968.94 0.0089 0.0039
 Mercury -66950-07-03 12:42 J -22731881.13 -22731880.97 -22731880.80 0.0089 0.0047
 Mercury -66950-09-29 16:18 J -22731792.96 -22731792.82 -22731792.66 0.0089 0.0055
 Mercury -66950-12-26 19:54 J -22731704.79 -22731704.67 -22731704.51 0.0089 0.0063
 Mercury -66949-03-23 23:45 J -22731616.62 -22731616.51 -22731616.38 0.0089 0.0070
 Mercury -66949-06-20 03:21 J -22731528.44 -22731528.36 -22731528.25 0.0089 0.0078
 Mercury -66949-09-16 07:25 J -22731440.24 -22731440.19 -22731440.13 0.0089 0.0085
 Mars -66943-04-22 23:16 J -22729395.79 -22729395.53 -22729395.27 0.0089 0.0060
 Mars -66941-03-19 21:35 J -22728698.94 -22728698.60 -22728698.24 0.0088 0.0011
 Mars -66939-02-14 18:28 J -22728001.85 -22728001.73 -22728001.56 0.0088 0.0081
 Earth -66913-02-09 20:37 J -22718510.68 -22718510.64 -22718510.55 0.0088 0.0086
 Moon -66913-02-10 00:13 J -22718510.54 -22718510.49 -22718510.39 0.0088 0.0084
 Moon -66912-02-11 06:42 J -22718143.29 -22718143.22 -22718143.11 0.0088 0.0082
 Earth -66912-02-11 10:04 J -22718143.16 -22718143.08 -22718142.96 0.0088 0.0082 *
 Earth -66911-02-13 23:01 J -22717775.64 -22717775.54 -22717775.39 0.0088 0.0078
 Moon -66911-02-14 01:40 J -22717775.54 -22717775.43 -22717775.27 0.0088 0.0076 *
 Moon -66910-02-16 10:47 J -22717408.17 -22717408.05 -22717407.90 0.0088 0.0074
 Earth -66910-02-16 12:57 J -22717408.11 -22717407.96 -22717407.81 0.0088 0.0073 *
 Earth -66909-02-19 01:40 J -22717040.58 -22717040.43 -22717040.25 0.0088 0.0068
 Moon -66909-02-19 02:23 J -22717040.56 -22717040.40 -22717040.21 0.0088 0.0067 *

Earth	-66908-02-20 14:52 J	-22716673.06	-22716672.88	-22716672.70	0.0088	0.0064
Moon	-66908-02-20 15:21 J	-22716673.01	-22716672.86	-22716672.67	0.0088	0.0065 *
Moon	-66907-02-23 01:54 J	-22716305.61	-22716305.42	-22716305.20	0.0088	0.0058
Earth	-66907-02-23 03:21 J	-22716305.53	-22716305.36	-22716305.15	0.0088	0.0060 *
Earth	-66906-02-25 16:18 J	-22715938.02	-22715937.82	-22715937.61	0.0088	0.0055
Moon	-66906-02-25 19:11 J	-22715937.89	-22715937.70	-22715937.50	0.0088	0.0057 *
Moon	-66905-02-28 01:40 J	-22715570.64	-22715570.43	-22715570.20	0.0088	0.0049
Earth	-66905-02-28 04:47 J	-22715570.49	-22715570.30	-22715570.06	0.0088	0.0050 *
Earth	-66904-03-01 17:30 J	-22715202.97	-22715202.77	-22715202.52	0.0088	0.0045
Moon	-66904-03-01 21:35 J	-22715202.82	-22715202.60	-22715202.38	0.0088	0.0048 *
Moon	-66903-03-04 02:52 J	-22714835.61	-22714835.38	-22714835.14	0.0088	0.0038
Earth	-66903-03-04 06:13 J	-22714835.46	-22714835.24	-22714834.99	0.0088	0.0040 *
Earth	-66902-03-06 18:42 J	-22714467.94	-22714467.72	-22714467.46	0.0088	0.0036
Moon	-66902-03-06 21:35 J	-22714467.83	-22714467.60	-22714467.34	0.0088	0.0038 *
Moon	-66901-03-08 05:30 J	-22714100.50	-22714100.27	-22714100.02	0.0088	0.0027
Earth	-66901-03-08 07:40 J	-22714100.42	-22714100.18	-22714099.93	0.0088	0.0030 *
Earth	-66900-03-10 19:54 J	-22713732.90	-22713732.67	-22713732.40	0.0088	0.0026
Moon	-66900-03-10 20:52 J	-22713732.87	-22713732.63	-22713732.36	0.0088	0.0028 *
Venus	-66900-09-09 03:06 J	-22713550.49	-22713550.37	-22713550.21	0.0088	0.0069
Earth	-66899-03-13 08:23 J	-22713365.39	-22713365.15	-22713364.88	0.0088	0.0021
Moon	-66899-03-13 09:21 J	-22713365.35	-22713365.11	-22713364.86	0.0088	0.0018 *
Venus	-66899-04-22 16:33 J	-22713324.99	-22713324.81	-22713324.62	0.0088	0.0049
Venus	-66899-12-04 05:30 J	-22713099.47	-22713099.27	-22713099.06	0.0088	0.0028
Moon	-66898-03-15 19:25 J	-22712997.94	-22712997.69	-22712997.41	0.0088	0.0018
Earth	-66898-03-15 20:52 J	-22712997.88	-22712997.63	-22712997.36	0.0088	0.0015 *
Venus	-66898-07-17 18:28 J	-22712873.94	-22712873.73	-22712873.50	0.0088	0.0008
Venus	-66897-02-28 07:25 J	-22712648.41	-22712648.19	-22712647.97	0.0088	0.0012
Earth	-66897-03-17 09:21 J	-22712630.37	-22712630.11	-22712629.85	0.0088	0.0010
Moon	-66897-03-17 11:59 J	-22712630.25	-22712630.00	-22712629.75	0.0088	0.0006 *
Venus	-66897-10-10 20:09 J	-22712422.86	-22712422.66	-22712422.45	0.0088	0.0033

Moon	-66896-03-19 17:59 J	-22712263.01	-22712262.75	-22712262.48	0.0088	0.0008
Earth	-66896-03-19 21:35 J	-22712262.86	-22712262.60	-22712262.34	0.0088	0.0005 *
Venus	-66896-05-24 08:37 J	-22712197.29	-22712197.14	-22712196.94	0.0088	0.0053
Venus	-66895-01-04 21:35 J	-22711971.70	-22711971.60	-22711971.46	0.0088	0.0073
Earth	-66895-03-22 09:21 J	-22711895.37	-22711895.11	-22711894.85	0.0088	0.0000
Moon	-66895-03-22 12:42 J	-22711895.22	-22711894.97	-22711894.71	0.0088	0.0005 *
Moon	-66894-03-24 17:45 J	-22711528.02	-22711527.76	-22711527.50	0.0088	0.0002
Earth	-66894-03-24 21:21 J	-22711527.87	-22711527.61	-22711527.35	0.0088	0.0006 *
Earth	-66893-03-26 09:06 J	-22711160.37	-22711160.12	-22711159.86	0.0088	0.0011
Moon	-66893-03-26 11:45 J	-22711160.26	-22711160.01	-22711159.74	0.0088	0.0014 *
Moon	-66892-03-28 18:28 J	-22710792.97	-22710792.73	-22710792.47	0.0088	0.0012
Earth	-66892-03-28 20:52 J	-22710792.88	-22710792.63	-22710792.37	0.0088	0.0016 *
Earth	-66891-03-31 08:37 J	-22710425.39	-22710425.14	-22710424.88	0.0088	0.0021
Moon	-66891-03-31 09:21 J	-22710425.35	-22710425.11	-22710424.84	0.0088	0.0025 *
Earth	-66890-04-02 20:23 J	-22710057.90	-22710057.65	-22710057.40	0.0088	0.0026
Moon	-66890-04-02 20:52 J	-22710057.87	-22710057.63	-22710057.39	0.0088	0.0022 *
Moon	-66889-04-04 06:28 J	-22709690.46	-22709690.23	-22709689.97	0.0088	0.0035
Earth	-66889-04-04 07:54 J	-22709690.40	-22709690.17	-22709689.92	0.0088	0.0031 *
Earth	-66888-04-06 19:25 J	-22709322.91	-22709322.69	-22709322.44	0.0088	0.0036
Moon	-66888-04-06 22:18 J	-22709322.80	-22709322.57	-22709322.33	0.0088	0.0032 *
Moon	-66887-04-09 03:49 J	-22708955.56	-22708955.34	-22708955.11	0.0088	0.0044
Earth	-66887-04-09 06:57 J	-22708955.43	-22708955.21	-22708954.97	0.0088	0.0041 *
Earth	-66886-04-11 18:13 J	-22708587.94	-22708587.74	-22708587.50	0.0088	0.0046
Moon	-66886-04-11 22:18 J	-22708587.80	-22708587.57	-22708587.35	0.0088	0.0041 *
Moon	-66885-04-13 02:09 J	-22708220.59	-22708220.41	-22708220.19	0.0088	0.0055
Earth	-66885-04-13 06:13 J	-22708220.45	-22708220.24	-22708220.03	0.0088	0.0050 *
Earth	-66884-04-15 17:01 J	-22707852.98	-22707852.79	-22707852.58	0.0088	0.0055
Moon	-66884-04-15 19:40 J	-22707852.88	-22707852.68	-22707852.45	0.0088	0.0051 *
Moon	-66883-04-18 01:40 J	-22707485.58	-22707485.43	-22707485.23	0.0088	0.0064
Earth	-66883-04-18 04:18 J	-22707485.50	-22707485.32	-22707485.12	0.0088	0.0059 *

Earth -66882-04-20 15:06 J -22707118.03 -22707117.87 -22707117.68 0.0088 0.0064
 Moon -66882-04-20 16:18 J -22707118.02 -22707117.82 -22707117.62 0.0088 0.0059 *
 Earth -66881-04-22 02:09 J -22706750.56 -22706750.41 -22706750.23 0.0088 0.0068
 Moon -66881-04-22 02:37 J -22706750.52 -22706750.39 -22706750.23 0.0088 0.0072 *
 Moon -66880-04-24 11:30 J -22706383.17 -22706383.02 -22706382.83 0.0088 0.0068
 Earth -66880-04-24 13:11 J -22706383.09 -22706382.95 -22706382.80 0.0088 0.0072 *
 Earth -66879-04-26 23:59 J -22706015.63 -22706015.50 -22706015.37 0.0089 0.0076
 Moon -66879-04-27 02:23 J -22706015.48 -22706015.40 -22706015.28 0.0089 0.0081 *
 Moon -66878-04-29 07:40 J -22705648.31 -22705648.18 -22705648.05 0.0089 0.0076
 Earth -66878-04-29 10:18 J -22705648.15 -22705648.07 -22705647.93 0.0089 0.0081 *
 Earth -66877-04-30 21:21 J -22705280.67 -22705280.61 -22705280.52 0.0089 0.0084
 Moon -66876-05-03 04:18 J -22704913.38 -22704913.32 -22704913.21 0.0089 0.0084
 Earth -66876-05-03 07:54 J -22704913.18 -22704913.17 -22704913.12 0.0089 0.0088
 Mercury -66873-12-07 12:28 J -22703599.02 -22703598.98 -22703598.93 0.0089 0.0084
 Mercury -66872-03-05 13:40 J -22703510.98 -22703510.93 -22703510.86 0.0089 0.0079
 Mercury -66872-06-01 14:52 J -22703422.94 -22703422.88 -22703422.79 0.0089 0.0074
 Mercury -66872-08-28 16:18 J -22703334.89 -22703334.82 -22703334.73 0.0089 0.0069
 Mercury -66872-11-24 17:59 J -22703246.85 -22703246.75 -22703246.66 0.0089 0.0063
 Mercury -66871-02-20 19:11 J -22703158.80 -22703158.70 -22703158.60 0.0089 0.0058
 Mercury -66871-05-19 20:23 J -22703070.75 -22703070.65 -22703070.54 0.0089 0.0053
 Mercury -66871-08-15 21:35 J -22702982.70 -22702982.60 -22702982.48 0.0089 0.0048
 Mercury -66871-11-11 23:01 J -22702894.65 -22702894.54 -22702894.42 0.0089 0.0043
 Mercury -66870-02-08 00:13 J -22702806.60 -22702806.49 -22702806.36 0.0089 0.0038
 Mercury -66870-05-07 01:40 J -22702718.55 -22702718.43 -22702718.30 0.0089 0.0032
 Mercury -66870-08-03 03:06 J -22702630.50 -22702630.37 -22702630.25 0.0089 0.0027
 Mercury -66870-10-30 04:18 J -22702542.44 -22702542.32 -22702542.19 0.0089 0.0022
 Mercury -66869-01-26 05:45 J -22702454.39 -22702454.26 -22702454.13 0.0089 0.0017
 Mercury -66869-04-23 06:57 J -22702366.34 -22702366.21 -22702366.08 0.0089 0.0012
 Mercury -66869-07-20 08:23 J -22702278.29 -22702278.15 -22702278.02 0.0089 0.0007
 Mercury -66869-10-16 09:35 J -22702190.23 -22702190.10 -22702189.97 0.0089 0.0002

Mercury -66868-01-12 10:47 J -22702102.18 -22702102.05 -22702101.91 0.0089 0.0005
 Mercury -66868-04-10 12:13 J -22702014.12 -22702013.99 -22702013.86 0.0089 0.0009
 Mercury -66868-07-07 13:25 J -22701926.07 -22701925.94 -22701925.81 0.0089 0.0014
 Mercury -66868-10-03 14:52 J -22701838.01 -22701837.88 -22701837.75 0.0089 0.0019
 Mercury -66868-12-30 16:04 J -22701749.95 -22701749.83 -22701749.70 0.0089 0.0024
 Mercury -66867-03-28 17:16 J -22701661.90 -22701661.78 -22701661.65 0.0089 0.0029
 Mercury -66867-06-24 18:28 J -22701573.84 -22701573.73 -22701573.60 0.0089 0.0035
 Mercury -66867-09-20 19:54 J -22701485.78 -22701485.67 -22701485.55 0.0089 0.0039
 Mercury -66867-12-17 21:06 J -22701397.73 -22701397.62 -22701397.50 0.0089 0.0045
 Mercury -66866-03-15 22:18 J -22701309.67 -22701309.57 -22701309.45 0.0089 0.0050
 Mercury -66866-06-11 23:45 J -22701221.61 -22701221.51 -22701221.40 0.0089 0.0055
 Mercury -66866-09-08 00:57 J -22701133.55 -22701133.46 -22701133.35 0.0089 0.0060
 Mercury -66866-12-05 02:23 J -22701045.48 -22701045.40 -22701045.31 0.0089 0.0065
 Mercury -66865-03-02 03:35 J -22700957.42 -22700957.35 -22700957.26 0.0089 0.0070
 Mercury -66865-05-29 05:01 J -22700869.36 -22700869.29 -22700869.22 0.0089 0.0075
 Mercury -66865-08-25 06:13 J -22700781.29 -22700781.24 -22700781.18 0.0089 0.0080
 Mercury -66865-11-21 07:40 J -22700693.21 -22700693.18 -22700693.15 0.0089 0.0085
 Mars -66861-02-08 20:52 J -22699518.77 -22699518.63 -22699518.46 0.0089 0.0073
 Mars -66859-01-02 01:54 J -22698825.70 -22698825.42 -22698825.15 0.0089 0.0018
 Mars -66858-11-26 06:13 J -22698132.49 -22698132.24 -22698131.97 0.0089 0.0037
 Moon -66834-08-02 19:40 J -22689481.72 -22689481.68 -22689481.58 0.0089 0.0086
 Earth -66833-08-04 01:54 J -22689114.44 -22689114.42 -22689114.33 0.0089 0.0087
 Earth -66832-08-06 11:59 J -22688747.06 -22688747.00 -22688746.89 0.0089 0.0083
 Moon -66832-08-06 14:37 J -22688746.98 -22688746.89 -22688746.74 0.0089 0.0079 *
 Moon -66831-08-08 20:52 J -22688379.69 -22688379.63 -22688379.53 0.0089 0.0084
 Earth -66831-08-08 22:04 J -22688379.67 -22688379.58 -22688379.44 0.0089 0.0080 *
 Moon -66830-08-11 08:09 J -22688012.29 -22688012.16 -22688011.98 0.0089 0.0071
 Earth -66830-08-11 08:09 J -22688012.27 -22688012.16 -22688012.00 0.0089 0.0076 *
 Earth -66829-08-12 18:13 J -22687644.87 -22687644.74 -22687644.57 0.0089 0.0071
 Moon -66829-08-12 19:25 J -22687644.81 -22687644.69 -22687644.56 0.0089 0.0075 *

Moon	-66828-08-15 01:54 J	-22687277.58	-22687277.42	-22687277.21	0.0089	0.0062
Earth	-66828-08-15 04:18 J	-22687277.46	-22687277.32	-22687277.13	0.0089	0.0067 *
Earth	-66827-08-17 14:52 J	-22686910.05	-22686909.88	-22686909.69	0.0089	0.0062
Moon	-66827-08-17 17:30 J	-22686909.91	-22686909.77	-22686909.58	0.0089	0.0067 *
Moon	-66826-08-19 21:49 J	-22686542.78	-22686542.59	-22686542.38	0.0089	0.0054
Earth	-66826-08-20 01:11 J	-22686542.63	-22686542.45	-22686542.24	0.0089	0.0058 *
Earth	-66825-08-21 11:30 J	-22686175.21	-22686175.02	-22686174.80	0.0089	0.0053
Moon	-66825-08-21 14:52 J	-22686175.05	-22686174.88	-22686174.66	0.0089	0.0058 *
Moon	-66824-08-23 19:40 J	-22685807.89	-22685807.68	-22685807.46	0.0089	0.0044
Earth	-66824-08-23 22:04 J	-22685807.77	-22685807.58	-22685807.35	0.0089	0.0049 *
Earth	-66823-08-26 08:37 J	-22685440.34	-22685440.14	-22685439.90	0.0089	0.0044
Moon	-66823-08-26 11:01 J	-22685440.23	-22685440.04	-22685439.79	0.0089	0.0048 *
Moon	-66822-08-28 18:28 J	-22685072.94	-22685072.73	-22685072.49	0.0089	0.0035
Earth	-66822-08-28 19:25 J	-22685072.91	-22685072.69	-22685072.45	0.0089	0.0039 *
Moon	-66821-08-30 05:45 J	-22684705.49	-22684705.26	-22684705.01	0.0089	0.0038
Earth	-66821-08-30 06:13 J	-22684705.47	-22684705.24	-22684705.00	0.0089	0.0034 *
Earth	-66820-09-01 17:01 J	-22684338.03	-22684337.79	-22684337.55	0.0089	0.0029
Moon	-66820-09-01 18:13 J	-22684337.97	-22684337.74	-22684337.50	0.0089	0.0025 *
Moon	-66819-09-04 00:42 J	-22683970.70	-22683970.47	-22683970.21	0.0089	0.0029
Earth	-66819-09-04 03:35 J	-22683970.58	-22683970.35	-22683970.09	0.0089	0.0024 *
Venus	-66818-03-10 03:21 J	-22683783.37	-22683783.36	-22683783.30	0.0089	0.0088
Earth	-66818-09-06 14:37 J	-22683603.14	-22683602.89	-22683602.64	0.0089	0.0019
Moon	-66818-09-06 17:45 J	-22683603.01	-22683602.76	-22683602.51	0.0089	0.0015 *
Venus	-66818-10-21 16:33 J	-22683557.94	-22683557.81	-22683557.66	0.0089	0.0067
Venus	-66817-06-03 05:16 J	-22683332.45	-22683332.28	-22683332.07	0.0089	0.0047
Moon	-66817-09-07 21:49 J	-22683235.84	-22683235.59	-22683235.33	0.0089	0.0018
Earth	-66817-09-08 01:25 J	-22683235.69	-22683235.44	-22683235.18	0.0089	0.0014 *
Venus	-66816-01-14 18:28 J	-22683106.93	-22683106.73	-22683106.51	0.0089	0.0026
Venus	-66816-08-28 07:25 J	-22682881.40	-22682881.19	-22682880.97	0.0089	0.0006
Earth	-66816-09-10 12:13 J	-22682868.24	-22682867.99	-22682867.73	0.0089	0.0010

Moon	-66816-09-10 15:49 J	-22682868.10	-22682867.84	-22682867.58	0.0089	0.0005	*
Venus	-66815-04-10 20:23 J	-22682655.86	-22682655.65	-22682655.43	0.0089	0.0015	
Moon	-66815-09-12 20:52 J	-22682500.88	-22682500.63	-22682500.38	0.0089	0.0008	
Earth	-66815-09-12 23:30 J	-22682500.77	-22682500.52	-22682500.26	0.0089	0.0004	*
Venus	-66815-11-22 09:06 J	-22682430.31	-22682430.12	-22682429.91	0.0089	0.0036	
Venus	-66814-07-05 22:04 J	-22682204.73	-22682204.58	-22682204.39	0.0089	0.0057	
Earth	-66814-09-15 10:33 J	-22682133.32	-22682133.06	-22682132.80	0.0089	0.0001	
Moon	-66814-09-15 12:42 J	-22682133.23	-22682132.97	-22682132.70	0.0089	0.0005	*
Venus	-66813-02-16 11:01 J	-22681979.12	-22681979.04	-22681978.91	0.0089	0.0078	
Moon	-66813-09-16 21:21 J	-22681765.86	-22681765.61	-22681765.36	0.0089	0.0002	
Earth	-66813-09-16 21:49 J	-22681765.84	-22681765.59	-22681765.33	0.0089	0.0006	*
Moon	-66812-09-19 08:37 J	-22681398.39	-22681398.14	-22681397.87	0.0089	0.0015	
Earth	-66812-09-19 09:21 J	-22681398.36	-22681398.11	-22681397.85	0.0089	0.0011	*
Earth	-66811-09-21 20:37 J	-22681030.88	-22681030.64	-22681030.38	0.0089	0.0017	
Moon	-66811-09-21 22:04 J	-22681030.82	-22681030.58	-22681030.33	0.0089	0.0013	*
Moon	-66810-09-24 05:01 J	-22680663.52	-22680663.29	-22680663.02	0.0089	0.0026	
Earth	-66810-09-24 08:09 J	-22680663.40	-22680663.16	-22680662.90	0.0089	0.0022	*
Earth	-66809-09-25 19:40 J	-22680295.91	-22680295.68	-22680295.42	0.0089	0.0027	
Moon	-66809-09-25 23:01 J	-22680295.78	-22680295.54	-22680295.29	0.0089	0.0023	*
Moon	-66808-09-28 03:49 J	-22679928.57	-22679928.34	-22679928.10	0.0089	0.0035	
Earth	-66808-09-28 07:11 J	-22679928.42	-22679928.20	-22679927.94	0.0089	0.0032	*
Earth	-66807-09-30 18:57 J	-22679560.93	-22679560.71	-22679560.46	0.0089	0.0037	
Moon	-66807-09-30 22:33 J	-22679560.79	-22679560.56	-22679560.31	0.0089	0.0033	*
Moon	-66806-10-03 03:49 J	-22679193.53	-22679193.34	-22679193.10	0.0089	0.0045	
Earth	-66806-10-03 06:28 J	-22679193.43	-22679193.23	-22679192.98	0.0089	0.0042	*
Earth	-66805-10-04 18:42 J	-22678825.93	-22678825.72	-22678825.50	0.0089	0.0046	
Moon	-66805-10-04 20:23 J	-22678825.85	-22678825.65	-22678825.39	0.0089	0.0044	*
Moon	-66804-10-07 05:45 J	-22678458.43	-22678458.26	-22678458.04	0.0089	0.0055	
Earth	-66804-10-07 06:28 J	-22678458.43	-22678458.23	-22678458.01	0.0089	0.0051	*
Moon	-66803-10-09 17:45 J	-22678090.96	-22678090.76	-22678090.53	0.0089	0.0053	

Earth -66803-10-09 18:13 J -22678090.92 -22678090.74 -22678090.52 0.0089 0.0056 *
 Earth -66802-10-12 05:59 J -22677723.41 -22677723.25 -22677723.03 0.0089 0.0061
 Moon -66802-10-12 07:54 J -22677723.33 -22677723.17 -22677722.99 0.0089 0.0063 *
 Moon -66801-10-13 15:21 J -22677356.03 -22677355.86 -22677355.65 0.0089 0.0062
 Earth -66801-10-13 18:42 J -22677355.89 -22677355.72 -22677355.54 0.0089 0.0065 *
 Earth -66800-10-16 06:28 J -22676988.36 -22676988.23 -22676988.04 0.0089 0.0070
 Moon -66800-10-16 10:18 J -22676988.22 -22676988.07 -22676987.92 0.0089 0.0072 *
 Moon -66799-10-18 15:21 J -22676620.99 -22676620.86 -22676620.68 0.0089 0.0072
 Earth -66799-10-18 19:11 J -22676620.82 -22676620.70 -22676620.54 0.0089 0.0074 *
 Earth -66798-10-21 07:54 J -22676253.29 -22676253.17 -22676253.05 0.0089 0.0078
 Moon -66798-10-21 11:01 J -22676253.13 -22676253.04 -22676252.92 0.0089 0.0081 *
 Moon -66797-10-22 17:01 J -22675885.86 -22675885.79 -22675885.65 0.0089 0.0081
 Earth -66797-10-22 19:54 J -22675885.73 -22675885.67 -22675885.55 0.0089 0.0083 *
 Earth -66796-10-25 08:23 J -22675518.17 -22675518.15 -22675518.06 0.0089 0.0087
 Moon -66796-10-25 11:01 J -22675518.05 -22675518.04 -22675517.98 0.0089 0.0088
 Moon -66795-10-27 20:37 J -22675150.64 -22675150.64 -22675150.60 0.0089 0.0089
 Mercury -66790-11-24 15:49 J -22673296.85 -22673296.84 -22673296.81 0.0089 0.0088
 Mercury -66789-02-20 19:11 J -22673208.75 -22673208.70 -22673208.60 0.0089 0.0081
 Mercury -66789-05-18 23:16 J -22673120.63 -22673120.53 -22673120.42 0.0089 0.0073
 Mercury -66789-08-15 02:37 J -22673032.50 -22673032.39 -22673032.24 0.0089 0.0066
 Mercury -66789-11-11 06:42 J -22672944.37 -22672944.22 -22672944.07 0.0089 0.0058
 Mercury -66788-02-07 10:04 J -22672856.23 -22672856.08 -22672855.91 0.0089 0.0051
 Mercury -66788-05-06 13:54 J -22672768.08 -22672767.92 -22672767.74 0.0089 0.0043
 Mercury -66788-08-02 17:30 J -22672679.94 -22672679.77 -22672679.58 0.0089 0.0036
 Mercury -66788-10-29 21:21 J -22672591.79 -22672591.61 -22672591.42 0.0089 0.0028
 Mercury -66787-01-26 00:57 J -22672503.64 -22672503.46 -22672503.26 0.0089 0.0020
 Mercury -66787-04-24 04:47 J -22672415.49 -22672415.30 -22672415.10 0.0089 0.0013
 Mercury -66787-07-21 08:23 J -22672327.34 -22672327.15 -22672326.95 0.0089 0.0006
 Mercury -66787-10-17 12:13 J -22672239.19 -22672238.99 -22672238.79 0.0089 0.0003
 Mercury -66786-01-13 15:49 J -22672151.03 -22672150.84 -22672150.64 0.0089 0.0010

Mercury -66786-04-11 19:40 J -22672062.87 -22672062.68 -22672062.49 0.0089 0.0018

Mercury -66786-07-08 23:16 J -22671974.71 -22671974.53 -22671974.34 0.0089 0.0025

Mercury -66786-10-05 03:06 J -22671886.55 -22671886.37 -22671886.19 0.0089 0.0033

Mercury -66785-01-01 06:42 J -22671798.39 -22671798.22 -22671798.04 0.0089 0.0041

Mercury -66785-03-29 10:04 J -22671710.23 -22671710.08 -22671709.90 0.0089 0.0049

Mercury -66785-06-25 14:09 J -22671622.06 -22671621.91 -22671621.75 0.0089 0.0056

Mercury -66785-09-21 17:45 J -22671533.89 -22671533.76 -22671533.61 0.0089 0.0064

Mercury -66785-12-18 21:06 J -22671445.71 -22671445.62 -22671445.48 0.0089 0.0072

Mercury -66784-03-17 01:11 J -22671357.53 -22671357.45 -22671357.35 0.0089 0.0079

Mercury -66784-06-13 04:47 J -22671269.32 -22671269.30 -22671269.24 0.0089 0.0087

Mars -66778-10-31 16:18 J -22668938.15 -22668937.82 -22668937.46 0.0088 0.0022

Mars -66776-09-27 14:37 J -22668241.17 -22668240.89 -22668240.58 0.0088 0.0049

Moon -66751-02-03 20:09 J -22659345.73 -22659345.66 -22659345.59 0.0088 0.0085

Earth -66750-02-06 12:57 J -22658978.01 -22658977.96 -22658977.89 0.0088 0.0086

Moon -66749-02-08 23:16 J -22658610.63 -22658610.53 -22658610.39 0.0088 0.0078

Earth -66749-02-09 02:23 J -22658610.49 -22658610.40 -22658610.29 0.0088 0.0082 *

Earth -66748-02-10 15:21 J -22658242.97 -22658242.86 -22658242.72 0.0088 0.0078

Moon -66748-02-10 18:13 J -22658242.83 -22658242.74 -22658242.63 0.0088 0.0082 *

Moon -66747-02-13 03:35 J -22657875.48 -22657875.35 -22657875.16 0.0088 0.0069

Earth -66747-02-13 04:33 J -22657875.43 -22657875.31 -22657875.14 0.0088 0.0074 *

Earth -66746-02-15 18:13 J -22657507.89 -22657507.74 -22657507.57 0.0088 0.0069

Moon -66746-02-15 17:59 J -22657507.89 -22657507.75 -22657507.58 0.0088 0.0073 *

Earth -66745-02-18 07:11 J -22657140.36 -22657140.20 -22657140.00 0.0088 0.0065

Moon -66745-02-18 08:09 J -22657140.32 -22657140.16 -22657139.95 0.0088 0.0060 *

Moon -66744-02-19 17:30 J -22656772.93 -22656772.77 -22656772.56 0.0088 0.0065

Earth -66744-02-19 20:37 J -22656772.82 -22656772.64 -22656772.44 0.0088 0.0060 *

Earth -66743-02-22 09:06 J -22656405.30 -22656405.12 -22656404.89 0.0088 0.0055

Moon -66743-02-22 11:59 J -22656405.18 -22656405.00 -22656404.76 0.0088 0.0052 *

Moon -66742-02-24 18:57 J -22656037.91 -22656037.71 -22656037.50 0.0088 0.0055

Earth -66742-02-24 22:18 J -22656037.77 -22656037.57 -22656037.34 0.0088 0.0050 *

Earth	-66741-02-27 11:16 J	-22655670.25	-22655670.03	-22655669.80	0.0088	0.0046
Moon	-66741-02-27 14:37 J	-22655670.10	-22655669.89	-22655669.64	0.0088	0.0041 *
Moon	-66740-02-28 20:23 J	-22655302.84	-22655302.65	-22655302.40	0.0088	0.0046
Earth	-66740-03-01 00:13 J	-22655302.73	-22655302.49	-22655302.26	0.0088	0.0041 *
Earth	-66739-03-03 12:13 J	-22654935.21	-22654934.99	-22654934.73	0.0088	0.0037
Moon	-66739-03-03 15:06 J	-22654935.10	-22654934.87	-22654934.60	0.0088	0.0033 *
Moon	-66738-03-05 23:59 J	-22654567.72	-22654567.50	-22654567.25	0.0088	0.0036
Earth	-66738-03-06 01:11 J	-22654567.68	-22654567.45	-22654567.19	0.0088	0.0031 *
Earth	-66737-03-07 13:40 J	-22654200.16	-22654199.93	-22654199.66	0.0088	0.0027
Moon	-66737-03-07 14:09 J	-22654200.16	-22654199.91	-22654199.64	0.0088	0.0023 *
Earth	-66736-03-10 02:23 J	-22653832.64	-22653832.40	-22653832.14	0.0088	0.0021
Moon	-66736-03-10 03:21 J	-22653832.60	-22653832.36	-22653832.12	0.0088	0.0025 *
Venus	-66736-12-11 12:42 J	-22653556.06	-22653555.97	-22653555.86	0.0088	0.0079
Moon	-66735-03-12 12:42 J	-22653465.24	-22653464.97	-22653464.70	0.0088	0.0012
Earth	-66735-03-12 14:52 J	-22653465.12	-22653464.88	-22653464.61	0.0088	0.0016 *
Venus	-66735-07-25 01:40 J	-22653330.58	-22653330.43	-22653330.25	0.0088	0.0058
Venus	-66734-03-07 15:06 J	-22653105.07	-22653104.87	-22653104.67	0.0088	0.0038
Earth	-66734-03-15 03:21 J	-22653097.60	-22653097.36	-22653097.09	0.0088	0.0012
Moon	-66734-03-15 06:13 J	-22653097.48	-22653097.24	-22653096.98	0.0088	0.0015 *
Venus	-66734-10-19 03:49 J	-22652879.55	-22652879.34	-22652879.11	0.0088	0.0018
Moon	-66733-03-16 12:42 J	-22652730.24	-22652729.97	-22652729.71	0.0088	0.0002
Earth	-66733-03-16 16:04 J	-22652730.08	-22652729.83	-22652729.56	0.0088	0.0006 *
Venus	-66733-05-31 17:01 J	-22652654.01	-22652653.79	-22652653.57	0.0088	0.0003
Venus	-66732-01-12 05:59 J	-22652428.46	-22652428.25	-22652428.03	0.0088	0.0024
Earth	-66732-03-19 04:18 J	-22652362.58	-22652362.32	-22652362.06	0.0088	0.0001
Moon	-66732-03-19 07:54 J	-22652362.43	-22652362.17	-22652361.91	0.0088	0.0005 *
Venus	-66732-08-25 18:57 J	-22652202.90	-22652202.71	-22652202.51	0.0088	0.0044
Moon	-66731-03-21 13:25 J	-22651995.20	-22651994.94	-22651994.69	0.0088	0.0008
Earth	-66731-03-21 16:33 J	-22651995.07	-22651994.81	-22651994.55	0.0088	0.0005 *
Venus	-66731-04-08 07:25 J	-22651977.32	-22651977.19	-22651977.02	0.0088	0.0064

Venus	-66731-11-19 20:09 J	-22651751.70	-22651751.66	-22651751.58	0.0088	0.0085
Earth	-66730-03-24 04:33 J	-22651627.56	-22651627.31	-22651627.05	0.0088	0.0010
Moon	-66730-03-24 07:40 J	-22651627.45	-22651627.18	-22651626.92	0.0088	0.0006 *
Moon	-66729-03-25 14:52 J	-22651260.11	-22651259.88	-22651259.62	0.0088	0.0019
Earth	-66729-03-25 16:33 J	-22651260.06	-22651259.81	-22651259.55	0.0088	0.0014 *
Earth	-66728-03-28 04:18 J	-22650892.57	-22650892.32	-22650892.06	0.0088	0.0019
Moon	-66728-03-28 05:01 J	-22650892.56	-22650892.29	-22650892.03	0.0088	0.0017 *
Earth	-66727-03-30 15:49 J	-22650525.08	-22650524.84	-22650524.58	0.0088	0.0025
Moon	-66727-03-30 16:33 J	-22650525.04	-22650524.81	-22650524.56	0.0088	0.0027 *
Moon	-66726-04-02 01:25 J	-22650157.69	-22650157.44	-22650157.18	0.0088	0.0026
Earth	-66726-04-02 03:35 J	-22650157.58	-22650157.35	-22650157.09	0.0088	0.0030 *
Earth	-66725-04-03 15:06 J	-22649790.09	-22649789.87	-22649789.61	0.0088	0.0034
Moon	-66725-04-03 17:59 J	-22649789.97	-22649789.75	-22649789.51	0.0088	0.0037 *
Moon	-66724-04-05 23:01 J	-22649422.76	-22649422.54	-22649422.28	0.0088	0.0036
Earth	-66724-04-06 02:37 J	-22649422.61	-22649422.39	-22649422.14	0.0088	0.0039 *
Earth	-66723-04-08 14:23 J	-22649055.12	-22649054.90	-22649054.67	0.0088	0.0044
Moon	-66723-04-08 17:59 J	-22649054.96	-22649054.75	-22649054.52	0.0088	0.0047 *
Moon	-66722-04-10 22:33 J	-22648687.76	-22648687.56	-22648687.33	0.0088	0.0047
Earth	-66722-04-11 01:40 J	-22648687.62	-22648687.43	-22648687.19	0.0088	0.0049 *
Earth	-66721-04-12 12:57 J	-22648320.14	-22648319.96	-22648319.73	0.0088	0.0054
Moon	-66721-04-12 15:49 J	-22648320.02	-22648319.84	-22648319.61	0.0088	0.0056 *
Moon	-66720-04-14 23:01 J	-22647952.71	-22647952.54	-22647952.32	0.0088	0.0056
Earth	-66720-04-15 00:42 J	-22647952.65	-22647952.47	-22647952.26	0.0088	0.0058 *
Earth	-66719-04-17 12:13 J	-22647585.17	-22647584.99	-22647584.81	0.0088	0.0062
Moon	-66719-04-17 12:28 J	-22647585.15	-22647584.98	-22647584.78	0.0088	0.0064 *
Earth	-66718-04-19 22:47 J	-22647217.69	-22647217.55	-22647217.35	0.0088	0.0067
Moon	-66718-04-19 23:45 J	-22647217.66	-22647217.51	-22647217.32	0.0088	0.0065 *
Moon	-66717-04-21 08:09 J	-22646850.31	-22646850.16	-22646850.01	0.0088	0.0073
Earth	-66717-04-21 10:04 J	-22646850.22	-22646850.08	-22646849.91	0.0088	0.0071 *
Earth	-66716-04-23 20:37 J	-22646482.75	-22646482.64	-22646482.48	0.0088	0.0075

Moon -66716-04-23 23:45 J -22646482.64 -22646482.51 -22646482.36 0.0088 0.0073 *
 Moon -66715-04-26 04:04 J -22646115.41 -22646115.33 -22646115.20 0.0089 0.0081
 Earth -66715-04-26 07:40 J -22646115.27 -22646115.18 -22646115.04 0.0089 0.0079 *
 Earth -66714-04-28 18:13 J -22645747.80 -22645747.74 -22645747.62 0.0089 0.0083
 Moon -66714-04-28 21:49 J -22645747.67 -22645747.59 -22645747.46 0.0089 0.0081 *
 Moon -66713-04-30 01:54 J -22645380.43 -22645380.42 -22645380.36 0.0089 0.0088
 Earth -66713-04-30 05:01 J -22645380.32 -22645380.29 -22645380.21 0.0089 0.0087
 Moon -66712-05-02 18:28 J -22645012.73 -22645012.73 -22645012.69 0.0089 0.0088
 Mercury -66708-06-07 10:33 J -22643516.07 -22643516.06 -22643516.05 0.0089 0.0088
 Mercury -66708-09-03 11:45 J -22643428.05 -22643428.01 -22643427.96 0.0089 0.0083
 Mercury -66708-11-30 13:11 J -22643340.01 -22643339.95 -22643339.88 0.0089 0.0078
 Mercury -66707-02-26 14:23 J -22643251.96 -22643251.90 -22643251.81 0.0089 0.0073
 Mercury -66707-05-25 15:35 J -22643163.92 -22643163.85 -22643163.75 0.0089 0.0068
 Mercury -66707-08-21 17:16 J -22643075.87 -22643075.78 -22643075.69 0.0089 0.0062
 Mercury -66707-11-17 18:28 J -22642987.82 -22642987.73 -22642987.62 0.0089 0.0057
 Mercury -66706-02-13 19:54 J -22642899.78 -22642899.67 -22642899.56 0.0089 0.0052
 Mercury -66706-05-12 21:06 J -22642811.73 -22642811.62 -22642811.50 0.0089 0.0047
 Mercury -66706-08-08 22:33 J -22642723.67 -22642723.56 -22642723.44 0.0089 0.0041
 Mercury -66706-11-04 23:45 J -22642635.62 -22642635.51 -22642635.38 0.0089 0.0037
 Mercury -66705-02-01 00:57 J -22642547.57 -22642547.46 -22642547.32 0.0089 0.0032
 Mercury -66705-04-29 02:37 J -22642459.52 -22642459.39 -22642459.27 0.0089 0.0026
 Mercury -66705-07-26 03:49 J -22642371.47 -22642371.34 -22642371.21 0.0089 0.0021
 Mercury -66705-10-22 05:01 J -22642283.42 -22642283.29 -22642283.15 0.0089 0.0016
 Mercury -66704-01-18 06:28 J -22642195.36 -22642195.23 -22642195.10 0.0089 0.0011
 Mercury -66704-04-16 07:40 J -22642107.31 -22642107.18 -22642107.04 0.0089 0.0006
 Mercury -66704-07-13 09:06 J -22642019.25 -22642019.12 -22642018.99 0.0089 0.0001
 Mercury -66704-10-09 10:18 J -22641931.20 -22641931.07 -22641930.93 0.0089 0.0005
 Mercury -66703-01-05 11:45 J -22641843.14 -22641843.01 -22641842.88 0.0089 0.0010
 Mercury -66703-04-03 12:57 J -22641755.09 -22641754.96 -22641754.83 0.0089 0.0015
 Mercury -66703-06-30 14:09 J -22641667.03 -22641666.91 -22641666.78 0.0089 0.0021

Mercury -66703-09-26 15:35 J -22641578.98 -22641578.85 -22641578.72 0.0089 0.0025

Mercury -66703-12-23 16:47 J -22641490.92 -22641490.80 -22641490.67 0.0089 0.0031

Mercury -66702-03-21 17:59 J -22641402.86 -22641402.75 -22641402.62 0.0089 0.0036

Mercury -66702-06-17 19:25 J -22641314.80 -22641314.69 -22641314.57 0.0089 0.0041

Mercury -66702-09-13 20:37 J -22641226.74 -22641226.64 -22641226.52 0.0089 0.0046

Mercury -66702-12-10 22:04 J -22641138.69 -22641138.58 -22641138.47 0.0089 0.0051

Mercury -66701-03-07 23:16 J -22641050.63 -22641050.53 -22641050.42 0.0089 0.0056

Mercury -66701-06-04 00:42 J -22640962.57 -22640962.47 -22640962.38 0.0089 0.0061

Mercury -66701-08-31 01:54 J -22640874.50 -22640874.42 -22640874.33 0.0089 0.0066

Mercury -66701-11-27 02:52 J -22640786.44 -22640786.38 -22640786.29 0.0089 0.0072

Mercury -66700-02-23 04:18 J -22640698.37 -22640698.32 -22640698.24 0.0089 0.0077

Mercury -66700-05-22 05:30 J -22640610.31 -22640610.27 -22640610.21 0.0089 0.0082

Mercury -66700-08-18 06:57 J -22640522.23 -22640522.21 -22640522.18 0.0089 0.0087

Mars -66696-08-17 20:23 J -22639061.87 -22639061.65 -22639061.38 0.0089 0.0043

Mars -66694-07-12 02:09 J -22638368.68 -22638368.41 -22638368.12 0.0089 0.0013

Mars -66692-06-04 06:57 J -22637675.38 -22637675.21 -22637675.01 0.0089 0.0067

Moon -66670-08-01 21:35 J -22629581.60 -22629581.60 -22629581.52 0.0089 0.0089

Earth -66670-08-02 00:57 J -22629581.48 -22629581.46 -22629581.38 0.0089 0.0087

Earth -66669-08-03 11:16 J -22629214.10 -22629214.03 -22629213.93 0.0089 0.0083

Moon -66669-08-03 13:40 J -22629214.03 -22629213.93 -22629213.84 0.0089 0.0082 *

Moon -66668-08-05 20:23 J -22628846.75 -22628846.65 -22628846.54 0.0089 0.0080

Earth -66668-08-05 21:21 J -22628846.71 -22628846.61 -22628846.48 0.0089 0.0079 *

Moon -66667-08-08 07:11 J -22628479.33 -22628479.20 -22628479.04 0.0089 0.0074

Earth -66667-08-08 07:25 J -22628479.31 -22628479.19 -22628479.04 0.0089 0.0075 *

Earth -66666-08-10 17:16 J -22628111.91 -22628111.78 -22628111.61 0.0089 0.0072

Moon -66666-08-10 19:25 J -22628111.83 -22628111.69 -22628111.54 0.0089 0.0072 *

Moon -66665-08-12 00:57 J -22627744.61 -22627744.46 -22627744.26 0.0089 0.0066

Earth -66665-08-12 03:21 J -22627744.50 -22627744.36 -22627744.17 0.0089 0.0067 *

Earth -66664-08-14 13:25 J -22627377.10 -22627376.94 -22627376.74 0.0089 0.0063

Moon -66664-08-14 16:47 J -22627376.95 -22627376.80 -22627376.61 0.0089 0.0064 *

Moon	-66663-08-16 20:23 J	-22627009.82	-22627009.65	-22627009.44	0.0089	0.0058
Earth	-66663-08-16 23:59 J	-22627009.68	-22627009.50	-22627009.30	0.0089	0.0058 *
Earth	-66662-08-19 09:49 J	-22626642.27	-22626642.09	-22626641.87	0.0089	0.0054
Moon	-66662-08-19 13:40 J	-22626642.13	-22626641.93	-22626641.73	0.0089	0.0056 *
Moon	-66661-08-20 17:30 J	-22626274.96	-22626274.77	-22626274.55	0.0089	0.0048
Earth	-66661-08-20 20:23 J	-22626274.85	-22626274.65	-22626274.43	0.0089	0.0049 *
Earth	-66660-08-23 06:42 J	-22625907.42	-22625907.22	-22625906.98	0.0089	0.0045
Moon	-66660-08-23 08:37 J	-22625907.36	-22625907.14	-22625906.91	0.0089	0.0045 *
Moon	-66659-08-25 16:47 J	-22625540.02	-22625539.80	-22625539.58	0.0089	0.0038
Earth	-66659-08-25 17:16 J	-22625539.99	-22625539.78	-22625539.54	0.0089	0.0040 *
Moon	-66658-08-28 03:21 J	-22625172.59	-22625172.36	-22625172.11	0.0089	0.0036
Earth	-66658-08-28 03:49 J	-22625172.56	-22625172.34	-22625172.09	0.0089	0.0036 *
Earth	-66657-08-29 14:37 J	-22624805.12	-22624804.89	-22624804.64	0.0089	0.0030
Moon	-66657-08-29 16:47 J	-22624805.03	-22624804.80	-22624804.56	0.0089	0.0029 *
Moon	-66656-08-31 22:33 J	-22624437.79	-22624437.56	-22624437.29	0.0089	0.0027
Earth	-66656-09-01 01:25 J	-22624437.67	-22624437.44	-22624437.19	0.0089	0.0025 *
Earth	-66655-09-03 12:13 J	-22624070.23	-22624069.99	-22624069.74	0.0089	0.0020
Moon	-66655-09-03 15:49 J	-22624070.09	-22624069.84	-22624069.59	0.0089	0.0018 *
Moon	-66654-09-05 19:25 J	-22623702.93	-22623702.69	-22623702.43	0.0089	0.0016
Earth	-66654-09-05 23:01 J	-22623702.79	-22623702.54	-22623702.29	0.0089	0.0015 *
Venus	-66653-01-23 02:37 J	-22623563.50	-22623563.39	-22623563.28	0.0089	0.0076
Venus	-66653-09-04 15:06 J	-22623338.03	-22623337.87	-22623337.69	0.0089	0.0056
Earth	-66653-09-07 09:35 J	-22623335.35	-22623335.10	-22623334.84	0.0089	0.0011
Moon	-66653-09-07 12:57 J	-22623335.21	-22623334.96	-22623334.70	0.0089	0.0008 *
Venus	-66652-04-18 04:04 J	-22623112.53	-22623112.33	-22623112.12	0.0089	0.0036
Moon	-66652-09-09 18:13 J	-22622967.99	-22622967.74	-22622967.49	0.0089	0.0007
Earth	-66652-09-09 20:52 J	-22622967.89	-22622967.63	-22622967.38	0.0089	0.0005 *
Venus	-66652-11-29 16:47 J	-22622887.01	-22622886.80	-22622886.57	0.0089	0.0015
Venus	-66651-07-13 05:59 J	-22622661.47	-22622661.25	-22622661.03	0.0089	0.0006
Earth	-66651-09-12 07:25 J	-22622600.44	-22622600.19	-22622599.93	0.0089	0.0002

Moon	-66651-09-12 08:52 J	-22622600.40	-22622600.13	-22622599.87	0.0089	0.0002	*
Venus	-66650-02-23 18:57 J	-22622435.92	-22622435.71	-22622435.50	0.0089	0.0026	
Moon	-66650-09-14 17:59 J	-22622232.99	-22622232.75	-22622232.50	0.0089	0.0003	
Earth	-66650-09-14 18:28 J	-22622232.98	-22622232.73	-22622232.47	0.0089	0.0005	*
Venus	-66650-10-07 07:40 J	-22622210.36	-22622210.18	-22622209.99	0.0089	0.0047	
Venus	-66649-05-19 20:23 J	-22621984.77	-22621984.65	-22621984.49	0.0089	0.0068	
Moon	-66649-09-16 04:18 J	-22621865.57	-22621865.32	-22621865.05	0.0089	0.0012	
Earth	-66649-09-16 05:30 J	-22621865.52	-22621865.27	-22621865.01	0.0089	0.0010	*
Venus	-66649-12-31 09:49 J	-22621759.11	-22621759.09	-22621759.07	0.0089	0.0088	
Earth	-66648-09-18 16:33 J	-22621498.05	-22621497.81	-22621497.55	0.0089	0.0015	
Moon	-66648-09-18 18:42 J	-22621497.95	-22621497.72	-22621497.46	0.0089	0.0014	*
Moon	-66647-09-21 01:11 J	-22621130.70	-22621130.45	-22621130.19	0.0089	0.0022	
Earth	-66647-09-21 04:04 J	-22621130.58	-22621130.33	-22621130.08	0.0089	0.0020	*
Earth	-66646-09-23 15:21 J	-22620763.10	-22620762.86	-22620762.61	0.0089	0.0025	
Moon	-66646-09-23 18:42 J	-22620762.95	-22620762.72	-22620762.46	0.0089	0.0023	*
Moon	-66645-09-24 23:30 J	-22620395.75	-22620395.52	-22620395.28	0.0089	0.0032	
Earth	-66645-09-25 02:52 J	-22620395.61	-22620395.38	-22620395.13	0.0089	0.0030	*
Earth	-66644-09-27 14:23 J	-22620028.12	-22620027.90	-22620027.65	0.0089	0.0035	
Moon	-66644-09-27 17:45 J	-22620027.99	-22620027.76	-22620027.51	0.0089	0.0032	*
Moon	-66643-09-29 23:30 J	-22619660.73	-22619660.52	-22619660.29	0.0089	0.0043	
Earth	-66643-09-30 01:54 J	-22619660.63	-22619660.42	-22619660.18	0.0089	0.0040	*
Earth	-66642-10-02 13:25 J	-22619293.14	-22619292.94	-22619292.70	0.0089	0.0045	
Moon	-66642-10-02 14:52 J	-22619293.10	-22619292.88	-22619292.64	0.0089	0.0042	*
Moon	-66641-10-04 00:42 J	-22618925.65	-22618925.47	-22618925.25	0.0089	0.0053	
Earth	-66641-10-04 01:11 J	-22618925.64	-22618925.45	-22618925.21	0.0089	0.0050	*
Moon	-66640-10-06 11:59 J	-22618558.21	-22618558.00	-22618557.77	0.0089	0.0051	
Earth	-66640-10-06 13:25 J	-22618558.14	-22618557.94	-22618557.74	0.0089	0.0054	*
Earth	-66639-10-09 00:42 J	-22618190.64	-22618190.47	-22618190.25	0.0089	0.0059	
Moon	-66639-10-09 03:06 J	-22618190.53	-22618190.37	-22618190.17	0.0089	0.0062	*
Moon	-66638-10-11 10:04 J	-22617823.26	-22617823.08	-22617822.87	0.0089	0.0060	

Earth -66638-10-11 12:28 J -22617823.13 -22617822.98 -22617822.77 0.0089 0.0064 *
 Earth -66637-10-13 00:42 J -22617455.61 -22617455.47 -22617455.28 0.0089 0.0068
 Moon -66637-10-13 04:47 J -22617455.45 -22617455.30 -22617455.15 0.0089 0.0071 *
 Moon -66636-10-15 09:49 J -22617088.24 -22617088.09 -22617087.92 0.0089 0.0069
 Earth -66636-10-15 13:11 J -22617088.09 -22617087.95 -22617087.79 0.0089 0.0072 *
 Earth -66635-10-18 00:42 J -22616720.57 -22616720.47 -22616720.31 0.0089 0.0077
 Moon -66635-10-18 04:04 J -22616720.40 -22616720.33 -22616720.19 0.0089 0.0081 *
 Moon -66634-10-20 11:16 J -22616353.14 -22616353.03 -22616352.89 0.0089 0.0077
 Earth -66634-10-20 13:25 J -22616353.02 -22616352.94 -22616352.81 0.0089 0.0081 *
 Earth -66633-10-22 01:54 J -22615985.47 -22615985.42 -22615985.32 0.0089 0.0085
 Moon -66633-10-22 03:06 J -22615985.38 -22615985.37 -22615985.31 0.0089 0.0088 *
 Moon -66632-10-24 14:09 J -22615617.97 -22615617.91 -22615617.83 0.0089 0.0085
 Earth -66632-10-24 14:37 J -22615617.89 -22615617.89 -22615617.86 0.0089 0.0089 *
 Mercury -66625-08-20 13:25 J -22613125.96 -22613125.94 -22613125.89 0.0089 0.0087
 Mercury -66625-11-16 16:47 J -22613037.86 -22613037.80 -22613037.69 0.0089 0.0080
 Mercury -66624-02-12 20:52 J -22612949.73 -22612949.63 -22612949.51 0.0089 0.0072
 Mercury -66624-05-12 00:13 J -22612861.60 -22612861.49 -22612861.34 0.0089 0.0065
 Mercury -66624-08-08 04:04 J -22612773.47 -22612773.33 -22612773.17 0.0089 0.0057
 Mercury -66624-11-04 07:40 J -22612685.33 -22612685.18 -22612685.00 0.0089 0.0050
 Mercury -66623-01-31 11:30 J -22612597.19 -22612597.02 -22612596.84 0.0089 0.0042
 Mercury -66623-04-29 15:06 J -22612509.04 -22612508.87 -22612508.68 0.0089 0.0034
 Mercury -66623-07-26 18:57 J -22612420.89 -22612420.71 -22612420.52 0.0089 0.0027
 Mercury -66623-10-22 22:33 J -22612332.75 -22612332.56 -22612332.36 0.0089 0.0019
 Mercury -66622-01-19 02:23 J -22612244.60 -22612244.40 -22612244.21 0.0089 0.0011
 Mercury -66622-04-17 05:59 J -22612156.44 -22612156.25 -22612156.05 0.0089 0.0004
 Mercury -66622-07-14 09:49 J -22612068.29 -22612068.09 -22612067.90 0.0089 0.0004
 Mercury -66622-10-10 13:25 J -22611980.13 -22611979.94 -22611979.74 0.0089 0.0011
 Mercury -66621-01-06 17:16 J -22611891.98 -22611891.78 -22611891.59 0.0089 0.0019
 Mercury -66621-04-03 20:37 J -22611803.82 -22611803.64 -22611803.44 0.0089 0.0027
 Mercury -66621-07-01 00:13 J -22611715.66 -22611715.49 -22611715.29 0.0089 0.0035

Mercury -66621-09-27 04:18 J -22611627.49 -22611627.32 -22611627.15 0.0089 0.0042

Mercury -66621-12-24 07:40 J -22611539.33 -22611539.18 -22611539.00 0.0089 0.0050

Mercury -66620-03-22 11:16 J -22611451.16 -22611451.03 -22611450.86 0.0089 0.0058

Mercury -66620-06-18 15:21 J -22611362.99 -22611362.86 -22611362.72 0.0089 0.0065

Mercury -66620-09-14 18:42 J -22611274.81 -22611274.72 -22611274.59 0.0089 0.0073

Mercury -66620-12-11 23:01 J -22611186.63 -22611186.54 -22611186.46 0.0089 0.0080

Mercury -66619-03-10 02:23 J -22611098.41 -22611098.40 -22611098.36 0.0089 0.0088

Mars -66614-06-13 10:18 J -22609177.34 -22609177.07 -22609176.77 0.0089 0.0053

Mars -66612-05-10 07:40 J -22608480.51 -22608480.18 -22608479.81 0.0088 0.0017

Mars -66610-04-07 05:01 J -22607783.34 -22607783.29 -22607783.16 0.0088 0.0086

Earth -66587-02-03 04:33 J -22599445.36 -22599445.31 -22599445.25 0.0088 0.0086

Moon -66587-02-03 07:54 J -22599445.22 -22599445.17 -22599445.10 0.0088 0.0086

Moon -66586-02-05 15:21 J -22599077.94 -22599077.86 -22599077.77 0.0088 0.0083

Earth -66586-02-05 17:16 J -22599077.84 -22599077.78 -22599077.65 0.0088 0.0083 *

Earth -66585-02-08 06:28 J -22598710.32 -22598710.23 -22598710.07 0.0088 0.0079

Moon -66585-02-08 07:54 J -22598710.27 -22598710.17 -22598710.01 0.0088 0.0078 *

Moon -66584-02-09 19:40 J -22598342.81 -22598342.68 -22598342.53 0.0088 0.0074

Earth -66584-02-09 20:23 J -22598342.79 -22598342.65 -22598342.50 0.0088 0.0074 *

Moon -66583-02-12 08:09 J -22597975.30 -22597975.16 -22597974.96 0.0088 0.0070

Earth -66583-02-12 09:21 J -22597975.25 -22597975.11 -22597974.93 0.0088 0.0070 *

Earth -66582-02-14 22:18 J -22597607.72 -22597607.57 -22597607.36 0.0088 0.0066

Moon -66582-02-15 00:42 J -22597607.62 -22597607.47 -22597607.28 0.0088 0.0066 *

Moon -66581-02-17 09:35 J -22597240.29 -22597240.10 -22597239.90 0.0088 0.0061

Earth -66581-02-17 11:59 J -22597240.18 -22597240.00 -22597239.79 0.0088 0.0060 *

Jupiter -66581-07-26 17:01 J -22597080.08 -22597079.79 -22597079.39 0.0088 0.0069

Earth -66580-02-19 00:42 J -22596872.65 -22596872.47 -22596872.24 0.0088 0.0056

Moon -66580-02-19 04:33 J -22596872.49 -22596872.31 -22596872.09 0.0088 0.0055 *

Moon -66579-02-21 10:33 J -22596505.25 -22596505.06 -22596504.83 0.0088 0.0052

Earth -66579-02-21 14:09 J -22596505.10 -22596504.91 -22596504.68 0.0088 0.0051 *

Earth -66578-02-24 03:21 J -22596137.57 -22596137.36 -22596137.13 0.0088 0.0046

Moon	-66578-02-24 07:11 J	-22596137.43	-22596137.20	-22596136.97	0.0088	0.0045	*
Moon	-66577-02-26 13:25 J	-22595770.16	-22595769.94	-22595769.71	0.0088	0.0043	
Earth	-66577-02-26 16:18 J	-22595770.04	-22595769.82	-22595769.58	0.0088	0.0042	*
Earth	-66576-02-28 05:16 J	-22595402.52	-22595402.28	-22595402.04	0.0088	0.0037	
Moon	-66576-02-28 06:57 J	-22595402.45	-22595402.21	-22595401.96	0.0088	0.0035	*
Moon	-66575-03-02 16:47 J	-22595035.03	-22595034.80	-22595034.56	0.0088	0.0034	
Earth	-66575-03-02 17:30 J	-22595034.99	-22595034.77	-22595034.51	0.0088	0.0032	*
Moon	-66574-03-05 05:59 J	-22594667.50	-22594667.25	-22594666.99	0.0088	0.0025	
Earth	-66574-03-05 06:13 J	-22594667.47	-22594667.24	-22594666.97	0.0088	0.0027	*
Earth	-66573-03-06 18:57 J	-22594299.95	-22594299.71	-22594299.45	0.0088	0.0022	
Moon	-66573-03-06 20:37 J	-22594299.87	-22594299.64	-22594299.39	0.0088	0.0024	*
Moon	-66572-03-09 05:01 J	-22593932.54	-22593932.29	-22593932.02	0.0088	0.0015	
Earth	-66572-03-09 07:25 J	-22593932.44	-22593932.19	-22593931.92	0.0088	0.0017	*
Earth	-66571-03-11 19:54 J	-22593564.92	-22593564.67	-22593564.40	0.0088	0.0012	
Moon	-66571-03-11 23:30 J	-22593564.77	-22593564.52	-22593564.26	0.0088	0.0014	*
Venus	-66571-10-26 10:04 J	-22593336.20	-22593336.08	-22593335.93	0.0088	0.0069	
Moon	-66570-03-14 05:16 J	-22593197.54	-22593197.28	-22593197.02	0.0088	0.0005	
Earth	-66570-03-14 08:37 J	-22593197.40	-22593197.14	-22593196.87	0.0088	0.0007	*
Venus	-66570-06-08 23:01 J	-22593110.70	-22593110.54	-22593110.33	0.0088	0.0049	
Venus	-66569-01-20 12:28 J	-22592885.18	-22592884.98	-22592884.76	0.0088	0.0028	
Earth	-66569-03-15 20:52 J	-22592829.89	-22592829.63	-22592829.37	0.0088	0.0002	
Moon	-66569-03-16 00:28 J	-22592829.74	-22592829.48	-22592829.21	0.0088	0.0005	*
Venus	-66569-09-02 01:40 J	-22592659.65	-22592659.43	-22592659.21	0.0088	0.0007	
Moon	-66568-03-18 06:28 J	-22592462.48	-22592462.23	-22592461.97	0.0088	0.0006	
Earth	-66568-03-18 09:21 J	-22592462.37	-22592462.11	-22592461.84	0.0088	0.0004	*
Venus	-66568-04-15 14:37 J	-22592434.11	-22592433.89	-22592433.67	0.0088	0.0013	
Venus	-66568-11-27 03:35 J	-22592208.55	-22592208.35	-22592208.14	0.0088	0.0034	
Earth	-66567-03-20 21:35 J	-22592094.85	-22592094.60	-22592094.33	0.0088	0.0009	
Moon	-66567-03-20 23:45 J	-22592094.77	-22592094.51	-22592094.24	0.0088	0.0006	*
Venus	-66567-07-10 16:04 J	-22591982.98	-22591982.83	-22591982.64	0.0088	0.0054	

Venus	-66566-02-21 05:01 J	-22591757.39	-22591757.29	-22591757.15	0.0088	0.0075
Moon	-66566-03-23 08:37 J	-22591727.38	-22591727.14	-22591726.89	0.0088	0.0016
Earth	-66566-03-23 09:49 J	-22591727.34	-22591727.09	-22591726.82	0.0088	0.0014 *
Moon	-66565-03-24 21:49 J	-22591359.86	-22591359.59	-22591359.33	0.0088	0.0016
Earth	-66565-03-24 22:04 J	-22591359.83	-22591359.58	-22591359.32	0.0088	0.0018 *
Earth	-66564-03-27 09:49 J	-22590992.33	-22590992.09	-22590991.83	0.0088	0.0023
Moon	-66564-03-27 11:30 J	-22590992.26	-22590992.02	-22590991.78	0.0088	0.0026 *
Moon	-66563-03-29 19:25 J	-22590624.93	-22590624.69	-22590624.42	0.0088	0.0025
Earth	-66563-03-29 21:49 J	-22590624.83	-22590624.59	-22590624.33	0.0088	0.0028 *
Earth	-66562-04-01 09:49 J	-22590257.33	-22590257.09	-22590256.85	0.0088	0.0033
Moon	-66562-04-01 12:42 J	-22590257.18	-22590256.97	-22590256.72	0.0088	0.0037 *
Moon	-66561-04-02 17:59 J	-22589889.99	-22589889.75	-22589889.51	0.0088	0.0035
Earth	-66561-04-02 21:21 J	-22589889.84	-22589889.61	-22589889.37	0.0088	0.0038 *
Earth	-66560-04-05 08:37 J	-22589522.35	-22589522.14	-22589521.89	0.0088	0.0043
Moon	-66560-04-05 12:13 J	-22589522.19	-22589521.99	-22589521.75	0.0088	0.0047 *
Moon	-66559-04-07 17:45 J	-22589154.97	-22589154.76	-22589154.53	0.0088	0.0044
Earth	-66559-04-07 20:23 J	-22589154.85	-22589154.65	-22589154.41	0.0088	0.0047 *
Earth	-66558-04-10 08:09 J	-22588787.36	-22588787.16	-22588786.94	0.0088	0.0052
Moon	-66558-04-10 09:49 J	-22588787.27	-22588787.09	-22588786.86	0.0088	0.0056 *
Moon	-66557-04-11 18:13 J	-22588419.93	-22588419.74	-22588419.53	0.0088	0.0053
Earth	-66557-04-11 19:25 J	-22588419.87	-22588419.69	-22588419.47	0.0088	0.0057 *
Moon	-66556-04-14 05:59 J	-22588052.40	-22588052.25	-22588052.03	0.0088	0.0065
Earth	-66556-04-14 06:57 J	-22588052.38	-22588052.21	-22588052.01	0.0088	0.0061 *
Earth	-66555-04-16 18:13 J	-22587684.89	-22587684.74	-22587684.54	0.0088	0.0065
Moon	-66555-04-16 20:09 J	-22587684.83	-22587684.66	-22587684.48	0.0088	0.0062 *
Moon	-66554-04-19 03:06 J	-22587317.48	-22587317.37	-22587317.19	0.0088	0.0074
Earth	-66554-04-19 05:30 J	-22587317.40	-22587317.27	-22587317.08	0.0088	0.0070 *
Earth	-66553-04-20 16:47 J	-22586949.92	-22586949.80	-22586949.64	0.0088	0.0074
Moon	-66553-04-20 20:23 J	-22586949.79	-22586949.65	-22586949.48	0.0088	0.0070 *
Moon	-66552-04-23 00:57 J	-22586582.56	-22586582.46	-22586582.36	0.0088	0.0081

Earth -66552-04-23 03:49 J -22586582.44 -22586582.34 -22586582.19 0.0088 0.0078 *
 Earth -66551-04-25 14:37 J -22586214.96 -22586214.89 -22586214.76 0.0089 0.0082
 Moon -66551-04-25 18:42 J -22586214.83 -22586214.72 -22586214.58 0.0089 0.0077 *
 Earth -66550-04-28 01:54 J -22585847.47 -22585847.42 -22585847.33 0.0089 0.0085
 Earth -66549-04-29 12:57 J -22585479.96 -22585479.96 -22585479.95 0.0089 0.0088
 Moon -66549-04-29 14:23 J -22585479.95 -22585479.90 -22585479.80 0.0089 0.0085 *
 Mercury -66543-03-04 09:35 J -22583345.11 -22583345.10 -22583345.07 0.0089 0.0088
 Mercury -66543-05-31 10:47 J -22583257.08 -22583257.05 -22583256.99 0.0089 0.0083
 Mercury -66543-08-27 12:28 J -22583169.04 -22583168.98 -22583168.91 0.0089 0.0077
 Mercury -66543-11-23 13:40 J -22583081.00 -22583080.93 -22583080.85 0.0089 0.0072
 Mercury -66542-02-19 15:06 J -22582992.95 -22582992.87 -22582992.78 0.0089 0.0067
 Mercury -66542-05-18 16:18 J -22582904.90 -22582904.82 -22582904.72 0.0089 0.0062
 Mercury -66542-08-14 17:45 J -22582816.86 -22582816.76 -22582816.65 0.0089 0.0056
 Mercury -66542-11-10 18:57 J -22582728.81 -22582728.71 -22582728.59 0.0089 0.0052
 Mercury -66541-02-06 20:23 J -22582640.76 -22582640.65 -22582640.53 0.0089 0.0046
 Mercury -66541-05-04 21:49 J -22582552.71 -22582552.59 -22582552.47 0.0089 0.0041
 Mercury -66541-07-31 23:01 J -22582464.65 -22582464.54 -22582464.41 0.0089 0.0036
 Mercury -66541-10-28 00:28 J -22582376.60 -22582376.48 -22582376.35 0.0089 0.0030
 Mercury -66540-01-24 01:40 J -22582288.55 -22582288.43 -22582288.30 0.0089 0.0026
 Mercury -66540-04-22 03:06 J -22582200.50 -22582200.37 -22582200.24 0.0089 0.0020
 Mercury -66540-07-19 04:18 J -22582112.44 -22582112.32 -22582112.18 0.0089 0.0015
 Mercury -66540-10-15 05:45 J -22582024.39 -22582024.26 -22582024.13 0.0089 0.0010
 Mercury -66539-01-11 06:57 J -22581936.34 -22581936.21 -22581936.07 0.0089 0.0006
 Mercury -66539-04-09 08:23 J -22581848.28 -22581848.15 -22581848.02 0.0089 0.0001
 Mercury -66539-07-06 09:35 J -22581760.23 -22581760.10 -22581759.96 0.0089 0.0006
 Mercury -66539-10-02 11:01 J -22581672.17 -22581672.04 -22581671.91 0.0089 0.0011
 Mercury -66539-12-29 12:13 J -22581584.12 -22581583.99 -22581583.86 0.0089 0.0016
 Mercury -66538-03-27 13:40 J -22581496.06 -22581495.93 -22581495.81 0.0089 0.0021
 Mercury -66538-06-23 14:37 J -22581408.01 -22581407.89 -22581407.75 0.0089 0.0027
 Mercury -66538-09-19 16:04 J -22581319.95 -22581319.83 -22581319.70 0.0089 0.0032

Mercury -66538-12-16 17:16 J -22581231.89 -22581231.78 -22581231.65 0.0089 0.0037
 Mercury -66537-03-13 18:42 J -22581143.83 -22581143.72 -22581143.60 0.0089 0.0042
 Mercury -66537-06-09 19:54 J -22581055.77 -22581055.67 -22581055.55 0.0089 0.0047
 Mercury -66537-09-05 21:21 J -22580967.71 -22580967.61 -22580967.50 0.0089 0.0052
 Mercury -66537-12-02 22:33 J -22580879.65 -22580879.56 -22580879.45 0.0089 0.0057
 Mercury -66536-02-28 23:59 J -22580791.59 -22580791.50 -22580791.41 0.0089 0.0062
 Mercury -66536-05-28 01:11 J -22580703.53 -22580703.45 -22580703.36 0.0089 0.0067
 Mercury -66536-08-24 02:37 J -22580615.47 -22580615.39 -22580615.32 0.0089 0.0072
 Mercury -66536-11-20 03:49 J -22580527.40 -22580527.34 -22580527.28 0.0089 0.0077
 Mercury -66535-02-16 04:47 J -22580439.33 -22580439.30 -22580439.24 0.0089 0.0083
 Mercury -66535-05-15 05:59 J -22580351.25 -22580351.25 -22580351.21 0.0089 0.0088
 Mars -66532-04-02 13:25 J -22579298.10 -22579297.94 -22579297.73 0.0089 0.0067
 Mars -66530-02-24 18:57 J -22578604.98 -22578604.71 -22578604.43 0.0089 0.0013
 Mars -66528-01-18 00:28 J -22577911.71 -22577911.48 -22577911.22 0.0089 0.0042
 Moon -66507-07-29 20:52 J -22570048.70 -22570048.63 -22570048.53 0.0089 0.0083
 Earth -66507-07-29 23:30 J -22570048.55 -22570048.52 -22570048.45 0.0089 0.0088 *
 Earth -66506-08-01 09:49 J -22569681.17 -22569681.09 -22569681.01 0.0089 0.0083
 Moon -66506-08-01 11:16 J -22569681.04 -22569681.03 -22569680.96 0.0089 0.0088 *
 Moon -66505-08-02 19:25 J -22569313.81 -22569313.69 -22569313.56 0.0089 0.0075
 Earth -66505-08-02 19:11 J -22569313.78 -22569313.70 -22569313.56 0.0089 0.0080 *
 Moon -66504-08-05 04:33 J -22568946.39 -22568946.31 -22568946.16 0.0089 0.0080
 Earth -66504-08-05 05:16 J -22568946.38 -22568946.28 -22568946.12 0.0089 0.0076 *
 Earth -66503-08-07 15:21 J -22568578.98 -22568578.86 -22568578.69 0.0089 0.0072
 Moon -66503-08-07 17:16 J -22568578.93 -22568578.78 -22568578.61 0.0089 0.0067 *
 Moon -66502-08-09 22:18 J -22568211.70 -22568211.57 -22568211.40 0.0089 0.0072
 Earth -66502-08-10 01:40 J -22568211.58 -22568211.43 -22568211.25 0.0089 0.0068 *
 Earth -66501-08-11 11:30 J -22567844.18 -22567844.02 -22567843.83 0.0089 0.0064
 Moon -66501-08-11 14:37 J -22567844.05 -22567843.89 -22567843.68 0.0089 0.0059 *
 Moon -66500-08-13 17:45 J -22567476.90 -22567476.76 -22567476.55 0.0089 0.0065
 Earth -66500-08-13 21:35 J -22567476.77 -22567476.60 -22567476.39 0.0089 0.0059 *

Earth	-66499-08-16 07:54 J	-22567109.36	-22567109.17	-22567108.96	0.0089	0.0055
Moon	-66499-08-16 10:33 J	-22567109.25	-22567109.06	-22567108.82	0.0089	0.0050 *
Moon	-66498-08-18 15:35 J	-22566742.03	-22566741.85	-22566741.64	0.0089	0.0055
Earth	-66498-08-18 17:45 J	-22566741.95	-22566741.76	-22566741.53	0.0089	0.0051 *
Earth	-66497-08-20 04:18 J	-22566374.53	-22566374.32	-22566374.09	0.0089	0.0046
Moon	-66497-08-20 05:45 J	-22566374.47	-22566374.26	-22566374.01	0.0089	0.0041 *
Earth	-66496-08-22 14:23 J	-22566007.11	-22566006.90	-22566006.66	0.0089	0.0041
Moon	-66496-08-22 14:37 J	-22566007.09	-22566006.89	-22566006.67	0.0089	0.0046 *
Moon	-66495-08-24 23:45 J	-22565639.74	-22565639.51	-22565639.25	0.0089	0.0032
Earth	-66495-08-25 00:57 J	-22565639.68	-22565639.46	-22565639.22	0.0089	0.0036 *
Earth	-66494-08-27 11:16 J	-22565272.26	-22565272.03	-22565271.78	0.0089	0.0031
Moon	-66494-08-27 13:11 J	-22565272.16	-22565271.95	-22565271.71	0.0089	0.0036 *
Moon	-66493-08-28 18:42 J	-22564904.96	-22564904.72	-22564904.46	0.0089	0.0021
Earth	-66493-08-28 22:04 J	-22564904.82	-22564904.58	-22564904.33	0.0089	0.0026 *
Earth	-66492-08-31 08:37 J	-22564537.38	-22564537.14	-22564536.88	0.0089	0.0021
Moon	-66492-08-31 11:45 J	-22564537.23	-22564537.01	-22564536.75	0.0089	0.0026 *
Moon	-66491-09-02 15:49 J	-22564170.08	-22564169.84	-22564169.58	0.0089	0.0012
Earth	-66491-09-02 19:40 J	-22564169.93	-22564169.68	-22564169.43	0.0089	0.0016 *
Earth	-66490-09-05 06:13 J	-22563802.49	-22563802.24	-22563801.98	0.0089	0.0011
Moon	-66490-09-05 09:06 J	-22563802.37	-22563802.12	-22563801.86	0.0089	0.0016 *
Venus	-66489-04-25 11:01 J	-22563569.06	-22563569.04	-22563568.97	0.0089	0.0087
Moon	-66489-09-06 15:06 J	-22563435.11	-22563434.87	-22563434.62	0.0089	0.0003
Earth	-66489-09-06 17:16 J	-22563435.03	-22563434.78	-22563434.52	0.0089	0.0006 *
Venus	-66489-12-07 00:13 J	-22563343.63	-22563343.49	-22563343.34	0.0089	0.0066
Venus	-66488-07-20 12:57 J	-22563118.13	-22563117.96	-22563117.76	0.0089	0.0046
Earth	-66488-09-09 04:04 J	-22563067.59	-22563067.33	-22563067.08	0.0089	0.0001
Moon	-66488-09-09 05:16 J	-22563067.54	-22563067.28	-22563067.01	0.0089	0.0006 *
Venus	-66487-03-03 01:54 J	-22562892.62	-22562892.42	-22562892.20	0.0089	0.0025
Earth	-66487-09-11 14:52 J	-22562700.13	-22562699.88	-22562699.62	0.0089	0.0004
Moon	-66487-09-11 15:21 J	-22562700.10	-22562699.86	-22562699.61	0.0089	0.0008 *

Venus	-66487-10-14 14:52 J	-22562667.09	-22562666.88	-22562666.66	0.0089	0.0005
Venus	-66486-05-28 03:49 J	-22562441.55	-22562441.34	-22562441.12	0.0089	0.0016
Moon	-66486-09-14 00:28 J	-22562332.75	-22562332.48	-22562332.22	0.0089	0.0005
Earth	-66486-09-14 01:40 J	-22562332.68	-22562332.43	-22562332.17	0.0089	0.0009 *
Venus	-66485-01-08 16:33 J	-22562216.00	-22562215.81	-22562215.60	0.0089	0.0037
Venus	-66485-08-21 05:16 J	-22561990.42	-22561990.28	-22561990.09	0.0089	0.0058
Earth	-66485-09-15 12:42 J	-22561965.22	-22561964.97	-22561964.71	0.0089	0.0014
Moon	-66485-09-15 15:06 J	-22561965.11	-22561964.87	-22561964.62	0.0089	0.0018 *
Venus	-66484-04-03 18:28 J	-22561764.82	-22561764.73	-22561764.62	0.0089	0.0078
Moon	-66484-09-17 20:23 J	-22561597.90	-22561597.65	-22561597.39	0.0089	0.0014
Earth	-66484-09-17 23:45 J	-22561597.75	-22561597.51	-22561597.25	0.0089	0.0019 *
Earth	-66483-09-20 10:33 J	-22561230.29	-22561230.06	-22561229.80	0.0089	0.0024
Moon	-66483-09-20 14:09 J	-22561230.14	-22561229.91	-22561229.66	0.0089	0.0028 *
Moon	-66482-09-22 18:28 J	-22560862.96	-22560862.73	-22560862.47	0.0089	0.0025
Earth	-66482-09-22 22:04 J	-22560862.81	-22560862.58	-22560862.33	0.0089	0.0029 *
Earth	-66481-09-24 09:21 J	-22560495.33	-22560495.11	-22560494.86	0.0089	0.0034
Moon	-66481-09-24 12:13 J	-22560495.22	-22560494.99	-22560494.74	0.0089	0.0038 *
Moon	-66480-09-26 18:57 J	-22560127.93	-22560127.71	-22560127.47	0.0089	0.0035
Earth	-66480-09-26 20:37 J	-22560127.85	-22560127.64	-22560127.38	0.0089	0.0039 *
Earth	-66479-09-29 08:37 J	-22559760.36	-22559760.14	-22559759.91	0.0089	0.0043
Moon	-66479-09-29 09:35 J	-22559760.31	-22559760.10	-22559759.86	0.0089	0.0047 *
Earth	-66478-10-01 20:09 J	-22559392.86	-22559392.66	-22559392.43	0.0089	0.0048
Moon	-66478-10-01 21:06 J	-22559392.83	-22559392.62	-22559392.40	0.0089	0.0044 *
Moon	-66477-10-03 06:28 J	-22559025.43	-22559025.23	-22559025.02	0.0089	0.0056
Earth	-66477-10-03 07:40 J	-22559025.36	-22559025.18	-22559024.95	0.0089	0.0053 *
Earth	-66476-10-05 19:11 J	-22558657.87	-22558657.70	-22558657.47	0.0089	0.0058
Moon	-66476-10-05 22:04 J	-22558657.77	-22558657.58	-22558657.37	0.0089	0.0054 *
Moon	-66475-10-08 03:49 J	-22558290.50	-22558290.34	-22558290.15	0.0089	0.0066
Earth	-66475-10-08 07:11 J	-22558290.36	-22558290.20	-22558290.00	0.0089	0.0062 *
Earth	-66474-10-10 18:42 J	-22557922.86	-22557922.72	-22557922.52	0.0089	0.0067

Moon -66474-10-10 22:33 J -22557922.72 -22557922.56 -22557922.36 0.0089 0.0063 *
 Moon -66473-10-12 03:49 J -22557555.47 -22557555.34 -22557555.20 0.0089 0.0074
 Earth -66473-10-12 06:57 J -22557555.34 -22557555.21 -22557555.03 0.0089 0.0071 *
 Earth -66472-10-14 18:57 J -22557187.83 -22557187.71 -22557187.56 0.0089 0.0075
 Moon -66472-10-14 21:49 J -22557187.74 -22557187.59 -22557187.42 0.0089 0.0071 *
 Moon -66471-10-17 05:01 J -22556820.37 -22556820.29 -22556820.18 0.0089 0.0082
 Earth -66471-10-17 06:57 J -22556820.31 -22556820.21 -22556820.07 0.0089 0.0079 *
 Earth -66470-10-19 19:11 J -22556452.77 -22556452.70 -22556452.60 0.0089 0.0083
 Moon -66470-10-19 20:09 J -22556452.75 -22556452.66 -22556452.53 0.0089 0.0080 *
 Earth -66469-10-21 07:25 J -22556085.23 -22556085.19 -22556085.13 0.0089 0.0087
 Moon -66468-10-23 18:13 J -22555717.75 -22555717.74 -22555717.68 0.0089 0.0088
 Mercury -66460-05-17 10:33 J -22552955.08 -22552955.06 -22552955.00 0.0089 0.0087
 Mercury -66460-08-13 14:23 J -22552866.97 -22552866.90 -22552866.80 0.0089 0.0079
 Mercury -66460-11-09 17:45 J -22552778.85 -22552778.76 -22552778.62 0.0089 0.0072
 Mercury -66459-02-05 21:49 J -22552690.72 -22552690.59 -22552690.45 0.0089 0.0064
 Mercury -66459-05-05 01:11 J -22552602.58 -22552602.45 -22552602.28 0.0089 0.0057
 Mercury -66459-08-01 05:01 J -22552514.44 -22552514.29 -22552514.12 0.0089 0.0049
 Mercury -66459-10-28 08:37 J -22552426.30 -22552426.14 -22552425.96 0.0089 0.0042
 Mercury -66458-01-24 12:28 J -22552338.16 -22552337.98 -22552337.80 0.0089 0.0034
 Mercury -66458-04-22 15:49 J -22552250.01 -22552249.84 -22552249.64 0.0089 0.0027
 Mercury -66458-07-19 19:40 J -22552161.86 -22552161.68 -22552161.48 0.0089 0.0019
 Mercury -66458-10-15 23:30 J -22552073.71 -22552073.52 -22552073.32 0.0089 0.0011
 Mercury -66457-01-12 03:06 J -22551985.56 -22551985.37 -22551985.17 0.0089 0.0004
 Mercury -66457-04-09 06:57 J -22551897.41 -22551897.21 -22551897.02 0.0089 0.0004
 Mercury -66457-07-06 10:33 J -22551809.25 -22551809.06 -22551808.86 0.0089 0.0012
 Mercury -66457-10-02 14:09 J -22551721.10 -22551720.91 -22551720.71 0.0089 0.0020
 Mercury -66457-12-29 17:59 J -22551632.94 -22551632.75 -22551632.56 0.0089 0.0027
 Mercury -66456-03-27 21:35 J -22551544.78 -22551544.60 -22551544.42 0.0089 0.0035
 Mercury -66456-06-24 00:57 J -22551456.61 -22551456.46 -22551456.27 0.0089 0.0043
 Mercury -66456-09-20 05:01 J -22551368.45 -22551368.29 -22551368.13 0.0089 0.0050

Mercury -66456-12-17 08:37 J -22551280.28 -22551280.14 -22551279.98 0.0089 0.0058

Mercury -66455-03-15 11:59 J -22551192.11 -22551192.00 -22551191.85 0.0089 0.0066

Mercury -66455-06-11 16:04 J -22551103.93 -22551103.83 -22551103.71 0.0089 0.0073

Mercury -66455-09-07 19:40 J -22551015.75 -22551015.68 -22551015.59 0.0089 0.0081

Mercury -66455-12-04 23:16 J -22550927.53 -22550927.53 -22550927.50 0.0089 0.0088

Mars -66450-01-24 00:13 J -22549416.56 -22549416.49 -22549416.35 0.0088 0.0085

Mars -66449-12-20 23:45 J -22548719.85 -22548719.51 -22548719.15 0.0088 0.0016

Mars -66447-11-17 21:06 J -22548022.88 -22548022.62 -22548022.32 0.0088 0.0053

Earth -66424-01-30 17:59 J -22539912.78 -22539912.75 -22539912.68 0.0088 0.0086

Moon -66424-01-30 20:23 J -22539912.71 -22539912.65 -22539912.51 0.0088 0.0083 *

Moon -66423-02-02 05:30 J -22539545.30 -22539545.27 -22539545.20 0.0088 0.0087

Earth -66423-02-02 07:25 J -22539545.26 -22539545.19 -22539545.07 0.0088 0.0083 *

Earth -66422-02-04 20:52 J -22539177.73 -22539177.63 -22539177.49 0.0088 0.0078

Moon -66422-02-04 22:18 J -22539177.71 -22539177.57 -22539177.41 0.0088 0.0074 *

Earth -66421-02-07 10:04 J -22538810.20 -22538810.08 -22538809.91 0.0088 0.0074

Moon -66421-02-07 11:01 J -22538810.15 -22538810.04 -22538809.92 0.0088 0.0079 *

Moon -66420-02-08 22:18 J -22538442.74 -22538442.57 -22538442.38 0.0088 0.0066

Earth -66420-02-08 23:16 J -22538442.66 -22538442.53 -22538442.35 0.0088 0.0070 *

Earth -66419-02-11 12:57 J -22538075.13 -22538074.96 -22538074.78 0.0088 0.0066

Moon -66419-02-11 15:06 J -22538075.01 -22538074.87 -22538074.70 0.0088 0.0071 *

Moon -66418-02-13 22:47 J -22537707.74 -22537707.55 -22537707.34 0.0088 0.0057

Earth -66418-02-14 02:09 J -22537707.58 -22537707.41 -22537707.21 0.0088 0.0061 *

Earth -66417-02-16 15:21 J -22537340.05 -22537339.86 -22537339.65 0.0088 0.0057

Moon -66417-02-16 18:28 J -22537339.90 -22537339.73 -22537339.52 0.0088 0.0061 *

Moon -66416-02-18 00:42 J -22536972.67 -22536972.47 -22536972.23 0.0088 0.0047

Earth -66416-02-18 04:18 J -22536972.51 -22536972.32 -22536972.09 0.0088 0.0053 *

Earth -66415-02-20 17:30 J -22536604.97 -22536604.77 -22536604.53 0.0088 0.0048

Moon -66415-02-20 20:23 J -22536604.84 -22536604.65 -22536604.41 0.0088 0.0053 *

Jupiter -66415-10-02 07:54 J -22536381.55 -22536381.17 -22536380.71 0.0088 0.0056

Moon -66414-02-23 04:33 J -22536237.53 -22536237.31 -22536237.07 0.0088 0.0038

Earth	-66414-02-23 06:57 J	-22536237.43	-22536237.21	-22536236.97	0.0088	0.0043	*
Earth	-66413-02-25 20:09 J	-22535869.89	-22535869.66	-22535869.42	0.0088	0.0038	
Moon	-66413-02-25 21:21 J	-22535869.83	-22535869.61	-22535869.35	0.0088	0.0043	*
Earth	-66412-02-27 08:37 J	-22535502.36	-22535502.14	-22535501.87	0.0088	0.0034	
Moon	-66412-02-27 09:06 J	-22535502.35	-22535502.12	-22535501.87	0.0088	0.0029	*
Moon	-66411-03-01 21:21 J	-22535134.87	-22535134.61	-22535134.36	0.0088	0.0032	
Earth	-66411-03-01 22:04 J	-22535134.82	-22535134.58	-22535134.33	0.0088	0.0028	*
Earth	-66410-03-04 10:33 J	-22534767.30	-22534767.06	-22534766.79	0.0088	0.0023	
Moon	-66410-03-04 12:42 J	-22534767.21	-22534766.97	-22534766.71	0.0088	0.0019	*
Moon	-66409-03-05 20:09 J	-22534399.91	-22534399.66	-22534399.40	0.0088	0.0022	
Earth	-66409-03-05 23:16 J	-22534399.78	-22534399.53	-22534399.27	0.0088	0.0018	*
Earth	-66408-03-08 11:45 J	-22534032.26	-22534032.01	-22534031.74	0.0088	0.0014	
Moon	-66408-03-08 15:06 J	-22534032.12	-22534031.87	-22534031.60	0.0088	0.0009	*
Moon	-66407-03-10 20:52 J	-22533664.89	-22533664.63	-22533664.37	0.0088	0.0013	
Earth	-66407-03-11 00:28 J	-22533664.73	-22533664.48	-22533664.21	0.0088	0.0008	*
Venus	-66406-01-27 18:13 J	-22533341.82	-22533341.74	-22533341.62	0.0088	0.0079	
Earth	-66406-03-13 12:57 J	-22533297.22	-22533296.96	-22533296.70	0.0088	0.0003	
Moon	-66406-03-13 16:04 J	-22533297.09	-22533296.83	-22533296.56	0.0088	0.0002	*
Venus	-66406-09-10 07:40 J	-22533116.34	-22533116.18	-22533116.01	0.0088	0.0059	
Moon	-66405-03-14 22:47 J	-22532929.80	-22532929.55	-22532929.30	0.0088	0.0002	
Earth	-66405-03-15 01:25 J	-22532929.70	-22532929.44	-22532929.18	0.0088	0.0002	*
Venus	-66405-04-22 20:23 J	-22532890.83	-22532890.65	-22532890.43	0.0088	0.0039	
Venus	-66405-12-04 09:49 J	-22532665.30	-22532665.09	-22532664.87	0.0088	0.0018	
Earth	-66404-03-17 13:40 J	-22532562.18	-22532561.93	-22532561.67	0.0088	0.0007	
Moon	-66404-03-17 15:21 J	-22532562.12	-22532561.86	-22532561.58	0.0088	0.0012	*
Venus	-66404-07-17 22:47 J	-22532439.77	-22532439.55	-22532439.32	0.0088	0.0003	
Venus	-66403-02-28 11:30 J	-22532214.22	-22532214.02	-22532213.79	0.0088	0.0024	
Earth	-66403-03-20 02:09 J	-22532194.67	-22532194.41	-22532194.15	0.0088	0.0012	
Moon	-66403-03-20 01:54 J	-22532194.66	-22532194.42	-22532194.16	0.0088	0.0009	*
Venus	-66403-10-12 00:28 J	-22531988.66	-22531988.48	-22531988.28	0.0088	0.0044	

Moon	-66402-03-22 13:54 J	-22531827.18	-22531826.92	-22531826.66	0.0088	0.0021
Earth	-66402-03-22 14:23 J	-22531827.15	-22531826.90	-22531826.64	0.0088	0.0017 *
Venus	-66402-05-25 13:25 J	-22531763.08	-22531762.94	-22531762.78	0.0088	0.0064
Venus	-66401-01-06 02:09 J	-22531537.45	-22531537.41	-22531537.32	0.0088	0.0084
Earth	-66401-03-24 02:23 J	-22531459.64	-22531459.40	-22531459.14	0.0088	0.0022
Moon	-66401-03-24 04:18 J	-22531459.56	-22531459.32	-22531459.06	0.0088	0.0018 *
Moon	-66400-03-26 11:30 J	-22531092.26	-22531092.02	-22531091.76	0.0088	0.0031
Earth	-66400-03-26 14:37 J	-22531092.13	-22531091.89	-22531091.63	0.0088	0.0027 *
Earth	-66399-03-29 02:52 J	-22530724.62	-22530724.38	-22530724.14	0.0088	0.0032
Moon	-66399-03-29 05:59 J	-22530724.49	-22530724.25	-22530724.00	0.0088	0.0028 *
Moon	-66398-03-31 10:47 J	-22530357.27	-22530357.05	-22530356.81	0.0088	0.0041
Earth	-66398-03-31 14:37 J	-22530357.12	-22530356.89	-22530356.65	0.0088	0.0037 *
Earth	-66397-04-02 02:09 J	-22529989.62	-22529989.41	-22529989.17	0.0088	0.0042
Moon	-66397-04-02 05:30 J	-22529989.50	-22529989.27	-22529989.02	0.0088	0.0038 *
Moon	-66396-04-04 10:47 J	-22529622.23	-22529622.05	-22529621.81	0.0088	0.0050
Earth	-66396-04-04 13:40 J	-22529622.13	-22529621.93	-22529621.69	0.0088	0.0047 *
Earth	-66395-04-07 01:25 J	-22529254.63	-22529254.44	-22529254.21	0.0088	0.0051
Moon	-66395-04-07 03:06 J	-22529254.57	-22529254.37	-22529254.12	0.0088	0.0048 *
Moon	-66394-04-09 12:42 J	-22528887.14	-22528886.97	-22528886.76	0.0088	0.0059
Earth	-66394-04-09 12:42 J	-22528887.14	-22528886.97	-22528886.74	0.0088	0.0056 *
Moon	-66393-04-10 23:45 J	-22528519.69	-22528519.51	-22528519.28	0.0088	0.0057
Earth	-66393-04-11 00:28 J	-22528519.66	-22528519.48	-22528519.28	0.0088	0.0060 *
Earth	-66392-04-13 11:59 J	-22528152.17	-22528152.00	-22528151.81	0.0088	0.0064
Moon	-66392-04-13 13:40 J	-22528152.07	-22528151.93	-22528151.74	0.0088	0.0068 *
Moon	-66391-04-15 20:09 J	-22527784.82	-22527784.66	-22527784.46	0.0088	0.0065
Earth	-66391-04-15 23:01 J	-22527784.67	-22527784.54	-22527784.35	0.0088	0.0069 *
Earth	-66390-04-18 10:18 J	-22527417.19	-22527417.07	-22527416.90	0.0088	0.0073
Moon	-66390-04-18 13:54 J	-22527417.04	-22527416.92	-22527416.77	0.0088	0.0075 *
Moon	-66389-04-19 17:59 J	-22527049.87	-22527049.75	-22527049.58	0.0088	0.0074
Earth	-66389-04-19 21:49 J	-22527049.69	-22527049.59	-22527049.44	0.0088	0.0077 *

Earth -66388-04-22 08:52 J -22526682.20 -22526682.13 -22526681.99 0.0088 0.0081
 Moon -66388-04-22 12:42 J -22526682.05 -22526681.97 -22526681.88 0.0088 0.0083 *
 Moon -66387-04-24 18:13 J -22526314.83 -22526314.74 -22526314.65 0.0088 0.0082
 Earth -66387-04-24 20:09 J -22526314.70 -22526314.66 -22526314.55 0.0088 0.0085 *
 Earth -66386-04-27 07:25 J -22525947.20 -22525947.19 -22525947.14 0.0089 0.0088
 Mercury -66379-11-29 08:37 J -22523174.15 -22523174.14 -22523174.11 0.0089 0.0088
 Mercury -66378-02-25 09:49 J -22523086.12 -22523086.09 -22523086.02 0.0089 0.0083
 Mercury -66378-05-24 11:30 J -22522998.08 -22522998.02 -22522997.95 0.0089 0.0077
 Mercury -66378-08-20 12:42 J -22522910.04 -22522909.97 -22522909.88 0.0089 0.0072
 Mercury -66378-11-16 14:09 J -22522821.99 -22522821.91 -22522821.82 0.0089 0.0067
 Mercury -66377-02-12 15:21 J -22522733.94 -22522733.86 -22522733.75 0.0089 0.0062
 Mercury -66377-05-10 16:47 J -22522645.90 -22522645.80 -22522645.69 0.0089 0.0056
 Mercury -66377-08-06 18:13 J -22522557.85 -22522557.74 -22522557.63 0.0089 0.0051
 Mercury -66377-11-02 19:25 J -22522469.80 -22522469.69 -22522469.57 0.0089 0.0046
 Mercury -66376-01-29 20:52 J -22522381.74 -22522381.63 -22522381.51 0.0089 0.0041
 Mercury -66376-04-27 22:04 J -22522293.69 -22522293.58 -22522293.45 0.0089 0.0036
 Mercury -66376-07-24 23:30 J -22522205.64 -22522205.52 -22522205.39 0.0089 0.0030
 Mercury -66376-10-21 00:57 J -22522117.59 -22522117.46 -22522117.33 0.0089 0.0025
 Mercury -66375-01-17 02:09 J -22522029.53 -22522029.41 -22522029.28 0.0089 0.0020
 Mercury -66375-04-15 03:35 J -22521941.48 -22521941.35 -22521941.22 0.0089 0.0015
 Mercury -66375-07-12 04:47 J -22521853.43 -22521853.30 -22521853.16 0.0089 0.0010
 Mercury -66375-10-08 06:13 J -22521765.37 -22521765.24 -22521765.11 0.0089 0.0004
 Mercury -66374-01-04 07:25 J -22521677.32 -22521677.19 -22521677.05 0.0089 0.0003
 Mercury -66374-04-02 08:52 J -22521589.26 -22521589.13 -22521589.00 0.0089 0.0006
 Mercury -66374-06-29 10:04 J -22521501.21 -22521501.08 -22521500.95 0.0089 0.0011
 Mercury -66374-09-25 11:16 J -22521413.15 -22521413.03 -22521412.89 0.0089 0.0017
 Mercury -66374-12-22 12:42 J -22521325.10 -22521324.97 -22521324.84 0.0089 0.0022
 Mercury -66373-03-19 13:54 J -22521237.04 -22521236.92 -22521236.79 0.0089 0.0027
 Mercury -66373-06-15 15:21 J -22521148.98 -22521148.86 -22521148.74 0.0089 0.0032
 Mercury -66373-09-11 16:33 J -22521060.92 -22521060.81 -22521060.69 0.0089 0.0037

Mercury -66373-12-08 17:59 J -22520972.87 -22520972.75 -22520972.64 0.0089 0.0042
 Mercury -66372-03-06 18:57 J -22520884.81 -22520884.71 -22520884.59 0.0089 0.0048
 Mercury -66372-06-02 20:23 J -22520796.75 -22520796.65 -22520796.54 0.0089 0.0053
 Mercury -66372-08-29 21:35 J -22520708.69 -22520708.60 -22520708.49 0.0089 0.0058
 Mercury -66372-11-25 23:01 J -22520620.63 -22520620.54 -22520620.44 0.0089 0.0063
 Mercury -66371-02-22 00:13 J -22520532.56 -22520532.49 -22520532.40 0.0089 0.0068
 Mercury -66371-05-21 01:40 J -22520444.50 -22520444.43 -22520444.35 0.0089 0.0073
 Mercury -66371-08-17 02:52 J -22520356.43 -22520356.38 -22520356.31 0.0089 0.0078
 Mercury -66371-11-13 04:18 J -22520268.36 -22520268.32 -22520268.28 0.0089 0.0083
 Mercury -66370-02-09 05:30 J -22520180.28 -22520180.27 -22520180.25 0.0089 0.0088
 Mars -66367-10-10 11:01 J -22518841.29 -22518841.04 -22518840.78 0.0089 0.0037
 Mars -66365-09-02 15:21 J -22518148.12 -22518147.86 -22518147.57 0.0089 0.0017
 Mars -66363-07-27 21:49 J -22517454.76 -22517454.59 -22517454.42 0.0089 0.0070
 Moon -66344-07-26 19:11 J -22510515.71 -22510515.70 -22510515.66 0.0089 0.0088
 Earth -66344-07-26 21:06 J -22510515.63 -22510515.62 -22510515.55 0.0089 0.0088
 Earth -66343-07-29 07:11 J -22510148.26 -22510148.20 -22510148.10 0.0089 0.0084
 Moon -66343-07-29 08:09 J -22510148.21 -22510148.16 -22510148.04 0.0089 0.0084 *
 Moon -66342-07-31 16:47 J -22509780.89 -22509780.80 -22509780.69 0.0089 0.0080
 Earth -66342-07-31 17:16 J -22509780.88 -22509780.78 -22509780.66 0.0089 0.0080 *
 Moon -66341-08-02 01:25 J -22509413.55 -22509413.44 -22509413.28 0.0089 0.0076
 Earth -66341-08-02 03:06 J -22509413.49 -22509413.37 -22509413.23 0.0089 0.0077 *
 Earth -66340-08-04 13:11 J -22509046.09 -22509045.95 -22509045.80 0.0089 0.0072
 Moon -66340-08-04 15:21 J -22509045.99 -22509045.86 -22509045.71 0.0089 0.0073 *
 Moon -66339-08-06 20:09 J -22508678.81 -22508678.66 -22508678.49 0.0089 0.0068
 Earth -66339-08-06 23:01 J -22508678.69 -22508678.54 -22508678.37 0.0089 0.0068 *
 Earth -66338-08-09 08:52 J -22508311.28 -22508311.13 -22508310.93 0.0089 0.0064
 Moon -66338-08-09 12:42 J -22508311.13 -22508310.97 -22508310.78 0.0089 0.0064 *
 Moon -66337-08-10 16:04 J -22507944.00 -22507943.83 -22507943.63 0.0089 0.0059
 Earth -66337-08-10 19:11 J -22507943.86 -22507943.70 -22507943.49 0.0089 0.0060 *
 Earth -66336-08-13 05:30 J -22507576.46 -22507576.27 -22507576.07 0.0089 0.0055

Moon	-66336-08-13 08:37 J	-22507576.33	-22507576.14	-22507575.93	0.0089	0.0054	*
Moon	-66335-08-15 13:25 J	-22507209.13	-22507208.94	-22507208.72	0.0089	0.0051	
Earth	-66335-08-15 15:21 J	-22507209.05	-22507208.86	-22507208.63	0.0089	0.0051	*
Earth	-66334-08-18 01:40 J	-22506841.63	-22506841.43	-22506841.20	0.0089	0.0046	
Moon	-66334-08-18 02:23 J	-22506841.61	-22506841.40	-22506841.16	0.0089	0.0046	*
Earth	-66333-08-19 11:59 J	-22506474.22	-22506474.00	-22506473.77	0.0089	0.0042	
Moon	-66333-08-19 11:59 J	-22506474.21	-22506474.00	-22506473.78	0.0089	0.0042	*
Moon	-66332-08-21 20:09 J	-22506106.88	-22506106.66	-22506106.40	0.0089	0.0037	
Earth	-66332-08-21 22:04 J	-22506106.80	-22506106.58	-22506106.34	0.0089	0.0037	*
Earth	-66331-08-24 08:09 J	-22505739.38	-22505739.16	-22505738.91	0.0089	0.0033	
Moon	-66331-08-24 10:47 J	-22505739.26	-22505739.05	-22505738.80	0.0089	0.0033	*
Moon	-66330-08-26 15:49 J	-22505372.09	-22505371.84	-22505371.60	0.0089	0.0027	
Earth	-66330-08-26 18:42 J	-22505371.95	-22505371.72	-22505371.47	0.0089	0.0027	*
Earth	-66329-08-28 05:16 J	-22505004.53	-22505004.28	-22505004.03	0.0089	0.0022	
Moon	-66329-08-28 08:37 J	-22505004.37	-22505004.14	-22505003.88	0.0089	0.0023	*
Moon	-66328-08-30 12:28 J	-22504637.22	-22504636.98	-22504636.73	0.0089	0.0017	
Earth	-66328-08-30 15:21 J	-22504637.09	-22504636.86	-22504636.59	0.0089	0.0018	*
Earth	-66327-09-02 01:54 J	-22504269.66	-22504269.42	-22504269.15	0.0089	0.0013	
Moon	-66327-09-02 05:01 J	-22504269.54	-22504269.29	-22504269.02	0.0089	0.0014	*
Moon	-66326-09-04 11:16 J	-22503902.27	-22503902.03	-22503901.78	0.0089	0.0007	
Earth	-66326-09-04 12:57 J	-22503902.21	-22503901.96	-22503901.70	0.0089	0.0008	*
Earth	-66325-09-05 23:45 J	-22503534.76	-22503534.51	-22503534.25	0.0089	0.0003	
Moon	-66325-09-06 00:13 J	-22503534.76	-22503534.49	-22503534.23	0.0089	0.0003	*
Venus	-66324-03-10 08:23 J	-22503349.23	-22503349.15	-22503349.02	0.0089	0.0077	
Earth	-66324-09-08 10:33 J	-22503167.31	-22503167.06	-22503166.80	0.0089	0.0003	
Moon	-66324-09-08 11:01 J	-22503167.28	-22503167.04	-22503166.79	0.0089	0.0004	*
Venus	-66324-10-21 21:35 J	-22503123.76	-22503123.60	-22503123.42	0.0089	0.0056	
Venus	-66323-06-04 10:18 J	-22502898.25	-22502898.07	-22502897.85	0.0089	0.0036	
Moon	-66323-09-10 19:11 J	-22502799.96	-22502799.70	-22502799.44	0.0089	0.0007	
Earth	-66323-09-10 21:21 J	-22502799.86	-22502799.61	-22502799.35	0.0089	0.0008	*

Venus	-66322-01-15 23:30 J	-22502672.73	-22502672.52	-22502672.30	0.0089	0.0015
Venus	-66322-08-29 12:13 J	-22502447.20	-22502446.99	-22502446.76	0.0089	0.0006
Earth	-66322-09-13 08:09 J	-22502432.41	-22502432.16	-22502431.90	0.0089	0.0013
Moon	-66322-09-13 11:01 J	-22502432.28	-22502432.04	-22502431.79	0.0089	0.0013 *
Venus	-66321-04-11 01:11 J	-22502221.66	-22502221.45	-22502221.24	0.0089	0.0026
Moon	-66321-09-14 15:49 J	-22502065.09	-22502064.84	-22502064.58	0.0089	0.0016
Earth	-66321-09-14 18:57 J	-22502064.95	-22502064.71	-22502064.44	0.0089	0.0018 *
Venus	-66321-11-22 13:40 J	-22501996.10	-22501995.93	-22501995.72	0.0089	0.0047
Venus	-66320-07-06 02:37 J	-22501770.51	-22501770.39	-22501770.22	0.0089	0.0068
Earth	-66320-09-17 05:45 J	-22501697.49	-22501697.26	-22501697.00	0.0089	0.0023
Moon	-66320-09-17 09:35 J	-22501697.34	-22501697.10	-22501696.84	0.0089	0.0024 *
Venus	-66319-02-16 15:49 J	-22501544.85	-22501544.84	-22501544.80	0.0089	0.0088
Moon	-66319-09-19 14:09 J	-22501330.15	-22501329.91	-22501329.67	0.0089	0.0026
Earth	-66319-09-19 17:16 J	-22501330.02	-22501329.78	-22501329.54	0.0089	0.0027 *
Earth	-66318-09-22 04:18 J	-22500962.55	-22500962.32	-22500962.08	0.0089	0.0032
Moon	-66318-09-22 06:42 J	-22500962.44	-22500962.22	-22500961.96	0.0089	0.0035 *
Moon	-66317-09-23 13:54 J	-22500595.13	-22500594.92	-22500594.68	0.0089	0.0036
Earth	-66317-09-23 15:21 J	-22500595.08	-22500594.86	-22500594.62	0.0089	0.0037 *
Moon	-66316-09-26 02:52 J	-22500227.61	-22500227.38	-22500227.14	0.0089	0.0043
Earth	-66316-09-26 02:37 J	-22500227.60	-22500227.39	-22500227.15	0.0089	0.0042 *
Earth	-66315-09-28 13:54 J	-22499860.12	-22499859.92	-22499859.69	0.0089	0.0047
Moon	-66315-09-28 14:37 J	-22499860.09	-22499859.89	-22499859.66	0.0089	0.0045 *
Moon	-66314-09-30 23:16 J	-22499492.73	-22499492.53	-22499492.31	0.0089	0.0053
Earth	-66314-10-01 01:25 J	-22499492.63	-22499492.44	-22499492.21	0.0089	0.0052 *
Earth	-66313-10-02 13:25 J	-22499125.13	-22499124.94	-22499124.74	0.0089	0.0056
Moon	-66313-10-02 16:04 J	-22499125.01	-22499124.83	-22499124.61	0.0089	0.0055 *
Moon	-66312-10-04 21:35 J	-22498757.77	-22498757.60	-22498757.41	0.0089	0.0063
Earth	-66312-10-05 00:42 J	-22498757.63	-22498757.47	-22498757.26	0.0089	0.0061 *
Earth	-66311-10-07 12:42 J	-22498390.13	-22498389.97	-22498389.78	0.0089	0.0065
Moon	-66311-10-07 16:18 J	-22498389.98	-22498389.82	-22498389.62	0.0089	0.0063 *

Moon -66310-10-09 21:35 J -22498022.73 -22498022.60 -22498022.44 0.0089 0.0072
 Earth -66310-10-10 00:28 J -22498022.62 -22498022.48 -22498022.30 0.0089 0.0070 *
 Earth -66309-10-11 12:13 J -22497655.11 -22497654.99 -22497654.83 0.0089 0.0074
 Moon -66309-10-11 14:52 J -22497655.01 -22497654.88 -22497654.69 0.0089 0.0071 *
 Moon -66308-10-13 22:47 J -22497287.63 -22497287.55 -22497287.42 0.0089 0.0081
 Earth -66308-10-14 00:13 J -22497287.59 -22497287.49 -22497287.35 0.0089 0.0078 *
 Moon -66307-10-16 12:42 J -22496920.08 -22496919.97 -22496919.84 0.0089 0.0079
 Earth -66307-10-16 12:13 J -22496920.07 -22496919.99 -22496919.87 0.0089 0.0082 *
 Earth -66306-10-19 00:13 J -22496552.53 -22496552.49 -22496552.40 0.0089 0.0086
 Moon -66305-10-20 09:49 J -22496185.11 -22496185.09 -22496185.01 0.0089 0.0087
 Mercury -66295-02-11 08:09 J -22492784.20 -22492784.16 -22492784.11 0.0089 0.0086
 Mercury -66295-05-10 11:30 J -22492696.09 -22492696.02 -22492695.92 0.0089 0.0079
 Mercury -66295-08-06 15:21 J -22492607.97 -22492607.86 -22492607.74 0.0089 0.0071
 Mercury -66295-11-02 18:42 J -22492519.84 -22492519.72 -22492519.57 0.0089 0.0064
 Mercury -66294-01-29 22:47 J -22492431.70 -22492431.55 -22492431.40 0.0089 0.0056
 Mercury -66294-04-28 02:09 J -22492343.56 -22492343.41 -22492343.24 0.0089 0.0049
 Mercury -66294-07-25 05:59 J -22492255.42 -22492255.25 -22492255.08 0.0089 0.0041
 Mercury -66294-10-21 09:21 J -22492167.28 -22492167.11 -22492166.92 0.0089 0.0034
 Mercury -66293-01-17 13:11 J -22492079.13 -22492078.95 -22492078.76 0.0089 0.0026
 Mercury -66293-04-14 16:47 J -22491990.98 -22491990.80 -22491990.60 0.0089 0.0019
 Mercury -66293-07-11 20:37 J -22491902.84 -22491902.64 -22491902.45 0.0089 0.0011
 Mercury -66293-10-08 00:13 J -22491814.68 -22491814.49 -22491814.29 0.0089 0.0003
 Mercury -66292-01-04 03:49 J -22491726.53 -22491726.34 -22491726.14 0.0089 0.0005
 Mercury -66292-04-02 07:40 J -22491638.38 -22491638.18 -22491637.99 0.0089 0.0012
 Mercury -66292-06-29 11:16 J -22491550.22 -22491550.03 -22491549.84 0.0089 0.0020
 Mercury -66292-09-25 14:37 J -22491462.06 -22491461.89 -22491461.69 0.0089 0.0028
 Mercury -66292-12-22 18:28 J -22491373.90 -22491373.73 -22491373.54 0.0089 0.0035
 Mercury -66291-03-20 22:04 J -22491285.74 -22491285.58 -22491285.40 0.0089 0.0043
 Mercury -66291-06-17 01:40 J -22491197.57 -22491197.43 -22491197.25 0.0089 0.0051
 Mercury -66291-09-13 05:30 J -22491109.41 -22491109.27 -22491109.11 0.0089 0.0058

Mercury -66291-12-10 09:06 J -22491021.24 -22491021.12 -22491020.97 0.0089 0.0066

Mercury -66290-03-08 13:11 J -22490933.06 -22490932.95 -22490932.84 0.0089 0.0073

Mercury -66290-06-04 16:33 J -22490844.87 -22490844.81 -22490844.72 0.0089 0.0081

Mercury -66290-08-31 20:23 J -22490756.65 -22490756.65 -22490756.63 0.0089 0.0088

Mars -66285-08-02 11:59 J -22488959.29 -22488959.00 -22488958.69 0.0088 0.0048

Mars -66283-06-30 10:33 J -22488262.39 -22488262.06 -22488261.70 0.0088 0.0021

Mars -66281-05-27 08:23 J -22487565.18 -22487565.15 -22487565.11 0.0088 0.0088

Moon -66262-01-25 14:52 J -22480747.88 -22480747.88 -22480747.87 0.0088 0.0088

Earth -66261-01-28 06:42 J -22480380.23 -22480380.22 -22480380.15 0.0088 0.0088

Moon -66260-01-29 19:11 J -22480012.77 -22480012.70 -22480012.58 0.0088 0.0081

Earth -66260-01-29 20:23 J -22480012.71 -22480012.65 -22480012.54 0.0088 0.0084 *

Earth -66259-02-01 10:04 J -22479645.17 -22479645.08 -22479644.94 0.0088 0.0079

Moon -66259-02-01 09:49 J -22479645.16 -22479645.09 -22479644.95 0.0088 0.0082 *

Earth -66258-02-03 23:30 J -22479277.63 -22479277.52 -22479277.36 0.0088 0.0075

Moon -66258-02-04 00:42 J -22479277.60 -22479277.47 -22479277.33 0.0088 0.0074 *

Moon -66257-02-06 10:47 J -22478910.19 -22478910.05 -22478909.89 0.0088 0.0073

Earth -66257-02-06 13:25 J -22478910.10 -22478909.94 -22478909.79 0.0088 0.0071 *

Earth -66256-02-08 02:23 J -22478542.56 -22478542.40 -22478542.22 0.0088 0.0067

Moon -66256-02-08 05:01 J -22478542.44 -22478542.29 -22478542.09 0.0088 0.0065 *

Moon -66255-02-10 11:59 J -22478175.16 -22478175.00 -22478174.79 0.0088 0.0064

Earth -66255-02-10 15:35 J -22478175.02 -22478174.85 -22478174.65 0.0088 0.0062 *

Earth -66254-02-13 04:47 J -22477807.49 -22477807.30 -22477807.09 0.0088 0.0058

Moon -66254-02-13 08:23 J -22477807.33 -22477807.15 -22477806.93 0.0088 0.0057 *

Moon -66253-02-15 14:37 J -22477440.07 -22477439.89 -22477439.67 0.0088 0.0055

Earth -66253-02-15 17:45 J -22477439.95 -22477439.76 -22477439.53 0.0088 0.0054 *

Earth -66252-02-17 06:57 J -22477072.41 -22477072.21 -22477071.97 0.0088 0.0049

Moon -66252-02-17 10:04 J -22477072.29 -22477072.08 -22477071.84 0.0088 0.0049 *

Moon -66251-02-19 18:42 J -22476704.93 -22476704.72 -22476704.49 0.0088 0.0045

Earth -66251-02-19 20:23 J -22476704.87 -22476704.65 -22476704.42 0.0088 0.0044 *

Earth -66250-02-22 09:06 J -22476337.34 -22476337.12 -22476336.87 0.0088 0.0039

Moon	-66250-02-22 09:49 J	-22476337.32	-22476337.09	-22476336.83	0.0088	0.0039	*
Earth	-66249-02-24 22:04 J	-22475969.80	-22475969.58	-22475969.32	0.0088	0.0035	
Moon	-66249-02-24 22:18 J	-22475969.78	-22475969.57	-22475969.31	0.0088	0.0035	*
Moon	-66248-02-26 09:35 J	-22475602.35	-22475602.10	-22475601.84	0.0088	0.0029	
Earth	-66248-02-26 11:30 J	-22475602.26	-22475602.02	-22475601.76	0.0088	0.0029	*
Earth	-66247-03-01 00:28 J	-22475234.72	-22475234.48	-22475234.22	0.0088	0.0024	
Moon	-66247-03-01 03:06 J	-22475234.60	-22475234.37	-22475234.11	0.0088	0.0024	*
Moon	-66246-03-03 10:18 J	-22474867.33	-22474867.07	-22474866.81	0.0088	0.0020	
Earth	-66246-03-03 13:25 J	-22474867.19	-22474866.94	-22474866.68	0.0088	0.0019	*
Earth	-66245-03-05 02:09 J	-22474499.66	-22474499.41	-22474499.14	0.0088	0.0014	
Moon	-66245-03-05 06:13 J	-22474499.50	-22474499.24	-22474498.98	0.0088	0.0014	*
Moon	-66244-03-07 11:30 J	-22474132.26	-22474132.02	-22474131.75	0.0088	0.0011	
Earth	-66244-03-07 15:06 J	-22474132.13	-22474131.87	-22474131.61	0.0088	0.0009	*
Earth	-66243-03-10 03:35 J	-22473764.61	-22473764.35	-22473764.09	0.0088	0.0004	
Moon	-66243-03-10 06:57 J	-22473764.48	-22473764.21	-22473763.94	0.0088	0.0002	*
Moon	-66242-03-12 14:23 J	-22473397.16	-22473396.90	-22473396.65	0.0088	0.0001	
Earth	-66242-03-12 16:18 J	-22473397.08	-22473396.82	-22473396.56	0.0088	0.0002	*
Venus	-66242-12-12 14:37 J	-22473122.00	-22473121.89	-22473121.73	0.0088	0.0071	
Earth	-66241-03-14 04:33 J	-22473029.57	-22473029.31	-22473029.05	0.0088	0.0006	
Moon	-66241-03-14 05:30 J	-22473029.54	-22473029.27	-22473029.00	0.0088	0.0007	*
Venus	-66241-07-25 04:04 J	-22472896.51	-22472896.33	-22472896.14	0.0088	0.0050	
Venus	-66240-03-07 17:01 J	-22472670.99	-22472670.79	-22472670.57	0.0088	0.0029	
Earth	-66240-03-16 16:47 J	-22472662.05	-22472661.80	-22472661.53	0.0088	0.0012	
Moon	-66240-03-16 17:01 J	-22472662.04	-22472661.79	-22472661.54	0.0088	0.0009	*
Venus	-66240-10-19 06:13 J	-22472445.46	-22472445.24	-22472445.02	0.0088	0.0009	
Moon	-66239-03-19 03:21 J	-22472294.61	-22472294.36	-22472294.08	0.0088	0.0017	
Earth	-66239-03-19 05:16 J	-22472294.53	-22472294.28	-22472294.01	0.0088	0.0016	*
Venus	-66239-06-01 19:11 J	-22472219.92	-22472219.70	-22472219.48	0.0088	0.0012	
Venus	-66238-01-13 08:09 J	-22471994.36	-22471994.16	-22471993.95	0.0088	0.0032	
Earth	-66238-03-21 17:16 J	-22471927.02	-22471926.78	-22471926.51	0.0088	0.0021	

Moon	-66238-03-21 19:54 J	-22471926.91	-22471926.67	-22471926.42	0.0088	0.0019	*
Venus	-66238-08-26 20:52 J	-22471768.79	-22471768.63	-22471768.43	0.0088	0.0053	
Moon	-66237-03-23 02:23 J	-22471559.63	-22471559.40	-22471559.13	0.0088	0.0028	
Earth	-66237-03-23 05:59 J	-22471559.50	-22471559.25	-22471559.00	0.0088	0.0026	*
Venus	-66237-04-08 09:49 J	-22471543.20	-22471543.09	-22471542.95	0.0088	0.0073	
Earth	-66236-03-25 17:59 J	-22471191.98	-22471191.75	-22471191.50	0.0088	0.0031	
Moon	-66236-03-25 21:35 J	-22471191.83	-22471191.60	-22471191.34	0.0088	0.0029	*
Moon	-66235-03-28 02:52 J	-22470824.60	-22470824.38	-22470824.14	0.0088	0.0038	
Earth	-66235-03-28 06:13 J	-22470824.47	-22470824.24	-22470823.99	0.0088	0.0036	*
Earth	-66234-03-30 18:13 J	-22470456.96	-22470456.74	-22470456.50	0.0088	0.0040	
Moon	-66234-03-30 21:35 J	-22470456.83	-22470456.60	-22470456.35	0.0088	0.0037	*
Moon	-66233-04-01 04:04 J	-22470089.52	-22470089.33	-22470089.10	0.0088	0.0048	
Earth	-66233-04-01 05:59 J	-22470089.45	-22470089.25	-22470089.00	0.0088	0.0046	*
Earth	-66232-04-03 18:13 J	-22469721.94	-22469721.74	-22469721.52	0.0088	0.0050	
Moon	-66232-04-03 19:11 J	-22469721.91	-22469721.70	-22469721.45	0.0088	0.0047	*
Earth	-66231-04-06 05:45 J	-22469354.44	-22469354.26	-22469354.04	0.0088	0.0054	
Moon	-66231-04-06 05:30 J	-22469354.44	-22469354.27	-22469354.05	0.0088	0.0058	*
Moon	-66230-04-08 15:21 J	-22468987.04	-22468986.86	-22468986.63	0.0088	0.0057	
Earth	-66230-04-08 17:16 J	-22468986.95	-22468986.78	-22468986.57	0.0088	0.0059	*
Earth	-66229-04-10 05:01 J	-22468619.46	-22468619.29	-22468619.10	0.0088	0.0063	
Moon	-66229-04-10 07:11 J	-22468619.35	-22468619.20	-22468619.02	0.0088	0.0066	*
Moon	-66228-04-12 13:25 J	-22468252.11	-22468251.94	-22468251.75	0.0088	0.0064	
Earth	-66228-04-12 16:18 J	-22468251.96	-22468251.82	-22468251.63	0.0088	0.0068	*
Earth	-66227-04-15 03:35 J	-22467884.48	-22467884.35	-22467884.17	0.0088	0.0072	
Moon	-66227-04-15 07:11 J	-22467884.31	-22467884.20	-22467884.03	0.0088	0.0075	*
Moon	-66226-04-17 11:45 J	-22467517.13	-22467517.01	-22467516.84	0.0088	0.0073	
Earth	-66226-04-17 15:06 J	-22467516.98	-22467516.87	-22467516.71	0.0088	0.0076	*
Earth	-66225-04-19 02:09 J	-22467149.49	-22467149.41	-22467149.27	0.0088	0.0080	
Moon	-66225-04-19 05:59 J	-22467149.33	-22467149.25	-22467149.15	0.0088	0.0083	*
Moon	-66224-04-21 11:59 J	-22466782.08	-22466782.00	-22466781.88	0.0088	0.0081	

Earth -66224-04-21 13:40 J -22466781.99 -22466781.93 -22466781.82 0.0088 0.0084 *
 Earth -66223-04-24 01:11 J -22466414.48 -22466414.45 -22466414.39 0.0088 0.0087
 Moon -66222-04-26 12:42 J -22466047.01 -22466046.97 -22466046.93 0.0088 0.0087
 Mercury -66214-08-26 07:40 J -22463003.19 -22463003.18 -22463003.16 0.0089 0.0088
 Mercury -66214-11-22 08:52 J -22462915.16 -22462915.13 -22462915.07 0.0089 0.0083
 Mercury -66213-02-18 10:18 J -22462827.12 -22462827.07 -22462827.00 0.0089 0.0077
 Mercury -66213-05-16 11:45 J -22462739.08 -22462739.01 -22462738.93 0.0089 0.0072
 Mercury -66213-08-12 12:57 J -22462651.04 -22462650.96 -22462650.87 0.0089 0.0067
 Mercury -66213-11-08 14:23 J -22462562.99 -22462562.90 -22462562.80 0.0089 0.0062
 Mercury -66212-02-04 15:35 J -22462474.94 -22462474.85 -22462474.74 0.0089 0.0057
 Mercury -66212-05-03 17:01 J -22462386.89 -22462386.79 -22462386.68 0.0089 0.0051
 Mercury -66212-07-30 18:28 J -22462298.84 -22462298.73 -22462298.62 0.0089 0.0046
 Mercury -66212-10-26 19:40 J -22462210.79 -22462210.68 -22462210.56 0.0089 0.0041
 Mercury -66211-01-22 21:06 J -22462122.74 -22462122.62 -22462122.50 0.0089 0.0036
 Mercury -66211-04-20 22:18 J -22462034.69 -22462034.57 -22462034.44 0.0089 0.0031
 Mercury -66211-07-17 23:45 J -22461946.63 -22461946.51 -22461946.38 0.0089 0.0025
 Mercury -66211-10-14 00:57 J -22461858.58 -22461858.46 -22461858.32 0.0089 0.0021
 Mercury -66210-01-10 02:23 J -22461770.53 -22461770.40 -22461770.27 0.0089 0.0015
 Mercury -66210-04-08 03:49 J -22461682.47 -22461682.34 -22461682.21 0.0089 0.0010
 Mercury -66210-07-05 05:01 J -22461594.42 -22461594.29 -22461594.15 0.0089 0.0005
 Mercury -66210-10-01 06:28 J -22461506.36 -22461506.23 -22461506.10 0.0089 0.0002
 Mercury -66210-12-28 07:40 J -22461418.31 -22461418.18 -22461418.05 0.0089 0.0006
 Mercury -66209-03-25 09:06 J -22461330.25 -22461330.12 -22461329.99 0.0089 0.0011
 Mercury -66209-06-21 10:18 J -22461242.20 -22461242.07 -22461241.94 0.0089 0.0016
 Mercury -66209-09-17 11:30 J -22461154.14 -22461154.02 -22461153.88 0.0089 0.0022
 Mercury -66209-12-14 12:57 J -22461066.08 -22461065.96 -22461065.83 0.0089 0.0027
 Mercury -66208-03-12 14:09 J -22460978.03 -22460977.91 -22460977.78 0.0089 0.0032
 Mercury -66208-06-08 15:35 J -22460889.97 -22460889.85 -22460889.73 0.0089 0.0037
 Mercury -66208-09-04 16:47 J -22460801.91 -22460801.80 -22460801.68 0.0089 0.0042
 Mercury -66208-12-01 18:13 J -22460713.85 -22460713.74 -22460713.63 0.0089 0.0047

Mercury -66207-02-27 19:11 J -22460625.79 -22460625.70 -22460625.58 0.0089 0.0053

Mercury -66207-05-26 20:37 J -22460537.73 -22460537.64 -22460537.53 0.0089 0.0058

Mercury -66207-08-22 21:49 J -22460449.67 -22460449.59 -22460449.49 0.0089 0.0063

Mercury -66207-11-18 23:16 J -22460361.61 -22460361.53 -22460361.44 0.0089 0.0068

Mercury -66206-02-15 00:28 J -22460273.54 -22460273.48 -22460273.40 0.0089 0.0073

Mercury -66206-05-14 01:54 J -22460185.48 -22460185.42 -22460185.36 0.0089 0.0078

Mercury -66206-08-10 03:06 J -22460097.41 -22460097.37 -22460097.32 0.0089 0.0083

Mercury -66206-11-06 04:33 J -22460009.32 -22460009.31 -22460009.30 0.0089 0.0088

Mars -66203-05-26 01:40 J -22459077.62 -22459077.43 -22459077.22 0.0089 0.0062

Mars -66201-04-18 06:57 J -22458384.48 -22458384.21 -22458383.92 0.0089 0.0009

Mars -66199-03-12 11:01 J -22457691.26 -22457691.04 -22457690.78 0.0089 0.0045

Moon -66182-07-22 11:59 J -22451350.03 -22451350.00 -22451349.94 0.0089 0.0087

Earth -66181-07-23 18:57 J -22450982.73 -22450982.71 -22450982.68 0.0089 0.0089

Earth -66180-07-26 04:18 J -22450615.37 -22450615.32 -22450615.23 0.0089 0.0085

Moon -66180-07-26 05:30 J -22450615.36 -22450615.27 -22450615.14 0.0089 0.0080 *

Earth -66179-07-28 14:09 J -22450248.00 -22450247.91 -22450247.79 0.0089 0.0081

Moon -66179-07-28 14:23 J -22450247.94 -22450247.90 -22450247.81 0.0089 0.0086 *

Moon -66178-07-30 22:33 J -22449880.69 -22449880.56 -22449880.40 0.0089 0.0073

Earth -66178-07-31 00:13 J -22449880.61 -22449880.49 -22449880.36 0.0089 0.0077 *

Earth -66177-08-01 09:49 J -22449513.22 -22449513.09 -22449512.94 0.0089 0.0074

Moon -66177-08-01 12:13 J -22449513.09 -22449512.99 -22449512.86 0.0089 0.0079 *

Moon -66176-08-03 16:04 J -22449145.98 -22449145.83 -22449145.64 0.0089 0.0065

Earth -66176-08-03 19:40 J -22449145.82 -22449145.68 -22449145.51 0.0089 0.0070 *

Earth -66175-08-06 05:30 J -22448778.43 -22448778.27 -22448778.09 0.0089 0.0065

Moon -66175-08-06 08:37 J -22448778.27 -22448778.14 -22448777.96 0.0089 0.0070 *

Moon -66174-08-08 11:59 J -22448411.17 -22448411.00 -22448410.79 0.0089 0.0056

Earth -66174-08-08 15:21 J -22448411.02 -22448410.86 -22448410.65 0.0089 0.0061 *

Earth -66173-08-10 01:40 J -22448043.61 -22448043.43 -22448043.22 0.0089 0.0056

Moon -66173-08-10 03:49 J -22448043.50 -22448043.34 -22448043.13 0.0089 0.0061 *

Moon -66172-08-12 09:49 J -22447676.27 -22447676.09 -22447675.86 0.0089 0.0048

Earth	-66172-08-12 11:45 J	-22447676.20	-22447676.01	-22447675.79	0.0089	0.0052	*
Earth	-66171-08-14 22:04 J	-22447308.79	-22447308.58	-22447308.36	0.0089	0.0047	
Moon	-66171-08-14 22:18 J	-22447308.76	-22447308.57	-22447308.33	0.0089	0.0052	*
Earth	-66170-08-17 07:54 J	-22446941.37	-22446941.17	-22446940.92	0.0089	0.0043	
Moon	-66170-08-17 09:35 J	-22446941.32	-22446941.10	-22446940.88	0.0089	0.0038	*
Moon	-66169-08-18 16:33 J	-22446574.02	-22446573.81	-22446573.57	0.0089	0.0042	
Earth	-66169-08-18 18:28 J	-22446573.95	-22446573.73	-22446573.49	0.0089	0.0038	*
Earth	-66168-08-21 04:33 J	-22446206.53	-22446206.31	-22446206.06	0.0089	0.0033	
Moon	-66168-08-21 07:40 J	-22446206.42	-22446206.18	-22446205.94	0.0089	0.0028	*
Moon	-66167-08-23 11:16 J	-22445839.25	-22445839.03	-22445838.78	0.0089	0.0033	
Earth	-66167-08-23 15:06 J	-22445839.11	-22445838.87	-22445838.63	0.0089	0.0028	*
Earth	-66166-08-26 01:11 J	-22445471.68	-22445471.45	-22445471.19	0.0089	0.0024	
Moon	-66166-08-26 04:47 J	-22445471.54	-22445471.30	-22445471.05	0.0089	0.0019	*
Moon	-66165-08-27 08:37 J	-22445104.38	-22445104.14	-22445103.90	0.0089	0.0024	
Earth	-66165-08-27 11:30 J	-22445104.25	-22445104.02	-22445103.76	0.0089	0.0019	*
Earth	-66164-08-29 22:04 J	-22444736.83	-22444736.58	-22444736.32	0.0089	0.0014	
Moon	-66164-08-30 00:13 J	-22444736.75	-22444736.49	-22444736.23	0.0089	0.0009	*
Moon	-66163-09-01 07:11 J	-22444369.44	-22444369.20	-22444368.95	0.0089	0.0013	
Earth	-66163-09-01 08:37 J	-22444369.39	-22444369.14	-22444368.88	0.0089	0.0009	*
Moon	-66162-09-03 19:25 J	-22444001.96	-22444001.69	-22444001.43	0.0089	0.0001	
Earth	-66162-09-03 19:11 J	-22444001.95	-22444001.70	-22444001.44	0.0089	0.0004	*
Earth	-66161-09-05 05:59 J	-22443634.51	-22443634.25	-22443634.00	0.0089	0.0001	
Moon	-66161-09-05 07:25 J	-22443634.44	-22443634.19	-22443633.94	0.0089	0.0003	*
Venus	-66160-06-11 16:47 J	-22443354.81	-22443354.80	-22443354.74	0.0089	0.0088	
Moon	-66160-09-07 14:23 J	-22443267.15	-22443266.90	-22443266.63	0.0089	0.0011	
Earth	-66160-09-07 16:47 J	-22443267.06	-22443266.80	-22443266.55	0.0089	0.0006	*
Venus	-66159-01-23 05:59 J	-22443129.38	-22443129.25	-22443129.10	0.0089	0.0067	
Venus	-66159-09-05 18:42 J	-22442903.89	-22442903.72	-22442903.52	0.0089	0.0047	
Earth	-66159-09-10 03:35 J	-22442899.60	-22442899.35	-22442899.10	0.0089	0.0011	
Moon	-66159-09-10 06:42 J	-22442899.47	-22442899.22	-22442898.97	0.0089	0.0007	*

Venus	-66158-04-19 07:40 J	-22442678.38	-22442678.18	-22442677.97	0.0089	0.0026
Moon	-66158-09-12 11:01 J	-22442532.29	-22442532.04	-22442531.79	0.0089	0.0021
Earth	-66158-09-12 14:37 J	-22442532.14	-22442531.89	-22442531.64	0.0089	0.0016 *
Venus	-66158-11-30 20:37 J	-22442452.86	-22442452.64	-22442452.42	0.0089	0.0005
Venus	-66157-07-13 09:35 J	-22442227.31	-22442227.10	-22442226.88	0.0089	0.0015
Earth	-66157-09-14 01:25 J	-22442164.69	-22442164.44	-22442164.19	0.0089	0.0021
Moon	-66157-09-14 04:47 J	-22442164.55	-22442164.30	-22442164.05	0.0089	0.0017 *
Venus	-66156-02-23 22:18 J	-22442001.76	-22442001.57	-22442001.36	0.0089	0.0036
Moon	-66156-09-16 09:06 J	-22441797.35	-22441797.12	-22441796.88	0.0089	0.0031
Earth	-66156-09-16 12:13 J	-22441797.22	-22441796.99	-22441796.74	0.0089	0.0026 *
Venus	-66156-10-07 11:01 J	-22441776.19	-22441776.04	-22441775.85	0.0089	0.0057
Venus	-66155-05-21 00:13 J	-22441550.59	-22441550.49	-22441550.38	0.0089	0.0077
Earth	-66155-09-18 23:16 J	-22441429.76	-22441429.53	-22441429.29	0.0089	0.0031
Moon	-66155-09-19 00:57 J	-22441429.70	-22441429.46	-22441429.19	0.0089	0.0027 *
Moon	-66154-09-21 09:06 J	-22441062.33	-22441062.12	-22441061.89	0.0089	0.0040
Earth	-66154-09-21 10:04 J	-22441062.30	-22441062.08	-22441061.83	0.0089	0.0036 *
Moon	-66153-09-22 21:06 J	-22440694.85	-22440694.62	-22440694.37	0.0089	0.0036
Earth	-66153-09-22 21:06 J	-22440694.83	-22440694.62	-22440694.37	0.0089	0.0041 *
Earth	-66152-09-25 08:09 J	-22440327.36	-22440327.16	-22440326.92	0.0089	0.0046
Moon	-66152-09-25 10:04 J	-22440327.27	-22440327.08	-22440326.86	0.0089	0.0050 *
Moon	-66151-09-27 17:16 J	-22439959.99	-22439959.78	-22439959.54	0.0089	0.0046
Earth	-66151-09-27 19:54 J	-22439959.88	-22439959.67	-22439959.46	0.0089	0.0050 *
Earth	-66150-09-30 06:57 J	-22439592.40	-22439592.21	-22439591.99	0.0089	0.0055
Moon	-66150-09-30 10:04 J	-22439592.24	-22439592.08	-22439591.87	0.0089	0.0060 *
Moon	-66149-10-01 14:52 J	-22439225.07	-22439224.88	-22439224.66	0.0089	0.0055
Earth	-66149-10-01 18:13 J	-22439224.91	-22439224.74	-22439224.53	0.0089	0.0060 *
Earth	-66148-10-04 05:45 J	-22438857.41	-22438857.26	-22438857.06	0.0089	0.0064
Moon	-66148-10-04 09:21 J	-22438857.26	-22438857.11	-22438856.93	0.0089	0.0068 *
Moon	-66147-10-06 14:52 J	-22438490.04	-22438489.88	-22438489.70	0.0089	0.0064
Earth	-66147-10-06 17:30 J	-22438489.91	-22438489.77	-22438489.58	0.0089	0.0069 *

Earth -66146-10-09 05:16 J -22438122.40 -22438122.28 -22438122.11 0.0089 0.0073
 Moon -66146-10-09 06:57 J -22438122.31 -22438122.21 -22438122.05 0.0089 0.0077 *
 Moon -66145-10-10 15:49 J -22437754.95 -22437754.84 -22437754.67 0.0089 0.0074
 Earth -66145-10-10 17:16 J -22437754.89 -22437754.78 -22437754.64 0.0089 0.0077 *
 Earth -66144-10-13 05:01 J -22437387.37 -22437387.29 -22437387.17 0.0089 0.0081
 Moon -66144-10-13 04:33 J -22437387.36 -22437387.31 -22437387.21 0.0089 0.0085 *
 Earth -66143-10-15 17:01 J -22437019.85 -22437019.79 -22437019.70 0.0089 0.0085
 Moon -66143-10-15 18:57 J -22437019.80 -22437019.71 -22437019.60 0.0089 0.0081 *
 Earth -66142-10-18 05:01 J -22436652.29 -22436652.29 -22436652.26 0.0089 0.0089
 Moon -66141-10-19 20:09 J -22436284.66 -22436284.66 -22436284.62 0.0089 0.0089
 Mercury -66131-11-08 04:33 J -22432613.33 -22432613.31 -22432613.25 0.0089 0.0087
 Mercury -66130-02-04 08:23 J -22432525.22 -22432525.15 -22432525.05 0.0089 0.0079
 Mercury -66130-05-03 11:59 J -22432437.10 -22432437.00 -22432436.87 0.0089 0.0072
 Mercury -66130-07-30 15:49 J -22432348.97 -22432348.84 -22432348.70 0.0089 0.0064
 Mercury -66130-10-26 19:11 J -22432260.83 -22432260.70 -22432260.53 0.0089 0.0057
 Mercury -66129-01-22 23:01 J -22432172.69 -22432172.54 -22432172.37 0.0089 0.0049
 Mercury -66129-04-20 02:37 J -22432084.55 -22432084.39 -22432084.21 0.0089 0.0041
 Mercury -66129-07-17 06:28 J -22431996.41 -22431996.23 -22431996.05 0.0089 0.0034
 Mercury -66129-10-13 09:49 J -22431908.26 -22431908.09 -22431907.89 0.0089 0.0027
 Mercury -66128-01-09 13:40 J -22431820.11 -22431819.93 -22431819.73 0.0089 0.0019
 Mercury -66128-04-07 17:30 J -22431731.96 -22431731.77 -22431731.58 0.0089 0.0011
 Mercury -66128-07-04 21:06 J -22431643.81 -22431643.62 -22431643.42 0.0089 0.0003
 Mercury -66128-10-01 00:42 J -22431555.66 -22431555.47 -22431555.27 0.0089 0.0005
 Mercury -66128-12-28 04:33 J -22431467.51 -22431467.31 -22431467.12 0.0089 0.0012
 Mercury -66127-03-26 08:09 J -22431379.35 -22431379.16 -22431378.97 0.0089 0.0020
 Mercury -66127-06-22 11:30 J -22431291.19 -22431291.02 -22431290.82 0.0089 0.0028
 Mercury -66127-09-18 15:21 J -22431203.03 -22431202.86 -22431202.67 0.0089 0.0035
 Mercury -66127-12-15 18:57 J -22431114.87 -22431114.71 -22431114.53 0.0089 0.0043
 Mercury -66126-03-13 22:33 J -22431026.71 -22431026.56 -22431026.38 0.0089 0.0050
 Mercury -66126-06-10 02:23 J -22430938.54 -22430938.40 -22430938.24 0.0089 0.0058

Mercury -66126-09-06 05:59 J -22430850.37 -22430850.25 -22430850.11 0.0089 0.0066

Mercury -66126-12-03 10:04 J -22430762.19 -22430762.08 -22430761.97 0.0089 0.0073

Mercury -66125-02-29 13:25 J -22430674.01 -22430673.94 -22430673.85 0.0089 0.0081

Mercury -66125-05-27 17:01 J -22430585.79 -22430585.79 -22430585.76 0.0089 0.0089

Mars -66121-03-14 23:45 J -22429198.63 -22429198.51 -22429198.32 0.0088 0.0080

Mars -66119-02-09 22:18 J -22428501.90 -22428501.57 -22428501.20 0.0088 0.0013

Mars -66117-01-07 20:37 J -22427804.90 -22427804.64 -22427804.35 0.0088 0.0056

Earth -66098-01-24 19:11 J -22420847.70 -22420847.70 -22420847.69 0.0088 0.0088

Moon -66097-01-27 07:40 J -22420480.26 -22420480.18 -22420480.06 0.0088 0.0081

Earth -66097-01-27 08:23 J -22420480.20 -22420480.15 -22420480.06 0.0088 0.0085 *

Earth -66096-01-28 22:04 J -22420112.67 -22420112.58 -22420112.46 0.0088 0.0080

Moon -66096-01-28 21:06 J -22420112.66 -22420112.62 -22420112.50 0.0088 0.0085 *

Earth -66095-01-31 11:30 J -22419745.13 -22419745.02 -22419744.87 0.0088 0.0077

Moon -66095-01-31 13:25 J -22419745.05 -22419744.94 -22419744.77 0.0088 0.0074 *

Moon -66094-02-02 22:47 J -22419377.68 -22419377.55 -22419377.40 0.0088 0.0076

Earth -66094-02-03 00:57 J -22419377.58 -22419377.46 -22419377.28 0.0088 0.0072 *

Earth -66093-02-05 15:06 J -22419010.04 -22419009.87 -22419009.70 0.0088 0.0068

Moon -66093-02-05 18:13 J -22419009.91 -22419009.74 -22419009.55 0.0088 0.0064 *

Moon -66092-02-07 00:28 J -22418642.63 -22418642.48 -22418642.29 0.0088 0.0067

Earth -66092-02-07 04:18 J -22418642.49 -22418642.32 -22418642.12 0.0088 0.0063 *

Earth -66091-02-09 17:16 J -22418274.95 -22418274.78 -22418274.56 0.0088 0.0059

Moon -66091-02-09 21:06 J -22418274.81 -22418274.62 -22418274.40 0.0088 0.0055 *

Moon -66090-02-12 04:04 J -22417907.52 -22417907.33 -22417907.14 0.0088 0.0059

Earth -66090-02-12 06:42 J -22417907.40 -22417907.22 -22417906.99 0.0088 0.0055 *

Earth -66089-02-14 20:09 J -22417539.87 -22417539.66 -22417539.43 0.0088 0.0050

Moon -66089-02-14 22:04 J -22417539.80 -22417539.58 -22417539.33 0.0088 0.0045 *

Moon -66088-02-16 07:54 J -22417172.36 -22417172.17 -22417171.94 0.0088 0.0049

Earth -66088-02-16 09:06 J -22417172.32 -22417172.12 -22417171.87 0.0088 0.0045 *

Moon -66087-02-18 22:33 J -22416804.80 -22416804.56 -22416804.30 0.0088 0.0036

Earth -66087-02-18 22:18 J -22416804.78 -22416804.57 -22416804.32 0.0088 0.0041 *

Earth	-66086-02-21 11:30 J	-22416437.25	-22416437.02	-22416436.77	0.0088	0.0035
Moon	-66086-02-21 12:57 J	-22416437.17	-22416436.96	-22416436.72	0.0088	0.0040 *
Moon	-66085-02-23 22:18 J	-22416069.81	-22416069.57	-22416069.29	0.0088	0.0027
Earth	-66085-02-24 00:42 J	-22416069.71	-22416069.47	-22416069.22	0.0088	0.0031 *
Earth	-66084-02-25 13:40 J	-22415702.17	-22415701.93	-22415701.67	0.0088	0.0026
Moon	-66084-02-25 16:47 J	-22415702.03	-22415701.80	-22415701.54	0.0088	0.0031 *
Moon	-66083-02-27 23:01 J	-22415334.79	-22415334.54	-22415334.27	0.0088	0.0016
Earth	-66083-02-28 02:52 J	-22415334.63	-22415334.38	-22415334.12	0.0088	0.0020 *
Earth	-66082-03-02 15:35 J	-22414967.10	-22414966.85	-22414966.58	0.0088	0.0016
Moon	-66082-03-02 19:11 J	-22414966.95	-22414966.70	-22414966.43	0.0088	0.0020 *
Moon	-66081-03-04 01:25 J	-22414599.69	-22414599.44	-22414599.18	0.0088	0.0006
Earth	-66081-03-04 04:47 J	-22414599.56	-22414599.30	-22414599.04	0.0088	0.0010 *
Earth	-66080-03-06 17:30 J	-22414232.03	-22414231.77	-22414231.50	0.0088	0.0006
Moon	-66080-03-06 19:54 J	-22414231.94	-22414231.67	-22414231.40	0.0088	0.0010 *
Moon	-66079-03-09 04:33 J	-22413864.56	-22413864.31	-22413864.05	0.0088	0.0004
Earth	-66079-03-09 06:28 J	-22413864.49	-22413864.23	-22413863.97	0.0088	0.0001 *
Earth	-66078-03-11 18:42 J	-22413496.98	-22413496.72	-22413496.45	0.0088	0.0005
Moon	-66078-03-11 19:11 J	-22413496.97	-22413496.70	-22413496.43	0.0088	0.0001 *
Earth	-66077-03-13 07:25 J	-22413129.45	-22413129.19	-22413128.93	0.0088	0.0010
Moon	-66077-03-13 08:23 J	-22413129.39	-22413129.15	-22413128.90	0.0088	0.0014 *
Venus	-66077-03-14 22:04 J	-22413127.66	-22413127.58	-22413127.49	0.0088	0.0082
Venus	-66077-10-26 10:47 J	-22412902.19	-22412902.05	-22412901.87	0.0088	0.0062
Moon	-66076-03-15 17:59 J	-22412762.02	-22412761.75	-22412761.48	0.0088	0.0010
Earth	-66076-03-15 19:54 J	-22412761.93	-22412761.67	-22412761.41	0.0088	0.0015 *
Venus	-66076-06-08 23:59 J	-22412676.68	-22412676.50	-22412676.29	0.0088	0.0041
Venus	-66075-01-20 13:25 J	-22412451.15	-22412450.94	-22412450.72	0.0088	0.0020
Earth	-66075-03-18 07:54 J	-22412394.42	-22412394.17	-22412393.91	0.0088	0.0020
Moon	-66075-03-18 10:47 J	-22412394.28	-22412394.05	-22412393.79	0.0088	0.0025 *
Venus	-66075-09-03 02:23 J	-22412225.62	-22412225.40	-22412225.17	0.0088	0.0001
Moon	-66074-03-20 16:33 J	-22412027.05	-22412026.81	-22412026.54	0.0088	0.0021

Earth	-66074-03-20 20:09 J	-22412026.90	-22412026.66	-22412026.40	0.0088	0.0025	*
Venus	-66074-04-16 15:21 J	-22412000.07	-22411999.86	-22411999.64	0.0088	0.0020	
Venus	-66074-11-28 04:18 J	-22411774.51	-22411774.32	-22411774.12	0.0088	0.0041	
Earth	-66073-03-22 08:23 J	-22411659.39	-22411659.15	-22411658.90	0.0088	0.0029	
Moon	-66073-03-22 11:59 J	-22411659.23	-22411659.00	-22411658.75	0.0088	0.0034	*
Venus	-66073-07-10 16:47 J	-22411548.94	-22411548.80	-22411548.62	0.0088	0.0062	
Venus	-66072-02-21 05:45 J	-22411323.32	-22411323.26	-22411323.16	0.0088	0.0082	
Moon	-66072-03-24 17:30 J	-22411292.01	-22411291.77	-22411291.53	0.0088	0.0030	
Earth	-66072-03-24 20:37 J	-22411291.87	-22411291.64	-22411291.39	0.0088	0.0035	*
Earth	-66071-03-27 08:37 J	-22410924.36	-22410924.14	-22410923.89	0.0088	0.0039	
Moon	-66071-03-27 11:01 J	-22410924.25	-22410924.04	-22410923.79	0.0088	0.0044	*
Moon	-66070-03-29 18:42 J	-22410556.92	-22410556.72	-22410556.47	0.0088	0.0041	
Earth	-66070-03-29 20:37 J	-22410556.84	-22410556.64	-22410556.39	0.0088	0.0044	*
Earth	-66069-03-31 08:52 J	-22410189.33	-22410189.13	-22410188.90	0.0088	0.0049	
Moon	-66069-03-31 09:21 J	-22410189.31	-22410189.11	-22410188.88	0.0088	0.0053	*
Earth	-66068-04-02 20:52 J	-22409821.82	-22409821.63	-22409821.40	0.0088	0.0053	
Moon	-66068-04-02 21:49 J	-22409821.78	-22409821.59	-22409821.36	0.0088	0.0050	*
Moon	-66067-04-05 06:57 J	-22409454.38	-22409454.21	-22409454.00	0.0088	0.0062	
Earth	-66067-04-05 08:52 J	-22409454.31	-22409454.13	-22409453.92	0.0088	0.0058	*
Earth	-66066-04-07 20:09 J	-22409086.81	-22409086.66	-22409086.45	0.0088	0.0063	
Moon	-66066-04-07 23:45 J	-22409086.69	-22409086.51	-22409086.31	0.0088	0.0058	*
Moon	-66065-04-09 04:47 J	-22408719.44	-22408719.30	-22408719.12	0.0088	0.0071	
Earth	-66065-04-09 08:09 J	-22408719.31	-22408719.16	-22408718.97	0.0088	0.0067	*
Earth	-66064-04-11 19:40 J	-22408351.82	-22408351.68	-22408351.51	0.0088	0.0071	
Moon	-66064-04-11 23:45 J	-22408351.68	-22408351.51	-22408351.34	0.0088	0.0067	*
Moon	-66063-04-14 04:04 J	-22407984.43	-22407984.33	-22407984.21	0.0088	0.0079	
Earth	-66063-04-14 07:11 J	-22407984.32	-22407984.20	-22407984.04	0.0088	0.0075	*
Earth	-66062-04-16 18:28 J	-22407616.83	-22407616.73	-22407616.59	0.0088	0.0079	
Moon	-66062-04-16 21:21 J	-22407616.74	-22407616.61	-22407616.47	0.0088	0.0075	*
Moon	-66061-04-18 04:18 J	-22407249.37	-22407249.32	-22407249.25	0.0088	0.0086	

Earth -66061-04-18 05:45 J -22407249.32 -22407249.26 -22407249.14 0.0088 0.0083 *
 Moon -66060-04-20 17:16 J -22406881.84 -22406881.78 -22406881.65 0.0088 0.0083
 Earth -66060-04-20 17:01 J -22406881.81 -22406881.79 -22406881.70 0.0088 0.0087 *
 Mercury -66049-05-22 06:28 J -22402832.23 -22402832.23 -22402832.21 0.0089 0.0088
 Mercury -66049-08-18 07:54 J -22402744.21 -22402744.17 -22402744.12 0.0089 0.0083
 Mercury -66049-11-14 09:06 J -22402656.17 -22402656.12 -22402656.05 0.0089 0.0078
 Mercury -66048-02-10 10:33 J -22402568.13 -22402568.06 -22402567.98 0.0089 0.0073
 Mercury -66048-05-09 11:45 J -22402480.08 -22402480.01 -22402479.91 0.0089 0.0068
 Mercury -66048-08-05 12:57 J -22402392.04 -22402391.96 -22402391.85 0.0089 0.0063
 Mercury -66048-11-01 14:37 J -22402303.99 -22402303.89 -22402303.79 0.0089 0.0057
 Mercury -66047-01-28 15:49 J -22402215.94 -22402215.84 -22402215.73 0.0089 0.0052
 Mercury -66047-04-26 17:16 J -22402127.89 -22402127.78 -22402127.66 0.0089 0.0047
 Mercury -66047-07-23 18:28 J -22402039.84 -22402039.73 -22402039.60 0.0089 0.0042
 Mercury -66047-10-19 19:54 J -22401951.79 -22401951.67 -22401951.55 0.0089 0.0036
 Mercury -66046-01-15 21:21 J -22401863.74 -22401863.61 -22401863.49 0.0089 0.0031
 Mercury -66046-04-13 22:33 J -22401775.68 -22401775.56 -22401775.43 0.0089 0.0026
 Mercury -66046-07-10 23:59 J -22401687.63 -22401687.50 -22401687.37 0.0089 0.0020
 Mercury -66046-10-07 01:11 J -22401599.58 -22401599.45 -22401599.32 0.0089 0.0016
 Mercury -66045-01-03 02:37 J -22401511.52 -22401511.39 -22401511.26 0.0089 0.0010
 Mercury -66045-03-31 03:49 J -22401423.47 -22401423.34 -22401423.20 0.0089 0.0006
 Mercury -66045-06-27 05:16 J -22401335.41 -22401335.28 -22401335.15 0.0089 0.0001
 Mercury -66045-09-23 06:28 J -22401247.36 -22401247.23 -22401247.09 0.0089 0.0006
 Mercury -66045-12-20 07:54 J -22401159.30 -22401159.17 -22401159.04 0.0089 0.0011
 Mercury -66044-03-18 09:06 J -22401071.25 -22401071.12 -22401070.99 0.0089 0.0016
 Mercury -66044-06-14 10:33 J -22400983.19 -22400983.06 -22400982.93 0.0089 0.0021
 Mercury -66044-09-10 11:45 J -22400895.13 -22400895.01 -22400894.88 0.0089 0.0026
 Mercury -66044-12-07 12:57 J -22400807.07 -22400806.96 -22400806.83 0.0089 0.0032
 Mercury -66043-03-05 14:23 J -22400719.02 -22400718.90 -22400718.78 0.0089 0.0037
 Mercury -66043-06-01 15:35 J -22400630.96 -22400630.85 -22400630.73 0.0089 0.0042
 Mercury -66043-08-28 17:01 J -22400542.90 -22400542.79 -22400542.68 0.0089 0.0047

Mercury -66043-11-24 18:28 J -22400454.84 -22400454.73 -22400454.63 0.0089 0.0052

Mercury -66042-02-20 19:25 J -22400366.78 -22400366.69 -22400366.58 0.0089 0.0058

Mercury -66042-05-19 20:37 J -22400278.72 -22400278.64 -22400278.53 0.0089 0.0063

Mercury -66042-08-15 22:04 J -22400190.66 -22400190.58 -22400190.49 0.0089 0.0068

Mercury -66042-11-11 23:16 J -22400102.59 -22400102.53 -22400102.44 0.0089 0.0073

Mercury -66041-02-08 00:42 J -22400014.52 -22400014.47 -22400014.40 0.0089 0.0078

Mercury -66041-05-06 01:54 J -22399926.45 -22399926.42 -22399926.36 0.0089 0.0083

Mercury -66041-08-02 03:21 J -22399838.37 -22399838.36 -22399838.34 0.0089 0.0088

Mars -66039-01-08 12:57 J -22399313.99 -22399313.96 -22399313.86 0.0089 0.0087

Mars -66038-12-02 19:11 J -22398620.95 -22398620.70 -22398620.43 0.0089 0.0034

Mars -66036-10-26 00:57 J -22397927.73 -22397927.46 -22397927.18 0.0089 0.0019

Mars -66034-09-19 05:01 J -22397234.44 -22397234.29 -22397234.11 0.0089 0.0072

Moon -66018-07-21 13:54 J -22391449.94 -22391449.92 -22391449.89 0.0089 0.0088

Earth -66017-07-23 01:11 J -22391082.49 -22391082.45 -22391082.37 0.0089 0.0086

Moon -66017-07-23 01:40 J -22391082.46 -22391082.43 -22391082.36 0.0089 0.0087 *

Earth -66016-07-25 11:01 J -22390715.12 -22390715.04 -22390714.94 0.0089 0.0082

Moon -66016-07-25 11:01 J -22390715.11 -22390715.04 -22390714.92 0.0089 0.0082 *

Moon -66015-07-27 18:28 J -22390347.82 -22390347.73 -22390347.60 0.0089 0.0080

Earth -66015-07-27 21:06 J -22390347.74 -22390347.62 -22390347.50 0.0089 0.0079 *

Earth -66014-07-30 06:13 J -22389980.35 -22389980.24 -22389980.08 0.0089 0.0075

Moon -66014-07-30 09:21 J -22389980.23 -22389980.11 -22389979.96 0.0089 0.0073 *

Moon -66013-07-31 12:57 J -22389613.10 -22389612.96 -22389612.79 0.0089 0.0072

Earth -66013-07-31 16:47 J -22389612.96 -22389612.80 -22389612.65 0.0089 0.0071 *

Earth -66012-08-03 02:23 J -22389245.56 -22389245.40 -22389245.23 0.0089 0.0066

Moon -66012-08-03 05:30 J -22389245.42 -22389245.27 -22389245.08 0.0089 0.0065 *

Moon -66011-08-05 09:06 J -22388878.28 -22388878.12 -22388877.93 0.0089 0.0064

Earth -66011-08-05 11:59 J -22388878.16 -22388878.00 -22388877.80 0.0089 0.0063 *

Earth -66010-08-07 21:49 J -22388510.76 -22388510.59 -22388510.38 0.0089 0.0058

Moon -66010-08-08 00:42 J -22388510.66 -22388510.47 -22388510.26 0.0089 0.0058 *

Moon -66009-08-09 06:42 J -22388143.39 -22388143.22 -22388143.00 0.0089 0.0055

Earth	-66009-08-09 08:09 J	-22388143.36	-22388143.16	-22388142.95	0.0089	0.0053	*
Moon	-66008-08-11 17:30 J	-22387775.97	-22387775.77	-22387775.52	0.0089	0.0048	
Earth	-66008-08-11 17:45 J	-22387775.95	-22387775.76	-22387775.53	0.0089	0.0049	*
Earth	-66007-08-14 04:04 J	-22387408.54	-22387408.33	-22387408.10	0.0089	0.0044	
Moon	-66007-08-14 04:47 J	-22387408.49	-22387408.30	-22387408.06	0.0089	0.0045	*
Moon	-66006-08-16 11:30 J	-22387041.23	-22387041.02	-22387040.77	0.0089	0.0039	
Earth	-66006-08-16 14:37 J	-22387041.11	-22387040.89	-22387040.66	0.0089	0.0039	*
Earth	-66005-08-18 00:13 J	-22386673.70	-22386673.49	-22386673.24	0.0089	0.0035	
Moon	-66005-08-18 03:49 J	-22386673.57	-22386673.34	-22386673.11	0.0089	0.0035	*
Moon	-66004-08-20 07:25 J	-22386306.43	-22386306.19	-22386305.95	0.0089	0.0029	
Earth	-66004-08-20 10:47 J	-22386306.28	-22386306.05	-22386305.80	0.0089	0.0030	*
Earth	-66003-08-22 21:06 J	-22385938.86	-22385938.62	-22385938.37	0.0089	0.0025	
Moon	-66003-08-23 00:28 J	-22385938.71	-22385938.48	-22385938.22	0.0089	0.0026	*
Moon	-66002-08-25 04:33 J	-22385571.54	-22385571.31	-22385571.05	0.0089	0.0020	
Earth	-66002-08-25 07:25 J	-22385571.43	-22385571.19	-22385570.94	0.0089	0.0020	*
Earth	-66001-08-26 17:45 J	-22385204.01	-22385203.76	-22385203.51	0.0089	0.0015	
Moon	-66001-08-26 19:54 J	-22385203.92	-22385203.67	-22385203.40	0.0089	0.0015	*

66TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 66th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-66000-08-29 03:35 J	-22384836.59	-22384836.35	-22384836.10	0.0089	0.0009		

Earth	-66000-08-29 04:04 J	-22384836.58	-22384836.33	-22384836.07	0.0089	0.0010	*
Moon	-65999-08-31 13:54 J	-22384469.18	-22384468.92	-22384468.65	0.0089	0.0006	
Earth	-65999-08-31 14:37 J	-22384469.15	-22384468.89	-22384468.64	0.0089	0.0005	*
Earth	-65998-09-03 00:57 J	-22384101.71	-22384101.46	-22384101.20	0.0089	0.0001	
Moon	-65998-09-03 02:23 J	-22384101.64	-22384101.40	-22384101.15	0.0089	0.0001	*
Moon	-65997-09-04 08:23 J	-22383734.41	-22383734.15	-22383733.89	0.0089	0.0004	
Earth	-65997-09-04 11:30 J	-22383734.28	-22383734.02	-22383733.77	0.0089	0.0005	*
Earth	-65996-09-06 21:49 J	-22383366.83	-22383366.59	-22383366.33	0.0089	0.0010	
Moon	-65996-09-07 01:11 J	-22383366.70	-22383366.45	-22383366.20	0.0089	0.0010	*
Venus	-65995-04-26 13:25 J	-22383135.02	-22383134.94	-22383134.82	0.0089	0.0079	
Moon	-65995-09-09 05:16 J	-22382999.53	-22382999.28	-22382999.03	0.0089	0.0015	
Earth	-65995-09-09 08:52 J	-22382999.38	-22382999.13	-22382998.88	0.0089	0.0015	*
Venus	-65995-12-08 02:23 J	-22382909.55	-22382909.40	-22382909.22	0.0089	0.0058	
Venus	-65994-07-21 15:06 J	-22382684.05	-22382683.87	-22382683.65	0.0089	0.0038	
Earth	-65994-09-11 19:25 J	-22382631.93	-22382631.69	-22382631.43	0.0089	0.0020	
Moon	-65994-09-11 22:47 J	-22382631.79	-22382631.55	-22382631.29	0.0089	0.0020	*
Venus	-65993-03-03 04:18 J	-22382458.53	-22382458.32	-22382458.10	0.0089	0.0017	
Moon	-65993-09-13 04:04 J	-22382264.56	-22382264.33	-22382264.09	0.0089	0.0025	
Earth	-65993-09-13 06:28 J	-22382264.46	-22382264.23	-22382263.98	0.0089	0.0025	*
Venus	-65993-10-14 17:16 J	-22382233.00	-22382232.78	-22382232.56	0.0089	0.0004	
Venus	-65992-05-28 06:13 J	-22382007.45	-22382007.24	-22382007.03	0.0089	0.0024	
Earth	-65992-09-15 17:16 J	-22381897.00	-22381896.78	-22381896.52	0.0089	0.0030	
Moon	-65992-09-15 19:25 J	-22381896.93	-22381896.69	-22381896.43	0.0089	0.0029	*
Venus	-65991-01-08 18:57 J	-22381781.89	-22381781.71	-22381781.51	0.0089	0.0045	
Venus	-65991-08-22 07:40 J	-22381556.31	-22381556.18	-22381556.01	0.0089	0.0066	
Moon	-65991-09-18 04:18 J	-22381529.54	-22381529.32	-22381529.09	0.0089	0.0035	
Earth	-65991-09-18 04:18 J	-22381529.54	-22381529.32	-22381529.07	0.0089	0.0035	*
Venus	-65990-04-04 21:06 J	-22381330.67	-22381330.62	-22381330.57	0.0089	0.0086	
Moon	-65990-09-20 14:52 J	-22381162.11	-22381161.88	-22381161.64	0.0089	0.0039	
Earth	-65990-09-20 15:21 J	-22381162.07	-22381161.86	-22381161.61	0.0089	0.0040	*

Earth	-65989-09-22 02:09 J	-22380794.61	-22380794.41	-22380794.16	0.0089	0.0045
Moon	-65989-09-22 04:04 J	-22380794.53	-22380794.33	-22380794.10	0.0089	0.0046 *
Moon	-65988-09-24 10:33 J	-22380427.27	-22380427.06	-22380426.83	0.0089	0.0049
Earth	-65988-09-24 13:40 J	-22380427.13	-22380426.93	-22380426.70	0.0089	0.0049 *
Earth	-65987-09-27 00:42 J	-22380059.65	-22380059.47	-22380059.25	0.0089	0.0054
Moon	-65987-09-27 04:04 J	-22380059.51	-22380059.33	-22380059.11	0.0089	0.0055 *
Moon	-65986-09-29 08:23 J	-22379692.33	-22379692.15	-22379691.94	0.0089	0.0057
Earth	-65986-09-29 12:28 J	-22379692.17	-22379691.98	-22379691.79	0.0089	0.0058 *
Earth	-65985-09-30 23:16 J	-22379324.69	-22379324.53	-22379324.33	0.0089	0.0063
Moon	-65985-10-01 02:23 J	-22379324.55	-22379324.40	-22379324.19	0.0089	0.0064 *
Moon	-65984-10-03 08:37 J	-22378957.30	-22378957.14	-22378956.96	0.0089	0.0066
Earth	-65984-10-03 11:16 J	-22378957.19	-22378957.03	-22378956.86	0.0089	0.0067 *
Earth	-65983-10-05 22:18 J	-22378589.70	-22378589.57	-22378589.40	0.0089	0.0072
Moon	-65983-10-06 00:28 J	-22378589.62	-22378589.48	-22378589.32	0.0089	0.0073 *
Earth	-65982-10-08 10:04 J	-22378222.19	-22378222.08	-22378221.93	0.0089	0.0076
Moon	-65982-10-08 10:04 J	-22378222.19	-22378222.08	-22378221.93	0.0089	0.0075 *
Moon	-65981-10-09 21:06 J	-22377854.72	-22377854.62	-22377854.50	0.0089	0.0081
Earth	-65981-10-09 21:49 J	-22377854.68	-22377854.59	-22377854.46	0.0089	0.0080 *
Earth	-65980-10-12 09:49 J	-22377487.16	-22377487.09	-22377487.00	0.0089	0.0084
Moon	-65980-10-12 11:45 J	-22377487.09	-22377487.01	-22377486.91	0.0089	0.0082 *
Earth	-65979-10-14 21:35 J	-22377119.61	-22377119.60	-22377119.54	0.0089	0.0088
Mercury	-65966-08-05 01:40 J	-22372442.46	-22372442.43	-22372442.38	0.0089	0.0087
Mercury	-65966-11-01 05:01 J	-22372354.35	-22372354.29	-22372354.19	0.0089	0.0080
Mercury	-65965-01-28 08:52 J	-22372266.23	-22372266.13	-22372266.01	0.0089	0.0072
Mercury	-65965-04-25 12:13 J	-22372178.10	-22372177.99	-22372177.84	0.0089	0.0065
Mercury	-65965-07-22 16:04 J	-22372089.97	-22372089.83	-22372089.67	0.0089	0.0057
Mercury	-65965-10-18 19:40 J	-22372001.83	-22372001.68	-22372001.50	0.0089	0.0050
Mercury	-65964-01-14 23:30 J	-22371913.69	-22371913.52	-22371913.34	0.0089	0.0042
Mercury	-65964-04-13 03:21 J	-22371825.54	-22371825.36	-22371825.18	0.0089	0.0034
Mercury	-65964-07-10 06:42 J	-22371737.40	-22371737.22	-22371737.02	0.0089	0.0027

Mercury -65964-10-06 10:33 J -22371649.25 -22371649.06 -22371648.87 0.0089 0.0019

Mercury -65963-01-02 14:09 J -22371561.10 -22371560.91 -22371560.71 0.0089 0.0011

Mercury -65963-03-31 17:59 J -22371472.95 -22371472.75 -22371472.56 0.0089 0.0004

Mercury -65963-06-27 21:35 J -22371384.80 -22371384.60 -22371384.41 0.0089 0.0004

Mercury -65963-09-24 01:11 J -22371296.64 -22371296.45 -22371296.25 0.0089 0.0012

Mercury -65963-12-21 04:47 J -22371208.49 -22371208.30 -22371208.10 0.0089 0.0019

Mercury -65962-03-19 08:37 J -22371120.33 -22371120.14 -22371119.96 0.0089 0.0027

Mercury -65962-06-15 11:59 J -22371032.17 -22371032.00 -22371031.81 0.0089 0.0035

Mercury -65962-09-11 15:35 J -22370944.01 -22370943.85 -22370943.66 0.0089 0.0043

Mercury -65962-12-08 19:25 J -22370855.84 -22370855.69 -22370855.52 0.0089 0.0050

Mercury -65961-03-05 23:01 J -22370767.68 -22370767.54 -22370767.38 0.0089 0.0058

Mercury -65961-06-02 02:23 J -22370679.51 -22370679.40 -22370679.24 0.0089 0.0066

Mercury -65961-08-29 06:28 J -22370591.33 -22370591.23 -22370591.11 0.0089 0.0073

Mercury -65961-11-25 09:49 J -22370503.15 -22370503.09 -22370502.99 0.0089 0.0081

Mercury -65960-02-21 13:54 J -22370414.93 -22370414.92 -22370414.90 0.0089 0.0088

Mars -65956-09-22 09:21 J -22368741.41 -22368741.11 -22368740.79 0.0088 0.0044

Mars -65954-08-20 07:11 J -22368044.52 -22368044.20 -22368043.84 0.0088 0.0024

Moon -65935-01-21 08:23 J -22361315.18 -22361315.15 -22361315.07 0.0088 0.0086

Earth -65934-01-23 20:52 J -22360947.69 -22360947.63 -22360947.57 0.0088 0.0086

Moon -65933-01-26 08:23 J -22360580.25 -22360580.15 -22360580.00 0.0088 0.0079

Earth -65933-01-26 09:49 J -22360580.16 -22360580.09 -22360579.97 0.0088 0.0082 *

Earth -65932-01-27 23:16 J -22360212.62 -22360212.53 -22360212.38 0.0088 0.0078

Moon -65932-01-28 01:25 J -22360212.51 -22360212.44 -22360212.31 0.0088 0.0081 *

Moon -65931-01-30 09:06 J -22359845.25 -22359845.12 -22359844.92 0.0088 0.0071

Earth -65931-01-30 13:11 J -22359845.08 -22359844.95 -22359844.80 0.0088 0.0074 *

Earth -65930-02-02 02:23 J -22359477.54 -22359477.40 -22359477.22 0.0088 0.0070

Moon -65930-02-02 05:59 J -22359477.38 -22359477.25 -22359477.09 0.0088 0.0072 *

Moon -65929-02-04 12:13 J -22359110.15 -22359109.99 -22359109.79 0.0088 0.0063

Earth -65929-02-04 15:49 J -22359109.99 -22359109.84 -22359109.64 0.0088 0.0065 *

Earth -65928-02-06 05:30 J -22358742.45 -22358742.27 -22358742.06 0.0088 0.0060

Moon	-65928-02-06 08:37 J	-22358742.30	-22358742.14	-22358741.93	0.0088	0.0064 *
Moon	-65927-02-08 16:47 J	-22358375.00	-22358374.80	-22358374.59	0.0088	0.0054
Earth	-65927-02-08 18:42 J	-22358374.90	-22358374.72	-22358374.49	0.0088	0.0056 *
Earth	-65926-02-11 08:09 J	-22358007.35	-22358007.16	-22358006.93	0.0088	0.0051
Moon	-65926-02-11 10:33 J	-22358007.28	-22358007.06	-22358006.84	0.0088	0.0053 *
Earth	-65925-02-13 21:35 J	-22357639.81	-22357639.60	-22357639.36	0.0088	0.0047
Moon	-65925-02-13 21:21 J	-22357639.81	-22357639.61	-22357639.37	0.0088	0.0045 *
Moon	-65924-02-15 10:04 J	-22357272.31	-22357272.08	-22357271.83	0.0088	0.0043
Earth	-65924-02-15 11:01 J	-22357272.26	-22357272.04	-22357271.80	0.0088	0.0042 *
Earth	-65923-02-17 23:45 J	-22356904.73	-22356904.51	-22356904.25	0.0088	0.0037
Moon	-65923-02-18 01:40 J	-22356904.66	-22356904.43	-22356904.19	0.0088	0.0035 *
Moon	-65922-02-20 09:49 J	-22356537.33	-22356537.09	-22356536.83	0.0088	0.0034
Earth	-65922-02-20 12:57 J	-22356537.19	-22356536.96	-22356536.70	0.0088	0.0032 *
Earth	-65921-02-23 01:54 J	-22356169.65	-22356169.42	-22356169.15	0.0088	0.0027
Moon	-65921-02-23 05:30 J	-22356169.51	-22356169.27	-22356169.02	0.0088	0.0026 *
Moon	-65920-02-24 11:16 J	-22355802.27	-22355802.03	-22355801.76	0.0088	0.0023
Earth	-65920-02-24 15:06 J	-22355802.11	-22355801.87	-22355801.61	0.0088	0.0022 *
Earth	-65919-02-27 04:04 J	-22355434.58	-22355434.33	-22355434.07	0.0088	0.0017
Moon	-65919-02-27 07:40 J	-22355434.44	-22355434.18	-22355433.92	0.0088	0.0016 *
Moon	-65918-03-01 14:23 J	-22355067.15	-22355066.90	-22355066.64	0.0088	0.0013
Earth	-65918-03-01 17:01 J	-22355067.04	-22355066.79	-22355066.52	0.0088	0.0012 *
Earth	-65917-03-03 05:59 J	-22354699.50	-22354699.25	-22354698.98	0.0088	0.0007
Moon	-65917-03-03 08:23 J	-22354699.42	-22354699.15	-22354698.88	0.0088	0.0007 *
Moon	-65916-03-05 18:42 J	-22354331.97	-22354331.72	-22354331.47	0.0088	0.0003
Earth	-65916-03-05 19:11 J	-22354331.96	-22354331.70	-22354331.44	0.0088	0.0002 *
Moon	-65915-03-08 07:25 J	-22353964.46	-22353964.19	-22353963.91	0.0088	0.0004
Earth	-65915-03-08 07:54 J	-22353964.43	-22353964.17	-22353963.91	0.0088	0.0003 *
Earth	-65914-03-10 20:37 J	-22353596.89	-22353596.64	-22353596.37	0.0088	0.0009
Moon	-65914-03-10 22:18 J	-22353596.83	-22353596.57	-22353596.32	0.0088	0.0009 *
Moon	-65913-03-12 06:28 J	-22353229.49	-22353229.23	-22353228.96	0.0088	0.0014

Earth	-65913-03-12 09:35 J	-22353229.36	-22353229.10	-22353228.84	0.0088	0.0013	*
Venus	-65912-01-27 17:45 J	-22352907.86	-22352907.76	-22352907.62	0.0088	0.0073	
Earth	-65912-03-14 21:49 J	-22352861.84	-22352861.59	-22352861.33	0.0088	0.0019	
Moon	-65912-03-15 00:42 J	-22352861.70	-22352861.47	-22352861.20	0.0088	0.0020	*
Venus	-65912-09-10 07:11 J	-22352682.37	-22352682.20	-22352682.02	0.0088	0.0053	
Moon	-65911-03-17 06:28 J	-22352494.47	-22352494.23	-22352493.97	0.0088	0.0023	
Earth	-65911-03-17 10:18 J	-22352494.31	-22352494.07	-22352493.81	0.0088	0.0024	*
Venus	-65911-04-23 20:09 J	-22352456.86	-22352456.66	-22352456.45	0.0088	0.0032	
Venus	-65911-12-05 09:06 J	-22352231.33	-22352231.12	-22352230.89	0.0088	0.0013	
Earth	-65910-03-19 22:33 J	-22352126.80	-22352126.56	-22352126.30	0.0088	0.0028	
Moon	-65910-03-20 02:09 J	-22352126.66	-22352126.41	-22352126.16	0.0088	0.0028	*
Venus	-65910-07-18 22:18 J	-22352005.79	-22352005.57	-22352005.34	0.0088	0.0009	
Venus	-65909-02-29 11:01 J	-22351780.23	-22351780.04	-22351779.82	0.0088	0.0030	
Moon	-65909-03-21 07:54 J	-22351759.39	-22351759.17	-22351758.92	0.0088	0.0033	
Earth	-65909-03-21 10:47 J	-22351759.27	-22351759.05	-22351758.79	0.0088	0.0034	*
Venus	-65909-10-11 23:59 J	-22351554.67	-22351554.50	-22351554.30	0.0088	0.0050	
Earth	-65908-03-23 22:47 J	-22351391.76	-22351391.55	-22351391.29	0.0088	0.0039	
Moon	-65908-03-24 01:25 J	-22351391.66	-22351391.44	-22351391.19	0.0088	0.0039	*
Venus	-65908-05-25 12:57 J	-22351329.08	-22351328.96	-22351328.81	0.0088	0.0070	
Moon	-65907-03-26 10:33 J	-22351024.27	-22351024.06	-22351023.83	0.0088	0.0042	
Earth	-65907-03-26 11:16 J	-22351024.25	-22351024.03	-22351023.79	0.0088	0.0043	*
Moon	-65906-03-28 23:16 J	-22350656.74	-22350656.53	-22350656.29	0.0088	0.0049	
Earth	-65906-03-28 23:16 J	-22350656.73	-22350656.53	-22350656.29	0.0088	0.0048	*
Earth	-65905-03-30 11:16 J	-22350289.22	-22350289.03	-22350288.80	0.0088	0.0053	
Moon	-65905-03-30 12:57 J	-22350289.16	-22350288.96	-22350288.75	0.0088	0.0051	*
Moon	-65904-04-01 20:23 J	-22349921.83	-22349921.65	-22349921.42	0.0088	0.0058	
Earth	-65904-04-01 23:30 J	-22349921.70	-22349921.52	-22349921.31	0.0088	0.0057	*
Earth	-65903-04-04 11:16 J	-22349554.19	-22349554.03	-22349553.82	0.0088	0.0061	
Moon	-65903-04-04 14:23 J	-22349554.07	-22349553.90	-22349553.70	0.0088	0.0060	*
Moon	-65902-04-06 19:25 J	-22349186.83	-22349186.69	-22349186.50	0.0088	0.0068	

Earth -65902-04-06 23:16 J -22349186.68 -22349186.53 -22349186.33 0.0088 0.0066 *
 Earth -65901-04-08 11:16 J -22348819.17 -22348819.03 -22348818.86 0.0088 0.0070
 Moon -65901-04-08 14:23 J -22348819.04 -22348818.90 -22348818.71 0.0088 0.0069 *
 Moon -65900-04-10 19:40 J -22348451.78 -22348451.68 -22348451.53 0.0088 0.0077
 Earth -65900-04-10 23:16 J -22348451.67 -22348451.53 -22348451.39 0.0088 0.0074 *
 Earth -65899-04-13 10:47 J -22348084.17 -22348084.05 -22348083.93 0.0088 0.0078
 Moon -65899-04-13 12:42 J -22348084.09 -22348083.97 -22348083.81 0.0088 0.0076 *
 Moon -65898-04-15 21:21 J -22347716.67 -22347716.61 -22347716.52 0.0088 0.0084
 Earth -65898-04-15 22:04 J -22347716.66 -22347716.58 -22347716.47 0.0088 0.0082 *
 Moon -65897-04-17 09:49 J -22347349.18 -22347349.09 -22347349.00 0.0088 0.0083
 Earth -65897-04-17 09:21 J -22347349.15 -22347349.11 -22347349.03 0.0088 0.0086 *
 Mercury -65884-05-15 06:28 J -22342573.26 -22342573.23 -22342573.18 0.0089 0.0084
 Mercury -65884-08-11 07:40 J -22342485.22 -22342485.18 -22342485.11 0.0089 0.0079
 Mercury -65884-11-07 09:06 J -22342397.18 -22342397.12 -22342397.04 0.0089 0.0074
 Mercury -65883-02-03 10:18 J -22342309.14 -22342309.07 -22342308.97 0.0089 0.0069
 Mercury -65883-05-02 11:59 J -22342221.09 -22342221.00 -22342220.91 0.0089 0.0063
 Mercury -65883-07-29 13:11 J -22342133.04 -22342132.95 -22342132.84 0.0089 0.0058
 Mercury -65883-10-25 14:23 J -22342044.99 -22342044.90 -22342044.78 0.0089 0.0053
 Mercury -65882-01-21 15:49 J -22341956.94 -22341956.84 -22341956.72 0.0089 0.0048
 Mercury -65882-04-19 17:16 J -22341868.89 -22341868.78 -22341868.66 0.0089 0.0042
 Mercury -65882-07-16 18:42 J -22341780.84 -22341780.72 -22341780.60 0.0089 0.0037
 Mercury -65882-10-12 19:54 J -22341692.79 -22341692.67 -22341692.54 0.0089 0.0032
 Mercury -65881-01-08 21:21 J -22341604.74 -22341604.61 -22341604.48 0.0089 0.0026
 Mercury -65881-04-05 22:33 J -22341516.68 -22341516.56 -22341516.43 0.0089 0.0021
 Mercury -65881-07-02 23:59 J -22341428.63 -22341428.50 -22341428.37 0.0089 0.0016
 Mercury -65881-09-29 01:11 J -22341340.58 -22341340.45 -22341340.31 0.0089 0.0011
 Mercury -65881-12-26 02:37 J -22341252.52 -22341252.39 -22341252.26 0.0089 0.0006
 Mercury -65880-03-24 04:04 J -22341164.47 -22341164.33 -22341164.20 0.0089 0.0003
 Mercury -65880-06-20 05:16 J -22341076.41 -22341076.28 -22341076.15 0.0089 0.0005
 Mercury -65880-09-16 06:28 J -22340988.36 -22340988.23 -22340988.09 0.0089 0.0010

Mercury -65880-12-13 07:54 J -22340900.30 -22340900.17 -22340900.04 0.0089 0.0015
 Mercury -65879-03-11 09:06 J -22340812.24 -22340812.12 -22340811.99 0.0089 0.0021
 Mercury -65879-06-07 10:33 J -22340724.19 -22340724.06 -22340723.93 0.0089 0.0026
 Mercury -65879-09-03 11:45 J -22340636.13 -22340636.01 -22340635.88 0.0089 0.0031
 Mercury -65879-11-30 13:11 J -22340548.07 -22340547.95 -22340547.83 0.0089 0.0036
 Saturn -65879-12-03 10:47 J -22340545.68 -22340545.05 -22340544.41 0.0089 0.0002
 Mercury -65878-02-26 14:09 J -22340460.01 -22340459.91 -22340459.78 0.0089 0.0042
 Mercury -65878-05-25 15:35 J -22340371.95 -22340371.85 -22340371.73 0.0089 0.0047
 Mercury -65878-08-21 16:47 J -22340283.89 -22340283.80 -22340283.68 0.0089 0.0052
 Mercury -65878-11-17 18:13 J -22340195.83 -22340195.74 -22340195.63 0.0089 0.0057
 Mercury -65877-02-13 19:40 J -22340107.77 -22340107.68 -22340107.58 0.0089 0.0062
 Mercury -65877-05-11 20:52 J -22340019.71 -22340019.63 -22340019.54 0.0089 0.0067
 Mercury -65877-08-07 22:18 J -22339931.64 -22339931.57 -22339931.49 0.0089 0.0072
 Mercury -65877-11-03 23:16 J -22339843.58 -22339843.53 -22339843.45 0.0089 0.0078
 Mercury -65876-01-31 00:42 J -22339755.51 -22339755.47 -22339755.41 0.0089 0.0083
 Mercury -65876-04-29 01:54 J -22339667.42 -22339667.42 -22339667.39 0.0089 0.0088
 Mars -65874-07-18 06:28 J -22338857.42 -22338857.23 -22338856.99 0.0089 0.0059
 Mars -65872-06-10 12:42 J -22338164.25 -22338163.97 -22338163.69 0.0089 0.0006
 Mars -65870-05-04 18:57 J -22337470.94 -22337470.71 -22337470.46 0.0089 0.0046
 Moon -65855-07-18 08:52 J -22331917.14 -22331917.13 -22331917.06 0.0089 0.0088
 Earth -65854-07-20 20:09 J -22331549.67 -22331549.66 -22331549.59 0.0089 0.0088
 Earth -65853-07-22 06:13 J -22331182.30 -22331182.24 -22331182.14 0.0089 0.0084
 Moon -65853-07-22 07:25 J -22331182.27 -22331182.19 -22331182.06 0.0089 0.0081 *
 Moon -65852-07-24 14:09 J -22330814.98 -22330814.91 -22330814.82 0.0089 0.0084
 Earth -65852-07-24 16:18 J -22330814.91 -22330814.82 -22330814.70 0.0089 0.0080 *
 Earth -65851-07-27 02:23 J -22330447.52 -22330447.40 -22330447.27 0.0089 0.0076
 Moon -65851-07-27 05:16 J -22330447.40 -22330447.28 -22330447.11 0.0089 0.0072 *
 Moon -65850-07-29 08:37 J -22330080.25 -22330080.14 -22330080.00 0.0089 0.0076
 Earth -65850-07-29 11:59 J -22330080.13 -22330080.00 -22330079.83 0.0089 0.0073 *
 Earth -65849-07-30 21:49 J -22329712.73 -22329712.59 -22329712.41 0.0089 0.0068

Moon	-65849-07-31 01:40 J	-22329712.60	-22329712.43	-22329712.25	0.0089	0.0064	*
Moon	-65848-08-02 05:01 J	-22329345.44	-22329345.29	-22329345.12	0.0089	0.0068	
Earth	-65848-08-02 07:40 J	-22329345.33	-22329345.18	-22329344.98	0.0089	0.0064	*
Earth	-65847-08-04 17:45 J	-22328977.93	-22328977.76	-22328977.56	0.0089	0.0060	
Moon	-65847-08-04 19:25 J	-22328977.88	-22328977.69	-22328977.47	0.0089	0.0055	*
Moon	-65846-08-07 02:37 J	-22328610.55	-22328610.39	-22328610.19	0.0089	0.0060	
Earth	-65846-08-07 03:35 J	-22328610.53	-22328610.35	-22328610.13	0.0089	0.0055	*
Moon	-65845-08-08 12:57 J	-22328243.17	-22328242.96	-22328242.72	0.0089	0.0046	
Earth	-65845-08-08 13:40 J	-22328243.13	-22328242.93	-22328242.71	0.0089	0.0051	*
Earth	-65844-08-10 23:30 J	-22327875.72	-22327875.52	-22327875.29	0.0089	0.0046	
Moon	-65844-08-11 01:25 J	-22327875.63	-22327875.44	-22327875.22	0.0089	0.0050	*
Moon	-65843-08-13 06:57 J	-22327508.42	-22327508.21	-22327507.95	0.0089	0.0038	
Earth	-65843-08-13 09:49 J	-22327508.30	-22327508.09	-22327507.86	0.0089	0.0041	*
Earth	-65842-08-15 19:54 J	-22327140.90	-22327140.67	-22327140.43	0.0089	0.0036	
Moon	-65842-08-15 23:16 J	-22327140.74	-22327140.53	-22327140.30	0.0089	0.0041	*
Moon	-65841-08-17 02:52 J	-22326773.62	-22326773.38	-22326773.14	0.0089	0.0027	
Earth	-65841-08-17 06:28 J	-22326773.47	-22326773.23	-22326773.00	0.0089	0.0032	*
Earth	-65840-08-19 16:33 J	-22326406.05	-22326405.81	-22326405.57	0.0089	0.0026	
Moon	-65840-08-19 19:40 J	-22326405.91	-22326405.68	-22326405.43	0.0089	0.0031	*
Jupiter	-65840-09-09 16:04 J	-22326385.20	-22326384.83	-22326384.37	0.0089	0.0057	
Moon	-65839-08-22 00:13 J	-22326038.72	-22326038.49	-22326038.24	0.0089	0.0017	
Earth	-65839-08-22 02:37 J	-22326038.62	-22326038.39	-22326038.13	0.0089	0.0022	*
Earth	-65838-08-24 12:57 J	-22325671.19	-22325670.96	-22325670.69	0.0089	0.0017	
Moon	-65838-08-24 14:23 J	-22325671.14	-22325670.90	-22325670.63	0.0089	0.0021	*
Moon	-65837-08-25 23:01 J	-22325303.78	-22325303.54	-22325303.29	0.0089	0.0007	
Earth	-65837-08-25 23:30 J	-22325303.77	-22325303.52	-22325303.26	0.0089	0.0012	*
Moon	-65836-08-28 08:52 J	-22324936.39	-22324936.13	-22324935.87	0.0089	0.0011	
Earth	-65836-08-28 10:04 J	-22324936.34	-22324936.08	-22324935.83	0.0089	0.0006	*
Earth	-65835-08-30 20:23 J	-22324568.90	-22324568.65	-22324568.39	0.0089	0.0002	
Moon	-65835-08-30 22:47 J	-22324568.80	-22324568.55	-22324568.31	0.0089	0.0003	*

Moon	-65834-09-02 04:04 J	-22324201.59	-22324201.33	-22324201.07	0.0089	0.0001
Earth	-65834-09-02 06:42 J	-22324201.47	-22324201.22	-22324200.96	0.0089	0.0004 *
Earth	-65833-09-03 17:16 J	-22323834.03	-22323833.78	-22323833.53	0.0089	0.0008
Moon	-65833-09-03 20:52 J	-22323833.88	-22323833.63	-22323833.38	0.0089	0.0013 *
Moon	-65832-09-06 00:28 J	-22323466.73	-22323466.48	-22323466.22	0.0089	0.0009
Earth	-65832-09-06 03:35 J	-22323466.59	-22323466.35	-22323466.08	0.0089	0.0014 *
Earth	-65831-09-08 14:23 J	-22323099.15	-22323098.90	-22323098.65	0.0089	0.0018
Moon	-65831-09-08 17:30 J	-22323099.01	-22323098.77	-22323098.51	0.0089	0.0023 *
Venus	-65830-03-11 10:33 J	-22322915.19	-22322915.06	-22322914.92	0.0089	0.0069
Moon	-65830-09-10 22:47 J	-22322731.79	-22322731.55	-22322731.30	0.0089	0.0019
Earth	-65830-09-11 00:57 J	-22322731.70	-22322731.46	-22322731.20	0.0089	0.0024 *
Venus	-65830-10-22 23:01 J	-22322689.70	-22322689.54	-22322689.34	0.0089	0.0049
Venus	-65829-06-04 12:13 J	-22322464.19	-22322463.99	-22322463.78	0.0089	0.0028
Earth	-65829-09-12 11:30 J	-22322364.24	-22322364.02	-22322363.76	0.0089	0.0029
Moon	-65829-09-12 12:28 J	-22322364.21	-22322363.98	-22322363.72	0.0089	0.0033 *
Venus	-65828-01-16 00:57 J	-22322238.67	-22322238.46	-22322238.23	0.0089	0.0008
Venus	-65828-08-29 13:54 J	-22322013.13	-22322012.92	-22322012.70	0.0089	0.0013
Moon	-65828-09-14 22:33 J	-22321996.79	-22321996.56	-22321996.32	0.0089	0.0029
Earth	-65828-09-14 22:33 J	-22321996.78	-22321996.56	-22321996.31	0.0089	0.0034 *
Venus	-65827-04-12 02:37 J	-22321787.58	-22321787.39	-22321787.18	0.0089	0.0034
Moon	-65827-09-17 08:09 J	-22321629.38	-22321629.16	-22321628.92	0.0089	0.0043
Earth	-65827-09-17 09:49 J	-22321629.31	-22321629.09	-22321628.85	0.0089	0.0038 *
Venus	-65827-11-23 15:35 J	-22321562.02	-22321561.85	-22321561.67	0.0089	0.0054
Venus	-65826-07-07 04:18 J	-22321336.41	-22321336.32	-22321336.18	0.0089	0.0075
Earth	-65826-09-19 20:37 J	-22321261.85	-22321261.64	-22321261.41	0.0089	0.0043
Moon	-65826-09-19 23:01 J	-22321261.75	-22321261.54	-22321261.30	0.0089	0.0039 *
Moon	-65825-09-21 04:33 J	-22320894.50	-22320894.31	-22320894.08	0.0089	0.0053
Earth	-65825-09-21 07:40 J	-22320894.38	-22320894.18	-22320893.95	0.0089	0.0048 *
Earth	-65824-09-23 18:42 J	-22320526.91	-22320526.72	-22320526.50	0.0089	0.0053
Moon	-65824-09-23 22:33 J	-22320526.76	-22320526.56	-22320526.33	0.0089	0.0048 *

Moon -65823-09-26 02:37 J -22320159.55 -22320159.39 -22320159.19 0.0089 0.0062
 Earth -65823-09-26 06:13 J -22320159.43 -22320159.24 -22320159.04 0.0089 0.0057 *
 Earth -65822-09-28 17:01 J -22319791.96 -22319791.79 -22319791.59 0.0089 0.0062
 Moon -65822-09-28 20:37 J -22319791.84 -22319791.64 -22319791.44 0.0089 0.0057 *
 Moon -65821-09-30 02:23 J -22319424.53 -22319424.40 -22319424.24 0.0089 0.0071
 Earth -65821-09-30 04:33 J -22319424.47 -22319424.31 -22319424.13 0.0089 0.0066 *
 Earth -65820-10-02 15:21 J -22319056.99 -22319056.86 -22319056.68 0.0089 0.0071
 Moon -65820-10-02 16:47 J -22319056.98 -22319056.80 -22319056.62 0.0089 0.0066 *
 Earth -65819-10-05 02:52 J -22318689.49 -22318689.38 -22318689.22 0.0089 0.0075
 Moon -65819-10-05 03:21 J -22318689.46 -22318689.36 -22318689.25 0.0089 0.0079 *
 Moon -65818-10-07 12:57 J -22318322.09 -22318321.96 -22318321.81 0.0089 0.0074
 Earth -65818-10-07 14:37 J -22318321.99 -22318321.89 -22318321.77 0.0089 0.0079 *
 Earth -65817-10-09 02:09 J -22317954.48 -22317954.41 -22317954.31 0.0089 0.0083
 Moon -65817-10-09 04:18 J -22317954.33 -22317954.32 -22317954.25 0.0089 0.0088 *
 Moon -65816-10-11 10:33 J -22317587.13 -22317587.06 -22317586.94 0.0089 0.0083
 Earth -65816-10-11 14:09 J -22317586.95 -22317586.91 -22317586.86 0.0089 0.0087 *
 Mercury -65801-04-30 22:47 J -22312271.59 -22312271.55 -22312271.52 0.0089 0.0087
 Mercury -65801-07-28 01:54 J -22312183.49 -22312183.42 -22312183.32 0.0089 0.0080
 Mercury -65801-10-24 05:59 J -22312095.36 -22312095.25 -22312095.14 0.0089 0.0072
 Mercury -65800-01-20 09:06 J -22312007.23 -22312007.12 -22312006.97 0.0089 0.0065
 Mercury -65800-04-18 13:11 J -22311919.10 -22311918.95 -22311918.80 0.0089 0.0057
 Mercury -65800-07-15 16:33 J -22311830.96 -22311830.81 -22311830.64 0.0089 0.0050
 Mercury -65800-10-11 20:23 J -22311742.82 -22311742.65 -22311742.48 0.0089 0.0042
 Mercury -65799-01-07 23:45 J -22311654.67 -22311654.51 -22311654.32 0.0089 0.0035
 Mercury -65799-04-06 03:35 J -22311566.53 -22311566.35 -22311566.16 0.0089 0.0027
 Mercury -65799-07-03 07:25 J -22311478.38 -22311478.19 -22311478.00 0.0089 0.0019
 Mercury -65799-09-29 11:01 J -22311390.23 -22311390.04 -22311389.85 0.0089 0.0011
 Mercury -65799-12-26 14:37 J -22311302.08 -22311301.89 -22311301.69 0.0089 0.0004
 Mercury -65798-03-24 18:13 J -22311213.93 -22311213.74 -22311213.54 0.0089 0.0005
 Mercury -65798-06-20 22:04 J -22311125.78 -22311125.58 -22311125.39 0.0089 0.0012

Mercury -65798-09-17 01:25 J -22311037.62 -22311037.44 -22311037.24 0.0089 0.0020

Mercury -65798-12-14 05:16 J -22310949.46 -22310949.28 -22310949.09 0.0089 0.0027

Mercury -65797-03-11 08:52 J -22310861.30 -22310861.13 -22310860.94 0.0089 0.0035

Mercury -65797-06-07 12:28 J -22310773.14 -22310772.98 -22310772.80 0.0089 0.0042

Mercury -65797-09-03 16:18 J -22310684.98 -22310684.82 -22310684.65 0.0089 0.0050

Mercury -65797-11-30 19:40 J -22310596.81 -22310596.68 -22310596.51 0.0089 0.0058

Mercury -65796-02-26 23:16 J -22310508.64 -22310508.53 -22310508.38 0.0088 0.0066

Mercury -65796-05-26 03:21 J -22310420.46 -22310420.36 -22310420.24 0.0088 0.0073

Mercury -65796-08-22 06:42 J -22310332.28 -22310332.22 -22310332.12 0.0088 0.0081

Mercury -65796-11-18 10:47 J -22310244.06 -22310244.05 -22310244.03 0.0088 0.0088

Mars -65792-05-04 21:06 J -22308980.80 -22308980.62 -22308980.43 0.0088 0.0075

Mars -65790-04-01 19:11 J -22308284.05 -22308283.70 -22308283.34 0.0088 0.0009

Mars -65788-02-26 16:47 J -22307587.06 -22307586.80 -22307586.52 0.0088 0.0058

Earth -65771-01-20 08:52 J -22301415.15 -22301415.13 -22301415.08 0.0088 0.0087

Moon -65770-01-22 19:54 J -22301047.74 -22301047.67 -22301047.53 0.0088 0.0082

Earth -65770-01-22 22:33 J -22301047.63 -22301047.56 -22301047.46 0.0088 0.0084 *

Earth -65769-01-25 11:59 J -22300680.10 -22300680.00 -22300679.88 0.0088 0.0079

Moon -65769-01-25 15:06 J -22300679.96 -22300679.87 -22300679.76 0.0088 0.0082 *

Moon -65768-01-26 22:04 J -22300312.72 -22300312.58 -22300312.42 0.0088 0.0073

Earth -65768-01-27 01:11 J -22300312.56 -22300312.45 -22300312.29 0.0088 0.0076 *

Earth -65767-01-29 14:23 J -22299945.03 -22299944.90 -22299944.72 0.0088 0.0072

Moon -65767-01-29 18:28 J -22299944.85 -22299944.73 -22299944.57 0.0088 0.0074 *

Moon -65766-02-01 00:57 J -22299577.62 -22299577.46 -22299577.27 0.0088 0.0064

Earth -65766-02-01 04:33 J -22299577.48 -22299577.31 -22299577.14 0.0088 0.0067 *

Earth -65765-02-03 17:30 J -22299209.94 -22299209.77 -22299209.56 0.0088 0.0062

Moon -65765-02-03 20:52 J -22299209.80 -22299209.63 -22299209.44 0.0088 0.0066 *

Moon -65764-02-05 05:16 J -22298842.47 -22298842.28 -22298842.07 0.0088 0.0055

Earth -65764-02-05 07:25 J -22298842.38 -22298842.19 -22298841.99 0.0088 0.0058 *

Earth -65763-02-07 20:09 J -22298474.84 -22298474.66 -22298474.42 0.0088 0.0054

Moon -65763-02-07 20:37 J -22298474.82 -22298474.64 -22298474.40 0.0088 0.0057 *

Earth	-65762-02-10 09:49 J	-22298107.29	-22298107.09	-22298106.85	0.0088	0.0049
Moon	-65762-02-10 09:49 J	-22298107.28	-22298107.09	-22298106.84	0.0088	0.0046 *
Moon	-65761-02-12 21:21 J	-22297739.81	-22297739.61	-22297739.35	0.0088	0.0048
Earth	-65761-02-12 23:30 J	-22297739.74	-22297739.52	-22297739.28	0.0088	0.0043 *
Earth	-65760-02-14 12:42 J	-22297372.20	-22297371.97	-22297371.72	0.0088	0.0039
Moon	-65760-02-14 15:21 J	-22297372.08	-22297371.86	-22297371.61	0.0088	0.0035 *
Moon	-65759-02-16 22:47 J	-22297004.78	-22297004.55	-22297004.30	0.0088	0.0038
Earth	-65759-02-17 02:09 J	-22297004.65	-22297004.41	-22297004.16	0.0088	0.0033 *
Earth	-65758-02-19 15:06 J	-22296637.11	-22296636.87	-22296636.61	0.0088	0.0029
Moon	-65758-02-19 18:57 J	-22296636.96	-22296636.71	-22296636.45	0.0088	0.0024 *
Moon	-65757-02-22 00:42 J	-22296269.70	-22296269.47	-22296269.21	0.0088	0.0028
Earth	-65757-02-22 04:18 J	-22296269.57	-22296269.32	-22296269.06	0.0088	0.0023 *
Earth	-65756-02-23 17:16 J	-22295902.04	-22295901.78	-22295901.52	0.0088	0.0019
Moon	-65756-02-23 20:23 J	-22295901.90	-22295901.65	-22295901.38	0.0088	0.0015 *
Moon	-65755-02-26 03:35 J	-22295534.58	-22295534.35	-22295534.08	0.0088	0.0019
Earth	-65755-02-26 06:13 J	-22295534.50	-22295534.24	-22295533.98	0.0088	0.0013 *
Earth	-65754-02-28 19:11 J	-22295166.96	-22295166.70	-22295166.44	0.0088	0.0009
Moon	-65754-02-28 20:09 J	-22295166.93	-22295166.66	-22295166.39	0.0088	0.0005 *
Moon	-65753-03-02 07:40 J	-22294799.43	-22294799.18	-22294798.92	0.0088	0.0008
Earth	-65753-03-02 08:09 J	-22294799.43	-22294799.16	-22294798.90	0.0088	0.0004 *
Moon	-65752-03-04 19:11 J	-22294431.96	-22294431.70	-22294431.42	0.0088	0.0006
Earth	-65752-03-04 20:37 J	-22294431.90	-22294431.64	-22294431.37	0.0088	0.0003 *
Earth	-65751-03-07 09:21 J	-22294064.36	-22294064.11	-22294063.84	0.0088	0.0008
Moon	-65751-03-07 11:45 J	-22294064.26	-22294064.01	-22294063.75	0.0088	0.0004 *
Moon	-65750-03-09 19:25 J	-22293696.95	-22293696.69	-22293696.42	0.0088	0.0017
Earth	-65750-03-09 22:18 J	-22293696.82	-22293696.57	-22293696.30	0.0088	0.0012 *
Earth	-65749-03-11 11:01 J	-22293329.29	-22293329.04	-22293328.78	0.0088	0.0017
Moon	-65749-03-11 14:52 J	-22293329.14	-22293328.88	-22293328.62	0.0088	0.0012 *
Moon	-65748-03-13 20:23 J	-22292961.89	-22292961.65	-22292961.40	0.0088	0.0026
Earth	-65748-03-13 23:30 J	-22292961.76	-22292961.52	-22292961.25	0.0088	0.0023 *

Venus	-65748-04-30 23:59 J	-22292913.53	-22292913.50	-22292913.42	0.0088	0.0086
Venus	-65748-12-12 13:40 J	-22292688.07	-22292687.93	-22292687.77	0.0088	0.0065
Earth	-65747-03-16 11:59 J	-22292594.23	-22292594.00	-22292593.74	0.0088	0.0028
Moon	-65747-03-16 15:35 J	-22292594.10	-22292593.85	-22292593.58	0.0088	0.0023 *
Venus	-65747-07-26 02:37 J	-22292462.57	-22292462.39	-22292462.18	0.0088	0.0045
Venus	-65746-03-08 15:49 J	-22292237.04	-22292236.84	-22292236.62	0.0088	0.0024
Moon	-65746-03-18 22:33 J	-22292226.79	-22292226.56	-22292226.33	0.0088	0.0037
Earth	-65746-03-19 00:28 J	-22292226.70	-22292226.48	-22292226.22	0.0088	0.0033 *
Venus	-65746-10-20 05:01 J	-22292011.51	-22292011.29	-22292011.07	0.0088	0.0003
Earth	-65745-03-20 12:42 J	-22291859.18	-22291858.97	-22291858.71	0.0088	0.0038
Moon	-65745-03-20 14:23 J	-22291859.14	-22291858.90	-22291858.64	0.0088	0.0033 *
Venus	-65745-06-01 17:59 J	-22291785.96	-22291785.75	-22291785.53	0.0088	0.0017
Venus	-65744-01-13 06:57 J	-22291560.40	-22291560.21	-22291560.00	0.0088	0.0038
Moon	-65744-03-23 00:13 J	-22291491.68	-22291491.49	-22291491.25	0.0088	0.0047
Earth	-65744-03-23 01:11 J	-22291491.67	-22291491.45	-22291491.21	0.0088	0.0042 *
Venus	-65744-08-26 19:54 J	-22291334.83	-22291334.67	-22291334.49	0.0088	0.0058
Moon	-65743-03-25 12:13 J	-22291124.22	-22291123.99	-22291123.75	0.0088	0.0042
Earth	-65743-03-25 13:11 J	-22291124.15	-22291123.95	-22291123.71	0.0088	0.0047 *
Venus	-65743-04-09 08:52 J	-22291109.23	-22291109.13	-22291109.02	0.0088	0.0078
Earth	-65742-03-28 01:11 J	-22290756.64	-22290756.45	-22290756.21	0.0088	0.0052
Moon	-65742-03-28 03:21 J	-22290756.53	-22290756.36	-22290756.14	0.0088	0.0056 *
Moon	-65741-03-29 10:33 J	-22290389.25	-22290389.06	-22290388.82	0.0088	0.0051
Earth	-65741-03-29 13:40 J	-22290389.12	-22290388.93	-22290388.72	0.0088	0.0056 *
Earth	-65740-04-01 01:11 J	-22290021.61	-22290021.45	-22290021.23	0.0088	0.0061
Moon	-65740-04-01 04:47 J	-22290021.44	-22290021.30	-22290021.10	0.0088	0.0066 *
Moon	-65739-04-03 10:04 J	-22289654.25	-22289654.08	-22289653.87	0.0088	0.0061
Earth	-65739-04-03 13:40 J	-22289654.09	-22289653.93	-22289653.74	0.0088	0.0065 *
Earth	-65738-04-06 01:11 J	-22289286.58	-22289286.45	-22289286.26	0.0088	0.0070
Moon	-65738-04-06 05:01 J	-22289286.41	-22289286.29	-22289286.13	0.0088	0.0074 *
Moon	-65737-04-07 11:16 J	-22288919.17	-22288919.03	-22288918.86	0.0088	0.0069

Earth -65737-04-07 13:25 J -22288919.06 -22288918.94 -22288918.77 0.0088 0.0074 *
 Earth -65736-04-10 01:11 J -22288551.55 -22288551.45 -22288551.30 0.0088 0.0078
 Moon -65736-04-10 02:37 J -22288551.47 -22288551.39 -22288551.26 0.0088 0.0082 *
 Moon -65735-04-12 12:28 J -22288184.08 -22288183.98 -22288183.84 0.0088 0.0078
 Earth -65735-04-12 12:57 J -22288184.03 -22288183.96 -22288183.83 0.0088 0.0082 *
 Earth -65734-04-15 00:42 J -22287816.51 -22287816.47 -22287816.37 0.0088 0.0086
 Moon -65733-04-16 13:54 J -22287448.95 -22287448.92 -22287448.82 0.0088 0.0086
 Mercury -65719-02-09 05:01 J -22282402.31 -22282402.29 -22282402.24 0.0089 0.0085
 Mercury -65719-05-08 06:28 J -22282314.28 -22282314.23 -22282314.16 0.0089 0.0080
 Mercury -65719-08-04 07:54 J -22282226.23 -22282226.17 -22282226.09 0.0089 0.0074
 Mercury -65719-10-31 09:21 J -22282138.19 -22282138.11 -22282138.03 0.0089 0.0069
 Mercury -65718-01-27 10:33 J -22282050.14 -22282050.06 -22282049.96 0.0089 0.0064
 Mercury -65718-04-25 11:45 J -22281962.10 -22281962.01 -22281961.90 0.0089 0.0059
 Mercury -65718-07-22 13:25 J -22281874.05 -22281873.94 -22281873.84 0.0089 0.0053
 Mercury -65718-10-18 14:37 J -22281786.00 -22281785.89 -22281785.77 0.0089 0.0048
 Mercury -65717-01-14 16:04 J -22281697.95 -22281697.83 -22281697.71 0.0089 0.0043
 Mercury -65717-04-11 17:16 J -22281609.89 -22281609.78 -22281609.65 0.0089 0.0038
 Mercury -65717-07-08 18:28 J -22281521.84 -22281521.73 -22281521.60 0.0089 0.0033
 Mercury -65717-10-04 20:09 J -22281433.79 -22281433.66 -22281433.54 0.0089 0.0027
 Mercury -65717-12-31 21:21 J -22281345.74 -22281345.61 -22281345.48 0.0089 0.0022
 Mercury -65716-03-29 22:47 J -22281257.68 -22281257.55 -22281257.42 0.0089 0.0017
 Mercury -65716-06-25 23:59 J -22281169.63 -22281169.50 -22281169.37 0.0089 0.0012
 Mercury -65716-09-22 01:25 J -22281081.58 -22281081.44 -22281081.31 0.0089 0.0007
 Mercury -65716-12-19 02:37 J -22280993.52 -22280993.39 -22280993.26 0.0089 0.0001
 Mercury -65715-03-17 04:04 J -22280905.47 -22280905.33 -22280905.20 0.0089 0.0005
 Mercury -65715-06-13 05:16 J -22280817.41 -22280817.28 -22280817.15 0.0089 0.0009
 Mercury -65715-09-09 06:28 J -22280729.35 -22280729.23 -22280729.09 0.0089 0.0015
 Mercury -65715-12-06 07:54 J -22280641.30 -22280641.17 -22280641.04 0.0089 0.0020
 Mercury -65714-03-04 09:06 J -22280553.24 -22280553.12 -22280552.99 0.0089 0.0025
 Mercury -65714-05-31 10:33 J -22280465.18 -22280465.06 -22280464.94 0.0089 0.0030

Mercury -65714-08-27 11:45 J -22280377.13 -22280377.01 -22280376.88 0.0089 0.0035
 Mercury -65714-11-23 12:57 J -22280289.07 -22280288.96 -22280288.83 0.0089 0.0041
 Mercury -65713-02-19 14:23 J -22280201.01 -22280200.90 -22280200.78 0.0089 0.0046
 Mercury -65713-05-17 15:35 J -22280112.95 -22280112.85 -22280112.73 0.0089 0.0051
 Mercury -65713-08-13 17:01 J -22280024.89 -22280024.79 -22280024.69 0.0089 0.0056
 Mercury -65713-11-09 18:28 J -22279936.83 -22279936.73 -22279936.64 0.0089 0.0061
 Mercury -65712-02-05 19:25 J -22279848.76 -22279848.69 -22279848.59 0.0089 0.0067
 Mercury -65712-05-04 20:37 J -22279760.70 -22279760.64 -22279760.55 0.0089 0.0072
 Mercury -65712-07-31 22:04 J -22279672.63 -22279672.58 -22279672.51 0.0089 0.0077
 Mercury -65712-10-27 23:30 J -22279584.56 -22279584.52 -22279584.47 0.0089 0.0082
 Mercury -65711-01-24 00:42 J -22279496.48 -22279496.47 -22279496.44 0.0089 0.0087
 Mars -65710-03-02 19:25 J -22279093.78 -22279093.69 -22279093.60 0.0089 0.0083
 Mars -65708-01-23 23:59 J -22278400.76 -22278400.50 -22278400.23 0.0089 0.0031
 Mars -65707-12-18 04:47 J -22277707.56 -22277707.30 -22277707.02 0.0089 0.0021
 Mars -65705-11-10 10:33 J -22277014.19 -22277014.06 -22277013.87 0.0089 0.0073
 Moon -65691-07-17 16:04 J -22272016.87 -22272016.83 -22272016.78 0.0089 0.0088
 Earth -65690-07-20 01:54 J -22271649.46 -22271649.42 -22271649.34 0.0089 0.0086
 Moon -65690-07-20 03:35 J -22271649.37 -22271649.35 -22271649.32 0.0089 0.0088 *
 Moon -65689-07-21 08:52 J -22271282.23 -22271282.13 -22271282.00 0.0089 0.0079
 Earth -65689-07-21 11:45 J -22271282.09 -22271282.01 -22271281.90 0.0089 0.0083 *
 Earth -65688-07-23 21:49 J -22270914.70 -22270914.59 -22270914.46 0.0089 0.0078
 Moon -65688-07-24 00:57 J -22270914.55 -22270914.46 -22270914.35 0.0089 0.0081 *
 Moon -65687-07-26 04:04 J -22270547.46 -22270547.33 -22270547.17 0.0089 0.0072
 Earth -65687-07-26 07:40 J -22270547.30 -22270547.18 -22270547.03 0.0089 0.0074 *
 Earth -65686-07-28 17:30 J -22270179.90 -22270179.77 -22270179.60 0.0089 0.0070
 Moon -65686-07-28 21:06 J -22270179.76 -22270179.62 -22270179.47 0.0089 0.0072 *
 Moon -65685-07-30 00:57 J -22269812.61 -22269812.46 -22269812.27 0.0089 0.0065
 Earth -65685-07-30 03:21 J -22269812.50 -22269812.36 -22269812.17 0.0089 0.0066 *
 Earth -65684-08-01 13:40 J -22269445.10 -22269444.93 -22269444.74 0.0089 0.0061
 Moon -65684-08-01 15:06 J -22269445.03 -22269444.87 -22269444.66 0.0089 0.0063 *

Earth	-65683-08-03 23:16 J	-22269077.70	-22269077.53	-22269077.31	0.0089	0.0057
Moon	-65683-08-03 23:16 J	-22269077.70	-22269077.53	-22269077.32	0.0089	0.0055 *
Moon	-65682-08-06 08:09 J	-22268710.35	-22268710.16	-22268709.93	0.0089	0.0054
Earth	-65682-08-06 09:21 J	-22268710.30	-22268710.11	-22268709.90	0.0089	0.0052 *
Earth	-65681-08-07 18:57 J	-22268342.90	-22268342.71	-22268342.47	0.0089	0.0048
Moon	-65681-08-07 21:06 J	-22268342.81	-22268342.62	-22268342.39	0.0089	0.0046 *
Moon	-65680-08-10 02:09 J	-22267975.62	-22267975.41	-22267975.18	0.0089	0.0046
Earth	-65680-08-10 05:16 J	-22267975.49	-22267975.28	-22267975.05	0.0089	0.0043 *
Earth	-65679-08-12 15:06 J	-22267608.08	-22267607.87	-22267607.63	0.0089	0.0039
Moon	-65679-08-12 18:13 J	-22267607.95	-22267607.74	-22267607.49	0.0089	0.0038 *
Moon	-65678-08-14 21:35 J	-22267240.82	-22267240.60	-22267240.35	0.0089	0.0035
Earth	-65678-08-15 01:25 J	-22267240.67	-22267240.44	-22267240.20	0.0089	0.0033 *
Earth	-65677-08-16 11:30 J	-22266873.26	-22266873.02	-22266872.78	0.0089	0.0028
Moon	-65677-08-16 14:23 J	-22266873.14	-22266872.90	-22266872.65	0.0089	0.0026 *
Moon	-65676-08-18 19:11 J	-22266505.92	-22266505.70	-22266505.45	0.0089	0.0026
Earth	-65676-08-18 21:49 J	-22266505.84	-22266505.59	-22266505.35	0.0089	0.0023 *
Earth	-65675-08-21 07:54 J	-22266138.41	-22266138.17	-22266137.92	0.0089	0.0019
Moon	-65675-08-21 09:06 J	-22266138.37	-22266138.12	-22266137.85	0.0089	0.0017 *
Earth	-65674-08-23 18:13 J	-22265770.99	-22265770.74	-22265770.49	0.0089	0.0013
Moon	-65674-08-23 18:42 J	-22265770.96	-22265770.72	-22265770.47	0.0089	0.0015 *
Jupiter	-65674-11-08 10:33 J	-22265694.29	-22265694.06	-22265693.70	0.0089	0.0075
Moon	-65673-08-25 03:21 J	-22265403.62	-22265403.36	-22265403.10	0.0089	0.0007
Earth	-65673-08-25 04:47 J	-22265403.55	-22265403.30	-22265403.05	0.0089	0.0008 *
Earth	-65672-08-27 15:06 J	-22265036.12	-22265035.87	-22265035.61	0.0089	0.0004
Moon	-65672-08-27 17:30 J	-22265036.01	-22265035.77	-22265035.52	0.0089	0.0005 *
Moon	-65671-08-29 22:04 J	-22264668.83	-22264668.58	-22264668.32	0.0089	0.0004
Earth	-65671-08-30 01:40 J	-22264668.68	-22264668.43	-22264668.18	0.0089	0.0002 *
Earth	-65670-09-01 11:59 J	-22264301.25	-22264301.00	-22264300.74	0.0089	0.0007
Moon	-65670-09-01 15:21 J	-22264301.11	-22264300.86	-22264300.60	0.0089	0.0006 *
Moon	-65669-09-02 18:57 J	-22263933.95	-22263933.71	-22263933.45	0.0089	0.0013

Earth	-65669-09-02 22:33 J	-22263933.81	-22263933.56	-22263933.30	0.0089	0.0012	*
Earth	-65668-09-05 08:52 J	-22263566.37	-22263566.13	-22263565.87	0.0089	0.0018	
Moon	-65668-09-05 11:30 J	-22263566.27	-22263566.02	-22263565.75	0.0089	0.0016	*
Moon	-65667-09-07 17:45 J	-22263198.99	-22263198.76	-22263198.51	0.0089	0.0023	
Earth	-65667-09-07 19:40 J	-22263198.92	-22263198.68	-22263198.43	0.0089	0.0022	*
Venus	-65666-06-12 17:59 J	-22262920.81	-22262920.75	-22262920.63	0.0089	0.0081	
Earth	-65666-09-10 05:59 J	-22262831.48	-22262831.25	-22262830.99	0.0089	0.0027	
Moon	-65666-09-10 07:11 J	-22262831.45	-22262831.20	-22262830.95	0.0089	0.0026	*
Venus	-65665-01-24 07:11 J	-22262695.35	-22262695.20	-22262695.03	0.0089	0.0060	
Venus	-65665-09-05 19:40 J	-22262469.86	-22262469.68	-22262469.47	0.0089	0.0040	
Earth	-65665-09-11 16:47 J	-22262464.03	-22262463.80	-22262463.55	0.0089	0.0032	
Moon	-65665-09-11 17:59 J	-22262463.98	-22262463.75	-22262463.52	0.0089	0.0033	*
Venus	-65664-04-19 08:37 J	-22262244.35	-22262244.14	-22262243.92	0.0089	0.0019	
Moon	-65664-09-14 01:54 J	-22262096.65	-22262096.42	-22262096.17	0.0089	0.0036	
Earth	-65664-09-14 03:35 J	-22262096.57	-22262096.35	-22262096.10	0.0089	0.0037	*
Venus	-65664-11-30 21:35 J	-22262018.82	-22262018.60	-22262018.38	0.0089	0.0002	
Venus	-65663-07-14 10:18 J	-22261793.27	-22261793.07	-22261792.85	0.0089	0.0022	
Earth	-65663-09-16 14:23 J	-22261729.11	-22261728.90	-22261728.66	0.0089	0.0042	
Moon	-65663-09-16 17:16 J	-22261728.99	-22261728.78	-22261728.55	0.0089	0.0042	*
Venus	-65662-02-24 23:01 J	-22261567.72	-22261567.54	-22261567.33	0.0089	0.0043	
Moon	-65662-09-18 22:18 J	-22261361.79	-22261361.57	-22261361.35	0.0089	0.0045	
Earth	-65662-09-19 01:25 J	-22261361.64	-22261361.44	-22261361.21	0.0089	0.0047	*
Venus	-65662-10-08 12:13 J	-22261342.14	-22261341.99	-22261341.84	0.0089	0.0063	
Venus	-65661-05-21 00:57 J	-22261116.52	-22261116.46	-22261116.38	0.0089	0.0084	
Earth	-65661-09-20 12:28 J	-22260994.17	-22260993.98	-22260993.75	0.0089	0.0052	
Moon	-65661-09-20 15:49 J	-22260994.02	-22260993.84	-22260993.61	0.0089	0.0052	*
Moon	-65660-09-22 20:37 J	-22260626.83	-22260626.64	-22260626.44	0.0089	0.0056	
Earth	-65660-09-22 23:59 J	-22260626.69	-22260626.50	-22260626.29	0.0089	0.0056	*
Earth	-65659-09-25 11:01 J	-22260259.21	-22260259.04	-22260258.84	0.0089	0.0061	
Moon	-65659-09-25 13:40 J	-22260259.11	-22260258.93	-22260258.73	0.0089	0.0061	*

Moon -65658-09-27 20:23 J -22259891.79 -22259891.65 -22259891.46 0.0089 0.0066
 Earth -65658-09-27 21:49 J -22259891.73 -22259891.59 -22259891.39 0.0089 0.0066 *
 Earth -65657-09-29 09:21 J -22259524.25 -22259524.11 -22259523.93 0.0089 0.0070
 Moon -65657-09-29 09:49 J -22259524.23 -22259524.09 -22259523.90 0.0089 0.0070 *
 Earth -65656-10-01 20:52 J -22259156.75 -22259156.63 -22259156.48 0.0089 0.0074
 Moon -65656-10-01 22:04 J -22259156.70 -22259156.58 -22259156.43 0.0089 0.0074 *
 Moon -65655-10-04 06:13 J -22258789.35 -22258789.24 -22258789.10 0.0089 0.0078
 Earth -65655-10-04 08:23 J -22258789.26 -22258789.15 -22258789.02 0.0089 0.0078 *
 Earth -65654-10-06 19:54 J -22258421.76 -22258421.67 -22258421.57 0.0089 0.0082
 Moon -65654-10-06 22:33 J -22258421.63 -22258421.56 -22258421.46 0.0089 0.0083 *
 Moon -65653-10-08 03:21 J -22258054.39 -22258054.36 -22258054.28 0.0089 0.0087
 Earth -65653-10-08 06:42 J -22258054.24 -22258054.22 -22258054.13 0.0089 0.0087
 Mercury -65636-01-25 18:57 J -22252100.71 -22252100.71 -22252100.66 0.0089 0.0088
 Mercury -65636-04-23 23:01 J -22252012.62 -22252012.54 -22252012.46 0.0089 0.0080
 Mercury -65636-07-21 02:23 J -22251924.50 -22251924.40 -22251924.28 0.0089 0.0073
 Mercury -65636-10-17 06:13 J -22251836.37 -22251836.24 -22251836.11 0.0089 0.0065
 Mercury -65635-01-13 09:35 J -22251748.23 -22251748.10 -22251747.94 0.0089 0.0058
 Mercury -65635-04-11 13:25 J -22251660.09 -22251659.94 -22251659.77 0.0089 0.0050
 Mercury -65635-07-08 16:47 J -22251571.95 -22251571.80 -22251571.61 0.0089 0.0043
 Mercury -65635-10-04 20:37 J -22251483.81 -22251483.64 -22251483.45 0.0089 0.0035
 Mercury -65634-01-01 00:28 J -22251395.67 -22251395.48 -22251395.29 0.0089 0.0027
 Mercury -65634-03-30 04:04 J -22251307.52 -22251307.33 -22251307.14 0.0089 0.0019
 Mercury -65634-06-26 07:40 J -22251219.37 -22251219.18 -22251218.98 0.0089 0.0012
 Mercury -65634-09-22 11:30 J -22251131.22 -22251131.02 -22251130.83 0.0089 0.0004
 Mercury -65634-12-19 15:06 J -22251043.07 -22251042.87 -22251042.67 0.0089 0.0004
 Mercury -65633-03-16 18:42 J -22250954.91 -22250954.72 -22250954.52 0.0088 0.0011
 Mercury -65633-06-12 22:33 J -22250866.76 -22250866.56 -22250866.37 0.0088 0.0019
 Mercury -65633-09-09 01:54 J -22250778.60 -22250778.42 -22250778.22 0.0088 0.0027
 Mercury -65633-12-06 05:30 J -22250690.44 -22250690.27 -22250690.08 0.0088 0.0035
 Mercury -65632-03-04 09:21 J -22250602.28 -22250602.11 -22250601.93 0.0088 0.0042

Mercury -65632-05-31 12:57 J -22250514.11 -22250513.96 -22250513.79 0.0088 0.0050

Mercury -65632-08-27 16:33 J -22250425.95 -22250425.81 -22250425.65 0.0088 0.0057

Mercury -65632-11-23 20:23 J -22250337.78 -22250337.65 -22250337.51 0.0088 0.0065

Mercury -65631-02-19 23:59 J -22250249.60 -22250249.50 -22250249.38 0.0088 0.0073

Mercury -65631-05-19 03:21 J -22250161.42 -22250161.36 -22250161.25 0.0088 0.0081

Mercury -65631-08-15 07:25 J -22250073.20 -22250073.19 -22250073.16 0.0088 0.0088

Mars -65627-11-12 06:57 J -22248523.51 -22248523.21 -22248522.88 0.0088 0.0040

Mars -65625-10-09 04:47 J -22247826.62 -22247826.30 -22247825.94 0.0088 0.0027

Moon -65608-01-16 23:01 J -22241882.58 -22241882.54 -22241882.45 0.0088 0.0086

Earth -65607-01-19 11:01 J -22241515.08 -22241515.04 -22241514.96 0.0088 0.0086

Earth -65606-01-22 00:42 J -22241147.56 -22241147.47 -22241147.36 0.0088 0.0082

Moon -65606-01-22 03:49 J -22241147.45 -22241147.34 -22241147.20 0.0088 0.0077 *

Moon -65605-01-24 09:49 J -22240780.15 -22240780.09 -22240779.96 0.0088 0.0083

Earth -65605-01-24 13:54 J -22240780.02 -22240779.92 -22240779.77 0.0088 0.0077 *

Earth -65604-01-26 03:06 J -22240412.49 -22240412.37 -22240412.20 0.0088 0.0074

Moon -65604-01-26 06:42 J -22240412.36 -22240412.22 -22240412.03 0.0088 0.0069 *

Moon -65603-01-28 13:40 J -22240045.07 -22240044.93 -22240044.78 0.0088 0.0073

Earth -65603-01-28 17:01 J -22240044.95 -22240044.79 -22240044.62 0.0088 0.0069 *

Earth -65602-01-31 05:59 J -22239677.41 -22239677.25 -22239677.05 0.0088 0.0065

Moon -65602-01-31 08:09 J -22239677.34 -22239677.16 -22239676.94 0.0088 0.0060 *

Moon -65601-02-02 18:13 J -22239309.90 -22239309.74 -22239309.54 0.0088 0.0063

Earth -65601-02-02 19:40 J -22239309.86 -22239309.68 -22239309.48 0.0088 0.0060 *

Moon -65600-02-04 09:06 J -22238942.33 -22238942.12 -22238941.89 0.0088 0.0051

Earth -65600-02-04 08:37 J -22238942.32 -22238942.14 -22238941.91 0.0088 0.0055 *

Earth -65599-02-06 22:04 J -22238574.78 -22238574.58 -22238574.34 0.0088 0.0051

Moon -65599-02-06 23:30 J -22238574.70 -22238574.52 -22238574.30 0.0088 0.0054 *

Moon -65598-02-09 09:21 J -22238207.33 -22238207.11 -22238206.85 0.0088 0.0043

Earth -65598-02-09 11:45 J -22238207.22 -22238207.01 -22238206.77 0.0088 0.0046 *

Earth -65597-02-12 00:57 J -22237839.68 -22237839.46 -22237839.21 0.0088 0.0041

Moon -65597-02-12 04:18 J -22237839.55 -22237839.32 -22237839.10 0.0088 0.0044 *

Moon	-65596-02-13 10:33 J	-22237472.29	-22237472.06	-22237471.79	0.0088	0.0032
Earth	-65596-02-13 14:37 J	-22237472.13	-22237471.89	-22237471.65	0.0088	0.0036 *
Earth	-65595-02-16 03:49 J	-22237104.58	-22237104.34	-22237104.09	0.0088	0.0030
Moon	-65595-02-16 07:11 J	-22237104.43	-22237104.20	-22237103.94	0.0088	0.0033 *
Moon	-65594-02-18 13:54 J	-22236737.17	-22236736.92	-22236736.67	0.0088	0.0023
Earth	-65594-02-18 17:16 J	-22236737.03	-22236736.78	-22236736.53	0.0088	0.0025 *
Earth	-65593-02-21 06:13 J	-22236369.49	-22236369.24	-22236368.98	0.0088	0.0020
Moon	-65593-02-21 08:37 J	-22236369.39	-22236369.14	-22236368.87	0.0088	0.0023 *
Moon	-65592-02-22 17:30 J	-22236002.01	-22236001.77	-22236001.51	0.0088	0.0013
Earth	-65592-02-22 19:11 J	-22236001.95	-22236001.70	-22236001.43	0.0088	0.0016 *
Earth	-65591-02-25 08:23 J	-22235634.41	-22235634.15	-22235633.89	0.0088	0.0010
Moon	-65591-02-25 08:52 J	-22235634.39	-22235634.13	-22235633.85	0.0088	0.0013 *
Earth	-65590-02-27 21:21 J	-22235266.87	-22235266.61	-22235266.34	0.0088	0.0005
Moon	-65590-02-27 22:18 J	-22235266.82	-22235266.57	-22235266.31	0.0088	0.0003 *
Moon	-65589-03-01 08:23 J	-22234899.42	-22234899.15	-22234898.87	0.0088	0.0002
Earth	-65589-03-01 10:18 J	-22234899.34	-22234899.07	-22234898.81	0.0088	0.0001 *
Earth	-65588-03-03 23:01 J	-22234531.80	-22234531.54	-22234531.28	0.0088	0.0005
Moon	-65588-03-04 01:40 J	-22234531.68	-22234531.43	-22234531.17	0.0088	0.0007 *
Moon	-65587-03-06 08:09 J	-22234164.42	-22234164.16	-22234163.89	0.0088	0.0008
Earth	-65587-03-06 11:45 J	-22234164.26	-22234164.01	-22234163.74	0.0088	0.0011 *
Earth	-65586-03-09 00:28 J	-22233796.73	-22233796.48	-22233796.21	0.0088	0.0016
Moon	-65586-03-09 04:04 J	-22233796.58	-22233796.33	-22233796.07	0.0088	0.0017 *
Moon	-65585-03-10 09:49 J	-22233429.34	-22233429.09	-22233428.84	0.0088	0.0019
Earth	-65585-03-10 13:25 J	-22233429.19	-22233428.94	-22233428.68	0.0088	0.0021 *
Earth	-65584-03-13 02:09 J	-22233061.66	-22233061.41	-22233061.16	0.0088	0.0026
Moon	-65584-03-13 04:33 J	-22233061.55	-22233061.31	-22233061.04	0.0088	0.0027 *
Moon	-65583-03-15 12:28 J	-22232694.20	-22232693.98	-22232693.73	0.0088	0.0031
Earth	-65583-03-15 14:52 J	-22232694.12	-22232693.88	-22232693.63	0.0088	0.0031 *
Venus	-65583-03-15 20:23 J	-22232693.75	-22232693.65	-22232693.53	0.0088	0.0076 *
Venus	-65583-10-27 09:21 J	-22232468.26	-22232468.11	-22232467.92	0.0088	0.0056

Earth	-65582-03-18 03:21 J	-22232326.59	-22232326.36	-22232326.11	0.0088	0.0036
Moon	-65582-03-18 04:04 J	-22232326.56	-22232326.33	-22232326.07	0.0088	0.0037 *
Venus	-65582-06-09 22:47 J	-22232242.74	-22232242.55	-22232242.34	0.0088	0.0036
Venus	-65581-01-21 11:59 J	-22232017.21	-22232017.00	-22232016.77	0.0088	0.0016
Earth	-65581-03-19 15:49 J	-22231959.07	-22231958.84	-22231958.60	0.0088	0.0041
Moon	-65581-03-19 16:33 J	-22231959.03	-22231958.81	-22231958.58	0.0088	0.0040 *
Venus	-65581-09-03 01:25 J	-22231791.66	-22231791.44	-22231791.22	0.0088	0.0006
Moon	-65580-03-22 02:37 J	-22231591.61	-22231591.39	-22231591.14	0.0088	0.0046
Earth	-65580-03-22 04:04 J	-22231591.54	-22231591.33	-22231591.09	0.0088	0.0045 *
Venus	-65580-04-16 13:54 J	-22231566.11	-22231565.92	-22231565.69	0.0088	0.0027
Venus	-65580-11-28 02:52 J	-22231340.55	-22231340.38	-22231340.17	0.0088	0.0047
Earth	-65579-03-24 16:04 J	-22231224.02	-22231223.83	-22231223.59	0.0088	0.0051
Moon	-65579-03-24 18:42 J	-22231223.91	-22231223.72	-22231223.49	0.0088	0.0050 *
Venus	-65579-07-11 16:04 J	-22231114.97	-22231114.83	-22231114.68	0.0088	0.0067
Venus	-65578-02-22 05:01 J	-22230889.32	-22230889.29	-22230889.24	0.0088	0.0087
Moon	-65578-03-27 01:11 J	-22230856.65	-22230856.45	-22230856.24	0.0088	0.0056
Earth	-65578-03-27 04:47 J	-22230856.50	-22230856.30	-22230856.09	0.0088	0.0055 *
Earth	-65577-03-28 16:18 J	-22230488.99	-22230488.82	-22230488.61	0.0088	0.0060
Moon	-65577-03-28 19:40 J	-22230488.84	-22230488.68	-22230488.46	0.0088	0.0060 *
Moon	-65576-03-31 00:57 J	-22230121.62	-22230121.46	-22230121.27	0.0088	0.0064
Earth	-65576-03-31 04:47 J	-22230121.48	-22230121.30	-22230121.12	0.0088	0.0064 *
Earth	-65575-04-02 16:18 J	-22229753.96	-22229753.82	-22229753.63	0.0088	0.0068
Moon	-65575-04-02 18:57 J	-22229753.85	-22229753.71	-22229753.51	0.0088	0.0069 *
Moon	-65574-04-05 02:23 J	-22229386.54	-22229386.40	-22229386.24	0.0088	0.0072
Earth	-65574-04-05 04:18 J	-22229386.44	-22229386.32	-22229386.15	0.0088	0.0073 *
Earth	-65573-04-06 16:18 J	-22229018.94	-22229018.82	-22229018.68	0.0088	0.0077
Moon	-65573-04-06 16:47 J	-22229018.90	-22229018.80	-22229018.64	0.0088	0.0078 *
Earth	-65572-04-09 04:04 J	-22228651.42	-22228651.33	-22228651.21	0.0088	0.0081
Moon	-65572-04-09 04:47 J	-22228651.39	-22228651.30	-22228651.19	0.0088	0.0081 *
Moon	-65571-04-11 14:37 J	-22228283.94	-22228283.89	-22228283.81	0.0088	0.0086

Earth	-65571-04-11 16:04 J	-22228283.89	-22228283.83	-22228283.74	0.0088	0.0085	*
Moon	-65570-04-14 06:28 J	-22227916.25	-22227916.23	-22227916.19	0.0088	0.0088	
Mercury	-65555-11-06 03:49 J	-22222231.36	-22222231.34	-22222231.30	0.0089	0.0086	
Mercury	-65554-02-02 05:16 J	-22222143.33	-22222143.28	-22222143.22	0.0089	0.0080	
Mercury	-65554-05-01 06:42 J	-22222055.29	-22222055.22	-22222055.15	0.0089	0.0075	
Mercury	-65554-07-28 07:54 J	-22221967.24	-22221967.17	-22221967.08	0.0089	0.0070	
Mercury	-65554-10-24 09:06 J	-22221879.19	-22221879.12	-22221879.01	0.0089	0.0065	
Mercury	-65553-01-20 10:47 J	-22221791.15	-22221791.05	-22221790.95	0.0089	0.0059	
Mercury	-65553-04-17 11:59 J	-22221703.10	-22221703.00	-22221702.89	0.0089	0.0054	
Mercury	-65553-07-14 13:25 J	-22221615.05	-22221614.94	-22221614.83	0.0089	0.0049	
Mercury	-65553-10-10 14:37 J	-22221527.00	-22221526.89	-22221526.77	0.0089	0.0044	
Mercury	-65552-01-06 16:04 J	-22221438.95	-22221438.83	-22221438.71	0.0089	0.0038	
Mercury	-65552-04-04 17:30 J	-22221350.89	-22221350.77	-22221350.65	0.0089	0.0033	
Mercury	-65552-07-01 18:42 J	-22221262.84	-22221262.72	-22221262.59	0.0089	0.0028	
Mercury	-65552-09-27 20:09 J	-22221174.79	-22221174.66	-22221174.53	0.0089	0.0022	
Mercury	-65552-12-24 21:21 J	-22221086.73	-22221086.61	-22221086.47	0.0089	0.0017	
Mercury	-65551-03-22 22:47 J	-22220998.68	-22220998.55	-22220998.42	0.0089	0.0012	
Mercury	-65551-06-18 23:59 J	-22220910.63	-22220910.50	-22220910.36	0.0089	0.0008	
Mercury	-65551-09-15 01:25 J	-22220822.57	-22220822.44	-22220822.31	0.0089	0.0002	
Mercury	-65551-12-12 02:37 J	-22220734.52	-22220734.39	-22220734.25	0.0089	0.0005	
Mercury	-65550-03-10 04:04 J	-22220646.46	-22220646.33	-22220646.20	0.0089	0.0009	
Mercury	-65550-06-06 05:16 J	-22220558.41	-22220558.28	-22220558.14	0.0089	0.0014	
Mercury	-65550-09-02 06:42 J	-22220470.35	-22220470.22	-22220470.09	0.0089	0.0019	
Mercury	-65550-11-29 07:54 J	-22220382.29	-22220382.17	-22220382.04	0.0089	0.0025	
Mercury	-65549-02-25 09:21 J	-22220294.24	-22220294.11	-22220293.99	0.0089	0.0030	
Mercury	-65549-05-23 10:33 J	-22220206.18	-22220206.06	-22220205.94	0.0089	0.0035	
Mercury	-65549-08-19 11:59 J	-22220118.12	-22220118.00	-22220117.88	0.0089	0.0040	
Mercury	-65549-11-15 12:57 J	-22220030.06	-22220029.96	-22220029.83	0.0089	0.0046	
Mercury	-65548-02-11 14:23 J	-22219942.00	-22219941.90	-22219941.79	0.0089	0.0051	
Mercury	-65548-05-10 15:35 J	-22219853.94	-22219853.85	-22219853.74	0.0089	0.0056	

Mercury -65548-08-06 17:01 J -22219765.88 -22219765.79 -22219765.69 0.0089 0.0061

Mercury -65548-11-02 18:28 J -22219677.82 -22219677.73 -22219677.64 0.0089 0.0066

Mercury -65547-01-29 19:40 J -22219589.75 -22219589.68 -22219589.60 0.0089 0.0071

Mercury -65547-04-27 20:52 J -22219501.69 -22219501.63 -22219501.56 0.0089 0.0077

Mercury -65547-07-24 22:04 J -22219413.62 -22219413.58 -22219413.52 0.0089 0.0082

Mercury -65547-10-20 23:30 J -22219325.54 -22219325.52 -22219325.49 0.0089 0.0087

Mars -65545-09-08 11:59 J -22218637.20 -22218637.00 -22218636.76 0.0089 0.0056

Mars -65543-08-02 17:30 J -22217944.05 -22217943.77 -22217943.48 0.0089 0.0005

Mars -65541-06-25 22:18 J -22217250.80 -22217250.57 -22217250.33 0.0089 0.0047

Moon -65528-07-14 10:33 J -22212484.07 -22212484.06 -22212484.01 0.0089 0.0088

Earth -65527-07-16 21:21 J -22212116.62 -22212116.61 -22212116.56 0.0089 0.0088

Moon -65526-07-19 04:33 J -22211749.40 -22211749.31 -22211749.19 0.0089 0.0081

Earth -65526-07-19 07:40 J -22211749.26 -22211749.18 -22211749.10 0.0089 0.0085 *

Earth -65525-07-20 17:16 J -22211381.88 -22211381.78 -22211381.67 0.0089 0.0081

Moon -65525-07-20 20:52 J -22211381.70 -22211381.63 -22211381.55 0.0089 0.0084 *

Moon -65524-07-22 23:30 J -22211014.64 -22211014.52 -22211014.36 0.0089 0.0073

Earth -65524-07-23 03:21 J -22211014.49 -22211014.36 -22211014.23 0.0089 0.0077 *

Earth -65523-07-25 12:42 J -22210647.10 -22210646.97 -22210646.81 0.0089 0.0073

Moon -65523-07-25 16:18 J -22210646.94 -22210646.82 -22210646.69 0.0089 0.0077 *

Moon -65522-07-27 20:37 J -22210279.79 -22210279.64 -22210279.46 0.0089 0.0065

Earth -65522-07-27 22:33 J -22210279.70 -22210279.56 -22210279.38 0.0089 0.0068 *

Earth -65521-07-29 08:52 J -22209912.30 -22209912.13 -22209911.95 0.0089 0.0064

Moon -65521-07-29 09:21 J -22209912.26 -22209912.11 -22209911.91 0.0089 0.0067 *

Earth -65520-07-31 18:42 J -22209544.89 -22209544.72 -22209544.51 0.0089 0.0060

Moon -65520-07-31 18:57 J -22209544.89 -22209544.71 -22209544.51 0.0089 0.0055 *

Moon -65519-08-03 03:06 J -22209177.55 -22209177.37 -22209177.16 0.0089 0.0058

Earth -65519-08-03 05:01 J -22209177.48 -22209177.29 -22209177.08 0.0089 0.0054 *

Earth -65518-08-05 14:37 J -22208810.08 -22208809.89 -22208809.66 0.0089 0.0050

Moon -65518-08-05 17:30 J -22208809.97 -22208809.77 -22208809.55 0.0089 0.0046 *

Moon -65517-08-06 21:49 J -22208442.79 -22208442.59 -22208442.36 0.0089 0.0049

Earth	-65517-08-07 00:57 J	-22208442.66	-22208442.46	-22208442.23	0.0089	0.0045	*
Earth	-65516-08-09 11:01 J	-22208075.26	-22208075.04	-22208074.81	0.0089	0.0040	
Moon	-65516-08-09 14:37 J	-22208075.11	-22208074.89	-22208074.65	0.0089	0.0036	*
Moon	-65515-08-11 17:59 J	-22207707.96	-22207707.75	-22207707.52	0.0089	0.0039	
Earth	-65515-08-11 21:06 J	-22207707.84	-22207707.62	-22207707.38	0.0089	0.0035	*
Earth	-65514-08-14 07:11 J	-22207340.43	-22207340.20	-22207339.96	0.0089	0.0030	
Moon	-65514-08-14 10:04 J	-22207340.32	-22207340.08	-22207339.82	0.0089	0.0026	*
Moon	-65513-08-15 15:49 J	-22206973.07	-22206972.84	-22206972.61	0.0089	0.0030	
Earth	-65513-08-15 17:16 J	-22206973.01	-22206972.78	-22206972.53	0.0089	0.0026	*
Earth	-65512-08-18 03:35 J	-22206605.60	-22206605.35	-22206605.10	0.0089	0.0020	
Moon	-65512-08-18 03:49 J	-22206605.59	-22206605.34	-22206605.07	0.0089	0.0017	*
Earth	-65511-08-20 13:40 J	-22206238.18	-22206237.93	-22206237.68	0.0089	0.0015	
Moon	-65511-08-20 14:09 J	-22206238.15	-22206237.91	-22206237.67	0.0089	0.0020	*
Moon	-65510-08-22 21:35 J	-22205870.85	-22205870.60	-22205870.33	0.0089	0.0007	
Earth	-65510-08-22 23:59 J	-22205870.75	-22205870.50	-22205870.25	0.0089	0.0010	*
Earth	-65509-08-24 10:18 J	-22205503.32	-22205503.07	-22205502.82	0.0089	0.0005	
Moon	-65509-08-24 12:57 J	-22205503.20	-22205502.96	-22205502.70	0.0089	0.0009	*
Moon	-65508-08-26 17:16 J	-22205136.03	-22205135.78	-22205135.52	0.0089	0.0005	
Earth	-65508-08-26 20:52 J	-22205135.89	-22205135.63	-22205135.38	0.0089	0.0001	*
Earth	-65507-08-29 07:11 J	-22204768.45	-22204768.20	-22204767.95	0.0089	0.0005	
Moon	-65507-08-29 10:47 J	-22204768.30	-22204768.05	-22204767.79	0.0089	0.0001	*
Moon	-65506-08-31 14:52 J	-22204401.13	-22204400.88	-22204400.64	0.0089	0.0014	
Earth	-65506-08-31 17:45 J	-22204401.01	-22204400.76	-22204400.51	0.0089	0.0010	*
Earth	-65505-09-02 04:04 J	-22204033.57	-22204033.33	-22204033.07	0.0089	0.0016	
Moon	-65505-09-02 06:57 J	-22204033.47	-22204033.21	-22204032.95	0.0089	0.0011	*
Moon	-65504-09-04 13:25 J	-22203666.17	-22203665.94	-22203665.69	0.0089	0.0025	
Earth	-65504-09-04 14:52 J	-22203666.13	-22203665.88	-22203665.63	0.0089	0.0021	*
Moon	-65503-09-07 00:57 J	-22203298.70	-22203298.46	-22203298.19	0.0089	0.0022	
Earth	-65503-09-07 00:57 J	-22203298.69	-22203298.46	-22203298.20	0.0089	0.0026	*
Earth	-65502-09-09 11:30 J	-22202931.24	-22202931.02	-22202930.77	0.0089	0.0031	

Moon	-65502-09-09 12:28 J	-22202931.19	-22202930.98	-22202930.74	0.0089	0.0035 *
Venus	-65501-04-26 15:06 J	-22202700.99	-22202700.87	-22202700.73	0.0089	0.0071
Moon	-65501-09-10 19:54 J	-22202563.91	-22202563.67	-22202563.42	0.0089	0.0031
Earth	-65501-09-10 22:18 J	-22202563.79	-22202563.57	-22202563.32	0.0089	0.0036 *
Venus	-65501-12-08 03:35 J	-22202475.51	-22202475.35	-22202475.16	0.0089	0.0051
Venus	-65500-07-21 16:47 J	-22202250.01	-22202249.80	-22202249.60	0.0089	0.0030
Earth	-65500-09-13 09:06 J	-22202196.34	-22202196.12	-22202195.89	0.0089	0.0041
Moon	-65500-09-13 11:45 J	-22202196.21	-22202196.01	-22202195.77	0.0089	0.0045 *
Venus	-65499-03-04 05:16 J	-22202024.49	-22202024.28	-22202024.05	0.0089	0.0010
Moon	-65499-09-15 16:04 J	-22201829.04	-22201828.83	-22201828.58	0.0089	0.0041
Earth	-65499-09-15 20:09 J	-22201828.88	-22201828.66	-22201828.44	0.0089	0.0045 *
Venus	-65499-10-15 17:59 J	-22201798.96	-22201798.75	-22201798.52	0.0089	0.0011
Venus	-65498-05-29 06:57 J	-22201573.41	-22201573.21	-22201573.00	0.0089	0.0031
Earth	-65498-09-18 06:42 J	-22201461.42	-22201461.22	-22201461.00	0.0089	0.0050
Moon	-65498-09-18 10:04 J	-22201461.27	-22201461.08	-22201460.86	0.0089	0.0055 *
Venus	-65497-01-09 19:40 J	-22201347.85	-22201347.68	-22201347.49	0.0089	0.0052
Venus	-65497-08-22 08:23 J	-22201122.26	-22201122.15	-22201122.01	0.0089	0.0073
Moon	-65497-09-19 14:37 J	-22201094.07	-22201093.89	-22201093.67	0.0089	0.0051
Earth	-65497-09-19 17:30 J	-22201093.95	-22201093.77	-22201093.55	0.0089	0.0055 *
Earth	-65496-09-22 04:33 J	-22200726.48	-22200726.31	-22200726.10	0.0089	0.0060
Moon	-65496-09-22 07:11 J	-22200726.37	-22200726.20	-22200726.01	0.0089	0.0064 *
Moon	-65495-09-24 14:52 J	-22200359.04	-22200358.88	-22200358.68	0.0089	0.0060
Earth	-65495-09-24 15:35 J	-22200359.00	-22200358.85	-22200358.65	0.0089	0.0065 *
Moon	-65494-09-27 02:37 J	-22199991.52	-22199991.39	-22199991.22	0.0089	0.0073
Earth	-65494-09-27 03:06 J	-22199991.51	-22199991.37	-22199991.19	0.0089	0.0069 *
Earth	-65493-09-28 14:09 J	-22199624.02	-22199623.91	-22199623.74	0.0089	0.0074
Moon	-65493-09-28 15:35 J	-22199623.99	-22199623.85	-22199623.68	0.0089	0.0069 *
Moon	-65492-09-30 23:01 J	-22199256.62	-22199256.54	-22199256.43	0.0089	0.0082
Earth	-65492-10-01 01:25 J	-22199256.53	-22199256.44	-22199256.29	0.0089	0.0078 *
Earth	-65491-10-03 12:57 J	-22198889.04	-22198888.96	-22198888.84	0.0089	0.0082

Moon -65491-10-03 15:49 J -22198888.93 -22198888.84 -22198888.69 0.0089 0.0078 *
 Earth -65490-10-06 00:28 J -22198521.52 -22198521.48 -22198521.40 0.0089 0.0086
 Moon -65489-10-07 15:21 J -22198153.91 -22198153.86 -22198153.77 0.0089 0.0085
 Mercury -65472-10-22 16:04 J -22191929.84 -22191929.83 -22191929.78 0.0089 0.0088
 Mercury -65471-01-18 19:54 J -22191841.74 -22191841.67 -22191841.58 0.0089 0.0080
 Mercury -65471-04-16 23:16 J -22191753.62 -22191753.53 -22191753.40 0.0089 0.0073
 Mercury -65471-07-14 03:06 J -22191665.49 -22191665.37 -22191665.23 0.0089 0.0065
 Mercury -65471-10-10 06:28 J -22191577.36 -22191577.23 -22191577.06 0.0089 0.0058
 Mercury -65470-01-06 10:18 J -22191489.22 -22191489.07 -22191488.90 0.0089 0.0050
 Mercury -65470-04-04 13:54 J -22191401.08 -22191400.92 -22191400.74 0.0089 0.0042
 Mercury -65470-07-01 17:30 J -22191312.93 -22191312.77 -22191312.58 0.0089 0.0035
 Mercury -65470-09-27 21:21 J -22191224.79 -22191224.61 -22191224.42 0.0089 0.0027
 Mercury -65470-12-25 00:57 J -22191136.64 -22191136.46 -22191136.26 0.0089 0.0019
 Mercury -65469-03-22 04:47 J -22191048.49 -22191048.30 -22191048.11 0.0089 0.0012
 Mercury -65469-06-18 08:23 J -22190960.34 -22190960.15 -22190959.95 0.0089 0.0004
 Mercury -65469-09-14 11:59 J -22190872.19 -22190872.00 -22190871.80 0.0089 0.0004
 Mercury -65469-12-11 15:35 J -22190784.04 -22190783.85 -22190783.65 0.0089 0.0012
 Mercury -65468-03-09 19:11 J -22190695.88 -22190695.70 -22190695.50 0.0089 0.0020
 Mercury -65468-06-05 23:01 J -22190607.72 -22190607.54 -22190607.35 0.0089 0.0027
 Mercury -65468-09-02 02:37 J -22190519.56 -22190519.39 -22190519.20 0.0088 0.0035
 Mercury -65468-11-29 05:59 J -22190431.40 -22190431.25 -22190431.06 0.0088 0.0043
 Mercury -65467-02-25 10:04 J -22190343.24 -22190343.08 -22190342.92 0.0088 0.0050
 Mercury -65467-05-24 13:25 J -22190255.07 -22190254.94 -22190254.78 0.0088 0.0058
 Mercury -65467-08-20 17:01 J -22190166.90 -22190166.79 -22190166.64 0.0088 0.0066
 Mercury -65467-11-16 21:06 J -22190078.72 -22190078.62 -22190078.51 0.0088 0.0073
 Mercury -65466-02-13 00:28 J -22189990.54 -22189990.48 -22189990.38 0.0088 0.0081
 Mercury -65466-05-12 04:18 J -22189902.32 -22189902.32 -22189902.30 0.0088 0.0088
 Mars -65463-06-24 21:21 J -22188762.80 -22188762.61 -22188762.37 0.0088 0.0070
 Mars -65461-05-21 18:28 J -22188066.09 -22188065.73 -22188065.38 0.0088 0.0005
 Mars -65459-04-18 15:49 J -22187369.08 -22187368.84 -22187368.57 0.0088 0.0061

Moon	-65444-01-15 21:06 J	-22181982.62	-22181982.62	-22181982.60	0.0088	0.0088
Earth	-65444-01-16 00:13 J	-22181982.49	-22181982.49	-22181982.45	0.0088	0.0088
Earth	-65443-01-18 14:09 J	-22181614.99	-22181614.91	-22181614.83	0.0088	0.0084
Moon	-65443-01-18 17:16 J	-22181614.84	-22181614.78	-22181614.68	0.0088	0.0083 *
Moon	-65442-01-20 23:30 J	-22181247.59	-22181247.52	-22181247.39	0.0088	0.0082
Earth	-65442-01-21 03:35 J	-22181247.45	-22181247.35	-22181247.22	0.0088	0.0079 *
Earth	-65441-01-23 16:47 J	-22180879.91	-22180879.80	-22180879.64	0.0088	0.0076
Moon	-65441-01-23 20:52 J	-22180879.77	-22180879.63	-22180879.48	0.0088	0.0074 *
Moon	-65440-01-25 04:04 J	-22180512.46	-22180512.33	-22180512.17	0.0088	0.0072
Earth	-65440-01-25 06:57 J	-22180512.37	-22180512.21	-22180512.06	0.0088	0.0071 *
Earth	-65439-01-27 19:54 J	-22180144.82	-22180144.67	-22180144.48	0.0088	0.0066
Moon	-65439-01-27 21:49 J	-22180144.75	-22180144.59	-22180144.38	0.0088	0.0064 *
Moon	-65438-01-30 09:21 J	-22179777.28	-22179777.11	-22179776.93	0.0088	0.0064
Earth	-65438-01-30 09:35 J	-22179777.28	-22179777.10	-22179776.90	0.0088	0.0062 *
Moon	-65437-02-01 21:35 J	-22179409.79	-22179409.60	-22179409.37	0.0088	0.0056
Earth	-65437-02-01 22:33 J	-22179409.74	-22179409.56	-22179409.34	0.0088	0.0057 *
Earth	-65436-02-03 11:59 J	-22179042.20	-22179042.00	-22179041.78	0.0088	0.0052
Moon	-65436-02-03 13:11 J	-22179042.12	-22179041.95	-22179041.72	0.0088	0.0056 *
Moon	-65435-02-05 22:18 J	-22178674.79	-22178674.57	-22178674.33	0.0088	0.0045
Earth	-65435-02-06 01:25 J	-22178674.65	-22178674.44	-22178674.21	0.0088	0.0048 *
Earth	-65434-02-08 14:37 J	-22178307.11	-22178306.89	-22178306.65	0.0088	0.0043
Moon	-65434-02-08 17:45 J	-22178306.97	-22178306.76	-22178306.52	0.0088	0.0045 *
Moon	-65433-02-11 00:13 J	-22177939.72	-22177939.49	-22177939.24	0.0088	0.0035
Earth	-65433-02-11 04:04 J	-22177939.56	-22177939.33	-22177939.09	0.0088	0.0038 *
Earth	-65432-02-12 17:16 J	-22177572.02	-22177571.78	-22177571.53	0.0088	0.0032
Moon	-65432-02-12 20:52 J	-22177571.87	-22177571.63	-22177571.39	0.0088	0.0035 *
Moon	-65431-02-15 03:49 J	-22177204.58	-22177204.34	-22177204.09	0.0088	0.0025
Earth	-65431-02-15 06:28 J	-22177204.47	-22177204.23	-22177203.97	0.0088	0.0028 *
Earth	-65430-02-17 19:40 J	-22176836.92	-22176836.68	-22176836.41	0.0088	0.0023
Moon	-65430-02-17 22:04 J	-22176836.83	-22176836.58	-22176836.31	0.0088	0.0026 *

Moon	-65429-02-20 08:09 J	-22176469.40	-22176469.16	-22176468.90	0.0088	0.0014
Earth	-65429-02-20 08:52 J	-22176469.38	-22176469.13	-22176468.86	0.0088	0.0017 *
Moon	-65428-02-21 21:35 J	-22176101.86	-22176101.60	-22176101.32	0.0088	0.0016
Earth	-65428-02-21 22:04 J	-22176101.83	-22176101.58	-22176101.31	0.0088	0.0012 *
Earth	-65427-02-24 11:16 J	-22175734.29	-22175734.03	-22175733.76	0.0088	0.0007
Moon	-65427-02-24 12:28 J	-22175734.23	-22175733.98	-22175733.73	0.0088	0.0003 *
Moon	-65426-02-26 21:21 J	-22175366.87	-22175366.61	-22175366.33	0.0088	0.0005
Earth	-65426-02-27 00:13 J	-22175366.75	-22175366.49	-22175366.22	0.0088	0.0002 *
Earth	-65425-02-29 12:57 J	-22174999.22	-22174998.96	-22174998.69	0.0088	0.0004
Moon	-65425-02-29 16:04 J	-22174999.08	-22174998.83	-22174998.57	0.0088	0.0007 *
Moon	-65424-03-02 22:18 J	-22174631.83	-22174631.57	-22174631.31	0.0088	0.0005
Earth	-65424-03-03 01:54 J	-22174631.68	-22174631.42	-22174631.16	0.0088	0.0009 *
Earth	-65423-03-05 14:23 J	-22174264.15	-22174263.90	-22174263.63	0.0088	0.0015
Moon	-65423-03-05 18:13 J	-22174263.99	-22174263.74	-22174263.48	0.0088	0.0018 *
Moon	-65422-03-08 00:13 J	-22173896.73	-22173896.49	-22173896.22	0.0088	0.0016
Earth	-65422-03-08 03:21 J	-22173896.61	-22173896.36	-22173896.10	0.0088	0.0019 *
Earth	-65421-03-09 15:49 J	-22173529.08	-22173528.84	-22173528.58	0.0088	0.0024
Moon	-65421-03-09 18:42 J	-22173528.97	-22173528.72	-22173528.46	0.0088	0.0028 *
Moon	-65420-03-12 03:35 J	-22173161.58	-22173161.35	-22173161.10	0.0088	0.0025
Earth	-65420-03-12 04:33 J	-22173161.55	-22173161.31	-22173161.05	0.0088	0.0029 *
Earth	-65419-03-14 17:16 J	-22172794.01	-22172793.78	-22172793.53	0.0088	0.0034
Moon	-65419-03-14 17:16 J	-22172794.01	-22172793.78	-22172793.52	0.0088	0.0038 *
Venus	-65419-06-17 03:06 J	-22172699.37	-22172699.37	-22172699.33	0.0088	0.0088
Venus	-65418-01-28 16:33 J	-22172473.94	-22172473.81	-22172473.65	0.0088	0.0068
Earth	-65418-03-17 05:45 J	-22172426.48	-22172426.26	-22172426.01	0.0088	0.0040
Moon	-65418-03-17 06:28 J	-22172426.44	-22172426.23	-22172425.98	0.0088	0.0036 *
Venus	-65418-09-11 05:45 J	-22172248.43	-22172248.26	-22172248.06	0.0088	0.0047
Moon	-65417-03-18 15:49 J	-22172059.05	-22172058.84	-22172058.60	0.0088	0.0048
Earth	-65417-03-18 18:13 J	-22172058.94	-22172058.74	-22172058.49	0.0088	0.0045 *
Venus	-65417-04-23 19:11 J	-22172022.91	-22172022.70	-22172022.48	0.0088	0.0026

Venus	-65417-12-05 08:23 J	-22171797.37	-22171797.15	-22171796.93	0.0088	0.0006
Earth	-65416-03-21 06:42 J	-22171691.42	-22171691.22	-22171690.98	0.0088	0.0050
Moon	-65416-03-21 09:35 J	-22171691.30	-22171691.10	-22171690.86	0.0088	0.0045 *
Venus	-65416-07-18 21:35 J	-22171571.82	-22171571.60	-22171571.38	0.0088	0.0014
Venus	-65415-03-01 10:18 J	-22171346.26	-22171346.07	-22171345.85	0.0088	0.0035
Moon	-65415-03-23 15:49 J	-22171324.02	-22171323.84	-22171323.63	0.0088	0.0059
Earth	-65415-03-23 19:11 J	-22171323.88	-22171323.70	-22171323.47	0.0088	0.0054 *
Venus	-65415-10-12 23:16 J	-22171120.69	-22171120.53	-22171120.34	0.0088	0.0056
Earth	-65414-03-26 07:40 J	-22170956.36	-22170956.18	-22170955.97	0.0088	0.0059
Moon	-65414-03-26 11:01 J	-22170956.22	-22170956.04	-22170955.81	0.0088	0.0054 *
Venus	-65414-05-26 12:13 J	-22170895.09	-22170894.99	-22170894.86	0.0088	0.0076
Moon	-65413-03-27 16:33 J	-22170588.96	-22170588.81	-22170588.63	0.0088	0.0068
Earth	-65413-03-27 19:25 J	-22170588.84	-22170588.69	-22170588.48	0.0088	0.0064 *
Earth	-65412-03-30 07:54 J	-22170221.32	-22170221.17	-22170220.99	0.0088	0.0068
Moon	-65412-03-30 11:01 J	-22170221.22	-22170221.04	-22170220.85	0.0088	0.0063 *
Moon	-65411-04-01 18:42 J	-22169853.82	-22169853.72	-22169853.58	0.0088	0.0077
Earth	-65411-04-01 20:09 J	-22169853.80	-22169853.66	-22169853.50	0.0088	0.0072 *
Earth	-65410-04-04 07:40 J	-22169486.29	-22169486.18	-22169486.03	0.0088	0.0076
Moon	-65410-04-04 08:37 J	-22169486.29	-22169486.14	-22169485.98	0.0088	0.0072 *
Earth	-65409-04-05 19:25 J	-22169118.76	-22169118.69	-22169118.55	0.0088	0.0081
Moon	-65409-04-05 20:09 J	-22169118.69	-22169118.66	-22169118.56	0.0088	0.0086 *
Moon	-65408-04-08 05:16 J	-22168751.37	-22168751.28	-22168751.15	0.0088	0.0080
Earth	-65408-04-08 07:40 J	-22168751.23	-22168751.18	-22168751.09	0.0088	0.0085 *
Earth	-65407-04-10 19:40 J	-22168383.68	-22168383.68	-22168383.65	0.0088	0.0088
Moon	-65406-04-13 03:35 J	-22168016.36	-22168016.35	-22168016.28	0.0088	0.0088
Mercury	-65390-08-03 02:37 J	-22162060.41	-22162060.39	-22162060.35	0.0089	0.0086
Mercury	-65390-10-30 04:04 J	-22161972.38	-22161972.33	-22161972.27	0.0089	0.0081
Mercury	-65389-01-26 05:16 J	-22161884.33	-22161884.28	-22161884.20	0.0089	0.0076
Mercury	-65389-04-23 06:57 J	-22161796.29	-22161796.21	-22161796.13	0.0089	0.0070
Mercury	-65389-07-20 08:09 J	-22161708.24	-22161708.16	-22161708.06	0.0089	0.0065

Mercury -65389-10-16 09:21 J -22161620.20 -22161620.11 -22161620.00 0.0089 0.0060

Mercury -65388-01-12 10:47 J -22161532.15 -22161532.05 -22161531.94 0.0089 0.0054

Mercury -65388-04-10 12:13 J -22161444.10 -22161443.99 -22161443.88 0.0089 0.0049

Mercury -65388-07-07 13:25 J -22161356.05 -22161355.94 -22161355.82 0.0089 0.0044

Mercury -65388-10-03 14:52 J -22161267.99 -22161267.88 -22161267.76 0.0089 0.0039

Mercury -65388-12-30 16:18 J -22161179.94 -22161179.82 -22161179.70 0.0089 0.0033

Mercury -65387-03-28 17:30 J -22161091.89 -22161091.77 -22161091.64 0.0089 0.0028

Mercury -65387-06-24 18:57 J -22161003.84 -22161003.71 -22161003.58 0.0089 0.0023

Mercury -65387-09-20 20:09 J -22160915.78 -22160915.66 -22160915.52 0.0089 0.0018

Mercury -65387-12-17 21:35 J -22160827.73 -22160827.60 -22160827.47 0.0089 0.0012

Mercury -65386-03-15 22:47 J -22160739.68 -22160739.55 -22160739.41 0.0089 0.0008

Mercury -65386-06-12 00:13 J -22160651.62 -22160651.49 -22160651.36 0.0089 0.0002

Mercury -65386-09-08 01:25 J -22160563.57 -22160563.44 -22160563.30 0.0089 0.0005

Mercury -65386-12-05 02:52 J -22160475.51 -22160475.38 -22160475.25 0.0089 0.0009

Mercury -65385-03-02 04:18 J -22160387.46 -22160387.32 -22160387.19 0.0089 0.0014

Mercury -65385-05-29 05:30 J -22160299.40 -22160299.27 -22160299.14 0.0089 0.0019

Mercury -65385-08-25 06:42 J -22160211.34 -22160211.22 -22160211.09 0.0089 0.0024

Mercury -65385-11-21 07:54 J -22160123.29 -22160123.17 -22160123.04 0.0089 0.0030

Mercury -65384-02-17 09:21 J -22160035.23 -22160035.11 -22160034.98 0.0089 0.0035

Mercury -65384-05-16 10:33 J -22159947.17 -22159947.06 -22159946.93 0.0089 0.0040

Mercury -65384-08-12 11:59 J -22159859.11 -22159859.00 -22159858.88 0.0089 0.0045

Mercury -65384-11-08 13:25 J -22159771.05 -22159770.94 -22159770.83 0.0089 0.0050

Mercury -65383-02-04 14:23 J -22159682.99 -22159682.90 -22159682.79 0.0089 0.0056

Mercury -65383-05-03 15:49 J -22159594.93 -22159594.84 -22159594.74 0.0089 0.0061

Mercury -65383-07-30 17:01 J -22159506.87 -22159506.79 -22159506.69 0.0089 0.0066

Mercury -65383-10-26 18:28 J -22159418.80 -22159418.73 -22159418.65 0.0089 0.0071

Mercury -65382-01-22 19:54 J -22159330.74 -22159330.67 -22159330.61 0.0089 0.0076

Mercury -65382-04-20 21:06 J -22159242.67 -22159242.62 -22159242.57 0.0089 0.0081

Mercury -65382-07-17 22:04 J -22159154.59 -22159154.58 -22159154.53 0.0089 0.0087

Mars -65381-04-23 23:45 J -22158873.62 -22158873.51 -22158873.38 0.0089 0.0080

Mars	-65379-03-18 05:59 J	-22158180.50	-22158180.25	-22158179.97	0.0089	0.0029
Mars	-65377-02-09 11:45 J	-22157487.27	-22157487.01	-22157486.72	0.0089	0.0023
Mars	-65375-01-02 16:04 J	-22156793.96	-22156793.83	-22156793.65	0.0089	0.0074
Moon	-65364-07-13 19:40 J	-22152583.69	-22152583.68	-22152583.61	0.0089	0.0088
Earth	-65363-07-16 03:21 J	-22152216.39	-22152216.36	-22152216.28	0.0089	0.0087
Earth	-65362-07-18 12:57 J	-22151849.02	-22151848.96	-22151848.84	0.0089	0.0083
Moon	-65362-07-18 16:33 J	-22151848.90	-22151848.81	-22151848.69	0.0089	0.0080 *
Moon	-65361-07-19 19:25 J	-22151481.76	-22151481.69	-22151481.57	0.0089	0.0083
Earth	-65361-07-19 22:47 J	-22151481.63	-22151481.55	-22151481.40	0.0089	0.0079 *
Earth	-65360-07-22 08:37 J	-22151114.25	-22151114.14	-22151113.98	0.0089	0.0075
Moon	-65360-07-22 11:30 J	-22151114.16	-22151114.02	-22151113.85	0.0089	0.0072 *
Moon	-65359-07-24 16:33 J	-22150746.92	-22150746.81	-22150746.65	0.0089	0.0073
Earth	-65359-07-24 18:42 J	-22150746.86	-22150746.72	-22150746.55	0.0089	0.0071 *
Earth	-65358-07-27 04:18 J	-22150379.46	-22150379.32	-22150379.13	0.0089	0.0067
Moon	-65358-07-27 05:01 J	-22150379.45	-22150379.29	-22150379.08	0.0089	0.0063 *
Earth	-65357-07-28 14:37 J	-22150012.06	-22150011.89	-22150011.70	0.0089	0.0062
Moon	-65357-07-28 15:06 J	-22150012.01	-22150011.87	-22150011.68	0.0089	0.0066 *
Moon	-65356-07-30 22:33 J	-22149644.75	-22149644.56	-22149644.34	0.0089	0.0055
Earth	-65356-07-31 00:13 J	-22149644.66	-22149644.49	-22149644.28	0.0089	0.0057 *
Earth	-65355-08-02 10:18 J	-22149277.26	-22149277.07	-22149276.85	0.0089	0.0053
Moon	-65355-08-02 13:11 J	-22149277.13	-22149276.95	-22149276.74	0.0089	0.0055 *
Moon	-65354-08-04 17:01 J	-22148910.00	-22148909.79	-22148909.55	0.0089	0.0044
Earth	-65354-08-04 20:37 J	-22148909.84	-22148909.64	-22148909.42	0.0089	0.0048 *
Earth	-65353-08-06 06:42 J	-22148542.43	-22148542.22	-22148541.99	0.0089	0.0043
Moon	-65353-08-06 09:49 J	-22148542.28	-22148542.09	-22148541.85	0.0089	0.0045 *
Moon	-65352-08-08 13:25 J	-22148175.15	-22148174.94	-22148174.70	0.0089	0.0035
Earth	-65352-08-08 17:01 J	-22148175.02	-22148174.79	-22148174.56	0.0089	0.0038 *
Earth	-65351-08-11 02:52 J	-22147807.61	-22147807.38	-22147807.14	0.0089	0.0033
Moon	-65351-08-11 04:47 J	-22147807.52	-22147807.30	-22147807.05	0.0089	0.0036 *
Moon	-65350-08-13 11:30 J	-22147440.25	-22147440.02	-22147439.78	0.0089	0.0026

Earth	-65350-08-13 12:57 J	-22147440.19	-22147439.96	-22147439.71	0.0089	0.0028	*
Earth	-65349-08-14 23:01 J	-22147072.78	-22147072.54	-22147072.29	0.0089	0.0023	
Moon	-65349-08-14 23:01 J	-22147072.78	-22147072.54	-22147072.28	0.0089	0.0025	*
Earth	-65348-08-17 09:06 J	-22146705.36	-22146705.12	-22146704.87	0.0089	0.0018	
Moon	-65348-08-17 10:33 J	-22146705.30	-22146705.06	-22146704.81	0.0089	0.0015	*
Moon	-65347-08-19 17:16 J	-22146338.04	-22146337.78	-22146337.52	0.0089	0.0015	
Earth	-65347-08-19 19:25 J	-22146337.94	-22146337.69	-22146337.44	0.0089	0.0012	*
Earth	-65346-08-22 05:30 J	-22145970.52	-22145970.27	-22145970.01	0.0089	0.0007	
Moon	-65346-08-22 08:37 J	-22145970.38	-22145970.14	-22145969.88	0.0089	0.0006	*
Moon	-65345-08-23 12:28 J	-22145603.23	-22145602.98	-22145602.73	0.0089	0.0005	
Earth	-65345-08-23 16:04 J	-22145603.09	-22145602.83	-22145602.58	0.0089	0.0002	*
Earth	-65344-08-26 02:09 J	-22145235.66	-22145235.41	-22145235.15	0.0089	0.0003	
Moon	-65344-08-26 05:30 J	-22145235.52	-22145235.27	-22145235.01	0.0089	0.0006	*
Moon	-65343-08-28 09:35 J	-22144868.35	-22144868.10	-22144867.85	0.0089	0.0006	
Earth	-65343-08-28 12:42 J	-22144868.22	-22144867.97	-22144867.72	0.0089	0.0009	*
Earth	-65342-08-30 23:01 J	-22144500.78	-22144500.54	-22144500.28	0.0089	0.0014	
Moon	-65342-08-31 00:42 J	-22144500.71	-22144500.47	-22144500.20	0.0089	0.0017	*
Moon	-65341-09-01 08:52 J	-22144133.37	-22144133.13	-22144132.89	0.0089	0.0017	
Earth	-65341-09-01 09:49 J	-22144133.33	-22144133.09	-22144132.84	0.0089	0.0019	*
Moon	-65340-09-03 19:54 J	-22143765.91	-22143765.67	-22143765.41	0.0089	0.0026	
Earth	-65340-09-03 20:09 J	-22143765.89	-22143765.66	-22143765.40	0.0089	0.0025	*
Earth	-65339-09-06 06:57 J	-22143398.44	-22143398.21	-22143397.96	0.0089	0.0029	
Moon	-65339-09-06 08:37 J	-22143398.36	-22143398.14	-22143397.89	0.0089	0.0027	*
Moon	-65338-09-08 15:06 J	-22143031.09	-22143030.87	-22143030.62	0.0089	0.0036	
Earth	-65338-09-08 17:45 J	-22143030.99	-22143030.76	-22143030.52	0.0089	0.0034	*
Venus	-65337-07-28 23:16 J	-22142706.60	-22142706.53	-22142706.43	0.0089	0.0082	
Earth	-65337-09-10 04:18 J	-22142663.54	-22142663.32	-22142663.08	0.0089	0.0039	
Moon	-65337-09-10 07:25 J	-22142663.40	-22142663.19	-22142662.94	0.0089	0.0038	*
Venus	-65336-03-11 11:45 J	-22142481.14	-22142481.01	-22142480.83	0.0089	0.0062	
Moon	-65336-09-12 11:16 J	-22142296.22	-22142296.03	-22142295.79	0.0089	0.0047	

Earth -65336-09-12 15:06 J -22142296.08 -22142295.87 -22142295.64 0.0089 0.0044 *
 Venus -65336-10-23 00:57 J -22142255.65 -22142255.46 -22142255.27 0.0089 0.0041
 Venus -65335-06-05 13:25 J -22142030.14 -22142029.94 -22142029.71 0.0089 0.0022
 Earth -65335-09-15 01:40 J -22141928.63 -22141928.43 -22141928.21 0.0089 0.0049
 Moon -65335-09-15 05:16 J -22141928.49 -22141928.28 -22141928.06 0.0089 0.0048 *
 Venus -65334-01-17 02:23 J -22141804.61 -22141804.40 -22141804.18 0.0089 0.0002
 Venus -65334-08-30 15:21 J -22141579.07 -22141578.86 -22141578.65 0.0089 0.0020
 Moon -65334-09-17 09:35 J -22141561.27 -22141561.10 -22141560.89 0.0089 0.0056
 Earth -65334-09-17 12:28 J -22141561.16 -22141560.98 -22141560.76 0.0089 0.0054 *
 Venus -65333-04-12 03:49 J -22141353.52 -22141353.34 -22141353.14 0.0089 0.0041
 Earth -65333-09-18 23:16 J -22141193.70 -22141193.53 -22141193.32 0.0089 0.0059
 Moon -65333-09-19 00:57 J -22141193.65 -22141193.46 -22141193.24 0.0089 0.0057 *
 Venus -65333-11-23 16:18 J -22141127.95 -22141127.82 -22141127.64 0.0089 0.0062
 Venus -65332-07-07 05:30 J -22140902.33 -22140902.27 -22140902.17 0.0089 0.0082
 Moon -65332-09-21 09:49 J -22140826.26 -22140826.09 -22140825.92 0.0089 0.0064
 Earth -65332-09-21 10:33 J -22140826.23 -22140826.06 -22140825.88 0.0089 0.0063 *
 Moon -65331-09-23 20:23 J -22140458.80 -22140458.65 -22140458.45 0.0089 0.0067
 Earth -65331-09-23 21:21 J -22140458.76 -22140458.61 -22140458.43 0.0089 0.0068 *
 Earth -65330-09-26 08:23 J -22140091.27 -22140091.15 -22140090.98 0.0089 0.0073
 Moon -65330-09-26 10:47 J -22140091.17 -22140091.05 -22140090.90 0.0089 0.0074 *
 Moon -65329-09-27 17:16 J -22139723.90 -22139723.78 -22139723.63 0.0089 0.0076
 Earth -65329-09-27 19:54 J -22139723.78 -22139723.67 -22139723.53 0.0089 0.0077 *
 Earth -65328-09-30 07:25 J -22139356.28 -22139356.19 -22139356.08 0.0089 0.0081
 Moon -65328-09-30 10:47 J -22139356.13 -22139356.05 -22139355.94 0.0089 0.0082 *
 Moon -65327-10-02 15:21 J -22138988.93 -22138988.86 -22138988.77 0.0089 0.0084
 Earth -65327-10-02 18:13 J -22138988.77 -22138988.74 -22138988.64 0.0089 0.0086 *
 Mercury -65307-07-19 13:40 J -22131758.96 -22131758.93 -22131758.89 0.0089 0.0087
 Mercury -65307-10-15 16:47 J -22131670.86 -22131670.80 -22131670.69 0.0089 0.0080
 Mercury -65306-01-11 20:52 J -22131582.74 -22131582.63 -22131582.52 0.0089 0.0072
 Mercury -65306-04-10 00:13 J -22131494.61 -22131494.49 -22131494.35 0.0089 0.0065

Mercury -65306-07-07 04:04 J -22131406.48 -22131406.33 -22131406.18 0.0089 0.0057

Mercury -65306-10-03 07:25 J -22131318.34 -22131318.19 -22131318.02 0.0089 0.0050

Mercury -65306-12-30 11:16 J -22131230.20 -22131230.03 -22131229.86 0.0089 0.0042

Mercury -65305-03-27 14:37 J -22131142.06 -22131141.89 -22131141.70 0.0089 0.0035

Mercury -65305-06-23 18:28 J -22131053.91 -22131053.73 -22131053.54 0.0089 0.0027

Mercury -65305-09-19 22:18 J -22130965.76 -22130965.57 -22130965.38 0.0089 0.0019

Mercury -65305-12-17 01:40 J -22130877.61 -22130877.43 -22130877.23 0.0089 0.0012

Mercury -65304-03-15 05:30 J -22130789.46 -22130789.27 -22130789.07 0.0089 0.0004

Mercury -65304-06-11 09:06 J -22130701.31 -22130701.12 -22130700.92 0.0089 0.0004

Mercury -65304-09-07 12:57 J -22130613.16 -22130612.96 -22130612.77 0.0089 0.0012

Mercury -65304-12-04 16:18 J -22130525.00 -22130524.82 -22130524.62 0.0089 0.0020

Mercury -65303-03-02 19:54 J -22130436.84 -22130436.67 -22130436.47 0.0088 0.0028

Mercury -65303-05-29 23:45 J -22130348.68 -22130348.51 -22130348.32 0.0088 0.0035

Mercury -65303-08-26 03:21 J -22130260.52 -22130260.36 -22130260.18 0.0088 0.0043

Mercury -65303-11-22 06:57 J -22130172.36 -22130172.21 -22130172.04 0.0088 0.0051

Mercury -65302-02-18 10:33 J -22130084.19 -22130084.06 -22130083.90 0.0088 0.0058

Mercury -65302-05-17 14:23 J -22129996.02 -22129995.90 -22129995.76 0.0088 0.0066

Mercury -65302-08-13 17:59 J -22129907.84 -22129907.75 -22129907.63 0.0088 0.0074

Mercury -65302-11-09 21:35 J -22129819.66 -22129819.60 -22129819.51 0.0088 0.0081

Mars -65297-01-02 10:47 J -22128305.35 -22128305.05 -22128304.70 0.0088 0.0035

Mars -65296-11-29 07:40 J -22127608.49 -22127608.18 -22127607.83 0.0088 0.0031

Moon -65281-01-13 11:30 J -22122450.08 -22122450.02 -22122449.96 0.0088 0.0086

Earth -65280-01-15 03:21 J -22122082.39 -22122082.36 -22122082.28 0.0088 0.0087

Moon -65279-01-17 13:54 J -22121715.03 -22121714.92 -22121714.78 0.0088 0.0078

Earth -65279-01-17 17:01 J -22121714.86 -22121714.79 -22121714.67 0.0088 0.0082 *

Earth -65278-01-20 06:57 J -22121347.32 -22121347.21 -22121347.08 0.0088 0.0078

Moon -65278-01-20 09:21 J -22121347.17 -22121347.11 -22121346.98 0.0088 0.0083 *

Moon -65277-01-22 17:45 J -22120979.89 -22120979.76 -22120979.57 0.0088 0.0069

Earth -65277-01-22 20:09 J -22120979.78 -22120979.66 -22120979.49 0.0088 0.0074 *

Earth -65276-01-24 10:04 J -22120612.24 -22120612.08 -22120611.91 0.0088 0.0069

Moon	-65276-01-24 10:18 J	-22120612.20	-22120612.07	-22120611.89	0.0088	0.0073	*
Earth	-65275-01-26 23:16 J	-22120244.69	-22120244.53	-22120244.33	0.0088	0.0065	
Moon	-65275-01-26 23:30 J	-22120244.69	-22120244.52	-22120244.32	0.0088	0.0060	*
Moon	-65274-01-29 11:45 J	-22119877.19	-22119877.01	-22119876.82	0.0088	0.0064	
Earth	-65274-01-29 12:42 J	-22119877.14	-22119876.97	-22119876.75	0.0088	0.0060	*
Earth	-65273-02-01 02:23 J	-22119509.60	-22119509.40	-22119509.18	0.0088	0.0055	
Moon	-65273-02-01 04:47 J	-22119509.49	-22119509.30	-22119509.07	0.0088	0.0051	*
Moon	-65272-02-02 12:42 J	-22119142.17	-22119141.97	-22119141.75	0.0088	0.0054	
Earth	-65272-02-02 15:49 J	-22119142.05	-22119141.84	-22119141.62	0.0088	0.0050	*
Earth	-65271-02-05 05:16 J	-22118774.51	-22118774.28	-22118774.05	0.0088	0.0045	
Moon	-65271-02-05 08:52 J	-22118774.36	-22118774.13	-22118773.89	0.0088	0.0040	*
Moon	-65270-02-07 14:37 J	-22118407.09	-22118406.89	-22118406.64	0.0088	0.0045	
Earth	-65270-02-07 18:28 J	-22118406.96	-22118406.73	-22118406.49	0.0088	0.0040	*
Earth	-65269-02-10 07:40 J	-22118039.42	-22118039.18	-22118038.94	0.0088	0.0035	
Moon	-65269-02-10 10:47 J	-22118039.29	-22118039.05	-22118038.79	0.0088	0.0031	*
Moon	-65268-02-11 18:28 J	-22117671.97	-22117671.73	-22117671.49	0.0088	0.0033	
Earth	-65268-02-11 20:52 J	-22117671.87	-22117671.63	-22117671.37	0.0088	0.0030	*
Earth	-65267-02-14 10:18 J	-22117304.32	-22117304.07	-22117303.82	0.0088	0.0024	
Moon	-65267-02-14 11:16 J	-22117304.28	-22117304.03	-22117303.75	0.0088	0.0021	*
Moon	-65266-02-16 22:47 J	-22116936.79	-22116936.55	-22116936.30	0.0088	0.0022	
Earth	-65266-02-16 23:16 J	-22116936.78	-22116936.53	-22116936.26	0.0088	0.0019	*
Moon	-65265-02-19 11:45 J	-22116569.28	-22116569.01	-22116568.74	0.0088	0.0010	
Earth	-65265-02-19 12:28 J	-22116569.23	-22116568.98	-22116568.71	0.0088	0.0015	*
Earth	-65264-02-21 01:54 J	-22116201.68	-22116201.42	-22116201.16	0.0088	0.0009	
Moon	-65264-02-21 04:04 J	-22116201.58	-22116201.33	-22116201.07	0.0088	0.0012	*
Moon	-65263-02-23 12:28 J	-22115834.25	-22115833.98	-22115833.71	0.0088	0.0000	
Earth	-65263-02-23 15:06 J	-22115834.13	-22115833.87	-22115833.60	0.0088	0.0004	*
Earth	-65262-02-26 04:18 J	-22115466.58	-22115466.32	-22115466.06	0.0088	0.0002	
Moon	-65262-02-26 07:54 J	-22115466.43	-22115466.17	-22115465.91	0.0088	0.0001	*
Moon	-65261-02-28 13:25 J	-22115099.19	-22115098.94	-22115098.67	0.0088	0.0011	

Earth	-65261-02-28 17:16 J	-22115099.04	-22115098.78	-22115098.52	0.0088	0.0007	*
Earth	-65260-03-02 06:13 J	-22114731.50	-22114731.24	-22114730.98	0.0088	0.0013	
Moon	-65260-03-02 09:35 J	-22114731.36	-22114731.10	-22114730.83	0.0088	0.0010	*
Moon	-65259-03-04 16:18 J	-22114364.07	-22114363.82	-22114363.57	0.0088	0.0021	
Earth	-65259-03-04 19:11 J	-22114363.96	-22114363.70	-22114363.45	0.0088	0.0018	*
Earth	-65258-03-07 07:11 J	-22113996.43	-22113996.20	-22113995.93	0.0088	0.0024	
Moon	-65258-03-07 09:06 J	-22113996.38	-22113996.12	-22113995.85	0.0088	0.0020	*
Moon	-65257-03-08 18:57 J	-22113628.93	-22113628.71	-22113628.45	0.0088	0.0030	
Earth	-65257-03-08 19:54 J	-22113628.90	-22113628.67	-22113628.40	0.0088	0.0028	*
Moon	-65256-03-11 08:09 J	-22113261.40	-22113261.16	-22113260.90	0.0088	0.0031	
Earth	-65256-03-11 08:37 J	-22113261.37	-22113261.14	-22113260.88	0.0088	0.0033	*
Earth	-65255-03-13 21:06 J	-22112893.84	-22112893.62	-22112893.37	0.0088	0.0038	
Moon	-65255-03-13 23:16 J	-22112893.75	-22112893.53	-22112893.30	0.0088	0.0040	*
Moon	-65254-03-16 07:11 J	-22112526.42	-22112526.20	-22112525.94	0.0088	0.0042	
Earth	-65254-03-16 09:49 J	-22112526.30	-22112526.09	-22112525.85	0.0088	0.0043	*
Venus	-65254-05-02 00:13 J	-22112479.57	-22112479.49	-22112479.37	0.0088	0.0078	
Venus	-65254-12-13 13:40 J	-22112254.09	-22112253.93	-22112253.75	0.0088	0.0058	
Earth	-65253-03-17 22:04 J	-22112158.78	-22112158.58	-22112158.34	0.0088	0.0048	
Moon	-65253-03-18 01:40 J	-22112158.62	-22112158.43	-22112158.20	0.0088	0.0050	*
Venus	-65253-07-26 02:52 J	-22112028.57	-22112028.38	-22112028.17	0.0088	0.0037	
Venus	-65252-03-08 16:18 J	-22111803.04	-22111802.82	-22111802.60	0.0088	0.0017	
Moon	-65252-03-20 07:11 J	-22111791.39	-22111791.20	-22111790.96	0.0088	0.0051	
Earth	-65252-03-20 10:47 J	-22111791.24	-22111791.05	-22111790.82	0.0088	0.0053	*
Venus	-65252-10-20 05:16 J	-22111577.50	-22111577.28	-22111577.06	0.0088	0.0004	
Earth	-65251-03-22 23:30 J	-22111423.71	-22111423.52	-22111423.31	0.0088	0.0058	
Moon	-65251-03-23 02:52 J	-22111423.56	-22111423.38	-22111423.16	0.0088	0.0059	*
Venus	-65251-06-02 18:13 J	-22111351.94	-22111351.74	-22111351.52	0.0088	0.0024	
Venus	-65250-01-14 07:25 J	-22111126.37	-22111126.19	-22111125.99	0.0088	0.0045	
Moon	-65250-03-25 08:37 J	-22111056.30	-22111056.14	-22111055.93	0.0088	0.0061	
Earth	-65250-03-25 11:45 J	-22111056.18	-22111056.01	-22111055.81	0.0088	0.0062	*

Venus -65250-08-27 20:09 J -22110900.78 -22110900.66 -22110900.49 0.0088 0.0065
 Earth -65249-03-26 23:45 J -22110688.65 -22110688.51 -22110688.31 0.0088 0.0067
 Moon -65249-03-27 02:23 J -22110688.57 -22110688.40 -22110688.23 0.0088 0.0068 *
 Venus -65249-04-09 09:06 J -22110675.15 -22110675.12 -22110675.04 0.0088 0.0085
 Moon -65248-03-29 10:47 J -22110321.17 -22110321.05 -22110320.87 0.0088 0.0072
 Earth -65248-03-29 12:13 J -22110321.12 -22110320.99 -22110320.82 0.0088 0.0072 *
 Moon -65247-03-31 23:59 J -22109953.62 -22109953.50 -22109953.36 0.0088 0.0077
 Earth -65247-04-01 00:28 J -22109953.60 -22109953.48 -22109953.34 0.0088 0.0076 *
 Earth -65246-04-03 11:59 J -22109586.08 -22109586.00 -22109585.87 0.0088 0.0080
 Moon -65246-04-03 13:40 J -22109586.02 -22109585.93 -22109585.80 0.0088 0.0079 *
 Moon -65245-04-04 21:35 J -22109218.65 -22109218.60 -22109218.50 0.0088 0.0085
 Earth -65245-04-04 23:45 J -22109218.55 -22109218.51 -22109218.40 0.0088 0.0085 *
 Earth -65244-04-07 11:59 J -22108851.00 -22108851.00 -22108850.96 0.0088 0.0088
 Moon -65244-04-07 15:21 J -22108850.87 -22108850.86 -22108850.80 0.0088 0.0088
 Mercury -65225-04-29 01:40 J -22101889.45 -22101889.43 -22101889.39 0.0089 0.0086
 Mercury -65225-07-26 02:52 J -22101801.42 -22101801.38 -22101801.31 0.0089 0.0081
 Mercury -65225-10-22 04:18 J -22101713.38 -22101713.32 -22101713.24 0.0089 0.0076
 Mercury -65224-01-18 05:59 J -22101625.33 -22101625.25 -22101625.17 0.0089 0.0070
 Mercury -65224-04-16 07:11 J -22101537.29 -22101537.20 -22101537.11 0.0089 0.0065
 Mercury -65224-07-13 08:23 J -22101449.24 -22101449.15 -22101449.04 0.0089 0.0060
 Mercury -65224-10-09 09:35 J -22101361.19 -22101361.10 -22101360.98 0.0089 0.0055
 Mercury -65223-01-05 11:16 J -22101273.14 -22101273.03 -22101272.92 0.0089 0.0049
 Mercury -65223-04-03 12:28 J -22101185.09 -22101184.98 -22101184.86 0.0089 0.0044
 Mercury -65223-06-30 13:54 J -22101097.04 -22101096.92 -22101096.80 0.0089 0.0038
 Mercury -65223-09-26 15:21 J -22101008.98 -22101008.86 -22101008.74 0.0089 0.0033
 Mercury -65223-12-23 16:33 J -22100920.93 -22100920.81 -22100920.68 0.0089 0.0028
 Mercury -65222-03-21 17:59 J -22100832.88 -22100832.75 -22100832.62 0.0089 0.0023
 Mercury -65222-06-17 19:11 J -22100744.83 -22100744.70 -22100744.56 0.0089 0.0018
 Mercury -65222-09-13 20:37 J -22100656.77 -22100656.64 -22100656.51 0.0089 0.0012
 Mercury -65222-12-10 21:49 J -22100568.72 -22100568.59 -22100568.45 0.0089 0.0008

Mercury -65221-03-07 23:16 J -22100480.66 -22100480.53 -22100480.40 0.0089 0.0002
 Mercury -65221-06-04 00:28 J -22100392.61 -22100392.48 -22100392.34 0.0089 0.0005
 Mercury -65221-08-31 01:54 J -22100304.55 -22100304.42 -22100304.29 0.0089 0.0009
 Mercury -65221-11-27 03:06 J -22100216.50 -22100216.37 -22100216.24 0.0089 0.0014
 Mercury -65220-02-23 04:18 J -22100128.44 -22100128.32 -22100128.18 0.0089 0.0020
 Mercury -65220-05-22 05:45 J -22100040.38 -22100040.26 -22100040.13 0.0089 0.0025
 Mercury -65220-08-18 06:57 J -22099952.33 -22099952.21 -22099952.08 0.0089 0.0030
 Mercury -65220-11-14 08:23 J -22099864.27 -22099864.15 -22099864.03 0.0089 0.0035
 Mercury -65219-02-10 09:49 J -22099776.21 -22099776.09 -22099775.98 0.0089 0.0040
 Mercury -65219-05-09 10:47 J -22099688.15 -22099688.05 -22099687.92 0.0089 0.0046
 Mercury -65219-08-05 12:13 J -22099600.09 -22099599.99 -22099599.88 0.0089 0.0051
 Mercury -65219-11-01 13:25 J -22099512.03 -22099511.94 -22099511.83 0.0089 0.0056
 Mercury -65218-01-28 14:52 J -22099423.97 -22099423.88 -22099423.78 0.0089 0.0061
 Mercury -65218-04-26 16:18 J -22099335.91 -22099335.82 -22099335.73 0.0089 0.0066
 Mercury -65218-07-23 17:30 J -22099247.84 -22099247.77 -22099247.69 0.0089 0.0071
 Mercury -65218-10-19 18:42 J -22099159.78 -22099159.72 -22099159.65 0.0089 0.0077
 Mercury -65217-01-15 19:54 J -22099071.71 -22099071.67 -22099071.61 0.0089 0.0082
 Mercury -65217-04-12 21:21 J -22098983.63 -22098983.61 -22098983.58 0.0089 0.0087
 Mars -65216-10-31 18:57 J -22098416.91 -22098416.71 -22098416.46 0.0089 0.0053
 Mars -65214-09-25 01:11 J -22097723.73 -22097723.45 -22097723.16 0.0089 0.0002
 Mars -65212-08-18 07:11 J -22097030.42 -22097030.20 -22097029.96 0.0089 0.0049
 Earth -65199-07-15 09:21 J -22092316.15 -22092316.11 -22092316.01 0.0089 0.0086
 Moon -65199-07-15 12:57 J -22092316.02 -22092315.96 -22092315.84 0.0089 0.0083 *
 Moon -65198-07-17 17:01 J -22091948.86 -22091948.79 -22091948.71 0.0089 0.0084
 Earth -65198-07-17 19:54 J -22091948.76 -22091948.67 -22091948.56 0.0089 0.0081 *
 Earth -65197-07-19 05:30 J -22091581.37 -22091581.27 -22091581.13 0.0089 0.0078
 Moon -65197-07-19 08:37 J -22091581.28 -22091581.14 -22091580.99 0.0089 0.0074 *
 Moon -65196-07-21 14:09 J -22091214.01 -22091213.91 -22091213.76 0.0089 0.0076
 Earth -65196-07-21 15:06 J -22091213.98 -22091213.87 -22091213.70 0.0089 0.0074 *
 Moon -65195-07-24 01:40 J -22090846.60 -22090846.43 -22090846.25 0.0089 0.0066

Earth	-65195-07-24 01:25 J	-22090846.59	-22090846.44	-22090846.27	0.0089	0.0069	*
Earth	-65194-07-26 11:01 J	-22090479.19	-22090479.04	-22090478.84	0.0089	0.0064	
Moon	-65194-07-26 12:28 J	-22090479.14	-22090478.98	-22090478.82	0.0089	0.0068	*
Moon	-65193-07-27 18:42 J	-22090111.91	-22090111.72	-22090111.51	0.0089	0.0057	
Earth	-65193-07-27 21:21 J	-22090111.79	-22090111.61	-22090111.42	0.0089	0.0059	*
Earth	-65192-07-30 06:42 J	-22089744.39	-22089744.22	-22089744.00	0.0089	0.0055	
Moon	-65192-07-30 09:49 J	-22089744.26	-22089744.09	-22089743.88	0.0089	0.0058	*
Moon	-65191-08-01 13:25 J	-22089377.14	-22089376.94	-22089376.71	0.0089	0.0046	
Earth	-65191-08-01 16:47 J	-22089376.99	-22089376.80	-22089376.57	0.0089	0.0050	*
Earth	-65190-08-04 02:52 J	-22089009.58	-22089009.38	-22089009.15	0.0089	0.0045	
Moon	-65190-08-04 06:13 J	-22089009.44	-22089009.24	-22089009.01	0.0089	0.0049	*
Moon	-65189-08-05 10:18 J	-22088642.28	-22088642.07	-22088641.83	0.0089	0.0037	
Earth	-65189-08-05 12:57 J	-22088642.17	-22088641.96	-22088641.72	0.0089	0.0041	*
Earth	-65188-08-07 23:01 J	-22088274.76	-22088274.54	-22088274.29	0.0089	0.0035	
Moon	-65188-08-08 01:11 J	-22088274.66	-22088274.45	-22088274.19	0.0089	0.0039	*
Moon	-65187-08-10 08:37 J	-22087907.36	-22087907.14	-22087906.89	0.0089	0.0028	
Earth	-65187-08-10 09:21 J	-22087907.34	-22087907.11	-22087906.86	0.0089	0.0030	*
Moon	-65186-08-12 18:57 J	-22087539.94	-22087539.71	-22087539.44	0.0089	0.0028	
Earth	-65186-08-12 19:25 J	-22087539.92	-22087539.69	-22087539.43	0.0089	0.0025	*
Earth	-65185-08-14 05:59 J	-22087172.50	-22087172.25	-22087172.01	0.0089	0.0020	
Moon	-65185-08-14 07:11 J	-22087172.44	-22087172.20	-22087171.95	0.0089	0.0016	*
Moon	-65184-08-16 12:57 J	-22086805.21	-22086804.96	-22086804.70	0.0089	0.0018	
Earth	-65184-08-16 16:04 J	-22086805.08	-22086804.83	-22086804.58	0.0089	0.0014	*
Earth	-65183-08-19 01:54 J	-22086437.66	-22086437.42	-22086437.16	0.0089	0.0010	
Moon	-65183-08-19 05:16 J	-22086437.53	-22086437.28	-22086437.03	0.0089	0.0006	*
Moon	-65182-08-21 08:37 J	-22086070.39	-22086070.14	-22086069.88	0.0089	0.0008	
Earth	-65182-08-21 12:28 J	-22086070.23	-22086069.98	-22086069.73	0.0089	0.0004	*
Earth	-65181-08-22 22:33 J	-22085702.81	-22085702.56	-22085702.31	0.0089	0.0001	
Moon	-65181-08-23 01:40 J	-22085702.68	-22085702.43	-22085702.17	0.0089	0.0006	*
Moon	-65180-08-25 06:13 J	-22085335.48	-22085335.24	-22085334.99	0.0089	0.0003	

Earth	-65180-08-25 08:37 J	-22085335.39	-22085335.14	-22085334.88	0.0089	0.0007	*
Earth	-65179-08-27 18:57 J	-22084967.96	-22084967.71	-22084967.45	0.0089	0.0012	
Moon	-65179-08-27 20:37 J	-22084967.88	-22084967.64	-22084967.37	0.0089	0.0017	*
Earth	-65178-08-30 05:16 J	-22084600.52	-22084600.28	-22084600.02	0.0089	0.0018	
Moon	-65178-08-30 05:30 J	-22084600.51	-22084600.27	-22084600.03	0.0089	0.0014	*
Moon	-65177-08-31 14:37 J	-22084233.12	-22084232.89	-22084232.62	0.0089	0.0026	
Earth	-65177-08-31 15:49 J	-22084233.08	-22084232.84	-22084232.59	0.0089	0.0022	*
Earth	-65176-09-03 02:09 J	-22083865.64	-22083865.41	-22083865.15	0.0089	0.0028	
Moon	-65176-09-03 04:18 J	-22083865.56	-22083865.32	-22083865.08	0.0089	0.0024	*
Moon	-65175-09-05 09:49 J	-22083498.32	-22083498.09	-22083497.85	0.0089	0.0036	
Earth	-65175-09-05 12:57 J	-22083498.18	-22083497.96	-22083497.71	0.0089	0.0033	*
Earth	-65174-09-07 23:30 J	-22083130.73	-22083130.52	-22083130.27	0.0089	0.0038	
Moon	-65174-09-08 02:52 J	-22083130.60	-22083130.38	-22083130.13	0.0089	0.0034	*
Moon	-65173-09-09 06:57 J	-22082763.42	-22082763.21	-22082762.99	0.0089	0.0047	
Earth	-65173-09-09 10:18 J	-22082763.28	-22082763.07	-22082762.83	0.0089	0.0043	*
Venus	-65172-06-12 20:09 J	-22082486.76	-22082486.66	-22082486.51	0.0089	0.0073	
Earth	-65172-09-11 20:52 J	-22082395.83	-22082395.63	-22082395.40	0.0089	0.0048	
Moon	-65172-09-11 23:59 J	-22082395.71	-22082395.50	-22082395.26	0.0089	0.0044	*
Venus	-65171-01-24 09:21 J	-22082261.28	-22082261.11	-22082260.93	0.0089	0.0052	
Venus	-65171-09-06 21:49 J	-22082035.78	-22082035.59	-22082035.37	0.0089	0.0032	
Moon	-65171-09-14 05:30 J	-22082028.45	-22082028.27	-22082028.07	0.0089	0.0057	
Earth	-65171-09-14 07:40 J	-22082028.36	-22082028.18	-22082027.96	0.0089	0.0053	*
Venus	-65170-04-20 10:47 J	-22081810.26	-22081810.05	-22081809.83	0.0089	0.0011	
Earth	-65170-09-16 18:28 J	-22081660.90	-22081660.73	-22081660.52	0.0089	0.0058	
Moon	-65170-09-16 20:23 J	-22081660.85	-22081660.65	-22081660.43	0.0089	0.0053	*
Venus	-65170-12-01 23:30 J	-22081584.73	-22081584.52	-22081584.30	0.0089	0.0010	
Venus	-65169-07-14 12:13 J	-22081359.18	-22081358.99	-22081358.77	0.0089	0.0030	
Earth	-65169-09-18 05:45 J	-22081293.44	-22081293.26	-22081293.08	0.0089	0.0062	
Moon	-65169-09-18 05:30 J	-22081293.41	-22081293.27	-22081293.09	0.0089	0.0067	*
Venus	-65168-02-25 00:57 J	-22081133.62	-22081133.46	-22081133.27	0.0089	0.0051	

Moon -65168-09-20 15:06 J -22080926.04 -22080925.87 -22080925.67 0.0089 0.0064
 Earth -65168-09-20 16:18 J -22080925.97 -22080925.82 -22080925.64 0.0089 0.0067 *
 Venus -65168-10-08 13:54 J -22080908.04 -22080907.92 -22080907.78 0.0089 0.0071
 Earth -65167-09-23 03:06 J -22080558.49 -22080558.37 -22080558.19 0.0089 0.0072
 Moon -65167-09-23 05:45 J -22080558.38 -22080558.26 -22080558.13 0.0089 0.0076 *
 Moon -65166-09-25 11:01 J -22080191.17 -22080191.04 -22080190.87 0.0089 0.0072
 Earth -65166-09-25 14:37 J -22080191.01 -22080190.89 -22080190.75 0.0089 0.0076 *
 Earth -65165-09-27 01:11 J -22079823.52 -22079823.45 -22079823.31 0.0089 0.0081
 Moon -65165-09-27 04:47 J -22079823.35 -22079823.30 -22079823.20 0.0089 0.0085 *
 Moon -65164-09-29 09:35 J -22079456.20 -22079456.10 -22079455.99 0.0089 0.0080
 Earth -65164-09-29 12:57 J -22079456.01 -22079455.96 -22079455.87 0.0089 0.0085 *
 Mercury -65142-04-15 11:16 J -22071588.07 -22071588.03 -22071587.99 0.0089 0.0086
 Mercury -65142-07-12 14:23 J -22071499.97 -22071499.90 -22071499.80 0.0089 0.0079
 Mercury -65142-10-08 18:13 J -22071411.85 -22071411.74 -22071411.62 0.0089 0.0071
 Mercury -65141-01-04 21:35 J -22071323.72 -22071323.60 -22071323.45 0.0089 0.0064
 Mercury -65141-04-02 01:25 J -22071235.58 -22071235.44 -22071235.29 0.0089 0.0056
 Mercury -65141-06-29 04:47 J -22071147.45 -22071147.30 -22071147.12 0.0089 0.0049
 Mercury -65141-09-25 08:37 J -22071059.31 -22071059.14 -22071058.96 0.0089 0.0041
 Mercury -65141-12-22 11:59 J -22070971.16 -22070971.00 -22070970.80 0.0089 0.0034
 Mercury -65140-03-20 15:49 J -22070883.02 -22070882.84 -22070882.65 0.0089 0.0026
 Mercury -65140-06-16 19:40 J -22070794.87 -22070794.68 -22070794.49 0.0089 0.0018
 Mercury -65140-09-12 23:16 J -22070706.72 -22070706.53 -22070706.34 0.0089 0.0010
 Mercury -65140-12-10 02:52 J -22070618.57 -22070618.38 -22070618.18 0.0089 0.0003
 Mercury -65139-03-08 06:28 J -22070530.42 -22070530.23 -22070530.03 0.0089 0.0005
 Mercury -65139-06-04 10:04 J -22070442.27 -22070442.08 -22070441.88 0.0089 0.0013
 Mercury -65139-08-31 13:40 J -22070354.11 -22070353.93 -22070353.73 0.0089 0.0021
 Mercury -65139-11-27 17:30 J -22070265.95 -22070265.77 -22070265.58 0.0089 0.0028
 Mercury -65138-02-23 21:06 J -22070177.80 -22070177.62 -22070177.44 0.0089 0.0036
 Mercury -65138-05-23 00:42 J -22070089.63 -22070089.47 -22070089.29 0.0089 0.0044
 Mercury -65138-08-19 04:04 J -22070001.47 -22070001.33 -22070001.15 0.0089 0.0052

Mercury -65138-11-15 08:09 J -22069913.30 -22069913.16 -22069913.01 0.0089 0.0059
 Mercury -65137-02-11 11:30 J -22069825.13 -22069825.02 -22069824.87 0.0089 0.0067
 Mercury -65137-05-09 15:06 J -22069736.95 -22069736.87 -22069736.74 0.0089 0.0075
 Mercury -65137-08-05 18:42 J -22069648.77 -22069648.72 -22069648.62 0.0088 0.0083
 Mars -65134-08-15 04:04 J -22068544.56 -22068544.33 -22068544.07 0.0088 0.0063
 Mars -65132-07-12 01:54 J -22067847.77 -22067847.42 -22067847.07 0.0088 0.0001
 Mars -65130-06-08 22:47 J -22067150.78 -22067150.55 -22067150.31 0.0088 0.0065
 Moon -65117-01-12 22:33 J -22062549.56 -22062549.56 -22062549.52 0.0088 0.0088
 Moon -65116-01-14 05:30 J -22062182.33 -22062182.27 -22062182.19 0.0088 0.0085
 Earth -65116-01-14 08:52 J -22062182.19 -22062182.13 -22062182.04 0.0088 0.0085 *
 Earth -65115-01-16 22:04 J -22061814.67 -22061814.58 -22061814.45 0.0088 0.0080
 Moon -65115-01-17 00:57 J -22061814.57 -22061814.46 -22061814.34 0.0088 0.0080 *
 Moon -65114-01-19 10:04 J -22061447.19 -22061447.08 -22061446.93 0.0088 0.0076
 Earth -65114-01-19 11:16 J -22061447.14 -22061447.03 -22061446.87 0.0088 0.0076 *
 Earth -65113-01-22 00:57 J -22061079.59 -22061079.46 -22061079.29 0.0088 0.0072
 Moon -65113-01-22 01:11 J -22061079.57 -22061079.45 -22061079.26 0.0088 0.0073 *
 Earth -65112-01-23 14:52 J -22060712.05 -22060711.88 -22060711.71 0.0088 0.0067
 Moon -65112-01-23 16:04 J -22060711.99 -22060711.83 -22060711.66 0.0088 0.0067 *
 Moon -65111-01-26 01:40 J -22060344.59 -22060344.43 -22060344.21 0.0088 0.0062
 Earth -65111-01-26 03:49 J -22060344.50 -22060344.34 -22060344.13 0.0088 0.0062 *
 Earth -65110-01-28 17:30 J -22059976.95 -22059976.77 -22059976.55 0.0088 0.0057
 Moon -65110-01-28 20:09 J -22059976.84 -22059976.66 -22059976.44 0.0088 0.0056 *
 Moon -65109-01-31 03:21 J -22059609.56 -22059609.36 -22059609.13 0.0088 0.0053
 Earth -65109-01-31 06:57 J -22059609.40 -22059609.21 -22059608.98 0.0088 0.0052 *
 Earth -65108-02-01 20:23 J -22059241.85 -22059241.65 -22059241.41 0.0088 0.0047
 Moon -65108-02-01 23:45 J -22059241.71 -22059241.51 -22059241.26 0.0088 0.0047 *
 Moon -65107-02-04 06:13 J -22058874.45 -22058874.24 -22058874.00 0.0088 0.0044
 Earth -65107-02-04 09:49 J -22058874.30 -22058874.09 -22058873.84 0.0088 0.0042 *
 Earth -65106-02-06 22:47 J -22058506.76 -22058506.55 -22058506.29 0.0088 0.0038
 Moon -65106-02-07 01:54 J -22058506.66 -22058506.42 -22058506.16 0.0088 0.0035 *

Moon	-65105-02-09 10:47 J	-22058139.28	-22058139.05	-22058138.81	0.0088	0.0033
Earth	-65105-02-09 12:42 J	-22058139.22	-22058138.97	-22058138.72	0.0088	0.0032 *
Earth	-65104-02-11 01:40 J	-22057771.67	-22057771.43	-22057771.17	0.0088	0.0027
Moon	-65104-02-11 02:52 J	-22057771.64	-22057771.38	-22057771.11	0.0088	0.0024 *
Earth	-65103-02-13 14:52 J	-22057404.13	-22057403.88	-22057403.62	0.0088	0.0021
Moon	-65103-02-13 15:21 J	-22057404.09	-22057403.86	-22057403.60	0.0088	0.0023 *
Moon	-65102-02-16 02:23 J	-22057036.66	-22057036.40	-22057036.12	0.0088	0.0014
Earth	-65102-02-16 03:49 J	-22057036.59	-22057036.34	-22057036.07	0.0088	0.0017 *
Earth	-65101-02-18 17:16 J	-22056669.04	-22056668.78	-22056668.52	0.0088	0.0011
Moon	-65101-02-18 19:40 J	-22056668.94	-22056668.68	-22056668.43	0.0088	0.0013 *
Moon	-65100-02-20 02:52 J	-22056301.64	-22056301.38	-22056301.11	0.0088	0.0003
Earth	-65100-02-20 06:28 J	-22056301.49	-22056301.23	-22056300.97	0.0088	0.0005 *
Earth	-65099-02-22 19:25 J	-22055933.95	-22055933.69	-22055933.42	0.0088	0.0001
Moon	-65099-02-22 23:01 J	-22055933.80	-22055933.54	-22055933.28	0.0088	0.0003 *
Moon	-65098-02-25 04:47 J	-22055566.55	-22055566.30	-22055566.04	0.0088	0.0009
Earth	-65098-02-25 08:37 J	-22055566.40	-22055566.14	-22055565.88	0.0088	0.0005 *
Jupiter	-65098-04-04 22:33 J	-22055528.07	-22055527.56	-22055527.00	0.0088	0.0017
Earth	-65097-02-27 21:35 J	-22055198.85	-22055198.60	-22055198.33	0.0088	0.0011
Moon	-65097-02-28 00:42 J	-22055198.73	-22055198.47	-22055198.20	0.0088	0.0008 *
Moon	-65096-03-01 08:23 J	-22054831.39	-22054831.15	-22054830.89	0.0088	0.0020
Earth	-65096-03-01 10:47 J	-22054831.30	-22054831.05	-22054830.79	0.0088	0.0016 *
Earth	-65095-03-03 23:30 J	-22054463.77	-22054463.52	-22054463.26	0.0088	0.0022
Moon	-65095-03-04 00:57 J	-22054463.71	-22054463.46	-22054463.18	0.0088	0.0018 *
Earth	-65094-03-06 12:28 J	-22054096.22	-22054095.98	-22054095.72	0.0088	0.0027
Moon	-65094-03-06 12:28 J	-22054096.20	-22054095.98	-22054095.72	0.0088	0.0030 *
Moon	-65093-03-08 00:13 J	-22053728.74	-22053728.49	-22053728.23	0.0088	0.0029
Earth	-65093-03-08 00:57 J	-22053728.69	-22053728.46	-22053728.20	0.0088	0.0032 *
Earth	-65092-03-10 13:40 J	-22053361.15	-22053360.93	-22053360.68	0.0088	0.0037
Moon	-65092-03-10 15:49 J	-22053361.05	-22053360.84	-22053360.60	0.0088	0.0041 *
Moon	-65091-03-12 23:16 J	-22052993.77	-22052993.53	-22052993.29	0.0088	0.0039

Earth	-65091-03-13 02:23 J	-22052993.62	-22052993.40	-22052993.16	0.0088	0.0042	*
Earth	-65090-03-15 14:37 J	-22052626.09	-22052625.89	-22052625.65	0.0088	0.0047	
Moon	-65090-03-15 17:59 J	-22052625.94	-22052625.75	-22052625.52	0.0088	0.0051	*
Venus	-65090-08-03 08:52 J	-22052485.13	-22052485.13	-22052485.11	0.0088	0.0088	
Venus	-65089-03-15 22:18 J	-22052259.71	-22052259.57	-22052259.43	0.0088	0.0068	
Moon	-65089-03-16 23:59 J	-22052258.72	-22052258.50	-22052258.28	0.0088	0.0048	
Earth	-65089-03-17 03:21 J	-22052258.55	-22052258.36	-22052258.13	0.0088	0.0052	*
Venus	-65089-10-27 11:01 J	-22052034.21	-22052034.04	-22052033.84	0.0088	0.0048	
Earth	-65088-03-19 16:18 J	-22051891.02	-22051890.82	-22051890.62	0.0088	0.0057	
Moon	-65088-03-19 19:11 J	-22051890.88	-22051890.70	-22051890.50	0.0088	0.0061	*
Venus	-65088-06-10 00:13 J	-22051808.69	-22051808.49	-22051808.26	0.0088	0.0028	
Venus	-65087-01-21 13:54 J	-22051583.14	-22051582.92	-22051582.70	0.0088	0.0006	
Moon	-65087-03-22 02:09 J	-22051523.60	-22051523.41	-22051523.22	0.0088	0.0058	
Earth	-65087-03-22 04:33 J	-22051523.49	-22051523.31	-22051523.12	0.0088	0.0062	*
Venus	-65087-09-04 02:52 J	-22051357.59	-22051357.38	-22051357.15	0.0088	0.0014	
Earth	-65086-03-24 16:47 J	-22051155.95	-22051155.80	-22051155.61	0.0088	0.0066	
Moon	-65086-03-24 18:28 J	-22051155.87	-22051155.73	-22051155.55	0.0088	0.0071	*
Venus	-65086-04-17 16:04 J	-22051132.03	-22051131.83	-22051131.62	0.0088	0.0034	
Venus	-65086-11-29 04:47 J	-22050906.46	-22050906.30	-22050906.11	0.0088	0.0055	
Earth	-65085-03-26 05:01 J	-22050788.42	-22050788.29	-22050788.11	0.0088	0.0071	
Moon	-65085-03-26 05:16 J	-22050788.42	-22050788.28	-22050788.10	0.0088	0.0067	*
Venus	-65085-07-11 17:45 J	-22050680.85	-22050680.76	-22050680.62	0.0088	0.0076	
Moon	-65084-03-28 16:33 J	-22050420.90	-22050420.81	-22050420.66	0.0088	0.0080	
Earth	-65084-03-28 17:30 J	-22050420.88	-22050420.77	-22050420.61	0.0088	0.0076	*
Earth	-65083-03-31 05:30 J	-22050053.35	-22050053.27	-22050053.13	0.0088	0.0080	
Moon	-65083-03-31 07:54 J	-22050053.28	-22050053.17	-22050053.03	0.0088	0.0076	*
Moon	-65082-04-02 14:37 J	-22049685.89	-22049685.89	-22049685.85	0.0088	0.0088	
Earth	-65082-04-02 17:45 J	-22049685.81	-22049685.76	-22049685.66	0.0088	0.0084	
Earth	-65081-04-04 05:59 J	-22049318.25	-22049318.25	-22049318.22	0.0088	0.0088	
Moon	-65081-04-04 09:35 J	-22049318.17	-22049318.10	-22049318.02	0.0088	0.0084	

Mercury -65060-01-24 00:42 J -22041718.49 -22041718.47 -22041718.43 0.0089 0.0086

Mercury -65060-04-22 01:54 J -22041630.46 -22041630.42 -22041630.35 0.0089 0.0081

Mercury -65060-07-19 03:35 J -22041542.42 -22041542.35 -22041542.28 0.0089 0.0075

Mercury -65060-10-15 04:47 J -22041454.37 -22041454.30 -22041454.21 0.0089 0.0070

Mercury -65059-01-11 05:59 J -22041366.33 -22041366.25 -22041366.15 0.0089 0.0065

Mercury -65059-04-09 07:25 J -22041278.28 -22041278.19 -22041278.08 0.0089 0.0060

Mercury -65059-07-06 08:52 J -22041190.23 -22041190.13 -22041190.02 0.0089 0.0054

Mercury -65059-10-02 10:18 J -22041102.18 -22041102.07 -22041101.96 0.0089 0.0049

Mercury -65059-12-29 11:30 J -22041014.13 -22041014.02 -22041013.90 0.0089 0.0044

Mercury -65058-03-27 12:57 J -22040926.07 -22040925.96 -22040925.83 0.0089 0.0038

Mercury -65058-06-23 14:23 J -22040838.02 -22040837.90 -22040837.78 0.0089 0.0033

Mercury -65058-09-19 15:35 J -22040749.97 -22040749.85 -22040749.72 0.0089 0.0028

Mercury -65058-12-16 17:01 J -22040661.92 -22040661.79 -22040661.66 0.0089 0.0022

Mercury -65057-03-13 18:28 J -22040573.86 -22040573.73 -22040573.60 0.0089 0.0017

Mercury -65057-06-09 19:40 J -22040485.81 -22040485.68 -22040485.55 0.0089 0.0012

Mercury -65057-09-05 21:06 J -22040397.75 -22040397.62 -22040397.49 0.0089 0.0007

Mercury -65057-12-02 22:18 J -22040309.70 -22040309.57 -22040309.43 0.0089 0.0002

Mercury -65056-02-28 23:45 J -22040221.64 -22040221.51 -22040221.38 0.0089 0.0004

Mercury -65056-05-28 00:57 J -22040133.59 -22040133.46 -22040133.32 0.0089 0.0010

Mercury -65056-08-24 02:23 J -22040045.53 -22040045.40 -22040045.27 0.0089 0.0015

Mercury -65056-11-20 03:35 J -22039957.48 -22039957.35 -22039957.22 0.0089 0.0020

Mercury -65055-02-16 05:01 J -22039869.42 -22039869.29 -22039869.17 0.0089 0.0025

Mercury -65055-05-15 06:13 J -22039781.36 -22039781.24 -22039781.11 0.0089 0.0030

Mercury -65055-08-11 07:25 J -22039693.30 -22039693.19 -22039693.06 0.0089 0.0036

Mercury -65055-11-07 08:52 J -22039605.24 -22039605.13 -22039605.01 0.0089 0.0041

Mercury -65054-02-03 10:04 J -22039517.19 -22039517.08 -22039516.96 0.0089 0.0046

Mercury -65054-05-02 11:30 J -22039429.13 -22039429.02 -22039428.91 0.0089 0.0051

Mercury -65054-07-29 12:28 J -22039341.07 -22039340.98 -22039340.86 0.0089 0.0057

Mercury -65054-10-25 13:54 J -22039253.00 -22039252.92 -22039252.82 0.0089 0.0062

Mercury -65053-01-21 15:21 J -22039164.94 -22039164.86 -22039164.77 0.0089 0.0067

Mercury -65053-04-18 16:33 J -22039076.88 -22039076.81 -22039076.73 0.0089 0.0072

Mercury -65053-07-15 17:59 J -22038988.81 -22038988.75 -22038988.68 0.0089 0.0077

Mercury -65053-10-11 19:25 J -22038900.74 -22038900.69 -22038900.65 0.0089 0.0082

Mercury -65052-01-07 20:23 J -22038812.66 -22038812.65 -22038812.62 0.0089 0.0088

Mars -65052-06-16 10:47 J -22038653.17 -22038653.05 -22038652.87 0.0089 0.0076

Mars -65050-05-10 17:16 J -22037960.04 -22037959.78 -22037959.50 0.0089 0.0025

Mars -65048-04-02 22:18 J -22037266.82 -22037266.57 -22037266.28 0.0089 0.0026

Mars -65046-02-25 04:33 J -22036573.43 -22036573.31 -22036573.15 0.0089 0.0076

Moon -65037-07-09 17:45 J -22033150.77 -22033150.76 -22033150.72 0.0089 0.0088

Earth -65036-07-12 06:57 J -22032783.22 -22032783.21 -22032783.17 0.0089 0.0089

Moon -65035-07-14 14:09 J -22032416.01 -22032415.91 -22032415.80 0.0089 0.0080

Earth -65035-07-14 17:01 J -22032415.86 -22032415.79 -22032415.70 0.0089 0.0084 *

Earth -65034-07-17 02:52 J -22032048.47 -22032048.38 -22032048.25 0.0089 0.0080

Moon -65034-07-17 05:01 J -22032048.37 -22032048.29 -22032048.19 0.0089 0.0084 *

Moon -65033-07-18 11:30 J -22031681.14 -22031681.02 -22031680.86 0.0089 0.0073

Earth -65033-07-18 12:28 J -22031681.08 -22031680.98 -22031680.82 0.0089 0.0077 *

Moon -65032-07-20 22:04 J -22031313.69 -22031313.58 -22031313.42 0.0089 0.0075

Earth -65032-07-20 22:47 J -22031313.69 -22031313.55 -22031313.39 0.0089 0.0071 *

Earth -65031-07-23 08:23 J -22030946.29 -22030946.15 -22030945.96 0.0089 0.0067

Moon -65031-07-23 10:18 J -22030946.23 -22030946.07 -22030945.88 0.0089 0.0064 *

Moon -65030-07-25 16:04 J -22030578.99 -22030578.83 -22030578.64 0.0089 0.0066

Earth -65030-07-25 18:28 J -22030578.89 -22030578.73 -22030578.53 0.0089 0.0062 *

Earth -65029-07-27 04:18 J -22030211.50 -22030211.32 -22030211.11 0.0089 0.0058

Moon -65029-07-27 07:54 J -22030211.36 -22030211.17 -22030210.96 0.0089 0.0054 *

Moon -65028-07-29 10:47 J -22029844.23 -22029844.05 -22029843.84 0.0089 0.0057

Earth -65028-07-29 14:23 J -22029844.10 -22029843.90 -22029843.69 0.0089 0.0052 *

Earth -65027-08-01 00:28 J -22029476.69 -22029476.48 -22029476.27 0.0089 0.0048

Moon -65027-08-01 03:49 J -22029476.56 -22029476.34 -22029476.12 0.0089 0.0045 *

Moon -65026-08-03 07:40 J -22029109.38 -22029109.18 -22029108.96 0.0089 0.0047

Earth -65026-08-03 10:18 J -22029109.28 -22029109.07 -22029108.84 0.0089 0.0043 *

Earth	-65025-08-04 20:23 J	-22028741.88	-22028741.65	-22028741.42	0.0089	0.0038
Moon	-65025-08-04 21:35 J	-22028741.83	-22028741.60	-22028741.35	0.0089	0.0034 *
Moon	-65024-08-07 05:30 J	-22028374.48	-22028374.27	-22028374.04	0.0089	0.0036
Earth	-65024-08-07 06:13 J	-22028374.47	-22028374.24	-22028374.00	0.0089	0.0032 *
Moon	-65023-08-09 15:35 J	-22028007.10	-22028006.85	-22028006.60	0.0089	0.0024
Earth	-65023-08-09 16:18 J	-22028007.05	-22028006.82	-22028006.57	0.0089	0.0028 *
Earth	-65022-08-12 02:23 J	-22027639.63	-22027639.40	-22027639.14	0.0089	0.0023
Moon	-65022-08-12 04:47 J	-22027639.53	-22027639.30	-22027639.06	0.0089	0.0025 *
Moon	-65021-08-13 10:18 J	-22027272.33	-22027272.07	-22027271.82	0.0089	0.0013
Earth	-65021-08-13 12:42 J	-22027272.20	-22027271.97	-22027271.71	0.0089	0.0017 *
Earth	-65020-08-15 23:01 J	-22026904.79	-22026904.54	-22026904.28	0.0089	0.0011
Moon	-65020-08-16 02:37 J	-22026904.63	-22026904.39	-22026904.14	0.0089	0.0015 *
Moon	-65019-08-18 06:13 J	-22026537.49	-22026537.24	-22026536.99	0.0089	0.0003
Earth	-65019-08-18 09:21 J	-22026537.36	-22026537.11	-22026536.85	0.0089	0.0006 *
Earth	-65018-08-20 19:40 J	-22026169.93	-22026169.68	-22026169.43	0.0089	0.0000
Moon	-65018-08-20 23:01 J	-22026169.80	-22026169.54	-22026169.29	0.0089	0.0003 *
Moon	-65017-08-22 03:35 J	-22025802.59	-22025802.35	-22025802.10	0.0089	0.0008
Earth	-65017-08-22 05:45 J	-22025802.51	-22025802.26	-22025802.00	0.0089	0.0005 *
Earth	-65016-08-24 16:04 J	-22025435.08	-22025434.83	-22025434.58	0.0089	0.0010
Moon	-65016-08-24 17:01 J	-22025435.05	-22025434.79	-22025434.53	0.0089	0.0007 *
Moon	-65015-08-27 02:09 J	-22025067.64	-22025067.41	-22025067.16	0.0089	0.0018
Earth	-65015-08-27 02:23 J	-22025067.64	-22025067.40	-22025067.14	0.0089	0.0015 *
Moon	-65014-08-29 11:16 J	-22024700.28	-22024700.03	-22024699.77	0.0089	0.0017
Earth	-65014-08-29 12:28 J	-22024700.21	-22024699.98	-22024699.72	0.0089	0.0021 *
Earth	-65013-08-30 22:47 J	-22024332.77	-22024332.55	-22024332.29	0.0089	0.0027
Moon	-65013-08-31 01:25 J	-22024332.66	-22024332.44	-22024332.19	0.0089	0.0029 *
Moon	-65012-09-02 06:42 J	-22023965.47	-22023965.22	-22023964.98	0.0089	0.0029
Earth	-65012-09-02 09:35 J	-22023965.33	-22023965.10	-22023964.86	0.0089	0.0031 *
Earth	-65011-09-04 20:09 J	-22023597.89	-22023597.66	-22023597.42	0.0089	0.0036
Moon	-65011-09-04 23:45 J	-22023597.73	-22023597.51	-22023597.27	0.0089	0.0040 *

Moon	-65010-09-07 03:21 J	-22023230.56	-22023230.36	-22023230.11	0.0089	0.0039
Earth	-65010-09-07 06:42 J	-22023230.43	-22023230.22	-22023229.98	0.0089	0.0042 *
Earth	-65009-09-08 17:16 J	-22022862.98	-22022862.78	-22022862.55	0.0089	0.0047
Moon	-65009-09-08 20:52 J	-22022862.85	-22022862.63	-22022862.42	0.0089	0.0049 *
Moon	-65008-09-11 02:23 J	-22022495.59	-22022495.40	-22022495.18	0.0089	0.0049
Earth	-65008-09-11 04:04 J	-22022495.51	-22022495.33	-22022495.10	0.0089	0.0052 *
Venus	-65008-09-14 05:16 J	-22022492.33	-22022492.28	-22022492.18	0.0089	0.0084
Venus	-65007-04-27 18:28 J	-22022266.88	-22022266.73	-22022266.57	0.0089	0.0062
Earth	-65007-09-13 14:52 J	-22022128.05	-22022127.88	-22022127.66	0.0089	0.0057
Moon	-65007-09-13 15:35 J	-22022128.02	-22022127.85	-22022127.63	0.0089	0.0059 *
Venus	-65007-12-09 06:57 J	-22022041.39	-22022041.21	-22022041.01	0.0089	0.0042
Venus	-65006-07-22 19:54 J	-22021815.87	-22021815.67	-22021815.45	0.0089	0.0021
Earth	-65006-09-16 01:40 J	-22021760.59	-22021760.43	-22021760.22	0.0089	0.0062
Moon	-65006-09-16 01:54 J	-22021760.58	-22021760.42	-22021760.22	0.0089	0.0060 *
Venus	-65005-03-04 08:52 J	-22021590.35	-22021590.13	-22021589.91	0.0089	0.0001
Moon	-65005-09-17 10:47 J	-22021393.20	-22021393.05	-22021392.87	0.0089	0.0069
Earth	-65005-09-17 12:57 J	-22021393.12	-22021392.96	-22021392.78	0.0089	0.0067 *
Venus	-65005-10-15 21:21 J	-22021364.81	-22021364.61	-22021364.39	0.0089	0.0020
Venus	-65004-05-29 10:04 J	-22021139.26	-22021139.08	-22021138.87	0.0089	0.0041
Earth	-65004-09-19 23:30 J	-22021025.65	-22021025.52	-22021025.35	0.0089	0.0072
Moon	-65004-09-20 02:09 J	-22021025.55	-22021025.41	-22021025.23	0.0089	0.0069 *
Venus	-65003-01-09 23:01 J	-22020913.69	-22020913.54	-22020913.37	0.0089	0.0061
Venus	-65003-08-23 11:30 J	-22020688.08	-22020688.02	-22020687.91	0.0089	0.0082
Moon	-65003-09-22 07:40 J	-22020658.30	-22020658.18	-22020658.05	0.0089	0.0078
Earth	-65003-09-22 10:18 J	-22020658.17	-22020658.07	-22020657.91	0.0089	0.0076 *
Earth	-65002-09-24 21:35 J	-22020290.69	-22020290.60	-22020290.48	0.0089	0.0080
Moon	-65002-09-25 01:11 J	-22020290.55	-22020290.45	-22020290.31	0.0089	0.0078 *
Moon	-65001-09-26 05:16 J	-22019923.31	-22019923.28	-22019923.20	0.0089	0.0087
Earth	-65001-09-26 08:09 J	-22019923.20	-22019923.16	-22019923.05	0.0089	0.0085 *

65TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 65th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-65000-09-28 19:54 J	-22019555.67	-22019555.67	-22019555.65	0.0089	0.0089		
Moon	-65000-09-28 22:18 J	-22019555.58	-22019555.57	-22019555.50	0.0089	0.0088		
Mercury	-64977-01-10 08:37 J	-22011417.18	-22011417.14	-22011417.07	0.0089	0.0085		
Mercury	-64977-04-07 11:59 J	-22011329.07	-22011329.00	-22011328.88	0.0089	0.0078		
Mercury	-64977-07-04 15:49 J	-22011240.94	-22011240.84	-22011240.71	0.0089	0.0070		
Mercury	-64977-09-30 19:40 J	-22011152.81	-22011152.68	-22011152.54	0.0089	0.0062		
Mercury	-64977-12-27 23:01 J	-22011064.68	-22011064.54	-22011064.38	0.0089	0.0055		
Mercury	-64976-03-26 02:52 J	-22010976.54	-22010976.38	-22010976.21	0.0089	0.0047		
Mercury	-64976-06-22 06:13 J	-22010888.40	-22010888.24	-22010888.05	0.0089	0.0040		
Mercury	-64976-09-18 10:04 J	-22010800.26	-22010800.08	-22010799.90	0.0089	0.0032		
Mercury	-64976-12-15 13:25 J	-22010712.11	-22010711.94	-22010711.74	0.0089	0.0025		
Mercury	-64975-03-13 17:16 J	-22010623.97	-22010623.78	-22010623.58	0.0089	0.0017		
Mercury	-64975-06-09 21:06 J	-22010535.82	-22010535.62	-22010535.43	0.0089	0.0009		
Mercury	-64975-09-06 00:42 J	-22010447.67	-22010447.47	-22010447.28	0.0089	0.0002		
Mercury	-64975-12-03 04:18 J	-22010359.52	-22010359.32	-22010359.13	0.0089	0.0007		
Mercury	-64974-03-01 07:40 J	-22010271.36	-22010271.18	-22010270.98	0.0089	0.0015		
Mercury	-64974-05-28 11:30 J	-22010183.21	-22010183.02	-22010182.83	0.0089	0.0022		
Mercury	-64974-08-24 15:06 J	-22010095.05	-22010094.87	-22010094.68	0.0089	0.0030		
Mercury	-64974-11-20 18:42 J	-22010006.89	-22010006.72	-22010006.53	0.0089	0.0038		

Mercury -64973-02-16 22:18 J -22009918.73 -22009918.57 -22009918.39 0.0089 0.0045

Mercury -64973-05-15 02:09 J -22009830.56 -22009830.41 -22009830.25 0.0089 0.0053

Mercury -64973-08-11 05:45 J -22009742.39 -22009742.26 -22009742.11 0.0089 0.0061

Mercury -64973-11-07 09:06 J -22009654.22 -22009654.12 -22009653.97 0.0089 0.0069

Mercury -64972-02-03 13:11 J -22009566.04 -22009565.95 -22009565.85 0.0089 0.0076

Mercury -64972-05-02 16:47 J -22009477.85 -22009477.80 -22009477.73 0.0089 0.0084

Mars -64968-02-21 21:06 J -22008086.93 -22008086.62 -22008086.26 0.0088 0.0028

Mars -64966-01-19 18:28 J -22007390.03 -22007389.73 -22007389.38 0.0088 0.0037

Moon -64954-01-09 15:21 J -22003016.90 -22003016.86 -22003016.81 0.0088 0.0087

Earth -64953-01-12 00:42 J -22002649.48 -22002649.47 -22002649.41 0.0088 0.0088

Earth -64952-01-13 14:09 J -22002281.97 -22002281.91 -22002281.80 0.0088 0.0083

Moon -64952-01-13 16:33 J -22002281.91 -22002281.81 -22002281.67 0.0088 0.0079 *

Moon -64951-01-16 02:37 J -22001914.45 -22001914.39 -22001914.28 0.0088 0.0084

Earth -64951-01-16 03:35 J -22001914.45 -22001914.35 -22001914.21 0.0088 0.0079 *

Moon -64950-01-18 16:47 J -22001546.96 -22001546.80 -22001546.63 0.0088 0.0070

Earth -64950-01-18 17:01 J -22001546.91 -22001546.79 -22001546.63 0.0088 0.0074 *

Earth -64949-01-21 06:28 J -22001179.37 -22001179.23 -22001179.05 0.0088 0.0070

Moon -64949-01-21 07:25 J -22001179.30 -22001179.19 -22001179.02 0.0088 0.0074 *

Moon -64948-01-22 17:45 J -22000811.96 -22000811.76 -22000811.56 0.0088 0.0060

Earth -64948-01-22 20:09 J -22000811.83 -22000811.66 -22000811.47 0.0088 0.0065 *

Earth -64947-01-25 09:35 J -22000444.28 -22000444.10 -22000443.90 0.0088 0.0060

Moon -64947-01-25 12:42 J -22000444.13 -22000443.97 -22000443.77 0.0088 0.0064 *

Moon -64946-01-27 19:25 J -22000076.89 -22000076.69 -22000076.46 0.0088 0.0050

Earth -64946-01-27 23:16 J -22000076.73 -22000076.53 -22000076.32 0.0088 0.0055 *

Earth -64945-01-30 12:42 J -21999709.18 -21999708.97 -21999708.75 0.0088 0.0049

Moon -64945-01-30 16:18 J -21999709.01 -21999708.82 -21999708.60 0.0088 0.0054 *

Moon -64944-01-31 23:16 J -21999341.75 -21999341.53 -21999341.29 0.0088 0.0040

Earth -64944-02-01 02:23 J -21999341.62 -21999341.40 -21999341.17 0.0088 0.0044 *

Earth -64943-02-03 15:21 J -21998974.08 -21998973.86 -21998973.61 0.0088 0.0040

Moon -64943-02-03 18:13 J -21998973.96 -21998973.74 -21998973.49 0.0088 0.0043 *

Moon	-64942-02-06 03:49 J	-21998606.57	-21998606.34	-21998606.09	0.0088	0.0030
Earth	-64942-02-06 05:01 J	-21998606.52	-21998606.29	-21998606.03	0.0088	0.0034 *
Moon	-64941-02-08 18:28 J	-21998238.98	-21998238.73	-21998238.47	0.0088	0.0033
Earth	-64941-02-08 18:42 J	-21998238.97	-21998238.72	-21998238.47	0.0088	0.0029 *
Earth	-64940-02-10 07:40 J	-21997871.42	-21997871.18	-21997870.91	0.0088	0.0024
Moon	-64940-02-10 08:23 J	-21997871.39	-21997871.15	-21997870.89	0.0088	0.0020 *
Moon	-64939-02-12 18:42 J	-21997503.98	-21997503.72	-21997503.45	0.0088	0.0022
Earth	-64939-02-12 20:52 J	-21997503.87	-21997503.63	-21997503.36	0.0088	0.0018 *
Earth	-64938-02-15 10:18 J	-21997136.33	-21997136.07	-21997135.81	0.0088	0.0013
Moon	-64938-02-15 13:11 J	-21997136.21	-21997135.95	-21997135.69	0.0088	0.0008 *
Moon	-64937-02-17 19:54 J	-21996768.93	-21996768.67	-21996768.40	0.0088	0.0011
Earth	-64937-02-17 23:30 J	-21996768.78	-21996768.52	-21996768.26	0.0088	0.0007 *
Earth	-64936-02-19 12:28 J	-21996401.24	-21996400.98	-21996400.71	0.0088	0.0002
Moon	-64936-02-19 16:18 J	-21996401.08	-21996400.82	-21996400.55	0.0088	0.0003 *
Moon	-64935-02-21 22:33 J	-21996033.82	-21996033.56	-21996033.31	0.0088	0.0002
Earth	-64935-02-22 01:25 J	-21996033.70	-21996033.44	-21996033.17	0.0088	0.0004 *
Earth	-64934-02-24 14:37 J	-21995666.15	-21995665.89	-21995665.63	0.0088	0.0009
Moon	-64934-02-24 17:45 J	-21995666.03	-21995665.76	-21995665.49	0.0088	0.0012 *
Moon	-64933-02-27 02:09 J	-21995298.66	-21995298.41	-21995298.16	0.0088	0.0011
Earth	-64933-02-27 03:49 J	-21995298.60	-21995298.34	-21995298.08	0.0088	0.0014 *
Earth	-64932-02-28 16:33 J	-21994931.06	-21994930.81	-21994930.54	0.0088	0.0020
Moon	-64932-02-28 17:01 J	-21994931.04	-21994930.79	-21994930.51	0.0088	0.0023 *
Earth	-64931-03-03 05:30 J	-21994563.51	-21994563.27	-21994563.00	0.0088	0.0026
Moon	-64931-03-03 05:59 J	-21994563.49	-21994563.25	-21994563.00	0.0088	0.0022 *
Moon	-64930-03-05 16:18 J	-21994196.05	-21994195.82	-21994195.55	0.0088	0.0035
Earth	-64930-03-05 18:42 J	-21994195.96	-21994195.72	-21994195.47	0.0088	0.0030 *
Earth	-64929-03-07 07:11 J	-21993828.42	-21993828.20	-21993827.94	0.0088	0.0036
Moon	-64929-03-07 09:49 J	-21993828.31	-21993828.09	-21993827.83	0.0088	0.0033 *
Moon	-64928-03-09 16:33 J	-21993461.01	-21993460.81	-21993460.55	0.0088	0.0045
Earth	-64928-03-09 19:54 J	-21993460.88	-21993460.67	-21993460.42	0.0088	0.0042 *

Earth	-64927-03-12 08:23 J	-21993093.35	-21993093.15	-21993092.91	0.0088	0.0047
Moon	-64927-03-12 12:13 J	-21993093.20	-21993092.99	-21993092.74	0.0088	0.0043 *
Moon	-64926-03-14 17:45 J	-21992725.94	-21992725.76	-21992725.53	0.0088	0.0054
Earth	-64926-03-14 21:06 J	-21992725.81	-21992725.62	-21992725.39	0.0088	0.0051 *
Earth	-64925-03-16 09:35 J	-21992358.28	-21992358.10	-21992357.88	0.0088	0.0056
Moon	-64925-03-16 12:42 J	-21992358.16	-21992357.97	-21992357.74	0.0088	0.0054 *
Venus	-64925-06-17 06:57 J	-21992265.30	-21992265.21	-21992265.08	0.0088	0.0077
Venus	-64924-01-28 20:37 J	-21992039.81	-21992039.64	-21992039.47	0.0088	0.0057
Moon	-64924-03-18 19:54 J	-21991990.81	-21991990.67	-21991990.47	0.0088	0.0065
Earth	-64924-03-18 21:49 J	-21991990.75	-21991990.59	-21991990.38	0.0088	0.0061 *
Venus	-64924-09-11 09:35 J	-21991814.29	-21991814.10	-21991813.89	0.0088	0.0036
Earth	-64923-03-21 10:47 J	-21991623.22	-21991623.05	-21991622.87	0.0088	0.0066
Moon	-64923-03-21 11:30 J	-21991623.20	-21991623.02	-21991622.82	0.0088	0.0063 *
Venus	-64923-04-24 22:47 J	-21991588.76	-21991588.55	-21991588.32	0.0088	0.0016
Venus	-64923-12-06 11:59 J	-21991363.22	-21991363.00	-21991362.77	0.0088	0.0005
Earth	-64922-03-23 22:47 J	-21991255.69	-21991255.55	-21991255.37	0.0088	0.0071
Moon	-64922-03-23 23:01 J	-21991255.67	-21991255.54	-21991255.39	0.0088	0.0073 *
Venus	-64922-07-20 00:57 J	-21991137.66	-21991137.46	-21991137.23	0.0088	0.0025
Venus	-64921-03-01 14:09 J	-21990912.09	-21990911.91	-21990911.71	0.0088	0.0045
Moon	-64921-03-25 09:21 J	-21990888.24	-21990888.11	-21990887.94	0.0088	0.0073
Earth	-64921-03-25 11:01 J	-21990888.15	-21990888.04	-21990887.88	0.0088	0.0076 *
Venus	-64921-10-13 03:21 J	-21990686.51	-21990686.36	-21990686.21	0.0088	0.0066
Earth	-64920-03-27 23:45 J	-21990520.61	-21990520.51	-21990520.39	0.0088	0.0080
Moon	-64920-03-28 02:23 J	-21990520.49	-21990520.40	-21990520.30	0.0088	0.0082 *
Venus	-64920-05-26 15:49 J	-21990460.86	-21990460.84	-21990460.77	0.0088	0.0086
Moon	-64919-03-30 08:23 J	-21990153.22	-21990153.15	-21990153.03	0.0088	0.0083
Earth	-64919-03-30 11:30 J	-21990153.06	-21990153.02	-21990152.91	0.0088	0.0085 *
Earth	-64918-04-02 00:13 J	-21989785.49	-21989785.49	-21989785.46	0.0088	0.0088
Mercury	-64896-10-20 23:59 J	-21981547.53	-21981547.50	-21981547.46	0.0089	0.0085
Mercury	-64895-01-17 01:11 J	-21981459.49	-21981459.45	-21981459.38	0.0089	0.0080

Mercury -64895-04-15 02:37 J -21981371.45 -21981371.39 -21981371.31 0.0089 0.0075

Mercury -64895-07-12 04:18 J -21981283.40 -21981283.32 -21981283.24 0.0089 0.0069

Mercury -64895-10-08 05:30 J -21981195.36 -21981195.27 -21981195.17 0.0089 0.0064

Mercury -64894-01-04 06:42 J -21981107.31 -21981107.22 -21981107.11 0.0089 0.0059

Mercury -64894-04-02 08:23 J -21981019.26 -21981019.15 -21981019.05 0.0089 0.0053

Mercury -64894-06-29 09:35 J -21980931.21 -21980931.10 -21980930.98 0.0089 0.0048

Mercury -64894-09-25 10:47 J -21980843.16 -21980843.05 -21980842.92 0.0089 0.0043

Mercury -64894-12-22 12:13 J -21980755.10 -21980754.99 -21980754.86 0.0089 0.0037

Mercury -64893-03-19 13:40 J -21980667.05 -21980666.93 -21980666.80 0.0089 0.0032

Mercury -64893-06-15 14:52 J -21980579.00 -21980578.88 -21980578.75 0.0089 0.0027

Mercury -64893-09-11 16:18 J -21980490.95 -21980490.82 -21980490.69 0.0089 0.0021

Mercury -64893-12-08 17:45 J -21980402.89 -21980402.76 -21980402.63 0.0089 0.0016

Mercury -64892-03-06 18:57 J -21980314.84 -21980314.71 -21980314.57 0.0089 0.0011

Mercury -64892-06-02 20:23 J -21980226.78 -21980226.65 -21980226.52 0.0089 0.0005

Mercury -64892-08-29 21:49 J -21980138.73 -21980138.59 -21980138.46 0.0089 0.0003

Mercury -64892-11-25 23:01 J -21980050.67 -21980050.54 -21980050.41 0.0089 0.0005

Mercury -64891-02-22 00:13 J -21979962.62 -21979962.49 -21979962.35 0.0089 0.0011

Mercury -64891-05-21 01:40 J -21979874.56 -21979874.43 -21979874.30 0.0089 0.0016

Mercury -64891-08-17 02:52 J -21979786.50 -21979786.38 -21979786.25 0.0089 0.0021

Mercury -64891-11-13 04:18 J -21979698.45 -21979698.32 -21979698.19 0.0089 0.0026

Mercury -64890-02-09 05:30 J -21979610.39 -21979610.27 -21979610.14 0.0089 0.0032

Mercury -64890-05-08 06:42 J -21979522.33 -21979522.22 -21979522.09 0.0089 0.0037

Mercury -64890-08-04 08:09 J -21979434.27 -21979434.16 -21979434.04 0.0089 0.0042

Mercury -64890-10-31 09:35 J -21979346.21 -21979346.10 -21979345.99 0.0089 0.0047

Mercury -64889-01-27 10:33 J -21979258.15 -21979258.06 -21979257.94 0.0089 0.0053

Mercury -64889-04-24 11:59 J -21979170.09 -21979170.00 -21979169.89 0.0089 0.0058

Mercury -64889-07-21 13:11 J -21979082.03 -21979081.95 -21979081.85 0.0089 0.0063

Mercury -64889-10-17 14:37 J -21978993.97 -21978993.89 -21978993.80 0.0089 0.0068

Mercury -64888-01-13 16:04 J -21978905.90 -21978905.83 -21978905.76 0.0089 0.0073

Mercury -64888-04-11 17:16 J -21978817.83 -21978817.78 -21978817.71 0.0089 0.0078

Mercury -64888-07-08 18:42 J -21978729.76 -21978729.72 -21978729.68 0.0089 0.0083

Mercury -64888-10-04 19:54 J -21978641.67 -21978641.67 -21978641.66 0.0089 0.0088

Mars -64887-12-24 10:04 J -21978196.31 -21978196.08 -21978195.84 0.0089 0.0047

Mars -64885-11-16 16:04 J -21977503.11 -21977502.83 -21977502.54 0.0089 0.0003

Mars -64883-10-10 20:37 J -21976809.85 -21976809.64 -21976809.40 0.0089 0.0053

Moon -64872-07-11 12:28 J -21972883.03 -21972882.98 -21972882.89 0.0089 0.0085

Earth -64872-07-11 15:35 J -21972882.89 -21972882.85 -21972882.80 0.0089 0.0087 *

Earth -64871-07-14 01:11 J -21972515.52 -21972515.45 -21972515.35 0.0089 0.0083

Moon -64871-07-14 02:52 J -21972515.42 -21972515.38 -21972515.28 0.0089 0.0086 *

Moon -64870-07-16 11:01 J -21972148.15 -21972148.04 -21972147.91 0.0089 0.0077

Earth -64870-07-16 11:01 J -21972148.13 -21972148.04 -21972147.90 0.0089 0.0079 *

Moon -64869-07-17 20:37 J -21971780.76 -21971780.64 -21971780.50 0.0089 0.0076

Earth -64869-07-17 21:21 J -21971780.74 -21971780.61 -21971780.46 0.0089 0.0074 *

Earth -64868-07-20 06:57 J -21971413.34 -21971413.21 -21971413.03 0.0089 0.0070

Moon -64868-07-20 09:06 J -21971413.27 -21971413.12 -21971412.95 0.0089 0.0067 *

Moon -64867-07-22 13:54 J -21971046.06 -21971045.92 -21971045.73 0.0089 0.0067

Earth -64867-07-22 17:01 J -21971045.93 -21971045.79 -21971045.59 0.0089 0.0066 *

Earth -64866-07-25 03:06 J -21970678.54 -21970678.37 -21970678.17 0.0089 0.0061

Moon -64866-07-25 06:42 J -21970678.41 -21970678.22 -21970678.03 0.0089 0.0057 *

Moon -64865-07-26 09:21 J -21970311.28 -21970311.11 -21970310.90 0.0089 0.0058

Earth -64865-07-26 13:11 J -21970311.14 -21970310.95 -21970310.74 0.0089 0.0055 *

Earth -64864-07-28 23:01 J -21969943.74 -21969943.54 -21969943.32 0.0089 0.0050

Moon -64864-07-29 01:40 J -21969943.62 -21969943.43 -21969943.19 0.0089 0.0049 *

Moon -64863-07-31 06:28 J -21969576.42 -21969576.23 -21969576.00 0.0089 0.0049

Earth -64863-07-31 08:52 J -21969576.33 -21969576.13 -21969575.89 0.0089 0.0046 *

Earth -64862-08-02 18:42 J -21969208.93 -21969208.72 -21969208.48 0.0089 0.0041

Moon -64862-08-02 20:09 J -21969208.88 -21969208.66 -21969208.41 0.0089 0.0037 *

Earth -64861-08-04 04:33 J -21968841.52 -21968841.31 -21968841.06 0.0089 0.0036

Moon -64861-08-04 05:16 J -21968841.50 -21968841.28 -21968841.05 0.0089 0.0037 *

Moon -64860-08-06 13:40 J -21968474.17 -21968473.93 -21968473.67 0.0089 0.0027

Earth	-64860-08-06 14:37 J	-21968474.11	-21968473.89	-21968473.64	0.0089	0.0030	*
Earth	-64859-08-09 00:42 J	-21968106.70	-21968106.47	-21968106.22	0.0089	0.0025	
Moon	-64859-08-09 03:06 J	-21968106.60	-21968106.37	-21968106.13	0.0089	0.0028	*
Moon	-64858-08-11 07:25 J	-21967739.43	-21967739.19	-21967738.93	0.0089	0.0017	
Earth	-64858-08-11 10:47 J	-21967739.28	-21967739.05	-21967738.79	0.0089	0.0020	*
Earth	-64857-08-12 21:06 J	-21967371.87	-21967371.62	-21967371.37	0.0089	0.0014	
Moon	-64857-08-13 00:13 J	-21967371.73	-21967371.49	-21967371.24	0.0089	0.0017	*
Moon	-64856-08-15 03:49 J	-21967004.59	-21967004.34	-21967004.09	0.0089	0.0005	
Earth	-64856-08-15 07:25 J	-21967004.44	-21967004.19	-21967003.94	0.0089	0.0008	*
Earth	-64855-08-17 17:30 J	-21966637.02	-21966636.77	-21966636.51	0.0089	0.0003	
Moon	-64855-08-17 20:09 J	-21966636.91	-21966636.66	-21966636.39	0.0089	0.0006	*
Moon	-64854-08-20 01:54 J	-21966269.67	-21966269.42	-21966269.17	0.0089	0.0006	
Earth	-64854-08-20 03:49 J	-21966269.59	-21966269.34	-21966269.08	0.0089	0.0003	*
Earth	-64853-08-21 13:54 J	-21965902.16	-21965901.92	-21965901.66	0.0089	0.0009	
Moon	-64853-08-21 14:52 J	-21965902.14	-21965901.88	-21965901.61	0.0089	0.0005	*
Earth	-64852-08-24 00:28 J	-21965534.73	-21965534.48	-21965534.23	0.0089	0.0014	
Moon	-64852-08-24 01:11 J	-21965534.69	-21965534.45	-21965534.21	0.0089	0.0016	*
Moon	-64851-08-26 08:52 J	-21965167.38	-21965167.13	-21965166.86	0.0089	0.0016	
Earth	-64851-08-26 10:33 J	-21965167.30	-21965167.06	-21965166.81	0.0089	0.0019	*
Earth	-64850-08-28 20:52 J	-21964799.87	-21964799.63	-21964799.38	0.0089	0.0024	
Moon	-64850-08-28 23:16 J	-21964799.75	-21964799.53	-21964799.28	0.0089	0.0029	*
Moon	-64849-08-30 03:35 J	-21964432.58	-21964432.35	-21964432.10	0.0089	0.0027	
Earth	-64849-08-30 06:57 J	-21964432.43	-21964432.21	-21964431.96	0.0089	0.0030	*
Earth	-64848-09-01 17:16 J	-21964065.00	-21964064.78	-21964064.53	0.0089	0.0035	
Moon	-64848-09-01 21:06 J	-21964064.85	-21964064.62	-21964064.39	0.0089	0.0039	*
Moon	-64847-09-04 00:57 J	-21963697.69	-21963697.46	-21963697.23	0.0089	0.0037	
Earth	-64847-09-04 04:04 J	-21963697.55	-21963697.33	-21963697.09	0.0089	0.0040	*
Earth	-64846-09-06 14:23 J	-21963330.11	-21963329.90	-21963329.67	0.0089	0.0046	
Moon	-64846-09-06 17:01 J	-21963330.01	-21963329.79	-21963329.57	0.0089	0.0049	*
Moon	-64845-09-07 23:30 J	-21962962.72	-21962962.52	-21962962.30	0.0089	0.0047	

Earth -64845-09-08 00:42 J -21962962.65 -21962962.47 -21962962.23 0.0089 0.0052 *
 Earth -64844-09-10 11:30 J -21962595.19 -21962595.02 -21962594.79 0.0089 0.0057
 Moon -64844-09-10 12:13 J -21962595.17 -21962594.99 -21962594.78 0.0089 0.0060 *
 Venus -64843-07-30 03:49 J -21962272.46 -21962272.34 -21962272.21 0.0089 0.0072
 Earth -64843-09-12 22:33 J -21962227.73 -21962227.56 -21962227.36 0.0089 0.0061
 Moon -64843-09-12 23:45 J -21962227.68 -21962227.51 -21962227.30 0.0089 0.0058 *
 Venus -64842-03-12 16:18 J -21962046.98 -21962046.82 -21962046.63 0.0089 0.0052
 Moon -64842-09-15 07:25 J -21961860.33 -21961860.19 -21961860.00 0.0089 0.0070
 Earth -64842-09-15 09:21 J -21961860.25 -21961860.11 -21961859.91 0.0089 0.0066 *
 Venus -64842-10-24 05:16 J -21961821.48 -21961821.28 -21961821.07 0.0089 0.0031
 Venus -64841-06-05 17:59 J -21961595.96 -21961595.75 -21961595.52 0.0089 0.0011
 Earth -64841-09-16 20:09 J -21961492.79 -21961492.66 -21961492.48 0.0089 0.0071
 Moon -64841-09-16 23:16 J -21961492.67 -21961492.53 -21961492.34 0.0089 0.0067 *
 Venus -64840-01-17 06:57 J -21961370.42 -21961370.21 -21961369.99 0.0089 0.0010
 Venus -64840-08-30 19:25 J -21961144.88 -21961144.69 -21961144.47 0.0089 0.0031
 Moon -64840-09-19 03:35 J -21961125.44 -21961125.35 -21961125.20 0.0089 0.0079
 Earth -64840-09-19 07:40 J -21961125.31 -21961125.18 -21961125.04 0.0089 0.0075 *
 Venus -64839-04-13 08:23 J -21960919.32 -21960919.15 -21960918.96 0.0089 0.0052
 Earth -64839-09-21 18:13 J -21960757.83 -21960757.74 -21960757.61 0.0089 0.0080
 Moon -64839-09-21 21:35 J -21960757.70 -21960757.60 -21960757.44 0.0089 0.0077 *
 Venus -64839-11-24 21:06 J -21960693.73 -21960693.62 -21960693.48 0.0089 0.0072
 Moon -64838-09-24 02:09 J -21960390.41 -21960390.41 -21960390.38 0.0089 0.0089
 Earth -64838-09-24 05:30 J -21960390.34 -21960390.27 -21960390.18 0.0089 0.0084
 Earth -64837-09-25 16:33 J -21960022.81 -21960022.81 -21960022.78 0.0089 0.0089
 Moon -64837-09-25 18:13 J -21960022.78 -21960022.74 -21960022.63 0.0089 0.0086 *
 Mercury -64813-10-06 06:42 J -21951246.27 -21951246.22 -21951246.14 0.0089 0.0083
 Mercury -64812-01-02 10:04 J -21951158.16 -21951158.08 -21951157.96 0.0089 0.0076
 Mercury -64812-03-31 13:54 J -21951070.03 -21951069.92 -21951069.79 0.0089 0.0068
 Mercury -64812-06-27 17:16 J -21950981.90 -21950981.78 -21950981.62 0.0089 0.0061
 Mercury -64812-09-23 21:06 J -21950893.77 -21950893.62 -21950893.46 0.0089 0.0053

Mercury -64812-12-21 00:57 J -21950805.63 -21950805.46 -21950805.30 0.0089 0.0045

Mercury -64811-03-19 04:18 J -21950717.49 -21950717.32 -21950717.14 0.0089 0.0038

Mercury -64811-06-15 07:54 J -21950629.34 -21950629.17 -21950628.98 0.0089 0.0030

Mercury -64811-09-11 11:30 J -21950541.20 -21950541.02 -21950540.82 0.0089 0.0023

Mercury -64811-12-08 15:21 J -21950453.05 -21950452.86 -21950452.67 0.0089 0.0015

Mercury -64810-03-06 18:57 J -21950364.90 -21950364.71 -21950364.52 0.0089 0.0007

Mercury -64810-06-02 22:33 J -21950276.75 -21950276.56 -21950276.36 0.0089 0.0001

Mercury -64810-08-30 02:09 J -21950188.60 -21950188.41 -21950188.21 0.0089 0.0009

Mercury -64810-11-26 05:45 J -21950100.45 -21950100.26 -21950100.06 0.0089 0.0016

Mercury -64809-02-22 09:21 J -21950012.29 -21950012.11 -21950011.92 0.0089 0.0024

Mercury -64809-05-20 12:57 J -21949924.13 -21949923.96 -21949923.77 0.0089 0.0032

Mercury -64809-08-16 16:33 J -21949835.97 -21949835.81 -21949835.62 0.0089 0.0040

Mercury -64809-11-12 20:23 J -21949747.81 -21949747.65 -21949747.48 0.0089 0.0047

Mercury -64808-02-08 23:59 J -21949659.65 -21949659.50 -21949659.34 0.0089 0.0055

Mercury -64808-05-08 03:21 J -21949571.48 -21949571.36 -21949571.20 0.0089 0.0063

Mercury -64808-08-04 06:57 J -21949483.30 -21949483.21 -21949483.07 0.0089 0.0071

Mercury -64808-10-31 11:01 J -21949395.12 -21949395.04 -21949394.94 0.0089 0.0078

Mercury -64807-01-27 14:37 J -21949306.93 -21949306.89 -21949306.83 0.0089 0.0086

Mars -64805-10-04 18:57 J -21948325.96 -21948325.71 -21948325.40 0.0088 0.0055

Mars -64803-09-01 16:04 J -21947629.17 -21947628.83 -21947628.47 0.0088 0.0009

Mars -64801-07-29 13:11 J -21946932.12 -21946931.95 -21946931.71 0.0088 0.0072

Earth -64789-01-11 07:25 J -21942749.22 -21942749.19 -21942749.11 0.0088 0.0087

Moon -64789-01-11 09:06 J -21942749.14 -21942749.12 -21942749.08 0.0088 0.0088 *

Moon -64788-01-12 20:52 J -21942381.71 -21942381.63 -21942381.51 0.0088 0.0081

Earth -64788-01-12 21:06 J -21942381.70 -21942381.62 -21942381.50 0.0088 0.0082 *

Moon -64787-01-15 10:04 J -21942014.20 -21942014.08 -21942013.94 0.0088 0.0078

Earth -64787-01-15 10:18 J -21942014.17 -21942014.07 -21942013.91 0.0088 0.0078 *

Earth -64786-01-17 23:45 J -21941646.63 -21941646.51 -21941646.33 0.0088 0.0073

Moon -64786-01-18 01:54 J -21941646.54 -21941646.42 -21941646.24 0.0088 0.0072 *

Moon -64785-01-20 10:33 J -21941279.21 -21941279.06 -21941278.87 0.0088 0.0068

Earth	-64785-01-20 13:25 J	-21941279.09	-21941278.94	-21941278.75	0.0088	0.0068	*
Earth	-64784-01-22 02:52 J	-21940911.55	-21940911.38	-21940911.18	0.0088	0.0063	
Moon	-64784-01-22 06:13 J	-21940911.40	-21940911.24	-21940911.04	0.0088	0.0063	*
Moon	-64783-01-24 12:42 J	-21940544.16	-21940543.97	-21940543.77	0.0088	0.0059	
Earth	-64783-01-24 16:18 J	-21940544.01	-21940543.82	-21940543.61	0.0088	0.0057	*
Earth	-64782-01-27 05:30 J	-21940176.46	-21940176.27	-21940176.04	0.0088	0.0053	
Moon	-64782-01-27 09:21 J	-21940176.32	-21940176.11	-21940175.90	0.0088	0.0053	*
Moon	-64781-01-29 16:04 J	-21939809.03	-21939808.83	-21939808.60	0.0088	0.0047	
Earth	-64781-01-29 18:57 J	-21939808.91	-21939808.71	-21939808.47	0.0088	0.0048	*
Earth	-64780-01-31 08:23 J	-21939441.37	-21939441.15	-21939440.90	0.0088	0.0042	
Moon	-64780-01-31 09:49 J	-21939441.31	-21939441.09	-21939440.83	0.0088	0.0042	*
Moon	-64779-02-02 21:06 J	-21939073.84	-21939073.62	-21939073.38	0.0088	0.0036	
Earth	-64779-02-02 22:18 J	-21939073.81	-21939073.57	-21939073.33	0.0088	0.0037	*
Moon	-64778-02-05 11:01 J	-21938706.28	-21938706.04	-21938705.77	0.0088	0.0032	
Earth	-64778-02-05 11:30 J	-21938706.26	-21938706.02	-21938705.76	0.0088	0.0031	*
Earth	-64777-02-08 01:11 J	-21938338.70	-21938338.45	-21938338.20	0.0088	0.0026	
Moon	-64777-02-08 02:52 J	-21938338.62	-21938338.38	-21938338.13	0.0088	0.0026	*
Moon	-64776-02-09 11:45 J	-21937971.26	-21937971.01	-21937970.73	0.0088	0.0022	
Earth	-64776-02-09 14:23 J	-21937971.15	-21937970.90	-21937970.63	0.0088	0.0020	*
Earth	-64775-02-12 03:35 J	-21937603.60	-21937603.35	-21937603.08	0.0088	0.0015	
Moon	-64775-02-12 06:57 J	-21937603.46	-21937603.21	-21937602.95	0.0088	0.0013	*
Moon	-64774-02-14 13:11 J	-21937236.20	-21937235.95	-21937235.68	0.0088	0.0011	
Earth	-64774-02-14 17:01 J	-21937236.05	-21937235.79	-21937235.52	0.0088	0.0009	*
Earth	-64773-02-17 06:13 J	-21936868.50	-21936868.24	-21936867.98	0.0088	0.0004	
Moon	-64773-02-17 09:49 J	-21936868.35	-21936868.09	-21936867.83	0.0088	0.0002	*
Moon	-64772-02-18 16:04 J	-21936501.09	-21936500.83	-21936500.57	0.0088	0.0000	
Earth	-64772-02-18 19:25 J	-21936500.96	-21936500.69	-21936500.43	0.0088	0.0002	*
Earth	-64771-02-21 08:23 J	-21936133.41	-21936133.15	-21936132.89	0.0088	0.0007	
Moon	-64771-02-21 10:18 J	-21936133.33	-21936133.07	-21936132.79	0.0088	0.0009	*
Moon	-64770-02-23 20:09 J	-21935765.91	-21935765.66	-21935765.41	0.0088	0.0010	

Earth	-64770-02-23 21:21 J	-21935765.86	-21935765.61	-21935765.34	0.0088	0.0013	*
Earth	-64769-02-26 10:18 J	-21935398.32	-21935398.07	-21935397.80	0.0088	0.0018	
Moon	-64769-02-26 10:33 J	-21935398.32	-21935398.06	-21935397.79	0.0088	0.0021	*
Earth	-64768-02-27 23:16 J	-21935030.77	-21935030.53	-21935030.27	0.0088	0.0024	
Moon	-64768-02-28 00:42 J	-21935030.70	-21935030.47	-21935030.21	0.0088	0.0022	*
Moon	-64767-03-02 10:04 J	-21934663.32	-21934663.08	-21934662.81	0.0088	0.0032	
Earth	-64767-03-02 12:13 J	-21934663.22	-21934662.99	-21934662.73	0.0088	0.0029	*
Earth	-64766-03-05 01:40 J	-21934295.67	-21934295.43	-21934295.19	0.0088	0.0035	
Moon	-64766-03-05 04:18 J	-21934295.54	-21934295.32	-21934295.06	0.0088	0.0032	*
Moon	-64765-03-06 10:47 J	-21933928.27	-21933928.05	-21933927.81	0.0088	0.0042	
Earth	-64765-03-06 14:09 J	-21933928.12	-21933927.91	-21933927.65	0.0088	0.0041	*
Earth	-64764-03-09 03:06 J	-21933560.58	-21933560.37	-21933560.13	0.0088	0.0045	
Moon	-64764-03-09 06:28 J	-21933560.44	-21933560.23	-21933559.98	0.0088	0.0042	*
Moon	-64763-03-11 12:57 J	-21933193.16	-21933192.96	-21933192.75	0.0088	0.0054	
Earth	-64763-03-11 16:04 J	-21933193.03	-21933192.83	-21933192.60	0.0088	0.0050	*
Earth	-64762-03-14 04:47 J	-21932825.49	-21932825.30	-21932825.08	0.0088	0.0056	
Moon	-64762-03-14 07:11 J	-21932825.40	-21932825.20	-21932824.97	0.0088	0.0052	*
Moon	-64761-03-15 15:21 J	-21932458.01	-21932457.86	-21932457.66	0.0088	0.0065	
Earth	-64761-03-15 17:30 J	-21932457.95	-21932457.77	-21932457.57	0.0088	0.0060	*
Venus	-64761-09-18 17:16 J	-21932270.82	-21932270.78	-21932270.72	0.0088	0.0086	
Moon	-64760-03-18 06:28 J	-21932090.42	-21932090.23	-21932090.03	0.0088	0.0062	
Earth	-64760-03-18 05:45 J	-21932090.41	-21932090.26	-21932090.07	0.0088	0.0066	*
Venus	-64760-05-02 06:13 J	-21932045.37	-21932045.24	-21932045.07	0.0088	0.0066	
Venus	-64760-12-13 19:54 J	-21931819.86	-21931819.67	-21931819.48	0.0088	0.0045	
Earth	-64759-03-20 17:59 J	-21931722.88	-21931722.75	-21931722.57	0.0088	0.0071	
Moon	-64759-03-20 19:11 J	-21931722.82	-21931722.70	-21931722.54	0.0088	0.0074	*
Venus	-64759-07-27 08:52 J	-21931594.33	-21931594.13	-21931593.91	0.0088	0.0025	
Venus	-64758-03-09 22:04 J	-21931368.80	-21931368.58	-21931368.35	0.0088	0.0004	
Moon	-64758-03-23 04:47 J	-21931355.43	-21931355.30	-21931355.12	0.0088	0.0071	
Earth	-64758-03-23 06:28 J	-21931355.34	-21931355.23	-21931355.07	0.0088	0.0075	*

Venus -64758-10-21 11:16 J -21931143.25 -21931143.03 -21931142.81 0.0088 0.0016
 Earth -64757-03-24 18:57 J -21930987.80 -21930987.71 -21930987.58 0.0088 0.0080
 Moon -64757-03-24 22:04 J -21930987.64 -21930987.58 -21930987.48 0.0088 0.0084 *
 Venus -64757-06-02 23:59 J -21930917.69 -21930917.50 -21930917.28 0.0088 0.0037
 Venus -64756-01-14 13:11 J -21930692.10 -21930691.95 -21930691.77 0.0088 0.0057
 Moon -64756-03-27 03:49 J -21930620.43 -21930620.34 -21930620.22 0.0088 0.0080
 Earth -64756-03-27 06:57 J -21930620.26 -21930620.21 -21930620.10 0.0088 0.0084 *
 Venus -64756-08-28 02:09 J -21930466.50 -21930466.41 -21930466.29 0.0088 0.0078
 Earth -64755-03-29 19:40 J -21930252.68 -21930252.68 -21930252.66 0.0088 0.0088
 Mercury -64731-07-17 23:30 J -21921376.55 -21921376.52 -21921376.47 0.0089 0.0084
 Mercury -64731-10-14 00:42 J -21921288.52 -21921288.47 -21921288.40 0.0089 0.0079
 Mercury -64730-01-10 02:23 J -21921200.47 -21921200.40 -21921200.33 0.0089 0.0073
 Mercury -64730-04-08 03:35 J -21921112.43 -21921112.35 -21921112.26 0.0089 0.0068
 Mercury -64730-07-05 04:47 J -21921024.38 -21921024.30 -21921024.19 0.0089 0.0063
 Mercury -64730-10-01 06:28 J -21920936.33 -21920936.23 -21920936.13 0.0089 0.0057
 Mercury -64730-12-28 07:40 J -21920848.28 -21920848.18 -21920848.07 0.0089 0.0052
 Mercury -64729-03-25 08:52 J -21920760.23 -21920760.13 -21920760.00 0.0089 0.0047
 Mercury -64729-06-21 10:33 J -21920672.18 -21920672.06 -21920671.94 0.0089 0.0041
 Mercury -64729-09-17 11:45 J -21920584.13 -21920584.01 -21920583.88 0.0089 0.0036
 Mercury -64729-12-14 12:57 J -21920496.07 -21920495.96 -21920495.83 0.0089 0.0031
 Mercury -64728-03-12 14:23 J -21920408.02 -21920407.90 -21920407.77 0.0089 0.0025
 Mercury -64728-06-08 15:49 J -21920319.97 -21920319.84 -21920319.71 0.0089 0.0020
 Mercury -64728-09-04 17:16 J -21920231.91 -21920231.78 -21920231.65 0.0089 0.0015
 Mercury -64728-12-01 18:28 J -21920143.86 -21920143.73 -21920143.59 0.0089 0.0010
 Mercury -64727-02-27 19:54 J -21920055.80 -21920055.67 -21920055.54 0.0089 0.0004
 Mercury -64727-05-26 21:06 J -21919967.75 -21919967.62 -21919967.48 0.0089 0.0003
 Mercury -64727-08-22 22:33 J -21919879.69 -21919879.56 -21919879.43 0.0089 0.0007
 Mercury -64727-11-18 23:45 J -21919791.64 -21919791.51 -21919791.37 0.0089 0.0012
 Mercury -64726-02-15 01:11 J -21919703.58 -21919703.45 -21919703.32 0.0089 0.0017
 Mercury -64726-05-14 02:23 J -21919615.52 -21919615.40 -21919615.27 0.0089 0.0023

Mercury -64726-08-10 03:49 J -21919527.46 -21919527.34 -21919527.21 0.0089 0.0028
 Mercury -64726-11-06 05:01 J -21919439.41 -21919439.29 -21919439.16 0.0089 0.0033
 Mercury -64725-02-02 06:28 J -21919351.35 -21919351.23 -21919351.11 0.0089 0.0038
 Mercury -64725-04-30 07:40 J -21919263.29 -21919263.18 -21919263.06 0.0089 0.0044
 Mercury -64725-07-27 08:52 J -21919175.23 -21919175.13 -21919175.01 0.0089 0.0049
 Mercury -64725-10-23 10:18 J -21919087.17 -21919087.07 -21919086.96 0.0089 0.0054
 Mercury -64724-01-19 11:45 J -21918999.11 -21918999.01 -21918998.91 0.0089 0.0059
 Mercury -64724-04-17 12:42 J -21918911.05 -21918910.97 -21918910.87 0.0089 0.0065
 Mercury -64724-07-14 14:09 J -21918822.98 -21918822.91 -21918822.82 0.0089 0.0070
 Mercury -64724-10-10 15:21 J -21918734.92 -21918734.86 -21918734.78 0.0089 0.0075
 Mercury -64723-01-06 16:47 J -21918646.85 -21918646.80 -21918646.74 0.0089 0.0080
 Mercury -64723-04-04 18:13 J -21918558.77 -21918558.74 -21918558.70 0.0089 0.0085
 Mars -64723-08-09 03:35 J -21918432.52 -21918432.35 -21918432.16 0.0089 0.0068
 Mars -64721-07-02 10:33 J -21917739.33 -21917739.06 -21917738.78 0.0089 0.0019
 Mars -64719-05-26 17:16 J -21917046.03 -21917045.78 -21917045.50 0.0089 0.0031
 Mars -64717-04-18 22:04 J -21916352.68 -21916352.58 -21916352.45 0.0089 0.0080
 Earth -64708-07-11 00:28 J -21912982.51 -21912982.48 -21912982.40 0.0089 0.0087
 Moon -64708-07-11 01:40 J -21912982.49 -21912982.43 -21912982.30 0.0089 0.0083 *
 Earth -64707-07-13 10:33 J -21912615.14 -21912615.06 -21912614.95 0.0089 0.0082
 Moon -64707-07-13 10:18 J -21912615.12 -21912615.07 -21912615.00 0.0089 0.0086 *
 Moon -64706-07-15 19:11 J -21912247.84 -21912247.70 -21912247.54 0.0089 0.0073
 Earth -64706-07-15 20:09 J -21912247.75 -21912247.66 -21912247.51 0.0089 0.0078 *
 Earth -64705-07-17 05:59 J -21911880.37 -21911880.25 -21911880.08 0.0089 0.0074
 Moon -64705-07-17 08:23 J -21911880.25 -21911880.15 -21911880.01 0.0089 0.0077 *
 Moon -64704-07-19 13:11 J -21911513.11 -21911512.95 -21911512.75 0.0089 0.0064
 Earth -64704-07-19 16:18 J -21911512.97 -21911512.82 -21911512.65 0.0089 0.0068 *
 Earth -64703-07-22 02:23 J -21911145.57 -21911145.40 -21911145.22 0.0089 0.0063
 Moon -64703-07-22 05:30 J -21911145.40 -21911145.27 -21911145.08 0.0089 0.0069 *
 Moon -64702-07-24 09:06 J -21910778.31 -21910778.12 -21910777.91 0.0089 0.0055
 Earth -64702-07-24 12:28 J -21910778.16 -21910777.98 -21910777.79 0.0089 0.0058 *

Earth	-64701-07-25 22:18 J	-21910410.76	-21910410.57	-21910410.36	0.0089	0.0053
Moon	-64701-07-26 01:11 J	-21910410.62	-21910410.45	-21910410.23	0.0089	0.0058 *
Moon	-64700-07-28 06:28 J	-21910043.43	-21910043.23	-21910043.00	0.0089	0.0045
Earth	-64700-07-28 08:23 J	-21910043.35	-21910043.15	-21910042.93	0.0089	0.0048 *
Earth	-64699-07-30 18:13 J	-21909675.94	-21909675.74	-21909675.50	0.0089	0.0043
Moon	-64699-07-30 19:11 J	-21909675.91	-21909675.70	-21909675.47	0.0089	0.0046 *
Earth	-64698-08-02 04:04 J	-21909308.54	-21909308.33	-21909308.08	0.0089	0.0038
Moon	-64698-08-02 04:33 J	-21909308.53	-21909308.31	-21909308.08	0.0089	0.0034 *
Moon	-64697-08-03 12:13 J	-21908941.22	-21908940.99	-21908940.74	0.0089	0.0037
Earth	-64697-08-03 14:09 J	-21908941.13	-21908940.91	-21908940.66	0.0089	0.0033 *
Earth	-64696-08-06 00:13 J	-21908573.72	-21908573.49	-21908573.24	0.0089	0.0027
Moon	-64696-08-06 02:52 J	-21908573.61	-21908573.38	-21908573.14	0.0089	0.0023 *
Moon	-64695-08-08 07:11 J	-21908206.44	-21908206.20	-21908205.95	0.0089	0.0025
Earth	-64695-08-08 10:33 J	-21908206.31	-21908206.06	-21908205.82	0.0089	0.0022 *
Earth	-64694-08-10 20:09 J	-21907838.90	-21907838.66	-21907838.40	0.0089	0.0017
Moon	-64694-08-10 23:45 J	-21907838.75	-21907838.51	-21907838.25	0.0089	0.0013 *
Moon	-64693-08-12 03:21 J	-21907471.60	-21907471.36	-21907471.11	0.0089	0.0014
Earth	-64693-08-12 06:13 J	-21907471.48	-21907471.24	-21907470.98	0.0089	0.0012 *
Earth	-64692-08-14 16:33 J	-21907104.06	-21907103.81	-21907103.55	0.0089	0.0005
Moon	-64692-08-14 19:40 J	-21907103.94	-21907103.68	-21907103.43	0.0089	0.0002 *
Moon	-64691-08-17 01:25 J	-21906736.68	-21906736.44	-21906736.19	0.0089	0.0004
Earth	-64691-08-17 02:52 J	-21906736.63	-21906736.38	-21906736.13	0.0089	0.0001 *
Earth	-64690-08-19 12:57 J	-21906369.20	-21906368.96	-21906368.70	0.0089	0.0007
Moon	-64690-08-19 13:25 J	-21906369.20	-21906368.94	-21906368.68	0.0089	0.0009 *
Earth	-64689-08-20 23:30 J	-21906001.77	-21906001.52	-21906001.27	0.0089	0.0012
Moon	-64689-08-21 00:13 J	-21906001.74	-21906001.49	-21906001.25	0.0089	0.0008 *
Moon	-64688-08-23 07:11 J	-21905634.44	-21905634.20	-21905633.94	0.0089	0.0021
Earth	-64688-08-23 09:35 J	-21905634.34	-21905634.10	-21905633.84	0.0089	0.0018 *
Earth	-64687-08-25 19:54 J	-21905266.90	-21905266.67	-21905266.41	0.0089	0.0023
Moon	-64687-08-25 22:47 J	-21905266.78	-21905266.55	-21905266.30	0.0089	0.0020 *

Moon	-64686-08-28 02:52 J	-21904899.61	-21904899.38	-21904899.14	0.0089	0.0032
Earth	-64686-08-28 06:13 J	-21904899.47	-21904899.24	-21904898.99	0.0089	0.0028 *
Earth	-64685-08-29 16:47 J	-21904532.04	-21904531.80	-21904531.57	0.0089	0.0034
Moon	-64685-08-29 19:54 J	-21904531.89	-21904531.67	-21904531.41	0.0089	0.0030 *
Moon	-64684-08-31 23:59 J	-21904164.70	-21904164.50	-21904164.26	0.0089	0.0043
Earth	-64684-09-01 02:52 J	-21904164.59	-21904164.38	-21904164.13	0.0089	0.0039 *
Earth	-64683-09-03 13:11 J	-21903797.15	-21903796.95	-21903796.71	0.0089	0.0045
Moon	-64683-09-03 15:49 J	-21903797.06	-21903796.84	-21903796.60	0.0089	0.0042 *
Moon	-64682-09-05 22:47 J	-21903429.73	-21903429.55	-21903429.33	0.0089	0.0053
Earth	-64682-09-05 23:45 J	-21903429.71	-21903429.51	-21903429.28	0.0089	0.0050 *
Moon	-64681-09-07 10:18 J	-21903062.28	-21903062.07	-21903061.85	0.0089	0.0052
Earth	-64681-09-07 10:33 J	-21903062.26	-21903062.06	-21903061.86	0.0089	0.0055 *
Earth	-64680-09-09 20:37 J	-21902694.80	-21902694.64	-21902694.43	0.0089	0.0060
Moon	-64680-09-09 21:49 J	-21902694.74	-21902694.59	-21902694.40	0.0089	0.0063 *
Moon	-64679-09-12 04:47 J	-21902327.47	-21902327.30	-21902327.09	0.0089	0.0061
Earth	-64679-09-12 07:25 J	-21902327.34	-21902327.19	-21902326.99	0.0089	0.0065 *
Venus	-64679-10-31 13:54 J	-21902278.00	-21902277.92	-21902277.83	0.0089	0.0082
Venus	-64678-06-14 02:23 J	-21902052.54	-21902052.40	-21902052.22	0.0089	0.0062
Earth	-64678-09-14 17:59 J	-21901959.88	-21901959.75	-21901959.57	0.0089	0.0070
Moon	-64678-09-14 21:06 J	-21901959.74	-21901959.62	-21901959.45	0.0089	0.0073 *
Venus	-64677-01-25 15:35 J	-21901827.04	-21901826.85	-21901826.65	0.0089	0.0040
Venus	-64677-09-07 04:04 J	-21901601.53	-21901601.33	-21901601.11	0.0089	0.0020
Moon	-64677-09-16 01:25 J	-21901592.56	-21901592.44	-21901592.26	0.0089	0.0072
Earth	-64677-09-16 05:01 J	-21901592.40	-21901592.29	-21901592.13	0.0089	0.0075 *
Venus	-64676-04-20 17:01 J	-21901376.01	-21901375.79	-21901375.57	0.0089	0.0001
Earth	-64676-09-18 16:18 J	-21901224.92	-21901224.82	-21901224.69	0.0089	0.0080
Moon	-64676-09-18 20:09 J	-21901224.75	-21901224.66	-21901224.57	0.0089	0.0083 *
Venus	-64676-12-02 05:45 J	-21901150.47	-21901150.26	-21901150.04	0.0089	0.0021
Venus	-64675-07-15 18:28 J	-21900924.91	-21900924.73	-21900924.53	0.0089	0.0042
Moon	-64675-09-21 00:13 J	-21900857.56	-21900857.49	-21900857.37	0.0089	0.0082

Earth -64675-09-21 03:06 J -21900857.43 -21900857.37 -21900857.27 0.0089 0.0084 *
 Venus -64674-02-26 07:11 J -21900699.34 -21900699.20 -21900699.03 0.0089 0.0063
 Earth -64674-09-23 14:09 J -21900489.91 -21900489.91 -21900489.87 0.0089 0.0089
 Venus -64674-10-09 20:09 J -21900473.72 -21900473.66 -21900473.57 0.0089 0.0083
 Mercury -64648-04-06 01:40 J -21891163.44 -21891163.43 -21891163.41 0.0089 0.0088
 Mercury -64648-07-03 05:01 J -21891075.35 -21891075.29 -21891075.20 0.0089 0.0081
 Mercury -64648-09-29 08:52 J -21890987.23 -21890987.13 -21890987.02 0.0089 0.0073
 Mercury -64648-12-26 11:59 J -21890899.11 -21890899.00 -21890898.85 0.0089 0.0066
 Mercury -64647-03-24 15:49 J -21890810.97 -21890810.84 -21890810.68 0.0089 0.0058
 Mercury -64647-06-20 19:11 J -21890722.84 -21890722.70 -21890722.52 0.0089 0.0051
 Mercury -64647-09-16 23:01 J -21890634.70 -21890634.54 -21890634.36 0.0089 0.0043
 Mercury -64647-12-14 02:52 J -21890546.56 -21890546.38 -21890546.20 0.0089 0.0035
 Mercury -64646-03-12 06:13 J -21890458.41 -21890458.24 -21890458.04 0.0089 0.0028
 Mercury -64646-06-08 10:04 J -21890370.27 -21890370.08 -21890369.89 0.0089 0.0020
 Mercury -64646-09-04 13:40 J -21890282.12 -21890281.93 -21890281.73 0.0089 0.0012
 Mercury -64646-12-01 17:16 J -21890193.97 -21890193.78 -21890193.58 0.0089 0.0005
 Mercury -64645-02-27 20:52 J -21890105.82 -21890105.63 -21890105.43 0.0089 0.0004
 Mercury -64645-05-26 00:28 J -21890017.67 -21890017.48 -21890017.28 0.0089 0.0011
 Mercury -64645-08-22 04:04 J -21889929.51 -21889929.33 -21889929.13 0.0089 0.0019
 Mercury -64645-11-18 07:40 J -21889841.36 -21889841.18 -21889840.99 0.0089 0.0027
 Mercury -64644-02-14 11:16 J -21889753.20 -21889753.03 -21889752.84 0.0089 0.0035
 Mercury -64644-05-13 15:06 J -21889665.04 -21889664.87 -21889664.70 0.0089 0.0042
 Mercury -64644-08-09 18:42 J -21889576.88 -21889576.72 -21889576.55 0.0089 0.0050
 Mercury -64644-11-05 22:04 J -21889488.71 -21889488.58 -21889488.41 0.0089 0.0058
 Mercury -64643-02-02 01:40 J -21889400.54 -21889400.43 -21889400.28 0.0089 0.0066
 Mercury -64643-05-01 05:45 J -21889312.37 -21889312.26 -21889312.15 0.0089 0.0073
 Mercury -64643-07-28 09:06 J -21889224.18 -21889224.12 -21889224.03 0.0089 0.0081
 Mercury -64643-10-24 12:57 J -21889135.96 -21889135.96 -21889135.94 0.0089 0.0088
 Mars -64641-05-17 19:25 J -21888564.80 -21888564.69 -21888564.51 0.0089 0.0081
 Mars -64639-04-14 16:04 J -21887868.16 -21887867.83 -21887867.47 0.0089 0.0019

Mars	-64637-03-11 13:11 J	-21887171.25	-21887170.95	-21887170.64	0.0088	0.0044
Moon	-64625-01-10 15:06 J	-21882848.94	-21882848.87	-21882848.75	0.0088	0.0082
Earth	-64625-01-10 14:23 J	-21882848.93	-21882848.90	-21882848.80	0.0088	0.0086 *
Moon	-64624-01-12 02:52 J	-21882481.46	-21882481.38	-21882481.29	0.0088	0.0084
Earth	-64624-01-12 04:18 J	-21882481.40	-21882481.32	-21882481.19	0.0088	0.0081 *
Earth	-64623-01-14 17:59 J	-21882113.87	-21882113.75	-21882113.60	0.0088	0.0076
Moon	-64623-01-14 20:09 J	-21882113.79	-21882113.66	-21882113.49	0.0088	0.0072 *
Moon	-64622-01-17 03:35 J	-21881746.45	-21881746.35	-21881746.17	0.0088	0.0076
Earth	-64622-01-17 07:40 J	-21881746.32	-21881746.18	-21881746.01	0.0088	0.0071 *
Earth	-64621-01-19 21:06 J	-21881378.78	-21881378.62	-21881378.43	0.0088	0.0066
Moon	-64621-01-20 00:28 J	-21881378.64	-21881378.48	-21881378.27	0.0088	0.0062 *
Moon	-64620-01-21 06:42 J	-21881011.37	-21881011.22	-21881011.02	0.0088	0.0065
Earth	-64620-01-21 10:33 J	-21881011.24	-21881011.06	-21881010.85	0.0088	0.0060 *
Earth	-64619-01-23 23:59 J	-21880643.69	-21880643.50	-21880643.28	0.0088	0.0055
Moon	-64619-01-24 03:21 J	-21880643.57	-21880643.36	-21880643.13	0.0088	0.0051 *
Moon	-64618-01-26 11:16 J	-21880276.21	-21880276.03	-21880275.81	0.0088	0.0055
Earth	-64618-01-26 13:11 J	-21880276.14	-21880275.95	-21880275.71	0.0088	0.0051 *
Earth	-64617-01-29 02:37 J	-21879908.60	-21879908.39	-21879908.14	0.0088	0.0045
Moon	-64617-01-29 04:33 J	-21879908.54	-21879908.31	-21879908.06	0.0088	0.0040 *
Earth	-64616-01-30 16:18 J	-21879541.04	-21879540.82	-21879540.57	0.0088	0.0039
Moon	-64616-01-30 16:04 J	-21879541.03	-21879540.83	-21879540.59	0.0088	0.0045 *
Moon	-64615-02-02 04:47 J	-21879173.56	-21879173.30	-21879173.04	0.0088	0.0030
Earth	-64615-02-02 05:30 J	-21879173.49	-21879173.27	-21879173.01	0.0088	0.0034 *
Earth	-64614-02-04 19:11 J	-21878805.94	-21878805.70	-21878805.44	0.0088	0.0028
Moon	-64614-02-04 20:52 J	-21878805.85	-21878805.63	-21878805.38	0.0088	0.0033 *
Moon	-64613-02-07 05:30 J	-21878438.53	-21878438.27	-21878438.00	0.0088	0.0018
Earth	-64613-02-07 08:37 J	-21878438.38	-21878438.14	-21878437.87	0.0088	0.0023 *
Earth	-64612-02-08 22:04 J	-21878070.83	-21878070.58	-21878070.32	0.0088	0.0017
Moon	-64612-02-09 01:25 J	-21878070.69	-21878070.44	-21878070.18	0.0088	0.0022 *
Moon	-64611-02-11 07:54 J	-21877703.43	-21877703.17	-21877702.90	0.0088	0.0007

Earth	-64611-02-11 11:45 J	-21877703.27	-21877703.01	-21877702.75	0.0088	0.0012	*
Earth	-64610-02-14 00:57 J	-21877335.72	-21877335.46	-21877335.19	0.0088	0.0006	
Moon	-64610-02-14 04:33 J	-21877335.58	-21877335.31	-21877335.05	0.0088	0.0011	*
Moon	-64609-02-16 11:45 J	-21876968.27	-21876968.01	-21876967.75	0.0088	0.0004	
Earth	-64609-02-16 14:23 J	-21876968.17	-21876967.90	-21876967.64	0.0088	0.0001	*
Earth	-64608-02-18 03:21 J	-21876600.62	-21876600.36	-21876600.09	0.0088	0.0006	
Moon	-64608-02-18 05:30 J	-21876600.54	-21876600.27	-21876599.99	0.0088	0.0002	*
Moon	-64607-02-20 16:04 J	-21876233.08	-21876232.83	-21876232.58	0.0088	0.0015	
Earth	-64607-02-20 16:18 J	-21876233.07	-21876232.82	-21876232.55	0.0088	0.0012	*
Moon	-64606-02-23 04:47 J	-21875865.56	-21875865.30	-21875865.02	0.0088	0.0013	
Earth	-64606-02-23 05:16 J	-21875865.52	-21875865.28	-21875865.01	0.0088	0.0017	*
Earth	-64605-02-25 18:28 J	-21875497.98	-21875497.73	-21875497.47	0.0088	0.0022	
Moon	-64605-02-25 19:54 J	-21875497.91	-21875497.67	-21875497.42	0.0088	0.0026	*
Moon	-64604-02-27 04:18 J	-21875130.57	-21875130.32	-21875130.05	0.0088	0.0023	
Earth	-64604-02-27 07:11 J	-21875130.43	-21875130.20	-21875129.94	0.0088	0.0028	*
Earth	-64603-03-01 20:09 J	-21874762.89	-21874762.66	-21874762.40	0.0088	0.0033	
Moon	-64603-03-01 23:16 J	-21874762.75	-21874762.53	-21874762.28	0.0088	0.0037	*
Moon	-64602-03-04 05:16 J	-21874395.50	-21874395.28	-21874395.01	0.0088	0.0035	
Earth	-64602-03-04 09:35 J	-21874395.34	-21874395.10	-21874394.86	0.0088	0.0039	*
Earth	-64601-03-05 21:49 J	-21874027.80	-21874027.59	-21874027.34	0.0088	0.0044	
Moon	-64601-03-06 01:25 J	-21874027.64	-21874027.44	-21874027.20	0.0088	0.0048	*
Moon	-64600-03-08 07:54 J	-21873660.37	-21873660.17	-21873659.93	0.0088	0.0047	
Earth	-64600-03-08 11:01 J	-21873660.24	-21873660.04	-21873659.81	0.0088	0.0049	*
Earth	-64599-03-10 23:59 J	-21873292.70	-21873292.50	-21873292.29	0.0088	0.0055	
Moon	-64599-03-11 02:37 J	-21873292.59	-21873292.39	-21873292.19	0.0088	0.0058	*
Moon	-64598-03-13 11:59 J	-21872925.18	-21872925.00	-21872924.79	0.0088	0.0057	
Earth	-64598-03-13 12:28 J	-21872925.15	-21872924.98	-21872924.76	0.0088	0.0060	*
Earth	-64597-03-15 01:11 J	-21872557.60	-21872557.45	-21872557.25	0.0088	0.0065	
Moon	-64597-03-15 01:40 J	-21872557.60	-21872557.43	-21872557.25	0.0088	0.0068	*
Earth	-64596-03-17 13:40 J	-21872190.06	-21872189.93	-21872189.74	0.0088	0.0070	

Moon	-64596-03-17 14:52 J	-21872190.02	-21872189.88	-21872189.69	0.0088	0.0068 *
Venus	-64596-08-03 16:47 J	-21872050.91	-21872050.80	-21872050.67	0.0088	0.0074
Venus	-64595-03-17 05:45 J	-21871825.42	-21871825.26	-21871825.06	0.0088	0.0054
Moon	-64595-03-19 23:30 J	-21871822.61	-21871822.52	-21871822.37	0.0088	0.0079
Earth	-64595-03-20 02:52 J	-21871822.51	-21871822.38	-21871822.24	0.0088	0.0075 *
Venus	-64595-10-28 19:11 J	-21871599.90	-21871599.70	-21871599.49	0.0088	0.0033
Earth	-64594-03-22 14:52 J	-21871454.97	-21871454.88	-21871454.75	0.0088	0.0080
Moon	-64594-03-22 17:30 J	-21871454.86	-21871454.77	-21871454.61	0.0088	0.0078 *
Venus	-64594-06-11 08:23 J	-21871374.36	-21871374.15	-21871373.92	0.0088	0.0012
Venus	-64593-01-22 21:49 J	-21871148.81	-21871148.59	-21871148.37	0.0088	0.0008
Moon	-64593-03-23 23:59 J	-21871087.54	-21871087.50	-21871087.46	0.0088	0.0087
Earth	-64593-03-24 02:52 J	-21871087.42	-21871087.38	-21871087.27	0.0088	0.0085
Venus	-64593-09-04 10:47 J	-21870923.26	-21870923.05	-21870922.84	0.0088	0.0029
Moon	-64592-03-26 18:57 J	-21870719.75	-21870719.71	-21870719.62	0.0088	0.0086
Venus	-64592-04-17 23:30 J	-21870697.69	-21870697.52	-21870697.32	0.0088	0.0049
Venus	-64592-11-29 12:28 J	-21870472.09	-21870471.98	-21870471.82	0.0088	0.0070
Mercury	-64566-01-15 22:04 J	-21861293.60	-21861293.58	-21861293.56	0.0089	0.0087
Mercury	-64566-04-13 23:16 J	-21861205.58	-21861205.53	-21861205.48	0.0089	0.0082
Mercury	-64566-07-11 00:28 J	-21861117.54	-21861117.48	-21861117.41	0.0089	0.0077
Mercury	-64566-10-07 01:40 J	-21861029.49	-21861029.43	-21861029.34	0.0089	0.0072
Mercury	-64565-01-03 03:21 J	-21860941.45	-21860941.36	-21860941.27	0.0089	0.0066
Mercury	-64565-03-31 04:33 J	-21860853.40	-21860853.31	-21860853.20	0.0089	0.0061
Mercury	-64565-06-27 05:45 J	-21860765.35	-21860765.26	-21860765.14	0.0089	0.0056
Mercury	-64565-09-23 07:25 J	-21860677.30	-21860677.19	-21860677.08	0.0089	0.0050
Mercury	-64565-12-20 08:37 J	-21860589.25	-21860589.14	-21860589.02	0.0089	0.0045
Mercury	-64564-03-18 10:04 J	-21860501.20	-21860501.08	-21860500.96	0.0089	0.0039
Mercury	-64564-06-14 11:30 J	-21860413.14	-21860413.02	-21860412.90	0.0089	0.0034
Mercury	-64564-09-10 12:42 J	-21860325.09	-21860324.97	-21860324.84	0.0089	0.0029
Mercury	-64564-12-07 14:09 J	-21860237.04	-21860236.91	-21860236.78	0.0089	0.0023
Mercury	-64563-03-05 15:21 J	-21860148.98	-21860148.86	-21860148.72	0.0089	0.0019

Mercury -64563-06-01 16:47 J -21860060.93 -21860060.80 -21860060.67 0.0089 0.0013
 Mercury -64563-08-28 18:13 J -21859972.88 -21859972.74 -21859972.61 0.0089 0.0008
 Mercury -64563-11-24 19:25 J -21859884.82 -21859884.69 -21859884.55 0.0089 0.0003
 Mercury -64562-02-20 20:52 J -21859796.77 -21859796.63 -21859796.50 0.0089 0.0003
 Mercury -64562-05-19 22:04 J -21859708.71 -21859708.58 -21859708.44 0.0089 0.0009
 Mercury -64562-08-15 23:30 J -21859620.65 -21859620.52 -21859620.39 0.0089 0.0014
 Mercury -64562-11-12 00:42 J -21859532.60 -21859532.47 -21859532.34 0.0089 0.0019
 Mercury -64561-02-08 02:09 J -21859444.54 -21859444.41 -21859444.28 0.0089 0.0024
 Mercury -64561-05-06 03:21 J -21859356.48 -21859356.36 -21859356.23 0.0089 0.0030
 Mercury -64561-08-02 04:47 J -21859268.42 -21859268.30 -21859268.18 0.0089 0.0035
 Mercury -64561-10-29 05:59 J -21859180.36 -21859180.25 -21859180.13 0.0089 0.0040
 Mercury -64560-01-25 07:25 J -21859092.30 -21859092.19 -21859092.08 0.0089 0.0045
 Mercury -64560-04-23 08:37 J -21859004.24 -21859004.14 -21859004.03 0.0089 0.0050
 Mercury -64560-07-20 09:49 J -21858916.18 -21858916.09 -21858915.98 0.0089 0.0056
 Mercury -64560-10-16 11:16 J -21858828.12 -21858828.03 -21858827.93 0.0089 0.0061
 Mercury -64559-01-12 12:42 J -21858740.06 -21858739.97 -21858739.88 0.0089 0.0066
 Mars -64559-03-25 00:28 J -21858668.50 -21858668.48 -21858668.45 0.0089 0.0088
 Mercury -64559-04-10 13:40 J -21858651.99 -21858651.93 -21858651.84 0.0089 0.0072
 Mercury -64559-07-07 15:06 J -21858563.93 -21858563.87 -21858563.80 0.0089 0.0077
 Mercury -64559-10-03 16:18 J -21858475.86 -21858475.82 -21858475.76 0.0089 0.0082
 Mercury -64559-12-30 17:45 J -21858387.78 -21858387.76 -21858387.73 0.0089 0.0087
 Mars -64557-02-16 06:13 J -21857975.49 -21857975.24 -21857974.98 0.0089 0.0039
 Mars -64555-01-09 12:28 J -21857282.26 -21857281.98 -21857281.70 0.0089 0.0010
 Mars -64554-12-03 18:42 J -21856588.90 -21856588.72 -21856588.48 0.0089 0.0059
 Moon -64545-07-08 02:37 J -21853449.40 -21853449.39 -21853449.34 0.0089 0.0088
 Earth -64544-07-10 11:01 J -21853082.07 -21853082.04 -21853081.94 0.0089 0.0087
 Moon -64544-07-10 11:45 J -21853082.03 -21853082.01 -21853081.94 0.0089 0.0087 *
 Moon -64543-07-12 20:09 J -21852714.76 -21852714.66 -21852714.53 0.0089 0.0079
 Earth -64543-07-12 21:21 J -21852714.69 -21852714.61 -21852714.49 0.0089 0.0081 *
 Earth -64542-07-15 07:11 J -21852347.31 -21852347.20 -21852347.06 0.0089 0.0077

Moon	-64542-07-15 09:49 J	-21852347.19	-21852347.09	-21852346.96	0.0089	0.0078	*
Moon	-64541-07-16 13:25 J	-21851980.06	-21851979.94	-21851979.76	0.0089	0.0071	
Earth	-64541-07-16 16:47 J	-21851979.92	-21851979.80	-21851979.62	0.0089	0.0072	*
Earth	-64540-07-19 02:37 J	-21851612.53	-21851612.39	-21851612.20	0.0089	0.0068	
Moon	-64540-07-19 06:28 J	-21851612.37	-21851612.23	-21851612.06	0.0089	0.0069	*
Moon	-64539-07-21 09:21 J	-21851245.28	-21851245.11	-21851244.91	0.0089	0.0060	
Earth	-64539-07-21 12:42 J	-21851245.13	-21851244.97	-21851244.77	0.0089	0.0062	*
Earth	-64538-07-23 22:33 J	-21850877.73	-21850877.56	-21850877.35	0.0089	0.0057	
Moon	-64538-07-24 01:25 J	-21850877.63	-21850877.44	-21850877.24	0.0089	0.0058	*
Moon	-64537-07-25 06:57 J	-21850510.40	-21850510.21	-21850509.99	0.0089	0.0049	
Earth	-64537-07-25 09:06 J	-21850510.32	-21850510.12	-21850509.91	0.0089	0.0052	*
Earth	-64536-07-27 18:42 J	-21850142.92	-21850142.72	-21850142.49	0.0089	0.0047	
Moon	-64536-07-27 19:11 J	-21850142.90	-21850142.70	-21850142.46	0.0089	0.0049	*
Earth	-64535-07-30 04:47 J	-21849775.51	-21849775.30	-21849775.06	0.0089	0.0041	
Moon	-64535-07-30 05:59 J	-21849775.46	-21849775.25	-21849775.02	0.0089	0.0040	*
Moon	-64534-08-01 13:11 J	-21849408.18	-21849407.95	-21849407.71	0.0089	0.0037	
Earth	-64534-08-01 14:52 J	-21849408.10	-21849407.88	-21849407.64	0.0089	0.0036	*
Earth	-64533-08-03 00:42 J	-21849040.69	-21849040.47	-21849040.22	0.0089	0.0030	
Moon	-64533-08-03 04:04 J	-21849040.56	-21849040.33	-21849040.09	0.0089	0.0028	*
Moon	-64532-08-05 07:25 J	-21848673.42	-21848673.19	-21848672.94	0.0089	0.0026	
Earth	-64532-08-05 11:01 J	-21848673.28	-21848673.04	-21848672.79	0.0089	0.0024	*
Earth	-64531-08-07 20:37 J	-21848305.88	-21848305.64	-21848305.38	0.0089	0.0019	
Moon	-64531-08-08 00:13 J	-21848305.73	-21848305.49	-21848305.23	0.0089	0.0016	*
Moon	-64530-08-10 03:49 J	-21847938.59	-21847938.34	-21847938.10	0.0089	0.0016	
Earth	-64530-08-10 06:42 J	-21847938.46	-21847938.22	-21847937.96	0.0089	0.0014	*
Earth	-64529-08-11 16:47 J	-21847571.05	-21847570.80	-21847570.54	0.0089	0.0008	
Moon	-64529-08-11 18:57 J	-21847570.97	-21847570.71	-21847570.45	0.0089	0.0006	*
Moon	-64528-08-14 01:25 J	-21847203.68	-21847203.44	-21847203.19	0.0089	0.0005	
Earth	-64528-08-14 02:52 J	-21847203.63	-21847203.38	-21847203.12	0.0089	0.0003	*
Moon	-64527-08-16 12:42 J	-21846836.22	-21846835.97	-21846835.70	0.0089	0.0007	

Earth	-64527-08-16 12:57 J	-21846836.21	-21846835.96	-21846835.70	0.0089	0.0004	*
Earth	-64526-08-18 23:01 J	-21846468.79	-21846468.54	-21846468.29	0.0089	0.0009	
Moon	-64526-08-19 00:28 J	-21846468.72	-21846468.48	-21846468.23	0.0089	0.0008	*
Moon	-64525-08-20 07:11 J	-21846101.46	-21846101.20	-21846100.95	0.0089	0.0018	
Earth	-64525-08-20 09:06 J	-21846101.36	-21846101.12	-21846100.86	0.0089	0.0015	*
Earth	-64524-08-22 19:40 J	-21845733.93	-21845733.68	-21845733.43	0.0089	0.0021	
Moon	-64524-08-22 22:47 J	-21845733.79	-21845733.55	-21845733.30	0.0089	0.0018	*
Moon	-64523-08-25 02:23 J	-21845366.63	-21845366.40	-21845366.15	0.0089	0.0028	
Earth	-64523-08-25 05:45 J	-21845366.49	-21845366.26	-21845366.01	0.0089	0.0027	*
Earth	-64522-08-27 16:04 J	-21844999.05	-21844998.83	-21844998.58	0.0089	0.0032	
Moon	-64522-08-27 19:40 J	-21844998.91	-21844998.68	-21844998.43	0.0089	0.0029	*
Moon	-64521-08-28 23:45 J	-21844631.72	-21844631.51	-21844631.28	0.0089	0.0041	
Earth	-64521-08-29 02:37 J	-21844631.61	-21844631.39	-21844631.15	0.0089	0.0038	*
Earth	-64520-08-31 12:57 J	-21844264.17	-21844263.96	-21844263.72	0.0089	0.0043	
Moon	-64520-08-31 14:37 J	-21844264.11	-21844263.89	-21844263.64	0.0089	0.0041	*
Moon	-64519-09-02 22:33 J	-21843896.75	-21843896.56	-21843896.35	0.0089	0.0051	
Earth	-64519-09-02 23:30 J	-21843896.72	-21843896.52	-21843896.30	0.0089	0.0048	*
Moon	-64518-09-05 09:21 J	-21843529.31	-21843529.11	-21843528.88	0.0089	0.0051	
Earth	-64518-09-05 10:18 J	-21843529.28	-21843529.07	-21843528.87	0.0089	0.0054	*
Earth	-64517-09-06 20:09 J	-21843161.83	-21843161.66	-21843161.45	0.0089	0.0059	
Moon	-64517-09-06 22:18 J	-21843161.73	-21843161.57	-21843161.38	0.0089	0.0062	*
Moon	-64516-09-09 04:18 J	-21842794.49	-21842794.32	-21842794.11	0.0089	0.0061	
Earth	-64516-09-09 06:57 J	-21842794.37	-21842794.21	-21842794.02	0.0089	0.0064	*
Earth	-64515-09-11 17:16 J	-21842426.92	-21842426.78	-21842426.60	0.0089	0.0069	
Moon	-64515-09-11 21:06 J	-21842426.76	-21842426.62	-21842426.47	0.0089	0.0073	*
Moon	-64514-09-14 00:57 J	-21842059.60	-21842059.46	-21842059.30	0.0089	0.0071	
Earth	-64514-09-14 04:04 J	-21842059.45	-21842059.33	-21842059.17	0.0089	0.0075	*
Venus	-64514-09-15 13:11 J	-21842058.06	-21842057.95	-21842057.80	0.0089	0.0070	
Venus	-64513-04-28 01:54 J	-21841832.58	-21841832.42	-21841832.22	0.0089	0.0050	
Earth	-64513-09-15 14:52 J	-21841691.97	-21841691.88	-21841691.74	0.0089	0.0079	

Moon	-64513-09-15 18:13 J	-21841691.81	-21841691.74	-21841691.62	0.0089	0.0083 *
Venus	-64513-12-09 14:37 J	-21841607.08	-21841606.89	-21841606.67	0.0089	0.0029
Venus	-64512-07-23 03:49 J	-21841381.56	-21841381.34	-21841381.12	0.0089	0.0008
Moon	-64512-09-17 23:30 J	-21841324.61	-21841324.52	-21841324.41	0.0089	0.0081
Earth	-64512-09-18 01:40 J	-21841324.49	-21841324.43	-21841324.32	0.0089	0.0084 *
Venus	-64511-03-05 16:18 J	-21841156.02	-21841155.82	-21841155.59	0.0089	0.0014
Earth	-64511-09-20 12:57 J	-21840956.97	-21840956.96	-21840956.92	0.0089	0.0089
Venus	-64511-10-17 05:16 J	-21840930.48	-21840930.28	-21840930.07	0.0089	0.0033
Venus	-64510-05-30 17:59 J	-21840704.91	-21840704.75	-21840704.57	0.0089	0.0054
Venus	-64509-01-11 06:28 J	-21840479.32	-21840479.23	-21840479.09	0.0089	0.0075
Mercury	-64484-12-31 23:45 J	-21830992.54	-21830992.51	-21830992.44	0.0089	0.0086
Mercury	-64483-03-30 03:35 J	-21830904.43	-21830904.35	-21830904.25	0.0089	0.0078
Mercury	-64483-06-26 06:57 J	-21830816.31	-21830816.21	-21830816.08	0.0089	0.0071
Mercury	-64483-09-22 10:47 J	-21830728.18	-21830728.05	-21830727.91	0.0089	0.0063
Mercury	-64483-12-19 14:37 J	-21830640.04	-21830639.89	-21830639.74	0.0089	0.0055
Mercury	-64482-03-17 17:59 J	-21830551.90	-21830551.75	-21830551.58	0.0089	0.0048
Mercury	-64482-06-13 21:35 J	-21830463.76	-21830463.60	-21830463.42	0.0089	0.0040
Mercury	-64482-09-10 01:11 J	-21830375.62	-21830375.45	-21830375.26	0.0089	0.0032
Mercury	-64482-12-07 04:47 J	-21830287.48	-21830287.30	-21830287.10	0.0089	0.0025
Mercury	-64481-03-04 08:37 J	-21830199.33	-21830199.14	-21830198.95	0.0089	0.0017
Mercury	-64481-05-31 12:13 J	-21830111.18	-21830110.99	-21830110.80	0.0089	0.0009
Mercury	-64481-08-27 15:49 J	-21830023.03	-21830022.84	-21830022.64	0.0089	0.0002
Mercury	-64481-11-23 19:25 J	-21829934.88	-21829934.69	-21829934.49	0.0089	0.0006
Mercury	-64480-02-19 23:01 J	-21829846.73	-21829846.54	-21829846.34	0.0089	0.0014
Mercury	-64480-05-19 02:37 J	-21829758.57	-21829758.39	-21829758.19	0.0089	0.0022
Mercury	-64480-08-15 06:13 J	-21829670.42	-21829670.24	-21829670.05	0.0089	0.0030
Mercury	-64480-11-11 09:49 J	-21829582.26	-21829582.09	-21829581.90	0.0089	0.0038
Mercury	-64479-02-07 13:40 J	-21829494.10	-21829493.93	-21829493.76	0.0089	0.0045
Mercury	-64479-05-06 17:16 J	-21829405.93	-21829405.78	-21829405.62	0.0089	0.0053
Mercury	-64479-08-02 20:37 J	-21829317.76	-21829317.64	-21829317.48	0.0089	0.0061

Mercury -64479-10-30 00:13 J -21829229.59 -21829229.49 -21829229.35 0.0089 0.0069

Mercury -64478-01-26 04:18 J -21829141.41 -21829141.32 -21829141.22 0.0089 0.0076

Mercury -64478-04-24 07:40 J -21829053.22 -21829053.18 -21829053.10 0.0089 0.0084

Mars -64476-11-25 17:45 J -21828107.03 -21828106.76 -21828106.42 0.0089 0.0045

Mars -64474-10-23 15:06 J -21827410.21 -21827409.87 -21827409.52 0.0088 0.0018

Mars -64472-09-19 11:45 J -21826713.14 -21826713.01 -21826712.83 0.0088 0.0080

Moon -64461-01-09 20:52 J -21822948.71 -21822948.63 -21822948.51 0.0088 0.0082

Earth -64461-01-09 22:47 J -21822948.60 -21822948.55 -21822948.45 0.0088 0.0084 *

Earth -64460-01-11 12:13 J -21822581.08 -21822580.99 -21822580.85 0.0088 0.0079

Moon -64460-01-11 15:06 J -21822580.93 -21822580.87 -21822580.74 0.0088 0.0083 *

Moon -64459-01-13 22:33 J -21822213.69 -21822213.56 -21822213.39 0.0088 0.0073

Earth -64459-01-14 01:54 J -21822213.54 -21822213.42 -21822213.26 0.0088 0.0075 *

Earth -64458-01-16 15:21 J -21821845.99 -21821845.86 -21821845.67 0.0088 0.0070

Moon -64458-01-16 19:54 J -21821845.83 -21821845.67 -21821845.51 0.0088 0.0071 *

Moon -64457-01-19 01:40 J -21821478.59 -21821478.43 -21821478.22 0.0088 0.0063

Earth -64457-01-19 05:01 J -21821478.45 -21821478.29 -21821478.09 0.0088 0.0064 *

Earth -64456-01-20 18:57 J -21821110.90 -21821110.71 -21821110.51 0.0088 0.0059

Moon -64456-01-20 21:35 J -21821110.78 -21821110.60 -21821110.38 0.0088 0.0060 *

Moon -64455-01-23 06:13 J -21820743.43 -21820743.24 -21820743.02 0.0088 0.0052

Earth -64455-01-23 08:09 J -21820743.35 -21820743.16 -21820742.93 0.0088 0.0054 *

Earth -64454-01-25 22:04 J -21820375.80 -21820375.58 -21820375.36 0.0088 0.0048

Moon -64454-01-25 22:04 J -21820375.79 -21820375.58 -21820375.33 0.0088 0.0049 *

Earth -64453-01-28 11:01 J -21820008.25 -21820008.04 -21820007.79 0.0088 0.0043

Moon -64453-01-28 11:16 J -21820008.24 -21820008.03 -21820007.79 0.0088 0.0042 *

Moon -64452-01-29 22:47 J -21819640.78 -21819640.55 -21819640.29 0.0088 0.0038

Earth -64452-01-30 00:13 J -21819640.71 -21819640.49 -21819640.23 0.0088 0.0037 *

Earth -64451-02-01 13:54 J -21819273.16 -21819272.92 -21819272.66 0.0088 0.0031

Moon -64451-02-01 16:47 J -21819273.04 -21819272.80 -21819272.55 0.0088 0.0030 *

Moon -64450-02-04 00:28 J -21818905.74 -21818905.48 -21818905.22 0.0088 0.0026

Earth -64450-02-04 03:35 J -21818905.60 -21818905.35 -21818905.10 0.0088 0.0026 *

Earth	-64449-02-06 16:33 J	-21818538.05	-21818537.81	-21818537.54	0.0088	0.0020	
Moon	-64449-02-06 20:23 J	-21818537.89	-21818537.65	-21818537.38	0.0088	0.0020	*
Moon	-64448-02-08 02:52 J	-21818170.63	-21818170.38	-21818170.12	0.0088	0.0015	
Earth	-64448-02-08 06:13 J	-21818170.49	-21818170.24	-21818169.97	0.0088	0.0014	*
Earth	-64447-02-10 19:40 J	-21817802.94	-21817802.68	-21817802.41	0.0088	0.0009	
Moon	-64447-02-10 23:01 J	-21817802.80	-21817802.54	-21817802.27	0.0088	0.0010	*
Moon	-64446-02-13 06:57 J	-21817435.47	-21817435.21	-21817434.95	0.0088	0.0002	
Earth	-64446-02-13 09:06 J	-21817435.38	-21817435.12	-21817434.85	0.0088	0.0003	*
Earth	-64445-02-15 22:33 J	-21817067.82	-21817067.56	-21817067.29	0.0088	0.0003	
Moon	-64445-02-15 23:45 J	-21817067.78	-21817067.51	-21817067.24	0.0088	0.0003	*
Moon	-64444-02-17 11:30 J	-21816700.27	-21816700.02	-21816699.76	0.0088	0.0010	
Earth	-64444-02-17 11:45 J	-21816700.26	-21816700.01	-21816699.74	0.0088	0.0009	*
Moon	-64443-02-19 23:45 J	-21816332.77	-21816332.51	-21816332.23	0.0088	0.0014	
Earth	-64443-02-20 00:57 J	-21816332.70	-21816332.46	-21816332.19	0.0088	0.0016	*
Earth	-64442-02-22 14:23 J	-21815965.15	-21815964.90	-21815964.64	0.0088	0.0021	
Moon	-64442-02-22 16:33 J	-21815965.05	-21815964.81	-21815964.55	0.0088	0.0022	*
Moon	-64441-02-25 00:28 J	-21815597.73	-21815597.48	-21815597.22	0.0088	0.0024	
Earth	-64441-02-25 03:21 J	-21815597.60	-21815597.36	-21815597.10	0.0088	0.0026	*
Earth	-64440-02-26 16:04 J	-21815230.06	-21815229.83	-21815229.57	0.0088	0.0032	
Moon	-64440-02-26 20:09 J	-21815229.90	-21815229.66	-21815229.42	0.0088	0.0034	*
Moon	-64439-03-01 01:40 J	-21814862.65	-21814862.43	-21814862.17	0.0088	0.0036	
Earth	-64439-03-01 05:16 J	-21814862.50	-21814862.28	-21814862.03	0.0088	0.0038	*
Earth	-64438-03-03 17:59 J	-21814494.96	-21814494.75	-21814494.50	0.0088	0.0043	
Moon	-64438-03-03 21:49 J	-21814494.81	-21814494.59	-21814494.36	0.0088	0.0046	*
Moon	-64437-03-05 04:33 J	-21814127.52	-21814127.31	-21814127.08	0.0088	0.0046	
Earth	-64437-03-05 06:57 J	-21814127.41	-21814127.21	-21814126.97	0.0088	0.0049	*
Earth	-64436-03-07 20:09 J	-21813759.86	-21813759.66	-21813759.45	0.0088	0.0054	
Moon	-64436-03-07 21:06 J	-21813759.80	-21813759.62	-21813759.38	0.0088	0.0056	*
Moon	-64435-03-10 08:09 J	-21813392.34	-21813392.16	-21813391.95	0.0088	0.0056	
Earth	-64435-03-10 08:37 J	-21813392.31	-21813392.14	-21813391.92	0.0088	0.0060	*

Moon -64434-03-12 20:52 J -21813024.79 -21813024.63 -21813024.44 0.0088 0.0067
 Earth -64434-03-12 21:35 J -21813024.76 -21813024.60 -21813024.40 0.0088 0.0065 *
 Earth -64433-03-14 10:18 J -21812657.21 -21812657.07 -21812656.89 0.0088 0.0070
 Moon -64433-03-14 12:13 J -21812657.13 -21812656.99 -21812656.81 0.0088 0.0068 *
 Moon -64432-03-16 20:37 J -21812289.75 -21812289.64 -21812289.50 0.0088 0.0078
 Earth -64432-03-16 23:16 J -21812289.65 -21812289.53 -21812289.37 0.0088 0.0075 *
 Venus -64432-11-05 03:21 J -21812056.42 -21812056.36 -21812056.25 0.0088 0.0082
 Earth -64431-03-19 11:59 J -21811922.10 -21811922.00 -21811921.87 0.0088 0.0079
 Moon -64431-03-19 15:35 J -21811921.96 -21811921.85 -21811921.71 0.0088 0.0076 *
 Venus -64431-06-18 17:01 J -21811830.94 -21811830.79 -21811830.62 0.0088 0.0061
 Venus -64430-01-30 06:13 J -21811605.42 -21811605.24 -21811605.03 0.0088 0.0041
 Moon -64430-03-21 20:37 J -21811554.65 -21811554.64 -21811554.57 0.0088 0.0088
 Earth -64430-03-22 00:13 J -21811554.54 -21811554.49 -21811554.38 0.0088 0.0085
 Venus -64430-09-12 19:25 J -21811379.89 -21811379.69 -21811379.46 0.0088 0.0021
 Moon -64429-03-23 16:47 J -21811186.86 -21811186.80 -21811186.72 0.0088 0.0085
 Venus -64429-04-25 08:52 J -21811154.35 -21811154.13 -21811153.90 0.0088 0.0001
 Venus -64429-12-06 21:49 J -21810928.80 -21810928.59 -21810928.36 0.0088 0.0022
 Venus -64428-07-20 11:01 J -21810703.23 -21810703.04 -21810702.84 0.0088 0.0042
 Venus -64427-03-02 23:45 J -21810477.65 -21810477.51 -21810477.33 0.0088 0.0062
 Venus -64427-10-14 12:42 J -21810252.03 -21810251.97 -21810251.87 0.0088 0.0082
 Mercury -64402-10-12 21:35 J -21801122.63 -21801122.60 -21801122.55 0.0089 0.0085
 Mercury -64401-01-08 23:01 J -21801034.59 -21801034.54 -21801034.48 0.0089 0.0080
 Mercury -64401-04-06 00:13 J -21800946.55 -21800946.49 -21800946.40 0.0089 0.0075
 Mercury -64401-07-03 01:54 J -21800858.50 -21800858.42 -21800858.34 0.0089 0.0069
 Mercury -64401-09-29 03:06 J -21800770.45 -21800770.37 -21800770.27 0.0089 0.0064
 Mercury -64401-12-26 04:18 J -21800682.41 -21800682.32 -21800682.21 0.0089 0.0059
 Mercury -64400-03-24 05:59 J -21800594.36 -21800594.25 -21800594.14 0.0089 0.0053
 Mercury -64400-06-20 07:11 J -21800506.31 -21800506.20 -21800506.08 0.0089 0.0048
 Mercury -64400-09-16 08:23 J -21800418.26 -21800418.15 -21800418.02 0.0089 0.0043
 Mercury -64400-12-13 10:04 J -21800330.20 -21800330.08 -21800329.96 0.0089 0.0037

Mercury -64399-03-11 11:16 J -21800242.15 -21800242.03 -21800241.90 0.0089 0.0032

Mercury -64399-06-07 12:28 J -21800154.10 -21800153.98 -21800153.84 0.0089 0.0027

Mercury -64399-09-03 13:54 J -21800066.04 -21800065.92 -21800065.79 0.0089 0.0021

Mercury -64399-11-30 15:21 J -21799977.99 -21799977.86 -21799977.73 0.0089 0.0016

Mercury -64398-02-26 16:33 J -21799889.94 -21799889.81 -21799889.67 0.0089 0.0011

Mercury -64398-05-25 17:59 J -21799801.88 -21799801.75 -21799801.62 0.0089 0.0005

Mercury -64398-08-21 19:25 J -21799713.83 -21799713.69 -21799713.56 0.0089 0.0002

Mercury -64398-11-17 20:37 J -21799625.77 -21799625.64 -21799625.51 0.0089 0.0006

Mercury -64397-02-13 22:04 J -21799537.71 -21799537.58 -21799537.45 0.0089 0.0011

Mercury -64397-05-11 23:16 J -21799449.66 -21799449.53 -21799449.40 0.0089 0.0016

Mercury -64397-08-08 00:28 J -21799361.60 -21799361.48 -21799361.34 0.0089 0.0022

Mercury -64397-11-04 01:54 J -21799273.54 -21799273.42 -21799273.29 0.0089 0.0027

Mercury -64396-01-31 03:21 J -21799185.49 -21799185.36 -21799185.24 0.0089 0.0032

Mercury -64396-04-29 04:33 J -21799097.43 -21799097.31 -21799097.19 0.0089 0.0037

Mercury -64396-07-26 05:45 J -21799009.37 -21799009.26 -21799009.14 0.0089 0.0043

Mercury -64396-10-22 07:11 J -21798921.31 -21798921.20 -21798921.09 0.0089 0.0048

Mercury -64395-01-18 08:23 J -21798833.25 -21798833.15 -21798833.04 0.0089 0.0053

Mercury -64395-04-16 09:49 J -21798745.19 -21798745.09 -21798744.99 0.0089 0.0058

Mercury -64395-07-13 11:01 J -21798657.12 -21798657.04 -21798656.94 0.0089 0.0063

Mercury -64395-10-09 12:13 J -21798569.06 -21798568.99 -21798568.90 0.0089 0.0069

Mercury -64394-01-05 13:40 J -21798480.99 -21798480.93 -21798480.85 0.0089 0.0074

Mercury -64394-04-03 15:06 J -21798392.93 -21798392.87 -21798392.81 0.0089 0.0079

Mercury -64394-06-30 16:18 J -21798304.85 -21798304.82 -21798304.78 0.0089 0.0084

Mars -64394-10-02 03:49 J -21798211.53 -21798211.34 -21798211.11 0.0089 0.0059

Mars -64392-08-25 10:18 J -21797518.35 -21797518.07 -21797517.79 0.0089 0.0010

Mars -64390-07-19 15:49 J -21796825.09 -21796824.84 -21796824.58 0.0089 0.0038

Mars -64388-06-11 22:04 J -21796131.61 -21796131.58 -21796131.48 0.0089 0.0087

Moon -64381-07-07 12:42 J -21793549.00 -21793548.97 -21793548.87 0.0089 0.0086

Earth -64380-07-09 22:33 J -21793181.60 -21793181.56 -21793181.46 0.0089 0.0085

Earth -64379-07-12 08:37 J -21792814.23 -21792814.14 -21792814.02 0.0089 0.0080

Moon	-64379-07-12 11:16 J	-21792814.15	-21792814.03	-21792813.90	0.0089	0.0076	*
Moon	-64378-07-14 14:52 J	-21792446.97	-21792446.88	-21792446.75	0.0089	0.0080	
Earth	-64378-07-14 18:42 J	-21792446.84	-21792446.72	-21792446.58	0.0089	0.0075	*
Earth	-64377-07-16 04:47 J	-21792079.45	-21792079.30	-21792079.15	0.0089	0.0071	
Moon	-64377-07-16 07:40 J	-21792079.32	-21792079.18	-21792078.98	0.0089	0.0066	*
Moon	-64376-07-18 11:30 J	-21791712.17	-21791712.02	-21791711.86	0.0089	0.0070	
Earth	-64376-07-18 14:23 J	-21791712.06	-21791711.90	-21791711.72	0.0089	0.0066	*
Earth	-64375-07-21 00:13 J	-21791344.66	-21791344.49	-21791344.29	0.0089	0.0060	
Moon	-64375-07-21 02:52 J	-21791344.56	-21791344.38	-21791344.16	0.0089	0.0056	*
Moon	-64374-07-23 09:06 J	-21790977.29	-21790977.12	-21790976.93	0.0089	0.0060	
Earth	-64374-07-23 10:04 J	-21790977.26	-21790977.08	-21790976.87	0.0089	0.0055	*
Earth	-64373-07-24 19:54 J	-21790609.86	-21790609.67	-21790609.44	0.0089	0.0050	
Moon	-64373-07-24 20:09 J	-21790609.86	-21790609.66	-21790609.42	0.0089	0.0046	*
Earth	-64372-07-27 05:59 J	-21790242.46	-21790242.25	-21790242.02	0.0089	0.0044	
Moon	-64372-07-27 07:11 J	-21790242.40	-21790242.20	-21790241.99	0.0089	0.0049	*
Moon	-64371-07-29 13:25 J	-21789875.17	-21789874.94	-21789874.69	0.0089	0.0034	
Earth	-64371-07-29 15:49 J	-21789875.05	-21789874.84	-21789874.60	0.0089	0.0039	*
Earth	-64370-08-01 01:54 J	-21789507.64	-21789507.42	-21789507.17	0.0089	0.0033	
Moon	-64370-08-01 04:47 J	-21789507.51	-21789507.30	-21789507.06	0.0089	0.0038	*
Moon	-64369-08-02 08:37 J	-21789140.37	-21789140.14	-21789139.88	0.0089	0.0024	
Earth	-64369-08-02 12:28 J	-21789140.22	-21789139.98	-21789139.74	0.0089	0.0028	*
Earth	-64368-08-04 22:04 J	-21788772.81	-21788772.58	-21788772.32	0.0089	0.0022	
Moon	-64368-08-05 01:40 J	-21788772.66	-21788772.43	-21788772.18	0.0089	0.0026	*
Moon	-64367-08-07 05:30 J	-21788405.51	-21788405.27	-21788405.02	0.0089	0.0013	
Earth	-64367-08-07 08:23 J	-21788405.39	-21788405.15	-21788404.89	0.0089	0.0016	*
Earth	-64366-08-09 18:28 J	-21788037.98	-21788037.73	-21788037.48	0.0089	0.0010	
Moon	-64366-08-09 20:37 J	-21788037.89	-21788037.64	-21788037.37	0.0089	0.0015	*
Moon	-64365-08-11 04:04 J	-21787670.58	-21787670.33	-21787670.09	0.0089	0.0001	
Earth	-64365-08-11 04:33 J	-21787670.56	-21787670.31	-21787670.06	0.0089	0.0005	*
Moon	-64364-08-13 14:23 J	-21787303.16	-21787302.90	-21787302.64	0.0089	0.0002	

Earth	-64364-08-13 14:37 J	-21787303.14	-21787302.89	-21787302.64	0.0089	0.0001	*
Earth	-64363-08-16 00:28 J	-21786935.73	-21786935.48	-21786935.22	0.0089	0.0007	
Moon	-64363-08-16 01:54 J	-21786935.66	-21786935.42	-21786935.17	0.0089	0.0011	*
Moon	-64362-08-18 07:40 J	-21786568.43	-21786568.18	-21786567.92	0.0089	0.0008	
Earth	-64362-08-18 10:33 J	-21786568.30	-21786568.06	-21786567.80	0.0089	0.0013	*
Earth	-64361-08-19 20:37 J	-21786200.88	-21786200.64	-21786200.38	0.0089	0.0019	
Moon	-64361-08-19 23:45 J	-21786200.74	-21786200.51	-21786200.26	0.0089	0.0022	*
Moon	-64360-08-22 03:06 J	-21785833.61	-21785833.37	-21785833.11	0.0089	0.0020	
Earth	-64360-08-22 06:42 J	-21785833.45	-21785833.22	-21785832.96	0.0089	0.0025	*
Earth	-64359-08-24 16:47 J	-21785466.02	-21785465.80	-21785465.54	0.0089	0.0030	
Moon	-64359-08-24 20:09 J	-21785465.89	-21785465.66	-21785465.41	0.0089	0.0034	*
Moon	-64358-08-27 00:42 J	-21785098.68	-21785098.47	-21785098.22	0.0089	0.0033	
Earth	-64358-08-27 03:35 J	-21785098.58	-21785098.35	-21785098.11	0.0089	0.0036	*
Jupiter	-64357-06-02 07:11 J	-21784818.67	-21784818.20	-21784817.65	0.0089	0.0032	
Earth	-64357-08-28 13:40 J	-21784731.14	-21784730.93	-21784730.69	0.0089	0.0041	
Moon	-64357-08-28 15:21 J	-21784731.06	-21784730.86	-21784730.61	0.0089	0.0045	*
Moon	-64356-08-30 23:59 J	-21784363.70	-21784363.50	-21784363.27	0.0089	0.0044	
Earth	-64356-08-30 23:59 J	-21784363.69	-21784363.50	-21784363.26	0.0089	0.0047	*
Moon	-64355-09-02 09:49 J	-21783996.28	-21783996.09	-21783995.87	0.0089	0.0056	
Earth	-64355-09-02 10:33 J	-21783996.25	-21783996.06	-21783995.84	0.0089	0.0052	*
Earth	-64354-09-04 20:37 J	-21783628.80	-21783628.64	-21783628.42	0.0089	0.0059	
Moon	-64354-09-04 22:47 J	-21783628.73	-21783628.55	-21783628.34	0.0089	0.0055	*
Moon	-64353-09-06 04:18 J	-21783261.47	-21783261.32	-21783261.13	0.0089	0.0067	
Earth	-64353-09-06 07:25 J	-21783261.35	-21783261.19	-21783260.99	0.0089	0.0063	*
Earth	-64352-09-08 17:45 J	-21782893.90	-21782893.76	-21782893.58	0.0089	0.0069	
Moon	-64352-09-08 20:52 J	-21782893.77	-21782893.63	-21782893.43	0.0089	0.0066	*
Moon	-64351-09-11 00:42 J	-21782526.57	-21782526.47	-21782526.32	0.0089	0.0077	
Earth	-64351-09-11 04:33 J	-21782526.44	-21782526.31	-21782526.15	0.0089	0.0073	*
Earth	-64350-09-13 15:06 J	-21782158.97	-21782158.87	-21782158.74	0.0089	0.0079	
Moon	-64350-09-13 18:13 J	-21782158.87	-21782158.74	-21782158.59	0.0089	0.0075	*

Venus -64350-12-18 00:28 J -21782063.56 -21782063.48 -21782063.35 0.0089 0.0078
 Venus -64349-07-30 13:25 J -21781838.09 -21781837.94 -21781837.76 0.0089 0.0057
 Moon -64349-09-14 23:30 J -21781791.57 -21781791.52 -21781791.45 0.0089 0.0086
 Earth -64349-09-15 01:40 J -21781791.50 -21781791.43 -21781791.32 0.0089 0.0084 *
 Venus -64348-03-13 01:54 J -21781612.60 -21781612.42 -21781612.21 0.0089 0.0037
 Earth -64348-09-17 12:13 J -21781424.00 -21781423.99 -21781423.93 0.0089 0.0089
 Moon -64348-09-17 13:40 J -21781423.98 -21781423.93 -21781423.82 0.0089 0.0085 *
 Venus -64348-10-24 14:52 J -21781387.09 -21781386.88 -21781386.66 0.0089 0.0016
 Venus -64347-06-07 03:35 J -21781161.56 -21781161.35 -21781161.13 0.0089 0.0005
 Venus -64346-01-18 16:18 J -21780936.02 -21780935.82 -21780935.60 0.0089 0.0025
 Venus -64346-09-01 04:47 J -21780710.47 -21780710.30 -21780710.09 0.0089 0.0046
 Venus -64345-04-13 17:45 J -21780484.89 -21780484.76 -21780484.60 0.0089 0.0066
 Venus -64345-11-25 06:13 J -21780259.26 -21780259.24 -21780259.17 0.0089 0.0088
 Mercury -64319-09-27 22:33 J -21770821.61 -21770821.56 -21770821.47 0.0089 0.0083
 Mercury -64319-12-25 02:23 J -21770733.49 -21770733.40 -21770733.29 0.0089 0.0075
 Mercury -64318-03-23 05:45 J -21770645.37 -21770645.26 -21770645.12 0.0089 0.0068
 Mercury -64318-06-19 09:21 J -21770557.23 -21770557.11 -21770556.95 0.0089 0.0060
 Mercury -64318-09-15 13:11 J -21770469.10 -21770468.95 -21770468.79 0.0089 0.0052
 Mercury -64318-12-12 16:33 J -21770380.96 -21770380.81 -21770380.63 0.0089 0.0045
 Mercury -64317-03-09 20:23 J -21770292.82 -21770292.65 -21770292.47 0.0089 0.0037
 Mercury -64317-06-05 23:59 J -21770204.68 -21770204.50 -21770204.31 0.0089 0.0029
 Mercury -64317-09-02 03:35 J -21770116.53 -21770116.35 -21770116.15 0.0089 0.0022
 Mercury -64317-11-29 07:11 J -21770028.38 -21770028.20 -21770028.00 0.0089 0.0014
 Mercury -64316-02-25 11:01 J -21769940.23 -21769940.04 -21769939.85 0.0089 0.0006
 Mercury -64316-05-24 14:37 J -21769852.08 -21769851.89 -21769851.69 0.0089 0.0002
 Mercury -64316-08-20 18:13 J -21769763.93 -21769763.74 -21769763.54 0.0089 0.0010
 Mercury -64316-11-16 21:49 J -21769675.78 -21769675.59 -21769675.40 0.0089 0.0017
 Mercury -64315-02-13 01:11 J -21769587.62 -21769587.45 -21769587.25 0.0089 0.0026
 Mercury -64315-05-12 05:01 J -21769499.46 -21769499.29 -21769499.10 0.0089 0.0033
 Mercury -64315-08-08 08:37 J -21769411.30 -21769411.14 -21769410.96 0.0089 0.0041

Mercury -64315-11-04 12:13 J -21769323.14 -21769322.99 -21769322.82 0.0089 0.0049
 Mercury -64314-01-31 15:49 J -21769234.98 -21769234.84 -21769234.68 0.0089 0.0057
 Mercury -64314-04-29 19:40 J -21769146.81 -21769146.68 -21769146.54 0.0089 0.0064
 Mercury -64314-07-26 23:16 J -21769058.63 -21769058.53 -21769058.41 0.0089 0.0072
 Mercury -64314-10-23 02:52 J -21768970.45 -21768970.38 -21768970.28 0.0089 0.0080
 Mercury -64313-01-19 06:13 J -21768882.24 -21768882.24 -21768882.18 0.0089 0.0088
 Mars -64312-07-08 22:33 J -21768345.75 -21768345.56 -21768345.31 0.0089 0.0069
 Mars -64310-06-05 17:59 J -21767649.09 -21767648.75 -21767648.39 0.0089 0.0008
 Mars -64308-05-02 14:23 J -21766952.16 -21766951.90 -21766951.60 0.0089 0.0054
 Moon -64298-01-06 16:18 J -21763415.89 -21763415.82 -21763415.74 0.0088 0.0085
 Earth -64298-01-06 18:28 J -21763415.73 -21763415.73 -21763415.69 0.0088 0.0088
 Earth -64297-01-09 07:40 J -21763048.24 -21763048.18 -21763048.07 0.0088 0.0083
 Moon -64297-01-09 10:47 J -21763048.06 -21763048.05 -21763047.99 0.0088 0.0088
 Moon -64296-01-10 17:45 J -21762680.89 -21762680.76 -21762680.61 0.0088 0.0075
 Earth -64296-01-10 21:21 J -21762680.71 -21762680.61 -21762680.47 0.0088 0.0079 *
 Earth -64295-01-13 10:47 J -21762313.17 -21762313.05 -21762312.88 0.0088 0.0073
 Moon -64295-01-13 14:09 J -21762313.01 -21762312.91 -21762312.75 0.0088 0.0077 *
 Moon -64294-01-15 21:21 J -21761945.78 -21761945.61 -21761945.42 0.0088 0.0064
 Earth -64294-01-16 00:13 J -21761945.63 -21761945.49 -21761945.29 0.0088 0.0068 *
 Earth -64293-01-18 14:09 J -21761578.08 -21761577.91 -21761577.71 0.0088 0.0063
 Moon -64293-01-18 16:18 J -21761577.97 -21761577.82 -21761577.62 0.0088 0.0067 *
 Moon -64292-01-20 02:23 J -21761210.58 -21761210.40 -21761210.18 0.0088 0.0054
 Earth -64292-01-20 03:35 J -21761210.53 -21761210.35 -21761210.13 0.0088 0.0057 *
 Earth -64291-01-22 17:30 J -21760842.97 -21760842.77 -21760842.54 0.0088 0.0051
 Moon -64291-01-22 17:59 J -21760842.95 -21760842.75 -21760842.53 0.0088 0.0056 *
 Earth -64290-01-25 06:42 J -21760475.42 -21760475.22 -21760474.97 0.0088 0.0047
 Moon -64290-01-25 08:37 J -21760475.36 -21760475.14 -21760474.92 0.0088 0.0042 *
 Moon -64289-01-27 18:13 J -21760107.95 -21760107.74 -21760107.48 0.0088 0.0044
 Earth -64289-01-27 20:23 J -21760107.87 -21760107.65 -21760107.40 0.0088 0.0040 *
 Earth -64288-01-29 10:04 J -21759740.32 -21759740.08 -21759739.83 0.0088 0.0034

Moon	-64288-01-29 12:57 J	-21759740.20	-21759739.96	-21759739.71	0.0088	0.0030	*
Moon	-64287-01-31 19:40 J	-21759372.91	-21759372.68	-21759372.42	0.0088	0.0033	
Earth	-64287-01-31 23:30 J	-21759372.76	-21759372.52	-21759372.26	0.0088	0.0029	*
Earth	-64286-02-03 12:28 J	-21759005.22	-21759004.98	-21759004.71	0.0088	0.0024	
Moon	-64286-02-03 16:18 J	-21759005.07	-21759004.82	-21759004.56	0.0088	0.0018	*
Moon	-64285-02-05 22:18 J	-21758637.80	-21758637.57	-21758637.30	0.0088	0.0023	
Earth	-64285-02-06 02:09 J	-21758637.66	-21758637.41	-21758637.14	0.0088	0.0017	*
Earth	-64284-02-07 15:35 J	-21758270.11	-21758269.85	-21758269.59	0.0088	0.0011	
Moon	-64284-02-07 18:13 J	-21758270.01	-21758269.74	-21758269.47	0.0088	0.0007	*
Moon	-64283-02-10 03:06 J	-21757902.62	-21757902.37	-21757902.12	0.0088	0.0009	
Earth	-64283-02-10 05:01 J	-21757902.55	-21757902.29	-21757902.03	0.0088	0.0005	*
Earth	-64282-02-12 18:13 J	-21757535.00	-21757534.74	-21757534.47	0.0088	0.0001	
Moon	-64282-02-12 19:11 J	-21757534.97	-21757534.70	-21757534.42	0.0088	0.0005	*
Earth	-64281-02-15 07:25 J	-21757167.45	-21757167.19	-21757166.92	0.0088	0.0007	
Moon	-64281-02-15 08:23 J	-21757167.41	-21757167.15	-21757166.90	0.0088	0.0002	*
Moon	-64280-02-16 19:25 J	-21756799.95	-21756799.69	-21756799.42	0.0088	0.0017	
Earth	-64280-02-16 20:52 J	-21756799.88	-21756799.63	-21756799.36	0.0088	0.0013	*
Earth	-64279-02-19 10:18 J	-21756432.33	-21756432.07	-21756431.81	0.0088	0.0018	
Moon	-64279-02-19 12:42 J	-21756432.22	-21756431.97	-21756431.71	0.0088	0.0014	*
Moon	-64278-02-21 19:40 J	-21756064.91	-21756064.68	-21756064.41	0.0088	0.0029	
Earth	-64278-02-21 23:16 J	-21756064.77	-21756064.53	-21756064.26	0.0088	0.0025	*
Earth	-64277-02-24 12:28 J	-21755697.22	-21755696.98	-21755696.72	0.0088	0.0030	
Moon	-64277-02-24 15:49 J	-21755697.07	-21755696.84	-21755696.57	0.0088	0.0026	*
Moon	-64276-02-25 22:04 J	-21755329.80	-21755329.58	-21755329.34	0.0088	0.0040	
Earth	-64276-02-26 01:25 J	-21755329.66	-21755329.44	-21755329.18	0.0088	0.0036	*
Earth	-64275-02-28 14:52 J	-21754962.11	-21754961.88	-21754961.65	0.0088	0.0042	
Moon	-64275-02-28 17:30 J	-21754962.00	-21754961.77	-21754961.51	0.0088	0.0037	*
Moon	-64274-03-03 00:57 J	-21754594.64	-21754594.46	-21754594.22	0.0088	0.0052	
Earth	-64274-03-03 03:35 J	-21754594.56	-21754594.35	-21754594.11	0.0088	0.0047	*
Earth	-64273-03-04 16:33 J	-21754227.01	-21754226.81	-21754226.59	0.0088	0.0053	

Moon -64273-03-04 17:45 J -21754226.97 -21754226.76 -21754226.52 0.0088 0.0049 *
 Earth -64272-03-07 05:16 J -21753859.46 -21753859.28 -21753859.06 0.0088 0.0058
 Moon -64272-03-07 05:30 J -21753859.43 -21753859.27 -21753859.07 0.0088 0.0063 *
 Moon -64271-03-09 17:30 J -21753491.96 -21753491.77 -21753491.57 0.0088 0.0060
 Earth -64271-03-09 18:13 J -21753491.90 -21753491.74 -21753491.54 0.0088 0.0064 *
 Earth -64270-03-12 07:11 J -21753124.36 -21753124.20 -21753124.03 0.0088 0.0069
 Moon -64270-03-12 09:35 J -21753124.24 -21753124.10 -21753123.96 0.0088 0.0073 *
 Moon -64269-03-13 16:47 J -21752756.96 -21752756.80 -21752756.63 0.0088 0.0070
 Earth -64269-03-13 19:40 J -21752756.80 -21752756.68 -21752756.51 0.0088 0.0074 *
 Earth -64268-03-16 08:23 J -21752389.24 -21752389.15 -21752389.01 0.0088 0.0079
 Moon -64268-03-16 11:59 J -21752389.07 -21752389.00 -21752388.89 0.0088 0.0082 *
 Moon -64267-03-18 17:30 J -21752021.85 -21752021.77 -21752021.64 0.0088 0.0080
 Earth -64267-03-18 21:06 J -21752021.67 -21752021.62 -21752021.51 0.0088 0.0085 *
 Venus -64267-09-20 03:49 J -21751836.46 -21751836.34 -21751836.18 0.0088 0.0069
 Venus -64266-05-03 17:30 J -21751610.95 -21751610.77 -21751610.57 0.0088 0.0048
 Venus -64266-12-15 06:42 J -21751385.42 -21751385.22 -21751384.99 0.0088 0.0028
 Venus -64265-07-27 20:23 J -21751159.87 -21751159.65 -21751159.43 0.0088 0.0007
 Venus -64264-03-10 09:21 J -21750934.32 -21750934.11 -21750933.88 0.0088 0.0014
 Venus -64264-10-21 22:18 J -21750708.76 -21750708.57 -21750708.35 0.0088 0.0035
 Venus -64263-06-04 11:45 J -21750483.18 -21750483.01 -21750482.84 0.0088 0.0055
 Venus -64262-01-16 00:28 J -21750257.57 -21750257.48 -21750257.34 0.0088 0.0075
 Mercury -64237-04-11 20:09 J -21741039.66 -21741039.66 -21741039.64 0.0089 0.0088
 Mercury -64237-07-08 21:35 J -21740951.64 -21740951.60 -21740951.55 0.0089 0.0083
 Mercury -64237-10-04 23:01 J -21740863.60 -21740863.54 -21740863.47 0.0089 0.0077
 Mercury -64236-01-01 00:13 J -21740775.56 -21740775.49 -21740775.40 0.0089 0.0072
 Mercury -64236-03-30 01:40 J -21740687.51 -21740687.43 -21740687.34 0.0089 0.0067
 Mercury -64236-06-26 03:06 J -21740599.46 -21740599.37 -21740599.27 0.0089 0.0061
 Mercury -64236-09-22 04:18 J -21740511.41 -21740511.32 -21740511.21 0.0089 0.0056
 Mercury -64236-12-19 05:45 J -21740423.36 -21740423.26 -21740423.14 0.0089 0.0051
 Mercury -64235-03-17 07:11 J -21740335.31 -21740335.20 -21740335.08 0.0089 0.0045

Mercury -64235-06-13 08:23 J -21740247.26 -21740247.15 -21740247.02 0.0089 0.0040

Mercury -64235-09-09 09:49 J -21740159.21 -21740159.09 -21740158.96 0.0089 0.0035

Mercury -64235-12-06 11:01 J -21740071.16 -21740071.04 -21740070.90 0.0089 0.0030

Mercury -64234-03-04 12:28 J -21739983.10 -21739982.98 -21739982.85 0.0089 0.0024

Mercury -64234-05-31 13:54 J -21739895.05 -21739894.92 -21739894.79 0.0089 0.0019

Mercury -64234-08-27 15:06 J -21739807.00 -21739806.87 -21739806.73 0.0089 0.0014

Mercury -64234-11-23 16:33 J -21739718.94 -21739718.81 -21739718.67 0.0089 0.0008

Mercury -64233-02-19 17:59 J -21739630.88 -21739630.75 -21739630.62 0.0089 0.0003

Mercury -64233-05-17 19:11 J -21739542.83 -21739542.70 -21739542.56 0.0089 0.0003

Mercury -64233-08-13 20:37 J -21739454.77 -21739454.64 -21739454.51 0.0089 0.0008

Mercury -64233-11-09 21:49 J -21739366.72 -21739366.59 -21739366.46 0.0089 0.0013

Mercury -64232-02-05 23:16 J -21739278.66 -21739278.53 -21739278.40 0.0089 0.0018

Mercury -64232-05-05 00:28 J -21739190.60 -21739190.48 -21739190.35 0.0089 0.0024

Mercury -64232-08-01 01:54 J -21739102.55 -21739102.42 -21739102.30 0.0089 0.0029

Mercury -64232-10-28 03:06 J -21739014.49 -21739014.37 -21739014.24 0.0089 0.0034

Mercury -64231-01-24 04:18 J -21738926.43 -21738926.32 -21738926.19 0.0089 0.0040

Mercury -64231-04-22 05:45 J -21738838.37 -21738838.26 -21738838.14 0.0089 0.0045

Mercury -64231-07-19 07:11 J -21738750.31 -21738750.20 -21738750.09 0.0089 0.0050

Mercury -64231-10-15 08:09 J -21738662.25 -21738662.16 -21738662.04 0.0089 0.0056

Mercury -64230-01-11 09:35 J -21738574.19 -21738574.10 -21738574.00 0.0089 0.0061

Mercury -64230-04-09 11:01 J -21738486.12 -21738486.04 -21738485.95 0.0089 0.0066

Mars -64230-05-18 00:28 J -21738447.59 -21738447.48 -21738447.32 0.0089 0.0078

Mercury -64230-07-06 12:28 J -21738398.06 -21738397.98 -21738397.90 0.0089 0.0071

Mercury -64230-10-02 13:25 J -21738309.99 -21738309.94 -21738309.86 0.0089 0.0077

Mercury -64230-12-29 14:52 J -21738221.92 -21738221.88 -21738221.82 0.0089 0.0082

Mercury -64229-03-26 16:04 J -21738133.84 -21738133.83 -21738133.79 0.0089 0.0087

Mars -64228-04-10 08:52 J -21737754.38 -21737754.13 -21737753.84 0.0089 0.0030

Mars -64226-03-04 15:21 J -21737061.12 -21737060.86 -21737060.57 0.0089 0.0019

Mars -64224-01-25 20:23 J -21736367.81 -21736367.65 -21736367.44 0.0089 0.0067

Earth -64216-07-09 10:33 J -21733281.11 -21733281.06 -21733280.96 0.0089 0.0085

Moon	-64216-07-09 13:40 J	-21733280.98	-21733280.93	-21733280.82	0.0089	0.0084	*
Moon	-64215-07-11 17:45 J	-21732913.86	-21732913.76	-21732913.65	0.0089	0.0080	
Earth	-64215-07-11 20:37 J	-21732913.72	-21732913.64	-21732913.50	0.0089	0.0080	*
Earth	-64214-07-14 06:28 J	-21732546.33	-21732546.23	-21732546.06	0.0089	0.0075	
Moon	-64214-07-14 10:04 J	-21732546.19	-21732546.08	-21732545.90	0.0089	0.0073	*
Moon	-64213-07-15 13:25 J	-21732179.06	-21732178.94	-21732178.76	0.0089	0.0071	
Earth	-64213-07-15 17:01 J	-21732178.94	-21732178.79	-21732178.63	0.0089	0.0069	*
Earth	-64212-07-18 02:37 J	-21731811.55	-21731811.39	-21731811.20	0.0089	0.0064	
Moon	-64212-07-18 04:33 J	-21731811.47	-21731811.31	-21731811.10	0.0089	0.0063	*
Moon	-64211-07-20 10:47 J	-21731444.20	-21731444.05	-21731443.85	0.0089	0.0061	
Earth	-64211-07-20 12:13 J	-21731444.16	-21731443.99	-21731443.78	0.0089	0.0059	*
Moon	-64210-07-22 21:49 J	-21731076.78	-21731076.59	-21731076.36	0.0089	0.0053	
Earth	-64210-07-22 22:33 J	-21731076.76	-21731076.56	-21731076.35	0.0089	0.0053	*
Earth	-64209-07-24 08:09 J	-21730709.36	-21730709.16	-21730708.93	0.0089	0.0048	
Moon	-64209-07-24 09:35 J	-21730709.29	-21730709.10	-21730708.88	0.0089	0.0050	*
Moon	-64208-07-26 16:04 J	-21730342.06	-21730341.83	-21730341.60	0.0089	0.0041	
Earth	-64208-07-26 18:13 J	-21730341.96	-21730341.74	-21730341.51	0.0089	0.0042	*
Earth	-64207-07-29 03:49 J	-21729974.56	-21729974.34	-21729974.10	0.0089	0.0037	
Moon	-64207-07-29 07:11 J	-21729974.41	-21729974.20	-21729973.96	0.0089	0.0039	*
Moon	-64206-07-31 10:33 J	-21729607.28	-21729607.06	-21729606.81	0.0089	0.0030	
Earth	-64206-07-31 13:54 J	-21729607.14	-21729606.92	-21729606.67	0.0089	0.0031	*
Earth	-64205-08-01 23:59 J	-21729239.74	-21729239.50	-21729239.25	0.0089	0.0025	
Moon	-64205-08-02 03:21 J	-21729239.59	-21729239.36	-21729239.10	0.0089	0.0028	*
Moon	-64204-08-04 07:25 J	-21728872.42	-21728872.19	-21728871.94	0.0089	0.0018	
Earth	-64204-08-04 10:18 J	-21728872.32	-21728872.07	-21728871.82	0.0089	0.0019	*
Earth	-64203-08-06 20:23 J	-21728504.90	-21728504.65	-21728504.40	0.0089	0.0014	
Moon	-64203-08-06 21:49 J	-21728504.84	-21728504.59	-21728504.33	0.0089	0.0016	*
Moon	-64202-08-09 05:45 J	-21728137.51	-21728137.26	-21728137.02	0.0089	0.0006	
Earth	-64202-08-09 06:28 J	-21728137.48	-21728137.23	-21728136.98	0.0089	0.0008	*
Moon	-64201-08-10 15:35 J	-21727770.11	-21727769.85	-21727769.59	0.0089	0.0003	

Earth	-64201-08-10 16:33 J	-21727770.06	-21727769.81	-21727769.56	0.0089	0.0002	*
Earth	-64200-08-13 02:23 J	-21727402.65	-21727402.40	-21727402.14	0.0089	0.0004	
Moon	-64200-08-13 04:18 J	-21727402.56	-21727402.32	-21727402.07	0.0089	0.0006	*
Moon	-64199-08-15 09:49 J	-21727035.35	-21727035.09	-21727034.83	0.0089	0.0008	
Earth	-64199-08-15 12:28 J	-21727035.23	-21727034.98	-21727034.72	0.0089	0.0010	*
Earth	-64198-08-17 22:33 J	-21726667.80	-21726667.56	-21726667.31	0.0089	0.0016	
Moon	-64198-08-18 01:54 J	-21726667.65	-21726667.42	-21726667.16	0.0089	0.0019	*
Moon	-64197-08-19 05:16 J	-21726300.52	-21726300.28	-21726300.03	0.0089	0.0020	
Earth	-64197-08-19 08:23 J	-21726300.38	-21726300.15	-21726299.89	0.0089	0.0023	*
Earth	-64196-08-21 18:42 J	-21725932.95	-21725932.72	-21725932.47	0.0089	0.0028	
Moon	-64196-08-21 22:04 J	-21725932.81	-21725932.58	-21725932.33	0.0089	0.0031	*
Moon	-64195-08-24 02:52 J	-21725565.61	-21725565.38	-21725565.15	0.0089	0.0031	
Earth	-64195-08-24 05:01 J	-21725565.52	-21725565.29	-21725565.05	0.0089	0.0033	*
Earth	-64194-08-26 15:06 J	-21725198.09	-21725197.87	-21725197.63	0.0089	0.0039	
Moon	-64194-08-26 16:18 J	-21725198.04	-21725197.82	-21725197.58	0.0089	0.0041	*
Moon	-64193-08-28 01:11 J	-21724830.66	-21724830.45	-21724830.23	0.0089	0.0043	
Earth	-64193-08-28 01:11 J	-21724830.65	-21724830.45	-21724830.21	0.0089	0.0046	*
Moon	-64192-08-30 10:33 J	-21724463.27	-21724463.06	-21724462.85	0.0089	0.0053	
Earth	-64192-08-30 11:59 J	-21724463.20	-21724463.00	-21724462.79	0.0089	0.0051	*
Earth	-64191-09-01 22:18 J	-21724095.75	-21724095.57	-21724095.36	0.0089	0.0056	
Moon	-64191-09-02 00:42 J	-21724095.66	-21724095.47	-21724095.27	0.0089	0.0054	*
Moon	-64190-09-04 05:59 J	-21723728.42	-21723728.25	-21723728.06	0.0089	0.0065	
Earth	-64190-09-04 08:37 J	-21723728.29	-21723728.14	-21723727.93	0.0089	0.0062	*
Earth	-64189-09-05 19:11 J	-21723360.84	-21723360.70	-21723360.51	0.0089	0.0068	
Moon	-64189-09-05 22:47 J	-21723360.70	-21723360.55	-21723360.35	0.0089	0.0065	*
Moon	-64188-09-08 02:23 J	-21722993.51	-21722993.40	-21722993.24	0.0089	0.0076	
Earth	-64188-09-08 06:13 J	-21722993.38	-21722993.24	-21722993.09	0.0089	0.0073	*
Earth	-64187-09-10 16:04 J	-21722625.92	-21722625.83	-21722625.68	0.0089	0.0079	
Moon	-64187-09-10 19:40 J	-21722625.80	-21722625.68	-21722625.52	0.0089	0.0075	*
Moon	-64186-09-13 00:57 J	-21722258.50	-21722258.46	-21722258.37	0.0089	0.0086	

Earth -64186-09-13 02:52 J -21722258.44 -21722258.38 -21722258.26 0.0089 0.0083 *
 Venus -64185-03-20 12:42 J -21722069.01 -21722068.97 -21722068.89 0.0089 0.0085
 Earth -64185-09-14 13:25 J -21721890.95 -21721890.94 -21721890.87 0.0089 0.0088
 Moon -64185-09-14 14:23 J -21721890.95 -21721890.90 -21721890.80 0.0089 0.0085 *
 Venus -64185-11-01 01:40 J -21721843.57 -21721843.43 -21721843.28 0.0089 0.0065
 Venus -64184-06-14 14:09 J -21721618.08 -21721617.91 -21721617.71 0.0089 0.0044
 Venus -64183-01-26 03:06 J -21721392.58 -21721392.37 -21721392.16 0.0089 0.0024
 Venus -64183-09-08 15:49 J -21721167.06 -21721166.84 -21721166.63 0.0089 0.0004
 Venus -64182-04-22 04:18 J -21720941.53 -21720941.32 -21720941.11 0.0089 0.0018
 Venus -64182-12-03 16:47 J -21720715.99 -21720715.80 -21720715.59 0.0089 0.0038
 Venus -64181-07-16 05:30 J -21720490.42 -21720490.27 -21720490.09 0.0089 0.0059
 Venus -64180-02-26 18:28 J -21720264.82 -21720264.73 -21720264.62 0.0089 0.0079
 Mercury -64154-03-28 17:59 J -21710738.77 -21710738.75 -21710738.69 0.0089 0.0087
 Mercury -64154-06-24 21:49 J -21710650.67 -21710650.59 -21710650.50 0.0089 0.0079
 Mercury -64154-09-21 01:11 J -21710562.54 -21710562.45 -21710562.32 0.0089 0.0072
 Mercury -64154-12-18 04:47 J -21710474.42 -21710474.30 -21710474.15 0.0089 0.0064
 Mercury -64153-03-15 08:37 J -21710386.28 -21710386.14 -21710385.99 0.0089 0.0056
 Mercury -64153-06-11 11:59 J -21710298.15 -21710298.00 -21710297.82 0.0089 0.0049
 Mercury -64153-09-07 15:49 J -21710210.01 -21710209.84 -21710209.66 0.0089 0.0041
 Mercury -64153-12-04 19:25 J -21710121.86 -21710121.69 -21710121.50 0.0089 0.0033
 Mercury -64152-03-02 23:01 J -21710033.72 -21710033.54 -21710033.35 0.0089 0.0025
 Mercury -64152-05-30 02:37 J -21709945.57 -21709945.39 -21709945.19 0.0089 0.0018
 Mercury -64152-08-26 06:28 J -21709857.43 -21709857.23 -21709857.04 0.0089 0.0010
 Mercury -64152-11-22 10:04 J -21709769.28 -21709769.08 -21709768.89 0.0089 0.0002
 Mercury -64151-02-18 13:40 J -21709681.12 -21709680.93 -21709680.74 0.0089 0.0006
 Mercury -64151-05-17 17:16 J -21709592.97 -21709592.78 -21709592.59 0.0089 0.0013
 Mercury -64151-08-13 20:37 J -21709504.82 -21709504.64 -21709504.44 0.0089 0.0022
 Mercury -64151-11-10 00:28 J -21709416.66 -21709416.48 -21709416.29 0.0089 0.0029
 Mercury -64150-02-06 04:04 J -21709328.50 -21709328.33 -21709328.15 0.0089 0.0037
 Mercury -64150-05-05 07:40 J -21709240.34 -21709240.18 -21709240.00 0.0089 0.0045

Mercury -64150-08-01 11:16 J -21709152.17 -21709152.03 -21709151.86 0.0089 0.0053

Mercury -64150-10-28 14:52 J -21709064.01 -21709063.88 -21709063.72 0.0089 0.0061

Mercury -64149-01-24 18:42 J -21708975.84 -21708975.72 -21708975.59 0.0089 0.0068

Mercury -64149-04-21 22:18 J -21708887.66 -21708887.57 -21708887.46 0.0089 0.0076

Mercury -64149-07-19 01:54 J -21708799.47 -21708799.42 -21708799.34 0.0089 0.0084

Mars -64146-01-17 00:42 J -21707887.78 -21707887.47 -21707887.12 0.0089 0.0032

Mars -64145-12-13 19:40 J -21707191.00 -21707190.68 -21707190.33 0.0089 0.0029

Earth -64134-01-06 04:04 J -21703515.35 -21703515.33 -21703515.28 0.0088 0.0088

Moon -64134-01-06 07:11 J -21703515.25 -21703515.20 -21703515.09 0.0088 0.0085

Moon -64133-01-08 13:40 J -21703147.97 -21703147.93 -21703147.83 0.0088 0.0086

Earth -64133-01-08 17:30 J -21703147.84 -21703147.77 -21703147.66 0.0088 0.0083 *

Earth -64132-01-10 06:42 J -21702780.32 -21702780.22 -21702780.07 0.0088 0.0078

Moon -64132-01-10 10:33 J -21702780.18 -21702780.06 -21702779.90 0.0088 0.0075 *

Moon -64131-01-12 17:30 J -21702412.88 -21702412.77 -21702412.61 0.0088 0.0075

Earth -64131-01-12 20:09 J -21702412.78 -21702412.66 -21702412.48 0.0088 0.0072 *

Earth -64130-01-15 10:04 J -21702045.24 -21702045.08 -21702044.90 0.0088 0.0067

Moon -64130-01-15 12:28 J -21702045.16 -21702044.98 -21702044.79 0.0088 0.0065 *

Moon -64129-01-17 22:47 J -21701677.72 -21701677.55 -21701677.37 0.0088 0.0064

Earth -64129-01-17 23:01 J -21701677.70 -21701677.54 -21701677.32 0.0088 0.0062 *

Moon -64128-01-19 12:13 J -21701310.19 -21701309.99 -21701309.75 0.0088 0.0054

Earth -64128-01-19 12:57 J -21701310.15 -21701309.96 -21701309.74 0.0088 0.0056 *

Earth -64127-01-22 02:52 J -21700942.59 -21700942.38 -21700942.16 0.0088 0.0050

Moon -64127-01-22 03:49 J -21700942.53 -21700942.34 -21700942.12 0.0088 0.0051 *

Moon -64126-01-24 13:40 J -21700575.17 -21700574.93 -21700574.69 0.0088 0.0042

Earth -64126-01-24 16:04 J -21700575.04 -21700574.83 -21700574.58 0.0088 0.0044 *

Earth -64125-01-27 05:45 J -21700207.48 -21700207.26 -21700207.01 0.0088 0.0038

Moon -64125-01-27 08:52 J -21700207.34 -21700207.13 -21700206.88 0.0088 0.0040 *

Moon -64124-01-28 15:49 J -21699840.07 -21699839.84 -21699839.58 0.0088 0.0031

Earth -64124-01-28 19:25 J -21699839.92 -21699839.69 -21699839.43 0.0088 0.0032 *

Earth -64123-01-31 08:52 J -21699472.37 -21699472.13 -21699471.87 0.0088 0.0026

Moon	-64123-01-31 12:42 J	-21699472.21	-21699471.97	-21699471.71	0.0088	0.0028	*
Moon	-64122-02-02 19:25 J	-21699104.93	-21699104.69	-21699104.43	0.0088	0.0019	
Earth	-64122-02-02 22:33 J	-21699104.81	-21699104.56	-21699104.30	0.0088	0.0020	*
Earth	-64121-02-05 11:45 J	-21698737.26	-21698737.01	-21698736.74	0.0088	0.0014	
Moon	-64121-02-05 14:37 J	-21698737.15	-21698736.89	-21698736.62	0.0088	0.0014	*
Moon	-64120-02-07 00:13 J	-21698369.75	-21698369.49	-21698369.24	0.0088	0.0007	
Earth	-64120-02-07 01:25 J	-21698369.70	-21698369.44	-21698369.18	0.0088	0.0008	*
Earth	-64119-02-09 14:52 J	-21698002.15	-21698001.88	-21698001.62	0.0088	0.0003	
Moon	-64119-02-09 14:52 J	-21698002.15	-21698001.88	-21698001.61	0.0088	0.0003	*
Earth	-64118-02-12 03:49 J	-21697634.60	-21697634.34	-21697634.07	0.0088	0.0005	
Moon	-64118-02-12 04:33 J	-21697634.56	-21697634.31	-21697634.05	0.0088	0.0004	*
Moon	-64117-02-14 14:52 J	-21697267.14	-21697266.88	-21697266.60	0.0088	0.0010	
Earth	-64117-02-14 17:16 J	-21697267.03	-21697266.78	-21697266.51	0.0088	0.0010	*
Earth	-64116-02-16 06:28 J	-21696899.48	-21696899.23	-21696898.96	0.0088	0.0016	
Moon	-64116-02-16 09:21 J	-21696899.35	-21696899.11	-21696898.84	0.0088	0.0017	*
Moon	-64115-02-18 16:18 J	-21696532.06	-21696531.82	-21696531.55	0.0088	0.0023	
Earth	-64115-02-18 19:54 J	-21696531.92	-21696531.67	-21696531.41	0.0088	0.0022	*
Earth	-64114-02-21 09:06 J	-21696164.36	-21696164.12	-21696163.86	0.0088	0.0028	
Moon	-64114-02-21 12:57 J	-21696164.20	-21696163.96	-21696163.70	0.0088	0.0028	*
Moon	-64113-02-23 19:40 J	-21695796.92	-21695796.68	-21695796.44	0.0088	0.0035	
Earth	-64113-02-23 22:18 J	-21695796.79	-21695796.57	-21695796.30	0.0088	0.0035	*
Earth	-64112-02-25 11:30 J	-21695429.23	-21695429.02	-21695428.76	0.0088	0.0040	
Moon	-64112-02-25 14:52 J	-21695429.11	-21695428.88	-21695428.62	0.0088	0.0038	*
Moon	-64111-02-27 23:30 J	-21695061.73	-21695061.52	-21695061.30	0.0088	0.0047	
Earth	-64111-02-28 01:11 J	-21695061.67	-21695061.45	-21695061.22	0.0088	0.0046	*
Earth	-64110-03-02 13:54 J	-21694694.12	-21694693.92	-21694693.69	0.0088	0.0051	
Moon	-64110-03-02 14:23 J	-21694694.10	-21694693.90	-21694693.65	0.0088	0.0050	*
Earth	-64109-03-04 02:37 J	-21694326.56	-21694326.39	-21694326.16	0.0088	0.0058	
Moon	-64109-03-04 02:52 J	-21694326.54	-21694326.38	-21694326.16	0.0088	0.0060	*
Moon	-64108-03-06 13:40 J	-21693959.10	-21693958.93	-21693958.71	0.0088	0.0061	

Earth -64108-03-06 15:49 J -21693959.00 -21693958.84 -21693958.64 0.0088 0.0063 *
 Earth -64107-03-09 04:18 J -21693591.46 -21693591.32 -21693591.13 0.0088 0.0068
 Moon -64107-03-09 07:11 J -21693591.34 -21693591.20 -21693591.03 0.0088 0.0070 *
 Moon -64106-03-11 14:09 J -21693224.05 -21693223.91 -21693223.74 0.0088 0.0071
 Earth -64106-03-11 17:16 J -21693223.90 -21693223.78 -21693223.61 0.0088 0.0073 *
 Earth -64105-03-13 05:59 J -21692856.35 -21692856.25 -21692856.11 0.0088 0.0079
 Moon -64105-03-13 09:49 J -21692856.18 -21692856.09 -21692855.97 0.0088 0.0081 *
 Moon -64104-03-15 15:21 J -21692488.93 -21692488.86 -21692488.73 0.0088 0.0082
 Earth -64104-03-15 18:57 J -21692488.77 -21692488.71 -21692488.61 0.0088 0.0084 *
 Venus -64103-12-22 15:21 J -21691841.95 -21691841.86 -21691841.72 0.0088 0.0075
 Venus -64102-08-05 05:01 J -21691616.46 -21691616.29 -21691616.11 0.0088 0.0055
 Venus -64101-03-17 18:13 J -21691390.93 -21691390.74 -21691390.52 0.0088 0.0034
 Venus -64101-10-29 07:40 J -21691165.40 -21691165.18 -21691164.96 0.0088 0.0014
 Venus -64100-06-11 20:52 J -21690939.85 -21690939.63 -21690939.40 0.0088 0.0007
 Venus -64099-01-23 10:18 J -21690714.28 -21690714.07 -21690713.85 0.0088 0.0027
 Venus -64099-09-05 23:30 J -21690488.70 -21690488.52 -21690488.33 0.0088 0.0048
 Venus -64098-04-19 12:13 J -21690263.11 -21690262.99 -21690262.83 0.0088 0.0068
 Venus -64098-12-01 01:40 J -21690037.43 -21690037.43 -21690037.42 0.0088 0.0088
 Mercury -64072-01-06 20:23 J -21680868.68 -21680868.65 -21680868.61 0.0089 0.0085
 Mercury -64072-04-04 21:35 J -21680780.65 -21680780.60 -21680780.53 0.0089 0.0080
 Mercury -64072-07-01 22:47 J -21680692.60 -21680692.55 -21680692.46 0.0089 0.0075
 Mercury -64072-09-28 00:28 J -21680604.56 -21680604.48 -21680604.39 0.0089 0.0069
 Mercury -64072-12-25 01:40 J -21680516.51 -21680516.43 -21680516.33 0.0089 0.0064
 Mercury -64071-03-23 03:06 J -21680428.46 -21680428.37 -21680428.26 0.0089 0.0058
 Mercury -64071-06-19 04:33 J -21680340.41 -21680340.31 -21680340.20 0.0089 0.0053
 Mercury -64071-09-15 05:45 J -21680252.36 -21680252.26 -21680252.14 0.0089 0.0048
 Mercury -64071-12-12 07:11 J -21680164.31 -21680164.20 -21680164.08 0.0089 0.0042
 Mercury -64070-03-10 08:37 J -21680076.26 -21680076.14 -21680076.02 0.0089 0.0037
 Mercury -64070-06-06 09:49 J -21679988.21 -21679988.09 -21679987.96 0.0089 0.0032
 Mercury -64070-09-02 11:16 J -21679900.15 -21679900.03 -21679899.90 0.0089 0.0026

Mercury -64070-11-29 12:42 J -21679812.10 -21679811.97 -21679811.84 0.0089 0.0021

Mercury -64069-02-25 13:54 J -21679724.05 -21679723.92 -21679723.78 0.0089 0.0016

Mercury -64069-05-23 15:21 J -21679635.99 -21679635.86 -21679635.73 0.0089 0.0010

Mercury -64069-08-19 16:33 J -21679547.94 -21679547.81 -21679547.67 0.0089 0.0006

Mercury -64069-11-15 17:59 J -21679459.88 -21679459.75 -21679459.62 0.0089 0.0000

Mercury -64068-02-11 19:25 J -21679371.83 -21679371.69 -21679371.56 0.0089 0.0006

Mercury -64068-05-10 20:37 J -21679283.77 -21679283.64 -21679283.51 0.0089 0.0011

Mercury -64068-08-06 21:49 J -21679195.71 -21679195.59 -21679195.45 0.0089 0.0017

Mercury -64068-11-02 23:16 J -21679107.66 -21679107.53 -21679107.40 0.0089 0.0021

Mercury -64067-01-30 00:28 J -21679019.60 -21679019.48 -21679019.35 0.0089 0.0027

Mercury -64067-04-28 01:54 J -21678931.54 -21678931.42 -21678931.29 0.0089 0.0032

Mercury -64067-07-25 03:06 J -21678843.48 -21678843.37 -21678843.24 0.0089 0.0038

Mercury -64067-10-21 04:18 J -21678755.42 -21678755.32 -21678755.19 0.0089 0.0043

Mercury -64066-01-17 05:45 J -21678667.36 -21678667.26 -21678667.14 0.0089 0.0048

Mercury -64066-04-15 07:11 J -21678579.30 -21678579.20 -21678579.09 0.0089 0.0053

Mercury -64066-07-12 08:09 J -21678491.24 -21678491.16 -21678491.05 0.0089 0.0059

Mercury -64066-10-08 09:35 J -21678403.18 -21678403.10 -21678403.00 0.0089 0.0064

Mercury -64065-01-04 11:01 J -21678315.12 -21678315.04 -21678314.95 0.0089 0.0069

Mercury -64065-04-01 12:13 J -21678227.05 -21678226.99 -21678226.91 0.0089 0.0074

Mercury -64065-06-28 13:40 J -21678138.98 -21678138.93 -21678138.87 0.0089 0.0079

Mercury -64065-09-24 14:37 J -21678050.91 -21678050.89 -21678050.83 0.0089 0.0085

Mars -64065-11-24 06:13 J -21677990.47 -21677990.24 -21677989.99 0.0089 0.0048

Mars -64063-10-18 14:09 J -21677297.19 -21677296.91 -21677296.63 0.0089 0.0001

Mars -64061-09-10 20:52 J -21676603.87 -21676603.63 -21676603.39 0.0089 0.0047

Moon -64052-07-08 19:11 J -21673380.78 -21673380.70 -21673380.56 0.0089 0.0080

Earth -64052-07-08 23:30 J -21673380.60 -21673380.52 -21673380.44 0.0089 0.0084 *

Earth -64051-07-11 09:06 J -21673013.21 -21673013.12 -21673012.99 0.0089 0.0079

Moon -64051-07-11 12:13 J -21673013.05 -21673012.99 -21673012.88 0.0089 0.0084 *

Moon -64050-07-13 16:18 J -21672645.95 -21672645.82 -21672645.65 0.0089 0.0070

Earth -64050-07-13 19:11 J -21672645.81 -21672645.70 -21672645.54 0.0089 0.0074 *

Earth	-64049-07-15 05:01 J	-21672278.42	-21672278.29	-21672278.10	0.0089	0.0069
Moon	-64049-07-15 07:25 J	-21672278.32	-21672278.19	-21672278.02	0.0089	0.0073 *
Moon	-64048-07-17 14:52 J	-21671911.05	-21671910.88	-21671910.69	0.0089	0.0059
Earth	-64048-07-17 15:21 J	-21671911.02	-21671910.86	-21671910.67	0.0089	0.0063 *
Moon	-64047-07-20 01:11 J	-21671543.63	-21671543.45	-21671543.25	0.0089	0.0062
Earth	-64047-07-20 01:40 J	-21671543.62	-21671543.43	-21671543.24	0.0089	0.0058 *
Earth	-64046-07-22 11:16 J	-21671176.22	-21671176.03	-21671175.81	0.0089	0.0052
Moon	-64046-07-22 12:42 J	-21671176.15	-21671175.97	-21671175.74	0.0089	0.0048 *
Moon	-64045-07-23 17:59 J	-21670808.94	-21670808.75	-21670808.51	0.0089	0.0051
Earth	-64045-07-23 21:06 J	-21670808.82	-21670808.62	-21670808.39	0.0089	0.0047 *
Earth	-64044-07-26 06:42 J	-21670441.42	-21670441.22	-21670440.97	0.0089	0.0041
Moon	-64044-07-26 10:18 J	-21670441.29	-21670441.07	-21670440.84	0.0089	0.0036 *
Moon	-64043-07-28 13:25 J	-21670074.16	-21670073.94	-21670073.71	0.0089	0.0040
Earth	-64043-07-28 16:47 J	-21670074.01	-21670073.80	-21670073.55	0.0089	0.0036 *
Earth	-64042-07-31 02:52 J	-21669706.61	-21669706.38	-21669706.13	0.0089	0.0029
Moon	-64042-07-31 06:13 J	-21669706.48	-21669706.24	-21669705.99	0.0089	0.0025 *
Moon	-64041-08-01 10:04 J	-21669339.30	-21669339.08	-21669338.83	0.0089	0.0028
Earth	-64041-08-01 12:57 J	-21669339.20	-21669338.96	-21669338.71	0.0089	0.0023 *
Earth	-64040-08-03 22:47 J	-21668971.79	-21668971.55	-21668971.30	0.0089	0.0017
Moon	-64040-08-04 00:13 J	-21668971.74	-21668971.49	-21668971.22	0.0089	0.0013 *
Earth	-64039-08-06 08:52 J	-21668604.38	-21668604.13	-21668603.87	0.0089	0.0011
Moon	-64039-08-06 08:52 J	-21668604.36	-21668604.13	-21668603.88	0.0089	0.0015 *
Moon	-64038-08-08 18:28 J	-21668237.00	-21668236.73	-21668236.47	0.0089	0.0002
Earth	-64038-08-08 19:11 J	-21668236.95	-21668236.70	-21668236.45	0.0089	0.0005 *
Earth	-64037-08-10 05:01 J	-21667869.54	-21667869.29	-21667869.03	0.0089	0.0002
Moon	-64037-08-10 07:25 J	-21667869.44	-21667869.19	-21667868.95	0.0089	0.0004 *
Moon	-64036-08-12 12:13 J	-21667502.25	-21667501.99	-21667501.74	0.0089	0.0012
Earth	-64036-08-12 15:21 J	-21667502.11	-21667501.86	-21667501.61	0.0089	0.0007 *
Earth	-64035-08-15 01:25 J	-21667134.69	-21667134.44	-21667134.19	0.0089	0.0013
Moon	-64035-08-15 04:47 J	-21667134.55	-21667134.30	-21667134.05	0.0089	0.0009 *

Moon	-64034-08-17 07:40 J	-21666767.41	-21666767.18	-21666766.93	0.0089	0.0024
Earth	-64034-08-17 11:30 J	-21666767.26	-21666767.02	-21666766.77	0.0089	0.0019 *
Earth	-64033-08-18 21:21 J	-21666399.84	-21666399.61	-21666399.36	0.0089	0.0025
Moon	-64033-08-19 00:13 J	-21666399.73	-21666399.49	-21666399.23	0.0089	0.0021 *
Moon	-64032-08-21 05:01 J	-21666032.50	-21666032.29	-21666032.05	0.0089	0.0035
Earth	-64032-08-21 07:25 J	-21666032.42	-21666032.19	-21666031.94	0.0089	0.0031 *
Earth	-64031-08-23 17:30 J	-21665664.99	-21665664.77	-21665664.53	0.0089	0.0037
Moon	-64031-08-23 18:28 J	-21665664.96	-21665664.73	-21665664.47	0.0089	0.0033 *
Earth	-64030-08-26 03:35 J	-21665297.55	-21665297.35	-21665297.11	0.0089	0.0043
Moon	-64030-08-26 04:04 J	-21665297.52	-21665297.33	-21665297.11	0.0089	0.0047 *
Moon	-64029-08-27 12:13 J	-21664930.19	-21664929.99	-21664929.74	0.0089	0.0046
Earth	-64029-08-27 13:40 J	-21664930.12	-21664929.93	-21664929.70	0.0089	0.0049 *
Earth	-64028-08-29 23:59 J	-21664562.69	-21664562.50	-21664562.29	0.0089	0.0055
Moon	-64028-08-30 02:23 J	-21664562.56	-21664562.40	-21664562.19	0.0089	0.0059 *
Moon	-64027-09-01 06:57 J	-21664195.39	-21664195.21	-21664194.99	0.0089	0.0056
Earth	-64027-09-01 10:33 J	-21664195.23	-21664195.06	-21664194.86	0.0089	0.0060 *
Earth	-64026-09-03 20:23 J	-21663827.79	-21663827.65	-21663827.45	0.0089	0.0067
Moon	-64026-09-04 00:13 J	-21663827.63	-21663827.49	-21663827.32	0.0089	0.0070 *
Moon	-64025-09-05 03:49 J	-21663460.48	-21663460.34	-21663460.16	0.0089	0.0068
Earth	-64025-09-05 07:25 J	-21663460.33	-21663460.19	-21663460.03	0.0089	0.0072 *
Earth	-64024-09-07 17:30 J	-21663092.86	-21663092.77	-21663092.61	0.0089	0.0078
Moon	-64024-09-07 20:37 J	-21663092.74	-21663092.64	-21663092.52	0.0089	0.0080 *
Moon	-64023-09-10 02:23 J	-21662725.49	-21662725.40	-21662725.26	0.0089	0.0079
Earth	-64023-09-10 04:33 J	-21662725.39	-21662725.31	-21662725.20	0.0089	0.0082 *
Earth	-64022-09-12 15:06 J	-21662357.90	-21662357.87	-21662357.80	0.0089	0.0087
Moon	-64021-09-14 02:37 J	-21661990.39	-21661990.39	-21661990.36	0.0089	0.0089
Venus	-64020-02-02 13:25 J	-21661849.04	-21661848.94	-21661848.79	0.0089	0.0073
Venus	-64020-09-16 02:23 J	-21661623.57	-21661623.40	-21661623.21	0.0089	0.0051
Venus	-64019-04-29 14:52 J	-21661398.07	-21661397.88	-21661397.66	0.0089	0.0031
Venus	-64019-12-11 03:49 J	-21661172.56	-21661172.34	-21661172.13	0.0089	0.0010

Venus -64018-07-24 16:33 J -21660947.03 -21660946.81 -21660946.59 0.0089 0.0010

Venus -64017-03-06 04:47 J -21660721.49 -21660721.30 -21660721.08 0.0089 0.0032

Venus -64017-10-17 17:45 J -21660495.93 -21660495.76 -21660495.58 0.0089 0.0051

Venus -64016-05-31 06:13 J -21660270.35 -21660270.24 -21660270.10 0.0089 0.0072

64TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 64th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-63990-12-23 17:16 J	-21650567.83	-21650567.78	-21650567.70	0.0089	0.0083		
Mercury	-63989-03-20 21:06 J	-21650479.72	-21650479.62	-21650479.52	0.0089	0.0075		
Mercury	-63989-06-17 00:13 J	-21650391.59	-21650391.49	-21650391.35	0.0089	0.0068		
Mercury	-63989-09-13 04:04 J	-21650303.46	-21650303.33	-21650303.18	0.0089	0.0060		
Mercury	-63989-12-10 07:25 J	-21650215.33	-21650215.19	-21650215.02	0.0089	0.0053		
Mercury	-63988-03-08 11:16 J	-21650127.19	-21650127.03	-21650126.86	0.0089	0.0045		
Mercury	-63988-06-04 14:52 J	-21650039.05	-21650038.88	-21650038.70	0.0089	0.0037		
Mercury	-63988-08-31 18:13 J	-21649950.91	-21649950.74	-21649950.54	0.0089	0.0030		
Mercury	-63988-11-27 22:04 J	-21649862.76	-21649862.58	-21649862.39	0.0089	0.0022		
Mercury	-63987-02-24 01:40 J	-21649774.61	-21649774.43	-21649774.23	0.0089	0.0014		
Mercury	-63987-05-23 05:30 J	-21649686.47	-21649686.27	-21649686.08	0.0089	0.0006		
Mercury	-63987-08-19 09:06 J	-21649598.32	-21649598.12	-21649597.93	0.0089	0.0002		
Mercury	-63987-11-15 12:42 J	-21649510.16	-21649509.97	-21649509.78	0.0089	0.0009		
Mercury	-63986-02-11 16:04 J	-21649422.01	-21649421.83	-21649421.63	0.0089	0.0018		

Mercury -63986-05-10 19:54 J -21649333.85 -21649333.67 -21649333.48 0.0089 0.0025

Mercury -63986-08-06 23:30 J -21649245.70 -21649245.52 -21649245.33 0.0089 0.0033

Mercury -63986-11-03 03:06 J -21649157.54 -21649157.37 -21649157.19 0.0089 0.0041

Mercury -63985-01-30 06:42 J -21649069.37 -21649069.22 -21649069.05 0.0089 0.0049

Mercury -63985-04-27 10:04 J -21648981.21 -21648981.08 -21648980.91 0.0089 0.0057

Mercury -63985-07-24 14:09 J -21648893.04 -21648892.91 -21648892.77 0.0089 0.0064

Mercury -63985-10-20 17:45 J -21648804.86 -21648804.76 -21648804.64 0.0089 0.0072

Mercury -63984-01-16 21:21 J -21648716.68 -21648716.61 -21648716.52 0.0089 0.0080

Mercury -63984-04-15 00:57 J -21648628.47 -21648628.46 -21648628.42 0.0089 0.0088

Mars -63983-08-30 07:25 J -21648126.44 -21648126.19 -21648125.89 0.0089 0.0055

Mars -63981-07-27 03:06 J -21647429.72 -21647429.37 -21647429.02 0.0089 0.0005

Mars -63979-06-23 21:49 J -21646732.80 -21646732.59 -21646732.32 0.0089 0.0065

Earth -63970-01-05 14:09 J -21643614.92 -21643614.91 -21643614.84 0.0088 0.0088

Earth -63969-01-08 03:21 J -21643247.42 -21643247.36 -21643247.23 0.0088 0.0083

Moon -63969-01-08 06:57 J -21643247.31 -21643247.21 -21643247.07 0.0088 0.0079 *

Moon -63968-01-09 14:23 J -21642879.98 -21642879.90 -21642879.77 0.0088 0.0081

Earth -63968-01-09 17:16 J -21642879.89 -21642879.78 -21642879.63 0.0088 0.0077 *

Earth -63967-01-12 06:28 J -21642512.36 -21642512.23 -21642512.05 0.0088 0.0072

Moon -63967-01-12 08:09 J -21642512.32 -21642512.16 -21642511.98 0.0088 0.0068 *

Moon -63966-01-14 19:25 J -21642144.82 -21642144.69 -21642144.51 0.0088 0.0069

Earth -63966-01-14 19:54 J -21642144.82 -21642144.67 -21642144.47 0.0088 0.0066 *

Moon -63965-01-17 09:06 J -21641777.33 -21641777.12 -21641776.91 0.0088 0.0056

Earth -63965-01-17 09:21 J -21641777.28 -21641777.11 -21641776.89 0.0088 0.0060 *

Earth -63964-01-18 22:47 J -21641409.73 -21641409.55 -21641409.32 0.0088 0.0055

Moon -63964-01-19 01:25 J -21641409.62 -21641409.44 -21641409.24 0.0088 0.0058 *

Moon -63963-01-21 09:49 J -21641042.31 -21641042.09 -21641041.84 0.0088 0.0045

Earth -63963-01-21 12:28 J -21641042.18 -21641041.98 -21641041.74 0.0088 0.0049 *

Earth -63962-01-24 01:54 J -21640674.63 -21640674.42 -21640674.17 0.0088 0.0043

Moon -63962-01-24 05:45 J -21640674.47 -21640674.26 -21640674.03 0.0088 0.0047 *

Moon -63961-01-26 12:13 J -21640307.23 -21640306.99 -21640306.74 0.0088 0.0032

Earth	-63961-01-26 15:49 J	-21640307.07	-21640306.84	-21640306.59	0.0088	0.0036	*
Earth	-63960-01-28 05:16 J	-21639939.52	-21639939.28	-21639939.02	0.0088	0.0030	
Moon	-63960-01-28 08:52 J	-21639939.37	-21639939.13	-21639938.88	0.0088	0.0034	*
Moon	-63959-01-30 16:04 J	-21639572.08	-21639571.83	-21639571.57	0.0088	0.0020	
Earth	-63959-01-30 18:57 J	-21639571.95	-21639571.71	-21639571.45	0.0088	0.0024	*
Earth	-63958-02-02 08:37 J	-21639204.40	-21639204.14	-21639203.88	0.0088	0.0018	
Moon	-63958-02-02 10:04 J	-21639204.33	-21639204.08	-21639203.80	0.0088	0.0022	*
Moon	-63957-02-04 21:06 J	-21638836.87	-21638836.62	-21638836.37	0.0088	0.0008	
Earth	-63957-02-04 22:04 J	-21638836.84	-21638836.58	-21638836.31	0.0088	0.0012	*
Moon	-63956-02-06 11:01 J	-21638469.30	-21638469.04	-21638468.76	0.0088	0.0011	
Earth	-63956-02-06 11:30 J	-21638469.28	-21638469.02	-21638468.75	0.0088	0.0005	*
Earth	-63955-02-09 00:42 J	-21638101.73	-21638101.47	-21638101.20	0.0088	0.0001	
Moon	-63955-02-09 02:23 J	-21638101.65	-21638101.40	-21638101.14	0.0088	0.0005	*
Moon	-63954-02-11 11:45 J	-21637734.28	-21637734.01	-21637733.73	0.0088	0.0003	
Earth	-63954-02-11 14:09 J	-21637734.17	-21637733.91	-21637733.65	0.0088	0.0007	*
Earth	-63953-02-14 03:06 J	-21637366.62	-21637366.37	-21637366.10	0.0088	0.0014	
Moon	-63953-02-14 06:28 J	-21637366.47	-21637366.23	-21637365.96	0.0088	0.0018	*
Moon	-63952-02-15 13:11 J	-21636999.21	-21636998.95	-21636998.69	0.0088	0.0015	
Earth	-63952-02-15 16:33 J	-21636999.06	-21636998.81	-21636998.54	0.0088	0.0019	*
Earth	-63951-02-18 05:45 J	-21636631.50	-21636631.26	-21636631.00	0.0088	0.0025	
Moon	-63951-02-18 09:35 J	-21636631.35	-21636631.10	-21636630.85	0.0088	0.0030	*
Moon	-63950-02-20 15:35 J	-21636264.08	-21636263.85	-21636263.59	0.0088	0.0027	
Earth	-63950-02-20 19:11 J	-21636263.94	-21636263.70	-21636263.45	0.0088	0.0031	*
Earth	-63949-02-23 08:23 J	-21635896.38	-21635896.15	-21635895.90	0.0088	0.0037	
Moon	-63949-02-23 10:47 J	-21635896.29	-21635896.05	-21635895.81	0.0088	0.0042	*
Moon	-63948-02-24 20:09 J	-21635528.88	-21635528.66	-21635528.43	0.0088	0.0040	
Earth	-63948-02-24 21:49 J	-21635528.81	-21635528.59	-21635528.36	0.0088	0.0043	*
Earth	-63947-02-27 10:47 J	-21635161.26	-21635161.05	-21635160.82	0.0088	0.0049	
Moon	-63947-02-27 10:33 J	-21635161.25	-21635161.06	-21635160.82	0.0088	0.0054	*
Earth	-63946-03-01 23:59 J	-21634793.69	-21634793.50	-21634793.28	0.0088	0.0055	

Moon -63946-03-02 01:11 J -21634793.64 -21634793.45 -21634793.23 0.0088 0.0051 *
 Moon -63945-03-03 11:01 J -21634426.19 -21634426.04 -21634425.83 0.0088 0.0066
 Earth -63945-03-03 12:57 J -21634426.12 -21634425.96 -21634425.74 0.0088 0.0062 *
 Earth -63944-03-06 01:54 J -21634058.57 -21634058.42 -21634058.23 0.0088 0.0067
 Moon -63944-03-06 05:16 J -21634058.45 -21634058.28 -21634058.09 0.0088 0.0063 *
 Moon -63943-03-08 11:45 J -21633691.13 -21633691.01 -21633690.87 0.0088 0.0077
 Earth -63943-03-08 15:06 J -21633691.00 -21633690.87 -21633690.70 0.0088 0.0072 *
 Earth -63942-03-11 04:18 J -21633323.44 -21633323.32 -21633323.20 0.0088 0.0078
 Moon -63942-03-11 07:11 J -21633323.31 -21633323.20 -21633323.03 0.0088 0.0075 *
 Moon -63941-03-12 13:25 J -21632955.95 -21632955.94 -21632955.89 0.0088 0.0088
 Earth -63941-03-12 16:33 J -21632955.87 -21632955.81 -21632955.69 0.0088 0.0084
 Earth -63940-03-15 05:45 J -21632588.26 -21632588.26 -21632588.24 0.0088 0.0088
 Moon -63940-03-15 07:54 J -21632588.22 -21632588.17 -21632588.07 0.0088 0.0085
 Venus -63938-03-26 02:52 J -21631847.43 -21631847.38 -21631847.27 0.0088 0.0083
 Venus -63938-11-06 16:33 J -21631621.96 -21631621.81 -21631621.64 0.0088 0.0062
 Venus -63937-06-19 05:45 J -21631396.44 -21631396.26 -21631396.04 0.0088 0.0042
 Venus -63936-01-30 19:40 J -21631170.90 -21631170.68 -21631170.46 0.0088 0.0020
 Venus -63936-09-13 08:52 J -21630945.35 -21630945.13 -21630944.90 0.0088 0.0002
 Venus -63935-04-26 22:18 J -21630719.79 -21630719.57 -21630719.36 0.0088 0.0021
 Venus -63935-12-08 11:01 J -21630494.22 -21630494.04 -21630493.82 0.0088 0.0042
 Venus -63934-07-22 00:28 J -21630268.63 -21630268.48 -21630268.31 0.0088 0.0061
 Venus -63933-03-03 13:54 J -21630043.00 -21630042.92 -21630042.84 0.0088 0.0082
 Mercury -63908-07-07 18:57 J -21620785.72 -21620785.71 -21620785.68 0.0089 0.0088
 Mercury -63908-10-03 20:09 J -21620697.69 -21620697.66 -21620697.60 0.0089 0.0083
 Mercury -63908-12-30 21:49 J -21620609.65 -21620609.59 -21620609.52 0.0089 0.0077
 Mercury -63907-03-28 23:01 J -21620521.61 -21620521.54 -21620521.45 0.0089 0.0072
 Mercury -63907-06-25 00:42 J -21620433.56 -21620433.47 -21620433.39 0.0089 0.0066
 Mercury -63907-09-21 01:54 J -21620345.51 -21620345.42 -21620345.32 0.0089 0.0061
 Mercury -63907-12-18 03:06 J -21620257.46 -21620257.37 -21620257.26 0.0089 0.0056
 Mercury -63906-03-16 04:47 J -21620169.41 -21620169.30 -21620169.19 0.0089 0.0050

Mercury -63906-06-12 05:59 J -21620081.36 -21620081.25 -21620081.13 0.0089 0.0045
 Mercury -63906-09-08 07:11 J -21619993.31 -21619993.20 -21619993.07 0.0089 0.0040
 Mercury -63906-12-05 08:37 J -21619905.26 -21619905.14 -21619905.01 0.0089 0.0034
 Saturn -63905-02-29 05:16 J -21619819.65 -21619819.28 -21619818.77 0.0089 0.0065
 Mercury -63905-03-02 10:04 J -21619817.20 -21619817.08 -21619816.95 0.0089 0.0029
 Mercury -63905-05-29 11:16 J -21619729.15 -21619729.03 -21619728.89 0.0089 0.0024
 Mercury -63905-08-25 12:42 J -21619641.10 -21619640.97 -21619640.84 0.0089 0.0018
 Mercury -63905-11-21 14:09 J -21619553.04 -21619552.91 -21619552.78 0.0089 0.0013
 Mercury -63904-02-17 15:21 J -21619464.99 -21619464.86 -21619464.72 0.0089 0.0008
 Mercury -63904-05-16 16:47 J -21619376.93 -21619376.80 -21619376.67 0.0089 0.0002
 Mercury -63904-08-12 18:13 J -21619288.88 -21619288.74 -21619288.61 0.0089 0.0004
 Mercury -63904-11-08 19:25 J -21619200.82 -21619200.69 -21619200.56 0.0089 0.0009
 Mercury -63903-02-04 20:52 J -21619112.76 -21619112.63 -21619112.50 0.0089 0.0014
 Mercury -63903-05-03 22:04 J -21619024.71 -21619024.58 -21619024.45 0.0089 0.0019
 Mercury -63903-07-30 23:16 J -21618936.65 -21618936.53 -21618936.40 0.0089 0.0025
 Mercury -63903-10-27 00:42 J -21618848.59 -21618848.47 -21618848.34 0.0089 0.0030
 Mercury -63902-01-23 02:09 J -21618760.53 -21618760.41 -21618760.29 0.0089 0.0035
 Mercury -63902-04-21 03:06 J -21618672.48 -21618672.37 -21618672.24 0.0089 0.0041
 Mercury -63902-07-18 04:33 J -21618584.42 -21618584.31 -21618584.19 0.0089 0.0046
 Mercury -63902-10-14 05:59 J -21618496.36 -21618496.25 -21618496.14 0.0089 0.0051
 Mercury -63901-01-10 07:25 J -21618408.29 -21618408.19 -21618408.09 0.0089 0.0056
 Mercury -63901-04-07 08:23 J -21618320.23 -21618320.15 -21618320.05 0.0089 0.0062
 Mercury -63901-07-04 09:49 J -21618232.17 -21618232.09 -21618232.00 0.0089 0.0067
 Mars -63901-07-10 05:16 J -21618226.44 -21618226.28 -21618226.06 0.0089 0.0067
 Mercury -63901-09-30 11:01 J -21618144.11 -21618144.04 -21618143.95 0.0089 0.0072
 Mercury -63901-12-27 12:28 J -21618056.04 -21618055.98 -21618055.91 0.0089 0.0077
 Mercury -63900-03-25 13:25 J -21617967.97 -21617967.94 -21617967.87 0.0089 0.0083
 Mercury -63900-06-21 14:52 J -21617879.88 -21617879.88 -21617879.85 0.0089 0.0088
 Mars -63899-06-03 12:57 J -21617533.23 -21617532.96 -21617532.67 0.0089 0.0019
 Mars -63897-04-26 20:09 J -21616839.91 -21616839.66 -21616839.38 0.0089 0.0029

Mars	-63895-03-21 02:37 J	-21616146.50	-21616146.39	-21616146.21	0.0089	0.0076
Moon	-63889-07-05 23:01 J	-21613847.54	-21613847.54	-21613847.51	0.0089	0.0089
Earth	-63888-07-08 12:13 J	-21613480.06	-21613479.99	-21613479.90	0.0089	0.0084
Moon	-63888-07-08 15:21 J	-21613479.89	-21613479.86	-21613479.76	0.0089	0.0086
Moon	-63887-07-10 19:25 J	-21613112.77	-21613112.69	-21613112.55	0.0089	0.0079
Earth	-63887-07-10 22:04 J	-21613112.67	-21613112.58	-21613112.44	0.0089	0.0079 *
Earth	-63886-07-13 07:54 J	-21612745.28	-21612745.17	-21612745.00	0.0089	0.0074
Moon	-63886-07-13 09:35 J	-21612745.21	-21612745.10	-21612744.93	0.0089	0.0075 *
Moon	-63885-07-14 17:16 J	-21612377.92	-21612377.78	-21612377.60	0.0089	0.0067
Earth	-63885-07-14 17:59 J	-21612377.89	-21612377.75	-21612377.57	0.0089	0.0068 *
Moon	-63884-07-17 02:52 J	-21612010.54	-21612010.38	-21612010.17	0.0089	0.0063
Earth	-63884-07-17 04:18 J	-21612010.49	-21612010.32	-21612010.13	0.0089	0.0062 *
Earth	-63883-07-19 13:54 J	-21611643.09	-21611642.92	-21611642.70	0.0089	0.0057
Moon	-63883-07-19 16:04 J	-21611643.01	-21611642.83	-21611642.63	0.0089	0.0056 *
Moon	-63882-07-21 21:21 J	-21611275.81	-21611275.61	-21611275.39	0.0089	0.0052
Earth	-63882-07-21 23:59 J	-21611275.68	-21611275.50	-21611275.27	0.0089	0.0051 *
Earth	-63881-07-23 10:04 J	-21610908.29	-21610908.08	-21610907.85	0.0089	0.0045
Moon	-63881-07-23 13:40 J	-21610908.14	-21610907.93	-21610907.70	0.0089	0.0044 *
Moon	-63880-07-25 16:33 J	-21610541.02	-21610540.81	-21610540.57	0.0089	0.0041
Earth	-63880-07-25 19:54 J	-21610540.88	-21610540.67	-21610540.43	0.0089	0.0039 *
Earth	-63879-07-28 05:45 J	-21610173.48	-21610173.26	-21610173.01	0.0089	0.0034
Moon	-63879-07-28 09:21 J	-21610173.34	-21610173.11	-21610172.86	0.0089	0.0031 *
Moon	-63878-07-30 13:40 J	-21609806.15	-21609805.93	-21609805.68	0.0089	0.0028
Earth	-63878-07-30 15:49 J	-21609806.07	-21609805.84	-21609805.59	0.0089	0.0027 *
Earth	-63877-08-01 01:40 J	-21609438.67	-21609438.43	-21609438.18	0.0089	0.0021
Moon	-63877-08-01 03:06 J	-21609438.62	-21609438.37	-21609438.11	0.0089	0.0019 *
Earth	-63876-08-03 11:30 J	-21609071.26	-21609071.02	-21609070.76	0.0089	0.0016
Moon	-63876-08-03 11:30 J	-21609071.25	-21609071.02	-21609070.77	0.0089	0.0017 *
Moon	-63875-08-05 20:09 J	-21608703.92	-21608703.66	-21608703.40	0.0089	0.0008
Earth	-63875-08-05 21:49 J	-21608703.84	-21608703.59	-21608703.34	0.0089	0.0009 *

Earth	-63874-08-08 07:40 J	-21608336.43	-21608336.18	-21608335.92	0.0089	0.0003
Moon	-63874-08-08 09:49 J	-21608336.33	-21608336.09	-21608335.84	0.0089	0.0004 *
Moon	-63873-08-09 14:37 J	-21607969.14	-21607968.89	-21607968.63	0.0089	0.0005
Earth	-63873-08-09 17:45 J	-21607969.01	-21607968.76	-21607968.50	0.0089	0.0004 *
Earth	-63872-08-12 03:49 J	-21607601.58	-21607601.34	-21607601.08	0.0089	0.0010
Moon	-63872-08-12 07:25 J	-21607601.43	-21607601.19	-21607600.93	0.0089	0.0009 *
Moon	-63871-08-14 10:47 J	-21607234.29	-21607234.05	-21607233.80	0.0089	0.0018
Earth	-63871-08-14 14:09 J	-21607234.15	-21607233.91	-21607233.66	0.0089	0.0016 *
Earth	-63870-08-17 00:13 J	-21606866.73	-21606866.49	-21606866.24	0.0089	0.0023
Moon	-63870-08-17 03:21 J	-21606866.60	-21606866.36	-21606866.10	0.0089	0.0020 *
Moon	-63869-08-18 08:37 J	-21606499.36	-21606499.14	-21606498.90	0.0089	0.0030
Earth	-63869-08-18 10:33 J	-21606499.30	-21606499.06	-21606498.82	0.0089	0.0029 *
Earth	-63868-08-20 20:09 J	-21606131.87	-21606131.66	-21606131.40	0.0089	0.0036
Moon	-63868-08-20 21:06 J	-21606131.85	-21606131.62	-21606131.36	0.0089	0.0033 *
Earth	-63867-08-23 06:28 J	-21605764.44	-21605764.23	-21605763.99	0.0089	0.0041
Moon	-63867-08-23 06:57 J	-21605764.41	-21605764.21	-21605763.98	0.0089	0.0043 *
Moon	-63866-08-25 14:37 J	-21605397.10	-21605396.89	-21605396.66	0.0089	0.0045
Earth	-63866-08-25 16:33 J	-21605397.01	-21605396.81	-21605396.58	0.0089	0.0047 *
Earth	-63865-08-27 02:52 J	-21605029.57	-21605029.38	-21605029.16	0.0089	0.0053
Moon	-63865-08-27 05:30 J	-21605029.46	-21605029.27	-21605029.07	0.0089	0.0055 *
Moon	-63864-08-29 09:35 J	-21604662.28	-21604662.10	-21604661.88	0.0089	0.0056
Earth	-63864-08-29 13:11 J	-21604662.13	-21604661.95	-21604661.75	0.0089	0.0059 *
Earth	-63863-08-31 23:16 J	-21604294.69	-21604294.53	-21604294.34	0.0089	0.0064
Moon	-63863-09-01 02:37 J	-21604294.53	-21604294.39	-21604294.19	0.0089	0.0067 *
Moon	-63862-09-03 06:57 J	-21603927.37	-21603927.21	-21603927.05	0.0089	0.0068
Earth	-63862-09-03 09:35 J	-21603927.23	-21603927.10	-21603926.92	0.0089	0.0070 *
Earth	-63861-09-04 20:09 J	-21603559.78	-21603559.66	-21603559.52	0.0089	0.0076
Moon	-63861-09-04 22:33 J	-21603559.66	-21603559.56	-21603559.41	0.0089	0.0079 *
Moon	-63860-09-07 05:30 J	-21603192.37	-21603192.27	-21603192.15	0.0089	0.0079
Earth	-63860-09-07 06:28 J	-21603192.31	-21603192.23	-21603192.10	0.0089	0.0081 *

Earth	-63859-09-09 17:16 J	-21602824.82	-21602824.78	-21602824.70	0.0089	0.0087
Moon	-63859-09-09 17:45 J	-21602824.78	-21602824.76	-21602824.72	0.0089	0.0088 *
Venus	-63856-05-07 02:23 J	-21601854.49	-21601854.40	-21601854.29	0.0089	0.0079
Venus	-63856-12-18 14:52 J	-21601629.03	-21601628.88	-21601628.70	0.0089	0.0058
Venus	-63855-08-01 03:21 J	-21601403.54	-21601403.36	-21601403.14	0.0089	0.0039
Venus	-63854-03-14 16:18 J	-21601178.03	-21601177.82	-21601177.60	0.0089	0.0017
Venus	-63854-10-26 05:01 J	-21600952.51	-21600952.29	-21600952.07	0.0089	0.0003
Venus	-63853-06-07 17:30 J	-21600726.97	-21600726.77	-21600726.55	0.0089	0.0024
Venus	-63852-01-19 06:13 J	-21600501.42	-21600501.24	-21600501.04	0.0089	0.0045
Venus	-63852-09-01 18:42 J	-21600275.85	-21600275.72	-21600275.56	0.0089	0.0065
Venus	-63851-04-15 07:40 J	-21600050.23	-21600050.18	-21600050.12	0.0089	0.0086
Mercury	-63825-06-22 13:11 J	-21590484.98	-21590484.95	-21590484.89	0.0089	0.0086
Mercury	-63825-09-18 16:33 J	-21590396.88	-21590396.81	-21590396.70	0.0089	0.0079
Mercury	-63825-12-15 20:23 J	-21590308.76	-21590308.65	-21590308.53	0.0089	0.0071
Mercury	-63824-03-13 23:45 J	-21590220.63	-21590220.51	-21590220.36	0.0089	0.0064
Mercury	-63824-06-10 03:21 J	-21590132.50	-21590132.36	-21590132.20	0.0089	0.0056
Mercury	-63824-09-06 07:11 J	-21590044.36	-21590044.20	-21590044.04	0.0089	0.0048
Mercury	-63824-12-03 10:33 J	-21589956.22	-21589956.06	-21589955.88	0.0089	0.0041
Mercury	-63823-03-01 14:09 J	-21589868.08	-21589867.91	-21589867.72	0.0089	0.0033
Mercury	-63823-05-28 17:59 J	-21589779.94	-21589779.75	-21589779.57	0.0089	0.0025
Mercury	-63823-08-24 21:21 J	-21589691.79	-21589691.61	-21589691.41	0.0089	0.0018
Mercury	-63823-11-21 01:11 J	-21589603.64	-21589603.45	-21589603.26	0.0089	0.0010
Mercury	-63822-02-17 04:47 J	-21589515.50	-21589515.30	-21589515.11	0.0089	0.0002
Mercury	-63822-05-16 08:23 J	-21589427.34	-21589427.15	-21589426.96	0.0089	0.0006
Mercury	-63822-08-12 11:59 J	-21589339.19	-21589339.00	-21589338.81	0.0089	0.0014
Mercury	-63822-11-08 15:35 J	-21589251.04	-21589250.85	-21589250.66	0.0089	0.0022
Mercury	-63821-02-04 18:57 J	-21589162.88	-21589162.71	-21589162.51	0.0089	0.0030
Mercury	-63821-05-02 22:33 J	-21589074.72	-21589074.56	-21589074.37	0.0089	0.0038
Mercury	-63821-07-30 02:23 J	-21588986.56	-21588986.40	-21588986.22	0.0089	0.0045
Mercury	-63821-10-26 05:59 J	-21588898.40	-21588898.25	-21588898.08	0.0089	0.0053

Mercury -63820-01-22 09:35 J -21588810.23 -21588810.10 -21588809.95 0.0089 0.0061
 Mercury -63820-04-20 13:11 J -21588722.06 -21588721.95 -21588721.81 0.0089 0.0069
 Mercury -63820-07-17 16:47 J -21588633.88 -21588633.80 -21588633.68 0.0089 0.0077
 Mercury -63820-10-13 20:52 J -21588545.69 -21588545.63 -21588545.57 0.0089 0.0084
 Mars -63819-04-12 16:18 J -21588364.95 -21588364.82 -21588364.61 0.0089 0.0078
 Mars -63817-03-09 10:18 J -21587668.40 -21587668.07 -21587667.71 0.0089 0.0019
 Mars -63815-02-04 05:45 J -21586971.56 -21586971.26 -21586970.94 0.0089 0.0041
 Earth -63806-01-04 23:59 J -21583714.51 -21583714.50 -21583714.43 0.0088 0.0088
 Moon -63805-01-07 11:59 J -21583347.10 -21583347.00 -21583346.87 0.0088 0.0079
 Earth -63805-01-07 13:54 J -21583347.00 -21583346.92 -21583346.81 0.0088 0.0082 *
 Earth -63804-01-09 03:06 J -21582979.47 -21582979.37 -21582979.21 0.0088 0.0077
 Moon -63804-01-09 04:47 J -21582979.41 -21582979.30 -21582979.16 0.0088 0.0079 *
 Earth -63803-01-11 16:47 J -21582611.94 -21582611.80 -21582611.63 0.0088 0.0071
 Moon -63803-01-11 17:01 J -21582611.93 -21582611.79 -21582611.60 0.0088 0.0068 *
 Moon -63802-01-14 04:47 J -21582244.46 -21582244.30 -21582244.11 0.0088 0.0068
 Earth -63802-01-14 06:13 J -21582244.40 -21582244.24 -21582244.04 0.0088 0.0065 *
 Earth -63801-01-16 19:54 J -21581876.85 -21581876.67 -21581876.46 0.0088 0.0059
 Moon -63801-01-16 21:49 J -21581876.77 -21581876.59 -21581876.37 0.0088 0.0057 *
 Moon -63800-01-18 05:30 J -21581509.45 -21581509.27 -21581509.04 0.0088 0.0057
 Earth -63800-01-18 09:21 J -21581509.31 -21581509.11 -21581508.89 0.0088 0.0053 *
 Earth -63799-01-20 23:01 J -21581141.76 -21581141.54 -21581141.32 0.0088 0.0047
 Moon -63799-01-21 02:09 J -21581141.62 -21581141.41 -21581141.17 0.0088 0.0045 *
 Moon -63798-01-23 08:37 J -21580774.36 -21580774.14 -21580773.90 0.0088 0.0043
 Earth -63798-01-23 12:28 J -21580774.21 -21580773.98 -21580773.74 0.0088 0.0041 *
 Earth -63797-01-26 01:54 J -21580406.66 -21580406.42 -21580406.17 0.0088 0.0034
 Moon -63797-01-26 04:47 J -21580406.53 -21580406.30 -21580406.03 0.0088 0.0033 *
 Moon -63796-01-27 12:57 J -21580039.19 -21580038.96 -21580038.71 0.0088 0.0030
 Earth -63796-01-27 15:21 J -21580039.10 -21580038.86 -21580038.60 0.0088 0.0028 *
 Earth -63795-01-30 04:47 J -21579671.54 -21579671.30 -21579671.03 0.0088 0.0022
 Moon -63795-01-30 06:57 J -21579671.47 -21579671.21 -21579670.94 0.0088 0.0021 *

Earth	-63794-02-01 18:42 J	-21579303.98	-21579303.72	-21579303.46	0.0088	0.0016
Moon	-63794-02-01 18:42 J	-21579303.97	-21579303.72	-21579303.47	0.0088	0.0017 *
Moon	-63793-02-04 07:25 J	-21578936.46	-21578936.19	-21578935.91	0.0088	0.0008
Earth	-63793-02-04 08:23 J	-21578936.41	-21578936.15	-21578935.89	0.0088	0.0009 *
Earth	-63792-02-05 21:49 J	-21578568.85	-21578568.59	-21578568.33	0.0088	0.0003
Moon	-63792-02-05 23:30 J	-21578568.77	-21578568.52	-21578568.26	0.0088	0.0004 *
Moon	-63791-02-08 08:09 J	-21578201.43	-21578201.16	-21578200.89	0.0088	0.0005
Earth	-63791-02-08 11:30 J	-21578201.29	-21578201.02	-21578200.76	0.0088	0.0004 *
Earth	-63790-02-11 00:42 J	-21577833.73	-21577833.47	-21577833.21	0.0088	0.0010
Moon	-63790-02-11 04:04 J	-21577833.59	-21577833.33	-21577833.07	0.0088	0.0009 *
Moon	-63789-02-13 10:18 J	-21577466.32	-21577466.07	-21577465.81	0.0088	0.0017
Earth	-63789-02-13 14:09 J	-21577466.17	-21577465.91	-21577465.65	0.0088	0.0016 *
Earth	-63788-02-15 03:21 J	-21577098.61	-21577098.36	-21577098.10	0.0088	0.0023
Moon	-63788-02-15 06:28 J	-21577098.47	-21577098.23	-21577097.96	0.0088	0.0022 *
Moon	-63787-02-17 13:54 J	-21576731.17	-21576730.92	-21576730.68	0.0088	0.0029
Earth	-63787-02-17 16:18 J	-21576731.05	-21576730.82	-21576730.56	0.0088	0.0029 *
Earth	-63786-02-20 05:30 J	-21576363.49	-21576363.27	-21576363.01	0.0088	0.0035
Moon	-63786-02-20 07:54 J	-21576363.41	-21576363.17	-21576362.91	0.0088	0.0036 *
Moon	-63785-02-22 18:28 J	-21575995.95	-21575995.73	-21575995.50	0.0088	0.0041
Earth	-63785-02-22 18:42 J	-21575995.93	-21575995.72	-21575995.47	0.0088	0.0042 *
Moon	-63784-02-24 07:54 J	-21575628.39	-21575628.17	-21575627.93	0.0088	0.0048
Earth	-63784-02-24 07:54 J	-21575628.37	-21575628.17	-21575627.93	0.0088	0.0047 *
Earth	-63783-02-26 21:06 J	-21575260.81	-21575260.62	-21575260.39	0.0088	0.0054
Moon	-63783-02-26 22:47 J	-21575260.75	-21575260.55	-21575260.34	0.0088	0.0052 *
Moon	-63782-03-01 07:25 J	-21574893.37	-21574893.19	-21574892.97	0.0088	0.0060
Earth	-63782-03-01 10:18 J	-21574893.24	-21574893.07	-21574892.85	0.0088	0.0060 *
Jupiter	-63782-10-30 11:45 J	-21574650.55	-21574650.01	-21574649.47	0.0088	0.0005
Earth	-63781-03-02 23:30 J	-21574525.68	-21574525.52	-21574525.33	0.0088	0.0065
Moon	-63781-03-03 02:23 J	-21574525.55	-21574525.40	-21574525.20	0.0088	0.0065 *
Moon	-63780-03-05 08:52 J	-21574158.26	-21574158.13	-21574157.96	0.0088	0.0073

Earth -63780-03-05 12:28 J -21574158.10 -21574157.98 -21574157.79 0.0088 0.0072 *
 Earth -63779-03-08 01:54 J -21573790.54 -21573790.42 -21573790.28 0.0088 0.0077
 Moon -63779-03-08 05:16 J -21573790.40 -21573790.28 -21573790.13 0.0088 0.0076 *
 Moon -63778-03-10 11:30 J -21573423.07 -21573423.02 -21573422.92 0.0088 0.0084
 Earth -63778-03-10 14:37 J -21573422.96 -21573422.89 -21573422.77 0.0088 0.0083 *
 Earth -63777-03-12 03:49 J -21573055.36 -21573055.34 -21573055.30 0.0088 0.0088
 Moon -63777-03-12 05:59 J -21573055.29 -21573055.25 -21573055.15 0.0088 0.0086
 Venus -63773-02-08 04:18 J -21571627.44 -21571627.32 -21571627.16 0.0088 0.0068
 Venus -63773-09-20 17:59 J -21571401.93 -21571401.75 -21571401.56 0.0088 0.0048
 Venus -63772-05-04 07:11 J -21571176.41 -21571176.20 -21571175.98 0.0088 0.0027
 Venus -63772-12-15 20:37 J -21570950.86 -21570950.64 -21570950.41 0.0088 0.0007
 Venus -63771-07-29 09:49 J -21570725.30 -21570725.09 -21570724.86 0.0088 0.0014
 Venus -63770-03-11 23:01 J -21570499.74 -21570499.54 -21570499.33 0.0088 0.0034
 Venus -63770-10-23 12:13 J -21570274.16 -21570273.99 -21570273.81 0.0088 0.0055
 Venus -63769-06-05 01:11 J -21570048.55 -21570048.45 -21570048.32 0.0088 0.0075
 Mercury -63743-04-03 18:57 J -21560614.73 -21560614.71 -21560614.66 0.0089 0.0085
 Mercury -63743-06-30 20:23 J -21560526.70 -21560526.65 -21560526.58 0.0089 0.0080
 Mercury -63743-09-26 21:49 J -21560438.66 -21560438.59 -21560438.51 0.0089 0.0074
 Mercury -63743-12-23 23:01 J -21560350.61 -21560350.54 -21560350.44 0.0089 0.0069
 Mercury -63742-03-22 00:28 J -21560262.56 -21560262.48 -21560262.38 0.0089 0.0064
 Mercury -63742-06-18 01:54 J -21560174.51 -21560174.42 -21560174.31 0.0089 0.0058
 Mercury -63742-09-14 03:21 J -21560086.46 -21560086.36 -21560086.25 0.0089 0.0052
 Mercury -63742-12-11 04:47 J -21559998.41 -21559998.30 -21559998.19 0.0089 0.0047
 Mercury -63741-03-08 05:59 J -21559910.36 -21559910.25 -21559910.12 0.0089 0.0042
 Mercury -63741-06-04 07:25 J -21559822.31 -21559822.19 -21559822.06 0.0089 0.0036
 Mercury -63741-08-31 08:52 J -21559734.25 -21559734.13 -21559734.00 0.0089 0.0031
 Mercury -63741-11-27 10:04 J -21559646.20 -21559646.08 -21559645.95 0.0089 0.0026
 Mercury -63740-02-23 11:30 J -21559558.15 -21559558.02 -21559557.89 0.0089 0.0020
 Mercury -63740-05-22 12:57 J -21559470.09 -21559469.96 -21559469.83 0.0089 0.0015
 Mercury -63740-08-18 14:09 J -21559382.04 -21559381.91 -21559381.77 0.0089 0.0010

Mercury -63740-11-14 15:35 J -21559293.98 -21559293.85 -21559293.72 0.0089 0.0004
 Mercury -63739-02-10 17:01 J -21559205.93 -21559205.79 -21559205.66 0.0089 0.0003
 Mercury -63739-05-09 18:13 J -21559117.87 -21559117.74 -21559117.61 0.0089 0.0006
 Mercury -63739-08-05 19:40 J -21559029.82 -21559029.68 -21559029.55 0.0089 0.0012
 Mercury -63739-11-01 20:52 J -21558941.76 -21558941.63 -21558941.50 0.0089 0.0017
 Mercury -63738-01-28 22:04 J -21558853.70 -21558853.58 -21558853.44 0.0089 0.0023
 Mercury -63738-04-26 23:30 J -21558765.64 -21558765.52 -21558765.39 0.0089 0.0028
 Mercury -63738-07-24 00:42 J -21558677.59 -21558677.47 -21558677.34 0.0089 0.0033
 Mercury -63738-10-20 01:54 J -21558589.53 -21558589.42 -21558589.29 0.0089 0.0039
 Mercury -63737-01-16 03:21 J -21558501.47 -21558501.36 -21558501.24 0.0089 0.0044
 Mars -63737-02-24 02:52 J -21558462.45 -21558462.38 -21558462.27 0.0089 0.0084
 Mercury -63737-04-13 04:47 J -21558413.41 -21558413.30 -21558413.19 0.0089 0.0049
 Mercury -63737-07-10 05:59 J -21558325.35 -21558325.25 -21558325.14 0.0089 0.0054
 Mercury -63737-10-06 07:11 J -21558237.29 -21558237.20 -21558237.09 0.0089 0.0060
 Mercury -63736-01-02 08:37 J -21558149.22 -21558149.14 -21558149.05 0.0089 0.0065
 Mercury -63736-03-31 09:49 J -21558061.16 -21558061.09 -21558061.00 0.0089 0.0070
 Mercury -63736-06-27 11:16 J -21557973.09 -21557973.03 -21557972.96 0.0089 0.0075
 Mercury -63736-09-23 12:42 J -21557885.03 -21557884.97 -21557884.92 0.0089 0.0080
 Mercury -63736-12-20 13:40 J -21557796.95 -21557796.93 -21557796.88 0.0089 0.0086
 Mars -63735-01-17 11:59 J -21557769.24 -21557769.00 -21557768.73 0.0089 0.0037
 Mars -63734-12-11 19:25 J -21557075.97 -21557075.69 -21557075.41 0.0089 0.0010
 Mars -63732-11-04 01:11 J -21556382.64 -21556382.45 -21556382.21 0.0089 0.0057
 Moon -63725-07-05 18:28 J -21553946.78 -21553946.73 -21553946.64 0.0089 0.0085
 Moon -63724-07-07 22:47 J -21553579.55 -21553579.55 -21553579.51 0.0089 0.0089
 Earth -63724-07-08 01:25 J -21553579.50 -21553579.44 -21553579.34 0.0089 0.0084
 Earth -63723-07-10 11:16 J -21553212.12 -21553212.03 -21553211.89 0.0089 0.0079
 Moon -63723-07-10 12:42 J -21553212.09 -21553211.97 -21553211.80 0.0089 0.0074 *
 Earth -63722-07-12 21:21 J -21552844.74 -21552844.61 -21552844.45 0.0089 0.0073
 Moon -63722-07-12 21:35 J -21552844.72 -21552844.60 -21552844.48 0.0089 0.0077 *
 Moon -63721-07-14 06:28 J -21552477.40 -21552477.23 -21552477.03 0.0089 0.0063

Earth	-63721-07-14 06:57 J	-21552477.34	-21552477.21	-21552477.02	0.0089	0.0068	*
Earth	-63720-07-16 17:01 J	-21552109.94	-21552109.79	-21552109.58	0.0089	0.0062	
Moon	-63720-07-16 19:54 J	-21552109.83	-21552109.67	-21552109.50	0.0089	0.0066	*
Moon	-63719-07-19 00:28 J	-21551742.68	-21551742.48	-21551742.26	0.0089	0.0051	
Earth	-63719-07-19 03:21 J	-21551742.54	-21551742.36	-21551742.15	0.0089	0.0056	*
Earth	-63718-07-21 13:11 J	-21551375.14	-21551374.95	-21551374.72	0.0089	0.0050	
Moon	-63718-07-21 16:47 J	-21551374.98	-21551374.80	-21551374.59	0.0089	0.0054	*
Moon	-63717-07-22 19:54 J	-21551007.88	-21551007.67	-21551007.43	0.0089	0.0039	
Earth	-63717-07-22 23:16 J	-21551007.73	-21551007.53	-21551007.29	0.0089	0.0044	*
Earth	-63716-07-25 09:49 J	-21550640.32	-21550640.09	-21550639.86	0.0089	0.0037	
Moon	-63716-07-25 12:13 J	-21550640.20	-21550639.99	-21550639.75	0.0089	0.0042	*
Moon	-63715-07-27 17:16 J	-21550273.00	-21550272.78	-21550272.54	0.0089	0.0027	
Earth	-63715-07-27 19:40 J	-21550272.91	-21550272.68	-21550272.44	0.0089	0.0031	*
Earth	-63714-07-30 05:16 J	-21549905.51	-21549905.28	-21549905.03	0.0089	0.0025	
Moon	-63714-07-30 06:28 J	-21549905.48	-21549905.23	-21549904.99	0.0089	0.0030	*
Earth	-63713-07-31 15:06 J	-21549538.10	-21549537.87	-21549537.61	0.0089	0.0020	
Moon	-63713-07-31 15:49 J	-21549538.08	-21549537.84	-21549537.60	0.0089	0.0015	*
Moon	-63712-08-02 23:45 J	-21549170.75	-21549170.51	-21549170.24	0.0089	0.0017	
Earth	-63712-08-03 01:25 J	-21549170.69	-21549170.44	-21549170.19	0.0089	0.0013	*
Earth	-63711-08-05 11:16 J	-21548803.28	-21548803.03	-21548802.78	0.0089	0.0006	
Moon	-63711-08-05 13:54 J	-21548803.16	-21548802.92	-21548802.67	0.0089	0.0002	*
Moon	-63710-08-07 17:59 J	-21548436.01	-21548435.75	-21548435.50	0.0089	0.0005	
Earth	-63710-08-07 21:06 J	-21548435.87	-21548435.62	-21548435.36	0.0089	0.0001	*
Earth	-63709-08-09 06:57 J	-21548068.46	-21548068.21	-21548067.96	0.0089	0.0006	
Moon	-63709-08-09 10:33 J	-21548068.31	-21548068.06	-21548067.81	0.0089	0.0011	*
Moon	-63708-08-11 13:40 J	-21547701.17	-21547700.93	-21547700.68	0.0089	0.0008	
Earth	-63708-08-11 16:47 J	-21547701.04	-21547700.80	-21547700.54	0.0089	0.0013	*
Earth	-63707-08-14 02:52 J	-21547333.62	-21547333.38	-21547333.12	0.0089	0.0019	
Moon	-63707-08-14 05:16 J	-21547333.52	-21547333.28	-21547333.02	0.0089	0.0024	*
Moon	-63706-08-16 11:16 J	-21546966.27	-21546966.03	-21546965.79	0.0089	0.0021	

Earth	-63706-08-16 12:57 J	-21546966.19	-21546965.96	-21546965.71	0.0089	0.0026	*
Earth	-63705-08-17 23:16 J	-21546598.76	-21546598.53	-21546598.29	0.0089	0.0032	
Moon	-63705-08-17 23:16 J	-21546598.75	-21546598.53	-21546598.28	0.0089	0.0036	*
Earth	-63704-08-20 09:21 J	-21546231.33	-21546231.11	-21546230.87	0.0089	0.0038	
Moon	-63704-08-20 10:18 J	-21546231.28	-21546231.07	-21546230.83	0.0089	0.0034	*
Moon	-63703-08-22 17:30 J	-21545863.97	-21545863.77	-21545863.53	0.0089	0.0048	
Earth	-63703-08-22 19:25 J	-21545863.89	-21545863.69	-21545863.46	0.0089	0.0044	*
Earth	-63702-08-25 05:30 J	-21545496.46	-21545496.27	-21545496.05	0.0089	0.0051	
Moon	-63702-08-25 08:23 J	-21545496.34	-21545496.15	-21545495.91	0.0089	0.0047	*
Moon	-63701-08-26 12:42 J	-21545129.15	-21545128.97	-21545128.78	0.0089	0.0061	
Earth	-63701-08-26 15:49 J	-21545129.02	-21545128.84	-21545128.63	0.0089	0.0056	*
Earth	-63700-08-29 01:54 J	-21544761.58	-21544761.42	-21544761.22	0.0089	0.0063	
Moon	-63700-08-29 05:30 J	-21544761.45	-21544761.27	-21544761.06	0.0089	0.0059	*
Moon	-63699-08-31 09:35 J	-21544394.24	-21544394.10	-21544393.96	0.0089	0.0073	
Earth	-63699-08-31 11:59 J	-21544394.13	-21544394.00	-21544393.81	0.0089	0.0069	*
Earth	-63698-09-02 22:04 J	-21544026.69	-21544026.58	-21544026.41	0.0089	0.0075	
Moon	-63698-09-03 00:13 J	-21544026.62	-21544026.49	-21544026.30	0.0089	0.0071	*
Moon	-63697-09-04 07:25 J	-21543659.26	-21543659.19	-21543659.09	0.0089	0.0084	
Earth	-63697-09-04 08:52 J	-21543659.23	-21543659.13	-21543659.00	0.0089	0.0080	*
Moon	-63696-09-06 19:25 J	-21543291.80	-21543291.69	-21543291.58	0.0089	0.0081	
Earth	-63696-09-06 19:11 J	-21543291.75	-21543291.70	-21543291.61	0.0089	0.0085	*
Venus	-63692-08-08 14:52 J	-21541859.93	-21541859.88	-21541859.81	0.0089	0.0086	
Venus	-63691-03-22 03:21 J	-21541634.49	-21541634.36	-21541634.20	0.0089	0.0065	
Venus	-63691-11-02 15:49 J	-21541409.01	-21541408.84	-21541408.64	0.0089	0.0045	
Venus	-63690-06-16 04:47 J	-21541183.50	-21541183.30	-21541183.08	0.0089	0.0024	
Venus	-63689-01-27 17:30 J	-21540957.98	-21540957.77	-21540957.55	0.0089	0.0004	
Venus	-63689-09-09 05:59 J	-21540732.45	-21540732.25	-21540732.03	0.0089	0.0018	
Venus	-63688-04-22 18:42 J	-21540506.91	-21540506.72	-21540506.52	0.0089	0.0038	
Venus	-63688-12-04 07:11 J	-21540281.35	-21540281.20	-21540281.02	0.0089	0.0058	
Venus	-63687-07-17 19:40 J	-21540055.75	-21540055.68	-21540055.55	0.0089	0.0080	

Mercury -63660-03-19 12:28 J -21530314.04 -21530313.98 -21530313.90 0.0089 0.0082

Mercury -63660-06-15 15:49 J -21530225.92 -21530225.84 -21530225.72 0.0089 0.0075

Mercury -63660-09-11 19:40 J -21530137.80 -21530137.68 -21530137.55 0.0089 0.0067

Mercury -63660-12-08 23:16 J -21530049.67 -21530049.53 -21530049.38 0.0089 0.0059

Mercury -63659-03-07 02:37 J -21529961.53 -21529961.39 -21529961.22 0.0089 0.0052

Mercury -63659-06-03 06:13 J -21529873.40 -21529873.24 -21529873.06 0.0089 0.0044

Mercury -63659-08-30 10:04 J -21529785.26 -21529785.08 -21529784.90 0.0089 0.0036

Mercury -63659-11-26 13:25 J -21529697.11 -21529696.94 -21529696.75 0.0089 0.0029

Mercury -63658-02-22 17:01 J -21529608.97 -21529608.79 -21529608.59 0.0089 0.0021

Mercury -63658-05-21 20:52 J -21529520.82 -21529520.63 -21529520.44 0.0089 0.0013

Mercury -63658-08-18 00:13 J -21529432.68 -21529432.49 -21529432.29 0.0089 0.0006

Mercury -63658-11-14 04:04 J -21529344.53 -21529344.33 -21529344.14 0.0089 0.0003

Mercury -63657-02-10 07:25 J -21529256.38 -21529256.19 -21529255.99 0.0089 0.0011

Mercury -63657-05-08 11:16 J -21529168.22 -21529168.03 -21529167.84 0.0089 0.0018

Mercury -63657-08-04 14:52 J -21529080.07 -21529079.88 -21529079.69 0.0089 0.0026

Mercury -63657-10-31 18:13 J -21528991.91 -21528991.74 -21528991.55 0.0089 0.0034

Mercury -63656-01-27 21:49 J -21528903.75 -21528903.59 -21528903.41 0.0089 0.0042

Mercury -63656-04-26 01:25 J -21528815.59 -21528815.44 -21528815.26 0.0089 0.0050

Mercury -63656-07-23 05:30 J -21528727.42 -21528727.27 -21528727.12 0.0089 0.0057

Mercury -63656-10-19 08:52 J -21528639.25 -21528639.13 -21528638.99 0.0089 0.0065

Mercury -63655-01-15 12:28 J -21528551.08 -21528550.98 -21528550.86 0.0089 0.0073

Mercury -63655-04-13 16:04 J -21528462.89 -21528462.83 -21528462.74 0.0089 0.0081

Mercury -63655-07-10 19:54 J -21528374.67 -21528374.67 -21528374.65 0.0089 0.0088

Mars -63654-10-21 19:40 J -21527906.98 -21527906.68 -21527906.36 0.0089 0.0041

Mars -63652-09-17 13:25 J -21527210.28 -21527209.94 -21527209.59 0.0089 0.0018

Mars -63650-08-15 08:23 J -21526513.29 -21526513.15 -21526512.94 0.0089 0.0077

Moon -63642-01-04 09:06 J -21523814.18 -21523814.12 -21523814.04 0.0088 0.0085

Earth -63642-01-04 10:33 J -21523814.08 -21523814.06 -21523814.00 0.0088 0.0088 *

Earth -63641-01-07 00:13 J -21523446.57 -21523446.49 -21523446.37 0.0088 0.0082

Moon -63641-01-07 00:28 J -21523446.55 -21523446.48 -21523446.38 0.0088 0.0084 *

Earth	-63640-01-08 13:54 J	-21523079.05	-21523078.92	-21523078.78	0.0088	0.0076
Moon	-63640-01-08 13:54 J	-21523079.03	-21523078.92	-21523078.75	0.0088	0.0074 *
Moon	-63639-01-11 01:25 J	-21522711.58	-21522711.44	-21522711.28	0.0088	0.0073
Earth	-63639-01-11 02:52 J	-21522711.50	-21522711.38	-21522711.19	0.0088	0.0071 *
Earth	-63638-01-13 16:33 J	-21522343.97	-21522343.81	-21522343.60	0.0088	0.0065
Moon	-63638-01-13 19:40 J	-21522343.85	-21522343.68	-21522343.48	0.0088	0.0062 *
Moon	-63637-01-16 02:52 J	-21521976.55	-21521976.38	-21521976.17	0.0088	0.0062
Earth	-63637-01-16 06:28 J	-21521976.42	-21521976.23	-21521976.02	0.0088	0.0058 *
Earth	-63636-01-17 19:54 J	-21521608.88	-21521608.67	-21521608.45	0.0088	0.0052
Moon	-63636-01-17 23:16 J	-21521608.72	-21521608.53	-21521608.28	0.0088	0.0049 *
Moon	-63635-01-20 05:59 J	-21521241.46	-21521241.25	-21521241.03	0.0088	0.0049
Earth	-63635-01-20 09:06 J	-21521241.33	-21521241.12	-21521240.88	0.0088	0.0046 *
Earth	-63634-01-22 22:33 J	-21520873.78	-21520873.56	-21520873.31	0.0088	0.0039
Moon	-63634-01-23 01:40 J	-21520873.66	-21520873.43	-21520873.17	0.0088	0.0035 *
Moon	-63633-01-25 10:18 J	-21520506.30	-21520506.07	-21520505.84	0.0088	0.0037
Earth	-63633-01-25 12:28 J	-21520506.23	-21520505.98	-21520505.74	0.0088	0.0033 *
Earth	-63632-01-27 01:25 J	-21520138.68	-21520138.44	-21520138.18	0.0088	0.0027
Moon	-63632-01-27 02:09 J	-21520138.66	-21520138.41	-21520138.13	0.0088	0.0023 *
Earth	-63631-01-29 14:52 J	-21519771.12	-21519770.88	-21519770.61	0.0088	0.0020
Moon	-63631-01-29 14:52 J	-21519771.11	-21519770.88	-21519770.63	0.0088	0.0024 *
Moon	-63630-02-01 03:06 J	-21519403.64	-21519403.37	-21519403.10	0.0088	0.0009
Earth	-63630-02-01 04:47 J	-21519403.56	-21519403.30	-21519403.04	0.0088	0.0014 *
Earth	-63629-02-03 17:59 J	-21519036.00	-21519035.75	-21519035.48	0.0088	0.0008
Moon	-63629-02-03 20:23 J	-21519035.89	-21519035.65	-21519035.38	0.0088	0.0012 *
Moon	-63628-02-05 04:47 J	-21518668.57	-21518668.30	-21518668.03	0.0088	0.0004
Earth	-63628-02-05 07:54 J	-21518668.44	-21518668.17	-21518667.91	0.0088	0.0001 *
Earth	-63627-02-07 21:06 J	-21518300.88	-21518300.62	-21518300.35	0.0088	0.0007
Moon	-63627-02-08 00:57 J	-21518300.72	-21518300.46	-21518300.19	0.0088	0.0002 *
Moon	-63626-02-10 07:11 J	-21517933.44	-21517933.20	-21517932.93	0.0088	0.0017
Earth	-63626-02-10 11:01 J	-21517933.30	-21517933.04	-21517932.78	0.0088	0.0013 *

Earth	-63625-02-13 00:13 J	-21517565.74	-21517565.49	-21517565.23	0.0088	0.0019
Moon	-63625-02-13 03:49 J	-21517565.60	-21517565.34	-21517565.08	0.0088	0.0015 *
Moon	-63624-02-14 11:01 J	-21517198.27	-21517198.04	-21517197.79	0.0088	0.0030
Earth	-63624-02-14 13:40 J	-21517198.18	-21517197.93	-21517197.68	0.0088	0.0026 *
Earth	-63623-02-17 02:37 J	-21516830.62	-21516830.39	-21516830.13	0.0088	0.0033
Moon	-63623-02-17 04:04 J	-21516830.57	-21516830.33	-21516830.06	0.0088	0.0028 *
Moon	-63622-02-19 15:06 J	-21516463.07	-21516462.87	-21516462.62	0.0088	0.0044
Earth	-63622-02-19 16:04 J	-21516463.05	-21516462.83	-21516462.58	0.0088	0.0039 *
Moon	-63621-02-22 03:49 J	-21516095.56	-21516095.34	-21516095.07	0.0088	0.0041
Earth	-63621-02-22 05:30 J	-21516095.50	-21516095.27	-21516095.04	0.0088	0.0045 *
Earth	-63620-02-23 17:59 J	-21515727.93	-21515727.75	-21515727.51	0.0088	0.0052
Moon	-63620-02-23 20:09 J	-21515727.83	-21515727.66	-21515727.44	0.0088	0.0056 *
Moon	-63619-02-26 04:47 J	-21515360.50	-21515360.30	-21515360.07	0.0088	0.0053
Earth	-63619-02-26 07:25 J	-21515360.37	-21515360.19	-21515359.97	0.0088	0.0057 *
Earth	-63618-02-28 20:37 J	-21514992.80	-21514992.64	-21514992.44	0.0088	0.0063
Moon	-63618-02-28 23:59 J	-21514992.63	-21514992.50	-21514992.30	0.0088	0.0069 *
Moon	-63617-03-02 06:57 J	-21514625.39	-21514625.21	-21514625.04	0.0088	0.0065
Earth	-63617-03-02 09:49 J	-21514625.23	-21514625.09	-21514624.90	0.0088	0.0070 *
Earth	-63616-03-04 22:47 J	-21514257.66	-21514257.55	-21514257.39	0.0088	0.0075
Moon	-63616-03-05 02:37 J	-21514257.48	-21514257.39	-21514257.26	0.0088	0.0080 *
Moon	-63615-03-07 09:35 J	-21513890.21	-21513890.10	-21513889.95	0.0088	0.0077
Earth	-63615-03-07 11:59 J	-21513890.07	-21513890.00	-21513889.87	0.0088	0.0081 *
Earth	-63614-03-10 01:25 J	-21513522.47	-21513522.44	-21513522.37	0.0088	0.0087
Moon	-63613-03-11 13:40 J	-21513154.93	-21513154.93	-21513154.92	0.0088	0.0088
Venus	-63609-05-11 16:33 J	-21511632.92	-21511632.81	-21511632.68	0.0088	0.0074
Venus	-63609-12-23 05:45 J	-21511407.42	-21511407.26	-21511407.07	0.0088	0.0054
Venus	-63608-08-05 19:25 J	-21511181.89	-21511181.69	-21511181.48	0.0088	0.0034
Venus	-63607-03-19 08:37 J	-21510956.36	-21510956.14	-21510955.91	0.0088	0.0013
Venus	-63607-10-30 21:49 J	-21510730.81	-21510730.59	-21510730.36	0.0088	0.0008
Venus	-63606-06-13 10:47 J	-21510505.24	-21510505.05	-21510504.82	0.0088	0.0029

Venus -63605-01-25 00:13 J -21510279.66 -21510279.49 -21510279.29 0.0088 0.0049

Venus -63605-09-06 13:40 J -21510054.06 -21510053.93 -21510053.78 0.0088 0.0069

Mercury -63579-10-02 17:30 J -21500531.77 -21500531.77 -21500531.73 0.0089 0.0088

Mercury -63579-12-29 19:11 J -21500443.74 -21500443.70 -21500443.64 0.0089 0.0082

Mercury -63578-03-27 20:23 J -21500355.70 -21500355.65 -21500355.57 0.0089 0.0077

Mercury -63578-06-23 22:04 J -21500267.66 -21500267.58 -21500267.50 0.0089 0.0071

Mercury -63578-09-19 23:16 J -21500179.61 -21500179.53 -21500179.43 0.0089 0.0066

Mercury -63578-12-17 00:28 J -21500091.56 -21500091.48 -21500091.37 0.0089 0.0061

Mercury -63577-03-14 02:09 J -21500003.51 -21500003.41 -21500003.30 0.0089 0.0055

Mercury -63577-06-10 03:21 J -21499915.46 -21499915.36 -21499915.24 0.0089 0.0050

Mercury -63577-09-06 05:01 J -21499827.41 -21499827.29 -21499827.18 0.0089 0.0044

Mercury -63577-12-03 06:13 J -21499739.36 -21499739.24 -21499739.12 0.0089 0.0039

Mercury -63576-03-01 07:25 J -21499651.30 -21499651.19 -21499651.06 0.0089 0.0034

Mercury -63576-05-28 08:52 J -21499563.25 -21499563.13 -21499563.00 0.0089 0.0028

Mercury -63576-08-24 10:18 J -21499475.20 -21499475.07 -21499474.94 0.0089 0.0023

Mercury -63576-11-20 11:45 J -21499387.14 -21499387.01 -21499386.88 0.0089 0.0017

Mercury -63575-02-16 13:11 J -21499299.09 -21499298.95 -21499298.82 0.0089 0.0012

Mercury -63575-05-15 14:23 J -21499211.03 -21499210.90 -21499210.77 0.0089 0.0006

Mercury -63575-08-11 15:49 J -21499122.98 -21499122.84 -21499122.71 0.0089 0.0002

Mercury -63575-11-07 17:01 J -21499034.92 -21499034.79 -21499034.65 0.0089 0.0005

Mercury -63574-02-03 18:28 J -21498946.86 -21498946.73 -21498946.60 0.0089 0.0010

Mercury -63574-05-02 19:40 J -21498858.81 -21498858.68 -21498858.55 0.0089 0.0015

Mercury -63574-07-29 20:52 J -21498770.75 -21498770.63 -21498770.49 0.0089 0.0021

Mercury -63574-10-25 22:18 J -21498682.69 -21498682.57 -21498682.44 0.0089 0.0026

Mercury -63573-01-21 23:45 J -21498594.64 -21498594.51 -21498594.39 0.0089 0.0031

Mercury -63573-04-19 00:57 J -21498506.58 -21498506.46 -21498506.33 0.0089 0.0036

Mercury -63573-07-16 02:09 J -21498418.52 -21498418.41 -21498418.28 0.0089 0.0042

Mercury -63573-10-12 03:35 J -21498330.46 -21498330.35 -21498330.23 0.0089 0.0047

Mercury -63572-01-08 05:01 J -21498242.40 -21498242.29 -21498242.19 0.0089 0.0052

Mercury -63572-04-06 05:59 J -21498154.34 -21498154.25 -21498154.14 0.0089 0.0058

Mercury -63572-07-03 07:25 J -21498066.27 -21498066.19 -21498066.09 0.0089 0.0063

Mars -63572-09-02 09:21 J -21498005.31 -21498005.11 -21498004.86 0.0089 0.0055

Mercury -63572-09-29 08:52 J -21497978.21 -21497978.13 -21497978.04 0.0089 0.0068

Mercury -63572-12-26 10:18 J -21497890.15 -21497890.07 -21497890.00 0.0089 0.0073

Mercury -63571-03-24 11:16 J -21497802.08 -21497802.03 -21497801.96 0.0089 0.0079

Mercury -63571-06-20 12:42 J -21497714.00 -21497713.97 -21497713.92 0.0089 0.0084

Mars -63570-07-27 18:42 J -21497312.00 -21497311.72 -21497311.44 0.0089 0.0008

Mars -63568-06-20 01:54 J -21496618.66 -21496618.42 -21496618.15 0.0089 0.0039

Mars -63566-05-14 07:40 J -21495925.23 -21495925.18 -21495925.06 0.0089 0.0085

Earth -63560-07-07 14:52 J -21493678.95 -21493678.88 -21493678.80 0.0089 0.0084

Moon -63560-07-07 16:18 J -21493678.90 -21493678.82 -21493678.72 0.0089 0.0083 *

Earth -63559-07-10 00:13 J -21493311.58 -21493311.49 -21493311.35 0.0089 0.0079

Moon -63559-07-10 00:42 J -21493311.57 -21493311.47 -21493311.35 0.0089 0.0079 *

Moon -63558-07-12 08:37 J -21492944.27 -21492944.14 -21492943.97 0.0089 0.0073

Earth -63558-07-12 10:18 J -21492944.19 -21492944.07 -21492943.91 0.0089 0.0073 *

Earth -63557-07-13 20:23 J -21492576.80 -21492576.65 -21492576.47 0.0089 0.0067

Moon -63557-07-13 22:18 J -21492576.70 -21492576.57 -21492576.39 0.0089 0.0068 *

Moon -63556-07-16 02:52 J -21492209.54 -21492209.38 -21492209.17 0.0089 0.0061

Earth -63556-07-16 06:28 J -21492209.40 -21492209.23 -21492209.04 0.0089 0.0061 *

Earth -63555-07-18 16:18 J -21491842.01 -21491841.82 -21491841.61 0.0089 0.0055

Moon -63555-07-18 19:54 J -21491841.86 -21491841.67 -21491841.47 0.0089 0.0055 *

Moon -63554-07-20 22:47 J -21491474.75 -21491474.55 -21491474.33 0.0089 0.0048

Earth -63554-07-21 02:09 J -21491474.61 -21491474.41 -21491474.19 0.0089 0.0049 *

Earth -63553-07-22 11:59 J -21491107.20 -21491107.00 -21491106.76 0.0089 0.0043

Moon -63553-07-22 14:52 J -21491107.08 -21491106.88 -21491106.63 0.0089 0.0044 *

Moon -63552-07-24 20:52 J -21490739.84 -21490739.63 -21490739.40 0.0089 0.0036

Earth -63552-07-24 22:33 J -21490739.79 -21490739.56 -21490739.33 0.0089 0.0036 *

Earth -63551-07-27 08:09 J -21490372.38 -21490372.16 -21490371.91 0.0089 0.0031

Moon -63551-07-27 09:06 J -21490372.35 -21490372.12 -21490371.86 0.0089 0.0031 *

Earth -63550-07-29 18:13 J -21490004.97 -21490004.74 -21490004.48 0.0089 0.0024

Moon	-63550-07-29 18:57 J	-21490004.94	-21490004.71	-21490004.46	0.0089	0.0023	*
Moon	-63549-07-31 02:23 J	-21489637.65	-21489637.40	-21489637.14	0.0089	0.0017	
Earth	-63549-07-31 04:33 J	-21489637.55	-21489637.31	-21489637.06	0.0089	0.0017	*
Earth	-63548-08-02 14:23 J	-21489270.14	-21489269.90	-21489269.64	0.0089	0.0011	
Moon	-63548-08-02 17:01 J	-21489270.03	-21489269.79	-21489269.54	0.0089	0.0009	*
Moon	-63547-08-04 20:52 J	-21488902.88	-21488902.63	-21488902.37	0.0089	0.0005	
Earth	-63547-08-05 00:28 J	-21488902.73	-21488902.48	-21488902.22	0.0089	0.0004	*
Earth	-63546-08-07 10:18 J	-21488535.32	-21488535.07	-21488534.82	0.0089	0.0002	
Moon	-63546-08-07 13:40 J	-21488535.18	-21488534.93	-21488534.67	0.0089	0.0003	*
Moon	-63545-08-08 17:16 J	-21488168.03	-21488167.78	-21488167.53	0.0089	0.0007	
Earth	-63545-08-08 20:09 J	-21488167.90	-21488167.66	-21488167.40	0.0089	0.0010	*
Earth	-63544-08-11 06:13 J	-21487800.48	-21487800.24	-21487799.99	0.0089	0.0015	
Moon	-63544-08-11 08:37 J	-21487800.38	-21487800.14	-21487799.87	0.0089	0.0017	*
Moon	-63543-08-13 15:06 J	-21487433.10	-21487432.87	-21487432.63	0.0089	0.0021	
Earth	-63543-08-13 15:49 J	-21487433.07	-21487432.84	-21487432.58	0.0089	0.0023	*
Earth	-63542-08-16 02:09 J	-21487065.64	-21487065.41	-21487065.16	0.0089	0.0028	
Moon	-63542-08-16 02:37 J	-21487065.64	-21487065.39	-21487065.14	0.0089	0.0030	*
Earth	-63541-08-17 12:28 J	-21486698.21	-21486697.98	-21486697.75	0.0089	0.0035	
Moon	-63541-08-17 13:25 J	-21486698.16	-21486697.94	-21486697.71	0.0089	0.0033	*
Moon	-63540-08-19 19:54 J	-21486330.89	-21486330.67	-21486330.43	0.0089	0.0042	
Earth	-63540-08-19 22:18 J	-21486330.78	-21486330.57	-21486330.33	0.0089	0.0041	*
Earth	-63539-08-22 08:37 J	-21485963.34	-21485963.14	-21485962.92	0.0089	0.0047	
Moon	-63539-08-22 11:16 J	-21485963.22	-21485963.03	-21485962.80	0.0089	0.0046	*
Moon	-63538-08-24 15:06 J	-21485596.05	-21485595.87	-21485595.66	0.0089	0.0055	
Earth	-63538-08-24 19:11 J	-21485595.90	-21485595.70	-21485595.50	0.0089	0.0054	*
Earth	-63537-08-26 04:47 J	-21485228.46	-21485228.30	-21485228.09	0.0089	0.0060	
Moon	-63537-08-26 08:37 J	-21485228.33	-21485228.14	-21485227.95	0.0089	0.0059	*
Moon	-63536-08-28 12:13 J	-21484861.13	-21484860.99	-21484860.81	0.0089	0.0068	
Earth	-63536-08-28 15:06 J	-21484861.01	-21484860.87	-21484860.68	0.0089	0.0066	*
Earth	-63535-08-31 01:11 J	-21484493.58	-21484493.45	-21484493.28	0.0089	0.0072	

Moon -63535-08-31 03:21 J -21484493.50 -21484493.36 -21484493.18 0.0089 0.0070 *
 Moon -63534-09-02 11:01 J -21484126.13 -21484126.04 -21484125.91 0.0089 0.0080
 Earth -63534-09-02 11:16 J -21484126.12 -21484126.03 -21484125.88 0.0089 0.0079 *
 Moon -63533-09-03 21:49 J -21483758.68 -21483758.59 -21483758.47 0.0089 0.0082
 Earth -63533-09-03 22:18 J -21483758.65 -21483758.57 -21483758.48 0.0089 0.0084 *
 Earth -63532-09-06 08:37 J -21483391.14 -21483391.14 -21483391.14 0.0089 0.0089
 Venus -63527-06-23 15:49 J -21481639.95 -21481639.84 -21481639.70 0.0089 0.0072
 Venus -63526-02-04 04:47 J -21481414.48 -21481414.30 -21481414.12 0.0089 0.0052
 Venus -63526-09-17 17:01 J -21481188.98 -21481188.79 -21481188.57 0.0089 0.0032
 Venus -63525-04-30 05:45 J -21480963.47 -21480963.26 -21480963.04 0.0089 0.0011
 Venus -63525-12-11 18:28 J -21480737.94 -21480737.73 -21480737.51 0.0089 0.0010
 Venus -63524-07-25 07:11 J -21480512.40 -21480512.20 -21480511.99 0.0089 0.0030
 Venus -63523-03-07 19:40 J -21480286.85 -21480286.68 -21480286.49 0.0089 0.0051
 Venus -63523-10-19 08:23 J -21480061.27 -21480061.15 -21480061.01 0.0089 0.0072
 Mercury -63496-09-17 08:37 J -21470231.19 -21470231.14 -21470231.09 0.0089 0.0085
 Mercury -63496-12-14 11:45 J -21470143.08 -21470143.01 -21470142.90 0.0089 0.0078
 Mercury -63495-03-12 15:35 J -21470054.96 -21470054.85 -21470054.73 0.0089 0.0070
 Mercury -63495-06-08 18:57 J -21469966.83 -21469966.71 -21469966.56 0.0089 0.0063
 Mercury -63495-09-04 22:33 J -21469878.70 -21469878.56 -21469878.40 0.0089 0.0055
 Mercury -63495-12-02 02:23 J -21469790.56 -21469790.40 -21469790.24 0.0089 0.0047
 Mercury -63494-02-28 05:30 J -21469702.43 -21469702.27 -21469702.08 0.0089 0.0040
 Mercury -63494-05-27 09:21 J -21469614.29 -21469614.11 -21469613.93 0.0089 0.0032
 Mercury -63494-08-23 12:57 J -21469526.14 -21469525.96 -21469525.77 0.0089 0.0024
 Mercury -63494-11-19 16:18 J -21469438.00 -21469437.82 -21469437.62 0.0089 0.0017
 Mercury -63493-02-15 20:09 J -21469349.85 -21469349.66 -21469349.47 0.0089 0.0009
 Mercury -63493-05-13 23:45 J -21469261.70 -21469261.51 -21469261.32 0.0089 0.0001
 Mercury -63493-08-10 03:21 J -21469173.55 -21469173.36 -21469173.17 0.0089 0.0007
 Mercury -63493-11-06 06:57 J -21469085.40 -21469085.21 -21469085.02 0.0089 0.0015
 Mercury -63492-02-02 10:18 J -21468997.25 -21468997.07 -21468996.87 0.0089 0.0023
 Mercury -63492-05-01 13:54 J -21468909.09 -21468908.92 -21468908.73 0.0089 0.0031

Mercury -63492-07-28 17:45 J -21468820.93 -21468820.76 -21468820.58 0.0089 0.0038

Mercury -63492-10-24 21:21 J -21468732.77 -21468732.61 -21468732.44 0.0089 0.0046

Mercury -63491-01-21 00:42 J -21468644.61 -21468644.47 -21468644.30 0.0089 0.0054

Mercury -63491-04-19 04:18 J -21468556.44 -21468556.32 -21468556.16 0.0089 0.0062

Mercury -63491-07-16 07:54 J -21468468.27 -21468468.17 -21468468.03 0.0089 0.0070

Mercury -63491-10-12 11:59 J -21468380.09 -21468380.00 -21468379.91 0.0089 0.0077

Mercury -63490-01-08 15:21 J -21468291.90 -21468291.86 -21468291.79 0.0089 0.0085

Mars -63490-06-04 05:01 J -21468145.51 -21468145.29 -21468145.02 0.0089 0.0063

Mars -63488-04-30 21:49 J -21467448.93 -21467448.59 -21467448.23 0.0089 0.0006

Mars -63486-03-28 15:49 J -21466752.10 -21466751.84 -21466751.54 0.0089 0.0053

Moon -63478-01-03 20:52 J -21463913.70 -21463913.63 -21463913.53 0.0088 0.0084

Earth -63478-01-03 20:37 J -21463913.65 -21463913.64 -21463913.59 0.0088 0.0088 *

Earth -63477-01-06 10:04 J -21463546.16 -21463546.08 -21463545.97 0.0088 0.0082

Moon -63477-01-06 11:59 J -21463546.06 -21463546.00 -21463545.94 0.0088 0.0086 *

Moon -63476-01-07 21:06 J -21463178.75 -21463178.62 -21463178.44 0.0088 0.0073

Earth -63476-01-07 23:59 J -21463178.63 -21463178.50 -21463178.36 0.0088 0.0076 *

Earth -63475-01-10 13:11 J -21462811.10 -21462810.95 -21462810.78 0.0088 0.0070

Moon -63475-01-10 16:04 J -21462810.95 -21462810.83 -21462810.67 0.0088 0.0074 *

Moon -63474-01-12 23:01 J -21462443.72 -21462443.54 -21462443.33 0.0088 0.0060

Earth -63474-01-13 02:52 J -21462443.55 -21462443.38 -21462443.18 0.0088 0.0064 *

Earth -63473-01-15 16:18 J -21462076.00 -21462075.82 -21462075.60 0.0088 0.0057

Moon -63473-01-15 19:40 J -21462075.85 -21462075.68 -21462075.46 0.0088 0.0061 *

Moon -63472-01-17 02:37 J -21461708.60 -21461708.39 -21461708.17 0.0088 0.0048

Earth -63472-01-17 06:13 J -21461708.45 -21461708.24 -21461708.02 0.0088 0.0051 *

Earth -63471-01-19 19:25 J -21461340.90 -21461340.69 -21461340.45 0.0088 0.0045

Moon -63471-01-19 21:49 J -21461340.80 -21461340.59 -21461340.34 0.0088 0.0048 *

Moon -63470-01-22 07:25 J -21460973.41 -21460973.19 -21460972.94 0.0088 0.0036

Earth -63470-01-22 08:52 J -21460973.34 -21460973.13 -21460972.87 0.0088 0.0039 *

Earth -63469-01-24 22:18 J -21460605.80 -21460605.57 -21460605.31 0.0088 0.0032

Moon -63469-01-24 23:16 J -21460605.77 -21460605.53 -21460605.27 0.0088 0.0034 *

Earth	-63468-01-26 12:13 J	-21460238.24	-21460237.99	-21460237.74	0.0088	0.0025
Moon	-63468-01-26 12:57 J	-21460238.19	-21460237.96	-21460237.70	0.0088	0.0022 *
Moon	-63467-01-28 23:45 J	-21459870.77	-21459870.51	-21459870.24	0.0088	0.0021
Earth	-63467-01-29 01:25 J	-21459870.69	-21459870.44	-21459870.17	0.0088	0.0019 *
Earth	-63466-01-31 15:06 J	-21459503.13	-21459502.87	-21459502.61	0.0088	0.0012
Moon	-63466-01-31 17:45 J	-21459503.01	-21459502.76	-21459502.50	0.0088	0.0010 *
Moon	-63465-02-03 00:57 J	-21459135.72	-21459135.46	-21459135.19	0.0088	0.0008
Earth	-63465-02-03 04:33 J	-21459135.57	-21459135.31	-21459135.04	0.0088	0.0005 *
Earth	-63464-02-04 17:59 J	-21458768.01	-21458767.75	-21458767.49	0.0088	0.0002
Moon	-63464-02-04 21:35 J	-21458767.87	-21458767.60	-21458767.34	0.0088	0.0003 *
Moon	-63463-02-07 03:49 J	-21458400.60	-21458400.34	-21458400.08	0.0088	0.0007
Earth	-63463-02-07 07:40 J	-21458400.44	-21458400.18	-21458399.92	0.0088	0.0009 *
Earth	-63462-02-09 20:52 J	-21458032.88	-21458032.63	-21458032.36	0.0088	0.0016
Moon	-63462-02-09 23:30 J	-21458032.77	-21458032.52	-21458032.24	0.0088	0.0018 *
Moon	-63461-02-12 08:09 J	-21457665.40	-21457665.16	-21457664.90	0.0088	0.0021
Earth	-63461-02-12 10:18 J	-21457665.31	-21457665.07	-21457664.80	0.0088	0.0022 *
Earth	-63460-02-13 23:59 J	-21457297.75	-21457297.50	-21457297.25	0.0088	0.0029
Moon	-63460-02-14 00:57 J	-21457297.71	-21457297.46	-21457297.19	0.0088	0.0029 *
Earth	-63459-02-16 13:11 J	-21456930.18	-21456929.95	-21456929.70	0.0088	0.0035
Moon	-63459-02-16 13:40 J	-21456930.15	-21456929.93	-21456929.68	0.0088	0.0034 *
Moon	-63458-02-19 01:11 J	-21456562.67	-21456562.45	-21456562.19	0.0088	0.0042
Earth	-63458-02-19 02:52 J	-21456562.62	-21456562.38	-21456562.15	0.0088	0.0042 *
Earth	-63457-02-21 15:35 J	-21456195.05	-21456194.85	-21456194.61	0.0088	0.0048
Moon	-63457-02-21 17:45 J	-21456194.95	-21456194.76	-21456194.52	0.0088	0.0049 *
Moon	-63456-02-23 01:25 J	-21455827.63	-21455827.44	-21455827.22	0.0088	0.0056
Earth	-63456-02-23 05:01 J	-21455827.49	-21455827.29	-21455827.08	0.0088	0.0055 *
Earth	-63455-02-25 18:13 J	-21455459.93	-21455459.74	-21455459.55	0.0088	0.0061
Moon	-63455-02-25 21:21 J	-21455459.78	-21455459.61	-21455459.41	0.0088	0.0062 *
Moon	-63454-02-28 03:06 J	-21455092.51	-21455092.37	-21455092.17	0.0088	0.0067
Earth	-63454-02-28 06:57 J	-21455092.35	-21455092.21	-21455092.01	0.0088	0.0067 *

Earth	-63453-03-01 19:54 J	-21454724.79	-21454724.67	-21454724.50	0.0088	0.0073
Moon	-63453-03-01 22:47 J	-21454724.67	-21454724.55	-21454724.37	0.0088	0.0074 *
Moon	-63452-03-04 06:28 J	-21454357.32	-21454357.23	-21454357.09	0.0088	0.0079
Earth	-63452-03-04 09:06 J	-21454357.21	-21454357.12	-21454356.98	0.0088	0.0079 *
Earth	-63451-03-06 22:04 J	-21453989.62	-21453989.58	-21453989.48	0.0088	0.0085
Moon	-63451-03-06 23:59 J	-21453989.55	-21453989.50	-21453989.42	0.0088	0.0086 *
Venus	-63445-08-13 04:04 J	-21451638.40	-21451638.33	-21451638.23	0.0088	0.0082
Venus	-63444-03-26 17:16 J	-21451412.92	-21451412.78	-21451412.60	0.0088	0.0061
Venus	-63444-11-07 06:57 J	-21451187.40	-21451187.21	-21451187.00	0.0088	0.0040
Venus	-63443-06-20 20:09 J	-21450961.86	-21450961.66	-21450961.43	0.0088	0.0021
Venus	-63442-02-01 09:49 J	-21450736.31	-21450736.09	-21450735.86	0.0088	0.0001
Venus	-63442-09-14 23:01 J	-21450510.75	-21450510.54	-21450510.32	0.0088	0.0021
Venus	-63441-04-27 12:13 J	-21450285.18	-21450284.99	-21450284.79	0.0088	0.0041
Venus	-63441-12-09 00:57 J	-21450059.59	-21450059.46	-21450059.27	0.0088	0.0063
Venus	-63440-07-22 14:23 J	-21449833.96	-21449833.90	-21449833.80	0.0088	0.0082
Mercury	-63414-06-29 17:45 J	-21440360.79	-21440360.76	-21440360.71	0.0089	0.0085
Mercury	-63414-09-25 19:11 J	-21440272.75	-21440272.70	-21440272.63	0.0089	0.0079
Mercury	-63414-12-22 20:37 J	-21440184.71	-21440184.64	-21440184.56	0.0089	0.0074
Mercury	-63413-03-19 21:49 J	-21440096.66	-21440096.59	-21440096.49	0.0089	0.0069
Mercury	-63413-06-15 23:16 J	-21440008.61	-21440008.53	-21440008.43	0.0089	0.0063
Mercury	-63413-09-12 00:42 J	-21439920.56	-21439920.47	-21439920.36	0.0089	0.0057
Mercury	-63413-12-09 02:09 J	-21439832.51	-21439832.41	-21439832.30	0.0089	0.0052
Mercury	-63412-03-07 03:21 J	-21439744.46	-21439744.36	-21439744.24	0.0089	0.0047
Mercury	-63412-06-03 04:47 J	-21439656.41	-21439656.30	-21439656.17	0.0089	0.0041
Mercury	-63412-08-30 06:13 J	-21439568.36	-21439568.24	-21439568.11	0.0089	0.0036
Mercury	-63412-11-26 07:25 J	-21439480.31	-21439480.19	-21439480.05	0.0089	0.0031
Mercury	-63411-02-22 09:06 J	-21439392.25	-21439392.12	-21439391.99	0.0089	0.0025
Mercury	-63411-05-21 10:18 J	-21439304.20	-21439304.07	-21439303.94	0.0089	0.0020
Mercury	-63411-08-17 11:45 J	-21439216.14	-21439216.01	-21439215.88	0.0089	0.0014
Mercury	-63411-11-13 12:57 J	-21439128.09	-21439127.96	-21439127.82	0.0089	0.0010

Mercury -63410-02-09 14:23 J -21439040.03 -21439039.90 -21439039.76 0.0089 0.0004
 Mercury -63410-05-08 15:49 J -21438951.98 -21438951.84 -21438951.71 0.0089 0.0002
 Mercury -63410-08-04 17:01 J -21438863.92 -21438863.79 -21438863.65 0.0089 0.0008
 Mercury -63410-10-31 18:28 J -21438775.86 -21438775.73 -21438775.60 0.0089 0.0013
 Mercury -63409-01-27 19:54 J -21438687.80 -21438687.67 -21438687.54 0.0089 0.0018
 Mercury -63409-04-24 21:06 J -21438599.75 -21438599.62 -21438599.49 0.0089 0.0023
 Mercury -63409-07-21 22:18 J -21438511.69 -21438511.57 -21438511.44 0.0089 0.0029
 Mercury -63409-10-17 23:45 J -21438423.63 -21438423.51 -21438423.39 0.0089 0.0034
 Mercury -63408-01-14 00:57 J -21438335.57 -21438335.46 -21438335.33 0.0089 0.0039
 Mercury -63408-04-12 02:09 J -21438247.51 -21438247.41 -21438247.28 0.0089 0.0045
 Mars -63408-04-18 08:09 J -21438241.30 -21438241.16 -21438240.97 0.0089 0.0072
 Mercury -63408-07-09 03:35 J -21438159.45 -21438159.35 -21438159.23 0.0089 0.0050
 Mercury -63408-10-05 05:01 J -21438071.39 -21438071.29 -21438071.18 0.0089 0.0055
 Mercury -63407-01-01 06:13 J -21437983.33 -21437983.24 -21437983.14 0.0089 0.0061
 Mercury -63407-03-30 07:25 J -21437895.27 -21437895.19 -21437895.09 0.0089 0.0066
 Mercury -63407-06-26 08:52 J -21437807.20 -21437807.13 -21437807.05 0.0089 0.0071
 Mercury -63407-09-22 10:18 J -21437719.13 -21437719.07 -21437719.00 0.0089 0.0076
 Mercury -63407-12-19 11:16 J -21437631.06 -21437631.03 -21437630.96 0.0089 0.0082
 Mars -63406-03-12 16:18 J -21437548.08 -21437547.82 -21437547.53 0.0089 0.0026
 Mercury -63406-03-17 12:42 J -21437542.98 -21437542.97 -21437542.93 0.0089 0.0087
 Mars -63404-02-03 00:42 J -21436854.74 -21436854.47 -21436854.19 0.0089 0.0020
 Mars -63403-12-28 08:23 J -21436161.32 -21436161.15 -21436160.94 0.0089 0.0066
 Moon -63396-07-07 04:04 J -21433778.41 -21433778.33 -21433778.21 0.0089 0.0081
 Earth -63396-07-07 03:35 J -21433778.40 -21433778.35 -21433778.25 0.0089 0.0085 *
 Moon -63395-07-09 12:28 J -21433411.06 -21433410.98 -21433410.88 0.0089 0.0083
 Earth -63395-07-09 13:40 J -21433411.02 -21433410.93 -21433410.79 0.0089 0.0079 *
 Earth -63394-07-11 23:30 J -21433043.64 -21433043.52 -21433043.35 0.0089 0.0073
 Moon -63394-07-12 02:52 J -21433043.53 -21433043.38 -21433043.22 0.0089 0.0068 *
 Moon -63393-07-13 06:28 J -21432676.36 -21432676.23 -21432676.06 0.0089 0.0071
 Earth -63393-07-13 09:35 J -21432676.24 -21432676.10 -21432675.91 0.0089 0.0067 *

Earth	-63392-07-15 19:25 J	-21432308.85	-21432308.69	-21432308.49	0.0089	0.0061
Moon	-63392-07-15 23:16 J	-21432308.71	-21432308.53	-21432308.32	0.0089	0.0056 *
Moon	-63391-07-18 02:23 J	-21431941.58	-21431941.40	-21431941.21	0.0089	0.0059
Earth	-63391-07-18 05:45 J	-21431941.46	-21431941.26	-21431941.06	0.0089	0.0054 *
Earth	-63390-07-20 15:21 J	-21431574.06	-21431573.86	-21431573.64	0.0089	0.0048
Moon	-63390-07-20 17:45 J	-21431573.96	-21431573.76	-21431573.52	0.0089	0.0044 *
Moon	-63389-07-21 23:45 J	-21431206.71	-21431206.51	-21431206.30	0.0089	0.0046
Earth	-63389-07-22 01:11 J	-21431206.65	-21431206.45	-21431206.21	0.0089	0.0042 *
Moon	-63388-07-24 11:16 J	-21430839.26	-21430839.03	-21430838.77	0.0089	0.0031
Earth	-63388-07-24 11:30 J	-21430839.25	-21430839.02	-21430838.79	0.0089	0.0035 *
Earth	-63387-07-26 21:06 J	-21430471.85	-21430471.62	-21430471.37	0.0089	0.0029
Moon	-63387-07-26 22:04 J	-21430471.80	-21430471.58	-21430471.34	0.0089	0.0033 *
Moon	-63386-07-29 05:16 J	-21430104.53	-21430104.28	-21430104.02	0.0089	0.0018
Earth	-63386-07-29 07:25 J	-21430104.43	-21430104.19	-21430103.94	0.0089	0.0022 *
Earth	-63385-07-30 17:30 J	-21429737.02	-21429736.77	-21429736.52	0.0089	0.0016
Moon	-63385-07-30 20:37 J	-21429736.88	-21429736.64	-21429736.40	0.0089	0.0020 *
Moon	-63384-08-02 00:13 J	-21429369.74	-21429369.49	-21429369.23	0.0089	0.0005
Earth	-63384-08-02 03:35 J	-21429369.60	-21429369.35	-21429369.10	0.0089	0.0009 *
Earth	-63383-08-04 13:25 J	-21429002.20	-21429001.94	-21429001.69	0.0089	0.0002
Moon	-63383-08-04 16:47 J	-21429002.04	-21429001.80	-21429001.54	0.0089	0.0007 *
Moon	-63382-08-06 20:23 J	-21428634.89	-21428634.65	-21428634.40	0.0089	0.0009
Earth	-63382-08-06 23:16 J	-21428634.78	-21428634.53	-21428634.27	0.0089	0.0005 *
Earth	-63381-08-08 09:06 J	-21428267.36	-21428267.12	-21428266.86	0.0089	0.0012
Moon	-63381-08-08 11:30 J	-21428267.28	-21428267.02	-21428266.76	0.0089	0.0007 *
Moon	-63380-08-10 17:45 J	-21427899.99	-21427899.76	-21427899.51	0.0089	0.0022
Earth	-63380-08-10 18:57 J	-21427899.95	-21427899.71	-21427899.45	0.0089	0.0018 *
Moon	-63379-08-13 04:18 J	-21427532.56	-21427532.32	-21427532.05	0.0089	0.0020
Earth	-63379-08-13 05:01 J	-21427532.53	-21427532.29	-21427532.04	0.0089	0.0024 *
Earth	-63378-08-15 14:37 J	-21427165.11	-21427164.89	-21427164.63	0.0089	0.0032
Moon	-63378-08-15 16:04 J	-21427165.04	-21427164.83	-21427164.59	0.0089	0.0036 *

Moon	-63377-08-16 22:18 J	-21426797.79	-21426797.57	-21426797.31	0.0089	0.0033
Earth	-63377-08-17 00:57 J	-21426797.68	-21426797.46	-21426797.22	0.0089	0.0038 *
Earth	-63376-08-19 10:33 J	-21426430.26	-21426430.06	-21426429.82	0.0089	0.0045
Moon	-63376-08-19 14:23 J	-21426430.10	-21426429.90	-21426429.69	0.0089	0.0049 *
Moon	-63375-08-21 17:30 J	-21426062.97	-21426062.77	-21426062.54	0.0089	0.0046
Earth	-63375-08-21 21:06 J	-21426062.82	-21426062.62	-21426062.41	0.0089	0.0051 *
Earth	-63374-08-24 06:42 J	-21425695.39	-21425695.22	-21425695.00	0.0089	0.0058
Moon	-63374-08-24 10:33 J	-21425695.23	-21425695.06	-21425694.86	0.0089	0.0061 *
Moon	-63373-08-25 14:37 J	-21425328.05	-21425327.89	-21425327.68	0.0089	0.0060
Earth	-63373-08-25 17:30 J	-21425327.93	-21425327.77	-21425327.58	0.0089	0.0063 *
Earth	-63372-08-28 03:35 J	-21424960.49	-21424960.35	-21424960.18	0.0089	0.0070
Moon	-63372-08-28 05:16 J	-21424960.41	-21424960.28	-21424960.11	0.0089	0.0073 *
Moon	-63371-08-30 13:25 J	-21424593.08	-21424592.94	-21424592.79	0.0089	0.0072
Earth	-63371-08-30 14:09 J	-21424593.03	-21424592.91	-21424592.77	0.0089	0.0076 *
Moon	-63370-09-01 22:47 J	-21424225.58	-21424225.55	-21424225.45	0.0089	0.0087
Earth	-63370-09-02 00:28 J	-21424225.57	-21424225.48	-21424225.37	0.0089	0.0082 *
Earth	-63369-09-03 10:47 J	-21423858.09	-21423858.05	-21423858.00	0.0089	0.0088
Moon	-63369-09-03 11:59 J	-21423858.05	-21423858.00	-21423857.89	0.0089	0.0085 *
Venus	-63363-09-25 04:04 J	-21421645.41	-21421645.33	-21421645.21	0.0089	0.0079
Venus	-63362-05-08 17:01 J	-21421419.95	-21421419.79	-21421419.63	0.0089	0.0059
Venus	-63362-12-20 05:30 J	-21421194.46	-21421194.27	-21421194.07	0.0089	0.0038
Venus	-63361-08-01 17:59 J	-21420968.95	-21420968.75	-21420968.52	0.0089	0.0019
Venus	-63360-03-15 06:57 J	-21420743.43	-21420743.21	-21420742.99	0.0089	0.0003
Venus	-63360-10-26 19:25 J	-21420517.89	-21420517.69	-21420517.47	0.0089	0.0023
Venus	-63359-06-09 07:54 J	-21420292.34	-21420292.17	-21420291.96	0.0089	0.0044
Venus	-63358-01-20 20:52 J	-21420066.77	-21420066.63	-21420066.47	0.0089	0.0064
Venus	-63358-09-03 09:21 J	-21419841.16	-21419841.11	-21419841.03	0.0089	0.0085
Saturn	-63332-07-19 14:52 J	-21410390.56	-21410389.88	-21410389.16	0.0089	0.0031
Mercury	-63331-06-14 07:54 J	-21410060.24	-21410060.17	-21410060.09	0.0089	0.0081
Mercury	-63331-09-10 11:01 J	-21409972.13	-21409972.04	-21409971.92	0.0089	0.0074

Mercury -63331-12-07 14:52 J -21409884.00 -21409883.88 -21409883.75 0.0089 0.0066
 Mercury -63330-03-05 17:59 J -21409795.87 -21409795.75 -21409795.58 0.0089 0.0059
 Mercury -63330-06-01 21:49 J -21409707.74 -21409707.59 -21409707.42 0.0089 0.0051
 Mercury -63330-08-29 01:25 J -21409619.60 -21409619.44 -21409619.26 0.0089 0.0043
 Mercury -63330-11-25 04:47 J -21409531.46 -21409531.30 -21409531.11 0.0089 0.0036
 Mercury -63329-02-21 08:37 J -21409443.32 -21409443.14 -21409442.95 0.0089 0.0028
 Mercury -63329-05-19 12:13 J -21409355.18 -21409354.99 -21409354.80 0.0089 0.0020
 Mercury -63329-08-15 15:49 J -21409267.03 -21409266.84 -21409266.65 0.0089 0.0012
 Mercury -63329-11-11 19:25 J -21409178.88 -21409178.69 -21409178.50 0.0089 0.0004
 Mercury -63328-02-07 23:01 J -21409090.73 -21409090.54 -21409090.35 0.0089 0.0003
 Mercury -63328-05-07 02:23 J -21409002.58 -21409002.40 -21409002.20 0.0089 0.0012
 Mercury -63328-08-03 06:13 J -21408914.43 -21408914.24 -21408914.05 0.0089 0.0019
 Mercury -63328-10-30 09:35 J -21408826.28 -21408826.10 -21408825.90 0.0089 0.0027
 Mercury -63327-01-26 13:11 J -21408738.12 -21408737.95 -21408737.76 0.0089 0.0035
 Mercury -63327-04-24 16:47 J -21408649.96 -21408649.80 -21408649.62 0.0089 0.0043
 Mercury -63327-07-21 20:09 J -21408561.80 -21408561.66 -21408561.48 0.0089 0.0051
 Mercury -63327-10-18 00:13 J -21408473.63 -21408473.49 -21408473.34 0.0089 0.0058
 Mercury -63326-01-14 03:49 J -21408385.46 -21408385.34 -21408385.21 0.0089 0.0066
 Mars -63326-01-15 15:35 J -21408383.92 -21408383.85 -21408383.71 0.0089 0.0085
 Mercury -63326-04-12 07:11 J -21408297.29 -21408297.20 -21408297.08 0.0089 0.0074
 Mercury -63326-07-09 10:47 J -21408209.11 -21408209.05 -21408208.96 0.0089 0.0082
 Mars -63325-12-12 07:11 J -21407687.52 -21407687.20 -21407686.85 0.0089 0.0028
 Mars -63323-11-09 00:28 J -21406990.80 -21406990.48 -21406990.14 0.0089 0.0030
 Mars -63321-10-05 18:57 J -21406293.76 -21406293.71 -21406293.63 0.0089 0.0087
 Earth -63314-01-03 07:11 J -21404013.22 -21404013.20 -21404013.17 0.0088 0.0088
 Moon -63313-01-05 16:47 J -21403645.88 -21403645.80 -21403645.65 0.0088 0.0081
 Earth -63313-01-05 19:54 J -21403645.73 -21403645.67 -21403645.54 0.0088 0.0083 *
 Earth -63312-01-07 09:49 J -21403278.22 -21403278.09 -21403277.96 0.0088 0.0076
 Moon -63312-01-07 12:57 J -21403278.07 -21403277.96 -21403277.83 0.0088 0.0078 *
 Moon -63311-01-09 19:40 J -21402910.85 -21402910.68 -21402910.51 0.0088 0.0067

Earth	-63311-01-09 23:01 J	-21402910.68	-21402910.54	-21402910.36	0.0088	0.0070	*
Earth	-63310-01-12 12:13 J	-21402543.15	-21402542.99	-21402542.78	0.0088	0.0064	
Moon	-63310-01-12 16:33 J	-21402542.99	-21402542.81	-21402542.64	0.0088	0.0066	*
Moon	-63309-01-14 23:01 J	-21402175.72	-21402175.54	-21402175.32	0.0088	0.0055	
Earth	-63309-01-15 02:09 J	-21402175.60	-21402175.41	-21402175.20	0.0088	0.0057	*
Earth	-63308-01-16 15:21 J	-21401808.05	-21401807.86	-21401807.62	0.0088	0.0051	
Moon	-63308-01-16 17:59 J	-21401807.95	-21401807.75	-21401807.52	0.0088	0.0054	*
Moon	-63307-01-19 04:33 J	-21401440.53	-21401440.31	-21401440.08	0.0088	0.0041	
Earth	-63307-01-19 05:16 J	-21401440.50	-21401440.28	-21401440.04	0.0088	0.0044	*
Moon	-63306-01-21 18:28 J	-21401072.96	-21401072.73	-21401072.48	0.0088	0.0040	
Earth	-63306-01-21 18:28 J	-21401072.95	-21401072.73	-21401072.47	0.0088	0.0037	*
Earth	-63305-01-24 08:09 J	-21400705.39	-21400705.16	-21400704.90	0.0088	0.0031	
Moon	-63305-01-24 09:21 J	-21400705.35	-21400705.11	-21400704.86	0.0088	0.0027	*
Moon	-63304-01-25 19:11 J	-21400337.95	-21400337.70	-21400337.44	0.0088	0.0027	
Earth	-63304-01-25 21:49 J	-21400337.84	-21400337.59	-21400337.33	0.0088	0.0023	*
Earth	-63303-01-28 11:16 J	-21399970.28	-21399970.03	-21399969.77	0.0088	0.0017	
Moon	-63303-01-28 14:09 J	-21399970.15	-21399969.91	-21399969.64	0.0088	0.0014	*
Moon	-63302-01-30 21:21 J	-21399602.87	-21399602.61	-21399602.35	0.0088	0.0014	
Earth	-63302-01-31 00:57 J	-21399602.72	-21399602.46	-21399602.20	0.0088	0.0010	*
Earth	-63301-02-02 14:09 J	-21399235.17	-21399234.91	-21399234.65	0.0088	0.0003	
Moon	-63301-02-02 17:59 J	-21399235.02	-21399234.75	-21399234.49	0.0088	0.0002	*
Moon	-63300-02-04 00:42 J	-21398867.73	-21398867.47	-21398867.22	0.0088	0.0002	
Earth	-63300-02-04 03:35 J	-21398867.61	-21398867.35	-21398867.08	0.0088	0.0004	*
Earth	-63299-02-06 16:47 J	-21398500.05	-21398499.80	-21398499.52	0.0088	0.0012	
Moon	-63299-02-06 19:54 J	-21398499.93	-21398499.67	-21398499.40	0.0088	0.0015	*
Moon	-63298-02-09 05:16 J	-21398132.53	-21398132.28	-21398132.03	0.0088	0.0014	
Earth	-63298-02-09 06:13 J	-21398132.48	-21398132.24	-21398131.97	0.0088	0.0018	*
Earth	-63297-02-11 19:54 J	-21397764.92	-21397764.67	-21397764.41	0.0088	0.0025	
Moon	-63297-02-11 20:09 J	-21397764.90	-21397764.66	-21397764.39	0.0088	0.0029	*
Earth	-63296-02-13 09:21 J	-21397397.34	-21397397.11	-21397396.85	0.0088	0.0032	

Moon	-63296-02-13 09:49 J	-21397397.32	-21397397.09	-21397396.84	0.0088	0.0027	*
Moon	-63295-02-15 20:23 J	-21397029.87	-21397029.65	-21397029.39	0.0088	0.0043	
Earth	-63295-02-15 22:47 J	-21397029.77	-21397029.55	-21397029.30	0.0088	0.0038	*
Earth	-63294-02-18 11:59 J	-21396662.20	-21396662.00	-21396661.75	0.0088	0.0046	
Moon	-63294-02-18 14:52 J	-21396662.09	-21396661.88	-21396661.64	0.0088	0.0041	*
Moon	-63293-02-20 22:04 J	-21396294.76	-21396294.58	-21396294.35	0.0088	0.0056	
Earth	-63293-02-21 01:40 J	-21396294.63	-21396294.43	-21396294.20	0.0088	0.0052	*
Earth	-63292-02-22 14:52 J	-21395927.06	-21395926.88	-21395926.66	0.0088	0.0058	
Moon	-63292-02-22 18:42 J	-21395926.91	-21395926.72	-21395926.50	0.0088	0.0054	*
Moon	-63291-02-25 00:42 J	-21395559.60	-21395559.47	-21395559.28	0.0088	0.0069	
Earth	-63291-02-25 04:18 J	-21395559.48	-21395559.32	-21395559.12	0.0088	0.0065	*
Earth	-63290-02-27 17:45 J	-21395191.92	-21395191.76	-21395191.61	0.0088	0.0071	
Moon	-63290-02-27 20:23 J	-21395191.80	-21395191.65	-21395191.45	0.0088	0.0066	*
Moon	-63289-03-01 04:47 J	-21394824.38	-21394824.30	-21394824.19	0.0088	0.0082	
Earth	-63289-03-01 06:13 J	-21394824.34	-21394824.24	-21394824.08	0.0088	0.0077	*
Earth	-63288-03-03 19:25 J	-21394456.75	-21394456.69	-21394456.58	0.0088	0.0083	
Moon	-63288-03-03 20:52 J	-21394456.74	-21394456.63	-21394456.50	0.0088	0.0079	*
Venus	-63281-11-14 15:49 J	-21391643.84	-21391643.84	-21391643.82	0.0088	0.0088	
Venus	-63280-06-28 05:16 J	-21391418.41	-21391418.28	-21391418.13	0.0088	0.0068	
Venus	-63279-02-08 18:28 J	-21391192.90	-21391192.73	-21391192.52	0.0088	0.0048	
Venus	-63279-09-22 08:09 J	-21390967.37	-21390967.16	-21390966.94	0.0088	0.0027	
Venus	-63278-05-05 21:35 J	-21390741.82	-21390741.60	-21390741.38	0.0088	0.0006	
Venus	-63278-12-17 10:47 J	-21390516.26	-21390516.05	-21390515.82	0.0088	0.0014	
Venus	-63277-07-30 00:13 J	-21390290.70	-21390290.49	-21390290.29	0.0088	0.0035	
Venus	-63276-03-12 12:57 J	-21390065.12	-21390064.96	-21390064.77	0.0088	0.0055	
Venus	-63276-10-24 02:09 J	-21389839.51	-21389839.41	-21389839.28	0.0088	0.0076	
Mercury	-63250-12-28 16:33 J	-21380277.83	-21380277.81	-21380277.78	0.0089	0.0087	
Mercury	-63249-03-25 17:45 J	-21380189.80	-21380189.76	-21380189.70	0.0089	0.0082	
Mercury	-63249-06-21 19:25 J	-21380101.76	-21380101.69	-21380101.62	0.0089	0.0076	
Mercury	-63249-09-17 20:37 J	-21380013.71	-21380013.64	-21380013.55	0.0089	0.0071	

Mercury -63249-12-14 21:49 J -21379925.66 -21379925.59 -21379925.49 0.0089 0.0066

Mercury -63248-03-12 23:30 J -21379837.62 -21379837.52 -21379837.42 0.0089 0.0060

Mercury -63248-06-09 00:42 J -21379749.57 -21379749.47 -21379749.36 0.0089 0.0055

Mercury -63248-09-05 02:23 J -21379661.51 -21379661.40 -21379661.29 0.0089 0.0049

Mercury -63248-12-02 03:35 J -21379573.46 -21379573.35 -21379573.23 0.0089 0.0044

Mercury -63247-02-28 04:47 J -21379485.41 -21379485.30 -21379485.17 0.0089 0.0039

Mercury -63247-05-27 06:13 J -21379397.36 -21379397.24 -21379397.11 0.0089 0.0033

Mercury -63247-08-23 07:40 J -21379309.30 -21379309.18 -21379309.05 0.0089 0.0028

Mercury -63247-11-19 09:06 J -21379221.25 -21379221.12 -21379220.99 0.0089 0.0022

Mercury -63246-02-15 10:18 J -21379133.20 -21379133.07 -21379132.93 0.0089 0.0017

Mercury -63246-05-14 11:45 J -21379045.14 -21379045.01 -21379044.88 0.0089 0.0011

Mercury -63246-08-10 13:11 J -21378957.09 -21378956.95 -21378956.82 0.0089 0.0006

Mercury -63246-11-06 14:23 J -21378869.03 -21378868.90 -21378868.76 0.0089 0.0003

Mercury -63245-02-02 15:49 J -21378780.97 -21378780.84 -21378780.71 0.0089 0.0005

Mercury -63245-04-30 17:01 J -21378692.92 -21378692.79 -21378692.65 0.0089 0.0011

Mercury -63245-07-27 18:28 J -21378604.86 -21378604.73 -21378604.60 0.0089 0.0016

Mercury -63245-10-23 19:54 J -21378516.80 -21378516.67 -21378516.54 0.0089 0.0021

Mercury -63244-01-19 21:06 J -21378428.74 -21378428.62 -21378428.49 0.0089 0.0026

Mercury -63244-04-17 22:18 J -21378340.69 -21378340.57 -21378340.44 0.0089 0.0032

Mercury -63244-07-14 23:45 J -21378252.63 -21378252.51 -21378252.39 0.0089 0.0037

Mercury -63244-10-11 00:57 J -21378164.57 -21378164.46 -21378164.33 0.0089 0.0043

Mercury -63243-01-07 02:23 J -21378076.51 -21378076.40 -21378076.28 0.0089 0.0048

Mercury -63243-04-05 03:35 J -21377988.45 -21377988.35 -21377988.23 0.0089 0.0053

Mercury -63243-07-02 05:01 J -21377900.38 -21377900.29 -21377900.19 0.0089 0.0058

Mercury -63243-09-28 06:13 J -21377812.32 -21377812.24 -21377812.14 0.0089 0.0064

Mars -63243-10-26 14:52 J -21377784.12 -21377783.88 -21377783.62 0.0089 0.0043

Mercury -63243-12-25 07:40 J -21377724.26 -21377724.18 -21377724.09 0.0089 0.0069

Mercury -63242-03-23 09:06 J -21377636.19 -21377636.12 -21377636.05 0.0089 0.0074

Mercury -63242-06-19 10:04 J -21377548.12 -21377548.08 -21377548.01 0.0089 0.0080

Mercury -63242-09-15 11:30 J -21377460.05 -21377460.02 -21377459.97 0.0089 0.0085

Mars	-63241-09-18 22:47 J	-21377090.83	-21377090.55	-21377090.26	0.0089	0.0003
Mars	-63239-08-13 05:45 J	-21376397.47	-21376397.26	-21376397.00	0.0089	0.0048
Moon	-63232-07-06 13:25 J	-21373877.99	-21373877.94	-21373877.83	0.0089	0.0085
Earth	-63232-07-06 15:35 J	-21373877.89	-21373877.85	-21373877.75	0.0089	0.0086 *
Earth	-63231-07-09 02:23 J	-21373510.51	-21373510.40	-21373510.29	0.0089	0.0079
Moon	-63231-07-09 04:47 J	-21373510.40	-21373510.30	-21373510.18	0.0089	0.0079 *
Moon	-63230-07-11 08:23 J	-21373143.27	-21373143.15	-21373142.98	0.0089	0.0073
Earth	-63230-07-11 12:13 J	-21373143.12	-21373142.99	-21373142.83	0.0089	0.0073 *
Earth	-63229-07-12 22:04 J	-21372775.73	-21372775.58	-21372775.40	0.0089	0.0067
Moon	-63229-07-13 01:40 J	-21372775.58	-21372775.43	-21372775.25	0.0089	0.0067 *
Moon	-63228-07-15 04:47 J	-21372408.46	-21372408.30	-21372408.10	0.0089	0.0061
Earth	-63228-07-15 07:54 J	-21372408.33	-21372408.17	-21372407.96	0.0089	0.0061 *
Earth	-63227-07-17 17:59 J	-21372040.94	-21372040.75	-21372040.54	0.0089	0.0054
Moon	-63227-07-17 20:23 J	-21372040.84	-21372040.65	-21372040.43	0.0089	0.0054 *
Moon	-63226-07-20 02:52 J	-21371673.57	-21371673.38	-21371673.16	0.0089	0.0048
Earth	-63226-07-20 03:49 J	-21371673.53	-21371673.34	-21371673.11	0.0089	0.0048 *
Earth	-63225-07-21 13:54 J	-21371306.13	-21371305.92	-21371305.68	0.0089	0.0041
Moon	-63225-07-21 14:23 J	-21371306.13	-21371305.90	-21371305.66	0.0089	0.0040 *
Earth	-63224-07-23 23:45 J	-21370938.73	-21370938.51	-21370938.26	0.0089	0.0035
Moon	-63224-07-24 01:11 J	-21370938.66	-21370938.45	-21370938.21	0.0089	0.0035 *
Moon	-63223-07-26 07:11 J	-21370571.43	-21370571.20	-21370570.94	0.0089	0.0028
Earth	-63223-07-26 09:49 J	-21370571.32	-21370571.09	-21370570.84	0.0089	0.0028 *
Earth	-63222-07-28 19:40 J	-21370203.91	-21370203.68	-21370203.42	0.0089	0.0021
Moon	-63222-07-28 22:33 J	-21370203.79	-21370203.56	-21370203.30	0.0089	0.0022 *
Moon	-63221-07-30 02:09 J	-21369836.65	-21369836.41	-21369836.15	0.0089	0.0014
Earth	-63221-07-30 05:59 J	-21369836.50	-21369836.25	-21369836.00	0.0089	0.0014 *
Earth	-63220-08-01 15:49 J	-21369469.09	-21369468.84	-21369468.59	0.0089	0.0007
Moon	-63220-08-01 18:57 J	-21369468.96	-21369468.71	-21369468.45	0.0089	0.0008 *
Moon	-63219-08-03 23:01 J	-21369101.79	-21369101.54	-21369101.29	0.0089	0.0001
Earth	-63219-08-04 02:09 J	-21369101.67	-21369101.41	-21369101.16	0.0089	0.0001 *

Earth	-63218-08-06 12:13 J	-21368734.25	-21368733.99	-21368733.74	0.0089	0.0007
Moon	-63218-08-06 13:54 J	-21368734.17	-21368733.92	-21368733.66	0.0089	0.0006 *
Moon	-63217-08-07 21:21 J	-21368366.84	-21368366.61	-21368366.36	0.0089	0.0014
Earth	-63217-08-07 22:04 J	-21368366.83	-21368366.58	-21368366.33	0.0089	0.0013 *
Moon	-63216-08-10 07:40 J	-21367999.43	-21367999.18	-21367998.92	0.0089	0.0019
Earth	-63216-08-10 07:54 J	-21367999.41	-21367999.17	-21367998.92	0.0089	0.0020 *
Earth	-63215-08-12 17:45 J	-21367631.99	-21367631.76	-21367631.51	0.0089	0.0027
Moon	-63215-08-12 19:54 J	-21367631.91	-21367631.67	-21367631.44	0.0089	0.0027 *
Moon	-63214-08-15 01:11 J	-21367264.69	-21367264.45	-21367264.21	0.0089	0.0034
Earth	-63214-08-15 03:35 J	-21367264.57	-21367264.35	-21367264.10	0.0089	0.0034 *
Earth	-63213-08-16 13:40 J	-21366897.14	-21366896.93	-21366896.69	0.0089	0.0040
Moon	-63213-08-16 16:33 J	-21366897.01	-21366896.81	-21366896.57	0.0089	0.0043 *
Moon	-63212-08-18 19:54 J	-21366529.87	-21366529.67	-21366529.44	0.0089	0.0047
Earth	-63212-08-18 23:30 J	-21366529.72	-21366529.52	-21366529.29	0.0089	0.0047 *
Earth	-63211-08-21 09:35 J	-21366162.29	-21366162.10	-21366161.89	0.0089	0.0054
Moon	-63211-08-21 12:28 J	-21366162.16	-21366161.98	-21366161.76	0.0089	0.0055 *
Moon	-63210-08-23 17:16 J	-21365794.96	-21365794.78	-21365794.59	0.0089	0.0059
Earth	-63210-08-23 19:25 J	-21365794.85	-21365794.69	-21365794.48	0.0089	0.0061 *
Earth	-63209-08-25 05:45 J	-21365427.41	-21365427.26	-21365427.08	0.0089	0.0067
Moon	-63209-08-25 06:57 J	-21365427.36	-21365427.21	-21365427.02	0.0089	0.0068 *
Earth	-63208-08-27 15:35 J	-21365059.96	-21365059.85	-21365059.68	0.0089	0.0073
Moon	-63208-08-27 15:49 J	-21365059.96	-21365059.84	-21365059.68	0.0089	0.0073 *
Moon	-63207-08-30 01:11 J	-21364692.54	-21364692.45	-21364692.31	0.0089	0.0081
Earth	-63207-08-30 02:09 J	-21364692.50	-21364692.41	-21364692.28	0.0089	0.0079 *
Jupiter	-63207-10-28 15:35 J	-21364632.90	-21364632.85	-21364632.65	0.0089	0.0088
Earth	-63206-09-01 12:28 J	-21364325.03	-21364324.98	-21364324.89	0.0089	0.0085
Moon	-63206-09-01 14:52 J	-21364324.94	-21364324.88	-21364324.78	0.0089	0.0085 *
Venus	-63199-12-27 16:18 J	-21361650.85	-21361650.82	-21361650.75	0.0089	0.0087
Venus	-63198-08-10 04:47 J	-21361425.43	-21361425.30	-21361425.14	0.0089	0.0066
Venus	-63197-03-22 17:16 J	-21361199.95	-21361199.78	-21361199.58	0.0089	0.0046

Venus -63197-11-03 05:59 J -21360974.45 -21360974.25 -21360974.03 0.0089 0.0025

Venus -63196-06-16 18:42 J -21360748.93 -21360748.72 -21360748.50 0.0089 0.0005

Venus -63195-01-28 07:11 J -21360523.40 -21360523.20 -21360522.97 0.0089 0.0016

Venus -63195-09-10 19:54 J -21360297.86 -21360297.67 -21360297.46 0.0089 0.0036

Venus -63194-04-24 08:09 J -21360072.30 -21360072.16 -21360071.97 0.0089 0.0058

Venus -63194-12-05 21:06 J -21359846.71 -21359846.62 -21359846.50 0.0089 0.0077

Mercury -63167-12-13 03:21 J -21349977.41 -21349977.36 -21349977.31 0.0089 0.0085

Mercury -63166-03-11 06:28 J -21349889.30 -21349889.23 -21349889.12 0.0089 0.0078

Mercury -63166-06-07 10:18 J -21349801.18 -21349801.07 -21349800.95 0.0089 0.0070

Mercury -63166-09-03 13:40 J -21349713.05 -21349712.93 -21349712.78 0.0089 0.0063

Mercury -63166-11-30 17:16 J -21349624.92 -21349624.78 -21349624.62 0.0089 0.0055

Mercury -63165-02-26 20:52 J -21349536.78 -21349536.63 -21349536.46 0.0089 0.0047

Mercury -63165-05-25 00:13 J -21349448.65 -21349448.49 -21349448.30 0.0089 0.0040

Mercury -63165-08-21 04:04 J -21349360.51 -21349360.33 -21349360.14 0.0089 0.0032

Mercury -63165-11-17 07:40 J -21349272.36 -21349272.18 -21349271.99 0.0089 0.0024

Mercury -63164-02-13 11:16 J -21349184.22 -21349184.03 -21349183.84 0.0089 0.0016

Mercury -63164-05-12 14:52 J -21349096.07 -21349095.88 -21349095.69 0.0089 0.0008

Mercury -63164-08-08 18:28 J -21349007.92 -21349007.73 -21349007.54 0.0089 0.0001

Mercury -63164-11-04 22:04 J -21348919.77 -21348919.58 -21348919.39 0.0089 0.0007

Mercury -63163-02-01 01:40 J -21348831.62 -21348831.43 -21348831.24 0.0089 0.0015

Mercury -63163-04-30 05:16 J -21348743.47 -21348743.28 -21348743.09 0.0089 0.0023

Mercury -63163-07-27 08:37 J -21348655.31 -21348655.14 -21348654.95 0.0089 0.0031

Mercury -63163-10-23 12:13 J -21348567.16 -21348566.99 -21348566.81 0.0089 0.0039

Mercury -63162-01-19 15:35 J -21348479.00 -21348478.85 -21348478.66 0.0089 0.0047

Mercury -63162-04-17 19:40 J -21348390.83 -21348390.68 -21348390.53 0.0089 0.0054

Mercury -63162-07-14 23:01 J -21348302.67 -21348302.54 -21348302.39 0.0089 0.0062

Mercury -63162-10-11 02:37 J -21348214.50 -21348214.39 -21348214.26 0.0089 0.0070

Mercury -63161-01-07 06:13 J -21348126.32 -21348126.24 -21348126.13 0.0089 0.0078

Mercury -63161-04-04 09:49 J -21348038.12 -21348038.09 -21348038.03 0.0089 0.0086

Mars -63161-07-25 16:18 J -21347926.09 -21347925.82 -21347925.51 0.0089 0.0050

Mars	-63159-06-22 07:54 J	-21347229.52	-21347229.17	-21347228.82	0.0089	0.0007
Mars	-63157-05-19 00:42 J	-21346532.68	-21346532.47	-21346532.20	0.0089	0.0064
Earth	-63149-01-05 05:30 J	-21343745.33	-21343745.27	-21343745.15	0.0088	0.0083
Moon	-63149-01-05 09:06 J	-21343745.21	-21343745.12	-21343744.97	0.0088	0.0079 *
Moon	-63148-01-06 15:35 J	-21343377.93	-21343377.85	-21343377.72	0.0088	0.0081
Earth	-63148-01-06 18:57 J	-21343377.81	-21343377.71	-21343377.55	0.0088	0.0077 *
Earth	-63147-01-09 08:37 J	-21343010.29	-21343010.14	-21343009.97	0.0088	0.0070
Moon	-63147-01-09 11:45 J	-21343010.16	-21343010.01	-21343009.81	0.0088	0.0067 *
Moon	-63146-01-11 18:57 J	-21342642.85	-21342642.71	-21342642.52	0.0088	0.0068
Earth	-63146-01-11 21:49 J	-21342642.75	-21342642.59	-21342642.39	0.0088	0.0063 *
Earth	-63145-01-14 11:30 J	-21342275.21	-21342275.02	-21342274.81	0.0088	0.0057
Moon	-63145-01-14 12:57 J	-21342275.17	-21342274.96	-21342274.73	0.0088	0.0053 *
Moon	-63144-01-15 23:59 J	-21341907.68	-21341907.50	-21341907.27	0.0088	0.0054
Earth	-63144-01-16 01:11 J	-21341907.66	-21341907.45	-21341907.23	0.0088	0.0050 *
Moon	-63143-01-18 13:40 J	-21341540.15	-21341539.93	-21341539.67	0.0088	0.0040
Earth	-63143-01-18 14:23 J	-21341540.11	-21341539.90	-21341539.65	0.0088	0.0043 *
Earth	-63142-01-21 04:04 J	-21341172.56	-21341172.33	-21341172.08	0.0088	0.0036
Moon	-63142-01-21 06:13 J	-21341172.46	-21341172.24	-21341172.00	0.0088	0.0040 *
Moon	-63141-01-23 14:52 J	-21340805.12	-21340804.88	-21340804.60	0.0088	0.0027
Earth	-63141-01-23 17:30 J	-21340805.00	-21340804.77	-21340804.50	0.0088	0.0030 *
Earth	-63140-01-25 07:11 J	-21340437.44	-21340437.20	-21340436.93	0.0088	0.0022
Moon	-63140-01-25 10:47 J	-21340437.29	-21340437.05	-21340436.79	0.0088	0.0026 *
Moon	-63139-01-27 17:30 J	-21340070.03	-21340069.77	-21340069.51	0.0088	0.0012
Earth	-63139-01-27 20:52 J	-21340069.88	-21340069.63	-21340069.36	0.0088	0.0016 *
Earth	-63138-01-30 10:18 J	-21339702.33	-21339702.07	-21339701.80	0.0088	0.0008
Moon	-63138-01-30 13:54 J	-21339702.18	-21339701.92	-21339701.65	0.0088	0.0010 *
Moon	-63137-02-01 20:52 J	-21339334.89	-21339334.63	-21339334.37	0.0088	0.0002
Earth	-63137-02-01 23:59 J	-21339334.77	-21339334.50	-21339334.24	0.0088	0.0001 *
Earth	-63136-02-03 13:11 J	-21338967.21	-21338966.95	-21338966.68	0.0088	0.0006
Moon	-63136-02-03 15:21 J	-21338967.13	-21338966.86	-21338966.59	0.0088	0.0004 *

Moon	-63135-02-06 00:57 J	-21338599.69	-21338599.46	-21338599.19	0.0088	0.0016
Earth	-63135-02-06 02:23 J	-21338599.65	-21338599.40	-21338599.13	0.0088	0.0013 *
Moon	-63134-02-08 15:49 J	-21338232.11	-21338231.84	-21338231.57	0.0088	0.0018
Earth	-63134-02-08 15:35 J	-21338232.09	-21338231.85	-21338231.58	0.0088	0.0021 *
Earth	-63133-02-11 05:01 J	-21337864.53	-21337864.29	-21337864.03	0.0088	0.0027
Moon	-63133-02-11 06:28 J	-21337864.45	-21337864.23	-21337863.97	0.0088	0.0030 *
Moon	-63132-02-12 16:18 J	-21337497.06	-21337496.82	-21337496.55	0.0088	0.0033
Earth	-63132-02-12 18:28 J	-21337496.96	-21337496.73	-21337496.47	0.0088	0.0034 *
Earth	-63131-02-15 07:40 J	-21337129.39	-21337129.18	-21337128.92	0.0088	0.0041
Moon	-63131-02-15 11:16 J	-21337129.24	-21337129.03	-21337128.79	0.0088	0.0043 *
Moon	-63130-02-17 17:59 J	-21336761.97	-21336761.75	-21336761.52	0.0088	0.0046
Earth	-63130-02-17 21:35 J	-21336761.82	-21336761.60	-21336761.38	0.0088	0.0048 *
Earth	-63129-02-20 10:47 J	-21336394.24	-21336394.05	-21336393.83	0.0088	0.0054
Moon	-63129-02-20 14:09 J	-21336394.09	-21336393.91	-21336393.68	0.0088	0.0056 *
Moon	-63128-02-21 20:37 J	-21336026.80	-21336026.64	-21336026.42	0.0088	0.0061
Earth	-63128-02-21 23:59 J	-21336026.66	-21336026.50	-21336026.28	0.0088	0.0062 *
Earth	-63127-02-24 13:40 J	-21335659.09	-21335658.93	-21335658.76	0.0088	0.0068
Moon	-63127-02-24 15:49 J	-21335658.99	-21335658.84	-21335658.65	0.0088	0.0068 *
Moon	-63126-02-27 00:57 J	-21335291.58	-21335291.46	-21335291.31	0.0088	0.0074
Earth	-63126-02-27 02:37 J	-21335291.51	-21335291.39	-21335291.23	0.0088	0.0075 *
Earth	-63125-02-29 16:04 J	-21334923.92	-21334923.83	-21334923.71	0.0088	0.0081
Moon	-63125-02-29 15:49 J	-21334923.91	-21334923.84	-21334923.70	0.0088	0.0082 *
Earth	-63124-03-03 04:33 J	-21334556.31	-21334556.31	-21334556.23	0.0088	0.0088
Moon	-63124-03-03 06:13 J	-21334556.28	-21334556.24	-21334556.19	0.0088	0.0087 *
Venus	-63116-09-29 16:04 J	-21331423.93	-21331423.83	-21331423.69	0.0088	0.0075
Venus	-63115-05-13 05:45 J	-21331198.42	-21331198.26	-21331198.07	0.0088	0.0055
Venus	-63115-12-24 19:11 J	-21330972.89	-21330972.70	-21330972.48	0.0088	0.0034
Venus	-63114-08-07 08:52 J	-21330747.35	-21330747.13	-21330746.90	0.0088	0.0013
Venus	-63113-03-19 22:18 J	-21330521.79	-21330521.57	-21330521.35	0.0088	0.0007
Venus	-63113-10-31 11:30 J	-21330296.23	-21330296.02	-21330295.81	0.0088	0.0028

Venus -63112-06-14 00:28 J -21330070.65 -21330070.48 -21330070.28 0.0088 0.0048

Venus -63111-01-25 13:54 J -21329845.05 -21329844.92 -21329844.77 0.0088 0.0069

Mercury -63085-09-23 16:18 J -21320106.84 -21320106.82 -21320106.77 0.0089 0.0085

Mercury -63085-12-20 17:59 J -21320018.81 -21320018.75 -21320018.69 0.0089 0.0079

Mercury -63084-03-18 19:11 J -21319930.77 -21319930.70 -21319930.62 0.0089 0.0074

Mercury -63084-06-14 20:37 J -21319842.72 -21319842.64 -21319842.55 0.0089 0.0068

Mercury -63084-09-10 22:04 J -21319754.67 -21319754.58 -21319754.48 0.0089 0.0063

Mercury -63084-12-07 23:16 J -21319666.62 -21319666.53 -21319666.42 0.0089 0.0058

Mercury -63083-03-06 00:42 J -21319578.57 -21319578.47 -21319578.36 0.0089 0.0052

Mercury -63083-06-02 02:09 J -21319490.52 -21319490.41 -21319490.29 0.0089 0.0046

Mercury -63083-08-29 03:35 J -21319402.47 -21319402.35 -21319402.23 0.0089 0.0041

Mercury -63083-11-25 04:47 J -21319314.41 -21319314.30 -21319314.17 0.0089 0.0036

Mercury -63082-02-21 06:13 J -21319226.36 -21319226.24 -21319226.11 0.0089 0.0030

Mercury -63082-05-20 07:40 J -21319138.31 -21319138.18 -21319138.05 0.0089 0.0025

Mercury -63082-08-16 08:52 J -21319050.25 -21319050.13 -21319049.99 0.0089 0.0020

Mercury -63082-11-12 10:18 J -21318962.20 -21318962.07 -21318961.94 0.0089 0.0014

Mercury -63081-02-08 11:45 J -21318874.14 -21318874.01 -21318873.88 0.0089 0.0009

Mercury -63081-05-06 12:57 J -21318786.09 -21318785.96 -21318785.82 0.0089 0.0005

Mercury -63081-08-02 14:23 J -21318698.03 -21318697.90 -21318697.77 0.0089 0.0002

Mercury -63081-10-29 15:49 J -21318609.98 -21318609.84 -21318609.71 0.0089 0.0008

Mercury -63080-01-25 17:01 J -21318521.92 -21318521.79 -21318521.66 0.0089 0.0013

Mercury -63080-04-23 18:13 J -21318433.86 -21318433.74 -21318433.60 0.0089 0.0019

Mercury -63080-07-20 19:40 J -21318345.80 -21318345.68 -21318345.55 0.0089 0.0024

Mercury -63080-10-16 21:06 J -21318257.75 -21318257.62 -21318257.50 0.0089 0.0029

Mercury -63079-01-12 22:18 J -21318169.69 -21318169.57 -21318169.44 0.0089 0.0034

Mercury -63079-04-10 23:45 J -21318081.63 -21318081.51 -21318081.39 0.0089 0.0040

Mars -63079-06-11 10:04 J -21318020.27 -21318020.08 -21318019.85 0.0089 0.0061

Mercury -63079-07-08 00:57 J -21317993.57 -21317993.46 -21317993.34 0.0089 0.0045

Mercury -63079-10-04 02:09 J -21317905.51 -21317905.41 -21317905.29 0.0089 0.0051

Mercury -63079-12-31 03:35 J -21317817.45 -21317817.35 -21317817.24 0.0089 0.0056

Mercury -63078-03-29 05:01 J -21317729.38 -21317729.29 -21317729.19 0.0089 0.0061
 Mercury -63078-06-25 06:28 J -21317641.32 -21317641.23 -21317641.14 0.0089 0.0066
 Mercury -63078-09-21 07:25 J -21317553.25 -21317553.19 -21317553.10 0.0089 0.0072
 Mercury -63078-12-18 08:52 J -21317465.19 -21317465.13 -21317465.06 0.0089 0.0077
 Mercury -63077-03-15 10:18 J -21317377.11 -21317377.07 -21317377.02 0.0089 0.0082
 Mars -63077-05-04 21:21 J -21317326.89 -21317326.61 -21317326.33 0.0089 0.0015
 Mercury -63077-06-11 11:16 J -21317289.03 -21317289.03 -21317288.99 0.0089 0.0088
 Mars -63075-03-29 05:01 J -21316633.55 -21316633.29 -21316633.01 0.0089 0.0030
 Mars -63073-02-20 11:30 J -21315940.14 -21315940.02 -21315939.84 0.0089 0.0075
 Moon -63069-07-03 15:21 J -21314344.87 -21314344.86 -21314344.79 0.0089 0.0088
 Earth -63068-07-06 04:04 J -21313977.38 -21313977.33 -21313977.26 0.0089 0.0086
 Moon -63067-07-08 10:33 J -21313610.17 -21313610.06 -21313609.90 0.0089 0.0076
 Earth -63067-07-08 14:09 J -21313610.00 -21313609.91 -21313609.79 0.0089 0.0080 *
 Earth -63066-07-10 23:59 J -21313242.61 -21313242.50 -21313242.33 0.0089 0.0074
 Moon -63066-07-11 03:35 J -21313242.44 -21313242.35 -21313242.20 0.0089 0.0079 *
 Moon -63065-07-12 07:40 J -21312875.34 -21312875.18 -21312874.99 0.0089 0.0063
 Earth -63065-07-12 10:33 J -21312875.22 -21312875.06 -21312874.89 0.0089 0.0067 *
 Earth -63064-07-14 20:09 J -21312507.82 -21312507.66 -21312507.45 0.0089 0.0061
 Moon -63064-07-14 22:33 J -21312507.72 -21312507.56 -21312507.37 0.0089 0.0065 *
 Moon -63063-07-17 05:16 J -21312140.47 -21312140.28 -21312140.06 0.0089 0.0050
 Earth -63063-07-17 06:28 J -21312140.42 -21312140.23 -21312140.02 0.0089 0.0054 *
 Moon -63062-07-19 15:21 J -21311773.05 -21311772.86 -21311772.62 0.0089 0.0052
 Earth -63062-07-19 16:33 J -21311773.02 -21311772.81 -21311772.59 0.0089 0.0047 *
 Earth -63061-07-21 01:54 J -21311405.62 -21311405.42 -21311405.17 0.0089 0.0041
 Moon -63061-07-21 03:21 J -21311405.56 -21311405.36 -21311405.12 0.0089 0.0037 *
 Moon -63060-07-23 09:21 J -21311038.33 -21311038.11 -21311037.87 0.0089 0.0039
 Earth -63060-07-23 11:45 J -21311038.22 -21311038.01 -21311037.76 0.0089 0.0034 *
 Earth -63059-07-25 21:49 J -21310670.82 -21310670.59 -21310670.34 0.0089 0.0027
 Moon -63059-07-26 01:25 J -21310670.68 -21310670.44 -21310670.20 0.0089 0.0022 *
 Moon -63058-07-28 04:47 J -21310303.55 -21310303.30 -21310303.06 0.0089 0.0025

Earth	-63058-07-28 07:54 J	-21310303.41	-21310303.17	-21310302.92	0.0089	0.0020	*
Earth	-63057-07-29 17:45 J	-21309936.01	-21309935.76	-21309935.51	0.0089	0.0013	
Moon	-63057-07-29 21:21 J	-21309935.87	-21309935.61	-21309935.36	0.0089	0.0008	*
Moon	-63056-08-01 01:11 J	-21309568.68	-21309568.45	-21309568.19	0.0089	0.0011	
Earth	-63056-08-01 03:49 J	-21309568.59	-21309568.34	-21309568.09	0.0089	0.0006	*
Earth	-63055-08-03 13:40 J	-21309201.18	-21309200.93	-21309200.67	0.0089	0.0001	
Moon	-63055-08-03 15:35 J	-21309201.11	-21309200.85	-21309200.59	0.0089	0.0005	*
Moon	-63054-08-05 23:16 J	-21308833.77	-21308833.53	-21308833.28	0.0089	0.0004	
Earth	-63054-08-05 23:45 J	-21308833.76	-21308833.51	-21308833.26	0.0089	0.0008	*
Moon	-63053-08-07 08:23 J	-21308466.40	-21308466.15	-21308465.89	0.0089	0.0019	
Earth	-63053-08-07 09:35 J	-21308466.34	-21308466.10	-21308465.84	0.0089	0.0015	*
Earth	-63052-08-09 19:40 J	-21308098.92	-21308098.68	-21308098.43	0.0089	0.0022	
Moon	-63052-08-09 21:21 J	-21308098.84	-21308098.61	-21308098.36	0.0089	0.0018	*
Moon	-63051-08-12 02:23 J	-21307731.62	-21307731.40	-21307731.14	0.0089	0.0035	
Earth	-63051-08-12 05:45 J	-21307731.49	-21307731.26	-21307731.01	0.0089	0.0029	*
Earth	-63050-08-14 15:35 J	-21307364.07	-21307363.85	-21307363.61	0.0089	0.0036	
Moon	-63050-08-14 19:11 J	-21307363.93	-21307363.70	-21307363.46	0.0089	0.0032	*
Moon	-63049-08-15 22:18 J	-21306996.78	-21306996.57	-21306996.35	0.0089	0.0047	
Earth	-63049-08-16 01:25 J	-21306996.64	-21306996.44	-21306996.20	0.0089	0.0043	*
Earth	-63048-08-18 11:16 J	-21306629.22	-21306629.03	-21306628.80	0.0089	0.0050	
Moon	-63048-08-18 14:37 J	-21306629.09	-21306628.89	-21306628.65	0.0089	0.0045	*
Moon	-63047-08-20 19:25 J	-21306261.84	-21306261.69	-21306261.49	0.0089	0.0062	
Earth	-63047-08-20 21:35 J	-21306261.78	-21306261.60	-21306261.39	0.0089	0.0057	*
Earth	-63046-08-23 07:25 J	-21305894.35	-21305894.19	-21305893.99	0.0089	0.0063	
Moon	-63046-08-23 08:37 J	-21305894.31	-21305894.14	-21305893.92	0.0089	0.0059	*
Earth	-63045-08-24 17:45 J	-21305526.91	-21305526.76	-21305526.59	0.0089	0.0070	
Moon	-63045-08-24 17:30 J	-21305526.88	-21305526.77	-21305526.61	0.0089	0.0075	*
Moon	-63044-08-27 02:09 J	-21305159.56	-21305159.41	-21305159.25	0.0089	0.0072	
Earth	-63044-08-27 03:35 J	-21305159.46	-21305159.35	-21305159.20	0.0089	0.0076	*
Earth	-63043-08-29 13:54 J	-21304792.00	-21304791.92	-21304791.81	0.0089	0.0083	

Moon	-63043-08-29 15:49 J	-21304791.86	-21304791.84	-21304791.76	0.0089	0.0087	*
Moon	-63042-08-31 20:37 J	-21304424.70	-21304424.64	-21304424.53	0.0089	0.0084	
Earth	-63042-09-01 00:13 J	-21304424.49	-21304424.49	-21304424.46	0.0089	0.0089	
Jupiter	-63041-12-24 08:09 J	-21303944.52	-21303944.16	-21303943.73	0.0089	0.0062	
Venus	-63034-11-11 17:01 J	-21301430.90	-21301430.79	-21301430.66	0.0089	0.0073	
Venus	-63033-06-24 05:30 J	-21301205.43	-21301205.27	-21301205.08	0.0089	0.0053	
Venus	-63032-02-04 17:59 J	-21300979.94	-21300979.75	-21300979.53	0.0089	0.0033	
Venus	-63032-09-18 06:42 J	-21300754.43	-21300754.22	-21300754.00	0.0089	0.0012	
Venus	-63031-05-01 19:11 J	-21300528.91	-21300528.70	-21300528.48	0.0089	0.0008	
Venus	-63031-12-13 07:54 J	-21300303.38	-21300303.17	-21300302.97	0.0089	0.0029	
Venus	-63030-07-26 20:09 J	-21300077.82	-21300077.66	-21300077.46	0.0089	0.0049	
Venus	-63029-03-08 09:06 J	-21299852.25	-21299852.12	-21299851.98	0.0089	0.0070	
Mercury	-63002-09-09 01:54 J	-21289806.47	-21289806.42	-21289806.33	0.0089	0.0082	
Mercury	-63002-12-06 05:45 J	-21289718.36	-21289718.26	-21289718.15	0.0089	0.0074	
Mercury	-63001-03-03 08:52 J	-21289630.23	-21289630.13	-21289629.98	0.0089	0.0067	
Mercury	-63001-05-30 12:42 J	-21289542.11	-21289541.97	-21289541.82	0.0089	0.0059	
Mercury	-63001-08-26 16:04 J	-21289453.97	-21289453.83	-21289453.66	0.0089	0.0052	
Mercury	-63001-11-22 19:40 J	-21289365.83	-21289365.68	-21289365.50	0.0089	0.0044	

63RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 63rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury -63000-02-18 23:16 J -21289277.70 -21289277.53 -21289277.34 0.0089 0.0036

Mercury -63000-05-18 03:06 J -21289189.55 -21289189.37 -21289189.19 0.0089 0.0028

Mercury -63000-08-14 06:28 J -21289101.41 -21289101.23 -21289101.04 0.0089 0.0020

Mercury -63000-11-10 10:04 J -21289013.27 -21289013.08 -21289012.88 0.0089 0.0013

Mercury -62999-02-06 13:40 J -21288925.12 -21288924.93 -21288924.73 0.0089 0.0005

Mercury -62999-05-05 17:16 J -21288836.97 -21288836.78 -21288836.58 0.0089 0.0004

Mercury -62999-08-01 20:52 J -21288748.82 -21288748.63 -21288748.43 0.0089 0.0011

Mercury -62999-10-29 00:28 J -21288660.67 -21288660.48 -21288660.29 0.0089 0.0019

Mercury -62998-01-25 04:04 J -21288572.51 -21288572.33 -21288572.14 0.0089 0.0027

Mercury -62998-04-23 07:25 J -21288484.35 -21288484.19 -21288484.00 0.0089 0.0035

Mercury -62998-07-20 11:01 J -21288396.20 -21288396.04 -21288395.86 0.0089 0.0043

Mercury -62998-10-16 14:52 J -21288308.03 -21288307.88 -21288307.72 0.0089 0.0050

Mercury -62997-01-12 18:28 J -21288219.87 -21288219.73 -21288219.58 0.0089 0.0058

Mars -62997-03-08 02:23 J -21288164.59 -21288164.40 -21288164.17 0.0089 0.0071

Mercury -62997-04-09 22:04 J -21288131.70 -21288131.58 -21288131.44 0.0089 0.0066

Mercury -62997-07-07 01:25 J -21288043.53 -21288043.44 -21288043.32 0.0089 0.0074

Mercury -62997-10-03 05:01 J -21287955.34 -21287955.29 -21287955.20 0.0089 0.0082

Mars -62995-02-02 16:18 J -21287468.15 -21287467.82 -21287467.46 0.0089 0.0016

Mars -62994-12-31 07:11 J -21286771.49 -21286771.20 -21286770.86 0.0089 0.0041

Moon -62986-01-02 05:16 J -21284212.28 -21284212.28 -21284212.28 0.0088 0.0088

Moon -62985-01-04 10:33 J -21283845.09 -21283845.06 -21283844.95 0.0088 0.0086

Earth -62985-01-04 14:23 J -21283844.96 -21283844.90 -21283844.78 0.0088 0.0084 *

Earth -62984-01-06 04:04 J -21283477.44 -21283477.33 -21283477.19 0.0088 0.0077

Moon -62984-01-06 06:42 J -21283477.33 -21283477.22 -21283477.05 0.0088 0.0076 *

Moon -62983-01-08 15:35 J -21283110.00 -21283109.85 -21283109.70 0.0088 0.0072

Earth -62983-01-08 17:01 J -21283109.92 -21283109.79 -21283109.60 0.0088 0.0071 *

Earth -62982-01-11 06:28 J -21282742.39 -21282742.23 -21282742.03 0.0088 0.0064

Moon -62982-01-11 08:23 J -21282742.34 -21282742.15 -21282741.95 0.0088 0.0061 *

Earth -62981-01-13 19:54 J -21282374.85 -21282374.67 -21282374.45 0.0088 0.0057

Moon -62981-01-13 20:23 J -21282374.83 -21282374.65 -21282374.45 0.0088 0.0059 *

Moon	-62980-01-15 08:09 J	-21282007.38	-21282007.16	-21282006.92	0.0088	0.0048
Earth	-62980-01-15 09:35 J	-21282007.31	-21282007.10	-21282006.88	0.0088	0.0050 *
Earth	-62979-01-17 23:01 J	-21281639.76	-21281639.54	-21281639.30	0.0088	0.0043
Moon	-62979-01-18 00:57 J	-21281639.66	-21281639.46	-21281639.23	0.0088	0.0046 *
Moon	-62978-01-20 08:52 J	-21281272.36	-21281272.13	-21281271.87	0.0088	0.0034
Earth	-62978-01-20 12:28 J	-21281272.21	-21281271.98	-21281271.73	0.0088	0.0036 *
Earth	-62977-01-23 01:54 J	-21280904.66	-21280904.42	-21280904.16	0.0088	0.0029
Moon	-62977-01-23 05:16 J	-21280904.51	-21280904.28	-21280904.02	0.0088	0.0032 *
Moon	-62976-01-24 11:45 J	-21280537.25	-21280537.01	-21280536.74	0.0088	0.0019
Earth	-62976-01-24 15:35 J	-21280537.09	-21280536.85	-21280536.58	0.0088	0.0022 *
Earth	-62975-01-27 05:01 J	-21280169.54	-21280169.29	-21280169.02	0.0088	0.0015
Moon	-62975-01-27 08:23 J	-21280169.41	-21280169.15	-21280168.88	0.0088	0.0017 *
Moon	-62974-01-29 16:18 J	-21279802.07	-21279801.82	-21279801.56	0.0088	0.0004
Earth	-62974-01-29 18:57 J	-21279801.97	-21279801.71	-21279801.44	0.0088	0.0007 *
Earth	-62973-02-01 08:23 J	-21279434.41	-21279434.15	-21279433.88	0.0088	0.0002
Moon	-62973-02-01 10:18 J	-21279434.34	-21279434.07	-21279433.79	0.0088	0.0004 *
Earth	-62972-02-02 21:49 J	-21279066.85	-21279066.59	-21279066.32	0.0088	0.0008
Moon	-62972-02-02 21:35 J	-21279066.84	-21279066.60	-21279066.34	0.0088	0.0012 *
Moon	-62971-02-05 10:47 J	-21278699.32	-21278699.05	-21278698.78	0.0088	0.0012
Earth	-62971-02-05 11:16 J	-21278699.28	-21278699.03	-21278698.76	0.0088	0.0015 *
Earth	-62970-02-08 00:28 J	-21278331.72	-21278331.48	-21278331.21	0.0088	0.0022
Moon	-62970-02-08 02:09 J	-21278331.64	-21278331.41	-21278331.15	0.0088	0.0027 *
Moon	-62969-02-10 10:47 J	-21277964.29	-21277964.05	-21277963.78	0.0088	0.0026
Earth	-62969-02-10 13:54 J	-21277964.15	-21277963.92	-21277963.66	0.0088	0.0030 *
Earth	-62968-02-12 03:21 J	-21277596.59	-21277596.36	-21277596.11	0.0088	0.0036
Moon	-62968-02-12 06:28 J	-21277596.45	-21277596.23	-21277595.99	0.0088	0.0041 *
Moon	-62967-02-14 12:42 J	-21277229.19	-21277228.97	-21277228.72	0.0088	0.0039
Earth	-62967-02-14 16:33 J	-21277229.02	-21277228.81	-21277228.56	0.0088	0.0044 *
Earth	-62966-02-17 05:59 J	-21276861.45	-21276861.25	-21276861.02	0.0088	0.0050
Moon	-62966-02-17 09:21 J	-21276861.30	-21276861.11	-21276860.88	0.0088	0.0055 *

Moon	-62965-02-19 16:33 J	-21276494.00	-21276493.81	-21276493.59	0.0088	0.0053
Earth	-62965-02-19 19:25 J	-21276493.87	-21276493.69	-21276493.47	0.0088	0.0058 *
Earth	-62964-02-21 08:37 J	-21276126.30	-21276126.14	-21276125.94	0.0088	0.0065
Moon	-62964-02-21 11:16 J	-21276126.19	-21276126.03	-21276125.85	0.0088	0.0069 *
Moon	-62963-02-23 21:35 J	-21275758.74	-21275758.60	-21275758.42	0.0088	0.0067
Earth	-62963-02-23 22:04 J	-21275758.71	-21275758.58	-21275758.40	0.0088	0.0071 *
Earth	-62962-02-26 11:45 J	-21275391.12	-21275391.01	-21275390.87	0.0088	0.0078
Moon	-62962-02-26 11:30 J	-21275391.10	-21275391.02	-21275390.90	0.0088	0.0082 *
Earth	-62961-02-29 00:42 J	-21275023.52	-21275023.47	-21275023.37	0.0088	0.0085
Moon	-62961-02-29 01:54 J	-21275023.49	-21275023.42	-21275023.28	0.0088	0.0081 *
Venus	-62951-01-01 03:06 J	-21271429.44	-21271429.37	-21271429.29	0.0088	0.0083
Venus	-62951-08-14 16:18 J	-21271203.96	-21271203.82	-21271203.65	0.0088	0.0062
Venus	-62950-03-28 05:59 J	-21270978.44	-21270978.25	-21270978.05	0.0088	0.0042
Venus	-62950-11-08 19:25 J	-21270752.90	-21270752.69	-21270752.47	0.0088	0.0021
Venus	-62949-06-21 08:52 J	-21270527.35	-21270527.13	-21270526.90	0.0088	0.0001
Venus	-62948-02-01 22:18 J	-21270301.78	-21270301.57	-21270301.35	0.0088	0.0020
Venus	-62948-09-15 11:30 J	-21270076.21	-21270076.02	-21270075.81	0.0088	0.0041
Venus	-62947-04-29 00:57 J	-21269850.62	-21269850.46	-21269850.30	0.0088	0.0061
Venus	-62947-12-10 13:40 J	-21269624.99	-21269624.93	-21269624.82	0.0088	0.0082
Mercury	-62920-03-24 14:52 J	-21260023.89	-21260023.88	-21260023.85	0.0089	0.0087
Mercury	-62920-06-20 16:18 J	-21259935.86	-21259935.82	-21259935.76	0.0089	0.0082
Mercury	-62920-09-16 17:30 J	-21259847.82	-21259847.77	-21259847.69	0.0089	0.0077
Mercury	-62920-12-13 19:11 J	-21259759.78	-21259759.70	-21259759.62	0.0089	0.0071
Mercury	-62919-03-11 20:23 J	-21259671.73	-21259671.65	-21259671.55	0.0089	0.0066
Mercury	-62919-06-07 22:04 J	-21259583.68	-21259583.58	-21259583.48	0.0089	0.0060
Mercury	-62919-09-03 23:16 J	-21259495.63	-21259495.53	-21259495.42	0.0089	0.0055
Mercury	-62919-12-01 00:28 J	-21259407.58	-21259407.48	-21259407.36	0.0089	0.0050
Mercury	-62918-02-27 02:09 J	-21259319.53	-21259319.41	-21259319.29	0.0089	0.0044
Mercury	-62918-05-26 03:21 J	-21259231.47	-21259231.36	-21259231.23	0.0089	0.0039
Mercury	-62918-08-22 04:47 J	-21259143.42	-21259143.30	-21259143.17	0.0089	0.0033

Mercury -62918-11-18 06:13 J -21259055.37 -21259055.24 -21259055.11 0.0089 0.0028

Mercury -62917-02-14 07:25 J -21258967.31 -21258967.19 -21258967.06 0.0089 0.0023

Mercury -62917-05-12 08:52 J -21258879.26 -21258879.13 -21258879.00 0.0089 0.0017

Mercury -62917-08-08 10:18 J -21258791.21 -21258791.07 -21258790.94 0.0089 0.0012

Mercury -62917-11-04 11:30 J -21258703.15 -21258703.02 -21258702.88 0.0089 0.0006

Mercury -62916-01-31 12:57 J -21258615.09 -21258614.96 -21258614.83 0.0089 0.0001

Mercury -62916-04-29 14:09 J -21258527.04 -21258526.91 -21258526.77 0.0089 0.0006

Mercury -62916-07-26 15:35 J -21258438.98 -21258438.85 -21258438.72 0.0089 0.0010

Mercury -62916-10-22 16:47 J -21258350.92 -21258350.80 -21258350.66 0.0089 0.0016

Mercury -62915-01-18 18:13 J -21258262.87 -21258262.74 -21258262.61 0.0089 0.0021

Mars -62915-01-25 05:16 J -21258256.40 -21258256.28 -21258256.13 0.0089 0.0078

Mercury -62915-04-16 19:40 J -21258174.81 -21258174.68 -21258174.56 0.0089 0.0026

Mercury -62915-07-13 20:52 J -21258086.75 -21258086.63 -21258086.50 0.0089 0.0031

Mercury -62915-10-09 22:04 J -21257998.69 -21257998.58 -21257998.45 0.0089 0.0037

Mercury -62914-01-05 23:30 J -21257910.63 -21257910.52 -21257910.40 0.0089 0.0042

Mercury -62914-04-04 00:42 J -21257822.57 -21257822.47 -21257822.35 0.0089 0.0048

Mercury -62914-07-01 02:09 J -21257734.51 -21257734.41 -21257734.30 0.0089 0.0053

Mercury -62914-09-27 03:35 J -21257646.45 -21257646.35 -21257646.25 0.0089 0.0058

Mars -62914-12-19 15:06 J -21257563.13 -21257562.87 -21257562.60 0.0089 0.0033

Mercury -62914-12-24 04:33 J -21257558.39 -21257558.31 -21257558.20 0.0089 0.0064

Mercury -62913-03-21 05:59 J -21257470.32 -21257470.25 -21257470.16 0.0089 0.0069

Mercury -62913-06-17 07:25 J -21257382.26 -21257382.19 -21257382.11 0.0089 0.0074

Mercury -62913-09-13 08:52 J -21257294.19 -21257294.13 -21257294.07 0.0089 0.0079

Mercury -62913-12-10 09:49 J -21257206.11 -21257206.09 -21257206.04 0.0089 0.0085

Mars -62912-11-12 01:11 J -21256869.72 -21256869.45 -21256869.16 0.0089 0.0012

Mars -62910-10-06 09:21 J -21256176.32 -21256176.11 -21256175.88 0.0089 0.0056

Moon -62904-07-05 11:59 J -21254077.00 -21254077.00 -21254076.99 0.0089 0.0089

Earth -62904-07-05 15:35 J -21254076.89 -21254076.85 -21254076.80 0.0089 0.0087

Earth -62903-07-08 01:25 J -21253709.53 -21253709.44 -21253709.33 0.0089 0.0081

Moon -62903-07-08 04:18 J -21253709.40 -21253709.32 -21253709.19 0.0089 0.0081 *

Moon	-62902-07-10 08:23 J	-21253342.26	-21253342.15	-21253342.00	0.0089	0.0075
Earth	-62902-07-10 11:16 J	-21253342.14	-21253342.03	-21253341.87	0.0089	0.0075 *
Earth	-62901-07-11 21:21 J	-21252974.75	-21252974.61	-21252974.43	0.0089	0.0068
Moon	-62901-07-11 23:01 J	-21252974.69	-21252974.54	-21252974.35	0.0089	0.0067 *
Moon	-62900-07-14 07:11 J	-21252607.36	-21252607.20	-21252607.01	0.0089	0.0062
Earth	-62900-07-14 07:40 J	-21252607.35	-21252607.18	-21252606.98	0.0089	0.0061 *
Moon	-62899-07-16 17:16 J	-21252239.97	-21252239.78	-21252239.55	0.0089	0.0054
Earth	-62899-07-16 17:59 J	-21252239.94	-21252239.75	-21252239.54	0.0089	0.0054 *
Earth	-62898-07-19 04:04 J	-21251872.53	-21251872.33	-21251872.11	0.0089	0.0047
Moon	-62898-07-19 06:13 J	-21251872.44	-21251872.24	-21251872.03	0.0089	0.0048 *
Moon	-62897-07-20 11:16 J	-21251505.26	-21251505.03	-21251504.80	0.0089	0.0039
Earth	-62897-07-20 14:09 J	-21251505.13	-21251504.91	-21251504.68	0.0089	0.0040 *
Earth	-62896-07-22 23:59 J	-21251137.73	-21251137.50	-21251137.26	0.0089	0.0033
Moon	-62896-07-23 03:06 J	-21251137.59	-21251137.37	-21251137.12	0.0089	0.0033 *
Moon	-62895-07-25 06:28 J	-21250770.47	-21250770.23	-21250769.99	0.0089	0.0025
Earth	-62895-07-25 10:04 J	-21250770.32	-21250770.08	-21250769.84	0.0089	0.0026 *
Earth	-62894-07-27 19:40 J	-21250402.92	-21250402.68	-21250402.43	0.0089	0.0019
Moon	-62894-07-27 22:47 J	-21250402.79	-21250402.55	-21250402.29	0.0089	0.0019 *
Moon	-62893-07-29 03:06 J	-21250035.61	-21250035.37	-21250035.12	0.0089	0.0012
Earth	-62893-07-29 05:45 J	-21250035.51	-21250035.26	-21250035.01	0.0089	0.0012 *
Earth	-62892-07-31 15:35 J	-21249668.10	-21249667.85	-21249667.60	0.0089	0.0005
Moon	-62892-07-31 16:47 J	-21249668.06	-21249667.80	-21249667.54	0.0089	0.0005 *
Earth	-62891-08-03 01:25 J	-21249300.69	-21249300.44	-21249300.18	0.0089	0.0003
Moon	-62891-08-03 01:40 J	-21249300.68	-21249300.43	-21249300.19	0.0089	0.0002 *
Moon	-62890-08-05 10:18 J	-21248933.32	-21248933.07	-21248932.81	0.0089	0.0010
Earth	-62890-08-05 11:30 J	-21248933.27	-21248933.02	-21248932.77	0.0089	0.0009 *
Earth	-62889-08-06 21:06 J	-21248565.86	-21248565.62	-21248565.37	0.0089	0.0017
Moon	-62889-08-06 23:45 J	-21248565.75	-21248565.51	-21248565.26	0.0089	0.0017 *
Moon	-62888-08-09 04:18 J	-21248198.57	-21248198.32	-21248198.08	0.0089	0.0023
Earth	-62888-08-09 07:11 J	-21248198.44	-21248198.20	-21248197.95	0.0089	0.0024 *

Earth	-62887-08-11 17:01 J	-21247831.01	-21247830.79	-21247830.54	0.0089	0.0031
Moon	-62887-08-11 20:52 J	-21247830.86	-21247830.63	-21247830.39	0.0089	0.0030 *
Moon	-62886-08-13 23:45 J	-21247463.72	-21247463.51	-21247463.27	0.0089	0.0038
Earth	-62886-08-14 03:06 J	-21247463.58	-21247463.37	-21247463.13	0.0089	0.0038 *
Earth	-62885-08-15 13:11 J	-21247096.16	-21247095.95	-21247095.72	0.0089	0.0045
Moon	-62885-08-15 16:04 J	-21247096.05	-21247095.83	-21247095.60	0.0089	0.0045 *
Moon	-62884-08-17 20:52 J	-21246728.81	-21246728.63	-21246728.41	0.0089	0.0053
Earth	-62884-08-17 23:01 J	-21246728.72	-21246728.54	-21246728.32	0.0089	0.0053 *
Earth	-62883-08-20 09:06 J	-21246361.29	-21246361.12	-21246360.92	0.0089	0.0059
Moon	-62883-08-20 09:21 J	-21246361.28	-21246361.11	-21246360.89	0.0089	0.0059 *
Earth	-62882-08-22 18:57 J	-21245993.86	-21245993.71	-21245993.52	0.0089	0.0066
Moon	-62882-08-22 19:40 J	-21245993.83	-21245993.68	-21245993.51	0.0089	0.0066 *
Moon	-62881-08-24 03:06 J	-21245626.50	-21245626.37	-21245626.19	0.0089	0.0072
Earth	-62881-08-24 05:16 J	-21245626.42	-21245626.28	-21245626.13	0.0089	0.0073 *
Earth	-62880-08-26 14:52 J	-21245258.97	-21245258.88	-21245258.74	0.0089	0.0080
Moon	-62880-08-26 17:59 J	-21245258.85	-21245258.75	-21245258.63	0.0089	0.0080 *
Moon	-62879-08-28 22:04 J	-21244891.64	-21244891.58	-21244891.50	0.0089	0.0085
Earth	-62879-08-29 00:42 J	-21244891.50	-21244891.47	-21244891.37	0.0089	0.0087 *
Venus	-62869-02-13 04:47 J	-21241436.38	-21241436.30	-21241436.21	0.0089	0.0081
Venus	-62869-09-25 17:01 J	-21241210.93	-21241210.79	-21241210.62	0.0089	0.0061
Venus	-62868-05-09 05:16 J	-21240985.45	-21240985.28	-21240985.07	0.0089	0.0042
Venus	-62868-12-20 18:13 J	-21240759.95	-21240759.74	-21240759.53	0.0089	0.0021
Venus	-62867-08-03 06:42 J	-21240534.43	-21240534.22	-21240534.00	0.0089	0.0001
Venus	-62866-03-16 19:11 J	-21240308.91	-21240308.70	-21240308.49	0.0089	0.0020
Venus	-62866-10-28 07:25 J	-21240083.37	-21240083.19	-21240082.98	0.0089	0.0041
Venus	-62865-06-09 20:09 J	-21239857.81	-21239857.66	-21239857.49	0.0089	0.0061
Venus	-62864-01-21 08:23 J	-21239632.21	-21239632.15	-21239632.04	0.0089	0.0082
Mercury	-62837-03-08 20:52 J	-21229723.65	-21229723.63	-21229723.57	0.0089	0.0087
Mercury	-62837-06-05 00:42 J	-21229635.55	-21229635.47	-21229635.38	0.0089	0.0079
Mercury	-62837-09-01 03:49 J	-21229547.43	-21229547.34	-21229547.21	0.0089	0.0072

Mercury -62837-11-28 07:40 J -21229459.31 -21229459.18 -21229459.04 0.0089 0.0064
 Mercury -62836-02-24 11:16 J -21229371.17 -21229371.03 -21229370.88 0.0089 0.0056
 Mercury -62836-05-23 14:37 J -21229283.04 -21229282.89 -21229282.72 0.0089 0.0049
 Mercury -62836-08-19 18:13 J -21229194.90 -21229194.74 -21229194.56 0.0089 0.0041
 Mercury -62836-11-15 21:49 J -21229106.76 -21229106.59 -21229106.41 0.0089 0.0033
 Mercury -62835-02-12 01:11 J -21229018.62 -21229018.45 -21229018.25 0.0089 0.0026
 Mercury -62835-05-11 05:01 J -21228930.48 -21228930.29 -21228930.10 0.0089 0.0017
 Mercury -62835-08-07 08:37 J -21228842.33 -21228842.14 -21228841.95 0.0089 0.0010
 Mercury -62835-11-03 12:13 J -21228754.18 -21228753.99 -21228753.80 0.0089 0.0002
 Mercury -62834-01-30 15:49 J -21228666.03 -21228665.84 -21228665.65 0.0089 0.0006
 Mercury -62834-04-28 19:25 J -21228577.88 -21228577.69 -21228577.50 0.0089 0.0014
 Mercury -62834-07-25 22:47 J -21228489.73 -21228489.55 -21228489.35 0.0089 0.0022
 Mercury -62834-10-22 02:23 J -21228401.57 -21228401.40 -21228401.21 0.0089 0.0030
 Mercury -62833-01-18 05:59 J -21228313.42 -21228313.25 -21228313.06 0.0089 0.0038
 Mercury -62833-04-15 09:49 J -21228225.26 -21228225.09 -21228224.92 0.0089 0.0045
 Mercury -62833-07-12 13:25 J -21228137.09 -21228136.94 -21228136.78 0.0089 0.0053
 Mercury -62833-10-08 16:47 J -21228048.93 -21228048.80 -21228048.65 0.0089 0.0061
 Mercury -62832-01-04 20:23 J -21227960.76 -21227960.65 -21227960.52 0.0089 0.0069
 Mercury -62832-04-02 23:59 J -21227872.58 -21227872.50 -21227872.39 0.0089 0.0077
 Mercury -62832-06-30 03:35 J -21227784.39 -21227784.35 -21227784.28 0.0089 0.0085
 Mars -62832-09-15 23:01 J -21227706.84 -21227706.54 -21227706.21 0.0089 0.0038
 Mars -62830-08-13 13:54 J -21227010.26 -21227009.92 -21227009.58 0.0089 0.0017
 Mars -62828-07-10 04:33 J -21226313.47 -21226313.31 -21226313.07 0.0089 0.0073
 Moon -62822-01-01 06:28 J -21224312.26 -21224312.23 -21224312.16 0.0088 0.0087
 Earth -62821-01-03 22:33 J -21223944.60 -21223944.56 -21223944.45 0.0088 0.0085
 Moon -62821-01-04 01:54 J -21223944.42 -21223944.42 -21223944.39 0.0088 0.0088
 Moon -62820-01-05 10:33 J -21223577.18 -21223577.06 -21223576.90 0.0088 0.0074
 Earth -62820-01-05 12:13 J -21223577.09 -21223576.99 -21223576.85 0.0088 0.0078 *
 Earth -62819-01-08 01:40 J -21223209.57 -21223209.43 -21223209.26 0.0088 0.0071
 Moon -62819-01-08 01:54 J -21223209.55 -21223209.42 -21223209.26 0.0088 0.0075 *

Earth	-62818-01-10 15:06 J	-21222842.04	-21222841.87	-21222841.68	0.0088	0.0064
Moon	-62818-01-10 15:06 J	-21222842.03	-21222841.87	-21222841.66	0.0088	0.0061 *
Moon	-62817-01-13 02:37 J	-21222474.58	-21222474.39	-21222474.19	0.0088	0.0061
Earth	-62817-01-13 04:18 J	-21222474.50	-21222474.32	-21222474.10	0.0088	0.0057 *
Earth	-62816-01-14 17:45 J	-21222106.97	-21222106.76	-21222106.53	0.0088	0.0050
Moon	-62816-01-14 20:37 J	-21222106.85	-21222106.64	-21222106.41	0.0088	0.0046 *
Moon	-62815-01-17 03:35 J	-21221739.56	-21221739.35	-21221739.11	0.0088	0.0047
Earth	-62815-01-17 06:57 J	-21221739.43	-21221739.21	-21221738.97	0.0088	0.0043 *
Earth	-62814-01-19 20:23 J	-21221371.88	-21221371.65	-21221371.40	0.0088	0.0036
Moon	-62814-01-19 23:59 J	-21221371.73	-21221371.50	-21221371.23	0.0088	0.0032 *
Moon	-62813-01-22 06:28 J	-21221004.45	-21221004.23	-21221003.97	0.0088	0.0032
Earth	-62813-01-22 09:49 J	-21221004.33	-21221004.09	-21221003.83	0.0088	0.0028 *
Earth	-62812-01-23 23:30 J	-21220636.78	-21220636.52	-21220636.27	0.0088	0.0021
Moon	-62812-01-24 02:37 J	-21220636.65	-21220636.39	-21220636.12	0.0088	0.0018 *
Moon	-62811-01-26 10:47 J	-21220269.29	-21220269.05	-21220268.79	0.0088	0.0018
Earth	-62811-01-26 12:57 J	-21220269.22	-21220268.96	-21220268.69	0.0088	0.0013 *
Earth	-62810-01-29 02:23 J	-21219901.66	-21219901.40	-21219901.13	0.0088	0.0006
Moon	-62810-01-29 03:21 J	-21219901.63	-21219901.36	-21219901.08	0.0088	0.0003 *
Moon	-62809-01-31 16:04 J	-21219534.09	-21219533.83	-21219533.58	0.0088	0.0001
Earth	-62809-01-31 16:04 J	-21219534.09	-21219533.83	-21219533.56	0.0088	0.0002 *
Moon	-62808-02-02 04:04 J	-21219166.60	-21219166.33	-21219166.06	0.0088	0.0012
Earth	-62808-02-02 05:30 J	-21219166.52	-21219166.27	-21219166.00	0.0088	0.0010 *
Earth	-62807-02-04 18:57 J	-21218798.96	-21218798.71	-21218798.45	0.0088	0.0017
Moon	-62807-02-04 21:21 J	-21218798.86	-21218798.61	-21218798.35	0.0088	0.0014 *
Moon	-62806-02-07 05:30 J	-21218431.52	-21218431.27	-21218431.01	0.0088	0.0027
Earth	-62806-02-07 08:23 J	-21218431.39	-21218431.15	-21218430.89	0.0088	0.0024 *
Earth	-62805-02-09 21:49 J	-21218063.83	-21218063.59	-21218063.34	0.0088	0.0031
Moon	-62805-02-10 01:25 J	-21218063.67	-21218063.44	-21218063.18	0.0088	0.0029 *
Moon	-62804-02-11 07:25 J	-21217696.40	-21217696.19	-21217695.94	0.0088	0.0042
Earth	-62804-02-11 11:01 J	-21217696.26	-21217696.04	-21217695.79	0.0088	0.0039 *

Earth	-62803-02-14 00:28 J	-21217328.70	-21217328.48	-21217328.25	0.0088	0.0046
Moon	-62803-02-14 03:35 J	-21217328.56	-21217328.35	-21217328.10	0.0088	0.0045 *
Moon	-62802-02-16 11:30 J	-21216961.21	-21216961.02	-21216960.81	0.0088	0.0055
Earth	-62802-02-16 13:25 J	-21216961.12	-21216960.94	-21216960.70	0.0088	0.0053 *
Earth	-62801-02-19 02:37 J	-21216593.55	-21216593.39	-21216593.17	0.0088	0.0061
Moon	-62801-02-19 04:18 J	-21216593.50	-21216593.32	-21216593.10	0.0088	0.0058 *
Moon	-62800-02-20 15:49 J	-21216225.99	-21216225.84	-21216225.67	0.0088	0.0069
Earth	-62800-02-20 16:04 J	-21216225.97	-21216225.83	-21216225.63	0.0088	0.0067 *
Moon	-62799-02-23 04:33 J	-21215858.45	-21215858.31	-21215858.14	0.0088	0.0072
Earth	-62799-02-23 05:16 J	-21215858.39	-21215858.28	-21215858.11	0.0088	0.0075 *
Earth	-62798-02-25 19:11 J	-21215490.79	-21215490.70	-21215490.58	0.0088	0.0081
Moon	-62798-02-25 20:52 J	-21215490.70	-21215490.63	-21215490.52	0.0088	0.0083 *
Moon	-62797-02-28 05:30 J	-21215123.30	-21215123.27	-21215123.19	0.0088	0.0086
Earth	-62797-02-28 08:23 J	-21215123.16	-21215123.15	-21215123.09	0.0088	0.0088
Venus	-62787-11-16 02:23 J	-21211209.52	-21211209.40	-21211209.25	0.0088	0.0071
Venus	-62786-06-29 15:49 J	-21210984.00	-21210983.84	-21210983.64	0.0088	0.0050
Venus	-62785-02-10 05:45 J	-21210758.46	-21210758.26	-21210758.04	0.0088	0.0029
Venus	-62785-09-22 19:11 J	-21210532.92	-21210532.70	-21210532.47	0.0088	0.0009
Venus	-62784-05-06 08:37 J	-21210307.36	-21210307.14	-21210306.91	0.0088	0.0012
Venus	-62784-12-17 22:04 J	-21210081.78	-21210081.58	-21210081.37	0.0088	0.0032
Venus	-62783-07-31 11:30 J	-21209856.20	-21209856.02	-21209855.84	0.0088	0.0053
Venus	-62782-03-14 00:28 J	-21209630.59	-21209630.48	-21209630.34	0.0088	0.0073
Saturn	-62757-04-04 01:11 J	-21200477.98	-21200477.45	-21200476.86	0.0089	0.0043
Mercury	-62756-12-19 14:23 J	-21199852.91	-21199852.90	-21199852.85	0.0089	0.0086
Mercury	-62755-03-17 16:04 J	-21199764.88	-21199764.83	-21199764.77	0.0089	0.0080
Mercury	-62755-06-13 17:16 J	-21199676.84	-21199676.78	-21199676.69	0.0089	0.0075
Mercury	-62755-09-09 18:57 J	-21199588.79	-21199588.71	-21199588.62	0.0089	0.0069
Mercury	-62755-12-06 20:09 J	-21199500.74	-21199500.66	-21199500.56	0.0089	0.0064
Mercury	-62754-03-04 21:49 J	-21199412.69	-21199412.59	-21199412.49	0.0089	0.0058
Mercury	-62754-05-31 23:01 J	-21199324.64	-21199324.54	-21199324.43	0.0089	0.0053

Mercury -62754-08-28 00:28 J -21199236.59 -21199236.48 -21199236.36 0.0089 0.0047
 Mercury -62754-11-24 01:40 J -21199148.54 -21199148.43 -21199148.30 0.0089 0.0042
 Mercury -62753-02-20 03:06 J -21199060.49 -21199060.37 -21199060.24 0.0089 0.0036
 Mercury -62753-05-18 04:33 J -21198972.43 -21198972.31 -21198972.18 0.0089 0.0031
 Mercury -62753-08-14 05:45 J -21198884.38 -21198884.26 -21198884.12 0.0089 0.0026
 Mercury -62753-11-10 07:11 J -21198796.32 -21198796.20 -21198796.06 0.0089 0.0020
 Mercury -62752-02-06 08:37 J -21198708.27 -21198708.14 -21198708.01 0.0089 0.0015
 Mercury -62752-05-05 10:04 J -21198620.22 -21198620.08 -21198619.95 0.0089 0.0009
 Mercury -62752-08-01 11:16 J -21198532.16 -21198532.03 -21198531.89 0.0089 0.0005
 Mercury -62752-10-28 12:42 J -21198444.10 -21198443.97 -21198443.84 0.0089 0.0002
 Mercury -62751-01-24 13:54 J -21198356.05 -21198355.92 -21198355.78 0.0089 0.0008
 Mercury -62751-04-22 15:21 J -21198267.99 -21198267.86 -21198267.73 0.0089 0.0012
 Mercury -62751-07-19 16:47 J -21198179.93 -21198179.80 -21198179.67 0.0089 0.0018
 Mercury -62751-10-15 17:59 J -21198091.88 -21198091.75 -21198091.62 0.0089 0.0023
 Mercury -62750-01-11 19:11 J -21198003.82 -21198003.70 -21198003.57 0.0089 0.0029
 Mercury -62750-04-09 20:37 J -21197915.76 -21197915.64 -21197915.51 0.0089 0.0034
 Mercury -62750-07-06 22:04 J -21197827.70 -21197827.58 -21197827.46 0.0089 0.0039
 Mars -62750-08-04 09:35 J -21197799.32 -21197799.10 -21197798.85 0.0089 0.0051
 Mercury -62750-10-02 23:16 J -21197739.64 -21197739.53 -21197739.41 0.0089 0.0045
 Mercury -62750-12-30 00:42 J -21197651.58 -21197651.47 -21197651.36 0.0089 0.0050
 Mercury -62749-03-27 01:54 J -21197563.52 -21197563.42 -21197563.31 0.0089 0.0055
 Mercury -62749-06-23 03:06 J -21197475.46 -21197475.37 -21197475.26 0.0089 0.0061
 Mercury -62749-09-19 04:33 J -21197387.39 -21197387.31 -21197387.22 0.0089 0.0066
 Mercury -62749-12-16 05:59 J -21197299.33 -21197299.25 -21197299.17 0.0089 0.0071
 Mercury -62748-03-14 06:57 J -21197211.26 -21197211.21 -21197211.13 0.0089 0.0077
 Mercury -62748-06-10 08:23 J -21197123.19 -21197123.15 -21197123.09 0.0089 0.0082
 Mars -62748-06-27 19:25 J -21197105.98 -21197105.69 -21197105.41 0.0089 0.0006
 Mercury -62748-09-06 09:49 J -21197035.11 -21197035.09 -21197035.06 0.0089 0.0087
 Mars -62746-05-22 05:01 J -21196412.53 -21196412.29 -21196412.02 0.0089 0.0038
 Mars -62744-04-14 13:11 J -21195719.03 -21195718.95 -21195718.81 0.0089 0.0082

Earth	-62740-07-05 02:23 J	-21194176.40	-21194176.40	-21194176.39	0.0089	0.0089
Moon	-62740-07-05 05:30 J	-21194176.33	-21194176.27	-21194176.17	0.0089	0.0084
Moon	-62739-07-07 09:49 J	-21193809.12	-21193809.09	-21193809.01	0.0089	0.0087
Earth	-62739-07-07 12:28 J	-21193809.07	-21193808.98	-21193808.88	0.0089	0.0082 *
Earth	-62738-07-09 22:04 J	-21193441.69	-21193441.58	-21193441.43	0.0089	0.0076
Moon	-62738-07-09 23:59 J	-21193441.64	-21193441.50	-21193441.33	0.0089	0.0071 *
Earth	-62737-07-11 07:54 J	-21193074.30	-21193074.17	-21193073.98	0.0089	0.0069
Moon	-62737-07-11 07:40 J	-21193074.28	-21193074.18	-21193074.01	0.0089	0.0074 *
Moon	-62736-07-13 16:47 J	-21192706.98	-21192706.80	-21192706.58	0.0089	0.0058
Earth	-62736-07-13 18:13 J	-21192706.90	-21192706.74	-21192706.54	0.0089	0.0062 *
Earth	-62735-07-16 04:18 J	-21192339.50	-21192339.32	-21192339.11	0.0089	0.0055
Moon	-62735-07-16 06:28 J	-21192339.41	-21192339.23	-21192339.04	0.0089	0.0059 *
Moon	-62734-07-18 11:01 J	-21191972.25	-21191972.04	-21191971.80	0.0089	0.0043
Earth	-62734-07-18 14:23 J	-21191972.10	-21191971.90	-21191971.67	0.0089	0.0048 *
Earth	-62733-07-20 00:13 J	-21191604.69	-21191604.49	-21191604.25	0.0089	0.0041
Moon	-62733-07-20 03:49 J	-21191604.54	-21191604.34	-21191604.11	0.0089	0.0045 *
Moon	-62732-07-22 07:11 J	-21191237.43	-21191237.20	-21191236.95	0.0089	0.0029
Earth	-62732-07-22 10:47 J	-21191237.28	-21191237.05	-21191236.81	0.0089	0.0033 *
Earth	-62731-07-24 20:23 J	-21190869.88	-21190869.65	-21190869.39	0.0089	0.0026
Moon	-62731-07-24 23:30 J	-21190869.75	-21190869.52	-21190869.27	0.0089	0.0031 *
Moon	-62730-07-27 04:47 J	-21190502.54	-21190502.30	-21190502.05	0.0089	0.0015
Earth	-62730-07-27 06:28 J	-21190502.47	-21190502.23	-21190501.97	0.0089	0.0019 *
Earth	-62729-07-28 16:18 J	-21190135.06	-21190134.82	-21190134.56	0.0089	0.0011
Moon	-62729-07-28 17:16 J	-21190135.02	-21190134.78	-21190134.51	0.0089	0.0016 *
Earth	-62728-07-31 02:23 J	-21189767.65	-21189767.40	-21189767.15	0.0089	0.0004
Moon	-62728-07-31 02:52 J	-21189767.63	-21189767.38	-21189767.14	0.0089	0.0001 *
Moon	-62727-08-02 10:18 J	-21189400.33	-21189400.07	-21189399.81	0.0089	0.0002
Earth	-62727-08-02 12:13 J	-21189400.24	-21189399.99	-21189399.73	0.0089	0.0004 *
Earth	-62726-08-04 21:49 J	-21189032.83	-21189032.59	-21189032.33	0.0089	0.0011
Moon	-62726-08-05 00:13 J	-21189032.73	-21189032.49	-21189032.24	0.0089	0.0015 *

Moon	-62725-08-06 04:33 J	-21188665.56	-21188665.31	-21188665.06	0.0089	0.0013
Earth	-62725-08-06 07:54 J	-21188665.41	-21188665.17	-21188664.92	0.0089	0.0018 *
Earth	-62724-08-08 17:45 J	-21188297.99	-21188297.76	-21188297.51	0.0089	0.0025
Moon	-62724-08-08 21:06 J	-21188297.85	-21188297.62	-21188297.37	0.0089	0.0030 *
Moon	-62723-08-11 00:28 J	-21187930.71	-21187930.48	-21187930.24	0.0089	0.0028
Earth	-62723-08-11 03:35 J	-21187930.57	-21187930.35	-21187930.10	0.0089	0.0033 *
Earth	-62722-08-13 13:40 J	-21187563.14	-21187562.93	-21187562.69	0.0089	0.0040
Moon	-62722-08-13 16:04 J	-21187563.03	-21187562.83	-21187562.58	0.0089	0.0045 *
Moon	-62721-08-14 22:33 J	-21187195.76	-21187195.56	-21187195.34	0.0089	0.0043
Earth	-62721-08-14 23:45 J	-21187195.71	-21187195.51	-21187195.28	0.0089	0.0048 *
Earth	-62720-08-17 10:04 J	-21186828.27	-21186828.08	-21186827.87	0.0089	0.0054
Moon	-62720-08-17 10:47 J	-21186828.24	-21186828.05	-21186827.85	0.0089	0.0058 *
Earth	-62719-08-19 19:40 J	-21186460.83	-21186460.68	-21186460.47	0.0089	0.0062
Moon	-62719-08-19 20:52 J	-21186460.80	-21186460.63	-21186460.42	0.0089	0.0058 *
Moon	-62718-08-22 03:06 J	-21186093.48	-21186093.37	-21186093.19	0.0089	0.0074
Earth	-62718-08-22 06:13 J	-21186093.40	-21186093.24	-21186093.08	0.0089	0.0069 *
Earth	-62717-08-23 16:04 J	-21185725.95	-21185725.83	-21185725.69	0.0089	0.0076
Moon	-62717-08-23 18:28 J	-21185725.85	-21185725.73	-21185725.56	0.0089	0.0072 *
Moon	-62716-08-25 22:18 J	-21185358.60	-21185358.57	-21185358.50	0.0089	0.0087
Earth	-62716-08-26 01:54 J	-21185358.49	-21185358.42	-21185358.30	0.0089	0.0083
Earth	-62715-08-28 11:59 J	-21184991.00	-21184991.00	-21184990.97	0.0089	0.0089
Moon	-62715-08-28 15:21 J	-21184990.92	-21184990.86	-21184990.77	0.0089	0.0084
Venus	-62705-12-28 04:18 J	-21181216.44	-21181216.32	-21181216.18	0.0089	0.0070
Venus	-62704-08-10 16:47 J	-21180990.97	-21180990.80	-21180990.61	0.0089	0.0049
Venus	-62703-03-24 05:01 J	-21180765.48	-21180765.29	-21180765.07	0.0089	0.0030
Venus	-62703-11-04 17:45 J	-21180539.97	-21180539.76	-21180539.54	0.0089	0.0009
Venus	-62702-06-18 06:13 J	-21180314.45	-21180314.24	-21180314.02	0.0089	0.0012
Venus	-62701-01-29 18:42 J	-21180088.91	-21180088.72	-21180088.51	0.0089	0.0032
Venus	-62701-09-11 07:25 J	-21179863.37	-21179863.19	-21179863.02	0.0089	0.0053
Venus	-62700-04-24 19:25 J	-21179637.79	-21179637.69	-21179637.55	0.0089	0.0073

Mercury -62673-12-03 19:11 J -21169552.74 -21169552.70 -21169552.62 0.0089 0.0085
 Mercury -62672-03-01 22:47 J -21169464.63 -21169464.55 -21169464.44 0.0089 0.0077
 Mercury -62672-05-29 02:23 J -21169376.51 -21169376.40 -21169376.27 0.0089 0.0069
 Mercury -62672-08-25 05:45 J -21169288.38 -21169288.26 -21169288.11 0.0089 0.0062
 Mercury -62672-11-21 09:21 J -21169200.25 -21169200.11 -21169199.94 0.0089 0.0054
 Mercury -62671-02-17 12:57 J -21169112.11 -21169111.96 -21169111.79 0.0089 0.0046
 Mercury -62671-05-16 16:18 J -21169023.98 -21169023.82 -21169023.63 0.0089 0.0039
 Mercury -62671-08-12 20:09 J -21168935.84 -21168935.66 -21168935.47 0.0089 0.0031
 Mercury -62671-11-08 23:45 J -21168847.69 -21168847.51 -21168847.32 0.0089 0.0023
 Mercury -62670-02-05 03:21 J -21168759.55 -21168759.36 -21168759.17 0.0089 0.0015
 Mercury -62670-05-04 06:57 J -21168671.40 -21168671.21 -21168671.02 0.0089 0.0007
 Mercury -62670-07-31 10:33 J -21168583.26 -21168583.06 -21168582.87 0.0089 0.0001
 Mercury -62670-10-27 13:54 J -21168495.11 -21168494.92 -21168494.72 0.0089 0.0009
 Mercury -62669-01-23 17:30 J -21168406.95 -21168406.77 -21168406.57 0.0089 0.0016
 Mercury -62669-04-20 20:52 J -21168318.80 -21168318.63 -21168318.43 0.0089 0.0025
 Mercury -62669-07-18 00:42 J -21168230.65 -21168230.47 -21168230.28 0.0089 0.0032
 Mercury -62669-10-14 04:18 J -21168142.49 -21168142.32 -21168142.14 0.0089 0.0040
 Mercury -62668-01-10 07:54 J -21168054.33 -21168054.17 -21168054.00 0.0089 0.0048
 Mercury -62668-04-08 11:16 J -21167966.16 -21167966.03 -21167965.86 0.0089 0.0056
 Mars -62668-04-29 04:47 J -21167945.53 -21167945.30 -21167945.02 0.0089 0.0060
 Mercury -62668-07-05 14:52 J -21167878.00 -21167877.88 -21167877.73 0.0089 0.0064
 Mercury -62668-10-01 18:28 J -21167789.82 -21167789.73 -21167789.60 0.0089 0.0072
 Mercury -62668-12-28 22:04 J -21167701.64 -21167701.58 -21167701.47 0.0089 0.0080
 Mercury -62667-03-27 02:09 J -21167613.44 -21167613.41 -21167613.38 0.0089 0.0087
 Mars -62666-03-26 17:59 J -21167249.10 -21167248.75 -21167248.40 0.0089 0.0006
 Mars -62664-02-20 08:37 J -21166552.41 -21166552.14 -21166551.83 0.0089 0.0049
 Moon -62657-01-03 04:18 J -21164044.36 -21164044.32 -21164044.23 0.0088 0.0086
 Earth -62657-01-03 05:45 J -21164044.31 -21164044.26 -21164044.19 0.0088 0.0086 *
 Earth -62656-01-04 19:11 J -21163676.81 -21163676.70 -21163676.58 0.0088 0.0079
 Moon -62656-01-04 18:57 J -21163676.81 -21163676.71 -21163676.58 0.0088 0.0080 *

Earth	-62655-01-07 08:37 J	-21163309.29	-21163309.14	-21163308.99	0.0088	0.0072
Moon	-62655-01-07 10:04 J	-21163309.21	-21163309.08	-21163308.92	0.0088	0.0072 *
Moon	-62654-01-09 19:25 J	-21162941.85	-21162941.69	-21162941.49	0.0088	0.0066
Earth	-62654-01-09 21:49 J	-21162941.75	-21162941.59	-21162941.40	0.0088	0.0065 *
Earth	-62653-01-12 11:16 J	-21162574.22	-21162574.03	-21162573.82	0.0088	0.0058
Moon	-62653-01-12 14:09 J	-21162574.08	-21162573.91	-21162573.69	0.0088	0.0057 *
Moon	-62652-01-13 21:06 J	-21162206.83	-21162206.62	-21162206.40	0.0088	0.0051
Earth	-62652-01-14 00:28 J	-21162206.68	-21162206.48	-21162206.25	0.0088	0.0050 *
Earth	-62651-01-16 14:09 J	-21161839.13	-21161838.91	-21161838.68	0.0088	0.0043
Moon	-62651-01-16 17:45 J	-21161838.99	-21161838.76	-21161838.52	0.0088	0.0041 *
Moon	-62650-01-18 23:59 J	-21161471.72	-21161471.50	-21161471.25	0.0088	0.0038
Earth	-62650-01-19 03:21 J	-21161471.58	-21161471.36	-21161471.10	0.0088	0.0036 *
Earth	-62649-01-21 17:01 J	-21161104.04	-21161103.79	-21161103.54	0.0088	0.0028
Moon	-62649-01-21 18:57 J	-21161103.95	-21161103.71	-21161103.44	0.0088	0.0027 *
Moon	-62648-01-23 04:47 J	-21160736.54	-21160736.30	-21160736.05	0.0088	0.0023
Earth	-62648-01-23 06:13 J	-21160736.49	-21160736.24	-21160735.97	0.0088	0.0021 *
Earth	-62647-01-25 19:54 J	-21160368.93	-21160368.67	-21160368.41	0.0088	0.0013
Moon	-62647-01-25 20:09 J	-21160368.92	-21160368.66	-21160368.38	0.0088	0.0010 *
Earth	-62646-01-28 09:21 J	-21160001.37	-21160001.11	-21160000.85	0.0088	0.0005
Moon	-62646-01-28 10:18 J	-21160001.31	-21160001.07	-21160000.81	0.0088	0.0008 *
Moon	-62645-01-30 21:06 J	-21159633.89	-21159633.62	-21159633.35	0.0088	0.0005
Earth	-62645-01-30 23:01 J	-21159633.81	-21159633.54	-21159633.28	0.0088	0.0003 *
Earth	-62644-02-01 12:13 J	-21159266.25	-21159265.99	-21159265.72	0.0088	0.0010
Moon	-62644-02-01 15:06 J	-21159266.12	-21159265.87	-21159265.61	0.0088	0.0008 *
Moon	-62643-02-03 22:18 J	-21158898.82	-21158898.57	-21158898.30	0.0088	0.0020
Earth	-62643-02-04 02:09 J	-21158898.67	-21158898.41	-21158898.15	0.0088	0.0018 *
Earth	-62642-02-06 15:21 J	-21158531.10	-21158530.86	-21158530.60	0.0088	0.0026
Moon	-62642-02-06 18:42 J	-21158530.96	-21158530.72	-21158530.45	0.0088	0.0023 *
Moon	-62641-02-09 01:11 J	-21158163.67	-21158163.45	-21158163.20	0.0088	0.0037
Earth	-62641-02-09 04:47 J	-21158163.53	-21158163.30	-21158163.04	0.0088	0.0033 *

Earth	-62640-02-10 18:13 J	-21157795.96	-21157795.74	-21157795.50	0.0088	0.0041
Moon	-62640-02-10 20:52 J	-21157795.86	-21157795.63	-21157795.37	0.0088	0.0037 *
Moon	-62639-02-13 05:30 J	-21157428.47	-21157428.27	-21157428.05	0.0088	0.0052
Earth	-62639-02-13 07:25 J	-21157428.39	-21157428.19	-21157427.95	0.0088	0.0048 *
Earth	-62638-02-15 20:52 J	-21157060.82	-21157060.63	-21157060.41	0.0088	0.0056
Moon	-62638-02-15 21:49 J	-21157060.80	-21157060.59	-21157060.35	0.0088	0.0052 *
Earth	-62637-02-18 10:04 J	-21156693.24	-21156693.08	-21156692.87	0.0088	0.0063
Moon	-62637-02-18 10:33 J	-21156693.20	-21156693.06	-21156692.87	0.0088	0.0066 *
Moon	-62636-02-19 22:18 J	-21156325.74	-21156325.57	-21156325.38	0.0088	0.0066
Earth	-62636-02-19 23:30 J	-21156325.67	-21156325.52	-21156325.35	0.0088	0.0070 *
Earth	-62635-02-22 12:42 J	-21155958.08	-21155957.97	-21155957.83	0.0088	0.0077
Moon	-62635-02-22 14:52 J	-21155957.95	-21155957.88	-21155957.75	0.0088	0.0082 *
Moon	-62634-02-24 22:18 J	-21155590.65	-21155590.57	-21155590.43	0.0088	0.0081
Earth	-62634-02-25 02:09 J	-21155590.48	-21155590.41	-21155590.31	0.0088	0.0084 *
Venus	-62622-02-17 11:45 J	-21151215.09	-21151215.01	-21151214.90	0.0088	0.0080
Venus	-62622-10-01 01:11 J	-21150989.59	-21150989.45	-21150989.26	0.0088	0.0059
Venus	-62621-05-13 14:52 J	-21150764.07	-21150763.88	-21150763.67	0.0088	0.0039
Venus	-62621-12-25 04:33 J	-21150538.52	-21150538.31	-21150538.08	0.0088	0.0018
Venus	-62620-08-07 18:13 J	-21150312.97	-21150312.74	-21150312.52	0.0088	0.0003
Venus	-62619-03-21 07:25 J	-21150087.40	-21150087.19	-21150086.97	0.0088	0.0023
Venus	-62619-11-01 20:52 J	-21149861.82	-21149861.63	-21149861.43	0.0088	0.0044
Venus	-62618-06-15 09:49 J	-21149636.22	-21149636.09	-21149635.92	0.0088	0.0065
Venus	-62617-01-26 23:30 J	-21149410.57	-21149410.52	-21149410.44	0.0088	0.0084
Mercury	-62591-09-15 14:09 J	-21139681.94	-21139681.91	-21139681.86	0.0089	0.0084
Mercury	-62591-12-12 15:21 J	-21139593.90	-21139593.86	-21139593.78	0.0089	0.0079
Mercury	-62590-03-10 17:01 J	-21139505.86	-21139505.79	-21139505.71	0.0089	0.0073
Mercury	-62590-06-06 18:13 J	-21139417.81	-21139417.74	-21139417.64	0.0089	0.0068
Mercury	-62590-09-02 19:54 J	-21139329.76	-21139329.67	-21139329.57	0.0089	0.0062
Mercury	-62590-11-29 21:06 J	-21139241.71	-21139241.62	-21139241.51	0.0089	0.0057
Mercury	-62589-02-25 22:33 J	-21139153.66	-21139153.56	-21139153.44	0.0089	0.0051

Mercury -62589-05-23 23:59 J -21139065.61 -21139065.50 -21139065.38 0.0089 0.0045

Mercury -62589-08-20 01:25 J -21138977.56 -21138977.44 -21138977.32 0.0089 0.0040

Mercury -62589-11-16 02:37 J -21138889.51 -21138889.39 -21138889.26 0.0089 0.0035

Mercury -62588-02-12 04:04 J -21138801.45 -21138801.33 -21138801.20 0.0089 0.0029

Mercury -62588-05-11 05:30 J -21138713.40 -21138713.27 -21138713.14 0.0089 0.0024

Mercury -62588-08-07 06:42 J -21138625.34 -21138625.22 -21138625.08 0.0089 0.0019

Mercury -62588-11-03 08:09 J -21138537.29 -21138537.16 -21138537.02 0.0089 0.0013

Mercury -62587-01-30 09:35 J -21138449.23 -21138449.10 -21138448.97 0.0089 0.0007

Mercury -62587-04-28 11:01 J -21138361.18 -21138361.04 -21138360.91 0.0089 0.0003

Mercury -62587-07-25 12:13 J -21138273.12 -21138272.99 -21138272.85 0.0089 0.0004

Mercury -62587-10-21 13:40 J -21138185.06 -21138184.93 -21138184.80 0.0089 0.0009

Mercury -62586-01-17 14:52 J -21138097.01 -21138096.88 -21138096.74 0.0089 0.0014

Mars -62586-03-19 23:59 J -21138035.65 -21138035.50 -21138035.28 0.0089 0.0069

Mercury -62586-04-15 16:18 J -21138008.95 -21138008.82 -21138008.69 0.0089 0.0019

Mercury -62586-07-12 17:30 J -21137920.89 -21137920.77 -21137920.64 0.0089 0.0025

Mercury -62586-10-08 18:42 J -21137832.83 -21137832.72 -21137832.58 0.0089 0.0031

Mercury -62585-01-04 20:09 J -21137744.77 -21137744.66 -21137744.53 0.0089 0.0036

Mercury -62585-04-01 21:35 J -21137656.72 -21137656.60 -21137656.48 0.0089 0.0041

Mercury -62585-06-28 22:47 J -21137568.66 -21137568.55 -21137568.43 0.0089 0.0046

Mercury -62585-09-24 23:59 J -21137480.59 -21137480.50 -21137480.38 0.0089 0.0052

Mercury -62585-12-22 01:25 J -21137392.53 -21137392.44 -21137392.33 0.0089 0.0057

Mars -62584-02-10 11:59 J -21137342.25 -21137342.00 -21137341.70 0.0089 0.0025

Mercury -62584-03-20 02:37 J -21137304.47 -21137304.39 -21137304.28 0.0089 0.0063

Mercury -62584-06-16 04:04 J -21137216.41 -21137216.33 -21137216.24 0.0089 0.0068

Mercury -62584-09-12 05:30 J -21137128.34 -21137128.27 -21137128.19 0.0089 0.0073

Mercury -62584-12-09 06:57 J -21137040.27 -21137040.21 -21137040.15 0.0089 0.0078

Mercury -62583-03-07 07:54 J -21136952.20 -21136952.17 -21136952.11 0.0089 0.0084

Mercury -62583-06-03 09:35 J -21136864.10 -21136864.10 -21136864.10 0.0089 0.0089

Mars -62582-01-04 21:35 J -21136648.87 -21136648.60 -21136648.32 0.0089 0.0020

Mars -62581-11-28 06:28 J -21135955.42 -21135955.23 -21135955.03 0.0089 0.0063

Earth	-62575-07-06 22:04 J	-21133908.63	-21133908.58	-21133908.47	0.0089	0.0084
Moon	-62575-07-06 23:16 J	-21133908.59	-21133908.53	-21133908.44	0.0089	0.0085 *
Earth	-62574-07-09 08:09 J	-21133541.26	-21133541.16	-21133541.01	0.0089	0.0077
Moon	-62574-07-09 08:23 J	-21133541.26	-21133541.15	-21133541.01	0.0089	0.0076 *
Moon	-62573-07-10 16:47 J	-21133173.93	-21133173.80	-21133173.62	0.0089	0.0071
Earth	-62573-07-10 18:13 J	-21133173.87	-21133173.74	-21133173.56	0.0089	0.0070 *
Earth	-62572-07-13 04:18 J	-21132806.48	-21132806.32	-21132806.12	0.0089	0.0063
Moon	-62572-07-13 07:25 J	-21132806.36	-21132806.19	-21132806.01	0.0089	0.0061 *
Moon	-62571-07-15 11:16 J	-21132439.21	-21132439.03	-21132438.82	0.0089	0.0057
Earth	-62571-07-15 14:09 J	-21132439.08	-21132438.91	-21132438.69	0.0089	0.0056 *
Earth	-62570-07-18 00:42 J	-21132071.68	-21132071.47	-21132071.26	0.0089	0.0048
Moon	-62570-07-18 03:49 J	-21132071.53	-21132071.34	-21132071.11	0.0089	0.0048 *
Moon	-62569-07-19 07:11 J	-21131704.40	-21131704.20	-21131703.96	0.0089	0.0043
Earth	-62569-07-19 10:33 J	-21131704.27	-21131704.06	-21131703.82	0.0089	0.0041 *
Earth	-62568-07-21 20:23 J	-21131336.86	-21131336.65	-21131336.40	0.0089	0.0034
Moon	-62568-07-21 23:30 J	-21131336.75	-21131336.52	-21131336.27	0.0089	0.0033 *
Moon	-62567-07-24 04:47 J	-21130969.52	-21130969.30	-21130969.05	0.0089	0.0027
Earth	-62567-07-24 06:42 J	-21130969.45	-21130969.22	-21130968.97	0.0089	0.0026 *
Earth	-62566-07-26 16:33 J	-21130602.04	-21130601.81	-21130601.55	0.0089	0.0019
Moon	-62566-07-26 17:01 J	-21130602.04	-21130601.79	-21130601.53	0.0089	0.0017 *
Earth	-62565-07-28 02:52 J	-21130234.63	-21130234.38	-21130234.13	0.0089	0.0011
Moon	-62565-07-28 03:21 J	-21130234.59	-21130234.36	-21130234.11	0.0089	0.0012 *
Moon	-62564-07-30 10:47 J	-21129867.30	-21129867.05	-21129866.78	0.0089	0.0003
Earth	-62564-07-30 12:42 J	-21129867.22	-21129866.97	-21129866.71	0.0089	0.0004 *
Earth	-62563-08-01 22:33 J	-21129499.81	-21129499.56	-21129499.31	0.0089	0.0004
Moon	-62563-08-02 01:40 J	-21129499.68	-21129499.43	-21129499.18	0.0089	0.0003 *
Moon	-62562-08-04 05:01 J	-21129132.54	-21129132.29	-21129132.03	0.0089	0.0013
Earth	-62562-08-04 08:23 J	-21129132.40	-21129132.15	-21129131.90	0.0089	0.0012 *
Earth	-62561-08-05 18:13 J	-21128764.98	-21128764.74	-21128764.49	0.0089	0.0019
Moon	-62561-08-05 21:49 J	-21128764.83	-21128764.59	-21128764.34	0.0089	0.0019 *

Moon	-62560-08-08 00:57 J	-21128397.68	-21128397.46	-21128397.21	0.0089	0.0028
Earth	-62560-08-08 03:49 J	-21128397.56	-21128397.34	-21128397.08	0.0089	0.0027 *
Earth	-62559-08-10 13:40 J	-21128030.15	-21128029.93	-21128029.68	0.0089	0.0035
Moon	-62559-08-10 16:04 J	-21128030.05	-21128029.83	-21128029.58	0.0089	0.0034 *
Moon	-62558-08-12 22:18 J	-21127662.78	-21127662.57	-21127662.34	0.0089	0.0042
Earth	-62558-08-12 23:16 J	-21127662.73	-21127662.53	-21127662.28	0.0089	0.0043 *
Moon	-62557-08-14 09:06 J	-21127295.33	-21127295.12	-21127294.89	0.0089	0.0048
Earth	-62557-08-14 09:21 J	-21127295.30	-21127295.11	-21127294.88	0.0089	0.0050 *
Earth	-62556-08-16 19:40 J	-21126927.87	-21126927.68	-21126927.48	0.0089	0.0056
Moon	-62556-08-16 20:37 J	-21126927.81	-21126927.64	-21126927.44	0.0089	0.0057 *
Moon	-62555-08-19 03:06 J	-21126560.54	-21126560.37	-21126560.18	0.0089	0.0063
Earth	-62555-08-19 05:16 J	-21126560.43	-21126560.28	-21126560.08	0.0089	0.0064 *
Earth	-62554-08-21 15:21 J	-21126192.99	-21126192.86	-21126192.69	0.0089	0.0071
Moon	-62554-08-21 18:42 J	-21126192.84	-21126192.72	-21126192.55	0.0089	0.0072 *
Moon	-62553-08-22 22:04 J	-21125825.67	-21125825.58	-21125825.43	0.0089	0.0078
Earth	-62553-08-23 01:25 J	-21125825.53	-21125825.44	-21125825.29	0.0089	0.0079 *
Earth	-62552-08-25 11:30 J	-21125458.07	-21125458.02	-21125457.92	0.0089	0.0085
Moon	-62552-08-25 15:35 J	-21125457.92	-21125457.85	-21125457.77	0.0089	0.0085 *
Venus	-62540-03-31 15:06 J	-21121221.96	-21121221.87	-21121221.76	0.0089	0.0078
Venus	-62540-11-12 03:21 J	-21120996.51	-21120996.36	-21120996.19	0.0089	0.0058
Venus	-62539-06-25 15:49 J	-21120771.02	-21120770.84	-21120770.63	0.0089	0.0038
Venus	-62538-02-06 04:18 J	-21120545.52	-21120545.32	-21120545.09	0.0089	0.0018
Venus	-62538-09-19 17:01 J	-21120320.00	-21120319.79	-21120319.57	0.0089	0.0003
Venus	-62537-05-02 05:16 J	-21120094.48	-21120094.28	-21120094.06	0.0089	0.0023
Venus	-62537-12-13 17:59 J	-21119868.94	-21119868.75	-21119868.56	0.0089	0.0044
Venus	-62536-07-27 06:13 J	-21119643.37	-21119643.24	-21119643.07	0.0089	0.0064
Venus	-62535-03-09 18:57 J	-21119417.77	-21119417.71	-21119417.63	0.0089	0.0084
Mercury	-62508-08-30 17:16 J	-21109381.83	-21109381.78	-21109381.70	0.0089	0.0083
Mercury	-62508-11-26 20:52 J	-21109293.72	-21109293.63	-21109293.52	0.0089	0.0075
Mercury	-62507-02-23 00:13 J	-21109205.60	-21109205.49	-21109205.35	0.0089	0.0068

Mercury -62507-05-22 03:49 J -21109117.47 -21109117.34 -21109117.19 0.0089 0.0060

Mercury -62507-08-18 07:25 J -21109029.34 -21109029.19 -21109029.03 0.0089 0.0052

Mercury -62507-11-14 10:47 J -21108941.20 -21108941.05 -21108940.87 0.0089 0.0045

Mercury -62506-02-10 14:23 J -21108853.06 -21108852.90 -21108852.71 0.0089 0.0037

Mercury -62506-05-09 17:59 J -21108764.92 -21108764.75 -21108764.56 0.0089 0.0029

Mercury -62506-08-05 21:35 J -21108676.78 -21108676.60 -21108676.41 0.0089 0.0021

Mercury -62506-11-02 01:11 J -21108588.64 -21108588.45 -21108588.26 0.0089 0.0013

Mercury -62505-01-29 04:47 J -21108500.49 -21108500.30 -21108500.11 0.0089 0.0005

Mercury -62505-04-26 08:23 J -21108412.34 -21108412.15 -21108411.96 0.0089 0.0002

Mercury -62505-07-23 11:45 J -21108324.19 -21108324.01 -21108323.81 0.0089 0.0011

Mercury -62505-10-19 15:35 J -21108236.04 -21108235.85 -21108235.66 0.0089 0.0018

Mars -62505-12-10 11:01 J -21108184.16 -21108184.04 -21108183.89 0.0089 0.0081

Mercury -62504-01-15 19:11 J -21108147.89 -21108147.70 -21108147.52 0.0089 0.0026

Mercury -62504-04-13 22:33 J -21108059.73 -21108059.56 -21108059.37 0.0089 0.0034

Mercury -62504-07-11 02:09 J -21107971.57 -21107971.41 -21107971.23 0.0089 0.0042

Mercury -62504-10-07 05:45 J -21107883.41 -21107883.26 -21107883.09 0.0089 0.0050

Mercury -62503-01-03 09:06 J -21107795.25 -21107795.12 -21107794.95 0.0089 0.0058

Mercury -62503-04-01 12:42 J -21107707.08 -21107706.97 -21107706.82 0.0089 0.0066

Mercury -62503-06-28 16:18 J -21107618.91 -21107618.82 -21107618.69 0.0089 0.0074

Mercury -62503-09-24 20:23 J -21107530.72 -21107530.65 -21107530.57 0.0089 0.0081

Mars -62503-11-06 21:35 J -21107487.91 -21107487.60 -21107487.25 0.0089 0.0029

Mars -62501-10-03 10:33 J -21106791.38 -21106791.06 -21106790.72 0.0089 0.0026

Mars -62499-08-31 01:25 J -21106094.56 -21106094.44 -21106094.25 0.0089 0.0080

Moon -62493-01-02 10:33 J -21104144.12 -21104144.06 -21104143.95 0.0088 0.0084

Earth -62493-01-02 11:45 J -21104144.02 -21104144.01 -21104143.96 0.0088 0.0088 *

Earth -62492-01-04 00:42 J -21103776.55 -21103776.47 -21103776.34 0.0088 0.0081

Moon -62492-01-04 02:09 J -21103776.44 -21103776.41 -21103776.31 0.0088 0.0086 *

Moon -62491-01-06 11:16 J -21103409.18 -21103409.03 -21103408.85 0.0088 0.0069

Earth -62491-01-06 14:09 J -21103409.03 -21103408.91 -21103408.74 0.0088 0.0074 *

Earth -62490-01-09 03:21 J -21103041.50 -21103041.36 -21103041.15 0.0088 0.0067

Moon	-62490-01-09 06:57 J	-21103041.34	-21103041.21	-21103041.03	0.0088	0.0071	*
Moon	-62489-01-11 13:11 J	-21102674.13	-21102673.95	-21102673.72	0.0088	0.0055	
Earth	-62489-01-11 17:16 J	-21102673.96	-21102673.78	-21102673.57	0.0088	0.0059	*
Earth	-62488-01-13 06:13 J	-21102306.43	-21102306.24	-21102306.00	0.0088	0.0052	
Moon	-62488-01-13 10:04 J	-21102306.27	-21102306.08	-21102305.86	0.0088	0.0056	*
Moon	-62487-01-15 17:16 J	-21101938.99	-21101938.78	-21101938.54	0.0088	0.0040	
Earth	-62487-01-15 19:54 J	-21101938.88	-21101938.67	-21101938.42	0.0088	0.0044	*
Earth	-62486-01-18 09:21 J	-21101571.34	-21101571.11	-21101570.86	0.0088	0.0036	
Moon	-62486-01-18 11:45 J	-21101571.24	-21101571.01	-21101570.76	0.0088	0.0040	*
Moon	-62485-01-20 22:18 J	-21101203.81	-21101203.57	-21101203.32	0.0088	0.0024	
Earth	-62485-01-20 22:33 J	-21101203.79	-21101203.56	-21101203.29	0.0088	0.0029	*
Moon	-62484-01-22 11:30 J	-21100836.27	-21100836.02	-21100835.74	0.0088	0.0024	
Earth	-62484-01-22 11:59 J	-21100836.25	-21100836.00	-21100835.73	0.0088	0.0021	*
Earth	-62483-01-25 01:40 J	-21100468.69	-21100468.43	-21100468.17	0.0088	0.0013	
Moon	-62483-01-25 02:52 J	-21100468.63	-21100468.38	-21100468.13	0.0088	0.0009	*
Moon	-62482-01-27 11:59 J	-21100101.26	-21100101.00	-21100100.72	0.0088	0.0010	
Earth	-62482-01-27 15:06 J	-21100101.13	-21100100.87	-21100100.61	0.0088	0.0005	*
Earth	-62481-01-30 04:18 J	-21099733.58	-21099733.32	-21099733.06	0.0088	0.0003	
Moon	-62481-01-30 07:25 J	-21099733.45	-21099733.19	-21099732.93	0.0088	0.0007	*
Moon	-62480-01-31 14:09 J	-21099366.17	-21099365.91	-21099365.64	0.0088	0.0007	
Earth	-62480-01-31 17:45 J	-21099366.02	-21099365.76	-21099365.49	0.0088	0.0011	*
Earth	-62479-02-03 07:11 J	-21098998.45	-21098998.20	-21098997.94	0.0088	0.0019	
Moon	-62479-02-03 10:47 J	-21098998.30	-21098998.05	-21098997.79	0.0088	0.0023	*
Moon	-62478-02-05 17:30 J	-21098631.00	-21098630.77	-21098630.51	0.0088	0.0024	
Earth	-62478-02-05 20:37 J	-21098630.88	-21098630.64	-21098630.38	0.0088	0.0027	*
Earth	-62477-02-08 10:04 J	-21098263.31	-21098263.08	-21098262.82	0.0088	0.0034	
Moon	-62477-02-08 12:57 J	-21098263.19	-21098262.96	-21098262.71	0.0088	0.0037	*
Moon	-62476-02-09 22:33 J	-21097895.78	-21097895.56	-21097895.32	0.0088	0.0039	
Earth	-62476-02-09 23:30 J	-21097895.73	-21097895.52	-21097895.27	0.0088	0.0042	*
Earth	-62475-02-12 13:11 J	-21097528.15	-21097527.95	-21097527.72	0.0088	0.0050	

Moon -62475-02-12 13:25 J -21097528.14 -21097527.94 -21097527.70 0.0088 0.0052 *
 Earth -62474-02-15 02:23 J -21097160.57 -21097160.40 -21097160.18 0.0088 0.0058
 Moon -62474-02-15 03:21 J -21097160.54 -21097160.36 -21097160.14 0.0088 0.0055 *
 Moon -62473-02-17 13:11 J -21096793.09 -21096792.95 -21096792.75 0.0088 0.0068
 Earth -62473-02-17 16:04 J -21096793.00 -21096792.83 -21096792.64 0.0088 0.0065 *
 Earth -62472-02-19 05:01 J -21096425.42 -21096425.29 -21096425.11 0.0088 0.0072
 Moon -62472-02-19 08:09 J -21096425.31 -21096425.16 -21096424.99 0.0088 0.0070 *
 Moon -62471-02-21 15:06 J -21096057.95 -21096057.87 -21096057.76 0.0088 0.0082
 Earth -62471-02-21 18:28 J -21096057.82 -21096057.73 -21096057.59 0.0088 0.0079 *
 Earth -62470-02-24 07:40 J -21095690.21 -21095690.18 -21095690.11 0.0088 0.0086
 Moon -62470-02-24 11:30 J -21095690.09 -21095690.02 -21095689.92 0.0088 0.0083
 Jupiter -62465-06-12 05:01 J -21093755.81 -21093755.29 -21093754.73 0.0088 0.0008
 Venus -62457-01-02 10:18 J -21090995.19 -21090995.07 -21090994.91 0.0088 0.0069
 Venus -62457-08-15 00:13 J -21090769.68 -21090769.49 -21090769.30 0.0088 0.0048
 Venus -62456-03-28 13:25 J -21090544.14 -21090543.94 -21090543.72 0.0088 0.0028
 Venus -62456-11-09 02:52 J -21090318.59 -21090318.38 -21090318.15 0.0088 0.0008
 Venus -62455-06-22 16:33 J -21090093.03 -21090092.81 -21090092.59 0.0088 0.0014
 Venus -62454-02-03 05:45 J -21089867.45 -21089867.26 -21089867.04 0.0088 0.0035
 Venus -62454-09-16 19:11 J -21089641.86 -21089641.70 -21089641.51 0.0088 0.0055
 Venus -62453-04-29 08:09 J -21089416.25 -21089416.16 -21089416.02 0.0088 0.0076
 Mercury -62426-03-16 12:13 J -21079599.00 -21079598.99 -21079598.97 0.0089 0.0088
 Mercury -62426-06-12 13:25 J -21079510.97 -21079510.94 -21079510.88 0.0089 0.0083
 Mercury -62426-09-08 15:06 J -21079422.93 -21079422.87 -21079422.80 0.0089 0.0077
 Mercury -62426-12-05 16:18 J -21079334.88 -21079334.82 -21079334.73 0.0089 0.0072
 Mercury -62425-03-02 17:59 J -21079246.84 -21079246.75 -21079246.66 0.0089 0.0066
 Mercury -62425-05-29 19:11 J -21079158.79 -21079158.70 -21079158.59 0.0089 0.0061
 Mercury -62425-08-25 20:37 J -21079070.74 -21079070.64 -21079070.53 0.0089 0.0055
 Mercury -62425-11-21 22:04 J -21078982.69 -21078982.58 -21078982.46 0.0089 0.0050
 Mercury -62424-02-17 23:30 J -21078894.63 -21078894.52 -21078894.40 0.0089 0.0044
 Mercury -62424-05-17 00:42 J -21078806.58 -21078806.47 -21078806.34 0.0089 0.0039

Mercury -62424-08-13 02:09 J -21078718.53 -21078718.41 -21078718.28 0.0089 0.0033
 Mercury -62424-11-09 03:35 J -21078630.47 -21078630.35 -21078630.22 0.0089 0.0028
 Mercury -62423-02-05 04:47 J -21078542.42 -21078542.30 -21078542.16 0.0089 0.0023
 Mercury -62423-05-04 06:28 J -21078454.37 -21078454.23 -21078454.10 0.0089 0.0017
 Mercury -62423-07-31 07:40 J -21078366.31 -21078366.18 -21078366.05 0.0089 0.0011
 Mercury -62423-10-27 09:06 J -21078278.26 -21078278.12 -21078277.99 0.0089 0.0006
 Mars -62423-11-02 12:57 J -21078272.00 -21078271.96 -21078271.85 0.0089 0.0086
 Mercury -62422-01-23 10:18 J -21078190.20 -21078190.07 -21078189.93 0.0089 0.0003
 Mercury -62422-04-21 11:45 J -21078102.14 -21078102.01 -21078101.88 0.0089 0.0005
 Mercury -62422-07-18 13:11 J -21078014.09 -21078013.95 -21078013.82 0.0089 0.0010
 Mercury -62422-10-14 14:23 J -21077926.03 -21077925.90 -21077925.77 0.0089 0.0016
 Mercury -62421-01-10 15:49 J -21077837.97 -21077837.84 -21077837.71 0.0089 0.0021
 Mercury -62421-04-07 17:01 J -21077749.91 -21077749.79 -21077749.66 0.0089 0.0027
 Mercury -62421-07-04 18:28 J -21077661.85 -21077661.73 -21077661.61 0.0089 0.0032
 Mars -62421-09-26 01:25 J -21077578.68 -21077578.44 -21077578.18 0.0089 0.0042
 Mercury -62421-09-30 19:40 J -21077573.79 -21077573.68 -21077573.55 0.0089 0.0037
 Mercury -62421-12-27 20:52 J -21077485.74 -21077485.63 -21077485.50 0.0089 0.0043
 Mercury -62420-03-25 22:18 J -21077397.67 -21077397.57 -21077397.45 0.0089 0.0048
 Mercury -62420-06-21 23:45 J -21077309.61 -21077309.51 -21077309.40 0.0089 0.0053
 Mercury -62420-09-18 00:57 J -21077221.55 -21077221.46 -21077221.35 0.0089 0.0059
 Mercury -62420-12-15 02:23 J -21077133.49 -21077133.40 -21077133.31 0.0089 0.0064
 Mercury -62419-03-13 03:49 J -21077045.42 -21077045.34 -21077045.26 0.0089 0.0069
 Mercury -62419-06-09 04:47 J -21076957.36 -21076957.30 -21076957.22 0.0089 0.0075
 Mars -62419-08-20 13:11 J -21076885.23 -21076884.95 -21076884.66 0.0089 0.0002
 Mercury -62419-09-05 06:13 J -21076869.29 -21076869.24 -21076869.18 0.0089 0.0080
 Mercury -62419-12-02 07:40 J -21076781.21 -21076781.18 -21076781.14 0.0089 0.0085
 Mars -62417-07-13 22:18 J -21076191.80 -21076191.57 -21076191.31 0.0089 0.0045
 Mars -62415-06-07 06:28 J -21075498.24 -21075498.23 -21075498.15 0.0089 0.0088
 Earth -62411-07-06 06:57 J -21074008.25 -21074008.21 -21074008.12 0.0089 0.0086
 Moon -62411-07-06 07:54 J -21074008.24 -21074008.17 -21074008.05 0.0089 0.0082 *

Moon	-62410-07-08 15:21 J	-21073640.94	-21073640.86	-21073640.75	0.0089	0.0082
Earth	-62410-07-08 17:01 J	-21073640.88	-21073640.79	-21073640.64	0.0089	0.0079 *
Earth	-62409-07-10 03:06 J	-21073273.49	-21073273.37	-21073273.19	0.0089	0.0072
Moon	-62409-07-10 06:13 J	-21073273.39	-21073273.24	-21073273.07	0.0089	0.0067 *
Moon	-62408-07-12 10:18 J	-21072906.24	-21072906.07	-21072905.91	0.0089	0.0068
Earth	-62408-07-12 13:25 J	-21072906.10	-21072905.94	-21072905.75	0.0089	0.0064 *
Earth	-62407-07-14 23:16 J	-21072538.70	-21072538.53	-21072538.32	0.0089	0.0057
Moon	-62407-07-15 02:37 J	-21072538.57	-21072538.39	-21072538.17	0.0089	0.0053 *
Moon	-62406-07-17 05:59 J	-21072171.43	-21072171.25	-21072171.03	0.0089	0.0054
Earth	-62406-07-17 09:35 J	-21072171.30	-21072171.10	-21072170.88	0.0089	0.0049 *
Earth	-62405-07-18 19:25 J	-21071803.90	-21071803.69	-21071803.45	0.0089	0.0042
Moon	-62405-07-18 22:04 J	-21071803.81	-21071803.58	-21071803.34	0.0089	0.0037 *
Moon	-62404-07-21 04:33 J	-21071436.53	-21071436.31	-21071436.09	0.0089	0.0038
Earth	-62404-07-21 05:30 J	-21071436.49	-21071436.27	-21071436.02	0.0089	0.0034 *
Earth	-62403-07-23 15:21 J	-21071069.09	-21071068.86	-21071068.61	0.0089	0.0027
Moon	-62403-07-23 15:49 J	-21071069.09	-21071068.84	-21071068.58	0.0089	0.0022 *
Earth	-62402-07-26 01:25 J	-21070701.67	-21070701.44	-21070701.18	0.0089	0.0019
Moon	-62402-07-26 03:06 J	-21070701.60	-21070701.37	-21070701.13	0.0089	0.0023 *
Moon	-62401-07-27 09:35 J	-21070334.36	-21070334.10	-21070333.84	0.0089	0.0007
Earth	-62401-07-27 11:59 J	-21070334.25	-21070334.00	-21070333.75	0.0089	0.0011 *
Earth	-62400-07-29 21:49 J	-21069966.84	-21069966.59	-21069966.34	0.0089	0.0003
Moon	-62400-07-30 00:42 J	-21069966.71	-21069966.47	-21069966.22	0.0089	0.0008 *
Moon	-62399-08-01 04:04 J	-21069599.57	-21069599.33	-21069599.07	0.0089	0.0009
Earth	-62399-08-01 07:54 J	-21069599.42	-21069599.17	-21069598.92	0.0089	0.0004 *
Earth	-62398-08-03 17:45 J	-21069232.01	-21069231.76	-21069231.51	0.0089	0.0012
Moon	-62398-08-03 21:06 J	-21069231.88	-21069231.62	-21069231.37	0.0089	0.0008 *
Moon	-62397-08-05 00:28 J	-21068864.71	-21068864.48	-21068864.23	0.0089	0.0025
Earth	-62397-08-05 03:35 J	-21068864.59	-21068864.35	-21068864.10	0.0089	0.0020 *
Earth	-62396-08-07 13:25 J	-21068497.17	-21068496.94	-21068496.69	0.0089	0.0028
Moon	-62396-08-07 15:21 J	-21068497.10	-21068496.86	-21068496.60	0.0089	0.0023 *

Moon -62395-08-09 22:18 J -21068129.77 -21068129.57 -21068129.33 0.0089 0.0040
 Earth -62395-08-09 23:30 J -21068129.76 -21068129.52 -21068129.29 0.0089 0.0035 *
 Moon -62394-08-12 08:37 J -21067762.35 -21067762.14 -21067761.88 0.0089 0.0039
 Earth -62394-08-12 09:06 J -21067762.33 -21067762.12 -21067761.89 0.0089 0.0043 *
 Earth -62393-08-13 18:42 J -21067394.90 -21067394.72 -21067394.49 0.0089 0.0051
 Moon -62393-08-13 20:52 J -21067394.81 -21067394.63 -21067394.42 0.0089 0.0055 *
 Moon -62392-08-16 01:54 J -21067027.60 -21067027.42 -21067027.20 0.0089 0.0054
 Earth -62392-08-16 04:47 J -21067027.47 -21067027.30 -21067027.09 0.0089 0.0058 *
 Earth -62391-08-18 14:52 J -21066660.04 -21066659.88 -21066659.70 0.0089 0.0065
 Moon -62391-08-18 17:59 J -21066659.89 -21066659.75 -21066659.59 0.0089 0.0070 *
 Moon -62390-08-20 21:21 J -21066292.76 -21066292.61 -21066292.44 0.0089 0.0068
 Earth -62390-08-21 00:42 J -21066292.59 -21066292.47 -21066292.30 0.0089 0.0073 *
 Earth -62389-08-22 10:47 J -21065925.14 -21065925.05 -21065924.92 0.0089 0.0080
 Moon -62389-08-22 14:09 J -21065924.98 -21065924.91 -21065924.82 0.0089 0.0084 *
 Moon -62388-08-24 18:13 J -21065557.81 -21065557.74 -21065557.63 0.0089 0.0083
 Earth -62388-08-24 21:06 J -21065557.65 -21065557.62 -21065557.56 0.0089 0.0087 *
 Venus -62376-07-03 00:57 J -21061227.47 -21061227.46 -21061227.41 0.0089 0.0088
 Venus -62375-02-13 13:11 J -21061002.06 -21061001.95 -21061001.79 0.0089 0.0069
 Venus -62375-09-27 02:09 J -21060776.59 -21060776.41 -21060776.23 0.0089 0.0048
 Venus -62374-05-10 14:23 J -21060551.10 -21060550.90 -21060550.69 0.0089 0.0027
 Venus -62374-12-22 02:52 J -21060325.59 -21060325.38 -21060325.16 0.0089 0.0007
 Venus -62373-08-03 15:35 J -21060100.07 -21060099.85 -21060099.64 0.0089 0.0013
 Venus -62372-03-17 03:35 J -21059874.53 -21059874.35 -21059874.13 0.0089 0.0035
 Venus -62372-10-28 16:04 J -21059648.98 -21059648.83 -21059648.64 0.0089 0.0055
 Venus -62371-06-11 05:01 J -21059423.41 -21059423.29 -21059423.17 0.0089 0.0074
 Mercury -62343-02-28 11:59 J -21049299.00 -21049299.00 -21049299.00 0.0089 0.0089
 Mercury -62343-05-27 15:21 J -21049210.93 -21049210.86 -21049210.78 0.0089 0.0081
 Mercury -62343-08-23 18:28 J -21049122.82 -21049122.73 -21049122.61 0.0089 0.0074
 Mercury -62343-11-19 22:04 J -21049034.69 -21049034.58 -21049034.44 0.0089 0.0066
 Mercury -62342-02-16 01:25 J -21048946.57 -21048946.44 -21048946.28 0.0089 0.0059

Mercury -62342-05-15 05:01 J -21048858.43 -21048858.29 -21048858.12 0.0089 0.0051
 Mercury -62342-08-11 08:37 J -21048770.30 -21048770.14 -21048769.97 0.0089 0.0043
 Mercury -62342-11-07 12:13 J -21048682.16 -21048681.99 -21048681.81 0.0089 0.0035
 Mercury -62341-02-03 15:35 J -21048594.02 -21048593.85 -21048593.66 0.0089 0.0028
 Mercury -62341-05-01 19:11 J -21048505.88 -21048505.70 -21048505.51 0.0089 0.0020
 Mercury -62341-07-28 22:47 J -21048417.74 -21048417.55 -21048417.36 0.0089 0.0012
 Mercury -62341-10-25 02:23 J -21048329.59 -21048329.40 -21048329.21 0.0089 0.0004
 Mercury -62340-01-21 05:59 J -21048241.44 -21048241.25 -21048241.06 0.0089 0.0004
 Mercury -62340-04-19 09:21 J -21048153.29 -21048153.11 -21048152.91 0.0089 0.0012
 Mercury -62340-07-16 12:57 J -21048065.14 -21048064.96 -21048064.77 0.0089 0.0020
 Mercury -62340-10-12 16:18 J -21047976.99 -21047976.82 -21047976.62 0.0089 0.0028
 Mercury -62339-01-08 20:09 J -21047888.83 -21047888.66 -21047888.48 0.0089 0.0035
 Mercury -62339-04-06 23:45 J -21047800.68 -21047800.51 -21047800.34 0.0089 0.0043
 Mars -62339-06-19 23:45 J -21047726.76 -21047726.51 -21047726.19 0.0089 0.0051
 Mercury -62339-07-04 03:06 J -21047712.51 -21047712.37 -21047712.20 0.0089 0.0051
 Mercury -62339-09-30 06:42 J -21047624.35 -21047624.22 -21047624.06 0.0089 0.0059
 Mercury -62339-12-27 10:18 J -21047536.18 -21047536.07 -21047535.93 0.0089 0.0067
 Mercury -62338-03-25 13:54 J -21047448.01 -21047447.92 -21047447.80 0.0089 0.0075
 Mercury -62338-06-21 17:30 J -21047359.82 -21047359.77 -21047359.68 0.0089 0.0083
 Mars -62337-05-16 11:45 J -21047030.36 -21047030.01 -21047029.66 0.0089 0.0002
 Mars -62335-04-12 23:59 J -21046333.74 -21046333.50 -21046333.20 0.0089 0.0056
 Moon -62328-01-03 03:06 J -21043876.45 -21043876.37 -21043876.27 0.0088 0.0083
 Earth -62328-01-03 05:59 J -21043876.32 -21043876.25 -21043876.14 0.0088 0.0083 *
 Earth -62327-01-05 18:57 J -21043508.82 -21043508.71 -21043508.55 0.0088 0.0076
 Moon -62327-01-05 22:47 J -21043508.66 -21043508.55 -21043508.39 0.0088 0.0076 *
 Moon -62326-01-08 05:01 J -21043141.43 -21043141.29 -21043141.11 0.0088 0.0069
 Earth -62326-01-08 08:37 J -21043141.29 -21043141.14 -21043140.96 0.0088 0.0068 *
 Earth -62325-01-10 21:35 J -21042773.76 -21042773.60 -21042773.38 0.0088 0.0061
 Moon -62325-01-11 00:57 J -21042773.63 -21042773.46 -21042773.24 0.0088 0.0061 *
 Moon -62324-01-12 08:52 J -21042406.32 -21042406.13 -21042405.91 0.0088 0.0052

Earth	-62324-01-12 11:16 J	-21042406.22	-21042406.03	-21042405.80	0.0088	0.0053	*
Earth	-62323-01-15 00:57 J	-21042038.68	-21042038.46	-21042038.22	0.0088	0.0045	
Moon	-62323-01-15 02:09 J	-21042038.64	-21042038.41	-21042038.17	0.0088	0.0045	*
Moon	-62322-01-17 14:09 J	-21041671.14	-21041670.91	-21041670.67	0.0088	0.0036	
Earth	-62322-01-17 14:23 J	-21041671.13	-21041670.90	-21041670.65	0.0088	0.0037	*
Moon	-62321-01-20 02:37 J	-21041303.64	-21041303.39	-21041303.13	0.0088	0.0030	
Earth	-62321-01-20 03:49 J	-21041303.58	-21041303.34	-21041303.09	0.0088	0.0029	*
Earth	-62320-01-21 17:16 J	-21040936.03	-21040935.78	-21040935.52	0.0088	0.0021	
Moon	-62320-01-21 19:25 J	-21040935.93	-21040935.69	-21040935.43	0.0088	0.0021	*
Moon	-62319-01-24 03:49 J	-21040568.60	-21040568.34	-21040568.07	0.0088	0.0014	
Earth	-62319-01-24 06:57 J	-21040568.47	-21040568.21	-21040567.95	0.0088	0.0013	*
Earth	-62318-01-26 19:54 J	-21040200.93	-21040200.67	-21040200.40	0.0088	0.0005	
Moon	-62318-01-26 23:45 J	-21040200.77	-21040200.51	-21040200.25	0.0088	0.0003	*
Moon	-62317-01-29 05:59 J	-21039833.51	-21039833.25	-21039832.99	0.0088	0.0002	
Earth	-62317-01-29 09:35 J	-21039833.36	-21039833.10	-21039832.84	0.0088	0.0003	*
Earth	-62316-01-30 22:33 J	-21039465.81	-21039465.56	-21039465.29	0.0088	0.0012	
Moon	-62316-01-31 02:23 J	-21039465.66	-21039465.40	-21039465.14	0.0088	0.0014	*
Moon	-62315-02-02 09:21 J	-21039098.35	-21039098.11	-21039097.85	0.0088	0.0017	
Earth	-62315-02-02 11:59 J	-21039098.24	-21039098.00	-21039097.73	0.0088	0.0020	*
Earth	-62314-02-05 01:25 J	-21038730.68	-21038730.44	-21038730.18	0.0088	0.0027	
Moon	-62314-02-05 02:52 J	-21038730.62	-21038730.38	-21038730.10	0.0088	0.0030	*
Moon	-62313-02-07 13:54 J	-21038363.15	-21038362.92	-21038362.67	0.0088	0.0033	
Earth	-62313-02-07 14:37 J	-21038363.11	-21038362.89	-21038362.63	0.0088	0.0036	*
Moon	-62312-02-09 03:35 J	-21037995.57	-21037995.35	-21037995.10	0.0088	0.0046	
Earth	-62312-02-09 04:04 J	-21037995.54	-21037995.33	-21037995.08	0.0088	0.0044	*
Earth	-62311-02-11 17:30 J	-21037627.96	-21037627.77	-21037627.53	0.0088	0.0052	
Moon	-62311-02-11 19:54 J	-21037627.88	-21037627.67	-21037627.46	0.0088	0.0049	*
Moon	-62310-02-14 04:47 J	-21037260.48	-21037260.30	-21037260.09	0.0088	0.0062	
Earth	-62310-02-14 07:25 J	-21037260.38	-21037260.19	-21037259.99	0.0088	0.0059	*
Earth	-62309-02-16 20:37 J	-21036892.80	-21036892.64	-21036892.45	0.0088	0.0066	

Moon	-62309-02-16 23:59 J	-21036892.66	-21036892.50	-21036892.30	0.0088	0.0064 *
Moon	-62308-02-18 06:42 J	-21036525.34	-21036525.22	-21036525.08	0.0088	0.0077
Earth	-62308-02-18 09:49 J	-21036525.20	-21036525.09	-21036524.92	0.0088	0.0074 *
Earth	-62307-02-20 23:16 J	-21036157.61	-21036157.53	-21036157.41	0.0088	0.0082
Moon	-62307-02-21 03:06 J	-21036157.48	-21036157.37	-21036157.23	0.0088	0.0078 *
Venus	-62293-04-04 18:28 J	-21031000.81	-21031000.73	-21031000.61	0.0088	0.0079
Venus	-62293-11-16 07:54 J	-21030775.32	-21030775.17	-21030774.98	0.0088	0.0058
Venus	-62292-06-29 21:49 J	-21030549.79	-21030549.59	-21030549.38	0.0088	0.0037
Venus	-62291-02-10 11:16 J	-21030324.24	-21030324.03	-21030323.80	0.0088	0.0017
Venus	-62291-09-24 00:57 J	-21030098.69	-21030098.46	-21030098.24	0.0088	0.0004
Venus	-62290-05-07 14:09 J	-21029873.12	-21029872.91	-21029872.69	0.0088	0.0024
Venus	-62290-12-19 03:35 J	-21029647.53	-21029647.35	-21029647.15	0.0088	0.0044
Venus	-62289-07-31 17:16 J	-21029421.93	-21029421.78	-21029421.63	0.0088	0.0065
Venus	-62288-03-14 05:59 J	-21029196.28	-21029196.25	-21029196.17	0.0088	0.0086
Mercury	-62262-12-11 11:16 J	-21019428.04	-21019428.03	-21019428.00	0.0089	0.0088
Mercury	-62261-03-08 12:42 J	-21019340.01	-21019339.97	-21019339.91	0.0089	0.0082
Mercury	-62261-06-04 14:09 J	-21019251.97	-21019251.91	-21019251.83	0.0089	0.0076
Mercury	-62261-08-31 15:35 J	-21019163.92	-21019163.85	-21019163.76	0.0089	0.0071
Mercury	-62261-11-27 16:47 J	-21019075.87	-21019075.80	-21019075.69	0.0089	0.0066
Mercury	-62260-02-23 18:28 J	-21018987.82	-21018987.73	-21018987.63	0.0089	0.0060
Mercury	-62260-05-22 19:40 J	-21018899.77	-21018899.68	-21018899.56	0.0089	0.0055
Mercury	-62260-08-18 21:21 J	-21018811.72	-21018811.61	-21018811.50	0.0089	0.0049
Mercury	-62260-11-14 22:33 J	-21018723.67	-21018723.56	-21018723.44	0.0089	0.0044
Mercury	-62259-02-10 23:59 J	-21018635.62	-21018635.50	-21018635.37	0.0089	0.0038
Mercury	-62259-05-10 01:25 J	-21018547.56	-21018547.44	-21018547.31	0.0089	0.0032
Mercury	-62259-08-06 02:52 J	-21018459.51	-21018459.38	-21018459.25	0.0089	0.0027
Mercury	-62259-11-02 04:04 J	-21018371.45	-21018371.33	-21018371.19	0.0089	0.0022
Mercury	-62258-01-29 05:30 J	-21018283.40	-21018283.27	-21018283.13	0.0089	0.0016
Mercury	-62258-04-27 06:57 J	-21018195.34	-21018195.21	-21018195.08	0.0089	0.0010
Mercury	-62258-07-24 08:23 J	-21018107.29	-21018107.15	-21018107.02	0.0089	0.0005

Mercury -62258-10-20 09:35 J -21018019.23 -21018019.10 -21018018.96 0.0089 0.0002
 Mercury -62257-01-16 11:01 J -21017931.17 -21017931.04 -21017930.91 0.0089 0.0006
 Mercury -62257-04-13 12:13 J -21017843.12 -21017842.99 -21017842.85 0.0089 0.0012
 Mars -62257-05-11 13:11 J -21017815.14 -21017814.95 -21017814.72 0.0089 0.0060
 Mercury -62257-07-10 13:40 J -21017755.06 -21017754.93 -21017754.80 0.0089 0.0017
 Mercury -62257-10-06 15:06 J -21017667.00 -21017666.87 -21017666.74 0.0089 0.0022
 Mercury -62256-01-02 16:18 J -21017578.94 -21017578.82 -21017578.69 0.0089 0.0028
 Mercury -62256-03-31 17:45 J -21017490.88 -21017490.76 -21017490.64 0.0089 0.0033
 Mercury -62256-06-27 18:57 J -21017402.82 -21017402.71 -21017402.58 0.0089 0.0038
 Mercury -62256-09-23 20:23 J -21017314.76 -21017314.65 -21017314.53 0.0089 0.0044
 Mercury -62256-12-20 21:35 J -21017226.70 -21017226.60 -21017226.48 0.0089 0.0049
 Mercury -62255-03-18 22:47 J -21017138.64 -21017138.55 -21017138.43 0.0089 0.0055
 Mars -62255-04-05 00:57 J -21017121.73 -21017121.46 -21017121.17 0.0089 0.0017
 Mercury -62255-06-15 00:13 J -21017050.58 -21017050.49 -21017050.39 0.0089 0.0060
 Mercury -62255-09-11 01:40 J -21016962.52 -21016962.43 -21016962.34 0.0089 0.0065
 Mercury -62255-12-08 02:52 J -21016874.45 -21016874.38 -21016874.29 0.0089 0.0070
 Mercury -62254-03-06 04:04 J -21016786.38 -21016786.33 -21016786.25 0.0089 0.0076
 Mercury -62254-06-02 05:30 J -21016698.31 -21016698.27 -21016698.21 0.0089 0.0081
 Mercury -62254-08-29 06:57 J -21016610.23 -21016610.21 -21016610.18 0.0089 0.0086
 Mars -62253-02-27 12:28 J -21016428.25 -21016427.98 -21016427.71 0.0089 0.0026
 Mars -62251-01-20 21:49 J -21015734.74 -21015734.59 -21015734.39 0.0089 0.0069
 Moon -62247-07-05 12:42 J -21014108.01 -21014107.97 -21014107.88 0.0089 0.0086
 Earth -62247-07-05 15:35 J -21014107.87 -21014107.85 -21014107.81 0.0089 0.0088
 Earth -62246-07-08 01:25 J -21013740.52 -21013740.44 -21013740.31 0.0089 0.0081
 Moon -62246-07-08 04:33 J -21013740.36 -21013740.31 -21013740.20 0.0089 0.0084 *
 Moon -62245-07-09 08:09 J -21013373.28 -21013373.16 -21013372.98 0.0089 0.0072
 Earth -62245-07-09 11:30 J -21013373.13 -21013373.02 -21013372.85 0.0089 0.0074 *
 Earth -62244-07-11 21:49 J -21013005.74 -21013005.59 -21013005.40 0.0089 0.0066
 Moon -62244-07-12 01:25 J -21013005.58 -21013005.44 -21013005.25 0.0089 0.0068 *
 Moon -62243-07-14 05:16 J -21012638.46 -21012638.28 -21012638.07 0.0089 0.0056

Earth -62243-07-14 08:09 J -21012638.34 -21012638.16 -21012637.96 0.0089 0.0058 *
 Earth -62242-07-16 17:45 J -21012270.95 -21012270.76 -21012270.53 0.0089 0.0051
 Moon -62242-07-16 20:09 J -21012270.85 -21012270.66 -21012270.43 0.0089 0.0052 *
 Moon -62241-07-18 03:06 J -21011903.58 -21011903.37 -21011903.14 0.0089 0.0041
 Earth -62241-07-18 04:04 J -21011903.54 -21011903.33 -21011903.10 0.0089 0.0043 *
 Moon -62240-07-20 13:11 J -21011536.18 -21011535.95 -21011535.70 0.0089 0.0037
 Earth -62240-07-20 13:54 J -21011536.14 -21011535.92 -21011535.68 0.0089 0.0035 *
 Earth -62239-07-22 23:59 J -21011168.74 -21011168.50 -21011168.26 0.0089 0.0027
 Moon -62239-07-23 01:11 J -21011168.68 -21011168.45 -21011168.21 0.0089 0.0026 *
 Moon -62238-07-25 07:11 J -21010801.45 -21010801.20 -21010800.94 0.0089 0.0021
 Earth -62238-07-25 09:49 J -21010801.33 -21010801.09 -21010800.83 0.0089 0.0020 *
 Earth -62237-07-26 19:40 J -21010433.92 -21010433.68 -21010433.42 0.0089 0.0012
 Moon -62237-07-26 23:16 J -21010433.78 -21010433.53 -21010433.28 0.0089 0.0009 *
 Moon -62236-07-29 02:37 J -21010066.64 -21010066.39 -21010066.14 0.0089 0.0005
 Earth -62236-07-29 05:59 J -21010066.50 -21010066.25 -21010065.99 0.0089 0.0004 *
 Earth -62235-07-31 15:49 J -21009699.09 -21009698.84 -21009698.58 0.0089 0.0005
 Moon -62235-07-31 19:25 J -21009698.94 -21009698.69 -21009698.43 0.0089 0.0006 *
 Moon -62234-08-02 23:45 J -21009331.75 -21009331.51 -21009331.26 0.0089 0.0011
 Earth -62234-08-03 01:54 J -21009331.66 -21009331.42 -21009331.16 0.0089 0.0013 *
 Earth -62233-08-04 11:45 J -21008964.24 -21008964.01 -21008963.75 0.0089 0.0021
 Moon -62233-08-04 13:54 J -21008964.17 -21008963.92 -21008963.67 0.0089 0.0021 *
 Moon -62232-08-06 21:21 J -21008596.83 -21008596.61 -21008596.37 0.0089 0.0027
 Earth -62232-08-06 21:49 J -21008596.83 -21008596.59 -21008596.35 0.0089 0.0028 *
 Moon -62231-08-09 06:13 J -21008229.46 -21008229.24 -21008228.99 0.0089 0.0038
 Earth -62231-08-09 07:40 J -21008229.40 -21008229.18 -21008228.94 0.0089 0.0036 *
 Earth -62230-08-11 17:30 J -21007861.98 -21007861.77 -21007861.54 0.0089 0.0044
 Moon -62230-08-11 19:25 J -21007861.90 -21007861.69 -21007861.47 0.0089 0.0043 *
 Moon -62229-08-13 00:13 J -21007494.69 -21007494.49 -21007494.28 0.0089 0.0053
 Earth -62229-08-13 03:06 J -21007494.55 -21007494.37 -21007494.14 0.0089 0.0052 *
 Earth -62228-08-15 13:25 J -21007127.13 -21007126.94 -21007126.75 0.0089 0.0059

Moon	-62228-08-15 16:18 J	-21007126.99	-21007126.82	-21007126.61	0.0089	0.0058	*
Moon	-62227-08-17 19:25 J	-21006759.83	-21006759.69	-21006759.51	0.0089	0.0068	
Earth	-62227-08-17 23:01 J	-21006759.69	-21006759.54	-21006759.36	0.0089	0.0067	*
Earth	-62226-08-20 08:37 J	-21006392.25	-21006392.14	-21006391.98	0.0089	0.0075	
Moon	-62226-08-20 11:45 J	-21006392.12	-21006392.01	-21006391.84	0.0089	0.0074	*
Moon	-62225-08-21 16:47 J	-21006024.85	-21006024.80	-21006024.69	0.0089	0.0084	
Earth	-62225-08-21 18:42 J	-21006024.79	-21006024.72	-21006024.60	0.0089	0.0082	*
Moon	-62224-08-24 05:59 J	-21005657.25	-21005657.25	-21005657.21	0.0089	0.0089	
Venus	-62211-05-17 23:30 J	-21001007.62	-21001007.52	-21001007.41	0.0089	0.0077	
Venus	-62211-12-29 11:45 J	-21000782.17	-21000782.01	-21000781.84	0.0089	0.0057	
Venus	-62210-08-12 00:13 J	-21000556.68	-21000556.49	-21000556.29	0.0089	0.0037	
Venus	-62209-03-24 12:42 J	-21000331.18	-21000330.97	-21000330.75	0.0089	0.0017	
Venus	-62209-11-05 01:11 J	-21000105.66	-21000105.45	-21000105.23	0.0089	0.0004	
Venus	-62208-06-18 13:40 J	-20999880.13	-20999879.93	-20999879.72	0.0089	0.0024	
Venus	-62207-01-30 02:09 J	-20999654.59	-20999654.41	-20999654.22	0.0089	0.0044	
Venus	-62207-09-12 14:52 J	-20999429.03	-20999428.88	-20999428.74	0.0089	0.0064	
Venus	-62206-04-26 02:37 J	-20999203.43	-20999203.39	-20999203.30	0.0089	0.0085	
Mercury	-62179-11-25 09:06 J	-20989128.13	-20989128.12	-20989128.07	0.0089	0.0088	
Mercury	-62178-02-21 12:57 J	-20989040.04	-20989039.96	-20989039.88	0.0089	0.0080	
Mercury	-62178-05-20 16:04 J	-20988951.92	-20988951.83	-20988951.71	0.0089	0.0073	
Mercury	-62178-08-16 19:40 J	-20988863.80	-20988863.68	-20988863.54	0.0089	0.0065	
Mercury	-62178-11-12 23:01 J	-20988775.67	-20988775.54	-20988775.38	0.0089	0.0058	
Mercury	-62177-02-09 02:37 J	-20988687.54	-20988687.39	-20988687.22	0.0089	0.0050	
Mercury	-62177-05-07 06:13 J	-20988599.40	-20988599.24	-20988599.07	0.0089	0.0042	
Mercury	-62177-08-03 09:49 J	-20988511.27	-20988511.09	-20988510.91	0.0089	0.0034	
Mercury	-62177-10-30 13:11 J	-20988423.13	-20988422.95	-20988422.76	0.0089	0.0027	
Mercury	-62176-01-26 16:47 J	-20988334.99	-20988334.80	-20988334.61	0.0089	0.0019	
Mercury	-62176-04-24 20:23 J	-20988246.84	-20988246.65	-20988246.46	0.0089	0.0011	
Mercury	-62176-07-21 23:59 J	-20988158.70	-20988158.50	-20988158.31	0.0089	0.0003	
Mercury	-62176-10-18 03:21 J	-20988070.55	-20988070.36	-20988070.16	0.0089	0.0005	

Mercury -62175-01-14 06:57 J -20987982.40 -20987982.21 -20987982.02 0.0089 0.0013

Mars -62175-01-31 03:21 J -20987965.54 -20987965.36 -20987965.14 0.0089 0.0072

Mercury -62175-04-12 10:18 J -20987894.25 -20987894.07 -20987893.87 0.0089 0.0021

Mercury -62175-07-09 13:54 J -20987806.10 -20987805.92 -20987805.73 0.0089 0.0028

Mercury -62175-10-05 17:45 J -20987717.94 -20987717.76 -20987717.59 0.0089 0.0036

Mercury -62174-01-01 21:06 J -20987629.78 -20987629.62 -20987629.45 0.0089 0.0044

Mercury -62174-03-31 00:42 J -20987541.62 -20987541.47 -20987541.31 0.0089 0.0052

Mercury -62174-06-27 04:04 J -20987453.46 -20987453.33 -20987453.17 0.0089 0.0060

Mercury -62174-09-23 07:40 J -20987365.29 -20987365.18 -20987365.04 0.0089 0.0068

Mercury -62174-12-20 11:16 J -20987277.11 -20987277.03 -20987276.91 0.0089 0.0076

Mars -62174-12-28 12:13 J -20987269.30 -20987268.99 -20987268.63 0.0089 0.0021

Mercury -62173-03-17 14:37 J -20987188.93 -20987188.89 -20987188.80 0.0089 0.0084

Mars -62172-11-23 23:45 J -20986572.81 -20986572.51 -20986572.16 0.0089 0.0033

Mars -62170-10-21 12:42 J -20985876.04 -20985875.97 -20985875.84 0.0089 0.0085

Earth -62164-01-02 10:04 J -20983976.12 -20983976.08 -20983975.98 0.0088 0.0086

Moon -62164-01-02 13:54 J -20983976.01 -20983975.92 -20983975.80 0.0088 0.0081 *

Moon -62163-01-04 19:40 J -20983608.74 -20983608.68 -20983608.56 0.0088 0.0083

Earth -62163-01-04 23:30 J -20983608.63 -20983608.52 -20983608.38 0.0088 0.0078 *

Earth -62162-01-07 12:57 J -20983241.11 -20983240.96 -20983240.80 0.0088 0.0070

Moon -62162-01-07 15:06 J -20983241.03 -20983240.87 -20983240.67 0.0088 0.0066 *

Moon -62161-01-09 23:59 J -20982873.64 -20982873.50 -20982873.31 0.0088 0.0067

Earth -62161-01-10 01:25 J -20982873.59 -20982873.44 -20982873.22 0.0088 0.0063 *

Earth -62160-01-11 14:52 J -20982506.06 -20982505.88 -20982505.65 0.0088 0.0055

Moon -62160-01-11 16:04 J -20982506.04 -20982505.83 -20982505.59 0.0088 0.0050 *

Earth -62159-01-14 04:18 J -20982138.52 -20982138.32 -20982138.07 0.0088 0.0047

Moon -62159-01-14 05:30 J -20982138.47 -20982138.27 -20982138.05 0.0088 0.0051 *

Moon -62158-01-16 16:04 J -20981771.06 -20981770.83 -20981770.56 0.0088 0.0034

Earth -62158-01-16 17:45 J -20981770.98 -20981770.76 -20981770.50 0.0088 0.0039 *

Earth -62157-01-19 07:11 J -20981403.43 -20981403.20 -20981402.93 0.0088 0.0030

Moon -62157-01-19 10:04 J -20981403.31 -20981403.08 -20981402.84 0.0088 0.0035 *

Moon	-62156-01-20 17:16 J	-20981036.03	-20981035.78	-20981035.51	0.0088	0.0018
Earth	-62156-01-20 20:52 J	-20981035.87	-20981035.63	-20981035.36	0.0088	0.0022 *
Earth	-62155-01-23 10:18 J	-20980668.32	-20980668.07	-20980667.80	0.0088	0.0014
Moon	-62155-01-23 13:54 J	-20980668.18	-20980667.92	-20980667.66	0.0088	0.0018 *
Moon	-62154-01-25 20:09 J	-20980300.92	-20980300.66	-20980300.40	0.0088	0.0001
Earth	-62154-01-25 23:59 J	-20980300.77	-20980300.50	-20980300.24	0.0088	0.0005 *
Earth	-62153-01-28 13:11 J	-20979933.21	-20979932.95	-20979932.69	0.0088	0.0003
Moon	-62153-01-28 16:04 J	-20979933.10	-20979932.83	-20979932.56	0.0088	0.0001 *
Moon	-62152-01-30 00:13 J	-20979565.73	-20979565.49	-20979565.23	0.0088	0.0015
Earth	-62152-01-30 02:23 J	-20979565.65	-20979565.40	-20979565.13	0.0088	0.0012 *
Earth	-62151-02-01 15:49 J	-20979198.09	-20979197.84	-20979197.58	0.0088	0.0019
Moon	-62151-02-01 17:01 J	-20979198.05	-20979197.79	-20979197.51	0.0088	0.0016 *
Earth	-62150-02-04 05:01 J	-20978830.53	-20978830.29	-20978830.03	0.0088	0.0028
Moon	-62150-02-04 05:30 J	-20978830.50	-20978830.27	-20978830.03	0.0088	0.0032 *
Moon	-62149-02-06 17:30 J	-20978463.02	-20978462.77	-20978462.52	0.0088	0.0032
Earth	-62149-02-06 18:28 J	-20978462.96	-20978462.73	-20978462.48	0.0088	0.0036 *
Earth	-62148-02-08 07:54 J	-20978095.39	-20978095.17	-20978094.93	0.0088	0.0044
Moon	-62148-02-08 09:49 J	-20978095.28	-20978095.09	-20978094.85	0.0088	0.0048 *
Moon	-62147-02-10 17:59 J	-20977727.97	-20977727.75	-20977727.52	0.0088	0.0047
Earth	-62147-02-10 20:52 J	-20977727.81	-20977727.63	-20977727.39	0.0088	0.0053 *
Earth	-62146-02-13 10:47 J	-20977360.23	-20977360.05	-20977359.85	0.0088	0.0060
Moon	-62146-02-13 13:54 J	-20977360.08	-20977359.92	-20977359.72	0.0088	0.0064 *
Moon	-62145-02-15 20:52 J	-20976992.81	-20976992.63	-20976992.45	0.0088	0.0064
Earth	-62145-02-16 00:28 J	-20976992.64	-20976992.48	-20976992.31	0.0088	0.0068 *
Earth	-62144-02-17 13:40 J	-20976625.05	-20976624.93	-20976624.78	0.0088	0.0076
Moon	-62144-02-17 16:33 J	-20976624.90	-20976624.81	-20976624.66	0.0088	0.0080 *
Moon	-62143-02-20 00:28 J	-20976257.56	-20976257.48	-20976257.36	0.0088	0.0081
Earth	-62143-02-20 03:06 J	-20976257.43	-20976257.37	-20976257.26	0.0088	0.0083 *
Venus	-62128-02-17 15:49 J	-20970780.97	-20970780.84	-20970780.69	0.0088	0.0069
Venus	-62128-10-01 05:16 J	-20970555.46	-20970555.28	-20970555.08	0.0088	0.0048

Venus -62127-05-14 18:57 J -20970329.92 -20970329.71 -20970329.49 0.0088 0.0028

Venus -62127-12-26 08:37 J -20970104.37 -20970104.14 -20970103.92 0.0088 0.0007

Venus -62126-08-08 21:49 J -20969878.80 -20969878.59 -20969878.36 0.0088 0.0013

Venus -62125-03-21 11:16 J -20969653.23 -20969653.03 -20969652.82 0.0088 0.0034

Venus -62125-11-02 00:13 J -20969427.65 -20969427.49 -20969427.29 0.0088 0.0054

Venus -62124-06-15 13:40 J -20969202.03 -20969201.93 -20969201.79 0.0088 0.0075

Mercury -62097-09-06 10:33 J -20959257.08 -20959257.06 -20959257.03 0.0089 0.0087

Mercury -62097-12-03 11:45 J -20959169.05 -20959169.01 -20959168.95 0.0089 0.0082

Mercury -62096-03-01 13:25 J -20959081.01 -20959080.94 -20959080.87 0.0089 0.0076

Mercury -62096-05-28 14:37 J -20958992.96 -20958992.89 -20958992.80 0.0089 0.0071

Mercury -62096-08-24 16:04 J -20958904.91 -20958904.83 -20958904.73 0.0089 0.0065

Mercury -62096-11-20 17:16 J -20958816.86 -20958816.78 -20958816.67 0.0089 0.0060

Mercury -62095-02-16 18:57 J -20958728.81 -20958728.71 -20958728.60 0.0089 0.0054

Mercury -62095-05-15 20:09 J -20958640.76 -20958640.66 -20958640.54 0.0089 0.0049

Mercury -62095-08-11 21:49 J -20958552.71 -20958552.59 -20958552.47 0.0089 0.0043

Mercury -62095-11-07 23:01 J -20958464.66 -20958464.54 -20958464.41 0.0089 0.0038

Mercury -62094-02-04 00:28 J -20958376.60 -20958376.48 -20958376.35 0.0089 0.0032

Mercury -62094-05-03 01:54 J -20958288.55 -20958288.42 -20958288.29 0.0089 0.0026

Mercury -62094-07-30 03:21 J -20958200.49 -20958200.36 -20958200.23 0.0089 0.0021

Mercury -62094-10-26 04:33 J -20958112.44 -20958112.31 -20958112.17 0.0089 0.0016

Mars -62094-12-25 21:21 J -20958051.72 -20958051.61 -20958051.45 0.0089 0.0078

Mercury -62093-01-22 05:59 J -20958024.38 -20958024.25 -20958024.11 0.0089 0.0010

Mercury -62093-04-19 07:25 J -20957936.33 -20957936.19 -20957936.06 0.0089 0.0005

Mercury -62093-07-16 08:52 J -20957848.27 -20957848.13 -20957848.00 0.0089 0.0003

Mercury -62093-10-12 10:04 J -20957760.21 -20957760.08 -20957759.94 0.0089 0.0007

Mercury -62092-01-08 11:30 J -20957672.15 -20957672.02 -20957671.89 0.0089 0.0012

Mercury -62092-04-06 12:42 J -20957584.10 -20957583.97 -20957583.83 0.0089 0.0017

Mercury -62092-07-03 14:09 J -20957496.04 -20957495.91 -20957495.78 0.0089 0.0023

Mercury -62092-09-29 15:35 J -20957407.98 -20957407.85 -20957407.73 0.0089 0.0028

Mars -62092-11-18 11:01 J -20957358.29 -20957358.04 -20957357.76 0.0089 0.0035

Mercury -62092-12-26 16:47 J -20957319.92 -20957319.80 -20957319.67 0.0089 0.0033
 Mercury -62091-03-24 18:13 J -20957231.86 -20957231.74 -20957231.62 0.0089 0.0039
 Mercury -62091-06-20 19:11 J -20957143.80 -20957143.70 -20957143.57 0.0089 0.0045
 Mercury -62091-09-16 20:37 J -20957055.74 -20957055.64 -20957055.52 0.0089 0.0050
 Mercury -62091-12-13 22:04 J -20956967.68 -20956967.58 -20956967.47 0.0089 0.0055
 Mercury -62090-03-11 23:16 J -20956879.61 -20956879.53 -20956879.42 0.0089 0.0061
 Mercury -62090-06-08 00:42 J -20956791.55 -20956791.47 -20956791.38 0.0089 0.0066
 Mercury -62090-09-04 02:09 J -20956703.49 -20956703.41 -20956703.33 0.0089 0.0071
 Mars -62090-10-12 22:18 J -20956664.85 -20956664.57 -20956664.28 0.0089 0.0008
 Mercury -62090-12-01 03:06 J -20956615.42 -20956615.37 -20956615.29 0.0089 0.0077
 Mercury -62089-02-27 04:33 J -20956527.35 -20956527.31 -20956527.25 0.0089 0.0082
 Mercury -62089-05-25 05:59 J -20956439.27 -20956439.25 -20956439.22 0.0089 0.0087
 Mars -62088-09-05 08:52 J -20955971.35 -20955971.13 -20955970.88 0.0089 0.0050
 Moon -62082-07-07 04:47 J -20953840.39 -20953840.30 -20953840.18 0.0089 0.0080
 Earth -62082-07-07 07:54 J -20953840.22 -20953840.17 -20953840.06 0.0089 0.0084 *
 Earth -62081-07-08 18:28 J -20953472.84 -20953472.73 -20953472.58 0.0089 0.0076
 Moon -62081-07-08 21:35 J -20953472.69 -20953472.60 -20953472.47 0.0089 0.0080 *
 Moon -62080-07-11 02:23 J -20953105.57 -20953105.40 -20953105.23 0.0089 0.0064
 Earth -62080-07-11 05:01 J -20953105.45 -20953105.29 -20953105.12 0.0089 0.0068 *
 Earth -62079-07-13 15:21 J -20952738.04 -20952737.86 -20952737.68 0.0089 0.0060
 Moon -62079-07-13 16:18 J -20952737.98 -20952737.82 -20952737.62 0.0089 0.0064 *
 Moon -62078-07-16 00:57 J -20952370.65 -20952370.46 -20952370.25 0.0089 0.0049
 Earth -62078-07-16 00:57 J -20952370.64 -20952370.46 -20952370.23 0.0089 0.0053 *
 Moon -62077-07-17 10:47 J -20952003.27 -20952003.05 -20952002.83 0.0089 0.0048
 Earth -62077-07-17 11:01 J -20952003.24 -20952003.04 -20952002.80 0.0089 0.0045 *
 Earth -62076-07-19 21:06 J -20951635.84 -20951635.62 -20951635.37 0.0089 0.0037
 Moon -62076-07-19 23:30 J -20951635.74 -20951635.52 -20951635.28 0.0089 0.0033 *
 Moon -62075-07-22 04:18 J -20951268.55 -20951268.32 -20951268.07 0.0089 0.0032
 Earth -62075-07-22 07:11 J -20951268.42 -20951268.20 -20951267.94 0.0089 0.0029 *
 Earth -62074-07-24 17:16 J -20950901.02 -20950900.78 -20950900.52 0.0089 0.0021

Moon	-62074-07-24 20:52 J	-20950900.87	-20950900.63	-20950900.38	0.0089	0.0016	*
Moon	-62073-07-25 23:59 J	-20950533.74	-20950533.50	-20950533.25	0.0089	0.0016	
Earth	-62073-07-26 03:35 J	-20950533.60	-20950533.35	-20950533.10	0.0089	0.0012	*
Earth	-62072-07-28 13:25 J	-20950166.19	-20950165.94	-20950165.69	0.0089	0.0004	
Moon	-62072-07-28 16:18 J	-20950166.07	-20950165.82	-20950165.56	0.0089	0.0001	*
Moon	-62071-07-30 21:06 J	-20949798.87	-20949798.62	-20949798.37	0.0089	0.0000	
Earth	-62071-07-30 23:30 J	-20949798.77	-20949798.52	-20949798.27	0.0089	0.0004	*
Earth	-62070-08-02 09:35 J	-20949431.35	-20949431.10	-20949430.85	0.0089	0.0012	
Moon	-62070-08-02 10:18 J	-20949431.32	-20949431.07	-20949430.81	0.0089	0.0016	*
Earth	-62069-08-03 19:11 J	-20949063.93	-20949063.70	-20949063.44	0.0089	0.0021	
Moon	-62069-08-03 19:25 J	-20949063.92	-20949063.69	-20949063.44	0.0089	0.0017	*
Moon	-62068-08-06 03:49 J	-20948696.56	-20948696.34	-20948696.08	0.0089	0.0033	
Earth	-62068-08-06 05:16 J	-20948696.51	-20948696.28	-20948696.03	0.0089	0.0029	*
Earth	-62067-08-08 15:06 J	-20948329.08	-20948328.87	-20948328.62	0.0089	0.0037	
Moon	-62067-08-08 17:59 J	-20948328.97	-20948328.75	-20948328.51	0.0089	0.0033	*
Moon	-62066-08-10 21:49 J	-20947961.78	-20947961.59	-20947961.35	0.0089	0.0049	
Earth	-62066-08-11 01:11 J	-20947961.65	-20947961.45	-20947961.21	0.0089	0.0045	*
Earth	-62065-08-12 11:01 J	-20947594.23	-20947594.04	-20947593.82	0.0089	0.0053	
Moon	-62065-08-12 14:52 J	-20947594.08	-20947593.88	-20947593.66	0.0089	0.0048	*
Moon	-62064-08-14 17:30 J	-20947226.92	-20947226.77	-20947226.58	0.0089	0.0065	
Earth	-62064-08-14 20:37 J	-20947226.79	-20947226.64	-20947226.43	0.0089	0.0062	*
Earth	-62063-08-17 06:28 J	-20946859.36	-20946859.23	-20946859.04	0.0089	0.0069	
Moon	-62063-08-17 09:35 J	-20946859.26	-20946859.10	-20946858.91	0.0089	0.0065	*
Moon	-62062-08-19 14:37 J	-20946491.97	-20946491.89	-20946491.76	0.0089	0.0081	
Earth	-62062-08-19 16:47 J	-20946491.91	-20946491.80	-20946491.65	0.0089	0.0076	*
Moon	-62061-08-21 03:06 J	-20946124.48	-20946124.37	-20946124.25	0.0089	0.0079	
Earth	-62061-08-21 02:23 J	-20946124.46	-20946124.40	-20946124.29	0.0089	0.0084	*
Venus	-62047-08-19 08:23 J	-20941013.16	-20941013.15	-20941013.10	0.0089	0.0088	
Venus	-62046-04-01 20:37 J	-20940787.76	-20940787.64	-20940787.48	0.0089	0.0068	
Venus	-62046-11-13 09:06 J	-20940562.29	-20940562.12	-20940561.92	0.0089	0.0048	

Venus -62045-06-25 22:04 J -20940336.79 -20940336.58 -20940336.38 0.0089 0.0028
 Venus -62044-02-06 10:18 J -20940111.28 -20940111.07 -20940110.85 0.0089 0.0007
 Venus -62044-09-19 22:47 J -20939885.76 -20939885.55 -20939885.33 0.0089 0.0013
 Venus -62043-05-03 11:16 J -20939660.23 -20939660.03 -20939659.83 0.0089 0.0033
 Venus -62043-12-14 23:16 J -20939434.68 -20939434.53 -20939434.34 0.0089 0.0054
 Venus -62042-07-28 11:59 J -20939209.10 -20939209.00 -20939208.86 0.0089 0.0074
 Mercury -62014-08-22 06:13 J -20928957.25 -20928957.24 -20928957.19 0.0089 0.0088
 Mercury -62014-11-18 09:49 J -20928869.15 -20928869.09 -20928868.99 0.0089 0.0080
 Mercury -62013-02-14 13:40 J -20928781.04 -20928780.93 -20928780.82 0.0089 0.0072
 Mercury -62013-05-12 16:47 J -20928692.91 -20928692.80 -20928692.66 0.0089 0.0065
 Mercury -62013-08-08 20:23 J -20928604.79 -20928604.65 -20928604.49 0.0089 0.0057
 Mercury -62013-11-04 23:59 J -20928516.65 -20928516.50 -20928516.34 0.0089 0.0049
 Mercury -62012-02-01 03:21 J -20928428.52 -20928428.36 -20928428.18 0.0089 0.0042
 Mercury -62012-04-30 06:57 J -20928340.38 -20928340.21 -20928340.03 0.0089 0.0034
 Mercury -62012-07-27 10:33 J -20928252.24 -20928252.06 -20928251.88 0.0089 0.0026
 Mercury -62012-10-23 13:54 J -20928164.10 -20928163.92 -20928163.73 0.0089 0.0018
 Mercury -62011-01-19 17:30 J -20928075.96 -20928075.77 -20928075.58 0.0089 0.0010
 Mercury -62011-04-17 21:06 J -20927987.81 -20927987.62 -20927987.43 0.0089 0.0003
 Mercury -62011-07-15 00:28 J -20927899.67 -20927899.48 -20927899.28 0.0089 0.0005
 Mercury -62011-10-11 04:04 J -20927811.52 -20927811.33 -20927811.14 0.0089 0.0013
 Mercury -62010-01-07 07:40 J -20927723.37 -20927723.18 -20927722.99 0.0089 0.0021
 Mercury -62010-04-05 11:01 J -20927635.22 -20927635.04 -20927634.85 0.0089 0.0029
 Mercury -62010-07-02 14:23 J -20927547.06 -20927546.90 -20927546.71 0.0089 0.0037
 Mars -62010-08-10 12:42 J -20927508.24 -20927507.97 -20927507.64 0.0089 0.0043
 Mercury -62010-09-28 17:59 J -20927458.90 -20927458.75 -20927458.57 0.0089 0.0045
 Mercury -62010-12-25 21:49 J -20927370.74 -20927370.59 -20927370.43 0.0089 0.0052
 Mercury -62009-03-23 01:25 J -20927282.58 -20927282.44 -20927282.30 0.0089 0.0060
 Mercury -62009-06-19 04:47 J -20927194.41 -20927194.30 -20927194.17 0.0089 0.0068
 Mercury -62009-09-15 08:23 J -20927106.24 -20927106.15 -20927106.04 0.0089 0.0076
 Mercury -62009-12-12 11:59 J -20927018.05 -20927018.00 -20927017.93 0.0089 0.0084

Mars -62008-07-06 22:33 J -20926811.91 -20926811.56 -20926811.22 0.0089 0.0009

Mars -62006-06-03 09:49 J -20926115.32 -20926115.09 -20926114.82 0.0089 0.0061

62ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 62nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-62000-01-01 11:59 J		-20924076.05	-20924076.00	-20924075.94	0.0088	0.0086	
Earth	-62000-01-01 14:23 J		-20924075.91	-20924075.90	-20924075.85	0.0088	0.0088	
Earth	-61999-01-04 03:06 J		-20923708.45	-20923708.37	-20923708.23	0.0088	0.0081	
Moon	-61999-01-04 05:45 J		-20923708.35	-20923708.26	-20923708.13	0.0088	0.0081	*
Moon	-61998-01-06 15:49 J		-20923340.99	-20923340.84	-20923340.69	0.0088	0.0071	
Earth	-61998-01-06 16:04 J		-20923340.95	-20923340.83	-20923340.65	0.0088	0.0073	*
Moon	-61997-01-09 05:01 J		-20922973.45	-20922973.29	-20922973.09	0.0088	0.0066	
Earth	-61997-01-09 05:16 J		-20922973.43	-20922973.28	-20922973.07	0.0088	0.0065	*
Earth	-61996-01-10 18:42 J		-20922605.90	-20922605.72	-20922605.50	0.0088	0.0056	
Moon	-61996-01-10 19:54 J		-20922605.86	-20922605.67	-20922605.46	0.0088	0.0056	*
Moon	-61995-01-13 05:01 J		-20922238.49	-20922238.29	-20922238.04	0.0088	0.0050	
Earth	-61995-01-13 07:40 J		-20922238.37	-20922238.18	-20922237.94	0.0088	0.0049	*
Earth	-61994-01-15 20:52 J		-20921870.84	-20921870.63	-20921870.37	0.0088	0.0041	
Moon	-61994-01-16 00:13 J		-20921870.70	-20921870.49	-20921870.24	0.0088	0.0039	*
Moon	-61993-01-18 07:11 J		-20921503.44	-20921503.20	-20921502.94	0.0088	0.0032	
Earth	-61993-01-18 10:47 J		-20921503.29	-20921503.05	-20921502.80	0.0088	0.0032	*

Earth	-61992-01-19 23:59 J	-20921135.74	-20921135.50	-20921135.24	0.0088	0.0023
Moon	-61992-01-20 04:04 J	-20921135.59	-20921135.33	-20921135.08	0.0088	0.0023 *
Moon	-61991-01-22 10:33 J	-20920768.31	-20920768.06	-20920767.80	0.0088	0.0015
Earth	-61991-01-22 13:40 J	-20920768.19	-20920767.93	-20920767.67	0.0088	0.0015 *
Earth	-61990-01-25 02:52 J	-20920400.64	-20920400.38	-20920400.11	0.0088	0.0006
Moon	-61990-01-25 05:45 J	-20920400.52	-20920400.26	-20920399.99	0.0088	0.0007 *
Moon	-61989-01-27 15:06 J	-20920033.12	-20920032.87	-20920032.61	0.0088	0.0003
Earth	-61989-01-27 16:33 J	-20920033.07	-20920032.81	-20920032.55	0.0088	0.0002 *
Earth	-61988-01-29 05:30 J	-20919665.52	-20919665.27	-20919664.99	0.0088	0.0012
Moon	-61988-01-29 05:59 J	-20919665.52	-20919665.25	-20919664.98	0.0088	0.0010 *
Earth	-61987-01-31 18:42 J	-20919297.96	-20919297.72	-20919297.45	0.0088	0.0020
Moon	-61987-01-31 19:25 J	-20919297.93	-20919297.69	-20919297.43	0.0088	0.0021 *
Moon	-61986-02-03 05:45 J	-20918930.50	-20918930.26	-20918929.99	0.0088	0.0027
Earth	-61986-02-03 08:23 J	-20918930.40	-20918930.15	-20918929.90	0.0088	0.0027 *
Earth	-61985-02-05 21:35 J	-20918562.84	-20918562.60	-20918562.35	0.0088	0.0036
Moon	-61985-02-06 00:28 J	-20918562.71	-20918562.48	-20918562.24	0.0088	0.0037 *
Moon	-61984-02-07 07:11 J	-20918195.42	-20918195.20	-20918194.95	0.0088	0.0043
Earth	-61984-02-07 10:33 J	-20918195.27	-20918195.06	-20918194.81	0.0088	0.0045 *
Earth	-61983-02-09 23:45 J	-20917827.70	-20917827.51	-20917827.28	0.0088	0.0053
Moon	-61983-02-10 03:49 J	-20917827.54	-20917827.34	-20917827.12	0.0088	0.0054 *
Moon	-61982-02-12 09:49 J	-20917460.26	-20917460.09	-20917459.87	0.0088	0.0060
Earth	-61982-02-12 13:25 J	-20917460.12	-20917459.94	-20917459.74	0.0088	0.0061 *
Earth	-61981-02-15 02:52 J	-20917092.54	-20917092.38	-20917092.21	0.0088	0.0069
Moon	-61981-02-15 05:30 J	-20917092.40	-20917092.27	-20917092.08	0.0088	0.0072 *
Moon	-61980-02-16 14:09 J	-20916725.01	-20916724.91	-20916724.75	0.0088	0.0076
Earth	-61980-02-16 16:18 J	-20916724.94	-20916724.82	-20916724.68	0.0088	0.0077 *
Earth	-61979-02-19 05:30 J	-20916357.33	-20916357.27	-20916357.18	0.0088	0.0085
Moon	-61979-02-19 05:59 J	-20916357.28	-20916357.25	-20916357.17	0.0088	0.0087 *
Venus	-61964-05-21 22:18 J	-20910786.64	-20910786.57	-20910786.45	0.0088	0.0081
Venus	-61963-01-02 12:28 J	-20910561.14	-20910560.98	-20910560.81	0.0088	0.0059

Venus	-61963-08-16 01:54 J	-20910335.61	-20910335.42	-20910335.21	0.0088	0.0039
Venus	-61962-03-29 15:35 J	-20910110.07	-20910109.85	-20910109.63	0.0088	0.0019
Venus	-61962-11-10 05:01 J	-20909884.51	-20909884.29	-20909884.06	0.0088	0.0002
Venus	-61961-06-22 18:28 J	-20909658.94	-20909658.73	-20909658.51	0.0088	0.0022
Venus	-61960-02-03 07:40 J	-20909433.36	-20909433.18	-20909432.96	0.0088	0.0043
Venus	-61960-09-16 21:06 J	-20909207.76	-20909207.62	-20909207.45	0.0088	0.0063
Venus	-61959-04-30 10:18 J	-20908982.12	-20908982.07	-20908981.98	0.0088	0.0084
Mercury	-61932-06-03 09:35 J	-20899086.13	-20899086.10	-20899086.08	0.0089	0.0087
Mercury	-61932-08-30 10:33 J	-20898998.10	-20898998.06	-20898998.00	0.0089	0.0082
Mercury	-61932-11-26 12:13 J	-20898910.05	-20898909.99	-20898909.92	0.0089	0.0076
Mercury	-61931-02-22 13:25 J	-20898822.01	-20898821.94	-20898821.85	0.0089	0.0071
Mercury	-61931-05-21 15:06 J	-20898733.96	-20898733.87	-20898733.78	0.0089	0.0065
Mercury	-61931-08-17 16:18 J	-20898645.91	-20898645.82	-20898645.71	0.0089	0.0060
Mercury	-61931-11-13 17:45 J	-20898557.86	-20898557.76	-20898557.65	0.0089	0.0054
Mercury	-61930-02-09 19:11 J	-20898469.81	-20898469.70	-20898469.58	0.0089	0.0049
Mercury	-61930-05-08 20:37 J	-20898381.76	-20898381.64	-20898381.52	0.0089	0.0043
Mercury	-61930-08-04 21:49 J	-20898293.70	-20898293.59	-20898293.46	0.0089	0.0038
Mercury	-61930-10-31 23:30 J	-20898205.65	-20898205.52	-20898205.40	0.0089	0.0032
Mercury	-61929-01-28 00:42 J	-20898117.59	-20898117.47	-20898117.34	0.0089	0.0027
Mercury	-61929-04-25 02:09 J	-20898029.54	-20898029.41	-20898029.28	0.0089	0.0021
Mercury	-61929-07-22 03:35 J	-20897941.48	-20897941.35	-20897941.22	0.0089	0.0015
Mercury	-61929-10-18 04:47 J	-20897853.43	-20897853.30	-20897853.16	0.0089	0.0011
Mercury	-61928-01-14 06:13 J	-20897765.37	-20897765.24	-20897765.10	0.0089	0.0005
Mercury	-61928-04-12 07:40 J	-20897677.31	-20897677.18	-20897677.05	0.0089	0.0001
Mars	-61928-07-03 17:45 J	-20897594.98	-20897594.76	-20897594.52	0.0089	0.0053
Mercury	-61928-07-09 09:06 J	-20897589.26	-20897589.12	-20897588.99	0.0089	0.0007
Mercury	-61928-10-05 10:18 J	-20897501.20	-20897501.07	-20897500.93	0.0089	0.0012
Mercury	-61927-01-01 11:45 J	-20897413.14	-20897413.01	-20897412.88	0.0089	0.0017
Mercury	-61927-03-30 13:11 J	-20897325.08	-20897324.95	-20897324.82	0.0089	0.0023
Mercury	-61927-06-26 14:23 J	-20897237.02	-20897236.90	-20897236.77	0.0089	0.0028

Mercury -61927-09-22 15:35 J -20897148.96 -20897148.85 -20897148.72 0.0089 0.0034
 Mercury -61927-12-19 17:01 J -20897060.90 -20897060.79 -20897060.66 0.0089 0.0039
 Mercury -61926-03-17 18:13 J -20896972.84 -20896972.74 -20896972.61 0.0089 0.0045
 Mars -61926-05-28 07:54 J -20896901.44 -20896901.17 -20896900.87 0.0089 0.0011
 Mercury -61926-06-13 19:40 J -20896884.78 -20896884.68 -20896884.56 0.0089 0.0050
 Mercury -61926-09-09 20:52 J -20896796.72 -20896796.63 -20896796.51 0.0089 0.0056
 Mercury -61926-12-06 22:18 J -20896708.66 -20896708.57 -20896708.47 0.0089 0.0061
 Mercury -61925-03-03 23:45 J -20896620.59 -20896620.51 -20896620.42 0.0089 0.0066
 Mercury -61925-05-31 00:57 J -20896532.53 -20896532.46 -20896532.37 0.0089 0.0072
 Mercury -61925-08-27 02:23 J -20896444.46 -20896444.40 -20896444.33 0.0089 0.0077
 Mercury -61925-11-23 03:35 J -20896356.39 -20896356.35 -20896356.29 0.0089 0.0082
 Mercury -61924-02-19 04:47 J -20896268.30 -20896268.30 -20896268.26 0.0089 0.0088
 Mars -61924-04-20 18:57 J -20896207.96 -20896207.71 -20896207.42 0.0089 0.0032
 Mars -61922-03-15 05:01 J -20895514.43 -20895514.29 -20895514.11 0.0089 0.0073
 Earth -61918-07-06 13:54 J -20893939.94 -20893939.92 -20893939.84 0.0089 0.0087
 Moon -61918-07-06 17:01 J -20893939.84 -20893939.79 -20893939.67 0.0089 0.0084 *
 Moon -61917-07-07 22:33 J -20893572.64 -20893572.56 -20893572.45 0.0089 0.0082
 Earth -61917-07-08 00:28 J -20893572.58 -20893572.48 -20893572.35 0.0089 0.0079 *
 Earth -61916-07-10 10:47 J -20893205.19 -20893205.05 -20893204.88 0.0089 0.0071
 Moon -61916-07-10 11:59 J -20893205.14 -20893205.00 -20893204.81 0.0089 0.0069 *
 Earth -61915-07-12 21:06 J -20892837.78 -20892837.62 -20892837.42 0.0089 0.0063
 Moon -61915-07-12 21:35 J -20892837.75 -20892837.60 -20892837.43 0.0089 0.0066 *
 Moon -61914-07-15 05:30 J -20892470.46 -20892470.27 -20892470.04 0.0089 0.0052
 Earth -61914-07-15 07:25 J -20892470.38 -20892470.19 -20892469.98 0.0089 0.0055 *
 Earth -61913-07-16 17:30 J -20892102.97 -20892102.77 -20892102.54 0.0089 0.0047
 Moon -61913-07-16 19:54 J -20892102.87 -20892102.67 -20892102.46 0.0089 0.0049 *
 Moon -61912-07-19 00:28 J -20891735.71 -20891735.48 -20891735.24 0.0089 0.0035
 Earth -61912-07-19 03:35 J -20891735.56 -20891735.35 -20891735.11 0.0089 0.0039 *
 Earth -61911-07-21 13:40 J -20891368.16 -20891367.93 -20891367.68 0.0089 0.0030
 Moon -61911-07-21 17:01 J -20891368.01 -20891367.79 -20891367.54 0.0089 0.0033 *

Moon	-61910-07-23 20:23 J	-20891000.89	-20891000.65	-20891000.40	0.0089	0.0020
Earth	-61910-07-23 23:45 J	-20891000.75	-20891000.51	-20891000.25	0.0089	0.0022 *
Earth	-61909-07-25 09:35 J	-20890633.34	-20890633.10	-20890632.84	0.0089	0.0014
Moon	-61909-07-25 12:28 J	-20890633.23	-20890632.98	-20890632.72	0.0089	0.0016 *
Moon	-61908-07-27 18:13 J	-20890265.98	-20890265.74	-20890265.49	0.0089	0.0003
Earth	-61908-07-27 19:40 J	-20890265.93	-20890265.68	-20890265.42	0.0089	0.0006 *
Earth	-61907-07-30 05:45 J	-20889898.51	-20889898.26	-20889898.01	0.0089	0.0003
Moon	-61907-07-30 06:42 J	-20889898.49	-20889898.22	-20889897.96	0.0089	0.0002 *
Earth	-61906-08-01 15:21 J	-20889531.10	-20889530.86	-20889530.60	0.0089	0.0012
Moon	-61906-08-01 16:18 J	-20889531.05	-20889530.82	-20889530.57	0.0089	0.0014 *
Moon	-61905-08-02 23:16 J	-20889163.78	-20889163.53	-20889163.26	0.0089	0.0017
Earth	-61905-08-03 01:25 J	-20889163.68	-20889163.44	-20889163.18	0.0089	0.0020 *
Earth	-61904-08-05 11:30 J	-20888796.25	-20888796.02	-20888795.77	0.0089	0.0028
Moon	-61904-08-05 14:09 J	-20888796.13	-20888795.91	-20888795.67	0.0089	0.0030 *
Moon	-61903-08-07 17:59 J	-20888428.97	-20888428.75	-20888428.50	0.0089	0.0034
Earth	-61903-08-07 21:35 J	-20888428.82	-20888428.60	-20888428.36	0.0089	0.0037 *
Earth	-61902-08-10 07:25 J	-20888061.39	-20888061.19	-20888060.95	0.0089	0.0045
Moon	-61902-08-10 11:01 J	-20888061.24	-20888061.04	-20888060.81	0.0089	0.0047 *
Moon	-61901-08-11 14:37 J	-20887694.09	-20887693.89	-20887693.68	0.0089	0.0051
Earth	-61901-08-11 17:45 J	-20887693.95	-20887693.76	-20887693.55	0.0089	0.0053 *
Earth	-61900-08-14 03:49 J	-20887326.52	-20887326.34	-20887326.15	0.0089	0.0061
Moon	-61900-08-14 06:13 J	-20887326.41	-20887326.24	-20887326.05	0.0089	0.0063 *
Moon	-61899-08-16 12:57 J	-20886959.12	-20886958.96	-20886958.80	0.0089	0.0067
Earth	-61899-08-16 13:54 J	-20886959.07	-20886958.92	-20886958.76	0.0089	0.0069 *
Earth	-61898-08-18 23:30 J	-20886591.63	-20886591.52	-20886591.38	0.0089	0.0077
Moon	-61898-08-18 23:30 J	-20886591.61	-20886591.52	-20886591.37	0.0089	0.0079 *
Earth	-61897-08-20 09:21 J	-20886224.16	-20886224.11	-20886224.02	0.0089	0.0085
Moon	-61897-08-20 10:47 J	-20886224.12	-20886224.05	-20886223.95	0.0089	0.0083 *
Venus	-61882-07-04 06:13 J	-20880793.33	-20880793.24	-20880793.13	0.0089	0.0078
Venus	-61881-02-14 18:28 J	-20880567.88	-20880567.73	-20880567.56	0.0089	0.0058

Venus -61881-09-27 06:42 J -20880342.41 -20880342.22 -20880342.02 0.0089 0.0038
 Venus -61880-05-10 19:11 J -20880116.91 -20880116.70 -20880116.49 0.0089 0.0018
 Venus -61880-12-22 07:25 J -20879891.40 -20879891.19 -20879890.97 0.0089 0.0003
 Venus -61879-08-04 20:09 J -20879665.87 -20879665.66 -20879665.45 0.0089 0.0022
 Venus -61878-03-18 08:09 J -20879440.33 -20879440.16 -20879439.95 0.0089 0.0043
 Venus -61878-10-29 20:37 J -20879214.78 -20879214.64 -20879214.47 0.0089 0.0063
 Venus -61877-06-11 09:21 J -20878989.17 -20878989.11 -20878989.03 0.0089 0.0083
 Mercury -61849-05-18 03:49 J -20868786.37 -20868786.34 -20868786.30 0.0089 0.0087
 Mercury -61849-08-14 06:57 J -20868698.27 -20868698.21 -20868698.11 0.0089 0.0080
 Mercury -61849-11-10 10:33 J -20868610.16 -20868610.06 -20868609.94 0.0089 0.0072
 Mercury -61848-02-06 14:23 J -20868522.03 -20868521.90 -20868521.77 0.0089 0.0064
 Mercury -61848-05-05 17:30 J -20868433.90 -20868433.77 -20868433.61 0.0089 0.0057
 Mercury -61848-08-01 21:06 J -20868345.77 -20868345.62 -20868345.46 0.0089 0.0049
 Mercury -61848-10-29 00:42 J -20868257.64 -20868257.47 -20868257.30 0.0089 0.0041
 Mercury -61847-01-25 03:49 J -20868169.50 -20868169.34 -20868169.15 0.0089 0.0034
 Mercury -61847-04-23 07:25 J -20868081.36 -20868081.19 -20868081.00 0.0089 0.0026
 Mercury -61847-07-20 11:01 J -20867993.22 -20867993.04 -20867992.85 0.0089 0.0018
 Mercury -61847-10-16 14:37 J -20867905.08 -20867904.89 -20867904.70 0.0089 0.0010
 Mercury -61846-01-12 18:13 J -20867816.93 -20867816.74 -20867816.55 0.0089 0.0002
 Mars -61846-03-23 15:21 J -20867747.06 -20867746.86 -20867746.59 0.0089 0.0064
 Mercury -61846-04-10 21:35 J -20867728.79 -20867728.60 -20867728.40 0.0089 0.0006
 Mercury -61846-07-08 01:11 J -20867640.64 -20867640.45 -20867640.26 0.0089 0.0013
 Mercury -61846-10-04 04:33 J -20867552.49 -20867552.31 -20867552.11 0.0089 0.0021
 Mercury -61846-12-31 08:09 J -20867464.34 -20867464.16 -20867463.97 0.0089 0.0029
 Mercury -61845-03-28 11:45 J -20867376.18 -20867376.01 -20867375.83 0.0089 0.0037
 Mercury -61845-06-24 15:06 J -20867288.03 -20867287.87 -20867287.69 0.0089 0.0045
 Mercury -61845-09-20 18:42 J -20867199.87 -20867199.72 -20867199.56 0.0089 0.0053
 Mercury -61845-12-17 22:04 J -20867111.70 -20867111.58 -20867111.42 0.0089 0.0061
 Mars -61844-02-16 22:33 J -20867050.89 -20867050.56 -20867050.21 0.0089 0.0014
 Mercury -61844-03-16 01:40 J -20867023.54 -20867023.43 -20867023.29 0.0089 0.0069

Mercury -61844-06-12 05:30 J -20866935.36 -20866935.27 -20866935.17 0.0089 0.0076

Mercury -61844-09-08 09:06 J -20866847.17 -20866847.12 -20866847.06 0.0089 0.0084

Mars -61842-01-14 06:57 J -20866354.50 -20866354.21 -20866353.87 0.0089 0.0038

Moon -61835-01-03 06:13 J -20863808.34 -20863808.24 -20863808.12 0.0088 0.0080

Earth -61835-01-03 05:59 J -20863808.30 -20863808.25 -20863808.13 0.0088 0.0084 *

Moon -61834-01-05 18:57 J -20863440.83 -20863440.71 -20863440.59 0.0088 0.0079

Earth -61834-01-05 19:11 J -20863440.81 -20863440.70 -20863440.54 0.0088 0.0076 *

Earth -61833-01-08 08:09 J -20863073.30 -20863073.16 -20863072.96 0.0088 0.0068

Moon -61833-01-08 10:47 J -20863073.21 -20863073.05 -20863072.85 0.0088 0.0064 *

Moon -61832-01-09 18:42 J -20862705.89 -20862705.72 -20862705.52 0.0088 0.0063

Earth -61832-01-09 21:35 J -20862705.78 -20862705.60 -20862705.39 0.0088 0.0059 *

Earth -61831-01-12 10:33 J -20862338.25 -20862338.06 -20862337.83 0.0088 0.0051

Moon -61831-01-12 13:54 J -20862338.11 -20862337.92 -20862337.67 0.0088 0.0047 *

Moon -61830-01-14 20:09 J -20861970.86 -20861970.66 -20861970.42 0.0088 0.0046

Earth -61830-01-14 23:45 J -20861970.72 -20861970.51 -20861970.26 0.0088 0.0042 *

Earth -61829-01-17 13:11 J -20861603.19 -20861602.95 -20861602.70 0.0088 0.0034

Moon -61829-01-17 16:18 J -20861603.05 -20861602.82 -20861602.55 0.0088 0.0030 *

Moon -61828-01-18 23:30 J -20861235.75 -20861235.52 -20861235.26 0.0088 0.0030

Earth -61828-01-19 02:23 J -20861235.64 -20861235.40 -20861235.13 0.0088 0.0025 *

Earth -61827-01-21 15:49 J -20860868.09 -20860867.84 -20860867.58 0.0088 0.0016

Moon -61827-01-21 17:16 J -20860868.04 -20860867.78 -20860867.50 0.0088 0.0012 *

Moon -61826-01-24 04:33 J -20860500.56 -20860500.31 -20860500.06 0.0088 0.0012

Earth -61826-01-24 05:16 J -20860500.54 -20860500.28 -20860500.01 0.0088 0.0008 *

Moon -61825-01-26 18:28 J -20860133.01 -20860132.73 -20860132.46 0.0088 0.0006

Earth -61825-01-26 18:57 J -20860132.98 -20860132.71 -20860132.45 0.0088 0.0002 *

Earth -61824-01-28 08:09 J -20859765.42 -20859765.16 -20859764.90 0.0088 0.0010

Moon -61824-01-28 10:04 J -20859765.33 -20859765.08 -20859764.82 0.0088 0.0006 *

Moon -61823-01-30 18:57 J -20859397.96 -20859397.71 -20859397.44 0.0088 0.0023

Earth -61823-01-30 21:35 J -20859397.85 -20859397.60 -20859397.34 0.0088 0.0018 *

Earth -61822-02-02 10:33 J -20859030.29 -20859030.06 -20859029.79 0.0088 0.0028

Moon	-61822-02-02 14:09 J	-20859030.15	-20859029.91	-20859029.65	0.0088	0.0023	*
Moon	-61821-02-04 20:23 J	-20858662.87	-20858662.65	-20858662.40	0.0088	0.0040	
Earth	-61821-02-05 00:13 J	-20858662.72	-20858662.49	-20858662.24	0.0088	0.0036	*
Earth	-61820-02-06 13:11 J	-20858295.16	-20858294.95	-20858294.71	0.0088	0.0045	
Moon	-61820-02-06 16:47 J	-20858295.02	-20858294.80	-20858294.55	0.0088	0.0040	*
Moon	-61819-02-08 23:16 J	-20857927.71	-20857927.53	-20857927.32	0.0088	0.0058	
Earth	-61819-02-09 02:37 J	-20857927.59	-20857927.39	-20857927.17	0.0088	0.0053	*
Earth	-61818-02-11 15:35 J	-20857560.01	-20857559.85	-20857559.64	0.0088	0.0061	
Moon	-61818-02-11 17:59 J	-20857559.95	-20857559.75	-20857559.53	0.0088	0.0057	*
Moon	-61817-02-14 03:35 J	-20857192.46	-20857192.35	-20857192.18	0.0088	0.0074	
Earth	-61817-02-14 05:01 J	-20857192.43	-20857192.29	-20857192.10	0.0088	0.0069	*
Moon	-61816-02-15 17:59 J	-20856824.87	-20856824.75	-20856824.57	0.0088	0.0073	
Earth	-61816-02-15 18:13 J	-20856824.84	-20856824.74	-20856824.59	0.0088	0.0078	*
Earth	-61815-02-18 07:40 J	-20856457.22	-20856457.18	-20856457.09	0.0088	0.0086	
Venus	-61799-04-05 18:28 J	-20850566.85	-20850566.73	-20850566.59	0.0088	0.0072	
Venus	-61799-11-17 07:54 J	-20850341.33	-20850341.17	-20850340.97	0.0088	0.0051	
Venus	-61798-06-30 21:49 J	-20850115.79	-20850115.59	-20850115.37	0.0088	0.0031	
Venus	-61797-02-11 11:30 J	-20849890.24	-20849890.02	-20849889.79	0.0088	0.0010	
Venus	-61797-09-24 01:11 J	-20849664.67	-20849664.45	-20849664.23	0.0088	0.0011	
Venus	-61796-05-07 14:09 J	-20849439.10	-20849438.91	-20849438.68	0.0088	0.0032	
Venus	-61796-12-19 03:49 J	-20849213.51	-20849213.34	-20849213.15	0.0088	0.0051	
Venus	-61795-08-01 17:16 J	-20848987.90	-20848987.78	-20848987.64	0.0088	0.0072	
Mercury	-61767-02-28 07:54 J	-20838915.17	-20838915.17	-20838915.14	0.0089	0.0088	
Mercury	-61767-05-27 09:35 J	-20838827.15	-20838827.10	-20838827.05	0.0089	0.0082	
Mercury	-61767-08-23 10:47 J	-20838739.11	-20838739.05	-20838738.97	0.0089	0.0077	
Mercury	-61767-11-19 12:28 J	-20838651.06	-20838650.98	-20838650.90	0.0089	0.0071	
Mercury	-61766-02-15 13:40 J	-20838563.01	-20838562.93	-20838562.83	0.0089	0.0066	
Mercury	-61766-05-14 15:06 J	-20838474.96	-20838474.87	-20838474.77	0.0089	0.0060	
Mercury	-61766-08-10 16:18 J	-20838386.91	-20838386.82	-20838386.70	0.0089	0.0055	
Mercury	-61766-11-06 17:59 J	-20838298.86	-20838298.75	-20838298.64	0.0089	0.0049	

Mercury -61765-02-02 19:11 J -20838210.81 -20838210.70 -20838210.57 0.0089 0.0044
 Mercury -61765-04-30 20:37 J -20838122.75 -20838122.64 -20838122.51 0.0089 0.0038
 Mercury -61765-07-27 22:04 J -20838034.70 -20838034.58 -20838034.45 0.0089 0.0032
 Mercury -61765-10-23 23:30 J -20837946.65 -20837946.52 -20837946.39 0.0089 0.0027
 Mercury -61764-01-20 00:42 J -20837858.59 -20837858.47 -20837858.33 0.0089 0.0022
 Mars -61764-02-15 21:35 J -20837831.74 -20837831.60 -20837831.39 0.0089 0.0072
 Mercury -61764-04-18 02:23 J -20837770.54 -20837770.40 -20837770.27 0.0089 0.0016
 Mercury -61764-07-15 03:35 J -20837682.48 -20837682.35 -20837682.21 0.0089 0.0011
 Mercury -61764-10-11 05:01 J -20837594.42 -20837594.29 -20837594.16 0.0089 0.0005
 Mercury -61763-01-07 06:28 J -20837506.37 -20837506.23 -20837506.10 0.0089 0.0002
 Mercury -61763-04-05 07:40 J -20837418.31 -20837418.18 -20837418.04 0.0089 0.0007
 Mercury -61763-07-02 09:06 J -20837330.25 -20837330.12 -20837329.99 0.0089 0.0011
 Mercury -61763-09-28 10:33 J -20837242.19 -20837242.06 -20837241.93 0.0089 0.0017
 Mercury -61763-12-25 11:45 J -20837154.13 -20837154.01 -20837153.88 0.0089 0.0023
 Mars -61762-01-10 12:42 J -20837138.24 -20837137.97 -20837137.70 0.0089 0.0029
 Mercury -61762-03-23 13:11 J -20837066.08 -20837065.95 -20837065.82 0.0089 0.0028
 Mercury -61762-06-19 14:23 J -20836978.02 -20836977.90 -20836977.77 0.0089 0.0034
 Mercury -61762-09-15 15:49 J -20836889.96 -20836889.84 -20836889.72 0.0089 0.0039
 Mercury -61762-12-12 17:16 J -20836801.90 -20836801.78 -20836801.67 0.0089 0.0044
 Mercury -61761-03-09 18:28 J -20836713.83 -20836713.73 -20836713.61 0.0089 0.0050
 Mercury -61761-06-05 19:54 J -20836625.77 -20836625.67 -20836625.56 0.0089 0.0055
 Mercury -61761-09-01 21:06 J -20836537.71 -20836537.62 -20836537.52 0.0089 0.0060
 Mercury -61761-11-28 22:33 J -20836449.64 -20836449.56 -20836449.47 0.0089 0.0066
 Mars -61761-12-04 02:23 J -20836444.68 -20836444.40 -20836444.11 0.0089 0.0013
 Mercury -61760-02-24 23:59 J -20836361.58 -20836361.50 -20836361.42 0.0089 0.0071
 Mercury -61760-05-24 00:57 J -20836273.51 -20836273.46 -20836273.38 0.0089 0.0077
 Mercury -61760-08-20 02:23 J -20836185.44 -20836185.40 -20836185.34 0.0089 0.0082
 Mercury -61760-11-16 03:49 J -20836097.36 -20836097.34 -20836097.31 0.0089 0.0087
 Mars -61759-10-28 13:40 J -20835751.15 -20835750.93 -20835750.70 0.0089 0.0054
 Moon -61753-07-07 05:16 J -20833672.36 -20833672.28 -20833672.13 0.0089 0.0080

Earth	-61753-07-07 05:45 J	-20833672.34	-20833672.26	-20833672.16	0.0089	0.0082	*
Earth	-61752-07-09 16:04 J	-20833304.96	-20833304.83	-20833304.68	0.0089	0.0074	
Moon	-61752-07-09 16:47 J	-20833304.91	-20833304.80	-20833304.67	0.0089	0.0077	*
Moon	-61751-07-11 23:59 J	-20832937.66	-20832937.50	-20832937.29	0.0089	0.0063	
Earth	-61751-07-12 02:09 J	-20832937.56	-20832937.41	-20832937.22	0.0089	0.0066	*
Earth	-61750-07-14 12:28 J	-20832570.16	-20832569.98	-20832569.77	0.0089	0.0058	
Moon	-61750-07-14 15:21 J	-20832570.02	-20832569.86	-20832569.65	0.0089	0.0061	*
Moon	-61749-07-15 19:40 J	-20832202.89	-20832202.68	-20832202.45	0.0089	0.0046	
Earth	-61749-07-15 23:16 J	-20832202.74	-20832202.53	-20832202.32	0.0089	0.0049	*
Earth	-61748-07-18 09:06 J	-20831835.33	-20831835.12	-20831834.88	0.0089	0.0041	
Moon	-61748-07-18 12:42 J	-20831835.17	-20831834.97	-20831834.73	0.0089	0.0045	*
Moon	-61747-07-20 16:33 J	-20831468.03	-20831467.81	-20831467.56	0.0089	0.0030	
Earth	-61747-07-20 19:40 J	-20831467.91	-20831467.68	-20831467.44	0.0089	0.0032	*
Earth	-61746-07-23 05:30 J	-20831100.51	-20831100.27	-20831100.02	0.0089	0.0024	
Moon	-61746-07-23 07:54 J	-20831100.41	-20831100.17	-20831099.91	0.0089	0.0027	*
Moon	-61745-07-24 14:23 J	-20830733.14	-20830732.90	-20830732.65	0.0089	0.0012	
Earth	-61745-07-24 15:49 J	-20830733.09	-20830732.84	-20830732.59	0.0089	0.0015	*
Moon	-61744-07-27 01:25 J	-20830365.70	-20830365.44	-20830365.18	0.0089	0.0009	
Earth	-61744-07-27 01:40 J	-20830365.67	-20830365.43	-20830365.17	0.0089	0.0007	*
Earth	-61743-07-29 11:45 J	-20829998.26	-20829998.01	-20829997.75	0.0089	0.0002	
Moon	-61743-07-29 12:57 J	-20829998.20	-20829997.96	-20829997.71	0.0089	0.0005	*
Moon	-61742-07-31 19:11 J	-20829630.95	-20829630.70	-20829630.43	0.0089	0.0007	
Earth	-61742-07-31 21:35 J	-20829630.84	-20829630.60	-20829630.34	0.0089	0.0011	*
Earth	-61741-08-02 07:25 J	-20829263.43	-20829263.19	-20829262.93	0.0089	0.0019	
Moon	-61741-08-02 10:47 J	-20829263.28	-20829263.05	-20829262.80	0.0089	0.0022	*
Moon	-61740-08-04 14:09 J	-20828896.14	-20828895.91	-20828895.65	0.0089	0.0024	
Earth	-61740-08-04 17:30 J	-20828896.00	-20828895.77	-20828895.52	0.0089	0.0028	*
Earth	-61739-08-07 03:21 J	-20828528.58	-20828528.36	-20828528.11	0.0089	0.0036	
Moon	-61739-08-07 06:57 J	-20828528.42	-20828528.21	-20828527.97	0.0089	0.0040	*
Moon	-61738-08-09 10:33 J	-20828161.25	-20828161.06	-20828160.82	0.0089	0.0043	

Earth -61738-08-09 13:11 J -20828161.15 -20828160.95 -20828160.71 0.0089 0.0045 *
 Earth -61737-08-10 23:30 J -20827793.71 -20827793.52 -20827793.31 0.0089 0.0053
 Moon -61737-08-11 01:11 J -20827793.63 -20827793.45 -20827793.23 0.0089 0.0057 *
 Moon -61736-08-13 08:37 J -20827426.30 -20827426.14 -20827425.93 0.0089 0.0058
 Earth -61736-08-13 09:49 J -20827426.27 -20827426.09 -20827425.90 0.0089 0.0062 *
 Moon -61735-08-15 18:13 J -20827058.86 -20827058.74 -20827058.56 0.0089 0.0073
 Earth -61735-08-15 19:11 J -20827058.82 -20827058.70 -20827058.51 0.0089 0.0071 *
 Earth -61734-08-18 05:16 J -20826691.37 -20826691.28 -20826691.13 0.0089 0.0078
 Moon -61734-08-18 06:57 J -20826691.32 -20826691.21 -20826691.05 0.0089 0.0075 *
 Earth -61733-08-19 15:21 J -20826323.90 -20826323.86 -20826323.77 0.0089 0.0086
 Jupiter -61724-07-15 10:18 J -20823072.56 -20823072.07 -20823071.53 0.0089 0.0030
 Venus -61717-05-18 03:06 J -20820573.50 -20820573.37 -20820573.23 0.0089 0.0069
 Venus -61717-12-29 15:21 J -20820348.03 -20820347.86 -20820347.67 0.0089 0.0049
 Venus -61716-08-12 03:49 J -20820122.54 -20820122.34 -20820122.13 0.0089 0.0029
 Venus -61715-03-25 16:04 J -20819897.04 -20819896.83 -20819896.61 0.0089 0.0009
 Venus -61715-11-06 04:33 J -20819671.52 -20819671.31 -20819671.09 0.0089 0.0011
 Venus -61714-06-19 16:47 J -20819445.99 -20819445.80 -20819445.59 0.0089 0.0032
 Venus -61713-01-31 05:16 J -20819220.44 -20819220.28 -20819220.09 0.0089 0.0052
 Venus -61713-09-12 17:45 J -20818994.87 -20818994.76 -20818994.62 0.0089 0.0072
 Mercury -61684-02-12 00:57 J -20808615.49 -20808615.46 -20808615.43 0.0089 0.0087
 Mercury -61684-05-11 04:04 J -20808527.40 -20808527.33 -20808527.23 0.0089 0.0080
 Mercury -61684-08-07 07:40 J -20808439.28 -20808439.18 -20808439.06 0.0089 0.0072
 Mercury -61684-11-03 10:47 J -20808351.16 -20808351.05 -20808350.90 0.0089 0.0065
 Mercury -61683-01-30 14:23 J -20808263.03 -20808262.90 -20808262.74 0.0089 0.0057
 Mercury -61683-04-28 17:59 J -20808174.90 -20808174.75 -20808174.58 0.0089 0.0049
 Mercury -61683-07-25 21:21 J -20808086.77 -20808086.61 -20808086.43 0.0089 0.0042
 Mercury -61683-10-22 00:57 J -20807998.63 -20807998.46 -20807998.28 0.0089 0.0034
 Mars -61683-11-03 18:28 J -20807985.82 -20807985.73 -20807985.60 0.0089 0.0084
 Mercury -61682-01-18 04:33 J -20807910.49 -20807910.31 -20807910.12 0.0089 0.0026
 Mercury -61682-04-16 08:09 J -20807822.35 -20807822.16 -20807821.97 0.0089 0.0018

Mercury -61682-07-13 11:30 J -20807734.21 -20807734.02 -20807733.82 0.0089 0.0010
 Mercury -61682-10-09 15:06 J -20807646.06 -20807645.87 -20807645.68 0.0089 0.0002
 Mercury -61681-01-05 18:42 J -20807557.92 -20807557.72 -20807557.53 0.0089 0.0006
 Mercury -61681-04-02 22:04 J -20807469.77 -20807469.58 -20807469.39 0.0089 0.0013
 Mercury -61681-06-30 01:25 J -20807381.62 -20807381.44 -20807381.24 0.0089 0.0022
 Mercury -61681-09-26 05:16 J -20807293.46 -20807293.28 -20807293.10 0.0089 0.0029
 Mars -61681-09-29 23:45 J -20807289.81 -20807289.51 -20807289.18 0.0089 0.0035
 Mercury -61681-12-23 08:37 J -20807205.31 -20807205.14 -20807204.96 0.0089 0.0037
 Mercury -61680-03-21 11:59 J -20807117.15 -20807117.00 -20807116.82 0.0089 0.0045
 Mercury -61680-06-17 15:35 J -20807028.99 -20807028.85 -20807028.68 0.0089 0.0053
 Mercury -61680-09-13 18:57 J -20806940.83 -20806940.71 -20806940.55 0.0089 0.0061
 Mercury -61680-12-10 22:33 J -20806852.66 -20806852.56 -20806852.42 0.0089 0.0069
 Mercury -61679-03-09 02:09 J -20806764.49 -20806764.41 -20806764.30 0.0089 0.0076
 Mercury -61679-06-05 05:59 J -20806676.30 -20806676.25 -20806676.19 0.0089 0.0084
 Mars -61679-08-27 06:57 J -20806593.54 -20806593.21 -20806592.86 0.0089 0.0015
 Mars -61677-07-23 15:21 J -20805897.06 -20805896.86 -20805896.59 0.0088 0.0066
 Moon -61671-01-02 07:25 J -20803908.25 -20803908.19 -20803908.08 0.0088 0.0084
 Earth -61671-01-02 09:35 J -20803908.13 -20803908.10 -20803908.03 0.0088 0.0087 *
 Earth -61670-01-04 22:18 J -20803540.66 -20803540.57 -20803540.42 0.0088 0.0079
 Moon -61670-01-05 01:11 J -20803540.54 -20803540.45 -20803540.34 0.0088 0.0081 *
 Moon -61669-01-07 08:23 J -20803173.32 -20803173.15 -20803172.98 0.0088 0.0067
 Earth -61669-01-07 11:16 J -20803173.15 -20803173.03 -20803172.84 0.0088 0.0071 *
 Earth -61668-01-09 00:42 J -20802805.64 -20802805.47 -20802805.27 0.0088 0.0062
 Moon -61668-01-09 04:33 J -20802805.49 -20802805.31 -20802805.13 0.0088 0.0064 *
 Moon -61667-01-11 10:04 J -20802438.27 -20802438.08 -20802437.85 0.0088 0.0051
 Earth -61667-01-11 14:09 J -20802438.12 -20802437.91 -20802437.70 0.0088 0.0053 *
 Earth -61666-01-14 02:37 J -20802070.60 -20802070.39 -20802070.14 0.0088 0.0045
 Moon -61666-01-14 05:45 J -20802070.47 -20802070.26 -20802070.02 0.0088 0.0047 *
 Moon -61665-01-16 13:54 J -20801703.14 -20801702.92 -20801702.67 0.0088 0.0035
 Earth -61665-01-16 16:04 J -20801703.06 -20801702.83 -20801702.58 0.0088 0.0036 *

Earth	-61664-01-18 04:47 J	-20801335.53	-20801335.30	-20801335.03	0.0088	0.0028
Moon	-61664-01-18 06:13 J	-20801335.48	-20801335.24	-20801334.97	0.0088	0.0028 *
Earth	-61663-01-20 18:13 J	-20800967.99	-20800967.74	-20800967.47	0.0088	0.0018
Moon	-61663-01-20 18:42 J	-20800967.96	-20800967.72	-20800967.46	0.0088	0.0017 *
Moon	-61662-01-23 05:59 J	-20800600.51	-20800600.25	-20800599.97	0.0088	0.0011
Earth	-61662-01-23 07:40 J	-20800600.44	-20800600.18	-20800599.92	0.0088	0.0009 *
Earth	-61661-01-25 20:52 J	-20800232.89	-20800232.63	-20800232.37	0.0088	0.0001
Moon	-61661-01-25 23:01 J	-20800232.80	-20800232.54	-20800232.28	0.0088	0.0000 *
Moon	-61660-01-27 06:42 J	-20799865.48	-20799865.22	-20799864.95	0.0088	0.0007
Earth	-61660-01-27 10:18 J	-20799865.33	-20799865.07	-20799864.81	0.0088	0.0008 *
Earth	-61659-01-29 23:16 J	-20799497.78	-20799497.53	-20799497.26	0.0088	0.0018
Moon	-61659-01-30 02:52 J	-20799497.63	-20799497.38	-20799497.12	0.0088	0.0018 *
Moon	-61658-02-01 08:52 J	-20799130.36	-20799130.13	-20799129.86	0.0088	0.0027
Earth	-61658-02-01 12:42 J	-20799130.21	-20799129.97	-20799129.70	0.0088	0.0027 *
Earth	-61657-02-04 01:54 J	-20798762.64	-20798762.42	-20798762.16	0.0088	0.0035
Moon	-61657-02-04 05:16 J	-20798762.51	-20798762.28	-20798762.02	0.0088	0.0036 *
Moon	-61656-02-05 12:42 J	-20798395.17	-20798394.97	-20798394.73	0.0088	0.0044
Earth	-61656-02-05 15:35 J	-20798395.08	-20798394.85	-20798394.62	0.0088	0.0044 *
Earth	-61655-02-08 04:33 J	-20798027.50	-20798027.31	-20798027.08	0.0088	0.0053
Moon	-61655-02-08 06:42 J	-20798027.44	-20798027.22	-20798027.00	0.0088	0.0052 *
Earth	-61654-02-10 17:45 J	-20797659.93	-20797659.76	-20797659.55	0.0088	0.0061
Moon	-61654-02-10 17:45 J	-20797659.92	-20797659.76	-20797659.56	0.0088	0.0061 *
Moon	-61653-02-13 05:59 J	-20797292.40	-20797292.25	-20797292.06	0.0088	0.0069
Earth	-61653-02-13 07:11 J	-20797292.35	-20797292.20	-20797292.03	0.0088	0.0070 *
Earth	-61652-02-14 19:54 J	-20796924.76	-20796924.67	-20796924.52	0.0088	0.0078
Moon	-61652-02-14 21:49 J	-20796924.67	-20796924.59	-20796924.45	0.0088	0.0079 *
Moon	-61651-02-17 05:59 J	-20796557.28	-20796557.25	-20796557.16	0.0088	0.0086
Earth	-61651-02-17 09:21 J	-20796557.14	-20796557.11	-20796557.03	0.0088	0.0087
Venus	-61635-07-08 00:28 J	-20790572.53	-20790572.48	-20790572.39	0.0088	0.0084
Venus	-61634-02-18 14:09 J	-20790347.04	-20790346.91	-20790346.73	0.0088	0.0063

Venus -61634-10-02 04:04 J -20790121.52 -20790121.33 -20790121.12 0.0088 0.0042

Venus -61633-05-14 17:30 J -20789895.97 -20789895.77 -20789895.54 0.0088 0.0023

Venus -61633-12-26 07:25 J -20789670.41 -20789670.19 -20789669.96 0.0088 0.0002

Venus -61632-08-08 20:52 J -20789444.84 -20789444.63 -20789444.40 0.0088 0.0019

Venus -61631-03-22 10:18 J -20789219.26 -20789219.07 -20789218.86 0.0088 0.0040

Venus -61631-11-02 23:16 J -20788993.67 -20788993.53 -20788993.34 0.0088 0.0061

Venus -61630-06-16 12:42 J -20788768.03 -20788767.97 -20788767.85 0.0088 0.0081

Mercury -61603-11-25 06:57 J -20778744.22 -20778744.21 -20778744.20 0.0089 0.0088

Mercury -61602-02-21 08:09 J -20778656.20 -20778656.16 -20778656.11 0.0089 0.0083

Mercury -61602-05-20 09:35 J -20778568.16 -20778568.10 -20778568.03 0.0089 0.0077

Mercury -61602-08-16 10:47 J -20778480.11 -20778480.05 -20778479.96 0.0089 0.0072

Mercury -61602-11-12 12:28 J -20778392.07 -20778391.98 -20778391.89 0.0089 0.0066

Mercury -61601-02-08 13:40 J -20778304.02 -20778303.93 -20778303.82 0.0089 0.0061

Mercury -61601-05-06 15:21 J -20778215.97 -20778215.86 -20778215.76 0.0089 0.0055

Mercury -61601-08-02 16:33 J -20778127.91 -20778127.81 -20778127.69 0.0089 0.0050

Mercury -61601-10-29 17:59 J -20778039.86 -20778039.75 -20778039.63 0.0089 0.0044

Mercury -61600-01-25 19:25 J -20777951.81 -20777951.69 -20777951.57 0.0089 0.0038

Mercury -61600-04-23 20:52 J -20777863.75 -20777863.63 -20777863.50 0.0089 0.0033

Mercury -61600-07-20 22:04 J -20777775.70 -20777775.58 -20777775.44 0.0089 0.0028

Mercury -61600-10-16 23:30 J -20777687.64 -20777687.52 -20777687.38 0.0089 0.0022

Mercury -61599-01-13 00:57 J -20777599.59 -20777599.46 -20777599.32 0.0089 0.0016

Mercury -61599-04-11 02:23 J -20777511.53 -20777511.40 -20777511.27 0.0089 0.0011

Mercury -61599-07-08 03:49 J -20777423.48 -20777423.34 -20777423.21 0.0089 0.0006

Mars -61599-08-25 17:01 J -20777375.02 -20777374.79 -20777374.53 0.0089 0.0048

Mercury -61599-10-04 05:01 J -20777335.42 -20777335.29 -20777335.15 0.0089 0.0003

Mercury -61599-12-31 06:28 J -20777247.36 -20777247.23 -20777247.09 0.0089 0.0006

Mercury -61598-03-29 07:54 J -20777159.30 -20777159.17 -20777159.04 0.0089 0.0011

Mercury -61598-06-25 09:06 J -20777071.25 -20777071.12 -20777070.98 0.0089 0.0017

Mercury -61598-09-21 10:33 J -20776983.19 -20776983.06 -20776982.93 0.0089 0.0022

Mercury -61598-12-18 11:45 J -20776895.13 -20776895.01 -20776894.88 0.0089 0.0028

Mercury -61597-03-15 13:11 J -20776807.07 -20776806.95 -20776806.82 0.0089 0.0033

Mercury -61597-06-11 14:23 J -20776719.01 -20776718.90 -20776718.77 0.0089 0.0039

Mars -61597-07-19 06:57 J -20776681.49 -20776681.21 -20776680.92 0.0089 0.0006

Mercury -61597-09-07 15:49 J -20776630.95 -20776630.84 -20776630.72 0.0089 0.0044

Mercury -61597-12-04 17:16 J -20776542.89 -20776542.78 -20776542.67 0.0089 0.0049

Mercury -61596-03-02 18:28 J -20776454.82 -20776454.73 -20776454.62 0.0089 0.0055

Mercury -61596-05-29 19:54 J -20776366.76 -20776366.67 -20776366.57 0.0089 0.0060

Mercury -61596-08-25 21:06 J -20776278.70 -20776278.62 -20776278.52 0.0089 0.0066

Mercury -61596-11-21 22:33 J -20776190.63 -20776190.56 -20776190.47 0.0089 0.0071

Mercury -61595-02-17 23:59 J -20776102.56 -20776102.50 -20776102.43 0.0089 0.0076

Mercury -61595-05-17 01:11 J -20776014.49 -20776014.45 -20776014.39 0.0089 0.0082

Mars -61595-06-12 20:23 J -20775987.89 -20775987.65 -20775987.36 0.0089 0.0036

Mercury -61595-08-13 02:37 J -20775926.41 -20775926.39 -20775926.36 0.0089 0.0087

Mars -61593-05-06 08:23 J -20775294.28 -20775294.15 -20775293.98 0.0089 0.0076

Earth -61589-07-06 10:04 J -20773772.12 -20773772.08 -20773772.00 0.0089 0.0086

Moon -61589-07-06 11:45 J -20773772.08 -20773772.01 -20773771.90 0.0089 0.0082 *

Moon -61588-07-08 18:13 J -20773404.84 -20773404.74 -20773404.64 0.0089 0.0081

Earth -61588-07-08 20:09 J -20773404.75 -20773404.66 -20773404.51 0.0089 0.0078 *

Earth -61587-07-11 06:28 J -20773037.36 -20773037.23 -20773037.05 0.0089 0.0070

Moon -61587-07-11 09:49 J -20773037.24 -20773037.09 -20773036.91 0.0089 0.0066 *

Moon -61586-07-13 13:11 J -20772670.10 -20772669.95 -20772669.76 0.0089 0.0065

Earth -61586-07-13 16:47 J -20772669.96 -20772669.80 -20772669.59 0.0089 0.0061 *

Earth -61585-07-15 03:21 J -20772302.56 -20772302.36 -20772302.15 0.0089 0.0052

Moon -61585-07-15 06:13 J -20772302.43 -20772302.24 -20772302.00 0.0089 0.0049 *

Moon -61584-07-17 10:47 J -20771935.25 -20771935.05 -20771934.83 0.0089 0.0047

Earth -61584-07-17 13:25 J -20771935.14 -20771934.94 -20771934.70 0.0089 0.0044 *

Earth -61583-07-19 23:45 J -20771567.73 -20771567.51 -20771567.26 0.0089 0.0035

Moon -61583-07-20 01:40 J -20771567.67 -20771567.43 -20771567.18 0.0089 0.0031 *

Moon -61582-07-22 09:35 J -20771200.31 -20771200.10 -20771199.85 0.0089 0.0030

Earth -61582-07-22 10:18 J -20771200.31 -20771200.07 -20771199.82 0.0089 0.0026 *

Moon	-61581-07-23 20:09 J	-20770832.92	-20770832.66	-20770832.40	0.0089	0.0014
Earth	-61581-07-23 20:37 J	-20770832.89	-20770832.64	-20770832.39	0.0089	0.0017 *
Earth	-61580-07-26 06:28 J	-20770465.47	-20770465.23	-20770464.97	0.0089	0.0009
Moon	-61580-07-26 08:52 J	-20770465.38	-20770465.13	-20770464.89	0.0089	0.0012 *
Moon	-61579-07-28 13:54 J	-20770098.18	-20770097.92	-20770097.66	0.0089	0.0004
Earth	-61579-07-28 16:47 J	-20770098.05	-20770097.80	-20770097.54	0.0089	0.0001 *
Earth	-61578-07-31 02:37 J	-20769730.64	-20769730.39	-20769730.13	0.0089	0.0009
Moon	-61578-07-31 05:59 J	-20769730.50	-20769730.25	-20769730.00	0.0089	0.0006 *
Moon	-61577-08-01 09:06 J	-20769363.36	-20769363.12	-20769362.87	0.0089	0.0022
Earth	-61577-08-01 12:42 J	-20769363.21	-20769362.97	-20769362.71	0.0089	0.0018 *
Earth	-61576-08-03 22:33 J	-20768995.79	-20768995.56	-20768995.31	0.0089	0.0027
Moon	-61576-08-04 01:40 J	-20768995.67	-20768995.43	-20768995.17	0.0089	0.0024 *
Moon	-61575-08-06 05:59 J	-20768628.46	-20768628.25	-20768628.02	0.0089	0.0038
Earth	-61575-08-06 08:37 J	-20768628.36	-20768628.14	-20768627.90	0.0089	0.0035 *
Earth	-61574-08-08 18:28 J	-20768260.93	-20768260.73	-20768260.50	0.0089	0.0044
Moon	-61574-08-08 19:25 J	-20768260.90	-20768260.69	-20768260.43	0.0089	0.0041 *
Earth	-61573-08-10 04:33 J	-20767893.50	-20767893.31	-20767893.09	0.0089	0.0053
Moon	-61573-08-10 04:33 J	-20767893.48	-20767893.31	-20767893.10	0.0089	0.0056 *
Moon	-61572-08-12 13:54 J	-20767526.11	-20767525.92	-20767525.72	0.0089	0.0058
Earth	-61572-08-12 14:52 J	-20767526.05	-20767525.88	-20767525.69	0.0089	0.0061 *
Earth	-61571-08-15 00:28 J	-20767158.61	-20767158.48	-20767158.29	0.0089	0.0071
Moon	-61571-08-15 03:21 J	-20767158.48	-20767158.36	-20767158.21	0.0089	0.0073 *
Moon	-61570-08-17 07:40 J	-20766791.29	-20766791.18	-20766791.02	0.0089	0.0075
Earth	-61570-08-17 11:01 J	-20766791.14	-20766791.04	-20766790.91	0.0089	0.0078 *
Earth	-61569-08-18 20:37 J	-20766423.66	-20766423.64	-20766423.55	0.0089	0.0087
Venus	-61553-08-19 11:30 J	-20760579.10	-20760579.02	-20760578.91	0.0089	0.0081
Venus	-61552-04-01 23:59 J	-20760353.65	-20760353.50	-20760353.34	0.0089	0.0060
Venus	-61552-11-13 12:13 J	-20760128.18	-20760127.99	-20760127.79	0.0089	0.0040
Venus	-61551-06-27 00:42 J	-20759902.68	-20759902.47	-20759902.26	0.0089	0.0020
Venus	-61550-02-07 12:57 J	-20759677.17	-20759676.96	-20759676.74	0.0089	0.0002

Venus -61550-09-21 01:11 J -20759451.65 -20759451.45 -20759451.23 0.0089 0.0020
 Venus -61549-05-03 13:40 J -20759226.12 -20759225.93 -20759225.74 0.0089 0.0040
 Venus -61549-12-15 02:09 J -20759000.57 -20759000.41 -20759000.26 0.0089 0.0061
 Venus -61548-07-28 14:09 J -20758774.98 -20758774.91 -20758774.80 0.0089 0.0081
 Mercury -61520-11-08 21:21 J -20748444.61 -20748444.61 -20748444.55 0.0089 0.0088
 Mercury -61519-02-05 00:57 J -20748356.52 -20748356.46 -20748356.36 0.0089 0.0080
 Mercury -61519-05-04 04:33 J -20748268.41 -20748268.31 -20748268.19 0.0089 0.0072
 Mercury -61519-07-31 07:54 J -20748180.28 -20748180.17 -20748180.03 0.0089 0.0065
 Mercury -61519-10-27 11:30 J -20748092.16 -20748092.02 -20748091.87 0.0089 0.0057
 Mercury -61518-01-23 15:06 J -20748004.03 -20748003.87 -20748003.71 0.0089 0.0049
 Mercury -61518-04-21 18:13 J -20747915.89 -20747915.74 -20747915.56 0.0089 0.0042
 Mercury -61518-07-18 21:49 J -20747827.76 -20747827.59 -20747827.40 0.0089 0.0034
 Mercury -61518-10-15 01:25 J -20747739.62 -20747739.44 -20747739.25 0.0089 0.0026
 Mercury -61517-01-11 05:01 J -20747651.48 -20747651.29 -20747651.10 0.0089 0.0018
 Mercury -61517-04-08 08:23 J -20747563.34 -20747563.15 -20747562.95 0.0089 0.0010
 Mars -61517-05-13 01:54 J -20747528.65 -20747528.42 -20747528.13 0.0089 0.0056
 Mercury -61517-07-05 11:59 J -20747475.19 -20747475.00 -20747474.81 0.0089 0.0002
 Mercury -61517-10-01 15:35 J -20747387.04 -20747386.85 -20747386.66 0.0089 0.0006
 Mercury -61517-12-28 18:57 J -20747298.90 -20747298.71 -20747298.52 0.0089 0.0013
 Mercury -61516-03-26 22:18 J -20747210.75 -20747210.57 -20747210.37 0.0089 0.0022
 Mercury -61516-06-23 02:09 J -20747122.59 -20747122.41 -20747122.23 0.0089 0.0029
 Mercury -61516-09-19 05:30 J -20747034.44 -20747034.27 -20747034.09 0.0089 0.0037
 Mercury -61516-12-16 08:52 J -20746946.28 -20746946.13 -20746945.95 0.0089 0.0045
 Mercury -61515-03-14 12:28 J -20746858.12 -20746857.98 -20746857.81 0.0089 0.0053
 Mars -61515-04-09 07:25 J -20746832.53 -20746832.19 -20746831.85 0.0089 0.0007
 Mercury -61515-06-10 15:49 J -20746769.96 -20746769.84 -20746769.68 0.0089 0.0061
 Mercury -61515-09-06 19:25 J -20746681.79 -20746681.69 -20746681.55 0.0089 0.0069
 Mercury -61515-12-03 22:47 J -20746593.62 -20746593.55 -20746593.43 0.0089 0.0077
 Mercury -61514-03-02 02:23 J -20746505.43 -20746505.40 -20746505.32 0.0089 0.0085
 Mars -61513-03-05 14:52 J -20746136.16 -20746135.88 -20746135.56 0.0089 0.0043

Moon	-61506-01-03 21:49 J	-20743640.69	-20743640.59	-20743640.45	0.0088	0.0079
Earth	-61506-01-04 01:40 J	-20743640.52	-20743640.43	-20743640.33	0.0088	0.0082 *
Earth	-61505-01-06 14:09 J	-20743273.03	-20743272.91	-20743272.74	0.0088	0.0074
Moon	-61505-01-06 18:28 J	-20743272.85	-20743272.73	-20743272.60	0.0088	0.0077 *
Moon	-61504-01-08 00:42 J	-20742905.64	-20742905.47	-20742905.28	0.0088	0.0062
Earth	-61504-01-08 03:35 J	-20742905.52	-20742905.35	-20742905.16	0.0088	0.0065 *
Earth	-61503-01-10 16:47 J	-20742538.00	-20742537.80	-20742537.59	0.0088	0.0056
Moon	-61503-01-10 18:57 J	-20742537.89	-20742537.71	-20742537.49	0.0088	0.0060 *
Moon	-61502-01-13 04:18 J	-20742170.53	-20742170.32	-20742170.08	0.0088	0.0044
Earth	-61502-01-13 05:30 J	-20742170.47	-20742170.27	-20742170.02	0.0088	0.0048 *
Moon	-61501-01-15 18:28 J	-20741802.95	-20741802.73	-20741802.47	0.0088	0.0041
Earth	-61501-01-15 18:28 J	-20741802.94	-20741802.73	-20741802.47	0.0088	0.0039 *
Earth	-61500-01-17 07:54 J	-20741435.41	-20741435.17	-20741434.91	0.0088	0.0029
Moon	-61500-01-17 08:52 J	-20741435.37	-20741435.13	-20741434.88	0.0088	0.0026 *
Moon	-61499-01-19 18:42 J	-20741067.97	-20741067.72	-20741067.45	0.0088	0.0024
Earth	-61499-01-19 21:06 J	-20741067.87	-20741067.62	-20741067.36	0.0088	0.0020 *
Earth	-61498-01-22 10:04 J	-20740700.33	-20740700.08	-20740699.81	0.0088	0.0012
Moon	-61498-01-22 13:25 J	-20740700.20	-20740699.94	-20740699.68	0.0088	0.0008 *
Moon	-61497-01-24 20:09 J	-20740332.92	-20740332.66	-20740332.39	0.0088	0.0006
Earth	-61497-01-24 23:30 J	-20740332.78	-20740332.52	-20740332.25	0.0088	0.0002 *
Earth	-61496-01-26 12:28 J	-20739965.23	-20739964.98	-20739964.71	0.0088	0.0007
Moon	-61496-01-26 16:18 J	-20739965.07	-20739964.82	-20739964.55	0.0088	0.0012 *
Moon	-61495-01-28 22:47 J	-20739597.80	-20739597.55	-20739597.29	0.0088	0.0012
Earth	-61495-01-29 01:54 J	-20739597.67	-20739597.42	-20739597.15	0.0088	0.0016 *
Earth	-61494-01-31 15:06 J	-20739230.11	-20739229.87	-20739229.61	0.0088	0.0025
Moon	-61494-01-31 17:59 J	-20739229.99	-20739229.75	-20739229.48	0.0088	0.0030 *
Moon	-61493-02-03 02:37 J	-20738862.62	-20738862.39	-20738862.14	0.0088	0.0030
Earth	-61493-02-03 04:18 J	-20738862.55	-20738862.32	-20738862.06	0.0088	0.0035 *
Earth	-61492-02-04 17:30 J	-20738494.97	-20738494.77	-20738494.52	0.0088	0.0044
Moon	-61492-02-04 17:59 J	-20738494.96	-20738494.75	-20738494.50	0.0088	0.0047 *

Earth	-61491-02-07 06:57 J	-20738127.40	-20738127.21	-20738126.98	0.0088	0.0052
Moon	-61491-02-07 07:11 J	-20738127.39	-20738127.20	-20738126.96	0.0088	0.0049 *
Moon	-61490-02-09 18:13 J	-20737759.90	-20737759.74	-20737759.54	0.0088	0.0066
Earth	-61490-02-09 20:09 J	-20737759.83	-20737759.66	-20737759.45	0.0088	0.0061 *
Earth	-61489-02-12 09:49 J	-20737392.25	-20737392.09	-20737391.93	0.0088	0.0070
Moon	-61489-02-12 12:28 J	-20737392.14	-20737391.98	-20737391.80	0.0088	0.0066 *
Moon	-61488-02-13 19:40 J	-20737024.76	-20737024.68	-20737024.58	0.0088	0.0083
Earth	-61488-02-13 22:33 J	-20737024.65	-20737024.56	-20737024.41	0.0088	0.0079 *
Earth	-61487-02-16 11:30 J	-20736657.03	-20736657.02	-20736656.94	0.0088	0.0087
Moon	-61487-02-16 15:35 J	-20736656.92	-20736656.85	-20736656.73	0.0088	0.0082
Venus	-61470-05-22 19:54 J	-20730352.76	-20730352.67	-20730352.53	0.0088	0.0075
Venus	-61469-01-03 10:04 J	-20730127.25	-20730127.08	-20730126.90	0.0088	0.0054
Venus	-61469-08-15 23:30 J	-20729901.71	-20729901.52	-20729901.30	0.0088	0.0034
Venus	-61468-03-29 13:25 J	-20729676.16	-20729675.94	-20729675.72	0.0088	0.0013
Venus	-61468-11-10 02:52 J	-20729450.60	-20729450.38	-20729450.15	0.0088	0.0007
Venus	-61467-06-23 16:33 J	-20729225.02	-20729224.81	-20729224.60	0.0088	0.0027
Venus	-61466-02-04 05:45 J	-20728999.43	-20728999.26	-20728999.05	0.0088	0.0048
Venus	-61466-09-17 19:11 J	-20728773.82	-20728773.70	-20728773.54	0.0088	0.0069
Mercury	-61438-11-18 06:28 J	-20718485.25	-20718485.23	-20718485.17	0.0089	0.0084
Mercury	-61437-02-14 08:09 J	-20718397.21	-20718397.16	-20718397.09	0.0089	0.0078
Mercury	-61437-05-12 09:21 J	-20718309.17	-20718309.11	-20718309.02	0.0089	0.0073
Mercury	-61437-08-08 11:01 J	-20718221.12	-20718221.04	-20718220.95	0.0089	0.0067
Mercury	-61437-11-04 12:28 J	-20718133.07	-20718132.98	-20718132.88	0.0089	0.0061
Mercury	-61436-01-31 13:40 J	-20718045.02	-20718044.93	-20718044.81	0.0089	0.0056
Mercury	-61436-04-29 15:21 J	-20717956.97	-20717956.86	-20717956.75	0.0089	0.0050
Mercury	-61436-07-26 16:33 J	-20717868.92	-20717868.81	-20717868.69	0.0089	0.0045
Mercury	-61436-10-22 17:59 J	-20717780.86	-20717780.75	-20717780.62	0.0089	0.0039
Mercury	-61435-01-18 19:25 J	-20717692.81	-20717692.69	-20717692.56	0.0089	0.0034
Mars	-61435-04-09 19:40 J	-20717611.86	-20717611.68	-20717611.47	0.0089	0.0066
Mercury	-61435-04-16 20:52 J	-20717604.76	-20717604.63	-20717604.50	0.0089	0.0028

Mercury -61435-07-13 22:04 J -20717516.70 -20717516.58 -20717516.44 0.0089 0.0023
 Mercury -61435-10-09 23:45 J -20717428.65 -20717428.51 -20717428.38 0.0089 0.0017
 Mercury -61434-01-06 00:57 J -20717340.59 -20717340.46 -20717340.32 0.0089 0.0012
 Mercury -61434-04-04 02:23 J -20717252.53 -20717252.40 -20717252.26 0.0089 0.0006
 Mercury -61434-07-01 03:49 J -20717164.48 -20717164.34 -20717164.21 0.0089 0.0001
 Mercury -61434-09-27 05:01 J -20717076.42 -20717076.29 -20717076.15 0.0089 0.0006
 Mercury -61434-12-24 06:28 J -20716988.36 -20716988.23 -20716988.10 0.0089 0.0011
 Mars -61433-03-03 11:45 J -20716918.27 -20716918.01 -20716917.71 0.0089 0.0025
 Mercury -61433-03-21 07:54 J -20716900.30 -20716900.17 -20716900.04 0.0089 0.0016
 Mercury -61433-06-17 09:06 J -20716812.24 -20716812.12 -20716811.99 0.0089 0.0022
 Mercury -61433-09-13 10:33 J -20716724.19 -20716724.06 -20716723.93 0.0089 0.0027
 Mercury -61433-12-10 11:45 J -20716636.13 -20716636.01 -20716635.88 0.0089 0.0033
 Mercury -61432-03-08 13:11 J -20716548.07 -20716547.95 -20716547.83 0.0089 0.0038
 Mercury -61432-06-04 14:23 J -20716460.01 -20716459.90 -20716459.77 0.0089 0.0044
 Mercury -61432-08-31 15:49 J -20716371.94 -20716371.84 -20716371.72 0.0089 0.0049
 Mercury -61432-11-27 17:16 J -20716283.88 -20716283.78 -20716283.67 0.0089 0.0054
 Mars -61431-01-26 01:11 J -20716224.72 -20716224.45 -20716224.15 0.0089 0.0017
 Mercury -61431-02-23 18:28 J -20716195.82 -20716195.73 -20716195.62 0.0089 0.0060
 Mercury -61431-05-22 19:54 J -20716107.75 -20716107.67 -20716107.58 0.0089 0.0065
 Mercury -61431-08-18 21:06 J -20716019.69 -20716019.62 -20716019.53 0.0089 0.0071
 Mercury -61431-11-14 22:33 J -20715931.62 -20715931.56 -20715931.49 0.0089 0.0076
 Mercury -61430-02-10 23:59 J -20715843.55 -20715843.50 -20715843.45 0.0089 0.0081
 Mercury -61430-05-10 01:11 J -20715755.47 -20715755.45 -20715755.41 0.0089 0.0087
 Mars -61430-12-20 14:37 J -20715531.10 -20715530.89 -20715530.66 0.0089 0.0057
 Earth -61424-07-08 01:11 J -20713504.54 -20713504.45 -20713504.34 0.0089 0.0081
 Moon -61424-07-08 04:33 J -20713504.40 -20713504.31 -20713504.18 0.0089 0.0080 *
 Moon -61423-07-10 07:40 J -20713137.29 -20713137.18 -20713137.02 0.0089 0.0075
 Earth -61423-07-10 11:01 J -20713137.16 -20713137.04 -20713136.87 0.0089 0.0073 *
 Earth -61422-07-12 21:35 J -20712769.76 -20712769.60 -20712769.41 0.0089 0.0064
 Moon -61422-07-13 00:42 J -20712769.63 -20712769.47 -20712769.26 0.0089 0.0062 *

Moon -61421-07-14 06:13 J -20712402.42 -20712402.24 -20712402.05 0.0089 0.0057
 Earth -61421-07-14 08:23 J -20712402.35 -20712402.15 -20712401.95 0.0089 0.0055 *
 Earth -61420-07-16 17:59 J -20712034.95 -20712034.75 -20712034.52 0.0089 0.0047
 Moon -61420-07-16 19:40 J -20712034.90 -20712034.68 -20712034.45 0.0089 0.0044 *
 Earth -61419-07-19 04:18 J -20711667.53 -20711667.32 -20711667.07 0.0089 0.0038
 Moon -61419-07-19 04:33 J -20711667.52 -20711667.31 -20711667.08 0.0089 0.0040 *
 Moon -61418-07-21 13:11 J -20711300.20 -20711299.95 -20711299.70 0.0089 0.0027
 Earth -61418-07-21 14:37 J -20711300.11 -20711299.89 -20711299.63 0.0089 0.0029 *
 Earth -61417-07-23 00:57 J -20710932.69 -20710932.46 -20710932.20 0.0089 0.0020
 Moon -61417-07-23 03:21 J -20710932.59 -20710932.36 -20710932.12 0.0089 0.0022 *
 Moon -61416-07-25 08:23 J -20710565.41 -20710565.15 -20710564.90 0.0089 0.0008
 Earth -61416-07-25 11:30 J -20710565.27 -20710565.02 -20710564.76 0.0089 0.0011 *
 Earth -61415-07-27 21:35 J -20710197.85 -20710197.60 -20710197.34 0.0089 0.0002
 Moon -61415-07-28 01:11 J -20710197.70 -20710197.45 -20710197.20 0.0089 0.0004 *
 Moon -61414-07-30 04:33 J -20709830.56 -20709830.31 -20709830.06 0.0089 0.0010
 Earth -61414-07-30 07:54 J -20709830.42 -20709830.17 -20709829.92 0.0089 0.0007 *
 Earth -61413-07-31 17:45 J -20709463.00 -20709462.76 -20709462.50 0.0089 0.0017
 Moon -61413-07-31 20:37 J -20709462.88 -20709462.64 -20709462.37 0.0089 0.0014 *
 Moon -61412-08-03 01:54 J -20709095.63 -20709095.42 -20709095.17 0.0089 0.0028
 Earth -61412-08-03 03:49 J -20709095.58 -20709095.34 -20709095.09 0.0089 0.0026 *
 Earth -61411-08-05 13:54 J -20708728.15 -20708727.92 -20708727.69 0.0089 0.0034
 Moon -61411-08-05 14:23 J -20708728.13 -20708727.90 -20708727.64 0.0089 0.0032 *
 Earth -61410-08-07 23:45 J -20708360.72 -20708360.51 -20708360.28 0.0089 0.0043
 Moon -61410-08-08 00:13 J -20708360.69 -20708360.49 -20708360.27 0.0089 0.0046 *
 Moon -61409-08-09 07:25 J -20707993.39 -20707993.19 -20707992.96 0.0089 0.0050
 Earth -61409-08-09 09:35 J -20707993.29 -20707993.10 -20707992.88 0.0089 0.0052 *
 Earth -61408-08-11 19:25 J -20707625.85 -20707625.69 -20707625.49 0.0089 0.0061
 Moon -61408-08-11 21:49 J -20707625.73 -20707625.59 -20707625.39 0.0089 0.0064 *
 Moon -61407-08-14 01:54 J -20707258.57 -20707258.42 -20707258.23 0.0089 0.0067
 Earth -61407-08-14 05:16 J -20707258.41 -20707258.28 -20707258.10 0.0089 0.0070 *

Earth -61406-08-16 15:35 J -20706890.95 -20706890.85 -20706890.71 0.0089 0.0078
 Moon -61406-08-16 18:42 J -20706890.79 -20706890.72 -20706890.58 0.0089 0.0081 *
 Moon -61405-08-17 22:33 J -20706523.62 -20706523.56 -20706523.46 0.0089 0.0084
 Earth -61405-08-18 01:40 J -20706523.46 -20706523.43 -20706523.35 0.0089 0.0087 *
 Venus -61388-07-04 08:37 J -20700359.26 -20700359.14 -20700359.01 0.0089 0.0071
 Venus -61387-02-14 20:52 J -20700133.80 -20700133.63 -20700133.45 0.0089 0.0051
 Venus -61387-09-28 09:06 J -20699908.32 -20699908.12 -20699907.91 0.0089 0.0031
 Venus -61386-05-11 21:21 J -20699682.82 -20699682.61 -20699682.39 0.0089 0.0011
 Venus -61386-12-23 09:49 J -20699457.31 -20699457.09 -20699456.88 0.0089 0.0009
 Venus -61385-08-04 22:04 J -20699231.78 -20699231.58 -20699231.37 0.0089 0.0029
 Venus -61384-03-18 10:33 J -20699006.24 -20699006.06 -20699005.88 0.0089 0.0049
 Venus -61384-10-29 22:47 J -20698780.67 -20698780.55 -20698780.41 0.0089 0.0070
 Mercury -61355-08-05 18:57 J -20688273.74 -20688273.71 -20688273.67 0.0089 0.0087
 Mercury -61355-11-01 22:04 J -20688185.64 -20688185.58 -20688185.48 0.0089 0.0080
 Mercury -61354-01-29 01:40 J -20688097.53 -20688097.43 -20688097.31 0.0089 0.0072
 Mercury -61354-04-27 04:47 J -20688009.41 -20688009.30 -20688009.15 0.0089 0.0065
 Mercury -61354-07-24 08:23 J -20687921.28 -20687921.15 -20687920.99 0.0089 0.0057
 Mercury -61354-10-20 11:59 J -20687833.15 -20687833.00 -20687832.83 0.0089 0.0049
 Mars -61354-12-25 08:09 J -20687767.30 -20687767.16 -20687766.95 0.0089 0.0076
 Mercury -61353-01-16 15:21 J -20687745.02 -20687744.86 -20687744.68 0.0089 0.0041
 Mercury -61353-04-13 18:57 J -20687656.88 -20687656.71 -20687656.53 0.0089 0.0033
 Mercury -61353-07-10 22:18 J -20687568.74 -20687568.57 -20687568.38 0.0089 0.0026
 Mercury -61353-10-07 01:54 J -20687480.60 -20687480.42 -20687480.23 0.0089 0.0018
 Mercury -61352-01-03 05:30 J -20687392.46 -20687392.27 -20687392.08 0.0089 0.0010
 Mercury -61352-04-01 09:06 J -20687304.31 -20687304.12 -20687303.93 0.0089 0.0003
 Mercury -61352-06-28 12:28 J -20687216.17 -20687215.98 -20687215.79 0.0089 0.0006
 Mercury -61352-09-24 16:04 J -20687128.02 -20687127.83 -20687127.64 0.0089 0.0013
 Mars -61352-11-20 11:01 J -20687071.35 -20687071.04 -20687070.70 0.0089 0.0028
 Mercury -61352-12-21 19:25 J -20687039.87 -20687039.69 -20687039.50 0.0089 0.0021
 Mercury -61351-03-19 22:47 J -20686951.72 -20686951.55 -20686951.35 0.0089 0.0030

Mercury -61351-06-16 02:37 J -20686863.56 -20686863.39 -20686863.21 0.0089 0.0037
 Mercury -61351-09-12 06:13 J -20686775.41 -20686775.24 -20686775.08 0.0089 0.0045
 Mercury -61351-12-09 09:35 J -20686687.25 -20686687.10 -20686686.94 0.0089 0.0053
 Mercury -61350-03-07 12:57 J -20686599.09 -20686598.96 -20686598.81 0.0089 0.0061
 Mercury -61350-06-03 16:33 J -20686510.92 -20686510.81 -20686510.68 0.0089 0.0069
 Mercury -61350-08-30 20:09 J -20686422.74 -20686422.66 -20686422.55 0.0089 0.0077
 Mars -61350-10-17 16:18 J -20686375.15 -20686374.82 -20686374.48 0.0089 0.0021
 Mercury -61350-11-26 23:30 J -20686334.55 -20686334.52 -20686334.44 0.0089 0.0085
 Mars -61348-09-13 00:13 J -20685678.67 -20685678.49 -20685678.25 0.0088 0.0070
 Earth -61342-01-03 04:33 J -20683740.35 -20683740.31 -20683740.22 0.0088 0.0086
 Moon -61342-01-03 08:23 J -20683740.25 -20683740.15 -20683740.06 0.0088 0.0082 *
 Moon -61341-01-05 14:23 J -20683372.98 -20683372.90 -20683372.76 0.0088 0.0081
 Earth -61341-01-05 17:30 J -20683372.88 -20683372.77 -20683372.62 0.0088 0.0077 *
 Earth -61340-01-07 06:13 J -20683005.37 -20683005.24 -20683005.04 0.0088 0.0069
 Moon -61340-01-07 07:54 J -20683005.33 -20683005.17 -20683004.96 0.0088 0.0065 *
 Moon -61339-01-09 18:57 J -20682637.86 -20682637.71 -20682637.50 0.0088 0.0063
 Earth -61339-01-09 19:25 J -20682637.86 -20682637.69 -20682637.47 0.0088 0.0060 *
 Moon -61338-01-12 08:09 J -20682270.37 -20682270.16 -20682269.91 0.0088 0.0047
 Earth -61338-01-12 08:37 J -20682270.34 -20682270.14 -20682269.91 0.0088 0.0050 *
 Earth -61337-01-14 22:04 J -20681902.81 -20681902.58 -20681902.34 0.0088 0.0041
 Moon -61337-01-14 23:45 J -20681902.71 -20681902.51 -20681902.27 0.0088 0.0045 *
 Moon -61336-01-16 08:09 J -20681535.40 -20681535.16 -20681534.90 0.0088 0.0029
 Earth -61336-01-16 11:01 J -20681535.28 -20681535.04 -20681534.79 0.0088 0.0032 *
 Earth -61335-01-18 23:59 J -20681167.74 -20681167.50 -20681167.24 0.0088 0.0022
 Moon -61335-01-19 03:35 J -20681167.60 -20681167.35 -20681167.10 0.0088 0.0025 *
 Moon -61334-01-21 09:21 J -20680800.36 -20680800.11 -20680799.84 0.0088 0.0011
 Earth -61334-01-21 13:11 J -20680800.20 -20680799.95 -20680799.68 0.0088 0.0013 *
 Earth -61333-01-24 02:09 J -20680432.67 -20680432.41 -20680432.14 0.0088 0.0004
 Moon -61333-01-24 05:30 J -20680432.53 -20680432.27 -20680432.00 0.0088 0.0006 *
 Moon -61332-01-25 12:13 J -20680065.24 -20680064.99 -20680064.73 0.0088 0.0007

Earth	-61332-01-25 15:21 J	-20680065.12	-20680064.86	-20680064.59	0.0088	0.0005	*
Earth	-61331-01-28 04:33 J	-20679697.57	-20679697.31	-20679697.05	0.0088	0.0014	
Moon	-61331-01-28 06:13 J	-20679697.50	-20679697.24	-20679696.96	0.0088	0.0013	*
Moon	-61330-01-30 16:33 J	-20679330.04	-20679329.81	-20679329.56	0.0088	0.0026	
Earth	-61330-01-30 17:45 J	-20679330.01	-20679329.76	-20679329.51	0.0088	0.0024	*
Moon	-61329-02-02 06:42 J	-20678962.46	-20678962.22	-20678961.96	0.0088	0.0031	
Earth	-61329-02-02 06:42 J	-20678962.45	-20678962.22	-20678961.96	0.0088	0.0033	*
Earth	-61328-02-03 19:54 J	-20678594.88	-20678594.67	-20678594.42	0.0088	0.0042	
Moon	-61328-02-03 21:35 J	-20678594.80	-20678594.60	-20678594.36	0.0088	0.0045	*
Moon	-61327-02-06 06:42 J	-20678227.42	-20678227.22	-20678226.97	0.0088	0.0050	
Earth	-61327-02-06 09:21 J	-20678227.31	-20678227.11	-20678226.88	0.0088	0.0052	*
Earth	-61326-02-08 22:33 J	-20677859.73	-20677859.56	-20677859.35	0.0088	0.0061	
Moon	-61326-02-09 01:54 J	-20677859.59	-20677859.42	-20677859.22	0.0088	0.0061	*
Moon	-61325-02-11 08:37 J	-20677492.31	-20677492.14	-20677491.97	0.0088	0.0068	
Earth	-61325-02-11 11:59 J	-20677492.14	-20677492.00	-20677491.82	0.0088	0.0070	*
Earth	-61324-02-13 01:11 J	-20677124.55	-20677124.45	-20677124.31	0.0088	0.0078	
Moon	-61324-02-13 05:16 J	-20677124.40	-20677124.28	-20677124.17	0.0088	0.0079	*
Moon	-61323-02-15 10:47 J	-20676757.06	-20676757.05	-20676756.97	0.0088	0.0087	
Earth	-61323-02-15 14:23 J	-20676756.91	-20676756.90	-20676756.83	0.0088	0.0087	
Venus	-61306-08-24 02:37 J	-20670358.42	-20670358.39	-20670358.34	0.0088	0.0087	
Venus	-61305-04-05 16:04 J	-20670132.96	-20670132.83	-20670132.66	0.0088	0.0066	
Venus	-61305-11-17 05:30 J	-20669907.44	-20669907.27	-20669907.05	0.0088	0.0047	
Venus	-61304-06-30 19:25 J	-20669681.89	-20669681.69	-20669681.46	0.0088	0.0026	
Venus	-61303-02-11 09:21 J	-20669456.33	-20669456.11	-20669455.88	0.0088	0.0005	
Venus	-61303-09-24 23:01 J	-20669230.76	-20669230.54	-20669230.32	0.0088	0.0016	
Venus	-61302-05-08 12:13 J	-20669005.18	-20669004.99	-20669004.77	0.0088	0.0036	
Venus	-61302-12-20 01:40 J	-20668779.59	-20668779.43	-20668779.24	0.0088	0.0057	
Venus	-61301-08-01 15:21 J	-20668553.96	-20668553.86	-20668553.74	0.0088	0.0077	
Mercury	-61273-08-14 05:30 J	-20658314.31	-20658314.27	-20658314.22	0.0089	0.0084	
Mercury	-61273-11-10 06:42 J	-20658226.27	-20658226.22	-20658226.14	0.0089	0.0079	

Mercury -61272-02-06 08:09 J -20658138.22 -20658138.16 -20658138.07 0.0089 0.0073

Mercury -61272-05-05 09:49 J -20658050.18 -20658050.09 -20658050.00 0.0089 0.0067

Mercury -61272-08-01 11:01 J -20657962.13 -20657962.04 -20657961.93 0.0089 0.0062

Mercury -61272-10-28 12:28 J -20657874.08 -20657873.98 -20657873.87 0.0089 0.0056

Mars -61272-11-22 20:37 J -20657848.71 -20657848.64 -20657848.52 0.0089 0.0084

Mercury -61271-01-24 13:54 J -20657786.02 -20657785.92 -20657785.80 0.0089 0.0051

Mercury -61271-04-22 15:21 J -20657697.97 -20657697.86 -20657697.74 0.0089 0.0045

Mercury -61271-07-19 16:33 J -20657609.92 -20657609.81 -20657609.68 0.0089 0.0040

Mercury -61271-10-15 18:13 J -20657521.86 -20657521.74 -20657521.62 0.0089 0.0034

Mercury -61270-01-11 19:25 J -20657433.81 -20657433.69 -20657433.55 0.0089 0.0029

Mercury -61270-04-09 20:52 J -20657345.75 -20657345.63 -20657345.49 0.0089 0.0023

Mercury -61270-07-06 22:18 J -20657257.70 -20657257.57 -20657257.43 0.0089 0.0017

Mercury -61270-10-02 23:45 J -20657169.64 -20657169.51 -20657169.38 0.0089 0.0012

Mars -61270-10-17 14:09 J -20657155.14 -20657154.91 -20657154.63 0.0089 0.0043

Mercury -61270-12-30 01:11 J -20657081.59 -20657081.45 -20657081.32 0.0089 0.0006

Mercury -61269-03-27 02:23 J -20656993.53 -20656993.40 -20656993.26 0.0089 0.0003

Mercury -61269-06-23 03:49 J -20656905.47 -20656905.34 -20656905.20 0.0089 0.0005

Mercury -61269-09-19 05:16 J -20656817.41 -20656817.28 -20656817.15 0.0089 0.0010

Mercury -61269-12-16 06:28 J -20656729.36 -20656729.23 -20656729.09 0.0089 0.0016

Mercury -61268-03-14 07:54 J -20656641.30 -20656641.17 -20656641.04 0.0089 0.0021

Mercury -61268-06-10 09:06 J -20656553.24 -20656553.12 -20656552.98 0.0089 0.0027

Mercury -61268-09-06 10:33 J -20656465.18 -20656465.06 -20656464.93 0.0089 0.0032

Mars -61268-09-10 06:57 J -20656461.50 -20656461.21 -20656460.92 0.0089 0.0002

Mercury -61268-12-03 11:45 J -20656377.12 -20656377.01 -20656376.88 0.0089 0.0038

Mercury -61267-03-01 13:11 J -20656289.06 -20656288.95 -20656288.83 0.0089 0.0043

Mercury -61267-05-28 14:23 J -20656201.00 -20656200.90 -20656200.78 0.0089 0.0049

Mercury -61267-08-24 15:49 J -20656112.94 -20656112.84 -20656112.73 0.0089 0.0054

Mercury -61267-11-20 17:30 J -20656024.87 -20656024.77 -20656024.68 0.0089 0.0059

Mercury -61266-02-16 18:28 J -20655936.81 -20655936.73 -20655936.63 0.0089 0.0065

Mercury -61266-05-15 19:54 J -20655848.74 -20655848.67 -20655848.58 0.0089 0.0070

Mars -61266-08-04 19:54 J -20655767.92 -20655767.67 -20655767.40 0.0089 0.0039
 Mercury -61266-08-11 21:06 J -20655760.67 -20655760.62 -20655760.54 0.0089 0.0076
 Mercury -61266-11-07 22:33 J -20655672.60 -20655672.56 -20655672.50 0.0089 0.0081
 Mercury -61265-02-03 23:59 J -20655584.52 -20655584.50 -20655584.47 0.0089 0.0086
 Mars -61264-06-28 08:09 J -20655074.26 -20655074.16 -20655074.00 0.0089 0.0079
 Moon -61260-07-07 01:40 J -20653604.50 -20653604.43 -20653604.30 0.0089 0.0081
 Earth -61260-07-07 05:30 J -20653604.33 -20653604.27 -20653604.20 0.0089 0.0085 *
 Earth -61259-07-09 15:06 J -20653236.96 -20653236.87 -20653236.71 0.0089 0.0077
 Moon -61259-07-09 18:28 J -20653236.83 -20653236.73 -20653236.62 0.0089 0.0080 *
 Moon -61258-07-11 23:59 J -20652869.65 -20652869.50 -20652869.31 0.0089 0.0064
 Earth -61258-07-12 01:54 J -20652869.56 -20652869.42 -20652869.24 0.0089 0.0068 *
 Earth -61257-07-13 11:59 J -20652502.16 -20652502.00 -20652501.78 0.0089 0.0059
 Moon -61257-07-13 12:28 J -20652502.15 -20652501.98 -20652501.78 0.0089 0.0063 *
 Earth -61256-07-15 22:33 J -20652134.76 -20652134.56 -20652134.34 0.0089 0.0050
 Moon -61256-07-15 23:30 J -20652134.72 -20652134.52 -20652134.30 0.0089 0.0046 *
 Moon -61255-07-18 06:57 J -20651767.42 -20651767.21 -20651766.97 0.0089 0.0045
 Earth -61255-07-18 08:37 J -20651767.34 -20651767.14 -20651766.89 0.0089 0.0041 *
 Earth -61254-07-20 18:57 J -20651399.93 -20651399.71 -20651399.45 0.0089 0.0032
 Moon -61254-07-20 22:18 J -20651399.80 -20651399.57 -20651399.33 0.0089 0.0027 *
 Moon -61253-07-22 02:09 J -20651032.64 -20651032.41 -20651032.15 0.0089 0.0027
 Earth -61253-07-22 05:45 J -20651032.50 -20651032.26 -20651032.01 0.0089 0.0022 *
 Earth -61252-07-24 15:49 J -20650665.09 -20650664.84 -20650664.59 0.0089 0.0013
 Moon -61252-07-24 19:25 J -20650664.94 -20650664.69 -20650664.44 0.0089 0.0009 *
 Moon -61251-07-26 23:16 J -20650297.78 -20650297.53 -20650297.28 0.0089 0.0008
 Earth -61251-07-27 02:09 J -20650297.66 -20650297.41 -20650297.15 0.0089 0.0004 *
 Earth -61250-07-29 12:28 J -20649930.23 -20649929.98 -20649929.72 0.0089 0.0006
 Moon -61250-07-29 14:52 J -20649930.13 -20649929.88 -20649929.62 0.0089 0.0009 *
 Moon -61249-07-30 21:21 J -20649562.85 -20649562.61 -20649562.37 0.0089 0.0011
 Earth -61249-07-30 22:33 J -20649562.80 -20649562.56 -20649562.30 0.0089 0.0015 *
 Moon -61248-08-02 08:23 J -20649195.38 -20649195.15 -20649194.89 0.0089 0.0028

Earth -61248-08-02 08:37 J -20649195.37 -20649195.14 -20649194.88 0.0089 0.0025 *
 Earth -61247-08-04 18:57 J -20648827.94 -20648827.71 -20648827.47 0.0089 0.0033
 Moon -61247-08-04 19:54 J -20648827.89 -20648827.67 -20648827.42 0.0089 0.0030 *
 Moon -61246-08-07 02:37 J -20648460.60 -20648460.39 -20648460.15 0.0089 0.0047
 Earth -61246-08-07 05:01 J -20648460.51 -20648460.29 -20648460.06 0.0089 0.0043 *
 Earth -61245-08-08 14:37 J -20648093.07 -20648092.89 -20648092.66 0.0089 0.0052
 Moon -61245-08-08 18:13 J -20648092.94 -20648092.74 -20648092.52 0.0089 0.0047 *
 Moon -61244-08-10 21:35 J -20647725.76 -20647725.60 -20647725.42 0.0089 0.0064
 Earth -61244-08-11 00:57 J -20647725.63 -20647725.46 -20647725.27 0.0089 0.0061 *
 Earth -61243-08-13 11:01 J -20647358.19 -20647358.04 -20647357.88 0.0089 0.0069
 Moon -61243-08-13 14:09 J -20647358.05 -20647357.91 -20647357.71 0.0089 0.0066 *
 Moon -61242-08-15 18:28 J -20646990.81 -20646990.73 -20646990.63 0.0089 0.0083
 Earth -61242-08-15 20:52 J -20646990.73 -20646990.63 -20646990.49 0.0089 0.0078 *
 Earth -61241-08-17 06:42 J -20646623.25 -20646623.22 -20646623.14 0.0089 0.0087
 Moon -61241-08-17 08:52 J -20646623.20 -20646623.13 -20646623.02 0.0089 0.0084 *
 Venus -61224-10-05 16:18 J -20640364.87 -20640364.82 -20640364.72 0.0089 0.0083
 Venus -61223-05-19 04:47 J -20640139.44 -20640139.30 -20640139.14 0.0089 0.0063
 Venus -61223-12-30 17:01 J -20639913.96 -20639913.79 -20639913.59 0.0089 0.0043
 Venus -61222-08-13 05:30 J -20639688.47 -20639688.27 -20639688.05 0.0089 0.0023
 Venus -61221-03-25 17:59 J -20639462.96 -20639462.75 -20639462.53 0.0089 0.0003
 Venus -61221-11-06 06:13 J -20639237.44 -20639237.24 -20639237.02 0.0089 0.0018
 Venus -61220-06-19 18:28 J -20639011.91 -20639011.73 -20639011.52 0.0089 0.0039
 Venus -61219-01-31 06:57 J -20638786.36 -20638786.21 -20638786.03 0.0089 0.0058
 Venus -61219-09-13 19:25 J -20638560.78 -20638560.69 -20638560.58 0.0089 0.0078
 Mercury -61190-05-02 15:49 J -20628102.86 -20628102.84 -20628102.79 0.0089 0.0087
 Mercury -61190-07-29 18:57 J -20628014.77 -20628014.71 -20628014.60 0.0089 0.0080
 Mercury -61190-10-25 22:33 J -20627926.65 -20627926.56 -20627926.43 0.0089 0.0072
 Mercury -61189-01-22 02:23 J -20627838.53 -20627838.40 -20627838.27 0.0089 0.0064
 Mercury -61189-04-19 05:30 J -20627750.40 -20627750.27 -20627750.11 0.0089 0.0057
 Mercury -61189-07-16 08:52 J -20627662.27 -20627662.13 -20627661.96 0.0089 0.0049

Mercury -61189-10-12 12:42 J -20627574.14 -20627573.97 -20627573.80 0.0089 0.0041
 Mercury -61188-01-08 15:49 J -20627486.00 -20627485.84 -20627485.65 0.0089 0.0034
 Mercury -61188-04-06 19:25 J -20627397.87 -20627397.69 -20627397.50 0.0089 0.0026
 Mars -61188-07-03 16:47 J -20627310.07 -20627309.80 -20627309.50 0.0089 0.0048
 Mercury -61188-07-03 23:01 J -20627309.73 -20627309.54 -20627309.35 0.0089 0.0018 *
 Mercury -61188-09-30 02:37 J -20627221.58 -20627221.39 -20627221.20 0.0089 0.0010
 Mercury -61188-12-27 05:59 J -20627133.44 -20627133.25 -20627133.06 0.0089 0.0002
 Mercury -61187-03-25 09:35 J -20627045.29 -20627045.10 -20627044.91 0.0089 0.0006
 Mercury -61187-06-21 12:57 J -20626957.15 -20626956.96 -20626956.77 0.0089 0.0014
 Mercury -61187-09-17 16:18 J -20626869.00 -20626868.82 -20626868.62 0.0089 0.0022
 Mercury -61187-12-14 19:54 J -20626780.84 -20626780.67 -20626780.48 0.0089 0.0029
 Mercury -61186-03-12 23:16 J -20626692.69 -20626692.53 -20626692.34 0.0089 0.0038
 Mars -61186-05-30 20:09 J -20626614.00 -20626613.66 -20626613.32 0.0089 0.0000
 Mercury -61186-06-09 02:52 J -20626604.53 -20626604.38 -20626604.20 0.0089 0.0045
 Mercury -61186-09-05 06:42 J -20626516.37 -20626516.22 -20626516.07 0.0089 0.0053
 Mercury -61186-12-02 10:04 J -20626428.21 -20626428.08 -20626427.93 0.0089 0.0061
 Mercury -61185-02-28 13:40 J -20626340.04 -20626339.93 -20626339.80 0.0089 0.0069
 Mercury -61185-05-26 17:01 J -20626251.87 -20626251.79 -20626251.68 0.0089 0.0077
 Mercury -61185-08-22 20:37 J -20626163.68 -20626163.64 -20626163.57 0.0088 0.0085
 Mars -61184-04-26 01:11 J -20625917.73 -20625917.45 -20625917.15 0.0088 0.0048
 Earth -61177-01-04 21:06 J -20623472.70 -20623472.62 -20623472.49 0.0088 0.0081
 Moon -61177-01-04 22:33 J -20623472.67 -20623472.56 -20623472.42 0.0088 0.0078 *
 Earth -61176-01-06 10:04 J -20623105.21 -20623105.08 -20623104.90 0.0088 0.0072
 Moon -61176-01-06 10:47 J -20623105.18 -20623105.05 -20623104.90 0.0088 0.0074 *
 Moon -61175-01-08 21:21 J -20622737.78 -20622737.61 -20622737.39 0.0088 0.0061
 Earth -61175-01-08 23:01 J -20622737.70 -20622737.54 -20622737.33 0.0088 0.0063 *
 Earth -61174-01-11 12:13 J -20622370.18 -20622369.99 -20622369.76 0.0088 0.0053
 Moon -61174-01-11 14:52 J -20622370.07 -20622369.88 -20622369.68 0.0088 0.0056 *
 Moon -61173-01-13 21:49 J -20622002.80 -20622002.59 -20622002.33 0.0088 0.0042
 Earth -61173-01-14 01:40 J -20622002.65 -20622002.43 -20622002.19 0.0088 0.0044 *

Earth	-61172-01-15 14:37 J	-20621635.12	-20621634.89	-20621634.64	0.0088	0.0034
Moon	-61172-01-15 18:28 J	-20621634.97	-20621634.73	-20621634.49	0.0088	0.0037 *
Moon	-61171-01-18 00:28 J	-20621267.73	-20621267.48	-20621267.22	0.0088	0.0021
Earth	-61171-01-18 03:49 J	-20621267.58	-20621267.34	-20621267.07	0.0088	0.0025 *
Earth	-61170-01-20 16:47 J	-20620900.05	-20620899.80	-20620899.53	0.0088	0.0016
Moon	-61170-01-20 20:23 J	-20620899.91	-20620899.65	-20620899.39	0.0088	0.0019 *
Moon	-61169-01-23 04:04 J	-20620532.58	-20620532.33	-20620532.07	0.0088	0.0003
Earth	-61169-01-23 06:13 J	-20620532.50	-20620532.24	-20620531.98	0.0088	0.0006 *
Earth	-61168-01-24 19:11 J	-20620164.96	-20620164.70	-20620164.43	0.0088	0.0004
Moon	-61168-01-24 20:52 J	-20620164.90	-20620164.63	-20620164.35	0.0088	0.0001 *
Earth	-61167-01-27 08:09 J	-20619797.41	-20619797.16	-20619796.89	0.0088	0.0013
Moon	-61167-01-27 08:23 J	-20619797.40	-20619797.15	-20619796.90	0.0088	0.0017 *
Moon	-61166-01-29 19:54 J	-20619429.93	-20619429.67	-20619429.40	0.0088	0.0020
Earth	-61166-01-29 21:21 J	-20619429.86	-20619429.61	-20619429.35	0.0088	0.0023 *
Earth	-61165-02-01 10:04 J	-20619062.31	-20619062.08	-20619061.82	0.0088	0.0032
Moon	-61165-02-01 11:59 J	-20619062.22	-20619062.00	-20619061.75	0.0088	0.0036 *
Moon	-61164-02-02 20:09 J	-20618694.89	-20618694.66	-20618694.41	0.0088	0.0038
Earth	-61164-02-02 23:30 J	-20618694.74	-20618694.52	-20618694.28	0.0088	0.0041 *
Earth	-61163-02-05 12:42 J	-20618327.18	-20618326.97	-20618326.75	0.0088	0.0051
Moon	-61163-02-05 16:04 J	-20618327.02	-20618326.83	-20618326.61	0.0088	0.0054 *
Moon	-61162-02-07 22:33 J	-20617959.76	-20617959.56	-20617959.36	0.0088	0.0056
Earth	-61162-02-08 01:40 J	-20617959.60	-20617959.43	-20617959.22	0.0088	0.0060 *
Earth	-61161-02-10 14:52 J	-20617592.02	-20617591.88	-20617591.69	0.0088	0.0069
Moon	-61161-02-10 18:28 J	-20617591.86	-20617591.73	-20617591.57	0.0088	0.0073 *
Moon	-61160-02-12 02:09 J	-20617224.53	-20617224.41	-20617224.26	0.0088	0.0075
Earth	-61160-02-12 04:18 J	-20617224.42	-20617224.32	-20617224.18	0.0088	0.0079 *
Earth	-61159-02-14 17:16 J	-20616856.79	-20616856.78	-20616856.71	0.0088	0.0088
Jupiter	-61149-12-09 08:09 J	-20612906.56	-20612906.16	-20612905.68	0.0088	0.0051
Venus	-61141-07-07 22:47 J	-20610138.63	-20610138.55	-20610138.42	0.0088	0.0078
Venus	-61140-02-18 12:28 J	-20609913.13	-20609912.98	-20609912.79	0.0088	0.0057

Venus -61140-10-02 02:23 J -20609687.60 -20609687.40 -20609687.19 0.0088 0.0037
 Venus -61139-05-15 16:04 J -20609462.05 -20609461.83 -20609461.60 0.0088 0.0016
 Venus -61139-12-27 05:45 J -20609236.48 -20609236.26 -20609236.03 0.0088 0.0005
 Venus -61138-08-09 19:11 J -20609010.91 -20609010.70 -20609010.48 0.0088 0.0025
 Venus -61137-03-22 08:37 J -20608785.32 -20608785.14 -20608784.94 0.0088 0.0045
 Venus -61137-11-02 22:04 J -20608559.72 -20608559.58 -20608559.42 0.0088 0.0066
 Venus -61136-06-16 11:45 J -20608334.05 -20608334.01 -20608333.95 0.0088 0.0086
 Mercury -61108-05-11 04:18 J -20598143.36 -20598143.32 -20598143.28 0.0089 0.0084
 Mercury -61108-08-07 05:30 J -20598055.32 -20598055.27 -20598055.20 0.0089 0.0079
 Mercury -61108-11-03 07:11 J -20597967.27 -20597967.20 -20597967.12 0.0089 0.0073
 Mercury -61107-01-30 08:23 J -20597879.23 -20597879.15 -20597879.05 0.0089 0.0068
 Mercury -61107-04-28 09:49 J -20597791.18 -20597791.09 -20597790.98 0.0089 0.0062
 Mercury -61107-07-25 11:16 J -20597703.13 -20597703.03 -20597702.92 0.0089 0.0056
 Mercury -61107-10-21 12:42 J -20597615.07 -20597614.97 -20597614.85 0.0089 0.0051
 Mercury -61106-01-17 14:09 J -20597527.02 -20597526.91 -20597526.79 0.0089 0.0045
 Mercury -61106-04-15 15:35 J -20597438.97 -20597438.85 -20597438.73 0.0089 0.0040
 Mars -61106-06-01 17:30 J -20597391.97 -20597391.77 -20597391.54 0.0089 0.0060
 Mercury -61106-07-12 17:01 J -20597350.91 -20597350.79 -20597350.66 0.0089 0.0034
 Mercury -61106-10-08 18:13 J -20597262.86 -20597262.74 -20597262.60 0.0089 0.0029
 Mercury -61105-01-04 19:40 J -20597174.80 -20597174.68 -20597174.54 0.0089 0.0023
 Mercury -61105-04-01 21:06 J -20597086.75 -20597086.62 -20597086.48 0.0089 0.0017
 Mercury -61105-06-28 22:33 J -20596998.69 -20596998.56 -20596998.43 0.0089 0.0012
 Mercury -61105-09-24 23:59 J -20596910.64 -20596910.50 -20596910.37 0.0089 0.0006
 Mercury -61105-12-22 01:25 J -20596822.58 -20596822.44 -20596822.31 0.0089 0.0003
 Mercury -61104-03-20 02:37 J -20596734.52 -20596734.39 -20596734.25 0.0089 0.0005
 Mars -61104-04-25 10:47 J -20596698.32 -20596698.05 -20596697.75 0.0089 0.0020
 Mercury -61104-06-16 04:04 J -20596646.46 -20596646.33 -20596646.20 0.0089 0.0010
 Mercury -61104-09-12 05:16 J -20596558.41 -20596558.28 -20596558.14 0.0089 0.0016
 Mercury -61104-12-09 06:42 J -20596470.35 -20596470.22 -20596470.09 0.0089 0.0021
 Mercury -61103-03-07 08:09 J -20596382.29 -20596382.16 -20596382.03 0.0089 0.0027

Mercury -61103-06-03 09:35 J -20596294.23 -20596294.10 -20596293.98 0.0089 0.0032

Mercury -61103-08-30 10:47 J -20596206.17 -20596206.05 -20596205.93 0.0089 0.0038

Mercury -61103-11-26 12:13 J -20596118.11 -20596117.99 -20596117.87 0.0089 0.0043

Mercury -61102-02-22 13:25 J -20596030.05 -20596029.94 -20596029.82 0.0089 0.0049

Mars -61102-03-20 02:52 J -20596004.65 -20596004.38 -20596004.08 0.0089 0.0021

Mercury -61102-05-21 14:52 J -20595941.98 -20595941.88 -20595941.77 0.0089 0.0054

Mercury -61102-08-17 15:49 J -20595853.92 -20595853.84 -20595853.72 0.0089 0.0060

Mercury -61102-11-13 17:16 J -20595765.86 -20595765.78 -20595765.68 0.0089 0.0065

Mercury -61101-02-09 18:57 J -20595677.79 -20595677.71 -20595677.63 0.0089 0.0070

Mercury -61101-05-07 19:54 J -20595589.72 -20595589.67 -20595589.59 0.0089 0.0076

Mercury -61101-08-03 21:21 J -20595501.65 -20595501.61 -20595501.55 0.0089 0.0081

Mercury -61101-10-30 22:47 J -20595413.57 -20595413.55 -20595413.52 0.0089 0.0086

Mars -61100-02-10 16:04 J -20595311.01 -20595310.83 -20595310.59 0.0089 0.0061

Moon -61095-07-08 20:09 J -20593336.75 -20593336.66 -20593336.55 0.0089 0.0080

Earth -61095-07-08 21:06 J -20593336.72 -20593336.62 -20593336.51 0.0089 0.0080 *

Earth -61094-07-11 07:25 J -20592969.33 -20592969.19 -20592969.03 0.0089 0.0071

Moon -61094-07-11 07:11 J -20592969.33 -20592969.20 -20592969.03 0.0089 0.0072 *

Earth -61093-07-12 17:30 J -20592601.93 -20592601.77 -20592601.57 0.0089 0.0062

Moon -61093-07-12 18:42 J -20592601.87 -20592601.72 -20592601.52 0.0089 0.0062 *

Moon -61092-07-15 00:57 J -20592234.65 -20592234.46 -20592234.23 0.0089 0.0053

Earth -61092-07-15 03:35 J -20592234.53 -20592234.35 -20592234.12 0.0089 0.0053 *

Earth -61091-07-17 13:54 J -20591867.12 -20591866.92 -20591866.68 0.0089 0.0044

Moon -61091-07-17 17:16 J -20591867.00 -20591866.78 -20591866.56 0.0089 0.0042 *

Moon -61090-07-19 20:52 J -20591499.86 -20591499.63 -20591499.39 0.0089 0.0035

Earth -61090-07-20 00:42 J -20591499.70 -20591499.47 -20591499.24 0.0089 0.0034 *

Earth -61089-07-21 10:33 J -20591132.30 -20591132.06 -20591131.81 0.0089 0.0025

Moon -61089-07-21 13:54 J -20591132.17 -20591131.92 -20591131.67 0.0089 0.0024 *

Moon -61088-07-23 17:59 J -20590764.99 -20590764.75 -20590764.50 0.0089 0.0017

Earth -61088-07-23 20:37 J -20590764.88 -20590764.64 -20590764.38 0.0089 0.0016 *

Earth -61087-07-26 07:11 J -20590397.46 -20590397.20 -20590396.95 0.0089 0.0006

Moon	-61087-07-26 09:06 J	-20590397.38	-20590397.12	-20590396.86	0.0089	0.0005	*
Moon	-61086-07-28 17:01 J	-20590030.03	-20590029.79	-20590029.54	0.0089	0.0003	
Earth	-61086-07-28 17:16 J	-20590030.03	-20590029.78	-20590029.52	0.0089	0.0004	*
Moon	-61085-07-30 03:21 J	-20589662.62	-20589662.36	-20589662.10	0.0089	0.0014	
Earth	-61085-07-30 03:35 J	-20589662.60	-20589662.35	-20589662.09	0.0089	0.0013	*
Earth	-61084-08-01 13:54 J	-20589295.17	-20589294.92	-20589294.68	0.0089	0.0022	
Moon	-61084-08-01 15:35 J	-20589295.08	-20589294.85	-20589294.60	0.0089	0.0021	*
Moon	-61083-08-03 21:06 J	-20588927.86	-20588927.62	-20588927.38	0.0089	0.0032	
Earth	-61083-08-03 23:59 J	-20588927.73	-20588927.50	-20588927.25	0.0089	0.0032	*
Earth	-61082-08-06 10:04 J	-20588560.29	-20588560.08	-20588559.85	0.0089	0.0041	
Moon	-61082-08-06 13:25 J	-20588560.16	-20588559.94	-20588559.71	0.0089	0.0039	*
Moon	-61081-08-07 16:18 J	-20588193.01	-20588192.82	-20588192.60	0.0089	0.0052	
Earth	-61081-08-07 19:54 J	-20588192.86	-20588192.67	-20588192.44	0.0089	0.0051	*
Earth	-61080-08-10 05:59 J	-20587825.42	-20587825.25	-20587825.05	0.0089	0.0060	
Moon	-61080-08-10 09:06 J	-20587825.30	-20587825.12	-20587824.91	0.0089	0.0059	*
Moon	-61079-08-12 13:40 J	-20587458.06	-20587457.93	-20587457.77	0.0089	0.0071	
Earth	-61079-08-12 16:04 J	-20587457.97	-20587457.83	-20587457.65	0.0089	0.0069	*
Earth	-61078-08-15 02:09 J	-20587090.51	-20587090.41	-20587090.27	0.0089	0.0078	
Moon	-61078-08-15 03:35 J	-20587090.46	-20587090.35	-20587090.20	0.0089	0.0076	*
Earth	-61077-08-16 11:59 J	-20586723.02	-20586723.00	-20586722.92	0.0089	0.0087	
Moon	-61077-08-16 12:28 J	-20586722.99	-20586722.98	-20586722.94	0.0089	0.0089	*
Venus	-61059-08-20 13:11 J	-20580145.04	-20580144.95	-20580144.81	0.0089	0.0075	
Venus	-61058-04-03 01:40 J	-20579919.58	-20579919.43	-20579919.24	0.0089	0.0054	
Venus	-61058-11-14 14:09 J	-20579694.10	-20579693.91	-20579693.70	0.0089	0.0034	
Venus	-61057-06-27 02:52 J	-20579468.59	-20579468.38	-20579468.17	0.0089	0.0014	
Venus	-61056-02-07 15:06 J	-20579243.08	-20579242.87	-20579242.65	0.0089	0.0007	
Venus	-61056-09-21 03:06 J	-20579017.56	-20579017.37	-20579017.15	0.0089	0.0028	
Venus	-61055-05-04 15:21 J	-20578792.02	-20578791.86	-20578791.66	0.0089	0.0048	
Venus	-61055-12-16 03:49 J	-20578566.46	-20578566.34	-20578566.18	0.0089	0.0067	
Venus	-61054-07-29 16:18 J	-20578340.84	-20578340.82	-20578340.76	0.0089	0.0088	

Mercury -61025-01-27 13:25 J -20567931.98 -20567931.94 -20567931.89 0.0089 0.0086
 Mercury -61025-04-24 16:33 J -20567843.88 -20567843.81 -20567843.71 0.0089 0.0079
 Mercury -61025-07-21 20:09 J -20567755.76 -20567755.66 -20567755.54 0.0089 0.0071
 Mercury -61025-10-17 23:16 J -20567667.64 -20567667.53 -20567667.38 0.0089 0.0064
 Mercury -61024-01-14 02:52 J -20567579.51 -20567579.38 -20567579.22 0.0089 0.0056
 Mars -61024-02-14 01:54 J -20567548.62 -20567548.42 -20567548.18 0.0089 0.0067
 Mercury -61024-04-12 06:28 J -20567491.38 -20567491.23 -20567491.07 0.0089 0.0048
 Mercury -61024-07-09 09:35 J -20567403.25 -20567403.10 -20567402.91 0.0089 0.0041
 Mercury -61024-10-05 13:11 J -20567315.12 -20567314.95 -20567314.76 0.0089 0.0033
 Mercury -61023-01-01 16:47 J -20567226.98 -20567226.80 -20567226.61 0.0089 0.0025
 Mercury -61023-03-30 20:23 J -20567138.84 -20567138.65 -20567138.46 0.0089 0.0017
 Mercury -61023-06-26 23:45 J -20567050.70 -20567050.51 -20567050.32 0.0089 0.0009
 Mercury -61023-09-23 03:21 J -20566962.55 -20566962.36 -20566962.17 0.0089 0.0001
 Mercury -61023-12-20 06:42 J -20566874.41 -20566874.22 -20566874.02 0.0089 0.0007
 Mars -61022-01-11 03:06 J -20566852.69 -20566852.37 -20566852.03 0.0089 0.0021
 Mercury -61022-03-18 10:18 J -20566786.26 -20566786.07 -20566785.88 0.0089 0.0014
 Mercury -61022-06-14 13:40 J -20566698.11 -20566697.93 -20566697.74 0.0089 0.0022
 Mercury -61022-09-10 17:01 J -20566609.96 -20566609.79 -20566609.60 0.0089 0.0031
 Mercury -61022-12-07 20:52 J -20566521.80 -20566521.63 -20566521.46 0.0089 0.0038
 Mercury -61021-03-05 00:13 J -20566433.65 -20566433.49 -20566433.32 0.0089 0.0046
 Mercury -61021-06-01 03:49 J -20566345.49 -20566345.34 -20566345.18 0.0089 0.0054
 Mercury -61021-08-28 07:11 J -20566257.32 -20566257.20 -20566257.05 0.0089 0.0062
 Mercury -61021-11-24 10:47 J -20566169.16 -20566169.05 -20566168.92 0.0089 0.0070
 Mars -61021-12-07 06:57 J -20566156.53 -20566156.21 -20566155.88 0.0089 0.0027
 Mercury -61020-02-20 14:09 J -20566080.98 -20566080.91 -20566080.80 0.0089 0.0078
 Mercury -61020-05-19 17:45 J -20565992.79 -20565992.76 -20565992.69 0.0089 0.0086
 Mars -61019-11-03 11:59 J -20565460.15 -20565460.00 -20565459.78 0.0088 0.0075
 Earth -61013-01-04 02:09 J -20563572.49 -20563572.41 -20563572.33 0.0088 0.0084
 Moon -61013-01-04 02:37 J -20563572.47 -20563572.39 -20563572.26 0.0088 0.0081 *
 Moon -61012-01-05 12:28 J -20563205.08 -20563204.98 -20563204.84 0.0088 0.0079

Earth	-61012-01-05 14:37 J	-20563205.01	-20563204.89	-20563204.73	0.0088	0.0075	*
Earth	-61011-01-08 03:21 J	-20562837.51	-20562837.36	-20562837.16	0.0088	0.0066	
Moon	-61011-01-08 06:28 J	-20562837.39	-20562837.23	-20562837.02	0.0088	0.0062	*
Moon	-61010-01-10 12:42 J	-20562470.13	-20562469.97	-20562469.75	0.0088	0.0061	
Earth	-61010-01-10 16:04 J	-20562470.00	-20562469.83	-20562469.60	0.0088	0.0057	*
Earth	-61009-01-13 05:30 J	-20562102.48	-20562102.27	-20562102.04	0.0088	0.0047	
Moon	-61009-01-13 09:35 J	-20562102.33	-20562102.10	-20562101.87	0.0088	0.0043	*
Moon	-61008-01-14 15:21 J	-20561735.07	-20561734.86	-20561734.61	0.0088	0.0042	
Earth	-61008-01-14 18:28 J	-20561734.95	-20561734.73	-20561734.47	0.0088	0.0038	*
Earth	-61007-01-17 07:40 J	-20561367.42	-20561367.18	-20561366.92	0.0088	0.0028	
Moon	-61007-01-17 10:18 J	-20561367.31	-20561367.07	-20561366.80	0.0088	0.0025	*
Moon	-61006-01-19 18:57 J	-20560999.94	-20560999.71	-20560999.45	0.0088	0.0022	
Earth	-61006-01-19 21:06 J	-20560999.87	-20560999.62	-20560999.36	0.0088	0.0018	*
Earth	-61005-01-22 10:04 J	-20560632.33	-20560632.08	-20560631.81	0.0088	0.0009	
Moon	-61005-01-22 10:33 J	-20560632.33	-20560632.06	-20560631.79	0.0088	0.0004	*
Earth	-61004-01-23 23:30 J	-20560264.79	-20560264.52	-20560264.26	0.0088	0.0002	
Moon	-61004-01-23 23:59 J	-20560264.75	-20560264.50	-20560264.25	0.0088	0.0001	*
Moon	-61003-01-26 10:47 J	-20559897.32	-20559897.05	-20559896.78	0.0088	0.0015	
Earth	-61003-01-26 12:28 J	-20559897.24	-20559896.98	-20559896.71	0.0088	0.0012	*
Earth	-61002-01-29 01:25 J	-20559529.69	-20559529.44	-20559529.18	0.0088	0.0021	
Moon	-61002-01-29 04:18 J	-20559529.56	-20559529.32	-20559529.06	0.0088	0.0018	*
Moon	-61001-01-31 11:30 J	-20559162.27	-20559162.02	-20559161.77	0.0088	0.0034	
Earth	-61001-01-31 14:23 J	-20559162.13	-20559161.90	-20559161.64	0.0088	0.0031	*

61ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 61st millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-61000-02-02 03:35 J	-20558794.57	-20558794.35	-20558794.11	0.0088	0.0041		
Moon	-61000-02-02 07:11 J	-20558794.42	-20558794.20	-20558793.95	0.0088	0.0038	*	
Moon	-60999-02-04 13:11 J	-20558427.14	-20558426.95	-20558426.73	0.0088	0.0053		
Earth	-60999-02-04 16:18 J	-20558427.01	-20558426.82	-20558426.58	0.0088	0.0051	*	
Earth	-60998-02-07 05:45 J	-20558059.44	-20558059.26	-20558059.05	0.0088	0.0060		
Moon	-60998-02-07 08:52 J	-20558059.32	-20558059.13	-20558058.91	0.0088	0.0058	*	
Moon	-60997-02-09 16:47 J	-20557691.93	-20557691.80	-20557691.63	0.0088	0.0071		
Earth	-60997-02-09 18:42 J	-20557691.85	-20557691.72	-20557691.53	0.0088	0.0069	*	
Earth	-60996-02-11 08:09 J	-20557324.26	-20557324.16	-20557324.02	0.0088	0.0078		
Moon	-60996-02-11 09:21 J	-20557324.25	-20557324.11	-20557323.97	0.0088	0.0076	*	
Earth	-60995-02-13 21:35 J	-20556956.62	-20556956.60	-20556956.55	0.0088	0.0087		
Jupiter	-60982-02-08 03:35 J	-20552214.51	-20552214.35	-20552214.13	0.0088	0.0083		
Venus	-60977-10-09 06:13 J	-20550144.24	-20550144.24	-20550144.21	0.0088	0.0088		
Venus	-60976-05-22 20:09 J	-20549918.80	-20549918.66	-20549918.51	0.0088	0.0068		
Venus	-60975-01-03 09:35 J	-20549693.27	-20549693.10	-20549692.90	0.0088	0.0047		
Venus	-60975-08-16 23:16 J	-20549467.73	-20549467.53	-20549467.30	0.0088	0.0027		
Venus	-60974-03-30 12:57 J	-20549242.18	-20549241.96	-20549241.73	0.0088	0.0007		
Venus	-60974-11-11 02:23 J	-20549016.62	-20549016.40	-20549016.17	0.0088	0.0014		
Venus	-60973-06-23 15:49 J	-20548791.04	-20548790.84	-20548790.62	0.0088	0.0034		
Venus	-60972-02-04 05:30 J	-20548565.43	-20548565.27	-20548565.08	0.0088	0.0055		
Venus	-60972-09-17 19:11 J	-20548339.81	-20548339.70	-20548339.58	0.0088	0.0075		
Mercury	-60943-02-05 02:52 J	-20537972.41	-20537972.38	-20537972.33	0.0089	0.0085		
Mercury	-60943-05-04 04:18 J	-20537884.37	-20537884.32	-20537884.25	0.0089	0.0079		
Mercury	-60943-07-31 05:59 J	-20537796.32	-20537796.25	-20537796.17	0.0089	0.0073		
Mercury	-60943-10-27 07:11 J	-20537708.27	-20537708.20	-20537708.10	0.0089	0.0068		

Mars -60942-01-14 20:52 J -20537628.75 -20537628.63 -20537628.46 0.0089 0.0077
 Mercury -60942-01-23 08:52 J -20537620.22 -20537620.13 -20537620.03 0.0089 0.0062
 Mercury -60942-04-21 10:18 J -20537532.17 -20537532.07 -20537531.97 0.0089 0.0056
 Mercury -60942-07-18 11:30 J -20537444.12 -20537444.02 -20537443.90 0.0089 0.0051
 Mercury -60942-10-14 13:11 J -20537356.07 -20537355.95 -20537355.84 0.0089 0.0045
 Mercury -60941-01-10 14:23 J -20537268.01 -20537267.90 -20537267.77 0.0089 0.0040
 Mercury -60941-04-07 15:49 J -20537179.96 -20537179.84 -20537179.71 0.0089 0.0034
 Mercury -60941-07-04 17:16 J -20537091.91 -20537091.78 -20537091.65 0.0089 0.0028
 Mercury -60941-09-30 18:42 J -20537003.85 -20537003.72 -20537003.59 0.0089 0.0023
 Mars -60941-12-08 15:21 J -20536935.11 -20536934.86 -20536934.58 0.0089 0.0037
 Mercury -60941-12-27 19:54 J -20536915.79 -20536915.67 -20536915.53 0.0089 0.0018
 Mercury -60940-03-25 21:21 J -20536827.74 -20536827.61 -20536827.47 0.0089 0.0012
 Mercury -60940-06-21 22:47 J -20536739.68 -20536739.55 -20536739.41 0.0089 0.0006
 Mercury -60940-09-18 00:13 J -20536651.62 -20536651.49 -20536651.36 0.0089 0.0001
 Mercury -60940-12-15 01:40 J -20536563.57 -20536563.43 -20536563.30 0.0089 0.0005
 Mercury -60939-03-13 02:52 J -20536475.51 -20536475.38 -20536475.24 0.0089 0.0011
 Mercury -60939-06-09 04:18 J -20536387.45 -20536387.32 -20536387.19 0.0089 0.0016
 Mercury -60939-09-05 05:30 J -20536299.39 -20536299.27 -20536299.13 0.0089 0.0022
 Mars -60939-11-02 07:54 J -20536241.46 -20536241.17 -20536240.88 0.0089 0.0003
 Mercury -60939-12-02 06:57 J -20536211.33 -20536211.21 -20536211.08 0.0089 0.0027
 Mercury -60938-02-28 08:09 J -20536123.27 -20536123.16 -20536123.02 0.0089 0.0033
 Mercury -60938-05-27 09:35 J -20536035.21 -20536035.10 -20536034.97 0.0089 0.0038
 Mercury -60938-08-23 10:47 J -20535947.15 -20535947.05 -20535946.92 0.0089 0.0044
 Mercury -60938-11-19 12:13 J -20535859.09 -20535858.99 -20535858.87 0.0089 0.0049
 Mercury -60937-02-15 13:54 J -20535771.03 -20535770.92 -20535770.82 0.0089 0.0054
 Mercury -60937-05-13 14:52 J -20535682.96 -20535682.88 -20535682.77 0.0089 0.0060
 Mercury -60937-08-09 16:18 J -20535594.90 -20535594.82 -20535594.72 0.0089 0.0065
 Mars -60937-09-25 23:01 J -20535547.77 -20535547.54 -20535547.27 0.0089 0.0043
 Mercury -60937-11-05 17:30 J -20535506.84 -20535506.77 -20535506.68 0.0089 0.0071
 Mercury -60936-02-01 18:57 J -20535418.77 -20535418.71 -20535418.63 0.0089 0.0076

Mercury -60936-04-30 20:23 J -20535330.69 -20535330.65 -20535330.59 0.0089 0.0081

Mercury -60936-07-27 21:35 J -20535242.61 -20535242.60 -20535242.56 0.0089 0.0087

Mars -60935-08-20 12:42 J -20534854.05 -20534853.97 -20534853.83 0.0089 0.0082

Moon -60931-07-08 00:42 J -20533436.56 -20533436.47 -20533436.33 0.0089 0.0080

Earth -60931-07-08 02:23 J -20533436.47 -20533436.40 -20533436.32 0.0089 0.0084 *

Earth -60930-07-10 12:42 J -20533069.09 -20533068.97 -20533068.82 0.0089 0.0075

Moon -60930-07-10 14:37 J -20533068.99 -20533068.89 -20533068.77 0.0089 0.0079 *

Moon -60929-07-11 20:09 J -20532701.83 -20532701.66 -20532701.45 0.0089 0.0061

Earth -60929-07-11 23:01 J -20532701.69 -20532701.54 -20532701.35 0.0089 0.0066 *

Earth -60928-07-14 09:35 J -20532334.28 -20532334.10 -20532333.89 0.0089 0.0056

Moon -60928-07-14 12:57 J -20532334.12 -20532333.96 -20532333.76 0.0089 0.0061 *

Moon -60927-07-16 16:33 J -20531967.01 -20531966.81 -20531966.57 0.0089 0.0043

Earth -60927-07-16 19:54 J -20531966.87 -20531966.67 -20531966.44 0.0089 0.0047 *

Earth -60926-07-19 06:13 J -20531599.46 -20531599.24 -20531599.00 0.0089 0.0037

Moon -60926-07-19 09:21 J -20531599.31 -20531599.11 -20531598.86 0.0089 0.0042 *

Moon -60925-07-20 14:37 J -20531232.13 -20531231.89 -20531231.65 0.0089 0.0023

Earth -60925-07-20 16:33 J -20531232.04 -20531231.81 -20531231.56 0.0089 0.0028 *

Earth -60924-07-23 02:52 J -20530864.62 -20530864.38 -20530864.13 0.0089 0.0018

Moon -60924-07-23 04:04 J -20530864.57 -20530864.33 -20530864.06 0.0089 0.0022 *

Moon -60923-07-25 12:57 J -20530497.20 -20530496.96 -20530496.71 0.0089 0.0004

Earth -60923-07-25 13:11 J -20530497.20 -20530496.95 -20530496.69 0.0089 0.0009 *

Moon -60922-07-27 21:49 J -20530129.85 -20530129.59 -20530129.32 0.0089 0.0003

Earth -60922-07-27 23:30 J -20530129.77 -20530129.52 -20530129.27 0.0089 0.0001 *

Earth -60921-07-29 09:21 J -20529762.35 -20529762.11 -20529761.85 0.0089 0.0011

Moon -60921-07-29 11:45 J -20529762.25 -20529762.01 -20529761.77 0.0089 0.0015 *

Moon -60920-07-31 16:47 J -20529395.05 -20529394.80 -20529394.55 0.0089 0.0016

Earth -60920-07-31 19:40 J -20529394.91 -20529394.68 -20529394.42 0.0089 0.0021 *

Earth -60919-08-03 05:59 J -20529027.48 -20529027.25 -20529027.00 0.0089 0.0030

Moon -60919-08-03 09:35 J -20529027.32 -20529027.10 -20529026.86 0.0089 0.0035 *

Moon -60918-08-05 12:42 J -20528660.18 -20528659.97 -20528659.72 0.0089 0.0036

Earth	-60918-08-05 16:04 J	-20528660.04	-20528659.83	-20528659.59	0.0089	0.0040	*
Earth	-60917-08-07 02:37 J	-20528292.60	-20528292.39	-20528292.18	0.0089	0.0050	
Moon	-60917-08-07 05:16 J	-20528292.46	-20528292.28	-20528292.05	0.0089	0.0054	*
Moon	-60916-08-09 10:47 J	-20527925.23	-20527925.05	-20527924.84	0.0089	0.0055	
Earth	-60916-08-09 12:28 J	-20527925.15	-20527924.98	-20527924.78	0.0089	0.0059	*
Earth	-60915-08-11 22:47 J	-20527557.70	-20527557.55	-20527557.38	0.0089	0.0069	
Moon	-60915-08-11 23:30 J	-20527557.66	-20527557.52	-20527557.35	0.0089	0.0072	*
Earth	-60914-08-14 08:23 J	-20527190.25	-20527190.15	-20527190.00	0.0089	0.0078	
Moon	-60914-08-14 08:37 J	-20527190.25	-20527190.14	-20527189.98	0.0089	0.0074	*
Earth	-60913-08-15 18:28 J	-20526822.76	-20526822.73	-20526822.66	0.0089	0.0087	
Venus	-60895-11-21 21:49 J	-20520150.63	-20520150.59	-20520150.50	0.0089	0.0085	
Venus	-60894-07-05 10:18 J	-20519925.19	-20519925.07	-20519924.90	0.0089	0.0066	
Venus	-60893-02-15 22:47 J	-20519699.72	-20519699.55	-20519699.34	0.0089	0.0045	
Venus	-60893-09-28 11:30 J	-20519474.22	-20519474.02	-20519473.81	0.0089	0.0025	
Venus	-60892-05-11 23:45 J	-20519248.72	-20519248.51	-20519248.29	0.0089	0.0005	
Venus	-60892-12-23 11:59 J	-20519023.20	-20519023.00	-20519022.78	0.0089	0.0016	
Venus	-60891-08-06 00:28 J	-20518797.66	-20518797.48	-20518797.27	0.0089	0.0036	
Venus	-60890-03-19 12:57 J	-20518572.12	-20518571.96	-20518571.78	0.0089	0.0056	
Venus	-60890-10-31 01:11 J	-20518346.54	-20518346.45	-20518346.32	0.0089	0.0077	
Mars	-60861-09-27 14:52 J	-20507786.95	-20507786.88	-20507786.77	0.0089	0.0085	
Mercury	-60861-10-23 11:01 J	-20507761.09	-20507761.04	-20507760.99	0.0089	0.0085	
Mercury	-60860-01-19 14:09 J	-20507672.99	-20507672.91	-20507672.81	0.0089	0.0078	
Mercury	-60860-04-17 17:45 J	-20507584.87	-20507584.76	-20507584.64	0.0089	0.0070	
Mercury	-60860-07-14 20:52 J	-20507496.75	-20507496.63	-20507496.48	0.0089	0.0063	
Mercury	-60860-10-11 00:28 J	-20507408.62	-20507408.48	-20507408.32	0.0089	0.0055	
Mercury	-60859-01-07 03:49 J	-20507320.49	-20507320.34	-20507320.17	0.0089	0.0047	
Mercury	-60859-04-05 07:11 J	-20507232.36	-20507232.20	-20507232.02	0.0089	0.0040	
Mercury	-60859-07-02 10:47 J	-20507144.22	-20507144.05	-20507143.87	0.0089	0.0032	
Mars	-60859-08-24 12:28 J	-20507091.26	-20507090.98	-20507090.65	0.0089	0.0040	
Mercury	-60859-09-28 14:09 J	-20507056.08	-20507055.91	-20507055.72	0.0089	0.0024	

Mercury -60859-12-25 17:45 J -20506967.94 -20506967.76 -20506967.57 0.0089 0.0016

Mercury -60858-03-23 21:21 J -20506879.80 -20506879.61 -20506879.42 0.0089 0.0008

Mercury -60858-06-20 00:42 J -20506791.66 -20506791.47 -20506791.28 0.0089 0.0001

Mercury -60858-09-16 04:18 J -20506703.51 -20506703.32 -20506703.13 0.0089 0.0008

Mercury -60858-12-13 07:40 J -20506615.37 -20506615.18 -20506614.99 0.0089 0.0016

Mercury -60857-03-10 11:01 J -20506527.22 -20506527.04 -20506526.85 0.0089 0.0024

Mercury -60857-06-06 14:23 J -20506439.06 -20506438.90 -20506438.70 0.0089 0.0032

Mars -60857-07-20 14:23 J -20506395.23 -20506394.90 -20506394.55 0.0089 0.0007

Mercury -60857-09-02 18:13 J -20506350.91 -20506350.74 -20506350.57 0.0089 0.0039

Mercury -60857-11-29 21:49 J -20506262.75 -20506262.59 -20506262.43 0.0089 0.0047

Mercury -60856-02-26 01:11 J -20506174.59 -20506174.45 -20506174.29 0.0089 0.0055

Mercury -60856-05-25 04:47 J -20506086.43 -20506086.30 -20506086.16 0.0089 0.0063

Mercury -60856-08-21 08:09 J -20505998.26 -20505998.16 -20505998.03 0.0089 0.0071

Mercury -60856-11-17 11:45 J -20505910.09 -20505910.01 -20505909.91 0.0089 0.0079

Mercury -60855-02-13 15:06 J -20505821.89 -20505821.87 -20505821.81 0.0089 0.0087

Mars -60855-06-16 18:28 J -20505698.98 -20505698.73 -20505698.44 0.0089 0.0054

Moon -60849-01-03 04:18 J -20503672.33 -20503672.32 -20503672.26 0.0088 0.0088

Earth -60849-01-03 07:11 J -20503672.21 -20503672.20 -20503672.13 0.0088 0.0088

Earth -60848-01-04 19:54 J -20503304.76 -20503304.67 -20503304.52 0.0088 0.0079

Moon -60848-01-04 23:30 J -20503304.63 -20503304.52 -20503304.38 0.0088 0.0077 *

Moon -60847-01-07 05:16 J -20502937.42 -20502937.28 -20502937.11 0.0088 0.0070

Earth -60847-01-07 09:06 J -20502937.27 -20502937.12 -20502936.94 0.0088 0.0069 *

Earth -60846-01-09 21:35 J -20502569.77 -20502569.60 -20502569.38 0.0088 0.0060

Moon -60846-01-10 01:25 J -20502569.63 -20502569.44 -20502569.23 0.0088 0.0058 *

Moon -60845-01-12 07:54 J -20502202.37 -20502202.17 -20502201.95 0.0088 0.0052

Earth -60845-01-12 10:47 J -20502202.25 -20502202.05 -20502201.81 0.0088 0.0050 *

Earth -60844-01-13 23:59 J -20501834.73 -20501834.50 -20501834.26 0.0088 0.0040

Moon -60844-01-14 02:09 J -20501834.65 -20501834.41 -20501834.17 0.0088 0.0038 *

Moon -60843-01-16 12:13 J -20501467.22 -20501466.99 -20501466.74 0.0088 0.0032

Earth -60843-01-16 12:42 J -20501467.20 -20501466.97 -20501466.70 0.0088 0.0031 *

Moon	-60842-01-19 02:09 J	-20501099.67	-20501099.41	-20501099.14	0.0088	0.0018
Earth	-60842-01-19 01:54 J	-20501099.66	-20501099.42	-20501099.15	0.0088	0.0021 *
Earth	-60841-01-21 15:06 J	-20500732.12	-20500731.87	-20500731.60	0.0088	0.0011
Moon	-60841-01-21 16:47 J	-20500732.04	-20500731.80	-20500731.54	0.0088	0.0013 *
Moon	-60840-01-23 01:54 J	-20500364.69	-20500364.42	-20500364.15	0.0088	0.0002
Earth	-60840-01-23 04:33 J	-20500364.57	-20500364.31	-20500364.04	0.0088	0.0001 *
Earth	-60839-01-25 17:30 J	-20499997.03	-20499996.77	-20499996.50	0.0088	0.0010
Moon	-60839-01-25 20:23 J	-20499996.90	-20499996.65	-20499996.38	0.0088	0.0008 *
Moon	-60838-01-28 02:52 J	-20499629.63	-20499629.38	-20499629.12	0.0088	0.0022
Earth	-60838-01-28 06:28 J	-20499629.47	-20499629.23	-20499628.96	0.0088	0.0021 *
Earth	-60837-01-30 19:25 J	-20499261.92	-20499261.69	-20499261.42	0.0088	0.0030
Moon	-60837-01-30 23:01 J	-20499261.78	-20499261.54	-20499261.27	0.0088	0.0027 *
Moon	-60836-02-01 05:16 J	-20498894.49	-20498894.28	-20498894.04	0.0088	0.0043
Earth	-60836-02-01 08:52 J	-20498894.36	-20498894.13	-20498893.89	0.0088	0.0040 *
Earth	-60835-02-03 21:35 J	-20498526.80	-20498526.60	-20498526.36	0.0088	0.0050
Moon	-60835-02-03 23:59 J	-20498526.71	-20498526.50	-20498526.25	0.0088	0.0046 *
Moon	-60834-02-06 09:21 J	-20498159.26	-20498159.11	-20498158.91	0.0088	0.0063
Earth	-60834-02-06 10:33 J	-20498159.23	-20498159.06	-20498158.84	0.0088	0.0059 *
Earth	-60833-02-08 23:59 J	-20497791.65	-20497791.50	-20497791.33	0.0088	0.0069
Moon	-60833-02-08 23:59 J	-20497791.65	-20497791.50	-20497791.28	0.0088	0.0066 *
Earth	-60832-02-10 12:42 J	-20497424.06	-20497423.97	-20497423.82	0.0088	0.0079
Moon	-60832-02-10 14:23 J	-20497423.98	-20497423.90	-20497423.79	0.0088	0.0082 *
Moon	-60831-02-12 23:45 J	-20497056.56	-20497056.51	-20497056.41	0.0088	0.0085
Earth	-60831-02-13 02:23 J	-20497056.42	-20497056.40	-20497056.36	0.0088	0.0088 *
Venus	-60812-08-24 04:18 J	-20489924.42	-20489924.32	-20489924.20	0.0088	0.0077
Venus	-60811-04-06 17:45 J	-20489698.91	-20489698.76	-20489698.57	0.0088	0.0057
Venus	-60811-11-18 07:11 J	-20489473.38	-20489473.20	-20489472.97	0.0088	0.0038
Venus	-60810-07-01 21:06 J	-20489247.83	-20489247.62	-20489247.39	0.0088	0.0017
Venus	-60809-02-12 11:01 J	-20489022.27	-20489022.04	-20489021.82	0.0088	0.0004
Venus	-60809-09-25 00:13 J	-20488796.70	-20488796.49	-20488796.26	0.0088	0.0025

Venus -60808-05-08 13:54 J -20488571.11 -20488570.92 -20488570.73 0.0088 0.0044
 Venus -60808-12-20 02:52 J -20488345.51 -20488345.38 -20488345.20 0.0088 0.0065
 Venus -60807-08-02 16:18 J -20488119.85 -20488119.82 -20488119.74 0.0088 0.0085
 Mercury -60779-11-02 01:54 J -20477801.45 -20477801.42 -20477801.36 0.0089 0.0084
 Mercury -60778-01-29 03:35 J -20477713.41 -20477713.35 -20477713.28 0.0089 0.0078
 Mercury -60778-04-27 04:47 J -20477625.36 -20477625.30 -20477625.21 0.0089 0.0073
 Mercury -60778-07-24 06:28 J -20477537.31 -20477537.23 -20477537.14 0.0089 0.0067
 Mercury -60778-10-20 07:40 J -20477449.26 -20477449.18 -20477449.07 0.0089 0.0062
 Mercury -60777-01-16 09:06 J -20477361.21 -20477361.12 -20477361.00 0.0089 0.0056
 Mercury -60777-04-13 10:47 J -20477273.16 -20477273.05 -20477272.94 0.0089 0.0050
 Mercury -60777-07-10 11:59 J -20477185.11 -20477185.00 -20477184.87 0.0089 0.0045
 Mars -60777-07-23 20:37 J -20477171.87 -20477171.64 -20477171.39 0.0089 0.0053
 Mercury -60777-10-06 13:25 J -20477097.05 -20477096.94 -20477096.81 0.0089 0.0039
 Mercury -60776-01-02 14:52 J -20477009.00 -20477008.88 -20477008.75 0.0089 0.0033
 Mercury -60776-03-31 16:18 J -20476920.94 -20476920.82 -20476920.69 0.0089 0.0028
 Mercury -60776-06-27 17:45 J -20476832.89 -20476832.76 -20476832.63 0.0089 0.0022
 Mercury -60776-09-23 19:11 J -20476744.83 -20476744.70 -20476744.57 0.0089 0.0016
 Mercury -60776-12-20 20:37 J -20476656.77 -20476656.64 -20476656.51 0.0089 0.0011
 Mercury -60775-03-18 22:04 J -20476568.72 -20476568.58 -20476568.45 0.0089 0.0006
 Mercury -60775-06-14 23:16 J -20476480.66 -20476480.53 -20476480.39 0.0089 0.0003
 Mars -60775-06-17 15:06 J -20476478.15 -20476477.87 -20476477.57 0.0089 0.0014
 Mercury -60775-09-11 00:42 J -20476392.60 -20476392.47 -20476392.33 0.0089 0.0006
 Mercury -60775-12-08 02:09 J -20476304.54 -20476304.41 -20476304.28 0.0089 0.0011
 Mercury -60774-03-06 03:21 J -20476216.49 -20476216.36 -20476216.22 0.0089 0.0017
 Mercury -60774-06-02 04:47 J -20476128.43 -20476128.30 -20476128.17 0.0089 0.0022
 Mercury -60774-08-29 06:13 J -20476040.37 -20476040.24 -20476040.11 0.0089 0.0028
 Mercury -60774-11-25 07:25 J -20475952.31 -20475952.19 -20475952.06 0.0089 0.0033
 Mercury -60773-02-21 08:52 J -20475864.25 -20475864.13 -20475864.01 0.0089 0.0039
 Mars -60773-05-11 07:25 J -20475784.46 -20475784.19 -20475783.91 0.0089 0.0026
 Mercury -60773-05-19 10:18 J -20475776.19 -20475776.07 -20475775.95 0.0089 0.0044

Mercury -60773-08-15 11:30 J -20475688.12 -20475688.02 -20475687.90 0.0089 0.0050
 Mercury -60773-11-11 12:57 J -20475600.06 -20475599.96 -20475599.85 0.0089 0.0055
 Mercury -60772-02-07 14:09 J -20475512.00 -20475511.91 -20475511.81 0.0089 0.0061
 Mercury -60772-05-06 15:35 J -20475423.93 -20475423.85 -20475423.76 0.0089 0.0066
 Mercury -60772-08-02 16:47 J -20475335.87 -20475335.80 -20475335.71 0.0089 0.0072
 Mercury -60772-10-29 18:13 J -20475247.80 -20475247.74 -20475247.67 0.0089 0.0077
 Mercury -60771-01-25 19:40 J -20475159.73 -20475159.68 -20475159.63 0.0089 0.0082
 Mars -60771-04-04 21:49 J -20475090.76 -20475090.59 -20475090.37 0.0089 0.0065
 Mercury -60771-04-23 20:37 J -20475071.64 -20475071.64 -20475071.60 0.0089 0.0088
 Earth -60767-07-07 08:52 J -20473536.15 -20473536.13 -20473536.10 0.0089 0.0088
 Moon -60767-07-07 10:47 J -20473536.06 -20473536.05 -20473535.99 0.0089 0.0088
 Moon -60766-07-09 15:35 J -20473168.94 -20473168.85 -20473168.72 0.0089 0.0080
 Earth -60766-07-09 18:57 J -20473168.81 -20473168.71 -20473168.58 0.0089 0.0079 *
 Earth -60765-07-11 05:59 J -20472801.41 -20472801.25 -20472801.10 0.0089 0.0069
 Moon -60765-07-11 08:52 J -20472801.26 -20472801.13 -20472800.95 0.0089 0.0070 *
 Moon -60764-07-13 12:28 J -20472434.14 -20472433.98 -20472433.77 0.0089 0.0061
 Earth -60764-07-13 16:04 J -20472434.00 -20472433.83 -20472433.62 0.0089 0.0060 *
 Earth -60763-07-16 02:37 J -20472066.59 -20472066.39 -20472066.17 0.0089 0.0050
 Moon -60763-07-16 05:16 J -20472066.48 -20472066.28 -20472066.05 0.0089 0.0050 *
 Moon -60762-07-18 10:47 J -20471699.25 -20471699.05 -20471698.81 0.0089 0.0040
 Earth -60762-07-18 13:11 J -20471699.17 -20471698.95 -20471698.72 0.0089 0.0040 *
 Earth -60761-07-19 23:30 J -20471331.76 -20471331.52 -20471331.28 0.0089 0.0030
 Moon -60761-07-19 23:59 J -20471331.74 -20471331.50 -20471331.25 0.0089 0.0030 *
 Earth -60760-07-22 09:35 J -20470964.34 -20470964.10 -20470963.84 0.0089 0.0021
 Moon -60760-07-22 10:18 J -20470964.30 -20470964.07 -20470963.82 0.0089 0.0021 *
 Moon -60759-07-24 18:13 J -20470596.99 -20470596.74 -20470596.47 0.0089 0.0011
 Earth -60759-07-24 19:54 J -20470596.92 -20470596.67 -20470596.41 0.0089 0.0011 *
 Earth -60758-07-27 05:59 J -20470229.50 -20470229.25 -20470228.99 0.0089 0.0001
 Moon -60758-07-27 08:52 J -20470229.38 -20470229.13 -20470228.88 0.0089 0.0001 *
 Moon -60757-07-28 12:42 J -20469862.21 -20469861.97 -20469861.71 0.0089 0.0010

Earth	-60757-07-28 16:18 J	-20469862.07	-20469861.82	-20469861.57	0.0089	0.0009	*
Earth	-60756-07-31 02:23 J	-20469494.64	-20469494.40	-20469494.15	0.0089	0.0019	
Moon	-60756-07-31 05:45 J	-20469494.50	-20469494.26	-20469494.00	0.0089	0.0020	*
Moon	-60755-08-02 09:06 J	-20469127.34	-20469127.12	-20469126.87	0.0089	0.0029	
Earth	-60755-08-02 12:28 J	-20469127.21	-20469126.98	-20469126.73	0.0089	0.0029	*
Earth	-60754-08-04 22:18 J	-20468759.77	-20468759.57	-20468759.32	0.0089	0.0040	
Moon	-60754-08-05 00:57 J	-20468759.68	-20468759.46	-20468759.21	0.0089	0.0039	*
Moon	-60753-08-06 06:57 J	-20468392.39	-20468392.21	-20468391.98	0.0089	0.0048	
Earth	-60753-08-06 08:37 J	-20468392.33	-20468392.14	-20468391.90	0.0089	0.0049	*
Moon	-60752-08-08 19:25 J	-20468024.88	-20468024.69	-20468024.48	0.0089	0.0059	
Earth	-60752-08-08 19:11 J	-20468024.87	-20468024.70	-20468024.49	0.0089	0.0059	*
Earth	-60751-08-11 05:16 J	-20467657.42	-20467657.28	-20467657.09	0.0089	0.0068	
Moon	-60751-08-11 06:28 J	-20467657.36	-20467657.23	-20467657.05	0.0089	0.0068	*
Moon	-60750-08-13 13:25 J	-20467290.04	-20467289.94	-20467289.80	0.0089	0.0078	
Earth	-60750-08-13 15:49 J	-20467289.96	-20467289.84	-20467289.71	0.0089	0.0078	*
Earth	-60749-08-15 01:25 J	-20466922.46	-20466922.44	-20466922.36	0.0089	0.0088	
Moon	-60749-08-15 04:33 J	-20466922.33	-20466922.31	-20466922.22	0.0089	0.0087	
Venus	-60730-10-06 19:54 J	-20459930.77	-20459930.67	-20459930.54	0.0089	0.0075	
Venus	-60729-05-19 08:09 J	-20459705.31	-20459705.16	-20459704.98	0.0089	0.0055	
Venus	-60729-12-30 20:37 J	-20459479.83	-20459479.64	-20459479.44	0.0089	0.0035	
Venus	-60728-08-13 09:06 J	-20459254.33	-20459254.12	-20459253.90	0.0089	0.0015	
Venus	-60727-03-26 21:35 J	-20459028.82	-20459028.60	-20459028.39	0.0089	0.0005	
Venus	-60727-11-07 09:49 J	-20458803.29	-20458803.09	-20458802.88	0.0089	0.0025	
Venus	-60726-06-20 22:18 J	-20458577.75	-20458577.57	-20458577.38	0.0089	0.0046	
Venus	-60725-02-01 10:18 J	-20458352.19	-20458352.07	-20458351.90	0.0089	0.0066	
Venus	-60725-09-13 22:47 J	-20458126.58	-20458126.55	-20458126.48	0.0089	0.0086	
Mercury	-60696-07-20 08:37 J	-20447590.19	-20447590.14	-20447590.06	0.0089	0.0084	
Mercury	-60696-10-16 11:59 J	-20447502.08	-20447502.00	-20447501.89	0.0089	0.0076	
Mercury	-60695-01-12 15:21 J	-20447413.96	-20447413.86	-20447413.72	0.0089	0.0069	
Mars	-60695-04-07 02:37 J	-20447329.61	-20447329.39	-20447329.10	0.0089	0.0058	

Mercury -60695-04-10 18:42 J -20447325.84 -20447325.72 -20447325.57 0.0089 0.0061

Mercury -60695-07-07 22:18 J -20447237.71 -20447237.57 -20447237.41 0.0089 0.0053

Mercury -60695-10-04 01:25 J -20447149.58 -20447149.44 -20447149.26 0.0089 0.0046

Mercury -60695-12-31 05:01 J -20447061.45 -20447061.29 -20447061.11 0.0089 0.0038

Mercury -60694-03-29 08:37 J -20446973.31 -20446973.14 -20446972.96 0.0089 0.0030

Mercury -60694-06-25 12:13 J -20446885.18 -20446884.99 -20446884.81 0.0089 0.0022

Mercury -60694-09-21 15:35 J -20446797.04 -20446796.85 -20446796.66 0.0089 0.0014

Mercury -60694-12-18 18:57 J -20446708.90 -20446708.71 -20446708.51 0.0089 0.0007

Mars -60693-03-03 01:25 J -20446633.76 -20446633.44 -20446633.09 0.0089 0.0013

Mercury -60693-03-15 22:33 J -20446620.75 -20446620.56 -20446620.37 0.0089 0.0001

Mercury -60693-06-12 01:54 J -20446532.61 -20446532.42 -20446532.23 0.0089 0.0009

Mercury -60693-09-08 05:30 J -20446444.46 -20446444.27 -20446444.08 0.0089 0.0017

Mercury -60693-12-05 08:52 J -20446356.31 -20446356.13 -20446355.94 0.0089 0.0025

Mercury -60692-03-03 12:13 J -20446268.16 -20446267.99 -20446267.80 0.0089 0.0033

Mercury -60692-05-30 15:49 J -20446180.00 -20446179.84 -20446179.66 0.0089 0.0041

Mercury -60692-08-26 19:11 J -20446091.85 -20446091.70 -20446091.53 0.0089 0.0049

Mercury -60692-11-22 22:47 J -20446003.69 -20446003.55 -20446003.39 0.0089 0.0057

Mars -60691-01-28 03:21 J -20445937.67 -20445937.36 -20445937.04 0.0089 0.0034

Mercury -60691-02-19 02:09 J -20445915.52 -20445915.41 -20445915.26 0.0089 0.0065

Mercury -60691-05-18 05:45 J -20445827.36 -20445827.26 -20445827.14 0.0089 0.0073

Mercury -60691-08-14 09:06 J -20445739.18 -20445739.12 -20445739.02 0.0089 0.0081

Mercury -60691-11-10 12:57 J -20445650.96 -20445650.96 -20445650.94 0.0089 0.0088

Mars -60690-12-25 07:25 J -20445241.29 -20445241.19 -20445241.01 0.0089 0.0081

Moon -60684-01-03 22:33 J -20443404.66 -20443404.56 -20443404.41 0.0088 0.0078

Earth -60684-01-04 02:23 J -20443404.49 -20443404.40 -20443404.29 0.0088 0.0082 *

Earth -60683-01-06 15:21 J -20443037.01 -20443036.86 -20443036.71 0.0088 0.0072

Moon -60683-01-06 18:13 J -20443036.84 -20443036.74 -20443036.58 0.0088 0.0077 *

Moon -60682-01-09 01:40 J -20442669.60 -20442669.43 -20442669.22 0.0088 0.0058

Earth -60682-01-09 03:49 J -20442669.50 -20442669.34 -20442669.13 0.0088 0.0063 *

Earth -60681-01-11 16:47 J -20442302.00 -20442301.80 -20442301.58 0.0088 0.0053

Moon	-60681-01-11 18:13 J	-20442301.93	-20442301.74	-20442301.51	0.0088	0.0056	*
Moon	-60680-01-13 05:30 J	-20441934.49	-20441934.27	-20441934.03	0.0088	0.0038	
Earth	-60680-01-13 05:45 J	-20441934.48	-20441934.26	-20441934.02	0.0088	0.0043	*
Moon	-60679-01-15 17:16 J	-20441567.01	-20441566.78	-20441566.52	0.0088	0.0037	
Earth	-60679-01-15 18:42 J	-20441566.95	-20441566.72	-20441566.47	0.0088	0.0033	*
Earth	-60678-01-18 07:54 J	-20441199.42	-20441199.17	-20441198.91	0.0088	0.0022	
Moon	-60678-01-18 09:49 J	-20441199.34	-20441199.09	-20441198.84	0.0088	0.0019	*
Moon	-60677-01-20 17:59 J	-20440832.01	-20440831.75	-20440831.48	0.0088	0.0017	
Earth	-60677-01-20 21:06 J	-20440831.87	-20440831.62	-20440831.36	0.0088	0.0012	*
Earth	-60676-01-22 10:18 J	-20440464.34	-20440464.07	-20440463.81	0.0088	0.0003	
Moon	-60676-01-22 13:40 J	-20440464.19	-20440463.93	-20440463.67	0.0088	0.0003	*
Moon	-60675-01-24 19:54 J	-20440096.93	-20440096.67	-20440096.40	0.0088	0.0005	
Earth	-60675-01-24 23:30 J	-20440096.78	-20440096.52	-20440096.26	0.0088	0.0008	*
Earth	-60674-01-27 12:28 J	-20439729.23	-20439728.98	-20439728.71	0.0088	0.0019	
Moon	-60674-01-27 16:04 J	-20439729.07	-20439728.83	-20439728.56	0.0088	0.0022	*
Moon	-60673-01-29 23:30 J	-20439361.77	-20439361.52	-20439361.27	0.0088	0.0025	
Earth	-60673-01-30 01:54 J	-20439361.67	-20439361.42	-20439361.17	0.0088	0.0028	*
Earth	-60672-01-31 14:52 J	-20438994.11	-20438993.88	-20438993.63	0.0088	0.0039	
Moon	-60672-01-31 17:01 J	-20438994.02	-20438993.79	-20438993.54	0.0088	0.0042	*
Moon	-60671-02-03 03:06 J	-20438626.57	-20438626.37	-20438626.13	0.0088	0.0046	
Earth	-60671-02-03 04:18 J	-20438626.54	-20438626.32	-20438626.10	0.0088	0.0049	*
Moon	-60670-02-05 15:49 J	-20438259.00	-20438258.84	-20438258.62	0.0088	0.0063	
Earth	-60670-02-05 17:16 J	-20438258.97	-20438258.78	-20438258.58	0.0088	0.0059	*
Earth	-60669-02-08 06:13 J	-20437891.39	-20437891.24	-20437891.06	0.0088	0.0069	
Moon	-60669-02-08 07:54 J	-20437891.34	-20437891.17	-20437891.00	0.0088	0.0066	*
Moon	-60668-02-09 16:18 J	-20437523.90	-20437523.82	-20437523.70	0.0088	0.0082	
Earth	-60668-02-09 18:57 J	-20437523.80	-20437523.71	-20437523.56	0.0088	0.0079	*
Earth	-60667-02-12 08:09 J	-20437156.16	-20437156.16	-20437156.11	0.0088	0.0088	
Moon	-60667-02-12 11:45 J	-20437156.07	-20437156.01	-20437155.92	0.0088	0.0085	
Venus	-60648-11-25 12:13 J	-20429929.99	-20429929.99	-20429929.93	0.0088	0.0088	

Venus -60647-07-09 02:37 J -20429704.54 -20429704.39 -20429704.24 0.0088 0.0067

Venus -60646-02-19 16:04 J -20429479.01 -20429478.83 -20429478.62 0.0088 0.0046

Venus -60646-10-03 05:45 J -20429253.46 -20429253.26 -20429253.03 0.0088 0.0026

Venus -60645-05-15 19:25 J -20429027.91 -20429027.69 -20429027.46 0.0088 0.0006

Venus -60645-12-27 09:06 J -20428802.34 -20428802.12 -20428801.89 0.0088 0.0015

Venus -60644-08-09 22:33 J -20428576.76 -20428576.56 -20428576.35 0.0088 0.0035

Venus -60643-03-23 11:59 J -20428351.16 -20428351.00 -20428350.82 0.0088 0.0055

Venus -60643-11-04 01:25 J -20428125.54 -20428125.44 -20428125.32 0.0088 0.0075

Mercury -60614-05-02 23:59 J -20417718.50 -20417718.50 -20417718.49 0.0089 0.0088

Mercury -60614-07-30 01:11 J -20417630.48 -20417630.45 -20417630.39 0.0089 0.0083

Mercury -60614-10-26 02:52 J -20417542.44 -20417542.38 -20417542.31 0.0089 0.0077

Mercury -60613-01-22 04:04 J -20417454.40 -20417454.33 -20417454.24 0.0089 0.0072

Mars -60613-03-08 00:57 J -20417408.62 -20417408.46 -20417408.25 0.0089 0.0069

Mercury -60613-04-19 05:45 J -20417366.35 -20417366.26 -20417366.17 0.0089 0.0066

Mercury -60613-07-16 06:57 J -20417278.30 -20417278.21 -20417278.10 0.0089 0.0060

Mercury -60613-10-12 08:23 J -20417190.25 -20417190.15 -20417190.04 0.0089 0.0055

Mercury -60612-01-08 10:04 J -20417102.19 -20417102.08 -20417101.97 0.0089 0.0049

Mercury -60612-04-06 11:16 J -20417014.14 -20417014.03 -20417013.91 0.0089 0.0044

Mercury -60612-07-03 12:42 J -20416926.09 -20416925.97 -20416925.84 0.0089 0.0038

Mercury -60612-09-29 14:09 J -20416838.03 -20416837.91 -20416837.78 0.0089 0.0032

Mercury -60612-12-26 15:35 J -20416749.98 -20416749.85 -20416749.72 0.0089 0.0027

Mars -60611-01-30 21:35 J -20416714.87 -20416714.60 -20416714.32 0.0089 0.0029

Mercury -60611-03-24 17:01 J -20416661.92 -20416661.79 -20416661.66 0.0089 0.0021

Mercury -60611-06-20 18:28 J -20416573.86 -20416573.73 -20416573.60 0.0089 0.0015

Mercury -60611-09-16 19:54 J -20416485.81 -20416485.67 -20416485.54 0.0089 0.0010

Mercury -60611-12-13 21:06 J -20416397.75 -20416397.62 -20416397.48 0.0089 0.0005

Mercury -60610-03-11 22:33 J -20416309.69 -20416309.56 -20416309.42 0.0089 0.0002

Mercury -60610-06-07 23:59 J -20416221.63 -20416221.50 -20416221.37 0.0089 0.0007

Mercury -60610-09-04 01:25 J -20416133.58 -20416133.44 -20416133.31 0.0089 0.0012

Mercury -60610-12-01 02:37 J -20416045.52 -20416045.39 -20416045.25 0.0089 0.0018

Mars -60610-12-25 16:04 J -20416021.11 -20416020.83 -20416020.53 0.0089 0.0010
 Mercury -60609-02-27 04:04 J -20415957.46 -20415957.33 -20415957.20 0.0089 0.0023
 Mercury -60609-05-25 05:30 J -20415869.40 -20415869.27 -20415869.14 0.0089 0.0029
 Mercury -60609-08-21 06:42 J -20415781.34 -20415781.22 -20415781.09 0.0089 0.0035
 Mercury -60609-11-17 08:09 J -20415693.28 -20415693.16 -20415693.04 0.0089 0.0040
 Mercury -60608-02-13 09:21 J -20415605.21 -20415605.11 -20415604.99 0.0089 0.0046
 Mercury -60608-05-12 10:47 J -20415517.15 -20415517.05 -20415516.94 0.0089 0.0051
 Mercury -60608-08-08 11:59 J -20415429.09 -20415429.00 -20415428.89 0.0089 0.0057
 Mercury -60608-11-04 13:25 J -20415341.03 -20415340.94 -20415340.84 0.0089 0.0062
 Mars -60608-11-18 07:11 J -20415327.41 -20415327.20 -20415326.93 0.0089 0.0049
 Mercury -60607-01-31 14:52 J -20415252.96 -20415252.88 -20415252.79 0.0089 0.0067
 Mercury -60607-04-29 16:04 J -20415164.89 -20415164.83 -20415164.74 0.0089 0.0073
 Mercury -60607-07-26 17:30 J -20415076.82 -20415076.77 -20415076.70 0.0089 0.0078
 Mercury -60607-10-22 18:42 J -20414988.75 -20414988.72 -20414988.66 0.0089 0.0084
 Mercury -60606-01-18 20:23 J -20414900.65 -20414900.65 -20414900.65 0.0089 0.0089
 Mars -60606-10-12 22:04 J -20414633.64 -20414633.58 -20414633.51 0.0089 0.0086
 Earth -60602-07-09 02:23 J -20413268.46 -20413268.40 -20413268.28 0.0089 0.0083
 Moon -60602-07-09 06:28 J -20413268.34 -20413268.23 -20413268.11 0.0089 0.0078 *
 Moon -60601-07-10 09:49 J -20412901.18 -20412901.09 -20412900.94 0.0089 0.0078
 Earth -60601-07-10 13:11 J -20412901.07 -20412900.95 -20412900.79 0.0089 0.0073 *
 Earth -60600-07-12 23:59 J -20412533.67 -20412533.50 -20412533.32 0.0089 0.0063
 Moon -60600-07-13 02:23 J -20412533.57 -20412533.40 -20412533.18 0.0089 0.0059 *
 Moon -60599-07-15 09:06 J -20412166.28 -20412166.12 -20412165.91 0.0089 0.0058
 Earth -60599-07-15 10:33 J -20412166.26 -20412166.06 -20412165.85 0.0089 0.0053 *
 Earth -60598-07-17 21:06 J -20411798.84 -20411798.62 -20411798.40 0.0089 0.0043
 Moon -60598-07-17 21:21 J -20411798.84 -20411798.61 -20411798.37 0.0089 0.0039 *
 Earth -60597-07-19 07:25 J -20411431.42 -20411431.19 -20411430.95 0.0089 0.0033
 Moon -60597-07-19 08:09 J -20411431.36 -20411431.16 -20411430.92 0.0089 0.0038 *
 Moon -60596-07-21 15:21 J -20411064.11 -20411063.86 -20411063.60 0.0089 0.0019
 Earth -60596-07-21 17:59 J -20411063.99 -20411063.75 -20411063.50 0.0089 0.0023 *

Earth	-60595-07-24 04:04 J	-20410696.58	-20410696.33	-20410696.08	0.0089	0.0013
Moon	-60595-07-24 06:57 J	-20410696.45	-20410696.21	-20410695.97	0.0089	0.0017 *
Moon	-60594-07-26 10:47 J	-20410329.31	-20410329.05	-20410328.80	0.0089	0.0002
Earth	-60594-07-26 14:23 J	-20410329.15	-20410328.90	-20410328.65	0.0089	0.0003 *
Earth	-60593-07-28 00:28 J	-20409961.73	-20409961.48	-20409961.22	0.0089	0.0007
Moon	-60593-07-28 03:49 J	-20409961.59	-20409961.34	-20409961.08	0.0089	0.0003 *
Moon	-60592-07-30 07:25 J	-20409594.41	-20409594.19	-20409593.93	0.0089	0.0023
Earth	-60592-07-30 10:47 J	-20409594.30	-20409594.05	-20409593.80	0.0089	0.0017 *
Earth	-60591-08-01 20:52 J	-20409226.87	-20409226.63	-20409226.39	0.0089	0.0027
Moon	-60591-08-01 23:01 J	-20409226.78	-20409226.54	-20409226.28	0.0089	0.0023 *
Moon	-60590-08-04 05:59 J	-20408859.45	-20408859.25	-20408859.02	0.0089	0.0042
Earth	-60590-08-04 06:57 J	-20408859.44	-20408859.21	-20408858.98	0.0089	0.0037 *
Moon	-60589-08-05 16:47 J	-20408492.02	-20408491.80	-20408491.56	0.0089	0.0044
Earth	-60589-08-05 17:16 J	-20408491.99	-20408491.78	-20408491.57	0.0089	0.0048 *
Earth	-60588-08-08 03:21 J	-20408124.55	-20408124.36	-20408124.16	0.0089	0.0057
Moon	-60588-08-08 04:33 J	-20408124.47	-20408124.31	-20408124.12	0.0089	0.0062 *
Moon	-60587-08-10 10:04 J	-20407757.23	-20407757.08	-20407756.87	0.0089	0.0064
Earth	-60587-08-10 13:25 J	-20407757.10	-20407756.94	-20407756.77	0.0089	0.0067 *
Earth	-60586-08-12 23:16 J	-20407389.63	-20407389.53	-20407389.38	0.0089	0.0077
Moon	-60586-08-13 02:52 J	-20407389.48	-20407389.38	-20407389.28	0.0089	0.0082 *
Moon	-60585-08-14 05:59 J	-20407022.32	-20407022.25	-20407022.13	0.0089	0.0082
Earth	-60585-08-14 09:35 J	-20407022.13	-20407022.10	-20407022.02	0.0089	0.0087 *
Venus	-60565-01-08 05:45 J	-20399936.30	-20399936.26	-20399936.17	0.0089	0.0085
Venus	-60565-08-20 18:13 J	-20399710.87	-20399710.74	-20399710.58	0.0089	0.0065
Venus	-60564-04-03 06:28 J	-20399485.40	-20399485.23	-20399485.03	0.0089	0.0045
Venus	-60564-11-14 18:57 J	-20399259.91	-20399259.71	-20399259.50	0.0089	0.0025
Venus	-60563-06-28 07:25 J	-20399034.40	-20399034.19	-20399033.97	0.0089	0.0005
Venus	-60562-02-08 19:54 J	-20398808.88	-20398808.67	-20398808.46	0.0089	0.0016
Venus	-60562-09-22 07:54 J	-20398583.35	-20398583.17	-20398582.96	0.0089	0.0036
Venus	-60561-05-04 20:09 J	-20398357.81	-20398357.66	-20398357.47	0.0089	0.0056

Venus -60561-12-16 08:37 J -20398132.23 -20398132.14 -20398132.01 0.0089 0.0076

Mars -60532-11-18 19:25 J -20387567.85 -20387567.69 -20387567.49 0.0089 0.0074

Mercury -60531-04-16 06:42 J -20387419.28 -20387419.22 -20387419.13 0.0089 0.0082

Mercury -60531-07-13 10:04 J -20387331.17 -20387331.08 -20387330.96 0.0089 0.0074

Mercury -60531-10-09 13:54 J -20387243.05 -20387242.92 -20387242.80 0.0089 0.0066

Mercury -60530-01-05 16:47 J -20387154.92 -20387154.80 -20387154.64 0.0089 0.0059

Mercury -60530-04-03 20:23 J -20387066.79 -20387066.65 -20387066.49 0.0089 0.0051

Mercury -60530-06-30 23:59 J -20386978.66 -20386978.50 -20386978.33 0.0089 0.0043

Mercury -60530-09-27 03:06 J -20386890.53 -20386890.37 -20386890.18 0.0089 0.0036

Mars -60530-10-15 17:01 J -20386872.09 -20386871.79 -20386871.46 0.0089 0.0030

Mercury -60530-12-24 06:42 J -20386802.39 -20386802.22 -20386802.03 0.0089 0.0028

Mercury -60529-03-21 10:18 J -20386714.26 -20386714.07 -20386713.88 0.0089 0.0020

Mercury -60529-06-17 13:40 J -20386626.12 -20386625.93 -20386625.74 0.0089 0.0012

Mercury -60529-09-13 17:16 J -20386537.97 -20386537.78 -20386537.59 0.0089 0.0004

Mercury -60529-12-10 20:37 J -20386449.83 -20386449.64 -20386449.45 0.0089 0.0004

Mercury -60528-03-08 23:59 J -20386361.68 -20386361.50 -20386361.31 0.0089 0.0012

Mercury -60528-06-05 03:21 J -20386273.54 -20386273.36 -20386273.16 0.0089 0.0020

Mercury -60528-09-01 06:42 J -20386185.39 -20386185.22 -20386185.02 0.0089 0.0028

Mars -60528-09-10 16:33 J -20386176.14 -20386175.81 -20386175.47 0.0089 0.0015

Mercury -60528-11-28 10:33 J -20386097.24 -20386097.06 -20386096.88 0.0089 0.0035

Mercury -60527-02-24 13:54 J -20386009.08 -20386008.92 -20386008.75 0.0089 0.0043

Mercury -60527-05-23 17:30 J -20385920.92 -20385920.77 -20385920.61 0.0089 0.0051

Mercury -60527-08-19 20:52 J -20385832.76 -20385832.63 -20385832.48 0.0089 0.0059

Mercury -60527-11-16 00:13 J -20385744.60 -20385744.49 -20385744.35 0.0089 0.0067

Mercury -60526-02-12 03:49 J -20385656.43 -20385656.34 -20385656.23 0.0089 0.0075

Mercury -60526-05-11 07:11 J -20385568.25 -20385568.20 -20385568.11 0.0089 0.0083

Mars -60526-08-07 18:13 J -20385479.97 -20385479.74 -20385479.47 0.0089 0.0061

Earth -60520-01-03 09:06 J -20383504.16 -20383504.12 -20383504.03 0.0088 0.0086

Moon -60520-01-03 11:59 J -20383504.05 -20383504.00 -20383503.92 0.0088 0.0086 *

Moon -60519-01-05 19:40 J -20383136.78 -20383136.68 -20383136.51 0.0088 0.0076

Earth	-60519-01-05 22:04 J	-20383136.69	-20383136.58	-20383136.42	0.0088	0.0076	*
Earth	-60518-01-08 11:01 J	-20382769.20	-20382769.04	-20382768.85	0.0088	0.0066	
Moon	-60518-01-08 11:30 J	-20382769.18	-20382769.02	-20382768.82	0.0088	0.0066	*
Earth	-60517-01-10 23:59 J	-20382401.69	-20382401.50	-20382401.28	0.0088	0.0056	
Moon	-60517-01-11 00:28 J	-20382401.66	-20382401.48	-20382401.27	0.0088	0.0056	*
Moon	-60516-01-12 11:01 J	-20382034.24	-20382034.04	-20382033.78	0.0088	0.0047	
Earth	-60516-01-12 12:42 J	-20382034.18	-20382033.97	-20382033.73	0.0088	0.0046	*
Earth	-60515-01-15 01:25 J	-20381666.66	-20381666.44	-20381666.18	0.0088	0.0036	
Moon	-60515-01-15 04:33 J	-20381666.53	-20381666.31	-20381666.06	0.0088	0.0035	*
Moon	-60514-01-17 11:30 J	-20381299.27	-20381299.02	-20381298.76	0.0088	0.0026	
Earth	-60514-01-17 15:06 J	-20381299.12	-20381298.87	-20381298.62	0.0088	0.0025	*
Earth	-60513-01-20 03:35 J	-20380931.60	-20380931.35	-20380931.08	0.0088	0.0015	
Moon	-60513-01-20 07:25 J	-20380931.45	-20380931.19	-20380930.93	0.0088	0.0013	*
Moon	-60512-01-21 13:25 J	-20380564.20	-20380563.94	-20380563.68	0.0088	0.0005	
Earth	-60512-01-21 16:47 J	-20380564.06	-20380563.80	-20380563.53	0.0088	0.0005	*
Earth	-60511-01-24 05:59 J	-20380196.51	-20380196.25	-20380195.99	0.0088	0.0006	
Moon	-60511-01-24 08:52 J	-20380196.39	-20380196.13	-20380195.86	0.0088	0.0008	*
Moon	-60510-01-26 16:33 J	-20379829.05	-20379828.81	-20379828.55	0.0088	0.0015	
Earth	-60510-01-26 19:11 J	-20379828.96	-20379828.70	-20379828.44	0.0088	0.0017	*
Earth	-60509-01-29 08:09 J	-20379461.40	-20379461.16	-20379460.90	0.0088	0.0027	
Moon	-60509-01-29 09:21 J	-20379461.37	-20379461.11	-20379460.85	0.0088	0.0029	*
Earth	-60508-01-30 21:21 J	-20379093.84	-20379093.61	-20379093.36	0.0088	0.0038	
Moon	-60508-01-30 21:35 J	-20379093.83	-20379093.60	-20379093.37	0.0088	0.0036	*
Moon	-60507-02-02 09:21 J	-20378726.31	-20378726.11	-20378725.87	0.0088	0.0050	
Earth	-60507-02-02 10:47 J	-20378726.27	-20378726.05	-20378725.83	0.0088	0.0048	*
Earth	-60506-02-04 23:30 J	-20378358.69	-20378358.52	-20378358.30	0.0088	0.0059	
Moon	-60506-02-05 02:09 J	-20378358.59	-20378358.41	-20378358.19	0.0088	0.0056	*
Moon	-60505-02-07 09:35 J	-20377991.24	-20377991.10	-20377990.92	0.0088	0.0071	
Earth	-60505-02-07 12:42 J	-20377991.11	-20377990.97	-20377990.78	0.0088	0.0068	*
Earth	-60504-02-09 01:40 J	-20377623.52	-20377623.43	-20377623.28	0.0088	0.0079	

Moon	-60504-02-09 05:16 J	-20377623.39	-20377623.28	-20377623.12	0.0088	0.0076 *
Earth	-60503-02-11 15:06 J	-20377255.87	-20377255.87	-20377255.83	0.0088	0.0088
Venus	-60483-10-10 11:30 J	-20369710.12	-20369710.02	-20369709.89	0.0088	0.0076
Venus	-60482-05-24 01:11 J	-20369484.61	-20369484.45	-20369484.26	0.0088	0.0055
Venus	-60481-01-04 15:06 J	-20369259.06	-20369258.87	-20369258.65	0.0088	0.0035
Venus	-60481-08-17 05:01 J	-20369033.51	-20369033.29	-20369033.07	0.0088	0.0014
Venus	-60480-03-30 18:28 J	-20368807.95	-20368807.73	-20368807.50	0.0088	0.0006
Venus	-60480-11-11 07:54 J	-20368582.38	-20368582.17	-20368581.95	0.0088	0.0026
Venus	-60479-06-24 21:35 J	-20368356.79	-20368356.60	-20368356.41	0.0088	0.0046
Venus	-60478-02-05 11:16 J	-20368131.17	-20368131.03	-20368130.88	0.0088	0.0067
Venus	-60478-09-18 23:59 J	-20367905.50	-20367905.50	-20367905.43	0.0088	0.0088
Saturn	-60461-03-05 16:04 J	-20361893.49	-20361892.83	-20361892.16	0.0088	0.0011
Mars	-60450-10-22 07:11 J	-20357645.26	-20357645.20	-20357645.06	0.0089	0.0084
Mercury	-60449-01-27 23:16 J	-20357547.54	-20357547.53	-20357547.50	0.0089	0.0087
Mercury	-60449-04-25 00:57 J	-20357459.51	-20357459.46	-20357459.41	0.0089	0.0081
Mercury	-60449-07-22 02:09 J	-20357371.47	-20357371.41	-20357371.33	0.0089	0.0076
Mercury	-60449-10-18 03:35 J	-20357283.42	-20357283.35	-20357283.26	0.0089	0.0070
Mercury	-60448-01-14 05:01 J	-20357195.37	-20357195.29	-20357195.19	0.0089	0.0064
Mercury	-60448-04-12 06:28 J	-20357107.32	-20357107.23	-20357107.12	0.0089	0.0059
Mercury	-60448-07-09 07:54 J	-20357019.27	-20357019.17	-20357019.06	0.0089	0.0053
Mars	-60448-09-15 05:01 J	-20356951.54	-20356951.29	-20356951.03	0.0089	0.0044
Mercury	-60448-10-05 09:21 J	-20356931.22	-20356931.11	-20356930.99	0.0089	0.0047
Mercury	-60447-01-01 10:47 J	-20356843.17	-20356843.05	-20356842.93	0.0089	0.0042
Mercury	-60447-03-30 11:59 J	-20356755.11	-20356755.00	-20356754.86	0.0089	0.0037
Mercury	-60447-06-26 13:40 J	-20356667.06	-20356666.93	-20356666.80	0.0089	0.0031
Mercury	-60447-09-22 15:06 J	-20356579.00	-20356578.87	-20356578.74	0.0089	0.0025
Mercury	-60447-12-19 16:18 J	-20356490.94	-20356490.82	-20356490.68	0.0089	0.0020
Mercury	-60446-03-17 17:59 J	-20356402.89	-20356402.75	-20356402.62	0.0089	0.0014
Mercury	-60446-06-13 19:11 J	-20356314.83	-20356314.70	-20356314.56	0.0089	0.0009
Mars	-60446-08-09 23:59 J	-20356257.78	-20356257.50	-20356257.20	0.0089	0.0006

Mercury -60446-09-09 20:37 J -20356226.77 -20356226.64 -20356226.50 0.0089 0.0003

Mercury -60446-12-06 22:04 J -20356138.71 -20356138.58 -20356138.45 0.0089 0.0003

Mercury -60445-03-03 23:30 J -20356050.66 -20356050.52 -20356050.39 0.0089 0.0009

Mercury -60445-05-31 00:42 J -20355962.60 -20355962.47 -20355962.33 0.0089 0.0014

Mercury -60445-08-27 02:09 J -20355874.54 -20355874.41 -20355874.28 0.0089 0.0020

Mercury -60445-11-23 03:35 J -20355786.48 -20355786.35 -20355786.22 0.0089 0.0025

Mercury -60444-02-19 04:47 J -20355698.42 -20355698.30 -20355698.17 0.0089 0.0031

Mercury -60444-05-18 06:13 J -20355610.36 -20355610.24 -20355610.11 0.0089 0.0036

Mars -60444-07-03 18:42 J -20355563.99 -20355563.72 -20355563.45 0.0089 0.0033

Mercury -60444-08-14 07:25 J -20355522.30 -20355522.19 -20355522.06 0.0089 0.0042

Mercury -60444-11-10 09:06 J -20355434.23 -20355434.12 -20355434.01 0.0089 0.0047

Mercury -60443-02-06 10:18 J -20355346.17 -20355346.07 -20355345.96 0.0089 0.0053

Mercury -60443-05-05 11:45 J -20355258.11 -20355258.01 -20355257.91 0.0089 0.0058

Mercury -60443-08-01 12:57 J -20355170.04 -20355169.96 -20355169.86 0.0089 0.0064

Mercury -60443-10-28 14:23 J -20355081.98 -20355081.90 -20355081.81 0.0089 0.0069

Mercury -60442-01-24 15:35 J -20354993.91 -20354993.85 -20354993.77 0.0089 0.0075

Mercury -60442-04-22 17:01 J -20354905.84 -20354905.79 -20354905.73 0.0089 0.0080

Mars -60442-05-28 10:04 J -20354870.23 -20354870.08 -20354869.89 0.0089 0.0071

Mercury -60442-07-19 18:28 J -20354817.76 -20354817.73 -20354817.69 0.0089 0.0085

Moon -60438-07-08 08:23 J -20353368.20 -20353368.15 -20353368.06 0.0089 0.0085

Earth -60438-07-08 11:01 J -20353368.06 -20353368.04 -20353367.96 0.0089 0.0087 *

Earth -60437-07-09 21:35 J -20353000.70 -20353000.60 -20353000.45 0.0089 0.0077

Moon -60437-07-09 23:45 J -20353000.61 -20353000.51 -20353000.36 0.0089 0.0078 *

Moon -60436-07-12 07:11 J -20352633.35 -20352633.20 -20352633.02 0.0089 0.0066

Earth -60436-07-12 08:09 J -20352633.30 -20352633.16 -20352632.97 0.0089 0.0067 *

Moon -60435-07-14 18:13 J -20352265.93 -20352265.74 -20352265.53 0.0089 0.0058

Earth -60435-07-14 18:28 J -20352265.90 -20352265.73 -20352265.51 0.0089 0.0057 *

Earth -60434-07-17 05:01 J -20351898.48 -20351898.29 -20351898.05 0.0089 0.0047

Moon -60434-07-17 06:57 J -20351898.41 -20351898.21 -20351897.99 0.0089 0.0045 *

Moon -60433-07-18 13:25 J -20351531.16 -20351530.94 -20351530.69 0.0089 0.0037

Earth	-60433-07-18 16:04 J	-20351531.06	-20351530.83	-20351530.59	0.0089	0.0036	*
Earth	-60432-07-21 02:23 J	-20351163.64	-20351163.40	-20351163.15	0.0089	0.0026	
Moon	-60432-07-21 05:45 J	-20351163.49	-20351163.26	-20351163.01	0.0089	0.0025	*
Moon	-60431-07-23 09:21 J	-20350796.35	-20350796.11	-20350795.85	0.0089	0.0017	
Earth	-60431-07-23 12:42 J	-20350796.21	-20350795.97	-20350795.71	0.0089	0.0016	*
Earth	-60430-07-25 23:16 J	-20350428.78	-20350428.53	-20350428.28	0.0089	0.0005	
Moon	-60430-07-26 02:52 J	-20350428.64	-20350428.38	-20350428.13	0.0089	0.0005	*
Moon	-60429-07-27 07:11 J	-20350061.45	-20350061.20	-20350060.95	0.0089	0.0004	
Earth	-60429-07-27 09:35 J	-20350061.35	-20350061.10	-20350060.84	0.0089	0.0006	*
Earth	-60428-07-29 19:40 J	-20349693.92	-20349693.68	-20349693.42	0.0089	0.0016	
Moon	-60428-07-29 21:21 J	-20349693.86	-20349693.61	-20349693.34	0.0089	0.0016	*
Moon	-60427-08-01 04:47 J	-20349326.52	-20349326.30	-20349326.05	0.0089	0.0026	
Earth	-60427-08-01 05:45 J	-20349326.49	-20349326.26	-20349326.01	0.0089	0.0026	*
Moon	-60426-08-03 14:52 J	-20348959.11	-20348958.88	-20348958.63	0.0089	0.0037	
Earth	-60426-08-03 16:04 J	-20348959.06	-20348958.83	-20348958.59	0.0089	0.0036	*
Earth	-60425-08-05 02:23 J	-20348591.62	-20348591.40	-20348591.19	0.0089	0.0046	
Moon	-60425-08-05 03:49 J	-20348591.53	-20348591.34	-20348591.11	0.0089	0.0046	*
Moon	-60424-08-07 09:06 J	-20348224.29	-20348224.12	-20348223.90	0.0089	0.0057	
Earth	-60424-08-07 11:59 J	-20348224.17	-20348224.00	-20348223.78	0.0089	0.0057	*
Earth	-60423-08-09 22:04 J	-20347856.72	-20347856.58	-20347856.39	0.0089	0.0067	
Moon	-60423-08-10 01:40 J	-20347856.58	-20347856.43	-20347856.24	0.0089	0.0066	*
Moon	-60422-08-12 05:16 J	-20347489.39	-20347489.28	-20347489.14	0.0089	0.0077	
Earth	-60422-08-12 08:23 J	-20347489.25	-20347489.15	-20347489.00	0.0089	0.0077	*
Earth	-60421-08-13 18:28 J	-20347121.76	-20347121.73	-20347121.65	0.0089	0.0087	
Moon	-60421-08-13 22:04 J	-20347121.61	-20347121.58	-20347121.51	0.0089	0.0087	
Jupiter	-60407-01-20 08:09 J	-20342214.68	-20342214.16	-20342213.63	0.0089	0.0023	
Venus	-60401-11-22 04:47 J	-20339716.40	-20339716.30	-20339716.16	0.0089	0.0074	
Venus	-60400-07-05 17:16 J	-20339490.94	-20339490.78	-20339490.60	0.0089	0.0054	
Venus	-60399-02-16 05:30 J	-20339265.46	-20339265.27	-20339265.06	0.0089	0.0034	
Venus	-60399-09-29 17:59 J	-20339039.96	-20339039.75	-20339039.54	0.0089	0.0014	

Venus -60398-05-13 06:13 J -20338814.45 -20338814.24 -20338814.02 0.0089 0.0006
 Venus -60398-12-24 18:28 J -20338588.93 -20338588.73 -20338588.52 0.0089 0.0026
 Venus -60397-08-06 06:42 J -20338363.39 -20338363.22 -20338363.02 0.0089 0.0047
 Venus -60396-03-19 19:11 J -20338137.83 -20338137.70 -20338137.55 0.0089 0.0067
 Venus -60396-10-31 07:40 J -20337912.22 -20337912.18 -20337912.12 0.0089 0.0087
 Mercury -60367-10-15 01:40 J -20327336.45 -20327336.43 -20327336.38 0.0089 0.0087
 Mercury -60366-01-11 05:16 J -20327248.36 -20327248.28 -20327248.19 0.0089 0.0079
 Mercury -60366-04-09 08:23 J -20327160.25 -20327160.15 -20327160.03 0.0089 0.0072
 Mars -60366-05-29 09:35 J -20327110.35 -20327110.10 -20327109.78 0.0089 0.0047
 Mercury -60366-07-06 11:45 J -20327072.12 -20327072.01 -20327071.86 0.0089 0.0064
 Mercury -60366-10-02 15:21 J -20326984.00 -20326983.86 -20326983.71 0.0089 0.0056
 Mercury -60366-12-29 18:28 J -20326895.87 -20326895.73 -20326895.55 0.0089 0.0049
 Mercury -60365-03-26 22:04 J -20326807.74 -20326807.58 -20326807.40 0.0089 0.0041
 Mercury -60365-06-23 01:40 J -20326719.60 -20326719.43 -20326719.25 0.0089 0.0033
 Mercury -60365-09-19 05:01 J -20326631.47 -20326631.29 -20326631.10 0.0089 0.0025
 Mercury -60365-12-16 08:23 J -20326543.33 -20326543.15 -20326542.96 0.0089 0.0018
 Mercury -60364-03-14 11:59 J -20326455.19 -20326455.00 -20326454.81 0.0089 0.0009
 Mars -60364-04-24 07:54 J -20326414.50 -20326414.17 -20326413.83 0.0089 0.0003
 Mercury -60364-06-10 15:21 J -20326367.05 -20326366.86 -20326366.66 0.0089 0.0003
 Mercury -60364-09-06 18:57 J -20326278.90 -20326278.71 -20326278.52 0.0089 0.0006
 Mercury -60364-12-03 22:18 J -20326190.76 -20326190.57 -20326190.38 0.0089 0.0014
 Mercury -60363-03-02 01:54 J -20326102.61 -20326102.42 -20326102.24 0.0089 0.0022
 Mercury -60363-05-29 05:16 J -20326014.46 -20326014.28 -20326014.10 0.0089 0.0030
 Mercury -60363-08-25 08:37 J -20325926.31 -20325926.14 -20325925.96 0.0089 0.0038
 Mercury -60363-11-21 11:59 J -20325838.15 -20325838.00 -20325837.82 0.0089 0.0046
 Mercury -60362-02-17 15:35 J -20325749.99 -20325749.85 -20325749.69 0.0089 0.0054
 Mars -60362-03-21 07:54 J -20325718.44 -20325718.17 -20325717.85 0.0089 0.0043
 Mercury -60362-05-16 18:57 J -20325661.83 -20325661.71 -20325661.56 0.0089 0.0062
 Mercury -60362-08-12 22:18 J -20325573.67 -20325573.57 -20325573.43 0.0089 0.0070
 Mercury -60362-11-09 01:54 J -20325485.49 -20325485.42 -20325485.31 0.0089 0.0078

Mercury -60361-02-05 05:16 J -20325397.30 -20325397.28 -20325397.20 0.0089 0.0086

Mars -60360-02-14 10:18 J -20325022.09 -20325022.07 -20325021.98 0.0089 0.0088

Moon -60355-01-05 06:28 J -20323236.37 -20323236.23 -20323236.09 0.0088 0.0075

Earth -60355-01-05 05:30 J -20323236.36 -20323236.27 -20323236.13 0.0088 0.0080 *

Earth -60354-01-07 18:28 J -20322868.87 -20322868.73 -20322868.54 0.0088 0.0070

Moon -60354-01-07 19:54 J -20322868.80 -20322868.67 -20322868.52 0.0088 0.0074 *

Moon -60353-01-10 05:01 J -20322501.48 -20322501.29 -20322501.06 0.0088 0.0055

Earth -60353-01-10 07:40 J -20322501.36 -20322501.18 -20322500.97 0.0088 0.0059 *

Earth -60352-01-11 20:23 J -20322133.85 -20322133.65 -20322133.41 0.0088 0.0049

Moon -60352-01-11 23:30 J -20322133.72 -20322133.52 -20322133.31 0.0088 0.0053 *

Moon -60351-01-14 05:45 J -20321766.48 -20321766.26 -20321765.99 0.0088 0.0034

Earth -60351-01-14 09:49 J -20321766.32 -20321766.09 -20321765.85 0.0088 0.0038 *

Earth -60350-01-16 22:33 J -20321398.80 -20321398.56 -20321398.30 0.0088 0.0027

Moon -60350-01-17 02:09 J -20321398.65 -20321398.41 -20321398.16 0.0088 0.0032 *

Moon -60349-01-19 08:23 J -20321031.40 -20321031.15 -20321030.89 0.0088 0.0013

Earth -60349-01-19 11:59 J -20321031.26 -20321031.00 -20321030.75 0.0088 0.0017 *

Earth -60348-01-21 00:42 J -20320663.73 -20320663.47 -20320663.21 0.0088 0.0006

Moon -60348-01-21 03:35 J -20320663.62 -20320663.35 -20320663.08 0.0088 0.0011 *

Moon -60347-01-23 12:28 J -20320296.23 -20320295.98 -20320295.73 0.0088 0.0009

Earth -60347-01-23 13:54 J -20320296.18 -20320295.92 -20320295.66 0.0088 0.0004 *

Earth -60346-01-26 02:52 J -20319928.63 -20319928.38 -20319928.12 0.0088 0.0015

Moon -60346-01-26 03:35 J -20319928.61 -20319928.35 -20319928.07 0.0088 0.0012 *

Earth -60345-01-28 15:49 J -20319561.08 -20319560.84 -20319560.58 0.0088 0.0026

Moon -60345-01-28 16:33 J -20319561.04 -20319560.81 -20319560.56 0.0088 0.0030 *

Moon -60344-01-30 02:52 J -20319193.62 -20319193.38 -20319193.11 0.0088 0.0033

Earth -60344-01-30 05:01 J -20319193.52 -20319193.29 -20319193.04 0.0088 0.0037 *

Earth -60343-02-01 18:28 J -20318825.95 -20318825.73 -20318825.50 0.0088 0.0047

Moon -60343-02-01 20:52 J -20318825.83 -20318825.63 -20318825.41 0.0088 0.0051 *

Moon -60342-02-04 03:35 J -20318458.54 -20318458.35 -20318458.11 0.0088 0.0053

Earth -60342-02-04 07:25 J -20318458.37 -20318458.19 -20318457.97 0.0088 0.0058 *

Earth	-60341-02-06 20:52 J	-20318090.79	-20318090.63	-20318090.45	0.0088	0.0068
Moon	-60341-02-07 00:28 J	-20318090.62	-20318090.48	-20318090.32	0.0088	0.0072 *
Moon	-60340-02-08 06:28 J	-20317723.35	-20317723.23	-20317723.08	0.0088	0.0075
Earth	-60340-02-08 09:35 J	-20317723.19	-20317723.10	-20317722.95	0.0088	0.0079 *
Earth	-60339-02-10 23:16 J	-20317355.53	-20317355.53	-20317355.51	0.0088	0.0088
Venus	-60318-01-11 20:52 J	-20309715.67	-20309715.63	-20309715.53	0.0088	0.0085
Venus	-60318-08-25 11:16 J	-20309490.18	-20309490.03	-20309489.87	0.0088	0.0063
Venus	-60317-04-07 00:42 J	-20309264.65	-20309264.47	-20309264.26	0.0088	0.0043
Venus	-60317-11-18 14:23 J	-20309039.10	-20309038.90	-20309038.67	0.0088	0.0023
Venus	-60316-07-02 04:18 J	-20308813.54	-20308813.32	-20308813.09	0.0088	0.0003
Venus	-60315-02-12 17:59 J	-20308587.96	-20308587.75	-20308587.52	0.0088	0.0018
Venus	-60315-09-26 07:40 J	-20308362.37	-20308362.18	-20308361.97	0.0088	0.0038
Venus	-60314-05-09 21:06 J	-20308136.78	-20308136.62	-20308136.44	0.0088	0.0059
Venus	-60314-12-21 10:47 J	-20307911.14	-20307911.05	-20307910.94	0.0088	0.0079
Mercury	-60285-10-23 23:01 J	-20297376.57	-20297376.54	-20297376.50	0.0089	0.0085
Mercury	-60284-01-20 00:28 J	-20297288.54	-20297288.48	-20297288.42	0.0089	0.0079
Mercury	-60284-04-18 01:40 J	-20297200.49	-20297200.43	-20297200.34	0.0089	0.0074
Mars	-60284-04-30 12:28 J	-20297188.17	-20297187.98	-20297187.73	0.0089	0.0059
Mercury	-60284-07-15 03:21 J	-20297112.44	-20297112.36	-20297112.27	0.0089	0.0068
Mercury	-60284-10-11 04:33 J	-20297024.39	-20297024.31	-20297024.20	0.0089	0.0063
Mercury	-60283-01-07 05:59 J	-20296936.34	-20296936.25	-20296936.13	0.0089	0.0057
Mercury	-60283-04-05 07:40 J	-20296848.29	-20296848.18	-20296848.07	0.0089	0.0051
Mercury	-60283-07-02 08:52 J	-20296760.24	-20296760.13	-20296760.00	0.0089	0.0046
Mercury	-60283-09-28 10:18 J	-20296672.18	-20296672.07	-20296671.94	0.0089	0.0040
Mercury	-60283-12-25 11:59 J	-20296584.13	-20296584.00	-20296583.88	0.0089	0.0034
Mercury	-60282-03-23 13:11 J	-20296496.07	-20296495.95	-20296495.82	0.0089	0.0029
Mars	-60282-03-25 10:18 J	-20296494.35	-20296494.07	-20296493.78	0.0089	0.0020
Mercury	-60282-06-19 14:37 J	-20296408.02	-20296407.89	-20296407.76	0.0089	0.0023
Mercury	-60282-09-15 16:04 J	-20296319.96	-20296319.83	-20296319.70	0.0089	0.0017
Mercury	-60282-12-12 17:30 J	-20296231.90	-20296231.77	-20296231.64	0.0089	0.0012

Mercury -60281-03-09 18:57 J -20296143.85 -20296143.71 -20296143.58 0.0089 0.0006

Mercury -60281-06-05 20:23 J -20296055.79 -20296055.65 -20296055.52 0.0089 0.0002

Mercury -60281-09-01 21:35 J -20295967.73 -20295967.60 -20295967.46 0.0089 0.0006

Mercury -60281-11-28 23:01 J -20295879.67 -20295879.54 -20295879.40 0.0089 0.0011

Mars -60280-02-16 04:33 J -20295800.59 -20295800.31 -20295800.01 0.0089 0.0019

Mercury -60280-02-25 00:28 J -20295791.61 -20295791.48 -20295791.35 0.0089 0.0016

Mercury -60280-05-24 01:54 J -20295703.55 -20295703.42 -20295703.29 0.0089 0.0022

Mercury -60280-08-20 03:06 J -20295615.49 -20295615.37 -20295615.24 0.0089 0.0027

Mercury -60280-11-16 04:33 J -20295527.43 -20295527.31 -20295527.18 0.0089 0.0033

Mercury -60279-02-12 05:45 J -20295439.37 -20295439.26 -20295439.13 0.0089 0.0039

Mercury -60279-05-11 07:11 J -20295351.31 -20295351.20 -20295351.08 0.0089 0.0044

Mercury -60279-08-07 08:23 J -20295263.25 -20295263.15 -20295263.03 0.0089 0.0050

Mercury -60279-11-03 09:49 J -20295175.18 -20295175.09 -20295174.98 0.0089 0.0055

Mars -60278-01-10 22:47 J -20295106.77 -20295106.55 -20295106.32 0.0089 0.0056

Mercury -60278-01-30 11:01 J -20295087.12 -20295087.04 -20295086.93 0.0089 0.0061

Mercury -60278-04-28 12:42 J -20294999.05 -20294998.97 -20294998.88 0.0089 0.0066

Mercury -60278-07-25 14:09 J -20294910.99 -20294910.91 -20294910.83 0.0089 0.0071

Mercury -60278-10-21 15:21 J -20294822.92 -20294822.86 -20294822.79 0.0089 0.0077

Mercury -60277-01-17 16:47 J -20294734.85 -20294734.80 -20294734.75 0.0089 0.0082

Mercury -60277-04-14 17:45 J -20294646.76 -20294646.76 -20294646.72 0.0089 0.0088

Moon -60273-07-09 07:54 J -20293100.27 -20293100.17 -20293100.03 0.0089 0.0077

Earth -60273-07-09 08:23 J -20293100.25 -20293100.15 -20293100.04 0.0089 0.0080 *

Moon -60272-07-11 17:45 J -20292732.88 -20292732.76 -20292732.59 0.0089 0.0074

Earth -60272-07-11 18:28 J -20292732.87 -20292732.73 -20292732.56 0.0089 0.0070 *

Earth -60271-07-14 04:47 J -20292365.47 -20292365.30 -20292365.09 0.0089 0.0060

Moon -60271-07-14 06:42 J -20292365.39 -20292365.22 -20292365.01 0.0089 0.0056 *

Moon -60270-07-16 12:42 J -20291998.18 -20291997.97 -20291997.76 0.0089 0.0053

Earth -60270-07-16 15:21 J -20291998.05 -20291997.86 -20291997.63 0.0089 0.0050 *

Earth -60269-07-18 01:54 J -20291630.64 -20291630.42 -20291630.19 0.0089 0.0039

Moon -60269-07-18 05:01 J -20291630.51 -20291630.29 -20291630.05 0.0089 0.0035 *

Moon	-60268-07-20 08:37 J	-20291263.37	-20291263.14	-20291262.90	0.0089	0.0033
Earth	-60268-07-20 12:13 J	-20291263.22	-20291262.99	-20291262.74	0.0089	0.0029 *
Earth	-60267-07-22 22:47 J	-20290895.80	-20290895.55	-20290895.30	0.0089	0.0018
Moon	-60267-07-23 01:40 J	-20290895.68	-20290895.43	-20290895.17	0.0089	0.0014 *
Moon	-60266-07-25 06:42 J	-20290528.46	-20290528.22	-20290527.97	0.0089	0.0012
Earth	-60266-07-25 09:21 J	-20290528.36	-20290528.11	-20290527.85	0.0089	0.0007 *
Earth	-60265-07-26 19:40 J	-20290160.93	-20290160.68	-20290160.42	0.0089	0.0003
Moon	-60265-07-26 21:06 J	-20290160.88	-20290160.62	-20290160.36	0.0089	0.0008 *
Earth	-60264-07-29 05:45 J	-20289793.50	-20289793.26	-20289793.00	0.0089	0.0014
Moon	-60264-07-29 05:59 J	-20289793.49	-20289793.25	-20289793.00	0.0089	0.0010 *
Moon	-60263-07-31 14:52 J	-20289426.11	-20289425.88	-20289425.62	0.0089	0.0029
Earth	-60263-07-31 16:04 J	-20289426.07	-20289425.83	-20289425.58	0.0089	0.0024 *
Earth	-60262-08-03 02:09 J	-20289058.63	-20289058.41	-20289058.17	0.0089	0.0035
Moon	-60262-08-03 04:18 J	-20289058.53	-20289058.32	-20289058.07	0.0089	0.0031 *
Moon	-60261-08-04 08:37 J	-20288691.33	-20288691.14	-20288690.90	0.0089	0.0050
Earth	-60261-08-04 12:28 J	-20288691.19	-20288690.98	-20288690.76	0.0089	0.0045 *
Earth	-60260-08-06 22:04 J	-20288323.76	-20288323.58	-20288323.36	0.0089	0.0056
Moon	-60260-08-07 01:40 J	-20288323.62	-20288323.43	-20288323.21	0.0089	0.0052 *
Moon	-60259-08-09 04:33 J	-20287956.43	-20287956.31	-20287956.13	0.0089	0.0072
Earth	-60259-08-09 08:23 J	-20287956.30	-20287956.15	-20287955.96	0.0089	0.0066 *
Earth	-60258-08-11 18:42 J	-20287588.84	-20287588.72	-20287588.58	0.0089	0.0076
Moon	-60258-08-11 21:06 J	-20287588.75	-20287588.62	-20287588.45	0.0089	0.0072 *
Earth	-60257-08-13 04:47 J	-20287221.34	-20287221.30	-20287221.23	0.0089	0.0087
Venus	-60236-02-23 16:33 J	-20279721.88	-20279721.81	-20279721.71	0.0089	0.0082
Venus	-60236-10-07 04:47 J	-20279496.44	-20279496.30	-20279496.14	0.0089	0.0062
Venus	-60235-05-20 17:01 J	-20279270.97	-20279270.79	-20279270.59	0.0089	0.0043
Venus	-60234-01-01 05:16 J	-20279045.48	-20279045.28	-20279045.06	0.0089	0.0023
Venus	-60234-08-14 17:45 J	-20278819.97	-20278819.76	-20278819.54	0.0089	0.0002
Venus	-60233-03-27 05:59 J	-20278594.46	-20278594.25	-20278594.04	0.0089	0.0018
Venus	-60233-11-07 17:59 J	-20278368.93	-20278368.75	-20278368.54	0.0089	0.0038

Venus -60232-06-21 06:13 J -20278143.38 -20278143.24 -20278143.06 0.0089 0.0058

Venus -60231-02-01 18:28 J -20277917.81 -20277917.73 -20277917.60 0.0089 0.0078

Mars -60202-01-10 08:23 J -20267348.36 -20267348.15 -20267347.88 0.0089 0.0062

Mercury -60202-07-12 00:13 J -20267165.53 -20267165.49 -20267165.41 0.0089 0.0084

Mercury -60202-10-08 03:49 J -20267077.43 -20267077.34 -20267077.24 0.0089 0.0076

Mercury -60201-01-04 06:57 J -20266989.31 -20266989.21 -20266989.07 0.0089 0.0069

Mercury -60201-04-01 10:33 J -20266901.19 -20266901.06 -20266900.91 0.0089 0.0061

Mercury -60201-06-28 14:09 J -20266813.06 -20266812.91 -20266812.76 0.0089 0.0053

Mercury -60201-09-24 17:16 J -20266724.93 -20266724.78 -20266724.61 0.0089 0.0046

Mars -60201-12-06 03:21 J -20266652.67 -20266652.36 -20266652.02 0.0089 0.0019

Mercury -60201-12-21 20:37 J -20266636.80 -20266636.64 -20266636.45 0.0089 0.0038

Mercury -60200-03-20 00:13 J -20266548.66 -20266548.49 -20266548.30 0.0089 0.0030

Mercury -60200-06-16 03:49 J -20266460.52 -20266460.34 -20266460.16 0.0089 0.0022

Mercury -60200-09-12 07:11 J -20266372.39 -20266372.20 -20266372.01 0.0089 0.0014

Mercury -60200-12-09 10:33 J -20266284.24 -20266284.06 -20266283.86 0.0089 0.0007

Mercury -60199-03-07 14:09 J -20266196.10 -20266195.91 -20266195.72 0.0089 0.0002

Mercury -60199-06-03 17:30 J -20266107.96 -20266107.77 -20266107.58 0.0089 0.0010

Mercury -60199-08-30 20:52 J -20266019.81 -20266019.63 -20266019.44 0.0089 0.0018

Mars -60199-11-02 01:25 J -20265956.74 -20265956.44 -20265956.10 0.0089 0.0026

Mercury -60199-11-27 00:13 J -20265931.66 -20265931.49 -20265931.29 0.0089 0.0026

Mercury -60198-02-23 03:35 J -20265843.51 -20265843.35 -20265843.16 0.0089 0.0034

Mercury -60198-05-22 07:25 J -20265755.36 -20265755.19 -20265755.02 0.0089 0.0041

Mercury -60198-08-18 10:47 J -20265667.20 -20265667.05 -20265666.88 0.0089 0.0049

Mercury -60198-11-14 14:23 J -20265579.04 -20265578.90 -20265578.75 0.0089 0.0057

Mercury -60197-02-10 17:45 J -20265490.88 -20265490.76 -20265490.62 0.0089 0.0065

Mercury -60197-05-08 21:06 J -20265402.71 -20265402.62 -20265402.50 0.0089 0.0073

Mercury -60197-08-05 00:42 J -20265314.53 -20265314.47 -20265314.38 0.0089 0.0081

Mars -60197-09-28 02:23 J -20265260.57 -20265260.40 -20265260.15 0.0089 0.0070

Earth -60191-01-04 13:40 J -20263335.98 -20263335.93 -20263335.81 0.0089 0.0084

Moon -60191-01-04 15:35 J -20263335.92 -20263335.85 -20263335.74 0.0089 0.0083 *

Moon	-60190-01-06 23:59 J	-20262968.61	-20262968.50	-20262968.32	0.0089	0.0074
Earth	-60190-01-07 03:06 J	-20262968.50	-20262968.37	-20262968.21	0.0089	0.0073 *
Earth	-60189-01-09 15:49 J	-20262601.00	-20262600.84	-20262600.63	0.0088	0.0063
Moon	-60189-01-09 19:25 J	-20262600.86	-20262600.69	-20262600.49	0.0088	0.0062 *
Moon	-60188-01-11 01:54 J	-20262233.63	-20262233.42	-20262233.21	0.0088	0.0052
Earth	-60188-01-11 05:01 J	-20262233.49	-20262233.29	-20262233.06	0.0088	0.0052 *
Earth	-60187-01-13 18:13 J	-20261865.97	-20261865.74	-20261865.51	0.0088	0.0041
Moon	-60187-01-13 21:35 J	-20261865.81	-20261865.60	-20261865.35	0.0088	0.0042 *
Moon	-60186-01-16 04:18 J	-20261498.55	-20261498.32	-20261498.07	0.0088	0.0031
Earth	-60186-01-16 06:57 J	-20261498.44	-20261498.21	-20261497.95	0.0088	0.0031 *
Earth	-60185-01-18 19:54 J	-20261130.91	-20261130.67	-20261130.40	0.0088	0.0020
Moon	-60185-01-18 22:33 J	-20261130.82	-20261130.56	-20261130.30	0.0088	0.0020 *
Moon	-60184-01-20 07:54 J	-20260763.42	-20260763.17	-20260762.91	0.0088	0.0008
Earth	-60184-01-20 09:06 J	-20260763.37	-20260763.12	-20260762.85	0.0088	0.0009 *
Moon	-60183-01-22 21:49 J	-20260395.86	-20260395.59	-20260395.32	0.0088	0.0002
Earth	-60183-01-22 22:18 J	-20260395.83	-20260395.57	-20260395.31	0.0088	0.0003 *
Earth	-60182-01-25 11:01 J	-20260028.29	-20260028.04	-20260027.77	0.0088	0.0014
Moon	-60182-01-25 12:13 J	-20260028.23	-20260027.99	-20260027.73	0.0088	0.0014 *
Moon	-60181-01-27 21:35 J	-20259660.84	-20259660.60	-20259660.32	0.0088	0.0024
Earth	-60181-01-27 23:59 J	-20259660.74	-20259660.50	-20259660.23	0.0088	0.0025 *
Earth	-60180-01-29 12:57 J	-20259293.18	-20259292.96	-20259292.70	0.0088	0.0036
Moon	-60180-01-29 16:33 J	-20259293.04	-20259292.81	-20259292.56	0.0088	0.0036 *
Moon	-60179-01-31 22:47 J	-20258925.76	-20258925.55	-20258925.30	0.0088	0.0045
Earth	-60179-02-01 02:37 J	-20258925.61	-20258925.39	-20258925.16	0.0088	0.0046 *
Earth	-60178-02-03 15:35 J	-20258558.04	-20258557.85	-20258557.64	0.0088	0.0056
Moon	-60178-02-03 19:25 J	-20258557.87	-20258557.69	-20258557.48	0.0088	0.0059 *
Moon	-60177-02-06 01:25 J	-20258190.58	-20258190.44	-20258190.24	0.0088	0.0067
Earth	-60177-02-06 04:33 J	-20258190.45	-20258190.31	-20258190.11	0.0088	0.0068 *
Earth	-60176-02-07 18:13 J	-20257822.85	-20257822.74	-20257822.61	0.0088	0.0078
Moon	-60176-02-07 20:23 J	-20257822.73	-20257822.65	-20257822.50	0.0088	0.0081 *

Moon	-60175-02-10 05:30 J	-20257455.29	-20257455.27	-20257455.18	0.0088	0.0087
Earth	-60175-02-10 07:40 J	-20257455.18	-20257455.18	-20257455.16	0.0088	0.0088 *
Venus	-60154-11-26 21:06 J	-20249495.74	-20249495.62	-20249495.48	0.0088	0.0072
Venus	-60153-07-09 10:47 J	-20249270.22	-20249270.05	-20249269.85	0.0088	0.0051
Venus	-60152-02-20 00:42 J	-20249044.67	-20249044.47	-20249044.25	0.0088	0.0031
Venus	-60152-10-03 14:37 J	-20248819.11	-20248818.89	-20248818.66	0.0088	0.0010
Venus	-60151-05-17 04:18 J	-20248593.54	-20248593.32	-20248593.09	0.0088	0.0010
Venus	-60151-12-28 17:45 J	-20248367.96	-20248367.76	-20248367.54	0.0088	0.0031
Venus	-60150-08-11 07:25 J	-20248142.36	-20248142.19	-20248141.99	0.0088	0.0051
Venus	-60149-03-23 21:21 J	-20247916.74	-20247916.61	-20247916.48	0.0088	0.0071
Saturn	-60138-04-11 11:59 J	-20243881.07	-20243881.00	-20243880.77	0.0088	0.0087
Mars	-60121-12-13 19:25 J	-20237424.84	-20237424.69	-20237424.49	0.0089	0.0072
Mercury	-60120-04-23 21:21 J	-20237293.62	-20237293.61	-20237293.59	0.0089	0.0088
Mercury	-60120-07-20 22:33 J	-20237205.59	-20237205.56	-20237205.50	0.0089	0.0083
Mercury	-60120-10-16 23:59 J	-20237117.55	-20237117.50	-20237117.42	0.0089	0.0077
Mercury	-60119-01-13 01:40 J	-20237029.51	-20237029.43	-20237029.35	0.0089	0.0071
Mercury	-60119-04-11 02:52 J	-20236941.46	-20236941.38	-20236941.27	0.0089	0.0066
Mercury	-60119-07-08 04:33 J	-20236853.41	-20236853.31	-20236853.21	0.0089	0.0060
Mercury	-60119-10-04 05:59 J	-20236765.35	-20236765.25	-20236765.14	0.0089	0.0054
Mars	-60119-11-07 18:42 J	-20236730.97	-20236730.72	-20236730.43	0.0089	0.0034
Mercury	-60119-12-31 07:11 J	-20236677.30	-20236677.20	-20236677.08	0.0089	0.0049
Mercury	-60118-03-29 08:52 J	-20236589.25	-20236589.13	-20236589.01	0.0089	0.0043
Mercury	-60118-06-25 10:04 J	-20236501.19	-20236501.08	-20236500.95	0.0089	0.0038
Mercury	-60118-09-21 11:30 J	-20236413.14	-20236413.02	-20236412.89	0.0089	0.0032
Mercury	-60118-12-18 13:11 J	-20236325.08	-20236324.95	-20236324.82	0.0089	0.0026
Mercury	-60117-03-15 14:23 J	-20236237.03	-20236236.90	-20236236.76	0.0089	0.0021
Mercury	-60117-06-11 15:49 J	-20236148.97	-20236148.84	-20236148.70	0.0089	0.0015
Mercury	-60117-09-07 17:16 J	-20236060.91	-20236060.78	-20236060.64	0.0089	0.0009
Mars	-60117-10-01 16:18 J	-20236037.11	-20236036.82	-20236036.52	0.0089	0.0005
Mercury	-60117-12-04 18:42 J	-20235972.86	-20235972.72	-20235972.59	0.0089	0.0004

Mercury -60116-03-02 20:09 J -20235884.80 -20235884.66 -20235884.53 0.0089 0.0003

Mercury -60116-05-29 21:21 J -20235796.74 -20235796.61 -20235796.47 0.0089 0.0008

Mercury -60116-08-25 22:47 J -20235708.68 -20235708.55 -20235708.41 0.0089 0.0013

Mercury -60116-11-22 00:13 J -20235620.62 -20235620.49 -20235620.36 0.0089 0.0019

Mercury -60115-02-18 01:25 J -20235532.56 -20235532.44 -20235532.30 0.0089 0.0025

Mercury -60115-05-17 02:52 J -20235444.50 -20235444.38 -20235444.25 0.0089 0.0030

Mercury -60115-08-13 04:04 J -20235356.44 -20235356.33 -20235356.20 0.0089 0.0036

Mars -60115-08-26 09:49 J -20235343.33 -20235343.09 -20235342.82 0.0089 0.0042

Mercury -60115-11-09 05:30 J -20235268.38 -20235268.27 -20235268.14 0.0089 0.0041

Mercury -60114-02-05 06:57 J -20235180.32 -20235180.21 -20235180.09 0.0089 0.0046

Mercury -60114-05-04 08:23 J -20235092.26 -20235092.15 -20235092.04 0.0089 0.0052

Mercury -60114-07-31 09:49 J -20235004.19 -20235004.09 -20235003.99 0.0089 0.0057

Mercury -60114-10-27 11:01 J -20234916.13 -20234916.04 -20234915.94 0.0089 0.0063

Mercury -60113-01-23 12:28 J -20234828.06 -20234827.98 -20234827.89 0.0089 0.0068

Mercury -60113-04-20 13:40 J -20234739.99 -20234739.93 -20234739.85 0.0089 0.0074

Mercury -60113-07-17 15:06 J -20234651.92 -20234651.87 -20234651.81 0.0089 0.0079

Mars -60113-07-20 02:52 J -20234649.49 -20234649.38 -20234649.22 0.0089 0.0079

Mercury -60113-10-13 16:18 J -20234563.85 -20234563.82 -20234563.77 0.0089 0.0085

Moon -60109-07-08 16:47 J -20233199.87 -20233199.80 -20233199.67 0.0089 0.0082

Earth -60109-07-08 18:42 J -20233199.78 -20233199.72 -20233199.63 0.0089 0.0084 *

Earth -60108-07-11 05:01 J -20232832.41 -20232832.29 -20232832.13 0.0089 0.0074

Moon -60108-07-11 07:11 J -20232832.31 -20232832.20 -20232832.05 0.0089 0.0076 *

Moon -60107-07-13 12:57 J -20232465.15 -20232464.96 -20232464.78 0.0089 0.0061

Earth -60107-07-13 16:04 J -20232465.01 -20232464.83 -20232464.65 0.0089 0.0063 *

Earth -60106-07-16 01:54 J -20232097.60 -20232097.42 -20232097.19 0.0089 0.0053

Moon -60106-07-16 05:45 J -20232097.45 -20232097.26 -20232097.05 0.0089 0.0055 *

Moon -60105-07-17 09:06 J -20231730.32 -20231730.12 -20231729.88 0.0089 0.0041

Earth -60105-07-17 12:42 J -20231730.18 -20231729.97 -20231729.74 0.0089 0.0042 *

Earth -60104-07-19 23:16 J -20231362.77 -20231362.53 -20231362.30 0.0089 0.0031

Moon -60104-07-20 01:54 J -20231362.64 -20231362.42 -20231362.16 0.0089 0.0033 *

Moon	-60103-07-22 07:40 J	-20230995.41	-20230995.18	-20230994.93	0.0089	0.0019
Earth	-60103-07-22 09:21 J	-20230995.34	-20230995.11	-20230994.85	0.0089	0.0021 *
Earth	-60102-07-24 19:54 J	-20230627.91	-20230627.67	-20230627.41	0.0089	0.0010
Moon	-60102-07-24 21:06 J	-20230627.88	-20230627.62	-20230627.36	0.0089	0.0011 *
Earth	-60101-07-26 06:28 J	-20230260.48	-20230260.23	-20230259.98	0.0089	0.0001
Moon	-60101-07-26 06:42 J	-20230260.47	-20230260.22	-20230259.98	0.0089	0.0003 *
Moon	-60100-07-28 14:52 J	-20229893.14	-20229892.88	-20229892.62	0.0089	0.0010
Earth	-60100-07-28 16:47 J	-20229893.04	-20229892.80	-20229892.54	0.0089	0.0012 *
Earth	-60099-07-31 03:06 J	-20229525.61	-20229525.37	-20229525.12	0.0089	0.0023
Moon	-60099-07-31 05:30 J	-20229525.50	-20229525.27	-20229525.02	0.0089	0.0024 *
Moon	-60098-08-02 10:18 J	-20229158.31	-20229158.07	-20229157.83	0.0089	0.0032
Earth	-60098-08-02 13:11 J	-20229158.16	-20229157.95	-20229157.69	0.0089	0.0034 *
Earth	-60097-08-03 23:45 J	-20228790.73	-20228790.51	-20228790.29	0.0089	0.0044
Moon	-60097-08-04 03:06 J	-20228790.57	-20228790.37	-20228790.14	0.0089	0.0046 *
Moon	-60096-08-06 06:28 J	-20228423.41	-20228423.23	-20228423.02	0.0089	0.0054
Earth	-60096-08-06 09:35 J	-20228423.28	-20228423.10	-20228422.88	0.0089	0.0055 *
Earth	-60095-08-08 19:25 J	-20228055.83	-20228055.69	-20228055.49	0.0089	0.0066
Moon	-60095-08-08 22:47 J	-20228055.71	-20228055.55	-20228055.37	0.0089	0.0066 *
Moon	-60094-08-11 04:18 J	-20227688.42	-20227688.32	-20227688.16	0.0089	0.0076
Earth	-60094-08-11 05:59 J	-20227688.36	-20227688.25	-20227688.11	0.0089	0.0076 *
Earth	-60093-08-12 16:04 J	-20227320.88	-20227320.83	-20227320.76	0.0089	0.0086
Moon	-60093-08-12 16:04 J	-20227320.85	-20227320.83	-20227320.74	0.0089	0.0088 *
Venus	-60071-01-08 16:33 J	-20219501.93	-20219501.81	-20219501.67	0.0089	0.0071
Venus	-60071-08-22 04:47 J	-20219276.46	-20219276.30	-20219276.11	0.0089	0.0051
Venus	-60070-04-04 17:16 J	-20219050.98	-20219050.78	-20219050.58	0.0089	0.0030
Venus	-60070-11-16 05:30 J	-20218825.48	-20218825.27	-20218825.06	0.0089	0.0010
Venus	-60069-06-28 17:45 J	-20218599.97	-20218599.76	-20218599.54	0.0089	0.0010
Venus	-60068-02-09 06:13 J	-20218374.45	-20218374.24	-20218374.04	0.0089	0.0030
Venus	-60068-09-22 18:28 J	-20218148.91	-20218148.73	-20218148.55	0.0089	0.0050
Venus	-60067-05-06 06:13 J	-20217923.35	-20217923.24	-20217923.09	0.0089	0.0070

Mars -60039-08-24 08:37 J -20207586.29 -20207586.14 -20207585.95 0.0089 0.0076
 Mercury -60037-01-09 19:54 J -20207082.68 -20207082.67 -20207082.65 0.0089 0.0088
 Mercury -60037-04-06 23:01 J -20206994.60 -20206994.54 -20206994.45 0.0089 0.0081
 Mercury -60037-07-04 02:37 J -20206906.49 -20206906.39 -20206906.28 0.0089 0.0073
 Mars -60037-07-20 01:54 J -20206890.71 -20206890.42 -20206890.10 0.0089 0.0034
 Mercury -60037-09-30 06:13 J -20206818.37 -20206818.24 -20206818.12 0.0089 0.0065
 Mercury -60037-12-27 09:06 J -20206730.25 -20206730.12 -20206729.96 0.0089 0.0058
 Mercury -60036-03-25 12:42 J -20206642.12 -20206641.97 -20206641.81 0.0089 0.0050
 Mercury -60036-06-21 16:18 J -20206553.99 -20206553.82 -20206553.65 0.0089 0.0042
 Mercury -60036-09-17 19:25 J -20206465.85 -20206465.69 -20206465.50 0.0089 0.0035
 Mercury -60036-12-14 22:47 J -20206377.72 -20206377.55 -20206377.36 0.0089 0.0027
 Mercury -60035-03-13 02:23 J -20206289.58 -20206289.40 -20206289.21 0.0089 0.0019
 Mercury -60035-06-09 05:59 J -20206201.44 -20206201.25 -20206201.06 0.0089 0.0011
 Mars -60035-06-15 22:04 J -20206194.92 -20206194.58 -20206194.25 0.0089 0.0009
 Mercury -60035-09-05 09:21 J -20206113.30 -20206113.11 -20206112.92 0.0089 0.0003
 Mercury -60035-12-02 12:42 J -20206025.15 -20206024.97 -20206024.77 0.0089 0.0006
 Mercury -60034-02-28 16:18 J -20205937.01 -20205936.82 -20205936.63 0.0089 0.0013
 Mercury -60034-05-27 19:40 J -20205848.86 -20205848.68 -20205848.49 0.0089 0.0021
 Mercury -60034-08-23 23:01 J -20205760.71 -20205760.54 -20205760.35 0.0089 0.0029
 Mercury -60034-11-20 02:37 J -20205672.56 -20205672.39 -20205672.21 0.0089 0.0037
 Mercury -60033-02-16 05:59 J -20205584.40 -20205584.25 -20205584.07 0.0089 0.0045
 Mars -60033-05-11 19:54 J -20205498.92 -20205498.67 -20205498.38 0.0089 0.0053
 Mercury -60033-05-14 09:21 J -20205496.25 -20205496.11 -20205495.94 0.0089 0.0053
 Mercury -60033-08-10 12:57 J -20205408.09 -20205407.96 -20205407.81 0.0089 0.0061
 Mercury -60033-11-06 16:18 J -20205319.92 -20205319.82 -20205319.68 0.0089 0.0069
 Mercury -60032-02-02 19:54 J -20205231.75 -20205231.67 -20205231.56 0.0089 0.0077
 Mercury -60032-05-01 23:16 J -20205143.56 -20205143.53 -20205143.45 0.0089 0.0085
 Earth -60027-01-03 23:45 J -20203435.55 -20203435.51 -20203435.46 0.0089 0.0087
 Earth -60026-01-06 12:13 J -20203068.10 -20203067.99 -20203067.84 0.0089 0.0077
 Moon -60026-01-06 16:04 J -20203067.98 -20203067.83 -20203067.68 0.0089 0.0072 *

Moon	-60025-01-08 21:21 J	-20202700.74	-20202700.61	-20202700.43	0.0089	0.0071
Earth	-60025-01-09 01:11 J	-20202700.60	-20202700.45	-20202700.26	0.0089	0.0066 *
Earth	-60024-01-10 14:23 J	-20202333.10	-20202332.90	-20202332.69	0.0088	0.0055
Moon	-60024-01-10 17:16 J	-20202332.98	-20202332.78	-20202332.54	0.0088	0.0051 *
Moon	-60023-01-13 00:28 J	-20201965.68	-20201965.48	-20201965.25	0.0088	0.0049
Earth	-60023-01-13 03:35 J	-20201965.57	-20201965.35	-20201965.12	0.0088	0.0044 *
Earth	-60022-01-15 16:33 J	-20201598.05	-20201597.81	-20201597.56	0.0088	0.0033
Moon	-60022-01-15 17:59 J	-20201597.99	-20201597.75	-20201597.48	0.0088	0.0028 *
Moon	-60021-01-18 05:16 J	-20201230.52	-20201230.28	-20201230.03	0.0088	0.0026
Earth	-60021-01-18 05:45 J	-20201230.51	-20201230.26	-20201230.01	0.0088	0.0022 *
Moon	-60020-01-19 18:28 J	-20200863.00	-20200862.73	-20200862.46	0.0088	0.0006
Earth	-60020-01-19 18:42 J	-20200862.97	-20200862.72	-20200862.45	0.0088	0.0011 *
Earth	-60019-01-22 07:40 J	-20200495.44	-20200495.18	-20200494.91	0.0088	0.0001
Moon	-60019-01-22 09:35 J	-20200495.35	-20200495.10	-20200494.84	0.0088	0.0005 *
Moon	-60018-01-24 17:59 J	-20200128.01	-20200127.75	-20200127.48	0.0088	0.0016
Earth	-60018-01-24 20:52 J	-20200127.89	-20200127.63	-20200127.37	0.0088	0.0012 *
Earth	-60017-01-27 09:49 J	-20199760.34	-20199760.09	-20199759.84	0.0088	0.0023
Moon	-60017-01-27 12:57 J	-20199760.21	-20199759.96	-20199759.70	0.0088	0.0018 *
Moon	-60016-01-28 18:42 J	-20199392.94	-20199392.72	-20199392.47	0.0088	0.0039
Earth	-60016-01-28 22:47 J	-20199392.79	-20199392.55	-20199392.30	0.0088	0.0034 *
Earth	-60015-01-31 11:45 J	-20199025.23	-20199025.01	-20199024.78	0.0088	0.0045
Moon	-60015-01-31 14:52 J	-20199025.10	-20199024.88	-20199024.63	0.0088	0.0041 *
Moon	-60014-02-02 21:49 J	-20198657.77	-20198657.59	-20198657.40	0.0088	0.0060
Earth	-60014-02-03 00:42 J	-20198657.66	-20198657.47	-20198657.25	0.0088	0.0056 *
Earth	-60013-02-05 13:54 J	-20198290.08	-20198289.92	-20198289.73	0.0088	0.0067
Moon	-60013-02-05 15:35 J	-20198290.02	-20198289.85	-20198289.63	0.0088	0.0062 *
Moon	-60012-02-07 02:09 J	-20197922.48	-20197922.41	-20197922.29	0.0088	0.0081
Earth	-60012-02-07 02:52 J	-20197922.48	-20197922.38	-20197922.23	0.0088	0.0078 *
Moon	-60011-02-09 16:33 J	-20197554.88	-20197554.81	-20197554.72	0.0088	0.0084
Earth	-60011-02-09 16:18 J	-20197554.82	-20197554.82	-20197554.78	0.0088	0.0088 *

60TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 60th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-59989-02-28 07:40 J		-20189501.26	-20189501.18	-20189501.06	0.0088	0.0079	
Venus	-59989-10-10 21:49 J		-20189275.75	-20189275.59	-20189275.42	0.0088	0.0058	
Venus	-59988-05-24 11:30 J		-20189050.22	-20189050.02	-20189049.81	0.0088	0.0038	
Venus	-59987-01-05 01:11 J		-20188824.66	-20188824.45	-20188824.22	0.0088	0.0019	
Venus	-59987-08-18 15:06 J		-20188599.09	-20188598.87	-20188598.64	0.0088	0.0003	
Venus	-59986-04-01 04:33 J		-20188373.51	-20188373.31	-20188373.08	0.0088	0.0023	
Venus	-59986-11-12 18:13 J		-20188147.92	-20188147.74	-20188147.53	0.0088	0.0043	
Venus	-59985-06-25 07:54 J		-20187922.32	-20187922.17	-20187922.00	0.0088	0.0063	
Venus	-59984-02-05 21:35 J		-20187696.66	-20187696.60	-20187696.52	0.0088	0.0084	
Mars	-59957-07-29 03:49 J		-20177661.39	-20177661.34	-20177661.21	0.0089	0.0085	
Mercury	-59955-01-18 21:21 J		-20177122.64	-20177122.61	-20177122.57	0.0089	0.0085	
Mercury	-59955-04-16 22:33 J		-20177034.61	-20177034.56	-20177034.49	0.0089	0.0080	
Mars	-59955-06-23 04:04 J		-20176967.56	-20176967.33	-20176967.06	0.0089	0.0047	
Mercury	-59955-07-13 23:59 J		-20176946.56	-20176946.50	-20176946.41	0.0089	0.0074	
Mercury	-59955-10-10 01:40 J		-20176858.51	-20176858.43	-20176858.34	0.0089	0.0068	
Mercury	-59954-01-06 02:52 J		-20176770.46	-20176770.38	-20176770.27	0.0089	0.0063	
Mercury	-59954-04-04 04:18 J		-20176682.41	-20176682.32	-20176682.21	0.0089	0.0057	
Mercury	-59954-07-01 05:59 J		-20176594.36	-20176594.25	-20176594.14	0.0089	0.0051	

Mercury -59954-09-27 07:11 J -20176506.31 -20176506.20 -20176506.07 0.0089 0.0046

Mercury -59954-12-24 08:37 J -20176418.25 -20176418.14 -20176418.01 0.0089 0.0040

Mercury -59953-03-21 10:04 J -20176330.20 -20176330.08 -20176329.95 0.0089 0.0034

Mars -59953-05-17 03:06 J -20176273.66 -20176273.37 -20176273.07 0.0089 0.0009

Mercury -59953-06-17 11:30 J -20176242.14 -20176242.02 -20176241.89 0.0089 0.0029

Mercury -59953-09-13 12:57 J -20176154.09 -20176153.96 -20176153.82 0.0089 0.0023

Mercury -59953-12-10 14:23 J -20176066.03 -20176065.90 -20176065.76 0.0089 0.0017

Mercury -59952-03-08 15:49 J -20175977.97 -20175977.84 -20175977.70 0.0089 0.0012

Mercury -59952-06-04 17:16 J -20175889.92 -20175889.78 -20175889.65 0.0089 0.0006

Mercury -59952-08-31 18:42 J -20175801.86 -20175801.72 -20175801.59 0.0089 0.0002

Mercury -59952-11-27 19:54 J -20175713.80 -20175713.67 -20175713.53 0.0089 0.0006

Mercury -59951-02-23 21:21 J -20175625.74 -20175625.61 -20175625.47 0.0089 0.0011

Mars -59951-04-10 23:59 J -20175579.76 -20175579.50 -20175579.20 0.0089 0.0029

Mercury -59951-05-22 22:47 J -20175537.68 -20175537.55 -20175537.42 0.0089 0.0016

Mercury -59951-08-19 00:13 J -20175449.62 -20175449.49 -20175449.36 0.0089 0.0022

Mercury -59951-11-15 01:25 J -20175361.56 -20175361.44 -20175361.31 0.0089 0.0027

Mercury -59950-02-11 02:52 J -20175273.50 -20175273.38 -20175273.25 0.0089 0.0033

Mercury -59950-05-10 04:18 J -20175185.44 -20175185.32 -20175185.20 0.0089 0.0038

Mercury -59950-08-06 05:30 J -20175097.38 -20175097.27 -20175097.15 0.0089 0.0044

Mercury -59950-11-02 06:42 J -20175009.32 -20175009.22 -20175009.10 0.0089 0.0050

Mercury -59949-01-29 08:09 J -20174921.25 -20174921.16 -20174921.04 0.0089 0.0055

Mars -59949-03-04 17:45 J -20174885.95 -20174885.76 -20174885.55 0.0089 0.0065

Mercury -59949-04-26 09:49 J -20174833.19 -20174833.09 -20174833.00 0.0089 0.0060

Mercury -59949-07-23 11:01 J -20174745.12 -20174745.04 -20174744.95 0.0089 0.0066

Mercury -59949-10-19 12:28 J -20174657.06 -20174656.98 -20174656.90 0.0089 0.0071

Mercury -59948-01-15 13:40 J -20174568.99 -20174568.93 -20174568.86 0.0089 0.0077

Mercury -59948-04-13 15:06 J -20174480.91 -20174480.87 -20174480.82 0.0089 0.0082

Mercury -59948-07-10 16:18 J -20174392.83 -20174392.82 -20174392.79 0.0089 0.0088

Earth -59945-07-08 06:28 J -20173299.25 -20173299.23 -20173299.19 0.0089 0.0088

Moon -59944-07-10 13:40 J -20172932.05 -20172931.93 -20172931.77 0.0089 0.0074

Earth	-59944-07-10 16:47 J	-20172931.90	-20172931.80	-20172931.65	0.0089	0.0078	*
Earth	-59943-07-13 03:21 J	-20172564.51	-20172564.36	-20172564.17	0.0089	0.0067	
Moon	-59943-07-13 06:57 J	-20172564.34	-20172564.21	-20172564.04	0.0089	0.0071	*
Moon	-59942-07-15 10:33 J	-20172197.25	-20172197.06	-20172196.84	0.0089	0.0052	
Earth	-59942-07-15 13:54 J	-20172197.10	-20172196.92	-20172196.71	0.0089	0.0056	*
Earth	-59941-07-17 00:13 J	-20171829.70	-20171829.49	-20171829.26	0.0089	0.0045	
Moon	-59941-07-17 02:37 J	-20171829.59	-20171829.39	-20171829.15	0.0089	0.0049	*
Moon	-59940-07-19 08:52 J	-20171462.36	-20171462.13	-20171461.89	0.0089	0.0030	
Earth	-59940-07-19 10:47 J	-20171462.28	-20171462.05	-20171461.81	0.0089	0.0034	*
Earth	-59939-07-21 21:06 J	-20171094.86	-20171094.62	-20171094.37	0.0089	0.0023	
Moon	-59939-07-21 21:35 J	-20171094.85	-20171094.60	-20171094.35	0.0089	0.0027	*
Earth	-59938-07-24 07:25 J	-20170727.44	-20170727.19	-20170726.93	0.0089	0.0012	
Moon	-59938-07-24 08:23 J	-20170727.39	-20170727.15	-20170726.90	0.0089	0.0009	*
Moon	-59937-07-25 16:04 J	-20170360.09	-20170359.83	-20170359.57	0.0089	0.0005	
Earth	-59937-07-25 17:45 J	-20170360.01	-20170359.76	-20170359.50	0.0089	0.0002	*
Earth	-59936-07-28 04:04 J	-20169992.58	-20169992.33	-20169992.07	0.0089	0.0010	
Moon	-59936-07-28 07:11 J	-20169992.44	-20169992.20	-20169991.95	0.0089	0.0014	*
Moon	-59935-07-30 11:16 J	-20169625.28	-20169625.03	-20169624.78	0.0089	0.0017	
Earth	-59935-07-30 14:23 J	-20169625.13	-20169624.90	-20169624.64	0.0089	0.0021	*
Earth	-59934-08-02 00:42 J	-20169257.70	-20169257.47	-20169257.22	0.0089	0.0032	
Moon	-59934-08-02 04:04 J	-20169257.54	-20169257.33	-20169257.08	0.0089	0.0037	*
Moon	-59933-08-03 07:54 J	-20168890.38	-20168890.17	-20168889.93	0.0089	0.0039	
Earth	-59933-08-03 11:01 J	-20168890.25	-20168890.04	-20168889.81	0.0089	0.0043	*
Earth	-59932-08-05 21:06 J	-20168522.80	-20168522.62	-20168522.40	0.0089	0.0054	
Moon	-59932-08-05 23:16 J	-20168522.70	-20168522.53	-20168522.31	0.0089	0.0058	*
Moon	-59931-08-08 05:45 J	-20168155.41	-20168155.26	-20168155.06	0.0089	0.0061	
Earth	-59931-08-08 07:25 J	-20168155.34	-20168155.19	-20168155.00	0.0089	0.0065	*
Moon	-59930-08-10 17:01 J	-20167787.88	-20167787.79	-20167787.65	0.0089	0.0080	
Earth	-59930-08-10 17:16 J	-20167787.88	-20167787.78	-20167787.62	0.0089	0.0076	*
Earth	-59929-08-12 03:35 J	-20167420.39	-20167420.35	-20167420.27	0.0089	0.0087	

Moon	-59929-08-12 04:33 J	-20167420.36	-20167420.31	-20167420.19	0.0089	0.0084 *
Venus	-59907-04-12 04:33 J	-20159507.39	-20159507.31	-20159507.18	0.0089	0.0079
Venus	-59907-11-23 17:01 J	-20159281.94	-20159281.79	-20159281.61	0.0089	0.0058
Venus	-59906-07-07 05:30 J	-20159056.45	-20159056.27	-20159056.07	0.0089	0.0038
Venus	-59905-02-17 17:45 J	-20158830.96	-20158830.76	-20158830.54	0.0089	0.0018
Venus	-59905-09-30 06:13 J	-20158605.46	-20158605.24	-20158605.03	0.0089	0.0002
Venus	-59904-05-13 18:13 J	-20158379.94	-20158379.74	-20158379.53	0.0089	0.0022
Venus	-59904-12-25 06:13 J	-20158154.41	-20158154.24	-20158154.03	0.0089	0.0043
Venus	-59903-08-07 18:42 J	-20157928.86	-20157928.72	-20157928.55	0.0089	0.0062
Venus	-59902-03-21 06:57 J	-20157703.27	-20157703.21	-20157703.11	0.0089	0.0082
Saturn	-59889-08-30 22:04 J	-20152791.95	-20152791.58	-20152791.04	0.0089	0.0068
Mars	-59873-03-03 03:35 J	-20147128.61	-20147128.35	-20147128.06	0.0089	0.0048
Mercury	-59873-10-05 18:42 J	-20146911.76	-20146911.72	-20146911.65	0.0089	0.0085
Mercury	-59872-01-01 22:04 J	-20146823.65	-20146823.58	-20146823.47	0.0089	0.0077
Mercury	-59872-03-31 01:40 J	-20146735.54	-20146735.43	-20146735.31	0.0089	0.0069
Mercury	-59872-06-27 04:47 J	-20146647.42	-20146647.30	-20146647.15	0.0089	0.0062
Mercury	-59872-09-23 08:09 J	-20146559.29	-20146559.16	-20146558.99	0.0089	0.0054
Mercury	-59872-12-20 11:45 J	-20146471.16	-20146471.01	-20146470.84	0.0089	0.0046
Mars	-59871-01-27 21:49 J	-20146432.92	-20146432.59	-20146432.25	0.0089	0.0006
Mercury	-59871-03-18 15:21 J	-20146383.03	-20146382.86	-20146382.69	0.0089	0.0038
Mercury	-59871-06-14 18:28 J	-20146294.90	-20146294.73	-20146294.54	0.0089	0.0031
Mercury	-59871-09-10 22:04 J	-20146206.76	-20146206.58	-20146206.39	0.0089	0.0023
Mercury	-59871-12-08 01:25 J	-20146118.62	-20146118.44	-20146118.25	0.0089	0.0015
Mercury	-59870-03-06 05:01 J	-20146030.48	-20146030.29	-20146030.10	0.0089	0.0007
Mercury	-59870-06-02 08:23 J	-20145942.34	-20145942.15	-20145941.96	0.0089	0.0001
Mercury	-59870-08-29 11:59 J	-20145854.19	-20145854.00	-20145853.82	0.0089	0.0009
Mercury	-59870-11-25 15:21 J	-20145766.05	-20145765.86	-20145765.67	0.0089	0.0017
Mars	-59870-12-24 17:45 J	-20145737.04	-20145736.76	-20145736.43	0.0089	0.0037
Mercury	-59869-02-21 18:42 J	-20145677.90	-20145677.72	-20145677.53	0.0089	0.0025
Mercury	-59869-05-19 22:04 J	-20145589.75	-20145589.58	-20145589.39	0.0089	0.0033

Mercury -59869-08-16 01:25 J -20145501.60 -20145501.44 -20145501.26 0.0089 0.0041
 Mercury -59869-11-12 05:01 J -20145413.44 -20145413.29 -20145413.12 0.0089 0.0049
 Mercury -59868-02-08 08:23 J -20145325.28 -20145325.15 -20145324.99 0.0089 0.0057
 Mercury -59868-05-07 11:45 J -20145237.12 -20145237.01 -20145236.86 0.0089 0.0065
 Mercury -59868-08-03 15:21 J -20145148.95 -20145148.86 -20145148.73 0.0089 0.0073
 Mercury -59868-10-30 18:42 J -20145060.77 -20145060.72 -20145060.62 0.0089 0.0081
 Mars -59868-11-19 16:18 J -20145040.93 -20145040.82 -20145040.63 0.0089 0.0080
 Mercury -59867-01-26 22:33 J -20144972.56 -20144972.56 -20144972.54 0.0089 0.0089
 Moon -59862-01-05 18:13 J -20143167.82 -20143167.74 -20143167.59 0.0089 0.0080
 Earth -59862-01-05 21:49 J -20143167.67 -20143167.59 -20143167.45 0.0089 0.0081 *
 Earth -59861-01-08 10:33 J -20142800.19 -20142800.06 -20142799.87 0.0089 0.0070
 Moon -59861-01-08 13:54 J -20142800.05 -20142799.92 -20142799.73 0.0089 0.0071 *
 Moon -59860-01-09 21:35 J -20142432.76 -20142432.60 -20142432.38 0.0089 0.0058
 Earth -59860-01-09 23:45 J -20142432.69 -20142432.51 -20142432.30 0.0089 0.0059 *
 Earth -59859-01-12 12:28 J -20142065.18 -20142064.98 -20142064.74 0.0088 0.0048
 Moon -59859-01-12 13:54 J -20142065.13 -20142064.92 -20142064.67 0.0088 0.0048 *
 Earth -59858-01-15 02:09 J -20141697.65 -20141697.41 -20141697.17 0.0088 0.0036
 Moon -59858-01-15 01:40 J -20141697.64 -20141697.43 -20141697.18 0.0088 0.0036 *
 Moon -59857-01-17 13:25 J -20141330.19 -20141329.94 -20141329.67 0.0088 0.0026
 Earth -59857-01-17 15:06 J -20141330.11 -20141329.87 -20141329.61 0.0088 0.0025 *
 Earth -59856-01-19 04:04 J -20140962.58 -20140962.33 -20140962.06 0.0088 0.0014
 Moon -59856-01-19 06:13 J -20140962.49 -20140962.24 -20140961.98 0.0088 0.0013 *
 Moon -59855-01-21 14:09 J -20140595.17 -20140594.91 -20140594.64 0.0088 0.0002
 Earth -59855-01-21 17:30 J -20140595.03 -20140594.77 -20140594.51 0.0088 0.0002 *
 Earth -59854-01-24 06:28 J -20140227.49 -20140227.23 -20140226.97 0.0088 0.0009
 Moon -59854-01-24 09:49 J -20140227.34 -20140227.09 -20140226.82 0.0088 0.0011 *
 Moon -59853-01-26 15:49 J -20139860.08 -20139859.84 -20139859.58 0.0088 0.0022
 Earth -59853-01-26 19:40 J -20139859.93 -20139859.68 -20139859.42 0.0088 0.0021 *
 Earth -59852-01-28 08:23 J -20139492.38 -20139492.15 -20139491.89 0.0088 0.0033
 Moon -59852-01-28 11:59 J -20139492.24 -20139492.00 -20139491.74 0.0088 0.0032 *

Moon	-59851-01-30 19:25 J	-20139124.91	-20139124.69	-20139124.46	0.0088	0.0044
Earth	-59851-01-30 21:21 J	-20139124.82	-20139124.61	-20139124.36	0.0088	0.0044 *
Earth	-59850-02-02 10:33 J	-20138757.25	-20138757.06	-20138756.84	0.0088	0.0055
Moon	-59850-02-02 12:13 J	-20138757.18	-20138756.99	-20138756.75	0.0088	0.0054 *
Moon	-59849-02-04 23:30 J	-20138389.68	-20138389.52	-20138389.35	0.0088	0.0067
Earth	-59849-02-04 23:45 J	-20138389.67	-20138389.51	-20138389.32	0.0088	0.0066 *
Moon	-59848-02-06 11:16 J	-20138022.14	-20138022.03	-20138021.86	0.0088	0.0077
Earth	-59848-02-06 12:57 J	-20138022.08	-20138021.96	-20138021.82	0.0088	0.0077 *
Earth	-59847-02-09 01:54 J	-20137654.43	-20137654.42	-20137654.37	0.0088	0.0088
Jupiter	-59832-07-15 23:30 J	-20132018.89	-20132018.52	-20132018.07	0.0088	0.0059
Venus	-59825-05-31 18:28 J	-20129506.75	-20129506.73	-20129506.66	0.0088	0.0086
Venus	-59824-01-12 08:52 J	-20129281.28	-20129281.13	-20129280.98	0.0088	0.0066
Venus	-59824-08-25 22:33 J	-20129055.75	-20129055.56	-20129055.36	0.0088	0.0045
Venus	-59823-04-08 11:59 J	-20128830.20	-20128830.00	-20128829.77	0.0088	0.0026
Venus	-59823-11-20 01:54 J	-20128604.64	-20128604.42	-20128604.19	0.0088	0.0005
Venus	-59822-07-03 15:35 J	-20128379.07	-20128378.85	-20128378.62	0.0088	0.0016
Venus	-59821-02-14 05:01 J	-20128153.47	-20128153.29	-20128153.06	0.0088	0.0037
Venus	-59821-09-26 18:42 J	-20127927.87	-20127927.72	-20127927.53	0.0088	0.0056
Venus	-59820-05-10 08:23 J	-20127702.25	-20127702.15	-20127702.02	0.0088	0.0076
Mars	-59791-02-05 13:54 J	-20117204.12	-20117203.92	-20117203.68	0.0089	0.0059
Mercury	-59791-07-19 19:40 J	-20117039.68	-20117039.68	-20117039.65	0.0089	0.0088
Mercury	-59791-10-15 21:21 J	-20116951.66	-20116951.61	-20116951.56	0.0089	0.0082
Mercury	-59790-01-11 22:33 J	-20116863.62	-20116863.56	-20116863.48	0.0089	0.0077
Mercury	-59790-04-09 23:59 J	-20116775.57	-20116775.50	-20116775.41	0.0089	0.0071
Mercury	-59790-07-07 01:40 J	-20116687.52	-20116687.43	-20116687.34	0.0089	0.0065
Mercury	-59790-10-03 02:52 J	-20116599.47	-20116599.38	-20116599.27	0.0089	0.0060
Mercury	-59790-12-30 04:18 J	-20116511.42	-20116511.32	-20116511.20	0.0089	0.0054
Mars	-59790-12-31 13:25 J	-20116510.22	-20116509.94	-20116509.64	0.0089	0.0022
Mercury	-59789-03-27 05:59 J	-20116423.36	-20116423.25	-20116423.14	0.0089	0.0048
Mercury	-59789-06-23 07:11 J	-20116335.31	-20116335.20	-20116335.07	0.0089	0.0043

Mercury -59789-09-19 08:37 J -20116247.26 -20116247.14 -20116247.01 0.0089 0.0037

Mercury -59789-12-16 10:04 J -20116159.20 -20116159.08 -20116158.95 0.0089 0.0031

Mercury -59788-03-14 11:30 J -20116071.14 -20116071.02 -20116070.88 0.0089 0.0026

Mercury -59788-06-10 12:57 J -20115983.09 -20115982.96 -20115982.82 0.0089 0.0020

Mercury -59788-09-06 14:23 J -20115895.03 -20115894.90 -20115894.76 0.0089 0.0014

Mars -59788-11-24 10:47 J -20115816.33 -20115816.05 -20115815.75 0.0089 0.0016

Mercury -59788-12-03 15:49 J -20115806.97 -20115806.84 -20115806.70 0.0089 0.0009

Mercury -59787-03-01 17:16 J -20115718.92 -20115718.78 -20115718.65 0.0089 0.0003

Mercury -59787-05-28 18:42 J -20115630.86 -20115630.72 -20115630.59 0.0089 0.0003

Mercury -59787-08-24 19:54 J -20115542.80 -20115542.67 -20115542.53 0.0089 0.0009

Mercury -59787-11-20 21:21 J -20115454.74 -20115454.61 -20115454.47 0.0089 0.0014

Mercury -59786-02-16 22:47 J -20115366.68 -20115366.55 -20115366.42 0.0089 0.0019

Mercury -59786-05-16 00:13 J -20115278.62 -20115278.49 -20115278.36 0.0089 0.0025

Mercury -59786-08-12 01:25 J -20115190.56 -20115190.44 -20115190.31 0.0089 0.0030

Mars -59786-10-19 07:11 J -20115122.42 -20115122.20 -20115121.94 0.0089 0.0052

Mercury -59786-11-08 02:52 J -20115102.50 -20115102.38 -20115102.26 0.0089 0.0036

Mercury -59785-02-04 04:04 J -20115014.44 -20115014.33 -20115014.20 0.0089 0.0042

Mercury -59785-05-02 05:30 J -20114926.38 -20114926.27 -20114926.15 0.0089 0.0047

Mercury -59785-07-29 06:42 J -20114838.31 -20114838.22 -20114838.10 0.0089 0.0053

Mercury -59785-10-25 08:09 J -20114750.25 -20114750.16 -20114750.05 0.0089 0.0058

Mercury -59784-01-21 09:21 J -20114662.19 -20114662.11 -20114662.00 0.0089 0.0064

Mercury -59784-04-19 11:01 J -20114574.12 -20114574.04 -20114573.95 0.0089 0.0069

Mercury -59784-07-16 12:28 J -20114486.05 -20114485.98 -20114485.91 0.0089 0.0074

Mars -59784-09-12 00:42 J -20114428.48 -20114428.47 -20114428.39 0.0089 0.0088

Mercury -59784-10-12 13:40 J -20114397.98 -20114397.93 -20114397.87 0.0089 0.0080

Mercury -59783-01-08 15:06 J -20114309.90 -20114309.87 -20114309.83 0.0089 0.0085

Earth -59780-07-10 04:33 J -20113031.38 -20113031.31 -20113031.18 0.0089 0.0082

Moon -59780-07-10 07:54 J -20113031.25 -20113031.17 -20113031.02 0.0089 0.0079 *

Moon -59779-07-12 12:13 J -20112664.11 -20112663.99 -20112663.82 0.0089 0.0073

Earth -59779-07-12 15:21 J -20112663.99 -20112663.86 -20112663.68 0.0089 0.0071 *

Earth	-59778-07-15 01:40 J	-20112296.59	-20112296.43	-20112296.21	0.0089	0.0060
Moon	-59778-07-15 04:33 J	-20112296.49	-20112296.31	-20112296.09	0.0089	0.0057 *
Moon	-59777-07-16 11:30 J	-20111929.21	-20111929.02	-20111928.80	0.0089	0.0051
Earth	-59777-07-16 12:42 J	-20111929.18	-20111928.97	-20111928.75	0.0089	0.0048 *
Earth	-59776-07-18 23:01 J	-20111561.76	-20111561.54	-20111561.30	0.0089	0.0037
Moon	-59776-07-18 23:30 J	-20111561.75	-20111561.52	-20111561.27	0.0089	0.0035 *
Earth	-59775-07-21 09:21 J	-20111194.34	-20111194.11	-20111193.85	0.0089	0.0026
Moon	-59775-07-21 10:33 J	-20111194.28	-20111194.06	-20111193.82	0.0089	0.0028 *
Moon	-59774-07-23 17:16 J	-20110827.03	-20110826.78	-20110826.51	0.0089	0.0012
Earth	-59774-07-23 19:54 J	-20110826.91	-20110826.67	-20110826.41	0.0089	0.0015 *
Earth	-59773-07-25 06:13 J	-20110459.49	-20110459.24	-20110458.98	0.0089	0.0004
Moon	-59773-07-25 09:06 J	-20110459.37	-20110459.12	-20110458.87	0.0089	0.0005 *
Moon	-59772-07-27 12:57 J	-20110092.21	-20110091.96	-20110091.70	0.0089	0.0010
Earth	-59772-07-27 16:33 J	-20110092.05	-20110091.81	-20110091.55	0.0089	0.0008 *
Earth	-59771-07-30 02:52 J	-20109724.62	-20109724.38	-20109724.13	0.0089	0.0019
Moon	-59771-07-30 06:13 J	-20109724.49	-20109724.24	-20109723.98	0.0089	0.0017 *
Moon	-59770-08-01 09:49 J	-20109357.31	-20109357.09	-20109356.84	0.0089	0.0032
Earth	-59770-08-01 13:11 J	-20109357.19	-20109356.95	-20109356.71	0.0089	0.0030 *
Earth	-59769-08-02 23:01 J	-20108989.74	-20108989.54	-20108989.29	0.0089	0.0042
Moon	-59769-08-03 01:25 J	-20108989.66	-20108989.44	-20108989.19	0.0089	0.0040 *
Moon	-59768-08-05 09:06 J	-20108622.30	-20108622.12	-20108621.91	0.0089	0.0055
Earth	-59768-08-05 09:35 J	-20108622.28	-20108622.10	-20108621.88	0.0089	0.0053 *
Moon	-59767-08-07 19:54 J	-20108254.85	-20108254.67	-20108254.47	0.0089	0.0062
Earth	-59767-08-07 19:54 J	-20108254.83	-20108254.67	-20108254.48	0.0089	0.0064 *
Earth	-59766-08-10 05:59 J	-20107887.36	-20107887.25	-20107887.09	0.0089	0.0075
Moon	-59766-08-10 07:25 J	-20107887.28	-20107887.19	-20107887.04	0.0089	0.0077 *
Moon	-59765-08-11 13:40 J	-20107520.01	-20107519.93	-20107519.83	0.0089	0.0083
Earth	-59765-08-11 16:04 J	-20107519.86	-20107519.83	-20107519.74	0.0089	0.0086 *
Venus	-59743-07-14 17:16 J	-20099512.82	-20099512.78	-20099512.69	0.0089	0.0085
Venus	-59742-02-25 05:45 J	-20099287.39	-20099287.26	-20099287.10	0.0089	0.0065

Venus -59742-10-08 17:59 J -20099061.92 -20099061.75 -20099061.55 0.0089 0.0045
 Venus -59741-05-21 06:13 J -20098836.43 -20098836.24 -20098836.02 0.0089 0.0026
 Venus -59740-01-01 18:42 J -20098610.93 -20098610.72 -20098610.50 0.0089 0.0005
 Venus -59740-08-15 06:57 J -20098385.41 -20098385.21 -20098384.99 0.0089 0.0015
 Venus -59739-03-28 18:57 J -20098159.89 -20098159.71 -20098159.49 0.0089 0.0036
 Venus -59739-11-09 07:11 J -20097934.35 -20097934.20 -20097934.01 0.0089 0.0055
 Venus -59738-06-22 19:25 J -20097708.78 -20097708.69 -20097708.55 0.0089 0.0076
 Mars -59710-10-16 08:52 J -20087366.34 -20087366.13 -20087365.87 0.0089 0.0062
 Mercury -59708-04-05 14:37 J -20086828.90 -20086828.89 -20086828.85 0.0089 0.0088
 Mercury -59708-07-02 17:45 J -20086740.81 -20086740.76 -20086740.66 0.0089 0.0081
 Mars -59708-09-10 23:30 J -20086670.82 -20086670.52 -20086670.18 0.0089 0.0021
 Mercury -59708-09-28 21:21 J -20086652.70 -20086652.61 -20086652.49 0.0089 0.0073
 Mercury -59708-12-26 00:42 J -20086564.58 -20086564.47 -20086564.33 0.0089 0.0065
 Mercury -59707-03-24 03:49 J -20086476.46 -20086476.34 -20086476.17 0.0089 0.0058
 Mercury -59707-06-20 07:25 J -20086388.33 -20086388.19 -20086388.02 0.0089 0.0050
 Mercury -59707-09-16 11:01 J -20086300.20 -20086300.04 -20086299.87 0.0089 0.0042
 Mercury -59707-12-13 14:23 J -20086212.07 -20086211.90 -20086211.72 0.0089 0.0034
 Mercury -59706-03-11 17:59 J -20086123.93 -20086123.75 -20086123.57 0.0089 0.0026
 Mercury -59706-06-07 21:06 J -20086035.80 -20086035.62 -20086035.43 0.0089 0.0019
 Mars -59706-08-07 18:28 J -20085975.05 -20085974.73 -20085974.41 0.0089 0.0021
 Mercury -59706-09-04 00:42 J -20085947.66 -20085947.47 -20085947.28 0.0089 0.0011
 Mercury -59706-12-01 04:04 J -20085859.52 -20085859.33 -20085859.14 0.0089 0.0003
 Mercury -59705-02-27 07:25 J -20085771.37 -20085771.19 -20085770.99 0.0089 0.0006
 Mercury -59705-05-25 11:01 J -20085683.23 -20085683.04 -20085682.85 0.0089 0.0013
 Mercury -59705-08-21 14:23 J -20085595.08 -20085594.90 -20085594.71 0.0089 0.0021
 Mercury -59705-11-17 17:59 J -20085506.93 -20085506.75 -20085506.57 0.0089 0.0029
 Mercury -59704-02-13 21:21 J -20085418.78 -20085418.61 -20085418.43 0.0089 0.0037
 Mercury -59704-05-13 00:42 J -20085330.63 -20085330.47 -20085330.30 0.0089 0.0045
 Mars -59704-07-03 15:06 J -20085279.07 -20085278.87 -20085278.60 0.0089 0.0064
 Mercury -59704-08-09 04:18 J -20085242.47 -20085242.32 -20085242.16 0.0089 0.0053

Mercury -59704-11-05 07:40 J -20085154.31 -20085154.18 -20085154.03 0.0089 0.0061

Mercury -59703-02-01 11:16 J -20085066.14 -20085066.03 -20085065.91 0.0089 0.0069

Mercury -59703-04-30 14:37 J -20084977.97 -20084977.89 -20084977.78 0.0089 0.0077

Mercury -59703-07-27 18:13 J -20084889.78 -20084889.74 -20084889.68 0.0089 0.0085

Earth -59698-01-05 09:06 J -20083267.19 -20083267.12 -20083267.03 0.0089 0.0084

Moon -59698-01-05 11:30 J -20083267.03 -20083267.02 -20083266.97 0.0089 0.0088 *

Moon -59697-01-07 19:54 J -20082899.82 -20082899.67 -20082899.50 0.0089 0.0069

Earth -59697-01-07 22:04 J -20082899.72 -20082899.58 -20082899.43 0.0089 0.0073 *

Earth -59696-01-09 10:18 J -20082532.24 -20082532.07 -20082531.87 0.0089 0.0062

Moon -59696-01-09 10:47 J -20082532.22 -20082532.05 -20082531.86 0.0089 0.0066 *

Earth -59695-01-11 23:16 J -20082164.73 -20082164.53 -20082164.30 0.0089 0.0051

Moon -59695-01-11 23:59 J -20082164.70 -20082164.50 -20082164.28 0.0089 0.0047 *

Moon -59694-01-14 10:33 J -20081797.28 -20081797.06 -20081796.81 0.0089 0.0044

Earth -59694-01-14 11:59 J -20081797.21 -20081797.00 -20081796.74 0.0089 0.0040 *

Earth -59693-01-17 01:11 J -20081429.69 -20081429.45 -20081429.19 0.0088 0.0028

Moon -59693-01-17 04:04 J -20081429.56 -20081429.33 -20081429.07 0.0088 0.0024 *

Moon -59692-01-18 11:01 J -20081062.29 -20081062.04 -20081061.77 0.0088 0.0020

Earth -59692-01-18 14:09 J -20081062.15 -20081061.91 -20081061.64 0.0088 0.0017 *

Earth -59691-01-21 03:21 J -20080694.62 -20080694.36 -20080694.09 0.0088 0.0005

Moon -59691-01-21 07:11 J -20080694.46 -20080694.20 -20080693.94 0.0088 0.0000 *

Moon -59690-01-23 13:11 J -20080327.20 -20080326.95 -20080326.69 0.0088 0.0003

Earth -59690-01-23 16:33 J -20080327.06 -20080326.81 -20080326.54 0.0088 0.0008 *

Earth -59689-01-26 05:45 J -20079959.51 -20079959.26 -20079959.00 0.0088 0.0019

Moon -59689-01-26 08:23 J -20079959.39 -20079959.15 -20079958.88 0.0088 0.0024 *

Moon -59688-01-27 16:18 J -20079592.05 -20079591.82 -20079591.56 0.0088 0.0026

Earth -59688-01-27 18:42 J -20079591.96 -20079591.72 -20079591.47 0.0088 0.0031 *

Earth -59687-01-30 07:25 J -20079224.40 -20079224.19 -20079223.94 0.0088 0.0043

Moon -59687-01-30 08:23 J -20079224.37 -20079224.15 -20079223.91 0.0088 0.0046 *

Earth -59686-02-01 20:52 J -20078856.83 -20078856.63 -20078856.41 0.0088 0.0054

Moon -59686-02-01 21:06 J -20078856.82 -20078856.62 -20078856.40 0.0088 0.0050 *

Moon -59685-02-04 08:09 J -20078489.30 -20078489.16 -20078488.96 0.0088 0.0070
 Earth -59685-02-04 10:04 J -20078489.25 -20078489.08 -20078488.90 0.0088 0.0065 *
 Earth -59684-02-05 22:33 J -20078121.66 -20078121.56 -20078121.40 0.0088 0.0077
 Moon -59684-02-06 01:40 J -20078121.57 -20078121.43 -20078121.27 0.0088 0.0072 *
 Earth -59683-02-08 11:45 J -20077754.02 -20077754.01 -20077753.94 0.0088 0.0088
 Venus -59660-04-15 19:54 J -20069286.78 -20069286.67 -20069286.53 0.0088 0.0073
 Venus -59660-11-27 09:35 J -20069061.26 -20069061.10 -20069060.90 0.0088 0.0052
 Venus -59659-07-10 23:30 J -20068835.72 -20068835.52 -20068835.30 0.0088 0.0032
 Venus -59658-02-21 13:40 J -20068610.16 -20068609.93 -20068609.71 0.0088 0.0012
 Venus -59658-10-05 03:06 J -20068384.59 -20068384.37 -20068384.14 0.0088 0.0009
 Venus -59657-05-17 16:33 J -20068159.01 -20068158.81 -20068158.59 0.0088 0.0029
 Venus -59657-12-29 06:13 J -20067933.41 -20067933.24 -20067933.04 0.0088 0.0049
 Venus -59656-08-11 19:54 J -20067707.80 -20067707.67 -20067707.52 0.0088 0.0069
 Mars -59628-09-20 21:35 J -20057440.76 -20057440.60 -20057440.40 0.0089 0.0071
 Mercury -59626-04-15 19:40 J -20056868.70 -20056868.68 -20056868.63 0.0089 0.0085
 Mercury -59626-07-12 21:21 J -20056780.67 -20056780.61 -20056780.55 0.0089 0.0079
 Mars -59626-08-16 00:28 J -20056746.75 -20056746.48 -20056746.19 0.0089 0.0034
 Mercury -59626-10-08 22:33 J -20056692.62 -20056692.56 -20056692.47 0.0089 0.0074
 Mercury -59625-01-04 23:59 J -20056604.57 -20056604.50 -20056604.40 0.0089 0.0068
 Mercury -59625-04-02 01:40 J -20056516.52 -20056516.43 -20056516.33 0.0089 0.0062
 Mercury -59625-06-29 03:06 J -20056428.47 -20056428.37 -20056428.26 0.0089 0.0056
 Mercury -59625-09-25 04:33 J -20056340.42 -20056340.31 -20056340.19 0.0089 0.0050
 Mercury -59625-12-22 05:59 J -20056252.36 -20056252.25 -20056252.13 0.0089 0.0045
 Mercury -59624-03-20 07:25 J -20056164.31 -20056164.19 -20056164.06 0.0089 0.0039
 Mercury -59624-06-16 08:52 J -20056076.25 -20056076.13 -20056076.00 0.0089 0.0033
 Mars -59624-07-09 23:45 J -20056052.80 -20056052.51 -20056052.21 0.0089 0.0003
 Mercury -59624-09-12 10:18 J -20055988.20 -20055988.07 -20055987.94 0.0089 0.0028
 Mercury -59624-12-09 11:45 J -20055900.14 -20055900.01 -20055899.88 0.0089 0.0022
 Mercury -59623-03-07 13:11 J -20055812.08 -20055811.95 -20055811.82 0.0089 0.0016
 Mercury -59623-06-03 14:37 J -20055724.03 -20055723.89 -20055723.76 0.0089 0.0011

Mercury -59623-08-30 16:04 J -20055635.97 -20055635.83 -20055635.70 0.0089 0.0006

Mercury -59623-11-26 17:16 J -20055547.91 -20055547.78 -20055547.64 0.0089 0.0002

Mercury -59622-02-22 18:42 J -20055459.85 -20055459.72 -20055459.58 0.0089 0.0006

Mercury -59622-05-21 20:09 J -20055371.79 -20055371.66 -20055371.53 0.0089 0.0012

Mars -59622-06-03 20:23 J -20055358.90 -20055358.65 -20055358.37 0.0089 0.0039

Mercury -59622-08-17 21:35 J -20055283.73 -20055283.60 -20055283.47 0.0089 0.0017

Mercury -59622-11-13 22:47 J -20055195.68 -20055195.55 -20055195.42 0.0089 0.0023

Mercury -59621-02-10 00:13 J -20055107.62 -20055107.49 -20055107.36 0.0089 0.0028

Mercury -59621-05-08 01:40 J -20055019.55 -20055019.43 -20055019.31 0.0089 0.0034

Mercury -59621-08-04 02:52 J -20054931.49 -20054931.38 -20054931.25 0.0089 0.0039

Mercury -59621-10-31 04:18 J -20054843.43 -20054843.32 -20054843.20 0.0089 0.0045

Mercury -59620-01-27 05:30 J -20054755.37 -20054755.27 -20054755.15 0.0089 0.0051

Mercury -59620-04-25 06:57 J -20054667.31 -20054667.21 -20054667.10 0.0089 0.0056

Mars -59620-04-27 16:04 J -20054664.96 -20054664.83 -20054664.64 0.0089 0.0075

Mercury -59620-07-22 08:09 J -20054579.24 -20054579.16 -20054579.05 0.0089 0.0062

Mercury -59620-10-18 09:35 J -20054491.18 -20054491.10 -20054491.00 0.0089 0.0067

Mercury -59619-01-14 11:16 J -20054403.11 -20054403.03 -20054402.96 0.0089 0.0072

Mercury -59619-04-12 12:13 J -20054315.04 -20054314.99 -20054314.91 0.0089 0.0078

Mercury -59619-07-09 13:54 J -20054226.96 -20054226.92 -20054226.88 0.0089 0.0083

Mercury -59619-10-05 15:06 J -20054138.87 -20054138.87 -20054138.86 0.0089 0.0089

Earth -59616-07-09 16:33 J -20053130.84 -20053130.81 -20053130.71 0.0089 0.0086

Earth -59615-07-12 03:49 J -20052763.48 -20052763.34 -20052763.20 0.0089 0.0074

Moon -59615-07-12 05:30 J -20052763.41 -20052763.27 -20052763.09 0.0089 0.0071 *

Moon -59614-07-14 12:57 J -20052396.10 -20052395.96 -20052395.78 0.0089 0.0067

Earth -59614-07-14 14:09 J -20052396.07 -20052395.91 -20052395.71 0.0089 0.0063 *

Moon -59613-07-16 00:28 J -20052028.69 -20052028.48 -20052028.25 0.0089 0.0048

Earth -59613-07-16 00:42 J -20052028.65 -20052028.47 -20052028.24 0.0089 0.0052 *

Earth -59612-07-18 11:30 J -20051661.24 -20051661.02 -20051660.78 0.0089 0.0040

Moon -59612-07-18 12:42 J -20051661.16 -20051660.97 -20051660.74 0.0089 0.0044 *

Moon -59611-07-20 19:25 J -20051293.93 -20051293.69 -20051293.43 0.0089 0.0025

Earth	-59611-07-20 21:49 J	-20051293.82	-20051293.59	-20051293.33	0.0089	0.0029	*
Earth	-59610-07-23 08:23 J	-20050926.40	-20050926.15	-20050925.90	0.0089	0.0017	
Moon	-59610-07-23 11:30 J	-20050926.25	-20050926.02	-20050925.76	0.0089	0.0021	*
Moon	-59609-07-24 15:21 J	-20050559.11	-20050558.86	-20050558.60	0.0089	0.0003	
Earth	-59609-07-24 18:42 J	-20050558.97	-20050558.72	-20050558.46	0.0089	0.0006	*
Earth	-59608-07-27 05:01 J	-20050191.54	-20050191.29	-20050191.03	0.0089	0.0006	
Moon	-59608-07-27 08:37 J	-20050191.39	-20050191.14	-20050190.88	0.0089	0.0002	*
Moon	-59607-07-29 12:42 J	-20049824.21	-20049823.97	-20049823.72	0.0089	0.0021	
Earth	-59607-07-29 15:21 J	-20049824.11	-20049823.86	-20049823.61	0.0089	0.0017	*
Earth	-59606-08-01 01:11 J	-20049456.67	-20049456.45	-20049456.19	0.0089	0.0029	
Moon	-59606-08-01 03:06 J	-20049456.61	-20049456.37	-20049456.11	0.0089	0.0025	*
Moon	-59605-08-02 11:01 J	-20049089.25	-20049089.04	-20049088.82	0.0089	0.0044	
Earth	-59605-08-02 11:45 J	-20049089.23	-20049089.01	-20049088.78	0.0089	0.0040	*
Moon	-59604-08-04 20:37 J	-20048721.84	-20048721.64	-20048721.40	0.0089	0.0048	
Earth	-59604-08-04 21:35 J	-20048721.78	-20048721.60	-20048721.37	0.0089	0.0052	*
Earth	-59603-08-07 07:54 J	-20048354.32	-20048354.17	-20048353.97	0.0089	0.0063	
Moon	-59603-08-07 09:35 J	-20048354.23	-20048354.10	-20048353.91	0.0089	0.0067	*
Moon	-59602-08-09 15:35 J	-20047986.99	-20047986.85	-20047986.67	0.0089	0.0070	
Earth	-59602-08-09 18:28 J	-20047986.85	-20047986.73	-20047986.57	0.0089	0.0074	*
Earth	-59601-08-11 05:01 J	-20047619.35	-20047619.29	-20047619.21	0.0089	0.0085	
Venus	-59578-05-29 18:13 J	-20039292.84	-20039292.74	-20039292.59	0.0089	0.0072	
Venus	-59577-01-10 06:42 J	-20039067.38	-20039067.22	-20039067.04	0.0089	0.0052	
Venus	-59577-08-22 18:57 J	-20038841.90	-20038841.71	-20038841.50	0.0089	0.0033	
Venus	-59576-04-05 07:25 J	-20038616.40	-20038616.19	-20038615.98	0.0089	0.0012	
Venus	-59576-11-16 19:40 J	-20038390.89	-20038390.68	-20038390.47	0.0089	0.0008	
Venus	-59575-06-30 08:09 J	-20038165.37	-20038165.16	-20038164.96	0.0089	0.0028	
Venus	-59574-02-10 20:23 J	-20037939.83	-20037939.65	-20037939.47	0.0089	0.0048	
Venus	-59574-09-24 08:37 J	-20037714.28	-20037714.14	-20037714.00	0.0089	0.0068	
Venus	-59573-05-06 20:37 J	-20037488.67	-20037488.64	-20037488.59	0.0089	0.0088	
Saturn	-59566-05-25 15:35 J	-20034914.42	-20034913.85	-20034913.16	0.0089	0.0036	

Mars -59546-05-30 16:47 J -20027603.96 -20027603.80 -20027603.60 0.0089 0.0074
 Mars -59544-04-25 05:59 J -20026908.56 -20026908.25 -20026907.95 0.0089 0.0034
 Mercury -59544-12-31 13:54 J -20026657.96 -20026657.92 -20026657.84 0.0089 0.0084
 Mercury -59543-03-29 17:30 J -20026569.86 -20026569.77 -20026569.67 0.0089 0.0076
 Mercury -59543-06-25 20:37 J -20026481.74 -20026481.64 -20026481.51 0.0089 0.0069
 Mercury -59543-09-21 23:59 J -20026393.62 -20026393.50 -20026393.35 0.0089 0.0061
 Mercury -59543-12-19 03:35 J -20026305.50 -20026305.35 -20026305.20 0.0089 0.0053
 Mercury -59542-03-17 06:57 J -20026217.37 -20026217.21 -20026217.04 0.0089 0.0045
 Mars -59542-03-21 20:23 J -20026212.97 -20026212.65 -20026212.31 0.0089 0.0007
 Mercury -59542-06-13 10:04 J -20026129.24 -20026129.08 -20026128.90 0.0089 0.0038
 Mercury -59542-09-09 13:40 J -20026041.10 -20026040.93 -20026040.75 0.0089 0.0030
 Mercury -59542-12-06 17:01 J -20025952.97 -20025952.79 -20025952.60 0.0089 0.0022
 Mercury -59541-03-03 20:37 J -20025864.83 -20025864.64 -20025864.46 0.0089 0.0014
 Mercury -59541-05-30 23:59 J -20025776.69 -20025776.50 -20025776.31 0.0089 0.0006
 Mercury -59541-08-27 03:21 J -20025688.55 -20025688.36 -20025688.17 0.0089 0.0002
 Mercury -59541-11-23 06:42 J -20025600.41 -20025600.22 -20025600.03 0.0089 0.0010
 Mars -59540-02-14 15:21 J -20025517.12 -20025516.86 -20025516.56 0.0089 0.0048
 Mercury -59540-02-19 10:04 J -20025512.26 -20025512.08 -20025511.89 0.0089 0.0018
 Mercury -59540-05-18 13:25 J -20025424.11 -20025423.94 -20025423.75 0.0089 0.0026
 Mercury -59540-08-14 16:47 J -20025335.96 -20025335.80 -20025335.61 0.0089 0.0034
 Mercury -59540-11-10 20:09 J -20025247.81 -20025247.66 -20025247.47 0.0089 0.0042
 Mercury -59539-02-06 23:45 J -20025159.65 -20025159.51 -20025159.34 0.0089 0.0050
 Mercury -59539-05-06 03:06 J -20025071.50 -20025071.37 -20025071.21 0.0089 0.0058
 Mercury -59539-08-02 06:28 J -20024983.33 -20024983.23 -20024983.08 0.0089 0.0066
 Mercury -59539-10-29 10:04 J -20024895.17 -20024895.08 -20024894.95 0.0089 0.0074
 Mercury -59538-01-25 13:25 J -20024806.99 -20024806.94 -20024806.84 0.0089 0.0082
 Earth -59534-01-04 19:25 J -20023366.69 -20023366.69 -20023366.64 0.0089 0.0089
 Earth -59533-01-07 08:23 J -20022999.26 -20022999.15 -20022999.01 0.0089 0.0077
 Moon -59533-01-07 08:23 J -20022999.26 -20022999.15 -20022998.98 0.0089 0.0076 *
 Earth -59532-01-08 20:52 J -20022631.78 -20022631.63 -20022631.43 0.0089 0.0066

Moon	-59532-01-08 22:04 J	-20022631.72	-20022631.58	-20022631.39	0.0089	0.0068	*
Moon	-59531-01-11 07:25 J	-20022264.39	-20022264.19	-20022263.96	0.0089	0.0052	
Earth	-59531-01-11 10:04 J	-20022264.28	-20022264.08	-20022263.86	0.0089	0.0054	*
Earth	-59530-01-13 22:33 J	-20021896.77	-20021896.56	-20021896.31	0.0089	0.0043	
Moon	-59530-01-14 01:25 J	-20021896.64	-20021896.44	-20021896.20	0.0089	0.0044	*
Moon	-59529-01-16 08:09 J	-20021529.40	-20021529.16	-20021528.91	0.0089	0.0029	
Earth	-59529-01-16 11:45 J	-20021529.24	-20021529.01	-20021528.75	0.0089	0.0031	*
Earth	-59528-01-18 00:42 J	-20021161.72	-20021161.47	-20021161.21	0.0088	0.0019	
Moon	-59528-01-18 04:04 J	-20021161.57	-20021161.33	-20021161.06	0.0088	0.0020	*
Moon	-59527-01-20 10:33 J	-20020794.32	-20020794.06	-20020793.80	0.0088	0.0007	
Earth	-59527-01-20 13:54 J	-20020794.18	-20020793.92	-20020793.65	0.0088	0.0007	*
Earth	-59526-01-23 03:06 J	-20020426.63	-20020426.37	-20020426.11	0.0088	0.0005	
Moon	-59526-01-23 05:45 J	-20020426.53	-20020426.26	-20020425.99	0.0088	0.0004	*
Moon	-59525-01-25 14:37 J	-20020059.13	-20020058.89	-20020058.63	0.0088	0.0018	
Earth	-59525-01-25 16:04 J	-20020059.08	-20020058.83	-20020058.57	0.0088	0.0017	*
Earth	-59524-01-27 05:16 J	-20019691.52	-20019691.28	-20019691.03	0.0088	0.0029	
Moon	-59524-01-27 05:59 J	-20019691.50	-20019691.25	-20019690.98	0.0088	0.0029	*
Earth	-59523-01-29 18:13 J	-20019323.96	-20019323.74	-20019323.49	0.0088	0.0041	
Moon	-59523-01-29 19:25 J	-20019323.91	-20019323.69	-20019323.46	0.0088	0.0041	*
Moon	-59522-02-01 05:16 J	-20018956.48	-20018956.28	-20018956.04	0.0088	0.0052	
Earth	-59522-02-01 07:11 J	-20018956.38	-20018956.20	-20018955.96	0.0088	0.0053	*
Earth	-59521-02-03 20:52 J	-20018588.81	-20018588.63	-20018588.45	0.0088	0.0064	
Moon	-59521-02-03 23:01 J	-20018588.70	-20018588.54	-20018588.34	0.0088	0.0064	*
Moon	-59520-02-05 05:45 J	-20018221.37	-20018221.26	-20018221.10	0.0088	0.0076	
Earth	-59520-02-05 09:35 J	-20018221.21	-20018221.10	-20018220.94	0.0088	0.0076	*
Earth	-59519-02-07 23:01 J	-20017853.58	-20017853.54	-20017853.49	0.0088	0.0087	
Moon	-59519-02-08 02:09 J	-20017853.44	-20017853.41	-20017853.33	0.0088	0.0087	
Venus	-59496-07-18 06:57 J	-20009292.28	-20009292.21	-20009292.09	0.0088	0.0080	
Venus	-59495-02-28 20:52 J	-20009066.77	-20009066.63	-20009066.44	0.0088	0.0059	
Venus	-59495-10-12 11:01 J	-20008841.24	-20008841.04	-20008840.83	0.0088	0.0039	

Venus -59494-05-26 00:42 J -20008615.68 -20008615.47 -20008615.24 0.0088 0.0018

Venus -59493-01-06 14:37 J -20008390.11 -20008389.89 -20008389.66 0.0088 0.0002

Venus -59493-08-19 04:18 J -20008164.54 -20008164.32 -20008164.10 0.0088 0.0022

Venus -59492-04-01 17:45 J -20007938.95 -20007938.76 -20007938.55 0.0088 0.0043

Venus -59492-11-13 07:25 J -20007713.34 -20007713.19 -20007713.02 0.0088 0.0063

Venus -59491-06-26 21:06 J -20007487.69 -20007487.62 -20007487.54 0.0088 0.0083

Mars -59464-05-06 05:16 J -19997677.36 -19997677.28 -19997677.14 0.0089 0.0083

Mars -59462-03-31 08:52 J -19996983.37 -19996983.13 -19996982.86 0.0089 0.0046

Mercury -59462-10-14 18:28 J -19996785.75 -19996785.73 -19996785.71 0.0089 0.0087

Mercury -59461-01-10 19:40 J -19996697.72 -19996697.68 -19996697.61 0.0089 0.0082

Mercury -59461-04-07 21:21 J -19996609.67 -19996609.61 -19996609.54 0.0089 0.0076

Mercury -59461-07-04 22:47 J -19996521.63 -19996521.55 -19996521.46 0.0089 0.0070

Mercury -59461-09-30 23:59 J -19996433.58 -19996433.50 -19996433.39 0.0089 0.0065

Mercury -59461-12-28 01:40 J -19996345.53 -19996345.43 -19996345.32 0.0089 0.0059

Mars -59460-02-22 10:47 J -19996289.33 -19996289.05 -19996288.74 0.0089 0.0010

Mercury -59460-03-26 03:06 J -19996257.47 -19996257.37 -19996257.25 0.0089 0.0053

Mercury -59460-06-22 04:33 J -19996169.42 -19996169.31 -19996169.19 0.0089 0.0047

Mercury -59460-09-18 05:59 J -19996081.36 -19996081.25 -19996081.12 0.0089 0.0042

Mercury -59460-12-15 07:25 J -19995993.31 -19995993.19 -19995993.06 0.0089 0.0036

Mercury -59459-03-13 08:52 J -19995905.25 -19995905.13 -19995905.00 0.0089 0.0030

Mercury -59459-06-09 10:18 J -19995817.20 -19995817.07 -19995816.93 0.0089 0.0025

Mercury -59459-09-05 11:45 J -19995729.14 -19995729.01 -19995728.87 0.0089 0.0019

Mercury -59459-12-02 13:11 J -19995641.08 -19995640.95 -19995640.81 0.0089 0.0013

Mars -59458-01-17 10:04 J -19995595.35 -19995595.08 -19995594.79 0.0089 0.0027

Mercury -59458-02-28 14:37 J -19995553.02 -19995552.89 -19995552.75 0.0089 0.0008

Mercury -59458-05-27 16:04 J -19995464.97 -19995464.83 -19995464.69 0.0089 0.0002

Mercury -59458-08-23 17:30 J -19995376.91 -19995376.77 -19995376.64 0.0089 0.0004

Mercury -59458-11-19 18:57 J -19995288.85 -19995288.71 -19995288.58 0.0089 0.0010

Mercury -59457-02-15 20:09 J -19995200.79 -19995200.66 -19995200.52 0.0089 0.0015

Mercury -59457-05-13 21:35 J -19995112.73 -19995112.60 -19995112.47 0.0089 0.0021

Mercury -59457-08-09 23:01 J -19995024.67 -19995024.54 -19995024.41 0.0089 0.0026

Mercury -59457-11-06 00:13 J -19994936.61 -19994936.49 -19994936.36 0.0089 0.0032

Mars -59457-12-11 06:13 J -19994901.44 -19994901.24 -19994901.02 0.0089 0.0062

Mercury -59456-02-02 01:40 J -19994848.55 -19994848.43 -19994848.30 0.0089 0.0037

Mercury -59456-05-01 03:06 J -19994760.49 -19994760.37 -19994760.25 0.0089 0.0043

Mercury -59456-07-28 04:18 J -19994672.42 -19994672.32 -19994672.20 0.0089 0.0049

Mercury -59456-10-24 05:45 J -19994584.36 -19994584.26 -19994584.15 0.0089 0.0054

Mercury -59455-01-20 06:57 J -19994496.30 -19994496.21 -19994496.10 0.0089 0.0060

Mercury -59455-04-18 08:23 J -19994408.23 -19994408.15 -19994408.05 0.0089 0.0065

Mercury -59455-07-15 09:35 J -19994320.16 -19994320.10 -19994320.00 0.0089 0.0071

Mercury -59455-10-11 11:01 J -19994232.09 -19994232.04 -19994231.96 0.0089 0.0076

Mercury -59454-01-07 12:42 J -19994144.02 -19994143.97 -19994143.92 0.0089 0.0081

Mercury -59454-04-05 13:40 J -19994055.94 -19994055.93 -19994055.89 0.0089 0.0087

Moon -59451-07-11 15:21 J -19992862.96 -19992862.86 -19992862.70 0.0089 0.0076

Earth -59451-07-11 16:18 J -19992862.93 -19992862.82 -19992862.69 0.0089 0.0078 *

Moon -59450-07-14 02:23 J -19992495.55 -19992495.40 -19992495.22 0.0089 0.0069

Earth -59450-07-14 02:37 J -19992495.54 -19992495.39 -19992495.20 0.0089 0.0067 *

Earth -59449-07-15 13:40 J -19992128.12 -19992127.93 -19992127.72 0.0089 0.0055

Moon -59449-07-15 15:49 J -19992128.04 -19992127.84 -19992127.64 0.0089 0.0052 *

Moon -59448-07-17 21:06 J -19991760.82 -19991760.62 -19991760.38 0.0089 0.0047

Earth -59448-07-17 23:59 J -19991760.70 -19991760.50 -19991760.26 0.0089 0.0044 *

Earth -59447-07-20 10:33 J -19991393.28 -19991393.06 -19991392.81 0.0089 0.0032

Moon -59447-07-20 13:40 J -19991393.15 -19991392.93 -19991392.68 0.0089 0.0030 *

Moon -59446-07-22 17:45 J -19991026.00 -19991025.76 -19991025.51 0.0089 0.0023

Earth -59446-07-22 21:21 J -19991025.85 -19991025.61 -19991025.36 0.0089 0.0020 *

Earth -59445-07-24 07:40 J -19990658.43 -19990658.18 -19990657.92 0.0089 0.0009

Moon -59445-07-24 10:47 J -19990658.30 -19990658.05 -19990657.79 0.0089 0.0006 *

Moon -59444-07-26 15:21 J -19990291.11 -19990290.86 -19990290.61 0.0089 0.0002

Earth -59444-07-26 17:59 J -19990291.00 -19990290.75 -19990290.49 0.0089 0.0004 *

Earth -59443-07-29 04:18 J -19989923.57 -19989923.32 -19989923.07 0.0089 0.0015

Moon -59443-07-29 05:30 J -19989923.51 -19989923.27 -19989923.00 0.0089 0.0018 *
 Earth -59442-07-31 14:23 J -19989556.13 -19989555.90 -19989555.65 0.0089 0.0027
 Moon -59442-07-31 14:09 J -19989556.13 -19989555.91 -19989555.66 0.0089 0.0025 *
 Moon -59441-08-02 00:13 J -19989188.73 -19989188.49 -19989188.26 0.0089 0.0040
 Earth -59441-08-02 00:57 J -19989188.69 -19989188.46 -19989188.23 0.0089 0.0038 *
 Earth -59440-08-04 10:47 J -19988821.25 -19988821.05 -19988820.83 0.0089 0.0050
 Moon -59440-08-04 12:57 J -19988821.15 -19988820.96 -19988820.73 0.0089 0.0048 *
 Moon -59439-08-06 17:59 J -19988453.92 -19988453.75 -19988453.56 0.0089 0.0064
 Earth -59439-08-06 20:37 J -19988453.79 -19988453.64 -19988453.43 0.0089 0.0062 *
 Earth -59438-08-09 07:11 J -19988086.33 -19988086.20 -19988086.04 0.0089 0.0073
 Moon -59438-08-09 10:18 J -19988086.19 -19988086.07 -19988085.90 0.0089 0.0072 *
 Moon -59437-08-10 13:54 J -19987718.95 -19987718.92 -19987718.85 0.0089 0.0087
 Earth -59437-08-10 17:45 J -19987718.83 -19987718.76 -19987718.67 0.0089 0.0084
 Venus -59414-08-31 07:40 J -19979298.27 -19979298.18 -19979298.07 0.0089 0.0079
 Venus -59413-04-12 19:25 J -19979072.83 -19979072.69 -19979072.51 0.0089 0.0060
 Venus -59413-11-24 07:54 J -19978847.35 -19978847.17 -19978846.97 0.0089 0.0039
 Venus -59412-07-07 20:23 J -19978621.86 -19978621.65 -19978621.44 0.0089 0.0019
 Venus -59411-02-18 08:37 J -19978396.35 -19978396.14 -19978395.92 0.0089 0.0002
 Venus -59411-10-01 20:37 J -19978170.83 -19978170.64 -19978170.42 0.0089 0.0022
 Venus -59410-05-15 08:52 J -19977945.31 -19977945.13 -19977944.92 0.0089 0.0041
 Venus -59410-12-26 21:21 J -19977719.76 -19977719.61 -19977719.45 0.0089 0.0061
 Venus -59409-08-08 09:49 J -19977494.17 -19977494.09 -19977493.99 0.0089 0.0081
 Mars -59382-01-12 02:37 J -19967841.44 -19967841.39 -19967841.28 0.0089 0.0086
 Mars -59381-12-07 12:57 J -19967146.21 -19967145.96 -19967145.66 0.0089 0.0047
 Mercury -59379-07-01 10:04 J -19966575.10 -19966575.08 -19966575.02 0.0089 0.0087
 Mercury -59379-09-27 13:40 J -19966487.00 -19966486.93 -19966486.84 0.0089 0.0079
 Mars -59379-11-03 03:21 J -19966450.68 -19966450.36 -19966450.03 0.0089 0.0007
 Mercury -59379-12-24 17:16 J -19966398.89 -19966398.78 -19966398.67 0.0089 0.0071
 Mercury -59378-03-22 20:09 J -19966310.77 -19966310.66 -19966310.52 0.0089 0.0064
 Mercury -59378-06-18 23:30 J -19966222.65 -19966222.52 -19966222.36 0.0089 0.0056

Mercury -59378-09-15 03:06 J -19966134.53 -19966134.37 -19966134.21 0.0089 0.0048

Mercury -59378-12-12 06:13 J -19966046.40 -19966046.24 -19966046.06 0.0089 0.0041

Mercury -59377-03-09 09:35 J -19965958.26 -19965958.10 -19965957.91 0.0089 0.0033

Mercury -59377-06-05 13:11 J -19965870.13 -19965869.95 -19965869.77 0.0089 0.0025

Mercury -59377-09-01 16:33 J -19965781.99 -19965781.81 -19965781.62 0.0089 0.0017

Mars -59377-09-28 19:11 J -19965755.01 -19965754.70 -19965754.39 0.0089 0.0033

Mercury -59377-11-28 19:54 J -19965693.86 -19965693.67 -19965693.48 0.0089 0.0009

Mercury -59376-02-24 23:16 J -19965605.72 -19965605.53 -19965605.34 0.0089 0.0002

Mercury -59376-05-24 02:37 J -19965517.57 -19965517.39 -19965517.19 0.0089 0.0007

Mercury -59376-08-20 05:59 J -19965429.43 -19965429.25 -19965429.05 0.0089 0.0015

Mercury -59376-11-16 09:21 J -19965341.28 -19965341.11 -19965340.91 0.0089 0.0023

Mercury -59375-02-12 12:42 J -19965253.13 -19965252.97 -19965252.78 0.0089 0.0031

Mercury -59375-05-11 16:33 J -19965164.98 -19965164.81 -19965164.64 0.0089 0.0038

Mercury -59375-08-07 19:54 J -19965076.83 -19965076.67 -19965076.50 0.0089 0.0046

Mars -59375-08-25 14:23 J -19965059.08 -19965058.90 -19965058.71 0.0089 0.0074

Mercury -59375-11-03 23:16 J -19964988.67 -19964988.53 -19964988.37 0.0089 0.0054

Mercury -59374-01-31 02:52 J -19964900.51 -19964900.38 -19964900.24 0.0089 0.0062

Mercury -59374-04-29 06:13 J -19964812.35 -19964812.24 -19964812.12 0.0089 0.0070

Mercury -59374-07-26 09:49 J -19964724.17 -19964724.09 -19964724.00 0.0089 0.0078

Mercury -59374-10-22 13:11 J -19964635.98 -19964635.95 -19964635.90 0.0089 0.0086

Earth -59369-01-06 19:25 J -19963098.78 -19963098.69 -19963098.57 0.0089 0.0081

Moon -59369-01-06 20:52 J -19963098.69 -19963098.63 -19963098.55 0.0089 0.0085 *

Moon -59368-01-08 05:45 J -19962731.43 -19962731.26 -19962731.07 0.0089 0.0065

Earth -59368-01-08 07:54 J -19962731.31 -19962731.17 -19962730.98 0.0089 0.0070 *

Earth -59367-01-10 20:37 J -19962363.81 -19962363.64 -19962363.42 0.0089 0.0058

Moon -59367-01-10 23:59 J -19962363.66 -19962363.50 -19962363.29 0.0089 0.0062 *

Moon -59366-01-13 06:13 J -19961996.45 -19961996.24 -19961995.99 0.0089 0.0042

Earth -59366-01-13 09:49 J -19961996.30 -19961996.09 -19961995.85 0.0089 0.0046 *

Earth -59365-01-15 22:33 J -19961628.79 -19961628.56 -19961628.31 0.0089 0.0034

Moon -59365-01-16 02:09 J -19961628.63 -19961628.41 -19961628.16 0.0089 0.0039 *

Moon	-59364-01-17 08:37 J	-19961261.38	-19961261.14	-19961260.88	0.0089	0.0018
Earth	-59364-01-17 11:30 J	-19961261.27	-19961261.02	-19961260.76	0.0089	0.0022 *
Earth	-59363-01-20 00:28 J	-19960893.74	-19960893.48	-19960893.22	0.0088	0.0010
Moon	-59363-01-20 02:37 J	-19960893.64	-19960893.39	-19960893.11	0.0088	0.0015 *
Moon	-59362-01-22 12:13 J	-19960526.24	-19960525.99	-19960525.74	0.0088	0.0007
Earth	-59362-01-22 13:25 J	-19960526.20	-19960525.94	-19960525.68	0.0088	0.0002 *
Moon	-59361-01-25 01:54 J	-19960158.68	-19960158.42	-19960158.14	0.0088	0.0011
Earth	-59361-01-25 02:23 J	-19960158.65	-19960158.40	-19960158.14	0.0088	0.0014 *
Earth	-59360-01-26 15:21 J	-19959791.10	-19959790.86	-19959790.60	0.0088	0.0027
Moon	-59360-01-26 16:18 J	-19959791.05	-19959790.82	-19959790.57	0.0088	0.0031 *
Moon	-59359-01-29 02:09 J	-19959423.65	-19959423.41	-19959423.15	0.0088	0.0034
Earth	-59359-01-29 04:33 J	-19959423.54	-19959423.31	-19959423.06	0.0088	0.0039 *
Earth	-59358-01-31 17:30 J	-19959055.97	-19959055.77	-19959055.54	0.0088	0.0051
Moon	-59358-01-31 20:37 J	-19959055.82	-19959055.64	-19959055.42	0.0088	0.0055 *
Moon	-59357-02-03 03:35 J	-19958688.54	-19958688.35	-19958688.15	0.0088	0.0058
Earth	-59357-02-03 06:42 J	-19958688.39	-19958688.22	-19958688.02	0.0088	0.0063 *
Earth	-59356-02-04 19:40 J	-19958320.79	-19958320.68	-19958320.51	0.0088	0.0075
Moon	-59356-02-04 23:30 J	-19958320.61	-19958320.52	-19958320.38	0.0088	0.0080 *
Moon	-59355-02-07 06:13 J	-19957953.32	-19957953.24	-19957953.13	0.0088	0.0082
Earth	-59355-02-07 08:52 J	-19957953.15	-19957953.13	-19957953.04	0.0088	0.0087 *
Venus	-59332-10-19 18:13 J	-19949297.76	-19949297.74	-19949297.67	0.0088	0.0086
Venus	-59331-06-02 08:23 J	-19949072.29	-19949072.15	-19949071.99	0.0088	0.0066
Venus	-59330-01-13 22:18 J	-19948846.75	-19948846.57	-19948846.36	0.0088	0.0045
Venus	-59330-08-27 12:13 J	-19948621.20	-19948620.99	-19948620.77	0.0088	0.0025
Venus	-59329-04-09 01:54 J	-19948395.64	-19948395.42	-19948395.19	0.0088	0.0005
Venus	-59329-11-20 15:35 J	-19948170.07	-19948169.85	-19948169.62	0.0088	0.0016
Venus	-59328-07-04 05:30 J	-19947944.48	-19947944.27	-19947944.07	0.0088	0.0036
Venus	-59327-02-14 18:42 J	-19947718.87	-19947718.72	-19947718.52	0.0088	0.0056
Venus	-59327-09-28 08:09 J	-19947493.24	-19947493.16	-19947493.02	0.0088	0.0077
Mars	-59299-11-13 17:16 J	-19937219.98	-19937219.78	-19937219.52	0.0089	0.0058

Mercury -59297-07-10 18:28 J -19936614.76 -19936614.73 -19936614.68 0.0089 0.0084

Mercury -59297-10-06 20:09 J -19936526.72 -19936526.66 -19936526.60 0.0089 0.0078

Mars -59297-10-07 19:54 J -19936525.94 -19936525.67 -19936525.36 0.0089 0.0022

Mercury -59296-01-02 21:21 J -19936438.68 -19936438.61 -19936438.52 0.0089 0.0072

Mercury -59296-03-31 22:47 J -19936350.63 -19936350.55 -19936350.45 0.0089 0.0067

Mercury -59296-06-28 00:28 J -19936262.58 -19936262.48 -19936262.38 0.0089 0.0061

Mercury -59296-09-24 01:40 J -19936174.53 -19936174.43 -19936174.31 0.0089 0.0055

Mercury -59296-12-21 03:06 J -19936086.47 -19936086.37 -19936086.25 0.0089 0.0050

Mercury -59295-03-19 04:47 J -19935998.42 -19935998.30 -19935998.18 0.0089 0.0044

Mercury -59295-06-15 06:13 J -19935910.36 -19935910.24 -19935910.12 0.0089 0.0038

Mars -59295-09-01 21:06 J -19935831.91 -19935831.62 -19935831.32 0.0089 0.0015

Mercury -59295-09-11 07:25 J -19935822.31 -19935822.19 -19935822.05 0.0089 0.0033

Mercury -59295-12-08 09:06 J -19935734.25 -19935734.12 -19935733.99 0.0089 0.0027

Mercury -59294-03-06 10:33 J -19935646.19 -19935646.06 -19935645.93 0.0089 0.0021

Mercury -59294-06-02 11:45 J -19935558.14 -19935558.01 -19935557.87 0.0089 0.0016

Mercury -59294-08-29 13:25 J -19935470.08 -19935469.94 -19935469.81 0.0089 0.0010

Mercury -59294-11-25 14:52 J -19935382.02 -19935381.88 -19935381.75 0.0089 0.0005

Mercury -59293-02-21 16:04 J -19935293.96 -19935293.83 -19935293.69 0.0089 0.0003

Mercury -59293-05-19 17:30 J -19935205.90 -19935205.77 -19935205.63 0.0089 0.0007

Mars -59293-07-26 19:54 J -19935137.90 -19935137.67 -19935137.41 0.0089 0.0050

Mercury -59293-08-15 18:57 J -19935117.84 -19935117.71 -19935117.58 0.0089 0.0013

Mercury -59293-11-11 20:09 J -19935029.78 -19935029.66 -19935029.52 0.0089 0.0019

Mercury -59292-02-07 21:49 J -19934941.72 -19934941.59 -19934941.46 0.0089 0.0024

Mercury -59292-05-06 23:01 J -19934853.66 -19934853.54 -19934853.41 0.0089 0.0030

Mercury -59292-08-03 00:28 J -19934765.60 -19934765.48 -19934765.36 0.0089 0.0035

Mercury -59292-10-30 01:40 J -19934677.54 -19934677.43 -19934677.30 0.0089 0.0041

Mercury -59291-01-26 03:06 J -19934589.48 -19934589.37 -19934589.25 0.0089 0.0046

Mercury -59291-04-24 04:33 J -19934501.42 -19934501.31 -19934501.20 0.0089 0.0052

Mars -59291-06-20 16:18 J -19934443.91 -19934443.82 -19934443.73 0.0089 0.0084

Mercury -59291-07-21 05:45 J -19934413.35 -19934413.26 -19934413.15 0.0089 0.0058

Mercury -59291-10-17 07:11 J -19934325.29 -19934325.20 -19934325.10 0.0089 0.0063

Mercury -59290-01-13 08:23 J -19934237.22 -19934237.15 -19934237.05 0.0089 0.0069

Mercury -59290-04-11 09:49 J -19934149.15 -19934149.09 -19934149.01 0.0089 0.0074

Mercury -59290-07-08 11:30 J -19934061.08 -19934061.02 -19934060.97 0.0089 0.0079

Mercury -59290-10-04 12:28 J -19933973.00 -19933972.98 -19933972.93 0.0089 0.0085

Moon -59287-07-11 02:52 J -19932962.43 -19932962.38 -19932962.28 0.0089 0.0085

Earth -59287-07-11 04:33 J -19932962.40 -19932962.31 -19932962.21 0.0089 0.0082 *

Earth -59286-07-13 14:52 J -19932595.01 -19932594.88 -19932594.71 0.0089 0.0071

Moon -59286-07-13 16:33 J -19932594.94 -19932594.81 -19932594.62 0.0089 0.0068 *

Moon -59285-07-14 22:18 J -19932227.73 -19932227.57 -19932227.36 0.0089 0.0063

Earth -59285-07-15 01:40 J -19932227.60 -19932227.43 -19932227.23 0.0089 0.0059 *

Earth -59284-07-17 12:13 J -19931860.20 -19931859.99 -19931859.77 0.0089 0.0047

Moon -59284-07-17 15:35 J -19931860.06 -19931859.85 -19931859.62 0.0089 0.0044 *

Moon -59283-07-19 19:25 J -19931492.91 -19931492.69 -19931492.45 0.0089 0.0039

Earth -59283-07-19 23:01 J -19931492.77 -19931492.54 -19931492.30 0.0089 0.0035 *

Earth -59282-07-22 09:49 J -19931125.34 -19931125.09 -19931124.85 0.0089 0.0023

Moon -59282-07-22 13:11 J -19931125.20 -19931124.95 -19931124.70 0.0089 0.0019 *

Moon -59281-07-23 18:13 J -19930757.98 -19930757.74 -19930757.49 0.0089 0.0015

Earth -59281-07-23 20:23 J -19930757.90 -19930757.65 -19930757.40 0.0089 0.0011 *

Earth -59280-07-26 06:42 J -19930390.47 -19930390.22 -19930389.96 0.0089 0.0001

Moon -59280-07-26 08:09 J -19930390.42 -19930390.16 -19930389.89 0.0089 0.0005 *

Earth -59279-07-28 17:01 J -19930023.04 -19930022.79 -19930022.53 0.0089 0.0013

Moon -59279-07-28 17:01 J -19930023.03 -19930022.79 -19930022.54 0.0089 0.0009 *

Moon -59278-07-31 01:40 J -19929655.67 -19929655.43 -19929655.17 0.0089 0.0028

Earth -59278-07-31 03:21 J -19929655.59 -19929655.36 -19929655.11 0.0089 0.0025 *

Earth -59277-08-01 13:25 J -19929288.16 -19929287.94 -19929287.69 0.0089 0.0037

Moon -59277-08-01 15:35 J -19929288.07 -19929287.85 -19929287.61 0.0089 0.0033 *

Moon -59276-08-03 20:09 J -19928920.84 -19928920.66 -19928920.43 0.0089 0.0053

Earth -59276-08-03 23:30 J -19928920.71 -19928920.52 -19928920.29 0.0089 0.0049 *

Earth -59275-08-06 10:04 J -19928553.26 -19928553.08 -19928552.89 0.0089 0.0060

Moon -59275-08-06 13:11 J -19928553.12 -19928552.95 -19928552.73 0.0089 0.0057 *
 Moon -59274-08-08 16:47 J -19928185.91 -19928185.80 -19928185.66 0.0089 0.0076
 Earth -59274-08-08 20:09 J -19928185.79 -19928185.66 -19928185.49 0.0089 0.0072 *
 Earth -59273-08-10 05:59 J -19927818.31 -19927818.25 -19927818.14 0.0089 0.0084
 Moon -59273-08-10 09:21 J -19927818.21 -19927818.11 -19927817.98 0.0089 0.0079 *
 Venus -59250-12-02 20:23 J -19919303.69 -19919303.65 -19919303.58 0.0089 0.0086
 Venus -59249-07-15 08:23 J -19919078.27 -19919078.15 -19919077.98 0.0089 0.0066
 Venus -59248-02-25 20:52 J -19918852.80 -19918852.63 -19918852.44 0.0089 0.0046
 Venus -59248-10-09 09:06 J -19918627.32 -19918627.12 -19918626.91 0.0089 0.0026
 Venus -59247-05-22 21:21 J -19918401.82 -19918401.61 -19918401.40 0.0089 0.0006
 Venus -59246-01-03 09:35 J -19918176.31 -19918176.10 -19918175.89 0.0089 0.0014
 Venus -59246-08-16 21:49 J -19917950.78 -19917950.59 -19917950.39 0.0089 0.0034
 Venus -59245-03-29 10:04 J -19917725.24 -19917725.08 -19917724.90 0.0089 0.0053
 Venus -59245-11-09 22:18 J -19917499.68 -19917499.57 -19917499.44 0.0089 0.0073
 Saturn -59243-07-09 13:40 J -19916893.46 -19916892.93 -19916892.32 0.0089 0.0047
 Mars -59217-07-21 22:33 J -19907383.79 -19907383.56 -19907383.31 0.0089 0.0059
 Mars -59215-06-17 08:52 J -19906688.43 -19906688.13 -19906687.79 0.0089 0.0021
 Mercury -59214-03-28 09:49 J -19906404.15 -19906404.09 -19906404.02 0.0089 0.0082
 Mercury -59214-06-24 12:42 J -19906316.05 -19906315.97 -19906315.85 0.0089 0.0075
 Mercury -59214-09-20 16:18 J -19906227.93 -19906227.82 -19906227.69 0.0089 0.0067
 Mercury -59214-12-17 19:40 J -19906139.81 -19906139.68 -19906139.53 0.0089 0.0059
 Mercury -59213-03-14 22:47 J -19906051.69 -19906051.55 -19906051.38 0.0089 0.0052
 Mars -59213-05-12 23:59 J -19905992.82 -19905992.50 -19905992.18 0.0089 0.0019
 Mercury -59213-06-11 02:09 J -19905963.56 -19905963.41 -19905963.23 0.0089 0.0044
 Mercury -59213-09-07 05:45 J -19905875.43 -19905875.26 -19905875.08 0.0089 0.0036
 Mercury -59213-12-04 09:06 J -19905787.30 -19905787.12 -19905786.94 0.0089 0.0028
 Mercury -59212-03-02 12:13 J -19905699.16 -19905698.99 -19905698.79 0.0089 0.0021
 Mercury -59212-05-29 15:49 J -19905611.02 -19905610.84 -19905610.65 0.0089 0.0013
 Mercury -59212-08-25 19:11 J -19905522.88 -19905522.70 -19905522.51 0.0089 0.0005
 Mercury -59212-11-21 22:33 J -19905434.74 -19905434.56 -19905434.36 0.0089 0.0004

Mercury -59211-02-18 02:09 J -19905346.60 -19905346.41 -19905346.22 0.0089 0.0011

Mars -59211-04-08 16:18 J -19905297.05 -19905296.82 -19905296.55 0.0089 0.0059

Mercury -59211-05-17 05:30 J -19905258.46 -19905258.27 -19905258.09 0.0089 0.0019

Mercury -59211-08-13 08:52 J -19905170.31 -19905170.13 -19905169.95 0.0089 0.0027

Mercury -59211-11-09 12:13 J -19905082.16 -19905081.99 -19905081.81 0.0089 0.0035

Mercury -59210-02-05 15:35 J -19904994.01 -19904993.85 -19904993.68 0.0089 0.0043

Mercury -59210-05-04 18:57 J -19904905.85 -19904905.71 -19904905.54 0.0089 0.0051

Mercury -59210-07-31 22:18 J -19904817.70 -19904817.57 -19904817.41 0.0089 0.0059

Mercury -59210-10-28 01:54 J -19904729.53 -19904729.42 -19904729.28 0.0089 0.0067

Mercury -59209-01-24 05:16 J -19904641.37 -19904641.28 -19904641.16 0.0089 0.0075

Mercury -59209-04-21 08:37 J -19904553.19 -19904553.14 -19904553.05 0.0089 0.0083

Moon -59205-01-06 03:06 J -19903198.38 -19903198.37 -19903198.32 0.0089 0.0088

Earth -59205-01-06 05:30 J -19903198.30 -19903198.27 -19903198.16 0.0089 0.0086

Earth -59204-01-07 18:28 J -19902830.84 -19902830.73 -19902830.56 0.0089 0.0074

Moon -59204-01-07 21:49 J -19902830.71 -19902830.59 -19902830.41 0.0089 0.0072 *

Moon -59203-01-10 03:49 J -19902463.49 -19902463.34 -19902463.14 0.0089 0.0065

Earth -59203-01-10 07:40 J -19902463.35 -19902463.18 -19902462.97 0.0089 0.0062 *

Earth -59202-01-12 20:23 J -19902095.85 -19902095.65 -19902095.42 0.0089 0.0050

Moon -59202-01-12 23:45 J -19902095.72 -19902095.51 -19902095.27 0.0089 0.0048 *

Moon -59201-01-15 06:28 J -19901728.45 -19901728.23 -19901727.99 0.0089 0.0039

Earth -59201-01-15 09:49 J -19901728.33 -19901728.09 -19901727.85 0.0089 0.0037 *

Earth -59200-01-16 22:33 J -19901360.81 -19901360.56 -19901360.31 0.0089 0.0025

Moon -59200-01-17 00:13 J -19901360.74 -19901360.49 -19901360.22 0.0089 0.0023 *

Moon -59199-01-19 10:47 J -19900993.30 -19900993.05 -19900992.80 0.0089 0.0014

Earth -59199-01-19 11:16 J -19900993.28 -19900993.03 -19900992.76 0.0089 0.0013 *

Moon -59198-01-22 00:13 J -19900625.76 -19900625.49 -19900625.22 0.0088 0.0001

Earth -59198-01-22 00:28 J -19900625.74 -19900625.48 -19900625.22 0.0088 0.0001 *

Earth -59197-01-24 12:57 J -19900258.21 -19900257.96 -19900257.69 0.0088 0.0013

Moon -59197-01-24 14:52 J -19900258.12 -19900257.88 -19900257.62 0.0088 0.0011 *

Moon -59196-01-25 23:30 J -19899890.77 -19899890.52 -19899890.25 0.0088 0.0026

Earth -59196-01-26 01:54 J -19899890.65 -19899890.42 -19899890.15 0.0088 0.0025 *
 Earth -59195-01-28 15:06 J -19899523.10 -19899522.87 -19899522.62 0.0088 0.0037
 Moon -59195-01-28 18:13 J -19899522.96 -19899522.74 -19899522.49 0.0088 0.0036 *
 Moon -59194-01-31 00:13 J -19899155.68 -19899155.49 -19899155.25 0.0088 0.0050
 Earth -59194-01-31 04:18 J -19899155.53 -19899155.32 -19899155.10 0.0088 0.0049 *
 Earth -59193-02-02 17:30 J -19898787.96 -19898787.77 -19898787.58 0.0088 0.0061
 Moon -59193-02-02 20:52 J -19898787.81 -19898787.63 -19898787.43 0.0088 0.0061 *
 Moon -59192-02-04 02:52 J -19898420.49 -19898420.38 -19898420.20 0.0088 0.0074
 Earth -59192-02-04 06:13 J -19898420.36 -19898420.24 -19898420.06 0.0088 0.0074 *
 Earth -59191-02-06 19:11 J -19898052.73 -19898052.70 -19898052.60 0.0088 0.0086
 Moon -59191-02-06 21:35 J -19898052.66 -19898052.60 -19898052.50 0.0088 0.0085 *
 Venus -59167-09-03 19:40 J -19889077.80 -19889077.68 -19889077.54 0.0088 0.0072
 Venus -59166-04-17 09:21 J -19888852.27 -19888852.11 -19888851.91 0.0088 0.0052
 Venus -59166-11-28 23:16 J -19888626.73 -19888626.53 -19888626.31 0.0088 0.0032
 Venus -59165-07-11 13:25 J -19888401.16 -19888400.94 -19888400.72 0.0088 0.0012
 Venus -59164-02-22 03:06 J -19888175.58 -19888175.37 -19888175.14 0.0088 0.0010
 Venus -59164-10-05 16:47 J -19887950.00 -19887949.80 -19887949.58 0.0088 0.0029
 Venus -59163-05-19 06:28 J -19887724.41 -19887724.23 -19887724.03 0.0088 0.0049
 Venus -59163-12-30 20:09 J -19887498.78 -19887498.66 -19887498.51 0.0088 0.0069
 Mars -59135-06-28 23:01 J -19877456.72 -19877456.54 -19877456.34 0.0089 0.0069
 Mars -59133-05-23 05:16 J -19876762.56 -19876762.28 -19876762.00 0.0089 0.0033
 Mercury -59132-01-08 16:47 J -19876531.81 -19876531.80 -19876531.75 0.0089 0.0087
 Mercury -59132-04-06 18:28 J -19876443.78 -19876443.73 -19876443.67 0.0089 0.0081
 Mercury -59132-07-03 19:54 J -19876355.73 -19876355.67 -19876355.59 0.0089 0.0075
 Mercury -59132-09-29 21:35 J -19876267.68 -19876267.60 -19876267.52 0.0089 0.0069
 Mercury -59132-12-26 22:47 J -19876179.63 -19876179.55 -19876179.44 0.0089 0.0064
 Mercury -59131-03-25 00:13 J -19876091.58 -19876091.49 -19876091.38 0.0089 0.0058
 Mars -59131-04-17 07:54 J -19876068.47 -19876068.17 -19876067.87 0.0089 0.0003
 Mercury -59131-06-21 01:54 J -19876003.53 -19876003.42 -19876003.31 0.0089 0.0052
 Mercury -59131-09-17 03:06 J -19875915.47 -19875915.37 -19875915.24 0.0089 0.0047

Mercury -59131-12-14 04:47 J -19875827.42 -19875827.30 -19875827.18 0.0089 0.0040

Mercury -59130-03-12 06:13 J -19875739.36 -19875739.24 -19875739.11 0.0089 0.0035

Mercury -59130-06-08 07:40 J -19875651.31 -19875651.18 -19875651.05 0.0089 0.0029

Mercury -59130-09-04 09:06 J -19875563.25 -19875563.12 -19875562.99 0.0089 0.0023

Mercury -59130-12-01 10:33 J -19875475.19 -19875475.06 -19875474.93 0.0089 0.0018

Mercury -59129-02-27 11:59 J -19875387.13 -19875387.00 -19875386.87 0.0089 0.0012

Mars -59129-03-11 07:25 J -19875374.44 -19875374.19 -19875373.90 0.0089 0.0038

Mercury -59129-05-25 13:25 J -19875299.08 -19875298.94 -19875298.81 0.0089 0.0006

Mercury -59129-08-21 14:52 J -19875211.02 -19875210.88 -19875210.75 0.0089 0.0002

Mercury -59129-11-17 16:18 J -19875122.96 -19875122.82 -19875122.69 0.0089 0.0005

Mercury -59128-02-13 17:30 J -19875034.90 -19875034.77 -19875034.63 0.0089 0.0011

Mercury -59128-05-12 18:57 J -19874946.84 -19874946.71 -19874946.57 0.0089 0.0016

Mercury -59128-08-08 20:23 J -19874858.78 -19874858.65 -19874858.52 0.0089 0.0022

Mercury -59128-11-04 21:35 J -19874770.72 -19874770.60 -19874770.46 0.0089 0.0028

Mercury -59127-01-31 23:16 J -19874682.66 -19874682.53 -19874682.41 0.0089 0.0033

Mars -59127-02-03 06:28 J -19874680.39 -19874680.23 -19874680.05 0.0089 0.0072

Mercury -59127-04-30 00:28 J -19874594.60 -19874594.48 -19874594.35 0.0089 0.0039

Mercury -59127-07-27 01:40 J -19874506.53 -19874506.43 -19874506.30 0.0089 0.0045

Mercury -59127-10-23 03:06 J -19874418.47 -19874418.37 -19874418.25 0.0089 0.0050

Mercury -59126-01-19 04:33 J -19874330.41 -19874330.31 -19874330.20 0.0089 0.0055

Mercury -59126-04-17 05:59 J -19874242.34 -19874242.25 -19874242.15 0.0089 0.0061

Mercury -59126-07-14 07:11 J -19874154.27 -19874154.20 -19874154.10 0.0089 0.0067

Mercury -59126-10-10 08:37 J -19874066.21 -19874066.14 -19874066.05 0.0089 0.0072

Mercury -59125-01-06 09:49 J -19873978.14 -19873978.09 -19873978.01 0.0089 0.0078

Mercury -59125-04-03 11:16 J -19873890.06 -19873890.03 -19873889.97 0.0089 0.0083

Mercury -59125-06-30 12:57 J -19873801.97 -19873801.96 -19873801.95 0.0089 0.0088

Earth -59123-07-10 16:33 J -19873061.83 -19873061.81 -19873061.72 0.0089 0.0087

Moon -59122-07-13 00:57 J -19872694.61 -19872694.46 -19872694.30 0.0089 0.0071

Earth -59122-07-13 03:35 J -19872694.47 -19872694.35 -19872694.19 0.0089 0.0075 *

Earth -59121-07-14 13:54 J -19872327.08 -19872326.92 -19872326.72 0.0089 0.0063

Moon	-59121-07-14 17:30 J	-19872326.92	-19872326.77	-19872326.58	0.0089	0.0066	*
Moon	-59120-07-16 21:21 J	-19871959.81	-19871959.61	-19871959.39	0.0089	0.0047	
Earth	-59120-07-17 00:42 J	-19871959.66	-19871959.47	-19871959.25	0.0089	0.0051	*
Earth	-59119-07-19 11:16 J	-19871592.25	-19871592.03	-19871591.79	0.0089	0.0039	
Moon	-59119-07-19 14:37 J	-19871592.12	-19871591.89	-19871591.66	0.0089	0.0041	*
Moon	-59118-07-21 19:40 J	-19871224.91	-19871224.68	-19871224.44	0.0089	0.0024	
Earth	-59118-07-21 21:49 J	-19871224.82	-19871224.59	-19871224.34	0.0089	0.0027	*
Earth	-59117-07-23 08:37 J	-19870857.39	-19870857.14	-19870856.89	0.0089	0.0014	
Moon	-59117-07-23 09:06 J	-19870857.37	-19870857.12	-19870856.85	0.0089	0.0018	*
Earth	-59116-07-25 18:57 J	-19870489.96	-19870489.71	-19870489.45	0.0089	0.0003	
Moon	-59116-07-25 19:11 J	-19870489.94	-19870489.70	-19870489.45	0.0089	0.0001	*
Moon	-59115-07-28 04:04 J	-19870122.58	-19870122.33	-19870122.06	0.0089	0.0008	
Earth	-59115-07-28 05:30 J	-19870122.52	-19870122.27	-19870122.01	0.0089	0.0010	*
Earth	-59114-07-30 15:35 J	-19869755.08	-19869754.85	-19869754.59	0.0089	0.0023	
Moon	-59114-07-30 18:28 J	-19869754.96	-19869754.73	-19869754.48	0.0089	0.0026	*
Moon	-59113-07-31 22:47 J	-19869387.78	-19869387.55	-19869387.30	0.0089	0.0032	
Earth	-59113-08-01 01:54 J	-19869387.64	-19869387.42	-19869387.17	0.0089	0.0035	*
Earth	-59112-08-03 11:59 J	-19869020.20	-19869020.00	-19869019.76	0.0089	0.0047	
Moon	-59112-08-03 15:49 J	-19869020.04	-19869019.84	-19869019.62	0.0089	0.0049	*
Moon	-59111-08-05 18:57 J	-19868652.88	-19868652.71	-19868652.49	0.0089	0.0056	
Earth	-59111-08-05 22:18 J	-19868652.74	-19868652.57	-19868652.36	0.0089	0.0059	*
Earth	-59110-08-08 08:23 J	-19868285.28	-19868285.15	-19868284.97	0.0089	0.0071	
Moon	-59110-08-08 11:01 J	-19868285.16	-19868285.04	-19868284.86	0.0089	0.0073	*
Moon	-59109-08-09 17:01 J	-19867917.88	-19867917.79	-19867917.68	0.0089	0.0080	
Earth	-59109-08-09 18:28 J	-19867917.79	-19867917.73	-19867917.61	0.0089	0.0083	*
Jupiter	-59091-08-12 14:52 J	-19861341.41	-19861340.88	-19861340.32	0.0089	0.0005	
Venus	-59085-10-16 21:49 J	-19859083.71	-19859083.59	-19859083.46	0.0089	0.0072	
Venus	-59084-05-30 09:35 J	-19858858.25	-19858858.10	-19858857.91	0.0089	0.0053	
Venus	-59083-01-10 21:49 J	-19858632.77	-19858632.59	-19858632.38	0.0089	0.0034	
Venus	-59083-08-24 10:18 J	-19858407.28	-19858407.07	-19858406.86	0.0089	0.0013	

Venus -59082-04-06 22:33 J -19858181.78 -19858181.56 -19858181.35 0.0089 0.0007
 Venus -59082-11-18 10:33 J -19857956.26 -19857956.06 -19857955.85 0.0089 0.0026
 Venus -59081-06-30 22:47 J -19857730.73 -19857730.55 -19857730.36 0.0089 0.0046
 Venus -59080-02-11 10:47 J -19857505.17 -19857505.05 -19857504.89 0.0089 0.0067
 Venus -59080-09-24 23:01 J -19857279.57 -19857279.54 -19857279.47 0.0089 0.0086
 Mars -59053-03-05 09:06 J -19847621.29 -19847621.12 -19847620.90 0.0089 0.0071
 Mars -59051-01-29 18:28 J -19846926.02 -19846925.73 -19846925.42 0.0089 0.0033
 Mercury -59050-09-26 05:30 J -19846321.30 -19846321.27 -19846321.20 0.0089 0.0086
 Mercury -59050-12-23 08:52 J -19846233.20 -19846233.13 -19846233.03 0.0089 0.0078
 Mars -59050-12-26 05:45 J -19846230.58 -19846230.26 -19846229.93 0.0089 0.0006
 Mercury -59049-03-20 12:28 J -19846145.09 -19846144.98 -19846144.86 0.0089 0.0070
 Mercury -59049-06-16 15:21 J -19846056.97 -19846056.86 -19846056.71 0.0089 0.0063
 Mercury -59049-09-12 18:57 J -19845968.85 -19845968.71 -19845968.55 0.0089 0.0055
 Mercury -59049-12-09 22:18 J -19845880.72 -19845880.57 -19845880.40 0.0089 0.0047
 Mercury -59048-03-08 01:54 J -19845792.59 -19845792.42 -19845792.25 0.0089 0.0039
 Mercury -59048-06-04 05:01 J -19845704.46 -19845704.29 -19845704.11 0.0089 0.0032
 Mercury -59048-08-31 08:23 J -19845616.33 -19845616.15 -19845615.96 0.0089 0.0024
 Mars -59048-11-20 20:37 J -19845534.91 -19845534.64 -19845534.34 0.0089 0.0045
 Mercury -59048-11-27 11:45 J -19845528.19 -19845528.01 -19845527.82 0.0089 0.0016
 Mercury -59047-02-23 15:21 J -19845440.05 -19845439.86 -19845439.68 0.0089 0.0008
 Mercury -59047-05-22 18:42 J -19845351.91 -19845351.72 -19845351.53 0.0089 0.0001
 Mercury -59047-08-18 22:04 J -19845263.77 -19845263.58 -19845263.39 0.0089 0.0008
 Mercury -59047-11-15 01:25 J -19845175.63 -19845175.44 -19845175.25 0.0089 0.0016
 Mercury -59046-02-11 04:33 J -19845087.48 -19845087.31 -19845087.12 0.0089 0.0024
 Mercury -59046-05-10 07:54 J -19844999.33 -19844999.17 -19844998.98 0.0089 0.0032
 Mercury -59046-08-06 11:16 J -19844911.18 -19844911.03 -19844910.84 0.0089 0.0040
 Mars -59046-10-17 14:52 J -19844838.98 -19844838.88 -19844838.78 0.0089 0.0084
 Mercury -59046-11-02 14:37 J -19844823.03 -19844822.89 -19844822.71 0.0089 0.0048
 Mercury -59045-01-29 18:13 J -19844734.88 -19844734.74 -19844734.58 0.0089 0.0056
 Mercury -59045-04-26 21:35 J -19844646.72 -19844646.60 -19844646.45 0.0089 0.0064

Mercury -59045-07-24 00:57 J -19844558.55 -19844558.46 -19844558.33 0.0089 0.0072
 Mercury -59045-10-20 04:18 J -19844470.38 -19844470.32 -19844470.21 0.0089 0.0080
 Mercury -59044-01-16 08:23 J -19844382.18 -19844382.15 -19844382.12 0.0089 0.0087
 Moon -59041-01-05 19:25 J -19843297.71 -19843297.69 -19843297.60 0.0089 0.0087
 Moon -59040-01-07 01:25 J -19842930.52 -19842930.44 -19842930.32 0.0089 0.0082
 Earth -59040-01-07 05:01 J -19842930.39 -19842930.29 -19842930.14 0.0089 0.0078 *
 Earth -59039-01-09 17:45 J -19842562.91 -19842562.76 -19842562.57 0.0089 0.0066
 Moon -59039-01-09 21:06 J -19842562.79 -19842562.62 -19842562.41 0.0089 0.0062 *
 Moon -59038-01-12 04:47 J -19842195.49 -19842195.30 -19842195.10 0.0089 0.0057
 Earth -59038-01-12 06:42 J -19842195.41 -19842195.22 -19842194.99 0.0089 0.0054 *
 Earth -59037-01-14 19:54 J -19841827.90 -19841827.67 -19841827.44 0.0089 0.0041
 Moon -59037-01-14 21:35 J -19841827.83 -19841827.60 -19841827.34 0.0089 0.0037 *
 Earth -59036-01-16 08:37 J -19841460.38 -19841460.14 -19841459.88 0.0089 0.0028
 Moon -59036-01-16 08:23 J -19841460.37 -19841460.15 -19841459.90 0.0089 0.0033 *
 Moon -59035-01-18 20:23 J -19841092.91 -19841092.65 -19841092.37 0.0089 0.0013
 Earth -59035-01-18 21:49 J -19841092.85 -19841092.59 -19841092.33 0.0089 0.0016 *
 Earth -59034-01-21 10:33 J -19840725.32 -19840725.06 -19840724.80 0.0088 0.0003
 Moon -59034-01-21 12:13 J -19840725.24 -19840724.99 -19840724.74 0.0088 0.0007 *
 Moon -59033-01-23 20:23 J -19840357.91 -19840357.65 -19840357.39 0.0088 0.0014
 Earth -59033-01-23 23:30 J -19840357.78 -19840357.52 -19840357.26 0.0088 0.0009 *
 Earth -59032-01-25 12:28 J -19839990.23 -19839989.98 -19839989.73 0.0088 0.0022
 Moon -59032-01-25 15:49 J -19839990.09 -19839989.84 -19839989.58 0.0088 0.0018 *
 Moon -59031-01-27 21:35 J -19839622.83 -19839622.60 -19839622.36 0.0088 0.0039
 Earth -59031-01-28 00:57 J -19839622.68 -19839622.46 -19839622.20 0.0088 0.0035 *
 Earth -59030-01-30 14:09 J -19839255.12 -19839254.91 -19839254.68 0.0088 0.0047
 Moon -59030-01-30 17:59 J -19839254.99 -19839254.75 -19839254.52 0.0088 0.0042 *
 Moon -59029-02-02 00:28 J -19838887.63 -19838887.48 -19838887.28 0.0088 0.0064
 Earth -59029-02-02 02:52 J -19838887.54 -19838887.38 -19838887.16 0.0088 0.0060 *
 Earth -59028-02-03 16:04 J -19838519.96 -19838519.83 -19838519.65 0.0088 0.0072
 Moon -59028-02-03 18:42 J -19838519.89 -19838519.72 -19838519.54 0.0088 0.0067 *

Earth	-59027-02-06 05:30 J	-19838152.34	-19838152.27	-19838152.17	0.0088	0.0084
Moon	-59027-02-06 05:16 J	-19838152.28	-19838152.28	-19838152.27	0.0088	0.0088 *
Venus	-59003-12-06 06:13 J	-19829083.32	-19829083.24	-19829083.13	0.0088	0.0080
Venus	-59002-07-19 20:09 J	-19828857.81	-19828857.66	-19828857.48	0.0088	0.0059
Venus	-59001-03-01 10:04 J	-19828632.27	-19828632.08	-19828631.86	0.0088	0.0039
Venus	-59001-10-12 23:59 J	-19828406.71	-19828406.50	-19828406.27	0.0088	0.0019

59TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 59th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-59000-05-26 14:09 J	-19828181.14	-19828180.91	-19828180.69	0.0088	0.0002		
Venus	-58999-01-07 03:35 J	-19827955.55	-19827955.35	-19827955.11	0.0088	0.0023		
Venus	-58999-08-20 17:16 J	-19827729.96	-19827729.78	-19827729.56	0.0088	0.0043		
Venus	-58998-04-03 06:57 J	-19827504.35	-19827504.21	-19827504.03	0.0088	0.0063		
Venus	-58998-11-14 20:37 J	-19827278.70	-19827278.64	-19827278.54	0.0088	0.0082		
Mars	-58971-02-11 03:49 J	-19817693.45	-19817693.34	-19817693.19	0.0089	0.0080		
Mars	-58969-01-06 10:04 J	-19816999.32	-19816999.08	-19816998.80	0.0089	0.0045		
Mercury	-58968-10-05 16:47 J	-19816360.83	-19816360.80	-19816360.74	0.0089	0.0084		
Mars	-58968-11-30 15:21 J	-19816305.15	-19816304.86	-19816304.55	0.0089	0.0009		
Mercury	-58967-01-01 18:28 J	-19816272.79	-19816272.73	-19816272.66	0.0089	0.0078		
Mercury	-58967-03-30 19:54 J	-19816184.74	-19816184.67	-19816184.58	0.0089	0.0072		
Mercury	-58967-06-26 21:35 J	-19816096.69	-19816096.60	-19816096.51	0.0089	0.0066		

Mercury -58967-09-22 22:47 J -19816008.64 -19816008.55 -19816008.44 0.0089 0.0060
 Mercury -58967-12-20 00:13 J -19815920.59 -19815920.49 -19815920.37 0.0089 0.0055
 Mercury -58966-03-18 01:54 J -19815832.53 -19815832.42 -19815832.31 0.0089 0.0049
 Mercury -58966-06-14 03:21 J -19815744.48 -19815744.36 -19815744.24 0.0089 0.0043
 Mercury -58966-09-10 04:33 J -19815656.42 -19815656.31 -19815656.18 0.0089 0.0038
 Mars -58966-10-25 17:30 J -19815611.05 -19815610.77 -19815610.47 0.0089 0.0026
 Mercury -58966-12-07 06:13 J -19815568.37 -19815568.24 -19815568.11 0.0089 0.0032
 Mercury -58965-03-04 07:40 J -19815480.31 -19815480.18 -19815480.05 0.0089 0.0026
 Mercury -58965-05-31 09:06 J -19815392.25 -19815392.12 -19815391.99 0.0089 0.0020
 Mercury -58965-08-27 10:33 J -19815304.20 -19815304.06 -19815303.93 0.0089 0.0015
 Mercury -58965-11-23 11:45 J -19815216.14 -19815216.01 -19815215.87 0.0089 0.0010
 Mercury -58964-02-19 13:25 J -19815128.08 -19815127.94 -19815127.81 0.0089 0.0004
 Mercury -58964-05-18 14:52 J -19815040.02 -19815039.88 -19815039.75 0.0089 0.0004
 Mercury -58964-08-14 16:04 J -19814951.96 -19814951.83 -19814951.69 0.0089 0.0008
 Mars -58964-09-18 16:18 J -19814917.02 -19814916.82 -19814916.58 0.0089 0.0060
 Mercury -58964-11-10 17:30 J -19814863.90 -19814863.77 -19814863.63 0.0089 0.0014
 Mercury -58963-02-06 18:57 J -19814775.84 -19814775.71 -19814775.58 0.0089 0.0019
 Mercury -58963-05-05 20:23 J -19814687.78 -19814687.65 -19814687.52 0.0089 0.0025
 Mercury -58963-08-01 21:35 J -19814599.72 -19814599.60 -19814599.47 0.0089 0.0031
 Mercury -58963-10-28 23:01 J -19814511.66 -19814511.54 -19814511.41 0.0089 0.0036
 Mercury -58962-01-25 00:28 J -19814423.59 -19814423.48 -19814423.36 0.0089 0.0042
 Mercury -58962-04-23 01:40 J -19814335.53 -19814335.43 -19814335.31 0.0089 0.0048
 Mercury -58962-07-20 03:06 J -19814247.47 -19814247.37 -19814247.25 0.0089 0.0053
 Mercury -58962-10-16 04:33 J -19814159.40 -19814159.31 -19814159.20 0.0089 0.0059
 Mercury -58961-01-12 05:59 J -19814071.34 -19814071.25 -19814071.15 0.0089 0.0064
 Mercury -58961-04-09 07:11 J -19813983.27 -19813983.20 -19813983.11 0.0089 0.0070
 Mercury -58961-07-06 08:37 J -19813895.20 -19813895.14 -19813895.06 0.0089 0.0075
 Mercury -58961-10-02 09:49 J -19813807.13 -19813807.09 -19813807.02 0.0089 0.0081
 Mercury -58961-12-29 11:30 J -19813719.05 -19813719.02 -19813718.99 0.0089 0.0086
 Moon -58959-07-10 01:40 J -19813161.45 -19813161.43 -19813161.39 0.0089 0.0088

Earth	-58958-07-12 15:35 J	-19812793.95	-19812793.85	-19812793.72	0.0089	0.0079
Moon	-58958-07-12 18:42 J	-19812793.79	-19812793.72	-19812793.60	0.0089	0.0082 *
Moon	-58957-07-13 22:18 J	-19812426.71	-19812426.57	-19812426.36	0.0089	0.0064
Earth	-58957-07-14 02:09 J	-19812426.56	-19812426.41	-19812426.23	0.0089	0.0067 *
Earth	-58956-07-16 12:28 J	-19812059.16	-19812058.98	-19812058.76	0.0089	0.0055
Moon	-58956-07-16 15:35 J	-19812059.03	-19812058.85	-19812058.64	0.0089	0.0058 *
Moon	-58955-07-18 21:35 J	-19811691.80	-19811691.60	-19811691.36	0.0089	0.0040
Earth	-58955-07-18 23:16 J	-19811691.74	-19811691.53	-19811691.29	0.0089	0.0043 *
Earth	-58954-07-21 10:04 J	-19811324.32	-19811324.08	-19811323.84	0.0089	0.0030
Moon	-58954-07-21 10:47 J	-19811324.28	-19811324.05	-19811323.79	0.0089	0.0034 *
Earth	-58953-07-22 20:23 J	-19810956.89	-19810956.65	-19810956.39	0.0089	0.0018
Moon	-58953-07-22 21:06 J	-19810956.85	-19810956.62	-19810956.37	0.0089	0.0015 *
Moon	-58952-07-25 05:01 J	-19810589.55	-19810589.29	-19810589.02	0.0089	0.0008
Earth	-58952-07-25 07:11 J	-19810589.46	-19810589.20	-19810588.95	0.0089	0.0005 *
Earth	-58951-07-27 17:45 J	-19810222.02	-19810221.76	-19810221.51	0.0089	0.0007
Moon	-58951-07-27 20:09 J	-19810221.91	-19810221.66	-19810221.41	0.0089	0.0011 *
Moon	-58950-07-30 00:13 J	-19809854.73	-19809854.49	-19809854.22	0.0089	0.0017
Earth	-58950-07-30 04:04 J	-19809854.57	-19809854.33	-19809854.08	0.0089	0.0020 *
Earth	-58949-07-31 14:23 J	-19809487.13	-19809486.90	-19809486.65	0.0089	0.0032
Moon	-58949-07-31 17:30 J	-19809486.98	-19809486.77	-19809486.52	0.0089	0.0036 *
Moon	-58948-08-02 21:21 J	-19809119.82	-19809119.61	-19809119.37	0.0089	0.0041
Earth	-58948-08-03 00:42 J	-19809119.67	-19809119.47	-19809119.23	0.0089	0.0045 *
Earth	-58947-08-05 11:01 J	-19808752.22	-19808752.04	-19808751.83	0.0089	0.0057
Moon	-58947-08-05 13:25 J	-19808752.11	-19808751.94	-19808751.73	0.0089	0.0061 *
Moon	-58946-08-07 19:54 J	-19808384.81	-19808384.67	-19808384.49	0.0089	0.0066
Earth	-58946-08-07 21:21 J	-19808384.75	-19808384.61	-19808384.44	0.0089	0.0069 *
Earth	-58945-08-09 07:25 J	-19808017.28	-19808017.19	-19808017.07	0.0089	0.0081
Moon	-58945-08-09 07:40 J	-19808017.23	-19808017.18	-19808017.08	0.0089	0.0085 *
Venus	-58920-01-18 10:33 J	-19799089.15	-19799089.06	-19799088.96	0.0089	0.0079
Saturn	-58920-05-15 21:21 J	-19798971.99	-19798971.61	-19798971.08	0.0089	0.0065

Venus -58920-08-31 22:18 J -19798863.71 -19798863.57 -19798863.39 0.0089 0.0060

Venus -58919-04-14 10:33 J -19798638.24 -19798638.06 -19798637.85 0.0089 0.0041

Venus -58919-11-25 23:01 J -19798412.75 -19798412.54 -19798412.33 0.0089 0.0020

Venus -58918-07-09 11:16 J -19798187.24 -19798187.03 -19798186.82 0.0089 0.0001

Venus -58917-02-19 23:16 J -19797961.73 -19797961.53 -19797961.31 0.0089 0.0019

Venus -58917-10-02 11:16 J -19797736.21 -19797736.03 -19797735.82 0.0089 0.0039

Venus -58916-05-15 23:16 J -19797510.67 -19797510.53 -19797510.35 0.0089 0.0059

Venus -58916-12-27 11:45 J -19797285.10 -19797285.01 -19797284.90 0.0089 0.0079

Mars -58890-10-18 20:37 J -19787858.75 -19787858.64 -19787858.51 0.0089 0.0082

Mars -58888-09-13 03:06 J -19787163.65 -19787163.37 -19787163.09 0.0089 0.0045

Mars -58886-08-09 12:42 J -19786468.29 -19786467.97 -19786467.64 0.0089 0.0008

Mercury -58885-06-22 04:33 J -19786150.36 -19786150.31 -19786150.22 0.0089 0.0082

Mercury -58885-09-18 08:09 J -19786062.25 -19786062.16 -19786062.05 0.0089 0.0074

Mercury -58885-12-15 11:30 J -19785974.14 -19785974.02 -19785973.89 0.0089 0.0066

Mercury -58884-03-13 14:37 J -19785886.02 -19785885.89 -19785885.74 0.0089 0.0059

Mercury -58884-06-09 17:59 J -19785797.89 -19785797.75 -19785797.59 0.0089 0.0051

Mars -58884-07-05 00:42 J -19785772.77 -19785772.47 -19785772.15 0.0089 0.0031

Mercury -58884-09-05 21:21 J -19785709.76 -19785709.61 -19785709.44 0.0089 0.0043

Mercury -58884-12-03 00:57 J -19785621.63 -19785621.46 -19785621.29 0.0089 0.0035

Mercury -58883-03-01 04:04 J -19785533.50 -19785533.33 -19785533.14 0.0089 0.0028

Mercury -58883-05-28 07:25 J -19785445.37 -19785445.19 -19785445.00 0.0089 0.0020

Mercury -58883-08-24 11:01 J -19785357.23 -19785357.04 -19785356.85 0.0089 0.0012

Mercury -58883-11-20 14:23 J -19785269.09 -19785268.90 -19785268.71 0.0089 0.0004

Mercury -58882-02-16 17:45 J -19785180.95 -19785180.76 -19785180.57 0.0089 0.0004

Mercury -58882-05-15 21:06 J -19785092.81 -19785092.62 -19785092.43 0.0089 0.0012

Mars -58882-05-31 15:35 J -19785077.02 -19785076.85 -19785076.62 0.0089 0.0070

Mercury -58882-08-12 00:28 J -19785004.66 -19785004.48 -19785004.29 0.0089 0.0020

Mercury -58882-11-08 03:49 J -19784916.51 -19784916.34 -19784916.15 0.0089 0.0028

Mercury -58881-02-04 07:11 J -19784828.37 -19784828.20 -19784828.02 0.0089 0.0036

Mercury -58881-05-02 10:33 J -19784740.21 -19784740.06 -19784739.88 0.0089 0.0044

Mercury -58881-07-29 13:54 J -19784652.06 -19784651.92 -19784651.75 0.0089 0.0052

Mercury -58881-10-25 17:16 J -19784563.90 -19784563.78 -19784563.62 0.0089 0.0060

Mercury -58880-01-21 20:52 J -19784475.74 -19784475.63 -19784475.50 0.0089 0.0068

Mercury -58880-04-20 00:13 J -19784387.57 -19784387.49 -19784387.38 0.0089 0.0076

Mercury -58880-07-17 03:35 J -19784299.39 -19784299.35 -19784299.27 0.0089 0.0084

Earth -58876-01-06 14:52 J -19783029.94 -19783029.88 -19783029.75 0.0089 0.0083

Moon -58876-01-06 18:13 J -19783029.79 -19783029.74 -19783029.64 0.0089 0.0085 *

Moon -58875-01-09 01:40 J -19782662.57 -19782662.43 -19782662.25 0.0089 0.0068

Earth -58875-01-09 04:18 J -19782662.47 -19782662.32 -19782662.16 0.0089 0.0070 *

Earth -58874-01-11 16:33 J -19782294.98 -19782294.81 -19782294.59 0.0089 0.0058

Moon -58874-01-11 17:59 J -19782294.95 -19782294.75 -19782294.55 0.0089 0.0060 *

Earth -58873-01-14 05:45 J -19781927.47 -19781927.26 -19781927.02 0.0089 0.0045

Moon -58873-01-14 05:45 J -19781927.47 -19781927.26 -19781927.03 0.0089 0.0043 *

Moon -58872-01-15 17:16 J -19781560.01 -19781559.78 -19781559.51 0.0089 0.0035

Earth -58872-01-15 18:28 J -19781559.95 -19781559.73 -19781559.46 0.0089 0.0033 *

Earth -58871-01-18 07:25 J -19781192.43 -19781192.19 -19781191.92 0.0089 0.0020

Moon -58871-01-18 10:18 J -19781192.32 -19781192.07 -19781191.82 0.0089 0.0017 *

Moon -58870-01-20 17:45 J -19780825.02 -19780824.76 -19780824.49 0.0089 0.0008

Earth -58870-01-20 20:37 J -19780824.89 -19780824.64 -19780824.37 0.0089 0.0007 *

Earth -58869-01-23 09:35 J -19780457.36 -19780457.10 -19780456.84 0.0088 0.0006

Moon -58869-01-23 13:25 J -19780457.20 -19780456.94 -19780456.68 0.0088 0.0008 *

Moon -58868-01-24 18:57 J -19780089.96 -19780089.71 -19780089.45 0.0088 0.0017

Earth -58868-01-24 22:18 J -19780089.81 -19780089.57 -19780089.30 0.0088 0.0019 *

Earth -58867-01-27 11:16 J -19779722.27 -19779722.03 -19779721.78 0.0088 0.0032

Moon -58867-01-27 14:23 J -19779722.13 -19779721.90 -19779721.64 0.0088 0.0033 *

Moon -58866-01-29 21:21 J -19779354.81 -19779354.61 -19779354.37 0.0088 0.0044

Earth -58866-01-29 23:59 J -19779354.71 -19779354.50 -19779354.26 0.0088 0.0045 *

Earth -58865-02-01 12:42 J -19778987.14 -19778986.97 -19778986.74 0.0088 0.0058

Moon -58865-02-01 13:54 J -19778987.10 -19778986.92 -19778986.69 0.0088 0.0059 *

Moon -58864-02-03 01:11 J -19778619.58 -19778619.45 -19778619.27 0.0088 0.0070

Earth -58864-02-03 01:54 J -19778619.56 -19778619.42 -19778619.24 0.0088 0.0070 *
 Moon -58863-02-05 13:54 J -19778251.99 -19778251.92 -19778251.81 0.0088 0.0083
 Earth -58863-02-05 14:37 J -19778251.95 -19778251.89 -19778251.76 0.0088 0.0083 *
 Saturn -58847-04-10 05:30 J -19772344.70 -19772344.27 -19772343.69 0.0088 0.0065
 Venus -58838-03-09 17:16 J -19769088.82 -19769088.78 -19769088.74 0.0088 0.0087
 Venus -58838-10-21 06:57 J -19768863.35 -19768863.21 -19768863.05 0.0088 0.0067
 Venus -58837-06-02 20:52 J -19768637.81 -19768637.63 -19768637.43 0.0088 0.0046
 Venus -58836-01-14 10:47 J -19768412.25 -19768412.05 -19768411.82 0.0088 0.0026
 Venus -58836-08-28 00:42 J -19768186.69 -19768186.47 -19768186.24 0.0088 0.0007
 Venus -58835-04-10 14:37 J -19767961.11 -19767960.89 -19767960.66 0.0088 0.0014
 Venus -58835-11-22 04:18 J -19767735.52 -19767735.32 -19767735.11 0.0088 0.0035
 Venus -58834-07-05 18:13 J -19767509.91 -19767509.74 -19767509.56 0.0088 0.0055
 Venus -58833-02-16 07:40 J -19767284.28 -19767284.18 -19767284.04 0.0088 0.0075
 Mars -58806-08-21 14:52 J -19757236.10 -19757235.88 -19757235.62 0.0089 0.0056
 Mars -58804-07-15 20:52 J -19756541.92 -19756541.63 -19756541.33 0.0089 0.0021
 Mercury -58803-04-05 15:35 J -19756277.88 -19756277.85 -19756277.81 0.0089 0.0086
 Mercury -58803-07-02 17:01 J -19756189.84 -19756189.79 -19756189.73 0.0089 0.0080
 Mercury -58803-09-28 18:13 J -19756101.80 -19756101.74 -19756101.65 0.0089 0.0075
 Mercury -58803-12-25 19:54 J -19756013.75 -19756013.67 -19756013.58 0.0089 0.0069
 Mercury -58802-03-23 21:21 J -19755925.70 -19755925.61 -19755925.51 0.0089 0.0063
 Mars -58802-06-10 00:57 J -19755847.75 -19755847.46 -19755847.15 0.0089 0.0014
 Mercury -58802-06-19 23:01 J -19755837.64 -19755837.54 -19755837.44 0.0089 0.0057
 Mercury -58802-09-16 00:13 J -19755749.59 -19755749.49 -19755749.37 0.0089 0.0052
 Mercury -58802-12-13 01:40 J -19755661.54 -19755661.43 -19755661.30 0.0089 0.0046
 Mercury -58801-03-10 03:21 J -19755573.48 -19755573.36 -19755573.24 0.0089 0.0040
 Mercury -58801-06-06 04:33 J -19755485.43 -19755485.31 -19755485.17 0.0089 0.0035
 Mercury -58801-09-02 06:13 J -19755397.37 -19755397.24 -19755397.11 0.0089 0.0029
 Mercury -58801-11-29 07:40 J -19755309.31 -19755309.18 -19755309.05 0.0089 0.0023
 Mercury -58800-02-25 08:52 J -19755221.26 -19755221.13 -19755220.99 0.0089 0.0018
 Mars -58800-05-04 03:21 J -19755153.60 -19755153.36 -19755153.09 0.0089 0.0048

Mercury -58800-05-24 10:33 J -19755133.20 -19755133.06 -19755132.93 0.0089 0.0012

Mercury -58800-08-20 11:45 J -19755045.14 -19755045.01 -19755044.87 0.0089 0.0007

Mercury -58800-11-16 13:25 J -19754957.08 -19754956.94 -19754956.81 0.0089 0.0003

Mercury -58799-02-12 14:37 J -19754869.02 -19754868.89 -19754868.75 0.0089 0.0006

Mercury -58799-05-11 16:04 J -19754780.96 -19754780.83 -19754780.69 0.0089 0.0011

Mercury -58799-08-07 17:30 J -19754692.90 -19754692.77 -19754692.64 0.0089 0.0017

Mercury -58799-11-03 18:57 J -19754604.84 -19754604.71 -19754604.58 0.0089 0.0022

Mercury -58798-01-30 20:23 J -19754516.78 -19754516.65 -19754516.52 0.0089 0.0028

Mars -58798-03-29 01:11 J -19754459.53 -19754459.45 -19754459.30 0.0089 0.0082

Mercury -58798-04-28 21:35 J -19754428.72 -19754428.60 -19754428.47 0.0089 0.0034

Mercury -58798-07-25 22:47 J -19754340.66 -19754340.55 -19754340.42 0.0089 0.0040

Mercury -58798-10-22 00:28 J -19754252.59 -19754252.48 -19754252.36 0.0089 0.0045

Mercury -58797-01-18 01:40 J -19754164.53 -19754164.43 -19754164.31 0.0089 0.0051

Mercury -58797-04-15 03:06 J -19754076.47 -19754076.37 -19754076.26 0.0089 0.0056

Mercury -58797-07-12 04:18 J -19753988.40 -19753988.32 -19753988.21 0.0089 0.0062

Mercury -58797-10-08 05:59 J -19753900.33 -19753900.25 -19753900.16 0.0089 0.0067

Mercury -58796-01-04 07:11 J -19753812.27 -19753812.20 -19753812.11 0.0089 0.0073

Mercury -58796-04-02 08:52 J -19753724.19 -19753724.13 -19753724.07 0.0089 0.0078

Mercury -58796-06-29 09:49 J -19753636.12 -19753636.09 -19753636.03 0.0089 0.0084

Moon -58794-07-11 23:59 J -19752893.51 -19752893.50 -19752893.44 0.0089 0.0088

Earth -58794-07-12 03:06 J -19752893.43 -19752893.37 -19752893.26 0.0089 0.0084

Earth -58793-07-13 13:25 J -19752526.06 -19752525.94 -19752525.76 0.0089 0.0072

Moon -58793-07-13 16:18 J -19752525.96 -19752525.82 -19752525.63 0.0089 0.0069 *

Moon -58792-07-15 22:33 J -19752158.71 -19752158.56 -19752158.36 0.0089 0.0063

Earth -58792-07-16 00:28 J -19752158.65 -19752158.48 -19752158.27 0.0089 0.0059 *

Moon -58791-07-18 11:01 J -19751791.25 -19751791.04 -19751790.79 0.0089 0.0043

Earth -58791-07-18 10:47 J -19751791.24 -19751791.05 -19751790.81 0.0089 0.0047 *

Earth -58790-07-20 21:21 J -19751423.83 -19751423.61 -19751423.36 0.0089 0.0034

Moon -58790-07-20 22:04 J -19751423.79 -19751423.58 -19751423.34 0.0089 0.0037 *

Moon -58789-07-22 05:59 J -19751056.50 -19751056.25 -19751055.99 0.0089 0.0018

Earth	-58789-07-22 08:09 J	-19751056.40	-19751056.16	-19751055.91	0.0089	0.0021	*
Earth	-58788-07-24 18:28 J	-19750688.97	-19750688.73	-19750688.47	0.0089	0.0009	
Moon	-58788-07-24 21:49 J	-19750688.84	-19750688.59	-19750688.35	0.0089	0.0012	*
Moon	-58787-07-27 01:40 J	-19750321.68	-19750321.43	-19750321.17	0.0089	0.0007	
Earth	-58787-07-27 05:01 J	-19750321.54	-19750321.29	-19750321.03	0.0089	0.0004	*
Earth	-58786-07-29 15:21 J	-19749954.11	-19749953.86	-19749953.61	0.0089	0.0017	
Moon	-58786-07-29 18:57 J	-19749953.95	-19749953.71	-19749953.45	0.0089	0.0014	*
Moon	-58785-07-30 22:47 J	-19749586.77	-19749586.55	-19749586.31	0.0089	0.0033	
Earth	-58785-07-31 01:54 J	-19749586.66	-19749586.42	-19749586.18	0.0089	0.0029	*
Earth	-58784-08-02 12:13 J	-19749219.21	-19749218.99	-19749218.76	0.0089	0.0042	
Moon	-58784-08-02 14:37 J	-19749219.11	-19749218.89	-19749218.64	0.0089	0.0040	*
Moon	-58783-08-04 21:06 J	-19748851.78	-19748851.62	-19748851.41	0.0089	0.0058	
Earth	-58783-08-04 22:18 J	-19748851.74	-19748851.57	-19748851.35	0.0089	0.0055	*
Moon	-58782-08-07 08:23 J	-19748484.31	-19748484.15	-19748483.95	0.0089	0.0064	
Earth	-58782-08-07 08:52 J	-19748484.28	-19748484.13	-19748483.95	0.0089	0.0067	*
Earth	-58781-08-08 18:42 J	-19748116.80	-19748116.72	-19748116.58	0.0089	0.0080	
Moon	-58781-08-08 20:23 J	-19748116.73	-19748116.65	-19748116.55	0.0089	0.0082	*
Moon	-58780-08-11 02:52 J	-19747749.38	-19747749.38	-19747749.34	0.0089	0.0089	
Venus	-58756-04-21 22:33 J	-19739094.58	-19739094.56	-19739094.49	0.0089	0.0087	
Venus	-58756-12-03 10:47 J	-19738869.17	-19738869.05	-19738868.90	0.0089	0.0067	
Venus	-58755-07-16 23:16 J	-19738643.71	-19738643.53	-19738643.34	0.0089	0.0048	
Venus	-58754-02-27 11:16 J	-19738418.22	-19738418.03	-19738417.82	0.0089	0.0028	
Venus	-58754-10-10 23:30 J	-19738192.73	-19738192.52	-19738192.30	0.0089	0.0008	
Venus	-58753-05-23 11:30 J	-19737967.23	-19737967.02	-19737966.80	0.0089	0.0012	
Venus	-58752-01-03 23:30 J	-19737741.71	-19737741.52	-19737741.31	0.0089	0.0032	
Venus	-58752-08-17 11:45 J	-19737516.17	-19737516.01	-19737515.82	0.0089	0.0051	
Venus	-58751-03-30 23:45 J	-19737290.62	-19737290.51	-19737290.36	0.0089	0.0071	
Mars	-58724-04-27 12:42 J	-19727401.21	-19727400.97	-19727400.72	0.0089	0.0057	
Mars	-58722-03-23 19:25 J	-19726706.01	-19726705.69	-19726705.38	0.0089	0.0020	
Mercury	-58721-12-21 00:13 J	-19726067.52	-19726067.49	-19726067.42	0.0089	0.0086	

Mars -58720-02-16 05:30 J -19726010.58 -19726010.27 -19726009.93 0.0089 0.0018
 Mercury -58720-03-19 03:35 J -19725979.42 -19725979.35 -19725979.25 0.0089 0.0078
 Mercury -58720-06-15 07:11 J -19725891.31 -19725891.20 -19725891.09 0.0089 0.0070
 Mercury -58720-09-11 10:04 J -19725803.19 -19725803.08 -19725802.93 0.0089 0.0063
 Mercury -58720-12-08 13:40 J -19725715.07 -19725714.93 -19725714.78 0.0089 0.0055
 Mercury -58719-03-06 17:01 J -19725626.94 -19725626.79 -19725626.63 0.0089 0.0047
 Mercury -58719-06-02 20:09 J -19725538.81 -19725538.66 -19725538.48 0.0089 0.0040
 Mercury -58719-08-29 23:30 J -19725450.68 -19725450.52 -19725450.33 0.0089 0.0032
 Mercury -58719-11-26 03:06 J -19725362.55 -19725362.37 -19725362.19 0.0089 0.0024
 Mars -58718-01-12 17:59 J -19725314.97 -19725314.75 -19725314.46 0.0089 0.0056
 Mercury -58718-02-22 06:28 J -19725274.41 -19725274.23 -19725274.04 0.0089 0.0016
 Mercury -58718-05-21 09:49 J -19725186.28 -19725186.09 -19725185.90 0.0089 0.0008
 Mercury -58718-08-17 13:11 J -19725098.14 -19725097.95 -19725097.76 0.0089 0.0001
 Mercury -58718-11-13 16:33 J -19725010.00 -19725009.81 -19725009.62 0.0089 0.0008
 Mercury -58717-02-09 19:54 J -19724921.85 -19724921.67 -19724921.48 0.0089 0.0016
 Mercury -58717-05-07 23:16 J -19724833.71 -19724833.53 -19724833.34 0.0089 0.0024
 Mercury -58717-08-04 02:37 J -19724745.56 -19724745.39 -19724745.21 0.0089 0.0032
 Mercury -58717-10-31 05:59 J -19724657.41 -19724657.25 -19724657.07 0.0089 0.0040
 Mercury -58716-01-27 09:21 J -19724569.26 -19724569.11 -19724568.94 0.0089 0.0048
 Mercury -58716-04-25 12:42 J -19724481.10 -19724480.97 -19724480.81 0.0089 0.0056
 Mercury -58716-07-22 16:04 J -19724392.94 -19724392.83 -19724392.68 0.0089 0.0064
 Mercury -58716-10-18 19:25 J -19724304.78 -19724304.69 -19724304.56 0.0089 0.0072
 Mercury -58715-01-14 23:01 J -19724216.61 -19724216.54 -19724216.44 0.0089 0.0080
 Mercury -58715-04-13 02:23 J -19724128.41 -19724128.40 -19724128.35 0.0089 0.0088
 Moon -58712-01-05 22:47 J -19723129.60 -19723129.55 -19723129.45 0.0089 0.0085
 Earth -58712-01-06 00:28 J -19723129.49 -19723129.48 -19723129.41 0.0089 0.0088 *
 Earth -58711-01-08 13:11 J -19722762.07 -19722761.95 -19722761.80 0.0089 0.0075
 Moon -58711-01-08 13:40 J -19722762.02 -19722761.93 -19722761.77 0.0089 0.0079 *
 Earth -58710-01-11 02:09 J -19722394.59 -19722394.41 -19722394.22 0.0089 0.0062
 Moon -58710-01-11 02:52 J -19722394.56 -19722394.38 -19722394.18 0.0089 0.0059 *

Moon	-58709-01-13 12:42 J	-19722027.16	-19722026.97	-19722026.73	0.0089	0.0053
Earth	-58709-01-13 14:37 J	-19722027.08	-19722026.89	-19722026.65	0.0089	0.0050 *
Earth	-58708-01-15 03:21 J	-19721659.58	-19721659.36	-19721659.10	0.0089	0.0037
Moon	-58708-01-15 05:59 J	-19721659.47	-19721659.25	-19721659.00	0.0089	0.0033 *
Moon	-58707-01-17 13:11 J	-19721292.20	-19721291.95	-19721291.70	0.0089	0.0027
Earth	-58707-01-17 16:33 J	-19721292.05	-19721291.81	-19721291.54	0.0089	0.0024 *
Earth	-58706-01-20 05:45 J	-19720924.52	-19720924.26	-19720924.00	0.0088	0.0010
Moon	-58706-01-20 09:06 J	-19720924.37	-19720924.12	-19720923.85	0.0088	0.0007 *
Moon	-58705-01-22 15:06 J	-19720557.13	-19720556.87	-19720556.61	0.0088	0.0002
Earth	-58705-01-22 18:42 J	-19720556.98	-19720556.72	-19720556.45	0.0088	0.0003 *
Earth	-58704-01-24 07:40 J	-19720189.43	-19720189.18	-19720188.92	0.0088	0.0016
Moon	-58704-01-24 10:33 J	-19720189.32	-19720189.06	-19720188.80	0.0088	0.0020 *
Moon	-58703-01-26 18:42 J	-19719821.96	-19719821.72	-19719821.48	0.0088	0.0025
Earth	-58703-01-26 20:37 J	-19719821.88	-19719821.64	-19719821.39	0.0088	0.0029 *
Earth	-58702-01-29 09:35 J	-19719454.33	-19719454.10	-19719453.87	0.0088	0.0042
Moon	-58702-01-29 10:33 J	-19719454.27	-19719454.06	-19719453.81	0.0088	0.0046 *
Earth	-58701-01-31 22:33 J	-19719086.76	-19719086.56	-19719086.35	0.0088	0.0055
Moon	-58701-01-31 23:01 J	-19719086.74	-19719086.54	-19719086.32	0.0088	0.0051 *
Moon	-58700-02-02 09:35 J	-19718719.23	-19718719.10	-19718718.91	0.0088	0.0072
Earth	-58700-02-02 11:16 J	-19718719.18	-19718719.03	-19718718.85	0.0088	0.0068 *
Earth	-58699-02-04 23:59 J	-19718351.58	-19718351.50	-19718351.37	0.0088	0.0081
Moon	-58699-02-05 02:37 J	-19718351.51	-19718351.39	-19718351.25	0.0088	0.0076 *
Venus	-58673-01-22 17:01 J	-19708868.89	-19708868.79	-19708868.65	0.0088	0.0074
Venus	-58673-09-04 06:57 J	-19708643.37	-19708643.21	-19708643.02	0.0088	0.0054
Venus	-58672-04-17 20:37 J	-19708417.83	-19708417.64	-19708417.41	0.0088	0.0035
Venus	-58672-11-29 10:47 J	-19708192.27	-19708192.05	-19708191.82	0.0088	0.0014
Venus	-58671-07-13 00:42 J	-19707966.69	-19707966.47	-19707966.24	0.0088	0.0007
Venus	-58670-02-23 14:23 J	-19707741.10	-19707740.90	-19707740.67	0.0088	0.0027
Venus	-58670-10-07 04:04 J	-19707515.50	-19707515.33	-19707515.12	0.0088	0.0047
Venus	-58669-05-19 17:45 J	-19707289.88	-19707289.76	-19707289.59	0.0088	0.0067

Venus -58669-12-31 07:25 J -19707064.20 -19707064.19 -19707064.13 0.0088 0.0088

Mars -58642-04-05 15:49 J -19697473.03 -19697472.84 -19697472.63 0.0088 0.0067

Mars -58640-02-28 00:42 J -19696778.75 -19696778.47 -19696778.18 0.0089 0.0032

Mercury -58639-12-31 15:06 J -19696106.90 -19696106.87 -19696106.81 0.0089 0.0084

Mars -58638-01-23 05:45 J -19696084.56 -19696084.26 -19696083.96 0.0089 0.0002

Mercury -58638-03-29 16:33 J -19696018.86 -19696018.81 -19696018.73 0.0089 0.0078

Mercury -58638-06-25 18:13 J -19695930.81 -19695930.74 -19695930.65 0.0089 0.0072

Mercury -58638-09-21 19:40 J -19695842.76 -19695842.68 -19695842.58 0.0089 0.0066

Mercury -58638-12-18 21:21 J -19695754.71 -19695754.61 -19695754.51 0.0089 0.0060

Mercury -58637-03-15 22:33 J -19695666.66 -19695666.56 -19695666.44 0.0089 0.0055

Mercury -58637-06-11 23:59 J -19695578.60 -19695578.50 -19695578.38 0.0089 0.0049

Mercury -58637-09-08 01:40 J -19695490.55 -19695490.43 -19695490.31 0.0089 0.0043

Mercury -58637-12-05 02:52 J -19695402.49 -19695402.38 -19695402.24 0.0089 0.0038

Mars -58637-12-17 08:37 J -19695390.40 -19695390.14 -19695389.85 0.0089 0.0036

Mercury -58636-03-03 04:33 J -19695314.44 -19695314.31 -19695314.18 0.0089 0.0031

Mercury -58636-05-30 05:59 J -19695226.38 -19695226.25 -19695226.12 0.0089 0.0026

Mercury -58636-08-26 07:25 J -19695138.32 -19695138.19 -19695138.06 0.0089 0.0020

Mercury -58636-11-22 08:52 J -19695050.26 -19695050.13 -19695050.00 0.0089 0.0014

Mercury -58635-02-18 10:18 J -19694962.21 -19694962.07 -19694961.93 0.0089 0.0009

Mercury -58635-05-17 11:45 J -19694874.15 -19694874.01 -19694873.88 0.0089 0.0003

Mercury -58635-08-13 13:11 J -19694786.09 -19694785.95 -19694785.82 0.0089 0.0003

Mercury -58635-11-09 14:23 J -19694698.03 -19694697.90 -19694697.76 0.0089 0.0009

Mars -58635-11-11 10:47 J -19694696.23 -19694696.05 -19694695.86 0.0089 0.0069

Mercury -58634-02-05 15:49 J -19694609.97 -19694609.84 -19694609.70 0.0089 0.0014

Mercury -58634-05-04 17:16 J -19694521.91 -19694521.78 -19694521.64 0.0089 0.0020

Mercury -58634-07-31 18:42 J -19694433.85 -19694433.72 -19694433.59 0.0089 0.0025

Mercury -58634-10-27 20:09 J -19694345.79 -19694345.66 -19694345.53 0.0089 0.0031

Mercury -58633-01-23 21:21 J -19694257.72 -19694257.61 -19694257.48 0.0089 0.0037

Mercury -58633-04-20 23:01 J -19694169.66 -19694169.54 -19694169.43 0.0089 0.0042

Mercury -58633-07-18 00:13 J -19694081.60 -19694081.49 -19694081.37 0.0089 0.0048

Mercury -58633-10-14 01:25 J -19693993.54 -19693993.44 -19693993.32 0.0089 0.0054

Mercury -58632-01-10 02:52 J -19693905.47 -19693905.38 -19693905.27 0.0089 0.0059

Mercury -58632-04-08 04:18 J -19693817.40 -19693817.32 -19693817.22 0.0089 0.0064

Mercury -58632-07-05 05:45 J -19693729.34 -19693729.26 -19693729.17 0.0089 0.0070

Mercury -58632-10-01 06:57 J -19693641.27 -19693641.21 -19693641.13 0.0089 0.0076

Mercury -58632-12-28 08:23 J -19693553.19 -19693553.15 -19693553.09 0.0089 0.0081

Mercury -58631-03-26 09:35 J -19693465.11 -19693465.10 -19693465.06 0.0089 0.0087

Moon -58630-07-11 16:33 J -19692992.87 -19692992.81 -19692992.75 0.0089 0.0086

Moon -58629-07-12 23:45 J -19692625.61 -19692625.51 -19692625.39 0.0089 0.0079

Earth -58629-07-13 01:11 J -19692625.57 -19692625.45 -19692625.32 0.0089 0.0076 *

Moon -58628-07-15 11:45 J -19692258.18 -19692258.01 -19692257.79 0.0089 0.0061

Earth -58628-07-15 11:30 J -19692258.17 -19692258.02 -19692257.82 0.0089 0.0064 *

Earth -58627-07-17 22:04 J -19691890.77 -19691890.58 -19691890.35 0.0089 0.0051

Moon -58627-07-17 23:59 J -19691890.70 -19691890.50 -19691890.30 0.0089 0.0053 *

Moon -58626-07-20 06:28 J -19691523.45 -19691523.23 -19691522.97 0.0089 0.0036

Earth -58626-07-20 08:52 J -19691523.35 -19691523.13 -19691522.89 0.0089 0.0038 *

Earth -58625-07-21 19:25 J -19691155.93 -19691155.69 -19691155.44 0.0089 0.0025

Moon -58625-07-21 22:18 J -19691155.79 -19691155.57 -19691155.32 0.0089 0.0029 *

Moon -58624-07-24 02:23 J -19690788.65 -19690788.40 -19690788.14 0.0089 0.0010

Earth -58624-07-24 06:13 J -19690788.50 -19690788.24 -19690787.99 0.0089 0.0012 *

Earth -58623-07-26 16:18 J -19690421.07 -19690420.82 -19690420.56 0.0089 0.0002

Moon -58623-07-26 19:54 J -19690420.93 -19690420.67 -19690420.42 0.0089 0.0003 *

Moon -58622-07-28 23:30 J -19690053.76 -19690053.52 -19690053.27 0.0089 0.0017

Earth -58622-07-29 02:37 J -19690053.63 -19690053.39 -19690053.13 0.0089 0.0014 *

Earth -58621-07-30 12:57 J -19689686.19 -19689685.96 -19689685.70 0.0089 0.0027

Moon -58621-07-30 14:52 J -19689686.12 -19689685.88 -19689685.61 0.0089 0.0024 *

Moon -58620-08-01 22:47 J -19689318.77 -19689318.55 -19689318.34 0.0089 0.0042

Earth -58620-08-01 23:30 J -19689318.74 -19689318.52 -19689318.28 0.0089 0.0039 *

Moon -58619-08-04 09:21 J -19688951.31 -19688951.11 -19688950.87 0.0089 0.0049

Earth -58619-08-04 09:49 J -19688951.29 -19688951.09 -19688950.88 0.0089 0.0052 *

Earth	-58618-08-06 19:54 J	-19688583.82	-19688583.67	-19688583.48	0.0089	0.0065
Moon	-58618-08-06 21:49 J	-19688583.73	-19688583.59	-19688583.42	0.0089	0.0068 *
Moon	-58617-08-08 04:18 J	-19688216.46	-19688216.32	-19688216.18	0.0089	0.0074
Earth	-58617-08-08 06:13 J	-19688216.33	-19688216.24	-19688216.09	0.0089	0.0078 *
Venus	-58591-03-06 22:47 J	-19678874.64	-19678874.55	-19678874.41	0.0089	0.0076
Venus	-58591-10-18 11:16 J	-19678649.19	-19678649.03	-19678648.86	0.0089	0.0055
Venus	-58590-05-31 23:16 J	-19678423.72	-19678423.53	-19678423.32	0.0089	0.0036
Venus	-58589-01-12 11:30 J	-19678198.23	-19678198.02	-19678197.80	0.0089	0.0016
Venus	-58589-08-24 23:45 J	-19677972.72	-19677972.51	-19677972.29	0.0089	0.0004
Venus	-58588-04-07 11:59 J	-19677747.21	-19677747.00	-19677746.79	0.0089	0.0024
Venus	-58588-11-18 23:45 J	-19677521.68	-19677521.51	-19677521.31	0.0089	0.0044
Venus	-58587-07-02 11:59 J	-19677296.14	-19677296.00	-19677295.83	0.0089	0.0063
Venus	-58586-02-12 23:59 J	-19677070.55	-19677070.50	-19677070.40	0.0089	0.0083
Mars	-58561-12-09 23:16 J	-19667638.70	-19667638.53	-19667638.30	0.0089	0.0069
Mars	-58559-11-05 03:06 J	-19666943.65	-19666943.37	-19666943.05	0.0089	0.0033
Mars	-58557-09-30 10:33 J	-19666248.38	-19666248.06	-19666247.73	0.0089	0.0004
Mercury	-58556-09-16 22:47 J	-19665896.59	-19665896.55	-19665896.46	0.0089	0.0083
Mercury	-58556-12-14 02:23 J	-19665808.49	-19665808.40	-19665808.29	0.0089	0.0075
Mercury	-58555-03-12 05:45 J	-19665720.37	-19665720.26	-19665720.13	0.0089	0.0067
Mercury	-58555-06-08 08:52 J	-19665632.25	-19665632.13	-19665631.98	0.0089	0.0060
Mars	-58555-08-26 21:35 J	-19665552.89	-19665552.60	-19665552.31	0.0089	0.0041
Mercury	-58555-09-04 12:13 J	-19665544.13	-19665543.99	-19665543.83	0.0089	0.0052
Mercury	-58555-12-01 15:35 J	-19665456.00	-19665455.85	-19665455.68	0.0089	0.0044
Mercury	-58554-02-27 18:57 J	-19665367.87	-19665367.71	-19665367.53	0.0089	0.0036
Mercury	-58554-05-26 22:18 J	-19665279.74	-19665279.57	-19665279.39	0.0089	0.0028
Mercury	-58554-08-23 01:40 J	-19665191.61	-19665191.43	-19665191.24	0.0089	0.0021
Mercury	-58554-11-19 05:01 J	-19665103.47	-19665103.29	-19665103.10	0.0089	0.0013
Mercury	-58553-02-15 08:37 J	-19665015.33	-19665015.14	-19665014.96	0.0089	0.0005
Mercury	-58553-05-13 11:59 J	-19664927.19	-19664927.00	-19664926.81	0.0089	0.0004
Mars	-58553-07-22 10:47 J	-19664857.18	-19664857.05	-19664856.88	0.0089	0.0079

Mercury -58553-08-09 15:06 J -19664839.05 -19664838.87 -19664838.68 0.0089 0.0012
 Mercury -58553-11-05 18:42 J -19664750.91 -19664750.72 -19664750.54 0.0089 0.0019
 Mercury -58552-02-01 22:04 J -19664662.76 -19664662.58 -19664662.40 0.0089 0.0027
 Mercury -58552-05-01 01:25 J -19664574.61 -19664574.44 -19664574.26 0.0089 0.0035
 Mercury -58552-07-28 04:47 J -19664486.46 -19664486.30 -19664486.13 0.0089 0.0043
 Mercury -58552-10-24 08:09 J -19664398.31 -19664398.16 -19664398.00 0.0089 0.0051
 Mercury -58551-01-20 11:30 J -19664310.15 -19664310.02 -19664309.87 0.0089 0.0059
 Mercury -58551-04-18 15:06 J -19664221.99 -19664221.87 -19664221.74 0.0089 0.0067
 Mercury -58551-07-15 18:28 J -19664133.82 -19664133.73 -19664133.62 0.0089 0.0075
 Mercury -58551-10-11 21:49 J -19664045.64 -19664045.59 -19664045.51 0.0089 0.0083
 Earth -58547-01-07 22:18 J -19662861.66 -19662861.57 -19662861.44 0.0089 0.0080
 Moon -58547-01-07 23:01 J -19662861.61 -19662861.54 -19662861.43 0.0089 0.0083 *
 Moon -58546-01-10 08:23 J -19662494.31 -19662494.15 -19662493.94 0.0089 0.0064
 Earth -58546-01-10 11:16 J -19662494.19 -19662494.03 -19662493.86 0.0089 0.0067 *
 Earth -58545-01-12 23:45 J -19662126.71 -19662126.51 -19662126.30 0.0089 0.0054
 Moon -58545-01-13 02:23 J -19662126.57 -19662126.40 -19662126.19 0.0089 0.0058 *
 Moon -58544-01-14 08:37 J -19661759.36 -19661759.14 -19661758.88 0.0089 0.0039
 Earth -58544-01-14 12:28 J -19661759.21 -19661758.98 -19661758.74 0.0089 0.0041 *
 Earth -58543-01-17 01:11 J -19661391.69 -19661391.45 -19661391.20 0.0089 0.0028
 Moon -58543-01-17 04:47 J -19661391.53 -19661391.30 -19661391.04 0.0089 0.0031 *
 Moon -58542-01-19 11:01 J -19661024.29 -19661024.04 -19661023.78 0.0089 0.0012
 Earth -58542-01-19 14:09 J -19661024.17 -19661023.91 -19661023.65 0.0089 0.0015 *
 Earth -58541-01-22 03:06 J -19660656.63 -19660656.37 -19660656.11 0.0088 0.0001
 Moon -58541-01-22 05:59 J -19660656.52 -19660656.25 -19660655.98 0.0088 0.0003 *
 Moon -58540-01-23 14:23 J -19660289.15 -19660288.90 -19660288.65 0.0088 0.0015
 Earth -58540-01-23 15:49 J -19660289.09 -19660288.84 -19660288.57 0.0088 0.0012 *
 Earth -58539-01-26 04:47 J -19659921.54 -19659921.30 -19659921.04 0.0088 0.0026
 Moon -58539-01-26 05:01 J -19659921.54 -19659921.29 -19659921.02 0.0088 0.0023 *
 Earth -58538-01-28 17:45 J -19659553.98 -19659553.76 -19659553.51 0.0088 0.0039
 Moon -58538-01-28 17:59 J -19659553.96 -19659553.75 -19659553.51 0.0088 0.0041 *

Moon	-58537-01-31 04:18 J	-19659186.52	-19659186.32	-19659186.08	0.0088	0.0050
Earth	-58537-01-31 06:42 J	-19659186.42	-19659186.22	-19659186.00	0.0088	0.0052 *
Earth	-58536-02-01 19:40 J	-19658818.85	-19658818.68	-19658818.49	0.0088	0.0065
Moon	-58536-02-01 22:33 J	-19658818.72	-19658818.56	-19658818.39	0.0088	0.0067 *
Moon	-58535-02-04 05:01 J	-19658451.40	-19658451.29	-19658451.14	0.0088	0.0077
Earth	-58535-02-04 08:52 J	-19658451.25	-19658451.13	-19658451.00	0.0088	0.0078 *
Saturn	-58525-12-10 12:42 J	-19654489.66	-19654488.97	-19654488.20	0.0088	0.0016
Jupiter	-58515-02-19 07:11 J	-19651131.70	-19651131.20	-19651130.66	0.0088	0.0026
Venus	-58509-04-25 02:52 J	-19648874.45	-19648874.38	-19648874.29	0.0088	0.0082
Venus	-58509-12-06 16:33 J	-19648648.95	-19648648.81	-19648648.63	0.0088	0.0063
Venus	-58508-07-20 06:28 J	-19648423.41	-19648423.23	-19648423.01	0.0088	0.0043
Venus	-58507-03-02 20:37 J	-19648197.85	-19648197.64	-19648197.41	0.0088	0.0022
Venus	-58507-10-14 10:33 J	-19647972.28	-19647972.06	-19647971.83	0.0088	0.0002
Venus	-58506-05-28 00:13 J	-19647746.70	-19647746.49	-19647746.26	0.0088	0.0019
Venus	-58505-01-08 14:09 J	-19647521.11	-19647520.91	-19647520.70	0.0088	0.0039
Venus	-58505-08-21 03:49 J	-19647295.50	-19647295.34	-19647295.16	0.0088	0.0059
Venus	-58504-04-03 17:30 J	-19647069.86	-19647069.77	-19647069.66	0.0088	0.0079
Mars	-58479-11-18 12:57 J	-19637710.09	-19637709.96	-19637709.80	0.0088	0.0078
Mars	-58477-10-12 23:30 J	-19637015.76	-19637015.52	-19637015.23	0.0088	0.0044
Mars	-58475-09-07 08:23 J	-19636321.44	-19636321.15	-19636320.84	0.0089	0.0010
Mercury	-58474-07-01 13:25 J	-19636023.95	-19636023.94	-19636023.90	0.0089	0.0087
Mercury	-58474-09-27 15:06 J	-19635935.92	-19635935.87	-19635935.81	0.0089	0.0081
Mercury	-58474-12-24 16:33 J	-19635847.88	-19635847.81	-19635847.73	0.0089	0.0075
Mercury	-58473-03-21 18:13 J	-19635759.83	-19635759.74	-19635759.66	0.0089	0.0069
Mercury	-58473-06-17 19:25 J	-19635671.78	-19635671.69	-19635671.59	0.0089	0.0063
Mars	-58473-08-01 12:57 J	-19635627.24	-19635626.96	-19635626.66	0.0089	0.0025
Mercury	-58473-09-13 20:52 J	-19635583.72	-19635583.63	-19635583.52	0.0089	0.0058
Mercury	-58473-12-10 22:33 J	-19635495.67	-19635495.56	-19635495.45	0.0089	0.0052
Mercury	-58472-03-08 23:59 J	-19635407.62	-19635407.50	-19635407.38	0.0089	0.0046
Mercury	-58472-06-05 01:11 J	-19635319.56	-19635319.45	-19635319.32	0.0089	0.0041

Mercury -58472-09-01 02:52 J -19635231.51 -19635231.38 -19635231.25 0.0089 0.0035
 Mercury -58472-11-28 04:18 J -19635143.45 -19635143.32 -19635143.19 0.0089 0.0029
 Mercury -58471-02-24 05:30 J -19635055.39 -19635055.27 -19635055.13 0.0089 0.0024
 Mercury -58471-05-23 07:11 J -19634967.33 -19634967.20 -19634967.07 0.0089 0.0017
 Mars -58471-06-26 15:35 J -19634933.08 -19634932.85 -19634932.62 0.0089 0.0057
 Mercury -58471-08-19 08:37 J -19634879.28 -19634879.14 -19634879.01 0.0089 0.0012
 Mercury -58471-11-15 10:04 J -19634791.22 -19634791.08 -19634790.95 0.0089 0.0006
 Mercury -58470-02-11 11:30 J -19634703.16 -19634703.02 -19634702.89 0.0089 0.0002
 Mercury -58470-05-10 12:57 J -19634615.10 -19634614.96 -19634614.83 0.0089 0.0006
 Mercury -58470-08-06 14:09 J -19634527.04 -19634526.91 -19634526.77 0.0089 0.0011
 Mercury -58470-11-02 15:35 J -19634438.98 -19634438.85 -19634438.71 0.0089 0.0017
 Mercury -58469-01-29 17:01 J -19634350.92 -19634350.79 -19634350.66 0.0089 0.0022
 Mercury -58469-04-26 18:28 J -19634262.86 -19634262.73 -19634262.60 0.0089 0.0028
 Mercury -58469-07-23 19:40 J -19634174.80 -19634174.68 -19634174.55 0.0089 0.0034
 Mercury -58469-10-19 21:06 J -19634086.73 -19634086.62 -19634086.49 0.0089 0.0039
 Mercury -58468-01-15 22:33 J -19633998.67 -19633998.56 -19633998.44 0.0089 0.0045
 Mercury -58468-04-13 23:59 J -19633910.61 -19633910.50 -19633910.39 0.0089 0.0050
 Mercury -58468-07-11 01:11 J -19633822.54 -19633822.45 -19633822.34 0.0089 0.0056
 Mercury -58468-10-07 02:37 J -19633734.48 -19633734.39 -19633734.29 0.0089 0.0061
 Mercury -58467-01-03 04:04 J -19633646.41 -19633646.33 -19633646.24 0.0089 0.0067
 Mercury -58467-04-01 05:16 J -19633558.34 -19633558.28 -19633558.19 0.0089 0.0073
 Mercury -58467-06-28 06:42 J -19633470.27 -19633470.22 -19633470.15 0.0089 0.0078
 Mercury -58467-09-24 07:54 J -19633382.20 -19633382.17 -19633382.11 0.0089 0.0084
 Earth -58465-07-12 10:33 J -19632725.14 -19632725.06 -19632724.94 0.0089 0.0082
 Moon -58465-07-12 10:18 J -19632725.13 -19632725.07 -19632724.99 0.0089 0.0085 *
 Earth -58464-07-14 21:21 J -19632357.75 -19632357.61 -19632357.43 0.0089 0.0069
 Moon -58464-07-14 22:18 J -19632357.71 -19632357.57 -19632357.37 0.0089 0.0066 *
 Moon -58463-07-17 05:30 J -19631990.45 -19631990.27 -19631990.07 0.0089 0.0060
 Earth -58463-07-17 08:09 J -19631990.34 -19631990.16 -19631989.94 0.0089 0.0056 *
 Earth -58462-07-19 18:57 J -19631622.92 -19631622.71 -19631622.47 0.0089 0.0043

Moon	-58462-07-19 22:18 J	-19631622.79	-19631622.57	-19631622.34	0.0089	0.0039	*
Moon	-58461-07-21 02:09 J	-19631255.64	-19631255.41	-19631255.16	0.0089	0.0033	
Earth	-58461-07-21 05:30 J	-19631255.49	-19631255.27	-19631255.01	0.0089	0.0030	*
Earth	-58460-07-23 16:04 J	-19630888.07	-19630887.83	-19630887.57	0.0089	0.0017	
Moon	-58460-07-23 19:40 J	-19630887.93	-19630887.68	-19630887.42	0.0089	0.0013	*
Moon	-58459-07-26 00:13 J	-19630520.74	-19630520.49	-19630520.24	0.0089	0.0007	
Earth	-58459-07-26 02:37 J	-19630520.64	-19630520.39	-19630520.13	0.0089	0.0004	*
Earth	-58458-07-28 13:11 J	-19630153.20	-19630152.95	-19630152.70	0.0089	0.0010	
Moon	-58458-07-28 15:21 J	-19630153.12	-19630152.86	-19630152.60	0.0089	0.0013	*
Moon	-58457-07-29 23:01 J	-19629785.77	-19629785.54	-19629785.29	0.0089	0.0020	
Earth	-58457-07-29 23:30 J	-19629785.76	-19629785.52	-19629785.27	0.0089	0.0023	*
Moon	-58456-08-01 09:06 J	-19629418.36	-19629418.12	-19629417.88	0.0089	0.0039	
Earth	-58456-08-01 09:49 J	-19629418.32	-19629418.09	-19629417.85	0.0089	0.0036	*
Earth	-58455-08-03 20:09 J	-19629050.86	-19629050.66	-19629050.44	0.0089	0.0049	
Moon	-58455-08-03 21:35 J	-19629050.80	-19629050.60	-19629050.38	0.0089	0.0046	*
Moon	-58454-08-06 03:06 J	-19628683.52	-19628683.37	-19628683.17	0.0089	0.0066	
Earth	-58454-08-06 06:28 J	-19628683.40	-19628683.23	-19628683.04	0.0089	0.0062	*
Earth	-58453-08-07 16:47 J	-19628315.92	-19628315.80	-19628315.65	0.0089	0.0075	
Moon	-58453-08-07 19:40 J	-19628315.80	-19628315.68	-19628315.50	0.0089	0.0072	*
Earth	-58452-08-10 02:52 J	-19627948.39	-19627948.38	-19627948.31	0.0089	0.0088	
Venus	-58427-06-08 10:18 J	-19618880.12	-19618880.07	-19618879.98	0.0089	0.0084	
Venus	-58426-01-19 22:18 J	-19618654.70	-19618654.57	-19618654.40	0.0089	0.0064	
Venus	-58426-09-02 10:47 J	-19618429.23	-19618429.05	-19618428.86	0.0089	0.0044	
Venus	-58425-04-14 23:01 J	-19618203.74	-19618203.54	-19618203.33	0.0089	0.0024	
Venus	-58425-11-26 11:01 J	-19617978.25	-19617978.04	-19617977.82	0.0089	0.0005	
Venus	-58424-07-09 23:16 J	-19617752.73	-19617752.53	-19617752.31	0.0089	0.0015	
Venus	-58423-02-20 11:16 J	-19617527.21	-19617527.03	-19617526.82	0.0089	0.0035	
Venus	-58423-10-03 23:30 J	-19617301.68	-19617301.52	-19617301.34	0.0089	0.0054	
Venus	-58422-05-17 11:30 J	-19617076.12	-19617076.02	-19617075.89	0.0089	0.0074	
Mars	-58397-07-24 09:06 J	-19607876.25	-19607876.12	-19607875.97	0.0089	0.0079	

Mars -58395-06-19 11:01 J -19607181.29 -19607181.04 -19607180.74 0.0089 0.0045
 Mars -58393-05-14 16:04 J -19606486.15 -19606485.83 -19606485.51 0.0089 0.0009
 Mercury -58391-03-17 17:59 J -19605813.76 -19605813.75 -19605813.70 0.0089 0.0088
 Mars -58391-04-09 22:47 J -19605790.84 -19605790.55 -19605790.22 0.0089 0.0028
 Mercury -58391-06-13 21:21 J -19605725.67 -19605725.61 -19605725.51 0.0089 0.0080
 Mercury -58391-09-10 00:57 J -19605637.56 -19605637.46 -19605637.35 0.0089 0.0072
 Mercury -58391-12-07 03:49 J -19605549.45 -19605549.34 -19605549.19 0.0089 0.0065
 Mercury -58390-03-05 07:11 J -19605461.33 -19605461.20 -19605461.04 0.0089 0.0057
 Mercury -58390-06-01 10:47 J -19605373.20 -19605373.05 -19605372.89 0.0089 0.0049
 Mercury -58390-08-28 14:09 J -19605285.07 -19605284.91 -19605284.74 0.0089 0.0041
 Mercury -58390-11-24 17:16 J -19605196.94 -19605196.78 -19605196.60 0.0089 0.0034
 Mercury -58389-02-20 20:37 J -19605108.81 -19605108.64 -19605108.45 0.0089 0.0026
 Mars -58389-03-05 10:33 J -19605095.28 -19605095.06 -19605094.83 0.0089 0.0064
 Mercury -58389-05-18 23:59 J -19605020.68 -19605020.50 -19605020.31 0.0089 0.0018
 Mercury -58389-08-15 03:21 J -19604932.54 -19604932.36 -19604932.17 0.0089 0.0010
 Mercury -58389-11-11 06:42 J -19604844.40 -19604844.22 -19604844.03 0.0089 0.0003
 Mercury -58388-02-07 10:04 J -19604756.26 -19604756.08 -19604755.89 0.0089 0.0006
 Mercury -58388-05-06 13:25 J -19604668.12 -19604667.94 -19604667.75 0.0089 0.0014
 Mercury -58388-08-02 16:47 J -19604579.98 -19604579.80 -19604579.61 0.0089 0.0022
 Mercury -58388-10-29 20:09 J -19604491.83 -19604491.66 -19604491.47 0.0089 0.0030
 Mercury -58387-01-25 23:30 J -19604403.68 -19604403.52 -19604403.34 0.0089 0.0038
 Mercury -58387-04-24 02:52 J -19604315.53 -19604315.38 -19604315.21 0.0089 0.0046
 Mercury -58387-07-21 06:13 J -19604227.38 -19604227.24 -19604227.08 0.0089 0.0054
 Mercury -58387-10-17 09:35 J -19604139.22 -19604139.10 -19604138.95 0.0089 0.0062
 Mercury -58386-01-13 12:57 J -19604051.06 -19604050.96 -19604050.82 0.0089 0.0070
 Mercury -58386-04-11 16:33 J -19603962.89 -19603962.81 -19603962.71 0.0089 0.0078
 Mercury -58386-07-08 19:54 J -19603874.70 -19603874.67 -19603874.61 0.0089 0.0086
 Moon -58383-01-07 03:35 J -19602961.42 -19602961.35 -19602961.23 0.0089 0.0083
 Earth -58383-01-07 05:59 J -19602961.29 -19602961.25 -19602961.16 0.0089 0.0086 *
 Earth -58382-01-09 18:28 J -19602593.85 -19602593.73 -19602593.55 0.0089 0.0073

Moon	-58382-01-09 22:04 J	-19602593.70	-19602593.58	-19602593.44	0.0089	0.0076	*
Moon	-58381-01-12 03:49 J	-19602226.52	-19602226.34	-19602226.13	0.0089	0.0057	
Earth	-58381-01-12 07:11 J	-19602226.37	-19602226.20	-19602225.98	0.0089	0.0060	*
Earth	-58380-01-13 20:09 J	-19601858.88	-19601858.66	-19601858.43	0.0089	0.0046	
Moon	-58380-01-13 23:16 J	-19601858.72	-19601858.53	-19601858.29	0.0089	0.0050	*
Moon	-58379-01-16 05:59 J	-19601491.50	-19601491.25	-19601491.01	0.0089	0.0029	
Earth	-58379-01-16 08:52 J	-19601491.36	-19601491.13	-19601490.88	0.0089	0.0033	*
Earth	-58378-01-18 21:35 J	-19601123.85	-19601123.60	-19601123.34	0.0089	0.0019	
Moon	-58378-01-18 23:30 J	-19601123.77	-19601123.52	-19601123.25	0.0089	0.0023	*
Moon	-58377-01-21 09:21 J	-19600756.37	-19600756.11	-19600755.86	0.0089	0.0002	
Earth	-58377-01-21 10:33 J	-19600756.32	-19600756.06	-19600755.80	0.0089	0.0006	*
Moon	-58376-01-22 23:30 J	-19600388.79	-19600388.52	-19600388.25	0.0088	0.0004	
Earth	-58376-01-22 23:30 J	-19600388.78	-19600388.52	-19600388.26	0.0088	0.0008	*
Earth	-58375-01-25 12:13 J	-19600021.23	-19600020.99	-19600020.72	0.0088	0.0022	
Moon	-58375-01-25 13:54 J	-19600021.16	-19600020.92	-19600020.67	0.0088	0.0025	*
Moon	-58374-01-27 23:01 J	-19599653.78	-19599653.54	-19599653.27	0.0088	0.0031	
Earth	-58374-01-28 01:25 J	-19599653.68	-19599653.44	-19599653.20	0.0088	0.0035	*
Earth	-58373-01-30 14:09 J	-19599286.11	-19599285.91	-19599285.67	0.0088	0.0049	
Moon	-58373-01-30 17:30 J	-19599285.97	-19599285.77	-19599285.56	0.0088	0.0053	*
Moon	-58372-01-31 23:30 J	-19598918.69	-19598918.52	-19598918.30	0.0088	0.0058	
Earth	-58372-02-01 03:21 J	-19598918.53	-19598918.36	-19598918.16	0.0088	0.0062	*
Earth	-58371-02-03 15:49 J	-19598550.95	-19598550.84	-19598550.67	0.0088	0.0076	
Moon	-58371-02-03 19:40 J	-19598550.77	-19598550.68	-19598550.55	0.0088	0.0080	*
Moon	-58370-02-06 01:40 J	-19598183.48	-19598183.43	-19598183.32	0.0088	0.0084	
Earth	-58370-02-06 05:30 J	-19598183.27	-19598183.27	-19598183.25	0.0088	0.0088	
Venus	-58344-03-10 01:40 J	-19588654.54	-19588654.43	-19588654.27	0.0088	0.0071	
Venus	-58344-10-21 15:35 J	-19588429.01	-19588428.85	-19588428.64	0.0088	0.0051	
Venus	-58343-06-04 05:59 J	-19588203.46	-19588203.25	-19588203.04	0.0088	0.0031	
Venus	-58342-01-15 19:54 J	-19587977.89	-19587977.67	-19587977.45	0.0088	0.0010	
Venus	-58342-08-29 09:49 J	-19587752.32	-19587752.09	-19587751.87	0.0088	0.0010	

Venus -58341-04-10 23:30 J -19587526.73 -19587526.52 -19587526.31 0.0088 0.0030

Venus -58341-11-22 12:42 J -19587301.13 -19587300.97 -19587300.76 0.0088 0.0050

Venus -58340-07-06 02:23 J -19587075.51 -19587075.40 -19587075.24 0.0088 0.0071

Mars -58313-05-27 19:54 J -19577252.90 -19577252.67 -19577252.41 0.0088 0.0055

Mars -58311-04-22 06:13 J -19576558.53 -19576558.24 -19576557.94 0.0088 0.0021

Mars -58309-03-16 14:37 J -19575864.19 -19575863.89 -19575863.59 0.0089 0.0013

Mercury -58309-03-27 12:57 J -19575852.99 -19575852.96 -19575852.91 0.0089 0.0085

Mercury -58309-06-23 14:37 J -19575764.95 -19575764.89 -19575764.82 0.0089 0.0079

Mercury -58309-09-19 16:04 J -19575676.90 -19575676.83 -19575676.75 0.0089 0.0073

Mercury -58309-12-16 17:16 J -19575588.85 -19575588.78 -19575588.67 0.0089 0.0068

Mercury -58308-03-14 18:57 J -19575500.80 -19575500.71 -19575500.60 0.0089 0.0062

Mercury -58308-06-10 20:23 J -19575412.75 -19575412.65 -19575412.53 0.0089 0.0056

Mercury -58308-09-06 22:04 J -19575324.69 -19575324.58 -19575324.47 0.0089 0.0050

Mercury -58308-12-03 23:30 J -19575236.64 -19575236.52 -19575236.40 0.0089 0.0044

Mars -58307-02-08 18:57 J -19575169.95 -19575169.71 -19575169.44 0.0089 0.0046

Mercury -58307-03-02 00:42 J -19575148.58 -19575148.47 -19575148.33 0.0089 0.0039

Mercury -58307-05-29 02:23 J -19575060.52 -19575060.40 -19575060.27 0.0089 0.0033

Mercury -58307-08-25 03:49 J -19574972.47 -19574972.34 -19574972.21 0.0089 0.0027

Mercury -58307-11-21 05:16 J -19574884.41 -19574884.28 -19574884.15 0.0089 0.0021

Mercury -58306-02-17 06:42 J -19574796.35 -19574796.22 -19574796.08 0.0089 0.0015

Mercury -58306-05-16 08:09 J -19574708.29 -19574708.16 -19574708.02 0.0089 0.0010

Mercury -58306-08-12 09:35 J -19574620.24 -19574620.10 -19574619.96 0.0089 0.0004

Mercury -58306-11-08 11:01 J -19574532.18 -19574532.04 -19574531.90 0.0089 0.0002

Mars -58305-01-03 20:23 J -19574475.76 -19574475.65 -19574475.48 0.0089 0.0078

Mercury -58305-02-04 12:28 J -19574444.12 -19574443.98 -19574443.85 0.0089 0.0007

Mercury -58305-05-02 13:40 J -19574356.06 -19574355.93 -19574355.79 0.0089 0.0014

Mercury -58305-07-29 15:21 J -19574268.00 -19574267.86 -19574267.73 0.0089 0.0019

Mercury -58305-10-25 16:33 J -19574179.93 -19574179.81 -19574179.67 0.0089 0.0025

Mercury -58304-01-21 17:59 J -19574091.87 -19574091.75 -19574091.62 0.0089 0.0030

Mercury -58304-04-19 19:25 J -19574003.81 -19574003.69 -19574003.56 0.0089 0.0036

Mercury -58304-07-16 20:37 J -19573915.75 -19573915.64 -19573915.51 0.0089 0.0042

Mercury -58304-10-12 22:18 J -19573827.69 -19573827.57 -19573827.46 0.0089 0.0047

Mercury -58303-01-08 23:30 J -19573739.62 -19573739.52 -19573739.41 0.0089 0.0053

Mercury -58303-04-07 00:57 J -19573651.56 -19573651.46 -19573651.35 0.0089 0.0058

Mercury -58303-07-04 02:09 J -19573563.49 -19573563.41 -19573563.31 0.0089 0.0064

Mercury -58303-09-30 03:49 J -19573475.42 -19573475.34 -19573475.26 0.0089 0.0069

Mercury -58303-12-27 05:01 J -19573387.35 -19573387.29 -19573387.21 0.0089 0.0075

Mercury -58302-03-25 06:13 J -19573299.28 -19573299.24 -19573299.17 0.0089 0.0081

Mercury -58302-06-21 07:40 J -19573211.20 -19573211.18 -19573211.14 0.0089 0.0086

Earth -58301-07-11 19:40 J -19572824.69 -19572824.68 -19572824.61 0.0089 0.0088

Moon -58301-07-11 22:18 J -19572824.62 -19572824.57 -19572824.50 0.0089 0.0086 *

Moon -58300-07-14 03:49 J -19572457.44 -19572457.34 -19572457.18 0.0089 0.0077

Earth -58300-07-14 06:28 J -19572457.33 -19572457.23 -19572457.06 0.0089 0.0075 *

Earth -58299-07-16 17:45 J -19572089.93 -19572089.76 -19572089.57 0.0089 0.0061

Moon -58299-07-16 21:06 J -19572089.79 -19572089.62 -19572089.41 0.0089 0.0059 *

Moon -58298-07-19 00:57 J -19571722.65 -19571722.46 -19571722.23 0.0089 0.0050

Earth -58298-07-19 04:33 J -19571722.51 -19571722.31 -19571722.08 0.0089 0.0048 *

Earth -58297-07-20 15:06 J -19571355.09 -19571354.87 -19571354.62 0.0089 0.0035

Moon -58297-07-20 18:28 J -19571354.95 -19571354.73 -19571354.47 0.0089 0.0032 *

Moon -58296-07-22 23:16 J -19570987.76 -19570987.53 -19570987.28 0.0089 0.0024

Earth -58296-07-23 01:54 J -19570987.66 -19570987.42 -19570987.16 0.0089 0.0021 *

Earth -58295-07-25 12:28 J -19570620.23 -19570619.98 -19570619.72 0.0089 0.0008

Moon -58295-07-25 13:40 J -19570620.19 -19570619.93 -19570619.66 0.0089 0.0006 *

Moon -58294-07-27 22:33 J -19570252.80 -19570252.56 -19570252.31 0.0089 0.0004

Earth -58294-07-27 23:01 J -19570252.79 -19570252.54 -19570252.28 0.0089 0.0006 *

Moon -58293-07-29 08:09 J -19569885.41 -19569885.16 -19569884.90 0.0089 0.0022

Earth -58293-07-29 09:21 J -19569885.35 -19569885.11 -19569884.86 0.0089 0.0019 *

Earth -58292-07-31 19:25 J -19569517.91 -19569517.69 -19569517.44 0.0089 0.0033

Moon -58292-07-31 21:49 J -19569517.81 -19569517.59 -19569517.34 0.0089 0.0031 *

Moon -58291-08-03 02:37 J -19569150.58 -19569150.39 -19569150.15 0.0089 0.0049

Earth	-58291-08-03 05:45 J	-19569150.46	-19569150.26	-19569150.02	0.0089	0.0046	*
Earth	-58290-08-05 16:04 J	-19568783.00	-19568782.83	-19568782.62	0.0089	0.0059	
Moon	-58290-08-05 19:40 J	-19568782.86	-19568782.68	-19568782.47	0.0089	0.0056	*
Moon	-58289-08-06 22:47 J	-19568415.65	-19568415.55	-19568415.38	0.0089	0.0075	
Earth	-58289-08-07 02:23 J	-19568415.53	-19568415.40	-19568415.23	0.0089	0.0072	*
Earth	-58288-08-09 12:42 J	-19568048.03	-19568047.97	-19568047.89	0.0089	0.0085	
Moon	-58288-08-09 15:35 J	-19568047.92	-19568047.85	-19568047.73	0.0089	0.0082	*
Venus	-58262-04-23 09:49 J	-19558660.20	-19558660.09	-19558659.96	0.0089	0.0072	
Venus	-58262-12-04 21:35 J	-19558434.75	-19558434.60	-19558434.41	0.0089	0.0054	
Venus	-58261-07-17 10:04 J	-19558209.27	-19558209.08	-19558208.87	0.0089	0.0034	
Venus	-58260-02-27 22:33 J	-19557983.77	-19557983.56	-19557983.35	0.0089	0.0014	
Venus	-58260-10-11 10:33 J	-19557758.27	-19557758.06	-19557757.84	0.0089	0.0006	
Venus	-58259-05-24 22:18 J	-19557532.76	-19557532.57	-19557532.35	0.0089	0.0026	
Venus	-58258-01-05 10:47 J	-19557307.23	-19557307.05	-19557306.86	0.0089	0.0045	
Venus	-58258-08-18 22:47 J	-19557081.68	-19557081.55	-19557081.39	0.0089	0.0065	
Venus	-58257-03-31 10:33 J	-19556856.09	-19556856.06	-19556855.97	0.0089	0.0086	
Mars	-58231-01-31 18:57 J	-19547418.93	-19547418.71	-19547418.44	0.0089	0.0056	
Mars	-58230-12-27 22:04 J	-19546723.88	-19546723.58	-19546723.26	0.0089	0.0021	
Mars	-58228-11-22 04:04 J	-19546028.65	-19546028.33	-19546028.01	0.0089	0.0014	
Mercury	-58227-12-12 16:33 J	-19545642.85	-19545642.81	-19545642.75	0.0089	0.0085	
Mercury	-58226-03-10 19:40 J	-19545554.75	-19545554.68	-19545554.57	0.0089	0.0078	
Mercury	-58226-06-06 23:01 J	-19545466.64	-19545466.54	-19545466.41	0.0089	0.0070	
Mercury	-58226-09-03 02:23 J	-19545378.52	-19545378.40	-19545378.26	0.0089	0.0062	
Mars	-58226-10-18 11:16 J	-19545333.29	-19545333.03	-19545332.75	0.0089	0.0050	
Mercury	-58226-11-30 05:30 J	-19545290.40	-19545290.27	-19545290.11	0.0089	0.0055	
Mercury	-58225-02-26 08:52 J	-19545202.28	-19545202.13	-19545201.96	0.0089	0.0047	
Mercury	-58225-05-24 12:13 J	-19545114.15	-19545113.99	-19545113.82	0.0089	0.0039	
Mercury	-58225-08-20 15:35 J	-19545026.02	-19545025.85	-19545025.67	0.0089	0.0031	
Mercury	-58225-11-16 18:42 J	-19544937.89	-19544937.72	-19544937.53	0.0089	0.0024	
Mercury	-58224-02-12 22:04 J	-19544849.76	-19544849.58	-19544849.39	0.0089	0.0016	

Mercury -58224-05-12 01:40 J -19544761.62 -19544761.43 -19544761.24 0.0089 0.0008

Mercury -58224-08-08 05:01 J -19544673.48 -19544673.29 -19544673.10 0.0089 0.0001

Mars -58224-09-12 22:04 J -19544637.61 -19544637.58 -19544637.46 0.0089 0.0087

Mercury -58224-11-04 08:09 J -19544585.34 -19544585.16 -19544584.97 0.0089 0.0009

Mercury -58223-01-31 11:45 J -19544497.20 -19544497.01 -19544496.83 0.0089 0.0016

Mercury -58223-04-29 15:06 J -19544409.05 -19544408.87 -19544408.69 0.0089 0.0024

Mercury -58223-07-26 18:13 J -19544320.91 -19544320.74 -19544320.56 0.0089 0.0032

Mercury -58223-10-22 21:35 J -19544232.76 -19544232.60 -19544232.42 0.0089 0.0040

Mercury -58222-01-19 00:57 J -19544144.61 -19544144.46 -19544144.29 0.0089 0.0048

Mercury -58222-04-17 04:18 J -19544056.45 -19544056.32 -19544056.16 0.0089 0.0056

Mercury -58222-07-14 07:54 J -19543968.29 -19543968.17 -19543968.03 0.0089 0.0064

Mercury -58222-10-10 11:16 J -19543880.13 -19543880.03 -19543879.91 0.0089 0.0072

Mercury -58221-01-06 14:37 J -19543791.96 -19543791.89 -19543791.80 0.0089 0.0080

Mercury -58221-04-03 18:13 J -19543703.75 -19543703.74 -19543703.71 0.0089 0.0088

Moon -58219-01-06 16:33 J -19543060.82 -19543060.81 -19543060.76 0.0089 0.0088

Moon -58218-01-08 22:18 J -19542693.65 -19542693.57 -19542693.46 0.0089 0.0082

Earth -58218-01-09 01:40 J -19542693.52 -19542693.43 -19542693.28 0.0089 0.0079 *

Earth -58217-01-11 14:23 J -19542326.06 -19542325.90 -19542325.71 0.0089 0.0065

Moon -58217-01-11 17:45 J -19542325.94 -19542325.76 -19542325.56 0.0089 0.0061 *

Moon -58216-01-13 00:28 J -19541958.67 -19541958.48 -19541958.27 0.0089 0.0055

Earth -58216-01-13 02:52 J -19541958.57 -19541958.38 -19541958.15 0.0089 0.0052 *

Earth -58215-01-15 15:49 J -19541591.07 -19541590.84 -19541590.60 0.0089 0.0038

Moon -58215-01-15 17:45 J -19541591.00 -19541590.76 -19541590.50 0.0089 0.0035 *

Moon -58214-01-18 04:04 J -19541223.56 -19541223.33 -19541223.09 0.0089 0.0028

Earth -58214-01-18 04:04 J -19541223.56 -19541223.33 -19541223.06 0.0089 0.0025 *

Moon -58213-01-20 16:18 J -19540856.08 -19540855.82 -19540855.54 0.0089 0.0008

Earth -58213-01-20 17:01 J -19540856.04 -19540855.79 -19540855.52 0.0089 0.0011 *

Earth -58212-01-22 05:59 J -19540488.51 -19540488.25 -19540487.99 0.0089 0.0003

Moon -58212-01-22 07:25 J -19540488.44 -19540488.19 -19540487.93 0.0089 0.0001 *

Moon -58211-01-24 15:21 J -19540121.11 -19540120.86 -19540120.59 0.0088 0.0021

Earth	-58211-01-24 18:42 J	-19540120.97	-19540120.72	-19540120.46	0.0088	0.0017	*
Earth	-58210-01-27 07:25 J	-19539753.43	-19539753.19	-19539752.94	0.0088	0.0031	
Moon	-58210-01-27 10:33 J	-19539753.29	-19539753.06	-19539752.80	0.0088	0.0028	*
Moon	-58209-01-29 16:47 J	-19539386.02	-19539385.80	-19539385.57	0.0088	0.0047	
Earth	-58209-01-29 20:09 J	-19539385.86	-19539385.66	-19539385.41	0.0088	0.0045	*
Earth	-58208-01-31 09:06 J	-19539018.29	-19539018.12	-19539017.90	0.0088	0.0058	
Moon	-58208-01-31 12:28 J	-19539018.16	-19539017.98	-19539017.75	0.0088	0.0056	*
Moon	-58207-02-02 19:40 J	-19538650.81	-19538650.68	-19538650.53	0.0088	0.0074	
Earth	-58207-02-02 22:18 J	-19538650.70	-19538650.57	-19538650.40	0.0088	0.0072	*
Earth	-58206-02-05 11:01 J	-19538283.08	-19538283.04	-19538282.94	0.0088	0.0086	
Moon	-58206-02-05 13:25 J	-19538283.00	-19538282.94	-19538282.82	0.0088	0.0084	*
Saturn	-58202-08-19 18:42 J	-19536627.40	-19536626.72	-19536625.97	0.0088	0.0023	
Venus	-58180-06-11 10:04 J	-19528660.15	-19528660.08	-19528659.97	0.0088	0.0081	
Venus	-58179-01-23 00:13 J	-19528434.64	-19528434.49	-19528434.31	0.0088	0.0061	
Venus	-58179-09-05 14:09 J	-19528209.10	-19528208.91	-19528208.69	0.0088	0.0041	
Venus	-58178-04-19 04:04 J	-19527983.54	-19527983.33	-19527983.10	0.0088	0.0020	
Venus	-58178-11-30 18:13 J	-19527757.97	-19527757.74	-19527757.52	0.0088	0.0002	
Venus	-58177-07-13 07:40 J	-19527532.39	-19527532.18	-19527531.95	0.0088	0.0021	
Venus	-58176-02-23 21:35 J	-19527306.79	-19527306.60	-19527306.39	0.0088	0.0040	
Venus	-58176-10-07 11:16 J	-19527081.18	-19527081.03	-19527080.85	0.0088	0.0060	
Venus	-58175-05-21 00:57 J	-19526855.53	-19526855.46	-19526855.35	0.0088	0.0080	
Mars	-58149-01-10 12:13 J	-19517490.16	-19517489.99	-19517489.75	0.0088	0.0067	
Mars	-58148-12-05 01:11 J	-19516795.71	-19516795.45	-19516795.14	0.0089	0.0033	
Mars	-58146-10-30 10:33 J	-19516101.36	-19516101.06	-19516100.75	0.0089	0.0001	
Mercury	-58145-12-22 12:13 J	-19515682.02	-19515681.99	-19515681.93	0.0089	0.0083	
Mercury	-58144-03-20 13:40 J	-19515593.98	-19515593.93	-19515593.85	0.0089	0.0078	
Mercury	-58144-06-16 15:21 J	-19515505.93	-19515505.86	-19515505.77	0.0089	0.0072	
Mercury	-58144-09-12 16:47 J	-19515417.88	-19515417.80	-19515417.70	0.0089	0.0066	
Mars	-58144-09-23 17:45 J	-19515407.02	-19515406.76	-19515406.46	0.0089	0.0034	
Mercury	-58144-12-09 18:28 J	-19515329.83	-19515329.73	-19515329.63	0.0089	0.0060	

Mercury -58143-03-07 19:54 J -19515241.78 -19515241.67 -19515241.56 0.0089 0.0054
 Mercury -58143-06-03 21:06 J -19515153.72 -19515153.62 -19515153.49 0.0089 0.0049
 Mercury -58143-08-30 22:47 J -19515065.67 -19515065.55 -19515065.43 0.0089 0.0043
 Mercury -58143-11-27 00:13 J -19514977.61 -19514977.49 -19514977.36 0.0089 0.0037
 Mercury -58142-02-23 01:54 J -19514889.55 -19514889.42 -19514889.30 0.0089 0.0031
 Mercury -58142-05-22 03:06 J -19514801.50 -19514801.37 -19514801.23 0.0089 0.0025
 Mercury -58142-08-18 04:33 J -19514713.44 -19514713.31 -19514713.17 0.0089 0.0020
 Mars -58142-08-18 22:18 J -19514712.75 -19514712.57 -19514712.35 0.0089 0.0066
 Mercury -58142-11-14 06:13 J -19514625.38 -19514625.24 -19514625.11 0.0089 0.0014
 Mercury -58141-02-10 07:25 J -19514537.32 -19514537.19 -19514537.05 0.0089 0.0009
 Mercury -58141-05-08 08:52 J -19514449.26 -19514449.13 -19514448.99 0.0089 0.0004
 Mercury -58141-08-04 10:18 J -19514361.20 -19514361.07 -19514360.93 0.0089 0.0004
 Mercury -58141-10-31 11:45 J -19514273.14 -19514273.01 -19514272.87 0.0089 0.0009
 Mercury -58140-01-27 13:11 J -19514185.08 -19514184.95 -19514184.81 0.0089 0.0015
 Mercury -58140-04-25 14:37 J -19514097.02 -19514096.89 -19514096.76 0.0089 0.0020
 Mercury -58140-07-22 16:04 J -19514008.96 -19514008.83 -19514008.70 0.0089 0.0026
 Mercury -58140-10-18 17:16 J -19513920.90 -19513920.78 -19513920.65 0.0089 0.0032
 Mercury -58139-01-14 18:42 J -19513832.84 -19513832.72 -19513832.59 0.0089 0.0038
 Mercury -58139-04-12 20:09 J -19513744.77 -19513744.66 -19513744.54 0.0089 0.0043
 Mercury -58139-07-09 21:35 J -19513656.71 -19513656.60 -19513656.48 0.0089 0.0049
 Mercury -58139-10-05 23:01 J -19513568.64 -19513568.54 -19513568.43 0.0089 0.0054
 Mercury -58138-01-02 00:13 J -19513480.58 -19513480.49 -19513480.38 0.0089 0.0060
 Mercury -58138-03-31 01:40 J -19513392.51 -19513392.43 -19513392.33 0.0089 0.0065
 Mercury -58138-06-27 03:06 J -19513304.44 -19513304.37 -19513304.29 0.0089 0.0071
 Mercury -58138-09-23 04:18 J -19513216.37 -19513216.32 -19513216.24 0.0089 0.0077
 Mercury -58138-12-20 05:45 J -19513128.30 -19513128.26 -19513128.20 0.0089 0.0082
 Mercury -58137-03-17 06:57 J -19513040.21 -19513040.21 -19513040.17 0.0089 0.0088
 Earth -58136-07-13 14:23 J -19512556.97 -19512556.90 -19512556.76 0.0089 0.0081
 Moon -58136-07-13 17:59 J -19512556.80 -19512556.75 -19512556.65 0.0089 0.0085 *
 Moon -58135-07-15 22:04 J -19512189.74 -19512189.58 -19512189.38 0.0089 0.0063

Earth	-58135-07-16 01:54 J	-19512189.57	-19512189.42	-19512189.24	0.0089	0.0067	*
Earth	-58134-07-18 12:28 J	-19511822.17	-19511821.98	-19511821.76	0.0089	0.0054	
Moon	-58134-07-18 15:21 J	-19511822.04	-19511821.86	-19511821.64	0.0089	0.0058	*
Moon	-58133-07-19 21:06 J	-19511454.83	-19511454.62	-19511454.38	0.0089	0.0037	
Earth	-58133-07-19 23:30 J	-19511454.74	-19511454.52	-19511454.29	0.0089	0.0040	*
Earth	-58132-07-22 10:04 J	-19511087.31	-19511087.08	-19511086.82	0.0089	0.0027	
Moon	-58132-07-22 11:30 J	-19511087.26	-19511087.02	-19511086.76	0.0089	0.0030	*
Earth	-58131-07-24 21:06 J	-19510719.87	-19510719.62	-19510719.37	0.0089	0.0013	
Moon	-58131-07-24 21:35 J	-19510719.84	-19510719.60	-19510719.35	0.0089	0.0009	*
Moon	-58130-07-27 06:28 J	-19510352.50	-19510352.23	-19510351.97	0.0089	0.0003	
Earth	-58130-07-27 07:54 J	-19510352.43	-19510352.17	-19510351.92	0.0089	0.0002	*
Earth	-58129-07-28 18:13 J	-19509984.99	-19509984.74	-19509984.49	0.0089	0.0015	
Moon	-58129-07-28 20:23 J	-19509984.88	-19509984.65	-19509984.40	0.0089	0.0019	*
Moon	-58128-07-31 01:11 J	-19509617.69	-19509617.45	-19509617.20	0.0089	0.0024	
Earth	-58128-07-31 04:18 J	-19509617.54	-19509617.32	-19509617.06	0.0089	0.0029	*
Earth	-58127-08-02 14:52 J	-19509250.09	-19509249.88	-19509249.64	0.0089	0.0042	
Moon	-58127-08-02 18:13 J	-19509249.94	-19509249.74	-19509249.51	0.0089	0.0046	*
Moon	-58126-08-04 21:35 J	-19508882.78	-19508882.60	-19508882.37	0.0089	0.0052	
Earth	-58126-08-05 01:11 J	-19508882.63	-19508882.45	-19508882.23	0.0089	0.0056	*
Earth	-58125-08-06 11:16 J	-19508515.17	-19508515.03	-19508514.85	0.0089	0.0069	
Moon	-58125-08-06 13:54 J	-19508515.04	-19508514.92	-19508514.75	0.0089	0.0073	*
Moon	-58124-08-08 19:54 J	-19508147.76	-19508147.67	-19508147.54	0.0089	0.0079	
Earth	-58124-08-08 21:49 J	-19508147.67	-19508147.59	-19508147.48	0.0089	0.0082	*
Venus	-58098-07-25 20:37 J	-19498665.71	-19498665.64	-19498665.54	0.0089	0.0081	
Venus	-58097-03-07 08:37 J	-19498440.28	-19498440.14	-19498439.97	0.0089	0.0062	
Venus	-58097-10-18 20:52 J	-19498214.81	-19498214.63	-19498214.44	0.0089	0.0042	
Venus	-58096-06-01 08:52 J	-19497989.33	-19497989.13	-19497988.92	0.0089	0.0023	
Venus	-58095-01-12 21:06 J	-19497763.84	-19497763.62	-19497763.41	0.0089	0.0003	
Venus	-58095-08-26 09:21 J	-19497538.32	-19497538.11	-19497537.90	0.0089	0.0016	
Venus	-58094-04-08 21:06 J	-19497312.80	-19497312.62	-19497312.41	0.0089	0.0036	

Venus -58094-11-20 09:35 J -19497087.27 -19497087.10 -19497086.93 0.0089 0.0056

Venus -58093-07-02 21:35 J -19496861.70 -19496861.60 -19496861.48 0.0089 0.0075

Mars -58068-09-15 03:49 J -19487656.52 -19487656.34 -19487656.11 0.0089 0.0067

Mars -58066-08-11 03:35 J -19486961.64 -19486961.35 -19486961.05 0.0089 0.0033

Mars -58064-07-06 06:28 J -19486266.55 -19486266.23 -19486265.91 0.0089 0.0002

Mars -58062-06-01 12:28 J -19485571.25 -19485570.98 -19485570.66 0.0089 0.0037

Mercury -58062-09-08 14:37 J -19485471.94 -19485471.89 -19485471.82 0.0089 0.0083

Mercury -58062-12-05 17:30 J -19485383.84 -19485383.77 -19485383.65 0.0089 0.0076

Mercury -58061-03-02 21:06 J -19485295.73 -19485295.62 -19485295.50 0.0089 0.0068

Mercury -58061-05-30 00:28 J -19485207.61 -19485207.48 -19485207.34 0.0089 0.0060

Mercury -58061-08-26 03:21 J -19485119.49 -19485119.36 -19485119.19 0.0089 0.0053

Mercury -58061-11-22 06:42 J -19485031.37 -19485031.22 -19485031.05 0.0089 0.0045

Mercury -58060-02-18 10:18 J -19484943.24 -19484943.07 -19484942.90 0.0089 0.0037

Mars -58060-04-26 20:37 J -19484875.80 -19484875.64 -19484875.42 0.0089 0.0072

Mercury -58060-05-17 13:11 J -19484855.11 -19484854.95 -19484854.76 0.0089 0.0030

Mercury -58060-08-13 16:47 J -19484766.98 -19484766.80 -19484766.62 0.0089 0.0022

Mercury -58060-11-09 20:09 J -19484678.85 -19484678.66 -19484678.48 0.0089 0.0014

Mercury -58059-02-05 23:30 J -19484590.71 -19484590.52 -19484590.33 0.0089 0.0006

Mercury -58059-05-05 02:52 J -19484502.57 -19484502.38 -19484502.20 0.0089 0.0003

Mercury -58059-08-01 05:59 J -19484414.43 -19484414.25 -19484414.06 0.0089 0.0010

Mercury -58059-10-28 09:21 J -19484326.29 -19484326.11 -19484325.92 0.0089 0.0018

Mercury -58058-01-24 12:42 J -19484238.15 -19484237.97 -19484237.78 0.0089 0.0026

Mercury -58058-04-22 16:04 J -19484150.00 -19484149.83 -19484149.65 0.0089 0.0034

Mercury -58058-07-19 19:25 J -19484061.85 -19484061.69 -19484061.52 0.0089 0.0042

Mercury -58058-10-15 22:33 J -19483973.70 -19483973.56 -19483973.39 0.0089 0.0050

Mercury -58057-01-12 02:09 J -19483885.54 -19483885.41 -19483885.26 0.0089 0.0058

Mercury -58057-04-09 05:30 J -19483797.38 -19483797.27 -19483797.13 0.0089 0.0066

Mercury -58057-07-06 08:52 J -19483709.22 -19483709.13 -19483709.01 0.0089 0.0074

Mercury -58057-10-02 12:13 J -19483621.04 -19483620.99 -19483620.90 0.0089 0.0082

Earth -58054-01-08 07:54 J -19482793.23 -19482793.17 -19482793.08 0.0089 0.0085

Moon	-58054-01-08 11:16 J	-19482793.12	-19482793.03	-19482792.92	0.0089	0.0082	*
Moon	-58053-01-10 18:13 J	-19482425.86	-19482425.74	-19482425.58	0.0089	0.0074	
Earth	-58053-01-10 20:09 J	-19482425.78	-19482425.66	-19482425.47	0.0089	0.0072	*
Earth	-58052-01-12 09:06 J	-19482058.30	-19482058.12	-19482057.90	0.0089	0.0058	
Moon	-58052-01-12 09:49 J	-19482058.27	-19482058.09	-19482057.85	0.0089	0.0056	*
Moon	-58051-01-14 21:21 J	-19481690.80	-19481690.61	-19481690.38	0.0089	0.0047	
Earth	-58051-01-14 21:49 J	-19481690.80	-19481690.59	-19481690.35	0.0089	0.0044	*
Moon	-58050-01-17 09:21 J	-19481323.37	-19481323.11	-19481322.85	0.0089	0.0027	
Earth	-58050-01-17 10:33 J	-19481323.30	-19481323.06	-19481322.81	0.0089	0.0030	*
Earth	-58049-01-19 23:16 J	-19480955.78	-19480955.53	-19480955.27	0.0089	0.0016	
Moon	-58049-01-20 01:25 J	-19480955.67	-19480955.44	-19480955.18	0.0089	0.0019	*
Moon	-58048-01-21 09:06 J	-19480588.39	-19480588.12	-19480587.85	0.0089	0.0001	
Earth	-58048-01-21 11:59 J	-19480588.26	-19480588.00	-19480587.73	0.0089	0.0002	*
Earth	-58047-01-24 00:28 J	-19480220.73	-19480220.48	-19480220.21	0.0088	0.0013	
Moon	-58047-01-24 04:33 J	-19480220.57	-19480220.31	-19480220.05	0.0088	0.0009	*
Moon	-58046-01-26 10:04 J	-19479853.33	-19479853.08	-19479852.84	0.0088	0.0029	
Earth	-58046-01-26 13:25 J	-19479853.19	-19479852.94	-19479852.69	0.0088	0.0026	*
Earth	-58045-01-29 01:40 J	-19479485.64	-19479485.43	-19479485.17	0.0088	0.0041	
Moon	-58045-01-29 05:16 J	-19479485.50	-19479485.28	-19479485.02	0.0088	0.0037	*
Moon	-58044-01-30 12:28 J	-19479118.16	-19479117.98	-19479117.77	0.0088	0.0058	
Earth	-58044-01-30 15:06 J	-19479118.07	-19479117.87	-19479117.65	0.0088	0.0054	*
Earth	-58043-02-02 03:49 J	-19478750.49	-19478750.34	-19478750.16	0.0088	0.0068	
Moon	-58043-02-02 04:47 J	-19478750.45	-19478750.30	-19478750.08	0.0088	0.0065	*
Earth	-58042-02-04 16:33 J	-19478382.88	-19478382.81	-19478382.68	0.0088	0.0082	
Moon	-58042-02-04 16:04 J	-19478382.87	-19478382.83	-19478382.74	0.0088	0.0086	*
Venus	-58015-04-26 07:54 J	-19468440.29	-19468440.17	-19468440.02	0.0088	0.0070	
Venus	-58015-12-07 21:49 J	-19468214.76	-19468214.59	-19468214.38	0.0088	0.0051	
Venus	-58014-07-21 11:59 J	-19467989.20	-19467989.00	-19467988.78	0.0088	0.0030	
Venus	-58013-03-03 02:09 J	-19467763.63	-19467763.41	-19467763.18	0.0088	0.0010	
Venus	-58013-10-14 16:04 J	-19467538.05	-19467537.83	-19467537.60	0.0088	0.0010	

Venus -58012-05-28 05:45 J -19467312.47 -19467312.26 -19467312.04 0.0088 0.0030

Venus -58011-01-08 19:25 J -19467086.86 -19467086.69 -19467086.49 0.0088 0.0051

Venus -58011-08-22 09:06 J -19466861.24 -19466861.12 -19466860.97 0.0088 0.0071

58TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 58th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-57986-08-25 00:57 J		-19457727.58	-19457727.46	-19457727.28	0.0088	0.0078	
Mars	-57984-07-19 16:18 J		-19457033.08	-19457032.82	-19457032.55	0.0089	0.0044	
Mars	-57982-06-14 05:01 J		-19456338.59	-19456338.29	-19456337.98	0.0089	0.0011	
Mars	-57980-05-08 13:54 J		-19455644.21	-19455643.92	-19455643.62	0.0089	0.0022	
Mercury	-57980-06-22 10:04 J		-19455599.09	-19455599.08	-19455599.06	0.0089	0.0088	
Mercury	-57980-09-18 11:45 J		-19455511.06	-19455511.01	-19455510.96	0.0089	0.0082	
Mercury	-57980-12-15 12:57 J		-19455423.02	-19455422.96	-19455422.88	0.0089	0.0076	
Mercury	-57979-03-13 14:23 J		-19455334.97	-19455334.90	-19455334.80	0.0089	0.0071	
Mercury	-57979-06-09 16:04 J		-19455246.92	-19455246.83	-19455246.73	0.0089	0.0065	
Mercury	-57979-09-05 17:30 J		-19455158.87	-19455158.77	-19455158.66	0.0089	0.0059	
Mercury	-57979-12-02 19:11 J		-19455070.81	-19455070.70	-19455070.59	0.0089	0.0053	
Mercury	-57978-02-28 20:23 J		-19454982.76	-19454982.65	-19454982.52	0.0089	0.0048	
Mars	-57978-04-02 20:37 J		-19454949.87	-19454949.64	-19454949.39	0.0089	0.0054	
Mercury	-57978-05-27 21:49 J		-19454894.70	-19454894.59	-19454894.46	0.0089	0.0042	
Mercury	-57978-08-23 23:30 J		-19454806.64	-19454806.52	-19454806.39	0.0089	0.0036	

Mercury -57978-11-20 00:57 J -19454718.59 -19454718.46 -19454718.33 0.0089 0.0030
 Mercury -57977-02-16 02:23 J -19454630.53 -19454630.40 -19454630.26 0.0089 0.0024
 Mercury -57977-05-14 03:49 J -19454542.47 -19454542.34 -19454542.20 0.0089 0.0018
 Mercury -57977-08-10 05:16 J -19454454.41 -19454454.28 -19454454.14 0.0089 0.0013
 Mercury -57977-11-06 06:42 J -19454366.35 -19454366.22 -19454366.08 0.0089 0.0007
 Mercury -57976-02-02 08:09 J -19454278.29 -19454278.16 -19454278.02 0.0089 0.0003
 Mars -57976-02-25 01:11 J -19454255.52 -19454255.45 -19454255.36 0.0089 0.0085
 Mercury -57976-05-01 09:35 J -19454190.23 -19454190.10 -19454189.96 0.0089 0.0005
 Mercury -57976-07-28 11:01 J -19454102.17 -19454102.04 -19454101.90 0.0089 0.0011
 Mercury -57976-10-24 12:28 J -19454014.11 -19454013.98 -19454013.84 0.0089 0.0016
 Mercury -57975-01-20 13:54 J -19453926.05 -19453925.92 -19453925.79 0.0089 0.0022
 Mercury -57975-04-18 15:21 J -19453837.99 -19453837.86 -19453837.73 0.0089 0.0027
 Mercury -57975-07-15 16:47 J -19453749.93 -19453749.80 -19453749.68 0.0089 0.0033
 Mercury -57975-10-11 17:59 J -19453661.86 -19453661.75 -19453661.62 0.0089 0.0039
 Mercury -57974-01-07 19:25 J -19453573.80 -19453573.69 -19453573.57 0.0089 0.0045
 Mercury -57974-04-05 20:52 J -19453485.74 -19453485.63 -19453485.52 0.0089 0.0050
 Mercury -57974-07-02 22:04 J -19453397.67 -19453397.58 -19453397.46 0.0089 0.0056
 Mercury -57974-09-28 23:30 J -19453309.61 -19453309.52 -19453309.41 0.0089 0.0062
 Mercury -57974-12-26 00:57 J -19453221.54 -19453221.46 -19453221.37 0.0089 0.0067
 Mercury -57973-03-23 02:09 J -19453133.47 -19453133.41 -19453133.32 0.0089 0.0073
 Mercury -57973-06-19 03:49 J -19453045.40 -19453045.34 -19453045.28 0.0089 0.0078
 Mercury -57973-09-15 05:01 J -19452957.32 -19452957.29 -19452957.24 0.0089 0.0084
 Moon -57972-07-12 19:25 J -19452656.73 -19452656.69 -19452656.61 0.0089 0.0086
 Earth -57972-07-12 22:33 J -19452656.59 -19452656.56 -19452656.49 0.0089 0.0087
 Earth -57971-07-15 08:52 J -19452289.24 -19452289.13 -19452288.95 0.0089 0.0074
 Moon -57971-07-15 11:59 J -19452289.10 -19452289.00 -19452288.83 0.0089 0.0076 *
 Moon -57970-07-17 18:13 J -19451921.91 -19451921.74 -19451921.54 0.0089 0.0059
 Earth -57970-07-17 19:54 J -19451921.84 -19451921.67 -19451921.46 0.0089 0.0060 *
 Earth -57969-07-19 06:42 J -19451554.42 -19451554.22 -19451553.99 0.0089 0.0046
 Moon -57969-07-19 07:25 J -19451554.41 -19451554.19 -19451553.97 0.0089 0.0047 *

Earth	-57968-07-21 17:45 J	-19451187.00	-19451186.76	-19451186.52	0.0089	0.0032
Moon	-57968-07-21 17:45 J	-19451186.98	-19451186.76	-19451186.51	0.0089	0.0031 *
Moon	-57967-07-24 02:09 J	-19450819.66	-19450819.41	-19450819.15	0.0089	0.0020
Earth	-57967-07-24 04:33 J	-19450819.56	-19450819.31	-19450819.06	0.0089	0.0018 *
Earth	-57966-07-26 15:06 J	-19450452.12	-19450451.87	-19450451.62	0.0089	0.0004
Moon	-57966-07-26 17:59 J	-19450452.00	-19450451.75	-19450451.50	0.0089	0.0003 *
Moon	-57965-07-27 22:18 J	-19450084.82	-19450084.57	-19450084.31	0.0089	0.0007
Earth	-57965-07-28 01:40 J	-19450084.68	-19450084.43	-19450084.17	0.0089	0.0010 *
Earth	-57964-07-30 11:59 J	-19449717.23	-19449717.00	-19449716.74	0.0089	0.0024
Moon	-57964-07-30 15:35 J	-19449717.08	-19449716.85	-19449716.59	0.0089	0.0026 *
Moon	-57963-08-01 19:25 J	-19449349.90	-19449349.69	-19449349.44	0.0089	0.0036
Earth	-57963-08-01 22:33 J	-19449349.77	-19449349.56	-19449349.31	0.0089	0.0038 *
Earth	-57962-08-04 08:52 J	-19448982.33	-19448982.13	-19448981.91	0.0089	0.0051
Moon	-57962-08-04 11:30 J	-19448982.21	-19448982.02	-19448981.79	0.0089	0.0054 *
Moon	-57961-08-05 17:59 J	-19448614.91	-19448614.75	-19448614.57	0.0089	0.0063
Earth	-57961-08-05 19:11 J	-19448614.86	-19448614.70	-19448614.51	0.0089	0.0065 *
Earth	-57960-08-08 05:16 J	-19448247.37	-19448247.28	-19448247.13	0.0089	0.0079
Moon	-57960-08-08 05:30 J	-19448247.36	-19448247.27	-19448247.14	0.0089	0.0080 *
Venus	-57933-06-08 19:11 J	-19438445.82	-19438445.70	-19438445.57	0.0089	0.0071
Venus	-57932-01-20 06:57 J	-19438220.37	-19438220.21	-19438220.02	0.0089	0.0052
Venus	-57932-09-02 19:11 J	-19437994.89	-19437994.70	-19437994.49	0.0089	0.0033
Venus	-57931-04-16 07:11 J	-19437769.41	-19437769.20	-19437768.98	0.0089	0.0013
Venus	-57931-11-27 19:11 J	-19437543.91	-19437543.70	-19437543.48	0.0089	0.0007
Venus	-57930-07-11 07:25 J	-19437318.39	-19437318.19	-19437317.98	0.0089	0.0026
Venus	-57929-02-21 19:11 J	-19437092.86	-19437092.70	-19437092.50	0.0089	0.0046
Venus	-57929-10-04 07:25 J	-19436867.32	-19436867.19	-19436867.03	0.0089	0.0065
Venus	-57928-05-17 19:25 J	-19436641.73	-19436641.69	-19436641.61	0.0089	0.0085
Mars	-57904-04-29 13:40 J	-19427894.08	-19427893.93	-19427893.77	0.0089	0.0077
Mars	-57902-03-25 10:33 J	-19427199.31	-19427199.06	-19427198.76	0.0089	0.0045
Mars	-57900-02-17 11:01 J	-19426504.35	-19426504.04	-19426503.71	0.0089	0.0011

Mars -57898-01-13 13:54 J -19425809.22 -19425808.92 -19425808.60 0.0089 0.0024
 Mercury -57897-06-04 12:13 J -19425301.04 -19425300.99 -19425300.91 0.0089 0.0082
 Mercury -57897-08-31 15:49 J -19425212.94 -19425212.84 -19425212.74 0.0089 0.0074
 Mercury -57897-11-27 18:42 J -19425124.83 -19425124.72 -19425124.59 0.0089 0.0067
 Mars -57897-12-08 20:52 J -19425113.86 -19425113.63 -19425113.37 0.0089 0.0058
 Mercury -57896-02-23 22:04 J -19425036.71 -19425036.58 -19425036.43 0.0089 0.0059
 Mercury -57896-05-23 01:25 J -19424948.59 -19424948.44 -19424948.29 0.0089 0.0051
 Mercury -57896-08-19 04:18 J -19424860.46 -19424860.32 -19424860.14 0.0089 0.0044
 Mercury -57896-11-15 07:54 J -19424772.34 -19424772.17 -19424772.00 0.0089 0.0036
 Mercury -57895-02-11 11:16 J -19424684.21 -19424684.03 -19424683.85 0.0089 0.0028
 Mercury -57895-05-10 14:23 J -19424596.08 -19424595.90 -19424595.71 0.0089 0.0020
 Mercury -57895-08-06 17:45 J -19424507.94 -19424507.76 -19424507.57 0.0089 0.0012
 Mercury -57895-11-02 21:06 J -19424419.81 -19424419.62 -19424419.43 0.0089 0.0005
 Mercury -57894-01-30 00:28 J -19424331.67 -19424331.48 -19424331.29 0.0089 0.0003
 Mercury -57894-04-28 03:35 J -19424243.53 -19424243.35 -19424243.16 0.0089 0.0011
 Mercury -57894-07-25 06:57 J -19424155.39 -19424155.21 -19424155.02 0.0089 0.0019
 Mercury -57894-10-21 10:18 J -19424067.25 -19424067.07 -19424066.89 0.0089 0.0027
 Mercury -57893-01-17 13:40 J -19423979.10 -19423978.93 -19423978.75 0.0089 0.0035
 Mercury -57893-04-14 17:01 J -19423890.95 -19423890.79 -19423890.62 0.0089 0.0043
 Mercury -57893-07-11 20:09 J -19423802.80 -19423802.66 -19423802.49 0.0089 0.0051
 Mercury -57893-10-07 23:30 J -19423714.65 -19423714.52 -19423714.36 0.0089 0.0059
 Mercury -57892-01-04 02:52 J -19423626.49 -19423626.38 -19423626.24 0.0089 0.0067
 Mercury -57892-04-02 06:13 J -19423538.32 -19423538.24 -19423538.12 0.0089 0.0075
 Mercury -57892-06-29 09:49 J -19423450.14 -19423450.09 -19423450.01 0.0089 0.0083
 Moon -57890-01-07 11:01 J -19422893.04 -19422893.04 -19422893.00 0.0089 0.0089
 Earth -57889-01-10 01:40 J -19422525.54 -19422525.43 -19422525.30 0.0089 0.0078
 Moon -57889-01-10 02:23 J -19422525.49 -19422525.40 -19422525.29 0.0089 0.0082 *
 Earth -57888-01-11 13:54 J -19422158.08 -19422157.92 -19422157.72 0.0089 0.0065
 Moon -57888-01-11 14:52 J -19422158.04 -19422157.88 -19422157.68 0.0089 0.0061 *
 Moon -57887-01-14 01:11 J -19421790.65 -19421790.45 -19421790.23 0.0089 0.0054

Earth	-57887-01-14 02:37 J	-19421790.58	-19421790.39	-19421790.16	0.0089	0.0051	*
Earth	-57886-01-16 15:06 J	-19421423.09	-19421422.87	-19421422.61	0.0089	0.0037	
Moon	-57886-01-16 17:59 J	-19421422.97	-19421422.75	-19421422.50	0.0089	0.0032	*
Moon	-57885-01-19 00:28 J	-19421055.72	-19421055.48	-19421055.21	0.0089	0.0026	
Earth	-57885-01-19 04:18 J	-19421055.57	-19421055.32	-19421055.06	0.0089	0.0022	*
Earth	-57884-01-20 17:01 J	-19420688.05	-19420687.79	-19420687.53	0.0088	0.0008	
Moon	-57884-01-20 20:23 J	-19420687.91	-19420687.65	-19420687.39	0.0088	0.0004	*
Moon	-57883-01-23 01:54 J	-19420320.67	-19420320.42	-19420320.16	0.0088	0.0003	
Earth	-57883-01-23 05:30 J	-19420320.53	-19420320.27	-19420320.00	0.0088	0.0007	*
Earth	-57882-01-25 18:13 J	-19419952.99	-19419952.74	-19419952.48	0.0088	0.0021	
Moon	-57882-01-25 20:52 J	-19419952.88	-19419952.63	-19419952.37	0.0088	0.0025	*
Moon	-57881-01-28 04:33 J	-19419585.53	-19419585.31	-19419585.05	0.0088	0.0033	
Earth	-57881-01-28 07:11 J	-19419585.44	-19419585.20	-19419584.96	0.0088	0.0035	*
Earth	-57880-01-29 19:54 J	-19419217.89	-19419217.67	-19419217.46	0.0088	0.0049	
Moon	-57880-01-29 20:09 J	-19419217.85	-19419217.66	-19419217.41	0.0088	0.0053	*
Saturn	-57879-01-24 20:09 J	-19418858.27	-19418857.66	-19418856.95	0.0088	0.0040	
Earth	-57879-02-01 08:09 J	-19418850.32	-19418850.16	-19418849.96	0.0088	0.0063	
Moon	-57879-02-01 09:21 J	-19418850.30	-19418850.11	-19418849.93	0.0088	0.0060	*
Moon	-57878-02-03 19:54 J	-19418482.77	-19418482.67	-19418482.54	0.0088	0.0080	
Earth	-57878-02-03 20:52 J	-19418482.72	-19418482.63	-19418482.47	0.0088	0.0078	*
Moon	-57877-02-06 12:42 J	-19418114.97	-19418114.97	-19418114.94	0.0088	0.0088	
Venus	-57851-07-28 14:37 J	-19408445.96	-19408445.89	-19408445.78	0.0088	0.0081	
Venus	-57850-03-11 04:33 J	-19408220.45	-19408220.31	-19408220.12	0.0088	0.0062	
Venus	-57850-10-22 18:42 J	-19407994.90	-19407994.72	-19407994.50	0.0088	0.0041	
Venus	-57849-06-04 08:52 J	-19407769.34	-19407769.13	-19407768.90	0.0088	0.0021	
Venus	-57848-01-15 23:01 J	-19407543.76	-19407543.54	-19407543.31	0.0088	0.0001	
Venus	-57848-08-29 12:57 J	-19407318.18	-19407317.96	-19407317.74	0.0088	0.0020	
Venus	-57847-04-12 02:37 J	-19407092.58	-19407092.39	-19407092.18	0.0088	0.0040	
Venus	-57847-11-23 16:18 J	-19406866.97	-19406866.82	-19406866.64	0.0088	0.0060	
Venus	-57846-07-07 05:59 J	-19406641.33	-19406641.25	-19406641.13	0.0088	0.0080	

Mars -57822-04-08 11:16 J -19397965.03 -19397965.03 -19397964.98 0.0088 0.0088
 Mars -57820-03-03 03:35 J -19397270.56 -19397270.35 -19397270.08 0.0089 0.0056
 Mars -57818-01-26 17:45 J -19396576.05 -19396575.76 -19396575.45 0.0089 0.0023
 Mars -57817-12-21 05:59 J -19395881.55 -19395881.25 -19395880.94 0.0089 0.0010
 Mercury -57815-03-19 08:52 J -19395428.14 -19395428.13 -19395428.10 0.0089 0.0088
 Mercury -57815-06-15 10:18 J -19395340.11 -19395340.07 -19395340.01 0.0089 0.0082
 Mercury -57815-09-11 11:59 J -19395252.06 -19395252.00 -19395251.93 0.0089 0.0076
 Mars -57815-11-15 14:23 J -19395187.15 -19395186.90 -19395186.62 0.0089 0.0042
 Mercury -57815-12-08 13:40 J -19395164.02 -19395163.93 -19395163.85 0.0089 0.0070
 Mercury -57814-03-06 14:52 J -19395075.96 -19395075.88 -19395075.78 0.0089 0.0064
 Mercury -57814-06-02 16:18 J -19394987.91 -19394987.82 -19394987.71 0.0089 0.0059
 Mercury -57814-08-29 17:59 J -19394899.86 -19394899.75 -19394899.64 0.0089 0.0053
 Mercury -57814-11-25 19:25 J -19394811.80 -19394811.69 -19394811.57 0.0089 0.0047
 Mercury -57813-02-21 20:52 J -19394723.75 -19394723.63 -19394723.50 0.0089 0.0041
 Mercury -57813-05-19 22:33 J -19394635.69 -19394635.56 -19394635.44 0.0089 0.0035
 Mercury -57813-08-15 23:45 J -19394547.63 -19394547.51 -19394547.37 0.0089 0.0030
 Mars -57813-10-09 20:09 J -19394492.81 -19394492.66 -19394492.47 0.0089 0.0073
 Mercury -57813-11-12 01:11 J -19394459.57 -19394459.45 -19394459.31 0.0089 0.0024
 Mercury -57812-02-08 02:52 J -19394371.51 -19394371.38 -19394371.25 0.0089 0.0018
 Mercury -57812-05-07 04:18 J -19394283.46 -19394283.32 -19394283.18 0.0089 0.0012
 Mercury -57812-08-03 05:45 J -19394195.40 -19394195.26 -19394195.12 0.0089 0.0006
 Mercury -57812-10-30 07:11 J -19394107.34 -19394107.20 -19394107.06 0.0089 0.0001
 Mercury -57811-01-26 08:37 J -19394019.28 -19394019.14 -19394019.00 0.0089 0.0005
 Mercury -57811-04-24 10:04 J -19393931.21 -19393931.08 -19393930.94 0.0089 0.0011
 Mercury -57811-07-21 11:30 J -19393843.15 -19393843.02 -19393842.89 0.0089 0.0017
 Mercury -57811-10-17 12:57 J -19393755.09 -19393754.96 -19393754.83 0.0089 0.0022
 Mercury -57810-01-13 14:09 J -19393667.03 -19393666.91 -19393666.77 0.0089 0.0029
 Mercury -57810-04-11 15:49 J -19393578.97 -19393578.84 -19393578.72 0.0089 0.0034
 Mercury -57810-07-08 17:01 J -19393490.90 -19393490.79 -19393490.66 0.0089 0.0040
 Mercury -57810-10-04 18:28 J -19393402.84 -19393402.73 -19393402.61 0.0089 0.0045

Mercury -57810-12-31 19:54 J -19393314.78 -19393314.67 -19393314.56 0.0089 0.0051

Mercury -57809-03-28 21:06 J -19393226.71 -19393226.62 -19393226.50 0.0089 0.0057

Mercury -57809-06-24 22:47 J -19393138.64 -19393138.55 -19393138.45 0.0089 0.0062

Mercury -57809-09-20 23:59 J -19393050.58 -19393050.50 -19393050.41 0.0089 0.0068

Mercury -57809-12-18 01:11 J -19392962.51 -19392962.45 -19392962.36 0.0089 0.0074

Mercury -57808-03-16 02:52 J -19392874.43 -19392874.38 -19392874.32 0.0089 0.0079

Mercury -57808-06-12 04:04 J -19392786.36 -19392786.33 -19392786.28 0.0089 0.0085

Moon -57807-07-14 13:54 J -19392388.97 -19392388.92 -19392388.82 0.0089 0.0085

Earth -57807-07-14 15:49 J -19392388.94 -19392388.84 -19392388.72 0.0089 0.0080 *

Moon -57806-07-17 02:23 J -19392021.57 -19392021.40 -19392021.19 0.0089 0.0062

Earth -57806-07-17 02:09 J -19392021.55 -19392021.41 -19392021.22 0.0089 0.0067 *

Earth -57805-07-18 12:57 J -19391654.14 -19391653.96 -19391653.73 0.0089 0.0053

Moon -57805-07-18 14:37 J -19391654.07 -19391653.89 -19391653.69 0.0089 0.0057 *

Moon -57804-07-20 22:18 J -19391286.82 -19391286.57 -19391286.33 0.0089 0.0034

Earth -57804-07-20 23:59 J -19391286.72 -19391286.50 -19391286.26 0.0089 0.0039 *

Earth -57803-07-23 10:33 J -19390919.29 -19390919.06 -19390918.80 0.0089 0.0025

Moon -57803-07-23 13:54 J -19390919.15 -19390918.92 -19390918.68 0.0089 0.0029 *

Moon -57802-07-25 17:59 J -19390552.00 -19390551.75 -19390551.49 0.0089 0.0006

Earth -57802-07-25 21:21 J -19390551.85 -19390551.61 -19390551.35 0.0089 0.0011 *

Earth -57801-07-27 08:09 J -19390184.41 -19390184.16 -19390183.90 0.0089 0.0004

Moon -57801-07-27 11:45 J -19390184.27 -19390184.01 -19390183.76 0.0089 0.0000 *

Moon -57800-07-29 15:35 J -19389817.08 -19389816.85 -19389816.59 0.0089 0.0023

Earth -57800-07-29 18:57 J -19389816.95 -19389816.71 -19389816.45 0.0089 0.0018 *

Earth -57799-08-01 05:30 J -19389449.50 -19389449.27 -19389449.03 0.0089 0.0032

Moon -57799-08-01 07:25 J -19389449.43 -19389449.19 -19389448.94 0.0089 0.0028 *

Moon -57798-08-03 14:52 J -19389082.07 -19389081.88 -19389081.67 0.0089 0.0050

Earth -57798-08-03 16:04 J -19389082.04 -19389081.83 -19389081.60 0.0089 0.0046 *

Moon -57797-08-05 02:09 J -19388714.60 -19388714.41 -19388714.19 0.0089 0.0056

Earth -57797-08-05 02:09 J -19388714.57 -19388714.41 -19388714.20 0.0089 0.0061 *

Earth -57796-08-07 12:57 J -19388347.09 -19388346.96 -19388346.81 0.0089 0.0074

Moon -57796-08-07 14:09 J -19388346.99 -19388346.91 -19388346.77 0.0089 0.0079 *
 Moon -57795-08-09 20:37 J -19387979.70 -19387979.64 -19387979.53 0.0089 0.0084
 Earth -57795-08-09 23:16 J -19387979.55 -19387979.53 -19387979.49 0.0089 0.0088 *
 Jupiter -57774-03-15 22:04 J -19380457.11 -19380456.58 -19380456.03 0.0089 0.0004
 Venus -57769-09-10 05:01 J -19378451.36 -19378451.29 -19378451.19 0.0089 0.0081
 Venus -57768-04-23 16:47 J -19378225.93 -19378225.80 -19378225.62 0.0089 0.0062
 Venus -57768-12-05 05:01 J -19378000.47 -19378000.29 -19378000.09 0.0089 0.0043
 Venus -57767-07-18 17:16 J -19377774.98 -19377774.78 -19377774.57 0.0089 0.0023
 Venus -57766-03-01 05:30 J -19377549.49 -19377549.27 -19377549.06 0.0089 0.0003
 Venus -57766-10-12 17:16 J -19377323.98 -19377323.78 -19377323.56 0.0089 0.0016
 Venus -57765-05-25 05:30 J -19377098.47 -19377098.27 -19377098.08 0.0089 0.0036
 Venus -57764-01-05 17:16 J -19376872.94 -19376872.78 -19376872.60 0.0089 0.0055
 Venus -57764-08-19 05:45 J -19376647.37 -19376647.26 -19376647.14 0.0089 0.0075
 Mars -57741-12-11 23:45 J -19368131.52 -19368131.51 -19368131.42 0.0089 0.0088
 Mars -57739-11-06 17:59 J -19367436.96 -19367436.75 -19367436.47 0.0089 0.0056
 Mars -57737-10-01 16:18 J -19366742.11 -19366741.82 -19366741.50 0.0089 0.0023
 Mars -57735-08-27 17:30 J -19366047.08 -19366046.77 -19366046.45 0.0089 0.0011
 Mars -57733-07-22 20:09 J -19365351.91 -19365351.66 -19365351.36 0.0089 0.0045
 Mercury -57733-12-03 06:42 J -19365218.22 -19365218.22 -19365218.20 0.0089 0.0088
 Mercury -57732-03-01 09:49 J -19365130.15 -19365130.09 -19365130.00 0.0089 0.0081
 Mercury -57732-05-28 13:25 J -19365042.04 -19365041.94 -19365041.84 0.0089 0.0073
 Mercury -57732-08-24 16:18 J -19364953.93 -19364953.82 -19364953.68 0.0089 0.0066
 Mercury -57732-11-20 19:40 J -19364865.81 -19364865.68 -19364865.53 0.0089 0.0058
 Mercury -57731-02-16 23:01 J -19364777.69 -19364777.54 -19364777.39 0.0089 0.0050
 Mercury -57731-05-16 01:54 J -19364689.57 -19364689.42 -19364689.24 0.0089 0.0043
 Mars -57731-06-18 03:06 J -19364656.49 -19364656.37 -19364656.19 0.0089 0.0079
 Mercury -57731-08-12 05:16 J -19364601.44 -19364601.28 -19364601.10 0.0089 0.0035
 Mercury -57731-11-08 08:37 J -19364513.31 -19364513.14 -19364512.96 0.0089 0.0027
 Mercury -57730-02-04 11:45 J -19364425.18 -19364425.01 -19364424.81 0.0089 0.0020
 Mercury -57730-05-03 15:21 J -19364337.05 -19364336.86 -19364336.67 0.0089 0.0011

Mercury -57730-07-30 18:42 J -19364248.91 -19364248.72 -19364248.54 0.0089 0.0004

Mercury -57730-10-26 21:49 J -19364160.77 -19364160.59 -19364160.40 0.0089 0.0005

Mercury -57729-01-23 01:11 J -19364072.63 -19364072.45 -19364072.26 0.0089 0.0012

Mercury -57729-04-20 04:33 J -19363984.49 -19363984.31 -19363984.13 0.0089 0.0020

Mercury -57729-07-17 07:54 J -19363896.35 -19363896.17 -19363895.99 0.0089 0.0028

Mercury -57729-10-13 11:01 J -19363808.20 -19363808.04 -19363807.86 0.0089 0.0036

Mercury -57728-01-09 14:23 J -19363720.06 -19363719.90 -19363719.73 0.0089 0.0044

Mercury -57728-04-07 17:45 J -19363631.91 -19363631.76 -19363631.60 0.0089 0.0052

Mercury -57728-07-04 21:06 J -19363543.75 -19363543.62 -19363543.47 0.0089 0.0060

Mercury -57728-10-01 00:28 J -19363455.59 -19363455.48 -19363455.35 0.0089 0.0068

Mercury -57728-12-28 03:49 J -19363367.43 -19363367.34 -19363367.23 0.0089 0.0076

Mercury -57727-03-26 07:11 J -19363279.25 -19363279.20 -19363279.13 0.0089 0.0084

Earth -57725-01-09 05:59 J -19362625.29 -19362625.25 -19362625.15 0.0089 0.0086

Moon -57725-01-09 07:25 J -19362625.26 -19362625.19 -19362625.10 0.0089 0.0084 *

Moon -57724-01-10 16:18 J -19362257.96 -19362257.82 -19362257.66 0.0089 0.0072

Earth -57724-01-10 18:28 J -19362257.85 -19362257.73 -19362257.55 0.0089 0.0072 *

Earth -57723-01-13 07:25 J -19361890.38 -19361890.19 -19361889.98 0.0089 0.0057

Moon -57723-01-13 10:18 J -19361890.25 -19361890.07 -19361889.86 0.0089 0.0056 *

Moon -57722-01-15 16:33 J -19361523.03 -19361522.81 -19361522.58 0.0089 0.0045

Earth -57722-01-15 19:54 J -19361522.88 -19361522.67 -19361522.43 0.0089 0.0043 *

Earth -57721-01-18 08:37 J -19361155.38 -19361155.14 -19361154.88 0.0088 0.0029

Moon -57721-01-18 12:13 J -19361155.23 -19361154.99 -19361154.73 0.0088 0.0027 *

Moon -57720-01-19 18:28 J -19360787.98 -19360787.73 -19360787.48 0.0088 0.0016

Earth -57720-01-19 21:21 J -19360787.86 -19360787.61 -19360787.35 0.0088 0.0014 *

Earth -57719-01-22 10:04 J -19360420.34 -19360420.08 -19360419.82 0.0088 0.0001

Moon -57719-01-22 12:57 J -19360420.23 -19360419.96 -19360419.70 0.0088 0.0004 *

Moon -57718-01-24 21:21 J -19360052.85 -19360052.61 -19360052.35 0.0088 0.0014

Earth -57718-01-24 22:33 J -19360052.81 -19360052.56 -19360052.29 0.0088 0.0015 *

Earth -57717-01-27 11:01 J -19359685.27 -19359685.04 -19359684.78 0.0088 0.0030

Moon -57717-01-27 11:16 J -19359685.27 -19359685.03 -19359684.76 0.0088 0.0032 *

Earth	-57716-01-28 23:59 J	-19359317.72	-19359317.50	-19359317.27	0.0088	0.0044
Moon	-57716-01-29 00:13 J	-19359317.69	-19359317.49	-19359317.24	0.0088	0.0042 *
Moon	-57715-01-31 09:35 J	-19358950.27	-19358950.10	-19358949.88	0.0088	0.0061
Earth	-57715-01-31 12:13 J	-19358950.16	-19358949.99	-19358949.77	0.0088	0.0058 *
Earth	-57714-02-03 00:57 J	-19358582.59	-19358582.46	-19358582.29	0.0088	0.0073
Moon	-57714-02-03 04:04 J	-19358582.48	-19358582.33	-19358582.16	0.0088	0.0070 *
Earth	-57713-02-05 13:54 J	-19358214.95	-19358214.92	-19358214.85	0.0088	0.0087
Venus	-57686-06-12 11:01 J	-19348226.15	-19348226.04	-19348225.89	0.0088	0.0072
Venus	-57685-01-24 01:11 J	-19348000.61	-19348000.45	-19348000.25	0.0088	0.0052
Venus	-57685-09-05 15:21 J	-19347775.06	-19347774.86	-19347774.64	0.0088	0.0032
Venus	-57684-04-19 05:16 J	-19347549.49	-19347549.28	-19347549.04	0.0088	0.0013
Venus	-57684-11-30 19:25 J	-19347323.91	-19347323.69	-19347323.46	0.0088	0.0008
Venus	-57683-07-14 09:06 J	-19347098.32	-19347098.12	-19347097.89	0.0088	0.0029
Venus	-57682-02-24 23:01 J	-19346872.71	-19346872.54	-19346872.33	0.0088	0.0049
Venus	-57682-10-08 12:57 J	-19346647.09	-19346646.96	-19346646.81	0.0088	0.0068
Venus	-57681-05-21 02:52 J	-19346421.38	-19346421.38	-19346421.36	0.0088	0.0088
Mars	-57657-10-15 12:28 J	-19337508.16	-19337507.98	-19337507.75	0.0088	0.0067
Mars	-57655-09-10 05:16 J	-19336813.56	-19336813.28	-19336812.99	0.0089	0.0034
Mars	-57653-08-04 18:28 J	-19336119.04	-19336118.73	-19336118.42	0.0089	0.0002
Mars	-57651-06-30 05:30 J	-19335424.54	-19335424.27	-19335423.96	0.0089	0.0030
Mercury	-57651-12-14 07:40 J	-19335257.19	-19335257.18	-19335257.15	0.0089	0.0088
Mercury	-57650-03-12 09:06 J	-19335169.16	-19335169.12	-19335169.05	0.0089	0.0082
Mercury	-57650-06-08 10:47 J	-19335081.11	-19335081.05	-19335080.97	0.0089	0.0076
Mercury	-57650-09-04 12:13 J	-19334993.06	-19334992.99	-19334992.90	0.0089	0.0070
Mercury	-57650-12-01 13:54 J	-19334905.01	-19334904.92	-19334904.82	0.0089	0.0064
Mercury	-57649-02-27 15:21 J	-19334816.96	-19334816.86	-19334816.75	0.0089	0.0058
Mars	-57649-05-24 14:23 J	-19334730.10	-19334729.90	-19334729.66	0.0089	0.0061
Mercury	-57649-05-25 16:33 J	-19334728.91	-19334728.81	-19334728.68	0.0089	0.0053
Mercury	-57649-08-21 18:13 J	-19334640.85	-19334640.74	-19334640.62	0.0089	0.0047
Mercury	-57649-11-17 19:40 J	-19334552.79	-19334552.68	-19334552.55	0.0089	0.0041

Mercury -57648-02-13 21:21 J -19334464.74 -19334464.61 -19334464.49 0.0089 0.0035

Mercury -57648-05-12 22:47 J -19334376.68 -19334376.55 -19334376.42 0.0089 0.0029

Mercury -57648-08-09 00:13 J -19334288.62 -19334288.49 -19334288.36 0.0089 0.0023

Mercury -57648-11-05 01:40 J -19334200.56 -19334200.43 -19334200.29 0.0089 0.0017

Mercury -57647-02-01 03:06 J -19334112.50 -19334112.37 -19334112.23 0.0089 0.0012

Mercury -57647-04-30 04:33 J -19334024.44 -19334024.31 -19334024.17 0.0089 0.0006

Mercury -57647-07-27 05:59 J -19333936.38 -19333936.25 -19333936.11 0.0089 0.0002

Mercury -57647-10-23 07:25 J -19333848.32 -19333848.19 -19333848.05 0.0089 0.0006

Mercury -57646-01-19 08:52 J -19333760.26 -19333760.13 -19333759.99 0.0089 0.0012

Mercury -57646-04-17 10:18 J -19333672.20 -19333672.07 -19333671.93 0.0089 0.0017

Mercury -57646-07-14 11:45 J -19333584.14 -19333584.01 -19333583.88 0.0089 0.0023

Mercury -57646-10-10 13:11 J -19333496.08 -19333495.95 -19333495.82 0.0089 0.0029

Mercury -57645-01-06 14:23 J -19333408.01 -19333407.90 -19333407.76 0.0089 0.0035

Mercury -57645-04-03 16:04 J -19333319.95 -19333319.83 -19333319.71 0.0089 0.0040

Mercury -57645-06-30 17:16 J -19333231.89 -19333231.78 -19333231.65 0.0089 0.0046

Mercury -57645-09-26 18:42 J -19333143.82 -19333143.72 -19333143.60 0.0089 0.0051

Mercury -57645-12-23 20:09 J -19333055.76 -19333055.66 -19333055.55 0.0089 0.0057

Mercury -57644-03-21 21:35 J -19332967.69 -19332967.60 -19332967.50 0.0089 0.0063

Mercury -57644-06-17 23:01 J -19332879.62 -19332879.54 -19332879.45 0.0089 0.0068

Mercury -57644-09-14 00:13 J -19332791.55 -19332791.49 -19332791.41 0.0089 0.0074

Mercury -57644-12-11 01:25 J -19332703.48 -19332703.44 -19332703.36 0.0089 0.0080

Mercury -57643-03-09 03:06 J -19332615.40 -19332615.37 -19332615.33 0.0089 0.0085

Moon -57643-07-13 20:09 J -19332488.67 -19332488.66 -19332488.59 0.0089 0.0088

Earth -57643-07-13 20:52 J -19332488.64 -19332488.63 -19332488.58 0.0089 0.0088 *

Earth -57642-07-16 07:25 J -19332121.30 -19332121.19 -19332121.02 0.0089 0.0074

Moon -57642-07-16 08:52 J -19332121.24 -19332121.13 -19332120.97 0.0089 0.0075 *

Moon -57641-07-17 15:21 J -19331754.03 -19331753.86 -19331753.64 0.0089 0.0060

Earth -57641-07-17 18:28 J -19331753.90 -19331753.73 -19331753.52 0.0089 0.0060 *

Earth -57640-07-20 05:01 J -19331386.48 -19331386.29 -19331386.05 0.0089 0.0046

Moon -57640-07-20 08:37 J -19331386.35 -19331386.14 -19331385.92 0.0089 0.0046 *

Moon	-57639-07-22 12:28 J	-19331019.21	-19331018.98	-19331018.73	0.0089	0.0030
Earth	-57639-07-22 16:04 J	-19331019.06	-19331018.83	-19331018.58	0.0089	0.0031 *
Earth	-57638-07-25 02:37 J	-19330651.63	-19330651.39	-19330651.13	0.0089	0.0017
Moon	-57638-07-25 05:59 J	-19330651.49	-19330651.25	-19330650.99	0.0089	0.0018 *
Moon	-57637-07-26 11:01 J	-19330284.29	-19330284.04	-19330283.79	0.0089	0.0001
Earth	-57637-07-26 13:40 J	-19330284.19	-19330283.93	-19330283.67	0.0089	0.0002 *
Earth	-57636-07-29 00:13 J	-19329916.74	-19329916.49	-19329916.24	0.0089	0.0012
Moon	-57636-07-29 02:09 J	-19329916.67	-19329916.41	-19329916.14	0.0089	0.0011 *
Moon	-57635-07-31 10:33 J	-19329549.29	-19329549.06	-19329548.82	0.0089	0.0027
Earth	-57635-07-31 10:33 J	-19329549.29	-19329549.06	-19329548.80	0.0089	0.0027 *
Moon	-57634-08-02 20:23 J	-19329181.87	-19329181.65	-19329181.40	0.0089	0.0040
Earth	-57634-08-02 21:06 J	-19329181.83	-19329181.62	-19329181.38	0.0089	0.0041 *
Earth	-57633-08-04 07:54 J	-19328814.36	-19328814.17	-19328813.96	0.0089	0.0055
Moon	-57633-08-04 09:35 J	-19328814.27	-19328814.10	-19328813.90	0.0089	0.0057 *
Moon	-57632-08-06 15:06 J	-19328447.01	-19328446.87	-19328446.68	0.0089	0.0069
Earth	-57632-08-06 18:42 J	-19328446.87	-19328446.72	-19328446.55	0.0089	0.0069 *
Earth	-57631-08-09 05:16 J	-19328079.37	-19328079.28	-19328079.20	0.0089	0.0083
Moon	-57631-08-09 07:54 J	-19328079.22	-19328079.17	-19328079.08	0.0089	0.0085 *
Venus	-57604-07-26 02:23 J	-19318231.50	-19318231.40	-19318231.25	0.0089	0.0073
Venus	-57603-03-08 14:23 J	-19318006.05	-19318005.90	-19318005.71	0.0089	0.0053
Venus	-57603-10-20 02:37 J	-19317780.58	-19317780.39	-19317780.18	0.0089	0.0033
Venus	-57602-06-02 14:37 J	-19317555.10	-19317554.89	-19317554.67	0.0089	0.0014
Venus	-57601-01-14 02:37 J	-19317329.60	-19317329.39	-19317329.17	0.0089	0.0006
Venus	-57601-08-26 14:37 J	-19317104.09	-19317103.89	-19317103.67	0.0089	0.0025
Venus	-57600-04-09 02:52 J	-19316878.56	-19316878.38	-19316878.19	0.0089	0.0044
Venus	-57600-11-20 14:23 J	-19316653.02	-19316652.90	-19316652.73	0.0089	0.0064
Venus	-57599-07-04 02:52 J	-19316427.44	-19316427.38	-19316427.30	0.0089	0.0083
Mars	-57575-06-21 04:47 J	-19307674.49	-19307674.30	-19307674.08	0.0089	0.0066
Mars	-57573-05-15 23:01 J	-19306979.82	-19306979.54	-19306979.24	0.0089	0.0034
Mars	-57571-04-10 21:06 J	-19306284.94	-19306284.62	-19306284.30	0.0089	0.0002

Mars -57569-03-05 22:04 J -19305589.86 -19305589.58 -19305589.26 0.0089 0.0032
 Mercury -57568-08-30 04:04 J -19305047.34 -19305047.33 -19305047.30 0.0089 0.0088
 Mercury -57568-11-26 06:57 J -19304959.26 -19304959.21 -19304959.11 0.0089 0.0081
 Mars -57567-01-30 02:09 J -19304894.62 -19304894.41 -19304894.18 0.0089 0.0065
 Mercury -57567-02-22 10:18 J -19304871.16 -19304871.07 -19304870.95 0.0089 0.0073
 Mercury -57567-05-21 13:40 J -19304783.04 -19304782.93 -19304782.80 0.0089 0.0065
 Mercury -57567-08-17 16:47 J -19304694.93 -19304694.80 -19304694.65 0.0089 0.0058
 Mercury -57567-11-13 20:09 J -19304606.80 -19304606.66 -19304606.50 0.0089 0.0050
 Mercury -57566-02-09 23:30 J -19304518.68 -19304518.52 -19304518.35 0.0089 0.0042
 Mercury -57566-05-09 02:23 J -19304430.55 -19304430.40 -19304430.21 0.0089 0.0035
 Mercury -57566-08-05 05:45 J -19304342.42 -19304342.26 -19304342.07 0.0089 0.0027
 Mercury -57566-11-01 09:06 J -19304254.29 -19304254.12 -19304253.93 0.0089 0.0019
 Mercury -57565-01-28 12:28 J -19304166.16 -19304165.98 -19304165.79 0.0089 0.0011
 Mercury -57565-04-25 15:49 J -19304078.02 -19304077.84 -19304077.65 0.0089 0.0003
 Mercury -57565-07-22 19:11 J -19303989.89 -19303989.70 -19303989.51 0.0089 0.0005
 Mercury -57565-10-18 22:33 J -19303901.75 -19303901.56 -19303901.38 0.0089 0.0013
 Mercury -57564-01-15 01:40 J -19303813.61 -19303813.43 -19303813.24 0.0089 0.0021
 Mercury -57564-04-13 05:01 J -19303725.46 -19303725.29 -19303725.11 0.0089 0.0029
 Mercury -57564-07-10 08:09 J -19303637.32 -19303637.16 -19303636.98 0.0089 0.0037
 Mercury -57564-10-06 11:30 J -19303549.17 -19303549.02 -19303548.85 0.0089 0.0045
 Mercury -57563-01-02 14:37 J -19303461.02 -19303460.89 -19303460.72 0.0089 0.0053
 Mercury -57563-03-31 17:59 J -19303372.87 -19303372.75 -19303372.59 0.0089 0.0061
 Mercury -57563-06-27 21:21 J -19303284.71 -19303284.61 -19303284.47 0.0089 0.0069
 Mercury -57563-09-24 00:42 J -19303196.54 -19303196.47 -19303196.35 0.0089 0.0077
 Mercury -57563-12-21 04:04 J -19303108.36 -19303108.33 -19303108.25 0.0089 0.0085
 Moon -57561-01-08 07:54 J -19302725.17 -19302725.17 -19302725.13 0.0089 0.0088
 Earth -57560-01-09 22:33 J -19302357.66 -19302357.56 -19302357.42 0.0089 0.0079
 Moon -57560-01-10 01:54 J -19302357.47 -19302357.42 -19302357.31 0.0089 0.0084 *
 Moon -57559-01-12 07:40 J -19301990.35 -19301990.18 -19301989.97 0.0089 0.0060
 Earth -57559-01-12 11:01 J -19301990.19 -19301990.04 -19301989.84 0.0089 0.0065 *

Earth	-57558-01-14 23:45 J	-19301622.71	-19301622.51	-19301622.28	0.0088	0.0050
Moon	-57558-01-15 03:21 J	-19301622.56	-19301622.36	-19301622.14	0.0088	0.0054 *
Moon	-57557-01-17 09:35 J	-19301255.33	-19301255.10	-19301254.85	0.0088	0.0031
Earth	-57557-01-17 12:13 J	-19301255.21	-19301254.99	-19301254.73	0.0088	0.0036 *
Earth	-57556-01-19 01:11 J	-19300887.70	-19300887.45	-19300887.19	0.0088	0.0021
Moon	-57556-01-19 02:52 J	-19300887.63	-19300887.38	-19300887.12	0.0088	0.0025 *
Moon	-57555-01-21 12:57 J	-19300520.21	-19300519.96	-19300519.71	0.0088	0.0002
Earth	-57555-01-21 13:54 J	-19300520.18	-19300519.92	-19300519.66	0.0088	0.0006 *
Moon	-57554-01-24 02:09 J	-19300152.68	-19300152.41	-19300152.14	0.0088	0.0005
Earth	-57554-01-24 02:37 J	-19300152.65	-19300152.39	-19300152.13	0.0088	0.0009 *
Earth	-57553-01-26 15:06 J	-19299785.11	-19299784.87	-19299784.61	0.0088	0.0024
Moon	-57553-01-26 16:47 J	-19299785.03	-19299784.80	-19299784.55	0.0088	0.0028 *
Moon	-57552-01-28 01:11 J	-19299417.68	-19299417.45	-19299417.19	0.0088	0.0035
Earth	-57552-01-28 03:35 J	-19299417.57	-19299417.35	-19299417.10	0.0088	0.0039 *
Earth	-57551-01-30 16:33 J	-19299050.02	-19299049.81	-19299049.60	0.0088	0.0053
Moon	-57551-01-30 19:25 J	-19299049.86	-19299049.69	-19299049.47	0.0088	0.0058 *
Moon	-57550-02-02 01:25 J	-19298682.60	-19298682.44	-19298682.24	0.0088	0.0064
Earth	-57550-02-02 05:01 J	-19298682.44	-19298682.29	-19298682.10	0.0088	0.0068 *
Earth	-57549-02-04 17:30 J	-19298314.85	-19298314.77	-19298314.65	0.0088	0.0082
Moon	-57549-02-04 20:52 J	-19298314.67	-19298314.63	-19298314.53	0.0088	0.0086 *
Venus	-57522-09-13 17:16 J	-19288231.84	-19288231.78	-19288231.70	0.0088	0.0084
Venus	-57521-04-26 07:11 J	-19288006.34	-19288006.20	-19288006.03	0.0088	0.0064
Venus	-57521-12-07 21:21 J	-19287780.80	-19287780.61	-19287780.41	0.0088	0.0043
Venus	-57520-07-21 11:16 J	-19287555.24	-19287555.03	-19287554.80	0.0088	0.0024
Venus	-57519-03-04 01:25 J	-19287329.66	-19287329.44	-19287329.21	0.0088	0.0004
Venus	-57519-10-15 15:06 J	-19287104.08	-19287103.87	-19287103.63	0.0088	0.0018
Venus	-57518-05-29 05:16 J	-19286878.48	-19286878.28	-19286878.07	0.0088	0.0037
Venus	-57517-01-09 19:11 J	-19286652.86	-19286652.70	-19286652.52	0.0088	0.0057
Venus	-57517-08-22 09:06 J	-19286427.22	-19286427.12	-19286427.00	0.0088	0.0077
Mars	-57493-05-29 16:04 J	-19277745.97	-19277745.83	-19277745.68	0.0088	0.0078

Mars -57491-04-24 12:13 J -19277051.25 -19277050.99 -19277050.71 0.0088 0.0046
 Mars -57489-03-19 04:47 J -19276356.60 -19276356.30 -19276355.99 0.0089 0.0014
 Mars -57487-02-11 17:16 J -19275662.07 -19275661.78 -19275661.47 0.0089 0.0018
 Mercury -57486-09-10 06:13 J -19275086.24 -19275086.24 -19275086.21 0.0089 0.0088
 Mercury -57486-12-07 07:54 J -19274998.21 -19274998.17 -19274998.11 0.0089 0.0082
 Mars -57485-01-07 03:49 J -19274967.58 -19274967.34 -19274967.07 0.0089 0.0049
 Mercury -57485-03-04 09:21 J -19274910.17 -19274910.11 -19274910.03 0.0089 0.0076
 Mercury -57485-05-31 11:01 J -19274822.12 -19274822.04 -19274821.95 0.0089 0.0070
 Mercury -57485-08-27 12:42 J -19274734.07 -19274733.97 -19274733.88 0.0089 0.0064
 Mercury -57485-11-23 13:54 J -19274646.01 -19274645.92 -19274645.81 0.0089 0.0058
 Mercury -57484-02-19 15:21 J -19274557.96 -19274557.86 -19274557.74 0.0089 0.0053
 Mercury -57484-05-18 16:47 J -19274469.91 -19274469.80 -19274469.67 0.0089 0.0047
 Mercury -57484-08-14 18:28 J -19274381.85 -19274381.73 -19274381.61 0.0089 0.0041
 Mercury -57484-11-10 19:54 J -19274293.79 -19274293.67 -19274293.54 0.0089 0.0035
 Mars -57484-12-01 12:42 J -19274273.09 -19274272.97 -19274272.82 0.0089 0.0079
 Mercury -57483-02-06 21:21 J -19274205.73 -19274205.61 -19274205.47 0.0089 0.0029
 Mercury -57483-05-05 22:47 J -19274117.68 -19274117.55 -19274117.41 0.0089 0.0024
 Mercury -57483-08-02 00:13 J -19274029.62 -19274029.49 -19274029.35 0.0089 0.0018
 Mercury -57483-10-29 01:54 J -19273941.56 -19273941.42 -19273941.29 0.0089 0.0012
 Mercury -57482-01-25 03:21 J -19273853.50 -19273853.36 -19273853.22 0.0089 0.0006
 Mercury -57482-04-23 04:47 J -19273765.44 -19273765.30 -19273765.16 0.0089 0.0000
 Mercury -57482-07-20 06:13 J -19273677.38 -19273677.24 -19273677.10 0.0089 0.0006
 Mercury -57482-10-16 07:40 J -19273589.32 -19273589.18 -19273589.05 0.0089 0.0011
 Mercury -57481-01-12 09:06 J -19273501.25 -19273501.12 -19273500.99 0.0089 0.0017
 Mercury -57481-04-09 10:33 J -19273413.19 -19273413.06 -19273412.93 0.0089 0.0023
 Mercury -57481-07-06 11:45 J -19273325.13 -19273325.01 -19273324.87 0.0089 0.0029
 Mercury -57481-10-02 13:11 J -19273237.07 -19273236.95 -19273236.82 0.0089 0.0035
 Mercury -57481-12-29 14:52 J -19273149.00 -19273148.88 -19273148.76 0.0089 0.0040
 Mercury -57480-03-27 16:04 J -19273060.94 -19273060.83 -19273060.71 0.0089 0.0046
 Mercury -57480-06-23 17:30 J -19272972.87 -19272972.77 -19272972.65 0.0089 0.0051

Mercury -57480-09-19 18:57 J -19272884.81 -19272884.71 -19272884.60 0.0089 0.0057
 Mercury -57480-12-16 20:09 J -19272796.74 -19272796.66 -19272796.55 0.0089 0.0063
 Mercury -57479-03-14 21:35 J -19272708.67 -19272708.60 -19272708.50 0.0089 0.0069
 Mercury -57479-06-10 23:01 J -19272620.60 -19272620.54 -19272620.46 0.0089 0.0074
 Mercury -57479-09-07 00:28 J -19272532.53 -19272532.48 -19272532.41 0.0089 0.0080
 Mercury -57479-12-04 01:54 J -19272444.45 -19272444.42 -19272444.38 0.0089 0.0085
 Moon -57478-07-15 09:35 J -19272221.15 -19272221.10 -19272221.02 0.0089 0.0086
 Earth -57478-07-15 12:13 J -19272221.06 -19272220.99 -19272220.87 0.0089 0.0082 *
 Earth -57477-07-16 23:30 J -19271853.68 -19271853.52 -19271853.35 0.0089 0.0067
 Moon -57477-07-17 02:37 J -19271853.54 -19271853.39 -19271853.18 0.0089 0.0063 *
 Moon -57476-07-19 06:57 J -19271486.40 -19271486.21 -19271486.01 0.0089 0.0057
 Earth -57476-07-19 10:04 J -19271486.27 -19271486.08 -19271485.86 0.0089 0.0053 *
 Earth -57475-07-21 21:06 J -19271118.85 -19271118.62 -19271118.39 0.0089 0.0038
 Moon -57475-07-21 23:59 J -19271118.72 -19271118.50 -19271118.24 0.0089 0.0034 *
 Moon -57474-07-24 05:45 J -19270751.50 -19270751.26 -19270751.03 0.0089 0.0028
 Earth -57474-07-24 07:40 J -19270751.41 -19270751.18 -19270750.92 0.0089 0.0024 *
 Earth -57473-07-25 18:28 J -19270383.98 -19270383.73 -19270383.47 0.0089 0.0009
 Moon -57473-07-25 19:40 J -19270383.94 -19270383.68 -19270383.42 0.0089 0.0005 *
 Earth -57472-07-28 05:16 J -19270016.54 -19270016.28 -19270016.03 0.0089 0.0006
 Moon -57472-07-28 05:01 J -19270016.54 -19270016.29 -19270016.04 0.0089 0.0001 *
 Moon -57471-07-30 13:54 J -19269649.16 -19269648.92 -19269648.65 0.0089 0.0025
 Earth -57471-07-30 15:49 J -19269649.09 -19269648.84 -19269648.59 0.0089 0.0020 *
 Earth -57470-08-02 02:09 J -19269281.63 -19269281.41 -19269281.16 0.0089 0.0035
 Moon -57470-08-02 04:33 J -19269281.53 -19269281.31 -19269281.06 0.0089 0.0031 *
 Moon -57469-08-03 09:35 J -19268914.28 -19268914.10 -19268913.87 0.0089 0.0054
 Earth -57469-08-03 12:57 J -19268914.16 -19268913.96 -19268913.74 0.0089 0.0049 *
 Earth -57468-08-05 23:01 J -19268546.69 -19268546.54 -19268546.34 0.0089 0.0064
 Moon -57468-08-06 02:52 J -19268546.55 -19268546.38 -19268546.18 0.0089 0.0059 *
 Moon -57467-08-08 06:28 J -19268179.29 -19268179.23 -19268179.12 0.0089 0.0083
 Earth -57467-08-08 10:04 J -19268179.19 -19268179.08 -19268178.95 0.0089 0.0078 *

Moon	-57466-08-10 23:45 J	-19267811.53	-19267811.51	-19267811.47	0.0089	0.0088
Venus	-57440-10-27 11:59 J	-19258237.07	-19258237.00	-19258236.92	0.0089	0.0083
Venus	-57439-06-09 23:45 J	-19258011.64	-19258011.51	-19258011.35	0.0089	0.0063
Venus	-57438-01-21 11:45 J	-19257786.18	-19257786.01	-19257785.81	0.0089	0.0044
Venus	-57438-09-03 23:59 J	-19257560.70	-19257560.50	-19257560.29	0.0089	0.0025
Venus	-57437-04-16 11:59 J	-19257335.21	-19257335.00	-19257334.78	0.0089	0.0005
Venus	-57437-11-27 23:59 J	-19257109.71	-19257109.50	-19257109.28	0.0089	0.0014
Venus	-57436-07-11 11:59 J	-19256884.19	-19256884.00	-19256883.79	0.0089	0.0034
Venus	-57435-02-21 23:59 J	-19256658.66	-19256658.50	-19256658.32	0.0089	0.0053
Venus	-57435-10-05 12:13 J	-19256433.11	-19256432.99	-19256432.86	0.0089	0.0073
Mars	-57411-02-02 14:37 J	-19247912.02	-19247911.89	-19247911.70	0.0089	0.0076
Mars	-57410-12-29 08:37 J	-19247217.39	-19247217.14	-19247216.85	0.0089	0.0045
Mars	-57408-11-23 03:21 J	-19246522.66	-19246522.36	-19246522.03	0.0089	0.0014
Mars	-57406-10-19 01:54 J	-19245827.73	-19245827.42	-19245827.11	0.0089	0.0019
Mars	-57404-09-13 03:35 J	-19245132.60	-19245132.35	-19245132.08	0.0089	0.0052
Mercury	-57403-05-27 01:11 J	-19244876.46	-19244876.45	-19244876.40	0.0089	0.0088
Mercury	-57403-08-23 04:33 J	-19244788.37	-19244788.31	-19244788.22	0.0089	0.0080
Mercury	-57403-11-19 07:54 J	-19244700.27	-19244700.17	-19244700.06	0.0089	0.0072
Mercury	-57402-02-15 10:47 J	-19244612.16	-19244612.05	-19244611.91	0.0089	0.0065
Mercury	-57402-05-14 14:09 J	-19244524.04	-19244523.91	-19244523.76	0.0089	0.0057
Mars	-57402-08-09 07:40 J	-19244437.24	-19244437.18	-19244437.06	0.0089	0.0085
Mercury	-57402-08-10 17:45 J	-19244435.92	-19244435.76	-19244435.61	0.0089	0.0049
Mercury	-57402-11-06 20:37 J	-19244347.79	-19244347.64	-19244347.47	0.0089	0.0042
Mercury	-57401-02-02 23:59 J	-19244259.67	-19244259.50	-19244259.32	0.0089	0.0034
Mercury	-57401-05-01 03:21 J	-19244171.54	-19244171.36	-19244171.18	0.0089	0.0026
Mercury	-57401-07-28 06:28 J	-19244083.41	-19244083.23	-19244083.04	0.0089	0.0018
Mercury	-57401-10-24 09:49 J	-19243995.27	-19243995.09	-19243994.90	0.0089	0.0010
Mercury	-57400-01-20 13:11 J	-19243907.14	-19243906.95	-19243906.76	0.0089	0.0002
Mercury	-57400-04-18 16:33 J	-19243819.00	-19243818.81	-19243818.63	0.0089	0.0006
Mercury	-57400-07-15 19:40 J	-19243730.86	-19243730.68	-19243730.49	0.0089	0.0013

Mercury -57400-10-11 22:47 J -19243642.72 -19243642.55 -19243642.36 0.0089 0.0022

Mercury -57399-01-08 02:09 J -19243554.58 -19243554.41 -19243554.22 0.0089 0.0029

Mercury -57399-04-06 05:45 J -19243466.43 -19243466.26 -19243466.09 0.0089 0.0037

Mercury -57399-07-03 08:52 J -19243378.29 -19243378.13 -19243377.96 0.0089 0.0045

Mercury -57399-09-29 12:13 J -19243290.14 -19243289.99 -19243289.83 0.0089 0.0053

Mercury -57399-12-26 15:35 J -19243201.98 -19243201.85 -19243201.71 0.0089 0.0061

Mercury -57398-03-24 18:57 J -19243113.82 -19243113.71 -19243113.59 0.0089 0.0069

Mercury -57398-06-20 22:18 J -19243025.66 -19243025.57 -19243025.47 0.0089 0.0077

Mercury -57398-09-17 01:25 J -19242937.48 -19242937.44 -19242937.37 0.0089 0.0085

Moon -57396-01-08 23:16 J -19242457.57 -19242457.53 -19242457.44 0.0089 0.0086

Earth -57396-01-09 02:52 J -19242457.41 -19242457.38 -19242457.30 0.0089 0.0087

Earth -57395-01-11 15:21 J -19242089.99 -19242089.86 -19242089.69 0.0089 0.0072

Moon -57395-01-11 18:28 J -19242089.87 -19242089.73 -19242089.56 0.0089 0.0072 *

Moon -57394-01-14 01:11 J -19241722.62 -19241722.45 -19241722.24 0.0089 0.0057

Earth -57394-01-14 03:21 J -19241722.53 -19241722.36 -19241722.13 0.0089 0.0058 *

Earth -57393-01-16 16:04 J -19241355.05 -19241354.83 -19241354.59 0.0088 0.0043

Moon -57393-01-16 17:30 J -19241354.99 -19241354.77 -19241354.52 0.0088 0.0044 *

Earth -57392-01-18 04:33 J -19240987.55 -19240987.31 -19240987.05 0.0088 0.0028

Moon -57392-01-18 04:47 J -19240987.53 -19240987.30 -19240987.05 0.0088 0.0027 *

Moon -57391-01-20 16:18 J -19240620.08 -19240619.82 -19240619.55 0.0088 0.0014

Earth -57391-01-20 17:16 J -19240620.03 -19240619.78 -19240619.52 0.0088 0.0013 *

Earth -57390-01-23 05:59 J -19240252.51 -19240252.25 -19240251.99 0.0088 0.0002

Moon -57390-01-23 08:09 J -19240252.42 -19240252.16 -19240251.91 0.0088 0.0004 *

Moon -57389-01-25 15:06 J -19239885.12 -19239884.87 -19239884.60 0.0088 0.0017

Earth -57389-01-25 18:28 J -19239884.98 -19239884.73 -19239884.47 0.0088 0.0017 *

Earth -57388-01-27 06:42 J -19239517.44 -19239517.22 -19239516.95 0.0088 0.0033

Moon -57388-01-27 10:33 J -19239517.30 -19239517.06 -19239516.82 0.0088 0.0034 *

Moon -57387-01-29 15:49 J -19239150.05 -19239149.84 -19239149.60 0.0088 0.0045

Earth -57387-01-29 19:25 J -19239149.88 -19239149.69 -19239149.44 0.0088 0.0048 *

Earth -57386-02-01 08:23 J -19238782.33 -19238782.15 -19238781.96 0.0088 0.0062

Moon -57386-02-01 11:16 J -19238782.20 -19238782.03 -19238781.83 0.0088 0.0064 *
 Moon -57385-02-03 18:13 J -19238414.85 -19238414.74 -19238414.58 0.0088 0.0075
 Earth -57385-02-03 20:52 J -19238414.74 -19238414.63 -19238414.48 0.0088 0.0077 *
 Venus -57357-07-28 12:42 J -19228012.06 -19228011.97 -19228011.83 0.0088 0.0076
 Venus -57356-03-11 02:52 J -19227786.54 -19227786.38 -19227786.18 0.0088 0.0055
 Venus -57356-10-22 17:01 J -19227560.99 -19227560.79 -19227560.57 0.0088 0.0035
 Venus -57355-06-05 06:57 J -19227335.42 -19227335.21 -19227334.98 0.0088 0.0016
 Venus -57354-01-16 21:06 J -19227109.84 -19227109.62 -19227109.39 0.0088 0.0005
 Venus -57354-08-30 10:47 J -19226884.25 -19226884.05 -19226883.82 0.0088 0.0025
 Venus -57353-04-12 00:28 J -19226658.65 -19226658.48 -19226658.26 0.0088 0.0045
 Venus -57353-11-23 14:37 J -19226433.03 -19226432.89 -19226432.73 0.0088 0.0065
 Venus -57352-07-07 04:18 J -19226207.36 -19226207.32 -19226207.24 0.0088 0.0085
 Mars -57328-12-06 15:21 J -19217289.07 -19217288.86 -19217288.59 0.0088 0.0058
 Mars -57326-11-01 11:01 J -19216594.33 -19216594.04 -19216593.73 0.0088 0.0026
 Mars -57324-09-26 03:21 J -19215899.67 -19215899.36 -19215899.05 0.0089 0.0006
 Mars -57322-08-21 15:21 J -19215205.13 -19215204.86 -19215204.56 0.0089 0.0037
 Mercury -57321-06-06 05:01 J -19214915.30 -19214915.29 -19214915.27 0.0089 0.0088
 Mercury -57321-09-02 06:42 J -19214827.27 -19214827.22 -19214827.17 0.0089 0.0082
 Mercury -57321-11-29 07:54 J -19214739.23 -19214739.17 -19214739.09 0.0089 0.0076
 Mercury -57320-02-25 09:21 J -19214651.18 -19214651.11 -19214651.01 0.0089 0.0071
 Mercury -57320-05-24 11:01 J -19214563.13 -19214563.04 -19214562.94 0.0089 0.0065
 Mars -57320-07-16 01:11 J -19214510.63 -19214510.45 -19214510.23 0.0089 0.0067
 Mercury -57320-08-20 12:28 J -19214475.07 -19214474.98 -19214474.87 0.0089 0.0059
 Mercury -57320-11-16 14:09 J -19214387.02 -19214386.91 -19214386.80 0.0089 0.0053
 Mercury -57319-02-12 15:35 J -19214298.96 -19214298.85 -19214298.73 0.0089 0.0047
 Mercury -57319-05-11 16:47 J -19214210.91 -19214210.80 -19214210.66 0.0089 0.0042
 Mercury -57319-08-07 18:28 J -19214122.85 -19214122.73 -19214122.60 0.0089 0.0035
 Mercury -57319-11-03 19:54 J -19214034.79 -19214034.67 -19214034.53 0.0089 0.0030
 Mercury -57318-01-30 21:35 J -19213946.73 -19213946.60 -19213946.47 0.0089 0.0024
 Mercury -57318-04-28 23:01 J -19213858.67 -19213858.54 -19213858.41 0.0089 0.0018

Mercury -57318-07-26 00:28 J -19213770.62 -19213770.48 -19213770.34 0.0089 0.0012

Mercury -57318-10-22 01:54 J -19213682.56 -19213682.42 -19213682.28 0.0089 0.0006

Mercury -57317-01-18 03:21 J -19213594.50 -19213594.36 -19213594.22 0.0089 0.0001

Mercury -57317-04-15 04:47 J -19213506.43 -19213506.30 -19213506.16 0.0089 0.0005

Mercury -57317-07-12 06:13 J -19213418.37 -19213418.24 -19213418.10 0.0089 0.0011

Mercury -57317-10-08 07:40 J -19213330.31 -19213330.18 -19213330.04 0.0089 0.0017

Mercury -57316-01-04 09:06 J -19213242.25 -19213242.12 -19213241.99 0.0089 0.0022

Mercury -57316-04-02 10:18 J -19213154.19 -19213154.07 -19213153.93 0.0089 0.0029

Mercury -57316-06-29 11:59 J -19213066.12 -19213066.00 -19213065.87 0.0089 0.0034

Mercury -57316-09-25 13:11 J -19212978.06 -19212977.95 -19212977.82 0.0089 0.0040

Mercury -57316-12-22 14:37 J -19212890.00 -19212889.89 -19212889.76 0.0089 0.0046

Mercury -57315-03-20 16:18 J -19212801.93 -19212801.82 -19212801.71 0.0089 0.0051

Mercury -57315-06-16 17:30 J -19212713.87 -19212713.77 -19212713.66 0.0089 0.0057

Mercury -57315-09-12 18:42 J -19212625.80 -19212625.72 -19212625.61 0.0089 0.0063

Mercury -57315-12-09 20:23 J -19212537.73 -19212537.65 -19212537.56 0.0089 0.0068

Mercury -57314-03-07 21:35 J -19212449.66 -19212449.60 -19212449.51 0.0089 0.0074

Mercury -57314-06-03 23:16 J -19212361.59 -19212361.53 -19212361.47 0.0089 0.0079

Mercury -57314-08-31 00:28 J -19212273.51 -19212273.48 -19212273.43 0.0089 0.0085

Moon -57313-07-15 23:16 J -19211953.65 -19211953.53 -19211953.38 0.0089 0.0075

Earth -57313-07-16 03:06 J -19211953.50 -19211953.37 -19211953.23 0.0089 0.0075 *

Earth -57312-07-18 13:40 J -19211586.10 -19211585.93 -19211585.72 0.0089 0.0061

Moon -57312-07-18 16:33 J -19211585.99 -19211585.81 -19211585.61 0.0089 0.0061 *

Moon -57311-07-20 22:47 J -19211218.75 -19211218.55 -19211218.32 0.0089 0.0046

Earth -57311-07-21 00:42 J -19211218.67 -19211218.47 -19211218.23 0.0089 0.0046 *

Earth -57310-07-23 11:45 J -19210851.24 -19210851.01 -19210850.76 0.0089 0.0031

Moon -57310-07-23 12:28 J -19210851.21 -19210850.98 -19210850.72 0.0089 0.0031 *

Earth -57309-07-24 22:33 J -19210483.81 -19210483.56 -19210483.30 0.0089 0.0016

Moon -57309-07-24 23:16 J -19210483.76 -19210483.53 -19210483.27 0.0089 0.0016 *

Moon -57308-07-27 07:40 J -19210116.45 -19210116.18 -19210115.92 0.0089 0.0001

Earth -57308-07-27 09:21 J -19210116.37 -19210116.11 -19210115.86 0.0089 0.0001 *

Earth	-57307-07-29 19:40 J	-19209748.92	-19209748.68	-19209748.42	0.0089	0.0014
Moon	-57307-07-29 22:33 J	-19209748.80	-19209748.56	-19209748.31	0.0089	0.0014 *
Moon	-57306-08-01 02:52 J	-19209381.61	-19209381.38	-19209381.12	0.0089	0.0028
Earth	-57306-08-01 06:28 J	-19209381.46	-19209381.23	-19209380.98	0.0089	0.0029 *
Earth	-57305-08-02 17:01 J	-19209014.00	-19209013.79	-19209013.56	0.0089	0.0043
Moon	-57305-08-02 20:09 J	-19209013.86	-19209013.66	-19209013.41	0.0089	0.0043 *
Saturn	-57305-08-11 11:30 J	-19209005.50	-19209005.02	-19209004.43	0.0089	0.0050
Moon	-57304-08-05 00:13 J	-19208646.67	-19208646.49	-19208646.29	0.0089	0.0058
Earth	-57304-08-05 03:35 J	-19208646.53	-19208646.35	-19208646.14	0.0089	0.0058 *
Earth	-57303-08-07 13:54 J	-19208279.04	-19208278.92	-19208278.75	0.0089	0.0073
Moon	-57303-08-07 16:47 J	-19208278.94	-19208278.80	-19208278.65	0.0089	0.0072 *
Moon	-57302-08-09 23:16 J	-19207911.55	-19207911.53	-19207911.49	0.0089	0.0088
Earth	-57302-08-10 00:57 J	-19207911.49	-19207911.46	-19207911.40	0.0089	0.0087 *
Venus	-57275-09-11 08:23 J	-19198017.25	-19198017.15	-19198017.02	0.0089	0.0074
Venus	-57274-04-24 20:23 J	-19197791.80	-19197791.65	-19197791.47	0.0089	0.0055
Venus	-57274-12-06 08:52 J	-19197566.33	-19197566.13	-19197565.94	0.0089	0.0036
Venus	-57273-07-18 20:52 J	-19197340.84	-19197340.63	-19197340.42	0.0089	0.0016
Venus	-57272-03-01 08:52 J	-19197115.34	-19197115.13	-19197114.91	0.0089	0.0004
Venus	-57272-10-12 20:37 J	-19196889.83	-19196889.64	-19196889.42	0.0089	0.0023
Venus	-57271-05-26 08:37 J	-19196664.31	-19196664.14	-19196663.94	0.0089	0.0042
Venus	-57270-01-06 20:52 J	-19196438.78	-19196438.63	-19196438.47	0.0089	0.0061
Venus	-57270-08-20 08:37 J	-19196213.20	-19196213.14	-19196213.03	0.0089	0.0081
Mars	-57248-09-17 04:04 J	-19188149.41	-19188149.33	-19188149.24	0.0089	0.0085
Mars	-57246-08-12 17:45 J	-19187454.99	-19187454.76	-19187454.51	0.0089	0.0055
Mars	-57244-07-07 11:30 J	-19186760.31	-19186760.02	-19186759.70	0.0089	0.0025
Mars	-57242-06-02 07:11 J	-19186065.51	-19186065.20	-19186064.88	0.0089	0.0007
Mars	-57240-04-27 05:16 J	-19185370.56	-19185370.28	-19185369.98	0.0089	0.0039
Mercury	-57238-02-20 22:47 J	-19184705.58	-19184705.55	-19184705.52	0.0089	0.0087
Mars	-57238-03-23 06:57 J	-19184675.36	-19184675.21	-19184674.98	0.0089	0.0072
Mercury	-57238-05-20 01:40 J	-19184617.49	-19184617.43	-19184617.34	0.0089	0.0080

Mercury -57238-08-16 05:01 J -19184529.39 -19184529.29 -19184529.18 0.0089 0.0072
 Mercury -57238-11-12 07:54 J -19184441.28 -19184441.17 -19184441.02 0.0089 0.0065
 Mercury -57237-02-08 11:16 J -19184353.16 -19184353.03 -19184352.88 0.0089 0.0057
 Mercury -57237-05-06 14:37 J -19184265.04 -19184264.89 -19184264.73 0.0089 0.0049
 Mercury -57237-08-02 17:45 J -19184176.91 -19184176.76 -19184176.59 0.0089 0.0041
 Mercury -57237-10-29 21:06 J -19184088.79 -19184088.62 -19184088.44 0.0089 0.0033
 Mercury -57236-01-26 00:13 J -19184000.66 -19184000.49 -19184000.30 0.0089 0.0026
 Mercury -57236-04-24 03:35 J -19183912.53 -19183912.35 -19183912.16 0.0089 0.0018
 Mercury -57236-07-21 06:57 J -19183824.39 -19183824.21 -19183824.02 0.0089 0.0010
 Mercury -57236-10-17 10:18 J -19183736.26 -19183736.07 -19183735.89 0.0089 0.0002
 Mercury -57235-01-13 13:25 J -19183648.12 -19183647.94 -19183647.75 0.0089 0.0006
 Mercury -57235-04-11 16:47 J -19183559.98 -19183559.80 -19183559.61 0.0089 0.0014
 Mercury -57235-07-08 19:54 J -19183471.84 -19183471.67 -19183471.48 0.0089 0.0022
 Mercury -57235-10-04 23:16 J -19183383.70 -19183383.53 -19183383.35 0.0089 0.0030
 Mercury -57234-01-01 02:23 J -19183295.55 -19183295.40 -19183295.21 0.0089 0.0038
 Mercury -57234-03-30 05:45 J -19183207.41 -19183207.26 -19183207.08 0.0089 0.0046
 Mercury -57234-06-26 09:06 J -19183119.26 -19183119.12 -19183118.96 0.0089 0.0054
 Mercury -57234-09-22 12:28 J -19183031.10 -19183030.98 -19183030.83 0.0089 0.0061
 Mercury -57234-12-19 15:35 J -19182942.94 -19182942.85 -19182942.71 0.0089 0.0070
 Mercury -57233-03-16 18:57 J -19182854.78 -19182854.71 -19182854.60 0.0089 0.0078
 Mercury -57233-06-12 22:18 J -19182766.59 -19182766.57 -19182766.50 0.0089 0.0086
 Moon -57231-01-10 17:30 J -19182189.81 -19182189.77 -19182189.66 0.0089 0.0085
 Earth -57231-01-10 19:11 J -19182189.78 -19182189.70 -19182189.56 0.0089 0.0080 *
 Earth -57230-01-13 07:54 J -19181822.34 -19181822.17 -19181821.98 0.0089 0.0065
 Moon -57230-01-13 08:09 J -19181822.33 -19181822.16 -19181821.94 0.0089 0.0061 *
 Earth -57229-01-15 20:09 J -19181454.87 -19181454.66 -19181454.44 0.0088 0.0050
 Moon -57229-01-15 20:09 J -19181454.84 -19181454.66 -19181454.44 0.0088 0.0055 *
 Moon -57228-01-17 06:13 J -19181087.47 -19181087.24 -19181086.97 0.0088 0.0031
 Earth -57228-01-17 08:37 J -19181087.37 -19181087.14 -19181086.90 0.0088 0.0035 *
 Earth -57227-01-19 21:06 J -19180719.87 -19180719.62 -19180719.36 0.0088 0.0020

Moon	-57227-01-19 23:30 J	-19180719.75	-19180719.52	-19180719.26	0.0088	0.0024	*
Moon	-57226-01-22 06:13 J	-19180352.50	-19180352.24	-19180351.97	0.0088	0.0002	
Earth	-57226-01-22 09:35 J	-19180352.36	-19180352.10	-19180351.84	0.0088	0.0005	*
Earth	-57225-01-24 22:04 J	-19179984.83	-19179984.58	-19179984.31	0.0088	0.0011	
Moon	-57225-01-25 01:54 J	-19179984.68	-19179984.42	-19179984.16	0.0088	0.0006	*
Moon	-57224-01-26 07:25 J	-19179617.42	-19179617.19	-19179616.93	0.0088	0.0030	
Earth	-57224-01-26 10:47 J	-19179617.29	-19179617.05	-19179616.79	0.0088	0.0026	*
Earth	-57223-01-28 23:30 J	-19179249.75	-19179249.52	-19179249.29	0.0088	0.0041	
Moon	-57223-01-29 02:37 J	-19179249.62	-19179249.39	-19179249.14	0.0088	0.0037	*
Moon	-57222-01-31 10:04 J	-19178882.24	-19178882.08	-19178881.88	0.0088	0.0061	
Earth	-57222-01-31 12:13 J	-19178882.19	-19178881.99	-19178881.78	0.0088	0.0056	*
Earth	-57221-02-03 00:13 J	-19178514.61	-19178514.49	-19178514.30	0.0088	0.0072	
Moon	-57221-02-03 01:54 J	-19178514.60	-19178514.42	-19178514.24	0.0088	0.0067	*
Earth	-57220-02-04 13:25 J	-19178146.99	-19178146.94	-19178146.87	0.0088	0.0086	
Jupiter	-57199-08-31 23:30 J	-19170268.71	-19170268.52	-19170268.21	0.0088	0.0079	
Venus	-57193-10-29 18:57 J	-19168017.74	-19168017.71	-19168017.65	0.0088	0.0086	
Venus	-57192-06-12 08:52 J	-19167792.26	-19167792.13	-19167791.97	0.0088	0.0067	
Venus	-57191-01-23 23:16 J	-19167566.72	-19167566.53	-19167566.34	0.0088	0.0046	
Venus	-57191-09-06 13:11 J	-19167341.16	-19167340.95	-19167340.73	0.0088	0.0027	
Venus	-57190-04-20 03:06 J	-19167115.60	-19167115.37	-19167115.14	0.0088	0.0007	
Venus	-57190-12-01 16:47 J	-19166890.02	-19166889.80	-19166889.57	0.0088	0.0014	
Venus	-57189-07-14 06:42 J	-19166664.42	-19166664.22	-19166664.00	0.0088	0.0033	
Venus	-57188-02-24 20:37 J	-19166438.81	-19166438.64	-19166438.45	0.0088	0.0053	
Venus	-57188-10-08 10:18 J	-19166213.17	-19166213.07	-19166212.92	0.0088	0.0073	
Mars	-57164-07-20 17:30 J	-19157526.95	-19157526.77	-19157526.55	0.0088	0.0069	
Mars	-57162-06-15 14:52 J	-19156832.16	-19156831.88	-19156831.59	0.0088	0.0037	
Mars	-57160-05-10 09:35 J	-19156137.41	-19156137.10	-19156136.79	0.0088	0.0006	
Mars	-57158-04-05 02:09 J	-19155442.71	-19155442.41	-19155442.11	0.0089	0.0025	
Mars	-57156-02-27 14:09 J	-19154748.15	-19154747.91	-19154747.66	0.0089	0.0055	
Mercury	-57156-03-03 03:35 J	-19154744.35	-19154744.35	-19154744.33	0.0089	0.0088	

Mercury -57156-05-30 05:01 J -19154656.33 -19154656.29 -19154656.23 0.0089 0.0083
 Mercury -57156-08-26 06:28 J -19154568.28 -19154568.23 -19154568.15 0.0089 0.0077
 Mercury -57156-11-22 08:09 J -19154480.24 -19154480.16 -19154480.07 0.0089 0.0071
 Mercury -57155-02-18 09:35 J -19154392.18 -19154392.10 -19154392.00 0.0089 0.0065
 Mercury -57155-05-17 11:16 J -19154304.13 -19154304.03 -19154303.93 0.0089 0.0059
 Mercury -57155-08-13 12:42 J -19154216.08 -19154215.97 -19154215.86 0.0089 0.0053
 Mercury -57155-11-09 13:54 J -19154128.02 -19154127.92 -19154127.79 0.0089 0.0048
 Mars -57154-01-22 22:33 J -19154053.61 -19154053.56 -19154053.42 0.0089 0.0085
 Mercury -57154-02-05 15:35 J -19154039.96 -19154039.85 -19154039.72 0.0089 0.0041
 Mercury -57154-05-04 17:01 J -19153951.91 -19153951.79 -19153951.65 0.0089 0.0036
 Mercury -57154-07-31 18:42 J -19153863.85 -19153863.72 -19153863.59 0.0089 0.0030
 Mercury -57154-10-27 20:09 J -19153775.79 -19153775.66 -19153775.53 0.0089 0.0024
 Mercury -57153-01-23 21:35 J -19153687.73 -19153687.60 -19153687.46 0.0089 0.0018
 Mercury -57153-04-20 23:01 J -19153599.67 -19153599.54 -19153599.40 0.0089 0.0012
 Mercury -57153-07-18 00:28 J -19153511.61 -19153511.48 -19153511.34 0.0089 0.0007
 Mercury -57153-10-14 02:09 J -19153423.55 -19153423.41 -19153423.28 0.0089 0.0003
 Mercury -57152-01-10 03:35 J -19153335.49 -19153335.35 -19153335.22 0.0089 0.0006
 Mercury -57152-04-08 04:47 J -19153247.43 -19153247.30 -19153247.16 0.0089 0.0011
 Mercury -57152-07-05 06:13 J -19153159.37 -19153159.24 -19153159.10 0.0089 0.0017
 Mercury -57152-10-01 07:40 J -19153071.31 -19153071.18 -19153071.04 0.0089 0.0023
 Mercury -57152-12-28 09:06 J -19152983.24 -19152983.12 -19152982.99 0.0089 0.0028
 Mercury -57151-03-26 10:33 J -19152895.18 -19152895.06 -19152894.93 0.0089 0.0034
 Mercury -57151-06-22 11:59 J -19152807.12 -19152807.00 -19152806.87 0.0089 0.0040
 Mercury -57151-09-18 13:11 J -19152719.05 -19152718.95 -19152718.82 0.0089 0.0046
 Mercury -57151-12-15 14:52 J -19152630.99 -19152630.88 -19152630.77 0.0089 0.0051
 Mercury -57150-03-13 16:04 J -19152542.92 -19152542.83 -19152542.71 0.0089 0.0057
 Mercury -57150-06-09 17:45 J -19152454.86 -19152454.76 -19152454.66 0.0089 0.0062
 Mercury -57150-09-05 18:57 J -19152366.79 -19152366.71 -19152366.62 0.0089 0.0068
 Mercury -57150-12-02 20:23 J -19152278.72 -19152278.65 -19152278.57 0.0089 0.0074
 Mercury -57149-02-28 21:49 J -19152190.64 -19152190.59 -19152190.52 0.0089 0.0079

Mercury -57149-05-26 23:01 J -19152102.56 -19152102.54 -19152102.49 0.0089 0.0085
 Earth -57149-07-15 05:59 J -19152053.30 -19152053.25 -19152053.13 0.0089 0.0084
 Moon -57149-07-15 09:06 J -19152053.14 -19152053.12 -19152053.07 0.0089 0.0088 *
 Moon -57148-07-17 16:04 J -19151685.97 -19151685.83 -19151685.63 0.0089 0.0065
 Earth -57148-07-17 17:16 J -19151685.92 -19151685.78 -19151685.60 0.0089 0.0069 *
 Earth -57147-07-20 04:18 J -19151318.50 -19151318.32 -19151318.09 0.0089 0.0054
 Moon -57147-07-20 04:18 J -19151318.50 -19151318.32 -19151318.09 0.0089 0.0058 *
 Earth -57146-07-22 15:35 J -19150951.07 -19150950.85 -19150950.61 0.0089 0.0039
 Moon -57146-07-22 16:47 J -19150951.03 -19150950.80 -19150950.57 0.0089 0.0034 *
 Moon -57145-07-23 23:45 J -19150583.75 -19150583.51 -19150583.25 0.0089 0.0028
 Earth -57145-07-24 02:23 J -19150583.64 -19150583.40 -19150583.14 0.0089 0.0024 *
 Earth -57144-07-26 13:11 J -19150216.20 -19150215.95 -19150215.69 0.0089 0.0009
 Moon -57144-07-26 16:18 J -19150216.07 -19150215.82 -19150215.57 0.0089 0.0004 *
 Moon -57143-07-28 20:37 J -19149848.90 -19149848.64 -19149848.39 0.0089 0.0002
 Earth -57143-07-28 23:59 J -19149848.75 -19149848.50 -19149848.24 0.0089 0.0007 *
 Earth -57142-07-31 10:18 J -19149481.30 -19149481.07 -19149480.81 0.0089 0.0022
 Moon -57142-07-31 13:54 J -19149481.15 -19149480.92 -19149480.66 0.0089 0.0027 *
 Moon -57141-08-01 17:59 J -19149113.96 -19149113.75 -19149113.50 0.0089 0.0033
 Earth -57141-08-01 21:06 J -19149113.84 -19149113.62 -19149113.38 0.0089 0.0037 *
 Earth -57140-08-04 07:25 J -19148746.38 -19148746.19 -19148745.97 0.0089 0.0052
 Moon -57140-08-04 10:04 J -19148746.27 -19148746.08 -19148745.87 0.0089 0.0056 *
 Moon -57139-08-06 17:45 J -19148378.93 -19148378.76 -19148378.58 0.0089 0.0062
 Earth -57139-08-06 17:59 J -19148378.90 -19148378.75 -19148378.56 0.0089 0.0067 *
 Earth -57138-08-09 04:18 J -19148011.39 -19148011.32 -19148011.19 0.0089 0.0082
 Moon -57138-08-09 04:33 J -19148011.37 -19148011.31 -19148011.23 0.0089 0.0085 *
 Venus -57111-12-13 17:01 J -19138022.84 -19138022.79 -19138022.72 0.0089 0.0085
 Venus -57110-07-27 05:01 J -19137797.41 -19137797.29 -19137797.13 0.0089 0.0066
 Venus -57109-03-08 17:01 J -19137571.95 -19137571.79 -19137571.59 0.0089 0.0047
 Venus -57109-10-20 05:30 J -19137346.47 -19137346.27 -19137346.07 0.0089 0.0027
 Venus -57108-06-02 17:30 J -19137120.98 -19137120.77 -19137120.56 0.0089 0.0008

Venus -57107-01-14 05:30 J -19136895.48 -19136895.27 -19136895.05 0.0089 0.0011
 Venus -57107-08-27 17:30 J -19136669.96 -19136669.77 -19136669.56 0.0089 0.0031
 Venus -57106-04-10 05:30 J -19136444.44 -19136444.27 -19136444.08 0.0089 0.0050
 Venus -57106-11-21 17:45 J -19136218.89 -19136218.76 -19136218.63 0.0089 0.0070
 Venus -57105-07-04 05:45 J -19135993.26 -19135993.26 -19135993.24 0.0089 0.0089
 Mars -57082-03-27 06:13 J -19127692.43 -19127692.24 -19127692.01 0.0089 0.0065
 Mars -57080-02-18 20:23 J -19126997.92 -19126997.65 -19126997.35 0.0089 0.0035
 Mars -57078-01-14 15:21 J -19126303.17 -19126302.86 -19126302.55 0.0089 0.0004
 Mars -57077-12-09 11:30 J -19125608.30 -19125608.02 -19125607.70 0.0089 0.0027
 Mars -57075-11-04 09:49 J -19124913.30 -19124913.09 -19124912.82 0.0089 0.0059
 Mercury -57074-11-17 19:40 J -19124534.69 -19124534.68 -19124534.62 0.0089 0.0087
 Mercury -57073-02-13 23:16 J -19124446.61 -19124446.53 -19124446.45 0.0089 0.0079
 Mercury -57073-05-12 02:09 J -19124358.50 -19124358.41 -19124358.29 0.0089 0.0072
 Mercury -57073-08-08 05:30 J -19124270.39 -19124270.27 -19124270.14 0.0089 0.0064
 Mercury -57073-11-04 08:52 J -19124182.27 -19124182.13 -19124181.99 0.0089 0.0056
 Mercury -57072-01-31 11:45 J -19124094.15 -19124094.01 -19124093.84 0.0089 0.0049
 Mercury -57072-04-29 15:06 J -19124006.03 -19124005.87 -19124005.70 0.0089 0.0041
 Mercury -57072-07-26 18:28 J -19123917.90 -19123917.73 -19123917.56 0.0089 0.0033
 Mercury -57072-10-22 21:21 J -19123829.77 -19123829.61 -19123829.42 0.0089 0.0026
 Mercury -57071-01-19 00:42 J -19123741.64 -19123741.47 -19123741.28 0.0089 0.0018
 Mercury -57071-04-17 04:04 J -19123653.51 -19123653.33 -19123653.14 0.0089 0.0010
 Mercury -57071-07-14 07:25 J -19123565.38 -19123565.19 -19123565.00 0.0089 0.0002
 Mercury -57071-10-10 10:33 J -19123477.24 -19123477.06 -19123476.87 0.0089 0.0007
 Mercury -57070-01-06 13:54 J -19123389.10 -19123388.92 -19123388.73 0.0089 0.0014
 Mercury -57070-04-04 17:16 J -19123300.96 -19123300.78 -19123300.60 0.0089 0.0022
 Mercury -57070-07-01 20:23 J -19123212.82 -19123212.65 -19123212.47 0.0089 0.0030
 Mercury -57070-09-27 23:45 J -19123124.67 -19123124.51 -19123124.33 0.0089 0.0038
 Mercury -57070-12-25 03:06 J -19123036.53 -19123036.37 -19123036.20 0.0089 0.0046
 Mercury -57069-03-22 06:13 J -19122948.38 -19122948.24 -19122948.08 0.0089 0.0054
 Mercury -57069-06-18 09:35 J -19122860.22 -19122860.10 -19122859.95 0.0089 0.0062

Mercury -57069-09-14 12:57 J -19122772.06 -19122771.96 -19122771.83 0.0089 0.0070

Mercury -57069-12-11 16:18 J -19122683.90 -19122683.82 -19122683.72 0.0089 0.0078

Mercury -57068-03-09 19:40 J -19122595.71 -19122595.68 -19122595.62 0.0089 0.0086

Earth -57067-01-09 23:30 J -19122289.53 -19122289.52 -19122289.46 0.0089 0.0088

Moon -57067-01-09 23:59 J -19122289.52 -19122289.50 -19122289.46 0.0089 0.0088 *

Earth -57066-01-12 11:30 J -19121922.14 -19121922.02 -19121921.84 0.0089 0.0073

Moon -57066-01-12 13:11 J -19121922.08 -19121921.95 -19121921.79 0.0089 0.0072 *

Moon -57065-01-14 22:04 J -19121554.77 -19121554.58 -19121554.36 0.0089 0.0058

Earth -57065-01-14 23:59 J -19121554.67 -19121554.50 -19121554.28 0.0089 0.0058 *

Earth -57064-01-16 12:13 J -19121187.20 -19121186.99 -19121186.74 0.0088 0.0043

Moon -57064-01-16 15:49 J -19121187.06 -19121186.84 -19121186.61 0.0088 0.0042 *

Moon -57063-01-18 21:21 J -19120819.85 -19120819.61 -19120819.36 0.0088 0.0028

Earth -57063-01-19 00:57 J -19120819.70 -19120819.46 -19120819.21 0.0088 0.0027 *

Earth -57062-01-21 13:11 J -19120452.20 -19120451.95 -19120451.68 0.0088 0.0012

Moon -57062-01-21 16:47 J -19120452.05 -19120451.80 -19120451.53 0.0088 0.0013 *

Moon -57061-01-23 22:33 J -19120084.81 -19120084.56 -19120084.30 0.0088 0.0004

Earth -57061-01-24 01:54 J -19120084.68 -19120084.42 -19120084.16 0.0088 0.0004 *

Earth -57060-01-25 14:09 J -19119717.15 -19119716.91 -19119716.65 0.0088 0.0019

Moon -57060-01-25 16:33 J -19119717.07 -19119716.81 -19119716.54 0.0088 0.0019 *

Moon -57059-01-28 01:11 J -19119349.67 -19119349.45 -19119349.21 0.0088 0.0036

Earth -57059-01-28 02:52 J -19119349.61 -19119349.38 -19119349.13 0.0088 0.0034 *

Earth -57058-01-30 15:35 J -19118982.06 -19118981.85 -19118981.63 0.0088 0.0050

Moon -57058-01-30 15:21 J -19118982.06 -19118981.86 -19118981.61 0.0088 0.0049 *

Earth -57057-02-02 03:49 J -19118614.49 -19118614.34 -19118614.14 0.0088 0.0065

Moon -57057-02-02 05:16 J -19118614.43 -19118614.28 -19118614.10 0.0088 0.0066 *

Moon -57056-02-03 15:21 J -19118246.98 -19118246.86 -19118246.74 0.0088 0.0079

Earth -57056-02-03 16:33 J -19118246.89 -19118246.81 -19118246.67 0.0088 0.0081 *

Jupiter -57033-11-05 00:28 J -19109571.83 -19109571.48 -19109571.06 0.0088 0.0063

Venus -57028-09-13 15:21 J -19107797.96 -19107797.86 -19107797.75 0.0088 0.0078

Venus -57027-04-27 04:47 J -19107572.45 -19107572.30 -19107572.11 0.0088 0.0058

Venus	-57027-12-08 18:57 J	-19107346.90	-19107346.71	-19107346.50	0.0088	0.0038
Venus	-57026-07-22 08:52 J	-19107121.34	-19107121.13	-19107120.90	0.0088	0.0019
Venus	-57025-03-03 23:01 J	-19106895.76	-19106895.54	-19106895.31	0.0088	0.0002
Venus	-57025-10-15 12:57 J	-19106670.18	-19106669.96	-19106669.74	0.0088	0.0022
Venus	-57024-05-29 02:37 J	-19106444.58	-19106444.39	-19106444.18	0.0088	0.0041
Venus	-57023-01-09 16:18 J	-19106218.96	-19106218.82	-19106218.64	0.0088	0.0062
Venus	-57023-08-23 05:59 J	-19105993.31	-19105993.25	-19105993.14	0.0088	0.0082

57TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 57th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-57000-03-03 17:01 J	-19097764.90	-19097764.79	-19097764.62	0.0088	0.0080		
Mars	-56998-01-27 17:16 J	-19097070.02	-19097069.78	-19097069.49	0.0088	0.0049		
Mars	-56997-12-22 14:09 J	-19096375.20	-19096374.91	-19096374.59	0.0088	0.0018		
Mars	-56995-11-17 07:40 J	-19095680.48	-19095680.18	-19095679.86	0.0089	0.0014		
Mars	-56993-10-11 23:16 J	-19094985.78	-19094985.53	-19094985.24	0.0089	0.0044		
Mercury	-56991-02-24 03:35 J	-19094485.39	-19094485.35	-19094485.29	0.0089	0.0083		
Mercury	-56991-05-23 05:16 J	-19094397.34	-19094397.28	-19094397.21	0.0089	0.0077		
Mercury	-56991-08-19 06:42 J	-19094309.29	-19094309.22	-19094309.13	0.0089	0.0071		
Mars	-56991-09-06 11:16 J	-19094291.18	-19094291.03	-19094290.83	0.0089	0.0073		
Mercury	-56991-11-15 08:23 J	-19094221.24	-19094221.15	-19094221.06	0.0089	0.0065		
Mercury	-56990-02-11 09:35 J	-19094133.19	-19094133.10	-19094132.99	0.0089	0.0060		

Mercury -56990-05-10 11:01 J -19094045.14 -19094045.04 -19094044.92 0.0089 0.0054

Mercury -56990-08-06 12:42 J -19093957.08 -19093956.97 -19093956.85 0.0089 0.0048

Mercury -56990-11-02 14:09 J -19093869.02 -19093868.91 -19093868.78 0.0089 0.0042

Mercury -56989-01-29 15:49 J -19093780.97 -19093780.84 -19093780.71 0.0089 0.0036

Mercury -56989-04-26 17:16 J -19093692.91 -19093692.78 -19093692.65 0.0089 0.0030

Mercury -56989-07-23 18:42 J -19093604.85 -19093604.72 -19093604.58 0.0089 0.0024

Mercury -56989-10-19 20:09 J -19093516.79 -19093516.66 -19093516.52 0.0089 0.0018

Mercury -56988-01-15 21:35 J -19093428.73 -19093428.60 -19093428.46 0.0089 0.0013

Mercury -56988-04-13 23:16 J -19093340.67 -19093340.53 -19093340.40 0.0089 0.0007

Mercury -56988-07-11 00:42 J -19093252.61 -19093252.47 -19093252.34 0.0089 0.0002

Mercury -56988-10-07 02:09 J -19093164.55 -19093164.41 -19093164.28 0.0089 0.0005

Mercury -56987-01-03 03:35 J -19093076.49 -19093076.35 -19093076.22 0.0089 0.0011

Mercury -56987-04-01 05:01 J -19092988.43 -19092988.29 -19092988.16 0.0089 0.0016

Mercury -56987-06-28 06:13 J -19092900.36 -19092900.24 -19092900.10 0.0089 0.0023

Mercury -56987-09-24 07:54 J -19092812.30 -19092812.17 -19092812.04 0.0089 0.0028

Mercury -56987-12-21 09:06 J -19092724.24 -19092724.12 -19092723.99 0.0089 0.0034

Mercury -56986-03-19 10:33 J -19092636.17 -19092636.06 -19092635.93 0.0089 0.0040

Mercury -56986-06-15 12:13 J -19092548.11 -19092547.99 -19092547.88 0.0089 0.0045

Mercury -56986-09-11 13:25 J -19092460.04 -19092459.94 -19092459.82 0.0089 0.0051

Mercury -56986-12-08 14:37 J -19092371.98 -19092371.89 -19092371.77 0.0089 0.0057

Mercury -56985-03-05 16:18 J -19092283.91 -19092283.82 -19092283.72 0.0089 0.0062

Mercury -56985-06-01 17:30 J -19092195.84 -19092195.77 -19092195.67 0.0089 0.0068

Mercury -56985-08-28 18:57 J -19092107.77 -19092107.71 -19092107.62 0.0089 0.0074

Mercury -56985-11-24 20:23 J -19092019.70 -19092019.65 -19092019.58 0.0089 0.0079

Mercury -56984-02-20 21:49 J -19091931.62 -19091931.59 -19091931.54 0.0089 0.0085

Moon -56984-07-16 20:09 J -19091785.78 -19091785.66 -19091785.50 0.0089 0.0075

Earth -56984-07-16 20:52 J -19091785.74 -19091785.63 -19091785.49 0.0089 0.0077 *

Earth -56983-07-19 07:54 J -19091418.33 -19091418.17 -19091417.97 0.0089 0.0062

Moon -56983-07-19 09:49 J -19091418.24 -19091418.09 -19091417.90 0.0089 0.0064 *

Saturn -56982-05-20 03:21 J -19091113.76 -19091113.36 -19091112.84 0.0089 0.0063

Moon	-56982-07-21 16:33 J	-19091051.02	-19091050.81	-19091050.57	0.0089	0.0045
Earth	-56982-07-21 18:57 J	-19091050.91	-19091050.71	-19091050.47	0.0089	0.0047 *
Earth	-56981-07-23 06:13 J	-19090683.47	-19090683.24	-19090682.99	0.0089	0.0031
Moon	-56981-07-23 09:35 J	-19090683.32	-19090683.10	-19090682.85	0.0089	0.0033 *
Moon	-56980-07-25 13:54 J	-19090316.17	-19090315.92	-19090315.66	0.0089	0.0014
Earth	-56980-07-25 17:16 J	-19090316.02	-19090315.78	-19090315.52	0.0089	0.0016 *
Earth	-56979-07-28 04:18 J	-19089948.58	-19089948.32	-19089948.07	0.0089	0.0001
Moon	-56979-07-28 07:40 J	-19089948.43	-19089948.18	-19089947.92	0.0089	0.0001 *
Moon	-56978-07-30 12:13 J	-19089581.23	-19089580.99	-19089580.74	0.0089	0.0017
Earth	-56978-07-30 15:06 J	-19089581.12	-19089580.87	-19089580.62	0.0089	0.0015 *
Earth	-56977-08-01 01:11 J	-19089213.67	-19089213.45	-19089213.19	0.0089	0.0031
Moon	-56977-08-01 03:06 J	-19089213.62	-19089213.37	-19089213.12	0.0089	0.0029 *
Moon	-56976-08-03 11:30 J	-19088846.22	-19088846.02	-19088845.80	0.0089	0.0046
Earth	-56976-08-03 11:59 J	-19088846.20	-19088846.00	-19088845.76	0.0089	0.0046 *
Moon	-56975-08-05 21:21 J	-19088478.77	-19088478.61	-19088478.39	0.0089	0.0060
Earth	-56975-08-05 22:33 J	-19088478.72	-19088478.56	-19088478.35	0.0089	0.0061 *
Earth	-56974-08-08 08:52 J	-19088111.24	-19088111.13	-19088110.97	0.0089	0.0076
Moon	-56974-08-08 11:16 J	-19088111.14	-19088111.03	-19088110.90	0.0089	0.0077 *
Venus	-56946-10-28 13:40 J	-19077803.02	-19077802.93	-19077802.81	0.0089	0.0077
Venus	-56945-06-10 01:40 J	-19077577.58	-19077577.43	-19077577.25	0.0089	0.0058
Venus	-56944-01-21 13:54 J	-19077352.10	-19077351.92	-19077351.72	0.0089	0.0039
Venus	-56944-09-04 02:09 J	-19077126.62	-19077126.41	-19077126.20	0.0089	0.0019
Venus	-56943-04-17 14:09 J	-19076901.12	-19076900.91	-19076900.69	0.0089	0.0002
Venus	-56943-11-29 02:09 J	-19076675.61	-19076675.41	-19076675.19	0.0089	0.0020
Venus	-56942-07-12 14:09 J	-19076450.09	-19076449.91	-19076449.70	0.0089	0.0040
Venus	-56941-02-23 02:23 J	-19076224.55	-19076224.40	-19076224.23	0.0089	0.0059
Venus	-56941-10-05 14:09 J	-19075998.99	-19075998.91	-19075998.79	0.0089	0.0078
Mars	-56919-11-08 20:37 J	-19067929.81	-19067929.64	-19067929.47	0.0089	0.0074
Mars	-56917-10-03 09:06 J	-19067235.38	-19067235.12	-19067234.85	0.0089	0.0045
Mars	-56915-08-28 23:59 J	-19066540.81	-19066540.50	-19066540.19	0.0089	0.0015

Mars	-56913-07-23 17:59 J	-19065846.04	-19065845.75	-19065845.42	0.0089	0.0016
Mars	-56911-06-18 15:49 J	-19065151.10	-19065150.84	-19065150.56	0.0089	0.0046
Mars	-56909-05-13 15:06 J	-19064456.02	-19064455.87	-19064455.71	0.0089	0.0077
Mercury	-56909-08-13 17:16 J	-19064363.81	-19064363.78	-19064363.72	0.0089	0.0086
Mercury	-56909-11-09 20:09 J	-19064275.72	-19064275.66	-19064275.55	0.0089	0.0079
Mercury	-56908-02-05 23:30 J	-19064187.61	-19064187.52	-19064187.40	0.0089	0.0071
Mercury	-56908-05-05 02:52 J	-19064099.50	-19064099.38	-19064099.25	0.0089	0.0063
Mercury	-56908-08-01 05:45 J	-19064011.38	-19064011.26	-19064011.10	0.0089	0.0056
Mercury	-56908-10-28 09:06 J	-19063923.26	-19063923.12	-19063922.95	0.0089	0.0048
Mercury	-56907-01-24 12:28 J	-19063835.14	-19063834.98	-19063834.81	0.0089	0.0040
Mercury	-56907-04-22 15:35 J	-19063747.01	-19063746.85	-19063746.67	0.0089	0.0032
Mercury	-56907-07-19 18:57 J	-19063658.89	-19063658.71	-19063658.53	0.0089	0.0024
Mercury	-56907-10-15 22:04 J	-19063570.75	-19063570.58	-19063570.39	0.0089	0.0017
Mercury	-56906-01-12 01:25 J	-19063482.62	-19063482.44	-19063482.25	0.0089	0.0009
Mercury	-56906-04-10 04:47 J	-19063394.49	-19063394.30	-19063394.12	0.0089	0.0001
Mercury	-56906-07-07 07:54 J	-19063306.35	-19063306.17	-19063305.98	0.0089	0.0007
Mercury	-56906-10-03 11:16 J	-19063218.21	-19063218.03	-19063217.85	0.0089	0.0015
Mercury	-56906-12-30 14:23 J	-19063130.07	-19063129.90	-19063129.71	0.0089	0.0023
Mercury	-56905-03-27 17:45 J	-19063041.93	-19063041.76	-19063041.58	0.0089	0.0031
Mercury	-56905-06-23 20:52 J	-19062953.79	-19062953.63	-19062953.45	0.0089	0.0039
Mercury	-56905-09-20 00:13 J	-19062865.64	-19062865.49	-19062865.32	0.0089	0.0047
Mercury	-56905-12-17 03:35 J	-19062777.49	-19062777.35	-19062777.19	0.0089	0.0055
Mercury	-56904-03-15 06:42 J	-19062689.33	-19062689.22	-19062689.07	0.0089	0.0063
Mercury	-56904-06-11 10:04 J	-19062601.17	-19062601.08	-19062600.95	0.0089	0.0071
Mercury	-56904-09-07 13:25 J	-19062513.01	-19062512.94	-19062512.84	0.0089	0.0079
Mercury	-56904-12-04 16:47 J	-19062424.82	-19062424.80	-19062424.74	0.0089	0.0087
Moon	-56902-01-11 13:25 J	-19062021.99	-19062021.94	-19062021.84	0.0089	0.0085
Earth	-56902-01-11 16:18 J	-19062021.89	-19062021.82	-19062021.68	0.0089	0.0081 *
Earth	-56901-01-14 05:16 J	-19061654.45	-19061654.28	-19061654.10	0.0089	0.0065
Moon	-56901-01-14 08:09 J	-19061654.33	-19061654.16	-19061653.96	0.0089	0.0061 *

Moon	-56900-01-15 13:25 J	-19061287.13	-19061286.94	-19061286.72	0.0089	0.0055
Earth	-56900-01-15 17:16 J	-19061286.98	-19061286.78	-19061286.55	0.0089	0.0050 *
Earth	-56899-01-18 05:30 J	-19060919.49	-19060919.27	-19060919.01	0.0088	0.0034
Moon	-56899-01-18 08:52 J	-19060919.36	-19060919.13	-19060918.86	0.0088	0.0030 *
Moon	-56898-01-20 15:21 J	-19060552.10	-19060551.86	-19060551.61	0.0088	0.0023
Earth	-56898-01-20 17:59 J	-19060551.99	-19060551.75	-19060551.48	0.0088	0.0019 *
Earth	-56897-01-23 06:28 J	-19060184.49	-19060184.23	-19060183.97	0.0088	0.0003
Moon	-56897-01-23 08:52 J	-19060184.40	-19060184.13	-19060183.86	0.0088	0.0002 *
Moon	-56896-01-24 18:13 J	-19059816.98	-19059816.74	-19059816.48	0.0088	0.0009
Earth	-56896-01-24 18:57 J	-19059816.97	-19059816.71	-19059816.45	0.0088	0.0013 *
Moon	-56895-01-27 06:42 J	-19059449.46	-19059449.22	-19059448.95	0.0088	0.0032
Earth	-56895-01-27 06:57 J	-19059449.44	-19059449.21	-19059448.95	0.0088	0.0029 *
Earth	-56894-01-29 19:40 J	-19059081.90	-19059081.68	-19059081.44	0.0088	0.0044
Moon	-56894-01-29 20:52 J	-19059081.84	-19059081.63	-19059081.38	0.0088	0.0040 *
Moon	-56893-02-01 05:16 J	-19058714.45	-19058714.28	-19058714.08	0.0088	0.0064
Earth	-56893-02-01 08:09 J	-19058714.33	-19058714.16	-19058713.95	0.0088	0.0059 *
Earth	-56892-02-02 20:52 J	-19058346.76	-19058346.63	-19058346.48	0.0088	0.0075
Moon	-56892-02-02 23:45 J	-19058346.64	-19058346.51	-19058346.34	0.0088	0.0071 *
Venus	-56863-07-29 11:45 J	-19047578.14	-19047578.01	-19047577.86	0.0088	0.0069
Venus	-56862-03-12 01:54 J	-19047352.61	-19047352.42	-19047352.23	0.0088	0.0049
Venus	-56862-10-23 15:35 J	-19047127.05	-19047126.85	-19047126.62	0.0088	0.0029
Venus	-56861-06-05 05:45 J	-19046901.48	-19046901.26	-19046901.03	0.0088	0.0009
Venus	-56860-01-16 19:40 J	-19046675.90	-19046675.68	-19046675.45	0.0088	0.0011
Venus	-56860-08-30 09:35 J	-19046450.31	-19046450.10	-19046449.89	0.0088	0.0031
Venus	-56859-04-12 23:01 J	-19046224.71	-19046224.54	-19046224.34	0.0088	0.0051
Venus	-56859-11-24 12:42 J	-19045999.08	-19045998.97	-19045998.81	0.0088	0.0070
Mars	-56835-09-10 17:59 J	-19037307.95	-19037307.75	-19037307.48	0.0088	0.0060
Mars	-56833-08-05 17:59 J	-19036613.03	-19036612.75	-19036612.43	0.0088	0.0029
Mars	-56831-07-01 15:06 J	-19035918.19	-19035917.87	-19035917.56	0.0088	0.0002
Mars	-56829-05-26 07:25 J	-19035223.46	-19035223.19	-19035222.88	0.0089	0.0033

Mars -56827-04-20 22:47 J -19034528.75 -19034528.55 -19034528.30 0.0089 0.0062
 Mercury -56827-11-21 02:23 J -19034314.44 -19034314.40 -19034314.35 0.0089 0.0083
 Mercury -56826-02-17 03:49 J -19034226.40 -19034226.34 -19034226.26 0.0089 0.0077
 Mercury -56826-05-16 05:30 J -19034138.35 -19034138.27 -19034138.19 0.0089 0.0071
 Mercury -56826-08-12 06:57 J -19034050.30 -19034050.21 -19034050.11 0.0089 0.0065
 Mercury -56826-11-08 08:37 J -19033962.24 -19033962.14 -19033962.04 0.0089 0.0059
 Mercury -56825-02-04 09:49 J -19033874.19 -19033874.09 -19033873.97 0.0089 0.0054
 Mercury -56825-05-02 11:30 J -19033786.13 -19033786.02 -19033785.90 0.0089 0.0047
 Mercury -56825-07-29 12:57 J -19033698.08 -19033697.96 -19033697.83 0.0089 0.0042
 Mercury -56825-10-25 14:23 J -19033610.02 -19033609.90 -19033609.77 0.0089 0.0036
 Mercury -56824-01-21 16:04 J -19033521.96 -19033521.83 -19033521.70 0.0089 0.0030
 Mercury -56824-04-19 17:30 J -19033433.90 -19033433.77 -19033433.63 0.0089 0.0024
 Mercury -56824-07-16 18:57 J -19033345.84 -19033345.71 -19033345.57 0.0089 0.0018
 Mercury -56824-10-12 20:23 J -19033257.78 -19033257.65 -19033257.51 0.0089 0.0012
 Mercury -56823-01-08 21:49 J -19033169.72 -19033169.59 -19033169.45 0.0089 0.0007
 Mercury -56823-04-06 23:30 J -19033081.66 -19033081.52 -19033081.39 0.0089 0.0003
 Mercury -56823-07-04 00:57 J -19032993.60 -19032993.46 -19032993.33 0.0089 0.0006
 Mercury -56823-09-30 02:23 J -19032905.54 -19032905.40 -19032905.27 0.0089 0.0011
 Mercury -56823-12-27 03:49 J -19032817.48 -19032817.34 -19032817.21 0.0089 0.0017
 Mercury -56822-03-25 05:01 J -19032729.42 -19032729.29 -19032729.15 0.0089 0.0023
 Mercury -56822-06-21 06:28 J -19032641.35 -19032641.23 -19032641.09 0.0089 0.0029
 Mercury -56822-09-17 07:54 J -19032553.29 -19032553.17 -19032553.04 0.0089 0.0034
 Mercury -56822-12-14 09:21 J -19032465.23 -19032465.11 -19032464.98 0.0089 0.0040
 Mercury -56821-03-11 10:47 J -19032377.16 -19032377.05 -19032376.93 0.0089 0.0045
 Mercury -56821-06-07 12:13 J -19032289.10 -19032288.99 -19032288.87 0.0089 0.0051
 Mercury -56821-09-03 13:40 J -19032201.03 -19032200.93 -19032200.82 0.0089 0.0057
 Mercury -56821-11-30 14:52 J -19032112.96 -19032112.88 -19032112.77 0.0089 0.0063
 Mercury -56820-02-26 16:33 J -19032024.89 -19032024.81 -19032024.72 0.0089 0.0068
 Mercury -56820-05-25 17:45 J -19031936.82 -19031936.76 -19031936.68 0.0089 0.0074
 Earth -56820-07-16 01:25 J -19031885.50 -19031885.44 -19031885.36 0.0089 0.0085

Mercury -56820-08-21 18:57 J -19031848.75 -19031848.71 -19031848.63 0.0089 0.0080

Mercury -56820-11-17 20:37 J -19031760.67 -19031760.64 -19031760.60 0.0089 0.0085

Moon -56819-07-18 09:21 J -19031518.28 -19031518.11 -19031517.94 0.0089 0.0066

Earth -56819-07-18 12:13 J -19031518.13 -19031517.99 -19031517.82 0.0089 0.0070 *

Earth -56818-07-20 23:01 J -19031150.72 -19031150.54 -19031150.32 0.0089 0.0055

Moon -56818-07-21 02:23 J -19031150.57 -19031150.40 -19031150.19 0.0089 0.0059 *

Moon -56817-07-22 06:28 J -19030783.45 -19030783.23 -19030782.98 0.0089 0.0035

Earth -56817-07-22 10:18 J -19030783.29 -19030783.07 -19030782.83 0.0089 0.0039 *

Earth -56816-07-24 21:06 J -19030415.85 -19030415.62 -19030415.36 0.0089 0.0024

Moon -56816-07-24 23:59 J -19030415.73 -19030415.50 -19030415.23 0.0089 0.0028 *

Moon -56815-07-27 06:13 J -19030048.49 -19030048.24 -19030047.99 0.0089 0.0004

Earth -56815-07-27 08:23 J -19030048.40 -19030048.15 -19030047.89 0.0089 0.0008 *

Earth -56814-07-29 19:11 J -19029680.95 -19029680.70 -19029680.44 0.0089 0.0008

Moon -56814-07-29 20:37 J -19029680.90 -19029680.64 -19029680.38 0.0089 0.0004 *

Earth -56813-07-31 05:45 J -19029313.49 -19029313.26 -19029313.00 0.0089 0.0024

Moon -56813-07-31 06:13 J -19029313.46 -19029313.24 -19029312.99 0.0089 0.0028 *

Moon -56812-08-02 15:35 J -19028946.09 -19028945.85 -19028945.60 0.0089 0.0035

Earth -56812-08-02 16:47 J -19028946.02 -19028945.80 -19028945.57 0.0089 0.0039 *

Earth -56811-08-05 02:52 J -19028578.56 -19028578.38 -19028578.16 0.0089 0.0055

Moon -56811-08-05 05:30 J -19028578.44 -19028578.27 -19028578.07 0.0089 0.0059 *

Moon -56810-08-07 10:04 J -19028211.23 -19028211.08 -19028210.88 0.0089 0.0066

Earth -56810-08-07 13:40 J -19028211.07 -19028210.93 -19028210.76 0.0089 0.0070 *

Earth -56809-08-09 00:13 J -19027843.54 -19027843.49 -19027843.40 0.0089 0.0085

Venus -56781-01-29 22:18 J -19017808.58 -19017808.57 -19017808.51 0.0089 0.0088

Venus -56781-09-11 10:47 J -19017583.18 -19017583.05 -19017582.91 0.0089 0.0069

Venus -56780-04-24 22:47 J -19017357.73 -19017357.55 -19017357.37 0.0089 0.0049

Venus -56780-12-06 10:33 J -19017132.25 -19017132.06 -19017131.85 0.0089 0.0031

Venus -56779-07-19 22:47 J -19016906.75 -19016906.55 -19016906.33 0.0089 0.0011

Venus -56778-03-02 11:01 J -19016681.25 -19016681.04 -19016680.83 0.0089 0.0008

Venus -56778-10-13 22:47 J -19016455.74 -19016455.55 -19016455.33 0.0089 0.0028

Venus -56777-05-26 10:47 J -19016230.22 -19016230.05 -19016229.85 0.0089 0.0047
 Venus -56776-01-06 23:01 J -19016004.67 -19016004.54 -19016004.39 0.0089 0.0066
 Venus -56776-08-20 10:47 J -19015779.08 -19015779.05 -19015778.97 0.0089 0.0087
 Mars -56755-06-23 12:13 J -19008167.07 -19008166.99 -19008166.86 0.0089 0.0083
 Mars -56753-05-17 22:33 J -19007472.77 -19007472.56 -19007472.29 0.0089 0.0055
 Mars -56751-04-12 12:42 J -19006778.27 -19006777.97 -19006777.68 0.0089 0.0025
 Mars -56749-03-07 03:49 J -19006083.65 -19006083.34 -19006083.03 0.0089 0.0005
 Mars -56747-01-30 22:04 J -19005388.85 -19005388.58 -19005388.27 0.0089 0.0035
 Mars -56746-12-26 20:37 J -19004693.84 -19004693.64 -19004693.41 0.0089 0.0065
 Mercury -56744-05-10 14:52 J -19004192.92 -19004192.88 -19004192.82 0.0089 0.0085
 Mercury -56744-08-06 17:45 J -19004104.83 -19004104.76 -19004104.65 0.0089 0.0078
 Mercury -56744-11-02 21:06 J -19004016.72 -19004016.62 -19004016.50 0.0089 0.0070
 Mercury -56743-01-30 00:28 J -19003928.61 -19003928.48 -19003928.35 0.0089 0.0062
 Mercury -56743-04-28 03:21 J -19003840.49 -19003840.36 -19003840.20 0.0089 0.0055
 Mercury -56743-07-25 06:42 J -19003752.37 -19003752.22 -19003752.06 0.0089 0.0047
 Mercury -56743-10-21 10:04 J -19003664.25 -19003664.08 -19003663.92 0.0089 0.0039
 Mercury -56742-01-17 12:57 J -19003576.12 -19003575.96 -19003575.78 0.0089 0.0032
 Mercury -56742-04-15 16:18 J -19003487.99 -19003487.82 -19003487.64 0.0089 0.0024
 Mercury -56742-07-12 19:40 J -19003399.86 -19003399.68 -19003399.50 0.0089 0.0016
 Mercury -56742-10-08 22:47 J -19003311.73 -19003311.55 -19003311.36 0.0089 0.0008
 Mercury -56741-01-05 02:09 J -19003223.60 -19003223.41 -19003223.23 0.0089 0.0001
 Mercury -56741-04-02 05:16 J -19003135.46 -19003135.28 -19003135.09 0.0089 0.0008
 Mercury -56741-06-29 08:37 J -19003047.32 -19003047.14 -19003046.96 0.0089 0.0016
 Mercury -56741-09-25 11:45 J -19002959.18 -19002959.01 -19002958.82 0.0089 0.0024
 Mercury -56741-12-22 14:52 J -19002871.04 -19002870.88 -19002870.69 0.0089 0.0032
 Mercury -56740-03-20 18:13 J -19002782.90 -19002782.74 -19002782.56 0.0089 0.0040
 Mercury -56740-06-16 21:21 J -19002694.75 -19002694.61 -19002694.43 0.0089 0.0048
 Mercury -56740-09-13 00:42 J -19002606.60 -19002606.47 -19002606.31 0.0089 0.0056
 Mercury -56740-12-10 04:04 J -19002518.44 -19002518.33 -19002518.18 0.0089 0.0064
 Mercury -56739-03-08 07:11 J -19002430.29 -19002430.20 -19002430.07 0.0089 0.0072

Mercury -56739-06-04 10:33 J -19002342.12 -19002342.06 -19002341.95 0.0089 0.0080
 Mercury -56739-08-31 13:54 J -19002253.92 -19002253.92 -19002253.87 0.0089 0.0088
 Earth -56738-01-10 21:21 J -19002121.61 -19002121.61 -19002121.57 0.0089 0.0088
 Moon -56737-01-13 06:28 J -19001754.37 -19001754.23 -19001754.07 0.0089 0.0071
 Earth -56737-01-13 09:49 J -19001754.22 -19001754.09 -19001753.93 0.0089 0.0073 *
 Earth -56736-01-14 21:49 J -19001386.76 -19001386.59 -19001386.37 0.0089 0.0058
 Moon -56736-01-15 01:40 J -19001386.62 -19001386.43 -19001386.22 0.0089 0.0058 *
 Moon -56735-01-17 08:23 J -19001019.37 -19001019.15 -19001018.92 0.0088 0.0040
 Earth -56735-01-17 10:18 J -19001019.28 -19001019.07 -19001018.82 0.0088 0.0042 *
 Earth -56734-01-19 23:01 J -19000651.78 -19000651.54 -19000651.29 0.0088 0.0026
 Moon -56734-01-20 00:13 J -19000651.74 -19000651.49 -19000651.22 0.0088 0.0027 *
 Moon -56733-01-22 11:01 J -19000284.29 -19000284.04 -19000283.79 0.0088 0.0009
 Earth -56733-01-22 11:30 J -19000284.28 -19000284.02 -19000283.76 0.0088 0.0010 *
 Moon -56732-01-23 22:33 J -18999916.83 -18999916.56 -18999916.29 0.0088 0.0005
 Earth -56732-01-23 23:45 J -18999916.76 -18999916.51 -18999916.24 0.0088 0.0006 *
 Earth -56731-01-26 12:13 J -18999549.24 -18999548.99 -18999548.73 0.0088 0.0022
 Moon -56731-01-26 14:23 J -18999549.14 -18999548.90 -18999548.65 0.0088 0.0023 *
 Moon -56730-01-28 21:35 J -18999181.82 -18999181.60 -18999181.34 0.0088 0.0038
 Earth -56730-01-29 00:28 J -18999181.70 -18999181.48 -18999181.23 0.0088 0.0038 *
 Earth -56729-01-31 12:42 J -18998814.15 -18998813.97 -18998813.74 0.0088 0.0054
 Moon -56729-01-31 17:01 J -18998814.00 -18998813.79 -18998813.59 0.0088 0.0054 *
 Moon -56728-02-01 22:04 J -18998446.72 -18998446.58 -18998446.40 0.0088 0.0069
 Earth -56728-02-02 01:54 J -18998446.58 -18998446.42 -18998446.25 0.0088 0.0069 *
 Earth -56727-02-04 14:09 J -18998078.96 -18998078.91 -18998078.82 0.0088 0.0085
 Moon -56727-02-04 17:59 J -18998078.82 -18998078.75 -18998078.66 0.0088 0.0084 *
 Venus -56699-10-30 18:13 J -18987583.81 -18987583.74 -18987583.62 0.0088 0.0079
 Venus -56698-06-13 08:23 J -18987358.30 -18987358.15 -18987357.96 0.0088 0.0059
 Venus -56697-01-24 22:47 J -18987132.75 -18987132.55 -18987132.34 0.0088 0.0039
 Venus -56697-09-06 12:57 J -18986907.18 -18986906.96 -18986906.74 0.0088 0.0019
 Venus -56696-04-20 02:52 J -18986681.61 -18986681.38 -18986681.16 0.0088 0.0001

Venus -56696-12-01 16:33 J -18986456.03 -18986455.81 -18986455.58 0.0088 0.0020
 Venus -56695-07-15 06:13 J -18986230.43 -18986230.24 -18986230.02 0.0088 0.0040
 Venus -56694-02-25 20:23 J -18986004.81 -18986004.65 -18986004.48 0.0088 0.0060
 Venus -56694-10-09 09:49 J -18985779.16 -18985779.09 -18985778.97 0.0088 0.0080
 Mars -56671-04-24 19:54 J -18977545.86 -18977545.67 -18977545.46 0.0088 0.0069
 Mars -56669-03-19 21:06 J -18976850.89 -18976850.62 -18976850.32 0.0088 0.0039
 Mars -56667-02-12 19:54 J -18976155.98 -18976155.67 -18976155.35 0.0088 0.0009
 Mars -56665-01-08 15:49 J -18975461.13 -18975460.84 -18975460.52 0.0088 0.0022
 Mars -56664-12-03 08:09 J -18974766.39 -18974766.16 -18974765.88 0.0089 0.0051
 Mercury -56662-05-21 23:45 J -18974231.51 -18974231.51 -18974231.51 0.0089 0.0088
 Mercury -56662-08-18 00:57 J -18974143.49 -18974143.46 -18974143.40 0.0089 0.0083
 Mars -56662-10-28 22:33 J -18974071.68 -18974071.56 -18974071.40 0.0089 0.0079
 Mercury -56662-11-14 02:37 J -18974055.45 -18974055.39 -18974055.31 0.0089 0.0077
 Mercury -56661-02-10 04:04 J -18973967.40 -18973967.33 -18973967.24 0.0089 0.0071
 Mercury -56661-05-08 05:45 J -18973879.35 -18973879.26 -18973879.16 0.0089 0.0065
 Mercury -56661-08-04 07:11 J -18973791.29 -18973791.20 -18973791.09 0.0089 0.0059
 Mercury -56661-10-31 08:52 J -18973703.24 -18973703.13 -18973703.02 0.0089 0.0053
 Mercury -56660-01-27 10:18 J -18973615.18 -18973615.07 -18973614.95 0.0089 0.0047
 Mercury -56660-04-25 11:59 J -18973527.12 -18973527.00 -18973526.88 0.0089 0.0041
 Mercury -56660-07-22 13:11 J -18973439.07 -18973438.95 -18973438.81 0.0089 0.0036
 Mercury -56660-10-18 14:52 J -18973351.01 -18973350.88 -18973350.75 0.0089 0.0029
 Mercury -56659-01-14 16:18 J -18973262.95 -18973262.82 -18973262.68 0.0089 0.0024
 Mercury -56659-04-12 17:45 J -18973174.89 -18973174.76 -18973174.62 0.0089 0.0018
 Mercury -56659-07-09 19:25 J -18973086.83 -18973086.69 -18973086.56 0.0089 0.0012
 Mercury -56659-10-05 20:52 J -18972998.77 -18972998.63 -18972998.49 0.0089 0.0006
 Mercury -56658-01-01 22:18 J -18972910.71 -18972910.57 -18972910.43 0.0089 0.0001
 Mercury -56658-03-30 23:45 J -18972822.65 -18972822.51 -18972822.37 0.0089 0.0006
 Mercury -56658-06-27 01:11 J -18972734.59 -18972734.45 -18972734.31 0.0089 0.0012
 Mercury -56658-09-23 02:37 J -18972646.52 -18972646.39 -18972646.25 0.0089 0.0017
 Mercury -56658-12-20 04:04 J -18972558.46 -18972558.33 -18972558.20 0.0089 0.0023

Mercury -56657-03-17 05:30 J -18972470.40 -18972470.27 -18972470.14 0.0089 0.0029

Mercury -56657-06-13 06:57 J -18972382.33 -18972382.21 -18972382.08 0.0089 0.0035

Mercury -56657-09-09 08:09 J -18972294.27 -18972294.16 -18972294.03 0.0089 0.0041

Mercury -56657-12-06 09:49 J -18972206.21 -18972206.09 -18972205.97 0.0089 0.0046

Mercury -56656-03-04 11:01 J -18972118.14 -18972118.04 -18972117.92 0.0089 0.0052

Mercury -56656-05-31 12:28 J -18972030.07 -18972029.98 -18972029.87 0.0089 0.0058

Mercury -56656-08-27 14:09 J -18971942.01 -18971941.91 -18971941.82 0.0089 0.0063

Mercury -56656-11-23 15:21 J -18971853.94 -18971853.86 -18971853.77 0.0089 0.0069

Mercury -56655-02-19 16:33 J -18971765.86 -18971765.81 -18971765.72 0.0089 0.0075

Mercury -56655-05-18 18:13 J -18971677.79 -18971677.74 -18971677.68 0.0089 0.0080

Earth -56655-07-17 17:30 J -18971617.87 -18971617.77 -18971617.63 0.0089 0.0078

Moon -56655-07-17 21:06 J -18971617.73 -18971617.62 -18971617.46 0.0089 0.0075 *

Mercury -56655-08-14 19:25 J -18971589.71 -18971589.69 -18971589.64 0.0089 0.0086

Moon -56654-07-20 01:25 J -18971250.60 -18971250.44 -18971250.26 0.0089 0.0065

Earth -56654-07-20 04:18 J -18971250.48 -18971250.32 -18971250.11 0.0089 0.0063 *

Earth -56653-07-21 15:21 J -18970883.06 -18970882.86 -18970882.62 0.0089 0.0047

Moon -56653-07-21 18:28 J -18970882.93 -18970882.73 -18970882.48 0.0089 0.0045 *

Moon -56652-07-24 00:57 J -18970515.68 -18970515.46 -18970515.22 0.0089 0.0034

Earth -56652-07-24 02:37 J -18970515.62 -18970515.39 -18970515.14 0.0089 0.0031 *

Earth -56651-07-26 13:40 J -18970148.18 -18970147.93 -18970147.68 0.0089 0.0015

Moon -56651-07-26 14:09 J -18970148.17 -18970147.91 -18970147.65 0.0089 0.0013 *

Earth -56650-07-29 00:28 J -18969780.73 -18969780.48 -18969780.22 0.0089 0.0002

Moon -56650-07-29 00:57 J -18969780.71 -18969780.46 -18969780.21 0.0089 0.0001 *

Moon -56649-07-30 09:35 J -18969413.36 -18969413.10 -18969412.85 0.0089 0.0019

Earth -56649-07-30 11:30 J -18969413.26 -18969413.02 -18969412.76 0.0089 0.0017 *

Earth -56648-08-01 22:04 J -18969045.80 -18969045.58 -18969045.33 0.0089 0.0033

Moon -56648-08-02 00:42 J -18969045.69 -18969045.47 -18969045.22 0.0089 0.0031 *

Moon -56647-08-04 05:30 J -18968678.47 -18968678.27 -18968678.04 0.0089 0.0050

Earth -56647-08-04 09:06 J -18968678.33 -18968678.12 -18968677.90 0.0089 0.0048 *

Earth -56646-08-06 19:25 J -18968310.85 -18968310.69 -18968310.50 0.0089 0.0064

Moon	-56646-08-06 23:01 J	-18968310.70	-18968310.54	-18968310.34	0.0089	0.0062 *
Moon	-56645-08-08 02:52 J	-18967943.45	-18967943.38	-18967943.26	0.0089	0.0082
Earth	-56645-08-08 05:59 J	-18967943.34	-18967943.25	-18967943.11	0.0089	0.0080 *
Venus	-56617-12-13 19:40 J	-18957588.75	-18957588.68	-18957588.56	0.0089	0.0080
Venus	-56616-07-27 07:54 J	-18957363.31	-18957363.17	-18957362.99	0.0089	0.0060
Venus	-56615-03-09 20:23 J	-18957137.84	-18957137.65	-18957137.46	0.0089	0.0041
Venus	-56615-10-21 08:09 J	-18956912.36	-18956912.16	-18956911.95	0.0089	0.0022
Venus	-56614-06-03 20:09 J	-18956686.87	-18956686.66	-18956686.44	0.0089	0.0003
Venus	-56613-01-15 08:09 J	-18956461.36	-18956461.16	-18956460.94	0.0089	0.0017
Venus	-56613-08-27 20:23 J	-18956235.84	-18956235.65	-18956235.45	0.0089	0.0036
Venus	-56612-04-10 08:09 J	-18956010.31	-18956010.16	-18956009.98	0.0089	0.0056
Venus	-56612-11-21 20:09 J	-18955784.75	-18955784.66	-18955784.53	0.0089	0.0075
Mars	-56590-12-31 15:35 J	-18947710.05	-18947709.85	-18947709.62	0.0089	0.0063
Mars	-56588-11-25 02:23 J	-18947015.67	-18947015.40	-18947015.10	0.0089	0.0035
Mars	-56586-10-20 16:47 J	-18946321.10	-18946320.80	-18946320.48	0.0089	0.0006
Mars	-56584-09-14 09:06 J	-18945626.41	-18945626.12	-18945625.81	0.0089	0.0024
Mars	-56582-08-10 03:35 J	-18944931.58	-18944931.35	-18944931.08	0.0089	0.0054
Mars	-56580-07-05 02:09 J	-18944236.47	-18944236.41	-18944236.27	0.0089	0.0084
Mercury	-56579-02-04 12:28 J	-18944022.02	-18944021.98	-18944021.90	0.0089	0.0084
Mercury	-56579-05-03 15:49 J	-18943933.92	-18943933.84	-18943933.74	0.0089	0.0076
Mercury	-56579-07-30 19:11 J	-18943845.81	-18943845.70	-18943845.58	0.0089	0.0068
Mercury	-56579-10-26 22:04 J	-18943757.70	-18943757.58	-18943757.44	0.0089	0.0061
Mercury	-56578-01-23 01:25 J	-18943669.58	-18943669.44	-18943669.29	0.0089	0.0053
Mercury	-56578-04-21 04:18 J	-18943581.46	-18943581.32	-18943581.15	0.0089	0.0046
Mercury	-56578-07-18 07:40 J	-18943493.34	-18943493.18	-18943493.01	0.0089	0.0038
Mercury	-56578-10-14 10:47 J	-18943405.22	-18943405.05	-18943404.87	0.0089	0.0030
Mercury	-56577-01-10 14:09 J	-18943317.09	-18943316.91	-18943316.73	0.0089	0.0022
Mercury	-56577-04-07 17:16 J	-18943228.96	-18943228.78	-18943228.59	0.0089	0.0014
Mercury	-56577-07-04 20:37 J	-18943140.83	-18943140.64	-18943140.46	0.0089	0.0007
Mercury	-56577-09-30 23:45 J	-18943052.69	-18943052.51	-18943052.32	0.0089	0.0002

Mercury -56577-12-28 02:52 J -18942964.56 -18942964.38 -18942964.19 0.0089 0.0010
 Mercury -56576-03-26 06:13 J -18942876.42 -18942876.24 -18942876.05 0.0089 0.0017
 Mercury -56576-06-22 09:35 J -18942788.28 -18942788.10 -18942787.92 0.0089 0.0025
 Mercury -56576-09-18 12:42 J -18942700.14 -18942699.97 -18942699.79 0.0089 0.0033
 Mercury -56576-12-15 16:04 J -18942611.99 -18942611.83 -18942611.66 0.0089 0.0041
 Mercury -56575-03-13 19:11 J -18942523.85 -18942523.70 -18942523.53 0.0089 0.0049
 Mercury -56575-06-09 22:33 J -18942435.69 -18942435.56 -18942435.41 0.0089 0.0057
 Mercury -56575-09-06 01:54 J -18942347.54 -18942347.42 -18942347.29 0.0089 0.0065
 Mercury -56575-12-03 05:01 J -18942259.38 -18942259.29 -18942259.17 0.0089 0.0073
 Mercury -56574-03-01 08:23 J -18942171.21 -18942171.15 -18942171.06 0.0089 0.0081
 Earth -56573-01-12 15:21 J -18941853.94 -18941853.86 -18941853.73 0.0089 0.0081
 Moon -56573-01-12 17:45 J -18941853.80 -18941853.76 -18941853.65 0.0089 0.0085 *
 Moon -56572-01-14 01:54 J -18941486.60 -18941486.42 -18941486.23 0.0089 0.0061
 Earth -56572-01-14 03:49 J -18941486.50 -18941486.34 -18941486.15 0.0089 0.0065 *
 Earth -56571-01-16 16:18 J -18941119.03 -18941118.82 -18941118.60 0.0089 0.0049
 Moon -56571-01-16 17:30 J -18941118.99 -18941118.77 -18941118.56 0.0089 0.0053 *
 Earth -56570-01-19 04:47 J -18940751.54 -18940751.30 -18940751.05 0.0089 0.0033
 Moon -56570-01-19 05:16 J -18940751.50 -18940751.28 -18940751.03 0.0089 0.0029 *
 Moon -56569-01-21 15:49 J -18940384.10 -18940383.84 -18940383.58 0.0089 0.0021
 Earth -56569-01-21 17:01 J -18940384.04 -18940383.79 -18940383.53 0.0089 0.0017 *
 Earth -56568-01-23 05:30 J -18940016.53 -18940016.27 -18940016.01 0.0088 0.0001
 Moon -56568-01-23 08:09 J -18940016.41 -18940016.16 -18940015.90 0.0088 0.0004 *
 Moon -56567-01-25 14:23 J -18939649.15 -18939648.90 -18939648.63 0.0088 0.0012
 Earth -56567-01-25 17:59 J -18939649.00 -18939648.75 -18939648.49 0.0088 0.0015 *
 Earth -56566-01-28 05:59 J -18939281.48 -18939281.25 -18939280.99 0.0088 0.0032
 Moon -56566-01-28 09:49 J -18939281.32 -18939281.09 -18939280.85 0.0088 0.0036 *
 Moon -56565-01-30 15:06 J -18938914.09 -18938913.87 -18938913.64 0.0088 0.0043
 Earth -56565-01-30 18:28 J -18938913.93 -18938913.73 -18938913.49 0.0088 0.0048 *
 Earth -56564-02-01 06:42 J -18938546.38 -18938546.22 -18938546.02 0.0088 0.0064
 Moon -56564-02-01 09:35 J -18938546.25 -18938546.10 -18938545.91 0.0088 0.0068 *

Moon	-56563-02-03 16:47 J	-18938178.90	-18938178.80	-18938178.63	0.0088	0.0076
Earth	-56563-02-03 19:11 J	-18938178.78	-18938178.70	-18938178.56	0.0088	0.0080 *
Venus	-56534-09-14 16:04 J	-18927363.95	-18927363.83	-18927363.67	0.0088	0.0069
Venus	-56533-04-27 06:13 J	-18927138.42	-18927138.24	-18927138.04	0.0088	0.0049
Venus	-56533-12-08 20:23 J	-18926912.86	-18926912.65	-18926912.44	0.0088	0.0029
Venus	-56532-07-22 10:18 J	-18926687.29	-18926687.07	-18926686.84	0.0088	0.0010
Venus	-56531-03-05 00:28 J	-18926461.71	-18926461.48	-18926461.25	0.0088	0.0010
Venus	-56531-10-16 14:09 J	-18926236.11	-18926235.91	-18926235.69	0.0088	0.0030
Venus	-56530-05-30 04:04 J	-18926010.51	-18926010.33	-18926010.14	0.0088	0.0050
Venus	-56529-01-10 17:45 J	-18925784.88	-18925784.76	-18925784.61	0.0088	0.0069
Mars	-56508-12-06 19:54 J	-18917783.78	-18917783.67	-18917783.48	0.0088	0.0079
Mars	-56506-11-02 01:25 J	-18917088.71	-18917088.44	-18917088.17	0.0088	0.0048
Mars	-56504-09-27 01:40 J	-18916393.73	-18916393.43	-18916393.11	0.0088	0.0018
Mars	-56502-08-22 23:16 J	-18915698.83	-18915698.53	-18915698.20	0.0088	0.0012
Mars	-56500-07-17 18:42 J	-18915003.98	-18915003.72	-18915003.42	0.0089	0.0041
Mars	-56498-06-12 10:47 J	-18914309.21	-18914309.05	-18914308.82	0.0089	0.0069
Mercury	-56497-02-15 22:33 J	-18914060.57	-18914060.56	-18914060.54	0.0089	0.0088
Mercury	-56497-05-13 23:59 J	-18913972.54	-18913972.50	-18913972.44	0.0089	0.0082
Mercury	-56497-08-10 01:40 J	-18913884.49	-18913884.43	-18913884.36	0.0089	0.0076
Mercury	-56497-11-06 03:06 J	-18913796.45	-18913796.37	-18913796.28	0.0089	0.0070
Mercury	-56496-02-02 04:47 J	-18913708.39	-18913708.30	-18913708.20	0.0089	0.0064
Mercury	-56496-05-01 06:13 J	-18913620.34	-18913620.24	-18913620.13	0.0089	0.0058
Mercury	-56496-07-28 07:54 J	-18913532.28	-18913532.17	-18913532.06	0.0089	0.0052
Mercury	-56496-10-24 09:06 J	-18913444.23	-18913444.12	-18913443.99	0.0089	0.0047
Mercury	-56495-01-20 10:47 J	-18913356.17	-18913356.05	-18913355.92	0.0089	0.0040
Mercury	-56495-04-18 12:13 J	-18913268.11	-18913267.99	-18913267.86	0.0089	0.0035
Mercury	-56495-07-15 13:40 J	-18913180.05	-18913179.93	-18913179.79	0.0089	0.0029
Mercury	-56495-10-11 15:21 J	-18913091.99	-18913091.86	-18913091.72	0.0089	0.0023
Mercury	-56494-01-07 16:47 J	-18913003.93	-18913003.80	-18913003.66	0.0089	0.0017
Mercury	-56494-04-05 18:13 J	-18912915.87	-18912915.74	-18912915.60	0.0089	0.0011

Mercury -56494-07-02 19:54 J -18912827.81 -18912827.67 -18912827.54 0.0089 0.0005
 Mercury -56494-09-28 21:21 J -18912739.75 -18912739.61 -18912739.47 0.0089 0.0001
 Mercury -56494-12-25 22:47 J -18912651.69 -18912651.55 -18912651.41 0.0089 0.0007
 Mercury -56493-03-23 00:13 J -18912563.63 -18912563.49 -18912563.35 0.0089 0.0012
 Mercury -56493-06-19 01:40 J -18912475.56 -18912475.43 -18912475.30 0.0089 0.0018
 Mercury -56493-09-15 03:06 J -18912387.50 -18912387.37 -18912387.24 0.0089 0.0024
 Mercury -56493-12-12 04:33 J -18912299.44 -18912299.31 -18912299.18 0.0089 0.0030
 Mercury -56492-03-10 05:59 J -18912211.37 -18912211.25 -18912211.12 0.0089 0.0036
 Mercury -56492-06-06 07:11 J -18912123.31 -18912123.20 -18912123.07 0.0089 0.0042
 Mercury -56492-09-02 08:52 J -18912035.24 -18912035.13 -18912035.01 0.0089 0.0047
 Mercury -56492-11-29 10:04 J -18911947.18 -18911947.08 -18911946.96 0.0089 0.0053
 Mercury -56491-02-25 11:30 J -18911859.11 -18911859.02 -18911858.91 0.0089 0.0059
 Mercury -56491-05-24 13:11 J -18911771.04 -18911770.95 -18911770.86 0.0089 0.0064
 Earth -56491-07-16 23:30 J -18911717.56 -18911717.52 -18911717.44 0.0089 0.0086
 Mercury -56491-08-20 14:23 J -18911682.97 -18911682.90 -18911682.81 0.0089 0.0070
 Mercury -56491-11-16 15:35 J -18911594.90 -18911594.85 -18911594.76 0.0089 0.0076
 Mercury -56490-02-12 17:16 J -18911506.83 -18911506.78 -18911506.72 0.0089 0.0081
 Mercury -56490-05-11 18:28 J -18911418.74 -18911418.73 -18911418.69 0.0089 0.0087
 Earth -56490-07-19 10:47 J -18911350.20 -18911350.05 -18911349.89 0.0089 0.0070
 Moon -56490-07-19 12:42 J -18911350.12 -18911349.97 -18911349.78 0.0089 0.0067 *
 Moon -56489-07-20 20:09 J -18910982.84 -18910982.66 -18910982.46 0.0089 0.0058
 Earth -56489-07-20 21:49 J -18910982.79 -18910982.59 -18910982.38 0.0089 0.0054 *
 Moon -56488-07-23 08:23 J -18910615.38 -18910615.15 -18910614.89 0.0089 0.0035
 Earth -56488-07-23 08:23 J -18910615.37 -18910615.15 -18910614.90 0.0089 0.0039 *
 Earth -56487-07-25 19:11 J -18910247.93 -18910247.70 -18910247.43 0.0089 0.0023
 Moon -56487-07-25 20:37 J -18910247.86 -18910247.64 -18910247.39 0.0089 0.0026 *
 Moon -56486-07-28 04:33 J -18909880.57 -18909880.31 -18909880.05 0.0089 0.0003
 Earth -56486-07-28 06:28 J -18909880.48 -18909880.23 -18909879.97 0.0089 0.0007 *
 Earth -56485-07-29 17:16 J -18909513.03 -18909512.78 -18909512.52 0.0089 0.0010
 Moon -56485-07-29 20:37 J -18909512.89 -18909512.64 -18909512.39 0.0089 0.0006 *

Moon	-56484-08-01 00:57 J	-18909145.70	-18909145.46	-18909145.22	0.0089	0.0029
Earth	-56484-08-01 04:04 J	-18909145.56	-18909145.33	-18909145.07	0.0089	0.0026 *
Earth	-56483-08-03 14:52 J	-18908778.09	-18908777.88	-18908777.64	0.0089	0.0042
Moon	-56483-08-03 18:13 J	-18908777.95	-18908777.74	-18908777.49	0.0089	0.0038 *
Moon	-56482-08-05 22:47 J	-18908410.72	-18908410.55	-18908410.36	0.0089	0.0062
Earth	-56482-08-06 01:40 J	-18908410.60	-18908410.43	-18908410.22	0.0089	0.0058 *
Earth	-56481-08-07 12:28 J	-18908043.10	-18908042.98	-18908042.82	0.0089	0.0074
Moon	-56481-08-07 14:23 J	-18908043.04	-18908042.90	-18908042.72	0.0089	0.0070 *
Jupiter	-56458-09-07 21:06 J	-18899611.88	-18899611.62	-18899611.33	0.0089	0.0077
Venus	-56452-03-17 05:59 J	-18897594.25	-18897594.25	-18897594.24	0.0089	0.0089
Venus	-56452-10-28 17:30 J	-18897368.88	-18897368.77	-18897368.62	0.0089	0.0071
Venus	-56451-06-11 05:30 J	-18897143.43	-18897143.27	-18897143.08	0.0089	0.0051
Venus	-56450-01-22 17:59 J	-18896917.95	-18896917.75	-18896917.55	0.0089	0.0032
Venus	-56450-09-05 05:59 J	-18896692.46	-18896692.25	-18896692.04	0.0089	0.0012
Venus	-56449-04-17 17:45 J	-18896466.96	-18896466.76	-18896466.54	0.0089	0.0008
Venus	-56449-11-29 05:45 J	-18896241.46	-18896241.26	-18896241.05	0.0089	0.0026
Venus	-56448-07-12 17:59 J	-18896015.93	-18896015.75	-18896015.56	0.0089	0.0045
Venus	-56447-02-23 05:59 J	-18895790.39	-18895790.25	-18895790.10	0.0089	0.0065
Venus	-56447-10-06 17:45 J	-18895564.81	-18895564.76	-18895564.67	0.0089	0.0084
Mars	-56426-08-15 11:30 J	-18887947.18	-18887947.02	-18887946.82	0.0089	0.0071
Mars	-56424-07-09 19:54 J	-18887252.91	-18887252.67	-18887252.38	0.0089	0.0044
Mars	-56422-06-04 07:11 J	-18886558.50	-18886558.20	-18886557.89	0.0089	0.0015
Mars	-56420-04-28 21:35 J	-18885863.89	-18885863.60	-18885863.28	0.0089	0.0014
Mars	-56418-03-24 14:37 J	-18885169.15	-18885168.89	-18885168.60	0.0089	0.0043
Mars	-56416-02-16 10:33 J	-18884474.24	-18884474.06	-18884473.88	0.0089	0.0072
Mercury	-56415-11-01 10:33 J	-18883851.11	-18883851.06	-18883850.98	0.0089	0.0082
Mercury	-56414-01-28 13:54 J	-18883763.02	-18883762.92	-18883762.82	0.0089	0.0074
Mercury	-56414-04-26 16:47 J	-18883674.91	-18883674.80	-18883674.67	0.0089	0.0067
Mercury	-56414-07-23 19:54 J	-18883586.79	-18883586.67	-18883586.52	0.0089	0.0059
Mercury	-56414-10-19 23:01 J	-18883498.67	-18883498.54	-18883498.38	0.0089	0.0052

Mercury -56413-01-16 02:09 J -18883410.55 -18883410.41 -18883410.23 0.0089 0.0044

Mercury -56413-04-13 05:30 J -18883322.43 -18883322.27 -18883322.09 0.0089 0.0036

Mercury -56413-07-10 08:52 J -18883234.30 -18883234.13 -18883233.96 0.0089 0.0028

Mercury -56413-10-06 11:45 J -18883146.18 -18883146.01 -18883145.82 0.0089 0.0021

Mercury -56412-01-02 15:06 J -18883058.05 -18883057.87 -18883057.68 0.0089 0.0013

Mercury -56412-03-31 18:28 J -18882969.92 -18882969.73 -18882969.55 0.0089 0.0005

Mercury -56412-06-27 21:35 J -18882881.78 -18882881.60 -18882881.41 0.0089 0.0004

Mercury -56412-09-24 00:57 J -18882793.65 -18882793.46 -18882793.28 0.0089 0.0011

Mercury -56412-12-21 04:04 J -18882705.51 -18882705.33 -18882705.14 0.0089 0.0019

Mercury -56411-03-19 07:11 J -18882617.37 -18882617.20 -18882617.01 0.0089 0.0027

Mercury -56411-06-15 10:33 J -18882529.23 -18882529.06 -18882528.88 0.0089 0.0035

Mercury -56411-09-11 13:40 J -18882441.08 -18882440.93 -18882440.76 0.0089 0.0043

Mercury -56411-12-08 17:01 J -18882352.93 -18882352.79 -18882352.63 0.0089 0.0051

Mercury -56410-03-06 20:09 J -18882264.78 -18882264.66 -18882264.50 0.0089 0.0059

Mercury -56410-06-02 23:30 J -18882176.63 -18882176.52 -18882176.38 0.0089 0.0067

Mercury -56410-08-30 02:52 J -18882088.47 -18882088.38 -18882088.27 0.0089 0.0075

Mercury -56410-11-26 05:59 J -18882000.30 -18882000.25 -18882000.16 0.0089 0.0083

Earth -56409-01-11 21:49 J -18881953.59 -18881953.59 -18881953.57 0.0089 0.0089

Saturn -56409-06-05 05:30 J -18881808.56 -18881808.27 -18881807.78 0.0089 0.0075

Earth -56408-01-13 09:49 J -18881586.22 -18881586.09 -18881585.92 0.0089 0.0073

Moon -56408-01-13 10:04 J -18881586.22 -18881586.08 -18881585.90 0.0089 0.0071 *

Earth -56407-01-15 22:18 J -18881218.75 -18881218.57 -18881218.35 0.0089 0.0057

Moon -56407-01-15 23:01 J -18881218.71 -18881218.54 -18881218.33 0.0089 0.0059 *

Moon -56406-01-18 08:23 J -18880851.38 -18880851.15 -18880850.90 0.0089 0.0038

Earth -56406-01-18 10:47 J -18880851.27 -18880851.05 -18880850.80 0.0089 0.0041 *

Earth -56405-01-20 23:30 J -18880483.77 -18880483.52 -18880483.27 0.0089 0.0024

Moon -56405-01-21 02:23 J -18880483.64 -18880483.40 -18880483.16 0.0089 0.0026 *

Moon -56404-01-22 08:37 J -18880116.40 -18880116.14 -18880115.88 0.0089 0.0006

Earth -56404-01-22 11:59 J -18880116.25 -18880116.00 -18880115.73 0.0089 0.0008 *

Earth -56403-01-25 00:28 J -18879748.74 -18879748.48 -18879748.22 0.0088 0.0009

Moon	-56403-01-25 04:18 J	-18879748.58	-18879748.32	-18879748.06	0.0088	0.0007	*
Moon	-56402-01-27 09:35 J	-18879381.33	-18879381.10	-18879380.84	0.0088	0.0027	
Earth	-56402-01-27 12:42 J	-18879381.20	-18879380.97	-18879380.70	0.0088	0.0026	*
Earth	-56401-01-30 01:11 J	-18879013.67	-18879013.45	-18879013.21	0.0088	0.0042	
Moon	-56401-01-30 04:04 J	-18879013.55	-18879013.33	-18879013.08	0.0088	0.0041	*
Moon	-56400-01-31 12:13 J	-18878646.16	-18878645.99	-18878645.78	0.0088	0.0060	
Earth	-56400-01-31 13:54 J	-18878646.11	-18878645.92	-18878645.72	0.0088	0.0058	*
Earth	-56399-02-03 02:23 J	-18878278.53	-18878278.40	-18878278.25	0.0088	0.0074	
Moon	-56399-02-03 02:23 J	-18878278.51	-18878278.40	-18878278.21	0.0088	0.0074	*
Venus	-56370-12-17 00:13 J	-18867369.58	-18867369.49	-18867369.37	0.0088	0.0078	
Venus	-56369-07-29 14:23 J	-18867144.06	-18867143.90	-18867143.72	0.0088	0.0059	
Venus	-56368-03-12 04:18 J	-18866918.51	-18866918.32	-18866918.10	0.0088	0.0039	
Venus	-56368-10-23 18:28 J	-18866692.94	-18866692.73	-18866692.50	0.0088	0.0019	
Venus	-56367-06-06 08:37 J	-18866467.36	-18866467.14	-18866466.91	0.0088	0.0001	
Venus	-56366-01-17 22:47 J	-18866241.77	-18866241.55	-18866241.33	0.0088	0.0021	
Venus	-56366-08-31 12:28 J	-18866016.17	-18866015.98	-18866015.77	0.0088	0.0040	
Venus	-56365-04-13 02:09 J	-18865790.56	-18865790.41	-18865790.22	0.0088	0.0060	
Venus	-56365-11-24 16:18 J	-18865564.91	-18865564.82	-18865564.72	0.0088	0.0079	
Mars	-56344-07-20 20:37 J	-18858021.68	-18858021.64	-18858021.56	0.0088	0.0087	
Mars	-56342-06-16 02:37 J	-18857326.60	-18857326.39	-18857326.10	0.0088	0.0058	
Mars	-56340-05-11 07:25 J	-18856631.48	-18856631.19	-18856630.87	0.0088	0.0028	
Mars	-56338-04-06 08:23 J	-18855936.47	-18855936.15	-18855935.83	0.0088	0.0002	
Mars	-56336-03-01 05:01 J	-18855241.57	-18855241.29	-18855240.98	0.0088	0.0031	
Mars	-56334-01-24 23:45 J	-18854546.72	-18854546.51	-18854546.25	0.0089	0.0059	
Mercury	-56333-11-11 21:35 J	-18853889.61	-18853889.60	-18853889.56	0.0089	0.0087	
Mars	-56333-12-19 15:35 J	-18853851.88	-18853851.85	-18853851.74	0.0089	0.0087	
Mercury	-56332-02-07 23:16 J	-18853801.58	-18853801.53	-18853801.47	0.0089	0.0080	
Mercury	-56332-05-07 00:42 J	-18853713.53	-18853713.47	-18853713.38	0.0089	0.0075	
Mercury	-56332-08-03 02:09 J	-18853625.48	-18853625.41	-18853625.31	0.0089	0.0069	
Mercury	-56332-10-30 03:49 J	-18853537.43	-18853537.34	-18853537.23	0.0089	0.0063	

Mercury -56331-01-26 05:30 J -18853449.37 -18853449.27 -18853449.16 0.0089 0.0057

Mercury -56331-04-24 06:57 J -18853361.32 -18853361.21 -18853361.09 0.0089 0.0051

Mercury -56331-07-21 08:23 J -18853273.26 -18853273.15 -18853273.02 0.0089 0.0045

Mercury -56331-10-17 10:04 J -18853185.20 -18853185.08 -18853184.95 0.0089 0.0039

Mercury -56330-01-13 11:30 J -18853097.14 -18853097.02 -18853096.89 0.0089 0.0033

Mercury -56330-04-11 13:11 J -18853009.08 -18853008.95 -18853008.82 0.0089 0.0027

Mercury -56330-07-08 14:23 J -18852921.03 -18852920.90 -18852920.76 0.0089 0.0022

Mercury -56330-10-04 16:04 J -18852832.97 -18852832.83 -18852832.69 0.0089 0.0015

Mercury -56330-12-31 17:30 J -18852744.90 -18852744.77 -18852744.63 0.0089 0.0010

Mercury -56329-03-28 18:57 J -18852656.84 -18852656.71 -18852656.57 0.0089 0.0005

Mercury -56329-06-24 20:37 J -18852568.78 -18852568.64 -18852568.51 0.0089 0.0003

Mercury -56329-09-20 22:04 J -18852480.72 -18852480.58 -18852480.45 0.0089 0.0008

Mercury -56329-12-17 23:30 J -18852392.66 -18852392.52 -18852392.39 0.0089 0.0014

Mercury -56328-03-16 00:57 J -18852304.59 -18852304.46 -18852304.33 0.0089 0.0020

Mercury -56328-06-12 02:23 J -18852216.53 -18852216.40 -18852216.27 0.0089 0.0026

Mercury -56328-09-08 03:49 J -18852128.47 -18852128.34 -18852128.21 0.0089 0.0031

Mercury -56328-12-05 05:01 J -18852040.40 -18852040.29 -18852040.15 0.0089 0.0038

Mercury -56327-03-03 06:42 J -18851952.34 -18851952.22 -18851952.10 0.0089 0.0043

Mercury -56327-05-30 08:09 J -18851864.27 -18851864.16 -18851864.04 0.0089 0.0049

Mercury -56327-08-26 09:21 J -18851776.20 -18851776.11 -18851775.99 0.0089 0.0055

Mercury -56327-11-22 11:01 J -18851688.14 -18851688.04 -18851687.94 0.0089 0.0060

Mercury -56326-02-18 12:13 J -18851600.07 -18851599.99 -18851599.89 0.0089 0.0066

Mercury -56326-05-17 13:40 J -18851512.00 -18851511.93 -18851511.84 0.0089 0.0072

Moon -56326-07-18 17:30 J -18851449.88 -18851449.77 -18851449.61 0.0089 0.0075

Earth -56326-07-18 18:13 J -18851449.84 -18851449.74 -18851449.60 0.0089 0.0078 *

Mercury -56326-08-13 15:21 J -18851423.93 -18851423.86 -18851423.80 0.0089 0.0077

Mercury -56326-11-09 16:33 J -18851335.85 -18851335.81 -18851335.76 0.0089 0.0083

Mercury -56325-02-05 17:59 J -18851247.75 -18851247.75 -18851247.74 0.0089 0.0088

Moon -56325-07-20 04:33 J -18851082.46 -18851082.31 -18851082.10 0.0089 0.0065

Earth -56325-07-20 05:01 J -18851082.45 -18851082.29 -18851082.09 0.0089 0.0062 *

Earth	-56324-07-22 16:04 J	-18850715.03	-18850714.83	-18850714.60	0.0089	0.0046
Moon	-56324-07-22 17:30 J	-18850714.97	-18850714.77	-18850714.54	0.0089	0.0043 *
Moon	-56323-07-25 00:13 J	-18850347.73	-18850347.49	-18850347.24	0.0089	0.0033
Earth	-56323-07-25 02:52 J	-18850347.60	-18850347.38	-18850347.12	0.0089	0.0030 *
Earth	-56322-07-27 14:09 J	-18849980.16	-18849979.91	-18849979.66	0.0089	0.0013
Moon	-56322-07-27 17:01 J	-18849980.03	-18849979.79	-18849979.53	0.0089	0.0011 *
Moon	-56321-07-28 21:21 J	-18849612.87	-18849612.61	-18849612.36	0.0089	0.0001
Earth	-56321-07-29 00:57 J	-18849612.71	-18849612.46	-18849612.20	0.0089	0.0003 *
Earth	-56320-07-31 11:16 J	-18849245.26	-18849245.03	-18849244.77	0.0089	0.0020
Moon	-56320-07-31 14:37 J	-18849245.13	-18849244.89	-18849244.63	0.0089	0.0023 *
Moon	-56319-08-02 19:25 J	-18848877.91	-18848877.69	-18848877.44	0.0089	0.0034
Earth	-56319-08-02 22:18 J	-18848877.79	-18848877.57	-18848877.33	0.0089	0.0036 *
Earth	-56318-08-05 09:06 J	-18848510.31	-18848510.12	-18848509.90	0.0089	0.0052
Moon	-56318-08-05 11:16 J	-18848510.23	-18848510.03	-18848509.81	0.0089	0.0054 *
Moon	-56317-08-06 19:11 J	-18848142.84	-18848142.70	-18848142.51	0.0089	0.0066
Earth	-56317-08-06 19:54 J	-18848142.82	-18848142.67	-18848142.50	0.0089	0.0068 *
Moon	-56316-08-09 05:59 J	-18847775.29	-18847775.25	-18847775.17	0.0089	0.0086
Earth	-56316-08-09 06:28 J	-18847775.29	-18847775.23	-18847775.13	0.0089	0.0084 *
Jupiter	-56292-11-05 10:18 J	-18838921.38	-18838921.07	-18838920.67	0.0089	0.0068
Venus	-56287-01-30 04:18 J	-18837374.40	-18837374.32	-18837374.21	0.0089	0.0079
Venus	-56287-09-12 16:04 J	-18837148.97	-18837148.83	-18837148.65	0.0089	0.0061
Venus	-56286-04-26 04:04 J	-18836923.50	-18836923.33	-18836923.12	0.0089	0.0042
Venus	-56286-12-07 16:04 J	-18836698.02	-18836697.83	-18836697.61	0.0089	0.0023
Venus	-56285-07-20 04:33 J	-18836472.52	-18836472.31	-18836472.10	0.0089	0.0003
Venus	-56284-03-02 16:33 J	-18836247.02	-18836246.81	-18836246.60	0.0089	0.0017
Venus	-56284-10-14 04:33 J	-18836021.51	-18836021.31	-18836021.12	0.0089	0.0036
Venus	-56283-05-27 16:04 J	-18835795.98	-18835795.83	-18835795.65	0.0089	0.0055
Venus	-56282-01-08 04:04 J	-18835570.43	-18835570.33	-18835570.20	0.0089	0.0074
Mars	-56262-03-30 08:52 J	-18828184.25	-18828184.13	-18828183.96	0.0089	0.0078
Mars	-56260-02-21 16:33 J	-18827490.04	-18827489.81	-18827489.54	0.0089	0.0051

Mars	-56258-01-17 02:37 J	-18826795.67	-18826795.39	-18826795.07	0.0089	0.0024
Mars	-56257-12-11 14:23 J	-18826101.20	-18826100.90	-18826100.58	0.0089	0.0005
Mars	-56255-11-06 05:16 J	-18825406.55	-18825406.28	-18825405.98	0.0089	0.0033
Mars	-56253-09-30 23:01 J	-18824711.74	-18824711.54	-18824711.29	0.0089	0.0062
Mercury	-56250-05-02 05:45 J	-18823768.28	-18823768.26	-18823768.22	0.0089	0.0087
Mercury	-56250-07-29 08:37 J	-18823680.20	-18823680.14	-18823680.04	0.0089	0.0080
Mercury	-56250-10-25 11:59 J	-18823592.10	-18823592.00	-18823591.89	0.0089	0.0072
Mercury	-56249-01-21 15:21 J	-18823503.98	-18823503.86	-18823503.74	0.0089	0.0064
Mercury	-56249-04-18 18:13 J	-18823415.87	-18823415.74	-18823415.59	0.0089	0.0057
Mercury	-56249-07-15 21:21 J	-18823327.75	-18823327.61	-18823327.45	0.0089	0.0049
Mercury	-56249-10-12 00:42 J	-18823239.63	-18823239.47	-18823239.31	0.0089	0.0041
Mercury	-56248-01-08 03:35 J	-18823151.51	-18823151.35	-18823151.17	0.0089	0.0034
Mercury	-56248-04-06 06:57 J	-18823063.38	-18823063.21	-18823063.03	0.0089	0.0026
Mercury	-56248-07-03 10:18 J	-18822975.25	-18822975.07	-18822974.89	0.0089	0.0018
Mercury	-56248-09-29 13:25 J	-18822887.12	-18822886.94	-18822886.75	0.0089	0.0010
Mercury	-56248-12-26 16:47 J	-18822798.99	-18822798.80	-18822798.62	0.0089	0.0003
Mercury	-56247-03-24 19:54 J	-18822710.86	-18822710.67	-18822710.49	0.0089	0.0006
Mercury	-56247-06-20 23:01 J	-18822622.72	-18822622.54	-18822622.35	0.0089	0.0014
Mercury	-56247-09-17 02:09 J	-18822534.58	-18822534.41	-18822534.22	0.0089	0.0022
Mercury	-56247-12-14 05:16 J	-18822446.44	-18822446.28	-18822446.09	0.0089	0.0030
Mercury	-56246-03-12 08:52 J	-18822358.30	-18822358.13	-18822357.96	0.0089	0.0037
Mercury	-56246-06-08 11:59 J	-18822270.16	-18822270.00	-18822269.84	0.0089	0.0045
Mercury	-56246-09-04 15:21 J	-18822182.01	-18822181.86	-18822181.71	0.0089	0.0053
Mercury	-56246-12-01 18:28 J	-18822093.86	-18822093.73	-18822093.59	0.0089	0.0061
Mercury	-56245-02-27 21:49 J	-18822005.70	-18822005.59	-18822005.47	0.0089	0.0069
Mercury	-56245-05-26 00:57 J	-18821917.54	-18821917.46	-18821917.36	0.0089	0.0077
Mercury	-56245-08-22 04:18 J	-18821829.36	-18821829.32	-18821829.26	0.0089	0.0085
Earth	-56244-01-12 16:47 J	-18821685.88	-18821685.80	-18821685.66	0.0089	0.0081
Moon	-56244-01-12 18:28 J	-18821685.78	-18821685.73	-18821685.62	0.0089	0.0084 *
Moon	-56243-01-15 02:52 J	-18821318.55	-18821318.38	-18821318.16	0.0089	0.0061

Earth	-56243-01-15 05:45 J	-18821318.44	-18821318.26	-18821318.08	0.0089	0.0064	*
Earth	-56242-01-17 17:45 J	-18820950.97	-18820950.76	-18820950.53	0.0089	0.0048	
Moon	-56242-01-17 21:06 J	-18820950.81	-18820950.62	-18820950.40	0.0089	0.0052	*
Moon	-56241-01-20 02:37 J	-18820583.62	-18820583.39	-18820583.13	0.0089	0.0028	
Earth	-56241-01-20 05:59 J	-18820583.47	-18820583.25	-18820582.99	0.0089	0.0032	*
Earth	-56240-01-21 18:42 J	-18820215.97	-18820215.72	-18820215.46	0.0089	0.0015	
Moon	-56240-01-21 22:33 J	-18820215.82	-18820215.56	-18820215.31	0.0089	0.0019	*
Moon	-56239-01-24 04:18 J	-18819848.57	-18819848.32	-18819848.06	0.0089	0.0007	
Earth	-56239-01-24 07:25 J	-18819848.45	-18819848.19	-18819847.93	0.0089	0.0002	*
Earth	-56238-01-26 19:40 J	-18819480.93	-18819480.68	-18819480.42	0.0089	0.0019	
Moon	-56238-01-26 22:04 J	-18819480.85	-18819480.58	-18819480.32	0.0089	0.0015	*
Moon	-56237-01-29 06:42 J	-18819113.43	-18819113.22	-18819112.98	0.0088	0.0040	
Earth	-56237-01-29 08:09 J	-18819113.38	-18819113.16	-18819112.91	0.0088	0.0036	*
Moon	-56236-01-30 20:23 J	-18818745.86	-18818745.65	-18818745.40	0.0088	0.0048	
Earth	-56236-01-30 21:06 J	-18818745.83	-18818745.62	-18818745.41	0.0088	0.0052	*
Earth	-56235-02-02 08:52 J	-18818378.26	-18818378.13	-18818377.94	0.0088	0.0069	
Moon	-56235-02-02 10:18 J	-18818378.19	-18818378.07	-18818377.90	0.0088	0.0073	*
Moon	-56234-02-04 19:11 J	-18818010.77	-18818010.70	-18818010.55	0.0088	0.0081	
Earth	-56234-02-04 21:49 J	-18818010.65	-18818010.59	-18818010.50	0.0088	0.0085	*
Venus	-56205-03-19 08:37 J	-18807375.15	-18807375.14	-18807375.08	0.0088	0.0087	
Venus	-56205-10-30 23:01 J	-18807149.68	-18807149.54	-18807149.39	0.0088	0.0067	
Venus	-56204-06-13 12:42 J	-18806924.14	-18806923.97	-18806923.76	0.0088	0.0048	
Venus	-56203-01-25 03:06 J	-18806698.57	-18806698.37	-18806698.14	0.0088	0.0028	
Venus	-56203-09-07 17:16 J	-18806473.00	-18806472.78	-18806472.55	0.0088	0.0009	
Venus	-56202-04-21 07:25 J	-18806247.42	-18806247.19	-18806246.97	0.0088	0.0012	
Venus	-56202-12-02 21:06 J	-18806021.82	-18806021.62	-18806021.40	0.0088	0.0031	
Venus	-56201-07-15 10:47 J	-18805796.21	-18805796.05	-18805795.84	0.0088	0.0051	
Venus	-56200-02-26 01:11 J	-18805570.58	-18805570.45	-18805570.31	0.0088	0.0070	
Mars	-56178-01-28 07:11 J	-18797564.39	-18797564.20	-18797563.95	0.0088	0.0065	
Mars	-56177-12-23 12:57 J	-18796869.24	-18796868.96	-18796868.65	0.0088	0.0036	

Mars -56175-11-18 16:47 J -18796174.12 -18796173.80 -18796173.48 0.0088 0.0007
 Mars -56173-10-13 16:33 J -18795479.12 -18795478.81 -18795478.50 0.0088 0.0022
 Mars -56171-09-08 12:13 J -18794784.23 -18794783.99 -18794783.71 0.0088 0.0050
 Mars -56169-08-03 06:13 J -18794089.37 -18794089.24 -18794089.06 0.0089 0.0077
 Mercury -56168-08-08 21:06 J -18793718.65 -18793718.62 -18793718.57 0.0089 0.0085
 Mercury -56168-11-04 22:33 J -18793630.61 -18793630.56 -18793630.49 0.0089 0.0079
 Mercury -56167-02-01 00:13 J -18793542.56 -18793542.49 -18793542.41 0.0089 0.0073
 Mercury -56167-04-30 01:40 J -18793454.51 -18793454.43 -18793454.33 0.0089 0.0067
 Mercury -56167-07-27 03:21 J -18793366.46 -18793366.36 -18793366.26 0.0089 0.0061
 Mercury -56167-10-23 04:47 J -18793278.40 -18793278.30 -18793278.19 0.0089 0.0055
 Mercury -56166-01-19 06:13 J -18793190.35 -18793190.24 -18793190.12 0.0089 0.0049
 Mercury -56166-04-17 07:54 J -18793102.29 -18793102.17 -18793102.05 0.0089 0.0043
 Mercury -56166-07-14 09:21 J -18793014.23 -18793014.11 -18793013.98 0.0089 0.0037
 Mercury -56166-10-10 10:47 J -18792926.17 -18792926.05 -18792925.91 0.0089 0.0031
 Mercury -56165-01-06 12:13 J -18792838.11 -18792837.99 -18792837.85 0.0089 0.0026
 Mercury -56165-04-03 13:54 J -18792750.05 -18792749.92 -18792749.78 0.0089 0.0019
 Mercury -56165-06-30 15:21 J -18792661.99 -18792661.86 -18792661.72 0.0089 0.0014
 Mercury -56165-09-26 17:01 J -18792573.93 -18792573.79 -18792573.66 0.0089 0.0008
 Mercury -56165-12-23 18:28 J -18792485.87 -18792485.73 -18792485.59 0.0089 0.0002
 Mercury -56164-03-21 19:54 J -18792397.81 -18792397.67 -18792397.53 0.0089 0.0004
 Mercury -56164-06-17 21:21 J -18792309.75 -18792309.61 -18792309.47 0.0089 0.0010
 Mercury -56164-09-13 22:47 J -18792221.68 -18792221.55 -18792221.41 0.0089 0.0016
 Mercury -56164-12-11 00:13 J -18792133.62 -18792133.49 -18792133.35 0.0089 0.0022
 Mercury -56163-03-09 01:40 J -18792045.56 -18792045.43 -18792045.30 0.0089 0.0028
 Mercury -56163-06-05 03:06 J -18791957.49 -18791957.37 -18791957.24 0.0089 0.0033
 Mercury -56163-09-01 04:47 J -18791869.43 -18791869.30 -18791869.18 0.0089 0.0039
 Mercury -56163-11-28 05:59 J -18791781.36 -18791781.25 -18791781.13 0.0089 0.0045
 Mercury -56162-02-24 07:25 J -18791693.29 -18791693.19 -18791693.07 0.0089 0.0051
 Mercury -56162-05-23 08:52 J -18791605.23 -18791605.13 -18791605.02 0.0089 0.0056
 Moon -56162-07-18 01:11 J -18791549.46 -18791549.45 -18791549.40 0.0089 0.0088

Earth -56162-07-18 02:09 J -18791549.45 -18791549.41 -18791549.32 0.0089 0.0086 *
 Mercury -56162-08-19 10:18 J -18791517.16 -18791517.07 -18791516.97 0.0089 0.0062
 Mercury -56162-11-15 11:45 J -18791429.09 -18791429.01 -18791428.92 0.0089 0.0068
 Mercury -56161-02-11 12:57 J -18791341.02 -18791340.96 -18791340.87 0.0089 0.0074
 Mercury -56161-05-09 14:37 J -18791252.94 -18791252.89 -18791252.83 0.0089 0.0079
 Earth -56161-07-19 13:11 J -18791182.08 -18791181.95 -18791181.76 0.0089 0.0070
 Moon -56161-07-19 15:35 J -18791182.00 -18791181.85 -18791181.68 0.0089 0.0067 *
 Mercury -56161-08-05 15:49 J -18791164.86 -18791164.84 -18791164.79 0.0089 0.0085
 Moon -56160-07-21 21:49 J -18790814.78 -18790814.59 -18790814.38 0.0089 0.0056
 Earth -56160-07-22 00:28 J -18790814.67 -18790814.48 -18790814.26 0.0089 0.0053 *
 Earth -56159-07-24 11:16 J -18790447.24 -18790447.03 -18790446.77 0.0089 0.0037
 Moon -56159-07-24 15:06 J -18790447.09 -18790446.87 -18790446.62 0.0089 0.0034 *
 Moon -56158-07-26 19:11 J -18790079.94 -18790079.70 -18790079.45 0.0089 0.0023
 Earth -56158-07-26 22:33 J -18790079.80 -18790079.56 -18790079.30 0.0089 0.0020 *
 Earth -56157-07-28 09:21 J -18789712.36 -18789712.11 -18789711.85 0.0089 0.0004
 Moon -56157-07-28 12:57 J -18789712.22 -18789711.96 -18789711.70 0.0089 0.0001 *
 Moon -56156-07-30 17:59 J -18789345.00 -18789344.75 -18789344.50 0.0089 0.0010
 Earth -56156-07-30 20:23 J -18789344.90 -18789344.65 -18789344.40 0.0089 0.0013 *
 Earth -56155-08-02 06:42 J -18788977.44 -18788977.22 -18788976.96 0.0089 0.0030
 Moon -56155-08-02 08:09 J -18788977.39 -18788977.16 -18788976.90 0.0089 0.0033 *
 Moon -56154-08-04 17:01 J -18788609.99 -18788609.79 -18788609.55 0.0089 0.0043
 Earth -56154-08-04 17:45 J -18788609.97 -18788609.76 -18788609.53 0.0089 0.0046 *
 Moon -56153-08-06 02:37 J -18788242.54 -18788242.39 -18788242.18 0.0089 0.0066
 Earth -56153-08-06 04:04 J -18788242.48 -18788242.33 -18788242.12 0.0089 0.0063 *
 Earth -56152-08-08 14:52 J -18787874.97 -18787874.88 -18787874.74 0.0089 0.0079
 Moon -56152-08-08 17:16 J -18787874.89 -18787874.78 -18787874.64 0.0089 0.0076 *
 Venus -56123-05-03 14:52 J -18777379.88 -18777379.88 -18777379.82 0.0089 0.0089
 Venus -56123-12-15 03:06 J -18777154.49 -18777154.37 -18777154.22 0.0089 0.0069
 Venus -56122-07-28 15:06 J -18776929.03 -18776928.87 -18776928.67 0.0089 0.0051
 Venus -56121-03-10 03:21 J -18776703.55 -18776703.36 -18776703.15 0.0089 0.0031

Venus	-56121-10-21 15:35 J	-18776478.06	-18776477.85	-18776477.64	0.0089	0.0012
Venus	-56120-06-04 03:21 J	-18776252.57	-18776252.36	-18776252.14	0.0089	0.0008
Venus	-56119-01-15 15:06 J	-18776027.06	-18776026.87	-18776026.65	0.0089	0.0027
Venus	-56119-08-29 03:06 J	-18775801.53	-18775801.37	-18775801.17	0.0089	0.0047
Venus	-56118-04-11 15:06 J	-18775575.99	-18775575.87	-18775575.71	0.0089	0.0066
Venus	-56118-11-23 03:06 J	-18775350.42	-18775350.37	-18775350.28	0.0089	0.0085
Mars	-56099-11-12 11:45 J	-18768421.09	-18768421.01	-18768420.90	0.0089	0.0084
Mars	-56097-10-06 16:04 J	-18767727.04	-18767726.83	-18767726.59	0.0089	0.0058
Mars	-56095-08-31 23:45 J	-18767032.79	-18767032.51	-18767032.22	0.0089	0.0031
Mars	-56093-07-26 10:47 J	-18766338.35	-18766338.05	-18766337.74	0.0089	0.0004
Mars	-56091-06-20 22:33 J	-18765643.85	-18765643.56	-18765643.25	0.0089	0.0024
Mars	-56089-05-15 13:54 J	-18764949.16	-18764948.92	-18764948.66	0.0089	0.0052
Mars	-56087-04-10 07:54 J	-18764254.26	-18764254.17	-18764253.99	0.0089	0.0081
Mercury	-56085-01-27 03:49 J	-18763597.37	-18763597.34	-18763597.26	0.0089	0.0085
Mercury	-56085-04-24 07:11 J	-18763509.27	-18763509.20	-18763509.10	0.0089	0.0077
Mercury	-56085-07-21 10:33 J	-18763421.17	-18763421.06	-18763420.94	0.0089	0.0069
Mercury	-56085-10-17 13:25 J	-18763333.06	-18763332.94	-18763332.80	0.0089	0.0062
Mercury	-56084-01-13 16:33 J	-18763244.94	-18763244.81	-18763244.65	0.0089	0.0054
Mercury	-56084-04-11 19:54 J	-18763156.82	-18763156.67	-18763156.51	0.0089	0.0046
Mercury	-56084-07-08 22:47 J	-18763068.70	-18763068.55	-18763068.37	0.0089	0.0039
Mercury	-56084-10-05 02:09 J	-18762980.57	-18762980.41	-18762980.23	0.0089	0.0031
Mercury	-56083-01-01 05:30 J	-18762892.45	-18762892.27	-18762892.09	0.0089	0.0023
Mercury	-56083-03-30 08:37 J	-18762804.32	-18762804.14	-18762803.96	0.0089	0.0015
Mercury	-56083-06-26 11:45 J	-18762716.19	-18762716.01	-18762715.82	0.0089	0.0008
Mercury	-56083-09-22 15:06 J	-18762628.06	-18762627.87	-18762627.69	0.0089	0.0001
Mercury	-56083-12-19 18:13 J	-18762539.92	-18762539.74	-18762539.55	0.0089	0.0009
Mercury	-56082-03-17 21:21 J	-18762451.78	-18762451.61	-18762451.42	0.0089	0.0017
Mercury	-56082-06-14 00:28 J	-18762363.65	-18762363.48	-18762363.29	0.0089	0.0025
Mercury	-56082-09-10 03:49 J	-18762275.50	-18762275.34	-18762275.16	0.0089	0.0032
Mercury	-56082-12-07 07:11 J	-18762187.36	-18762187.20	-18762187.03	0.0089	0.0040

Mercury -56081-03-04 10:33 J -18762099.22 -18762099.06 -18762098.90 0.0089 0.0048
 Mercury -56081-05-31 13:40 J -18762011.07 -18762010.93 -18762010.78 0.0089 0.0056
 Mercury -56081-08-27 17:01 J -18761922.92 -18761922.79 -18761922.66 0.0089 0.0064
 Mercury -56081-11-23 20:09 J -18761834.76 -18761834.66 -18761834.54 0.0089 0.0072
 Earth -56080-01-12 01:25 J -18761785.45 -18761785.44 -18761785.39 0.0089 0.0088
 Mercury -56080-02-19 23:30 J -18761746.59 -18761746.52 -18761746.44 0.0089 0.0080
 Mercury -56080-05-19 02:52 J -18761658.39 -18761658.38 -18761658.36 0.0089 0.0088
 Earth -56079-01-14 13:25 J -18761418.07 -18761417.94 -18761417.76 0.0089 0.0072
 Moon -56079-01-14 17:01 J -18761417.94 -18761417.79 -18761417.62 0.0089 0.0069 *
 Moon -56078-01-16 22:18 J -18761050.76 -18761050.57 -18761050.37 0.0089 0.0058
 Earth -56078-01-17 01:54 J -18761050.61 -18761050.42 -18761050.20 0.0089 0.0055 *
 Earth -56077-01-19 14:09 J -18760683.13 -18760682.91 -18760682.66 0.0089 0.0039
 Moon -56077-01-19 17:16 J -18760683.00 -18760682.78 -18760682.52 0.0089 0.0036 *
 Moon -56076-01-20 23:59 J -18760315.74 -18760315.50 -18760315.25 0.0089 0.0024
 Earth -56076-01-21 02:52 J -18760315.62 -18760315.38 -18760315.12 0.0089 0.0022 *
 Earth -56075-01-23 15:21 J -18759948.12 -18759947.86 -18759947.60 0.0089 0.0005
 Moon -56075-01-23 17:16 J -18759948.04 -18759947.78 -18759947.51 0.0089 0.0003 *
 Moon -56074-01-26 03:35 J -18759580.60 -18759580.35 -18759580.10 0.0089 0.0010
 Earth -56074-01-26 03:49 J -18759580.59 -18759580.34 -18759580.08 0.0089 0.0012 *
 Moon -56073-01-28 16:04 J -18759213.07 -18759212.83 -18759212.57 0.0089 0.0031
 Earth -56073-01-28 16:18 J -18759213.05 -18759212.82 -18759212.56 0.0089 0.0029 *
 Earth -56072-01-30 05:01 J -18758845.51 -18758845.29 -18758845.06 0.0089 0.0046
 Moon -56072-01-30 06:57 J -18758845.43 -18758845.21 -18758844.99 0.0089 0.0044 *
 Moon -56071-02-01 14:09 J -18758478.06 -18758477.91 -18758477.70 0.0088 0.0066
 Earth -56071-02-01 17:30 J -18758477.94 -18758477.77 -18758477.57 0.0088 0.0063 *
 Earth -56070-02-04 05:45 J -18758110.35 -18758110.26 -18758110.12 0.0088 0.0080
 Moon -56070-02-04 08:52 J -18758110.22 -18758110.13 -18758109.99 0.0088 0.0079 *
 Venus -56040-02-01 08:37 J -18747155.24 -18747155.14 -18747155.01 0.0088 0.0075
 Venus -56040-09-14 22:18 J -18746929.72 -18746929.57 -18746929.37 0.0088 0.0056
 Venus -56039-04-28 12:28 J -18746704.17 -18746703.98 -18746703.76 0.0088 0.0037

Venus -56039-12-10 02:52 J -18746478.61 -18746478.38 -18746478.16 0.0088 0.0016

Venus -56038-07-23 16:47 J -18746253.02 -18746252.80 -18746252.57 0.0088 0.0003

Venus -56037-03-05 06:42 J -18746027.43 -18746027.22 -18746026.99 0.0088 0.0023

Venus -56037-10-16 20:52 J -18745801.83 -18745801.63 -18745801.43 0.0088 0.0043

Venus -56036-05-30 10:33 J -18745576.21 -18745576.06 -18745575.89 0.0088 0.0062

Venus -56035-01-11 00:13 J -18745350.55 -18745350.49 -18745350.38 0.0088 0.0082

Mars -56015-09-11 10:47 J -18737802.21 -18737802.05 -18737801.84 0.0088 0.0073

Mars -56013-08-06 19:40 J -18737106.95 -18737106.68 -18737106.38 0.0088 0.0044

Mars -56011-07-03 00:42 J -18736411.79 -18736411.47 -18736411.15 0.0088 0.0015

Mars -56009-05-28 03:21 J -18735716.67 -18735716.36 -18735716.04 0.0088 0.0014

Mars -56007-04-23 03:06 J -18735021.63 -18735021.37 -18735021.07 0.0088 0.0042

Mars -56005-03-17 22:33 J -18734326.73 -18734326.56 -18734326.33 0.0089 0.0069

Mercury -56003-02-06 19:11 J -18733635.71 -18733635.70 -18733635.68 0.0089 0.0088

Mercury -56003-05-05 20:52 J -18733547.68 -18733547.63 -18733547.58 0.0089 0.0082

Mercury -56003-08-01 22:18 J -18733459.63 -18733459.57 -18733459.49 0.0089 0.0076

Mercury -56003-10-28 23:59 J -18733371.58 -18733371.50 -18733371.42 0.0089 0.0070

Mercury -56002-01-25 01:25 J -18733283.53 -18733283.44 -18733283.34 0.0089 0.0064

Mercury -56002-04-23 02:37 J -18733195.48 -18733195.39 -18733195.27 0.0089 0.0059

Mercury -56002-07-20 04:18 J -18733107.42 -18733107.32 -18733107.20 0.0089 0.0053

Mercury -56002-10-16 05:45 J -18733019.36 -18733019.26 -18733019.13 0.0089 0.0047

Mercury -56001-01-12 07:25 J -18732931.31 -18732931.19 -18732931.06 0.0089 0.0040

Mercury -56001-04-09 08:52 J -18732843.25 -18732843.13 -18732842.99 0.0089 0.0035

Mercury -56001-07-06 10:33 J -18732755.19 -18732755.06 -18732754.93 0.0089 0.0028

Mercury -56001-10-02 11:59 J -18732667.13 -18732667.00 -18732666.86 0.0089 0.0023

Mercury -56001-12-29 13:40 J -18732579.07 -18732578.93 -18732578.80 0.0089 0.0017

56TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 56th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	-56000-03-27 15:06 J	-18732491.01	-18732490.87	-18732490.73	0.0089	0.0011		
Mercury	-56000-06-23 16:33 J	-18732402.95	-18732402.81	-18732402.67	0.0089	0.0005		
Mercury	-56000-09-19 17:59 J	-18732314.89	-18732314.75	-18732314.61	0.0089	0.0001		
Mercury	-56000-12-16 19:25 J	-18732226.82	-18732226.69	-18732226.55	0.0089	0.0007		
Mercury	-55999-03-14 20:52 J	-18732138.76	-18732138.63	-18732138.49	0.0089	0.0013		
Mercury	-55999-06-10 22:18 J	-18732050.70	-18732050.57	-18732050.43	0.0089	0.0019		
Mercury	-55999-09-06 23:45 J	-18731962.64	-18731962.51	-18731962.37	0.0089	0.0025		
Mercury	-55999-12-04 01:25 J	-18731874.57	-18731874.44	-18731874.31	0.0089	0.0030		
Mercury	-55998-03-02 02:52 J	-18731786.51	-18731786.38	-18731786.26	0.0089	0.0036		
Mercury	-55998-05-29 04:04 J	-18731698.44	-18731698.33	-18731698.20	0.0089	0.0042		
Mercury	-55998-08-25 05:30 J	-18731610.38	-18731610.27	-18731610.15	0.0089	0.0048		
Mercury	-55998-11-21 07:11 J	-18731522.31	-18731522.20	-18731522.09	0.0089	0.0053		
Mercury	-55997-02-17 08:37 J	-18731434.24	-18731434.14	-18731434.04	0.0089	0.0059		
Mercury	-55997-05-15 09:49 J	-18731346.17	-18731346.09	-18731345.99	0.0089	0.0065		
Moon	-55997-07-18 19:25 J	-18731281.82	-18731281.69	-18731281.52	0.0089	0.0073		
Earth	-55997-07-18 22:47 J	-18731281.66	-18731281.55	-18731281.41	0.0089	0.0077	*	
Mercury	-55997-08-11 11:16 J	-18731258.10	-18731258.03	-18731257.94	0.0089	0.0070		
Mercury	-55997-11-07 12:42 J	-18731170.03	-18731169.97	-18731169.89	0.0089	0.0076		
Mercury	-55996-02-03 14:09 J	-18731081.95	-18731081.91	-18731081.85	0.0089	0.0082		
Mercury	-55996-05-02 15:21 J	-18730993.86	-18730993.86	-18730993.82	0.0089	0.0088		
Earth	-55996-07-21 10:04 J	-18730914.26	-18730914.08	-18730913.88	0.0089	0.0060		

Moon	-55996-07-21 13:11 J	-18730914.11	-18730913.95	-18730913.75	0.0089	0.0064	*
Moon	-55995-07-23 17:30 J	-18730546.99	-18730546.77	-18730546.53	0.0089	0.0040	
Earth	-55995-07-23 21:06 J	-18730546.83	-18730546.62	-18730546.38	0.0089	0.0044	*
Earth	-55994-07-26 07:54 J	-18730179.40	-18730179.17	-18730178.92	0.0089	0.0027	
Moon	-55994-07-26 11:01 J	-18730179.29	-18730179.04	-18730178.79	0.0089	0.0030	*
Moon	-55993-07-27 16:47 J	-18729812.05	-18729811.80	-18729811.55	0.0089	0.0007	
Earth	-55993-07-27 18:57 J	-18729811.96	-18729811.71	-18729811.45	0.0089	0.0010	*
Earth	-55992-07-30 05:45 J	-18729444.51	-18729444.26	-18729444.00	0.0089	0.0007	
Moon	-55992-07-30 06:57 J	-18729444.47	-18729444.21	-18729443.95	0.0089	0.0003	*
Earth	-55991-08-01 16:18 J	-18729077.05	-18729076.82	-18729076.56	0.0089	0.0024	
Moon	-55991-08-01 17:01 J	-18729077.02	-18729076.79	-18729076.55	0.0089	0.0027	*
Moon	-55990-08-04 01:54 J	-18728709.65	-18728709.42	-18728709.17	0.0089	0.0037	
Earth	-55990-08-04 03:21 J	-18728709.59	-18728709.36	-18728709.13	0.0089	0.0040	*
Earth	-55989-08-05 13:40 J	-18728342.11	-18728341.93	-18728341.72	0.0089	0.0057	
Moon	-55989-08-05 16:04 J	-18728341.99	-18728341.83	-18728341.63	0.0089	0.0061	*
Moon	-55988-08-07 20:52 J	-18727974.76	-18727974.63	-18727974.44	0.0089	0.0070	
Earth	-55988-08-08 00:13 J	-18727974.60	-18727974.49	-18727974.32	0.0089	0.0074	*
Venus	-55958-03-18 14:52 J	-18717159.97	-18717159.88	-18717159.76	0.0089	0.0077	
Venus	-55958-10-30 02:52 J	-18716934.53	-18716934.38	-18716934.21	0.0089	0.0058	
Venus	-55957-06-11 14:52 J	-18716709.06	-18716708.88	-18716708.68	0.0089	0.0039	
Venus	-55956-01-23 02:52 J	-18716483.58	-18716483.38	-18716483.17	0.0089	0.0020	
Venus	-55956-09-05 15:06 J	-18716258.09	-18716257.87	-18716257.66	0.0089	0.0001	
Venus	-55955-04-19 02:52 J	-18716032.58	-18716032.38	-18716032.16	0.0089	0.0018	
Venus	-55955-11-30 14:52 J	-18715807.07	-18715806.88	-18715806.68	0.0089	0.0037	
Venus	-55954-07-14 02:52 J	-18715581.53	-18715581.38	-18715581.21	0.0089	0.0057	
Venus	-55953-02-24 14:52 J	-18715355.98	-18715355.88	-18715355.76	0.0089	0.0076	
Mars	-55933-05-21 20:09 J	-18707963.86	-18707963.66	-18707963.45	0.0089	0.0064	
Mars	-55931-04-16 01:11 J	-18707269.71	-18707269.45	-18707269.16	0.0089	0.0038	
Mars	-55929-03-10 08:52 J	-18706575.43	-18706575.13	-18706574.82	0.0089	0.0011	
Mars	-55927-02-02 20:23 J	-18705880.94	-18705880.65	-18705880.33	0.0089	0.0016	

Mars -55926-12-29 09:35 J -18705186.35 -18705186.10 -18705185.81 0.0089 0.0043
 Mars -55924-11-23 00:57 J -18704491.62 -18704491.46 -18704491.25 0.0089 0.0071
 Mercury -55921-10-23 02:37 J -18703426.44 -18703426.39 -18703426.30 0.0089 0.0082
 Mercury -55920-01-19 05:45 J -18703338.34 -18703338.26 -18703338.14 0.0089 0.0074
 Mercury -55920-04-17 09:06 J -18703250.23 -18703250.12 -18703249.99 0.0089 0.0066
 Mercury -55920-07-14 11:59 J -18703162.12 -18703162.00 -18703161.85 0.0089 0.0059
 Mercury -55920-10-10 15:21 J -18703074.00 -18703073.86 -18703073.70 0.0089 0.0051
 Mercury -55919-01-06 18:28 J -18702985.88 -18702985.73 -18702985.56 0.0089 0.0043
 Mercury -55919-04-04 21:49 J -18702897.76 -18702897.59 -18702897.42 0.0089 0.0035
 Mercury -55919-07-02 00:42 J -18702809.63 -18702809.47 -18702809.29 0.0089 0.0028
 Mercury -55919-09-28 04:04 J -18702721.51 -18702721.33 -18702721.15 0.0089 0.0020
 Mercury -55919-12-25 07:11 J -18702633.38 -18702633.20 -18702633.01 0.0089 0.0012
 Mercury -55918-03-23 10:33 J -18702545.25 -18702545.06 -18702544.88 0.0089 0.0004
 Mercury -55918-06-19 13:40 J -18702457.11 -18702456.93 -18702456.74 0.0089 0.0004
 Mercury -55918-09-15 16:47 J -18702368.98 -18702368.80 -18702368.61 0.0089 0.0012
 Mercury -55918-12-12 19:54 J -18702280.84 -18702280.67 -18702280.48 0.0089 0.0020
 Mercury -55917-03-09 23:16 J -18702192.70 -18702192.53 -18702192.35 0.0089 0.0028
 Mercury -55917-06-06 02:23 J -18702104.56 -18702104.40 -18702104.22 0.0089 0.0036
 Mercury -55917-09-02 05:30 J -18702016.42 -18702016.27 -18702016.09 0.0089 0.0044
 Mercury -55917-11-29 08:52 J -18701928.27 -18701928.13 -18701927.97 0.0089 0.0052
 Mercury -55916-02-25 11:59 J -18701840.12 -18701840.00 -18701839.85 0.0089 0.0060
 Mercury -55916-05-24 15:21 J -18701751.97 -18701751.86 -18701751.73 0.0089 0.0068
 Mercury -55916-08-20 18:28 J -18701663.81 -18701663.73 -18701663.61 0.0089 0.0076
 Mercury -55916-11-16 21:49 J -18701575.63 -18701575.59 -18701575.51 0.0089 0.0084
 Moon -55915-01-13 19:11 J -18701517.79 -18701517.70 -18701517.60 0.0089 0.0082
 Earth -55915-01-13 22:33 J -18701517.66 -18701517.56 -18701517.43 0.0089 0.0079 *
 Earth -55914-01-16 10:18 J -18701150.23 -18701150.07 -18701149.86 0.0089 0.0063
 Moon -55914-01-16 13:54 J -18701150.09 -18701149.92 -18701149.70 0.0089 0.0059 *
 Moon -55913-01-18 20:52 J -18700782.83 -18700782.63 -18700782.40 0.0089 0.0049
 Earth -55913-01-18 22:47 J -18700782.75 -18700782.55 -18700782.30 0.0089 0.0046 *

Earth	-55912-01-20 11:16 J	-18700415.26	-18700415.03	-18700414.77	0.0089	0.0029
Moon	-55912-01-20 12:57 J	-18700415.21	-18700414.96	-18700414.70	0.0089	0.0025 *
Moon	-55911-01-22 23:16 J	-18700047.76	-18700047.53	-18700047.27	0.0089	0.0016
Earth	-55911-01-22 23:45 J	-18700047.76	-18700047.51	-18700047.24	0.0089	0.0012 *
Moon	-55910-01-25 11:01 J	-18699680.31	-18699680.04	-18699679.77	0.0089	0.0009
Earth	-55910-01-25 12:28 J	-18699680.24	-18699679.98	-18699679.72	0.0089	0.0006 *
Earth	-55909-01-28 00:57 J	-18699312.71	-18699312.46	-18699312.21	0.0089	0.0023
Moon	-55909-01-28 02:37 J	-18699312.62	-18699312.39	-18699312.13	0.0089	0.0020 *
Moon	-55908-01-29 10:33 J	-18698945.29	-18698945.06	-18698944.83	0.0089	0.0044
Earth	-55908-01-29 13:25 J	-18698945.16	-18698944.94	-18698944.70	0.0089	0.0040 *
Earth	-55907-02-01 01:25 J	-18698577.61	-18698577.44	-18698577.21	0.0088	0.0058
Moon	-55907-02-01 05:16 J	-18698577.46	-18698577.28	-18698577.05	0.0088	0.0054 *
Moon	-55906-02-03 11:30 J	-18698210.14	-18698210.02	-18698209.90	0.0088	0.0078
Earth	-55906-02-03 14:52 J	-18698210.02	-18698209.88	-18698209.73	0.0088	0.0074 *
Moon	-55905-02-06 06:28 J	-18697842.25	-18697842.23	-18697842.14	0.0088	0.0087
Venus	-55876-05-05 17:59 J	-18687160.80	-18687160.75	-18687160.65	0.0088	0.0084
Venus	-55876-12-17 08:23 J	-18686935.30	-18686935.15	-18686934.98	0.0088	0.0064
Venus	-55875-07-30 22:18 J	-18686709.75	-18686709.57	-18686709.36	0.0088	0.0044
Venus	-55874-03-13 12:28 J	-18686484.19	-18686483.98	-18686483.75	0.0088	0.0025
Venus	-55874-10-25 02:37 J	-18686258.61	-18686258.39	-18686258.16	0.0088	0.0005
Venus	-55873-06-06 16:33 J	-18686033.03	-18686032.81	-18686032.58	0.0088	0.0015
Venus	-55872-01-18 06:42 J	-18685807.43	-18685807.22	-18685807.01	0.0088	0.0035
Venus	-55872-08-31 20:23 J	-18685581.81	-18685581.65	-18685581.46	0.0088	0.0054
Venus	-55871-04-14 10:04 J	-18685356.18	-18685356.08	-18685355.93	0.0088	0.0074
Mars	-55851-04-25 14:23 J	-18678040.01	-18678039.90	-18678039.72	0.0088	0.0080
Mars	-55849-03-21 01:40 J	-18677344.69	-18677344.43	-18677344.16	0.0088	0.0051
Mars	-55847-02-14 09:21 J	-18676649.40	-18676649.11	-18676648.78	0.0088	0.0023
Mars	-55845-01-10 13:40 J	-18675954.24	-18675953.93	-18675953.60	0.0088	0.0006
Mars	-55844-12-05 15:06 J	-18675259.15	-18675258.87	-18675258.56	0.0088	0.0034
Mars	-55842-10-31 14:09 J	-18674564.11	-18674563.91	-18674563.65	0.0088	0.0061

Mars -55840-09-25 09:35 J -18673869.14 -18673869.10 -18673869.02 0.0089 0.0087
 Mercury -55839-11-03 18:42 J -18673464.74 -18673464.72 -18673464.67 0.0089 0.0086
 Mercury -55838-01-30 20:09 J -18673376.70 -18673376.66 -18673376.58 0.0089 0.0080
 Mercury -55838-04-28 21:49 J -18673288.65 -18673288.59 -18673288.50 0.0089 0.0074
 Mercury -55838-07-25 23:16 J -18673200.60 -18673200.53 -18673200.42 0.0089 0.0068
 Mercury -55838-10-22 00:57 J -18673112.55 -18673112.46 -18673112.35 0.0089 0.0062
 Mercury -55837-01-18 02:23 J -18673024.49 -18673024.40 -18673024.28 0.0089 0.0056
 Mercury -55837-04-15 04:04 J -18672936.44 -18672936.33 -18672936.21 0.0089 0.0050
 Mercury -55837-07-12 05:30 J -18672848.38 -18672848.27 -18672848.14 0.0089 0.0044
 Mercury -55837-10-08 07:11 J -18672760.32 -18672760.20 -18672760.07 0.0089 0.0038
 Mercury -55836-01-04 08:37 J -18672672.26 -18672672.14 -18672672.00 0.0089 0.0032
 Mercury -55836-04-02 10:18 J -18672584.20 -18672584.07 -18672583.94 0.0089 0.0026
 Mercury -55836-06-29 11:45 J -18672496.14 -18672496.01 -18672495.87 0.0089 0.0020
 Mercury -55836-09-25 13:11 J -18672408.08 -18672407.95 -18672407.81 0.0089 0.0014
 Mercury -55836-12-22 14:52 J -18672320.02 -18672319.88 -18672319.75 0.0089 0.0008
 Mercury -55835-03-20 16:18 J -18672231.96 -18672231.82 -18672231.68 0.0089 0.0002
 Mercury -55835-06-16 17:45 J -18672143.90 -18672143.76 -18672143.62 0.0089 0.0004
 Mercury -55835-09-12 19:11 J -18672055.83 -18672055.70 -18672055.56 0.0089 0.0010
 Mercury -55835-12-09 20:37 J -18671967.77 -18671967.64 -18671967.50 0.0089 0.0016
 Mercury -55834-03-07 22:04 J -18671879.71 -18671879.58 -18671879.44 0.0089 0.0022
 Saturn -55834-05-08 10:47 J -18671818.48 -18671818.05 -18671817.51 0.0089 0.0061
 Mercury -55834-06-03 23:30 J -18671791.64 -18671791.52 -18671791.38 0.0089 0.0027
 Mercury -55834-08-31 01:11 J -18671703.58 -18671703.45 -18671703.33 0.0089 0.0033
 Mercury -55834-11-27 02:23 J -18671615.52 -18671615.40 -18671615.27 0.0089 0.0039
 Mercury -55833-02-23 03:49 J -18671527.45 -18671527.34 -18671527.21 0.0089 0.0045
 Mercury -55833-05-21 05:16 J -18671439.38 -18671439.28 -18671439.16 0.0089 0.0051
 Earth -55833-07-18 08:23 J -18671381.20 -18671381.15 -18671381.04 0.0089 0.0085
 Moon -55833-07-18 11:59 J -18671381.02 -18671381.00 -18671380.91 0.0089 0.0087
 Mercury -55833-08-17 06:57 J -18671351.32 -18671351.21 -18671351.11 0.0089 0.0056
 Mercury -55833-11-13 08:09 J -18671263.25 -18671263.16 -18671263.05 0.0089 0.0062

Mercury -55832-02-09 09:35 J -18671175.18 -18671175.10 -18671175.00 0.0089 0.0068

Mercury -55832-05-08 11:16 J -18671087.11 -18671087.03 -18671086.96 0.0089 0.0073

Moon -55832-07-20 16:47 J -18671013.96 -18671013.80 -18671013.61 0.0089 0.0065

Earth -55832-07-20 19:54 J -18671013.81 -18671013.67 -18671013.48 0.0089 0.0068 *

Mercury -55832-08-04 12:28 J -18670999.03 -18670998.98 -18670998.91 0.0089 0.0079

Mercury -55832-10-31 13:54 J -18670910.95 -18670910.92 -18670910.87 0.0089 0.0085

Earth -55831-07-23 06:57 J -18670646.40 -18670646.21 -18670645.98 0.0089 0.0051

Moon -55831-07-23 10:04 J -18670646.27 -18670646.08 -18670645.85 0.0089 0.0054 *

Moon -55830-07-25 16:47 J -18670279.02 -18670278.80 -18670278.55 0.0089 0.0032

Earth -55830-07-25 18:13 J -18670278.96 -18670278.74 -18670278.48 0.0089 0.0034 *

Earth -55829-07-27 05:30 J -18669911.51 -18669911.27 -18669911.01 0.0089 0.0017

Moon -55829-07-27 06:28 J -18669911.49 -18669911.23 -18669910.97 0.0089 0.0019 *

Earth -55828-07-29 16:33 J -18669544.06 -18669543.81 -18669543.55 0.0089 0.0002

Moon -55828-07-29 17:01 J -18669544.04 -18669543.79 -18669543.54 0.0089 0.0004 *

Moon -55827-08-01 01:11 J -18669176.70 -18669176.45 -18669176.18 0.0089 0.0016

Earth -55827-08-01 03:21 J -18669176.60 -18669176.36 -18669176.10 0.0089 0.0018 *

Earth -55826-08-03 13:40 J -18668809.15 -18668808.93 -18668808.68 0.0089 0.0035

Moon -55826-08-03 16:18 J -18668809.03 -18668808.82 -18668808.58 0.0089 0.0038 *

Moon -55825-08-04 21:21 J -18668441.82 -18668441.61 -18668441.39 0.0089 0.0048

Earth -55825-08-05 00:28 J -18668441.67 -18668441.48 -18668441.25 0.0089 0.0052 *

Earth -55824-08-07 11:30 J -18668074.18 -18668074.02 -18668073.85 0.0089 0.0068

Moon -55824-08-07 14:52 J -18668074.02 -18668073.88 -18668073.71 0.0089 0.0071 *

Moon -55823-08-09 18:28 J -18667706.80 -18667706.73 -18667706.61 0.0089 0.0082

Earth -55823-08-09 21:49 J -18667706.64 -18667706.59 -18667706.50 0.0089 0.0085 *

Venus -55794-06-20 02:37 J -18657165.43 -18657165.39 -18657165.30 0.0089 0.0085

Venus -55793-01-31 14:37 J -18656940.01 -18656939.89 -18656939.72 0.0089 0.0067

Venus -55793-09-13 02:52 J -18656714.55 -18656714.38 -18656714.18 0.0089 0.0047

Venus -55792-04-26 14:52 J -18656489.07 -18656488.88 -18656488.66 0.0089 0.0028

Venus -55792-12-08 03:06 J -18656263.58 -18656263.37 -18656263.15 0.0089 0.0009

Venus -55791-07-21 15:21 J -18656038.07 -18656037.86 -18656037.65 0.0089 0.0010

Venus -55790-03-04 03:21 J -18655812.56 -18655812.36 -18655812.16 0.0089 0.0030

Venus -55790-10-15 15:21 J -18655587.04 -18655586.86 -18655586.68 0.0089 0.0049

Venus -55789-05-28 03:21 J -18655361.50 -18655361.36 -18655361.22 0.0089 0.0068

Venus -55788-01-08 14:37 J -18655135.91 -18655135.89 -18655135.81 0.0089 0.0088

Mars -55769-01-05 00:42 J -18648200.63 -18648200.47 -18648200.26 0.0089 0.0070

Mars -55768-11-29 05:59 J -18647506.51 -18647506.25 -18647505.99 0.0089 0.0044

Mars -55766-10-24 12:13 J -18646812.29 -18646811.99 -18646811.69 0.0089 0.0018

Mars -55764-09-17 20:09 J -18646117.96 -18646117.66 -18646117.35 0.0089 0.0008

Mars -55762-08-13 07:54 J -18645423.44 -18645423.17 -18645422.87 0.0089 0.0035

Mars -55760-07-07 22:04 J -18644728.78 -18644728.58 -18644728.34 0.0089 0.0062

Mercury -55756-04-22 22:47 J -18643343.59 -18643343.55 -18643343.50 0.0089 0.0085

Mercury -55756-07-20 01:40 J -18643255.50 -18643255.43 -18643255.33 0.0089 0.0078

Mercury -55756-10-16 05:01 J -18643167.40 -18643167.29 -18643167.18 0.0089 0.0070

Mercury -55755-01-12 07:40 J -18643079.29 -18643079.18 -18643079.03 0.0089 0.0063

Mercury -55755-04-10 11:01 J -18642991.17 -18642991.04 -18642990.88 0.0089 0.0055

Mercury -55755-07-07 14:23 J -18642903.05 -18642902.90 -18642902.74 0.0089 0.0047

Mercury -55755-10-03 17:30 J -18642814.93 -18642814.77 -18642814.60 0.0089 0.0039

Mercury -55755-12-30 20:23 J -18642726.81 -18642726.65 -18642726.46 0.0089 0.0032

Mercury -55754-03-28 23:45 J -18642638.68 -18642638.51 -18642638.33 0.0089 0.0024

Mercury -55754-06-25 03:06 J -18642550.55 -18642550.37 -18642550.19 0.0089 0.0016

Mercury -55754-09-21 06:13 J -18642462.42 -18642462.24 -18642462.06 0.0089 0.0008

Mercury -55754-12-18 09:21 J -18642374.29 -18642374.11 -18642373.92 0.0089 0.0002

Mercury -55753-03-15 12:42 J -18642286.16 -18642285.97 -18642285.79 0.0089 0.0008

Mercury -55753-06-11 15:49 J -18642198.02 -18642197.84 -18642197.66 0.0089 0.0016

Mercury -55753-09-07 18:57 J -18642109.88 -18642109.71 -18642109.53 0.0089 0.0024

Mercury -55753-12-04 22:04 J -18642021.74 -18642021.58 -18642021.40 0.0089 0.0032

Mercury -55752-03-03 01:11 J -18641933.60 -18641933.45 -18641933.27 0.0089 0.0040

Mercury -55752-05-30 04:33 J -18641845.46 -18641845.31 -18641845.14 0.0089 0.0048

Mercury -55752-08-26 07:40 J -18641757.31 -18641757.18 -18641757.02 0.0089 0.0056

Mercury -55752-11-22 10:47 J -18641669.16 -18641669.05 -18641668.90 0.0089 0.0064

Earth -55751-01-13 08:09 J -18641617.19 -18641617.16 -18641617.09 0.0089 0.0087
 Mercury -55751-02-18 14:09 J -18641581.00 -18641580.91 -18641580.78 0.0089 0.0072
 Mercury -55751-05-17 17:30 J -18641492.83 -18641492.77 -18641492.67 0.0089 0.0080
 Mercury -55751-08-13 20:37 J -18641404.64 -18641404.64 -18641404.59 0.0089 0.0088
 Moon -55750-01-15 18:13 J -18641249.88 -18641249.74 -18641249.56 0.0089 0.0067
 Earth -55750-01-15 20:23 J -18641249.78 -18641249.65 -18641249.47 0.0089 0.0070 *
 Earth -55749-01-18 08:37 J -18640882.33 -18640882.14 -18640881.91 0.0089 0.0053
 Moon -55749-01-18 09:35 J -18640882.29 -18640882.10 -18640881.87 0.0089 0.0056 *
 Earth -55748-01-19 21:06 J -18640514.84 -18640514.62 -18640514.37 0.0089 0.0036
 Moon -55748-01-19 21:35 J -18640514.82 -18640514.60 -18640514.35 0.0089 0.0033 *
 Moon -55747-01-22 08:23 J -18640147.41 -18640147.15 -18640146.89 0.0089 0.0021
 Earth -55747-01-22 09:35 J -18640147.35 -18640147.10 -18640146.84 0.0089 0.0018 *
 Earth -55746-01-24 22:04 J -18639779.84 -18639779.58 -18639779.32 0.0089 0.0001
 Moon -55746-01-25 00:42 J -18639779.72 -18639779.47 -18639779.22 0.0089 0.0003 *
 Moon -55745-01-27 06:57 J -18639412.46 -18639412.21 -18639411.94 0.0089 0.0014
 Earth -55745-01-27 10:18 J -18639412.32 -18639412.07 -18639411.81 0.0089 0.0017 *
 Earth -55744-01-28 22:47 J -18639044.79 -18639044.55 -18639044.31 0.0089 0.0034
 Moon -55744-01-29 01:54 J -18639044.64 -18639044.42 -18639044.16 0.0089 0.0037 *
 Moon -55743-01-31 07:25 J -18638677.39 -18638677.19 -18638676.95 0.0089 0.0049
 Earth -55743-01-31 11:01 J -18638677.23 -18638677.04 -18638676.81 0.0089 0.0052 *
 Earth -55742-02-02 23:30 J -18638309.66 -18638309.52 -18638309.33 0.0089 0.0069
 Moon -55742-02-03 02:37 J -18638309.53 -18638309.39 -18638309.21 0.0089 0.0071 *
 Moon -55741-02-05 10:04 J -18637942.15 -18637942.08 -18637941.99 0.0088 0.0084
 Earth -55741-02-05 12:13 J -18637942.03 -18637941.99 -18637941.90 0.0088 0.0086 *
 Jupiter -55716-05-29 23:01 J -18628697.00 -18628696.54 -18628696.04 0.0088 0.0043
 Venus -55711-03-20 18:57 J -18626940.84 -18626940.71 -18626940.57 0.0088 0.0071
 Venus -55711-11-01 08:37 J -18626715.30 -18626715.14 -18626714.94 0.0088 0.0052
 Venus -55710-06-14 23:01 J -18626489.75 -18626489.54 -18626489.33 0.0088 0.0032
 Venus -55709-01-26 12:57 J -18626264.18 -18626263.96 -18626263.73 0.0088 0.0012
 Venus -55709-09-08 03:06 J -18626038.60 -18626038.37 -18626038.14 0.0088 0.0008

Venus -55708-04-21 16:47 J -18625813.01 -18625812.80 -18625812.57 0.0088 0.0027
 Venus -55708-12-03 06:57 J -18625587.40 -18625587.21 -18625587.02 0.0088 0.0047
 Venus -55707-07-16 20:37 J -18625361.78 -18625361.64 -18625361.48 0.0088 0.0066
 Venus -55706-02-27 11:01 J -18625136.09 -18625136.04 -18625135.99 0.0088 0.0086
 Mars -55688-12-07 18:57 J -18618277.75 -18618277.71 -18618277.59 0.0088 0.0086
 Mars -55686-11-03 07:40 J -18617582.40 -18617582.18 -18617581.90 0.0088 0.0057
 Mars -55684-09-28 17:16 J -18616887.06 -18616886.78 -18616886.45 0.0088 0.0030
 Mars -55682-08-25 01:11 J -18616191.78 -18616191.45 -18616191.13 0.0088 0.0001
 Mars -55680-07-20 04:33 J -18615496.60 -18615496.31 -18615495.98 0.0088 0.0027
 Mars -55678-06-15 04:33 J -18614801.53 -18614801.31 -18614801.02 0.0088 0.0054
 Mars -55676-05-10 03:21 J -18614106.46 -18614106.36 -18614106.18 0.0088 0.0080
 Mercury -55674-05-04 17:16 J -18613381.79 -18613381.78 -18613381.76 0.0089 0.0088
 Mercury -55674-07-31 18:57 J -18613293.76 -18613293.71 -18613293.66 0.0089 0.0082
 Mercury -55674-10-27 20:23 J -18613205.72 -18613205.65 -18613205.58 0.0089 0.0076
 Mercury -55673-01-23 22:04 J -18613117.67 -18613117.58 -18613117.50 0.0089 0.0070
 Mercury -55673-04-20 23:30 J -18613029.61 -18613029.52 -18613029.42 0.0089 0.0064
 Mercury -55673-07-18 00:57 J -18612941.56 -18612941.46 -18612941.35 0.0089 0.0058
 Mercury -55673-10-14 02:37 J -18612853.50 -18612853.39 -18612853.28 0.0089 0.0052
 Mercury -55672-01-10 04:04 J -18612765.45 -18612765.33 -18612765.21 0.0089 0.0046
 Mercury -55672-04-08 05:30 J -18612677.39 -18612677.27 -18612677.14 0.0089 0.0040
 Mercury -55672-07-05 06:57 J -18612589.33 -18612589.21 -18612589.07 0.0089 0.0035
 Mercury -55672-10-01 08:37 J -18612501.27 -18612501.14 -18612501.01 0.0089 0.0028
 Mercury -55672-12-28 10:04 J -18612413.21 -18612413.08 -18612412.94 0.0089 0.0023
 Mercury -55671-03-26 11:45 J -18612325.15 -18612325.01 -18612324.88 0.0089 0.0016
 Mercury -55671-06-22 13:11 J -18612237.09 -18612236.95 -18612236.81 0.0089 0.0011
 Mercury -55671-09-18 14:37 J -18612149.03 -18612148.89 -18612148.75 0.0089 0.0005
 Mercury -55671-12-15 16:04 J -18612060.96 -18612060.83 -18612060.69 0.0089 0.0003
 Mercury -55670-03-13 17:30 J -18611972.90 -18611972.77 -18611972.63 0.0089 0.0008
 Mercury -55670-06-09 19:11 J -18611884.84 -18611884.70 -18611884.57 0.0089 0.0013
 Mercury -55670-09-05 20:37 J -18611796.78 -18611796.64 -18611796.51 0.0089 0.0019

Mercury -55670-12-02 22:04 J -18611708.71 -18611708.58 -18611708.45 0.0089 0.0025

Mercury -55669-02-28 23:16 J -18611620.65 -18611620.53 -18611620.39 0.0089 0.0031

Mercury -55669-05-27 00:42 J -18611532.58 -18611532.47 -18611532.33 0.0089 0.0037

Mercury -55669-08-23 02:23 J -18611444.52 -18611444.40 -18611444.28 0.0089 0.0042

Mercury -55669-11-19 03:49 J -18611356.45 -18611356.34 -18611356.22 0.0089 0.0048

Mercury -55668-02-15 05:01 J -18611268.38 -18611268.29 -18611268.17 0.0089 0.0054

Mercury -55668-05-14 06:28 J -18611180.32 -18611180.23 -18611180.12 0.0089 0.0060

Earth -55668-07-20 06:42 J -18611113.34 -18611113.22 -18611113.07 0.0089 0.0075

Moon -55668-07-20 09:21 J -18611113.26 -18611113.11 -18611112.94 0.0089 0.0071 *

Mercury -55668-08-10 08:09 J -18611092.25 -18611092.16 -18611092.06 0.0089 0.0065

Mercury -55668-11-06 09:21 J -18611004.18 -18611004.11 -18611004.02 0.0089 0.0071

Mercury -55667-02-02 10:47 J -18610916.10 -18610916.05 -18610915.97 0.0089 0.0077

Mercury -55667-05-01 12:28 J -18610828.03 -18610827.98 -18610827.93 0.0089 0.0082

Moon -55667-07-22 15:49 J -18610745.99 -18610745.84 -18610745.64 0.0089 0.0062

Earth -55667-07-22 17:45 J -18610745.93 -18610745.76 -18610745.55 0.0089 0.0058 *

Mercury -55667-07-28 13:40 J -18610739.93 -18610739.93 -18610739.90 0.0089 0.0088

Moon -55666-07-25 04:47 J -18610378.52 -18610378.30 -18610378.04 0.0089 0.0037

Earth -55666-07-25 04:47 J -18610378.51 -18610378.30 -18610378.05 0.0089 0.0041 *

Earth -55665-07-26 16:18 J -18610011.06 -18610010.82 -18610010.57 0.0089 0.0023

Moon -55665-07-26 17:16 J -18610011.01 -18610010.78 -18610010.54 0.0089 0.0027 *

Moon -55664-07-29 01:40 J -18609643.70 -18609643.43 -18609643.17 0.0089 0.0002

Earth -55664-07-29 03:35 J -18609643.61 -18609643.35 -18609643.10 0.0089 0.0006 *

Earth -55663-07-31 14:09 J -18609276.16 -18609275.91 -18609275.65 0.0089 0.0012

Moon -55663-07-31 17:16 J -18609276.02 -18609275.78 -18609275.52 0.0089 0.0008 *

Moon -55662-08-02 21:35 J -18608908.83 -18608908.60 -18608908.35 0.0089 0.0033

Earth -55662-08-03 00:57 J -18608908.69 -18608908.46 -18608908.20 0.0089 0.0029 *

Earth -55661-08-04 11:45 J -18608541.22 -18608541.01 -18608540.78 0.0089 0.0046

Moon -55661-08-04 15:21 J -18608541.07 -18608540.86 -18608540.62 0.0089 0.0043 *

Moon -55660-08-06 19:25 J -18608173.84 -18608173.69 -18608173.51 0.0089 0.0067

Earth -55660-08-06 22:33 J -18608173.73 -18608173.56 -18608173.37 0.0089 0.0063 *

Earth	-55659-08-09 09:06 J	-18607806.22	-18607806.12	-18607806.00	0.0089	0.0080
Moon	-55659-08-09 11:01 J	-18607806.14	-18607806.04	-18607805.88	0.0089	0.0077 *
Venus	-55629-05-04 03:06 J	-18596945.47	-18596945.37	-18596945.23	0.0089	0.0074
Venus	-55629-12-15 15:06 J	-18596720.02	-18596719.87	-18596719.69	0.0089	0.0055
Venus	-55628-07-29 03:21 J	-18596494.54	-18596494.36	-18596494.15	0.0089	0.0036
Venus	-55627-03-11 15:35 J	-18596269.06	-18596268.85	-18596268.64	0.0089	0.0016
Venus	-55627-10-23 03:35 J	-18596043.56	-18596043.35	-18596043.14	0.0089	0.0003
Venus	-55626-06-05 15:21 J	-18595818.06	-18595817.86	-18595817.64	0.0089	0.0022
Venus	-55625-01-17 03:21 J	-18595592.54	-18595592.36	-18595592.16	0.0089	0.0041
Venus	-55625-08-29 15:21 J	-18595367.00	-18595366.86	-18595366.69	0.0089	0.0060
Venus	-55624-04-12 03:21 J	-18595141.44	-18595141.36	-18595141.24	0.0089	0.0079
Mars	-55606-08-20 10:33 J	-18588437.19	-18588437.06	-18588436.88	0.0089	0.0075
Mars	-55604-07-14 11:59 J	-18587743.23	-18587743.00	-18587742.73	0.0089	0.0050
Mars	-55602-06-08 16:47 J	-18587049.07	-18587048.80	-18587048.49	0.0089	0.0025
Mars	-55600-05-03 00:13 J	-18586354.79	-18586354.49	-18586354.19	0.0089	0.0001
Mars	-55598-03-28 08:09 J	-18585660.43	-18585660.16	-18585659.85	0.0089	0.0028
Mars	-55596-02-19 20:09 J	-18584965.88	-18584965.66	-18584965.39	0.0089	0.0054
Mars	-55594-01-15 12:28 J	-18584271.11	-18584270.98	-18584270.85	0.0089	0.0080
Mercury	-55591-01-17 21:21 J	-18583172.65	-18583172.61	-18583172.51	0.0089	0.0082
Mercury	-55591-04-16 00:42 J	-18583084.55	-18583084.47	-18583084.36	0.0089	0.0074
Mercury	-55591-07-13 04:04 J	-18582996.45	-18582996.33	-18582996.21	0.0089	0.0066
Mercury	-55591-10-09 06:57 J	-18582908.33	-18582908.21	-18582908.06	0.0089	0.0059
Mercury	-55590-01-05 10:04 J	-18582820.22	-18582820.08	-18582819.92	0.0089	0.0051
Mercury	-55590-04-03 13:25 J	-18582732.10	-18582731.94	-18582731.78	0.0089	0.0043
Mercury	-55590-06-30 16:18 J	-18582643.98	-18582643.82	-18582643.64	0.0089	0.0036
Mercury	-55590-09-26 19:25 J	-18582555.85	-18582555.69	-18582555.50	0.0089	0.0028
Mercury	-55590-12-23 22:47 J	-18582467.72	-18582467.55	-18582467.37	0.0089	0.0020
Mercury	-55589-03-21 01:54 J	-18582379.60	-18582379.42	-18582379.23	0.0089	0.0012
Mercury	-55589-06-17 05:16 J	-18582291.47	-18582291.28	-18582291.10	0.0089	0.0004
Mercury	-55589-09-13 08:23 J	-18582203.33	-18582203.15	-18582202.96	0.0089	0.0004

Mercury -55589-12-10 11:30 J -18582115.20 -18582115.02 -18582114.83 0.0089 0.0012

Mercury -55588-03-08 14:37 J -18582027.06 -18582026.89 -18582026.70 0.0089 0.0020

Mercury -55588-06-04 17:45 J -18581938.92 -18581938.76 -18581938.57 0.0089 0.0028

Mercury -55588-08-31 21:06 J -18581850.78 -18581850.62 -18581850.44 0.0089 0.0036

Mercury -55588-11-28 00:13 J -18581762.64 -18581762.49 -18581762.32 0.0089 0.0044

Mercury -55587-02-24 03:21 J -18581674.49 -18581674.36 -18581674.19 0.0089 0.0052

Mercury -55587-05-23 06:42 J -18581586.34 -18581586.22 -18581586.07 0.0089 0.0060

Mercury -55587-08-19 09:49 J -18581498.19 -18581498.09 -18581497.95 0.0089 0.0068

Mercury -55587-11-15 13:11 J -18581410.03 -18581409.95 -18581409.84 0.0089 0.0076

Earth -55586-01-15 06:42 J -18581349.33 -18581349.22 -18581349.08 0.0089 0.0077

Moon -55586-01-15 07:11 J -18581349.29 -18581349.20 -18581349.06 0.0089 0.0080 *

Mercury -55586-02-11 16:33 J -18581321.86 -18581321.81 -18581321.74 0.0089 0.0084

Earth -55585-01-17 18:57 J -18580981.88 -18580981.71 -18580981.50 0.0089 0.0060

Moon -55585-01-17 19:54 J -18580981.85 -18580981.67 -18580981.47 0.0089 0.0057 *

Moon -55584-01-19 04:47 J -18580614.51 -18580614.30 -18580614.04 0.0089 0.0045

Earth -55584-01-19 07:40 J -18580614.41 -18580614.18 -18580613.95 0.0089 0.0042 *

Earth -55583-01-21 19:40 J -18580246.92 -18580246.68 -18580246.42 0.0089 0.0025

Moon -55583-01-21 22:18 J -18580246.81 -18580246.57 -18580246.32 0.0089 0.0022 *

Moon -55582-01-24 04:33 J -18579879.56 -18579879.31 -18579879.04 0.0089 0.0011

Earth -55582-01-24 08:23 J -18579879.41 -18579879.15 -18579878.89 0.0089 0.0007 *

Earth -55581-01-26 20:23 J -18579511.90 -18579511.65 -18579511.38 0.0089 0.0011

Moon -55581-01-26 23:59 J -18579511.75 -18579511.50 -18579511.23 0.0089 0.0014 *

Moon -55580-01-28 05:30 J -18579144.51 -18579144.27 -18579144.01 0.0089 0.0024

Earth -55580-01-28 09:06 J -18579144.36 -18579144.12 -18579143.87 0.0089 0.0028 *

Earth -55579-01-30 21:06 J -18578776.82 -18578776.62 -18578776.38 0.0089 0.0046

Moon -55579-01-30 23:59 J -18578776.70 -18578776.50 -18578776.26 0.0089 0.0050 *

Moon -55578-02-02 08:23 J -18578409.32 -18578409.15 -18578408.95 0.0089 0.0060

Earth -55578-02-02 10:04 J -18578409.26 -18578409.08 -18578408.89 0.0089 0.0063 *

Earth -55577-02-04 22:04 J -18578041.66 -18578041.58 -18578041.44 0.0089 0.0081

Moon -55577-02-04 23:30 J -18578041.59 -18578041.52 -18578041.42 0.0089 0.0084 *

Venus	-55547-06-22 05:30 J	-18566946.37	-18566946.27	-18566946.16	0.0088	0.0078
Venus	-55546-02-02 19:25 J	-18566720.84	-18566720.69	-18566720.50	0.0088	0.0058
Venus	-55546-09-16 09:49 J	-18566495.29	-18566495.09	-18566494.88	0.0088	0.0038
Venus	-55545-04-28 23:45 J	-18566269.73	-18566269.51	-18566269.28	0.0088	0.0019
Venus	-55545-12-10 13:54 J	-18566044.15	-18566043.92	-18566043.70	0.0088	0.0001
Venus	-55544-07-24 03:35 J	-18565818.56	-18565818.35	-18565818.12	0.0088	0.0021
Venus	-55543-03-06 17:30 J	-18565592.95	-18565592.77	-18565592.55	0.0088	0.0040
Venus	-55543-10-18 07:25 J	-18565367.34	-18565367.19	-18565367.00	0.0088	0.0060
Venus	-55542-05-31 21:35 J	-18565141.69	-18565141.60	-18565141.49	0.0088	0.0079
Mars	-55522-06-17 12:57 J	-18557820.16	-18557819.96	-18557819.70	0.0088	0.0064
Mars	-55520-05-13 01:25 J	-18557124.73	-18557124.44	-18557124.13	0.0088	0.0036
Mars	-55518-04-08 10:18 J	-18556429.38	-18556429.07	-18556428.74	0.0088	0.0009
Mars	-55516-03-03 16:47 J	-18555734.10	-18555733.80	-18555733.47	0.0088	0.0019
Mars	-55514-01-27 20:37 J	-18555038.91	-18555038.64	-18555038.37	0.0088	0.0046
Mars	-55513-12-22 19:54 J	-18554343.84	-18554343.67	-18554343.47	0.0088	0.0072
Mercury	-55509-01-29 17:01 J	-18553210.82	-18553210.79	-18553210.74	0.0089	0.0085
Mercury	-55509-04-26 18:42 J	-18553122.77	-18553122.72	-18553122.65	0.0089	0.0079
Mercury	-55509-07-23 20:09 J	-18553034.73	-18553034.66	-18553034.57	0.0089	0.0073
Mercury	-55509-10-19 21:49 J	-18552946.67	-18552946.59	-18552946.49	0.0089	0.0067
Mercury	-55508-01-15 23:16 J	-18552858.62	-18552858.53	-18552858.42	0.0089	0.0061
Mercury	-55508-04-14 00:57 J	-18552770.56	-18552770.46	-18552770.34	0.0089	0.0054
Mercury	-55508-07-11 02:23 J	-18552682.51	-18552682.40	-18552682.27	0.0089	0.0049
Mercury	-55508-10-07 04:04 J	-18552594.45	-18552594.33	-18552594.20	0.0089	0.0042
Mercury	-55507-01-03 05:30 J	-18552506.39	-18552506.27	-18552506.14	0.0089	0.0037
Mercury	-55507-04-01 07:11 J	-18552418.33	-18552418.20	-18552418.07	0.0089	0.0031
Mercury	-55507-06-28 08:37 J	-18552330.27	-18552330.14	-18552330.00	0.0089	0.0025
Mercury	-55507-09-24 10:04 J	-18552242.21	-18552242.08	-18552241.94	0.0089	0.0019
Mercury	-55507-12-21 11:45 J	-18552154.15	-18552154.01	-18552153.87	0.0089	0.0013
Mercury	-55506-03-19 13:11 J	-18552066.09	-18552065.95	-18552065.81	0.0089	0.0007
Mercury	-55506-06-15 14:37 J	-18551978.03	-18551977.89	-18551977.75	0.0089	0.0002

Mercury -55506-09-11 16:04 J -18551889.96 -18551889.83 -18551889.69 0.0089 0.0006

Mercury -55506-12-08 17:45 J -18551801.90 -18551801.76 -18551801.63 0.0089 0.0011

Mercury -55505-03-05 19:11 J -18551713.84 -18551713.70 -18551713.57 0.0089 0.0017

Mercury -55505-06-01 20:37 J -18551625.77 -18551625.64 -18551625.51 0.0089 0.0022

Mercury -55505-08-28 21:49 J -18551537.71 -18551537.59 -18551537.45 0.0089 0.0029

Mercury -55505-11-24 23:30 J -18551449.64 -18551449.52 -18551449.39 0.0089 0.0034

Mercury -55504-02-21 00:57 J -18551361.58 -18551361.46 -18551361.33 0.0089 0.0040

Mercury -55504-05-20 02:23 J -18551273.51 -18551273.40 -18551273.28 0.0089 0.0046

Moon -55504-07-19 17:30 J -18551212.83 -18551212.77 -18551212.67 0.0089 0.0084

Earth -55504-07-19 18:28 J -18551212.81 -18551212.73 -18551212.62 0.0089 0.0082 *

Mercury -55504-08-16 03:35 J -18551185.45 -18551185.35 -18551185.22 0.0089 0.0052

Mercury -55504-11-12 05:01 J -18551097.38 -18551097.29 -18551097.17 0.0089 0.0058

Mercury -55503-02-08 06:42 J -18551009.31 -18551009.22 -18551009.12 0.0089 0.0063

Mercury -55503-05-07 08:09 J -18550921.24 -18550921.16 -18550921.07 0.0089 0.0069

Earth -55503-07-22 05:30 J -18550845.43 -18550845.27 -18550845.08 0.0089 0.0065

Moon -55503-07-22 05:30 J -18550845.43 -18550845.27 -18550845.06 0.0089 0.0063 *

Mercury -55503-08-03 09:21 J -18550833.17 -18550833.11 -18550833.02 0.0089 0.0075

Mercury -55503-10-30 11:01 J -18550745.09 -18550745.04 -18550744.98 0.0089 0.0080

Mercury -55502-01-26 12:13 J -18550657.01 -18550656.99 -18550656.94 0.0089 0.0086

Earth -55502-07-24 16:18 J -18550478.01 -18550477.82 -18550477.58 0.0089 0.0048

Moon -55502-07-24 17:45 J -18550477.94 -18550477.76 -18550477.53 0.0089 0.0050 *

Moon -55501-07-26 00:57 J -18550110.69 -18550110.46 -18550110.19 0.0089 0.0029

Earth -55501-07-26 03:49 J -18550110.57 -18550110.34 -18550110.09 0.0089 0.0030 *

Earth -55500-07-28 14:37 J -18549743.13 -18549742.89 -18549742.63 0.0089 0.0013

Moon -55500-07-28 17:45 J -18549743.01 -18549742.76 -18549742.51 0.0089 0.0015 *

Moon -55499-07-30 22:04 J -18549375.83 -18549375.58 -18549375.31 0.0089 0.0008

Earth -55499-07-31 01:54 J -18549375.67 -18549375.42 -18549375.16 0.0089 0.0005 *

Earth -55498-08-02 12:42 J -18549008.20 -18549007.97 -18549007.71 0.0089 0.0023

Moon -55498-08-02 16:04 J -18549008.07 -18549007.83 -18549007.57 0.0089 0.0021 *

Moon -55497-08-03 20:52 J -18548640.85 -18548640.63 -18548640.41 0.0089 0.0043

Earth	-55497-08-03 23:59 J	-18548640.73	-18548640.50	-18548640.27	0.0089	0.0040 *
Earth	-55496-08-06 10:18 J	-18548273.24	-18548273.07	-18548272.86	0.0089	0.0058
Moon	-55496-08-06 12:28 J	-18548273.17	-18548272.98	-18548272.75	0.0089	0.0055 *
Moon	-55495-08-08 20:09 J	-18547905.75	-18547905.66	-18547905.52	0.0089	0.0078
Earth	-55495-08-08 21:06 J	-18547905.74	-18547905.62	-18547905.47	0.0089	0.0075 *
Venus	-55465-08-05 16:18 J	-18536950.89	-18536950.82	-18536950.71	0.0089	0.0080
Venus	-55464-03-19 04:18 J	-18536725.46	-18536725.32	-18536725.15	0.0089	0.0061
Venus	-55464-10-30 16:18 J	-18536500.00	-18536499.82	-18536499.62	0.0089	0.0042
Venus	-55463-06-13 04:18 J	-18536274.52	-18536274.32	-18536274.11	0.0089	0.0023
Venus	-55462-01-24 16:33 J	-18536049.03	-18536048.81	-18536048.60	0.0089	0.0004
Venus	-55462-09-07 04:18 J	-18535823.52	-18535823.32	-18535823.10	0.0089	0.0015
Venus	-55461-04-19 16:18 J	-18535598.01	-18535597.82	-18535597.61	0.0089	0.0034
Venus	-55461-12-01 04:04 J	-18535372.48	-18535372.33	-18535372.14	0.0089	0.0053
Venus	-55460-07-14 16:04 J	-18535146.93	-18535146.83	-18535146.68	0.0089	0.0073
Mars	-55442-04-04 21:21 J	-18528673.73	-18528673.61	-18528673.47	0.0089	0.0080
Mars	-55440-02-26 22:33 J	-18527979.79	-18527979.56	-18527979.33	0.0089	0.0055
Mars	-55438-01-22 00:28 J	-18527285.76	-18527285.48	-18527285.20	0.0089	0.0030
Mars	-55437-12-16 05:59 J	-18526591.55	-18526591.25	-18526590.95	0.0089	0.0005
Mars	-55435-11-10 13:25 J	-18525897.22	-18525896.94	-18525896.62	0.0089	0.0021
Mars	-55433-10-04 22:47 J	-18525202.79	-18525202.55	-18525202.26	0.0089	0.0047
Mars	-55431-08-30 10:47 J	-18524508.19	-18524508.05	-18524507.84	0.0089	0.0073
Mercury	-55427-07-18 18:13 J	-18523089.79	-18523089.74	-18523089.68	0.0089	0.0084
Mercury	-55427-10-14 21:06 J	-18523001.70	-18523001.62	-18523001.52	0.0089	0.0077
Mercury	-55426-01-11 00:13 J	-18522913.59	-18522913.49	-18522913.37	0.0089	0.0069
Mercury	-55426-04-09 03:06 J	-18522825.48	-18522825.37	-18522825.22	0.0089	0.0062
Mercury	-55426-07-06 06:28 J	-18522737.37	-18522737.23	-18522737.08	0.0089	0.0054
Mercury	-55426-10-02 09:35 J	-18522649.25	-18522649.10	-18522648.94	0.0089	0.0046
Mercury	-55426-12-29 12:28 J	-18522561.13	-18522560.98	-18522560.80	0.0089	0.0039
Mercury	-55425-03-26 15:35 J	-18522473.01	-18522472.85	-18522472.67	0.0089	0.0031
Mercury	-55425-06-22 18:57 J	-18522384.88	-18522384.71	-18522384.53	0.0089	0.0023

Mercury -55425-09-18 22:04 J -18522296.76 -18522296.58 -18522296.40 0.0089 0.0015
 Mercury -55425-12-16 01:11 J -18522208.63 -18522208.45 -18522208.26 0.0089 0.0008
 Mercury -55424-03-14 04:33 J -18522120.50 -18522120.31 -18522120.13 0.0089 0.0001
 Mercury -55424-06-10 07:40 J -18522032.36 -18522032.18 -18522032.00 0.0089 0.0008
 Mercury -55424-09-06 10:47 J -18521944.23 -18521944.05 -18521943.87 0.0089 0.0016
 Mercury -55424-12-03 13:54 J -18521856.09 -18521855.92 -18521855.74 0.0089 0.0024
 Mercury -55423-03-01 17:16 J -18521767.95 -18521767.78 -18521767.61 0.0089 0.0032
 Mercury -55423-05-28 20:23 J -18521679.81 -18521679.65 -18521679.48 0.0089 0.0040
 Mercury -55423-08-24 23:45 J -18521591.67 -18521591.51 -18521591.36 0.0089 0.0048
 Mercury -55423-11-21 02:52 J -18521503.52 -18521503.38 -18521503.23 0.0089 0.0056
 Earth -55422-01-14 17:16 J -18521448.83 -18521448.78 -18521448.68 0.0089 0.0085
 Moon -55422-01-14 18:57 J -18521448.74 -18521448.71 -18521448.69 0.0089 0.0088 *
 Mercury -55422-02-17 06:13 J -18521415.37 -18521415.24 -18521415.11 0.0089 0.0064
 Mercury -55422-05-16 09:21 J -18521327.21 -18521327.11 -18521327.00 0.0089 0.0072
 Mercury -55422-08-12 12:42 J -18521239.04 -18521238.97 -18521238.89 0.0089 0.0080
 Mercury -55422-11-08 16:04 J -18521150.85 -18521150.83 -18521150.81 0.0089 0.0088
 Moon -55421-01-17 03:49 J -18521081.52 -18521081.34 -18521081.15 0.0089 0.0063
 Earth -55421-01-17 05:45 J -18521081.42 -18521081.26 -18521081.08 0.0089 0.0067 *
 Earth -55420-01-18 17:45 J -18520713.95 -18520713.76 -18520713.52 0.0089 0.0050
 Moon -55420-01-18 21:06 J -18520713.80 -18520713.62 -18520713.40 0.0089 0.0054 *
 Moon -55419-01-21 03:21 J -18520346.61 -18520346.36 -18520346.11 0.0089 0.0028
 Earth -55419-01-21 06:28 J -18520346.46 -18520346.23 -18520345.98 0.0089 0.0032 *
 Earth -55418-01-23 18:42 J -18519978.97 -18519978.72 -18519978.45 0.0089 0.0014
 Moon -55418-01-23 22:33 J -18519978.81 -18519978.56 -18519978.30 0.0089 0.0017 *
 Moon -55417-01-26 04:18 J -18519611.57 -18519611.32 -18519611.06 0.0089 0.0008
 Earth -55417-01-26 07:25 J -18519611.45 -18519611.19 -18519610.93 0.0089 0.0004 *
 Earth -55416-01-27 19:40 J -18519243.93 -18519243.68 -18519243.43 0.0089 0.0022
 Moon -55416-01-27 22:04 J -18519243.83 -18519243.58 -18519243.31 0.0089 0.0020 *
 Moon -55415-01-30 06:13 J -18518876.45 -18518876.24 -18518876.01 0.0089 0.0043
 Earth -55415-01-30 07:54 J -18518876.39 -18518876.17 -18518875.93 0.0089 0.0040 *

Moon	-55414-02-01 20:37 J	-18518508.86	-18518508.64	-18518508.43	0.0089	0.0054
Earth	-55414-02-01 20:09 J	-18518508.84	-18518508.66	-18518508.44	0.0089	0.0058 *
Earth	-55413-02-04 08:52 J	-18518141.26	-18518141.13	-18518140.99	0.0089	0.0075
Moon	-55413-02-04 09:21 J	-18518141.21	-18518141.11	-18518140.97	0.0089	0.0078 *
Venus	-55383-09-23 16:04 J	-18506951.88	-18506951.83	-18506951.76	0.0088	0.0085
Venus	-55382-05-07 05:59 J	-18506726.38	-18506726.25	-18506726.08	0.0088	0.0065
Venus	-55382-12-18 20:23 J	-18506500.84	-18506500.65	-18506500.45	0.0088	0.0045
Venus	-55381-07-31 10:18 J	-18506275.27	-18506275.07	-18506274.84	0.0088	0.0026
Venus	-55380-03-14 00:42 J	-18506049.69	-18506049.47	-18506049.24	0.0088	0.0006
Venus	-55380-10-25 14:37 J	-18505824.11	-18505823.89	-18505823.66	0.0088	0.0013
Venus	-55379-06-08 04:18 J	-18505598.51	-18505598.32	-18505598.09	0.0088	0.0033
Venus	-55378-01-19 18:28 J	-18505372.90	-18505372.73	-18505372.54	0.0088	0.0052
Venus	-55378-09-02 08:37 J	-18505147.27	-18505147.14	-18505147.01	0.0088	0.0072
Mars	-55358-01-29 17:59 J	-18498057.95	-18498057.75	-18498057.54	0.0088	0.0069
Mars	-55357-12-25 08:37 J	-18497362.42	-18497362.14	-18497361.83	0.0088	0.0041
Mars	-55355-11-20 20:09 J	-18496666.97	-18496666.66	-18496666.32	0.0088	0.0015
Mars	-55353-10-16 04:04 J	-18495971.64	-18495971.33	-18495971.00	0.0088	0.0013
Mars	-55351-09-11 09:35 J	-18495276.39	-18495276.10	-18495275.81	0.0088	0.0039
Mars	-55349-08-06 12:28 J	-18494581.19	-18494580.98	-18494580.76	0.0088	0.0065
Mercury	-55345-07-29 15:21 J	-18493127.87	-18493127.86	-18493127.82	0.0089	0.0087
Mercury	-55345-10-25 17:16 J	-18493039.83	-18493039.78	-18493039.73	0.0089	0.0081
Mercury	-55344-01-21 18:42 J	-18492951.79	-18492951.72	-18492951.64	0.0089	0.0075
Mercury	-55344-04-19 20:23 J	-18492863.74	-18492863.65	-18492863.56	0.0089	0.0069
Mercury	-55344-07-16 21:49 J	-18492775.68	-18492775.59	-18492775.49	0.0089	0.0063
Mercury	-55344-10-12 23:30 J	-18492687.63	-18492687.52	-18492687.41	0.0089	0.0057
Mercury	-55343-01-09 00:57 J	-18492599.57	-18492599.46	-18492599.34	0.0089	0.0051
Mercury	-55343-04-07 02:37 J	-18492511.51	-18492511.39	-18492511.27	0.0089	0.0045
Mercury	-55343-07-04 04:04 J	-18492423.45	-18492423.33	-18492423.20	0.0089	0.0039
Mercury	-55343-09-30 05:45 J	-18492335.39	-18492335.26	-18492335.13	0.0089	0.0033
Mercury	-55343-12-27 07:11 J	-18492247.33	-18492247.20	-18492247.07	0.0089	0.0027

Mercury -55342-03-25 08:37 J -18492159.27 -18492159.14 -18492159.00 0.0089 0.0021

Mercury -55342-06-21 10:04 J -18492071.21 -18492071.08 -18492070.94 0.0089 0.0015

Mercury -55342-09-17 11:45 J -18491983.15 -18491983.01 -18491982.87 0.0089 0.0009

Mercury -55342-12-14 13:11 J -18491895.09 -18491894.95 -18491894.81 0.0089 0.0003

Mercury -55341-03-11 14:37 J -18491807.02 -18491806.89 -18491806.75 0.0089 0.0004

Mercury -55341-06-07 16:18 J -18491718.96 -18491718.82 -18491718.69 0.0089 0.0009

Mercury -55341-09-03 17:45 J -18491630.90 -18491630.76 -18491630.63 0.0089 0.0014

Mercury -55341-11-30 18:57 J -18491542.84 -18491542.71 -18491542.57 0.0089 0.0021

Mercury -55340-02-26 20:37 J -18491454.77 -18491454.64 -18491454.51 0.0089 0.0026

Mercury -55340-05-25 22:04 J -18491366.71 -18491366.58 -18491366.45 0.0089 0.0032

Mercury -55340-08-21 23:30 J -18491278.64 -18491278.52 -18491278.39 0.0089 0.0038

Mercury -55340-11-18 00:57 J -18491190.58 -18491190.46 -18491190.34 0.0089 0.0044

Mercury -55339-02-14 02:09 J -18491102.51 -18491102.41 -18491102.28 0.0089 0.0050

Mercury -55339-05-13 03:49 J -18491014.44 -18491014.34 -18491014.23 0.0089 0.0055

Earth -55339-07-21 17:16 J -18490944.91 -18490944.78 -18490944.62 0.0089 0.0072

Moon -55339-07-21 18:57 J -18490944.86 -18490944.71 -18490944.55 0.0089 0.0068 *

Mercury -55339-08-09 05:16 J -18490926.37 -18490926.28 -18490926.18 0.0089 0.0061

Mercury -55339-11-05 06:42 J -18490838.30 -18490838.22 -18490838.13 0.0089 0.0067

Mercury -55338-02-01 07:54 J -18490750.23 -18490750.17 -18490750.08 0.0089 0.0073

Mercury -55338-04-30 09:35 J -18490662.16 -18490662.10 -18490662.03 0.0089 0.0078

Moon -55338-07-24 01:40 J -18490577.61 -18490577.43 -18490577.21 0.0089 0.0059

Earth -55338-07-24 04:47 J -18490577.50 -18490577.30 -18490577.10 0.0089 0.0054 *

Mercury -55338-07-27 10:47 J -18490574.08 -18490574.05 -18490573.99 0.0089 0.0084

Earth -55337-07-25 15:21 J -18490210.08 -18490209.86 -18490209.62 0.0089 0.0037

Moon -55337-07-25 18:42 J -18490209.94 -18490209.72 -18490209.47 0.0089 0.0033 *

Moon -55336-07-27 23:01 J -18489842.78 -18489842.54 -18489842.28 0.0089 0.0023

Earth -55336-07-28 02:37 J -18489842.64 -18489842.39 -18489842.14 0.0089 0.0019 *

Earth -55335-07-30 13:40 J -18489475.19 -18489474.93 -18489474.68 0.0089 0.0001

Moon -55335-07-30 17:16 J -18489475.04 -18489474.78 -18489474.52 0.0089 0.0003 *

Moon -55334-08-01 22:04 J -18489107.82 -18489107.58 -18489107.33 0.0089 0.0013

Earth	-55334-08-02 00:28 J	-18489107.72	-18489107.48	-18489107.22	0.0089	0.0017	*
Earth	-55333-08-03 11:16 J	-18488740.25	-18488740.03	-18488739.78	0.0089	0.0035	
Moon	-55333-08-03 13:25 J	-18488740.17	-18488739.94	-18488739.69	0.0089	0.0038	*
Moon	-55332-08-05 21:21 J	-18488372.80	-18488372.61	-18488372.38	0.0089	0.0049	
Earth	-55332-08-05 22:33 J	-18488372.76	-18488372.56	-18488372.35	0.0089	0.0052	*
Moon	-55331-08-08 07:54 J	-18488005.28	-18488005.17	-18488004.99	0.0089	0.0074	
Earth	-55331-08-08 09:06 J	-18488005.26	-18488005.12	-18488004.94	0.0089	0.0070	*
Earth	-55330-08-10 20:09 J	-18487637.69	-18487637.66	-18487637.60	0.0089	0.0087	
Moon	-55330-08-10 21:35 J	-18487637.66	-18487637.60	-18487637.50	0.0089	0.0084	*
Venus	-55301-11-07 05:30 J	-18476956.31	-18476956.27	-18476956.21	0.0089	0.0087	
Venus	-55300-06-20 17:45 J	-18476730.90	-18476730.76	-18476730.62	0.0089	0.0068	
Venus	-55299-02-01 05:16 J	-18476505.44	-18476505.28	-18476505.09	0.0089	0.0049	
Venus	-55299-09-14 17:16 J	-18476279.97	-18476279.78	-18476279.57	0.0089	0.0030	
Venus	-55298-04-28 05:16 J	-18476054.48	-18476054.28	-18476054.06	0.0089	0.0012	
Venus	-55298-12-09 17:16 J	-18475828.99	-18475828.78	-18475828.56	0.0089	0.0008	
Venus	-55297-07-22 05:16 J	-18475603.47	-18475603.28	-18475603.06	0.0089	0.0027	
Venus	-55296-03-04 17:16 J	-18475377.95	-18475377.78	-18475377.58	0.0089	0.0046	
Venus	-55296-10-16 05:01 J	-18475152.41	-18475152.29	-18475152.12	0.0089	0.0065	
Venus	-55295-05-29 17:01 J	-18474926.84	-18474926.79	-18474926.70	0.0089	0.0084	
Mars	-55279-11-18 10:18 J	-18468910.16	-18468910.07	-18468909.96	0.0089	0.0084	
Mars	-55277-10-12 08:37 J	-18468216.33	-18468216.14	-18468215.89	0.0089	0.0060	
Mars	-55275-09-06 10:47 J	-18467522.31	-18467522.05	-18467521.76	0.0089	0.0036	
Mars	-55273-07-31 13:25 J	-18466828.24	-18466827.94	-18466827.64	0.0089	0.0011	
Mars	-55271-06-25 18:28 J	-18466134.02	-18466133.73	-18466133.42	0.0089	0.0014	
Mars	-55269-05-20 03:06 J	-18465439.64	-18465439.37	-18465439.09	0.0089	0.0039	
Mars	-55267-04-14 12:57 J	-18464745.14	-18464744.96	-18464744.72	0.0089	0.0065	
Mercury	-55262-01-16 14:37 J	-18463006.92	-18463006.89	-18463006.86	0.0089	0.0087	
Mercury	-55262-04-14 17:16 J	-18462918.84	-18462918.78	-18462918.68	0.0089	0.0080	
Mercury	-55262-07-11 20:37 J	-18462830.74	-18462830.64	-18462830.53	0.0089	0.0072	
Mercury	-55262-10-07 23:30 J	-18462742.63	-18462742.52	-18462742.38	0.0089	0.0065	

Mercury -55261-01-04 02:37 J -18462654.52 -18462654.39 -18462654.24 0.0089 0.0057

Mercury -55261-04-01 05:59 J -18462566.40 -18462566.25 -18462566.10 0.0089 0.0049

Mercury -55261-06-28 08:37 J -18462478.28 -18462478.14 -18462477.96 0.0089 0.0042

Mercury -55261-09-24 11:59 J -18462390.16 -18462390.00 -18462389.83 0.0089 0.0034

Mercury -55261-12-21 15:06 J -18462302.04 -18462301.87 -18462301.69 0.0089 0.0026

Mercury -55260-03-19 18:13 J -18462213.91 -18462213.74 -18462213.56 0.0089 0.0018

Mercury -55260-06-15 21:21 J -18462125.79 -18462125.61 -18462125.42 0.0089 0.0011

Mercury -55260-09-12 00:42 J -18462037.66 -18462037.47 -18462037.29 0.0089 0.0003

Mercury -55260-12-09 03:49 J -18461949.52 -18461949.34 -18461949.16 0.0089 0.0005

Mercury -55259-03-07 06:57 J -18461861.39 -18461861.21 -18461861.03 0.0089 0.0013

Mercury -55259-06-03 10:04 J -18461773.25 -18461773.08 -18461772.90 0.0089 0.0021

Mercury -55259-08-30 13:11 J -18461685.12 -18461684.95 -18461684.77 0.0089 0.0029

Mercury -55259-11-26 16:18 J -18461596.98 -18461596.82 -18461596.64 0.0089 0.0037

Mercury -55258-02-22 19:40 J -18461508.83 -18461508.68 -18461508.52 0.0089 0.0045

Mercury -55258-05-21 22:47 J -18461420.69 -18461420.55 -18461420.39 0.0089 0.0053

Mercury -55258-08-18 02:09 J -18461332.54 -18461332.41 -18461332.27 0.0089 0.0061

Mercury -55258-11-14 05:16 J -18461244.38 -18461244.28 -18461244.15 0.0089 0.0069

Earth -55257-01-16 16:18 J -18461180.93 -18461180.82 -18461180.65 0.0089 0.0075

Moon -55257-01-16 19:25 J -18461180.79 -18461180.69 -18461180.54 0.0089 0.0078 *

Mercury -55257-02-10 08:37 J -18461156.22 -18461156.14 -18461156.04 0.0089 0.0077

Mercury -55257-05-08 11:45 J -18461068.05 -18461068.01 -18461067.95 0.0089 0.0085

Moon -55256-01-18 00:57 J -18460813.63 -18460813.46 -18460813.23 0.0089 0.0055

Earth -55256-01-18 05:01 J -18460813.47 -18460813.29 -18460813.07 0.0089 0.0057 *

Earth -55255-01-20 17:16 J -18460446.00 -18460445.78 -18460445.53 0.0089 0.0039

Moon -55255-01-20 21:06 J -18460445.85 -18460445.62 -18460445.39 0.0089 0.0041 *

Moon -55254-01-23 02:52 J -18460078.62 -18460078.38 -18460078.12 0.0089 0.0017

Earth -55254-01-23 05:59 J -18460078.49 -18460078.25 -18460077.99 0.0089 0.0021 *

Earth -55253-01-25 18:28 J -18459710.99 -18459710.73 -18459710.47 0.0089 0.0002

Moon -55253-01-25 20:37 J -18459710.91 -18459710.64 -18459710.37 0.0089 0.0005 *

Moon -55252-01-27 05:45 J -18459343.49 -18459343.26 -18459343.00 0.0089 0.0019

Earth	-55252-01-27 06:57 J	-18459343.46	-18459343.21	-18459342.95	0.0089	0.0016	*
Moon	-55251-01-29 19:11 J	-18458975.94	-18458975.70	-18458975.43	0.0089	0.0031	
Earth	-55251-01-29 19:11 J	-18458975.93	-18458975.70	-18458975.45	0.0089	0.0034	*
Earth	-55250-02-01 07:25 J	-18458608.39	-18458608.19	-18458607.97	0.0089	0.0052	
Moon	-55250-02-01 09:21 J	-18458608.31	-18458608.11	-18458607.91	0.0089	0.0055	*
Moon	-55249-02-03 17:30 J	-18458240.93	-18458240.77	-18458240.58	0.0089	0.0067	
Earth	-55249-02-03 19:54 J	-18458240.81	-18458240.67	-18458240.50	0.0089	0.0070	*
Earth	-55248-02-05 08:09 J	-18457873.17	-18457873.16	-18457873.10	0.0089	0.0088	
Venus	-55218-08-08 17:01 J	-18446731.91	-18446731.79	-18446731.64	0.0088	0.0072	
Venus	-55217-03-21 07:11 J	-18446506.37	-18446506.20	-18446506.00	0.0088	0.0052	
Venus	-55217-11-01 21:35 J	-18446280.81	-18446280.60	-18446280.39	0.0088	0.0032	
Venus	-55216-06-15 11:30 J	-18446055.24	-18446055.02	-18446054.79	0.0088	0.0013	
Venus	-55215-01-27 01:54 J	-18445829.65	-18445829.42	-18445829.19	0.0088	0.0007	
Venus	-55215-09-09 15:49 J	-18445604.05	-18445603.84	-18445603.62	0.0088	0.0026	
Venus	-55214-04-23 05:45 J	-18445378.45	-18445378.26	-18445378.06	0.0088	0.0046	
Venus	-55214-12-04 19:25 J	-18445152.82	-18445152.69	-18445152.52	0.0088	0.0065	
Venus	-55213-07-17 09:35 J	-18444927.15	-18444927.10	-18444927.02	0.0088	0.0084	
Mars	-55195-09-12 20:09 J	-18438295.81	-18438295.66	-18438295.45	0.0088	0.0075	
Mars	-55193-08-08 12:42 J	-18437600.23	-18437599.97	-18437599.67	0.0088	0.0047	
Mars	-55191-07-05 02:52 J	-18436904.68	-18436904.38	-18436904.04	0.0088	0.0021	
Mars	-55189-05-30 14:23 J	-18436209.22	-18436208.90	-18436208.57	0.0088	0.0007	
Mars	-55187-04-25 21:49 J	-18435513.88	-18435513.59	-18435513.28	0.0088	0.0033	
Mars	-55185-03-21 02:09 J	-18434818.62	-18434818.41	-18434818.14	0.0088	0.0059	
Mars	-55183-02-14 04:04 J	-18434123.39	-18434123.33	-18434123.18	0.0088	0.0084	
Mercury	-55180-04-25 15:21 J	-18432956.89	-18432956.86	-18432956.80	0.0089	0.0084	
Mercury	-55180-07-22 17:01 J	-18432868.84	-18432868.79	-18432868.71	0.0089	0.0078	
Mercury	-55180-10-18 18:28 J	-18432780.79	-18432780.73	-18432780.63	0.0089	0.0072	
Mercury	-55179-01-14 20:09 J	-18432692.74	-18432692.66	-18432692.55	0.0089	0.0066	
Mercury	-55179-04-12 21:49 J	-18432604.69	-18432604.59	-18432604.48	0.0089	0.0059	
Mercury	-55179-07-09 23:16 J	-18432516.63	-18432516.53	-18432516.41	0.0089	0.0054	

Mercury -55179-10-06 00:57 J -18432428.57 -18432428.46 -18432428.34 0.0089 0.0047
 Mercury -55178-01-02 02:23 J -18432340.51 -18432340.40 -18432340.26 0.0089 0.0042
 Mercury -55178-03-31 04:04 J -18432252.45 -18432252.33 -18432252.20 0.0089 0.0035
 Mercury -55178-06-27 05:30 J -18432164.39 -18432164.27 -18432164.13 0.0089 0.0030
 Mercury -55178-09-23 07:11 J -18432076.33 -18432076.20 -18432076.06 0.0089 0.0023
 Mercury -55178-12-20 08:37 J -18431988.27 -18431988.14 -18431988.00 0.0089 0.0018
 Mercury -55177-03-17 10:18 J -18431900.21 -18431900.07 -18431899.93 0.0089 0.0011
 Mercury -55177-06-13 11:45 J -18431812.15 -18431812.01 -18431811.87 0.0089 0.0006
 Mercury -55177-09-09 13:25 J -18431724.08 -18431723.94 -18431723.81 0.0089 0.0003
 Mercury -55177-12-06 14:52 J -18431636.02 -18431635.88 -18431635.74 0.0089 0.0007
 Mercury -55176-03-04 16:18 J -18431547.96 -18431547.82 -18431547.68 0.0089 0.0012
 Mercury -55176-05-31 17:45 J -18431459.89 -18431459.76 -18431459.62 0.0089 0.0018
 Mercury -55176-08-27 19:11 J -18431371.83 -18431371.70 -18431371.56 0.0089 0.0024
 Mercury -55176-11-23 20:37 J -18431283.76 -18431283.64 -18431283.50 0.0089 0.0030
 Mercury -55175-02-19 22:04 J -18431195.70 -18431195.58 -18431195.45 0.0089 0.0036
 Mercury -55175-05-18 23:30 J -18431107.63 -18431107.52 -18431107.39 0.0089 0.0042
 Moon -55175-07-21 02:37 J -18431044.48 -18431044.39 -18431044.26 0.0089 0.0080
 Earth -55175-07-21 05:45 J -18431044.36 -18431044.26 -18431044.13 0.0089 0.0079 *
 Mercury -55175-08-15 00:57 J -18431019.57 -18431019.46 -18431019.34 0.0089 0.0048
 Mercury -55175-11-11 02:23 J -18430931.50 -18430931.40 -18430931.28 0.0089 0.0054
 Mercury -55174-02-07 04:04 J -18430843.43 -18430843.33 -18430843.23 0.0089 0.0059
 Mercury -55174-05-06 05:16 J -18430755.36 -18430755.28 -18430755.18 0.0089 0.0065
 Earth -55174-07-23 17:01 J -18430676.98 -18430676.79 -18430676.61 0.0089 0.0061
 Moon -55174-07-23 20:09 J -18430676.84 -18430676.66 -18430676.46 0.0089 0.0059 *
 Mercury -55174-08-02 06:42 J -18430667.29 -18430667.22 -18430667.13 0.0089 0.0071
 Mercury -55174-10-29 08:09 J -18430579.22 -18430579.16 -18430579.08 0.0089 0.0076
 Mercury -55173-01-25 09:35 J -18430491.14 -18430491.10 -18430491.04 0.0089 0.0082
 Mercury -55173-04-22 11:01 J -18430403.05 -18430403.04 -18430403.01 0.0089 0.0088
 Moon -55173-07-24 23:59 J -18430309.70 -18430309.50 -18430309.26 0.0089 0.0045
 Earth -55173-07-25 03:35 J -18430309.55 -18430309.35 -18430309.11 0.0089 0.0044 *

Earth	-55172-07-27 14:37 J	-18429942.12	-18429941.89	-18429941.63	0.0089	0.0026
Moon	-55172-07-27 17:45 J	-18429942.00	-18429941.76	-18429941.50	0.0089	0.0024 *
Moon	-55171-07-29 23:01 J	-18429574.78	-18429574.54	-18429574.29	0.0089	0.0010
Earth	-55171-07-30 01:54 J	-18429574.67	-18429574.42	-18429574.16	0.0089	0.0007 *
Earth	-55170-08-01 12:42 J	-18429207.22	-18429206.97	-18429206.71	0.0089	0.0010
Moon	-55170-08-01 14:09 J	-18429207.17	-18429206.91	-18429206.65	0.0089	0.0012 *
Moon	-55169-08-02 23:01 J	-18428839.76	-18428839.54	-18428839.29	0.0089	0.0027
Earth	-55169-08-02 23:16 J	-18428839.76	-18428839.53	-18428839.27	0.0089	0.0029 *
Moon	-55168-08-05 09:21 J	-18428472.31	-18428472.11	-18428471.87	0.0089	0.0049
Earth	-55168-08-05 10:04 J	-18428472.28	-18428472.08	-18428471.84	0.0089	0.0047 *
Earth	-55167-08-07 21:21 J	-18428104.78	-18428104.61	-18428104.43	0.0089	0.0064
Moon	-55167-08-07 23:16 J	-18428104.68	-18428104.53	-18428104.33	0.0089	0.0063 *
Moon	-55166-08-10 04:47 J	-18427737.36	-18427737.30	-18427737.19	0.0089	0.0084
Earth	-55166-08-10 07:54 J	-18427737.24	-18427737.17	-18427737.05	0.0089	0.0082 *
Jupiter	-55141-04-10 14:52 J	-18418727.25	-18418726.88	-18418726.49	0.0089	0.0063
Venus	-55136-09-22 06:42 J	-18416736.32	-18416736.22	-18416736.09	0.0089	0.0074
Venus	-55135-05-05 18:42 J	-18416510.88	-18416510.72	-18416510.54	0.0089	0.0055
Venus	-55135-12-17 06:42 J	-18416285.41	-18416285.22	-18416285.02	0.0089	0.0037
Venus	-55134-07-30 18:57 J	-18416059.92	-18416059.71	-18416059.50	0.0089	0.0018
Venus	-55133-03-12 06:42 J	-18415834.43	-18415834.22	-18415834.00	0.0089	0.0002
Venus	-55133-10-23 18:28 J	-18415608.93	-18415608.73	-18415608.51	0.0089	0.0020
Venus	-55132-06-06 06:13 J	-18415383.42	-18415383.24	-18415383.03	0.0089	0.0039
Venus	-55131-01-17 17:59 J	-18415157.89	-18415157.75	-18415157.57	0.0089	0.0059
Venus	-55131-08-31 05:59 J	-18414932.33	-18414932.25	-18414932.12	0.0089	0.0078
Mars	-55115-07-04 00:28 J	-18409146.51	-18409146.48	-18409146.40	0.0089	0.0087
Mars	-55113-05-27 21:49 J	-18408452.78	-18408452.59	-18408452.37	0.0089	0.0064
Mars	-55111-04-21 20:23 J	-18407758.89	-18407758.65	-18407758.36	0.0089	0.0041
Mars	-55109-03-15 23:01 J	-18407064.82	-18407064.54	-18407064.23	0.0089	0.0017
Mars	-55107-02-08 02:37 J	-18406370.68	-18406370.39	-18406370.08	0.0089	0.0008
Mars	-55105-01-03 08:09 J	-18405676.42	-18405676.16	-18405675.86	0.0089	0.0033

Mars -55104-11-27 17:16 J -18404981.99 -18404981.78 -18404981.53 0.0089 0.0058
 Mars -55102-10-23 04:18 J -18404287.39 -18404287.32 -18404287.17 0.0089 0.0083
 Mercury -55098-10-13 13:40 J -18402835.97 -18402835.93 -18402835.84 0.0089 0.0083
 Mercury -55097-01-09 17:01 J -18402747.88 -18402747.79 -18402747.69 0.0089 0.0075
 Mercury -55097-04-06 20:09 J -18402659.77 -18402659.66 -18402659.54 0.0089 0.0067
 Mercury -55097-07-03 23:01 J -18402571.66 -18402571.54 -18402571.40 0.0089 0.0060
 Mercury -55097-09-30 02:09 J -18402483.55 -18402483.41 -18402483.25 0.0089 0.0052
 Mercury -55097-12-27 05:01 J -18402395.43 -18402395.29 -18402395.12 0.0089 0.0045
 Mercury -55096-03-25 08:09 J -18402307.31 -18402307.16 -18402306.98 0.0089 0.0037
 Mercury -55096-06-21 11:30 J -18402219.19 -18402219.02 -18402218.84 0.0089 0.0029
 Mercury -55096-09-17 14:37 J -18402131.07 -18402130.89 -18402130.71 0.0089 0.0021
 Mercury -55096-12-14 17:45 J -18402042.94 -18402042.76 -18402042.58 0.0089 0.0013
 Mercury -55095-03-12 20:52 J -18401954.81 -18401954.63 -18401954.45 0.0089 0.0006
 Mercury -55095-06-08 23:59 J -18401866.68 -18401866.50 -18401866.31 0.0089 0.0003
 Mercury -55095-09-05 03:06 J -18401778.55 -18401778.37 -18401778.18 0.0089 0.0010
 Mercury -55095-12-02 06:13 J -18401690.42 -18401690.24 -18401690.05 0.0089 0.0018
 Mercury -55094-02-28 09:21 J -18401602.28 -18401602.11 -18401601.93 0.0089 0.0026
 Mercury -55094-05-27 12:28 J -18401514.14 -18401513.98 -18401513.80 0.0089 0.0034
 Mercury -55094-08-23 15:35 J -18401426.00 -18401425.85 -18401425.67 0.0089 0.0042
 Mercury -55094-11-19 18:57 J -18401337.86 -18401337.71 -18401337.55 0.0089 0.0050
 Moon -55093-01-16 00:13 J -18401280.54 -18401280.49 -18401280.41 0.0089 0.0086
 Earth -55093-01-16 03:49 J -18401280.42 -18401280.34 -18401280.23 0.0089 0.0082 *
 Mercury -55093-02-15 22:04 J -18401249.71 -18401249.58 -18401249.43 0.0089 0.0058
 Mercury -55093-05-14 01:11 J -18401161.56 -18401161.45 -18401161.31 0.0089 0.0066
 Mercury -55093-08-10 04:33 J -18401073.40 -18401073.31 -18401073.20 0.0089 0.0074
 Mercury -55093-11-06 07:40 J -18400985.23 -18400985.18 -18400985.09 0.0089 0.0082
 Earth -55092-01-17 16:04 J -18400913.00 -18400912.83 -18400912.64 0.0089 0.0064
 Moon -55092-01-17 19:25 J -18400912.87 -18400912.69 -18400912.48 0.0089 0.0060 *
 Moon -55091-01-20 01:54 J -18400545.62 -18400545.42 -18400545.20 0.0089 0.0050
 Earth -55091-01-20 04:18 J -18400545.53 -18400545.32 -18400545.09 0.0089 0.0046 *

Earth	-55090-01-22 16:33 J	-18400178.04	-18400177.81	-18400177.55	0.0089	0.0028
Moon	-55090-01-22 18:28 J	-18400177.97	-18400177.73	-18400177.45	0.0089	0.0025 *
Moon	-55089-01-25 04:33 J	-18399810.55	-18399810.31	-18399810.06	0.0089	0.0013
Earth	-55089-01-25 05:16 J	-18399810.54	-18399810.28	-18399810.02	0.0089	0.0009 *
Moon	-55088-01-26 16:47 J	-18399443.06	-18399442.80	-18399442.53	0.0089	0.0013
Earth	-55088-01-26 17:45 J	-18399443.01	-18399442.76	-18399442.50	0.0089	0.0009 *
Earth	-55087-01-29 05:59 J	-18399075.49	-18399075.25	-18399075.00	0.0089	0.0028
Moon	-55087-01-29 07:25 J	-18399075.42	-18399075.19	-18399074.94	0.0089	0.0025 *
Moon	-55086-01-31 15:21 J	-18398708.06	-18398707.86	-18398707.62	0.0089	0.0050
Earth	-55086-01-31 18:28 J	-18398707.94	-18398707.73	-18398707.50	0.0089	0.0046 *
Earth	-55085-02-03 06:28 J	-18398340.38	-18398340.23	-18398340.02	0.0089	0.0065
Moon	-55085-02-03 10:04 J	-18398340.25	-18398340.08	-18398339.87	0.0089	0.0061 *
Moon	-55084-02-04 15:21 J	-18397972.89	-18397972.86	-18397972.76	0.0089	0.0086
Earth	-55084-02-04 18:57 J	-18397972.77	-18397972.71	-18397972.58	0.0089	0.0083 *
Venus	-55054-11-10 03:35 J	-18386737.44	-18386737.35	-18386737.23	0.0088	0.0078
Venus	-55053-06-22 17:30 J	-18386511.91	-18386511.77	-18386511.58	0.0088	0.0060
Venus	-55052-02-03 08:09 J	-18386286.35	-18386286.16	-18386285.95	0.0088	0.0039
Venus	-55052-09-16 22:18 J	-18386060.78	-18386060.57	-18386060.34	0.0088	0.0020
Venus	-55051-04-30 12:28 J	-18385835.20	-18385834.98	-18385834.75	0.0088	0.0002
Venus	-55051-12-12 02:23 J	-18385609.61	-18385609.40	-18385609.17	0.0088	0.0020
Venus	-55050-07-25 16:47 J	-18385384.01	-18385383.80	-18385383.60	0.0088	0.0039
Venus	-55049-03-07 06:28 J	-18385158.38	-18385158.23	-18385158.04	0.0088	0.0059
Venus	-55049-10-18 20:37 J	-18384932.73	-18384932.64	-18384932.52	0.0088	0.0078
Mars	-55031-04-26 21:21 J	-18378533.73	-18378533.61	-18378533.45	0.0088	0.0080
Mars	-55029-03-22 17:01 J	-18377838.05	-18377837.79	-18377837.52	0.0088	0.0053
Mars	-55027-02-16 08:37 J	-18377142.44	-18377142.14	-18377141.81	0.0088	0.0026
Mars	-55025-01-12 21:49 J	-18376446.92	-18376446.59	-18376446.26	0.0088	0.0001
Mars	-55024-12-08 08:09 J	-18375751.46	-18375751.16	-18375750.84	0.0088	0.0027
Mars	-55022-11-03 15:21 J	-18375056.12	-18375055.86	-18375055.60	0.0088	0.0052
Mars	-55020-09-28 18:13 J	-18374360.87	-18374360.74	-18374360.56	0.0088	0.0077

Mercury -55016-10-24 13:54 J -18372873.94 -18372873.92 -18372873.88 0.0089 0.0086

Mercury -55015-01-20 15:35 J -18372785.90 -18372785.85 -18372785.79 0.0089 0.0080

Mercury -55015-04-18 17:01 J -18372697.86 -18372697.79 -18372697.70 0.0089 0.0074

Mercury -55015-07-15 18:42 J -18372609.80 -18372609.72 -18372609.62 0.0089 0.0068

Mercury -55015-10-11 20:09 J -18372521.75 -18372521.66 -18372521.55 0.0089 0.0062

Mercury -55014-01-07 21:49 J -18372433.69 -18372433.59 -18372433.48 0.0089 0.0056

Mercury -55014-04-05 23:16 J -18372345.63 -18372345.53 -18372345.40 0.0089 0.0050

Mercury -55014-07-03 00:57 J -18372257.58 -18372257.46 -18372257.33 0.0089 0.0044

Mercury -55014-09-29 02:23 J -18372169.52 -18372169.40 -18372169.26 0.0089 0.0038

Mercury -55014-12-26 04:04 J -18372081.46 -18372081.33 -18372081.20 0.0089 0.0032

Mercury -55013-03-23 05:30 J -18371993.39 -18371993.27 -18371993.13 0.0089 0.0026

Mercury -55013-06-19 07:11 J -18371905.33 -18371905.20 -18371905.06 0.0089 0.0020

Mercury -55013-09-15 08:52 J -18371817.27 -18371817.13 -18371817.00 0.0089 0.0014

Mercury -55013-12-12 10:18 J -18371729.21 -18371729.07 -18371728.93 0.0089 0.0008

Mercury -55012-03-10 11:45 J -18371641.15 -18371641.01 -18371640.87 0.0089 0.0002

Mercury -55012-06-06 13:25 J -18371553.08 -18371552.94 -18371552.81 0.0089 0.0005

Mercury -55012-09-02 14:52 J -18371465.02 -18371464.88 -18371464.74 0.0089 0.0010

Mercury -55012-11-29 16:18 J -18371376.95 -18371376.82 -18371376.68 0.0089 0.0016

Mercury -55011-02-25 17:45 J -18371288.89 -18371288.76 -18371288.62 0.0089 0.0022

Mercury -55011-05-24 19:25 J -18371200.83 -18371200.69 -18371200.56 0.0089 0.0028

Earth -55011-07-20 17:16 J -18371143.81 -18371143.78 -18371143.70 0.0089 0.0087

Mercury -55011-08-20 20:52 J -18371112.76 -18371112.63 -18371112.51 0.0089 0.0034

Mercury -55011-11-16 22:04 J -18371024.69 -18371024.58 -18371024.45 0.0089 0.0040

Mercury -55010-02-12 23:30 J -18370936.63 -18370936.52 -18370936.39 0.0089 0.0046

Mercury -55010-05-12 00:57 J -18370848.56 -18370848.46 -18370848.34 0.0089 0.0052

Moon -55010-07-23 00:57 J -18370776.61 -18370776.46 -18370776.26 0.0089 0.0065

Earth -55010-07-23 04:33 J -18370776.45 -18370776.31 -18370776.12 0.0089 0.0069 *

Mercury -55010-08-08 02:37 J -18370760.49 -18370760.39 -18370760.28 0.0089 0.0057

Mercury -55010-11-04 04:04 J -18370672.42 -18370672.33 -18370672.23 0.0089 0.0063

Mercury -55009-01-31 05:16 J -18370584.35 -18370584.28 -18370584.18 0.0089 0.0069

Mercury -55009-04-28 06:42 J -18370496.28 -18370496.22 -18370496.13 0.0089 0.0075

Earth -55009-07-24 15:35 J -18370409.04 -18370408.85 -18370408.62 0.0089 0.0051

Moon -55009-07-24 18:57 J -18370408.90 -18370408.71 -18370408.49 0.0089 0.0055 *

Mercury -55009-07-25 08:23 J -18370408.20 -18370408.15 -18370408.09 0.0089 0.0080

Mercury -55009-10-21 09:49 J -18370320.12 -18370320.09 -18370320.06 0.0089 0.0086

Moon -55008-07-27 01:11 J -18370041.69 -18370041.45 -18370041.21 0.0089 0.0028

Earth -55008-07-27 03:06 J -18370041.60 -18370041.37 -18370041.13 0.0089 0.0032 *

Earth -55007-07-29 14:09 J -18369674.16 -18369673.91 -18369673.65 0.0089 0.0014

Moon -55007-07-29 15:35 J -18369674.10 -18369673.85 -18369673.58 0.0089 0.0018 *

Earth -55006-08-01 00:57 J -18369306.71 -18369306.46 -18369306.20 0.0089 0.0004

Moon -55006-08-01 00:57 J -18369306.70 -18369306.46 -18369306.21 0.0089 0.0009 *

Moon -55005-08-02 10:04 J -18368939.32 -18368939.08 -18368938.80 0.0089 0.0019

Earth -55005-08-02 11:45 J -18368939.25 -18368939.01 -18368938.75 0.0089 0.0023 *

Earth -55004-08-04 22:18 J -18368571.77 -18368571.57 -18368571.32 0.0089 0.0041

Moon -55004-08-05 00:28 J -18368571.68 -18368571.48 -18368571.25 0.0089 0.0045 *

Moon -55003-08-07 06:13 J -18368204.44 -18368204.24 -18368204.03 0.0089 0.0054

Earth -55003-08-07 09:21 J -18368204.28 -18368204.11 -18368203.90 0.0089 0.0059 *

Earth -55002-08-09 19:54 J -18367836.77 -18367836.67 -18367836.51 0.0089 0.0077

Moon -55002-08-09 23:30 J -18367836.60 -18367836.52 -18367836.39 0.0089 0.0081 *

55TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 55th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								

Jupiter -54975-06-16 19:25 J -18358028.78 -18358028.69 -18358028.51 0.0089 0.0087
 Venus -54972-12-24 20:09 J -18356741.74 -18356741.66 -18356741.56 0.0089 0.0080
 Venus -54971-08-07 08:23 J -18356516.30 -18356516.15 -18356516.00 0.0089 0.0062
 Venus -54970-03-20 19:54 J -18356290.84 -18356290.67 -18356290.47 0.0089 0.0044
 Venus -54970-11-01 07:54 J -18356065.36 -18356065.17 -18356064.95 0.0089 0.0025
 Venus -54969-06-13 20:09 J -18355839.88 -18355839.66 -18355839.45 0.0089 0.0005
 Venus -54968-01-25 07:54 J -18355614.38 -18355614.17 -18355613.96 0.0089 0.0014
 Venus -54968-09-07 19:54 J -18355388.86 -18355388.67 -18355388.47 0.0089 0.0032
 Venus -54967-04-21 07:40 J -18355163.34 -18355163.18 -18355162.99 0.0089 0.0051
 Venus -54967-12-02 19:25 J -18354937.80 -18354937.69 -18354937.54 0.0089 0.0070
 Venus -54966-07-16 07:25 J -18354712.19 -18354712.19 -18354712.15 0.0089 0.0089
 Mars -54949-01-11 10:47 J -18348689.22 -18348689.05 -18348688.85 0.0089 0.0068
 Mars -54948-12-05 09:06 J -18347995.36 -18347995.12 -18347994.85 0.0089 0.0045
 Mars -54946-10-30 08:23 J -18347301.43 -18347301.15 -18347300.85 0.0089 0.0022
 Mars -54944-09-23 11:01 J -18346607.33 -18346607.04 -18346606.73 0.0089 0.0003
 Mars -54942-08-18 15:49 J -18345913.12 -18345912.84 -18345912.54 0.0089 0.0026
 Mars -54940-07-12 21:21 J -18345218.83 -18345218.61 -18345218.34 0.0089 0.0051
 Mars -54938-06-07 07:11 J -18344524.35 -18344524.20 -18344524.03 0.0089 0.0075
 Mercury -54933-04-12 10:33 J -18342753.10 -18342753.06 -18342753.01 0.0089 0.0085
 Mercury -54933-07-09 13:11 J -18342665.01 -18342664.95 -18342664.84 0.0089 0.0078
 Mercury -54933-10-05 16:33 J -18342576.91 -18342576.81 -18342576.69 0.0089 0.0070
 Mercury -54932-01-01 19:25 J -18342488.80 -18342488.69 -18342488.55 0.0089 0.0063
 Mercury -54932-03-30 22:33 J -18342400.69 -18342400.56 -18342400.41 0.0089 0.0055
 Mercury -54932-06-27 01:40 J -18342312.57 -18342312.43 -18342312.27 0.0089 0.0047
 Mercury -54932-09-23 04:33 J -18342224.46 -18342224.31 -18342224.13 0.0089 0.0040
 Mercury -54932-12-20 07:40 J -18342136.34 -18342136.18 -18342136.00 0.0089 0.0032
 Mercury -54931-03-18 11:01 J -18342048.21 -18342048.04 -18342047.86 0.0089 0.0024
 Mercury -54931-06-14 14:09 J -18341960.09 -18341959.91 -18341959.73 0.0089 0.0016
 Mercury -54931-09-10 17:16 J -18341871.96 -18341871.78 -18341871.60 0.0089 0.0008

Mercury -54931-12-07 20:23 J -18341783.83 -18341783.65 -18341783.47 0.0089 0.0001

Mercury -54930-03-05 23:30 J -18341695.70 -18341695.52 -18341695.34 0.0089 0.0007

Mercury -54930-06-02 02:37 J -18341607.57 -18341607.39 -18341607.21 0.0089 0.0015

Mercury -54930-08-29 05:45 J -18341519.43 -18341519.26 -18341519.08 0.0089 0.0023

Mercury -54930-11-25 08:52 J -18341431.30 -18341431.13 -18341430.95 0.0089 0.0031

Moon -54929-01-15 18:42 J -18341379.76 -18341379.72 -18341379.67 0.0089 0.0087

Mercury -54929-02-21 11:59 J -18341343.16 -18341343.00 -18341342.83 0.0089 0.0039

Mercury -54929-05-19 15:06 J -18341255.02 -18341254.87 -18341254.70 0.0089 0.0047

Mercury -54929-08-15 18:13 J -18341166.87 -18341166.74 -18341166.58 0.0089 0.0055

Mercury -54929-11-11 21:35 J -18341078.72 -18341078.60 -18341078.46 0.0089 0.0063

Moon -54928-01-17 00:42 J -18341012.59 -18341012.47 -18341012.31 0.0089 0.0074

Earth -54928-01-17 03:06 J -18341012.49 -18341012.37 -18341012.19 0.0089 0.0072 *

Mercury -54928-02-08 00:42 J -18340990.57 -18340990.47 -18340990.35 0.0089 0.0071

Mercury -54928-05-07 03:49 J -18340902.41 -18340902.34 -18340902.24 0.0089 0.0079

Mercury -54928-08-03 07:11 J -18340814.22 -18340814.20 -18340814.15 0.0089 0.0087

Earth -54927-01-19 15:35 J -18340645.05 -18340644.85 -18340644.63 0.0089 0.0053

Moon -54927-01-19 16:47 J -18340645.01 -18340644.80 -18340644.57 0.0089 0.0051 *

Moon -54926-01-22 03:35 J -18340277.57 -18340277.35 -18340277.11 0.0089 0.0037

Earth -54926-01-22 03:49 J -18340277.57 -18340277.34 -18340277.09 0.0089 0.0035 *

Moon -54925-01-24 15:21 J -18339910.11 -18339909.86 -18339909.58 0.0089 0.0014

Earth -54925-01-24 16:33 J -18339910.07 -18339909.81 -18339909.56 0.0089 0.0016 *

Earth -54924-01-26 04:47 J -18339542.56 -18339542.30 -18339542.04 0.0089 0.0003

Moon -54924-01-26 07:11 J -18339542.45 -18339542.20 -18339541.95 0.0089 0.0001 *

Moon -54923-01-28 14:09 J -18339175.15 -18339174.91 -18339174.64 0.0089 0.0024

Earth -54923-01-28 17:16 J -18339175.03 -18339174.78 -18339174.52 0.0089 0.0021 *

Earth -54922-01-31 05:30 J -18338807.49 -18338807.27 -18338807.03 0.0089 0.0040

Moon -54922-01-31 08:52 J -18338807.34 -18338807.13 -18338806.88 0.0089 0.0037 *

Moon -54921-02-02 14:23 J -18338440.07 -18338439.90 -18338439.70 0.0089 0.0061

Earth -54921-02-02 17:45 J -18338439.93 -18338439.76 -18338439.54 0.0089 0.0059 *

Earth -54920-02-04 06:13 J -18338072.34 -18338072.24 -18338072.09 0.0089 0.0077

Moon	-54920-02-04 09:21 J	-18338072.22	-18338072.11	-18338071.93	0.0089	0.0074 *
Venus	-54889-02-11 14:23 J	-18326742.93	-18326742.90	-18326742.81	0.0088	0.0085
Venus	-54889-09-24 04:47 J	-18326517.44	-18326517.30	-18326517.13	0.0088	0.0066
Venus	-54888-05-07 18:42 J	-18326291.89	-18326291.72	-18326291.51	0.0088	0.0047
Venus	-54888-12-19 09:06 J	-18326066.33	-18326066.12	-18326065.90	0.0088	0.0027
Venus	-54887-08-01 23:16 J	-18325840.75	-18325840.53	-18325840.30	0.0088	0.0008
Venus	-54886-03-15 13:40 J	-18325615.16	-18325614.93	-18325614.71	0.0088	0.0012
Venus	-54886-10-27 03:21 J	-18325389.56	-18325389.36	-18325389.13	0.0088	0.0032
Venus	-54885-06-08 17:16 J	-18325163.95	-18325163.78	-18325163.58	0.0088	0.0052
Venus	-54884-01-20 07:40 J	-18324938.31	-18324938.18	-18324938.04	0.0088	0.0071
Mars	-54868-12-08 20:23 J	-18318771.71	-18318771.65	-18318771.51	0.0088	0.0085
Mars	-54866-11-04 17:01 J	-18318076.01	-18318075.79	-18318075.51	0.0088	0.0059
Mars	-54864-09-30 11:59 J	-18317380.30	-18317380.00	-18317379.67	0.0088	0.0032
Mars	-54862-08-27 03:49 J	-18316684.67	-18316684.34	-18316684.01	0.0088	0.0005
Mars	-54860-07-22 15:35 J	-18315989.16	-18315988.85	-18315988.52	0.0088	0.0021
Mars	-54858-06-18 01:54 J	-18315293.70	-18315293.42	-18315293.14	0.0088	0.0046
Mars	-54856-05-13 07:54 J	-18314598.34	-18314598.17	-18314597.95	0.0088	0.0071
Mercury	-54851-04-24 12:13 J	-18312790.99	-18312790.99	-18312790.97	0.0089	0.0088
Mercury	-54851-07-21 14:09 J	-18312702.96	-18312702.91	-18312702.86	0.0089	0.0082
Mercury	-54851-10-17 15:35 J	-18312614.91	-18312614.85	-18312614.77	0.0089	0.0076
Mercury	-54850-01-13 17:16 J	-18312526.86	-18312526.78	-18312526.69	0.0089	0.0070
Mercury	-54850-04-11 18:42 J	-18312438.81	-18312438.72	-18312438.62	0.0089	0.0064
Mercury	-54850-07-08 20:23 J	-18312350.75	-18312350.65	-18312350.54	0.0089	0.0058
Mercury	-54850-10-04 21:49 J	-18312262.70	-18312262.59	-18312262.47	0.0089	0.0052
Mercury	-54850-12-31 23:30 J	-18312174.64	-18312174.52	-18312174.40	0.0089	0.0046
Mercury	-54849-03-29 00:57 J	-18312086.58	-18312086.46	-18312086.33	0.0089	0.0040
Mercury	-54849-06-25 02:37 J	-18311998.52	-18311998.39	-18311998.26	0.0089	0.0034
Mercury	-54849-09-21 04:04 J	-18311910.46	-18311910.33	-18311910.19	0.0089	0.0028
Mercury	-54849-12-18 05:45 J	-18311822.40	-18311822.26	-18311822.13	0.0089	0.0022
Mercury	-54848-03-16 07:11 J	-18311734.33	-18311734.20	-18311734.06	0.0089	0.0016

Mercury -54848-06-12 08:52 J -18311646.27 -18311646.13 -18311646.00 0.0089 0.0010
 Mercury -54848-09-08 10:18 J -18311558.21 -18311558.07 -18311557.93 0.0089 0.0004
 Mercury -54848-12-05 11:45 J -18311470.15 -18311470.01 -18311469.87 0.0089 0.0003
 Mercury -54847-03-03 13:11 J -18311382.08 -18311381.95 -18311381.81 0.0089 0.0009
 Mercury -54847-05-30 14:52 J -18311294.02 -18311293.88 -18311293.74 0.0089 0.0014
 Mercury -54847-08-26 16:18 J -18311205.95 -18311205.82 -18311205.68 0.0089 0.0020
 Mercury -54847-11-22 17:45 J -18311117.89 -18311117.76 -18311117.62 0.0089 0.0026
 Mercury -54846-02-18 19:11 J -18311029.82 -18311029.70 -18311029.57 0.0089 0.0032
 Mercury -54846-05-17 20:37 J -18310941.76 -18310941.64 -18310941.51 0.0089 0.0038
 Earth -54846-07-22 16:33 J -18310875.93 -18310875.81 -18310875.67 0.0089 0.0076
 Moon -54846-07-22 19:11 J -18310875.80 -18310875.70 -18310875.55 0.0089 0.0078 *
 Mercury -54846-08-13 22:04 J -18310853.69 -18310853.58 -18310853.45 0.0089 0.0044
 Mercury -54846-11-09 23:30 J -18310765.62 -18310765.52 -18310765.40 0.0089 0.0050
 Mercury -54845-02-06 01:11 J -18310677.55 -18310677.45 -18310677.34 0.0089 0.0055
 Mercury -54845-05-04 02:37 J -18310589.49 -18310589.39 -18310589.29 0.0089 0.0061
 Moon -54845-07-24 01:11 J -18310508.61 -18310508.45 -18310508.23 0.0089 0.0057
 Earth -54845-07-24 03:35 J -18310508.52 -18310508.35 -18310508.14 0.0089 0.0058 *
 Mercury -54845-07-31 04:04 J -18310501.41 -18310501.33 -18310501.24 0.0089 0.0067
 Mercury -54845-10-27 05:16 J -18310413.34 -18310413.28 -18310413.19 0.0089 0.0073
 Mercury -54844-01-23 06:42 J -18310325.27 -18310325.22 -18310325.14 0.0089 0.0079
 Mercury -54844-04-21 08:23 J -18310237.19 -18310237.15 -18310237.10 0.0089 0.0084
 Earth -54844-07-26 14:37 J -18310141.10 -18310140.89 -18310140.64 0.0089 0.0040
 Moon -54844-07-26 15:49 J -18310141.08 -18310140.84 -18310140.60 0.0089 0.0040 *
 Earth -54843-07-29 01:54 J -18309773.66 -18309773.42 -18309773.16 0.0089 0.0021
 Moon -54843-07-29 01:54 J -18309773.65 -18309773.42 -18309773.16 0.0089 0.0020 *
 Moon -54842-07-31 11:30 J -18309406.28 -18309406.02 -18309405.76 0.0089 0.0004
 Earth -54842-07-31 12:57 J -18309406.21 -18309405.96 -18309405.70 0.0089 0.0003 *
 Earth -54841-08-01 23:45 J -18309038.76 -18309038.51 -18309038.25 0.0089 0.0016
 Moon -54841-08-02 02:37 J -18309038.63 -18309038.39 -18309038.14 0.0089 0.0017 *
 Moon -54840-08-04 07:25 J -18308671.42 -18308671.19 -18308670.94 0.0089 0.0033

Earth	-54840-08-04 10:33 J	-18308671.28	-18308671.06	-18308670.81	0.0089	0.0035	*
Earth	-54839-08-06 21:06 J	-18308303.80	-18308303.62	-18308303.39	0.0089	0.0053	
Moon	-54839-08-07 00:57 J	-18308303.64	-18308303.46	-18308303.25	0.0089	0.0055	*
Moon	-54838-08-09 04:47 J	-18307936.44	-18307936.30	-18307936.13	0.0089	0.0070	
Earth	-54838-08-09 08:09 J	-18307936.30	-18307936.16	-18307936.00	0.0089	0.0071	*
Venus	-54807-03-28 09:06 J	-18296747.14	-18296747.12	-18296747.06	0.0089	0.0087	
Venus	-54807-11-08 21:06 J	-18296521.74	-18296521.62	-18296521.47	0.0089	0.0069	
Venus	-54806-06-22 09:21 J	-18296296.29	-18296296.11	-18296295.93	0.0089	0.0050	
Venus	-54805-02-02 20:52 J	-18296070.81	-18296070.63	-18296070.41	0.0089	0.0032	
Venus	-54805-09-15 09:06 J	-18295845.33	-18295845.12	-18295844.91	0.0089	0.0012	
Venus	-54804-04-28 21:06 J	-18295619.83	-18295619.62	-18295619.41	0.0089	0.0007	
Venus	-54804-12-10 08:52 J	-18295394.33	-18295394.13	-18295393.92	0.0089	0.0025	
Venus	-54803-07-23 20:37 J	-18295168.81	-18295168.64	-18295168.44	0.0089	0.0045	
Venus	-54802-03-06 08:23 J	-18294943.28	-18294943.15	-18294942.98	0.0089	0.0064	
Venus	-54802-10-17 20:52 J	-18294717.71	-18294717.63	-18294717.55	0.0089	0.0082	
Mars	-54786-08-27 00:13 J	-18288925.63	-18288925.49	-18288925.29	0.0089	0.0072	
Mars	-54784-07-20 21:35 J	-18288231.84	-18288231.60	-18288231.35	0.0089	0.0049	
Mars	-54782-06-14 20:23 J	-18287537.93	-18287537.65	-18287537.36	0.0089	0.0027	
Mars	-54780-05-08 20:23 J	-18286843.95	-18286843.65	-18286843.35	0.0089	0.0003	
Mars	-54778-04-02 22:18 J	-18286149.85	-18286149.57	-18286149.26	0.0089	0.0021	
Mars	-54776-02-25 04:04 J	-18285455.58	-18285455.33	-18285455.06	0.0089	0.0044	
Mars	-54774-01-20 10:47 J	-18284761.23	-18284761.05	-18284760.84	0.0089	0.0068	
Mercury	-54769-10-11 06:57 J	-18282670.22	-18282670.21	-18282670.19	0.0089	0.0088	
Mercury	-54768-01-07 09:35 J	-18282582.16	-18282582.10	-18282582.01	0.0089	0.0081	
Mercury	-54768-04-05 12:57 J	-18282494.06	-18282493.96	-18282493.86	0.0089	0.0073	
Mercury	-54768-07-02 15:35 J	-18282405.95	-18282405.85	-18282405.71	0.0089	0.0066	
Mercury	-54768-09-28 18:42 J	-18282317.84	-18282317.72	-18282317.57	0.0089	0.0058	
Mercury	-54768-12-25 22:04 J	-18282229.73	-18282229.58	-18282229.43	0.0089	0.0050	
Mercury	-54767-03-24 00:57 J	-18282141.61	-18282141.46	-18282141.29	0.0089	0.0043	
Mercury	-54767-06-20 04:04 J	-18282053.49	-18282053.33	-18282053.16	0.0089	0.0035	

Mercury -54767-09-16 07:11 J -18281965.37 -18281965.20 -18281965.02 0.0089 0.0027
 Mercury -54767-12-13 10:04 J -18281877.25 -18281877.08 -18281876.89 0.0089 0.0020
 Mercury -54766-03-11 13:25 J -18281789.12 -18281788.94 -18281788.76 0.0089 0.0012
 Mercury -54766-06-07 16:33 J -18281700.99 -18281700.81 -18281700.63 0.0089 0.0004
 Mercury -54766-09-03 19:40 J -18281612.86 -18281612.68 -18281612.50 0.0089 0.0004
 Mercury -54766-11-30 22:47 J -18281524.73 -18281524.55 -18281524.37 0.0089 0.0012
 Mercury -54765-02-27 01:54 J -18281436.60 -18281436.42 -18281436.24 0.0089 0.0020
 Mercury -54765-05-25 05:01 J -18281348.46 -18281348.29 -18281348.11 0.0089 0.0028
 Mercury -54765-08-21 08:09 J -18281260.32 -18281260.16 -18281259.99 0.0089 0.0036
 Mercury -54765-11-17 11:16 J -18281172.18 -18281172.03 -18281171.86 0.0089 0.0044
 Earth -54764-01-16 14:09 J -18281112.01 -18281111.91 -18281111.77 0.0089 0.0079
 Moon -54764-01-16 15:21 J -18281111.93 -18281111.86 -18281111.74 0.0089 0.0083 *
 Mercury -54764-02-13 14:23 J -18281084.04 -18281083.90 -18281083.74 0.0089 0.0052
 Mercury -54764-05-12 17:30 J -18280995.89 -18280995.77 -18280995.62 0.0089 0.0060
 Mercury -54764-08-08 20:37 J -18280907.74 -18280907.64 -18280907.50 0.0089 0.0068
 Mercury -54764-11-04 23:45 J -18280819.58 -18280819.51 -18280819.39 0.0089 0.0076
 Earth -54763-01-19 02:09 J -18280744.57 -18280744.41 -18280744.20 0.0089 0.0061
 Moon -54763-01-19 02:37 J -18280744.56 -18280744.39 -18280744.18 0.0089 0.0057 *
 Mercury -54763-02-01 03:06 J -18280731.41 -18280731.37 -18280731.29 0.0089 0.0084
 Moon -54762-01-21 13:11 J -18280377.17 -18280376.95 -18280376.71 0.0089 0.0046
 Earth -54762-01-21 14:52 J -18280377.10 -18280376.88 -18280376.65 0.0089 0.0042 *
 Earth -54761-01-24 02:52 J -18280009.62 -18280009.38 -18280009.12 0.0089 0.0024
 Moon -54761-01-24 05:01 J -18280009.52 -18280009.29 -18280009.03 0.0089 0.0020 *
 Moon -54760-01-25 11:59 J -18279642.26 -18279642.00 -18279641.73 0.0089 0.0009
 Earth -54760-01-25 15:35 J -18279642.11 -18279641.85 -18279641.59 0.0089 0.0004 *
 Earth -54759-01-28 03:35 J -18279274.60 -18279274.35 -18279274.08 0.0089 0.0015
 Moon -54759-01-28 06:57 J -18279274.45 -18279274.21 -18279273.94 0.0089 0.0019 *
 Moon -54758-01-30 12:28 J -18278907.21 -18278906.98 -18278906.73 0.0089 0.0030
 Earth -54758-01-30 16:04 J -18278907.06 -18278906.83 -18278906.58 0.0089 0.0034 *
 Earth -54757-02-02 04:47 J -18278539.51 -18278539.30 -18278539.09 0.0089 0.0052

Moon	-54757-02-02 07:40 J	-18278539.37	-18278539.18	-18278538.96	0.0089	0.0056 *
Moon	-54756-02-03 14:52 J	-18278172.03	-18278171.88	-18278171.70	0.0089	0.0068
Earth	-54756-02-03 17:01 J	-18278171.93	-18278171.79	-18278171.62	0.0089	0.0071 *
Venus	-54725-12-26 15:21 J	-18266522.97	-18266522.86	-18266522.72	0.0088	0.0072
Venus	-54724-08-09 05:16 J	-18266297.44	-18266297.28	-18266297.08	0.0088	0.0054
Venus	-54723-03-22 19:54 J	-18266071.88	-18266071.67	-18266071.46	0.0088	0.0033
Venus	-54723-11-03 09:49 J	-18265846.31	-18265846.09	-18265845.86	0.0088	0.0014
Venus	-54722-06-16 23:59 J	-18265620.72	-18265620.50	-18265620.27	0.0088	0.0006
Venus	-54721-01-28 13:54 J	-18265395.12	-18265394.92	-18265394.69	0.0088	0.0026
Venus	-54721-09-10 04:04 J	-18265169.51	-18265169.33	-18265169.12	0.0088	0.0044
Venus	-54720-04-23 18:13 J	-18264943.89	-18264943.74	-18264943.57	0.0088	0.0063
Venus	-54720-12-05 08:23 J	-18264718.22	-18264718.15	-18264718.07	0.0088	0.0083
Mars	-54702-06-18 16:47 J	-18258314.02	-18258313.80	-18258313.55	0.0088	0.0063
Mars	-54700-05-14 11:59 J	-18257618.27	-18257618.00	-18257617.67	0.0088	0.0038
Mars	-54698-04-10 05:59 J	-18256922.56	-18256922.25	-18256921.91	0.0088	0.0012
Mars	-54696-03-05 21:35 J	-18256226.92	-18256226.60	-18256226.27	0.0088	0.0015
Mars	-54694-01-30 08:37 J	-18255531.43	-18255531.14	-18255530.84	0.0088	0.0040
Mars	-54693-12-25 17:01 J	-18254835.98	-18254835.79	-18254835.54	0.0088	0.0065
Mars	-54691-11-20 23:16 J	-18254140.53	-18254140.53	-18254140.48	0.0088	0.0088
Mercury	-54686-01-19 12:13 J	-18252620.02	-18252619.99	-18252619.94	0.0089	0.0085
Mercury	-54686-04-17 13:54 J	-18252531.97	-18252531.92	-18252531.85	0.0089	0.0079
Mercury	-54686-07-14 15:21 J	-18252443.93	-18252443.86	-18252443.77	0.0089	0.0073
Mercury	-54686-10-10 17:01 J	-18252355.87	-18252355.79	-18252355.69	0.0089	0.0067
Mercury	-54685-01-06 18:28 J	-18252267.82	-18252267.73	-18252267.61	0.0089	0.0061
Mercury	-54685-04-03 20:09 J	-18252179.76	-18252179.66	-18252179.54	0.0089	0.0055
Mercury	-54685-06-30 21:35 J	-18252091.70	-18252091.60	-18252091.47	0.0089	0.0049
Mercury	-54685-09-26 23:16 J	-18252003.64	-18252003.53	-18252003.40	0.0089	0.0043
Mercury	-54685-12-24 00:57 J	-18251915.58	-18251915.46	-18251915.33	0.0089	0.0036
Mercury	-54684-03-22 02:37 J	-18251827.52	-18251827.39	-18251827.26	0.0089	0.0030
Mercury	-54684-06-18 04:04 J	-18251739.46	-18251739.33	-18251739.19	0.0089	0.0024

Mercury -54684-09-14 05:30 J -18251651.40 -18251651.27 -18251651.13 0.0089 0.0019
 Mercury -54684-12-11 07:11 J -18251563.34 -18251563.20 -18251563.06 0.0089 0.0012
 Mercury -54683-03-09 08:52 J -18251475.27 -18251475.13 -18251474.99 0.0089 0.0007
 Mercury -54683-06-05 10:18 J -18251387.21 -18251387.07 -18251386.93 0.0089 0.0001
 Mercury -54683-09-01 11:45 J -18251299.15 -18251299.01 -18251298.87 0.0089 0.0006
 Mercury -54683-11-28 13:11 J -18251211.08 -18251210.95 -18251210.81 0.0089 0.0012
 Mercury -54682-02-24 14:52 J -18251123.02 -18251122.88 -18251122.75 0.0089 0.0018
 Mercury -54682-05-23 16:18 J -18251034.95 -18251034.82 -18251034.69 0.0089 0.0024
 Moon -54682-07-22 02:23 J -18250975.42 -18250975.40 -18250975.37 0.0089 0.0088
 Earth -54682-07-22 03:49 J -18250975.40 -18250975.34 -18250975.24 0.0089 0.0084 *
 Mercury -54682-08-19 17:45 J -18250946.89 -18250946.76 -18250946.63 0.0089 0.0029
 Mercury -54682-11-15 19:11 J -18250858.82 -18250858.70 -18250858.57 0.0089 0.0035
 Mercury -54681-02-11 20:37 J -18250770.76 -18250770.64 -18250770.51 0.0089 0.0041
 Mercury -54681-05-09 22:18 J -18250682.69 -18250682.57 -18250682.46 0.0089 0.0047
 Earth -54681-07-23 14:52 J -18250608.02 -18250607.88 -18250607.68 0.0089 0.0066
 Moon -54681-07-23 16:04 J -18250608.01 -18250607.83 -18250607.62 0.0089 0.0061 *
 Mercury -54681-08-05 23:45 J -18250594.62 -18250594.51 -18250594.40 0.0089 0.0053
 Mercury -54681-11-02 00:57 J -18250506.55 -18250506.46 -18250506.35 0.0089 0.0059
 Mercury -54680-01-29 02:23 J -18250418.48 -18250418.40 -18250418.29 0.0089 0.0065
 Mercury -54680-04-27 03:49 J -18250330.41 -18250330.34 -18250330.24 0.0089 0.0071
 Mercury -54680-07-24 05:30 J -18250242.33 -18250242.27 -18250242.20 0.0089 0.0076
 Earth -54680-07-26 02:23 J -18250240.60 -18250240.40 -18250240.17 0.0089 0.0047
 Moon -54680-07-26 03:06 J -18250240.55 -18250240.37 -18250240.14 0.0089 0.0052 *
 Mercury -54680-10-20 06:57 J -18250154.25 -18250154.21 -18250154.15 0.0089 0.0082
 Mercury -54679-01-16 08:09 J -18250066.16 -18250066.16 -18250066.13 0.0089 0.0088
 Moon -54679-07-28 11:59 J -18249873.25 -18249873.00 -18249872.74 0.0089 0.0024
 Earth -54679-07-28 13:54 J -18249873.16 -18249872.92 -18249872.67 0.0089 0.0028 *
 Earth -54678-07-31 00:42 J -18249505.71 -18249505.47 -18249505.20 0.0089 0.0010
 Moon -54678-07-31 03:21 J -18249505.60 -18249505.36 -18249505.10 0.0089 0.0014 *
 Moon -54677-08-01 08:09 J -18249138.40 -18249138.16 -18249137.89 0.0089 0.0015

Earth	-54677-08-01 11:59 J	-18249138.25	-18249138.00	-18249137.74	0.0089	0.0010	*
Earth	-54676-08-03 22:33 J	-18248770.79	-18248770.56	-18248770.30	0.0089	0.0029	
Moon	-54676-08-04 02:09 J	-18248770.65	-18248770.41	-18248770.16	0.0089	0.0024	*
Moon	-54675-08-06 05:59 J	-18248403.44	-18248403.25	-18248403.03	0.0089	0.0051	
Earth	-54675-08-06 09:21 J	-18248403.31	-18248403.11	-18248402.88	0.0089	0.0047	*
Earth	-54674-08-08 19:54 J	-18248035.82	-18248035.67	-18248035.47	0.0089	0.0066	
Moon	-54674-08-08 22:33 J	-18248035.73	-18248035.56	-18248035.35	0.0089	0.0061	*
Moon	-54673-08-10 05:16 J	-18247668.29	-18247668.28	-18247668.22	0.0089	0.0088	
Earth	-54673-08-10 06:42 J	-18247668.27	-18247668.22	-18247668.11	0.0089	0.0084	*
Venus	-54642-02-10 10:04 J	-18236527.18	-18236527.08	-18236526.95	0.0089	0.0075	
Venus	-54642-09-23 22:04 J	-18236301.73	-18236301.58	-18236301.40	0.0089	0.0057	
Venus	-54641-05-06 09:49 J	-18236076.27	-18236076.09	-18236075.88	0.0089	0.0038	
Venus	-54641-12-17 22:04 J	-18235850.78	-18235850.58	-18235850.37	0.0089	0.0019	
Venus	-54640-07-31 10:18 J	-18235625.29	-18235625.07	-18235624.86	0.0089	0.0001	
Venus	-54639-03-13 22:04 J	-18235399.78	-18235399.58	-18235399.37	0.0089	0.0019	
Venus	-54639-10-25 09:49 J	-18235174.27	-18235174.09	-18235173.89	0.0089	0.0037	
Venus	-54638-06-07 21:35 J	-18234948.75	-18234948.60	-18234948.42	0.0089	0.0056	
Venus	-54637-01-19 09:49 J	-18234723.20	-18234723.09	-18234722.97	0.0089	0.0075	
Mars	-54622-04-11 15:35 J	-18229162.00	-18229161.85	-18229161.70	0.0089	0.0076	
Mars	-54620-03-05 08:52 J	-18228468.33	-18228468.13	-18228467.87	0.0089	0.0054	
Mars	-54618-01-28 06:13 J	-18227774.50	-18227774.24	-18227773.95	0.0089	0.0031	
Mars	-54617-12-22 06:28 J	-18227080.52	-18227080.23	-18227079.93	0.0089	0.0008	
Mars	-54615-11-16 07:11 J	-18226386.49	-18226386.20	-18226385.90	0.0089	0.0015	
Mars	-54613-10-10 09:35 J	-18225692.36	-18225692.10	-18225691.82	0.0089	0.0038	
Mars	-54611-09-04 15:35 J	-18224998.04	-18224997.85	-18224997.60	0.0089	0.0062	
Mars	-54609-07-29 23:16 J	-18224303.59	-18224303.53	-18224303.42	0.0089	0.0085	
Mercury	-54604-07-08 05:59 J	-18222499.30	-18222499.25	-18222499.18	0.0089	0.0084	
Mercury	-54604-10-04 08:37 J	-18222411.20	-18222411.14	-18222411.03	0.0089	0.0077	
Mercury	-54604-12-31 11:59 J	-18222323.10	-18222323.00	-18222322.88	0.0089	0.0069	
Mercury	-54603-03-29 15:06 J	-18222234.99	-18222234.87	-18222234.73	0.0089	0.0061	

Mercury -54603-06-25 17:59 J -18222146.88 -18222146.75 -18222146.60 0.0089 0.0054
 Mercury -54603-09-21 21:06 J -18222058.77 -18222058.62 -18222058.46 0.0089 0.0046
 Mercury -54603-12-19 00:13 J -18221970.65 -18221970.49 -18221970.32 0.0089 0.0038
 Mercury -54602-03-17 03:06 J -18221882.53 -18221882.37 -18221882.19 0.0089 0.0031
 Mercury -54602-06-13 06:13 J -18221794.40 -18221794.24 -18221794.05 0.0089 0.0023
 Mercury -54602-09-09 09:35 J -18221706.28 -18221706.10 -18221705.92 0.0089 0.0015
 Mercury -54602-12-06 12:42 J -18221618.15 -18221617.97 -18221617.79 0.0089 0.0007
 Mercury -54601-03-03 15:49 J -18221530.02 -18221529.84 -18221529.66 0.0089 0.0001
 Mercury -54601-05-30 18:57 J -18221441.89 -18221441.71 -18221441.53 0.0089 0.0009
 Mercury -54601-08-26 21:49 J -18221353.76 -18221353.59 -18221353.40 0.0089 0.0017
 Mercury -54601-11-23 00:57 J -18221265.63 -18221265.46 -18221265.27 0.0089 0.0025
 Earth -54600-01-16 01:11 J -18221211.48 -18221211.45 -18221211.39 0.0089 0.0087
 Moon -54600-01-16 01:11 J -18221211.48 -18221211.45 -18221211.36 0.0089 0.0086 *
 Mercury -54600-02-19 04:04 J -18221177.49 -18221177.33 -18221177.15 0.0089 0.0033
 Mercury -54600-05-18 07:11 J -18221089.35 -18221089.20 -18221089.02 0.0089 0.0041
 Mercury -54600-08-14 10:18 J -18221001.21 -18221001.07 -18221000.90 0.0089 0.0049
 Mercury -54600-11-10 13:54 J -18220913.06 -18220912.92 -18220912.78 0.0089 0.0056
 Moon -54599-01-18 11:16 J -18220844.17 -18220844.03 -18220843.85 0.0089 0.0070
 Earth -54599-01-18 12:57 J -18220844.09 -18220843.96 -18220843.77 0.0089 0.0069 *
 Mercury -54599-02-06 17:01 J -18220824.91 -18220824.79 -18220824.66 0.0089 0.0064
 Mercury -54599-05-05 20:23 J -18220736.76 -18220736.65 -18220736.55 0.0089 0.0072
 Mercury -54599-08-01 23:30 J -18220648.60 -18220648.52 -18220648.44 0.0089 0.0080
 Mercury -54599-10-29 02:23 J -18220560.40 -18220560.40 -18220560.37 0.0089 0.0088
 Earth -54598-01-21 01:11 J -18220476.64 -18220476.45 -18220476.22 0.0089 0.0050
 Moon -54598-01-21 04:04 J -18220476.52 -18220476.33 -18220476.10 0.0089 0.0049 *
 Moon -54597-01-23 10:18 J -18220109.30 -18220109.07 -18220108.81 0.0089 0.0033
 Earth -54597-01-23 13:40 J -18220109.16 -18220108.93 -18220108.68 0.0089 0.0031 *
 Earth -54596-01-25 01:40 J -18219741.68 -18219741.43 -18219741.16 0.0089 0.0012
 Moon -54596-01-25 05:30 J -18219741.52 -18219741.27 -18219741.00 0.0089 0.0010 *
 Moon -54595-01-27 11:01 J -18219374.30 -18219374.04 -18219373.78 0.0089 0.0006

Earth	-54595-01-27 14:09 J	-18219374.17	-18219373.91	-18219373.65	0.0089	0.0007	*
Earth	-54594-01-30 02:09 J	-18219006.64	-18219006.41	-18219006.15	0.0089	0.0027	
Moon	-54594-01-30 05:16 J	-18219006.52	-18219006.28	-18219006.02	0.0089	0.0030	*
Moon	-54593-02-01 12:42 J	-18218639.18	-18218638.97	-18218638.74	0.0089	0.0043	
Earth	-54593-02-01 14:23 J	-18218639.10	-18218638.90	-18218638.66	0.0089	0.0046	*
Earth	-54592-02-03 02:37 J	-18218271.54	-18218271.39	-18218271.18	0.0089	0.0065	
Moon	-54592-02-03 03:06 J	-18218271.51	-18218271.37	-18218271.16	0.0089	0.0067	*
Moon	-54591-02-05 15:35 J	-18217903.93	-18217903.85	-18217903.73	0.0089	0.0081	
Earth	-54591-02-05 15:06 J	-18217903.92	-18217903.87	-18217903.75	0.0089	0.0084	*
Jupiter	-54566-10-31 04:47 J	-18208505.56	-18208505.30	-18208504.98	0.0088	0.0075	
Venus	-54560-03-30 01:40 J	-18206528.51	-18206528.43	-18206528.31	0.0088	0.0080	
Venus	-54560-11-10 15:35 J	-18206302.99	-18206302.85	-18206302.66	0.0088	0.0061	
Venus	-54559-06-24 06:13 J	-18206077.44	-18206077.24	-18206077.04	0.0088	0.0041	
Venus	-54558-02-04 20:23 J	-18205851.87	-18205851.65	-18205851.43	0.0088	0.0021	
Venus	-54558-09-18 10:33 J	-18205626.29	-18205626.06	-18205625.83	0.0088	0.0002	
Venus	-54557-05-01 00:28 J	-18205400.70	-18205400.48	-18205400.25	0.0088	0.0017	
Venus	-54557-12-12 14:37 J	-18205175.10	-18205174.89	-18205174.69	0.0088	0.0037	
Venus	-54556-07-26 04:04 J	-18204949.48	-18204949.33	-18204949.13	0.0088	0.0057	
Venus	-54555-03-08 18:28 J	-18204723.83	-18204723.73	-18204723.60	0.0088	0.0075	
Mars	-54538-01-30 12:57 J	-18198552.15	-18198551.96	-18198551.71	0.0088	0.0068	
Mars	-54537-12-26 11:45 J	-18197856.29	-18197856.01	-18197855.70	0.0088	0.0042	
Mars	-54535-11-22 06:57 J	-18197160.53	-18197160.21	-18197159.87	0.0088	0.0016	
Mars	-54533-10-17 23:30 J	-18196464.84	-18196464.52	-18196464.18	0.0088	0.0010	
Mars	-54531-09-13 13:40 J	-18195769.21	-18195768.93	-18195768.60	0.0088	0.0035	
Mars	-54529-08-09 00:28 J	-18195073.70	-18195073.48	-18195073.22	0.0088	0.0059	
Mars	-54527-07-05 07:40 J	-18194378.25	-18194378.18	-18194378.02	0.0088	0.0083	
Mercury	-54522-07-20 10:18 J	-18192537.07	-18192537.07	-18192537.03	0.0089	0.0088	
Mercury	-54522-10-16 11:59 J	-18192449.04	-18192449.00	-18192448.93	0.0089	0.0082	
Mercury	-54521-01-12 13:54 J	-18192360.99	-18192360.92	-18192360.84	0.0089	0.0075	
Mercury	-54521-04-09 15:35 J	-18192272.94	-18192272.85	-18192272.76	0.0089	0.0069	

Mercury -54521-07-06 17:01 J -18192184.88 -18192184.79 -18192184.69 0.0089 0.0063

Mercury -54521-10-02 18:42 J -18192096.83 -18192096.72 -18192096.61 0.0089 0.0057

Mercury -54521-12-29 20:09 J -18192008.77 -18192008.66 -18192008.54 0.0089 0.0051

Mercury -54520-03-27 21:49 J -18191920.71 -18191920.59 -18191920.47 0.0089 0.0045

Mercury -54520-06-23 23:16 J -18191832.65 -18191832.53 -18191832.40 0.0089 0.0039

Mercury -54520-09-20 00:57 J -18191744.59 -18191744.46 -18191744.33 0.0089 0.0033

Mercury -54520-12-17 02:23 J -18191656.53 -18191656.40 -18191656.26 0.0089 0.0027

Mercury -54519-03-15 04:04 J -18191568.47 -18191568.33 -18191568.20 0.0089 0.0021

Mercury -54519-06-11 05:30 J -18191480.41 -18191480.27 -18191480.13 0.0089 0.0015

Mercury -54519-09-07 07:11 J -18191392.34 -18191392.20 -18191392.06 0.0089 0.0009

Mercury -54519-12-04 08:37 J -18191304.28 -18191304.14 -18191304.00 0.0089 0.0003

Mercury -54518-03-02 10:04 J -18191216.22 -18191216.08 -18191215.94 0.0089 0.0004

Mercury -54518-05-29 11:30 J -18191128.15 -18191128.02 -18191127.88 0.0089 0.0010

Mercury -54518-08-25 12:57 J -18191040.09 -18191039.96 -18191039.81 0.0089 0.0016

Mercury -54518-11-21 14:37 J -18190952.02 -18190951.89 -18190951.75 0.0089 0.0021

Mercury -54517-02-17 16:04 J -18190863.96 -18190863.83 -18190863.69 0.0089 0.0027

Mercury -54517-05-15 17:30 J -18190775.89 -18190775.77 -18190775.64 0.0089 0.0033

Earth -54517-07-23 01:40 J -18190707.55 -18190707.43 -18190707.26 0.0089 0.0074

Moon -54517-07-23 02:23 J -18190707.51 -18190707.40 -18190707.24 0.0089 0.0075 *

Mercury -54517-08-11 18:57 J -18190687.83 -18190687.71 -18190687.58 0.0089 0.0039

Mercury -54517-11-07 20:23 J -18190599.76 -18190599.65 -18190599.52 0.0089 0.0045

Mercury -54516-02-03 21:49 J -18190511.69 -18190511.59 -18190511.47 0.0089 0.0051

Mercury -54516-05-02 23:16 J -18190423.62 -18190423.53 -18190423.41 0.0089 0.0057

Moon -54516-07-25 10:47 J -18190340.25 -18190340.05 -18190339.83 0.0089 0.0054

Earth -54516-07-25 12:57 J -18190340.14 -18190339.96 -18190339.74 0.0089 0.0055 *

Mercury -54516-07-30 00:57 J -18190335.55 -18190335.46 -18190335.36 0.0089 0.0062

Mercury -54516-10-26 02:23 J -18190247.48 -18190247.40 -18190247.31 0.0089 0.0068

Mercury -54515-01-22 03:49 J -18190159.41 -18190159.34 -18190159.26 0.0089 0.0074

Mercury -54515-04-20 05:16 J -18190071.33 -18190071.28 -18190071.21 0.0089 0.0080

Mercury -54515-07-17 06:57 J -18189983.25 -18189983.21 -18189983.18 0.0089 0.0085

Earth	-54515-07-28 00:13 J	-18189972.71	-18189972.49	-18189972.24	0.0089	0.0036
Moon	-54515-07-28 03:35 J	-18189972.58	-18189972.35	-18189972.12	0.0089	0.0036 *
Moon	-54514-07-30 08:23 J	-18189605.40	-18189605.15	-18189604.89	0.0089	0.0015
Earth	-54514-07-30 11:45 J	-18189605.25	-18189605.01	-18189604.75	0.0089	0.0017 *
Earth	-54513-07-31 23:01 J	-18189237.80	-18189237.54	-18189237.28	0.0089	0.0002
Moon	-54513-08-01 02:37 J	-18189237.64	-18189237.39	-18189237.13	0.0089	0.0002 *
Moon	-54512-08-03 07:11 J	-18188870.45	-18188870.20	-18188869.96	0.0089	0.0022
Earth	-54512-08-03 09:35 J	-18188870.33	-18188870.10	-18188869.83	0.0089	0.0022 *
Earth	-54511-08-05 20:52 J	-18188502.85	-18188502.63	-18188502.40	0.0089	0.0040
Moon	-54511-08-05 23:30 J	-18188502.75	-18188502.52	-18188502.28	0.0089	0.0038 *
Moon	-54510-08-08 06:13 J	-18188135.40	-18188135.24	-18188135.04	0.0089	0.0061
Earth	-54510-08-08 07:40 J	-18188135.36	-18188135.18	-18188134.98	0.0089	0.0059 *
Moon	-54509-08-09 17:45 J	-18187767.86	-18187767.76	-18187767.60	0.0089	0.0077
Earth	-54509-08-09 18:13 J	-18187767.84	-18187767.74	-18187767.60	0.0089	0.0078 *
Venus	-54478-05-14 22:18 J	-18176532.63	-18176532.57	-18176532.47	0.0089	0.0083
Venus	-54478-12-26 10:04 J	-18176307.20	-18176307.08	-18176306.91	0.0089	0.0064
Venus	-54477-08-07 22:33 J	-18176081.73	-18176081.56	-18176081.37	0.0089	0.0045
Venus	-54476-03-21 10:33 J	-18175856.26	-18175856.06	-18175855.85	0.0089	0.0027
Venus	-54476-11-01 22:33 J	-18175630.77	-18175630.56	-18175630.35	0.0089	0.0008
Venus	-54475-06-15 10:18 J	-18175405.27	-18175405.07	-18175404.85	0.0089	0.0012
Venus	-54474-01-26 22:04 J	-18175179.76	-18175179.58	-18175179.36	0.0089	0.0030
Venus	-54474-09-09 10:18 J	-18174954.24	-18174954.07	-18174953.88	0.0089	0.0049
Venus	-54473-04-21 22:04 J	-18174728.70	-18174728.58	-18174728.42	0.0089	0.0067
Venus	-54473-12-03 09:49 J	-18174503.12	-18174503.09	-18174503.01	0.0089	0.0086
Mars	-54459-11-25 04:47 J	-18169398.42	-18169398.30	-18169398.15	0.0089	0.0078
Mars	-54457-10-18 23:45 J	-18168704.72	-18168704.51	-18168704.28	0.0089	0.0057
Mars	-54455-09-12 18:42 J	-18168010.99	-18168010.72	-18168010.45	0.0089	0.0035
Mars	-54453-08-06 15:35 J	-18167317.14	-18167316.85	-18167316.56	0.0089	0.0013
Mars	-54451-07-01 15:21 J	-18166623.15	-18166622.86	-18166622.56	0.0089	0.0010
Mars	-54449-05-25 16:47 J	-18165929.08	-18165928.80	-18165928.52	0.0089	0.0032

Mars -54447-04-19 19:25 J -18165234.92 -18165234.69 -18165234.45 0.0089 0.0055
 Mars -54445-03-14 01:25 J -18164540.56 -18164540.44 -18164540.28 0.0089 0.0078
 Mercury -54439-01-06 01:54 J -18162416.43 -18162416.42 -18162416.38 0.0089 0.0088
 Mercury -54439-04-04 05:01 J -18162328.36 -18162328.29 -18162328.21 0.0089 0.0080
 Mercury -54439-07-01 07:40 J -18162240.26 -18162240.18 -18162240.06 0.0089 0.0073
 Mercury -54439-09-27 11:01 J -18162152.15 -18162152.04 -18162151.91 0.0089 0.0065
 Mercury -54439-12-24 13:40 J -18162064.04 -18162063.93 -18162063.77 0.0089 0.0058
 Mercury -54438-03-22 17:01 J -18161975.93 -18161975.79 -18161975.63 0.0089 0.0050
 Mercury -54438-06-18 20:09 J -18161887.81 -18161887.66 -18161887.50 0.0089 0.0042
 Mercury -54438-09-14 23:16 J -18161799.69 -18161799.53 -18161799.36 0.0089 0.0034
 Mercury -54438-12-12 02:09 J -18161711.57 -18161711.41 -18161711.23 0.0089 0.0027
 Mercury -54437-03-09 05:16 J -18161623.45 -18161623.28 -18161623.10 0.0089 0.0019
 Mercury -54437-06-05 08:37 J -18161535.32 -18161535.14 -18161534.96 0.0089 0.0011
 Mercury -54437-09-01 11:30 J -18161447.20 -18161447.02 -18161446.83 0.0089 0.0004
 Mercury -54437-11-28 14:37 J -18161359.07 -18161358.89 -18161358.70 0.0089 0.0005
 Mercury -54436-02-24 17:45 J -18161270.94 -18161270.76 -18161270.57 0.0089 0.0013
 Mercury -54436-05-23 20:52 J -18161182.80 -18161182.63 -18161182.45 0.0089 0.0021
 Mercury -54436-08-19 23:59 J -18161094.67 -18161094.50 -18161094.32 0.0089 0.0029
 Mercury -54436-11-16 03:06 J -18161006.53 -18161006.37 -18161006.20 0.0089 0.0037
 Earth -54435-01-17 23:01 J -18160943.65 -18160943.54 -18160943.39 0.0089 0.0077
 Moon -54435-01-18 01:40 J -18160943.50 -18160943.43 -18160943.30 0.0089 0.0082 *
 Mercury -54435-02-12 06:13 J -18160918.39 -18160918.24 -18160918.07 0.0089 0.0045
 Mercury -54435-05-11 09:21 J -18160830.25 -18160830.11 -18160829.95 0.0089 0.0053
 Mercury -54435-08-07 12:28 J -18160742.10 -18160741.98 -18160741.83 0.0089 0.0061
 Mercury -54435-11-03 15:35 J -18160653.95 -18160653.85 -18160653.72 0.0089 0.0069
 Moon -54434-01-20 07:54 J -18160576.37 -18160576.17 -18160575.95 0.0089 0.0053
 Earth -54434-01-20 11:16 J -18160576.20 -18160576.03 -18160575.81 0.0089 0.0058 *
 Mercury -54434-01-30 18:42 J -18160565.79 -18160565.72 -18160565.61 0.0089 0.0077
 Mercury -54434-04-28 21:49 J -18160477.62 -18160477.59 -18160477.51 0.0089 0.0085
 Earth -54433-01-22 23:16 J -18160208.74 -18160208.53 -18160208.28 0.0089 0.0039

Moon	-54433-01-23 02:52 J	-18160208.59	-18160208.38	-18160208.14	0.0089	0.0043	*
Moon	-54432-01-24 08:37 J	-18159841.39	-18159841.14	-18159840.89	0.0089	0.0015	
Earth	-54432-01-24 11:45 J	-18159841.25	-18159841.01	-18159840.74	0.0089	0.0020	*
Earth	-54431-01-27 00:13 J	-18159473.75	-18159473.49	-18159473.23	0.0089	0.0001	
Moon	-54431-01-27 02:37 J	-18159473.65	-18159473.39	-18159473.12	0.0089	0.0004	*
Moon	-54430-01-29 10:47 J	-18159106.29	-18159106.05	-18159105.80	0.0089	0.0023	
Earth	-54430-01-29 12:28 J	-18159106.23	-18159105.98	-18159105.72	0.0089	0.0019	*
Earth	-54429-02-01 00:13 J	-18158738.70	-18158738.49	-18158738.23	0.0089	0.0039	
Moon	-54429-02-01 00:57 J	-18158738.69	-18158738.46	-18158738.20	0.0089	0.0035	*
Earth	-54428-02-02 12:42 J	-18158371.15	-18158370.97	-18158370.75	0.0089	0.0058	
Moon	-54428-02-02 13:54 J	-18158371.08	-18158370.92	-18158370.72	0.0089	0.0062	*
Moon	-54427-02-04 23:30 J	-18158003.66	-18158003.52	-18158003.36	0.0089	0.0073	
Earth	-54427-02-05 01:11 J	-18158003.56	-18158003.45	-18158003.30	0.0089	0.0077	*
Jupiter	-54399-01-02 17:16 J	-18147810.06	-18147809.78	-18147809.42	0.0088	0.0072	
Venus	-54396-07-01 11:45 J	-18146534.04	-18146534.01	-18146533.95	0.0088	0.0087	
Venus	-54395-02-12 01:54 J	-18146308.55	-18146308.42	-18146308.25	0.0088	0.0068	
Venus	-54395-09-25 16:04 J	-18146083.00	-18146082.83	-18146082.62	0.0088	0.0048	
Venus	-54394-05-09 06:13 J	-18145857.44	-18145857.24	-18145857.01	0.0088	0.0029	
Venus	-54394-12-20 20:37 J	-18145631.87	-18145631.64	-18145631.41	0.0088	0.0009	
Venus	-54393-08-02 10:33 J	-18145406.28	-18145406.06	-18145405.83	0.0088	0.0010	
Venus	-54392-03-16 00:42 J	-18145180.68	-18145180.47	-18145180.25	0.0088	0.0029	
Venus	-54392-10-27 14:37 J	-18144955.07	-18144954.89	-18144954.69	0.0088	0.0049	
Venus	-54391-06-10 04:47 J	-18144729.44	-18144729.30	-18144729.15	0.0088	0.0068	
Venus	-54390-01-21 18:13 J	-18144503.75	-18144503.74	-18144503.67	0.0088	0.0088	
Mars	-54375-09-13 05:45 J	-18138790.46	-18138790.26	-18138790.06	0.0088	0.0072	
Mars	-54373-08-09 05:59 J	-18138094.52	-18138094.25	-18138093.95	0.0088	0.0047	
Mars	-54371-07-06 04:18 J	-18137398.63	-18137398.32	-18137397.98	0.0088	0.0022	
Mars	-54369-05-31 23:16 J	-18136702.86	-18136702.53	-18136702.19	0.0088	0.0004	
Mars	-54367-04-27 14:37 J	-18136007.18	-18136006.89	-18136006.55	0.0088	0.0029	
Mars	-54365-03-23 04:33 J	-18135311.55	-18135311.31	-18135311.02	0.0088	0.0053	

Mars -54363-02-16 14:37 J -18134616.01 -18134615.89 -18134615.68 0.0088 0.0077
 Mercury -54357-04-15 10:33 J -18132366.10 -18132366.06 -18132366.02 0.0089 0.0084
 Mercury -54357-07-12 11:59 J -18132278.06 -18132278.00 -18132277.93 0.0089 0.0078
 Mercury -54357-10-08 13:40 J -18132190.01 -18132189.93 -18132189.84 0.0089 0.0072
 Mercury -54356-01-04 15:06 J -18132101.95 -18132101.87 -18132101.77 0.0089 0.0066
 Mercury -54356-04-02 16:47 J -18132013.90 -18132013.80 -18132013.69 0.0089 0.0060
 Mercury -54356-06-29 18:13 J -18131925.84 -18131925.74 -18131925.62 0.0089 0.0054
 Mercury -54356-09-25 19:54 J -18131837.78 -18131837.67 -18131837.54 0.0089 0.0048
 Mercury -54356-12-22 21:35 J -18131749.72 -18131749.60 -18131749.47 0.0089 0.0041
 Mercury -54355-03-20 23:01 J -18131661.66 -18131661.54 -18131661.40 0.0089 0.0036
 Mercury -54355-06-17 00:42 J -18131573.60 -18131573.47 -18131573.34 0.0089 0.0029
 Mercury -54355-09-13 02:09 J -18131485.54 -18131485.41 -18131485.27 0.0089 0.0024
 Mercury -54355-12-10 03:49 J -18131397.48 -18131397.34 -18131397.20 0.0089 0.0017
 Mercury -54354-03-08 05:16 J -18131309.41 -18131309.28 -18131309.14 0.0089 0.0012
 Mercury -54354-06-04 06:57 J -18131221.35 -18131221.21 -18131221.07 0.0089 0.0005
 Mercury -54354-08-31 08:23 J -18131133.29 -18131133.15 -18131133.01 0.0089 0.0002
 Mercury -54354-11-27 10:04 J -18131045.22 -18131045.08 -18131044.95 0.0089 0.0007
 Mercury -54353-02-23 11:30 J -18130957.16 -18130957.02 -18130956.88 0.0089 0.0013
 Mercury -54353-05-21 12:57 J -18130869.09 -18130868.96 -18130868.82 0.0089 0.0018
 Moon -54353-07-22 10:18 J -18130807.12 -18130807.07 -18130806.99 0.0089 0.0086
 Earth -54353-07-22 12:28 J -18130807.06 -18130806.98 -18130806.86 0.0089 0.0082 *
 Mercury -54353-08-17 14:23 J -18130781.03 -18130780.90 -18130780.76 0.0089 0.0024
 Mercury -54353-11-13 15:49 J -18130692.96 -18130692.84 -18130692.70 0.0089 0.0031
 Mercury -54352-02-09 17:16 J -18130604.90 -18130604.78 -18130604.64 0.0089 0.0037
 Mercury -54352-05-08 18:57 J -18130516.83 -18130516.71 -18130516.59 0.0089 0.0042
 Earth -54352-07-24 23:30 J -18130439.68 -18130439.52 -18130439.32 0.0089 0.0063
 Moon -54352-07-25 03:06 J -18130439.56 -18130439.37 -18130439.18 0.0089 0.0058 *
 Mercury -54352-08-04 20:23 J -18130428.76 -18130428.65 -18130428.53 0.0089 0.0048
 Mercury -54352-10-31 21:49 J -18130340.69 -18130340.59 -18130340.48 0.0089 0.0054
 Mercury -54351-01-27 23:16 J -18130252.62 -18130252.53 -18130252.42 0.0089 0.0060

Mercury -54351-04-26 00:42 J -18130164.55 -18130164.47 -18130164.37 0.0089 0.0065
 Mercury -54351-07-23 02:23 J -18130076.48 -18130076.40 -18130076.32 0.0089 0.0071
 Moon -54351-07-27 07:11 J -18130072.39 -18130072.20 -18130071.96 0.0089 0.0049
 Earth -54351-07-27 10:47 J -18130072.25 -18130072.05 -18130071.81 0.0089 0.0044 *
 Mercury -54351-10-19 03:35 J -18129988.41 -18129988.35 -18129988.27 0.0089 0.0077
 Mercury -54350-01-15 05:01 J -18129900.33 -18129900.29 -18129900.23 0.0089 0.0083
 Mercury -54350-04-13 06:42 J -18129812.22 -18129812.22 -18129812.21 0.0089 0.0088
 Earth -54350-07-29 22:04 J -18129704.81 -18129704.58 -18129704.32 0.0089 0.0025
 Moon -54350-07-30 01:25 J -18129704.68 -18129704.44 -18129704.17 0.0089 0.0021 *
 Moon -54349-07-31 06:28 J -18129337.48 -18129337.23 -18129336.98 0.0089 0.0010
 Earth -54349-07-31 09:21 J -18129337.36 -18129337.11 -18129336.85 0.0089 0.0006 *
 Earth -54348-08-02 20:23 J -18128969.90 -18128969.65 -18128969.39 0.0089 0.0014
 Moon -54348-08-02 22:04 J -18128969.82 -18128969.58 -18128969.31 0.0089 0.0019 *
 Moon -54347-08-05 06:42 J -18128602.46 -18128602.22 -18128601.99 0.0089 0.0029
 Earth -54347-08-05 07:40 J -18128602.41 -18128602.18 -18128601.94 0.0089 0.0033 *
 Moon -54346-08-07 17:59 J -18128234.93 -18128234.75 -18128234.53 0.0089 0.0057
 Earth -54346-08-07 18:42 J -18128234.93 -18128234.72 -18128234.51 0.0089 0.0052 *
 Earth -54345-08-09 04:47 J -18127867.42 -18127867.30 -18127867.12 0.0089 0.0072
 Moon -54345-08-09 07:11 J -18127867.35 -18127867.20 -18127867.03 0.0089 0.0067 *
 Venus -54313-03-28 22:47 J -18116312.66 -18116312.55 -18116312.41 0.0089 0.0071
 Venus -54313-11-09 11:01 J -18116087.21 -18116087.04 -18116086.87 0.0089 0.0052
 Venus -54312-06-22 22:33 J -18115861.74 -18115861.56 -18115861.35 0.0089 0.0034
 Venus -54311-02-03 10:47 J -18115636.26 -18115636.05 -18115635.84 0.0089 0.0015
 Venus -54311-09-16 22:47 J -18115410.76 -18115410.55 -18115410.34 0.0089 0.0003
 Venus -54310-04-30 10:33 J -18115185.26 -18115185.06 -18115184.85 0.0089 0.0022
 Venus -54310-12-11 22:18 J -18114959.74 -18114959.57 -18114959.37 0.0089 0.0041
 Venus -54309-07-24 10:33 J -18114734.21 -18114734.06 -18114733.89 0.0089 0.0059
 Venus -54308-03-06 22:04 J -18114508.65 -18114508.58 -18114508.45 0.0089 0.0079
 Mars -54295-07-10 19:11 J -18109634.81 -18109634.70 -18109634.58 0.0089 0.0081
 Mars -54293-06-03 10:47 J -18108941.24 -18108941.05 -18108940.81 0.0089 0.0061

Mars -54291-04-28 06:13 J -18108247.49 -18108247.24 -18108246.97 0.0089 0.0040
 Mars -54289-03-22 02:09 J -18107553.69 -18107553.41 -18107553.11 0.0089 0.0018
 Mars -54287-02-13 23:16 J -18106859.83 -18106859.53 -18106859.24 0.0089 0.0004
 Mars -54285-01-08 23:30 J -18106165.79 -18106165.52 -18106165.23 0.0089 0.0027
 Mars -54284-12-03 01:54 J -18105471.66 -18105471.42 -18105471.16 0.0089 0.0049
 Mars -54282-10-28 04:47 J -18104777.44 -18104777.30 -18104777.09 0.0089 0.0072
 Mercury -54275-10-03 00:57 J -18102245.51 -18102245.46 -18102245.40 0.0089 0.0084
 Mercury -54275-12-30 03:35 J -18102157.42 -18102157.35 -18102157.24 0.0089 0.0077
 Mercury -54274-03-28 06:42 J -18102069.32 -18102069.22 -18102069.10 0.0089 0.0069
 Mercury -54274-06-24 09:35 J -18101981.21 -18101981.10 -18101980.95 0.0089 0.0062
 Mercury -54274-09-20 12:42 J -18101893.10 -18101892.97 -18101892.82 0.0089 0.0054
 Mercury -54274-12-17 15:49 J -18101804.99 -18101804.84 -18101804.68 0.0089 0.0046
 Mercury -54273-03-14 18:42 J -18101716.87 -18101716.72 -18101716.54 0.0089 0.0039
 Mercury -54273-06-10 21:49 J -18101628.75 -18101628.59 -18101628.41 0.0089 0.0031
 Mercury -54273-09-07 01:11 J -18101540.63 -18101540.45 -18101540.28 0.0089 0.0023
 Mercury -54273-12-04 04:04 J -18101452.50 -18101452.33 -18101452.15 0.0089 0.0015
 Mercury -54272-03-02 07:11 J -18101364.38 -18101364.20 -18101364.01 0.0089 0.0008
 Mercury -54272-05-29 10:18 J -18101276.25 -18101276.07 -18101275.89 0.0089 0.0001
 Mercury -54272-08-25 13:25 J -18101188.12 -18101187.94 -18101187.76 0.0089 0.0008
 Mercury -54272-11-21 16:33 J -18101099.99 -18101099.81 -18101099.63 0.0089 0.0016
 Moon -54271-01-17 04:18 J -18101043.36 -18101043.32 -18101043.21 0.0089 0.0085
 Earth -54271-01-17 08:09 J -18101043.20 -18101043.16 -18101043.07 0.0089 0.0086
 Mercury -54271-02-17 19:40 J -18101011.85 -18101011.68 -18101011.50 0.0089 0.0024
 Mercury -54271-05-16 22:47 J -18100923.72 -18100923.55 -18100923.38 0.0089 0.0032
 Mercury -54271-08-13 01:54 J -18100835.58 -18100835.42 -18100835.25 0.0089 0.0040
 Mercury -54271-11-09 05:01 J -18100747.44 -18100747.29 -18100747.13 0.0089 0.0048
 Earth -54270-01-19 20:09 J -18100675.81 -18100675.66 -18100675.47 0.0089 0.0067
 Moon -54270-01-19 23:30 J -18100675.66 -18100675.52 -18100675.32 0.0089 0.0068 *
 Mercury -54270-02-05 08:09 J -18100659.29 -18100659.16 -18100659.01 0.0089 0.0056
 Mercury -54270-05-04 11:16 J -18100571.15 -18100571.03 -18100570.89 0.0089 0.0064

Mercury -54270-07-31 14:23 J -18100482.99 -18100482.90 -18100482.78 0.0089 0.0072
 Mercury -54270-10-27 17:45 J -18100394.83 -18100394.76 -18100394.68 0.0089 0.0080
 Moon -54269-01-22 05:59 J -18100308.46 -18100308.25 -18100308.03 0.0089 0.0046
 Earth -54269-01-22 08:52 J -18100308.35 -18100308.13 -18100307.91 0.0089 0.0047 *
 Mercury -54269-01-23 20:52 J -18100306.64 -18100306.63 -18100306.60 0.0089 0.0088
 Earth -54268-01-23 20:52 J -18099940.87 -18099940.63 -18099940.38 0.0089 0.0028
 Moon -54268-01-23 23:16 J -18099940.77 -18099940.53 -18099940.26 0.0089 0.0030 *
 Moon -54267-01-26 08:23 J -18099573.40 -18099573.15 -18099572.90 0.0089 0.0007
 Earth -54267-01-26 09:06 J -18099573.37 -18099573.12 -18099572.86 0.0089 0.0008 *
 Moon -54266-01-28 21:06 J -18099205.88 -18099205.62 -18099205.35 0.0089 0.0010
 Earth -54266-01-28 21:21 J -18099205.86 -18099205.61 -18099205.35 0.0089 0.0011 *
 Earth -54265-01-31 09:21 J -18098838.34 -18098838.11 -18098837.85 0.0089 0.0031
 Moon -54265-01-31 10:33 J -18098838.29 -18098838.06 -18098837.82 0.0089 0.0033 *
 Moon -54264-02-01 18:57 J -18098470.92 -18098470.71 -18098470.48 0.0089 0.0049
 Earth -54264-02-01 21:21 J -18098470.80 -18098470.61 -18098470.37 0.0089 0.0051 *
 Earth -54263-02-04 09:49 J -18098103.23 -18098103.09 -18098102.91 0.0089 0.0070
 Moon -54263-02-04 12:42 J -18098103.09 -18098102.97 -18098102.80 0.0089 0.0072 *
 Moon -54262-02-06 18:13 J -18097735.76 -18097735.74 -18097735.65 0.0089 0.0087
 Venus -54231-05-16 11:16 J -18086314.13 -18086314.03 -18086313.90 0.0088 0.0075
 Venus -54231-12-28 01:11 J -18086088.60 -18086088.45 -18086088.25 0.0088 0.0057
 Venus -54230-08-10 15:35 J -18085863.04 -18085862.85 -18085862.63 0.0088 0.0037
 Venus -54229-03-23 05:59 J -18085637.47 -18085637.25 -18085637.02 0.0088 0.0017
 Venus -54229-11-03 20:09 J -18085411.89 -18085411.66 -18085411.43 0.0088 0.0002
 Venus -54228-06-17 09:49 J -18085186.30 -18085186.09 -18085185.86 0.0088 0.0022
 Venus -54227-01-28 23:59 J -18084960.69 -18084960.50 -18084960.28 0.0088 0.0041
 Venus -54227-09-11 14:09 J -18084735.07 -18084734.91 -18084734.73 0.0088 0.0059
 Venus -54226-04-25 04:04 J -18084509.42 -18084509.33 -18084509.22 0.0088 0.0079
 Mars -54211-04-26 19:25 J -18079028.82 -18079028.69 -18079028.48 0.0088 0.0077
 Mars -54209-03-22 22:04 J -18078332.82 -18078332.58 -18078332.27 0.0088 0.0052
 Mars -54207-02-16 22:18 J -18077636.87 -18077636.57 -18077636.23 0.0088 0.0027

Mars -54205-01-13 20:23 J -18076940.98 -18076940.65 -18076940.31 0.0088 0.0001
 Mars -54204-12-09 14:09 J -18076245.21 -18076244.91 -18076244.57 0.0088 0.0023
 Mars -54202-11-05 05:16 J -18075549.55 -18075549.28 -18075548.99 0.0088 0.0047
 Mars -54200-09-30 17:16 J -18074853.94 -18074853.78 -18074853.54 0.0088 0.0071
 Mercury -54193-10-14 08:23 J -18072283.16 -18072283.15 -18072283.12 0.0089 0.0088
 Mercury -54192-01-10 09:49 J -18072195.13 -18072195.09 -18072195.02 0.0089 0.0082
 Mercury -54192-04-08 11:30 J -18072107.08 -18072107.02 -18072106.94 0.0089 0.0075
 Mercury -54192-07-05 13:25 J -18072019.03 -18072018.94 -18072018.86 0.0089 0.0069
 Mercury -54192-10-01 14:52 J -18071930.97 -18071930.88 -18071930.78 0.0089 0.0063
 Mercury -54192-12-28 16:33 J -18071842.92 -18071842.81 -18071842.70 0.0089 0.0057
 Mercury -54191-03-26 17:59 J -18071754.86 -18071754.75 -18071754.63 0.0089 0.0051
 Mercury -54191-06-22 19:40 J -18071666.80 -18071666.68 -18071666.56 0.0089 0.0045
 Mercury -54191-09-18 21:06 J -18071578.74 -18071578.62 -18071578.49 0.0089 0.0039
 Mercury -54191-12-15 22:47 J -18071490.68 -18071490.55 -18071490.42 0.0089 0.0033
 Mercury -54190-03-14 00:13 J -18071402.62 -18071402.49 -18071402.35 0.0089 0.0027
 Mercury -54190-06-10 01:54 J -18071314.56 -18071314.42 -18071314.28 0.0089 0.0020
 Mercury -54190-09-06 03:21 J -18071226.49 -18071226.36 -18071226.22 0.0089 0.0015
 Mercury -54190-12-03 05:01 J -18071138.43 -18071138.29 -18071138.15 0.0089 0.0008
 Mercury -54189-02-29 06:28 J -18071050.37 -18071050.23 -18071050.09 0.0089 0.0003
 Mercury -54189-05-27 08:09 J -18070962.30 -18070962.16 -18070962.02 0.0089 0.0004
 Mercury -54189-08-23 09:35 J -18070874.24 -18070874.10 -18070873.96 0.0089 0.0009
 Mercury -54189-11-19 11:01 J -18070786.17 -18070786.04 -18070785.90 0.0089 0.0016
 Mercury -54188-02-15 12:28 J -18070698.11 -18070697.98 -18070697.84 0.0089 0.0022
 Mercury -54188-05-14 13:54 J -18070610.04 -18070609.92 -18070609.78 0.0089 0.0028
 Moon -54188-07-24 05:45 J -18070539.40 -18070539.26 -18070539.10 0.0089 0.0072
 Earth -54188-07-24 09:06 J -18070539.24 -18070539.12 -18070538.94 0.0089 0.0072 *
 Mercury -54188-08-10 15:21 J -18070521.98 -18070521.86 -18070521.72 0.0089 0.0034
 Mercury -54188-11-06 17:01 J -18070433.91 -18070433.79 -18070433.66 0.0089 0.0039
 Mercury -54187-02-02 18:28 J -18070345.84 -18070345.73 -18070345.60 0.0089 0.0045
 Mercury -54187-05-01 19:54 J -18070257.77 -18070257.67 -18070257.55 0.0089 0.0051

Earth -54187-07-26 20:23 J -18070171.84 -18070171.65 -18070171.42 0.0089 0.0053
 Moon -54187-07-27 00:13 J -18070171.70 -18070171.49 -18070171.28 0.0089 0.0052 *
 Mercury -54187-07-28 21:21 J -18070169.70 -18070169.61 -18070169.49 0.0089 0.0057
 Mercury -54187-10-24 22:47 J -18070081.63 -18070081.55 -18070081.44 0.0089 0.0063
 Mercury -54186-01-21 00:13 J -18069993.56 -18069993.49 -18069993.39 0.0089 0.0069
 Mercury -54186-04-19 01:54 J -18069905.49 -18069905.42 -18069905.34 0.0089 0.0074
 Mercury -54186-07-16 03:21 J -18069817.41 -18069817.36 -18069817.30 0.0089 0.0080
 Moon -54186-07-29 05:01 J -18069804.50 -18069804.29 -18069804.04 0.0089 0.0034
 Earth -54186-07-29 07:54 J -18069804.40 -18069804.17 -18069803.93 0.0089 0.0033 *
 Mercury -54186-10-12 04:47 J -18069729.33 -18069729.30 -18069729.26 0.0089 0.0086
 Earth -54185-07-30 18:57 J -18069436.96 -18069436.71 -18069436.45 0.0089 0.0014
 Moon -54185-07-30 21:06 J -18069436.88 -18069436.62 -18069436.36 0.0089 0.0012 *
 Moon -54184-08-02 05:59 J -18069069.50 -18069069.25 -18069069.00 0.0089 0.0006
 Earth -54184-08-02 06:13 J -18069069.49 -18069069.24 -18069068.98 0.0089 0.0006 *
 Moon -54183-08-04 16:33 J -18068702.06 -18068701.81 -18068701.55 0.0089 0.0026
 Earth -54183-08-04 17:16 J -18068702.02 -18068701.78 -18068701.53 0.0089 0.0026 *
 Earth -54182-08-07 04:18 J -18068334.53 -18068334.32 -18068334.09 0.0089 0.0045
 Moon -54182-08-07 05:59 J -18068334.45 -18068334.25 -18068334.02 0.0089 0.0044 *
 Moon -54181-08-08 12:28 J -18067967.16 -18067966.98 -18067966.80 0.0089 0.0064
 Earth -54181-08-08 15:35 J -18067967.02 -18067966.85 -18067966.67 0.0089 0.0064 *
 Earth -54180-08-11 01:54 J -18067599.48 -18067599.42 -18067599.31 0.0089 0.0084
 Moon -54180-08-11 05:16 J -18067599.35 -18067599.28 -18067599.17 0.0089 0.0083 *
 Venus -54149-06-30 10:33 J -18056318.13 -18056318.06 -18056317.94 0.0089 0.0079
 Venus -54148-02-10 22:47 J -18056092.70 -18056092.55 -18056092.38 0.0089 0.0060
 Venus -54148-09-24 10:33 J -18055867.23 -18055867.06 -18055866.86 0.0089 0.0042
 Venus -54147-05-07 22:33 J -18055641.76 -18055641.56 -18055641.35 0.0089 0.0023
 Venus -54147-12-19 10:33 J -18055416.27 -18055416.06 -18055415.85 0.0089 0.0005
 Venus -54146-08-01 22:33 J -18055190.77 -18055190.56 -18055190.35 0.0089 0.0014
 Venus -54145-03-14 10:33 J -18054965.26 -18054965.06 -18054964.86 0.0089 0.0033
 Venus -54145-10-25 22:18 J -18054739.74 -18054739.57 -18054739.39 0.0089 0.0051

Venus -54144-06-08 09:49 J -18054514.20 -18054514.09 -18054513.93 0.0089 0.0070
 Venus -54143-01-19 22:04 J -18054288.59 -18054288.58 -18054288.54 0.0089 0.0088
 Mars -54131-02-23 08:52 J -18049871.20 -18049871.13 -18049871.02 0.0089 0.0084
 Mars -54129-01-18 00:13 J -18049177.67 -18049177.49 -18049177.27 0.0089 0.0064
 Mars -54128-12-11 16:47 J -18048484.03 -18048483.80 -18048483.52 0.0089 0.0044
 Mars -54126-11-05 11:45 J -18047790.28 -18047790.01 -18047789.71 0.0089 0.0023
 Mars -54124-09-29 09:06 J -18047096.42 -18047096.12 -18047095.83 0.0089 0.0001
 Mars -54122-08-24 05:59 J -18046402.53 -18046402.25 -18046401.96 0.0089 0.0021
 Mars -54120-07-18 06:13 J -18045708.49 -18045708.24 -18045707.97 0.0089 0.0043
 Mars -54118-06-12 09:06 J -18045014.31 -18045014.12 -18045013.91 0.0089 0.0065
 Mars -54116-05-06 13:11 J -18044319.99 -18044319.95 -18044319.88 0.0089 0.0087
 Mercury -54110-04-02 20:23 J -18042162.65 -18042162.65 -18042162.62 0.0089 0.0089
 Mercury -54110-06-29 23:30 J -18042074.58 -18042074.52 -18042074.44 0.0089 0.0081
 Mercury -54110-09-26 02:09 J -18041986.49 -18041986.41 -18041986.29 0.0089 0.0074
 Mercury -54110-12-23 05:16 J -18041898.38 -18041898.28 -18041898.15 0.0089 0.0066
 Mercury -54109-03-20 08:37 J -18041810.27 -18041810.14 -18041810.01 0.0089 0.0058
 Mercury -54109-06-16 11:16 J -18041722.16 -18041722.03 -18041721.87 0.0089 0.0051
 Mercury -54109-09-12 14:23 J -18041634.05 -18041633.90 -18041633.73 0.0089 0.0043
 Mercury -54109-12-09 17:16 J -18041545.93 -18041545.78 -18041545.60 0.0089 0.0036
 Mercury -54108-03-07 20:23 J -18041457.81 -18041457.65 -18041457.47 0.0089 0.0028
 Mercury -54108-06-03 23:30 J -18041369.69 -18041369.52 -18041369.33 0.0089 0.0020
 Mercury -54108-08-31 02:52 J -18041281.56 -18041281.38 -18041281.20 0.0089 0.0012
 Mercury -54108-11-27 05:45 J -18041193.44 -18041193.26 -18041193.07 0.0089 0.0005
 Mercury -54107-02-23 08:52 J -18041105.31 -18041105.13 -18041104.95 0.0089 0.0004
 Mercury -54107-05-22 11:59 J -18041017.18 -18041017.00 -18041016.82 0.0089 0.0012
 Mercury -54107-08-18 14:52 J -18040929.05 -18040928.88 -18040928.69 0.0089 0.0020
 Mercury -54107-11-14 17:59 J -18040840.91 -18040840.75 -18040840.57 0.0089 0.0028
 Moon -54106-01-19 01:40 J -18040775.50 -18040775.43 -18040775.30 0.0089 0.0081
 Earth -54106-01-19 04:33 J -18040775.42 -18040775.31 -18040775.15 0.0089 0.0076 *
 Mercury -54106-02-10 21:21 J -18040752.78 -18040752.61 -18040752.44 0.0089 0.0035

Mercury -54106-05-10 00:28 J -18040664.64 -18040664.48 -18040664.32 0.0089 0.0043
 Mercury -54106-08-06 03:35 J -18040576.50 -18040576.35 -18040576.20 0.0089 0.0051
 Mercury -54106-11-02 06:42 J -18040488.35 -18040488.22 -18040488.08 0.0089 0.0059
 Earth -54105-01-21 16:47 J -18040407.98 -18040407.80 -18040407.58 0.0089 0.0057
 Moon -54105-01-21 18:28 J -18040407.93 -18040407.73 -18040407.50 0.0089 0.0052 *
 Mercury -54105-01-29 09:49 J -18040400.20 -18040400.09 -18040399.96 0.0089 0.0067
 Mercury -54105-04-26 13:11 J -18040312.05 -18040311.95 -18040311.85 0.0089 0.0075
 Mercury -54105-07-23 16:18 J -18040223.88 -18040223.82 -18040223.75 0.0089 0.0083
 Moon -54104-01-23 04:18 J -18040040.53 -18040040.32 -18040040.08 0.0089 0.0041
 Earth -54104-01-23 05:01 J -18040040.50 -18040040.29 -18040040.03 0.0089 0.0037 *
 Moon -54103-01-25 16:47 J -18039673.05 -18039672.80 -18039672.52 0.0089 0.0013
 Earth -54103-01-25 17:45 J -18039673.01 -18039672.76 -18039672.50 0.0089 0.0017 *
 Earth -54102-01-28 05:45 J -18039305.51 -18039305.26 -18039304.99 0.0089 0.0004
 Moon -54102-01-28 07:54 J -18039305.43 -18039305.17 -18039304.92 0.0089 0.0002 *
 Moon -54101-01-30 15:35 J -18038938.10 -18038937.85 -18038937.59 0.0089 0.0027
 Earth -54101-01-30 17:59 J -18038937.99 -18038937.75 -18038937.49 0.0089 0.0023 *
 Earth -54100-02-01 05:59 J -18038570.46 -18038570.25 -18038570.00 0.0089 0.0043
 Moon -54100-02-01 09:49 J -18038570.32 -18038570.09 -18038569.85 0.0089 0.0038 *
 Moon -54099-02-03 14:37 J -18038203.04 -18038202.89 -18038202.70 0.0089 0.0067
 Earth -54099-02-03 18:42 J -18038202.90 -18038202.72 -18038202.54 0.0089 0.0062 *
 Earth -54098-02-06 06:28 J -18037835.31 -18037835.23 -18037835.11 0.0089 0.0082
 Moon -54098-02-06 10:04 J -18037835.19 -18037835.08 -18037834.94 0.0089 0.0078 *
 Venus -54067-08-17 20:23 J -18026319.72 -18026319.65 -18026319.58 0.0088 0.0084
 Venus -54066-03-31 10:18 J -18026094.21 -18026094.07 -18026093.90 0.0088 0.0065
 Venus -54066-11-12 00:28 J -18025868.66 -18025868.48 -18025868.27 0.0088 0.0045
 Venus -54065-06-24 14:37 J -18025643.10 -18025642.89 -18025642.66 0.0088 0.0026
 Venus -54064-02-05 05:01 J -18025417.51 -18025417.29 -18025417.06 0.0088 0.0007
 Venus -54064-09-18 19:11 J -18025191.92 -18025191.70 -18025191.47 0.0088 0.0013
 Venus -54063-05-02 09:21 J -18024966.32 -18024966.11 -18024965.90 0.0088 0.0032
 Venus -54063-12-13 22:47 J -18024740.71 -18024740.55 -18024740.34 0.0088 0.0052

Venus -54062-07-27 12:57 J -18024515.08 -18024514.96 -18024514.80 0.0088 0.0070
 Mars -54048-12-08 05:45 J -18019267.37 -18019267.26 -18019267.09 0.0088 0.0081
 Mars -54046-11-04 10:47 J -18018571.31 -18018571.05 -18018570.78 0.0088 0.0056
 Mars -54044-09-30 12:42 J -18017875.27 -18017874.97 -18017874.63 0.0088 0.0031
 Mars -54042-08-27 12:13 J -18017179.32 -18017178.99 -18017178.65 0.0088 0.0007
 Mars -54040-07-23 09:35 J -18016483.43 -18016483.10 -18016482.77 0.0088 0.0018
 Mars -54038-06-19 03:21 J -18015787.64 -18015787.36 -18015787.05 0.0088 0.0042
 Mars -54036-05-14 17:30 J -18015091.97 -18015091.77 -18015091.52 0.0088 0.0065
 Mars -54034-04-10 06:13 J -18014396.29 -18014396.24 -18014396.18 0.0088 0.0087
 Mercury -54028-07-11 07:40 J -18012112.20 -18012112.18 -18012112.13 0.0089 0.0086
 Mercury -54028-10-07 09:35 J -18012024.16 -18012024.10 -18012024.04 0.0089 0.0079
 Mercury -54027-01-03 11:01 J -18011936.11 -18011936.04 -18011935.95 0.0089 0.0073
 Mercury -54027-04-01 12:42 J -18011848.05 -18011847.97 -18011847.87 0.0089 0.0067
 Mercury -54027-06-28 14:09 J -18011760.00 -18011759.91 -18011759.79 0.0089 0.0061
 Mercury -54027-09-24 15:49 J -18011671.94 -18011671.84 -18011671.72 0.0089 0.0055
 Mercury -54027-12-21 17:30 J -18011583.88 -18011583.77 -18011583.65 0.0089 0.0048
 Mercury -54026-03-19 18:57 J -18011495.82 -18011495.71 -18011495.57 0.0089 0.0043
 Mercury -54026-06-15 20:37 J -18011407.76 -18011407.64 -18011407.50 0.0089 0.0036
 Mercury -54026-09-11 22:18 J -18011319.70 -18011319.57 -18011319.44 0.0089 0.0030
 Mercury -54026-12-08 23:59 J -18011231.64 -18011231.50 -18011231.37 0.0089 0.0024
 Mercury -54025-03-06 01:25 J -18011143.58 -18011143.44 -18011143.30 0.0089 0.0018
 Mercury -54025-06-02 02:52 J -18011055.51 -18011055.38 -18011055.23 0.0089 0.0012
 Mercury -54025-08-29 04:33 J -18010967.45 -18010967.31 -18010967.17 0.0089 0.0006
 Mercury -54025-11-25 05:59 J -18010879.39 -18010879.25 -18010879.11 0.0089 0.0002
 Mercury -54024-02-21 07:40 J -18010791.32 -18010791.18 -18010791.04 0.0089 0.0006
 Mercury -54024-05-20 09:06 J -18010703.26 -18010703.12 -18010702.98 0.0089 0.0012
 Earth -54024-07-23 18:13 J -18010638.82 -18010638.74 -18010638.61 0.0089 0.0081
 Moon -54024-07-23 21:49 J -18010638.65 -18010638.59 -18010638.51 0.0089 0.0085 *
 Mercury -54024-08-16 10:33 J -18010615.19 -18010615.06 -18010614.92 0.0089 0.0018
 Mercury -54024-11-12 12:13 J -18010527.13 -18010526.99 -18010526.86 0.0089 0.0024

Mercury -54023-02-08 13:40 J -18010439.06 -18010438.93 -18010438.80 0.0089 0.0030

Mercury -54023-05-07 15:06 J -18010350.99 -18010350.87 -18010350.74 0.0089 0.0036

Moon -54023-07-26 03:06 J -18010271.54 -18010271.37 -18010271.16 0.0089 0.0057

Earth -54023-07-26 05:59 J -18010271.44 -18010271.25 -18010271.07 0.0089 0.0061 *

Mercury -54023-08-03 16:33 J -18010262.93 -18010262.81 -18010262.68 0.0089 0.0042

Mercury -54023-10-30 17:59 J -18010174.86 -18010174.75 -18010174.63 0.0089 0.0048

Mercury -54022-01-26 19:25 J -18010086.79 -18010086.69 -18010086.57 0.0089 0.0054

Mercury -54022-04-24 20:52 J -18009998.72 -18009998.63 -18009998.52 0.0089 0.0060

Mercury -54022-07-21 22:33 J -18009910.65 -18009910.56 -18009910.46 0.0089 0.0065

Earth -54022-07-28 16:33 J -18009904.02 -18009903.81 -18009903.56 0.0089 0.0042

Moon -54022-07-28 17:45 J -18009903.97 -18009903.76 -18009903.51 0.0089 0.0046 *

Mercury -54022-10-17 23:59 J -18009822.58 -18009822.50 -18009822.41 0.0089 0.0071

Mercury -54021-01-14 01:25 J -18009734.50 -18009734.44 -18009734.37 0.0089 0.0077

Mercury -54021-04-11 02:37 J -18009646.42 -18009646.39 -18009646.33 0.0089 0.0083

Mercury -54021-07-08 04:33 J -18009558.32 -18009558.31 -18009558.30 0.0089 0.0088

Moon -54021-07-30 03:35 J -18009536.59 -18009536.35 -18009536.10 0.0089 0.0018

Earth -54021-07-30 04:04 J -18009536.58 -18009536.33 -18009536.08 0.0089 0.0022 *

Moon -54020-08-01 13:54 J -18009169.19 -18009168.92 -18009168.66 0.0089 0.0007

Earth -54020-08-01 15:06 J -18009169.12 -18009168.87 -18009168.61 0.0089 0.0003 *

Earth -54019-08-04 02:09 J -18008801.66 -18008801.41 -18008801.16 0.0089 0.0017

Moon -54019-08-04 04:18 J -18008801.55 -18008801.32 -18008801.07 0.0089 0.0022 *

Moon -54018-08-06 09:49 J -18008434.32 -18008434.09 -18008433.83 0.0089 0.0033

Earth -54018-08-06 12:57 J -18008434.18 -18008433.96 -18008433.72 0.0089 0.0037 *

Earth -54017-08-07 23:30 J -18008066.69 -18008066.52 -18008066.30 0.0089 0.0057

Moon -54017-08-08 03:49 J -18008066.52 -18008066.34 -18008066.16 0.0089 0.0061 *

Moon -54016-08-10 07:25 J -18007699.31 -18007699.19 -18007699.01 0.0089 0.0072

Earth -54016-08-10 11:01 J -18007699.15 -18007699.04 -18007698.89 0.0089 0.0076 *

54TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 54th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-53985-10-01 22:04 J	-17996323.60	-17996323.58	-17996323.50	0.0089	0.0087		
Venus	-53984-05-15 10:18 J	-17996098.20	-17996098.07	-17996097.93	0.0089	0.0068		
Venus	-53984-12-26 22:04 J	-17995872.74	-17995872.58	-17995872.39	0.0089	0.0050		
Venus	-53983-08-09 10:18 J	-17995647.27	-17995647.07	-17995646.87	0.0089	0.0031		
Venus	-53982-03-22 22:04 J	-17995421.79	-17995421.58	-17995421.37	0.0089	0.0013		
Venus	-53982-11-03 09:49 J	-17995196.30	-17995196.09	-17995195.87	0.0089	0.0006		
Venus	-53981-06-15 21:35 J	-17994970.80	-17994970.60	-17994970.39	0.0089	0.0024		
Venus	-53980-01-27 09:35 J	-17994745.28	-17994745.10	-17994744.91	0.0089	0.0042		
Venus	-53980-09-09 21:21 J	-17994519.75	-17994519.61	-17994519.44	0.0089	0.0061		
Venus	-53979-04-23 09:35 J	-17994294.19	-17994294.10	-17994294.00	0.0089	0.0079		
Mars	-53968-10-08 22:04 J	-17990107.60	-17990107.58	-17990107.48	0.0089	0.0088		
Mars	-53966-09-02 13:11 J	-17989414.12	-17989413.95	-17989413.74	0.0089	0.0067		
Mars	-53964-07-27 05:16 J	-17988720.50	-17988720.28	-17988720.01	0.0089	0.0047		
Mars	-53962-06-20 22:04 J	-17988026.84	-17988026.58	-17988026.28	0.0089	0.0026		
Mars	-53960-05-14 17:01 J	-17987333.08	-17987332.79	-17987332.50	0.0089	0.0005		
Mars	-53958-04-08 14:23 J	-17986639.18	-17986638.90	-17986638.60	0.0089	0.0016		
Mars	-53956-03-02 11:45 J	-17985945.26	-17985945.01	-17985944.72	0.0089	0.0038		
Mars	-53954-01-25 12:28 J	-17985251.19	-17985250.98	-17985250.75	0.0089	0.0059		
Mars	-53953-12-19 15:35 J	-17984556.95	-17984556.85	-17984556.70	0.0089	0.0081		
Mercury	-53946-12-28 18:57 J	-17981991.74	-17981991.71	-17981991.66	0.0089	0.0086		
Mercury	-53945-03-25 21:35 J	-17981903.66	-17981903.60	-17981903.50	0.0089	0.0079		

Mercury -53945-06-22 00:42 J -17981815.56 -17981815.47 -17981815.35 0.0089 0.0071

Mercury -53945-09-18 04:04 J -17981727.46 -17981727.33 -17981727.21 0.0089 0.0063

Mercury -53945-12-15 06:42 J -17981639.35 -17981639.22 -17981639.07 0.0089 0.0056

Mercury -53944-03-13 09:49 J -17981551.24 -17981551.09 -17981550.93 0.0089 0.0048

Mercury -53944-06-09 12:42 J -17981463.12 -17981462.97 -17981462.80 0.0089 0.0041

Mercury -53944-09-05 15:49 J -17981375.00 -17981374.84 -17981374.67 0.0089 0.0033

Mercury -53944-12-02 18:57 J -17981286.88 -17981286.71 -17981286.54 0.0089 0.0025

Mercury -53943-02-28 21:49 J -17981198.76 -17981198.59 -17981198.41 0.0089 0.0018

Mercury -53943-05-28 00:57 J -17981110.64 -17981110.46 -17981110.28 0.0089 0.0010

Mercury -53943-08-24 04:04 J -17981022.51 -17981022.33 -17981022.15 0.0089 0.0002

Mercury -53943-11-20 07:11 J -17980934.38 -17980934.20 -17980934.02 0.0089 0.0006

Earth -53942-01-18 11:45 J -17980875.05 -17980875.01 -17980874.92 0.0089 0.0086

Moon -53942-01-18 13:25 J -17980874.99 -17980874.94 -17980874.84 0.0089 0.0085 *

Mercury -53942-02-16 10:18 J -17980846.25 -17980846.07 -17980845.89 0.0089 0.0014

Mercury -53942-05-15 13:11 J -17980758.12 -17980757.95 -17980757.77 0.0089 0.0022

Mercury -53942-08-11 16:18 J -17980669.99 -17980669.82 -17980669.64 0.0089 0.0030

Mercury -53942-11-07 19:25 J -17980581.85 -17980581.69 -17980581.52 0.0089 0.0038

Earth -53941-01-21 00:13 J -17980507.65 -17980507.49 -17980507.31 0.0089 0.0066

Moon -53941-01-21 00:28 J -17980507.64 -17980507.48 -17980507.31 0.0089 0.0066 *

Mercury -53941-02-03 22:18 J -17980493.71 -17980493.57 -17980493.40 0.0089 0.0046

Mercury -53941-05-02 01:25 J -17980405.57 -17980405.44 -17980405.28 0.0089 0.0054

Mercury -53941-07-29 04:33 J -17980317.42 -17980317.31 -17980317.16 0.0089 0.0062

Mercury -53941-10-25 07:40 J -17980229.27 -17980229.18 -17980229.05 0.0089 0.0070

Mercury -53940-01-21 10:47 J -17980141.12 -17980141.05 -17980140.94 0.0089 0.0078

Moon -53940-01-22 11:16 J -17980140.24 -17980140.03 -17980139.78 0.0089 0.0046

Earth -53940-01-22 12:28 J -17980140.19 -17980139.98 -17980139.75 0.0089 0.0046 *

Mercury -53940-04-19 14:09 J -17980052.94 -17980052.91 -17980052.85 0.0089 0.0086

Earth -53939-01-25 00:42 J -17979772.72 -17979772.47 -17979772.22 0.0089 0.0026

Moon -53939-01-25 02:52 J -17979772.62 -17979772.38 -17979772.14 0.0089 0.0027 *

Moon -53938-01-27 09:35 J -17979405.35 -17979405.10 -17979404.83 0.0089 0.0007

Earth	-53938-01-27 12:57 J	-17979405.21	-17979404.96	-17979404.70	0.0089	0.0006	*
Earth	-53937-01-30 01:11 J	-17979037.70	-17979037.45	-17979037.19	0.0089	0.0014	
Moon	-53937-01-30 04:33 J	-17979037.56	-17979037.31	-17979037.05	0.0089	0.0013	*
Moon	-53936-01-31 09:21 J	-17978670.33	-17978670.11	-17978669.85	0.0089	0.0036	
Earth	-53936-01-31 13:25 J	-17978670.17	-17978669.94	-17978669.69	0.0089	0.0034	*
Earth	-53935-02-03 01:40 J	-17978302.63	-17978302.43	-17978302.22	0.0089	0.0054	
Moon	-53935-02-03 04:33 J	-17978302.50	-17978302.31	-17978302.08	0.0089	0.0053	*
Moon	-53934-02-05 11:16 J	-17977935.14	-17977935.03	-17977934.88	0.0089	0.0076	
Earth	-53934-02-05 13:54 J	-17977935.05	-17977934.92	-17977934.76	0.0089	0.0074	*
Venus	-53902-07-02 18:13 J	-17966099.85	-17966099.74	-17966099.61	0.0088	0.0074	
Venus	-53901-02-13 08:37 J	-17965874.31	-17965874.14	-17965873.96	0.0088	0.0054	
Venus	-53901-09-25 22:47 J	-17965648.75	-17965648.55	-17965648.33	0.0088	0.0035	
Venus	-53900-05-09 12:57 J	-17965423.18	-17965422.96	-17965422.73	0.0088	0.0016	
Venus	-53900-12-21 03:21 J	-17965197.59	-17965197.36	-17965197.14	0.0088	0.0003	
Venus	-53899-08-03 17:16 J	-17964971.99	-17964971.78	-17964971.55	0.0088	0.0022	
Venus	-53898-03-17 07:40 J	-17964746.38	-17964746.18	-17964745.98	0.0088	0.0042	
Venus	-53898-10-28 21:49 J	-17964520.76	-17964520.59	-17964520.43	0.0088	0.0061	
Venus	-53897-06-10 11:45 J	-17964295.10	-17964295.01	-17964294.91	0.0088	0.0080	
Mars	-53884-07-21 13:54 J	-17959505.98	-17959505.92	-17959505.78	0.0088	0.0085	
Mars	-53882-06-17 19:25 J	-17958809.90	-17958809.69	-17958809.40	0.0088	0.0061	
Mars	-53880-05-13 23:16 J	-17958113.82	-17958113.53	-17958113.19	0.0088	0.0036	
Mars	-53878-04-10 01:25 J	-17957417.77	-17957417.44	-17957417.10	0.0088	0.0012	
Mars	-53876-03-06 00:13 J	-17956721.82	-17956721.49	-17956721.15	0.0088	0.0013	
Mars	-53874-01-30 20:09 J	-17956025.94	-17956025.66	-17956025.33	0.0088	0.0036	
Mars	-53873-12-26 13:40 J	-17955330.15	-17955329.93	-17955329.65	0.0088	0.0060	
Mars	-53871-11-22 03:35 J	-17954634.44	-17954634.35	-17954634.19	0.0088	0.0082	
Mercury	-53863-04-07 06:57 J	-17951941.24	-17951941.21	-17951941.15	0.0088	0.0084	
Mercury	-53863-07-04 08:37 J	-17951853.20	-17951853.14	-17951853.06	0.0089	0.0077	
Mercury	-53863-09-30 10:04 J	-17951765.15	-17951765.08	-17951764.98	0.0089	0.0072	
Mercury	-53863-12-27 11:59 J	-17951677.09	-17951677.00	-17951676.90	0.0089	0.0065	

Mercury -53862-03-25 13:40 J -17951589.03 -17951588.93 -17951588.82 0.0089 0.0059
 Mercury -53862-06-21 15:06 J -17951500.97 -17951500.87 -17951500.75 0.0089 0.0053
 Mercury -53862-09-17 16:47 J -17951412.92 -17951412.80 -17951412.68 0.0089 0.0047
 Mercury -53862-12-14 18:13 J -17951324.86 -17951324.74 -17951324.60 0.0089 0.0041
 Mercury -53861-03-11 19:54 J -17951236.79 -17951236.67 -17951236.53 0.0089 0.0034
 Mercury -53861-06-07 21:21 J -17951148.73 -17951148.61 -17951148.46 0.0089 0.0029
 Mercury -53861-09-03 23:01 J -17951060.67 -17951060.54 -17951060.40 0.0089 0.0023
 Mercury -53861-12-01 00:42 J -17950972.61 -17950972.47 -17950972.33 0.0089 0.0016
 Mercury -53860-02-27 02:09 J -17950884.54 -17950884.41 -17950884.26 0.0089 0.0011
 Mercury -53860-05-26 03:49 J -17950796.48 -17950796.34 -17950796.20 0.0089 0.0004
 Mercury -53860-08-22 05:30 J -17950708.41 -17950708.27 -17950708.13 0.0089 0.0003
 Mercury -53860-11-18 06:57 J -17950620.35 -17950620.21 -17950620.07 0.0089 0.0008
 Mercury -53859-02-14 08:23 J -17950532.28 -17950532.15 -17950532.01 0.0089 0.0014
 Mercury -53859-05-13 09:49 J -17950444.22 -17950444.09 -17950443.95 0.0089 0.0020
 Earth -53859-07-25 13:25 J -17950371.07 -17950370.94 -17950370.77 0.0089 0.0071
 Moon -53859-07-25 14:09 J -17950371.04 -17950370.91 -17950370.72 0.0089 0.0071 *
 Mercury -53859-08-09 11:30 J -17950356.15 -17950356.02 -17950355.89 0.0089 0.0026
 Mercury -53859-11-05 12:57 J -17950268.09 -17950267.96 -17950267.83 0.0089 0.0032
 Mercury -53858-02-01 14:23 J -17950180.02 -17950179.90 -17950179.77 0.0089 0.0038
 Mercury -53858-04-30 15:49 J -17950091.95 -17950091.84 -17950091.71 0.0089 0.0044
 Mercury -53858-07-27 17:30 J -17950003.88 -17950003.77 -17950003.65 0.0089 0.0050
 Earth -53858-07-28 00:57 J -17950003.67 -17950003.46 -17950003.25 0.0089 0.0051 *
 Moon -53858-07-28 01:25 J -17950003.63 -17950003.44 -17950003.23 0.0089 0.0052 *
 Mercury -53858-10-23 18:57 J -17949915.81 -17949915.71 -17949915.60 0.0089 0.0056
 Mercury -53857-01-19 20:23 J -17949827.74 -17949827.65 -17949827.55 0.0089 0.0061
 Mercury -53857-04-16 21:35 J -17949739.67 -17949739.60 -17949739.49 0.0089 0.0068
 Mercury -53857-07-13 23:30 J -17949651.60 -17949651.52 -17949651.44 0.0089 0.0073
 Moon -53857-07-29 10:33 J -17949636.30 -17949636.06 -17949635.80 0.0089 0.0031
 Earth -53857-07-29 11:45 J -17949636.23 -17949636.01 -17949635.75 0.0089 0.0032 *
 Mercury -53857-10-10 00:42 J -17949563.52 -17949563.47 -17949563.40 0.0089 0.0079

Mercury -53856-01-06 02:09 J -17949475.44 -17949475.41 -17949475.36 0.0089 0.0085
 Earth -53856-07-31 23:16 J -17949268.78 -17949268.53 -17949268.27 0.0089 0.0011
 Moon -53856-08-01 01:54 J -17949268.67 -17949268.42 -17949268.17 0.0089 0.0012 *
 Moon -53855-08-03 06:42 J -17948901.47 -17948901.22 -17948900.95 0.0089 0.0010
 Earth -53855-08-03 10:18 J -17948901.32 -17948901.07 -17948900.81 0.0089 0.0009 *
 Earth -53854-08-05 21:06 J -17948533.85 -17948533.62 -17948533.36 0.0089 0.0029
 Moon -53854-08-06 00:42 J -17948533.70 -17948533.47 -17948533.22 0.0089 0.0029 *
 Moon -53853-08-07 04:47 J -17948166.50 -17948166.30 -17948166.08 0.0089 0.0048
 Earth -53853-08-07 08:23 J -17948166.36 -17948166.15 -17948165.93 0.0089 0.0048 *
 Earth -53852-08-09 19:11 J -17947798.85 -17947798.70 -17947798.52 0.0089 0.0068
 Moon -53852-08-09 21:35 J -17947798.74 -17947798.60 -17947798.41 0.0089 0.0068 *
 Moon -53851-08-12 04:18 J -17947431.35 -17947431.32 -17947431.26 0.0089 0.0087
 Earth -53851-08-12 05:59 J -17947431.26 -17947431.25 -17947431.19 0.0089 0.0088 *
 Jupiter -53825-11-08 11:45 J -17937846.37 -17937846.01 -17937845.55 0.0089 0.0057
 Venus -53820-08-16 21:21 J -17936103.69 -17936103.61 -17936103.48 0.0089 0.0077
 Venus -53819-03-30 09:35 J -17935878.25 -17935878.10 -17935877.93 0.0089 0.0058
 Venus -53819-11-10 21:21 J -17935652.79 -17935652.61 -17935652.41 0.0089 0.0040
 Venus -53818-06-24 09:21 J -17935427.32 -17935427.11 -17935426.90 0.0089 0.0022
 Venus -53817-02-04 21:06 J -17935201.83 -17935201.62 -17935201.40 0.0089 0.0004
 Venus -53817-09-17 09:06 J -17934976.33 -17934976.12 -17934975.91 0.0089 0.0015
 Venus -53816-04-30 20:37 J -17934750.82 -17934750.64 -17934750.43 0.0089 0.0034
 Venus -53816-12-12 08:37 J -17934525.30 -17934525.14 -17934524.96 0.0089 0.0052
 Venus -53815-07-25 20:52 J -17934299.76 -17934299.63 -17934299.50 0.0089 0.0071
 Venus -53814-03-08 08:37 J -17934074.14 -17934074.14 -17934074.13 0.0089 0.0089
 Mars -53802-04-18 01:11 J -17929650.60 -17929650.45 -17929650.25 0.0089 0.0070
 Mars -53800-03-11 15:49 J -17928957.06 -17928956.84 -17928956.59 0.0089 0.0050
 Mars -53798-02-03 08:09 J -17928263.41 -17928263.16 -17928262.87 0.0089 0.0030
 Mars -53797-12-28 02:09 J -17927569.70 -17927569.41 -17927569.12 0.0089 0.0009
 Mars -53795-11-21 20:37 J -17926875.92 -17926875.64 -17926875.33 0.0089 0.0012
 Mars -53793-10-15 18:42 J -17926181.99 -17926181.72 -17926181.44 0.0089 0.0032

Mars -53791-09-09 17:01 J -17925488.00 -17925487.79 -17925487.53 0.0089 0.0054
 Mars -53789-08-03 17:01 J -17924793.92 -17924793.79 -17924793.59 0.0089 0.0075
 Mercury -53781-09-23 17:01 J -17921820.83 -17921820.79 -17921820.71 0.0089 0.0084
 Mercury -53781-12-20 20:09 J -17921732.74 -17921732.66 -17921732.56 0.0089 0.0076
 Mercury -53780-03-18 23:01 J -17921644.64 -17921644.54 -17921644.41 0.0089 0.0069
 Mercury -53780-06-15 02:09 J -17921556.53 -17921556.41 -17921556.27 0.0089 0.0061
 Mercury -53780-09-11 05:16 J -17921468.42 -17921468.28 -17921468.14 0.0089 0.0053
 Mercury -53780-12-08 07:54 J -17921380.31 -17921380.17 -17921380.00 0.0089 0.0046
 Mercury -53779-03-06 11:01 J -17921292.20 -17921292.04 -17921291.87 0.0089 0.0038
 Mercury -53779-06-02 13:54 J -17921204.08 -17921203.92 -17921203.74 0.0089 0.0031
 Mercury -53779-08-29 17:01 J -17921115.96 -17921115.79 -17921115.61 0.0089 0.0023
 Mercury -53779-11-25 20:09 J -17921027.84 -17921027.66 -17921027.48 0.0089 0.0015
 Mercury -53778-02-21 23:16 J -17920939.71 -17920939.53 -17920939.35 0.0089 0.0007
 Mercury -53778-05-21 02:09 J -17920851.59 -17920851.41 -17920851.22 0.0089 0.0002
 Mercury -53778-08-17 05:16 J -17920763.46 -17920763.28 -17920763.10 0.0089 0.0008
 Mercury -53778-11-13 08:09 J -17920675.33 -17920675.16 -17920674.97 0.0089 0.0017
 Moon -53777-01-20 05:01 J -17920607.37 -17920607.29 -17920607.15 0.0089 0.0081
 Earth -53777-01-20 07:11 J -17920607.32 -17920607.20 -17920607.05 0.0089 0.0076 *
 Mercury -53777-02-09 11:30 J -17920587.20 -17920587.02 -17920586.85 0.0089 0.0024
 Mercury -53777-05-07 14:23 J -17920499.06 -17920498.90 -17920498.72 0.0089 0.0032
 Mercury -53777-08-03 17:30 J -17920410.93 -17920410.77 -17920410.60 0.0089 0.0040
 Mercury -53777-10-30 20:37 J -17920322.79 -17920322.64 -17920322.48 0.0089 0.0048
 Earth -53776-01-21 19:11 J -17920239.89 -17920239.70 -17920239.49 0.0089 0.0056
 Moon -53776-01-21 21:35 J -17920239.79 -17920239.60 -17920239.38 0.0089 0.0052 *
 Mercury -53776-01-26 23:45 J -17920234.65 -17920234.51 -17920234.36 0.0089 0.0056
 Mercury -53776-04-25 02:37 J -17920146.50 -17920146.39 -17920146.25 0.0089 0.0064
 Mercury -53776-07-22 05:45 J -17920058.35 -17920058.26 -17920058.14 0.0089 0.0072
 Mercury -53776-10-18 08:52 J -17919970.19 -17919970.13 -17919970.03 0.0089 0.0080
 Mercury -53775-01-14 12:13 J -17919882.00 -17919881.99 -17919881.95 0.0089 0.0088
 Moon -53775-01-24 03:49 J -17919872.56 -17919872.34 -17919872.09 0.0089 0.0041

Earth	-53775-01-24 07:11 J	-17919872.42	-17919872.20	-17919871.95	0.0089	0.0036	*
Earth	-53774-01-26 19:25 J	-17919504.94	-17919504.69	-17919504.43	0.0089	0.0016	
Moon	-53774-01-26 23:16 J	-17919504.78	-17919504.53	-17919504.27	0.0089	0.0011	*
Moon	-53773-01-29 04:33 J	-17919137.57	-17919137.31	-17919137.05	0.0089	0.0000	
Earth	-53773-01-29 07:54 J	-17919137.43	-17919137.17	-17919136.91	0.0089	0.0005	*
Earth	-53772-01-30 19:54 J	-17918769.91	-17918769.67	-17918769.42	0.0089	0.0025	
Moon	-53772-01-30 23:16 J	-17918769.78	-17918769.53	-17918769.28	0.0089	0.0029	*
Moon	-53771-02-02 05:59 J	-17918402.45	-17918402.25	-17918402.00	0.0089	0.0041	
Earth	-53771-02-02 08:09 J	-17918402.37	-17918402.16	-17918401.93	0.0089	0.0045	*
Earth	-53770-02-04 20:37 J	-17918034.82	-17918034.64	-17918034.47	0.0089	0.0065	
Moon	-53770-02-04 21:21 J	-17918034.77	-17918034.61	-17918034.43	0.0089	0.0069	*
Moon	-53769-02-07 08:09 J	-17917667.23	-17917667.16	-17917667.03	0.0089	0.0082	
Earth	-53769-02-07 08:09 J	-17917667.19	-17917667.16	-17917667.06	0.0089	0.0086	*
Venus	-53738-10-04 01:25 J	-17906105.49	-17906105.44	-17906105.34	0.0088	0.0084	
Venus	-53737-05-16 15:35 J	-17905879.98	-17905879.85	-17905879.67	0.0088	0.0065	
Venus	-53737-12-28 05:59 J	-17905654.43	-17905654.25	-17905654.04	0.0088	0.0045	
Venus	-53736-08-10 20:09 J	-17905428.86	-17905428.66	-17905428.43	0.0088	0.0026	
Venus	-53735-03-24 10:47 J	-17905203.28	-17905203.05	-17905202.82	0.0088	0.0007	
Venus	-53735-11-05 00:57 J	-17904977.69	-17904977.46	-17904977.24	0.0088	0.0013	
Venus	-53734-06-18 14:52 J	-17904752.09	-17904751.88	-17904751.66	0.0088	0.0032	
Venus	-53733-01-30 04:47 J	-17904526.47	-17904526.30	-17904526.10	0.0088	0.0051	
Venus	-53733-09-11 18:42 J	-17904300.83	-17904300.72	-17904300.56	0.0088	0.0070	
Mars	-53720-03-03 17:45 J	-17899744.76	-17899744.76	-17899744.72	0.0088	0.0088	
Mars	-53718-01-29 01:54 J	-17899048.63	-17899048.42	-17899048.16	0.0088	0.0064	
Mars	-53717-12-25 07:11 J	-17898352.48	-17898352.20	-17898351.87	0.0088	0.0041	
Mars	-53715-11-21 10:47 J	-17897656.38	-17897656.05	-17897655.72	0.0088	0.0017	
Mars	-53713-10-17 11:59 J	-17896960.33	-17896960.00	-17896959.65	0.0088	0.0008	
Mars	-53711-09-13 10:33 J	-17896264.37	-17896264.06	-17896263.74	0.0088	0.0031	
Mars	-53709-08-09 05:45 J	-17895568.51	-17895568.26	-17895567.98	0.0088	0.0054	
Mars	-53707-07-05 22:33 J	-17894872.69	-17894872.56	-17894872.35	0.0088	0.0077	

Mercury -53699-10-06 04:33 J -17891858.31 -17891858.31 -17891858.30 0.0089 0.0088
 Mercury -53698-01-02 05:59 J -17891770.29 -17891770.25 -17891770.19 0.0089 0.0082
 Mercury -53698-03-31 07:54 J -17891682.24 -17891682.17 -17891682.10 0.0089 0.0076
 Mercury -53698-06-27 09:21 J -17891594.19 -17891594.11 -17891594.02 0.0089 0.0070
 Mercury -53698-09-23 11:01 J -17891506.13 -17891506.04 -17891505.94 0.0089 0.0064
 Mercury -53698-12-20 12:28 J -17891418.08 -17891417.98 -17891417.86 0.0089 0.0058
 Mercury -53697-03-17 14:09 J -17891330.02 -17891329.91 -17891329.79 0.0089 0.0051
 Mercury -53697-06-13 15:35 J -17891241.96 -17891241.85 -17891241.71 0.0089 0.0046
 Mercury -53697-09-09 17:30 J -17891153.90 -17891153.77 -17891153.64 0.0089 0.0039
 Mercury -53697-12-06 19:11 J -17891065.83 -17891065.70 -17891065.57 0.0089 0.0033
 Mercury -53696-03-04 20:37 J -17890977.77 -17890977.64 -17890977.50 0.0089 0.0027
 Mercury -53696-05-31 22:18 J -17890889.71 -17890889.57 -17890889.44 0.0089 0.0021
 Mercury -53696-08-27 23:45 J -17890801.65 -17890801.51 -17890801.37 0.0089 0.0015
 Mercury -53696-11-24 01:25 J -17890713.58 -17890713.44 -17890713.30 0.0089 0.0009
 Mercury -53695-02-20 02:52 J -17890625.52 -17890625.38 -17890625.24 0.0089 0.0003
 Mercury -53695-05-19 04:33 J -17890537.45 -17890537.31 -17890537.17 0.0089 0.0004
 Earth -53695-07-24 19:40 J -17890470.75 -17890470.68 -17890470.55 0.0089 0.0082
 Moon -53695-07-24 20:52 J -17890470.68 -17890470.63 -17890470.57 0.0089 0.0086 *
 Mercury -53695-08-15 05:59 J -17890449.39 -17890449.25 -17890449.11 0.0089 0.0010
 Mercury -53695-11-11 07:25 J -17890361.32 -17890361.19 -17890361.05 0.0089 0.0016
 Mercury -53694-02-07 09:06 J -17890273.25 -17890273.12 -17890272.98 0.0089 0.0022
 Mercury -53694-05-06 10:33 J -17890185.19 -17890185.06 -17890184.92 0.0089 0.0028
 Moon -53694-07-27 05:16 J -17890103.47 -17890103.28 -17890103.07 0.0089 0.0057
 Earth -53694-07-27 07:11 J -17890103.36 -17890103.20 -17890102.99 0.0089 0.0062 *
 Mercury -53694-08-02 11:59 J -17890097.12 -17890097.00 -17890096.86 0.0089 0.0034
 Mercury -53694-10-29 13:25 J -17890009.05 -17890008.94 -17890008.81 0.0089 0.0040
 Mercury -53693-01-25 14:52 J -17889920.98 -17889920.88 -17889920.75 0.0089 0.0046
 Mercury -53693-04-22 16:33 J -17889832.92 -17889832.81 -17889832.69 0.0089 0.0051
 Mercury -53693-07-19 18:13 J -17889744.85 -17889744.74 -17889744.64 0.0089 0.0057
 Earth -53693-07-28 18:28 J -17889735.93 -17889735.73 -17889735.48 0.0089 0.0042

Moon -53693-07-28 21:21 J -17889735.80 -17889735.61 -17889735.37 0.0089 0.0046 *
 Mercury -53693-10-15 19:40 J -17889656.78 -17889656.68 -17889656.58 0.0089 0.0063
 Mercury -53692-01-11 21:06 J -17889568.70 -17889568.62 -17889568.53 0.0089 0.0069
 Mercury -53692-04-09 22:33 J -17889480.63 -17889480.56 -17889480.48 0.0089 0.0075
 Mercury -53692-07-06 23:45 J -17889392.55 -17889392.51 -17889392.44 0.0089 0.0081
 Moon -53692-07-31 02:23 J -17889368.64 -17889368.40 -17889368.13 0.0089 0.0017
 Earth -53692-07-31 06:13 J -17889368.49 -17889368.24 -17889367.99 0.0089 0.0021 *
 Mercury -53692-10-03 01:11 J -17889304.46 -17889304.45 -17889304.40 0.0089 0.0087
 Earth -53691-08-02 17:16 J -17889001.04 -17889000.78 -17889000.52 0.0089 0.0001
 Moon -53691-08-02 20:52 J -17889000.89 -17889000.63 -17889000.37 0.0089 0.0006 *
 Moon -53690-08-05 00:57 J -17888633.69 -17888633.46 -17888633.20 0.0089 0.0024
 Earth -53690-08-05 04:18 J -17888633.57 -17888633.32 -17888633.07 0.0089 0.0019 *
 Earth -53689-08-06 15:21 J -17888266.09 -17888265.86 -17888265.63 0.0089 0.0039
 Moon -53689-08-06 17:45 J -17888265.98 -17888265.76 -17888265.50 0.0089 0.0035 *
 Moon -53688-08-09 00:57 J -17887898.62 -17887898.46 -17887898.27 0.0089 0.0064
 Earth -53688-08-09 02:09 J -17887898.59 -17887898.41 -17887898.21 0.0089 0.0059 *
 Moon -53687-08-11 12:57 J -17887531.08 -17887530.96 -17887530.80 0.0089 0.0075
 Earth -53687-08-11 12:57 J -17887531.06 -17887530.96 -17887530.83 0.0089 0.0079 *
 Jupiter -53658-01-03 00:57 J -17877159.65 -17877159.46 -17877159.15 0.0089 0.0079
 Venus -53656-11-18 07:54 J -17876109.20 -17876109.17 -17876109.09 0.0089 0.0086
 Venus -53655-07-01 20:09 J -17875883.79 -17875883.66 -17875883.52 0.0089 0.0067
 Venus -53654-02-12 07:40 J -17875658.34 -17875658.18 -17875657.98 0.0089 0.0050
 Venus -53654-09-25 19:40 J -17875432.87 -17875432.68 -17875432.47 0.0089 0.0031
 Venus -53653-05-08 07:40 J -17875207.39 -17875207.18 -17875206.97 0.0089 0.0012
 Venus -53653-12-19 19:40 J -17874981.90 -17874981.68 -17874981.47 0.0089 0.0006
 Venus -53652-08-02 07:25 J -17874756.39 -17874756.19 -17874755.98 0.0089 0.0025
 Venus -53651-03-15 18:57 J -17874530.88 -17874530.71 -17874530.50 0.0089 0.0044
 Venus -53651-10-27 06:57 J -17874305.35 -17874305.21 -17874305.04 0.0089 0.0061
 Venus -53650-06-09 18:57 J -17874079.80 -17874079.71 -17874079.61 0.0089 0.0080
 Mars -53639-12-01 14:23 J -17869887.03 -17869886.90 -17869886.70 0.0089 0.0073

Mars -53637-10-25 04:18 J -17869193.54 -17869193.32 -17869193.08 0.0089 0.0053
 Mars -53635-09-18 18:42 J -17868499.98 -17868499.72 -17868499.44 0.0089 0.0033
 Mars -53633-08-12 11:30 J -17867806.30 -17867806.02 -17867805.73 0.0089 0.0013
 Mars -53631-07-07 05:30 J -17867112.56 -17867112.27 -17867111.98 0.0089 0.0007
 Mars -53629-05-30 23:45 J -17866418.77 -17866418.51 -17866418.21 0.0089 0.0028
 Mars -53627-04-24 21:21 J -17865724.85 -17865724.61 -17865724.35 0.0089 0.0048
 Mars -53625-03-18 20:37 J -17865030.80 -17865030.64 -17865030.42 0.0089 0.0069
 Mercury -53616-06-20 15:06 J -17861649.92 -17861649.87 -17861649.79 0.0089 0.0082
 Mercury -53616-09-16 18:28 J -17861561.83 -17861561.73 -17861561.64 0.0089 0.0074
 Mercury -53616-12-13 20:52 J -17861473.73 -17861473.63 -17861473.50 0.0089 0.0067
 Mercury -53615-03-12 00:13 J -17861385.62 -17861385.49 -17861385.36 0.0089 0.0059
 Mercury -53615-06-08 02:52 J -17861297.51 -17861297.38 -17861297.22 0.0089 0.0052
 Mercury -53615-09-04 05:59 J -17861209.40 -17861209.25 -17861209.09 0.0089 0.0044
 Mercury -53615-12-01 08:52 J -17861121.28 -17861121.13 -17861120.96 0.0089 0.0037
 Mercury -53614-02-27 11:59 J -17861033.17 -17861033.00 -17861032.83 0.0089 0.0029
 Mercury -53614-05-26 15:06 J -17860945.05 -17860944.87 -17860944.70 0.0089 0.0021
 Mercury -53614-08-22 17:59 J -17860856.92 -17860856.75 -17860856.57 0.0089 0.0013
 Mercury -53614-11-18 21:06 J -17860768.80 -17860768.62 -17860768.44 0.0089 0.0005
 Earth -53613-01-19 12:57 J -17860706.99 -17860706.96 -17860706.88 0.0089 0.0087
 Moon -53613-01-19 15:49 J -17860706.85 -17860706.84 -17860706.77 0.0089 0.0088
 Mercury -53613-02-15 00:13 J -17860680.67 -17860680.49 -17860680.31 0.0089 0.0003
 Mercury -53613-05-13 03:06 J -17860592.55 -17860592.37 -17860592.19 0.0089 0.0010
 Mercury -53613-08-09 06:13 J -17860504.42 -17860504.24 -17860504.06 0.0089 0.0018
 Mercury -53613-11-05 09:06 J -17860416.29 -17860416.12 -17860415.94 0.0089 0.0026
 Moon -53612-01-20 21:21 J -17860339.76 -17860339.61 -17860339.41 0.0089 0.0066
 Earth -53612-01-21 00:57 J -17860339.61 -17860339.46 -17860339.27 0.0089 0.0067 *
 Mercury -53612-02-01 12:13 J -17860328.15 -17860327.99 -17860327.82 0.0089 0.0034
 Mercury -53612-04-30 15:06 J -17860240.02 -17860239.87 -17860239.70 0.0089 0.0042
 Mercury -53612-07-27 18:13 J -17860151.88 -17860151.74 -17860151.58 0.0089 0.0050
 Mercury -53612-10-23 21:21 J -17860063.74 -17860063.61 -17860063.46 0.0089 0.0058

Mercury -53611-01-20 00:28 J -17859975.59 -17859975.48 -17859975.34 0.0089 0.0066

Earth -53611-01-23 12:57 J -17859972.16 -17859971.96 -17859971.72 0.0089 0.0047

Moon -53611-01-23 16:47 J -17859972.01 -17859971.80 -17859971.57 0.0089 0.0046 *

Mercury -53611-04-18 03:21 J -17859887.44 -17859887.36 -17859887.24 0.0089 0.0074

Mercury -53611-07-15 06:28 J -17859799.28 -17859799.23 -17859799.13 0.0089 0.0082

Moon -53610-01-25 21:49 J -17859604.82 -17859604.59 -17859604.34 0.0089 0.0026

Earth -53610-01-26 01:25 J -17859604.69 -17859604.44 -17859604.19 0.0089 0.0026 *

Earth -53609-01-28 13:25 J -17859237.19 -17859236.94 -17859236.68 0.0089 0.0006

Moon -53609-01-28 15:49 J -17859237.10 -17859236.84 -17859236.57 0.0089 0.0006 *

Moon -53608-01-29 23:45 J -17858869.75 -17858869.51 -17858869.25 0.0089 0.0015

Earth -53608-01-30 01:40 J -17858869.68 -17858869.43 -17858869.17 0.0089 0.0015 *

Earth -53607-02-01 13:40 J -17858502.15 -17858501.93 -17858501.68 0.0089 0.0036

Moon -53607-02-01 13:54 J -17858502.15 -17858501.92 -17858501.66 0.0089 0.0036 *

Earth -53606-02-04 01:54 J -17858134.60 -17858134.42 -17858134.20 0.0089 0.0056

Moon -53606-02-04 03:06 J -17858134.55 -17858134.37 -17858134.16 0.0089 0.0056 *

Moon -53605-02-06 12:13 J -17857767.10 -17857766.99 -17857766.84 0.0089 0.0077

Earth -53605-02-06 13:54 J -17857767.02 -17857766.92 -17857766.76 0.0089 0.0077 *

Venus -53573-08-17 22:33 J -17845885.66 -17845885.56 -17845885.42 0.0088 0.0074

Venus -53572-03-31 12:42 J -17845660.13 -17845659.97 -17845659.77 0.0088 0.0055

Venus -53572-11-12 02:52 J -17845434.57 -17845434.38 -17845434.15 0.0088 0.0037

Venus -53571-06-25 17:16 J -17845208.99 -17845208.78 -17845208.55 0.0088 0.0017

Venus -53570-02-06 07:40 J -17844983.40 -17844983.18 -17844982.95 0.0088 0.0003

Venus -53570-09-19 21:49 J -17844757.81 -17844757.59 -17844757.36 0.0088 0.0021

Venus -53569-05-02 11:45 J -17844532.20 -17844532.01 -17844531.80 0.0088 0.0041

Venus -53569-12-14 01:54 J -17844306.58 -17844306.42 -17844306.24 0.0088 0.0060

Venus -53568-07-27 16:04 J -17844080.92 -17844080.83 -17844080.72 0.0088 0.0078

Mars -53555-09-11 03:21 J -17839287.56 -17839287.36 -17839287.12 0.0088 0.0069

Mars -53553-08-07 11:30 J -17838591.31 -17838591.02 -17838590.72 0.0088 0.0045

Mars -53551-07-04 16:18 J -17837895.14 -17837894.82 -17837894.48 0.0088 0.0022

Mars -53549-05-30 18:57 J -17837199.05 -17837198.71 -17837198.37 0.0088 0.0002

Mars -53547-04-26 19:11 J -17836503.00 -17836502.70 -17836502.36 0.0088 0.0026
 Mars -53545-03-22 17:16 J -17835807.03 -17835806.78 -17835806.47 0.0088 0.0049
 Mars -53543-02-16 12:13 J -17835111.16 -17835110.99 -17835110.76 0.0088 0.0071
 Mercury -53534-07-03 03:06 J -17831687.37 -17831687.37 -17831687.33 0.0089 0.0088
 Mercury -53534-09-29 04:47 J -17831599.34 -17831599.30 -17831599.23 0.0089 0.0082
 Mercury -53534-12-26 06:42 J -17831511.29 -17831511.22 -17831511.14 0.0089 0.0075
 Mercury -53533-03-23 08:23 J -17831423.24 -17831423.15 -17831423.06 0.0089 0.0069
 Mercury -53533-06-19 09:49 J -17831335.18 -17831335.09 -17831334.98 0.0089 0.0063
 Mercury -53533-09-15 11:30 J -17831247.12 -17831247.02 -17831246.91 0.0089 0.0057
 Mercury -53533-12-12 12:57 J -17831159.06 -17831158.96 -17831158.83 0.0089 0.0051
 Mercury -53532-03-10 14:37 J -17831071.00 -17831070.89 -17831070.76 0.0089 0.0044
 Mercury -53532-06-06 16:18 J -17830982.94 -17830982.82 -17830982.69 0.0089 0.0038
 Mercury -53532-09-02 17:59 J -17830894.88 -17830894.75 -17830894.62 0.0089 0.0032
 Mercury -53532-11-29 19:40 J -17830806.82 -17830806.68 -17830806.55 0.0089 0.0026
 Mercury -53531-02-25 21:06 J -17830718.75 -17830718.62 -17830718.48 0.0089 0.0020
 Mercury -53531-05-24 22:47 J -17830630.69 -17830630.55 -17830630.41 0.0089 0.0014
 Mercury -53531-08-21 00:13 J -17830542.63 -17830542.49 -17830542.35 0.0089 0.0008
 Mercury -53531-11-17 01:54 J -17830454.56 -17830454.42 -17830454.28 0.0089 0.0002
 Mercury -53530-02-13 03:21 J -17830366.50 -17830366.36 -17830366.22 0.0089 0.0005
 Mercury -53530-05-12 05:01 J -17830278.43 -17830278.29 -17830278.15 0.0089 0.0011
 Earth -53530-07-26 12:57 J -17830203.08 -17830202.96 -17830202.79 0.0089 0.0073
 Moon -53530-07-26 16:33 J -17830202.94 -17830202.81 -17830202.64 0.0089 0.0071 *
 Mercury -53530-08-08 06:28 J -17830190.36 -17830190.23 -17830190.09 0.0089 0.0017
 Mercury -53530-11-04 07:54 J -17830102.30 -17830102.17 -17830102.03 0.0089 0.0023
 Mercury -53529-01-31 09:35 J -17830014.23 -17830014.10 -17830013.97 0.0089 0.0029
 Mercury -53529-04-28 11:01 J -17829926.16 -17829926.04 -17829925.91 0.0089 0.0035
 Mercury -53529-07-25 12:28 J -17829838.09 -17829837.98 -17829837.85 0.0089 0.0041
 Moon -53529-07-27 21:21 J -17829835.80 -17829835.61 -17829835.40 0.0089 0.0054
 Earth -53529-07-28 00:42 J -17829835.66 -17829835.47 -17829835.25 0.0089 0.0052 *
 Mercury -53529-10-21 13:54 J -17829750.03 -17829749.92 -17829749.79 0.0089 0.0047

Mercury -53528-01-17 15:35 J -17829661.96 -17829661.85 -17829661.73 0.0089 0.0052
 Mercury -53528-04-15 17:01 J -17829573.89 -17829573.79 -17829573.68 0.0089 0.0059
 Mercury -53528-07-12 18:28 J -17829485.81 -17829485.73 -17829485.62 0.0089 0.0065
 Earth -53528-07-30 11:59 J -17829468.23 -17829468.00 -17829467.75 0.0089 0.0032
 Moon -53528-07-30 15:49 J -17829468.08 -17829467.84 -17829467.60 0.0089 0.0031 *
 Mercury -53528-10-08 20:09 J -17829397.74 -17829397.66 -17829397.57 0.0089 0.0070
 Mercury -53527-01-04 21:35 J -17829309.66 -17829309.60 -17829309.53 0.0089 0.0076
 Mercury -53527-04-02 23:01 J -17829221.58 -17829221.54 -17829221.48 0.0089 0.0082
 Mercury -53527-06-30 00:28 J -17829133.49 -17829133.48 -17829133.45 0.0089 0.0088
 Moon -53527-08-01 20:23 J -17829100.89 -17829100.65 -17829100.39 0.0089 0.0013
 Earth -53527-08-01 23:30 J -17829100.77 -17829100.52 -17829100.26 0.0089 0.0011 *
 Earth -53526-08-04 10:33 J -17828733.31 -17828733.06 -17828732.80 0.0089 0.0009
 Moon -53526-08-04 12:28 J -17828733.24 -17828732.98 -17828732.71 0.0089 0.0010 *
 Moon -53525-08-05 20:09 J -17828365.88 -17828365.66 -17828365.41 0.0089 0.0030
 Earth -53525-08-05 21:21 J -17828365.84 -17828365.61 -17828365.35 0.0089 0.0030 *
 Moon -53524-08-08 07:40 J -17827998.38 -17827998.18 -17827997.95 0.0089 0.0051
 Earth -53524-08-08 08:23 J -17827998.35 -17827998.15 -17827997.93 0.0089 0.0050 *
 Earth -53523-08-10 19:25 J -17827630.84 -17827630.69 -17827630.53 0.0089 0.0070
 Moon -53523-08-10 21:06 J -17827630.77 -17827630.62 -17827630.46 0.0089 0.0069 *
 Venus -53491-10-03 06:28 J -17815889.33 -17815889.23 -17815889.12 0.0089 0.0076
 Venus -53490-05-16 17:59 J -17815663.90 -17815663.75 -17815663.58 0.0089 0.0059
 Venus -53490-12-28 05:59 J -17815438.43 -17815438.25 -17815438.05 0.0089 0.0040
 Venus -53489-08-09 17:59 J -17815212.95 -17815212.75 -17815212.54 0.0089 0.0022
 Venus -53488-03-23 05:59 J -17814987.46 -17814987.25 -17814987.04 0.0089 0.0003
 Venus -53488-11-03 17:45 J -17814761.97 -17814761.76 -17814761.55 0.0089 0.0015
 Venus -53487-06-17 05:30 J -17814536.46 -17814536.27 -17814536.07 0.0089 0.0033
 Venus -53486-01-28 17:30 J -17814310.95 -17814310.77 -17814310.60 0.0089 0.0052
 Venus -53486-09-11 05:01 J -17814085.40 -17814085.29 -17814085.14 0.0089 0.0070
 Venus -53485-04-23 16:47 J -17813859.81 -17813859.80 -17813859.75 0.0089 0.0088
 Mars -53475-07-17 01:11 J -17810123.58 -17810123.45 -17810123.28 0.0089 0.0075

Mars -53473-06-09 14:52 J -17809430.09 -17809429.88 -17809429.65 0.0089 0.0056
 Mars -53471-05-04 05:01 J -17808736.54 -17808736.29 -17808736.01 0.0089 0.0037
 Mars -53469-03-27 19:25 J -17808042.97 -17808042.69 -17808042.40 0.0089 0.0017
 Mars -53467-02-19 12:28 J -17807349.27 -17807348.98 -17807348.69 0.0089 0.0003
 Mars -53465-01-14 06:57 J -17806655.48 -17806655.21 -17806654.92 0.0089 0.0023
 Mars -53464-12-08 02:23 J -17805961.64 -17805961.40 -17805961.13 0.0089 0.0043
 Mars -53462-11-01 23:45 J -17805267.70 -17805267.51 -17805267.29 0.0089 0.0063
 Mars -53460-09-26 00:13 J -17804573.58 -17804573.49 -17804573.37 0.0089 0.0083
 Mercury -53452-12-19 10:04 J -17801567.09 -17801567.08 -17801567.04 0.0089 0.0088
 Mercury -53451-03-17 12:42 J -17801479.02 -17801478.97 -17801478.87 0.0089 0.0081
 Mercury -53451-06-13 15:49 J -17801390.92 -17801390.84 -17801390.72 0.0089 0.0073
 Mercury -53451-09-09 19:11 J -17801302.82 -17801302.70 -17801302.58 0.0089 0.0065
 Mercury -53451-12-06 21:49 J -17801214.71 -17801214.59 -17801214.45 0.0089 0.0058
 Mercury -53450-03-05 00:57 J -17801126.60 -17801126.46 -17801126.31 0.0089 0.0050
 Mercury -53450-06-01 03:35 J -17801038.49 -17801038.35 -17801038.18 0.0089 0.0043
 Mercury -53450-08-28 06:42 J -17800950.38 -17800950.22 -17800950.05 0.0089 0.0035
 Mercury -53450-11-24 09:49 J -17800862.26 -17800862.09 -17800861.92 0.0089 0.0027
 Mercury -53449-02-20 12:42 J -17800774.14 -17800773.97 -17800773.79 0.0089 0.0020
 Mercury -53449-05-18 15:49 J -17800686.02 -17800685.84 -17800685.66 0.0089 0.0012
 Mercury -53449-08-14 18:57 J -17800597.89 -17800597.71 -17800597.53 0.0089 0.0004
 Mercury -53449-11-10 21:49 J -17800509.77 -17800509.59 -17800509.41 0.0089 0.0004
 Earth -53448-01-20 06:28 J -17800439.33 -17800439.23 -17800439.08 0.0089 0.0078
 Moon -53448-01-20 10:04 J -17800439.16 -17800439.08 -17800438.96 0.0089 0.0082 *
 Mercury -53448-02-07 00:57 J -17800421.64 -17800421.46 -17800421.28 0.0089 0.0012
 Mercury -53448-05-06 03:49 J -17800333.51 -17800333.34 -17800333.16 0.0089 0.0020
 Mercury -53448-08-02 06:42 J -17800245.38 -17800245.22 -17800245.03 0.0089 0.0028
 Mercury -53448-10-29 10:04 J -17800157.25 -17800157.08 -17800156.91 0.0089 0.0035
 Moon -53447-01-22 15:49 J -17800072.03 -17800071.84 -17800071.63 0.0089 0.0053
 Earth -53447-01-22 18:57 J -17800071.90 -17800071.71 -17800071.51 0.0089 0.0057 *
 Mercury -53447-01-25 12:57 J -17800069.11 -17800068.96 -17800068.79 0.0089 0.0043

Mercury -53447-04-23 16:04 J -17799980.97 -17799980.83 -17799980.68 0.0089 0.0051
 Mercury -53447-07-20 19:11 J -17799892.83 -17799892.70 -17799892.56 0.0089 0.0059
 Mercury -53447-10-16 22:04 J -17799804.68 -17799804.58 -17799804.45 0.0089 0.0067
 Mercury -53446-01-13 01:11 J -17799716.53 -17799716.45 -17799716.34 0.0089 0.0075
 Earth -53446-01-25 06:28 J -17799704.45 -17799704.23 -17799703.98 0.0089 0.0037
 Moon -53446-01-25 09:06 J -17799704.35 -17799704.12 -17799703.88 0.0089 0.0041 *
 Mercury -53446-04-11 04:18 J -17799628.37 -17799628.32 -17799628.24 0.0089 0.0083
 Moon -53445-01-27 17:59 J -17799337.00 -17799336.75 -17799336.50 0.0089 0.0012
 Earth -53445-01-27 18:42 J -17799336.98 -17799336.72 -17799336.47 0.0089 0.0016 *
 Moon -53444-01-29 06:28 J -17798969.49 -17798969.23 -17798968.96 0.0089 0.0001
 Earth -53444-01-29 06:42 J -17798969.48 -17798969.22 -17798968.96 0.0089 0.0005 *
 Earth -53443-01-31 18:28 J -17798601.96 -17798601.73 -17798601.47 0.0089 0.0026
 Moon -53443-01-31 19:54 J -17798601.90 -17798601.67 -17798601.42 0.0089 0.0030 *
 Moon -53442-02-03 03:35 J -17798234.56 -17798234.35 -17798234.09 0.0089 0.0042
 Earth -53442-02-03 06:42 J -17798234.43 -17798234.22 -17798233.99 0.0089 0.0046 *
 Earth -53441-02-05 18:28 J -17797866.87 -17797866.73 -17797866.53 0.0089 0.0067
 Moon -53441-02-05 21:49 J -17797866.73 -17797866.59 -17797866.43 0.0089 0.0071 *
 Moon -53440-02-07 03:06 J -17797499.43 -17797499.37 -17797499.24 0.0089 0.0083
 Earth -53440-02-07 07:25 J -17797499.23 -17797499.19 -17797499.14 0.0089 0.0087
 Venus -53409-11-19 05:01 J -17785891.34 -17785891.29 -17785891.22 0.0088 0.0084
 Venus -53408-07-02 19:11 J -17785665.84 -17785665.70 -17785665.54 0.0088 0.0066
 Venus -53407-02-13 09:35 J -17785440.29 -17785440.10 -17785439.90 0.0088 0.0047
 Venus -53407-09-26 23:45 J -17785214.72 -17785214.51 -17785214.29 0.0088 0.0028
 Venus -53406-05-10 13:54 J -17784989.15 -17784988.92 -17784988.69 0.0088 0.0009
 Venus -53406-12-22 04:04 J -17784763.56 -17784763.33 -17784763.11 0.0088 0.0011
 Venus -53405-08-03 17:59 J -17784537.96 -17784537.75 -17784537.53 0.0088 0.0030
 Venus -53404-03-17 08:09 J -17784312.34 -17784312.16 -17784311.96 0.0088 0.0049
 Venus -53404-10-28 22:18 J -17784086.71 -17784086.57 -17784086.42 0.0088 0.0067
 Venus -53403-06-11 12:13 J -17783861.02 -17783860.99 -17783860.93 0.0088 0.0086
 Mars -53391-04-24 02:09 J -17779526.58 -17779526.41 -17779526.19 0.0088 0.0073

Mars -53389-03-20 11:16 J -17778830.30 -17778830.03 -17778829.72 0.0088 0.0050
 Mars -53387-02-14 18:57 J -17778134.01 -17778133.71 -17778133.36 0.0088 0.0027
 Mars -53385-01-12 00:13 J -17777437.83 -17777437.49 -17777437.14 0.0088 0.0003
 Mars -53384-12-08 01:40 J -17776741.74 -17776741.43 -17776741.08 0.0088 0.0021
 Mars -53382-11-04 01:40 J -17776045.71 -17776045.43 -17776045.12 0.0088 0.0043
 Mars -53380-09-29 23:30 J -17775349.73 -17775349.52 -17775349.28 0.0088 0.0065
 Mars -53378-08-26 17:01 J -17774653.82 -17774653.79 -17774653.67 0.0088 0.0087
 Mercury -53369-03-29 02:09 J -17771516.43 -17771516.41 -17771516.39 0.0089 0.0087
 Mercury -53369-06-25 03:35 J -17771428.40 -17771428.35 -17771428.28 0.0089 0.0081
 Mercury -53369-09-21 05:16 J -17771340.35 -17771340.28 -17771340.20 0.0089 0.0075
 Mercury -53369-12-18 06:42 J -17771252.29 -17771252.22 -17771252.12 0.0089 0.0069
 Mercury -53368-03-16 08:23 J -17771164.24 -17771164.15 -17771164.04 0.0089 0.0063
 Mercury -53368-06-12 10:18 J -17771076.18 -17771076.07 -17771075.96 0.0089 0.0056
 Mercury -53368-09-08 11:59 J -17770988.12 -17770988.00 -17770987.89 0.0089 0.0050
 Mercury -53368-12-05 13:25 J -17770900.06 -17770899.94 -17770899.81 0.0089 0.0044
 Mercury -53367-03-03 15:06 J -17770812.00 -17770811.87 -17770811.74 0.0089 0.0038
 Mercury -53367-05-30 16:33 J -17770723.94 -17770723.81 -17770723.67 0.0089 0.0032
 Mercury -53367-08-26 18:13 J -17770635.87 -17770635.74 -17770635.60 0.0089 0.0025
 Mercury -53367-11-22 19:40 J -17770547.81 -17770547.68 -17770547.53 0.0089 0.0020
 Mercury -53366-02-18 21:21 J -17770459.75 -17770459.61 -17770459.47 0.0089 0.0013
 Mercury -53366-05-17 23:01 J -17770371.68 -17770371.54 -17770371.40 0.0089 0.0007
 Moon -53366-07-25 13:40 J -17770302.93 -17770302.93 -17770302.89 0.0089 0.0088
 Earth -53366-07-25 17:30 J -17770302.83 -17770302.77 -17770302.67 0.0089 0.0084
 Mercury -53366-08-14 00:28 J -17770283.62 -17770283.48 -17770283.33 0.0089 0.0003
 Mercury -53366-11-10 02:09 J -17770195.55 -17770195.41 -17770195.27 0.0089 0.0005
 Mercury -53365-02-06 03:35 J -17770107.48 -17770107.35 -17770107.21 0.0089 0.0011
 Mercury -53365-05-04 05:01 J -17770019.42 -17770019.29 -17770019.14 0.0089 0.0018
 Earth -53365-07-27 04:47 J -17769935.46 -17769935.30 -17769935.10 0.0089 0.0064
 Moon -53365-07-27 07:54 J -17769935.34 -17769935.17 -17769934.95 0.0089 0.0060 *
 Mercury -53365-07-31 06:42 J -17769931.35 -17769931.22 -17769931.08 0.0089 0.0023

Mercury -53365-10-27 08:09 J -17769843.28 -17769843.16 -17769843.02 0.0089 0.0030
 Mercury -53364-01-23 09:35 J -17769755.22 -17769755.10 -17769754.96 0.0089 0.0036
 Mercury -53364-04-21 11:16 J -17769667.15 -17769667.03 -17769666.90 0.0089 0.0041
 Mercury -53364-07-18 12:57 J -17769579.08 -17769578.96 -17769578.84 0.0089 0.0047
 Moon -53364-07-29 13:54 J -17769568.13 -17769567.92 -17769567.70 0.0089 0.0047
 Earth -53364-07-29 16:18 J -17769568.03 -17769567.82 -17769567.58 0.0089 0.0043 *
 Mercury -53364-10-14 14:23 J -17769491.01 -17769490.90 -17769490.79 0.0089 0.0053
 Mercury -53363-01-10 15:49 J -17769402.94 -17769402.84 -17769402.73 0.0089 0.0059
 Mercury -53363-04-08 17:16 J -17769314.86 -17769314.78 -17769314.68 0.0089 0.0065
 Mercury -53363-07-05 18:42 J -17769226.79 -17769226.72 -17769226.63 0.0089 0.0071
 Earth -53363-08-01 03:49 J -17769200.58 -17769200.34 -17769200.08 0.0089 0.0023
 Moon -53363-08-01 05:45 J -17769200.51 -17769200.26 -17769199.99 0.0089 0.0018 *
 Mercury -53363-10-01 20:09 J -17769138.71 -17769138.66 -17769138.58 0.0089 0.0077
 Mercury -53363-12-28 21:35 J -17769050.63 -17769050.60 -17769050.54 0.0089 0.0083
 Mercury -53362-03-26 23:16 J -17768962.53 -17768962.53 -17768962.51 0.0089 0.0088
 Earth -53362-08-03 15:35 J -17768833.11 -17768832.85 -17768832.60 0.0089 0.0002
 Moon -53362-08-03 15:21 J -17768833.10 -17768832.86 -17768832.61 0.0089 0.0005 *
 Moon -53361-08-05 01:54 J -17768465.68 -17768465.42 -17768465.16 0.0089 0.0023
 Earth -53361-08-05 02:23 J -17768465.64 -17768465.40 -17768465.14 0.0089 0.0019 *
 Earth -53360-08-07 13:25 J -17768098.16 -17768097.94 -17768097.70 0.0089 0.0040
 Moon -53360-08-07 15:21 J -17768098.07 -17768097.86 -17768097.62 0.0089 0.0036 *
 Moon -53359-08-09 21:06 J -17767730.77 -17767730.62 -17767730.42 0.0089 0.0065
 Earth -53359-08-10 00:13 J -17767730.65 -17767730.49 -17767730.28 0.0089 0.0061 *
 Earth -53358-08-12 11:16 J -17767363.11 -17767363.03 -17767362.90 0.0089 0.0081
 Moon -53358-08-12 14:23 J -17767363.00 -17767362.90 -17767362.74 0.0089 0.0077 *
 Venus -53326-01-04 15:35 J -17755894.89 -17755894.85 -17755894.79 0.0089 0.0086
 Venus -53326-08-18 03:35 J -17755669.47 -17755669.35 -17755669.20 0.0089 0.0068
 Venus -53325-03-30 15:35 J -17755444.01 -17755443.85 -17755443.66 0.0089 0.0050
 Venus -53325-11-11 03:21 J -17755218.54 -17755218.36 -17755218.15 0.0089 0.0032
 Venus -53324-06-24 15:35 J -17754993.06 -17754992.85 -17754992.64 0.0089 0.0013

Venus -53323-02-05 03:21 J -17754767.57 -17754767.36 -17754767.14 0.0089 0.0005
 Venus -53323-09-18 15:21 J -17754542.06 -17754541.86 -17754541.65 0.0089 0.0023
 Venus -53322-05-02 02:52 J -17754316.55 -17754316.38 -17754316.18 0.0089 0.0042
 Venus -53322-12-13 14:37 J -17754091.03 -17754090.89 -17754090.71 0.0089 0.0060
 Venus -53321-07-26 02:37 J -17753865.47 -17753865.39 -17753865.27 0.0089 0.0079
 Mars -53311-03-01 13:11 J -17750360.05 -17750359.95 -17750359.78 0.0089 0.0078
 Mars -53309-01-24 00:42 J -17749666.66 -17749666.47 -17749666.24 0.0089 0.0059
 Mars -53308-12-17 14:09 J -17748973.15 -17748972.91 -17748972.64 0.0089 0.0040
 Mars -53306-11-11 05:45 J -17748279.54 -17748279.26 -17748278.98 0.0089 0.0021
 Mars -53304-10-04 20:09 J -17747585.95 -17747585.66 -17747585.37 0.0089 0.0002
 Mars -53302-08-29 12:42 J -17746892.25 -17746891.97 -17746891.68 0.0089 0.0018
 Mars -53300-07-23 07:25 J -17746198.44 -17746198.19 -17746197.91 0.0089 0.0038
 Mars -53298-06-17 02:52 J -17745504.58 -17745504.38 -17745504.13 0.0089 0.0058
 Mars -53296-05-10 23:59 J -17744810.61 -17744810.50 -17744810.33 0.0089 0.0078
 Saturn -53288-02-02 00:57 J -17741987.09 -17741986.46 -17741985.76 0.0089 0.0023
 Mercury -53287-09-15 07:40 J -17741396.20 -17741396.18 -17741396.13 0.0089 0.0087
 Mercury -53287-12-12 10:33 J -17741308.12 -17741308.06 -17741307.97 0.0089 0.0080
 Mercury -53286-03-10 13:40 J -17741220.02 -17741219.93 -17741219.82 0.0089 0.0072
 Mercury -53286-06-06 16:47 J -17741131.92 -17741131.80 -17741131.68 0.0089 0.0064
 Mercury -53286-09-02 19:25 J -17741043.81 -17741043.69 -17741043.54 0.0089 0.0057
 Mercury -53286-11-29 22:33 J -17740955.70 -17740955.56 -17740955.41 0.0089 0.0049
 Mercury -53285-02-26 01:11 J -17740867.59 -17740867.45 -17740867.28 0.0089 0.0042
 Mercury -53285-05-24 04:18 J -17740779.47 -17740779.32 -17740779.14 0.0089 0.0034
 Mercury -53285-08-20 07:25 J -17740691.36 -17740691.19 -17740691.02 0.0089 0.0026
 Mercury -53285-11-16 10:18 J -17740603.24 -17740603.07 -17740602.89 0.0089 0.0019
 Mercury -53284-02-12 13:25 J -17740515.12 -17740514.94 -17740514.76 0.0089 0.0011
 Mercury -53284-05-11 16:33 J -17740426.99 -17740426.81 -17740426.63 0.0089 0.0003
 Mercury -53284-08-07 19:25 J -17740338.87 -17740338.69 -17740338.51 0.0089 0.0005
 Mercury -53284-11-03 22:33 J -17740250.74 -17740250.56 -17740250.38 0.0089 0.0013
 Earth -53283-01-22 00:13 J -17740171.65 -17740171.49 -17740171.33 0.0089 0.0068

Moon -53283-01-22 01:25 J -17740171.60 -17740171.44 -17740171.25 0.0089 0.0067 *
 Mercury -53283-01-31 01:25 J -17740162.61 -17740162.44 -17740162.26 0.0089 0.0021
 Mercury -53283-04-29 04:18 J -17740074.48 -17740074.32 -17740074.14 0.0089 0.0029
 Mercury -53283-07-26 07:25 J -17739986.35 -17739986.19 -17739986.02 0.0089 0.0037
 Mercury -53283-10-22 10:18 J -17739898.21 -17739898.07 -17739897.90 0.0089 0.0045
 Mercury -53282-01-18 13:40 J -17739810.07 -17739809.93 -17739809.78 0.0089 0.0052
 Moon -53282-01-24 10:47 J -17739804.24 -17739804.05 -17739803.82 0.0089 0.0049
 Earth -53282-01-24 11:30 J -17739804.22 -17739804.02 -17739803.78 0.0089 0.0048 *
 Mercury -53282-04-16 16:47 J -17739721.93 -17739721.80 -17739721.66 0.0089 0.0060
 Mercury -53282-07-13 19:40 J -17739633.78 -17739633.68 -17739633.55 0.0089 0.0068
 Mercury -53282-10-09 22:47 J -17739545.63 -17739545.55 -17739545.44 0.0089 0.0076
 Mercury -53281-01-06 01:54 J -17739457.46 -17739457.42 -17739457.35 0.0089 0.0084
 Moon -53281-01-26 22:47 J -17739436.81 -17739436.55 -17739436.29 0.0089 0.0025
 Earth -53281-01-26 23:45 J -17739436.75 -17739436.51 -17739436.26 0.0089 0.0027 *
 Earth -53280-01-28 11:59 J -17739069.26 -17739069.00 -17739068.75 0.0089 0.0006
 Moon -53280-01-28 13:40 J -17739069.17 -17739068.93 -17739068.67 0.0089 0.0008 *
 Moon -53279-01-30 20:52 J -17738701.88 -17738701.63 -17738701.36 0.0089 0.0016
 Earth -53279-01-30 23:45 J -17738701.76 -17738701.51 -17738701.25 0.0089 0.0015 *
 Earth -53278-02-02 11:30 J -17738334.24 -17738334.02 -17738333.77 0.0089 0.0036
 Moon -53278-02-02 15:06 J -17738334.09 -17738333.87 -17738333.62 0.0089 0.0035 *
 Moon -53277-02-04 19:54 J -17737966.84 -17737966.67 -17737966.45 0.0089 0.0058
 Earth -53277-02-04 23:30 J -17737966.70 -17737966.52 -17737966.30 0.0089 0.0057 *
 Earth -53276-02-06 11:30 J -17737599.12 -17737599.02 -17737598.87 0.0089 0.0078
 Moon -53276-02-06 15:06 J -17737598.97 -17737598.87 -17737598.72 0.0089 0.0078 *
 Venus -53244-10-04 01:11 J -17725671.54 -17725671.45 -17725671.31 0.0088 0.0076
 Venus -53243-05-17 15:21 J -17725446.01 -17725445.86 -17725445.67 0.0088 0.0057
 Venus -53243-12-29 05:30 J -17725220.46 -17725220.27 -17725220.05 0.0088 0.0039
 Venus -53242-08-11 19:54 J -17724994.89 -17724994.67 -17724994.44 0.0088 0.0019
 Venus -53241-03-24 10:18 J -17724769.30 -17724769.07 -17724768.85 0.0088 0.0002
 Venus -53241-11-04 23:59 J -17724543.71 -17724543.50 -17724543.27 0.0088 0.0019

Venus -53240-06-18 14:23 J -17724318.11 -17724317.90 -17724317.70 0.0088 0.0038
 Venus -53239-01-30 04:18 J -17724092.48 -17724092.32 -17724092.14 0.0088 0.0057
 Venus -53239-09-12 18:13 J -17723866.84 -17723866.74 -17723866.61 0.0088 0.0076
 Mars -53228-12-04 21:49 J -17719765.75 -17719765.59 -17719765.42 0.0088 0.0077
 Mars -53226-11-01 07:40 J -17719069.41 -17719069.18 -17719068.87 0.0088 0.0055
 Mars -53224-09-27 16:33 J -17718373.11 -17718372.81 -17718372.46 0.0088 0.0031
 Mars -53222-08-24 23:59 J -17717676.83 -17717676.50 -17717676.15 0.0088 0.0008
 Mars -53220-07-21 04:47 J -17716980.62 -17716980.30 -17716979.95 0.0088 0.0015
 Mars -53218-06-17 05:59 J -17716284.53 -17716284.25 -17716283.92 0.0088 0.0038
 Mars -53216-05-13 05:01 J -17715588.50 -17715588.29 -17715588.00 0.0088 0.0060
 Mars -53214-04-09 02:52 J -17714892.49 -17714892.38 -17714892.21 0.0088 0.0081
 Mercury -53205-12-24 00:42 J -17711345.49 -17711345.47 -17711345.44 0.0089 0.0087
 Mercury -53204-03-22 02:09 J -17711257.46 -17711257.41 -17711257.34 0.0089 0.0081
 Mercury -53204-06-18 03:49 J -17711169.41 -17711169.34 -17711169.25 0.0089 0.0075
 Mercury -53204-09-14 05:16 J -17711081.35 -17711081.28 -17711081.17 0.0089 0.0069
 Mercury -53204-12-11 07:11 J -17710993.30 -17710993.20 -17710993.09 0.0089 0.0062
 Mercury -53203-03-09 08:52 J -17710905.24 -17710905.13 -17710905.02 0.0089 0.0056
 Mercury -53203-06-05 10:18 J -17710817.18 -17710817.07 -17710816.94 0.0089 0.0050
 Mercury -53203-09-01 11:59 J -17710729.12 -17710729.00 -17710728.87 0.0089 0.0044
 Mercury -53203-11-28 13:40 J -17710641.06 -17710640.93 -17710640.80 0.0089 0.0037
 Mercury -53202-02-24 15:06 J -17710552.99 -17710552.87 -17710552.73 0.0089 0.0032
 Mercury -53202-05-23 16:47 J -17710464.93 -17710464.80 -17710464.66 0.0089 0.0025
 Mercury -53202-08-19 18:28 J -17710376.87 -17710376.73 -17710376.59 0.0089 0.0019
 Mercury -53202-11-15 20:09 J -17710288.80 -17710288.66 -17710288.52 0.0089 0.0013
 Mercury -53201-02-11 21:35 J -17710200.74 -17710200.60 -17710200.46 0.0089 0.0007
 Mercury -53201-05-09 23:16 J -17710112.67 -17710112.53 -17710112.39 0.0089 0.0001
 Moon -53201-07-26 06:42 J -17710035.34 -17710035.22 -17710035.06 0.0089 0.0073
 Earth -53201-07-26 08:23 J -17710035.25 -17710035.15 -17710034.98 0.0089 0.0076 *
 Mercury -53201-08-06 00:42 J -17710024.61 -17710024.47 -17710024.33 0.0089 0.0006
 Mercury -53201-11-02 02:23 J -17709936.54 -17709936.40 -17709936.26 0.0089 0.0011

Mercury -53200-01-29 03:49 J -17709848.47 -17709848.34 -17709848.20 0.0089 0.0018

Mercury -53200-04-27 05:16 J -17709760.41 -17709760.28 -17709760.14 0.0089 0.0024

Mercury -53200-07-24 06:57 J -17709672.34 -17709672.21 -17709672.08 0.0089 0.0029

Earth -53200-07-28 20:09 J -17709667.84 -17709667.66 -17709667.44 0.0089 0.0055

Moon -53200-07-28 21:06 J -17709667.80 -17709667.62 -17709667.39 0.0089 0.0057 *

Mercury -53200-10-20 08:23 J -17709584.27 -17709584.15 -17709584.02 0.0089 0.0036

Mercury -53199-01-16 09:49 J -17709496.20 -17709496.09 -17709495.96 0.0089 0.0042

Mercury -53199-04-14 11:16 J -17709408.13 -17709408.03 -17709407.90 0.0089 0.0048

Mercury -53199-07-11 12:57 J -17709320.06 -17709319.96 -17709319.84 0.0089 0.0053

Earth -53199-07-31 07:40 J -17709300.40 -17709300.18 -17709299.93 0.0089 0.0034

Moon -53199-07-31 07:40 J -17709300.40 -17709300.18 -17709299.94 0.0089 0.0032 *

Mercury -53199-10-07 14:23 J -17709231.99 -17709231.90 -17709231.79 0.0089 0.0060

Mercury -53198-01-03 15:49 J -17709143.92 -17709143.84 -17709143.73 0.0089 0.0066

Mercury -53198-04-01 17:30 J -17709055.84 -17709055.77 -17709055.68 0.0089 0.0071

Mercury -53198-06-28 18:57 J -17708967.77 -17708967.71 -17708967.64 0.0089 0.0077

Moon -53198-08-02 17:16 J -17708933.03 -17708932.78 -17708932.51 0.0089 0.0016

Earth -53198-08-02 19:11 J -17708932.95 -17708932.70 -17708932.44 0.0089 0.0013 *

Mercury -53198-09-24 20:23 J -17708879.69 -17708879.65 -17708879.59 0.0089 0.0083

Mercury -53198-12-21 22:04 J -17708791.58 -17708791.58 -17708791.58 0.0089 0.0089

Earth -53197-08-04 06:28 J -17708565.48 -17708565.23 -17708564.97 0.0089 0.0009

Moon -53197-08-04 08:52 J -17708565.37 -17708565.13 -17708564.88 0.0089 0.0010 *

Moon -53196-08-06 14:23 J -17708198.13 -17708197.90 -17708197.64 0.0089 0.0028

Earth -53196-08-06 17:59 J -17708197.99 -17708197.75 -17708197.51 0.0089 0.0029 *

Earth -53195-08-09 04:47 J -17707830.50 -17707830.30 -17707830.08 0.0089 0.0050

Moon -53195-08-09 08:09 J -17707830.34 -17707830.16 -17707829.93 0.0089 0.0053 *

Moon -53194-08-11 12:42 J -17707463.12 -17707462.97 -17707462.80 0.0089 0.0069

Earth -53194-08-11 15:49 J -17707462.98 -17707462.84 -17707462.67 0.0089 0.0071 *

Venus -53162-11-19 12:42 J -17695675.05 -17695674.97 -17695674.85 0.0089 0.0078

Venus -53161-07-02 00:28 J -17695449.62 -17695449.48 -17695449.30 0.0089 0.0061

Venus -53160-02-12 12:28 J -17695224.15 -17695223.98 -17695223.78 0.0089 0.0042

Venus -53160-09-26 00:42 J -17694998.67 -17694998.47 -17694998.26 0.0089 0.0024

Venus -53159-05-09 12:42 J -17694773.19 -17694772.97 -17694772.76 0.0089 0.0006

Venus -53159-12-21 00:28 J -17694547.69 -17694547.48 -17694547.27 0.0089 0.0013

Venus -53158-08-03 12:28 J -17694322.18 -17694321.98 -17694321.78 0.0089 0.0031

Venus -53157-03-16 00:13 J -17694096.66 -17694096.49 -17694096.31 0.0089 0.0050

Venus -53157-10-27 11:45 J -17693871.13 -17693871.01 -17693870.85 0.0089 0.0068

Venus -53156-06-09 23:30 J -17693645.55 -17693645.52 -17693645.44 0.0089 0.0086

Mars -53148-10-15 00:13 J -17690596.60 -17690596.49 -17690596.36 0.0089 0.0080

Mars -53146-09-08 11:59 J -17689903.19 -17689903.00 -17689902.78 0.0089 0.0062

Mars -53144-08-01 23:30 J -17689209.74 -17689209.52 -17689209.24 0.0089 0.0044

Mars -53142-06-26 12:42 J -17688516.23 -17688515.97 -17688515.68 0.0089 0.0025

Mars -53140-05-20 04:18 J -17687822.60 -17687822.32 -17687822.02 0.0089 0.0006

Mars -53138-04-13 19:25 J -17687128.97 -17687128.69 -17687128.39 0.0089 0.0014

Mars -53136-03-07 11:59 J -17686435.26 -17686435.00 -17686434.72 0.0089 0.0033

Mars -53134-01-30 06:57 J -17685741.42 -17685741.21 -17685740.95 0.0089 0.0053

Mars -53133-12-24 03:49 J -17685047.49 -17685047.34 -17685047.15 0.0089 0.0072

Mercury -53122-06-12 05:16 J -17681225.31 -17681225.28 -17681225.22 0.0089 0.0086

Mercury -53122-09-08 08:09 J -17681137.22 -17681137.16 -17681137.06 0.0089 0.0079

Mercury -53122-12-05 11:16 J -17681049.13 -17681049.03 -17681048.92 0.0089 0.0071

Mercury -53121-03-02 13:54 J -17680961.03 -17680960.92 -17680960.78 0.0089 0.0064

Mercury -53121-05-29 17:01 J -17680872.92 -17680872.79 -17680872.65 0.0089 0.0056

Mercury -53121-08-25 19:40 J -17680784.81 -17680784.68 -17680784.51 0.0089 0.0049

Mercury -53121-11-21 22:47 J -17680696.70 -17680696.55 -17680696.38 0.0089 0.0041

Mercury -53120-02-18 01:54 J -17680608.58 -17680608.42 -17680608.25 0.0089 0.0033

Mercury -53120-05-17 04:47 J -17680520.46 -17680520.30 -17680520.12 0.0089 0.0026

Mercury -53120-08-13 07:54 J -17680432.34 -17680432.17 -17680431.99 0.0089 0.0018

Mercury -53120-11-09 11:01 J -17680344.22 -17680344.04 -17680343.87 0.0089 0.0010

Earth -53119-01-21 04:18 J -17680271.41 -17680271.32 -17680271.19 0.0089 0.0080

Moon -53119-01-21 04:33 J -17680271.36 -17680271.31 -17680271.21 0.0089 0.0084 *

Mercury -53119-02-05 13:54 J -17680256.10 -17680255.92 -17680255.74 0.0089 0.0002

Mercury -53119-05-04 16:47 J -17680167.98 -17680167.80 -17680167.62 0.0089 0.0006
 Mercury -53119-07-31 19:54 J -17680079.85 -17680079.67 -17680079.49 0.0089 0.0013
 Mercury -53119-10-27 22:47 J -17679991.72 -17679991.55 -17679991.37 0.0089 0.0022
 Moon -53118-01-23 15:06 J -17679904.06 -17679903.87 -17679903.65 0.0089 0.0055
 Earth -53118-01-23 16:18 J -17679904.00 -17679903.82 -17679903.62 0.0089 0.0059 *
 Mercury -53118-01-24 01:40 J -17679903.59 -17679903.43 -17679903.25 0.0089 0.0030
 Mercury -53118-04-22 05:01 J -17679815.45 -17679815.29 -17679815.13 0.0089 0.0037
 Mercury -53118-07-19 07:54 J -17679727.32 -17679727.17 -17679727.01 0.0089 0.0045
 Mercury -53118-10-15 11:01 J -17679639.18 -17679639.04 -17679638.89 0.0089 0.0053
 Mercury -53117-01-11 13:54 J -17679551.04 -17679550.92 -17679550.77 0.0089 0.0061
 Earth -53117-01-26 04:18 J -17679536.55 -17679536.32 -17679536.08 0.0089 0.0038
 Moon -53117-01-26 06:28 J -17679536.43 -17679536.23 -17679535.99 0.0089 0.0043 *
 Mercury -53117-04-08 17:01 J -17679462.89 -17679462.79 -17679462.66 0.0089 0.0069
 Mercury -53117-07-05 20:09 J -17679374.74 -17679374.66 -17679374.56 0.0089 0.0077
 Mercury -53117-10-01 23:16 J -17679286.57 -17679286.53 -17679286.47 0.0089 0.0085
 Moon -53116-01-27 12:42 J -17679169.21 -17679168.97 -17679168.70 0.0089 0.0014
 Earth -53116-01-27 16:18 J -17679169.07 -17679168.82 -17679168.56 0.0089 0.0017 *
 Earth -53115-01-30 04:04 J -17678801.58 -17678801.33 -17678801.06 0.0089 0.0005
 Moon -53115-01-30 07:40 J -17678801.44 -17678801.18 -17678800.92 0.0089 0.0001 *
 Moon -53114-02-01 12:28 J -17678434.22 -17678433.98 -17678433.73 0.0089 0.0030
 Earth -53114-02-01 15:49 J -17678434.07 -17678433.84 -17678433.58 0.0089 0.0026 *
 Earth -53113-02-04 03:35 J -17678066.55 -17678066.35 -17678066.11 0.0089 0.0047
 Moon -53113-02-04 06:57 J -17678066.44 -17678066.21 -17678065.97 0.0089 0.0042 *
 Moon -53112-02-05 13:25 J -17677699.07 -17677698.94 -17677698.77 0.0089 0.0072
 Earth -53112-02-05 16:18 J -17677698.99 -17677698.82 -17677698.65 0.0089 0.0067 *
 Moon -53111-02-08 04:47 J -17677331.36 -17677331.30 -17677331.18 0.0088 0.0084
 Earth -53111-02-08 03:49 J -17677331.34 -17677331.34 -17677331.30 0.0088 0.0088 *
 Jupiter -53083-07-31 05:01 J -17666931.76 -17666931.29 -17666930.73 0.0088 0.0033
 Venus -53079-01-05 07:25 J -17665677.23 -17665677.19 -17665677.15 0.0088 0.0087
 Venus -53079-08-18 21:06 J -17665451.74 -17665451.62 -17665451.46 0.0088 0.0068

Venus -53078-04-01 11:16 J -17665226.20 -17665226.03 -17665225.82 0.0088 0.0049
 Venus -53078-11-13 01:25 J -17665000.64 -17665000.44 -17665000.21 0.0088 0.0031
 Venus -53077-06-25 15:49 J -17664775.06 -17664774.84 -17664774.61 0.0088 0.0011
 Venus -53076-02-06 05:59 J -17664549.47 -17664549.25 -17664549.02 0.0088 0.0008
 Venus -53076-09-19 20:09 J -17664323.88 -17664323.66 -17664323.44 0.0088 0.0026
 Venus -53075-05-03 10:04 J -17664098.27 -17664098.08 -17664097.88 0.0088 0.0045
 Venus -53075-12-14 23:45 J -17663872.64 -17663872.51 -17663872.33 0.0088 0.0065
 Venus -53074-07-28 13:40 J -17663646.98 -17663646.93 -17663646.83 0.0088 0.0084
 Mars -53064-07-17 16:04 J -17660004.95 -17660004.83 -17660004.67 0.0088 0.0081
 Mars -53062-06-14 03:06 J -17659308.60 -17659308.37 -17659308.08 0.0088 0.0059
 Mars -53060-05-10 13:54 J -17658612.22 -17658611.92 -17658611.59 0.0088 0.0035
 Mars -53058-04-06 22:18 J -17657915.91 -17657915.57 -17657915.23 0.0088 0.0013
 Mars -53056-03-03 04:33 J -17657219.64 -17657219.31 -17657218.96 0.0088 0.0010
 Mars -53054-01-28 08:37 J -17656523.43 -17656523.14 -17656522.80 0.0088 0.0033
 Mars -53053-12-24 10:04 J -17655827.34 -17655827.08 -17655826.80 0.0088 0.0054
 Mars -53051-11-20 08:37 J -17655131.31 -17655131.14 -17655130.95 0.0088 0.0075
 Mercury -53040-09-19 23:01 J -17651174.56 -17651174.54 -17651174.51 0.0089 0.0087
 Mercury -53040-12-17 00:42 J -17651086.52 -17651086.47 -17651086.41 0.0089 0.0081
 Mercury -53039-03-15 02:09 J -17650998.47 -17650998.41 -17650998.32 0.0089 0.0075
 Mercury -53039-06-11 03:49 J -17650910.42 -17650910.34 -17650910.24 0.0089 0.0069
 Mercury -53039-09-07 05:45 J -17650822.36 -17650822.26 -17650822.16 0.0089 0.0062
 Mercury -53039-12-04 07:11 J -17650734.30 -17650734.20 -17650734.08 0.0089 0.0056
 Mercury -53038-03-02 08:52 J -17650646.24 -17650646.13 -17650646.01 0.0089 0.0050
 Mercury -53038-05-29 10:33 J -17650558.18 -17650558.06 -17650557.93 0.0089 0.0043
 Mercury -53038-08-25 11:59 J -17650470.12 -17650470.00 -17650469.86 0.0089 0.0038
 Mercury -53038-11-21 13:40 J -17650382.06 -17650381.93 -17650381.79 0.0089 0.0031
 Mercury -53037-02-17 15:21 J -17650293.99 -17650293.86 -17650293.72 0.0089 0.0025
 Mercury -53037-05-15 17:01 J -17650205.93 -17650205.79 -17650205.65 0.0089 0.0019
 Earth -53037-07-25 11:45 J -17650135.01 -17650135.01 -17650134.93 0.0089 0.0088
 Mercury -53037-08-11 18:42 J -17650117.86 -17650117.72 -17650117.58 0.0089 0.0013

Mercury -53037-11-07 20:09 J -17650029.80 -17650029.66 -17650029.52 0.0089 0.0007

Mercury -53036-02-03 21:49 J -17649941.73 -17649941.59 -17649941.45 0.0089 0.0002

Mercury -53036-05-02 23:16 J -17649853.67 -17649853.53 -17649853.39 0.0089 0.0006

Earth -53036-07-27 23:30 J -17649767.66 -17649767.52 -17649767.33 0.0089 0.0067

Moon -53036-07-28 00:42 J -17649767.63 -17649767.47 -17649767.28 0.0089 0.0064 *

Mercury -53036-07-30 00:57 J -17649765.60 -17649765.46 -17649765.32 0.0089 0.0012

Mercury -53036-10-26 02:23 J -17649677.54 -17649677.40 -17649677.26 0.0089 0.0018

Mercury -53035-01-22 03:49 J -17649589.47 -17649589.34 -17649589.20 0.0089 0.0024

Mercury -53035-04-20 05:30 J -17649501.40 -17649501.27 -17649501.14 0.0089 0.0030

Mercury -53035-07-17 06:57 J -17649413.33 -17649413.21 -17649413.08 0.0089 0.0036

Moon -53035-07-30 09:35 J -17649400.31 -17649400.10 -17649399.87 0.0089 0.0049

Earth -53035-07-30 11:01 J -17649400.24 -17649400.04 -17649399.80 0.0089 0.0046 *

Mercury -53035-10-13 08:23 J -17649325.26 -17649325.15 -17649325.02 0.0089 0.0042

Mercury -53034-01-09 10:04 J -17649237.19 -17649237.08 -17649236.96 0.0089 0.0048

Mercury -53034-04-07 11:30 J -17649149.12 -17649149.02 -17649148.90 0.0089 0.0054

Mercury -53034-07-04 12:57 J -17649061.05 -17649060.96 -17649060.85 0.0089 0.0060

Earth -53034-08-01 22:33 J -17649032.80 -17649032.56 -17649032.30 0.0089 0.0025

Moon -53034-08-02 01:40 J -17649032.67 -17649032.43 -17649032.18 0.0089 0.0021 *

Mercury -53034-09-30 14:23 J -17648972.98 -17648972.90 -17648972.79 0.0089 0.0066

Mercury -53034-12-27 15:49 J -17648884.90 -17648884.84 -17648884.74 0.0089 0.0072

Mercury -53033-03-24 17:45 J -17648796.83 -17648796.76 -17648796.69 0.0089 0.0077

Mercury -53033-06-20 19:11 J -17648708.74 -17648708.70 -17648708.65 0.0089 0.0083

Moon -53033-08-03 06:42 J -17648665.48 -17648665.22 -17648664.96 0.0089 0.0007

Earth -53033-08-03 10:04 J -17648665.33 -17648665.08 -17648664.82 0.0089 0.0004 *

Earth -53032-08-05 21:21 J -17648297.85 -17648297.61 -17648297.35 0.0089 0.0018

Moon -53032-08-06 00:42 J -17648297.70 -17648297.47 -17648297.20 0.0089 0.0023 *

Moon -53031-08-08 05:45 J -17647930.49 -17647930.26 -17647930.03 0.0089 0.0035

Earth -53031-08-08 08:52 J -17647930.35 -17647930.13 -17647929.89 0.0089 0.0039 *

Earth -53030-08-10 19:54 J -17647562.85 -17647562.67 -17647562.48 0.0089 0.0060

Moon -53030-08-10 22:04 J -17647562.75 -17647562.58 -17647562.38 0.0089 0.0064 *

Moon -53029-08-12 05:16 J -17647195.39 -17647195.28 -17647195.15 0.0089 0.0077

Earth -53029-08-12 06:57 J -17647195.30 -17647195.21 -17647195.09 0.0089 0.0081 *

53RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 53rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-52997-02-20 21:49 J	-17635680.60	-17635680.59	-17635680.56	0.0089	0.0088		
Venus	-52997-10-03 09:35 J	-17635455.22	-17635455.10	-17635454.96	0.0089	0.0070		
Venus	-52996-05-16 21:21 J	-17635229.77	-17635229.61	-17635229.42	0.0089	0.0053		
Venus	-52996-12-28 09:21 J	-17635004.30	-17635004.11	-17635003.90	0.0089	0.0034		
Venus	-52995-08-10 21:35 J	-17634778.81	-17634778.60	-17634778.39	0.0089	0.0016		
Venus	-52994-03-24 09:35 J	-17634553.31	-17634553.10	-17634552.89	0.0089	0.0002		
Venus	-52994-11-04 21:06 J	-17634327.81	-17634327.62	-17634327.40	0.0089	0.0022		
Venus	-52993-06-17 09:06 J	-17634102.30	-17634102.12	-17634101.92	0.0089	0.0039		
Venus	-52992-01-28 20:52 J	-17633876.78	-17633876.63	-17633876.45	0.0089	0.0057		
Venus	-52992-09-11 08:52 J	-17633651.22	-17633651.13	-17633651.00	0.0089	0.0076		
Mars	-52984-05-30 09:49 J	-17630833.16	-17630833.09	-17630832.96	0.0089	0.0083		
Mars	-52982-04-23 20:37 J	-17630139.81	-17630139.64	-17630139.42	0.0089	0.0066		
Mars	-52980-03-17 08:52 J	-17629446.35	-17629446.13	-17629445.86	0.0089	0.0047		
Mars	-52978-02-08 21:21 J	-17628752.87	-17628752.61	-17628752.33	0.0089	0.0028		
Mars	-52976-01-02 10:33 J	-17628059.35	-17628059.06	-17628058.78	0.0089	0.0009		
Mars	-52975-11-27 02:09 J	-17627365.70	-17627365.41	-17627365.12	0.0089	0.0009		

Mars -52973-10-20 18:28 J -17626672.00 -17626671.73 -17626671.45 0.0089 0.0028
 Mars -52971-09-14 10:18 J -17625978.29 -17625978.07 -17625977.79 0.0089 0.0048
 Mars -52969-08-08 05:45 J -17625284.42 -17625284.26 -17625284.04 0.0089 0.0067
 Mars -52967-07-03 02:52 J -17624590.42 -17624590.38 -17624590.27 0.0089 0.0086
 Mercury -52957-03-08 03:06 J -17621054.41 -17621054.37 -17621054.32 0.0089 0.0085
 Mercury -52957-06-04 05:45 J -17620966.33 -17620966.26 -17620966.16 0.0089 0.0078
 Mercury -52957-08-31 08:52 J -17620878.23 -17620878.13 -17620878.02 0.0089 0.0070
 Mercury -52957-11-27 11:30 J -17620790.13 -17620790.02 -17620789.88 0.0089 0.0063
 Mercury -52956-02-23 14:37 J -17620702.02 -17620701.89 -17620701.75 0.0089 0.0055
 Mercury -52956-05-22 17:16 J -17620613.91 -17620613.78 -17620613.61 0.0089 0.0048
 Mercury -52956-08-18 20:23 J -17620525.80 -17620525.65 -17620525.48 0.0089 0.0040
 Mercury -52956-11-14 23:30 J -17620437.68 -17620437.52 -17620437.35 0.0089 0.0032
 Mercury -52955-02-11 02:23 J -17620349.57 -17620349.40 -17620349.22 0.0089 0.0024
 Mercury -52955-05-10 05:16 J -17620261.45 -17620261.28 -17620261.10 0.0089 0.0017
 Mercury -52955-08-06 08:23 J -17620173.33 -17620173.15 -17620172.97 0.0089 0.0009
 Mercury -52955-11-02 11:16 J -17620085.20 -17620085.03 -17620084.85 0.0089 0.0003
 Earth -52954-01-22 20:52 J -17620003.76 -17620003.63 -17620003.45 0.0089 0.0071
 Moon -52954-01-22 23:30 J -17620003.66 -17620003.52 -17620003.34 0.0089 0.0069 *
 Mercury -52954-01-29 14:23 J -17619997.08 -17619996.90 -17619996.72 0.0089 0.0007
 Mercury -52954-04-27 17:16 J -17619908.95 -17619908.78 -17619908.60 0.0089 0.0015
 Mercury -52954-07-24 20:09 J -17619820.82 -17619820.66 -17619820.47 0.0089 0.0023
 Mercury -52954-10-20 23:30 J -17619732.69 -17619732.52 -17619732.35 0.0089 0.0030
 Mercury -52953-01-17 02:23 J -17619644.56 -17619644.40 -17619644.23 0.0089 0.0038
 Moon -52953-01-25 05:30 J -17619636.47 -17619636.27 -17619636.04 0.0089 0.0052
 Earth -52953-01-25 08:52 J -17619636.32 -17619636.13 -17619635.90 0.0089 0.0050 *
 Mercury -52953-04-14 05:16 J -17619556.42 -17619556.28 -17619556.11 0.0089 0.0046
 Mercury -52953-07-11 08:23 J -17619468.28 -17619468.15 -17619468.00 0.0089 0.0054
 Mercury -52953-10-07 11:16 J -17619380.14 -17619380.03 -17619379.88 0.0089 0.0062
 Mercury -52952-01-03 14:23 J -17619292.00 -17619291.90 -17619291.77 0.0089 0.0070
 Earth -52952-01-26 20:52 J -17619268.86 -17619268.63 -17619268.37 0.0089 0.0029

Moon -52952-01-27 00:42 J -17619268.71 -17619268.47 -17619268.22 0.0089 0.0026 *
 Mercury -52952-04-01 17:30 J -17619203.84 -17619203.77 -17619203.67 0.0089 0.0078
 Mercury -52952-06-28 20:37 J -17619115.67 -17619115.64 -17619115.58 0.0089 0.0086
 Moon -52951-01-29 05:45 J -17618901.51 -17618901.26 -17618901.00 0.0089 0.0008
 Earth -52951-01-29 09:06 J -17618901.38 -17618901.12 -17618900.86 0.0089 0.0007 *
 Earth -52950-01-31 20:52 J -17618533.88 -17618533.63 -17618533.37 0.0089 0.0015
 Moon -52950-01-31 23:59 J -17618533.76 -17618533.50 -17618533.24 0.0089 0.0016 *
 Moon -52949-02-03 07:25 J -17618166.42 -17618166.19 -17618165.95 0.0089 0.0034
 Earth -52949-02-03 08:52 J -17618166.36 -17618166.13 -17618165.89 0.0089 0.0036 *
 Earth -52948-02-04 20:37 J -17617798.83 -17617798.64 -17617798.43 0.0089 0.0057
 Moon -52948-02-04 21:21 J -17617798.80 -17617798.61 -17617798.40 0.0089 0.0058 *
 Earth -52947-02-07 08:52 J -17617431.25 -17617431.13 -17617431.01 0.0089 0.0078
 Moon -52947-02-07 09:06 J -17617431.23 -17617431.12 -17617430.99 0.0089 0.0077 *
 Venus -52915-11-20 03:06 J -17605457.46 -17605457.37 -17605457.25 0.0088 0.0079
 Venus -52914-07-03 17:30 J -17605231.93 -17605231.77 -17605231.60 0.0088 0.0060
 Venus -52913-02-14 07:25 J -17605006.37 -17605006.19 -17605005.97 0.0088 0.0041
 Venus -52913-09-26 21:49 J -17604780.81 -17604780.59 -17604780.36 0.0088 0.0022
 Venus -52912-05-10 11:59 J -17604555.23 -17604555.00 -17604554.77 0.0088 0.0003
 Venus -52912-12-22 02:09 J -17604329.64 -17604329.41 -17604329.19 0.0088 0.0016
 Venus -52911-08-04 16:04 J -17604104.04 -17604103.83 -17604103.62 0.0088 0.0034
 Venus -52910-03-18 05:59 J -17603878.42 -17603878.25 -17603878.06 0.0088 0.0053
 Venus -52910-10-29 19:40 J -17603652.78 -17603652.68 -17603652.52 0.0088 0.0072
 Mars -52900-02-27 08:23 J -17600244.22 -17600244.15 -17600244.01 0.0088 0.0084
 Mars -52898-01-24 21:06 J -17599547.84 -17599547.62 -17599547.35 0.0088 0.0062
 Mars -52897-12-21 07:54 J -17598851.45 -17598851.17 -17598850.83 0.0088 0.0041
 Mars -52895-11-17 18:28 J -17598155.06 -17598154.73 -17598154.39 0.0088 0.0017
 Mars -52893-10-14 02:23 J -17597458.73 -17597458.40 -17597458.05 0.0088 0.0005
 Mars -52891-09-10 07:54 J -17596762.47 -17596762.17 -17596761.82 0.0088 0.0027
 Mars -52889-08-06 12:28 J -17596066.25 -17596065.98 -17596065.69 0.0088 0.0049
 Mars -52887-07-03 13:25 J -17595370.13 -17595369.94 -17595369.72 0.0088 0.0070

Mercury -52875-06-16 21:35 J -17591003.62 -17591003.60 -17591003.57 0.0089 0.0087

Mercury -52875-09-12 23:01 J -17590915.58 -17590915.54 -17590915.47 0.0089 0.0081

Mercury -52875-12-10 00:42 J -17590827.53 -17590827.47 -17590827.38 0.0089 0.0075

Mercury -52874-03-08 02:23 J -17590739.48 -17590739.40 -17590739.30 0.0089 0.0068

Mercury -52874-06-04 04:18 J -17590651.42 -17590651.32 -17590651.22 0.0089 0.0062

Mercury -52874-08-31 05:45 J -17590563.37 -17590563.26 -17590563.15 0.0089 0.0056

Mercury -52874-11-27 07:25 J -17590475.31 -17590475.19 -17590475.07 0.0089 0.0050

Mercury -52873-02-23 08:52 J -17590387.24 -17590387.13 -17590387.00 0.0089 0.0044

Mercury -52873-05-21 10:33 J -17590299.18 -17590299.06 -17590298.92 0.0089 0.0037

Mercury -52873-08-17 12:13 J -17590211.12 -17590210.99 -17590210.85 0.0089 0.0031

Mercury -52873-11-13 13:54 J -17590123.06 -17590122.92 -17590122.78 0.0089 0.0025

Mercury -52872-02-09 15:35 J -17590034.99 -17590034.85 -17590034.72 0.0089 0.0019

Mercury -52872-05-08 17:01 J -17589946.93 -17589946.79 -17589946.65 0.0089 0.0013

Moon -52872-07-27 00:13 J -17589867.61 -17589867.49 -17589867.33 0.0089 0.0075

Earth -52872-07-27 02:52 J -17589867.47 -17589867.38 -17589867.24 0.0089 0.0079 *

Mercury -52872-08-04 18:42 J -17589858.86 -17589858.72 -17589858.58 0.0089 0.0007

Mercury -52872-10-31 20:09 J -17589770.80 -17589770.66 -17589770.51 0.0089 0.0003

Mercury -52871-01-27 21:49 J -17589682.73 -17589682.59 -17589682.45 0.0089 0.0006

Mercury -52871-04-25 23:16 J -17589594.66 -17589594.53 -17589594.39 0.0089 0.0012

Mercury -52871-07-23 00:57 J -17589506.60 -17589506.46 -17589506.32 0.0089 0.0018

Earth -52871-07-29 14:09 J -17589500.08 -17589499.91 -17589499.69 0.0089 0.0058

Moon -52871-07-29 17:16 J -17589499.95 -17589499.78 -17589499.58 0.0089 0.0061 *

Mercury -52871-10-19 02:23 J -17589418.53 -17589418.40 -17589418.26 0.0089 0.0024

Mercury -52870-01-15 04:04 J -17589330.46 -17589330.33 -17589330.20 0.0089 0.0030

Mercury -52870-04-13 05:30 J -17589242.39 -17589242.27 -17589242.14 0.0089 0.0036

Mercury -52870-07-10 06:57 J -17589154.32 -17589154.21 -17589154.08 0.0089 0.0042

Moon -52870-07-31 22:04 J -17589132.81 -17589132.58 -17589132.33 0.0089 0.0033

Earth -52870-08-01 01:40 J -17589132.65 -17589132.43 -17589132.18 0.0089 0.0037 *

Mercury -52870-10-06 08:37 J -17589066.25 -17589066.14 -17589066.02 0.0089 0.0048

Mercury -52869-01-02 10:04 J -17588978.18 -17588978.08 -17588977.96 0.0089 0.0054

Mercury -52869-03-30 11:30 J -17588890.11 -17588890.02 -17588889.91 0.0089 0.0060
 Mercury -52869-06-26 12:57 J -17588802.04 -17588801.96 -17588801.86 0.0089 0.0066
 Earth -52869-08-02 13:11 J -17588765.20 -17588764.95 -17588764.69 0.0089 0.0015
 Moon -52869-08-02 16:33 J -17588765.06 -17588764.81 -17588764.55 0.0089 0.0018 *
 Mercury -52869-09-22 14:23 J -17588713.97 -17588713.90 -17588713.80 0.0089 0.0072
 Mercury -52869-12-19 15:49 J -17588625.89 -17588625.84 -17588625.76 0.0089 0.0078
 Mercury -52868-03-17 17:45 J -17588537.80 -17588537.76 -17588537.71 0.0089 0.0083
 Moon -52868-08-04 21:35 J -17588397.85 -17588397.60 -17588397.34 0.0089 0.0009
 Earth -52868-08-05 00:28 J -17588397.73 -17588397.48 -17588397.21 0.0089 0.0007 *
 Earth -52867-08-07 11:30 J -17588030.25 -17588030.02 -17588029.76 0.0089 0.0028
 Moon -52867-08-07 13:54 J -17588030.16 -17588029.92 -17588029.66 0.0089 0.0025 *
 Moon -52866-08-09 22:18 J -17587662.76 -17587662.57 -17587662.36 0.0089 0.0052
 Earth -52866-08-09 23:01 J -17587662.75 -17587662.54 -17587662.32 0.0089 0.0049 *
 Moon -52865-08-11 09:49 J -17587295.24 -17587295.09 -17587294.89 0.0089 0.0068
 Earth -52865-08-11 10:33 J -17587295.22 -17587295.06 -17587294.91 0.0089 0.0070 *
 Venus -52832-01-04 17:59 J -17575460.81 -17575460.75 -17575460.64 0.0089 0.0081
 Venus -52832-08-18 05:59 J -17575235.38 -17575235.25 -17575235.08 0.0089 0.0064
 Venus -52831-03-31 17:59 J -17575009.92 -17575009.75 -17575009.55 0.0089 0.0045
 Venus -52831-11-12 06:13 J -17574784.44 -17574784.24 -17574784.04 0.0089 0.0027
 Venus -52830-06-25 17:59 J -17574558.96 -17574558.75 -17574558.53 0.0089 0.0009
 Venus -52829-02-06 05:45 J -17574333.46 -17574333.26 -17574333.04 0.0089 0.0011
 Venus -52829-09-18 17:45 J -17574107.95 -17574107.76 -17574107.55 0.0089 0.0028
 Venus -52828-05-02 05:30 J -17573882.44 -17573882.27 -17573882.07 0.0089 0.0047
 Venus -52828-12-13 17:30 J -17573656.90 -17573656.77 -17573656.61 0.0089 0.0064
 Venus -52827-07-27 05:45 J -17573431.33 -17573431.26 -17573431.18 0.0089 0.0082
 Mars -52820-01-12 20:09 J -17571069.72 -17571069.66 -17571069.56 0.0089 0.0086
 Mars -52819-12-07 06:42 J -17570376.37 -17570376.22 -17570376.01 0.0089 0.0068
 Mars -52817-10-30 17:45 J -17569682.97 -17569682.76 -17569682.50 0.0089 0.0050
 Mars -52815-09-24 06:28 J -17568989.48 -17568989.23 -17568988.95 0.0089 0.0032
 Mars -52813-08-17 19:40 J -17568295.96 -17568295.68 -17568295.39 0.0089 0.0013

Mars -52811-07-12 08:37 J -17567602.42 -17567602.14 -17567601.85 0.0089 0.0006
 Mars -52809-06-04 23:45 J -17566908.78 -17566908.51 -17566908.22 0.0089 0.0024
 Mars -52807-04-29 16:33 J -17566215.04 -17566214.81 -17566214.53 0.0089 0.0043
 Mars -52805-03-23 09:06 J -17565521.30 -17565521.12 -17565520.88 0.0089 0.0062
 Mars -52803-02-15 04:47 J -17564827.41 -17564827.30 -17564827.16 0.0089 0.0080
 Mercury -52793-12-03 00:42 J -17560883.52 -17560883.47 -17560883.42 0.0089 0.0084
 Mercury -52792-03-01 03:21 J -17560795.44 -17560795.36 -17560795.26 0.0089 0.0077
 Mercury -52792-05-28 05:59 J -17560707.34 -17560707.25 -17560707.12 0.0089 0.0070
 Mercury -52792-08-24 09:06 J -17560619.24 -17560619.12 -17560618.99 0.0089 0.0062
 Mercury -52792-11-20 12:13 J -17560531.13 -17560530.99 -17560530.85 0.0089 0.0054
 Mercury -52791-02-16 14:52 J -17560443.02 -17560442.88 -17560442.72 0.0089 0.0047
 Mercury -52791-05-15 17:59 J -17560354.91 -17560354.75 -17560354.59 0.0089 0.0039
 Mercury -52791-08-11 20:37 J -17560266.79 -17560266.64 -17560266.46 0.0089 0.0032
 Mercury -52791-11-07 23:45 J -17560178.68 -17560178.51 -17560178.33 0.0089 0.0024
 Moon -52790-01-21 21:49 J -17560103.63 -17560103.59 -17560103.50 0.0089 0.0086
 Earth -52790-01-22 01:11 J -17560103.51 -17560103.45 -17560103.33 0.0089 0.0083 *
 Mercury -52790-02-04 02:52 J -17560090.56 -17560090.38 -17560090.21 0.0089 0.0016
 Mercury -52790-05-03 05:45 J -17560002.44 -17560002.26 -17560002.08 0.0089 0.0008
 Mercury -52790-07-30 08:52 J -17559914.31 -17559914.13 -17559913.95 0.0089 0.0002
 Mercury -52790-10-26 11:45 J -17559826.19 -17559826.01 -17559825.83 0.0089 0.0007
 Mercury -52789-01-22 14:37 J -17559738.06 -17559737.89 -17559737.71 0.0089 0.0015
 Earth -52789-01-24 12:57 J -17559736.11 -17559735.96 -17559735.74 0.0089 0.0062
 Moon -52789-01-24 17:16 J -17559735.97 -17559735.78 -17559735.58 0.0089 0.0057 *
 Mercury -52789-04-19 17:45 J -17559649.93 -17559649.76 -17559649.59 0.0089 0.0023
 Mercury -52789-07-16 20:37 J -17559561.80 -17559561.64 -17559561.46 0.0089 0.0031
 Mercury -52789-10-12 23:45 J -17559473.67 -17559473.51 -17559473.34 0.0089 0.0039
 Mercury -52788-01-09 02:37 J -17559385.53 -17559385.39 -17559385.23 0.0089 0.0047
 Moon -52788-01-25 22:18 J -17559368.78 -17559368.57 -17559368.34 0.0089 0.0044
 Earth -52788-01-26 01:25 J -17559368.66 -17559368.44 -17559368.20 0.0089 0.0040 *
 Mercury -52788-04-07 05:30 J -17559297.39 -17559297.27 -17559297.11 0.0089 0.0055

Mercury -52788-07-04 08:37 J -17559209.25 -17559209.14 -17559209.00 0.0089 0.0063
 Mercury -52788-09-30 11:45 J -17559121.11 -17559121.01 -17559120.89 0.0089 0.0071
 Mercury -52788-12-27 14:37 J -17559032.95 -17559032.89 -17559032.78 0.0089 0.0079
 Earth -52787-01-28 13:11 J -17559001.19 -17559000.95 -17559000.68 0.0089 0.0019
 Moon -52787-01-28 15:35 J -17559001.10 -17559000.85 -17559000.58 0.0089 0.0015 *
 Mercury -52787-03-25 17:45 J -17558944.78 -17558944.76 -17558944.70 0.0089 0.0087
 Moon -52786-01-31 00:13 J -17558633.74 -17558633.49 -17558633.24 0.0089 0.0001
 Earth -52786-01-31 01:40 J -17558633.69 -17558633.43 -17558633.17 0.0089 0.0003 *
 Moon -52785-02-02 12:57 J -17558266.20 -17558265.96 -17558265.69 0.0089 0.0029
 Earth -52785-02-02 13:25 J -17558266.18 -17558265.94 -17558265.69 0.0089 0.0025 *
 Earth -52784-02-04 01:11 J -17557898.66 -17557898.45 -17557898.22 0.0089 0.0047
 Moon -52784-02-04 02:23 J -17557898.60 -17557898.40 -17557898.16 0.0089 0.0043 *
 Moon -52783-02-06 11:16 J -17557531.18 -17557531.03 -17557530.87 0.0089 0.0072
 Earth -52783-02-06 13:25 J -17557531.10 -17557530.94 -17557530.77 0.0089 0.0068 *
 Moon -52782-02-09 04:04 J -17557163.36 -17557163.33 -17557163.23 0.0089 0.0086
 Venus -52750-10-04 23:16 J -17545237.65 -17545237.53 -17545237.38 0.0088 0.0070
 Venus -52749-05-17 13:40 J -17545012.11 -17545011.93 -17545011.74 0.0088 0.0051
 Venus -52749-12-29 03:35 J -17544786.55 -17544786.35 -17544786.13 0.0088 0.0033
 Venus -52748-08-11 17:59 J -17544560.97 -17544560.75 -17544560.52 0.0088 0.0014
 Venus -52747-03-25 08:09 J -17544335.38 -17544335.16 -17544334.93 0.0088 0.0005
 Venus -52747-11-05 22:04 J -17544109.79 -17544109.58 -17544109.35 0.0088 0.0024
 Venus -52746-06-19 12:13 J -17543884.18 -17543883.99 -17543883.78 0.0088 0.0042
 Venus -52745-01-31 02:09 J -17543658.56 -17543658.41 -17543658.23 0.0088 0.0061
 Venus -52745-09-12 16:04 J -17543432.90 -17543432.83 -17543432.71 0.0088 0.0080
 Mars -52737-10-10 01:11 J -17540483.46 -17540483.45 -17540483.36 0.0088 0.0088
 Mars -52735-09-06 15:21 J -17539787.07 -17539786.86 -17539786.60 0.0088 0.0066
 Mars -52733-08-03 03:49 J -17539090.63 -17539090.34 -17539090.03 0.0088 0.0044
 Mars -52731-06-30 13:54 J -17538394.24 -17538393.92 -17538393.56 0.0088 0.0022
 Mars -52729-05-26 23:30 J -17537697.86 -17537697.52 -17537697.17 0.0088 0.0001
 Mars -52727-04-23 06:42 J -17537001.53 -17537001.22 -17537000.87 0.0088 0.0023

Mars -52725-03-19 11:59 J -17536305.28 -17536305.00 -17536304.69 0.0088 0.0044
 Mars -52723-02-13 15:35 J -17535609.06 -17535608.85 -17535608.60 0.0088 0.0065
 Mars -52721-01-10 16:04 J -17534912.88 -17534912.83 -17534912.70 0.0088 0.0086
 Saturn -52713-03-22 16:04 J -17531919.23 -17531918.83 -17531918.29 0.0088 0.0066
 Mercury -52710-03-13 20:09 J -17530832.68 -17530832.66 -17530832.64 0.0089 0.0087
 Mercury -52710-06-09 21:35 J -17530744.65 -17530744.60 -17530744.54 0.0089 0.0081
 Mercury -52710-09-05 23:16 J -17530656.60 -17530656.53 -17530656.45 0.0089 0.0075
 Mercury -52710-12-03 00:42 J -17530568.54 -17530568.47 -17530568.36 0.0089 0.0069
 Mercury -52709-02-29 02:37 J -17530480.49 -17530480.39 -17530480.28 0.0089 0.0062
 Mercury -52709-05-27 04:18 J -17530392.43 -17530392.32 -17530392.21 0.0089 0.0056
 Mercury -52709-08-23 05:45 J -17530304.37 -17530304.26 -17530304.13 0.0089 0.0050
 Mercury -52709-11-19 07:25 J -17530216.30 -17530216.19 -17530216.06 0.0089 0.0044
 Mercury -52708-02-15 09:06 J -17530128.24 -17530128.12 -17530127.98 0.0089 0.0037
 Mercury -52708-05-14 10:47 J -17530040.18 -17530040.05 -17530039.91 0.0089 0.0031
 Mercury -52708-08-10 12:28 J -17529952.12 -17529951.98 -17529951.84 0.0089 0.0025
 Mercury -52708-11-06 14:09 J -17529864.05 -17529863.91 -17529863.77 0.0089 0.0019
 Mercury -52707-02-02 15:35 J -17529775.99 -17529775.85 -17529775.71 0.0089 0.0013
 Mercury -52707-05-01 17:16 J -17529687.92 -17529687.78 -17529687.64 0.0089 0.0006
 Moon -52707-07-28 14:52 J -17529600.04 -17529599.88 -17529599.70 0.0089 0.0067
 Earth -52707-07-28 17:59 J -17529599.88 -17529599.75 -17529599.57 0.0089 0.0070 *
 Mercury -52707-07-28 18:57 J -17529599.86 -17529599.71 -17529599.57 0.0089 0.0003 *
 Mercury -52707-10-24 20:23 J -17529511.79 -17529511.65 -17529511.51 0.0089 0.0006
 Mercury -52706-01-20 22:04 J -17529423.72 -17529423.58 -17529423.44 0.0089 0.0012
 Mercury -52706-04-18 23:30 J -17529335.66 -17529335.52 -17529335.38 0.0089 0.0018
 Mercury -52706-07-16 01:11 J -17529247.59 -17529247.45 -17529247.32 0.0089 0.0024
 Earth -52706-07-31 05:45 J -17529232.47 -17529232.26 -17529232.04 0.0089 0.0048
 Moon -52706-07-31 08:52 J -17529232.32 -17529232.13 -17529231.90 0.0089 0.0052 *
 Mercury -52706-10-12 02:37 J -17529159.52 -17529159.39 -17529159.26 0.0089 0.0030
 Mercury -52705-01-08 04:18 J -17529071.45 -17529071.32 -17529071.20 0.0089 0.0036
 Mercury -52705-04-05 05:45 J -17528983.38 -17528983.26 -17528983.14 0.0089 0.0042

Mercury -52705-07-02 07:11 J -17528895.31 -17528895.20 -17528895.08 0.0089 0.0048
 Moon -52705-08-01 14:52 J -17528865.12 -17528864.88 -17528864.64 0.0089 0.0024
 Earth -52705-08-01 17:01 J -17528865.02 -17528864.79 -17528864.53 0.0089 0.0027 *
 Mercury -52705-09-28 08:52 J -17528807.24 -17528807.13 -17528807.02 0.0089 0.0054
 Mercury -52705-12-25 10:18 J -17528719.17 -17528719.07 -17528718.97 0.0089 0.0060
 Mercury -52704-03-23 11:45 J -17528631.10 -17528631.01 -17528630.91 0.0089 0.0066
 Mercury -52704-06-19 13:11 J -17528543.02 -17528542.95 -17528542.86 0.0089 0.0072
 Earth -52704-08-04 04:18 J -17528497.57 -17528497.32 -17528497.06 0.0089 0.0005
 Moon -52704-08-04 05:59 J -17528497.51 -17528497.25 -17528496.98 0.0089 0.0008 *
 Mercury -52704-09-15 14:37 J -17528454.94 -17528454.89 -17528454.81 0.0089 0.0078
 Mercury -52704-12-12 16:04 J -17528366.86 -17528366.83 -17528366.77 0.0089 0.0084
 Moon -52703-08-06 14:52 J -17528130.11 -17528129.88 -17528129.63 0.0089 0.0020
 Earth -52703-08-06 15:21 J -17528130.10 -17528129.86 -17528129.59 0.0089 0.0017 *
 Moon -52702-08-09 01:40 J -17527762.67 -17527762.43 -17527762.18 0.0089 0.0035
 Earth -52702-08-09 02:37 J -17527762.61 -17527762.39 -17527762.14 0.0089 0.0038 *
 Earth -52701-08-10 13:40 J -17527395.10 -17527394.93 -17527394.72 0.0089 0.0060
 Moon -52701-08-10 15:35 J -17527395.00 -17527394.85 -17527394.65 0.0089 0.0063 *
 Moon -52700-08-12 22:18 J -17527027.68 -17527027.57 -17527027.43 0.0089 0.0077
 Earth -52700-08-13 00:57 J -17527027.54 -17527027.46 -17527027.33 0.0089 0.0081 *
 Venus -52668-11-19 15:06 J -17515240.97 -17515240.87 -17515240.73 0.0089 0.0073
 Venus -52667-07-03 02:52 J -17515015.53 -17515015.38 -17515015.19 0.0089 0.0056
 Venus -52666-02-13 14:52 J -17514790.06 -17514789.88 -17514789.67 0.0089 0.0037
 Venus -52666-09-27 02:52 J -17514564.58 -17514564.38 -17514564.16 0.0089 0.0019
 Venus -52665-05-09 14:52 J -17514339.09 -17514338.88 -17514338.67 0.0089 0.0001
 Venus -52665-12-21 02:37 J -17514113.59 -17514113.39 -17514113.18 0.0089 0.0018
 Venus -52664-08-03 14:37 J -17513888.08 -17513887.89 -17513887.69 0.0089 0.0036
 Venus -52663-03-17 02:37 J -17513662.56 -17513662.39 -17513662.22 0.0089 0.0054
 Venus -52663-10-28 14:37 J -17513437.02 -17513436.89 -17513436.77 0.0089 0.0072
 Mars -52657-08-28 05:30 J -17511306.30 -17511306.27 -17511306.19 0.0089 0.0088
 Mars -52655-07-22 16:18 J -17510612.98 -17510612.82 -17510612.63 0.0089 0.0070

Mars -52653-06-15 03:35 J -17509919.56 -17509919.35 -17509919.10 0.0089 0.0053
 Mars -52651-05-09 14:09 J -17509226.15 -17509225.91 -17509225.63 0.0089 0.0035
 Mars -52649-04-02 02:52 J -17508532.65 -17508532.38 -17508532.09 0.0089 0.0017
 Mars -52647-02-24 16:33 J -17507839.10 -17507838.81 -17507838.52 0.0089 0.0002
 Mars -52645-01-19 05:59 J -17507145.52 -17507145.25 -17507144.96 0.0089 0.0020
 Mars -52644-12-12 21:35 J -17506451.86 -17506451.60 -17506451.34 0.0089 0.0039
 Mars -52642-11-06 14:52 J -17505758.07 -17505757.88 -17505757.62 0.0089 0.0057
 Mars -52640-09-30 08:37 J -17505064.27 -17505064.14 -17505063.96 0.0089 0.0075
 Mercury -52628-08-29 22:18 J -17500712.62 -17500712.57 -17500712.50 0.0089 0.0083
 Mercury -52628-11-26 00:57 J -17500624.54 -17500624.46 -17500624.36 0.0089 0.0076
 Mercury -52627-02-22 04:04 J -17500536.44 -17500536.33 -17500536.22 0.0089 0.0068
 Mercury -52627-05-21 06:42 J -17500448.34 -17500448.22 -17500448.08 0.0089 0.0061
 Mercury -52627-08-17 09:49 J -17500360.23 -17500360.09 -17500359.95 0.0089 0.0053
 Mercury -52627-11-13 12:28 J -17500272.12 -17500271.98 -17500271.82 0.0089 0.0046
 Mercury -52626-02-09 15:35 J -17500184.01 -17500183.85 -17500183.69 0.0089 0.0038
 Mercury -52626-05-08 18:13 J -17500095.89 -17500095.74 -17500095.56 0.0089 0.0031
 Mercury -52626-08-04 21:21 J -17500007.78 -17500007.61 -17500007.43 0.0089 0.0023
 Mercury -52626-11-01 00:28 J -17499919.66 -17499919.48 -17499919.31 0.0089 0.0015
 Moon -52625-01-23 15:06 J -17499836.00 -17499835.87 -17499835.70 0.0089 0.0071
 Earth -52625-01-23 18:13 J -17499835.87 -17499835.74 -17499835.58 0.0089 0.0073 *
 Mercury -52625-01-28 03:21 J -17499831.54 -17499831.36 -17499831.18 0.0089 0.0007
 Mercury -52625-04-25 06:13 J -17499743.42 -17499743.24 -17499743.06 0.0089 0.0002
 Mercury -52625-07-22 09:06 J -17499655.29 -17499655.12 -17499654.93 0.0089 0.0009
 Mercury -52625-10-18 12:13 J -17499567.16 -17499566.99 -17499566.81 0.0089 0.0016
 Mercury -52624-01-14 15:21 J -17499479.04 -17499478.86 -17499478.69 0.0089 0.0024
 Earth -52624-01-25 05:45 J -17499468.44 -17499468.26 -17499468.02 0.0089 0.0052
 Moon -52624-01-25 07:40 J -17499468.36 -17499468.18 -17499467.95 0.0089 0.0055 *
 Mercury -52624-04-12 18:13 J -17499390.91 -17499390.74 -17499390.57 0.0089 0.0032
 Mercury -52624-07-09 21:06 J -17499302.77 -17499302.62 -17499302.45 0.0089 0.0040
 Mercury -52624-10-05 23:59 J -17499214.64 -17499214.50 -17499214.33 0.0089 0.0048

Mercury -52623-01-02 03:06 J -17499126.50 -17499126.37 -17499126.22 0.0089 0.0056

Moon -52623-01-27 17:45 J -17499100.99 -17499100.76 -17499100.51 0.0089 0.0027

Earth -52623-01-27 18:13 J -17499100.98 -17499100.74 -17499100.49 0.0089 0.0030 *

Mercury -52623-03-31 05:59 J -17499038.36 -17499038.25 -17499038.11 0.0089 0.0064

Mercury -52623-06-27 09:06 J -17498950.21 -17498950.12 -17498950.00 0.0089 0.0072

Mercury -52623-09-23 12:13 J -17498862.05 -17498861.99 -17498861.90 0.0089 0.0080

Mercury -52623-12-20 15:06 J -17498773.87 -17498773.87 -17498773.82 0.0089 0.0088

Moon -52622-01-30 05:45 J -17498733.52 -17498733.26 -17498732.98 0.0089 0.0011

Earth -52622-01-30 06:13 J -17498733.49 -17498733.24 -17498732.98 0.0089 0.0008 *

Earth -52621-02-01 18:13 J -17498365.99 -17498365.74 -17498365.48 0.0089 0.0014

Moon -52621-02-01 20:09 J -17498365.91 -17498365.66 -17498365.41 0.0089 0.0017 *

Moon -52620-02-03 03:06 J -17497998.61 -17497998.37 -17497998.11 0.0089 0.0033

Earth -52620-02-03 05:59 J -17497998.47 -17497998.25 -17497998.00 0.0089 0.0036 *

Earth -52619-02-05 17:45 J -17497630.93 -17497630.76 -17497630.54 0.0089 0.0058

Moon -52619-02-05 21:06 J -17497630.79 -17497630.62 -17497630.42 0.0089 0.0060 *

Moon -52618-02-08 02:09 J -17497263.52 -17497263.41 -17497263.26 0.0089 0.0077

Earth -52618-02-08 05:45 J -17497263.35 -17497263.26 -17497263.12 0.0089 0.0080 *

Venus -52585-01-06 05:30 J -17485243.35 -17485243.27 -17485243.16 0.0088 0.0080

Venus -52585-08-18 19:25 J -17485017.83 -17485017.69 -17485017.50 0.0088 0.0062

Venus -52584-04-01 09:49 J -17484792.27 -17484792.09 -17484791.87 0.0088 0.0043

Venus -52584-11-13 00:13 J -17484566.70 -17484566.49 -17484566.27 0.0088 0.0024

Venus -52583-06-26 14:23 J -17484341.12 -17484340.90 -17484340.67 0.0088 0.0006

Venus -52582-02-07 04:33 J -17484115.53 -17484115.31 -17484115.08 0.0088 0.0013

Venus -52582-09-20 18:28 J -17483889.93 -17483889.73 -17483889.50 0.0088 0.0032

Venus -52581-05-03 08:52 J -17483664.31 -17483664.13 -17483663.94 0.0088 0.0050

Venus -52581-12-14 22:33 J -17483438.68 -17483438.56 -17483438.40 0.0088 0.0069

Venus -52580-07-28 12:28 J -17483212.98 -17483212.98 -17483212.94 0.0088 0.0088

Mars -52571-04-19 08:52 J -17480026.31 -17480026.13 -17480025.87 0.0088 0.0069

Mars -52569-03-15 22:47 J -17479329.82 -17479329.55 -17479329.23 0.0088 0.0047

Mars -52567-02-10 11:30 J -17478633.35 -17478633.02 -17478632.68 0.0088 0.0025

Mars -52565-01-07 21:35 J -17477936.94 -17477936.60 -17477936.25 0.0088 0.0004
 Mars -52564-12-04 06:13 J -17477240.57 -17477240.24 -17477239.90 0.0088 0.0018
 Mars -52562-10-31 13:11 J -17476544.24 -17476543.95 -17476543.62 0.0088 0.0039
 Mars -52560-09-26 17:30 J -17475847.98 -17475847.77 -17475847.48 0.0088 0.0061
 Mars -52558-08-23 20:23 J -17475151.75 -17475151.65 -17475151.47 0.0088 0.0081
 Mercury -52546-12-08 18:28 J -17470661.75 -17470661.73 -17470661.70 0.0089 0.0087
 Mercury -52545-03-05 19:54 J -17470573.71 -17470573.67 -17470573.60 0.0089 0.0081
 Mercury -52545-06-01 21:35 J -17470485.66 -17470485.60 -17470485.51 0.0089 0.0075
 Mercury -52545-08-28 23:30 J -17470397.61 -17470397.52 -17470397.43 0.0089 0.0068
 Mercury -52545-11-25 01:11 J -17470309.55 -17470309.45 -17470309.34 0.0089 0.0062
 Mercury -52544-02-21 02:37 J -17470221.49 -17470221.39 -17470221.27 0.0089 0.0056
 Mercury -52544-05-20 04:18 J -17470133.43 -17470133.32 -17470133.19 0.0089 0.0050
 Mercury -52544-08-16 06:13 J -17470045.37 -17470045.24 -17470045.12 0.0089 0.0043
 Mercury -52544-11-12 07:40 J -17469957.30 -17469957.18 -17469957.04 0.0089 0.0037
 Mercury -52543-02-08 09:21 J -17469869.24 -17469869.11 -17469868.97 0.0089 0.0031
 Mercury -52543-05-07 11:01 J -17469781.17 -17469781.04 -17469780.90 0.0089 0.0024
 Earth -52543-07-27 22:04 J -17469699.66 -17469699.58 -17469699.47 0.0089 0.0082
 Moon -52543-07-28 00:57 J -17469699.57 -17469699.46 -17469699.32 0.0089 0.0078 *
 Mercury -52543-08-03 12:28 J -17469693.11 -17469692.98 -17469692.83 0.0089 0.0019
 Mercury -52543-10-30 14:09 J -17469605.05 -17469604.91 -17469604.76 0.0089 0.0012
 Mercury -52542-01-26 15:49 J -17469516.98 -17469516.84 -17469516.70 0.0089 0.0006
 Mercury -52542-04-24 17:30 J -17469428.91 -17469428.77 -17469428.63 0.0089 0.0001
 Mercury -52542-07-21 18:57 J -17469340.85 -17469340.71 -17469340.57 0.0089 0.0007
 Moon -52542-07-30 07:11 J -17469332.36 -17469332.20 -17469332.01 0.0089 0.0064
 Earth -52542-07-30 09:49 J -17469332.27 -17469332.09 -17469331.90 0.0089 0.0060 *
 Mercury -52542-10-17 20:37 J -17469252.78 -17469252.64 -17469252.50 0.0089 0.0012
 Mercury -52541-01-13 22:04 J -17469164.71 -17469164.58 -17469164.44 0.0089 0.0019
 Mercury -52541-04-10 23:45 J -17469076.65 -17469076.51 -17469076.38 0.0089 0.0024
 Mercury -52541-07-08 01:11 J -17468988.58 -17468988.45 -17468988.31 0.0089 0.0031
 Earth -52541-07-31 20:52 J -17468964.85 -17468964.63 -17468964.38 0.0089 0.0039

Moon -52541-07-31 21:49 J -17468964.82 -17468964.59 -17468964.33 0.0089 0.0035 *
 Mercury -52541-10-04 02:37 J -17468900.51 -17468900.39 -17468900.25 0.0089 0.0037
 Mercury -52541-12-31 04:18 J -17468812.44 -17468812.32 -17468812.19 0.0089 0.0043
 Mercury -52540-03-29 05:45 J -17468724.37 -17468724.26 -17468724.14 0.0089 0.0049
 Mercury -52540-06-25 07:11 J -17468636.30 -17468636.20 -17468636.08 0.0089 0.0055
 Earth -52540-08-03 08:23 J -17468597.40 -17468597.15 -17468596.89 0.0089 0.0017
 Moon -52540-08-03 08:37 J -17468597.37 -17468597.14 -17468596.89 0.0089 0.0021 *
 Mercury -52540-09-21 08:37 J -17468548.23 -17468548.14 -17468548.02 0.0089 0.0061
 Mercury -52540-12-18 10:18 J -17468460.15 -17468460.07 -17468459.97 0.0089 0.0067
 Mercury -52539-03-16 11:45 J -17468372.08 -17468372.01 -17468371.92 0.0089 0.0073
 Mercury -52539-06-12 13:40 J -17468284.00 -17468283.93 -17468283.87 0.0089 0.0078
 Moon -52539-08-05 18:28 J -17468229.99 -17468229.73 -17468229.46 0.0089 0.0009
 Earth -52539-08-05 19:40 J -17468229.93 -17468229.68 -17468229.42 0.0089 0.0005 *
 Mercury -52539-09-08 14:52 J -17468195.91 -17468195.88 -17468195.83 0.0089 0.0084
 Earth -52538-08-08 06:42 J -17467862.45 -17467862.22 -17467861.96 0.0089 0.0027
 Moon -52538-08-08 09:35 J -17467862.34 -17467862.10 -17467861.86 0.0089 0.0023 *
 Moon -52537-08-09 14:23 J -17467495.08 -17467494.90 -17467494.66 0.0089 0.0053
 Earth -52537-08-09 17:45 J -17467494.95 -17467494.76 -17467494.52 0.0089 0.0049 *
 Earth -52536-08-12 05:01 J -17467127.43 -17467127.29 -17467127.12 0.0089 0.0070
 Moon -52536-08-12 08:23 J -17467127.30 -17467127.15 -17467126.97 0.0089 0.0067 *
 Venus -52503-02-20 23:59 J -17455246.55 -17455246.50 -17455246.41 0.0089 0.0084
 Venus -52503-10-04 11:59 J -17455021.13 -17455021.00 -17455020.84 0.0089 0.0065
 Venus -52502-05-17 23:59 J -17454795.67 -17454795.50 -17454795.31 0.0089 0.0047
 Venus -52502-12-29 11:45 J -17454570.20 -17454570.01 -17454569.80 0.0089 0.0030
 Venus -52501-08-10 23:59 J -17454344.71 -17454344.50 -17454344.29 0.0089 0.0011
 Venus -52500-03-24 11:45 J -17454119.22 -17454119.01 -17454118.79 0.0089 0.0007
 Venus -52500-11-04 23:30 J -17453893.72 -17453893.52 -17453893.31 0.0089 0.0025
 Venus -52499-06-18 11:16 J -17453668.20 -17453668.03 -17453667.83 0.0089 0.0043
 Venus -52498-01-29 23:01 J -17453442.68 -17453442.54 -17453442.37 0.0089 0.0061
 Venus -52498-09-12 11:01 J -17453217.12 -17453217.04 -17453216.93 0.0089 0.0079

Mars	-52493-04-12 17:16 J	-17451542.78	-17451542.78	-17451542.76	0.0089	0.0089
Mars	-52491-03-07 02:23 J	-17450849.54	-17450849.40	-17450849.21	0.0089	0.0073
Mars	-52489-01-29 12:42 J	-17450156.17	-17450155.97	-17450155.72	0.0089	0.0055
Mars	-52488-12-23 01:25 J	-17449462.70	-17449462.44	-17449462.18	0.0089	0.0038
Mars	-52486-11-16 12:13 J	-17448769.25	-17448768.99	-17448768.69	0.0089	0.0021
Mars	-52484-10-10 01:11 J	-17448075.74	-17448075.45	-17448075.17	0.0089	0.0002
Mars	-52482-09-03 15:06 J	-17447382.16	-17447381.87	-17447381.59	0.0089	0.0016
Mars	-52480-07-28 04:33 J	-17446688.55	-17446688.31	-17446688.02	0.0089	0.0036
Mars	-52478-06-21 19:25 J	-17445994.89	-17445994.69	-17445994.42	0.0089	0.0054
Mars	-52476-05-15 13:40 J	-17445301.10	-17445300.93	-17445300.74	0.0089	0.0070
Mars	-52474-04-09 07:54 J	-17444607.18	-17444607.17	-17444607.11	0.0089	0.0088
Mercury	-52463-05-26 19:54 J	-17440541.72	-17440541.67	-17440541.59	0.0089	0.0082
Mercury	-52463-08-22 23:01 J	-17440453.63	-17440453.54	-17440453.44	0.0089	0.0074
Mercury	-52463-11-19 01:40 J	-17440365.53	-17440365.43	-17440365.31	0.0089	0.0067
Mercury	-52462-02-15 04:47 J	-17440277.43	-17440277.30	-17440277.17	0.0089	0.0059
Mercury	-52462-05-14 07:25 J	-17440189.33	-17440189.19	-17440189.04	0.0089	0.0052
Mercury	-52462-08-10 10:33 J	-17440101.22	-17440101.06	-17440100.91	0.0089	0.0044
Mercury	-52462-11-06 13:11 J	-17440013.10	-17440012.95	-17440012.78	0.0089	0.0037
Earth	-52461-01-22 23:16 J	-17439935.58	-17439935.53	-17439935.43	0.0089	0.0085
Moon	-52461-01-23 00:42 J	-17439935.48	-17439935.47	-17439935.40	0.0089	0.0088 *
Mercury	-52461-02-02 16:04 J	-17439924.99	-17439924.83	-17439924.65	0.0089	0.0029
Mercury	-52461-04-30 18:57 J	-17439836.87	-17439836.71	-17439836.53	0.0089	0.0022
Mercury	-52461-07-27 22:04 J	-17439748.76	-17439748.58	-17439748.40	0.0089	0.0014
Mercury	-52461-10-24 00:57 J	-17439660.64	-17439660.46	-17439660.28	0.0089	0.0006
Mercury	-52460-01-20 04:04 J	-17439572.51	-17439572.33	-17439572.15	0.0089	0.0003
Moon	-52460-01-24 11:16 J	-17439568.20	-17439568.03	-17439567.84	0.0089	0.0060
Earth	-52460-01-24 11:30 J	-17439568.19	-17439568.02	-17439567.83	0.0089	0.0063 *
Mercury	-52460-04-18 06:57 J	-17439484.39	-17439484.21	-17439484.03	0.0089	0.0010
Mercury	-52460-07-15 09:49 J	-17439396.26	-17439396.09	-17439395.91	0.0089	0.0018
Mercury	-52460-10-11 12:42 J	-17439308.13	-17439307.97	-17439307.79	0.0089	0.0026

Mercury -52459-01-07 15:49 J -17439220.00 -17439219.84 -17439219.67 0.0089 0.0033

Moon -52459-01-26 21:35 J -17439200.81 -17439200.60 -17439200.35 0.0089 0.0044

Earth -52459-01-26 23:30 J -17439200.74 -17439200.52 -17439200.29 0.0089 0.0041 *

Mercury -52459-04-05 18:42 J -17439131.87 -17439131.72 -17439131.55 0.0089 0.0041

Mercury -52459-07-02 21:49 J -17439043.74 -17439043.59 -17439043.43 0.0089 0.0049

Mercury -52459-09-29 00:42 J -17438955.60 -17438955.47 -17438955.32 0.0089 0.0057

Mercury -52459-12-26 03:49 J -17438867.45 -17438867.34 -17438867.21 0.0089 0.0065

Earth -52458-01-29 11:16 J -17438833.27 -17438833.03 -17438832.76 0.0089 0.0020

Moon -52458-01-29 13:25 J -17438833.18 -17438832.94 -17438832.68 0.0089 0.0016 *

Mercury -52458-03-24 06:42 J -17438779.31 -17438779.22 -17438779.10 0.0089 0.0073

Mercury -52458-06-20 09:49 J -17438691.15 -17438691.09 -17438691.00 0.0089 0.0081

Mercury -52458-09-16 13:11 J -17438602.95 -17438602.95 -17438602.94 0.0089 0.0089

Moon -52457-01-31 20:23 J -17438465.91 -17438465.65 -17438465.38 0.0089 0.0001

Earth -52457-01-31 23:30 J -17438465.78 -17438465.52 -17438465.26 0.0089 0.0003 *

Earth -52456-02-02 11:30 J -17438098.26 -17438098.02 -17438097.77 0.0089 0.0025

Moon -52456-02-02 14:52 J -17438098.11 -17438097.88 -17438097.62 0.0089 0.0029 *

Moon -52455-02-04 19:54 J -17437730.87 -17437730.67 -17437730.43 0.0089 0.0044

Earth -52455-02-04 23:45 J -17437730.73 -17437730.51 -17437730.29 0.0089 0.0047 *

Earth -52454-02-07 11:30 J -17437363.17 -17437363.02 -17437362.85 0.0089 0.0069

Moon -52454-02-07 14:52 J -17437363.01 -17437362.88 -17437362.72 0.0089 0.0073 *

Moon -52453-02-09 21:21 J -17436995.62 -17436995.61 -17436995.56 0.0089 0.0088

Venus -52421-11-20 02:37 J -17425023.51 -17425023.39 -17425023.24 0.0088 0.0071

Venus -52420-07-03 16:33 J -17424797.97 -17424797.81 -17424797.60 0.0088 0.0053

Venus -52419-02-14 07:11 J -17424572.40 -17424572.20 -17424571.98 0.0088 0.0034

Venus -52419-09-27 21:35 J -17424346.83 -17424346.60 -17424346.38 0.0088 0.0015

Venus -52418-05-11 11:45 J -17424121.24 -17424121.01 -17424120.79 0.0088 0.0004

Venus -52418-12-23 01:40 J -17423895.65 -17423895.43 -17423895.20 0.0088 0.0022

Venus -52417-08-04 15:49 J -17423670.04 -17423669.84 -17423669.63 0.0088 0.0041

Venus -52416-03-18 05:45 J -17423444.41 -17423444.26 -17423444.07 0.0088 0.0060

Venus -52416-10-29 19:40 J -17423218.76 -17423218.68 -17423218.55 0.0088 0.0078

Mars	-52408-11-30 05:16 J	-17420265.46	-17420265.28	-17420265.05	0.0088	0.0071
Mars	-52406-10-27 18:57 J	-17419568.97	-17419568.71	-17419568.40	0.0088	0.0050
Mars	-52404-09-23 07:54 J	-17418872.47	-17418872.17	-17418871.81	0.0088	0.0029
Mars	-52402-08-20 20:23 J	-17418175.99	-17418175.65	-17418175.30	0.0088	0.0007
Mars	-52400-07-17 05:59 J	-17417479.58	-17417479.25	-17417478.90	0.0088	0.0014
Mars	-52398-06-13 13:40 J	-17416783.22	-17416782.93	-17416782.59	0.0088	0.0035
Mars	-52396-05-09 20:37 J	-17416086.89	-17416086.64	-17416086.36	0.0088	0.0056
Mars	-52394-04-06 01:25 J	-17415390.61	-17415390.44	-17415390.26	0.0088	0.0076
Mercury	-52381-09-03 17:01 J	-17410490.81	-17410490.79	-17410490.75	0.0088	0.0086
Mercury	-52381-11-30 18:57 J	-17410402.77	-17410402.71	-17410402.65	0.0089	0.0080
Mercury	-52380-02-26 20:23 J	-17410314.72	-17410314.65	-17410314.56	0.0089	0.0074
Mercury	-52380-05-25 22:04 J	-17410226.66	-17410226.58	-17410226.48	0.0089	0.0068
Mercury	-52380-08-21 23:59 J	-17410138.60	-17410138.50	-17410138.40	0.0089	0.0061
Mercury	-52380-11-18 01:25 J	-17410050.54	-17410050.44	-17410050.32	0.0089	0.0055
Mercury	-52379-02-14 03:06 J	-17409962.48	-17409962.37	-17409962.24	0.0089	0.0049
Mercury	-52379-05-13 04:47 J	-17409874.42	-17409874.30	-17409874.17	0.0089	0.0042
Mercury	-52379-08-09 06:28 J	-17409786.35	-17409786.23	-17409786.09	0.0089	0.0036
Mercury	-52379-11-05 08:09 J	-17409698.29	-17409698.16	-17409698.02	0.0089	0.0030
Mercury	-52378-02-01 09:49 J	-17409610.23	-17409610.09	-17409609.95	0.0089	0.0024
Mercury	-52378-04-30 11:30 J	-17409522.16	-17409522.02	-17409521.88	0.0089	0.0017
Mercury	-52378-07-27 12:57 J	-17409434.10	-17409433.96	-17409433.81	0.0089	0.0012
Earth	-52378-07-29 14:52 J	-17409432.02	-17409431.88	-17409431.73	0.0089	0.0072
Moon	-52378-07-29 15:21 J	-17409432.01	-17409431.86	-17409431.68	0.0089	0.0070 *
Mercury	-52378-10-23 14:37 J	-17409346.03	-17409345.89	-17409345.75	0.0089	0.0005
Mercury	-52377-01-19 16:18 J	-17409257.96	-17409257.82	-17409257.68	0.0089	0.0002
Mercury	-52377-04-16 17:45 J	-17409169.90	-17409169.76	-17409169.61	0.0089	0.0008
Mercury	-52377-07-13 19:25 J	-17409081.83	-17409081.69	-17409081.55	0.0089	0.0013
Earth	-52377-07-31 02:23 J	-17409064.61	-17409064.40	-17409064.19	0.0089	0.0050
Moon	-52377-07-31 02:37 J	-17409064.57	-17409064.39	-17409064.17	0.0089	0.0053 *
Mercury	-52377-10-09 20:52 J	-17408993.76	-17408993.63	-17408993.49	0.0089	0.0020

Mercury -52376-01-05 22:33 J -17408905.69 -17408905.56 -17408905.42 0.0089 0.0025
 Mercury -52376-04-03 23:59 J -17408817.63 -17408817.50 -17408817.36 0.0089 0.0032
 Mercury -52376-07-01 01:40 J -17408729.56 -17408729.43 -17408729.30 0.0089 0.0038
 Moon -52376-08-02 11:16 J -17408697.28 -17408697.03 -17408696.77 0.0089 0.0027
 Earth -52376-08-02 13:40 J -17408697.17 -17408696.93 -17408696.69 0.0089 0.0028 *
 Mercury -52376-09-27 03:06 J -17408641.49 -17408641.37 -17408641.24 0.0089 0.0044
 Mercury -52376-12-24 04:33 J -17408553.42 -17408553.31 -17408553.19 0.0089 0.0050
 Mercury -52375-03-22 05:59 J -17408465.34 -17408465.25 -17408465.13 0.0089 0.0056
 Mercury -52375-06-18 07:40 J -17408377.27 -17408377.18 -17408377.07 0.0089 0.0062
 Earth -52375-08-05 00:57 J -17408329.72 -17408329.46 -17408329.20 0.0089 0.0006
 Moon -52375-08-05 03:21 J -17408329.60 -17408329.36 -17408329.10 0.0089 0.0009 *
 Mercury -52375-09-14 09:06 J -17408289.20 -17408289.12 -17408289.02 0.0089 0.0068
 Mercury -52375-12-11 10:33 J -17408201.12 -17408201.06 -17408200.97 0.0089 0.0074
 Mercury -52374-03-09 11:59 J -17408113.04 -17408113.00 -17408112.92 0.0089 0.0080
 Mercury -52374-06-05 13:54 J -17408024.95 -17408024.92 -17408024.88 0.0089 0.0085
 Moon -52374-08-07 08:23 J -17407962.39 -17407962.15 -17407961.88 0.0089 0.0019
 Earth -52374-08-07 12:13 J -17407962.24 -17407961.99 -17407961.74 0.0089 0.0016 *
 Earth -52373-08-08 22:47 J -17407594.76 -17407594.55 -17407594.30 0.0089 0.0038
 Moon -52373-08-09 02:23 J -17407594.62 -17407594.40 -17407594.15 0.0089 0.0036 *
 Moon -52372-08-11 06:28 J -17407227.38 -17407227.23 -17407227.02 0.0089 0.0063
 Earth -52372-08-11 09:49 J -17407227.25 -17407227.09 -17407226.87 0.0089 0.0060 *
 Earth -52371-08-13 20:52 J -17406859.70 -17406859.63 -17406859.50 0.0089 0.0082
 Moon -52371-08-14 00:13 J -17406859.60 -17406859.49 -17406859.36 0.0089 0.0078 *
 Jupiter -52342-07-17 20:37 J -17396295.14 -17396294.64 -17396294.09 0.0089 0.0019
 Venus -52338-01-05 21:21 J -17395026.71 -17395026.61 -17395026.48 0.0089 0.0075
 Venus -52338-08-19 09:21 J -17394801.26 -17394801.11 -17394800.93 0.0089 0.0058
 Venus -52337-03-31 21:21 J -17394575.79 -17394575.61 -17394575.41 0.0089 0.0040
 Venus -52337-11-12 09:21 J -17394350.31 -17394350.11 -17394349.90 0.0089 0.0021
 Venus -52336-06-25 21:06 J -17394124.83 -17394124.62 -17394124.40 0.0089 0.0004
 Venus -52335-02-06 09:06 J -17393899.33 -17393899.12 -17393898.91 0.0089 0.0015

Venus	-52335-09-19 20:37 J	-17393673.82	-17393673.64	-17393673.43	0.0089	0.0033
Venus	-52334-05-03 08:52 J	-17393448.30	-17393448.13	-17393447.95	0.0089	0.0051
Venus	-52334-12-14 20:37 J	-17393222.77	-17393222.64	-17393222.50	0.0089	0.0069
Venus	-52333-07-27 08:37 J	-17392997.18	-17392997.14	-17392997.09	0.0089	0.0087
Mars	-52328-10-20 14:23 J	-17391086.03	-17391085.90	-17391085.71	0.0089	0.0074
Mars	-52326-09-14 00:28 J	-17390392.67	-17390392.48	-17390392.24	0.0089	0.0057
Mars	-52324-08-07 10:33 J	-17389699.29	-17389699.06	-17389698.78	0.0089	0.0041
Mars	-52322-07-01 23:16 J	-17389005.80	-17389005.53	-17389005.25	0.0089	0.0023
Mars	-52320-05-25 11:16 J	-17388312.31	-17388312.03	-17388311.74	0.0089	0.0005
Mars	-52318-04-18 23:16 J	-17387618.80	-17387618.53	-17387618.24	0.0089	0.0014
Mars	-52316-03-12 13:25 J	-17386925.19	-17386924.94	-17386924.65	0.0089	0.0031
Mars	-52314-02-04 04:04 J	-17386231.54	-17386231.33	-17386231.06	0.0089	0.0049
Mars	-52313-12-28 20:23 J	-17385537.84	-17385537.65	-17385537.46	0.0089	0.0067
Mars	-52311-11-22 13:25 J	-17384844.00	-17384843.94	-17384843.81	0.0089	0.0084
Mercury	-52299-11-24 14:52 J	-17380458.88	-17380458.88	-17380458.83	0.0089	0.0088
Mercury	-52298-02-20 17:59 J	-17380370.81	-17380370.75	-17380370.67	0.0089	0.0080
Mercury	-52298-05-19 20:37 J	-17380282.72	-17380282.64	-17380282.52	0.0089	0.0073
Mercury	-52298-08-15 23:45 J	-17380194.62	-17380194.51	-17380194.39	0.0089	0.0065
Mercury	-52298-11-12 02:23 J	-17380106.52	-17380106.40	-17380106.26	0.0089	0.0058
Mercury	-52297-02-08 05:30 J	-17380018.41	-17380018.27	-17380018.12	0.0089	0.0050
Mercury	-52297-05-06 08:09 J	-17379930.30	-17379930.16	-17379930.00	0.0089	0.0043
Mercury	-52297-08-02 11:01 J	-17379842.19	-17379842.04	-17379841.87	0.0089	0.0035
Mercury	-52297-10-29 14:09 J	-17379754.08	-17379753.91	-17379753.74	0.0089	0.0027
Moon	-52296-01-23 15:49 J	-17379667.98	-17379667.84	-17379667.67	0.0089	0.0071
Earth	-52296-01-23 17:01 J	-17379667.90	-17379667.79	-17379667.63	0.0089	0.0075 *
Mercury	-52296-01-25 16:47 J	-17379665.96	-17379665.80	-17379665.62	0.0089	0.0020
Mercury	-52296-04-23 19:54 J	-17379577.84	-17379577.67	-17379577.49	0.0089	0.0012
Mercury	-52296-07-20 22:47 J	-17379489.72	-17379489.55	-17379489.37	0.0089	0.0004
Mercury	-52296-10-17 01:54 J	-17379401.60	-17379401.42	-17379401.25	0.0089	0.0004
Mercury	-52295-01-13 04:33 J	-17379313.48	-17379313.31	-17379313.12	0.0089	0.0012

Earth -52295-01-26 04:47 J -17379300.48 -17379300.30 -17379300.07 0.0089 0.0053
 Moon -52295-01-26 07:40 J -17379300.35 -17379300.18 -17379299.96 0.0089 0.0057 *
 Mercury -52295-04-11 07:40 J -17379225.35 -17379225.18 -17379225.00 0.0089 0.0019
 Mercury -52295-07-08 10:33 J -17379137.23 -17379137.06 -17379136.88 0.0089 0.0027
 Mercury -52295-10-04 13:25 J -17379049.10 -17379048.94 -17379048.77 0.0089 0.0035
 Mercury -52295-12-31 16:18 J -17378960.96 -17378960.82 -17378960.65 0.0089 0.0043
 Moon -52294-01-28 13:40 J -17378933.17 -17378932.93 -17378932.67 0.0089 0.0027
 Earth -52294-01-28 16:47 J -17378933.03 -17378932.80 -17378932.54 0.0089 0.0031 *
 Mercury -52294-03-29 19:25 J -17378872.83 -17378872.69 -17378872.53 0.0089 0.0051
 Mercury -52294-06-25 22:18 J -17378784.69 -17378784.57 -17378784.42 0.0089 0.0059
 Mercury -52294-09-22 01:11 J -17378696.55 -17378696.45 -17378696.31 0.0089 0.0067
 Mercury -52294-12-19 04:47 J -17378608.40 -17378608.30 -17378608.20 0.0089 0.0074
 Earth -52293-01-31 04:47 J -17378565.55 -17378565.30 -17378565.03 0.0089 0.0009
 Moon -52293-01-31 08:23 J -17378565.40 -17378565.15 -17378564.89 0.0089 0.0012 *
 Mercury -52293-03-16 07:40 J -17378520.24 -17378520.18 -17378520.11 0.0089 0.0082
 Moon -52292-02-01 13:40 J -17378198.18 -17378197.93 -17378197.68 0.0089 0.0018
 Earth -52292-02-01 17:01 J -17378198.04 -17378197.79 -17378197.53 0.0089 0.0014 *
 Earth -52291-02-04 04:33 J -17377830.52 -17377830.31 -17377830.05 0.0089 0.0037
 Moon -52291-02-04 07:25 J -17377830.42 -17377830.19 -17377829.93 0.0089 0.0034 *
 Moon -52290-02-06 14:37 J -17377463.05 -17377462.89 -17377462.69 0.0089 0.0062
 Earth -52290-02-06 16:47 J -17377462.97 -17377462.80 -17377462.59 0.0089 0.0059 *
 Earth -52289-02-09 05:01 J -17377095.38 -17377095.29 -17377095.17 0.0089 0.0081
 Moon -52289-02-09 05:16 J -17377095.38 -17377095.28 -17377095.12 0.0089 0.0078 *
 Venus -52256-02-21 10:18 J -17365029.15 -17365029.07 -17365028.97 0.0088 0.0081
 Venus -52256-10-05 00:13 J -17364803.64 -17364803.49 -17364803.32 0.0088 0.0062
 Venus -52255-05-18 14:37 J -17364578.09 -17364577.89 -17364577.69 0.0088 0.0043
 Venus -52255-12-30 04:33 J -17364352.52 -17364352.31 -17364352.08 0.0088 0.0025
 Venus -52254-08-12 18:57 J -17364126.94 -17364126.71 -17364126.48 0.0088 0.0006
 Venus -52253-03-25 09:06 J -17363901.34 -17363901.12 -17363900.89 0.0088 0.0012
 Venus -52253-11-05 23:01 J -17363675.74 -17363675.54 -17363675.32 0.0088 0.0031

Venus -52252-06-19 13:11 J -17363450.13 -17363449.95 -17363449.75 0.0088 0.0050
 Venus -52251-01-31 03:06 J -17363224.49 -17363224.37 -17363224.21 0.0088 0.0068
 Venus -52251-09-13 17:30 J -17362998.80 -17362998.77 -17362998.72 0.0088 0.0087
 Mars -52244-07-13 03:35 J -17360504.52 -17360504.35 -17360504.14 0.0088 0.0073
 Mars -52242-06-09 18:13 J -17359808.00 -17359807.74 -17359807.44 0.0088 0.0053
 Mars -52240-05-06 07:54 J -17359111.48 -17359111.17 -17359110.83 0.0088 0.0032
 Mars -52238-04-02 20:52 J -17358414.97 -17358414.63 -17358414.28 0.0088 0.0010
 Mars -52236-02-27 08:23 J -17357718.48 -17357718.15 -17357717.79 0.0088 0.0011
 Mars -52234-01-24 18:13 J -17357022.06 -17357021.74 -17357021.42 0.0088 0.0032
 Mars -52233-12-21 00:42 J -17356325.72 -17356325.47 -17356325.16 0.0088 0.0052
 Mars -52231-11-17 06:28 J -17355629.39 -17355629.23 -17355628.99 0.0088 0.0073
 Mercury -52216-05-31 15:49 J -17350319.86 -17350319.84 -17350319.79 0.0088 0.0085
 Mercury -52216-08-27 17:45 J -17350231.82 -17350231.76 -17350231.69 0.0088 0.0079
 Mercury -52216-11-23 19:11 J -17350143.77 -17350143.70 -17350143.61 0.0088 0.0073
 Mercury -52215-02-19 20:52 J -17350055.71 -17350055.63 -17350055.52 0.0088 0.0067
 Mercury -52215-05-18 22:47 J -17349967.65 -17349967.55 -17349967.44 0.0088 0.0060
 Mercury -52215-08-15 00:13 J -17349879.59 -17349879.49 -17349879.36 0.0089 0.0054
 Mercury -52215-11-11 01:54 J -17349791.53 -17349791.42 -17349791.29 0.0089 0.0048
 Mercury -52214-02-07 03:49 J -17349703.47 -17349703.34 -17349703.21 0.0089 0.0041
 Mercury -52214-05-06 05:30 J -17349615.40 -17349615.27 -17349615.14 0.0089 0.0035
 Earth -52214-07-28 20:23 J -17349531.72 -17349531.65 -17349531.56 0.0089 0.0084
 Moon -52214-07-28 21:06 J -17349531.69 -17349531.62 -17349531.49 0.0089 0.0081 *
 Mercury -52214-08-02 06:57 J -17349527.34 -17349527.21 -17349527.07 0.0089 0.0029
 Mercury -52214-10-29 08:37 J -17349439.27 -17349439.14 -17349439.00 0.0089 0.0022
 Mercury -52213-01-25 10:18 J -17349351.21 -17349351.07 -17349350.93 0.0089 0.0016
 Mercury -52213-04-22 11:59 J -17349263.14 -17349263.00 -17349262.86 0.0089 0.0010
 Mercury -52213-07-19 13:40 J -17349175.08 -17349174.93 -17349174.79 0.0089 0.0004
 Moon -52213-07-30 05:45 J -17349164.43 -17349164.26 -17349164.08 0.0089 0.0066
 Earth -52213-07-30 07:40 J -17349164.35 -17349164.18 -17349163.98 0.0089 0.0062 *
 Mercury -52213-10-15 15:06 J -17349087.01 -17349086.87 -17349086.72 0.0089 0.0003

Mercury -52212-01-11 16:47 J -17348998.94 -17348998.80 -17348998.66 0.0089 0.0008
 Mercury -52212-04-09 18:13 J -17348910.87 -17348910.74 -17348910.59 0.0089 0.0015
 Mercury -52212-07-06 19:54 J -17348822.81 -17348822.67 -17348822.53 0.0089 0.0021
 Earth -52212-08-01 19:11 J -17348796.91 -17348796.70 -17348796.45 0.0089 0.0040
 Moon -52212-08-01 22:33 J -17348796.78 -17348796.56 -17348796.31 0.0089 0.0035 *
 Mercury -52212-10-02 21:35 J -17348734.74 -17348734.60 -17348734.47 0.0089 0.0027
 Mercury -52212-12-29 23:01 J -17348646.67 -17348646.54 -17348646.41 0.0089 0.0033
 Mercury -52211-03-28 00:42 J -17348558.60 -17348558.47 -17348558.35 0.0089 0.0039
 Mercury -52211-06-24 02:09 J -17348470.53 -17348470.41 -17348470.29 0.0089 0.0045
 Moon -52211-08-04 03:35 J -17348429.60 -17348429.35 -17348429.09 0.0089 0.0022
 Earth -52211-08-04 06:57 J -17348429.46 -17348429.21 -17348428.95 0.0089 0.0017 *
 Mercury -52211-09-20 03:49 J -17348382.46 -17348382.34 -17348382.23 0.0089 0.0051
 Mercury -52211-12-17 05:16 J -17348294.38 -17348294.28 -17348294.17 0.0089 0.0057
 Mercury -52210-03-15 06:42 J -17348206.31 -17348206.22 -17348206.12 0.0089 0.0063
 Mercury -52210-06-11 08:23 J -17348118.24 -17348118.15 -17348118.06 0.0089 0.0069
 Earth -52210-08-06 18:13 J -17348062.00 -17348061.74 -17348061.48 0.0089 0.0005
 Moon -52210-08-06 21:49 J -17348061.84 -17348061.59 -17348061.33 0.0089 0.0009 *
 Mercury -52210-09-07 09:49 J -17348030.16 -17348030.09 -17348030.01 0.0089 0.0075
 Mercury -52210-12-04 11:16 J -17347942.08 -17347942.03 -17347941.97 0.0089 0.0081
 Mercury -52209-03-01 12:42 J -17347853.98 -17347853.97 -17347853.93 0.0089 0.0087
 Moon -52209-08-08 02:23 J -17347694.63 -17347694.40 -17347694.14 0.0089 0.0023
 Earth -52209-08-08 05:16 J -17347694.51 -17347694.28 -17347694.02 0.0089 0.0028 *
 Earth -52208-08-10 16:47 J -17347327.02 -17347326.80 -17347326.59 0.0089 0.0049
 Moon -52208-08-10 18:28 J -17347326.92 -17347326.73 -17347326.50 0.0089 0.0053 *
 Moon -52207-08-13 02:09 J -17346959.55 -17346959.41 -17346959.23 0.0089 0.0068
 Earth -52207-08-13 03:21 J -17346959.49 -17346959.36 -17346959.18 0.0089 0.0072 *
 Venus -52174-04-09 07:40 J -17335032.24 -17335032.18 -17335032.11 0.0089 0.0085
 Venus -52174-11-20 19:40 J -17334806.82 -17334806.68 -17334806.54 0.0089 0.0067
 Venus -52173-07-03 06:57 J -17334581.36 -17334581.21 -17334581.01 0.0089 0.0050
 Venus -52172-02-13 19:11 J -17334355.89 -17334355.70 -17334355.49 0.0089 0.0031

Venus	-52172-09-27 07:11 J	-17334130.41	-17334130.20	-17334129.98	0.0089	0.0013
Venus	-52171-05-10 19:11 J	-17333904.91	-17333904.70	-17333904.49	0.0089	0.0005
Venus	-52171-12-22 06:57 J	-17333679.41	-17333679.21	-17333679.00	0.0089	0.0023
Venus	-52170-08-04 18:42 J	-17333453.89	-17333453.72	-17333453.52	0.0089	0.0042
Venus	-52169-03-17 06:28 J	-17333228.37	-17333228.23	-17333228.05	0.0089	0.0060
Venus	-52169-10-28 18:13 J	-17333002.82	-17333002.74	-17333002.61	0.0089	0.0077
Mars	-52164-06-05 02:52 J	-17331322.51	-17331322.38	-17331322.21	0.0089	0.0075
Mars	-52162-04-29 14:09 J	-17330629.11	-17330628.91	-17330628.69	0.0089	0.0059
Mars	-52160-03-23 00:28 J	-17329935.72	-17329935.48	-17329935.22	0.0089	0.0042
Mars	-52158-02-14 10:33 J	-17329242.33	-17329242.06	-17329241.78	0.0089	0.0024
Mars	-52156-01-07 22:33 J	-17328548.84	-17328548.56	-17328548.27	0.0089	0.0007
Mars	-52155-12-02 11:45 J	-17327855.29	-17327855.01	-17327854.72	0.0089	0.0010
Mars	-52153-10-25 23:30 J	-17327161.77	-17327161.52	-17327161.23	0.0089	0.0029
Mars	-52151-09-19 14:09 J	-17326468.15	-17326467.91	-17326467.66	0.0089	0.0045
Mars	-52149-08-13 05:01 J	-17325774.46	-17325774.29	-17325774.06	0.0089	0.0063
Mars	-52147-07-07 21:06 J	-17325080.72	-17325080.62	-17325080.47	0.0089	0.0080
Mercury	-52134-08-21 12:57 J	-17320287.98	-17320287.96	-17320287.89	0.0089	0.0086
Mercury	-52134-11-17 16:04 J	-17320199.90	-17320199.83	-17320199.74	0.0089	0.0078
Mercury	-52133-02-13 18:42 J	-17320111.81	-17320111.72	-17320111.60	0.0089	0.0071
Mercury	-52133-05-11 21:49 J	-17320023.70	-17320023.59	-17320023.46	0.0089	0.0063
Mercury	-52133-08-08 00:28 J	-17319935.60	-17319935.48	-17319935.33	0.0089	0.0056
Mercury	-52133-11-04 03:35 J	-17319847.49	-17319847.35	-17319847.20	0.0089	0.0048
Earth	-52132-01-23 00:13 J	-17319767.54	-17319767.49	-17319767.42	0.0089	0.0086
Mercury	-52132-01-31 06:28 J	-17319759.38	-17319759.23	-17319759.07	0.0089	0.0040
Mercury	-52132-04-29 09:06 J	-17319671.27	-17319671.12	-17319670.94	0.0089	0.0033
Mercury	-52132-07-26 12:13 J	-17319583.16	-17319582.99	-17319582.82	0.0089	0.0025
Mercury	-52132-10-22 15:06 J	-17319495.04	-17319494.87	-17319494.69	0.0089	0.0017
Mercury	-52131-01-18 17:59 J	-17319406.92	-17319406.75	-17319406.57	0.0089	0.0010
Moon	-52131-01-25 07:54 J	-17319400.33	-17319400.17	-17319399.96	0.0089	0.0062
Earth	-52131-01-25 11:59 J	-17319400.17	-17319400.00	-17319399.81	0.0089	0.0064 *

Mercury -52131-04-16 21:06 J -17319318.80 -17319318.62 -17319318.45 0.0089 0.0003
 Mercury -52131-07-13 23:59 J -17319230.68 -17319230.50 -17319230.32 0.0089 0.0006
 Mercury -52131-10-10 02:52 J -17319142.56 -17319142.38 -17319142.20 0.0089 0.0014
 Mercury -52130-01-06 05:45 J -17319054.43 -17319054.26 -17319054.08 0.0089 0.0021
 Earth -52130-01-27 23:30 J -17319032.73 -17319032.52 -17319032.27 0.0089 0.0042
 Moon -52130-01-28 03:06 J -17319032.58 -17319032.37 -17319032.13 0.0089 0.0044 *
 Mercury -52130-04-04 08:52 J -17318966.30 -17318966.13 -17318965.96 0.0089 0.0029
 Mercury -52130-07-01 11:45 J -17318878.17 -17318878.01 -17318877.85 0.0089 0.0037
 Mercury -52130-09-27 14:37 J -17318790.04 -17318789.89 -17318789.73 0.0089 0.0045
 Mercury -52130-12-24 17:30 J -17318701.90 -17318701.77 -17318701.61 0.0089 0.0053
 Moon -52129-01-30 08:23 J -17318665.39 -17318665.15 -17318664.89 0.0089 0.0017
 Earth -52129-01-30 11:45 J -17318665.25 -17318665.01 -17318664.75 0.0089 0.0020 *
 Mercury -52129-03-21 20:23 J -17318613.76 -17318613.65 -17318613.50 0.0089 0.0061
 Mercury -52129-06-17 23:30 J -17318525.62 -17318525.52 -17318525.39 0.0089 0.0069
 Mercury -52129-09-14 02:23 J -17318437.47 -17318437.40 -17318437.29 0.0089 0.0077
 Mercury -52129-12-11 05:30 J -17318349.31 -17318349.27 -17318349.20 0.0089 0.0085
 Earth -52128-01-31 23:45 J -17318297.77 -17318297.51 -17318297.25 0.0089 0.0003
 Moon -52128-02-01 02:23 J -17318297.66 -17318297.40 -17318297.13 0.0089 0.0001 *
 Moon -52127-02-03 10:04 J -17317930.30 -17317930.08 -17317929.82 0.0089 0.0029
 Earth -52127-02-03 11:30 J -17317930.26 -17317930.02 -17317929.76 0.0089 0.0026 *
 Earth -52126-02-05 23:16 J -17317562.72 -17317562.53 -17317562.29 0.0089 0.0049
 Moon -52126-02-06 00:13 J -17317562.71 -17317562.49 -17317562.25 0.0089 0.0045 *
 Earth -52125-02-08 11:30 J -17317195.16 -17317195.02 -17317194.85 0.0089 0.0071
 Moon -52125-02-08 12:42 J -17317195.10 -17317194.97 -17317194.82 0.0089 0.0074 *
 Venus -52091-01-06 08:37 J -17304809.27 -17304809.14 -17304809.00 0.0088 0.0071
 Venus -52091-08-19 22:33 J -17304583.73 -17304583.56 -17304583.36 0.0088 0.0052
 Venus -52090-04-02 13:11 J -17304358.16 -17304357.95 -17304357.74 0.0088 0.0034
 Venus -52090-11-14 03:06 J -17304132.59 -17304132.37 -17304132.14 0.0088 0.0015
 Venus -52089-06-26 17:16 J -17303907.01 -17303906.78 -17303906.55 0.0088 0.0003
 Venus -52088-02-07 07:11 J -17303681.41 -17303681.20 -17303680.97 0.0088 0.0022

Venus	-52088-09-20 21:35 J	-17303455.80	-17303455.60	-17303455.40	0.0088	0.0040
Venus	-52087-05-04 11:16 J	-17303230.18	-17303230.03	-17303229.85	0.0088	0.0059
Venus	-52087-12-16 01:25 J	-17303004.53	-17303004.44	-17303004.32	0.0088	0.0077
Mars	-52080-02-23 04:18 J	-17300743.49	-17300743.32	-17300743.12	0.0088	0.0075
Mars	-52078-01-20 18:28 J	-17300046.98	-17300046.73	-17300046.43	0.0088	0.0055
Mars	-52077-12-17 09:06 J	-17299350.44	-17299350.12	-17299349.79	0.0088	0.0033
Mars	-52075-11-13 22:33 J	-17298653.90	-17298653.56	-17298653.21	0.0088	0.0013
Mars	-52073-10-10 10:47 J	-17297957.39	-17297957.05	-17297956.70	0.0088	0.0008
Mars	-52071-09-06 21:35 J	-17297260.90	-17297260.60	-17297260.25	0.0088	0.0030
Mars	-52069-08-03 06:57 J	-17296564.47	-17296564.21	-17296563.89	0.0088	0.0050
Mars	-52067-06-30 14:37 J	-17295868.10	-17295867.89	-17295867.68	0.0088	0.0069
Mars	-52065-05-26 19:25 J	-17295171.69	-17295171.69	-17295171.64	0.0088	0.0088
Mercury	-52051-02-25 14:52 J	-17290148.91	-17290148.88	-17290148.82	0.0088	0.0084
Mercury	-52051-05-24 16:47 J	-17290060.86	-17290060.80	-17290060.72	0.0089	0.0077
Mercury	-52051-08-20 18:28 J	-17289972.81	-17289972.73	-17289972.64	0.0089	0.0071
Mercury	-52051-11-16 20:09 J	-17289884.75	-17289884.66	-17289884.56	0.0089	0.0064
Mercury	-52050-02-12 22:04 J	-17289796.69	-17289796.58	-17289796.48	0.0089	0.0058
Mercury	-52050-05-11 23:30 J	-17289708.63	-17289708.52	-17289708.40	0.0089	0.0052
Mercury	-52050-08-08 01:11 J	-17289620.57	-17289620.45	-17289620.32	0.0089	0.0046
Mercury	-52050-11-04 02:37 J	-17289532.50	-17289532.39	-17289532.25	0.0089	0.0040
Mercury	-52049-01-31 04:33 J	-17289444.44	-17289444.31	-17289444.18	0.0089	0.0033
Mercury	-52049-04-28 06:13 J	-17289356.38	-17289356.24	-17289356.10	0.0089	0.0027
Mercury	-52049-07-25 07:40 J	-17289268.31	-17289268.18	-17289268.03	0.0089	0.0021
Earth	-52049-07-29 14:09 J	-17289264.02	-17289263.91	-17289263.74	0.0089	0.0074
Moon	-52049-07-29 17:45 J	-17289263.90	-17289263.76	-17289263.60	0.0089	0.0072 *
Mercury	-52049-10-21 09:21 J	-17289180.25	-17289180.11	-17289179.96	0.0089	0.0015
Mercury	-52048-01-17 11:01 J	-17289092.18	-17289092.04	-17289091.90	0.0089	0.0008
Mercury	-52048-04-15 12:42 J	-17289004.11	-17289003.97	-17289003.83	0.0089	0.0002
Mercury	-52048-07-12 14:23 J	-17288916.05	-17288915.90	-17288915.76	0.0089	0.0005
Moon	-52048-07-31 22:33 J	-17288896.76	-17288896.56	-17288896.35	0.0089	0.0052

Earth -52048-08-01 02:23 J -17288896.61 -17288896.40 -17288896.19 0.0089 0.0051 *
 Mercury -52048-10-08 15:49 J -17288827.98 -17288827.84 -17288827.70 0.0089 0.0010
 Mercury -52047-01-04 17:30 J -17288739.91 -17288739.77 -17288739.63 0.0089 0.0016
 Mercury -52047-04-02 18:57 J -17288651.84 -17288651.71 -17288651.57 0.0089 0.0023
 Mercury -52047-06-29 20:37 J -17288563.77 -17288563.64 -17288563.51 0.0089 0.0029
 Earth -52047-08-03 13:25 J -17288529.17 -17288528.94 -17288528.68 0.0089 0.0029
 Moon -52047-08-03 16:47 J -17288529.03 -17288528.80 -17288528.54 0.0089 0.0028 *
 Mercury -52047-09-25 22:04 J -17288475.70 -17288475.58 -17288475.44 0.0089 0.0035
 Mercury -52047-12-22 23:45 J -17288387.63 -17288387.51 -17288387.38 0.0089 0.0041
 Mercury -52046-03-21 01:11 J -17288299.56 -17288299.45 -17288299.32 0.0089 0.0047
 Mercury -52046-06-17 02:52 J -17288211.49 -17288211.38 -17288211.27 0.0089 0.0053
 Moon -52046-08-05 22:18 J -17288161.82 -17288161.57 -17288161.32 0.0089 0.0008
 Earth -52046-08-06 01:11 J -17288161.70 -17288161.45 -17288161.19 0.0089 0.0006 *
 Mercury -52046-09-13 04:18 J -17288123.42 -17288123.32 -17288123.21 0.0089 0.0059
 Mercury -52046-12-10 05:59 J -17288035.34 -17288035.25 -17288035.15 0.0089 0.0065
 Mercury -52045-03-07 07:25 J -17287947.27 -17287947.19 -17287947.10 0.0089 0.0071
 Mercury -52045-06-03 08:52 J -17287859.19 -17287859.13 -17287859.05 0.0089 0.0077
 Earth -52045-08-07 12:13 J -17287794.23 -17287793.99 -17287793.72 0.0089 0.0017
 Moon -52045-08-07 14:23 J -17287794.16 -17287793.90 -17287793.64 0.0089 0.0018 *
 Mercury -52045-08-30 10:18 J -17287771.10 -17287771.07 -17287771.01 0.0089 0.0083
 Mercury -52045-11-26 11:59 J -17287683.00 -17287683.00 -17287682.99 0.0089 0.0089
 Moon -52044-08-09 23:16 J -17287426.75 -17287426.53 -17287426.30 0.0089 0.0038
 Earth -52044-08-09 23:45 J -17287426.74 -17287426.51 -17287426.27 0.0089 0.0039 *
 Moon -52043-08-12 10:33 J -17287059.24 -17287059.06 -17287058.87 0.0089 0.0063
 Earth -52043-08-12 10:18 J -17287059.22 -17287059.07 -17287058.86 0.0089 0.0062 *
 Earth -52042-08-14 21:21 J -17286691.67 -17286691.61 -17286691.50 0.0089 0.0084
 Moon -52042-08-14 23:45 J -17286691.59 -17286691.51 -17286691.41 0.0089 0.0082 *
 Venus -52009-02-22 05:45 J -17274812.36 -17274812.26 -17274812.14 0.0089 0.0076
 Venus -52009-10-04 17:16 J -17274586.92 -17274586.78 -17274586.59 0.0089 0.0059
 Venus -52008-05-18 05:16 J -17274361.45 -17274361.28 -17274361.07 0.0089 0.0041

Venus	-52008-12-29 17:30 J	-17274135.97	-17274135.77	-17274135.56	0.0089	0.0022
Venus	-52007-08-12 05:45 J	-17273910.48	-17273910.26	-17273910.05	0.0089	0.0004
Venus	-52006-03-25 17:30 J	-17273684.98	-17273684.77	-17273684.56	0.0089	0.0014
Venus	-52006-11-06 05:01 J	-17273459.47	-17273459.29	-17273459.08	0.0089	0.0032
Venus	-52005-06-18 17:16 J	-17273233.96	-17273233.78	-17273233.61	0.0089	0.0050
Venus	-52004-01-30 05:01 J	-17273008.42	-17273008.29	-17273008.15	0.0089	0.0068
Venus	-52004-09-12 16:47 J	-17272782.84	-17272782.80	-17272782.73	0.0089	0.0086

52ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 52nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-52000-01-18 17:45 J	-17271558.89	-17271558.76	-17271558.60	0.0089	0.0077		
Mars	-51999-12-13 03:06 J	-17270865.55	-17270865.37	-17270865.13	0.0089	0.0060		
Mars	-51997-11-05 14:52 J	-17270172.11	-17270171.88	-17270171.61	0.0089	0.0043		
Mars	-51995-09-30 02:09 J	-17269478.67	-17269478.41	-17269478.13	0.0089	0.0026		
Mars	-51993-08-23 12:42 J	-17268785.25	-17268784.97	-17268784.68	0.0089	0.0009		
Mars	-51991-07-18 00:13 J	-17268091.77	-17268091.49	-17268091.20	0.0089	0.0009		
Mars	-51989-06-10 13:40 J	-17267398.19	-17267397.93	-17267397.64	0.0089	0.0026		
Mars	-51987-05-05 02:23 J	-17266704.65	-17266704.40	-17266704.15	0.0089	0.0043		
Mars	-51985-03-28 15:49 J	-17266011.02	-17266010.84	-17266010.60	0.0089	0.0060		
Mars	-51983-02-20 07:40 J	-17265317.29	-17265317.18	-17265317.00	0.0089	0.0077		
Mercury	-51969-05-17 11:30 J	-17260117.07	-17260117.02	-17260116.95	0.0089	0.0083		

Mercury -51969-08-13 14:09 J -17260028.98 -17260028.91 -17260028.80 0.0089 0.0076

Mercury -51969-11-09 17:16 J -17259940.88 -17259940.78 -17259940.66 0.0089 0.0068

Mercury -51968-02-05 19:54 J -17259852.78 -17259852.67 -17259852.53 0.0089 0.0061

Mercury -51968-05-04 23:01 J -17259764.68 -17259764.54 -17259764.40 0.0089 0.0053

Mercury -51968-08-01 01:40 J -17259676.57 -17259676.43 -17259676.27 0.0089 0.0046

Mercury -51968-10-28 04:33 J -17259588.46 -17259588.31 -17259588.14 0.0089 0.0038

Mercury -51967-01-24 07:40 J -17259500.34 -17259500.18 -17259500.01 0.0089 0.0030

Earth -51967-01-24 18:42 J -17259499.83 -17259499.72 -17259499.56 0.0089 0.0076

Moon -51967-01-24 22:18 J -17259499.69 -17259499.57 -17259499.38 0.0089 0.0072 *

Mercury -51967-04-22 10:18 J -17259412.23 -17259412.07 -17259411.89 0.0089 0.0023

Mercury -51967-07-19 13:25 J -17259324.11 -17259323.94 -17259323.76 0.0089 0.0015

Mercury -51967-10-15 16:18 J -17259235.99 -17259235.82 -17259235.64 0.0089 0.0007

Mercury -51966-01-11 19:11 J -17259147.87 -17259147.70 -17259147.52 0.0089 0.0002

Moon -51966-01-27 04:33 J -17259132.50 -17259132.31 -17259132.12 0.0089 0.0057

Earth -51966-01-27 06:57 J -17259132.40 -17259132.21 -17259131.99 0.0089 0.0053 *

Mercury -51966-04-09 22:04 J -17259059.75 -17259059.58 -17259059.40 0.0089 0.0009

Mercury -51966-07-07 01:11 J -17258971.63 -17258971.45 -17258971.28 0.0089 0.0016

Mercury -51966-10-03 04:04 J -17258883.50 -17258883.33 -17258883.16 0.0089 0.0024

Mercury -51966-12-30 06:57 J -17258795.37 -17258795.21 -17258795.04 0.0089 0.0032

Earth -51965-01-29 19:11 J -17258764.94 -17258764.70 -17258764.46 0.0089 0.0030

Moon -51965-01-29 21:06 J -17258764.86 -17258764.62 -17258764.35 0.0089 0.0027 *

Mercury -51965-03-27 09:49 J -17258707.24 -17258707.09 -17258706.92 0.0089 0.0040

Mercury -51965-06-23 12:42 J -17258619.11 -17258618.97 -17258618.81 0.0089 0.0048

Mercury -51965-09-19 15:35 J -17258530.97 -17258530.85 -17258530.69 0.0089 0.0056

Mercury -51965-12-16 18:57 J -17258442.83 -17258442.71 -17258442.58 0.0089 0.0063

Moon -51964-01-31 05:45 J -17258397.50 -17258397.26 -17258397.00 0.0089 0.0012

Earth -51964-01-31 06:57 J -17258397.46 -17258397.21 -17258396.95 0.0089 0.0008 *

Mercury -51964-03-14 22:04 J -17258354.69 -17258354.58 -17258354.48 0.0089 0.0071

Mercury -51964-06-11 00:57 J -17258266.54 -17258266.46 -17258266.38 0.0089 0.0079

Mercury -51964-09-07 03:49 J -17258178.36 -17258178.34 -17258178.30 0.0089 0.0087

Moon	-51963-02-02 18:28 J	-17258029.99	-17258029.73	-17258029.47	0.0089	0.0019
Earth	-51963-02-02 18:57 J	-17258029.97	-17258029.71	-17258029.46	0.0089	0.0015 *
Earth	-51962-02-05 06:42 J	-17257662.45	-17257662.22	-17257661.98	0.0089	0.0038
Moon	-51962-02-05 07:54 J	-17257662.39	-17257662.17	-17257661.93	0.0089	0.0035 *
Moon	-51961-02-07 15:49 J	-17257294.99	-17257294.84	-17257294.63	0.0089	0.0065
Earth	-51961-02-07 18:28 J	-17257294.89	-17257294.73	-17257294.52	0.0089	0.0061 *
Earth	-51960-02-09 06:13 J	-17256927.29	-17256927.24	-17256927.12	0.0089	0.0084
Moon	-51960-02-09 09:35 J	-17256927.18	-17256927.10	-17256926.96	0.0089	0.0080 *
Venus	-51927-04-09 17:01 J	-17244814.87	-17244814.79	-17244814.67	0.0088	0.0079
Venus	-51927-11-21 07:25 J	-17244589.35	-17244589.19	-17244589.02	0.0088	0.0060
Venus	-51926-07-04 21:21 J	-17244363.79	-17244363.61	-17244363.39	0.0088	0.0042
Venus	-51925-02-15 11:59 J	-17244138.22	-17244138.00	-17244137.78	0.0088	0.0023
Venus	-51925-09-28 01:54 J	-17243912.64	-17243912.42	-17243912.19	0.0088	0.0005
Venus	-51924-05-11 16:04 J	-17243687.05	-17243686.83	-17243686.60	0.0088	0.0013
Venus	-51924-12-23 05:59 J	-17243461.45	-17243461.25	-17243461.03	0.0088	0.0032
Venus	-51923-08-05 20:09 J	-17243235.84	-17243235.66	-17243235.47	0.0088	0.0050
Venus	-51922-03-19 10:04 J	-17243010.20	-17243010.08	-17243009.92	0.0088	0.0069
Venus	-51922-10-31 00:13 J	-17242784.50	-17242784.49	-17242784.44	0.0088	0.0087
Mars	-51917-10-06 07:11 J	-17240982.35	-17240982.20	-17240981.98	0.0088	0.0076
Mars	-51915-09-02 22:33 J	-17240285.81	-17240285.56	-17240285.26	0.0088	0.0055
Mars	-51913-07-30 12:42 J	-17239589.27	-17239588.97	-17239588.63	0.0088	0.0035
Mars	-51911-06-27 02:52 J	-17238892.72	-17238892.38	-17238892.03	0.0088	0.0014
Mars	-51909-05-23 16:04 J	-17238196.18	-17238195.83	-17238195.48	0.0088	0.0006
Mars	-51907-04-20 03:35 J	-17237499.68	-17237499.35	-17237499.01	0.0088	0.0027
Mars	-51905-03-16 14:23 J	-17236803.19	-17236802.90	-17236802.61	0.0088	0.0047
Mars	-51903-02-10 23:16 J	-17236106.74	-17236106.53	-17236106.29	0.0088	0.0066
Mars	-51901-01-08 05:16 J	-17235410.33	-17235410.28	-17235410.16	0.0088	0.0086
Mercury	-51887-08-26 12:28 J	-17230065.98	-17230065.98	-17230065.94	0.0088	0.0088
Mercury	-51887-11-22 14:23 J	-17229977.95	-17229977.90	-17229977.83	0.0088	0.0081
Mercury	-51886-02-18 16:04 J	-17229889.90	-17229889.83	-17229889.74	0.0088	0.0075

Mercury -51886-05-17 17:45 J -17229801.84 -17229801.76 -17229801.66 0.0088 0.0068

Mercury -51886-08-13 19:40 J -17229713.78 -17229713.68 -17229713.58 0.0088 0.0062

Mercury -51886-11-09 21:06 J -17229625.72 -17229625.62 -17229625.50 0.0088 0.0056

Mercury -51885-02-05 22:47 J -17229537.66 -17229537.55 -17229537.42 0.0089 0.0050

Mercury -51885-05-04 00:28 J -17229449.60 -17229449.48 -17229449.35 0.0089 0.0043

Moon -51885-07-28 18:57 J -17229363.79 -17229363.71 -17229363.58 0.0089 0.0081

Earth -51885-07-28 22:33 J -17229363.61 -17229363.56 -17229363.46 0.0089 0.0085 *

Mercury -51885-07-31 02:09 J -17229361.53 -17229361.41 -17229361.27 0.0089 0.0037

Mercury -51885-10-27 03:49 J -17229273.47 -17229273.34 -17229273.20 0.0089 0.0031

Mercury -51884-01-23 05:30 J -17229185.40 -17229185.27 -17229185.13 0.0089 0.0024

Mercury -51884-04-21 07:11 J -17229097.34 -17229097.20 -17229097.06 0.0089 0.0018

Mercury -51884-07-18 08:52 J -17229009.27 -17229009.13 -17229008.99 0.0089 0.0012

Earth -51884-07-31 10:18 J -17228996.25 -17228996.07 -17228995.88 0.0089 0.0062

Moon -51884-07-31 13:25 J -17228996.09 -17228995.94 -17228995.75 0.0089 0.0067 *

Mercury -51884-10-14 10:18 J -17228921.21 -17228921.07 -17228920.92 0.0089 0.0006

Mercury -51883-01-10 11:59 J -17228833.14 -17228833.00 -17228832.86 0.0089 0.0002

Mercury -51883-04-08 13:40 J -17228745.07 -17228744.93 -17228744.79 0.0089 0.0007

Mercury -51883-07-05 15:21 J -17228657.00 -17228656.86 -17228656.72 0.0089 0.0013

Moon -51883-08-02 19:40 J -17228628.90 -17228628.68 -17228628.44 0.0089 0.0035

Earth -51883-08-02 21:35 J -17228628.81 -17228628.60 -17228628.35 0.0089 0.0040 *

Mercury -51883-10-01 16:47 J -17228568.94 -17228568.80 -17228568.66 0.0089 0.0019

Mercury -51883-12-28 18:28 J -17228480.87 -17228480.73 -17228480.60 0.0089 0.0025

Mercury -51882-03-26 19:54 J -17228392.80 -17228392.67 -17228392.53 0.0089 0.0031

Mercury -51882-06-22 21:21 J -17228304.73 -17228304.61 -17228304.47 0.0089 0.0038

Earth -51882-08-05 09:06 J -17228261.36 -17228261.12 -17228260.86 0.0089 0.0017

Moon -51882-08-05 10:47 J -17228261.30 -17228261.05 -17228260.78 0.0089 0.0021 *

Mercury -51882-09-18 23:01 J -17228216.66 -17228216.54 -17228216.41 0.0089 0.0043

Mercury -51882-12-16 00:28 J -17228128.58 -17228128.48 -17228128.35 0.0089 0.0050

Mercury -51881-03-13 02:09 J -17228040.51 -17228040.41 -17228040.29 0.0089 0.0055

Mercury -51881-06-09 03:35 J -17227952.44 -17227952.35 -17227952.24 0.0089 0.0062

Moon -51881-08-06 20:23 J -17227893.89 -17227893.65 -17227893.39 0.0089 0.0011
 Earth -51881-08-06 20:52 J -17227893.88 -17227893.63 -17227893.37 0.0089 0.0006 *
 Mercury -51881-09-05 05:16 J -17227864.36 -17227864.28 -17227864.18 0.0089 0.0067
 Mercury -51881-12-02 06:42 J -17227776.28 -17227776.22 -17227776.13 0.0089 0.0074
 Mercury -51880-02-28 08:09 J -17227688.20 -17227688.16 -17227688.08 0.0089 0.0080
 Mercury -51880-05-27 10:04 J -17227600.12 -17227600.08 -17227600.04 0.0089 0.0085
 Moon -51880-08-09 06:42 J -17227526.47 -17227526.22 -17227525.95 0.0089 0.0025
 Earth -51880-08-09 08:09 J -17227526.39 -17227526.16 -17227525.91 0.0089 0.0029 *
 Earth -51879-08-11 18:57 J -17227158.90 -17227158.71 -17227158.48 0.0089 0.0052
 Moon -51879-08-11 20:52 J -17227158.80 -17227158.63 -17227158.42 0.0089 0.0056 *
 Moon -51878-08-14 02:52 J -17226791.51 -17226791.38 -17226791.19 0.0089 0.0070
 Earth -51878-08-14 06:42 J -17226791.36 -17226791.22 -17226791.08 0.0089 0.0074 *
 Venus -51845-05-25 16:18 J -17214817.86 -17214817.82 -17214817.72 0.0089 0.0085
 Venus -51844-01-06 04:33 J -17214592.44 -17214592.31 -17214592.15 0.0089 0.0066
 Venus -51844-08-19 16:47 J -17214366.97 -17214366.80 -17214366.61 0.0089 0.0048
 Venus -51843-04-02 04:47 J -17214141.50 -17214141.30 -17214141.10 0.0089 0.0030
 Venus -51843-11-13 16:47 J -17213916.01 -17213915.80 -17213915.59 0.0089 0.0012
 Venus -51842-06-27 04:33 J -17213690.52 -17213690.31 -17213690.09 0.0089 0.0006
 Venus -51841-02-07 16:33 J -17213465.01 -17213464.81 -17213464.60 0.0089 0.0023
 Venus -51841-09-20 04:18 J -17213239.50 -17213239.32 -17213239.12 0.0089 0.0041
 Venus -51840-05-03 16:04 J -17213013.97 -17213013.83 -17213013.66 0.0089 0.0059
 Venus -51840-12-15 03:49 J -17212788.42 -17212788.34 -17212788.21 0.0089 0.0077
 Mars -51837-09-03 09:35 J -17211795.21 -17211795.10 -17211794.92 0.0089 0.0078
 Mars -51835-07-28 20:52 J -17211101.81 -17211101.63 -17211101.40 0.0089 0.0061
 Mars -51833-06-21 06:28 J -17210408.46 -17210408.23 -17210407.97 0.0089 0.0045
 Mars -51831-05-15 17:30 J -17209715.03 -17209714.77 -17209714.49 0.0089 0.0028
 Mars -51829-04-08 05:01 J -17209021.57 -17209021.29 -17209021.01 0.0089 0.0011
 Mars -51827-03-02 15:35 J -17208328.13 -17208327.85 -17208327.56 0.0089 0.0006
 Mars -51825-01-25 02:52 J -17207634.65 -17207634.38 -17207634.10 0.0089 0.0023
 Mars -51824-12-18 16:33 J -17206941.05 -17206940.81 -17206940.54 0.0089 0.0040

Mars -51822-11-12 05:59 J -17206247.45 -17206247.25 -17206247.01 0.0089 0.0057
 Mars -51820-10-05 19:54 J -17205553.80 -17205553.67 -17205553.48 0.0089 0.0074
 Mercury -51805-11-15 07:11 J -17200034.21 -17200034.20 -17200034.15 0.0089 0.0088
 Mercury -51804-02-11 10:18 J -17199946.14 -17199946.07 -17199945.99 0.0089 0.0080
 Mercury -51804-05-10 12:57 J -17199858.05 -17199857.96 -17199857.85 0.0089 0.0073
 Mercury -51804-08-06 15:49 J -17199769.95 -17199769.84 -17199769.71 0.0089 0.0065
 Mercury -51804-11-02 18:28 J -17199681.84 -17199681.73 -17199681.58 0.0089 0.0058
 Earth -51803-01-24 03:21 J -17199599.39 -17199599.36 -17199599.29 0.0089 0.0087
 Mercury -51803-01-29 21:35 J -17199593.74 -17199593.60 -17199593.45 0.0089 0.0050
 Mercury -51803-04-28 00:13 J -17199505.63 -17199505.49 -17199505.32 0.0089 0.0043
 Mercury -51803-07-25 03:21 J -17199417.52 -17199417.36 -17199417.20 0.0089 0.0035
 Mercury -51803-10-21 06:13 J -17199329.41 -17199329.24 -17199329.07 0.0089 0.0027
 Mercury -51802-01-17 09:06 J -17199241.29 -17199241.12 -17199240.95 0.0089 0.0019
 Earth -51802-01-26 15:21 J -17199232.03 -17199231.86 -17199231.67 0.0089 0.0064
 Moon -51802-01-26 17:16 J -17199231.97 -17199231.78 -17199231.59 0.0089 0.0062 *
 Mercury -51802-04-15 11:59 J -17199153.17 -17199153.00 -17199152.82 0.0089 0.0012
 Mercury -51802-07-12 14:52 J -17199065.05 -17199064.88 -17199064.70 0.0089 0.0004
 Mercury -51802-10-08 17:45 J -17198976.93 -17198976.76 -17198976.58 0.0089 0.0004
 Mercury -51801-01-04 20:37 J -17198888.81 -17198888.64 -17198888.46 0.0089 0.0012
 Moon -51801-01-29 02:52 J -17198864.59 -17198864.38 -17198864.15 0.0089 0.0043
 Earth -51801-01-29 03:21 J -17198864.58 -17198864.36 -17198864.12 0.0089 0.0041 *
 Mercury -51801-04-01 23:30 J -17198800.68 -17198800.52 -17198800.34 0.0089 0.0020
 Mercury -51801-06-29 02:37 J -17198712.56 -17198712.39 -17198712.22 0.0089 0.0027
 Mercury -51801-09-25 05:30 J -17198624.43 -17198624.27 -17198624.10 0.0089 0.0035
 Mercury -51801-12-22 08:23 J -17198536.30 -17198536.15 -17198535.99 0.0089 0.0043
 Moon -51800-01-30 14:52 J -17198497.14 -17198496.88 -17198496.61 0.0089 0.0016
 Earth -51800-01-30 15:21 J -17198497.11 -17198496.86 -17198496.61 0.0089 0.0018 *
 Mercury -51800-03-20 11:16 J -17198448.16 -17198448.03 -17198447.87 0.0089 0.0051
 Mercury -51800-06-16 14:09 J -17198360.03 -17198359.91 -17198359.76 0.0089 0.0059
 Mercury -51800-09-12 17:16 J -17198271.89 -17198271.78 -17198271.65 0.0089 0.0067

Mercury -51800-12-09 20:09 J -17198183.74 -17198183.66 -17198183.55 0.0089 0.0075
 Earth -51799-02-02 03:06 J -17198129.62 -17198129.37 -17198129.11 0.0089 0.0005
 Moon -51799-02-02 05:16 J -17198129.53 -17198129.28 -17198129.03 0.0089 0.0003 *
 Mercury -51799-03-07 23:01 J -17198095.58 -17198095.54 -17198095.45 0.0089 0.0083
 Moon -51798-02-04 11:59 J -17197762.23 -17197762.00 -17197761.73 0.0089 0.0030
 Earth -51798-02-04 15:06 J -17197762.11 -17197761.87 -17197761.62 0.0089 0.0028 *
 Earth -51797-02-07 02:37 J -17197394.58 -17197394.39 -17197394.16 0.0089 0.0051
 Moon -51797-02-07 06:13 J -17197394.45 -17197394.24 -17197394.02 0.0089 0.0048 *
 Moon -51796-02-08 10:47 J -17197027.15 -17197027.05 -17197026.89 0.0089 0.0076
 Earth -51796-02-08 14:37 J -17197027.01 -17197026.89 -17197026.72 0.0089 0.0074 *
 Jupiter -51766-02-06 20:23 J -17186072.19 -17186071.65 -17186071.09 0.0088 0.0012
 Venus -51763-07-12 02:23 J -17184820.43 -17184820.40 -17184820.34 0.0088 0.0087
 Venus -51762-02-22 16:33 J -17184594.93 -17184594.81 -17184594.65 0.0088 0.0068
 Venus -51762-10-06 07:11 J -17184369.39 -17184369.20 -17184369.01 0.0088 0.0050
 Venus -51761-05-18 21:06 J -17184143.83 -17184143.62 -17184143.40 0.0088 0.0031
 Venus -51761-12-30 11:01 J -17183918.26 -17183918.04 -17183917.80 0.0088 0.0013
 Venus -51760-08-13 01:25 J -17183692.67 -17183692.44 -17183692.21 0.0088 0.0006
 Venus -51759-03-26 15:21 J -17183467.07 -17183466.86 -17183466.63 0.0088 0.0024
 Venus -51759-11-07 05:16 J -17183241.47 -17183241.28 -17183241.07 0.0088 0.0043
 Venus -51758-06-20 18:57 J -17183015.85 -17183015.71 -17183015.52 0.0088 0.0062
 Venus -51757-02-01 09:21 J -17182790.19 -17182790.11 -17182789.99 0.0088 0.0079
 Mars -51753-05-19 11:16 J -17181221.16 -17181221.03 -17181220.81 0.0088 0.0076
 Mars -51751-04-16 02:37 J -17180524.63 -17180524.39 -17180524.09 0.0088 0.0056
 Mars -51749-03-12 17:59 J -17179828.04 -17179827.75 -17179827.41 0.0088 0.0036
 Mars -51747-02-07 08:09 J -17179131.48 -17179131.16 -17179130.80 0.0088 0.0017
 Mars -51745-01-04 22:04 J -17178434.92 -17178434.58 -17178434.23 0.0088 0.0004
 Mars -51744-12-01 10:33 J -17177738.37 -17177738.06 -17177737.70 0.0088 0.0025
 Mars -51742-10-28 22:33 J -17177041.85 -17177041.56 -17177041.26 0.0088 0.0045
 Mars -51740-09-24 08:23 J -17176345.36 -17176345.15 -17176344.89 0.0088 0.0064
 Mars -51738-08-21 17:16 J -17175648.86 -17175648.78 -17175648.64 0.0088 0.0084

Mercury -51722-05-23 11:59 J -17169895.02 -17169895.00 -17169894.94 0.0088 0.0085
 Mercury -51722-08-19 14:09 J -17169806.98 -17169806.91 -17169806.85 0.0088 0.0078
 Mercury -51722-11-15 15:35 J -17169718.93 -17169718.85 -17169718.76 0.0089 0.0072
 Mercury -51721-02-11 17:16 J -17169630.87 -17169630.78 -17169630.68 0.0089 0.0065
 Mercury -51721-05-09 19:11 J -17169542.81 -17169542.70 -17169542.60 0.0089 0.0059
 Mercury -51721-08-05 20:37 J -17169454.75 -17169454.64 -17169454.52 0.0089 0.0053
 Mercury -51721-11-01 22:18 J -17169366.69 -17169366.57 -17169366.44 0.0089 0.0047
 Mercury -51720-01-28 23:59 J -17169278.62 -17169278.50 -17169278.37 0.0089 0.0040
 Mercury -51720-04-27 01:25 J -17169190.56 -17169190.44 -17169190.29 0.0089 0.0035
 Mercury -51720-07-24 03:21 J -17169102.49 -17169102.36 -17169102.22 0.0089 0.0028
 Moon -51720-07-30 16:33 J -17169095.93 -17169095.81 -17169095.64 0.0089 0.0073
 Earth -51720-07-30 19:11 J -17169095.83 -17169095.70 -17169095.54 0.0089 0.0073 *
 Mercury -51720-10-20 05:01 J -17169014.43 -17169014.29 -17169014.15 0.0089 0.0021
 Mercury -51719-01-16 06:42 J -17168926.36 -17168926.22 -17168926.08 0.0089 0.0015
 Mercury -51719-04-14 08:09 J -17168838.30 -17168838.16 -17168838.01 0.0089 0.0010
 Mercury -51719-07-11 09:49 J -17168750.23 -17168750.09 -17168749.94 0.0089 0.0004
 Earth -51719-08-02 06:42 J -17168728.43 -17168728.22 -17168728.01 0.0089 0.0050
 Moon -51719-08-02 06:57 J -17168728.40 -17168728.21 -17168727.97 0.0089 0.0051 *
 Mercury -51719-10-07 11:30 J -17168662.16 -17168662.02 -17168661.88 0.0089 0.0003
 Mercury -51718-01-03 13:11 J -17168574.09 -17168573.95 -17168573.81 0.0089 0.0009
 Mercury -51718-04-01 14:37 J -17168486.02 -17168485.89 -17168485.75 0.0089 0.0016
 Mercury -51718-06-28 16:18 J -17168397.96 -17168397.82 -17168397.68 0.0089 0.0022
 Earth -51718-08-04 17:45 J -17168360.99 -17168360.76 -17168360.50 0.0089 0.0028
 Moon -51718-08-04 18:13 J -17168360.97 -17168360.74 -17168360.49 0.0089 0.0027 *
 Mercury -51718-09-24 17:59 J -17168309.89 -17168309.75 -17168309.62 0.0089 0.0028
 Mercury -51718-12-21 19:25 J -17168221.82 -17168221.69 -17168221.56 0.0089 0.0034
 Mercury -51717-03-18 21:06 J -17168133.75 -17168133.62 -17168133.49 0.0089 0.0040
 Mercury -51717-06-14 22:47 J -17168045.67 -17168045.55 -17168045.43 0.0089 0.0046
 Moon -51717-08-06 04:18 J -17167993.58 -17167993.32 -17167993.05 0.0089 0.0005
 Earth -51717-08-06 05:30 J -17167993.52 -17167993.27 -17167993.01 0.0089 0.0005 *

Mercury -51717-09-11 00:13 J -17167957.60 -17167957.49 -17167957.38 0.0089 0.0052

Mercury -51717-12-08 01:54 J -17167869.53 -17167869.42 -17167869.32 0.0089 0.0058

Mercury -51716-03-06 03:21 J -17167781.45 -17167781.36 -17167781.26 0.0089 0.0064

Mercury -51716-06-02 05:01 J -17167693.38 -17167693.29 -17167693.21 0.0089 0.0070

Earth -51716-08-08 16:47 J -17167626.05 -17167625.80 -17167625.54 0.0089 0.0019

Moon -51716-08-08 19:25 J -17167625.93 -17167625.69 -17167625.44 0.0089 0.0019 *

Mercury -51716-08-29 06:28 J -17167605.30 -17167605.23 -17167605.16 0.0089 0.0076

Mercury -51716-11-25 07:54 J -17167517.21 -17167517.17 -17167517.11 0.0089 0.0082

Mercury -51715-02-21 09:21 J -17167429.11 -17167429.11 -17167429.09 0.0089 0.0088

Moon -51715-08-11 01:11 J -17167258.68 -17167258.45 -17167258.22 0.0089 0.0041

Earth -51715-08-11 04:04 J -17167258.54 -17167258.33 -17167258.09 0.0089 0.0042 *

Earth -51714-08-13 15:06 J -17166891.02 -17166890.87 -17166890.67 0.0089 0.0065

Moon -51714-08-13 18:42 J -17166890.86 -17166890.72 -17166890.53 0.0089 0.0067 *

Moon -51713-08-14 23:01 J -17166523.56 -17166523.54 -17166523.46 0.0089 0.0087

Earth -51713-08-15 02:09 J -17166523.41 -17166523.41 -17166523.33 0.0089 0.0088

Venus -51680-04-09 16:04 J -17154597.93 -17154597.83 -17154597.69 0.0089 0.0074

Venus -51680-11-21 04:04 J -17154372.48 -17154372.33 -17154372.15 0.0089 0.0056

Venus -51679-07-04 16:04 J -17154147.01 -17154146.83 -17154146.63 0.0089 0.0038

Venus -51678-02-15 04:04 J -17153921.53 -17153921.33 -17153921.12 0.0089 0.0021

Venus -51678-09-28 16:04 J -17153696.04 -17153695.83 -17153695.61 0.0089 0.0003

Venus -51677-05-11 04:04 J -17153470.54 -17153470.33 -17153470.12 0.0089 0.0015

Venus -51677-12-22 15:49 J -17153245.03 -17153244.84 -17153244.63 0.0089 0.0033

Venus -51676-08-05 03:35 J -17153019.50 -17153019.35 -17153019.15 0.0089 0.0052

Venus -51675-03-18 16:04 J -17152793.97 -17152793.83 -17152793.70 0.0089 0.0069

Venus -51675-10-30 03:35 J -17152568.39 -17152568.35 -17152568.29 0.0089 0.0087

Mars -51673-04-19 03:21 J -17152031.48 -17152031.36 -17152031.20 0.0089 0.0077

Mars -51671-03-13 13:40 J -17151338.11 -17151337.93 -17151337.70 0.0089 0.0062

Mars -51669-02-05 01:11 J -17150644.68 -17150644.45 -17150644.19 0.0089 0.0046

Mars -51668-12-29 11:16 J -17149951.29 -17149951.03 -17149950.75 0.0089 0.0029

Mars -51666-11-22 22:04 J -17149257.85 -17149257.58 -17149257.29 0.0089 0.0012

Mars -51664-10-16 10:04 J -17148564.36 -17148564.08 -17148563.79 0.0089 0.0005
 Mars -51662-09-09 21:06 J -17147870.88 -17147870.62 -17147870.33 0.0089 0.0022
 Mars -51660-08-03 08:23 J -17147177.39 -17147177.15 -17147176.88 0.0089 0.0039
 Mars -51658-06-27 21:35 J -17146483.80 -17146483.60 -17146483.35 0.0089 0.0055
 Mars -51656-05-21 11:59 J -17145790.15 -17145790.00 -17145789.81 0.0089 0.0071
 Mars -51654-04-15 01:54 J -17145096.46 -17145096.42 -17145096.35 0.0089 0.0088
 Mercury -51640-08-12 06:13 J -17139863.28 -17139863.24 -17139863.18 0.0089 0.0084
 Mercury -51640-11-08 08:52 J -17139775.20 -17139775.13 -17139775.03 0.0089 0.0077
 Mercury -51639-02-04 11:59 J -17139687.11 -17139687.00 -17139686.89 0.0089 0.0069
 Mercury -51639-05-03 14:37 J -17139599.01 -17139598.89 -17139598.76 0.0089 0.0062
 Mercury -51639-07-30 17:30 J -17139510.90 -17139510.77 -17139510.63 0.0089 0.0054
 Mercury -51639-10-26 20:09 J -17139422.80 -17139422.66 -17139422.50 0.0089 0.0047
 Mercury -51638-01-22 23:16 J -17139334.69 -17139334.53 -17139334.37 0.0089 0.0039
 Moon -51638-01-25 23:59 J -17139331.63 -17139331.50 -17139331.33 0.0089 0.0071
 Earth -51638-01-26 00:28 J -17139331.61 -17139331.48 -17139331.34 0.0089 0.0075 *
 Mercury -51638-04-21 01:54 J -17139246.57 -17139246.42 -17139246.24 0.0089 0.0032
 Mercury -51638-07-18 04:47 J -17139158.46 -17139158.30 -17139158.12 0.0089 0.0024
 Mercury -51638-10-14 07:54 J -17139070.34 -17139070.17 -17139070.00 0.0089 0.0016
 Mercury -51637-01-10 10:47 J -17138982.23 -17138982.05 -17138981.87 0.0089 0.0008
 Moon -51637-01-28 10:47 J -17138964.25 -17138964.05 -17138963.84 0.0089 0.0056
 Earth -51637-01-28 12:13 J -17138964.19 -17138963.99 -17138963.78 0.0089 0.0052 *
 Mercury -51637-04-07 13:40 J -17138894.11 -17138893.93 -17138893.75 0.0089 0.0001
 Mercury -51637-07-04 16:33 J -17138805.98 -17138805.81 -17138805.63 0.0089 0.0007
 Mercury -51637-09-30 19:25 J -17138717.86 -17138717.69 -17138717.51 0.0089 0.0015
 Mercury -51637-12-27 22:18 J -17138629.74 -17138629.57 -17138629.39 0.0089 0.0023
 Earth -51636-01-30 00:13 J -17138596.73 -17138596.49 -17138596.24 0.0089 0.0029
 Moon -51636-01-30 02:09 J -17138596.65 -17138596.41 -17138596.17 0.0089 0.0025 *
 Mercury -51636-03-26 01:11 J -17138541.61 -17138541.45 -17138541.27 0.0089 0.0031
 Mercury -51636-06-22 04:04 J -17138453.48 -17138453.33 -17138453.16 0.0089 0.0039
 Mercury -51636-09-18 06:57 J -17138365.35 -17138365.21 -17138365.04 0.0089 0.0047

Mercury -51636-12-15 09:49 J -17138277.21 -17138277.09 -17138276.93 0.0089 0.0055

Moon -51635-02-01 09:06 J -17138229.38 -17138229.12 -17138228.86 0.0089 0.0010

Earth -51635-02-01 12:28 J -17138229.24 -17138228.98 -17138228.72 0.0089 0.0006 *

Mercury -51635-03-13 12:57 J -17138189.07 -17138188.96 -17138188.82 0.0089 0.0063

Mercury -51635-06-09 16:18 J -17138100.93 -17138100.82 -17138100.71 0.0089 0.0070

Mercury -51635-09-05 19:11 J -17138012.78 -17138012.70 -17138012.61 0.0089 0.0078

Mercury -51635-12-02 22:18 J -17137924.61 -17137924.57 -17137924.53 0.0089 0.0086

Earth -51634-02-03 23:59 J -17137861.74 -17137861.50 -17137861.23 0.0089 0.0018

Moon -51634-02-04 03:35 J -17137861.59 -17137861.35 -17137861.09 0.0089 0.0022 *

Moon -51633-02-06 08:37 J -17137494.37 -17137494.14 -17137493.90 0.0089 0.0037

Earth -51633-02-06 12:13 J -17137494.21 -17137493.99 -17137493.75 0.0089 0.0041 *

Earth -51632-02-07 23:59 J -17137126.66 -17137126.50 -17137126.31 0.0089 0.0064

Moon -51632-02-08 03:35 J -17137126.51 -17137126.35 -17137126.18 0.0089 0.0068 *

Moon -51631-02-10 09:35 J -17136759.16 -17136759.10 -17136758.99 0.0089 0.0084

Earth -51631-02-10 12:13 J -17136759.03 -17136758.99 -17136758.94 0.0089 0.0087 *

Venus -51598-05-27 02:09 J -17124600.50 -17124600.41 -17124600.27 0.0088 0.0076

Venus -51597-01-07 16:18 J -17124374.97 -17124374.82 -17124374.62 0.0088 0.0058

Venus -51597-08-20 06:57 J -17124149.41 -17124149.21 -17124149.00 0.0088 0.0038

Venus -51596-04-02 21:06 J -17123923.84 -17123923.62 -17123923.39 0.0088 0.0020

Venus -51596-11-14 11:16 J -17123698.26 -17123698.03 -17123697.80 0.0088 0.0002

Venus -51595-06-28 01:11 J -17123472.66 -17123472.45 -17123472.22 0.0088 0.0017

Venus -51594-02-08 15:21 J -17123247.06 -17123246.86 -17123246.64 0.0088 0.0035

Venus -51594-09-22 05:30 J -17123021.44 -17123021.27 -17123021.08 0.0088 0.0053

Venus -51593-05-04 19:40 J -17122795.81 -17122795.68 -17122795.55 0.0088 0.0071

Mars -51590-12-31 18:28 J -17121459.86 -17121459.73 -17121459.51 0.0088 0.0077

Mars -51588-11-27 09:49 J -17120763.33 -17120763.09 -17120762.80 0.0088 0.0057

Mars -51586-10-25 00:57 J -17120066.77 -17120066.46 -17120066.13 0.0088 0.0037

Mars -51584-09-20 16:04 J -17119370.17 -17119369.83 -17119369.48 0.0088 0.0016

Mars -51582-08-18 05:59 J -17118673.59 -17118673.25 -17118672.90 0.0088 0.0004

Mars -51580-07-14 18:42 J -17117977.04 -17117976.72 -17117976.37 0.0088 0.0023

Mars -51578-06-11 06:57 J -17117280.49 -17117280.21 -17117279.88 0.0088 0.0043
 Mars -51576-05-07 18:13 J -17116583.96 -17116583.74 -17116583.47 0.0088 0.0063
 Mars -51574-04-04 03:49 J -17115887.44 -17115887.34 -17115887.18 0.0088 0.0081
 Mercury -51558-11-21 10:04 J -17109812.09 -17109812.08 -17109812.04 0.0088 0.0088
 Mercury -51557-02-17 11:59 J -17109724.05 -17109724.00 -17109723.94 0.0088 0.0081
 Mercury -51557-05-15 13:40 J -17109636.00 -17109635.93 -17109635.85 0.0088 0.0075
 Mercury -51557-08-11 15:06 J -17109547.94 -17109547.87 -17109547.76 0.0088 0.0069
 Mercury -51557-11-07 17:01 J -17109459.88 -17109459.79 -17109459.68 0.0089 0.0062
 Mercury -51556-02-03 18:42 J -17109371.82 -17109371.72 -17109371.60 0.0089 0.0056
 Mercury -51556-05-02 20:23 J -17109283.76 -17109283.65 -17109283.52 0.0089 0.0049
 Mercury -51556-07-29 22:18 J -17109195.70 -17109195.57 -17109195.45 0.0089 0.0043
 Earth -51556-07-30 05:01 J -17109195.35 -17109195.29 -17109195.18 0.0089 0.0084
 Moon -51556-07-30 06:13 J -17109195.34 -17109195.24 -17109195.10 0.0089 0.0079 *
 Mercury -51556-10-25 23:45 J -17109107.64 -17109107.51 -17109107.37 0.0089 0.0037
 Mercury -51555-01-22 01:25 J -17109019.57 -17109019.44 -17109019.30 0.0089 0.0030
 Mercury -51555-04-20 03:06 J -17108931.51 -17108931.37 -17108931.23 0.0089 0.0024
 Mercury -51555-07-17 04:47 J -17108843.44 -17108843.30 -17108843.16 0.0089 0.0018
 Earth -51555-08-01 16:33 J -17108827.97 -17108827.81 -17108827.60 0.0089 0.0061
 Moon -51555-08-01 17:45 J -17108827.92 -17108827.76 -17108827.59 0.0089 0.0065 *
 Mercury -51555-10-13 06:28 J -17108755.37 -17108755.23 -17108755.09 0.0089 0.0012
 Mercury -51554-01-09 07:54 J -17108667.31 -17108667.17 -17108667.02 0.0089 0.0007
 Mercury -51554-04-07 09:35 J -17108579.24 -17108579.10 -17108578.95 0.0089 0.0002
 Mercury -51554-07-04 11:16 J -17108491.17 -17108491.03 -17108490.89 0.0089 0.0007
 Moon -51554-08-04 02:37 J -17108460.64 -17108460.39 -17108460.15 0.0089 0.0033
 Earth -51554-08-04 04:04 J -17108460.54 -17108460.33 -17108460.08 0.0089 0.0038 *
 Mercury -51554-09-30 12:57 J -17108403.10 -17108402.96 -17108402.82 0.0089 0.0013
 Mercury -51554-12-27 14:23 J -17108315.03 -17108314.90 -17108314.76 0.0089 0.0019
 Mercury -51553-03-24 15:49 J -17108226.96 -17108226.84 -17108226.69 0.0089 0.0026
 Mercury -51553-06-20 17:30 J -17108138.90 -17108138.77 -17108138.63 0.0089 0.0032
 Earth -51553-08-05 15:35 J -17108093.10 -17108092.85 -17108092.59 0.0089 0.0014

Moon -51553-08-05 17:59 J -17108092.99 -17108092.75 -17108092.49 0.0089 0.0019 *
 Mercury -51553-09-16 19:11 J -17108050.82 -17108050.70 -17108050.57 0.0089 0.0037
 Mercury -51553-12-13 20:37 J -17107962.75 -17107962.64 -17107962.51 0.0089 0.0044
 Mercury -51552-03-11 22:18 J -17107874.68 -17107874.57 -17107874.45 0.0089 0.0050
 Mercury -51552-06-07 23:45 J -17107786.61 -17107786.51 -17107786.39 0.0089 0.0056
 Moon -51552-08-07 23:30 J -17107725.78 -17107725.52 -17107725.26 0.0089 0.0014
 Earth -51552-08-08 03:06 J -17107725.62 -17107725.37 -17107725.11 0.0089 0.0009 *
 Mercury -51552-09-04 01:25 J -17107698.53 -17107698.44 -17107698.33 0.0089 0.0062
 Mercury -51552-12-01 02:52 J -17107610.46 -17107610.38 -17107610.28 0.0089 0.0068
 Mercury -51551-02-27 04:18 J -17107522.38 -17107522.32 -17107522.23 0.0089 0.0074
 Mercury -51551-05-26 05:59 J -17107434.30 -17107434.25 -17107434.18 0.0089 0.0080
 Earth -51551-08-10 14:23 J -17107358.14 -17107357.90 -17107357.66 0.0089 0.0032
 Moon -51551-08-10 17:30 J -17107358.00 -17107357.77 -17107357.51 0.0089 0.0028 *
 Mercury -51551-08-22 07:25 J -17107346.21 -17107346.19 -17107346.14 0.0089 0.0086
 Moon -51550-08-12 21:49 J -17106990.75 -17106990.59 -17106990.38 0.0089 0.0060
 Earth -51550-08-13 01:40 J -17106990.62 -17106990.43 -17106990.22 0.0089 0.0055 *
 Earth -51549-08-14 12:13 J -17106623.07 -17106622.99 -17106622.84 0.0089 0.0079
 Moon -51549-08-14 15:06 J -17106622.99 -17106622.87 -17106622.69 0.0089 0.0074 *
 Venus -51516-07-12 04:18 J -17094603.38 -17094603.32 -17094603.21 0.0089 0.0081
 Venus -51515-02-22 16:18 J -17094377.95 -17094377.82 -17094377.65 0.0089 0.0064
 Venus -51515-10-06 04:33 J -17094152.49 -17094152.31 -17094152.12 0.0089 0.0045
 Venus -51514-05-19 16:04 J -17093927.02 -17093926.83 -17093926.61 0.0089 0.0028
 Venus -51514-12-31 04:18 J -17093701.53 -17093701.32 -17093701.11 0.0089 0.0010
 Venus -51513-08-12 16:18 J -17093476.03 -17093475.82 -17093475.61 0.0089 0.0008
 Venus -51512-03-26 04:18 J -17093250.52 -17093250.32 -17093250.12 0.0089 0.0025
 Venus -51512-11-06 15:49 J -17093025.01 -17093024.84 -17093024.64 0.0089 0.0044
 Venus -51511-06-20 03:35 J -17092799.49 -17092799.35 -17092799.18 0.0089 0.0061
 Venus -51510-01-31 15:49 J -17092573.93 -17092573.84 -17092573.74 0.0089 0.0079
 Mars -51510-12-03 22:18 J -17092267.68 -17092267.57 -17092267.40 0.0089 0.0078
 Mars -51508-10-27 09:21 J -17091574.30 -17091574.11 -17091573.89 0.0089 0.0062

Mars -51506-09-20 19:25 J -17090880.92 -17090880.69 -17090880.43 0.0089 0.0046
 Mars -51504-08-14 06:42 J -17090187.48 -17090187.22 -17090186.94 0.0089 0.0030
 Mars -51502-07-08 17:16 J -17089494.05 -17089493.78 -17089493.49 0.0089 0.0013
 Mars -51500-06-01 03:35 J -17088800.63 -17088800.35 -17088800.06 0.0089 0.0004
 Mars -51498-04-25 15:21 J -17088107.13 -17088106.86 -17088106.58 0.0089 0.0020
 Mars -51496-03-19 02:37 J -17087413.62 -17087413.39 -17087413.10 0.0089 0.0038
 Mars -51494-02-10 14:23 J -17086720.11 -17086719.90 -17086719.65 0.0089 0.0053
 Mars -51492-01-04 03:49 J -17086026.50 -17086026.34 -17086026.14 0.0089 0.0069
 Mars -51491-11-28 19:11 J -17085332.76 -17085332.70 -17085332.59 0.0089 0.0085
 Mercury -51475-02-10 02:23 J -17079780.41 -17079780.40 -17079780.36 0.0089 0.0088
 Mercury -51475-05-09 05:30 J -17079692.34 -17079692.27 -17079692.20 0.0089 0.0080
 Mercury -51475-08-05 07:54 J -17079604.25 -17079604.17 -17079604.06 0.0089 0.0073
 Mercury -51475-11-01 11:01 J -17079516.16 -17079516.04 -17079515.92 0.0089 0.0065
 Moon -51474-01-25 08:09 J -17079431.19 -17079431.16 -17079431.10 0.0089 0.0087
 Earth -51474-01-25 09:49 J -17079431.14 -17079431.09 -17079431.03 0.0089 0.0086 *
 Mercury -51474-01-28 13:40 J -17079428.05 -17079427.93 -17079427.79 0.0089 0.0058
 Mercury -51474-04-26 16:33 J -17079339.95 -17079339.81 -17079339.66 0.0089 0.0050
 Mercury -51474-07-23 19:11 J -17079251.84 -17079251.70 -17079251.54 0.0089 0.0043
 Mercury -51474-10-19 22:18 J -17079163.73 -17079163.57 -17079163.41 0.0089 0.0035
 Mercury -51473-01-16 00:57 J -17079075.62 -17079075.46 -17079075.29 0.0089 0.0028
 Earth -51473-01-27 21:35 J -17079063.77 -17079063.60 -17079063.41 0.0089 0.0063
 Moon -51473-01-27 23:59 J -17079063.65 -17079063.50 -17079063.30 0.0089 0.0063 *
 Mercury -51473-04-13 03:49 J -17078987.50 -17078987.34 -17078987.16 0.0089 0.0020
 Mercury -51473-07-10 06:57 J -17078899.39 -17078899.21 -17078899.04 0.0089 0.0012
 Mercury -51473-10-06 09:49 J -17078811.27 -17078811.09 -17078810.92 0.0089 0.0005
 Mercury -51472-01-02 12:42 J -17078723.15 -17078722.97 -17078722.80 0.0089 0.0004
 Moon -51472-01-29 06:28 J -17078696.45 -17078696.23 -17078695.98 0.0089 0.0041
 Earth -51472-01-29 09:35 J -17078696.32 -17078696.10 -17078695.86 0.0089 0.0040 *
 Mercury -51472-03-31 15:35 J -17078635.03 -17078634.85 -17078634.68 0.0089 0.0011
 Mercury -51472-06-27 18:28 J -17078546.90 -17078546.73 -17078546.56 0.0089 0.0019

Mercury -51472-09-23 21:21 J -17078458.78 -17078458.61 -17078458.44 0.0089 0.0027
 Mercury -51472-12-21 00:13 J -17078370.65 -17078370.49 -17078370.32 0.0089 0.0035
 Earth -51471-01-31 21:49 J -17078328.84 -17078328.59 -17078328.34 0.0089 0.0016
 Moon -51471-02-01 01:11 J -17078328.69 -17078328.45 -17078328.18 0.0089 0.0015 *
 Mercury -51471-03-19 02:52 J -17078282.52 -17078282.38 -17078282.21 0.0089 0.0043
 Mercury -51471-06-15 05:59 J -17078194.39 -17078194.25 -17078194.09 0.0089 0.0051
 Mercury -51471-09-11 08:52 J -17078106.25 -17078106.13 -17078105.98 0.0089 0.0059
 Mercury -51471-12-08 12:13 J -17078018.11 -17078017.99 -17078017.87 0.0089 0.0066
 Moon -51470-02-03 06:28 J -17077961.48 -17077961.23 -17077960.97 0.0089 0.0007
 Earth -51470-02-03 09:49 J -17077961.34 -17077961.09 -17077960.83 0.0089 0.0008 *
 Mercury -51470-03-06 15:06 J -17077929.96 -17077929.87 -17077929.77 0.0089 0.0074
 Mercury -51470-06-02 17:59 J -17077841.81 -17077841.75 -17077841.68 0.0089 0.0082
 Earth -51469-02-05 21:35 J -17077593.83 -17077593.60 -17077593.35 0.0089 0.0031
 Moon -51469-02-06 00:42 J -17077593.71 -17077593.47 -17077593.22 0.0089 0.0033 *
 Moon -51468-02-07 07:11 J -17077226.38 -17077226.20 -17077225.98 0.0089 0.0053
 Earth -51468-02-07 09:21 J -17077226.29 -17077226.11 -17077225.88 0.0089 0.0055 *
 Earth -51467-02-09 21:35 J -17076858.71 -17076858.60 -17076858.46 0.0089 0.0078
 Moon -51467-02-09 22:33 J -17076858.67 -17076858.56 -17076858.44 0.0089 0.0079 *
 Venus -51434-08-28 12:13 J -17064606.05 -17064605.99 -17064605.89 0.0088 0.0082
 Venus -51433-04-10 02:23 J -17064380.54 -17064380.40 -17064380.23 0.0088 0.0064
 Venus -51433-11-21 16:47 J -17064154.99 -17064154.80 -17064154.60 0.0088 0.0046
 Venus -51432-07-05 06:57 J -17063929.42 -17063929.21 -17063928.99 0.0088 0.0027
 Venus -51431-02-15 21:21 J -17063703.84 -17063703.61 -17063703.38 0.0088 0.0009
 Venus -51431-09-29 11:30 J -17063478.25 -17063478.02 -17063477.79 0.0088 0.0009
 Venus -51430-05-13 01:11 J -17063252.65 -17063252.45 -17063252.22 0.0088 0.0028
 Venus -51430-12-24 15:21 J -17063027.04 -17063026.86 -17063026.65 0.0088 0.0046
 Venus -51429-08-06 05:30 J -17062801.41 -17062801.27 -17062801.10 0.0088 0.0064
 Venus -51428-03-19 19:40 J -17062575.74 -17062575.68 -17062575.59 0.0088 0.0083
 Mars -51426-08-14 02:23 J -17061698.54 -17061698.40 -17061698.19 0.0088 0.0076
 Mars -51424-07-10 17:59 J -17061002.01 -17061001.75 -17061001.48 0.0088 0.0057

Mars -51422-06-07 08:37 J -17060305.44 -17060305.14 -17060304.80 0.0088 0.0037
 Mars -51420-05-03 23:59 J -17059608.84 -17059608.50 -17059608.15 0.0088 0.0017
 Mars -51418-03-31 14:52 J -17058912.22 -17058911.88 -17058911.52 0.0088 0.0003
 Mars -51416-02-25 04:47 J -17058215.62 -17058215.30 -17058214.95 0.0088 0.0023
 Mars -51414-01-22 17:59 J -17057519.06 -17057518.75 -17057518.44 0.0088 0.0042
 Mars -51413-12-19 05:01 J -17056822.50 -17056822.29 -17056822.00 0.0088 0.0062
 Mars -51411-11-15 16:04 J -17056125.93 -17056125.83 -17056125.64 0.0088 0.0080
 Mercury -51393-08-17 10:04 J -17049641.12 -17049641.08 -17049641.03 0.0088 0.0084
 Mercury -51393-11-13 11:30 J -17049553.07 -17049553.02 -17049552.93 0.0088 0.0078
 Mercury -51392-02-09 13:40 J -17049465.02 -17049464.93 -17049464.85 0.0088 0.0071
 Mercury -51392-05-08 15:06 J -17049376.96 -17049376.87 -17049376.76 0.0088 0.0065
 Mercury -51392-08-04 16:47 J -17049288.90 -17049288.80 -17049288.68 0.0088 0.0058
 Mercury -51392-10-31 18:42 J -17049200.84 -17049200.72 -17049200.61 0.0088 0.0052
 Mercury -51391-01-27 20:09 J -17049112.78 -17049112.66 -17049112.53 0.0089 0.0046
 Mercury -51391-04-25 21:49 J -17049024.71 -17049024.59 -17049024.45 0.0089 0.0039
 Mercury -51391-07-22 23:30 J -17048936.65 -17048936.52 -17048936.38 0.0089 0.0033
 Moon -51391-08-01 01:11 J -17048927.59 -17048927.45 -17048927.27 0.0089 0.0071
 Earth -51391-08-01 03:21 J -17048927.49 -17048927.36 -17048927.18 0.0089 0.0071 *
 Mercury -51391-10-19 01:11 J -17048848.58 -17048848.45 -17048848.31 0.0089 0.0027
 Mercury -51390-01-15 02:52 J -17048760.52 -17048760.38 -17048760.24 0.0089 0.0021
 Mercury -51390-04-13 04:33 J -17048672.45 -17048672.31 -17048672.17 0.0089 0.0014
 Mercury -51390-07-10 06:13 J -17048584.38 -17048584.24 -17048584.10 0.0089 0.0008
 Earth -51390-08-03 14:37 J -17048560.08 -17048559.89 -17048559.65 0.0089 0.0048
 Moon -51390-08-03 17:59 J -17048559.95 -17048559.75 -17048559.52 0.0089 0.0047 *
 Mercury -51390-10-06 07:54 J -17048496.32 -17048496.17 -17048496.03 0.0089 0.0002
 Mercury -51389-01-02 09:21 J -17048408.25 -17048408.11 -17048407.96 0.0089 0.0005
 Mercury -51389-03-30 11:01 J -17048320.18 -17048320.04 -17048319.90 0.0089 0.0011
 Mercury -51389-06-26 12:42 J -17048232.11 -17048231.97 -17048231.83 0.0089 0.0017
 Moon -51389-08-04 23:01 J -17048192.78 -17048192.54 -17048192.28 0.0089 0.0024
 Earth -51389-08-05 02:09 J -17048192.64 -17048192.41 -17048192.14 0.0089 0.0025 *

Mercury -51389-09-22 14:23 J -17048144.04 -17048143.90 -17048143.77 0.0089 0.0023
 Mercury -51389-12-19 15:49 J -17048055.97 -17048055.84 -17048055.70 0.0089 0.0029
 Mercury -51388-03-17 17:30 J -17047967.90 -17047967.77 -17047967.64 0.0089 0.0035
 Mercury -51388-06-13 18:57 J -17047879.83 -17047879.71 -17047879.58 0.0089 0.0041
 Earth -51388-08-07 13:40 J -17047825.18 -17047824.93 -17047824.67 0.0089 0.0002
 Moon -51388-08-07 17:30 J -17047825.03 -17047824.77 -17047824.51 0.0089 0.0001 *
 Mercury -51388-09-09 20:23 J -17047791.76 -17047791.65 -17047791.52 0.0089 0.0048
 Mercury -51388-12-06 22:04 J -17047703.68 -17047703.58 -17047703.46 0.0089 0.0053
 Mercury -51387-03-04 23:30 J -17047615.61 -17047615.52 -17047615.40 0.0089 0.0060
 Mercury -51387-06-01 01:11 J -17047527.54 -17047527.45 -17047527.35 0.0089 0.0065
 Moon -51387-08-09 22:04 J -17047457.82 -17047457.58 -17047457.33 0.0089 0.0022
 Earth -51387-08-10 00:57 J -17047457.70 -17047457.46 -17047457.20 0.0089 0.0023 *
 Mercury -51387-08-28 02:37 J -17047439.46 -17047439.39 -17047439.29 0.0089 0.0072
 Mercury -51387-11-24 04:04 J -17047351.38 -17047351.33 -17047351.25 0.0089 0.0078
 Mercury -51386-02-20 05:59 J -17047263.29 -17047263.25 -17047263.20 0.0089 0.0083
 Earth -51386-08-12 12:13 J -17047090.20 -17047089.99 -17047089.76 0.0089 0.0046
 Moon -51386-08-12 14:52 J -17047090.10 -17047089.88 -17047089.64 0.0089 0.0045 *
 Moon -51385-08-13 21:49 J -17046722.73 -17046722.59 -17046722.42 0.0089 0.0070
 Earth -51385-08-13 23:30 J -17046722.67 -17046722.52 -17046722.35 0.0089 0.0069 *
 Venus -51352-10-13 17:16 J -17034608.81 -17034608.78 -17034608.73 0.0089 0.0087
 Venus -51351-05-27 04:47 J -17034383.41 -17034383.30 -17034383.14 0.0089 0.0071
 Venus -51350-01-07 17:01 J -17034157.95 -17034157.79 -17034157.61 0.0089 0.0052
 Venus -51350-08-21 05:16 J -17033932.48 -17033932.28 -17033932.08 0.0089 0.0035
 Venus -51349-04-02 17:01 J -17033706.99 -17033706.79 -17033706.58 0.0089 0.0017
 Venus -51349-11-14 05:01 J -17033481.51 -17033481.29 -17033481.08 0.0089 0.0001
 Venus -51348-06-27 16:47 J -17033256.01 -17033255.80 -17033255.59 0.0089 0.0018
 Venus -51347-02-08 04:33 J -17033030.50 -17033030.31 -17033030.11 0.0089 0.0036
 Venus -51347-09-21 16:18 J -17032804.97 -17032804.82 -17032804.63 0.0089 0.0054
 Venus -51346-05-05 04:33 J -17032579.43 -17032579.31 -17032579.18 0.0089 0.0071
 Mars -51346-07-19 17:30 J -17032503.89 -17032503.77 -17032503.61 0.0089 0.0078

Venus -51346-12-16 16:18 J -17032353.82 -17032353.82 -17032353.80 0.0089 0.0089
 Mars -51344-06-12 05:45 J -17031810.46 -17031810.26 -17031810.05 0.0089 0.0062
 Mars -51342-05-06 16:33 J -17031117.05 -17031116.81 -17031116.56 0.0089 0.0046
 Mars -51340-03-30 02:23 J -17030423.66 -17030423.40 -17030423.13 0.0089 0.0030
 Mars -51338-02-21 13:11 J -17029730.23 -17029729.95 -17029729.67 0.0089 0.0013
 Mars -51336-01-15 00:28 J -17029036.76 -17029036.48 -17029036.19 0.0089 0.0003
 Mars -51335-12-09 10:33 J -17028343.33 -17028343.06 -17028342.77 0.0089 0.0019
 Mars -51333-11-01 22:18 J -17027649.82 -17027649.57 -17027649.30 0.0089 0.0036
 Mars -51331-09-26 10:47 J -17026956.28 -17026956.05 -17026955.81 0.0089 0.0052
 Mars -51329-08-19 22:33 J -17026262.73 -17026262.56 -17026262.36 0.0089 0.0068
 Mars -51327-07-14 11:01 J -17025569.11 -17025569.04 -17025568.91 0.0089 0.0084
 Saturn -51316-12-03 15:21 J -17021409.48 -17021408.86 -17021408.16 0.0089 0.0020
 Mercury -51311-11-07 01:54 J -17019609.47 -17019609.42 -17019609.36 0.0089 0.0083
 Mercury -51310-02-03 04:33 J -17019521.39 -17019521.31 -17019521.21 0.0089 0.0076
 Mercury -51310-05-02 07:11 J -17019433.30 -17019433.20 -17019433.08 0.0089 0.0069
 Mercury -51310-07-29 10:04 J -17019345.20 -17019345.08 -17019344.95 0.0089 0.0061
 Mercury -51310-10-25 12:42 J -17019257.09 -17019256.97 -17019256.82 0.0089 0.0054
 Mercury -51309-01-21 15:35 J -17019168.99 -17019168.85 -17019168.69 0.0089 0.0046
 Moon -51309-01-27 04:18 J -17019163.46 -17019163.32 -17019163.14 0.0089 0.0069
 Earth -51309-01-27 07:54 J -17019163.29 -17019163.17 -17019163.01 0.0089 0.0074 *
 Mercury -51309-04-18 18:42 J -17019080.88 -17019080.72 -17019080.56 0.0089 0.0038
 Mercury -51309-07-15 21:21 J -17018992.77 -17018992.61 -17018992.44 0.0089 0.0031
 Mercury -51309-10-12 00:13 J -17018904.65 -17018904.49 -17018904.31 0.0089 0.0023
 Mercury -51308-01-08 03:06 J -17018816.54 -17018816.37 -17018816.19 0.0089 0.0015
 Earth -51308-01-28 20:09 J -17018795.87 -17018795.66 -17018795.44 0.0089 0.0050
 Moon -51308-01-28 23:16 J -17018795.71 -17018795.53 -17018795.31 0.0089 0.0055 *
 Mercury -51308-04-06 05:59 J -17018728.42 -17018728.25 -17018728.07 0.0089 0.0008
 Mercury -51308-07-03 08:52 J -17018640.30 -17018640.13 -17018639.95 0.0089 0.0002
 Mercury -51308-09-29 11:45 J -17018552.18 -17018552.01 -17018551.83 0.0089 0.0008
 Mercury -51308-12-26 14:37 J -17018464.06 -17018463.89 -17018463.71 0.0089 0.0016

Moon -51307-01-31 04:47 J -17018428.54 -17018428.30 -17018428.05 0.0089 0.0022
 Earth -51307-01-31 08:09 J -17018428.40 -17018428.16 -17018427.90 0.0089 0.0027 *
 Mercury -51307-03-24 17:30 J -17018375.93 -17018375.77 -17018375.59 0.0089 0.0024
 Mercury -51307-06-20 20:23 J -17018287.81 -17018287.65 -17018287.48 0.0089 0.0032
 Mercury -51307-09-16 23:30 J -17018199.68 -17018199.52 -17018199.36 0.0089 0.0039
 Mercury -51307-12-14 02:23 J -17018111.55 -17018111.40 -17018111.25 0.0089 0.0047
 Earth -51306-02-02 20:09 J -17018060.91 -17018060.66 -17018060.40 0.0089 0.0003
 Moon -51306-02-02 22:47 J -17018060.81 -17018060.55 -17018060.28 0.0089 0.0007 *
 Mercury -51306-03-12 05:16 J -17018023.41 -17018023.28 -17018023.13 0.0089 0.0055
 Mercury -51306-06-08 08:09 J -17017935.27 -17017935.16 -17017935.02 0.0089 0.0063
 Mercury -51306-09-04 11:01 J -17017847.13 -17017847.04 -17017846.92 0.0089 0.0071
 Mercury -51306-12-01 13:54 J -17017758.98 -17017758.92 -17017758.82 0.0089 0.0079
 Moon -51305-02-05 06:42 J -17017693.46 -17017693.22 -17017692.98 0.0089 0.0025
 Earth -51305-02-05 08:23 J -17017693.40 -17017693.15 -17017692.90 0.0089 0.0021 *
 Mercury -51305-02-27 17:01 J -17017670.81 -17017670.79 -17017670.74 0.0089 0.0087
 Earth -51304-02-06 20:09 J -17017325.87 -17017325.66 -17017325.42 0.0089 0.0045
 Moon -51304-02-06 21:06 J -17017325.84 -17017325.62 -17017325.37 0.0089 0.0041 *
 Earth -51303-02-09 07:54 J -17016958.31 -17016958.17 -17016957.98 0.0089 0.0069
 Moon -51303-02-09 09:06 J -17016958.25 -17016958.12 -17016957.97 0.0089 0.0073 *
 Moon -51302-02-11 18:28 J -17016590.75 -17016590.73 -17016590.69 0.0089 0.0088
 Venus -51269-07-12 12:57 J -17004386.09 -17004385.96 -17004385.82 0.0088 0.0070
 Venus -51268-02-23 03:06 J -17004160.54 -17004160.37 -17004160.17 0.0088 0.0052
 Venus -51268-10-06 17:16 J -17003934.97 -17003934.78 -17003934.55 0.0088 0.0034
 Venus -51267-05-20 07:25 J -17003709.40 -17003709.19 -17003708.95 0.0088 0.0017
 Venus -51267-12-31 21:49 J -17003483.81 -17003483.59 -17003483.36 0.0088 0.0003
 Venus -51266-08-14 11:59 J -17003258.21 -17003258.00 -17003257.77 0.0088 0.0021
 Venus -51265-03-27 02:09 J -17003032.60 -17003032.41 -17003032.20 0.0088 0.0039
 Venus -51265-11-07 16:18 J -17002806.98 -17002806.82 -17002806.64 0.0088 0.0057
 Venus -51264-06-21 06:28 J -17002581.34 -17002581.23 -17002581.11 0.0088 0.0076
 Mars -51262-03-27 12:57 J -17001937.11 -17001936.96 -17001936.75 0.0088 0.0076

Mars	-51260-02-21 03:06 J	-17001240.63	-17001240.37	-17001240.10	0.0088	0.0057
Mars	-51258-01-18 17:30 J	-17000544.08	-17000543.77	-17000543.44	0.0088	0.0037
Mars	-51257-12-15 08:23 J	-16999847.48	-16999847.15	-16999846.79	0.0088	0.0018
Mars	-51255-11-11 23:16 J	-16999150.87	-16999150.53	-16999150.17	0.0088	0.0002
Mars	-51253-10-08 13:54 J	-16998454.25	-16998453.92	-16998453.57	0.0088	0.0021
Mars	-51251-09-05 03:35 J	-16997757.63	-16997757.35	-16997757.01	0.0088	0.0041
Mars	-51249-08-01 16:33 J	-16997061.06	-16997060.81	-16997060.54	0.0088	0.0060
Mars	-51247-06-29 03:35 J	-16996364.47	-16996364.35	-16996364.16	0.0088	0.0079
Mercury	-51228-02-15 07:54 J	-16989558.18	-16989558.17	-16989558.12	0.0088	0.0087
Mercury	-51228-05-14 09:49 J	-16989470.14	-16989470.09	-16989470.02	0.0088	0.0080
Mercury	-51228-08-10 11:30 J	-16989382.09	-16989382.02	-16989381.93	0.0088	0.0074
Mercury	-51228-11-06 13:25 J	-16989294.03	-16989293.94	-16989293.84	0.0088	0.0067
Mercury	-51227-02-02 15:06 J	-16989205.97	-16989205.87	-16989205.76	0.0088	0.0061
Mercury	-51227-05-01 16:33 J	-16989117.91	-16989117.81	-16989117.68	0.0088	0.0055
Mercury	-51227-07-28 18:28 J	-16989029.85	-16989029.73	-16989029.60	0.0089	0.0048
Earth	-51227-07-31 15:06 J	-16989026.97	-16989026.87	-16989026.76	0.0089	0.0081
Moon	-51227-07-31 17:45 J	-16989026.86	-16989026.76	-16989026.61	0.0089	0.0077 *
Mercury	-51227-10-24 20:09 J	-16988941.78	-16988941.66	-16988941.53	0.0089	0.0042
Mercury	-51226-01-20 21:49 J	-16988853.72	-16988853.59	-16988853.45	0.0089	0.0035
Mercury	-51226-04-18 23:30 J	-16988765.65	-16988765.52	-16988765.38	0.0089	0.0029
Mercury	-51226-07-16 01:11 J	-16988677.59	-16988677.45	-16988677.31	0.0089	0.0023
Moon	-51226-08-02 22:18 J	-16988659.72	-16988659.57	-16988659.36	0.0089	0.0063
Earth	-51226-08-03 02:09 J	-16988659.58	-16988659.41	-16988659.19	0.0089	0.0058 *
Mercury	-51226-10-12 02:52 J	-16988589.52	-16988589.38	-16988589.24	0.0089	0.0016
Mercury	-51225-01-08 04:33 J	-16988501.45	-16988501.31	-16988501.17	0.0089	0.0010
Mercury	-51225-04-05 06:13 J	-16988413.39	-16988413.24	-16988413.10	0.0089	0.0004
Mercury	-51225-07-02 07:54 J	-16988325.32	-16988325.17	-16988325.03	0.0089	0.0003
Earth	-51225-08-04 13:40 J	-16988292.16	-16988291.93	-16988291.68	0.0089	0.0034
Moon	-51225-08-04 17:01 J	-16988292.02	-16988291.79	-16988291.54	0.0089	0.0030 *
Mercury	-51225-09-28 09:21 J	-16988237.25	-16988237.11	-16988236.96	0.0089	0.0009

Mercury -51225-12-25 11:01 J -16988149.18 -16988149.04 -16988148.90 0.0089 0.0015
 Mercury -51224-03-23 12:42 J -16988061.11 -16988060.97 -16988060.83 0.0089 0.0021
 Mercury -51224-06-19 14:09 J -16987973.04 -16987972.91 -16987972.77 0.0089 0.0027
 Moon -51224-08-06 22:04 J -16987924.83 -16987924.58 -16987924.33 0.0089 0.0015
 Earth -51224-08-07 01:11 J -16987924.70 -16987924.45 -16987924.19 0.0089 0.0010 *
 Mercury -51224-09-15 15:49 J -16987884.97 -16987884.84 -16987884.71 0.0089 0.0033
 Mercury -51224-12-12 17:30 J -16987796.90 -16987796.77 -16987796.65 0.0089 0.0039
 Mercury -51223-03-10 18:42 J -16987708.83 -16987708.72 -16987708.59 0.0089 0.0046
 Mercury -51223-06-06 20:23 J -16987620.76 -16987620.65 -16987620.53 0.0089 0.0051
 Earth -51223-08-09 12:28 J -16987557.23 -16987556.98 -16987556.72 0.0089 0.0013
 Moon -51223-08-09 14:23 J -16987557.16 -16987556.90 -16987556.64 0.0089 0.0018 *
 Mercury -51223-09-02 21:49 J -16987532.68 -16987532.59 -16987532.47 0.0089 0.0058
 Mercury -51223-11-29 23:30 J -16987444.61 -16987444.52 -16987444.41 0.0089 0.0064
 Mercury -51222-02-26 00:57 J -16987356.53 -16987356.46 -16987356.36 0.0089 0.0070
 Mercury -51222-05-25 02:37 J -16987268.45 -16987268.39 -16987268.31 0.0089 0.0075
 Moon -51222-08-11 22:18 J -16987189.79 -16987189.57 -16987189.32 0.0089 0.0033
 Earth -51222-08-11 23:16 J -16987189.75 -16987189.53 -16987189.28 0.0089 0.0037 *
 Mercury -51222-08-21 04:04 J -16987180.37 -16987180.33 -16987180.26 0.0089 0.0082
 Mercury -51222-11-17 05:59 J -16987092.27 -16987092.25 -16987092.23 0.0089 0.0087
 Earth -51221-08-13 10:33 J -16986822.23 -16986822.06 -16986821.86 0.0089 0.0060
 Moon -51221-08-13 10:18 J -16986822.23 -16986822.07 -16986821.86 0.0089 0.0065 *
 Earth -51220-08-15 21:21 J -16986454.66 -16986454.61 -16986454.49 0.0089 0.0084
 Moon -51220-08-15 23:45 J -16986454.62 -16986454.51 -16986454.40 0.0089 0.0079 *
 Venus -51187-08-28 18:13 J -16974388.83 -16974388.74 -16974388.62 0.0089 0.0076
 Venus -51186-04-11 06:13 J -16974163.39 -16974163.24 -16974163.07 0.0089 0.0059
 Venus -51186-11-22 17:59 J -16973937.93 -16973937.75 -16973937.55 0.0089 0.0041
 Venus -51185-07-05 05:59 J -16973712.45 -16973712.25 -16973712.04 0.0089 0.0023
 Venus -51184-02-15 17:45 J -16973486.97 -16973486.76 -16973486.54 0.0089 0.0007
 Venus -51184-09-29 05:45 J -16973261.47 -16973261.26 -16973261.05 0.0089 0.0012
 Venus -51183-05-12 17:30 J -16973035.97 -16973035.77 -16973035.56 0.0089 0.0029

Venus -51183-12-24 05:01 J -16972810.45 -16972810.29 -16972810.09 0.0089 0.0048
 Mars -51182-03-04 13:25 J -16972740.06 -16972739.94 -16972739.78 0.0089 0.0078
 Venus -51182-08-06 17:16 J -16972584.92 -16972584.78 -16972584.63 0.0089 0.0065
 Venus -51181-03-19 04:47 J -16972359.36 -16972359.30 -16972359.19 0.0089 0.0083
 Mars -51180-01-26 00:28 J -16972046.68 -16972046.48 -16972046.27 0.0089 0.0062
 Mars -51179-12-20 11:45 J -16971353.23 -16971353.01 -16971352.75 0.0089 0.0046
 Mars -51177-11-12 23:16 J -16970659.78 -16970659.53 -16970659.25 0.0089 0.0030
 Mars -51175-10-07 09:35 J -16969966.37 -16969966.10 -16969965.80 0.0089 0.0015
 Mars -51173-08-30 20:23 J -16969272.94 -16969272.65 -16969272.37 0.0089 0.0002
 Mars -51171-07-25 07:54 J -16968579.44 -16968579.17 -16968578.88 0.0089 0.0019
 Mars -51169-06-17 18:28 J -16967885.98 -16967885.73 -16967885.46 0.0089 0.0034
 Mars -51167-05-12 05:45 J -16967192.48 -16967192.26 -16967192.01 0.0089 0.0050
 Mars -51165-04-04 18:13 J -16966498.91 -16966498.74 -16966498.53 0.0089 0.0066
 Mars -51163-02-27 06:57 J -16965805.31 -16965805.21 -16965805.09 0.0089 0.0082
 Mercury -51146-05-07 22:18 J -16959526.60 -16959526.57 -16959526.52 0.0089 0.0086
 Mercury -51146-08-04 00:57 J -16959438.52 -16959438.46 -16959438.36 0.0089 0.0079
 Mercury -51146-10-31 04:04 J -16959350.43 -16959350.33 -16959350.23 0.0089 0.0071
 Earth -51145-01-26 19:11 J -16959262.77 -16959262.70 -16959262.62 0.0089 0.0084
 Moon -51145-01-26 22:18 J -16959262.61 -16959262.57 -16959262.47 0.0089 0.0085
 Mercury -51145-01-27 06:28 J -16959262.33 -16959262.23 -16959262.09 0.0089 0.0064
 Mercury -51145-04-24 09:35 J -16959174.23 -16959174.10 -16959173.96 0.0089 0.0056
 Mercury -51145-07-21 12:13 J -16959086.13 -16959085.99 -16959085.84 0.0089 0.0049
 Mercury -51145-10-17 15:06 J -16958998.02 -16958997.87 -16958997.71 0.0089 0.0041
 Mercury -51144-01-13 17:45 J -16958909.91 -16958909.76 -16958909.59 0.0089 0.0034
 Moon -51144-01-28 03:35 J -16958895.51 -16958895.35 -16958895.14 0.0089 0.0061
 Earth -51144-01-28 06:42 J -16958895.39 -16958895.22 -16958895.01 0.0089 0.0061 *
 Mercury -51144-04-11 20:37 J -16958821.80 -16958821.64 -16958821.46 0.0089 0.0026
 Mercury -51144-07-08 23:30 J -16958733.69 -16958733.52 -16958733.34 0.0089 0.0019
 Mercury -51144-10-05 02:23 J -16958645.57 -16958645.40 -16958645.22 0.0089 0.0011
 Mercury -51143-01-01 05:16 J -16958557.45 -16958557.28 -16958557.10 0.0089 0.0003

Earth -51143-01-30 18:28 J -16958527.95 -16958527.73 -16958527.48 0.0089 0.0037
 Moon -51143-01-30 21:21 J -16958527.84 -16958527.61 -16958527.36 0.0089 0.0038 *
 Mercury -51143-03-30 08:09 J -16958469.33 -16958469.16 -16958468.98 0.0089 0.0005
 Mercury -51143-06-26 11:01 J -16958381.21 -16958381.04 -16958380.86 0.0089 0.0013
 Mercury -51143-09-22 13:54 J -16958293.09 -16958292.92 -16958292.75 0.0089 0.0020
 Mercury -51143-12-19 16:47 J -16958204.96 -16958204.80 -16958204.63 0.0089 0.0028
 Moon -51142-02-02 05:30 J -16958160.52 -16958160.27 -16958160.02 0.0089 0.0012
 Earth -51142-02-02 06:42 J -16958160.47 -16958160.22 -16958159.96 0.0089 0.0013 *
 Mercury -51142-03-17 19:40 J -16958116.84 -16958116.68 -16958116.51 0.0089 0.0036
 Mercury -51142-06-13 22:33 J -16958028.71 -16958028.56 -16958028.40 0.0089 0.0044
 Mercury -51142-09-10 01:25 J -16957940.57 -16957940.44 -16957940.29 0.0089 0.0052
 Mercury -51142-12-07 04:18 J -16957852.44 -16957852.32 -16957852.18 0.0089 0.0060
 Moon -51141-02-04 18:42 J -16957792.98 -16957792.72 -16957792.45 0.0089 0.0011
 Earth -51141-02-04 18:57 J -16957792.97 -16957792.71 -16957792.46 0.0089 0.0011 *
 Mercury -51141-03-04 07:11 J -16957764.30 -16957764.20 -16957764.07 0.0089 0.0068
 Mercury -51141-05-31 10:04 J -16957676.15 -16957676.08 -16957675.97 0.0089 0.0076
 Mercury -51141-08-27 13:11 J -16957587.99 -16957587.95 -16957587.88 0.0089 0.0084
 Earth -51140-02-06 06:42 J -16957425.45 -16957425.22 -16957424.97 0.0089 0.0035
 Moon -51140-02-06 07:25 J -16957425.41 -16957425.19 -16957424.95 0.0089 0.0037 *
 Moon -51139-02-08 16:18 J -16957058.00 -16957057.82 -16957057.60 0.0089 0.0058
 Earth -51139-02-08 18:57 J -16957057.89 -16957057.71 -16957057.51 0.0089 0.0059 *
 Earth -51138-02-11 06:42 J -16956690.29 -16956690.22 -16956690.11 0.0089 0.0083
 Moon -51138-02-11 09:49 J -16956690.15 -16956690.09 -16956689.99 0.0089 0.0084 *
 Venus -51105-10-13 23:01 J -16944391.62 -16944391.54 -16944391.41 0.0088 0.0077
 Venus -51104-05-27 13:11 J -16944166.10 -16944165.95 -16944165.76 0.0088 0.0059
 Venus -51103-01-08 03:49 J -16943940.54 -16943940.34 -16943940.13 0.0088 0.0041
 Venus -51103-08-21 17:59 J -16943714.96 -16943714.75 -16943714.52 0.0088 0.0023
 Venus -51102-04-04 08:23 J -16943489.37 -16943489.15 -16943488.92 0.0088 0.0004
 Venus -51102-11-15 22:33 J -16943263.78 -16943263.56 -16943263.33 0.0088 0.0014
 Venus -51101-06-28 12:42 J -16943038.18 -16943037.97 -16943037.76 0.0088 0.0032

Venus	-51100-02-09 03:06 J	-16942812.56	-16942812.37	-16942812.18	0.0088	0.0051
Venus	-51100-09-22 16:47 J	-16942586.92	-16942586.80	-16942586.64	0.0088	0.0069
Venus	-51099-05-06 06:42 J	-16942361.23	-16942361.22	-16942361.16	0.0088	0.0088
Mars	-51099-11-07 23:16 J	-16942175.67	-16942175.53	-16942175.31	0.0088	0.0075
Mars	-51097-10-04 13:25 J	-16941479.18	-16941478.94	-16941478.64	0.0088	0.0056
Mars	-51095-09-01 03:35 J	-16940782.65	-16940782.35	-16940782.02	0.0088	0.0038
Mars	-51093-07-28 18:13 J	-16940086.07	-16940085.74	-16940085.38	0.0088	0.0018
Mars	-51091-06-25 09:35 J	-16939389.45	-16939389.10	-16939388.75	0.0088	0.0002
Mars	-51089-05-21 23:59 J	-16938692.83	-16938692.50	-16938692.15	0.0088	0.0021
Mars	-51087-04-18 14:09 J	-16937996.20	-16937995.91	-16937995.58	0.0088	0.0040
Mars	-51085-03-15 03:49 J	-16937299.57	-16937299.34	-16937299.05	0.0088	0.0060
Mars	-51083-02-09 16:18 J	-16936602.96	-16936602.82	-16936602.63	0.0088	0.0078
Mercury	-51064-11-12 07:54 J	-16929387.21	-16929387.17	-16929387.10	0.0088	0.0082
Mercury	-51063-02-08 09:49 J	-16929299.16	-16929299.09	-16929299.01	0.0088	0.0076
Mercury	-51063-05-07 11:30 J	-16929211.10	-16929211.02	-16929210.92	0.0088	0.0069
Mercury	-51063-08-03 13:25 J	-16929123.04	-16929122.94	-16929122.84	0.0088	0.0063
Mercury	-51063-10-30 14:52 J	-16929034.98	-16929034.88	-16929034.76	0.0088	0.0057
Mercury	-51062-01-26 16:33 J	-16928946.92	-16928946.81	-16928946.68	0.0088	0.0051
Mercury	-51062-04-24 18:28 J	-16928858.85	-16928858.73	-16928858.60	0.0088	0.0044
Mercury	-51062-07-21 20:09 J	-16928770.79	-16928770.66	-16928770.53	0.0088	0.0037
Earth	-51062-08-02 13:40 J	-16928759.08	-16928758.93	-16928758.75	0.0088	0.0068
Moon	-51062-08-02 17:01 J	-16928758.93	-16928758.79	-16928758.60	0.0088	0.0069 *
Mercury	-51062-10-17 21:35 J	-16928682.72	-16928682.60	-16928682.45	0.0088	0.0032
Mercury	-51061-01-13 23:30 J	-16928594.66	-16928594.52	-16928594.38	0.0088	0.0025
Mercury	-51061-04-11 01:11 J	-16928506.59	-16928506.45	-16928506.31	0.0089	0.0019
Mercury	-51061-07-08 02:52 J	-16928418.52	-16928418.38	-16928418.24	0.0089	0.0012
Moon	-51061-08-03 22:47 J	-16928391.75	-16928391.55	-16928391.32	0.0089	0.0044
Earth	-51061-08-04 01:40 J	-16928391.65	-16928391.43	-16928391.20	0.0089	0.0044 *
Mercury	-51061-10-04 04:33 J	-16928330.45	-16928330.31	-16928330.17	0.0089	0.0006
Mercury	-51061-12-31 06:13 J	-16928242.39	-16928242.24	-16928242.10	0.0089	0.0001

Mercury -51060-03-29 07:54 J -16928154.32 -16928154.17 -16928154.03 0.0089 0.0007
 Mercury -51060-06-25 09:21 J -16928066.25 -16928066.11 -16928065.97 0.0089 0.0013
 Earth -51060-08-06 12:57 J -16928024.20 -16928023.96 -16928023.70 0.0089 0.0020
 Moon -51060-08-06 15:21 J -16928024.12 -16928023.86 -16928023.60 0.0089 0.0020 *
 Mercury -51060-09-21 11:01 J -16927978.18 -16927978.04 -16927977.90 0.0089 0.0019
 Mercury -51060-12-18 12:42 J -16927890.11 -16927889.97 -16927889.83 0.0089 0.0025
 Mercury -51059-03-16 14:09 J -16927802.04 -16927801.91 -16927801.77 0.0089 0.0031
 Mercury -51059-06-12 15:35 J -16927713.97 -16927713.85 -16927713.71 0.0089 0.0038
 Moon -51059-08-08 23:45 J -16927656.75 -16927656.51 -16927656.25 0.0089 0.0005
 Earth -51059-08-09 00:28 J -16927656.74 -16927656.48 -16927656.22 0.0089 0.0004 *
 Mercury -51059-09-08 17:16 J -16927625.89 -16927625.78 -16927625.65 0.0089 0.0044
 Mercury -51059-12-05 18:57 J -16927537.82 -16927537.71 -16927537.59 0.0089 0.0049
 Mercury -51058-03-03 20:23 J -16927449.75 -16927449.65 -16927449.53 0.0089 0.0056
 Mercury -51058-05-30 22:04 J -16927361.67 -16927361.58 -16927361.47 0.0089 0.0062
 Moon -51058-08-11 10:47 J -16927289.30 -16927289.05 -16927288.79 0.0089 0.0027
 Earth -51058-08-11 11:30 J -16927289.25 -16927289.02 -16927288.77 0.0089 0.0028 *
 Mercury -51058-08-26 23:30 J -16927273.60 -16927273.52 -16927273.42 0.0089 0.0068
 Mercury -51058-11-23 01:11 J -16927185.52 -16927185.45 -16927185.37 0.0089 0.0074
 Mercury -51057-02-19 02:37 J -16927097.44 -16927097.39 -16927097.32 0.0089 0.0080
 Mercury -51057-05-17 04:04 J -16927009.35 -16927009.33 -16927009.28 0.0089 0.0086
 Earth -51057-08-12 22:18 J -16926921.75 -16926921.57 -16926921.33 0.0089 0.0052
 Moon -51057-08-13 00:13 J -16926921.69 -16926921.49 -16926921.28 0.0089 0.0051 *
 Moon -51056-08-15 06:28 J -16926554.34 -16926554.23 -16926554.06 0.0089 0.0075
 Earth -51056-08-15 09:49 J -16926554.21 -16926554.09 -16926553.94 0.0089 0.0075 *
 Jupiter -51025-02-14 01:54 J -16915414.94 -16915414.42 -16915413.88 0.0089 0.0004
 Venus -51023-11-30 07:25 J -16914394.25 -16914394.19 -16914394.09 0.0089 0.0082
 Venus -51022-07-13 19:40 J -16914168.82 -16914168.68 -16914168.53 0.0089 0.0065
 Venus -51021-02-24 07:11 J -16913943.36 -16913943.20 -16913943.00 0.0089 0.0048
 Venus -51021-10-06 19:25 J -16913717.89 -16913717.69 -16913717.49 0.0089 0.0030
 Venus -51020-05-20 07:11 J -16913492.41 -16913492.20 -16913491.98 0.0089 0.0012

Venus	-51020-12-31 19:11 J	-16913266.91	-16913266.70	-16913266.49	0.0089	0.0006
Venus	-51019-08-14 06:57 J	-16913041.41	-16913041.21	-16913041.00	0.0089	0.0023
Mars	-51019-10-18 08:23 J	-16912976.26	-16912976.15	-16912975.98	0.0089	0.0077
Venus	-51018-03-27 18:57 J	-16912815.90	-16912815.71	-16912815.52	0.0089	0.0041
Venus	-51018-11-08 06:28 J	-16912590.38	-16912590.23	-16912590.06	0.0089	0.0058
Venus	-51017-06-20 18:28 J	-16912364.83	-16912364.73	-16912364.61	0.0089	0.0076
Mars	-51017-09-10 22:18 J	-16912282.77	-16912282.57	-16912282.36	0.0089	0.0062
Mars	-51015-08-05 08:23 J	-16911589.37	-16911589.15	-16911588.88	0.0089	0.0046
Mars	-51013-06-28 19:40 J	-16910895.93	-16910895.68	-16910895.40	0.0089	0.0030
Mars	-51011-05-23 07:11 J	-16910202.47	-16910202.20	-16910201.91	0.0089	0.0015
Mars	-51009-04-15 17:45 J	-16909509.05	-16909508.76	-16909508.48	0.0089	0.0002
Mars	-51007-03-10 03:21 J	-16908815.63	-16908815.36	-16908815.07	0.0089	0.0018
Mars	-51005-02-01 14:52 J	-16908122.13	-16908121.88	-16908121.60	0.0089	0.0034
Mars	-51004-12-26 02:09 J	-16907428.63	-16907428.41	-16907428.15	0.0089	0.0050
Mars	-51002-11-19 13:11 J	-16906735.12	-16906734.95	-16906734.73	0.0089	0.0065

51ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 51st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-51000-10-13 02:09 J	-16906041.50	-16906041.41	-16906041.26	0.0089	0.0081		
Mercury	-50982-11-05 19:25 J	-16899443.70	-16899443.69	-16899443.67	0.0089	0.0088		
Mercury	-50981-02-01 22:04 J	-16899355.64	-16899355.58	-16899355.50	0.0089	0.0081		

Mercury -50981-04-30 00:28 J -16899267.55 -16899267.48 -16899267.36 0.0089 0.0074
 Mercury -50981-07-27 03:35 J -16899179.46 -16899179.35 -16899179.23 0.0089 0.0066
 Mercury -50981-10-23 06:13 J -16899091.36 -16899091.24 -16899091.10 0.0089 0.0059
 Mercury -50980-01-19 09:06 J -16899003.26 -16899003.12 -16899002.97 0.0089 0.0051
 Earth -50980-01-27 18:13 J -16898994.87 -16898994.74 -16898994.57 0.0089 0.0071
 Moon -50980-01-27 20:23 J -16898994.81 -16898994.65 -16898994.46 0.0089 0.0066 *
 Mercury -50980-04-17 11:45 J -16898915.15 -16898915.01 -16898914.85 0.0089 0.0044
 Mercury -50980-07-14 14:37 J -16898827.04 -16898826.89 -16898826.72 0.0089 0.0036
 Mercury -50980-10-10 17:16 J -16898738.93 -16898738.78 -16898738.60 0.0089 0.0029
 Mercury -50979-01-06 20:09 J -16898650.82 -16898650.66 -16898650.48 0.0089 0.0021
 Moon -50979-01-30 05:16 J -16898627.48 -16898627.28 -16898627.07 0.0089 0.0051
 Earth -50979-01-30 06:13 J -16898627.45 -16898627.24 -16898627.01 0.0089 0.0047 *
 Mercury -50979-04-04 23:01 J -16898562.71 -16898562.54 -16898562.36 0.0089 0.0014
 Mercury -50979-07-02 01:54 J -16898474.59 -16898474.42 -16898474.24 0.0089 0.0006
 Mercury -50979-09-28 04:47 J -16898386.47 -16898386.30 -16898386.12 0.0089 0.0002
 Mercury -50979-12-25 07:40 J -16898298.35 -16898298.18 -16898298.00 0.0089 0.0010
 Moon -50978-02-01 18:13 J -16898260.00 -16898259.74 -16898259.48 0.0089 0.0018
 Earth -50978-02-01 18:13 J -16898259.98 -16898259.74 -16898259.48 0.0089 0.0023 *
 Mercury -50978-03-23 10:33 J -16898210.23 -16898210.06 -16898209.89 0.0089 0.0018
 Mercury -50978-06-19 13:11 J -16898122.11 -16898121.95 -16898121.77 0.0089 0.0026
 Mercury -50978-09-15 16:18 J -16898033.98 -16898033.82 -16898033.65 0.0089 0.0033
 Mercury -50978-12-12 19:11 J -16897945.85 -16897945.70 -16897945.54 0.0089 0.0041
 Earth -50977-02-04 06:13 J -16897892.50 -16897892.24 -16897891.98 0.0089 0.0001
 Moon -50977-02-04 07:54 J -16897892.42 -16897892.17 -16897891.92 0.0089 0.0003 *
 Mercury -50977-03-09 22:04 J -16897857.72 -16897857.58 -16897857.43 0.0089 0.0049
 Mercury -50977-06-06 00:42 J -16897769.59 -16897769.47 -16897769.32 0.0089 0.0057
 Mercury -50977-09-02 03:49 J -16897681.45 -16897681.34 -16897681.21 0.0089 0.0065
 Mercury -50977-11-29 06:42 J -16897593.31 -16897593.22 -16897593.11 0.0089 0.0073
 Moon -50976-02-05 15:35 J -16897525.09 -16897524.85 -16897524.58 0.0089 0.0030
 Earth -50976-02-05 17:59 J -16897524.99 -16897524.75 -16897524.49 0.0089 0.0026 *

Mercury -50976-02-25 09:35 J -16897505.16 -16897505.10 -16897505.01 0.0089 0.0081

Mercury -50976-05-24 12:42 J -16897416.97 -16897416.97 -16897416.95 0.0089 0.0089

Earth -50975-02-08 05:45 J -16897157.46 -16897157.26 -16897157.03 0.0089 0.0050

Moon -50975-02-08 09:21 J -16897157.33 -16897157.11 -16897156.89 0.0089 0.0045 *

Moon -50974-02-10 14:09 J -16896790.00 -16896789.91 -16896789.76 0.0089 0.0079

Earth -50974-02-10 17:45 J -16896789.88 -16896789.76 -16896789.59 0.0089 0.0074 *

Venus -50940-01-15 09:49 J -16884397.14 -16884397.09 -16884396.99 0.0088 0.0084

Venus -50940-08-29 00:13 J -16884171.62 -16884171.49 -16884171.32 0.0088 0.0065

Venus -50939-04-11 14:23 J -16883946.07 -16883945.90 -16883945.69 0.0088 0.0047

Venus -50939-11-23 04:33 J -16883720.51 -16883720.31 -16883720.08 0.0088 0.0029

Venus -50938-07-06 19:11 J -16883494.93 -16883494.70 -16883494.48 0.0088 0.0011

Venus -50937-02-17 09:21 J -16883269.34 -16883269.11 -16883268.88 0.0088 0.0008

Venus -50937-09-29 23:16 J -16883043.74 -16883043.53 -16883043.30 0.0088 0.0026

Venus -50936-05-13 13:11 J -16882818.13 -16882817.95 -16882817.73 0.0088 0.0045

Venus -50936-12-25 03:21 J -16882592.50 -16882592.36 -16882592.18 0.0088 0.0062

Mars -50935-06-21 11:01 J -16882414.20 -16882414.04 -16882413.82 0.0088 0.0074

Venus -50935-08-07 17:30 J -16882366.84 -16882366.77 -16882366.66 0.0088 0.0080

Mars -50933-05-17 23:30 J -16881717.75 -16881717.52 -16881717.21 0.0088 0.0057

Mars -50931-04-14 13:54 J -16881021.21 -16881020.92 -16881020.58 0.0088 0.0037

Mars -50929-03-11 04:18 J -16880324.65 -16880324.32 -16880323.97 0.0088 0.0018

Mars -50927-02-05 18:42 J -16879628.07 -16879627.72 -16879627.37 0.0088 0.0001

Mars -50925-01-03 09:35 J -16878931.43 -16878931.10 -16878930.75 0.0088 0.0020

Mars -50924-11-29 23:59 J -16878234.79 -16878234.50 -16878234.17 0.0088 0.0040

Mars -50922-10-27 13:54 J -16877538.15 -16877537.92 -16877537.63 0.0088 0.0059

Mars -50920-09-23 04:18 J -16876841.48 -16876841.32 -16876841.14 0.0088 0.0077

Mercury -50899-05-13 06:13 J -16869304.27 -16869304.24 -16869304.19 0.0088 0.0085

Mercury -50899-08-09 08:09 J -16869216.23 -16869216.16 -16869216.09 0.0088 0.0078

Mercury -50899-11-05 09:35 J -16869128.17 -16869128.10 -16869128.00 0.0088 0.0072

Mercury -50898-02-01 11:16 J -16869040.11 -16869040.03 -16869039.92 0.0088 0.0066

Mercury -50898-04-30 13:11 J -16868952.05 -16868951.95 -16868951.84 0.0088 0.0059

Mercury -50898-07-27 14:52 J -16868863.99 -16868863.88 -16868863.76 0.0088 0.0053

Moon -50898-08-01 22:33 J -16868858.68 -16868858.56 -16868858.41 0.0088 0.0074

Earth -50898-08-02 00:57 J -16868858.55 -16868858.46 -16868858.32 0.0088 0.0079 *

Mercury -50898-10-23 16:33 J -16868775.93 -16868775.81 -16868775.68 0.0088 0.0046

Mercury -50897-01-19 18:13 J -16868687.86 -16868687.74 -16868687.60 0.0088 0.0040

Mercury -50897-04-16 19:54 J -16868599.79 -16868599.67 -16868599.53 0.0088 0.0034

Mercury -50897-07-13 21:35 J -16868511.73 -16868511.60 -16868511.45 0.0089 0.0028

Earth -50897-08-03 12:28 J -16868491.16 -16868490.98 -16868490.75 0.0089 0.0055

Moon -50897-08-03 13:54 J -16868491.10 -16868490.92 -16868490.70 0.0089 0.0059 *

Mercury -50897-10-09 23:30 J -16868423.66 -16868423.52 -16868423.38 0.0089 0.0021

Mercury -50896-01-06 01:11 J -16868335.59 -16868335.45 -16868335.31 0.0089 0.0014

Mercury -50896-04-04 02:52 J -16868247.53 -16868247.38 -16868247.24 0.0089 0.0008

Mercury -50896-07-01 04:33 J -16868159.46 -16868159.31 -16868159.17 0.0089 0.0003

Moon -50896-08-05 23:45 J -16868123.73 -16868123.51 -16868123.26 0.0089 0.0027

Earth -50896-08-06 00:13 J -16868123.71 -16868123.49 -16868123.23 0.0089 0.0031 *

Mercury -50896-09-27 05:59 J -16868071.39 -16868071.25 -16868071.10 0.0089 0.0005

Mercury -50896-12-24 07:40 J -16867983.32 -16867983.18 -16867983.03 0.0089 0.0011

Mercury -50895-03-22 09:21 J -16867895.25 -16867895.11 -16867894.97 0.0089 0.0017

Mercury -50895-06-18 11:01 J -16867807.18 -16867807.04 -16867806.90 0.0089 0.0023

Moon -50895-08-08 11:01 J -16867756.30 -16867756.04 -16867755.77 0.0089 0.0011

Earth -50895-08-08 11:59 J -16867756.25 -16867756.00 -16867755.74 0.0089 0.0006 *

Mercury -50895-09-14 12:28 J -16867719.11 -16867718.98 -16867718.84 0.0089 0.0029

Mercury -50895-12-11 14:09 J -16867631.04 -16867630.91 -16867630.78 0.0089 0.0035

Mercury -50894-03-09 15:35 J -16867542.96 -16867542.85 -16867542.71 0.0089 0.0042

Mercury -50894-06-05 17:16 J -16867454.89 -16867454.78 -16867454.65 0.0089 0.0048

Earth -50894-08-10 23:16 J -16867388.78 -16867388.53 -16867388.27 0.0089 0.0018

Moon -50894-08-11 01:25 J -16867388.67 -16867388.44 -16867388.19 0.0089 0.0022 *

Mercury -50894-09-01 18:57 J -16867366.82 -16867366.71 -16867366.59 0.0089 0.0054

Mercury -50894-11-28 20:23 J -16867278.74 -16867278.65 -16867278.54 0.0089 0.0060

Mercury -50893-02-24 22:04 J -16867190.67 -16867190.58 -16867190.48 0.0089 0.0066

Mercury -50893-05-22 23:45 J -16867102.59 -16867102.51 -16867102.43 0.0089 0.0072

Moon -50893-08-12 07:40 J -16867021.40 -16867021.18 -16867020.93 0.0089 0.0038

Earth -50893-08-12 10:47 J -16867021.28 -16867021.05 -16867020.82 0.0089 0.0042 *

Mercury -50893-08-19 01:11 J -16867014.51 -16867014.45 -16867014.38 0.0089 0.0078

Mercury -50893-11-15 02:37 J -16866926.42 -16866926.39 -16866926.34 0.0089 0.0084

Earth -50892-08-14 21:35 J -16866653.75 -16866653.60 -16866653.41 0.0089 0.0066

Moon -50892-08-15 01:11 J -16866653.59 -16866653.45 -16866653.28 0.0089 0.0071 *

Moon -50891-08-17 04:47 J -16866286.33 -16866286.30 -16866286.20 0.0089 0.0086

Venus -50858-03-03 20:23 J -16854399.66 -16854399.65 -16854399.60 0.0089 0.0089

Venus -50858-10-15 08:09 J -16854174.26 -16854174.16 -16854174.00 0.0089 0.0072

Venus -50857-05-27 20:23 J -16853948.81 -16853948.65 -16853948.47 0.0089 0.0054

Venus -50856-01-08 08:09 J -16853723.34 -16853723.16 -16853722.95 0.0089 0.0037

Venus -50856-08-21 20:37 J -16853497.85 -16853497.64 -16853497.43 0.0089 0.0018

Venus -50855-04-04 08:23 J -16853272.36 -16853272.15 -16853271.93 0.0089 0.0002

Mars -50855-06-03 03:49 J -16853212.47 -16853212.34 -16853212.19 0.0089 0.0077

Venus -50855-11-15 20:23 J -16853046.86 -16853046.65 -16853046.44 0.0089 0.0017

Venus -50854-06-29 07:54 J -16852821.36 -16852821.17 -16852820.96 0.0089 0.0034

Venus -50853-02-09 19:54 J -16852595.84 -16852595.67 -16852595.49 0.0089 0.0052

Mars -50853-04-26 16:04 J -16852519.02 -16852518.83 -16852518.61 0.0089 0.0062

Venus -50853-09-22 07:25 J -16852370.30 -16852370.19 -16852370.04 0.0089 0.0070

Venus -50852-05-05 19:25 J -16852144.72 -16852144.69 -16852144.62 0.0089 0.0087

Mars -50851-03-21 05:01 J -16851825.52 -16851825.29 -16851825.03 0.0089 0.0046

Mars -50849-02-12 16:18 J -16851132.08 -16851131.82 -16851131.54 0.0089 0.0030

Mars -50847-01-06 03:06 J -16850438.65 -16850438.37 -16850438.09 0.0089 0.0014

Mars -50846-11-30 14:52 J -16849745.16 -16849744.88 -16849744.59 0.0089 0.0003

Mars -50844-10-24 01:54 J -16849051.69 -16849051.42 -16849051.13 0.0089 0.0017

Mars -50842-09-17 11:45 J -16848358.26 -16848358.01 -16848357.73 0.0089 0.0033

Mars -50840-08-10 23:01 J -16847664.76 -16847664.54 -16847664.29 0.0089 0.0049

Mars -50838-07-05 10:47 J -16846971.22 -16846971.05 -16846970.82 0.0089 0.0064

Mars -50836-05-28 21:35 J -16846277.70 -16846277.60 -16846277.44 0.0089 0.0080

Mercury -50817-08-01 18:28 J -16839272.76 -16839272.73 -16839272.65 0.0089 0.0084
 Mercury -50817-10-28 21:35 J -16839184.68 -16839184.60 -16839184.51 0.0089 0.0076
 Mercury -50816-01-24 23:59 J -16839096.59 -16839096.50 -16839096.37 0.0089 0.0069
 Moon -50816-01-27 05:01 J -16839094.35 -16839094.29 -16839094.16 0.0089 0.0082
 Earth -50816-01-27 05:30 J -16839094.34 -16839094.27 -16839094.14 0.0089 0.0082 *
 Mercury -50816-04-23 03:06 J -16839008.49 -16839008.37 -16839008.24 0.0089 0.0061
 Mercury -50816-07-20 05:45 J -16838920.39 -16838920.26 -16838920.11 0.0089 0.0054
 Mercury -50816-10-16 08:37 J -16838832.28 -16838832.14 -16838831.99 0.0089 0.0046
 Mercury -50815-01-12 11:16 J -16838744.18 -16838744.03 -16838743.86 0.0089 0.0039
 Moon -50815-01-29 17:16 J -16838726.97 -16838726.78 -16838726.56 0.0089 0.0057
 Earth -50815-01-29 17:59 J -16838726.94 -16838726.75 -16838726.55 0.0089 0.0057 *
 Mercury -50815-04-10 14:09 J -16838656.07 -16838655.91 -16838655.74 0.0089 0.0031
 Mercury -50815-07-07 16:47 J -16838567.96 -16838567.80 -16838567.62 0.0089 0.0024
 Mercury -50815-10-03 19:40 J -16838479.84 -16838479.68 -16838479.50 0.0089 0.0016
 Mercury -50815-12-30 22:33 J -16838391.73 -16838391.56 -16838391.38 0.0089 0.0009
 Earth -50814-02-01 05:45 J -16838359.49 -16838359.26 -16838359.01 0.0089 0.0033
 Moon -50814-02-01 06:57 J -16838359.42 -16838359.21 -16838358.96 0.0089 0.0034 *
 Mercury -50814-03-29 01:25 J -16838303.61 -16838303.44 -16838303.26 0.0089 0.0001
 Mercury -50814-06-25 04:18 J -16838215.49 -16838215.32 -16838215.14 0.0089 0.0007
 Mercury -50814-09-21 07:11 J -16838127.37 -16838127.20 -16838127.03 0.0089 0.0015
 Mercury -50814-12-18 09:49 J -16838039.25 -16838039.09 -16838038.91 0.0089 0.0023
 Moon -50813-02-03 14:37 J -16837992.15 -16837991.89 -16837991.62 0.0089 0.0009
 Earth -50813-02-03 17:45 J -16837992.01 -16837991.76 -16837991.50 0.0089 0.0009 *
 Mercury -50813-03-15 12:42 J -16837951.13 -16837950.97 -16837950.80 0.0089 0.0031
 Mercury -50813-06-11 15:35 J -16837863.00 -16837862.85 -16837862.68 0.0089 0.0039
 Mercury -50813-09-07 18:42 J -16837774.87 -16837774.72 -16837774.57 0.0089 0.0046
 Mercury -50813-12-04 21:35 J -16837686.74 -16837686.60 -16837686.46 0.0089 0.0054
 Earth -50812-02-05 05:16 J -16837624.52 -16837624.28 -16837624.02 0.0089 0.0016
 Moon -50812-02-05 08:37 J -16837624.39 -16837624.14 -16837623.89 0.0089 0.0015 *
 Mercury -50812-03-03 00:13 J -16837598.60 -16837598.49 -16837598.35 0.0089 0.0062

Mercury -50812-05-30 03:06 J -16837510.46 -16837510.37 -16837510.25 0.0089 0.0070

Mercury -50812-08-26 05:59 J -16837422.32 -16837422.25 -16837422.15 0.0089 0.0078

Mercury -50812-11-22 09:06 J -16837334.15 -16837334.12 -16837334.06 0.0089 0.0086

Moon -50811-02-07 13:40 J -16837257.15 -16837256.93 -16837256.69 0.0089 0.0041

Earth -50811-02-07 17:16 J -16837257.00 -16837256.78 -16837256.54 0.0089 0.0040 *

Earth -50810-02-10 05:01 J -16836889.44 -16836889.29 -16836889.09 0.0089 0.0065

Moon -50810-02-10 08:37 J -16836889.31 -16836889.14 -16836888.94 0.0089 0.0064 *

Earth -50809-02-12 17:30 J -16836521.77 -16836521.77 -16836521.75 0.0089 0.0089

Venus -50776-11-30 11:01 J -16824177.15 -16824177.04 -16824176.89 0.0088 0.0071

Venus -50775-07-14 01:11 J -16823951.61 -16823951.45 -16823951.25 0.0088 0.0053

Venus -50774-02-24 15:35 J -16823726.05 -16823725.85 -16823725.63 0.0088 0.0035

Venus -50774-10-08 05:45 J -16823500.47 -16823500.26 -16823500.02 0.0088 0.0017

Venus -50773-05-20 20:09 J -16823274.89 -16823274.66 -16823274.43 0.0088 0.0001

Venus -50772-01-01 10:18 J -16823049.29 -16823049.07 -16823048.85 0.0088 0.0019

Venus -50772-08-15 00:13 J -16822823.68 -16822823.49 -16822823.27 0.0088 0.0038

Mars -50771-02-01 23:59 J -16822652.68 -16822652.50 -16822652.30 0.0088 0.0074

Venus -50771-03-28 14:37 J -16822598.06 -16822597.89 -16822597.71 0.0088 0.0056

Venus -50771-11-09 04:47 J -16822372.42 -16822372.30 -16822372.17 0.0088 0.0074

Mars -50770-12-30 11:59 J -16821956.25 -16821956.00 -16821955.71 0.0088 0.0056

Mars -50768-11-26 00:57 J -16821259.75 -16821259.46 -16821259.12 0.0088 0.0037

Mars -50766-10-23 15:06 J -16820563.19 -16820562.87 -16820562.51 0.0088 0.0018

Mars -50764-09-19 05:59 J -16819866.60 -16819866.25 -16819865.90 0.0088 0.0001

Mars -50762-08-16 19:40 J -16819170.01 -16819169.68 -16819169.32 0.0088 0.0020

Mars -50760-07-13 10:04 J -16818473.37 -16818473.08 -16818472.74 0.0088 0.0039

Mars -50758-06-10 00:57 J -16817776.72 -16817776.46 -16817776.19 0.0088 0.0058

Mars -50756-05-06 13:54 J -16817080.06 -16817079.92 -16817079.71 0.0088 0.0076

Saturn -50741-12-22 12:13 J -16811371.36 -16811370.99 -16811370.52 0.0088 0.0071

Mercury -50735-11-11 04:33 J -16809221.33 -16809221.31 -16809221.28 0.0088 0.0087

Mercury -50734-02-07 05:59 J -16809133.29 -16809133.25 -16809133.17 0.0088 0.0081

Mercury -50734-05-06 07:54 J -16809045.24 -16809045.17 -16809045.08 0.0088 0.0074

Moon -50734-08-01 14:23 J -16808957.92 -16808957.90 -16808957.85 0.0088 0.0088
 Mercury -50734-08-02 09:35 J -16808957.18 -16808957.10 -16808956.99 0.0088 0.0068
 Mercury -50734-10-29 11:30 J -16808869.12 -16808869.02 -16808868.91 0.0088 0.0061
 Mercury -50733-01-25 13:11 J -16808781.06 -16808780.95 -16808780.83 0.0088 0.0055
 Mercury -50733-04-22 14:52 J -16808692.99 -16808692.88 -16808692.75 0.0088 0.0048
 Mercury -50733-07-19 16:33 J -16808604.93 -16808604.81 -16808604.67 0.0088 0.0042
 Earth -50733-08-03 00:13 J -16808590.64 -16808590.49 -16808590.29 0.0088 0.0065
 Moon -50733-08-03 01:11 J -16808590.62 -16808590.45 -16808590.29 0.0088 0.0066 *
 Mercury -50733-10-15 18:13 J -16808516.86 -16808516.74 -16808516.60 0.0088 0.0036
 Mercury -50732-01-11 19:54 J -16808428.80 -16808428.67 -16808428.52 0.0088 0.0030
 Mercury -50732-04-09 21:49 J -16808340.73 -16808340.59 -16808340.45 0.0088 0.0023
 Mercury -50732-07-06 23:30 J -16808252.66 -16808252.52 -16808252.38 0.0089 0.0016
 Moon -50732-08-05 10:47 J -16808223.27 -16808223.05 -16808222.79 0.0089 0.0040
 Earth -50732-08-05 11:59 J -16808223.21 -16808223.00 -16808222.75 0.0089 0.0041 *
 Mercury -50732-10-03 01:11 J -16808164.59 -16808164.45 -16808164.31 0.0089 0.0010
 Mercury -50732-12-30 02:52 J -16808076.53 -16808076.38 -16808076.24 0.0089 0.0004
 Mercury -50731-03-28 04:33 J -16807988.46 -16807988.31 -16807988.17 0.0089 0.0003
 Mercury -50731-06-24 06:13 J -16807900.39 -16807900.24 -16807900.10 0.0089 0.0009
 Earth -50731-08-07 23:45 J -16807855.76 -16807855.51 -16807855.25 0.0089 0.0016
 Moon -50731-08-08 01:54 J -16807855.66 -16807855.42 -16807855.17 0.0089 0.0017 *
 Mercury -50731-09-20 07:40 J -16807812.32 -16807812.18 -16807812.03 0.0089 0.0015
 Mercury -50731-12-17 09:21 J -16807724.25 -16807724.11 -16807723.97 0.0089 0.0021
 Mercury -50730-03-15 11:01 J -16807636.17 -16807636.04 -16807635.90 0.0089 0.0027
 Mercury -50730-06-11 12:28 J -16807548.10 -16807547.98 -16807547.84 0.0089 0.0034
 Moon -50730-08-10 08:09 J -16807488.42 -16807488.16 -16807487.90 0.0089 0.0010
 Earth -50730-08-10 11:16 J -16807488.28 -16807488.03 -16807487.76 0.0089 0.0009 *
 Mercury -50730-09-07 14:09 J -16807460.03 -16807459.91 -16807459.78 0.0089 0.0040
 Mercury -50730-12-04 15:49 J -16807371.96 -16807371.84 -16807371.72 0.0089 0.0046
 Mercury -50729-03-01 17:30 J -16807283.88 -16807283.77 -16807283.66 0.0089 0.0052
 Mercury -50729-05-28 19:11 J -16807195.81 -16807195.70 -16807195.60 0.0089 0.0058

Earth -50729-08-11 22:33 J -16807120.79 -16807120.56 -16807120.31 0.0089 0.0033
 Moon -50729-08-12 01:54 J -16807120.64 -16807120.42 -16807120.17 0.0089 0.0033 *
 Mercury -50729-08-24 20:37 J -16807107.73 -16807107.64 -16807107.54 0.0089 0.0064
 Mercury -50729-11-20 22:18 J -16807019.66 -16807019.57 -16807019.49 0.0089 0.0070
 Mercury -50728-02-16 23:30 J -16806931.58 -16806931.52 -16806931.44 0.0089 0.0077
 Mercury -50728-05-16 00:57 J -16806843.49 -16806843.46 -16806843.39 0.0089 0.0083
 Mercury -50728-08-12 02:52 J -16806755.38 -16806755.38 -16806755.36 0.0089 0.0088
 Moon -50728-08-14 06:28 J -16806753.43 -16806753.23 -16806753.04 0.0089 0.0057
 Earth -50728-08-14 09:49 J -16806753.27 -16806753.09 -16806752.88 0.0089 0.0057 *
 Earth -50727-08-16 21:06 J -16806385.71 -16806385.62 -16806385.51 0.0089 0.0081
 Moon -50727-08-16 23:30 J -16806385.60 -16806385.52 -16806385.38 0.0089 0.0081 *
 Venus -50693-01-16 21:21 J -16794179.69 -16794179.61 -16794179.47 0.0089 0.0078
 Venus -50693-08-29 09:49 J -16793954.24 -16793954.09 -16793953.92 0.0089 0.0060
 Venus -50692-04-11 21:35 J -16793728.77 -16793728.60 -16793728.39 0.0089 0.0043
 Venus -50692-11-23 09:49 J -16793503.29 -16793503.09 -16793502.88 0.0089 0.0025
 Mars -50691-01-16 22:47 J -16793448.68 -16793448.55 -16793448.38 0.0089 0.0076
 Venus -50691-07-06 21:49 J -16793277.80 -16793277.59 -16793277.38 0.0089 0.0007
 Venus -50690-02-17 09:35 J -16793052.31 -16793052.10 -16793051.89 0.0089 0.0010
 Venus -50690-09-30 21:21 J -16792826.80 -16792826.61 -16792826.40 0.0089 0.0028
 Mars -50690-12-11 11:30 J -16792755.20 -16792755.02 -16792754.78 0.0089 0.0062
 Venus -50689-05-13 09:06 J -16792601.29 -16792601.12 -16792600.92 0.0089 0.0046
 Venus -50689-12-24 21:06 J -16792375.76 -16792375.62 -16792375.46 0.0089 0.0063
 Venus -50688-08-07 08:37 J -16792150.21 -16792150.14 -16792150.02 0.0089 0.0081
 Mars -50688-11-04 00:13 J -16792061.73 -16792061.49 -16792061.24 0.0089 0.0046
 Mars -50686-09-28 12:42 J -16791368.22 -16791367.97 -16791367.69 0.0089 0.0031
 Mars -50684-08-22 00:57 J -16790674.74 -16790674.46 -16790674.18 0.0089 0.0015
 Mars -50682-07-16 10:47 J -16789981.33 -16789981.05 -16789980.76 0.0089 0.0002
 Mars -50680-06-08 22:04 J -16789287.85 -16789287.58 -16789287.29 0.0089 0.0017
 Mars -50678-05-03 09:06 J -16788594.37 -16788594.12 -16788593.84 0.0089 0.0033
 Mars -50676-03-26 18:57 J -16787900.92 -16787900.71 -16787900.44 0.0089 0.0049

Mars -50674-02-18 05:45 J -16787207.43 -16787207.26 -16787207.03 0.0089 0.0063
 Mars -50672-01-11 18:13 J -16786513.84 -16786513.74 -16786513.57 0.0089 0.0079
 Mercury -50652-01-30 15:35 J -16779189.88 -16779189.85 -16779189.80 0.0089 0.0086
 Mercury -50652-04-28 17:59 J -16779101.80 -16779101.75 -16779101.65 0.0089 0.0079
 Mercury -50652-07-25 21:06 J -16779013.71 -16779013.62 -16779013.51 0.0089 0.0071
 Mercury -50652-10-21 23:45 J -16778925.62 -16778925.51 -16778925.38 0.0089 0.0064
 Mercury -50651-01-18 02:37 J -16778837.52 -16778837.39 -16778837.25 0.0089 0.0056
 Earth -50651-01-29 05:16 J -16778826.43 -16778826.28 -16778826.10 0.0089 0.0068
 Moon -50651-01-29 07:11 J -16778826.35 -16778826.20 -16778826.00 0.0089 0.0064 *
 Mercury -50651-04-16 05:16 J -16778749.42 -16778749.28 -16778749.13 0.0089 0.0049
 Mercury -50651-07-13 08:09 J -16778661.31 -16778661.16 -16778661.00 0.0089 0.0041
 Mercury -50651-10-09 10:47 J -16778573.20 -16778573.05 -16778572.88 0.0089 0.0034
 Mercury -50650-01-05 13:40 J -16778485.09 -16778484.93 -16778484.76 0.0089 0.0026
 Moon -50650-01-31 14:23 J -16778459.11 -16778458.90 -16778458.67 0.0089 0.0048
 Earth -50650-01-31 17:30 J -16778459.00 -16778458.77 -16778458.55 0.0089 0.0043 *
 Mercury -50650-04-03 16:33 J -16778396.98 -16778396.81 -16778396.64 0.0089 0.0018
 Mercury -50650-06-30 19:11 J -16778308.87 -16778308.70 -16778308.52 0.0089 0.0011
 Mercury -50650-09-26 22:04 J -16778220.75 -16778220.58 -16778220.40 0.0089 0.0004
 Mercury -50650-12-24 00:57 J -16778132.63 -16778132.46 -16778132.28 0.0089 0.0005
 Earth -50649-02-03 04:47 J -16778091.54 -16778091.30 -16778091.04 0.0089 0.0019
 Moon -50649-02-03 08:37 J -16778091.39 -16778091.14 -16778090.88 0.0089 0.0014 *
 Mercury -50649-03-21 03:49 J -16778044.51 -16778044.34 -16778044.17 0.0089 0.0012
 Mercury -50649-06-17 06:42 J -16777956.39 -16777956.22 -16777956.05 0.0089 0.0020
 Mercury -50649-09-13 09:21 J -16777868.27 -16777868.11 -16777867.94 0.0089 0.0028
 Mercury -50649-12-10 12:13 J -16777780.14 -16777779.99 -16777779.82 0.0089 0.0036
 Moon -50648-02-04 13:40 J -16777724.19 -16777723.93 -16777723.68 0.0089 0.0002
 Earth -50648-02-04 17:01 J -16777724.05 -16777723.79 -16777723.53 0.0089 0.0006 *
 Mercury -50648-03-08 15:06 J -16777692.02 -16777691.87 -16777691.71 0.0089 0.0044
 Mercury -50648-06-04 17:45 J -16777603.89 -16777603.76 -16777603.60 0.0089 0.0052
 Mercury -50648-08-31 21:06 J -16777515.75 -16777515.62 -16777515.49 0.0089 0.0059

Mercury -50648-11-27 23:45 J -16777427.62 -16777427.51 -16777427.39 0.0089 0.0067
 Earth -50647-02-07 04:47 J -16777356.54 -16777356.30 -16777356.05 0.0089 0.0030
 Moon -50647-02-07 08:09 J -16777356.39 -16777356.16 -16777355.91 0.0089 0.0035 *
 Mercury -50647-02-24 02:37 J -16777339.47 -16777339.39 -16777339.29 0.0089 0.0075
 Mercury -50647-05-23 05:30 J -16777251.32 -16777251.27 -16777251.20 0.0089 0.0083
 Moon -50646-02-09 14:23 J -16776989.11 -16776988.90 -16776988.70 0.0089 0.0050
 Earth -50646-02-09 16:33 J -16776989.00 -16776988.81 -16776988.60 0.0089 0.0055 *
 Earth -50645-02-12 04:47 J -16776621.42 -16776621.30 -16776621.19 0.0089 0.0079
 Moon -50645-02-12 05:59 J -16776621.33 -16776621.25 -16776621.15 0.0089 0.0083 *
 Venus -50611-03-03 21:49 J -16764182.68 -16764182.59 -16764182.46 0.0088 0.0078
 Venus -50611-10-15 12:13 J -16763957.15 -16763956.99 -16763956.81 0.0088 0.0059
 Venus -50610-05-29 02:23 J -16763731.59 -16763731.40 -16763731.19 0.0088 0.0041
 Venus -50609-01-09 16:33 J -16763506.02 -16763505.81 -16763505.58 0.0088 0.0023
 Venus -50609-08-22 06:42 J -16763280.44 -16763280.22 -16763279.99 0.0088 0.0006
 Venus -50608-04-04 20:52 J -16763054.85 -16763054.63 -16763054.40 0.0088 0.0013
 Mars -50608-09-15 11:45 J -16762891.17 -16762891.01 -16762890.78 0.0088 0.0073
 Venus -50608-11-16 10:47 J -16762829.25 -16762829.05 -16762828.82 0.0088 0.0031
 Venus -50607-06-30 00:42 J -16762603.64 -16762603.47 -16762603.26 0.0088 0.0049
 Venus -50606-02-10 14:52 J -16762378.00 -16762377.88 -16762377.71 0.0088 0.0067
 Mars -50606-08-12 23:01 J -16762194.78 -16762194.54 -16762194.24 0.0088 0.0055
 Venus -50606-09-24 05:30 J -16762152.32 -16762152.27 -16762152.20 0.0088 0.0085
 Mars -50604-07-09 11:59 J -16761498.30 -16761498.00 -16761497.67 0.0088 0.0037
 Mars -50602-06-06 01:11 J -16760801.78 -16760801.45 -16760801.09 0.0088 0.0018
 Mars -50600-05-02 15:35 J -16760105.20 -16760104.85 -16760104.50 0.0088 0.0001
 Mars -50598-03-30 05:59 J -16759408.58 -16759408.25 -16759407.90 0.0088 0.0020
 Mars -50596-02-23 20:09 J -16758711.96 -16758711.66 -16758711.33 0.0088 0.0039
 Mars -50594-01-21 10:18 J -16758015.31 -16758015.07 -16758014.78 0.0088 0.0057
 Mars -50593-12-18 00:57 J -16757318.62 -16757318.46 -16757318.26 0.0088 0.0075
 Mercury -50570-08-08 04:18 J -16749050.36 -16749050.32 -16749050.26 0.0088 0.0083
 Mercury -50570-11-04 05:59 J -16748962.31 -16748962.25 -16748962.16 0.0088 0.0076

Mercury -50569-01-31 07:54 J -16748874.25 -16748874.17 -16748874.08 0.0088 0.0070

Mercury -50569-04-28 09:35 J -16748786.19 -16748786.10 -16748785.99 0.0088 0.0063

Mercury -50569-07-25 11:30 J -16748698.13 -16748698.02 -16748697.91 0.0088 0.0057

Moon -50569-08-02 09:49 J -16748690.23 -16748690.09 -16748689.91 0.0088 0.0071

Earth -50569-08-02 11:30 J -16748690.13 -16748690.02 -16748689.86 0.0088 0.0076 *

Mercury -50569-10-21 12:57 J -16748610.07 -16748609.96 -16748609.83 0.0088 0.0051

Mercury -50568-01-17 14:37 J -16748522.00 -16748521.89 -16748521.75 0.0088 0.0045

Mercury -50568-04-15 16:33 J -16748433.94 -16748433.81 -16748433.68 0.0088 0.0038

Mercury -50568-07-12 18:13 J -16748345.87 -16748345.74 -16748345.60 0.0088 0.0031

Earth -50568-08-04 23:16 J -16748322.73 -16748322.53 -16748322.31 0.0089 0.0051

Moon -50568-08-05 01:54 J -16748322.61 -16748322.42 -16748322.22 0.0089 0.0055 *

Mercury -50568-10-08 19:54 J -16748257.80 -16748257.67 -16748257.53 0.0089 0.0025

Mercury -50567-01-04 21:35 J -16748169.74 -16748169.60 -16748169.45 0.0089 0.0019

Mercury -50567-04-02 23:16 J -16748081.67 -16748081.53 -16748081.38 0.0089 0.0013

Mercury -50567-06-30 00:57 J -16747993.60 -16747993.46 -16747993.31 0.0089 0.0007

Moon -50567-08-07 07:40 J -16747955.42 -16747955.18 -16747954.92 0.0089 0.0022

Earth -50567-08-07 10:47 J -16747955.28 -16747955.05 -16747954.79 0.0089 0.0027 *

Mercury -50567-09-26 02:37 J -16747905.53 -16747905.39 -16747905.24 0.0089 0.0003

Mercury -50567-12-23 04:18 J -16747817.46 -16747817.32 -16747817.17 0.0089 0.0007

Mercury -50566-03-21 05:59 J -16747729.39 -16747729.25 -16747729.11 0.0089 0.0013

Mercury -50566-06-17 07:40 J -16747641.32 -16747641.18 -16747641.04 0.0089 0.0019

Earth -50566-08-09 22:33 J -16747587.82 -16747587.56 -16747587.30 0.0089 0.0002

Moon -50566-08-10 02:09 J -16747587.66 -16747587.41 -16747587.15 0.0089 0.0007 *

Mercury -50566-09-13 09:06 J -16747553.25 -16747553.12 -16747552.97 0.0089 0.0026

Mercury -50566-12-10 10:47 J -16747465.18 -16747465.05 -16747464.91 0.0089 0.0032

Mercury -50565-03-07 12:28 J -16747377.10 -16747376.98 -16747376.85 0.0089 0.0038

Mercury -50565-06-03 14:09 J -16747289.03 -16747288.91 -16747288.78 0.0089 0.0044

Moon -50565-08-11 06:28 J -16747220.46 -16747220.23 -16747219.97 0.0089 0.0028

Earth -50565-08-11 10:04 J -16747220.33 -16747220.08 -16747219.83 0.0089 0.0023 *

Mercury -50565-08-30 15:49 J -16747200.96 -16747200.84 -16747200.72 0.0089 0.0050

Mercury -50565-11-26 17:30 J -16747112.88 -16747112.77 -16747112.66 0.0089 0.0056

Mercury -50564-02-22 18:42 J -16747024.81 -16747024.72 -16747024.61 0.0089 0.0063

Mercury -50564-05-21 20:23 J -16746936.73 -16746936.65 -16746936.55 0.0089 0.0068

Earth -50564-08-13 21:06 J -16746852.82 -16746852.62 -16746852.38 0.0089 0.0048

Moon -50564-08-14 00:28 J -16746852.70 -16746852.48 -16746852.24 0.0089 0.0043 *

Mercury -50564-08-17 21:49 J -16746848.65 -16746848.59 -16746848.50 0.0089 0.0075

Mercury -50564-11-13 23:30 J -16746760.56 -16746760.52 -16746760.45 0.0089 0.0081

Mercury -50563-02-10 00:57 J -16746672.47 -16746672.46 -16746672.41 0.0089 0.0087

Moon -50563-08-16 06:42 J -16746485.32 -16746485.22 -16746485.07 0.0089 0.0077

Earth -50563-08-16 08:23 J -16746485.27 -16746485.15 -16746484.98 0.0089 0.0072 *

Venus -50529-04-19 10:33 J -16734185.11 -16734185.06 -16734184.96 0.0089 0.0083

Venus -50529-11-30 23:01 J -16733959.68 -16733959.54 -16733959.40 0.0089 0.0066

Venus -50528-07-14 10:33 J -16733734.22 -16733734.06 -16733733.87 0.0089 0.0049

Mars -50528-09-01 15:35 J -16733684.97 -16733684.85 -16733684.67 0.0089 0.0076

Venus -50527-02-24 22:33 J -16733508.75 -16733508.56 -16733508.35 0.0089 0.0031

Venus -50527-10-08 10:47 J -16733283.26 -16733283.05 -16733282.84 0.0089 0.0013

Venus -50526-05-21 22:33 J -16733057.77 -16733057.56 -16733057.34 0.0089 0.0005

Mars -50526-07-27 06:28 J -16732991.41 -16732991.23 -16732990.99 0.0089 0.0061

Venus -50525-01-02 10:33 J -16732832.26 -16732832.06 -16732831.85 0.0089 0.0021

Venus -50525-08-14 22:18 J -16732606.75 -16732606.57 -16732606.36 0.0089 0.0039

Venus -50524-03-28 10:04 J -16732381.22 -16732381.08 -16732380.89 0.0089 0.0057

Mars -50524-06-19 20:09 J -16732297.89 -16732297.66 -16732297.40 0.0089 0.0046

Venus -50524-11-08 22:04 J -16732155.69 -16732155.58 -16732155.45 0.0089 0.0073

Mars -50522-05-14 07:54 J -16731604.43 -16731604.17 -16731603.89 0.0089 0.0030

Mars -50520-04-06 20:09 J -16730910.94 -16730910.66 -16730910.38 0.0089 0.0015

Mars -50518-03-01 08:23 J -16730217.43 -16730217.15 -16730216.86 0.0089 0.0002

Mars -50516-01-22 18:28 J -16729524.01 -16729523.73 -16729523.45 0.0089 0.0017

Mars -50515-12-17 05:16 J -16728830.53 -16728830.28 -16728830.00 0.0089 0.0033

Mars -50513-11-09 17:16 J -16728137.01 -16728136.78 -16728136.53 0.0089 0.0047

Mars -50511-10-04 03:49 J -16727443.53 -16727443.34 -16727443.13 0.0089 0.0063

Mars -50509-08-27 13:54 J -16726750.03 -16726749.92 -16726749.75 0.0089 0.0078
 Mercury -50488-07-31 12:13 J -16719106.99 -16719106.99 -16719106.96 0.0089 0.0089
 Mercury -50488-10-27 15:06 J -16719018.93 -16719018.87 -16719018.80 0.0089 0.0081
 Mercury -50487-01-23 17:45 J -16718930.84 -16718930.76 -16718930.66 0.0089 0.0074
 Moon -50487-01-28 12:57 J -16718926.06 -16718925.96 -16718925.81 0.0089 0.0078
 Earth -50487-01-28 16:18 J -16718925.91 -16718925.82 -16718925.68 0.0089 0.0079 *
 Mercury -50487-04-21 20:37 J -16718842.75 -16718842.64 -16718842.52 0.0089 0.0066
 Mercury -50487-07-18 23:16 J -16718754.65 -16718754.53 -16718754.40 0.0089 0.0059
 Mercury -50487-10-15 02:09 J -16718666.55 -16718666.41 -16718666.27 0.0089 0.0051
 Mercury -50486-01-11 04:33 J -16718578.45 -16718578.31 -16718578.15 0.0089 0.0044
 Earth -50486-01-31 04:18 J -16718558.51 -16718558.32 -16718558.11 0.0089 0.0054
 Moon -50486-01-31 07:40 J -16718558.37 -16718558.18 -16718557.97 0.0089 0.0054 *
 Mercury -50486-04-09 07:40 J -16718490.34 -16718490.18 -16718490.02 0.0089 0.0036
 Mercury -50486-07-06 10:18 J -16718402.23 -16718402.07 -16718401.90 0.0089 0.0029
 Mercury -50486-10-02 13:11 J -16718314.12 -16718313.95 -16718313.78 0.0089 0.0021
 Mercury -50486-12-29 15:49 J -16718226.01 -16718225.84 -16718225.66 0.0089 0.0014
 Moon -50485-02-02 12:42 J -16718191.21 -16718190.97 -16718190.72 0.0089 0.0029
 Earth -50485-02-02 16:04 J -16718191.06 -16718190.83 -16718190.57 0.0089 0.0030 *
 Mercury -50485-03-26 18:42 J -16718137.89 -16718137.72 -16718137.54 0.0089 0.0006
 Mercury -50485-06-22 21:35 J -16718049.77 -16718049.60 -16718049.42 0.0089 0.0002
 Mercury -50485-09-19 00:28 J -16717961.66 -16717961.48 -16717961.31 0.0089 0.0010
 Mercury -50485-12-16 03:06 J -16717873.54 -16717873.37 -16717873.19 0.0089 0.0018
 Earth -50484-02-04 04:18 J -16717823.58 -16717823.32 -16717823.06 0.0089 0.0005
 Moon -50484-02-04 07:11 J -16717823.46 -16717823.20 -16717822.93 0.0089 0.0005 *
 Mercury -50484-03-14 05:45 J -16717785.41 -16717785.26 -16717785.08 0.0089 0.0026
 Mercury -50484-06-10 08:52 J -16717697.29 -16717697.13 -16717696.96 0.0089 0.0033
 Mercury -50484-09-06 11:45 J -16717609.16 -16717609.01 -16717608.85 0.0089 0.0041
 Mercury -50484-12-03 14:23 J -16717521.03 -16717520.90 -16717520.74 0.0089 0.0049
 Moon -50483-02-06 13:40 J -16717456.17 -16717455.93 -16717455.68 0.0089 0.0020
 Earth -50483-02-06 16:04 J -16717456.07 -16717455.83 -16717455.57 0.0089 0.0021 *

Mercury -50483-03-01 17:16 J -16717432.90 -16717432.78 -16717432.63 0.0089 0.0057
 Mercury -50483-05-28 20:09 J -16717344.77 -16717344.66 -16717344.52 0.0089 0.0065
 Mercury -50483-08-24 23:01 J -16717256.62 -16717256.54 -16717256.42 0.0089 0.0073
 Mercury -50483-11-21 02:23 J -16717168.47 -16717168.40 -16717168.33 0.0089 0.0080
 Earth -50482-02-09 04:04 J -16717088.55 -16717088.33 -16717088.10 0.0089 0.0045
 Moon -50482-02-09 05:01 J -16717088.50 -16717088.29 -16717088.04 0.0089 0.0046 *
 Mercury -50482-02-17 05:16 J -16717080.30 -16717080.28 -16717080.26 0.0089 0.0088
 Earth -50481-02-11 15:35 J -16716720.99 -16716720.85 -16716720.67 0.0089 0.0070
 Moon -50481-02-11 16:04 J -16716720.97 -16716720.83 -16716720.67 0.0089 0.0070 *
 Jupiter -50450-09-19 16:18 J -16705178.37 -16705177.82 -16705177.25 0.0088 0.0006
 Venus -50447-06-05 08:37 J -16704188.20 -16704188.14 -16704188.05 0.0088 0.0083
 Venus -50446-01-16 23:01 J -16703962.68 -16703962.54 -16703962.38 0.0088 0.0065
 Venus -50446-08-30 13:11 J -16703737.13 -16703736.95 -16703736.75 0.0088 0.0048
 Venus -50445-04-12 03:35 J -16703511.57 -16703511.35 -16703511.14 0.0088 0.0030
 Venus -50445-11-23 17:30 J -16703285.99 -16703285.77 -16703285.54 0.0088 0.0012
 Mars -50444-04-29 03:21 J -16703129.54 -16703129.36 -16703129.14 0.0088 0.0072
 Venus -50444-07-07 07:40 J -16703060.40 -16703060.18 -16703059.95 0.0088 0.0006
 Venus -50443-02-17 21:49 J -16702834.80 -16702834.59 -16702834.36 0.0088 0.0024
 Venus -50443-10-01 11:45 J -16702609.19 -16702609.01 -16702608.80 0.0088 0.0043
 Mars -50442-03-26 12:13 J -16702433.24 -16702432.99 -16702432.69 0.0088 0.0054
 Venus -50442-05-15 01:40 J -16702383.57 -16702383.43 -16702383.24 0.0088 0.0061
 Venus -50442-12-26 15:35 J -16702157.93 -16702157.85 -16702157.72 0.0088 0.0079
 Mars -50440-02-19 23:16 J -16701736.82 -16701736.53 -16701736.19 0.0088 0.0036
 Mars -50438-01-17 12:13 J -16701040.33 -16701039.99 -16701039.64 0.0088 0.0017
 Mars -50437-12-14 01:40 J -16700343.78 -16700343.43 -16700343.08 0.0088 0.0001
 Mars -50435-11-10 15:06 J -16699647.20 -16699646.87 -16699646.52 0.0088 0.0020
 Mars -50433-10-07 05:59 J -16698950.56 -16698950.25 -16698949.93 0.0088 0.0039
 Mars -50431-09-03 19:25 J -16698253.92 -16698253.69 -16698253.39 0.0088 0.0057
 Mars -50429-07-31 09:21 J -16697557.25 -16697557.11 -16697556.89 0.0088 0.0075
 Mercury -50405-02-06 02:37 J -16688967.42 -16688967.39 -16688967.35 0.0088 0.0085

Mercury -50405-05-04 04:04 J -16688879.38 -16688879.33 -16688879.25 0.0088 0.0079

Mercury -50405-07-31 06:13 J -16688791.32 -16688791.24 -16688791.16 0.0088 0.0072

Earth -50405-08-01 23:01 J -16688789.58 -16688789.54 -16688789.46 0.0088 0.0086

Moon -50405-08-02 01:40 J -16688789.47 -16688789.43 -16688789.33 0.0088 0.0085 *

Mercury -50405-10-27 07:40 J -16688703.26 -16688703.18 -16688703.07 0.0088 0.0066

Mercury -50404-01-23 09:35 J -16688615.20 -16688615.10 -16688614.99 0.0089 0.0059

Mercury -50404-04-21 11:16 J -16688527.14 -16688527.03 -16688526.91 0.0089 0.0053

Mercury -50404-07-18 12:57 J -16688439.07 -16688438.96 -16688438.83 0.0089 0.0046

Moon -50404-08-04 06:57 J -16688422.36 -16688422.21 -16688422.00 0.0089 0.0064

Earth -50404-08-04 10:33 J -16688422.22 -16688422.06 -16688421.85 0.0089 0.0062 *

Mercury -50404-10-14 14:52 J -16688351.01 -16688350.88 -16688350.75 0.0089 0.0040

Mercury -50403-01-10 16:18 J -16688262.94 -16688262.82 -16688262.68 0.0089 0.0034

Mercury -50403-04-08 17:59 J -16688174.88 -16688174.75 -16688174.60 0.0089 0.0028

Mercury -50403-07-05 19:54 J -16688086.81 -16688086.67 -16688086.53 0.0089 0.0021

Earth -50403-08-06 22:18 J -16688054.80 -16688054.57 -16688054.33 0.0089 0.0037

Moon -50403-08-07 01:54 J -16688054.65 -16688054.42 -16688054.18 0.0089 0.0036 *

Mercury -50403-10-01 21:35 J -16687998.74 -16687998.60 -16687998.46 0.0089 0.0015

Mercury -50403-12-28 23:16 J -16687910.67 -16687910.53 -16687910.38 0.0089 0.0008

Mercury -50402-03-27 00:57 J -16687822.60 -16687822.46 -16687822.31 0.0089 0.0002

Mercury -50402-06-23 02:37 J -16687734.53 -16687734.39 -16687734.25 0.0089 0.0004

Moon -50402-08-09 06:13 J -16687687.48 -16687687.24 -16687686.98 0.0089 0.0014

Earth -50402-08-09 09:49 J -16687687.34 -16687687.09 -16687686.83 0.0089 0.0012 *

Mercury -50402-09-19 04:18 J -16687646.46 -16687646.32 -16687646.18 0.0089 0.0011

Mercury -50402-12-16 05:59 J -16687558.39 -16687558.25 -16687558.11 0.0089 0.0017

Mercury -50401-03-13 07:25 J -16687470.32 -16687470.19 -16687470.04 0.0089 0.0023

Mercury -50401-06-09 09:06 J -16687382.25 -16687382.12 -16687381.98 0.0089 0.0029

Earth -50401-08-10 21:06 J -16687319.87 -16687319.62 -16687319.36 0.0089 0.0013

Moon -50401-08-10 23:45 J -16687319.77 -16687319.51 -16687319.25 0.0089 0.0014 *

Mercury -50401-09-05 10:47 J -16687294.18 -16687294.05 -16687293.92 0.0089 0.0036

Mercury -50401-12-02 12:28 J -16687206.10 -16687205.98 -16687205.85 0.0089 0.0042

Mercury -50400-02-28 13:54 J -16687118.03 -16687117.92 -16687117.79 0.0089 0.0048

Mercury -50400-05-27 15:35 J -16687029.96 -16687029.85 -16687029.73 0.0089 0.0054

Moon -50400-08-13 06:42 J -16686952.44 -16686952.22 -16686951.99 0.0089 0.0037

Earth -50400-08-13 08:23 J -16686952.37 -16686952.15 -16686951.90 0.0089 0.0038 *

Mercury -50400-08-23 17:16 J -16686941.88 -16686941.78 -16686941.67 0.0089 0.0060

Mercury -50400-11-19 18:42 J -16686853.80 -16686853.72 -16686853.62 0.0089 0.0066

Mercury -50399-02-15 20:09 J -16686765.72 -16686765.66 -16686765.56 0.0089 0.0073

Mercury -50399-05-14 21:49 J -16686677.64 -16686677.59 -16686677.51 0.0089 0.0079

Mercury -50399-08-10 23:16 J -16686589.55 -16686589.53 -16686589.47 0.0089 0.0085

Earth -50399-08-15 20:09 J -16686584.84 -16686584.66 -16686584.48 0.0089 0.0062

Moon -50399-08-15 20:23 J -16686584.83 -16686584.65 -16686584.45 0.0089 0.0063 *

Earth -50398-08-18 06:57 J -16686217.23 -16686217.21 -16686217.13 0.0089 0.0087

Moon -50398-08-18 08:09 J -16686217.20 -16686217.16 -16686217.08 0.0089 0.0086 *

Venus -50365-07-21 23:59 J -16674190.50 -16674190.50 -16674190.48 0.0089 0.0089

Venus -50364-03-04 11:30 J -16673965.12 -16673965.02 -16673964.87 0.0089 0.0072

Mars -50364-04-17 08:52 J -16673921.25 -16673921.13 -16673920.95 0.0089 0.0076

Venus -50364-10-15 23:45 J -16673739.67 -16673739.51 -16673739.34 0.0089 0.0055

Venus -50363-05-29 11:30 J -16673514.21 -16673514.02 -16673513.82 0.0089 0.0037

Venus -50362-01-09 23:16 J -16673288.73 -16673288.53 -16673288.31 0.0089 0.0021

Mars -50362-03-11 23:30 J -16673227.72 -16673227.52 -16673227.30 0.0089 0.0061

Venus -50362-08-23 11:30 J -16673063.23 -16673063.02 -16673062.80 0.0089 0.0003

Venus -50361-04-04 23:30 J -16672837.73 -16672837.52 -16672837.31 0.0089 0.0014

Venus -50361-11-16 11:01 J -16672612.22 -16672612.04 -16672611.83 0.0089 0.0032

Mars -50360-02-02 13:40 J -16672534.16 -16672533.93 -16672533.67 0.0089 0.0046

Venus -50360-06-29 23:01 J -16672386.71 -16672386.54 -16672386.35 0.0089 0.0049

Venus -50359-02-10 10:47 J -16672161.18 -16672161.05 -16672160.89 0.0089 0.0067

Venus -50359-09-23 23:01 J -16671935.61 -16671935.54 -16671935.46 0.0089 0.0084

Mars -50359-12-28 02:52 J -16671840.63 -16671840.38 -16671840.09 0.0089 0.0031

Mars -50357-11-20 15:06 J -16671147.15 -16671146.87 -16671146.58 0.0089 0.0014

Mars -50355-10-15 02:52 J -16670453.66 -16670453.38 -16670453.09 0.0089 0.0002

Mars -50353-09-07 15:06 J -16669760.14 -16669759.87 -16669759.58 0.0089 0.0017
 Mars -50351-08-02 01:25 J -16669066.69 -16669066.44 -16669066.15 0.0089 0.0032
 Mars -50349-06-25 11:59 J -16668373.22 -16668373.00 -16668372.74 0.0089 0.0047
 Mars -50347-05-19 23:30 J -16667679.69 -16667679.52 -16667679.29 0.0089 0.0063
 Mars -50345-04-12 11:01 J -16666986.18 -16666986.04 -16666985.89 0.0089 0.0077
 Mercury -50323-04-27 11:45 J -16658936.06 -16658936.01 -16658935.95 0.0089 0.0084
 Mercury -50323-07-24 14:09 J -16658847.98 -16658847.91 -16658847.81 0.0089 0.0077
 Mercury -50323-10-20 17:16 J -16658759.89 -16658759.78 -16658759.68 0.0089 0.0069
 Mercury -50322-01-16 19:40 J -16658671.79 -16658671.68 -16658671.55 0.0089 0.0062
 Moon -50322-01-30 11:30 J -16658658.20 -16658658.02 -16658657.83 0.0089 0.0061
 Earth -50322-01-30 14:23 J -16658658.05 -16658657.90 -16658657.70 0.0089 0.0066 *
 Mercury -50322-04-14 22:18 J -16658583.69 -16658583.57 -16658583.42 0.0089 0.0055
 Mercury -50322-07-12 01:11 J -16658495.59 -16658495.45 -16658495.30 0.0089 0.0047
 Mercury -50322-10-08 04:04 J -16658407.48 -16658407.33 -16658407.17 0.0089 0.0039
 Mercury -50321-01-04 06:42 J -16658319.38 -16658319.22 -16658319.05 0.0089 0.0032
 Earth -50321-02-02 02:23 J -16658290.61 -16658290.40 -16658290.15 0.0089 0.0041
 Moon -50321-02-02 05:45 J -16658290.48 -16658290.26 -16658290.02 0.0089 0.0045 *
 Mercury -50321-04-01 09:35 J -16658231.27 -16658231.10 -16658230.93 0.0089 0.0024
 Mercury -50321-06-28 12:13 J -16658143.15 -16658142.99 -16658142.81 0.0089 0.0017
 Mercury -50321-09-24 15:06 J -16658055.04 -16658054.87 -16658054.69 0.0089 0.0009
 Mercury -50321-12-21 17:59 J -16657966.93 -16657966.75 -16657966.58 0.0089 0.0001
 Moon -50320-02-03 12:57 J -16657923.20 -16657922.96 -16657922.70 0.0089 0.0011
 Earth -50320-02-03 14:37 J -16657923.14 -16657922.89 -16657922.63 0.0089 0.0016 *
 Mercury -50320-03-19 20:37 J -16657878.81 -16657878.64 -16657878.46 0.0089 0.0007
 Mercury -50320-06-15 23:30 J -16657790.69 -16657790.52 -16657790.34 0.0089 0.0014
 Mercury -50320-09-12 02:23 J -16657702.57 -16657702.40 -16657702.23 0.0089 0.0022
 Mercury -50320-12-09 05:16 J -16657614.44 -16657614.28 -16657614.11 0.0089 0.0030
 Earth -50319-02-06 02:37 J -16657555.64 -16657555.39 -16657555.13 0.0089 0.0010
 Moon -50319-02-06 03:35 J -16657555.62 -16657555.35 -16657555.08 0.0089 0.0006 *
 Mercury -50319-03-07 07:54 J -16657526.32 -16657526.17 -16657526.00 0.0089 0.0038

Mercury -50319-06-03 10:47 J -16657438.19 -16657438.05 -16657437.89 0.0089 0.0046

Mercury -50319-08-30 13:25 J -16657350.06 -16657349.94 -16657349.78 0.0089 0.0054

Mercury -50319-11-26 16:47 J -16657261.93 -16657261.80 -16657261.67 0.0089 0.0061

Earth -50318-02-08 14:09 J -16657188.13 -16657187.91 -16657187.66 0.0089 0.0035

Moon -50318-02-08 14:23 J -16657188.11 -16657187.90 -16657187.66 0.0089 0.0040 *

Mercury -50318-02-22 19:25 J -16657173.79 -16657173.69 -16657173.57 0.0089 0.0069

Mercury -50318-05-21 22:18 J -16657085.64 -16657085.57 -16657085.47 0.0089 0.0077

Mercury -50318-08-18 01:11 J -16656997.48 -16656997.45 -16656997.39 0.0089 0.0085

Moon -50317-02-10 23:45 J -16656820.69 -16656820.51 -16656820.27 0.0089 0.0056

Earth -50317-02-11 02:09 J -16656820.59 -16656820.41 -16656820.21 0.0089 0.0060 *

Earth -50316-02-12 13:54 J -16656452.97 -16656452.92 -16656452.82 0.0089 0.0085

Mars -50282-01-14 09:35 J -16644064.10 -16644064.10 -16644064.05 0.0088 0.0088

Venus -50282-04-20 08:52 J -16643968.24 -16643968.13 -16643967.98 0.0088 0.0072

Venus -50282-12-01 23:01 J -16643742.70 -16643742.54 -16643742.34 0.0088 0.0055

Venus -50281-07-14 13:25 J -16643517.14 -16643516.94 -16643516.73 0.0088 0.0037

Mars -50281-12-10 16:47 J -16643368.01 -16643367.80 -16643367.60 0.0088 0.0071

Venus -50280-02-25 03:49 J -16643291.56 -16643291.34 -16643291.11 0.0088 0.0019

Venus -50280-10-08 17:59 J -16643065.97 -16643065.75 -16643065.52 0.0088 0.0001

Venus -50279-05-22 08:09 J -16642840.38 -16642840.16 -16642839.94 0.0088 0.0017

Mars -50279-11-07 00:57 J -16642671.70 -16642671.46 -16642671.15 0.0088 0.0054

Venus -50278-01-02 22:04 J -16642614.78 -16642614.58 -16642614.36 0.0088 0.0035

Venus -50278-08-16 11:59 J -16642389.16 -16642389.00 -16642388.80 0.0088 0.0053

Venus -50277-03-29 02:09 J -16642163.52 -16642163.41 -16642163.26 0.0088 0.0071

Mars -50277-10-03 10:47 J -16641975.35 -16641975.05 -16641974.72 0.0088 0.0036

Mars -50275-08-30 22:04 J -16641278.91 -16641278.58 -16641278.23 0.0088 0.0017

Mars -50273-07-27 11:01 J -16640582.38 -16640582.04 -16640581.69 0.0088 0.0002

Mars -50271-06-24 00:28 J -16639885.81 -16639885.48 -16639885.13 0.0088 0.0020

Mars -50269-05-20 14:37 J -16639189.20 -16639188.89 -16639188.57 0.0088 0.0039

Mars -50267-04-17 04:47 J -16638492.54 -16638492.30 -16638492.00 0.0088 0.0057

Mars -50265-03-13 19:54 J -16637795.85 -16637795.67 -16637795.49 0.0088 0.0075

Mercury -50241-08-06 00:28 J -16628884.49 -16628884.48 -16628884.45 0.0088 0.0088

Mercury -50241-11-02 02:23 J -16628796.45 -16628796.40 -16628796.34 0.0088 0.0081

Mercury -50240-01-29 04:04 J -16628708.40 -16628708.33 -16628708.24 0.0088 0.0075

Mercury -50240-04-27 05:59 J -16628620.34 -16628620.25 -16628620.16 0.0088 0.0068

Mercury -50240-07-24 07:40 J -16628532.28 -16628532.18 -16628532.07 0.0088 0.0061

Earth -50240-08-03 21:06 J -16628521.74 -16628521.62 -16628521.44 0.0088 0.0073

Moon -50240-08-04 00:42 J -16628521.61 -16628521.47 -16628521.28 0.0088 0.0069 *

Mercury -50240-10-20 09:06 J -16628444.22 -16628444.12 -16628443.99 0.0088 0.0056

Mercury -50239-01-16 11:01 J -16628356.15 -16628356.04 -16628355.91 0.0088 0.0049

Mercury -50239-04-14 12:42 J -16628268.09 -16628267.97 -16628267.83 0.0088 0.0043

Mercury -50239-07-11 14:37 J -16628180.02 -16628179.89 -16628179.76 0.0089 0.0036

Moon -50239-08-06 05:59 J -16628154.44 -16628154.25 -16628154.03 0.0089 0.0052

Earth -50239-08-06 08:52 J -16628154.33 -16628154.13 -16628153.89 0.0089 0.0048 *

Mercury -50239-10-07 16:18 J -16628091.95 -16628091.82 -16628091.68 0.0089 0.0030

Mercury -50238-01-03 17:59 J -16628003.89 -16628003.75 -16628003.61 0.0089 0.0023

Mercury -50238-04-01 19:40 J -16627915.82 -16627915.68 -16627915.53 0.0089 0.0017

Mercury -50238-06-28 21:21 J -16627827.75 -16627827.61 -16627827.46 0.0089 0.0011

Earth -50238-08-08 20:37 J -16627786.88 -16627786.64 -16627786.39 0.0089 0.0023

Moon -50238-08-08 23:01 J -16627786.78 -16627786.54 -16627786.27 0.0089 0.0019 *

Mercury -50238-09-24 23:01 J -16627739.68 -16627739.54 -16627739.39 0.0089 0.0005

Mercury -50238-12-22 00:42 J -16627651.61 -16627651.47 -16627651.32 0.0089 0.0003

Mercury -50237-03-19 02:23 J -16627563.54 -16627563.40 -16627563.25 0.0089 0.0009

Mercury -50237-06-15 04:04 J -16627475.47 -16627475.33 -16627475.19 0.0089 0.0015

Moon -50237-08-10 07:11 J -16627419.45 -16627419.20 -16627418.95 0.0089 0.0002

Earth -50237-08-10 08:09 J -16627419.42 -16627419.16 -16627418.90 0.0089 0.0002 *

Mercury -50237-09-11 05:45 J -16627387.40 -16627387.26 -16627387.12 0.0089 0.0021

Mercury -50237-12-08 07:25 J -16627299.33 -16627299.19 -16627299.05 0.0089 0.0027

Mercury -50236-03-06 08:52 J -16627211.25 -16627211.13 -16627210.99 0.0089 0.0034

Mercury -50236-06-02 10:33 J -16627123.18 -16627123.06 -16627122.93 0.0089 0.0040

Earth -50236-08-12 19:11 J -16627051.93 -16627051.70 -16627051.44 0.0089 0.0028

Moon -50236-08-12 19:25 J -16627051.93 -16627051.69 -16627051.42 0.0089 0.0031 *
 Mercury -50236-08-29 12:13 J -16627035.11 -16627034.99 -16627034.86 0.0089 0.0046
 Mercury -50236-11-25 13:54 J -16626947.03 -16626946.92 -16626946.80 0.0089 0.0052
 Mercury -50235-02-21 15:21 J -16626858.96 -16626858.86 -16626858.74 0.0089 0.0058
 Mercury -50235-05-20 17:01 J -16626770.88 -16626770.79 -16626770.69 0.0089 0.0064
 Earth -50235-08-15 06:28 J -16626684.42 -16626684.23 -16626684.00 0.0089 0.0053
 Moon -50235-08-15 07:40 J -16626684.37 -16626684.18 -16626683.96 0.0089 0.0048 *
 Mercury -50235-08-16 18:42 J -16626682.80 -16626682.72 -16626682.63 0.0089 0.0070
 Mercury -50235-11-12 19:54 J -16626594.72 -16626594.67 -16626594.58 0.0089 0.0077
 Mercury -50234-02-08 21:35 J -16626506.63 -16626506.60 -16626506.54 0.0089 0.0083
 Mercury -50234-05-07 23:16 J -16626418.53 -16626418.53 -16626418.51 0.0089 0.0088
 Moon -50234-08-17 15:21 J -16626316.95 -16626316.86 -16626316.74 0.0089 0.0081
 Earth -50234-08-17 17:59 J -16626316.86 -16626316.75 -16626316.61 0.0089 0.0077 *
 Mars -50201-11-30 23:30 J -16614157.66 -16614157.52 -16614157.35 0.0089 0.0076
 Venus -50200-06-06 00:28 J -16613970.57 -16613970.48 -16613970.37 0.0089 0.0078
 Venus -50199-01-17 12:13 J -16613745.13 -16613744.99 -16613744.82 0.0089 0.0061
 Venus -50199-08-31 00:13 J -16613519.66 -16613519.49 -16613519.29 0.0089 0.0044
 Mars -50199-10-25 16:47 J -16613464.00 -16613463.80 -16613463.58 0.0089 0.0061
 Venus -50198-04-13 12:13 J -16613294.18 -16613293.99 -16613293.78 0.0089 0.0027
 Venus -50198-11-25 00:13 J -16613068.70 -16613068.49 -16613068.28 0.0089 0.0010
 Venus -50197-07-07 11:59 J -16612843.21 -16612843.00 -16612842.78 0.0089 0.0008
 Mars -50197-09-18 07:11 J -16612770.43 -16612770.20 -16612769.94 0.0089 0.0045
 Venus -50196-02-17 23:45 J -16612617.70 -16612617.51 -16612617.29 0.0089 0.0025
 Venus -50196-10-01 11:45 J -16612392.19 -16612392.01 -16612391.81 0.0089 0.0042
 Venus -50195-05-14 23:45 J -16612166.66 -16612166.51 -16612166.35 0.0089 0.0059
 Mars -50195-08-12 21:21 J -16612076.88 -16612076.61 -16612076.34 0.0089 0.0030
 Venus -50195-12-26 11:45 J -16611941.11 -16611941.01 -16611940.90 0.0089 0.0077
 Mars -50193-07-06 10:33 J -16611383.33 -16611383.06 -16611382.77 0.0089 0.0015
 Mars -50191-05-30 22:33 J -16610689.84 -16610689.56 -16610689.27 0.0089 0.0002
 Mars -50189-04-23 09:35 J -16609996.38 -16609996.10 -16609995.82 0.0089 0.0017

Mars -50187-03-17 21:21 J -16609302.87 -16609302.61 -16609302.34 0.0089 0.0032
 Mars -50185-02-09 08:09 J -16608609.38 -16608609.16 -16608608.89 0.0089 0.0047
 Mars -50183-01-02 18:42 J -16607915.92 -16607915.72 -16607915.51 0.0089 0.0062
 Mars -50182-11-27 05:59 J -16607222.37 -16607222.25 -16607222.07 0.0089 0.0077
 Mercury -50159-10-26 08:09 J -16598853.18 -16598853.16 -16598853.12 0.0089 0.0087
 Mercury -50158-01-22 10:47 J -16598765.11 -16598765.05 -16598764.97 0.0089 0.0080
 Earth -50158-01-30 00:57 J -16598757.58 -16598757.46 -16598757.33 0.0089 0.0077
 Moon -50158-01-30 03:21 J -16598757.48 -16598757.36 -16598757.22 0.0089 0.0076 *
 Mercury -50158-04-20 13:11 J -16598677.02 -16598676.95 -16598676.83 0.0089 0.0073
 Mercury -50158-07-17 16:18 J -16598588.93 -16598588.82 -16598588.70 0.0089 0.0065
 Mercury -50158-10-13 18:42 J -16598500.83 -16598500.72 -16598500.57 0.0089 0.0058
 Mercury -50157-01-09 21:35 J -16598412.73 -16598412.60 -16598412.45 0.0089 0.0050
 Moon -50157-02-01 10:33 J -16598390.23 -16598390.06 -16598389.83 0.0089 0.0053
 Earth -50157-02-01 12:42 J -16598390.16 -16598389.97 -16598389.75 0.0089 0.0052 *
 Mercury -50157-04-07 00:13 J -16598324.63 -16598324.49 -16598324.33 0.0089 0.0043
 Mercury -50157-07-04 03:06 J -16598236.52 -16598236.37 -16598236.20 0.0089 0.0035
 Mercury -50157-09-30 05:45 J -16598148.41 -16598148.26 -16598148.08 0.0089 0.0028
 Mercury -50157-12-27 08:37 J -16598060.30 -16598060.14 -16598059.96 0.0089 0.0020
 Earth -50156-02-03 00:42 J -16598022.71 -16598022.47 -16598022.21 0.0089 0.0027
 Moon -50156-02-03 00:57 J -16598022.71 -16598022.46 -16598022.20 0.0089 0.0026 *
 Mercury -50156-03-25 11:30 J -16597972.19 -16597972.02 -16597971.85 0.0089 0.0012
 Mercury -50156-06-21 14:23 J -16597884.08 -16597883.90 -16597883.73 0.0089 0.0005
 Mercury -50156-09-17 17:01 J -16597795.96 -16597795.79 -16597795.61 0.0089 0.0004
 Mercury -50156-12-14 19:54 J -16597707.84 -16597707.67 -16597707.50 0.0089 0.0011
 Earth -50155-02-05 12:42 J -16597655.23 -16597654.97 -16597654.71 0.0089 0.0001
 Moon -50155-02-05 13:40 J -16597655.18 -16597654.93 -16597654.68 0.0089 0.0002 *
 Mercury -50155-03-12 22:33 J -16597619.72 -16597619.56 -16597619.38 0.0089 0.0019
 Mercury -50155-06-09 01:25 J -16597531.60 -16597531.44 -16597531.27 0.0089 0.0027
 Mercury -50155-09-05 04:18 J -16597443.48 -16597443.32 -16597443.15 0.0089 0.0034
 Mercury -50155-12-02 07:11 J -16597355.35 -16597355.20 -16597355.04 0.0089 0.0042

Moon -50154-02-07 22:47 J -16597287.80 -16597287.55 -16597287.29 0.0089 0.0024
 Earth -50154-02-08 00:28 J -16597287.72 -16597287.48 -16597287.22 0.0089 0.0024 *
 Mercury -50154-02-28 09:49 J -16597267.22 -16597267.09 -16597266.93 0.0089 0.0050
 Mercury -50154-05-27 12:42 J -16597179.09 -16597178.97 -16597178.82 0.0089 0.0058
 Mercury -50154-08-23 15:35 J -16597090.95 -16597090.85 -16597090.72 0.0089 0.0066
 Mercury -50154-11-19 18:28 J -16597002.81 -16597002.73 -16597002.62 0.0089 0.0074
 Earth -50153-02-10 12:42 J -16596920.18 -16596919.97 -16596919.76 0.0089 0.0049
 Moon -50153-02-10 15:21 J -16596920.05 -16596919.86 -16596919.63 0.0089 0.0049 *
 Mercury -50153-02-15 21:21 J -16596914.66 -16596914.61 -16596914.53 0.0089 0.0082
 Moon -50152-02-11 21:06 J -16596552.75 -16596552.62 -16596552.48 0.0089 0.0075
 Earth -50152-02-11 23:59 J -16596552.61 -16596552.50 -16596552.33 0.0089 0.0075 *
 Mars -50119-08-28 01:40 J -16584302.48 -16584302.43 -16584302.36 0.0088 0.0087
 Venus -50118-07-22 18:28 J -16583973.80 -16583973.73 -16583973.61 0.0088 0.0080
 Venus -50117-03-04 09:06 J -16583748.27 -16583748.12 -16583747.95 0.0088 0.0061
 Mars -50117-07-24 06:13 J -16583606.41 -16583606.24 -16583605.99 0.0088 0.0070
 Venus -50117-10-15 23:30 J -16583522.72 -16583522.52 -16583522.32 0.0088 0.0043
 Venus -50116-05-29 13:40 J -16583297.15 -16583296.93 -16583296.71 0.0088 0.0026
 Venus -50115-01-10 03:49 J -16583071.56 -16583071.34 -16583071.11 0.0088 0.0008
 Mars -50115-06-20 13:25 J -16582910.20 -16582909.94 -16582909.64 0.0088 0.0053
 Venus -50115-08-23 17:59 J -16582845.97 -16582845.75 -16582845.52 0.0088 0.0010
 Venus -50114-04-06 08:09 J -16582620.37 -16582620.16 -16582619.94 0.0088 0.0028
 Venus -50114-11-17 22:04 J -16582394.76 -16582394.58 -16582394.37 0.0088 0.0046
 Mars -50113-05-16 22:47 J -16582213.86 -16582213.55 -16582213.22 0.0088 0.0035
 Venus -50113-06-30 12:13 J -16582169.13 -16582168.99 -16582168.82 0.0088 0.0064
 Venus -50112-02-11 02:23 J -16581943.47 -16581943.40 -16581943.30 0.0088 0.0081
 Mars -50111-04-13 08:52 J -16581517.47 -16581517.13 -16581516.79 0.0088 0.0017
 Mars -50109-03-09 19:40 J -16580821.02 -16580820.68 -16580820.33 0.0088 0.0002
 Mars -50107-02-04 07:54 J -16580124.49 -16580124.17 -16580123.81 0.0088 0.0021
 Mars -50105-01-01 21:49 J -16579427.89 -16579427.59 -16579427.27 0.0088 0.0038
 Mars -50104-11-28 11:59 J -16578731.26 -16578731.00 -16578730.73 0.0088 0.0057

Mars -50102-10-26 02:23 J -16578034.58 -16578034.40 -16578034.21 0.0088 0.0075
 Mercury -50076-05-03 00:13 J -16568713.53 -16568713.49 -16568713.44 0.0088 0.0084
 Mercury -50076-07-30 01:54 J -16568625.48 -16568625.42 -16568625.34 0.0088 0.0078
 Moon -50076-08-03 04:47 J -16568621.38 -16568621.30 -16568621.18 0.0088 0.0082
 Earth -50076-08-03 07:54 J -16568621.24 -16568621.17 -16568621.08 0.0088 0.0084 *
 Mercury -50076-10-26 03:49 J -16568537.42 -16568537.34 -16568537.25 0.0088 0.0071
 Mercury -50075-01-22 05:30 J -16568449.36 -16568449.27 -16568449.16 0.0088 0.0064
 Mercury -50075-04-20 07:25 J -16568361.30 -16568361.19 -16568361.08 0.0088 0.0058
 Mercury -50075-07-17 09:06 J -16568273.23 -16568273.12 -16568273.00 0.0088 0.0051
 Earth -50075-08-05 19:11 J -16568253.88 -16568253.70 -16568253.49 0.0088 0.0059
 Moon -50075-08-05 21:06 J -16568253.79 -16568253.62 -16568253.41 0.0088 0.0061 *
 Mercury -50075-10-13 10:33 J -16568185.17 -16568185.06 -16568184.92 0.0089 0.0046
 Mercury -50074-01-09 12:28 J -16568097.10 -16568096.98 -16568096.84 0.0089 0.0039
 Mercury -50074-04-07 14:09 J -16568009.04 -16568008.91 -16568008.77 0.0089 0.0033
 Mercury -50074-07-04 16:04 J -16567920.97 -16567920.83 -16567920.69 0.0089 0.0026
 Moon -50074-08-08 05:16 J -16567886.49 -16567886.28 -16567886.03 0.0089 0.0033
 Earth -50074-08-08 06:42 J -16567886.45 -16567886.22 -16567885.97 0.0089 0.0034 *
 Mercury -50074-09-30 17:45 J -16567832.90 -16567832.76 -16567832.62 0.0089 0.0019
 Mercury -50074-12-27 19:25 J -16567744.83 -16567744.69 -16567744.55 0.0089 0.0013
 Mercury -50073-03-24 21:06 J -16567656.76 -16567656.62 -16567656.47 0.0089 0.0007
 Mercury -50073-06-20 22:47 J -16567568.69 -16567568.55 -16567568.40 0.0089 0.0001
 Moon -50073-08-09 17:30 J -16567519.03 -16567518.77 -16567518.50 0.0089 0.0011
 Earth -50073-08-09 18:13 J -16567518.99 -16567518.74 -16567518.48 0.0089 0.0009 *
 Mercury -50073-09-17 00:28 J -16567480.62 -16567480.48 -16567480.33 0.0089 0.0006
 Mercury -50073-12-14 02:09 J -16567392.55 -16567392.41 -16567392.27 0.0089 0.0012
 Mercury -50072-03-12 03:49 J -16567304.48 -16567304.34 -16567304.20 0.0089 0.0018
 Mercury -50072-06-08 05:16 J -16567216.41 -16567216.28 -16567216.13 0.0089 0.0025
 Earth -50072-08-12 05:30 J -16567151.52 -16567151.27 -16567151.01 0.0089 0.0017
 Moon -50072-08-12 06:57 J -16567151.44 -16567151.21 -16567150.95 0.0089 0.0019 *
 Mercury -50072-09-04 06:57 J -16567128.34 -16567128.21 -16567128.07 0.0089 0.0031

Mercury -50072-12-01 08:37 J -16567040.26 -16567040.14 -16567040.01 0.0089 0.0037
 Mercury -50071-02-27 10:18 J -16566952.19 -16566952.07 -16566951.94 0.0089 0.0043
 Mercury -50071-05-26 11:45 J -16566864.12 -16566864.01 -16566863.88 0.0089 0.0050
 Moon -50071-08-14 14:23 J -16566784.13 -16566783.90 -16566783.66 0.0089 0.0040
 Earth -50071-08-14 16:33 J -16566784.02 -16566783.81 -16566783.57 0.0089 0.0042 *
 Mercury -50071-08-22 13:25 J -16566776.04 -16566775.94 -16566775.82 0.0089 0.0056
 Mercury -50071-11-18 15:06 J -16566687.97 -16566687.87 -16566687.76 0.0089 0.0062
 Mercury -50070-02-14 16:33 J -16566599.89 -16566599.81 -16566599.71 0.0089 0.0068
 Mercury -50070-05-13 18:13 J -16566511.81 -16566511.74 -16566511.65 0.0089 0.0074
 Mercury -50070-08-09 19:54 J -16566423.72 -16566423.67 -16566423.60 0.0089 0.0080
 Earth -50070-08-17 03:49 J -16566416.49 -16566416.34 -16566416.15 0.0089 0.0067
 Moon -50070-08-17 07:11 J -16566416.34 -16566416.20 -16566416.02 0.0089 0.0069 *
 Mercury -50070-11-05 21:21 J -16566335.63 -16566335.61 -16566335.56 0.0089 0.0086
 Mars -50037-07-16 13:40 J -16554394.06 -16554393.93 -16554393.75 0.0089 0.0075
 Venus -50036-09-07 12:42 J -16553976.01 -16553975.97 -16553975.89 0.0089 0.0085
 Venus -50035-04-21 00:28 J -16553750.59 -16553750.48 -16553750.32 0.0089 0.0069
 Mars -50035-06-10 06:13 J -16553700.44 -16553700.24 -16553700.01 0.0089 0.0060
 Venus -50035-12-02 12:28 J -16553525.14 -16553524.98 -16553524.79 0.0089 0.0051
 Venus -50034-07-16 00:28 J -16553299.67 -16553299.48 -16553299.27 0.0089 0.0034
 Venus -50033-02-26 12:13 J -16553074.18 -16553073.99 -16553073.77 0.0089 0.0018
 Mars -50033-05-03 22:33 J -16553006.79 -16553006.56 -16553006.29 0.0089 0.0046
 Venus -50033-10-09 00:28 J -16552848.69 -16552848.48 -16552848.27 0.0089 0.0001
 Venus -50032-05-22 11:59 J -16552623.20 -16552623.00 -16552622.78 0.0089 0.0018
 Venus -50031-01-02 23:45 J -16552397.69 -16552397.51 -16552397.30 0.0089 0.0035
 Mars -50031-03-28 13:11 J -16552313.20 -16552312.95 -16552312.66 0.0089 0.0030
 Venus -50031-08-16 11:45 J -16552172.17 -16552172.01 -16552171.82 0.0089 0.0052
 Venus -50030-03-29 23:30 J -16551946.63 -16551946.52 -16551946.37 0.0089 0.0070
 Venus -50030-11-10 11:30 J -16551721.06 -16551721.02 -16551720.95 0.0089 0.0086
 Mars -50029-02-20 02:37 J -16551619.67 -16551619.39 -16551619.10 0.0089 0.0014
 Mars -50027-01-13 16:04 J -16550926.11 -16550925.83 -16550925.54 0.0089 0.0002

Mars -50026-12-08 04:18 J -16550232.60 -16550232.32 -16550232.03 0.0089 0.0017

Mars -50024-10-31 15:21 J -16549539.11 -16549538.86 -16549538.57 0.0089 0.0032

Mars -50022-09-25 03:06 J -16548845.60 -16548845.37 -16548845.12 0.0089 0.0047

Mars -50020-08-18 14:52 J -16548152.07 -16548151.88 -16548151.65 0.0089 0.0061

Mars -50018-07-13 00:28 J -16547458.59 -16547458.48 -16547458.30 0.0089 0.0076

50TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 50th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-49994-07-23 06:57 J	-16538682.25	-16538682.21	-16538682.14	0.0089	0.0084		
Mercury	-49994-10-19 09:49 J	-16538594.17	-16538594.09	-16538594.00	0.0089	0.0076		
Mercury	-49993-01-15 12:13 J	-16538506.08	-16538505.99	-16538505.87	0.0089	0.0069		
Moon	-49993-01-31 22:04 J	-16538489.76	-16538489.58	-16538489.37	0.0089	0.0060		
Earth	-49993-01-31 22:04 J	-16538489.75	-16538489.58	-16538489.40	0.0089	0.0064	*	
Mercury	-49993-04-12 15:21 J	-16538417.98	-16538417.86	-16538417.74	0.0089	0.0061		
Mercury	-49993-07-09 17:45 J	-16538329.88	-16538329.76	-16538329.61	0.0089	0.0054		
Mercury	-49993-10-05 20:23 J	-16538241.78	-16538241.65	-16538241.49	0.0089	0.0047		
Mercury	-49992-01-01 23:16 J	-16538153.68	-16538153.53	-16538153.37	0.0089	0.0039		
Earth	-49992-02-02 09:21 J	-16538122.32	-16538122.11	-16538121.86	0.0089	0.0039		
Moon	-49992-02-02 11:01 J	-16538122.25	-16538122.04	-16538121.82	0.0089	0.0043	*	
Mercury	-49992-03-31 02:09 J	-16538065.57	-16538065.41	-16538065.25	0.0089	0.0031		
Mercury	-49992-06-27 04:47 J	-16537977.46	-16537977.30	-16537977.13	0.0089	0.0024		

Mercury -49992-09-23 07:40 J -16537889.35 -16537889.18 -16537889.01 0.0089 0.0016

Mercury -49992-12-20 10:18 J -16537801.24 -16537801.07 -16537800.89 0.0089 0.0009

Moon -49991-02-04 19:11 J -16537754.97 -16537754.70 -16537754.44 0.0089 0.0009

Earth -49991-02-04 21:49 J -16537754.85 -16537754.59 -16537754.34 0.0089 0.0013 *

Mercury -49991-03-18 13:11 J -16537713.12 -16537712.95 -16537712.78 0.0089 0.0001

Mercury -49991-06-14 16:04 J -16537625.01 -16537624.83 -16537624.66 0.0089 0.0007

Mercury -49991-09-10 18:42 J -16537536.89 -16537536.72 -16537536.55 0.0089 0.0015

Mercury -49991-12-07 21:21 J -16537448.77 -16537448.61 -16537448.43 0.0089 0.0023

Earth -49990-02-07 09:35 J -16537387.35 -16537387.10 -16537386.84 0.0089 0.0013

Moon -49990-02-07 12:28 J -16537387.23 -16537386.98 -16537386.72 0.0089 0.0008 *

Mercury -49990-03-06 00:28 J -16537360.65 -16537360.48 -16537360.32 0.0089 0.0030

Mercury -49990-06-02 03:06 J -16537272.52 -16537272.37 -16537272.21 0.0089 0.0038

Mercury -49990-08-29 05:59 J -16537184.40 -16537184.25 -16537184.10 0.0089 0.0046

Mercury -49990-11-25 08:37 J -16537096.27 -16537096.14 -16537095.99 0.0089 0.0054

Moon -49989-02-09 17:30 J -16537019.98 -16537019.77 -16537019.52 0.0089 0.0043

Earth -49989-02-09 21:35 J -16537019.83 -16537019.60 -16537019.36 0.0089 0.0038 *

Mercury -49989-02-21 11:30 J -16537008.13 -16537008.02 -16537007.88 0.0089 0.0062

Mercury -49989-05-19 14:23 J -16536919.99 -16536919.90 -16536919.78 0.0089 0.0070

Mercury -49989-08-15 17:01 J -16536831.85 -16536831.79 -16536831.68 0.0089 0.0078

Mercury -49989-11-11 20:23 J -16536743.69 -16536743.65 -16536743.60 0.0089 0.0085

Earth -49988-02-11 09:06 J -16536652.27 -16536652.12 -16536651.92 0.0089 0.0064

Moon -49988-02-11 12:42 J -16536652.15 -16536651.97 -16536651.76 0.0089 0.0059 *

Mars -49955-04-10 15:49 J -16524540.87 -16524540.84 -16524540.72 0.0088 0.0087

Venus -49954-10-24 03:49 J -16523979.36 -16523979.34 -16523979.28 0.0088 0.0087

Mars -49953-03-06 19:40 J -16523844.86 -16523844.68 -16523844.44 0.0088 0.0070

Venus -49953-06-05 18:28 J -16523753.87 -16523753.73 -16523753.59 0.0088 0.0069

Venus -49952-01-17 08:23 J -16523528.32 -16523528.15 -16523527.95 0.0088 0.0051

Venus -49952-08-30 22:47 J -16523302.75 -16523302.55 -16523302.33 0.0088 0.0033

Mars -49951-02-01 01:25 J -16523148.69 -16523148.44 -16523148.14 0.0088 0.0052

Venus -49951-04-13 13:11 J -16523077.17 -16523076.95 -16523076.73 0.0088 0.0015

Venus	-49951-11-25 03:21 J	-16522851.59	-16522851.36	-16522851.13	0.0088	0.0002
Venus	-49950-07-08 17:16 J	-16522625.99	-16522625.78	-16522625.55	0.0088	0.0021
Mars	-49950-12-29 08:52 J	-16522452.43	-16522452.13	-16522451.80	0.0088	0.0035
Venus	-49949-02-19 07:25 J	-16522400.38	-16522400.19	-16522399.97	0.0088	0.0039
Venus	-49949-10-01 21:35 J	-16522174.76	-16522174.60	-16522174.41	0.0088	0.0056
Venus	-49948-05-15 11:59 J	-16521949.12	-16521949.00	-16521948.87	0.0088	0.0073
Mars	-49948-11-24 18:13 J	-16521756.07	-16521755.74	-16521755.39	0.0088	0.0016
Mars	-49946-10-22 05:01 J	-16521059.64	-16521059.29	-16521058.95	0.0088	0.0002
Mars	-49944-09-17 15:49 J	-16520363.17	-16520362.84	-16520362.49	0.0088	0.0020
Mars	-49942-08-15 04:33 J	-16519666.61	-16519666.31	-16519665.98	0.0088	0.0039
Mars	-49940-07-11 18:28 J	-16518969.99	-16518969.73	-16518969.46	0.0088	0.0057
Mars	-49938-06-08 08:09 J	-16518273.32	-16518273.16	-16518272.95	0.0088	0.0075
Mercury	-49912-10-31 21:49 J	-16508630.60	-16508630.59	-16508630.55	0.0088	0.0087
Mercury	-49911-01-27 23:45 J	-16508542.56	-16508542.51	-16508542.44	0.0088	0.0081
Mercury	-49911-04-26 01:25 J	-16508454.51	-16508454.44	-16508454.35	0.0088	0.0074
Mercury	-49911-07-23 03:21 J	-16508366.45	-16508366.36	-16508366.26	0.0088	0.0068
Moon	-49911-08-05 04:18 J	-16508353.46	-16508353.32	-16508353.14	0.0088	0.0068
Earth	-49911-08-05 04:47 J	-16508353.44	-16508353.30	-16508353.14	0.0088	0.0071 *
Mercury	-49911-10-19 05:01 J	-16508278.38	-16508278.29	-16508278.17	0.0088	0.0061
Mercury	-49910-01-15 06:57 J	-16508190.32	-16508190.21	-16508190.09	0.0088	0.0055
Mercury	-49910-04-13 08:37 J	-16508102.26	-16508102.14	-16508102.01	0.0088	0.0048
Mercury	-49910-07-10 10:33 J	-16508014.19	-16508014.06	-16508013.93	0.0088	0.0042
Moon	-49910-08-07 15:35 J	-16507986.05	-16507985.85	-16507985.61	0.0088	0.0050
Earth	-49910-08-07 16:18 J	-16507986.03	-16507985.82	-16507985.59	0.0088	0.0046 *
Mercury	-49910-10-06 11:59 J	-16507926.12	-16507926.00	-16507925.86	0.0088	0.0036
Mercury	-49909-01-02 13:54 J	-16507838.06	-16507837.92	-16507837.78	0.0088	0.0029
Mercury	-49909-03-30 15:35 J	-16507749.99	-16507749.85	-16507749.71	0.0089	0.0023
Mercury	-49909-06-26 17:16 J	-16507661.92	-16507661.78	-16507661.63	0.0089	0.0016
Earth	-49909-08-09 03:49 J	-16507618.58	-16507618.34	-16507618.08	0.0089	0.0020
Moon	-49909-08-09 05:45 J	-16507618.49	-16507618.26	-16507618.00	0.0089	0.0017 *

Mercury -49909-09-22 18:57 J -16507573.85 -16507573.71 -16507573.56 0.0089 0.0010
 Mercury -49909-12-19 20:37 J -16507485.78 -16507485.64 -16507485.49 0.0089 0.0005
 Mercury -49908-03-17 22:33 J -16507397.71 -16507397.56 -16507397.42 0.0089 0.0004
 Mercury -49908-06-13 23:59 J -16507309.64 -16507309.50 -16507309.35 0.0089 0.0010
 Moon -49908-08-11 12:28 J -16507251.24 -16507250.98 -16507250.71 0.0089 0.0002
 Earth -49908-08-11 15:21 J -16507251.11 -16507250.86 -16507250.59 0.0089 0.0006 *
 Mercury -49908-09-10 01:40 J -16507221.57 -16507221.43 -16507221.28 0.0089 0.0016
 Mercury -49908-12-07 03:21 J -16507133.49 -16507133.36 -16507133.22 0.0089 0.0022
 Mercury -49907-03-05 05:01 J -16507045.42 -16507045.29 -16507045.15 0.0089 0.0028
 Mercury -49907-06-01 06:28 J -16506957.35 -16506957.23 -16506957.09 0.0089 0.0035
 Earth -49907-08-14 02:37 J -16506883.62 -16506883.39 -16506883.14 0.0089 0.0031
 Moon -49907-08-14 05:59 J -16506883.48 -16506883.25 -16506883.01 0.0089 0.0035 *
 Mercury -49907-08-28 08:09 J -16506869.28 -16506869.16 -16506869.02 0.0089 0.0041
 Mercury -49907-11-24 09:49 J -16506781.20 -16506781.09 -16506780.96 0.0089 0.0047
 Mercury -49906-02-20 11:30 J -16506693.13 -16506693.02 -16506692.90 0.0089 0.0053
 Mercury -49906-05-19 13:11 J -16506605.05 -16506604.95 -16506604.84 0.0089 0.0059
 Mercury -49906-08-15 14:52 J -16506516.97 -16506516.88 -16506516.78 0.0089 0.0065
 Moon -49906-08-16 10:04 J -16506516.27 -16506516.08 -16506515.86 0.0089 0.0052
 Earth -49906-08-16 13:54 J -16506516.11 -16506515.92 -16506515.71 0.0089 0.0056 *
 Mercury -49906-11-11 16:33 J -16506428.89 -16506428.81 -16506428.73 0.0089 0.0071
 Mercury -49905-02-07 17:45 J -16506340.81 -16506340.76 -16506340.68 0.0089 0.0078
 Mercury -49905-05-05 19:25 J -16506252.72 -16506252.69 -16506252.63 0.0089 0.0083
 Earth -49905-08-18 01:11 J -16506148.54 -16506148.45 -16506148.34 0.0089 0.0081
 Moon -49905-08-18 04:33 J -16506148.38 -16506148.31 -16506148.24 0.0089 0.0085 *
 Mars -49873-03-01 02:23 J -16494630.53 -16494630.40 -16494630.22 0.0089 0.0075
 Mars -49871-01-23 20:09 J -16493936.85 -16493936.66 -16493936.42 0.0089 0.0060
 Venus -49871-07-23 12:42 J -16493756.06 -16493755.97 -16493755.83 0.0089 0.0075
 Venus -49870-03-06 00:42 J -16493530.61 -16493530.47 -16493530.29 0.0089 0.0058
 Venus -49870-10-17 12:28 J -16493305.15 -16493304.98 -16493304.77 0.0089 0.0041
 Mars -49870-12-18 11:59 J -16493243.23 -16493243.00 -16493242.73 0.0089 0.0045

Venus -49869-05-30 00:28 J -16493079.67 -16493079.48 -16493079.26 0.0089 0.0024
 Venus -49868-01-10 12:28 J -16492854.19 -16492853.98 -16492853.76 0.0089 0.0007
 Venus -49868-08-24 00:28 J -16492628.69 -16492628.48 -16492628.26 0.0089 0.0011
 Mars -49868-11-11 04:18 J -16492549.59 -16492549.32 -16492549.04 0.0089 0.0030
 Venus -49867-04-06 12:13 J -16492403.19 -16492402.99 -16492402.78 0.0089 0.0028
 Venus -49867-11-17 23:59 J -16492177.68 -16492177.50 -16492177.31 0.0089 0.0045
 Venus -49866-07-01 11:45 J -16491952.15 -16491952.01 -16491951.85 0.0089 0.0062
 Mars -49866-10-05 19:40 J -16491855.96 -16491855.68 -16491855.39 0.0089 0.0014
 Venus -49865-02-11 23:45 J -16491726.61 -16491726.51 -16491726.41 0.0089 0.0078
 Mars -49864-08-29 08:23 J -16491162.44 -16491162.15 -16491161.86 0.0089 0.0001
 Mars -49862-07-23 21:35 J -16490468.88 -16490468.60 -16490468.32 0.0089 0.0017
 Mars -49860-06-16 09:21 J -16489775.36 -16489775.11 -16489774.82 0.0089 0.0032
 Mars -49858-05-10 20:37 J -16489081.88 -16489081.64 -16489081.39 0.0089 0.0047
 Mars -49856-04-03 06:57 J -16488388.39 -16488388.21 -16488387.98 0.0089 0.0062
 Mars -49854-02-25 18:57 J -16487694.84 -16487694.71 -16487694.54 0.0089 0.0076
 Mercury -49829-01-21 03:21 J -16478599.38 -16478599.36 -16478599.32 0.0089 0.0087
 Earth -49829-01-31 06:28 J -16478589.33 -16478589.23 -16478589.07 0.0089 0.0077
 Moon -49829-01-31 08:23 J -16478589.27 -16478589.15 -16478589.01 0.0089 0.0075 *
 Mercury -49829-04-18 05:59 J -16478511.31 -16478511.25 -16478511.17 0.0089 0.0080
 Mercury -49829-07-15 08:23 J -16478423.23 -16478423.15 -16478423.03 0.0089 0.0073
 Mercury -49829-10-11 11:30 J -16478335.13 -16478335.02 -16478334.90 0.0089 0.0065
 Mercury -49828-01-07 13:54 J -16478247.04 -16478246.92 -16478246.78 0.0089 0.0058
 Moon -49828-02-01 16:04 J -16478222.04 -16478221.83 -16478221.61 0.0089 0.0052
 Earth -49828-02-01 18:28 J -16478221.93 -16478221.73 -16478221.51 0.0089 0.0051 *
 Mercury -49828-04-05 16:47 J -16478158.94 -16478158.80 -16478158.66 0.0089 0.0050
 Mercury -49828-07-02 19:25 J -16478070.84 -16478070.69 -16478070.54 0.0089 0.0043
 Mercury -49828-09-28 21:49 J -16477982.73 -16477982.59 -16477982.42 0.0089 0.0036
 Mercury -49828-12-26 00:42 J -16477894.62 -16477894.47 -16477894.30 0.0089 0.0028
 Earth -49827-02-04 05:59 J -16477854.48 -16477854.25 -16477853.98 0.0089 0.0026
 Moon -49827-02-04 09:35 J -16477854.33 -16477854.10 -16477853.84 0.0089 0.0024 *

Mercury -49827-03-24 03:35 J -16477806.52 -16477806.35 -16477806.18 0.0089 0.0020
 Mercury -49827-06-20 06:13 J -16477718.40 -16477718.24 -16477718.06 0.0089 0.0013
 Mercury -49827-09-16 09:06 J -16477630.29 -16477630.12 -16477629.94 0.0089 0.0005
 Mercury -49827-12-13 11:59 J -16477542.18 -16477542.00 -16477541.83 0.0089 0.0003
 Moon -49826-02-06 14:52 J -16477487.14 -16477486.88 -16477486.62 0.0089 0.0001
 Earth -49826-02-06 18:13 J -16477487.00 -16477486.74 -16477486.48 0.0089 0.0001 *
 Mercury -49826-03-11 14:37 J -16477454.06 -16477453.89 -16477453.71 0.0089 0.0010
 Mercury -49826-06-07 17:30 J -16477365.94 -16477365.77 -16477365.60 0.0089 0.0018
 Mercury -49826-09-03 20:09 J -16477277.82 -16477277.66 -16477277.49 0.0089 0.0026
 Mercury -49826-11-30 22:47 J -16477189.70 -16477189.55 -16477189.38 0.0089 0.0034
 Earth -49825-02-09 05:59 J -16477119.49 -16477119.25 -16477119.00 0.0089 0.0026
 Moon -49825-02-09 09:35 J -16477119.34 -16477119.10 -16477118.85 0.0089 0.0027 *
 Mercury -49825-02-27 01:40 J -16477101.57 -16477101.43 -16477101.27 0.0089 0.0042
 Mercury -49825-05-25 04:47 J -16477013.45 -16477013.30 -16477013.16 0.0089 0.0049
 Mercury -49825-08-21 07:25 J -16476925.32 -16476925.19 -16476925.05 0.0089 0.0057
 Mercury -49825-11-17 10:18 J -16476837.18 -16476837.07 -16476836.94 0.0089 0.0065
 Moon -49824-02-10 14:52 J -16476752.07 -16476751.88 -16476751.65 0.0089 0.0051
 Earth -49824-02-10 17:45 J -16476751.96 -16476751.76 -16476751.54 0.0089 0.0052 *
 Mercury -49824-02-13 12:57 J -16476749.04 -16476748.96 -16476748.84 0.0089 0.0073
 Mercury -49824-05-12 15:49 J -16476660.89 -16476660.84 -16476660.75 0.0089 0.0081
 Mercury -49824-08-08 18:57 J -16476572.71 -16476572.71 -16476572.70 0.0089 0.0089
 Earth -49823-02-13 05:16 J -16476384.37 -16476384.28 -16476384.13 0.0089 0.0078
 Moon -49823-02-13 07:25 J -16476384.29 -16476384.19 -16476384.04 0.0089 0.0078 *
 Mars -49792-11-22 07:54 J -16464779.22 -16464779.17 -16464779.04 0.0088 0.0086
 Mars -49790-10-19 09:21 J -16464083.32 -16464083.11 -16464082.89 0.0088 0.0069
 Venus -49789-09-07 03:06 J -16463759.47 -16463759.37 -16463759.25 0.0088 0.0076
 Venus -49788-04-20 16:47 J -16463533.94 -16463533.80 -16463533.60 0.0088 0.0060
 Mars -49788-09-14 12:28 J -16463387.24 -16463386.98 -16463386.69 0.0088 0.0052
 Venus -49788-12-02 07:11 J -16463308.39 -16463308.20 -16463307.98 0.0088 0.0042
 Venus -49787-07-15 21:35 J -16463082.81 -16463082.60 -16463082.38 0.0088 0.0024

Venus -49786-02-26 11:59 J -16462857.23 -16462857.00 -16462856.77 0.0088 0.0006
 Mars -49786-08-11 18:13 J -16462691.03 -16462690.74 -16462690.40 0.0088 0.0035
 Venus -49786-10-10 02:09 J -16462631.63 -16462631.41 -16462631.18 0.0088 0.0012
 Venus -49785-05-22 16:18 J -16462406.03 -16462405.82 -16462405.60 0.0088 0.0030
 Venus -49784-01-03 06:13 J -16462180.42 -16462180.24 -16462180.04 0.0088 0.0048
 Mars -49784-07-08 02:09 J -16461994.74 -16461994.41 -16461994.06 0.0088 0.0016
 Venus -49784-08-16 20:09 J -16461954.79 -16461954.66 -16461954.48 0.0088 0.0066
 Venus -49783-03-30 11:01 J -16461729.12 -16461729.04 -16461728.96 0.0088 0.0083
 Mars -49782-06-04 11:30 J -16461298.37 -16461298.02 -16461297.67 0.0088 0.0002
 Mars -49780-04-30 22:18 J -16460601.90 -16460601.57 -16460601.22 0.0088 0.0020
 Mars -49778-03-28 09:21 J -16459905.40 -16459905.11 -16459904.77 0.0088 0.0039
 Mars -49776-02-21 21:49 J -16459208.83 -16459208.59 -16459208.30 0.0088 0.0057
 Mars -49774-01-19 11:30 J -16458512.17 -16458512.02 -16458511.80 0.0088 0.0074
 Mercury -49747-07-28 21:06 J -16448459.65 -16448459.62 -16448459.57 0.0088 0.0085
 Moon -49747-08-04 10:47 J -16448453.13 -16448453.05 -16448452.91 0.0088 0.0081
 Earth -49747-08-04 12:42 J -16448453.04 -16448452.97 -16448452.88 0.0088 0.0084 *
 Mercury -49747-10-24 22:47 J -16448371.60 -16448371.55 -16448371.46 0.0088 0.0079
 Mercury -49746-01-21 00:42 J -16448283.54 -16448283.47 -16448283.37 0.0088 0.0072
 Mercury -49746-04-19 02:52 J -16448195.48 -16448195.38 -16448195.29 0.0088 0.0065
 Mercury -49746-07-16 04:18 J -16448107.42 -16448107.32 -16448107.20 0.0088 0.0059
 Earth -49746-08-06 23:59 J -16448085.66 -16448085.50 -16448085.28 0.0088 0.0059
 Moon -49746-08-07 02:23 J -16448085.57 -16448085.40 -16448085.20 0.0088 0.0061 *
 Mercury -49746-10-12 05:59 J -16448019.35 -16448019.25 -16448019.12 0.0088 0.0053
 Mercury -49745-01-08 07:54 J -16447931.29 -16447931.17 -16447931.04 0.0088 0.0046
 Mercury -49745-04-05 09:35 J -16447843.22 -16447843.10 -16447842.96 0.0088 0.0039
 Mercury -49745-07-02 11:30 J -16447755.15 -16447755.02 -16447754.88 0.0088 0.0033
 Moon -49745-08-08 09:06 J -16447718.36 -16447718.12 -16447717.87 0.0088 0.0030
 Earth -49745-08-08 12:13 J -16447718.22 -16447717.99 -16447717.74 0.0088 0.0033 *
 Mercury -49745-09-28 13:11 J -16447667.09 -16447666.95 -16447666.81 0.0088 0.0026
 Mercury -49745-12-25 15:06 J -16447579.02 -16447578.87 -16447578.73 0.0089 0.0020

Mercury -49744-03-23 16:47 J -16447490.95 -16447490.80 -16447490.66 0.0089 0.0013
 Mercury -49744-06-19 18:28 J -16447402.88 -16447402.73 -16447402.59 0.0089 0.0007
 Earth -49744-08-10 23:59 J -16447350.76 -16447350.50 -16447350.25 0.0089 0.0007
 Moon -49744-08-11 03:21 J -16447350.61 -16447350.36 -16447350.10 0.0089 0.0010 *
 Mercury -49744-09-15 20:09 J -16447314.81 -16447314.66 -16447314.52 0.0089 0.0001
 Mercury -49744-12-12 21:49 J -16447226.74 -16447226.59 -16447226.45 0.0089 0.0006
 Mercury -49743-03-10 23:30 J -16447138.66 -16447138.52 -16447138.38 0.0089 0.0012
 Mercury -49743-06-07 00:57 J -16447050.59 -16447050.46 -16447050.31 0.0089 0.0019
 Moon -49743-08-13 07:40 J -16446983.42 -16446983.18 -16446982.92 0.0089 0.0021
 Earth -49743-08-13 11:16 J -16446983.28 -16446983.03 -16446982.78 0.0089 0.0019 *
 Mercury -49743-09-03 02:37 J -16446962.52 -16446962.39 -16446962.24 0.0089 0.0025
 Mercury -49743-11-30 04:33 J -16446874.45 -16446874.31 -16446874.18 0.0089 0.0031
 Mercury -49742-02-26 06:13 J -16446786.37 -16446786.24 -16446786.11 0.0089 0.0037
 Mercury -49742-05-25 07:40 J -16446698.30 -16446698.18 -16446698.05 0.0089 0.0043
 Earth -49742-08-15 22:18 J -16446615.78 -16446615.57 -16446615.33 0.0089 0.0045
 Moon -49742-08-16 01:40 J -16446615.64 -16446615.43 -16446615.18 0.0089 0.0043 *
 Mercury -49742-08-21 09:06 J -16446610.23 -16446610.12 -16446609.99 0.0089 0.0050
 Mercury -49742-11-17 10:47 J -16446522.15 -16446522.05 -16446521.93 0.0089 0.0056
 Mercury -49741-02-13 12:28 J -16446434.07 -16446433.98 -16446433.87 0.0089 0.0062
 Mercury -49741-05-11 14:09 J -16446345.99 -16446345.91 -16446345.81 0.0089 0.0068
 Mercury -49741-08-07 15:49 J -16446257.91 -16446257.84 -16446257.76 0.0089 0.0074
 Moon -49741-08-17 07:25 J -16446248.30 -16446248.19 -16446248.02 0.0089 0.0073
 Earth -49741-08-17 09:49 J -16446248.24 -16446248.09 -16446247.92 0.0089 0.0070 *
 Mercury -49741-11-03 17:30 J -16446169.83 -16446169.77 -16446169.71 0.0089 0.0080
 Mercury -49740-01-30 19:11 J -16446081.73 -16446081.70 -16446081.67 0.0089 0.0086
 Mars -49710-10-15 10:33 J -16434867.19 -16434867.06 -16434866.88 0.0089 0.0076
 Jupiter -49709-09-15 14:37 J -16434531.39 -16434530.89 -16434530.34 0.0089 0.0012
 Mars -49708-09-08 07:11 J -16434173.40 -16434173.20 -16434172.97 0.0089 0.0060
 Venus -49707-10-25 00:13 J -16433761.55 -16433761.49 -16433761.39 0.0089 0.0082
 Venus -49706-06-07 12:13 J -16433536.12 -16433535.99 -16433535.84 0.0089 0.0065

Mars -49706-08-03 00:57 J -16433479.69 -16433479.46 -16433479.19 0.0089 0.0045
 Venus -49705-01-19 00:13 J -16433310.66 -16433310.49 -16433310.31 0.0089 0.0048
 Venus -49705-08-31 12:13 J -16433085.18 -16433084.99 -16433084.78 0.0089 0.0031
 Venus -49704-04-14 00:13 J -16432859.70 -16432859.49 -16432859.28 0.0089 0.0014
 Mars -49704-06-26 17:01 J -16432786.05 -16432785.79 -16432785.51 0.0089 0.0030
 Venus -49704-11-25 11:59 J -16432634.21 -16432634.00 -16432633.78 0.0089 0.0003
 Venus -49703-07-08 23:45 J -16432408.71 -16432408.51 -16432408.30 0.0089 0.0020
 Venus -49702-02-19 11:16 J -16432183.20 -16432183.03 -16432182.82 0.0089 0.0037
 Mars -49702-05-21 08:23 J -16432092.43 -16432092.15 -16432091.86 0.0089 0.0014
 Venus -49702-10-02 23:16 J -16431957.68 -16431957.53 -16431957.35 0.0089 0.0054
 Venus -49701-05-15 11:30 J -16431732.15 -16431732.02 -16431731.89 0.0089 0.0071
 Venus -49701-12-26 23:01 J -16431506.57 -16431506.54 -16431506.49 0.0089 0.0088
 Mars -49700-04-13 23:45 J -16431398.80 -16431398.51 -16431398.22 0.0089 0.0001
 Mars -49698-03-08 12:13 J -16430705.26 -16430704.99 -16430704.70 0.0089 0.0017
 Mars -49696-01-30 00:57 J -16430011.72 -16430011.46 -16430011.19 0.0089 0.0032
 Mars -49695-12-24 13:25 J -16429318.17 -16429317.94 -16429317.69 0.0089 0.0047
 Mars -49693-11-17 00:42 J -16428624.66 -16428624.47 -16428624.25 0.0089 0.0061
 Mars -49691-10-11 11:30 J -16427931.15 -16427931.02 -16427930.85 0.0089 0.0075
 Mars -49689-09-03 23:16 J -16427237.53 -16427237.53 -16427237.51 0.0089 0.0089
 Mercury -49665-10-17 02:09 J -16418428.46 -16418428.41 -16418428.35 0.0089 0.0084
 Mercury -49664-01-13 04:33 J -16418340.38 -16418340.31 -16418340.21 0.0089 0.0077
 Earth -49664-02-01 02:23 J -16418321.56 -16418321.40 -16418321.20 0.0089 0.0064
 Moon -49664-02-01 05:30 J -16418321.43 -16418321.27 -16418321.05 0.0089 0.0060 *
 Mercury -49664-04-11 07:11 J -16418252.29 -16418252.20 -16418252.08 0.0089 0.0070
 Mercury -49664-07-08 10:04 J -16418164.20 -16418164.08 -16418163.96 0.0089 0.0062
 Mercury -49664-10-04 12:28 J -16418076.10 -16418075.98 -16418075.83 0.0089 0.0055
 Mercury -49664-12-31 15:21 J -16417988.00 -16417987.86 -16417987.71 0.0089 0.0047
 Moon -49663-02-03 10:33 J -16417954.27 -16417954.06 -16417953.82 0.0089 0.0043
 Earth -49663-02-03 14:23 J -16417954.12 -16417953.90 -16417953.66 0.0089 0.0038 *
 Mercury -49663-03-29 17:59 J -16417899.90 -16417899.75 -16417899.59 0.0089 0.0040

Mercury -49663-06-25 20:52 J -16417811.79 -16417811.63 -16417811.47 0.0089 0.0032
 Mercury -49663-09-21 23:16 J -16417723.69 -16417723.53 -16417723.35 0.0089 0.0025
 Mercury -49663-12-19 02:09 J -16417635.58 -16417635.41 -16417635.24 0.0089 0.0017
 Earth -49662-02-06 02:09 J -16417586.66 -16417586.41 -16417586.15 0.0089 0.0012
 Moon -49662-02-06 05:30 J -16417586.53 -16417586.27 -16417586.01 0.0089 0.0008 *
 Mercury -49662-03-17 04:47 J -16417547.46 -16417547.30 -16417547.12 0.0089 0.0010
 Mercury -49662-06-13 07:40 J -16417459.35 -16417459.18 -16417459.01 0.0089 0.0002
 Mercury -49662-09-09 10:33 J -16417371.24 -16417371.06 -16417370.89 0.0089 0.0006
 Mercury -49662-12-06 13:11 J -16417283.12 -16417282.95 -16417282.78 0.0089 0.0013
 Moon -49661-02-08 11:16 J -16417219.28 -16417219.03 -16417218.78 0.0089 0.0009
 Earth -49661-02-08 13:40 J -16417219.17 -16417218.93 -16417218.66 0.0089 0.0014 *
 Mercury -49661-03-03 16:04 J -16417195.00 -16417194.83 -16417194.66 0.0089 0.0021
 Mercury -49661-05-30 18:42 J -16417106.88 -16417106.72 -16417106.55 0.0089 0.0029
 Mercury -49661-08-26 21:21 J -16417018.76 -16417018.61 -16417018.44 0.0089 0.0037
 Mercury -49661-11-22 23:59 J -16416930.63 -16416930.50 -16416930.33 0.0089 0.0045
 Earth -49660-02-10 01:11 J -16416851.66 -16416851.45 -16416851.20 0.0089 0.0040
 Moon -49660-02-10 02:37 J -16416851.60 -16416851.39 -16416851.14 0.0089 0.0044 *
 Mercury -49660-02-19 03:06 J -16416842.51 -16416842.37 -16416842.22 0.0089 0.0052
 Mercury -49660-05-18 05:59 J -16416754.38 -16416754.25 -16416754.12 0.0089 0.0060
 Mercury -49660-08-14 08:37 J -16416666.24 -16416666.14 -16416666.02 0.0089 0.0068
 Mercury -49660-11-10 11:30 J -16416578.10 -16416578.02 -16416577.92 0.0089 0.0076
 Mercury -49659-02-06 14:09 J -16416489.94 -16416489.91 -16416489.83 0.0089 0.0084
 Moon -49659-02-12 12:57 J -16416484.12 -16416483.96 -16416483.76 0.0089 0.0062
 Earth -49659-02-12 13:11 J -16416484.10 -16416483.95 -16416483.76 0.0089 0.0066 *
 Mars -49628-07-05 22:18 J -16405017.64 -16405017.57 -16405017.45 0.0088 0.0085
 Mars -49626-06-01 22:18 J -16404321.75 -16404321.57 -16404321.32 0.0088 0.0069
 Venus -49625-12-09 11:16 J -16403765.08 -16403765.03 -16403764.96 0.0088 0.0085
 Mars -49624-04-27 23:59 J -16403625.76 -16403625.50 -16403625.21 0.0088 0.0051
 Venus -49624-07-23 01:11 J -16403539.58 -16403539.45 -16403539.28 0.0088 0.0067
 Venus -49623-03-05 15:35 J -16403314.02 -16403313.85 -16403313.65 0.0088 0.0050

Venus -49623-10-17 05:45 J -16403088.46 -16403088.26 -16403088.04 0.0088 0.0032
 Mars -49622-03-25 03:35 J -16402929.65 -16402929.35 -16402929.02 0.0088 0.0034
 Venus -49622-05-30 19:54 J -16402862.89 -16402862.67 -16402862.44 0.0088 0.0015
 Venus -49621-01-11 10:18 J -16402637.30 -16402637.07 -16402636.84 0.0088 0.0003
 Venus -49621-08-24 00:13 J -16402411.70 -16402411.49 -16402411.26 0.0088 0.0022
 Mars -49620-02-18 09:49 J -16402233.41 -16402233.09 -16402232.74 0.0088 0.0017
 Venus -49620-04-06 14:23 J -16402186.09 -16402185.90 -16402185.68 0.0088 0.0039
 Venus -49620-11-18 04:33 J -16401960.47 -16401960.31 -16401960.12 0.0088 0.0057
 Venus -49619-07-01 18:28 J -16401734.83 -16401734.73 -16401734.58 0.0088 0.0075
 Mars -49618-01-15 17:59 J -16401537.09 -16401536.75 -16401536.40 0.0088 0.0002
 Mars -49617-12-12 02:52 J -16400840.70 -16400840.38 -16400840.02 0.0088 0.0021
 Mars -49615-11-08 14:09 J -16400144.21 -16400143.91 -16400143.59 0.0088 0.0038
 Mars -49613-10-05 01:11 J -16399447.69 -16399447.45 -16399447.15 0.0088 0.0057
 Mars -49611-09-01 13:11 J -16398751.09 -16398750.95 -16398750.71 0.0088 0.0075
 Mercury -49582-04-24 20:09 J -16388288.69 -16388288.66 -16388288.59 0.0088 0.0083
 Mercury -49582-07-21 22:18 J -16388200.64 -16388200.57 -16388200.49 0.0088 0.0076
 Moon -49582-08-06 04:18 J -16388185.46 -16388185.32 -16388185.13 0.0088 0.0069
 Earth -49582-08-06 07:40 J -16388185.31 -16388185.18 -16388185.01 0.0088 0.0072 *
 Mercury -49582-10-17 23:45 J -16388112.58 -16388112.51 -16388112.40 0.0088 0.0070
 Mercury -49581-01-14 01:54 J -16388024.52 -16388024.42 -16388024.32 0.0088 0.0063
 Mercury -49581-04-11 03:21 J -16387936.46 -16387936.36 -16387936.23 0.0088 0.0057
 Mercury -49581-07-08 05:16 J -16387848.39 -16387848.28 -16387848.15 0.0088 0.0050
 Earth -49581-08-07 19:25 J -16387817.89 -16387817.69 -16387817.45 0.0088 0.0046
 Moon -49581-08-07 23:16 J -16387817.73 -16387817.53 -16387817.31 0.0088 0.0050 *
 Mercury -49581-10-04 06:57 J -16387760.33 -16387760.21 -16387760.07 0.0088 0.0044
 Mercury -49581-12-31 08:52 J -16387672.26 -16387672.13 -16387671.99 0.0088 0.0037
 Mercury -49580-03-29 10:33 J -16387584.19 -16387584.06 -16387583.91 0.0088 0.0031
 Mercury -49580-06-25 12:28 J -16387496.12 -16387495.98 -16387495.84 0.0089 0.0024
 Moon -49580-08-10 03:49 J -16387450.58 -16387450.34 -16387450.08 0.0089 0.0017
 Earth -49580-08-10 07:25 J -16387450.44 -16387450.19 -16387449.94 0.0089 0.0020 *

Mercury -49580-09-21 14:09 J -16387408.05 -16387407.91 -16387407.77 0.0089 0.0017
 Mercury -49580-12-18 15:49 J -16387319.98 -16387319.84 -16387319.69 0.0089 0.0011
 Mercury -49579-03-16 17:30 J -16387231.91 -16387231.77 -16387231.62 0.0089 0.0006
 Mercury -49579-06-12 19:25 J -16387143.84 -16387143.69 -16387143.55 0.0089 0.0003
 Earth -49579-08-12 18:57 J -16387082.96 -16387082.71 -16387082.45 0.0089 0.0006
 Moon -49579-08-12 21:49 J -16387082.85 -16387082.59 -16387082.32 0.0089 0.0003 *
 Mercury -49579-09-08 21:06 J -16387055.77 -16387055.62 -16387055.48 0.0089 0.0008
 Mercury -49579-12-05 22:33 J -16386967.70 -16386967.56 -16386967.41 0.0089 0.0015
 Mercury -49578-03-04 00:28 J -16386879.62 -16386879.48 -16386879.34 0.0089 0.0021
 Mercury -49578-05-31 02:09 J -16386791.55 -16386791.41 -16386791.28 0.0089 0.0027
 Moon -49578-08-15 04:04 J -16386715.54 -16386715.33 -16386715.08 0.0089 0.0037
 Earth -49578-08-15 06:42 J -16386715.46 -16386715.22 -16386714.98 0.0089 0.0032 *
 Mercury -49578-08-27 03:35 J -16386703.48 -16386703.35 -16386703.21 0.0089 0.0033
 Mercury -49578-11-23 05:16 J -16386615.40 -16386615.28 -16386615.15 0.0089 0.0040
 Mercury -49577-02-19 06:57 J -16386527.33 -16386527.21 -16386527.08 0.0089 0.0046
 Mercury -49577-05-17 08:37 J -16386439.25 -16386439.14 -16386439.02 0.0089 0.0052
 Mercury -49577-08-13 10:04 J -16386351.17 -16386351.08 -16386350.96 0.0089 0.0059
 Earth -49577-08-16 17:45 J -16386347.95 -16386347.76 -16386347.56 0.0089 0.0058
 Moon -49577-08-16 18:28 J -16386347.94 -16386347.73 -16386347.52 0.0089 0.0054 *
 Mercury -49577-11-09 11:45 J -16386263.10 -16386263.01 -16386262.90 0.0089 0.0064
 Mercury -49576-02-05 13:25 J -16386175.02 -16386174.94 -16386174.85 0.0089 0.0070
 Mercury -49576-05-04 14:52 J -16386086.93 -16386086.88 -16386086.80 0.0089 0.0077
 Mercury -49576-07-31 16:33 J -16385998.85 -16385998.81 -16385998.75 0.0089 0.0083
 Earth -49576-08-19 04:33 J -16385980.36 -16385980.31 -16385980.20 0.0089 0.0084
 Moon -49576-08-19 05:01 J -16385980.30 -16385980.29 -16385980.22 0.0089 0.0088 *
 Mercury -49576-10-27 18:28 J -16385910.73 -16385910.73 -16385910.73 0.0089 0.0089
 Mars -49546-05-30 18:57 J -16375103.83 -16375103.71 -16375103.53 0.0089 0.0076
 Mars -49544-04-23 15:06 J -16374410.07 -16374409.87 -16374409.65 0.0089 0.0060
 Mars -49542-03-18 10:18 J -16373716.30 -16373716.07 -16373715.80 0.0089 0.0046
 Venus -49542-09-08 23:16 J -16373541.63 -16373541.53 -16373541.39 0.0089 0.0073

Venus	-49541-04-21 11:16 J	-16373316.18	-16373316.03	-16373315.85	0.0089	0.0056
Venus	-49541-12-02 23:16 J	-16373090.71	-16373090.53	-16373090.33	0.0089	0.0039
Mars	-49540-02-09 04:18 J	-16373022.57	-16373022.32	-16373022.03	0.0089	0.0030
Venus	-49540-07-16 11:16 J	-16372865.23	-16372865.03	-16372864.82	0.0089	0.0022
Venus	-49539-02-26 23:16 J	-16372639.74	-16372639.53	-16372639.32	0.0089	0.0005
Venus	-49539-10-10 11:01 J	-16372414.25	-16372414.04	-16372413.83	0.0089	0.0012
Mars	-49538-01-03 20:09 J	-16372328.94	-16372328.66	-16372328.37	0.0089	0.0015
Venus	-49538-05-23 23:01 J	-16372188.75	-16372188.54	-16372188.34	0.0089	0.0029
Venus	-49537-01-04 10:33 J	-16371963.23	-16371963.06	-16371962.87	0.0089	0.0046
Venus	-49537-08-16 22:33 J	-16371737.70	-16371737.56	-16371737.40	0.0089	0.0062
Mars	-49537-11-27 11:01 J	-16371635.33	-16371635.04	-16371634.75	0.0089	0.0001
Venus	-49536-03-30 10:04 J	-16371512.16	-16371512.08	-16371511.97	0.0089	0.0080
Mars	-49535-10-22 02:09 J	-16370941.69	-16370941.41	-16370941.12	0.0089	0.0016
Mars	-49533-09-14 15:21 J	-16370248.12	-16370247.86	-16370247.58	0.0089	0.0031
Mars	-49531-08-09 03:06 J	-16369554.60	-16369554.37	-16369554.12	0.0089	0.0046
Mars	-49529-07-02 15:21 J	-16368861.04	-16368860.86	-16368860.63	0.0089	0.0061
Mars	-49527-05-27 02:52 J	-16368167.51	-16368167.38	-16368167.21	0.0089	0.0075
Mars	-49525-04-19 13:40 J	-16367473.93	-16367473.93	-16367473.91	0.0089	0.0089
Moon	-49500-01-31 05:59 J	-16358421.35	-16358421.25	-16358421.09	0.0089	0.0076
Earth	-49500-01-31 09:35 J	-16358421.20	-16358421.10	-16358420.95	0.0089	0.0078 *
Mercury	-49500-07-14 00:13 J	-16358257.53	-16358257.49	-16358257.41	0.0089	0.0082
Mercury	-49500-10-10 03:21 J	-16358169.45	-16358169.36	-16358169.27	0.0089	0.0074
Mercury	-49499-01-06 05:45 J	-16358081.36	-16358081.26	-16358081.14	0.0089	0.0067
Earth	-49499-02-02 21:06 J	-16358053.80	-16358053.62	-16358053.38	0.0089	0.0052
Moon	-49499-02-03 00:28 J	-16358053.67	-16358053.48	-16358053.25	0.0089	0.0054 *
Mercury	-49499-04-04 08:09 J	-16357993.27	-16357993.16	-16357993.02	0.0089	0.0060
Mercury	-49499-07-01 11:01 J	-16357905.17	-16357905.04	-16357904.89	0.0089	0.0052
Mercury	-49499-09-27 13:40 J	-16357817.07	-16357816.93	-16357816.77	0.0089	0.0045
Mercury	-49499-12-24 16:33 J	-16357728.97	-16357728.81	-16357728.66	0.0089	0.0037
Moon	-49498-02-05 07:11 J	-16357686.43	-16357686.20	-16357685.95	0.0089	0.0024

Earth -49498-02-05 08:52 J -16357686.36 -16357686.13 -16357685.87 0.0089 0.0026 *
 Mercury -49498-03-22 18:57 J -16357640.86 -16357640.71 -16357640.54 0.0089 0.0030
 Mercury -49498-06-18 21:49 J -16357552.75 -16357552.59 -16357552.42 0.0089 0.0022
 Mercury -49498-09-15 00:28 J -16357464.65 -16357464.48 -16357464.30 0.0089 0.0015
 Mercury -49498-12-12 03:21 J -16357376.53 -16357376.36 -16357376.19 0.0089 0.0007
 Earth -49497-02-07 20:52 J -16357318.89 -16357318.63 -16357318.37 0.0089 0.0001
 Moon -49497-02-07 22:18 J -16357318.84 -16357318.57 -16357318.30 0.0089 0.0001 *
 Mercury -49497-03-09 05:59 J -16357288.42 -16357288.25 -16357288.08 0.0089 0.0001
 Mercury -49497-06-05 08:37 J -16357200.31 -16357200.14 -16357199.96 0.0089 0.0009
 Mercury -49497-09-01 11:30 J -16357112.19 -16357112.02 -16357111.85 0.0089 0.0016
 Mercury -49497-11-28 14:09 J -16357024.07 -16357023.91 -16357023.74 0.0089 0.0024
 Earth -49496-02-09 08:23 J -16356951.38 -16356951.15 -16356950.89 0.0089 0.0027
 Moon -49496-02-09 08:37 J -16356951.36 -16356951.14 -16356950.89 0.0089 0.0029 *
 Mercury -49496-02-24 16:47 J -16356935.95 -16356935.80 -16356935.63 0.0089 0.0032
 Mercury -49496-05-23 19:40 J -16356847.83 -16356847.68 -16356847.52 0.0089 0.0039
 Mercury -49496-08-19 22:18 J -16356759.71 -16356759.57 -16356759.41 0.0089 0.0047
 Mercury -49496-11-16 01:11 J -16356671.58 -16356671.45 -16356671.30 0.0089 0.0055
 Moon -49495-02-11 18:13 J -16356583.94 -16356583.74 -16356583.50 0.0089 0.0051
 Earth -49495-02-11 19:54 J -16356583.86 -16356583.67 -16356583.44 0.0089 0.0053 *
 Mercury -49495-02-12 03:49 J -16356583.45 -16356583.34 -16356583.20 0.0089 0.0063 *
 Mercury -49495-05-11 07:11 J -16356495.31 -16356495.20 -16356495.10 0.0089 0.0070
 Mercury -49495-08-07 09:49 J -16356407.17 -16356407.09 -16356407.00 0.0089 0.0078
 Mercury -49495-11-03 12:28 J -16356319.01 -16356318.98 -16356318.93 0.0089 0.0086
 Earth -49494-02-14 07:40 J -16356216.27 -16356216.18 -16356216.04 0.0089 0.0079
 Moon -49494-02-14 10:04 J -16356216.17 -16356216.08 -16356215.96 0.0089 0.0080 *
 Mars -49464-02-16 12:28 J -16345256.05 -16345255.98 -16345255.86 0.0088 0.0085
 Mars -49462-01-13 09:21 J -16344560.29 -16344560.11 -16344559.87 0.0088 0.0069
 Mars -49461-12-09 09:49 J -16343864.34 -16343864.09 -16343863.79 0.0088 0.0052
 Venus -49460-10-24 09:06 J -16343545.23 -16343545.12 -16343545.00 0.0088 0.0076
 Venus -49459-06-06 23:01 J -16343319.70 -16343319.54 -16343319.36 0.0088 0.0058

Mars	-49459-11-05 11:45 J	-16343168.31	-16343168.01	-16343167.68	0.0088	0.0034
Venus	-49458-01-18 13:25 J	-16343094.14	-16343093.94	-16343093.74	0.0088	0.0041
Venus	-49458-09-01 03:21 J	-16342868.57	-16342868.36	-16342868.13	0.0088	0.0023
Venus	-49457-04-13 17:45 J	-16342642.99	-16342642.76	-16342642.53	0.0088	0.0006
Mars	-49457-10-01 15:35 J	-16342472.18	-16342471.85	-16342471.51	0.0088	0.0017
Venus	-49457-11-25 07:40 J	-16342417.40	-16342417.18	-16342416.95	0.0088	0.0012
Venus	-49456-07-08 21:49 J	-16342191.80	-16342191.59	-16342191.37	0.0088	0.0030
Venus	-49455-02-19 11:59 J	-16341966.18	-16341966.00	-16341965.80	0.0088	0.0047
Mars	-49455-08-28 22:04 J	-16341775.92	-16341775.58	-16341775.23	0.0088	0.0002
Venus	-49455-10-03 02:23 J	-16341740.55	-16341740.40	-16341740.24	0.0088	0.0065
Venus	-49454-05-16 16:04 J	-16341514.89	-16341514.83	-16341514.73	0.0088	0.0082
Mars	-49453-07-25 06:28 J	-16341079.56	-16341079.23	-16341078.89	0.0088	0.0020
Mars	-49451-06-21 15:21 J	-16340383.14	-16340382.86	-16340382.52	0.0088	0.0038
Mars	-49449-05-18 02:23 J	-16339686.63	-16339686.40	-16339686.09	0.0088	0.0057
Mars	-49447-04-14 14:52 J	-16338990.05	-16338989.88	-16338989.67	0.0088	0.0074
Earth	-49418-08-05 13:40 J	-16328284.97	-16328284.93	-16328284.84	0.0088	0.0086
Moon	-49418-08-05 17:45 J	-16328284.85	-16328284.76	-16328284.66	0.0088	0.0082 *
Mercury	-49418-10-23 17:16 J	-16328205.79	-16328205.78	-16328205.74	0.0088	0.0088
Mercury	-49417-01-19 19:11 J	-16328117.75	-16328117.70	-16328117.63	0.0088	0.0081
Mercury	-49417-04-16 20:52 J	-16328029.69	-16328029.63	-16328029.53	0.0088	0.0075
Mercury	-49417-07-13 22:47 J	-16327941.63	-16327941.55	-16327941.45	0.0088	0.0068
Moon	-49417-08-06 22:04 J	-16327917.74	-16327917.58	-16327917.38	0.0088	0.0063
Earth	-49417-08-07 01:25 J	-16327917.61	-16327917.44	-16327917.23	0.0088	0.0060 *
Mercury	-49417-10-10 00:28 J	-16327853.57	-16327853.48	-16327853.36	0.0088	0.0062
Mercury	-49416-01-06 02:23 J	-16327765.51	-16327765.40	-16327765.28	0.0088	0.0055
Mercury	-49416-04-04 04:04 J	-16327677.44	-16327677.33	-16327677.19	0.0088	0.0049
Mercury	-49416-07-01 05:59 J	-16327589.37	-16327589.25	-16327589.11	0.0088	0.0042
Earth	-49416-08-09 13:11 J	-16327550.17	-16327549.95	-16327549.70	0.0088	0.0034
Moon	-49416-08-09 15:49 J	-16327550.08	-16327549.84	-16327549.58	0.0088	0.0030 *
Mercury	-49416-09-27 07:40 J	-16327501.30	-16327501.18	-16327501.04	0.0088	0.0035

Mercury -49416-12-24 09:35 J -16327413.24 -16327413.10 -16327412.96 0.0088 0.0029
 Mercury -49415-03-22 11:16 J -16327325.17 -16327325.03 -16327324.88 0.0088 0.0022
 Mercury -49415-06-18 13:11 J -16327237.10 -16327236.95 -16327236.81 0.0088 0.0016
 Moon -49415-08-11 23:59 J -16327182.74 -16327182.50 -16327182.25 0.0088 0.0010
 Earth -49415-08-12 01:11 J -16327182.70 -16327182.45 -16327182.19 0.0088 0.0008 *
 Mercury -49415-09-14 14:52 J -16327149.03 -16327148.88 -16327148.74 0.0089 0.0009
 Mercury -49415-12-11 16:33 J -16327060.95 -16327060.81 -16327060.66 0.0089 0.0003
 Mercury -49414-03-09 18:13 J -16326972.88 -16326972.74 -16326972.59 0.0089 0.0004
 Mercury -49414-06-05 19:54 J -16326884.81 -16326884.67 -16326884.52 0.0089 0.0010
 Earth -49414-08-14 12:42 J -16326815.21 -16326814.97 -16326814.71 0.0089 0.0019
 Moon -49414-08-14 13:11 J -16326815.20 -16326814.95 -16326814.68 0.0089 0.0022 *
 Mercury -49414-09-01 21:35 J -16326796.74 -16326796.60 -16326796.45 0.0089 0.0016
 Mercury -49414-11-28 23:16 J -16326708.66 -16326708.53 -16326708.39 0.0089 0.0023
 Mercury -49413-02-25 00:57 J -16326620.59 -16326620.46 -16326620.32 0.0089 0.0029
 Mercury -49413-05-23 02:37 J -16326532.52 -16326532.39 -16326532.25 0.0089 0.0035
 Earth -49413-08-16 00:13 J -16326447.70 -16326447.49 -16326447.26 0.0089 0.0045
 Moon -49413-08-16 01:25 J -16326447.65 -16326447.44 -16326447.21 0.0089 0.0042 *
 Mercury -49413-08-19 04:18 J -16326444.44 -16326444.32 -16326444.19 0.0089 0.0041
 Mercury -49413-11-15 05:59 J -16326356.37 -16326356.25 -16326356.13 0.0089 0.0048
 Mercury -49412-02-11 07:40 J -16326268.29 -16326268.18 -16326268.06 0.0089 0.0054
 Mercury -49412-05-10 09:21 J -16326180.21 -16326180.11 -16326180.00 0.0089 0.0060
 Mercury -49412-08-06 10:47 J -16326092.13 -16326092.05 -16326091.95 0.0089 0.0066
 Moon -49412-08-18 09:21 J -16326080.24 -16326080.11 -16326079.95 0.0089 0.0074
 Earth -49412-08-18 11:45 J -16326080.15 -16326080.01 -16326079.85 0.0089 0.0071 *
 Mercury -49412-11-02 12:28 J -16326004.05 -16326003.98 -16326003.89 0.0089 0.0073
 Mercury -49411-01-29 14:09 J -16325915.97 -16325915.91 -16325915.84 0.0089 0.0079
 Mercury -49411-04-27 15:35 J -16325827.87 -16325827.85 -16325827.80 0.0089 0.0085
 Mars -49382-01-12 22:04 J -16315340.72 -16315340.58 -16315340.42 0.0089 0.0077
 Mars -49381-12-06 20:52 J -16314646.83 -16314646.63 -16314646.40 0.0089 0.0062
 Mars -49379-10-31 16:47 J -16313953.03 -16313952.80 -16313952.53 0.0089 0.0046

Venus -49378-12-11 09:49 J -16313547.16 -16313547.09 -16313546.99 0.0089 0.0081
 Venus -49377-07-23 21:49 J -16313321.73 -16313321.59 -16313321.43 0.0089 0.0064
 Mars -49377-09-24 12:13 J -16313259.25 -16313258.99 -16313258.71 0.0089 0.0030
 Venus -49376-03-06 09:49 J -16313096.26 -16313096.09 -16313095.90 0.0089 0.0048
 Venus -49376-10-17 21:35 J -16312870.79 -16312870.60 -16312870.39 0.0089 0.0031
 Venus -49375-05-31 09:35 J -16312645.30 -16312645.10 -16312644.88 0.0089 0.0014
 Mars -49375-08-19 06:28 J -16312565.50 -16312565.23 -16312564.93 0.0089 0.0015
 Venus -49374-01-11 21:35 J -16312419.81 -16312419.60 -16312419.38 0.0089 0.0004
 Venus -49374-08-25 09:35 J -16312194.30 -16312194.10 -16312193.89 0.0089 0.0020
 Venus -49373-04-06 21:21 J -16311968.79 -16311968.61 -16311968.41 0.0089 0.0037
 Mars -49373-07-12 22:33 J -16311871.85 -16311871.56 -16311871.27 0.0089 0.0001
 Venus -49373-11-18 08:52 J -16311743.28 -16311743.13 -16311742.94 0.0089 0.0055
 Venus -49372-07-01 21:06 J -16311517.74 -16311517.62 -16311517.49 0.0089 0.0071
 Venus -49371-02-12 08:37 J -16311292.16 -16311292.14 -16311292.08 0.0089 0.0088
 Mars -49371-06-06 12:42 J -16311178.25 -16311177.97 -16311177.68 0.0089 0.0016
 Mars -49369-04-30 02:52 J -16310484.63 -16310484.38 -16310484.09 0.0089 0.0031
 Mars -49367-03-24 16:33 J -16309791.03 -16309790.81 -16309790.54 0.0089 0.0046
 Mars -49365-02-16 03:35 J -16309097.52 -16309097.35 -16309097.11 0.0089 0.0062
 Mars -49363-01-09 16:04 J -16308403.95 -16308403.83 -16308403.65 0.0089 0.0075
 Mars -49362-12-04 04:18 J -16307710.32 -16307710.32 -16307710.28 0.0089 0.0089
 Saturn -49342-01-05 08:37 J -16300738.32 -16300738.14 -16300737.85 0.0089 0.0083
 Mercury -49335-01-11 20:09 J -16298174.68 -16298174.66 -16298174.61 0.0089 0.0087
 Moon -49335-02-02 02:09 J -16298153.57 -16298153.41 -16298153.21 0.0089 0.0062
 Earth -49335-02-02 04:04 J -16298153.48 -16298153.33 -16298153.14 0.0089 0.0066 *
 Mercury -49335-04-09 22:33 J -16298086.61 -16298086.56 -16298086.47 0.0089 0.0080
 Mercury -49335-07-07 01:25 J -16297998.53 -16297998.44 -16297998.33 0.0089 0.0072
 Mercury -49335-10-03 03:49 J -16297910.44 -16297910.34 -16297910.21 0.0089 0.0065
 Mercury -49335-12-30 06:57 J -16297822.34 -16297822.21 -16297822.08 0.0089 0.0057
 Earth -49334-02-04 16:04 J -16297786.06 -16297785.83 -16297785.60 0.0089 0.0039
 Moon -49334-02-04 15:49 J -16297786.05 -16297785.84 -16297785.59 0.0089 0.0043 *

Mercury -49334-03-28 09:21 J -16297734.24 -16297734.11 -16297733.96 0.0089 0.0050
 Mercury -49334-06-24 11:45 J -16297646.14 -16297646.01 -16297645.84 0.0089 0.0043
 Mercury -49334-09-20 14:37 J -16297558.04 -16297557.89 -16297557.72 0.0089 0.0035
 Mercury -49334-12-17 17:16 J -16297469.93 -16297469.78 -16297469.61 0.0089 0.0028
 Earth -49333-02-07 03:49 J -16297418.60 -16297418.34 -16297418.09 0.0089 0.0013
 Moon -49333-02-07 04:18 J -16297418.56 -16297418.32 -16297418.07 0.0089 0.0009 *
 Mercury -49333-03-14 20:09 J -16297381.83 -16297381.66 -16297381.49 0.0089 0.0020
 Mercury -49333-06-10 22:47 J -16297293.72 -16297293.55 -16297293.38 0.0089 0.0012
 Mercury -49333-09-07 01:40 J -16297205.61 -16297205.43 -16297205.26 0.0089 0.0005
 Mercury -49333-12-04 04:18 J -16297117.49 -16297117.32 -16297117.15 0.0089 0.0003
 Moon -49332-02-08 13:25 J -16297051.20 -16297050.94 -16297050.67 0.0089 0.0010
 Earth -49332-02-08 15:21 J -16297051.11 -16297050.86 -16297050.60 0.0089 0.0014 *
 Mercury -49332-03-02 06:57 J -16297029.38 -16297029.21 -16297029.04 0.0089 0.0011
 Mercury -49332-05-29 09:35 J -16296941.26 -16296941.10 -16296940.92 0.0089 0.0018
 Mercury -49332-08-25 12:28 J -16296853.15 -16296852.98 -16296852.81 0.0089 0.0026
 Mercury -49332-11-21 15:06 J -16296765.03 -16296764.87 -16296764.70 0.0089 0.0034
 Earth -49331-02-11 02:52 J -16296683.60 -16296683.38 -16296683.14 0.0089 0.0040
 Moon -49331-02-11 05:45 J -16296683.46 -16296683.26 -16296683.02 0.0089 0.0044 *
 Mercury -49331-02-17 17:45 J -16296676.90 -16296676.76 -16296676.59 0.0089 0.0042
 Mercury -49331-05-16 20:37 J -16296588.78 -16296588.64 -16296588.49 0.0089 0.0049
 Mercury -49331-08-12 23:16 J -16296500.65 -16296500.53 -16296500.38 0.0089 0.0057
 Mercury -49331-11-09 02:09 J -16296412.52 -16296412.41 -16296412.28 0.0089 0.0065
 Mercury -49330-02-05 04:47 J -16296324.38 -16296324.30 -16296324.18 0.0089 0.0073
 Moon -49330-02-13 11:16 J -16296316.20 -16296316.03 -16296315.83 0.0089 0.0062
 Earth -49330-02-13 14:37 J -16296316.05 -16296315.89 -16296315.71 0.0089 0.0066 *
 Mercury -49330-05-04 07:40 J -16296236.24 -16296236.18 -16296236.09 0.0089 0.0081
 Mercury -49330-07-31 10:47 J -16296148.06 -16296148.05 -16296148.03 0.0089 0.0088
 Mars -49301-09-30 02:37 J -16285494.46 -16285494.39 -16285494.28 0.0088 0.0085
 Mars -49299-08-26 21:49 J -16284798.78 -16284798.59 -16284798.36 0.0088 0.0069
 Mars -49297-07-22 19:40 J -16284102.95 -16284102.68 -16284102.40 0.0088 0.0052

Venus	-49295-01-25 16:04 J	-16283550.87	-16283550.83	-16283550.75	0.0088	0.0085
Mars	-49295-06-18 20:09 J	-16283406.96	-16283406.66	-16283406.33	0.0088	0.0034
Venus	-49295-09-08 06:13 J	-16283325.37	-16283325.24	-16283325.08	0.0088	0.0067
Venus	-49294-04-21 20:37 J	-16283099.82	-16283099.64	-16283099.45	0.0088	0.0050
Venus	-49294-12-03 10:33 J	-16282874.26	-16282874.06	-16282873.84	0.0088	0.0032
Mars	-49293-05-14 22:18 J	-16282710.88	-16282710.57	-16282710.21	0.0088	0.0018
Venus	-49293-07-16 00:42 J	-16282648.69	-16282648.47	-16282648.24	0.0088	0.0015
Venus	-49292-02-26 15:06 J	-16282423.10	-16282422.87	-16282422.64	0.0088	0.0003
Venus	-49292-10-10 05:01 J	-16282197.51	-16282197.29	-16282197.06	0.0088	0.0020
Mars	-49291-04-11 02:23 J	-16282014.74	-16282014.40	-16282014.05	0.0088	0.0002
Venus	-49291-05-23 19:11 J	-16281971.90	-16281971.70	-16281971.49	0.0088	0.0037
Venus	-49290-01-04 08:52 J	-16281746.29	-16281746.13	-16281745.93	0.0088	0.0055
Venus	-49290-08-17 23:01 J	-16281520.65	-16281520.54	-16281520.39	0.0088	0.0073
Mars	-49289-03-07 08:23 J	-16281318.47	-16281318.15	-16281317.80	0.0088	0.0019
Mars	-49287-02-01 16:33 J	-16280622.10	-16280621.81	-16280621.48	0.0088	0.0037
Mars	-49286-12-30 01:54 J	-16279925.66	-16279925.42	-16279925.12	0.0088	0.0055
Mars	-49284-11-25 12:28 J	-16279229.13	-16279228.98	-16279228.75	0.0088	0.0074
Mercury	-49253-07-19 16:04 J	-16268034.85	-16268034.83	-16268034.79	0.0088	0.0086
Earth	-49253-08-06 07:25 J	-16268017.33	-16268017.19	-16268017.05	0.0088	0.0074
Moon	-49253-08-06 09:21 J	-16268017.25	-16268017.11	-16268016.94	0.0088	0.0071 *
Mercury	-49253-10-15 17:59 J	-16267946.80	-16267946.75	-16267946.68	0.0088	0.0080
Mercury	-49252-01-11 19:54 J	-16267858.75	-16267858.67	-16267858.58	0.0089	0.0073
Mercury	-49252-04-09 21:35 J	-16267770.69	-16267770.60	-16267770.50	0.0089	0.0066
Mercury	-49252-07-06 23:30 J	-16267682.63	-16267682.52	-16267682.41	0.0089	0.0060
Moon	-49252-08-08 17:59 J	-16267649.96	-16267649.75	-16267649.55	0.0089	0.0051
Earth	-49252-08-08 18:42 J	-16267649.93	-16267649.72	-16267649.49	0.0089	0.0048 *
Mercury	-49252-10-03 01:11 J	-16267594.56	-16267594.45	-16267594.33	0.0089	0.0053
Mercury	-49252-12-30 03:06 J	-16267506.49	-16267506.37	-16267506.24	0.0089	0.0047
Mercury	-49251-03-28 04:47 J	-16267418.43	-16267418.30	-16267418.17	0.0089	0.0040
Mercury	-49251-06-24 06:42 J	-16267330.36	-16267330.22	-16267330.09	0.0089	0.0034

Moon -49251-08-11 05:59 J -16267282.51 -16267282.25 -16267281.99 0.0089 0.0019
 Earth -49251-08-11 06:13 J -16267282.48 -16267282.24 -16267281.98 0.0089 0.0022 *
 Mercury -49251-09-20 08:09 J -16267242.29 -16267242.16 -16267242.01 0.0089 0.0028
 Mercury -49251-12-17 10:04 J -16267154.22 -16267154.08 -16267153.93 0.0089 0.0021
 Mercury -49250-03-15 11:45 J -16267066.15 -16267066.01 -16267065.86 0.0089 0.0015
 Mercury -49250-06-11 13:25 J -16266978.08 -16266977.94 -16266977.79 0.0089 0.0009
 Earth -49250-08-13 18:13 J -16266915.00 -16266914.74 -16266914.49 0.0089 0.0005
 Moon -49250-08-13 19:25 J -16266914.94 -16266914.69 -16266914.44 0.0089 0.0002 *
 Mercury -49250-09-07 15:21 J -16266890.01 -16266889.86 -16266889.72 0.0089 0.0002
 Mercury -49250-12-04 17:01 J -16266801.93 -16266801.79 -16266801.64 0.0089 0.0005
 Mercury -49249-03-01 18:42 J -16266713.86 -16266713.72 -16266713.57 0.0089 0.0011
 Mercury -49249-05-28 20:23 J -16266625.79 -16266625.65 -16266625.51 0.0089 0.0018
 Moon -49249-08-15 02:37 J -16266547.62 -16266547.39 -16266547.13 0.0089 0.0035
 Earth -49249-08-15 05:16 J -16266547.50 -16266547.28 -16266547.02 0.0089 0.0032 *
 Mercury -49249-08-24 22:04 J -16266537.72 -16266537.58 -16266537.44 0.0089 0.0024
 Mercury -49249-11-20 23:45 J -16266449.64 -16266449.51 -16266449.37 0.0089 0.0030
 Mercury -49248-02-17 01:25 J -16266361.57 -16266361.44 -16266361.30 0.0089 0.0036
 Mercury -49248-05-16 03:06 J -16266273.49 -16266273.37 -16266273.24 0.0089 0.0043
 Mercury -49248-08-12 04:47 J -16266185.42 -16266185.30 -16266185.18 0.0089 0.0049
 Earth -49248-08-17 16:47 J -16266179.97 -16266179.80 -16266179.58 0.0089 0.0058
 Moon -49248-08-17 20:23 J -16266179.84 -16266179.65 -16266179.44 0.0089 0.0055 *
 Mercury -49248-11-08 06:13 J -16266097.34 -16266097.24 -16266097.12 0.0089 0.0056
 Mercury -49247-02-04 07:54 J -16266009.26 -16266009.17 -16266009.06 0.0089 0.0062
 Mercury -49247-05-03 09:35 J -16265921.18 -16265921.10 -16265921.00 0.0089 0.0068
 Mercury -49247-07-30 11:16 J -16265833.10 -16265833.03 -16265832.94 0.0089 0.0074
 Moon -49247-08-20 01:11 J -16265812.48 -16265812.45 -16265812.39 0.0089 0.0087
 Earth -49247-08-20 04:18 J -16265812.38 -16265812.32 -16265812.21 0.0089 0.0084
 Mercury -49247-10-26 12:57 J -16265745.01 -16265744.96 -16265744.89 0.0089 0.0080
 Mercury -49246-01-22 14:37 J -16265656.91 -16265656.89 -16265656.85 0.0089 0.0086
 Mars -49219-08-27 23:59 J -16255577.63 -16255577.50 -16255577.34 0.0089 0.0078

Mars	-49217-07-21 23:01 J	-16254883.73	-16254883.54	-16254883.31	0.0089	0.0062
Mars	-49215-06-15 21:21 J	-16254189.84	-16254189.61	-16254189.34	0.0089	0.0047
Mars	-49213-05-09 17:59 J	-16253496.01	-16253495.75	-16253495.47	0.0089	0.0031
Venus	-49213-10-25 07:25 J	-16253327.29	-16253327.19	-16253327.05	0.0089	0.0073
Venus	-49212-06-07 19:25 J	-16253101.84	-16253101.69	-16253101.51	0.0089	0.0057
Venus	-49211-01-19 07:40 J	-16252876.37	-16252876.18	-16252875.99	0.0089	0.0039
Mars	-49211-04-03 12:13 J	-16252802.28	-16252801.99	-16252801.70	0.0089	0.0016
Venus	-49211-09-01 19:25 J	-16252650.88	-16252650.69	-16252650.47	0.0089	0.0023
Venus	-49210-04-15 07:40 J	-16252425.39	-16252425.18	-16252424.97	0.0089	0.0006
Venus	-49210-11-26 19:25 J	-16252199.89	-16252199.69	-16252199.47	0.0089	0.0011
Mars	-49209-02-26 06:13 J	-16252108.53	-16252108.24	-16252107.95	0.0089	0.0000
Venus	-49209-07-09 07:11 J	-16251974.39	-16251974.20	-16251973.99	0.0089	0.0028
Venus	-49208-02-19 18:57 J	-16251748.88	-16251748.71	-16251748.51	0.0089	0.0045
Venus	-49208-10-03 07:11 J	-16251523.35	-16251523.20	-16251523.04	0.0089	0.0061
Mars	-49207-01-19 22:04 J	-16251414.86	-16251414.58	-16251414.29	0.0089	0.0015
Venus	-49207-05-16 18:42 J	-16251297.80	-16251297.72	-16251297.60	0.0089	0.0079
Mars	-49206-12-14 11:45 J	-16250721.26	-16250721.01	-16250720.72	0.0089	0.0031
Mars	-49204-11-07 02:09 J	-16250027.64	-16250027.41	-16250027.15	0.0089	0.0046
Mars	-49202-10-01 16:18 J	-16249334.01	-16249333.82	-16249333.59	0.0089	0.0060
Mars	-49200-08-25 04:18 J	-16248640.47	-16248640.32	-16248640.16	0.0089	0.0074
Mars	-49198-07-19 16:04 J	-16247946.85	-16247946.83	-16247946.78	0.0089	0.0088
Moon	-49171-02-01 09:49 J	-16238253.19	-16238253.09	-16238252.93	0.0089	0.0078
Earth	-49171-02-01 10:18 J	-16238253.18	-16238253.07	-16238252.97	0.0089	0.0080 *
Mercury	-49171-10-08 18:13 J	-16238003.78	-16238003.74	-16238003.68	0.0089	0.0085
Mercury	-49170-01-04 20:37 J	-16237915.70	-16237915.64	-16237915.54	0.0089	0.0078
Earth	-49170-02-03 21:21 J	-16237885.79	-16237885.61	-16237885.39	0.0089	0.0054
Moon	-49170-02-03 23:01 J	-16237885.72	-16237885.54	-16237885.34	0.0089	0.0057 *
Mercury	-49170-04-02 23:16 J	-16237827.62	-16237827.53	-16237827.41	0.0089	0.0071
Mercury	-49170-06-30 02:09 J	-16237739.52	-16237739.41	-16237739.29	0.0089	0.0063
Mercury	-49170-09-26 04:33 J	-16237651.43	-16237651.31	-16237651.17	0.0089	0.0056

Mercury -49170-12-23 07:25 J -16237563.33 -16237563.19 -16237563.04 0.0089 0.0048
 Moon -49169-02-06 06:42 J -16237518.46 -16237518.22 -16237517.95 0.0089 0.0025
 Earth -49169-02-06 09:06 J -16237518.35 -16237518.12 -16237517.86 0.0089 0.0028 *
 Mercury -49169-03-20 09:49 J -16237475.23 -16237475.09 -16237474.93 0.0089 0.0041
 Mercury -49169-06-16 12:28 J -16237387.13 -16237386.98 -16237386.81 0.0089 0.0034
 Mercury -49169-09-12 15:21 J -16237299.02 -16237298.86 -16237298.69 0.0089 0.0026
 Mercury -49169-12-09 17:59 J -16237210.91 -16237210.75 -16237210.58 0.0089 0.0018
 Earth -49168-02-07 21:06 J -16237150.88 -16237150.62 -16237150.36 0.0089 0.0001
 Moon -49168-02-07 23:59 J -16237150.75 -16237150.50 -16237150.24 0.0089 0.0004 *
 Mercury -49168-03-07 20:52 J -16237122.80 -16237122.63 -16237122.46 0.0089 0.0011
 Mercury -49168-06-03 23:30 J -16237034.69 -16237034.52 -16237034.35 0.0089 0.0003
 Mercury -49168-08-31 02:09 J -16236946.58 -16236946.41 -16236946.23 0.0089 0.0005
 Mercury -49168-11-27 04:47 J -16236858.47 -16236858.30 -16236858.12 0.0089 0.0013
 Moon -49167-02-10 05:01 J -16236783.53 -16236783.29 -16236783.04 0.0089 0.0029
 Earth -49167-02-10 08:37 J -16236783.38 -16236783.14 -16236782.89 0.0089 0.0026 *
 Mercury -49167-02-23 07:40 J -16236770.35 -16236770.18 -16236770.01 0.0089 0.0020
 Mercury -49167-05-22 10:18 J -16236682.23 -16236682.07 -16236681.90 0.0089 0.0028
 Mercury -49167-08-18 12:57 J -16236594.11 -16236593.96 -16236593.79 0.0089 0.0036
 Mercury -49167-11-14 15:49 J -16236505.99 -16236505.84 -16236505.68 0.0089 0.0043
 Mercury -49166-02-10 18:28 J -16236417.86 -16236417.73 -16236417.58 0.0089 0.0051
 Earth -49166-02-12 19:54 J -16236415.86 -16236415.67 -16236415.44 0.0089 0.0053
 Moon -49166-02-12 23:45 J -16236415.72 -16236415.51 -16236415.29 0.0089 0.0050 *
 Mercury -49166-05-09 21:06 J -16236329.73 -16236329.62 -16236329.47 0.0089 0.0059
 Mercury -49166-08-05 23:59 J -16236241.60 -16236241.50 -16236241.37 0.0089 0.0067
 Mercury -49166-11-02 03:06 J -16236153.47 -16236153.37 -16236153.28 0.0089 0.0074
 Mercury -49165-01-29 05:45 J -16236065.32 -16236065.26 -16236065.19 0.0089 0.0082
 Moon -49165-02-15 04:33 J -16236048.39 -16236048.31 -16236048.19 0.0089 0.0081
 Earth -49165-02-15 07:54 J -16236048.27 -16236048.17 -16236048.04 0.0089 0.0079 *
 Mars -49137-05-13 16:04 J -16225732.88 -16225732.83 -16225732.71 0.0088 0.0086
 Mars -49135-04-09 09:06 J -16225037.29 -16225037.12 -16225036.88 0.0088 0.0069

Mars	-49133-03-05 05:16 J	-16224341.54	-16224341.28	-16224341.00	0.0088	0.0052
Jupiter	-49133-04-10 10:47 J	-16224305.56	-16224305.05	-16224304.48	0.0088	0.0024
Mars	-49131-01-30 03:06 J	-16223645.67	-16223645.37	-16223645.05	0.0088	0.0035
Venus	-49131-12-10 12:42 J	-16223331.07	-16223330.97	-16223330.85	0.0088	0.0076
Venus	-49130-07-24 02:37 J	-16223105.54	-16223105.39	-16223105.20	0.0088	0.0060
Mars	-49130-12-27 03:35 J	-16222949.68	-16222949.35	-16222949.01	0.0088	0.0018
Venus	-49129-03-05 16:47 J	-16222879.98	-16222879.80	-16222879.58	0.0088	0.0043
Venus	-49129-10-17 07:25 J	-16222654.41	-16222654.19	-16222653.97	0.0088	0.0024
Venus	-49128-05-30 21:21 J	-16222428.83	-16222428.61	-16222428.38	0.0088	0.0007
Mars	-49128-11-22 06:42 J	-16222253.56	-16222253.22	-16222252.88	0.0088	0.0000
Venus	-49127-01-11 11:30 J	-16222203.24	-16222203.02	-16222202.79	0.0088	0.0011
Venus	-49127-08-25 01:25 J	-16221977.64	-16221977.44	-16221977.21	0.0088	0.0028
Venus	-49126-04-07 15:35 J	-16221752.03	-16221751.85	-16221751.64	0.0088	0.0045
Mars	-49126-10-19 10:18 J	-16221557.39	-16221557.07	-16221556.72	0.0088	0.0018
Venus	-49126-11-19 05:45 J	-16221526.41	-16221526.26	-16221526.09	0.0088	0.0063
Venus	-49125-07-01 19:25 J	-16221300.76	-16221300.69	-16221300.57	0.0088	0.0080
Mars	-49124-09-14 16:18 J	-16220861.11	-16220860.82	-16220860.48	0.0088	0.0037
Mars	-49122-08-12 00:57 J	-16220164.70	-16220164.46	-16220164.16	0.0088	0.0054
Mars	-49120-07-08 10:47 J	-16219468.22	-16219468.05	-16219467.82	0.0088	0.0072
Moon	-49089-08-05 11:16 J	-16208117.07	-16208117.03	-16208116.95	0.0088	0.0086
Mercury	-49088-04-15 14:37 J	-16207863.91	-16207863.89	-16207863.84	0.0088	0.0085
Mercury	-49088-07-12 16:33 J	-16207775.87	-16207775.81	-16207775.74	0.0088	0.0079
Moon	-49088-08-07 22:18 J	-16207749.71	-16207749.57	-16207749.36	0.0088	0.0067
Earth	-49088-08-07 23:16 J	-16207749.69	-16207749.53	-16207749.33	0.0088	0.0063 *
Mercury	-49088-10-08 18:13 J	-16207687.81	-16207687.74	-16207687.64	0.0088	0.0072
Mercury	-49087-01-04 20:09 J	-16207599.75	-16207599.66	-16207599.55	0.0088	0.0066
Mercury	-49087-04-02 22:04 J	-16207511.69	-16207511.58	-16207511.47	0.0089	0.0059
Mercury	-49087-06-29 23:45 J	-16207423.62	-16207423.51	-16207423.38	0.0089	0.0053
Earth	-49087-08-10 10:47 J	-16207382.27	-16207382.05	-16207381.79	0.0089	0.0037
Moon	-49087-08-10 13:11 J	-16207382.17	-16207381.95	-16207381.70	0.0089	0.0033 *

Mercury -49087-09-26 01:40 J -16207335.55 -16207335.43 -16207335.30 0.0089 0.0046
 Mercury -49087-12-23 03:21 J -16207247.49 -16207247.36 -16207247.22 0.0089 0.0039
 Mercury -49086-03-21 05:16 J -16207159.42 -16207159.28 -16207159.14 0.0089 0.0033
 Mercury -49086-06-17 06:57 J -16207071.35 -16207071.21 -16207071.07 0.0089 0.0026
 Moon -49086-08-12 19:40 J -16207014.93 -16207014.68 -16207014.41 0.0089 0.0014
 Earth -49086-08-12 22:47 J -16207014.81 -16207014.55 -16207014.29 0.0089 0.0010 *
 Mercury -49086-09-13 08:37 J -16206983.28 -16206983.14 -16206982.99 0.0089 0.0020
 Mercury -49086-12-10 10:33 J -16206895.21 -16206895.06 -16206894.92 0.0089 0.0014
 Mercury -49085-03-07 12:13 J -16206807.14 -16206806.99 -16206806.84 0.0089 0.0007
 Mercury -49085-06-03 13:54 J -16206719.06 -16206718.92 -16206718.77 0.0089 0.0001
 Earth -49085-08-14 10:18 J -16206647.32 -16206647.07 -16206646.81 0.0089 0.0017
 Moon -49085-08-14 13:25 J -16206647.17 -16206646.94 -16206646.68 0.0089 0.0021 *
 Mercury -49085-08-30 15:35 J -16206630.99 -16206630.85 -16206630.70 0.0089 0.0006
 Mercury -49085-11-26 17:16 J -16206542.92 -16206542.78 -16206542.63 0.0089 0.0012
 Mercury -49084-02-22 18:57 J -16206454.85 -16206454.71 -16206454.56 0.0089 0.0019
 Mercury -49084-05-21 20:52 J -16206366.77 -16206366.63 -16206366.49 0.0089 0.0025
 Moon -49084-08-16 17:59 J -16206279.96 -16206279.75 -16206279.50 0.0089 0.0040
 Earth -49084-08-16 21:35 J -16206279.81 -16206279.60 -16206279.36 0.0089 0.0044 *
 Mercury -49084-08-17 22:18 J -16206278.70 -16206278.57 -16206278.43 0.0089 0.0032
 Mercury -49084-11-13 23:59 J -16206190.62 -16206190.50 -16206190.36 0.0089 0.0038
 Mercury -49083-02-10 01:40 J -16206102.55 -16206102.43 -16206102.30 0.0089 0.0044
 Mercury -49083-05-09 03:35 J -16206014.47 -16206014.35 -16206014.23 0.0089 0.0050
 Mercury -49083-08-05 05:01 J -16205926.39 -16205926.29 -16205926.17 0.0089 0.0056
 Earth -49083-08-19 08:52 J -16205912.26 -16205912.13 -16205911.95 0.0089 0.0070
 Moon -49083-08-19 12:13 J -16205912.12 -16205911.99 -16205911.82 0.0089 0.0073 *
 Mercury -49083-11-01 06:42 J -16205838.31 -16205838.22 -16205838.11 0.0089 0.0063
 Mercury -49082-01-28 08:23 J -16205750.23 -16205750.15 -16205750.05 0.0089 0.0069
 Mercury -49082-04-26 10:04 J -16205662.15 -16205662.08 -16205662.00 0.0089 0.0075
 Mercury -49082-07-23 11:45 J -16205574.06 -16205574.01 -16205573.95 0.0089 0.0081
 Mercury -49082-10-19 13:25 J -16205485.96 -16205485.94 -16205485.91 0.0089 0.0087

Mars	-49055-04-11 21:49 J	-16195814.70	-16195814.59	-16195814.43	0.0089	0.0079
Mars	-49053-03-05 23:45 J	-16195120.71	-16195120.51	-16195120.30	0.0089	0.0063
Mars	-49051-01-28 22:04 J	-16194426.80	-16194426.58	-16194426.31	0.0089	0.0048
Mars	-49050-12-23 20:23 J	-16193732.92	-16193732.65	-16193732.37	0.0089	0.0032
Venus	-49048-01-26 17:01 J	-16193332.85	-16193332.79	-16193332.69	0.0089	0.0082
Venus	-49048-09-09 05:16 J	-16193107.41	-16193107.28	-16193107.12	0.0089	0.0065
Mars	-49048-11-16 17:01 J	-16193039.06	-16193038.79	-16193038.49	0.0089	0.0017
Venus	-49047-04-22 17:16 J	-16192881.95	-16192881.78	-16192881.59	0.0089	0.0049
Venus	-49047-12-04 05:01 J	-16192656.47	-16192656.29	-16192656.08	0.0089	0.0032
Venus	-49046-07-17 17:01 J	-16192430.99	-16192430.79	-16192430.57	0.0089	0.0015
Mars	-49046-10-11 11:16 J	-16192345.32	-16192345.03	-16192344.74	0.0089	0.0001
Venus	-49045-02-28 05:16 J	-16192205.50	-16192205.28	-16192205.07	0.0089	0.0002
Venus	-49045-10-10 17:01 J	-16191979.99	-16191979.79	-16191979.58	0.0089	0.0019
Venus	-49044-05-24 05:01 J	-16191754.48	-16191754.29	-16191754.09	0.0089	0.0035
Mars	-49044-09-04 04:47 J	-16191651.57	-16191651.30	-16191651.00	0.0089	0.0015
Venus	-49043-01-04 16:33 J	-16191528.96	-16191528.81	-16191528.62	0.0089	0.0053
Venus	-49043-08-18 04:33 J	-16191303.43	-16191303.31	-16191303.16	0.0089	0.0069
Venus	-49042-03-31 16:47 J	-16191077.85	-16191077.80	-16191077.74	0.0089	0.0085
Mars	-49042-07-29 21:06 J	-16190957.88	-16190957.62	-16190957.34	0.0089	0.0030
Mars	-49040-06-22 11:01 J	-16190264.27	-16190264.04	-16190263.77	0.0089	0.0046
Mars	-49038-05-17 00:13 J	-16189570.67	-16189570.49	-16189570.25	0.0089	0.0060
Mars	-49036-04-09 14:09 J	-16188877.04	-16188876.91	-16188876.72	0.0089	0.0074
Mars	-49034-03-04 02:09 J	-16188183.42	-16188183.41	-16188183.34	0.0089	0.0088
Moon	-49006-02-02 23:45 J	-16177985.65	-16177985.51	-16177985.30	0.0089	0.0066
Earth	-49006-02-03 02:52 J	-16177985.52	-16177985.38	-16177985.19	0.0089	0.0069 *
Mercury	-49006-07-05 16:04 J	-16177832.87	-16177832.83	-16177832.76	0.0089	0.0084
Mercury	-49006-10-01 18:57 J	-16177744.79	-16177744.71	-16177744.62	0.0089	0.0076
Mercury	-49006-12-28 21:21 J	-16177656.70	-16177656.61	-16177656.49	0.0089	0.0069
Earth	-49005-02-05 14:52 J	-16177618.10	-16177617.88	-16177617.65	0.0089	0.0042
Moon	-49005-02-05 17:59 J	-16177617.95	-16177617.75	-16177617.51	0.0089	0.0045 *

Mercury -49005-03-25 23:59 J -16177568.61 -16177568.50 -16177568.37 0.0089 0.0062
 Mercury -49005-06-22 02:37 J -16177480.52 -16177480.39 -16177480.25 0.0089 0.0054
 Mercury -49005-09-18 05:16 J -16177392.42 -16177392.28 -16177392.13 0.0089 0.0047
 Mercury -49005-12-15 08:09 J -16177304.32 -16177304.16 -16177304.01 0.0089 0.0039
 Moon -49004-02-06 23:01 J -16177250.79 -16177250.54 -16177250.28 0.0089 0.0012
 Earth -49004-02-07 02:23 J -16177250.64 -16177250.40 -16177250.13 0.0089 0.0016 *
 Mercury -49004-03-13 10:33 J -16177216.21 -16177216.06 -16177215.89 0.0089 0.0032
 Mercury -49004-06-09 13:25 J -16177128.11 -16177127.94 -16177127.78 0.0089 0.0024
 Mercury -49004-09-05 16:04 J -16177040.00 -16177039.83 -16177039.66 0.0089 0.0017
 Mercury -49004-12-02 18:42 J -16176951.89 -16176951.72 -16176951.55 0.0089 0.0009
 Earth -49003-02-09 14:09 J -16176883.16 -16176882.91 -16176882.65 0.0089 0.0012
 Moon -49003-02-09 17:45 J -16176883.02 -16176882.76 -16176882.50 0.0089 0.0008 *
 Mercury -49003-02-28 21:21 J -16176863.78 -16176863.61 -16176863.43 0.0089 0.0002
 Mercury -49003-05-27 23:59 J -16176775.67 -16176775.50 -16176775.32 0.0089 0.0007
 Mercury -49003-08-24 02:52 J -16176687.55 -16176687.38 -16176687.21 0.0089 0.0014
 Mercury -49003-11-20 05:16 J -16176599.44 -16176599.28 -16176599.10 0.0089 0.0022
 Moon -49002-02-11 23:16 J -16176515.74 -16176515.53 -16176515.29 0.0089 0.0042
 Earth -49002-02-12 01:40 J -16176515.64 -16176515.43 -16176515.18 0.0089 0.0039 *
 Mercury -49002-02-16 08:23 J -16176511.32 -16176511.15 -16176510.99 0.0089 0.0029
 Mercury -49002-05-15 10:47 J -16176423.20 -16176423.05 -16176422.88 0.0089 0.0037
 Mercury -49002-08-11 13:25 J -16176335.08 -16176334.94 -16176334.78 0.0089 0.0045
 Mercury -49002-11-07 16:04 J -16176246.95 -16176246.83 -16176246.67 0.0089 0.0053
 Mercury -49001-02-03 19:11 J -16176158.82 -16176158.70 -16176158.57 0.0089 0.0060
 Earth -49001-02-14 13:25 J -16176148.10 -16176147.94 -16176147.76 0.0089 0.0065
 Moon -49001-02-14 15:49 J -16176148.03 -16176147.84 -16176147.65 0.0089 0.0061 *
 Mercury -49001-05-01 21:49 J -16176070.69 -16176070.59 -16176070.47 0.0089 0.0068
 Mercury -49001-07-29 00:42 J -16175982.55 -16175982.47 -16175982.37 0.0089 0.0076
 Mercury -49001-10-25 03:21 J -16175894.40 -16175894.36 -16175894.29 0.0089 0.0084

49TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 49th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-48974-12-26 09:06 J	-16165971.18	-16165971.12	-16165971.03	0.0088	0.0086		
Mars	-48972-11-20 22:18 J	-16165275.73	-16165275.57	-16165275.33	0.0088	0.0070		
Mars	-48970-10-17 15:35 J	-16164580.09	-16164579.85	-16164579.56	0.0088	0.0053		
Mars	-48968-09-12 11:16 J	-16163884.31	-16163884.03	-16163883.70	0.0088	0.0037		
Venus	-48966-03-13 18:42 J	-16163336.74	-16163336.72	-16163336.65	0.0088	0.0086		
Mars	-48966-08-09 09:35 J	-16163188.42	-16163188.10	-16163187.76	0.0088	0.0019		
Venus	-48966-10-25 09:21 J	-16163111.25	-16163111.11	-16163110.97	0.0088	0.0069		
Venus	-48965-06-06 23:16 J	-16162885.71	-16162885.53	-16162885.34	0.0088	0.0051		
Venus	-48964-01-18 13:25 J	-16162660.14	-16162659.94	-16162659.72	0.0088	0.0034		
Mars	-48964-07-05 10:18 J	-16162492.41	-16162492.07	-16162491.73	0.0088	0.0001		
Venus	-48964-09-01 03:35 J	-16162434.57	-16162434.35	-16162434.12	0.0088	0.0017		
Venus	-48963-04-14 17:45 J	-16162208.98	-16162208.76	-16162208.53	0.0088	0.0002		
Venus	-48963-11-26 07:40 J	-16161983.39	-16161983.18	-16161982.95	0.0088	0.0018		
Mars	-48962-06-01 13:11 J	-16161796.27	-16161795.95	-16161795.60	0.0088	0.0017		
Venus	-48962-07-09 21:35 J	-16161757.79	-16161757.60	-16161757.38	0.0088	0.0036		
Venus	-48961-02-20 11:59 J	-16161532.18	-16161532.00	-16161531.81	0.0088	0.0052		
Venus	-48961-10-03 02:09 J	-16161306.54	-16161306.41	-16161306.27	0.0088	0.0070		
Mars	-48960-04-27 17:01 J	-16161100.08	-16161099.79	-16161099.45	0.0088	0.0035		
Venus	-48960-05-16 15:35 J	-16161080.86	-16161080.85	-16161080.78	0.0088	0.0087		

Mars -48958-03-24 23:01 J -16160403.79 -16160403.54 -16160403.24 0.0088 0.0053
 Mars -48956-02-18 07:11 J -16159707.36 -16159707.20 -16159706.95 0.0088 0.0071
 Earth -48924-08-07 02:37 J -16147849.48 -16147849.39 -16147849.24 0.0088 0.0079
 Moon -48924-08-07 05:30 J -16147849.39 -16147849.27 -16147849.14 0.0088 0.0076 *
 Mercury -48923-01-10 13:11 J -16147692.99 -16147692.95 -16147692.91 0.0088 0.0085
 Mercury -48923-04-08 14:52 J -16147604.94 -16147604.88 -16147604.80 0.0089 0.0078
 Mercury -48923-07-05 16:47 J -16147516.88 -16147516.80 -16147516.71 0.0089 0.0072
 Moon -48923-08-09 10:47 J -16147482.23 -16147482.05 -16147481.81 0.0089 0.0054
 Earth -48923-08-09 14:37 J -16147482.09 -16147481.89 -16147481.67 0.0089 0.0052 *
 Mercury -48923-10-01 18:42 J -16147428.82 -16147428.72 -16147428.62 0.0089 0.0065
 Mercury -48923-12-28 20:23 J -16147340.75 -16147340.65 -16147340.53 0.0089 0.0058
 Mercury -48922-03-26 22:18 J -16147252.69 -16147252.57 -16147252.45 0.0089 0.0052
 Mercury -48922-06-22 23:59 J -16147164.62 -16147164.50 -16147164.37 0.0089 0.0045
 Earth -48922-08-12 02:23 J -16147114.64 -16147114.40 -16147114.15 0.0089 0.0025
 Moon -48922-08-12 05:59 J -16147114.50 -16147114.25 -16147114.00 0.0089 0.0023 *
 Mercury -48922-09-19 01:54 J -16147076.55 -16147076.42 -16147076.29 0.0089 0.0039
 Mercury -48922-12-16 03:35 J -16146988.48 -16146988.35 -16146988.21 0.0089 0.0032
 Mercury -48921-03-13 05:30 J -16146900.41 -16146900.27 -16146900.13 0.0089 0.0026
 Mercury -48921-06-09 07:11 J -16146812.34 -16146812.20 -16146812.06 0.0089 0.0019
 Moon -48921-08-13 10:33 J -16146747.32 -16146747.06 -16146746.80 0.0089 0.0001
 Earth -48921-08-13 14:09 J -16146747.17 -16146746.91 -16146746.65 0.0089 0.0002 *
 Mercury -48921-09-05 08:52 J -16146724.27 -16146724.13 -16146723.98 0.0089 0.0013
 Mercury -48921-12-02 10:33 J -16146636.20 -16146636.06 -16146635.91 0.0089 0.0007
 Mercury -48920-02-28 12:28 J -16146548.13 -16146547.98 -16146547.84 0.0089 0.0002
 Mercury -48920-05-27 14:09 J -16146460.06 -16146459.91 -16146459.77 0.0089 0.0006
 Earth -48920-08-16 01:11 J -16146379.68 -16146379.45 -16146379.19 0.0089 0.0029
 Moon -48920-08-16 04:18 J -16146379.56 -16146379.32 -16146379.06 0.0089 0.0031 *
 Mercury -48920-08-23 15:49 J -16146371.98 -16146371.84 -16146371.70 0.0089 0.0013
 Mercury -48920-11-19 17:30 J -16146283.91 -16146283.77 -16146283.63 0.0089 0.0019
 Mercury -48919-02-15 19:11 J -16146195.84 -16146195.70 -16146195.56 0.0089 0.0025

Mercury -48919-05-14 20:52 J -16146107.76 -16146107.63 -16146107.49 0.0089 0.0032
 Mercury -48919-08-10 22:18 J -16146019.69 -16146019.57 -16146019.42 0.0089 0.0039
 Moon -48919-08-18 11:16 J -16146012.23 -16146012.03 -16146011.83 0.0089 0.0053
 Earth -48919-08-18 12:28 J -16146012.15 -16146011.98 -16146011.75 0.0089 0.0056 *
 Mercury -48919-11-07 00:13 J -16145931.61 -16145931.49 -16145931.36 0.0089 0.0044
 Mercury -48918-02-03 01:54 J -16145843.53 -16145843.42 -16145843.30 0.0089 0.0051
 Mercury -48918-05-02 03:35 J -16145755.45 -16145755.35 -16145755.24 0.0089 0.0057
 Mercury -48918-07-29 05:16 J -16145667.38 -16145667.28 -16145667.18 0.0089 0.0063
 Earth -48918-08-20 23:59 J -16145644.57 -16145644.50 -16145644.38 0.0089 0.0082
 Moon -48918-08-21 01:11 J -16145644.50 -16145644.45 -16145644.34 0.0089 0.0085 *
 Mercury -48918-10-25 06:42 J -16145579.29 -16145579.22 -16145579.12 0.0089 0.0070
 Mercury -48917-01-21 08:23 J -16145491.21 -16145491.15 -16145491.06 0.0089 0.0076
 Mercury -48917-04-18 10:04 J -16145403.12 -16145403.08 -16145403.02 0.0089 0.0082
 Mercury -48917-07-15 11:45 J -16145315.02 -16145315.01 -16145314.98 0.0089 0.0088
 Mars -48892-11-24 15:21 J -16136051.95 -16136051.86 -16136051.70 0.0089 0.0082
 Mars -48890-10-19 19:40 J -16135357.86 -16135357.68 -16135357.45 0.0089 0.0066
 Mars -48888-09-12 21:35 J -16134663.83 -16134663.60 -16134663.34 0.0089 0.0050
 Mars -48886-08-07 20:37 J -16133969.91 -16133969.64 -16133969.36 0.0089 0.0034
 Mars -48884-07-01 17:45 J -16133276.04 -16133275.76 -16133275.46 0.0089 0.0018
 Venus -48884-12-11 14:23 J -16133113.01 -16133112.90 -16133112.78 0.0089 0.0074
 Venus -48883-07-25 01:54 J -16132887.56 -16132887.42 -16132887.23 0.0089 0.0059
 Venus -48882-03-07 14:09 J -16132662.09 -16132661.91 -16132661.71 0.0089 0.0041
 Mars -48882-05-26 14:37 J -16132582.18 -16132581.89 -16132581.59 0.0089 0.0003
 Venus -48882-10-19 02:09 J -16132436.61 -16132436.41 -16132436.20 0.0089 0.0024
 Venus -48881-05-31 14:09 J -16132211.12 -16132210.91 -16132210.70 0.0089 0.0008
 Venus -48880-01-12 01:54 J -16131985.63 -16131985.42 -16131985.20 0.0089 0.0009
 Mars -48880-04-19 08:37 J -16131888.42 -16131888.14 -16131887.85 0.0089 0.0014
 Venus -48880-08-25 13:54 J -16131760.12 -16131759.92 -16131759.71 0.0089 0.0026
 Venus -48879-04-08 01:54 J -16131534.60 -16131534.42 -16131534.23 0.0089 0.0042
 Venus -48879-11-19 13:25 J -16131309.08 -16131308.94 -16131308.76 0.0089 0.0060

Mars -48878-03-14 01:25 J -16131194.70 -16131194.44 -16131194.15 0.0089 0.0029
 Venus -48878-07-03 01:11 J -16131083.53 -16131083.45 -16131083.31 0.0089 0.0076
 Mars -48876-02-04 17:59 J -16130500.98 -16130500.75 -16130500.48 0.0089 0.0044
 Mars -48875-12-30 08:23 J -16129807.34 -16129807.15 -16129806.92 0.0089 0.0059
 Mars -48873-11-22 22:04 J -16129113.73 -16129113.58 -16129113.41 0.0089 0.0074
 Mars -48871-10-17 11:59 J -16128420.04 -16128420.00 -16128419.93 0.0089 0.0087
 Earth -48842-02-02 07:54 J -16118085.23 -16118085.17 -16118085.07 0.0089 0.0084
 Moon -48842-02-02 11:59 J -16118085.11 -16118085.00 -16118084.90 0.0089 0.0080 *
 Moon -48841-02-04 16:18 J -16117718.00 -16117717.82 -16117717.63 0.0089 0.0061
 Earth -48841-02-04 19:40 J -16117717.87 -16117717.68 -16117717.47 0.0089 0.0057 *
 Mercury -48841-03-31 14:09 J -16117661.96 -16117661.91 -16117661.84 0.0089 0.0082
 Mercury -48841-06-27 16:33 J -16117573.88 -16117573.81 -16117573.71 0.0089 0.0075
 Mercury -48841-09-23 19:11 J -16117485.80 -16117485.70 -16117485.58 0.0089 0.0068
 Mercury -48841-12-20 22:04 J -16117397.70 -16117397.58 -16117397.46 0.0089 0.0060
 Earth -48840-02-06 07:25 J -16117350.43 -16117350.19 -16117349.95 0.0089 0.0030
 Moon -48840-02-06 10:47 J -16117350.30 -16117350.05 -16117349.81 0.0089 0.0027 *
 Mercury -48840-03-19 00:28 J -16117309.61 -16117309.48 -16117309.34 0.0089 0.0053
 Mercury -48840-06-15 02:52 J -16117221.51 -16117221.38 -16117221.22 0.0089 0.0046
 Mercury -48840-09-11 05:45 J -16117133.41 -16117133.26 -16117133.10 0.0089 0.0038
 Mercury -48840-12-08 08:23 J -16117045.30 -16117045.15 -16117044.98 0.0089 0.0031
 Moon -48839-02-08 16:47 J -16116983.05 -16116982.80 -16116982.55 0.0089 0.0007
 Earth -48839-02-08 19:11 J -16116982.95 -16116982.70 -16116982.44 0.0089 0.0004 *
 Mercury -48839-03-06 11:01 J -16116957.20 -16116957.04 -16116956.87 0.0089 0.0023
 Mercury -48839-06-02 13:40 J -16116869.09 -16116868.93 -16116868.75 0.0089 0.0016
 Mercury -48839-08-29 16:33 J -16116780.98 -16116780.81 -16116780.64 0.0089 0.0008
 Mercury -48839-11-25 19:11 J -16116692.87 -16116692.70 -16116692.53 0.0089 0.0001
 Earth -48838-02-11 06:42 J -16116615.46 -16116615.22 -16116614.96 0.0089 0.0024
 Moon -48838-02-11 08:09 J -16116615.42 -16116615.16 -16116614.91 0.0089 0.0027 *
 Mercury -48838-02-21 21:49 J -16116604.76 -16116604.59 -16116604.42 0.0089 0.0007
 Mercury -48838-05-21 00:28 J -16116516.65 -16116516.48 -16116516.31 0.0089 0.0015

Mercury -48838-08-17 03:06 J -16116428.53 -16116428.37 -16116428.20 0.0089 0.0023

Mercury -48838-11-13 05:45 J -16116340.41 -16116340.26 -16116340.09 0.0089 0.0031

Mercury -48837-02-09 08:37 J -16116252.29 -16116252.14 -16116251.98 0.0089 0.0038

Moon -48837-02-13 18:28 J -16116247.94 -16116247.73 -16116247.52 0.0089 0.0048

Earth -48837-02-13 18:28 J -16116247.93 -16116247.73 -16116247.51 0.0089 0.0051 *

Mercury -48837-05-07 11:16 J -16116164.17 -16116164.03 -16116163.87 0.0089 0.0046

Mercury -48837-08-03 13:54 J -16116076.04 -16116075.92 -16116075.77 0.0089 0.0054

Mercury -48837-10-30 16:33 J -16115987.91 -16115987.81 -16115987.67 0.0089 0.0062

Mercury -48836-01-26 19:40 J -16115899.78 -16115899.68 -16115899.57 0.0089 0.0069

Moon -48836-02-15 04:47 J -16115880.39 -16115880.30 -16115880.17 0.0089 0.0081

Earth -48836-02-15 05:59 J -16115880.35 -16115880.25 -16115880.11 0.0089 0.0078 *

Mercury -48836-04-24 22:18 J -16115811.64 -16115811.57 -16115811.47 0.0089 0.0077

Mercury -48836-07-22 01:11 J -16115723.49 -16115723.45 -16115723.39 0.0089 0.0085

Mars -48810-08-09 00:28 J -16106209.52 -16106209.48 -16106209.39 0.0088 0.0087

Mars -48808-07-04 13:40 J -16105514.11 -16105513.93 -16105513.72 0.0088 0.0071

Mars -48806-05-31 03:49 J -16104818.58 -16104818.34 -16104818.05 0.0088 0.0055

Mars -48804-04-25 21:06 J -16104122.91 -16104122.62 -16104122.30 0.0088 0.0038

Mars -48802-03-22 17:16 J -16103427.09 -16103426.78 -16103426.44 0.0088 0.0020

Venus -48801-01-26 14:52 J -16103116.96 -16103116.88 -16103116.76 0.0088 0.0078

Venus -48801-09-08 05:01 J -16102891.43 -16102891.29 -16102891.11 0.0088 0.0061

Mars -48800-02-15 16:04 J -16102731.17 -16102730.83 -16102730.49 0.0088 0.0002

Venus -48800-04-21 19:11 J -16102665.88 -16102665.70 -16102665.48 0.0088 0.0044

Venus -48800-12-03 09:21 J -16102440.31 -16102440.11 -16102439.88 0.0088 0.0027

Venus -48799-07-16 23:45 J -16102214.73 -16102214.51 -16102214.28 0.0088 0.0009

Mars -48798-01-12 16:04 J -16102035.15 -16102034.83 -16102034.48 0.0088 0.0016

Venus -48798-02-27 13:54 J -16101989.14 -16101988.92 -16101988.69 0.0088 0.0008

Venus -48798-10-11 04:04 J -16101763.54 -16101763.33 -16101763.11 0.0088 0.0025

Venus -48797-05-23 17:59 J -16101537.94 -16101537.75 -16101537.54 0.0088 0.0043

Mars -48797-12-08 19:11 J -16101338.99 -16101338.70 -16101338.36 0.0088 0.0035

Venus -48796-01-04 08:09 J -16101312.32 -16101312.16 -16101311.98 0.0088 0.0060

Venus -48796-08-17 22:18 J -16101086.67 -16101086.57 -16101086.45 0.0088 0.0077

Mars -48795-11-04 23:45 J -16100642.76 -16100642.51 -16100642.20 0.0088 0.0052

Mars -48793-10-01 06:13 J -16099946.44 -16099946.24 -16099946.02 0.0088 0.0070

Mars -48791-08-28 14:09 J -16099249.92 -16099249.91 -16099249.83 0.0088 0.0088

Earth -48759-08-08 17:59 J -16087581.89 -16087581.75 -16087581.56 0.0088 0.0068

Moon -48759-08-08 22:04 J -16087581.72 -16087581.58 -16087581.42 0.0088 0.0072 *

Mercury -48759-10-07 11:16 J -16087522.06 -16087522.03 -16087521.97 0.0088 0.0085

Mercury -48758-01-03 13:25 J -16087434.01 -16087433.94 -16087433.87 0.0088 0.0078

Mercury -48758-04-01 14:52 J -16087345.95 -16087345.88 -16087345.78 0.0088 0.0072

Mercury -48758-06-28 16:47 J -16087257.89 -16087257.80 -16087257.69 0.0089 0.0065

Moon -48758-08-11 03:06 J -16087214.60 -16087214.37 -16087214.13 0.0089 0.0036

Earth -48758-08-11 05:59 J -16087214.47 -16087214.25 -16087214.01 0.0089 0.0041 *

Mercury -48758-09-24 18:57 J -16087169.82 -16087169.71 -16087169.60 0.0089 0.0058

Mercury -48758-12-21 20:23 J -16087081.76 -16087081.65 -16087081.52 0.0089 0.0052

Mercury -48757-03-18 22:33 J -16086993.69 -16086993.56 -16086993.44 0.0089 0.0045

Mercury -48757-06-14 23:59 J -16086905.62 -16086905.50 -16086905.35 0.0089 0.0039

Earth -48757-08-12 17:30 J -16086847.01 -16086846.77 -16086846.50 0.0089 0.0014

Moon -48757-08-12 20:23 J -16086846.90 -16086846.65 -16086846.38 0.0089 0.0017 *

Mercury -48757-09-11 01:54 J -16086817.55 -16086817.42 -16086817.28 0.0089 0.0032

Mercury -48757-12-08 03:35 J -16086729.48 -16086729.35 -16086729.20 0.0089 0.0026

Mercury -48756-03-06 05:30 J -16086641.41 -16086641.27 -16086641.12 0.0089 0.0019

Mercury -48756-06-02 07:11 J -16086553.34 -16086553.20 -16086553.05 0.0089 0.0013

Moon -48756-08-15 03:35 J -16086479.59 -16086479.35 -16086479.10 0.0089 0.0018

Earth -48756-08-15 05:16 J -16086479.53 -16086479.28 -16086479.02 0.0089 0.0014 *

Mercury -48756-08-29 09:06 J -16086465.27 -16086465.12 -16086464.97 0.0089 0.0006

Mercury -48756-11-25 10:47 J -16086377.19 -16086377.05 -16086376.90 0.0089 0.0001

Mercury -48755-02-21 12:28 J -16086289.12 -16086288.98 -16086288.83 0.0089 0.0007

Mercury -48755-05-20 14:09 J -16086201.05 -16086200.91 -16086200.76 0.0089 0.0014

Mercury -48755-08-16 15:49 J -16086112.97 -16086112.84 -16086112.69 0.0089 0.0020

Moon -48755-08-17 16:18 J -16086112.04 -16086111.82 -16086111.56 0.0089 0.0037

Earth -48755-08-17 16:18 J -16086112.03 -16086111.82 -16086111.57 0.0089 0.0041 *
 Mercury -48755-11-12 17:45 J -16086024.90 -16086024.76 -16086024.62 0.0089 0.0026
 Mercury -48754-02-08 19:11 J -16085936.83 -16085936.70 -16085936.56 0.0089 0.0033
 Mercury -48754-05-07 20:52 J -16085848.75 -16085848.63 -16085848.49 0.0089 0.0039
 Mercury -48754-08-03 22:47 J -16085760.67 -16085760.55 -16085760.43 0.0089 0.0045
 Earth -48754-08-20 04:18 J -16085744.49 -16085744.32 -16085744.15 0.0089 0.0067
 Moon -48754-08-20 04:47 J -16085744.44 -16085744.30 -16085744.15 0.0089 0.0071 *
 Mercury -48754-10-31 00:13 J -16085672.60 -16085672.49 -16085672.36 0.0089 0.0052
 Mercury -48753-01-27 01:54 J -16085584.52 -16085584.42 -16085584.30 0.0089 0.0058
 Mercury -48753-04-24 03:35 J -16085496.44 -16085496.35 -16085496.24 0.0089 0.0064
 Mercury -48753-07-21 05:16 J -16085408.36 -16085408.28 -16085408.18 0.0089 0.0070
 Mercury -48753-10-17 07:11 J -16085320.27 -16085320.20 -16085320.13 0.0089 0.0076
 Mercury -48752-01-13 08:23 J -16085232.18 -16085232.15 -16085232.08 0.0089 0.0083
 Mercury -48752-04-11 10:18 J -16085144.07 -16085144.07 -16085144.06 0.0089 0.0088
 Mars -48728-07-09 09:21 J -16076289.18 -16076289.11 -16076288.97 0.0089 0.0084
 Mars -48726-06-03 13:54 J -16075595.09 -16075594.92 -16075594.70 0.0089 0.0067
 Mars -48724-04-27 17:30 J -16074901.00 -16074900.77 -16074900.51 0.0089 0.0051
 Mars -48722-03-22 19:11 J -16074206.96 -16074206.70 -16074206.42 0.0089 0.0035
 Mars -48720-02-13 17:45 J -16073513.03 -16073512.76 -16073512.46 0.0089 0.0020
 Venus -48719-03-14 23:30 J -16073118.59 -16073118.52 -16073118.44 0.0089 0.0084
 Venus -48719-10-26 11:01 J -16072893.16 -16072893.04 -16072892.88 0.0089 0.0067
 Mars -48718-01-08 14:52 J -16072819.17 -16072818.88 -16072818.59 0.0089 0.0003
 Venus -48718-06-08 23:16 J -16072667.70 -16072667.53 -16072667.35 0.0089 0.0050
 Venus -48717-01-20 10:47 J -16072442.23 -16072442.05 -16072441.84 0.0089 0.0035
 Venus -48717-09-01 23:16 J -16072216.74 -16072216.53 -16072216.32 0.0089 0.0017
 Mars -48717-12-02 11:01 J -16072125.32 -16072125.04 -16072124.74 0.0089 0.0013
 Venus -48716-04-15 11:01 J -16071991.25 -16071991.04 -16071990.82 0.0089 0.0002
 Venus -48716-11-26 22:47 J -16071765.75 -16071765.55 -16071765.33 0.0089 0.0016
 Venus -48715-07-10 10:47 J -16071540.25 -16071540.05 -16071539.85 0.0089 0.0033
 Mars -48715-10-27 05:45 J -16071431.53 -16071431.26 -16071430.97 0.0089 0.0028

Venus -48714-02-20 22:18 J -16071314.73 -16071314.57 -16071314.38 0.0089 0.0050
 Venus -48714-10-04 10:04 J -16071089.20 -16071089.08 -16071088.91 0.0089 0.0067
 Venus -48713-05-16 22:18 J -16070863.64 -16070863.57 -16070863.48 0.0089 0.0082
 Mars -48713-09-19 22:18 J -16070737.81 -16070737.57 -16070737.30 0.0089 0.0044
 Mars -48711-08-14 14:52 J -16070044.08 -16070043.88 -16070043.65 0.0089 0.0058
 Mars -48709-07-08 05:16 J -16069350.42 -16069350.28 -16069350.09 0.0089 0.0073
 Mars -48707-06-01 18:13 J -16068656.76 -16068656.74 -16068656.65 0.0089 0.0088
 Earth -48677-02-03 23:59 J -16057817.61 -16057817.50 -16057817.32 0.0089 0.0073
 Moon -48677-02-04 03:21 J -16057817.51 -16057817.36 -16057817.19 0.0089 0.0070 *
 Mercury -48677-09-29 09:35 J -16057579.11 -16057579.10 -16057579.08 0.0089 0.0088
 Mercury -48677-12-26 11:59 J -16057491.06 -16057491.00 -16057490.93 0.0089 0.0081
 Moon -48676-02-05 10:04 J -16057450.27 -16057450.08 -16057449.85 0.0089 0.0048
 Earth -48676-02-05 11:45 J -16057450.21 -16057450.01 -16057449.77 0.0089 0.0046 *
 Mercury -48676-03-24 14:23 J -16057402.98 -16057402.90 -16057402.80 0.0089 0.0074
 Mercury -48676-06-20 16:47 J -16057314.89 -16057314.80 -16057314.67 0.0089 0.0067
 Mercury -48676-09-16 19:40 J -16057226.80 -16057226.68 -16057226.55 0.0089 0.0059
 Mercury -48676-12-13 22:04 J -16057138.70 -16057138.58 -16057138.43 0.0089 0.0052
 Earth -48675-02-07 23:30 J -16057082.76 -16057082.52 -16057082.25 0.0089 0.0019
 Moon -48675-02-08 00:42 J -16057082.72 -16057082.47 -16057082.20 0.0089 0.0016 *
 Mercury -48675-03-12 00:42 J -16057050.60 -16057050.47 -16057050.31 0.0089 0.0045
 Mercury -48675-06-08 03:35 J -16056962.50 -16056962.35 -16056962.19 0.0089 0.0037
 Mercury -48675-09-04 05:59 J -16056874.40 -16056874.25 -16056874.08 0.0089 0.0030
 Mercury -48675-12-01 08:52 J -16056786.30 -16056786.13 -16056785.96 0.0089 0.0022
 Earth -48674-02-10 11:30 J -16056715.27 -16056715.02 -16056714.76 0.0089 0.0009
 Moon -48674-02-10 12:13 J -16056715.23 -16056714.99 -16056714.74 0.0089 0.0007 *
 Mercury -48674-02-27 11:30 J -16056698.19 -16056698.02 -16056697.85 0.0089 0.0014
 Mercury -48674-05-26 14:09 J -16056610.08 -16056609.91 -16056609.74 0.0089 0.0007
 Mercury -48674-08-22 16:47 J -16056521.97 -16056521.80 -16056521.63 0.0089 0.0001
 Mercury -48674-11-18 19:25 J -16056433.86 -16056433.69 -16056433.51 0.0089 0.0009
 Moon -48673-02-12 20:52 J -16056347.85 -16056347.63 -16056347.37 0.0089 0.0039

Earth -48673-02-12 23:16 J -16056347.77 -16056347.53 -16056347.30 0.0089 0.0036 *
 Mercury -48673-02-14 22:18 J -16056345.74 -16056345.57 -16056345.40 0.0089 0.0016
 Mercury -48673-05-13 00:42 J -16056257.63 -16056257.47 -16056257.30 0.0089 0.0024
 Mercury -48673-08-09 03:21 J -16056169.51 -16056169.36 -16056169.19 0.0089 0.0032
 Mercury -48673-11-05 06:13 J -16056081.39 -16056081.24 -16056081.08 0.0089 0.0039
 Mercury -48672-02-01 08:52 J -16055993.27 -16055993.13 -16055992.97 0.0089 0.0047
 Earth -48672-02-14 10:18 J -16055980.22 -16055980.07 -16055979.86 0.0089 0.0064
 Moon -48672-02-14 12:42 J -16055980.12 -16055979.97 -16055979.76 0.0089 0.0061 *
 Mercury -48672-04-30 11:30 J -16055905.14 -16055905.02 -16055904.87 0.0089 0.0055
 Mercury -48672-07-27 14:09 J -16055817.01 -16055816.91 -16055816.77 0.0089 0.0063
 Mercury -48672-10-23 17:16 J -16055728.88 -16055728.78 -16055728.67 0.0089 0.0070
 Mercury -48671-01-19 19:54 J -16055640.74 -16055640.67 -16055640.58 0.0089 0.0078
 Mercury -48671-04-17 22:47 J -16055552.58 -16055552.55 -16055552.50 0.0089 0.0086
 Mars -48646-03-22 20:52 J -16046447.65 -16046447.63 -16046447.56 0.0088 0.0088
 Mars -48644-02-15 05:59 J -16045752.42 -16045752.25 -16045752.04 0.0088 0.0072
 Mars -48642-01-11 18:42 J -16045056.95 -16045056.72 -16045056.43 0.0088 0.0056
 Mars -48641-12-07 09:35 J -16044361.38 -16044361.10 -16044360.78 0.0088 0.0039
 Mars -48639-11-03 02:37 J -16043665.71 -16043665.39 -16043665.06 0.0088 0.0021
 Venus -48637-04-28 20:52 J -16043122.63 -16043122.63 -16043122.59 0.0088 0.0088
 Mars -48637-09-28 22:47 J -16042969.88 -16042969.55 -16042969.21 0.0088 0.0003
 Venus -48637-12-10 10:47 J -16042897.16 -16042897.05 -16042896.89 0.0088 0.0071
 Venus -48636-07-24 01:25 J -16042671.62 -16042671.44 -16042671.26 0.0088 0.0054
 Venus -48635-03-06 15:35 J -16042446.05 -16042445.85 -16042445.64 0.0088 0.0036
 Mars -48635-08-25 21:21 J -16042273.94 -16042273.61 -16042273.27 0.0088 0.0015
 Venus -48635-10-18 05:45 J -16042220.48 -16042220.26 -16042220.04 0.0088 0.0019
 Venus -48634-05-31 19:54 J -16041994.90 -16041994.67 -16041994.45 0.0088 0.0003
 Venus -48633-01-12 09:49 J -16041769.31 -16041769.09 -16041768.86 0.0088 0.0015
 Mars -48633-07-21 22:18 J -16041577.88 -16041577.57 -16041577.25 0.0088 0.0032
 Venus -48633-08-24 23:59 J -16041543.71 -16041543.50 -16041543.28 0.0088 0.0032
 Venus -48632-04-07 14:09 J -16041318.09 -16041317.91 -16041317.72 0.0088 0.0049

Venus -48632-11-19 04:04 J -16041092.47 -16041092.33 -16041092.17 0.0088 0.0067
 Mars -48631-06-18 00:42 J -16040881.72 -16040881.47 -16040881.16 0.0088 0.0051
 Venus -48631-07-02 18:13 J -16040866.80 -16040866.74 -16040866.66 0.0088 0.0083
 Mars -48629-05-14 06:28 J -16040185.43 -16040185.23 -16040185.00 0.0088 0.0068
 Mars -48627-04-10 11:59 J -16039489.03 -16039489.00 -16039488.89 0.0088 0.0086
 Moon -48595-08-07 17:45 J -16027681.82 -16027681.76 -16027681.64 0.0088 0.0083
 Earth -48595-08-07 20:52 J -16027681.68 -16027681.63 -16027681.52 0.0088 0.0084 *
 Mercury -48594-07-04 09:35 J -16027351.13 -16027351.10 -16027351.05 0.0088 0.0084
 Earth -48594-08-10 08:37 J -16027314.31 -16027314.14 -16027313.91 0.0088 0.0057
 Moon -48594-08-10 11:01 J -16027314.23 -16027314.04 -16027313.82 0.0088 0.0057 *
 Mercury -48594-09-30 11:30 J -16027263.08 -16027263.02 -16027262.94 0.0088 0.0078
 Mercury -48594-12-27 13:25 J -16027175.02 -16027174.94 -16027174.85 0.0088 0.0071
 Mercury -48593-03-24 15:06 J -16027086.96 -16027086.87 -16027086.76 0.0088 0.0065
 Mercury -48593-06-20 17:01 J -16026998.90 -16026998.79 -16026998.67 0.0088 0.0058
 Moon -48593-08-11 19:40 J -16026946.90 -16026946.68 -16026946.43 0.0088 0.0029
 Earth -48593-08-11 20:37 J -16026946.87 -16026946.64 -16026946.38 0.0088 0.0030 *
 Mercury -48593-09-16 18:42 J -16026910.83 -16026910.72 -16026910.59 0.0088 0.0052
 Mercury -48593-12-13 20:37 J -16026822.76 -16026822.64 -16026822.51 0.0089 0.0045
 Mercury -48592-03-11 22:18 J -16026734.69 -16026734.57 -16026734.43 0.0089 0.0039
 Mercury -48592-06-08 00:13 J -16026646.62 -16026646.49 -16026646.35 0.0089 0.0032
 Moon -48592-08-14 08:23 J -16026579.41 -16026579.15 -16026578.88 0.0089 0.0004
 Earth -48592-08-14 08:23 J -16026579.40 -16026579.15 -16026578.89 0.0089 0.0002 *
 Mercury -48592-09-04 02:09 J -16026558.55 -16026558.41 -16026558.27 0.0089 0.0025
 Mercury -48592-12-01 03:49 J -16026470.48 -16026470.34 -16026470.19 0.0089 0.0019
 Mercury -48591-02-27 05:30 J -16026382.41 -16026382.27 -16026382.12 0.0089 0.0013
 Mercury -48591-05-26 07:25 J -16026294.34 -16026294.19 -16026294.04 0.0089 0.0006
 Earth -48591-08-16 19:40 J -16026211.91 -16026211.68 -16026211.42 0.0089 0.0026
 Moon -48591-08-16 21:21 J -16026211.83 -16026211.61 -16026211.35 0.0089 0.0027 *
 Mercury -48591-08-22 09:06 J -16026206.26 -16026206.12 -16026205.97 0.0089 0.0002
 Mercury -48591-11-18 10:47 J -16026118.19 -16026118.05 -16026117.90 0.0089 0.0008

Mercury -48590-02-14 12:42 J -16026030.12 -16026029.97 -16026029.83 0.0089 0.0014
 Mercury -48590-05-13 14:23 J -16025942.04 -16025941.90 -16025941.76 0.0089 0.0020
 Mercury -48590-08-09 16:04 J -16025853.97 -16025853.83 -16025853.69 0.0089 0.0026
 Moon -48590-08-19 04:33 J -16025844.50 -16025844.31 -16025844.07 0.0089 0.0052
 Earth -48590-08-19 07:11 J -16025844.39 -16025844.20 -16025843.97 0.0089 0.0053 *
 Mercury -48590-11-05 17:45 J -16025765.89 -16025765.76 -16025765.62 0.0089 0.0033
 Mercury -48589-02-01 19:11 J -16025677.82 -16025677.70 -16025677.56 0.0089 0.0040
 Mercury -48589-04-29 20:52 J -16025589.74 -16025589.63 -16025589.49 0.0089 0.0046
 Mercury -48589-07-26 22:47 J -16025501.66 -16025501.55 -16025501.43 0.0089 0.0052
 Earth -48589-08-20 18:57 J -16025476.83 -16025476.71 -16025476.60 0.0089 0.0079
 Moon -48589-08-20 21:21 J -16025476.68 -16025476.61 -16025476.48 0.0089 0.0082 *
 Mercury -48589-10-23 00:28 J -16025413.58 -16025413.48 -16025413.37 0.0089 0.0058
 Mercury -48588-01-19 01:54 J -16025325.50 -16025325.42 -16025325.31 0.0089 0.0065
 Mercury -48588-04-17 03:35 J -16025237.42 -16025237.35 -16025237.25 0.0089 0.0071
 Mercury -48588-07-14 05:16 J -16025149.34 -16025149.28 -16025149.20 0.0089 0.0077
 Mercury -48588-10-10 06:57 J -16025061.25 -16025061.21 -16025061.15 0.0089 0.0083
 Mars -48564-02-20 22:18 J -16016526.63 -16016526.57 -16016526.45 0.0089 0.0085
 Mars -48562-01-16 06:28 J -16015832.40 -16015832.23 -16015832.03 0.0089 0.0069
 Mars -48561-12-10 11:01 J -16015138.26 -16015138.04 -16015137.78 0.0089 0.0053
 Mars -48559-11-04 13:40 J -16014444.18 -16014443.93 -16014443.64 0.0089 0.0037
 Mars -48557-09-28 15:35 J -16013750.12 -16013749.85 -16013749.54 0.0089 0.0021
 Mars -48555-08-23 15:06 J -16013056.16 -16013055.87 -16013055.57 0.0089 0.0005
 Venus -48554-01-27 19:54 J -16012898.77 -16012898.67 -16012898.56 0.0089 0.0077
 Venus -48554-09-10 07:40 J -16012673.32 -16012673.18 -16012673.01 0.0089 0.0060
 Venus -48553-04-22 19:54 J -16012447.85 -16012447.67 -16012447.48 0.0089 0.0044
 Mars -48553-07-17 11:45 J -16012362.30 -16012362.01 -16012361.72 0.0089 0.0011
 Venus -48553-12-04 07:40 J -16012222.37 -16012222.18 -16012221.97 0.0089 0.0027
 Venus -48552-07-17 19:54 J -16011996.89 -16011996.67 -16011996.46 0.0089 0.0011
 Venus -48551-02-28 07:40 J -16011771.39 -16011771.18 -16011770.97 0.0089 0.0006
 Mars -48551-06-11 07:25 J -16011668.45 -16011668.19 -16011667.90 0.0089 0.0027

Venus	-48551-10-11 19:25 J	-16011545.89	-16011545.69	-16011545.47	0.0089	0.0023
Venus	-48550-05-25 07:11 J	-16011320.38	-16011320.20	-16011319.99	0.0089	0.0040
Venus	-48549-01-05 18:57 J	-16011094.86	-16011094.71	-16011094.52	0.0089	0.0056
Mars	-48549-05-05 02:37 J	-16010974.63	-16010974.39	-16010974.12	0.0089	0.0043
Venus	-48549-08-18 07:11 J	-16010869.31	-16010869.20	-16010869.07	0.0089	0.0072
Venus	-48548-03-31 18:57 J	-16010643.71	-16010643.71	-16010643.68	0.0089	0.0089
Mars	-48547-03-29 18:57 J	-16010280.92	-16010280.71	-16010280.48	0.0089	0.0058
Mars	-48545-02-21 11:01 J	-16009587.19	-16009587.04	-16009586.86	0.0089	0.0072
Mars	-48543-01-15 02:23 J	-16008893.46	-16008893.40	-16008893.33	0.0089	0.0087
Moon	-48513-02-03 03:49 J	-15997917.39	-15997917.34	-15997917.23	0.0089	0.0084
Earth	-48513-02-03 05:16 J	-15997917.29	-15997917.28	-15997917.21	0.0089	0.0088 *
Earth	-48512-02-04 16:47 J	-15997549.96	-15997549.80	-15997549.59	0.0089	0.0061
Moon	-48512-02-04 17:16 J	-15997549.96	-15997549.78	-15997549.59	0.0089	0.0064 *
Mercury	-48512-06-26 07:11 J	-15997408.22	-15997408.20	-15997408.15	0.0089	0.0087
Mercury	-48512-09-22 09:35 J	-15997320.15	-15997320.10	-15997320.01	0.0089	0.0080
Mercury	-48512-12-19 12:13 J	-15997232.07	-15997231.99	-15997231.88	0.0089	0.0073
Earth	-48511-02-07 04:33 J	-15997182.53	-15997182.31	-15997182.05	0.0089	0.0034
Moon	-48511-02-07 05:30 J	-15997182.50	-15997182.27	-15997182.03	0.0089	0.0030 *
Mercury	-48511-03-17 15:06 J	-15997143.98	-15997143.87	-15997143.76	0.0089	0.0065
Mercury	-48511-06-13 17:30 J	-15997055.89	-15997055.77	-15997055.64	0.0089	0.0058
Mercury	-48511-09-09 19:54 J	-15996967.79	-15996967.67	-15996967.52	0.0089	0.0051
Mercury	-48511-12-06 22:47 J	-15996879.70	-15996879.55	-15996879.40	0.0089	0.0043
Moon	-48510-02-09 14:09 J	-15996815.17	-15996814.91	-15996814.65	0.0089	0.0010
Earth	-48510-02-09 16:33 J	-15996815.07	-15996814.81	-15996814.56	0.0089	0.0006 *
Mercury	-48510-03-05 01:11 J	-15996791.59	-15996791.45	-15996791.28	0.0089	0.0036
Mercury	-48510-06-01 04:04 J	-15996703.49	-15996703.33	-15996703.17	0.0089	0.0028
Mercury	-48510-08-28 06:28 J	-15996615.39	-15996615.23	-15996615.06	0.0089	0.0021
Mercury	-48510-11-24 09:21 J	-15996527.28	-15996527.11	-15996526.94	0.0089	0.0013
Earth	-48509-02-12 03:49 J	-15996447.58	-15996447.34	-15996447.08	0.0089	0.0022
Moon	-48509-02-12 06:42 J	-15996447.45	-15996447.22	-15996446.96	0.0089	0.0026 *

Mercury -48509-02-20 11:59 J -15996439.17 -15996439.00 -15996438.83 0.0089 0.0006

Mercury -48509-05-18 14:37 J -15996351.06 -15996350.89 -15996350.72 0.0089 0.0002

Mercury -48509-08-14 17:16 J -15996262.95 -15996262.78 -15996262.61 0.0089 0.0010

Mercury -48509-11-10 19:54 J -15996174.84 -15996174.67 -15996174.50 0.0089 0.0017

Mercury -48508-02-06 22:33 J -15996086.72 -15996086.56 -15996086.39 0.0089 0.0025

Moon -48508-02-13 12:13 J -15996080.20 -15996079.99 -15996079.76 0.0089 0.0045

Earth -48508-02-13 15:35 J -15996080.05 -15996079.85 -15996079.62 0.0089 0.0049 *

Mercury -48508-05-06 01:11 J -15995998.60 -15995998.45 -15995998.28 0.0089 0.0033

Mercury -48508-08-02 03:49 J -15995910.48 -15995910.34 -15995910.18 0.0089 0.0041

Mercury -48508-10-29 06:42 J -15995822.36 -15995822.22 -15995822.07 0.0089 0.0048

Mercury -48507-01-25 09:21 J -15995734.24 -15995734.11 -15995733.97 0.0089 0.0056

Earth -48507-02-16 03:21 J -15995712.48 -15995712.36 -15995712.22 0.0089 0.0076

Moon -48507-02-16 07:11 J -15995712.30 -15995712.20 -15995712.09 0.0089 0.0080 *

Mercury -48507-04-23 11:59 J -15995646.11 -15995646.00 -15995645.87 0.0089 0.0064

Mercury -48507-07-20 14:37 J -15995557.97 -15995557.89 -15995557.77 0.0089 0.0072

Mercury -48507-10-16 17:16 J -15995469.83 -15995469.78 -15995469.68 0.0089 0.0080

Mercury -48506-01-12 20:37 J -15995381.67 -15995381.64 -15995381.61 0.0089 0.0087

Mars -48481-09-29 01:40 J -15985990.58 -15985990.43 -15985990.21 0.0088 0.0073

Mars -48479-08-25 11:30 J -15985295.25 -15985295.02 -15985294.75 0.0088 0.0057

Mars -48477-07-21 00:28 J -15984599.76 -15984599.48 -15984599.17 0.0088 0.0040

Mars -48475-06-16 16:18 J -15983904.13 -15983903.82 -15983903.48 0.0088 0.0023

Mars -48473-05-12 09:49 J -15983208.42 -15983208.09 -15983207.75 0.0088 0.0005

Venus -48472-03-13 17:16 J -15982902.85 -15982902.78 -15982902.66 0.0088 0.0080

Venus -48472-10-25 07:25 J -15982677.33 -15982677.19 -15982677.01 0.0088 0.0063

Mars -48471-04-08 05:59 J -15982512.58 -15982512.25 -15982511.91 0.0088 0.0013

Venus -48471-06-07 21:35 J -15982451.78 -15982451.60 -15982451.39 0.0088 0.0046

Venus -48470-01-19 11:45 J -15982226.21 -15982226.01 -15982225.78 0.0088 0.0029

Venus -48470-09-02 02:09 J -15982000.63 -15982000.41 -15982000.18 0.0088 0.0012

Mars -48469-03-04 04:47 J -15981816.60 -15981816.30 -15981815.97 0.0088 0.0031

Venus -48469-04-14 16:18 J -15981775.05 -15981774.82 -15981774.59 0.0088 0.0005

Venus -48469-11-26 06:13 J -15981549.45 -15981549.24 -15981549.01 0.0088 0.0023
 Venus -48468-07-09 20:23 J -15981323.85 -15981323.65 -15981323.44 0.0088 0.0039
 Mars -48467-01-29 05:45 J -15981120.53 -15981120.26 -15981119.97 0.0088 0.0049
 Venus -48467-02-20 10:33 J -15981098.23 -15981098.06 -15981097.88 0.0088 0.0056
 Venus -48467-10-04 00:42 J -15980872.59 -15980872.47 -15980872.34 0.0088 0.0073
 Mars -48466-12-26 08:23 J -15980424.35 -15980424.15 -15980423.91 0.0088 0.0068
 Mars -48464-11-21 13:40 J -15979727.99 -15979727.93 -15979727.82 0.0088 0.0085
 Earth -48430-08-09 11:59 J -15967414.12 -15967414.00 -15967413.82 0.0088 0.0073
 Moon -48430-08-09 12:13 J -15967414.10 -15967413.99 -15967413.86 0.0088 0.0077 *
 Mercury -48429-03-30 08:09 J -15967180.20 -15967180.16 -15967180.12 0.0088 0.0084
 Mercury -48429-06-26 09:35 J -15967092.15 -15967092.10 -15967092.01 0.0088 0.0078
 Moon -48429-08-10 23:01 J -15967046.77 -15967046.54 -15967046.29 0.0088 0.0041
 Earth -48429-08-11 00:13 J -15967046.70 -15967046.49 -15967046.26 0.0088 0.0045 *
 Mercury -48429-09-22 11:45 J -15967004.09 -15967004.01 -15967003.92 0.0088 0.0071
 Mercury -48429-12-19 13:40 J -15966916.03 -15966915.93 -15966915.83 0.0088 0.0064
 Mercury -48428-03-17 15:21 J -15966827.97 -15966827.86 -15966827.74 0.0088 0.0057
 Mercury -48428-06-13 17:16 J -15966739.90 -15966739.78 -15966739.66 0.0088 0.0051
 Earth -48428-08-13 11:59 J -15966679.25 -15966679.00 -15966678.74 0.0088 0.0017
 Moon -48428-08-13 13:40 J -15966679.17 -15966678.93 -15966678.68 0.0088 0.0022 *
 Mercury -48428-09-09 18:57 J -15966651.83 -15966651.71 -15966651.57 0.0088 0.0044
 Mercury -48428-12-06 20:52 J -15966563.76 -15966563.63 -15966563.49 0.0089 0.0038
 Mercury -48427-03-04 22:47 J -15966475.69 -15966475.55 -15966475.41 0.0089 0.0031
 Mercury -48427-06-01 00:28 J -15966387.62 -15966387.48 -15966387.34 0.0089 0.0025
 Moon -48427-08-15 20:23 J -15966311.90 -15966311.65 -15966311.38 0.0089 0.0015
 Earth -48427-08-15 23:45 J -15966311.77 -15966311.51 -15966311.25 0.0089 0.0010 *
 Mercury -48427-08-28 02:09 J -15966299.55 -15966299.41 -15966299.26 0.0089 0.0018
 Mercury -48427-11-24 04:04 J -15966211.48 -15966211.33 -15966211.18 0.0089 0.0011
 Mercury -48426-02-20 05:45 J -15966123.40 -15966123.26 -15966123.11 0.0089 0.0005
 Mercury -48426-05-19 07:40 J -15966035.33 -15966035.18 -15966035.04 0.0089 0.0002
 Mercury -48426-08-15 09:21 J -15965947.26 -15965947.11 -15965946.96 0.0089 0.0008

Earth -48426-08-18 10:47 J -15965944.27 -15965944.05 -15965943.80 0.0089 0.0038
 Moon -48426-08-18 14:23 J -15965944.13 -15965943.90 -15965943.66 0.0089 0.0033 *
 Mercury -48426-11-11 11:01 J -15965859.18 -15965859.04 -15965858.89 0.0089 0.0014
 Mercury -48425-02-07 12:42 J -15965771.11 -15965770.97 -15965770.83 0.0089 0.0021
 Mercury -48425-05-05 14:23 J -15965683.03 -15965682.90 -15965682.76 0.0089 0.0027
 Mercury -48425-08-01 16:04 J -15965594.96 -15965594.83 -15965594.69 0.0089 0.0034
 Moon -48425-08-19 18:42 J -15965576.86 -15965576.72 -15965576.54 0.0089 0.0069
 Earth -48425-08-19 22:04 J -15965576.73 -15965576.58 -15965576.38 0.0089 0.0065 *
 Mercury -48425-10-28 17:45 J -15965506.88 -15965506.76 -15965506.62 0.0089 0.0040
 Mercury -48424-01-24 19:40 J -15965418.81 -15965418.68 -15965418.56 0.0089 0.0046
 Mercury -48424-04-22 21:06 J -15965330.73 -15965330.62 -15965330.50 0.0089 0.0053
 Mercury -48424-07-19 22:47 J -15965242.65 -15965242.55 -15965242.43 0.0089 0.0059
 Moon -48424-08-22 12:57 J -15965208.99 -15965208.96 -15965208.89 0.0089 0.0087
 Mercury -48424-10-16 00:28 J -15965154.57 -15965154.48 -15965154.37 0.0089 0.0065
 Mercury -48423-01-12 02:23 J -15965066.49 -15965066.40 -15965066.32 0.0089 0.0071
 Mercury -48423-04-10 03:35 J -15964978.40 -15964978.35 -15964978.26 0.0089 0.0078
 Mercury -48423-07-07 05:16 J -15964890.31 -15964890.28 -15964890.22 0.0089 0.0084
 Mars -48401-10-05 12:13 J -15956764.02 -15956763.99 -15956763.91 0.0089 0.0087
 Mars -48399-08-30 21:06 J -15956069.78 -15956069.62 -15956069.42 0.0089 0.0071
 Mars -48397-07-25 04:33 J -15955375.53 -15955375.31 -15955375.05 0.0089 0.0055
 Mars -48395-06-19 09:35 J -15954681.35 -15954681.10 -15954680.81 0.0089 0.0039
 Mars -48393-05-13 11:30 J -15953987.30 -15953987.02 -15953986.72 0.0089 0.0023
 Jupiter -48392-04-09 21:06 J -15953656.03 -15953655.62 -15953655.16 0.0089 0.0050
 Mars -48391-04-07 13:11 J -15953293.24 -15953292.95 -15953292.65 0.0089 0.0006
 Venus -48390-05-01 04:18 J -15952904.36 -15952904.32 -15952904.25 0.0089 0.0086
 Venus -48390-12-12 16:04 J -15952678.94 -15952678.83 -15952678.67 0.0089 0.0070
 Mars -48389-03-01 11:59 J -15952599.28 -15952599.00 -15952598.70 0.0089 0.0011
 Venus -48389-07-25 04:18 J -15952453.48 -15952453.32 -15952453.14 0.0089 0.0054
 Venus -48388-03-07 16:18 J -15952228.00 -15952227.82 -15952227.61 0.0089 0.0037
 Venus -48388-10-19 04:18 J -15952002.52 -15952002.32 -15952002.10 0.0089 0.0020

Mars	-48387-01-24 08:23 J	-15951905.42	-15951905.15	-15951904.86	0.0089	0.0026
Venus	-48387-06-01 16:18 J	-15951777.03	-15951776.82	-15951776.60	0.0089	0.0004
Venus	-48386-01-13 04:04 J	-15951551.53	-15951551.33	-15951551.11	0.0089	0.0013
Venus	-48386-08-26 16:04 J	-15951326.02	-15951325.83	-15951325.62	0.0089	0.0030
Mars	-48386-12-19 03:49 J	-15951211.59	-15951211.34	-15951211.07	0.0089	0.0042
Venus	-48385-04-08 03:49 J	-15951100.51	-15951100.34	-15951100.14	0.0089	0.0046
Venus	-48385-11-19 15:35 J	-15950874.98	-15950874.85	-15950874.68	0.0089	0.0063
Venus	-48384-07-03 03:35 J	-15950649.44	-15950649.35	-15950649.24	0.0089	0.0079
Mars	-48384-11-11 23:16 J	-15950517.75	-15950517.53	-15950517.30	0.0089	0.0057
Mars	-48382-10-06 16:04 J	-15949824.00	-15949823.83	-15949823.66	0.0089	0.0072
Mars	-48380-08-30 07:11 J	-15949130.24	-15949130.20	-15949130.10	0.0089	0.0087
Earth	-48348-02-03 21:49 J	-15937649.70	-15937649.59	-15937649.44	0.0089	0.0076
Moon	-48348-02-03 23:59 J	-15937649.62	-15937649.50	-15937649.36	0.0089	0.0075 *
Moon	-48347-02-06 06:57 J	-15937282.41	-15937282.21	-15937281.98	0.0089	0.0050
Earth	-48347-02-06 09:21 J	-15937282.31	-15937282.11	-15937281.88	0.0089	0.0049 *
Mercury	-48347-03-23 05:01 J	-15937237.31	-15937237.29	-15937237.23	0.0089	0.0086
Mercury	-48347-06-19 07:54 J	-15937149.24	-15937149.17	-15937149.09	0.0089	0.0078
Mercury	-48347-09-15 10:18 J	-15937061.16	-15937061.07	-15937060.96	0.0089	0.0071
Mercury	-48347-12-12 12:42 J	-15936973.07	-15936972.97	-15936972.84	0.0089	0.0064
Earth	-48346-02-08 21:06 J	-15936914.87	-15936914.62	-15936914.37	0.0089	0.0021
Moon	-48346-02-09 00:28 J	-15936914.73	-15936914.48	-15936914.23	0.0089	0.0019 *
Mercury	-48346-03-10 15:06 J	-15936884.98	-15936884.87	-15936884.72	0.0089	0.0057
Mercury	-48346-06-06 17:59 J	-15936796.89	-15936796.75	-15936796.61	0.0089	0.0049
Mercury	-48346-09-02 20:23 J	-15936708.79	-15936708.65	-15936708.49	0.0089	0.0042
Mercury	-48346-11-29 23:16 J	-15936620.69	-15936620.53	-15936620.38	0.0089	0.0034
Moon	-48345-02-11 05:16 J	-15936547.54	-15936547.28	-15936547.02	0.0089	0.0005
Earth	-48345-02-11 08:52 J	-15936547.39	-15936547.13	-15936546.87	0.0089	0.0006 *
Mercury	-48345-02-26 01:40 J	-15936532.58	-15936532.43	-15936532.26	0.0089	0.0027
Mercury	-48345-05-24 04:18 J	-15936444.48	-15936444.32	-15936444.15	0.0089	0.0020
Mercury	-48345-08-20 06:57 J	-15936356.37	-15936356.21	-15936356.04	0.0089	0.0012

Mercury -48345-11-16 09:35 J -15936268.27 -15936268.10 -15936267.93 0.0089 0.0005

Mercury -48344-02-12 12:13 J -15936180.16 -15936179.99 -15936179.82 0.0089 0.0004

Earth -48344-02-12 20:23 J -15936179.89 -15936179.65 -15936179.41 0.0089 0.0034 *

Moon -48344-02-12 23:30 J -15936179.74 -15936179.52 -15936179.27 0.0089 0.0037 *

Mercury -48344-05-11 14:52 J -15936092.05 -15936091.88 -15936091.71 0.0089 0.0011

Mercury -48344-08-07 17:30 J -15936003.93 -15936003.77 -15936003.60 0.0089 0.0019

Mercury -48344-11-03 20:23 J -15935915.82 -15935915.65 -15935915.49 0.0089 0.0026

Mercury -48343-01-30 22:47 J -15935827.70 -15935827.55 -15935827.38 0.0089 0.0034

Moon -48343-02-15 04:33 J -15935812.47 -15935812.31 -15935812.10 0.0089 0.0060

Earth -48343-02-15 07:40 J -15935812.34 -15935812.18 -15935811.97 0.0089 0.0062 *

Mercury -48343-04-29 01:25 J -15935739.58 -15935739.44 -15935739.28 0.0089 0.0042

Mercury -48343-07-26 04:04 J -15935651.46 -15935651.33 -15935651.17 0.0089 0.0050

Mercury -48343-10-22 07:11 J -15935563.33 -15935563.20 -15935563.07 0.0089 0.0057

Mercury -48342-01-18 09:35 J -15935475.20 -15935475.10 -15935474.97 0.0089 0.0065

Mercury -48342-04-16 12:13 J -15935387.07 -15935386.99 -15935386.87 0.0089 0.0073

Mercury -48342-07-13 15:06 J -15935298.93 -15935298.87 -15935298.78 0.0089 0.0081

Mercury -48342-10-09 17:59 J -15935210.75 -15935210.75 -15935210.72 0.0089 0.0088

Mars -48317-05-13 00:57 J -15926228.63 -15926228.46 -15926228.28 0.0088 0.0074

Mars -48315-04-08 08:37 J -15925533.37 -15925533.14 -15925532.88 0.0088 0.0057

Mars -48313-03-03 18:42 J -15924838.00 -15924837.72 -15924837.42 0.0088 0.0041

Mars -48311-01-28 07:25 J -15924142.50 -15924142.19 -15924141.86 0.0088 0.0023

Mars -48310-12-24 23:45 J -15923446.84 -15923446.51 -15923446.17 0.0088 0.0006

Mars -48308-11-19 17:16 J -15922751.11 -15922750.78 -15922750.44 0.0088 0.0012

Venus -48307-01-26 14:09 J -15922683.02 -15922682.91 -15922682.76 0.0088 0.0072

Venus -48307-09-09 04:18 J -15922457.48 -15922457.32 -15922457.13 0.0088 0.0055

Venus -48306-04-22 18:28 J -15922231.93 -15922231.73 -15922231.52 0.0088 0.0038

Mars -48306-10-16 13:11 J -15922055.25 -15922054.95 -15922054.61 0.0088 0.0030

Venus -48306-12-04 08:37 J -15922006.36 -15922006.14 -15922005.92 0.0088 0.0021

Venus -48305-07-16 22:47 J -15921780.78 -15921780.55 -15921780.33 0.0088 0.0004

Venus -48304-02-27 12:42 J -15921555.19 -15921554.97 -15921554.73 0.0088 0.0013

Mars -48304-09-11 12:13 J -15921359.25 -15921358.99 -15921358.68 0.0088 0.0049
 Venus -48304-10-11 02:37 J -15921329.59 -15921329.39 -15921329.16 0.0088 0.0031
 Venus -48303-05-24 16:47 J -15921103.98 -15921103.80 -15921103.59 0.0088 0.0047
 Venus -48302-01-05 06:42 J -15920878.35 -15920878.22 -15920878.04 0.0088 0.0064
 Mars -48302-08-08 13:54 J -15920663.12 -15920662.92 -15920662.68 0.0088 0.0066
 Venus -48302-08-18 20:37 J -15920652.70 -15920652.64 -15920652.52 0.0088 0.0081
 Mars -48300-07-04 16:47 J -15919966.87 -15919966.80 -15919966.67 0.0088 0.0084
 Moon -48266-08-08 14:37 J -15907513.89 -15907513.89 -15907513.86 0.0088 0.0088
 Earth -48266-08-08 15:49 J -15907513.84 -15907513.84 -15907513.80 0.0088 0.0088
 Earth -48265-08-10 03:49 J -15907146.51 -15907146.34 -15907146.14 0.0088 0.0061
 Moon -48265-08-10 06:13 J -15907146.40 -15907146.24 -15907146.03 0.0088 0.0061 *
 Mercury -48265-12-25 06:13 J -15907009.28 -15907009.24 -15907009.18 0.0088 0.0083
 Mercury -48264-03-23 08:09 J -15906921.22 -15906921.16 -15906921.08 0.0088 0.0077
 Mercury -48264-06-19 10:18 J -15906833.16 -15906833.07 -15906832.98 0.0088 0.0070
 Moon -48264-08-12 12:28 J -15906779.20 -15906778.98 -15906778.72 0.0088 0.0034
 Earth -48264-08-12 15:35 J -15906779.07 -15906778.85 -15906778.59 0.0088 0.0034 *
 Mercury -48264-09-15 11:45 J -15906745.10 -15906745.01 -15906744.89 0.0088 0.0064
 Mercury -48264-12-12 13:40 J -15906657.03 -15906656.93 -15906656.81 0.0088 0.0057
 Mercury -48263-03-10 15:21 J -15906568.97 -15906568.86 -15906568.72 0.0088 0.0051
 Mercury -48263-06-06 17:30 J -15906480.90 -15906480.77 -15906480.64 0.0088 0.0043
 Earth -48263-08-15 03:35 J -15906411.60 -15906411.35 -15906411.09 0.0088 0.0006
 Moon -48263-08-15 07:25 J -15906411.45 -15906411.19 -15906410.93 0.0088 0.0006 *
 Mercury -48263-09-02 19:25 J -15906392.83 -15906392.69 -15906392.56 0.0088 0.0037
 Mercury -48263-11-29 21:06 J -15906304.76 -15906304.62 -15906304.48 0.0088 0.0030
 Mercury -48262-02-25 23:01 J -15906216.68 -15906216.54 -15906216.40 0.0088 0.0024
 Mercury -48262-05-25 00:42 J -15906128.61 -15906128.47 -15906128.32 0.0088 0.0017
 Moon -48262-08-17 11:59 J -15906044.24 -15906044.00 -15906043.75 0.0088 0.0022
 Earth -48262-08-17 15:06 J -15906044.11 -15906043.87 -15906043.61 0.0088 0.0023 *
 Mercury -48262-08-21 02:37 J -15906040.54 -15906040.39 -15906040.25 0.0088 0.0011
 Mercury -48262-11-17 04:18 J -15905952.47 -15905952.32 -15905952.17 0.0089 0.0004

Mercury -48261-02-13 05:59 J -15905864.39 -15905864.25 -15905864.10 0.0089 0.0004

Mercury -48261-05-11 07:54 J -15905776.32 -15905776.17 -15905776.03 0.0089 0.0009

Mercury -48261-08-07 09:35 J -15905688.24 -15905688.10 -15905687.96 0.0089 0.0015

Earth -48261-08-19 02:37 J -15905676.59 -15905676.39 -15905676.17 0.0089 0.0050

Moon -48261-08-19 05:45 J -15905676.47 -15905676.26 -15905676.03 0.0089 0.0049 *

Mercury -48261-11-03 11:16 J -15905600.17 -15905600.03 -15905599.88 0.0089 0.0022

Mercury -48260-01-30 12:57 J -15905512.09 -15905511.96 -15905511.82 0.0089 0.0028

Mercury -48260-04-28 14:37 J -15905424.02 -15905423.89 -15905423.75 0.0089 0.0035

Mercury -48260-07-25 16:18 J -15905335.94 -15905335.82 -15905335.68 0.0089 0.0041

Moon -48260-08-21 11:59 J -15905309.11 -15905309.00 -15905308.87 0.0089 0.0078

Earth -48260-08-21 13:40 J -15905309.02 -15905308.93 -15905308.77 0.0089 0.0078 *

Mercury -48260-10-21 18:13 J -15905247.86 -15905247.74 -15905247.62 0.0089 0.0047

Mercury -48259-01-17 19:40 J -15905159.78 -15905159.68 -15905159.55 0.0089 0.0054

Mercury -48259-04-15 21:21 J -15905071.71 -15905071.61 -15905071.49 0.0089 0.0060

Mercury -48259-07-12 23:16 J -15904983.62 -15904983.53 -15904983.43 0.0089 0.0066

Mercury -48259-10-09 00:57 J -15904895.54 -15904895.46 -15904895.38 0.0089 0.0072

Mercury -48258-01-05 02:23 J -15904807.45 -15904807.40 -15904807.32 0.0089 0.0079

Mercury -48258-04-03 04:04 J -15904719.36 -15904719.33 -15904719.28 0.0089 0.0085

Mars -48235-04-14 11:59 J -15896307.16 -15896307.00 -15896306.82 0.0089 0.0073

Mars -48233-03-08 19:54 J -15895612.88 -15895612.67 -15895612.41 0.0089 0.0057

Mars -48231-02-01 02:38 J -15894918.63 -15894918.39 -15894918.10 0.0089 0.0041

Mars -48230-12-27 08:09 J -15894224.43 -15894224.16 -15894223.86 0.0089 0.0024

Mars -48228-11-20 10:04 J -15893530.37 -15893530.08 -15893529.78 0.0089 0.0008

Jupiter -48226-06-04 13:54 J -15892969.28 -15892968.92 -15892968.48 0.0089 0.0059

Mars -48226-10-15 11:02 J -15892836.32 -15892836.04 -15892835.73 0.0089 0.0010

Venus -48225-03-15 00:57 J -15892684.53 -15892684.46 -15892684.34 0.0089 0.0080

Venus -48225-10-26 13:26 J -15892459.09 -15892458.94 -15892458.79 0.0089 0.0063

Venus -48224-06-09 01:11 J -15892233.62 -15892233.45 -15892233.26 0.0089 0.0046

Mars -48224-09-08 10:33 J -15892142.32 -15892142.06 -15892141.76 0.0089 0.0026

Venus -48223-01-20 13:11 J -15892008.14 -15892007.95 -15892007.74 0.0089 0.0030

Venus -48223-09-03 01:26 J -15891782.65 -15891782.44 -15891782.22 0.0089 0.0013

Venus -48222-04-16 13:26 J -15891557.15 -15891556.94 -15891556.72 0.0089 0.0003

Mars -48222-08-03 06:57 J -15891448.45 -15891448.21 -15891447.93 0.0089 0.0042

Venus -48222-11-28 01:26 J -15891331.65 -15891331.44 -15891331.23 0.0089 0.0020

Venus -48221-07-10 12:57 J -15891106.14 -15891105.96 -15891105.75 0.0089 0.0036

Venus -48220-02-21 00:57 J -15890880.62 -15890880.46 -15890880.28 0.0089 0.0053

Mars -48220-06-27 01:54 J -15890754.62 -15890754.42 -15890754.17 0.0089 0.0057

Venus -48220-10-04 12:42 J -15890655.08 -15890654.97 -15890654.82 0.0089 0.0069

Venus -48219-05-18 00:42 J -15890429.52 -15890429.47 -15890429.40 0.0089 0.0085

Mars -48218-05-21 20:38 J -15890060.79 -15890060.64 -15890060.44 0.0089 0.0072

Mars -48216-04-14 13:26 J -15889366.98 -15889366.94 -15889366.83 0.0089 0.0087

Moon -48184-02-02 23:59 J -15877749.52 -15877749.50 -15877749.41 0.0089 0.0087

Earth -48183-02-05 14:52 J -15877382.04 -15877381.88 -15877381.68 0.0089 0.0064

Moon -48183-02-05 18:28 J -15877381.88 -15877381.73 -15877381.56 0.0089 0.0068 *

Mercury -48183-12-18 03:06 J -15877066.40 -15877066.37 -15877066.30 0.0089 0.0084

Moon -48182-02-07 23:02 J -15877014.77 -15877014.54 -15877014.29 0.0089 0.0032

Earth -48182-02-08 02:52 J -15877014.61 -15877014.38 -15877014.14 0.0089 0.0036 *

Mercury -48182-03-16 05:45 J -15876978.33 -15876978.26 -15876978.17 0.0089 0.0077

Mercury -48182-06-12 08:38 J -15876890.25 -15876890.14 -15876890.04 0.0089 0.0069

Mercury -48182-09-08 10:47 J -15876802.16 -15876802.05 -15876801.92 0.0089 0.0062

Mercury -48182-12-05 13:26 J -15876714.06 -15876713.94 -15876713.80 0.0089 0.0055

Earth -48181-02-10 14:23 J -15876647.15 -15876646.90 -15876646.64 0.0089 0.0008

Moon -48181-02-10 17:45 J -15876647.02 -15876646.76 -15876646.50 0.0089 0.0013 *

Mercury -48181-03-02 16:04 J -15876625.97 -15876625.83 -15876625.68 0.0089 0.0047

Mercury -48181-05-29 18:28 J -15876537.87 -15876537.73 -15876537.57 0.0089 0.0040

Mercury -48181-08-25 21:06 J -15876449.77 -15876449.62 -15876449.46 0.0089 0.0033

Mercury -48181-11-21 23:45 J -15876361.67 -15876361.51 -15876361.34 0.0089 0.0025

Moon -48180-02-11 23:30 J -15876279.75 -15876279.52 -15876279.27 0.0089 0.0024

Earth -48180-02-12 01:54 J -15876279.66 -15876279.42 -15876279.16 0.0089 0.0020 *

Mercury -48180-02-18 02:23 J -15876273.56 -15876273.40 -15876273.23 0.0089 0.0018

Mercury -48180-05-17 05:02 J -15876185.46 -15876185.29 -15876185.12 0.0089 0.0010

Mercury -48180-08-13 07:40 J -15876097.35 -15876097.18 -15876097.01 0.0089 0.0003

Mercury -48180-11-09 10:18 J -15876009.24 -15876009.07 -15876008.90 0.0089 0.0005

Mercury -48179-02-05 12:57 J -15875921.13 -15875920.96 -15875920.79 0.0089 0.0013

Earth -48179-02-14 13:40 J -15875912.15 -15875911.93 -15875911.71 0.0089 0.0047

Moon -48179-02-14 15:21 J -15875912.09 -15875911.86 -15875911.62 0.0089 0.0043 *

Mercury -48179-05-04 15:35 J -15875833.02 -15875832.85 -15875832.68 0.0089 0.0020

Mercury -48179-07-31 18:14 J -15875744.90 -15875744.74 -15875744.58 0.0089 0.0028

Mercury -48179-10-27 20:38 J -15875656.78 -15875656.64 -15875656.47 0.0089 0.0036

Mercury -48178-01-23 23:16 J -15875568.67 -15875568.53 -15875568.36 0.0089 0.0044

Earth -48178-02-17 00:57 J -15875544.58 -15875544.46 -15875544.31 0.0089 0.0075

Moon -48178-02-17 00:28 J -15875544.56 -15875544.48 -15875544.34 0.0089 0.0080 *

Mercury -48178-04-22 02:09 J -15875480.54 -15875480.41 -15875480.26 0.0089 0.0051

Mercury -48178-07-19 04:47 J -15875392.42 -15875392.30 -15875392.16 0.0089 0.0059

Mercury -48178-10-15 07:26 J -15875304.29 -15875304.19 -15875304.06 0.0089 0.0067

Mercury -48177-01-11 10:33 J -15875216.15 -15875216.06 -15875215.97 0.0089 0.0074

Mercury -48177-04-08 13:11 J -15875128.01 -15875127.95 -15875127.88 0.0089 0.0082

Mars -48154-12-26 02:38 J -15866466.52 -15866466.39 -15866466.19 0.0088 0.0075

Mars -48152-11-20 08:23 J -15865771.38 -15865771.15 -15865770.90 0.0088 0.0059

Mars -48150-10-16 17:02 J -15865076.08 -15865075.79 -15865075.50 0.0088 0.0042

Mars -48148-09-11 03:21 J -15864380.66 -15864380.36 -15864380.03 0.0088 0.0025

Mars -48146-08-07 16:18 J -15863685.15 -15863684.82 -15863684.48 0.0088 0.0007

Mars -48144-07-03 09:21 J -15862989.44 -15862989.11 -15862988.78 0.0088 0.0011

Venus -48143-04-29 21:50 J -15862688.67 -15862688.59 -15862688.49 0.0088 0.0080

Venus -48143-12-11 11:59 J -15862463.16 -15862463.00 -15862462.85 0.0088 0.0064

Mars -48142-05-30 03:21 J -15862293.67 -15862293.36 -15862293.04 0.0088 0.0029

Venus -48142-07-25 01:26 J -15862237.61 -15862237.44 -15862237.23 0.0088 0.0047

Venus -48141-03-06 15:50 J -15862012.04 -15862011.84 -15862011.62 0.0088 0.0030

Venus -48141-10-18 05:59 J -15861786.47 -15861786.25 -15861786.02 0.0088 0.0013

Mars -48140-04-24 23:30 J -15861597.79 -15861597.52 -15861597.22 0.0088 0.0047

Venus	-48140-05-31 19:54 J	-15861560.89	-15861560.67	-15861560.44	0.0088	0.0004
Venus	-48139-01-12 09:50 J	-15861335.30	-15861335.09	-15861334.86	0.0088	0.0021
Venus	-48139-08-26 00:14 J	-15861109.70	-15861109.49	-15861109.29	0.0088	0.0038
Mars	-48138-03-21 22:47 J	-15860901.77	-15860901.55	-15860901.32	0.0088	0.0065
Venus	-48138-04-08 14:09 J	-15860884.08	-15860883.91	-15860883.73	0.0088	0.0054
Venus	-48138-11-20 04:04 J	-15860658.45	-15860658.33	-15860658.19	0.0088	0.0071
Venus	-48137-07-02 18:28 J	-15860432.73	-15860432.73	-15860432.73	0.0088	0.0088
Mars	-48136-02-14 23:59 J	-15860205.58	-15860205.50	-15860205.37	0.0088	0.0083
Moon	-48101-08-09 04:47 J	-15847246.39	-15847246.30	-15847246.18	0.0088	0.0081
Earth	-48101-08-09 08:09 J	-15847246.26	-15847246.16	-15847246.00	0.0088	0.0077 *
Earth	-48100-08-11 20:09 J	-15846878.86	-15846878.66	-15846878.43	0.0088	0.0049
Moon	-48100-08-11 23:30 J	-15846878.73	-15846878.52	-15846878.28	0.0088	0.0044 *
Mercury	-48100-09-21 04:47 J	-15846838.34	-15846838.30	-15846838.24	0.0088	0.0082
Mercury	-48100-12-18 06:42 J	-15846750.29	-15846750.22	-15846750.14	0.0088	0.0076
Mercury	-48099-03-16 08:38 J	-15846662.23	-15846662.14	-15846662.04	0.0088	0.0069
Mercury	-48099-06-12 10:18 J	-15846574.16	-15846574.07	-15846573.95	0.0088	0.0063
Moon	-48099-08-14 04:33 J	-15846511.55	-15846511.31	-15846511.06	0.0088	0.0026
Earth	-48099-08-14 08:09 J	-15846511.41	-15846511.16	-15846510.90	0.0088	0.0021 *
Mercury	-48099-09-08 12:14 J	-15846486.10	-15846485.99	-15846485.87	0.0088	0.0056
Mercury	-48099-12-05 13:54 J	-15846398.03	-15846397.92	-15846397.78	0.0088	0.0050
Mercury	-48098-03-03 15:50 J	-15846309.96	-15846309.84	-15846309.70	0.0088	0.0043
Mercury	-48098-05-30 17:59 J	-15846221.89	-15846221.75	-15846221.62	0.0088	0.0036
Earth	-48098-08-16 19:40 J	-15846143.93	-15846143.68	-15846143.42	0.0088	0.0007
Moon	-48098-08-16 22:18 J	-15846143.83	-15846143.57	-15846143.31	0.0088	0.0012 *
Mercury	-48098-08-26 19:40 J	-15846133.82	-15846133.68	-15846133.54	0.0088	0.0029
Mercury	-48098-11-22 21:35 J	-15846045.74	-15846045.60	-15846045.46	0.0088	0.0023
Mercury	-48097-02-18 23:16 J	-15845957.67	-15845957.53	-15845957.38	0.0088	0.0016
Mercury	-48097-05-17 01:11 J	-15845869.60	-15845869.45	-15845869.31	0.0088	0.0010
Mercury	-48097-08-13 02:52 J	-15845781.53	-15845781.38	-15845781.23	0.0088	0.0003
Moon	-48097-08-18 05:45 J	-15845776.48	-15845776.26	-15845776.02	0.0088	0.0031

Earth -48097-08-18 07:26 J -15845776.42 -15845776.19 -15845775.95 0.0088 0.0035 *
 Mercury -48097-11-09 04:33 J -15845693.45 -15845693.31 -15845693.16 0.0088 0.0005
 Mercury -48096-02-05 06:28 J -15845605.38 -15845605.23 -15845605.08 0.0089 0.0010
 Mercury -48096-05-04 08:09 J -15845517.30 -15845517.16 -15845517.01 0.0089 0.0016
 Mercury -48096-07-31 09:50 J -15845429.23 -15845429.09 -15845428.94 0.0089 0.0023
 Earth -48096-08-20 18:42 J -15845408.88 -15845408.72 -15845408.52 0.0089 0.0063
 Moon -48096-08-20 19:40 J -15845408.84 -15845408.68 -15845408.49 0.0089 0.0067 *
 Mercury -48096-10-27 11:30 J -15845341.15 -15845341.02 -15845340.87 0.0089 0.0030
 Mercury -48095-01-23 13:26 J -15845253.07 -15845252.94 -15845252.81 0.0089 0.0036
 Mercury -48095-04-21 15:06 J -15845165.00 -15845164.87 -15845164.74 0.0089 0.0042
 Mercury -48095-07-18 16:33 J -15845076.92 -15845076.81 -15845076.68 0.0089 0.0049
 Moon -48095-08-23 07:26 J -15845041.24 -15845041.19 -15845041.12 0.0089 0.0086
 Mercury -48095-10-14 18:28 J -15844988.84 -15844988.73 -15844988.61 0.0089 0.0055
 Mercury -48094-01-10 20:09 J -15844900.76 -15844900.66 -15844900.55 0.0089 0.0061
 Mercury -48094-04-08 21:35 J -15844812.68 -15844812.60 -15844812.49 0.0089 0.0068
 Mercury -48094-07-05 23:16 J -15844724.59 -15844724.53 -15844724.44 0.0089 0.0074
 Mercury -48094-10-02 01:11 J -15844636.50 -15844636.45 -15844636.38 0.0089 0.0080
 Mercury -48094-12-29 02:52 J -15844548.41 -15844548.38 -15844548.34 0.0089 0.0086
 Mars -48072-11-27 02:23 J -15836544.56 -15836544.40 -15836544.24 0.0089 0.0076
 Mars -48070-10-22 12:42 J -15835850.17 -15835849.97 -15835849.72 0.0089 0.0059
 Mars -48068-09-15 20:52 J -15835155.87 -15835155.63 -15835155.34 0.0089 0.0043
 Mars -48066-08-11 03:35 J -15834461.64 -15834461.35 -15834461.06 0.0089 0.0026
 Mars -48064-07-05 08:23 J -15833767.44 -15833767.15 -15833766.85 0.0089 0.0009
 Mars -48062-05-30 10:04 J -15833073.37 -15833073.08 -15833072.77 0.0089 0.0008
 Venus -48061-06-16 09:50 J -15832690.10 -15832690.09 -15832690.04 0.0089 0.0089
 Venus -48060-01-27 21:50 J -15832464.69 -15832464.59 -15832464.44 0.0089 0.0072
 Mars -48060-04-23 10:04 J -15832379.35 -15832379.08 -15832378.78 0.0089 0.0024
 Venus -48060-09-10 10:18 J -15832239.22 -15832239.07 -15832238.89 0.0089 0.0056
 Venus -48059-04-23 22:18 J -15832013.75 -15832013.57 -15832013.37 0.0089 0.0039
 Venus -48059-12-05 10:33 J -15831788.26 -15831788.06 -15831787.85 0.0089 0.0023

Mars -48058-03-18 09:21 J -15831685.36 -15831685.11 -15831684.83 0.0089 0.0040
 Venus -48058-07-18 22:33 J -15831562.77 -15831562.56 -15831562.35 0.0089 0.0006
 Venus -48057-02-29 10:33 J -15831337.27 -15831337.06 -15831336.85 0.0089 0.0010
 Venus -48057-10-11 22:33 J -15831111.76 -15831111.56 -15831111.36 0.0089 0.0027
 Mars -48056-02-09 05:45 J -15830991.46 -15830991.26 -15830991.01 0.0089 0.0056
 Venus -48056-05-25 10:04 J -15830886.25 -15830886.08 -15830885.88 0.0089 0.0043
 Venus -48055-01-05 22:04 J -15830660.72 -15830660.58 -15830660.41 0.0089 0.0060
 Venus -48055-08-19 10:18 J -15830435.18 -15830435.07 -15830434.96 0.0089 0.0076
 Mars -48054-01-04 00:14 J -15830297.63 -15830297.49 -15830297.28 0.0089 0.0072
 Mars -48053-11-27 19:11 J -15829603.77 -15829603.70 -15829603.61 0.0089 0.0086
 Moon -48019-02-04 17:02 J -15817481.87 -15817481.79 -15817481.65 0.0089 0.0080
 Earth -48019-02-04 21:06 J -15817481.73 -15817481.62 -15817481.51 0.0089 0.0079 *
 Earth -48018-02-07 08:38 J -15817114.35 -15817114.14 -15817113.93 0.0089 0.0051
 Moon -48018-02-07 11:30 J -15817114.21 -15817114.02 -15817113.80 0.0089 0.0053 *
 Mercury -48018-09-14 01:26 J -15816895.49 -15816895.44 -15816895.37 0.0089 0.0082
 Mercury -48018-12-11 03:50 J -15816807.41 -15816807.34 -15816807.24 0.0089 0.0075
 Moon -48017-02-09 17:59 J -15816746.98 -15816746.75 -15816746.50 0.0089 0.0023
 Earth -48017-02-09 20:23 J -15816746.90 -15816746.65 -15816746.40 0.0089 0.0023 *
 Mercury -48017-03-08 06:14 J -15816719.33 -15816719.24 -15816719.11 0.0089 0.0068
 Mercury -48017-06-04 09:06 J -15816631.24 -15816631.12 -15816630.99 0.0089 0.0060
 Mercury -48017-08-31 11:30 J -15816543.15 -15816543.02 -15816542.88 0.0089 0.0053
 Mercury -48017-11-27 13:54 J -15816455.05 -15816454.92 -15816454.76 0.0089 0.0046
 Earth -48016-02-11 07:40 J -15816379.43 -15816379.18 -15816378.92 0.0089 0.0005
 Moon -48016-02-11 08:38 J -15816379.41 -15816379.14 -15816378.87 0.0089 0.0004 *
 Mercury -48016-02-23 16:47 J -15816366.95 -15816366.80 -15816366.65 0.0089 0.0038
 Mercury -48016-05-22 19:11 J -15816278.85 -15816278.70 -15816278.53 0.0089 0.0031
 Mercury -48016-08-18 21:50 J -15816190.75 -15816190.59 -15816190.42 0.0089 0.0023
 Mercury -48016-11-15 00:28 J -15816102.64 -15816102.48 -15816102.31 0.0089 0.0016
 Mercury -48015-02-11 03:06 J -15816014.54 -15816014.37 -15816014.20 0.0089 0.0008
 Earth -48015-02-13 19:11 J -15816011.93 -15816011.70 -15816011.45 0.0089 0.0033

Moon	-48015-02-13 19:11 J	-15816011.92	-15816011.70	-15816011.46	0.0089	0.0034	*
Mercury	-48015-05-10 05:45 J	-15815926.43	-15815926.26	-15815926.09	0.0089	0.0001	
Mercury	-48015-08-06 08:23 J	-15815838.32	-15815838.15	-15815837.98	0.0089	0.0007	
Mercury	-48015-11-02 10:47 J	-15815750.21	-15815750.05	-15815749.87	0.0089	0.0015	
Mercury	-48014-01-29 13:40 J	-15815662.10	-15815661.93	-15815661.76	0.0089	0.0022	
Moon	-48014-02-16 05:02 J	-15815644.46	-15815644.29	-15815644.07	0.0089	0.0060	
Earth	-48014-02-16 06:42 J	-15815644.38	-15815644.22	-15815644.01	0.0089	0.0061	*
Mercury	-48014-04-27 16:04 J	-15815573.98	-15815573.83	-15815573.66	0.0089	0.0030	
Mercury	-48014-07-24 18:42 J	-15815485.86	-15815485.72	-15815485.55	0.0089	0.0038	
Mercury	-48014-10-20 21:35 J	-15815397.74	-15815397.60	-15815397.45	0.0089	0.0045	
Mercury	-48013-01-17 00:14 J	-15815309.62	-15815309.49	-15815309.35	0.0089	0.0053	
Earth	-48013-02-18 18:28 J	-15815276.73	-15815276.73	-15815276.70	0.0089	0.0089	
Mercury	-48013-04-14 02:52 J	-15815221.50	-15815221.38	-15815221.25	0.0089	0.0061	
Mercury	-48013-07-11 05:16 J	-15815133.37	-15815133.28	-15815133.15	0.0089	0.0069	
Mercury	-48013-10-07 08:23 J	-15815045.23	-15815045.15	-15815045.06	0.0089	0.0076	
Mercury	-48012-01-03 11:02 J	-15814957.08	-15814957.04	-15814956.98	0.0089	0.0084	

48TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 48th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-47990-08-09 08:52 J	-15806704.28	-15806704.13	-15806703.96	0.0088	0.0076		
Mars	-47988-07-04 11:16 J	-15806009.25	-15806009.03	-15806008.78	0.0088	0.0060		

Mars	-47986-05-30 16:47 J	-15805314.06	-15805313.80	-15805313.49	0.0088	0.0043
Mars	-47984-04-25 02:09 J	-15804618.72	-15804618.41	-15804618.09	0.0088	0.0025
Mars	-47982-03-21 13:26 J	-15803923.26	-15803922.94	-15803922.60	0.0088	0.0008
Mars	-47980-02-14 03:06 J	-15803227.70	-15803227.37	-15803227.04	0.0088	0.0010
Mars	-47978-01-10 19:54 J	-15802531.98	-15802531.67	-15802531.35	0.0088	0.0029
Venus	-47978-03-14 19:11 J	-15802468.80	-15802468.70	-15802468.54	0.0088	0.0073
Venus	-47978-10-26 09:21 J	-15802243.27	-15802243.11	-15802242.91	0.0088	0.0056
Venus	-47977-06-07 23:30 J	-15802017.71	-15802017.52	-15802017.30	0.0088	0.0039
Mars	-47977-12-06 14:09 J	-15801836.16	-15801835.91	-15801835.59	0.0088	0.0047
Venus	-47976-01-19 13:54 J	-15801792.14	-15801791.92	-15801791.70	0.0088	0.0021
Venus	-47976-09-02 03:50 J	-15801566.57	-15801566.34	-15801566.11	0.0088	0.0005
Venus	-47975-04-15 17:45 J	-15801340.98	-15801340.76	-15801340.53	0.0088	0.0012
Mars	-47975-11-02 10:33 J	-15801140.25	-15801140.06	-15801139.79	0.0088	0.0066
Venus	-47975-11-27 07:40 J	-15801115.38	-15801115.18	-15801114.96	0.0088	0.0029
Venus	-47974-07-10 21:35 J	-15800889.78	-15800889.60	-15800889.39	0.0088	0.0046
Venus	-47973-02-21 11:59 J	-15800664.15	-15800664.00	-15800663.84	0.0088	0.0063
Mars	-47973-09-28 09:50 J	-15800444.16	-15800444.09	-15800443.93	0.0088	0.0084
Venus	-47973-10-04 01:54 J	-15800438.50	-15800438.42	-15800438.31	0.0088	0.0079
Moon	-47936-08-10 23:16 J	-15786978.68	-15786978.53	-15786978.33	0.0088	0.0063
Earth	-47936-08-11 02:09 J	-15786978.56	-15786978.41	-15786978.21	0.0088	0.0064 *
Mercury	-47935-03-22 01:40 J	-15786755.44	-15786755.43	-15786755.40	0.0088	0.0087
Mercury	-47935-06-18 03:35 J	-15786667.40	-15786667.35	-15786667.28	0.0088	0.0081
Earth	-47935-08-13 13:54 J	-15786611.15	-15786610.92	-15786610.67	0.0088	0.0036
Moon	-47935-08-13 16:33 J	-15786611.04	-15786610.81	-15786610.56	0.0088	0.0036 *
Mercury	-47935-09-14 05:45 J	-15786579.34	-15786579.26	-15786579.18	0.0088	0.0074
Mercury	-47935-12-11 07:11 J	-15786491.28	-15786491.20	-15786491.09	0.0088	0.0068
Mercury	-47934-03-09 09:21 J	-15786403.21	-15786403.11	-15786403.00	0.0088	0.0060
Mercury	-47934-06-05 11:16 J	-15786315.15	-15786315.03	-15786314.91	0.0088	0.0054
Moon	-47934-08-16 00:42 J	-15786243.72	-15786243.47	-15786243.22	0.0088	0.0007
Earth	-47934-08-16 01:54 J	-15786243.68	-15786243.42	-15786243.16	0.0088	0.0008 *

Mercury -47934-09-01 12:57 J -15786227.08 -15786226.96 -15786226.83 0.0088 0.0047
 Mercury -47934-11-28 14:52 J -15786139.01 -15786138.88 -15786138.75 0.0088 0.0041
 Mercury -47933-02-24 16:33 J -15786050.94 -15786050.81 -15786050.66 0.0088 0.0034
 Mercury -47933-05-22 18:28 J -15785962.87 -15785962.73 -15785962.58 0.0088 0.0028
 Moon -47933-08-17 13:11 J -15785876.21 -15785875.95 -15785875.68 0.0088 0.0019
 Earth -47933-08-17 13:26 J -15785876.19 -15785875.94 -15785875.68 0.0088 0.0020 *
 Mercury -47933-08-18 20:23 J -15785874.79 -15785874.65 -15785874.51 0.0088 0.0021
 Mercury -47933-11-14 22:04 J -15785786.72 -15785786.58 -15785786.43 0.0088 0.0015
 Mercury -47932-02-10 23:59 J -15785698.65 -15785698.50 -15785698.35 0.0088 0.0008
 Mercury -47932-05-10 01:40 J -15785610.57 -15785610.43 -15785610.28 0.0088 0.0003
 Mercury -47932-08-06 03:35 J -15785522.50 -15785522.35 -15785522.20 0.0088 0.0005
 Earth -47932-08-20 00:42 J -15785508.67 -15785508.47 -15785508.24 0.0088 0.0049
 Moon -47932-08-20 01:54 J -15785508.62 -15785508.42 -15785508.21 0.0088 0.0049 *
 Mercury -47932-11-02 05:16 J -15785434.42 -15785434.28 -15785434.13 0.0088 0.0012
 Mercury -47931-01-29 06:57 J -15785346.35 -15785346.21 -15785346.06 0.0088 0.0018
 Mercury -47931-04-27 08:52 J -15785258.27 -15785258.13 -15785257.99 0.0088 0.0025
 Mercury -47931-07-24 10:18 J -15785170.20 -15785170.07 -15785169.92 0.0089 0.0032
 Moon -47931-08-22 09:21 J -15785141.21 -15785141.11 -15785140.94 0.0089 0.0076
 Earth -47931-08-22 12:14 J -15785141.10 -15785140.99 -15785140.84 0.0089 0.0077 *
 Mercury -47931-10-20 12:14 J -15785082.12 -15785081.99 -15785081.85 0.0089 0.0037
 Mercury -47930-01-16 13:54 J -15784994.04 -15784993.92 -15784993.79 0.0089 0.0044
 Mercury -47930-04-14 15:35 J -15784905.96 -15784905.85 -15784905.72 0.0089 0.0050
 Mercury -47930-07-11 17:16 J -15784817.88 -15784817.78 -15784817.66 0.0089 0.0057
 Mercury -47930-10-07 19:11 J -15784729.80 -15784729.70 -15784729.60 0.0089 0.0063
 Mercury -47929-01-03 20:52 J -15784641.72 -15784641.63 -15784641.54 0.0089 0.0069
 Mercury -47929-03-31 22:18 J -15784553.63 -15784553.57 -15784553.48 0.0089 0.0076
 Mercury -47929-06-27 23:59 J -15784465.54 -15784465.50 -15784465.43 0.0089 0.0082
 Mercury -47929-09-24 01:40 J -15784377.43 -15784377.43 -15784377.40 0.0089 0.0088
 Mars -47908-07-11 15:21 J -15776781.97 -15776781.86 -15776781.68 0.0089 0.0078
 Mars -47906-06-06 04:33 J -15776087.51 -15776087.31 -15776087.06 0.0089 0.0062

Mars	-47904-04-30 15:50 J	-15775393.08	-15775392.84	-15775392.56	0.0089	0.0044
Mars	-47902-03-25 23:45 J	-15774698.78	-15774698.51	-15774698.20	0.0089	0.0027
Mars	-47900-02-17 05:30 J	-15774004.56	-15774004.27	-15774003.97	0.0089	0.0010
Mars	-47898-01-12 09:50 J	-15773310.38	-15773310.09	-15773309.79	0.0089	0.0007
Mars	-47897-12-06 11:59 J	-15772616.28	-15772616.00	-15772615.70	0.0089	0.0023
Venus	-47896-05-01 07:54 J	-15772470.24	-15772470.17	-15772470.06	0.0089	0.0081
Venus	-47896-12-12 19:54 J	-15772244.80	-15772244.67	-15772244.51	0.0089	0.0064
Venus	-47895-07-26 08:23 J	-15772019.33	-15772019.15	-15772018.97	0.0089	0.0048
Mars	-47895-10-31 11:16 J	-15771922.28	-15771922.03	-15771921.75	0.0089	0.0040
Venus	-47894-03-08 20:09 J	-15771793.85	-15771793.66	-15771793.45	0.0089	0.0032
Venus	-47894-10-20 08:09 J	-15771568.36	-15771568.16	-15771567.94	0.0089	0.0015
Venus	-47893-06-01 20:23 J	-15771342.86	-15771342.65	-15771342.44	0.0089	0.0001
Mars	-47893-09-24 10:33 J	-15771228.27	-15771228.06	-15771227.81	0.0089	0.0056
Venus	-47892-01-13 08:23 J	-15771117.36	-15771117.15	-15771116.94	0.0089	0.0018
Venus	-47892-08-26 20:09 J	-15770891.84	-15770891.66	-15770891.45	0.0089	0.0034
Venus	-47891-04-09 08:09 J	-15770666.32	-15770666.16	-15770665.97	0.0089	0.0050
Mars	-47891-08-19 06:57 J	-15770534.35	-15770534.21	-15770534.00	0.0089	0.0072
Venus	-47891-11-20 20:09 J	-15770440.79	-15770440.66	-15770440.51	0.0089	0.0067
Venus	-47890-07-04 08:09 J	-15770215.24	-15770215.16	-15770215.08	0.0089	0.0083
Mars	-47889-07-13 01:26 J	-15769840.48	-15769840.44	-15769840.33	0.0089	0.0086
Moon	-47854-02-06 12:57 J	-15757214.09	-15757213.96	-15757213.79	0.0089	0.0071
Earth	-47854-02-06 14:38 J	-15757214.03	-15757213.89	-15757213.70	0.0089	0.0067 *
Earth	-47853-02-09 02:09 J	-15756846.62	-15756846.41	-15756846.15	0.0089	0.0039
Moon	-47853-02-09 03:06 J	-15756846.60	-15756846.37	-15756846.11	0.0089	0.0034 *
Mercury	-47853-03-13 21:21 J	-15756812.63	-15756812.61	-15756812.57	0.0089	0.0087
Mercury	-47853-06-09 23:45 J	-15756724.57	-15756724.51	-15756724.43	0.0089	0.0080
Mercury	-47853-09-06 02:09 J	-15756636.49	-15756636.41	-15756636.30	0.0089	0.0073
Mercury	-47853-12-03 04:47 J	-15756548.40	-15756548.30	-15756548.18	0.0089	0.0065
Earth	-47852-02-10 14:23 J	-15756479.16	-15756478.90	-15756478.64	0.0089	0.0010
Moon	-47852-02-10 15:06 J	-15756479.10	-15756478.87	-15756478.61	0.0089	0.0015 *

Mercury -47852-03-01 07:11 J -15756460.31 -15756460.20 -15756460.06 0.0089 0.0058
 Mercury -47852-05-28 09:35 J -15756372.22 -15756372.10 -15756371.94 0.0089 0.0051
 Mercury -47852-08-24 12:28 J -15756284.12 -15756283.98 -15756283.83 0.0089 0.0043
 Mercury -47852-11-20 14:52 J -15756196.02 -15756195.88 -15756195.72 0.0089 0.0036
 Moon -47851-02-12 23:59 J -15756111.74 -15756111.50 -15756111.22 0.0089 0.0023
 Earth -47851-02-13 02:09 J -15756111.66 -15756111.41 -15756111.16 0.0089 0.0018 *
 Mercury -47851-02-16 17:45 J -15756107.92 -15756107.76 -15756107.60 0.0089 0.0028
 Mercury -47851-05-15 20:09 J -15756019.82 -15756019.66 -15756019.49 0.0089 0.0021
 Mercury -47851-08-11 22:47 J -15755931.72 -15755931.55 -15755931.38 0.0089 0.0013
 Mercury -47851-11-08 01:26 J -15755843.61 -15755843.44 -15755843.27 0.0089 0.0006
 Mercury -47850-02-04 04:04 J -15755755.50 -15755755.33 -15755755.16 0.0089 0.0002
 Earth -47850-02-15 13:11 J -15755744.15 -15755743.95 -15755743.71 0.0089 0.0047
 Moon -47850-02-15 16:18 J -15755744.03 -15755743.82 -15755743.59 0.0089 0.0042 *
 Mercury -47850-05-03 06:28 J -15755667.39 -15755667.23 -15755667.05 0.0089 0.0010
 Mercury -47850-07-30 09:06 J -15755579.28 -15755579.12 -15755578.95 0.0089 0.0017
 Mercury -47850-10-26 11:45 J -15755491.17 -15755491.01 -15755490.84 0.0089 0.0025
 Mercury -47849-01-22 14:38 J -15755403.05 -15755402.89 -15755402.73 0.0089 0.0032
 Moon -47849-02-17 21:06 J -15755376.70 -15755376.62 -15755376.47 0.0089 0.0080
 Earth -47849-02-18 00:57 J -15755376.57 -15755376.46 -15755376.30 0.0089 0.0075 *
 Mercury -47849-04-19 17:02 J -15755314.94 -15755314.79 -15755314.63 0.0089 0.0040
 Mercury -47849-07-16 19:40 J -15755226.82 -15755226.68 -15755226.53 0.0089 0.0048
 Mercury -47849-10-12 22:33 J -15755138.69 -15755138.56 -15755138.43 0.0089 0.0055
 Mercury -47848-01-09 01:11 J -15755050.57 -15755050.45 -15755050.33 0.0089 0.0063
 Mercury -47848-04-07 03:35 J -15754962.44 -15754962.35 -15754962.23 0.0089 0.0071
 Mercury -47848-07-04 06:14 J -15754874.30 -15754874.24 -15754874.14 0.0089 0.0079
 Mercury -47848-09-30 08:52 J -15754786.14 -15754786.13 -15754786.07 0.0089 0.0087
 Mars -47826-03-23 16:47 J -15746941.92 -15746941.80 -15746941.61 0.0088 0.0078
 Mars -47824-02-15 18:42 J -15746246.93 -15746246.72 -15746246.46 0.0088 0.0061
 Mars -47822-01-11 22:47 J -15745551.83 -15745551.55 -15745551.27 0.0088 0.0044
 Mars -47821-12-07 04:18 J -15744856.62 -15744856.32 -15744856.00 0.0088 0.0026

Mars	-47819-11-02 13:26 J	-15744161.26	-15744160.94	-15744160.61	0.0088	0.0009
Mars	-47817-09-28 01:11 J	-15743465.77	-15743465.45	-15743465.12	0.0088	0.0010
Mars	-47815-08-24 14:38 J	-15742770.19	-15742769.89	-15742769.55	0.0088	0.0028
Venus	-47814-06-16 03:50 J	-15742474.43	-15742474.34	-15742474.24	0.0088	0.0080
Venus	-47813-01-27 17:30 J	-15742248.90	-15742248.77	-15742248.59	0.0088	0.0064
Mars	-47813-07-20 07:26 J	-15742074.45	-15742074.19	-15742073.88	0.0088	0.0046
Venus	-47813-09-09 07:54 J	-15742023.35	-15742023.17	-15742022.97	0.0088	0.0046
Venus	-47812-04-22 22:04 J	-15741797.79	-15741797.58	-15741797.36	0.0088	0.0029
Venus	-47812-12-04 11:59 J	-15741572.22	-15741572.00	-15741571.77	0.0088	0.0013
Mars	-47811-06-16 03:21 J	-15741378.56	-15741378.36	-15741378.11	0.0088	0.0065
Venus	-47811-07-18 02:09 J	-15741346.64	-15741346.41	-15741346.19	0.0088	0.0004
Venus	-47810-02-28 15:50 J	-15741121.05	-15741120.84	-15741120.60	0.0088	0.0021
Venus	-47810-10-12 05:59 J	-15740895.45	-15740895.25	-15740895.03	0.0088	0.0038
Mars	-47809-05-12 00:14 J	-15740682.58	-15740682.49	-15740682.34	0.0088	0.0082
Venus	-47809-05-24 19:54 J	-15740669.84	-15740669.67	-15740669.48	0.0088	0.0054
Venus	-47808-01-05 09:35 J	-15740444.21	-15740444.10	-15740443.94	0.0088	0.0071
Venus	-47808-08-18 23:59 J	-15740218.51	-15740218.50	-15740218.46	0.0088	0.0087
Earth	-47772-08-10 09:21 J	-15727078.22	-15727078.11	-15727077.98	0.0088	0.0078
Moon	-47772-08-10 10:47 J	-15727078.13	-15727078.05	-15727077.94	0.0088	0.0082 *
Moon	-47771-08-12 19:54 J	-15726710.87	-15726710.67	-15726710.44	0.0088	0.0046
Earth	-47771-08-12 20:38 J	-15726710.83	-15726710.64	-15726710.41	0.0088	0.0051 *
Mercury	-47771-12-17 00:28 J	-15726584.50	-15726584.48	-15726584.42	0.0088	0.0086
Mercury	-47770-03-15 02:23 J	-15726496.45	-15726496.40	-15726496.32	0.0088	0.0079
Mercury	-47770-06-11 04:33 J	-15726408.39	-15726408.31	-15726408.22	0.0088	0.0072
Moon	-47770-08-15 07:54 J	-15726343.41	-15726343.17	-15726342.90	0.0088	0.0027
Earth	-47770-08-15 08:23 J	-15726343.39	-15726343.15	-15726342.88	0.0088	0.0022 *
Mercury	-47770-09-07 06:14 J	-15726320.33	-15726320.24	-15726320.13	0.0088	0.0065
Mercury	-47770-12-04 08:09 J	-15726232.26	-15726232.16	-15726232.04	0.0088	0.0059
Mercury	-47769-03-01 10:04 J	-15726144.19	-15726144.08	-15726143.95	0.0088	0.0052
Mercury	-47769-05-28 11:45 J	-15726056.12	-15726056.01	-15726055.87	0.0088	0.0046

Earth -47769-08-16 20:09 J -15725975.91 -15725975.66 -15725975.40 0.0088 0.0006
 Moon -47769-08-16 22:04 J -15725975.82 -15725975.58 -15725975.32 0.0088 0.0010 *
 Mercury -47769-08-24 13:40 J -15725968.05 -15725967.93 -15725967.79 0.0088 0.0039
 Mercury -47769-11-20 15:50 J -15725879.98 -15725879.84 -15725879.70 0.0088 0.0032
 Mercury -47768-02-16 17:30 J -15725791.91 -15725791.77 -15725791.63 0.0088 0.0025
 Mercury -47768-05-15 19:26 J -15725703.84 -15725703.69 -15725703.55 0.0088 0.0019
 Mercury -47768-08-11 21:06 J -15725615.76 -15725615.62 -15725615.47 0.0088 0.0012
 Moon -47768-08-19 04:47 J -15725608.53 -15725608.30 -15725608.03 0.0088 0.0031
 Earth -47768-08-19 07:40 J -15725608.41 -15725608.18 -15725607.93 0.0088 0.0034 *
 Mercury -47768-11-07 23:02 J -15725527.69 -15725527.54 -15725527.39 0.0088 0.0006
 Mercury -47767-02-04 00:42 J -15725439.62 -15725439.47 -15725439.32 0.0088 0.0001
 Mercury -47767-05-03 02:38 J -15725351.54 -15725351.39 -15725351.25 0.0088 0.0008
 Mercury -47767-07-30 04:18 J -15725263.47 -15725263.32 -15725263.17 0.0088 0.0014
 Earth -47767-08-21 18:57 J -15725240.88 -15725240.71 -15725240.51 0.0088 0.0063
 Moon -47767-08-21 22:18 J -15725240.71 -15725240.57 -15725240.39 0.0088 0.0068 *
 Mercury -47767-10-26 05:59 J -15725175.39 -15725175.25 -15725175.10 0.0088 0.0021
 Mercury -47766-01-22 07:54 J -15725087.31 -15725087.17 -15725087.03 0.0088 0.0027
 Mercury -47766-04-20 09:21 J -15724999.24 -15724999.11 -15724998.97 0.0088 0.0034
 Mercury -47766-07-17 11:16 J -15724911.16 -15724911.03 -15724910.90 0.0088 0.0040
 Moon -47766-08-24 02:52 J -15724873.41 -15724873.38 -15724873.29 0.0088 0.0087
 Mercury -47766-10-13 12:42 J -15724823.08 -15724822.97 -15724822.83 0.0088 0.0047
 Mercury -47765-01-09 14:38 J -15724735.00 -15724734.89 -15724734.77 0.0088 0.0053
 Mercury -47765-04-06 16:18 J -15724646.92 -15724646.82 -15724646.70 0.0089 0.0059
 Mercury -47765-07-03 18:14 J -15724558.84 -15724558.74 -15724558.64 0.0089 0.0065
 Mercury -47765-09-29 19:40 J -15724470.75 -15724470.68 -15724470.58 0.0089 0.0072
 Mercury -47765-12-26 21:21 J -15724382.66 -15724382.61 -15724382.53 0.0089 0.0078
 Mercury -47764-03-24 23:16 J -15724294.57 -15724294.53 -15724294.48 0.0089 0.0084
 Mars -47744-02-23 06:14 J -15717019.37 -15717019.24 -15717019.11 0.0089 0.0080
 Mars -47742-01-18 20:52 J -15716324.83 -15716324.63 -15716324.40 0.0089 0.0063
 Mars -47741-12-13 08:38 J -15715630.38 -15715630.14 -15715629.85 0.0089 0.0047

Mars -47739-11-07 19:40 J -15714935.95 -15714935.68 -15714935.38 0.0089 0.0029
 Mars -47737-10-02 03:50 J -15714241.64 -15714241.34 -15714241.04 0.0089 0.0011
 Mars -47735-08-27 09:21 J -15713547.41 -15713547.11 -15713546.81 0.0089 0.0006
 Mars -47733-07-21 12:42 J -15712853.25 -15712852.97 -15712852.67 0.0089 0.0022
 Venus -47732-08-02 18:14 J -15712475.75 -15712475.74 -15712475.69 0.0089 0.0088
 Venus -47731-03-16 06:14 J -15712250.35 -15712250.24 -15712250.10 0.0089 0.0072
 Mars -47731-06-15 15:06 J -15712159.13 -15712158.87 -15712158.60 0.0089 0.0039
 Venus -47731-10-27 17:59 J -15712024.89 -15712024.75 -15712024.56 0.0089 0.0057
 Venus -47730-06-10 06:28 J -15711799.42 -15711799.23 -15711799.04 0.0089 0.0040
 Venus -47729-01-21 18:28 J -15711573.93 -15711573.73 -15711573.52 0.0089 0.0023
 Mars -47729-05-09 13:40 J -15711465.14 -15711464.93 -15711464.67 0.0089 0.0055
 Venus -47729-09-03 06:42 J -15711348.43 -15711348.22 -15711348.01 0.0089 0.0007
 Venus -47728-04-16 18:42 J -15711122.93 -15711122.72 -15711122.51 0.0089 0.0009
 Venus -47728-11-28 06:42 J -15710897.42 -15710897.22 -15710897.02 0.0089 0.0025
 Mars -47727-04-03 12:42 J -15710771.14 -15710770.97 -15710770.78 0.0089 0.0071
 Venus -47727-07-11 18:14 J -15710671.91 -15710671.74 -15710671.53 0.0089 0.0042
 Venus -47726-02-22 06:14 J -15710446.38 -15710446.24 -15710446.06 0.0089 0.0058
 Venus -47726-10-05 18:28 J -15710220.83 -15710220.73 -15710220.60 0.0089 0.0074
 Mars -47725-02-26 09:06 J -15710077.16 -15710077.12 -15710077.01 0.0089 0.0087
 Earth -47690-02-05 21:35 J -15697313.67 -15697313.60 -15697313.47 0.0089 0.0082
 Moon -47690-02-05 21:50 J -15697313.67 -15697313.59 -15697313.47 0.0089 0.0082 *
 Earth -47689-02-08 09:50 J -15696946.29 -15696946.09 -15696945.88 0.0089 0.0053
 Moon -47689-02-08 10:18 J -15696946.24 -15696946.07 -15696945.85 0.0089 0.0054 *
 Mercury -47689-12-08 19:26 J -15696641.71 -15696641.69 -15696641.62 0.0089 0.0085
 Moon -47688-02-09 18:42 J -15696578.95 -15696578.72 -15696578.45 0.0089 0.0026
 Earth -47688-02-09 21:35 J -15696578.84 -15696578.60 -15696578.35 0.0089 0.0025 *
 Mercury -47688-03-06 22:18 J -15696553.64 -15696553.57 -15696553.48 0.0089 0.0077
 Mercury -47688-06-03 00:42 J -15696465.56 -15696465.47 -15696465.36 0.0089 0.0070
 Mercury -47688-08-30 03:06 J -15696377.47 -15696377.37 -15696377.24 0.0089 0.0063
 Mercury -47688-11-26 05:59 J -15696289.38 -15696289.25 -15696289.12 0.0089 0.0055

Earth -47687-02-12 09:21 J -15696211.36 -15696211.11 -15696210.85 0.0089 0.0004
 Moon -47687-02-12 12:28 J -15696211.23 -15696210.98 -15696210.73 0.0089 0.0004 *
 Mercury -47687-02-22 08:23 J -15696201.28 -15696201.15 -15696201.00 0.0089 0.0048
 Mercury -47687-05-21 10:47 J -15696113.19 -15696113.05 -15696112.89 0.0089 0.0041
 Mercury -47687-08-17 13:26 J -15696025.09 -15696024.94 -15696024.78 0.0089 0.0033
 Mercury -47687-11-13 16:04 J -15695936.99 -15695936.83 -15695936.66 0.0089 0.0026
 Mercury -47686-02-09 18:42 J -15695848.88 -15695848.72 -15695848.55 0.0089 0.0018
 Moon -47686-02-14 17:30 J -15695844.00 -15695843.77 -15695843.52 0.0089 0.0033
 Earth -47686-02-14 20:52 J -15695843.85 -15695843.63 -15695843.37 0.0089 0.0033 *
 Mercury -47686-05-08 21:21 J -15695760.78 -15695760.61 -15695760.44 0.0089 0.0011
 Mercury -47686-08-04 23:59 J -15695672.67 -15695672.50 -15695672.33 0.0089 0.0003
 Mercury -47686-11-01 02:38 J -15695584.56 -15695584.39 -15695584.22 0.0089 0.0005
 Mercury -47685-01-28 05:02 J -15695496.45 -15695496.29 -15695496.12 0.0089 0.0012
 Earth -47685-02-17 08:38 J -15695476.32 -15695476.14 -15695475.94 0.0089 0.0061
 Moon -47685-02-17 11:59 J -15695476.17 -15695476.00 -15695475.79 0.0089 0.0061 *
 Mercury -47685-04-25 07:40 J -15695408.34 -15695408.18 -15695408.01 0.0089 0.0020
 Mercury -47685-07-22 10:18 J -15695320.23 -15695320.07 -15695319.90 0.0089 0.0028
 Mercury -47685-10-18 12:57 J -15695232.11 -15695231.96 -15695231.80 0.0089 0.0035
 Mercury -47684-01-14 15:35 J -15695143.99 -15695143.85 -15695143.69 0.0089 0.0043
 Mercury -47684-04-12 17:59 J -15695055.87 -15695055.75 -15695055.59 0.0089 0.0051
 Mercury -47684-07-09 21:06 J -15694967.75 -15694967.62 -15694967.49 0.0089 0.0058
 Mercury -47684-10-05 23:30 J -15694879.62 -15694879.52 -15694879.39 0.0089 0.0066
 Mercury -47683-01-02 02:09 J -15694791.49 -15694791.41 -15694791.30 0.0089 0.0074
 Mercury -47683-03-31 04:47 J -15694703.35 -15694703.30 -15694703.22 0.0089 0.0082
 Mars -47663-11-05 04:47 J -15687179.41 -15687179.30 -15687179.13 0.0088 0.0079
 Mars -47661-09-30 03:06 J -15686484.56 -15686484.37 -15686484.11 0.0088 0.0063
 Mars -47659-08-26 04:47 J -15685789.54 -15685789.30 -15685788.99 0.0088 0.0046
 Mars -47657-07-21 10:04 J -15685094.38 -15685094.08 -15685093.76 0.0088 0.0028
 Mars -47655-06-16 16:33 J -15684399.12 -15684398.81 -15684398.48 0.0088 0.0010
 Mars -47653-05-12 02:23 J -15683703.73 -15683703.40 -15683703.07 0.0088 0.0008

Mars -47651-04-07 14:23 J -15683008.19 -15683007.90 -15683007.56 0.0088 0.0027
 Jupiter -47651-12-22 02:09 J -15682749.91 -15682749.41 -15682748.83 0.0088 0.0026
 Venus -47650-09-17 12:14 J -15682480.00 -15682479.99 -15682479.92 0.0088 0.0088
 Mars -47649-03-03 05:16 J -15682312.55 -15682312.28 -15682311.98 0.0088 0.0045
 Venus -47649-04-30 02:38 J -15682254.51 -15682254.39 -15682254.24 0.0088 0.0070
 Venus -47649-12-11 17:02 J -15682028.97 -15682028.79 -15682028.61 0.0088 0.0054
 Venus -47648-07-25 06:42 J -15681803.41 -15681803.22 -15681803.00 0.0088 0.0037
 Mars -47647-01-27 21:50 J -15681616.79 -15681616.59 -15681616.33 0.0088 0.0064
 Venus -47647-03-07 21:06 J -15681577.84 -15681577.62 -15681577.40 0.0088 0.0020
 Venus -47647-10-19 11:16 J -15681352.26 -15681352.03 -15681351.80 0.0088 0.0004
 Venus -47646-06-02 01:11 J -15681126.67 -15681126.45 -15681126.22 0.0088 0.0013
 Mars -47646-12-24 18:14 J -15680920.82 -15680920.74 -15680920.59 0.0088 0.0083
 Venus -47645-01-13 14:52 J -15680901.08 -15680900.88 -15680900.65 0.0088 0.0030
 Venus -47645-08-26 05:02 J -15680675.47 -15680675.29 -15680675.09 0.0088 0.0046
 Venus -47644-04-08 18:57 J -15680449.85 -15680449.71 -15680449.54 0.0088 0.0063
 Venus -47644-11-20 09:21 J -15680224.21 -15680224.11 -15680224.02 0.0088 0.0080
 Moon -47607-08-12 03:50 J -15666810.50 -15666810.34 -15666810.12 0.0088 0.0063
 Earth -47607-08-12 05:02 J -15666810.44 -15666810.29 -15666810.09 0.0088 0.0064 *
 Earth -47606-08-14 17:02 J -15666443.02 -15666442.79 -15666442.55 0.0088 0.0036
 Moon -47606-08-14 18:42 J -15666442.93 -15666442.72 -15666442.48 0.0088 0.0038 *
 Mercury -47606-09-12 23:45 J -15666413.55 -15666413.51 -15666413.44 0.0088 0.0083
 Mercury -47606-12-10 01:40 J -15666325.49 -15666325.43 -15666325.34 0.0088 0.0076
 Mercury -47605-03-07 03:50 J -15666237.43 -15666237.34 -15666237.24 0.0088 0.0069
 Mercury -47605-06-03 05:30 J -15666149.36 -15666149.27 -15666149.15 0.0088 0.0062
 Moon -47605-08-16 01:26 J -15666075.70 -15666075.44 -15666075.18 0.0088 0.0005
 Earth -47605-08-16 04:47 J -15666075.56 -15666075.30 -15666075.04 0.0088 0.0007 *
 Mercury -47605-08-30 07:26 J -15666061.30 -15666061.19 -15666061.06 0.0088 0.0056
 Mercury -47605-11-26 09:21 J -15665973.23 -15665973.11 -15665972.98 0.0088 0.0049
 Mercury -47604-02-22 11:02 J -15665885.16 -15665885.04 -15665884.90 0.0088 0.0043
 Mercury -47604-05-21 12:57 J -15665797.09 -15665796.96 -15665796.81 0.0088 0.0036

Mercury -47604-08-17 15:06 J -15665709.01 -15665708.87 -15665708.73 0.0088 0.0029

Earth -47604-08-18 16:04 J -15665708.08 -15665707.83 -15665707.58 0.0088 0.0021

Moon -47604-08-18 19:11 J -15665707.94 -15665707.70 -15665707.44 0.0088 0.0020 *

Mercury -47604-11-13 16:47 J -15665620.94 -15665620.80 -15665620.65 0.0088 0.0022

Mercury -47603-02-09 18:42 J -15665532.87 -15665532.72 -15665532.58 0.0088 0.0016

Mercury -47603-05-08 20:23 J -15665444.80 -15665444.65 -15665444.50 0.0088 0.0009

Mercury -47603-08-04 22:18 J -15665356.72 -15665356.57 -15665356.43 0.0088 0.0003

Moon -47603-08-20 23:30 J -15665340.71 -15665340.52 -15665340.29 0.0088 0.0051

Earth -47603-08-21 03:06 J -15665340.56 -15665340.37 -15665340.13 0.0088 0.0050 *

Mercury -47603-10-31 23:59 J -15665268.65 -15665268.50 -15665268.35 0.0088 0.0004

Mercury -47602-01-28 01:40 J -15665180.57 -15665180.43 -15665180.28 0.0088 0.0011

Mercury -47602-04-26 03:35 J -15665092.50 -15665092.35 -15665092.21 0.0088 0.0017

Mercury -47602-07-23 05:16 J -15665004.42 -15665004.28 -15665004.14 0.0088 0.0023

Earth -47602-08-23 14:38 J -15664972.99 -15664972.89 -15664972.75 0.0088 0.0078

Moon -47602-08-23 17:45 J -15664972.87 -15664972.76 -15664972.60 0.0088 0.0076 *

Mercury -47602-10-19 06:57 J -15664916.34 -15664916.21 -15664916.07 0.0088 0.0030

Mercury -47601-01-15 08:38 J -15664828.26 -15664828.14 -15664828.00 0.0088 0.0037

Mercury -47601-04-12 10:33 J -15664740.19 -15664740.06 -15664739.93 0.0089 0.0043

Mercury -47601-07-09 12:14 J -15664652.11 -15664651.99 -15664651.87 0.0089 0.0049

Mercury -47601-10-05 13:54 J -15664564.03 -15664563.92 -15664563.80 0.0089 0.0055

Mercury -47600-01-01 15:35 J -15664475.94 -15664475.85 -15664475.74 0.0089 0.0062

Mercury -47600-03-30 17:30 J -15664387.86 -15664387.77 -15664387.68 0.0089 0.0068

Mercury -47600-06-26 18:57 J -15664299.78 -15664299.71 -15664299.62 0.0089 0.0074

Mercury -47600-09-22 20:38 J -15664211.69 -15664211.64 -15664211.57 0.0089 0.0081

Mercury -47600-12-19 22:18 J -15664123.58 -15664123.57 -15664123.53 0.0089 0.0087

Mars -47581-10-07 19:26 J -15657256.77 -15657256.69 -15657256.55 0.0089 0.0083

Mars -47579-09-02 12:42 J -15656562.14 -15656561.97 -15656561.72 0.0089 0.0066

Mars -47577-07-28 04:33 J -15655867.55 -15655867.31 -15655867.03 0.0089 0.0048

Mars -47575-06-22 16:04 J -15655173.11 -15655172.83 -15655172.54 0.0089 0.0030

Mars -47573-05-17 02:09 J -15654478.70 -15654478.41 -15654478.10 0.0089 0.0013

Mars	-47571-04-11 10:04 J	-15653784.38	-15653784.08	-15653783.78	0.0089	0.0004
Mars	-47569-03-05 14:38 J	-15653090.18	-15653089.89	-15653089.60	0.0089	0.0022
Mars	-47567-01-28 17:16 J	-15652396.04	-15652395.78	-15652395.50	0.0089	0.0038
Venus	-47567-06-17 17:16 J	-15652255.86	-15652255.78	-15652255.67	0.0089	0.0080
Venus	-47566-01-29 05:16 J	-15652030.41	-15652030.28	-15652030.12	0.0089	0.0063
Venus	-47566-09-11 17:30 J	-15651804.94	-15651804.77	-15651804.58	0.0089	0.0047
Mars	-47566-12-23 19:11 J	-15651701.92	-15651701.70	-15651701.45	0.0089	0.0055
Venus	-47565-04-24 05:30 J	-15651579.46	-15651579.27	-15651579.06	0.0089	0.0031
Venus	-47565-12-05 17:30 J	-15651353.98	-15651353.77	-15651353.55	0.0089	0.0015
Venus	-47564-07-19 05:30 J	-15651128.48	-15651128.27	-15651128.05	0.0089	0.0002
Mars	-47564-11-16 18:28 J	-15651007.90	-15651007.73	-15651007.54	0.0089	0.0071
Venus	-47563-03-01 17:30 J	-15650902.98	-15650902.77	-15650902.56	0.0089	0.0018
Venus	-47563-10-13 05:16 J	-15650677.46	-15650677.28	-15650677.07	0.0089	0.0034
Venus	-47562-05-26 17:16 J	-15650451.94	-15650451.78	-15650451.59	0.0089	0.0050
Mars	-47562-10-11 16:04 J	-15650313.88	-15650313.83	-15650313.73	0.0089	0.0086
Venus	-47561-01-07 05:02 J	-15650226.41	-15650226.29	-15650226.13	0.0089	0.0067
Venus	-47561-08-19 17:16 J	-15650000.84	-15650000.78	-15650000.68	0.0089	0.0082
Moon	-47525-02-07 15:06 J	-15637046.01	-15637045.87	-15637045.71	0.0089	0.0072
Earth	-47525-02-07 17:16 J	-15637045.92	-15637045.78	-15637045.59	0.0089	0.0068 *
Earth	-47524-02-09 05:30 J	-15636678.50	-15636678.27	-15636678.04	0.0089	0.0039
Moon	-47524-02-09 08:23 J	-15636678.36	-15636678.15	-15636677.89	0.0089	0.0035 *
Mercury	-47524-06-08 16:04 J	-15636558.83	-15636558.83	-15636558.81	0.0089	0.0089
Mercury	-47524-09-04 18:42 J	-15636470.78	-15636470.72	-15636470.66	0.0089	0.0081
Mercury	-47524-12-01 21:06 J	-15636382.71	-15636382.62	-15636382.53	0.0089	0.0074
Moon	-47523-02-11 13:40 J	-15636311.17	-15636310.93	-15636310.67	0.0089	0.0015
Earth	-47523-02-11 17:16 J	-15636311.03	-15636310.78	-15636310.52	0.0089	0.0011 *
Mercury	-47523-02-27 23:16 J	-15636294.62	-15636294.53	-15636294.41	0.0089	0.0067
Mercury	-47523-05-27 01:54 J	-15636206.53	-15636206.42	-15636206.29	0.0089	0.0060
Mercury	-47523-08-23 04:33 J	-15636118.44	-15636118.31	-15636118.17	0.0089	0.0052
Mercury	-47523-11-19 06:57 J	-15636030.34	-15636030.21	-15636030.06	0.0089	0.0045

Earth -47522-02-14 04:47 J -15635943.55 -15635943.30 -15635943.04 0.0089 0.0018
 Moon -47522-02-14 08:23 J -15635943.40 -15635943.15 -15635942.90 0.0089 0.0023 *
 Mercury -47522-02-15 09:21 J -15635942.25 -15635942.11 -15635941.94 0.0089 0.0038
 Mercury -47522-05-14 12:14 J -15635854.15 -15635853.99 -15635853.83 0.0089 0.0030
 Mercury -47522-08-10 14:38 J -15635766.05 -15635765.89 -15635765.72 0.0089 0.0023
 Mercury -47522-11-06 17:16 J -15635677.94 -15635677.78 -15635677.61 0.0089 0.0015
 Mercury -47521-02-02 19:54 J -15635589.84 -15635589.67 -15635589.50 0.0089 0.0008
 Moon -47521-02-16 13:26 J -15635576.14 -15635575.94 -15635575.69 0.0089 0.0043
 Earth -47521-02-16 16:33 J -15635576.02 -15635575.81 -15635575.58 0.0089 0.0047 *
 Mercury -47521-04-30 22:33 J -15635501.73 -15635501.56 -15635501.39 0.0089 0.0000
 Mercury -47521-07-28 01:11 J -15635413.62 -15635413.45 -15635413.28 0.0089 0.0008
 Mercury -47521-10-24 03:35 J -15635325.51 -15635325.35 -15635325.18 0.0089 0.0016
 Mercury -47520-01-20 06:14 J -15635237.40 -15635237.24 -15635237.07 0.0089 0.0023
 Earth -47520-02-18 04:04 J -15635208.44 -15635208.33 -15635208.17 0.0089 0.0076
 Moon -47520-02-18 05:59 J -15635208.34 -15635208.25 -15635208.11 0.0089 0.0080 *
 Mercury -47520-04-18 08:52 J -15635149.28 -15635149.13 -15635148.96 0.0089 0.0031
 Mercury -47520-07-15 11:45 J -15635061.17 -15635061.01 -15635060.86 0.0089 0.0038
 Mercury -47520-10-11 14:09 J -15634973.05 -15634972.91 -15634972.76 0.0089 0.0046
 Mercury -47519-01-07 16:47 J -15634884.93 -15634884.80 -15634884.66 0.0089 0.0054
 Mercury -47519-04-05 19:26 J -15634796.80 -15634796.69 -15634796.56 0.0089 0.0062
 Mercury -47519-07-02 22:18 J -15634708.67 -15634708.57 -15634708.46 0.0089 0.0069
 Mercury -47519-09-29 00:57 J -15634620.54 -15634620.46 -15634620.37 0.0089 0.0077
 Mercury -47519-12-26 03:35 J -15634532.39 -15634532.35 -15634532.29 0.0089 0.0085
 Mars -47499-06-19 18:42 J -15627416.81 -15627416.72 -15627416.55 0.0088 0.0081
 Mars -47497-05-14 16:33 J -15626722.00 -15626721.81 -15626721.56 0.0088 0.0064
 Mars -47495-04-09 16:04 J -15626027.08 -15626026.83 -15626026.54 0.0088 0.0047
 Mars -47493-03-04 17:59 J -15625332.05 -15625331.75 -15625331.44 0.0088 0.0029
 Mars -47491-01-28 23:45 J -15624636.83 -15624636.51 -15624636.19 0.0088 0.0011
 Mars -47490-12-25 06:28 J -15623941.55 -15623941.23 -15623940.90 0.0088 0.0007
 Mars -47488-11-19 15:35 J -15623246.14 -15623245.85 -15623245.51 0.0088 0.0026

Mars	-47486-10-16 04:47 J	-15622550.58	-15622550.30	-15622550.00	0.0088	0.0044
Venus	-47485-08-01 11:30 J	-15622260.11	-15622260.02	-15622259.89	0.0088	0.0078
Venus	-47484-03-15 02:09 J	-15622034.57	-15622034.41	-15622034.25	0.0088	0.0061
Mars	-47484-09-10 19:40 J	-15621854.88	-15621854.68	-15621854.42	0.0088	0.0063
Venus	-47484-10-26 15:50 J	-15621809.02	-15621808.84	-15621808.63	0.0088	0.0044
Venus	-47483-06-09 06:14 J	-15621583.46	-15621583.24	-15621583.03	0.0088	0.0028
Venus	-47482-01-20 20:09 J	-15621357.88	-15621357.66	-15621357.43	0.0088	0.0011
Mars	-47482-08-07 13:40 J	-15621159.04	-15621158.93	-15621158.79	0.0088	0.0081
Venus	-47482-09-03 10:18 J	-15621132.29	-15621132.07	-15621131.84	0.0088	0.0006
Venus	-47481-04-16 00:28 J	-15620906.70	-15620906.48	-15620906.26	0.0088	0.0022
Venus	-47481-11-27 14:09 J	-15620681.10	-15620680.91	-15620680.69	0.0088	0.0039
Venus	-47480-07-11 04:33 J	-15620455.49	-15620455.31	-15620455.14	0.0088	0.0056
Venus	-47479-02-21 18:14 J	-15620229.85	-15620229.74	-15620229.59	0.0088	0.0072
Earth	-47443-08-11 14:23 J	-15606910.00	-15606909.90	-15606909.76	0.0088	0.0078
Moon	-47443-08-11 16:47 J	-15606909.88	-15606909.80	-15606909.68	0.0088	0.0082 *
Moon	-47442-08-13 22:47 J	-15606542.75	-15606542.55	-15606542.30	0.0088	0.0046
Earth	-47442-08-14 02:09 J	-15606542.61	-15606542.41	-15606542.18	0.0088	0.0050 *
Mercury	-47441-03-12 21:21 J	-15606330.63	-15606330.61	-15606330.56	0.0088	0.0086
Mercury	-47441-06-08 23:30 J	-15606242.58	-15606242.52	-15606242.45	0.0088	0.0079
Earth	-47441-08-15 13:40 J	-15606175.17	-15606174.93	-15606174.67	0.0088	0.0021
Moon	-47441-08-15 17:16 J	-15606175.01	-15606174.78	-15606174.52	0.0088	0.0025 *
Mercury	-47441-09-05 01:11 J	-15606154.52	-15606154.45	-15606154.35	0.0088	0.0072
Mercury	-47441-12-02 03:06 J	-15606066.46	-15606066.37	-15606066.26	0.0088	0.0066
Mercury	-47440-02-28 05:02 J	-15605978.39	-15605978.29	-15605978.17	0.0088	0.0059
Mercury	-47440-05-27 07:11 J	-15605890.32	-15605890.20	-15605890.08	0.0088	0.0052
Moon	-47440-08-17 22:04 J	-15605807.83	-15605807.58	-15605807.32	0.0088	0.0012
Earth	-47440-08-18 01:26 J	-15605807.69	-15605807.44	-15605807.18	0.0088	0.0008 *
Mercury	-47440-08-23 08:38 J	-15605802.25	-15605802.14	-15605802.00	0.0088	0.0046
Mercury	-47440-11-19 10:47 J	-15605714.18	-15605714.05	-15605713.92	0.0088	0.0039
Mercury	-47439-02-15 12:28 J	-15605626.11	-15605625.98	-15605625.83	0.0088	0.0032

Mercury -47439-05-14 14:23 J -15605538.04 -15605537.90 -15605537.75 0.0088 0.0025

Mercury -47439-08-10 16:18 J -15605449.97 -15605449.82 -15605449.68 0.0088 0.0019

Earth -47439-08-20 12:28 J -15605440.19 -15605439.98 -15605439.72 0.0088 0.0037

Moon -47439-08-20 16:04 J -15605440.07 -15605439.83 -15605439.58 0.0088 0.0032 *

Mercury -47439-11-06 17:59 J -15605361.89 -15605361.75 -15605361.60 0.0088 0.0012

Mercury -47438-02-02 19:54 J -15605273.82 -15605273.67 -15605273.52 0.0088 0.0006

Mercury -47438-05-01 21:35 J -15605185.74 -15605185.60 -15605185.45 0.0088 0.0003

Mercury -47438-07-28 23:30 J -15605097.67 -15605097.52 -15605097.37 0.0088 0.0007

Moon -47438-08-22 22:18 J -15605072.72 -15605072.57 -15605072.41 0.0088 0.0069

Earth -47438-08-22 23:59 J -15605072.66 -15605072.50 -15605072.31 0.0088 0.0065 *

Mercury -47438-10-25 01:11 J -15605009.59 -15605009.45 -15605009.30 0.0088 0.0014

Mercury -47437-01-21 02:52 J -15604921.52 -15604921.38 -15604921.23 0.0088 0.0021

Mercury -47437-04-18 04:47 J -15604833.44 -15604833.30 -15604833.16 0.0088 0.0027

Mercury -47437-07-15 06:28 J -15604745.36 -15604745.23 -15604745.09 0.0088 0.0033

Mercury -47437-10-11 08:09 J -15604657.28 -15604657.16 -15604657.02 0.0088 0.0040

Mercury -47436-01-07 10:04 J -15604569.20 -15604569.08 -15604568.96 0.0088 0.0046

Mercury -47436-04-05 11:30 J -15604481.12 -15604481.02 -15604480.89 0.0088 0.0053

Mercury -47436-07-02 13:26 J -15604393.04 -15604392.94 -15604392.83 0.0089 0.0059

Mercury -47436-09-28 14:52 J -15604304.96 -15604304.88 -15604304.77 0.0089 0.0066

Mercury -47436-12-25 16:47 J -15604216.88 -15604216.80 -15604216.71 0.0089 0.0071

Mercury -47435-03-23 18:28 J -15604128.79 -15604128.73 -15604128.65 0.0089 0.0078

Mercury -47435-06-19 20:23 J -15604040.69 -15604040.65 -15604040.60 0.0089 0.0084

Mars -47417-05-22 10:18 J -15597494.11 -15597494.07 -15597493.95 0.0089 0.0086

Mars -47415-04-17 04:47 J -15596799.47 -15596799.30 -15596799.07 0.0089 0.0068

Mars -47413-03-11 21:35 J -15596104.84 -15596104.60 -15596104.33 0.0089 0.0050

Mars -47411-02-04 12:42 J -15595410.26 -15595409.97 -15595409.68 0.0089 0.0033

Mars -47410-12-30 23:30 J -15594715.81 -15594715.52 -15594715.21 0.0089 0.0015

Mars -47408-11-24 09:06 J -15594021.42 -15594021.12 -15594020.81 0.0089 0.0003

Mars -47406-10-19 16:47 J -15593327.09 -15593326.80 -15593326.50 0.0089 0.0021

Mars -47404-09-12 21:50 J -15592632.86 -15592632.59 -15592632.32 0.0089 0.0038

Venus	-47403-09-19 04:47 J	-15592261.33	-15592261.30	-15592261.22	0.0089	0.0087
Venus	-47402-05-02 17:02 J	-15592035.90	-15592035.79	-15592035.64	0.0089	0.0070
Mars	-47402-08-07 23:59 J	-15591938.72	-15591938.50	-15591938.25	0.0089	0.0054
Venus	-47402-12-14 05:02 J	-15591810.44	-15591810.29	-15591810.10	0.0089	0.0054
Venus	-47401-07-26 17:02 J	-15591584.97	-15591584.79	-15591584.58	0.0089	0.0038
Venus	-47400-03-09 05:02 J	-15591359.48	-15591359.29	-15591359.07	0.0089	0.0022
Mars	-47400-07-02 01:26 J	-15591244.60	-15591244.44	-15591244.24	0.0089	0.0070
Venus	-47400-10-20 17:16 J	-15591133.99	-15591133.78	-15591133.56	0.0089	0.0006
Venus	-47399-06-03 05:16 J	-15590908.49	-15590908.28	-15590908.07	0.0089	0.0010
Venus	-47398-01-14 17:16 J	-15590682.98	-15590682.78	-15590682.58	0.0089	0.0027
Mars	-47398-05-27 00:42 J	-15590550.51	-15590550.47	-15590550.37	0.0089	0.0087
Venus	-47398-08-28 05:16 J	-15590457.46	-15590457.28	-15590457.09	0.0089	0.0043
Venus	-47397-04-09 17:16 J	-15590231.94	-15590231.78	-15590231.62	0.0089	0.0059
Venus	-47397-11-21 05:16 J	-15590006.40	-15590006.28	-15590006.17	0.0089	0.0075
Saturn	-47370-12-03 22:47 J	-15580132.78	-15580132.55	-15580132.14	0.0089	0.0079
Earth	-47361-02-07 02:52 J	-15577145.46	-15577145.38	-15577145.27	0.0089	0.0082
Moon	-47361-02-07 05:59 J	-15577145.32	-15577145.25	-15577145.14	0.0089	0.0083 *
Moon	-47360-02-08 10:33 J	-15576778.24	-15576778.06	-15576777.83	0.0089	0.0053
Earth	-47360-02-08 14:52 J	-15576778.08	-15576777.88	-15576777.68	0.0089	0.0053 *
Earth	-47359-02-11 01:54 J	-15576410.65	-15576410.42	-15576410.16	0.0089	0.0025
Moon	-47359-02-11 05:02 J	-15576410.52	-15576410.29	-15576410.02	0.0089	0.0026 *
Mercury	-47359-03-05 14:52 J	-15576387.91	-15576387.88	-15576387.82	0.0089	0.0085
Mercury	-47359-06-01 17:16 J	-15576299.84	-15576299.78	-15576299.68	0.0089	0.0078
Mercury	-47359-08-28 20:09 J	-15576211.76	-15576211.66	-15576211.56	0.0089	0.0070
Mercury	-47359-11-24 22:33 J	-15576123.67	-15576123.56	-15576123.44	0.0089	0.0063
Moon	-47358-02-13 11:16 J	-15576043.27	-15576043.03	-15576042.77	0.0089	0.0005
Earth	-47358-02-13 14:09 J	-15576043.17	-15576042.91	-15576042.65	0.0089	0.0005 *
Mercury	-47358-02-21 00:57 J	-15576035.58	-15576035.46	-15576035.32	0.0089	0.0056
Mercury	-47358-05-20 03:21 J	-15575947.49	-15575947.36	-15575947.21	0.0089	0.0049
Mercury	-47358-08-16 05:59 J	-15575859.39	-15575859.25	-15575859.09	0.0089	0.0041

Mercury -47358-11-12 08:23 J -15575771.29 -15575771.15 -15575770.98 0.0089 0.0034

Mercury -47357-02-08 11:16 J -15575683.19 -15575683.03 -15575682.87 0.0089 0.0026

Earth -47357-02-16 01:26 J -15575675.66 -15575675.44 -15575675.18 0.0089 0.0034

Moon -47357-02-16 03:35 J -15575675.59 -15575675.35 -15575675.10 0.0089 0.0033 *

Mercury -47357-05-06 13:40 J -15575595.09 -15575594.93 -15575594.76 0.0089 0.0019

Mercury -47357-08-02 16:18 J -15575506.99 -15575506.82 -15575506.65 0.0089 0.0011

Mercury -47357-10-29 18:57 J -15575418.88 -15575418.71 -15575418.54 0.0089 0.0004

Mercury -47356-01-25 21:35 J -15575330.77 -15575330.60 -15575330.43 0.0089 0.0004

Earth -47356-02-17 13:11 J -15575308.11 -15575307.95 -15575307.74 0.0089 0.0063

Moon -47356-02-17 12:57 J -15575308.10 -15575307.96 -15575307.76 0.0089 0.0064 *

Mercury -47356-04-23 23:59 J -15575242.66 -15575242.50 -15575242.33 0.0089 0.0012

Mercury -47356-07-21 02:38 J -15575154.55 -15575154.39 -15575154.22 0.0089 0.0019

Mercury -47356-10-17 05:16 J -15575066.44 -15575066.28 -15575066.12 0.0089 0.0027

Mercury -47355-01-13 07:40 J -15574978.32 -15574978.18 -15574978.01 0.0089 0.0035

Mercury -47355-04-11 10:33 J -15574890.21 -15574890.06 -15574889.91 0.0089 0.0042

Mercury -47355-07-08 12:57 J -15574802.09 -15574801.96 -15574801.81 0.0089 0.0050

Mercury -47355-10-04 15:35 J -15574713.97 -15574713.85 -15574713.71 0.0089 0.0058

Mercury -47355-12-31 18:14 J -15574625.84 -15574625.74 -15574625.61 0.0089 0.0066

Mercury -47354-03-29 21:06 J -15574537.71 -15574537.62 -15574537.52 0.0089 0.0073

Mercury -47354-06-25 23:45 J -15574449.57 -15574449.51 -15574449.43 0.0089 0.0081

Mercury -47354-09-22 02:38 J -15574361.39 -15574361.39 -15574361.38 0.0089 0.0089

Mars -47335-02-01 12:57 J -15567654.06 -15567653.96 -15567653.83 0.0088 0.0082

Mars -47334-12-28 07:11 J -15566959.38 -15566959.20 -15566958.95 0.0088 0.0066

Mars -47332-11-22 05:16 J -15566264.52 -15566264.28 -15566263.99 0.0088 0.0049

Mars -47330-10-18 05:45 J -15565569.55 -15565569.26 -15565568.94 0.0088 0.0031

Mars -47328-09-12 07:54 J -15564874.48 -15564874.17 -15564873.84 0.0088 0.0012

Mars -47326-08-08 14:09 J -15564179.24 -15564178.91 -15564178.59 0.0088 0.0006

Mars -47324-07-03 21:50 J -15563483.89 -15563483.59 -15563483.26 0.0088 0.0025

Mars -47322-05-30 08:09 J -15562788.43 -15562788.16 -15562787.86 0.0088 0.0044

Venus -47321-11-02 21:35 J -15562265.66 -15562265.60 -15562265.52 0.0088 0.0084

Mars	-47320-04-24 21:21 J	-15562092.82	-15562092.61	-15562092.36	0.0088	0.0062
Venus	-47320-06-16 11:30 J	-15562040.15	-15562040.02	-15562039.86	0.0088	0.0067
Venus	-47319-01-28 01:54 J	-15561814.60	-15561814.42	-15561814.23	0.0088	0.0051
Venus	-47319-09-10 15:50 J	-15561589.04	-15561588.84	-15561588.62	0.0088	0.0034
Mars	-47318-03-21 12:57 J	-15561397.05	-15561396.96	-15561396.79	0.0088	0.0081
Venus	-47318-04-24 05:45 J	-15561363.47	-15561363.26	-15561363.02	0.0088	0.0018
Venus	-47318-12-05 20:09 J	-15561137.89	-15561137.66	-15561137.43	0.0088	0.0001
Venus	-47317-07-18 10:04 J	-15560912.30	-15560912.08	-15560911.85	0.0088	0.0015
Venus	-47316-02-28 23:59 J	-15560686.70	-15560686.50	-15560686.27	0.0088	0.0033
Venus	-47316-10-12 14:23 J	-15560461.09	-15560460.90	-15560460.71	0.0088	0.0048
Venus	-47315-05-26 04:04 J	-15560235.47	-15560235.33	-15560235.16	0.0088	0.0065
Venus	-47314-01-06 18:14 J	-15560009.81	-15560009.74	-15560009.64	0.0088	0.0082
Earth	-47278-08-13 12:14 J	-15546642.17	-15546641.99	-15546641.81	0.0088	0.0063
Moon	-47278-08-13 15:06 J	-15546642.03	-15546641.87	-15546641.66	0.0088	0.0062 *
Moon	-47277-08-14 20:23 J	-15546274.88	-15546274.65	-15546274.41	0.0088	0.0037
Earth	-47277-08-14 23:30 J	-15546274.74	-15546274.52	-15546274.26	0.0088	0.0035 *
Mercury	-47277-09-10 19:26 J	-15546247.69	-15546247.69	-15546247.69	0.0088	0.0088
Mercury	-47277-12-07 21:06 J	-15546159.67	-15546159.62	-15546159.56	0.0088	0.0082
Mercury	-47276-03-05 23:16 J	-15546071.61	-15546071.53	-15546071.45	0.0088	0.0075
Mercury	-47276-06-02 00:42 J	-15545983.55	-15545983.47	-15545983.36	0.0088	0.0069
Earth	-47276-08-17 11:30 J	-15545907.28	-15545907.02	-15545906.76	0.0088	0.0005
Moon	-47276-08-17 14:09 J	-15545907.18	-15545906.91	-15545906.65	0.0088	0.0003 *
Mercury	-47276-08-29 02:38 J	-15545895.48	-15545895.39	-15545895.27	0.0088	0.0062
Mercury	-47276-11-25 04:47 J	-15545807.42	-15545807.30	-15545807.18	0.0088	0.0055
Mercury	-47275-02-21 06:28 J	-15545719.35	-15545719.23	-15545719.10	0.0088	0.0048
Mercury	-47275-05-20 08:23 J	-15545631.27	-15545631.15	-15545631.01	0.0088	0.0042
Mercury	-47275-08-16 10:18 J	-15545543.20	-15545543.07	-15545542.93	0.0088	0.0035
Moon	-47275-08-19 21:06 J	-15545539.86	-15545539.62	-15545539.38	0.0088	0.0022
Earth	-47275-08-19 22:47 J	-15545539.79	-15545539.55	-15545539.29	0.0088	0.0024 *
Mercury	-47275-11-12 11:59 J	-15545455.13	-15545455.00	-15545454.85	0.0088	0.0029

Mercury -47274-02-08 13:54 J -15545367.06 -15545366.92 -15545366.77 0.0088 0.0022
 Mercury -47274-05-07 15:50 J -15545278.98 -15545278.84 -15545278.69 0.0088 0.0015
 Mercury -47274-08-03 17:45 J -15545190.91 -15545190.76 -15545190.61 0.0088 0.0008
 Earth -47274-08-22 09:50 J -15545172.27 -15545172.09 -15545171.86 0.0088 0.0053
 Moon -47274-08-22 11:02 J -15545172.25 -15545172.04 -15545171.82 0.0088 0.0054 *
 Mercury -47274-10-30 19:26 J -15545102.84 -15545102.69 -15545102.54 0.0088 0.0002
 Mercury -47273-01-26 21:21 J -15545014.76 -15545014.61 -15545014.46 0.0088 0.0005
 Mercury -47273-04-23 23:02 J -15544926.68 -15544926.54 -15544926.39 0.0088 0.0011
 Mercury -47273-07-21 00:57 J -15544838.61 -15544838.46 -15544838.32 0.0088 0.0018
 Earth -47273-08-23 21:21 J -15544804.69 -15544804.61 -15544804.49 0.0088 0.0081
 Moon -47273-08-23 22:18 J -15544804.66 -15544804.57 -15544804.44 0.0088 0.0079 *
 Mercury -47273-10-17 02:23 J -15544750.53 -15544750.40 -15544750.25 0.0088 0.0025
 Mercury -47272-01-13 04:18 J -15544662.45 -15544662.32 -15544662.18 0.0088 0.0031
 Mercury -47272-04-11 05:59 J -15544574.38 -15544574.25 -15544574.11 0.0089 0.0037
 Mercury -47272-07-08 07:40 J -15544486.30 -15544486.18 -15544486.04 0.0089 0.0044
 Mercury -47272-10-04 09:35 J -15544398.22 -15544398.10 -15544397.98 0.0089 0.0050
 Mercury -47272-12-31 11:02 J -15544310.14 -15544310.04 -15544309.91 0.0089 0.0057
 Mercury -47271-03-29 12:57 J -15544222.05 -15544221.96 -15544221.85 0.0089 0.0063
 Mercury -47271-06-25 14:52 J -15544133.97 -15544133.88 -15544133.79 0.0089 0.0069
 Mercury -47271-09-21 16:18 J -15544045.88 -15544045.82 -15544045.73 0.0089 0.0075
 Mercury -47271-12-18 17:59 J -15543957.79 -15543957.75 -15543957.68 0.0089 0.0082
 Mercury -47270-03-16 19:40 J -15543869.68 -15543869.68 -15543869.65 0.0089 0.0088
 Mars -47253-01-05 00:57 J -15537731.46 -15537731.46 -15537731.41 0.0089 0.0089
 Mars -47252-11-29 22:47 J -15537036.73 -15537036.55 -15537036.35 0.0089 0.0070
 Mars -47250-10-25 16:33 J -15536342.05 -15536341.81 -15536341.55 0.0089 0.0052
 Mars -47248-09-19 08:09 J -15535647.44 -15535647.16 -15535646.87 0.0089 0.0034
 Mars -47246-08-14 22:33 J -15534952.86 -15534952.56 -15534952.25 0.0089 0.0016
 Mars -47244-07-09 09:35 J -15534258.40 -15534258.10 -15534257.79 0.0089 0.0002
 Mars -47242-06-03 17:59 J -15533564.04 -15533563.75 -15533563.45 0.0089 0.0020
 Mars -47240-04-28 00:57 J -15532869.72 -15532869.46 -15532869.17 0.0089 0.0037

Mars	-47238-03-23 05:02 J	-15532175.50	-15532175.29	-15532175.02	0.0089	0.0055
Venus	-47238-08-04 05:02 J	-15532041.38	-15532041.29	-15532041.16	0.0089	0.0077
Venus	-47237-03-16 17:16 J	-15531815.93	-15531815.78	-15531815.61	0.0089	0.0060
Venus	-47237-10-28 05:16 J	-15531590.46	-15531590.28	-15531590.09	0.0089	0.0044
Mars	-47236-02-14 07:11 J	-15531481.36	-15531481.20	-15531481.00	0.0089	0.0071
Venus	-47236-06-10 17:16 J	-15531364.98	-15531364.78	-15531364.57	0.0089	0.0028
Venus	-47235-01-22 05:16 J	-15531139.49	-15531139.28	-15531139.07	0.0089	0.0012
Venus	-47235-09-04 17:30 J	-15530913.98	-15530913.77	-15530913.56	0.0089	0.0004
Mars	-47234-01-09 07:40 J	-15530787.23	-15530787.18	-15530787.08	0.0089	0.0086
Venus	-47234-04-18 05:16 J	-15530688.48	-15530688.28	-15530688.07	0.0089	0.0020
Venus	-47234-11-29 17:16 J	-15530462.97	-15530462.78	-15530462.58	0.0089	0.0036
Venus	-47233-07-12 05:16 J	-15530237.45	-15530237.28	-15530237.11	0.0089	0.0052
Venus	-47232-02-22 17:02 J	-15530011.92	-15530011.79	-15530011.65	0.0089	0.0068
Venus	-47232-10-06 05:02 J	-15529786.35	-15529786.29	-15529786.21	0.0089	0.0084
Earth	-47196-02-08 00:14 J	-15516877.65	-15516877.49	-15516877.32	0.0089	0.0067
Moon	-47196-02-08 03:21 J	-15516877.49	-15516877.36	-15516877.19	0.0089	0.0072 *
Moon	-47195-02-10 09:50 J	-15516510.31	-15516510.09	-15516509.85	0.0089	0.0034
Earth	-47195-02-10 11:59 J	-15516510.23	-15516510.00	-15516509.76	0.0089	0.0038 *
Mercury	-47195-09-03 11:45 J	-15516305.02	-15516305.01	-15516304.98	0.0089	0.0088
Mercury	-47195-11-30 14:09 J	-15516216.97	-15516216.91	-15516216.83	0.0089	0.0081
Earth	-47194-02-12 23:45 J	-15516142.77	-15516142.51	-15516142.26	0.0089	0.0009
Moon	-47194-02-13 00:57 J	-15516142.72	-15516142.46	-15516142.20	0.0089	0.0013 *
Mercury	-47194-02-26 16:33 J	-15516128.89	-15516128.81	-15516128.71	0.0089	0.0074
Mercury	-47194-05-25 19:11 J	-15516040.80	-15516040.70	-15516040.59	0.0089	0.0066
Mercury	-47194-08-21 21:35 J	-15515952.72	-15515952.60	-15515952.47	0.0089	0.0059
Mercury	-47194-11-17 23:59 J	-15515864.62	-15515864.50	-15515864.35	0.0089	0.0052
Mercury	-47193-02-14 02:23 J	-15515776.53	-15515776.40	-15515776.24	0.0089	0.0045
Moon	-47193-02-15 11:02 J	-15515775.27	-15515775.04	-15515774.79	0.0089	0.0025
Earth	-47193-02-15 11:16 J	-15515775.27	-15515775.03	-15515774.77	0.0089	0.0020 *
Mercury	-47193-05-12 05:02 J	-15515688.43	-15515688.29	-15515688.13	0.0089	0.0037

Mercury -47193-08-08 07:40 J -15515600.33 -15515600.18 -15515600.02 0.0089 0.0030
 Mercury -47193-11-04 10:18 J -15515512.23 -15515512.07 -15515511.91 0.0089 0.0022
 Mercury -47192-01-31 12:42 J -15515424.13 -15515423.97 -15515423.80 0.0089 0.0015
 Moon -47192-02-16 21:21 J -15515407.83 -15515407.61 -15515407.37 0.0089 0.0045
 Earth -47192-02-16 23:16 J -15515407.74 -15515407.53 -15515407.32 0.0089 0.0049 *
 Mercury -47192-04-29 15:21 J -15515336.03 -15515335.86 -15515335.69 0.0089 0.0007
 Mercury -47192-07-26 17:59 J -15515247.92 -15515247.75 -15515247.58 0.0089 0.0000
 Mercury -47192-10-22 20:38 J -15515159.81 -15515159.64 -15515159.47 0.0089 0.0008
 Mercury -47191-01-18 23:02 J -15515071.70 -15515071.54 -15515071.37 0.0089 0.0016
 Earth -47191-02-19 11:02 J -15515040.16 -15515040.04 -15515039.92 0.0089 0.0078
 Moon -47191-02-19 12:28 J -15515040.04 -15515039.98 -15515039.86 0.0089 0.0083 *
 Mercury -47191-04-17 01:40 J -15514983.59 -15514983.43 -15514983.26 0.0089 0.0023
 Mercury -47191-07-14 04:18 J -15514895.48 -15514895.32 -15514895.16 0.0089 0.0031
 Mercury -47191-10-10 06:42 J -15514807.36 -15514807.22 -15514807.05 0.0089 0.0039
 Mercury -47190-01-06 09:35 J -15514719.24 -15514719.10 -15514718.95 0.0089 0.0046
 Mercury -47190-04-04 12:14 J -15514631.12 -15514630.99 -15514630.85 0.0089 0.0054
 Mercury -47190-07-01 14:38 J -15514543.00 -15514542.89 -15514542.75 0.0089 0.0062
 Mercury -47190-09-27 17:16 J -15514454.87 -15514454.78 -15514454.66 0.0089 0.0070
 Mercury -47190-12-24 20:23 J -15514366.73 -15514366.65 -15514366.57 0.0089 0.0077
 Mercury -47189-03-21 22:47 J -15514278.59 -15514278.55 -15514278.49 0.0089 0.0085
 Mars -47172-09-16 09:21 J -15507891.18 -15507891.11 -15507890.98 0.0088 0.0084
 Mars -47170-08-12 02:09 J -15507196.61 -15507196.41 -15507196.20 0.0088 0.0067
 Mars -47168-07-06 20:38 J -15506501.89 -15506501.64 -15506501.36 0.0088 0.0050
 Mars -47166-06-01 18:57 J -15505806.98 -15505806.71 -15505806.39 0.0088 0.0033
 Mars -47164-04-26 20:38 J -15505111.96 -15505111.64 -15505111.32 0.0088 0.0014
 Mars -47162-03-22 23:16 J -15504416.85 -15504416.53 -15504416.20 0.0088 0.0005
 Mars -47160-02-15 05:02 J -15503721.58 -15503721.29 -15503720.96 0.0088 0.0024
 Mars -47158-01-11 14:23 J -15503026.18 -15503025.90 -15503025.60 0.0088 0.0043
 Mars -47157-12-07 00:42 J -15502330.69 -15502330.47 -15502330.21 0.0088 0.0061
 Venus -47156-09-17 21:35 J -15502045.71 -15502045.60 -15502045.46 0.0088 0.0074

Venus	-47155-05-01 11:30 J	-15501820.17	-15501820.02	-15501819.83	0.0088	0.0057
Mars	-47155-11-02 14:09 J	-15501635.02	-15501634.91	-15501634.74	0.0088	0.0080
Venus	-47155-12-13 01:54 J	-15501594.62	-15501594.42	-15501594.22	0.0088	0.0041
Venus	-47154-07-26 15:50 J	-15501369.05	-15501368.84	-15501368.61	0.0088	0.0024
Venus	-47153-03-08 06:14 J	-15501143.47	-15501143.24	-15501143.01	0.0088	0.0008
Venus	-47153-10-19 20:09 J	-15500917.88	-15500917.66	-15500917.43	0.0088	0.0009
Venus	-47152-06-02 10:18 J	-15500692.29	-15500692.07	-15500691.85	0.0088	0.0025
Venus	-47151-01-13 23:59 J	-15500466.68	-15500466.50	-15500466.28	0.0088	0.0042
Venus	-47151-08-27 14:23 J	-15500241.06	-15500240.90	-15500240.72	0.0088	0.0058
Venus	-47150-04-10 04:04 J	-15500015.42	-15500015.33	-15500015.18	0.0088	0.0075
Moon	-47114-08-12 18:57 J	-15486741.78	-15486741.71	-15486741.57	0.0088	0.0081
Earth	-47114-08-12 22:18 J	-15486741.67	-15486741.57	-15486741.42	0.0088	0.0077 *
Earth	-47113-08-14 10:18 J	-15486374.28	-15486374.07	-15486373.84	0.0088	0.0048
Moon	-47113-08-14 12:57 J	-15486374.17	-15486373.96	-15486373.71	0.0088	0.0044 *
Mercury	-47112-06-07 18:42 J	-15486076.75	-15486076.72	-15486076.66	0.0088	0.0085
Moon	-47112-08-16 21:21 J	-15486006.86	-15486006.61	-15486006.37	0.0088	0.0022
Earth	-47112-08-16 22:04 J	-15486006.82	-15486006.58	-15486006.31	0.0088	0.0019 *
Mercury	-47112-09-03 20:52 J	-15485988.69	-15485988.63	-15485988.55	0.0088	0.0077
Mercury	-47112-11-30 22:47 J	-15485900.63	-15485900.55	-15485900.46	0.0088	0.0071
Mercury	-47111-02-27 00:28 J	-15485812.57	-15485812.48	-15485812.36	0.0088	0.0064
Mercury	-47111-05-26 02:23 J	-15485724.50	-15485724.40	-15485724.27	0.0088	0.0058
Earth	-47111-08-19 10:04 J	-15485639.34	-15485639.08	-15485638.82	0.0088	0.0011
Moon	-47111-08-19 10:04 J	-15485639.33	-15485639.08	-15485638.80	0.0088	0.0015 *
Mercury	-47111-08-22 04:33 J	-15485636.43	-15485636.31	-15485636.18	0.0088	0.0050
Mercury	-47111-11-18 06:28 J	-15485548.36	-15485548.23	-15485548.10	0.0088	0.0044
Mercury	-47110-02-14 08:09 J	-15485460.29	-15485460.16	-15485460.02	0.0088	0.0037
Mercury	-47110-05-13 10:04 J	-15485372.22	-15485372.08	-15485371.93	0.0088	0.0031
Mercury	-47110-08-09 11:59 J	-15485284.14	-15485284.00	-15485283.85	0.0088	0.0024
Earth	-47110-08-21 21:21 J	-15485271.84	-15485271.61	-15485271.37	0.0088	0.0040
Moon	-47110-08-21 22:04 J	-15485271.80	-15485271.58	-15485271.34	0.0088	0.0036 *

Mercury -47110-11-05 13:40 J -15485196.07 -15485195.93 -15485195.78 0.0088 0.0018

Mercury -47109-02-01 15:35 J -15485107.99 -15485107.85 -15485107.70 0.0088 0.0011

Mercury -47109-04-29 17:30 J -15485019.92 -15485019.77 -15485019.62 0.0088 0.0004

Mercury -47109-07-26 19:11 J -15484931.84 -15484931.70 -15484931.55 0.0088 0.0004

Moon -47109-08-23 05:45 J -15484904.38 -15484904.26 -15484904.07 0.0088 0.0073

Earth -47109-08-23 08:38 J -15484904.28 -15484904.14 -15484903.96 0.0088 0.0069 *

Mercury -47109-10-22 21:06 J -15484843.77 -15484843.62 -15484843.47 0.0088 0.0009

Mercury -47108-01-18 22:47 J -15484755.69 -15484755.55 -15484755.40 0.0088 0.0016

Mercury -47108-04-17 00:28 J -15484667.61 -15484667.48 -15484667.33 0.0088 0.0023

Mercury -47108-07-14 02:23 J -15484579.54 -15484579.40 -15484579.26 0.0088 0.0029

Mercury -47108-10-10 04:04 J -15484491.46 -15484491.33 -15484491.19 0.0089 0.0035

Mercury -47107-01-06 05:45 J -15484403.38 -15484403.26 -15484403.12 0.0089 0.0042

Mercury -47107-04-04 07:40 J -15484315.30 -15484315.18 -15484315.05 0.0089 0.0048

Mercury -47107-07-01 09:06 J -15484227.22 -15484227.12 -15484226.99 0.0089 0.0055

Mercury -47107-09-27 11:02 J -15484139.14 -15484139.04 -15484138.93 0.0089 0.0061

Mercury -47107-12-24 12:57 J -15484051.05 -15484050.96 -15484050.86 0.0089 0.0067

Mercury -47106-03-22 14:23 J -15483962.97 -15483962.90 -15483962.81 0.0089 0.0074

Mercury -47106-06-18 16:04 J -15483874.88 -15483874.83 -15483874.75 0.0089 0.0080

Mercury -47106-09-14 17:59 J -15483786.78 -15483786.75 -15483786.71 0.0089 0.0086

Mars -47088-07-14 13:54 J -15477274.09 -15477273.92 -15477273.74 0.0089 0.0073

Mars -47086-06-09 10:33 J -15476579.28 -15476579.06 -15476578.79 0.0089 0.0055

Mars -47084-05-04 04:33 J -15475884.58 -15475884.31 -15475884.02 0.0089 0.0036

Mars -47082-03-29 19:26 J -15475189.98 -15475189.69 -15475189.38 0.0089 0.0018

Mars -47080-02-21 09:06 J -15474495.43 -15474495.12 -15474494.81 0.0089 0.0000

Mars -47078-01-16 20:09 J -15473800.95 -15473800.66 -15473800.35 0.0089 0.0018

Mars -47077-12-11 03:35 J -15473106.61 -15473106.35 -15473106.06 0.0089 0.0036

Mars -47075-11-05 10:33 J -15472412.29 -15472412.06 -15472411.81 0.0089 0.0054

Venus -47074-11-05 17:30 J -15472046.83 -15472046.77 -15472046.66 0.0089 0.0083

Venus -47073-06-18 05:45 J -15471821.39 -15471821.26 -15471821.10 0.0089 0.0066

Mars -47073-09-29 15:06 J -15471718.04 -15471717.87 -15471717.67 0.0089 0.0071

Venus	-47072-01-29 17:45 J	-15471595.92	-15471595.76	-15471595.57	0.0089	0.0051
Venus	-47072-09-12 05:59 J	-15471370.43	-15471370.25	-15471370.04	0.0089	0.0035
Venus	-47071-04-25 18:14 J	-15471144.95	-15471144.74	-15471144.53	0.0089	0.0018
Mars	-47071-08-24 16:18 J	-15471023.85	-15471023.82	-15471023.72	0.0089	0.0087
Venus	-47071-12-07 06:14 J	-15470919.46	-15470919.24	-15470919.03	0.0089	0.0003
Venus	-47070-07-20 17:59 J	-15470693.96	-15470693.75	-15470693.53	0.0089	0.0014
Venus	-47069-03-02 05:59 J	-15470468.45	-15470468.25	-15470468.05	0.0089	0.0029
Venus	-47069-10-13 17:45 J	-15470242.93	-15470242.76	-15470242.56	0.0089	0.0046
Venus	-47068-05-27 05:30 J	-15470017.40	-15470017.27	-15470017.10	0.0089	0.0062
Venus	-47067-01-07 17:16 J	-15469791.86	-15469791.78	-15469791.65	0.0089	0.0078
Moon	-47032-02-07 08:52 J	-15456977.21	-15456977.13	-15456977.02	0.0089	0.0082
Earth	-47032-02-07 10:47 J	-15456977.13	-15456977.05	-15456976.92	0.0089	0.0081 *
Earth	-47031-02-09 22:18 J	-15456609.75	-15456609.57	-15456609.34	0.0089	0.0052
Moon	-47031-02-09 23:16 J	-15456609.73	-15456609.53	-15456609.30	0.0089	0.0050 *
Earth	-47030-02-12 10:33 J	-15456242.31	-15456242.06	-15456241.81	0.0089	0.0022
Moon	-47030-02-12 10:47 J	-15456242.28	-15456242.05	-15456241.80	0.0089	0.0024 *
Mercury	-47030-05-31 11:16 J	-15456134.08	-15456134.03	-15456133.97	0.0089	0.0083
Mercury	-47030-08-27 13:40 J	-15456046.01	-15456045.93	-15456045.84	0.0089	0.0076
Mercury	-47030-11-23 16:04 J	-15455957.92	-15455957.83	-15455957.72	0.0089	0.0069
Moon	-47029-02-14 20:38 J	-15455874.90	-15455874.64	-15455874.37	0.0089	0.0008
Earth	-47029-02-14 22:04 J	-15455874.83	-15455874.58	-15455874.32	0.0089	0.0007 *
Mercury	-47029-02-19 18:28 J	-15455869.84	-15455869.73	-15455869.60	0.0089	0.0062
Mercury	-47029-05-17 21:06 J	-15455781.75	-15455781.62	-15455781.49	0.0089	0.0054
Mercury	-47029-08-13 23:30 J	-15455693.65	-15455693.52	-15455693.37	0.0089	0.0047
Mercury	-47029-11-10 01:54 J	-15455605.56	-15455605.42	-15455605.26	0.0089	0.0040
Mercury	-47028-02-06 04:33 J	-15455517.46	-15455517.31	-15455517.15	0.0089	0.0032
Earth	-47028-02-16 09:35 J	-15455507.33	-15455507.10	-15455506.86	0.0089	0.0036
Moon	-47028-02-16 12:14 J	-15455507.21	-15455506.99	-15455506.75	0.0089	0.0035 *
Mercury	-47028-05-05 06:57 J	-15455429.36	-15455429.21	-15455429.04	0.0089	0.0025
Mercury	-47028-08-01 09:35 J	-15455341.26	-15455341.10	-15455340.93	0.0089	0.0017

Mercury	-47028-10-28 12:14 J	-15455253.16	-15455252.99	-15455252.83	0.0089	0.0010
Mercury	-47027-01-24 14:38 J	-15455165.05	-15455164.89	-15455164.72	0.0089	0.0003
Moon	-47027-02-18 17:45 J	-15455139.91	-15455139.76	-15455139.57	0.0089	0.0067
Earth	-47027-02-18 20:52 J	-15455139.78	-15455139.63	-15455139.43	0.0089	0.0066 *
Mercury	-47027-04-22 17:16 J	-15455076.95	-15455076.78	-15455076.61	0.0089	0.0005
Mercury	-47027-07-19 19:40 J	-15454988.84	-15454988.68	-15454988.51	0.0089	0.0013
Mercury	-47027-10-15 22:18 J	-15454900.73	-15454900.57	-15454900.40	0.0089	0.0020
Mercury	-47026-01-12 00:57 J	-15454812.62	-15454812.46	-15454812.30	0.0089	0.0028
Mercury	-47026-04-10 03:21 J	-15454724.50	-15454724.36	-15454724.19	0.0089	0.0036
Mercury	-47026-07-07 06:14 J	-15454636.39	-15454636.24	-15454636.09	0.0089	0.0043
Mercury	-47026-10-03 08:38 J	-15454548.27	-15454548.14	-15454547.99	0.0089	0.0051
Mercury	-47026-12-30 11:16 J	-15454460.15	-15454460.03	-15454459.89	0.0089	0.0059
Mercury	-47025-03-27 13:40 J	-15454372.02	-15454371.93	-15454371.80	0.0089	0.0067
Mercury	-47025-06-23 16:47 J	-15454283.89	-15454283.80	-15454283.71	0.0089	0.0074
Mercury	-47025-09-19 19:11 J	-15454195.75	-15454195.70	-15454195.62	0.0089	0.0082
Mars	-47008-05-01 07:11 J	-15448128.25	-15448128.20	-15448128.10	0.0088	0.0086
Mars	-47006-03-26 23:02 J	-15447433.71	-15447433.54	-15447433.32	0.0088	0.0069
Mars	-47004-02-18 16:47 J	-15446739.04	-15446738.80	-15446738.53	0.0088	0.0052
Mars	-47002-01-14 12:14 J	-15446044.27	-15446043.99	-15446043.69	0.0088	0.0034
Mars	-47001-12-09 10:47 J	-15445349.35	-15445349.05	-15445348.72	0.0088	0.0016

47TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 47th millennium BCE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mars	-46999-11-04 12:42 J	-15444654.29	-15444653.97	-15444653.65	0.0088	0.0003
Mars	-46997-09-29 16:04 J	-15443959.14	-15443958.83	-15443958.51	0.0088	0.0022
Mars	-46995-08-25 22:04 J	-15443263.86	-15443263.58	-15443263.29	0.0088	0.0042
Mars	-46993-07-21 07:54 J	-15442568.39	-15442568.17	-15442567.92	0.0088	0.0061
Venus	-46992-12-20 07:54 J	-15442051.24	-15442051.17	-15442051.05	0.0088	0.0080
Mars	-46991-06-16 19:11 J	-15441872.82	-15441872.70	-15441872.54	0.0088	0.0080
Venus	-46991-08-02 21:50 J	-15441825.72	-15441825.59	-15441825.41	0.0088	0.0064
Venus	-46990-03-16 12:28 J	-15441600.17	-15441599.98	-15441599.78	0.0088	0.0047
Venus	-46990-10-28 02:23 J	-15441374.61	-15441374.40	-15441374.18	0.0088	0.0030
Venus	-46989-06-09 16:18 J	-15441149.04	-15441148.82	-15441148.59	0.0088	0.0014
Venus	-46988-01-21 06:28 J	-15440923.45	-15440923.23	-15440923.00	0.0088	0.0003
Venus	-46988-09-03 20:23 J	-15440697.86	-15440697.65	-15440697.42	0.0088	0.0019
Venus	-46987-04-17 10:33 J	-15440472.26	-15440472.06	-15440471.84	0.0088	0.0036
Venus	-46987-11-29 00:14 J	-15440246.65	-15440246.49	-15440246.28	0.0088	0.0053
Venus	-46986-07-12 14:23 J	-15440021.02	-15440020.90	-15440020.74	0.0088	0.0068
Venus	-46985-02-23 04:47 J	-15439795.35	-15439795.30	-15439795.22	0.0088	0.0084
Moon	-46949-08-13 19:26 J	-15426473.86	-15426473.69	-15426473.48	0.0088	0.0059
Earth	-46949-08-13 20:52 J	-15426473.80	-15426473.63	-15426473.42	0.0088	0.0061 *
Moon	-46948-08-16 08:23 J	-15426106.38	-15426106.15	-15426105.89	0.0088	0.0034
Earth	-46948-08-16 08:38 J	-15426106.36	-15426106.14	-15426105.88	0.0088	0.0032 *
Mercury	-46948-12-06 16:47 J	-15425993.82	-15425993.80	-15425993.77	0.0088	0.0087
Mercury	-46947-03-04 18:28 J	-15425905.78	-15425905.73	-15425905.65	0.0088	0.0080
Mercury	-46947-05-31 20:23 J	-15425817.72	-15425817.65	-15425817.55	0.0088	0.0074
Earth	-46947-08-18 20:38 J	-15425738.90	-15425738.64	-15425738.38	0.0088	0.0002
Moon	-46947-08-18 22:04 J	-15425738.83	-15425738.58	-15425738.33	0.0088	0.0001 *
Mercury	-46947-08-27 22:18 J	-15425729.65	-15425729.57	-15425729.46	0.0088	0.0067
Mercury	-46947-11-24 00:28 J	-15425641.59	-15425641.48	-15425641.37	0.0088	0.0060
Mercury	-46946-02-20 02:23 J	-15425553.52	-15425553.40	-15425553.28	0.0088	0.0053
Mercury	-46946-05-19 04:04 J	-15425465.45	-15425465.33	-15425465.19	0.0088	0.0047

Mercury -46946-08-15 05:59 J -15425377.37 -15425377.25 -15425377.11 0.0088 0.0040
 Moon -46946-08-21 06:14 J -15425371.49 -15425371.24 -15425370.98 0.0088 0.0025
 Earth -46946-08-21 08:09 J -15425371.39 -15425371.16 -15425370.90 0.0088 0.0028 *
 Mercury -46946-11-11 08:09 J -15425289.30 -15425289.16 -15425289.02 0.0088 0.0033
 Mercury -46945-02-07 09:50 J -15425201.23 -15425201.09 -15425200.94 0.0088 0.0026
 Mercury -46945-05-05 11:45 J -15425113.15 -15425113.01 -15425112.86 0.0088 0.0019
 Mercury -46945-08-01 13:40 J -15425025.08 -15425024.93 -15425024.78 0.0088 0.0013
 Earth -46945-08-22 19:26 J -15425003.86 -15425003.69 -15425003.47 0.0088 0.0057
 Moon -46945-08-22 22:47 J -15425003.71 -15425003.55 -15425003.33 0.0088 0.0060 *
 Mercury -46945-10-28 15:21 J -15424937.00 -15424936.86 -15424936.71 0.0088 0.0007
 Mercury -46944-01-24 17:16 J -15424848.93 -15424848.78 -15424848.63 0.0088 0.0001
 Mercury -46944-04-22 19:11 J -15424760.85 -15424760.70 -15424760.55 0.0088 0.0007
 Mercury -46944-07-19 20:52 J -15424672.77 -15424672.63 -15424672.48 0.0088 0.0014
 Moon -46944-08-25 03:50 J -15424636.42 -15424636.34 -15424636.24 0.0088 0.0083
 Earth -46944-08-25 06:57 J -15424636.25 -15424636.21 -15424636.12 0.0088 0.0086 *
 Mercury -46944-10-15 22:33 J -15424584.70 -15424584.56 -15424584.41 0.0088 0.0020
 Mercury -46943-01-12 00:28 J -15424496.62 -15424496.48 -15424496.34 0.0088 0.0027
 Mercury -46943-04-10 02:09 J -15424408.54 -15424408.41 -15424408.27 0.0088 0.0033
 Mercury -46943-07-07 03:50 J -15424320.46 -15424320.34 -15424320.20 0.0088 0.0040
 Mercury -46943-10-03 05:45 J -15424232.38 -15424232.26 -15424232.13 0.0089 0.0046
 Mercury -46943-12-30 07:26 J -15424144.30 -15424144.19 -15424144.07 0.0089 0.0052
 Mercury -46942-03-28 09:06 J -15424056.22 -15424056.12 -15424056.00 0.0089 0.0059
 Mercury -46942-06-24 10:47 J -15423968.13 -15423968.05 -15423967.94 0.0089 0.0065
 Mercury -46942-09-20 12:28 J -15423880.05 -15423879.98 -15423879.88 0.0089 0.0072
 Mercury -46942-12-17 14:23 J -15423791.96 -15423791.90 -15423791.83 0.0089 0.0078
 Mercury -46941-03-14 16:18 J -15423703.86 -15423703.82 -15423703.78 0.0089 0.0084
 Mars -46924-02-26 05:16 J -15417511.43 -15417511.28 -15417511.11 0.0089 0.0076
 Mars -46922-01-22 02:52 J -15416816.59 -15416816.38 -15416816.11 0.0089 0.0058
 Mars -46921-12-16 23:45 J -15416121.77 -15416121.51 -15416121.21 0.0089 0.0039
 Mars -46919-11-11 17:16 J -15415427.07 -15415426.78 -15415426.47 0.0089 0.0020

Mars	-46917-10-06 07:40 J	-15414732.48	-15414732.18	-15414731.87	0.0089	0.0002
Mars	-46915-08-31 20:09 J	-15414037.95	-15414037.66	-15414037.34	0.0089	0.0017
Mars	-46913-07-26 07:11 J	-15413343.47	-15413343.20	-15413342.91	0.0089	0.0035
Mars	-46911-06-20 13:54 J	-15412649.13	-15412648.92	-15412648.65	0.0089	0.0054
Jupiter	-46910-12-30 02:52 J	-15412091.89	-15412091.38	-15412090.86	0.0089	0.0017
Venus	-46909-02-07 05:59 J	-15412052.26	-15412052.25	-15412052.19	0.0089	0.0088
Mars	-46909-05-14 19:54 J	-15411954.82	-15411954.67	-15411954.45	0.0089	0.0071
Venus	-46909-09-19 18:14 J	-15411826.84	-15411826.74	-15411826.59	0.0089	0.0073
Venus	-46908-05-03 06:28 J	-15411601.38	-15411601.23	-15411601.05	0.0089	0.0057
Venus	-46908-12-14 18:42 J	-15411375.90	-15411375.72	-15411375.52	0.0089	0.0040
Mars	-46907-04-09 00:57 J	-15411260.52	-15411260.46	-15411260.39	0.0089	0.0087
Venus	-46907-07-28 06:57 J	-15411150.41	-15411150.21	-15411150.00	0.0089	0.0024
Venus	-46906-03-10 18:57 J	-15410924.92	-15410924.71	-15410924.50	0.0089	0.0008
Venus	-46906-10-22 06:57 J	-15410699.42	-15410699.21	-15410699.00	0.0089	0.0008
Venus	-46905-06-03 18:42 J	-15410473.92	-15410473.72	-15410473.50	0.0089	0.0024
Venus	-46904-01-15 06:42 J	-15410248.40	-15410248.22	-15410248.02	0.0089	0.0039
Venus	-46904-08-28 18:28 J	-15410022.88	-15410022.73	-15410022.54	0.0089	0.0056
Venus	-46903-04-11 06:57 J	-15409797.34	-15409797.21	-15409797.08	0.0089	0.0071
Venus	-46903-11-22 18:28 J	-15409571.77	-15409571.73	-15409571.67	0.0089	0.0087
Earth	-46867-02-09 09:35 J	-15396709.25	-15396709.10	-15396708.91	0.0089	0.0065
Moon	-46867-02-09 10:04 J	-15396709.20	-15396709.08	-15396708.89	0.0089	0.0070 *
Moon	-46866-02-11 19:11 J	-15396341.93	-15396341.70	-15396341.44	0.0089	0.0032
Earth	-46866-02-11 21:21 J	-15396341.83	-15396341.61	-15396341.36	0.0089	0.0036 *
Mercury	-46866-11-29 08:09 J	-15396051.18	-15396051.16	-15396051.10	0.0089	0.0086
Earth	-46865-02-14 09:06 J	-15395974.37	-15395974.12	-15395973.86	0.0089	0.0006
Moon	-46865-02-14 11:45 J	-15395974.26	-15395974.01	-15395973.76	0.0089	0.0010 *
Mercury	-46865-02-25 11:02 J	-15395963.12	-15395963.04	-15395962.97	0.0089	0.0078
Mercury	-46865-05-23 13:11 J	-15395875.04	-15395874.95	-15395874.85	0.0089	0.0071
Mercury	-46865-08-19 15:35 J	-15395786.95	-15395786.85	-15395786.73	0.0089	0.0064
Mercury	-46865-11-15 17:59 J	-15395698.87	-15395698.75	-15395698.61	0.0089	0.0057

Mercury -46864-02-11 20:38 J -15395610.77 -15395610.64 -15395610.50 0.0089 0.0049

Moon -46864-02-15 17:02 J -15395607.02 -15395606.79 -15395606.53 0.0089 0.0028

Earth -46864-02-15 20:38 J -15395606.88 -15395606.64 -15395606.38 0.0089 0.0024 *

Mercury -46864-05-10 23:02 J -15395522.68 -15395522.54 -15395522.39 0.0089 0.0042

Mercury -46864-08-07 01:26 J -15395434.58 -15395434.44 -15395434.28 0.0089 0.0035

Mercury -46864-11-03 04:04 J -15395346.49 -15395346.33 -15395346.17 0.0089 0.0027

Mercury -46863-01-30 06:28 J -15395258.39 -15395258.23 -15395258.06 0.0089 0.0020

Earth -46863-02-18 08:23 J -15395239.35 -15395239.15 -15395238.94 0.0089 0.0053

Moon -46863-02-18 11:45 J -15395239.21 -15395239.01 -15395238.78 0.0089 0.0049 *

Mercury -46863-04-28 09:06 J -15395170.28 -15395170.12 -15395169.95 0.0089 0.0012

Mercury -46863-07-25 11:45 J -15395082.18 -15395082.01 -15395081.85 0.0089 0.0005

Mercury -46863-10-21 14:09 J -15394994.08 -15394993.91 -15394993.74 0.0089 0.0003

Mercury -46862-01-17 16:47 J -15394905.97 -15394905.80 -15394905.63 0.0089 0.0010

Moon -46862-02-20 16:33 J -15394871.84 -15394871.81 -15394871.74 0.0089 0.0087

Earth -46862-02-20 19:40 J -15394871.74 -15394871.68 -15394871.56 0.0089 0.0083 *

Mercury -46862-04-15 19:11 J -15394817.86 -15394817.70 -15394817.53 0.0089 0.0018

Mercury -46862-07-12 21:50 J -15394729.75 -15394729.59 -15394729.43 0.0089 0.0025

Mercury -46862-10-09 00:14 J -15394641.64 -15394641.49 -15394641.32 0.0089 0.0033

Mercury -46861-01-05 02:52 J -15394553.52 -15394553.38 -15394553.22 0.0089 0.0041

Mercury -46861-04-02 05:45 J -15394465.40 -15394465.26 -15394465.12 0.0089 0.0048

Mercury -46861-06-29 08:09 J -15394377.28 -15394377.16 -15394377.02 0.0089 0.0056

Mercury -46861-09-25 10:33 J -15394289.16 -15394289.06 -15394288.93 0.0089 0.0064

Mercury -46861-12-22 13:11 J -15394201.03 -15394200.95 -15394200.83 0.0089 0.0072

Mercury -46860-03-20 16:04 J -15394112.90 -15394112.83 -15394112.75 0.0089 0.0079

Mercury -46860-06-16 18:42 J -15394024.74 -15394024.72 -15394024.68 0.0089 0.0087

Mars -46845-12-14 08:52 J -15388365.15 -15388365.13 -15388365.08 0.0089 0.0088

Mars -46843-11-08 21:35 J -15387670.78 -15387670.60 -15387670.41 0.0088 0.0071

Mars -46841-10-03 12:28 J -15386976.20 -15386975.98 -15386975.70 0.0088 0.0054

Mars -46839-08-29 07:26 J -15386281.46 -15386281.19 -15386280.88 0.0088 0.0036

Mars -46837-07-24 03:21 J -15385586.66 -15385586.36 -15385586.04 0.0088 0.0017

Mars	-46835-06-19 02:38 J	-15384891.70	-15384891.39	-15384891.06	0.0088	0.0003
Mars	-46833-05-14 04:47 J	-15384196.59	-15384196.30	-15384195.97	0.0088	0.0022
Mars	-46831-04-09 09:21 J	-15383501.37	-15383501.11	-15383500.80	0.0088	0.0041
Mars	-46829-03-04 16:04 J	-15382806.05	-15382805.83	-15382805.57	0.0088	0.0060
Mars	-46827-01-29 02:52 J	-15382110.52	-15382110.38	-15382110.23	0.0088	0.0079
Venus	-46827-03-23 19:11 J	-15382056.75	-15382056.70	-15382056.62	0.0088	0.0085
Venus	-46827-11-04 09:06 J	-15381831.25	-15381831.12	-15381830.96	0.0088	0.0069
Venus	-46826-06-17 23:02 J	-15381605.71	-15381605.54	-15381605.34	0.0088	0.0053
Venus	-46825-01-29 13:11 J	-15381380.15	-15381379.95	-15381379.73	0.0088	0.0036
Venus	-46825-09-11 03:35 J	-15381154.58	-15381154.35	-15381154.13	0.0088	0.0020
Venus	-46824-04-24 17:30 J	-15380929.00	-15380928.77	-15380928.54	0.0088	0.0003
Venus	-46824-12-06 07:26 J	-15380703.41	-15380703.19	-15380702.96	0.0088	0.0013
Venus	-46823-07-19 21:21 J	-15380477.82	-15380477.61	-15380477.39	0.0088	0.0029
Venus	-46822-03-02 11:30 J	-15380252.21	-15380252.02	-15380251.82	0.0088	0.0046
Venus	-46822-10-14 01:11 J	-15380026.59	-15380026.45	-15380026.26	0.0088	0.0062
Venus	-46821-05-26 15:21 J	-15379800.94	-15379800.86	-15379800.74	0.0088	0.0078
Moon	-46785-08-13 08:23 J	-15366573.27	-15366573.15	-15366573.01	0.0088	0.0077
Earth	-46785-08-13 08:23 J	-15366573.27	-15366573.15	-15366572.99	0.0088	0.0074 *
Earth	-46784-08-15 19:54 J	-15366205.87	-15366205.67	-15366205.42	0.0088	0.0045
Moon	-46784-08-15 22:04 J	-15366205.80	-15366205.58	-15366205.35	0.0088	0.0041 *
Moon	-46783-08-18 05:16 J	-15365838.54	-15365838.28	-15365838.02	0.0088	0.0018
Earth	-46783-08-18 08:09 J	-15365838.41	-15365838.16	-15365837.90	0.0088	0.0015 *
Mercury	-46783-09-02 16:18 J	-15365822.86	-15365822.82	-15365822.75	0.0088	0.0083
Mercury	-46783-11-29 18:28 J	-15365734.80	-15365734.73	-15365734.64	0.0088	0.0075
Mercury	-46782-02-25 20:23 J	-15365646.74	-15365646.65	-15365646.55	0.0088	0.0069
Mercury	-46782-05-24 22:18 J	-15365558.67	-15365558.57	-15365558.45	0.0088	0.0062
Earth	-46782-08-20 19:40 J	-15365470.93	-15365470.68	-15365470.42	0.0088	0.0015
Moon	-46782-08-20 22:47 J	-15365470.79	-15365470.55	-15365470.29	0.0088	0.0019 *
Mercury	-46782-08-20 23:59 J	-15365470.60	-15365470.50	-15365470.36	0.0088	0.0056 *
Mercury	-46782-11-17 02:09 J	-15365382.53	-15365382.41	-15365382.28	0.0088	0.0048

Mercury -46781-02-13 04:04 J -15365294.46 -15365294.33 -15365294.19 0.0088 0.0042

Mercury -46781-05-11 05:59 J -15365206.38 -15365206.25 -15365206.11 0.0088 0.0035

Mercury -46781-08-07 07:40 J -15365118.31 -15365118.18 -15365118.03 0.0088 0.0029

Moon -46781-08-22 03:21 J -15365103.57 -15365103.36 -15365103.11 0.0088 0.0041

Earth -46781-08-22 07:11 J -15365103.41 -15365103.20 -15365102.96 0.0088 0.0044 *

Mercury -46781-11-03 09:50 J -15365030.24 -15365030.09 -15365029.94 0.0088 0.0021

Mercury -46780-01-30 11:45 J -15364942.16 -15364942.01 -15364941.87 0.0088 0.0015

Mercury -46780-04-28 13:26 J -15364854.08 -15364853.94 -15364853.79 0.0088 0.0009

Mercury -46780-07-25 15:21 J -15364766.01 -15364765.86 -15364765.71 0.0088 0.0002

Earth -46780-08-24 18:28 J -15364735.84 -15364735.73 -15364735.56 0.0088 0.0074

Moon -46780-08-24 22:18 J -15364735.69 -15364735.57 -15364735.44 0.0088 0.0077 *

Mercury -46780-10-21 17:16 J -15364677.93 -15364677.78 -15364677.63 0.0088 0.0005

Mercury -46779-01-17 18:57 J -15364589.85 -15364589.71 -15364589.56 0.0088 0.0012

Mercury -46779-04-15 20:52 J -15364501.78 -15364501.63 -15364501.49 0.0088 0.0018

Mercury -46779-07-12 22:33 J -15364413.70 -15364413.56 -15364413.41 0.0088 0.0025

Mercury -46779-10-09 00:14 J -15364325.62 -15364325.49 -15364325.34 0.0088 0.0032

Mercury -46778-01-05 02:09 J -15364237.54 -15364237.41 -15364237.27 0.0088 0.0038

Mercury -46778-04-03 03:50 J -15364149.46 -15364149.34 -15364149.20 0.0089 0.0044

Mercury -46778-06-30 05:45 J -15364061.38 -15364061.26 -15364061.14 0.0089 0.0051

Mercury -46778-09-26 07:11 J -15363973.30 -15363973.20 -15363973.07 0.0089 0.0058

Mercury -46778-12-23 09:06 J -15363885.21 -15363885.12 -15363885.01 0.0089 0.0064

Mercury -46777-03-20 11:02 J -15363797.13 -15363797.04 -15363796.95 0.0089 0.0070

Mercury -46777-06-16 12:28 J -15363709.04 -15363708.98 -15363708.89 0.0089 0.0077

Mercury -46777-09-12 14:09 J -15363620.94 -15363620.91 -15363620.84 0.0089 0.0083

Mars -46761-10-10 18:28 J -15357748.84 -15357748.73 -15357748.56 0.0089 0.0080

Mars -46759-09-05 19:54 J -15357053.87 -15357053.67 -15357053.41 0.0089 0.0061

Mars -46757-07-31 18:14 J -15356359.01 -15356358.74 -15356358.46 0.0089 0.0041

Mars -46755-06-26 14:09 J -15355664.20 -15355663.91 -15355663.60 0.0089 0.0022

Mars -46753-05-21 07:40 J -15354969.49 -15354969.18 -15354968.87 0.0089 0.0003

Mars -46751-04-15 21:06 J -15354274.91 -15354274.62 -15354274.30 0.0089 0.0016

Mars	-46749-03-10 08:38 J	-15353580.41	-15353580.14	-15353579.84	0.0089	0.0034
Mars	-46747-02-02 18:42 J	-15352885.94	-15352885.72	-15352885.45	0.0089	0.0052
Mars	-46746-12-29 01:40 J	-15352191.58	-15352191.43	-15352191.21	0.0089	0.0071
Venus	-46745-12-22 07:26 J	-15351832.28	-15351832.19	-15351832.07	0.0089	0.0077
Venus	-46744-08-04 19:40 J	-15351606.83	-15351606.68	-15351606.52	0.0089	0.0062
Mars	-46744-11-22 06:28 J	-15351497.25	-15351497.23	-15351497.12	0.0089	0.0088
Venus	-46743-03-18 07:26 J	-15351381.35	-15351381.19	-15351380.99	0.0089	0.0047
Venus	-46743-10-29 19:40 J	-15351155.87	-15351155.68	-15351155.47	0.0089	0.0030
Venus	-46742-06-12 07:54 J	-15350930.38	-15350930.17	-15350929.96	0.0089	0.0014
Venus	-46741-01-23 19:54 J	-15350704.88	-15350704.67	-15350704.45	0.0089	0.0002
Venus	-46741-09-05 08:09 J	-15350479.37	-15350479.16	-15350478.95	0.0089	0.0017
Venus	-46740-04-18 19:54 J	-15350253.86	-15350253.67	-15350253.46	0.0089	0.0033
Venus	-46740-11-30 07:40 J	-15350028.34	-15350028.18	-15350027.99	0.0089	0.0049
Venus	-46739-07-13 19:54 J	-15349802.81	-15349802.67	-15349802.52	0.0089	0.0065
Venus	-46738-02-24 07:26 J	-15349577.26	-15349577.19	-15349577.08	0.0089	0.0081
Moon	-46703-02-08 19:11 J	-15336808.80	-15336808.70	-15336808.58	0.0089	0.0080
Earth	-46703-02-08 20:52 J	-15336808.72	-15336808.63	-15336808.49	0.0089	0.0079 *
Earth	-46702-02-11 08:38 J	-15336441.34	-15336441.14	-15336440.91	0.0089	0.0049
Moon	-46702-02-11 11:45 J	-15336441.21	-15336441.01	-15336440.78	0.0089	0.0047 *
Moon	-46701-02-13 17:02 J	-15336074.03	-15336073.79	-15336073.53	0.0089	0.0021
Earth	-46701-02-13 20:23 J	-15336073.89	-15336073.65	-15336073.39	0.0089	0.0019 *
Mercury	-46701-05-29 05:16 J	-15335968.28	-15335968.28	-15335968.24	0.0089	0.0088
Mercury	-46701-08-25 07:40 J	-15335880.23	-15335880.18	-15335880.09	0.0089	0.0081
Mercury	-46701-11-21 10:33 J	-15335792.15	-15335792.06	-15335791.97	0.0089	0.0073
Earth	-46700-02-15 08:09 J	-15335706.41	-15335706.16	-15335705.90	0.0089	0.0011
Moon	-46700-02-15 11:45 J	-15335706.26	-15335706.01	-15335705.75	0.0089	0.0012 *
Mercury	-46700-02-17 12:42 J	-15335704.07	-15335703.97	-15335703.85	0.0089	0.0066
Mercury	-46700-05-16 15:06 J	-15335615.98	-15335615.87	-15335615.74	0.0089	0.0059
Mercury	-46700-08-12 17:30 J	-15335527.89	-15335527.77	-15335527.62	0.0089	0.0052
Mercury	-46700-11-08 20:09 J	-15335439.80	-15335439.66	-15335439.51	0.0089	0.0044

Mercury -46699-02-04 22:33 J -15335351.70 -15335351.56 -15335351.40 0.0089 0.0037

Moon -46699-02-17 16:33 J -15335339.02 -15335338.81 -15335338.56 0.0089 0.0039

Earth -46699-02-17 19:26 J -15335338.90 -15335338.69 -15335338.44 0.0089 0.0041 *

Mercury -46699-05-04 00:57 J -15335263.61 -15335263.46 -15335263.29 0.0089 0.0030

Mercury -46699-07-31 03:35 J -15335175.51 -15335175.35 -15335175.18 0.0089 0.0022

Mercury -46699-10-27 05:59 J -15335087.41 -15335087.25 -15335087.08 0.0089 0.0015

Mercury -46698-01-23 08:38 J -15334999.30 -15334999.14 -15334998.97 0.0089 0.0007

Earth -46698-02-20 07:26 J -15334971.34 -15334971.19 -15334971.03 0.0089 0.0070

Moon -46698-02-20 09:35 J -15334971.24 -15334971.10 -15334970.92 0.0089 0.0071 *

Mercury -46698-04-21 11:16 J -15334911.20 -15334911.03 -15334910.86 0.0089 0.0001

Mercury -46698-07-18 13:40 J -15334823.10 -15334822.93 -15334822.76 0.0089 0.0008

Mercury -46698-10-14 16:18 J -15334734.99 -15334734.82 -15334734.66 0.0089 0.0015

Mercury -46697-01-10 18:42 J -15334646.88 -15334646.72 -15334646.55 0.0089 0.0023

Mercury -46697-04-07 21:06 J -15334558.77 -15334558.62 -15334558.45 0.0089 0.0031

Mercury -46697-07-04 23:45 J -15334470.65 -15334470.51 -15334470.35 0.0089 0.0038

Mercury -46697-10-01 02:23 J -15334382.54 -15334382.40 -15334382.25 0.0089 0.0046

Mercury -46697-12-28 04:47 J -15334294.42 -15334294.30 -15334294.15 0.0089 0.0054

Mercury -46696-03-26 07:40 J -15334206.30 -15334206.18 -15334206.05 0.0089 0.0061

Mercury -46696-06-22 10:04 J -15334118.17 -15334118.08 -15334117.96 0.0089 0.0069

Mercury -46696-09-18 12:42 J -15334030.04 -15334029.97 -15334029.87 0.0089 0.0077

Mercury -46696-12-15 15:35 J -15333941.90 -15333941.85 -15333941.80 0.0089 0.0084

Mars -46679-06-23 22:33 J -15327907.70 -15327907.56 -15327907.35 0.0088 0.0074

Mars -46677-05-18 12:42 J -15327213.19 -15327212.97 -15327212.71 0.0088 0.0056

Mars -46675-04-13 04:33 J -15326518.58 -15326518.31 -15326518.01 0.0088 0.0038

Mars -46673-03-08 00:14 J -15325823.79 -15325823.49 -15325823.17 0.0088 0.0019

Mars -46671-01-31 20:52 J -15325128.94 -15325128.63 -15325128.31 0.0088 0.0002

Mars -46670-12-27 19:54 J -15324433.97 -15324433.67 -15324433.35 0.0088 0.0019

Mars -46668-11-21 22:33 J -15323738.84 -15323738.56 -15323738.26 0.0088 0.0039

Mars -46666-10-18 03:06 J -15323043.58 -15323043.37 -15323043.10 0.0088 0.0059

Mars -46664-09-12 10:33 J -15322348.20 -15322348.06 -15322347.89 0.0088 0.0078

Venus	-46662-02-05 19:54 J	-15321836.77	-15321836.67	-15321836.53	0.0088	0.0074
Venus	-46662-09-19 09:50 J	-15321611.24	-15321611.09	-15321610.89	0.0088	0.0058
Venus	-46661-05-02 00:14 J	-15321385.68	-15321385.49	-15321385.28	0.0088	0.0042
Venus	-46661-12-13 14:09 J	-15321160.12	-15321159.91	-15321159.69	0.0088	0.0026
Venus	-46660-07-27 04:04 J	-15320934.55	-15320934.33	-15320934.10	0.0088	0.0010
Venus	-46659-03-09 18:14 J	-15320708.96	-15320708.74	-15320708.51	0.0088	0.0007
Venus	-46659-10-21 08:09 J	-15320483.37	-15320483.16	-15320482.93	0.0088	0.0023
Venus	-46658-06-03 22:04 J	-15320257.77	-15320257.58	-15320257.37	0.0088	0.0040
Venus	-46657-01-15 12:14 J	-15320032.16	-15320031.99	-15320031.81	0.0088	0.0056
Venus	-46657-08-28 01:54 J	-15319806.53	-15319806.42	-15319806.27	0.0088	0.0072
Venus	-46656-04-10 16:18 J	-15319580.82	-15319580.82	-15319580.79	0.0088	0.0088
Earth	-46621-08-12 19:40 J	-15306672.71	-15306672.68	-15306672.61	0.0088	0.0087
Moon	-46620-08-15 04:47 J	-15306305.50	-15306305.30	-15306305.08	0.0088	0.0054
Earth	-46620-08-15 07:26 J	-15306305.36	-15306305.19	-15306304.97	0.0088	0.0058 *
Earth	-46619-08-17 19:26 J	-15305937.93	-15305937.69	-15305937.44	0.0088	0.0028
Moon	-46619-08-17 22:47 J	-15305937.78	-15305937.55	-15305937.30	0.0088	0.0031 *
Mercury	-46618-03-03 14:23 J	-15305739.93	-15305739.90	-15305739.85	0.0088	0.0084
Mercury	-46618-05-30 16:18 J	-15305651.88	-15305651.82	-15305651.74	0.0088	0.0078
Moon	-46618-08-20 03:50 J	-15305570.60	-15305570.34	-15305570.08	0.0088	0.0005
Earth	-46618-08-20 07:11 J	-15305570.46	-15305570.20	-15305569.94	0.0088	0.0002 *
Mercury	-46618-08-26 18:28 J	-15305563.82	-15305563.73	-15305563.64	0.0088	0.0071
Mercury	-46618-11-22 20:23 J	-15305475.75	-15305475.65	-15305475.54	0.0088	0.0064
Mercury	-46617-02-18 22:04 J	-15305387.68	-15305387.58	-15305387.45	0.0088	0.0057
Mercury	-46617-05-16 23:59 J	-15305299.61	-15305299.50	-15305299.36	0.0088	0.0051
Mercury	-46617-08-13 02:09 J	-15305211.54	-15305211.41	-15305211.28	0.0088	0.0044
Earth	-46617-08-21 18:42 J	-15305202.96	-15305202.72	-15305202.47	0.0088	0.0032
Moon	-46617-08-21 22:18 J	-15305202.81	-15305202.57	-15305202.32	0.0088	0.0029 *
Mercury	-46617-11-09 04:04 J	-15305123.47	-15305123.33	-15305123.19	0.0088	0.0037
Mercury	-46616-02-05 05:45 J	-15305035.39	-15305035.26	-15305035.11	0.0088	0.0030
Mercury	-46616-05-04 07:40 J	-15304947.32	-15304947.18	-15304947.03	0.0088	0.0024

Mercury -46616-07-31 09:35 J -15304859.24 -15304859.10 -15304858.95 0.0088 0.0017
 Moon -46616-08-24 03:35 J -15304835.50 -15304835.35 -15304835.15 0.0088 0.0065
 Earth -46616-08-24 05:59 J -15304835.41 -15304835.25 -15304835.04 0.0088 0.0061 *
 Mercury -46616-10-27 11:30 J -15304771.17 -15304771.02 -15304770.87 0.0088 0.0010
 Mercury -46615-01-23 13:26 J -15304683.09 -15304682.94 -15304682.79 0.0088 0.0003
 Mercury -46615-04-21 15:06 J -15304595.01 -15304594.87 -15304594.72 0.0088 0.0005
 Mercury -46615-07-18 17:02 J -15304506.94 -15304506.79 -15304506.64 0.0088 0.0010
 Moon -46615-08-26 19:54 J -15304467.67 -15304467.67 -15304467.66 0.0088 0.0088
 Mercury -46615-10-14 18:57 J -15304418.86 -15304418.71 -15304418.56 0.0088 0.0016
 Mercury -46614-01-10 20:38 J -15304330.78 -15304330.64 -15304330.49 0.0088 0.0023
 Mercury -46614-04-08 22:33 J -15304242.70 -15304242.56 -15304242.42 0.0088 0.0029
 Mercury -46614-07-06 00:14 J -15304154.62 -15304154.49 -15304154.35 0.0088 0.0036
 Mercury -46614-10-02 01:54 J -15304066.54 -15304066.42 -15304066.28 0.0088 0.0043
 Mercury -46614-12-29 04:04 J -15303978.46 -15303978.33 -15303978.21 0.0088 0.0049
 Mercury -46613-03-26 05:30 J -15303890.37 -15303890.27 -15303890.15 0.0088 0.0056
 Mercury -46613-06-22 07:26 J -15303802.29 -15303802.19 -15303802.08 0.0088 0.0062
 Mercury -46613-09-18 08:52 J -15303714.20 -15303714.13 -15303714.02 0.0089 0.0069
 Mercury -46613-12-15 10:47 J -15303626.12 -15303626.05 -15303625.96 0.0089 0.0075
 Mercury -46612-03-13 12:42 J -15303538.02 -15303537.97 -15303537.91 0.0089 0.0081
 Mercury -46612-06-09 14:09 J -15303449.92 -15303449.91 -15303449.87 0.0089 0.0088
 Mars -46597-05-25 08:09 J -15297986.24 -15297986.16 -15297986.02 0.0089 0.0083
 Mars -46595-04-20 10:33 J -15297291.25 -15297291.06 -15297290.81 0.0089 0.0064
 Mars -46593-03-15 11:30 J -15296596.28 -15296596.02 -15296595.73 0.0089 0.0044
 Mars -46591-02-08 08:38 J -15295901.43 -15295901.14 -15295900.82 0.0089 0.0025
 Mars -46589-01-04 03:50 J -15295206.65 -15295206.34 -15295206.03 0.0089 0.0005
 Mars -46588-11-28 20:38 J -15294511.94 -15294511.64 -15294511.33 0.0089 0.0014
 Mars -46586-10-24 09:50 J -15293817.36 -15293817.09 -15293816.79 0.0089 0.0033
 Mars -46584-09-17 21:06 J -15293122.85 -15293122.62 -15293122.35 0.0089 0.0051
 Mars -46582-08-13 06:28 J -15292428.39 -15292428.23 -15292428.00 0.0089 0.0070
 Venus -46580-03-25 20:38 J -15291837.71 -15291837.64 -15291837.56 0.0089 0.0083

Mars	-46580-07-07 14:23 J	-15291733.95	-15291733.90	-15291733.81	0.0089	0.0087
Venus	-46580-11-06 08:23 J	-15291612.27	-15291612.15	-15291611.99	0.0089	0.0067
Venus	-46579-06-19 20:38 J	-15291386.81	-15291386.64	-15291386.46	0.0089	0.0051
Venus	-46578-01-31 08:52 J	-15291161.33	-15291161.13	-15291160.93	0.0089	0.0036
Venus	-46578-09-13 20:52 J	-15290935.83	-15290935.63	-15290935.41	0.0089	0.0020
Venus	-46577-04-26 09:06 J	-15290710.33	-15290710.12	-15290709.90	0.0089	0.0004
Venus	-46577-12-07 21:06 J	-15290484.83	-15290484.62	-15290484.41	0.0089	0.0012
Venus	-46576-07-21 09:06 J	-15290259.32	-15290259.12	-15290258.91	0.0089	0.0027
Venus	-46575-03-03 20:52 J	-15290033.80	-15290033.63	-15290033.43	0.0089	0.0043
Venus	-46575-10-15 08:52 J	-15289808.27	-15289808.13	-15289807.95	0.0089	0.0059
Venus	-46574-05-28 20:52 J	-15289582.73	-15289582.63	-15289582.50	0.0089	0.0075
Moon	-46539-02-08 11:30 J	-15276908.04	-15276908.02	-15276907.97	0.0089	0.0088
Moon	-46538-02-10 16:47 J	-15276540.96	-15276540.80	-15276540.62	0.0089	0.0066
Earth	-46538-02-10 20:23 J	-15276540.82	-15276540.65	-15276540.46	0.0089	0.0062 *
Earth	-46537-02-13 08:09 J	-15276173.40	-15276173.16	-15276172.92	0.0089	0.0032
Moon	-46537-02-13 11:30 J	-15276173.26	-15276173.02	-15276172.77	0.0089	0.0028 *
Moon	-46536-02-14 16:47 J	-15275806.05	-15275805.80	-15275805.54	0.0089	0.0007
Earth	-46536-02-14 19:54 J	-15275805.92	-15275805.67	-15275805.41	0.0089	0.0003 *
Mercury	-46536-02-23 05:02 J	-15275797.33	-15275797.29	-15275797.22	0.0089	0.0083
Mercury	-46536-05-22 07:26 J	-15275709.26	-15275709.19	-15275709.09	0.0089	0.0076
Mercury	-46536-08-18 10:04 J	-15275621.18	-15275621.08	-15275620.97	0.0089	0.0068
Mercury	-46536-11-14 12:28 J	-15275533.09	-15275532.98	-15275532.86	0.0089	0.0061
Mercury	-46535-02-10 14:38 J	-15275445.00	-15275444.89	-15275444.74	0.0089	0.0054
Earth	-46535-02-17 07:26 J	-15275438.42	-15275438.19	-15275437.94	0.0089	0.0028
Moon	-46535-02-17 09:21 J	-15275438.34	-15275438.11	-15275437.85	0.0089	0.0032 *
Mercury	-46535-05-09 17:30 J	-15275356.91	-15275356.77	-15275356.63	0.0089	0.0046
Mercury	-46535-08-05 19:40 J	-15275268.82	-15275268.68	-15275268.52	0.0089	0.0039
Mercury	-46535-11-01 22:04 J	-15275180.72	-15275180.58	-15275180.41	0.0089	0.0032
Mercury	-46534-01-29 00:42 J	-15275092.62	-15275092.47	-15275092.30	0.0089	0.0024
Moon	-46534-02-19 18:14 J	-15275070.93	-15275070.74	-15275070.54	0.0089	0.0054

Earth -46534-02-19 18:57 J -15275070.89 -15275070.71 -15275070.50 0.0089 0.0058 *
 Mercury -46534-04-27 03:21 J -15275004.52 -15275004.36 -15275004.20 0.0089 0.0017
 Mercury -46534-07-24 05:45 J -15274916.42 -15274916.26 -15274916.09 0.0089 0.0010
 Mercury -46534-10-20 08:23 J -15274828.32 -15274828.15 -15274827.98 0.0089 0.0002
 Mercury -46533-01-16 10:47 J -15274740.21 -15274740.05 -15274739.88 0.0089 0.0006
 Earth -46533-02-22 06:14 J -15274703.25 -15274703.24 -15274703.17 0.0089 0.0088
 Mercury -46533-04-13 13:26 J -15274652.11 -15274651.94 -15274651.78 0.0089 0.0013
 Mercury -46533-07-10 15:50 J -15274564.00 -15274563.84 -15274563.67 0.0089 0.0021
 Mercury -46533-10-06 18:28 J -15274475.89 -15274475.73 -15274475.57 0.0089 0.0028
 Mercury -46532-01-02 20:52 J -15274387.78 -15274387.63 -15274387.47 0.0089 0.0036
 Mercury -46532-03-31 23:16 J -15274299.66 -15274299.53 -15274299.37 0.0089 0.0044
 Mercury -46532-06-28 02:09 J -15274211.55 -15274211.41 -15274211.27 0.0089 0.0051
 Mercury -46532-09-24 04:33 J -15274123.43 -15274123.31 -15274123.17 0.0089 0.0059
 Mercury -46532-12-21 06:57 J -15274035.30 -15274035.21 -15274035.08 0.0089 0.0067
 Mercury -46531-03-19 10:04 J -15273947.17 -15273947.08 -15273946.99 0.0089 0.0074
 Mercury -46531-06-15 12:28 J -15273859.04 -15273858.98 -15273858.91 0.0089 0.0082
 Mars -46515-02-06 01:40 J -15268144.58 -15268144.43 -15268144.27 0.0089 0.0076
 Mars -46513-01-01 13:26 J -15267450.14 -15267449.94 -15267449.68 0.0088 0.0059
 Mars -46512-11-26 04:18 J -15266755.59 -15266755.32 -15266755.04 0.0088 0.0040
 Mars -46510-10-21 20:09 J -15266060.95 -15266060.66 -15266060.34 0.0088 0.0022
 Mars -46508-09-15 16:04 J -15265366.14 -15265365.83 -15265365.51 0.0088 0.0003
 Mars -46506-08-11 13:40 J -15264671.23 -15264670.93 -15264670.60 0.0088 0.0018
 Mars -46504-07-06 12:57 J -15263976.22 -15263975.96 -15263975.64 0.0088 0.0038
 Mars -46502-06-01 16:47 J -15263281.04 -15263280.80 -15263280.54 0.0088 0.0057
 Mars -46500-04-26 22:18 J -15262585.70 -15262585.57 -15262585.38 0.0088 0.0077
 Venus -46498-05-10 06:57 J -15261842.28 -15261842.21 -15261842.09 0.0088 0.0080
 Venus -46498-12-21 21:06 J -15261616.76 -15261616.62 -15261616.45 0.0088 0.0063
 Venus -46497-08-03 11:02 J -15261391.21 -15261391.04 -15261390.83 0.0088 0.0048
 Venus -46496-03-17 01:11 J -15261165.65 -15261165.45 -15261165.22 0.0088 0.0031
 Venus -46496-10-28 15:21 J -15260940.08 -15260939.86 -15260939.63 0.0088 0.0015

Venus	-46495-06-11 05:30 J	-15260714.50	-15260714.27	-15260714.04	0.0088	0.0001
Venus	-46494-01-22 19:26 J	-15260488.91	-15260488.69	-15260488.46	0.0088	0.0017
Venus	-46494-09-05 09:21 J	-15260263.31	-15260263.11	-15260262.89	0.0088	0.0034
Venus	-46493-04-17 23:30 J	-15260037.71	-15260037.52	-15260037.33	0.0088	0.0050
Venus	-46493-11-29 12:57 J	-15259812.09	-15259811.96	-15259811.79	0.0088	0.0066
Venus	-46492-07-13 02:52 J	-15259586.44	-15259586.38	-15259586.27	0.0088	0.0082
Earth	-46456-08-14 19:40 J	-15246404.84	-15246404.68	-15246404.53	0.0088	0.0070
Moon	-46456-08-14 22:47 J	-15246404.68	-15246404.55	-15246404.40	0.0088	0.0074 *
Moon	-46455-08-17 03:21 J	-15246037.58	-15246037.36	-15246037.11	0.0088	0.0038
Earth	-46455-08-17 06:57 J	-15246037.42	-15246037.21	-15246036.96	0.0088	0.0041 *
Earth	-46454-08-19 18:42 J	-15245669.97	-15245669.72	-15245669.46	0.0088	0.0011
Moon	-46454-08-19 21:35 J	-15245669.85	-15245669.60	-15245669.33	0.0088	0.0015 *
Mercury	-46454-09-01 12:14 J	-15245657.00	-15245656.99	-15245656.95	0.0088	0.0087
Mercury	-46454-11-28 14:23 J	-15245568.96	-15245568.90	-15245568.83	0.0088	0.0080
Mercury	-46453-02-24 16:18 J	-15245480.90	-15245480.82	-15245480.73	0.0088	0.0073
Mercury	-46453-05-22 18:28 J	-15245392.83	-15245392.73	-15245392.63	0.0088	0.0066
Mercury	-46453-08-18 19:54 J	-15245304.76	-15245304.67	-15245304.54	0.0088	0.0060
Moon	-46453-08-21 03:35 J	-15245302.59	-15245302.35	-15245302.10	0.0088	0.0023
Earth	-46453-08-21 05:59 J	-15245302.49	-15245302.25	-15245301.98	0.0088	0.0020 *
Mercury	-46453-11-14 22:04 J	-15245216.69	-15245216.58	-15245216.45	0.0088	0.0052
Mercury	-46452-02-10 23:59 J	-15245128.62	-15245128.50	-15245128.36	0.0088	0.0046
Mercury	-46452-05-10 02:09 J	-15245040.55	-15245040.41	-15245040.28	0.0088	0.0039
Mercury	-46452-08-06 03:50 J	-15244952.48	-15244952.34	-15244952.20	0.0088	0.0032
Earth	-46452-08-23 17:45 J	-15244934.97	-15244934.76	-15244934.54	0.0088	0.0049
Moon	-46452-08-23 18:42 J	-15244934.94	-15244934.72	-15244934.48	0.0088	0.0046 *
Mercury	-46452-11-02 05:45 J	-15244864.40	-15244864.26	-15244864.11	0.0088	0.0025
Mercury	-46451-01-29 07:40 J	-15244776.33	-15244776.18	-15244776.03	0.0088	0.0019
Mercury	-46451-04-27 09:35 J	-15244688.25	-15244688.10	-15244687.95	0.0088	0.0012
Mercury	-46451-07-24 11:30 J	-15244600.17	-15244600.02	-15244599.87	0.0088	0.0006
Earth	-46451-08-26 05:02 J	-15244567.39	-15244567.29	-15244567.15	0.0088	0.0079

Moon -46451-08-26 05:16 J -15244567.36 -15244567.28 -15244567.18 0.0088 0.0082 *
 Mercury -46451-10-20 13:11 J -15244512.10 -15244511.95 -15244511.80 0.0088 0.0002
 Mercury -46450-01-16 15:06 J -15244424.02 -15244423.87 -15244423.72 0.0088 0.0008
 Mercury -46450-04-14 17:02 J -15244335.94 -15244335.79 -15244335.65 0.0088 0.0015
 Mercury -46450-07-11 18:42 J -15244247.86 -15244247.72 -15244247.57 0.0088 0.0021
 Mercury -46450-10-07 20:38 J -15244159.78 -15244159.64 -15244159.50 0.0088 0.0028
 Mercury -46449-01-03 22:18 J -15244071.70 -15244071.57 -15244071.43 0.0088 0.0034
 Mercury -46449-04-01 00:14 J -15243983.62 -15243983.49 -15243983.36 0.0088 0.0041
 Mercury -46449-06-28 01:40 J -15243895.54 -15243895.43 -15243895.29 0.0088 0.0048
 Mercury -46449-09-24 03:35 J -15243807.46 -15243807.35 -15243807.22 0.0088 0.0054
 Mercury -46449-12-21 05:16 J -15243719.37 -15243719.28 -15243719.16 0.0088 0.0061
 Mercury -46448-03-19 07:11 J -15243631.29 -15243631.20 -15243631.10 0.0088 0.0067
 Mercury -46448-06-15 09:06 J -15243543.20 -15243543.12 -15243543.04 0.0089 0.0073
 Mercury -46448-09-11 10:33 J -15243455.11 -15243455.06 -15243454.98 0.0089 0.0080
 Mercury -46448-12-08 12:28 J -15243367.01 -15243366.98 -15243366.94 0.0089 0.0086
 Mars -46433-01-07 20:52 J -15238223.67 -15238223.63 -15238223.54 0.0089 0.0087
 Mars -46432-12-03 01:26 J -15237528.63 -15237528.44 -15237528.21 0.0089 0.0067
 Mars -46430-10-29 03:06 J -15236833.62 -15236833.37 -15236833.08 0.0089 0.0047
 Mars -46428-09-23 03:21 J -15236138.66 -15236138.36 -15236138.06 0.0089 0.0027
 Mars -46426-08-19 00:28 J -15235443.78 -15235443.48 -15235443.16 0.0089 0.0008
 Mars -46424-07-13 18:28 J -15234749.03 -15234748.73 -15234748.42 0.0089 0.0012
 Mars -46422-06-08 10:47 J -15234054.33 -15234054.05 -15234053.75 0.0089 0.0031
 Mars -46420-05-02 23:45 J -15233359.74 -15233359.51 -15233359.24 0.0089 0.0051
 Mars -46418-03-28 10:18 J -15232665.25 -15232665.07 -15232664.87 0.0089 0.0069
 Mars -46416-02-19 18:28 J -15231970.78 -15231970.73 -15231970.62 0.0089 0.0086
 Venus -46416-06-27 09:06 J -15231843.12 -15231843.12 -15231843.06 0.0089 0.0089
 Venus -46415-02-07 21:35 J -15231617.71 -15231617.60 -15231617.47 0.0089 0.0072
 Venus -46415-09-21 09:35 J -15231392.25 -15231392.10 -15231391.92 0.0089 0.0057
 Venus -46414-05-04 21:50 J -15231166.77 -15231166.59 -15231166.39 0.0089 0.0041
 Venus -46414-12-16 10:04 J -15230941.29 -15230941.08 -15230940.88 0.0089 0.0026

Venus	-46413-07-28 21:50 J	-15230715.79	-15230715.59	-15230715.37	0.0089	0.0010
Venus	-46412-03-11 10:04 J	-15230490.29	-15230490.08	-15230489.87	0.0089	0.0006
Venus	-46412-10-22 22:04 J	-15230264.79	-15230264.58	-15230264.37	0.0089	0.0021
Venus	-46411-06-05 09:50 J	-15230039.27	-15230039.09	-15230038.88	0.0089	0.0037
Venus	-46410-01-16 22:04 J	-15229813.75	-15229813.58	-15229813.41	0.0089	0.0053
Venus	-46410-08-30 09:50 J	-15229588.21	-15229588.09	-15229587.94	0.0089	0.0069
Venus	-46409-04-11 21:35 J	-15229362.64	-15229362.60	-15229362.50	0.0089	0.0085
Earth	-46374-02-10 06:57 J	-15216640.32	-15216640.21	-15216640.06	0.0089	0.0076
Moon	-46374-02-10 10:47 J	-15216640.16	-15216640.05	-15216639.92	0.0089	0.0078 *
Moon	-46373-02-12 16:18 J	-15216273.02	-15216272.82	-15216272.58	0.0089	0.0044
Earth	-46373-02-12 18:57 J	-15216272.92	-15216272.71	-15216272.48	0.0089	0.0046 *
Earth	-46372-02-14 06:42 J	-15215905.46	-15215905.22	-15215904.96	0.0089	0.0016
Moon	-46372-02-14 08:52 J	-15215905.38	-15215905.13	-15215904.86	0.0089	0.0017 *
Mercury	-46372-08-24 02:09 J	-15215714.44	-15215714.41	-15215714.35	0.0089	0.0085
Mercury	-46372-11-20 04:33 J	-15215626.37	-15215626.31	-15215626.22	0.0089	0.0078
Mercury	-46371-02-16 06:57 J	-15215538.29	-15215538.21	-15215538.10	0.0089	0.0071
Moon	-46371-02-16 17:45 J	-15215537.99	-15215537.76	-15215537.50	0.0089	0.0017
Earth	-46371-02-16 18:28 J	-15215537.98	-15215537.73	-15215537.47	0.0089	0.0015 *
Mercury	-46371-05-15 09:35 J	-15215450.21	-15215450.10	-15215449.98	0.0089	0.0063
Mercury	-46371-08-11 11:59 J	-15215362.12	-15215362.00	-15215361.87	0.0089	0.0056
Mercury	-46371-11-07 14:23 J	-15215274.03	-15215273.90	-15215273.76	0.0089	0.0049
Mercury	-46370-02-03 17:02 J	-15215185.94	-15215185.79	-15215185.65	0.0089	0.0041
Moon	-46370-02-19 05:02 J	-15215170.50	-15215170.29	-15215170.04	0.0089	0.0043
Earth	-46370-02-19 05:59 J	-15215170.45	-15215170.25	-15215170.01	0.0089	0.0045 *
Mercury	-46370-05-02 19:11 J	-15215097.84	-15215097.70	-15215097.54	0.0089	0.0034
Mercury	-46370-07-29 21:50 J	-15215009.74	-15215009.59	-15215009.43	0.0089	0.0027
Mercury	-46370-10-26 00:28 J	-15214921.65	-15214921.48	-15214921.32	0.0089	0.0019
Mercury	-46369-01-22 02:52 J	-15214833.55	-15214833.38	-15214833.22	0.0089	0.0012
Earth	-46369-02-21 17:45 J	-15214802.88	-15214802.76	-15214802.61	0.0089	0.0075
Moon	-46369-02-21 18:57 J	-15214802.81	-15214802.71	-15214802.56	0.0089	0.0077 *

Mercury -46369-04-19 05:16 J -15214745.44 -15214745.28 -15214745.11 0.0089 0.0005
 Mercury -46369-07-16 07:54 J -15214657.34 -15214657.17 -15214657.01 0.0089 0.0004
 Mercury -46369-10-12 10:18 J -15214569.23 -15214569.07 -15214568.90 0.0089 0.0011
 Mercury -46368-01-08 12:42 J -15214481.13 -15214480.97 -15214480.80 0.0089 0.0019
 Mercury -46368-04-06 15:21 J -15214393.02 -15214392.86 -15214392.70 0.0089 0.0026
 Mercury -46368-07-03 17:45 J -15214304.91 -15214304.76 -15214304.59 0.0089 0.0034
 Mercury -46368-09-29 20:23 J -15214216.79 -15214216.65 -15214216.49 0.0089 0.0041
 Mercury -46368-12-26 22:47 J -15214128.68 -15214128.55 -15214128.40 0.0089 0.0049
 Mercury -46367-03-25 01:26 J -15214040.56 -15214040.44 -15214040.30 0.0089 0.0057
 Mercury -46367-06-21 04:18 J -15213952.44 -15213952.32 -15213952.20 0.0089 0.0064
 Mercury -46367-09-17 06:42 J -15213864.31 -15213864.22 -15213864.11 0.0089 0.0072
 Mercury -46367-12-14 09:06 J -15213776.18 -15213776.12 -15213776.03 0.0089 0.0080
 Mercury -46366-03-12 11:45 J -15213688.02 -15213688.01 -15213687.97 0.0089 0.0088
 Mars -46352-09-21 06:42 J -15208381.34 -15208381.22 -15208381.06 0.0089 0.0079
 Mars -46350-08-16 16:04 J -15207687.04 -15207686.83 -15207686.59 0.0089 0.0061
 Mars -46348-07-11 04:18 J -15206992.57 -15206992.32 -15206992.03 0.0088 0.0043
 Mars -46346-06-05 19:40 J -15206297.97 -15206297.68 -15206297.37 0.0088 0.0024
 Mars -46344-04-30 12:42 J -15205603.28 -15205602.97 -15205602.65 0.0088 0.0004
 Mars -46342-03-26 08:23 J -15204908.46 -15204908.15 -15204907.84 0.0088 0.0016
 Mars -46340-02-18 06:57 J -15204213.49 -15204213.21 -15204212.90 0.0088 0.0035
 Mars -46338-01-14 06:42 J -15203518.44 -15203518.22 -15203517.94 0.0088 0.0055
 Mars -46337-12-09 10:33 J -15202823.22 -15202823.06 -15202822.88 0.0088 0.0075
 Jupiter -46334-07-23 22:47 J -15201867.09 -15201866.55 -15201865.96 0.0088 0.0013
 Venus -46334-08-11 17:59 J -15201847.80 -15201847.75 -15201847.68 0.0088 0.0085
 Venus -46333-03-24 08:09 J -15201622.30 -15201622.16 -15201622.01 0.0088 0.0069
 Venus -46333-11-04 21:50 J -15201396.75 -15201396.59 -15201396.39 0.0088 0.0053
 Venus -46332-06-18 12:14 J -15201171.20 -15201170.99 -15201170.78 0.0088 0.0037
 Venus -46331-01-30 02:23 J -15200945.62 -15200945.40 -15200945.18 0.0088 0.0021
 Venus -46331-09-12 16:18 J -15200720.04 -15200719.82 -15200719.59 0.0088 0.0005
 Venus -46330-04-26 06:28 J -15200494.46 -15200494.23 -15200494.01 0.0088 0.0012

Venus	-46330-12-07 20:23 J	-15200268.87	-15200268.65	-15200268.44	0.0088	0.0028
Venus	-46329-07-20 10:18 J	-15200043.26	-15200043.07	-15200042.87	0.0088	0.0044
Venus	-46328-03-03 00:28 J	-15199817.64	-15199817.48	-15199817.31	0.0088	0.0060
Venus	-46328-10-14 14:23 J	-15199592.01	-15199591.90	-15199591.78	0.0088	0.0076
Moon	-46292-08-14 03:06 J	-15186504.40	-15186504.37	-15186504.30	0.0088	0.0087
Earth	-46292-08-14 06:28 J	-15186504.28	-15186504.23	-15186504.12	0.0088	0.0084
Earth	-46291-08-16 18:28 J	-15186136.92	-15186136.73	-15186136.51	0.0088	0.0054
Moon	-46291-08-16 21:35 J	-15186136.80	-15186136.60	-15186136.37	0.0088	0.0050 *
Moon	-46290-08-19 04:33 J	-15185769.55	-15185769.31	-15185769.07	0.0088	0.0027
Earth	-46290-08-19 06:14 J	-15185769.48	-15185769.24	-15185768.98	0.0088	0.0024 *
Mercury	-46289-05-28 12:14 J	-15185486.04	-15185485.99	-15185485.92	0.0088	0.0082
Earth	-46289-08-20 17:59 J	-15185402.01	-15185401.75	-15185401.49	0.0088	0.0006
Moon	-46289-08-20 19:11 J	-15185401.96	-15185401.70	-15185401.43	0.0088	0.0009 *
Mercury	-46289-08-24 14:23 J	-15185397.98	-15185397.90	-15185397.82	0.0088	0.0075
Mercury	-46289-11-20 16:18 J	-15185309.91	-15185309.82	-15185309.72	0.0088	0.0068
Mercury	-46288-02-16 17:59 J	-15185221.85	-15185221.75	-15185221.63	0.0088	0.0061
Mercury	-46288-05-15 19:54 J	-15185133.78	-15185133.67	-15185133.54	0.0088	0.0055
Mercury	-46288-08-11 22:04 J	-15185045.71	-15185045.58	-15185045.45	0.0088	0.0048
Earth	-46288-08-23 05:16 J	-15185034.50	-15185034.28	-15185034.03	0.0088	0.0037
Moon	-46288-08-23 05:30 J	-15185034.48	-15185034.27	-15185034.02	0.0088	0.0034 *
Mercury	-46288-11-07 23:59 J	-15184957.63	-15184957.50	-15184957.36	0.0088	0.0041
Mercury	-46287-02-04 01:40 J	-15184869.56	-15184869.43	-15184869.28	0.0088	0.0035
Mercury	-46287-05-03 03:35 J	-15184781.48	-15184781.35	-15184781.20	0.0088	0.0028
Mercury	-46287-07-30 05:45 J	-15184693.41	-15184693.26	-15184693.11	0.0088	0.0021
Moon	-46287-08-25 14:52 J	-15184667.02	-15184666.88	-15184666.69	0.0088	0.0070
Earth	-46287-08-25 16:33 J	-15184666.96	-15184666.81	-15184666.62	0.0088	0.0067 *
Mercury	-46287-10-26 07:26 J	-15184605.33	-15184605.19	-15184605.03	0.0088	0.0014
Mercury	-46286-01-22 09:21 J	-15184517.25	-15184517.11	-15184516.96	0.0088	0.0008
Mercury	-46286-04-20 11:16 J	-15184429.18	-15184429.03	-15184428.88	0.0088	0.0002
Mercury	-46286-07-17 13:11 J	-15184341.10	-15184340.95	-15184340.80	0.0088	0.0006

Mercury -46286-10-13 15:06 J -15184253.02 -15184252.87 -15184252.73 0.0088 0.0013

Mercury -46285-01-09 16:47 J -15184164.94 -15184164.80 -15184164.65 0.0088 0.0019

Mercury -46285-04-06 18:42 J -15184076.86 -15184076.72 -15184076.58 0.0088 0.0026

Mercury -46285-07-03 20:23 J -15183988.78 -15183988.65 -15183988.51 0.0088 0.0033

Mercury -46285-09-29 22:18 J -15183900.70 -15183900.57 -15183900.44 0.0088 0.0039

Mercury -46285-12-26 23:59 J -15183812.62 -15183812.50 -15183812.37 0.0088 0.0046

Mercury -46284-03-25 01:54 J -15183724.54 -15183724.42 -15183724.30 0.0088 0.0052

Mercury -46284-06-21 03:35 J -15183636.45 -15183636.35 -15183636.23 0.0088 0.0058

Mercury -46284-09-17 05:30 J -15183548.37 -15183548.27 -15183548.17 0.0088 0.0065

Mercury -46284-12-14 06:57 J -15183460.28 -15183460.21 -15183460.11 0.0088 0.0072

Mercury -46283-03-12 08:52 J -15183372.19 -15183372.13 -15183372.05 0.0089 0.0078

Mercury -46283-06-08 10:47 J -15183284.09 -15183284.05 -15183284.00 0.0089 0.0084

Mars -46268-07-17 13:40 J -15177766.10 -15177765.93 -15177765.71 0.0089 0.0071

Mars -46266-06-12 17:30 J -15177071.00 -15177070.77 -15177070.48 0.0089 0.0051

Mars -46264-05-07 18:57 J -15176376.00 -15176375.71 -15176375.41 0.0089 0.0030

Mars -46262-04-02 17:59 J -15175681.06 -15175680.75 -15175680.43 0.0089 0.0010

Mars -46260-02-25 14:52 J -15174986.18 -15174985.88 -15174985.56 0.0089 0.0010

Mars -46258-01-21 08:09 J -15174291.45 -15174291.16 -15174290.87 0.0089 0.0029

Mars -46257-12-15 23:30 J -15173596.75 -15173596.52 -15173596.24 0.0089 0.0049

Mars -46255-11-10 13:11 J -15172902.15 -15172901.95 -15172901.75 0.0089 0.0068

Mars -46253-10-04 22:33 J -15172207.60 -15172207.56 -15172207.44 0.0089 0.0086

Venus -46251-05-12 10:47 J -15171623.14 -15171623.05 -15171622.94 0.0089 0.0078

Venus -46251-12-23 22:33 J -15171397.69 -15171397.56 -15171397.39 0.0089 0.0063

Venus -46250-08-06 11:02 J -15171172.22 -15171172.04 -15171171.85 0.0089 0.0047

Venus -46249-03-18 22:47 J -15170946.74 -15170946.55 -15170946.34 0.0089 0.0032

Venus -46249-10-30 11:02 J -15170721.25 -15170721.04 -15170720.83 0.0089 0.0016

Venus -46248-06-12 23:02 J -15170495.75 -15170495.54 -15170495.32 0.0089 0.0001

Venus -46247-01-24 11:02 J -15170270.25 -15170270.04 -15170269.83 0.0089 0.0016

Venus -46247-09-06 23:02 J -15170044.73 -15170044.54 -15170044.33 0.0089 0.0031

Venus -46246-04-20 11:16 J -15169819.21 -15169819.03 -15169818.85 0.0089 0.0047

Venus -46246-12-01 22:47 J -15169593.68 -15169593.55 -15169593.38 0.0089 0.0063
 Venus -46245-07-14 11:02 J -15169368.13 -15169368.04 -15169367.93 0.0089 0.0078
 Moon -46210-02-09 15:50 J -15156739.88 -15156739.84 -15156739.76 0.0089 0.0086
 Earth -46209-02-12 05:59 J -15156372.42 -15156372.25 -15156372.04 0.0089 0.0060
 Moon -46209-02-12 07:26 J -15156372.36 -15156372.19 -15156371.99 0.0089 0.0063 *
 Moon -46208-02-13 17:16 J -15156005.00 -15156004.78 -15156004.53 0.0089 0.0026
 Earth -46208-02-13 17:59 J -15156004.99 -15156004.75 -15156004.50 0.0089 0.0029 *
 Moon -46207-02-16 04:47 J -15155637.56 -15155637.30 -15155637.03 0.0089 0.0003
 Earth -46207-02-16 05:45 J -15155637.52 -15155637.26 -15155637.00 0.0089 0.0001 *
 Mercury -46207-02-21 23:30 J -15155631.54 -15155631.52 -15155631.48 0.0089 0.0087
 Mercury -46207-05-21 01:54 J -15155543.48 -15155543.42 -15155543.34 0.0089 0.0080
 Mercury -46207-08-17 04:04 J -15155455.41 -15155455.33 -15155455.22 0.0089 0.0073
 Mercury -46207-11-13 06:28 J -15155367.32 -15155367.23 -15155367.10 0.0089 0.0066
 Mercury -46206-02-09 09:06 J -15155279.24 -15155279.12 -15155278.99 0.0089 0.0058
 Earth -46206-02-18 17:02 J -15155270.01 -15155269.79 -15155269.53 0.0089 0.0032
 Moon -46206-02-18 19:54 J -15155269.90 -15155269.67 -15155269.45 0.0089 0.0035 *
 Mercury -46206-05-08 11:30 J -15155191.15 -15155191.02 -15155190.88 0.0089 0.0051
 Mercury -46206-08-04 13:54 J -15155103.06 -15155102.92 -15155102.77 0.0089 0.0044
 Mercury -46206-10-31 16:33 J -15155014.96 -15155014.81 -15155014.66 0.0089 0.0036
 Mercury -46205-01-27 18:57 J -15154926.87 -15154926.71 -15154926.55 0.0089 0.0029
 Moon -46205-02-21 02:09 J -15154902.59 -15154902.41 -15154902.20 0.0089 0.0058
 Earth -46205-02-21 05:02 J -15154902.46 -15154902.29 -15154902.09 0.0089 0.0062 *
 Mercury -46205-04-24 21:21 J -15154838.77 -15154838.61 -15154838.45 0.0089 0.0022
 Mercury -46205-07-21 23:59 J -15154750.67 -15154750.50 -15154750.34 0.0089 0.0014
 Mercury -46205-10-18 02:23 J -15154662.57 -15154662.40 -15154662.24 0.0089 0.0007
 Mercury -46204-01-14 04:47 J -15154574.46 -15154574.30 -15154574.13 0.0089 0.0002
 Mercury -46204-04-12 07:11 J -15154486.36 -15154486.20 -15154486.03 0.0089 0.0009
 Mercury -46204-07-09 09:50 J -15154398.25 -15154398.09 -15154397.92 0.0089 0.0016
 Mercury -46204-10-05 12:14 J -15154310.15 -15154309.99 -15154309.82 0.0089 0.0024
 Mercury -46203-01-01 14:52 J -15154222.04 -15154221.88 -15154221.72 0.0089 0.0031

Mercury -46203-03-30 17:16 J -15154133.92 -15154133.78 -15154133.62 0.0089 0.0039

Mercury -46203-06-26 19:40 J -15154045.81 -15154045.68 -15154045.52 0.0089 0.0047

Mercury -46203-09-22 22:18 J -15153957.69 -15153957.57 -15153957.42 0.0089 0.0054

Mercury -46203-12-20 00:57 J -15153869.57 -15153869.46 -15153869.33 0.0089 0.0062

Mercury -46202-03-18 03:21 J -15153781.45 -15153781.36 -15153781.24 0.0089 0.0070

Mercury -46202-06-14 06:14 J -15153693.32 -15153693.24 -15153693.15 0.0089 0.0077

Mercury -46202-09-10 08:38 J -15153605.17 -15153605.14 -15153605.08 0.0089 0.0085

Mars -46188-05-06 11:16 J -15148618.12 -15148618.03 -15148617.89 0.0089 0.0082

Mars -46186-03-31 20:52 J -15147923.83 -15147923.63 -15147923.40 0.0089 0.0064

Mars -46184-02-23 06:28 J -15147229.47 -15147229.23 -15147228.95 0.0088 0.0046

Mars -46182-01-18 19:26 J -15146534.97 -15146534.69 -15146534.38 0.0088 0.0027

Mars -46181-12-13 11:30 J -15145840.33 -15145840.02 -15145839.71 0.0088 0.0007

Mars -46179-11-08 04:47 J -15145145.60 -15145145.30 -15145144.98 0.0088 0.0013

Mars -46177-10-03 00:14 J -15144450.76 -15144450.49 -15144450.17 0.0088 0.0034

Mars -46175-08-28 23:45 J -15143755.74 -15143755.51 -15143755.23 0.0088 0.0054

Mars -46173-07-24 00:28 J -15143060.63 -15143060.48 -15143060.27 0.0088 0.0074

Venus -46169-06-25 18:28 J -15141627.83 -15141627.73 -15141627.59 0.0088 0.0075

Venus -46168-02-06 08:38 J -15141402.29 -15141402.14 -15141401.96 0.0088 0.0059

Venus -46168-09-19 22:47 J -15141176.74 -15141176.55 -15141176.34 0.0088 0.0043

Venus -46167-05-03 12:57 J -15140951.17 -15140950.96 -15140950.74 0.0088 0.0027

Venus -46167-12-15 02:52 J -15140725.60 -15140725.38 -15140725.15 0.0088 0.0011

Venus -46166-07-28 17:02 J -15140500.02 -15140499.79 -15140499.57 0.0088 0.0005

Venus -46165-03-10 06:57 J -15140274.42 -15140274.21 -15140273.98 0.0088 0.0022

Venus -46165-10-21 20:52 J -15140048.82 -15140048.63 -15140048.41 0.0088 0.0038

Venus -46164-06-04 10:47 J -15139823.22 -15139823.05 -15139822.86 0.0088 0.0054

Venus -46163-01-16 00:42 J -15139597.59 -15139597.47 -15139597.31 0.0088 0.0070

Venus -46163-08-29 14:38 J -15139371.92 -15139371.89 -15139371.81 0.0088 0.0086

Moon -46127-08-16 03:06 J -15126236.49 -15126236.37 -15126236.19 0.0088 0.0071

Earth -46127-08-16 05:02 J -15126236.43 -15126236.29 -15126236.09 0.0088 0.0068 *

Earth -46126-08-18 17:16 J -15125869.01 -15125868.78 -15125868.54 0.0088 0.0037

Moon -46126-08-18 17:16 J -15125869.01 -15125868.78 -15125868.51 0.0088 0.0035 *
 Earth -46125-08-20 05:02 J -15125501.55 -15125501.29 -15125501.03 0.0088 0.0007
 Moon -46125-08-20 05:16 J -15125501.52 -15125501.28 -15125501.03 0.0088 0.0010 *
 Mercury -46125-11-26 10:18 J -15125403.12 -15125403.07 -15125403.03 0.0088 0.0084
 Mercury -46124-02-22 11:45 J -15125315.06 -15125315.01 -15125314.92 0.0088 0.0078
 Mercury -46124-05-21 13:54 J -15125227.00 -15125226.92 -15125226.82 0.0088 0.0070
 Mercury -46124-08-17 15:50 J -15125138.93 -15125138.84 -15125138.72 0.0088 0.0064
 Moon -46124-08-22 14:38 J -15125134.14 -15125133.89 -15125133.63 0.0088 0.0027
 Earth -46124-08-22 16:18 J -15125134.06 -15125133.82 -15125133.56 0.0088 0.0024 *
 Mercury -46124-11-13 17:45 J -15125050.86 -15125050.76 -15125050.63 0.0088 0.0057
 Mercury -46123-02-09 19:54 J -15124962.79 -15124962.67 -15124962.54 0.0088 0.0050
 Mercury -46123-05-08 21:35 J -15124874.72 -15124874.60 -15124874.45 0.0088 0.0044
 Mercury -46123-08-04 23:30 J -15124786.65 -15124786.52 -15124786.37 0.0088 0.0037
 Earth -46123-08-25 03:50 J -15124766.53 -15124766.34 -15124766.12 0.0088 0.0054
 Moon -46123-08-25 06:28 J -15124766.41 -15124766.23 -15124766.00 0.0088 0.0052 *
 Mercury -46123-11-01 01:40 J -15124698.57 -15124698.43 -15124698.29 0.0088 0.0029
 Mercury -46122-01-28 03:35 J -15124610.50 -15124610.35 -15124610.20 0.0088 0.0023
 Mercury -46122-04-26 05:16 J -15124522.42 -15124522.28 -15124522.12 0.0088 0.0017
 Mercury -46122-07-23 07:26 J -15124434.34 -15124434.19 -15124434.04 0.0088 0.0009
 Moon -46122-08-27 11:59 J -15124399.03 -15124399.00 -15124398.94 0.0088 0.0087
 Earth -46122-08-27 15:06 J -15124398.93 -15124398.87 -15124398.77 0.0088 0.0084
 Mercury -46122-10-19 09:21 J -15124346.26 -15124346.11 -15124345.96 0.0088 0.0004
 Mercury -46121-01-15 11:02 J -15124258.19 -15124258.04 -15124257.89 0.0088 0.0004
 Mercury -46121-04-12 12:57 J -15124170.11 -15124169.96 -15124169.81 0.0088 0.0011
 Mercury -46121-07-09 14:38 J -15124082.03 -15124081.89 -15124081.74 0.0088 0.0018
 Mercury -46121-10-05 16:33 J -15123993.95 -15123993.81 -15123993.66 0.0088 0.0024
 Mercury -46120-01-01 18:14 J -15123905.87 -15123905.74 -15123905.59 0.0088 0.0031
 Mercury -46120-03-30 20:23 J -15123817.79 -15123817.65 -15123817.52 0.0088 0.0037
 Mercury -46120-06-26 21:50 J -15123729.71 -15123729.59 -15123729.45 0.0088 0.0044
 Mercury -46120-09-22 23:59 J -15123641.62 -15123641.50 -15123641.38 0.0088 0.0050

Mercury -46120-12-20 01:26 J -15123553.54 -15123553.44 -15123553.31 0.0088 0.0057

Mercury -46119-03-18 03:21 J -15123465.46 -15123465.36 -15123465.25 0.0088 0.0063

Mercury -46119-06-14 05:02 J -15123377.37 -15123377.29 -15123377.19 0.0088 0.0069

Mercury -46119-09-10 06:57 J -15123289.28 -15123289.21 -15123289.13 0.0088 0.0076

Mercury -46119-12-07 08:52 J -15123201.18 -15123201.13 -15123201.08 0.0088 0.0082

Mercury -46118-03-05 10:33 J -15123113.06 -15123113.06 -15123113.05 0.0089 0.0088

Mars -46104-02-28 23:16 J -15118003.68 -15118003.53 -15118003.34 0.0089 0.0075

Mars -46102-01-25 06:42 J -15117308.47 -15117308.22 -15117307.97 0.0089 0.0054

Mars -46101-12-20 09:50 J -15116613.37 -15116613.09 -15116612.78 0.0089 0.0034

Mars -46099-11-15 10:18 J -15115918.38 -15115918.07 -15115917.75 0.0089 0.0013

Mars -46097-10-10 08:23 J -15115223.46 -15115223.15 -15115222.83 0.0089 0.0007

Mars -46095-09-05 04:47 J -15114528.59 -15114528.30 -15114527.99 0.0089 0.0027

Mars -46093-07-30 21:35 J -15113833.85 -15113833.60 -15113833.32 0.0089 0.0047

Mars -46091-06-25 12:28 J -15113139.17 -15113138.98 -15113138.76 0.0089 0.0066

Mars -46089-05-20 00:57 J -15112444.52 -15112444.46 -15112444.34 0.0089 0.0085

Venus -46087-08-13 23:16 J -15111628.58 -15111628.53 -15111628.44 0.0089 0.0083

Venus -46086-03-27 11:16 J -15111403.15 -15111403.03 -15111402.87 0.0089 0.0068

Venus -46086-11-07 23:30 J -15111177.68 -15111177.52 -15111177.34 0.0089 0.0052

Venus -46085-06-20 11:30 J -15110952.20 -15110952.02 -15110951.82 0.0089 0.0037

Venus -46084-01-31 23:45 J -15110726.72 -15110726.51 -15110726.30 0.0089 0.0021

Venus -46084-09-14 11:59 J -15110501.22 -15110501.00 -15110500.79 0.0089 0.0006

Venus -46083-04-27 23:59 J -15110275.71 -15110275.50 -15110275.29 0.0089 0.0010

Venus -46083-12-09 11:45 J -15110050.21 -15110050.01 -15110049.80 0.0089 0.0025

Venus -46082-07-22 23:45 J -15109824.70 -15109824.51 -15109824.32 0.0089 0.0040

Venus -46081-03-04 11:30 J -15109599.17 -15109599.02 -15109598.84 0.0089 0.0056

Venus -46081-10-15 23:30 J -15109373.63 -15109373.52 -15109373.38 0.0089 0.0072

Venus -46080-05-29 11:59 J -15109148.05 -15109148.00 -15109147.96 0.0089 0.0087

Earth -46045-02-11 16:33 J -15096471.93 -15096471.81 -15096471.64 0.0089 0.0074

Moon -46045-02-11 17:02 J -15096471.89 -15096471.79 -15096471.65 0.0089 0.0077 *

Moon -46044-02-13 02:52 J -15096104.60 -15096104.38 -15096104.12 0.0089 0.0041

Earth -46044-02-13 04:33 J -15096104.53 -15096104.31 -15096104.08 0.0089 0.0043 *
 Earth -46043-02-15 16:04 J -15095737.08 -15095736.83 -15095736.57 0.0089 0.0013
 Moon -46043-02-15 18:14 J -15095736.98 -15095736.74 -15095736.49 0.0089 0.0015 *
 Mercury -46043-11-18 22:47 J -15095460.59 -15095460.55 -15095460.48 0.0089 0.0083
 Mercury -46042-02-15 01:26 J -15095372.52 -15095372.44 -15095372.35 0.0089 0.0075
 Moon -46042-02-18 00:28 J -15095369.73 -15095369.48 -15095369.22 0.0089 0.0021
 Earth -46042-02-18 03:50 J -15095369.59 -15095369.34 -15095369.08 0.0089 0.0018 *
 Mercury -46042-05-14 03:35 J -15095284.44 -15095284.35 -15095284.24 0.0089 0.0068
 Mercury -46042-08-10 05:59 J -15095196.36 -15095196.25 -15095196.12 0.0089 0.0061
 Mercury -46042-11-06 08:23 J -15095108.27 -15095108.15 -15095108.01 0.0089 0.0054
 Mercury -46041-02-02 11:02 J -15095020.18 -15095020.04 -15095019.90 0.0089 0.0046
 Earth -46041-02-20 15:06 J -15095002.06 -15095001.87 -15095001.63 0.0089 0.0049
 Moon -46041-02-20 18:28 J -15095001.92 -15095001.73 -15095001.49 0.0089 0.0047 *
 Mercury -46041-04-30 13:26 J -15094932.09 -15094931.94 -15094931.79 0.0089 0.0039
 Mercury -46041-07-27 15:35 J -15094843.99 -15094843.85 -15094843.68 0.0089 0.0032
 Mercury -46041-10-23 18:14 J -15094755.89 -15094755.74 -15094755.58 0.0089 0.0024
 Mercury -46040-01-19 20:38 J -15094667.80 -15094667.64 -15094667.47 0.0089 0.0017
 Moon -46040-02-21 23:30 J -15094634.61 -15094634.52 -15094634.41 0.0089 0.0081
 Earth -46040-02-22 03:06 J -15094634.47 -15094634.37 -15094634.24 0.0089 0.0079 *
 Mercury -46040-04-17 23:16 J -15094579.70 -15094579.53 -15094579.37 0.0089 0.0009
 Mercury -46040-07-15 01:40 J -15094491.59 -15094491.43 -15094491.26 0.0089 0.0002
 Mercury -46040-10-11 04:18 J -15094403.49 -15094403.32 -15094403.16 0.0089 0.0006
 Mercury -46039-01-07 06:42 J -15094315.39 -15094315.22 -15094315.05 0.0089 0.0013
 Mercury -46039-04-05 09:06 J -15094227.28 -15094227.12 -15094226.95 0.0089 0.0021
 Mercury -46039-07-02 11:45 J -15094139.17 -15094139.01 -15094138.85 0.0089 0.0028
 Mercury -46039-09-28 14:09 J -15094051.06 -15094050.91 -15094050.75 0.0089 0.0036
 Mercury -46039-12-25 16:33 J -15093962.94 -15093962.81 -15093962.65 0.0089 0.0044
 Mercury -46038-03-23 19:11 J -15093874.83 -15093874.70 -15093874.56 0.0089 0.0051
 Mercury -46038-06-19 21:35 J -15093786.71 -15093786.60 -15093786.46 0.0089 0.0059
 Mercury -46038-09-16 00:14 J -15093698.59 -15093698.49 -15093698.37 0.0089 0.0067

Mercury -46038-12-13 03:06 J -15093610.46 -15093610.37 -15093610.28 0.0089 0.0074

Mercury -46037-03-10 05:30 J -15093522.32 -15093522.27 -15093522.20 0.0089 0.0082

Mars -46025-12-19 17:16 J -15088854.83 -15088854.78 -15088854.67 0.0089 0.0086

Mars -46023-11-14 00:14 J -15088160.68 -15088160.49 -15088160.29 0.0089 0.0067

Mars -46021-10-08 09:35 J -15087466.34 -15087466.10 -15087465.82 0.0089 0.0049

Mars -46019-09-02 19:40 J -15086771.95 -15086771.68 -15086771.37 0.0088 0.0030

Mars -46017-07-28 08:52 J -15086077.43 -15086077.13 -15086076.81 0.0088 0.0010

Mars -46015-06-23 00:57 J -15085382.76 -15085382.46 -15085382.14 0.0088 0.0011

Mars -46013-05-17 19:40 J -15084687.97 -15084687.68 -15084687.37 0.0088 0.0031

Mars -46011-04-12 16:04 J -15083993.08 -15083992.83 -15083992.57 0.0088 0.0051

Mars -46009-03-07 15:35 J -15083298.01 -15083297.85 -15083297.64 0.0088 0.0072

Venus -46005-09-27 04:47 J -15081633.37 -15081633.30 -15081633.18 0.0088 0.0081

Venus -46004-05-10 18:57 J -15081407.85 -15081407.71 -15081407.54 0.0088 0.0065

Venus -46004-12-22 09:06 J -15081182.30 -15081182.12 -15081181.92 0.0088 0.0048

Venus -46003-08-04 23:16 J -15080956.74 -15080956.53 -15080956.32 0.0088 0.0033

Venus -46002-03-18 13:26 J -15080731.16 -15080730.94 -15080730.72 0.0088 0.0017

Venus -46002-10-30 03:21 J -15080505.58 -15080505.36 -15080505.13 0.0088 0.0002

Venus -46001-06-11 17:16 J -15080280.00 -15080279.78 -15080279.55 0.0088 0.0015

46TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 46th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Venus -46000-01-23 07:11 J -15080054.40 -15080054.20 -15080053.97 0.0088 0.0031
 Venus -46000-09-05 21:06 J -15079828.79 -15079828.62 -15079828.41 0.0088 0.0048
 Venus -45999-04-19 11:16 J -15079603.17 -15079603.03 -15079602.85 0.0088 0.0063
 Venus -45999-12-01 01:40 J -15079377.53 -15079377.43 -15079377.33 0.0088 0.0079
 Earth -45963-08-15 15:35 J -15066335.92 -15066335.85 -15066335.72 0.0088 0.0082
 Moon -45963-08-15 16:18 J -15066335.88 -15066335.82 -15066335.72 0.0088 0.0085 *
 Earth -45962-08-18 03:50 J -15065968.54 -15065968.34 -15065968.12 0.0088 0.0051
 Moon -45962-08-18 04:47 J -15065968.49 -15065968.30 -15065968.06 0.0088 0.0048 *
 Moon -45961-08-19 13:40 J -15065601.18 -15065600.93 -15065600.67 0.0088 0.0024
 Earth -45961-08-19 15:35 J -15065601.09 -15065600.85 -15065600.58 0.0088 0.0021 *
 Mercury -45960-05-27 07:40 J -15065320.19 -15065320.18 -15065320.14 0.0088 0.0087
 Earth -45960-08-22 03:21 J -15065233.61 -15065233.36 -15065233.09 0.0088 0.0011
 Moon -45960-08-22 06:28 J -15065233.48 -15065233.23 -15065232.98 0.0088 0.0014 *
 Mercury -45960-08-23 09:50 J -15065232.15 -15065232.09 -15065232.02 0.0088 0.0080
 Mercury -45960-11-19 11:45 J -15065144.09 -15065144.01 -15065143.92 0.0088 0.0073
 Mercury -45959-02-15 13:54 J -15065056.02 -15065055.92 -15065055.82 0.0088 0.0066
 Mercury -45959-05-14 15:50 J -15064967.95 -15064967.84 -15064967.73 0.0088 0.0059
 Mercury -45959-08-10 17:30 J -15064879.88 -15064879.77 -15064879.63 0.0088 0.0052
 Moon -45959-08-24 11:16 J -15064866.26 -15064866.03 -15064865.79 0.0088 0.0037
 Earth -45959-08-24 14:52 J -15064866.10 -15064865.88 -15064865.64 0.0088 0.0041 *
 Mercury -45959-11-06 19:26 J -15064791.81 -15064791.69 -15064791.55 0.0088 0.0046
 Mercury -45958-02-02 21:35 J -15064703.73 -15064703.60 -15064703.46 0.0088 0.0038
 Mercury -45958-05-01 23:30 J -15064615.66 -15064615.52 -15064615.38 0.0088 0.0032
 Mercury -45958-07-29 01:26 J -15064527.58 -15064527.44 -15064527.29 0.0088 0.0025
 Earth -45958-08-27 02:23 J -15064498.54 -15064498.40 -15064498.24 0.0088 0.0071
 Moon -45958-08-27 05:59 J -15064498.39 -15064498.25 -15064498.11 0.0088 0.0074 *
 Mercury -45958-10-25 03:21 J -15064439.51 -15064439.36 -15064439.21 0.0088 0.0018
 Mercury -45957-01-21 05:16 J -15064351.43 -15064351.28 -15064351.13 0.0088 0.0011
 Mercury -45957-04-18 07:11 J -15064263.35 -15064263.20 -15064263.05 0.0088 0.0005
 Mercury -45957-07-15 09:06 J -15064175.27 -15064175.12 -15064174.97 0.0088 0.0003

Mercury -45957-10-11 10:47 J -15064087.20 -15064087.05 -15064086.90 0.0088 0.0009

Mercury -45956-01-07 12:42 J -15063999.12 -15063998.97 -15063998.82 0.0088 0.0015

Mercury -45956-04-05 14:38 J -15063911.04 -15063910.89 -15063910.75 0.0088 0.0022

Mercury -45956-07-02 16:18 J -15063822.96 -15063822.82 -15063822.67 0.0088 0.0028

Mercury -45956-09-28 18:14 J -15063734.88 -15063734.74 -15063734.60 0.0088 0.0035

Mercury -45956-12-25 19:54 J -15063646.79 -15063646.67 -15063646.53 0.0088 0.0042

Mercury -45955-03-23 21:50 J -15063558.71 -15063558.59 -15063558.46 0.0089 0.0048

Mercury -45955-06-19 23:30 J -15063470.63 -15063470.52 -15063470.40 0.0089 0.0055

Mercury -45955-09-16 01:26 J -15063382.54 -15063382.44 -15063382.33 0.0089 0.0061

Mercury -45955-12-13 02:52 J -15063294.46 -15063294.38 -15063294.27 0.0089 0.0068

Mercury -45954-03-11 04:47 J -15063206.37 -15063206.30 -15063206.21 0.0089 0.0074

Mercury -45954-06-07 06:28 J -15063118.27 -15063118.23 -15063118.15 0.0089 0.0081

Mercury -45954-09-03 08:23 J -15063030.17 -15063030.15 -15063030.11 0.0089 0.0087

Mars -45941-10-13 06:28 J -15058241.34 -15058241.23 -15058241.07 0.0089 0.0080

Mars -45939-09-08 14:23 J -15057546.12 -15057545.90 -15057545.64 0.0089 0.0059

Mars -45937-08-03 20:52 J -15056850.90 -15056850.63 -15056850.32 0.0089 0.0038

Mars -45935-06-30 00:42 J -15056155.77 -15056155.47 -15056155.15 0.0089 0.0017

Mars -45933-05-25 00:42 J -15055460.78 -15055460.47 -15055460.15 0.0089 0.0005

Mars -45931-04-19 21:50 J -15054765.88 -15054765.59 -15054765.27 0.0089 0.0025

Mars -45929-03-14 17:30 J -15054071.02 -15054070.77 -15054070.48 0.0089 0.0045

Mars -45927-02-07 10:04 J -15053376.26 -15053376.08 -15053375.84 0.0089 0.0065

Mars -45925-01-02 23:45 J -15052681.57 -15052681.51 -15052681.37 0.0089 0.0084

Venus -45923-11-15 11:59 J -15051634.00 -15051634.00 -15051633.97 0.0089 0.0089

Venus -45922-06-28 23:59 J -15051408.60 -15051408.50 -15051408.36 0.0089 0.0074

Venus -45921-02-09 11:59 J -15051183.14 -15051183.00 -15051182.82 0.0089 0.0058

Venus -45921-09-22 00:42 J -15050957.66 -15050957.47 -15050957.29 0.0089 0.0043

Venus -45920-05-05 12:28 J -15050732.18 -15050731.98 -15050731.77 0.0089 0.0027

Venus -45920-12-17 00:28 J -15050506.69 -15050506.48 -15050506.26 0.0089 0.0012

Venus -45919-07-30 12:28 J -15050281.19 -15050280.98 -15050280.76 0.0089 0.0004

Venus -45918-03-13 00:28 J -15050055.68 -15050055.48 -15050055.27 0.0089 0.0019

Venus -45918-10-24 12:28 J -15049830.17 -15049829.98 -15049829.78 0.0089 0.0034
 Venus -45917-06-06 00:28 J -15049604.66 -15049604.48 -15049604.30 0.0089 0.0050
 Venus -45916-01-17 11:59 J -15049379.13 -15049379.00 -15049378.83 0.0089 0.0065
 Venus -45916-08-30 23:59 J -15049153.57 -15049153.50 -15049153.39 0.0089 0.0081
 Moon -45881-02-11 00:57 J -15036571.50 -15036571.46 -15036571.35 0.0089 0.0085
 Earth -45881-02-11 03:21 J -15036571.38 -15036571.36 -15036571.32 0.0089 0.0088 *
 Earth -45880-02-12 14:23 J -15036204.07 -15036203.90 -15036203.68 0.0089 0.0058
 Moon -45880-02-12 17:02 J -15036203.95 -15036203.79 -15036203.58 0.0089 0.0061 *
 Moon -45879-02-14 23:02 J -15035836.78 -15035836.54 -15035836.27 0.0089 0.0023
 Earth -45879-02-15 02:23 J -15035836.64 -15035836.40 -15035836.15 0.0089 0.0027 *
 Earth -45878-02-17 13:54 J -15035469.17 -15035468.92 -15035468.66 0.0089 0.0004
 Moon -45878-02-17 17:45 J -15035469.01 -15035468.76 -15035468.50 0.0089 0.0001 *
 Mercury -45878-05-19 19:54 J -15035377.71 -15035377.67 -15035377.62 0.0089 0.0085
 Mercury -45878-08-15 22:18 J -15035289.64 -15035289.57 -15035289.49 0.0089 0.0078
 Mercury -45878-11-12 00:28 J -15035201.56 -15035201.48 -15035201.37 0.0089 0.0071
 Mercury -45877-02-08 02:52 J -15035113.48 -15035113.38 -15035113.26 0.0089 0.0064
 Moon -45877-02-19 22:04 J -15035101.80 -15035101.58 -15035101.34 0.0089 0.0038
 Earth -45877-02-20 01:11 J -15035101.67 -15035101.45 -15035101.20 0.0089 0.0035 *
 Mercury -45877-05-06 05:16 J -15035025.40 -15035025.28 -15035025.15 0.0089 0.0057
 Mercury -45877-08-02 07:54 J -15034937.31 -15034937.17 -15034937.04 0.0089 0.0049
 Mercury -45877-10-29 10:04 J -15034849.22 -15034849.08 -15034848.93 0.0089 0.0042
 Mercury -45876-01-25 12:28 J -15034761.12 -15034760.98 -15034760.82 0.0089 0.0035
 Earth -45876-02-21 12:28 J -15034734.12 -15034733.98 -15034733.78 0.0089 0.0066
 Moon -45876-02-21 16:04 J -15034734.01 -15034733.83 -15034733.63 0.0089 0.0061 *
 Mercury -45876-04-23 15:06 J -15034673.03 -15034672.87 -15034672.71 0.0089 0.0027
 Mercury -45876-07-20 17:30 J -15034584.93 -15034584.77 -15034584.61 0.0089 0.0020
 Mercury -45876-10-16 19:54 J -15034496.83 -15034496.67 -15034496.50 0.0089 0.0013
 Mercury -45875-01-12 22:18 J -15034408.73 -15034408.57 -15034408.40 0.0089 0.0006
 Mercury -45875-04-11 00:57 J -15034320.63 -15034320.46 -15034320.30 0.0089 0.0003
 Mercury -45875-07-08 03:21 J -15034232.52 -15034232.36 -15034232.19 0.0089 0.0010

Mercury -45875-10-04 05:45 J -15034144.42 -15034144.26 -15034144.09 0.0089 0.0018

Mercury -45875-12-31 08:23 J -15034056.31 -15034056.15 -15034055.99 0.0089 0.0025

Mercury -45874-03-29 10:47 J -15033968.20 -15033968.05 -15033967.89 0.0089 0.0033

Mercury -45874-06-25 13:26 J -15033880.09 -15033879.94 -15033879.79 0.0089 0.0040

Mercury -45874-09-21 15:50 J -15033791.98 -15033791.84 -15033791.69 0.0089 0.0048

Mercury -45874-12-18 18:14 J -15033703.86 -15033703.74 -15033703.60 0.0089 0.0056

Mercury -45873-03-15 20:52 J -15033615.74 -15033615.63 -15033615.50 0.0089 0.0063

Mercury -45873-06-11 23:16 J -15033527.61 -15033527.53 -15033527.41 0.0089 0.0071

Mercury -45873-09-08 01:54 J -15033439.48 -15033439.42 -15033439.33 0.0089 0.0079

Mercury -45873-12-05 04:18 J -15033351.33 -15033351.32 -15033351.26 0.0089 0.0087

Mars -45859-06-29 04:47 J -15028397.47 -15028397.30 -15028397.11 0.0089 0.0071

Mars -45857-05-23 11:30 J -15027703.26 -15027703.02 -15027702.77 0.0089 0.0052

Mars -45855-04-17 21:50 J -15027008.86 -15027008.59 -15027008.29 0.0088 0.0033

Mars -45853-03-12 09:35 J -15026314.41 -15026314.10 -15026313.80 0.0088 0.0013

Mars -45851-02-04 22:33 J -15025619.87 -15025619.56 -15025619.25 0.0088 0.0007

Mars -45850-12-31 14:52 J -15024925.17 -15024924.88 -15024924.57 0.0088 0.0028

Mars -45848-11-25 09:35 J -15024230.34 -15024230.10 -15024229.81 0.0088 0.0049

Mars -45846-10-21 06:42 J -15023535.41 -15023535.22 -15023535.02 0.0088 0.0069

Venus -45841-12-29 14:52 J -15021638.90 -15021638.88 -15021638.81 0.0088 0.0086

Venus -45840-08-12 05:02 J -15021413.41 -15021413.29 -15021413.14 0.0088 0.0071

Venus -45839-03-25 19:11 J -15021187.87 -15021187.70 -15021187.52 0.0088 0.0055

Venus -45839-11-06 08:52 J -15020962.32 -15020962.13 -15020961.91 0.0088 0.0039

Venus -45838-06-19 23:02 J -15020736.75 -15020736.54 -15020736.32 0.0088 0.0023

Venus -45837-01-31 13:11 J -15020511.18 -15020510.95 -15020510.72 0.0088 0.0007

Venus -45837-09-13 03:21 J -15020285.59 -15020285.36 -15020285.14 0.0088 0.0009

Venus -45836-04-26 17:16 J -15020060.00 -15020059.78 -15020059.56 0.0088 0.0024

Venus -45836-12-08 06:57 J -15019834.40 -15019834.21 -15019833.99 0.0088 0.0040

Venus -45835-07-21 20:52 J -15019608.79 -15019608.63 -15019608.44 0.0088 0.0056

Venus -45834-03-04 11:30 J -15019383.15 -15019383.02 -15019382.89 0.0088 0.0072

Venus -45834-10-16 01:11 J -15019157.46 -15019157.45 -15019157.41 0.0088 0.0088

Moon -45798-08-17 10:04 J -15006068.22 -15006068.08 -15006067.88 0.0088 0.0068
 Earth -45798-08-17 12:57 J -15006068.11 -15006067.96 -15006067.76 0.0088 0.0066 *
 Earth -45797-08-19 01:11 J -15005700.68 -15005700.45 -15005700.20 0.0088 0.0035
 Moon -45797-08-19 04:33 J -15005700.54 -15005700.31 -15005700.07 0.0088 0.0033 *
 Moon -45796-08-21 09:35 J -15005333.36 -15005333.10 -15005332.84 0.0088 0.0007
 Earth -45796-08-21 13:11 J -15005333.21 -15005332.95 -15005332.69 0.0088 0.0004 *
 Mercury -45795-02-21 07:11 J -15005149.24 -15005149.20 -15005149.14 0.0088 0.0083
 Mercury -45795-05-20 09:21 J -15005061.18 -15005061.11 -15005061.03 0.0088 0.0076
 Mercury -45795-08-16 11:16 J -15004973.12 -15004973.03 -15004972.93 0.0088 0.0069
 Earth -45795-08-24 00:42 J -15004965.71 -15004965.47 -15004965.21 0.0088 0.0027
 Moon -45795-08-24 04:18 J -15004965.55 -15004965.32 -15004965.06 0.0088 0.0029 *
 Mercury -45795-11-12 13:26 J -15004885.05 -15004884.94 -15004884.83 0.0088 0.0062
 Mercury -45794-02-08 15:21 J -15004796.98 -15004796.86 -15004796.74 0.0088 0.0055
 Mercury -45794-05-07 17:02 J -15004708.90 -15004708.79 -15004708.65 0.0088 0.0049
 Mercury -45794-08-03 19:11 J -15004620.83 -15004620.70 -15004620.56 0.0088 0.0041
 Moon -45794-08-26 09:35 J -15004598.29 -15004598.10 -15004597.89 0.0088 0.0055
 Earth -45794-08-26 12:14 J -15004598.17 -15004597.99 -15004597.77 0.0088 0.0058 *
 Mercury -45794-10-30 21:06 J -15004532.75 -15004532.62 -15004532.48 0.0088 0.0035
 Mercury -45793-01-26 23:02 J -15004444.68 -15004444.54 -15004444.39 0.0088 0.0028
 Mercury -45793-04-24 00:57 J -15004356.60 -15004356.46 -15004356.31 0.0088 0.0021
 Mercury -45793-07-21 02:52 J -15004268.53 -15004268.38 -15004268.23 0.0088 0.0014
 Earth -45793-08-27 23:45 J -15004230.53 -15004230.51 -15004230.46 0.0088 0.0088
 Mercury -45793-10-17 04:47 J -15004180.45 -15004180.30 -15004180.15 0.0088 0.0008
 Mercury -45792-01-13 06:42 J -15004092.37 -15004092.22 -15004092.07 0.0088 0.0001
 Mercury -45792-04-11 08:38 J -15004004.29 -15004004.14 -15004003.99 0.0088 0.0006
 Mercury -45792-07-08 10:33 J -15003916.21 -15003916.06 -15003915.91 0.0088 0.0013
 Mercury -45792-10-04 12:14 J -15003828.13 -15003827.99 -15003827.84 0.0088 0.0019
 Mercury -45792-12-31 14:09 J -15003740.05 -15003739.91 -15003739.77 0.0088 0.0026
 Mercury -45791-03-29 15:50 J -15003651.97 -15003651.84 -15003651.69 0.0088 0.0033
 Mercury -45791-06-25 17:30 J -15003563.89 -15003563.77 -15003563.62 0.0088 0.0040

Mercury -45791-09-21 19:26 J -15003475.81 -15003475.69 -15003475.55 0.0088 0.0046

Mercury -45791-12-18 21:06 J -15003387.72 -15003387.62 -15003387.48 0.0088 0.0053

Mercury -45790-03-16 23:02 J -15003299.64 -15003299.54 -15003299.42 0.0088 0.0059

Mercury -45790-06-13 01:11 J -15003211.55 -15003211.45 -15003211.35 0.0089 0.0065

Mercury -45790-09-09 02:38 J -15003123.46 -15003123.39 -15003123.29 0.0089 0.0072

Mercury -45790-12-06 04:33 J -15003035.37 -15003035.31 -15003035.24 0.0089 0.0078

Mercury -45789-03-03 05:59 J -15002947.27 -15002947.25 -15002947.19 0.0089 0.0085

Mars -45777-05-27 11:02 J -14998479.11 -14998479.04 -14998478.93 0.0089 0.0085

Mars -45775-04-22 21:21 J -14997783.80 -14997783.61 -14997783.35 0.0089 0.0064

Mars -45773-03-18 05:16 J -14997088.55 -14997088.28 -14997087.98 0.0089 0.0042

Mars -45771-02-11 10:18 J -14996393.36 -14996393.07 -14996392.74 0.0089 0.0021

Mars -45769-01-07 13:54 J -14995698.24 -14995697.92 -14995697.60 0.0089 0.0001

Mars -45768-12-02 12:57 J -14995003.25 -14995002.96 -14995002.64 0.0089 0.0022

Mars -45766-10-28 09:06 J -14994308.36 -14994308.12 -14994307.81 0.0089 0.0043

Mars -45764-09-22 04:47 J -14993613.52 -14993613.30 -14993613.08 0.0089 0.0062

Mars -45762-08-17 21:21 J -14992918.70 -14992918.61 -14992918.47 0.0089 0.0082

Venus -45758-09-30 12:14 J -14991414.08 -14991413.99 -14991413.88 0.0089 0.0079

Venus -45757-05-13 00:14 J -14991188.62 -14991188.49 -14991188.33 0.0089 0.0064

Venus -45757-12-24 12:14 J -14990963.15 -14990962.99 -14990962.79 0.0089 0.0049

Venus -45756-08-07 00:42 J -14990737.67 -14990737.47 -14990737.27 0.0089 0.0033

Venus -45755-03-20 12:42 J -14990512.17 -14990511.97 -14990511.76 0.0089 0.0018

Venus -45755-11-01 00:42 J -14990286.68 -14990286.47 -14990286.25 0.0089 0.0003

Venus -45754-06-14 12:42 J -14990061.18 -14990060.97 -14990060.75 0.0089 0.0013

Venus -45753-01-26 00:28 J -14989835.67 -14989835.48 -14989835.26 0.0089 0.0028

Venus -45753-09-07 12:42 J -14989610.15 -14989609.97 -14989609.77 0.0089 0.0043

Venus -45752-04-21 00:42 J -14989384.62 -14989384.47 -14989384.30 0.0089 0.0058

Venus -45752-12-02 12:42 J -14989159.08 -14989158.97 -14989158.85 0.0089 0.0073

Venus -45751-07-16 00:42 J -14988933.49 -14988933.47 -14988933.45 0.0089 0.0089

Moon -45716-02-11 21:06 J -14976303.74 -14976303.62 -14976303.48 0.0089 0.0076

Earth -45716-02-12 00:14 J -14976303.61 -14976303.49 -14976303.32 0.0089 0.0073 *

Earth -45715-02-14 11:59 J -14975936.21 -14975936.00 -14975935.76 0.0089 0.0042
 Moon -45715-02-14 15:35 J -14975936.07 -14975935.85 -14975935.61 0.0089 0.0039 *
 Moon -45714-02-16 20:09 J -14975568.90 -14975568.66 -14975568.40 0.0089 0.0014
 Earth -45714-02-16 23:45 J -14975568.76 -14975568.51 -14975568.25 0.0089 0.0011 *
 Mercury -45714-11-17 16:47 J -14975294.81 -14975294.80 -14975294.78 0.0089 0.0088
 Mercury -45713-02-13 19:11 J -14975206.76 -14975206.70 -14975206.63 0.0089 0.0081
 Earth -45713-02-19 11:16 J -14975201.28 -14975201.03 -14975200.78 0.0089 0.0020
 Moon -45713-02-19 13:26 J -14975201.19 -14975200.94 -14975200.68 0.0089 0.0023 *
 Mercury -45713-05-11 21:21 J -14975118.69 -14975118.61 -14975118.51 0.0089 0.0074
 Mercury -45713-08-07 23:45 J -14975030.61 -14975030.51 -14975030.39 0.0089 0.0067
 Mercury -45713-11-04 01:54 J -14974942.52 -14974942.42 -14974942.28 0.0089 0.0060
 Mercury -45712-01-31 04:18 J -14974854.44 -14974854.32 -14974854.17 0.0089 0.0053
 Moon -45712-02-20 20:52 J -14974833.82 -14974833.63 -14974833.41 0.0089 0.0049
 Earth -45712-02-20 22:47 J -14974833.75 -14974833.55 -14974833.33 0.0089 0.0051 *
 Mercury -45712-04-29 06:57 J -14974766.35 -14974766.21 -14974766.07 0.0089 0.0045
 Mercury -45712-07-26 09:21 J -14974678.25 -14974678.11 -14974677.96 0.0089 0.0038
 Mercury -45712-10-22 11:30 J -14974590.16 -14974590.02 -14974589.85 0.0089 0.0031
 Mercury -45711-01-18 14:09 J -14974502.06 -14974501.91 -14974501.75 0.0089 0.0023
 Earth -45711-02-23 10:04 J -14974466.16 -14974466.08 -14974465.96 0.0089 0.0082
 Moon -45711-02-23 10:04 J -14974466.12 -14974466.08 -14974465.96 0.0089 0.0085 *
 Mercury -45711-04-16 16:33 J -14974413.97 -14974413.81 -14974413.64 0.0089 0.0016
 Mercury -45711-07-13 18:57 J -14974325.87 -14974325.71 -14974325.54 0.0089 0.0009
 Mercury -45711-10-09 21:35 J -14974237.77 -14974237.60 -14974237.44 0.0089 0.0001
 Mercury -45710-01-05 23:59 J -14974149.66 -14974149.50 -14974149.33 0.0089 0.0007
 Mercury -45710-04-04 02:23 J -14974061.56 -14974061.40 -14974061.23 0.0089 0.0014
 Mercury -45710-07-01 04:47 J -14973973.45 -14973973.30 -14973973.13 0.0089 0.0022
 Mercury -45710-09-27 07:26 J -14973885.35 -14973885.19 -14973885.03 0.0089 0.0029
 Mercury -45710-12-24 09:50 J -14973797.24 -14973797.09 -14973796.93 0.0089 0.0037
 Mercury -45709-03-21 12:28 J -14973709.12 -14973708.98 -14973708.83 0.0089 0.0044
 Mercury -45709-06-17 14:52 J -14973621.01 -14973620.88 -14973620.74 0.0089 0.0052

Mercury -45709-09-13 17:16 J -14973532.89 -14973532.78 -14973532.64 0.0089 0.0060
 Mercury -45709-12-10 20:09 J -14973444.77 -14973444.66 -14973444.55 0.0089 0.0067
 Mercury -45708-03-08 22:33 J -14973356.64 -14973356.56 -14973356.47 0.0089 0.0075
 Mercury -45708-06-05 00:57 J -14973268.50 -14973268.46 -14973268.39 0.0089 0.0083
 Mars -45695-02-11 08:38 J -14968634.27 -14968634.14 -14968633.95 0.0089 0.0076
 Mars -45693-01-06 14:09 J -14967940.12 -14967939.91 -14967939.65 0.0089 0.0057
 Mars -45692-11-30 21:21 J -14967245.88 -14967245.61 -14967245.32 0.0089 0.0037
 Mars -45690-10-26 07:26 J -14966551.48 -14966551.19 -14966550.88 0.0088 0.0017
 Mars -45688-09-19 20:09 J -14965856.97 -14965856.66 -14965856.35 0.0088 0.0004
 Mars -45686-08-15 09:06 J -14965162.40 -14965162.12 -14965161.80 0.0088 0.0025
 Mars -45684-07-10 01:26 J -14964467.68 -14964467.44 -14964467.14 0.0088 0.0046
 Mars -45682-06-04 22:04 J -14963772.78 -14963772.58 -14963772.36 0.0088 0.0066
 Mars -45680-04-29 19:26 J -14963077.72 -14963077.69 -14963077.60 0.0088 0.0087
 Venus -45676-11-13 14:52 J -14961418.98 -14961418.88 -14961418.76 0.0088 0.0077
 Venus -45675-06-27 04:33 J -14961193.45 -14961193.31 -14961193.13 0.0088 0.0062
 Venus -45674-02-07 18:42 J -14960967.90 -14960967.72 -14960967.51 0.0088 0.0046
 Venus -45674-09-21 08:38 J -14960742.34 -14960742.14 -14960741.91 0.0088 0.0030
 Venus -45673-05-03 22:47 J -14960516.77 -14960516.55 -14960516.32 0.0088 0.0014
 Venus -45673-12-15 12:42 J -14960291.19 -14960290.97 -14960290.74 0.0088 0.0003
 Venus -45672-07-29 02:38 J -14960065.61 -14960065.39 -14960065.16 0.0088 0.0018
 Venus -45671-03-11 16:47 J -14959840.00 -14959839.80 -14959839.58 0.0088 0.0033
 Venus -45671-10-23 06:28 J -14959614.40 -14959614.23 -14959614.02 0.0088 0.0050
 Venus -45670-06-05 20:52 J -14959388.78 -14959388.63 -14959388.47 0.0088 0.0065
 Venus -45669-01-17 10:33 J -14959163.13 -14959163.06 -14959162.95 0.0088 0.0081
 Earth -45634-08-16 22:18 J -14946167.66 -14946167.57 -14946167.44 0.0088 0.0081
 Moon -45634-08-17 01:54 J -14946167.47 -14946167.42 -14946167.33 0.0088 0.0085 *
 Moon -45633-08-18 06:42 J -14945800.43 -14945800.22 -14945799.99 0.0088 0.0045
 Earth -45633-08-18 10:18 J -14945800.27 -14945800.07 -14945799.85 0.0088 0.0050 *
 Earth -45632-08-20 22:18 J -14945432.82 -14945432.57 -14945432.32 0.0088 0.0019
 Moon -45632-08-21 01:26 J -14945432.68 -14945432.44 -14945432.17 0.0088 0.0023 *

Mercury -45631-08-22 04:47 J -14945066.33 -14945066.30 -14945066.27 0.0088 0.0086
 Moon -45631-08-23 07:11 J -14945065.44 -14945065.20 -14945064.95 0.0088 0.0016
 Earth -45631-08-23 09:50 J -14945065.33 -14945065.09 -14945064.82 0.0088 0.0013 *
 Mercury -45631-11-18 06:28 J -14944978.28 -14944978.23 -14944978.15 0.0088 0.0079
 Mercury -45630-02-14 08:23 J -14944890.22 -14944890.15 -14944890.04 0.0088 0.0073
 Mercury -45630-05-13 10:33 J -14944802.15 -14944802.06 -14944801.95 0.0088 0.0065
 Mercury -45630-08-09 12:28 J -14944714.08 -14944713.98 -14944713.85 0.0088 0.0059
 Earth -45630-08-25 21:50 J -14944697.81 -14944697.59 -14944697.36 0.0088 0.0043
 Moon -45630-08-25 23:02 J -14944697.76 -14944697.54 -14944697.28 0.0088 0.0039 *
 Mercury -45630-11-05 14:38 J -14944626.01 -14944625.89 -14944625.76 0.0088 0.0051
 Mercury -45629-02-01 16:33 J -14944537.93 -14944537.81 -14944537.67 0.0088 0.0045
 Mercury -45629-04-29 18:42 J -14944449.86 -14944449.72 -14944449.58 0.0088 0.0038
 Mercury -45629-07-26 20:38 J -14944361.78 -14944361.64 -14944361.50 0.0088 0.0031
 Moon -45629-08-27 07:54 J -14944330.26 -14944330.17 -14944330.02 0.0088 0.0078
 Earth -45629-08-27 09:06 J -14944330.24 -14944330.12 -14944329.96 0.0088 0.0074 *
 Mercury -45629-10-22 22:18 J -14944273.71 -14944273.57 -14944273.41 0.0088 0.0025
 Mercury -45628-01-19 00:28 J -14944185.63 -14944185.48 -14944185.33 0.0088 0.0017
 Mercury -45628-04-17 02:23 J -14944097.55 -14944097.40 -14944097.25 0.0088 0.0010
 Mercury -45628-07-14 04:18 J -14944009.47 -14944009.32 -14944009.17 0.0088 0.0004
 Mercury -45628-10-10 06:14 J -14943921.39 -14943921.24 -14943921.09 0.0088 0.0003
 Mercury -45627-01-06 08:09 J -14943833.31 -14943833.16 -14943833.01 0.0088 0.0010
 Mercury -45627-04-04 09:50 J -14943745.23 -14943745.09 -14943744.94 0.0088 0.0017
 Mercury -45627-07-01 11:45 J -14943657.15 -14943657.01 -14943656.86 0.0088 0.0023
 Mercury -45627-09-27 13:40 J -14943569.07 -14943568.93 -14943568.79 0.0088 0.0030
 Mercury -45627-12-24 15:21 J -14943480.99 -14943480.86 -14943480.72 0.0088 0.0036
 Mercury -45626-03-22 17:16 J -14943392.91 -14943392.78 -14943392.65 0.0088 0.0043
 Mercury -45626-06-18 18:57 J -14943304.82 -14943304.71 -14943304.58 0.0089 0.0050
 Mercury -45626-09-14 20:52 J -14943216.74 -14943216.63 -14943216.51 0.0089 0.0056
 Mercury -45626-12-11 22:33 J -14943128.65 -14943128.56 -14943128.45 0.0089 0.0062
 Mercury -45625-03-09 00:28 J -14943040.57 -14943040.48 -14943040.38 0.0089 0.0069

Mercury -45625-06-05 01:54 J -14942952.48 -14942952.42 -14942952.32 0.0089 0.0076

Mercury -45625-09-01 03:50 J -14942864.38 -14942864.34 -14942864.27 0.0089 0.0082

Mercury -45625-11-28 05:59 J -14942776.26 -14942776.25 -14942776.24 0.0089 0.0088

Mars -45612-12-05 00:28 J -14938021.67 -14938021.48 -14938021.26 0.0089 0.0069

Mars -45610-10-31 10:47 J -14937326.32 -14937326.05 -14937325.77 0.0089 0.0047

Mars -45608-09-25 18:28 J -14936631.04 -14936630.73 -14936630.42 0.0089 0.0025

Mars -45606-08-21 22:47 J -14935935.87 -14935935.55 -14935935.23 0.0089 0.0003

Mars -45604-07-17 01:54 J -14935240.73 -14935240.42 -14935240.11 0.0089 0.0018

Mars -45602-06-12 00:28 J -14934545.73 -14934545.48 -14934545.17 0.0089 0.0040

Mars -45600-05-06 20:52 J -14933850.85 -14933850.63 -14933850.39 0.0089 0.0060

Mars -45598-04-01 14:38 J -14933156.00 -14933155.89 -14933155.73 0.0089 0.0080

Venus -45593-01-01 23:45 J -14931419.56 -14931419.51 -14931419.44 0.0089 0.0086

Venus -45593-08-14 11:59 J -14931194.12 -14931194.00 -14931193.86 0.0089 0.0070

Jupiter -45593-08-17 21:50 J -14931191.11 -14931190.59 -14931190.07 0.0089 0.0001

Venus -45592-03-27 23:59 J -14930968.65 -14930968.50 -14930968.32 0.0089 0.0055

Venus -45592-11-08 11:59 J -14930743.17 -14930743.00 -14930742.79 0.0089 0.0041

Venus -45591-06-22 00:14 J -14930517.69 -14930517.49 -14930517.27 0.0089 0.0025

Venus -45590-02-02 12:28 J -14930292.19 -14930291.98 -14930291.76 0.0089 0.0009

Venus -45590-09-16 00:42 J -14930066.68 -14930066.47 -14930066.25 0.0089 0.0006

Venus -45589-04-28 12:28 J -14929841.18 -14929840.98 -14929840.76 0.0089 0.0022

Venus -45589-12-10 00:28 J -14929615.67 -14929615.48 -14929615.28 0.0089 0.0036

Venus -45588-07-23 12:28 J -14929390.15 -14929389.98 -14929389.80 0.0089 0.0052

Venus -45587-03-06 00:28 J -14929164.61 -14929164.48 -14929164.33 0.0089 0.0067

Venus -45587-10-17 11:59 J -14928939.05 -14928939.00 -14928938.89 0.0089 0.0082

Earth -45552-02-11 09:21 J -14916403.12 -14916403.11 -14916403.07 0.0089 0.0088

Moon -45552-02-11 12:57 J -14916403.02 -14916402.96 -14916402.88 0.0089 0.0085

Moon -45551-02-13 18:14 J -14916035.93 -14916035.74 -14916035.56 0.0089 0.0060

Earth -45551-02-13 20:52 J -14916035.81 -14916035.63 -14916035.42 0.0089 0.0057 *

Earth -45550-02-16 08:23 J -14915668.39 -14915668.15 -14915667.90 0.0089 0.0026

Moon -45550-02-16 10:47 J -14915668.29 -14915668.05 -14915667.78 0.0089 0.0023 *

Moon -45549-02-18 19:11 J -14915300.95 -14915300.70 -14915300.45 0.0089 0.0002
 Earth -45549-02-18 20:09 J -14915300.92 -14915300.66 -14915300.41 0.0089 0.0005 *
 Mercury -45549-08-13 15:35 J -14915123.88 -14915123.85 -14915123.79 0.0089 0.0085
 Mercury -45549-11-09 17:59 J -14915035.81 -14915035.75 -14915035.66 0.0089 0.0078
 Mercury -45548-02-05 20:38 J -14914947.74 -14914947.64 -14914947.54 0.0089 0.0070
 Earth -45548-02-20 07:26 J -14914933.42 -14914933.19 -14914932.95 0.0089 0.0036
 Moon -45548-02-20 07:26 J -14914933.42 -14914933.19 -14914932.94 0.0089 0.0039 *
 Mercury -45548-05-04 22:47 J -14914859.66 -14914859.55 -14914859.43 0.0089 0.0063
 Mercury -45548-08-01 01:11 J -14914771.57 -14914771.45 -14914771.32 0.0089 0.0056
 Mercury -45548-10-28 03:21 J -14914683.48 -14914683.36 -14914683.21 0.0089 0.0049
 Mercury -45547-01-24 05:45 J -14914595.39 -14914595.26 -14914595.11 0.0089 0.0042
 Earth -45547-02-22 19:11 J -14914565.87 -14914565.70 -14914565.53 0.0089 0.0067
 Moon -45547-02-22 19:54 J -14914565.82 -14914565.67 -14914565.48 0.0089 0.0064 *
 Mercury -45547-04-22 08:23 J -14914507.30 -14914507.15 -14914507.00 0.0089 0.0034
 Mercury -45547-07-19 10:33 J -14914419.21 -14914419.06 -14914418.90 0.0089 0.0027
 Mercury -45547-10-15 12:57 J -14914331.11 -14914330.96 -14914330.79 0.0089 0.0020
 Mercury -45546-01-11 15:35 J -14914243.02 -14914242.85 -14914242.69 0.0089 0.0012
 Mercury -45546-04-09 17:59 J -14914154.92 -14914154.75 -14914154.59 0.0089 0.0005
 Mercury -45546-07-06 20:23 J -14914066.81 -14914066.65 -14914066.48 0.0089 0.0003
 Mercury -45546-10-02 22:47 J -14913978.71 -14913978.55 -14913978.38 0.0089 0.0010
 Mercury -45546-12-30 01:11 J -14913890.61 -14913890.45 -14913890.28 0.0089 0.0018
 Mercury -45545-03-27 03:50 J -14913802.50 -14913802.34 -14913802.18 0.0089 0.0025
 Mercury -45545-06-23 05:59 J -14913714.39 -14913714.25 -14913714.08 0.0089 0.0033
 Mercury -45545-09-19 08:52 J -14913626.28 -14913626.13 -14913625.99 0.0089 0.0040
 Mercury -45545-12-16 11:02 J -14913538.17 -14913538.04 -14913537.89 0.0089 0.0048
 Mercury -45544-03-14 13:26 J -14913450.05 -14913449.94 -14913449.79 0.0089 0.0056
 Mercury -45544-06-10 16:18 J -14913361.94 -14913361.82 -14913361.70 0.0089 0.0063
 Mercury -45544-09-06 18:42 J -14913273.81 -14913273.72 -14913273.61 0.0089 0.0071
 Mercury -45544-12-03 21:06 J -14913185.68 -14913185.62 -14913185.53 0.0089 0.0079
 Mercury -45543-03-01 23:59 J -14913097.54 -14913097.50 -14913097.46 0.0089 0.0086

Mars	-45532-09-26 12:57 J	-14908871.08	-14908870.96	-14908870.83	0.0089	0.0080
Mars	-45530-08-21 16:33 J	-14908177.01	-14908176.81	-14908176.57	0.0089	0.0061
Mars	-45528-07-15 22:18 J	-14907482.81	-14907482.57	-14907482.28	0.0089	0.0042
Mars	-45526-06-10 06:14 J	-14906788.53	-14906788.24	-14906787.94	0.0088	0.0021
Mars	-45524-05-04 16:33 J	-14906094.12	-14906093.81	-14906093.50	0.0088	0.0001
Mars	-45522-03-30 05:45 J	-14905399.56	-14905399.26	-14905398.95	0.0088	0.0021
Mars	-45520-02-21 19:11 J	-14904704.95	-14904704.70	-14904704.40	0.0088	0.0042
Mars	-45518-01-17 11:59 J	-14904010.20	-14904010.00	-14904009.76	0.0088	0.0063
Mars	-45517-12-12 07:54 J	-14903315.25	-14903315.17	-14903315.04	0.0088	0.0084
Venus	-45511-02-14 23:45 J	-14901424.56	-14901424.51	-14901424.41	0.0088	0.0084
Venus	-45511-09-28 14:09 J	-14901199.05	-14901198.91	-14901198.76	0.0088	0.0068
Venus	-45510-05-12 03:50 J	-14900973.51	-14900973.34	-14900973.15	0.0088	0.0052
Venus	-45510-12-23 17:59 J	-14900747.96	-14900747.75	-14900747.55	0.0088	0.0037
Venus	-45509-08-05 07:40 J	-14900522.39	-14900522.18	-14900521.95	0.0088	0.0021
Venus	-45508-03-18 21:50 J	-14900296.82	-14900296.59	-14900296.36	0.0088	0.0006
Venus	-45508-10-30 11:45 J	-14900071.23	-14900071.01	-14900070.78	0.0088	0.0010
Venus	-45507-06-13 01:26 J	-14899845.64	-14899845.44	-14899845.21	0.0088	0.0026
Venus	-45506-01-24 15:35 J	-14899620.04	-14899619.85	-14899619.64	0.0088	0.0041
Venus	-45506-09-07 05:16 J	-14899394.43	-14899394.28	-14899394.09	0.0088	0.0058
Venus	-45505-04-19 19:54 J	-14899168.80	-14899168.67	-14899168.55	0.0088	0.0073
Venus	-45505-12-01 09:50 J	-14898943.09	-14898943.09	-14898943.09	0.0088	0.0088
Earth	-45469-08-17 18:14 J	-14885899.89	-14885899.74	-14885899.55	0.0088	0.0066
Moon	-45469-08-17 21:35 J	-14885899.76	-14885899.60	-14885899.42	0.0088	0.0067 *
Moon	-45468-08-20 03:50 J	-14885532.56	-14885532.34	-14885532.10	0.0088	0.0033
Earth	-45468-08-20 06:14 J	-14885532.47	-14885532.24	-14885531.99	0.0088	0.0035 *
Earth	-45467-08-22 18:14 J	-14885165.00	-14885164.74	-14885164.48	0.0088	0.0003
Moon	-45467-08-22 19:54 J	-14885164.94	-14885164.67	-14885164.40	0.0088	0.0006 *
Mercury	-45466-05-19 04:04 J	-14884895.38	-14884895.33	-14884895.28	0.0088	0.0083
Mercury	-45466-08-15 05:59 J	-14884807.33	-14884807.25	-14884807.17	0.0088	0.0076
Earth	-45466-08-25 05:59 J	-14884797.49	-14884797.25	-14884797.00	0.0088	0.0028

Moon -45466-08-25 05:59 J -14884797.48 -14884797.25 -14884797.01 0.0088 0.0030 *
 Mercury -45466-11-11 07:40 J -14884719.26 -14884719.18 -14884719.07 0.0088 0.0069
 Mercury -45465-02-07 09:35 J -14884631.19 -14884631.10 -14884630.98 0.0088 0.0063
 Mercury -45465-05-05 11:45 J -14884543.12 -14884543.01 -14884542.88 0.0088 0.0055
 Mercury -45465-08-01 13:40 J -14884455.05 -14884454.93 -14884454.79 0.0088 0.0049
 Moon -45465-08-26 16:33 J -14884430.00 -14884429.81 -14884429.59 0.0088 0.0057
 Earth -45465-08-26 17:30 J -14884429.95 -14884429.77 -14884429.57 0.0088 0.0059 *
 Mercury -45465-10-28 15:50 J -14884366.97 -14884366.84 -14884366.70 0.0088 0.0041
 Mercury -45464-01-24 17:45 J -14884278.89 -14884278.76 -14884278.61 0.0088 0.0035
 Mercury -45464-04-22 19:40 J -14884190.82 -14884190.68 -14884190.53 0.0088 0.0028
 Mercury -45464-07-19 21:50 J -14884102.74 -14884102.59 -14884102.44 0.0088 0.0021
 Mercury -45464-10-15 23:30 J -14884014.66 -14884014.52 -14884014.36 0.0088 0.0015
 Mercury -45463-01-12 01:40 J -14883926.58 -14883926.43 -14883926.28 0.0088 0.0007
 Mercury -45463-04-10 03:35 J -14883838.50 -14883838.35 -14883838.20 0.0088 0.0001
 Mercury -45463-07-07 05:30 J -14883750.42 -14883750.27 -14883750.12 0.0088 0.0006
 Mercury -45463-10-03 07:11 J -14883662.34 -14883662.20 -14883662.04 0.0088 0.0013
 Mercury -45463-12-30 09:06 J -14883574.26 -14883574.12 -14883573.97 0.0088 0.0020
 Mercury -45462-03-28 11:02 J -14883486.18 -14883486.04 -14883485.89 0.0088 0.0026
 Mercury -45462-06-24 12:57 J -14883398.10 -14883397.96 -14883397.82 0.0088 0.0033
 Mercury -45462-09-20 14:38 J -14883310.02 -14883309.89 -14883309.75 0.0088 0.0040
 Mercury -45462-12-17 16:18 J -14883221.93 -14883221.82 -14883221.68 0.0088 0.0047
 Mercury -45461-03-14 18:28 J -14883133.85 -14883133.73 -14883133.61 0.0088 0.0053
 Mercury -45461-06-10 19:54 J -14883045.76 -14883045.67 -14883045.54 0.0088 0.0060
 Mercury -45461-09-06 22:04 J -14882957.67 -14882957.58 -14882957.48 0.0089 0.0066
 Mercury -45461-12-03 23:30 J -14882869.58 -14882869.52 -14882869.42 0.0089 0.0073
 Mercury -45460-03-02 01:26 J -14882781.49 -14882781.44 -14882781.36 0.0089 0.0079
 Mercury -45460-05-29 03:35 J -14882693.39 -14882693.35 -14882693.31 0.0089 0.0085
 Mars -45448-07-19 00:28 J -14878259.63 -14878259.48 -14878259.28 0.0089 0.0075
 Mars -45446-06-14 11:59 J -14877564.23 -14877564.00 -14877563.71 0.0089 0.0053
 Mars -45444-05-09 21:21 J -14876868.89 -14876868.61 -14876868.28 0.0089 0.0031

Mars	-45442-04-05 05:02 J	-14876173.61	-14876173.29	-14876172.97	0.0089	0.0008
Mars	-45440-02-28 08:38 J	-14875478.45	-14875478.14	-14875477.82	0.0089	0.0014
Mars	-45438-01-24 10:18 J	-14874783.34	-14874783.07	-14874782.76	0.0089	0.0036
Mars	-45437-12-19 09:21 J	-14874088.33	-14874088.11	-14874087.84	0.0089	0.0057
Mars	-45435-11-14 04:47 J	-14873393.41	-14873393.30	-14873393.11	0.0089	0.0078
Venus	-45429-11-15 22:47 J	-14871199.63	-14871199.55	-14871199.42	0.0089	0.0077
Venus	-45428-06-29 11:02 J	-14870974.17	-14870974.04	-14870973.87	0.0089	0.0062
Venus	-45427-02-09 23:30 J	-14870748.70	-14870748.52	-14870748.33	0.0089	0.0047
Venus	-45427-09-23 11:45 J	-14870523.20	-14870523.01	-14870522.80	0.0089	0.0031
Venus	-45426-05-06 23:59 J	-14870297.71	-14870297.50	-14870297.29	0.0089	0.0016
Venus	-45426-12-18 11:59 J	-14870072.21	-14870072.00	-14870071.78	0.0089	0.0002
Venus	-45425-07-30 23:59 J	-14869846.70	-14869846.50	-14869846.28	0.0089	0.0015
Venus	-45424-03-13 11:59 J	-14869621.19	-14869621.00	-14869620.79	0.0089	0.0030
Venus	-45424-10-25 00:14 J	-14869395.67	-14869395.49	-14869395.30	0.0089	0.0044
Venus	-45423-06-07 12:14 J	-14869170.15	-14869169.99	-14869169.83	0.0089	0.0060
Venus	-45422-01-19 00:14 J	-14868944.60	-14868944.49	-14868944.37	0.0089	0.0075
Saturn	-45396-01-23 21:21 J	-14859442.85	-14859442.61	-14859442.23	0.0089	0.0079
Earth	-45387-02-13 05:30 J	-14856135.41	-14856135.27	-14856135.13	0.0089	0.0073
Moon	-45387-02-13 06:42 J	-14856135.33	-14856135.22	-14856135.06	0.0089	0.0077 *
Moon	-45386-02-15 15:50 J	-14855768.05	-14855767.84	-14855767.61	0.0089	0.0039
Earth	-45386-02-15 16:47 J	-14855768.02	-14855767.80	-14855767.56	0.0089	0.0042 *
Moon	-45385-02-18 03:50 J	-14855400.60	-14855400.34	-14855400.08	0.0089	0.0014
Earth	-45385-02-18 04:18 J	-14855400.56	-14855400.32	-14855400.05	0.0089	0.0011 *
Mercury	-45384-02-11 12:28 J	-14855040.99	-14855040.98	-14855040.96	0.0089	0.0088
Earth	-45384-02-19 15:50 J	-14855033.08	-14855032.84	-14855032.58	0.0089	0.0021
Moon	-45384-02-19 17:45 J	-14855033.00	-14855032.76	-14855032.52	0.0089	0.0024 *
Mercury	-45384-05-10 14:52 J	-14854952.94	-14854952.88	-14854952.82	0.0089	0.0081
Mercury	-45384-08-06 17:02 J	-14854864.87	-14854864.79	-14854864.70	0.0089	0.0074
Mercury	-45384-11-02 19:11 J	-14854776.79	-14854776.70	-14854776.58	0.0089	0.0067
Mercury	-45383-01-29 21:35 J	-14854688.71	-14854688.60	-14854688.47	0.0089	0.0060

Moon -45383-02-22 00:28 J -14854665.68 -14854665.48 -14854665.24 0.0089 0.0049
 Earth -45383-02-22 03:21 J -14854665.56 -14854665.36 -14854665.15 0.0089 0.0052 *
 Mercury -45383-04-27 23:59 J -14854600.62 -14854600.50 -14854600.36 0.0089 0.0053
 Mercury -45383-07-25 02:09 J -14854512.53 -14854512.41 -14854512.25 0.0089 0.0046
 Mercury -45383-10-21 04:47 J -14854424.44 -14854424.30 -14854424.15 0.0089 0.0038
 Mercury -45382-01-17 07:11 J -14854336.35 -14854336.20 -14854336.04 0.0089 0.0031
 Earth -45382-02-24 14:52 J -14854297.96 -14854297.88 -14854297.79 0.0089 0.0083
 Moon -45382-02-24 17:59 J -14854297.78 -14854297.75 -14854297.68 0.0089 0.0087
 Mercury -45382-04-15 09:21 J -14854248.26 -14854248.11 -14854247.94 0.0089 0.0024
 Mercury -45382-07-12 11:59 J -14854160.16 -14854160.00 -14854159.84 0.0089 0.0016
 Mercury -45382-10-08 14:23 J -14854072.06 -14854071.90 -14854071.74 0.0089 0.0009
 Mercury -45381-01-04 16:47 J -14853983.96 -14853983.80 -14853983.63 0.0089 0.0001
 Mercury -45381-04-01 19:11 J -14853895.86 -14853895.70 -14853895.53 0.0089 0.0006
 Mercury -45381-06-28 21:35 J -14853807.76 -14853807.60 -14853807.43 0.0089 0.0014
 Mercury -45381-09-24 23:59 J -14853719.66 -14853719.50 -14853719.33 0.0089 0.0021
 Mercury -45381-12-22 02:23 J -14853631.55 -14853631.40 -14853631.24 0.0089 0.0029
 Mercury -45380-03-20 05:02 J -14853543.44 -14853543.29 -14853543.14 0.0089 0.0036
 Mercury -45380-06-16 07:11 J -14853455.33 -14853455.20 -14853455.04 0.0089 0.0044
 Mercury -45380-09-12 09:50 J -14853367.22 -14853367.09 -14853366.95 0.0089 0.0051
 Mercury -45380-12-09 12:14 J -14853279.10 -14853278.99 -14853278.85 0.0089 0.0059
 Mercury -45379-03-07 14:38 J -14853190.98 -14853190.89 -14853190.76 0.0089 0.0067
 Mercury -45379-06-03 17:16 J -14853102.86 -14853102.78 -14853102.68 0.0089 0.0074
 Mercury -45379-08-30 19:40 J -14853014.72 -14853014.68 -14853014.60 0.0089 0.0082
 Mars -45368-05-11 16:04 J -14849107.87 -14849107.83 -14849107.71 0.0089 0.0086
 Mars -45366-04-05 17:45 J -14848413.92 -14848413.76 -14848413.52 0.0089 0.0067
 Mars -45364-02-27 22:18 J -14847719.80 -14847719.57 -14847719.29 0.0089 0.0047
 Mars -45362-01-23 05:30 J -14847025.56 -14847025.27 -14847024.98 0.0088 0.0026
 Mars -45361-12-17 13:26 J -14846331.24 -14846330.94 -14846330.63 0.0088 0.0006
 Mars -45359-11-11 23:16 J -14845636.82 -14845636.53 -14845636.22 0.0088 0.0016
 Mars -45357-10-06 12:42 J -14844942.23 -14844941.97 -14844941.67 0.0088 0.0038

Mars	-45355-09-01 03:21 J	-14844247.57	-14844247.36	-14844247.10	0.0088	0.0059
Mars	-45353-07-26 20:23 J	-14843552.77	-14843552.65	-14843552.50	0.0088	0.0080
Venus	-45347-12-30 22:47 J	-14841204.67	-14841204.55	-14841204.43	0.0088	0.0075
Venus	-45346-08-13 12:14 J	-14840979.14	-14840978.99	-14840978.81	0.0088	0.0060
Venus	-45345-03-26 02:09 J	-14840753.59	-14840753.41	-14840753.19	0.0088	0.0045
Venus	-45345-11-06 16:18 J	-14840528.03	-14840527.82	-14840527.60	0.0088	0.0029
Venus	-45344-06-20 06:14 J	-14840302.46	-14840302.24	-14840302.01	0.0088	0.0013
Venus	-45343-01-31 20:23 J	-14840076.88	-14840076.65	-14840076.43	0.0088	0.0003
Venus	-45343-09-14 10:04 J	-14839851.29	-14839851.08	-14839850.85	0.0088	0.0018
Venus	-45342-04-28 00:14 J	-14839625.70	-14839625.49	-14839625.28	0.0088	0.0034
Venus	-45342-12-09 13:40 J	-14839400.10	-14839399.93	-14839399.72	0.0088	0.0050
Venus	-45341-07-22 04:04 J	-14839174.48	-14839174.33	-14839174.18	0.0088	0.0065
Venus	-45340-03-04 17:45 J	-14838948.83	-14838948.76	-14838948.65	0.0088	0.0080
Moon	-45305-08-16 23:30 J	-14825999.54	-14825999.52	-14825999.44	0.0088	0.0087
Earth	-45305-08-17 01:40 J	-14825999.51	-14825999.43	-14825999.31	0.0088	0.0082 *
Earth	-45304-08-19 13:26 J	-14825632.13	-14825631.94	-14825631.71	0.0088	0.0051
Moon	-45304-08-19 14:23 J	-14825632.12	-14825631.90	-14825631.66	0.0088	0.0047 *
Earth	-45303-08-22 01:26 J	-14825264.69	-14825264.44	-14825264.18	0.0088	0.0019
Moon	-45303-08-22 01:26 J	-14825264.68	-14825264.44	-14825264.19	0.0088	0.0024 *
Moon	-45302-08-24 11:02 J	-14824897.29	-14824897.04	-14824896.77	0.0088	0.0017
Earth	-45302-08-24 13:11 J	-14824897.21	-14824896.95	-14824896.69	0.0088	0.0012 *
Mercury	-45302-11-17 00:28 J	-14824812.48	-14824812.48	-14824812.44	0.0088	0.0088
Mercury	-45301-02-13 02:38 J	-14824724.44	-14824724.39	-14824724.32	0.0088	0.0081
Mercury	-45301-05-11 04:33 J	-14824636.38	-14824636.31	-14824636.21	0.0088	0.0074
Mercury	-45301-08-07 06:42 J	-14824548.31	-14824548.22	-14824548.11	0.0088	0.0067
Earth	-45301-08-26 00:14 J	-14824529.69	-14824529.49	-14824529.24	0.0088	0.0044
Moon	-45301-08-26 02:52 J	-14824529.59	-14824529.38	-14824529.13	0.0088	0.0040 *
Mercury	-45301-11-03 08:38 J	-14824460.24	-14824460.14	-14824460.02	0.0088	0.0060
Mercury	-45300-01-30 10:47 J	-14824372.17	-14824372.05	-14824371.92	0.0088	0.0053
Mercury	-45300-04-28 12:42 J	-14824284.09	-14824283.97	-14824283.83	0.0088	0.0046

Mercury -45300-07-25 14:52 J -14824196.02 -14824195.88 -14824195.74 0.0088 0.0039
 Moon -45300-08-28 08:38 J -14824162.23 -14824162.14 -14824161.99 0.0088 0.0079
 Earth -45300-08-28 11:59 J -14824162.11 -14824162.00 -14824161.83 0.0088 0.0074 *
 Mercury -45300-10-21 16:33 J -14824107.94 -14824107.81 -14824107.66 0.0088 0.0033
 Mercury -45299-01-17 18:42 J -14824019.86 -14824019.72 -14824019.57 0.0088 0.0025
 Mercury -45299-04-15 20:38 J -14823931.79 -14823931.64 -14823931.49 0.0088 0.0018
 Mercury -45299-07-12 22:33 J -14823843.71 -14823843.56 -14823843.41 0.0088 0.0012
 Mercury -45299-10-09 00:28 J -14823755.63 -14823755.48 -14823755.32 0.0088 0.0005
 Mercury -45298-01-05 02:23 J -14823667.55 -14823667.40 -14823667.24 0.0088 0.0003
 Mercury -45298-04-03 04:18 J -14823579.47 -14823579.32 -14823579.17 0.0088 0.0009
 Mercury -45298-06-30 06:14 J -14823491.39 -14823491.24 -14823491.09 0.0088 0.0016
 Mercury -45298-09-26 08:09 J -14823403.30 -14823403.16 -14823403.01 0.0088 0.0022
 Mercury -45298-12-23 10:04 J -14823315.22 -14823315.08 -14823314.94 0.0088 0.0029
 Mercury -45297-03-20 11:45 J -14823227.14 -14823227.01 -14823226.86 0.0088 0.0036
 Mercury -45297-06-16 13:40 J -14823139.05 -14823138.93 -14823138.79 0.0088 0.0042
 Mercury -45297-09-12 15:35 J -14823050.97 -14823050.85 -14823050.72 0.0088 0.0049
 Mercury -45297-12-09 17:16 J -14822962.88 -14822962.78 -14822962.65 0.0088 0.0056
 Mercury -45296-03-07 19:11 J -14822874.80 -14822874.70 -14822874.59 0.0088 0.0062
 Mercury -45296-06-03 20:52 J -14822786.71 -14822786.63 -14822786.52 0.0088 0.0069
 Mercury -45296-08-30 23:02 J -14822698.62 -14822698.54 -14822698.46 0.0089 0.0075
 Mercury -45296-11-27 00:28 J -14822610.52 -14822610.48 -14822610.41 0.0089 0.0082
 Mercury -45295-02-23 02:23 J -14822522.40 -14822522.40 -14822522.37 0.0089 0.0088
 Mars -45284-03-01 20:52 J -14818497.74 -14818497.63 -14818497.49 0.0089 0.0082
 Mars -45282-01-26 11:16 J -14817802.26 -14817802.03 -14817801.77 0.0089 0.0059
 Mars -45281-12-21 22:33 J -14817106.85 -14817106.56 -14817106.26 0.0089 0.0036
 Mars -45279-11-17 06:57 J -14816411.52 -14816411.21 -14816410.88 0.0089 0.0014
 Mars -45277-10-12 13:54 J -14815716.24 -14815715.92 -14815715.60 0.0089 0.0009
 Mars -45275-09-07 17:02 J -14815021.07 -14815020.79 -14815020.47 0.0089 0.0032
 Mars -45273-08-02 18:28 J -14814325.97 -14814325.73 -14814325.47 0.0089 0.0053
 Mars -45271-06-28 16:47 J -14813630.93 -14813630.80 -14813630.59 0.0089 0.0075

Venus	-45264-02-17 10:04 J	-14811205.15	-14811205.08	-14811205.01	0.0089	0.0084
Venus	-45264-09-30 22:18 J	-14810979.71	-14810979.57	-14810979.44	0.0089	0.0069
Venus	-45263-05-14 10:18 J	-14810754.24	-14810754.07	-14810753.90	0.0089	0.0053
Venus	-45263-12-25 22:18 J	-14810528.76	-14810528.57	-14810528.37	0.0089	0.0038
Venus	-45262-08-08 10:33 J	-14810303.27	-14810303.06	-14810302.85	0.0089	0.0023
Venus	-45261-03-20 22:33 J	-14810077.77	-14810077.56	-14810077.34	0.0089	0.0009
Venus	-45261-11-01 10:47 J	-14809852.26	-14809852.05	-14809851.84	0.0089	0.0007
Venus	-45260-06-14 22:33 J	-14809626.76	-14809626.56	-14809626.34	0.0089	0.0022
Venus	-45259-01-26 10:33 J	-14809401.24	-14809401.06	-14809400.85	0.0089	0.0037
Venus	-45259-09-08 22:47 J	-14809175.71	-14809175.55	-14809175.36	0.0089	0.0052
Venus	-45258-04-22 10:47 J	-14808950.17	-14808950.05	-14808949.90	0.0089	0.0067
Venus	-45258-12-03 22:33 J	-14808724.62	-14808724.56	-14808724.46	0.0089	0.0082
Moon	-45223-02-12 12:14 J	-14796234.99	-14796234.99	-14796234.96	0.0089	0.0089
Moon	-45222-02-14 23:02 J	-14795867.72	-14795867.54	-14795867.34	0.0089	0.0061
Earth	-45222-02-14 23:45 J	-14795867.69	-14795867.51	-14795867.30	0.0089	0.0059 *
Earth	-45221-02-17 11:16 J	-14795500.26	-14795500.03	-14795499.77	0.0089	0.0028
Moon	-45221-02-17 13:40 J	-14795500.16	-14795499.93	-14795499.68	0.0089	0.0025 *
Moon	-45220-02-18 19:54 J	-14795132.93	-14795132.67	-14795132.40	0.0089	0.0003
Earth	-45220-02-18 23:16 J	-14795132.79	-14795132.53	-14795132.27	0.0089	0.0004 *
Mercury	-45220-11-08 10:47 J	-14794870.07	-14794870.05	-14794869.99	0.0089	0.0086
Mercury	-45219-02-04 13:11 J	-14794782.01	-14794781.95	-14794781.86	0.0089	0.0079
Earth	-45219-02-21 10:18 J	-14794765.29	-14794765.07	-14794764.82	0.0089	0.0036
Moon	-45219-02-21 13:40 J	-14794765.14	-14794764.93	-14794764.69	0.0089	0.0039 *
Mercury	-45219-05-03 15:21 J	-14794693.94	-14794693.86	-14794693.75	0.0089	0.0072
Mercury	-45219-07-30 17:59 J	-14794605.85	-14794605.75	-14794605.63	0.0089	0.0064
Mercury	-45219-10-26 20:23 J	-14794517.77	-14794517.65	-14794517.52	0.0089	0.0057
Mercury	-45218-01-22 22:33 J	-14794429.68	-14794429.56	-14794429.42	0.0089	0.0050
Moon	-45218-02-23 17:59 J	-14794397.89	-14794397.75	-14794397.54	0.0089	0.0065
Earth	-45218-02-23 21:50 J	-14794397.73	-14794397.59	-14794397.40	0.0089	0.0068 *
Mercury	-45218-04-21 00:57 J	-14794341.60	-14794341.46	-14794341.31	0.0089	0.0043

Mercury -45218-07-18 03:06 J -14794253.50 -14794253.37 -14794253.21 0.0089 0.0036

Mercury -45218-10-14 05:45 J -14794165.41 -14794165.26 -14794165.10 0.0089 0.0028

Mercury -45217-01-10 08:09 J -14794077.32 -14794077.16 -14794077.00 0.0089 0.0021

Mercury -45217-04-07 10:33 J -14793989.22 -14793989.06 -14793988.90 0.0089 0.0013

Mercury -45217-07-04 12:57 J -14793901.12 -14793900.96 -14793900.79 0.0089 0.0006

Mercury -45217-09-30 15:21 J -14793813.02 -14793812.86 -14793812.69 0.0089 0.0002

Mercury -45217-12-27 17:45 J -14793724.92 -14793724.76 -14793724.59 0.0089 0.0009

Mercury -45216-03-25 20:09 J -14793636.82 -14793636.66 -14793636.49 0.0089 0.0016

Mercury -45216-06-21 22:33 J -14793548.71 -14793548.56 -14793548.39 0.0089 0.0024

Mercury -45216-09-18 00:57 J -14793460.61 -14793460.46 -14793460.30 0.0089 0.0032

Mercury -45216-12-15 03:21 J -14793372.50 -14793372.36 -14793372.20 0.0089 0.0039

Mercury -45215-03-13 05:45 J -14793284.39 -14793284.26 -14793284.10 0.0089 0.0047

Mercury -45215-06-09 08:23 J -14793196.27 -14793196.15 -14793196.01 0.0089 0.0054

Mercury -45215-09-05 10:47 J -14793108.16 -14793108.05 -14793107.92 0.0089 0.0062

Mercury -45215-12-02 13:26 J -14793020.04 -14793019.94 -14793019.83 0.0089 0.0069

Mercury -45214-02-28 15:50 J -14792931.91 -14792931.84 -14792931.75 0.0089 0.0077

Mercury -45214-05-27 18:14 J -14792843.77 -14792843.74 -14792843.68 0.0089 0.0085

Mars -45203-11-18 21:06 J -14788650.77 -14788650.62 -14788650.42 0.0089 0.0072

Mars -45201-10-12 23:16 J -14787956.76 -14787956.53 -14787956.27 0.0089 0.0052

Mars -45199-09-07 02:52 J -14787262.64 -14787262.38 -14787262.07 0.0088 0.0032

Mars -45197-08-01 09:50 J -14786568.38 -14786568.09 -14786567.78 0.0088 0.0011

Mars -45195-06-26 18:14 J -14785874.03 -14785873.74 -14785873.42 0.0088 0.0012

Mars -45193-05-21 04:33 J -14785179.58 -14785179.31 -14785179.00 0.0088 0.0033

Mars -45191-04-15 17:59 J -14784484.96 -14784484.75 -14784484.47 0.0088 0.0055

Mars -45189-03-10 09:50 J -14783790.22 -14783790.09 -14783789.90 0.0088 0.0076

Venus -45182-04-03 06:14 J -14781210.30 -14781210.24 -14781210.14 0.0088 0.0082

Venus -45182-11-14 19:54 J -14780984.79 -14780984.67 -14780984.50 0.0088 0.0068

Venus -45181-06-27 10:18 J -14780759.25 -14780759.07 -14780758.88 0.0088 0.0051

Venus -45180-02-07 23:59 J -14780533.69 -14780533.50 -14780533.27 0.0088 0.0037

Venus -45180-09-21 14:23 J -14780308.12 -14780307.90 -14780307.68 0.0088 0.0021

Venus	-45179-05-05 04:18 J	-14780082.55	-14780082.32	-14780082.09	0.0088	0.0005
Venus	-45179-12-16 17:59 J	-14779856.97	-14779856.75	-14779856.52	0.0088	0.0011
Venus	-45178-07-30 07:40 J	-14779631.38	-14779631.18	-14779630.95	0.0088	0.0026
Venus	-45177-03-11 21:50 J	-14779405.78	-14779405.59	-14779405.38	0.0088	0.0041
Venus	-45177-10-23 11:59 J	-14779180.17	-14779180.00	-14779179.82	0.0088	0.0056
Venus	-45176-06-06 01:26 J	-14778954.55	-14778954.44	-14778954.29	0.0088	0.0072
Venus	-45175-01-17 15:35 J	-14778728.86	-14778728.85	-14778728.81	0.0088	0.0087
Earth	-45140-08-18 19:54 J	-14765731.81	-14765731.67	-14765731.48	0.0088	0.0068
Moon	-45140-08-18 21:21 J	-14765731.76	-14765731.61	-14765731.44	0.0088	0.0068 *
Moon	-45139-08-21 05:45 J	-14765364.48	-14765364.26	-14765363.99	0.0088	0.0036
Earth	-45139-08-21 07:40 J	-14765364.40	-14765364.18	-14765363.93	0.0088	0.0037 *
Earth	-45138-08-23 19:40 J	-14764996.93	-14764996.68	-14764996.42	0.0088	0.0005
Moon	-45138-08-23 22:33 J	-14764996.80	-14764996.56	-14764996.30	0.0088	0.0007 *
Mercury	-45137-08-12 23:16 J	-14764641.55	-14764641.53	-14764641.48	0.0088	0.0086
Moon	-45137-08-25 03:35 J	-14764629.58	-14764629.35	-14764629.08	0.0088	0.0028
Earth	-45137-08-25 07:11 J	-14764629.43	-14764629.20	-14764628.94	0.0088	0.0027 *
Mercury	-45137-11-09 01:26 J	-14764553.50	-14764553.44	-14764553.36	0.0088	0.0078
Mercury	-45136-02-05 03:21 J	-14764465.43	-14764465.36	-14764465.26	0.0088	0.0072
Mercury	-45136-05-04 05:30 J	-14764377.37	-14764377.27	-14764377.16	0.0088	0.0064
Mercury	-45136-07-31 07:26 J	-14764289.29	-14764289.19	-14764289.06	0.0088	0.0058
Earth	-45136-08-27 18:57 J	-14764261.90	-14764261.71	-14764261.51	0.0088	0.0058
Moon	-45136-08-27 22:33 J	-14764261.75	-14764261.56	-14764261.36	0.0088	0.0056 *
Mercury	-45136-10-27 09:35 J	-14764201.22	-14764201.10	-14764200.97	0.0088	0.0050
Mercury	-45135-01-23 11:30 J	-14764113.14	-14764113.02	-14764112.88	0.0088	0.0044
Mercury	-45135-04-21 13:40 J	-14764025.07	-14764024.93	-14764024.79	0.0088	0.0037
Mercury	-45135-07-18 15:35 J	-14763936.99	-14763936.85	-14763936.70	0.0088	0.0030
Mercury	-45135-10-14 17:30 J	-14763848.91	-14763848.77	-14763848.62	0.0088	0.0023
Mercury	-45134-01-10 19:26 J	-14763760.84	-14763760.69	-14763760.54	0.0088	0.0016
Mercury	-45134-04-08 21:21 J	-14763672.76	-14763672.61	-14763672.45	0.0088	0.0010
Mercury	-45134-07-05 23:30 J	-14763584.68	-14763584.52	-14763584.37	0.0088	0.0003

Mercury -45134-10-02 01:26 J -14763496.60 -14763496.44 -14763496.29 0.0088 0.0005
 Mercury -45134-12-29 03:06 J -14763408.51 -14763408.37 -14763408.21 0.0088 0.0011
 Mercury -45133-03-26 05:16 J -14763320.43 -14763320.28 -14763320.14 0.0088 0.0018
 Mercury -45133-06-22 06:57 J -14763232.35 -14763232.21 -14763232.06 0.0088 0.0025
 Mercury -45133-09-18 08:38 J -14763144.27 -14763144.14 -14763143.99 0.0088 0.0032
 Mercury -45133-12-15 10:47 J -14763056.18 -14763056.05 -14763055.91 0.0088 0.0038
 Mercury -45132-03-13 12:28 J -14762968.10 -14762967.98 -14762967.84 0.0088 0.0045
 Mercury -45132-06-09 14:09 J -14762880.01 -14762879.91 -14762879.77 0.0088 0.0052
 Mercury -45132-09-05 16:18 J -14762791.93 -14762791.82 -14762791.70 0.0088 0.0058
 Mercury -45132-12-02 17:59 J -14762703.84 -14762703.75 -14762703.64 0.0088 0.0064
 Mercury -45131-02-28 19:54 J -14762615.75 -14762615.67 -14762615.57 0.0089 0.0071
 Mercury -45131-05-27 21:35 J -14762527.66 -14762527.60 -14762527.51 0.0089 0.0078
 Mercury -45131-08-23 23:30 J -14762439.55 -14762439.52 -14762439.46 0.0089 0.0084
 Mars -45119-09-09 04:04 J -14758040.51 -14758040.33 -14758040.08 0.0089 0.0067
 Mars -45117-08-04 18:42 J -14757344.99 -14757344.72 -14757344.42 0.0089 0.0043
 Mars -45115-07-01 05:45 J -14756649.56 -14756649.26 -14756648.93 0.0089 0.0020
 Mars -45113-05-26 14:09 J -14755954.23 -14755953.91 -14755953.59 0.0089 0.0003
 Mars -45111-04-21 20:09 J -14755258.96 -14755258.66 -14755258.34 0.0089 0.0026
 Mars -45109-03-16 23:16 J -14754563.77 -14754563.53 -14754563.23 0.0089 0.0049
 Mars -45107-02-10 00:14 J -14753868.68 -14753868.49 -14753868.30 0.0089 0.0070
 Venus -45099-01-02 08:38 J -14750985.25 -14750985.14 -14750985.03 0.0089 0.0076
 Venus -45099-08-15 20:09 J -14750759.79 -14750759.66 -14750759.48 0.0089 0.0062
 Venus -45098-03-29 08:23 J -14750534.31 -14750534.15 -14750533.95 0.0089 0.0046
 Venus -45098-11-09 20:38 J -14750308.83 -14750308.64 -14750308.43 0.0089 0.0031
 Venus -45097-06-22 08:52 J -14750083.34 -14750083.13 -14750082.92 0.0089 0.0016
 Venus -45096-02-02 21:06 J -14749857.84 -14749857.62 -14749857.41 0.0089 0.0001
 Venus -45096-09-16 09:06 J -14749632.32 -14749632.12 -14749631.90 0.0089 0.0015
 Venus -45095-04-29 21:06 J -14749406.81 -14749406.62 -14749406.41 0.0089 0.0030
 Venus -45095-12-11 09:06 J -14749181.29 -14749181.12 -14749180.92 0.0089 0.0044
 Venus -45094-07-24 21:06 J -14748955.77 -14748955.62 -14748955.45 0.0089 0.0059

Venus -45093-03-06 09:06 J -14748730.22 -14748730.12 -14748729.99 0.0089 0.0074
 Venus -45093-10-17 21:21 J -14748504.61 -14748504.61 -14748504.59 0.0089 0.0089
 Earth -45058-02-14 06:42 J -14735967.34 -14735967.22 -14735967.08 0.0089 0.0076
 Moon -45058-02-14 09:06 J -14735967.21 -14735967.12 -14735967.00 0.0089 0.0080 *
 Moon -45057-02-16 15:06 J -14735600.10 -14735599.87 -14735599.63 0.0089 0.0040
 Earth -45057-02-16 17:59 J -14735599.95 -14735599.75 -14735599.51 0.0089 0.0045 *
 Earth -45056-02-18 05:45 J -14735232.51 -14735232.26 -14735232.00 0.0089 0.0013
 Moon -45056-02-18 09:21 J -14735232.35 -14735232.11 -14735231.85 0.0089 0.0017 *
 Moon -45055-02-20 13:54 J -14734865.15 -14734864.92 -14734864.66 0.0089 0.0023
 Earth -45055-02-20 17:30 J -14734865.02 -14734864.77 -14734864.52 0.0089 0.0019 *
 Mercury -45055-08-05 09:35 J -14734699.15 -14734699.10 -14734699.04 0.0089 0.0083
 Mercury -45055-11-01 11:59 J -14734611.08 -14734611.00 -14734610.92 0.0089 0.0076
 Mercury -45054-01-28 14:09 J -14734523.00 -14734522.91 -14734522.80 0.0089 0.0069
 Earth -45054-02-23 04:33 J -14734497.50 -14734497.31 -14734497.08 0.0089 0.0051
 Moon -45054-02-23 07:54 J -14734497.38 -14734497.17 -14734496.93 0.0089 0.0047 *
 Mercury -45054-04-26 16:18 J -14734434.92 -14734434.82 -14734434.69 0.0089 0.0062
 Mercury -45054-07-23 18:42 J -14734346.84 -14734346.72 -14734346.58 0.0089 0.0055
 Mercury -45054-10-19 20:52 J -14734258.75 -14734258.63 -14734258.48 0.0089 0.0048
 Mercury -45053-01-15 23:30 J -14734170.66 -14734170.52 -14734170.37 0.0089 0.0040
 Moon -45053-02-25 14:23 J -14734129.93 -14734129.90 -14734129.82 0.0089 0.0087
 Earth -45053-02-25 15:50 J -14734129.90 -14734129.84 -14734129.71 0.0089 0.0083 *
 Mercury -45053-04-13 01:54 J -14734082.57 -14734082.42 -14734082.27 0.0089 0.0033
 Mercury -45053-07-10 04:04 J -14733994.48 -14733994.33 -14733994.17 0.0089 0.0026
 Mercury -45053-10-06 06:28 J -14733906.38 -14733906.23 -14733906.06 0.0089 0.0019
 Mercury -45052-01-02 09:06 J -14733818.29 -14733818.12 -14733817.96 0.0089 0.0011
 Mercury -45052-03-31 11:30 J -14733730.19 -14733730.02 -14733729.86 0.0089 0.0004
 Mercury -45052-06-27 13:40 J -14733642.09 -14733641.93 -14733641.76 0.0089 0.0005
 Mercury -45052-09-23 16:04 J -14733553.99 -14733553.83 -14733553.66 0.0089 0.0012
 Mercury -45052-12-20 18:28 J -14733465.89 -14733465.73 -14733465.56 0.0089 0.0019
 Mercury -45051-03-18 21:06 J -14733377.78 -14733377.62 -14733377.46 0.0089 0.0026

Mercury -45051-06-14 23:16 J -14733289.67 -14733289.53 -14733289.37 0.0089 0.0034

Mercury -45051-09-11 01:54 J -14733201.56 -14733201.42 -14733201.27 0.0089 0.0041

Mercury -45051-12-08 04:18 J -14733113.45 -14733113.32 -14733113.18 0.0089 0.0049

Mercury -45050-03-06 06:28 J -14733025.34 -14733025.23 -14733025.08 0.0089 0.0057

Mercury -45050-06-02 09:06 J -14732937.22 -14732937.12 -14732936.99 0.0089 0.0064

Mercury -45050-08-29 11:30 J -14732849.10 -14732849.02 -14732848.91 0.0089 0.0072

Mercury -45050-11-25 14:23 J -14732760.97 -14732760.90 -14732760.83 0.0089 0.0079

Mercury -45049-02-21 16:33 J -14732672.83 -14732672.81 -14732672.76 0.0089 0.0087

Mars -45039-07-03 21:50 J -14728887.71 -14728887.59 -14728887.43 0.0089 0.0078

Mars -45037-05-27 23:30 J -14728193.73 -14728193.52 -14728193.28 0.0089 0.0058

Mars -45035-04-22 02:38 J -14727499.64 -14727499.39 -14727499.09 0.0088 0.0038

Mars -45033-03-16 06:57 J -14726805.50 -14726805.21 -14726804.90 0.0088 0.0017

Mars -45031-02-08 14:09 J -14726111.21 -14726110.91 -14726110.60 0.0088 0.0005

Mars -45029-01-03 22:47 J -14725416.82 -14725416.55 -14725416.23 0.0088 0.0028

Mars -45028-11-28 09:50 J -14724722.34 -14724722.09 -14724721.83 0.0088 0.0049

Mars -45026-10-23 23:02 J -14724027.72 -14724027.54 -14724027.35 0.0088 0.0071

Jupiter -45017-02-09 02:52 J -14720997.84 -14720997.38 -14720996.87 0.0088 0.0046

Venus -45017-02-16 03:50 J -14720990.45 -14720990.34 -14720990.22 0.0088 0.0075

Venus -45017-09-28 17:30 J -14720764.92 -14720764.77 -14720764.59 0.0088 0.0060

Venus -45016-05-12 07:26 J -14720539.37 -14720539.19 -14720538.98 0.0088 0.0044

Venus -45016-12-23 21:06 J -14720313.82 -14720313.62 -14720313.39 0.0088 0.0030

Venus -45015-08-06 11:30 J -14720088.25 -14720088.02 -14720087.80 0.0088 0.0013

Venus -45014-03-20 01:26 J -14719862.66 -14719862.44 -14719862.21 0.0088 0.0002

Venus -45014-10-31 15:21 J -14719637.08 -14719636.86 -14719636.63 0.0088 0.0017

Venus -45013-06-13 05:16 J -14719411.49 -14719411.28 -14719411.07 0.0088 0.0033

Venus -45012-01-24 18:42 J -14719185.89 -14719185.72 -14719185.51 0.0088 0.0049

Venus -45012-09-07 08:52 J -14718960.27 -14718960.13 -14718959.96 0.0088 0.0063

Venus -45011-04-20 23:02 J -14718734.63 -14718734.54 -14718734.43 0.0088 0.0079

45TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 45th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Earth	-44976-08-18 00:42 J	-14705831.50	-14705831.47	-14705831.37	0.0088	0.0086		
Earth	-44975-08-20 12:57 J	-14705464.15	-14705463.96	-14705463.74	0.0088	0.0054		
Moon	-44975-08-20 15:50 J	-14705464.03	-14705463.84	-14705463.61	0.0088	0.0050		*
Moon	-44974-08-22 21:21 J	-14705096.86	-14705096.61	-14705096.36	0.0088	0.0027		
Earth	-44974-08-23 00:42 J	-14705096.71	-14705096.47	-14705096.20	0.0088	0.0023		*
Earth	-44973-08-24 12:28 J	-14704729.23	-14704728.98	-14704728.71	0.0088	0.0010		
Moon	-44973-08-24 15:50 J	-14704729.08	-14704728.84	-14704728.57	0.0088	0.0015		*
Mercury	-44972-05-09 22:04 J	-14704470.62	-14704470.58	-14704470.53	0.0088	0.0084		
Mercury	-44972-08-05 23:59 J	-14704382.57	-14704382.50	-14704382.42	0.0088	0.0077		
Moon	-44972-08-26 21:21 J	-14704361.84	-14704361.61	-14704361.38	0.0088	0.0037		
Earth	-44972-08-27 00:28 J	-14704361.71	-14704361.48	-14704361.25	0.0088	0.0041		*
Mercury	-44972-11-02 02:09 J	-14704294.50	-14704294.41	-14704294.31	0.0088	0.0070		
Mercury	-44971-01-29 04:04 J	-14704206.43	-14704206.33	-14704206.22	0.0088	0.0063		
Mercury	-44971-04-27 06:14 J	-14704118.36	-14704118.24	-14704118.12	0.0088	0.0056		
Mercury	-44971-07-24 08:09 J	-14704030.28	-14704030.16	-14704030.03	0.0088	0.0049		
Earth	-44971-08-29 11:16 J	-14703994.15	-14703994.03	-14703993.85	0.0088	0.0073		
Moon	-44971-08-29 13:54 J	-14703994.03	-14703993.92	-14703993.77	0.0088	0.0077		*
Mercury	-44971-10-20 09:50 J	-14703942.21	-14703942.09	-14703941.94	0.0088	0.0043		
Mercury	-44970-01-16 11:59 J	-14703854.13	-14703854.00	-14703853.85	0.0088	0.0035		

Mercury -44970-04-14 13:54 J -14703766.05 -14703765.92 -14703765.76 0.0088 0.0029
 Mercury -44970-07-11 16:04 J -14703677.98 -14703677.83 -14703677.68 0.0088 0.0021
 Mercury -44970-10-07 17:59 J -14703589.90 -14703589.75 -14703589.60 0.0088 0.0015
 Mercury -44969-01-03 19:54 J -14703501.82 -14703501.67 -14703501.51 0.0088 0.0008
 Mercury -44969-03-31 22:04 J -14703413.74 -14703413.58 -14703413.43 0.0088 0.0003
 Mercury -44969-06-27 23:45 J -14703325.66 -14703325.51 -14703325.35 0.0088 0.0007
 Mercury -44969-09-24 01:54 J -14703237.57 -14703237.42 -14703237.27 0.0088 0.0013
 Mercury -44969-12-21 03:35 J -14703149.49 -14703149.35 -14703149.20 0.0088 0.0020
 Mercury -44968-03-19 05:30 J -14703061.41 -14703061.27 -14703061.12 0.0088 0.0026
 Mercury -44968-06-15 07:26 J -14702973.33 -14702973.19 -14702973.05 0.0088 0.0033
 Mercury -44968-09-11 09:21 J -14702885.24 -14702885.11 -14702884.97 0.0088 0.0039
 Mercury -44968-12-08 11:02 J -14702797.16 -14702797.04 -14702796.90 0.0088 0.0046
 Mercury -44967-03-06 12:57 J -14702709.07 -14702708.96 -14702708.83 0.0088 0.0053
 Mercury -44967-06-02 14:38 J -14702620.98 -14702620.89 -14702620.76 0.0088 0.0060
 Mercury -44967-08-29 16:47 J -14702532.89 -14702532.80 -14702532.70 0.0088 0.0066
 Mercury -44967-11-25 18:28 J -14702444.80 -14702444.73 -14702444.63 0.0088 0.0073
 Mercury -44966-02-21 20:23 J -14702356.71 -14702356.65 -14702356.58 0.0088 0.0079
 Mercury -44966-05-20 22:04 J -14702268.60 -14702268.58 -14702268.53 0.0089 0.0086
 Mars -44955-04-22 18:57 J -14698278.85 -14698278.71 -14698278.49 0.0089 0.0075
 Mars -44953-03-18 10:47 J -14697583.29 -14697583.05 -14697582.75 0.0089 0.0051
 Mars -44951-02-12 00:57 J -14696887.75 -14696887.46 -14696887.13 0.0089 0.0027
 Mars -44949-01-08 11:59 J -14696192.32 -14696192.00 -14696191.67 0.0089 0.0003
 Mars -44948-12-03 18:57 J -14695497.00 -14695496.71 -14695496.37 0.0089 0.0021
 Mars -44946-10-30 00:42 J -14694801.74 -14694801.47 -14694801.18 0.0089 0.0043
 Mars -44944-09-24 03:35 J -14694106.53 -14694106.35 -14694106.11 0.0089 0.0066
 Mars -44942-08-20 03:21 J -14693411.37 -14693411.36 -14693411.27 0.0089 0.0088
 Venus -44935-04-05 17:45 J -14690990.81 -14690990.76 -14690990.66 0.0089 0.0083
 Venus -44935-11-17 05:59 J -14690765.37 -14690765.25 -14690765.10 0.0089 0.0068
 Venus -44934-06-30 18:14 J -14690539.90 -14690539.74 -14690539.56 0.0089 0.0053
 Venus -44933-02-11 06:28 J -14690314.42 -14690314.23 -14690314.03 0.0089 0.0038

Venus -44933-09-23 18:42 J -14690088.92 -14690088.72 -14690088.51 0.0089 0.0024
 Venus -44932-05-07 06:42 J -14689863.43 -14689863.22 -14689863.00 0.0089 0.0009
 Venus -44932-12-18 18:57 J -14689637.92 -14689637.71 -14689637.50 0.0089 0.0006
 Venus -44931-08-01 06:57 J -14689412.42 -14689412.21 -14689412.00 0.0089 0.0021
 Venus -44930-03-14 18:57 J -14689186.90 -14689186.71 -14689186.51 0.0089 0.0036
 Venus -44930-10-26 06:57 J -14688961.37 -14688961.21 -14688961.03 0.0089 0.0051
 Venus -44929-06-07 18:42 J -14688735.84 -14688735.72 -14688735.55 0.0089 0.0066
 Venus -44928-01-19 07:26 J -14688510.28 -14688510.19 -14688510.11 0.0089 0.0081
 Earth -44893-02-16 00:14 J -14675699.66 -14675699.49 -14675699.29 0.0089 0.0062
 Moon -44893-02-16 03:35 J -14675699.50 -14675699.35 -14675699.15 0.0089 0.0065 *
 Moon -44892-02-17 08:23 J -14675332.37 -14675332.15 -14675331.90 0.0089 0.0029
 Earth -44892-02-17 11:59 J -14675332.24 -14675332.00 -14675331.76 0.0089 0.0030 *
 Earth -44891-02-19 23:30 J -14674964.78 -14674964.52 -14674964.26 0.0089 0.0002
 Moon -44891-02-20 01:54 J -14674964.68 -14674964.42 -14674964.15 0.0089 0.0001 *
 Mercury -44890-02-03 05:45 J -14674616.27 -14674616.26 -14674616.24 0.0089 0.0088
 Moon -44890-02-22 09:06 J -14674597.34 -14674597.12 -14674596.89 0.0089 0.0036
 Earth -44890-02-22 10:47 J -14674597.27 -14674597.05 -14674596.80 0.0089 0.0034 *
 Mercury -44890-05-02 07:54 J -14674528.22 -14674528.17 -14674528.10 0.0089 0.0081
 Mercury -44890-07-29 10:18 J -14674440.15 -14674440.07 -14674439.98 0.0089 0.0074
 Mercury -44890-10-25 12:28 J -14674352.08 -14674351.98 -14674351.87 0.0089 0.0067
 Mercury -44889-01-21 14:38 J -14674263.99 -14674263.89 -14674263.76 0.0089 0.0060
 Moon -44889-02-24 22:04 J -14674229.74 -14674229.58 -14674229.37 0.0089 0.0064
 Earth -44889-02-24 21:50 J -14674229.73 -14674229.59 -14674229.39 0.0089 0.0066 *
 Mercury -44889-04-18 17:02 J -14674175.91 -14674175.79 -14674175.65 0.0089 0.0053
 Mercury -44889-07-15 19:11 J -14674087.82 -14674087.70 -14674087.54 0.0089 0.0046
 Mercury -44889-10-11 21:50 J -14673999.73 -14673999.59 -14673999.44 0.0089 0.0038
 Mercury -44888-01-08 00:14 J -14673911.64 -14673911.49 -14673911.34 0.0089 0.0031
 Mercury -44888-04-06 02:23 J -14673823.55 -14673823.40 -14673823.23 0.0089 0.0024
 Mercury -44888-07-03 05:02 J -14673735.45 -14673735.29 -14673735.13 0.0089 0.0016
 Mercury -44888-09-29 07:26 J -14673647.36 -14673647.19 -14673647.03 0.0089 0.0009

Mercury -44888-12-26 09:35 J -14673559.26 -14673559.10 -14673558.93 0.0089 0.0003
 Mercury -44887-03-24 11:59 J -14673471.16 -14673471.00 -14673470.83 0.0089 0.0006
 Mercury -44887-06-20 14:23 J -14673383.06 -14673382.90 -14673382.73 0.0089 0.0014
 Mercury -44887-09-16 16:47 J -14673294.95 -14673294.80 -14673294.63 0.0089 0.0021
 Mercury -44887-12-13 19:11 J -14673206.85 -14673206.70 -14673206.54 0.0089 0.0029
 Mercury -44886-03-11 21:35 J -14673118.74 -14673118.60 -14673118.44 0.0089 0.0036
 Mercury -44886-06-07 23:59 J -14673030.63 -14673030.50 -14673030.35 0.0089 0.0044
 Mercury -44886-09-04 02:38 J -14672942.52 -14672942.39 -14672942.25 0.0089 0.0051
 Mercury -44886-12-01 04:47 J -14672854.41 -14672854.30 -14672854.16 0.0089 0.0059
 Mercury -44885-02-27 07:40 J -14672766.29 -14672766.18 -14672766.07 0.0089 0.0066
 Mercury -44885-05-25 09:50 J -14672678.17 -14672678.09 -14672677.99 0.0089 0.0074
 Mercury -44885-08-21 12:14 J -14672590.04 -14672589.99 -14672589.91 0.0089 0.0082
 Mars -44875-02-16 01:11 J -14669124.51 -14669124.45 -14669124.33 0.0089 0.0085
 Mars -44873-01-10 23:45 J -14668430.68 -14668430.51 -14668430.27 0.0089 0.0065
 Mars -44872-12-05 01:11 J -14667736.69 -14667736.45 -14667736.17 0.0089 0.0044
 Mars -44870-10-30 05:02 J -14667042.57 -14667042.29 -14667041.98 0.0088 0.0023
 Mars -44868-09-23 09:21 J -14666348.41 -14666348.11 -14666347.80 0.0088 0.0001
 Mars -44866-08-18 15:50 J -14665654.12 -14665653.84 -14665653.53 0.0088 0.0022
 Mars -44864-07-13 01:11 J -14664959.70 -14664959.45 -14664959.16 0.0088 0.0043
 Mars -44862-06-07 12:28 J -14664265.16 -14664264.98 -14664264.74 0.0088 0.0066
 Mars -44860-05-02 01:54 J -14663570.43 -14663570.42 -14663570.35 0.0088 0.0088
 Venus -44853-05-19 10:33 J -14660996.12 -14660996.06 -14660995.97 0.0088 0.0083
 Venus -44853-12-31 00:28 J -14660770.61 -14660770.48 -14660770.32 0.0088 0.0067
 Venus -44852-08-13 14:09 J -14660545.07 -14660544.91 -14660544.71 0.0088 0.0053
 Venus -44851-03-27 04:18 J -14660319.51 -14660319.32 -14660319.10 0.0088 0.0037
 Jupiter -44851-04-16 01:11 J -14660299.85 -14660299.45 -14660298.96 0.0088 0.0055
 Venus -44851-11-07 18:14 J -14660093.95 -14660093.74 -14660093.51 0.0088 0.0022
 Venus -44850-06-21 08:23 J -14659868.38 -14659868.15 -14659867.92 0.0088 0.0006
 Venus -44849-02-01 22:18 J -14659642.79 -14659642.57 -14659642.34 0.0088 0.0009
 Venus -44849-09-14 12:14 J -14659417.20 -14659416.99 -14659416.77 0.0088 0.0024

Venus -44848-04-28 02:09 J -14659191.61 -14659191.41 -14659191.20 0.0088 0.0039
 Venus -44848-12-09 16:04 J -14658966.00 -14658965.83 -14658965.65 0.0088 0.0055
 Venus -44847-07-23 05:30 J -14658740.38 -14658740.27 -14658740.11 0.0088 0.0070
 Venus -44846-03-05 19:40 J -14658514.72 -14658514.68 -14658514.60 0.0088 0.0085
 Moon -44811-08-19 14:09 J -14645564.05 -14645563.91 -14645563.75 0.0088 0.0072
 Earth -44811-08-19 17:16 J -14645563.90 -14645563.78 -14645563.60 0.0088 0.0072 *
 Earth -44810-08-22 05:16 J -14645196.49 -14645196.28 -14645196.03 0.0088 0.0041
 Moon -44810-08-22 09:06 J -14645196.34 -14645196.12 -14645195.88 0.0088 0.0039 *
 Moon -44809-08-23 14:52 J -14644829.13 -14644828.88 -14644828.62 0.0088 0.0008
 Earth -44809-08-23 17:30 J -14644829.03 -14644828.77 -14644828.51 0.0088 0.0008 *
 Earth -44808-08-26 04:47 J -14644461.54 -14644461.30 -14644461.04 0.0088 0.0024
 Moon -44808-08-26 06:42 J -14644461.47 -14644461.22 -14644460.96 0.0088 0.0024 *
 Mercury -44807-02-03 20:09 J -14644299.70 -14644299.66 -14644299.59 0.0088 0.0083
 Mercury -44807-05-02 22:18 J -14644211.64 -14644211.57 -14644211.48 0.0088 0.0076
 Mercury -44807-07-30 00:28 J -14644123.57 -14644123.48 -14644123.38 0.0088 0.0069
 Moon -44807-08-28 15:35 J -14644094.03 -14644093.85 -14644093.64 0.0088 0.0055
 Earth -44807-08-28 16:47 J -14644094.00 -14644093.80 -14644093.60 0.0088 0.0055 *
 Mercury -44807-10-26 02:23 J -14644035.50 -14644035.40 -14644035.28 0.0088 0.0062
 Mercury -44806-01-22 04:33 J -14643947.43 -14643947.31 -14643947.19 0.0088 0.0055
 Mercury -44806-04-20 06:28 J -14643859.35 -14643859.23 -14643859.09 0.0088 0.0048
 Mercury -44806-07-17 08:38 J -14643771.28 -14643771.14 -14643771.00 0.0088 0.0041
 Moon -44806-08-31 02:38 J -14643726.42 -14643726.39 -14643726.31 0.0088 0.0087
 Earth -44806-08-31 03:50 J -14643726.37 -14643726.34 -14643726.26 0.0088 0.0087 *
 Mercury -44806-10-13 10:33 J -14643683.20 -14643683.06 -14643682.92 0.0088 0.0034
 Mercury -44805-01-09 12:28 J -14643595.12 -14643594.98 -14643594.83 0.0088 0.0027
 Mercury -44805-04-06 14:23 J -14643507.04 -14643506.90 -14643506.74 0.0088 0.0020
 Mercury -44805-07-03 16:18 J -14643418.96 -14643418.82 -14643418.66 0.0088 0.0014
 Mercury -44805-09-29 18:28 J -14643330.88 -14643330.73 -14643330.58 0.0088 0.0006
 Mercury -44805-12-26 20:23 J -14643242.80 -14643242.65 -14643242.50 0.0088 0.0000
 Mercury -44804-03-24 22:18 J -14643154.72 -14643154.57 -14643154.42 0.0088 0.0007

Mercury -44804-06-21 00:14 J -14643066.64 -14643066.49 -14643066.34 0.0088 0.0014

Mercury -44804-09-17 02:09 J -14642978.56 -14642978.41 -14642978.26 0.0088 0.0021

Mercury -44804-12-14 03:50 J -14642890.47 -14642890.34 -14642890.19 0.0088 0.0028

Mercury -44803-03-12 05:45 J -14642802.39 -14642802.26 -14642802.11 0.0088 0.0034

Mercury -44803-06-08 07:40 J -14642714.31 -14642714.18 -14642714.04 0.0089 0.0041

Mercury -44803-09-04 09:35 J -14642626.22 -14642626.10 -14642625.97 0.0089 0.0047

Mercury -44803-12-01 11:16 J -14642538.13 -14642538.03 -14642537.90 0.0089 0.0055

Mercury -44802-02-27 13:11 J -14642450.05 -14642449.95 -14642449.83 0.0089 0.0061

Mercury -44802-05-26 15:06 J -14642361.96 -14642361.87 -14642361.76 0.0089 0.0067

Mercury -44802-08-22 17:02 J -14642273.86 -14642273.79 -14642273.70 0.0089 0.0074

Mercury -44802-11-18 18:42 J -14642185.77 -14642185.72 -14642185.65 0.0089 0.0081

Mercury -44801-02-14 20:38 J -14642097.66 -14642097.64 -14642097.60 0.0089 0.0087

Mars -44792-12-04 05:45 J -14638517.36 -14638517.26 -14638517.13 0.0089 0.0083

Mars -44790-10-30 23:59 J -14637821.73 -14637821.50 -14637821.23 0.0089 0.0059

Mars -44788-09-25 15:06 J -14637126.15 -14637125.87 -14637125.55 0.0089 0.0035

Mars -44786-08-22 05:16 J -14636430.60 -14636430.28 -14636429.95 0.0089 0.0010

Mars -44784-07-17 16:04 J -14635735.14 -14635734.83 -14635734.50 0.0089 0.0014

Mars -44782-06-12 23:02 J -14635039.81 -14635039.54 -14635039.22 0.0089 0.0038

Mars -44780-05-08 04:18 J -14634344.55 -14634344.32 -14634344.08 0.0089 0.0060

Mars -44778-04-03 06:57 J -14633649.29 -14633649.21 -14633649.06 0.0089 0.0083

Venus -44770-02-18 15:06 J -14630770.96 -14630770.87 -14630770.74 0.0089 0.0076

Venus -44770-10-02 03:35 J -14630545.49 -14630545.35 -14630545.18 0.0089 0.0061

Venus -44769-05-14 15:50 J -14630320.02 -14630319.84 -14630319.65 0.0089 0.0046

Venus -44769-12-26 04:04 J -14630094.53 -14630094.33 -14630094.13 0.0089 0.0031

Venus -44768-08-08 15:50 J -14629869.04 -14629868.84 -14629868.62 0.0089 0.0018

Venus -44767-03-22 04:18 J -14629643.54 -14629643.32 -14629643.11 0.0089 0.0002

Venus -44767-11-02 16:04 J -14629418.03 -14629417.83 -14629417.61 0.0089 0.0013

Venus -44766-06-16 04:04 J -14629192.52 -14629192.33 -14629192.12 0.0089 0.0028

Venus -44765-01-27 16:18 J -14628967.00 -14628966.82 -14628966.63 0.0089 0.0043

Venus -44765-09-09 04:18 J -14628741.47 -14628741.32 -14628741.15 0.0089 0.0057

Venus -44764-04-22 16:04 J -14628515.93 -14628515.83 -14628515.68 0.0089 0.0073
 Venus -44764-12-04 04:33 J -14628290.35 -14628290.31 -14628290.26 0.0089 0.0087
 Moon -44729-02-15 03:06 J -14615799.44 -14615799.37 -14615799.29 0.0089 0.0084
 Earth -44729-02-15 05:45 J -14615799.35 -14615799.26 -14615799.13 0.0089 0.0080 *
 Earth -44728-02-16 17:30 J -14615431.98 -14615431.77 -14615431.55 0.0089 0.0048
 Moon -44728-02-16 19:26 J -14615431.90 -14615431.69 -14615431.44 0.0089 0.0044 *
 Moon -44727-02-19 03:50 J -14615064.57 -14615064.34 -14615064.08 0.0089 0.0021
 Earth -44727-02-19 05:02 J -14615064.54 -14615064.29 -14615064.04 0.0089 0.0016 *
 Moon -44726-02-21 16:04 J -14614697.08 -14614696.83 -14614696.56 0.0089 0.0020
 Earth -44726-02-21 16:04 J -14614697.07 -14614696.83 -14614696.57 0.0089 0.0016 *
 Mercury -44726-10-31 03:35 J -14614445.36 -14614445.35 -14614445.30 0.0089 0.0087
 Mercury -44725-01-27 05:59 J -14614357.31 -14614357.25 -14614357.17 0.0089 0.0080
 Earth -44725-02-24 03:21 J -14614329.56 -14614329.36 -14614329.13 0.0089 0.0048
 Moon -44725-02-24 04:47 J -14614329.50 -14614329.30 -14614329.07 0.0089 0.0044 *
 Mercury -44725-04-24 08:09 J -14614269.23 -14614269.16 -14614269.05 0.0089 0.0073
 Mercury -44725-07-21 10:47 J -14614181.16 -14614181.05 -14614180.94 0.0089 0.0065
 Mercury -44725-10-17 12:57 J -14614093.07 -14614092.96 -14614092.83 0.0089 0.0058
 Mercury -44724-01-13 15:21 J -14614004.99 -14614004.86 -14614004.73 0.0089 0.0051
 Moon -44724-02-25 12:28 J -14613962.05 -14613961.98 -14613961.89 0.0089 0.0084
 Earth -44724-02-25 14:52 J -14613961.97 -14613961.88 -14613961.75 0.0089 0.0080 *
 Mercury -44724-04-11 17:30 J -14613916.90 -14613916.77 -14613916.62 0.0089 0.0044
 Mercury -44724-07-08 19:54 J -14613828.81 -14613828.67 -14613828.52 0.0089 0.0037
 Mercury -44724-10-04 22:18 J -14613740.72 -14613740.57 -14613740.41 0.0089 0.0029
 Mercury -44723-01-01 00:42 J -14613652.63 -14613652.47 -14613652.31 0.0089 0.0022
 Mercury -44723-03-30 02:52 J -14613564.53 -14613564.38 -14613564.21 0.0089 0.0015
 Mercury -44723-06-26 05:16 J -14613476.44 -14613476.28 -14613476.11 0.0089 0.0008
 Mercury -44723-09-22 07:40 J -14613388.34 -14613388.18 -14613388.01 0.0089 0.0002
 Mercury -44723-12-19 10:04 J -14613300.24 -14613300.08 -14613299.91 0.0089 0.0008
 Mercury -44722-03-17 12:28 J -14613212.14 -14613211.98 -14613211.81 0.0089 0.0015
 Mercury -44722-06-13 14:52 J -14613124.04 -14613123.88 -14613123.72 0.0089 0.0023

Mercury -44722-09-09 17:16 J -14613035.93 -14613035.78 -14613035.62 0.0089 0.0030

Mercury -44722-12-06 19:40 J -14612947.82 -14612947.68 -14612947.52 0.0089 0.0038

Mercury -44721-03-03 22:04 J -14612859.71 -14612859.58 -14612859.43 0.0089 0.0045

Mercury -44721-05-31 00:28 J -14612771.60 -14612771.48 -14612771.34 0.0089 0.0053

Mercury -44721-08-27 03:06 J -14612683.49 -14612683.37 -14612683.25 0.0089 0.0060

Mercury -44721-11-23 05:16 J -14612595.37 -14612595.28 -14612595.16 0.0089 0.0068

Mercury -44720-02-19 07:40 J -14612507.25 -14612507.18 -14612507.08 0.0089 0.0076

Mercury -44720-05-18 10:18 J -14612419.11 -14612419.07 -14612419.00 0.0089 0.0083

Mars -44710-08-26 02:09 J -14608667.55 -14608667.41 -14608667.20 0.0089 0.0072

Mars -44708-07-20 01:26 J -14607973.66 -14607973.44 -14607973.17 0.0088 0.0051

Mars -44706-06-14 02:38 J -14607279.66 -14607279.39 -14607279.10 0.0088 0.0029

Mars -44704-05-08 07:26 J -14606585.49 -14606585.19 -14606584.89 0.0088 0.0007

Mars -44702-04-02 12:14 J -14605891.29 -14605890.99 -14605890.69 0.0088 0.0015

Mars -44700-02-24 18:28 J -14605196.98 -14605196.73 -14605196.43 0.0088 0.0038

Mars -44698-01-20 04:18 J -14604502.53 -14604502.32 -14604502.08 0.0088 0.0060

Mars -44697-12-14 16:18 J -14603807.93 -14603807.82 -14603807.70 0.0088 0.0082

Venus -44688-04-03 06:57 J -14600776.31 -14600776.21 -14600776.08 0.0088 0.0076

Venus -44688-11-14 20:52 J -14600550.78 -14600550.63 -14600550.45 0.0088 0.0060

Venus -44687-06-28 10:47 J -14600325.24 -14600325.05 -14600324.85 0.0088 0.0045

Venus -44686-02-09 00:42 J -14600099.67 -14600099.47 -14600099.25 0.0088 0.0030

Venus -44686-09-22 14:38 J -14599874.10 -14599873.89 -14599873.66 0.0088 0.0015

Venus -44685-05-05 04:47 J -14599648.53 -14599648.30 -14599648.08 0.0088 0.0001

Venus -44685-12-16 18:28 J -14599422.95 -14599422.73 -14599422.50 0.0088 0.0015

Venus -44684-07-30 08:23 J -14599197.36 -14599197.15 -14599196.93 0.0088 0.0031

Venus -44683-03-12 22:33 J -14598971.75 -14598971.56 -14598971.36 0.0088 0.0046

Venus -44683-10-24 11:59 J -14598746.14 -14598746.00 -14598745.81 0.0088 0.0061

Venus -44682-06-07 01:54 J -14598520.51 -14598520.42 -14598520.28 0.0088 0.0076

Moon -44646-08-21 06:14 J -14585296.41 -14585296.24 -14585296.02 0.0088 0.0055

Earth -44646-08-21 08:38 J -14585296.31 -14585296.14 -14585295.92 0.0088 0.0060 *

Earth -44645-08-22 20:38 J -14584928.87 -14584928.64 -14584928.38 0.0088 0.0028

Moon -44645-08-22 22:04 J -14584928.83 -14584928.58 -14584928.33 0.0088 0.0032 *
 Earth -44644-08-25 08:52 J -14584561.39 -14584561.13 -14584560.87 0.0088 0.0005
 Moon -44644-08-25 09:06 J -14584561.36 -14584561.12 -14584560.87 0.0088 0.0009 *
 Moon -44643-08-27 19:11 J -14584193.93 -14584193.70 -14584193.43 0.0088 0.0033
 Earth -44643-08-27 20:38 J -14584193.87 -14584193.64 -14584193.40 0.0088 0.0037 *
 Mercury -44643-10-31 18:28 J -14584128.78 -14584128.73 -14584128.66 0.0088 0.0082
 Mercury -44642-01-27 20:38 J -14584040.72 -14584040.64 -14584040.55 0.0088 0.0075
 Mercury -44642-04-25 22:33 J -14583952.65 -14583952.56 -14583952.45 0.0088 0.0068
 Mercury -44642-07-23 00:42 J -14583864.58 -14583864.47 -14583864.35 0.0088 0.0061
 Earth -44642-08-30 07:54 J -14583826.32 -14583826.17 -14583825.99 0.0088 0.0069
 Moon -44642-08-30 10:18 J -14583826.19 -14583826.07 -14583825.91 0.0088 0.0074 *
 Mercury -44642-10-19 02:38 J -14583776.50 -14583776.39 -14583776.26 0.0088 0.0054
 Mercury -44641-01-15 04:47 J -14583688.43 -14583688.30 -14583688.17 0.0088 0.0047
 Mercury -44641-04-12 06:42 J -14583600.35 -14583600.22 -14583600.08 0.0088 0.0040
 Mercury -44641-07-09 08:52 J -14583512.27 -14583512.13 -14583511.99 0.0088 0.0033
 Mercury -44641-10-05 10:33 J -14583424.19 -14583424.06 -14583423.90 0.0088 0.0027
 Mercury -44640-01-01 12:42 J -14583336.12 -14583335.97 -14583335.82 0.0088 0.0019
 Mercury -44640-03-30 14:38 J -14583248.04 -14583247.89 -14583247.73 0.0088 0.0013
 Mercury -44640-06-26 16:47 J -14583159.95 -14583159.80 -14583159.65 0.0088 0.0006
 Mercury -44640-09-22 18:42 J -14583071.87 -14583071.72 -14583071.57 0.0088 0.0002
 Mercury -44640-12-19 20:38 J -14582983.79 -14582983.64 -14582983.49 0.0088 0.0008
 Mercury -44639-03-17 22:33 J -14582895.71 -14582895.56 -14582895.41 0.0088 0.0015
 Mercury -44639-06-14 00:28 J -14582807.63 -14582807.48 -14582807.33 0.0088 0.0022
 Mercury -44639-09-10 02:09 J -14582719.54 -14582719.41 -14582719.26 0.0088 0.0029
 Mercury -44639-12-07 04:04 J -14582631.46 -14582631.33 -14582631.18 0.0088 0.0035
 Mercury -44638-03-05 06:14 J -14582543.37 -14582543.24 -14582543.11 0.0088 0.0042
 Mercury -44638-06-01 07:54 J -14582455.29 -14582455.17 -14582455.04 0.0089 0.0049
 Mercury -44638-08-28 09:35 J -14582367.20 -14582367.10 -14582366.97 0.0089 0.0056
 Mercury -44638-11-24 11:45 J -14582279.11 -14582279.01 -14582278.90 0.0089 0.0062
 Mercury -44637-02-20 13:26 J -14582191.02 -14582190.94 -14582190.83 0.0089 0.0069

Mercury -44637-05-18 15:21 J -14582102.93 -14582102.86 -14582102.77 0.0089 0.0075

Mercury -44637-08-14 17:02 J -14582014.83 -14582014.79 -14582014.72 0.0089 0.0082

Mercury -44637-11-10 19:11 J -14581926.71 -14581926.70 -14581926.68 0.0089 0.0088

Mars -44626-06-13 09:35 J -14578060.28 -14578060.10 -14578059.86 0.0089 0.0068

Mars -44624-05-09 03:50 J -14577364.61 -14577364.34 -14577364.04 0.0089 0.0043

Mars -44622-04-04 18:42 J -14576669.03 -14576668.72 -14576668.39 0.0089 0.0018

Mars -44620-02-28 07:40 J -14575973.49 -14575973.18 -14575972.84 0.0089 0.0007

Mars -44618-01-24 17:59 J -14575278.03 -14575277.75 -14575277.42 0.0089 0.0031

Mars -44617-12-20 00:42 J -14574582.69 -14574582.47 -14574582.18 0.0089 0.0055

Mars -44615-11-15 05:02 J -14573887.41 -14573887.29 -14573887.10 0.0089 0.0078

Venus -44606-05-22 23:45 J -14570776.55 -14570776.51 -14570776.42 0.0089 0.0084

Venus -44605-01-03 12:14 J -14570551.11 -14570550.99 -14570550.84 0.0089 0.0069

Venus -44605-08-16 00:42 J -14570325.64 -14570325.47 -14570325.30 0.0089 0.0054

Venus -44604-03-29 12:28 J -14570100.15 -14570099.98 -14570099.77 0.0089 0.0040

Venus -44604-11-10 00:42 J -14569874.66 -14569874.47 -14569874.25 0.0089 0.0025

Venus -44603-06-23 12:57 J -14569649.17 -14569648.96 -14569648.74 0.0089 0.0010

Venus -44602-02-04 01:11 J -14569423.66 -14569423.45 -14569423.24 0.0089 0.0005

Venus -44602-09-17 13:26 J -14569198.15 -14569197.94 -14569197.73 0.0089 0.0019

Venus -44601-04-30 01:11 J -14568972.63 -14568972.45 -14568972.24 0.0089 0.0034

Venus -44601-12-11 12:57 J -14568747.11 -14568746.96 -14568746.76 0.0089 0.0050

Venus -44600-07-25 01:11 J -14568521.58 -14568521.45 -14568521.29 0.0089 0.0064

Venus -44599-03-07 13:11 J -14568296.03 -14568295.95 -14568295.83 0.0089 0.0078

Moon -44564-02-15 21:50 J -14555531.72 -14555531.59 -14555531.40 0.0089 0.0068

Earth -44564-02-15 23:02 J -14555531.70 -14555531.54 -14555531.36 0.0089 0.0066 *

Moon -44563-02-18 09:06 J -14555164.35 -14555164.12 -14555163.86 0.0089 0.0034

Earth -44563-02-18 10:18 J -14555164.30 -14555164.07 -14555163.83 0.0089 0.0034 *

Earth -44562-02-20 21:50 J -14554796.85 -14554796.59 -14554796.34 0.0089 0.0002

Moon -44562-02-20 23:30 J -14554796.77 -14554796.52 -14554796.27 0.0089 0.0003 *

Moon -44561-02-23 06:14 J -14554429.48 -14554429.24 -14554428.99 0.0089 0.0031

Earth -44561-02-23 09:06 J -14554429.36 -14554429.12 -14554428.88 0.0089 0.0030 *

Mercury -44561-07-27 01:54 J -14554274.45 -14554274.42 -14554274.36 0.0089 0.0085

Mercury -44561-10-23 04:18 J -14554186.39 -14554186.32 -14554186.24 0.0089 0.0078

Mercury -44560-01-19 06:28 J -14554098.31 -14554098.23 -14554098.12 0.0089 0.0071

Earth -44560-02-24 19:54 J -14554061.82 -14554061.67 -14554061.46 0.0089 0.0063

Moon -44560-02-24 23:30 J -14554061.68 -14554061.52 -14554061.31 0.0089 0.0062 *

Mercury -44560-04-17 08:38 J -14554010.24 -14554010.14 -14554010.01 0.0089 0.0064

Mercury -44560-07-14 11:02 J -14553922.15 -14553922.04 -14553921.91 0.0089 0.0057

Mercury -44560-10-10 13:11 J -14553834.07 -14553833.95 -14553833.80 0.0089 0.0050

Mercury -44559-01-06 15:50 J -14553745.98 -14553745.84 -14553745.70 0.0089 0.0042

Mercury -44559-04-04 17:59 J -14553657.89 -14553657.75 -14553657.59 0.0089 0.0035

Mercury -44559-07-01 20:23 J -14553569.80 -14553569.65 -14553569.49 0.0089 0.0028

Mercury -44559-09-27 22:33 J -14553481.71 -14553481.56 -14553481.39 0.0089 0.0021

Mercury -44559-12-25 01:11 J -14553393.61 -14553393.45 -14553393.29 0.0089 0.0013

Mercury -44558-03-23 03:35 J -14553305.52 -14553305.35 -14553305.19 0.0089 0.0006

Mercury -44558-06-19 05:45 J -14553217.42 -14553217.26 -14553217.09 0.0089 0.0003

Mercury -44558-09-15 08:09 J -14553129.32 -14553129.16 -14553128.99 0.0089 0.0009

Mercury -44558-12-12 10:33 J -14553041.22 -14553041.06 -14553040.90 0.0089 0.0017

Mercury -44557-03-09 12:57 J -14552953.11 -14552952.96 -14552952.80 0.0089 0.0024

Mercury -44557-06-05 15:21 J -14552865.01 -14552864.86 -14552864.70 0.0089 0.0032

Mercury -44557-09-01 17:45 J -14552776.90 -14552776.76 -14552776.61 0.0089 0.0039

Mercury -44557-11-28 19:54 J -14552688.80 -14552688.67 -14552688.51 0.0089 0.0047

Mercury -44556-02-24 22:33 J -14552600.68 -14552600.56 -14552600.42 0.0089 0.0054

Mercury -44556-05-24 00:57 J -14552512.57 -14552512.46 -14552512.33 0.0089 0.0062

Mercury -44556-08-20 03:06 J -14552424.45 -14552424.37 -14552424.25 0.0089 0.0070

Mercury -44556-11-16 05:59 J -14552336.33 -14552336.25 -14552336.16 0.0089 0.0077

Mercury -44555-02-12 08:09 J -14552248.19 -14552248.16 -14552248.09 0.0089 0.0085

Mars -44546-04-10 04:04 J -14548904.44 -14548904.33 -14548904.17 0.0089 0.0079

Mars -44544-03-04 03:06 J -14548210.57 -14548210.37 -14548210.12 0.0088 0.0058

Mars -44542-01-27 03:21 J -14547516.63 -14547516.36 -14547516.09 0.0088 0.0036

Mars -44541-12-21 04:18 J -14546822.62 -14546822.32 -14546822.03 0.0088 0.0014

Mars	-44539-11-15 08:23 J	-14546128.44	-14546128.15	-14546127.84	0.0088	0.0009
Mars	-44537-10-09 13:54 J	-14545434.20	-14545433.92	-14545433.63	0.0088	0.0031
Mars	-44535-09-03 20:09 J	-14544739.88	-14544739.66	-14544739.39	0.0088	0.0054
Mars	-44533-07-29 05:30 J	-14544045.38	-14544045.27	-14544045.07	0.0088	0.0077
Venus	-44524-07-05 13:40 J	-14540781.98	-14540781.93	-14540781.84	0.0088	0.0084
Venus	-44523-02-16 03:50 J	-14540556.47	-14540556.34	-14540556.19	0.0088	0.0068
Venus	-44523-09-29 17:30 J	-14540330.94	-14540330.77	-14540330.58	0.0088	0.0054
Venus	-44522-05-13 07:26 J	-14540105.39	-14540105.19	-14540104.98	0.0088	0.0039
Venus	-44522-12-24 21:21 J	-14539879.83	-14539879.61	-14539879.39	0.0088	0.0023
Venus	-44521-08-06 11:16 J	-14539654.26	-14539654.03	-14539653.81	0.0088	0.0009
Venus	-44520-03-20 01:11 J	-14539428.68	-14539428.45	-14539428.22	0.0088	0.0007
Venus	-44520-10-31 14:52 J	-14539203.09	-14539202.88	-14539202.65	0.0088	0.0022
Venus	-44519-06-14 04:33 J	-14538977.50	-14538977.31	-14538977.09	0.0088	0.0037
Venus	-44518-01-25 18:28 J	-14538751.90	-14538751.73	-14538751.53	0.0088	0.0052
Venus	-44518-09-08 08:23 J	-14538526.28	-14538526.15	-14538525.98	0.0088	0.0067
Venus	-44517-04-20 22:18 J	-14538300.63	-14538300.57	-14538300.47	0.0088	0.0082
Earth	-44482-08-20 11:30 J	-14525396.11	-14525396.02	-14525395.87	0.0088	0.0079
Moon	-44482-08-20 12:14 J	-14525396.09	-14525395.99	-14525395.83	0.0088	0.0078 *
Earth	-44481-08-21 23:45 J	-14525028.72	-14525028.51	-14525028.27	0.0088	0.0046
Moon	-44481-08-22 00:14 J	-14525028.68	-14525028.49	-14525028.26	0.0088	0.0048 *
Moon	-44480-08-24 09:35 J	-14524661.36	-14524661.10	-14524660.83	0.0088	0.0013
Earth	-44480-08-24 11:45 J	-14524661.25	-14524661.01	-14524660.74	0.0088	0.0015 *
Earth	-44479-08-26 23:30 J	-14524293.76	-14524293.52	-14524293.25	0.0088	0.0019
Moon	-44479-08-27 02:09 J	-14524293.65	-14524293.41	-14524293.15	0.0088	0.0018 *
Mercury	-44478-05-01 14:38 J	-14524045.89	-14524045.89	-14524045.88	0.0088	0.0088
Mercury	-44478-07-28 16:18 J	-14523957.86	-14523957.82	-14523957.74	0.0088	0.0082
Moon	-44478-08-29 07:26 J	-14523926.37	-14523926.19	-14523925.95	0.0088	0.0052
Earth	-44478-08-29 11:16 J	-14523926.23	-14523926.03	-14523925.80	0.0088	0.0051 *
Mercury	-44478-10-24 18:28 J	-14523869.80	-14523869.73	-14523869.63	0.0088	0.0075
Mercury	-44477-01-20 20:38 J	-14523781.73	-14523781.64	-14523781.53	0.0088	0.0067

Mercury -44477-04-17 22:33 J -14523693.66 -14523693.56 -14523693.43 0.0088 0.0061

Mercury -44477-07-15 00:42 J -14523605.58 -14523605.47 -14523605.34 0.0088 0.0053

Earth -44477-08-30 22:33 J -14523558.63 -14523558.56 -14523558.44 0.0088 0.0083

Moon -44477-08-31 02:09 J -14523558.48 -14523558.41 -14523558.28 0.0088 0.0082 *

Mercury -44477-10-11 02:38 J -14523517.51 -14523517.39 -14523517.24 0.0088 0.0047

Mercury -44476-01-07 04:47 J -14523429.43 -14523429.30 -14523429.15 0.0088 0.0039

Mercury -44476-04-05 06:42 J -14523341.35 -14523341.22 -14523341.07 0.0088 0.0033

Mercury -44476-07-02 08:52 J -14523253.27 -14523253.13 -14523252.98 0.0088 0.0025

Mercury -44476-09-28 10:47 J -14523165.19 -14523165.05 -14523164.89 0.0088 0.0019

Mercury -44476-12-25 12:57 J -14523077.11 -14523076.96 -14523076.81 0.0088 0.0012

Mercury -44475-03-23 14:52 J -14522989.03 -14522988.88 -14522988.73 0.0088 0.0005

Mercury -44475-06-19 16:47 J -14522900.95 -14522900.80 -14522900.64 0.0088 0.0002

Mercury -44475-09-15 18:42 J -14522812.87 -14522812.72 -14522812.57 0.0088 0.0009

Mercury -44475-12-12 20:38 J -14522724.79 -14522724.64 -14522724.49 0.0088 0.0016

Mercury -44474-03-10 22:33 J -14522636.70 -14522636.56 -14522636.41 0.0088 0.0023

Mercury -44474-06-07 00:28 J -14522548.62 -14522548.48 -14522548.33 0.0088 0.0029

Mercury -44474-09-03 02:23 J -14522460.53 -14522460.40 -14522460.26 0.0089 0.0036

Mercury -44474-11-30 04:18 J -14522372.45 -14522372.32 -14522372.18 0.0089 0.0043

Mercury -44473-02-26 05:59 J -14522284.36 -14522284.25 -14522284.11 0.0089 0.0050

Mercury -44473-05-24 08:09 J -14522196.27 -14522196.16 -14522196.04 0.0089 0.0056

Mercury -44473-08-20 09:50 J -14522108.19 -14522108.09 -14522107.97 0.0089 0.0063

Mercury -44473-11-16 11:59 J -14522020.09 -14522020.00 -14522019.91 0.0089 0.0069

Mercury -44472-02-12 13:40 J -14521932.00 -14521931.93 -14521931.85 0.0089 0.0076

Mercury -44472-05-11 15:21 J -14521843.90 -14521843.86 -14521843.79 0.0089 0.0082

Mars -44462-01-24 17:02 J -14518298.92 -14518298.79 -14518298.59 0.0089 0.0077

Mars -44461-12-20 12:42 J -14517603.22 -14517602.97 -14517602.68 0.0089 0.0052

Mars -44459-11-16 06:28 J -14516907.52 -14516907.23 -14516906.89 0.0089 0.0027

Mars -44457-10-11 21:50 J -14516211.92 -14516211.59 -14516211.26 0.0089 0.0001

Mars -44455-09-07 09:35 J -14515516.39 -14515516.10 -14515515.76 0.0089 0.0024

Mars -44453-08-02 20:23 J -14514820.91 -14514820.65 -14514820.36 0.0089 0.0048

Mars	-44451-06-29 03:06 J	-14514125.53	-14514125.37	-14514125.15	0.0089	0.0072
Venus	-44441-04-05 20:38 J	-14510556.74	-14510556.64	-14510556.53	0.0089	0.0078
Venus	-44441-11-17 08:23 J	-14510331.28	-14510331.15	-14510330.98	0.0089	0.0064
Venus	-44440-06-30 20:52 J	-14510105.80	-14510105.63	-14510105.44	0.0089	0.0048
Venus	-44439-02-11 09:21 J	-14509880.31	-14509880.11	-14509879.91	0.0089	0.0034
Venus	-44439-09-24 21:21 J	-14509654.81	-14509654.61	-14509654.39	0.0089	0.0019
Venus	-44438-05-08 09:50 J	-14509429.31	-14509429.09	-14509428.88	0.0089	0.0004
Venus	-44438-12-19 21:50 J	-14509203.80	-14509203.59	-14509203.38	0.0089	0.0011
Venus	-44437-08-01 09:50 J	-14508978.29	-14508978.09	-14508977.88	0.0089	0.0025
Venus	-44436-03-14 21:35 J	-14508752.78	-14508752.60	-14508752.39	0.0089	0.0040
Venus	-44436-10-26 09:50 J	-14508527.25	-14508527.09	-14508526.91	0.0089	0.0055
Venus	-44435-06-08 21:35 J	-14508301.71	-14508301.60	-14508301.44	0.0089	0.0070
Venus	-44434-01-20 10:04 J	-14508076.15	-14508076.08	-14508076.00	0.0089	0.0084
Earth	-44400-02-15 03:35 J	-14495631.41	-14495631.35	-14495631.26	0.0089	0.0085
Earth	-44399-02-17 14:52 J	-14495264.07	-14495263.88	-14495263.66	0.0089	0.0053
Moon	-44399-02-17 17:30 J	-14495263.97	-14495263.77	-14495263.55	0.0089	0.0048 *
Moon	-44398-02-19 23:16 J	-14494896.77	-14494896.53	-14494896.27	0.0089	0.0025
Earth	-44398-02-20 02:38 J	-14494896.64	-14494896.39	-14494896.14	0.0089	0.0020 *
Earth	-44397-02-22 13:54 J	-14494529.17	-14494528.92	-14494528.66	0.0089	0.0012
Moon	-44397-02-22 17:16 J	-14494529.02	-14494528.78	-14494528.52	0.0089	0.0017 *
Moon	-44396-02-23 21:21 J	-14494161.81	-14494161.61	-14494161.36	0.0089	0.0040
Earth	-44396-02-24 00:57 J	-14494161.66	-14494161.46	-14494161.22	0.0089	0.0045 *
Mercury	-44396-04-22 23:59 J	-14494103.54	-14494103.50	-14494103.43	0.0089	0.0084
Mercury	-44396-07-20 02:09 J	-14494015.47	-14494015.41	-14494015.31	0.0089	0.0077
Mercury	-44396-10-16 04:18 J	-14493927.40	-14493927.32	-14493927.20	0.0089	0.0070
Mercury	-44395-01-12 06:57 J	-14493839.32	-14493839.21	-14493839.09	0.0089	0.0062
Earth	-44395-02-26 11:59 J	-14493794.10	-14493794.00	-14493793.84	0.0089	0.0077
Moon	-44395-02-26 15:06 J	-14493793.95	-14493793.87	-14493793.74	0.0089	0.0081 *
Mercury	-44395-04-10 09:06 J	-14493751.24	-14493751.12	-14493750.99	0.0089	0.0055
Mercury	-44395-07-07 11:30 J	-14493663.15	-14493663.02	-14493662.88	0.0089	0.0048

Mercury -44395-10-03 13:40 J -14493575.06 -14493574.93 -14493574.78 0.0089 0.0041

Mercury -44395-12-30 16:04 J -14493486.98 -14493486.83 -14493486.68 0.0089 0.0034

Mercury -44394-03-28 18:28 J -14493398.88 -14493398.73 -14493398.57 0.0089 0.0026

Mercury -44394-06-24 20:52 J -14493310.79 -14493310.63 -14493310.47 0.0089 0.0019

Mercury -44394-09-20 23:02 J -14493222.70 -14493222.54 -14493222.37 0.0089 0.0012

Mercury -44394-12-18 01:26 J -14493134.60 -14493134.44 -14493134.28 0.0089 0.0004

Mercury -44393-03-15 03:50 J -14493046.50 -14493046.34 -14493046.18 0.0089 0.0003

Mercury -44393-06-11 06:14 J -14492958.40 -14492958.24 -14492958.08 0.0089 0.0010

Mercury -44393-09-07 08:38 J -14492870.30 -14492870.14 -14492869.98 0.0089 0.0018

Mercury -44393-12-04 10:47 J -14492782.20 -14492782.05 -14492781.89 0.0089 0.0026

Mercury -44392-03-02 13:11 J -14492694.10 -14492693.95 -14492693.79 0.0089 0.0033

Mercury -44392-05-29 15:35 J -14492605.99 -14492605.85 -14492605.70 0.0089 0.0041

Mercury -44392-08-25 17:59 J -14492517.88 -14492517.75 -14492517.60 0.0089 0.0048

Mercury -44392-11-21 20:23 J -14492429.77 -14492429.65 -14492429.51 0.0089 0.0056

Mercury -44391-02-17 23:02 J -14492341.65 -14492341.54 -14492341.42 0.0089 0.0063

Mercury -44391-05-17 01:11 J -14492253.54 -14492253.45 -14492253.34 0.0089 0.0071

Mercury -44391-08-13 03:35 J -14492165.41 -14492165.35 -14492165.26 0.0089 0.0079

Mercury -44391-11-09 06:14 J -14492077.27 -14492077.24 -14492077.19 0.0089 0.0086

Mars -44383-11-23 08:52 J -14489141.19 -14489141.13 -14489141.05 0.0089 0.0086

Mars -44381-10-17 05:16 J -14488447.47 -14488447.28 -14488447.07 0.0089 0.0065

Mars -44379-09-11 03:50 J -14487753.57 -14487753.34 -14487753.06 0.0088 0.0044

Mars -44377-08-05 04:33 J -14487059.60 -14487059.31 -14487059.02 0.0088 0.0021

Mars -44375-06-30 05:30 J -14486365.57 -14486365.27 -14486364.97 0.0088 0.0002

Mars -44373-05-24 09:21 J -14485671.39 -14485671.11 -14485670.81 0.0088 0.0025

Mars -44371-04-18 15:35 J -14484977.08 -14484976.85 -14484976.56 0.0088 0.0048

Mars -44369-03-12 23:02 J -14484282.72 -14484282.54 -14484282.35 0.0088 0.0070

Venus -44359-05-20 10:18 J -14480562.16 -14480562.07 -14480561.94 0.0088 0.0077

Venus -44358-01-01 00:14 J -14480336.64 -14480336.49 -14480336.32 0.0088 0.0062

Venus -44358-08-14 13:40 J -14480111.10 -14480110.93 -14480110.72 0.0088 0.0047

Venus -44357-03-27 03:35 J -14479885.54 -14479885.35 -14479885.12 0.0088 0.0033

Venus	-44357-11-07 17:30 J	-14479659.98	-14479659.77	-14479659.54	0.0088	0.0018
Venus	-44356-06-21 07:40 J	-14479434.41	-14479434.18	-14479433.96	0.0088	0.0002
Venus	-44355-02-01 21:21 J	-14479208.83	-14479208.61	-14479208.38	0.0088	0.0013
Venus	-44355-09-15 11:02 J	-14478983.24	-14478983.04	-14478982.81	0.0088	0.0029
Venus	-44354-04-29 00:57 J	-14478757.64	-14478757.46	-14478757.25	0.0088	0.0043
Venus	-44354-12-10 14:38 J	-14478532.04	-14478531.89	-14478531.70	0.0088	0.0059
Venus	-44353-07-23 04:33 J	-14478306.41	-14478306.31	-14478306.16	0.0088	0.0073
Venus	-44352-03-05 18:42 J	-14478080.72	-14478080.72	-14478080.68	0.0088	0.0088
Moon	-44317-08-21 00:28 J	-14465128.65	-14465128.48	-14465128.27	0.0088	0.0061
Earth	-44317-08-21 02:52 J	-14465128.54	-14465128.38	-14465128.19	0.0088	0.0066 *
Earth	-44316-08-23 14:38 J	-14464761.11	-14464760.89	-14464760.63	0.0088	0.0034
Moon	-44316-08-23 18:14 J	-14464760.96	-14464760.74	-14464760.50	0.0088	0.0037 *
Moon	-44315-08-25 23:30 J	-14464393.78	-14464393.52	-14464393.26	0.0088	0.0003
Earth	-44315-08-26 03:06 J	-14464393.63	-14464393.37	-14464393.11	0.0088	0.0001 *
Earth	-44314-08-28 14:38 J	-14464026.13	-14464025.89	-14464025.64	0.0088	0.0032
Moon	-44314-08-28 18:28 J	-14464025.98	-14464025.73	-14464025.48	0.0088	0.0027 *
Mercury	-44313-01-26 12:28 J	-14463874.99	-14463874.98	-14463874.96	0.0088	0.0088
Mercury	-44313-04-23 14:38 J	-14463786.94	-14463786.89	-14463786.82	0.0088	0.0081
Mercury	-44313-07-20 16:47 J	-14463698.88	-14463698.80	-14463698.71	0.0088	0.0074
Moon	-44313-08-29 23:16 J	-14463658.67	-14463658.53	-14463658.35	0.0088	0.0069
Earth	-44313-08-30 02:23 J	-14463658.56	-14463658.40	-14463658.21	0.0088	0.0064 *
Mercury	-44313-10-16 18:42 J	-14463610.81	-14463610.72	-14463610.61	0.0088	0.0067
Mercury	-44312-01-12 20:52 J	-14463522.74	-14463522.63	-14463522.51	0.0088	0.0059
Mercury	-44312-04-10 22:47 J	-14463434.66	-14463434.55	-14463434.42	0.0088	0.0053
Mercury	-44312-07-08 00:57 J	-14463346.59	-14463346.46	-14463346.32	0.0088	0.0046
Mercury	-44312-10-04 02:52 J	-14463258.51	-14463258.38	-14463258.23	0.0088	0.0039
Mercury	-44312-12-31 05:02 J	-14463170.43	-14463170.29	-14463170.14	0.0088	0.0032
Mercury	-44311-03-29 06:57 J	-14463082.35	-14463082.21	-14463082.05	0.0088	0.0025
Mercury	-44311-06-25 09:06 J	-14462994.27	-14462994.12	-14462993.97	0.0088	0.0018
Mercury	-44311-09-21 11:02 J	-14462906.19	-14462906.04	-14462905.88	0.0088	0.0011

Mercury -44311-12-18 13:11 J -14462818.11 -14462817.95 -14462817.80 0.0088 0.0004

Mercury -44310-03-16 15:06 J -14462730.03 -14462729.87 -14462729.72 0.0088 0.0003

Mercury -44310-06-12 17:02 J -14462641.94 -14462641.79 -14462641.64 0.0088 0.0010

Mercury -44310-09-08 18:57 J -14462553.86 -14462553.71 -14462553.56 0.0088 0.0017

Mercury -44310-12-05 20:52 J -14462465.78 -14462465.63 -14462465.48 0.0088 0.0023

Mercury -44309-03-02 22:33 J -14462377.69 -14462377.56 -14462377.41 0.0088 0.0031

Mercury -44309-05-30 00:42 J -14462289.61 -14462289.47 -14462289.33 0.0088 0.0037

Mercury -44309-08-26 02:23 J -14462201.52 -14462201.40 -14462201.26 0.0089 0.0044

Mercury -44309-11-22 04:18 J -14462113.43 -14462113.32 -14462113.19 0.0089 0.0051

Mercury -44308-02-18 06:28 J -14462025.34 -14462025.23 -14462025.12 0.0089 0.0057

Mercury -44308-05-17 08:09 J -14461937.26 -14461937.16 -14461937.05 0.0089 0.0064

Mercury -44308-08-13 09:50 J -14461849.16 -14461849.09 -14461848.98 0.0089 0.0071

Mercury -44308-11-09 11:45 J -14461761.07 -14461761.01 -14461760.92 0.0089 0.0077

Mercury -44307-02-05 13:26 J -14461672.97 -14461672.94 -14461672.87 0.0089 0.0084

Mars -44299-09-06 22:33 J -14458537.59 -14458537.56 -14458537.45 0.0089 0.0087

Mars -44297-08-02 20:09 J -14457841.87 -14457841.66 -14457841.39 0.0089 0.0061

Mars -44295-06-29 15:50 J -14457146.14 -14457145.84 -14457145.53 0.0089 0.0035

Mars -44293-05-25 08:52 J -14456450.45 -14456450.13 -14456449.80 0.0089 0.0010

Mars -44291-04-20 23:30 J -14455754.83 -14455754.52 -14455754.19 0.0089 0.0016

Mars -44289-03-16 10:47 J -14455059.31 -14455059.05 -14455058.74 0.0089 0.0041

Mars -44287-02-09 21:06 J -14454363.82 -14454363.62 -14454363.38 0.0089 0.0065

Venus -44277-07-08 04:18 J -14450562.35 -14450562.32 -14450562.25 0.0089 0.0086

Venus -44276-02-18 16:47 J -14450336.92 -14450336.80 -14450336.66 0.0089 0.0071

Jupiter -44276-03-05 13:26 J -14450322.16 -14450321.94 -14450321.62 0.0089 0.0076

Venus -44276-10-02 05:02 J -14450111.44 -14450111.29 -14450111.11 0.0089 0.0057

Venus -44275-05-15 17:30 J -14449885.95 -14449885.77 -14449885.57 0.0089 0.0042

Venus -44275-12-27 05:45 J -14449660.46 -14449660.26 -14449660.05 0.0089 0.0028

Venus -44274-08-09 17:59 J -14449434.96 -14449434.75 -14449434.53 0.0089 0.0013

Venus -44273-03-22 06:14 J -14449209.45 -14449209.24 -14449209.02 0.0089 0.0002

Venus -44273-11-02 18:28 J -14448983.94 -14448983.73 -14448983.52 0.0089 0.0016

Venus	-44272-06-16 06:14 J	-14448758.43	-14448758.24	-14448758.03	0.0089	0.0031
Venus	-44271-01-27 18:28 J	-14448532.91	-14448532.73	-14448532.54	0.0089	0.0046
Venus	-44271-09-10 06:28 J	-14448307.37	-14448307.23	-14448307.06	0.0089	0.0060
Venus	-44270-04-23 18:42 J	-14448081.83	-14448081.72	-14448081.60	0.0089	0.0075
Venus	-44270-12-05 06:28 J	-14447856.23	-14447856.23	-14447856.20	0.0089	0.0089
Moon	-44235-02-16 16:04 J	-14435363.96	-14435363.83	-14435363.65	0.0089	0.0071
Earth	-44235-02-16 19:40 J	-14435363.80	-14435363.68	-14435363.50	0.0089	0.0072 *
Earth	-44234-02-19 07:11 J	-14434996.41	-14434996.20	-14434995.95	0.0089	0.0039
Moon	-44234-02-19 10:33 J	-14434996.26	-14434996.06	-14434995.81	0.0089	0.0040 *
Moon	-44233-02-21 15:35 J	-14434629.10	-14434628.85	-14434628.59	0.0089	0.0007
Earth	-44233-02-21 19:11 J	-14434628.96	-14434628.70	-14434628.45	0.0089	0.0006 *
Earth	-44232-02-23 06:14 J	-14434261.48	-14434261.24	-14434260.99	0.0089	0.0026
Moon	-44232-02-23 08:52 J	-14434261.37	-14434261.13	-14434260.87	0.0089	0.0027 *
Mercury	-44232-10-21 20:23 J	-14434020.65	-14434020.65	-14434020.65	0.0089	0.0089
Mercury	-44231-01-17 22:18 J	-14433932.62	-14433932.57	-14433932.50	0.0089	0.0082
Moon	-44231-02-25 15:50 J	-14433894.01	-14433893.84	-14433893.64	0.0089	0.0059
Earth	-44231-02-25 17:16 J	-14433893.95	-14433893.78	-14433893.57	0.0089	0.0059 *
Mercury	-44231-04-16 00:28 J	-14433844.55	-14433844.48	-14433844.38	0.0089	0.0075
Mercury	-44231-07-13 02:38 J	-14433756.48	-14433756.39	-14433756.27	0.0089	0.0068
Mercury	-44231-10-09 05:02 J	-14433668.40	-14433668.29	-14433668.17	0.0089	0.0061
Mercury	-44230-01-05 07:11 J	-14433580.32	-14433580.20	-14433580.06	0.0089	0.0054
Mercury	-44230-04-03 09:21 J	-14433492.23	-14433492.11	-14433491.96	0.0089	0.0047
Mercury	-44230-06-30 11:59 J	-14433404.14	-14433404.00	-14433403.86	0.0089	0.0039
Mercury	-44230-09-26 14:09 J	-14433316.06	-14433315.91	-14433315.76	0.0089	0.0032
Mercury	-44230-12-23 16:18 J	-14433227.97	-14433227.82	-14433227.66	0.0089	0.0025
Mercury	-44229-03-20 18:42 J	-14433139.87	-14433139.72	-14433139.56	0.0089	0.0018
Mercury	-44229-06-16 21:06 J	-14433051.78	-14433051.62	-14433051.46	0.0089	0.0010
Mercury	-44229-09-12 23:30 J	-14432963.68	-14432963.52	-14432963.36	0.0089	0.0003
Mercury	-44229-12-10 01:54 J	-14432875.59	-14432875.42	-14432875.26	0.0089	0.0005
Mercury	-44228-03-08 04:04 J	-14432787.49	-14432787.33	-14432787.16	0.0089	0.0012

Mercury -44228-06-04 06:14 J -14432699.39 -14432699.24 -14432699.07 0.0089 0.0020
 Mercury -44228-08-31 08:52 J -14432611.28 -14432611.13 -14432610.97 0.0089 0.0027
 Mercury -44228-11-27 11:16 J -14432523.18 -14432523.03 -14432522.88 0.0089 0.0034
 Mercury -44227-02-23 13:26 J -14432435.07 -14432434.94 -14432434.78 0.0089 0.0042
 Mercury -44227-05-22 16:04 J -14432346.97 -14432346.83 -14432346.69 0.0089 0.0049
 Mercury -44227-08-18 18:14 J -14432258.85 -14432258.74 -14432258.60 0.0089 0.0057
 Mercury -44227-11-14 20:38 J -14432170.74 -14432170.64 -14432170.51 0.0089 0.0065
 Mercury -44226-02-10 23:16 J -14432082.62 -14432082.53 -14432082.43 0.0089 0.0072
 Mercury -44226-05-10 01:26 J -14431994.49 -14431994.44 -14431994.35 0.0089 0.0080
 Mercury -44226-08-06 04:18 J -14431906.35 -14431906.32 -14431906.29 0.0089 0.0087
 Mars -44217-06-01 08:38 J -14428684.28 -14428684.14 -14428683.95 0.0089 0.0073
 Mars -44215-04-26 05:30 J -14427990.49 -14427990.27 -14427990.01 0.0088 0.0051
 Mars -44213-03-20 05:02 J -14427296.56 -14427296.29 -14427295.99 0.0088 0.0029
 Mars -44211-02-12 06:14 J -14426602.54 -14426602.24 -14426601.94 0.0088 0.0006
 Mars -44209-01-07 07:40 J -14425908.46 -14425908.18 -14425907.87 0.0088 0.0018
 Mars -44208-12-01 11:16 J -14425214.28 -14425214.03 -14425213.75 0.0088 0.0041
 Mars -44206-10-26 18:28 J -14424519.93 -14424519.73 -14424519.51 0.0088 0.0064
 Mars -44204-09-20 01:40 J -14423825.47 -14423825.43 -14423825.36 0.0088 0.0087
 Venus -44195-08-21 17:16 J -14420567.82 -14420567.78 -14420567.69 0.0088 0.0084
 Venus -44194-04-04 07:11 J -14420342.32 -14420342.20 -14420342.05 0.0088 0.0070
 Venus -44194-11-15 20:38 J -14420116.79 -14420116.64 -14420116.44 0.0088 0.0055
 Venus -44193-06-28 10:33 J -14419891.25 -14419891.06 -14419890.84 0.0088 0.0040
 Venus -44192-02-09 00:28 J -14419665.69 -14419665.48 -14419665.25 0.0088 0.0025
 Venus -44192-09-22 14:23 J -14419440.12 -14419439.90 -14419439.67 0.0088 0.0010
 Venus -44191-05-06 04:18 J -14419214.55 -14419214.32 -14419214.10 0.0088 0.0005
 Venus -44191-12-17 17:59 J -14418988.97 -14418988.75 -14418988.53 0.0088 0.0019
 Venus -44190-07-31 07:40 J -14418763.38 -14418763.18 -14418762.97 0.0088 0.0034
 Venus -44189-03-12 21:21 J -14418537.78 -14418537.61 -14418537.40 0.0088 0.0050
 Venus -44189-10-24 11:16 J -14418312.17 -14418312.03 -14418311.86 0.0088 0.0064
 Venus -44188-06-07 00:57 J -14418086.53 -14418086.46 -14418086.33 0.0088 0.0079

Earth -44153-08-20 06:14 J -14405228.30 -14405228.24 -14405228.15 0.0088 0.0085
 Moon -44153-08-20 09:35 J -14405228.18 -14405228.10 -14405228.01 0.0088 0.0083 *
 Moon -44152-08-22 14:38 J -14404861.09 -14404860.89 -14404860.69 0.0088 0.0055
 Earth -44152-08-22 17:59 J -14404860.94 -14404860.75 -14404860.52 0.0088 0.0053 *
 Earth -44151-08-25 05:45 J -14404493.50 -14404493.26 -14404492.99 0.0088 0.0020
 Moon -44151-08-25 09:21 J -14404493.37 -14404493.11 -14404492.85 0.0088 0.0018 *
 Moon -44150-08-27 14:52 J -14404126.12 -14404125.88 -14404125.62 0.0088 0.0012
 Earth -44150-08-27 17:59 J -14404126.01 -14404125.75 -14404125.49 0.0088 0.0013 *
 Earth -44149-08-29 05:16 J -14403758.48 -14403758.28 -14403758.04 0.0088 0.0046
 Moon -44149-08-29 07:40 J -14403758.41 -14403758.18 -14403757.96 0.0088 0.0047 *
 Mercury -44149-10-22 10:18 J -14403704.07 -14403704.07 -14403704.03 0.0088 0.0088
 Mercury -44148-01-18 12:28 J -14403616.03 -14403615.98 -14403615.90 0.0088 0.0080
 Mercury -44148-04-16 14:23 J -14403527.97 -14403527.90 -14403527.79 0.0088 0.0074
 Mercury -44148-07-13 16:33 J -14403439.90 -14403439.81 -14403439.69 0.0088 0.0067
 Moon -44148-08-31 16:33 J -14403390.91 -14403390.81 -14403390.66 0.0088 0.0076
 Earth -44148-08-31 17:16 J -14403390.89 -14403390.78 -14403390.65 0.0088 0.0078 *
 Mercury -44148-10-09 18:57 J -14403351.82 -14403351.71 -14403351.59 0.0088 0.0059
 Mercury -44147-01-05 21:06 J -14403263.75 -14403263.62 -14403263.50 0.0088 0.0052
 Mercury -44147-04-03 23:02 J -14403175.67 -14403175.54 -14403175.40 0.0088 0.0045
 Mercury -44147-07-01 01:11 J -14403087.59 -14403087.45 -14403087.31 0.0088 0.0038
 Mercury -44147-09-27 03:06 J -14402999.51 -14402999.37 -14402999.22 0.0088 0.0031
 Mercury -44147-12-24 05:16 J -14402911.43 -14402911.28 -14402911.13 0.0088 0.0024
 Mercury -44146-03-22 07:11 J -14402823.35 -14402823.20 -14402823.05 0.0088 0.0017
 Mercury -44146-06-18 09:06 J -14402735.27 -14402735.12 -14402734.96 0.0088 0.0010
 Mercury -44146-09-14 11:16 J -14402647.19 -14402647.03 -14402646.88 0.0088 0.0003
 Mercury -44146-12-11 13:11 J -14402559.10 -14402558.95 -14402558.80 0.0088 0.0004
 Mercury -44145-03-08 15:06 J -14402471.02 -14402470.87 -14402470.71 0.0088 0.0011
 Mercury -44145-06-04 17:02 J -14402382.93 -14402382.79 -14402382.64 0.0088 0.0018
 Mercury -44145-08-31 18:57 J -14402294.85 -14402294.71 -14402294.56 0.0088 0.0024
 Mercury -44145-11-27 20:52 J -14402206.77 -14402206.63 -14402206.48 0.0088 0.0031

Mercury -44144-02-23 22:47 J -14402118.68 -14402118.55 -14402118.41 0.0088 0.0038

Mercury -44144-05-23 00:42 J -14402030.59 -14402030.47 -14402030.33 0.0088 0.0045

Mercury -44144-08-19 02:23 J -14401942.51 -14401942.40 -14401942.26 0.0088 0.0052

Mercury -44144-11-15 04:33 J -14401854.42 -14401854.31 -14401854.19 0.0088 0.0058

Mercury -44143-02-11 06:14 J -14401766.33 -14401766.24 -14401766.12 0.0088 0.0065

Mercury -44143-05-10 08:09 J -14401678.23 -14401678.16 -14401678.06 0.0089 0.0071

Mercury -44143-08-06 10:04 J -14401590.14 -14401590.08 -14401590.00 0.0089 0.0078

Mercury -44143-11-02 11:45 J -14401502.03 -14401502.01 -14401501.95 0.0089 0.0085

Mars -44133-03-16 03:06 J -14398080.54 -14398080.37 -14398080.14 0.0089 0.0071

Mars -44131-02-10 00:14 J -14397384.74 -14397384.49 -14397384.17 0.0089 0.0045

Mars -44129-01-06 19:26 J -14396689.01 -14396688.69 -14396688.36 0.0089 0.0018

Mars -44128-12-02 11:45 J -14395993.33 -14395993.01 -14395992.67 0.0089 0.0008

Mars -44126-10-29 02:09 J -14395297.70 -14395297.41 -14395297.10 0.0089 0.0033

Mars -44124-09-23 12:42 J -14394602.18 -14394601.97 -14394601.69 0.0089 0.0059

Mars -44122-08-19 22:33 J -14393906.65 -14393906.56 -14393906.42 0.0089 0.0083

Venus -44112-05-23 00:28 J -14390342.55 -14390342.48 -14390342.36 0.0089 0.0080

Venus -44111-01-03 12:57 J -14390117.09 -14390116.96 -14390116.80 0.0089 0.0065

Venus -44111-08-17 01:11 J -14389891.61 -14389891.45 -14389891.25 0.0089 0.0051

Venus -44110-03-30 13:40 J -14389666.12 -14389665.93 -14389665.72 0.0089 0.0036

Jupiter -44110-05-01 22:47 J -14389634.06 -14389633.55 -14389633.03 0.0089 0.0006

Venus -44110-11-11 02:09 J -14389440.62 -14389440.41 -14389440.20 0.0089 0.0022

Venus -44109-06-23 14:23 J -14389215.12 -14389214.90 -14389214.69 0.0089 0.0007

Venus -44108-02-04 02:38 J -14388989.61 -14388989.39 -14388989.18 0.0089 0.0008

Venus -44108-09-17 14:38 J -14388764.09 -14388763.89 -14388763.67 0.0089 0.0023

Venus -44107-05-01 03:06 J -14388538.57 -14388538.37 -14388538.18 0.0089 0.0037

Venus -44107-12-12 14:52 J -14388313.04 -14388312.88 -14388312.69 0.0089 0.0051

Venus -44106-07-26 03:06 J -14388087.51 -14388087.37 -14388087.22 0.0089 0.0066

Venus -44105-03-07 14:52 J -14387861.95 -14387861.88 -14387861.77 0.0089 0.0080

Moon -44070-02-18 08:52 J -14375096.30 -14375096.13 -14375095.90 0.0089 0.0054

Earth -44070-02-18 11:59 J -14375096.18 -14375096.00 -14375095.79 0.0089 0.0058 *

Earth -44069-02-20 23:30 J -14374728.76 -14374728.52 -14374728.26 0.0089 0.0025
 Moon -44069-02-21 02:09 J -14374728.65 -14374728.41 -14374728.16 0.0089 0.0029 *
 Moon -44068-02-22 09:35 J -14374361.34 -14374361.10 -14374360.84 0.0089 0.0013
 Earth -44068-02-22 11:02 J -14374361.29 -14374361.04 -14374360.78 0.0089 0.0008 *
 Moon -44067-02-24 22:18 J -14373993.81 -14373993.57 -14373993.32 0.0089 0.0036
 Earth -44067-02-24 22:18 J -14373993.78 -14373993.57 -14373993.33 0.0089 0.0041 *
 Mercury -44067-07-18 18:28 J -14373849.75 -14373849.73 -14373849.70 0.0089 0.0087
 Mercury -44067-10-14 20:38 J -14373761.70 -14373761.64 -14373761.57 0.0089 0.0080
 Mercury -44066-01-10 22:47 J -14373673.63 -14373673.55 -14373673.46 0.0089 0.0073
 Earth -44066-02-27 09:35 J -14373626.22 -14373626.10 -14373625.93 0.0089 0.0074
 Moon -44066-02-27 10:33 J -14373626.15 -14373626.06 -14373625.92 0.0089 0.0078 *
 Mercury -44066-04-09 00:57 J -14373585.56 -14373585.46 -14373585.35 0.0089 0.0066
 Mercury -44066-07-06 03:06 J -14373497.48 -14373497.37 -14373497.24 0.0089 0.0059
 Mercury -44066-10-02 05:30 J -14373409.39 -14373409.27 -14373409.14 0.0089 0.0052
 Mercury -44066-12-29 07:40 J -14373321.31 -14373321.18 -14373321.03 0.0089 0.0045
 Mercury -44065-03-26 09:50 J -14373233.22 -14373233.09 -14373232.93 0.0089 0.0038
 Mercury -44065-06-22 12:14 J -14373145.13 -14373144.99 -14373144.83 0.0089 0.0031
 Mercury -44065-09-18 14:38 J -14373057.04 -14373056.89 -14373056.73 0.0089 0.0023
 Mercury -44065-12-15 17:02 J -14372968.95 -14372968.79 -14372968.63 0.0089 0.0016
 Mercury -44064-03-13 19:11 J -14372880.86 -14372880.70 -14372880.53 0.0089 0.0009
 Mercury -44064-06-09 21:35 J -14372792.76 -14372792.60 -14372792.44 0.0089 0.0001
 Mercury -44064-09-05 23:45 J -14372704.67 -14372704.51 -14372704.34 0.0089 0.0007
 Mercury -44064-12-03 02:09 J -14372616.57 -14372616.41 -14372616.24 0.0089 0.0014
 Mercury -44063-03-01 04:33 J -14372528.47 -14372528.31 -14372528.15 0.0089 0.0021
 Mercury -44063-05-28 06:42 J -14372440.36 -14372440.22 -14372440.05 0.0089 0.0029
 Mercury -44063-08-24 09:06 J -14372352.26 -14372352.12 -14372351.96 0.0089 0.0036
 Mercury -44063-11-20 11:30 J -14372264.15 -14372264.02 -14372263.87 0.0089 0.0044
 Mercury -44062-02-16 13:54 J -14372176.05 -14372175.92 -14372175.78 0.0089 0.0051
 Mercury -44062-05-15 16:04 J -14372087.93 -14372087.83 -14372087.69 0.0089 0.0059
 Mercury -44062-08-11 18:42 J -14371999.82 -14371999.72 -14371999.60 0.0089 0.0066

Mercury -44062-11-07 21:06 J -14371911.70 -14371911.62 -14371911.52 0.0089 0.0074

Mercury -44061-02-03 23:45 J -14371823.57 -14371823.51 -14371823.44 0.0089 0.0081

Mars -44053-01-15 13:40 J -14368921.05 -14368920.93 -14368920.80 0.0089 0.0080

Mars -44052-12-09 10:18 J -14368227.27 -14368227.07 -14368226.82 0.0089 0.0059

Mars -44050-11-03 07:26 J -14367533.46 -14367533.19 -14367532.91 0.0089 0.0036

Mars -44048-09-27 06:28 J -14366839.53 -14366839.23 -14366838.93 0.0088 0.0013

Mars -44046-08-22 07:26 J -14366145.48 -14366145.19 -14366144.89 0.0088 0.0010

Mars -44044-07-16 09:21 J -14365451.38 -14365451.11 -14365450.82 0.0088 0.0034

Mars -44042-06-10 12:42 J -14364757.17 -14364756.97 -14364756.71 0.0088 0.0058

Mars -44040-05-04 20:38 J -14364062.74 -14364062.64 -14364062.50 0.0088 0.0081

Venus -44030-07-06 14:09 J -14360347.99 -14360347.91 -14360347.77 0.0088 0.0078

Venus -44029-02-17 04:18 J -14360122.46 -14360122.32 -14360122.15 0.0088 0.0062

Venus -44029-09-29 18:14 J -14359896.92 -14359896.74 -14359896.54 0.0088 0.0048

Venus -44028-05-13 07:54 J -14359671.37 -14359671.17 -14359670.95 0.0088 0.0033

Venus -44028-12-24 21:35 J -14359445.81 -14359445.60 -14359445.37 0.0088 0.0019

Venus -44027-08-07 11:30 J -14359220.24 -14359220.02 -14359219.79 0.0088 0.0004

Venus -44026-03-21 01:26 J -14358994.66 -14358994.44 -14358994.21 0.0088 0.0011

Venus -44026-11-01 15:06 J -14358769.08 -14358768.87 -14358768.65 0.0088 0.0026

Venus -44025-06-14 04:33 J -14358543.49 -14358543.31 -14358543.09 0.0088 0.0041

Venus -44024-01-25 18:42 J -14358317.89 -14358317.72 -14358317.54 0.0088 0.0055

Venus -44024-09-08 08:23 J -14358092.27 -14358092.15 -14358092.00 0.0088 0.0070

Venus -44023-04-21 22:04 J -14357866.61 -14357866.58 -14357866.50 0.0088 0.0085

44TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 44th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Saturn	-43998-09-20 01:11 J	-14348584.45	-14348584.45	-14348584.44	0.0088	0.0088		
Earth	-43988-08-21 22:04 J	-14344960.70	-14344960.58	-14344960.40	0.0088	0.0072		
Moon	-43988-08-22 02:09 J	-14344960.58	-14344960.41	-14344960.24	0.0088	0.0067	*	
Moon	-43987-08-24 08:09 J	-14344593.36	-14344593.16	-14344592.92	0.0088	0.0042		
Earth	-43987-08-24 10:18 J	-14344593.29	-14344593.07	-14344592.82	0.0088	0.0039	*	
Earth	-43986-08-26 22:04 J	-14344225.83	-14344225.58	-14344225.31	0.0088	0.0007		
Moon	-43986-08-26 23:45 J	-14344225.78	-14344225.51	-14344225.24	0.0088	0.0002	*	
Earth	-43985-08-28 09:35 J	-14343858.33	-14343858.10	-14343857.84	0.0088	0.0027		
Moon	-43985-08-28 09:35 J	-14343858.33	-14343858.10	-14343857.85	0.0088	0.0023	*	
Mercury	-43984-07-19 08:38 J	-14343533.16	-14343533.14	-14343533.10	0.0088	0.0086		
Moon	-43984-08-30 19:54 J	-14343490.85	-14343490.67	-14343490.47	0.0088	0.0063		
Earth	-43984-08-30 21:21 J	-14343490.78	-14343490.61	-14343490.40	0.0088	0.0060	*	
Mercury	-43984-10-15 10:33 J	-14343445.11	-14343445.06	-14343444.97	0.0088	0.0080		
Mercury	-43983-01-11 12:42 J	-14343357.04	-14343356.97	-14343356.86	0.0088	0.0072		
Mercury	-43983-04-09 15:06 J	-14343268.97	-14343268.87	-14343268.76	0.0088	0.0065		
Mercury	-43983-07-06 17:16 J	-14343180.90	-14343180.78	-14343180.66	0.0088	0.0058		
Moon	-43983-09-02 11:16 J	-14343123.03	-14343123.03	-14343123.01	0.0088	0.0088		
Mercury	-43983-10-02 19:11 J	-14343092.82	-14343092.70	-14343092.57	0.0088	0.0051		
Mercury	-43983-12-29 21:21 J	-14343004.74	-14343004.61	-14343004.47	0.0088	0.0044		
Mercury	-43982-03-27 23:16 J	-14342916.66	-14342916.53	-14342916.38	0.0088	0.0037		
Mercury	-43982-06-24 01:26 J	-14342828.58	-14342828.44	-14342828.29	0.0088	0.0030		
Mercury	-43982-09-20 03:35 J	-14342740.50	-14342740.35	-14342740.20	0.0088	0.0023		
Mercury	-43982-12-17 05:30 J	-14342652.42	-14342652.27	-14342652.12	0.0088	0.0016		
Mercury	-43981-03-14 07:26 J	-14342564.34	-14342564.19	-14342564.03	0.0088	0.0009		
Mercury	-43981-06-10 09:35 J	-14342476.26	-14342476.10	-14342475.95	0.0088	0.0002		
Mercury	-43981-09-06 11:30 J	-14342388.17	-14342388.02	-14342387.87	0.0088	0.0005		

Mercury -43981-12-03 13:26 J -14342300.09 -14342299.94 -14342299.79 0.0088 0.0012

Mercury -43980-03-01 15:21 J -14342212.00 -14342211.86 -14342211.71 0.0088 0.0019

Mercury -43980-05-28 17:16 J -14342123.92 -14342123.78 -14342123.63 0.0088 0.0026

Mercury -43980-08-24 19:11 J -14342035.83 -14342035.70 -14342035.55 0.0088 0.0033

Mercury -43980-11-20 21:06 J -14341947.75 -14341947.62 -14341947.47 0.0088 0.0039

Mercury -43979-02-16 23:16 J -14341859.66 -14341859.53 -14341859.40 0.0088 0.0046

Mercury -43979-05-16 00:57 J -14341771.57 -14341771.46 -14341771.33 0.0088 0.0053

Mercury -43979-08-12 02:52 J -14341683.48 -14341683.38 -14341683.26 0.0088 0.0059

Mercury -43979-11-08 04:47 J -14341595.39 -14341595.30 -14341595.19 0.0088 0.0066

Mercury -43978-02-04 06:28 J -14341507.30 -14341507.23 -14341507.13 0.0088 0.0073

Mercury -43978-05-03 08:38 J -14341419.20 -14341419.14 -14341419.07 0.0089 0.0079

Mercury -43978-07-30 10:18 J -14341331.09 -14341331.07 -14341331.02 0.0089 0.0086

Mars -43970-10-28 07:40 J -14338319.28 -14338319.18 -14338319.01 0.0089 0.0081

Mars -43968-09-23 07:54 J -14337623.43 -14337623.17 -14337622.90 0.0089 0.0054

Mars -43966-08-20 04:33 J -14336927.60 -14336927.31 -14336926.97 0.0089 0.0028

Mars -43964-07-15 23:30 J -14336231.85 -14336231.52 -14336231.19 0.0089 0.0001

Mars -43962-06-11 15:21 J -14335536.17 -14335535.86 -14335535.54 0.0089 0.0025

Mars -43960-05-07 05:02 J -14334840.53 -14334840.29 -14334839.99 0.0089 0.0051

Mars -43958-04-02 16:33 J -14334144.96 -14334144.81 -14334144.63 0.0089 0.0076

Venus -43948-08-24 09:06 J -14330348.13 -14330348.12 -14330348.06 0.0089 0.0088

Venus -43947-04-06 21:35 J -14330122.71 -14330122.60 -14330122.47 0.0089 0.0074

Venus -43947-11-18 09:35 J -14329897.24 -14329897.10 -14329896.92 0.0089 0.0060

Venus -43946-07-01 22:18 J -14329671.76 -14329671.57 -14329671.39 0.0089 0.0045

Venus -43945-02-12 10:18 J -14329446.26 -14329446.07 -14329445.86 0.0089 0.0030

Venus -43945-09-24 22:47 J -14329220.76 -14329220.55 -14329220.33 0.0089 0.0016

Venus -43944-05-08 11:02 J -14328995.25 -14328995.04 -14328994.82 0.0089 0.0002

Jupiter -43944-07-01 16:04 J -14328940.86 -14328940.83 -14328940.73 0.0089 0.0089

Venus -43944-12-19 23:16 J -14328769.74 -14328769.53 -14328769.32 0.0089 0.0013

Venus -43943-08-02 11:16 J -14328544.22 -14328544.03 -14328543.82 0.0089 0.0028

Venus -43942-03-15 23:30 J -14328318.70 -14328318.52 -14328318.32 0.0089 0.0042

Venus -43942-10-27 11:59 J -14328093.17 -14328093.00 -14328092.84 0.0089 0.0057
 Venus -43941-06-08 23:30 J -14327867.63 -14327867.52 -14327867.37 0.0089 0.0072
 Venus -43940-01-20 11:45 J -14327642.05 -14327642.01 -14327641.93 0.0089 0.0086
 Earth -43906-02-17 16:47 J -14315195.91 -14315195.80 -14315195.65 0.0089 0.0077
 Moon -43906-02-17 18:42 J -14315195.84 -14315195.72 -14315195.57 0.0089 0.0075 *
 Moon -43905-02-20 03:50 J -14314828.54 -14314828.34 -14314828.12 0.0089 0.0045
 Earth -43905-02-20 04:18 J -14314828.52 -14314828.32 -14314828.08 0.0089 0.0044 *
 Moon -43904-02-21 16:04 J -14314461.09 -14314460.83 -14314460.57 0.0089 0.0010
 Earth -43904-02-21 16:04 J -14314461.08 -14314460.83 -14314460.57 0.0089 0.0011 *
 Earth -43903-02-24 03:50 J -14314093.59 -14314093.34 -14314093.09 0.0089 0.0022
 Moon -43903-02-24 05:30 J -14314093.51 -14314093.27 -14314093.02 0.0089 0.0021 *
 Moon -43902-02-26 11:59 J -14313726.17 -14313726.00 -14313725.77 0.0089 0.0057
 Earth -43902-02-26 15:21 J -14313726.06 -14313725.86 -14313725.66 0.0089 0.0055 *
 Mercury -43902-04-14 16:18 J -14313678.84 -14313678.82 -14313678.76 0.0089 0.0086
 Mercury -43902-07-11 18:28 J -14313590.78 -14313590.73 -14313590.64 0.0089 0.0079
 Mercury -43902-10-07 20:52 J -14313502.71 -14313502.63 -14313502.53 0.0089 0.0072
 Mercury -43901-01-03 23:02 J -14313414.64 -14313414.54 -14313414.42 0.0089 0.0065
 Earth -43901-02-29 02:38 J -14313358.41 -14313358.39 -14313358.36 0.0089 0.0088
 Moon -43901-02-29 05:45 J -14313358.28 -14313358.26 -14313358.23 0.0089 0.0088
 Mercury -43901-04-01 01:11 J -14313326.56 -14313326.45 -14313326.31 0.0089 0.0058
 Mercury -43901-06-28 03:50 J -14313238.47 -14313238.34 -14313238.21 0.0089 0.0050
 Mercury -43901-09-24 05:59 J -14313150.39 -14313150.25 -14313150.11 0.0089 0.0043
 Mercury -43901-12-21 08:09 J -14313062.30 -14313062.16 -14313062.01 0.0089 0.0036
 Mercury -43900-03-19 10:18 J -14312974.21 -14312974.07 -14312973.91 0.0089 0.0029
 Mercury -43900-06-15 12:42 J -14312886.12 -14312885.97 -14312885.81 0.0089 0.0022
 Mercury -43900-09-11 15:06 J -14312798.03 -14312797.87 -14312797.71 0.0089 0.0014
 Mercury -43900-12-08 17:30 J -14312709.94 -14312709.77 -14312709.61 0.0089 0.0007
 Mercury -43899-03-06 19:40 J -14312621.84 -14312621.68 -14312621.52 0.0089 0.0001
 Mercury -43899-06-02 22:04 J -14312533.74 -14312533.58 -14312533.42 0.0089 0.0008
 Mercury -43899-08-30 00:14 J -14312445.64 -14312445.49 -14312445.32 0.0089 0.0016

Mercury -43899-11-26 02:38 J -14312357.55 -14312357.39 -14312357.23 0.0089 0.0023

Mercury -43898-02-22 05:02 J -14312269.44 -14312269.29 -14312269.14 0.0089 0.0030

Mercury -43898-05-21 07:11 J -14312181.34 -14312181.20 -14312181.04 0.0089 0.0038

Mercury -43898-08-17 09:35 J -14312093.23 -14312093.10 -14312092.95 0.0089 0.0045

Mercury -43898-11-13 11:45 J -14312005.12 -14312005.01 -14312004.86 0.0089 0.0053

Mercury -43897-02-09 14:23 J -14311917.01 -14311916.90 -14311916.77 0.0089 0.0060

Mercury -43897-05-07 16:33 J -14311828.90 -14311828.81 -14311828.69 0.0089 0.0068

Mercury -43897-08-03 19:11 J -14311740.78 -14311740.70 -14311740.61 0.0089 0.0075

Mercury -43897-10-30 21:35 J -14311652.65 -14311652.60 -14311652.53 0.0089 0.0083

Mars -43890-08-30 19:26 J -14309157.69 -14309157.69 -14309157.65 0.0089 0.0089

Mars -43888-07-24 14:38 J -14308464.09 -14308463.89 -14308463.70 0.0089 0.0066

Mars -43886-06-18 11:30 J -14307770.26 -14307770.02 -14307769.74 0.0089 0.0044

Mars -43884-05-12 09:21 J -14307076.39 -14307076.11 -14307075.81 0.0089 0.0021

Mars -43882-04-06 08:52 J -14306382.43 -14306382.13 -14306381.83 0.0088 0.0003

Mars -43880-02-28 10:18 J -14305688.35 -14305688.07 -14305687.78 0.0088 0.0027

Mars -43878-01-23 12:57 J -14304994.19 -14304993.96 -14304993.69 0.0088 0.0051

Mars -43877-12-17 16:47 J -14304299.93 -14304299.80 -14304299.61 0.0088 0.0075

Venus -43866-10-07 22:04 J -14300353.63 -14300353.58 -14300353.50 0.0088 0.0084

Venus -43865-05-20 11:30 J -14300128.13 -14300128.02 -14300127.86 0.0088 0.0070

Venus -43864-01-01 01:26 J -14299902.60 -14299902.44 -14299902.25 0.0088 0.0056

Venus -43864-08-14 15:35 J -14299677.05 -14299676.85 -14299676.65 0.0088 0.0041

Venus -43863-03-28 05:16 J -14299451.49 -14299451.28 -14299451.06 0.0088 0.0026

Venus -43863-11-08 19:11 J -14299225.92 -14299225.70 -14299225.48 0.0088 0.0011

Venus -43862-06-22 08:52 J -14299000.35 -14299000.13 -14298999.90 0.0088 0.0003

Venus -43861-02-02 22:33 J -14298774.77 -14298774.56 -14298774.33 0.0088 0.0018

Venus -43861-09-15 12:14 J -14298549.19 -14298548.99 -14298548.77 0.0088 0.0033

Venus -43860-04-29 02:09 J -14298323.59 -14298323.41 -14298323.21 0.0088 0.0047

Venus -43860-12-10 15:35 J -14298097.99 -14298097.85 -14298097.67 0.0088 0.0062

Venus -43859-07-24 05:45 J -14297872.36 -14297872.26 -14297872.14 0.0088 0.0077

Moon -43824-08-21 01:40 J -14285060.47 -14285060.43 -14285060.38 0.0088 0.0087

Earth -43823-08-23 15:21 J -14284693.05 -14284692.86 -14284692.65 0.0088 0.0057
 Moon -43823-08-23 15:50 J -14284693.03 -14284692.84 -14284692.63 0.0088 0.0060 *
 Earth -43822-08-26 03:06 J -14284325.61 -14284325.37 -14284325.11 0.0088 0.0024
 Moon -43822-08-26 03:50 J -14284325.58 -14284325.34 -14284325.09 0.0088 0.0021 *
 Moon -43821-08-27 13:26 J -14283958.20 -14283957.94 -14283957.67 0.0088 0.0006
 Earth -43821-08-27 15:06 J -14283958.13 -14283957.87 -14283957.61 0.0088 0.0009 *
 Earth -43820-08-30 02:23 J -14283590.62 -14283590.40 -14283590.16 0.0088 0.0042
 Moon -43820-08-30 05:16 J -14283590.49 -14283590.28 -14283590.05 0.0088 0.0045 *
 Mercury -43819-04-15 07:11 J -14283362.24 -14283362.20 -14283362.16 0.0088 0.0085
 Mercury -43819-07-12 09:06 J -14283274.18 -14283274.12 -14283274.04 0.0088 0.0078
 Moon -43819-09-01 10:33 J -14283223.19 -14283223.06 -14283222.88 0.0088 0.0072
 Earth -43819-09-01 13:54 J -14283223.04 -14283222.92 -14283222.76 0.0088 0.0074 *
 Mercury -43819-10-08 11:16 J -14283186.11 -14283186.03 -14283185.93 0.0088 0.0071
 Mercury -43818-01-04 13:26 J -14283098.04 -14283097.94 -14283097.83 0.0088 0.0063
 Mercury -43818-04-02 15:21 J -14283009.97 -14283009.86 -14283009.73 0.0088 0.0057
 Mercury -43818-06-29 17:30 J -14282921.89 -14282921.77 -14282921.63 0.0088 0.0049
 Mercury -43818-09-25 19:40 J -14282833.81 -14282833.68 -14282833.54 0.0088 0.0042
 Mercury -43818-12-22 21:35 J -14282745.73 -14282745.60 -14282745.45 0.0088 0.0036
 Mercury -43817-03-19 23:45 J -14282657.65 -14282657.51 -14282657.36 0.0088 0.0028
 Mercury -43817-06-16 01:54 J -14282569.57 -14282569.42 -14282569.27 0.0088 0.0021
 Mercury -43817-09-12 03:50 J -14282481.49 -14282481.34 -14282481.18 0.0088 0.0014
 Mercury -43817-12-09 05:59 J -14282393.41 -14282393.25 -14282393.10 0.0088 0.0007
 Mercury -43816-03-07 07:54 J -14282305.32 -14282305.17 -14282305.01 0.0088 0.0001
 Mercury -43816-06-03 09:50 J -14282217.24 -14282217.09 -14282216.93 0.0088 0.0007
 Mercury -43816-08-30 11:59 J -14282129.15 -14282129.00 -14282128.85 0.0088 0.0013
 Mercury -43816-11-26 13:54 J -14282041.07 -14282040.92 -14282040.77 0.0088 0.0020
 Mercury -43815-02-22 15:50 J -14281952.98 -14281952.84 -14281952.69 0.0088 0.0027
 Mercury -43815-05-21 17:30 J -14281864.90 -14281864.77 -14281864.61 0.0088 0.0035
 Mercury -43815-08-17 19:40 J -14281776.81 -14281776.68 -14281776.54 0.0088 0.0041
 Mercury -43815-11-13 21:35 J -14281688.72 -14281688.60 -14281688.46 0.0088 0.0048

Mercury -43814-02-09 23:30 J -14281600.63 -14281600.52 -14281600.39 0.0088 0.0054

Mercury -43814-05-09 01:26 J -14281512.54 -14281512.44 -14281512.32 0.0088 0.0061

Mercury -43814-08-05 03:21 J -14281424.45 -14281424.36 -14281424.26 0.0088 0.0068

Mercury -43814-11-01 05:02 J -14281336.35 -14281336.29 -14281336.19 0.0088 0.0075

Mercury -43813-01-28 07:11 J -14281248.25 -14281248.20 -14281248.13 0.0088 0.0081

Mercury -43813-04-25 08:52 J -14281160.14 -14281160.13 -14281160.09 0.0088 0.0088

Mars -43804-05-06 15:21 J -14277862.08 -14277861.86 -14277861.62 0.0089 0.0064

Mars -43802-04-02 14:09 J -14277166.20 -14277165.91 -14277165.59 0.0089 0.0037

Mars -43800-02-26 11:02 J -14276470.36 -14276470.04 -14276469.70 0.0089 0.0010

Mars -43798-01-23 05:02 J -14275774.61 -14275774.29 -14275773.96 0.0089 0.0017

Mars -43797-12-18 19:40 J -14275078.94 -14275078.68 -14275078.36 0.0089 0.0044

Mars -43795-11-14 09:35 J -14274383.29 -14274383.10 -14274382.88 0.0089 0.0069

Venus -43783-07-09 06:14 J -14270128.31 -14270128.24 -14270128.14 0.0089 0.0081

Venus -43782-02-19 18:28 J -14269902.85 -14269902.73 -14269902.57 0.0089 0.0067

Venus -43782-10-03 07:11 J -14269677.37 -14269677.20 -14269677.02 0.0089 0.0052

Venus -43781-05-15 19:11 J -14269451.88 -14269451.70 -14269451.49 0.0089 0.0039

Venus -43781-12-27 07:26 J -14269226.38 -14269226.19 -14269225.97 0.0089 0.0024

Venus -43780-08-09 19:54 J -14269000.88 -14269000.67 -14269000.45 0.0089 0.0009

Venus -43779-03-23 08:09 J -14268775.37 -14268775.16 -14268774.94 0.0089 0.0005

Venus -43779-11-03 20:23 J -14268549.86 -14268549.65 -14268549.44 0.0089 0.0020

Venus -43778-06-17 08:23 J -14268324.34 -14268324.15 -14268323.94 0.0089 0.0034

Venus -43777-01-28 20:38 J -14268098.81 -14268098.64 -14268098.45 0.0089 0.0048

Venus -43777-09-10 09:06 J -14267873.27 -14267873.12 -14267872.96 0.0089 0.0063

Venus -43776-04-23 20:52 J -14267647.72 -14267647.63 -14267647.50 0.0089 0.0077

Moon -43741-02-19 08:38 J -14254928.32 -14254928.14 -14254927.92 0.0089 0.0059

Earth -43741-02-19 09:50 J -14254928.25 -14254928.09 -14254927.89 0.0089 0.0063 *

Earth -43740-02-20 21:50 J -14254560.83 -14254560.59 -14254560.35 0.0089 0.0029

Moon -43740-02-20 23:16 J -14254560.74 -14254560.53 -14254560.28 0.0089 0.0034 *

Moon -43739-02-23 06:28 J -14254193.49 -14254193.23 -14254192.97 0.0089 0.0008

Earth -43739-02-23 09:35 J -14254193.36 -14254193.10 -14254192.84 0.0089 0.0004 *

Earth -43738-02-25 20:52 J -14253825.86 -14253825.63 -14253825.39 0.0089 0.0037
 Moon -43738-02-26 00:14 J -14253825.72 -14253825.49 -14253825.25 0.0089 0.0033 *
 Mercury -43737-01-09 14:52 J -14253507.92 -14253507.88 -14253507.82 0.0089 0.0084
 Moon -43737-02-28 04:33 J -14253458.42 -14253458.31 -14253458.15 0.0089 0.0075
 Earth -43737-02-28 08:38 J -14253458.29 -14253458.14 -14253457.98 0.0089 0.0070 *
 Mercury -43737-04-06 17:02 J -14253419.86 -14253419.79 -14253419.70 0.0089 0.0077
 Mercury -43737-07-03 19:11 J -14253331.78 -14253331.70 -14253331.59 0.0089 0.0070
 Mercury -43737-09-29 21:21 J -14253243.71 -14253243.61 -14253243.48 0.0089 0.0063
 Mercury -43737-12-26 23:59 J -14253155.63 -14253155.50 -14253155.38 0.0089 0.0055
 Mercury -43736-03-25 02:09 J -14253067.54 -14253067.41 -14253067.27 0.0089 0.0048
 Mercury -43736-06-21 04:18 J -14252979.46 -14252979.32 -14252979.17 0.0089 0.0041
 Mercury -43736-09-17 06:28 J -14252891.37 -14252891.23 -14252891.07 0.0089 0.0034
 Mercury -43736-12-14 08:38 J -14252803.28 -14252803.14 -14252802.97 0.0089 0.0027
 Mercury -43735-03-12 11:16 J -14252715.19 -14252715.03 -14252714.88 0.0089 0.0019
 Mercury -43735-06-08 13:26 J -14252627.10 -14252626.94 -14252626.78 0.0089 0.0012
 Mercury -43735-09-04 15:50 J -14252539.00 -14252538.84 -14252538.68 0.0089 0.0005
 Mercury -43735-12-01 17:59 J -14252450.91 -14252450.75 -14252450.58 0.0089 0.0003
 Mercury -43734-02-27 20:23 J -14252362.81 -14252362.65 -14252362.49 0.0089 0.0010
 Mercury -43734-05-26 22:33 J -14252274.71 -14252274.56 -14252274.39 0.0089 0.0018
 Mercury -43734-08-23 00:57 J -14252186.61 -14252186.46 -14252186.30 0.0089 0.0025
 Mercury -43734-11-19 03:21 J -14252098.51 -14252098.36 -14252098.21 0.0089 0.0032
 Mercury -43733-02-15 05:30 J -14252010.41 -14252010.27 -14252010.11 0.0089 0.0040
 Mercury -43733-05-13 08:09 J -14251922.30 -14251922.16 -14251922.02 0.0089 0.0047
 Mercury -43733-08-09 10:18 J -14251834.19 -14251834.07 -14251833.93 0.0089 0.0055
 Mercury -43733-11-05 12:57 J -14251746.08 -14251745.96 -14251745.85 0.0089 0.0062
 Mercury -43732-02-01 15:06 J -14251657.96 -14251657.87 -14251657.76 0.0089 0.0070
 Mercury -43732-04-30 17:16 J -14251569.84 -14251569.78 -14251569.68 0.0089 0.0078
 Mercury -43732-07-27 19:54 J -14251481.71 -14251481.67 -14251481.62 0.0089 0.0085
 Mars -43724-03-08 21:06 J -14248700.75 -14248700.62 -14248700.43 0.0089 0.0075
 Mars -43722-01-31 16:04 J -14248007.05 -14248006.83 -14248006.57 0.0089 0.0052

Mars	-43721-12-25 13:26 J	-14247313.20	-14247312.94	-14247312.64	0.0089	0.0029
Mars	-43719-11-19 12:28 J	-14246619.28	-14246618.98	-14246618.68	0.0089	0.0005
Mars	-43717-10-13 11:02 J	-14245925.31	-14245925.04	-14245924.73	0.0088	0.0020
Mars	-43715-09-07 12:42 J	-14245231.21	-14245230.97	-14245230.69	0.0088	0.0044
Mars	-43713-08-01 16:04 J	-14244537.00	-14244536.83	-14244536.61	0.0088	0.0068
Venus	-43701-08-21 20:09 J	-14240133.76	-14240133.66	-14240133.54	0.0088	0.0077
Venus	-43700-04-04 09:50 J	-14239908.23	-14239908.09	-14239907.92	0.0088	0.0062
Venus	-43700-11-15 23:59 J	-14239682.69	-14239682.50	-14239682.31	0.0088	0.0048
Venus	-43699-06-29 13:26 J	-14239457.14	-14239456.94	-14239456.72	0.0088	0.0033
Venus	-43698-02-10 03:21 J	-14239231.58	-14239231.36	-14239231.14	0.0088	0.0019
Venus	-43698-09-23 17:16 J	-14239006.01	-14239005.78	-14239005.56	0.0088	0.0004
Venus	-43697-05-06 06:57 J	-14238780.43	-14238780.21	-14238779.98	0.0088	0.0011
Venus	-43697-12-17 20:38 J	-14238554.85	-14238554.64	-14238554.42	0.0088	0.0025
Venus	-43696-07-31 10:04 J	-14238329.26	-14238329.08	-14238328.86	0.0088	0.0040
Venus	-43695-03-14 00:14 J	-14238103.66	-14238103.49	-14238103.30	0.0088	0.0054
Venus	-43695-10-25 13:40 J	-14237878.05	-14237877.93	-14237877.77	0.0088	0.0069
Venus	-43694-06-08 03:35 J	-14237652.41	-14237652.35	-14237652.26	0.0088	0.0083
Earth	-43659-08-22 21:35 J	-14224792.72	-14224792.60	-14224792.44	0.0088	0.0075
Moon	-43659-08-22 23:02 J	-14224792.68	-14224792.54	-14224792.39	0.0088	0.0072 *
Moon	-43658-08-25 06:57 J	-14224425.42	-14224425.21	-14224424.96	0.0088	0.0044
Earth	-43658-08-25 09:35 J	-14224425.32	-14224425.10	-14224424.86	0.0088	0.0042 *
Earth	-43657-08-26 21:21 J	-14224057.87	-14224057.61	-14224057.35	0.0088	0.0009
Moon	-43657-08-26 23:59 J	-14224057.75	-14224057.50	-14224057.24	0.0088	0.0005 *
Moon	-43656-08-29 05:16 J	-14223690.53	-14223690.28	-14223690.02	0.0088	0.0021
Earth	-43656-08-29 08:52 J	-14223690.37	-14223690.13	-14223689.87	0.0088	0.0024 *
Earth	-43655-08-31 19:54 J	-14223322.84	-14223322.67	-14223322.45	0.0088	0.0058
Moon	-43655-08-31 23:30 J	-14223322.69	-14223322.52	-14223322.31	0.0088	0.0061 *
Mercury	-43654-01-10 05:45 J	-14223191.31	-14223191.26	-14223191.20	0.0088	0.0083
Mercury	-43654-04-08 07:40 J	-14223103.25	-14223103.18	-14223103.09	0.0088	0.0076
Mercury	-43654-07-05 09:50 J	-14223015.18	-14223015.09	-14223014.98	0.0088	0.0069

Moon -43654-09-03 04:04 J -14222955.35 -14222955.33 -14222955.24 0.0088 0.0087
 Mercury -43654-10-01 11:59 J -14222927.10 -14222927.00 -14222926.88 0.0088 0.0061
 Mercury -43654-12-28 13:54 J -14222839.03 -14222838.92 -14222838.78 0.0088 0.0055
 Mercury -43653-03-25 16:04 J -14222750.95 -14222750.83 -14222750.69 0.0088 0.0048
 Mercury -43653-06-21 18:14 J -14222662.87 -14222662.74 -14222662.59 0.0088 0.0040
 Mercury -43653-09-17 20:09 J -14222574.79 -14222574.66 -14222574.50 0.0088 0.0034
 Mercury -43653-12-14 22:18 J -14222486.71 -14222486.57 -14222486.41 0.0088 0.0026
 Mercury -43652-03-13 00:28 J -14222398.63 -14222398.48 -14222398.33 0.0088 0.0019
 Mercury -43652-06-09 02:23 J -14222310.55 -14222310.40 -14222310.24 0.0088 0.0013
 Mercury -43652-09-05 04:33 J -14222222.46 -14222222.31 -14222222.15 0.0088 0.0005
 Mercury -43652-12-02 06:42 J -14222134.38 -14222134.22 -14222134.07 0.0088 0.0003
 Mercury -43651-02-28 08:38 J -14222046.29 -14222046.14 -14222045.99 0.0088 0.0009
 Mercury -43651-05-27 10:33 J -14221958.21 -14221958.06 -14221957.91 0.0088 0.0016
 Mercury -43651-08-23 12:28 J -14221870.12 -14221869.98 -14221869.83 0.0088 0.0022
 Mercury -43651-11-19 14:23 J -14221782.04 -14221781.90 -14221781.75 0.0088 0.0029
 Mercury -43650-02-15 16:18 J -14221693.95 -14221693.82 -14221693.67 0.0088 0.0036
 Mercury -43650-05-14 18:28 J -14221605.86 -14221605.73 -14221605.60 0.0088 0.0043
 Mercury -43650-08-10 20:09 J -14221517.77 -14221517.66 -14221517.52 0.0088 0.0050
 Mercury -43650-11-06 22:04 J -14221429.68 -14221429.58 -14221429.45 0.0088 0.0057
 Mercury -43649-02-03 00:14 J -14221341.59 -14221341.49 -14221341.38 0.0088 0.0063
 Mercury -43649-05-01 01:54 J -14221253.50 -14221253.42 -14221253.32 0.0088 0.0070
 Mercury -43649-07-28 03:50 J -14221165.40 -14221165.34 -14221165.25 0.0088 0.0077
 Mercury -43649-10-24 05:59 J -14221077.30 -14221077.25 -14221077.20 0.0088 0.0083
 Mars -43641-12-17 23:02 J -14218100.69 -14218100.54 -14218100.33 0.0089 0.0075
 Mars -43639-11-13 23:45 J -14217404.78 -14217404.51 -14217404.21 0.0089 0.0047
 Mars -43637-10-09 22:18 J -14216708.89 -14216708.57 -14216708.24 0.0089 0.0019
 Mars -43635-09-05 18:42 J -14216013.04 -14216012.72 -14216012.38 0.0089 0.0009
 Mars -43633-08-01 12:28 J -14215317.26 -14215316.98 -14215316.66 0.0089 0.0036
 Mars -43631-06-28 03:35 J -14214621.57 -14214621.35 -14214621.10 0.0089 0.0062
 Mars -43629-05-23 16:04 J -14213925.85 -14213925.83 -14213925.76 0.0089 0.0088

Venus	-43619-10-10 15:50 J	-14210133.85	-14210133.84	-14210133.80	0.0089	0.0088
Venus	-43618-05-24 04:04 J	-14209908.43	-14209908.33	-14209908.20	0.0089	0.0074
Venus	-43617-01-04 16:18 J	-14209682.96	-14209682.82	-14209682.64	0.0089	0.0060
Venus	-43617-08-17 05:02 J	-14209457.48	-14209457.29	-14209457.11	0.0089	0.0046
Venus	-43616-03-30 17:02 J	-14209231.98	-14209231.79	-14209231.58	0.0089	0.0031
Venus	-43616-11-11 05:16 J	-14209006.49	-14209006.28	-14209006.06	0.0089	0.0017
Venus	-43615-06-24 17:30 J	-14208780.98	-14208780.77	-14208780.55	0.0089	0.0003
Venus	-43614-02-05 05:45 J	-14208555.47	-14208555.26	-14208555.05	0.0089	0.0012
Venus	-43614-09-18 17:45 J	-14208329.95	-14208329.76	-14208329.54	0.0089	0.0027
Venus	-43613-05-01 05:59 J	-14208104.43	-14208104.25	-14208104.04	0.0089	0.0040
Venus	-43613-12-12 18:14 J	-14207878.90	-14207878.74	-14207878.56	0.0089	0.0054
Venus	-43612-07-26 06:28 J	-14207653.36	-14207653.23	-14207653.09	0.0089	0.0069
Venus	-43611-03-08 18:42 J	-14207427.79	-14207427.72	-14207427.64	0.0089	0.0083
Earth	-43577-02-18 16:04 J	-14195027.92	-14195027.83	-14195027.71	0.0089	0.0082
Moon	-43577-02-18 18:28 J	-14195027.82	-14195027.73	-14195027.59	0.0089	0.0079 *
Moon	-43576-02-20 00:28 J	-14194660.67	-14194660.48	-14194660.24	0.0089	0.0050
Earth	-43576-02-20 03:35 J	-14194660.55	-14194660.35	-14194660.12	0.0089	0.0048 *
Earth	-43575-02-22 15:21 J	-14194293.11	-14194292.86	-14194292.61	0.0089	0.0014
Moon	-43575-02-22 18:57 J	-14194292.96	-14194292.71	-14194292.45	0.0089	0.0013 *
Moon	-43574-02-24 23:30 J	-14193925.76	-14193925.52	-14193925.26	0.0089	0.0017
Earth	-43574-02-25 02:52 J	-14193925.62	-14193925.38	-14193925.12	0.0089	0.0019 *
Earth	-43573-02-27 14:09 J	-14193558.09	-14193557.91	-14193557.68	0.0089	0.0053
Moon	-43573-02-27 17:16 J	-14193557.97	-14193557.78	-14193557.55	0.0089	0.0054 *
Mercury	-43573-07-09 11:16 J	-14193425.03	-14193425.03	-14193425.01	0.0089	0.0089
Mercury	-43573-10-05 13:11 J	-14193336.99	-14193336.95	-14193336.87	0.0089	0.0082
Mercury	-43572-01-01 15:21 J	-14193248.93	-14193248.86	-14193248.76	0.0089	0.0075
Moon	-43572-02-28 23:30 J	-14193190.56	-14193190.52	-14193190.42	0.0089	0.0085
Earth	-43572-03-01 01:54 J	-14193190.46	-14193190.42	-14193190.34	0.0089	0.0086 *
Mercury	-43572-03-30 17:59 J	-14193160.85	-14193160.75	-14193160.65	0.0089	0.0067
Mercury	-43572-06-26 20:09 J	-14193072.77	-14193072.66	-14193072.54	0.0089	0.0060

Mercury -43572-09-22 22:18 J -14192984.69 -14192984.57 -14192984.44 0.0089 0.0053
 Mercury -43572-12-20 00:28 J -14192896.61 -14192896.48 -14192896.34 0.0089 0.0046
 Mercury -43571-03-18 02:38 J -14192808.52 -14192808.39 -14192808.24 0.0089 0.0039
 Mercury -43571-06-14 04:47 J -14192720.44 -14192720.30 -14192720.14 0.0089 0.0032
 Mercury -43571-09-10 07:26 J -14192632.35 -14192632.19 -14192632.04 0.0089 0.0024
 Mercury -43571-12-07 09:35 J -14192544.26 -14192544.10 -14192543.94 0.0089 0.0017
 Mercury -43570-03-05 11:45 J -14192456.16 -14192456.01 -14192455.84 0.0089 0.0010
 Mercury -43570-06-01 14:09 J -14192368.07 -14192367.91 -14192367.75 0.0089 0.0003
 Mercury -43570-08-28 16:33 J -14192279.97 -14192279.81 -14192279.65 0.0089 0.0005
 Mercury -43570-11-24 18:42 J -14192191.88 -14192191.72 -14192191.56 0.0089 0.0013
 Mercury -43569-02-20 21:06 J -14192103.78 -14192103.62 -14192103.46 0.0089 0.0020
 Mercury -43569-05-18 23:30 J -14192015.68 -14192015.52 -14192015.37 0.0089 0.0027
 Mercury -43569-08-15 01:40 J -14191927.57 -14191927.43 -14191927.27 0.0089 0.0035
 Mercury -43569-11-11 04:04 J -14191839.47 -14191839.33 -14191839.18 0.0089 0.0042
 Mercury -43568-02-07 06:14 J -14191751.36 -14191751.24 -14191751.09 0.0089 0.0050
 Mercury -43568-05-06 08:52 J -14191663.25 -14191663.13 -14191663.00 0.0089 0.0057
 Mercury -43568-08-02 11:02 J -14191575.14 -14191575.04 -14191574.92 0.0089 0.0065
 Mercury -43568-10-29 13:40 J -14191487.02 -14191486.93 -14191486.84 0.0089 0.0072
 Mercury -43567-01-25 15:50 J -14191398.90 -14191398.84 -14191398.76 0.0089 0.0080
 Mercury -43567-04-23 17:59 J -14191310.75 -14191310.75 -14191310.70 0.0089 0.0088
 Mars -43561-10-22 05:45 J -14188937.35 -14188937.26 -14188937.15 0.0089 0.0083
 Mars -43559-09-16 00:28 J -14188243.68 -14188243.48 -14188243.25 0.0089 0.0060
 Mars -43557-08-09 19:26 J -14187549.94 -14187549.69 -14187549.40 0.0089 0.0037
 Mars -43555-07-04 16:33 J -14186856.09 -14186855.81 -14186855.50 0.0089 0.0013
 Mars -43553-05-28 16:18 J -14186162.11 -14186161.82 -14186161.52 0.0089 0.0012
 Mars -43551-04-22 15:35 J -14185468.10 -14185467.85 -14185467.55 0.0088 0.0037
 Mars -43549-03-16 17:30 J -14184773.97 -14184773.77 -14184773.53 0.0088 0.0061
 Mars -43547-02-08 22:04 J -14184079.66 -14184079.58 -14184079.50 0.0088 0.0085
 Venus -43537-11-23 04:18 J -14180139.37 -14180139.32 -14180139.23 0.0088 0.0083
 Venus -43536-07-06 17:59 J -14179913.87 -14179913.75 -14179913.59 0.0088 0.0069

Venus -43535-02-17 08:09 J -14179688.33 -14179688.16 -14179687.98 0.0088 0.0054
 Venus -43535-09-30 21:50 J -14179462.78 -14179462.59 -14179462.38 0.0088 0.0040
 Jupiter -43535-10-20 11:45 J -14179443.46 -14179443.01 -14179442.45 0.0088 0.0042
 Venus -43534-05-14 11:45 J -14179237.22 -14179237.01 -14179236.79 0.0088 0.0026
 Venus -43534-12-26 01:26 J -14179011.66 -14179011.44 -14179011.21 0.0088 0.0011
 Venus -43533-08-07 15:21 J -14178786.08 -14178785.86 -14178785.63 0.0088 0.0004
 Venus -43532-03-21 05:02 J -14178560.50 -14178560.29 -14178560.06 0.0088 0.0019
 Venus -43532-11-01 18:57 J -14178334.91 -14178334.71 -14178334.49 0.0088 0.0033
 Venus -43531-06-15 08:38 J -14178109.32 -14178109.14 -14178108.94 0.0088 0.0047
 Venus -43530-01-26 22:33 J -14177883.71 -14177883.56 -14177883.39 0.0088 0.0061
 Venus -43530-09-09 11:59 J -14177658.09 -14177658.00 -14177657.86 0.0088 0.0076
 Moon -43495-08-22 02:23 J -14164892.40 -14164892.40 -14164892.38 0.0088 0.0088
 Earth -43494-08-24 16:18 J -14164524.98 -14164524.82 -14164524.60 0.0088 0.0060
 Moon -43494-08-24 19:40 J -14164524.83 -14164524.68 -14164524.47 0.0088 0.0064 *
 Moon -43493-08-26 01:11 J -14164157.69 -14164157.45 -14164157.19 0.0088 0.0023
 Earth -43493-08-26 04:33 J -14164157.54 -14164157.31 -14164157.05 0.0088 0.0026 *
 Earth -43492-08-28 16:18 J -14163790.07 -14163789.82 -14163789.56 0.0088 0.0008
 Moon -43492-08-28 20:09 J -14163789.92 -14163789.66 -14163789.40 0.0088 0.0004 *
 Moon -43491-08-31 00:57 J -14163422.66 -14163422.46 -14163422.22 0.0088 0.0045
 Earth -43491-08-31 03:50 J -14163422.56 -14163422.34 -14163422.09 0.0088 0.0041 *
 Mercury -43490-07-11 02:09 J -14163108.41 -14163108.41 -14163108.36 0.0088 0.0088
 Earth -43490-09-02 15:06 J -14163054.99 -14163054.87 -14163054.70 0.0088 0.0074
 Moon -43490-09-02 17:45 J -14163054.91 -14163054.76 -14163054.59 0.0088 0.0071 *
 Mercury -43490-10-07 04:47 J -14163020.37 -14163020.30 -14163020.23 0.0088 0.0080
 Mercury -43489-01-03 06:42 J -14162932.30 -14162932.22 -14162932.12 0.0088 0.0073
 Mercury -43489-03-31 08:52 J -14162844.23 -14162844.13 -14162844.02 0.0088 0.0066
 Mercury -43489-06-27 10:47 J -14162756.15 -14162756.05 -14162755.92 0.0088 0.0059
 Mercury -43489-09-23 12:57 J -14162668.08 -14162667.96 -14162667.82 0.0088 0.0052
 Mercury -43489-12-20 15:06 J -14162580.00 -14162579.87 -14162579.73 0.0088 0.0044
 Mercury -43488-03-18 17:16 J -14162491.92 -14162491.78 -14162491.64 0.0088 0.0037

Mercury -43488-06-14 19:11 J -14162403.84 -14162403.70 -14162403.54 0.0088 0.0031

Mercury -43488-09-10 21:21 J -14162315.76 -14162315.61 -14162315.46 0.0088 0.0023

Mercury -43488-12-07 23:30 J -14162227.67 -14162227.52 -14162227.37 0.0088 0.0016

Mercury -43487-03-06 01:26 J -14162139.59 -14162139.44 -14162139.28 0.0088 0.0010

Mercury -43487-06-02 03:35 J -14162051.51 -14162051.35 -14162051.20 0.0088 0.0002

Mercury -43487-08-29 05:30 J -14161963.42 -14161963.27 -14161963.11 0.0088 0.0005

Mercury -43487-11-25 07:40 J -14161875.34 -14161875.18 -14161875.03 0.0088 0.0012

Mercury -43486-02-21 09:35 J -14161787.25 -14161787.10 -14161786.95 0.0088 0.0018

Mercury -43486-05-20 11:30 J -14161699.16 -14161699.02 -14161698.87 0.0088 0.0025

Mercury -43486-08-16 13:26 J -14161611.08 -14161610.94 -14161610.79 0.0088 0.0032

Mercury -43486-11-12 15:35 J -14161522.99 -14161522.85 -14161522.72 0.0088 0.0039

Mercury -43485-02-08 17:16 J -14161434.90 -14161434.78 -14161434.64 0.0088 0.0046

Mercury -43485-05-06 19:11 J -14161346.81 -14161346.70 -14161346.57 0.0088 0.0053

Mercury -43485-08-02 21:06 J -14161258.72 -14161258.62 -14161258.50 0.0088 0.0059

Mercury -43485-10-29 23:16 J -14161170.63 -14161170.53 -14161170.43 0.0088 0.0066

Mercury -43484-01-26 00:57 J -14161082.53 -14161082.46 -14161082.36 0.0088 0.0073

Mercury -43484-04-24 02:38 J -14160994.43 -14160994.39 -14160994.30 0.0088 0.0080

Mercury -43484-07-21 04:47 J -14160906.32 -14160906.30 -14160906.26 0.0088 0.0086

Mars -43477-07-31 08:09 J -14158339.23 -14158339.16 -14158339.03 0.0089 0.0085

Mars -43475-06-27 10:18 J -14157643.31 -14157643.07 -14157642.79 0.0089 0.0057

Mars -43473-05-23 10:33 J -14156947.36 -14156947.06 -14156946.72 0.0089 0.0029

Mars -43471-04-19 08:23 J -14156251.49 -14156251.15 -14156250.82 0.0089 0.0001

Mars -43469-03-15 04:18 J -14155555.63 -14155555.32 -14155555.00 0.0089 0.0027

Mars -43467-02-08 21:21 J -14154859.84 -14154859.61 -14154859.32 0.0089 0.0055

Mars -43465-01-05 12:14 J -14154164.11 -14154163.99 -14154163.85 0.0089 0.0081

Venus -43454-08-25 14:38 J -14149913.97 -14149913.89 -14149913.80 0.0089 0.0081

Venus -43453-04-07 02:52 J -14149688.52 -14149688.38 -14149688.23 0.0089 0.0067

Venus -43453-11-18 15:06 J -14149463.04 -14149462.87 -14149462.69 0.0089 0.0052

Venus -43452-07-02 03:06 J -14149237.55 -14149237.37 -14149237.16 0.0089 0.0039

Venus -43451-02-12 15:21 J -14149012.05 -14149011.86 -14149011.64 0.0089 0.0025

Venus	-43451-09-26 03:50 J	-14148786.54	-14148786.34	-14148786.12	0.0089	0.0011
Venus	-43450-05-09 16:18 J	-14148561.04	-14148560.82	-14148560.61	0.0089	0.0005
Venus	-43450-12-21 04:18 J	-14148335.53	-14148335.32	-14148335.11	0.0089	0.0019
Venus	-43449-08-02 16:18 J	-14148110.01	-14148109.82	-14148109.61	0.0089	0.0033
Venus	-43448-03-16 04:18 J	-14147884.48	-14147884.32	-14147884.12	0.0089	0.0047
Venus	-43448-10-27 16:33 J	-14147658.95	-14147658.81	-14147658.64	0.0089	0.0061
Venus	-43447-06-10 04:47 J	-14147433.40	-14147433.30	-14147433.17	0.0089	0.0075
Venus	-43446-01-21 17:02 J	-14147207.79	-14147207.79	-14147207.77	0.0089	0.0089
Earth	-43412-02-19 11:02 J	-14134760.19	-14134760.04	-14134759.85	0.0089	0.0066
Moon	-43412-02-19 14:23 J	-14134760.06	-14134759.90	-14134759.69	0.0089	0.0063 *
Moon	-43411-02-21 18:57 J	-14134392.92	-14134392.71	-14134392.46	0.0089	0.0037
Earth	-43411-02-21 22:47 J	-14134392.78	-14134392.55	-14134392.30	0.0089	0.0032 *
Earth	-43410-02-24 10:18 J	-14134025.33	-14134025.07	-14134024.81	0.0089	0.0001
Moon	-43410-02-24 12:57 J	-14134025.22	-14134024.96	-14134024.70	0.0089	0.0005 *
Moon	-43409-02-26 20:23 J	-14133657.88	-14133657.65	-14133657.42	0.0089	0.0031
Earth	-43409-02-26 21:50 J	-14133657.82	-14133657.59	-14133657.35	0.0089	0.0035 *
Earth	-43408-02-28 08:52 J	-14133290.26	-14133290.13	-14133289.94	0.0089	0.0069
Moon	-43408-02-28 09:50 J	-14133290.22	-14133290.09	-14133289.92	0.0089	0.0073 *
Mercury	-43408-04-05 09:50 J	-14133254.11	-14133254.09	-14133254.04	0.0089	0.0086
Mercury	-43408-07-02 11:59 J	-14133166.06	-14133166.00	-14133165.92	0.0089	0.0079
Mercury	-43408-09-28 14:09 J	-14133077.99	-14133077.91	-14133077.80	0.0089	0.0072
Mercury	-43408-12-25 16:18 J	-14132989.91	-14132989.82	-14132989.70	0.0089	0.0065
Mercury	-43407-03-23 18:28 J	-14132901.83	-14132901.73	-14132901.59	0.0089	0.0058
Mercury	-43407-06-19 21:06 J	-14132813.75	-14132813.62	-14132813.49	0.0089	0.0050
Mercury	-43407-09-15 23:16 J	-14132725.67	-14132725.53	-14132725.39	0.0089	0.0043
Mercury	-43407-12-13 01:26 J	-14132637.58	-14132637.44	-14132637.29	0.0089	0.0036
Mercury	-43406-03-11 03:35 J	-14132549.49	-14132549.35	-14132549.19	0.0089	0.0029
Mercury	-43406-06-07 05:59 J	-14132461.40	-14132461.25	-14132461.09	0.0089	0.0022
Mercury	-43406-09-03 08:23 J	-14132373.31	-14132373.15	-14132373.00	0.0089	0.0014
Mercury	-43406-11-30 10:33 J	-14132285.22	-14132285.06	-14132284.90	0.0089	0.0007

Mercury -43405-02-26 12:57 J -14132197.12 -14132196.96 -14132196.80 0.0089 0.0002
 Mercury -43405-05-24 15:06 J -14132109.03 -14132108.87 -14132108.71 0.0089 0.0008
 Mercury -43405-08-20 17:30 J -14132020.93 -14132020.77 -14132020.61 0.0089 0.0015
 Mercury -43405-11-16 19:40 J -14131932.83 -14131932.68 -14131932.52 0.0089 0.0023
 Mercury -43404-02-12 22:04 J -14131844.73 -14131844.58 -14131844.43 0.0089 0.0030
 Mercury -43404-05-12 00:14 J -14131756.63 -14131756.49 -14131756.33 0.0089 0.0038
 Mercury -43404-08-08 02:38 J -14131668.52 -14131668.39 -14131668.24 0.0089 0.0045
 Mercury -43404-11-04 04:47 J -14131580.42 -14131580.30 -14131580.15 0.0089 0.0053
 Mercury -43403-01-31 07:26 J -14131492.31 -14131492.19 -14131492.07 0.0089 0.0060
 Mercury -43403-04-29 09:35 J -14131404.19 -14131404.10 -14131403.98 0.0089 0.0068
 Mercury -43403-07-26 12:14 J -14131316.07 -14131315.99 -14131315.90 0.0089 0.0075
 Mercury -43403-10-22 14:23 J -14131227.94 -14131227.90 -14131227.83 0.0089 0.0083
 Mars -43395-05-01 08:09 J -14128480.31 -14128480.16 -14128479.94 0.0089 0.0069
 Mars -43393-03-25 04:18 J -14127786.56 -14127786.32 -14127786.05 0.0089 0.0045
 Mars -43391-02-17 00:14 J -14127092.76 -14127092.49 -14127092.19 0.0089 0.0021
 Mars -43389-01-11 21:35 J -14126398.89 -14126398.60 -14126398.30 0.0089 0.0004
 Mars -43388-12-05 21:35 J -14125704.87 -14125704.60 -14125704.31 0.0089 0.0029
 Mars -43386-10-30 21:21 J -14125010.82 -14125010.61 -14125010.35 0.0088 0.0054
 Mars -43384-09-23 22:47 J -14124316.65 -14124316.55 -14124316.37 0.0088 0.0079
 Venus -43372-10-08 03:21 J -14119919.46 -14119919.36 -14119919.22 0.0088 0.0075
 Venus -43371-05-21 17:02 J -14119693.93 -14119693.79 -14119693.61 0.0088 0.0061
 Venus -43370-01-02 06:57 J -14119468.39 -14119468.21 -14119468.01 0.0088 0.0047
 Venus -43370-08-15 20:38 J -14119242.84 -14119242.64 -14119242.42 0.0088 0.0032
 Venus -43369-03-28 10:33 J -14119017.27 -14119017.06 -14119016.83 0.0088 0.0018
 Venus -43369-11-09 00:28 J -14118791.70 -14118791.48 -14118791.25 0.0088 0.0003
 Jupiter -43369-12-20 18:28 J -14118750.18 -14118749.73 -14118749.22 0.0088 0.0048
 Venus -43368-06-22 14:09 J -14118566.13 -14118565.91 -14118565.68 0.0088 0.0011
 Venus -43367-02-03 04:04 J -14118340.55 -14118340.33 -14118340.11 0.0088 0.0025
 Venus -43367-09-16 17:30 J -14118114.95 -14118114.77 -14118114.55 0.0088 0.0040
 Venus -43366-04-30 07:26 J -14117889.35 -14117889.19 -14117889.00 0.0088 0.0055

Venus -43366-12-11 20:52 J -14117663.74 -14117663.63 -14117663.46 0.0088 0.0070
 Venus -43365-07-24 10:47 J -14117438.10 -14117438.05 -14117437.95 0.0088 0.0083
 Moon -43330-08-23 20:52 J -14104624.74 -14104624.63 -14104624.47 0.0088 0.0074
 Earth -43330-08-24 00:28 J -14104624.58 -14104624.48 -14104624.32 0.0088 0.0077 *
 Earth -43329-08-25 12:14 J -14104257.19 -14104256.99 -14104256.74 0.0088 0.0044
 Moon -43329-08-25 15:50 J -14104257.05 -14104256.84 -14104256.60 0.0088 0.0046 *
 Moon -43328-08-27 21:50 J -14103889.84 -14103889.59 -14103889.34 0.0088 0.0006
 Earth -43328-08-28 00:42 J -14103889.73 -14103889.47 -14103889.21 0.0088 0.0010 *
 Earth -43327-08-30 11:59 J -14103522.23 -14103522.00 -14103521.73 0.0088 0.0025
 Moon -43327-08-30 13:40 J -14103522.18 -14103521.93 -14103521.66 0.0088 0.0022 *
 Moon -43326-09-01 22:47 J -14103154.70 -14103154.55 -14103154.34 0.0088 0.0061
 Earth -43326-09-01 23:30 J -14103154.70 -14103154.52 -14103154.30 0.0088 0.0057 *
 Mercury -43325-04-06 01:40 J -14102937.48 -14102937.43 -14102937.38 0.0088 0.0084
 Mercury -43325-07-03 03:35 J -14102849.42 -14102849.35 -14102849.26 0.0088 0.0077
 Moon -43325-09-03 11:02 J -14102787.08 -14102787.04 -14102786.99 0.0088 0.0087
 Mercury -43325-09-29 05:45 J -14102761.35 -14102761.26 -14102761.15 0.0088 0.0069
 Mercury -43325-12-26 07:54 J -14102673.27 -14102673.17 -14102673.05 0.0088 0.0062
 Mercury -43324-03-24 09:50 J -14102585.20 -14102585.09 -14102584.95 0.0088 0.0056
 Mercury -43324-06-20 11:59 J -14102497.12 -14102497.00 -14102496.86 0.0088 0.0048
 Mercury -43324-09-16 14:09 J -14102409.04 -14102408.91 -14102408.76 0.0088 0.0041
 Mercury -43324-12-13 16:18 J -14102320.96 -14102320.82 -14102320.67 0.0088 0.0034
 Mercury -43323-03-11 18:14 J -14102232.88 -14102232.74 -14102232.58 0.0088 0.0028
 Mercury -43323-06-07 20:23 J -14102144.79 -14102144.65 -14102144.49 0.0088 0.0020
 Mercury -43323-09-03 22:33 J -14102056.71 -14102056.56 -14102056.40 0.0088 0.0013
 Mercury -43323-12-01 00:42 J -14101968.63 -14101968.47 -14101968.32 0.0088 0.0006
 Mercury -43322-02-27 02:38 J -14101880.54 -14101880.39 -14101880.23 0.0088 0.0001
 Mercury -43322-05-26 04:33 J -14101792.46 -14101792.31 -14101792.15 0.0088 0.0008
 Mercury -43322-08-22 06:42 J -14101704.37 -14101704.22 -14101704.07 0.0088 0.0015
 Mercury -43322-11-18 08:38 J -14101616.29 -14101616.14 -14101615.99 0.0088 0.0022
 Mercury -43321-02-14 10:33 J -14101528.20 -14101528.06 -14101527.91 0.0088 0.0029

Mercury -43321-05-12 12:28 J -14101440.11 -14101439.98 -14101439.83 0.0088 0.0036

Mercury -43321-08-08 14:23 J -14101352.03 -14101351.90 -14101351.76 0.0088 0.0042

Mercury -43321-11-04 16:33 J -14101263.94 -14101263.81 -14101263.68 0.0088 0.0049

Mercury -43320-01-31 18:28 J -14101175.85 -14101175.73 -14101175.61 0.0088 0.0056

Mercury -43320-04-29 20:09 J -14101087.75 -14101087.66 -14101087.54 0.0088 0.0063

Mercury -43320-07-26 22:04 J -14100999.66 -14100999.58 -14100999.47 0.0088 0.0069

Mercury -43320-10-23 00:14 J -14100911.56 -14100911.49 -14100911.41 0.0088 0.0076

Mercury -43319-01-19 01:54 J -14100823.46 -14100823.42 -14100823.35 0.0088 0.0083

Mars -43311-02-07 22:47 J -14097881.75 -14097881.55 -14097881.31 0.0089 0.0067

Mars -43309-01-04 23:45 J -14097185.78 -14097185.51 -14097185.18 0.0089 0.0039

Mars -43308-12-01 00:14 J -14096489.82 -14096489.49 -14096489.16 0.0089 0.0010

Mars -43306-10-27 20:52 J -14095793.94 -14095793.63 -14095793.29 0.0089 0.0019

Mars -43304-09-22 16:04 J -14095098.09 -14095097.83 -14095097.53 0.0089 0.0047

Mars -43302-08-19 09:35 J -14094402.27 -14094402.10 -14094401.91 0.0089 0.0074

Venus -43290-11-27 00:42 J -14089919.49 -14089919.47 -14089919.40 0.0089 0.0087

Venus -43289-07-09 12:57 J -14089694.06 -14089693.96 -14089693.81 0.0089 0.0073

Venus -43288-02-20 01:26 J -14089468.58 -14089468.44 -14089468.26 0.0089 0.0059

Venus -43288-10-03 14:09 J -14089243.09 -14089242.91 -14089242.72 0.0089 0.0045

Venus -43287-05-17 02:23 J -14089017.60 -14089017.40 -14089017.19 0.0089 0.0031

Venus -43287-12-28 14:38 J -14088792.10 -14088791.89 -14088791.68 0.0089 0.0016

Venus -43286-08-11 02:52 J -14088566.59 -14088566.38 -14088566.16 0.0089 0.0002

Venus -43285-03-23 14:52 J -14088341.08 -14088340.88 -14088340.66 0.0089 0.0012

Venus -43285-11-04 03:06 J -14088115.57 -14088115.37 -14088115.16 0.0089 0.0026

Venus -43284-06-17 15:06 J -14087890.05 -14087889.87 -14087889.66 0.0089 0.0040

Venus -43283-01-29 03:06 J -14087664.52 -14087664.37 -14087664.18 0.0089 0.0055

Venus -43283-09-11 15:21 J -14087438.97 -14087438.86 -14087438.70 0.0089 0.0069

Venus -43282-04-25 03:35 J -14087213.41 -14087213.35 -14087213.25 0.0089 0.0082

Moon -43248-02-18 16:04 J -14074859.91 -14074859.83 -14074859.70 0.0089 0.0081

Earth -43248-02-18 19:26 J -14074859.77 -14074859.69 -14074859.59 0.0089 0.0083 *

Earth -43247-02-21 06:28 J -14074492.42 -14074492.23 -14074492.00 0.0089 0.0050

Moon -43247-02-21 09:35 J -14074492.31 -14074492.10 -14074491.88 0.0089 0.0052 *
 Moon -43246-02-23 17:16 J -14074125.02 -14074124.78 -14074124.53 0.0089 0.0013
 Earth -43246-02-23 18:14 J -14074124.98 -14074124.74 -14074124.48 0.0089 0.0016 *
 Moon -43245-02-26 05:59 J -14073757.51 -14073757.25 -14073756.99 0.0089 0.0015
 Earth -43245-02-26 05:45 J -14073757.50 -14073757.26 -14073757.00 0.0089 0.0018 *
 Earth -43244-02-27 17:02 J -14073389.98 -14073389.79 -14073389.56 0.0089 0.0052
 Moon -43244-02-27 17:45 J -14073389.93 -14073389.76 -14073389.54 0.0089 0.0054 *
 Mercury -43244-12-31 08:38 J -14073083.18 -14073083.14 -14073083.07 0.0089 0.0083
 Moon -43243-03-02 01:54 J -14073022.49 -14073022.42 -14073022.30 0.0089 0.0083
 Earth -43243-03-02 04:18 J -14073022.35 -14073022.32 -14073022.22 0.0089 0.0086 *
 Mercury -43243-03-29 10:47 J -14072995.11 -14072995.05 -14072994.95 0.0089 0.0076
 Mercury -43243-06-25 12:57 J -14072907.04 -14072906.96 -14072906.84 0.0089 0.0069
 Mercury -43243-09-21 15:35 J -14072818.96 -14072818.85 -14072818.74 0.0089 0.0061
 Mercury -43243-12-18 17:45 J -14072730.88 -14072730.76 -14072730.63 0.0089 0.0054
 Mercury -43242-03-16 19:54 J -14072642.80 -14072642.67 -14072642.53 0.0089 0.0047
 Mercury -43242-06-12 22:04 J -14072554.72 -14072554.58 -14072554.43 0.0089 0.0040
 Mercury -43242-09-09 00:14 J -14072466.63 -14072466.49 -14072466.33 0.0089 0.0033
 Mercury -43242-12-06 02:23 J -14072378.54 -14072378.40 -14072378.24 0.0089 0.0026
 Mercury -43241-03-03 04:47 J -14072290.45 -14072290.30 -14072290.14 0.0089 0.0018
 Mercury -43241-05-30 07:11 J -14072202.36 -14072202.20 -14072202.04 0.0089 0.0011
 Mercury -43241-08-26 09:21 J -14072114.27 -14072114.11 -14072113.94 0.0089 0.0004
 Mercury -43241-11-22 11:45 J -14072026.17 -14072026.01 -14072025.85 0.0089 0.0004
 Mercury -43240-02-18 13:54 J -14071938.08 -14071937.92 -14071937.76 0.0089 0.0011
 Mercury -43240-05-17 16:18 J -14071849.98 -14071849.82 -14071849.66 0.0089 0.0019
 Mercury -43240-08-13 18:28 J -14071761.88 -14071761.73 -14071761.57 0.0089 0.0026
 Mercury -43240-11-09 20:38 J -14071673.78 -14071673.64 -14071673.48 0.0089 0.0034
 Mercury -43239-02-05 23:16 J -14071585.67 -14071585.53 -14071585.38 0.0089 0.0041
 Mercury -43239-05-05 01:26 J -14071497.57 -14071497.44 -14071497.30 0.0089 0.0049
 Mercury -43239-08-01 03:50 J -14071409.46 -14071409.34 -14071409.21 0.0089 0.0056
 Mercury -43239-10-28 05:59 J -14071321.35 -14071321.25 -14071321.12 0.0089 0.0064

Mercury -43238-01-24 08:38 J -14071233.23 -14071233.14 -14071233.04 0.0089 0.0071
 Mercury -43238-04-22 10:47 J -14071145.11 -14071145.05 -14071144.96 0.0089 0.0079
 Mercury -43238-07-19 12:57 J -14071056.97 -14071056.96 -14071056.90 0.0089 0.0087
 Mars -43232-12-14 20:23 J -14068716.78 -14068716.65 -14068716.50 0.0089 0.0077
 Mars -43230-11-08 14:23 J -14068023.13 -14068022.90 -14068022.66 0.0089 0.0053
 Mars -43228-10-02 09:50 J -14067329.35 -14067329.09 -14067328.80 0.0089 0.0029
 Mars -43226-08-27 06:28 J -14066635.52 -14066635.23 -14066634.93 0.0089 0.0004
 Mars -43224-07-21 03:06 J -14065941.64 -14065941.37 -14065941.07 0.0089 0.0022
 Mars -43222-06-15 02:52 J -14065247.61 -14065247.38 -14065247.10 0.0089 0.0047
 Mars -43220-05-09 04:04 J -14064553.47 -14064553.33 -14064553.12 0.0088 0.0072
 Venus -43207-01-09 13:26 J -14059925.03 -14059924.94 -14059924.85 0.0088 0.0081
 Venus -43207-08-23 02:52 J -14059699.52 -14059699.38 -14059699.23 0.0088 0.0067
 Venus -43206-04-05 16:33 J -14059473.98 -14059473.81 -14059473.62 0.0088 0.0053
 Venus -43206-11-17 06:14 J -14059248.43 -14059248.24 -14059248.02 0.0088 0.0038
 Venus -43205-06-29 19:54 J -14059022.87 -14059022.67 -14059022.44 0.0088 0.0024
 Venus -43204-02-10 10:04 J -14058797.30 -14058797.08 -14058796.86 0.0088 0.0010
 Venus -43204-09-23 23:45 J -14058571.73 -14058571.51 -14058571.28 0.0088 0.0005
 Venus -43203-05-07 13:26 J -14058346.15 -14058345.94 -14058345.71 0.0088 0.0020
 Venus -43203-12-19 03:21 J -14058120.56 -14058120.36 -14058120.15 0.0088 0.0033
 Venus -43202-08-01 16:47 J -14057894.97 -14057894.80 -14057894.59 0.0088 0.0048
 Venus -43201-03-14 06:57 J -14057669.36 -14057669.21 -14057669.04 0.0088 0.0062
 Venus -43201-10-25 20:52 J -14057443.73 -14057443.63 -14057443.51 0.0088 0.0076
 Moon -43165-08-24 19:26 J -14044356.84 -14044356.69 -14044356.49 0.0088 0.0064
 Earth -43165-08-24 21:35 J -14044356.77 -14044356.60 -14044356.39 0.0088 0.0060 *
 Earth -43164-08-27 09:35 J -14043989.33 -14043989.10 -14043988.84 0.0088 0.0026
 Moon -43164-08-27 11:30 J -14043989.27 -14043989.02 -14043988.75 0.0088 0.0022 *
 Earth -43163-08-29 21:35 J -14043621.85 -14043621.60 -14043621.34 0.0088 0.0008
 Moon -43163-08-29 21:50 J -14043621.84 -14043621.59 -14043621.34 0.0088 0.0004 *
 Moon -43162-09-01 08:09 J -14043254.39 -14043254.16 -14043253.92 0.0088 0.0045
 Earth -43162-09-01 09:06 J -14043254.33 -14043254.12 -14043253.87 0.0088 0.0042 *

Earth -43161-09-02 21:06 J -14042886.75 -14042886.62 -14042886.48 0.0088 0.0075
 Moon -43161-09-02 22:47 J -14042886.68 -14042886.55 -14042886.39 0.0088 0.0072 *
 Mercury -43161-10-04 22:33 J -14042854.57 -14042854.56 -14042854.52 0.0088 0.0087
 Mercury -43160-01-01 00:57 J -14042766.52 -14042766.46 -14042766.39 0.0088 0.0080
 Mercury -43160-03-30 03:06 J -14042678.45 -14042678.37 -14042678.28 0.0088 0.0073
 Mercury -43160-06-26 05:02 J -14042590.38 -14042590.29 -14042590.17 0.0088 0.0066
 Mercury -43160-09-22 07:11 J -14042502.31 -14042502.20 -14042502.07 0.0088 0.0059
 Mercury -43160-12-19 09:21 J -14042414.23 -14042414.11 -14042413.97 0.0088 0.0051
 Mercury -43159-03-17 11:30 J -14042326.15 -14042326.02 -14042325.88 0.0088 0.0044
 Mercury -43159-06-13 13:26 J -14042238.07 -14042237.94 -14042237.78 0.0088 0.0038
 Mercury -43159-09-09 15:50 J -14042149.99 -14042149.84 -14042149.69 0.0088 0.0030
 Mercury -43159-12-06 17:45 J -14042061.90 -14042061.76 -14042061.60 0.0088 0.0023
 Mercury -43158-03-04 19:54 J -14041973.82 -14041973.67 -14041973.52 0.0088 0.0016
 Mercury -43158-05-31 21:50 J -14041885.74 -14041885.59 -14041885.43 0.0088 0.0010
 Mercury -43158-08-27 23:59 J -14041797.65 -14041797.50 -14041797.34 0.0088 0.0002
 Mercury -43158-11-24 02:09 J -14041709.57 -14041709.41 -14041709.26 0.0088 0.0005
 Mercury -43157-02-20 04:04 J -14041621.48 -14041621.33 -14041621.18 0.0088 0.0012
 Mercury -43157-05-18 05:59 J -14041533.40 -14041533.25 -14041533.10 0.0088 0.0019
 Mercury -43157-08-14 08:09 J -14041445.31 -14041445.16 -14041445.02 0.0088 0.0026
 Mercury -43157-11-10 10:04 J -14041357.22 -14041357.08 -14041356.94 0.0088 0.0033
 Mercury -43156-02-06 11:45 J -14041269.14 -14041269.01 -14041268.86 0.0088 0.0040
 Mercury -43156-05-05 13:40 J -14041181.05 -14041180.93 -14041180.79 0.0088 0.0047
 Mercury -43156-08-01 15:35 J -14041092.96 -14041092.85 -14041092.71 0.0088 0.0054
 Mercury -43156-10-28 17:45 J -14041004.86 -14041004.76 -14041004.64 0.0088 0.0060
 Mercury -43155-01-24 19:40 J -14040916.77 -14040916.68 -14040916.57 0.0088 0.0066
 Mercury -43155-04-22 21:21 J -14040828.68 -14040828.61 -14040828.51 0.0088 0.0074
 Mercury -43155-07-19 23:30 J -14040740.57 -14040740.52 -14040740.45 0.0088 0.0080
 Mercury -43155-10-16 01:11 J -14040652.46 -14040652.45 -14040652.40 0.0088 0.0087
 Mars -43148-09-21 12:28 J -14038120.14 -14038119.98 -14038119.81 0.0089 0.0077
 Mars -43146-08-18 14:52 J -14037424.17 -14037423.88 -14037423.60 0.0089 0.0048

Mars	-43144-07-14 15:06 J	-14036728.18	-14036727.87	-14036727.53	0.0089	0.0020
Mars	-43142-06-10 14:38 J	-14036032.21	-14036031.89	-14036031.55	0.0089	0.0010
Mars	-43140-05-06 11:45 J	-14035336.31	-14035336.01	-14035335.71	0.0089	0.0038
Mars	-43138-04-02 05:30 J	-14034640.45	-14034640.27	-14034640.02	0.0089	0.0067
Venus	-43125-10-11 00:42 J	-14029699.56	-14029699.47	-14029699.36	0.0089	0.0079
Venus	-43124-05-24 13:11 J	-14029474.09	-14029473.95	-14029473.80	0.0089	0.0064
Venus	-43123-01-05 01:26 J	-14029248.61	-14029248.44	-14029248.26	0.0089	0.0051
Venus	-43123-08-18 13:54 J	-14029023.11	-14029022.92	-14029022.72	0.0089	0.0036
Venus	-43122-04-01 02:09 J	-14028797.62	-14028797.41	-14028797.20	0.0089	0.0022
Venus	-43122-11-12 14:23 J	-14028572.11	-14028571.90	-14028571.69	0.0089	0.0008
Venus	-43121-06-25 02:38 J	-14028346.61	-14028346.39	-14028346.18	0.0089	0.0006
Venus	-43120-02-05 14:52 J	-14028121.09	-14028120.88	-14028120.67	0.0089	0.0020
Venus	-43120-09-19 03:06 J	-14027895.57	-14027895.37	-14027895.17	0.0089	0.0034
Venus	-43119-05-02 15:06 J	-14027670.04	-14027669.87	-14027669.68	0.0089	0.0048
Venus	-43119-12-14 03:06 J	-14027444.51	-14027444.37	-14027444.21	0.0089	0.0061
Venus	-43118-07-27 15:06 J	-14027218.97	-14027218.87	-14027218.74	0.0089	0.0075
Venus	-43117-03-09 03:21 J	-14026993.36	-14026993.36	-14026993.34	0.0089	0.0089
Moon	-43083-02-20 15:06 J	-14014592.04	-14014591.87	-14014591.69	0.0089	0.0063
Earth	-43083-02-20 15:35 J	-14014591.99	-14014591.85	-14014591.65	0.0089	0.0068 *
Moon	-43082-02-23 03:21 J	-14014224.60	-14014224.36	-14014224.11	0.0089	0.0036
Earth	-43082-02-23 03:21 J	-14014224.58	-14014224.36	-14014224.10	0.0089	0.0033 *
Earth	-43081-02-25 15:06 J	-14013857.13	-14013856.87	-14013856.61	0.0089	0.0001
Moon	-43081-02-25 16:47 J	-14013857.04	-14013856.80	-14013856.55	0.0089	0.0005 *
Moon	-43080-02-26 23:45 J	-14013489.74	-14013489.51	-14013489.25	0.0089	0.0032
Earth	-43080-02-27 02:23 J	-14013489.63	-14013489.40	-14013489.16	0.0089	0.0035 *
Earth	-43079-03-01 13:40 J	-14013122.07	-14013121.93	-14013121.75	0.0089	0.0069
Moon	-43079-03-01 17:16 J	-14013121.91	-14013121.78	-14013121.63	0.0089	0.0073 *
Mercury	-43079-07-01 05:45 J	-14013000.28	-14013000.26	-14013000.21	0.0089	0.0086
Mercury	-43079-09-27 07:54 J	-14012912.23	-14012912.17	-14012912.09	0.0089	0.0079
Mercury	-43079-12-24 10:04 J	-14012824.16	-14012824.08	-14012823.98	0.0089	0.0072

Mercury -43078-03-22 12:14 J -14012736.09 -14012735.99 -14012735.87 0.0089 0.0065
 Mercury -43078-06-18 14:23 J -14012648.01 -14012647.90 -14012647.77 0.0089 0.0058
 Mercury -43078-09-14 16:33 J -14012559.93 -14012559.81 -14012559.67 0.0089 0.0051
 Mercury -43078-12-11 18:57 J -14012471.84 -14012471.71 -14012471.57 0.0089 0.0043
 Mercury -43077-03-08 21:06 J -14012383.76 -14012383.62 -14012383.47 0.0089 0.0036
 Mercury -43077-06-04 23:16 J -14012295.67 -14012295.53 -14012295.37 0.0089 0.0029
 Mercury -43077-09-01 01:40 J -14012207.58 -14012207.43 -14012207.27 0.0089 0.0022
 Mercury -43077-11-28 03:50 J -14012119.49 -14012119.34 -14012119.18 0.0089 0.0015
 Mercury -43076-02-24 06:14 J -14012031.40 -14012031.24 -14012031.08 0.0089 0.0007
 Mercury -43076-05-23 08:23 J -14011943.31 -14011943.15 -14011942.99 0.0089 0.0001
 Mercury -43076-08-19 10:47 J -14011855.21 -14011855.05 -14011854.89 0.0089 0.0008
 Mercury -43076-11-15 12:57 J -14011767.12 -14011766.96 -14011766.80 0.0089 0.0015
 Mercury -43075-02-11 15:21 J -14011679.02 -14011678.86 -14011678.70 0.0089 0.0022
 Mercury -43075-05-10 17:30 J -14011590.92 -14011590.77 -14011590.61 0.0089 0.0030
 Mercury -43075-08-06 19:54 J -14011502.82 -14011502.67 -14011502.52 0.0089 0.0037
 Mercury -43075-11-02 22:04 J -14011414.71 -14011414.58 -14011414.43 0.0089 0.0045
 Mercury -43074-01-30 00:28 J -14011326.60 -14011326.48 -14011326.34 0.0089 0.0052
 Mercury -43074-04-28 02:38 J -14011238.49 -14011238.39 -14011238.26 0.0089 0.0060
 Mercury -43074-07-25 05:16 J -14011150.38 -14011150.28 -14011150.17 0.0089 0.0067
 Mercury -43074-10-21 07:26 J -14011062.26 -14011062.19 -14011062.09 0.0089 0.0075
 Mercury -43073-01-17 09:35 J -14010974.14 -14010974.10 -14010974.02 0.0089 0.0083
 Mars -43068-07-30 09:06 J -14008953.17 -14008953.12 -14008953.03 0.0089 0.0086
 Mars -43066-06-24 02:23 J -14008259.59 -14008259.40 -14008259.18 0.0089 0.0062
 Mars -43064-05-17 20:09 J -14007565.90 -14007565.66 -14007565.37 0.0089 0.0038
 Mars -43062-04-11 16:47 J -14006872.08 -14006871.80 -14006871.49 0.0089 0.0013
 Mars -43060-03-05 14:23 J -14006178.19 -14006177.90 -14006177.61 0.0089 0.0013
 Mars -43058-01-28 11:30 J -14005484.27 -14005484.02 -14005483.73 0.0089 0.0039
 Mars -43057-12-22 11:45 J -14004790.21 -14004790.01 -14004789.80 0.0089 0.0064
 Venus -43043-04-12 23:02 J -13999930.56 -13999930.54 -13999930.47 0.0088 0.0087
 Venus -43043-11-24 12:42 J -13999705.08 -13999704.97 -13999704.82 0.0088 0.0073

Venus	-43042-07-08 02:23 J	-13999479.55	-13999479.40	-13999479.21	0.0088	0.0058
Venus	-43041-02-18 16:04 J	-13999254.00	-13999253.83	-13999253.61	0.0088	0.0045
Venus	-43041-10-01 06:14 J	-13999028.45	-13999028.24	-13999028.02	0.0088	0.0030
Venus	-43040-05-14 19:54 J	-13998802.89	-13998802.67	-13998802.44	0.0088	0.0016
Venus	-43040-12-26 09:35 J	-13998577.32	-13998577.10	-13998576.87	0.0088	0.0002
Venus	-43039-08-08 23:16 J	-13998351.75	-13998351.53	-13998351.30	0.0088	0.0013
Venus	-43038-03-22 13:11 J	-13998126.16	-13998125.95	-13998125.73	0.0088	0.0027
Venus	-43038-11-03 02:52 J	-13997900.57	-13997900.38	-13997900.17	0.0088	0.0042
Venus	-43037-06-15 16:47 J	-13997674.97	-13997674.80	-13997674.62	0.0088	0.0056
Venus	-43036-01-27 06:14 J	-13997449.35	-13997449.24	-13997449.08	0.0088	0.0070
Venus	-43036-09-09 20:09 J	-13997223.70	-13997223.66	-13997223.57	0.0088	0.0084
Earth	-43001-08-24 07:26 J	-13984456.31	-13984456.19	-13984456.04	0.0088	0.0076
Moon	-43001-08-24 08:23 J	-13984456.29	-13984456.15	-13984456.00	0.0088	0.0074 *

43RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 43rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-43000-08-26 18:57 J	-13984088.92	-13984088.71	-13984088.46	0.0088	0.0043		
Moon	-43000-08-26 19:11 J	-13984088.90	-13984088.70	-13984088.47	0.0088	0.0044 *		
Moon	-42999-08-29 05:45 J	-13983721.53	-13983721.26	-13983720.99	0.0088	0.0006		
Earth	-42999-08-29 07:11 J	-13983721.45	-13983721.20	-13983720.93	0.0088	0.0009 *		
Earth	-42998-08-31 18:57 J	-13983353.95	-13983353.71	-13983353.45	0.0088	0.0026		

Moon -42998-08-31 21:50 J -13983353.83 -13983353.59 -13983353.35 0.0088 0.0024 *
 Moon -42997-09-02 03:35 J -13982986.53 -13982986.35 -13982986.15 0.0088 0.0062
 Earth -42997-09-02 06:28 J -13982986.40 -13982986.23 -13982986.02 0.0088 0.0060 *
 Mercury -42996-07-01 22:18 J -13982683.62 -13982683.57 -13982683.52 0.0088 0.0083
 Mercury -42996-09-28 00:14 J -13982595.56 -13982595.49 -13982595.40 0.0088 0.0076
 Mercury -42996-12-25 02:23 J -13982507.49 -13982507.40 -13982507.29 0.0088 0.0069
 Mercury -42995-03-23 04:33 J -13982419.41 -13982419.31 -13982419.19 0.0088 0.0061
 Mercury -42995-06-19 06:42 J -13982331.34 -13982331.22 -13982331.09 0.0088 0.0054
 Mercury -42995-09-15 09:06 J -13982243.26 -13982243.12 -13982242.99 0.0088 0.0047
 Mercury -42995-12-12 11:02 J -13982155.17 -13982155.04 -13982154.89 0.0088 0.0040
 Mercury -42994-03-10 13:11 J -13982067.09 -13982066.95 -13982066.80 0.0088 0.0033
 Mercury -42994-06-06 15:21 J -13981979.01 -13981978.86 -13981978.71 0.0088 0.0026
 Mercury -42994-09-02 17:16 J -13981890.93 -13981890.78 -13981890.62 0.0088 0.0019
 Mercury -42994-11-29 19:26 J -13981802.84 -13981802.69 -13981802.53 0.0088 0.0011
 Mercury -42993-02-25 21:35 J -13981714.76 -13981714.60 -13981714.45 0.0088 0.0005
 Mercury -42993-05-23 23:30 J -13981626.67 -13981626.52 -13981626.36 0.0088 0.0003
 Mercury -42993-08-20 01:40 J -13981538.59 -13981538.43 -13981538.28 0.0088 0.0010
 Mercury -42993-11-16 03:35 J -13981450.50 -13981450.35 -13981450.20 0.0088 0.0016
 Mercury -42992-02-12 05:30 J -13981362.42 -13981362.27 -13981362.12 0.0088 0.0023
 Mercury -42992-05-11 07:26 J -13981274.33 -13981274.19 -13981274.04 0.0088 0.0030
 Mercury -42992-08-07 09:21 J -13981186.24 -13981186.11 -13981185.96 0.0088 0.0037
 Mercury -42992-11-03 11:30 J -13981098.15 -13981098.02 -13981097.88 0.0088 0.0044
 Mercury -42991-01-30 13:26 J -13981010.06 -13981009.94 -13981009.81 0.0088 0.0051
 Mercury -42991-04-28 15:21 J -13980921.97 -13980921.86 -13980921.74 0.0088 0.0057
 Mercury -42991-07-25 17:02 J -13980833.88 -13980833.79 -13980833.67 0.0088 0.0065
 Mercury -42991-10-21 19:26 J -13980745.78 -13980745.69 -13980745.60 0.0088 0.0071
 Mercury -42990-01-17 21:06 J -13980657.68 -13980657.62 -13980657.54 0.0088 0.0078
 Mercury -42990-04-15 22:47 J -13980569.57 -13980569.55 -13980569.48 0.0088 0.0085
 Mars -42984-05-05 02:38 J -13978358.42 -13978358.39 -13978358.34 0.0089 0.0088
 Mars -42982-04-01 06:28 J -13977662.45 -13977662.23 -13977661.94 0.0089 0.0059

Mars	-42980-02-25 09:06 J	-13976966.43	-13976966.12	-13976965.79	0.0089	0.0029
Mars	-42978-01-22 09:21 J	-13976270.45	-13976270.11	-13976269.78	0.0089	0.0001
Mars	-42977-12-18 07:11 J	-13975574.49	-13975574.20	-13975573.86	0.0089	0.0030
Mars	-42975-11-14 03:35 J	-13974878.57	-13974878.35	-13974878.07	0.0089	0.0059
Mars	-42973-10-09 21:06 J	-13974182.65	-13974182.62	-13974182.52	0.0089	0.0087
Venus	-42960-01-12 11:45 J	-13969705.05	-13969705.01	-13969704.91	0.0089	0.0084
Venus	-42960-08-26 00:28 J	-13969479.59	-13969479.48	-13969479.33	0.0089	0.0070
Venus	-42959-04-08 12:57 J	-13969254.11	-13969253.96	-13969253.78	0.0089	0.0056
Venus	-42959-11-20 01:11 J	-13969028.62	-13969028.45	-13969028.24	0.0089	0.0042
Venus	-42958-07-03 13:40 J	-13968803.13	-13968802.93	-13968802.72	0.0089	0.0028
Venus	-42957-02-14 02:09 J	-13968577.62	-13968577.41	-13968577.20	0.0089	0.0014
Venus	-42957-09-26 14:38 J	-13968352.11	-13968351.89	-13968351.68	0.0089	0.0000
Venus	-42956-05-10 02:38 J	-13968126.59	-13968126.39	-13968126.17	0.0089	0.0014
Venus	-42956-12-21 14:38 J	-13967901.08	-13967900.89	-13967900.67	0.0089	0.0028
Venus	-42955-08-04 03:06 J	-13967675.55	-13967675.37	-13967675.18	0.0089	0.0042
Venus	-42954-03-17 15:06 J	-13967450.02	-13967449.87	-13967449.69	0.0089	0.0056
Venus	-42954-10-29 03:21 J	-13967224.48	-13967224.36	-13967224.21	0.0089	0.0069
Venus	-42953-06-10 15:21 J	-13966998.92	-13966998.86	-13966998.77	0.0089	0.0083
Moon	-42919-02-20 01:11 J	-13954691.54	-13954691.45	-13954691.32	0.0089	0.0081
Earth	-42919-02-20 02:09 J	-13954691.49	-13954691.41	-13954691.32	0.0089	0.0084 *
Earth	-42918-02-22 13:26 J	-13954324.14	-13954323.94	-13954323.71	0.0089	0.0049
Moon	-42918-02-22 15:06 J	-13954324.06	-13954323.87	-13954323.66	0.0089	0.0053 *
Moon	-42917-02-24 22:04 J	-13953956.84	-13953956.58	-13953956.32	0.0089	0.0011
Earth	-42917-02-25 01:11 J	-13953956.70	-13953956.45	-13953956.19	0.0089	0.0015 *
Earth	-42916-02-26 12:28 J	-13953589.22	-13953588.98	-13953588.72	0.0089	0.0019
Moon	-42916-02-26 15:50 J	-13953589.09	-13953588.84	-13953588.59	0.0089	0.0016 *
Moon	-42915-02-28 20:23 J	-13953221.84	-13953221.65	-13953221.44	0.0089	0.0056
Earth	-42915-03-01 00:14 J	-13953221.69	-13953221.49	-13953221.28	0.0089	0.0053 *
Mercury	-42915-12-30 03:21 J	-13952917.37	-13952917.36	-13952917.35	0.0089	0.0088
Earth	-42914-03-03 11:45 J	-13952854.05	-13952854.01	-13952853.97	0.0089	0.0088

Moon -42914-03-03 14:52 J -13952853.95 -13952853.88 -13952853.79 0.0089 0.0084
 Mercury -42914-03-28 05:30 J -13952829.33 -13952829.27 -13952829.21 0.0089 0.0081
 Mercury -42914-06-24 07:40 J -13952741.27 -13952741.18 -13952741.10 0.0089 0.0075
 Mercury -42914-09-20 09:50 J -13952653.19 -13952653.09 -13952652.99 0.0089 0.0067
 Mercury -42914-12-17 11:45 J -13952565.12 -13952565.01 -13952564.89 0.0089 0.0060
 Mercury -42913-03-14 13:54 J -13952477.04 -13952476.92 -13952476.79 0.0089 0.0053
 Mercury -42913-06-10 16:04 J -13952388.96 -13952388.83 -13952388.69 0.0089 0.0046
 Mercury -42913-09-06 18:14 J -13952300.87 -13952300.74 -13952300.59 0.0089 0.0039
 Mercury -42913-12-03 20:23 J -13952212.79 -13952212.65 -13952212.49 0.0089 0.0032
 Mercury -42912-03-01 22:33 J -13952124.70 -13952124.56 -13952124.40 0.0089 0.0025
 Mercury -42912-05-29 00:57 J -13952036.61 -13952036.46 -13952036.30 0.0089 0.0017
 Mercury -42912-08-25 03:21 J -13951948.52 -13951948.36 -13951948.20 0.0089 0.0010
 Mercury -42912-11-21 05:30 J -13951860.43 -13951860.27 -13951860.11 0.0089 0.0003
 Mercury -42911-02-17 07:40 J -13951772.34 -13951772.18 -13951772.02 0.0089 0.0005
 Mercury -42911-05-16 10:04 J -13951684.24 -13951684.08 -13951683.92 0.0089 0.0012
 Mercury -42911-08-12 12:14 J -13951596.14 -13951595.99 -13951595.83 0.0089 0.0019
 Mercury -42911-11-08 14:23 J -13951508.04 -13951507.90 -13951507.74 0.0089 0.0027
 Mercury -42910-02-04 16:47 J -13951419.94 -13951419.80 -13951419.65 0.0089 0.0034
 Mercury -42910-05-03 18:57 J -13951331.84 -13951331.71 -13951331.56 0.0089 0.0042
 Mercury -42910-07-30 21:21 J -13951243.74 -13951243.61 -13951243.47 0.0089 0.0049
 Mercury -42910-10-26 23:30 J -13951155.63 -13951155.52 -13951155.38 0.0089 0.0057
 Mercury -42909-01-23 02:09 J -13951067.52 -13951067.41 -13951067.29 0.0089 0.0064
 Mercury -42909-04-20 04:18 J -13950979.40 -13950979.32 -13950979.21 0.0089 0.0072
 Mercury -42909-07-17 06:57 J -13950891.28 -13950891.21 -13950891.14 0.0089 0.0079
 Mercury -42909-10-13 09:06 J -13950803.14 -13950803.12 -13950803.08 0.0089 0.0087
 Mars -42902-02-06 16:33 J -13948495.96 -13948495.81 -13948495.61 0.0089 0.0071
 Mars -42901-12-31 11:02 J -13947802.28 -13947802.04 -13947801.78 0.0089 0.0046
 Mars -42899-11-25 04:47 J -13947108.57 -13947108.30 -13947108.00 0.0089 0.0021
 Mars -42897-10-19 01:11 J -13946414.75 -13946414.45 -13946414.16 0.0089 0.0005
 Mars -42895-09-12 22:18 J -13945720.83 -13945720.57 -13945720.28 0.0089 0.0031

Mars	-42893-08-06 20:09 J	-13945026.86	-13945026.66	-13945026.41	0.0089	0.0057
Mars	-42891-07-01 19:26 J	-13944332.76	-13944332.69	-13944332.54	0.0089	0.0083
Venus	-42878-02-25 23:30 J	-13939710.60	-13939710.52	-13939710.39	0.0088	0.0078
Venus	-42878-10-09 13:11 J	-13939485.08	-13939484.95	-13939484.77	0.0088	0.0064
Venus	-42877-05-22 02:52 J	-13939259.55	-13939259.38	-13939259.17	0.0088	0.0050
Venus	-42876-01-02 16:33 J	-13939034.00	-13939033.81	-13939033.59	0.0088	0.0036
Venus	-42876-08-16 06:28 J	-13938808.44	-13938808.23	-13938808.00	0.0088	0.0021
Venus	-42875-03-29 20:23 J	-13938582.87	-13938582.65	-13938582.42	0.0088	0.0007
Venus	-42875-11-10 10:04 J	-13938357.30	-13938357.08	-13938356.85	0.0088	0.0007
Venus	-42874-06-23 23:45 J	-13938131.72	-13938131.51	-13938131.29	0.0088	0.0021
Venus	-42873-02-04 13:40 J	-13937906.14	-13937905.93	-13937905.73	0.0088	0.0036
Venus	-42873-09-17 03:21 J	-13937680.54	-13937680.36	-13937680.17	0.0088	0.0050
Venus	-42872-04-30 16:47 J	-13937454.93	-13937454.80	-13937454.62	0.0088	0.0064
Venus	-42872-12-12 06:28 J	-13937229.31	-13937229.23	-13937229.10	0.0088	0.0078
Moon	-42837-08-23 18:57 J	-13924555.72	-13924555.71	-13924555.65	0.0088	0.0087
Moon	-42836-08-26 04:04 J	-13924188.50	-13924188.33	-13924188.12	0.0088	0.0062
Earth	-42836-08-26 05:59 J	-13924188.43	-13924188.25	-13924188.04	0.0088	0.0058 *
Earth	-42835-08-28 17:30 J	-13923821.00	-13923820.77	-13923820.50	0.0088	0.0025
Moon	-42835-08-28 20:38 J	-13923820.89	-13923820.64	-13923820.39	0.0088	0.0020 *
Moon	-42834-08-31 02:09 J	-13923453.67	-13923453.41	-13923453.15	0.0088	0.0006
Earth	-42834-08-31 05:45 J	-13923453.52	-13923453.26	-13923453.00	0.0088	0.0010 *
Earth	-42833-09-01 17:02 J	-13923086.00	-13923085.79	-13923085.55	0.0088	0.0044
Moon	-42833-09-01 20:52 J	-13923085.84	-13923085.63	-13923085.41	0.0088	0.0048 *
Moon	-42832-09-04 01:26 J	-13922718.57	-13922718.44	-13922718.29	0.0088	0.0074
Earth	-42832-09-04 05:02 J	-13922718.40	-13922718.29	-13922718.16	0.0088	0.0078 *
Mercury	-42832-12-30 19:26 J	-13922600.71	-13922600.69	-13922600.64	0.0088	0.0086
Mercury	-42831-03-28 21:35 J	-13922512.66	-13922512.60	-13922512.51	0.0088	0.0078
Mercury	-42831-06-24 23:45 J	-13922424.59	-13922424.51	-13922424.40	0.0088	0.0071
Mercury	-42831-09-21 02:09 J	-13922336.52	-13922336.41	-13922336.30	0.0088	0.0064
Mercury	-42831-12-18 04:18 J	-13922248.44	-13922248.32	-13922248.20	0.0088	0.0056

Mercury -42830-03-16 06:14 J -13922160.36 -13922160.24 -13922160.10 0.0088 0.0050

Mercury -42830-06-12 08:23 J -13922072.28 -13922072.15 -13922072.00 0.0088 0.0043

Mercury -42830-09-08 10:33 J -13921984.20 -13921984.06 -13921983.91 0.0088 0.0035

Mercury -42830-12-05 12:42 J -13921896.11 -13921895.97 -13921895.82 0.0088 0.0028

Mercury -42829-03-02 14:52 J -13921808.03 -13921807.88 -13921807.73 0.0088 0.0021

Mercury -42829-05-29 17:02 J -13921719.94 -13921719.79 -13921719.64 0.0088 0.0014

Mercury -42829-08-25 18:57 J -13921631.86 -13921631.71 -13921631.55 0.0088 0.0007

Mercury -42829-11-21 21:06 J -13921543.77 -13921543.62 -13921543.46 0.0088 0.0001

Mercury -42828-02-17 23:16 J -13921455.69 -13921455.53 -13921455.38 0.0088 0.0008

Mercury -42828-05-17 01:11 J -13921367.60 -13921367.45 -13921367.30 0.0088 0.0014

Mercury -42828-08-13 03:06 J -13921279.51 -13921279.37 -13921279.21 0.0088 0.0021

Mercury -42828-11-09 05:02 J -13921191.43 -13921191.29 -13921191.13 0.0088 0.0028

Mercury -42827-02-05 07:11 J -13921103.34 -13921103.20 -13921103.06 0.0088 0.0035

Mercury -42827-05-04 09:06 J -13921015.25 -13921015.12 -13921014.98 0.0088 0.0042

Mercury -42827-07-31 11:02 J -13920927.16 -13920927.04 -13920926.90 0.0088 0.0049

Mercury -42827-10-27 12:57 J -13920839.07 -13920838.96 -13920838.83 0.0088 0.0056

Mercury -42826-01-23 14:52 J -13920750.97 -13920750.88 -13920750.76 0.0088 0.0062

Mercury -42826-04-21 17:02 J -13920662.88 -13920662.79 -13920662.69 0.0088 0.0069

Mercury -42826-07-18 18:57 J -13920574.78 -13920574.71 -13920574.63 0.0088 0.0076

Mercury -42826-10-14 20:38 J -13920486.68 -13920486.64 -13920486.57 0.0088 0.0083

Mars -42819-11-12 22:18 J -13917900.77 -13917900.57 -13917900.35 0.0089 0.0069

Mars -42817-10-09 02:23 J -13917204.70 -13917204.40 -13917204.09 0.0089 0.0039

Mars -42815-09-05 04:33 J -13916508.65 -13916508.31 -13916507.98 0.0089 0.0009

Mars -42813-08-01 03:50 J -13915812.65 -13915812.34 -13915812.00 0.0089 0.0021

Mars -42811-06-28 02:09 J -13915116.68 -13915116.41 -13915116.13 0.0089 0.0050

Mars -42809-05-23 22:04 J -13914420.71 -13914420.58 -13914420.41 0.0089 0.0079

Venus -42796-04-16 00:14 J -13909710.49 -13909710.49 -13909710.46 0.0089 0.0089

Venus -42796-11-27 12:28 J -13909485.08 -13909484.98 -13909484.85 0.0089 0.0075

Venus -42795-07-11 00:57 J -13909259.60 -13909259.46 -13909259.29 0.0089 0.0061

Venus -42794-02-21 13:26 J -13909034.11 -13909033.94 -13909033.75 0.0089 0.0047

Venus	-42794-10-05 01:54 J	-13908808.61	-13908808.42	-13908808.21	0.0089	0.0034
Jupiter	-42794-12-08 11:45 J	-13908744.31	-13908744.01	-13908743.60	0.0089	0.0065
Venus	-42793-05-17 14:23 J	-13908583.11	-13908582.90	-13908582.69	0.0089	0.0020
Venus	-42793-12-29 02:38 J	-13908357.60	-13908357.39	-13908357.17	0.0089	0.0006
Venus	-42792-08-11 14:52 J	-13908132.09	-13908131.88	-13908131.66	0.0089	0.0008
Venus	-42791-03-25 03:06 J	-13907906.57	-13907906.37	-13907906.16	0.0089	0.0022
Venus	-42791-11-05 15:06 J	-13907681.05	-13907680.87	-13907680.66	0.0089	0.0037
Venus	-42790-06-19 03:35 J	-13907455.52	-13907455.35	-13907455.17	0.0089	0.0050
Venus	-42789-01-30 15:35 J	-13907229.99	-13907229.85	-13907229.69	0.0089	0.0064
Venus	-42789-09-12 03:35 J	-13907004.43	-13907004.35	-13907004.22	0.0089	0.0078
Moon	-42754-02-21 20:52 J	-13894423.80	-13894423.63	-13894423.43	0.0089	0.0063
Earth	-42754-02-21 23:30 J	-13894423.66	-13894423.52	-13894423.32	0.0089	0.0066 *
Earth	-42753-02-24 11:16 J	-13894056.26	-13894056.03	-13894055.78	0.0089	0.0031
Moon	-42753-02-24 15:06 J	-13894056.10	-13894055.87	-13894055.63	0.0089	0.0035 *
Moon	-42752-02-25 19:40 J	-13893688.93	-13893688.68	-13893688.42	0.0089	0.0006
Earth	-42752-02-25 23:16 J	-13893688.79	-13893688.53	-13893688.28	0.0089	0.0003 *
Earth	-42751-02-28 10:18 J	-13893321.29	-13893321.07	-13893320.82	0.0089	0.0038
Moon	-42751-02-28 13:40 J	-13893321.15	-13893320.93	-13893320.67	0.0089	0.0034 *
Moon	-42750-03-02 19:40 J	-13892953.80	-13892953.68	-13892953.54	0.0089	0.0076
Earth	-42750-03-02 21:35 J	-13892953.73	-13892953.60	-13892953.43	0.0089	0.0072 *
Mercury	-42750-09-26 02:23 J	-13892746.43	-13892746.40	-13892746.33	0.0089	0.0084
Mercury	-42750-12-23 04:33 J	-13892658.37	-13892658.31	-13892658.22	0.0089	0.0077
Mercury	-42749-03-20 06:42 J	-13892570.30	-13892570.22	-13892570.11	0.0089	0.0070
Mercury	-42749-06-16 08:52 J	-13892482.23	-13892482.13	-13892482.01	0.0089	0.0063
Mercury	-42749-09-12 11:02 J	-13892394.15	-13892394.04	-13892393.90	0.0089	0.0056
Mercury	-42749-12-09 13:11 J	-13892306.07	-13892305.95	-13892305.81	0.0089	0.0049
Mercury	-42748-03-07 15:21 J	-13892217.99	-13892217.86	-13892217.71	0.0089	0.0042
Mercury	-42748-06-03 17:45 J	-13892129.90	-13892129.76	-13892129.61	0.0089	0.0034
Mercury	-42748-08-30 19:54 J	-13892041.81	-13892041.67	-13892041.51	0.0089	0.0027
Mercury	-42748-11-26 22:04 J	-13891953.73	-13891953.58	-13891953.42	0.0089	0.0020

Mercury -42747-02-23 00:28 J -13891865.64 -13891865.48 -13891865.32 0.0089 0.0013

Mercury -42747-05-22 02:38 J -13891777.55 -13891777.39 -13891777.23 0.0089 0.0006

Mercury -42747-08-18 05:02 J -13891689.45 -13891689.29 -13891689.13 0.0089 0.0003

Mercury -42747-11-14 07:11 J -13891601.36 -13891601.20 -13891601.04 0.0089 0.0009

Mercury -42746-02-10 09:21 J -13891513.26 -13891513.11 -13891512.95 0.0089 0.0017

Mercury -42746-05-09 11:30 J -13891425.17 -13891425.02 -13891424.86 0.0089 0.0024

Mercury -42746-08-05 13:40 J -13891337.07 -13891336.93 -13891336.77 0.0089 0.0032

Mercury -42746-11-01 16:04 J -13891248.97 -13891248.83 -13891248.68 0.0089 0.0039

Mercury -42745-01-28 18:28 J -13891160.86 -13891160.73 -13891160.59 0.0089 0.0046

Mercury -42745-04-25 20:38 J -13891072.76 -13891072.64 -13891072.50 0.0089 0.0054

Mercury -42745-07-22 23:16 J -13890984.65 -13890984.53 -13890984.41 0.0089 0.0061

Mercury -42745-10-19 01:11 J -13890896.53 -13890896.45 -13890896.33 0.0089 0.0069

Mercury -42744-01-15 03:35 J -13890808.42 -13890808.35 -13890808.26 0.0089 0.0077

Mercury -42744-04-13 05:59 J -13890720.29 -13890720.25 -13890720.19 0.0089 0.0084

Mars -42739-09-22 08:23 J -13888732.25 -13888732.15 -13888732.00 0.0089 0.0080

Mars -42737-08-16 01:11 J -13888038.66 -13888038.45 -13888038.20 0.0089 0.0055

Mars -42735-07-10 20:38 J -13887344.92 -13887344.64 -13887344.36 0.0089 0.0029

Mars -42733-06-03 14:38 J -13886651.18 -13886650.89 -13886650.59 0.0089 0.0004

Mars -42731-04-28 10:47 J -13885957.32 -13885957.05 -13885956.75 0.0089 0.0023

Mars -42729-03-22 09:06 J -13885263.36 -13885263.12 -13885262.86 0.0089 0.0049

Mars -42727-02-14 07:54 J -13884569.32 -13884569.17 -13884569.00 0.0089 0.0075

Venus -42714-05-30 10:04 J -13879716.13 -13879716.08 -13879715.97 0.0088 0.0083

Venus -42713-01-10 23:59 J -13879490.62 -13879490.50 -13879490.34 0.0088 0.0068

Venus -42713-08-23 13:40 J -13879265.09 -13879264.93 -13879264.73 0.0088 0.0054

Venus -42712-04-06 03:35 J -13879039.54 -13879039.35 -13879039.14 0.0088 0.0040

Venus -42712-11-17 17:16 J -13878813.98 -13878813.78 -13878813.55 0.0088 0.0026

Venus -42711-07-01 06:57 J -13878588.42 -13878588.21 -13878587.98 0.0088 0.0013

Venus -42710-02-11 20:52 J -13878362.85 -13878362.63 -13878362.40 0.0088 0.0002

Venus -42710-09-25 10:33 J -13878137.28 -13878137.06 -13878136.83 0.0088 0.0016

Venus -42709-05-08 00:14 J -13877911.69 -13877911.49 -13877911.27 0.0088 0.0030

Venus -42709-12-19 13:40 J -13877686.11 -13877685.93 -13877685.72 0.0088 0.0045
 Venus -42708-08-02 03:21 J -13877460.51 -13877460.36 -13877460.17 0.0088 0.0059
 Venus -42707-03-15 17:16 J -13877234.89 -13877234.78 -13877234.63 0.0088 0.0072
 Venus -42707-10-27 07:11 J -13877009.23 -13877009.20 -13877009.13 0.0088 0.0086
 Earth -42672-08-25 16:33 J -13864287.93 -13864287.81 -13864287.64 0.0088 0.0074
 Moon -42672-08-25 19:26 J -13864287.80 -13864287.69 -13864287.51 0.0088 0.0073 *
 Moon -42671-08-28 01:11 J -13863920.67 -13863920.45 -13863920.20 0.0088 0.0041
 Earth -42671-08-28 04:47 J -13863920.52 -13863920.30 -13863920.05 0.0088 0.0039 *
 Earth -42670-08-30 16:47 J -13863553.06 -13863552.80 -13863552.54 0.0088 0.0005
 Moon -42670-08-30 20:23 J -13863552.91 -13863552.65 -13863552.39 0.0088 0.0004 *
 Moon -42669-09-01 01:11 J -13863185.68 -13863185.45 -13863185.20 0.0088 0.0027
 Earth -42669-09-01 04:33 J -13863185.56 -13863185.31 -13863185.07 0.0088 0.0029 *
 Earth -42668-09-03 16:04 J -13862818.01 -13862817.83 -13862817.64 0.0088 0.0063
 Moon -42668-09-03 18:28 J -13862817.89 -13862817.73 -13862817.53 0.0088 0.0066 *
 Mercury -42667-06-30 17:16 J -13862517.80 -13862517.78 -13862517.77 0.0088 0.0088
 Mercury -42667-09-26 19:11 J -13862429.75 -13862429.70 -13862429.63 0.0088 0.0081
 Mercury -42667-12-23 21:21 J -13862341.69 -13862341.61 -13862341.51 0.0088 0.0073
 Mercury -42666-03-21 23:30 J -13862253.61 -13862253.52 -13862253.41 0.0088 0.0066
 Mercury -42666-06-18 01:54 J -13862165.54 -13862165.42 -13862165.30 0.0088 0.0059
 Mercury -42666-09-14 04:04 J -13862077.46 -13862077.33 -13862077.20 0.0088 0.0052
 Mercury -42666-12-11 05:59 J -13861989.38 -13861989.25 -13861989.11 0.0088 0.0045
 Mercury -42665-03-08 08:09 J -13861901.30 -13861901.16 -13861901.01 0.0088 0.0037
 Mercury -42665-06-04 10:18 J -13861813.21 -13861813.07 -13861812.92 0.0088 0.0030
 Mercury -42665-08-31 12:28 J -13861725.13 -13861724.98 -13861724.82 0.0088 0.0023
 Mercury -42665-11-27 14:38 J -13861637.04 -13861636.89 -13861636.73 0.0088 0.0016
 Mercury -42664-02-23 16:33 J -13861548.96 -13861548.81 -13861548.65 0.0088 0.0010
 Mercury -42664-05-22 18:42 J -13861460.87 -13861460.72 -13861460.56 0.0088 0.0003
 Mercury -42664-08-18 20:52 J -13861372.78 -13861372.63 -13861372.47 0.0088 0.0005
 Mercury -42664-11-14 22:47 J -13861284.70 -13861284.55 -13861284.39 0.0088 0.0013
 Mercury -42663-02-11 00:57 J -13861196.61 -13861196.46 -13861196.31 0.0088 0.0019

Mercury -42663-05-10 02:52 J -13861108.52 -13861108.38 -13861108.23 0.0088 0.0026
 Mercury -42663-08-06 04:47 J -13861020.43 -13861020.30 -13861020.15 0.0088 0.0034
 Mercury -42663-11-02 06:42 J -13860932.34 -13860932.22 -13860932.07 0.0088 0.0041
 Mercury -42662-01-29 09:06 J -13860844.25 -13860844.12 -13860843.99 0.0088 0.0047
 Mercury -42662-04-27 11:02 J -13860756.16 -13860756.04 -13860755.92 0.0088 0.0054
 Mercury -42662-07-24 12:57 J -13860668.07 -13860667.96 -13860667.84 0.0088 0.0060
 Mercury -42662-10-20 14:38 J -13860579.97 -13860579.89 -13860579.77 0.0088 0.0068
 Mercury -42661-01-16 17:02 J -13860491.87 -13860491.79 -13860491.71 0.0088 0.0074
 Mercury -42661-04-13 18:42 J -13860403.77 -13860403.72 -13860403.65 0.0088 0.0081
 Mercury -42661-07-10 20:38 J -13860315.65 -13860315.64 -13860315.61 0.0088 0.0088
 Mars -42655-06-26 14:52 J -13858139.01 -13858138.88 -13858138.72 0.0089 0.0080
 Mars -42653-05-22 19:11 J -13857442.95 -13857442.70 -13857442.39 0.0089 0.0050
 Mars -42651-04-18 23:16 J -13856746.85 -13856746.53 -13856746.19 0.0089 0.0019
 Mars -42649-03-15 00:57 J -13856050.79 -13856050.46 -13856050.12 0.0089 0.0012
 Mars -42647-02-08 23:45 J -13855354.79 -13855354.51 -13855354.19 0.0089 0.0042
 Mars -42645-01-05 21:06 J -13854658.81 -13854658.62 -13854658.41 0.0089 0.0071
 Venus -42631-03-01 01:11 J -13849490.54 -13849490.45 -13849490.35 0.0089 0.0080
 Venus -42631-10-12 13:26 J -13849265.07 -13849264.94 -13849264.78 0.0089 0.0066
 Venus -42630-05-26 01:54 J -13849039.58 -13849039.42 -13849039.23 0.0089 0.0052
 Venus -42629-01-06 14:23 J -13848814.09 -13848813.90 -13848813.70 0.0089 0.0038
 Venus -42629-08-19 02:52 J -13848588.59 -13848588.38 -13848588.17 0.0089 0.0025
 Venus -42628-04-01 15:06 J -13848363.08 -13848362.87 -13848362.65 0.0089 0.0011
 Venus -42628-11-13 03:35 J -13848137.57 -13848137.35 -13848137.14 0.0089 0.0003
 Jupiter -42627-02-03 04:18 J -13848055.80 -13848055.32 -13848054.78 0.0089 0.0017
 Venus -42627-06-26 15:35 J -13847912.05 -13847911.85 -13847911.63 0.0089 0.0017
 Venus -42626-02-07 04:04 J -13847686.53 -13847686.33 -13847686.13 0.0089 0.0030
 Venus -42626-09-20 16:18 J -13847461.00 -13847460.82 -13847460.62 0.0089 0.0044
 Venus -42625-05-03 04:18 J -13847235.46 -13847235.32 -13847235.14 0.0089 0.0058
 Venus -42625-12-14 16:47 J -13847009.92 -13847009.80 -13847009.67 0.0089 0.0071
 Venus -42624-07-28 04:33 J -13846784.35 -13846784.31 -13846784.23 0.0089 0.0085

Earth	-42590-02-21 10:18 J	-13834523.14	-13834523.07	-13834522.94	0.0089	0.0083
Moon	-42590-02-21 13:40 J	-13834523.01	-13834522.93	-13834522.78	0.0089	0.0080 *
Moon	-42589-02-23 18:42 J	-13834155.91	-13834155.72	-13834155.49	0.0089	0.0051
Earth	-42589-02-23 22:33 J	-13834155.77	-13834155.56	-13834155.33	0.0089	0.0047 *
Earth	-42588-02-25 10:04 J	-13833788.32	-13833788.08	-13833787.82	0.0089	0.0013
Moon	-42588-02-25 12:57 J	-13833788.21	-13833787.96	-13833787.69	0.0089	0.0010 *
Moon	-42587-02-27 19:26 J	-13833420.93	-13833420.69	-13833420.44	0.0089	0.0019
Earth	-42587-02-27 21:35 J	-13833420.84	-13833420.60	-13833420.34	0.0089	0.0022 *
Earth	-42586-03-02 09:21 J	-13833053.31	-13833053.11	-13833052.91	0.0089	0.0057
Moon	-42586-03-02 09:50 J	-13833053.26	-13833053.09	-13833052.87	0.0089	0.0060 *
Moon	-42585-03-03 21:06 J	-13832685.63	-13832685.62	-13832685.58	0.0089	0.0088
Mercury	-42585-03-25 23:59 J	-13832663.52	-13832663.50	-13832663.45	0.0089	0.0086
Mercury	-42585-06-22 02:09 J	-13832575.47	-13832575.41	-13832575.33	0.0089	0.0079
Mercury	-42585-09-18 04:18 J	-13832487.40	-13832487.32	-13832487.22	0.0089	0.0072
Mercury	-42585-12-15 06:28 J	-13832399.32	-13832399.23	-13832399.11	0.0089	0.0065
Mercury	-42584-03-13 08:38 J	-13832311.25	-13832311.14	-13832311.01	0.0089	0.0058
Mercury	-42584-06-09 10:47 J	-13832223.17	-13832223.05	-13832222.91	0.0089	0.0051
Mercury	-42584-09-05 13:11 J	-13832135.09	-13832134.95	-13832134.81	0.0089	0.0044
Mercury	-42584-12-02 15:21 J	-13832047.00	-13832046.86	-13832046.72	0.0089	0.0036
Mercury	-42583-02-28 17:30 J	-13831958.92	-13831958.77	-13831958.62	0.0089	0.0029
Mercury	-42583-05-27 19:40 J	-13831870.83	-13831870.68	-13831870.52	0.0089	0.0022
Mercury	-42583-08-23 21:50 J	-13831782.74	-13831782.59	-13831782.43	0.0089	0.0015
Mercury	-42583-11-19 23:59 J	-13831694.65	-13831694.50	-13831694.34	0.0089	0.0008
Mercury	-42582-02-16 02:23 J	-13831606.56	-13831606.40	-13831606.24	0.0089	0.0001
Mercury	-42582-05-15 04:33 J	-13831518.47	-13831518.31	-13831518.15	0.0089	0.0007
Mercury	-42582-08-11 06:42 J	-13831430.37	-13831430.22	-13831430.06	0.0089	0.0015
Mercury	-42582-11-07 08:52 J	-13831342.28	-13831342.13	-13831341.97	0.0089	0.0022
Mercury	-42581-02-03 11:16 J	-13831254.18	-13831254.03	-13831253.88	0.0089	0.0029
Mercury	-42581-05-01 13:26 J	-13831166.08	-13831165.94	-13831165.79	0.0089	0.0037
Mercury	-42581-07-28 15:35 J	-13831077.98	-13831077.85	-13831077.70	0.0089	0.0044

Mercury -42581-10-24 17:45 J -13830989.87 -13830989.76 -13830989.61 0.0089 0.0052
 Mercury -42580-01-20 20:09 J -13830901.77 -13830901.66 -13830901.53 0.0089 0.0059
 Mercury -42580-04-18 22:18 J -13830813.66 -13830813.57 -13830813.44 0.0089 0.0067
 Mercury -42580-07-16 00:57 J -13830725.54 -13830725.46 -13830725.37 0.0089 0.0074
 Mercury -42580-10-12 03:06 J -13830637.42 -13830637.37 -13830637.29 0.0089 0.0082
 Mars -42573-03-31 17:59 J -13828274.92 -13828274.75 -13828274.52 0.0089 0.0064
 Mars -42571-02-23 11:02 J -13827581.28 -13827581.04 -13827580.76 0.0089 0.0038
 Mars -42569-01-18 06:28 J -13826887.51 -13826887.23 -13826886.93 0.0089 0.0012
 Mars -42568-12-12 01:26 J -13826193.72 -13826193.44 -13826193.14 0.0089 0.0015
 Mars -42566-11-05 21:21 J -13825499.86 -13825499.61 -13825499.33 0.0089 0.0041
 Mars -42564-09-29 19:11 J -13824805.86 -13824805.70 -13824805.48 0.0089 0.0068
 Venus -42550-08-31 21:35 J -13819721.62 -13819721.60 -13819721.54 0.0088 0.0087
 Venus -42549-04-13 11:30 J -13819496.14 -13819496.02 -13819495.88 0.0088 0.0073
 Venus -42549-11-25 01:26 J -13819270.61 -13819270.44 -13819270.28 0.0088 0.0059
 Venus -42548-07-08 14:38 J -13819045.07 -13819044.89 -13819044.68 0.0088 0.0045
 Venus -42547-02-19 04:33 J -13818819.51 -13818819.31 -13818819.09 0.0088 0.0031
 Venus -42547-10-02 18:14 J -13818593.95 -13818593.74 -13818593.51 0.0088 0.0018
 Venus -42546-05-16 08:09 J -13818368.38 -13818368.16 -13818367.93 0.0088 0.0003
 Venus -42546-12-27 21:50 J -13818142.81 -13818142.59 -13818142.37 0.0088 0.0011
 Venus -42545-08-09 11:30 J -13817917.24 -13817917.02 -13817916.80 0.0088 0.0025
 Venus -42544-03-23 01:11 J -13817691.65 -13817691.45 -13817691.24 0.0088 0.0039
 Venus -42544-11-03 14:52 J -13817466.05 -13817465.88 -13817465.69 0.0088 0.0053
 Venus -42543-06-17 04:33 J -13817240.45 -13817240.31 -13817240.15 0.0088 0.0066
 Venus -42542-01-28 17:59 J -13817014.82 -13817014.75 -13817014.64 0.0088 0.0081
 Moon -42508-08-25 00:28 J -13804387.53 -13804387.48 -13804387.37 0.0088 0.0084
 Earth -42507-08-27 16:04 J -13804020.02 -13804019.83 -13804019.61 0.0088 0.0054
 Moon -42507-08-27 19:40 J -13804019.86 -13804019.68 -13804019.47 0.0088 0.0058 *
 Moon -42506-08-30 00:42 J -13803652.71 -13803652.47 -13803652.21 0.0088 0.0016
 Earth -42506-08-30 03:50 J -13803652.58 -13803652.34 -13803652.07 0.0088 0.0021 *
 Earth -42505-08-31 15:35 J -13803285.10 -13803284.85 -13803284.59 0.0088 0.0014

Moon -42505-08-31 17:30 J -13803285.02 -13803284.77 -13803284.49 0.0088 0.0011 *
 Moon -42504-09-03 01:54 J -13802917.61 -13802917.42 -13802917.21 0.0088 0.0052
 Earth -42504-09-03 02:52 J -13802917.57 -13802917.38 -13802917.14 0.0088 0.0049 *
 Moon -42503-09-05 14:23 J -13802550.01 -13802549.90 -13802549.75 0.0088 0.0078
 Earth -42503-09-05 14:23 J -13802549.96 -13802549.90 -13802549.78 0.0088 0.0083 *
 Mercury -42502-03-27 16:47 J -13802346.85 -13802346.80 -13802346.74 0.0088 0.0083
 Mercury -42502-06-23 18:57 J -13802258.78 -13802258.71 -13802258.62 0.0088 0.0076
 Mercury -42502-09-19 21:06 J -13802170.71 -13802170.62 -13802170.51 0.0088 0.0068
 Mercury -42502-12-16 23:02 J -13802082.64 -13802082.54 -13802082.41 0.0088 0.0062
 Mercury -42501-03-14 01:40 J -13801994.56 -13801994.43 -13801994.31 0.0088 0.0054
 Mercury -42501-06-10 03:35 J -13801906.48 -13801906.35 -13801906.21 0.0088 0.0047
 Mercury -42501-09-06 05:45 J -13801818.39 -13801818.26 -13801818.11 0.0088 0.0040
 Mercury -42501-12-03 07:54 J -13801730.31 -13801730.17 -13801730.02 0.0088 0.0032
 Mercury -42500-03-01 10:04 J -13801642.23 -13801642.08 -13801641.93 0.0088 0.0025
 Mercury -42500-05-28 12:14 J -13801554.14 -13801553.99 -13801553.84 0.0088 0.0018
 Mercury -42500-08-24 14:09 J -13801466.06 -13801465.91 -13801465.75 0.0088 0.0012
 Mercury -42500-11-20 16:33 J -13801377.97 -13801377.81 -13801377.66 0.0088 0.0005
 Mercury -42499-02-16 18:28 J -13801289.88 -13801289.73 -13801289.57 0.0088 0.0003
 Mercury -42499-05-15 20:38 J -13801201.80 -13801201.64 -13801201.49 0.0088 0.0010
 Mercury -42499-08-11 22:33 J -13801113.71 -13801113.56 -13801113.40 0.0088 0.0017
 Mercury -42499-11-08 00:28 J -13801025.62 -13801025.48 -13801025.32 0.0088 0.0025
 Mercury -42498-02-04 02:38 J -13800937.53 -13800937.39 -13800937.24 0.0088 0.0031
 Mercury -42498-05-03 04:33 J -13800849.44 -13800849.31 -13800849.16 0.0088 0.0038
 Mercury -42498-07-30 06:28 J -13800761.35 -13800761.23 -13800761.08 0.0088 0.0046
 Mercury -42498-10-26 08:52 J -13800673.26 -13800673.13 -13800673.01 0.0088 0.0052
 Mercury -42497-01-22 10:47 J -13800585.16 -13800585.05 -13800584.93 0.0088 0.0059
 Mercury -42497-04-19 12:42 J -13800497.07 -13800496.97 -13800496.86 0.0088 0.0066
 Mercury -42497-07-16 14:23 J -13800408.97 -13800408.90 -13800408.80 0.0088 0.0073
 Mercury -42497-10-12 16:18 J -13800320.87 -13800320.82 -13800320.73 0.0088 0.0080
 Mercury -42496-01-08 18:42 J -13800232.75 -13800232.72 -13800232.68 0.0088 0.0086

Mars	-42489-01-04 12:42 J	-13797681.18	-13797680.97	-13797680.68	0.0089	0.0061
Mars	-42488-11-30 17:59 J	-13796985.07	-13796984.75	-13796984.42	0.0089	0.0029
Mars	-42486-10-27 21:06 J	-13796288.96	-13796288.62	-13796288.28	0.0089	0.0002
Mars	-42484-09-22 22:18 J	-13795592.87	-13795592.57	-13795592.24	0.0089	0.0033
Mars	-42482-08-19 21:21 J	-13794896.84	-13794896.61	-13794896.37	0.0089	0.0063
Venus	-42467-06-02 13:26 J	-13789495.98	-13789495.94	-13789495.85	0.0089	0.0085
Venus	-42466-01-14 02:09 J	-13789270.53	-13789270.41	-13789270.27	0.0089	0.0070
Venus	-42466-08-27 14:23 J	-13789045.05	-13789044.90	-13789044.72	0.0089	0.0057
Venus	-42465-04-09 02:52 J	-13788819.56	-13788819.38	-13788819.18	0.0089	0.0043
Venus	-42465-11-20 15:21 J	-13788594.06	-13788593.86	-13788593.66	0.0089	0.0030
Venus	-42464-07-04 03:35 J	-13788368.56	-13788368.35	-13788368.14	0.0089	0.0016
Venus	-42463-02-14 15:50 J	-13788143.05	-13788142.84	-13788142.62	0.0089	0.0003
Venus	-42463-09-28 04:18 J	-13787917.53	-13787917.32	-13787917.10	0.0089	0.0012
Venus	-42462-05-11 16:33 J	-13787692.01	-13787691.81	-13787691.60	0.0089	0.0025
Venus	-42462-12-23 04:33 J	-13787466.49	-13787466.31	-13787466.10	0.0089	0.0039
Venus	-42461-08-04 17:02 J	-13787240.95	-13787240.79	-13787240.61	0.0089	0.0053
Venus	-42460-03-18 05:02 J	-13787015.41	-13787015.29	-13787015.13	0.0089	0.0066
Venus	-42460-10-29 17:45 J	-13786789.85	-13786789.76	-13786789.66	0.0089	0.0080
Earth	-42425-02-23 09:35 J	-13774255.27	-13774255.10	-13774254.92	0.0089	0.0063
Moon	-42425-02-23 12:14 J	-13774255.16	-13774254.99	-13774254.78	0.0089	0.0061 *
Moon	-42424-02-24 19:26 J	-13773887.91	-13773887.69	-13773887.44	0.0089	0.0032
Earth	-42424-02-24 20:52 J	-13773887.86	-13773887.63	-13773887.37	0.0089	0.0029 *
Earth	-42423-02-27 08:38 J	-13773520.39	-13773520.14	-13773519.88	0.0089	0.0006
Moon	-42423-02-27 09:21 J	-13773520.37	-13773520.11	-13773519.84	0.0089	0.0009 *
Earth	-42422-03-01 20:09 J	-13773152.88	-13773152.66	-13773152.42	0.0089	0.0041
Moon	-42422-03-01 20:38 J	-13773152.85	-13773152.64	-13773152.40	0.0089	0.0038 *
Moon	-42421-03-03 05:30 J	-13772785.37	-13772785.27	-13772785.12	0.0089	0.0078
Earth	-42421-03-03 07:26 J	-13772785.29	-13772785.19	-13772785.03	0.0089	0.0076 *
Mercury	-42421-09-23 21:35 J	-13772580.61	-13772580.60	-13772580.56	0.0089	0.0088
Mercury	-42421-12-20 23:45 J	-13772492.56	-13772492.51	-13772492.44	0.0089	0.0081

Mercury -42420-03-19 01:54 J -13772404.50 -13772404.42 -13772404.33 0.0089 0.0074

Mercury -42420-06-15 04:04 J -13772316.42 -13772316.33 -13772316.22 0.0089 0.0067

Mercury -42420-09-11 05:59 J -13772228.35 -13772228.25 -13772228.12 0.0089 0.0060

Mercury -42420-12-08 08:09 J -13772140.27 -13772140.16 -13772140.02 0.0089 0.0053

Mercury -42419-03-06 10:18 J -13772052.19 -13772052.07 -13772051.92 0.0089 0.0046

Mercury -42419-06-02 12:42 J -13771964.11 -13771963.97 -13771963.82 0.0089 0.0038

Mercury -42419-08-29 14:52 J -13771876.02 -13771875.88 -13771875.73 0.0089 0.0031

Mercury -42419-11-25 17:02 J -13771787.94 -13771787.79 -13771787.63 0.0089 0.0024

Mercury -42418-02-21 19:11 J -13771699.85 -13771699.70 -13771699.54 0.0089 0.0017

Mercury -42418-05-20 21:35 J -13771611.76 -13771611.60 -13771611.44 0.0089 0.0010

Mercury -42418-08-16 23:45 J -13771523.67 -13771523.51 -13771523.35 0.0089 0.0002

Mercury -42418-11-13 01:54 J -13771435.58 -13771435.42 -13771435.26 0.0089 0.0006

Mercury -42417-02-09 04:04 J -13771347.48 -13771347.33 -13771347.16 0.0089 0.0013

Mercury -42417-05-07 06:28 J -13771259.39 -13771259.23 -13771259.07 0.0089 0.0020

Mercury -42417-08-03 08:38 J -13771171.29 -13771171.14 -13771170.98 0.0089 0.0027

Mercury -42417-10-30 10:47 J -13771083.19 -13771083.05 -13771082.89 0.0089 0.0035

Mercury -42416-01-26 13:11 J -13770995.09 -13770994.95 -13770994.81 0.0089 0.0042

Mercury -42416-04-24 15:35 J -13770906.99 -13770906.85 -13770906.72 0.0089 0.0049

Mercury -42416-07-21 17:30 J -13770818.88 -13770818.77 -13770818.63 0.0089 0.0057

Mercury -42416-10-17 20:09 J -13770730.77 -13770730.66 -13770730.55 0.0089 0.0064

Mercury -42415-01-13 22:04 J -13770642.66 -13770642.58 -13770642.47 0.0089 0.0072

Mercury -42415-04-12 00:42 J -13770554.54 -13770554.47 -13770554.40 0.0089 0.0079

Mercury -42415-07-09 02:52 J -13770466.40 -13770466.38 -13770466.34 0.0089 0.0087

Mars -42410-11-15 12:28 J -13768511.12 -13768510.98 -13768510.79 0.0089 0.0073

Mars -42408-10-09 05:02 J -13767817.51 -13767817.29 -13767817.02 0.0089 0.0047

Mars -42406-09-02 21:50 J -13767123.86 -13767123.59 -13767123.29 0.0089 0.0021

Mars -42404-07-27 16:47 J -13766430.08 -13766429.80 -13766429.50 0.0089 0.0007

Mars -42402-06-21 12:42 J -13765736.23 -13765735.97 -13765735.69 0.0089 0.0033

Mars -42400-05-15 08:38 J -13765042.34 -13765042.14 -13765041.90 0.0089 0.0060

Mars -42398-04-09 06:57 J -13764348.24 -13764348.21 -13764348.12 0.0089 0.0087

Venus	-42385-07-15 22:18 J	-13759501.66	-13759501.57	-13759501.44	0.0088	0.0077
Venus	-42384-02-26 12:14 J	-13759276.13	-13759275.99	-13759275.82	0.0088	0.0064
Venus	-42384-10-10 02:09 J	-13759050.59	-13759050.41	-13759050.22	0.0088	0.0050
Venus	-42383-05-23 15:35 J	-13758825.04	-13758824.85	-13758824.63	0.0088	0.0036
Venus	-42382-01-04 05:16 J	-13758599.48	-13758599.28	-13758599.05	0.0088	0.0023
Venus	-42382-08-17 19:11 J	-13758373.92	-13758373.70	-13758373.47	0.0088	0.0008
Venus	-42381-03-30 09:06 J	-13758148.34	-13758148.12	-13758147.89	0.0088	0.0006
Venus	-42381-11-10 22:47 J	-13757922.76	-13757922.55	-13757922.33	0.0088	0.0020
Venus	-42380-06-24 12:28 J	-13757697.18	-13757696.98	-13757696.77	0.0088	0.0033
Venus	-42379-02-05 02:09 J	-13757471.59	-13757471.41	-13757471.21	0.0088	0.0047
Venus	-42379-09-18 15:35 J	-13757245.99	-13757245.85	-13757245.67	0.0088	0.0062
Venus	-42378-05-02 05:16 J	-13757020.37	-13757020.28	-13757020.13	0.0088	0.0076
Moon	-42343-08-27 00:42 J	-13744119.61	-13744119.47	-13744119.29	0.0088	0.0069
Earth	-42343-08-27 03:50 J	-13744119.49	-13744119.34	-13744119.17	0.0088	0.0070 *
Earth	-42342-08-29 15:35 J	-13743752.08	-13743751.85	-13743751.60	0.0088	0.0036
Moon	-42342-08-29 17:30 J	-13743751.99	-13743751.77	-13743751.50	0.0088	0.0038 *
Moon	-42341-08-31 03:06 J	-13743384.62	-13743384.37	-13743384.12	0.0088	0.0001
Earth	-42341-08-31 03:35 J	-13743384.61	-13743384.35	-13743384.09	0.0088	0.0001 *
Moon	-42340-09-02 14:52 J	-13743017.12	-13743016.88	-13743016.62	0.0088	0.0032
Earth	-42340-09-02 15:06 J	-13743017.10	-13743016.87	-13743016.62	0.0088	0.0033 *
Earth	-42339-09-05 02:38 J	-13742649.54	-13742649.39	-13742649.21	0.0088	0.0068
Moon	-42339-09-05 04:04 J	-13742649.46	-13742649.33	-13742649.16	0.0088	0.0070 *
Mercury	-42338-09-25 14:23 J	-13742263.94	-13742263.90	-13742263.85	0.0088	0.0085
Mercury	-42338-12-22 16:33 J	-13742175.88	-13742175.81	-13742175.73	0.0088	0.0078
Mercury	-42337-03-19 18:42 J	-13742087.81	-13742087.72	-13742087.61	0.0088	0.0070
Mercury	-42337-06-15 20:38 J	-13741999.73	-13741999.64	-13741999.51	0.0088	0.0064
Mercury	-42337-09-11 23:16 J	-13741911.65	-13741911.53	-13741911.41	0.0088	0.0056
Mercury	-42337-12-09 01:11 J	-13741823.57	-13741823.45	-13741823.31	0.0088	0.0049
Mercury	-42336-03-07 03:21 J	-13741735.49	-13741735.36	-13741735.21	0.0088	0.0042
Mercury	-42336-06-03 05:30 J	-13741647.41	-13741647.27	-13741647.11	0.0088	0.0034

Mercury -42336-08-30 07:40 J -13741559.32 -13741559.18 -13741559.02 0.0088 0.0027

Mercury -42336-11-26 09:50 J -13741471.24 -13741471.09 -13741470.93 0.0088 0.0020

Mercury -42335-02-22 11:59 J -13741383.15 -13741383.00 -13741382.84 0.0088 0.0013

Mercury -42335-05-21 14:09 J -13741295.06 -13741294.91 -13741294.75 0.0088 0.0006

Mercury -42335-08-17 16:18 J -13741206.98 -13741206.82 -13741206.66 0.0088 0.0002

Mercury -42335-11-13 18:14 J -13741118.89 -13741118.74 -13741118.58 0.0088 0.0009

Mercury -42334-02-09 20:23 J -13741030.80 -13741030.65 -13741030.49 0.0088 0.0016

Mercury -42334-05-08 22:33 J -13740942.71 -13740942.56 -13740942.41 0.0088 0.0023

Mercury -42334-08-05 00:28 J -13740854.62 -13740854.48 -13740854.33 0.0088 0.0030

Mercury -42334-11-01 02:23 J -13740766.53 -13740766.40 -13740766.25 0.0088 0.0037

Mercury -42333-01-28 04:33 J -13740678.44 -13740678.31 -13740678.17 0.0088 0.0043

Mercury -42333-04-25 06:28 J -13740590.35 -13740590.23 -13740590.10 0.0088 0.0050

Mercury -42333-07-22 08:23 J -13740502.25 -13740502.15 -13740502.02 0.0088 0.0058

Mercury -42333-10-18 10:18 J -13740414.16 -13740414.07 -13740413.95 0.0088 0.0065

Mercury -42332-01-14 12:28 J -13740326.06 -13740325.98 -13740325.88 0.0088 0.0071

Mercury -42332-04-12 14:23 J -13740237.96 -13740237.90 -13740237.82 0.0088 0.0078

Mercury -42332-07-09 16:18 J -13740149.85 -13740149.82 -13740149.76 0.0088 0.0085

Mars -42326-08-18 05:59 J -13737919.45 -13737919.25 -13737919.04 0.0089 0.0071

Mars -42324-07-14 11:16 J -13737223.31 -13737223.03 -13737222.71 0.0089 0.0040

Mars -42322-06-10 15:50 J -13736527.17 -13736526.84 -13736526.49 0.0089 0.0009

Mars -42320-05-06 17:59 J -13735831.06 -13735830.75 -13735830.41 0.0089 0.0024

Mars -42318-04-02 19:26 J -13735134.95 -13735134.69 -13735134.42 0.0089 0.0054

Mars -42316-02-26 17:30 J -13734438.84 -13734438.77 -13734438.64 0.0089 0.0085

Venus -42303-09-04 02:38 J -13729501.40 -13729501.39 -13729501.35 0.0089 0.0088

Venus -42302-04-17 14:52 J -13729275.97 -13729275.88 -13729275.74 0.0089 0.0075

Venus -42302-11-29 03:21 J -13729050.50 -13729050.36 -13729050.19 0.0089 0.0061

Venus -42301-07-11 15:35 J -13728825.02 -13728824.85 -13728824.65 0.0089 0.0048

Venus -42300-02-22 04:04 J -13728599.52 -13728599.33 -13728599.12 0.0089 0.0034

Venus -42300-10-05 16:47 J -13728374.01 -13728373.80 -13728373.59 0.0089 0.0021

Venus -42299-05-19 05:02 J -13728148.50 -13728148.29 -13728148.07 0.0089 0.0007

Venus	-42299-12-30 17:16 J	-13727922.99	-13727922.78	-13727922.56	0.0089	0.0007
Venus	-42298-08-13 05:30 J	-13727697.48	-13727697.27	-13727697.06	0.0089	0.0020
Venus	-42297-03-25 17:30 J	-13727471.96	-13727471.77	-13727471.56	0.0089	0.0034
Venus	-42297-11-06 05:45 J	-13727246.43	-13727246.26	-13727246.06	0.0089	0.0048
Venus	-42296-06-19 17:45 J	-13727020.89	-13727020.76	-13727020.58	0.0089	0.0062
Venus	-42295-01-31 06:14 J	-13726795.34	-13726795.24	-13726795.11	0.0089	0.0074
Venus	-42295-09-13 18:42 J	-13726569.75	-13726569.72	-13726569.67	0.0089	0.0088
Moon	-42261-02-22 19:11 J	-13714354.81	-13714354.70	-13714354.55	0.0089	0.0076
Earth	-42261-02-22 21:06 J	-13714354.72	-13714354.62	-13714354.49	0.0089	0.0080 *
Earth	-42260-02-24 08:38 J	-13713987.35	-13713987.14	-13713986.91	0.0089	0.0045
Moon	-42260-02-24 08:38 J	-13713987.35	-13713987.14	-13713986.91	0.0089	0.0048 *
Earth	-42259-02-26 19:54 J	-13713619.91	-13713619.67	-13713619.40	0.0089	0.0010
Moon	-42259-02-26 21:06 J	-13713619.87	-13713619.62	-13713619.37	0.0089	0.0006 *
Moon	-42258-03-01 05:30 J	-13713252.51	-13713252.27	-13713252.00	0.0089	0.0022
Earth	-42258-03-01 07:40 J	-13713252.42	-13713252.18	-13713251.93	0.0089	0.0026 *
Earth	-42257-03-02 19:11 J	-13712884.88	-13712884.70	-13712884.51	0.0089	0.0060
Moon	-42257-03-02 22:18 J	-13712884.74	-13712884.57	-13712884.39	0.0089	0.0064 *
Mercury	-42256-06-20 21:21 J	-13712409.65	-13712409.61	-13712409.54	0.0089	0.0083
Mercury	-42256-09-16 23:30 J	-13712321.59	-13712321.52	-13712321.43	0.0089	0.0076
Mercury	-42256-12-14 01:26 J	-13712233.52	-13712233.44	-13712233.33	0.0089	0.0069
Mercury	-42255-03-12 03:35 J	-13712145.45	-13712145.35	-13712145.22	0.0089	0.0062
Mercury	-42255-06-08 05:45 J	-13712057.37	-13712057.26	-13712057.12	0.0089	0.0055
Mercury	-42255-09-04 07:54 J	-13711969.29	-13711969.17	-13711969.03	0.0089	0.0048
Mercury	-42255-12-01 10:18 J	-13711881.21	-13711881.07	-13711880.93	0.0089	0.0040
Mercury	-42254-02-27 12:28 J	-13711793.12	-13711792.98	-13711792.83	0.0089	0.0033
Mercury	-42254-05-26 14:38 J	-13711705.04	-13711704.89	-13711704.74	0.0089	0.0026
Mercury	-42254-08-22 16:47 J	-13711616.95	-13711616.80	-13711616.64	0.0089	0.0019
Mercury	-42254-11-18 18:57 J	-13711528.86	-13711528.71	-13711528.55	0.0089	0.0012
Mercury	-42253-02-14 21:06 J	-13711440.77	-13711440.62	-13711440.46	0.0089	0.0005
Mercury	-42253-05-12 23:30 J	-13711352.68	-13711352.52	-13711352.36	0.0089	0.0003

Mercury -42253-08-09 01:40 J -13711264.59 -13711264.43 -13711264.27 0.0089 0.0010
 Mercury -42253-11-05 03:50 J -13711176.49 -13711176.34 -13711176.18 0.0089 0.0018
 Mercury -42252-02-01 05:59 J -13711088.40 -13711088.25 -13711088.09 0.0089 0.0025
 Mercury -42252-04-30 08:23 J -13711000.30 -13711000.15 -13711000.00 0.0089 0.0032
 Mercury -42252-07-27 10:33 J -13710912.20 -13710912.06 -13710911.91 0.0089 0.0040
 Mercury -42252-10-23 12:57 J -13710824.10 -13710823.96 -13710823.83 0.0089 0.0047
 Mercury -42251-01-19 14:52 J -13710735.99 -13710735.88 -13710735.74 0.0089 0.0055
 Mercury -42251-04-17 17:16 J -13710647.89 -13710647.78 -13710647.66 0.0089 0.0062
 Mercury -42251-07-14 19:26 J -13710559.78 -13710559.69 -13710559.58 0.0089 0.0070
 Mercury -42251-10-10 21:50 J -13710471.66 -13710471.59 -13710471.50 0.0089 0.0077
 Mercury -42250-01-06 23:59 J -13710383.53 -13710383.50 -13710383.44 0.0089 0.0085
 Mars -42246-07-01 05:59 J -13708747.35 -13708747.25 -13708747.14 0.0089 0.0082
 Mars -42244-05-24 22:18 J -13708053.79 -13708053.57 -13708053.34 0.0089 0.0056
 Mars -42242-04-18 15:35 J -13707360.11 -13707359.85 -13707359.56 0.0089 0.0030
 Mars -42240-03-12 09:21 J -13706666.40 -13706666.11 -13706665.82 0.0089 0.0003
 Mars -42238-02-04 03:50 J -13705972.61 -13705972.34 -13705972.05 0.0089 0.0025
 Mars -42237-12-29 00:28 J -13705278.70 -13705278.48 -13705278.22 0.0089 0.0052
 Mars -42235-11-22 20:38 J -13704584.75 -13704584.64 -13704584.48 0.0089 0.0079
 Venus -42221-10-17 10:04 J -13699507.16 -13699507.08 -13699506.99 0.0088 0.0082
 Venus -42220-05-30 23:16 J -13699281.65 -13699281.53 -13699281.37 0.0088 0.0069
 Venus -42219-01-11 13:11 J -13699056.12 -13699055.95 -13699055.76 0.0088 0.0054
 Venus -42219-08-25 03:06 J -13698830.57 -13698830.37 -13698830.17 0.0088 0.0041
 Venus -42218-04-07 16:33 J -13698605.01 -13698604.81 -13698604.58 0.0088 0.0027
 Venus -42218-11-19 06:28 J -13698379.45 -13698379.23 -13698379.00 0.0088 0.0013
 Venus -42217-07-01 20:09 J -13698153.88 -13698153.66 -13698153.43 0.0088 0.0001
 Venus -42216-02-12 09:50 J -13697928.30 -13697928.09 -13697927.86 0.0088 0.0015
 Venus -42216-09-25 23:30 J -13697702.72 -13697702.52 -13697702.30 0.0088 0.0028
 Venus -42215-05-09 13:11 J -13697477.13 -13697476.95 -13697476.74 0.0088 0.0042
 Venus -42215-12-21 03:06 J -13697251.54 -13697251.37 -13697251.19 0.0088 0.0056
 Venus -42214-08-03 16:33 J -13697025.93 -13697025.81 -13697025.65 0.0088 0.0070

Venus -42213-03-16 06:14 J -13696800.29 -13696800.24 -13696800.14 0.0088 0.0084
 Earth -42179-08-26 14:38 J -13684218.93 -13684218.89 -13684218.81 0.0088 0.0086
 Moon -42179-08-26 16:04 J -13684218.90 -13684218.83 -13684218.70 0.0088 0.0082 *
 Moon -42178-08-29 01:54 J -13683851.59 -13683851.42 -13683851.21 0.0088 0.0056
 Earth -42178-08-29 02:23 J -13683851.58 -13683851.40 -13683851.16 0.0088 0.0052 *
 Moon -42177-08-30 13:40 J -13683484.19 -13683483.93 -13683483.66 0.0088 0.0012
 Earth -42177-08-30 14:52 J -13683484.13 -13683483.88 -13683483.62 0.0088 0.0016 *
 Earth -42176-09-02 02:38 J -13683116.64 -13683116.39 -13683116.13 0.0088 0.0018
 Moon -42176-09-02 04:33 J -13683116.56 -13683116.31 -13683116.06 0.0088 0.0014 *
 Moon -42175-09-04 11:02 J -13682749.22 -13682749.04 -13682748.82 0.0088 0.0057
 Earth -42175-09-04 14:09 J -13682749.11 -13682748.91 -13682748.69 0.0088 0.0053 *
 Earth -42174-09-07 01:11 J -13682381.46 -13682381.45 -13682381.38 0.0088 0.0088
 Moon -42174-09-07 05:16 J -13682381.35 -13682381.28 -13682381.18 0.0088 0.0083
 Mercury -42173-03-25 11:59 J -13682181.02 -13682181.00 -13682180.97 0.0088 0.0087
 Mercury -42173-06-21 14:09 J -13682092.97 -13682092.91 -13682092.84 0.0088 0.0080
 Mercury -42173-09-17 16:04 J -13682004.90 -13682004.83 -13682004.72 0.0088 0.0073
 Mercury -42173-12-14 18:14 J -13681916.83 -13681916.74 -13681916.61 0.0088 0.0066
 Mercury -42172-03-12 20:52 J -13681828.75 -13681828.63 -13681828.51 0.0088 0.0058
 Mercury -42172-06-08 22:47 J -13681740.67 -13681740.55 -13681740.41 0.0088 0.0051
 Mercury -42172-09-05 00:57 J -13681652.59 -13681652.46 -13681652.31 0.0088 0.0044
 Mercury -42172-12-02 03:06 J -13681564.50 -13681564.37 -13681564.22 0.0088 0.0036
 Mercury -42171-02-28 05:30 J -13681476.42 -13681476.27 -13681476.12 0.0088 0.0029
 Mercury -42171-05-27 07:40 J -13681388.33 -13681388.18 -13681388.03 0.0088 0.0022
 Mercury -42171-08-23 09:50 J -13681300.25 -13681300.09 -13681299.94 0.0088 0.0015
 Mercury -42171-11-19 11:45 J -13681212.16 -13681212.01 -13681211.85 0.0088 0.0008
 Mercury -42170-02-15 13:54 J -13681124.08 -13681123.92 -13681123.76 0.0088 0.0001
 Mercury -42170-05-14 16:04 J -13681035.99 -13681035.83 -13681035.67 0.0088 0.0007
 Mercury -42170-08-10 18:14 J -13680947.90 -13680947.74 -13680947.59 0.0088 0.0014
 Mercury -42170-11-06 20:09 J -13680859.81 -13680859.66 -13680859.51 0.0088 0.0021
 Mercury -42169-02-02 22:18 J -13680771.72 -13680771.57 -13680771.42 0.0088 0.0028

Mercury -42169-05-01 00:14 J -13680683.63 -13680683.49 -13680683.34 0.0088 0.0035

Mercury -42169-07-28 02:23 J -13680595.54 -13680595.40 -13680595.26 0.0088 0.0042

Mercury -42169-10-24 04:18 J -13680507.44 -13680507.32 -13680507.19 0.0088 0.0049

Mercury -42168-01-20 06:14 J -13680419.35 -13680419.24 -13680419.11 0.0088 0.0056

Mercury -42168-04-18 08:09 J -13680331.26 -13680331.16 -13680331.04 0.0088 0.0063

Mercury -42168-07-15 10:04 J -13680243.16 -13680243.08 -13680242.97 0.0088 0.0070

Mercury -42168-10-11 12:28 J -13680155.06 -13680154.98 -13680154.90 0.0088 0.0076

Mercury -42167-01-07 14:23 J -13680066.95 -13680066.90 -13680066.84 0.0088 0.0083

Mars -42162-03-31 22:33 J -13678157.65 -13678157.56 -13678157.41 0.0089 0.0083

Mars -42160-02-25 05:02 J -13677461.55 -13677461.29 -13677460.99 0.0089 0.0051

Mars -42158-01-22 10:18 J -13676765.39 -13676765.07 -13676764.73 0.0089 0.0019

Mars -42157-12-18 14:09 J -13676069.23 -13676068.91 -13676068.56 0.0089 0.0014

Mars -42155-11-14 15:50 J -13675373.11 -13675372.84 -13675372.53 0.0089 0.0045

Mars -42153-10-10 16:18 J -13674676.97 -13674676.82 -13674676.63 0.0089 0.0076

Venus -42138-07-20 03:35 J -13669281.43 -13669281.35 -13669281.24 0.0089 0.0079

Venus -42137-03-01 15:50 J -13669055.96 -13669055.84 -13669055.67 0.0089 0.0066

Venus -42137-10-13 04:33 J -13668830.47 -13668830.31 -13668830.13 0.0089 0.0052

Venus -42136-05-26 16:47 J -13668604.98 -13668604.80 -13668604.59 0.0089 0.0039

Venus -42135-01-07 05:16 J -13668379.48 -13668379.28 -13668379.07 0.0089 0.0025

Venus -42135-08-20 17:30 J -13668153.97 -13668153.77 -13668153.55 0.0089 0.0013

Venus -42134-04-03 05:59 J -13667928.46 -13667928.25 -13667928.03 0.0089 0.0002

Venus -42134-11-14 18:14 J -13667702.95 -13667702.74 -13667702.52 0.0089 0.0015

Venus -42133-06-27 06:28 J -13667477.43 -13667477.23 -13667477.02 0.0089 0.0029

Venus -42132-02-07 18:28 J -13667251.90 -13667251.73 -13667251.53 0.0089 0.0042

Venus -42132-09-21 06:57 J -13667026.37 -13667026.21 -13667026.03 0.0089 0.0056

Venus -42131-05-04 18:57 J -13666800.82 -13666800.71 -13666800.55 0.0089 0.0069

Venus -42131-12-16 07:11 J -13666575.26 -13666575.20 -13666575.10 0.0089 0.0082

Earth -42096-02-23 19:54 J -13654086.85 -13654086.67 -13654086.47 0.0089 0.0061

Moon -42096-02-23 21:06 J -13654086.79 -13654086.62 -13654086.42 0.0089 0.0059 *

Moon -42095-02-26 04:47 J -13653719.54 -13653719.30 -13653719.04 0.0089 0.0027

Earth -42095-02-26 07:40 J -13653719.43 -13653719.18 -13653718.93 0.0089 0.0025 *
 Earth -42094-02-28 18:57 J -13653351.96 -13653351.71 -13653351.45 0.0089 0.0010
 Moon -42094-02-28 21:50 J -13653351.83 -13653351.59 -13653351.33 0.0089 0.0013 *
 Moon -42093-03-02 02:38 J -13652984.61 -13652984.39 -13652984.15 0.0089 0.0042
 Earth -42093-03-02 05:59 J -13652984.45 -13652984.25 -13652984.00 0.0089 0.0045 *
 Earth -42092-03-04 17:30 J -13652616.86 -13652616.77 -13652616.63 0.0089 0.0080
 Moon -42092-03-04 21:06 J -13652616.70 -13652616.62 -13652616.51 0.0089 0.0082 *
 Mercury -42092-12-19 18:57 J -13652326.74 -13652326.71 -13652326.65 0.0089 0.0085
 Mercury -42091-03-17 20:52 J -13652238.68 -13652238.63 -13652238.54 0.0089 0.0078
 Mercury -42091-06-13 23:02 J -13652150.62 -13652150.54 -13652150.43 0.0089 0.0071
 Mercury -42091-09-10 01:11 J -13652062.54 -13652062.45 -13652062.33 0.0089 0.0064
 Mercury -42091-12-07 03:21 J -13651974.47 -13651974.36 -13651974.23 0.0089 0.0057
 Mercury -42090-03-05 05:30 J -13651886.39 -13651886.27 -13651886.13 0.0089 0.0050
 Mercury -42090-06-01 07:54 J -13651798.31 -13651798.17 -13651798.03 0.0089 0.0042
 Mercury -42090-08-28 10:04 J -13651710.22 -13651710.08 -13651709.94 0.0089 0.0035
 Mercury -42090-11-24 11:59 J -13651622.14 -13651622.00 -13651621.84 0.0089 0.0028
 Mercury -42089-02-20 14:09 J -13651534.05 -13651533.91 -13651533.75 0.0089 0.0021
 Mercury -42089-05-18 16:33 J -13651445.97 -13651445.81 -13651445.65 0.0089 0.0014
 Mercury -42089-08-14 18:42 J -13651357.88 -13651357.72 -13651357.56 0.0089 0.0006
 Mercury -42089-11-10 20:52 J -13651269.79 -13651269.63 -13651269.47 0.0089 0.0002
 Mercury -42088-02-06 23:02 J -13651181.69 -13651181.54 -13651181.38 0.0089 0.0009
 Mercury -42088-05-06 01:11 J -13651093.60 -13651093.45 -13651093.29 0.0089 0.0016
 Mercury -42088-08-02 03:35 J -13651005.50 -13651005.35 -13651005.20 0.0089 0.0023
 Mercury -42088-10-29 05:45 J -13650917.41 -13650917.26 -13650917.11 0.0089 0.0030
 Mercury -42087-01-25 07:54 J -13650829.31 -13650829.17 -13650829.02 0.0089 0.0038
 Mercury -42087-04-23 10:18 J -13650741.21 -13650741.07 -13650740.93 0.0089 0.0045
 Mercury -42087-07-20 12:14 J -13650653.10 -13650652.99 -13650652.85 0.0089 0.0053
 Mercury -42087-10-16 14:38 J -13650565.00 -13650564.89 -13650564.76 0.0089 0.0060
 Mercury -42086-01-12 16:47 J -13650476.89 -13650476.80 -13650476.68 0.0089 0.0068
 Mercury -42086-04-10 19:11 J -13650388.77 -13650388.70 -13650388.61 0.0089 0.0075

Mercury	-42086-07-07 21:21 J	-13650300.65	-13650300.61	-13650300.54	0.0089	0.0083
Mars	-42080-01-07 16:04 J	-13648290.00	-13648289.83	-13648289.61	0.0089	0.0066
Mars	-42079-12-02 08:38 J	-13647596.39	-13647596.14	-13647595.86	0.0089	0.0039
Mars	-42077-10-26 02:09 J	-13646902.69	-13646902.41	-13646902.11	0.0089	0.0012
Mars	-42075-09-19 19:40 J	-13646208.96	-13646208.68	-13646208.38	0.0089	0.0016
Mars	-42073-08-13 13:40 J	-13645515.17	-13645514.93	-13645514.65	0.0089	0.0044
Mars	-42071-07-08 10:47 J	-13644821.21	-13644821.05	-13644820.86	0.0089	0.0071
Venus	-42056-01-18 21:35 J	-13639512.65	-13639512.60	-13639512.55	0.0088	0.0086
Venus	-42056-09-01 10:47 J	-13639287.16	-13639287.05	-13639286.91	0.0088	0.0073
Venus	-42055-04-15 00:14 J	-13639061.63	-13639061.49	-13639061.30	0.0088	0.0060
Venus	-42055-11-26 14:09 J	-13638836.09	-13638835.91	-13638835.71	0.0088	0.0046
Venus	-42054-07-10 04:04 J	-13638610.54	-13638610.33	-13638610.12	0.0088	0.0032
Venus	-42053-02-20 17:45 J	-13638384.98	-13638384.76	-13638384.54	0.0088	0.0018
Venus	-42053-10-03 07:40 J	-13638159.41	-13638159.18	-13638158.96	0.0088	0.0005
Venus	-42052-05-16 21:06 J	-13637933.84	-13637933.62	-13637933.39	0.0088	0.0010
Jupiter	-42052-07-22 20:38 J	-13637867.18	-13637866.64	-13637866.05	0.0088	0.0014
Venus	-42052-12-28 10:47 J	-13637708.26	-13637708.05	-13637707.82	0.0088	0.0023
Venus	-42051-08-11 00:28 J	-13637482.67	-13637482.48	-13637482.27	0.0088	0.0037
Venus	-42050-03-24 14:23 J	-13637257.07	-13637256.90	-13637256.71	0.0088	0.0050
Venus	-42050-11-05 03:50 J	-13637031.47	-13637031.34	-13637031.16	0.0088	0.0064
Venus	-42049-06-17 17:45 J	-13636805.85	-13636805.76	-13636805.64	0.0088	0.0078
Moon	-42014-08-28 13:11 J	-13623951.12	-13623950.95	-13623950.76	0.0088	0.0066
Earth	-42014-08-28 14:09 J	-13623951.07	-13623950.91	-13623950.73	0.0088	0.0067 *
Earth	-42013-08-30 01:54 J	-13623583.65	-13623583.42	-13623583.16	0.0088	0.0032
Moon	-42013-08-30 04:33 J	-13623583.54	-13623583.31	-13623583.07	0.0088	0.0033 *
Moon	-42012-09-01 11:02 J	-13623216.31	-13623216.04	-13623215.78	0.0088	0.0003
Earth	-42012-09-01 14:09 J	-13623216.17	-13623215.91	-13623215.65	0.0088	0.0003 *
Earth	-42011-09-04 01:40 J	-13622848.65	-13622848.43	-13622848.18	0.0088	0.0038
Moon	-42011-09-04 05:02 J	-13622848.51	-13622848.29	-13622848.04	0.0088	0.0036 *
Moon	-42010-09-06 09:21 J	-13622481.22	-13622481.11	-13622480.94	0.0088	0.0074

Earth -42010-09-06 13:11 J -13622481.07 -13622480.95 -13622480.78 0.0088 0.0073 *
 Mercury -42009-12-20 11:45 J -13622010.06 -13622010.01 -13622009.95 0.0088 0.0082
 Mercury -42008-03-18 13:40 J -13621922.00 -13621921.93 -13621921.83 0.0088 0.0075
 Mercury -42008-06-14 16:18 J -13621833.92 -13621833.82 -13621833.72 0.0088 0.0067
 Mercury -42008-09-10 18:14 J -13621745.85 -13621745.74 -13621745.61 0.0088 0.0060
 Mercury -42008-12-07 20:23 J -13621657.77 -13621657.65 -13621657.51 0.0088 0.0053
 Mercury -42007-03-05 22:33 J -13621569.68 -13621569.56 -13621569.41 0.0088 0.0046
 Mercury -42007-06-02 00:42 J -13621481.60 -13621481.47 -13621481.32 0.0088 0.0038
 Mercury -42007-08-29 03:06 J -13621393.52 -13621393.37 -13621393.22 0.0088 0.0031
 Mercury -42007-11-25 05:16 J -13621305.43 -13621305.28 -13621305.13 0.0088 0.0024
 Mercury -42006-02-21 07:26 J -13621217.35 -13621217.19 -13621217.04 0.0088 0.0016
 Mercury -42006-05-20 09:35 J -13621129.26 -13621129.10 -13621128.95 0.0088 0.0009
 Mercury -42006-08-16 11:30 J -13621041.17 -13621041.02 -13621040.86 0.0088 0.0004
 Mercury -42006-11-12 13:40 J -13620953.08 -13620952.93 -13620952.77 0.0088 0.0005
 Mercury -42005-02-08 15:50 J -13620865.00 -13620864.84 -13620864.68 0.0088 0.0012
 Mercury -42005-05-06 17:45 J -13620776.91 -13620776.76 -13620776.60 0.0088 0.0019
 Mercury -42005-08-02 19:54 J -13620688.82 -13620688.67 -13620688.52 0.0088 0.0026
 Mercury -42005-10-29 21:50 J -13620600.72 -13620600.59 -13620600.44 0.0088 0.0033
 Mercury -42004-01-25 23:45 J -13620512.63 -13620512.51 -13620512.36 0.0088 0.0041
 Mercury -42004-04-24 02:09 J -13620424.54 -13620424.41 -13620424.28 0.0088 0.0047
 Mercury -42004-07-21 04:04 J -13620336.45 -13620336.33 -13620336.20 0.0088 0.0054
 Mercury -42004-10-17 05:59 J -13620248.35 -13620248.25 -13620248.13 0.0088 0.0061
 Mercury -42003-01-13 07:54 J -13620160.25 -13620160.17 -13620160.06 0.0088 0.0068
 Mercury -42003-04-11 09:50 J -13620072.15 -13620072.09 -13620071.99 0.0088 0.0075
 Mercury -42003-07-08 11:45 J -13619984.05 -13619984.01 -13619983.93 0.0088 0.0082
 Mercury -42003-10-04 14:09 J -13619895.92 -13619895.91 -13619895.89 0.0088 0.0088

42ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 42nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-41997-10-08 21:21 J		-13617699.85	-13617699.61	-13617699.36	0.0089	0.0062	
Mars	-41995-09-05 02:52 J		-13617003.69	-13617003.38	-13617003.05	0.0089	0.0030	
Mars	-41993-08-01 07:40 J		-13616307.52	-13616307.18	-13616306.84	0.0089	0.0003	
Mars	-41991-06-28 11:16 J		-13615611.33	-13615611.03	-13615610.71	0.0089	0.0035	
Mars	-41989-05-24 12:28 J		-13614915.17	-13614914.98	-13614914.73	0.0089	0.0067	
Venus	-41974-10-21 16:33 J		-13609286.88	-13609286.81	-13609286.73	0.0089	0.0083	
Venus	-41973-06-03 04:47 J		-13609061.42	-13609061.30	-13609061.16	0.0089	0.0070	
Venus	-41972-01-14 17:02 J		-13608835.94	-13608835.79	-13608835.61	0.0089	0.0057	
Venus	-41972-08-28 05:45 J		-13608610.44	-13608610.26	-13608610.07	0.0089	0.0043	
Venus	-41971-04-10 17:59 J		-13608384.94	-13608384.75	-13608384.54	0.0089	0.0030	
Venus	-41971-11-22 06:14 J		-13608159.44	-13608159.24	-13608159.02	0.0089	0.0017	
Venus	-41970-07-05 18:42 J		-13607933.93	-13607933.72	-13607933.50	0.0089	0.0003	
Venus	-41969-02-16 06:57 J		-13607708.42	-13607708.21	-13607707.99	0.0089	0.0010	
Venus	-41969-09-28 19:26 J		-13607482.90	-13607482.69	-13607482.48	0.0089	0.0023	
Venus	-41968-05-12 07:11 J		-13607257.38	-13607257.20	-13607256.98	0.0089	0.0038	
Venus	-41968-12-23 19:26 J		-13607031.85	-13607031.69	-13607031.49	0.0089	0.0050	
Venus	-41967-08-06 07:40 J		-13606806.31	-13606806.18	-13606806.01	0.0089	0.0064	
Venus	-41966-03-19 20:09 J		-13606580.76	-13606580.66	-13606580.55	0.0089	0.0076	
Moon	-41932-02-23 04:33 J		-13594186.45	-13594186.31	-13594186.15	0.0089	0.0072	
Earth	-41932-02-23 06:42 J		-13594186.31	-13594186.22	-13594186.06	0.0089	0.0078	*
Earth	-41931-02-25 18:42 J		-13593818.94	-13593818.72	-13593818.49	0.0089	0.0042	

Moon -41931-02-25 21:50 J -13593818.79 -13593818.59 -13593818.36 0.0089 0.0046 *
 Moon -41930-02-28 02:38 J -13593451.64 -13593451.39 -13593451.13 0.0089 0.0003
 Earth -41930-02-28 06:14 J -13593451.49 -13593451.24 -13593450.98 0.0089 0.0006 *
 Earth -41929-03-01 17:16 J -13593084.01 -13593083.78 -13593083.53 0.0089 0.0029
 Moon -41929-03-01 20:52 J -13593083.87 -13593083.63 -13593083.37 0.0089 0.0025 *
 Moon -41928-03-04 02:09 J -13592716.55 -13592716.41 -13592716.23 0.0089 0.0068
 Earth -41928-03-04 04:33 J -13592716.46 -13592716.31 -13592716.11 0.0089 0.0064 *
 Mercury -41927-06-19 16:18 J -13592243.83 -13592243.82 -13592243.77 0.0089 0.0087
 Mercury -41927-09-15 18:28 J -13592155.78 -13592155.73 -13592155.65 0.0089 0.0080
 Mercury -41927-12-12 20:38 J -13592067.72 -13592067.64 -13592067.54 0.0089 0.0073
 Mercury -41926-03-10 22:47 J -13591979.65 -13591979.55 -13591979.44 0.0089 0.0066
 Mercury -41926-06-07 00:42 J -13591891.57 -13591891.47 -13591891.34 0.0089 0.0059
 Mercury -41926-09-03 02:52 J -13591803.49 -13591803.38 -13591803.24 0.0089 0.0052
 Mercury -41926-11-30 05:02 J -13591715.41 -13591715.29 -13591715.14 0.0089 0.0045
 Mercury -41925-02-26 07:11 J -13591627.33 -13591627.20 -13591627.05 0.0089 0.0038
 Mercury -41925-05-24 09:35 J -13591539.25 -13591539.10 -13591538.95 0.0089 0.0030
 Mercury -41925-08-20 11:45 J -13591451.16 -13591451.01 -13591450.86 0.0089 0.0023
 Mercury -41925-11-16 13:54 J -13591363.08 -13591362.92 -13591362.77 0.0089 0.0016
 Mercury -41924-02-12 16:04 J -13591274.99 -13591274.83 -13591274.67 0.0089 0.0009
 Mercury -41924-05-11 18:14 J -13591186.90 -13591186.74 -13591186.58 0.0089 0.0002
 Mercury -41924-08-07 20:23 J -13591098.81 -13591098.65 -13591098.49 0.0089 0.0006
 Mercury -41924-11-03 22:33 J -13591010.71 -13591010.56 -13591010.40 0.0089 0.0013
 Mercury -41923-01-31 00:42 J -13590922.62 -13590922.47 -13590922.31 0.0089 0.0021
 Mercury -41923-04-29 02:52 J -13590834.52 -13590834.38 -13590834.22 0.0089 0.0028
 Mercury -41923-07-26 05:16 J -13590746.42 -13590746.28 -13590746.13 0.0089 0.0035
 Mercury -41923-10-22 07:26 J -13590658.32 -13590658.19 -13590658.04 0.0089 0.0043
 Mercury -41922-01-18 09:50 J -13590570.22 -13590570.09 -13590569.96 0.0089 0.0050
 Mercury -41922-04-16 11:45 J -13590482.12 -13590482.01 -13590481.88 0.0089 0.0058
 Mercury -41922-07-13 14:09 J -13590394.01 -13590393.91 -13590393.79 0.0089 0.0065
 Mercury -41922-10-09 16:18 J -13590305.90 -13590305.82 -13590305.72 0.0089 0.0073

Mercury -41921-01-05 18:42 J -13590217.78 -13590217.72 -13590217.64 0.0089 0.0080

Mercury -41921-04-02 20:52 J -13590129.64 -13590129.63 -13590129.59 0.0089 0.0088

Mars -41917-08-23 10:18 J -13588526.20 -13588526.07 -13588525.90 0.0089 0.0076

Mars -41915-07-18 01:26 J -13587832.66 -13587832.44 -13587832.18 0.0089 0.0049

Mars -41913-06-10 17:59 J -13587139.03 -13587138.75 -13587138.47 0.0089 0.0021

Mars -41911-05-05 11:59 J -13586445.29 -13586445.00 -13586444.71 0.0089 0.0007

Mars -41909-03-29 05:59 J -13585751.50 -13585751.25 -13585750.96 0.0089 0.0035

Mars -41907-02-21 00:28 J -13585057.66 -13585057.48 -13585057.25 0.0089 0.0063

Venus -41892-12-03 21:35 J -13579292.68 -13579292.60 -13579292.46 0.0088 0.0078

Venus -41891-07-17 11:30 J -13579067.16 -13579067.02 -13579066.85 0.0088 0.0064

Venus -41890-02-28 01:11 J -13578841.62 -13578841.45 -13578841.25 0.0088 0.0050

Venus -41890-10-11 15:06 J -13578616.07 -13578615.87 -13578615.67 0.0088 0.0037

Venus -41889-05-24 04:33 J -13578390.52 -13578390.31 -13578390.09 0.0088 0.0023

Venus -41888-01-04 18:14 J -13578164.96 -13578164.74 -13578164.51 0.0088 0.0010

Venus -41888-08-18 07:54 J -13577939.39 -13577939.17 -13577938.94 0.0088 0.0004

Venus -41887-03-31 21:50 J -13577713.81 -13577713.59 -13577713.37 0.0088 0.0017

Venus -41887-11-12 11:16 J -13577488.23 -13577488.03 -13577487.81 0.0088 0.0031

Venus -41886-06-26 01:11 J -13577262.64 -13577262.45 -13577262.25 0.0088 0.0045

Jupiter -41886-09-30 08:38 J -13577166.43 -13577166.14 -13577165.76 0.0088 0.0072

Venus -41885-02-06 14:38 J -13577037.04 -13577036.89 -13577036.70 0.0088 0.0059

Venus -41885-09-19 04:47 J -13576811.42 -13576811.30 -13576811.17 0.0088 0.0072

Venus -41884-05-02 18:14 J -13576585.77 -13576585.74 -13576585.66 0.0088 0.0086

Earth -41850-08-28 00:14 J -13564050.55 -13564050.49 -13564050.37 0.0088 0.0083

Moon -41850-08-28 03:06 J -13564050.48 -13564050.37 -13564050.25 0.0088 0.0079 *

Moon -41849-08-29 09:21 J -13563683.32 -13563683.11 -13563682.90 0.0088 0.0053

Earth -41849-08-29 12:14 J -13563683.18 -13563682.99 -13563682.75 0.0088 0.0049 *

Earth -41848-09-01 00:28 J -13563315.73 -13563315.48 -13563315.21 0.0088 0.0014

Moon -41848-09-01 04:18 J -13563315.58 -13563315.32 -13563315.06 0.0088 0.0009 *

Moon -41847-09-03 09:06 J -13562948.36 -13562948.12 -13562947.86 0.0088 0.0018

Earth -41847-09-03 12:28 J -13562948.22 -13562947.98 -13562947.72 0.0088 0.0022 *

Earth -41846-09-06 00:28 J -13562580.67 -13562580.48 -13562580.28 0.0088 0.0057
 Moon -41846-09-06 03:21 J -13562580.53 -13562580.36 -13562580.15 0.0088 0.0061 *
 Moon -41845-09-07 10:18 J -13562213.09 -13562213.07 -13562213.02 0.0088 0.0088
 Mercury -41844-06-20 09:21 J -13561927.16 -13561927.11 -13561927.06 0.0088 0.0084
 Mercury -41844-09-16 11:16 J -13561839.10 -13561839.03 -13561838.94 0.0088 0.0077
 Mercury -41844-12-13 13:26 J -13561751.02 -13561750.94 -13561750.83 0.0088 0.0070
 Mercury -41843-03-11 16:04 J -13561662.95 -13561662.83 -13561662.72 0.0088 0.0062
 Mercury -41843-06-07 17:59 J -13561574.87 -13561574.75 -13561574.62 0.0088 0.0055
 Mercury -41843-09-03 20:09 J -13561486.79 -13561486.66 -13561486.52 0.0088 0.0047
 Mercury -41843-11-30 22:18 J -13561398.70 -13561398.57 -13561398.42 0.0088 0.0040
 Mercury -41842-02-27 00:42 J -13561310.62 -13561310.47 -13561310.32 0.0088 0.0033
 Mercury -41842-05-26 02:52 J -13561222.53 -13561222.38 -13561222.23 0.0088 0.0026
 Mercury -41842-08-22 05:02 J -13561134.45 -13561134.29 -13561134.14 0.0088 0.0018
 Mercury -41842-11-18 07:11 J -13561046.36 -13561046.20 -13561046.05 0.0088 0.0011
 Mercury -41841-02-14 09:21 J -13560958.27 -13560958.11 -13560957.96 0.0088 0.0004
 Mercury -41841-05-12 11:16 J -13560870.18 -13560870.03 -13560869.87 0.0088 0.0004
 Mercury -41841-08-08 13:26 J -13560782.09 -13560781.94 -13560781.78 0.0088 0.0010
 Mercury -41841-11-04 15:21 J -13560694.00 -13560693.86 -13560693.70 0.0088 0.0018
 Mercury -41840-01-31 17:30 J -13560605.91 -13560605.77 -13560605.61 0.0088 0.0024
 Mercury -41840-04-29 19:40 J -13560517.82 -13560517.68 -13560517.53 0.0088 0.0031
 Mercury -41840-07-26 21:35 J -13560429.73 -13560429.60 -13560429.45 0.0088 0.0038
 Mercury -41840-10-22 23:30 J -13560341.64 -13560341.52 -13560341.37 0.0088 0.0046
 Mercury -41839-01-19 01:40 J -13560253.54 -13560253.43 -13560253.29 0.0088 0.0052
 Mercury -41839-04-17 04:04 J -13560165.45 -13560165.33 -13560165.22 0.0088 0.0059
 Mercury -41839-07-14 05:59 J -13560077.35 -13560077.25 -13560077.15 0.0088 0.0066
 Mercury -41839-10-10 07:54 J -13559989.25 -13559989.17 -13559989.08 0.0088 0.0073
 Mercury -41838-01-06 09:50 J -13559901.15 -13559901.09 -13559901.02 0.0088 0.0079
 Mercury -41838-04-04 11:45 J -13559813.03 -13559813.01 -13559812.97 0.0088 0.0086
 Mars -41833-05-22 11:02 J -13557938.19 -13557938.04 -13557937.82 0.0089 0.0075
 Mars -41831-04-18 18:28 J -13557242.00 -13557241.73 -13557241.40 0.0089 0.0042

Mars	-41829-03-15 00:28 J	-13556545.81	-13556545.48	-13556545.13	0.0089	0.0009
Mars	-41827-02-09 04:18 J	-13555849.63	-13555849.32	-13555848.98	0.0089	0.0025
Mars	-41825-01-06 07:11 J	-13555153.44	-13555153.20	-13555152.92	0.0089	0.0057
Venus	-41809-01-23 04:18 J	-13549292.33	-13549292.32	-13549292.27	0.0089	0.0088
Venus	-41809-09-04 16:47 J	-13549066.89	-13549066.80	-13549066.66	0.0089	0.0075
Venus	-41808-04-18 05:45 J	-13548841.41	-13548841.26	-13548841.10	0.0089	0.0061
Venus	-41808-11-29 17:59 J	-13548615.92	-13548615.75	-13548615.56	0.0089	0.0048
Venus	-41807-07-13 06:14 J	-13548390.42	-13548390.24	-13548390.03	0.0089	0.0035
Venus	-41806-02-23 18:42 J	-13548164.92	-13548164.72	-13548164.50	0.0089	0.0022
Venus	-41806-10-07 07:26 J	-13547939.40	-13547939.19	-13547938.97	0.0089	0.0008
Venus	-41805-05-19 19:40 J	-13547713.89	-13547713.68	-13547713.46	0.0089	0.0005
Venus	-41805-12-31 07:54 J	-13547488.38	-13547488.17	-13547487.95	0.0089	0.0018
Venus	-41804-08-13 20:23 J	-13547262.85	-13547262.65	-13547262.45	0.0089	0.0032
Venus	-41803-03-27 08:09 J	-13547037.33	-13547037.16	-13547036.96	0.0089	0.0045
Venus	-41803-11-07 20:23 J	-13546811.79	-13546811.65	-13546811.47	0.0089	0.0058
Venus	-41802-06-21 08:38 J	-13546586.25	-13546586.14	-13546585.99	0.0089	0.0071
Venus	-41801-02-01 20:52 J	-13546360.68	-13546360.63	-13546360.55	0.0089	0.0084
Moon	-41767-02-25 01:40 J	-13533918.60	-13533918.43	-13533918.21	0.0089	0.0058
Earth	-41767-02-25 05:30 J	-13533918.44	-13533918.27	-13533918.06	0.0089	0.0058 *
Earth	-41766-02-27 16:47 J	-13533551.03	-13533550.80	-13533550.53	0.0089	0.0024
Moon	-41766-02-27 20:09 J	-13533550.90	-13533550.66	-13533550.40	0.0089	0.0025 *
Moon	-41765-03-01 01:40 J	-13533183.67	-13533183.43	-13533183.18	0.0089	0.0016
Earth	-41765-03-01 04:33 J	-13533183.56	-13533183.31	-13533183.05	0.0089	0.0013 *
Earth	-41764-03-03 15:50 J	-13532816.04	-13532815.84	-13532815.61	0.0089	0.0048
Moon	-41764-03-03 17:02 J	-13532816.00	-13532815.79	-13532815.54	0.0089	0.0046 *
Earth	-41763-03-06 03:21 J	-13532448.44	-13532448.36	-13532448.26	0.0089	0.0083
Moon	-41763-03-06 02:23 J	-13532448.43	-13532448.40	-13532448.30	0.0089	0.0087 *
Mercury	-41763-12-18 14:23 J	-13532160.90	-13532160.90	-13532160.90	0.0089	0.0089
Mercury	-41762-03-16 16:04 J	-13532072.87	-13532072.83	-13532072.76	0.0089	0.0082
Mercury	-41762-06-12 18:14 J	-13531984.81	-13531984.74	-13531984.65	0.0089	0.0075

Mercury -41762-09-08 20:23 J -13531896.74 -13531896.65 -13531896.55 0.0089 0.0068
 Mercury -41762-12-05 22:18 J -13531808.67 -13531808.57 -13531808.45 0.0089 0.0061
 Mercury -41761-03-03 00:28 J -13531720.59 -13531720.48 -13531720.35 0.0089 0.0054
 Mercury -41761-05-30 02:38 J -13531632.52 -13531632.39 -13531632.25 0.0089 0.0047
 Mercury -41761-08-26 04:47 J -13531544.44 -13531544.30 -13531544.16 0.0089 0.0040
 Mercury -41761-11-22 06:42 J -13531456.35 -13531456.22 -13531456.06 0.0089 0.0033
 Mercury -41760-02-18 08:52 J -13531368.27 -13531368.13 -13531367.97 0.0089 0.0026
 Mercury -41760-05-17 11:16 J -13531280.18 -13531280.03 -13531279.88 0.0089 0.0018
 Mercury -41760-08-13 13:26 J -13531192.10 -13531191.94 -13531191.78 0.0089 0.0011
 Mercury -41760-11-09 15:35 J -13531104.01 -13531103.85 -13531103.69 0.0089 0.0004
 Mercury -41759-02-05 17:45 J -13531015.92 -13531015.76 -13531015.60 0.0089 0.0003
 Mercury -41759-05-04 19:54 J -13530927.83 -13530927.67 -13530927.51 0.0089 0.0011
 Mercury -41759-07-31 22:04 J -13530839.73 -13530839.58 -13530839.42 0.0089 0.0018
 Mercury -41759-10-28 00:14 J -13530751.64 -13530751.49 -13530751.33 0.0089 0.0026
 Mercury -41758-01-24 02:23 J -13530663.54 -13530663.40 -13530663.24 0.0089 0.0033
 Mercury -41758-04-22 04:47 J -13530575.44 -13530575.30 -13530575.16 0.0089 0.0040
 Mercury -41758-07-19 06:42 J -13530487.34 -13530487.22 -13530487.07 0.0089 0.0048
 Mercury -41758-10-15 09:06 J -13530399.24 -13530399.12 -13530398.99 0.0089 0.0055
 Mercury -41757-01-11 11:16 J -13530311.13 -13530311.03 -13530310.91 0.0089 0.0063
 Mercury -41757-04-08 13:40 J -13530223.02 -13530222.93 -13530222.83 0.0089 0.0070
 Mercury -41757-07-05 15:50 J -13530134.90 -13530134.84 -13530134.75 0.0089 0.0078
 Mercury -41757-10-01 18:14 J -13530046.78 -13530046.74 -13530046.69 0.0089 0.0085
 Mars -41753-04-08 01:54 J -13528762.47 -13528762.42 -13528762.33 0.0089 0.0086
 Mars -41751-03-02 18:14 J -13528068.93 -13528068.74 -13528068.50 0.0089 0.0059
 Mars -41749-01-25 10:33 J -13527375.32 -13527375.06 -13527374.78 0.0089 0.0031
 Mars -41748-12-19 02:38 J -13526681.68 -13526681.39 -13526681.10 0.0089 0.0003
 Mars -41746-11-12 20:23 J -13525987.93 -13525987.65 -13525987.37 0.0089 0.0025
 Mars -41744-10-06 14:23 J -13525294.10 -13525293.90 -13525293.63 0.0089 0.0054
 Mars -41742-08-31 09:06 J -13524600.20 -13524600.12 -13524599.97 0.0089 0.0082
 Venus -41727-03-07 09:21 J -13519298.18 -13519298.11 -13519298.01 0.0088 0.0082

Venus	-41727-10-18 22:47 J	-13519072.68	-13519072.55	-13519072.39	0.0088	0.0068
Venus	-41726-06-01 12:14 J	-13518847.15	-13518846.99	-13518846.80	0.0088	0.0055
Venus	-41725-01-13 01:54 J	-13518621.61	-13518621.42	-13518621.21	0.0088	0.0042
Venus	-41725-08-25 15:21 J	-13518396.06	-13518395.86	-13518395.63	0.0088	0.0029
Venus	-41724-04-08 05:16 J	-13518170.50	-13518170.28	-13518170.05	0.0088	0.0015
Venus	-41724-11-19 18:57 J	-13517944.93	-13517944.71	-13517944.48	0.0088	0.0002
Venus	-41723-07-03 08:23 J	-13517719.36	-13517719.15	-13517718.92	0.0088	0.0013
Venus	-41722-02-13 22:18 J	-13517493.78	-13517493.57	-13517493.35	0.0088	0.0026
Venus	-41722-09-27 11:45 J	-13517268.20	-13517268.01	-13517267.80	0.0088	0.0039
Venus	-41721-05-10 01:40 J	-13517042.60	-13517042.43	-13517042.24	0.0088	0.0052
Venus	-41721-12-21 14:52 J	-13516817.00	-13516816.88	-13516816.70	0.0088	0.0067
Venus	-41720-08-04 04:47 J	-13516591.38	-13516591.30	-13516591.18	0.0088	0.0080
Earth	-41685-08-28 23:02 J	-13503782.70	-13503782.54	-13503782.35	0.0088	0.0064
Moon	-41685-08-29 02:52 J	-13503782.55	-13503782.38	-13503782.19	0.0088	0.0064 *
Moon	-41684-08-31 07:40 J	-13503415.41	-13503415.18	-13503414.93	0.0088	0.0029
Earth	-41684-08-31 11:02 J	-13503415.28	-13503415.04	-13503414.79	0.0088	0.0029 *
Earth	-41683-09-02 23:02 J	-13503047.80	-13503047.54	-13503047.28	0.0088	0.0006
Moon	-41683-09-03 01:40 J	-13503047.69	-13503047.43	-13503047.16	0.0088	0.0007 *
Moon	-41682-09-05 08:38 J	-13502680.35	-13502680.14	-13502679.90	0.0088	0.0040
Earth	-41682-09-05 10:47 J	-13502680.27	-13502680.05	-13502679.81	0.0088	0.0041 *
Earth	-41681-09-06 22:33 J	-13502312.69	-13502312.56	-13502312.42	0.0088	0.0076
Moon	-41681-09-06 22:04 J	-13502312.68	-13502312.58	-13502312.41	0.0088	0.0077 *
Mercury	-41680-12-19 06:28 J	-13501844.25	-13501844.23	-13501844.20	0.0088	0.0087
Mercury	-41679-03-17 08:23 J	-13501756.20	-13501756.15	-13501756.06	0.0088	0.0080
Mercury	-41679-06-13 11:02 J	-13501668.13	-13501668.04	-13501667.95	0.0088	0.0072
Mercury	-41679-09-09 12:57 J	-13501580.05	-13501579.96	-13501579.84	0.0088	0.0065
Mercury	-41679-12-06 15:06 J	-13501491.97	-13501491.87	-13501491.73	0.0088	0.0058
Mercury	-41678-03-04 17:45 J	-13501403.89	-13501403.76	-13501403.63	0.0088	0.0050
Mercury	-41678-05-31 19:40 J	-13501315.81	-13501315.68	-13501315.53	0.0088	0.0043
Mercury	-41678-08-27 21:50 J	-13501227.72	-13501227.59	-13501227.43	0.0088	0.0036

Mercury -41678-11-23 23:59 J -13501139.64 -13501139.50 -13501139.34 0.0088 0.0029

Mercury -41677-02-20 02:23 J -13501051.55 -13501051.40 -13501051.24 0.0088 0.0021

Mercury -41677-05-18 04:33 J -13500963.47 -13500963.31 -13500963.15 0.0088 0.0014

Mercury -41677-08-14 06:42 J -13500875.38 -13500875.22 -13500875.06 0.0088 0.0006

Mercury -41677-11-10 08:52 J -13500787.29 -13500787.13 -13500786.97 0.0088 0.0001

Mercury -41676-02-06 10:47 J -13500699.20 -13500699.05 -13500698.89 0.0088 0.0009

Mercury -41676-05-05 12:57 J -13500611.11 -13500610.96 -13500610.80 0.0088 0.0015

Mercury -41676-08-01 15:06 J -13500523.02 -13500522.87 -13500522.72 0.0088 0.0022

Mercury -41676-10-28 17:02 J -13500434.93 -13500434.79 -13500434.63 0.0088 0.0029

Mercury -41675-01-24 19:11 J -13500346.84 -13500346.70 -13500346.55 0.0088 0.0036

Mercury -41675-04-22 21:21 J -13500258.74 -13500258.61 -13500258.47 0.0088 0.0043

Mercury -41675-07-19 23:30 J -13500170.65 -13500170.52 -13500170.39 0.0088 0.0050

Mercury -41675-10-16 01:26 J -13500082.55 -13500082.44 -13500082.32 0.0088 0.0057

Mercury -41674-01-12 03:21 J -13499994.46 -13499994.36 -13499994.25 0.0088 0.0064

Mercury -41674-04-10 05:16 J -13499906.36 -13499906.28 -13499906.18 0.0088 0.0071

Mercury -41674-07-07 07:11 J -13499818.26 -13499818.20 -13499818.11 0.0088 0.0078

Mercury -41674-10-03 09:21 J -13499730.14 -13499730.11 -13499730.05 0.0088 0.0084

Mars -41669-01-03 22:47 J -13498176.56 -13498176.55 -13498176.45 0.0088 0.0088

Mars -41668-11-30 07:40 J -13497480.44 -13497480.18 -13497479.90 0.0089 0.0054

Mars -41666-10-27 14:38 J -13496784.20 -13496783.89 -13496783.54 0.0089 0.0021

Mars -41664-09-22 20:23 J -13496087.98 -13496087.65 -13496087.30 0.0089 0.0014

Mars -41662-08-19 23:30 J -13495391.77 -13495391.52 -13495391.20 0.0089 0.0047

Mars -41660-07-16 02:23 J -13494695.53 -13494695.40 -13494695.22 0.0089 0.0079

Venus -41645-12-07 04:33 J -13489072.38 -13489072.31 -13489072.19 0.0089 0.0080

Venus -41644-07-20 17:30 J -13488846.91 -13488846.77 -13488846.63 0.0089 0.0066

Venus -41643-03-03 05:45 J -13488621.42 -13488621.26 -13488621.08 0.0089 0.0053

Venus -41643-10-14 18:14 J -13488395.92 -13488395.74 -13488395.53 0.0089 0.0040

Venus -41642-05-28 06:42 J -13488170.41 -13488170.22 -13488170.00 0.0089 0.0027

Venus -41641-01-08 19:11 J -13487944.90 -13487944.70 -13487944.48 0.0089 0.0014

Venus -41641-08-21 07:40 J -13487719.39 -13487719.18 -13487718.96 0.0089 0.0002

Venus	-41640-04-03 19:54 J	-13487493.87	-13487493.67	-13487493.45	0.0089	0.0013
Venus	-41640-11-15 08:09 J	-13487268.35	-13487268.16	-13487267.94	0.0089	0.0027
Venus	-41639-06-28 20:23 J	-13487042.83	-13487042.65	-13487042.44	0.0089	0.0040
Venus	-41638-02-09 08:38 J	-13486817.30	-13486817.14	-13486816.95	0.0089	0.0053
Venus	-41638-09-22 21:06 J	-13486591.75	-13486591.62	-13486591.47	0.0089	0.0065
Venus	-41637-05-05 09:21 J	-13486366.20	-13486366.11	-13486366.00	0.0089	0.0078
Earth	-41603-02-24 15:50 J	-13474017.97	-13474017.84	-13474017.70	0.0089	0.0076
Moon	-41603-02-24 18:28 J	-13474017.86	-13474017.73	-13474017.54	0.0089	0.0072 *
Moon	-41602-02-27 00:57 J	-13473650.66	-13473650.46	-13473650.23	0.0089	0.0044
Earth	-41602-02-27 02:52 J	-13473650.59	-13473650.38	-13473650.13	0.0089	0.0040 *
Earth	-41601-02-29 14:52 J	-13473283.14	-13473282.88	-13473282.63	0.0089	0.0004
Moon	-41601-02-29 16:18 J	-13473283.08	-13473282.82	-13473282.55	0.0089	0.0001 *
Earth	-41600-03-03 02:09 J	-13472915.64	-13472915.41	-13472915.16	0.0089	0.0032
Moon	-41600-03-03 02:23 J	-13472915.63	-13472915.40	-13472915.16	0.0089	0.0027 *
Moon	-41599-03-05 11:30 J	-13472548.15	-13472548.02	-13472547.83	0.0089	0.0071
Earth	-41599-03-05 13:11 J	-13472548.10	-13472547.95	-13472547.76	0.0089	0.0067 *
Mercury	-41598-09-14 13:26 J	-13471989.97	-13471989.94	-13471989.88	0.0089	0.0085
Mercury	-41598-12-11 15:21 J	-13471901.91	-13471901.86	-13471901.77	0.0089	0.0078
Mercury	-41597-03-08 17:30 J	-13471813.85	-13471813.77	-13471813.66	0.0089	0.0071
Mercury	-41597-06-04 19:40 J	-13471725.78	-13471725.68	-13471725.56	0.0089	0.0064
Mercury	-41597-08-31 21:35 J	-13471637.70	-13471637.60	-13471637.46	0.0089	0.0057
Mercury	-41597-11-27 23:45 J	-13471549.63	-13471549.51	-13471549.37	0.0089	0.0050
Mercury	-41596-02-24 01:54 J	-13471461.55	-13471461.42	-13471461.27	0.0089	0.0043
Mercury	-41596-05-23 04:18 J	-13471373.46	-13471373.32	-13471373.18	0.0089	0.0035
Mercury	-41596-08-19 06:28 J	-13471285.38	-13471285.23	-13471285.09	0.0089	0.0028
Mercury	-41596-11-15 08:23 J	-13471197.30	-13471197.15	-13471196.99	0.0089	0.0021
Mercury	-41595-02-11 10:33 J	-13471109.21	-13471109.06	-13471108.90	0.0089	0.0014
Mercury	-41595-05-10 12:42 J	-13471021.12	-13471020.97	-13471020.81	0.0089	0.0007
Mercury	-41595-08-06 14:52 J	-13470933.03	-13470932.88	-13470932.72	0.0089	0.0002
Mercury	-41595-11-02 17:02 J	-13470844.94	-13470844.79	-13470844.63	0.0089	0.0008

Mercury -41594-01-29 19:11 J -13470756.85 -13470756.70 -13470756.54 0.0089 0.0015

Mercury -41594-04-27 21:21 J -13470668.76 -13470668.61 -13470668.45 0.0089 0.0023

Mercury -41594-07-24 23:30 J -13470580.66 -13470580.52 -13470580.36 0.0089 0.0030

Mercury -41594-10-21 01:54 J -13470492.57 -13470492.42 -13470492.28 0.0089 0.0037

Mercury -41593-01-17 03:50 J -13470404.47 -13470404.34 -13470404.19 0.0089 0.0045

Mercury -41593-04-14 06:14 J -13470316.36 -13470316.24 -13470316.11 0.0089 0.0052

Mercury -41593-07-11 08:09 J -13470228.26 -13470228.16 -13470228.02 0.0089 0.0060

Mercury -41593-10-07 10:33 J -13470140.15 -13470140.06 -13470139.94 0.0089 0.0067

Mercury -41592-01-03 12:42 J -13470052.04 -13470051.97 -13470051.87 0.0089 0.0075

Mercury -41592-04-01 15:06 J -13469963.92 -13469963.87 -13469963.80 0.0089 0.0082

Mars -41588-10-16 09:21 J -13468305.26 -13468305.11 -13468304.90 0.0089 0.0070

Mars -41586-09-10 01:11 J -13467611.68 -13467611.45 -13467611.17 0.0089 0.0042

Mars -41584-08-03 18:14 J -13466918.01 -13466917.74 -13466917.44 0.0089 0.0014

Mars -41582-06-28 10:18 J -13466224.36 -13466224.07 -13466223.78 0.0089 0.0015

Mars -41580-05-22 03:50 J -13465530.58 -13465530.34 -13465530.07 0.0089 0.0044

Mars -41578-04-15 22:47 J -13464836.69 -13464836.55 -13464836.35 0.0089 0.0073

Venus -41563-06-08 19:40 J -13459303.71 -13459303.68 -13459303.62 0.0088 0.0087

Venus -41562-01-20 09:06 J -13459078.22 -13459078.12 -13459077.98 0.0088 0.0073

Venus -41562-09-02 22:33 J -13458852.70 -13458852.56 -13458852.37 0.0088 0.0061

Venus -41561-04-15 12:42 J -13458627.16 -13458626.97 -13458626.78 0.0088 0.0047

Venus -41561-11-27 02:09 J -13458401.61 -13458401.41 -13458401.20 0.0088 0.0033

Venus -41560-07-10 15:35 J -13458176.06 -13458175.85 -13458175.62 0.0088 0.0020

Venus -41559-02-21 05:16 J -13457950.50 -13457950.28 -13457950.05 0.0088 0.0008

Venus -41559-10-04 19:11 J -13457724.93 -13457724.70 -13457724.48 0.0088 0.0007

Venus -41558-05-18 08:23 J -13457499.35 -13457499.15 -13457498.92 0.0088 0.0021

Venus -41558-12-29 22:04 J -13457273.78 -13457273.58 -13457273.36 0.0088 0.0033

Venus -41557-08-11 11:59 J -13457048.19 -13457048.00 -13457047.81 0.0088 0.0047

Venus -41556-03-25 01:26 J -13456822.59 -13456822.44 -13456822.26 0.0088 0.0060

Venus -41556-11-05 15:06 J -13456596.97 -13456596.87 -13456596.72 0.0088 0.0074

Venus -41555-06-19 05:02 J -13456371.32 -13456371.29 -13456371.23 0.0088 0.0087

Moon -41521-08-28 05:16 J -13443882.38 -13443882.28 -13443882.13 0.0088 0.0077
 Earth -41521-08-28 08:52 J -13443882.21 -13443882.13 -13443882.01 0.0088 0.0081 *
 Earth -41520-08-30 20:38 J -13443514.84 -13443514.64 -13443514.40 0.0088 0.0047
 Moon -41520-08-30 23:30 J -13443514.74 -13443514.52 -13443514.30 0.0088 0.0051 *
 Moon -41519-09-02 07:40 J -13443147.42 -13443147.18 -13443146.92 0.0088 0.0007
 Earth -41519-09-02 08:52 J -13443147.38 -13443147.13 -13443146.87 0.0088 0.0011 *
 Earth -41518-09-04 20:23 J -13442779.88 -13442779.65 -13442779.39 0.0088 0.0025
 Moon -41518-09-04 20:52 J -13442779.88 -13442779.63 -13442779.35 0.0088 0.0020 *
 Earth -41517-09-06 08:09 J -13442412.33 -13442412.16 -13442411.95 0.0088 0.0060
 Moon -41517-09-06 09:21 J -13442412.26 -13442412.11 -13442411.92 0.0088 0.0064 *
 Mercury -41515-09-15 05:30 J -13441673.31 -13441673.27 -13441673.19 0.0088 0.0083
 Mercury -41515-12-12 08:09 J -13441585.24 -13441585.16 -13441585.07 0.0088 0.0075
 Mercury -41514-03-10 10:18 J -13441497.17 -13441497.07 -13441496.96 0.0088 0.0067
 Mercury -41514-06-06 12:28 J -13441409.09 -13441408.98 -13441408.85 0.0088 0.0060
 Mercury -41514-09-02 14:52 J -13441321.00 -13441320.88 -13441320.75 0.0088 0.0053
 Mercury -41514-11-29 17:02 J -13441232.92 -13441232.79 -13441232.65 0.0088 0.0045
 Mercury -41513-02-25 19:11 J -13441144.84 -13441144.70 -13441144.55 0.0088 0.0038
 Mercury -41513-05-23 21:35 J -13441056.75 -13441056.60 -13441056.45 0.0088 0.0031
 Mercury -41513-08-19 23:45 J -13440968.66 -13440968.51 -13440968.36 0.0088 0.0023
 Mercury -41513-11-16 01:54 J -13440880.58 -13440880.42 -13440880.26 0.0088 0.0016
 Mercury -41512-02-12 04:04 J -13440792.49 -13440792.33 -13440792.17 0.0088 0.0009
 Mercury -41512-05-11 06:14 J -13440704.40 -13440704.24 -13440704.08 0.0088 0.0002
 Mercury -41512-08-07 08:23 J -13440616.31 -13440616.15 -13440615.99 0.0088 0.0005
 Mercury -41512-11-03 10:33 J -13440528.22 -13440528.06 -13440527.91 0.0088 0.0012
 Mercury -41511-01-30 12:28 J -13440440.13 -13440439.98 -13440439.82 0.0088 0.0020
 Mercury -41511-04-28 14:38 J -13440352.04 -13440351.89 -13440351.74 0.0088 0.0027
 Mercury -41511-07-25 16:47 J -13440263.94 -13440263.80 -13440263.65 0.0088 0.0034
 Mercury -41511-10-21 18:42 J -13440175.85 -13440175.72 -13440175.57 0.0088 0.0041
 Mercury -41510-01-17 20:52 J -13440087.76 -13440087.63 -13440087.49 0.0088 0.0048
 Mercury -41510-04-15 22:47 J -13439999.66 -13439999.55 -13439999.42 0.0088 0.0055

Mercury -41510-07-13 00:57 J -13439911.57 -13439911.46 -13439911.34 0.0088 0.0062

Mercury -41510-10-09 02:52 J -13439823.47 -13439823.38 -13439823.27 0.0088 0.0069

Mercury -41509-01-05 04:47 J -13439735.36 -13439735.30 -13439735.21 0.0088 0.0076

Mercury -41509-04-02 06:42 J -13439647.26 -13439647.22 -13439647.15 0.0088 0.0083

Mars -41504-07-13 18:28 J -13437718.93 -13437718.73 -13437718.48 0.0089 0.0067

Mars -41502-06-10 02:23 J -13437022.71 -13437022.40 -13437022.07 0.0089 0.0033

Mars -41500-05-06 09:21 J -13436326.44 -13436326.11 -13436325.76 0.0089 0.0002

Mars -41498-04-02 14:38 J -13435630.19 -13435629.89 -13435629.57 0.0089 0.0035

Mars -41496-02-26 17:16 J -13434933.96 -13434933.78 -13434933.53 0.0089 0.0069

Venus -41480-03-10 16:33 J -13429077.86 -13429077.81 -13429077.73 0.0089 0.0084

Venus -41480-10-22 05:16 J -13428852.40 -13428852.28 -13428852.14 0.0089 0.0071

Venus -41479-06-04 17:30 J -13428626.92 -13428626.77 -13428626.59 0.0089 0.0058

Venus -41478-01-16 05:59 J -13428401.42 -13428401.25 -13428401.05 0.0089 0.0045

Venus -41478-08-29 18:28 J -13428175.92 -13428175.73 -13428175.51 0.0089 0.0032

Venus -41477-04-11 06:57 J -13427950.41 -13427950.21 -13427949.99 0.0089 0.0019

Venus -41477-11-22 19:40 J -13427724.90 -13427724.68 -13427724.47 0.0089 0.0006

Venus -41476-07-06 07:54 J -13427499.38 -13427499.17 -13427498.95 0.0089 0.0007

Venus -41475-02-16 20:23 J -13427273.86 -13427273.65 -13427273.44 0.0089 0.0020

Venus -41475-09-30 08:52 J -13427048.33 -13427048.13 -13427047.93 0.0089 0.0034

Venus -41474-05-13 21:06 J -13426822.80 -13426822.62 -13426822.43 0.0089 0.0047

Venus -41474-12-25 09:21 J -13426597.27 -13426597.11 -13426596.95 0.0089 0.0060

Venus -41473-08-06 21:35 J -13426371.72 -13426371.60 -13426371.48 0.0089 0.0073

Venus -41472-03-20 09:35 J -13426146.15 -13426146.10 -13426146.03 0.0089 0.0086

Earth -41438-02-26 13:11 J -13413750.14 -13413749.95 -13413749.76 0.0089 0.0057

Moon -41438-02-26 13:26 J -13413750.13 -13413749.94 -13413749.72 0.0089 0.0057 *

Earth -41437-02-29 00:28 J -13413382.72 -13413382.48 -13413382.22 0.0089 0.0022

Moon -41437-02-29 00:42 J -13413382.70 -13413382.47 -13413382.23 0.0089 0.0024 *

Moon -41436-03-02 10:04 J -13413015.33 -13413015.08 -13413014.81 0.0089 0.0016

Earth -41436-03-02 11:59 J -13413015.25 -13413015.00 -13413014.74 0.0089 0.0014 *

Earth -41435-03-04 23:02 J -13412647.74 -13412647.54 -13412647.31 0.0089 0.0050

Moon -41435-03-05 01:40 J -13412647.62 -13412647.43 -13412647.20 0.0089 0.0049 *
 Moon -41434-03-07 07:26 J -13412280.22 -13412280.19 -13412280.13 0.0089 0.0087
 Earth -41434-03-07 11:02 J -13412280.11 -13412280.04 -13412279.98 0.0089 0.0086
 Mercury -41433-03-14 11:02 J -13411907.06 -13411907.04 -13411907.01 0.0089 0.0087
 Mercury -41433-06-10 12:57 J -13411819.02 -13411818.96 -13411818.89 0.0089 0.0081
 Mercury -41433-09-06 15:06 J -13411730.95 -13411730.87 -13411730.78 0.0089 0.0073
 Mercury -41433-12-03 17:16 J -13411642.88 -13411642.78 -13411642.68 0.0089 0.0067
 Mercury -41432-03-01 18:57 J -13411554.81 -13411554.71 -13411554.58 0.0089 0.0060
 Mercury -41432-05-28 21:21 J -13411466.74 -13411466.61 -13411466.49 0.0089 0.0052
 Mercury -41432-08-24 23:30 J -13411378.66 -13411378.52 -13411378.39 0.0089 0.0045
 Mercury -41432-11-21 01:26 J -13411290.58 -13411290.44 -13411290.30 0.0089 0.0038
 Mercury -41431-02-17 03:35 J -13411202.50 -13411202.35 -13411202.20 0.0089 0.0031
 Mercury -41431-05-16 05:30 J -13411114.41 -13411114.27 -13411114.11 0.0089 0.0024
 Mercury -41431-08-12 07:40 J -13411026.33 -13411026.18 -13411026.02 0.0089 0.0017
 Mercury -41431-11-08 09:50 J -13410938.24 -13410938.09 -13410937.93 0.0089 0.0010
 Mercury -41430-02-04 11:59 J -13410850.16 -13410850.00 -13410849.84 0.0089 0.0003
 Mercury -41430-05-03 14:09 J -13410762.07 -13410761.91 -13410761.75 0.0089 0.0005
 Mercury -41430-07-30 16:18 J -13410673.98 -13410673.82 -13410673.66 0.0089 0.0012
 Mercury -41430-10-26 18:28 J -13410585.88 -13410585.73 -13410585.57 0.0089 0.0019
 Mercury -41429-01-22 20:23 J -13410497.79 -13410497.65 -13410497.49 0.0089 0.0027
 Mercury -41429-04-19 22:47 J -13410409.69 -13410409.55 -13410409.40 0.0089 0.0034
 Mercury -41429-07-17 00:57 J -13410321.60 -13410321.46 -13410321.32 0.0089 0.0041
 Mercury -41429-10-13 03:06 J -13410233.50 -13410233.37 -13410233.23 0.0089 0.0049
 Mercury -41428-01-09 05:16 J -13410145.39 -13410145.28 -13410145.15 0.0089 0.0056
 Mercury -41428-04-07 07:26 J -13410057.29 -13410057.19 -13410057.07 0.0089 0.0064
 Mercury -41428-07-04 09:50 J -13409969.18 -13409969.09 -13409968.99 0.0089 0.0071
 Mercury -41428-09-30 11:45 J -13409881.06 -13409881.01 -13409880.92 0.0089 0.0079
 Mercury -41428-12-27 14:23 J -13409792.93 -13409792.90 -13409792.86 0.0089 0.0086
 Mars -41424-06-01 00:28 J -13408541.57 -13408541.48 -13408541.34 0.0089 0.0081
 Mars -41422-04-25 15:21 J -13407848.07 -13407847.86 -13407847.61 0.0089 0.0053

Mars	-41420-03-19 07:11 J	-13407154.47	-13407154.20	-13407153.91	0.0089	0.0024
Mars	-41418-02-11 00:57 J	-13406460.75	-13406460.46	-13406460.17	0.0089	0.0005
Mars	-41416-01-04 16:47 J	-13405767.05	-13405766.80	-13405766.51	0.0089	0.0034
Mars	-41415-11-29 10:18 J	-13405073.25	-13405073.07	-13405072.84	0.0089	0.0063
Venus	-41398-04-23 19:11 J	-13399083.78	-13399083.70	-13399083.57	0.0088	0.0079
Venus	-41398-12-05 08:52 J	-13398858.26	-13398858.13	-13398857.97	0.0088	0.0065
Venus	-41397-07-17 22:18 J	-13398632.73	-13398632.57	-13398632.37	0.0088	0.0052
Venus	-41396-02-28 11:59 J	-13398407.18	-13398407.00	-13398406.78	0.0088	0.0039
Venus	-41396-10-12 01:54 J	-13398181.63	-13398181.42	-13398181.20	0.0088	0.0026
Venus	-41395-05-25 15:35 J	-13397956.07	-13397955.85	-13397955.63	0.0088	0.0013
Venus	-41394-01-06 05:02 J	-13397730.51	-13397730.29	-13397730.06	0.0088	0.0001
Venus	-41394-08-19 18:28 J	-13397504.95	-13397504.73	-13397504.50	0.0088	0.0014
Venus	-41393-04-01 08:09 J	-13397279.36	-13397279.16	-13397278.94	0.0088	0.0027
Venus	-41393-11-12 21:50 J	-13397053.78	-13397053.59	-13397053.38	0.0088	0.0040
Venus	-41392-06-26 11:30 J	-13396828.19	-13396828.02	-13396827.84	0.0088	0.0054
Venus	-41391-02-07 00:42 J	-13396602.59	-13396602.47	-13396602.30	0.0088	0.0067
Venus	-41391-09-20 14:23 J	-13396376.97	-13396376.90	-13396376.78	0.0088	0.0081
Moon	-41356-08-30 04:47 J	-13383614.45	-13383614.30	-13383614.11	0.0088	0.0065
Earth	-41356-08-30 05:59 J	-13383614.42	-13383614.25	-13383614.06	0.0088	0.0064 *
Moon	-41355-09-01 17:16 J	-13383247.03	-13383246.78	-13383246.52	0.0088	0.0028
Earth	-41355-09-01 17:45 J	-13383247.00	-13383246.76	-13383246.51	0.0088	0.0029 *
Earth	-41354-09-04 05:30 J	-13382879.52	-13382879.27	-13382879.00	0.0088	0.0008
Moon	-41354-09-04 06:57 J	-13382879.46	-13382879.21	-13382878.96	0.0088	0.0007 *
Moon	-41353-09-05 14:23 J	-13382512.12	-13382511.90	-13382511.65	0.0088	0.0043
Earth	-41353-09-05 17:02 J	-13382512.00	-13382511.79	-13382511.54	0.0088	0.0043 *
Earth	-41352-09-08 04:47 J	-13382144.40	-13382144.30	-13382144.16	0.0088	0.0078
Moon	-41352-09-08 07:54 J	-13382144.27	-13382144.17	-13382144.02	0.0088	0.0078 *
Mercury	-41350-03-16 02:52 J	-13381590.42	-13381590.38	-13381590.35	0.0088	0.0086
Mercury	-41350-06-12 04:47 J	-13381502.36	-13381502.30	-13381502.22	0.0088	0.0079
Mercury	-41350-09-08 06:57 J	-13381414.29	-13381414.21	-13381414.10	0.0088	0.0071

Mercury -41350-12-05 09:21 J -13381326.21 -13381326.11 -13381325.99 0.0088 0.0064

Mercury -41349-03-02 11:30 J -13381238.13 -13381238.02 -13381237.88 0.0088 0.0057

Mercury -41349-05-29 13:40 J -13381150.05 -13381149.93 -13381149.78 0.0088 0.0050

Mercury -41349-08-25 16:04 J -13381061.96 -13381061.83 -13381061.68 0.0088 0.0042

Mercury -41349-11-21 18:14 J -13380973.88 -13380973.74 -13380973.58 0.0088 0.0035

Mercury -41348-02-17 20:38 J -13380885.79 -13380885.64 -13380885.48 0.0088 0.0027

Mercury -41348-05-16 22:47 J -13380797.70 -13380797.55 -13380797.39 0.0088 0.0020

Mercury -41348-08-13 00:57 J -13380709.61 -13380709.46 -13380709.30 0.0088 0.0013

Mercury -41348-11-09 03:21 J -13380621.52 -13380621.36 -13380621.20 0.0088 0.0005

Mercury -41347-02-05 05:30 J -13380533.43 -13380533.27 -13380533.11 0.0088 0.0003

Mercury -41347-05-04 07:26 J -13380445.34 -13380445.19 -13380445.03 0.0088 0.0010

Mercury -41347-07-31 09:35 J -13380357.25 -13380357.10 -13380356.94 0.0088 0.0017

Mercury -41347-10-27 11:45 J -13380269.16 -13380269.01 -13380268.85 0.0088 0.0024

Mercury -41346-01-23 13:54 J -13380181.06 -13380180.92 -13380180.77 0.0088 0.0031

Mercury -41346-04-21 16:04 J -13380092.97 -13380092.83 -13380092.69 0.0088 0.0038

Mercury -41346-07-18 17:59 J -13380004.88 -13380004.75 -13380004.61 0.0088 0.0045

Mercury -41346-10-14 20:09 J -13379916.78 -13379916.66 -13379916.53 0.0088 0.0052

Mercury -41345-01-10 22:04 J -13379828.68 -13379828.58 -13379828.45 0.0088 0.0059

Mercury -41345-04-08 00:14 J -13379740.59 -13379740.49 -13379740.38 0.0088 0.0066

Mercury -41345-07-05 02:09 J -13379652.48 -13379652.41 -13379652.31 0.0088 0.0073

Mercury -41345-10-01 04:04 J -13379564.38 -13379564.33 -13379564.25 0.0088 0.0080

Mercury -41345-12-28 05:59 J -13379476.26 -13379476.25 -13379476.20 0.0088 0.0087

Mars -41340-02-24 03:35 J -13377957.47 -13377957.35 -13377957.19 0.0089 0.0081

Mars -41338-01-21 12:14 J -13377261.26 -13377260.99 -13377260.67 0.0089 0.0047

Mars -41337-12-17 20:09 J -13376564.99 -13376564.66 -13376564.32 0.0089 0.0012

Mars -41335-11-14 02:38 J -13375868.71 -13375868.39 -13375868.05 0.0089 0.0023

Mars -41333-10-10 07:40 J -13375172.42 -13375172.18 -13375171.90 0.0089 0.0057

Venus -41315-01-23 16:18 J -13368857.92 -13368857.82 -13368857.70 0.0089 0.0076

Venus -41315-09-06 05:02 J -13368632.44 -13368632.29 -13368632.14 0.0089 0.0063

Venus -41314-04-19 17:30 J -13368406.95 -13368406.77 -13368406.59 0.0089 0.0050

Venus	-41314-12-01 05:59 J	-13368181.45	-13368181.25	-13368181.06	0.0089	0.0037
Venus	-41313-07-13 18:14 J	-13367955.94	-13367955.74	-13367955.53	0.0089	0.0024
Venus	-41312-02-24 06:42 J	-13367730.43	-13367730.22	-13367730.00	0.0089	0.0011
Venus	-41312-10-07 19:11 J	-13367504.91	-13367504.70	-13367504.48	0.0089	0.0002
Venus	-41311-05-21 07:26 J	-13367279.39	-13367279.19	-13367278.97	0.0089	0.0015
Jupiter	-41311-09-15 18:42 J	-13367162.12	-13367161.72	-13367161.23	0.0089	0.0046
Venus	-41310-01-01 19:40 J	-13367053.87	-13367053.68	-13367053.46	0.0089	0.0028
Venus	-41310-08-15 07:54 J	-13366828.34	-13366828.17	-13366827.96	0.0089	0.0041
Venus	-41309-03-27 20:52 J	-13366602.81	-13366602.63	-13366602.46	0.0089	0.0054
Venus	-41309-11-08 09:06 J	-13366377.26	-13366377.12	-13366376.98	0.0089	0.0066
Venus	-41308-06-21 21:06 J	-13366151.70	-13366151.62	-13366151.51	0.0089	0.0079
Earth	-41274-02-25 21:21 J	-13353849.72	-13353849.61	-13353849.45	0.0089	0.0076
Moon	-41274-02-25 22:18 J	-13353849.69	-13353849.57	-13353849.40	0.0089	0.0072 *
Moon	-41273-02-28 07:11 J	-13353482.42	-13353482.20	-13353481.96	0.0089	0.0044
Earth	-41273-02-28 09:06 J	-13353482.34	-13353482.12	-13353481.88	0.0089	0.0040 *
Earth	-41272-03-01 20:52 J	-13353114.89	-13353114.63	-13353114.38	0.0089	0.0004
Moon	-41272-03-01 23:30 J	-13353114.77	-13353114.52	-13353114.27	0.0089	0.0001 *
Moon	-41271-03-04 04:33 J	-13352747.55	-13352747.31	-13352747.06	0.0089	0.0027
Earth	-41271-03-04 07:54 J	-13352747.39	-13352747.17	-13352746.91	0.0089	0.0033 *
Earth	-41270-03-06 19:11 J	-13352379.84	-13352379.70	-13352379.51	0.0089	0.0068
Moon	-41270-03-06 22:47 J	-13352379.68	-13352379.55	-13352379.38	0.0089	0.0072 *
Mercury	-41269-12-09 09:50 J	-13351736.12	-13351736.09	-13351736.02	0.0089	0.0084
Mercury	-41268-03-07 11:59 J	-13351648.06	-13351648.00	-13351647.91	0.0089	0.0077
Mercury	-41268-06-03 14:09 J	-13351559.99	-13351559.91	-13351559.81	0.0089	0.0070
Mercury	-41268-08-30 16:04 J	-13351471.92	-13351471.83	-13351471.71	0.0089	0.0063
Mercury	-41268-11-26 18:14 J	-13351383.85	-13351383.74	-13351383.61	0.0089	0.0056
Mercury	-41267-02-22 20:09 J	-13351295.77	-13351295.66	-13351295.52	0.0089	0.0049
Mercury	-41267-05-21 22:18 J	-13351207.70	-13351207.57	-13351207.42	0.0089	0.0042
Mercury	-41267-08-18 00:28 J	-13351119.61	-13351119.48	-13351119.33	0.0089	0.0035
Mercury	-41267-11-14 02:38 J	-13351031.53	-13351031.39	-13351031.24	0.0089	0.0028

Mercury -41266-02-10 04:47 J -13350943.45 -13350943.30 -13350943.14 0.0089 0.0020

Mercury -41266-05-09 06:57 J -13350855.36 -13350855.21 -13350855.05 0.0089 0.0013

Mercury -41266-08-05 09:06 J -13350767.28 -13350767.12 -13350766.96 0.0089 0.0006

Mercury -41266-11-01 11:16 J -13350679.19 -13350679.03 -13350678.88 0.0089 0.0002

Mercury -41265-01-28 13:11 J -13350591.10 -13350590.95 -13350590.79 0.0089 0.0009

Mercury -41265-04-25 15:21 J -13350503.01 -13350502.86 -13350502.70 0.0089 0.0016

Mercury -41265-07-22 17:30 J -13350414.92 -13350414.77 -13350414.61 0.0089 0.0023

Mercury -41265-10-18 19:40 J -13350326.82 -13350326.68 -13350326.53 0.0089 0.0031

Mercury -41264-01-14 21:50 J -13350238.73 -13350238.59 -13350238.44 0.0089 0.0038

Mercury -41264-04-12 23:59 J -13350150.63 -13350150.50 -13350150.36 0.0089 0.0045

Mercury -41264-07-10 02:09 J -13350062.53 -13350062.41 -13350062.27 0.0089 0.0053

Mercury -41264-10-06 04:18 J -13349974.42 -13349974.32 -13349974.19 0.0089 0.0060

Mercury -41263-01-02 06:28 J -13349886.32 -13349886.23 -13349886.11 0.0089 0.0068

Mercury -41263-03-31 08:52 J -13349798.21 -13349798.13 -13349798.04 0.0089 0.0075

Mercury -41263-06-27 10:47 J -13349710.09 -13349710.05 -13349709.97 0.0089 0.0083

Mars -41259-12-09 05:59 J -13348084.42 -13348084.25 -13348084.02 0.0089 0.0065

Mars -41257-11-01 21:06 J -13347390.87 -13347390.62 -13347390.34 0.0089 0.0036

Mars -41255-09-26 12:28 J -13346697.27 -13346696.98 -13346696.69 0.0089 0.0006

Mars -41253-08-20 05:30 J -13346003.54 -13346003.27 -13346002.98 0.0089 0.0023

Mars -41251-07-14 22:18 J -13345309.80 -13345309.57 -13345309.32 0.0089 0.0052

Mars -41249-06-07 15:35 J -13344615.95 -13344615.85 -13344615.72 0.0089 0.0081

Venus -41234-07-26 04:47 J -13339089.35 -13339089.30 -13339089.21 0.0088 0.0084

Venus -41233-03-07 18:42 J -13338863.85 -13338863.72 -13338863.58 0.0088 0.0071

Venus -41233-10-19 08:09 J -13338638.32 -13338638.16 -13338637.98 0.0088 0.0058

Venus -41232-06-01 21:50 J -13338412.78 -13338412.59 -13338412.39 0.0088 0.0045

Venus -41231-01-13 11:16 J -13338187.23 -13338187.03 -13338186.81 0.0088 0.0032

Venus -41231-08-27 00:57 J -13337961.68 -13337961.46 -13337961.24 0.0088 0.0018

Venus -41230-04-09 14:38 J -13337736.11 -13337735.89 -13337735.66 0.0088 0.0006

Venus -41230-11-21 04:18 J -13337510.54 -13337510.32 -13337510.09 0.0088 0.0008

Venus -41229-07-03 17:45 J -13337284.97 -13337284.76 -13337284.53 0.0088 0.0021

Venus	-41228-02-14 07:26 J	-13337059.39	-13337059.19	-13337058.98	0.0088	0.0034
Venus	-41228-09-27 20:52 J	-13336833.80	-13336833.63	-13336833.43	0.0088	0.0048
Venus	-41227-05-11 10:33 J	-13336608.21	-13336608.06	-13336607.88	0.0088	0.0061
Venus	-41227-12-23 00:14 J	-13336382.60	-13336382.49	-13336382.36	0.0088	0.0074
Venus	-41226-08-05 13:54 J	-13336156.95	-13336156.92	-13336156.87	0.0088	0.0087
Moon	-41192-08-29 13:26 J	-13323714.04	-13323713.94	-13323713.79	0.0088	0.0077
Earth	-41192-08-29 13:54 J	-13323713.98	-13323713.92	-13323713.79	0.0088	0.0082 *
Earth	-41191-09-01 02:09 J	-13323346.62	-13323346.41	-13323346.17	0.0088	0.0047
Moon	-41191-09-01 04:33 J	-13323346.51	-13323346.31	-13323346.10	0.0088	0.0051 *
Moon	-41190-09-03 11:30 J	-13322979.28	-13322979.02	-13322978.75	0.0088	0.0007
Earth	-41190-09-03 14:09 J	-13322979.16	-13322978.91	-13322978.65	0.0088	0.0011 *
Earth	-41189-09-05 01:54 J	-13322611.66	-13322611.42	-13322611.16	0.0088	0.0025
Moon	-41189-09-05 05:16 J	-13322611.52	-13322611.28	-13322611.02	0.0088	0.0020 *
Moon	-41188-09-07 10:04 J	-13322244.24	-13322244.08	-13322243.90	0.0088	0.0065
Earth	-41188-09-07 13:11 J	-13322244.11	-13322243.95	-13322243.73	0.0088	0.0061 *
Mercury	-41186-12-11 01:26 J	-13321419.48	-13321419.44	-13321419.37	0.0088	0.0083
Mercury	-41185-03-08 03:35 J	-13321331.41	-13321331.35	-13321331.24	0.0088	0.0076
Mercury	-41185-06-04 06:14 J	-13321243.34	-13321243.24	-13321243.13	0.0088	0.0068
Mercury	-41185-08-31 08:23 J	-13321155.26	-13321155.15	-13321155.02	0.0088	0.0060
Mercury	-41185-11-27 10:47 J	-13321067.18	-13321067.05	-13321066.92	0.0088	0.0053
Mercury	-41184-02-23 12:57 J	-13320979.09	-13320978.96	-13320978.82	0.0088	0.0045
Mercury	-41184-05-22 15:06 J	-13320891.01	-13320890.87	-13320890.72	0.0088	0.0038
Mercury	-41184-08-18 17:30 J	-13320802.92	-13320802.77	-13320802.62	0.0088	0.0031
Mercury	-41184-11-14 19:40 J	-13320714.83	-13320714.68	-13320714.52	0.0088	0.0023
Mercury	-41183-02-10 21:50 J	-13320626.74	-13320626.59	-13320626.43	0.0088	0.0016
Mercury	-41183-05-09 23:59 J	-13320538.65	-13320538.50	-13320538.34	0.0088	0.0009
Mercury	-41183-08-06 02:23 J	-13320450.56	-13320450.40	-13320450.24	0.0088	0.0002
Mercury	-41183-11-02 04:33 J	-13320362.47	-13320362.31	-13320362.15	0.0088	0.0006
Mercury	-41182-01-29 06:42 J	-13320274.38	-13320274.22	-13320274.07	0.0088	0.0013
Mercury	-41182-04-27 08:38 J	-13320186.29	-13320186.14	-13320185.98	0.0088	0.0020

Mercury -41182-07-24 10:47 J -13320098.19 -13320098.05 -13320097.89 0.0088 0.0027
 Mercury -41182-10-20 12:57 J -13320010.10 -13320009.96 -13320009.81 0.0088 0.0034
 Mercury -41181-01-16 14:52 J -13319922.01 -13319921.88 -13319921.73 0.0088 0.0042
 Mercury -41181-04-13 17:02 J -13319833.91 -13319833.79 -13319833.65 0.0088 0.0048
 Mercury -41181-07-10 19:11 J -13319745.81 -13319745.70 -13319745.57 0.0088 0.0055
 Mercury -41181-10-06 21:06 J -13319657.72 -13319657.62 -13319657.50 0.0088 0.0063
 Mercury -41180-01-02 23:16 J -13319569.62 -13319569.53 -13319569.42 0.0088 0.0069
 Mercury -41180-04-01 01:11 J -13319481.51 -13319481.45 -13319481.36 0.0088 0.0077
 Mercury -41180-06-28 03:35 J -13319393.40 -13319393.35 -13319393.30 0.0088 0.0083
 Mars -41175-09-03 18:57 J -13317499.93 -13317499.71 -13317499.44 0.0089 0.0061
 Mars -41173-07-31 03:35 J -13316803.67 -13316803.35 -13316803.01 0.0089 0.0026
 Mars -41171-06-27 11:02 J -13316107.37 -13316107.04 -13316106.69 0.0089 0.0009
 Mars -41169-05-23 17:16 J -13315411.06 -13315410.78 -13315410.47 0.0089 0.0044
 Mars -41167-04-19 21:35 J -13314714.71 -13314714.60 -13314714.40 0.0089 0.0079
 Venus -41151-04-27 03:06 J -13308863.43 -13308863.37 -13308863.26 0.0089 0.0082
 Venus -41151-12-08 15:35 J -13308637.97 -13308637.85 -13308637.70 0.0089 0.0069
 Venus -41150-07-22 04:04 J -13308412.48 -13308412.33 -13308412.15 0.0089 0.0056
 Venus -41149-03-03 16:33 J -13308186.99 -13308186.81 -13308186.61 0.0089 0.0043
 Venus -41149-10-15 05:16 J -13307961.48 -13307961.28 -13307961.07 0.0089 0.0030
 Venus -41148-05-28 17:45 J -13307735.97 -13307735.76 -13307735.55 0.0089 0.0017
 Venus -41147-01-09 06:14 J -13307510.46 -13307510.24 -13307510.03 0.0089 0.0005
 Venus -41147-08-22 18:28 J -13307284.94 -13307284.73 -13307284.51 0.0089 0.0009
 Venus -41146-04-05 06:57 J -13307059.42 -13307059.21 -13307059.00 0.0089 0.0022
 Venus -41146-11-16 19:11 J -13306833.89 -13306833.70 -13306833.50 0.0089 0.0034
 Venus -41145-06-29 07:26 J -13306608.36 -13306608.19 -13306608.00 0.0089 0.0047
 Jupiter -41145-11-17 03:21 J -13306467.82 -13306467.36 -13306466.82 0.0089 0.0025
 Venus -41144-02-09 19:40 J -13306382.83 -13306382.68 -13306382.51 0.0089 0.0060
 Venus -41144-09-23 07:54 J -13306157.27 -13306157.17 -13306157.03 0.0089 0.0073
 Venus -41143-05-06 20:38 J -13305931.69 -13305931.64 -13305931.58 0.0089 0.0086
 Earth -41109-02-27 17:02 J -13293581.96 -13293581.79 -13293581.57 0.0089 0.0059

Moon -41109-02-27 20:38 J -13293581.83 -13293581.64 -13293581.45 0.0089 0.0059 *
 Moon -41108-03-01 01:11 J -13293214.69 -13293214.45 -13293214.19 0.0089 0.0024
 Earth -41108-03-01 04:33 J -13293214.54 -13293214.31 -13293214.05 0.0089 0.0023 *
 Earth -41107-03-03 16:18 J -13292847.07 -13292846.82 -13292846.57 0.0089 0.0013
 Moon -41107-03-03 19:54 J -13292846.92 -13292846.67 -13292846.41 0.0089 0.0014 *
 Moon -41106-03-06 00:28 J -13292479.66 -13292479.48 -13292479.24 0.0089 0.0049
 Earth -41106-03-06 03:50 J -13292479.55 -13292479.34 -13292479.12 0.0089 0.0049 *
 Earth -41105-03-07 14:52 J -13292111.94 -13292111.88 -13292111.80 0.0089 0.0085
 Moon -41105-03-07 17:16 J -13292111.81 -13292111.78 -13292111.71 0.0089 0.0087 *
 Mercury -41104-06-09 07:11 J -13291653.22 -13291653.20 -13291653.17 0.0089 0.0087
 Mercury -41104-09-05 09:21 J -13291565.18 -13291565.11 -13291565.05 0.0089 0.0080
 Mercury -41104-12-02 11:16 J -13291477.11 -13291477.03 -13291476.94 0.0089 0.0073
 Mercury -41103-02-28 12:57 J -13291389.04 -13291388.96 -13291388.84 0.0089 0.0067
 Mercury -41103-05-27 15:06 J -13291300.97 -13291300.87 -13291300.75 0.0089 0.0060
 Mercury -41103-08-23 17:02 J -13291212.90 -13291212.79 -13291212.65 0.0089 0.0053
 Mercury -41103-11-19 19:26 J -13291124.82 -13291124.69 -13291124.56 0.0089 0.0045
 Mercury -41102-02-15 21:35 J -13291036.74 -13291036.60 -13291036.46 0.0089 0.0038
 Mercury -41102-05-14 23:30 J -13290948.66 -13290948.52 -13290948.37 0.0089 0.0031
 Mercury -41102-08-11 01:40 J -13290860.58 -13290860.43 -13290860.28 0.0089 0.0024
 Mercury -41102-11-07 03:50 J -13290772.49 -13290772.34 -13290772.19 0.0089 0.0017
 Mercury -41101-02-03 05:45 J -13290684.41 -13290684.26 -13290684.10 0.0089 0.0010
 Mercury -41101-05-01 07:54 J -13290596.32 -13290596.17 -13290596.01 0.0089 0.0004
 Mercury -41101-07-28 10:04 J -13290508.23 -13290508.08 -13290507.92 0.0089 0.0005
 Mercury -41101-10-24 12:14 J -13290420.14 -13290419.99 -13290419.83 0.0089 0.0012
 Mercury -41100-01-20 14:23 J -13290332.05 -13290331.90 -13290331.75 0.0089 0.0019
 Mercury -41100-04-18 16:18 J -13290243.96 -13290243.82 -13290243.66 0.0089 0.0027
 Mercury -41100-07-15 18:28 J -13290155.87 -13290155.73 -13290155.57 0.0089 0.0034
 Mercury -41100-10-11 20:52 J -13290067.77 -13290067.63 -13290067.49 0.0089 0.0041
 Mercury -41099-01-07 22:47 J -13289979.67 -13289979.55 -13289979.41 0.0089 0.0049
 Mercury -41099-04-06 00:57 J -13289891.57 -13289891.46 -13289891.32 0.0089 0.0056

Mercury -41099-07-03 03:21 J -13289803.47 -13289803.36 -13289803.24 0.0089 0.0063

Mercury -41099-09-29 05:16 J -13289715.36 -13289715.28 -13289715.17 0.0089 0.0071

Mercury -41099-12-26 07:40 J -13289627.24 -13289627.18 -13289627.10 0.0089 0.0078

Mercury -41098-03-24 09:50 J -13289539.12 -13289539.09 -13289539.04 0.0089 0.0086

Mars -41095-07-24 17:59 J -13288320.87 -13288320.75 -13288320.58 0.0089 0.0077

Mars -41093-06-17 09:35 J -13287627.33 -13287627.10 -13287626.84 0.0089 0.0048

Mars -41091-05-12 00:57 J -13286933.73 -13286933.46 -13286933.16 0.0089 0.0019

Mars -41089-04-04 16:33 J -13286240.08 -13286239.81 -13286239.51 0.0089 0.0012

Mars -41087-02-27 09:35 J -13285546.35 -13285546.10 -13285545.83 0.0089 0.0041

Mars -41085-01-22 03:06 J -13284852.52 -13284852.37 -13284852.16 0.0089 0.0071

Venus -41069-06-09 03:21 J -13278869.46 -13278869.36 -13278869.24 0.0088 0.0077

Venus -41068-01-20 16:47 J -13278643.94 -13278643.80 -13278643.63 0.0088 0.0064

Venus -41068-09-03 06:28 J -13278418.40 -13278418.23 -13278418.04 0.0088 0.0051

Venus -41067-04-16 20:09 J -13278192.86 -13278192.66 -13278192.45 0.0088 0.0038

Venus -41067-11-28 09:50 J -13277967.30 -13277967.09 -13277966.87 0.0088 0.0025

Venus -41066-07-11 23:30 J -13277741.75 -13277741.52 -13277741.30 0.0088 0.0012

Venus -41065-02-22 13:11 J -13277516.18 -13277515.95 -13277515.73 0.0088 0.0002

Venus -41065-10-05 02:38 J -13277290.61 -13277290.39 -13277290.16 0.0088 0.0015

Venus -41064-05-18 16:18 J -13277065.03 -13277064.82 -13277064.61 0.0088 0.0028

Venus -41064-12-30 05:45 J -13276839.45 -13276839.26 -13276839.05 0.0088 0.0041

Venus -41063-08-12 19:26 J -13276613.86 -13276613.69 -13276613.51 0.0088 0.0054

Venus -41062-03-26 09:06 J -13276388.26 -13276388.12 -13276387.96 0.0088 0.0067

Venus -41062-11-06 22:47 J -13276162.63 -13276162.55 -13276162.45 0.0088 0.0080

Moon -41027-08-31 05:30 J -13263446.42 -13263446.27 -13263446.08 0.0088 0.0068

Earth -41027-08-31 09:06 J -13263446.28 -13263446.12 -13263445.93 0.0088 0.0066 *

Earth -41026-09-02 21:21 J -13263078.85 -13263078.61 -13263078.36 0.0088 0.0030

Moon -41026-09-03 00:42 J -13263078.71 -13263078.47 -13263078.22 0.0088 0.0029 *

Moon -41025-09-04 05:45 J -13262711.52 -13262711.26 -13262711.01 0.0088 0.0006

Earth -41025-09-04 09:21 J -13262711.37 -13262711.11 -13262710.85 0.0088 0.0006 *

Earth -41024-09-06 20:52 J -13262343.85 -13262343.63 -13262343.40 0.0088 0.0042

Moon -41024-09-06 23:59 J -13262343.72 -13262343.50 -13262343.26 0.0088 0.0043 *
 Moon -41023-09-09 06:28 J -13261976.35 -13261976.23 -13261976.10 0.0088 0.0077
 Earth -41023-09-09 08:09 J -13261976.26 -13261976.16 -13261976.01 0.0088 0.0078 *
 Mercury -41021-06-09 21:50 J -13261336.60 -13261336.59 -13261336.55 0.0088 0.0087
 Mercury -41021-09-06 00:14 J -13261248.54 -13261248.49 -13261248.41 0.0088 0.0080
 Mercury -41021-12-03 02:23 J -13261160.47 -13261160.40 -13261160.29 0.0088 0.0073
 Mercury -41020-03-01 05:02 J -13261072.40 -13261072.29 -13261072.18 0.0088 0.0065
 Mercury -41020-05-28 07:11 J -13260984.31 -13260984.20 -13260984.07 0.0088 0.0057
 Mercury -41020-08-24 09:35 J -13260896.23 -13260896.10 -13260895.97 0.0088 0.0050
 Mercury -41020-11-20 11:45 J -13260808.15 -13260808.01 -13260807.86 0.0088 0.0043
 Mercury -41019-02-16 13:54 J -13260720.06 -13260719.92 -13260719.76 0.0088 0.0035
 Mercury -41019-05-15 16:18 J -13260631.97 -13260631.82 -13260631.67 0.0088 0.0028
 Mercury -41019-08-11 18:28 J -13260543.88 -13260543.73 -13260543.57 0.0088 0.0021
 Mercury -41019-11-07 20:38 J -13260455.79 -13260455.64 -13260455.48 0.0088 0.0013
 Mercury -41018-02-03 22:47 J -13260367.70 -13260367.55 -13260367.38 0.0088 0.0007
 Mercury -41018-05-03 01:11 J -13260279.61 -13260279.45 -13260279.29 0.0088 0.0002
 Mercury -41018-07-30 03:21 J -13260191.52 -13260191.36 -13260191.20 0.0088 0.0009
 Mercury -41018-10-26 05:30 J -13260103.43 -13260103.27 -13260103.12 0.0088 0.0016
 Mercury -41017-01-22 07:26 J -13260015.33 -13260015.19 -13260015.03 0.0088 0.0023
 Mercury -41017-04-19 09:35 J -13259927.24 -13259927.10 -13259926.94 0.0088 0.0030
 Mercury -41017-07-16 11:45 J -13259839.15 -13259839.01 -13259838.86 0.0088 0.0037
 Mercury -41017-10-12 13:54 J -13259751.05 -13259750.92 -13259750.78 0.0088 0.0044
 Mercury -41016-01-08 15:50 J -13259662.95 -13259662.84 -13259662.70 0.0088 0.0052
 Mercury -41016-04-06 17:59 J -13259574.86 -13259574.75 -13259574.62 0.0088 0.0058
 Mercury -41016-07-03 19:54 J -13259486.76 -13259486.67 -13259486.55 0.0088 0.0066
 Mercury -41016-09-29 22:04 J -13259398.65 -13259398.58 -13259398.48 0.0088 0.0073
 Mercury -41016-12-26 23:59 J -13259310.55 -13259310.50 -13259310.41 0.0088 0.0080
 Mercury -41015-03-25 02:09 J -13259222.43 -13259222.41 -13259222.36 0.0088 0.0086
 Mars -41011-04-17 00:57 J -13257738.61 -13257738.46 -13257738.25 0.0089 0.0076
 Mars -41009-03-13 09:21 J -13257042.39 -13257042.11 -13257041.78 0.0089 0.0041

Mars -41007-02-07 17:59 J -13256346.09 -13256345.75 -13256345.41 0.0089 0.0005

Mars -41005-01-05 00:42 J -13255649.77 -13255649.47 -13255649.13 0.0089 0.0031

Mars -41004-12-01 06:14 J -13254953.44 -13254953.24 -13254952.99 0.0089 0.0066

41ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 41st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-40987-07-29 13:26 J	-13248868.97	-13248868.94	-13248868.88	0.0089	0.0087		
Venus	-40986-03-12 02:09 J	-13248643.52	-13248643.41	-13248643.29	0.0089	0.0074		
Venus	-40986-10-23 14:52 J	-13248418.04	-13248417.88	-13248417.72	0.0089	0.0061		
Venus	-40985-06-05 02:52 J	-13248192.54	-13248192.38	-13248192.18	0.0089	0.0049		
Venus	-40984-01-16 15:21 J	-13247967.04	-13247966.86	-13247966.65	0.0089	0.0036		
Venus	-40984-08-30 04:04 J	-13247741.53	-13247741.33	-13247741.12	0.0089	0.0023		
Venus	-40983-04-12 16:33 J	-13247516.02	-13247515.81	-13247515.59	0.0089	0.0010		
Venus	-40983-11-24 05:02 J	-13247290.51	-13247290.29	-13247290.08	0.0089	0.0003		
Venus	-40982-07-07 17:16 J	-13247064.99	-13247064.78	-13247064.57	0.0089	0.0015		
Venus	-40981-02-18 05:30 J	-13246839.47	-13246839.27	-13246839.06	0.0089	0.0028		
Venus	-40981-09-30 17:45 J	-13246613.93	-13246613.76	-13246613.55	0.0089	0.0042		
Venus	-40980-05-14 05:59 J	-13246388.40	-13246388.25	-13246388.06	0.0089	0.0054		
Venus	-40980-12-25 18:28 J	-13246162.86	-13246162.73	-13246162.57	0.0089	0.0067		
Venus	-40979-08-08 06:42 J	-13245937.30	-13245937.22	-13245937.10	0.0089	0.0079		
Moon	-40945-02-26 21:50 J	-13233681.73	-13233681.59	-13233681.44	0.0089	0.0074		

Earth -40945-02-27 00:57 J -13233681.56 -13233681.46 -13233681.32 0.0089 0.0078 *
 Earth -40944-02-28 12:14 J -13233314.20 -13233313.99 -13233313.75 0.0089 0.0042
 Moon -40944-02-28 16:04 J -13233314.05 -13233313.83 -13233313.61 0.0089 0.0046 *
 Moon -40943-03-02 21:06 J -13232946.87 -13232946.62 -13232946.36 0.0089 0.0002
 Earth -40943-03-02 23:59 J -13232946.75 -13232946.50 -13232946.24 0.0089 0.0006 *
 Earth -40942-03-05 11:16 J -13232579.27 -13232579.03 -13232578.79 0.0089 0.0030
 Moon -40942-03-05 12:42 J -13232579.21 -13232578.97 -13232578.71 0.0089 0.0026 *
 Moon -40941-03-06 21:21 J -13232211.74 -13232211.61 -13232211.44 0.0089 0.0071
 Earth -40941-03-06 22:47 J -13232211.72 -13232211.55 -13232211.38 0.0089 0.0066 *
 Mercury -40939-03-06 06:14 J -13231482.29 -13231482.24 -13231482.20 0.0089 0.0084
 Mercury -40939-06-02 08:09 J -13231394.23 -13231394.16 -13231394.08 0.0089 0.0077
 Mercury -40939-08-29 09:50 J -13231306.16 -13231306.09 -13231305.98 0.0089 0.0071
 Mercury -40939-11-25 11:59 J -13231218.10 -13231218.00 -13231217.88 0.0089 0.0064
 Mercury -40938-02-21 13:54 J -13231130.02 -13231129.92 -13231129.79 0.0089 0.0057
 Mercury -40938-05-20 16:04 J -13231041.95 -13231041.83 -13231041.69 0.0089 0.0050
 Mercury -40938-08-16 17:59 J -13230953.87 -13230953.75 -13230953.60 0.0089 0.0043
 Mercury -40938-11-12 20:23 J -13230865.79 -13230865.65 -13230865.51 0.0089 0.0035
 Mercury -40937-02-08 22:33 J -13230777.71 -13230777.56 -13230777.42 0.0089 0.0028
 Mercury -40937-05-07 00:28 J -13230689.63 -13230689.48 -13230689.32 0.0089 0.0021
 Mercury -40937-08-03 02:38 J -13230601.54 -13230601.39 -13230601.23 0.0089 0.0014
 Mercury -40937-10-30 04:47 J -13230513.46 -13230513.30 -13230513.15 0.0089 0.0007
 Mercury -40936-01-26 06:57 J -13230425.37 -13230425.21 -13230425.06 0.0089 0.0002
 Mercury -40936-04-24 08:52 J -13230337.28 -13230337.13 -13230336.97 0.0089 0.0008
 Mercury -40936-07-21 11:02 J -13230249.19 -13230249.04 -13230248.88 0.0089 0.0015
 Mercury -40936-10-17 13:11 J -13230161.10 -13230160.95 -13230160.80 0.0089 0.0022
 Mercury -40935-01-13 15:06 J -13230073.01 -13230072.87 -13230072.71 0.0089 0.0030
 Mercury -40935-04-11 17:16 J -13229984.91 -13229984.78 -13229984.63 0.0089 0.0037
 Mercury -40935-07-08 19:40 J -13229896.82 -13229896.68 -13229896.54 0.0089 0.0044
 Mercury -40935-10-04 21:35 J -13229808.72 -13229808.60 -13229808.46 0.0089 0.0052
 Mercury -40935-12-31 23:59 J -13229720.61 -13229720.50 -13229720.38 0.0089 0.0059

Mercury -40934-03-30 01:54 J -13229632.51 -13229632.42 -13229632.30 0.0089 0.0067

Mercury -40934-06-26 04:04 J -13229544.40 -13229544.33 -13229544.23 0.0089 0.0074

Mercury -40934-09-22 06:42 J -13229456.28 -13229456.22 -13229456.16 0.0089 0.0081

Mercury -40934-12-19 08:52 J -13229368.13 -13229368.13 -13229368.12 0.0089 0.0089

Mars -40929-01-31 21:50 J -13227863.80 -13227863.59 -13227863.38 0.0089 0.0060

Mars -40928-12-25 12:42 J -13227170.23 -13227169.97 -13227169.68 0.0089 0.0031

Mars -40926-11-19 04:33 J -13226476.60 -13226476.31 -13226476.02 0.0089 0.0001

Mars -40924-10-12 19:40 J -13225782.95 -13225782.68 -13225782.40 0.0089 0.0029

Mars -40922-09-06 11:45 J -13225089.22 -13225089.01 -13225088.78 0.0089 0.0059

Mars -40920-07-31 06:14 J -13224395.24 -13224395.24 -13224395.22 0.0089 0.0089

Venus -40905-09-10 11:45 J -13218875.07 -13218875.01 -13218874.91 0.0088 0.0083

Venus -40904-04-24 01:26 J -13218649.56 -13218649.44 -13218649.29 0.0088 0.0070

Venus -40904-12-05 15:06 J -13218424.04 -13218423.87 -13218423.69 0.0088 0.0057

Venus -40903-07-19 04:47 J -13218198.50 -13218198.30 -13218198.11 0.0088 0.0044

Venus -40902-03-01 17:59 J -13217972.94 -13217972.75 -13217972.52 0.0088 0.0031

Venus -40902-10-13 07:40 J -13217747.39 -13217747.18 -13217746.95 0.0088 0.0019

Venus -40901-05-25 21:21 J -13217521.83 -13217521.61 -13217521.38 0.0088 0.0006

Venus -40900-01-06 11:02 J -13217296.26 -13217296.04 -13217295.82 0.0088 0.0008

Venus -40900-08-20 00:28 J -13217070.69 -13217070.48 -13217070.25 0.0088 0.0021

Venus -40899-04-02 14:23 J -13216845.11 -13216844.90 -13216844.69 0.0088 0.0034

Venus -40899-11-14 04:04 J -13216619.52 -13216619.33 -13216619.14 0.0088 0.0047

Venus -40898-06-27 17:30 J -13216393.93 -13216393.77 -13216393.60 0.0088 0.0060

Venus -40897-02-08 06:57 J -13216168.32 -13216168.21 -13216168.07 0.0088 0.0073

Venus -40897-09-20 20:38 J -13215942.68 -13215942.64 -13215942.57 0.0088 0.0085

Earth -40863-08-30 15:06 J -13203545.91 -13203545.87 -13203545.79 0.0088 0.0085

Moon -40863-08-30 19:11 J -13203545.79 -13203545.70 -13203545.59 0.0088 0.0081 *

Moon -40862-09-02 00:14 J -13203178.68 -13203178.49 -13203178.28 0.0088 0.0054

Earth -40862-09-02 03:21 J -13203178.56 -13203178.36 -13203178.13 0.0088 0.0050 *

Earth -40861-09-03 15:35 J -13202811.11 -13202810.85 -13202810.60 0.0088 0.0014

Moon -40861-09-03 18:28 J -13202810.99 -13202810.73 -13202810.46 0.0088 0.0009 *

Moon -40860-09-06 01:11 J -13202443.68 -13202443.45 -13202443.19 0.0088 0.0019
 Earth -40860-09-06 03:21 J -13202443.61 -13202443.36 -13202443.10 0.0088 0.0022 *
 Earth -40859-09-08 14:38 J -13202076.06 -13202075.89 -13202075.67 0.0088 0.0059
 Moon -40859-09-08 15:06 J -13202076.04 -13202075.87 -13202075.66 0.0088 0.0062 *
 Mercury -40856-03-06 20:38 J -13201165.68 -13201165.64 -13201165.59 0.0088 0.0085
 Mercury -40856-06-02 22:47 J -13201077.62 -13201077.55 -13201077.46 0.0088 0.0077
 Mercury -40856-08-30 01:11 J -13200989.54 -13200989.45 -13200989.34 0.0088 0.0070
 Mercury -40856-11-26 03:21 J -13200901.46 -13200901.36 -13200901.23 0.0088 0.0063
 Mercury -40855-02-22 05:59 J -13200813.38 -13200813.25 -13200813.13 0.0088 0.0055
 Mercury -40855-05-21 07:54 J -13200725.30 -13200725.17 -13200725.02 0.0088 0.0048
 Mercury -40855-08-17 10:04 J -13200637.21 -13200637.08 -13200636.92 0.0088 0.0041
 Mercury -40855-11-13 12:42 J -13200549.12 -13200548.97 -13200548.82 0.0088 0.0033
 Mercury -40854-02-09 14:52 J -13200461.03 -13200460.88 -13200460.73 0.0088 0.0025
 Mercury -40854-05-08 17:02 J -13200372.94 -13200372.79 -13200372.63 0.0088 0.0018
 Mercury -40854-08-04 19:11 J -13200284.85 -13200284.70 -13200284.54 0.0088 0.0011
 Mercury -40854-10-31 21:35 J -13200196.76 -13200196.60 -13200196.44 0.0088 0.0004
 Mercury -40853-01-27 23:45 J -13200108.67 -13200108.51 -13200108.35 0.0088 0.0004
 Mercury -40853-04-25 01:40 J -13200020.58 -13200020.43 -13200020.26 0.0088 0.0012
 Mercury -40853-07-22 03:50 J -13199932.49 -13199932.34 -13199932.18 0.0088 0.0019
 Mercury -40853-10-18 05:59 J -13199844.39 -13199844.25 -13199844.09 0.0088 0.0026
 Mercury -40852-01-14 08:09 J -13199756.30 -13199756.16 -13199756.01 0.0088 0.0033
 Mercury -40852-04-12 10:18 J -13199668.20 -13199668.07 -13199667.92 0.0088 0.0040
 Mercury -40852-07-09 12:28 J -13199580.11 -13199579.98 -13199579.84 0.0088 0.0047
 Mercury -40852-10-05 14:38 J -13199492.01 -13199491.89 -13199491.76 0.0088 0.0054
 Mercury -40851-01-01 16:47 J -13199403.91 -13199403.80 -13199403.69 0.0088 0.0061
 Mercury -40851-03-30 18:42 J -13199315.81 -13199315.72 -13199315.61 0.0088 0.0068
 Mercury -40851-06-26 20:52 J -13199227.71 -13199227.63 -13199227.54 0.0088 0.0075
 Mercury -40851-09-22 22:47 J -13199139.60 -13199139.55 -13199139.48 0.0088 0.0082
 Mars -40846-10-25 12:57 J -13197281.21 -13197280.96 -13197280.68 0.0089 0.0056
 Mars -40844-09-20 21:21 J -13196584.94 -13196584.61 -13196584.27 0.0089 0.0020

Mars	-40842-08-18 05:02 J	-13195888.62	-13195888.29	-13195887.95	0.0089	0.0016
Mars	-40840-07-14 11:45 J	-13195192.26	-13195192.01	-13195191.70	0.0089	0.0052
Mars	-40838-06-10 17:30 J	-13194495.81	-13194495.77	-13194495.67	0.0089	0.0087
Venus	-40822-06-13 11:45 J	-13188649.09	-13188649.01	-13188648.91	0.0089	0.0080
Venus	-40821-01-25 00:28 J	-13188423.62	-13188423.48	-13188423.34	0.0089	0.0067
Venus	-40821-09-06 12:42 J	-13188198.12	-13188197.97	-13188197.78	0.0089	0.0055
Venus	-40820-04-20 01:26 J	-13187972.62	-13187972.44	-13187972.24	0.0089	0.0042
Venus	-40820-12-01 13:54 J	-13187747.12	-13187746.92	-13187746.71	0.0089	0.0029
Venus	-40819-07-15 02:09 J	-13187521.61	-13187521.41	-13187521.19	0.0089	0.0017
Venus	-40818-02-25 14:38 J	-13187296.10	-13187295.89	-13187295.67	0.0089	0.0004
Venus	-40818-10-09 03:06 J	-13187070.58	-13187070.37	-13187070.15	0.0089	0.0009
Venus	-40817-05-21 15:35 J	-13186845.06	-13186844.85	-13186844.64	0.0089	0.0021
Venus	-40816-01-02 03:50 J	-13186619.53	-13186619.34	-13186619.14	0.0089	0.0034
Venus	-40816-08-15 15:50 J	-13186394.00	-13186393.84	-13186393.64	0.0089	0.0047
Venus	-40815-03-29 04:33 J	-13186168.47	-13186168.31	-13186168.15	0.0089	0.0059
Venus	-40815-11-09 16:33 J	-13185942.92	-13185942.81	-13185942.67	0.0089	0.0072
Venus	-40814-06-23 05:16 J	-13185717.34	-13185717.28	-13185717.21	0.0089	0.0085
Moon	-40780-02-27 16:33 J	-13173413.96	-13173413.81	-13173413.60	0.0089	0.0062
Earth	-40780-02-27 19:11 J	-13173413.86	-13173413.70	-13173413.50	0.0089	0.0062 *
Earth	-40779-03-02 06:28 J	-13173046.46	-13173046.23	-13173045.97	0.0089	0.0026
Moon	-40779-03-02 08:09 J	-13173046.40	-13173046.16	-13173045.89	0.0089	0.0026 *
Earth	-40778-03-04 17:45 J	-13172679.00	-13172678.76	-13172678.49	0.0089	0.0011
Moon	-40778-03-04 18:14 J	-13172678.99	-13172678.74	-13172678.50	0.0089	0.0010 *
Moon	-40777-03-06 03:50 J	-13172311.54	-13172311.34	-13172311.09	0.0089	0.0047
Earth	-40777-03-06 05:02 J	-13172311.49	-13172311.29	-13172311.06	0.0089	0.0047 *
Earth	-40776-03-08 16:18 J	-13171943.89	-13171943.82	-13171943.72	0.0089	0.0083
Moon	-40776-03-08 18:14 J	-13171943.80	-13171943.74	-13171943.64	0.0089	0.0084 *
Mercury	-40775-09-04 02:52 J	-13171399.38	-13171399.38	-13171399.38	0.0089	0.0089
Mercury	-40775-12-01 04:33 J	-13171311.35	-13171311.31	-13171311.24	0.0089	0.0082
Mercury	-40774-02-27 06:42 J	-13171223.29	-13171223.22	-13171223.13	0.0089	0.0075

Mercury -40774-05-26 08:38 J -13171135.23 -13171135.14 -13171135.03 0.0089 0.0068
 Mercury -40774-08-22 10:47 J -13171047.16 -13171047.05 -13171046.93 0.0089 0.0061
 Mercury -40774-11-18 12:42 J -13170959.08 -13170958.97 -13170958.84 0.0089 0.0054
 Mercury -40773-02-14 14:52 J -13170871.01 -13170870.88 -13170870.75 0.0089 0.0047
 Mercury -40773-05-12 16:47 J -13170782.93 -13170782.80 -13170782.65 0.0089 0.0040
 Mercury -40773-08-08 18:57 J -13170694.85 -13170694.71 -13170694.56 0.0089 0.0033
 Mercury -40773-11-04 21:06 J -13170606.77 -13170606.62 -13170606.47 0.0089 0.0026
 Mercury -40772-01-31 23:02 J -13170518.68 -13170518.54 -13170518.38 0.0089 0.0019
 Mercury -40772-04-30 01:11 J -13170430.60 -13170430.45 -13170430.29 0.0089 0.0012
 Mercury -40772-07-27 03:21 J -13170342.52 -13170342.36 -13170342.20 0.0089 0.0004
 Mercury -40772-10-23 05:30 J -13170254.43 -13170254.27 -13170254.12 0.0089 0.0003
 Mercury -40771-01-19 07:40 J -13170166.34 -13170166.18 -13170166.03 0.0089 0.0010
 Mercury -40771-04-17 09:35 J -13170078.25 -13170078.10 -13170077.94 0.0089 0.0018
 Mercury -40771-07-14 11:45 J -13169990.16 -13169990.01 -13169989.86 0.0089 0.0025
 Mercury -40771-10-10 13:54 J -13169902.06 -13169901.92 -13169901.77 0.0089 0.0032
 Mercury -40770-01-06 16:04 J -13169813.97 -13169813.83 -13169813.69 0.0089 0.0039
 Mercury -40770-04-04 17:59 J -13169725.87 -13169725.75 -13169725.60 0.0089 0.0047
 Mercury -40770-07-01 20:23 J -13169637.77 -13169637.65 -13169637.52 0.0089 0.0054
 Mercury -40770-09-27 22:18 J -13169549.67 -13169549.57 -13169549.44 0.0089 0.0062
 Mercury -40770-12-25 00:42 J -13169461.56 -13169461.47 -13169461.37 0.0089 0.0069
 Mercury -40769-03-22 03:06 J -13169373.45 -13169373.37 -13169373.29 0.0089 0.0076
 Mercury -40769-06-18 05:02 J -13169285.33 -13169285.29 -13169285.23 0.0089 0.0084
 Mars -40766-09-16 09:21 J -13168100.24 -13168100.11 -13168099.92 0.0089 0.0074
 Mars -40764-08-09 23:30 J -13167406.76 -13167406.52 -13167406.25 0.0089 0.0044
 Mars -40762-07-04 14:38 J -13166713.17 -13166712.89 -13166712.60 0.0089 0.0014
 Mars -40760-05-28 06:14 J -13166019.51 -13166019.24 -13166018.94 0.0089 0.0017
 Mars -40758-04-21 22:18 J -13165325.81 -13165325.57 -13165325.32 0.0089 0.0047
 Mars -40756-03-15 13:54 J -13164632.03 -13164631.92 -13164631.75 0.0089 0.0078
 Venus -40741-12-12 19:54 J -13158880.67 -13158880.67 -13158880.64 0.0088 0.0088
 Venus -40740-07-26 09:21 J -13158655.21 -13158655.11 -13158654.98 0.0088 0.0076

Venus	-40739-03-08 22:33 J	-13158429.69	-13158429.56	-13158429.38	0.0088	0.0064
Venus	-40739-10-20 12:14 J	-13158204.15	-13158203.99	-13158203.79	0.0088	0.0051
Venus	-40738-06-03 01:54 J	-13157978.61	-13157978.42	-13157978.21	0.0088	0.0038
Venus	-40737-01-14 15:35 J	-13157753.06	-13157752.85	-13157752.63	0.0088	0.0025
Venus	-40737-08-27 05:02 J	-13157527.51	-13157527.29	-13157527.06	0.0088	0.0012
Venus	-40736-04-09 18:42 J	-13157301.94	-13157301.72	-13157301.49	0.0088	0.0002
Venus	-40736-11-21 08:09 J	-13157076.37	-13157076.16	-13157075.93	0.0088	0.0014
Venus	-40735-07-04 22:04 J	-13156850.80	-13156850.58	-13156850.37	0.0088	0.0027
Venus	-40734-02-15 11:30 J	-13156625.21	-13156625.02	-13156624.81	0.0088	0.0040
Venus	-40734-09-29 00:57 J	-13156399.62	-13156399.46	-13156399.26	0.0088	0.0053
Venus	-40733-05-11 14:38 J	-13156174.02	-13156173.89	-13156173.72	0.0088	0.0065
Venus	-40733-12-23 04:04 J	-13155948.41	-13155948.33	-13155948.20	0.0088	0.0078
Earth	-40698-09-01 07:54 J	-13143278.30	-13143278.17	-13143277.99	0.0088	0.0070
Moon	-40698-09-01 10:04 J	-13143278.20	-13143278.08	-13143277.90	0.0088	0.0073 *
Moon	-40697-09-02 18:57 J	-13142910.94	-13142910.71	-13142910.47	0.0088	0.0033
Earth	-40697-09-02 20:09 J	-13142910.88	-13142910.66	-13142910.40	0.0088	0.0035 *
Earth	-40696-09-05 08:38 J	-13142543.40	-13142543.14	-13142542.88	0.0088	0.0002
Moon	-40696-09-05 08:52 J	-13142543.40	-13142543.13	-13142542.86	0.0088	0.0000 *
Earth	-40695-09-07 20:09 J	-13142175.88	-13142175.66	-13142175.41	0.0088	0.0038
Moon	-40695-09-07 21:35 J	-13142175.81	-13142175.60	-13142175.37	0.0088	0.0040 *
Moon	-40694-09-10 05:59 J	-13141808.38	-13141808.25	-13141808.08	0.0088	0.0073
Earth	-40694-09-10 07:54 J	-13141808.29	-13141808.17	-13141808.01	0.0088	0.0074 *
Mercury	-40692-12-01 18:57 J	-13140994.76	-13140994.71	-13140994.65	0.0088	0.0083
Mercury	-40691-02-27 21:06 J	-13140906.69	-13140906.62	-13140906.52	0.0088	0.0075
Mercury	-40691-05-26 23:30 J	-13140818.61	-13140818.52	-13140818.41	0.0088	0.0068
Mercury	-40691-08-23 01:40 J	-13140730.53	-13140730.43	-13140730.30	0.0088	0.0061
Mercury	-40691-11-19 04:18 J	-13140642.45	-13140642.32	-13140642.19	0.0088	0.0053
Mercury	-40690-02-15 06:28 J	-13140554.36	-13140554.23	-13140554.09	0.0088	0.0045
Mercury	-40690-05-14 08:38 J	-13140466.28	-13140466.14	-13140465.99	0.0088	0.0038
Mercury	-40690-08-10 11:02 J	-13140378.19	-13140378.04	-13140377.89	0.0088	0.0031

Mercury -40690-11-06 13:11 J -13140290.10 -13140289.95 -13140289.79 0.0088 0.0023
 Mercury -40689-02-02 15:21 J -13140202.01 -13140201.86 -13140201.70 0.0088 0.0016
 Mercury -40689-04-30 17:45 J -13140113.92 -13140113.76 -13140113.60 0.0088 0.0009
 Mercury -40689-07-27 19:54 J -13140025.83 -13140025.67 -13140025.51 0.0088 0.0001
 Mercury -40689-10-23 22:04 J -13139937.74 -13139937.58 -13139937.42 0.0088 0.0006
 Mercury -40688-01-20 00:14 J -13139849.64 -13139849.49 -13139849.33 0.0088 0.0013
 Mercury -40688-04-18 02:23 J -13139761.55 -13139761.40 -13139761.24 0.0088 0.0020
 Mercury -40688-07-15 04:33 J -13139673.46 -13139673.31 -13139673.16 0.0088 0.0027
 Mercury -40688-10-11 06:42 J -13139585.36 -13139585.22 -13139585.07 0.0088 0.0035
 Mercury -40687-01-07 08:52 J -13139497.27 -13139497.13 -13139496.99 0.0088 0.0042
 Mercury -40687-04-05 11:02 J -13139409.17 -13139409.04 -13139408.91 0.0088 0.0049
 Mercury -40687-07-02 13:11 J -13139321.07 -13139320.95 -13139320.83 0.0088 0.0056
 Mercury -40687-09-28 15:06 J -13139232.97 -13139232.87 -13139232.75 0.0088 0.0063
 Mercury -40687-12-25 17:16 J -13139144.87 -13139144.78 -13139144.68 0.0088 0.0070
 Mercury -40686-03-23 19:26 J -13139056.76 -13139056.69 -13139056.61 0.0088 0.0077
 Mercury -40686-06-19 21:21 J -13138968.65 -13138968.61 -13138968.55 0.0088 0.0084
 Mars -40682-06-07 12:57 J -13137520.11 -13137519.96 -13137519.72 0.0089 0.0073
 Mars -40680-05-03 23:02 J -13136823.84 -13136823.54 -13136823.21 0.0089 0.0036
 Mars -40678-03-31 07:11 J -13136127.54 -13136127.20 -13136126.85 0.0089 0.0001
 Mars -40676-02-24 14:09 J -13135431.20 -13135430.91 -13135430.58 0.0089 0.0037
 Mars -40674-01-21 20:38 J -13134734.80 -13134734.64 -13134734.41 0.0089 0.0073
 Venus -40658-09-14 20:52 J -13128654.67 -13128654.63 -13128654.57 0.0089 0.0086
 Venus -40657-04-27 09:06 J -13128429.21 -13128429.12 -13128428.97 0.0089 0.0074
 Venus -40657-12-08 21:50 J -13128203.73 -13128203.59 -13128203.42 0.0089 0.0061
 Venus -40656-07-22 10:33 J -13127978.23 -13127978.06 -13127977.87 0.0089 0.0048
 Venus -40655-03-04 23:02 J -13127752.73 -13127752.54 -13127752.33 0.0089 0.0036
 Venus -40655-10-16 11:45 J -13127527.21 -13127527.01 -13127526.80 0.0089 0.0023
 Venus -40654-05-30 00:14 J -13127301.70 -13127301.49 -13127301.27 0.0089 0.0011
 Venus -40653-01-10 12:42 J -13127076.19 -13127075.97 -13127075.75 0.0089 0.0002
 Venus -40653-08-23 00:57 J -13126850.67 -13126850.46 -13126850.24 0.0089 0.0015

Venus -40652-04-05 13:26 J -13126625.14 -13126624.94 -13126624.73 0.0089 0.0027
 Venus -40652-11-17 01:26 J -13126399.61 -13126399.44 -13126399.23 0.0089 0.0041
 Venus -40651-06-30 14:09 J -13126174.08 -13126173.91 -13126173.74 0.0089 0.0052
 Venus -40650-02-11 02:09 J -13125948.54 -13125948.41 -13125948.25 0.0089 0.0065
 Venus -40650-09-24 14:38 J -13125722.98 -13125722.89 -13125722.77 0.0089 0.0078
 Earth -40616-02-27 01:40 J -13113513.50 -13113513.43 -13113513.31 0.0089 0.0082
 Moon -40616-02-27 02:23 J -13113513.49 -13113513.40 -13113513.24 0.0089 0.0078 *
 Earth -40615-03-01 12:57 J -13113146.16 -13113145.96 -13113145.72 0.0089 0.0046
 Moon -40615-03-01 13:11 J -13113146.14 -13113145.95 -13113145.73 0.0089 0.0050 *
 Moon -40614-03-03 22:33 J -13112778.81 -13112778.56 -13112778.29 0.0089 0.0005
 Earth -40614-03-04 00:28 J -13112778.73 -13112778.48 -13112778.22 0.0089 0.0009 *
 Earth -40613-03-05 11:45 J -13112411.25 -13112411.01 -13112410.76 0.0089 0.0027
 Moon -40613-03-05 14:09 J -13112411.14 -13112410.91 -13112410.66 0.0089 0.0023 *
 Moon -40612-03-07 19:40 J -13112043.83 -13112043.68 -13112043.50 0.0089 0.0068
 Earth -40612-03-07 23:02 J -13112043.71 -13112043.54 -13112043.35 0.0089 0.0063 *
 Mercury -40610-06-01 01:11 J -13111228.47 -13111228.45 -13111228.41 0.0089 0.0087
 Mercury -40610-08-28 03:06 J -13111140.42 -13111140.37 -13111140.29 0.0089 0.0080
 Mercury -40610-11-24 05:16 J -13111052.36 -13111052.28 -13111052.19 0.0089 0.0073
 Mercury -40609-02-20 07:11 J -13110964.29 -13110964.20 -13110964.09 0.0089 0.0066
 Mercury -40609-05-18 09:21 J -13110876.22 -13110876.11 -13110875.99 0.0089 0.0059
 Mercury -40609-08-14 11:16 J -13110788.14 -13110788.03 -13110787.90 0.0089 0.0052
 Mercury -40609-11-10 13:26 J -13110700.07 -13110699.94 -13110699.80 0.0089 0.0045
 Mercury -40608-02-06 15:21 J -13110611.99 -13110611.86 -13110611.71 0.0089 0.0038
 Mercury -40608-05-05 17:30 J -13110523.91 -13110523.77 -13110523.62 0.0089 0.0031
 Mercury -40608-08-01 19:26 J -13110435.83 -13110435.69 -13110435.53 0.0089 0.0024
 Mercury -40608-10-28 21:35 J -13110347.75 -13110347.60 -13110347.44 0.0089 0.0017
 Mercury -40607-01-24 23:45 J -13110259.66 -13110259.51 -13110259.35 0.0089 0.0009
 Mercury -40607-04-23 01:54 J -13110171.58 -13110171.42 -13110171.27 0.0089 0.0002
 Mercury -40607-07-20 03:50 J -13110083.49 -13110083.34 -13110083.18 0.0089 0.0006
 Mercury -40607-10-16 05:59 J -13109995.40 -13109995.25 -13109995.09 0.0089 0.0012

Mercury -40606-01-12 08:09 J -13109907.31 -13109907.16 -13109907.01 0.0089 0.0020
 Mercury -40606-04-10 10:18 J -13109819.22 -13109819.07 -13109818.92 0.0089 0.0027
 Mercury -40606-07-07 12:28 J -13109731.13 -13109730.98 -13109730.84 0.0089 0.0034
 Mercury -40606-10-03 14:23 J -13109643.03 -13109642.90 -13109642.75 0.0089 0.0042
 Mercury -40606-12-30 16:33 J -13109554.93 -13109554.81 -13109554.67 0.0089 0.0049
 Mercury -40605-03-27 18:57 J -13109466.83 -13109466.71 -13109466.59 0.0089 0.0056
 Mercury -40605-06-23 20:52 J -13109378.73 -13109378.63 -13109378.51 0.0089 0.0064
 Mercury -40605-09-19 23:02 J -13109290.62 -13109290.54 -13109290.44 0.0089 0.0071
 Mercury -40605-12-17 00:57 J -13109202.51 -13109202.46 -13109202.37 0.0089 0.0079
 Mercury -40604-03-15 03:21 J -13109114.38 -13109114.36 -13109114.31 0.0089 0.0086
 Mars -40602-05-01 18:28 J -13108336.77 -13108336.73 -13108336.66 0.0089 0.0087
 Mars -40600-03-25 10:33 J -13107643.27 -13107643.06 -13107642.83 0.0089 0.0057
 Mars -40598-02-17 00:57 J -13106949.73 -13106949.46 -13106949.18 0.0089 0.0027
 Mars -40596-01-10 15:35 J -13106256.14 -13106255.85 -13106255.56 0.0089 0.0004
 Mars -40595-12-05 07:11 J -13105562.45 -13105562.20 -13105561.91 0.0089 0.0035
 Mars -40593-10-28 23:16 J -13104868.71 -13104868.53 -13104868.32 0.0089 0.0065
 Venus -40576-10-27 17:30 J -13098660.84 -13098660.77 -13098660.68 0.0088 0.0082
 Venus -40575-06-10 06:42 J -13098435.34 -13098435.22 -13098435.07 0.0088 0.0069
 Venus -40574-01-21 20:09 J -13098209.82 -13098209.66 -13098209.48 0.0088 0.0057
 Venus -40574-09-04 09:21 J -13097984.28 -13097984.11 -13097983.90 0.0088 0.0045
 Venus -40573-04-16 23:02 J -13097758.74 -13097758.54 -13097758.32 0.0088 0.0032
 Venus -40573-11-28 12:42 J -13097533.19 -13097532.97 -13097532.75 0.0088 0.0019
 Venus -40572-07-12 02:09 J -13097307.63 -13097307.41 -13097307.18 0.0088 0.0006
 Venus -40571-02-22 15:50 J -13097082.06 -13097081.84 -13097081.62 0.0088 0.0007
 Venus -40571-10-06 05:16 J -13096856.49 -13096856.28 -13096856.05 0.0088 0.0020
 Venus -40570-05-19 18:42 J -13096630.92 -13096630.72 -13096630.50 0.0088 0.0032
 Venus -40570-12-31 08:09 J -13096405.34 -13096405.16 -13096404.95 0.0088 0.0045
 Jupiter -40569-04-10 06:28 J -13096304.72 -13096304.23 -13096303.69 0.0088 0.0039
 Venus -40569-08-12 22:04 J -13096179.75 -13096179.58 -13096179.41 0.0088 0.0057
 Venus -40568-03-26 11:30 J -13095954.14 -13095954.02 -13095953.87 0.0088 0.0070

Venus -40568-11-07 00:57 J -13095728.51 -13095728.46 -13095728.36 0.0088 0.0083
 Moon -40534-08-31 11:45 J -13083378.01 -13083378.01 -13083377.98 0.0088 0.0088
 Moon -40533-09-01 23:30 J -13083010.70 -13083010.52 -13083010.30 0.0088 0.0059
 Earth -40533-09-01 23:59 J -13083010.68 -13083010.50 -13083010.28 0.0088 0.0055 *
 Earth -40532-09-04 12:14 J -13082643.23 -13082642.99 -13082642.73 0.0088 0.0019
 Moon -40532-09-04 13:40 J -13082643.17 -13082642.93 -13082642.67 0.0088 0.0015 *
 Moon -40531-09-06 21:35 J -13082275.86 -13082275.60 -13082275.34 0.0088 0.0014
 Earth -40531-09-07 00:28 J -13082275.73 -13082275.48 -13082275.22 0.0088 0.0017 *
 Earth -40530-09-09 11:59 J -13081908.19 -13081908.00 -13081907.78 0.0088 0.0054
 Moon -40530-09-09 15:06 J -13081908.05 -13081907.87 -13081907.66 0.0088 0.0058 *
 Moon -40529-09-10 19:54 J -13081540.70 -13081540.67 -13081540.57 0.0088 0.0086
 Mercury -40527-08-28 16:47 J -13080823.85 -13080823.80 -13080823.72 0.0088 0.0082
 Mercury -40527-11-24 18:57 J -13080735.78 -13080735.71 -13080735.60 0.0088 0.0075
 Mercury -40526-02-20 21:35 J -13080647.70 -13080647.60 -13080647.49 0.0088 0.0066
 Mercury -40526-05-19 23:45 J -13080559.62 -13080559.51 -13080559.38 0.0088 0.0059
 Mercury -40526-08-16 02:09 J -13080471.53 -13080471.41 -13080471.27 0.0088 0.0052
 Mercury -40526-11-12 04:18 J -13080383.45 -13080383.32 -13080383.17 0.0088 0.0045
 Mercury -40525-02-08 06:42 J -13080295.36 -13080295.22 -13080295.07 0.0088 0.0037
 Mercury -40525-05-06 09:06 J -13080207.27 -13080207.12 -13080206.97 0.0088 0.0029
 Mercury -40525-08-02 11:16 J -13080119.18 -13080119.03 -13080118.87 0.0088 0.0022
 Mercury -40525-10-29 13:40 J -13080031.09 -13080030.93 -13080030.77 0.0088 0.0015
 Mercury -40524-01-25 15:50 J -13079943.00 -13079942.84 -13079942.68 0.0088 0.0007
 Mercury -40524-04-23 17:59 J -13079854.91 -13079854.75 -13079854.59 0.0088 0.0001
 Mercury -40524-07-20 20:09 J -13079766.81 -13079766.66 -13079766.50 0.0088 0.0008
 Mercury -40524-10-16 22:18 J -13079678.72 -13079678.57 -13079678.41 0.0088 0.0015
 Mercury -40523-01-13 00:28 J -13079590.63 -13079590.48 -13079590.32 0.0088 0.0022
 Mercury -40523-04-11 02:52 J -13079502.53 -13079502.38 -13079502.23 0.0088 0.0029
 Mercury -40523-07-08 04:47 J -13079414.44 -13079414.30 -13079414.15 0.0088 0.0036
 Mercury -40523-10-04 06:57 J -13079326.34 -13079326.21 -13079326.07 0.0088 0.0043
 Mercury -40523-12-31 08:52 J -13079238.24 -13079238.13 -13079237.99 0.0088 0.0051

Mercury -40522-03-29 11:02 J -13079150.15 -13079150.04 -13079149.91 0.0088 0.0058

Mercury -40522-06-25 13:11 J -13079062.04 -13079061.95 -13079061.83 0.0088 0.0065

Mercury -40522-09-21 15:21 J -13078973.94 -13078973.86 -13078973.76 0.0088 0.0071

Mercury -40522-12-18 17:16 J -13078885.83 -13078885.78 -13078885.69 0.0088 0.0079

Mercury -40521-03-15 19:26 J -13078797.71 -13078797.69 -13078797.64 0.0088 0.0086

Mars -40517-12-14 21:21 J -13077062.86 -13077062.61 -13077062.31 0.0089 0.0053

Mars -40515-11-11 07:11 J -13076366.53 -13076366.20 -13076365.86 0.0089 0.0016

Mars -40513-10-07 15:35 J -13075670.19 -13075669.85 -13075669.52 0.0089 0.0021

Mars -40511-09-03 21:50 J -13074973.82 -13074973.59 -13074973.30 0.0089 0.0058

Venus -40493-07-29 17:30 J -13068434.85 -13068434.77 -13068434.66 0.0089 0.0080

Venus -40492-03-12 05:59 J -13068209.37 -13068209.25 -13068209.09 0.0089 0.0068

Venus -40492-10-23 18:57 J -13067983.87 -13067983.71 -13067983.53 0.0089 0.0055

Venus -40491-06-06 07:40 J -13067758.37 -13067758.18 -13067757.99 0.0089 0.0042

Venus -40490-01-17 20:09 J -13067532.86 -13067532.66 -13067532.45 0.0089 0.0030

Venus -40490-08-31 08:52 J -13067307.34 -13067307.13 -13067306.92 0.0089 0.0017

Venus -40489-04-12 21:21 J -13067081.83 -13067081.61 -13067081.39 0.0089 0.0005

Venus -40489-11-24 09:35 J -13066856.31 -13066856.10 -13066855.88 0.0089 0.0008

Venus -40488-07-07 22:04 J -13066630.79 -13066630.58 -13066630.37 0.0089 0.0020

Venus -40487-02-18 10:18 J -13066405.26 -13066405.07 -13066404.86 0.0089 0.0033

Venus -40487-10-01 22:47 J -13066179.72 -13066179.55 -13066179.35 0.0089 0.0045

Venus -40486-05-15 10:47 J -13065954.19 -13065954.05 -13065953.86 0.0089 0.0059

Venus -40486-12-26 23:16 J -13065728.64 -13065728.53 -13065728.38 0.0089 0.0070

Venus -40485-08-08 11:45 J -13065503.08 -13065503.01 -13065502.92 0.0089 0.0082

Moon -40451-02-28 17:02 J -13053245.95 -13053245.79 -13053245.61 0.0089 0.0067

Earth -40451-02-28 18:57 J -13053245.88 -13053245.71 -13053245.54 0.0089 0.0066 *

Earth -40450-03-03 05:59 J -13052878.48 -13052878.25 -13052878.00 0.0089 0.0030

Moon -40450-03-03 08:52 J -13052878.35 -13052878.13 -13052877.88 0.0089 0.0029 *

Moon -40449-03-04 14:09 J -13052511.17 -13052510.91 -13052510.65 0.0089 0.0005

Earth -40449-03-04 17:30 J -13052511.02 -13052510.77 -13052510.51 0.0089 0.0007 *

Earth -40448-03-07 04:33 J -13052143.53 -13052143.31 -13052143.08 0.0089 0.0043

Moon -40448-03-07 08:09 J -13052143.38 -13052143.16 -13052142.93 0.0089 0.0043 *
 Moon -40447-03-09 11:59 J -13051776.08 -13051776.00 -13051775.85 0.0089 0.0079
 Earth -40447-03-09 15:21 J -13051775.94 -13051775.86 -13051775.72 0.0089 0.0080 *
 Mercury -40445-02-25 23:45 J -13051057.54 -13051057.51 -13051057.46 0.0089 0.0085
 Mercury -40445-05-24 01:40 J -13050969.49 -13050969.43 -13050969.35 0.0089 0.0078
 Mercury -40445-08-20 03:50 J -13050881.42 -13050881.34 -13050881.24 0.0089 0.0071
 Mercury -40445-11-16 05:45 J -13050793.36 -13050793.26 -13050793.15 0.0089 0.0064
 Mercury -40444-02-12 07:54 J -13050705.29 -13050705.17 -13050705.05 0.0089 0.0057
 Mercury -40444-05-11 09:50 J -13050617.21 -13050617.09 -13050616.96 0.0089 0.0050
 Mercury -40444-08-07 11:45 J -13050529.14 -13050529.01 -13050528.87 0.0089 0.0043
 Mercury -40444-11-03 13:54 J -13050441.06 -13050440.92 -13050440.78 0.0089 0.0036
 Mercury -40443-01-30 15:50 J -13050352.98 -13050352.84 -13050352.69 0.0089 0.0029
 Mercury -40443-04-28 17:59 J -13050264.90 -13050264.75 -13050264.60 0.0089 0.0022
 Mercury -40443-07-25 20:09 J -13050176.81 -13050176.66 -13050176.51 0.0089 0.0015
 Mercury -40443-10-21 22:04 J -13050088.73 -13050088.58 -13050088.42 0.0089 0.0008
 Mercury -40442-01-18 00:14 J -13050000.64 -13050000.49 -13050000.33 0.0089 0.0001
 Mercury -40442-04-16 02:23 J -13049912.56 -13049912.40 -13049912.25 0.0089 0.0007
 Mercury -40442-07-13 04:33 J -13049824.47 -13049824.31 -13049824.16 0.0089 0.0014
 Mercury -40442-10-09 06:28 J -13049736.38 -13049736.23 -13049736.07 0.0089 0.0022
 Mercury -40441-01-05 08:38 J -13049648.29 -13049648.14 -13049647.99 0.0089 0.0029
 Mercury -40441-04-02 10:47 J -13049560.19 -13049560.05 -13049559.91 0.0089 0.0036
 Mercury -40441-06-29 12:57 J -13049472.10 -13049471.96 -13049471.82 0.0089 0.0043
 Mercury -40441-09-25 14:52 J -13049384.00 -13049383.88 -13049383.74 0.0089 0.0051
 Mercury -40441-12-22 17:02 J -13049295.90 -13049295.79 -13049295.66 0.0089 0.0058
 Mercury -40440-03-20 19:11 J -13049207.80 -13049207.70 -13049207.58 0.0089 0.0066
 Mercury -40440-06-16 21:21 J -13049119.69 -13049119.61 -13049119.51 0.0089 0.0073
 Mercury -40440-09-12 23:45 J -13049031.57 -13049031.51 -13049031.44 0.0089 0.0080
 Mercury -40440-12-10 01:40 J -13048943.44 -13048943.43 -13048943.40 0.0089 0.0088
 Mars -40437-11-07 19:26 J -13047879.85 -13047879.69 -13047879.50 0.0089 0.0071
 Mars -40435-10-02 10:18 J -13047186.30 -13047186.07 -13047185.79 0.0089 0.0041

Mars	-40433-08-26 01:40 J	-13046492.72	-13046492.43	-13046492.14	0.0089	0.0010
Mars	-40431-07-20 15:21 J	-13045799.12	-13045798.86	-13045798.56	0.0089	0.0022
Mars	-40429-06-13 07:40 J	-13045105.42	-13045105.18	-13045104.95	0.0089	0.0052
Mars	-40427-05-07 23:45 J	-13044411.59	-13044411.51	-13044411.39	0.0089	0.0083
Venus	-40411-01-29 01:11 J	-13038666.47	-13038666.45	-13038666.42	0.0088	0.0088
Venus	-40411-09-11 14:09 J	-13038441.00	-13038440.91	-13038440.77	0.0088	0.0076
Venus	-40410-04-25 03:35 J	-13038215.49	-13038215.35	-13038215.18	0.0088	0.0063
Venus	-40410-12-06 17:02 J	-13037989.96	-13037989.79	-13037989.59	0.0088	0.0051
Venus	-40409-07-19 06:28 J	-13037764.42	-13037764.23	-13037764.02	0.0088	0.0038
Venus	-40408-03-01 20:09 J	-13037538.87	-13037538.66	-13037538.44	0.0088	0.0025
Venus	-40408-10-13 09:35 J	-13037313.32	-13037313.10	-13037312.87	0.0088	0.0013
Venus	-40407-05-26 23:02 J	-13037087.76	-13037087.54	-13037087.31	0.0088	0.0002
Venus	-40406-01-07 12:28 J	-13036862.20	-13036861.98	-13036861.75	0.0088	0.0012
Venus	-40406-08-21 01:54 J	-13036636.63	-13036636.42	-13036636.20	0.0088	0.0025
Venus	-40405-04-02 15:35 J	-13036411.04	-13036410.85	-13036410.64	0.0088	0.0038
Venus	-40405-11-14 05:02 J	-13036185.46	-13036185.29	-13036185.09	0.0088	0.0050
Venus	-40404-06-27 18:57 J	-13035959.86	-13035959.71	-13035959.55	0.0088	0.0063
Venus	-40403-02-08 08:09 J	-13035734.26	-13035734.16	-13035734.03	0.0088	0.0075
Jupiter	-40403-06-11 23:16 J	-13035611.05	-13035610.53	-13035609.98	0.0088	0.0031
Venus	-40403-09-21 22:18 J	-13035508.59	-13035508.57	-13035508.55	0.0088	0.0088
Earth	-40369-09-01 04:04 J	-13023110.45	-13023110.33	-13023110.19	0.0088	0.0077
Moon	-40369-09-01 05:59 J	-13023110.33	-13023110.25	-13023110.12	0.0088	0.0080 *
Moon	-40368-09-03 13:26 J	-13022743.18	-13022742.94	-13022742.70	0.0088	0.0038
Earth	-40368-09-03 16:04 J	-13022743.05	-13022742.83	-13022742.59	0.0088	0.0041 *
Earth	-40367-09-06 04:04 J	-13022375.59	-13022375.33	-13022375.07	0.0088	0.0004
Moon	-40367-09-06 07:40 J	-13022375.43	-13022375.18	-13022374.92	0.0088	0.0008 *
Moon	-40366-09-08 12:28 J	-13022008.20	-13022007.98	-13022007.73	0.0088	0.0036
Earth	-40366-09-08 15:50 J	-13022008.07	-13022007.84	-13022007.58	0.0088	0.0033 *
Earth	-40365-09-10 03:50 J	-13021640.49	-13021640.34	-13021640.17	0.0088	0.0069
Moon	-40365-09-10 07:11 J	-13021640.36	-13021640.20	-13021640.02	0.0088	0.0067 *

Mercury -40362-02-26 12:28 J -13020740.98 -13020740.98 -13020740.96 0.0088 0.0088

Mercury -40362-05-25 14:52 J -13020652.94 -13020652.88 -13020652.80 0.0088 0.0080

Mercury -40362-08-21 17:30 J -13020564.86 -13020564.77 -13020564.68 0.0088 0.0073

Mercury -40362-11-17 19:26 J -13020476.78 -13020476.69 -13020476.57 0.0088 0.0066

Mercury -40361-02-13 22:04 J -13020388.70 -13020388.58 -13020388.46 0.0088 0.0058

Mercury -40361-05-12 00:14 J -13020300.62 -13020300.49 -13020300.35 0.0088 0.0050

Mercury -40361-08-08 02:38 J -13020212.53 -13020212.39 -13020212.25 0.0088 0.0043

Mercury -40361-11-04 04:47 J -13020124.44 -13020124.30 -13020124.15 0.0088 0.0036

Mercury -40360-01-31 06:57 J -13020036.35 -13020036.21 -13020036.05 0.0088 0.0029

Mercury -40360-04-29 09:21 J -13019948.26 -13019948.11 -13019947.95 0.0088 0.0021

Mercury -40360-07-26 11:30 J -13019860.17 -13019860.02 -13019859.85 0.0088 0.0014

Mercury -40360-10-22 13:54 J -13019772.08 -13019771.92 -13019771.76 0.0088 0.0006

Mercury -40359-01-18 16:04 J -13019683.99 -13019683.83 -13019683.67 0.0088 0.0002

Mercury -40359-04-16 18:14 J -13019595.90 -13019595.74 -13019595.58 0.0088 0.0009

Mercury -40359-07-13 20:23 J -13019507.80 -13019507.65 -13019507.49 0.0088 0.0016

Mercury -40359-10-09 22:33 J -13019419.71 -13019419.56 -13019419.40 0.0088 0.0023

Mercury -40358-01-06 00:42 J -13019331.61 -13019331.47 -13019331.31 0.0088 0.0030

Mercury -40358-04-04 02:52 J -13019243.52 -13019243.38 -13019243.23 0.0088 0.0038

Mercury -40358-07-01 05:02 J -13019155.42 -13019155.29 -13019155.15 0.0088 0.0045

Mercury -40358-09-27 07:11 J -13019067.32 -13019067.20 -13019067.07 0.0088 0.0052

Mercury -40358-12-24 09:21 J -13018979.22 -13018979.11 -13018978.99 0.0088 0.0059

Mercury -40357-03-21 11:30 J -13018891.12 -13018891.02 -13018890.91 0.0088 0.0066

Mercury -40357-06-17 13:26 J -13018803.02 -13018802.94 -13018802.84 0.0088 0.0073

Mercury -40357-09-13 15:35 J -13018714.91 -13018714.85 -13018714.77 0.0088 0.0080

Mercury -40357-12-10 17:45 J -13018626.78 -13018626.76 -13018626.72 0.0088 0.0087

Mars -40353-07-27 17:59 J -13017301.95 -13017301.75 -13017301.53 0.0089 0.0070

Mars -40351-06-24 03:21 J -13016605.66 -13016605.36 -13016605.02 0.0089 0.0033

Mars -40349-05-20 12:57 J -13015909.30 -13015908.96 -13015908.61 0.0089 0.0005

Mars -40347-04-16 20:52 J -13015212.92 -13015212.63 -13015212.32 0.0089 0.0042

Mars -40345-03-13 03:21 J -13014516.48 -13014516.36 -13014516.17 0.0089 0.0079

Venus	-40329-10-31 01:26 J	-13008440.46	-13008440.44	-13008440.37	0.0089	0.0087
Venus	-40328-06-13 14:23 J	-13008215.01	-13008214.90	-13008214.78	0.0089	0.0074
Venus	-40327-01-25 02:38 J	-13007989.52	-13007989.39	-13007989.21	0.0089	0.0062
Venus	-40327-09-07 15:50 J	-13007764.02	-13007763.84	-13007763.66	0.0089	0.0049
Venus	-40326-04-21 04:04 J	-13007538.51	-13007538.33	-13007538.12	0.0089	0.0038
Venus	-40326-12-02 17:02 J	-13007313.00	-13007312.79	-13007312.58	0.0089	0.0024
Venus	-40325-07-15 05:30 J	-13007087.48	-13007087.27	-13007087.06	0.0089	0.0012
Venus	-40324-02-25 17:59 J	-13006861.96	-13006861.75	-13006861.53	0.0089	0.0001
Venus	-40324-10-09 06:28 J	-13006636.44	-13006636.23	-13006636.01	0.0089	0.0013
Venus	-40323-05-22 18:57 J	-13006410.91	-13006410.71	-13006410.50	0.0089	0.0025
Venus	-40322-01-03 07:11 J	-13006185.38	-13006185.20	-13006184.99	0.0089	0.0038
Venus	-40322-08-16 19:26 J	-13005959.85	-13005959.69	-13005959.50	0.0089	0.0051
Venus	-40321-03-29 08:09 J	-13005734.31	-13005734.16	-13005734.00	0.0089	0.0062
Venus	-40321-11-09 20:09 J	-13005508.76	-13005508.66	-13005508.52	0.0089	0.0075
Venus	-40320-06-23 08:23 J	-13005283.17	-13005283.15	-13005283.08	0.0089	0.0087
Earth	-40287-02-27 23:30 J	-12993345.53	-12993345.52	-12993345.45	0.0089	0.0088
Moon	-40287-02-28 02:38 J	-12993345.45	-12993345.39	-12993345.28	0.0089	0.0084 *
Moon	-40286-03-02 07:26 J	-12992978.37	-12992978.19	-12992977.97	0.0089	0.0056
Earth	-40286-03-02 11:16 J	-12992978.22	-12992978.03	-12992977.80	0.0089	0.0051 *
Earth	-40285-03-03 22:47 J	-12992610.80	-12992610.55	-12992610.30	0.0089	0.0014
Moon	-40285-03-04 02:09 J	-12992610.66	-12992610.41	-12992610.15	0.0089	0.0010 *
Moon	-40284-03-06 06:57 J	-12992243.45	-12992243.21	-12992242.96	0.0089	0.0018
Earth	-40284-03-06 10:04 J	-12992243.33	-12992243.08	-12992242.83	0.0089	0.0022 *
Earth	-40283-03-08 20:52 J	-12991875.81	-12991875.63	-12991875.43	0.0089	0.0059
Moon	-40283-03-08 23:02 J	-12991875.70	-12991875.54	-12991875.34	0.0089	0.0064 *
Mercury	-40281-11-21 22:18 J	-12990886.62	-12990886.57	-12990886.51	0.0089	0.0083
Mercury	-40280-02-18 00:14 J	-12990798.56	-12990798.49	-12990798.41	0.0089	0.0076
Mercury	-40280-05-17 02:23 J	-12990710.50	-12990710.40	-12990710.31	0.0089	0.0069
Mercury	-40280-08-13 04:18 J	-12990622.43	-12990622.32	-12990622.21	0.0089	0.0062
Mercury	-40280-11-09 05:59 J	-12990534.36	-12990534.25	-12990534.12	0.0089	0.0056

Mercury -40279-02-05 07:54 J -12990446.28 -12990446.17 -12990446.03 0.0089 0.0049

Mercury -40279-05-04 10:04 J -12990358.21 -12990358.08 -12990357.94 0.0089 0.0042

Mercury -40279-07-31 11:59 J -12990270.13 -12990270.00 -12990269.85 0.0089 0.0035

Mercury -40279-10-27 14:09 J -12990182.05 -12990181.91 -12990181.76 0.0089 0.0028

Mercury -40278-01-23 16:18 J -12990093.97 -12990093.82 -12990093.67 0.0089 0.0020

Mercury -40278-04-21 18:28 J -12990005.89 -12990005.73 -12990005.58 0.0089 0.0013

Mercury -40278-07-18 20:23 J -12989917.80 -12989917.65 -12989917.49 0.0089 0.0006

Mercury -40278-10-14 22:33 J -12989829.72 -12989829.56 -12989829.41 0.0089 0.0001

Mercury -40277-01-11 00:28 J -12989741.63 -12989741.48 -12989741.32 0.0089 0.0009

Mercury -40277-04-08 02:38 J -12989653.54 -12989653.39 -12989653.23 0.0089 0.0016

Mercury -40277-07-05 04:47 J -12989565.45 -12989565.30 -12989565.15 0.0089 0.0023

Mercury -40277-10-01 06:57 J -12989477.36 -12989477.21 -12989477.06 0.0089 0.0030

Mercury -40277-12-28 08:52 J -12989389.27 -12989389.13 -12989388.98 0.0089 0.0038

Mercury -40276-03-26 11:02 J -12989301.17 -12989301.04 -12989300.90 0.0089 0.0045

Mercury -40276-06-22 13:11 J -12989213.07 -12989212.95 -12989212.82 0.0089 0.0052

Mercury -40276-09-18 15:06 J -12989124.97 -12989124.87 -12989124.74 0.0089 0.0060

Mercury -40276-12-15 17:30 J -12989036.87 -12989036.77 -12989036.66 0.0089 0.0067

Mercury -40275-03-13 19:26 J -12988948.76 -12988948.69 -12988948.59 0.0089 0.0075

Mercury -40275-06-09 21:35 J -12988860.64 -12988860.60 -12988860.53 0.0089 0.0082

Mars -40273-06-23 04:04 J -12988116.37 -12988116.33 -12988116.22 0.0089 0.0086

Mars -40271-05-17 18:14 J -12987422.95 -12987422.74 -12987422.49 0.0089 0.0055

Mars -40269-04-10 09:21 J -12986729.38 -12986729.11 -12986728.82 0.0089 0.0024

Mars -40267-03-05 01:40 J -12986035.72 -12986035.43 -12986035.14 0.0089 0.0008

Mars -40265-01-27 15:50 J -12985342.09 -12985341.84 -12985341.57 0.0089 0.0039

Mars -40264-12-21 07:26 J -12984648.36 -12984648.19 -12984648.00 0.0089 0.0070

Venus -40247-12-13 21:50 J -12978446.66 -12978446.59 -12978446.50 0.0088 0.0082

Venus -40246-07-27 11:02 J -12978221.16 -12978221.04 -12978220.89 0.0088 0.0070

Venus -40245-03-09 00:28 J -12977995.63 -12977995.48 -12977995.29 0.0088 0.0057

Venus -40245-10-20 14:09 J -12977770.10 -12977769.91 -12977769.71 0.0088 0.0045

Venus -40244-06-03 03:21 J -12977544.56 -12977544.36 -12977544.14 0.0088 0.0032

Venus	-40243-01-14 16:33 J	-12977319.01	-12977318.81	-12977318.58	0.0088	0.0020
Venus	-40243-08-28 06:14 J	-12977093.46	-12977093.24	-12977093.02	0.0088	0.0007
Venus	-40242-04-10 19:40 J	-12976867.90	-12976867.68	-12976867.45	0.0088	0.0005
Venus	-40242-11-22 09:06 J	-12976642.33	-12976642.12	-12976641.89	0.0088	0.0018
Venus	-40241-07-04 22:18 J	-12976416.77	-12976416.57	-12976416.34	0.0088	0.0031
Venus	-40240-02-15 11:59 J	-12976191.19	-12976191.00	-12976190.79	0.0088	0.0043
Venus	-40240-09-29 01:26 J	-12975965.60	-12975965.44	-12975965.25	0.0088	0.0055
Venus	-40239-05-12 15:06 J	-12975740.00	-12975739.87	-12975739.72	0.0088	0.0067
Venus	-40239-12-24 04:18 J	-12975514.39	-12975514.32	-12975514.20	0.0088	0.0080
Earth	-40204-09-02 18:57 J	-12962842.87	-12962842.71	-12962842.51	0.0088	0.0062
Moon	-40204-09-02 22:33 J	-12962842.72	-12962842.56	-12962842.37	0.0088	0.0066 *
Moon	-40203-09-05 03:35 J	-12962475.59	-12962475.35	-12962475.09	0.0088	0.0023
Earth	-40203-09-05 06:57 J	-12962475.44	-12962475.21	-12962474.94	0.0088	0.0027 *
Earth	-40202-09-07 19:11 J	-12962107.96	-12962107.70	-12962107.45	0.0088	0.0011
Moon	-40202-09-07 21:50 J	-12962107.85	-12962107.59	-12962107.32	0.0088	0.0008 *
Moon	-40201-09-09 04:47 J	-12961740.50	-12961740.30	-12961740.08	0.0088	0.0050
Earth	-40201-09-09 06:28 J	-12961740.42	-12961740.23	-12961739.99	0.0088	0.0048 *
Earth	-40200-09-11 18:28 J	-12961372.79	-12961372.73	-12961372.63	0.0088	0.0084
Moon	-40200-09-11 19:40 J	-12961372.78	-12961372.68	-12961372.55	0.0088	0.0080 *
Mercury	-40198-11-23 10:04 J	-12960570.08	-12960570.08	-12960570.04	0.0088	0.0088
Mercury	-40197-02-19 12:42 J	-12960482.03	-12960481.97	-12960481.90	0.0088	0.0080
Mercury	-40197-05-17 14:52 J	-12960393.96	-12960393.88	-12960393.77	0.0088	0.0072
Mercury	-40197-08-13 17:16 J	-12960305.88	-12960305.78	-12960305.66	0.0088	0.0065
Mercury	-40197-11-09 19:26 J	-12960217.80	-12960217.69	-12960217.55	0.0088	0.0058
Mercury	-40196-02-05 22:04 J	-12960129.71	-12960129.58	-12960129.44	0.0088	0.0050
Mercury	-40196-05-05 00:14 J	-12960041.62	-12960041.49	-12960041.34	0.0088	0.0042
Mercury	-40196-08-01 02:38 J	-12959953.53	-12959953.39	-12959953.24	0.0088	0.0035
Mercury	-40196-10-28 04:47 J	-12959865.44	-12959865.30	-12959865.14	0.0088	0.0028
Mercury	-40195-01-24 07:11 J	-12959777.35	-12959777.20	-12959777.04	0.0088	0.0020
Mercury	-40195-04-22 09:35 J	-12959689.26	-12959689.10	-12959688.94	0.0088	0.0012

Mercury -40195-07-19 11:45 J -12959601.17 -12959601.01 -12959600.85 0.0088 0.0005

Mercury -40195-10-15 13:54 J -12959513.08 -12959512.92 -12959512.75 0.0088 0.0003

Mercury -40194-01-11 16:18 J -12959424.98 -12959424.82 -12959424.66 0.0088 0.0010

Mercury -40194-04-09 18:28 J -12959336.89 -12959336.73 -12959336.57 0.0088 0.0017

Mercury -40194-07-06 20:23 J -12959248.79 -12959248.65 -12959248.49 0.0088 0.0025

Mercury -40194-10-02 22:33 J -12959160.70 -12959160.56 -12959160.40 0.0088 0.0032

Mercury -40194-12-30 00:57 J -12959072.60 -12959072.46 -12959072.31 0.0088 0.0038

Mercury -40193-03-27 03:06 J -12958984.50 -12958984.37 -12958984.23 0.0088 0.0046

Mercury -40193-06-23 05:16 J -12958896.40 -12958896.28 -12958896.15 0.0088 0.0053

Mercury -40193-09-19 07:26 J -12958808.30 -12958808.19 -12958808.07 0.0088 0.0060

Mercury -40193-12-16 09:35 J -12958720.20 -12958720.10 -12958720.00 0.0088 0.0067

Mercury -40192-03-14 11:45 J -12958632.09 -12958632.01 -12958631.92 0.0088 0.0074

Mercury -40192-06-10 13:54 J -12958543.98 -12958543.92 -12958543.86 0.0088 0.0081

Mercury -40192-09-06 15:50 J -12958455.85 -12958455.84 -12958455.82 0.0088 0.0088

Mars -40189-03-09 13:54 J -12957540.94 -12957540.92 -12957540.87 0.0088 0.0088

Mars -40187-02-03 23:30 J -12956844.78 -12956844.52 -12956844.21 0.0089 0.0051

Mars -40185-01-01 09:21 J -12956148.45 -12956148.11 -12956147.77 0.0089 0.0013

Mars -40184-11-27 17:59 J -12955452.06 -12955451.75 -12955451.40 0.0089 0.0026

Mars -40182-10-25 02:09 J -12954755.63 -12954755.41 -12954755.15 0.0089 0.0063

Venus -40164-09-14 21:50 J -12948220.66 -12948220.59 -12948220.49 0.0089 0.0081

Venus -40163-04-28 10:18 J -12947995.19 -12947995.07 -12947994.92 0.0089 0.0069

Venus -40163-12-09 23:16 J -12947769.70 -12947769.53 -12947769.36 0.0089 0.0057

Venus -40162-07-23 11:45 J -12947544.19 -12947544.01 -12947543.82 0.0089 0.0044

Venus -40161-03-05 00:14 J -12947318.68 -12947318.49 -12947318.28 0.0089 0.0032

Venus -40161-10-16 13:11 J -12947093.16 -12947092.95 -12947092.74 0.0089 0.0019

Venus -40160-05-30 01:40 J -12946867.64 -12946867.43 -12946867.21 0.0089 0.0007

Venus -40159-01-10 14:23 J -12946642.12 -12946641.90 -12946641.69 0.0089 0.0005

Venus -40159-08-24 02:38 J -12946416.59 -12946416.39 -12946416.17 0.0089 0.0018

Venus -40158-04-06 15:06 J -12946191.06 -12946190.87 -12946190.65 0.0089 0.0031

Venus -40158-11-18 03:50 J -12945965.53 -12945965.34 -12945965.15 0.0089 0.0043

Venus	-40157-06-30 15:50 J	-12945739.99	-12945739.84	-12945739.65	0.0089	0.0055
Venus	-40156-02-11 04:18 J	-12945514.44	-12945514.32	-12945514.16	0.0089	0.0067
Venus	-40156-09-24 16:47 J	-12945288.88	-12945288.80	-12945288.69	0.0089	0.0080
Earth	-40122-03-01 15:35 J	-12933077.97	-12933077.85	-12933077.68	0.0089	0.0073
Moon	-40122-03-01 19:26 J	-12933077.82	-12933077.69	-12933077.54	0.0089	0.0074 *
Moon	-40121-03-03 01:11 J	-12932710.68	-12932710.45	-12932710.22	0.0089	0.0034
Earth	-40121-03-03 03:21 J	-12932710.58	-12932710.36	-12932710.11	0.0089	0.0036 *
Earth	-40120-03-05 14:52 J	-12932343.14	-12932342.88	-12932342.62	0.0089	0.0001
Moon	-40120-03-05 16:33 J	-12932343.08	-12932342.81	-12932342.55	0.0089	0.0001 *
Moon	-40119-03-08 01:11 J	-12931975.65	-12931975.45	-12931975.21	0.0089	0.0040
Earth	-40119-03-08 01:54 J	-12931975.63	-12931975.42	-12931975.17	0.0089	0.0038 *
Moon	-40118-03-10 11:45 J	-12931608.13	-12931608.01	-12931607.83	0.0089	0.0073
Earth	-40118-03-10 13:11 J	-12931608.06	-12931607.95	-12931607.79	0.0089	0.0075 *
Mercury	-40116-05-22 18:42 J	-12930803.73	-12930803.72	-12930803.70	0.0089	0.0088
Mercury	-40116-08-18 20:52 J	-12930715.69	-12930715.63	-12930715.57	0.0089	0.0081
Mercury	-40116-11-14 22:33 J	-12930627.63	-12930627.56	-12930627.47	0.0089	0.0075
Mercury	-40115-02-11 00:28 J	-12930539.56	-12930539.48	-12930539.37	0.0089	0.0068
Mercury	-40115-05-10 02:23 J	-12930451.50	-12930451.40	-12930451.28	0.0089	0.0061
Mercury	-40115-08-06 04:33 J	-12930363.42	-12930363.31	-12930363.18	0.0089	0.0054
Mercury	-40115-11-02 06:28 J	-12930275.35	-12930275.23	-12930275.09	0.0089	0.0047
Mercury	-40114-01-29 08:23 J	-12930187.27	-12930187.15	-12930187.00	0.0089	0.0040
Mercury	-40114-04-27 10:33 J	-12930099.20	-12930099.06	-12930098.91	0.0089	0.0033
Mercury	-40114-07-24 12:28 J	-12930011.12	-12930010.98	-12930010.82	0.0089	0.0026
Mercury	-40114-10-20 14:38 J	-12929923.04	-12929922.89	-12929922.74	0.0089	0.0019
Mercury	-40113-01-16 16:47 J	-12929834.95	-12929834.80	-12929834.65	0.0089	0.0012
Mercury	-40113-04-13 18:42 J	-12929746.87	-12929746.72	-12929746.56	0.0089	0.0005
Mercury	-40113-07-10 20:52 J	-12929658.79	-12929658.63	-12929658.48	0.0089	0.0003
Mercury	-40113-10-06 22:47 J	-12929570.70	-12929570.55	-12929570.39	0.0089	0.0010
Mercury	-40112-01-03 00:57 J	-12929482.61	-12929482.46	-12929482.31	0.0089	0.0017
Mercury	-40112-04-01 02:52 J	-12929394.52	-12929394.38	-12929394.22	0.0089	0.0025

Mercury -40112-06-28 05:02 J -12929306.43 -12929306.29 -12929306.14 0.0089 0.0032
 Mercury -40112-09-24 07:11 J -12929218.34 -12929218.20 -12929218.06 0.0089 0.0039
 Mercury -40112-12-21 09:06 J -12929130.24 -12929130.12 -12929129.98 0.0089 0.0047
 Mercury -40111-03-19 11:16 J -12929042.14 -12929042.03 -12929041.90 0.0089 0.0054
 Mercury -40111-06-15 13:26 J -12928954.04 -12928953.94 -12928953.82 0.0089 0.0061
 Mercury -40111-09-11 15:21 J -12928865.94 -12928865.86 -12928865.74 0.0089 0.0069
 Mercury -40111-12-08 17:45 J -12928777.83 -12928777.76 -12928777.67 0.0089 0.0076
 Mercury -40110-03-06 20:09 J -12928689.71 -12928689.66 -12928689.61 0.0089 0.0083
 Mars -40108-12-31 04:18 J -12927659.49 -12927659.32 -12927659.13 0.0089 0.0069
 Mars -40106-11-24 17:59 J -12926965.99 -12926965.75 -12926965.47 0.0089 0.0038
 Mars -40104-10-18 08:38 J -12926272.43 -12926272.14 -12926271.85 0.0089 0.0006
 Mars -40102-09-12 00:14 J -12925578.76 -12925578.49 -12925578.20 0.0089 0.0026
 Mars -40100-08-05 14:38 J -12924885.10 -12924884.89 -12924884.66 0.0089 0.0057
 Mars -40098-06-30 05:30 J -12924191.27 -12924191.27 -12924191.22 0.0089 0.0088
 Venus -40082-03-17 05:45 J -12918452.28 -12918452.26 -12918452.24 0.0088 0.0088
 Venus -40082-10-28 18:57 J -12918226.82 -12918226.71 -12918226.59 0.0088 0.0076
 Venus -40081-06-10 08:09 J -12918001.30 -12918001.16 -12918001.00 0.0088 0.0063
 Venus -40080-01-21 21:21 J -12917775.78 -12917775.61 -12917775.41 0.0088 0.0051
 Venus -40080-09-04 10:47 J -12917550.24 -12917550.05 -12917549.84 0.0088 0.0039
 Venus -40079-04-18 00:28 J -12917324.69 -12917324.48 -12917324.26 0.0088 0.0026
 Venus -40079-11-29 13:40 J -12917099.14 -12917098.93 -12917098.70 0.0088 0.0015
 Venus -40078-07-13 03:21 J -12916873.59 -12916873.36 -12916873.14 0.0088 0.0002
 Venus -40077-02-23 16:47 J -12916648.03 -12916647.80 -12916647.58 0.0088 0.0011
 Venus -40077-10-06 05:59 J -12916422.46 -12916422.25 -12916422.03 0.0088 0.0023
 Venus -40076-05-19 19:26 J -12916196.89 -12916196.69 -12916196.48 0.0088 0.0035
 Venus -40076-12-31 08:52 J -12915971.31 -12915971.13 -12915970.94 0.0088 0.0048
 Venus -40075-08-13 22:04 J -12915745.73 -12915745.58 -12915745.40 0.0088 0.0060
 Venus -40074-03-27 11:45 J -12915520.12 -12915520.01 -12915519.86 0.0088 0.0072
 Venus -40074-11-08 01:26 J -12915294.49 -12915294.44 -12915294.36 0.0088 0.0085
 Moon -40040-09-01 19:54 J -12902942.69 -12902942.67 -12902942.63 0.0088 0.0088

Earth -40040-09-01 22:18 J -12902942.61 -12902942.57 -12902942.45 0.0088 0.0085
 Earth -40039-09-04 10:33 J -12902575.26 -12902575.06 -12902574.83 0.0088 0.0048
 Moon -40039-09-04 13:11 J -12902575.16 -12902574.95 -12902574.70 0.0088 0.0044 *
 Moon -40038-09-06 21:21 J -12902207.85 -12902207.61 -12902207.35 0.0088 0.0015
 Earth -40038-09-06 22:33 J -12902207.81 -12902207.56 -12902207.29 0.0088 0.0011 *
 Earth -40037-09-08 10:33 J -12901840.31 -12901840.06 -12901839.81 0.0088 0.0025
 Moon -40037-09-08 10:47 J -12901840.30 -12901840.05 -12901839.79 0.0088 0.0029 *
 Earth -40036-09-10 21:50 J -12901472.75 -12901472.59 -12901472.39 0.0088 0.0062
 Moon -40036-09-10 22:33 J -12901472.72 -12901472.56 -12901472.35 0.0088 0.0059 *
 Mercury -40033-08-19 08:09 J -12900399.19 -12900399.16 -12900399.13 0.0088 0.0087
 Mercury -40033-11-15 10:04 J -12900311.13 -12900311.08 -12900310.99 0.0088 0.0080
 Mercury -40032-02-11 12:42 J -12900223.06 -12900222.97 -12900222.87 0.0088 0.0072
 Mercury -40032-05-10 14:52 J -12900134.98 -12900134.88 -12900134.75 0.0088 0.0064
 Mercury -40032-08-06 17:16 J -12900046.89 -12900046.78 -12900046.64 0.0088 0.0057
 Mercury -40032-11-02 19:40 J -12899958.80 -12899958.68 -12899958.53 0.0088 0.0049
 Mercury -40031-01-29 22:04 J -12899870.72 -12899870.58 -12899870.43 0.0088 0.0042
 Mercury -40031-04-28 00:14 J -12899782.63 -12899782.49 -12899782.33 0.0088 0.0035
 Mercury -40031-07-25 02:38 J -12899694.54 -12899694.39 -12899694.23 0.0088 0.0027
 Mercury -40031-10-21 05:02 J -12899606.44 -12899606.29 -12899606.13 0.0088 0.0019
 Mercury -40030-01-17 07:26 J -12899518.35 -12899518.19 -12899518.03 0.0088 0.0012
 Mercury -40030-04-15 09:35 J -12899430.26 -12899430.10 -12899429.94 0.0088 0.0004
 Mercury -40030-07-12 11:59 J -12899342.17 -12899342.00 -12899341.84 0.0088 0.0004
 Mercury -40030-10-08 14:09 J -12899254.07 -12899253.91 -12899253.75 0.0088 0.0010
 Mercury -40029-01-04 16:18 J -12899165.98 -12899165.82 -12899165.66 0.0088 0.0018
 Mercury -40029-04-01 18:28 J -12899077.88 -12899077.73 -12899077.57 0.0088 0.0025
 Mercury -40029-06-28 20:38 J -12898989.78 -12898989.64 -12898989.49 0.0088 0.0032
 Mercury -40029-09-24 22:47 J -12898901.69 -12898901.55 -12898901.40 0.0088 0.0040
 Mercury -40029-12-22 00:57 J -12898813.59 -12898813.46 -12898813.32 0.0088 0.0047
 Mercury -40028-03-20 03:06 J -12898725.49 -12898725.37 -12898725.24 0.0088 0.0054
 Mercury -40028-06-16 05:16 J -12898637.39 -12898637.28 -12898637.16 0.0088 0.0061

Mercury	-40028-09-12 07:40 J	-12898549.28	-12898549.18	-12898549.08	0.0088	0.0068
Mercury	-40028-12-09 09:50 J	-12898461.18	-12898461.09	-12898461.01	0.0088	0.0075
Mercury	-40027-03-07 11:45 J	-12898373.06	-12898373.01	-12898372.95	0.0088	0.0082
Mars	-40024-09-16 17:59 J	-12897083.93	-12897083.75	-12897083.50	0.0088	0.0069
Mars	-40022-08-14 03:50 J	-12896387.64	-12896387.34	-12896386.99	0.0089	0.0031
Mars	-40020-07-10 13:26 J	-12895691.28	-12895690.94	-12895690.59	0.0089	0.0008
Mars	-40018-06-06 22:18 J	-12894994.85	-12894994.57	-12894994.26	0.0089	0.0046
Mars	-40016-05-03 06:14 J	-12894298.32	-12894298.24	-12894298.10	0.0089	0.0084

40TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 40th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-40000-12-17 05:16 J	-12888226.29	-12888226.28	-12888226.24	0.0089	0.0088		
Venus	-39999-07-30 17:45 J	-12888000.85	-12888000.76	-12888000.63	0.0089	0.0076		
Venus	-39998-03-13 06:14 J	-12887775.36	-12887775.24	-12887775.06	0.0089	0.0065		
Venus	-39998-10-24 19:26 J	-12887549.86	-12887549.69	-12887549.51	0.0089	0.0051		
Venus	-39997-06-06 07:54 J	-12887324.35	-12887324.17	-12887323.97	0.0089	0.0039		
Venus	-39996-01-17 20:23 J	-12887098.84	-12887098.65	-12887098.43	0.0089	0.0027		
Venus	-39996-08-31 09:21 J	-12886873.32	-12886873.11	-12886872.90	0.0089	0.0014		
Venus	-39995-04-13 21:50 J	-12886647.80	-12886647.59	-12886647.37	0.0089	0.0002		
Venus	-39995-11-25 10:18 J	-12886422.28	-12886422.07	-12886421.85	0.0089	0.0010		
Venus	-39994-07-08 22:47 J	-12886196.75	-12886196.55	-12886196.33	0.0089	0.0023		

Venus	-39993-02-19 11:02 J	-12885971.22	-12885971.04	-12885970.82	0.0089	0.0035
Venus	-39993-10-01 23:45 J	-12885745.68	-12885745.51	-12885745.31	0.0089	0.0047
Venus	-39992-05-15 12:14 J	-12885520.14	-12885519.99	-12885519.82	0.0089	0.0059
Venus	-39992-12-27 00:28 J	-12885294.59	-12885294.48	-12885294.33	0.0089	0.0072
Venus	-39991-08-09 12:57 J	-12885069.02	-12885068.96	-12885068.87	0.0089	0.0084
Earth	-39957-03-02 07:11 J	-12872810.37	-12872810.20	-12872809.98	0.0089	0.0058
Moon	-39957-03-02 08:38 J	-12872810.32	-12872810.14	-12872809.94	0.0089	0.0061 *
Earth	-39956-03-04 18:57 J	-12872442.95	-12872442.71	-12872442.45	0.0089	0.0021
Moon	-39956-03-04 19:40 J	-12872442.92	-12872442.68	-12872442.44	0.0089	0.0017 *
Moon	-39955-03-07 05:16 J	-12872075.53	-12872075.28	-12872075.00	0.0089	0.0013
Earth	-39955-03-07 06:42 J	-12872075.47	-12872075.22	-12872074.97	0.0089	0.0016 *
Earth	-39954-03-09 17:59 J	-12871707.96	-12871707.75	-12871707.55	0.0089	0.0053
Moon	-39954-03-09 19:54 J	-12871707.83	-12871707.67	-12871707.46	0.0089	0.0058 *
Moon	-39953-03-11 01:26 J	-12871340.46	-12871340.44	-12871340.36	0.0089	0.0088
Mercury	-39951-02-16 17:02 J	-12870632.81	-12870632.79	-12870632.75	0.0089	0.0087
Mercury	-39951-05-15 18:57 J	-12870544.76	-12870544.71	-12870544.64	0.0089	0.0080
Mercury	-39951-08-11 20:52 J	-12870456.70	-12870456.63	-12870456.54	0.0089	0.0073
Mercury	-39951-11-07 23:02 J	-12870368.64	-12870368.54	-12870368.44	0.0089	0.0066
Mercury	-39950-02-04 00:57 J	-12870280.57	-12870280.46	-12870280.34	0.0089	0.0059
Mercury	-39950-05-03 02:52 J	-12870192.50	-12870192.38	-12870192.25	0.0089	0.0052
Mercury	-39950-07-30 05:02 J	-12870104.42	-12870104.29	-12870104.16	0.0089	0.0045
Mercury	-39950-10-26 06:57 J	-12870016.35	-12870016.21	-12870016.07	0.0089	0.0038
Mercury	-39949-01-22 08:52 J	-12869928.27	-12869928.13	-12869927.98	0.0089	0.0031
Mercury	-39949-04-19 11:02 J	-12869840.19	-12869840.04	-12869839.89	0.0089	0.0024
Mercury	-39949-07-16 12:57 J	-12869752.11	-12869751.96	-12869751.81	0.0089	0.0017
Mercury	-39949-10-12 15:06 J	-12869664.03	-12869663.87	-12869663.72	0.0089	0.0010
Mercury	-39948-01-08 17:02 J	-12869575.94	-12869575.79	-12869575.64	0.0089	0.0003
Mercury	-39948-04-06 18:57 J	-12869487.86	-12869487.71	-12869487.55	0.0089	0.0005
Mercury	-39948-07-03 21:06 J	-12869399.77	-12869399.62	-12869399.46	0.0089	0.0011
Mercury	-39948-09-29 23:02 J	-12869311.68	-12869311.54	-12869311.38	0.0089	0.0019

Mercury -39948-12-27 01:11 J -12869223.60 -12869223.45 -12869223.30 0.0089 0.0026

Mercury -39947-03-25 03:21 J -12869135.50 -12869135.36 -12869135.22 0.0089 0.0033

Mercury -39947-06-21 05:16 J -12869047.41 -12869047.28 -12869047.13 0.0089 0.0041

Mercury -39947-09-17 07:26 J -12868959.32 -12868959.19 -12868959.05 0.0089 0.0048

Mercury -39947-12-14 09:35 J -12868871.22 -12868871.10 -12868870.97 0.0089 0.0055

Mercury -39946-03-12 11:30 J -12868783.12 -12868783.02 -12868782.90 0.0089 0.0063

Mercury -39946-06-08 13:40 J -12868695.01 -12868694.93 -12868694.82 0.0089 0.0070

Mercury -39946-09-04 16:04 J -12868606.90 -12868606.83 -12868606.75 0.0089 0.0077

Mercury -39946-12-01 17:59 J -12868518.78 -12868518.75 -12868518.69 0.0089 0.0085

Mars -39944-08-15 11:16 J -12867896.10 -12867896.03 -12867895.92 0.0089 0.0084

Mars -39942-07-10 02:09 J -12867202.61 -12867202.41 -12867202.15 0.0089 0.0053

Mars -39940-06-02 16:47 J -12866509.06 -12866508.80 -12866508.50 0.0089 0.0021

Mars -39938-04-27 07:11 J -12865815.48 -12865815.20 -12865814.90 0.0089 0.0012

Mars -39936-03-20 23:02 J -12865121.77 -12865121.54 -12865121.27 0.0089 0.0044

Mars -39934-02-12 14:09 J -12864428.02 -12864427.91 -12864427.72 0.0089 0.0076

Venus -39917-01-30 02:23 J -12858232.48 -12858232.40 -12858232.32 0.0088 0.0082

Venus -39917-09-11 15:35 J -12858006.98 -12858006.85 -12858006.71 0.0088 0.0070

Venus -39916-04-25 05:02 J -12857781.45 -12857781.29 -12857781.12 0.0088 0.0058

Venus -39916-12-06 18:14 J -12857555.92 -12857555.74 -12857555.54 0.0088 0.0045

Venus -39915-07-20 07:40 J -12857330.38 -12857330.18 -12857329.97 0.0088 0.0033

Venus -39914-03-02 21:06 J -12857104.83 -12857104.62 -12857104.39 0.0088 0.0021

Venus -39914-10-14 10:33 J -12856879.28 -12856879.06 -12856878.83 0.0088 0.0009

Venus -39913-05-26 23:59 J -12856653.72 -12856653.50 -12856653.27 0.0088 0.0004

Venus -39912-01-07 13:11 J -12856428.16 -12856427.95 -12856427.72 0.0088 0.0016

Venus -39912-08-21 02:38 J -12856202.59 -12856202.39 -12856202.17 0.0088 0.0028

Venus -39911-04-03 16:18 J -12855977.01 -12855976.82 -12855976.61 0.0088 0.0040

Venus -39911-11-15 05:45 J -12855751.43 -12855751.26 -12855751.07 0.0088 0.0053

Venus -39910-06-28 18:42 J -12855525.84 -12855525.72 -12855525.54 0.0088 0.0066

Venus -39909-02-09 08:23 J -12855300.24 -12855300.15 -12855300.02 0.0088 0.0077

Moon -39875-09-03 13:26 J -12842675.08 -12842674.94 -12842674.79 0.0088 0.0072

Earth -39875-09-03 14:09 J -12842675.05 -12842674.91 -12842674.73 0.0088 0.0069 *
 Moon -39874-09-06 01:54 J -12842307.66 -12842307.42 -12842307.16 0.0088 0.0030
 Earth -39874-09-06 02:23 J -12842307.63 -12842307.40 -12842307.15 0.0088 0.0033 *
 Earth -39873-09-07 14:23 J -12841940.16 -12841939.90 -12841939.64 0.0088 0.0004
 Moon -39873-09-07 16:04 J -12841940.08 -12841939.83 -12841939.58 0.0088 0.0002 *
 Moon -39872-09-09 23:16 J -12841572.74 -12841572.53 -12841572.28 0.0088 0.0044
 Earth -39872-09-10 02:09 J -12841572.64 -12841572.41 -12841572.18 0.0088 0.0041 *
 Earth -39871-09-12 13:26 J -12841205.04 -12841204.94 -12841204.80 0.0088 0.0078
 Moon -39871-09-12 16:33 J -12841204.91 -12841204.81 -12841204.64 0.0088 0.0076 *
 Mercury -39868-05-16 05:59 J -12840228.28 -12840228.25 -12840228.21 0.0088 0.0086
 Mercury -39868-08-12 08:09 J -12840140.22 -12840140.16 -12840140.08 0.0088 0.0078
 Mercury -39868-11-08 10:33 J -12840052.15 -12840052.06 -12840051.95 0.0088 0.0071
 Mercury -39867-02-04 12:42 J -12839964.07 -12839963.97 -12839963.84 0.0088 0.0064
 Mercury -39867-05-03 15:21 J -12839875.98 -12839875.86 -12839875.73 0.0088 0.0055
 Mercury -39867-07-30 17:30 J -12839787.89 -12839787.77 -12839787.62 0.0088 0.0048
 Mercury -39867-10-26 19:54 J -12839699.81 -12839699.67 -12839699.52 0.0088 0.0041
 Mercury -39866-01-22 22:04 J -12839611.72 -12839611.58 -12839611.41 0.0088 0.0034
 Mercury -39866-04-21 00:42 J -12839523.62 -12839523.47 -12839523.31 0.0088 0.0025
 Mercury -39866-07-18 02:52 J -12839435.53 -12839435.38 -12839435.21 0.0088 0.0018
 Mercury -39866-10-14 05:16 J -12839347.44 -12839347.28 -12839347.12 0.0088 0.0011
 Mercury -39865-01-10 07:26 J -12839259.35 -12839259.19 -12839259.02 0.0088 0.0004
 Mercury -39865-04-07 09:50 J -12839171.25 -12839171.09 -12839170.93 0.0088 0.0004
 Mercury -39865-07-04 11:59 J -12839083.16 -12839083.00 -12839082.84 0.0088 0.0012
 Mercury -39865-09-30 14:09 J -12838995.06 -12838994.91 -12838994.75 0.0088 0.0019
 Mercury -39865-12-27 16:18 J -12838906.96 -12838906.82 -12838906.66 0.0088 0.0027
 Mercury -39864-03-25 18:42 J -12838818.87 -12838818.72 -12838818.57 0.0088 0.0033
 Mercury -39864-06-21 20:52 J -12838730.77 -12838730.63 -12838730.48 0.0088 0.0041
 Mercury -39864-09-17 23:16 J -12838642.67 -12838642.53 -12838642.40 0.0088 0.0048
 Mercury -39864-12-15 00:57 J -12838554.57 -12838554.46 -12838554.32 0.0088 0.0056
 Mercury -39863-03-13 03:06 J -12838466.46 -12838466.37 -12838466.24 0.0088 0.0063

Mercury -39863-06-09 05:16 J -12838378.36 -12838378.28 -12838378.17 0.0088 0.0070

Mercury -39863-09-05 07:26 J -12838290.25 -12838290.19 -12838290.10 0.0088 0.0077

Mercury -39863-12-02 09:35 J -12838202.13 -12838202.10 -12838202.03 0.0088 0.0084

Mars -39860-04-29 14:38 J -12837322.92 -12837322.89 -12837322.77 0.0088 0.0087

Mars -39858-03-26 23:45 J -12836626.77 -12836626.51 -12836626.19 0.0089 0.0049

Mars -39856-02-20 09:35 J -12835930.43 -12835930.10 -12835929.75 0.0089 0.0010

Mars -39854-01-17 18:42 J -12835234.04 -12835233.72 -12835233.39 0.0089 0.0029

Mars -39853-12-14 02:38 J -12834537.58 -12834537.39 -12834537.13 0.0089 0.0068

Venus -39835-11-01 01:54 J -12828006.49 -12828006.42 -12828006.34 0.0089 0.0082

Venus -39834-06-14 14:23 J -12827781.02 -12827780.90 -12827780.76 0.0089 0.0070

Venus -39833-01-26 02:52 J -12827555.53 -12827555.38 -12827555.20 0.0089 0.0059

Venus -39833-09-07 15:35 J -12827330.02 -12827329.85 -12827329.65 0.0089 0.0046

Venus -39832-04-21 04:18 J -12827104.51 -12827104.32 -12827104.11 0.0089 0.0034

Venus -39832-12-02 16:47 J -12826879.00 -12826878.80 -12826878.58 0.0089 0.0022

Venus -39831-07-16 05:30 J -12826653.48 -12826653.27 -12826653.05 0.0089 0.0010

Venus -39830-02-26 18:14 J -12826427.96 -12826427.74 -12826427.52 0.0089 0.0003

Venus -39830-10-10 06:42 J -12826202.43 -12826202.22 -12826202.00 0.0089 0.0015

Venus -39829-05-22 19:11 J -12825976.90 -12825976.70 -12825976.48 0.0089 0.0027

Venus -39828-01-03 07:40 J -12825751.36 -12825751.18 -12825750.98 0.0089 0.0039

Jupiter -39828-06-10 21:50 J -12825592.62 -12825592.59 -12825592.50 0.0089 0.0089

Venus -39828-08-16 20:09 J -12825525.82 -12825525.66 -12825525.47 0.0089 0.0052

Venus -39827-03-30 08:38 J -12825300.28 -12825300.14 -12825299.98 0.0089 0.0064

Venus -39827-11-10 21:21 J -12825074.72 -12825074.61 -12825074.49 0.0089 0.0076

Venus -39826-06-24 09:35 J -12824849.12 -12824849.10 -12824849.05 0.0089 0.0088

Earth -39793-03-01 11:59 J -12812910.09 -12812910.00 -12812909.86 0.0089 0.0080

Moon -39793-03-01 12:28 J -12812910.04 -12812909.98 -12812909.86 0.0089 0.0084 *

Moon -39792-03-03 21:35 J -12812542.83 -12812542.60 -12812542.35 0.0089 0.0039

Earth -39792-03-03 23:30 J -12812542.72 -12812542.52 -12812542.27 0.0089 0.0043 *

Earth -39791-03-06 11:16 J -12812175.29 -12812175.03 -12812174.77 0.0089 0.0005

Moon -39791-03-06 13:40 J -12812175.17 -12812174.93 -12812174.68 0.0089 0.0008 *

Moon -39790-03-08 18:57 J -12811807.94 -12811807.71 -12811807.46 0.0089 0.0035
 Earth -39790-03-08 22:33 J -12811807.79 -12811807.56 -12811807.31 0.0089 0.0032 *
 Earth -39789-03-10 09:50 J -12811440.24 -12811440.09 -12811439.92 0.0089 0.0070
 Moon -39789-03-10 13:26 J -12811440.10 -12811439.94 -12811439.76 0.0089 0.0066 *
 Mercury -39787-11-13 15:35 J -12810461.89 -12810461.85 -12810461.81 0.0089 0.0085
 Mercury -39786-02-09 17:30 J -12810373.84 -12810373.77 -12810373.70 0.0089 0.0078
 Mercury -39786-05-08 19:11 J -12810285.77 -12810285.70 -12810285.60 0.0089 0.0072
 Mercury -39786-08-04 21:06 J -12810197.71 -12810197.62 -12810197.50 0.0089 0.0065
 Mercury -39786-10-31 23:02 J -12810109.64 -12810109.54 -12810109.41 0.0089 0.0058
 Mercury -39785-01-28 01:11 J -12810021.57 -12810021.45 -12810021.32 0.0089 0.0051
 Mercury -39785-04-25 03:06 J -12809933.49 -12809933.37 -12809933.23 0.0089 0.0044
 Mercury -39785-07-22 05:02 J -12809845.42 -12809845.29 -12809845.14 0.0089 0.0037
 Mercury -39785-10-18 07:11 J -12809757.34 -12809757.20 -12809757.05 0.0089 0.0030
 Mercury -39784-01-14 09:06 J -12809669.26 -12809669.12 -12809668.96 0.0089 0.0023
 Mercury -39784-04-12 11:16 J -12809581.18 -12809581.03 -12809580.88 0.0089 0.0016
 Mercury -39784-07-09 13:11 J -12809493.10 -12809492.95 -12809492.79 0.0089 0.0009
 Mercury -39784-10-05 15:21 J -12809405.01 -12809404.86 -12809404.70 0.0089 0.0002
 Mercury -39783-01-01 17:30 J -12809316.93 -12809316.77 -12809316.62 0.0089 0.0006
 Mercury -39783-03-30 19:26 J -12809228.84 -12809228.69 -12809228.54 0.0089 0.0013
 Mercury -39783-06-26 21:35 J -12809140.75 -12809140.60 -12809140.45 0.0089 0.0020
 Mercury -39783-09-22 23:30 J -12809052.66 -12809052.52 -12809052.37 0.0089 0.0028
 Mercury -39783-12-20 01:26 J -12808964.57 -12808964.44 -12808964.29 0.0089 0.0035
 Mercury -39782-03-18 03:35 J -12808876.48 -12808876.35 -12808876.21 0.0089 0.0042
 Mercury -39782-06-14 05:45 J -12808788.39 -12808788.26 -12808788.13 0.0089 0.0049
 Mercury -39782-09-10 07:40 J -12808700.29 -12808700.18 -12808700.05 0.0089 0.0057
 Mercury -39782-12-07 09:50 J -12808612.19 -12808612.09 -12808611.97 0.0089 0.0064
 Mercury -39781-03-04 11:45 J -12808524.08 -12808524.01 -12808523.90 0.0089 0.0072
 Mercury -39781-05-31 13:54 J -12808435.97 -12808435.92 -12808435.83 0.0089 0.0079
 Mercury -39781-08-27 16:18 J -12808347.85 -12808347.82 -12808347.78 0.0089 0.0086
 Mars -39778-02-22 10:18 J -12807439.25 -12807439.07 -12807438.88 0.0089 0.0067

Mars	-39776-01-16 01:26 J	-12806745.69	-12806745.44	-12806745.16	0.0089	0.0035
Mars	-39775-12-10 16:18 J	-12806052.11	-12806051.82	-12806051.53	0.0089	0.0003
Mars	-39773-11-03 06:14 J	-12805358.50	-12805358.24	-12805357.96	0.0089	0.0030
Mars	-39771-09-27 21:21 J	-12804664.80	-12804664.61	-12804664.39	0.0089	0.0062
Venus	-39753-05-02 10:18 J	-12798238.09	-12798238.07	-12798238.04	0.0088	0.0088
Venus	-39753-12-13 23:30 J	-12798012.63	-12798012.52	-12798012.40	0.0088	0.0076
Venus	-39752-07-27 12:57 J	-12797787.11	-12797786.96	-12797786.81	0.0088	0.0064
Venus	-39751-03-10 02:23 J	-12797561.58	-12797561.40	-12797561.22	0.0088	0.0052
Venus	-39751-10-21 15:50 J	-12797336.04	-12797335.84	-12797335.64	0.0088	0.0040
Venus	-39750-06-04 05:02 J	-12797110.50	-12797110.29	-12797110.07	0.0088	0.0028
Venus	-39749-01-15 18:28 J	-12796884.95	-12796884.73	-12796884.51	0.0088	0.0015
Venus	-39749-08-28 07:54 J	-12796659.40	-12796659.17	-12796658.95	0.0088	0.0003
Venus	-39748-04-10 21:21 J	-12796433.83	-12796433.61	-12796433.39	0.0088	0.0009
Venus	-39748-11-22 10:33 J	-12796208.27	-12796208.06	-12796207.83	0.0088	0.0021
Venus	-39747-07-05 23:59 J	-12795982.70	-12795982.50	-12795982.28	0.0088	0.0033
Venus	-39746-02-16 13:26 J	-12795757.12	-12795756.94	-12795756.74	0.0088	0.0046
Venus	-39746-09-30 02:52 J	-12795531.54	-12795531.38	-12795531.20	0.0088	0.0058
Venus	-39745-05-12 16:33 J	-12795305.94	-12795305.81	-12795305.67	0.0088	0.0070
Venus	-39745-12-24 05:16 J	-12795080.33	-12795080.28	-12795080.17	0.0088	0.0083
Earth	-39710-09-05 06:28 J	-12782407.41	-12782407.23	-12782407.00	0.0088	0.0054
Moon	-39710-09-05 08:52 J	-12782407.33	-12782407.13	-12782406.92	0.0088	0.0050 *
Moon	-39709-09-06 15:35 J	-12782040.10	-12782039.85	-12782039.59	0.0088	0.0021
Earth	-39709-09-06 18:42 J	-12782039.97	-12782039.72	-12782039.45	0.0088	0.0017 *
Earth	-39708-09-09 06:14 J	-12781672.48	-12781672.24	-12781671.97	0.0088	0.0020
Moon	-39708-09-09 09:35 J	-12781672.34	-12781672.10	-12781671.84	0.0088	0.0024 *
Moon	-39707-09-11 14:23 J	-12781305.10	-12781304.90	-12781304.68	0.0088	0.0052
Earth	-39707-09-11 18:14 J	-12781304.93	-12781304.74	-12781304.53	0.0088	0.0057 *
Mercury	-39703-02-10 03:50 J	-12780057.38	-12780057.34	-12780057.29	0.0088	0.0085
Mercury	-39703-05-09 05:59 J	-12779969.32	-12779969.25	-12779969.16	0.0088	0.0077
Mercury	-39703-08-05 08:23 J	-12779881.24	-12779881.15	-12779881.04	0.0088	0.0070

Mercury -39703-11-01 11:02 J -12779793.16 -12779793.04 -12779792.92 0.0088 0.0062

Mercury -39702-01-28 13:11 J -12779705.07 -12779704.95 -12779704.81 0.0088 0.0054

Mercury -39702-04-26 15:35 J -12779616.98 -12779616.85 -12779616.71 0.0088 0.0047

Mercury -39702-07-23 17:45 J -12779528.89 -12779528.76 -12779528.60 0.0088 0.0040

Mercury -39702-10-19 20:23 J -12779440.80 -12779440.65 -12779440.50 0.0088 0.0032

Mercury -39701-01-15 22:33 J -12779352.71 -12779352.56 -12779352.40 0.0088 0.0024

Mercury -39701-04-13 00:57 J -12779264.62 -12779264.46 -12779264.30 0.0088 0.0017

Mercury -39701-07-10 03:21 J -12779176.52 -12779176.36 -12779176.20 0.0088 0.0009

Mercury -39701-10-06 05:30 J -12779088.43 -12779088.27 -12779088.11 0.0088 0.0002

Mercury -39700-01-02 07:54 J -12779000.33 -12779000.17 -12779000.01 0.0088 0.0006

Mercury -39700-03-31 10:04 J -12778912.24 -12778912.08 -12778911.92 0.0088 0.0013

Mercury -39700-06-27 12:14 J -12778824.14 -12778823.99 -12778823.83 0.0088 0.0020

Mercury -39700-09-23 14:23 J -12778736.05 -12778735.90 -12778735.74 0.0088 0.0028

Mercury -39700-12-20 16:47 J -12778647.95 -12778647.80 -12778647.65 0.0088 0.0035

Mercury -39699-03-18 18:42 J -12778559.85 -12778559.72 -12778559.57 0.0088 0.0042

Mercury -39699-06-14 20:52 J -12778471.75 -12778471.63 -12778471.48 0.0088 0.0050

Mercury -39699-09-10 23:16 J -12778383.65 -12778383.53 -12778383.40 0.0088 0.0056

Mercury -39699-12-08 01:26 J -12778295.54 -12778295.44 -12778295.32 0.0088 0.0064

Mercury -39698-03-06 03:35 J -12778207.44 -12778207.35 -12778207.25 0.0088 0.0071

Mercury -39698-06-02 05:45 J -12778119.33 -12778119.26 -12778119.18 0.0088 0.0078

Mercury -39698-08-29 07:54 J -12778031.20 -12778031.17 -12778031.12 0.0088 0.0085

Mars -39695-11-06 21:21 J -12776865.80 -12776865.61 -12776865.34 0.0088 0.0067

Mars -39693-10-03 06:42 J -12776169.53 -12776169.22 -12776168.88 0.0089 0.0028

Mars -39691-08-30 15:50 J -12775473.17 -12775472.84 -12775472.48 0.0089 0.0012

Mars -39689-07-27 00:42 J -12774776.73 -12774776.47 -12774776.17 0.0089 0.0051

Venus -39670-02-02 09:35 J -12768012.10 -12768012.10 -12768012.08 0.0089 0.0089

Venus -39670-09-15 22:04 J -12767786.67 -12767786.58 -12767786.45 0.0089 0.0077

Venus -39669-04-28 10:47 J -12767561.18 -12767561.05 -12767560.88 0.0089 0.0065

Venus -39669-12-09 23:30 J -12767335.68 -12767335.52 -12767335.33 0.0089 0.0053

Venus -39668-07-23 11:59 J -12767110.18 -12767110.00 -12767109.79 0.0089 0.0041

Venus	-39667-03-06 00:42 J	-12766884.66	-12766884.47	-12766884.25	0.0089	0.0029
Venus	-39667-10-17 13:26 J	-12766659.14	-12766658.94	-12766658.72	0.0089	0.0017
Venus	-39666-05-31 02:09 J	-12766433.62	-12766433.41	-12766433.19	0.0089	0.0005
Venus	-39665-01-11 14:38 J	-12766208.10	-12766207.89	-12766207.67	0.0089	0.0008
Venus	-39665-08-24 03:06 J	-12765982.57	-12765982.37	-12765982.15	0.0089	0.0020
Venus	-39664-04-06 15:35 J	-12765757.04	-12765756.85	-12765756.64	0.0089	0.0032
Venus	-39664-11-18 04:04 J	-12765531.51	-12765531.33	-12765531.13	0.0089	0.0044
Venus	-39663-07-01 16:18 J	-12765305.96	-12765305.82	-12765305.63	0.0089	0.0057
Venus	-39662-02-12 04:47 J	-12765080.41	-12765080.30	-12765080.14	0.0089	0.0068
Jupiter	-39662-08-04 09:06 J	-12764907.57	-12764907.12	-12764906.62	0.0089	0.0036
Venus	-39662-09-25 17:59 J	-12764854.84	-12764854.75	-12764854.66	0.0089	0.0080
Earth	-39628-03-03 04:33 J	-12752642.48	-12752642.31	-12752642.13	0.0089	0.0065
Moon	-39628-03-03 07:40 J	-12752642.33	-12752642.18	-12752642.00	0.0089	0.0068 *
Moon	-39627-03-05 12:28 J	-12752275.22	-12752274.98	-12752274.72	0.0089	0.0024
Earth	-39627-03-05 15:50 J	-12752275.07	-12752274.84	-12752274.59	0.0089	0.0027 *
Earth	-39626-03-08 03:21 J	-12751907.62	-12751907.36	-12751907.11	0.0089	0.0010
Moon	-39626-03-08 06:57 J	-12751907.47	-12751907.21	-12751906.95	0.0089	0.0007 *
Moon	-39625-03-09 11:30 J	-12751540.21	-12751540.02	-12751539.80	0.0089	0.0051
Earth	-39625-03-09 14:23 J	-12751540.10	-12751539.90	-12751539.67	0.0089	0.0048 *
Earth	-39624-03-12 01:54 J	-12751172.47	-12751172.42	-12751172.33	0.0089	0.0086
Moon	-39624-03-12 03:50 J	-12751172.41	-12751172.34	-12751172.21	0.0089	0.0082 *
Mercury	-39622-08-10 13:40 J	-12750290.96	-12750290.93	-12750290.87	0.0089	0.0084
Mercury	-39622-11-06 15:50 J	-12750202.91	-12750202.84	-12750202.76	0.0089	0.0077
Mercury	-39621-02-02 17:45 J	-12750114.84	-12750114.76	-12750114.66	0.0089	0.0070
Mercury	-39621-04-30 19:40 J	-12750026.78	-12750026.68	-12750026.57	0.0089	0.0063
Mercury	-39621-07-27 21:35 J	-12749938.71	-12749938.60	-12749938.47	0.0089	0.0056
Mercury	-39621-10-23 23:45 J	-12749850.63	-12749850.51	-12749850.38	0.0089	0.0049
Mercury	-39620-01-20 01:40 J	-12749762.56	-12749762.43	-12749762.29	0.0089	0.0042
Mercury	-39620-04-18 03:35 J	-12749674.48	-12749674.35	-12749674.20	0.0089	0.0035
Mercury	-39620-07-15 05:45 J	-12749586.41	-12749586.26	-12749586.12	0.0089	0.0028

Mercury -39620-10-11 07:40 J -12749498.33 -12749498.18 -12749498.03 0.0089 0.0021

Mercury -39619-01-07 09:35 J -12749410.25 -12749410.10 -12749409.94 0.0089 0.0014

Mercury -39619-04-05 11:45 J -12749322.16 -12749322.01 -12749321.86 0.0089 0.0007

Mercury -39619-07-02 13:40 J -12749234.08 -12749233.93 -12749233.77 0.0089 0.0002

Mercury -39619-09-28 15:50 J -12749145.99 -12749145.84 -12749145.69 0.0089 0.0008

Mercury -39619-12-25 17:45 J -12749057.91 -12749057.76 -12749057.60 0.0089 0.0015

Mercury -39618-03-23 19:54 J -12748969.82 -12748969.67 -12748969.52 0.0089 0.0022

Mercury -39618-06-19 21:50 J -12748881.73 -12748881.59 -12748881.44 0.0089 0.0029

Mercury -39618-09-15 23:45 J -12748793.64 -12748793.51 -12748793.36 0.0089 0.0037

Mercury -39618-12-13 01:54 J -12748705.55 -12748705.42 -12748705.28 0.0089 0.0044

Mercury -39617-03-10 04:04 J -12748617.45 -12748617.33 -12748617.20 0.0089 0.0051

Mercury -39617-06-06 05:59 J -12748529.35 -12748529.25 -12748529.12 0.0089 0.0059

Mercury -39617-09-02 08:09 J -12748441.25 -12748441.16 -12748441.05 0.0089 0.0066

Mercury -39617-11-29 10:18 J -12748353.15 -12748353.07 -12748352.98 0.0089 0.0073

Mercury -39616-02-25 12:14 J -12748265.04 -12748264.99 -12748264.91 0.0089 0.0081

Mercury -39616-05-24 14:38 J -12748176.90 -12748176.89 -12748176.87 0.0089 0.0088

Mars -39615-10-07 18:57 J -12747675.78 -12747675.71 -12747675.58 0.0089 0.0083

Mars -39613-08-31 09:21 J -12746982.33 -12746982.11 -12746981.85 0.0089 0.0050

Mars -39611-07-26 00:57 J -12746288.74 -12746288.46 -12746288.18 0.0089 0.0017

Mars -39609-06-18 15:35 J -12745595.12 -12745594.85 -12745594.55 0.0089 0.0016

Mars -39607-05-13 05:45 J -12744901.47 -12744901.26 -12744900.99 0.0089 0.0049

Mars -39605-04-05 21:06 J -12744207.71 -12744207.62 -12744207.48 0.0089 0.0081

Venus -39588-03-17 07:40 J -12738018.25 -12738018.18 -12738018.09 0.0088 0.0081

Venus -39588-10-28 21:06 J -12737792.75 -12737792.62 -12737792.48 0.0088 0.0070

Venus -39587-06-11 10:18 J -12737567.23 -12737567.07 -12737566.90 0.0088 0.0058

Venus -39586-01-22 23:45 J -12737341.70 -12737341.51 -12737341.32 0.0088 0.0046

Venus -39586-09-05 13:11 J -12737116.16 -12737115.95 -12737115.75 0.0088 0.0034

Venus -39585-04-18 02:38 J -12736890.61 -12736890.39 -12736890.17 0.0088 0.0022

Venus -39585-11-29 15:50 J -12736665.06 -12736664.84 -12736664.61 0.0088 0.0010

Venus -39584-07-13 05:16 J -12736439.50 -12736439.28 -12736439.05 0.0088 0.0003

Venus	-39583-02-23 18:57 J	-12736213.93	-12736213.71	-12736213.49	0.0088	0.0015
Venus	-39583-10-07 08:23 J	-12735988.37	-12735988.15	-12735987.94	0.0088	0.0027
Venus	-39582-05-20 21:21 J	-12735762.79	-12735762.61	-12735762.39	0.0088	0.0039
Venus	-39581-01-01 10:47 J	-12735537.21	-12735537.05	-12735536.85	0.0088	0.0051
Venus	-39581-08-14 00:14 J	-12735311.63	-12735311.49	-12735311.31	0.0088	0.0063
Venus	-39580-03-27 13:40 J	-12735086.02	-12735085.93	-12735085.79	0.0088	0.0075
Venus	-39580-11-08 03:50 J	-12734860.38	-12734860.34	-12734860.30	0.0088	0.0087
Moon	-39546-09-04 08:38 J	-12722507.25	-12722507.14	-12722506.99	0.0088	0.0076
Earth	-39546-09-04 11:45 J	-12722507.12	-12722507.01	-12722506.85	0.0088	0.0075 *
Earth	-39545-09-05 23:45 J	-12722139.72	-12722139.51	-12722139.25	0.0088	0.0038
Moon	-39545-09-06 03:35 J	-12722139.57	-12722139.35	-12722139.10	0.0088	0.0037 *
Moon	-39544-09-08 08:52 J	-12721772.38	-12721772.13	-12721771.87	0.0088	0.0002
Earth	-39544-09-08 12:14 J	-12721772.25	-12721771.99	-12721771.73	0.0088	0.0001 *
Earth	-39543-09-10 23:45 J	-12721404.73	-12721404.51	-12721404.26	0.0088	0.0036
Moon	-39543-09-11 03:06 J	-12721404.60	-12721404.37	-12721404.12	0.0088	0.0039 *
Moon	-39542-09-13 09:21 J	-12721037.23	-12721037.11	-12721036.94	0.0088	0.0072
Earth	-39542-09-13 11:16 J	-12721037.15	-12721037.03	-12721036.86	0.0088	0.0073 *
Mercury	-39539-11-07 02:09 J	-12719886.46	-12719886.41	-12719886.35	0.0088	0.0083
Mercury	-39538-02-03 04:04 J	-12719798.39	-12719798.33	-12719798.22	0.0088	0.0076
Mercury	-39538-05-02 06:42 J	-12719710.32	-12719710.22	-12719710.11	0.0088	0.0068
Mercury	-39538-07-29 08:52 J	-12719622.23	-12719622.13	-12719621.99	0.0088	0.0061
Mercury	-39538-10-25 11:30 J	-12719534.15	-12719534.02	-12719533.88	0.0088	0.0052
Mercury	-39537-01-21 13:54 J	-12719446.06	-12719445.92	-12719445.78	0.0088	0.0045
Mercury	-39537-04-18 16:04 J	-12719357.97	-12719357.83	-12719357.67	0.0088	0.0038
Mercury	-39537-07-15 18:42 J	-12719269.88	-12719269.72	-12719269.57	0.0088	0.0030
Mercury	-39537-10-11 20:52 J	-12719181.78	-12719181.63	-12719181.47	0.0088	0.0022
Mercury	-39536-01-07 23:16 J	-12719093.69	-12719093.53	-12719093.37	0.0088	0.0015
Mercury	-39536-04-06 01:40 J	-12719005.60	-12719005.43	-12719005.27	0.0088	0.0008
Mercury	-39536-07-03 03:50 J	-12718917.50	-12718917.34	-12718917.18	0.0088	0.0001
Mercury	-39536-09-29 05:59 J	-12718829.41	-12718829.25	-12718829.08	0.0088	0.0008

Mercury -39536-12-26 08:09 J -12718741.31 -12718741.16 -12718740.99 0.0088 0.0016

Mercury -39535-03-24 10:33 J -12718653.21 -12718653.06 -12718652.90 0.0088 0.0022

Mercury -39535-06-20 12:42 J -12718565.11 -12718564.97 -12718564.81 0.0088 0.0030

Mercury -39535-09-16 15:06 J -12718477.02 -12718476.87 -12718476.72 0.0088 0.0037

Mercury -39535-12-13 17:02 J -12718388.92 -12718388.79 -12718388.64 0.0088 0.0044

Mercury -39534-03-11 19:11 J -12718300.82 -12718300.70 -12718300.56 0.0088 0.0052

Mercury -39534-06-07 21:35 J -12718212.71 -12718212.60 -12718212.47 0.0088 0.0058

Mercury -39534-09-03 23:45 J -12718124.61 -12718124.51 -12718124.40 0.0088 0.0066

Mercury -39534-12-01 01:54 J -12718036.50 -12718036.42 -12718036.32 0.0088 0.0073

Mercury -39533-02-27 04:04 J -12717948.39 -12717948.33 -12717948.26 0.0088 0.0080

Mercury -39533-05-25 06:28 J -12717860.26 -12717860.23 -12717860.21 0.0088 0.0087

Mars -39531-06-19 20:52 J -12717104.69 -12717104.63 -12717104.49 0.0088 0.0085

Mars -39529-05-16 06:14 J -12716408.51 -12716408.24 -12716407.92 0.0088 0.0046

Mars -39527-04-12 15:21 J -12715712.20 -12715711.86 -12715711.51 0.0089 0.0006

Mars -39525-03-08 23:30 J -12715015.81 -12715015.52 -12715015.18 0.0089 0.0034

Mars -39523-02-03 08:23 J -12714319.31 -12714319.15 -12714318.93 0.0089 0.0073

Venus -39506-12-18 06:42 J -12707792.28 -12707792.22 -12707792.13 0.0089 0.0083

Venus -39505-07-30 19:26 J -12707566.81 -12707566.69 -12707566.55 0.0089 0.0071

Venus -39504-03-13 08:09 J -12707341.31 -12707341.16 -12707340.99 0.0089 0.0059

Venus -39504-10-24 20:52 J -12707115.80 -12707115.63 -12707115.43 0.0089 0.0047

Venus -39503-06-07 09:35 J -12706890.29 -12706890.10 -12706889.89 0.0089 0.0035

Venus -39502-01-18 22:04 J -12706664.78 -12706664.58 -12706664.36 0.0089 0.0024

Venus -39502-09-01 10:47 J -12706439.26 -12706439.05 -12706438.83 0.0089 0.0011

Venus -39501-04-13 23:30 J -12706213.74 -12706213.52 -12706213.30 0.0089 0.0001

Venus -39501-11-25 11:45 J -12705988.21 -12705988.01 -12705987.79 0.0089 0.0013

Venus -39500-07-09 00:14 J -12705762.69 -12705762.49 -12705762.27 0.0089 0.0025

Venus -39499-02-19 12:57 J -12705537.16 -12705536.96 -12705536.76 0.0089 0.0037

Venus -39499-10-03 01:26 J -12705311.61 -12705311.44 -12705311.25 0.0089 0.0049

Venus -39498-05-16 13:54 J -12705086.07 -12705085.92 -12705085.75 0.0089 0.0060

Venus -39498-12-28 02:09 J -12704860.52 -12704860.41 -12704860.27 0.0089 0.0072

Venus -39497-08-09 14:23 J -12704634.94 -12704634.90 -12704634.81 0.0089 0.0085
 Jupiter -39496-09-30 18:14 J -12704218.21 -12704217.74 -12704217.21 0.0089 0.0020
 Earth -39464-03-02 09:50 J -12692742.12 -12692742.09 -12692741.99 0.0089 0.0087
 Earth -39463-03-04 21:35 J -12692374.81 -12692374.60 -12692374.38 0.0089 0.0048
 Moon -39463-03-05 00:28 J -12692374.68 -12692374.48 -12692374.24 0.0089 0.0045 *
 Moon -39462-03-07 05:59 J -12692007.49 -12692007.25 -12692006.99 0.0089 0.0014
 Earth -39462-03-07 08:52 J -12692007.37 -12692007.13 -12692006.87 0.0089 0.0011 *
 Earth -39461-03-08 20:23 J -12691639.89 -12691639.65 -12691639.40 0.0089 0.0027
 Moon -39461-03-08 22:04 J -12691639.82 -12691639.58 -12691639.32 0.0089 0.0030 *
 Moon -39460-03-11 06:57 J -12691272.38 -12691272.21 -12691272.02 0.0089 0.0061
 Earth -39460-03-11 07:26 J -12691272.36 -12691272.19 -12691272.00 0.0089 0.0064 *
 Mercury -39457-02-08 10:33 J -12690208.06 -12690208.06 -12690208.05 0.0089 0.0089
 Mercury -39457-05-06 12:14 J -12690120.03 -12690119.99 -12690119.92 0.0089 0.0082
 Mercury -39457-08-02 14:23 J -12690031.97 -12690031.90 -12690031.82 0.0089 0.0075
 Mercury -39457-10-29 16:18 J -12689943.91 -12689943.82 -12689943.72 0.0089 0.0068
 Mercury -39456-01-25 18:14 J -12689855.84 -12689855.74 -12689855.62 0.0089 0.0061
 Mercury -39456-04-23 20:09 J -12689767.77 -12689767.66 -12689767.53 0.0089 0.0054
 Mercury -39456-07-20 22:18 J -12689679.70 -12689679.57 -12689679.44 0.0089 0.0047
 Mercury -39456-10-17 00:14 J -12689591.62 -12689591.49 -12689591.35 0.0089 0.0040
 Mercury -39455-01-13 02:09 J -12689503.55 -12689503.41 -12689503.27 0.0089 0.0033
 Mercury -39455-04-11 04:04 J -12689415.47 -12689415.33 -12689415.18 0.0089 0.0026
 Mercury -39455-07-08 06:14 J -12689327.39 -12689327.24 -12689327.09 0.0089 0.0019
 Mercury -39455-10-04 08:09 J -12689239.31 -12689239.16 -12689239.01 0.0089 0.0012
 Mercury -39455-12-31 10:18 J -12689151.23 -12689151.07 -12689150.92 0.0089 0.0005
 Mercury -39454-03-29 12:14 J -12689063.14 -12689062.99 -12689062.84 0.0089 0.0002
 Mercury -39454-06-25 14:09 J -12688975.06 -12688974.91 -12688974.75 0.0089 0.0010
 Mercury -39454-09-21 16:18 J -12688886.97 -12688886.82 -12688886.67 0.0089 0.0017
 Mercury -39454-12-18 18:14 J -12688798.88 -12688798.74 -12688798.59 0.0089 0.0024
 Mercury -39453-03-15 20:23 J -12688710.79 -12688710.65 -12688710.51 0.0089 0.0031
 Mercury -39453-06-11 22:18 J -12688622.70 -12688622.57 -12688622.42 0.0089 0.0039

Mercury -39453-09-08 00:14 J -12688534.61 -12688534.49 -12688534.35 0.0089 0.0046

Mercury -39453-12-05 02:23 J -12688446.52 -12688446.40 -12688446.27 0.0089 0.0053

Mercury -39452-03-03 04:18 J -12688358.42 -12688358.32 -12688358.19 0.0089 0.0061

Mercury -39452-05-30 06:28 J -12688270.32 -12688270.23 -12688270.12 0.0089 0.0068

Mercury -39452-08-26 08:52 J -12688182.21 -12688182.13 -12688182.05 0.0089 0.0075

Mercury -39452-11-22 10:33 J -12688094.09 -12688094.06 -12688093.98 0.0089 0.0083

Mars -39449-04-15 19:11 J -12687218.89 -12687218.70 -12687218.50 0.0089 0.0065

Mars -39447-03-10 10:04 J -12686525.35 -12686525.08 -12686524.81 0.0089 0.0032

Mars -39445-02-02 01:11 J -12685831.74 -12685831.45 -12685831.16 0.0089 0.0001

Mars -39444-12-26 16:33 J -12685138.07 -12685137.81 -12685137.54 0.0089 0.0034

Mars -39442-11-20 07:11 J -12684444.37 -12684444.20 -12684444.00 0.0089 0.0067

Venus -39424-06-18 16:04 J -12678023.84 -12678023.83 -12678023.77 0.0088 0.0087

Venus -39423-01-30 05:16 J -12677798.37 -12677798.28 -12677798.14 0.0088 0.0076

Venus -39423-09-12 18:42 J -12677572.86 -12677572.72 -12677572.55 0.0088 0.0064

Venus -39422-04-26 08:09 J -12677347.33 -12677347.16 -12677346.97 0.0088 0.0052

Venus -39422-12-07 21:35 J -12677121.80 -12677121.60 -12677121.40 0.0088 0.0040

Venus -39421-07-20 11:02 J -12676896.25 -12676896.04 -12676895.83 0.0088 0.0028

Venus -39420-03-03 00:14 J -12676670.70 -12676670.49 -12676670.26 0.0088 0.0016

Venus -39420-10-14 13:54 J -12676445.15 -12676444.92 -12676444.70 0.0088 0.0004

Venus -39419-05-28 03:06 J -12676219.59 -12676219.37 -12676219.14 0.0088 0.0008

Venus -39418-01-08 16:18 J -12675994.03 -12675993.82 -12675993.59 0.0088 0.0021

Venus -39418-08-22 05:45 J -12675768.46 -12675768.26 -12675768.04 0.0088 0.0032

Venus -39417-04-03 19:11 J -12675542.87 -12675542.70 -12675542.49 0.0088 0.0045

Venus -39417-11-15 08:38 J -12675317.29 -12675317.14 -12675316.95 0.0088 0.0057

Venus -39416-06-28 22:04 J -12675091.70 -12675091.58 -12675091.42 0.0088 0.0068

Venus -39415-02-09 11:30 J -12674866.09 -12674866.02 -12674865.90 0.0088 0.0080

Moon -39381-09-05 02:38 J -12662239.58 -12662239.39 -12662239.18 0.0088 0.0054

Earth -39381-09-05 05:59 J -12662239.43 -12662239.25 -12662239.04 0.0088 0.0058 *

Earth -39380-09-07 17:59 J -12661871.99 -12661871.75 -12661871.49 0.0088 0.0021

Moon -39380-09-07 20:38 J -12661871.89 -12661871.64 -12661871.38 0.0088 0.0025 *

Moon -39379-09-10 04:04 J -12661504.57 -12661504.33 -12661504.08 0.0088 0.0020
 Earth -39379-09-10 05:59 J -12661504.50 -12661504.25 -12661503.99 0.0088 0.0016 *
 Earth -39378-09-12 17:30 J -12661136.96 -12661136.77 -12661136.54 0.0088 0.0054
 Moon -39378-09-12 18:14 J -12661136.96 -12661136.74 -12661136.51 0.0088 0.0048 *
 Mercury -39374-05-07 21:50 J -12659803.59 -12659803.59 -12659803.56 0.0088 0.0088
 Mercury -39374-08-04 00:14 J -12659715.54 -12659715.49 -12659715.41 0.0088 0.0081
 Mercury -39374-10-31 02:52 J -12659627.47 -12659627.38 -12659627.28 0.0088 0.0073
 Mercury -39373-01-27 05:02 J -12659539.39 -12659539.29 -12659539.17 0.0088 0.0065
 Mercury -39373-04-24 07:26 J -12659451.30 -12659451.19 -12659451.05 0.0088 0.0058
 Mercury -39373-07-21 10:04 J -12659363.21 -12659363.08 -12659362.94 0.0088 0.0050
 Mercury -39373-10-17 12:14 J -12659275.12 -12659274.99 -12659274.84 0.0088 0.0042
 Mercury -39372-01-13 14:52 J -12659187.03 -12659186.88 -12659186.73 0.0088 0.0035
 Mercury -39372-04-11 17:02 J -12659098.94 -12659098.79 -12659098.63 0.0088 0.0027
 Mercury -39372-07-08 19:26 J -12659010.85 -12659010.69 -12659010.53 0.0088 0.0020
 Mercury -39372-10-04 21:35 J -12658922.75 -12658922.60 -12658922.43 0.0088 0.0013
 Mercury -39372-12-31 23:59 J -12658834.66 -12658834.50 -12658834.34 0.0088 0.0005
 Mercury -39371-03-30 02:23 J -12658746.56 -12658746.40 -12658746.24 0.0088 0.0003
 Mercury -39371-06-26 04:33 J -12658658.47 -12658658.31 -12658658.15 0.0088 0.0010
 Mercury -39371-09-22 06:42 J -12658570.37 -12658570.22 -12658570.05 0.0088 0.0018
 Mercury -39371-12-19 09:06 J -12658482.27 -12658482.12 -12658481.96 0.0088 0.0025
 Mercury -39370-03-17 11:16 J -12658394.18 -12658394.03 -12658393.88 0.0088 0.0032
 Mercury -39370-06-13 13:26 J -12658306.08 -12658305.94 -12658305.79 0.0088 0.0039
 Mercury -39370-09-09 15:50 J -12658217.97 -12658217.84 -12658217.70 0.0088 0.0046
 Mercury -39370-12-06 17:59 J -12658129.87 -12658129.75 -12658129.62 0.0088 0.0054
 Mercury -39369-03-03 19:54 J -12658041.77 -12658041.67 -12658041.54 0.0088 0.0061
 Mercury -39369-05-30 22:04 J -12657953.66 -12657953.58 -12657953.46 0.0088 0.0069
 Mercury -39369-08-27 00:14 J -12657865.55 -12657865.49 -12657865.39 0.0088 0.0076
 Mercury -39369-11-23 02:38 J -12657777.44 -12657777.39 -12657777.33 0.0088 0.0082
 Mars -39366-12-28 08:23 J -12656647.36 -12656647.15 -12656646.88 0.0088 0.0064
 Mars -39364-11-23 17:59 J -12655951.06 -12655950.75 -12655950.40 0.0088 0.0024

Mars	-39362-10-21 02:38 J	-12655254.71	-12655254.39	-12655254.04	0.0089	0.0017
Mars	-39360-09-16 11:16 J	-12654558.29	-12654558.03	-12654557.76	0.0089	0.0056
Venus	-39341-03-20 15:21 J	-12647797.86	-12647797.86	-12647797.83	0.0089	0.0089
Venus	-39341-11-01 04:04 J	-12647572.42	-12647572.33	-12647572.20	0.0089	0.0077
Venus	-39340-06-14 17:02 J	-12647346.93	-12647346.79	-12647346.63	0.0089	0.0065
Venus	-39339-01-26 05:45 J	-12647121.42	-12647121.26	-12647121.08	0.0089	0.0053
Venus	-39339-09-08 18:28 J	-12646895.91	-12646895.73	-12646895.53	0.0089	0.0042
Venus	-39338-04-22 07:11 J	-12646670.40	-12646670.20	-12646669.99	0.0089	0.0030
Venus	-39338-12-03 19:54 J	-12646444.88	-12646444.67	-12646444.46	0.0089	0.0018
Venus	-39337-07-16 08:23 J	-12646219.36	-12646219.15	-12646218.93	0.0089	0.0006
Venus	-39336-02-26 21:06 J	-12645993.84	-12645993.62	-12645993.41	0.0089	0.0006
Venus	-39336-10-10 09:35 J	-12645768.30	-12645768.10	-12645767.88	0.0089	0.0018
Venus	-39335-05-23 22:04 J	-12645542.77	-12645542.58	-12645542.37	0.0089	0.0030
Venus	-39334-01-04 10:18 J	-12645317.24	-12645317.07	-12645316.86	0.0089	0.0042
Venus	-39334-08-17 23:16 J	-12645091.70	-12645091.53	-12645091.36	0.0089	0.0054
Venus	-39333-03-30 11:30 J	-12644866.16	-12644866.02	-12644865.86	0.0089	0.0065
Venus	-39333-11-10 23:59 J	-12644640.59	-12644640.50	-12644640.38	0.0089	0.0077
Venus	-39332-06-24 12:28 J	-12644414.98	-12644414.98	-12644414.95	0.0089	0.0089
Jupiter	-39330-11-30 04:04 J	-12643526.57	-12643526.33	-12643526.03	0.0089	0.0076
Moon	-39299-03-04 02:09 J	-12632474.56	-12632474.41	-12632474.27	0.0089	0.0072
Earth	-39299-03-04 04:04 J	-12632474.48	-12632474.33	-12632474.17	0.0089	0.0070 *
Earth	-39298-03-06 15:06 J	-12632107.09	-12632106.87	-12632106.61	0.0089	0.0032
Moon	-39298-03-06 16:47 J	-12632107.04	-12632106.80	-12632106.54	0.0089	0.0029 *
Earth	-39297-03-08 02:38 J	-12631739.64	-12631739.39	-12631739.13	0.0089	0.0006
Moon	-39297-03-08 02:38 J	-12631739.64	-12631739.39	-12631739.14	0.0089	0.0003 *
Moon	-39296-03-10 12:28 J	-12631372.20	-12631371.98	-12631371.74	0.0089	0.0045
Earth	-39296-03-10 13:54 J	-12631372.13	-12631371.92	-12631371.69	0.0089	0.0044 *
Earth	-39295-03-13 01:11 J	-12631004.54	-12631004.45	-12631004.33	0.0089	0.0081
Moon	-39295-03-13 02:52 J	-12631004.47	-12631004.38	-12631004.24	0.0089	0.0079 *
Mercury	-39293-11-04 08:52 J	-12630037.14	-12630037.13	-12630037.08	0.0089	0.0088

Mercury -39292-01-31 11:02 J -12629949.09 -12629949.04 -12629948.96 0.0089 0.0080

Mercury -39292-04-29 12:57 J -12629861.03 -12629860.96 -12629860.86 0.0089 0.0073

Mercury -39292-07-26 14:52 J -12629772.97 -12629772.88 -12629772.77 0.0089 0.0066

Mercury -39292-10-22 16:47 J -12629684.90 -12629684.80 -12629684.68 0.0089 0.0059

Mercury -39291-01-18 18:57 J -12629596.83 -12629596.71 -12629596.58 0.0089 0.0052

Mercury -39291-04-16 20:52 J -12629508.75 -12629508.63 -12629508.49 0.0089 0.0045

Mercury -39291-07-13 22:47 J -12629420.68 -12629420.55 -12629420.41 0.0089 0.0038

Mercury -39291-10-10 00:42 J -12629332.60 -12629332.47 -12629332.32 0.0089 0.0031

Mercury -39290-01-06 02:52 J -12629244.53 -12629244.38 -12629244.23 0.0089 0.0024

Mercury -39290-04-04 04:47 J -12629156.45 -12629156.30 -12629156.15 0.0089 0.0017

Mercury -39290-07-01 06:57 J -12629068.36 -12629068.21 -12629068.06 0.0089 0.0010

Mercury -39290-09-27 08:52 J -12628980.28 -12628980.13 -12628979.98 0.0089 0.0003

Mercury -39290-12-24 10:47 J -12628892.20 -12628892.05 -12628891.89 0.0089 0.0006

Mercury -39289-03-21 12:57 J -12628804.11 -12628803.96 -12628803.81 0.0089 0.0012

Mercury -39289-06-17 14:52 J -12628716.03 -12628715.88 -12628715.73 0.0089 0.0019

Mercury -39289-09-13 16:47 J -12628627.94 -12628627.80 -12628627.64 0.0089 0.0027

Mercury -39289-12-10 18:57 J -12628539.85 -12628539.71 -12628539.56 0.0089 0.0034

Mercury -39288-03-08 20:52 J -12628451.76 -12628451.63 -12628451.48 0.0089 0.0041

Mercury -39288-06-04 23:16 J -12628363.66 -12628363.53 -12628363.40 0.0089 0.0048

Mercury -39288-09-01 00:57 J -12628275.57 -12628275.46 -12628275.33 0.0089 0.0056

Mercury -39288-11-28 03:06 J -12628187.47 -12628187.37 -12628187.25 0.0089 0.0063

Mercury -39287-02-24 05:02 J -12628099.37 -12628099.29 -12628099.18 0.0089 0.0071

Mercury -39287-05-23 07:11 J -12628011.26 -12628011.20 -12628011.11 0.0089 0.0078

Mercury -39287-08-19 09:35 J -12627923.14 -12627923.10 -12627923.05 0.0089 0.0085

Mars -39286-11-30 04:04 J -12627455.42 -12627455.33 -12627455.18 0.0089 0.0081

Mars -39284-10-23 21:06 J -12626761.86 -12626761.62 -12626761.37 0.0089 0.0047

Mars -39282-09-17 11:45 J -12626068.29 -12626068.01 -12626067.72 0.0089 0.0014

Mars -39280-08-11 02:09 J -12625374.68 -12625374.41 -12625374.11 0.0089 0.0020

Mars -39278-07-05 17:59 J -12624680.98 -12624680.75 -12624680.52 0.0089 0.0053

Mars -39276-05-29 08:23 J -12623987.18 -12623987.15 -12623987.05 0.0089 0.0087

Venus	-39259-05-03 14:38 J	-12617803.96	-12617803.89	-12617803.78	0.0088	0.0081
Venus	-39259-12-15 04:04 J	-12617578.46	-12617578.33	-12617578.18	0.0088	0.0069
Venus	-39258-07-28 17:30 J	-12617352.94	-12617352.77	-12617352.60	0.0088	0.0057
Venus	-39257-03-10 06:28 J	-12617127.40	-12617127.23	-12617127.02	0.0088	0.0046
Venus	-39257-10-21 19:54 J	-12616901.86	-12616901.67	-12616901.45	0.0088	0.0034
Venus	-39256-06-04 09:21 J	-12616676.32	-12616676.11	-12616675.89	0.0088	0.0022
Venus	-39255-01-15 22:47 J	-12616450.77	-12616450.55	-12616450.33	0.0088	0.0010
Venus	-39255-08-29 12:14 J	-12616225.21	-12616224.99	-12616224.77	0.0088	0.0002
Venus	-39254-04-12 01:40 J	-12615999.65	-12615999.43	-12615999.21	0.0088	0.0014
Venus	-39254-11-23 14:52 J	-12615774.08	-12615773.88	-12615773.65	0.0088	0.0027
Venus	-39253-07-06 04:18 J	-12615548.51	-12615548.32	-12615548.10	0.0088	0.0038
Venus	-39252-02-16 17:30 J	-12615322.93	-12615322.77	-12615322.56	0.0088	0.0051
Venus	-39252-09-30 07:26 J	-12615097.34	-12615097.19	-12615097.02	0.0088	0.0062
Venus	-39251-05-13 20:52 J	-12614871.74	-12614871.63	-12614871.50	0.0088	0.0073
Venus	-39251-12-25 10:04 J	-12614646.11	-12614646.08	-12614646.00	0.0088	0.0086
Earth	-39217-09-04 13:11 J	-12602339.05	-12602338.95	-12602338.81	0.0088	0.0078
Moon	-39217-09-04 15:50 J	-12602338.94	-12602338.84	-12602338.70	0.0088	0.0078 *
Moon	-39216-09-07 00:14 J	-12601971.69	-12601971.49	-12601971.25	0.0088	0.0041
Earth	-39216-09-07 01:11 J	-12601971.66	-12601971.45	-12601971.20	0.0088	0.0041 *
Moon	-39215-09-09 13:40 J	-12601604.20	-12601603.93	-12601603.66	0.0088	0.0004
Earth	-39215-09-09 13:26 J	-12601604.19	-12601603.94	-12601603.68	0.0088	0.0004 *
Earth	-39214-09-12 00:57 J	-12601236.68	-12601236.46	-12601236.20	0.0088	0.0034
Moon	-39214-09-12 02:38 J	-12601236.62	-12601236.39	-12601236.16	0.0088	0.0035 *
Moon	-39213-09-13 10:04 J	-12600869.21	-12600869.08	-12600868.90	0.0088	0.0071
Earth	-39213-09-13 12:42 J	-12600869.10	-12600868.97	-12600868.79	0.0088	0.0071 *
Mercury	-39209-02-01 20:52 J	-12599632.67	-12599632.63	-12599632.58	0.0088	0.0085
Mercury	-39209-04-29 23:02 J	-12599544.61	-12599544.54	-12599544.45	0.0088	0.0077
Mercury	-39209-07-27 01:26 J	-12599456.53	-12599456.44	-12599456.33	0.0088	0.0070
Mercury	-39209-10-23 04:04 J	-12599368.45	-12599368.33	-12599368.21	0.0088	0.0062
Mercury	-39208-01-19 06:14 J	-12599280.36	-12599280.24	-12599280.10	0.0088	0.0054

Mercury -39208-04-17 08:38 J -12599192.27 -12599192.14 -12599191.99 0.0088 0.0047

Mercury -39208-07-14 11:02 J -12599104.18 -12599104.04 -12599103.89 0.0088 0.0039

Mercury -39208-10-10 13:26 J -12599016.09 -12599015.94 -12599015.78 0.0088 0.0032

Mercury -39207-01-06 15:35 J -12598928.00 -12598927.85 -12598927.68 0.0088 0.0025

Mercury -39207-04-04 18:14 J -12598839.90 -12598839.74 -12598839.58 0.0088 0.0017

Mercury -39207-07-01 20:23 J -12598751.81 -12598751.65 -12598751.48 0.0088 0.0009

Mercury -39207-09-27 22:47 J -12598663.71 -12598663.55 -12598663.39 0.0088 0.0002

Mercury -39207-12-25 00:57 J -12598575.62 -12598575.46 -12598575.29 0.0088 0.0007

Mercury -39206-03-23 03:21 J -12598487.52 -12598487.36 -12598487.20 0.0088 0.0013

Mercury -39206-06-19 05:30 J -12598399.42 -12598399.27 -12598399.11 0.0088 0.0021

Mercury -39206-09-15 07:40 J -12598311.32 -12598311.18 -12598311.02 0.0088 0.0028

Mercury -39206-12-12 10:04 J -12598223.22 -12598223.08 -12598222.93 0.0088 0.0035

Mercury -39205-03-09 12:14 J -12598135.12 -12598134.99 -12598134.84 0.0088 0.0043

Mercury -39205-06-05 14:38 J -12598047.02 -12598046.89 -12598046.76 0.0088 0.0050

Mercury -39205-09-01 16:33 J -12597958.92 -12597958.81 -12597958.68 0.0088 0.0057

Mercury -39205-11-28 18:42 J -12597870.82 -12597870.72 -12597870.60 0.0088 0.0064

Mercury -39204-02-24 20:52 J -12597782.71 -12597782.63 -12597782.52 0.0088 0.0072

Mercury -39204-05-23 23:02 J -12597694.59 -12597694.54 -12597694.45 0.0088 0.0079

Mercury -39204-08-20 01:26 J -12597606.47 -12597606.44 -12597606.40 0.0088 0.0085

Mars -39202-08-10 12:42 J -12596886.07 -12596885.97 -12596885.80 0.0088 0.0082

Mars -39200-07-06 21:35 J -12596189.88 -12596189.60 -12596189.27 0.0088 0.0042

Mars -39198-06-03 07:26 J -12595493.54 -12595493.19 -12595492.85 0.0088 0.0001

Mars -39196-04-29 15:35 J -12594797.13 -12594796.85 -12594796.52 0.0089 0.0040

Mars -39194-03-26 23:30 J -12594100.63 -12594100.52 -12594100.33 0.0089 0.0080

Venus -39176-02-02 13:40 J -12587578.00 -12587577.93 -12587577.83 0.0089 0.0082

Venus -39176-09-16 02:52 J -12587352.51 -12587352.38 -12587352.25 0.0089 0.0070

Venus -39175-04-29 15:06 J -12587127.01 -12587126.87 -12587126.68 0.0089 0.0059

Venus -39175-12-11 04:04 J -12586901.50 -12586901.33 -12586901.14 0.0089 0.0047

Venus -39174-07-24 16:47 J -12586675.99 -12586675.80 -12586675.59 0.0089 0.0035

Venus -39173-03-06 05:30 J -12586450.47 -12586450.27 -12586450.05 0.0089 0.0024

Venus	-39173-10-17 18:28 J	-12586224.95	-12586224.73	-12586224.52	0.0089	0.0012
Venus	-39172-05-31 06:57 J	-12585999.42	-12585999.21	-12585998.99	0.0089	0.0001
Venus	-39171-01-11 19:26 J	-12585773.90	-12585773.69	-12585773.47	0.0089	0.0012
Venus	-39171-08-25 07:54 J	-12585548.37	-12585548.17	-12585547.95	0.0089	0.0024
Venus	-39170-04-07 20:38 J	-12585322.84	-12585322.64	-12585322.44	0.0089	0.0036
Venus	-39170-11-19 08:52 J	-12585097.30	-12585097.13	-12585096.94	0.0089	0.0047
Venus	-39169-07-01 21:06 J	-12584871.76	-12584871.62	-12584871.44	0.0089	0.0059
Venus	-39168-02-12 09:50 J	-12584646.21	-12584646.09	-12584645.95	0.0089	0.0071
Venus	-39168-09-25 22:04 J	-12584420.64	-12584420.58	-12584420.48	0.0089	0.0083
Earth	-39134-03-05 22:33 J	-12572206.76	-12572206.56	-12572206.35	0.0089	0.0053
Moon	-39134-03-05 22:33 J	-12572206.74	-12572206.56	-12572206.33	0.0089	0.0049 *
Moon	-39133-03-07 08:38 J	-12571839.40	-12571839.14	-12571838.88	0.0089	0.0019
Earth	-39133-03-07 10:04 J	-12571839.33	-12571839.08	-12571838.83	0.0089	0.0015 *
Earth	-39132-03-09 21:06 J	-12571471.86	-12571471.62	-12571471.37	0.0089	0.0023
Moon	-39132-03-09 23:30 J	-12571471.74	-12571471.52	-12571471.26	0.0089	0.0029 *
Moon	-39131-03-12 05:02 J	-12571104.47	-12571104.29	-12571104.07	0.0089	0.0058
Earth	-39131-03-12 08:23 J	-12571104.32	-12571104.15	-12571103.95	0.0089	0.0061 *
Mercury	-39128-08-01 07:54 J	-12569866.20	-12569866.17	-12569866.11	0.0089	0.0084
Mercury	-39128-10-28 09:50 J	-12569778.15	-12569778.09	-12569778.00	0.0089	0.0078
Mercury	-39127-01-24 11:59 J	-12569690.09	-12569690.00	-12569689.91	0.0089	0.0070
Mercury	-39127-04-22 13:54 J	-12569602.02	-12569601.92	-12569601.81	0.0089	0.0063
Mercury	-39127-07-19 15:50 J	-12569513.95	-12569513.84	-12569513.72	0.0089	0.0056
Mercury	-39127-10-15 17:45 J	-12569425.88	-12569425.76	-12569425.63	0.0089	0.0049
Mercury	-39126-01-11 19:40 J	-12569337.81	-12569337.68	-12569337.54	0.0089	0.0042
Mercury	-39126-04-09 21:35 J	-12569249.73	-12569249.60	-12569249.45	0.0089	0.0036
Mercury	-39126-07-06 23:45 J	-12569161.66	-12569161.51	-12569161.37	0.0089	0.0028
Mercury	-39126-10-03 01:40 J	-12569073.58	-12569073.43	-12569073.28	0.0089	0.0021
Mercury	-39126-12-30 03:35 J	-12568985.50	-12568985.35	-12568985.20	0.0089	0.0014
Mercury	-39125-03-27 05:45 J	-12568897.42	-12568897.26	-12568897.11	0.0089	0.0007
Mercury	-39125-06-23 07:40 J	-12568809.33	-12568809.18	-12568809.03	0.0089	0.0000

Mercury -39125-09-19 09:35 J -12568721.25 -12568721.10 -12568720.94 0.0089 0.0008
 Mercury -39125-12-16 11:30 J -12568633.16 -12568633.02 -12568632.86 0.0089 0.0015
 Mercury -39124-03-14 13:40 J -12568545.08 -12568544.93 -12568544.78 0.0089 0.0022
 Mercury -39124-06-10 15:35 J -12568456.99 -12568456.85 -12568456.70 0.0089 0.0029
 Mercury -39124-09-06 17:30 J -12568368.90 -12568368.77 -12568368.62 0.0089 0.0037
 Mercury -39124-12-03 19:40 J -12568280.81 -12568280.68 -12568280.54 0.0089 0.0044
 Mercury -39123-03-01 21:50 J -12568192.71 -12568192.59 -12568192.46 0.0089 0.0051
 Mercury -39123-05-28 23:59 J -12568104.61 -12568104.50 -12568104.38 0.0089 0.0058
 Mercury -39123-08-25 01:54 J -12568016.51 -12568016.42 -12568016.31 0.0089 0.0066
 Mercury -39123-11-21 04:04 J -12567928.41 -12567928.33 -12567928.24 0.0089 0.0073
 Mercury -39122-02-17 05:59 J -12567840.30 -12567840.25 -12567840.17 0.0089 0.0081
 Mercury -39122-05-16 08:09 J -12567752.17 -12567752.16 -12567752.13 0.0089 0.0088
 Mars -39120-06-08 06:42 J -12566998.40 -12566998.22 -12566997.99 0.0089 0.0063
 Mars -39118-05-02 23:02 J -12566304.79 -12566304.54 -12566304.25 0.0089 0.0029
 Mars -39116-03-26 15:35 J -12565611.14 -12565610.85 -12565610.56 0.0089 0.0005
 Mars -39114-02-18 05:59 J -12564917.50 -12564917.25 -12564916.98 0.0089 0.0039
 Mars -39112-01-11 21:21 J -12564223.75 -12564223.61 -12564223.42 0.0089 0.0073
 Venus -39095-08-05 00:42 J -12557809.53 -12557809.47 -12557809.41 0.0088 0.0085
 Venus -39094-03-18 13:40 J -12557584.03 -12557583.93 -12557583.79 0.0088 0.0074
 Venus -39094-10-30 03:06 J -12557358.52 -12557358.37 -12557358.20 0.0088 0.0062
 Venus -39093-06-11 16:04 J -12557132.99 -12557132.83 -12557132.63 0.0088 0.0051
 Venus -39092-01-23 05:30 J -12556907.46 -12556907.27 -12556907.06 0.0088 0.0039
 Venus -39092-09-05 18:57 J -12556681.92 -12556681.71 -12556681.50 0.0088 0.0027
 Venus -39091-04-19 08:09 J -12556456.37 -12556456.16 -12556455.93 0.0088 0.0015
 Venus -39091-11-30 21:35 J -12556230.82 -12556230.60 -12556230.37 0.0088 0.0004
 Venus -39090-07-14 11:02 J -12556005.26 -12556005.04 -12556004.82 0.0088 0.0008
 Venus -39089-02-25 00:14 J -12555779.70 -12555779.49 -12555779.26 0.0088 0.0021
 Venus -39089-10-07 13:40 J -12555554.13 -12555553.93 -12555553.71 0.0088 0.0032
 Venus -39088-05-21 02:52 J -12555328.55 -12555328.38 -12555328.16 0.0088 0.0045
 Venus -39087-01-01 16:33 J -12555102.97 -12555102.81 -12555102.63 0.0088 0.0056

Venus -39087-08-15 05:59 J -12554877.38 -12554877.25 -12554877.09 0.0088 0.0067

Venus -39086-03-28 19:26 J -12554651.76 -12554651.69 -12554651.57 0.0088 0.0079

Moon -39052-09-06 08:38 J -12542071.34 -12542071.14 -12542070.92 0.0088 0.0056

Earth -39052-09-06 09:21 J -12542071.28 -12542071.11 -12542070.90 0.0088 0.0060 *

Earth -39051-09-08 21:35 J -12541703.85 -12541703.60 -12541703.35 0.0088 0.0023

Moon -39051-09-08 22:47 J -12541703.78 -12541703.55 -12541703.30 0.0088 0.0027 *

Moon -39050-09-11 06:42 J -12541336.47 -12541336.22 -12541335.95 0.0088 0.0019

Earth -39050-09-11 09:06 J -12541336.36 -12541336.12 -12541335.85 0.0088 0.0016 *

Earth -39049-09-12 20:52 J -12540968.82 -12540968.63 -12540968.40 0.0088 0.0053

Moon -39049-09-13 00:42 J -12540968.68 -12540968.47 -12540968.25 0.0088 0.0048 *

Mercury -39045-10-28 19:26 J -12539461.73 -12539461.69 -12539461.61 0.0088 0.0081

Mercury -39044-01-24 22:04 J -12539373.66 -12539373.58 -12539373.48 0.0088 0.0073

Mercury -39044-04-23 00:28 J -12539285.58 -12539285.48 -12539285.36 0.0088 0.0066

Mercury -39044-07-20 02:52 J -12539197.49 -12539197.38 -12539197.25 0.0088 0.0058

Mercury -39044-10-16 05:16 J -12539109.41 -12539109.28 -12539109.14 0.0088 0.0050

Mercury -39043-01-12 07:54 J -12539021.32 -12539021.17 -12539021.03 0.0088 0.0043

Mercury -39043-04-10 10:04 J -12538933.22 -12538933.08 -12538932.92 0.0088 0.0035

Mercury -39043-07-07 12:28 J -12538845.13 -12538844.98 -12538844.82 0.0088 0.0028

Mercury -39043-10-03 14:52 J -12538757.04 -12538756.88 -12538756.72 0.0088 0.0020

Mercury -39043-12-30 17:16 J -12538668.94 -12538668.78 -12538668.62 0.0088 0.0013

Mercury -39042-03-28 19:40 J -12538580.85 -12538580.68 -12538580.52 0.0088 0.0006

Mercury -39042-06-24 21:50 J -12538492.75 -12538492.59 -12538492.43 0.0088 0.0002

Mercury -39042-09-20 23:59 J -12538404.66 -12538404.50 -12538404.33 0.0088 0.0010

Mercury -39042-12-18 02:23 J -12538316.56 -12538316.40 -12538316.24 0.0088 0.0017

Mercury -39041-03-15 04:33 J -12538228.46 -12538228.31 -12538228.15 0.0088 0.0025

Mercury -39041-06-11 06:57 J -12538140.36 -12538140.21 -12538140.06 0.0088 0.0032

Mercury -39041-09-07 08:52 J -12538052.26 -12538052.13 -12538051.97 0.0088 0.0040

Mercury -39041-12-04 11:16 J -12537964.16 -12537964.03 -12537963.89 0.0088 0.0047

Mercury -39040-03-02 13:40 J -12537876.06 -12537875.93 -12537875.80 0.0088 0.0054

Mercury -39040-05-29 15:50 J -12537787.95 -12537787.84 -12537787.72 0.0088 0.0061

Mercury -39040-08-25 17:45 J -12537699.84 -12537699.76 -12537699.64 0.0088 0.0068

Mercury -39040-11-21 19:54 J -12537611.73 -12537611.67 -12537611.57 0.0088 0.0076

Mercury -39039-02-17 22:04 J -12537523.62 -12537523.58 -12537523.51 0.0088 0.0083

Mars -39036-02-17 05:59 J -12536428.50 -12536428.25 -12536427.98 0.0088 0.0059

Mars -39034-01-14 14:38 J -12535732.21 -12535731.89 -12535731.54 0.0088 0.0019

Mars -39033-12-10 23:30 J -12535035.84 -12535035.52 -12535035.17 0.0088 0.0023

Mars -39031-11-07 07:40 J -12534339.38 -12534339.18 -12534338.90 0.0089 0.0064

Venus -39012-05-06 23:45 J -12527583.54 -12527583.51 -12527583.45 0.0089 0.0087

Venus -39012-12-18 12:42 J -12527358.08 -12527357.97 -12527357.85 0.0089 0.0075

Venus -39011-08-01 01:11 J -12527132.58 -12527132.45 -12527132.28 0.0089 0.0064

Venus -39010-03-14 14:09 J -12526907.07 -12526906.91 -12526906.72 0.0089 0.0052

Venus -39010-10-26 03:06 J -12526681.55 -12526681.37 -12526681.17 0.0089 0.0040

Venus -39009-06-07 15:35 J -12526456.04 -12526455.85 -12526455.63 0.0089 0.0029

Venus -39008-01-19 04:33 J -12526230.52 -12526230.31 -12526230.09 0.0089 0.0017

Venus -39008-09-01 17:30 J -12526004.99 -12526004.77 -12526004.56 0.0089 0.0005

Venus -39007-04-15 05:59 J -12525779.46 -12525779.25 -12525779.03 0.0089 0.0007

Venus -39007-11-26 18:28 J -12525553.94 -12525553.73 -12525553.51 0.0089 0.0018

Venus -39006-07-10 06:57 J -12525328.40 -12525328.21 -12525328.00 0.0089 0.0030

Venus -39005-02-20 19:40 J -12525102.87 -12525102.68 -12525102.49 0.0089 0.0041

Venus -39005-10-03 07:54 J -12524877.32 -12524877.17 -12524876.98 0.0089 0.0054

Venus -39004-05-16 20:52 J -12524651.78 -12524651.63 -12524651.48 0.0089 0.0065

Venus -39004-12-28 08:52 J -12524426.22 -12524426.13 -12524426.00 0.0089 0.0076

Venus -39003-08-10 21:21 J -12524200.63 -12524200.61 -12524200.56 0.0089 0.0088

39TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 39th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-38970-03-05 04:33 J	-12512306.44	-12512306.31	-12512306.15	0.0089	0.0074		
Earth	-38970-03-05 06:57 J	-12512306.35	-12512306.21	-12512306.06	0.0089	0.0073	*	
Earth	-38969-03-06 18:14 J	-12511938.97	-12511938.74	-12511938.50	0.0089	0.0035		
Moon	-38969-03-06 20:52 J	-12511938.86	-12511938.63	-12511938.40	0.0089	0.0032	*	
Moon	-38968-03-09 02:09 J	-12511571.67	-12511571.41	-12511571.15	0.0089	0.0002		
Earth	-38968-03-09 05:45 J	-12511571.51	-12511571.26	-12511571.00	0.0089	0.0004	*	
Earth	-38967-03-11 16:33 J	-12511204.01	-12511203.81	-12511203.56	0.0089	0.0043		
Moon	-38967-03-11 20:23 J	-12511203.87	-12511203.65	-12511203.42	0.0089	0.0044	*	
Moon	-38966-03-14 00:42 J	-12510836.58	-12510836.47	-12510836.33	0.0089	0.0078		
Earth	-38966-03-14 03:50 J	-12510836.42	-12510836.34	-12510836.20	0.0089	0.0080	*	
Mercury	-38963-01-30 05:30 J	-12509783.29	-12509783.27	-12509783.24	0.0089	0.0087		
Mercury	-38963-04-28 06:57 J	-12509695.25	-12509695.21	-12509695.13	0.0089	0.0081		
Mercury	-38963-07-25 08:52 J	-12509607.19	-12509607.13	-12509607.03	0.0089	0.0075		
Mercury	-38963-10-21 11:02 J	-12509519.13	-12509519.04	-12509518.93	0.0089	0.0067		
Mercury	-38962-01-17 12:57 J	-12509431.06	-12509430.96	-12509430.84	0.0089	0.0060		
Mercury	-38962-04-15 14:52 J	-12509342.99	-12509342.88	-12509342.75	0.0089	0.0053		
Mercury	-38962-07-12 16:47 J	-12509254.92	-12509254.80	-12509254.66	0.0089	0.0046		
Mercury	-38962-10-08 18:42 J	-12509166.85	-12509166.72	-12509166.58	0.0089	0.0039		
Mercury	-38961-01-04 20:38 J	-12509078.77	-12509078.64	-12509078.49	0.0089	0.0032		
Mercury	-38961-04-01 22:47 J	-12508990.70	-12508990.55	-12508990.40	0.0089	0.0025		
Mercury	-38961-06-29 00:42 J	-12508902.62	-12508902.47	-12508902.32	0.0089	0.0018		
Mercury	-38961-09-25 02:38 J	-12508814.54	-12508814.39	-12508814.23	0.0089	0.0011		
Mercury	-38961-12-22 04:47 J	-12508726.46	-12508726.30	-12508726.15	0.0089	0.0004		
Mercury	-38960-03-20 06:42 J	-12508638.37	-12508638.22	-12508638.07	0.0089	0.0004		
Mercury	-38960-06-16 08:38 J	-12508550.29	-12508550.14	-12508549.98	0.0089	0.0011		

Mercury -38960-09-12 10:47 J -12508462.20 -12508462.05 -12508461.90 0.0089 0.0018

Mercury -38960-12-09 12:42 J -12508374.12 -12508373.97 -12508373.82 0.0089 0.0025

Mercury -38959-03-07 14:38 J -12508286.03 -12508285.89 -12508285.74 0.0089 0.0033

Mercury -38959-06-03 16:33 J -12508197.94 -12508197.81 -12508197.66 0.0089 0.0040

Mercury -38959-08-30 18:42 J -12508109.84 -12508109.72 -12508109.58 0.0089 0.0047

Mercury -38959-11-26 20:38 J -12508021.75 -12508021.64 -12508021.50 0.0089 0.0055

Mercury -38958-02-22 22:47 J -12507933.65 -12507933.55 -12507933.43 0.0089 0.0062

Mercury -38958-05-22 00:57 J -12507845.55 -12507845.46 -12507845.36 0.0089 0.0069

Mercury -38958-08-18 02:52 J -12507757.44 -12507757.38 -12507757.29 0.0089 0.0077

Mercury -38958-11-14 05:02 J -12507669.33 -12507669.29 -12507669.23 0.0089 0.0084

Mars -38956-01-21 21:06 J -12507234.73 -12507234.62 -12507234.46 0.0089 0.0078

Mars -38955-12-16 12:14 J -12506541.22 -12506540.99 -12506540.72 0.0089 0.0044

Mars -38953-11-09 03:50 J -12505847.62 -12505847.34 -12505847.05 0.0089 0.0010

Mars -38951-10-03 19:54 J -12505153.93 -12505153.67 -12505153.37 0.0089 0.0025

Mars -38949-08-27 10:18 J -12504460.27 -12504460.07 -12504459.84 0.0089 0.0059

Venus -38930-06-20 00:14 J -12497589.59 -12497589.49 -12497589.38 0.0088 0.0078

Venus -38929-01-31 13:11 J -12497364.08 -12497363.95 -12497363.79 0.0088 0.0066

Venus -38929-09-13 02:38 J -12497138.56 -12497138.39 -12497138.21 0.0088 0.0055

Venus -38928-04-26 15:50 J -12496913.02 -12496912.84 -12496912.63 0.0088 0.0043

Venus -38928-12-08 05:16 J -12496687.48 -12496687.28 -12496687.07 0.0088 0.0032

Venus -38927-07-21 18:28 J -12496461.94 -12496461.73 -12496461.51 0.0088 0.0020

Venus -38926-03-04 07:54 J -12496236.39 -12496236.17 -12496235.94 0.0088 0.0008

Venus -38926-10-15 21:21 J -12496010.84 -12496010.61 -12496010.39 0.0088 0.0003

Venus -38925-05-28 10:18 J -12495785.28 -12495785.07 -12495784.84 0.0088 0.0016

Venus -38924-01-08 23:45 J -12495559.72 -12495559.51 -12495559.29 0.0088 0.0027

Venus -38924-08-22 12:57 J -12495334.15 -12495333.96 -12495333.74 0.0088 0.0039

Venus -38923-04-05 02:23 J -12495108.56 -12495108.40 -12495108.20 0.0088 0.0050

Venus -38923-11-16 16:04 J -12494882.98 -12494882.83 -12494882.66 0.0088 0.0062

Venus -38922-06-30 05:16 J -12494657.38 -12494657.28 -12494657.13 0.0088 0.0073

Venus -38921-02-10 19:11 J -12494431.76 -12494431.70 -12494431.64 0.0088 0.0085

Jupiter -38920-02-24 16:47 J -12494052.25 -12494051.80 -12494051.24 0.0088 0.0043
 Earth -38888-09-05 18:42 J -12482170.82 -12482170.72 -12482170.59 0.0088 0.0078
 Moon -38888-09-05 20:38 J -12482170.73 -12482170.64 -12482170.50 0.0088 0.0078 *
 Moon -38887-09-08 03:21 J -12481803.57 -12481803.36 -12481803.11 0.0088 0.0042
 Earth -38887-09-08 06:28 J -12481803.44 -12481803.23 -12481802.98 0.0088 0.0041 *
 Earth -38886-09-10 18:28 J -12481435.98 -12481435.73 -12481435.46 0.0088 0.0005
 Moon -38886-09-10 22:04 J -12481435.84 -12481435.58 -12481435.33 0.0088 0.0004 *
 Moon -38885-09-12 02:23 J -12481068.63 -12481068.40 -12481068.15 0.0088 0.0034
 Earth -38885-09-12 05:59 J -12481068.47 -12481068.25 -12481067.99 0.0088 0.0034 *
 Earth -38884-09-14 17:45 J -12480700.89 -12480700.76 -12480700.59 0.0088 0.0071
 Moon -38884-09-14 20:52 J -12480700.76 -12480700.63 -12480700.45 0.0088 0.0071 *
 Mercury -38880-04-28 16:18 J -12479378.86 -12479378.82 -12479378.77 0.0088 0.0085
 Mercury -38880-07-25 18:28 J -12479290.79 -12479290.73 -12479290.63 0.0088 0.0077
 Mercury -38880-10-21 21:06 J -12479202.71 -12479202.62 -12479202.51 0.0088 0.0069
 Mercury -38879-01-17 23:30 J -12479114.63 -12479114.52 -12479114.39 0.0088 0.0062
 Mercury -38879-04-16 02:09 J -12479026.54 -12479026.41 -12479026.28 0.0088 0.0054
 Mercury -38879-07-13 04:18 J -12478938.45 -12478938.32 -12478938.17 0.0088 0.0047
 Mercury -38879-10-09 06:57 J -12478850.36 -12478850.21 -12478850.06 0.0088 0.0039
 Mercury -38878-01-05 09:06 J -12478762.26 -12478762.12 -12478761.96 0.0088 0.0031
 Mercury -38878-04-03 11:45 J -12478674.17 -12478674.01 -12478673.85 0.0088 0.0023
 Mercury -38878-06-30 13:54 J -12478586.07 -12478585.92 -12478585.75 0.0088 0.0016
 Mercury -38878-09-26 16:18 J -12478497.98 -12478497.82 -12478497.65 0.0088 0.0009
 Mercury -38878-12-23 18:42 J -12478409.88 -12478409.72 -12478409.56 0.0088 0.0001
 Mercury -38877-03-20 21:06 J -12478321.79 -12478321.62 -12478321.46 0.0088 0.0007
 Mercury -38877-06-16 23:16 J -12478233.69 -12478233.53 -12478233.37 0.0088 0.0014
 Mercury -38877-09-13 01:40 J -12478145.59 -12478145.43 -12478145.27 0.0088 0.0021
 Mercury -38877-12-10 03:50 J -12478057.49 -12478057.34 -12478057.18 0.0088 0.0029
 Mercury -38876-03-08 05:59 J -12477969.39 -12477969.25 -12477969.10 0.0088 0.0036
 Mercury -38876-06-04 08:09 J -12477881.29 -12477881.16 -12477881.01 0.0088 0.0044
 Mercury -38876-08-31 10:33 J -12477793.19 -12477793.06 -12477792.92 0.0088 0.0051

Mercury -38876-11-27 12:28 J -12477705.08 -12477704.98 -12477704.84 0.0088 0.0059

Mercury -38875-02-23 14:52 J -12477616.98 -12477616.88 -12477616.76 0.0088 0.0065

Mercury -38875-05-22 17:02 J -12477528.87 -12477528.79 -12477528.69 0.0088 0.0073

Mercury -38875-08-18 19:11 J -12477440.75 -12477440.70 -12477440.62 0.0088 0.0080

Mercury -38875-11-14 21:35 J -12477352.62 -12477352.60 -12477352.57 0.0088 0.0087

Mars -38873-09-30 15:35 J -12476667.00 -12476666.85 -12476666.66 0.0088 0.0077

Mars -38871-08-28 00:28 J -12475970.80 -12475970.48 -12475970.17 0.0088 0.0036

Mars -38869-07-24 08:52 J -12475274.47 -12475274.13 -12475273.78 0.0088 0.0005

Mars -38867-06-20 17:16 J -12474578.04 -12474577.78 -12474577.46 0.0088 0.0047

Mars -38865-05-17 02:09 J -12473881.43 -12473881.41 -12473881.32 0.0089 0.0088

Venus -38847-03-21 23:02 J -12467363.61 -12467363.54 -12467363.42 0.0089 0.0080

Venus -38847-11-02 12:14 J -12467138.12 -12467137.99 -12467137.84 0.0089 0.0068

Venus -38846-06-16 00:42 J -12466912.62 -12466912.47 -12466912.28 0.0089 0.0057

Venus -38845-01-27 13:40 J -12466687.11 -12466686.93 -12466686.73 0.0089 0.0045

Venus -38845-09-09 02:23 J -12466461.59 -12466461.40 -12466461.19 0.0089 0.0034

Venus -38844-04-22 15:06 J -12466236.07 -12466235.87 -12466235.65 0.0089 0.0023

Venus -38844-12-04 04:04 J -12466010.55 -12466010.33 -12466010.11 0.0089 0.0010

Venus -38843-07-17 16:47 J -12465785.02 -12465784.80 -12465784.59 0.0089 0.0002

Venus -38842-02-28 05:16 J -12465559.49 -12465559.28 -12465559.06 0.0089 0.0013

Venus -38842-10-11 18:14 J -12465333.95 -12465333.74 -12465333.53 0.0089 0.0024

Venus -38841-05-24 06:28 J -12465108.42 -12465108.23 -12465108.02 0.0089 0.0036

Venus -38840-01-04 19:11 J -12464882.88 -12464882.70 -12464882.51 0.0089 0.0048

Venus -38840-08-18 07:26 J -12464657.34 -12464657.19 -12464657.01 0.0089 0.0059

Venus -38839-03-31 20:09 J -12464431.78 -12464431.66 -12464431.52 0.0089 0.0070

Venus -38839-11-12 08:23 J -12464206.21 -12464206.15 -12464206.05 0.0089 0.0082

Moon -38805-03-05 23:16 J -12452038.72 -12452038.53 -12452038.30 0.0089 0.0050

Earth -38805-03-06 02:38 J -12452038.57 -12452038.39 -12452038.17 0.0089 0.0055 *

Earth -38804-03-08 14:23 J -12451671.14 -12451670.90 -12451670.64 0.0089 0.0016

Moon -38804-03-08 18:14 J -12451670.99 -12451670.74 -12451670.49 0.0089 0.0020 *

Moon -38803-03-10 22:47 J -12451303.77 -12451303.55 -12451303.29 0.0089 0.0027

Earth -38803-03-11 01:54 J -12451303.66 -12451303.42 -12451303.17 0.0089 0.0022 *
 Earth -38802-03-13 12:42 J -12450936.13 -12450935.97 -12450935.76 0.0089 0.0061
 Moon -38802-03-13 15:21 J -12450936.04 -12450935.86 -12450935.64 0.0089 0.0057 *
 Mercury -38799-10-27 04:33 J -12449612.34 -12449612.31 -12449612.25 0.0089 0.0084
 Mercury -38798-01-23 06:28 J -12449524.29 -12449524.23 -12449524.15 0.0089 0.0077
 Mercury -38798-04-21 08:23 J -12449436.23 -12449436.15 -12449436.05 0.0089 0.0070
 Mercury -38798-07-18 10:18 J -12449348.17 -12449348.07 -12449347.96 0.0089 0.0063
 Mercury -38798-10-14 12:14 J -12449260.10 -12449259.99 -12449259.87 0.0089 0.0056
 Mercury -38797-01-10 14:09 J -12449172.03 -12449171.91 -12449171.78 0.0089 0.0049
 Mercury -38797-04-07 16:04 J -12449083.96 -12449083.83 -12449083.69 0.0089 0.0042
 Mercury -38797-07-04 17:59 J -12448995.88 -12448995.75 -12448995.60 0.0089 0.0036
 Mercury -38797-09-30 19:54 J -12448907.81 -12448907.67 -12448907.52 0.0089 0.0029
 Mercury -38797-12-27 22:04 J -12448819.73 -12448819.58 -12448819.43 0.0089 0.0021
 Mercury -38796-03-25 23:59 J -12448731.65 -12448731.50 -12448731.35 0.0089 0.0014
 Mercury -38796-06-22 01:54 J -12448643.57 -12448643.42 -12448643.27 0.0089 0.0007
 Mercury -38796-09-18 03:50 J -12448555.49 -12448555.34 -12448555.18 0.0089 0.0003
 Mercury -38796-12-15 05:59 J -12448467.40 -12448467.25 -12448467.10 0.0089 0.0008
 Mercury -38795-03-13 07:54 J -12448379.32 -12448379.17 -12448379.02 0.0089 0.0015
 Mercury -38795-06-09 09:50 J -12448291.23 -12448291.09 -12448290.94 0.0089 0.0022
 Mercury -38795-09-05 11:59 J -12448203.15 -12448203.00 -12448202.86 0.0089 0.0029
 Mercury -38795-12-02 13:54 J -12448115.06 -12448114.92 -12448114.78 0.0089 0.0036
 Mercury -38794-02-28 15:50 J -12448026.97 -12448026.84 -12448026.70 0.0089 0.0044
 Mercury -38794-05-27 17:59 J -12447938.87 -12447938.75 -12447938.62 0.0089 0.0051
 Mercury -38794-08-23 20:09 J -12447850.78 -12447850.66 -12447850.54 0.0089 0.0058
 Mercury -38794-11-19 21:50 J -12447762.68 -12447762.59 -12447762.47 0.0089 0.0066
 Mercury -38793-02-15 23:59 J -12447674.57 -12447674.50 -12447674.40 0.0089 0.0073
 Mercury -38793-05-14 02:23 J -12447586.46 -12447586.40 -12447586.34 0.0089 0.0080
 Mercury -38793-08-10 04:04 J -12447498.33 -12447498.33 -12447498.29 0.0089 0.0088
 Mars -38791-08-01 03:35 J -12446777.55 -12446777.35 -12446777.12 0.0089 0.0059
 Mars -38789-06-24 18:42 J -12446083.98 -12446083.72 -12446083.43 0.0089 0.0025

Mars	-38787-05-19 09:50 J	-12445390.37	-12445390.09	-12445389.79	0.0089	0.0011
Mars	-38785-04-12 02:23 J	-12444696.63	-12444696.40	-12444696.13	0.0089	0.0045
Mars	-38783-03-06 17:02 J	-12444002.88	-12444002.79	-12444002.63	0.0089	0.0080
Venus	-38766-09-21 10:33 J	-12437595.13	-12437595.06	-12437594.97	0.0088	0.0082
Venus	-38765-05-03 23:45 J	-12437369.63	-12437369.51	-12437369.37	0.0088	0.0071
Venus	-38765-12-15 12:42 J	-12437144.11	-12437143.97	-12437143.78	0.0088	0.0060
Venus	-38764-07-29 02:23 J	-12436918.58	-12436918.40	-12436918.21	0.0088	0.0048
Venus	-38763-03-11 15:35 J	-12436693.04	-12436692.85	-12436692.63	0.0088	0.0036
Venus	-38763-10-23 05:02 J	-12436467.50	-12436467.29	-12436467.07	0.0088	0.0025
Venus	-38762-06-05 18:14 J	-12436241.95	-12436241.74	-12436241.51	0.0088	0.0014
Venus	-38761-01-17 07:40 J	-12436016.40	-12436016.18	-12436015.95	0.0088	0.0002
Venus	-38761-08-29 20:52 J	-12435790.84	-12435790.63	-12435790.40	0.0088	0.0010
Venus	-38760-04-12 10:33 J	-12435565.28	-12435565.06	-12435564.84	0.0088	0.0021
Venus	-38760-11-23 23:30 J	-12435339.71	-12435339.52	-12435339.30	0.0088	0.0034
Venus	-38759-07-07 13:11 J	-12435114.14	-12435113.95	-12435113.75	0.0088	0.0045
Venus	-38758-02-18 02:23 J	-12434888.56	-12434888.40	-12434888.22	0.0088	0.0056
Venus	-38758-10-01 16:04 J	-12434662.97	-12434662.83	-12434662.68	0.0088	0.0068
Venus	-38757-05-14 05:16 J	-12434437.36	-12434437.28	-12434437.17	0.0088	0.0079
Jupiter	-38754-04-29 07:54 J	-12433357.70	-12433357.17	-12433356.57	0.0088	0.0019
Earth	-38723-09-07 16:33 J	-12421902.98	-12421902.81	-12421902.60	0.0088	0.0059
Moon	-38723-09-07 20:38 J	-12421902.85	-12421902.64	-12421902.44	0.0088	0.0055 *
Moon	-38722-09-10 00:57 J	-12421535.69	-12421535.46	-12421535.20	0.0088	0.0027
Earth	-38722-09-10 04:47 J	-12421535.55	-12421535.30	-12421535.05	0.0088	0.0022 *
Earth	-38721-09-11 16:18 J	-12421168.06	-12421167.82	-12421167.55	0.0088	0.0016
Moon	-38721-09-11 19:40 J	-12421167.93	-12421167.68	-12421167.41	0.0088	0.0021 *
Moon	-38720-09-14 02:09 J	-12420800.61	-12420800.41	-12420800.19	0.0088	0.0049
Earth	-38720-09-14 04:18 J	-12420800.52	-12420800.32	-12420800.11	0.0088	0.0054 *
Mercury	-38716-10-27 13:11 J	-12419295.96	-12419295.95	-12419295.93	0.0088	0.0088
Mercury	-38715-01-23 15:21 J	-12419207.91	-12419207.86	-12419207.77	0.0088	0.0080
Mercury	-38715-04-21 17:59 J	-12419119.83	-12419119.75	-12419119.64	0.0088	0.0072

Mercury -38715-07-18 20:38 J -12419031.75 -12419031.64 -12419031.52 0.0088 0.0064

Mercury -38715-10-14 23:02 J -12418943.66 -12418943.54 -12418943.41 0.0088 0.0057

Mercury -38714-01-11 01:11 J -12418855.57 -12418855.45 -12418855.30 0.0088 0.0050

Mercury -38714-04-09 03:50 J -12418767.48 -12418767.34 -12418767.19 0.0088 0.0041

Mercury -38714-07-06 06:28 J -12418679.39 -12418679.23 -12418679.08 0.0088 0.0034

Mercury -38714-10-02 08:38 J -12418591.29 -12418591.14 -12418590.98 0.0088 0.0026

Mercury -38714-12-29 11:02 J -12418503.20 -12418503.04 -12418502.87 0.0088 0.0019

Mercury -38713-03-26 13:26 J -12418415.10 -12418414.94 -12418414.77 0.0088 0.0011

Mercury -38713-06-22 15:50 J -12418327.00 -12418326.84 -12418326.68 0.0088 0.0003

Mercury -38713-09-18 18:14 J -12418238.91 -12418238.74 -12418238.58 0.0088 0.0004

Mercury -38713-12-15 20:23 J -12418150.81 -12418150.65 -12418150.48 0.0088 0.0012

Mercury -38712-03-13 22:33 J -12418062.71 -12418062.56 -12418062.39 0.0088 0.0020

Mercury -38712-06-10 00:57 J -12417974.61 -12417974.46 -12417974.30 0.0088 0.0027

Mercury -38712-09-06 03:21 J -12417886.51 -12417886.36 -12417886.21 0.0088 0.0034

Mercury -38712-12-03 05:30 J -12417798.41 -12417798.27 -12417798.12 0.0088 0.0041

Mercury -38711-03-01 07:40 J -12417710.30 -12417710.18 -12417710.04 0.0088 0.0049

Mercury -38711-05-28 10:04 J -12417622.20 -12417622.08 -12417621.95 0.0088 0.0056

Mercury -38711-08-24 11:59 J -12417534.10 -12417534.00 -12417533.87 0.0088 0.0063

Mercury -38711-11-20 14:09 J -12417445.99 -12417445.91 -12417445.79 0.0088 0.0071

Mercury -38710-02-16 16:33 J -12417357.87 -12417357.81 -12417357.72 0.0088 0.0077

Mercury -38710-05-15 18:42 J -12417269.75 -12417269.72 -12417269.66 0.0088 0.0085

Mars -38707-04-10 11:45 J -12416209.26 -12416209.01 -12416208.71 0.0088 0.0054

Mars -38705-03-06 20:23 J -12415512.99 -12415512.65 -12415512.31 0.0088 0.0012

Mars -38703-02-01 04:47 J -12414816.61 -12414816.30 -12414815.96 0.0088 0.0030

Mars -38702-12-29 13:40 J -12414120.12 -12414119.93 -12414119.72 0.0089 0.0071

Venus -38683-06-23 10:33 J -12407369.11 -12407369.06 -12407368.96 0.0089 0.0084

Venus -38682-02-03 23:45 J -12407143.63 -12407143.51 -12407143.38 0.0089 0.0072

Venus -38682-09-17 12:14 J -12406918.13 -12406917.99 -12406917.81 0.0089 0.0061

Venus -38681-04-30 01:26 J -12406692.62 -12406692.44 -12406692.26 0.0089 0.0049

Venus -38681-12-11 13:54 J -12406467.11 -12406466.92 -12406466.71 0.0089 0.0038

Venus	-38680-07-25 02:52 J	-12406241.59	-12406241.38	-12406241.18	0.0089	0.0026
Venus	-38679-03-07 15:21 J	-12406016.07	-12406015.86	-12406015.64	0.0089	0.0015
Venus	-38679-10-19 04:18 J	-12405790.54	-12405790.32	-12405790.10	0.0089	0.0003
Venus	-38678-06-01 17:02 J	-12405565.01	-12405564.79	-12405564.57	0.0089	0.0008
Venus	-38677-01-13 05:16 J	-12405339.48	-12405339.28	-12405339.05	0.0089	0.0020
Venus	-38677-08-25 17:59 J	-12405113.94	-12405113.75	-12405113.53	0.0089	0.0031
Venus	-38676-04-08 06:42 J	-12404888.40	-12404888.22	-12404888.02	0.0089	0.0043
Venus	-38676-11-19 19:11 J	-12404662.86	-12404662.70	-12404662.51	0.0089	0.0054
Venus	-38675-07-03 07:40 J	-12404437.31	-12404437.18	-12404437.02	0.0089	0.0066
Venus	-38674-02-13 20:23 J	-12404211.75	-12404211.65	-12404211.53	0.0089	0.0077
Venus	-38674-09-27 08:23 J	-12403986.15	-12403986.15	-12403986.08	0.0089	0.0089
Earth	-38641-03-05 12:28 J	-12392138.10	-12392137.98	-12392137.81	0.0089	0.0073
Moon	-38641-03-05 16:04 J	-12392137.96	-12392137.83	-12392137.68	0.0089	0.0075 *
Moon	-38640-03-07 21:06 J	-12391770.84	-12391770.62	-12391770.37	0.0089	0.0033
Earth	-38640-03-08 00:28 J	-12391770.71	-12391770.48	-12391770.24	0.0089	0.0035 *
Earth	-38639-03-10 11:45 J	-12391403.26	-12391403.01	-12391402.75	0.0089	0.0004
Moon	-38639-03-10 13:40 J	-12391403.19	-12391402.93	-12391402.67	0.0089	0.0003 *
Moon	-38638-03-12 21:50 J	-12391035.78	-12391035.59	-12391035.35	0.0089	0.0045
Earth	-38638-03-12 23:02 J	-12391035.75	-12391035.54	-12391035.30	0.0089	0.0042 *
Moon	-38637-03-14 10:33 J	-12390668.18	-12390668.06	-12390667.93	0.0089	0.0079
Earth	-38637-03-14 10:47 J	-12390668.15	-12390668.05	-12390667.94	0.0089	0.0081 *
Mercury	-38634-04-27 02:23 J	-12389529.43	-12389529.40	-12389529.36	0.0089	0.0086
Mercury	-38634-07-24 04:18 J	-12389441.38	-12389441.32	-12389441.25	0.0089	0.0079
Mercury	-38634-10-20 06:14 J	-12389353.32	-12389353.24	-12389353.15	0.0089	0.0073
Mercury	-38633-01-16 07:40 J	-12389265.26	-12389265.18	-12389265.06	0.0089	0.0067
Mercury	-38633-04-13 09:50 J	-12389177.19	-12389177.09	-12389176.97	0.0089	0.0059
Mercury	-38633-07-10 11:45 J	-12389089.12	-12389089.01	-12389088.88	0.0089	0.0052
Mercury	-38633-10-06 13:40 J	-12389001.05	-12389000.93	-12389000.79	0.0089	0.0045
Mercury	-38632-01-02 15:35 J	-12388912.98	-12388912.85	-12388912.71	0.0089	0.0038
Mercury	-38632-03-31 17:30 J	-12388824.91	-12388824.77	-12388824.62	0.0089	0.0031

Mercury -38632-06-27 19:26 J -12388736.83 -12388736.69 -12388736.54 0.0089 0.0024

Mercury -38632-09-23 21:21 J -12388648.75 -12388648.61 -12388648.45 0.0089 0.0017

Mercury -38632-12-20 23:30 J -12388560.67 -12388560.52 -12388560.37 0.0089 0.0010

Mercury -38631-03-19 01:26 J -12388472.59 -12388472.44 -12388472.29 0.0089 0.0003

Mercury -38631-06-15 03:21 J -12388384.51 -12388384.36 -12388384.21 0.0089 0.0005

Mercury -38631-09-11 05:16 J -12388296.43 -12388296.28 -12388296.13 0.0089 0.0012

Mercury -38631-12-08 07:11 J -12388208.34 -12388208.20 -12388208.04 0.0089 0.0019

Mercury -38630-03-06 09:21 J -12388120.26 -12388120.11 -12388119.96 0.0089 0.0026

Mercury -38630-06-02 11:16 J -12388032.17 -12388032.03 -12388031.89 0.0089 0.0033

Mercury -38630-08-29 13:11 J -12387944.08 -12387943.95 -12387943.81 0.0089 0.0041

Mercury -38630-11-25 15:06 J -12387855.99 -12387855.87 -12387855.73 0.0089 0.0048

Mercury -38629-02-21 17:16 J -12387767.89 -12387767.78 -12387767.65 0.0089 0.0055

Mercury -38629-05-19 19:11 J -12387679.80 -12387679.70 -12387679.58 0.0089 0.0063

Mercury -38629-08-15 21:21 J -12387591.70 -12387591.61 -12387591.51 0.0089 0.0070

Mercury -38629-11-11 23:30 J -12387503.59 -12387503.52 -12387503.44 0.0089 0.0077

Mercury -38628-02-08 01:26 J -12387415.47 -12387415.44 -12387415.38 0.0089 0.0085

Mars -38627-03-16 18:28 J -12387013.88 -12387013.73 -12387013.57 0.0089 0.0074

Mars -38625-02-08 10:47 J -12386320.28 -12386320.05 -12386319.76 0.0089 0.0040

Mars -38623-01-02 02:52 J -12385626.67 -12385626.38 -12385626.09 0.0089 0.0004

Mars -38622-11-26 17:16 J -12384933.03 -12384932.78 -12384932.49 0.0089 0.0031

Mars -38620-10-20 09:06 J -12384239.29 -12384239.12 -12384238.90 0.0089 0.0066

Venus -38602-12-23 21:21 J -12377600.64 -12377600.61 -12377600.54 0.0088 0.0086

Venus -38601-08-05 10:33 J -12377375.16 -12377375.06 -12377374.92 0.0088 0.0075

Venus -38600-03-18 23:59 J -12377149.64 -12377149.50 -12377149.33 0.0088 0.0063

Venus -38600-10-30 13:40 J -12376924.11 -12376923.93 -12376923.75 0.0088 0.0052

Venus -38599-06-13 02:38 J -12376698.58 -12376698.39 -12376698.18 0.0088 0.0041

Venus -38598-01-24 15:50 J -12376473.04 -12376472.84 -12376472.62 0.0088 0.0029

Venus -38598-09-07 05:16 J -12376247.49 -12376247.28 -12376247.06 0.0088 0.0018

Venus -38597-04-19 18:42 J -12376021.94 -12376021.72 -12376021.49 0.0088 0.0006

Venus -38597-12-01 08:09 J -12375796.38 -12375796.16 -12375795.94 0.0088 0.0005

Venus	-38596-07-14 21:21 J	-12375570.83	-12375570.61	-12375570.39	0.0088	0.0017
Venus	-38595-02-25 10:33 J	-12375345.26	-12375345.06	-12375344.84	0.0088	0.0028
Venus	-38595-10-08 23:59 J	-12375119.69	-12375119.50	-12375119.29	0.0088	0.0040
Venus	-38594-05-22 13:11 J	-12374894.12	-12374893.95	-12374893.75	0.0088	0.0051
Venus	-38593-01-03 02:38 J	-12374668.54	-12374668.39	-12374668.22	0.0088	0.0063
Venus	-38593-08-15 16:18 J	-12374442.94	-12374442.82	-12374442.70	0.0088	0.0074
Venus	-38592-03-29 05:16 J	-12374217.31	-12374217.28	-12374217.20	0.0088	0.0086
Jupiter	-38588-07-02 05:59 J	-12372661.51	-12372661.25	-12372660.95	0.0088	0.0077
Moon	-38559-09-06 23:45 J	-12362002.63	-12362002.51	-12362002.37	0.0088	0.0076
Earth	-38559-09-07 02:38 J	-12362002.48	-12362002.39	-12362002.23	0.0088	0.0078 *
Earth	-38558-09-09 14:52 J	-12361635.10	-12361634.88	-12361634.63	0.0088	0.0039
Moon	-38558-09-09 17:59 J	-12361634.98	-12361634.75	-12361634.50	0.0088	0.0039 *
Moon	-38557-09-11 00:42 J	-12361267.72	-12361267.47	-12361267.21	0.0088	0.0002
Earth	-38557-09-11 03:06 J	-12361267.63	-12361267.37	-12361267.11	0.0088	0.0002 *
Earth	-38556-09-13 14:38 J	-12360900.12	-12360899.89	-12360899.64	0.0088	0.0036
Moon	-38556-09-13 15:06 J	-12360900.10	-12360899.87	-12360899.61	0.0088	0.0036 *
Earth	-38555-09-16 01:54 J	-12360532.53	-12360532.42	-12360532.25	0.0088	0.0074
Moon	-38555-09-16 02:23 J	-12360532.51	-12360532.40	-12360532.25	0.0088	0.0075 *
Mercury	-38551-07-24 12:42 J	-12359125.02	-12359124.97	-12359124.91	0.0088	0.0083
Mercury	-38551-10-20 14:52 J	-12359036.95	-12359036.88	-12359036.78	0.0088	0.0075
Mercury	-38550-01-16 17:30 J	-12358948.87	-12358948.77	-12358948.66	0.0088	0.0067
Mercury	-38550-04-14 19:54 J	-12358860.78	-12358860.67	-12358860.54	0.0088	0.0060
Mercury	-38550-07-11 22:33 J	-12358772.69	-12358772.56	-12358772.43	0.0088	0.0052
Mercury	-38550-10-08 00:42 J	-12358684.60	-12358684.47	-12358684.32	0.0088	0.0044
Mercury	-38549-01-04 03:21 J	-12358596.51	-12358596.36	-12358596.21	0.0088	0.0036
Mercury	-38549-04-01 05:30 J	-12358508.41	-12358508.27	-12358508.10	0.0088	0.0029
Mercury	-38549-06-28 08:09 J	-12358420.32	-12358420.16	-12358420.00	0.0088	0.0021
Mercury	-38549-09-24 10:33 J	-12358332.22	-12358332.06	-12358331.90	0.0088	0.0014
Mercury	-38549-12-21 12:57 J	-12358244.12	-12358243.96	-12358243.80	0.0088	0.0006
Mercury	-38548-03-19 15:21 J	-12358156.03	-12358155.86	-12358155.70	0.0088	0.0002

Mercury -38548-06-15 17:30 J -12358067.93 -12358067.77 -12358067.60 0.0088 0.0009

Mercury -38548-09-11 19:54 J -12357979.83 -12357979.67 -12357979.51 0.0088 0.0017

Mercury -38548-12-08 22:04 J -12357891.73 -12357891.58 -12357891.41 0.0088 0.0024

Mercury -38547-03-07 00:28 J -12357803.63 -12357803.48 -12357803.32 0.0088 0.0031

Mercury -38547-06-03 02:52 J -12357715.52 -12357715.38 -12357715.23 0.0088 0.0039

Mercury -38547-08-30 05:02 J -12357627.42 -12357627.29 -12357627.15 0.0088 0.0046

Mercury -38547-11-26 07:11 J -12357539.32 -12357539.20 -12357539.06 0.0088 0.0054

Mercury -38546-02-22 09:35 J -12357451.21 -12357451.10 -12357450.98 0.0088 0.0061

Mercury -38546-05-21 11:30 J -12357363.10 -12357363.02 -12357362.90 0.0088 0.0069

Mercury -38546-08-17 13:54 J -12357274.99 -12357274.92 -12357274.83 0.0088 0.0075

Mercury -38546-11-13 16:04 J -12357186.87 -12357186.83 -12357186.76 0.0088 0.0083

Mars -38544-11-22 02:23 J -12356447.58 -12356447.40 -12356447.17 0.0088 0.0071

Mars -38542-10-19 09:50 J -12355751.40 -12355751.09 -12355750.75 0.0088 0.0030

Mars -38540-09-14 18:14 J -12355055.07 -12355054.74 -12355054.39 0.0088 0.0013

Mars -38538-08-12 02:38 J -12354358.64 -12354358.39 -12354358.10 0.0088 0.0055

Venus -38519-09-24 22:33 J -12347374.58 -12347374.56 -12347374.51 0.0089 0.0087

Venus -38518-05-08 11:16 J -12347149.13 -12347149.03 -12347148.90 0.0089 0.0076

Venus -38518-12-19 23:45 J -12346923.63 -12346923.51 -12346923.34 0.0089 0.0065

Venus -38517-08-01 12:57 J -12346698.13 -12346697.96 -12346697.78 0.0089 0.0053

Venus -38516-03-15 01:26 J -12346472.62 -12346472.44 -12346472.23 0.0089 0.0042

Venus -38516-10-26 14:23 J -12346247.09 -12346246.90 -12346246.69 0.0089 0.0031

Venus -38515-06-09 03:06 J -12346021.58 -12346021.37 -12346021.15 0.0089 0.0019

Venus -38514-01-20 15:50 J -12345796.05 -12345795.84 -12345795.62 0.0089 0.0008

Venus -38514-09-03 04:33 J -12345570.52 -12345570.31 -12345570.09 0.0089 0.0004

Venus -38513-04-15 17:16 J -12345344.99 -12345344.78 -12345344.56 0.0089 0.0015

Venus -38513-11-27 05:45 J -12345119.46 -12345119.26 -12345119.04 0.0089 0.0027

Venus -38512-07-10 18:14 J -12344893.92 -12344893.74 -12344893.53 0.0089 0.0038

Venus -38511-02-21 06:57 J -12344668.38 -12344668.21 -12344668.02 0.0089 0.0049

Venus -38511-10-04 19:40 J -12344442.83 -12344442.68 -12344442.51 0.0089 0.0060

Venus -38510-05-18 08:23 J -12344217.27 -12344217.15 -12344217.02 0.0089 0.0071

Venus -38510-12-29 21:06 J -12343991.70 -12343991.62 -12343991.54 0.0089 0.0083

Earth -38476-03-07 10:33 J -12331870.25 -12331870.06 -12331869.84 0.0089 0.0054

Moon -38476-03-07 12:28 J -12331870.18 -12331869.98 -12331869.74 0.0089 0.0049 *

Moon -38475-03-09 21:50 J -12331502.83 -12331502.59 -12331502.35 0.0089 0.0019

Earth -38475-03-09 21:50 J -12331502.83 -12331502.59 -12331502.32 0.0089 0.0015 *

Moon -38474-03-12 08:23 J -12331135.38 -12331135.15 -12331134.88 0.0089 0.0028

Earth -38474-03-12 09:21 J -12331135.34 -12331135.11 -12331134.85 0.0089 0.0024 *

Earth -38473-03-13 21:06 J -12330767.79 -12330767.62 -12330767.43 0.0089 0.0062

Moon -38473-03-13 22:33 J -12330767.73 -12330767.56 -12330767.36 0.0089 0.0058 *

Mercury -38470-10-26 00:14 J -12329446.50 -12329446.49 -12329446.47 0.0089 0.0089

Mercury -38469-01-22 01:40 J -12329358.47 -12329358.43 -12329358.35 0.0089 0.0083

Mercury -38469-04-19 03:35 J -12329270.41 -12329270.35 -12329270.25 0.0089 0.0076

Mercury -38469-07-16 05:30 J -12329182.35 -12329182.27 -12329182.16 0.0089 0.0069

Mercury -38469-10-12 07:40 J -12329094.28 -12329094.18 -12329094.07 0.0089 0.0061

Mercury -38468-01-08 09:35 J -12329006.22 -12329006.10 -12329005.98 0.0089 0.0054

Mercury -38468-04-06 11:30 J -12328918.14 -12328918.02 -12328917.89 0.0089 0.0047

Mercury -38468-07-03 13:26 J -12328830.07 -12328829.94 -12328829.81 0.0089 0.0040

Mercury -38468-09-29 15:21 J -12328742.00 -12328741.86 -12328741.72 0.0089 0.0033

Mercury -38468-12-26 17:16 J -12328653.92 -12328653.78 -12328653.63 0.0089 0.0026

Mercury -38467-03-24 19:11 J -12328565.85 -12328565.70 -12328565.55 0.0089 0.0019

Mercury -38467-06-20 21:06 J -12328477.77 -12328477.62 -12328477.47 0.0089 0.0012

Mercury -38467-09-16 23:02 J -12328389.69 -12328389.54 -12328389.39 0.0089 0.0005

Mercury -38467-12-14 00:57 J -12328301.61 -12328301.46 -12328301.30 0.0089 0.0004

Mercury -38466-03-12 02:52 J -12328213.52 -12328213.38 -12328213.22 0.0089 0.0010

Mercury -38466-06-08 04:47 J -12328125.44 -12328125.30 -12328125.14 0.0089 0.0017

Mercury -38466-09-04 06:57 J -12328037.36 -12328037.21 -12328037.06 0.0089 0.0024

Mercury -38466-12-01 08:52 J -12327949.27 -12327949.13 -12327948.98 0.0089 0.0031

Mercury -38465-02-27 10:47 J -12327861.18 -12327861.05 -12327860.90 0.0089 0.0039

Mercury -38465-05-25 12:42 J -12327773.09 -12327772.97 -12327772.83 0.0089 0.0046

Mercury -38465-08-21 14:52 J -12327685.00 -12327684.88 -12327684.75 0.0089 0.0053

Mercury -38465-11-17 16:47 J -12327596.90 -12327596.80 -12327596.68 0.0089 0.0060

Mercury -38464-02-13 19:11 J -12327508.80 -12327508.70 -12327508.61 0.0089 0.0068

Mercury -38464-05-12 20:52 J -12327420.70 -12327420.63 -12327420.54 0.0089 0.0075

Mercury -38464-08-08 23:02 J -12327332.59 -12327332.54 -12327332.48 0.0089 0.0082

Mars -38462-09-24 03:06 J -12326556.59 -12326556.37 -12326556.14 0.0089 0.0054

Mars -38460-08-17 19:40 J -12325862.96 -12325862.68 -12325862.39 0.0089 0.0019

Mars -38458-07-12 11:16 J -12325169.31 -12325169.03 -12325168.74 0.0089 0.0017

Mars -38456-06-05 01:54 J -12324475.64 -12324475.42 -12324475.17 0.0089 0.0052

Mars -38454-04-29 17:16 J -12323781.81 -12323781.78 -12323781.70 0.0089 0.0087

Venus -38437-11-06 21:50 J -12317380.67 -12317380.59 -12317380.46 0.0088 0.0079

Venus -38436-06-20 11:30 J -12317155.16 -12317155.02 -12317154.87 0.0088 0.0067

Venus -38435-02-01 00:42 J -12316929.64 -12316929.47 -12316929.29 0.0088 0.0056

Venus -38435-09-14 13:54 J -12316704.10 -12316703.92 -12316703.72 0.0088 0.0044

Venus -38434-04-28 03:06 J -12316478.56 -12316478.37 -12316478.15 0.0088 0.0034

Venus -38434-12-09 16:47 J -12316253.02 -12316252.80 -12316252.59 0.0088 0.0022

Venus -38433-07-22 05:59 J -12316027.47 -12316027.25 -12316027.03 0.0088 0.0010

Venus -38432-03-04 19:26 J -12315801.91 -12315801.69 -12315801.46 0.0088 0.0002

Venus -38432-10-16 08:52 J -12315576.35 -12315576.13 -12315575.91 0.0088 0.0012

Venus -38431-05-29 22:04 J -12315350.79 -12315350.58 -12315350.36 0.0088 0.0024

Venus -38430-01-10 11:16 J -12315125.22 -12315125.03 -12315124.81 0.0088 0.0035

Venus -38430-08-24 00:28 J -12314899.65 -12314899.48 -12314899.27 0.0088 0.0047

Venus -38429-04-05 14:09 J -12314674.07 -12314673.91 -12314673.73 0.0088 0.0058

Venus -38429-11-17 03:21 J -12314448.48 -12314448.36 -12314448.20 0.0088 0.0069

Venus -38428-06-30 16:47 J -12314222.87 -12314222.80 -12314222.69 0.0088 0.0080

Moon -38394-09-09 00:14 J -12301734.66 -12301734.49 -12301734.26 0.0088 0.0053

Earth -38394-09-09 02:23 J -12301734.60 -12301734.40 -12301734.20 0.0088 0.0057 *

Earth -38393-09-10 14:23 J -12301367.16 -12301366.90 -12301366.65 0.0088 0.0019

Moon -38393-09-10 14:52 J -12301367.13 -12301366.88 -12301366.61 0.0088 0.0023 *

Earth -38392-09-13 02:09 J -12300999.66 -12300999.41 -12300999.15 0.0088 0.0019

Moon -38392-09-13 02:52 J -12300999.61 -12300999.38 -12300999.12 0.0088 0.0024 *

Moon -38391-09-15 11:30 J -12300632.21 -12300632.02 -12300631.78 0.0088 0.0053
 Earth -38391-09-15 13:26 J -12300632.11 -12300631.94 -12300631.72 0.0088 0.0058 *
 Mercury -38386-01-22 09:35 J -12299042.13 -12299042.10 -12299042.05 0.0088 0.0085
 Mercury -38386-04-20 11:59 J -12298954.06 -12298954.00 -12298953.91 0.0088 0.0078
 Mercury -38386-07-17 14:38 J -12298865.98 -12298865.89 -12298865.78 0.0088 0.0070
 Mercury -38386-10-13 16:47 J -12298777.90 -12298777.80 -12298777.66 0.0088 0.0063
 Mercury -38385-01-09 19:26 J -12298689.81 -12298689.69 -12298689.55 0.0088 0.0054
 Mercury -38385-04-06 22:04 J -12298601.72 -12298601.58 -12298601.44 0.0088 0.0046
 Mercury -38385-07-04 00:28 J -12298513.62 -12298513.48 -12298513.33 0.0088 0.0039
 Mercury -38385-09-30 02:52 J -12298425.53 -12298425.38 -12298425.22 0.0088 0.0031
 Mercury -38385-12-27 05:16 J -12298337.43 -12298337.28 -12298337.12 0.0088 0.0024
 Mercury -38384-03-25 07:40 J -12298249.34 -12298249.18 -12298249.01 0.0088 0.0016
 Mercury -38384-06-21 10:04 J -12298161.24 -12298161.08 -12298160.91 0.0088 0.0008
 Mercury -38384-09-17 12:28 J -12298073.14 -12298072.98 -12298072.81 0.0088 0.0001
 Mercury -38384-12-14 14:52 J -12297985.04 -12297984.88 -12297984.72 0.0088 0.0007
 Mercury -38383-03-12 17:16 J -12297896.94 -12297896.78 -12297896.62 0.0088 0.0014
 Mercury -38383-06-08 19:26 J -12297808.84 -12297808.69 -12297808.53 0.0088 0.0022
 Mercury -38383-09-04 21:50 J -12297720.74 -12297720.59 -12297720.43 0.0088 0.0029
 Mercury -38383-12-02 00:14 J -12297632.64 -12297632.49 -12297632.34 0.0088 0.0037
 Mercury -38382-02-28 02:09 J -12297544.54 -12297544.41 -12297544.26 0.0088 0.0045
 Mercury -38382-05-27 04:33 J -12297456.43 -12297456.31 -12297456.17 0.0088 0.0052
 Mercury -38382-08-23 06:42 J -12297368.33 -12297368.22 -12297368.09 0.0088 0.0059
 Mercury -38382-11-19 09:06 J -12297280.22 -12297280.12 -12297280.01 0.0088 0.0066
 Mercury -38381-02-15 11:16 J -12297192.11 -12297192.03 -12297191.93 0.0088 0.0074
 Mercury -38381-05-13 13:40 J -12297103.99 -12297103.93 -12297103.86 0.0088 0.0081
 Mercury -38381-08-09 16:04 J -12297015.84 -12297015.83 -12297015.82 0.0088 0.0088
 Mars -38380-07-05 17:16 J -12296685.78 -12296685.78 -12296685.71 0.0088 0.0088
 Mars -38378-06-02 00:28 J -12295989.75 -12295989.48 -12295989.16 0.0088 0.0047
 Mars -38376-04-28 08:09 J -12295293.50 -12295293.16 -12295292.81 0.0088 0.0005
 Mars -38374-03-25 16:04 J -12294597.13 -12294596.83 -12294596.51 0.0088 0.0038

Mars	-38372-02-19 01:11 J	-12293900.59	-12293900.45	-12293900.31	0.0089	0.0080
Venus	-38354-08-09 23:45 J	-12287154.60	-12287154.51	-12287154.41	0.0089	0.0079
Venus	-38353-03-22 12:28 J	-12286929.11	-12286928.98	-12286928.84	0.0089	0.0068
Venus	-38353-11-03 01:11 J	-12286703.61	-12286703.45	-12286703.27	0.0089	0.0057
Venus	-38352-06-16 13:40 J	-12286478.10	-12286477.93	-12286477.72	0.0089	0.0046
Venus	-38351-01-28 02:23 J	-12286252.58	-12286252.40	-12286252.18	0.0089	0.0035
Venus	-38351-09-10 15:35 J	-12286027.06	-12286026.85	-12286026.64	0.0089	0.0023
Venus	-38350-04-24 04:04 J	-12285801.54	-12285801.33	-12285801.11	0.0089	0.0012
Venus	-38350-12-05 16:47 J	-12285576.02	-12285575.80	-12285575.58	0.0089	0.0001
Venus	-38349-07-18 05:30 J	-12285350.49	-12285350.27	-12285350.06	0.0089	0.0011
Venus	-38348-02-28 17:45 J	-12285124.96	-12285124.76	-12285124.53	0.0089	0.0022
Venus	-38348-10-12 06:42 J	-12284899.42	-12284899.22	-12284899.01	0.0089	0.0033
Venus	-38347-05-25 19:11 J	-12284673.88	-12284673.70	-12284673.50	0.0089	0.0044
Venus	-38346-01-06 07:54 J	-12284448.33	-12284448.17	-12284448.00	0.0089	0.0055
Venus	-38346-08-19 20:23 J	-12284222.78	-12284222.65	-12284222.50	0.0089	0.0067
Venus	-38345-04-01 08:38 J	-12283997.22	-12283997.14	-12283997.01	0.0089	0.0078
Venus	-38345-11-12 21:35 J	-12283771.60	-12283771.60	-12283771.57	0.0089	0.0089
Moon	-38312-03-06 21:21 J	-12271969.74	-12271969.61	-12271969.45	0.0089	0.0073
Earth	-38312-03-06 21:35 J	-12271969.73	-12271969.60	-12271969.43	0.0089	0.0072 *
Moon	-38311-03-09 07:54 J	-12271602.41	-12271602.17	-12271601.91	0.0089	0.0032
Earth	-38311-03-09 08:52 J	-12271602.35	-12271602.13	-12271601.87	0.0089	0.0034 *
Earth	-38310-03-11 20:38 J	-12271234.89	-12271234.64	-12271234.38	0.0089	0.0006
Moon	-38310-03-11 23:02 J	-12271234.79	-12271234.54	-12271234.29	0.0089	0.0006 *
Moon	-38309-03-13 04:47 J	-12270867.51	-12270867.30	-12270867.06	0.0089	0.0046
Earth	-38309-03-13 07:54 J	-12270867.39	-12270867.17	-12270866.95	0.0089	0.0044 *
Earth	-38308-03-15 18:42 J	-12270499.78	-12270499.72	-12270499.60	0.0089	0.0084
Moon	-38308-03-15 22:33 J	-12270499.64	-12270499.56	-12270499.44	0.0089	0.0082 *
Mercury	-38305-07-21 23:30 J	-12269275.55	-12269275.52	-12269275.45	0.0089	0.0085
Mercury	-38305-10-18 01:26 J	-12269187.50	-12269187.44	-12269187.35	0.0089	0.0078
Mercury	-38304-01-14 03:35 J	-12269099.44	-12269099.35	-12269099.26	0.0089	0.0070

Mercury -38304-04-12 05:30 J -12269011.37 -12269011.27 -12269011.16 0.0089 0.0063

Mercury -38304-07-09 07:11 J -12268923.30 -12268923.20 -12268923.07 0.0089 0.0057

Mercury -38304-10-05 09:06 J -12268835.24 -12268835.12 -12268834.99 0.0089 0.0050

Mercury -38303-01-01 11:02 J -12268747.16 -12268747.04 -12268746.90 0.0089 0.0043

Mercury -38303-03-30 13:11 J -12268659.09 -12268658.95 -12268658.81 0.0089 0.0035

Mercury -38303-06-26 14:52 J -12268571.02 -12268570.88 -12268570.73 0.0089 0.0029

Mercury -38303-09-22 16:47 J -12268482.94 -12268482.80 -12268482.65 0.0089 0.0022

Mercury -38303-12-19 18:57 J -12268394.86 -12268394.71 -12268394.56 0.0089 0.0014

Mercury -38302-03-17 20:52 J -12268306.78 -12268306.63 -12268306.48 0.0089 0.0007

Mercury -38302-06-13 22:47 J -12268218.70 -12268218.55 -12268218.40 0.0089 0.0000

Mercury -38302-09-10 00:42 J -12268130.62 -12268130.47 -12268130.32 0.0089 0.0007

Mercury -38302-12-07 02:38 J -12268042.54 -12268042.39 -12268042.24 0.0089 0.0014

Mercury -38301-03-04 04:33 J -12267954.45 -12267954.31 -12267954.16 0.0089 0.0022

Mercury -38301-05-31 06:28 J -12267866.37 -12267866.23 -12267866.08 0.0089 0.0029

Mercury -38301-08-27 08:23 J -12267778.28 -12267778.15 -12267778.00 0.0089 0.0036

Mercury -38301-11-23 10:33 J -12267690.19 -12267690.06 -12267689.92 0.0089 0.0043

Mercury -38300-02-19 12:14 J -12267602.10 -12267601.99 -12267601.85 0.0089 0.0051

Mercury -38300-05-18 14:23 J -12267514.00 -12267513.90 -12267513.77 0.0089 0.0058

Mercury -38300-08-14 16:33 J -12267425.91 -12267425.81 -12267425.70 0.0089 0.0065

Mercury -38300-11-10 18:42 J -12267337.81 -12267337.72 -12267337.63 0.0089 0.0072

Mercury -38299-02-06 20:23 J -12267249.70 -12267249.65 -12267249.57 0.0089 0.0080

Mercury -38299-05-05 22:33 J -12267161.58 -12267161.56 -12267161.52 0.0089 0.0087

Mars -38298-05-09 19:40 J -12266792.84 -12266792.68 -12266792.48 0.0089 0.0070

Mars -38296-04-02 11:45 J -12266099.26 -12266099.01 -12266098.72 0.0089 0.0034

Mars -38294-02-25 05:02 J -12265405.58 -12265405.29 -12265405.00 0.0089 0.0002

Mars -38292-01-18 20:38 J -12264711.88 -12264711.64 -12264711.36 0.0089 0.0038

Mars -38291-12-13 11:16 J -12264018.15 -12264018.03 -12264017.83 0.0089 0.0074

Venus -38272-02-08 09:35 J -12257386.17 -12257386.10 -12257386.00 0.0088 0.0082

Venus -38272-09-21 22:47 J -12257160.67 -12257160.55 -12257160.40 0.0088 0.0071

Venus -38271-05-05 11:59 J -12256935.15 -12256935.00 -12256934.82 0.0088 0.0060

Venus	-38271-12-17 01:11 J	-12256709.62	-12256709.45	-12256709.25	0.0088	0.0048
Venus	-38270-07-30 14:23 J	-12256484.09	-12256483.90	-12256483.68	0.0088	0.0037
Venus	-38269-03-12 04:04 J	-12256258.54	-12256258.33	-12256258.11	0.0088	0.0026
Venus	-38269-10-23 17:30 J	-12256032.99	-12256032.77	-12256032.55	0.0088	0.0015
Venus	-38268-06-06 06:42 J	-12255807.44	-12255807.22	-12255806.99	0.0088	0.0004
Venus	-38267-01-17 19:54 J	-12255581.89	-12255581.67	-12255581.44	0.0088	0.0008
Venus	-38267-08-31 09:06 J	-12255356.32	-12255356.12	-12255355.89	0.0088	0.0020
Venus	-38266-04-13 22:47 J	-12255130.75	-12255130.55	-12255130.33	0.0088	0.0030
Venus	-38266-11-25 12:14 J	-12254905.18	-12254904.99	-12254904.79	0.0088	0.0042
Venus	-38265-07-08 01:11 J	-12254679.61	-12254679.45	-12254679.25	0.0088	0.0053
Venus	-38264-02-18 14:38 J	-12254454.02	-12254453.89	-12254453.72	0.0088	0.0064
Venus	-38264-10-02 04:04 J	-12254228.43	-12254228.33	-12254228.20	0.0088	0.0076
Venus	-38263-05-15 17:30 J	-12254002.79	-12254002.77	-12254002.71	0.0088	0.0087
Moon	-38230-09-08 12:57 J	-12241834.11	-12241833.96	-12241833.80	0.0088	0.0073
Earth	-38230-09-08 12:42 J	-12241834.09	-12241833.97	-12241833.81	0.0088	0.0075 *
Earth	-38229-09-10 00:57 J	-12241466.68	-12241466.46	-12241466.21	0.0088	0.0037
Moon	-38229-09-10 01:54 J	-12241466.64	-12241466.42	-12241466.18	0.0088	0.0037 *
Moon	-38228-09-12 10:47 J	-12241099.31	-12241099.05	-12241098.78	0.0088	0.0003
Earth	-38228-09-12 13:11 J	-12241099.21	-12241098.95	-12241098.68	0.0088	0.0003 *
Earth	-38227-09-15 00:42 J	-12240731.68	-12240731.47	-12240731.22	0.0088	0.0041
Moon	-38227-09-15 03:50 J	-12240731.55	-12240731.34	-12240731.09	0.0088	0.0039 *
Moon	-38226-09-17 09:21 J	-12240364.22	-12240364.11	-12240363.98	0.0088	0.0078
Earth	-38226-09-17 12:28 J	-12240364.07	-12240363.98	-12240363.84	0.0088	0.0078 *
Mercury	-38222-07-23 06:42 J	-12238959.23	-12238959.22	-12238959.19	0.0088	0.0088
Mercury	-38222-10-19 09:21 J	-12238871.17	-12238871.11	-12238871.03	0.0088	0.0080
Mercury	-38221-01-15 11:30 J	-12238783.10	-12238783.02	-12238782.91	0.0088	0.0072
Mercury	-38221-04-12 14:09 J	-12238695.01	-12238694.91	-12238694.78	0.0088	0.0064
Mercury	-38221-07-09 16:47 J	-12238606.92	-12238606.80	-12238606.67	0.0088	0.0056
Mercury	-38221-10-05 19:11 J	-12238518.83	-12238518.70	-12238518.55	0.0088	0.0049
Mercury	-38220-01-01 21:35 J	-12238430.74	-12238430.60	-12238430.44	0.0088	0.0041

Mercury -38220-03-30 23:59 J -12238342.64 -12238342.50 -12238342.34 0.0088 0.0034

Mercury -38220-06-27 02:38 J -12238254.55 -12238254.39 -12238254.23 0.0088 0.0025

Mercury -38220-09-23 04:47 J -12238166.45 -12238166.30 -12238166.13 0.0088 0.0019

Mercury -38220-12-20 07:26 J -12238078.35 -12238078.19 -12238078.03 0.0088 0.0010

Mercury -38219-03-18 09:50 J -12237990.26 -12237990.09 -12237989.93 0.0088 0.0003

Mercury -38219-06-14 12:14 J -12237902.16 -12237901.99 -12237901.83 0.0088 0.0005

Mercury -38219-09-10 14:38 J -12237814.06 -12237813.89 -12237813.73 0.0088 0.0013

Mercury -38219-12-07 16:47 J -12237725.96 -12237725.80 -12237725.64 0.0088 0.0020

Mercury -38218-03-05 19:11 J -12237637.85 -12237637.70 -12237637.54 0.0088 0.0027

Mercury -38218-06-01 21:21 J -12237549.75 -12237549.61 -12237549.45 0.0088 0.0035

Mercury -38218-08-28 23:45 J -12237461.65 -12237461.51 -12237461.36 0.0088 0.0042

Mercury -38218-11-25 02:09 J -12237373.54 -12237373.41 -12237373.27 0.0088 0.0050

Mercury -38217-02-21 04:04 J -12237285.44 -12237285.33 -12237285.19 0.0088 0.0058

Mercury -38217-05-19 06:28 J -12237197.33 -12237197.23 -12237197.11 0.0088 0.0065

Mercury -38217-08-15 08:52 J -12237109.22 -12237109.13 -12237109.03 0.0088 0.0072

Mercury -38217-11-11 10:47 J -12237021.10 -12237021.05 -12237020.96 0.0088 0.0080

Mercury -38216-02-07 13:11 J -12236932.97 -12236932.95 -12236932.90 0.0088 0.0087

Mars -38214-01-13 17:02 J -12236228.02 -12236227.79 -12236227.55 0.0088 0.0064

Mars -38213-12-10 00:14 J -12235531.80 -12235531.49 -12235531.14 0.0088 0.0022

Mars -38211-11-06 07:40 J -12234835.50 -12234835.18 -12234834.83 0.0088 0.0022

Mars -38209-10-02 15:21 J -12234139.07 -12234138.86 -12234138.60 0.0089 0.0064

Venus -38190-11-11 11:30 J -12227160.08 -12227160.02 -12227159.92 0.0089 0.0083

Venus -38189-06-24 00:14 J -12226934.60 -12226934.49 -12226934.34 0.0089 0.0072

Venus -38188-02-04 12:57 J -12226709.09 -12226708.96 -12226708.78 0.0089 0.0061

Venus -38188-09-18 02:23 J -12226483.58 -12226483.40 -12226483.22 0.0089 0.0049

Venus -38187-05-01 15:06 J -12226258.06 -12226257.87 -12226257.67 0.0089 0.0038

Venus -38187-12-13 03:35 J -12226032.55 -12226032.35 -12226032.13 0.0089 0.0027

Venus -38186-07-26 16:18 J -12225807.03 -12225806.82 -12225806.60 0.0089 0.0016

Venus -38185-03-08 05:16 J -12225581.50 -12225581.28 -12225581.06 0.0089 0.0005

Venus -38185-10-19 17:59 J -12225355.97 -12225355.75 -12225355.53 0.0089 0.0006

Venus	-38184-06-02 06:42 J	-12225130.44	-12225130.22	-12225130.01	0.0089	0.0018
Venus	-38183-01-13 18:57 J	-12224904.90	-12224904.71	-12224904.49	0.0089	0.0029
Venus	-38183-08-27 07:26 J	-12224679.37	-12224679.19	-12224678.98	0.0089	0.0040
Venus	-38182-04-09 20:09 J	-12224453.82	-12224453.66	-12224453.47	0.0089	0.0051
Venus	-38182-11-21 08:38 J	-12224228.27	-12224228.14	-12224227.96	0.0089	0.0062
Venus	-38181-07-03 21:06 J	-12224002.72	-12224002.62	-12224002.47	0.0089	0.0074
Venus	-38180-02-14 09:35 J	-12223777.14	-12223777.10	-12223777.00	0.0089	0.0085
Jupiter	-38179-05-14 15:21 J	-12223322.99	-12223322.86	-12223322.61	0.0089	0.0083
Earth	-38148-03-06 09:35 J	-12212069.10	-12212069.10	-12212069.08	0.0089	0.0089
Earth	-38147-03-08 21:06 J	-12211701.83	-12211701.62	-12211701.41	0.0089	0.0051
Moon	-38147-03-08 23:02 J	-12211701.74	-12211701.54	-12211701.31	0.0089	0.0046 *
Moon	-38146-03-11 05:02 J	-12211334.55	-12211334.29	-12211334.04	0.0089	0.0017
Earth	-38146-03-11 08:09 J	-12211334.40	-12211334.16	-12211333.90	0.0089	0.0012 *
Earth	-38145-03-12 19:11 J	-12210966.93	-12210966.70	-12210966.44	0.0089	0.0027
Moon	-38145-03-12 22:47 J	-12210966.78	-12210966.55	-12210966.30	0.0089	0.0031 *
Moon	-38144-03-15 02:38 J	-12210599.54	-12210599.39	-12210599.18	0.0089	0.0062
Earth	-38144-03-15 06:57 J	-12210599.38	-12210599.21	-12210599.04	0.0089	0.0066 *
Mercury	-38140-01-19 21:35 J	-12209192.62	-12209192.60	-12209192.55	0.0089	0.0086
Mercury	-38140-04-17 23:30 J	-12209104.57	-12209104.52	-12209104.44	0.0089	0.0079
Mercury	-38140-07-15 01:26 J	-12209016.52	-12209016.44	-12209016.34	0.0089	0.0072
Mercury	-38140-10-11 03:21 J	-12208928.45	-12208928.36	-12208928.25	0.0089	0.0065
Mercury	-38139-01-07 05:16 J	-12208840.39	-12208840.28	-12208840.16	0.0089	0.0058
Mercury	-38139-04-05 07:11 J	-12208752.32	-12208752.20	-12208752.08	0.0089	0.0051
Mercury	-38139-07-02 09:06 J	-12208664.25	-12208664.12	-12208663.99	0.0089	0.0044
Mercury	-38139-09-28 11:02 J	-12208576.18	-12208576.04	-12208575.90	0.0089	0.0037
Mercury	-38139-12-25 12:57 J	-12208488.10	-12208487.96	-12208487.82	0.0089	0.0030
Mercury	-38138-03-23 14:52 J	-12208400.03	-12208399.88	-12208399.74	0.0089	0.0023
Mercury	-38138-06-19 16:47 J	-12208311.95	-12208311.80	-12208311.65	0.0089	0.0016
Mercury	-38138-09-15 18:42 J	-12208223.87	-12208223.72	-12208223.57	0.0089	0.0009
Mercury	-38138-12-12 20:38 J	-12208135.79	-12208135.64	-12208135.49	0.0089	0.0002

Mercury -38137-03-09 22:33 J -12208047.71 -12208047.56 -12208047.41 0.0089 0.0005

Mercury -38137-06-06 00:28 J -12207959.63 -12207959.48 -12207959.33 0.0089 0.0013

Mercury -38137-09-02 02:23 J -12207871.54 -12207871.40 -12207871.25 0.0089 0.0020

Mercury -38137-11-29 04:18 J -12207783.46 -12207783.32 -12207783.17 0.0089 0.0027

Mercury -38136-02-25 06:14 J -12207695.37 -12207695.24 -12207695.09 0.0089 0.0034

Mercury -38136-05-24 08:23 J -12207607.28 -12207607.15 -12207607.01 0.0089 0.0041

Mercury -38136-08-20 10:04 J -12207519.19 -12207519.08 -12207518.94 0.0089 0.0049

Mercury -38136-11-16 12:14 J -12207431.10 -12207430.99 -12207430.86 0.0089 0.0056

Mercury -38135-02-12 14:23 J -12207343.00 -12207342.90 -12207342.79 0.0089 0.0063

Mercury -38135-05-11 16:04 J -12207254.91 -12207254.83 -12207254.72 0.0089 0.0071

Mercury -38135-08-07 18:14 J -12207166.80 -12207166.74 -12207166.66 0.0089 0.0078

Mercury -38135-11-03 20:23 J -12207078.68 -12207078.65 -12207078.60 0.0089 0.0085

Mars -38135-12-23 11:45 J -12207029.07 -12207029.01 -12207028.90 0.0089 0.0085

Mars -38133-11-16 05:59 J -12206335.48 -12206335.25 -12206334.99 0.0089 0.0049

Mars -38131-10-10 21:50 J -12205641.87 -12205641.59 -12205641.30 0.0089 0.0013

Mars -38129-09-03 13:26 J -12204948.20 -12204947.94 -12204947.64 0.0089 0.0024

Mars -38127-07-29 05:16 J -12204254.47 -12204254.28 -12204254.04 0.0089 0.0060

Venus -38108-05-12 21:35 J -12197391.64 -12197391.60 -12197391.52 0.0088 0.0085

Venus -38108-12-24 10:47 J -12197166.16 -12197166.05 -12197165.92 0.0088 0.0074

Venus -38107-08-06 23:59 J -12196940.65 -12196940.50 -12196940.34 0.0088 0.0063

Venus -38106-03-20 13:26 J -12196715.11 -12196714.94 -12196714.76 0.0088 0.0052

Venus -38106-11-01 02:38 J -12196489.58 -12196489.39 -12196489.19 0.0088 0.0041

Venus -38105-06-13 15:50 J -12196264.04 -12196263.84 -12196263.63 0.0088 0.0030

Venus -38104-01-25 05:02 J -12196038.50 -12196038.29 -12196038.07 0.0088 0.0019

Venus -38104-09-07 18:28 J -12195812.95 -12195812.73 -12195812.51 0.0088 0.0007

Venus -38103-04-21 07:54 J -12195587.39 -12195587.17 -12195586.95 0.0088 0.0004

Venus -38103-12-02 21:06 J -12195361.83 -12195361.62 -12195361.39 0.0088 0.0015

Venus -38102-07-16 10:18 J -12195136.27 -12195136.07 -12195135.85 0.0088 0.0026

Venus -38101-02-26 23:45 J -12194910.70 -12194910.51 -12194910.30 0.0088 0.0037

Venus -38101-10-09 12:57 J -12194685.13 -12194684.96 -12194684.75 0.0088 0.0049

Venus -38100-05-23 02:23 J -12194459.55 -12194459.40 -12194459.22 0.0088 0.0060
 Venus -38099-01-03 15:50 J -12194233.96 -12194233.84 -12194233.69 0.0088 0.0071
 Venus -38099-08-17 05:16 J -12194008.35 -12194008.28 -12194008.18 0.0088 0.0082
 Moon -38065-09-09 10:04 J -12181566.29 -12181566.08 -12181565.85 0.0088 0.0049
 Earth -38065-09-09 12:28 J -12181566.18 -12181565.98 -12181565.77 0.0088 0.0054 *
 Earth -38064-09-12 00:28 J -12181198.73 -12181198.48 -12181198.22 0.0088 0.0015
 Moon -38064-09-12 03:35 J -12181198.59 -12181198.35 -12181198.09 0.0088 0.0020 *
 Moon -38063-09-14 08:38 J -12180831.37 -12180831.14 -12180830.88 0.0088 0.0028
 Earth -38063-09-14 12:14 J -12180831.22 -12180830.99 -12180830.72 0.0088 0.0024 *
 Earth -38062-09-16 23:59 J -12180463.66 -12180463.50 -12180463.29 0.0088 0.0062
 Moon -38062-09-17 03:21 J -12180463.53 -12180463.36 -12180463.13 0.0088 0.0057 *
 Mercury -38057-04-18 06:42 J -12178788.28 -12178788.22 -12178788.16 0.0088 0.0082
 Mercury -38057-07-15 08:38 J -12178700.21 -12178700.14 -12178700.03 0.0088 0.0075
 Mercury -38057-10-11 11:16 J -12178612.12 -12178612.03 -12178611.90 0.0088 0.0067
 Mercury -38056-01-07 13:54 J -12178524.04 -12178523.92 -12178523.79 0.0088 0.0058
 Mercury -38056-04-05 16:33 J -12178435.95 -12178435.81 -12178435.67 0.0088 0.0051
 Mercury -38056-07-02 18:42 J -12178347.85 -12178347.72 -12178347.56 0.0088 0.0043
 Mercury -38056-09-28 21:21 J -12178259.76 -12178259.61 -12178259.45 0.0088 0.0035
 Mercury -38056-12-25 23:45 J -12178171.66 -12178171.51 -12178171.35 0.0088 0.0028
 Mercury -38055-03-24 02:09 J -12178083.57 -12178083.41 -12178083.24 0.0088 0.0020
 Mercury -38055-06-20 04:33 J -12177995.47 -12177995.31 -12177995.14 0.0088 0.0013
 Mercury -38055-09-16 06:57 J -12177907.37 -12177907.21 -12177907.04 0.0088 0.0005
 Mercury -38055-12-13 09:21 J -12177819.27 -12177819.11 -12177818.94 0.0088 0.0004
 Mercury -38054-03-11 11:45 J -12177731.17 -12177731.01 -12177730.84 0.0088 0.0011
 Mercury -38054-06-07 14:09 J -12177643.07 -12177642.91 -12177642.75 0.0088 0.0018
 Mercury -38054-09-03 16:33 J -12177554.97 -12177554.81 -12177554.65 0.0088 0.0026
 Mercury -38054-11-30 18:42 J -12177466.86 -12177466.72 -12177466.56 0.0088 0.0033
 Mercury -38053-02-26 21:06 J -12177378.76 -12177378.62 -12177378.47 0.0088 0.0041
 Mercury -38053-05-24 23:16 J -12177290.66 -12177290.53 -12177290.38 0.0088 0.0048
 Mercury -38053-08-21 01:40 J -12177202.55 -12177202.43 -12177202.30 0.0088 0.0055

Mercury -38053-11-17 04:04 J -12177114.44 -12177114.33 -12177114.21 0.0088 0.0063

Mercury -38052-02-13 05:59 J -12177026.33 -12177026.25 -12177026.13 0.0088 0.0071

Mercury -38052-05-12 08:23 J -12176938.21 -12176938.15 -12176938.06 0.0088 0.0078

Mercury -38052-08-08 10:47 J -12176850.09 -12176850.05 -12176850.00 0.0088 0.0085

Mars -38051-08-27 08:23 J -12176466.25 -12176466.15 -12176465.99 0.0088 0.0082

Mars -38049-07-23 14:52 J -12175770.16 -12175769.88 -12175769.55 0.0088 0.0039

Mars -38047-06-19 23:02 J -12175073.88 -12175073.54 -12175073.19 0.0088 0.0004

Mars -38045-05-16 05:59 J -12174377.50 -12174377.25 -12174376.92 0.0088 0.0048

Venus -38025-02-12 23:45 J -12167165.55 -12167165.51 -12167165.45 0.0089 0.0086

Venus -38025-09-25 12:42 J -12166940.07 -12166939.97 -12166939.84 0.0089 0.0075

Venus -38024-05-09 01:40 J -12166714.57 -12166714.43 -12166714.27 0.0089 0.0064

Venus -38024-12-20 14:23 J -12166489.06 -12166488.90 -12166488.72 0.0089 0.0053

Venus -38023-08-03 03:06 J -12166263.55 -12166263.37 -12166263.17 0.0089 0.0042

Venus -38022-03-16 16:04 J -12166038.03 -12166037.83 -12166037.62 0.0089 0.0031

Venus -38022-10-28 04:47 J -12165812.50 -12165812.30 -12165812.08 0.0089 0.0020

Venus -38021-06-09 17:30 J -12165586.98 -12165586.77 -12165586.54 0.0089 0.0009

Venus -38020-01-21 06:14 J -12165361.45 -12165361.24 -12165361.02 0.0089 0.0003

Venus -38020-09-03 18:57 J -12165135.92 -12165135.71 -12165135.49 0.0089 0.0013

Venus -38019-04-17 07:40 J -12164910.39 -12164910.18 -12164909.97 0.0089 0.0024

Venus -38019-11-28 20:09 J -12164684.85 -12164684.66 -12164684.46 0.0089 0.0035

Venus -38018-07-12 08:38 J -12164459.32 -12164459.14 -12164458.95 0.0089 0.0046

Venus -38017-02-22 21:06 J -12164233.77 -12164233.62 -12164233.44 0.0089 0.0058

Venus -38017-10-05 09:50 J -12164008.22 -12164008.09 -12164007.94 0.0089 0.0068

Venus -38016-05-18 22:18 J -12163782.65 -12163782.57 -12163782.46 0.0089 0.0079

Jupiter -38013-07-12 03:50 J -12162632.80 -12162632.34 -12162631.85 0.0089 0.0035

38TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 38th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-37983-03-08 04:33 J	-12151801.44	-12151801.31	-12151801.11	0.0089	0.0070		
Earth	-37983-03-08 08:23 J	-12151801.30	-12151801.15	-12151800.97	0.0089	0.0069	*	
Earth	-37982-03-10 19:54 J	-12151433.91	-12151433.67	-12151433.43	0.0089	0.0030		
Moon	-37982-03-10 23:02 J	-12151433.76	-12151433.54	-12151433.28	0.0089	0.0031	*	
Moon	-37981-03-12 03:35 J	-12151066.59	-12151066.35	-12151066.09	0.0089	0.0010		
Earth	-37981-03-12 06:57 J	-12151066.46	-12151066.21	-12151065.95	0.0089	0.0009	*	
Earth	-37980-03-14 17:45 J	-12150698.95	-12150698.76	-12150698.52	0.0089	0.0049		
Moon	-37980-03-14 20:52 J	-12150698.83	-12150698.63	-12150698.39	0.0089	0.0049	*	
Moon	-37979-03-17 03:21 J	-12150331.38	-12150331.36	-12150331.27	0.0089	0.0088		
Earth	-37979-03-17 05:02 J	-12150331.32	-12150331.29	-12150331.21	0.0089	0.0087	*	
Mercury	-37976-07-20 19:26 J	-12149109.69	-12149109.69	-12149109.65	0.0089	0.0088		
Mercury	-37976-10-16 21:21 J	-12149021.66	-12149021.61	-12149021.54	0.0089	0.0081		
Mercury	-37975-01-12 23:16 J	-12148933.60	-12148933.53	-12148933.44	0.0089	0.0074		
Mercury	-37975-04-11 01:11 J	-12148845.54	-12148845.45	-12148845.35	0.0089	0.0067		
Mercury	-37975-07-08 03:06 J	-12148757.47	-12148757.37	-12148757.26	0.0089	0.0060		
Mercury	-37975-10-04 05:02 J	-12148669.40	-12148669.29	-12148669.17	0.0089	0.0053		
Mercury	-37975-12-31 06:57 J	-12148581.34	-12148581.21	-12148581.08	0.0089	0.0046		
Mercury	-37974-03-29 08:52 J	-12148493.26	-12148493.13	-12148493.00	0.0089	0.0039		
Mercury	-37974-06-25 10:47 J	-12148405.19	-12148405.05	-12148404.91	0.0089	0.0032		
Mercury	-37974-09-21 12:42 J	-12148317.12	-12148316.97	-12148316.83	0.0089	0.0025		
Mercury	-37974-12-18 14:38 J	-12148229.04	-12148228.89	-12148228.74	0.0089	0.0018		

Mercury -37973-03-15 16:33 J -12148140.96 -12148140.81 -12148140.66 0.0089 0.0011

Mercury -37973-06-11 18:28 J -12148052.88 -12148052.73 -12148052.58 0.0089 0.0004

Mercury -37973-09-07 20:23 J -12147964.80 -12147964.65 -12147964.50 0.0089 0.0003

Mercury -37973-12-04 22:18 J -12147876.72 -12147876.57 -12147876.42 0.0089 0.0010

Mercury -37972-03-03 00:14 J -12147788.64 -12147788.49 -12147788.34 0.0089 0.0018

Mercury -37972-05-30 02:09 J -12147700.55 -12147700.41 -12147700.26 0.0089 0.0025

Mercury -37972-08-26 04:04 J -12147612.47 -12147612.33 -12147612.18 0.0089 0.0032

Mercury -37972-11-22 06:14 J -12147524.38 -12147524.24 -12147524.11 0.0089 0.0039

Mercury -37971-02-18 07:54 J -12147436.29 -12147436.17 -12147436.03 0.0089 0.0047

Mercury -37971-05-17 09:50 J -12147348.20 -12147348.09 -12147347.95 0.0089 0.0054

Mercury -37971-08-13 11:59 J -12147260.10 -12147260.00 -12147259.88 0.0089 0.0061

Mercury -37971-11-09 14:09 J -12147172.00 -12147171.91 -12147171.81 0.0089 0.0068

Mercury -37970-02-05 15:50 J -12147083.90 -12147083.84 -12147083.75 0.0089 0.0076

Mercury -37970-05-04 17:59 J -12146995.79 -12146995.75 -12146995.69 0.0089 0.0083

Mars -37969-07-01 21:21 J -12146571.80 -12146571.61 -12146571.40 0.0089 0.0064

Mars -37967-05-26 15:06 J -12145878.14 -12145877.87 -12145877.58 0.0089 0.0028

Mars -37965-04-19 07:40 J -12145184.46 -12145184.18 -12145183.88 0.0089 0.0009

Mars -37963-03-13 23:02 J -12144490.76 -12144490.54 -12144490.26 0.0089 0.0046

Mars -37961-02-05 15:06 J -12143796.95 -12143796.87 -12143796.72 0.0089 0.0082

Venus -37944-08-14 09:35 J -12137397.11 -12137397.10 -12137397.06 0.0088 0.0088

Venus -37943-03-27 22:33 J -12137171.64 -12137171.56 -12137171.43 0.0088 0.0078

Venus -37943-11-08 11:45 J -12136946.13 -12136946.01 -12136945.84 0.0088 0.0067

Venus -37942-06-22 00:57 J -12136720.62 -12136720.46 -12136720.27 0.0088 0.0056

Venus -37941-02-02 14:09 J -12136495.09 -12136494.91 -12136494.71 0.0088 0.0045

Venus -37941-09-15 03:21 J -12136269.55 -12136269.36 -12136269.14 0.0088 0.0034

Venus -37940-04-28 16:47 J -12136044.01 -12136043.80 -12136043.58 0.0088 0.0023

Venus -37940-12-10 05:59 J -12135818.46 -12135818.25 -12135818.02 0.0088 0.0012

Venus -37939-07-23 19:26 J -12135592.91 -12135592.69 -12135592.47 0.0088 0.0001

Venus -37938-03-06 08:52 J -12135367.35 -12135367.13 -12135366.91 0.0088 0.0011

Venus -37938-10-17 22:04 J -12135141.79 -12135141.58 -12135141.36 0.0088 0.0022

Venus	-37937-05-30 11:30 J	-12134916.23	-12134916.02	-12134915.81	0.0088	0.0033
Venus	-37936-01-11 00:42 J	-12134690.66	-12134690.47	-12134690.27	0.0088	0.0044
Venus	-37936-08-24 14:09 J	-12134465.08	-12134464.91	-12134464.73	0.0088	0.0055
Venus	-37935-04-07 03:35 J	-12134239.49	-12134239.35	-12134239.19	0.0088	0.0066
Venus	-37935-11-18 17:02 J	-12134013.89	-12134013.79	-12134013.67	0.0088	0.0077
Venus	-37934-07-02 06:28 J	-12133788.24	-12133788.23	-12133788.19	0.0088	0.0088
Earth	-37901-09-08 23:16 J	-12121665.66	-12121665.53	-12121665.36	0.0088	0.0071
Moon	-37901-09-09 02:38 J	-12121665.53	-12121665.39	-12121665.22	0.0088	0.0070 *
Moon	-37900-09-11 07:40 J	-12121298.40	-12121298.18	-12121297.93	0.0088	0.0035
Earth	-37900-09-11 11:16 J	-12121298.25	-12121298.03	-12121297.77	0.0088	0.0033 *
Earth	-37899-09-13 23:45 J	-12120930.77	-12120930.51	-12120930.25	0.0088	0.0006
Moon	-37899-09-14 03:06 J	-12120930.63	-12120930.37	-12120930.11	0.0088	0.0007 *
Moon	-37898-09-16 08:38 J	-12120563.34	-12120563.14	-12120562.89	0.0088	0.0044
Earth	-37898-09-16 11:30 J	-12120563.23	-12120563.02	-12120562.78	0.0088	0.0044 *
Earth	-37897-09-17 23:16 J	-12120195.60	-12120195.53	-12120195.42	0.0088	0.0082
Moon	-37897-09-18 01:11 J	-12120195.51	-12120195.45	-12120195.33	0.0088	0.0083 *
Mercury	-37893-10-17 03:50 J	-12118705.39	-12118705.34	-12118705.29	0.0088	0.0084
Mercury	-37892-01-13 05:59 J	-12118617.32	-12118617.25	-12118617.15	0.0088	0.0076
Mercury	-37892-04-11 08:38 J	-12118529.23	-12118529.14	-12118529.02	0.0088	0.0068
Mercury	-37892-07-08 11:02 J	-12118441.15	-12118441.04	-12118440.90	0.0088	0.0061
Mercury	-37892-10-04 13:40 J	-12118353.06	-12118352.93	-12118352.79	0.0088	0.0053
Mercury	-37892-12-31 16:18 J	-12118264.96	-12118264.82	-12118264.68	0.0088	0.0045
Mercury	-37891-03-29 18:28 J	-12118176.87	-12118176.73	-12118176.57	0.0088	0.0038
Mercury	-37891-06-25 21:06 J	-12118088.77	-12118088.62	-12118088.46	0.0088	0.0029
Mercury	-37891-09-21 23:30 J	-12118000.68	-12118000.52	-12118000.35	0.0088	0.0022
Mercury	-37891-12-19 01:54 J	-12117912.58	-12117912.42	-12117912.25	0.0088	0.0014
Mercury	-37890-03-17 04:33 J	-12117824.48	-12117824.31	-12117824.15	0.0088	0.0007
Mercury	-37890-06-13 06:57 J	-12117736.38	-12117736.21	-12117736.05	0.0088	0.0002
Mercury	-37890-09-09 09:06 J	-12117648.28	-12117648.12	-12117647.95	0.0088	0.0009
Mercury	-37890-12-06 11:30 J	-12117560.18	-12117560.02	-12117559.85	0.0088	0.0016

Mercury -37889-03-03 13:40 J -12117472.08 -12117471.93 -12117471.76 0.0088 0.0025

Mercury -37889-05-30 16:04 J -12117383.97 -12117383.83 -12117383.67 0.0088 0.0032

Mercury -37889-08-26 18:28 J -12117295.87 -12117295.73 -12117295.58 0.0088 0.0039

Mercury -37889-11-22 20:52 J -12117207.76 -12117207.63 -12117207.49 0.0088 0.0046

Mercury -37888-02-18 23:16 J -12117119.66 -12117119.53 -12117119.40 0.0088 0.0054

Mercury -37888-05-18 01:11 J -12117031.55 -12117031.45 -12117031.32 0.0088 0.0062

Mercury -37888-08-14 03:35 J -12116943.44 -12116943.35 -12116943.24 0.0088 0.0069

Mercury -37888-11-10 05:59 J -12116855.32 -12116855.25 -12116855.16 0.0088 0.0076

Mercury -37887-02-06 08:09 J -12116767.20 -12116767.16 -12116767.09 0.0088 0.0083

Mars -37885-03-06 07:26 J -12116008.44 -12116008.19 -12116007.92 0.0088 0.0057

Mars -37883-01-31 14:09 J -12115312.24 -12115311.91 -12115311.56 0.0088 0.0014

Mars -37882-12-28 21:21 J -12114615.90 -12114615.61 -12114615.26 0.0088 0.0031

Mars -37880-11-24 05:16 J -12113919.44 -12113919.28 -12113919.06 0.0089 0.0074

Venus -37861-12-28 00:57 J -12106945.56 -12106945.46 -12106945.36 0.0089 0.0078

Venus -37860-08-10 13:26 J -12106720.06 -12106719.94 -12106719.78 0.0089 0.0068

Venus -37859-03-24 02:23 J -12106494.55 -12106494.40 -12106494.21 0.0089 0.0057

Venus -37859-11-04 15:21 J -12106269.03 -12106268.86 -12106268.65 0.0089 0.0046

Venus -37858-06-18 04:18 J -12106043.51 -12106043.32 -12106043.11 0.0089 0.0035

Venus -37857-01-29 17:02 J -12105817.99 -12105817.79 -12105817.56 0.0089 0.0024

Venus -37857-09-11 05:59 J -12105592.46 -12105592.25 -12105592.02 0.0089 0.0013

Venus -37856-04-24 18:57 J -12105366.93 -12105366.71 -12105366.49 0.0089 0.0002

Venus -37856-12-06 07:40 J -12105141.40 -12105141.18 -12105140.97 0.0089 0.0009

Venus -37855-07-19 20:09 J -12104915.87 -12104915.66 -12104915.44 0.0089 0.0020

Venus -37854-03-02 08:38 J -12104690.33 -12104690.14 -12104689.93 0.0089 0.0031

Venus -37854-10-13 21:21 J -12104464.79 -12104464.61 -12104464.41 0.0089 0.0042

Venus -37853-05-26 09:50 J -12104239.25 -12104239.09 -12104238.90 0.0089 0.0053

Venus -37852-01-06 22:04 J -12104013.70 -12104013.58 -12104013.40 0.0089 0.0065

Venus -37852-08-20 11:02 J -12103788.15 -12103788.04 -12103787.91 0.0089 0.0075

Venus -37851-04-02 23:30 J -12103562.57 -12103562.52 -12103562.45 0.0089 0.0085

Jupiter -37847-09-10 00:57 J -12101941.96 -12101941.46 -12101940.94 0.0089 0.0014

Earth -37819-03-07 20:09 J -12091900.71 -12091900.66 -12091900.59 0.0089 0.0087
 Moon -37818-03-10 03:50 J -12091533.54 -12091533.34 -12091533.10 0.0089 0.0044
 Earth -37818-03-10 07:40 J -12091533.40 -12091533.18 -12091532.97 0.0089 0.0048 *
 Earth -37817-03-11 18:57 J -12091165.97 -12091165.71 -12091165.46 0.0089 0.0009
 Moon -37817-03-11 21:06 J -12091165.88 -12091165.62 -12091165.36 0.0089 0.0013 *
 Moon -37816-03-14 04:04 J -12090798.54 -12090798.33 -12090798.08 0.0089 0.0036
 Earth -37816-03-14 05:59 J -12090798.48 -12090798.25 -12090798.00 0.0089 0.0031 *
 Moon -37815-03-16 17:16 J -12090430.95 -12090430.78 -12090430.59 0.0089 0.0065
 Earth -37815-03-16 17:02 J -12090430.93 -12090430.79 -12090430.62 0.0089 0.0070 *
 Mercury -37811-04-16 19:11 J -12088938.73 -12088938.70 -12088938.63 0.0089 0.0083
 Mercury -37811-07-13 21:06 J -12088850.68 -12088850.62 -12088850.53 0.0089 0.0076
 Mercury -37811-10-09 23:02 J -12088762.62 -12088762.54 -12088762.44 0.0089 0.0069
 Mercury -37810-01-06 00:57 J -12088674.56 -12088674.46 -12088674.35 0.0089 0.0062
 Mercury -37810-04-04 02:52 J -12088586.49 -12088586.38 -12088586.26 0.0089 0.0055
 Mercury -37810-07-01 04:47 J -12088498.42 -12088498.30 -12088498.17 0.0089 0.0048
 Mercury -37810-09-27 06:42 J -12088410.35 -12088410.22 -12088410.09 0.0089 0.0041
 Mercury -37810-12-24 08:38 J -12088322.28 -12088322.14 -12088322.00 0.0089 0.0034
 Mercury -37809-03-21 10:33 J -12088234.20 -12088234.06 -12088233.92 0.0089 0.0027
 Mercury -37809-06-17 12:28 J -12088146.13 -12088145.98 -12088145.84 0.0089 0.0020
 Mercury -37809-09-13 14:23 J -12088058.05 -12088057.90 -12088057.75 0.0089 0.0013
 Mercury -37809-12-10 16:18 J -12087969.97 -12087969.82 -12087969.67 0.0089 0.0006
 Mercury -37808-03-08 18:14 J -12087881.89 -12087881.74 -12087881.59 0.0089 0.0002
 Mercury -37808-06-04 20:09 J -12087793.81 -12087793.66 -12087793.51 0.0089 0.0008
 Mercury -37808-08-31 22:04 J -12087705.73 -12087705.58 -12087705.43 0.0089 0.0015
 Mercury -37808-11-27 23:45 J -12087617.65 -12087617.51 -12087617.35 0.0089 0.0023
 Mercury -37807-02-24 01:54 J -12087529.56 -12087529.42 -12087529.28 0.0089 0.0030
 Mercury -37807-05-23 03:50 J -12087441.47 -12087441.34 -12087441.20 0.0089 0.0037
 Mercury -37807-08-19 05:45 J -12087353.39 -12087353.26 -12087353.12 0.0089 0.0045
 Mercury -37807-11-15 07:40 J -12087265.29 -12087265.18 -12087265.05 0.0089 0.0052
 Mercury -37806-02-11 09:35 J -12087177.20 -12087177.10 -12087176.97 0.0089 0.0059

Mercury -37806-05-10 11:45 J -12087089.11 -12087089.01 -12087088.90 0.0089 0.0066

Mercury -37806-08-06 13:26 J -12087001.00 -12087000.94 -12087000.84 0.0089 0.0074

Mercury -37806-11-02 15:35 J -12086912.90 -12086912.85 -12086912.78 0.0089 0.0081

Mercury -37805-01-29 17:45 J -12086824.77 -12086824.76 -12086824.74 0.0089 0.0088

Mars -37805-02-15 13:54 J -12086808.02 -12086807.92 -12086807.77 0.0089 0.0080

Mars -37803-01-09 06:57 J -12086114.45 -12086114.21 -12086113.94 0.0089 0.0043

Mars -37802-12-04 00:14 J -12085420.78 -12085420.49 -12085420.20 0.0089 0.0006

Mars -37800-10-27 16:47 J -12084727.05 -12084726.80 -12084726.51 0.0089 0.0031

Mars -37798-09-21 07:26 J -12084033.34 -12084033.19 -12084032.97 0.0089 0.0068

Venus -37779-06-29 10:33 J -12077177.13 -12077177.06 -12077176.94 0.0088 0.0081

Venus -37778-02-09 23:45 J -12076951.62 -12076951.51 -12076951.35 0.0088 0.0070

Venus -37778-09-23 13:11 J -12076726.11 -12076725.95 -12076725.78 0.0088 0.0059

Venus -37777-05-06 02:38 J -12076500.58 -12076500.39 -12076500.21 0.0088 0.0048

Venus -37777-12-17 15:21 J -12076275.05 -12076274.86 -12076274.65 0.0088 0.0037

Venus -37776-07-31 04:33 J -12076049.51 -12076049.31 -12076049.09 0.0088 0.0026

Venus -37775-03-13 17:59 J -12075823.97 -12075823.75 -12075823.53 0.0088 0.0015

Venus -37775-10-25 07:11 J -12075598.42 -12075598.20 -12075597.97 0.0088 0.0005

Venus -37774-06-07 20:23 J -12075372.87 -12075372.65 -12075372.42 0.0088 0.0007

Venus -37773-01-19 09:35 J -12075147.31 -12075147.10 -12075146.88 0.0088 0.0017

Venus -37773-08-31 22:47 J -12074921.75 -12074921.55 -12074921.33 0.0088 0.0028

Venus -37772-04-14 11:59 J -12074696.18 -12074696.00 -12074695.78 0.0088 0.0040

Venus -37772-11-26 01:26 J -12074470.61 -12074470.44 -12074470.24 0.0088 0.0050

Venus -37771-07-09 14:38 J -12074245.03 -12074244.89 -12074244.71 0.0088 0.0062

Venus -37770-02-20 04:33 J -12074019.44 -12074019.31 -12074019.18 0.0088 0.0072

Venus -37770-10-03 17:45 J -12073793.82 -12073793.76 -12073793.67 0.0088 0.0083

Earth -37736-09-10 22:33 J -12061397.76 -12061397.56 -12061397.34 0.0088 0.0051

Moon -37736-09-11 01:54 J -12061397.63 -12061397.42 -12061397.18 0.0088 0.0046 *

Moon -37735-09-13 08:09 J -12061030.40 -12061030.16 -12061029.90 0.0088 0.0017

Earth -37735-09-13 10:47 J -12061030.30 -12061030.05 -12061029.79 0.0088 0.0012 *

Earth -37734-09-15 22:33 J -12060662.80 -12060662.56 -12060662.31 0.0088 0.0027

Moon -37734-09-15 23:45 J -12060662.75 -12060662.51 -12060662.24 0.0088 0.0031 *
 Moon -37733-09-17 09:35 J -12060295.26 -12060295.10 -12060294.90 0.0088 0.0061
 Earth -37733-09-17 10:04 J -12060295.23 -12060295.08 -12060294.88 0.0088 0.0066 *
 Mercury -37728-04-17 00:28 J -12058622.49 -12058622.48 -12058622.43 0.0088 0.0087
 Mercury -37728-07-14 03:06 J -12058534.43 -12058534.37 -12058534.28 0.0088 0.0079
 Mercury -37728-10-10 05:45 J -12058446.35 -12058446.26 -12058446.15 0.0088 0.0071
 Mercury -37727-01-06 08:23 J -12058358.26 -12058358.15 -12058358.03 0.0088 0.0063
 Mercury -37727-04-04 11:02 J -12058270.17 -12058270.04 -12058269.91 0.0088 0.0055
 Mercury -37727-07-01 13:11 J -12058182.08 -12058181.95 -12058181.80 0.0088 0.0047
 Mercury -37727-09-27 15:50 J -12058093.99 -12058093.84 -12058093.69 0.0088 0.0039
 Mercury -37727-12-24 18:14 J -12058005.89 -12058005.74 -12058005.58 0.0088 0.0032
 Mercury -37726-03-22 20:52 J -12057917.79 -12057917.63 -12057917.47 0.0088 0.0024
 Mercury -37726-06-18 23:16 J -12057829.69 -12057829.53 -12057829.37 0.0088 0.0016
 Mercury -37726-09-15 01:40 J -12057741.60 -12057741.43 -12057741.26 0.0088 0.0008
 Mercury -37726-12-12 04:04 J -12057653.50 -12057653.33 -12057653.16 0.0088 0.0001
 Mercury -37725-03-09 06:28 J -12057565.40 -12057565.23 -12057565.07 0.0088 0.0007
 Mercury -37725-06-05 08:52 J -12057477.29 -12057477.13 -12057476.97 0.0088 0.0014
 Mercury -37725-09-01 11:02 J -12057389.19 -12057389.04 -12057388.87 0.0088 0.0022
 Mercury -37725-11-28 13:26 J -12057301.09 -12057300.94 -12057300.78 0.0088 0.0030
 Mercury -37724-02-24 15:35 J -12057212.98 -12057212.85 -12057212.69 0.0088 0.0038
 Mercury -37724-05-23 18:14 J -12057124.88 -12057124.74 -12057124.60 0.0088 0.0044
 Mercury -37724-08-19 20:23 J -12057036.77 -12057036.65 -12057036.51 0.0088 0.0052
 Mercury -37724-11-15 22:47 J -12056948.66 -12056948.55 -12056948.42 0.0088 0.0059
 Mercury -37723-02-12 01:11 J -12056860.55 -12056860.45 -12056860.34 0.0088 0.0067
 Mercury -37723-05-11 03:06 J -12056772.44 -12056772.37 -12056772.26 0.0088 0.0075
 Mercury -37723-08-07 05:30 J -12056684.32 -12056684.27 -12056684.19 0.0088 0.0082
 Mars -37722-10-18 23:02 J -12056246.68 -12056246.54 -12056246.33 0.0088 0.0076
 Mars -37720-09-14 05:45 J -12055550.57 -12055550.26 -12055549.93 0.0088 0.0032
 Mars -37718-08-11 12:28 J -12054854.30 -12054853.98 -12054853.63 0.0088 0.0013
 Mars -37716-07-07 19:40 J -12054157.91 -12054157.68 -12054157.38 0.0088 0.0057

Venus	-37696-03-31 12:28 J	-12046951.04	-12046950.98	-12046950.88	0.0089	0.0082
Venus	-37696-11-12 01:26 J	-12046725.55	-12046725.44	-12046725.29	0.0089	0.0071
Venus	-37695-06-25 14:23 J	-12046500.05	-12046499.90	-12046499.73	0.0089	0.0060
Venus	-37694-02-06 03:21 J	-12046274.53	-12046274.36	-12046274.17	0.0089	0.0049
Venus	-37694-09-19 16:33 J	-12046049.01	-12046048.81	-12046048.61	0.0089	0.0038
Venus	-37693-05-02 05:02 J	-12045823.48	-12045823.29	-12045823.07	0.0089	0.0028
Venus	-37693-12-13 17:59 J	-12045597.96	-12045597.75	-12045597.53	0.0089	0.0017
Venus	-37692-07-27 06:57 J	-12045372.43	-12045372.21	-12045371.99	0.0089	0.0006
Venus	-37691-03-09 19:40 J	-12045146.90	-12045146.68	-12045146.46	0.0089	0.0005
Venus	-37691-10-21 08:23 J	-12044921.36	-12044921.15	-12044920.93	0.0089	0.0016
Venus	-37690-06-03 20:52 J	-12044695.82	-12044695.63	-12044695.41	0.0089	0.0027
Venus	-37689-01-15 09:21 J	-12044470.29	-12044470.11	-12044469.89	0.0089	0.0038
Venus	-37689-08-27 22:18 J	-12044244.75	-12044244.57	-12044244.38	0.0089	0.0048
Venus	-37688-04-10 10:47 J	-12044019.20	-12044019.05	-12044018.88	0.0089	0.0059
Venus	-37688-11-21 23:16 J	-12043793.64	-12043793.53	-12043793.38	0.0089	0.0070
Venus	-37687-07-05 11:59 J	-12043568.08	-12043568.00	-12043567.90	0.0089	0.0081
Jupiter	-37681-11-08 09:35 J	-12041250.43	-12041250.10	-12041249.71	0.0089	0.0064
Earth	-37654-03-09 18:14 J	-12031632.89	-12031632.74	-12031632.55	0.0089	0.0066
Moon	-37654-03-09 20:23 J	-12031632.80	-12031632.65	-12031632.45	0.0089	0.0067 *
Moon	-37653-03-11 04:47 J	-12031265.52	-12031265.30	-12031265.05	0.0089	0.0029
Earth	-37653-03-11 05:45 J	-12031265.49	-12031265.26	-12031265.00	0.0089	0.0027 *
Moon	-37652-03-13 17:16 J	-12030898.04	-12030897.78	-12030897.51	0.0089	0.0012
Earth	-37652-03-13 17:16 J	-12030898.03	-12030897.78	-12030897.52	0.0089	0.0012 *
Earth	-37651-03-16 04:18 J	-12030530.52	-12030530.32	-12030530.10	0.0089	0.0051
Moon	-37651-03-16 05:45 J	-12030530.46	-12030530.26	-12030530.05	0.0089	0.0051 *
Mercury	-37647-10-15 17:16 J	-12028855.81	-12028855.78	-12028855.72	0.0089	0.0085
Mercury	-37646-01-11 19:11 J	-12028767.76	-12028767.70	-12028767.62	0.0089	0.0078
Mercury	-37646-04-09 20:52 J	-12028679.70	-12028679.63	-12028679.53	0.0089	0.0072
Mercury	-37646-07-06 22:47 J	-12028591.64	-12028591.55	-12028591.44	0.0089	0.0064
Mercury	-37646-10-03 00:42 J	-12028503.58	-12028503.47	-12028503.35	0.0089	0.0057

Mercury -37646-12-30 02:38 J -12028415.51 -12028415.39 -12028415.26 0.0089 0.0050
 Mercury -37645-03-27 04:33 J -12028327.44 -12028327.31 -12028327.18 0.0089 0.0043
 Mercury -37645-06-23 06:28 J -12028239.37 -12028239.23 -12028239.09 0.0089 0.0036
 Mercury -37645-09-19 08:23 J -12028151.29 -12028151.15 -12028151.01 0.0089 0.0029
 Mercury -37645-12-16 10:18 J -12028063.22 -12028063.07 -12028062.93 0.0089 0.0022
 Mercury -37644-03-14 12:14 J -12027975.14 -12027974.99 -12027974.85 0.0089 0.0015
 Mercury -37644-06-10 13:54 J -12027887.06 -12027886.92 -12027886.77 0.0089 0.0009
 Mercury -37644-09-06 15:50 J -12027798.99 -12027798.84 -12027798.68 0.0089 0.0003
 Mercury -37644-12-03 17:45 J -12027710.91 -12027710.76 -12027710.60 0.0089 0.0007
 Mercury -37643-03-01 19:54 J -12027622.82 -12027622.67 -12027622.53 0.0089 0.0013
 Mercury -37643-05-28 21:50 J -12027534.74 -12027534.59 -12027534.45 0.0089 0.0021
 Mercury -37643-08-24 23:30 J -12027446.66 -12027446.52 -12027446.37 0.0089 0.0028
 Mercury -37643-11-21 01:26 J -12027358.57 -12027358.44 -12027358.29 0.0089 0.0035
 Mercury -37642-02-17 03:35 J -12027270.48 -12027270.35 -12027270.22 0.0089 0.0042
 Mercury -37642-05-16 05:30 J -12027182.39 -12027182.27 -12027182.14 0.0089 0.0049
 Mercury -37642-08-12 07:11 J -12027094.30 -12027094.20 -12027094.07 0.0089 0.0057
 Mercury -37642-11-08 09:21 J -12027006.21 -12027006.11 -12027006.00 0.0089 0.0064
 Mercury -37641-02-04 11:30 J -12026918.11 -12026918.02 -12026917.93 0.0089 0.0071
 Mercury -37641-05-02 13:11 J -12026830.00 -12026829.95 -12026829.86 0.0089 0.0079
 Mercury -37641-07-29 15:21 J -12026741.88 -12026741.86 -12026741.81 0.0089 0.0086
 Mars -37640-08-24 23:16 J -12026350.73 -12026350.53 -12026350.29 0.0089 0.0059
 Mars -37638-07-19 16:04 J -12025657.10 -12025656.83 -12025656.54 0.0089 0.0022
 Mars -37636-06-12 08:23 J -12024963.42 -12024963.15 -12024962.85 0.0089 0.0016
 Mars -37634-05-07 01:40 J -12024269.64 -12024269.43 -12024269.18 0.0089 0.0053
 Venus -37615-09-30 22:18 J -12017182.62 -12017182.57 -12017182.48 0.0088 0.0084
 Venus -37614-05-14 11:45 J -12016957.13 -12016957.01 -12016956.88 0.0088 0.0073
 Venus -37614-12-26 00:28 J -12016731.61 -12016731.48 -12016731.30 0.0088 0.0063
 Venus -37613-08-07 13:54 J -12016506.09 -12016505.92 -12016505.73 0.0088 0.0052
 Venus -37612-03-21 03:21 J -12016280.55 -12016280.36 -12016280.16 0.0088 0.0041
 Venus -37612-11-01 16:18 J -12016055.02 -12016054.82 -12016054.60 0.0088 0.0030

Venus	-37611-06-15 05:30 J	-12015829.48	-12015829.27	-12015829.04	0.0088	0.0020
Venus	-37610-01-26 18:57 J	-12015603.93	-12015603.71	-12015603.49	0.0088	0.0009
Venus	-37610-09-09 08:09 J	-12015378.38	-12015378.16	-12015377.94	0.0088	0.0002
Venus	-37609-04-21 21:21 J	-12015152.83	-12015152.61	-12015152.39	0.0088	0.0013
Venus	-37609-12-03 10:18 J	-12014927.27	-12014927.07	-12014926.84	0.0088	0.0025
Venus	-37608-07-16 23:45 J	-12014701.71	-12014701.51	-12014701.30	0.0088	0.0035
Venus	-37607-02-27 12:57 J	-12014476.14	-12014475.96	-12014475.75	0.0088	0.0046
Venus	-37607-10-11 02:09 J	-12014250.56	-12014250.41	-12014250.22	0.0088	0.0057
Venus	-37606-05-24 15:35 J	-12014024.97	-12014024.85	-12014024.69	0.0088	0.0067
Venus	-37605-01-05 05:16 J	-12013799.38	-12013799.28	-12013799.17	0.0088	0.0078
Moon	-37572-09-10 06:57 J	-12001497.34	-12001497.21	-12001497.02	0.0088	0.0067
Earth	-37572-09-10 09:35 J	-12001497.24	-12001497.10	-12001496.92	0.0088	0.0069 *
Earth	-37571-09-12 21:35 J	-12001129.83	-12001129.60	-12001129.34	0.0088	0.0030
Moon	-37571-09-12 23:16 J	-12001129.78	-12001129.53	-12001129.28	0.0088	0.0032 *
Earth	-37570-09-15 09:50 J	-12000762.35	-12000762.09	-12000761.83	0.0088	0.0009
Moon	-37570-09-15 10:04 J	-12000762.32	-12000762.08	-12000761.82	0.0088	0.0011 *
Moon	-37569-09-16 20:09 J	-12000394.87	-12000394.66	-12000394.41	0.0088	0.0046
Earth	-37569-09-16 21:35 J	-12000394.81	-12000394.60	-12000394.37	0.0088	0.0047 *
Earth	-37568-09-19 08:52 J	-12000027.15	-12000027.13	-12000027.04	0.0088	0.0087
Moon	-37568-09-19 11:30 J	-12000027.02	-12000027.02	-12000026.98	0.0088	0.0088
Mercury	-37563-01-12 00:28 J	-11998451.54	-11998451.48	-11998451.41	0.0088	0.0081
Mercury	-37563-04-10 02:38 J	-11998363.47	-11998363.39	-11998363.28	0.0088	0.0073
Mercury	-37563-07-07 05:16 J	-11998275.38	-11998275.28	-11998275.15	0.0088	0.0065
Mercury	-37563-10-03 07:40 J	-11998187.29	-11998187.18	-11998187.03	0.0088	0.0058
Mercury	-37563-12-30 10:18 J	-11998099.20	-11998099.07	-11998098.92	0.0088	0.0050
Mercury	-37562-03-28 12:57 J	-11998011.10	-11998010.96	-11998010.81	0.0088	0.0041
Mercury	-37562-06-24 15:35 J	-11997923.01	-11997922.85	-11997922.70	0.0088	0.0034
Mercury	-37562-09-20 17:45 J	-11997834.91	-11997834.76	-11997834.59	0.0088	0.0026
Mercury	-37562-12-17 20:23 J	-11997746.81	-11997746.65	-11997746.48	0.0088	0.0018
Mercury	-37561-03-14 22:47 J	-11997658.71	-11997658.55	-11997658.38	0.0088	0.0011

Mercury -37561-06-11 01:11 J -11997570.61 -11997570.45 -11997570.28 0.0088 0.0004

Mercury -37561-09-07 03:35 J -11997482.51 -11997482.35 -11997482.18 0.0088 0.0006

Mercury -37561-12-04 05:59 J -11997394.41 -11997394.25 -11997394.08 0.0088 0.0013

Mercury -37560-03-02 08:23 J -11997306.31 -11997306.15 -11997305.98 0.0088 0.0020

Mercury -37560-05-29 10:47 J -11997218.20 -11997218.05 -11997217.89 0.0088 0.0028

Mercury -37560-08-25 12:57 J -11997130.10 -11997129.96 -11997129.80 0.0088 0.0036

Mercury -37560-11-21 15:35 J -11997041.99 -11997041.85 -11997041.71 0.0088 0.0043

Mercury -37559-02-17 17:45 J -11996953.89 -11996953.76 -11996953.62 0.0088 0.0050

Mercury -37559-05-16 20:09 J -11996865.78 -11996865.66 -11996865.53 0.0088 0.0057

Mercury -37559-08-12 22:33 J -11996777.67 -11996777.56 -11996777.45 0.0088 0.0065

Mercury -37559-11-09 00:28 J -11996689.55 -11996689.48 -11996689.37 0.0088 0.0073

Mercury -37558-02-05 02:52 J -11996601.43 -11996601.38 -11996601.30 0.0088 0.0080

Mercury -37558-05-04 05:30 J -11996513.30 -11996513.27 -11996513.24 0.0088 0.0087

Mars -37556-04-27 20:09 J -11995788.91 -11995788.66 -11995788.35 0.0088 0.0051

Mars -37554-03-25 02:38 J -11995092.72 -11995092.39 -11995092.04 0.0088 0.0007

Mars -37552-02-18 09:21 J -11994396.39 -11994396.11 -11994395.77 0.0088 0.0039

Mars -37550-01-15 16:47 J -11993699.88 -11993699.80 -11993699.64 0.0088 0.0083

Venus -37532-07-03 00:28 J -11986956.52 -11986956.48 -11986956.40 0.0089 0.0085

Venus -37531-02-13 13:40 J -11986731.04 -11986730.93 -11986730.81 0.0089 0.0074

Venus -37531-09-27 02:23 J -11986505.54 -11986505.40 -11986505.23 0.0089 0.0064

Venus -37530-05-10 15:21 J -11986280.02 -11986279.86 -11986279.67 0.0089 0.0053

Venus -37530-12-22 04:18 J -11986054.51 -11986054.32 -11986054.12 0.0089 0.0042

Venus -37529-08-03 16:47 J -11985828.99 -11985828.80 -11985828.58 0.0089 0.0032

Venus -37528-03-17 05:45 J -11985603.46 -11985603.26 -11985603.04 0.0089 0.0021

Venus -37528-10-28 18:57 J -11985377.93 -11985377.71 -11985377.49 0.0089 0.0010

Venus -37527-06-11 07:40 J -11985152.39 -11985152.18 -11985151.96 0.0089 0.0002

Venus -37526-01-22 20:23 J -11984926.86 -11984926.65 -11984926.43 0.0089 0.0012

Venus -37526-09-05 09:21 J -11984701.32 -11984701.11 -11984700.90 0.0089 0.0022

Venus -37525-04-17 21:50 J -11984475.79 -11984475.59 -11984475.38 0.0089 0.0033

Venus -37525-11-29 10:18 J -11984250.24 -11984250.07 -11984249.87 0.0089 0.0044

Venus	-37524-07-12 23:16 J	-11984024.70	-11984024.53	-11984024.36	0.0089	0.0054
Venus	-37523-02-23 11:30 J	-11983799.15	-11983799.02	-11983798.86	0.0089	0.0065
Venus	-37523-10-06 23:59 J	-11983573.59	-11983573.50	-11983573.36	0.0089	0.0076
Venus	-37522-05-20 12:42 J	-11983348.00	-11983347.97	-11983347.90	0.0089	0.0086
Earth	-37490-03-09 04:47 J	-11971732.34	-11971732.30	-11971732.19	0.0089	0.0086
Moon	-37489-03-10 15:50 J	-11971365.06	-11971364.84	-11971364.59	0.0089	0.0041
Earth	-37489-03-10 16:18 J	-11971365.02	-11971364.82	-11971364.58	0.0089	0.0046 *
Earth	-37488-03-13 04:04 J	-11970997.58	-11970997.33	-11970997.07	0.0089	0.0007
Moon	-37488-03-13 05:45 J	-11970997.51	-11970997.26	-11970997.02	0.0089	0.0011 *
Moon	-37487-03-15 12:42 J	-11970630.20	-11970629.97	-11970629.73	0.0089	0.0038
Earth	-37487-03-15 15:06 J	-11970630.09	-11970629.87	-11970629.62	0.0089	0.0033 *
Earth	-37486-03-18 02:23 J	-11970262.53	-11970262.40	-11970262.24	0.0089	0.0072
Moon	-37486-03-18 06:14 J	-11970262.40	-11970262.24	-11970262.08	0.0089	0.0068 *
Mercury	-37482-04-15 15:06 J	-11968772.88	-11968772.87	-11968772.82	0.0089	0.0087
Mercury	-37482-07-12 17:02 J	-11968684.84	-11968684.79	-11968684.72	0.0089	0.0080
Mercury	-37482-10-08 18:57 J	-11968596.79	-11968596.71	-11968596.62	0.0089	0.0073
Mercury	-37481-01-04 20:52 J	-11968508.73	-11968508.63	-11968508.53	0.0089	0.0066
Mercury	-37481-04-01 22:47 J	-11968420.66	-11968420.55	-11968420.44	0.0089	0.0060
Mercury	-37481-06-29 00:14 J	-11968332.60	-11968332.49	-11968332.36	0.0089	0.0053
Mercury	-37481-09-25 02:09 J	-11968244.53	-11968244.41	-11968244.27	0.0089	0.0046
Mercury	-37481-12-22 04:04 J	-11968156.46	-11968156.33	-11968156.19	0.0089	0.0039
Mercury	-37480-03-20 05:59 J	-11968068.39	-11968068.25	-11968068.11	0.0089	0.0032
Mercury	-37480-06-16 07:54 J	-11967980.31	-11967980.17	-11967980.03	0.0089	0.0025
Mercury	-37480-09-12 09:50 J	-11967892.24	-11967892.09	-11967891.94	0.0089	0.0018
Mercury	-37480-12-09 11:45 J	-11967804.16	-11967804.01	-11967803.86	0.0089	0.0011
Mercury	-37479-03-07 13:40 J	-11967716.08	-11967715.93	-11967715.78	0.0089	0.0004
Mercury	-37479-06-03 15:35 J	-11967628.00	-11967627.85	-11967627.70	0.0089	0.0004
Mercury	-37479-08-30 17:16 J	-11967539.92	-11967539.78	-11967539.62	0.0089	0.0011
Mercury	-37479-11-26 19:11 J	-11967451.84	-11967451.70	-11967451.55	0.0089	0.0018
Mercury	-37478-02-22 21:06 J	-11967363.76	-11967363.62	-11967363.47	0.0089	0.0025

Mercury -37478-05-21 23:02 J -11967275.67 -11967275.54 -11967275.39 0.0089 0.0033

Mercury -37478-08-18 01:11 J -11967187.59 -11967187.45 -11967187.32 0.0089 0.0039

Mercury -37478-11-14 02:52 J -11967099.50 -11967099.38 -11967099.24 0.0089 0.0047

Mercury -37477-02-10 04:47 J -11967011.41 -11967011.30 -11967011.17 0.0089 0.0055

Mercury -37477-05-08 06:57 J -11966923.31 -11966923.21 -11966923.10 0.0089 0.0061

Mercury -37477-08-04 08:38 J -11966835.22 -11966835.14 -11966835.03 0.0089 0.0069

Mercury -37477-10-31 10:47 J -11966747.12 -11966747.05 -11966746.96 0.0089 0.0076

Mercury -37476-01-27 12:57 J -11966659.00 -11966658.96 -11966658.90 0.0089 0.0083

Mars -37476-04-09 12:42 J -11966587.09 -11966586.97 -11966586.79 0.0089 0.0076

Mars -37474-03-04 07:40 J -11965893.42 -11965893.18 -11965892.90 0.0089 0.0038

Mars -37472-01-26 00:57 J -11965199.75 -11965199.46 -11965199.16 0.0089 0.0001

Mars -37471-12-20 16:33 J -11964506.05 -11964505.81 -11964505.52 0.0089 0.0038

Mars -37469-11-13 09:35 J -11963812.23 -11963812.10 -11963811.92 0.0089 0.0075

Venus -37450-01-02 09:50 J -11957188.12 -11957188.09 -11957188.04 0.0088 0.0087

Venus -37450-08-15 22:47 J -11956962.64 -11956962.55 -11956962.42 0.0088 0.0077

Venus -37449-03-28 12:14 J -11956737.12 -11956736.99 -11956736.83 0.0088 0.0066

Venus -37449-11-09 01:11 J -11956511.60 -11956511.45 -11956511.26 0.0088 0.0056

Venus -37448-06-22 14:38 J -11956286.07 -11956285.89 -11956285.69 0.0088 0.0045

Venus -37447-02-03 03:35 J -11956060.54 -11956060.35 -11956060.13 0.0088 0.0034

Venus -37447-09-16 16:47 J -11955835.00 -11955834.80 -11955834.58 0.0088 0.0024

Venus -37446-04-30 06:14 J -11955609.46 -11955609.24 -11955609.02 0.0088 0.0013

Venus -37446-12-11 19:26 J -11955383.91 -11955383.69 -11955383.47 0.0088 0.0002

Venus -37445-07-24 08:38 J -11955158.36 -11955158.14 -11955157.92 0.0088 0.0009

Venus -37444-03-06 21:50 J -11954932.80 -11954932.59 -11954932.37 0.0088 0.0019

Venus -37444-10-18 10:47 J -11954707.24 -11954707.05 -11954706.82 0.0088 0.0031

Venus -37443-06-01 00:14 J -11954481.68 -11954481.49 -11954481.28 0.0088 0.0041

Venus -37442-01-12 13:26 J -11954256.11 -11954255.94 -11954255.75 0.0088 0.0051

Venus -37442-08-26 02:23 J -11954030.53 -11954030.40 -11954030.22 0.0088 0.0063

Venus -37441-04-07 16:18 J -11953804.94 -11953804.82 -11953804.69 0.0088 0.0073

Venus -37441-11-19 05:16 J -11953579.33 -11953579.28 -11953579.18 0.0088 0.0084

Earth	-37408-09-09 19:54 J	-11941596.71	-11941596.67	-11941596.61	0.0088	0.0087
Earth	-37407-09-12 07:40 J	-11941229.38	-11941229.18	-11941228.94	0.0088	0.0049
Moon	-37407-09-12 07:54 J	-11941229.37	-11941229.17	-11941228.93	0.0088	0.0045 *
Moon	-37406-09-14 17:45 J	-11940862.01	-11940861.76	-11940861.48	0.0088	0.0013
Earth	-37406-09-14 19:54 J	-11940861.92	-11940861.67	-11940861.41	0.0088	0.0009 *
Earth	-37405-09-16 07:40 J	-11940494.41	-11940494.18	-11940493.92	0.0088	0.0029
Moon	-37405-09-16 10:04 J	-11940494.30	-11940494.08	-11940493.83	0.0088	0.0033 *
Moon	-37404-09-18 16:18 J	-11940126.99	-11940126.82	-11940126.63	0.0088	0.0064
Earth	-37404-09-18 19:26 J	-11940126.83	-11940126.69	-11940126.50	0.0088	0.0068 *
Mercury	-37399-07-12 21:21 J	-11938368.66	-11938368.61	-11938368.56	0.0088	0.0084
Mercury	-37399-10-08 23:16 J	-11938280.59	-11938280.53	-11938280.42	0.0088	0.0077
Mercury	-37398-01-05 01:54 J	-11938192.51	-11938192.42	-11938192.29	0.0088	0.0069
Mercury	-37398-04-03 04:33 J	-11938104.42	-11938104.31	-11938104.17	0.0088	0.0060
Mercury	-37398-06-30 07:11 J	-11938016.33	-11938016.20	-11938016.05	0.0088	0.0052
Mercury	-37398-09-26 09:50 J	-11937928.23	-11937928.09	-11937927.94	0.0088	0.0044
Mercury	-37398-12-23 12:14 J	-11937840.13	-11937839.99	-11937839.83	0.0088	0.0037
Mercury	-37397-03-20 14:52 J	-11937752.04	-11937751.88	-11937751.72	0.0088	0.0029
Mercury	-37397-06-16 17:16 J	-11937663.94	-11937663.78	-11937663.61	0.0088	0.0021
Mercury	-37397-09-12 19:40 J	-11937575.84	-11937575.68	-11937575.51	0.0088	0.0014
Mercury	-37397-12-09 22:18 J	-11937487.74	-11937487.57	-11937487.40	0.0088	0.0005
Mercury	-37396-03-08 00:42 J	-11937399.63	-11937399.47	-11937399.30	0.0088	0.0003
Mercury	-37396-06-04 03:06 J	-11937311.53	-11937311.37	-11937311.20	0.0088	0.0010
Mercury	-37396-08-31 05:30 J	-11937223.43	-11937223.27	-11937223.10	0.0088	0.0018
Mercury	-37396-11-27 07:54 J	-11937135.33	-11937135.17	-11937135.01	0.0088	0.0025
Mercury	-37395-02-23 10:04 J	-11937047.22	-11937047.08	-11937046.91	0.0088	0.0033
Mercury	-37395-05-22 12:28 J	-11936959.11	-11936958.98	-11936958.82	0.0088	0.0041
Mercury	-37395-08-18 15:06 J	-11936871.01	-11936870.87	-11936870.73	0.0088	0.0048
Mercury	-37395-11-14 17:16 J	-11936782.90	-11936782.78	-11936782.65	0.0088	0.0055
Mercury	-37394-02-10 19:40 J	-11936694.79	-11936694.68	-11936694.56	0.0088	0.0063
Mercury	-37394-05-09 21:50 J	-11936606.67	-11936606.59	-11936606.48	0.0088	0.0070

Mercury -37394-08-06 00:14 J -11936518.56 -11936518.49 -11936518.40 0.0088 0.0078

Mercury -37394-11-02 02:38 J -11936430.43 -11936430.39 -11936430.34 0.0088 0.0085

Mars -37393-12-09 12:14 J -11936027.16 -11936026.99 -11936026.74 0.0088 0.0070

Mars -37391-11-05 17:30 J -11935331.08 -11935330.77 -11935330.42 0.0088 0.0025

Mars -37389-10-01 23:59 J -11934634.83 -11934634.50 -11934634.16 0.0088 0.0020

Mars -37387-08-29 06:28 J -11933938.43 -11933938.23 -11933937.96 0.0088 0.0065

Venus -37368-10-04 12:28 J -11926962.00 -11926961.98 -11926961.96 0.0089 0.0088

Venus -37367-05-18 00:57 J -11926736.55 -11926736.46 -11926736.34 0.0089 0.0078

Venus -37367-12-29 14:09 J -11926511.05 -11926510.91 -11926510.77 0.0089 0.0067

Venus -37366-08-12 02:38 J -11926285.54 -11926285.39 -11926285.20 0.0089 0.0057

Venus -37365-03-24 15:35 J -11926060.02 -11926059.85 -11926059.65 0.0089 0.0046

Venus -37365-11-05 04:47 J -11925834.50 -11925834.30 -11925834.10 0.0089 0.0035

Venus -37364-06-18 17:30 J -11925608.97 -11925608.77 -11925608.55 0.0089 0.0025

Venus -37363-01-30 06:14 J -11925383.45 -11925383.24 -11925383.02 0.0089 0.0014

Venus -37363-09-12 19:11 J -11925157.91 -11925157.70 -11925157.48 0.0089 0.0004

Venus -37362-04-26 08:09 J -11924932.38 -11924932.16 -11924931.95 0.0089 0.0007

Venus -37362-12-07 20:38 J -11924706.84 -11924706.64 -11924706.42 0.0089 0.0018

Venus -37361-07-20 09:21 J -11924481.31 -11924481.11 -11924480.89 0.0089 0.0029

Venus -37360-03-02 22:04 J -11924255.76 -11924255.58 -11924255.37 0.0089 0.0039

Venus -37360-10-14 10:47 J -11924030.21 -11924030.05 -11924029.85 0.0089 0.0050

Venus -37359-05-27 23:30 J -11923804.66 -11923804.52 -11923804.35 0.0089 0.0061

Venus -37358-01-08 11:59 J -11923579.11 -11923579.00 -11923578.85 0.0089 0.0071

Venus -37358-08-22 00:42 J -11923353.54 -11923353.47 -11923353.37 0.0089 0.0081

Earth -37325-03-10 02:38 J -11911464.54 -11911464.39 -11911464.20 0.0089 0.0065

Moon -37325-03-10 04:47 J -11911464.45 -11911464.30 -11911464.11 0.0089 0.0064 *

Moon -37324-03-12 11:02 J -11911097.27 -11911097.04 -11911096.78 0.0089 0.0027

Earth -37324-03-12 14:23 J -11911097.15 -11911096.90 -11911096.66 0.0089 0.0026 *

Earth -37323-03-15 01:26 J -11910729.68 -11910729.44 -11910729.18 0.0089 0.0014

Moon -37323-03-15 04:47 J -11910729.54 -11910729.30 -11910729.04 0.0089 0.0014 *

Moon -37322-03-17 09:06 J -11910362.31 -11910362.12 -11910361.90 0.0089 0.0053

Earth -37322-03-17 12:57 J -11910362.15 -11910361.96 -11910361.74 0.0089 0.0053 *
 Mercury -37317-01-10 14:52 J -11908601.92 -11908601.88 -11908601.82 0.0089 0.0083
 Mercury -37317-04-07 16:47 J -11908513.87 -11908513.80 -11908513.72 0.0089 0.0076
 Mercury -37317-07-04 18:28 J -11908425.81 -11908425.73 -11908425.63 0.0089 0.0069
 Mercury -37317-09-30 20:09 J -11908337.75 -11908337.66 -11908337.54 0.0089 0.0063
 Mercury -37317-12-27 22:04 J -11908249.68 -11908249.58 -11908249.45 0.0089 0.0055
 Mercury -37316-03-25 23:59 J -11908161.62 -11908161.50 -11908161.37 0.0089 0.0048
 Mercury -37316-06-22 01:54 J -11908073.55 -11908073.42 -11908073.28 0.0089 0.0041
 Mercury -37316-09-18 03:50 J -11907985.48 -11907985.34 -11907985.20 0.0089 0.0034
 Mercury -37316-12-15 05:45 J -11907897.40 -11907897.26 -11907897.12 0.0089 0.0027
 Mercury -37315-03-13 07:26 J -11907809.33 -11907809.19 -11907809.04 0.0089 0.0020
 Mercury -37315-06-09 09:21 J -11907721.25 -11907721.11 -11907720.96 0.0089 0.0013
 Mercury -37315-09-05 11:16 J -11907633.18 -11907633.03 -11907632.88 0.0089 0.0006
 Mercury -37315-12-02 13:11 J -11907545.10 -11907544.95 -11907544.80 0.0089 0.0001
 Mercury -37314-02-28 15:06 J -11907457.02 -11907456.87 -11907456.72 0.0089 0.0008
 Mercury -37314-05-27 17:02 J -11907368.94 -11907368.79 -11907368.64 0.0089 0.0015
 Mercury -37314-08-23 18:57 J -11907280.86 -11907280.71 -11907280.57 0.0089 0.0022
 Mercury -37314-11-19 20:38 J -11907192.77 -11907192.64 -11907192.49 0.0089 0.0030
 Mercury -37313-02-15 22:33 J -11907104.69 -11907104.56 -11907104.41 0.0089 0.0037
 Mercury -37313-05-14 00:28 J -11907016.60 -11907016.48 -11907016.34 0.0089 0.0044
 Mercury -37313-08-10 02:38 J -11906928.51 -11906928.39 -11906928.27 0.0089 0.0051
 Mercury -37313-11-06 04:18 J -11906840.42 -11906840.32 -11906840.19 0.0089 0.0059
 Mercury -37312-02-02 06:14 J -11906752.33 -11906752.24 -11906752.12 0.0089 0.0066
 Mercury -37312-05-01 08:23 J -11906664.23 -11906664.15 -11906664.06 0.0089 0.0073
 Mercury -37312-07-28 10:33 J -11906576.12 -11906576.06 -11906576.00 0.0089 0.0080
 Mercury -37312-10-24 12:14 J -11906488.00 -11906487.99 -11906487.96 0.0089 0.0088
 Mars -37311-10-17 20:52 J -11906129.84 -11906129.63 -11906129.38 0.0089 0.0055
 Mars -37309-09-10 15:50 J -11905436.13 -11905435.84 -11905435.56 0.0089 0.0016
 Mars -37307-08-05 08:23 J -11904742.42 -11904742.15 -11904741.86 0.0089 0.0022
 Mars -37305-06-28 23:30 J -11904048.70 -11904048.52 -11904048.28 0.0089 0.0060

Venus	-37286-11-17 10:04 J	-11896968.16	-11896968.08	-11896967.97	0.0088	0.0080
Venus	-37285-06-29 23:02 J	-11896742.66	-11896742.54	-11896742.38	0.0088	0.0070
Venus	-37284-02-10 12:42 J	-11896517.14	-11896516.97	-11896516.81	0.0088	0.0059
Venus	-37284-09-24 01:26 J	-11896291.61	-11896291.44	-11896291.24	0.0088	0.0049
Venus	-37283-05-07 14:38 J	-11896066.08	-11896065.89	-11896065.68	0.0088	0.0038
Venus	-37283-12-19 03:50 J	-11895840.54	-11895840.34	-11895840.12	0.0088	0.0028
Venus	-37282-08-01 17:02 J	-11895615.00	-11895614.79	-11895614.56	0.0088	0.0017
Venus	-37281-03-14 06:28 J	-11895389.45	-11895389.23	-11895389.00	0.0088	0.0007
Venus	-37281-10-25 19:54 J	-11895163.90	-11895163.67	-11895163.45	0.0088	0.0004
Venus	-37280-06-08 08:52 J	-11894938.34	-11894938.13	-11894937.90	0.0088	0.0015
Venus	-37279-01-19 22:04 J	-11894712.79	-11894712.58	-11894712.36	0.0088	0.0025
Venus	-37279-09-02 11:02 J	-11894487.23	-11894487.04	-11894486.82	0.0088	0.0036
Venus	-37278-04-16 00:28 J	-11894261.65	-11894261.48	-11894261.28	0.0088	0.0047
Venus	-37278-11-27 13:40 J	-11894036.08	-11894035.93	-11894035.74	0.0088	0.0057
Venus	-37277-07-10 03:06 J	-11893810.50	-11893810.37	-11893810.22	0.0088	0.0068
Venus	-37276-02-20 16:04 J	-11893584.91	-11893584.83	-11893584.70	0.0088	0.0079
Jupiter	-37271-02-03 17:30 J	-11891776.24	-11891775.77	-11891775.28	0.0088	0.0048
Moon	-37243-09-11 15:50 J	-11881329.00	-11881328.84	-11881328.64	0.0088	0.0065
Earth	-37243-09-11 17:30 J	-11881328.91	-11881328.77	-11881328.58	0.0088	0.0067 *
Earth	-37242-09-14 05:45 J	-11880961.49	-11880961.26	-11880961.00	0.0088	0.0028
Moon	-37242-09-14 08:52 J	-11880961.36	-11880961.13	-11880960.88	0.0088	0.0031 *
Moon	-37241-09-15 14:38 J	-11880594.14	-11880593.89	-11880593.63	0.0088	0.0014
Earth	-37241-09-15 17:59 J	-11880594.00	-11880593.75	-11880593.48	0.0088	0.0011 *
Earth	-37240-09-18 05:45 J	-11880226.47	-11880226.26	-11880226.04	0.0088	0.0050
Moon	-37240-09-18 09:06 J	-11880226.32	-11880226.12	-11880225.88	0.0088	0.0048 *
Earth	-37239-09-20 17:45 J	-11879858.76	-11879858.76	-11879858.75	0.0088	0.0088
Mercury	-37234-01-10 17:30 J	-11878285.78	-11878285.77	-11878285.73	0.0088	0.0087
Mercury	-37234-04-08 20:09 J	-11878197.72	-11878197.66	-11878197.57	0.0088	0.0079
Mercury	-37234-07-05 22:47 J	-11878109.64	-11878109.55	-11878109.44	0.0088	0.0071
Mercury	-37234-10-02 01:11 J	-11878021.55	-11878021.45	-11878021.32	0.0088	0.0064

Mercury -37234-12-29 03:50 J -11877933.46 -11877933.34 -11877933.20 0.0088 0.0056

Mercury -37233-03-26 06:28 J -11877845.36 -11877845.23 -11877845.08 0.0088 0.0048

Mercury -37233-06-22 09:06 J -11877757.27 -11877757.12 -11877756.97 0.0088 0.0040

Mercury -37233-09-18 11:16 J -11877669.17 -11877669.03 -11877668.86 0.0088 0.0033

Mercury -37233-12-15 13:54 J -11877581.07 -11877580.92 -11877580.75 0.0088 0.0024

Mercury -37232-03-13 16:33 J -11877492.97 -11877492.81 -11877492.64 0.0088 0.0016

Mercury -37232-06-09 19:11 J -11877404.87 -11877404.70 -11877404.54 0.0088 0.0009

Mercury -37232-09-05 21:35 J -11877316.77 -11877316.60 -11877316.44 0.0088 0.0001

Mercury -37232-12-02 23:59 J -11877228.67 -11877228.50 -11877228.33 0.0088 0.0007

Mercury -37231-03-01 02:23 J -11877140.56 -11877140.40 -11877140.24 0.0088 0.0015

Mercury -37231-05-28 04:47 J -11877052.46 -11877052.30 -11877052.14 0.0088 0.0022

Mercury -37231-08-24 06:57 J -11876964.35 -11876964.21 -11876964.04 0.0088 0.0031

Mercury -37231-11-20 09:35 J -11876876.25 -11876876.10 -11876875.95 0.0088 0.0038

Mercury -37230-02-16 11:45 J -11876788.14 -11876788.01 -11876787.86 0.0088 0.0045

Mercury -37230-05-15 14:23 J -11876700.03 -11876699.90 -11876699.77 0.0088 0.0053

Mercury -37230-08-11 16:33 J -11876611.92 -11876611.81 -11876611.68 0.0088 0.0060

Mercury -37230-11-07 18:57 J -11876523.81 -11876523.71 -11876523.60 0.0088 0.0068

Mercury -37229-02-03 21:06 J -11876435.69 -11876435.62 -11876435.52 0.0088 0.0075

Mercury -37229-05-01 23:30 J -11876347.57 -11876347.52 -11876347.45 0.0088 0.0082

Mars -37229-07-23 03:21 J -11876265.36 -11876265.36 -11876265.32 0.0088 0.0088

Mars -37227-06-19 07:11 J -11875569.47 -11875569.20 -11875568.88 0.0088 0.0045

Mars -37225-05-15 12:42 J -11874873.31 -11874872.97 -11874872.63 0.0088 0.0000

Mars -37223-04-11 18:28 J -11874177.00 -11874176.73 -11874176.41 0.0088 0.0046

Venus -37203-08-19 12:42 J -11866742.06 -11866741.97 -11866741.88 0.0089 0.0081

Venus -37202-04-02 01:11 J -11866516.56 -11866516.45 -11866516.30 0.0089 0.0071

Venus -37202-11-13 14:38 J -11866291.05 -11866290.89 -11866290.73 0.0089 0.0060

Venus -37201-06-26 03:06 J -11866065.54 -11866065.37 -11866065.18 0.0089 0.0050

Venus -37200-02-06 16:04 J -11865840.02 -11865839.83 -11865839.63 0.0089 0.0039

Venus -37200-09-20 04:47 J -11865614.50 -11865614.30 -11865614.08 0.0089 0.0029

Venus -37199-05-03 17:45 J -11865388.97 -11865388.76 -11865388.54 0.0089 0.0018

Venus	-37199-12-15 06:28 J	-11865163.44	-11865163.23	-11865163.01	0.0089	0.0008
Venus	-37198-07-28 19:11 J	-11864937.91	-11864937.70	-11864937.48	0.0089	0.0003
Venus	-37197-03-10 08:09 J	-11864712.38	-11864712.16	-11864711.95	0.0089	0.0013
Venus	-37197-10-21 20:38 J	-11864486.84	-11864486.64	-11864486.42	0.0089	0.0024
Venus	-37196-06-04 09:35 J	-11864261.30	-11864261.10	-11864260.90	0.0089	0.0034
Venus	-37195-01-15 22:04 J	-11864035.76	-11864035.58	-11864035.38	0.0089	0.0045
Venus	-37195-08-29 10:47 J	-11863810.21	-11863810.05	-11863809.87	0.0089	0.0055
Venus	-37194-04-11 23:16 J	-11863584.65	-11863584.53	-11863584.36	0.0089	0.0066
Venus	-37194-11-23 12:14 J	-11863359.09	-11863358.99	-11863358.87	0.0089	0.0076
Venus	-37193-07-06 00:57 J	-11863133.50	-11863133.46	-11863133.40	0.0089	0.0086
Earth	-37161-03-09 12:57 J	-11851564.04	-11851563.96	-11851563.88	0.0089	0.0085
Earth	-37160-03-11 23:45 J	-11851196.72	-11851196.51	-11851196.28	0.0089	0.0046
Moon	-37160-03-12 03:06 J	-11851196.58	-11851196.37	-11851196.13	0.0089	0.0041 *
Moon	-37159-03-14 07:54 J	-11850829.43	-11850829.17	-11850828.92	0.0089	0.0011
Earth	-37159-03-14 11:16 J	-11850829.28	-11850829.03	-11850828.77	0.0089	0.0006 *
Earth	-37158-03-16 22:18 J	-11850461.80	-11850461.57	-11850461.33	0.0089	0.0034
Moon	-37158-03-17 01:26 J	-11850461.66	-11850461.44	-11850461.20	0.0089	0.0038 *
Moon	-37157-03-18 07:26 J	-11850094.33	-11850094.19	-11850094.02	0.0089	0.0069
Earth	-37157-03-18 09:21 J	-11850094.23	-11850094.11	-11850093.95	0.0089	0.0073 *
Mercury	-37153-07-10 12:28 J	-11848519.01	-11848518.98	-11848518.93	0.0089	0.0086
Mercury	-37153-10-06 14:23 J	-11848430.96	-11848430.90	-11848430.83	0.0089	0.0079
Mercury	-37152-01-02 16:04 J	-11848342.90	-11848342.83	-11848342.73	0.0089	0.0072
Mercury	-37152-03-31 17:45 J	-11848254.84	-11848254.76	-11848254.64	0.0089	0.0065
Mercury	-37152-06-27 19:40 J	-11848166.78	-11848166.68	-11848166.56	0.0089	0.0058
Mercury	-37152-09-23 21:35 J	-11848078.71	-11848078.60	-11848078.47	0.0089	0.0051
Mercury	-37152-12-20 23:30 J	-11847990.64	-11847990.52	-11847990.39	0.0089	0.0044
Mercury	-37151-03-19 01:26 J	-11847902.57	-11847902.44	-11847902.31	0.0089	0.0037
Mercury	-37151-06-15 03:06 J	-11847814.50	-11847814.37	-11847814.22	0.0089	0.0030
Mercury	-37151-09-11 05:02 J	-11847726.43	-11847726.29	-11847726.14	0.0089	0.0023
Mercury	-37151-12-08 06:57 J	-11847638.36	-11847638.21	-11847638.06	0.0089	0.0016

Mercury -37150-03-06 08:52 J -11847550.28 -11847550.13 -11847549.98 0.0089 0.0009

Mercury -37150-06-02 10:47 J -11847462.20 -11847462.05 -11847461.90 0.0089 0.0003

Mercury -37150-08-29 12:28 J -11847374.12 -11847373.98 -11847373.82 0.0089 0.0006

Mercury -37150-11-25 14:23 J -11847286.04 -11847285.90 -11847285.75 0.0089 0.0012

Mercury -37149-02-21 16:18 J -11847197.96 -11847197.82 -11847197.67 0.0089 0.0019

Mercury -37149-05-19 18:14 J -11847109.88 -11847109.74 -11847109.59 0.0089 0.0026

Mercury -37149-08-15 19:54 J -11847021.80 -11847021.67 -11847021.52 0.0089 0.0034

Mercury -37149-11-11 21:50 J -11846933.71 -11846933.59 -11846933.44 0.0089 0.0041

Mercury -37148-02-07 23:59 J -11846845.62 -11846845.50 -11846845.37 0.0089 0.0048

Mercury -37148-05-07 01:54 J -11846757.53 -11846757.42 -11846757.30 0.0089 0.0055

Mercury -37148-08-03 03:35 J -11846669.44 -11846669.35 -11846669.23 0.0089 0.0063

Mercury -37148-10-30 05:30 J -11846581.35 -11846581.27 -11846581.16 0.0089 0.0070

Mercury -37147-01-26 07:40 J -11846493.25 -11846493.18 -11846493.10 0.0089 0.0077

Mercury -37147-04-24 09:50 J -11846405.13 -11846405.09 -11846405.04 0.0089 0.0084

Mars -37147-06-02 09:35 J -11846366.25 -11846366.10 -11846365.91 0.0089 0.0072

Mars -37145-04-26 03:35 J -11845672.60 -11845672.35 -11845672.06 0.0089 0.0034

Mars -37143-03-20 22:33 J -11844978.85 -11844978.56 -11844978.26 0.0089 0.0005

Mars -37141-02-12 15:21 J -11844285.09 -11844284.86 -11844284.58 0.0089 0.0044

Mars -37139-01-06 06:57 J -11843591.29 -11843591.21 -11843591.06 0.0089 0.0082

Venus -37121-02-18 20:23 J -11836973.70 -11836973.65 -11836973.56 0.0088 0.0084

Venus -37121-10-01 09:21 J -11836748.21 -11836748.11 -11836747.96 0.0088 0.0074

Venus -37120-05-14 23:02 J -11836522.69 -11836522.54 -11836522.39 0.0088 0.0063

Venus -37120-12-26 11:45 J -11836297.17 -11836297.01 -11836296.82 0.0088 0.0053

Venus -37119-08-09 00:42 J -11836071.64 -11836071.47 -11836071.26 0.0088 0.0043

Venus -37118-03-22 14:23 J -11835846.10 -11835845.90 -11835845.69 0.0088 0.0032

Venus -37118-11-03 03:35 J -11835620.56 -11835620.35 -11835620.13 0.0088 0.0021

Venus -37117-06-15 16:47 J -11835395.02 -11835394.80 -11835394.58 0.0088 0.0011

Venus -37116-01-27 05:59 J -11835169.47 -11835169.25 -11835169.03 0.0088 0.0001

Venus -37116-09-09 19:11 J -11834943.92 -11834943.70 -11834943.48 0.0088 0.0010

Venus -37115-04-23 08:38 J -11834718.36 -11834718.14 -11834717.92 0.0088 0.0020

Venus	-37115-12-04 21:35 J	-11834492.80	-11834492.60	-11834492.38	0.0088	0.0031
Venus	-37114-07-18 10:47 J	-11834267.23	-11834267.05	-11834266.84	0.0088	0.0042
Venus	-37113-02-28 23:59 J	-11834041.66	-11834041.50	-11834041.30	0.0088	0.0052
Venus	-37113-10-11 13:26 J	-11833816.08	-11833815.94	-11833815.77	0.0088	0.0062
Venus	-37112-05-25 02:52 J	-11833590.50	-11833590.38	-11833590.25	0.0088	0.0073
Venus	-37111-01-05 15:50 J	-11833364.89	-11833364.84	-11833364.75	0.0088	0.0083
Jupiter	-37105-04-10 15:06 J	-11831078.44	-11831077.87	-11831077.29	0.0088	0.0001
Earth	-37079-09-11 02:38 J	-11821428.43	-11821428.39	-11821428.34	0.0088	0.0087
Moon	-37078-09-13 10:47 J	-11821061.26	-11821061.05	-11821060.81	0.0088	0.0044
Earth	-37078-09-13 14:23 J	-11821061.10	-11821060.90	-11821060.66	0.0088	0.0048 *
Earth	-37077-09-15 02:52 J	-11820693.64	-11820693.38	-11820693.12	0.0088	0.0009
Moon	-37077-09-15 06:14 J	-11820693.50	-11820693.24	-11820692.98	0.0088	0.0012 *
Moon	-37076-09-17 11:30 J	-11820326.24	-11820326.02	-11820325.77	0.0088	0.0034
Earth	-37076-09-17 14:52 J	-11820326.12	-11820325.88	-11820325.63	0.0088	0.0030 *
Earth	-37075-09-20 02:23 J	-11819958.54	-11819958.40	-11819958.22	0.0088	0.0070
Moon	-37075-09-20 04:47 J	-11819958.46	-11819958.30	-11819958.10	0.0088	0.0065 *
Mercury	-37070-10-07 16:33 J	-11818114.85	-11818114.81	-11818114.74	0.0088	0.0083
Mercury	-37069-01-03 18:57 J	-11818026.78	-11818026.71	-11818026.60	0.0088	0.0076
Mercury	-37069-03-31 21:35 J	-11817938.69	-11817938.60	-11817938.47	0.0088	0.0068
Mercury	-37069-06-28 00:14 J	-11817850.60	-11817850.49	-11817850.35	0.0088	0.0060
Mercury	-37069-09-24 02:52 J	-11817762.51	-11817762.38	-11817762.23	0.0088	0.0051
Mercury	-37069-12-21 05:30 J	-11817674.41	-11817674.27	-11817674.12	0.0088	0.0043
Mercury	-37068-03-19 08:09 J	-11817586.31	-11817586.16	-11817586.00	0.0088	0.0035
Mercury	-37068-06-15 10:33 J	-11817498.21	-11817498.06	-11817497.89	0.0088	0.0028
Mercury	-37068-09-11 13:11 J	-11817410.11	-11817409.95	-11817409.79	0.0088	0.0020
Mercury	-37068-12-08 15:35 J	-11817322.01	-11817321.85	-11817321.68	0.0088	0.0012
Mercury	-37067-03-06 18:14 J	-11817233.91	-11817233.74	-11817233.58	0.0088	0.0004
Mercury	-37067-06-02 20:38 J	-11817145.81	-11817145.64	-11817145.47	0.0088	0.0004
Mercury	-37067-08-29 23:02 J	-11817057.70	-11817057.54	-11817057.37	0.0088	0.0011
Mercury	-37067-11-26 01:26 J	-11816969.60	-11816969.44	-11816969.27	0.0088	0.0019

Mercury -37066-02-22 04:04 J -11816881.49 -11816881.33 -11816881.18 0.0088 0.0027

Mercury -37066-05-21 06:14 J -11816793.39 -11816793.24 -11816793.08 0.0088 0.0034

Mercury -37066-08-17 08:23 J -11816705.28 -11816705.15 -11816704.99 0.0088 0.0043

Mercury -37066-11-13 11:02 J -11816617.17 -11816617.04 -11816616.90 0.0088 0.0050

Mercury -37065-02-09 13:11 J -11816529.06 -11816528.95 -11816528.81 0.0088 0.0058

Mercury -37065-05-07 15:50 J -11816440.95 -11816440.84 -11816440.72 0.0088 0.0064

Mercury -37065-08-03 17:59 J -11816352.83 -11816352.75 -11816352.64 0.0088 0.0072

Mercury -37065-10-30 20:23 J -11816264.71 -11816264.65 -11816264.57 0.0088 0.0080

Mercury -37064-01-26 23:02 J -11816176.57 -11816176.54 -11816176.51 0.0088 0.0087

Mars -37063-01-30 20:52 J -11815807.83 -11815807.63 -11815807.37 0.0088 0.0065

Mars -37062-12-28 01:54 J -11815111.74 -11815111.42 -11815111.07 0.0088 0.0020

Mars -37060-11-23 07:11 J -11814415.53 -11814415.20 -11814414.87 0.0088 0.0026

Mars -37058-10-20 12:28 J -11813719.15 -11813718.98 -11813718.74 0.0088 0.0072

Venus -37039-11-20 23:02 J -11806747.58 -11806747.54 -11806747.46 0.0089 0.0085

Venus -37038-07-04 11:45 J -11806522.10 -11806522.01 -11806521.87 0.0089 0.0075

Venus -37037-02-15 01:11 J -11806296.60 -11806296.45 -11806296.30 0.0089 0.0064

Venus -37037-09-27 13:54 J -11806071.08 -11806070.92 -11806070.73 0.0089 0.0054

Venus -37036-05-11 02:38 J -11805845.56 -11805845.39 -11805845.18 0.0089 0.0044

Venus -37036-12-22 15:50 J -11805620.04 -11805619.84 -11805619.63 0.0089 0.0033

Venus -37035-08-05 04:33 J -11805394.51 -11805394.31 -11805394.09 0.0089 0.0023

Venus -37034-03-18 17:30 J -11805168.98 -11805168.77 -11805168.55 0.0089 0.0012

Venus -37034-10-30 06:28 J -11804943.45 -11804943.23 -11804943.01 0.0089 0.0002

Venus -37033-06-11 19:11 J -11804717.92 -11804717.70 -11804717.48 0.0089 0.0009

Venus -37032-01-23 07:54 J -11804492.38 -11804492.17 -11804491.96 0.0089 0.0019

Venus -37032-09-05 20:23 J -11804266.84 -11804266.65 -11804266.43 0.0089 0.0030

Venus -37031-04-19 09:06 J -11804041.30 -11804041.12 -11804040.91 0.0089 0.0040

Venus -37031-11-30 22:04 J -11803815.76 -11803815.58 -11803815.40 0.0089 0.0050

Venus -37030-07-14 10:18 J -11803590.21 -11803590.07 -11803589.89 0.0089 0.0061

Venus -37029-02-24 23:02 J -11803364.65 -11803364.54 -11803364.39 0.0089 0.0071

Venus -37029-10-07 11:45 J -11803139.07 -11803139.01 -11803138.90 0.0089 0.0082

37TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 37th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Moon	-36996-03-11 05:59 J	-11791296.41	-11791296.25	-11791296.06	0.0089	0.0064		
Earth	-36996-03-11 09:21 J	-11791296.27	-11791296.11	-11791295.92	0.0089	0.0066	*	
Earth	-36995-03-13 20:23 J	-11790928.88	-11790928.65	-11790928.39	0.0089	0.0026		
Moon	-36995-03-13 23:16 J	-11790928.76	-11790928.53	-11790928.27	0.0089	0.0027	*	
Moon	-36994-03-16 05:45 J	-11790561.50	-11790561.26	-11790561.01	0.0089	0.0015		
Earth	-36994-03-16 07:54 J	-11790561.42	-11790561.17	-11790560.92	0.0089	0.0014	*	
Earth	-36993-03-17 18:42 J	-11790193.91	-11790193.72	-11790193.50	0.0089	0.0053		
Moon	-36993-03-17 19:26 J	-11790193.90	-11790193.69	-11790193.47	0.0089	0.0052	*	
Mercury	-36988-01-08 10:18 J	-11788436.08	-11788436.07	-11788436.05	0.0089	0.0088		
Mercury	-36988-04-06 11:45 J	-11788348.05	-11788348.01	-11788347.94	0.0089	0.0082		
Mercury	-36988-07-03 13:40 J	-11788260.00	-11788259.93	-11788259.84	0.0089	0.0075		
Mercury	-36988-09-29 15:21 J	-11788171.94	-11788171.86	-11788171.75	0.0089	0.0068		
Mercury	-36988-12-26 17:16 J	-11788083.88	-11788083.78	-11788083.66	0.0089	0.0061		
Mercury	-36987-03-24 19:11 J	-11787995.81	-11787995.70	-11787995.58	0.0089	0.0054		
Mercury	-36987-06-20 21:06 J	-11787907.74	-11787907.62	-11787907.49	0.0089	0.0047		
Mercury	-36987-09-16 22:47 J	-11787819.67	-11787819.55	-11787819.41	0.0089	0.0041		
Mercury	-36987-12-14 00:42 J	-11787731.60	-11787731.47	-11787731.33	0.0089	0.0033		
Mercury	-36986-03-12 02:38 J	-11787643.53	-11787643.39	-11787643.25	0.0089	0.0026		

Mercury -36986-06-08 04:33 J -11787555.46 -11787555.31 -11787555.17 0.0089 0.0020
 Mercury -36986-09-04 06:14 J -11787467.38 -11787467.24 -11787467.09 0.0089 0.0012
 Mercury -36986-12-01 08:09 J -11787379.31 -11787379.16 -11787379.01 0.0089 0.0005
 Mercury -36985-02-27 10:04 J -11787291.23 -11787291.08 -11787290.93 0.0089 0.0002
 Mercury -36985-05-25 11:59 J -11787203.15 -11787203.00 -11787202.85 0.0089 0.0009
 Mercury -36985-08-21 13:40 J -11787115.07 -11787114.93 -11787114.78 0.0089 0.0016
 Mercury -36985-11-17 15:35 J -11787026.99 -11787026.85 -11787026.70 0.0089 0.0023
 Mercury -36984-02-13 17:30 J -11786938.91 -11786938.77 -11786938.63 0.0089 0.0030
 Mercury -36984-05-12 19:26 J -11786850.82 -11786850.69 -11786850.55 0.0089 0.0037
 Mercury -36984-08-08 21:06 J -11786762.74 -11786762.62 -11786762.48 0.0089 0.0045
 Mercury -36984-11-04 23:02 J -11786674.65 -11786674.54 -11786674.41 0.0089 0.0052
 Mercury -36983-02-01 01:11 J -11786586.56 -11786586.45 -11786586.34 0.0089 0.0059
 Mercury -36983-04-30 03:06 J -11786498.47 -11786498.37 -11786498.27 0.0089 0.0066
 Mercury -36983-07-27 04:47 J -11786410.37 -11786410.30 -11786410.20 0.0089 0.0074
 Mercury -36983-10-23 06:42 J -11786322.26 -11786322.22 -11786322.14 0.0089 0.0081
 Mercury -36982-01-19 08:52 J -11786234.14 -11786234.13 -11786234.11 0.0089 0.0088
 Mars -36982-12-10 16:33 J -11785909.04 -11785908.81 -11785908.56 0.0089 0.0051
 Mars -36980-11-03 10:04 J -11785215.37 -11785215.08 -11785214.79 0.0089 0.0012
 Mars -36978-09-28 03:35 J -11784521.62 -11784521.35 -11784521.06 0.0089 0.0027
 Mars -36976-08-21 20:38 J -11783827.82 -11783827.64 -11783827.43 0.0089 0.0065
 Venus -36957-05-22 06:42 J -11776979.23 -11776979.22 -11776979.16 0.0088 0.0088
 Venus -36956-01-02 19:40 J -11776753.76 -11776753.68 -11776753.55 0.0088 0.0078
 Venus -36956-08-16 09:06 J -11776528.26 -11776528.12 -11776527.97 0.0088 0.0067
 Venus -36955-03-29 22:18 J -11776302.73 -11776302.57 -11776302.40 0.0088 0.0057
 Venus -36955-11-10 11:16 J -11776077.21 -11776077.03 -11776076.83 0.0088 0.0047
 Venus -36954-06-24 00:14 J -11775851.68 -11775851.49 -11775851.27 0.0088 0.0037
 Venus -36953-02-04 13:26 J -11775626.14 -11775625.94 -11775625.72 0.0088 0.0026
 Venus -36953-09-17 02:52 J -11775400.60 -11775400.38 -11775400.16 0.0088 0.0016
 Venus -36952-04-30 16:04 J -11775175.05 -11775174.83 -11775174.61 0.0088 0.0005
 Venus -36952-12-12 05:16 J -11774949.50 -11774949.28 -11774949.06 0.0088 0.0005

Venus	-36951-07-25 18:28 J	-11774723.95	-11774723.73	-11774723.51	0.0088	0.0015
Venus	-36950-03-08 07:26 J	-11774498.39	-11774498.19	-11774497.96	0.0088	0.0027
Venus	-36950-10-19 20:52 J	-11774272.82	-11774272.63	-11774272.42	0.0088	0.0036
Venus	-36949-06-01 10:04 J	-11774047.26	-11774047.08	-11774046.88	0.0088	0.0047
Venus	-36948-01-12 23:30 J	-11773821.69	-11773821.52	-11773821.35	0.0088	0.0057
Venus	-36948-08-26 12:14 J	-11773596.11	-11773595.99	-11773595.82	0.0088	0.0068
Venus	-36947-04-09 01:54 J	-11773370.51	-11773370.42	-11773370.30	0.0088	0.0078
Venus	-36947-11-20 15:21 J	-11773144.87	-11773144.86	-11773144.82	0.0088	0.0088
Jupiter	-36939-06-12 21:21 J	-11770384.07	-11770383.61	-11770383.07	0.0088	0.0045
Earth	-36914-09-12 22:04 J	-11761160.72	-11761160.58	-11761160.40	0.0088	0.0068
Moon	-36914-09-13 01:40 J	-11761160.58	-11761160.43	-11761160.23	0.0088	0.0065 *
Moon	-36913-09-14 08:09 J	-11760793.39	-11760793.16	-11760792.92	0.0088	0.0032
Earth	-36913-09-14 10:33 J	-11760793.29	-11760793.06	-11760792.80	0.0088	0.0029 *
Earth	-36912-09-16 22:33 J	-11760425.81	-11760425.56	-11760425.29	0.0088	0.0011
Moon	-36912-09-17 00:57 J	-11760425.73	-11760425.46	-11760425.20	0.0088	0.0013 *
Moon	-36911-09-19 09:21 J	-11760058.30	-11760058.11	-11760057.87	0.0088	0.0047
Earth	-36911-09-19 10:33 J	-11760058.26	-11760058.06	-11760057.83	0.0088	0.0050 *
Mercury	-36905-04-06 12:42 J	-11758031.98	-11758031.97	-11758031.94	0.0088	0.0088
Mercury	-36905-07-03 15:21 J	-11757943.92	-11757943.86	-11757943.78	0.0088	0.0080
Mercury	-36905-09-29 17:59 J	-11757855.84	-11757855.75	-11757855.64	0.0088	0.0071
Mercury	-36905-12-26 20:38 J	-11757767.75	-11757767.64	-11757767.52	0.0088	0.0063
Mercury	-36904-03-24 23:16 J	-11757679.66	-11757679.53	-11757679.40	0.0088	0.0055
Mercury	-36904-06-21 01:40 J	-11757591.56	-11757591.43	-11757591.28	0.0088	0.0048
Mercury	-36904-09-17 04:18 J	-11757503.47	-11757503.32	-11757503.16	0.0088	0.0040
Mercury	-36904-12-14 06:57 J	-11757415.37	-11757415.21	-11757415.05	0.0088	0.0032
Mercury	-36903-03-12 09:21 J	-11757327.27	-11757327.11	-11757326.94	0.0088	0.0024
Mercury	-36903-06-08 11:45 J	-11757239.17	-11757239.01	-11757238.84	0.0088	0.0017
Mercury	-36903-09-04 14:23 J	-11757151.06	-11757150.90	-11757150.73	0.0088	0.0008
Mercury	-36903-12-01 17:02 J	-11757062.96	-11757062.79	-11757062.63	0.0088	0.0002
Mercury	-36902-02-27 19:26 J	-11756974.86	-11756974.69	-11756974.52	0.0088	0.0007

Mercury -36902-05-26 21:50 J -11756886.75 -11756886.59 -11756886.42 0.0088 0.0015

Mercury -36902-08-23 00:14 J -11756798.65 -11756798.49 -11756798.33 0.0088 0.0023

Mercury -36902-11-19 02:38 J -11756710.54 -11756710.39 -11756710.23 0.0088 0.0030

Mercury -36901-02-15 05:02 J -11756622.43 -11756622.29 -11756622.13 0.0088 0.0038

Mercury -36901-05-13 07:26 J -11756534.32 -11756534.19 -11756534.04 0.0088 0.0046

Mercury -36901-08-09 09:35 J -11756446.21 -11756446.10 -11756445.95 0.0088 0.0054

Mercury -36901-11-05 12:14 J -11756358.10 -11756357.99 -11756357.87 0.0088 0.0061

Mercury -36900-02-01 14:23 J -11756269.99 -11756269.90 -11756269.78 0.0088 0.0069

Mercury -36900-04-30 17:02 J -11756181.87 -11756181.79 -11756181.70 0.0088 0.0076

Mercury -36900-07-27 19:11 J -11756093.74 -11756093.70 -11756093.63 0.0088 0.0083

Mars -36900-09-13 08:38 J -11756046.18 -11756046.14 -11756046.00 0.0088 0.0086

Mars -36898-08-10 12:14 J -11755350.27 -11755349.99 -11755349.66 0.0088 0.0041

Mars -36896-07-06 17:45 J -11754654.10 -11754653.76 -11754653.42 0.0088 0.0006

Mars -36894-06-02 22:18 J -11753957.81 -11753957.57 -11753957.25 0.0088 0.0052

Venus -36874-02-22 09:21 J -11746753.11 -11746753.11 -11746753.10 0.0089 0.0089

Venus -36874-10-05 22:04 J -11746527.66 -11746527.58 -11746527.46 0.0089 0.0079

Venus -36873-05-18 11:30 J -11746302.16 -11746302.02 -11746301.88 0.0089 0.0068

Venus -36873-12-30 00:14 J -11746076.65 -11746076.49 -11746076.32 0.0089 0.0058

Venus -36872-08-12 12:57 J -11745851.13 -11745850.96 -11745850.76 0.0089 0.0048

Venus -36871-03-26 02:09 J -11745625.60 -11745625.41 -11745625.21 0.0089 0.0037

Venus -36871-11-06 15:06 J -11745400.07 -11745399.87 -11745399.66 0.0089 0.0027

Venus -36870-06-20 03:50 J -11745174.55 -11745174.34 -11745174.12 0.0089 0.0017

Venus -36869-01-31 16:47 J -11744949.02 -11744948.80 -11744948.58 0.0089 0.0006

Venus -36869-09-13 05:30 J -11744723.49 -11744723.27 -11744723.05 0.0089 0.0004

Venus -36868-04-26 18:14 J -11744497.95 -11744497.74 -11744497.52 0.0089 0.0014

Venus -36868-12-08 06:42 J -11744272.42 -11744272.22 -11744272.00 0.0089 0.0025

Venus -36867-07-21 19:26 J -11744046.88 -11744046.69 -11744046.48 0.0089 0.0035

Venus -36866-03-04 08:09 J -11743821.33 -11743821.16 -11743820.96 0.0089 0.0045

Venus -36866-10-15 21:06 J -11743595.78 -11743595.62 -11743595.44 0.0089 0.0055

Venus -36865-05-28 09:50 J -11743370.23 -11743370.09 -11743369.94 0.0089 0.0065

Venus -36864-01-08 22:33 J -11743144.67 -11743144.56 -11743144.45 0.0089 0.0076
 Venus -36864-08-22 10:33 J -11742919.09 -11742919.06 -11742918.98 0.0089 0.0086
 Earth -36832-03-10 17:30 J -11731395.81 -11731395.77 -11731395.68 0.0089 0.0087
 Moon -36831-03-13 03:21 J -11731028.55 -11731028.36 -11731028.12 0.0089 0.0044
 Earth -36831-03-13 05:16 J -11731028.50 -11731028.28 -11731028.06 0.0089 0.0047 *
 Earth -36830-03-15 16:04 J -11730661.08 -11730660.83 -11730660.57 0.0089 0.0007
 Moon -36830-03-15 16:47 J -11730661.06 -11730660.80 -11730660.54 0.0089 0.0011 *
 Earth -36829-03-17 03:21 J -11730293.60 -11730293.36 -11730293.12 0.0089 0.0032
 Moon -36829-03-17 04:04 J -11730293.54 -11730293.33 -11730293.09 0.0089 0.0037 *
 Moon -36828-03-19 11:59 J -11729926.15 -11729926.00 -11729925.81 0.0089 0.0068
 Earth -36828-03-19 14:09 J -11729926.04 -11729925.91 -11729925.74 0.0089 0.0072 *
 Mercury -36824-10-05 09:21 J -11728265.14 -11728265.11 -11728265.06 0.0089 0.0085
 Mercury -36823-01-01 11:16 J -11728177.10 -11728177.03 -11728176.96 0.0089 0.0078
 Mercury -36823-03-30 12:42 J -11728089.04 -11728088.97 -11728088.87 0.0089 0.0072
 Mercury -36823-06-26 14:38 J -11728000.98 -11728000.89 -11728000.78 0.0089 0.0065
 Mercury -36823-09-22 16:33 J -11727912.92 -11727912.81 -11727912.69 0.0089 0.0058
 Mercury -36823-12-19 18:14 J -11727824.85 -11727824.74 -11727824.61 0.0089 0.0051
 Mercury -36822-03-17 20:09 J -11727736.78 -11727736.66 -11727736.53 0.0089 0.0044
 Mercury -36822-06-13 22:04 J -11727648.71 -11727648.58 -11727648.44 0.0089 0.0037
 Mercury -36822-09-09 23:45 J -11727560.64 -11727560.51 -11727560.36 0.0089 0.0030
 Mercury -36822-12-07 01:40 J -11727472.57 -11727472.43 -11727472.28 0.0089 0.0023
 Mercury -36821-03-04 03:35 J -11727384.50 -11727384.35 -11727384.20 0.0089 0.0016
 Mercury -36821-05-31 05:30 J -11727296.42 -11727296.27 -11727296.12 0.0089 0.0009
 Mercury -36821-08-27 07:26 J -11727208.34 -11727208.19 -11727208.05 0.0089 0.0003
 Mercury -36821-11-23 09:06 J -11727120.27 -11727120.12 -11727119.97 0.0089 0.0005
 Mercury -36820-02-19 11:02 J -11727032.19 -11727032.04 -11727031.89 0.0089 0.0012
 Mercury -36820-05-18 12:57 J -11726944.11 -11726943.96 -11726943.81 0.0089 0.0019
 Mercury -36820-08-14 14:52 J -11726856.03 -11726855.88 -11726855.74 0.0089 0.0026
 Mercury -36820-11-10 16:33 J -11726767.94 -11726767.81 -11726767.66 0.0089 0.0034
 Mercury -36819-02-06 18:28 J -11726679.86 -11726679.73 -11726679.59 0.0089 0.0041

Mercury -36819-05-05 20:23 J -11726591.77 -11726591.65 -11726591.52 0.0089 0.0048

Mercury -36819-08-01 22:18 J -11726503.68 -11726503.57 -11726503.45 0.0089 0.0055

Mercury -36819-10-28 23:59 J -11726415.59 -11726415.50 -11726415.38 0.0089 0.0063

Mercury -36818-01-25 01:54 J -11726327.49 -11726327.42 -11726327.31 0.0089 0.0070

Mercury -36818-04-23 04:04 J -11726239.39 -11726239.33 -11726239.25 0.0089 0.0077

Mercury -36818-07-20 06:14 J -11726151.29 -11726151.24 -11726151.19 0.0089 0.0084

Mars -36818-07-26 00:57 J -11726145.61 -11726145.46 -11726145.25 0.0089 0.0070

Mars -36816-06-18 21:35 J -11725451.87 -11725451.60 -11725451.32 0.0089 0.0030

Mars -36814-05-13 14:52 J -11724758.16 -11724757.88 -11724757.58 0.0089 0.0009

Mars -36812-04-06 08:23 J -11724064.38 -11724064.15 -11724063.90 0.0089 0.0048

Mars -36810-03-01 01:26 J -11723370.47 -11723370.44 -11723370.35 0.0089 0.0087

Venus -36792-04-06 05:30 J -11716759.33 -11716759.27 -11716759.16 0.0088 0.0081

Venus -36792-11-17 18:28 J -11716533.84 -11716533.73 -11716533.58 0.0088 0.0072

Venus -36791-07-01 07:26 J -11716308.32 -11716308.19 -11716308.01 0.0088 0.0062

Venus -36790-02-11 20:52 J -11716082.80 -11716082.63 -11716082.44 0.0088 0.0051

Venus -36790-09-25 09:50 J -11715857.28 -11715857.09 -11715856.88 0.0088 0.0041

Venus -36789-05-07 23:02 J -11715631.74 -11715631.54 -11715631.33 0.0088 0.0031

Venus -36789-12-19 11:59 J -11715406.20 -11715406.00 -11715405.77 0.0088 0.0021

Venus -36788-08-02 01:11 J -11715180.66 -11715180.45 -11715180.22 0.0088 0.0011

Venus -36787-03-15 14:38 J -11714955.11 -11714954.89 -11714954.67 0.0088 0.0001

Venus -36787-10-27 03:50 J -11714729.56 -11714729.34 -11714729.12 0.0088 0.0010

Venus -36786-06-09 17:02 J -11714504.00 -11714503.79 -11714503.57 0.0088 0.0021

Venus -36785-01-21 05:59 J -11714278.45 -11714278.25 -11714278.03 0.0088 0.0031

Venus -36785-09-02 19:11 J -11714052.88 -11714052.70 -11714052.49 0.0088 0.0041

Venus -36784-04-16 08:38 J -11713827.30 -11713827.14 -11713826.94 0.0088 0.0052

Venus -36784-11-27 22:04 J -11713601.73 -11713601.58 -11713601.41 0.0088 0.0062

Venus -36783-07-11 11:30 J -11713376.14 -11713376.02 -11713375.89 0.0088 0.0072

Venus -36782-02-22 00:57 J -11713150.54 -11713150.46 -11713150.38 0.0088 0.0082

Earth -36749-09-13 17:02 J -11700892.98 -11700892.79 -11700892.55 0.0088 0.0051

Moon -36749-09-13 18:28 J -11700892.94 -11700892.73 -11700892.49 0.0088 0.0047 *

Moon -36748-09-16 05:30 J -11700525.52 -11700525.27 -11700525.02 0.0088 0.0014
 Earth -36748-09-16 05:30 J -11700525.52 -11700525.27 -11700525.00 0.0088 0.0011 *
 Moon -36747-09-18 16:47 J -11700158.03 -11700157.80 -11700157.53 0.0088 0.0032
 Earth -36747-09-18 17:45 J -11700158.00 -11700157.76 -11700157.50 0.0088 0.0029 *
 Earth -36746-09-21 05:59 J -11699790.42 -11699790.25 -11699790.09 0.0088 0.0068
 Moon -36746-09-21 07:40 J -11699790.32 -11699790.18 -11699789.98 0.0088 0.0065 *
 Mercury -36740-01-01 11:16 J -11697861.06 -11697861.03 -11697860.96 0.0088 0.0084
 Mercury -36740-03-30 13:54 J -11697772.99 -11697772.92 -11697772.82 0.0088 0.0076
 Mercury -36740-06-26 16:33 J -11697684.91 -11697684.81 -11697684.69 0.0088 0.0068
 Mercury -36740-09-22 19:11 J -11697596.81 -11697596.70 -11697596.57 0.0088 0.0060
 Mercury -36740-12-19 21:35 J -11697508.72 -11697508.60 -11697508.45 0.0088 0.0053
 Mercury -36739-03-18 00:14 J -11697420.62 -11697420.49 -11697420.33 0.0088 0.0045
 Mercury -36739-06-14 02:52 J -11697332.53 -11697332.38 -11697332.22 0.0088 0.0037
 Mercury -36739-09-10 05:30 J -11697244.43 -11697244.27 -11697244.11 0.0088 0.0028
 Mercury -36739-12-07 08:09 J -11697156.33 -11697156.16 -11697156.00 0.0088 0.0021
 Mercury -36738-03-05 10:33 J -11697068.22 -11697068.06 -11697067.89 0.0088 0.0013
 Mercury -36738-06-01 13:11 J -11696980.12 -11696979.95 -11696979.79 0.0088 0.0005
 Mercury -36738-08-28 15:35 J -11696892.02 -11696891.85 -11696891.68 0.0088 0.0003
 Mercury -36738-11-24 17:59 J -11696803.91 -11696803.75 -11696803.58 0.0088 0.0011
 Mercury -36737-02-20 20:23 J -11696715.81 -11696715.65 -11696715.48 0.0088 0.0018
 Mercury -36737-05-18 22:47 J -11696627.70 -11696627.55 -11696627.38 0.0088 0.0026
 Mercury -36737-08-15 01:26 J -11696539.59 -11696539.44 -11696539.29 0.0088 0.0034
 Mercury -36737-11-11 03:35 J -11696451.49 -11696451.35 -11696451.19 0.0088 0.0042
 Mercury -36736-02-07 05:59 J -11696363.38 -11696363.25 -11696363.10 0.0088 0.0049
 Mercury -36736-05-06 08:23 J -11696275.26 -11696275.15 -11696275.01 0.0088 0.0057
 Mercury -36736-08-02 10:47 J -11696187.15 -11696187.05 -11696186.93 0.0088 0.0064
 Mercury -36736-10-29 13:11 J -11696099.03 -11696098.95 -11696098.84 0.0088 0.0072
 Mercury -36735-01-25 15:21 J -11696010.91 -11696010.86 -11696010.77 0.0088 0.0080
 Mercury -36735-04-23 17:45 J -11695922.77 -11695922.76 -11695922.71 0.0088 0.0087
 Mars -36734-03-23 22:18 J -11695588.78 -11695588.57 -11695588.29 0.0088 0.0062

Mars	-36732-02-17 02:09 J	-11694892.74	-11694892.41	-11694892.07	0.0088	0.0016
Mars	-36730-01-14 06:57 J	-11694196.51	-11694196.21	-11694195.87	0.0088	0.0031
Mars	-36729-12-10 12:14 J	-11693500.12	-11693499.99	-11693499.78	0.0088	0.0077
Venus	-36709-01-07 07:26 J	-11686533.24	-11686533.19	-11686533.09	0.0089	0.0083
Venus	-36709-08-19 20:38 J	-11686307.74	-11686307.64	-11686307.49	0.0089	0.0073
Venus	-36708-04-02 10:04 J	-11686082.23	-11686082.08	-11686081.92	0.0089	0.0062
Venus	-36708-11-13 23:02 J	-11685856.71	-11685856.54	-11685856.35	0.0089	0.0052
Venus	-36707-06-27 11:45 J	-11685631.19	-11685631.01	-11685630.80	0.0089	0.0042
Venus	-36706-02-08 00:42 J	-11685405.66	-11685405.47	-11685405.25	0.0089	0.0032
Venus	-36706-09-21 13:40 J	-11685180.13	-11685179.93	-11685179.70	0.0089	0.0022
Venus	-36705-05-04 02:52 J	-11684954.60	-11684954.38	-11684954.16	0.0089	0.0011
Venus	-36705-12-15 15:35 J	-11684729.07	-11684728.85	-11684728.63	0.0089	0.0001
Venus	-36704-07-29 04:18 J	-11684503.53	-11684503.32	-11684503.10	0.0089	0.0009
Venus	-36703-03-11 17:02 J	-11684278.00	-11684277.79	-11684277.57	0.0089	0.0020
Venus	-36703-10-23 05:45 J	-11684052.45	-11684052.26	-11684052.04	0.0089	0.0030
Venus	-36702-06-05 18:28 J	-11683826.91	-11683826.73	-11683826.52	0.0089	0.0040
Venus	-36701-01-17 06:57 J	-11683601.37	-11683601.21	-11683601.01	0.0089	0.0050
Venus	-36701-08-29 19:40 J	-11683375.82	-11683375.68	-11683375.50	0.0089	0.0060
Venus	-36700-04-12 08:23 J	-11683150.27	-11683150.15	-11683150.00	0.0089	0.0070
Venus	-36700-11-23 21:06 J	-11682924.70	-11682924.62	-11682924.51	0.0089	0.0080
Moon	-36667-03-12 12:28 J	-11671128.14	-11671127.98	-11671127.78	0.0089	0.0066
Earth	-36667-03-12 12:42 J	-11671128.11	-11671127.97	-11671127.78	0.0089	0.0068 *
Earth	-36666-03-14 23:59 J	-11670760.73	-11670760.50	-11670760.24	0.0089	0.0029
Moon	-36666-03-15 00:57 J	-11670760.67	-11670760.46	-11670760.21	0.0089	0.0030 *
Moon	-36665-03-16 08:38 J	-11670393.38	-11670393.14	-11670392.87	0.0089	0.0015
Earth	-36665-03-16 11:30 J	-11670393.27	-11670393.02	-11670392.77	0.0089	0.0012 *
Earth	-36664-03-18 22:18 J	-11670025.77	-11670025.57	-11670025.35	0.0089	0.0051
Moon	-36664-03-19 01:26 J	-11670025.64	-11670025.44	-11670025.22	0.0089	0.0049 *
Mercury	-36659-07-02 08:38 J	-11668094.19	-11668094.14	-11668094.09	0.0089	0.0082
Mercury	-36659-09-28 10:04 J	-11668006.14	-11668006.08	-11668005.99	0.0089	0.0076

Mercury -36659-12-25 11:45 J -11667918.09 -11667918.01 -11667917.90 0.0089 0.0069

Mercury -36658-03-23 13:40 J -11667830.02 -11667829.93 -11667829.82 0.0089 0.0062

Mercury -36658-06-19 15:35 J -11667741.96 -11667741.85 -11667741.73 0.0089 0.0055

Mercury -36658-09-15 17:16 J -11667653.89 -11667653.78 -11667653.65 0.0089 0.0048

Mercury -36658-12-12 19:11 J -11667565.83 -11667565.70 -11667565.57 0.0089 0.0041

Mercury -36657-03-09 21:06 J -11667477.76 -11667477.62 -11667477.48 0.0089 0.0034

Mercury -36657-06-05 22:47 J -11667389.69 -11667389.55 -11667389.40 0.0089 0.0028

Mercury -36657-09-02 00:42 J -11667301.61 -11667301.47 -11667301.32 0.0089 0.0020

Mercury -36657-11-29 02:38 J -11667213.54 -11667213.39 -11667213.25 0.0089 0.0013

Mercury -36656-02-25 04:18 J -11667125.46 -11667125.32 -11667125.17 0.0089 0.0007

Mercury -36656-05-24 06:14 J -11667037.39 -11667037.24 -11667037.09 0.0089 0.0001

Mercury -36656-08-20 08:09 J -11666949.31 -11666949.16 -11666949.01 0.0089 0.0008

Mercury -36656-11-16 09:50 J -11666861.23 -11666861.09 -11666860.94 0.0089 0.0015

Mercury -36655-02-12 11:45 J -11666773.15 -11666773.01 -11666772.86 0.0089 0.0022

Mercury -36655-05-11 13:40 J -11666685.07 -11666684.93 -11666684.79 0.0089 0.0029

Mercury -36655-08-07 15:35 J -11666596.98 -11666596.85 -11666596.71 0.0089 0.0036

Mercury -36655-11-03 17:16 J -11666508.90 -11666508.78 -11666508.64 0.0089 0.0044

Mercury -36654-01-30 19:11 J -11666420.81 -11666420.70 -11666420.57 0.0089 0.0051

Mars -36654-03-10 09:35 J -11666382.10 -11666382.10 -11666382.06 0.0089 0.0089

Mercury -36654-04-28 21:06 J -11666332.72 -11666332.62 -11666332.50 0.0089 0.0058

Mercury -36654-07-25 23:16 J -11666244.63 -11666244.53 -11666244.43 0.0089 0.0065

Mercury -36654-10-22 00:57 J -11666156.53 -11666156.46 -11666156.36 0.0089 0.0073

Mercury -36653-01-18 02:52 J -11666068.43 -11666068.38 -11666068.30 0.0089 0.0080

Mercury -36653-04-15 05:02 J -11665980.31 -11665980.29 -11665980.26 0.0089 0.0087

Mars -36652-02-01 05:02 J -11665688.52 -11665688.29 -11665688.03 0.0089 0.0049

Mars -36651-12-27 00:42 J -11664994.75 -11664994.47 -11664994.17 0.0089 0.0010

Mars -36649-11-19 18:42 J -11664300.99 -11664300.72 -11664300.44 0.0089 0.0030

Mars -36647-10-14 11:16 J -11663607.20 -11663607.03 -11663606.84 0.0089 0.0069

Venus -36628-07-08 14:52 J -11656764.91 -11656764.88 -11656764.80 0.0088 0.0086

Venus -36627-02-19 03:50 J -11656539.43 -11656539.34 -11656539.20 0.0088 0.0076

Venus	-36627-10-02 16:47 J	-11656313.92	-11656313.80	-11656313.63	0.0088	0.0066
Venus	-36626-05-16 05:59 J	-11656088.41	-11656088.25	-11656088.06	0.0088	0.0056
Venus	-36626-12-27 18:57 J	-11655862.89	-11655862.71	-11655862.51	0.0088	0.0046
Venus	-36625-08-09 07:54 J	-11655637.36	-11655637.17	-11655636.95	0.0088	0.0036
Venus	-36624-03-22 21:06 J	-11655411.82	-11655411.62	-11655411.40	0.0088	0.0026
Venus	-36624-11-03 10:18 J	-11655186.28	-11655186.07	-11655185.84	0.0088	0.0015
Venus	-36623-06-16 23:30 J	-11654960.74	-11654960.52	-11654960.30	0.0088	0.0005
Venus	-36622-01-28 12:28 J	-11654735.20	-11654734.98	-11654734.75	0.0088	0.0006
Venus	-36622-09-11 01:40 J	-11654509.64	-11654509.43	-11654509.21	0.0088	0.0015
Venus	-36621-04-23 14:52 J	-11654284.08	-11654283.88	-11654283.66	0.0088	0.0026
Venus	-36621-12-05 04:04 J	-11654058.52	-11654058.33	-11654058.12	0.0088	0.0036
Venus	-36620-07-18 17:16 J	-11653832.96	-11653832.78	-11653832.58	0.0088	0.0046
Venus	-36619-03-01 06:42 J	-11653607.39	-11653607.22	-11653607.04	0.0088	0.0056
Venus	-36619-10-12 19:54 J	-11653381.81	-11653381.67	-11653381.51	0.0088	0.0066
Venus	-36618-05-26 09:21 J	-11653156.22	-11653156.11	-11653155.99	0.0088	0.0076
Venus	-36617-01-06 22:33 J	-11652930.60	-11652930.56	-11652930.50	0.0088	0.0086
Earth	-36585-09-12 22:47 J	-11640992.67	-11640992.55	-11640992.38	0.0088	0.0073
Moon	-36585-09-12 23:30 J	-11640992.67	-11640992.52	-11640992.36	0.0088	0.0068 *
Moon	-36584-09-15 09:35 J	-11640625.34	-11640625.10	-11640624.85	0.0088	0.0036
Earth	-36584-09-15 11:02 J	-11640625.26	-11640625.04	-11640624.78	0.0088	0.0033 *
Earth	-36583-09-17 23:30 J	-11640257.78	-11640257.52	-11640257.26	0.0088	0.0007
Moon	-36583-09-18 01:26 J	-11640257.68	-11640257.44	-11640257.18	0.0088	0.0010 *
Moon	-36582-09-20 07:54 J	-11639890.39	-11639890.17	-11639889.93	0.0088	0.0042
Earth	-36582-09-20 11:16 J	-11639890.23	-11639890.03	-11639889.79	0.0088	0.0046 *
Earth	-36581-09-21 23:02 J	-11639522.58	-11639522.54	-11639522.45	0.0088	0.0086
Mercury	-36576-09-28 09:50 J	-11637690.15	-11637690.09	-11637690.02	0.0088	0.0082
Mercury	-36576-12-25 12:14 J	-11637602.07	-11637601.99	-11637601.89	0.0088	0.0074
Mercury	-36575-03-23 14:52 J	-11637513.98	-11637513.88	-11637513.76	0.0088	0.0066
Mercury	-36575-06-19 17:30 J	-11637425.89	-11637425.77	-11637425.63	0.0088	0.0058
Mercury	-36575-09-15 20:09 J	-11637337.80	-11637337.66	-11637337.52	0.0088	0.0050

Mercury -36575-12-12 22:47 J -11637249.70 -11637249.55 -11637249.40 0.0088 0.0042

Mercury -36574-03-11 01:11 J -11637161.60 -11637161.45 -11637161.29 0.0088 0.0034

Mercury -36574-06-07 03:35 J -11637073.50 -11637073.35 -11637073.18 0.0088 0.0027

Mercury -36574-09-03 06:14 J -11636985.40 -11636985.24 -11636985.07 0.0088 0.0018

Mercury -36574-11-30 08:52 J -11636897.30 -11636897.13 -11636896.96 0.0088 0.0010

Mercury -36573-02-26 11:30 J -11636809.19 -11636809.02 -11636808.86 0.0088 0.0003

Mercury -36573-05-24 13:54 J -11636721.09 -11636720.92 -11636720.75 0.0088 0.0005

Mercury -36573-08-20 16:18 J -11636632.98 -11636632.82 -11636632.65 0.0088 0.0013

Mercury -36573-11-16 18:42 J -11636544.88 -11636544.72 -11636544.55 0.0088 0.0021

Mercury -36572-02-12 21:21 J -11636456.77 -11636456.61 -11636456.45 0.0088 0.0029

Mercury -36572-05-11 23:30 J -11636368.66 -11636368.52 -11636368.36 0.0088 0.0037

Mercury -36572-08-08 01:54 J -11636280.55 -11636280.42 -11636280.26 0.0088 0.0044

Mercury -36572-11-04 04:33 J -11636192.44 -11636192.31 -11636192.17 0.0088 0.0051

Mercury -36571-01-31 06:42 J -11636104.33 -11636104.22 -11636104.08 0.0088 0.0059

Mercury -36571-04-29 09:21 J -11636016.21 -11636016.11 -11636016.00 0.0088 0.0067

Mercury -36571-07-26 11:30 J -11635928.09 -11635928.02 -11635927.92 0.0088 0.0074

Mercury -36571-10-22 14:09 J -11635839.97 -11635839.91 -11635839.85 0.0088 0.0082

Mars -36571-11-04 07:11 J -11635827.28 -11635827.20 -11635827.06 0.0088 0.0084

Mars -36569-09-30 10:18 J -11635131.37 -11635131.07 -11635130.76 0.0088 0.0038

Mars -36567-08-27 13:54 J -11634435.25 -11634434.92 -11634434.57 0.0088 0.0009

Mars -36565-07-23 19:11 J -11633738.97 -11633738.70 -11633738.43 0.0088 0.0055

Venus -36545-04-09 16:18 J -11626538.84 -11626538.82 -11626538.76 0.0089 0.0087

Venus -36545-11-21 05:30 J -11626313.36 -11626313.27 -11626313.15 0.0089 0.0077

Venus -36544-07-04 18:28 J -11626087.86 -11626087.73 -11626087.57 0.0089 0.0067

Venus -36543-02-15 07:26 J -11625862.34 -11625862.19 -11625862.00 0.0089 0.0057

Venus -36543-09-28 20:38 J -11625636.81 -11625636.64 -11625636.44 0.0089 0.0047

Venus -36542-05-12 09:35 J -11625411.28 -11625411.10 -11625410.88 0.0089 0.0037

Venus -36542-12-23 23:02 J -11625185.75 -11625185.54 -11625185.34 0.0089 0.0026

Venus -36541-08-05 11:45 J -11624960.22 -11624960.01 -11624959.79 0.0089 0.0016

Venus -36540-03-19 00:42 J -11624734.69 -11624734.47 -11624734.25 0.0089 0.0006

Venus	-36540-10-30 13:40 J	-11624509.15	-11624508.93	-11624508.71	0.0089	0.0004
Venus	-36539-06-13 02:23 J	-11624283.61	-11624283.40	-11624283.18	0.0089	0.0014
Venus	-36538-01-24 15:06 J	-11624058.07	-11624057.87	-11624057.65	0.0089	0.0024
Venus	-36538-09-07 04:04 J	-11623832.53	-11623832.33	-11623832.13	0.0089	0.0034
Venus	-36537-04-19 16:47 J	-11623606.99	-11623606.80	-11623606.61	0.0089	0.0044
Venus	-36537-12-01 05:30 J	-11623381.44	-11623381.27	-11623381.10	0.0089	0.0054
Venus	-36536-07-14 17:59 J	-11623155.89	-11623155.75	-11623155.59	0.0089	0.0064
Venus	-36535-02-25 06:28 J	-11622930.33	-11622930.23	-11622930.09	0.0089	0.0075
Venus	-36535-10-08 19:11 J	-11622704.75	-11622704.70	-11622704.61	0.0089	0.0084
Moon	-36502-03-14 04:47 J	-11610860.51	-11610860.30	-11610860.07	0.0089	0.0046
Earth	-36502-03-14 07:11 J	-11610860.39	-11610860.20	-11610859.97	0.0089	0.0050 *
Earth	-36501-03-15 18:28 J	-11610492.98	-11610492.73	-11610492.47	0.0089	0.0010
Moon	-36501-03-15 22:04 J	-11610492.83	-11610492.58	-11610492.34	0.0089	0.0015 *
Moon	-36500-03-18 02:09 J	-11610125.64	-11610125.41	-11610125.17	0.0089	0.0033
Earth	-36500-03-18 05:16 J	-11610125.50	-11610125.28	-11610125.02	0.0089	0.0030 *
Earth	-36499-03-20 16:47 J	-11609757.96	-11609757.80	-11609757.64	0.0089	0.0070
Moon	-36499-03-20 19:40 J	-11609757.84	-11609757.68	-11609757.49	0.0089	0.0066 *
Mercury	-36495-12-31 05:30 J	-11608011.29	-11608011.27	-11608011.23	0.0089	0.0087
Mercury	-36494-03-29 07:11 J	-11607923.25	-11607923.20	-11607923.12	0.0089	0.0080
Mercury	-36494-06-25 09:06 J	-11607835.19	-11607835.12	-11607835.03	0.0089	0.0073
Mercury	-36494-09-21 11:02 J	-11607747.14	-11607747.04	-11607746.94	0.0089	0.0066
Mercury	-36494-12-18 12:28 J	-11607659.07	-11607658.98	-11607658.86	0.0089	0.0060
Mercury	-36493-03-15 14:23 J	-11607571.01	-11607570.90	-11607570.77	0.0089	0.0053
Mercury	-36493-06-11 16:04 J	-11607482.94	-11607482.83	-11607482.69	0.0089	0.0046
Mercury	-36493-09-07 17:59 J	-11607394.87	-11607394.75	-11607394.61	0.0089	0.0039
Mercury	-36493-12-04 19:54 J	-11607306.80	-11607306.67	-11607306.53	0.0089	0.0032
Mercury	-36492-03-02 21:35 J	-11607218.73	-11607218.60	-11607218.45	0.0089	0.0025
Mercury	-36492-05-29 23:30 J	-11607130.66	-11607130.52	-11607130.37	0.0089	0.0018
Mercury	-36492-08-26 01:26 J	-11607042.59	-11607042.44	-11607042.29	0.0089	0.0011
Mercury	-36492-11-22 03:21 J	-11606954.51	-11606954.36	-11606954.21	0.0089	0.0004

Mercury -36491-02-18 05:02 J -11606866.43 -11606866.29 -11606866.14 0.0089 0.0004

Mercury -36491-05-17 06:57 J -11606778.36 -11606778.21 -11606778.06 0.0089 0.0010

Mercury -36491-08-13 08:38 J -11606690.28 -11606690.14 -11606689.98 0.0089 0.0018

Mercury -36491-11-09 10:33 J -11606602.20 -11606602.06 -11606601.91 0.0089 0.0025

Mercury -36490-02-05 12:28 J -11606514.11 -11606513.98 -11606513.83 0.0089 0.0032

Mercury -36490-05-04 14:23 J -11606426.03 -11606425.90 -11606425.76 0.0089 0.0039

Mercury -36490-07-31 16:18 J -11606337.94 -11606337.82 -11606337.69 0.0089 0.0046

Mercury -36490-10-27 18:14 J -11606249.86 -11606249.74 -11606249.62 0.0089 0.0053

Mercury -36489-01-23 19:54 J -11606161.77 -11606161.67 -11606161.55 0.0089 0.0061

Mercury -36489-04-20 21:50 J -11606073.67 -11606073.59 -11606073.48 0.0089 0.0068

Mercury -36489-07-17 23:59 J -11605985.58 -11605985.50 -11605985.42 0.0089 0.0075

Mars -36489-09-16 13:11 J -11605925.13 -11605924.95 -11605924.76 0.0089 0.0068

Mercury -36489-10-14 01:40 J -11605897.47 -11605897.43 -11605897.36 0.0089 0.0083

Mars -36487-08-11 07:54 J -11605231.44 -11605231.17 -11605230.89 0.0089 0.0028

Mars -36485-07-05 02:23 J -11604537.68 -11604537.40 -11604537.10 0.0089 0.0012

Mars -36483-05-29 21:06 J -11603843.85 -11603843.62 -11603843.38 0.0089 0.0051

Venus -36463-05-23 12:57 J -11596545.04 -11596544.96 -11596544.85 0.0088 0.0079

Venus -36462-01-04 01:54 J -11596319.54 -11596319.42 -11596319.27 0.0088 0.0070

Venus -36462-08-17 15:06 J -11596094.03 -11596093.87 -11596093.71 0.0088 0.0060

Venus -36461-03-30 04:18 J -11595868.50 -11595868.32 -11595868.14 0.0088 0.0050

Venus -36461-11-10 16:47 J -11595642.98 -11595642.80 -11595642.58 0.0088 0.0041

Venus -36460-06-24 05:59 J -11595417.45 -11595417.25 -11595417.03 0.0088 0.0030

Venus -36459-02-04 18:57 J -11595191.91 -11595191.71 -11595191.48 0.0088 0.0021

Venus -36459-09-18 08:09 J -11594966.37 -11594966.16 -11594965.93 0.0088 0.0010

Venus -36458-05-01 21:21 J -11594740.83 -11594740.61 -11594740.38 0.0088 0.0001

Venus -36458-12-13 10:33 J -11594515.28 -11594515.06 -11594514.84 0.0088 0.0010

Venus -36457-07-25 23:16 J -11594289.73 -11594289.53 -11594289.30 0.0088 0.0021

Venus -36456-03-08 12:28 J -11594064.17 -11594063.98 -11594063.76 0.0088 0.0030

Venus -36456-10-20 02:09 J -11593838.61 -11593838.41 -11593838.22 0.0088 0.0040

Venus -36455-06-02 15:06 J -11593613.05 -11593612.87 -11593612.68 0.0088 0.0050

Venus	-36454-01-14 04:18 J	-11593387.48	-11593387.32	-11593387.15	0.0088	0.0060
Venus	-36454-08-27 17:30 J	-11593161.90	-11593161.77	-11593161.63	0.0088	0.0070
Venus	-36453-04-09 06:57 J	-11592936.29	-11592936.21	-11592936.11	0.0088	0.0079
Earth	-36420-09-14 16:18 J	-11580725.00	-11580724.82	-11580724.60	0.0088	0.0055
Moon	-36420-09-14 19:26 J	-11580724.88	-11580724.69	-11580724.47	0.0088	0.0054 *
Moon	-36419-09-17 01:26 J	-11580357.69	-11580357.44	-11580357.18	0.0088	0.0018
Earth	-36419-09-17 04:33 J	-11580357.55	-11580357.31	-11580357.04	0.0088	0.0016 *
Earth	-36418-09-19 16:18 J	-11579990.05	-11579989.82	-11579989.55	0.0088	0.0024
Moon	-36418-09-19 20:09 J	-11579989.89	-11579989.66	-11579989.40	0.0088	0.0027 *
Moon	-36417-09-21 01:11 J	-11579622.61	-11579622.45	-11579622.24	0.0088	0.0061
Earth	-36417-09-21 04:18 J	-11579622.48	-11579622.32	-11579622.12	0.0088	0.0064 *
Mercury	-36411-03-29 05:16 J	-11577607.29	-11577607.28	-11577607.26	0.0088	0.0088
Mercury	-36411-06-25 07:54 J	-11577519.24	-11577519.17	-11577519.10	0.0088	0.0080
Mercury	-36411-09-21 10:18 J	-11577431.16	-11577431.07	-11577430.96	0.0088	0.0072
Mercury	-36411-12-18 12:57 J	-11577343.07	-11577342.96	-11577342.83	0.0088	0.0064
Mercury	-36410-03-16 15:35 J	-11577254.98	-11577254.85	-11577254.71	0.0088	0.0056
Mercury	-36410-06-12 18:14 J	-11577166.88	-11577166.74	-11577166.59	0.0088	0.0048
Mercury	-36410-09-08 20:52 J	-11577078.78	-11577078.63	-11577078.48	0.0088	0.0040
Mercury	-36410-12-05 23:30 J	-11576990.68	-11576990.52	-11576990.36	0.0088	0.0032
Mercury	-36409-03-03 01:40 J	-11576902.58	-11576902.43	-11576902.25	0.0088	0.0025
Mercury	-36409-05-30 04:18 J	-11576814.48	-11576814.32	-11576814.15	0.0088	0.0016
Mercury	-36409-08-26 06:57 J	-11576726.37	-11576726.21	-11576726.04	0.0088	0.0008
Mercury	-36409-11-22 09:35 J	-11576638.27	-11576638.10	-11576637.93	0.0088	0.0001
Mercury	-36408-02-18 11:59 J	-11576550.17	-11576550.00	-11576549.83	0.0088	0.0008
Mercury	-36408-05-17 14:23 J	-11576462.06	-11576461.90	-11576461.73	0.0088	0.0016
Mercury	-36408-08-13 16:47 J	-11576373.95	-11576373.80	-11576373.63	0.0088	0.0023
Mercury	-36408-11-09 19:26 J	-11576285.84	-11576285.69	-11576285.53	0.0088	0.0031
Mercury	-36407-02-05 21:50 J	-11576197.74	-11576197.59	-11576197.44	0.0088	0.0038
Mercury	-36407-05-04 23:59 J	-11576109.63	-11576109.50	-11576109.34	0.0088	0.0047
Mercury	-36407-08-01 02:38 J	-11576021.52	-11576021.39	-11576021.25	0.0088	0.0054

Mercury -36407-10-28 04:47 J -11575933.40 -11575933.30 -11575933.16 0.0088 0.0062

Mercury -36406-01-24 07:26 J -11575845.28 -11575845.19 -11575845.08 0.0088 0.0069

Mercury -36406-04-22 09:35 J -11575757.16 -11575757.10 -11575757.00 0.0088 0.0077

Mercury -36406-07-19 12:14 J -11575669.03 -11575668.99 -11575668.93 0.0088 0.0084

Mars -36405-05-13 15:21 J -11575370.08 -11575369.86 -11575369.58 0.0088 0.0061

Mars -36403-04-09 18:14 J -11574674.06 -11574673.74 -11574673.39 0.0088 0.0015

Mars -36401-03-05 22:04 J -11573977.88 -11573977.58 -11573977.24 0.0088 0.0033

Mars -36399-01-31 02:52 J -11573281.49 -11573281.38 -11573281.19 0.0088 0.0080

Venus -36380-02-22 13:40 J -11566318.99 -11566318.93 -11566318.82 0.0089 0.0082

Venus -36380-10-06 02:52 J -11566093.49 -11566093.38 -11566093.23 0.0089 0.0072

Venus -36379-05-19 15:50 J -11565867.97 -11565867.84 -11565867.66 0.0089 0.0062

Venus -36379-12-31 04:47 J -11565642.45 -11565642.30 -11565642.10 0.0089 0.0052

Venus -36378-08-13 17:59 J -11565416.93 -11565416.75 -11565416.54 0.0089 0.0042

Venus -36377-03-26 06:57 J -11565191.40 -11565191.21 -11565190.99 0.0089 0.0032

Venus -36377-11-06 20:23 J -11564965.86 -11564965.65 -11564965.44 0.0089 0.0021

Venus -36376-06-20 09:21 J -11564740.33 -11564740.11 -11564739.89 0.0089 0.0011

Venus -36375-01-31 22:18 J -11564514.79 -11564514.57 -11564514.36 0.0089 0.0002

Venus -36375-09-14 11:02 J -11564289.25 -11564289.04 -11564288.82 0.0089 0.0009

Venus -36374-04-27 23:45 J -11564063.71 -11564063.51 -11564063.29 0.0089 0.0019

Venus -36374-12-09 12:28 J -11563838.17 -11563837.98 -11563837.76 0.0089 0.0029

Venus -36373-07-22 01:11 J -11563612.63 -11563612.45 -11563612.24 0.0089 0.0039

Venus -36372-03-04 14:23 J -11563387.09 -11563386.90 -11563386.72 0.0089 0.0049

Venus -36372-10-16 02:52 J -11563161.53 -11563161.38 -11563161.20 0.0089 0.0059

Venus -36371-05-29 15:35 J -11562935.98 -11562935.85 -11562935.70 0.0089 0.0068

Venus -36370-01-10 04:04 J -11562710.42 -11562710.33 -11562710.21 0.0089 0.0078

Venus -36370-08-23 16:33 J -11562484.82 -11562484.81 -11562484.75 0.0089 0.0088

Jupiter -36364-06-18 07:54 J -11560359.45 -11560359.17 -11560358.79 0.0089 0.0069

Earth -36338-03-13 13:11 J -11550960.07 -11550959.95 -11550959.78 0.0089 0.0073

Moon -36338-03-13 16:33 J -11550959.94 -11550959.81 -11550959.63 0.0089 0.0070 *

Moon -36337-03-14 21:06 J -11550592.84 -11550592.62 -11550592.37 0.0089 0.0035

Earth -36337-03-15 00:42 J -11550592.69 -11550592.47 -11550592.22 0.0089 0.0033 *
 Earth -36336-03-17 11:59 J -11550225.26 -11550225.00 -11550224.75 0.0089 0.0007
 Moon -36336-03-17 15:06 J -11550225.13 -11550224.87 -11550224.61 0.0089 0.0010 *
 Moon -36335-03-19 20:38 J -11549857.84 -11549857.64 -11549857.41 0.0089 0.0045
 Earth -36335-03-19 23:02 J -11549857.75 -11549857.54 -11549857.32 0.0089 0.0047 *
 Earth -36334-03-22 09:50 J -11549490.12 -11549490.09 -11549490.02 0.0089 0.0088
 Moon -36334-03-22 11:45 J -11549490.01 -11549490.01 -11549489.99 0.0089 0.0089
 Mercury -36330-09-27 04:18 J -11547840.35 -11547840.32 -11547840.27 0.0089 0.0085
 Mercury -36330-12-24 05:59 J -11547752.31 -11547752.25 -11547752.17 0.0089 0.0078
 Mercury -36329-03-21 07:54 J -11547664.25 -11547664.17 -11547664.08 0.0089 0.0071
 Mercury -36329-06-17 09:50 J -11547576.19 -11547576.09 -11547575.99 0.0089 0.0064
 Mercury -36329-09-13 11:16 J -11547488.13 -11547488.03 -11547487.91 0.0089 0.0058
 Mercury -36329-12-10 12:57 J -11547400.06 -11547399.96 -11547399.82 0.0089 0.0051
 Mercury -36328-03-08 14:52 J -11547312.00 -11547311.88 -11547311.74 0.0089 0.0044
 Mercury -36328-06-04 16:47 J -11547223.93 -11547223.80 -11547223.66 0.0089 0.0037
 Mercury -36328-08-31 18:28 J -11547135.86 -11547135.73 -11547135.58 0.0089 0.0030
 Mercury -36328-11-27 20:23 J -11547047.79 -11547047.65 -11547047.50 0.0089 0.0023
 Mercury -36327-02-23 22:18 J -11546959.72 -11546959.57 -11546959.42 0.0089 0.0016
 Mercury -36327-05-22 23:59 J -11546871.64 -11546871.50 -11546871.35 0.0089 0.0009
 Mercury -36327-08-19 01:54 J -11546783.57 -11546783.42 -11546783.27 0.0089 0.0002
 Mercury -36327-11-15 03:50 J -11546695.49 -11546695.34 -11546695.19 0.0089 0.0005
 Mercury -36326-02-11 05:30 J -11546607.41 -11546607.27 -11546607.12 0.0089 0.0013
 Mercury -36326-05-10 07:26 J -11546519.33 -11546519.19 -11546519.04 0.0089 0.0020
 Mercury -36326-08-06 09:06 J -11546431.25 -11546431.12 -11546430.97 0.0089 0.0027
 Mercury -36326-11-02 11:02 J -11546343.17 -11546343.04 -11546342.89 0.0089 0.0034
 Mercury -36325-01-29 12:57 J -11546255.08 -11546254.96 -11546254.82 0.0089 0.0041
 Mercury -36325-04-26 14:52 J -11546167.00 -11546166.88 -11546166.75 0.0089 0.0048
 Mars -36325-05-01 17:30 J -11546161.79 -11546161.77 -11546161.74 0.0089 0.0088
 Mercury -36325-07-23 16:47 J -11546078.91 -11546078.80 -11546078.68 0.0089 0.0055
 Mercury -36325-10-19 18:28 J -11545990.82 -11545990.73 -11545990.61 0.0089 0.0063

Mercury	-36324-01-15 20:23 J	-11545902.73	-11545902.65	-11545902.54	0.0089	0.0070
Mercury	-36324-04-13 22:33 J	-11545814.63	-11545814.56	-11545814.48	0.0089	0.0077
Mercury	-36324-07-11 00:14 J	-11545726.52	-11545726.49	-11545726.43	0.0089	0.0085
Mars	-36323-03-26 14:09 J	-11545468.14	-11545467.91	-11545467.64	0.0089	0.0048
Mars	-36321-02-18 09:35 J	-11544774.38	-11544774.10	-11544773.80	0.0089	0.0008
Mars	-36319-01-12 03:35 J	-11544080.61	-11544080.35	-11544080.06	0.0089	0.0033
Mars	-36318-12-06 22:33 J	-11543386.72	-11543386.56	-11543386.39	0.0089	0.0072
Venus	-36299-08-24 21:21 J	-11536550.66	-11536550.61	-11536550.53	0.0088	0.0084
Venus	-36298-04-07 10:04 J	-11536325.17	-11536325.08	-11536324.93	0.0088	0.0075
Venus	-36298-11-18 23:16 J	-11536099.66	-11536099.53	-11536099.36	0.0088	0.0065
Venus	-36297-07-01 12:28 J	-11535874.15	-11535873.98	-11535873.80	0.0088	0.0055
Venus	-36296-02-12 01:11 J	-11535648.63	-11535648.45	-11535648.25	0.0088	0.0045
Venus	-36296-09-25 14:09 J	-11535423.10	-11535422.91	-11535422.69	0.0088	0.0036
Venus	-36295-05-09 03:21 J	-11535197.56	-11535197.36	-11535197.14	0.0088	0.0025
Venus	-36295-12-20 16:33 J	-11534972.03	-11534971.81	-11534971.59	0.0088	0.0015
Venus	-36294-08-03 05:30 J	-11534746.49	-11534746.27	-11534746.05	0.0088	0.0006
Venus	-36293-03-15 18:42 J	-11534520.94	-11534520.72	-11534520.50	0.0088	0.0004
Venus	-36293-10-27 07:40 J	-11534295.39	-11534295.18	-11534294.96	0.0088	0.0014
Venus	-36292-06-09 20:38 J	-11534069.85	-11534069.64	-11534069.42	0.0088	0.0024
Venus	-36291-01-21 09:35 J	-11533844.29	-11533844.10	-11533843.88	0.0088	0.0034
Venus	-36291-09-03 23:02 J	-11533618.73	-11533618.54	-11533618.35	0.0088	0.0044
Venus	-36290-04-17 12:14 J	-11533393.16	-11533392.99	-11533392.81	0.0088	0.0054
Venus	-36290-11-29 01:26 J	-11533167.58	-11533167.44	-11533167.28	0.0088	0.0063
Venus	-36289-07-11 14:23 J	-11532942.00	-11532941.90	-11532941.76	0.0088	0.0074
Venus	-36288-02-22 03:35 J	-11532716.40	-11532716.35	-11532716.26	0.0088	0.0083
Moon	-36256-09-13 16:18 J	-11520824.93	-11520824.82	-11520824.64	0.0088	0.0075
Earth	-36256-09-13 20:23 J	-11520824.75	-11520824.65	-11520824.51	0.0088	0.0079 *
Earth	-36255-09-16 08:23 J	-11520457.37	-11520457.15	-11520456.90	0.0088	0.0039
Moon	-36255-09-16 11:45 J	-11520457.22	-11520457.01	-11520456.76	0.0088	0.0043 *
Moon	-36254-09-18 17:30 J	-11520090.02	-11520089.77	-11520089.51	0.0088	0.0005

Earth -36254-09-18 20:52 J -11520089.89 -11520089.63 -11520089.37 0.0088 0.0001 *
 Earth -36253-09-20 08:38 J -11519722.36 -11519722.14 -11519721.90 0.0088 0.0040
 Moon -36253-09-20 10:47 J -11519722.28 -11519722.05 -11519721.79 0.0088 0.0036 *
 Moon -36252-09-22 19:11 J -11519354.76 -11519354.70 -11519354.60 0.0088 0.0084
 Earth -36252-09-22 20:38 J -11519354.74 -11519354.64 -11519354.52 0.0088 0.0080 *
 Mercury -36247-12-24 02:52 J -11517436.40 -11517436.38 -11517436.34 0.0088 0.0086
 Mercury -36246-03-22 05:30 J -11517348.34 -11517348.27 -11517348.18 0.0088 0.0078
 Mercury -36246-06-18 07:54 J -11517260.25 -11517260.17 -11517260.05 0.0088 0.0071
 Mercury -36246-09-14 10:33 J -11517172.16 -11517172.06 -11517171.92 0.0088 0.0063
 Mercury -36246-12-11 13:11 J -11517084.07 -11517083.95 -11517083.80 0.0088 0.0055
 Mercury -36245-03-08 15:50 J -11516995.97 -11516995.84 -11516995.68 0.0088 0.0047
 Mercury -36245-06-04 18:28 J -11516907.87 -11516907.73 -11516907.56 0.0088 0.0039
 Mercury -36245-08-31 21:06 J -11516819.77 -11516819.62 -11516819.45 0.0088 0.0030
 Mercury -36245-11-27 23:45 J -11516731.67 -11516731.51 -11516731.34 0.0088 0.0022
 Mercury -36244-02-24 02:23 J -11516643.56 -11516643.40 -11516643.23 0.0088 0.0014
 Mercury -36244-05-23 05:02 J -11516555.46 -11516555.29 -11516555.12 0.0088 0.0006
 Mercury -36244-08-19 07:26 J -11516467.36 -11516467.19 -11516467.02 0.0088 0.0002
 Mercury -36244-11-15 10:04 J -11516379.25 -11516379.08 -11516378.92 0.0088 0.0009
 Mercury -36243-02-11 12:28 J -11516291.14 -11516290.98 -11516290.81 0.0088 0.0017
 Mercury -36243-05-10 14:52 J -11516203.04 -11516202.88 -11516202.71 0.0088 0.0025
 Mercury -36243-08-06 17:16 J -11516114.93 -11516114.78 -11516114.62 0.0088 0.0033
 Mercury -36243-11-02 19:40 J -11516026.82 -11516026.68 -11516026.52 0.0088 0.0040
 Mercury -36242-01-29 22:18 J -11515938.71 -11515938.57 -11515938.43 0.0088 0.0048
 Mercury -36242-04-28 00:42 J -11515850.59 -11515850.47 -11515850.34 0.0088 0.0055
 Mercury -36242-07-25 02:52 J -11515762.48 -11515762.38 -11515762.25 0.0088 0.0063
 Mercury -36242-10-21 05:30 J -11515674.36 -11515674.27 -11515674.17 0.0088 0.0071
 Mars -36242-12-25 21:35 J -11515608.67 -11515608.60 -11515608.45 0.0088 0.0084
 Mercury -36241-01-17 07:40 J -11515586.24 -11515586.18 -11515586.09 0.0088 0.0079
 Mercury -36241-04-14 10:18 J -11515498.10 -11515498.07 -11515498.03 0.0088 0.0086
 Mars -36240-11-20 22:47 J -11514912.83 -11514912.55 -11514912.22 0.0088 0.0038

Mars	-36238-10-18 01:54 J	-11514216.75	-11514216.42	-11514216.08	0.0088	0.0010
Mars	-36236-09-13 05:45 J	-11513520.51	-11513520.26	-11513519.99	0.0088	0.0057
Venus	-36216-05-26 21:50 J	-11506324.63	-11506324.59	-11506324.53	0.0089	0.0086
Venus	-36215-01-07 11:02 J	-11506099.15	-11506099.04	-11506098.93	0.0089	0.0076
Venus	-36215-08-20 23:30 J	-11505873.64	-11505873.52	-11505873.35	0.0089	0.0067
Venus	-36214-04-03 12:42 J	-11505648.12	-11505647.97	-11505647.78	0.0089	0.0057
Venus	-36214-11-15 01:54 J	-11505422.59	-11505422.42	-11505422.22	0.0089	0.0047
Venus	-36213-06-27 14:52 J	-11505197.07	-11505196.88	-11505196.67	0.0089	0.0037
Venus	-36212-02-08 03:50 J	-11504971.54	-11504971.34	-11504971.12	0.0089	0.0027
Venus	-36212-09-21 17:02 J	-11504746.00	-11504745.79	-11504745.57	0.0089	0.0017
Venus	-36211-05-05 06:14 J	-11504520.46	-11504520.24	-11504520.02	0.0089	0.0007
Venus	-36211-12-16 19:11 J	-11504294.92	-11504294.70	-11504294.49	0.0089	0.0003
Venus	-36210-07-30 07:54 J	-11504069.38	-11504069.17	-11504068.95	0.0089	0.0013
Venus	-36209-03-11 20:38 J	-11503843.84	-11503843.64	-11503843.42	0.0089	0.0023
Venus	-36209-10-23 09:35 J	-11503618.29	-11503618.10	-11503617.88	0.0089	0.0033
Venus	-36208-06-05 22:18 J	-11503392.74	-11503392.57	-11503392.36	0.0089	0.0043
Venus	-36207-01-17 11:16 J	-11503167.20	-11503167.03	-11503166.85	0.0089	0.0052
Venus	-36207-08-30 23:59 J	-11502941.64	-11502941.50	-11502941.33	0.0089	0.0062
Venus	-36206-04-13 12:28 J	-11502716.08	-11502715.98	-11502715.83	0.0089	0.0072
Venus	-36206-11-25 01:40 J	-11502490.51	-11502490.43	-11502490.34	0.0089	0.0082
Jupiter	-36198-08-16 09:35 J	-11499669.55	-11499669.10	-11499668.59	0.0089	0.0033
Earth	-36173-03-14 05:59 J	-11490692.42	-11490692.25	-11490692.03	0.0089	0.0056
Moon	-36173-03-14 09:06 J	-11490692.31	-11490692.12	-11490691.89	0.0089	0.0052 *
Moon	-36172-03-16 15:50 J	-11490325.08	-11490324.84	-11490324.59	0.0089	0.0019
Earth	-36172-03-16 17:30 J	-11490325.01	-11490324.77	-11490324.50	0.0089	0.0016 *
Earth	-36171-03-19 05:02 J	-11489957.53	-11489957.29	-11489957.04	0.0089	0.0024
Moon	-36171-03-19 05:45 J	-11489957.51	-11489957.26	-11489957.01	0.0089	0.0028 *
Earth	-36170-03-21 15:35 J	-11489590.00	-11489589.85	-11489589.65	0.0089	0.0065
Moon	-36170-03-21 16:04 J	-11489590.00	-11489589.83	-11489589.64	0.0089	0.0061 *
Mercury	-36165-06-23 02:52 J	-11487669.41	-11487669.38	-11487669.31	0.0089	0.0084

Mercury -36165-09-19 04:47 J -11487581.36 -11487581.30 -11487581.22 0.0089 0.0076

Mercury -36165-12-16 06:42 J -11487493.31 -11487493.22 -11487493.13 0.0089 0.0069

Mercury -36164-03-14 08:23 J -11487405.25 -11487405.15 -11487405.04 0.0089 0.0063

Mercury -36164-06-10 10:04 J -11487317.18 -11487317.08 -11487316.96 0.0089 0.0056

Mercury -36164-09-06 11:45 J -11487229.12 -11487229.01 -11487228.88 0.0089 0.0049

Mercury -36164-12-03 13:40 J -11487141.05 -11487140.93 -11487140.80 0.0089 0.0042

Mercury -36163-03-01 15:21 J -11487052.98 -11487052.86 -11487052.72 0.0089 0.0035

Mercury -36163-05-28 17:16 J -11486964.92 -11486964.78 -11486964.64 0.0089 0.0028

Mercury -36163-08-24 19:11 J -11486876.84 -11486876.70 -11486876.56 0.0089 0.0021

Mercury -36163-11-20 20:52 J -11486788.77 -11486788.63 -11486788.48 0.0089 0.0014

Mercury -36162-02-16 22:47 J -11486700.70 -11486700.55 -11486700.40 0.0089 0.0007

Mercury -36162-05-16 00:28 J -11486612.62 -11486612.48 -11486612.33 0.0089 0.0003

Mercury -36162-08-12 02:23 J -11486524.55 -11486524.40 -11486524.25 0.0089 0.0007

Mercury -36162-11-08 04:18 J -11486436.47 -11486436.32 -11486436.18 0.0089 0.0014

Mercury -36161-02-04 05:59 J -11486348.39 -11486348.25 -11486348.10 0.0089 0.0021

Mercury -36161-05-02 07:54 J -11486260.31 -11486260.17 -11486260.03 0.0089 0.0028

Mercury -36161-07-29 09:35 J -11486172.23 -11486172.10 -11486171.95 0.0089 0.0036

Mercury -36161-10-25 11:30 J -11486084.14 -11486084.02 -11486083.88 0.0089 0.0043

Mercury -36160-01-21 13:26 J -11485996.06 -11485995.94 -11485995.81 0.0089 0.0050

Mercury -36160-04-19 15:21 J -11485907.97 -11485907.86 -11485907.74 0.0089 0.0057

Mercury -36160-07-16 17:02 J -11485819.88 -11485819.79 -11485819.67 0.0089 0.0065

Mercury -36160-10-12 18:57 J -11485731.78 -11485731.71 -11485731.61 0.0089 0.0072

Mars -36160-11-08 17:59 J -11485704.92 -11485704.75 -11485704.55 0.0089 0.0068

Mercury -36159-01-08 20:52 J -11485643.68 -11485643.63 -11485643.55 0.0089 0.0079

Mercury -36159-04-06 23:02 J -11485555.57 -11485555.54 -11485555.50 0.0089 0.0086

Mars -36158-10-03 14:52 J -11485011.15 -11485010.88 -11485010.59 0.0089 0.0027

Mars -36156-08-27 09:35 J -11484317.38 -11484317.10 -11484316.80 0.0089 0.0014

Mars -36154-07-22 02:52 J -11483623.59 -11483623.38 -11483623.13 0.0089 0.0054

Venus -36135-11-26 06:14 J -11476556.26 -11476556.24 -11476556.22 0.0088 0.0088

Venus -36134-07-09 18:42 J -11476330.81 -11476330.72 -11476330.61 0.0088 0.0079

Venus	-36133-02-20 07:54 J	-11476105.30	-11476105.17	-11476105.03	0.0088	0.0069
Venus	-36133-10-02 20:23 J	-11475879.79	-11475879.65	-11475879.47	0.0088	0.0060
Venus	-36132-05-16 09:35 J	-11475654.27	-11475654.10	-11475653.91	0.0088	0.0050
Venus	-36132-12-27 22:18 J	-11475428.75	-11475428.57	-11475428.35	0.0088	0.0041
Venus	-36131-08-10 11:30 J	-11475203.22	-11475203.02	-11475202.80	0.0088	0.0031
Venus	-36130-03-24 00:42 J	-11474977.68	-11474977.47	-11474977.25	0.0088	0.0021
Venus	-36130-11-04 13:40 J	-11474752.14	-11474751.93	-11474751.70	0.0088	0.0012
Venus	-36129-06-17 02:52 J	-11474526.60	-11474526.38	-11474526.16	0.0088	0.0001
Venus	-36128-01-28 15:50 J	-11474301.06	-11474300.84	-11474300.62	0.0088	0.0009
Venus	-36128-09-11 04:47 J	-11474075.51	-11474075.30	-11474075.08	0.0088	0.0018
Venus	-36127-04-24 17:45 J	-11473849.96	-11473849.76	-11473849.54	0.0088	0.0029
Venus	-36127-12-06 07:11 J	-11473624.40	-11473624.20	-11473624.00	0.0088	0.0038
Venus	-36126-07-19 20:09 J	-11473398.84	-11473398.66	-11473398.47	0.0088	0.0047
Venus	-36125-03-01 09:06 J	-11473173.28	-11473173.12	-11473172.94	0.0088	0.0057
Venus	-36125-10-12 22:04 J	-11472947.70	-11472947.58	-11472947.42	0.0088	0.0067
Venus	-36124-05-26 11:30 J	-11472722.12	-11472722.02	-11472721.90	0.0088	0.0077
Venus	-36123-01-07 00:28 J	-11472496.50	-11472496.48	-11472496.41	0.0088	0.0087
Moon	-36091-09-15 09:50 J	-11460557.25	-11460557.09	-11460556.89	0.0088	0.0062
Earth	-36091-09-15 12:28 J	-11460557.15	-11460556.98	-11460556.78	0.0088	0.0062 *
Earth	-36090-09-18 00:28 J	-11460189.72	-11460189.48	-11460189.21	0.0088	0.0023
Moon	-36090-09-18 02:38 J	-11460189.63	-11460189.39	-11460189.12	0.0088	0.0025 *
Moon	-36089-09-19 12:14 J	-11459822.24	-11459821.99	-11459821.74	0.0088	0.0019
Earth	-36089-09-19 12:28 J	-11459822.22	-11459821.98	-11459821.71	0.0088	0.0017 *
Moon	-36088-09-21 23:16 J	-11459454.71	-11459454.53	-11459454.29	0.0088	0.0056
Earth	-36088-09-22 00:28 J	-11459454.67	-11459454.48	-11459454.27	0.0088	0.0057 *
Mercury	-36082-09-20 00:28 J	-11457265.51	-11457265.48	-11457265.44	0.0088	0.0086
Mercury	-36082-12-17 02:52 J	-11457177.45	-11457177.38	-11457177.28	0.0088	0.0078
Mercury	-36081-03-14 05:30 J	-11457089.36	-11457089.27	-11457089.15	0.0088	0.0070
Mercury	-36081-06-10 08:09 J	-11457001.27	-11457001.16	-11457001.02	0.0088	0.0062
Mercury	-36081-09-06 10:47 J	-11456913.17	-11456913.05	-11456912.90	0.0088	0.0054

Mercury -36081-12-03 13:26 J -11456825.07 -11456824.94 -11456824.78 0.0088 0.0046

Mercury -36080-03-01 16:04 J -11456736.97 -11456736.83 -11456736.66 0.0088 0.0038

Mercury -36080-05-28 18:42 J -11456648.87 -11456648.72 -11456648.55 0.0088 0.0030

Mercury -36080-08-24 21:21 J -11456560.77 -11456560.61 -11456560.44 0.0088 0.0021

Mercury -36080-11-20 23:59 J -11456472.66 -11456472.50 -11456472.33 0.0088 0.0013

Mercury -36079-02-17 02:38 J -11456384.56 -11456384.39 -11456384.22 0.0088 0.0005

Mercury -36079-05-16 05:16 J -11456296.45 -11456296.28 -11456296.12 0.0088 0.0003

Mercury -36079-08-12 07:40 J -11456208.35 -11456208.18 -11456208.01 0.0088 0.0010

Mercury -36079-11-08 10:04 J -11456120.24 -11456120.08 -11456119.91 0.0088 0.0018

Mercury -36078-02-04 12:28 J -11456032.13 -11456031.98 -11456031.81 0.0088 0.0026

Mercury -36078-05-03 15:06 J -11455944.02 -11455943.87 -11455943.71 0.0088 0.0034

Mercury -36078-07-30 17:30 J -11455855.91 -11455855.77 -11455855.62 0.0088 0.0041

Mercury -36078-10-26 19:54 J -11455767.80 -11455767.67 -11455767.52 0.0088 0.0049

Mercury -36077-01-22 22:33 J -11455679.69 -11455679.56 -11455679.43 0.0088 0.0057

Mercury -36077-04-20 00:42 J -11455591.57 -11455591.47 -11455591.35 0.0088 0.0065

Mercury -36077-07-17 02:52 J -11455503.45 -11455503.38 -11455503.26 0.0088 0.0073

Mercury -36077-10-13 05:30 J -11455415.33 -11455415.27 -11455415.19 0.0088 0.0080

Mercury -36076-01-09 07:40 J -11455327.18 -11455327.18 -11455327.13 0.0088 0.0088

Mars -36076-07-04 02:38 J -11455151.61 -11455151.39 -11455151.12 0.0088 0.0061

Mars -36074-05-31 03:35 J -11454455.67 -11454455.35 -11454455.00 0.0088 0.0014

Mars -36072-04-26 06:14 J -11453759.54 -11453759.24 -11453758.91 0.0088 0.0034

Mars -36070-03-23 10:33 J -11453063.18 -11453063.06 -11453062.90 0.0088 0.0081

Venus -36051-04-10 18:14 J -11446104.82 -11446104.74 -11446104.64 0.0089 0.0081

Venus -36051-11-22 06:57 J -11445879.32 -11445879.21 -11445879.06 0.0089 0.0072

Venus -36050-07-05 20:09 J -11445653.80 -11445653.66 -11445653.49 0.0089 0.0062

Venus -36049-02-16 09:06 J -11445428.28 -11445428.12 -11445427.93 0.0089 0.0052

Venus -36049-09-28 22:33 J -11445202.75 -11445202.56 -11445202.37 0.0089 0.0042

Venus -36048-05-12 11:30 J -11444977.22 -11444977.02 -11444976.81 0.0089 0.0032

Venus -36048-12-24 00:14 J -11444751.69 -11444751.49 -11444751.27 0.0089 0.0023

Venus -36047-08-06 13:11 J -11444526.16 -11444525.95 -11444525.72 0.0089 0.0013

Venus	-36046-03-20 02:23 J	-11444300.62	-11444300.40	-11444300.18	0.0089	0.0003
Venus	-36046-10-31 15:21 J	-11444075.07	-11444074.86	-11444074.64	0.0089	0.0007
Venus	-36045-06-13 04:04 J	-11443849.53	-11443849.33	-11443849.10	0.0089	0.0017
Venus	-36044-01-24 16:47 J	-11443623.99	-11443623.80	-11443623.57	0.0089	0.0027
Venus	-36044-09-07 05:59 J	-11443398.44	-11443398.25	-11443398.05	0.0089	0.0036
Venus	-36043-04-20 18:42 J	-11443172.89	-11443172.72	-11443172.52	0.0089	0.0046
Venus	-36043-12-02 07:26 J	-11442947.34	-11442947.19	-11442947.00	0.0089	0.0056
Venus	-36042-07-15 20:38 J	-11442721.78	-11442721.64	-11442721.49	0.0089	0.0065
Venus	-36041-02-26 09:06 J	-11442496.22	-11442496.12	-11442495.99	0.0089	0.0075
Venus	-36041-10-08 21:35 J	-11442270.64	-11442270.60	-11442270.51	0.0089	0.0085
Jupiter	-36032-10-11 20:38 J	-11438981.15	-11438980.64	-11438980.12	0.0089	0.0004
Moon	-36009-03-13 09:06 J	-11430792.21	-11430792.12	-11430791.96	0.0089	0.0078
Earth	-36009-03-13 11:16 J	-11430792.13	-11430792.03	-11430791.91	0.0089	0.0080 *
Earth	-36008-03-15 22:18 J	-11430424.78	-11430424.57	-11430424.33	0.0089	0.0040
Moon	-36008-03-15 23:02 J	-11430424.77	-11430424.54	-11430424.30	0.0089	0.0043 *
Earth	-36007-03-18 09:50 J	-11430057.35	-11430057.09	-11430056.84	0.0089	0.0001
Moon	-36007-03-18 11:02 J	-11430057.29	-11430057.04	-11430056.80	0.0089	0.0005 *
Moon	-36006-03-20 18:42 J	-11429689.94	-11429689.72	-11429689.47	0.0089	0.0038
Earth	-36006-03-20 20:52 J	-11429689.85	-11429689.63	-11429689.40	0.0089	0.0041 *
Earth	-36005-03-22 07:54 J	-11429322.26	-11429322.17	-11429322.06	0.0089	0.0081
Moon	-36005-03-22 10:18 J	-11429322.11	-11429322.07	-11429321.96	0.0089	0.0086 *
Mercury	-36001-12-21 23:59 J	-11427586.51	-11427586.50	-11427586.47	0.0089	0.0088

36TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 36th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-36000-03-20 01:40 J	-11427498.47	-11427498.43	-11427498.36	0.0089	0.0081		
Mercury	-36000-06-16 03:35 J	-11427410.42	-11427410.35	-11427410.27	0.0089	0.0074		
Mercury	-36000-09-12 05:02 J	-11427322.37	-11427322.29	-11427322.18	0.0089	0.0068		
Mercury	-36000-12-09 06:57 J	-11427234.31	-11427234.21	-11427234.10	0.0089	0.0061		
Mercury	-35999-03-07 08:38 J	-11427146.24	-11427146.14	-11427146.01	0.0089	0.0054		
Mercury	-35999-06-03 10:33 J	-11427058.18	-11427058.06	-11427057.93	0.0089	0.0047		
Mercury	-35999-08-30 12:14 J	-11426970.11	-11426969.99	-11426969.85	0.0089	0.0040		
Mercury	-35999-11-26 14:09 J	-11426882.05	-11426881.91	-11426881.77	0.0089	0.0033		
Mercury	-35998-02-22 15:50 J	-11426793.98	-11426793.84	-11426793.70	0.0089	0.0027		
Mercury	-35998-05-21 17:45 J	-11426705.90	-11426705.76	-11426705.62	0.0089	0.0019		
Mercury	-35998-08-17 19:26 J	-11426617.83	-11426617.69	-11426617.54	0.0089	0.0013		
Mercury	-35998-11-13 21:21 J	-11426529.76	-11426529.61	-11426529.46	0.0089	0.0006		
Mercury	-35997-02-09 23:02 J	-11426441.68	-11426441.54	-11426441.39	0.0089	0.0003		
Mercury	-35997-05-08 00:57 J	-11426353.61	-11426353.46	-11426353.31	0.0089	0.0009		
Mercury	-35997-08-04 02:38 J	-11426265.53	-11426265.39	-11426265.24	0.0089	0.0016		
Mercury	-35997-10-31 04:33 J	-11426177.45	-11426177.31	-11426177.16	0.0089	0.0023		
Mercury	-35996-01-27 06:14 J	-11426089.37	-11426089.24	-11426089.09	0.0089	0.0030		
Mercury	-35996-04-25 08:09 J	-11426001.29	-11426001.16	-11426001.02	0.0089	0.0037		
Mars	-35996-06-23 20:23 J	-11425941.65	-11425941.65	-11425941.65	0.0089	0.0089		
Mercury	-35996-07-22 10:04 J	-11425913.20	-11425913.08	-11425912.95	0.0089	0.0044		
Mercury	-35996-10-18 11:45 J	-11425825.12	-11425825.01	-11425824.88	0.0089	0.0052		
Mercury	-35995-01-14 13:40 J	-11425737.03	-11425736.93	-11425736.81	0.0089	0.0059		
Mercury	-35995-04-12 15:35 J	-11425648.94	-11425648.85	-11425648.74	0.0089	0.0066		
Mercury	-35995-07-09 17:30 J	-11425560.84	-11425560.77	-11425560.68	0.0089	0.0073		
Mercury	-35995-10-05 19:11 J	-11425472.74	-11425472.70	-11425472.62	0.0089	0.0081		
Mercury	-35994-01-01 21:21 J	-11425384.62	-11425384.61	-11425384.58	0.0089	0.0088		

Mars	-35994-05-18 17:02 J	-11425248.02	-11425247.79	-11425247.52	0.0089	0.0048
Mars	-35992-04-11 14:23 J	-11424554.19	-11424553.90	-11424553.60	0.0089	0.0007
Mars	-35990-03-06 09:21 J	-11423860.36	-11423860.11	-11423859.82	0.0089	0.0035
Mars	-35988-01-28 02:52 J	-11423166.51	-11423166.38	-11423166.20	0.0089	0.0075
Venus	-35970-10-11 02:52 J	-11416336.45	-11416336.38	-11416336.30	0.0088	0.0083
Venus	-35969-05-23 15:35 J	-11416110.96	-11416110.85	-11416110.72	0.0088	0.0073
Venus	-35968-01-04 04:04 J	-11415885.45	-11415885.33	-11415885.15	0.0088	0.0065
Venus	-35968-08-17 17:16 J	-11415659.94	-11415659.78	-11415659.59	0.0088	0.0055
Venus	-35967-03-31 06:14 J	-11415434.41	-11415434.24	-11415434.03	0.0088	0.0046
Venus	-35967-11-11 19:26 J	-11415208.88	-11415208.69	-11415208.47	0.0088	0.0036
Venus	-35966-06-25 08:23 J	-11414983.35	-11414983.15	-11414982.92	0.0088	0.0026
Venus	-35965-02-05 21:35 J	-11414757.81	-11414757.60	-11414757.38	0.0088	0.0016
Venus	-35965-09-18 10:47 J	-11414532.27	-11414532.05	-11414531.83	0.0088	0.0007
Venus	-35964-05-01 23:45 J	-11414306.73	-11414306.51	-11414306.29	0.0088	0.0003
Venus	-35964-12-13 12:42 J	-11414081.18	-11414080.97	-11414080.74	0.0088	0.0013
Venus	-35963-07-27 01:40 J	-11413855.63	-11413855.43	-11413855.21	0.0088	0.0023
Venus	-35962-03-09 14:38 J	-11413630.08	-11413629.89	-11413629.67	0.0088	0.0033
Venus	-35962-10-21 04:04 J	-11413404.52	-11413404.33	-11413404.13	0.0088	0.0042
Venus	-35961-06-02 16:47 J	-11413178.96	-11413178.80	-11413178.60	0.0088	0.0052
Venus	-35960-01-14 05:45 J	-11412953.40	-11412953.26	-11412953.08	0.0088	0.0061
Venus	-35960-08-27 18:57 J	-11412727.82	-11412727.71	-11412727.56	0.0088	0.0071
Venus	-35959-04-10 08:09 J	-11412502.23	-11412502.16	-11412502.04	0.0088	0.0080
Moon	-35927-09-14 16:18 J	-11400656.89	-11400656.82	-11400656.69	0.0088	0.0082
Earth	-35927-09-14 15:35 J	-11400656.88	-11400656.85	-11400656.78	0.0088	0.0086 *
Moon	-35926-09-17 03:50 J	-11400289.54	-11400289.34	-11400289.13	0.0088	0.0051
Earth	-35926-09-17 04:04 J	-11400289.54	-11400289.33	-11400289.10	0.0088	0.0046 *
Moon	-35925-09-18 15:06 J	-11399922.14	-11399921.87	-11399921.60	0.0088	0.0002
Earth	-35925-09-18 16:04 J	-11399922.08	-11399921.83	-11399921.56	0.0088	0.0008 *
Earth	-35924-09-21 03:50 J	-11399554.57	-11399554.34	-11399554.09	0.0088	0.0033
Moon	-35924-09-21 06:14 J	-11399554.46	-11399554.24	-11399553.98	0.0088	0.0029 *

Moon -35923-09-23 13:11 J -11399187.08 -11399186.95 -11399186.82 0.0088 0.0077
 Earth -35923-09-23 16:04 J -11399186.97 -11399186.83 -11399186.68 0.0088 0.0073 *
 Mercury -35917-06-15 22:04 J -11397094.62 -11397094.58 -11397094.54 0.0088 0.0085
 Mercury -35917-09-12 00:42 J -11397006.55 -11397006.47 -11397006.39 0.0088 0.0077
 Mercury -35917-12-09 03:06 J -11396918.47 -11396918.37 -11396918.25 0.0088 0.0069
 Mercury -35916-03-07 05:45 J -11396830.37 -11396830.26 -11396830.12 0.0088 0.0061
 Mercury -35916-06-03 08:23 J -11396742.27 -11396742.15 -11396742.00 0.0088 0.0053
 Mercury -35916-08-30 11:02 J -11396654.18 -11396654.04 -11396653.88 0.0088 0.0045
 Mercury -35916-11-26 13:40 J -11396566.08 -11396565.93 -11396565.76 0.0088 0.0037
 Mercury -35915-02-22 16:18 J -11396477.97 -11396477.82 -11396477.65 0.0088 0.0028
 Mercury -35915-05-21 18:57 J -11396389.87 -11396389.71 -11396389.54 0.0088 0.0020
 Mercury -35915-08-17 21:35 J -11396301.76 -11396301.60 -11396301.43 0.0088 0.0012
 Mercury -35915-11-14 00:14 J -11396213.66 -11396213.49 -11396213.32 0.0088 0.0004
 Mercury -35914-02-10 02:52 J -11396125.55 -11396125.38 -11396125.21 0.0088 0.0004
 Mercury -35914-05-09 05:16 J -11396037.45 -11396037.28 -11396037.11 0.0088 0.0012
 Mercury -35914-08-05 07:40 J -11395949.34 -11395949.18 -11395949.01 0.0088 0.0020
 Mercury -35914-11-01 10:18 J -11395861.23 -11395861.07 -11395860.91 0.0088 0.0027
 Mercury -35913-01-28 12:42 J -11395773.12 -11395772.97 -11395772.81 0.0088 0.0035
 Mercury -35913-04-25 15:21 J -11395685.01 -11395684.86 -11395684.71 0.0088 0.0043
 Mercury -35913-07-22 17:30 J -11395596.89 -11395596.77 -11395596.62 0.0088 0.0051
 Mercury -35913-10-18 19:54 J -11395508.78 -11395508.67 -11395508.53 0.0088 0.0059
 Mercury -35912-01-14 22:33 J -11395420.66 -11395420.56 -11395420.44 0.0088 0.0066
 Mars -35912-02-14 07:40 J -11395390.28 -11395390.18 -11395390.07 0.0088 0.0084
 Mercury -35912-04-13 00:42 J -11395332.54 -11395332.47 -11395332.36 0.0088 0.0074
 Mercury -35912-07-10 03:35 J -11395244.41 -11395244.35 -11395244.29 0.0088 0.0081
 Mercury -35912-10-06 05:59 J -11395156.25 -11395156.25 -11395156.25 0.0088 0.0088
 Mars -35910-01-11 07:11 J -11394694.49 -11394694.20 -11394693.88 0.0088 0.0038
 Mars -35909-12-07 08:23 J -11393998.48 -11393998.15 -11393997.81 0.0088 0.0010
 Mars -35907-11-03 10:18 J -11393302.30 -11393302.07 -11393301.78 0.0088 0.0058
 Venus -35887-07-13 01:11 J -11386110.49 -11386110.45 -11386110.39 0.0089 0.0086

Venus	-35886-02-23 13:54 J	-11385885.00	-11385884.92	-11385884.78	0.0089	0.0077
Venus	-35886-10-07 03:21 J	-11385659.49	-11385659.36	-11385659.20	0.0089	0.0067
Venus	-35885-05-19 16:33 J	-11385433.97	-11385433.81	-11385433.63	0.0089	0.0057
Venus	-35885-12-31 05:16 J	-11385208.45	-11385208.28	-11385208.08	0.0089	0.0048
Venus	-35884-08-13 18:28 J	-11384982.92	-11384982.73	-11384982.52	0.0089	0.0038
Venus	-35883-03-27 07:40 J	-11384757.38	-11384757.18	-11384756.97	0.0089	0.0028
Venus	-35883-11-07 20:52 J	-11384531.85	-11384531.63	-11384531.42	0.0089	0.0018
Venus	-35882-06-21 09:35 J	-11384306.31	-11384306.10	-11384305.88	0.0089	0.0009
Venus	-35881-02-01 22:33 J	-11384080.78	-11384080.56	-11384080.34	0.0089	0.0002
Venus	-35881-09-14 11:30 J	-11383855.23	-11383855.02	-11383854.80	0.0089	0.0011
Venus	-35880-04-28 00:28 J	-11383629.69	-11383629.48	-11383629.26	0.0089	0.0020
Venus	-35880-12-09 13:11 J	-11383404.15	-11383403.95	-11383403.73	0.0089	0.0030
Venus	-35879-07-23 01:54 J	-11383178.60	-11383178.42	-11383178.21	0.0089	0.0040
Venus	-35878-03-05 15:06 J	-11382953.05	-11382952.87	-11382952.69	0.0089	0.0049
Venus	-35878-10-17 03:50 J	-11382727.49	-11382727.34	-11382727.16	0.0089	0.0059
Venus	-35877-05-29 16:47 J	-11382501.93	-11382501.80	-11382501.65	0.0089	0.0069
Venus	-35876-01-10 05:16 J	-11382276.36	-11382276.28	-11382276.16	0.0089	0.0078
Venus	-35876-08-23 18:14 J	-11382050.77	-11382050.74	-11382050.69	0.0089	0.0087
Jupiter	-35866-12-05 08:52 J	-11378295.59	-11378295.13	-11378294.66	0.0089	0.0039
Earth	-35844-03-15 03:21 J	-11370524.52	-11370524.36	-11370524.17	0.0089	0.0063
Moon	-35844-03-15 04:33 J	-11370524.48	-11370524.31	-11370524.12	0.0089	0.0061 *
Moon	-35843-03-17 11:45 J	-11370157.25	-11370157.01	-11370156.75	0.0089	0.0025
Earth	-35843-03-17 14:23 J	-11370157.13	-11370156.90	-11370156.64	0.0089	0.0024 *
Earth	-35842-03-20 01:40 J	-11369789.68	-11369789.43	-11369789.18	0.0089	0.0018
Moon	-35842-03-20 04:33 J	-11369789.54	-11369789.31	-11369789.05	0.0089	0.0020 *
Moon	-35841-03-21 08:52 J	-11369422.31	-11369422.13	-11369421.90	0.0089	0.0055
Earth	-35841-03-21 12:28 J	-11369422.15	-11369421.98	-11369421.76	0.0089	0.0059 *
Mercury	-35836-09-17 22:47 J	-11367415.58	-11367415.55	-11367415.52	0.0089	0.0087
Mercury	-35836-12-15 00:14 J	-11367327.54	-11367327.49	-11367327.42	0.0089	0.0080
Mercury	-35835-03-13 01:54 J	-11367239.49	-11367239.42	-11367239.33	0.0089	0.0073

Mercury -35835-06-09 03:50 J -11367151.43 -11367151.34 -11367151.24 0.0089 0.0066

Mercury -35835-09-05 05:45 J -11367063.37 -11367063.26 -11367063.16 0.0089 0.0059

Mercury -35835-12-02 07:11 J -11366975.31 -11366975.20 -11366975.07 0.0089 0.0053

Mercury -35834-02-28 08:52 J -11366887.24 -11366887.13 -11366886.99 0.0089 0.0046

Mercury -35834-05-27 10:47 J -11366799.18 -11366799.05 -11366798.91 0.0089 0.0039

Mercury -35834-08-23 12:28 J -11366711.11 -11366710.98 -11366710.83 0.0089 0.0032

Mercury -35834-11-19 14:23 J -11366623.04 -11366622.90 -11366622.76 0.0089 0.0025

Mercury -35833-02-15 16:04 J -11366534.97 -11366534.83 -11366534.68 0.0089 0.0018

Mercury -35833-05-13 17:59 J -11366446.90 -11366446.75 -11366446.60 0.0089 0.0011

Mercury -35833-08-09 19:40 J -11366358.82 -11366358.68 -11366358.53 0.0089 0.0005

Mercury -35833-11-05 21:35 J -11366270.75 -11366270.60 -11366270.45 0.0089 0.0003

Mercury -35832-02-01 23:30 J -11366182.67 -11366182.52 -11366182.38 0.0089 0.0010

Mercury -35832-05-01 01:11 J -11366094.59 -11366094.45 -11366094.30 0.0089 0.0017

Mercury -35832-07-28 03:06 J -11366006.51 -11366006.37 -11366006.23 0.0089 0.0024

Mercury -35832-10-24 04:47 J -11365918.43 -11365918.30 -11365918.16 0.0089 0.0031

Mercury -35831-01-20 06:42 J -11365830.35 -11365830.22 -11365830.08 0.0089 0.0038

Mercury -35831-04-18 08:23 J -11365742.27 -11365742.15 -11365742.01 0.0089 0.0046

Mercury -35831-07-15 10:18 J -11365654.18 -11365654.07 -11365653.94 0.0089 0.0053

Mercury -35831-10-11 12:14 J -11365566.09 -11365565.99 -11365565.88 0.0089 0.0060

Mars -35831-12-31 19:26 J -11365484.85 -11365484.69 -11365484.48 0.0089 0.0069

Mercury -35830-01-07 14:09 J -11365478.00 -11365477.91 -11365477.81 0.0089 0.0067

Mercury -35830-04-05 15:50 J -11365389.91 -11365389.84 -11365389.75 0.0089 0.0075

Mercury -35830-07-02 17:45 J -11365301.81 -11365301.76 -11365301.69 0.0089 0.0082

Mars -35829-11-24 16:18 J -11364791.09 -11364790.82 -11364790.53 0.0089 0.0027

Mars -35827-10-19 12:57 J -11364097.24 -11364096.96 -11364096.66 0.0089 0.0015

Mars -35825-09-12 07:40 J -11363403.38 -11363403.18 -11363402.92 0.0089 0.0056

Venus -35805-01-12 10:33 J -11356342.06 -11356342.06 -11356342.00 0.0088 0.0088

Venus -35805-08-24 23:30 J -11356116.60 -11356116.52 -11356116.40 0.0088 0.0078

Venus -35804-04-07 12:42 J -11355891.09 -11355890.97 -11355890.82 0.0088 0.0069

Venus -35804-11-19 01:26 J -11355665.58 -11355665.44 -11355665.26 0.0088 0.0060

Venus	-35803-07-02 14:23 J	-11355440.06	-11355439.90	-11355439.70	0.0088	0.0050
Venus	-35802-02-13 03:21 J	-11355214.54	-11355214.36	-11355214.15	0.0088	0.0041
Venus	-35802-09-26 16:18 J	-11354989.01	-11354988.82	-11354988.60	0.0088	0.0031
Venus	-35801-05-09 05:30 J	-11354763.48	-11354763.27	-11354763.05	0.0088	0.0022
Venus	-35801-12-20 18:28 J	-11354537.94	-11354537.73	-11354537.50	0.0088	0.0012
Venus	-35800-08-03 07:40 J	-11354312.40	-11354312.18	-11354311.96	0.0088	0.0002
Venus	-35799-03-16 20:38 J	-11354086.86	-11354086.64	-11354086.41	0.0088	0.0007
Venus	-35799-10-28 09:50 J	-11353861.31	-11353861.09	-11353860.87	0.0088	0.0017
Venus	-35798-06-10 22:33 J	-11353635.76	-11353635.56	-11353635.34	0.0088	0.0027
Venus	-35797-01-22 11:45 J	-11353410.21	-11353410.01	-11353409.80	0.0088	0.0036
Venus	-35797-09-04 00:28 J	-11353184.65	-11353184.48	-11353184.27	0.0088	0.0046
Venus	-35796-04-17 14:09 J	-11352959.08	-11352958.91	-11352958.74	0.0088	0.0055
Venus	-35796-11-29 02:52 J	-11352733.52	-11352733.38	-11352733.21	0.0088	0.0064
Venus	-35795-07-12 16:04 J	-11352507.94	-11352507.83	-11352507.70	0.0088	0.0074
Venus	-35794-02-23 04:47 J	-11352282.35	-11352282.30	-11352282.20	0.0088	0.0083
Moon	-35762-09-16 05:16 J	-11340389.43	-11340389.28	-11340389.11	0.0088	0.0070
Earth	-35762-09-16 07:11 J	-11340389.34	-11340389.20	-11340389.03	0.0088	0.0070 *
Earth	-35761-09-17 19:26 J	-11340021.93	-11340021.69	-11340021.45	0.0088	0.0031
Moon	-35761-09-17 21:50 J	-11340021.82	-11340021.59	-11340021.35	0.0088	0.0032 *
Moon	-35760-09-20 03:50 J	-11339654.60	-11339654.34	-11339654.07	0.0088	0.0009
Earth	-35760-09-20 07:26 J	-11339654.44	-11339654.19	-11339653.92	0.0088	0.0009 *
Earth	-35759-09-22 19:11 J	-11339286.90	-11339286.70	-11339286.47	0.0088	0.0049
Moon	-35759-09-22 22:47 J	-11339286.76	-11339286.55	-11339286.32	0.0088	0.0048 *
Mercury	-35752-03-12 19:11 J	-11336923.74	-11336923.70	-11336923.64	0.0088	0.0084
Mercury	-35752-06-08 21:50 J	-11336835.66	-11336835.59	-11336835.49	0.0088	0.0076
Mercury	-35752-09-05 00:28 J	-11336747.57	-11336747.48	-11336747.36	0.0088	0.0068
Mercury	-35752-12-02 03:06 J	-11336659.48	-11336659.37	-11336659.23	0.0088	0.0060
Mercury	-35751-02-28 05:59 J	-11336571.38	-11336571.25	-11336571.11	0.0088	0.0052
Mercury	-35751-05-27 08:38 J	-11336483.28	-11336483.14	-11336482.99	0.0088	0.0044
Mercury	-35751-08-23 11:16 J	-11336395.18	-11336395.03	-11336394.87	0.0088	0.0036

Mercury -35751-11-19 13:54 J -11336307.08 -11336306.92 -11336306.75 0.0088 0.0027
 Mercury -35750-02-15 16:33 J -11336218.98 -11336218.81 -11336218.64 0.0088 0.0019
 Mercury -35750-05-14 19:11 J -11336130.87 -11336130.70 -11336130.53 0.0088 0.0012
 Mercury -35750-08-10 21:35 J -11336042.76 -11336042.60 -11336042.42 0.0088 0.0005
 Mercury -35750-11-07 00:14 J -11335954.66 -11335954.49 -11335954.32 0.0088 0.0005
 Mercury -35749-02-03 02:52 J -11335866.55 -11335866.38 -11335866.21 0.0088 0.0012
 Mercury -35749-05-01 05:16 J -11335778.44 -11335778.28 -11335778.11 0.0088 0.0020
 Mercury -35749-07-28 07:40 J -11335690.33 -11335690.18 -11335690.01 0.0088 0.0028
 Mercury -35749-10-24 10:04 J -11335602.22 -11335602.08 -11335601.91 0.0088 0.0037
 Mercury -35748-01-20 12:42 J -11335514.11 -11335513.97 -11335513.81 0.0088 0.0044
 Mercury -35748-04-18 15:06 J -11335425.99 -11335425.87 -11335425.72 0.0088 0.0052
 Mercury -35748-07-15 17:30 J -11335337.88 -11335337.77 -11335337.63 0.0088 0.0060
 Mercury -35748-10-11 20:09 J -11335249.76 -11335249.66 -11335249.54 0.0088 0.0067
 Mercury -35747-01-07 22:33 J -11335161.64 -11335161.56 -11335161.46 0.0088 0.0074
 Mercury -35747-04-06 00:42 J -11335073.51 -11335073.47 -11335073.39 0.0088 0.0083
 Mars -35747-08-24 10:47 J -11334933.26 -11334933.05 -11334932.78 0.0088 0.0062
 Mars -35745-07-20 11:16 J -11334237.34 -11334237.03 -11334236.68 0.0088 0.0015
 Mars -35743-06-16 12:28 J -11333541.28 -11333540.98 -11333540.66 0.0088 0.0034
 Mars -35741-05-12 14:38 J -11332844.99 -11332844.89 -11332844.73 0.0088 0.0082
 Venus -35722-05-27 20:52 J -11325890.69 -11325890.63 -11325890.52 0.0089 0.0082
 Venus -35721-01-08 10:04 J -11325665.19 -11325665.08 -11325664.94 0.0089 0.0072
 Venus -35721-08-20 23:02 J -11325439.67 -11325439.54 -11325439.36 0.0089 0.0063
 Venus -35720-04-03 12:14 J -11325214.15 -11325213.99 -11325213.80 0.0089 0.0053
 Venus -35720-11-15 01:40 J -11324988.62 -11324988.43 -11324988.24 0.0089 0.0043
 Venus -35719-06-28 14:23 J -11324763.09 -11324762.90 -11324762.68 0.0089 0.0034
 Venus -35718-02-09 03:35 J -11324537.56 -11324537.35 -11324537.14 0.0089 0.0024
 Venus -35718-09-22 16:33 J -11324312.02 -11324311.81 -11324311.59 0.0089 0.0015
 Venus -35717-05-05 05:45 J -11324086.48 -11324086.26 -11324086.04 0.0089 0.0005
 Venus -35717-12-16 18:28 J -11323860.94 -11323860.73 -11323860.51 0.0089 0.0005
 Venus -35716-07-30 07:26 J -11323635.40 -11323635.19 -11323634.97 0.0089 0.0014

Venus	-35715-03-12 20:09 J	-11323409.86	-11323409.66	-11323409.44	0.0089	0.0024
Venus	-35715-10-24 09:21 J	-11323184.31	-11323184.11	-11323183.90	0.0089	0.0033
Venus	-35714-06-06 22:04 J	-11322958.76	-11322958.58	-11322958.38	0.0089	0.0043
Venus	-35713-01-18 11:02 J	-11322733.21	-11322733.04	-11322732.86	0.0089	0.0052
Venus	-35713-08-30 23:30 J	-11322507.65	-11322507.52	-11322507.34	0.0089	0.0062
Venus	-35712-04-13 12:42 J	-11322282.09	-11322281.97	-11322281.83	0.0089	0.0071
Venus	-35712-11-25 01:11 J	-11322056.51	-11322056.45	-11322056.33	0.0089	0.0081
Jupiter	-35699-01-27 21:35 J	-11317609.85	-11317609.60	-11317609.25	0.0089	0.0073
Moon	-35680-03-14 05:02 J	-11310624.36	-11310624.29	-11310624.18	0.0089	0.0083
Earth	-35680-03-14 07:40 J	-11310624.20	-11310624.18	-11310624.11	0.0089	0.0088 *
Earth	-35679-03-16 18:43 J	-11310256.92	-11310256.72	-11310256.49	0.0089	0.0047
Moon	-35679-03-16 22:19 J	-11310256.76	-11310256.57	-11310256.35	0.0089	0.0052 *
Moon	-35678-03-19 02:52 J	-11309889.63	-11309889.38	-11309889.13	0.0089	0.0002
Earth	-35678-03-19 06:14 J	-11309889.49	-11309889.24	-11309888.98	0.0089	0.0007 *
Earth	-35677-03-20 17:02 J	-11309522.01	-11309521.79	-11309521.54	0.0089	0.0034
Moon	-35677-03-20 20:38 J	-11309521.88	-11309521.64	-11309521.39	0.0089	0.0030 *
Moon	-35676-03-23 01:55 J	-11309154.53	-11309154.42	-11309154.30	0.0089	0.0079
Earth	-35676-03-23 04:04 J	-11309154.45	-11309154.33	-11309154.17	0.0089	0.0075 *
Mercury	-35671-06-14 21:07 J	-11307244.65	-11307244.62	-11307244.57	0.0089	0.0085
Mercury	-35671-09-10 23:02 J	-11307156.60	-11307156.54	-11307156.47	0.0089	0.0079
Mercury	-35671-12-08 00:28 J	-11307068.55	-11307068.48	-11307068.38	0.0089	0.0072
Mercury	-35670-03-06 02:09 J	-11306980.49	-11306980.41	-11306980.30	0.0089	0.0065
Mercury	-35670-06-02 04:04 J	-11306892.43	-11306892.33	-11306892.21	0.0089	0.0058
Mercury	-35670-08-29 05:45 J	-11306804.37	-11306804.26	-11306804.13	0.0089	0.0052
Mercury	-35670-11-25 07:40 J	-11306716.30	-11306716.18	-11306716.05	0.0089	0.0044
Mercury	-35669-02-21 09:07 J	-11306628.24	-11306628.12	-11306627.97	0.0089	0.0038
Mercury	-35669-05-19 11:02 J	-11306540.17	-11306540.04	-11306539.90	0.0089	0.0031
Mercury	-35669-08-15 12:43 J	-11306452.10	-11306451.97	-11306451.82	0.0089	0.0024
Mercury	-35669-11-11 14:38 J	-11306364.03	-11306363.89	-11306363.74	0.0089	0.0017
Mercury	-35668-02-07 16:33 J	-11306275.96	-11306275.81	-11306275.66	0.0089	0.0010

Mercury -35668-05-06 18:14 J -11306187.88 -11306187.74 -11306187.59 0.0089 0.0004

Mercury -35668-08-02 20:09 J -11306099.81 -11306099.66 -11306099.51 0.0089 0.0004

Mercury -35668-10-29 21:50 J -11306011.73 -11306011.59 -11306011.44 0.0089 0.0012

Mercury -35667-01-25 23:45 J -11305923.65 -11305923.51 -11305923.36 0.0089 0.0019

Mercury -35667-04-24 01:26 J -11305835.58 -11305835.44 -11305835.29 0.0089 0.0026

Mercury -35667-07-21 03:21 J -11305747.50 -11305747.36 -11305747.22 0.0089 0.0033

Mercury -35667-10-17 05:02 J -11305659.41 -11305659.29 -11305659.15 0.0089 0.0040

Mercury -35666-01-13 06:57 J -11305571.33 -11305571.21 -11305571.08 0.0089 0.0047

Mercury -35666-04-11 08:52 J -11305483.24 -11305483.13 -11305483.01 0.0089 0.0054

Mercury -35666-07-08 10:47 J -11305395.16 -11305395.05 -11305394.94 0.0089 0.0061

Mercury -35666-10-04 12:28 J -11305307.06 -11305306.98 -11305306.88 0.0089 0.0069

Mercury -35666-12-31 14:23 J -11305218.97 -11305218.90 -11305218.82 0.0089 0.0076

Mercury -35665-03-28 16:19 J -11305130.86 -11305130.82 -11305130.76 0.0089 0.0083

Mars -35665-07-09 18:57 J -11305027.94 -11305027.71 -11305027.45 0.0089 0.0048

Mars -35663-06-03 15:21 J -11304334.15 -11304333.86 -11304333.56 0.0089 0.0006

Mars -35661-04-27 11:31 J -11303640.27 -11303640.02 -11303639.74 0.0089 0.0036

Mars -35659-03-22 07:11 J -11302946.32 -11302946.20 -11302946.04 0.0089 0.0077

Venus -35641-11-26 07:55 J -11296122.23 -11296122.17 -11296122.07 0.0088 0.0083

Venus -35640-07-09 20:38 J -11295896.74 -11295896.64 -11295896.49 0.0088 0.0074

Venus -35639-02-20 09:50 J -11295671.23 -11295671.09 -11295670.93 0.0088 0.0064

Venus -35639-10-03 22:33 J -11295445.72 -11295445.56 -11295445.37 0.0088 0.0055

Venus -35638-05-17 11:31 J -11295220.20 -11295220.02 -11295219.82 0.0088 0.0045

Venus -35638-12-29 00:43 J -11294994.67 -11294994.47 -11294994.27 0.0088 0.0036

Venus -35637-08-10 13:26 J -11294769.14 -11294768.94 -11294768.72 0.0088 0.0027

Venus -35636-03-24 02:38 J -11294543.60 -11294543.39 -11294543.17 0.0088 0.0017

Venus -35636-11-04 15:50 J -11294318.06 -11294317.84 -11294317.62 0.0088 0.0008

Venus -35635-06-18 04:47 J -11294092.52 -11294092.30 -11294092.08 0.0088 0.0002

Venus -35634-01-29 17:45 J -11293866.98 -11293866.76 -11293866.54 0.0088 0.0011

Venus -35634-09-12 06:43 J -11293641.43 -11293641.22 -11293641.00 0.0088 0.0021

Venus -35633-04-24 19:40 J -11293415.87 -11293415.68 -11293415.46 0.0088 0.0030

Venus	-35633-12-06 08:52 J	-11293190.32	-11293190.13	-11293189.92	0.0088	0.0040
Venus	-35632-07-19 21:35 J	-11292964.76	-11292964.60	-11292964.39	0.0088	0.0050
Venus	-35631-03-02 10:47 J	-11292739.20	-11292739.05	-11292738.86	0.0088	0.0059
Venus	-35631-10-14 00:14 J	-11292513.63	-11292513.49	-11292513.34	0.0088	0.0067
Venus	-35630-05-27 12:57 J	-11292288.04	-11292287.96	-11292287.83	0.0088	0.0077
Venus	-35629-01-08 02:09 J	-11292062.44	-11292062.41	-11292062.34	0.0088	0.0086
Moon	-35597-09-16 19:26 J	-11280121.86	-11280121.69	-11280121.48	0.0088	0.0059
Earth	-35597-09-16 23:02 J	-11280121.73	-11280121.54	-11280121.32	0.0088	0.0054 *
Earth	-35596-09-19 11:31 J	-11279754.28	-11279754.02	-11279753.76	0.0088	0.0014
Moon	-35596-09-19 15:07 J	-11279754.12	-11279753.87	-11279753.60	0.0088	0.0010 *
Moon	-35595-09-21 20:38 J	-11279386.88	-11279386.64	-11279386.39	0.0088	0.0021
Earth	-35595-09-21 23:16 J	-11279386.76	-11279386.53	-11279386.27	0.0088	0.0026 *
Earth	-35594-09-24 11:16 J	-11279019.19	-11279019.03	-11279018.84	0.0088	0.0066
Moon	-35594-09-24 13:40 J	-11279019.07	-11279018.93	-11279018.74	0.0088	0.0070 *
Mercury	-35588-12-07 16:33 J	-11276752.85	-11276752.81	-11276752.74	0.0088	0.0084
Mercury	-35587-03-05 19:11 J	-11276664.77	-11276664.70	-11276664.59	0.0088	0.0076
Mercury	-35587-06-01 21:50 J	-11276576.68	-11276576.59	-11276576.46	0.0088	0.0068
Mercury	-35587-08-29 00:57 J	-11276488.58	-11276488.46	-11276488.33	0.0088	0.0059
Mercury	-35587-11-25 03:35 J	-11276400.49	-11276400.35	-11276400.21	0.0088	0.0051
Mercury	-35586-02-21 06:14 J	-11276312.39	-11276312.24	-11276312.09	0.0088	0.0043
Mercury	-35586-05-20 08:52 J	-11276224.28	-11276224.13	-11276223.97	0.0088	0.0034
Mercury	-35586-08-16 11:31 J	-11276136.18	-11276136.02	-11276135.85	0.0088	0.0026
Mercury	-35586-11-12 14:09 J	-11276048.08	-11276047.91	-11276047.74	0.0088	0.0018
Mercury	-35585-02-08 16:47 J	-11275959.97	-11275959.80	-11275959.63	0.0088	0.0010
Mercury	-35585-05-06 19:26 J	-11275871.86	-11275871.69	-11275871.52	0.0088	0.0003
Mercury	-35585-08-02 21:50 J	-11275783.76	-11275783.59	-11275783.42	0.0088	0.0006
Mercury	-35585-10-30 00:28 J	-11275695.65	-11275695.48	-11275695.31	0.0088	0.0013
Mercury	-35584-01-26 02:52 J	-11275607.54	-11275607.38	-11275607.21	0.0088	0.0021
Mercury	-35584-04-24 05:16 J	-11275519.43	-11275519.28	-11275519.11	0.0088	0.0030
Mercury	-35584-07-21 07:55 J	-11275431.32	-11275431.17	-11275431.01	0.0088	0.0037

Mercury -35584-10-17 10:33 J -11275343.20 -11275343.06 -11275342.91 0.0088 0.0045

Mercury -35583-01-13 12:57 J -11275255.09 -11275254.96 -11275254.82 0.0088 0.0052

Mars -35583-04-06 16:47 J -11275171.84 -11275171.80 -11275171.67 0.0088 0.0086

Mercury -35583-04-11 15:21 J -11275166.97 -11275166.86 -11275166.73 0.0088 0.0060

Mercury -35583-07-08 17:45 J -11275078.85 -11275078.76 -11275078.64 0.0088 0.0068

Mercury -35583-10-04 20:23 J -11274990.73 -11274990.65 -11274990.56 0.0088 0.0076

Mercury -35583-12-31 22:33 J -11274902.60 -11274902.56 -11274902.49 0.0088 0.0084

Mars -35581-03-02 14:52 J -11274476.16 -11274475.88 -11274475.55 0.0088 0.0039

Mars -35579-01-27 15:50 J -11273780.17 -11273779.84 -11273779.50 0.0088 0.0010

Mars -35578-12-24 17:16 J -11273084.03 -11273083.78 -11273083.52 0.0088 0.0058

Venus -35558-08-29 04:19 J -11265896.37 -11265896.32 -11265896.27 0.0089 0.0086

Venus -35557-04-10 17:16 J -11265670.88 -11265670.78 -11265670.66 0.0089 0.0077

Venus -35557-11-22 06:14 J -11265445.36 -11265445.24 -11265445.08 0.0089 0.0068

Venus -35556-07-05 19:40 J -11265219.84 -11265219.68 -11265219.51 0.0089 0.0058

Venus -35555-02-16 08:23 J -11264994.31 -11264994.15 -11264993.94 0.0089 0.0049

Venus -35555-09-29 21:50 J -11264768.78 -11264768.59 -11264768.38 0.0089 0.0039

Venus -35554-05-13 10:47 J -11264543.24 -11264543.05 -11264542.83 0.0089 0.0030

Venus -35554-12-24 23:59 J -11264317.71 -11264317.50 -11264317.29 0.0089 0.0020

Venus -35553-08-06 12:43 J -11264092.18 -11264091.97 -11264091.74 0.0089 0.0011

Venus -35552-03-20 01:55 J -11263866.64 -11263866.42 -11263866.20 0.0089 0.0001

Venus -35552-10-31 14:52 J -11263641.09 -11263640.88 -11263640.66 0.0089 0.0008

Venus -35551-06-14 03:35 J -11263415.55 -11263415.35 -11263415.12 0.0089 0.0018

Venus -35550-01-25 16:33 J -11263190.01 -11263189.81 -11263189.60 0.0089 0.0027

Venus -35550-09-08 05:16 J -11262964.47 -11262964.28 -11262964.07 0.0089 0.0037

Venus -35549-04-20 18:14 J -11262738.92 -11262738.74 -11262738.54 0.0089 0.0046

Venus -35549-12-02 07:11 J -11262513.36 -11262513.20 -11262513.02 0.0089 0.0056

Venus -35548-07-15 19:40 J -11262287.81 -11262287.68 -11262287.51 0.0089 0.0065

Venus -35547-02-26 08:38 J -11262062.24 -11262062.14 -11262062.01 0.0089 0.0074

Venus -35547-10-09 21:35 J -11261836.66 -11261836.60 -11261836.51 0.0089 0.0083

Moon -35515-03-15 19:55 J -11250356.81 -11250356.67 -11250356.50 0.0089 0.0070

Earth -35515-03-15 23:16 J -11250356.66 -11250356.53 -11250356.35 0.0089 0.0072 *
 Earth -35514-03-18 10:47 J -11249989.28 -11249989.05 -11249988.80 0.0089 0.0031
 Moon -35514-03-18 13:26 J -11249989.17 -11249988.94 -11249988.68 0.0089 0.0032 *
 Moon -35513-03-19 19:40 J -11249621.92 -11249621.68 -11249621.43 0.0089 0.0012
 Earth -35513-03-19 21:50 J -11249621.84 -11249621.59 -11249621.33 0.0089 0.0010 *
 Earth -35512-03-22 08:52 J -11249254.33 -11249254.13 -11249253.91 0.0089 0.0051
 Moon -35512-03-22 09:50 J -11249254.30 -11249254.09 -11249253.85 0.0089 0.0048 *
 Mercury -35506-03-11 19:40 J -11247073.72 -11247073.68 -11247073.63 0.0089 0.0084
 Mercury -35506-06-07 21:21 J -11246985.67 -11246985.61 -11246985.53 0.0089 0.0078
 Mercury -35506-09-03 22:47 J -11246897.62 -11246897.55 -11246897.44 0.0089 0.0072
 Mercury -35506-12-01 00:43 J -11246809.56 -11246809.47 -11246809.36 0.0089 0.0064
 Mercury -35505-02-27 02:23 J -11246721.50 -11246721.40 -11246721.28 0.0089 0.0057
 Mercury -35505-05-25 04:19 J -11246633.43 -11246633.32 -11246633.20 0.0089 0.0050
 Mercury -35505-08-21 05:59 J -11246545.37 -11246545.25 -11246545.12 0.0089 0.0043
 Mercury -35505-11-17 07:55 J -11246457.30 -11246457.17 -11246457.04 0.0089 0.0036
 Mercury -35504-02-13 09:35 J -11246369.23 -11246369.10 -11246368.96 0.0089 0.0029
 Mercury -35504-05-12 11:31 J -11246281.16 -11246281.02 -11246280.88 0.0089 0.0022
 Mercury -35504-08-08 13:11 J -11246193.09 -11246192.95 -11246192.80 0.0089 0.0015
 Mercury -35504-11-04 14:52 J -11246105.02 -11246104.88 -11246104.73 0.0089 0.0009
 Mercury -35503-01-31 16:47 J -11246016.95 -11246016.80 -11246016.65 0.0089 0.0001
 Mercury -35503-04-29 18:28 J -11245928.87 -11245928.73 -11245928.58 0.0089 0.0006
 Mercury -35503-07-26 20:23 J -11245840.80 -11245840.65 -11245840.50 0.0089 0.0013
 Mercury -35503-10-22 22:04 J -11245752.72 -11245752.58 -11245752.43 0.0089 0.0020
 Mercury -35502-01-18 23:59 J -11245664.64 -11245664.50 -11245664.36 0.0089 0.0027
 Mercury -35502-04-17 01:40 J -11245576.56 -11245576.43 -11245576.29 0.0089 0.0034
 Mercury -35502-07-14 03:35 J -11245488.48 -11245488.35 -11245488.22 0.0089 0.0041
 Mercury -35502-10-10 05:31 J -11245400.39 -11245400.27 -11245400.15 0.0089 0.0048
 Mercury -35501-01-06 06:57 J -11245312.31 -11245312.21 -11245312.08 0.0089 0.0056
 Mars -35501-02-22 18:43 J -11245264.88 -11245264.72 -11245264.52 0.0089 0.0069
 Mercury -35501-04-03 08:52 J -11245224.22 -11245224.13 -11245224.01 0.0089 0.0063

Mercury -35501-06-30 10:47 J -11245136.13 -11245136.05 -11245135.95 0.0089 0.0070

Mercury -35501-09-26 12:43 J -11245048.03 -11245047.97 -11245047.89 0.0089 0.0077

Mercury -35501-12-23 14:23 J -11244959.93 -11244959.90 -11244959.84 0.0089 0.0085

Mars -35499-01-16 18:28 J -11244571.00 -11244570.73 -11244570.44 0.0089 0.0027

Mars -35498-12-11 15:07 J -11243877.15 -11243876.87 -11243876.57 0.0089 0.0015

Mars -35496-11-04 10:47 J -11243183.26 -11243183.05 -11243182.81 0.0089 0.0057

Venus -35476-02-27 16:33 J -11236127.83 -11236127.81 -11236127.74 0.0088 0.0087

Venus -35476-10-11 05:16 J -11235902.36 -11235902.28 -11235902.15 0.0088 0.0078

Venus -35475-05-24 17:59 J -11235676.86 -11235676.75 -11235676.59 0.0088 0.0069

Venus -35474-01-05 06:43 J -11235451.36 -11235451.22 -11235451.03 0.0088 0.0060

Venus -35474-08-18 20:09 J -11235225.84 -11235225.66 -11235225.48 0.0088 0.0050

Venus -35473-03-31 09:07 J -11235000.31 -11235000.12 -11234999.92 0.0088 0.0041

Venus -35473-11-11 21:50 J -11234774.79 -11234774.59 -11234774.38 0.0088 0.0032

Venus -35472-06-25 10:47 J -11234549.26 -11234549.05 -11234548.83 0.0088 0.0022

Venus -35471-02-05 23:31 J -11234323.73 -11234323.52 -11234323.29 0.0088 0.0014

Venus -35471-09-19 12:43 J -11234098.19 -11234097.97 -11234097.75 0.0088 0.0004

Venus -35470-05-03 01:55 J -11233872.64 -11233872.42 -11233872.20 0.0088 0.0006

Venus -35470-12-14 14:52 J -11233647.10 -11233646.88 -11233646.66 0.0088 0.0015

Venus -35469-07-27 03:50 J -11233421.55 -11233421.34 -11233421.12 0.0088 0.0024

Venus -35468-03-09 17:02 J -11233195.99 -11233195.79 -11233195.58 0.0088 0.0034

Venus -35468-10-21 05:45 J -11232970.44 -11232970.26 -11232970.05 0.0088 0.0044

Venus -35467-06-03 18:57 J -11232744.87 -11232744.71 -11232744.52 0.0088 0.0052

Venus -35466-01-15 08:09 J -11232519.31 -11232519.16 -11232518.99 0.0088 0.0062

Venus -35466-08-28 20:52 J -11232293.74 -11232293.63 -11232293.47 0.0088 0.0071

Venus -35465-04-10 10:04 J -11232068.14 -11232068.08 -11232067.96 0.0088 0.0081

Earth -35433-09-16 02:38 J -11220221.48 -11220221.39 -11220221.24 0.0088 0.0078

Moon -35433-09-16 06:14 J -11220221.33 -11220221.24 -11220221.09 0.0088 0.0078 *

Moon -35432-09-18 12:28 J -11219854.21 -11219853.98 -11219853.74 0.0088 0.0037

Earth -35432-09-18 15:07 J -11219854.09 -11219853.87 -11219853.62 0.0088 0.0038 *

Earth -35431-09-21 03:35 J -11219486.61 -11219486.35 -11219486.09 0.0088 0.0002

Moon -35431-09-21 05:16 J -11219486.55 -11219486.28 -11219486.01 0.0088 0.0002 *
 Moon -35430-09-23 14:38 J -11219119.10 -11219118.89 -11219118.66 0.0088 0.0043
 Earth -35430-09-23 15:35 J -11219119.07 -11219118.85 -11219118.62 0.0088 0.0042 *
 Moon -35429-09-25 02:38 J -11218751.46 -11218751.39 -11218751.27 0.0088 0.0082
 Earth -35429-09-25 03:21 J -11218751.43 -11218751.36 -11218751.25 0.0088 0.0082 *
 Mercury -35423-09-03 14:38 J -11216581.95 -11216581.89 -11216581.82 0.0088 0.0082
 Mercury -35423-11-30 17:16 J -11216493.87 -11216493.78 -11216493.68 0.0088 0.0074
 Mercury -35422-02-26 19:55 J -11216405.78 -11216405.67 -11216405.55 0.0088 0.0065
 Mercury -35422-05-25 22:33 J -11216317.68 -11216317.56 -11216317.42 0.0088 0.0057
 Mercury -35422-08-22 01:11 J -11216229.58 -11216229.45 -11216229.30 0.0088 0.0049
 Mercury -35422-11-18 03:50 J -11216141.48 -11216141.34 -11216141.18 0.0088 0.0041
 Mercury -35421-02-14 06:28 J -11216053.38 -11216053.23 -11216053.06 0.0088 0.0033
 Mercury -35421-05-12 09:07 J -11215965.27 -11215965.12 -11215964.95 0.0088 0.0025
 Mercury -35421-08-08 11:45 J -11215877.17 -11215877.01 -11215876.83 0.0088 0.0018
 Mercury -35421-11-04 14:23 J -11215789.06 -11215788.90 -11215788.72 0.0088 0.0010
 Mercury -35420-01-31 17:16 J -11215700.96 -11215700.78 -11215700.61 0.0088 0.0002
 Mercury -35420-04-29 19:40 J -11215612.85 -11215612.68 -11215612.51 0.0088 0.0007
 Mercury -35420-07-26 22:19 J -11215524.74 -11215524.57 -11215524.40 0.0088 0.0015
 Mercury -35420-10-23 00:43 J -11215436.63 -11215436.47 -11215436.30 0.0088 0.0023
 Mercury -35419-01-19 03:21 J -11215348.52 -11215348.36 -11215348.20 0.0088 0.0031
 Mercury -35419-04-17 05:45 J -11215260.40 -11215260.26 -11215260.10 0.0088 0.0039
 Mercury -35419-07-14 08:23 J -11215172.29 -11215172.15 -11215172.00 0.0088 0.0046
 Mercury -35419-10-10 10:47 J -11215084.17 -11215084.05 -11215083.91 0.0088 0.0054
 Mercury -35418-01-06 13:11 J -11214996.06 -11214995.95 -11214995.82 0.0088 0.0062
 Mercury -35418-04-04 15:50 J -11214907.94 -11214907.84 -11214907.73 0.0088 0.0070
 Mercury -35418-07-01 17:59 J -11214819.81 -11214819.75 -11214819.65 0.0088 0.0078
 Mercury -35418-09-27 20:23 J -11214731.67 -11214731.65 -11214731.59 0.0088 0.0086
 Mars -35418-10-15 00:14 J -11214714.72 -11214714.49 -11214714.24 0.0088 0.0062
 Mars -35416-09-09 22:04 J -11214018.90 -11214018.58 -11214018.23 0.0088 0.0015
 Mars -35414-08-06 22:19 J -11213322.86 -11213322.57 -11213322.24 0.0088 0.0035

Mars	-35412-07-03 00:14 J	-11212626.60	-11212626.49	-11212626.37	0.0088	0.0083
Venus	-35393-07-12 23:59 J	-11205676.56	-11205676.50	-11205676.40	0.0089	0.0082
Venus	-35392-02-23 13:40 J	-11205451.05	-11205450.93	-11205450.80	0.0089	0.0072
Venus	-35392-10-07 02:38 J	-11205225.53	-11205225.39	-11205225.22	0.0089	0.0063
Venus	-35391-05-20 15:50 J	-11205000.00	-11204999.84	-11204999.65	0.0089	0.0054
Venus	-35390-01-01 05:16 J	-11204774.47	-11204774.28	-11204774.09	0.0089	0.0044
Venus	-35390-08-14 17:59 J	-11204548.94	-11204548.75	-11204548.53	0.0089	0.0035
Venus	-35389-03-27 07:11 J	-11204323.40	-11204323.20	-11204322.98	0.0089	0.0026
Venus	-35389-11-07 20:23 J	-11204097.86	-11204097.65	-11204097.43	0.0089	0.0016
Venus	-35388-06-21 09:35 J	-11203872.32	-11203872.10	-11203871.88	0.0089	0.0007
Venus	-35387-02-01 22:33 J	-11203646.78	-11203646.56	-11203646.34	0.0089	0.0003
Venus	-35387-09-15 11:31 J	-11203421.24	-11203421.02	-11203420.80	0.0089	0.0012
Venus	-35386-04-29 00:28 J	-11203195.69	-11203195.48	-11203195.27	0.0089	0.0021
Venus	-35386-12-10 12:57 J	-11202970.15	-11202969.96	-11202969.74	0.0089	0.0031
Venus	-35385-07-23 01:55 J	-11202744.60	-11202744.42	-11202744.21	0.0089	0.0040
Venus	-35384-03-05 14:52 J	-11202519.05	-11202518.88	-11202518.69	0.0089	0.0049
Venus	-35384-10-17 04:04 J	-11202293.50	-11202293.33	-11202293.17	0.0089	0.0059
Venus	-35383-05-30 16:19 J	-11202067.94	-11202067.82	-11202067.66	0.0089	0.0068
Venus	-35382-01-11 05:02 J	-11201842.37	-11201842.29	-11201842.16	0.0089	0.0077
Venus	-35382-08-24 17:59 J	-11201616.79	-11201616.75	-11201616.68	0.0089	0.0086
Moon	-35350-03-17 14:23 J	-11190089.07	-11190088.90	-11190088.70	0.0089	0.0060
Earth	-35350-03-17 15:50 J	-11190089.03	-11190088.84	-11190088.63	0.0089	0.0055 *
Earth	-35349-03-19 02:52 J	-11189721.62	-11189721.38	-11189721.12	0.0089	0.0015
Moon	-35349-03-19 03:21 J	-11189721.61	-11189721.36	-11189721.09	0.0089	0.0011 *
Earth	-35348-03-21 13:55 J	-11189354.15	-11189353.92	-11189353.67	0.0089	0.0027
Moon	-35348-03-21 14:38 J	-11189354.12	-11189353.89	-11189353.65	0.0089	0.0023 *
Moon	-35347-03-23 22:19 J	-11188986.69	-11188986.57	-11188986.38	0.0089	0.0073
Earth	-35347-03-24 00:57 J	-11188986.61	-11188986.46	-11188986.27	0.0089	0.0068 *
Mercury	-35342-12-06 17:59 J	-11186902.78	-11186902.75	-11186902.68	0.0089	0.0084
Mercury	-35341-03-03 19:55 J	-11186814.73	-11186814.67	-11186814.59	0.0089	0.0076

Mercury -35341-05-30 21:35 J -11186726.68 -11186726.60 -11186726.50 0.0089 0.0070

Mercury -35341-08-26 23:31 J -11186638.62 -11186638.52 -11186638.41 0.0089 0.0062

Mercury -35341-11-23 01:11 J -11186550.56 -11186550.45 -11186550.33 0.0089 0.0056

Mercury -35340-02-19 02:52 J -11186462.49 -11186462.38 -11186462.25 0.0089 0.0049

Mercury -35340-05-18 04:33 J -11186374.43 -11186374.31 -11186374.17 0.0089 0.0042

Mercury -35340-08-14 06:28 J -11186286.36 -11186286.23 -11186286.09 0.0089 0.0035

Mercury -35340-11-10 08:09 J -11186198.29 -11186198.16 -11186198.02 0.0089 0.0028

Mercury -35339-02-06 09:50 J -11186110.22 -11186110.09 -11186109.94 0.0089 0.0022

Mercury -35339-05-05 11:45 J -11186022.15 -11186022.01 -11186021.86 0.0089 0.0014

Mercury -35339-08-01 13:40 J -11185934.08 -11185933.93 -11185933.79 0.0089 0.0007

Mercury -35339-10-28 15:21 J -11185846.01 -11185845.86 -11185845.71 0.0089 0.0001

Mercury -35338-01-24 17:02 J -11185757.93 -11185757.79 -11185757.64 0.0089 0.0008

Mercury -35338-04-22 18:57 J -11185669.85 -11185669.71 -11185669.56 0.0089 0.0014

Mercury -35338-07-19 20:38 J -11185581.78 -11185581.64 -11185581.49 0.0089 0.0022

Mercury -35338-10-15 22:19 J -11185493.70 -11185493.57 -11185493.42 0.0089 0.0029

Mercury -35337-01-12 00:14 J -11185405.62 -11185405.49 -11185405.35 0.0089 0.0036

Mercury -35337-04-09 02:09 J -11185317.54 -11185317.41 -11185317.28 0.0089 0.0043

Mercury -35337-07-06 03:50 J -11185229.45 -11185229.34 -11185229.21 0.0089 0.0050

Mercury -35337-10-02 05:45 J -11185141.37 -11185141.26 -11185141.14 0.0089 0.0057

Mercury -35337-12-29 07:40 J -11185053.28 -11185053.18 -11185053.07 0.0089 0.0065

Mercury -35336-03-27 09:21 J -11184965.19 -11184965.11 -11184965.01 0.0089 0.0072

Mercury -35336-06-23 11:16 J -11184877.09 -11184877.03 -11184876.95 0.0089 0.0079

Mars -35336-08-31 18:57 J -11184807.94 -11184807.71 -11184807.45 0.0089 0.0048

Mercury -35336-09-19 13:11 J -11184788.98 -11184788.95 -11184788.91 0.0089 0.0086

Mars -35334-07-26 17:59 J -11184114.04 -11184113.75 -11184113.45 0.0089 0.0006

Mars -35332-06-19 14:52 J -11183420.13 -11183419.88 -11183419.59 0.0089 0.0037

Mars -35330-05-14 10:04 J -11182726.19 -11182726.08 -11182725.92 0.0089 0.0079

Venus -35311-01-12 14:09 J -11175907.97 -11175907.91 -11175907.80 0.0088 0.0082

Venus -35311-08-26 02:52 J -11175682.48 -11175682.38 -11175682.23 0.0088 0.0073

Venus -35310-04-08 16:04 J -11175456.97 -11175456.83 -11175456.66 0.0088 0.0063

Venus	-35310-11-20 04:47 J	-11175231.45	-11175231.30	-11175231.11	0.0088	0.0055
Venus	-35309-07-02 17:45 J	-11175005.94	-11175005.76	-11175005.56	0.0088	0.0045
Venus	-35308-02-13 06:28 J	-11174780.41	-11174780.23	-11174780.01	0.0088	0.0037
Venus	-35308-09-26 19:26 J	-11174554.89	-11174554.69	-11174554.47	0.0088	0.0027
Venus	-35307-05-10 08:38 J	-11174329.35	-11174329.14	-11174328.92	0.0088	0.0018
Venus	-35307-12-21 21:35 J	-11174103.82	-11174103.60	-11174103.38	0.0088	0.0008
Venus	-35306-08-04 10:33 J	-11173878.28	-11173878.06	-11173877.84	0.0088	0.0001
Venus	-35305-03-16 23:31 J	-11173652.74	-11173652.52	-11173652.30	0.0088	0.0010
Venus	-35305-10-28 12:28 J	-11173427.19	-11173426.98	-11173426.76	0.0088	0.0019
Venus	-35304-06-11 01:26 J	-11173201.64	-11173201.44	-11173201.22	0.0088	0.0028
Venus	-35303-01-22 14:23 J	-11172976.09	-11172975.90	-11172975.69	0.0088	0.0038
Venus	-35303-09-05 03:35 J	-11172750.53	-11172750.35	-11172750.16	0.0088	0.0047
Venus	-35302-04-18 17:02 J	-11172524.96	-11172524.79	-11172524.62	0.0088	0.0056
Venus	-35302-11-30 05:31 J	-11172299.39	-11172299.27	-11172299.09	0.0088	0.0066
Venus	-35301-07-12 18:43 J	-11172073.82	-11172073.72	-11172073.58	0.0088	0.0074
Venus	-35300-02-23 07:55 J	-11171848.22	-11171848.17	-11171848.08	0.0088	0.0083
Jupiter	-35290-04-23 17:31 J	-11168137.16	-11168136.77	-11168136.25	0.0088	0.0054
Earth	-35268-09-17 20:38 J	-11159953.81	-11159953.64	-11159953.43	0.0088	0.0061
Moon	-35268-09-17 22:04 J	-11159953.73	-11159953.58	-11159953.37	0.0088	0.0065 *
Earth	-35267-09-20 08:52 J	-11159586.38	-11159586.13	-11159585.87	0.0088	0.0020
Moon	-35267-09-20 08:52 J	-11159586.37	-11159586.13	-11159585.87	0.0088	0.0016 *
Moon	-35266-09-22 19:40 J	-11159218.94	-11159218.68	-11159218.40	0.0088	0.0016
Earth	-35266-09-22 20:52 J	-11159218.88	-11159218.63	-11159218.37	0.0088	0.0020 *
Earth	-35265-09-24 08:23 J	-11158851.31	-11158851.15	-11158850.93	0.0088	0.0061
Moon	-35265-09-24 11:02 J	-11158851.21	-11158851.04	-11158850.87	0.0088	0.0065 *
Mercury	-35258-03-04 09:50 J	-11156499.09	-11156499.09	-11156499.07	0.0088	0.0088
Mercury	-35258-05-31 12:43 J	-11156411.04	-11156410.97	-11156410.90	0.0088	0.0080
Mercury	-35258-08-27 15:21 J	-11156322.96	-11156322.86	-11156322.76	0.0088	0.0071
Mercury	-35258-11-23 17:45 J	-11156234.87	-11156234.76	-11156234.63	0.0088	0.0064
Mercury	-35257-02-19 20:23 J	-11156146.77	-11156146.65	-11156146.50	0.0088	0.0056

Mercury -35257-05-17 23:02 J -11156058.67 -11156058.54 -11156058.38 0.0088 0.0048

Mercury -35257-08-14 01:55 J -11155970.57 -11155970.42 -11155970.26 0.0088 0.0039

Mercury -35257-11-10 04:33 J -11155882.46 -11155882.31 -11155882.14 0.0088 0.0031

Mercury -35256-02-06 07:11 J -11155794.36 -11155794.20 -11155794.03 0.0088 0.0023

Mercury -35256-05-05 09:50 J -11155706.25 -11155706.09 -11155705.92 0.0088 0.0015

Mercury -35256-08-01 12:28 J -11155618.15 -11155617.98 -11155617.81 0.0088 0.0007

Mercury -35256-10-28 15:07 J -11155530.04 -11155529.87 -11155529.70 0.0088 0.0001

Mercury -35255-01-24 17:45 J -11155441.93 -11155441.76 -11155441.59 0.0088 0.0009

Mercury -35255-04-22 20:09 J -11155353.82 -11155353.66 -11155353.49 0.0088 0.0017

Mercury -35255-07-19 22:33 J -11155265.71 -11155265.56 -11155265.38 0.0088 0.0026

Mercury -35255-10-16 01:26 J -11155177.60 -11155177.44 -11155177.28 0.0088 0.0033

Mercury -35254-01-12 03:50 J -11155089.48 -11155089.34 -11155089.19 0.0088 0.0041

Mercury -35254-04-10 06:14 J -11155001.37 -11155001.24 -11155001.09 0.0088 0.0049

Mars -35254-05-28 10:19 J -11154953.12 -11154953.07 -11154952.95 0.0088 0.0085

Mercury -35254-07-07 08:38 J -11154913.25 -11154913.14 -11154913.00 0.0088 0.0057

Mercury -35254-10-03 11:02 J -11154825.14 -11154825.04 -11154824.91 0.0088 0.0065

Mercury -35254-12-30 13:55 J -11154737.01 -11154736.92 -11154736.82 0.0088 0.0072

Mercury -35253-03-27 16:04 J -11154648.88 -11154648.83 -11154648.74 0.0088 0.0080

Mercury -35253-06-23 18:28 J -11154560.74 -11154560.73 -11154560.68 0.0088 0.0087

Mars -35252-04-23 07:40 J -11154257.48 -11154257.18 -11154256.87 0.0088 0.0038

Mars -35250-03-20 06:14 J -11153561.57 -11153561.24 -11153560.90 0.0088 0.0011

Mars -35248-02-13 05:59 J -11152865.47 -11152865.25 -11152864.98 0.0088 0.0060

Venus -35229-10-14 07:55 J -11145682.20 -11145682.17 -11145682.10 0.0089 0.0086

Venus -35228-05-27 21:07 J -11145456.71 -11145456.62 -11145456.49 0.0089 0.0077

Venus -35227-01-08 10:04 J -11145231.20 -11145231.08 -11145230.91 0.0089 0.0068

Venus -35227-08-21 23:45 J -11145005.67 -11145005.51 -11145005.34 0.0089 0.0058

Venus -35226-04-04 12:57 J -11144780.14 -11144779.96 -11144779.77 0.0089 0.0049

Venus -35226-11-16 01:55 J -11144554.60 -11144554.42 -11144554.21 0.0089 0.0040

Venus -35225-06-28 15:07 J -11144329.07 -11144328.87 -11144328.65 0.0089 0.0031

Venus -35224-02-09 04:19 J -11144103.53 -11144103.32 -11144103.10 0.0089 0.0021

Venus	-35224-09-22 17:31 J	-11143877.99	-11143877.77	-11143877.55	0.0089	0.0012
Venus	-35223-05-06 06:28 J	-11143652.45	-11143652.23	-11143652.01	0.0089	0.0003
Venus	-35223-12-17 19:26 J	-11143426.91	-11143426.69	-11143426.47	0.0089	0.0007
Venus	-35222-07-31 08:09 J	-11143201.37	-11143201.16	-11143200.93	0.0089	0.0016
Venus	-35221-03-12 21:07 J	-11142975.82	-11142975.62	-11142975.40	0.0089	0.0025
Venus	-35221-10-24 10:19 J	-11142750.27	-11142750.07	-11142749.87	0.0089	0.0034
Venus	-35220-06-06 23:02 J	-11142524.72	-11142524.54	-11142524.34	0.0089	0.0044
Venus	-35219-01-18 11:31 J	-11142299.17	-11142299.02	-11142298.82	0.0089	0.0053
Venus	-35219-09-01 00:14 J	-11142073.62	-11142073.49	-11142073.31	0.0089	0.0063
Venus	-35218-04-14 13:11 J	-11141848.06	-11141847.95	-11141847.80	0.0089	0.0071
Venus	-35218-11-26 02:09 J	-11141622.48	-11141622.41	-11141622.30	0.0089	0.0080
Venus	-35217-07-08 15:07 J	-11141396.87	-11141396.87	-11141396.85	0.0089	0.0089
Moon	-35186-03-16 20:38 J	-11130188.74	-11130188.64	-11130188.49	0.0089	0.0078
Earth	-35186-03-16 21:07 J	-11130188.73	-11130188.62	-11130188.49	0.0089	0.0079 *
Earth	-35185-03-18 07:55 J	-11129821.38	-11129821.17	-11129820.92	0.0089	0.0038
Moon	-35185-03-18 09:21 J	-11129821.31	-11129821.11	-11129820.87	0.0089	0.0039 *
Moon	-35184-03-20 17:16 J	-11129454.04	-11129453.78	-11129453.51	0.0089	0.0004
Earth	-35184-03-20 19:40 J	-11129453.94	-11129453.68	-11129453.43	0.0089	0.0003 *
Earth	-35183-03-23 06:14 J	-11129086.44	-11129086.24	-11129086.00	0.0089	0.0045
Moon	-35183-03-23 09:50 J	-11129086.30	-11129086.09	-11129085.86	0.0089	0.0043 *
Moon	-35182-03-25 13:40 J	-11128718.97	-11128718.93	-11128718.82	0.0089	0.0086
Earth	-35182-03-25 17:45 J	-11128718.83	-11128718.76	-11128718.68	0.0089	0.0085 *
Mercury	-35177-06-05 15:07 J	-11126819.87	-11126819.87	-11126819.84	0.0089	0.0088
Mercury	-35177-09-01 17:02 J	-11126731.84	-11126731.79	-11126731.73	0.0089	0.0081
Mercury	-35177-11-28 18:43 J	-11126643.79	-11126643.72	-11126643.64	0.0089	0.0075
Mercury	-35176-02-24 20:09 J	-11126555.74	-11126555.66	-11126555.55	0.0089	0.0068
Mercury	-35176-05-23 22:04 J	-11126467.68	-11126467.58	-11126467.47	0.0089	0.0061
Mercury	-35176-08-19 23:45 J	-11126379.61	-11126379.51	-11126379.39	0.0089	0.0054
Mercury	-35176-11-16 01:26 J	-11126291.55	-11126291.44	-11126291.31	0.0089	0.0048
Mercury	-35175-02-12 03:21 J	-11126203.49	-11126203.36	-11126203.23	0.0089	0.0040

Mercury -35175-05-11 05:02 J -11126115.42 -11126115.29 -11126115.15 0.0089 0.0033

Mercury -35175-08-07 06:57 J -11126027.35 -11126027.21 -11126027.07 0.0089 0.0026

Mercury -35175-11-03 08:38 J -11125939.28 -11125939.14 -11125938.99 0.0089 0.0019

Mercury -35174-01-30 10:33 J -11125851.21 -11125851.06 -11125850.92 0.0089 0.0012

Mercury -35174-04-28 12:14 J -11125763.14 -11125762.99 -11125762.84 0.0089 0.0005

Mercury -35174-07-25 13:55 J -11125675.06 -11125674.92 -11125674.77 0.0089 0.0003

Mercury -35174-10-21 15:50 J -11125586.99 -11125586.84 -11125586.69 0.0089 0.0009

Mercury -35173-01-17 17:31 J -11125498.91 -11125498.77 -11125498.62 0.0089 0.0016

Mercury -35173-04-14 19:26 J -11125410.83 -11125410.69 -11125410.55 0.0089 0.0023

Mercury -35173-07-11 21:07 J -11125322.75 -11125322.62 -11125322.48 0.0089 0.0030

Mercury -35173-10-07 23:02 J -11125234.67 -11125234.54 -11125234.41 0.0089 0.0037

Mercury -35172-01-04 00:43 J -11125146.59 -11125146.47 -11125146.34 0.0089 0.0045

Mercury -35172-04-02 02:23 J -11125058.51 -11125058.40 -11125058.27 0.0089 0.0052

Mars -35172-04-15 21:07 J -11125044.77 -11125044.62 -11125044.41 0.0089 0.0070

Mercury -35172-06-29 04:19 J -11124970.42 -11124970.32 -11124970.20 0.0089 0.0059

Mercury -35172-09-25 06:14 J -11124882.33 -11124882.24 -11124882.14 0.0089 0.0066

Mercury -35172-12-22 07:55 J -11124794.24 -11124794.17 -11124794.07 0.0089 0.0074

Mercury -35171-03-20 09:50 J -11124706.14 -11124706.09 -11124706.02 0.0089 0.0081

Mercury -35171-06-16 11:45 J -11124618.02 -11124618.01 -11124617.98 0.0089 0.0088

Mars -35170-03-10 20:38 J -11124350.90 -11124350.64 -11124350.34 0.0089 0.0027

Mars -35168-02-01 19:40 J -11123656.97 -11123656.68 -11123656.39 0.0089 0.0016

Mars -35167-12-27 17:02 J -11122962.99 -11122962.79 -11122962.55 0.0089 0.0059

Venus -35147-04-15 23:45 J -11115913.56 -11115913.51 -11115913.44 0.0088 0.0085

Venus -35147-11-27 12:43 J -11115688.08 -11115687.97 -11115687.86 0.0088 0.0076

Venus -35146-07-11 00:57 J -11115462.58 -11115462.46 -11115462.30 0.0088 0.0068

Venus -35145-02-21 13:55 J -11115237.07 -11115236.92 -11115236.74 0.0088 0.0058

Venus -35145-10-04 02:38 J -11115011.55 -11115011.39 -11115011.19 0.0088 0.0050

Venus -35144-05-17 15:35 J -11114786.03 -11114785.85 -11114785.64 0.0088 0.0041

Venus -35144-12-29 04:33 J -11114560.51 -11114560.31 -11114560.09 0.0088 0.0031

Venus -35143-08-11 17:31 J -11114334.98 -11114334.77 -11114334.55 0.0088 0.0022

Venus	-35142-03-25 06:28 J	-11114109.44	-11114109.23	-11114109.00	0.0088	0.0013
Venus	-35142-11-05 19:26 J	-11113883.90	-11113883.69	-11113883.46	0.0088	0.0005
Venus	-35141-06-18 08:23 J	-11113658.37	-11113658.15	-11113657.93	0.0088	0.0005
Venus	-35140-01-29 21:21 J	-11113432.83	-11113432.61	-11113432.39	0.0088	0.0014
Venus	-35140-09-12 10:04 J	-11113207.28	-11113207.08	-11113206.85	0.0088	0.0024
Venus	-35139-04-25 23:16 J	-11112981.72	-11112981.53	-11112981.31	0.0088	0.0033
Venus	-35139-12-07 12:28 J	-11112756.17	-11112755.98	-11112755.78	0.0088	0.0041
Venus	-35138-07-21 01:26 J	-11112530.61	-11112530.44	-11112530.25	0.0088	0.0051
Venus	-35137-03-02 14:38 J	-11112305.04	-11112304.89	-11112304.72	0.0088	0.0059
Venus	-35137-10-14 03:35 J	-11112079.47	-11112079.35	-11112079.19	0.0088	0.0069
Venus	-35136-05-27 16:47 J	-11111853.89	-11111853.80	-11111853.68	0.0088	0.0078
Venus	-35135-01-08 05:59 J	-11111628.28	-11111628.25	-11111628.19	0.0088	0.0086
Jupiter	-35124-06-23 23:16 J	-11107444.06	-11107443.53	-11107442.94	0.0088	0.0018
Earth	-35104-09-17 03:07 J	-11100053.45	-11100053.37	-11100053.28	0.0088	0.0082
Moon	-35104-09-17 02:52 J	-11100053.43	-11100053.38	-11100053.29	0.0088	0.0084 *
Moon	-35103-09-19 13:26 J	-11099686.18	-11099685.94	-11099685.70	0.0088	0.0040
Earth	-35103-09-19 15:07 J	-11099686.09	-11099685.87	-11099685.64	0.0088	0.0043 *
Earth	-35102-09-22 03:07 J	-11099318.62	-11099318.37	-11099318.10	0.0088	0.0003
Moon	-35102-09-22 05:59 J	-11099318.51	-11099318.25	-11099318.00	0.0088	0.0004 *
Moon	-35101-09-23 11:45 J	-11098951.23	-11098951.01	-11098950.76	0.0088	0.0039
Earth	-35101-09-23 14:52 J	-11098951.10	-11098950.88	-11098950.63	0.0088	0.0038 *
Earth	-35100-09-26 02:38 J	-11098583.48	-11098583.39	-11098583.24	0.0088	0.0078
Moon	-35100-09-26 06:14 J	-11098583.33	-11098583.24	-11098583.08	0.0088	0.0077 *
Mercury	-35094-11-29 07:55 J	-11096328.20	-11096328.17	-11096328.11	0.0088	0.0085
Mercury	-35093-02-25 10:33 J	-11096240.12	-11096240.06	-11096239.96	0.0088	0.0077
Mercury	-35093-05-23 13:40 J	-11096152.03	-11096151.93	-11096151.82	0.0088	0.0069
Mercury	-35093-08-19 16:19 J	-11096063.94	-11096063.82	-11096063.69	0.0088	0.0060
Mercury	-35093-11-15 18:57 J	-11095975.84	-11095975.71	-11095975.57	0.0088	0.0052
Mercury	-35092-02-11 21:35 J	-11095887.74	-11095887.60	-11095887.44	0.0088	0.0044
Mercury	-35092-05-11 00:14 J	-11095799.64	-11095799.49	-11095799.32	0.0088	0.0036

Mercury -35092-08-07 02:52 J -11095711.54 -11095711.38 -11095711.21 0.0088 0.0028
 Mercury -35092-11-03 05:31 J -11095623.43 -11095623.27 -11095623.10 0.0088 0.0020
 Mercury -35091-01-30 08:09 J -11095535.32 -11095535.16 -11095534.98 0.0088 0.0012
 Mercury -35091-04-28 11:02 J -11095447.22 -11095447.04 -11095446.87 0.0088 0.0005
 Mercury -35091-07-25 13:26 J -11095359.11 -11095358.94 -11095358.77 0.0088 0.0004
 Mercury -35091-10-21 16:04 J -11095271.00 -11095270.83 -11095270.66 0.0088 0.0012
 Mercury -35090-01-17 18:28 J -11095182.89 -11095182.73 -11095182.56 0.0088 0.0020
 Mercury -35090-04-15 21:07 J -11095094.78 -11095094.62 -11095094.45 0.0088 0.0028
 Mercury -35090-07-12 23:45 J -11095006.66 -11095006.51 -11095006.35 0.0088 0.0036
 Mercury -35090-10-09 02:09 J -11094918.55 -11094918.41 -11094918.26 0.0088 0.0044
 Mercury -35089-01-05 04:33 J -11094830.43 -11094830.31 -11094830.16 0.0088 0.0052
 Mercury -35089-04-02 07:11 J -11094742.32 -11094742.20 -11094742.07 0.0088 0.0059
 Mercury -35089-06-29 09:35 J -11094654.20 -11094654.10 -11094653.98 0.0088 0.0067
 Mercury -35089-09-25 12:14 J -11094566.07 -11094565.99 -11094565.89 0.0088 0.0075
 Mars -35089-12-04 20:52 J -11094495.83 -11094495.63 -11094495.35 0.0088 0.0062
 Mercury -35089-12-22 14:38 J -11094477.94 -11094477.89 -11094477.82 0.0088 0.0082
 Mars -35087-10-31 18:43 J -11093800.05 -11093799.72 -11093799.39 0.0088 0.0013
 Mars -35085-09-26 16:47 J -11093104.08 -11093103.80 -11093103.47 0.0088 0.0037
 Mars -35083-08-23 16:33 J -11092407.86 -11092407.81 -11092407.69 0.0088 0.0086
 Venus -35064-08-29 05:31 J -11085462.34 -11085462.27 -11085462.16 0.0089 0.0081
 Venus -35063-04-11 18:43 J -11085236.83 -11085236.72 -11085236.57 0.0089 0.0072
 Venus -35063-11-23 07:55 J -11085011.31 -11085011.17 -11085011.00 0.0089 0.0063
 Venus -35062-07-06 20:52 J -11084785.78 -11084785.63 -11084785.43 0.0089 0.0054
 Venus -35061-02-17 10:33 J -11084560.25 -11084560.06 -11084559.87 0.0089 0.0044
 Venus -35061-09-29 23:45 J -11084334.71 -11084334.51 -11084334.30 0.0089 0.0035
 Venus -35060-05-13 12:43 J -11084109.17 -11084108.97 -11084108.75 0.0089 0.0026
 Venus -35060-12-25 01:55 J -11083883.63 -11083883.42 -11083883.20 0.0089 0.0017
 Venus -35059-08-07 15:07 J -11083658.09 -11083657.87 -11083657.65 0.0089 0.0008
 Venus -35058-03-21 04:04 J -11083432.54 -11083432.33 -11083432.11 0.0089 0.0002
 Venus -35058-11-01 17:16 J -11083206.99 -11083206.78 -11083206.56 0.0089 0.0011

Venus	-35057-06-14 06:14 J	-11082981.45	-11082981.24	-11082981.02	0.0089	0.0020
Venus	-35056-01-25 18:57 J	-11082755.91	-11082755.71	-11082755.49	0.0089	0.0029
Venus	-35056-09-08 07:55 J	-11082530.36	-11082530.17	-11082529.96	0.0089	0.0038
Venus	-35055-04-21 20:52 J	-11082304.81	-11082304.63	-11082304.44	0.0089	0.0047
Venus	-35055-12-03 09:35 J	-11082079.25	-11082079.10	-11082078.92	0.0089	0.0057
Venus	-35054-07-16 22:19 J	-11081853.70	-11081853.57	-11081853.40	0.0089	0.0066
Venus	-35053-02-27 11:16 J	-11081628.14	-11081628.03	-11081627.90	0.0089	0.0074
Venus	-35053-10-09 23:59 J	-11081402.56	-11081402.50	-11081402.40	0.0089	0.0083
Moon	-35021-03-17 11:45 J	-11069921.18	-11069921.01	-11069920.83	0.0089	0.0066
Earth	-35021-03-17 14:23 J	-11069921.06	-11069920.90	-11069920.69	0.0089	0.0062 *
Earth	-35020-03-20 01:55 J	-11069553.66	-11069553.42	-11069553.16	0.0089	0.0020
Moon	-35020-03-20 05:16 J	-11069553.53	-11069553.28	-11069553.03	0.0089	0.0016 *
Moon	-35019-03-22 09:21 J	-11069186.35	-11069186.11	-11069185.85	0.0089	0.0017
Earth	-35019-03-22 13:11 J	-11069186.19	-11069185.95	-11069185.69	0.0089	0.0021 *
Earth	-35018-03-24 23:45 J	-11068818.66	-11068818.51	-11068818.30	0.0089	0.0063
Moon	-35018-03-25 03:21 J	-11068818.52	-11068818.36	-11068818.18	0.0089	0.0067 *
Mercury	-35012-03-02 13:55 J	-11066648.94	-11066648.92	-11066648.87	0.0089	0.0087
Mercury	-35012-05-29 15:50 J	-11066560.90	-11066560.84	-11066560.77	0.0089	0.0079
Mercury	-35012-08-25 17:31 J	-11066472.85	-11066472.77	-11066472.68	0.0089	0.0073
Mercury	-35012-11-21 19:26 J	-11066384.79	-11066384.69	-11066384.60	0.0089	0.0066
Mercury	-35011-02-17 20:52 J	-11066296.73	-11066296.63	-11066296.51	0.0089	0.0059
Mercury	-35011-05-16 22:33 J	-11066208.67	-11066208.56	-11066208.43	0.0089	0.0052
Mercury	-35011-08-13 00:14 J	-11066120.60	-11066120.49	-11066120.35	0.0089	0.0046
Mercury	-35011-11-09 02:09 J	-11066032.54	-11066032.41	-11066032.27	0.0089	0.0038
Mercury	-35010-02-05 03:50 J	-11065944.47	-11065944.34	-11065944.20	0.0089	0.0031
Mercury	-35010-05-04 05:45 J	-11065856.40	-11065856.26	-11065856.12	0.0089	0.0024
Mercury	-35010-07-31 07:26 J	-11065768.33	-11065768.19	-11065768.04	0.0089	0.0017
Mercury	-35010-10-27 09:21 J	-11065680.26	-11065680.11	-11065679.97	0.0089	0.0010
Mercury	-35009-01-23 11:02 J	-11065592.19	-11065592.04	-11065591.89	0.0089	0.0003
Mercury	-35009-04-20 12:43 J	-11065504.11	-11065503.97	-11065503.82	0.0089	0.0005

Mercury -35009-07-17 14:38 J -11065416.04 -11065415.89 -11065415.75 0.0089 0.0011

Mercury -35009-10-13 16:19 J -11065327.96 -11065327.82 -11065327.67 0.0089 0.0018

Mercury -35008-01-09 18:14 J -11065239.88 -11065239.74 -11065239.60 0.0089 0.0025

Mercury -35008-04-07 19:55 J -11065151.80 -11065151.67 -11065151.53 0.0089 0.0032

Mercury -35008-07-04 21:35 J -11065063.72 -11065063.60 -11065063.46 0.0089 0.0040

Mercury -35008-09-30 23:16 J -11064975.64 -11064975.53 -11064975.39 0.0089 0.0048

Mercury -35008-12-28 01:11 J -11064887.56 -11064887.45 -11064887.32 0.0089 0.0054

Mercury -35007-03-26 03:07 J -11064799.47 -11064799.37 -11064799.26 0.0089 0.0061

Mercury -35007-06-22 05:02 J -11064711.38 -11064711.29 -11064711.19 0.0089 0.0068

Mercury -35007-09-18 06:43 J -11064623.28 -11064623.22 -11064623.13 0.0089 0.0076

Mars -35007-10-24 00:28 J -11064587.71 -11064587.48 -11064587.21 0.0089 0.0048

Mercury -35007-12-15 08:38 J -11064535.18 -11064535.14 -11064535.08 0.0089 0.0083

Mars -35005-09-16 23:45 J -11063893.80 -11063893.51 -11063893.21 0.0089 0.0004

Mars -35003-08-11 20:52 J -11063199.87 -11063199.63 -11063199.34 0.0089 0.0039

Mars -35001-07-05 19:11 J -11062505.81 -11062505.70 -11062505.58 0.0089 0.0081

35TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 35th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-34983-07-18 09:07 J	-11055919.12	-11055919.12	-11055919.09	0.0088	0.0088		
Venus	-34982-02-28 21:50 J	-11055693.66	-11055693.59	-11055693.47	0.0088	0.0080		
Venus	-34982-10-12 10:47 J	-11055468.16	-11055468.05	-11055467.90	0.0088	0.0071		

Venus	-34981-05-24 23:59 J	-11055242.66	-11055242.50	-11055242.34	0.0088	0.0062
Venus	-34980-01-05 12:14 J	-11055017.14	-11055016.99	-11055016.79	0.0088	0.0054
Venus	-34980-08-19 01:11 J	-11054791.62	-11054791.45	-11054791.24	0.0088	0.0045
Venus	-34979-04-01 14:23 J	-11054566.09	-11054565.90	-11054565.69	0.0088	0.0035
Venus	-34979-11-13 03:21 J	-11054340.56	-11054340.36	-11054340.14	0.0088	0.0026
Venus	-34978-06-26 16:19 J	-11054115.04	-11054114.82	-11054114.60	0.0088	0.0018
Venus	-34977-02-07 05:02 J	-11053889.50	-11053889.29	-11053889.07	0.0088	0.0009
Venus	-34977-09-19 17:59 J	-11053663.97	-11053663.75	-11053663.53	0.0088	0.0001
Venus	-34976-05-03 06:57 J	-11053438.42	-11053438.21	-11053437.99	0.0088	0.0010
Venus	-34976-12-14 19:55 J	-11053212.88	-11053212.67	-11053212.45	0.0088	0.0018
Venus	-34975-07-28 08:38 J	-11052987.34	-11052987.14	-11052986.92	0.0088	0.0028
Venus	-34974-03-10 21:50 J	-11052761.78	-11052761.59	-11052761.38	0.0088	0.0036
Venus	-34974-10-22 10:47 J	-11052536.23	-11052536.05	-11052535.85	0.0088	0.0045
Venus	-34973-06-03 23:45 J	-11052310.67	-11052310.51	-11052310.32	0.0088	0.0054
Venus	-34972-01-15 12:43 J	-11052085.10	-11052084.97	-11052084.80	0.0088	0.0063
Venus	-34972-08-29 01:40 J	-11051859.53	-11051859.43	-11051859.28	0.0088	0.0073
Venus	-34971-04-11 15:35 J	-11051633.94	-11051633.85	-11051633.76	0.0088	0.0081
Jupiter	-34958-08-24 20:23 J	-11046751.18	-11046750.65	-11046750.07	0.0088	0.0020
Earth	-34939-09-18 22:04 J	-11039785.74	-11039785.58	-11039785.38	0.0088	0.0064
Moon	-34939-09-19 01:11 J	-11039785.59	-11039785.45	-11039785.27	0.0088	0.0068 *
Moon	-34938-09-21 06:43 J	-11039418.46	-11039418.22	-11039417.95	0.0088	0.0020
Earth	-34938-09-21 10:19 J	-11039418.31	-11039418.07	-11039417.80	0.0088	0.0024 *
Earth	-34937-09-22 22:19 J	-11039050.82	-11039050.57	-11039050.30	0.0088	0.0017
Moon	-34937-09-23 01:55 J	-11039050.67	-11039050.42	-11039050.16	0.0088	0.0013 *
Moon	-34936-09-25 06:43 J	-11038683.39	-11038683.22	-11038683.03	0.0088	0.0061
Earth	-34936-09-25 09:50 J	-11038683.26	-11038683.09	-11038682.87	0.0088	0.0057 *
Mercury	-34929-08-25 06:14 J	-11036157.28	-11036157.24	-11036157.16	0.0088	0.0083
Mercury	-34929-11-21 09:21 J	-11036069.20	-11036069.11	-11036069.01	0.0088	0.0074
Mercury	-34928-02-17 11:59 J	-11035981.11	-11035981.00	-11035980.88	0.0088	0.0065
Mercury	-34928-05-16 14:38 J	-11035893.01	-11035892.89	-11035892.75	0.0088	0.0057

Mercury -34928-08-12 17:16 J -11035804.91 -11035804.78 -11035804.62 0.0088 0.0049
 Mercury -34928-11-08 19:55 J -11035716.81 -11035716.67 -11035716.50 0.0088 0.0042
 Mercury -34927-02-04 22:33 J -11035628.70 -11035628.56 -11035628.38 0.0088 0.0034
 Mercury -34927-05-04 01:26 J -11035540.60 -11035540.44 -11035540.27 0.0088 0.0025
 Mercury -34927-07-31 04:19 J -11035452.49 -11035452.32 -11035452.15 0.0088 0.0017
 Mercury -34927-10-27 06:43 J -11035364.39 -11035364.22 -11035364.04 0.0088 0.0009
 Mercury -34926-01-23 09:21 J -11035276.28 -11035276.11 -11035275.93 0.0088 0.0002
 Mercury -34926-04-21 11:59 J -11035188.17 -11035188.00 -11035187.83 0.0088 0.0008
 Mercury -34926-07-18 14:38 J -11035100.06 -11035099.89 -11035099.72 0.0088 0.0015
 Mercury -34926-10-14 17:16 J -11035011.95 -11035011.78 -11035011.62 0.0088 0.0023
 Mercury -34925-01-10 19:40 J -11034923.83 -11034923.68 -11034923.52 0.0088 0.0031
 Mercury -34925-04-07 22:04 J -11034835.72 -11034835.58 -11034835.42 0.0088 0.0040
 Mercury -34925-07-05 00:43 J -11034747.60 -11034747.47 -11034747.32 0.0088 0.0047
 Mars -34925-07-18 15:07 J -11034733.96 -11034733.87 -11034733.76 0.0088 0.0084
 Mercury -34925-10-01 03:21 J -11034659.49 -11034659.36 -11034659.22 0.0088 0.0055
 Mercury -34925-12-28 05:45 J -11034571.37 -11034571.26 -11034571.13 0.0088 0.0063
 Mercury -34924-03-26 08:09 J -11034483.25 -11034483.16 -11034483.05 0.0088 0.0071
 Mercury -34924-06-22 10:33 J -11034395.12 -11034395.06 -11034394.96 0.0088 0.0078
 Mercury -34924-09-18 13:26 J -11034306.97 -11034306.94 -11034306.90 0.0088 0.0086
 Mars -34923-06-14 10:04 J -11034038.39 -11034038.08 -11034037.78 0.0088 0.0036
 Mars -34921-05-10 06:57 J -11033342.53 -11033342.21 -11033341.87 0.0088 0.0013
 Mars -34919-04-06 05:31 J -11032646.48 -11032646.27 -11032646.00 0.0088 0.0063
 Venus -34900-11-30 14:52 J -11025467.94 -11025467.88 -11025467.81 0.0089 0.0084
 Venus -34899-07-14 04:04 J -11025242.44 -11025242.33 -11025242.21 0.0089 0.0075
 Venus -34898-02-24 16:33 J -11025016.93 -11025016.81 -11025016.64 0.0089 0.0067
 Venus -34898-10-08 05:59 J -11024791.40 -11024791.25 -11024791.06 0.0089 0.0058
 Venus -34897-05-20 19:11 J -11024565.87 -11024565.70 -11024565.50 0.0089 0.0049
 Venus -34896-01-01 08:38 J -11024340.33 -11024340.14 -11024339.94 0.0089 0.0039
 Venus -34896-08-14 21:50 J -11024114.80 -11024114.59 -11024114.38 0.0089 0.0030
 Venus -34895-03-28 10:47 J -11023889.26 -11023889.05 -11023888.83 0.0089 0.0021

Venus	-34895-11-09 00:14 J	-11023663.71	-11023663.49	-11023663.27	0.0089	0.0012
Venus	-34894-06-22 13:11 J	-11023438.17	-11023437.95	-11023437.73	0.0089	0.0003
Venus	-34893-02-03 02:09 J	-11023212.62	-11023212.41	-11023212.19	0.0089	0.0006
Venus	-34893-09-15 15:21 J	-11022987.08	-11022986.86	-11022986.64	0.0089	0.0015
Venus	-34892-04-29 04:19 J	-11022761.53	-11022761.32	-11022761.11	0.0089	0.0024
Venus	-34892-12-10 17:16 J	-11022535.98	-11022535.78	-11022535.57	0.0089	0.0033
Venus	-34891-07-24 05:59 J	-11022310.43	-11022310.25	-11022310.04	0.0089	0.0042
Venus	-34890-03-06 18:57 J	-11022084.88	-11022084.71	-11022084.52	0.0089	0.0051
Venus	-34890-10-18 07:55 J	-11021859.32	-11021859.17	-11021859.00	0.0089	0.0060
Venus	-34889-05-30 20:38 J	-11021633.76	-11021633.64	-11021633.48	0.0089	0.0069
Venus	-34888-01-11 09:50 J	-11021408.19	-11021408.09	-11021407.98	0.0089	0.0078
Venus	-34888-08-24 22:19 J	-11021182.61	-11021182.57	-11021182.51	0.0089	0.0086
Earth	-34857-03-16 21:07 J	-11010020.68	-11010020.62	-11010020.51	0.0089	0.0084
Moon	-34857-03-17 01:11 J	-11010020.52	-11010020.45	-11010020.37	0.0089	0.0085 *
Moon	-34856-03-19 05:31 J	-11009653.48	-11009653.27	-11009653.04	0.0089	0.0043
Earth	-34856-03-19 08:38 J	-11009653.34	-11009653.14	-11009652.90	0.0089	0.0043 *
Earth	-34855-03-21 20:09 J	-11009285.91	-11009285.66	-11009285.40	0.0089	0.0002
Moon	-34855-03-21 23:45 J	-11009285.77	-11009285.51	-11009285.25	0.0089	0.0001 *
Moon	-34854-03-24 05:02 J	-11008918.50	-11008918.29	-11008918.05	0.0089	0.0040
Earth	-34854-03-24 07:11 J	-11008918.41	-11008918.20	-11008917.96	0.0089	0.0040 *
Earth	-34853-03-25 18:28 J	-11008550.82	-11008550.73	-11008550.61	0.0089	0.0081
Moon	-34853-03-25 19:26 J	-11008550.77	-11008550.69	-11008550.55	0.0089	0.0081 *
Mercury	-34848-11-27 13:11 J	-11006477.99	-11006477.95	-11006477.89	0.0089	0.0084
Mercury	-34847-02-23 15:07 J	-11006389.94	-11006389.87	-11006389.80	0.0089	0.0077
Mercury	-34847-05-22 16:33 J	-11006301.89	-11006301.81	-11006301.71	0.0089	0.0070
Mercury	-34847-08-18 18:14 J	-11006213.83	-11006213.74	-11006213.63	0.0089	0.0063
Mercury	-34847-11-14 19:55 J	-11006125.77	-11006125.67	-11006125.55	0.0089	0.0057
Mercury	-34846-02-10 21:50 J	-11006037.71	-11006037.59	-11006037.47	0.0089	0.0049
Mercury	-34846-05-09 23:31 J	-11005949.64	-11005949.52	-11005949.39	0.0089	0.0042
Mercury	-34846-08-06 01:11 J	-11005861.58	-11005861.45	-11005861.31	0.0089	0.0036

Mercury -34846-11-02 03:07 J -11005773.51 -11005773.37 -11005773.24 0.0089 0.0029

Mercury -34845-01-29 04:47 J -11005685.44 -11005685.30 -11005685.16 0.0089 0.0022

Mercury -34845-04-26 06:28 J -11005597.37 -11005597.23 -11005597.08 0.0089 0.0015

Mercury -34845-07-23 08:09 J -11005509.30 -11005509.16 -11005509.01 0.0089 0.0008

Mercury -34845-10-19 10:04 J -11005421.23 -11005421.08 -11005420.93 0.0089 0.0001

Mercury -34844-01-15 11:45 J -11005333.15 -11005333.01 -11005332.86 0.0089 0.0007

Mercury -34844-04-13 13:26 J -11005245.08 -11005244.94 -11005244.79 0.0089 0.0014

Mercury -34844-07-10 15:21 J -11005157.00 -11005156.86 -11005156.72 0.0089 0.0021

Mercury -34844-10-06 17:02 J -11005068.92 -11005068.79 -11005068.64 0.0089 0.0028

Mercury -34843-01-02 18:57 J -11004980.84 -11004980.71 -11004980.57 0.0089 0.0035

Mercury -34843-03-31 20:38 J -11004892.76 -11004892.64 -11004892.50 0.0089 0.0042

Mars -34843-06-08 04:04 J -11004824.51 -11004824.33 -11004824.14 0.0089 0.0070

Mercury -34843-06-27 22:33 J -11004804.68 -11004804.56 -11004804.43 0.0089 0.0050

Mercury -34843-09-24 00:14 J -11004716.59 -11004716.49 -11004716.37 0.0089 0.0057

Mercury -34843-12-21 02:09 J -11004628.51 -11004628.41 -11004628.30 0.0089 0.0064

Mercury -34842-03-19 03:50 J -11004540.42 -11004540.34 -11004540.24 0.0089 0.0072

Mercury -34842-06-15 05:59 J -11004452.32 -11004452.25 -11004452.18 0.0089 0.0078

Mercury -34842-09-11 07:26 J -11004364.21 -11004364.19 -11004364.14 0.0089 0.0086

Mars -34841-05-02 05:16 J -11004130.56 -11004130.28 -11004129.99 0.0089 0.0025

Mars -34839-03-27 04:19 J -11003436.60 -11003436.32 -11003436.02 0.0089 0.0019

Mars -34837-02-19 01:40 J -11002742.62 -11002742.43 -11002742.20 0.0089 0.0062

Venus -34818-06-02 07:55 J -10995699.23 -10995699.17 -10995699.08 0.0088 0.0083

Venus -34817-01-13 20:52 J -10995473.74 -10995473.63 -10995473.51 0.0088 0.0074

Venus -34817-08-26 09:21 J -10995248.24 -10995248.11 -10995247.94 0.0088 0.0066

Venus -34816-04-08 22:33 J -10995022.72 -10995022.56 -10995022.38 0.0088 0.0057

Venus -34816-11-20 11:31 J -10994797.20 -10994797.02 -10994796.83 0.0088 0.0048

Venus -34815-07-04 00:14 J -10994571.67 -10994571.49 -10994571.28 0.0088 0.0039

Venus -34814-02-14 13:11 J -10994346.15 -10994345.95 -10994345.73 0.0088 0.0030

Venus -34814-09-28 02:09 J -10994120.62 -10994120.41 -10994120.19 0.0088 0.0022

Venus -34813-05-10 15:21 J -10993895.08 -10993894.86 -10993894.64 0.0088 0.0013

Venus	-34813-12-22 04:04 J	-10993669.55	-10993669.33	-10993669.10	0.0088	0.0004
Venus	-34812-08-04 17:02 J	-10993444.01	-10993443.79	-10993443.57	0.0088	0.0005
Venus	-34811-03-18 05:59 J	-10993218.46	-10993218.25	-10993218.03	0.0088	0.0014
Venus	-34811-10-29 18:43 J	-10992992.92	-10992992.72	-10992992.49	0.0088	0.0024
Venus	-34810-06-12 07:55 J	-10992767.37	-10992767.17	-10992766.96	0.0088	0.0032
Venus	-34809-01-23 20:52 J	-10992541.82	-10992541.63	-10992541.43	0.0088	0.0041
Venus	-34809-09-05 09:35 J	-10992316.26	-10992316.10	-10992315.90	0.0088	0.0050
Venus	-34808-04-18 22:47 J	-10992090.70	-10992090.55	-10992090.36	0.0088	0.0059
Venus	-34808-11-30 11:45 J	-10991865.13	-10991865.01	-10991864.84	0.0088	0.0068
Venus	-34807-07-14 01:11 J	-10991639.55	-10991639.45	-10991639.33	0.0088	0.0076
Venus	-34806-02-24 14:09 J	-10991413.96	-10991413.91	-10991413.83	0.0088	0.0085
Jupiter	-34792-10-27 14:09 J	-10986055.31	-10986054.91	-10986054.44	0.0088	0.0057
Moon	-34775-09-18 03:21 J	-10979885.40	-10979885.36	-10979885.31	0.0088	0.0086
Earth	-34775-09-18 06:43 J	-10979885.27	-10979885.22	-10979885.13	0.0088	0.0084
Earth	-34774-09-20 18:43 J	-10979517.93	-10979517.72	-10979517.48	0.0088	0.0044
Moon	-34774-09-20 22:33 J	-10979517.78	-10979517.56	-10979517.32	0.0088	0.0042 *
Moon	-34773-09-22 03:50 J	-10979150.59	-10979150.34	-10979150.08	0.0088	0.0006
Earth	-34773-09-22 06:57 J	-10979150.47	-10979150.21	-10979149.95	0.0088	0.0004 *
Earth	-34772-09-24 18:57 J	-10978782.95	-10978782.71	-10978782.47	0.0088	0.0036
Moon	-34772-09-24 21:07 J	-10978782.84	-10978782.62	-10978782.36	0.0088	0.0038 *
Moon	-34771-09-27 05:16 J	-10978415.38	-10978415.28	-10978415.12	0.0088	0.0076
Earth	-34771-09-27 06:14 J	-10978415.33	-10978415.24	-10978415.08	0.0088	0.0077 *
Mercury	-34764-02-23 02:23 J	-10976074.42	-10976074.40	-10976074.35	0.0088	0.0086
Mercury	-34764-05-22 05:02 J	-10975986.35	-10975986.29	-10975986.19	0.0088	0.0079
Mercury	-34764-08-18 08:09 J	-10975898.26	-10975898.16	-10975898.05	0.0088	0.0070
Mercury	-34764-11-14 10:47 J	-10975810.16	-10975810.05	-10975809.92	0.0088	0.0061
Mercury	-34763-02-10 13:26 J	-10975722.07	-10975721.94	-10975721.79	0.0088	0.0053
Mercury	-34763-05-09 16:04 J	-10975633.96	-10975633.83	-10975633.67	0.0088	0.0045
Mercury	-34763-08-05 18:43 J	-10975545.86	-10975545.72	-10975545.55	0.0088	0.0038
Mercury	-34763-11-01 21:50 J	-10975457.76	-10975457.59	-10975457.43	0.0088	0.0029

Mercury -34762-01-29 00:28 J -10975369.65 -10975369.48 -10975369.31 0.0088 0.0021

Mercury -34762-04-27 03:07 J -10975281.54 -10975281.37 -10975281.20 0.0088 0.0012

Mercury -34762-07-24 05:45 J -10975193.43 -10975193.26 -10975193.09 0.0088 0.0004

Mercury -34762-10-20 08:23 J -10975105.32 -10975105.15 -10975104.98 0.0088 0.0004

Mercury -34761-01-16 11:02 J -10975017.21 -10975017.04 -10975016.87 0.0088 0.0012

Mercury -34761-04-13 13:26 J -10974929.10 -10974928.94 -10974928.77 0.0088 0.0020

Mercury -34761-07-10 16:04 J -10974840.99 -10974840.83 -10974840.67 0.0088 0.0028

Mercury -34761-10-06 18:43 J -10974752.88 -10974752.72 -10974752.56 0.0088 0.0035

Mercury -34760-01-02 21:07 J -10974664.76 -10974664.62 -10974664.47 0.0088 0.0043

Mercury -34760-03-31 23:31 J -10974576.64 -10974576.52 -10974576.37 0.0088 0.0051

Mercury -34760-06-28 01:55 J -10974488.53 -10974488.42 -10974488.28 0.0088 0.0060

Mercury -34760-09-24 04:47 J -10974400.41 -10974400.30 -10974400.19 0.0088 0.0067

Mercury -34760-12-21 07:11 J -10974312.28 -10974312.20 -10974312.10 0.0088 0.0074

Mars -34759-01-26 05:02 J -10974276.51 -10974276.29 -10974276.01 0.0088 0.0058

Mercury -34759-03-19 09:35 J -10974224.15 -10974224.10 -10974224.03 0.0088 0.0082

Mars -34758-12-23 00:28 J -10973580.81 -10973580.48 -10973580.14 0.0088 0.0010

Mars -34756-11-17 21:35 J -10972884.89 -10972884.60 -10972884.29 0.0088 0.0040

Venus -34735-03-04 00:43 J -10965473.50 -10965473.47 -10965473.42 0.0089 0.0087

Venus -34735-10-15 13:40 J -10965248.01 -10965247.93 -10965247.81 0.0089 0.0079

Venus -34734-05-29 02:52 J -10965022.50 -10965022.38 -10965022.22 0.0089 0.0070

Venus -34733-01-09 16:04 J -10964796.97 -10964796.83 -10964796.65 0.0089 0.0061

Venus -34733-08-22 05:16 J -10964571.44 -10964571.28 -10964571.09 0.0089 0.0052

Venus -34732-04-04 18:28 J -10964345.91 -10964345.73 -10964345.53 0.0089 0.0043

Venus -34732-11-16 07:40 J -10964120.37 -10964120.18 -10964119.97 0.0089 0.0034

Venus -34731-06-29 20:52 J -10963894.84 -10963894.63 -10963894.41 0.0089 0.0025

Venus -34730-02-10 10:04 J -10963669.30 -10963669.08 -10963668.86 0.0089 0.0016

Venus -34730-09-23 23:16 J -10963443.75 -10963443.53 -10963443.31 0.0089 0.0007

Venus -34729-05-06 12:14 J -10963218.21 -10963217.99 -10963217.77 0.0089 0.0002

Venus -34729-12-18 01:11 J -10962992.66 -10962992.45 -10962992.23 0.0089 0.0011

Venus -34728-07-31 13:55 J -10962767.12 -10962766.92 -10962766.69 0.0089 0.0020

Venus	-34727-03-14 03:21 J	-10962541.57	-10962541.36	-10962541.15	0.0089	0.0028
Venus	-34727-10-25 16:19 J	-10962316.01	-10962315.82	-10962315.62	0.0089	0.0037
Venus	-34726-06-08 05:16 J	-10962090.46	-10962090.28	-10962090.09	0.0089	0.0046
Venus	-34725-01-19 17:59 J	-10961864.91	-10961864.75	-10961864.57	0.0089	0.0055
Venus	-34725-09-01 06:43 J	-10961639.35	-10961639.22	-10961639.05	0.0089	0.0064
Venus	-34724-04-14 19:55 J	-10961413.79	-10961413.67	-10961413.54	0.0089	0.0073
Venus	-34724-11-26 08:38 J	-10961188.21	-10961188.14	-10961188.04	0.0089	0.0081
Earth	-34692-03-18 17:16 J	-10949752.95	-10949752.78	-10949752.60	0.0089	0.0065
Moon	-34692-03-18 19:26 J	-10949752.82	-10949752.69	-10949752.50	0.0089	0.0070 *
Moon	-34691-03-21 01:55 J	-10949385.65	-10949385.42	-10949385.17	0.0089	0.0020
Earth	-34691-03-21 04:19 J	-10949385.56	-10949385.32	-10949385.07	0.0089	0.0024 *
Earth	-34690-03-23 15:21 J	-10949018.09	-10949017.86	-10949017.59	0.0089	0.0019
Moon	-34690-03-23 16:19 J	-10949018.07	-10949017.82	-10949017.55	0.0089	0.0013 *
Earth	-34689-03-25 02:23 J	-10948650.56	-10948650.40	-10948650.18	0.0089	0.0060
Moon	-34689-03-25 03:07 J	-10948650.52	-10948650.37	-10948650.18	0.0089	0.0064 *
Mercury	-34683-05-28 10:47 J	-10946395.07	-10946395.05	-10946395.01	0.0089	0.0087
Mercury	-34683-08-24 12:28 J	-10946307.03	-10946306.98	-10946306.91	0.0089	0.0080
Mercury	-34683-11-20 14:09 J	-10946218.98	-10946218.91	-10946218.82	0.0089	0.0074
Mercury	-34682-02-16 15:35 J	-10946130.93	-10946130.85	-10946130.74	0.0089	0.0068
Mercury	-34682-05-15 17:31 J	-10946042.87	-10946042.77	-10946042.66	0.0089	0.0060
Mercury	-34682-08-11 19:11 J	-10945954.81	-10945954.70	-10945954.58	0.0089	0.0053
Mercury	-34682-11-07 20:52 J	-10945866.74	-10945866.63	-10945866.50	0.0089	0.0047
Mercury	-34681-02-03 22:47 J	-10945778.68	-10945778.55	-10945778.42	0.0089	0.0039
Mercury	-34681-05-02 00:28 J	-10945690.61	-10945690.48	-10945690.34	0.0089	0.0032
Mercury	-34681-07-29 02:09 J	-10945602.55	-10945602.41	-10945602.27	0.0089	0.0026
Mercury	-34681-10-25 04:04 J	-10945514.48	-10945514.33	-10945514.19	0.0089	0.0019
Mercury	-34680-01-21 05:45 J	-10945426.41	-10945426.26	-10945426.12	0.0089	0.0012
Mercury	-34680-04-19 07:26 J	-10945338.34	-10945338.19	-10945338.04	0.0089	0.0004
Mercury	-34680-07-16 09:07 J	-10945250.26	-10945250.12	-10945249.97	0.0089	0.0003
Mercury	-34680-10-12 10:47 J	-10945162.19	-10945162.05	-10945161.90	0.0089	0.0011

Mercury -34679-01-08 12:43 J -10945074.11 -10945073.97 -10945073.83 0.0089 0.0017

Mercury -34679-04-06 14:23 J -10944986.04 -10944985.90 -10944985.75 0.0089 0.0024

Mercury -34679-07-03 16:04 J -10944897.96 -10944897.83 -10944897.68 0.0089 0.0031

Mercury -34679-09-29 17:59 J -10944809.88 -10944809.75 -10944809.61 0.0089 0.0038

Mercury -34679-12-26 19:55 J -10944721.80 -10944721.67 -10944721.54 0.0089 0.0045

Mercury -34678-03-24 21:50 J -10944633.71 -10944633.59 -10944633.48 0.0089 0.0053

Mercury -34678-06-20 23:16 J -10944545.63 -10944545.53 -10944545.41 0.0089 0.0060

Mercury -34678-09-17 01:11 J -10944457.54 -10944457.45 -10944457.35 0.0089 0.0067

Mercury -34678-12-14 03:07 J -10944369.45 -10944369.37 -10944369.29 0.0089 0.0074

Mars -34678-12-16 10:04 J -10944367.33 -10944367.08 -10944366.83 0.0089 0.0047

Mercury -34677-03-11 05:02 J -10944281.35 -10944281.29 -10944281.23 0.0089 0.0081

Mercury -34677-06-07 06:43 J -10944193.22 -10944193.22 -10944193.20 0.0089 0.0089

Mars -34676-11-09 11:02 J -10943673.33 -10943673.04 -10943672.74 0.0089 0.0002

Mars -34674-10-04 09:50 J -10942979.33 -10942979.09 -10942978.81 0.0089 0.0042

Mars -34672-08-28 07:11 J -10942285.27 -10942285.20 -10942285.11 0.0089 0.0085

Venus -34654-09-03 18:14 J -10935704.77 -10935704.74 -10935704.67 0.0089 0.0086

Venus -34653-04-16 07:26 J -10935479.29 -10935479.19 -10935479.08 0.0089 0.0077

Venus -34653-11-27 19:55 J -10935253.79 -10935253.67 -10935253.51 0.0088 0.0069

Venus -34652-07-11 09:07 J -10935028.28 -10935028.12 -10935027.95 0.0088 0.0060

Venus -34651-02-21 21:35 J -10934802.76 -10934802.60 -10934802.40 0.0088 0.0052

Venus -34651-10-05 10:47 J -10934577.24 -10934577.05 -10934576.85 0.0088 0.0043

Venus -34650-05-18 23:45 J -10934351.71 -10934351.51 -10934351.30 0.0088 0.0034

Venus -34650-12-30 12:28 J -10934126.18 -10934125.98 -10934125.76 0.0088 0.0025

Venus -34649-08-12 01:26 J -10933900.65 -10933900.44 -10933900.22 0.0088 0.0017

Venus -34648-03-25 14:38 J -10933675.11 -10933674.89 -10933674.67 0.0088 0.0008

Venus -34648-11-06 03:35 J -10933449.57 -10933449.35 -10933449.13 0.0088 0.0001

Venus -34647-06-19 16:33 J -10933224.03 -10933223.81 -10933223.59 0.0088 0.0010

Venus -34646-01-31 05:16 J -10932998.49 -10932998.28 -10932998.06 0.0088 0.0019

Venus -34646-09-13 18:14 J -10932772.95 -10932772.74 -10932772.52 0.0088 0.0027

Venus -34645-04-26 07:11 J -10932547.39 -10932547.20 -10932546.99 0.0088 0.0036

Venus	-34645-12-07 20:23 J	-10932321.84	-10932321.65	-10932321.46	0.0088	0.0045
Venus	-34644-07-21 09:07 J	-10932096.28	-10932096.12	-10932095.93	0.0088	0.0054
Venus	-34643-03-03 22:04 J	-10931870.72	-10931870.58	-10931870.41	0.0088	0.0062
Venus	-34643-10-15 11:31 J	-10931645.15	-10931645.02	-10931644.89	0.0088	0.0071
Venus	-34642-05-29 00:14 J	-10931419.56	-10931419.49	-10931419.37	0.0088	0.0080
Venus	-34641-01-09 13:26 J	-10931193.94	-10931193.94	-10931193.91	0.0088	0.0088
Moon	-34610-09-20 00:43 J	-10919617.61	-10919617.47	-10919617.30	0.0088	0.0068
Earth	-34610-09-20 03:35 J	-10919617.51	-10919617.35	-10919617.16	0.0088	0.0064 *
Earth	-34609-09-21 15:35 J	-10919250.09	-10919249.85	-10919249.58	0.0088	0.0024
Moon	-34609-09-21 17:45 J	-10919250.02	-10919249.76	-10919249.50	0.0088	0.0020 *
Moon	-34608-09-24 02:38 J	-10918882.63	-10918882.39	-10918882.13	0.0088	0.0013
Earth	-34608-09-24 03:50 J	-10918882.59	-10918882.34	-10918882.08	0.0088	0.0017 *
Moon	-34607-09-26 14:38 J	-10918515.06	-10918514.89	-10918514.67	0.0088	0.0061
Earth	-34607-09-26 15:21 J	-10918515.03	-10918514.86	-10918514.64	0.0088	0.0057 *
Mercury	-34600-11-20 01:11 J	-10915903.49	-10915903.45	-10915903.37	0.0088	0.0082
Mercury	-34599-02-16 04:19 J	-10915815.41	-10915815.32	-10915815.22	0.0088	0.0074
Mercury	-34599-05-15 06:57 J	-10915727.32	-10915727.21	-10915727.08	0.0088	0.0065
Mercury	-34599-08-11 09:35 J	-10915639.22	-10915639.10	-10915638.95	0.0088	0.0057
Mercury	-34599-11-07 12:14 J	-10915551.12	-10915550.99	-10915550.83	0.0088	0.0050
Mercury	-34598-02-03 15:21 J	-10915463.01	-10915462.86	-10915462.70	0.0088	0.0041
Mercury	-34598-05-02 17:59 J	-10915374.91	-10915374.75	-10915374.58	0.0088	0.0032
Mercury	-34598-07-29 20:38 J	-10915286.80	-10915286.64	-10915286.47	0.0088	0.0024
Mercury	-34598-10-25 23:16 J	-10915198.69	-10915198.53	-10915198.35	0.0088	0.0016
Mercury	-34597-01-22 02:09 J	-10915110.58	-10915110.41	-10915110.24	0.0088	0.0008
Mercury	-34597-04-19 04:47 J	-10915022.47	-10915022.30	-10915022.13	0.0088	0.0000
Mercury	-34597-07-16 07:26 J	-10914934.36	-10914934.19	-10914934.02	0.0088	0.0008
Mercury	-34597-10-12 10:04 J	-10914846.25	-10914846.08	-10914845.91	0.0088	0.0016
Mercury	-34596-01-08 12:28 J	-10914758.14	-10914757.98	-10914757.81	0.0088	0.0025
Mercury	-34596-04-06 15:07 J	-10914670.02	-10914669.87	-10914669.71	0.0088	0.0032
Mercury	-34596-07-03 17:31 J	-10914581.91	-10914581.77	-10914581.60	0.0088	0.0041

Mars -34596-09-09 03:50 J -10914514.44 -10914514.34 -10914514.17 0.0088 0.0081
 Mercury -34596-09-29 20:09 J -10914493.79 -10914493.66 -10914493.51 0.0088 0.0048
 Mercury -34596-12-26 22:33 J -10914405.67 -10914405.56 -10914405.41 0.0088 0.0056
 Mercury -34595-03-25 01:26 J -10914317.55 -10914317.44 -10914317.32 0.0088 0.0064
 Mercury -34595-06-21 03:50 J -10914229.43 -10914229.34 -10914229.23 0.0088 0.0072
 Mercury -34595-09-17 06:14 J -10914141.30 -10914141.24 -10914141.15 0.0088 0.0079
 Mercury -34595-12-14 08:38 J -10914053.15 -10914053.14 -10914053.10 0.0088 0.0087
 Mars -34594-08-05 21:50 J -10913818.88 -10913818.59 -10913818.26 0.0088 0.0032
 Mars -34592-07-01 17:16 J -10913123.10 -10913122.78 -10913122.44 0.0088 0.0018
 Mars -34590-05-28 13:55 J -10912427.10 -10912426.92 -10912426.66 0.0088 0.0068
 Venus -34570-01-17 00:14 J -10905253.57 -10905253.49 -10905253.39 0.0089 0.0081
 Venus -34570-08-30 13:11 J -10905028.06 -10905027.95 -10905027.80 0.0089 0.0073
 Venus -34569-04-12 02:23 J -10904802.53 -10904802.40 -10904802.23 0.0089 0.0064
 Venus -34569-11-23 15:50 J -10904577.00 -10904576.84 -10904576.66 0.0089 0.0055
 Venus -34568-07-07 05:02 J -10904351.47 -10904351.29 -10904351.10 0.0089 0.0046
 Venus -34567-02-17 17:59 J -10904125.94 -10904125.75 -10904125.54 0.0089 0.0038
 Venus -34567-10-01 07:11 J -10903900.40 -10903900.20 -10903899.98 0.0089 0.0029
 Venus -34566-05-14 20:23 J -10903674.86 -10903674.65 -10903674.43 0.0089 0.0020
 Venus -34566-12-26 09:35 J -10903449.32 -10903449.10 -10903448.88 0.0089 0.0011
 Venus -34565-08-07 22:33 J -10903223.78 -10903223.56 -10903223.34 0.0089 0.0003
 Venus -34564-03-21 11:31 J -10902998.23 -10902998.02 -10902997.79 0.0089 0.0007
 Venus -34564-11-02 00:43 J -10902772.68 -10902772.47 -10902772.25 0.0089 0.0016
 Venus -34563-06-15 13:55 J -10902547.13 -10902546.92 -10902546.71 0.0089 0.0024
 Venus -34562-01-27 02:38 J -10902321.58 -10902321.39 -10902321.18 0.0089 0.0033
 Venus -34562-09-09 15:35 J -10902096.03 -10902095.85 -10902095.64 0.0089 0.0042
 Venus -34561-04-22 04:19 J -10901870.47 -10901870.32 -10901870.12 0.0089 0.0051
 Venus -34561-12-03 17:45 J -10901644.91 -10901644.76 -10901644.59 0.0089 0.0059
 Venus -34560-07-17 06:28 J -10901419.35 -10901419.23 -10901419.07 0.0089 0.0068
 Venus -34559-02-27 19:40 J -10901193.79 -10901193.68 -10901193.57 0.0089 0.0076
 Venus -34559-10-11 08:09 J -10900968.20 -10900968.16 -10900968.07 0.0089 0.0085

Moon -34528-03-18 00:43 J -10889852.50 -10889852.47 -10889852.40 0.0089 0.0088
 Earth -34528-03-18 01:55 J -10889852.45 -10889852.42 -10889852.32 0.0089 0.0087 *
 Earth -34527-03-20 13:11 J -10889485.15 -10889484.95 -10889484.71 0.0089 0.0046
 Moon -34527-03-20 14:23 J -10889485.12 -10889484.90 -10889484.66 0.0089 0.0045 *
 Earth -34526-03-23 00:57 J -10889117.71 -10889117.46 -10889117.20 0.0089 0.0004
 Moon -34526-03-23 01:40 J -10889117.68 -10889117.43 -10889117.19 0.0089 0.0004 *
 Moon -34525-03-24 09:35 J -10888750.32 -10888750.10 -10888749.85 0.0089 0.0039
 Earth -34525-03-24 11:45 J -10888750.22 -10888750.01 -10888749.76 0.0089 0.0038 *
 Earth -34524-03-26 22:47 J -10888382.64 -10888382.55 -10888382.41 0.0089 0.0080
 Moon -34524-03-27 01:26 J -10888382.53 -10888382.44 -10888382.31 0.0089 0.0079 *
 Mercury -34518-02-22 10:19 J -10886224.11 -10886224.07 -10886224.01 0.0089 0.0083
 Mercury -34518-05-21 11:59 J -10886136.06 -10886136.00 -10886135.92 0.0089 0.0077
 Mercury -34518-08-17 13:26 J -10886048.01 -10886047.94 -10886047.84 0.0089 0.0071
 Mercury -34518-11-13 15:21 J -10885959.95 -10885959.86 -10885959.75 0.0089 0.0063
 Mercury -34517-02-09 17:02 J -10885871.89 -10885871.79 -10885871.67 0.0089 0.0056
 Mercury -34517-05-07 18:43 J -10885783.83 -10885783.72 -10885783.59 0.0089 0.0049
 Mercury -34517-08-03 20:23 J -10885695.77 -10885695.65 -10885695.52 0.0089 0.0043
 Mercury -34517-10-30 22:19 J -10885607.70 -10885607.57 -10885607.44 0.0089 0.0035
 Mercury -34516-01-26 23:59 J -10885519.64 -10885519.50 -10885519.36 0.0089 0.0029
 Mercury -34516-04-25 01:40 J -10885431.57 -10885431.43 -10885431.29 0.0089 0.0022
 Mercury -34516-07-22 03:21 J -10885343.50 -10885343.36 -10885343.21 0.0089 0.0015
 Mercury -34516-10-18 05:02 J -10885255.43 -10885255.29 -10885255.14 0.0089 0.0008
 Mercury -34515-01-14 06:57 J -10885167.36 -10885167.21 -10885167.07 0.0089 0.0001
 Mercury -34515-04-12 08:38 J -10885079.28 -10885079.14 -10885078.99 0.0089 0.0006
 Mercury -34515-07-09 10:19 J -10884991.21 -10884991.07 -10884990.92 0.0089 0.0014
 Mercury -34515-10-05 11:59 J -10884903.14 -10884903.00 -10884902.85 0.0089 0.0021
 Mercury -34514-01-01 13:40 J -10884815.06 -10884814.93 -10884814.78 0.0089 0.0028
 Mercury -34514-03-30 15:35 J -10884726.98 -10884726.85 -10884726.71 0.0089 0.0035
 Mercury -34514-06-26 17:16 J -10884638.90 -10884638.78 -10884638.64 0.0089 0.0042
 Mars -34514-07-31 16:19 J -10884604.01 -10884603.82 -10884603.62 0.0089 0.0068

Mercury -34514-09-22 19:11 J -10884550.82 -10884550.70 -10884550.57 0.0089 0.0049

Mercury -34514-12-19 20:52 J -10884462.73 -10884462.63 -10884462.51 0.0089 0.0057

Mercury -34513-03-16 22:33 J -10884374.65 -10884374.56 -10884374.44 0.0089 0.0064

Mercury -34513-06-13 00:28 J -10884286.56 -10884286.48 -10884286.38 0.0089 0.0071

Mercury -34513-09-09 02:23 J -10884198.46 -10884198.40 -10884198.32 0.0089 0.0078

Mercury -34513-12-06 04:19 J -10884110.36 -10884110.32 -10884110.28 0.0089 0.0085

Mars -34512-06-24 17:16 J -10883910.07 -10883909.78 -10883909.49 0.0089 0.0023

Mars -34510-05-19 17:45 J -10883216.04 -10883215.76 -10883215.46 0.0089 0.0022

Mars -34508-04-12 16:47 J -10882521.97 -10882521.80 -10882521.58 0.0089 0.0066

Venus -34490-12-06 05:45 J -10875710.27 -10875710.26 -10875710.23 0.0089 0.0088

Venus -34489-07-18 18:14 J -10875484.82 -10875484.74 -10875484.63 0.0089 0.0080

Venus -34488-03-01 06:57 J -10875259.32 -10875259.21 -10875259.06 0.0089 0.0072

Venus -34488-10-12 19:55 J -10875033.81 -10875033.67 -10875033.50 0.0088 0.0063

Venus -34487-05-26 08:38 J -10874808.29 -10874808.14 -10874807.95 0.0088 0.0055

Venus -34486-01-06 21:35 J -10874582.78 -10874582.60 -10874582.40 0.0088 0.0046

Venus -34486-08-20 10:19 J -10874357.25 -10874357.07 -10874356.85 0.0088 0.0038

Venus -34485-04-01 23:31 J -10874131.72 -10874131.52 -10874131.30 0.0088 0.0029

Venus -34485-11-13 12:43 J -10873906.18 -10873905.97 -10873905.75 0.0088 0.0020

Venus -34484-06-27 01:26 J -10873680.65 -10873680.44 -10873680.21 0.0088 0.0012

Venus -34483-02-07 14:23 J -10873455.11 -10873454.90 -10873454.67 0.0088 0.0003

Venus -34483-09-21 03:21 J -10873229.57 -10873229.36 -10873229.13 0.0088 0.0006

Venus -34482-05-04 16:33 J -10873004.03 -10873003.81 -10873003.59 0.0088 0.0015

Venus -34482-12-16 05:16 J -10872778.48 -10872778.28 -10872778.06 0.0088 0.0024

Venus -34481-07-28 18:14 J -10872552.93 -10872552.74 -10872552.52 0.0088 0.0032

Venus -34480-03-11 07:26 J -10872327.38 -10872327.19 -10872326.99 0.0088 0.0041

Venus -34480-10-22 20:09 J -10872101.83 -10872101.66 -10872101.46 0.0088 0.0050

Venus -34479-06-05 09:21 J -10871876.27 -10871876.11 -10871875.93 0.0088 0.0058

Venus -34478-01-16 22:04 J -10871650.70 -10871650.58 -10871650.41 0.0088 0.0067

Venus -34478-08-30 11:31 J -10871425.13 -10871425.02 -10871424.90 0.0088 0.0075

Venus -34477-04-12 00:14 J -10871199.54 -10871199.49 -10871199.39 0.0088 0.0084

Earth -34446-09-19 13:11 J -10859717.00 -10859716.95 -10859716.85 0.0088 0.0084
 Moon -34446-09-19 15:35 J -10859716.90 -10859716.85 -10859716.80 0.0088 0.0086 *
 Moon -34445-09-21 01:26 J -10859349.65 -10859349.44 -10859349.20 0.0088 0.0041
 Earth -34445-09-21 01:26 J -10859349.64 -10859349.44 -10859349.19 0.0088 0.0044 *
 Moon -34444-09-23 13:26 J -10858982.21 -10858981.94 -10858981.67 0.0088 0.0005
 Earth -34444-09-23 14:09 J -10858982.17 -10858981.91 -10858981.65 0.0088 0.0003 *
 Earth -34443-09-26 01:40 J -10858614.65 -10858614.43 -10858614.18 0.0088 0.0038
 Moon -34443-09-26 03:50 J -10858614.56 -10858614.34 -10858614.11 0.0088 0.0040 *
 Moon -34442-09-28 10:33 J -10858247.18 -10858247.06 -10858246.91 0.0088 0.0075
 Earth -34442-09-28 13:26 J -10858247.03 -10858246.94 -10858246.80 0.0088 0.0079 *
 Mercury -34435-05-20 21:50 J -10855820.62 -10855820.59 -10855820.54 0.0088 0.0085
 Mercury -34435-08-17 00:28 J -10855732.55 -10855732.48 -10855732.38 0.0088 0.0077
 Mercury -34435-11-13 03:07 J -10855644.46 -10855644.37 -10855644.24 0.0088 0.0069
 Mercury -34434-02-09 06:14 J -10855556.36 -10855556.24 -10855556.11 0.0088 0.0060
 Mercury -34434-05-08 08:52 J -10855468.26 -10855468.13 -10855467.98 0.0088 0.0052
 Mercury -34434-08-04 11:31 J -10855380.16 -10855380.02 -10855379.86 0.0088 0.0044
 Mercury -34434-10-31 14:09 J -10855292.05 -10855291.91 -10855291.74 0.0088 0.0036
 Mercury -34433-01-27 17:16 J -10855203.95 -10855203.78 -10855203.62 0.0088 0.0027
 Mercury -34433-04-24 19:55 J -10855115.84 -10855115.67 -10855115.50 0.0088 0.0019
 Mercury -34433-07-21 22:33 J -10855027.73 -10855027.56 -10855027.39 0.0088 0.0011
 Mercury -34433-10-18 01:11 J -10854939.62 -10854939.45 -10854939.27 0.0088 0.0003
 Mercury -34432-01-14 03:50 J -10854851.51 -10854851.34 -10854851.16 0.0088 0.0005
 Mercury -34432-04-12 06:28 J -10854763.40 -10854763.23 -10854763.06 0.0088 0.0013
 Mercury -34432-07-09 09:07 J -10854675.28 -10854675.12 -10854674.95 0.0088 0.0021
 Mercury -34432-10-05 11:45 J -10854587.17 -10854587.01 -10854586.85 0.0088 0.0029
 Mercury -34431-01-01 14:09 J -10854499.05 -10854498.91 -10854498.74 0.0088 0.0038
 Mercury -34431-03-30 16:47 J -10854410.94 -10854410.80 -10854410.64 0.0088 0.0045
 Mercury -34431-06-26 19:11 J -10854322.82 -10854322.70 -10854322.55 0.0088 0.0054
 Mercury -34431-09-22 21:50 J -10854234.70 -10854234.59 -10854234.45 0.0088 0.0061
 Mercury -34431-12-20 00:43 J -10854146.57 -10854146.47 -10854146.36 0.0088 0.0069

Mercury -34430-03-18 03:07 J -10854058.45 -10854058.37 -10854058.28 0.0088 0.0076

Mars -34430-03-19 19:55 J -10854056.90 -10854056.67 -10854056.37 0.0088 0.0055

Mercury -34430-06-14 05:31 J -10853970.30 -10853970.27 -10853970.21 0.0088 0.0084

Mars -34428-02-12 15:21 J -10853361.20 -10853360.86 -10853360.53 0.0088 0.0005

Mars -34426-01-09 10:33 J -10852665.32 -10852665.06 -10852664.75 0.0088 0.0045

Venus -34406-04-20 11:02 J -10845259.09 -10845259.04 -10845258.95 0.0089 0.0084

Venus -34406-12-02 00:28 J -10845033.59 -10845033.48 -10845033.35 0.0089 0.0075

Venus -34405-07-14 13:26 J -10844808.07 -10844807.94 -10844807.78 0.0089 0.0067

Venus -34404-02-25 02:38 J -10844582.54 -10844582.39 -10844582.21 0.0089 0.0058

Venus -34404-10-08 16:19 J -10844357.00 -10844356.82 -10844356.64 0.0089 0.0049

Venus -34403-05-22 05:02 J -10844131.47 -10844131.29 -10844131.08 0.0089 0.0041

Venus -34402-01-02 18:14 J -10843905.93 -10843905.74 -10843905.52 0.0089 0.0032

Venus -34402-08-16 07:26 J -10843680.40 -10843680.19 -10843679.97 0.0089 0.0023

Venus -34401-03-28 20:23 J -10843454.86 -10843454.65 -10843454.42 0.0089 0.0015

Venus -34401-11-09 09:50 J -10843229.31 -10843229.09 -10843228.87 0.0089 0.0006

Venus -34400-06-22 22:47 J -10843003.77 -10843003.55 -10843003.33 0.0089 0.0003

Venus -34399-02-03 11:45 J -10842778.23 -10842778.01 -10842777.79 0.0089 0.0012

Venus -34399-09-17 00:43 J -10842552.68 -10842552.47 -10842552.25 0.0089 0.0020

Venus -34398-04-30 13:40 J -10842327.13 -10842326.93 -10842326.71 0.0089 0.0029

Venus -34398-12-12 02:23 J -10842101.58 -10842101.40 -10842101.18 0.0089 0.0038

Venus -34397-07-24 15:35 J -10841876.03 -10841875.85 -10841875.65 0.0089 0.0046

Venus -34396-03-07 04:19 J -10841650.47 -10841650.32 -10841650.13 0.0089 0.0055

Venus -34396-10-18 17:45 J -10841424.91 -10841424.76 -10841424.60 0.0089 0.0063

Venus -34395-06-01 06:14 J -10841199.34 -10841199.24 -10841199.09 0.0089 0.0073

Venus -34394-01-12 19:26 J -10840973.77 -10840973.69 -10840973.59 0.0089 0.0080

Venus -34394-08-26 08:09 J -10840748.16 -10840748.16 -10840748.13 0.0089 0.0089

Earth -34363-03-19 23:31 J -10829584.67 -10829584.52 -10829584.33 0.0089 0.0065

Moon -34363-03-20 00:28 J -10829584.62 -10829584.48 -10829584.31 0.0089 0.0070 *

Moon -34362-03-22 08:52 J -10829217.38 -10829217.13 -10829216.87 0.0089 0.0019

Earth -34362-03-22 10:47 J -10829217.28 -10829217.05 -10829216.79 0.0089 0.0024 *

Earth -34361-03-23 22:04 J -10828849.83 -10828849.58 -10828849.33 0.0089 0.0017
 Moon -34361-03-24 00:57 J -10828849.70 -10828849.46 -10828849.20 0.0089 0.0014 *
 Moon -34360-03-26 05:16 J -10828482.44 -10828482.28 -10828482.08 0.0089 0.0064
 Earth -34360-03-26 09:07 J -10828482.31 -10828482.12 -10828481.92 0.0089 0.0059 *
 Mercury -34354-08-23 08:09 J -10826141.18 -10826141.16 -10826141.12 0.0089 0.0086
 Mercury -34354-11-19 09:50 J -10826053.14 -10826053.09 -10826053.02 0.0089 0.0080
 Mercury -34353-02-15 11:45 J -10825965.09 -10825965.01 -10825964.93 0.0089 0.0073
 Mercury -34353-05-13 13:11 J -10825877.04 -10825876.95 -10825876.85 0.0089 0.0066
 Mercury -34353-08-09 14:52 J -10825788.98 -10825788.88 -10825788.76 0.0089 0.0059
 Mercury -34353-11-05 16:33 J -10825700.92 -10825700.81 -10825700.69 0.0089 0.0052
 Mercury -34352-02-01 18:14 J -10825612.85 -10825612.74 -10825612.61 0.0089 0.0046
 Mercury -34352-04-30 20:09 J -10825524.79 -10825524.66 -10825524.53 0.0089 0.0038
 Mercury -34352-07-27 21:50 J -10825436.72 -10825436.59 -10825436.45 0.0089 0.0031
 Mercury -34352-10-23 23:31 J -10825348.66 -10825348.52 -10825348.38 0.0089 0.0024
 Mercury -34351-01-20 01:11 J -10825260.59 -10825260.45 -10825260.30 0.0089 0.0018
 Mercury -34351-04-18 02:52 J -10825172.52 -10825172.38 -10825172.23 0.0089 0.0011
 Mercury -34351-07-15 04:47 J -10825084.45 -10825084.30 -10825084.16 0.0089 0.0004
 Mercury -34351-10-11 06:28 J -10824996.38 -10824996.23 -10824996.08 0.0089 0.0004
 Mercury -34350-01-07 08:09 J -10824908.30 -10824908.16 -10824908.01 0.0089 0.0011
 Mars -34350-03-15 20:52 J -10824840.63 -10824840.63 -10824840.58 0.0089 0.0089
 Mercury -34350-04-05 09:50 J -10824820.23 -10824820.09 -10824819.94 0.0089 0.0018
 Mercury -34350-07-02 11:31 J -10824732.15 -10824732.02 -10824731.87 0.0089 0.0025
 Mercury -34350-09-28 13:26 J -10824644.07 -10824643.94 -10824643.80 0.0089 0.0032
 Mercury -34350-12-25 15:07 J -10824556.00 -10824555.87 -10824555.73 0.0089 0.0039
 Mercury -34349-03-22 16:47 J -10824467.91 -10824467.80 -10824467.66 0.0089 0.0047
 Mercury -34349-06-18 18:43 J -10824379.83 -10824379.72 -10824379.60 0.0089 0.0053
 Mercury -34349-09-14 20:38 J -10824291.75 -10824291.64 -10824291.53 0.0089 0.0061
 Mercury -34349-12-11 22:04 J -10824203.66 -10824203.58 -10824203.47 0.0089 0.0068
 Mars -34348-02-07 01:40 J -10824146.68 -10824146.43 -10824146.16 0.0089 0.0043
 Mercury -34348-03-09 23:59 J -10824115.57 -10824115.50 -10824115.41 0.0089 0.0075

Mercury -34348-06-06 01:55 J -10824027.47 -10824027.42 -10824027.36 0.0089 0.0082
 Mars -34346-01-02 02:23 J -10823452.69 -10823452.40 -10823452.10 0.0089 0.0002
 Mars -34345-11-26 02:52 J -10822758.64 -10822758.38 -10822758.13 0.0089 0.0046
 Venus -34325-10-20 05:59 J -10815490.32 -10815490.25 -10815490.16 0.0089 0.0082
 Venus -34324-06-02 18:28 J -10815264.83 -10815264.73 -10815264.59 0.0089 0.0074
 Venus -34323-01-14 07:11 J -10815039.33 -10815039.20 -10815039.04 0.0089 0.0066
 Venus -34323-08-27 20:23 J -10814813.82 -10814813.65 -10814813.49 0.0089 0.0057
 Venus -34322-04-10 09:07 J -10814588.30 -10814588.12 -10814587.93 0.0089 0.0049
 Venus -34322-11-21 21:50 J -10814362.77 -10814362.59 -10814362.38 0.0088 0.0040
 Venus -34321-07-04 10:47 J -10814137.25 -10814137.05 -10814136.84 0.0088 0.0032
 Venus -34320-02-14 23:31 J -10813911.72 -10813911.52 -10813911.30 0.0088 0.0024
 Venus -34320-09-28 12:43 J -10813686.19 -10813685.97 -10813685.75 0.0088 0.0015
 Venus -34319-05-12 01:40 J -10813460.65 -10813460.43 -10813460.21 0.0088 0.0006
 Venus -34319-12-23 14:38 J -10813235.11 -10813234.89 -10813234.67 0.0088 0.0003
 Venus -34318-08-06 03:35 J -10813009.57 -10813009.35 -10813009.13 0.0088 0.0011
 Venus -34317-03-18 16:33 J -10812784.02 -10812783.81 -10812783.59 0.0088 0.0020
 Venus -34317-10-30 05:31 J -10812558.47 -10812558.27 -10812558.05 0.0088 0.0028
 Venus -34316-06-12 18:28 J -10812332.92 -10812332.73 -10812332.52 0.0088 0.0037
 Venus -34315-01-24 07:11 J -10812107.37 -10812107.20 -10812106.99 0.0088 0.0046
 Venus -34315-09-06 20:23 J -10811881.81 -10811881.65 -10811881.46 0.0088 0.0054
 Venus -34314-04-20 09:21 J -10811656.24 -10811656.11 -10811655.93 0.0088 0.0063
 Venus -34314-12-01 22:33 J -10811430.67 -10811430.56 -10811430.41 0.0088 0.0071
 Venus -34313-07-14 11:59 J -10811205.09 -10811205.00 -10811204.90 0.0088 0.0079
 Venus -34312-02-25 00:28 J -10810979.49 -10810979.48 -10810979.42 0.0088 0.0088
 Moon -34281-09-20 09:50 J -10799449.25 -10799449.09 -10799448.90 0.0088 0.0066
 Earth -34281-09-20 11:16 J -10799449.19 -10799449.03 -10799448.83 0.0088 0.0063 *
 Earth -34280-09-22 23:59 J -10799081.75 -10799081.50 -10799081.25 0.0088 0.0022
 Moon -34280-09-23 01:55 J -10799081.66 -10799081.42 -10799081.16 0.0088 0.0019 *
 Moon -34279-09-25 08:52 J -10798714.38 -10798714.13 -10798713.86 0.0088 0.0015
 Earth -34279-09-25 12:14 J -10798714.25 -10798713.99 -10798713.74 0.0088 0.0018 *

Earth -34278-09-27 23:45 J -10798346.68 -10798346.51 -10798346.30 0.0088 0.0059
 Moon -34278-09-28 03:21 J -10798346.52 -10798346.36 -10798346.16 0.0088 0.0063 *
 Mercury -34270-02-14 20:52 J -10795649.68 -10795649.63 -10795649.54 0.0088 0.0081
 Mercury -34270-05-13 23:45 J -10795561.59 -10795561.51 -10795561.39 0.0088 0.0072
 Mercury -34270-08-10 02:38 J -10795473.50 -10795473.39 -10795473.26 0.0088 0.0064
 Mercury -34270-11-06 05:16 J -10795385.40 -10795385.28 -10795385.13 0.0088 0.0056
 Mercury -34269-02-02 08:09 J -10795297.30 -10795297.16 -10795297.00 0.0088 0.0047
 Mercury -34269-04-30 11:02 J -10795209.19 -10795209.04 -10795208.88 0.0088 0.0039
 Mercury -34269-07-27 13:40 J -10795121.08 -10795120.93 -10795120.76 0.0088 0.0031
 Mercury -34269-10-23 16:33 J -10795032.98 -10795032.81 -10795032.64 0.0088 0.0022
 Mercury -34268-01-19 19:11 J -10794944.87 -10794944.70 -10794944.52 0.0088 0.0014
 Mercury -34268-04-17 21:50 J -10794856.76 -10794856.59 -10794856.41 0.0088 0.0007
 Mercury -34268-07-15 00:43 J -10794768.64 -10794768.47 -10794768.30 0.0088 0.0003
 Mercury -34268-10-11 03:21 J -10794680.53 -10794680.36 -10794680.19 0.0088 0.0011
 Mercury -34267-01-07 05:59 J -10794592.42 -10794592.25 -10794592.08 0.0088 0.0019
 Mercury -34267-04-05 08:38 J -10794504.30 -10794504.14 -10794503.98 0.0088 0.0027
 Mercury -34267-07-02 11:16 J -10794416.19 -10794416.03 -10794415.87 0.0088 0.0035
 Mercury -34267-09-28 13:55 J -10794328.07 -10794327.92 -10794327.77 0.0088 0.0043
 Mars -34267-10-31 22:47 J -10794294.68 -10794294.55 -10794294.34 0.0088 0.0077
 Mercury -34267-12-25 16:19 J -10794239.95 -10794239.82 -10794239.67 0.0088 0.0051
 Mercury -34266-03-23 18:57 J -10794151.83 -10794151.71 -10794151.58 0.0088 0.0058
 Mercury -34266-06-19 21:21 J -10794063.71 -10794063.61 -10794063.49 0.0088 0.0067
 Mercury -34266-09-15 23:45 J -10793975.58 -10793975.51 -10793975.40 0.0088 0.0075
 Mercury -34266-12-13 02:23 J -10793887.44 -10793887.40 -10793887.32 0.0088 0.0082
 Mars -34265-09-26 15:35 J -10793599.16 -10793598.85 -10793598.53 0.0088 0.0027
 Mars -34263-08-23 10:19 J -10792903.38 -10792903.07 -10792902.73 0.0088 0.0024
 Mars -34261-07-19 05:59 J -10792207.41 -10792207.25 -10792207.04 0.0088 0.0074
 Venus -34242-07-22 22:04 J -10785264.62 -10785264.58 -10785264.51 0.0089 0.0086
 Venus -34241-03-04 11:02 J -10785039.12 -10785039.04 -10785038.90 0.0089 0.0078
 Venus -34241-10-16 00:57 J -10784813.59 -10784813.46 -10784813.31 0.0089 0.0069

Venus	-34240-05-29 13:55 J	-10784588.06	-10784587.92	-10784587.74	0.0089	0.0061
Venus	-34239-01-10 03:21 J	-10784362.53	-10784362.36	-10784362.17	0.0089	0.0052
Venus	-34239-08-23 16:47 J	-10784136.99	-10784136.80	-10784136.61	0.0089	0.0043
Venus	-34238-04-06 05:45 J	-10783911.45	-10783911.26	-10783911.05	0.0089	0.0035
Venus	-34238-11-17 19:11 J	-10783685.91	-10783685.70	-10783685.49	0.0089	0.0026
Venus	-34237-06-30 08:09 J	-10783460.37	-10783460.16	-10783459.94	0.0089	0.0018
Venus	-34236-02-10 21:21 J	-10783234.83	-10783234.61	-10783234.39	0.0089	0.0009
Venus	-34236-09-24 10:33 J	-10783009.28	-10783009.06	-10783008.84	0.0089	0.0002
Venus	-34235-05-07 23:31 J	-10782783.74	-10782783.52	-10782783.30	0.0089	0.0008
Venus	-34235-12-19 12:14 J	-10782558.19	-10782557.99	-10782557.76	0.0089	0.0017
Venus	-34234-08-02 01:26 J	-10782332.65	-10782332.44	-10782332.23	0.0089	0.0025
Venus	-34233-03-14 14:09 J	-10782107.10	-10782106.91	-10782106.69	0.0089	0.0034
Venus	-34233-10-26 03:21 J	-10781881.54	-10781881.36	-10781881.16	0.0089	0.0042
Venus	-34232-06-08 16:04 J	-10781655.99	-10781655.83	-10781655.63	0.0089	0.0051
Venus	-34231-01-20 05:16 J	-10781430.44	-10781430.28	-10781430.11	0.0089	0.0059
Venus	-34231-09-02 17:45 J	-10781204.88	-10781204.76	-10781204.59	0.0089	0.0068
Venus	-34230-04-16 06:57 J	-10780979.31	-10780979.21	-10780979.08	0.0089	0.0076
Venus	-34230-11-27 20:09 J	-10780753.72	-10780753.66	-10780753.58	0.0089	0.0084
Jupiter	-34217-11-01 20:52 J	-10776030.97	-10776030.63	-10776030.19	0.0089	0.0059
Moon	-34199-03-19 08:23 J	-10769684.19	-10769684.15	-10769684.07	0.0089	0.0087
Earth	-34199-03-19 10:33 J	-10769684.10	-10769684.06	-10769683.95	0.0089	0.0086 *
Earth	-34198-03-21 22:04 J	-10769316.79	-10769316.58	-10769316.35	0.0089	0.0044
Moon	-34198-03-22 00:43 J	-10769316.67	-10769316.47	-10769316.23	0.0089	0.0044 *
Moon	-34197-03-23 05:31 J	-10768949.52	-10768949.27	-10768949.01	0.0089	0.0004
Earth	-34197-03-23 09:21 J	-10768949.37	-10768949.11	-10768948.86	0.0089	0.0002 *
Earth	-34196-03-25 19:55 J	-10768581.88	-10768581.67	-10768581.42	0.0089	0.0040
Moon	-34196-03-25 23:16 J	-10768581.74	-10768581.53	-10768581.28	0.0089	0.0040 *
Moon	-34195-03-28 03:50 J	-10768214.42	-10768214.34	-10768214.21	0.0089	0.0081
Earth	-34195-03-28 07:11 J	-10768214.29	-10768214.20	-10768214.07	0.0089	0.0081 *
Mercury	-34189-02-21 06:28 J	-10766058.24	-10766058.23	-10766058.21	0.0089	0.0088

Mercury -34189-05-19 07:55 J -10765970.21 -10765970.17 -10765970.10 0.0089 0.0082

Mercury -34189-08-15 09:35 J -10765882.16 -10765882.10 -10765882.01 0.0089 0.0075

Mercury -34189-11-11 11:16 J -10765794.11 -10765794.03 -10765793.93 0.0089 0.0068

Mercury -34188-02-07 12:57 J -10765706.05 -10765705.96 -10765705.85 0.0089 0.0062

Mercury -34188-05-06 14:52 J -10765617.99 -10765617.88 -10765617.77 0.0089 0.0054

Mercury -34188-08-02 16:33 J -10765529.93 -10765529.81 -10765529.69 0.0089 0.0048

Mercury -34188-10-29 17:59 J -10765441.87 -10765441.75 -10765441.61 0.0089 0.0041

Mercury -34187-01-25 19:40 J -10765353.80 -10765353.68 -10765353.54 0.0089 0.0034

Mercury -34187-04-23 21:21 J -10765265.74 -10765265.61 -10765265.46 0.0089 0.0027

Mercury -34187-07-20 23:16 J -10765177.67 -10765177.53 -10765177.39 0.0089 0.0020

Mercury -34187-10-17 00:57 J -10765089.60 -10765089.46 -10765089.31 0.0089 0.0013

Mercury -34186-01-13 02:38 J -10765001.53 -10765001.39 -10765001.24 0.0089 0.0006

Mercury -34186-04-11 04:19 J -10764913.46 -10764913.32 -10764913.17 0.0089 0.0003

Mercury -34186-07-08 06:14 J -10764825.39 -10764825.24 -10764825.10 0.0089 0.0008

Mercury -34186-10-04 07:55 J -10764737.31 -10764737.17 -10764737.03 0.0089 0.0015

Mercury -34186-12-31 09:35 J -10764649.24 -10764649.10 -10764648.96 0.0089 0.0022

Mercury -34185-03-28 11:16 J -10764561.16 -10764561.03 -10764560.89 0.0089 0.0030

Mercury -34185-06-24 13:11 J -10764473.08 -10764472.95 -10764472.82 0.0089 0.0037

Mercury -34185-09-20 14:38 J -10764385.00 -10764384.89 -10764384.75 0.0089 0.0044

Mars -34185-09-22 06:57 J -10764383.39 -10764383.21 -10764382.98 0.0089 0.0064

Mercury -34185-12-17 16:33 J -10764296.92 -10764296.81 -10764296.68 0.0089 0.0051

Mercury -34184-03-15 18:14 J -10764208.84 -10764208.74 -10764208.62 0.0089 0.0058

Mercury -34184-06-11 20:09 J -10764120.75 -10764120.66 -10764120.55 0.0089 0.0065

Mercury -34184-09-07 22:04 J -10764032.66 -10764032.58 -10764032.49 0.0089 0.0072

Mercury -34184-12-04 23:31 J -10763944.57 -10763944.52 -10763944.44 0.0089 0.0080

Mercury -34183-03-03 01:26 J -10763856.46 -10763856.44 -10763856.40 0.0089 0.0087

Mars -34183-08-17 11:02 J -10763689.33 -10763689.04 -10763688.75 0.0089 0.0018

Mars -34181-07-11 11:31 J -10762995.29 -10762995.02 -10762994.72 0.0089 0.0027

Mars -34179-06-05 10:33 J -10762301.20 -10762301.06 -10762300.86 0.0089 0.0072

Venus -34160-01-21 17:59 J -10755495.80 -10755495.75 -10755495.67 0.0089 0.0084

Venus	-34160-09-04 06:43 J	-10755270.32	-10755270.22	-10755270.10	0.0089	0.0076
Venus	-34159-04-17 19:26 J	-10755044.81	-10755044.69	-10755044.53	0.0089	0.0068
Venus	-34159-11-29 08:09 J	-10754819.30	-10754819.16	-10754818.98	0.0089	0.0060
Venus	-34158-07-12 20:52 J	-10754593.79	-10754593.63	-10754593.43	0.0089	0.0052
Venus	-34157-02-23 09:50 J	-10754368.27	-10754368.09	-10754367.89	0.0089	0.0043
Venus	-34157-10-05 22:33 J	-10754142.75	-10754142.56	-10754142.35	0.0088	0.0035
Venus	-34156-05-19 11:31 J	-10753917.22	-10753917.02	-10753916.80	0.0088	0.0026
Venus	-34156-12-31 00:28 J	-10753691.69	-10753691.48	-10753691.26	0.0088	0.0018
Venus	-34155-08-13 13:11 J	-10753466.16	-10753465.95	-10753465.72	0.0088	0.0010
Venus	-34154-03-27 02:23 J	-10753240.62	-10753240.40	-10753240.18	0.0088	0.0001
Venus	-34154-11-07 15:21 J	-10753015.08	-10753014.86	-10753014.64	0.0088	0.0007
Venus	-34153-06-20 04:19 J	-10752789.54	-10752789.32	-10752789.10	0.0088	0.0016
Venus	-34152-01-31 17:02 J	-10752563.99	-10752563.79	-10752563.57	0.0088	0.0025
Venus	-34152-09-14 06:14 J	-10752338.44	-10752338.24	-10752338.03	0.0088	0.0033
Venus	-34151-04-27 18:57 J	-10752112.89	-10752112.71	-10752112.50	0.0088	0.0042
Venus	-34151-12-09 08:09 J	-10751887.33	-10751887.16	-10751886.96	0.0088	0.0050
Venus	-34150-07-22 21:21 J	-10751661.77	-10751661.61	-10751661.44	0.0088	0.0058
Venus	-34149-03-04 10:04 J	-10751436.21	-10751436.08	-10751435.92	0.0088	0.0066
Venus	-34149-10-15 23:16 J	-10751210.63	-10751210.53	-10751210.40	0.0088	0.0075
Venus	-34148-05-29 12:28 J	-10750985.04	-10750984.98	-10750984.89	0.0088	0.0083
Earth	-34117-09-19 22:04 J	-10739548.65	-10739548.58	-10739548.47	0.0088	0.0082
Moon	-34117-09-20 00:28 J	-10739548.51	-10739548.48	-10739548.39	0.0088	0.0086 *
Moon	-34116-09-22 07:11 J	-10739181.43	-10739181.20	-10739180.96	0.0088	0.0038
Earth	-34116-09-22 10:33 J	-10739181.29	-10739181.06	-10739180.83	0.0088	0.0041 *
Earth	-34115-09-24 22:47 J	-10738813.81	-10738813.55	-10738813.29	0.0088	0.0001
Moon	-34115-09-25 02:23 J	-10738813.66	-10738813.40	-10738813.14	0.0088	0.0003 *
Moon	-34114-09-27 07:11 J	-10738446.41	-10738446.20	-10738445.96	0.0088	0.0043
Earth	-34114-09-27 10:47 J	-10738446.27	-10738446.05	-10738445.81	0.0088	0.0040 *
Earth	-34113-09-28 22:19 J	-10738078.64	-10738078.57	-10738078.44	0.0088	0.0082
Moon	-34113-09-29 01:55 J	-10738078.53	-10738078.42	-10738078.30	0.0088	0.0079 *

Mercury -34106-08-15 17:31 J -10735566.81 -10735566.77 -10735566.70 0.0088 0.0083

Mercury -34106-11-11 20:38 J -10735478.73 -10735478.64 -10735478.54 0.0088 0.0075

Mercury -34105-02-07 23:16 J -10735390.63 -10735390.53 -10735390.41 0.0088 0.0066

Mercury -34105-05-06 01:55 J -10735302.54 -10735302.42 -10735302.27 0.0088 0.0058

Mercury -34105-08-02 05:02 J -10735214.43 -10735214.29 -10735214.15 0.0088 0.0050

Mercury -34105-10-29 07:40 J -10735126.33 -10735126.18 -10735126.02 0.0088 0.0041

Mercury -34104-01-25 10:19 J -10735038.22 -10735038.07 -10735037.90 0.0088 0.0033

Mercury -34104-04-23 12:57 J -10734950.11 -10734949.96 -10734949.78 0.0088 0.0026

Mercury -34104-07-20 16:04 J -10734862.00 -10734861.83 -10734861.66 0.0088 0.0017

Mercury -34104-10-16 18:43 J -10734773.89 -10734773.72 -10734773.55 0.0088 0.0008

Mercury -34103-01-12 21:21 J -10734685.78 -10734685.61 -10734685.44 0.0088 0.0001

Mercury -34103-04-10 23:59 J -10734597.67 -10734597.50 -10734597.33 0.0088 0.0008

Mercury -34103-07-08 02:38 J -10734509.56 -10734509.39 -10734509.22 0.0088 0.0016

Mercury -34103-10-04 05:16 J -10734421.44 -10734421.28 -10734421.11 0.0088 0.0024

Mercury -34103-12-31 07:55 J -10734333.32 -10734333.17 -10734333.01 0.0088 0.0032

Mercury -34102-03-29 10:33 J -10734245.21 -10734245.06 -10734244.90 0.0088 0.0040

Mercury -34102-06-25 12:57 J -10734157.09 -10734156.96 -10734156.80 0.0088 0.0049

Mercury -34102-09-21 15:35 J -10734068.97 -10734068.85 -10734068.71 0.0088 0.0056

Mercury -34102-12-18 18:14 J -10733980.85 -10733980.74 -10733980.61 0.0088 0.0064

Mercury -34101-03-15 20:38 J -10733892.72 -10733892.64 -10733892.52 0.0088 0.0072

Mars -34101-05-10 17:45 J -10733837.02 -10733836.76 -10733836.47 0.0088 0.0049

Mercury -34101-06-11 23:31 J -10733804.58 -10733804.52 -10733804.44 0.0088 0.0080

Mercury -34101-09-08 01:55 J -10733716.43 -10733716.42 -10733716.39 0.0088 0.0088

Mars -34099-04-06 10:33 J -10733141.39 -10733141.06 -10733140.72 0.0088 0.0002

Mars -34097-03-02 05:31 J -10732445.53 -10732445.27 -10732444.99 0.0088 0.0052

Venus -34078-10-24 09:35 J -10725270.11 -10725270.10 -10725270.06 0.0089 0.0088

Venus -34077-06-05 22:47 J -10725044.63 -10725044.55 -10725044.44 0.0089 0.0080

Venus -34076-01-17 12:28 J -10724819.11 -10724818.98 -10724818.85 0.0089 0.0071

Venus -34076-08-31 01:26 J -10724593.58 -10724593.44 -10724593.27 0.0089 0.0063

Venus -34075-04-13 14:38 J -10724368.04 -10724367.89 -10724367.70 0.0089 0.0055

Venus	-34075-11-25 04:04 J	-10724142.51	-10724142.33	-10724142.13	0.0089	0.0046
Venus	-34074-07-08 17:16 J	-10723916.97	-10723916.78	-10723916.57	0.0089	0.0038
Venus	-34073-02-19 06:28 J	-10723691.43	-10723691.23	-10723691.01	0.0089	0.0029
Venus	-34073-10-01 19:40 J	-10723465.88	-10723465.68	-10723465.45	0.0089	0.0021
Venus	-34072-05-15 09:07 J	-10723240.34	-10723240.12	-10723239.90	0.0089	0.0012
Venus	-34072-12-26 22:04 J	-10723014.80	-10723014.58	-10723014.36	0.0089	0.0004
Venus	-34071-08-09 11:02 J	-10722789.26	-10722789.04	-10722788.82	0.0089	0.0005
Venus	-34070-03-23 00:14 J	-10722563.71	-10722563.49	-10722563.27	0.0089	0.0013
Venus	-34070-11-03 13:11 J	-10722338.16	-10722337.95	-10722337.73	0.0089	0.0022
Venus	-34069-06-16 02:09 J	-10722112.61	-10722112.41	-10722112.20	0.0089	0.0030
Venus	-34068-01-27 14:52 J	-10721887.06	-10721886.88	-10721886.67	0.0089	0.0039
Venus	-34068-09-10 03:50 J	-10721661.51	-10721661.34	-10721661.14	0.0089	0.0047
Venus	-34067-04-23 17:02 J	-10721435.95	-10721435.79	-10721435.61	0.0089	0.0055
Venus	-34067-12-05 05:45 J	-10721210.39	-10721210.26	-10721210.09	0.0089	0.0064
Venus	-34066-07-18 18:43 J	-10720984.83	-10720984.72	-10720984.58	0.0089	0.0072
Venus	-34065-02-29 07:40 J	-10720759.26	-10720759.18	-10720759.07	0.0089	0.0080
Venus	-34065-10-11 20:38 J	-10720533.65	-10720533.64	-10720533.60	0.0089	0.0089
Jupiter	-34051-12-27 12:14 J	-10715344.47	-10715343.99	-10715343.47	0.0089	0.0023
Moon	-34034-03-21 05:59 J	-10709416.41	-10709416.25	-10709416.08	0.0089	0.0068
Earth	-34034-03-21 09:07 J	-10709416.28	-10709416.12	-10709415.93	0.0089	0.0063 *
Earth	-34033-03-22 20:09 J	-10709048.89	-10709048.66	-10709048.40	0.0089	0.0022
Moon	-34033-03-22 23:45 J	-10709048.75	-10709048.51	-10709048.24	0.0089	0.0018 *
Moon	-34032-03-25 05:02 J	-10708681.53	-10708681.29	-10708681.04	0.0089	0.0016
Earth	-34032-03-25 07:40 J	-10708681.43	-10708681.18	-10708680.93	0.0089	0.0020 *
Earth	-34031-03-27 18:14 J	-10708313.91	-10708313.74	-10708313.54	0.0089	0.0061
Moon	-34031-03-27 20:23 J	-10708313.81	-10708313.65	-10708313.45	0.0089	0.0066 *
Mercury	-34025-11-17 05:59 J	-10705887.28	-10705887.25	-10705887.19	0.0089	0.0084
Mercury	-34024-02-13 07:40 J	-10705799.24	-10705799.18	-10705799.10	0.0089	0.0078
Mercury	-34024-05-12 09:35 J	-10705711.18	-10705711.10	-10705711.01	0.0089	0.0070
Mercury	-34024-08-08 11:16 J	-10705623.13	-10705623.03	-10705622.93	0.0089	0.0064

Mercury -34024-11-04 12:43 J -10705535.07 -10705534.97 -10705534.85 0.0089 0.0057

Mercury -34023-01-31 14:23 J -10705447.01 -10705446.90 -10705446.77 0.0089 0.0050

Mercury -34023-04-29 16:04 J -10705358.94 -10705358.83 -10705358.69 0.0089 0.0043

Mercury -34023-07-26 17:45 J -10705270.88 -10705270.76 -10705270.62 0.0089 0.0037

Mercury -34023-10-22 19:40 J -10705182.81 -10705182.68 -10705182.54 0.0089 0.0029

Mercury -34022-01-18 21:21 J -10705094.75 -10705094.61 -10705094.47 0.0089 0.0022

Mercury -34022-04-16 23:02 J -10705006.68 -10705006.54 -10705006.39 0.0089 0.0015

Mercury -34022-07-14 00:43 J -10704918.61 -10704918.47 -10704918.32 0.0089 0.0008

Mercury -34022-10-10 02:38 J -10704830.54 -10704830.39 -10704830.25 0.0089 0.0002

Mercury -34021-01-06 04:19 J -10704742.47 -10704742.32 -10704742.18 0.0089 0.0006

Mercury -34021-04-03 05:59 J -10704654.39 -10704654.25 -10704654.11 0.0089 0.0013

Mars -34021-05-07 14:09 J -10704619.96 -10704619.91 -10704619.78 0.0089 0.0086

Mercury -34021-06-30 07:40 J -10704566.32 -10704566.18 -10704566.04 0.0089 0.0020

Mercury -34021-09-26 09:21 J -10704478.24 -10704478.11 -10704477.97 0.0089 0.0027

Mercury -34021-12-23 11:16 J -10704390.17 -10704390.03 -10704389.90 0.0089 0.0034

Mercury -34020-03-21 12:57 J -10704302.09 -10704301.96 -10704301.83 0.0089 0.0042

Mercury -34020-06-17 14:23 J -10704214.01 -10704213.90 -10704213.76 0.0089 0.0050

Mercury -34020-09-13 16:19 J -10704125.92 -10704125.82 -10704125.70 0.0089 0.0056

Mercury -34020-12-10 17:59 J -10704037.84 -10704037.75 -10704037.63 0.0089 0.0064

Mercury -34019-03-08 19:55 J -10703949.75 -10703949.67 -10703949.57 0.0089 0.0070

Mars -34019-04-01 18:14 J -10703925.99 -10703925.74 -10703925.45 0.0089 0.0039

Mercury -34019-06-04 21:50 J -10703861.66 -10703861.59 -10703861.51 0.0089 0.0077

Mercury -34019-08-31 23:16 J -10703773.55 -10703773.53 -10703773.47 0.0089 0.0085

Mars -34017-02-24 21:50 J -10703231.88 -10703231.59 -10703231.29 0.0089 0.0007

Mars -34015-01-18 23:16 J -10702537.77 -10702537.53 -10702537.29 0.0089 0.0052

34TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 34th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-33996-04-25 06:14 J		-10695501.28	-10695501.24	-10695501.18	0.0089	0.0086	
Venus	-33996-12-06 18:57 J		-10695275.80	-10695275.71	-10695275.60	0.0089	0.0078	
Venus	-33995-07-20 07:40 J		-10695050.30	-10695050.18	-10695050.04	0.0089	0.0070	
Venus	-33994-03-02 20:23 J		-10694824.80	-10694824.65	-10694824.48	0.0089	0.0062	
Venus	-33994-10-14 09:07 J		-10694599.28	-10694599.12	-10694598.93	0.0089	0.0054	
Venus	-33993-05-26 21:50 J		-10694373.76	-10694373.59	-10694373.39	0.0089	0.0046	
Venus	-33992-01-07 10:33 J		-10694148.25	-10694148.06	-10694147.85	0.0089	0.0038	
Venus	-33992-08-20 23:45 J		-10693922.72	-10693922.51	-10693922.31	0.0088	0.0029	
Venus	-33991-04-03 12:28 J		-10693697.19	-10693696.98	-10693696.76	0.0088	0.0021	
Venus	-33991-11-15 01:26 J		-10693471.66	-10693471.44	-10693471.22	0.0088	0.0012	
Venus	-33990-06-28 14:09 J		-10693246.12	-10693245.91	-10693245.68	0.0088	0.0005	
Venus	-33989-02-09 03:07 J		-10693020.59	-10693020.37	-10693020.15	0.0088	0.0004	
Venus	-33989-09-21 16:04 J		-10692795.05	-10692794.83	-10692794.61	0.0088	0.0012	
Venus	-33988-05-05 05:16 J		-10692569.50	-10692569.28	-10692569.07	0.0088	0.0021	
Venus	-33988-12-16 17:59 J		-10692343.95	-10692343.75	-10692343.53	0.0088	0.0029	
Venus	-33987-07-30 06:57 J		-10692118.40	-10692118.21	-10692118.00	0.0088	0.0038	
Venus	-33986-03-12 20:09 J		-10691892.84	-10691892.66	-10691892.47	0.0088	0.0046	
Venus	-33986-10-24 08:52 J		-10691667.29	-10691667.13	-10691666.94	0.0088	0.0054	
Venus	-33985-06-05 21:50 J		-10691441.72	-10691441.59	-10691441.41	0.0088	0.0063	
Venus	-33984-01-17 11:02 J		-10691216.15	-10691216.04	-10691215.89	0.0088	0.0071	
Venus	-33984-08-31 00:14 J		-10690990.58	-10690990.49	-10690990.38	0.0088	0.0079	

Venus -33983-04-13 13:26 J -10690764.97 -10690764.94 -10690764.89 0.0088 0.0087
 Earth -33952-09-21 21:21 J -10679280.79 -10679280.61 -10679280.41 0.0088 0.0060
 Moon -33952-09-22 00:57 J -10679280.63 -10679280.46 -10679280.27 0.0088 0.0064 *
 Moon -33951-09-24 06:14 J -10678913.49 -10678913.24 -10678912.98 0.0088 0.0016
 Earth -33951-09-24 09:35 J -10678913.34 -10678913.10 -10678912.83 0.0088 0.0020 *
 Earth -33950-09-26 21:50 J -10678545.84 -10678545.59 -10678545.33 0.0088 0.0022
 Moon -33950-09-27 00:43 J -10678545.72 -10678545.47 -10678545.20 0.0088 0.0018 *
 Moon -33949-09-28 07:55 J -10678178.31 -10678178.17 -10678177.97 0.0088 0.0066
 Earth -33949-09-28 09:50 J -10678178.26 -10678178.09 -10678177.89 0.0088 0.0062 *
 Mercury -33941-02-13 14:23 J -10675483.93 -10675483.90 -10675483.84 0.0088 0.0085
 Mercury -33941-05-11 17:02 J -10675395.85 -10675395.79 -10675395.69 0.0088 0.0078
 Mercury -33941-08-07 20:09 J -10675307.76 -10675307.66 -10675307.54 0.0088 0.0069
 Mercury -33941-11-03 22:47 J -10675219.66 -10675219.55 -10675219.41 0.0088 0.0060
 Mercury -33940-01-31 01:26 J -10675131.56 -10675131.44 -10675131.28 0.0088 0.0053
 Mercury -33940-04-29 04:33 J -10675043.46 -10675043.31 -10675043.15 0.0088 0.0044
 Mercury -33940-07-26 07:11 J -10674955.35 -10674955.20 -10674955.03 0.0088 0.0035
 Mercury -33940-10-22 09:50 J -10674867.24 -10674867.09 -10674866.91 0.0088 0.0028
 Mercury -33939-01-18 12:43 J -10674779.13 -10674778.97 -10674778.79 0.0088 0.0019
 Mercury -33939-04-16 15:35 J -10674691.02 -10674690.85 -10674690.68 0.0088 0.0011
 Mercury -33939-07-13 18:14 J -10674602.91 -10674602.74 -10674602.56 0.0088 0.0003
 Mercury -33939-10-09 20:52 J -10674514.80 -10674514.63 -10674514.45 0.0088 0.0006
 Mercury -33938-01-05 23:31 J -10674426.69 -10674426.52 -10674426.34 0.0088 0.0014
 Mercury -33938-04-04 02:09 J -10674338.57 -10674338.41 -10674338.24 0.0088 0.0022
 Mercury -33938-07-01 04:47 J -10674250.45 -10674250.30 -10674250.13 0.0088 0.0030
 Mercury -33938-09-27 07:26 J -10674162.34 -10674162.19 -10674162.03 0.0088 0.0038
 Mars -33938-12-23 21:35 J -10674074.77 -10674074.60 -10674074.37 0.0088 0.0071
 Mercury -33938-12-24 10:04 J -10674074.22 -10674074.08 -10674073.93 0.0088 0.0046
 Mercury -33937-03-21 12:28 J -10673986.10 -10673985.98 -10673985.83 0.0088 0.0055
 Mercury -33937-06-17 15:07 J -10673897.98 -10673897.87 -10673897.73 0.0088 0.0062
 Mercury -33937-09-13 17:45 J -10673809.85 -10673809.76 -10673809.64 0.0088 0.0070

Mercury -33937-12-10 20:38 J -10673721.72 -10673721.64 -10673721.56 0.0088 0.0078

Mercury -33936-03-08 23:02 J -10673633.57 -10673633.54 -10673633.49 0.0088 0.0086

Mars -33936-11-18 13:26 J -10673379.25 -10673378.94 -10673378.60 0.0088 0.0021

Mars -33934-10-15 06:28 J -10672683.52 -10672683.23 -10672682.90 0.0088 0.0030

Mars -33932-09-10 01:40 J -10671987.55 -10671987.43 -10671987.29 0.0088 0.0081

Venus -33913-09-07 10:19 J -10665050.13 -10665050.07 -10665049.96 0.0089 0.0082

Venus -33912-04-20 23:45 J -10664824.61 -10664824.51 -10664824.37 0.0089 0.0074

Venus -33912-12-02 13:26 J -10664599.08 -10664598.94 -10664598.79 0.0089 0.0065

Venus -33911-07-16 02:23 J -10664373.55 -10664373.40 -10664373.21 0.0089 0.0057

Venus -33910-02-26 15:35 J -10664148.02 -10664147.85 -10664147.65 0.0089 0.0049

Venus -33910-10-10 05:16 J -10663922.47 -10663922.28 -10663922.08 0.0089 0.0040

Venus -33909-05-22 18:28 J -10663696.93 -10663696.73 -10663696.52 0.0089 0.0032

Venus -33908-01-03 07:26 J -10663471.39 -10663471.19 -10663470.96 0.0089 0.0024

Venus -33908-08-16 20:52 J -10663245.84 -10663245.63 -10663245.41 0.0089 0.0015

Venus -33907-03-30 10:04 J -10663020.30 -10663020.08 -10663019.86 0.0089 0.0007

Venus -33907-11-10 23:16 J -10662794.75 -10662794.53 -10662794.30 0.0089 0.0003

Venus -33906-06-24 12:28 J -10662569.20 -10662568.98 -10662568.76 0.0089 0.0010

Venus -33905-02-05 01:26 J -10662343.66 -10662343.44 -10662343.22 0.0089 0.0018

Venus -33905-09-17 14:09 J -10662118.11 -10662117.91 -10662117.69 0.0089 0.0027

Venus -33904-05-01 03:21 J -10661892.56 -10661892.36 -10661892.15 0.0089 0.0035

Venus -33904-12-12 16:19 J -10661667.00 -10661666.82 -10661666.62 0.0089 0.0043

Venus -33903-07-26 04:47 J -10661441.45 -10661441.30 -10661441.10 0.0089 0.0052

Venus -33902-03-08 17:45 J -10661215.90 -10661215.76 -10661215.58 0.0089 0.0060

Venus -33902-10-20 06:57 J -10660990.33 -10660990.21 -10660990.05 0.0089 0.0068

Venus -33901-06-01 19:40 J -10660764.77 -10660764.68 -10660764.55 0.0089 0.0077

Venus -33900-01-13 08:38 J -10660539.19 -10660539.14 -10660539.05 0.0089 0.0084

Jupiter -33884-02-25 01:26 J -10654652.94 -10654652.44 -10654651.92 0.0089 0.0012

Earth -33870-03-20 21:21 J -10649515.70 -10649515.61 -10649515.52 0.0089 0.0083

Moon -33870-03-21 00:28 J -10649515.56 -10649515.48 -10649515.38 0.0089 0.0084 *

Moon -33869-03-22 05:16 J -10649148.48 -10649148.28 -10649148.03 0.0089 0.0041

Earth -33869-03-22 08:09 J -10649148.37 -10649148.16 -10649147.92 0.0089 0.0042 *
 Earth -33868-03-24 19:40 J -10648780.94 -10648780.68 -10648780.43 0.0089 0.0001
 Moon -33868-03-24 20:52 J -10648780.89 -10648780.63 -10648780.36 0.0089 0.0001 *
 Moon -33867-03-27 05:45 J -10648413.46 -10648413.26 -10648413.03 0.0089 0.0044
 Earth -33867-03-27 06:14 J -10648413.45 -10648413.24 -10648413.00 0.0089 0.0043 *
 Moon -33866-03-29 16:19 J -10648045.90 -10648045.82 -10648045.70 0.0089 0.0083
 Earth -33866-03-29 17:31 J -10648045.85 -10648045.77 -10648045.68 0.0089 0.0084 *
 Mercury -33860-05-18 04:19 J -10645804.34 -10645804.32 -10645804.28 0.0089 0.0086
 Mercury -33860-08-14 05:59 J -10645716.31 -10645716.25 -10645716.18 0.0089 0.0079
 Mercury -33860-11-10 07:40 J -10645628.25 -10645628.18 -10645628.09 0.0089 0.0073
 Mercury -33859-02-06 09:07 J -10645540.20 -10645540.12 -10645540.01 0.0089 0.0066
 Mercury -33859-05-05 10:47 J -10645452.14 -10645452.05 -10645451.93 0.0089 0.0059
 Mercury -33859-08-01 12:28 J -10645364.08 -10645363.98 -10645363.85 0.0089 0.0053
 Mercury -33859-10-28 14:23 J -10645276.02 -10645275.90 -10645275.77 0.0089 0.0045
 Mercury -33858-01-24 16:04 J -10645187.96 -10645187.83 -10645187.70 0.0089 0.0038
 Mercury -33858-04-22 17:45 J -10645099.89 -10645099.76 -10645099.62 0.0089 0.0031
 Mercury -33858-07-19 19:26 J -10645011.83 -10645011.69 -10645011.55 0.0089 0.0024
 Mercury -33858-10-15 21:07 J -10644923.76 -10644923.62 -10644923.48 0.0089 0.0017
 Mercury -33857-01-11 22:47 J -10644835.69 -10644835.55 -10644835.40 0.0089 0.0011
 Mercury -33857-04-09 00:43 J -10644747.62 -10644747.47 -10644747.33 0.0089 0.0004
 Mercury -33857-07-06 02:23 J -10644659.55 -10644659.40 -10644659.26 0.0089 0.0004
 Mercury -33857-10-02 04:04 J -10644571.47 -10644571.33 -10644571.19 0.0089 0.0011
 Mercury -33857-12-29 05:45 J -10644483.40 -10644483.26 -10644483.12 0.0089 0.0018
 Mercury -33856-03-27 07:26 J -10644395.32 -10644395.19 -10644395.05 0.0089 0.0025
 Mercury -33856-06-23 09:07 J -10644307.25 -10644307.12 -10644306.98 0.0089 0.0032
 Mercury -33856-09-19 11:02 J -10644219.17 -10644219.04 -10644218.91 0.0089 0.0039
 Mars -33856-11-15 02:38 J -10644162.60 -10644162.39 -10644162.15 0.0089 0.0060
 Mercury -33856-12-16 12:43 J -10644131.09 -10644130.97 -10644130.84 0.0089 0.0046
 Mercury -33855-03-14 14:38 J -10644043.01 -10644042.89 -10644042.78 0.0089 0.0054
 Mercury -33855-06-10 16:04 J -10643954.92 -10643954.83 -10643954.71 0.0089 0.0061

Mercury	-33855-09-06 17:59 J	-10643866.84	-10643866.75	-10643866.65	0.0089	0.0068
Mercury	-33855-12-03 19:40 J	-10643778.75	-10643778.68	-10643778.59	0.0089	0.0075
Mercury	-33854-03-01 21:35 J	-10643690.65	-10643690.60	-10643690.54	0.0089	0.0082
Mars	-33854-10-10 05:45 J	-10643468.54	-10643468.26	-10643467.95	0.0089	0.0013
Mars	-33852-09-03 07:40 J	-10642774.44	-10642774.18	-10642773.89	0.0089	0.0033
Mars	-33850-07-29 09:07 J	-10642080.24	-10642080.12	-10642079.96	0.0089	0.0078
Venus	-33832-07-27 18:28 J	-10635506.74	-10635506.73	-10635506.68	0.0089	0.0088
Venus	-33831-03-10 07:26 J	-10635281.27	-10635281.19	-10635281.09	0.0089	0.0080
Venus	-33831-10-21 20:09 J	-10635055.78	-10635055.66	-10635055.52	0.0089	0.0072
Venus	-33830-06-04 08:52 J	-10634830.27	-10634830.13	-10634829.97	0.0089	0.0064
Venus	-33829-01-15 21:35 J	-10634604.76	-10634604.60	-10634604.42	0.0089	0.0056
Venus	-33829-08-28 10:19 J	-10634379.25	-10634379.07	-10634378.88	0.0089	0.0048
Venus	-33828-04-10 23:16 J	-10634153.72	-10634153.53	-10634153.33	0.0089	0.0040
Venus	-33828-11-22 11:59 J	-10633928.20	-10633928.00	-10633927.79	0.0089	0.0032
Venus	-33827-07-06 00:43 J	-10633702.67	-10633702.47	-10633702.25	0.0089	0.0024
Venus	-33826-02-16 13:26 J	-10633477.15	-10633476.94	-10633476.71	0.0088	0.0016
Venus	-33826-09-30 02:23 J	-10633251.62	-10633251.40	-10633251.18	0.0088	0.0007
Venus	-33825-05-12 15:21 J	-10633026.08	-10633025.86	-10633025.64	0.0088	0.0001
Venus	-33825-12-24 04:04 J	-10632800.54	-10632800.33	-10632800.10	0.0088	0.0010
Venus	-33824-08-06 17:02 J	-10632575.00	-10632574.79	-10632574.57	0.0088	0.0017
Venus	-33823-03-20 05:59 J	-10632349.45	-10632349.25	-10632349.03	0.0088	0.0026
Venus	-33823-10-31 18:57 J	-10632123.91	-10632123.71	-10632123.50	0.0088	0.0034
Venus	-33822-06-14 08:09 J	-10631898.36	-10631898.16	-10631897.97	0.0088	0.0042
Venus	-33821-01-25 20:38 J	-10631672.80	-10631672.64	-10631672.44	0.0088	0.0050
Venus	-33821-09-07 09:35 J	-10631447.24	-10631447.10	-10631446.91	0.0088	0.0059
Venus	-33820-04-20 22:47 J	-10631221.67	-10631221.55	-10631221.38	0.0088	0.0067
Venus	-33820-12-02 11:59 J	-10630996.10	-10630996.00	-10630995.86	0.0088	0.0075
Venus	-33819-07-16 00:57 J	-10630770.51	-10630770.46	-10630770.36	0.0088	0.0083
Moon	-33788-09-21 05:02 J	-10619380.35	-10619380.29	-10619380.18	0.0088	0.0083
Earth	-33788-09-21 08:09 J	-10619380.25	-10619380.16	-10619380.02	0.0088	0.0080 *

Earth -33787-09-23 20:38 J -10619012.87 -10619012.64 -10619012.40 0.0088 0.0038
 Moon -33787-09-23 23:02 J -10619012.77 -10619012.54 -10619012.28 0.0088 0.0036 *
 Moon -33786-09-26 07:11 J -10618645.45 -10618645.20 -10618644.94 0.0088 0.0002
 Earth -33786-09-26 08:52 J -10618645.39 -10618645.13 -10618644.86 0.0088 0.0003 *
 Moon -33785-09-27 20:23 J -10618277.86 -10618277.65 -10618277.40 0.0088 0.0047
 Earth -33785-09-27 20:52 J -10618277.85 -10618277.63 -10618277.40 0.0088 0.0044 *
 Earth -33784-09-30 08:52 J -10617910.19 -10617910.13 -10617910.05 0.0088 0.0085
 Moon -33784-09-30 09:21 J -10617910.18 -10617910.11 -10617910.00 0.0088 0.0082 *
 Mercury -33777-08-13 11:02 J -10615401.04 -10615401.04 -10615401.01 0.0088 0.0088
 Mercury -33777-11-09 13:55 J -10615312.98 -10615312.92 -10615312.83 0.0088 0.0080
 Mercury -33776-02-05 16:47 J -10615224.89 -10615224.80 -10615224.68 0.0088 0.0071
 Mercury -33776-05-04 19:40 J -10615136.79 -10615136.68 -10615136.55 0.0088 0.0063
 Mercury -33776-07-31 22:19 J -10615048.69 -10615048.57 -10615048.42 0.0088 0.0055
 Mercury -33776-10-28 01:11 J -10614960.59 -10614960.45 -10614960.29 0.0088 0.0046
 Mercury -33775-01-24 04:04 J -10614872.48 -10614872.33 -10614872.17 0.0088 0.0038
 Mercury -33775-04-22 06:57 J -10614784.37 -10614784.21 -10614784.04 0.0088 0.0029
 Mercury -33775-07-19 09:35 J -10614696.26 -10614696.10 -10614695.93 0.0088 0.0021
 Mercury -33775-10-15 12:14 J -10614608.15 -10614607.99 -10614607.81 0.0088 0.0013
 Mercury -33774-01-11 15:07 J -10614520.04 -10614519.87 -10614519.69 0.0088 0.0005
 Mercury -33774-04-09 17:45 J -10614431.93 -10614431.76 -10614431.58 0.0088 0.0004
 Mercury -33774-07-06 20:23 J -10614343.82 -10614343.65 -10614343.47 0.0088 0.0012
 Mercury -33774-10-02 23:02 J -10614255.70 -10614255.54 -10614255.36 0.0088 0.0020
 Mercury -33774-12-30 01:40 J -10614167.58 -10614167.43 -10614167.26 0.0088 0.0028
 Mercury -33773-03-27 04:19 J -10614079.47 -10614079.32 -10614079.15 0.0088 0.0036
 Mercury -33773-06-23 06:57 J -10613991.35 -10613991.21 -10613991.05 0.0088 0.0044
 Mercury -33773-09-19 09:35 J -10613903.23 -10613903.10 -10613902.95 0.0088 0.0052
 Mercury -33773-12-16 12:14 J -10613815.10 -10613814.99 -10613814.86 0.0088 0.0060
 Mercury -33772-03-14 14:38 J -10613726.98 -10613726.89 -10613726.76 0.0088 0.0069
 Mercury -33772-06-10 17:16 J -10613638.85 -10613638.78 -10613638.68 0.0088 0.0076
 Mars -33772-07-02 17:31 J -10613617.05 -10613616.77 -10613616.47 0.0088 0.0043

Mercury	-33772-09-06 20:09 J	-10613550.71	-10613550.66	-10613550.60	0.0088	0.0084
Mars	-33770-05-29 09:21 J	-10612921.43	-10612921.11	-10612920.77	0.0088	0.0008
Mars	-33768-04-24 03:21 J	-10612225.60	-10612225.36	-10612225.11	0.0088	0.0059
Venus	-33749-12-09 22:04 J	-10605055.63	-10605055.58	-10605055.49	0.0089	0.0084
Venus	-33748-07-23 11:16 J	-10604830.12	-10604830.03	-10604829.89	0.0089	0.0076
Venus	-33747-03-06 00:28 J	-10604604.60	-10604604.48	-10604604.31	0.0089	0.0068
Venus	-33747-10-17 14:23 J	-10604379.06	-10604378.90	-10604378.73	0.0089	0.0059
Venus	-33746-05-31 03:21 J	-10604153.53	-10604153.36	-10604153.16	0.0089	0.0051
Venus	-33745-01-11 16:33 J	-10603927.99	-10603927.81	-10603927.60	0.0089	0.0043
Venus	-33745-08-24 05:45 J	-10603702.45	-10603702.26	-10603702.04	0.0089	0.0035
Venus	-33744-04-06 19:26 J	-10603476.90	-10603476.69	-10603476.48	0.0089	0.0026
Venus	-33744-11-18 08:38 J	-10603251.35	-10603251.14	-10603250.92	0.0089	0.0018
Venus	-33743-07-01 21:50 J	-10603025.81	-10603025.59	-10603025.37	0.0089	0.0010
Venus	-33742-02-12 11:02 J	-10602800.26	-10602800.04	-10602799.82	0.0089	0.0001
Venus	-33742-09-26 00:14 J	-10602574.71	-10602574.49	-10602574.27	0.0089	0.0007
Venus	-33741-05-08 13:26 J	-10602349.16	-10602348.94	-10602348.72	0.0089	0.0015
Venus	-33741-12-20 02:23 J	-10602123.61	-10602123.40	-10602123.18	0.0089	0.0023
Venus	-33740-08-02 15:07 J	-10601898.06	-10601897.87	-10601897.65	0.0089	0.0032
Venus	-33739-03-16 04:04 J	-10601672.51	-10601672.33	-10601672.12	0.0089	0.0040
Venus	-33739-10-27 17:16 J	-10601446.95	-10601446.78	-10601446.58	0.0089	0.0048
Venus	-33738-06-10 06:14 J	-10601221.40	-10601221.24	-10601221.06	0.0089	0.0056
Venus	-33737-01-21 19:11 J	-10600995.84	-10600995.70	-10600995.54	0.0089	0.0064
Venus	-33737-09-03 07:55 J	-10600770.28	-10600770.17	-10600770.02	0.0089	0.0072
Venus	-33736-04-16 20:52 J	-10600544.71	-10600544.63	-10600544.52	0.0089	0.0080
Venus	-33736-11-28 09:50 J	-10600319.10	-10600319.09	-10600319.04	0.0089	0.0088
Jupiter	-33718-04-30 04:33 J	-10593957.75	-10593957.31	-10593956.85	0.0089	0.0045
Earth	-33705-03-21 19:55 J	-10589247.85	-10589247.67	-10589247.48	0.0089	0.0061
Moon	-33705-03-21 21:07 J	-10589247.78	-10589247.62	-10589247.42	0.0089	0.0065 *
Earth	-33704-03-24 06:57 J	-10588880.45	-10588880.21	-10588879.95	0.0089	0.0020
Moon	-33704-03-24 07:11 J	-10588880.43	-10588880.20	-10588879.94	0.0089	0.0016 *

Moon -33703-03-26 16:47 J -10588513.05 -10588512.80 -10588512.53 0.0089 0.0019
 Earth -33703-03-26 17:59 J -10588512.98 -10588512.75 -10588512.49 0.0089 0.0023 *
 Earth -33702-03-29 05:02 J -10588145.45 -10588145.29 -10588145.10 0.0089 0.0065
 Moon -33702-03-29 06:57 J -10588145.34 -10588145.21 -10588145.03 0.0089 0.0070 *
 Mercury -33696-11-16 02:23 J -10585721.40 -10585721.40 -10585721.36 0.0089 0.0089
 Mercury -33695-02-12 04:19 J -10585633.37 -10585633.32 -10585633.26 0.0089 0.0081
 Mercury -33695-05-11 05:59 J -10585545.32 -10585545.25 -10585545.17 0.0089 0.0074
 Mercury -33695-08-07 07:40 J -10585457.27 -10585457.18 -10585457.09 0.0089 0.0068
 Mercury -33695-11-03 09:07 J -10585369.21 -10585369.12 -10585369.01 0.0089 0.0061
 Mercury -33694-01-30 10:47 J -10585281.15 -10585281.05 -10585280.93 0.0089 0.0054
 Mercury -33694-04-28 12:28 J -10585193.09 -10585192.98 -10585192.85 0.0089 0.0047
 Mercury -33694-07-25 14:09 J -10585105.03 -10585104.91 -10585104.77 0.0089 0.0041
 Mercury -33694-10-21 15:50 J -10585016.96 -10585016.84 -10585016.70 0.0089 0.0034
 Mercury -33693-01-17 17:45 J -10584928.90 -10584928.76 -10584928.63 0.0089 0.0026
 Mercury -33693-04-14 19:26 J -10584840.83 -10584840.69 -10584840.55 0.0089 0.0019
 Mercury -33693-07-11 21:07 J -10584752.76 -10584752.62 -10584752.48 0.0089 0.0012
 Mercury -33693-10-07 22:47 J -10584664.69 -10584664.55 -10584664.41 0.0089 0.0005
 Mercury -33692-01-04 00:28 J -10584576.62 -10584576.48 -10584576.33 0.0089 0.0002
 Mercury -33692-04-02 02:09 J -10584488.55 -10584488.41 -10584488.26 0.0089 0.0009
 Mercury -33692-06-29 03:50 J -10584400.48 -10584400.34 -10584400.19 0.0089 0.0016
 Mars -33692-06-30 09:21 J -10584399.22 -10584399.11 -10584398.97 0.0089 0.0081
 Mercury -33692-09-25 05:31 J -10584312.40 -10584312.27 -10584312.12 0.0089 0.0023
 Mercury -33692-12-22 07:26 J -10584224.33 -10584224.19 -10584224.05 0.0089 0.0030
 Mercury -33691-03-20 09:07 J -10584136.25 -10584136.12 -10584135.99 0.0089 0.0037
 Mercury -33691-06-16 10:47 J -10584048.17 -10584048.05 -10584047.92 0.0089 0.0044
 Mercury -33691-09-12 12:43 J -10583960.09 -10583959.97 -10583959.85 0.0089 0.0051
 Mercury -33691-12-09 14:09 J -10583872.01 -10583871.91 -10583871.79 0.0089 0.0059
 Mercury -33690-03-07 16:04 J -10583783.92 -10583783.83 -10583783.73 0.0089 0.0066
 Mars -33690-05-25 14:52 J -10583705.15 -10583704.88 -10583704.60 0.0089 0.0034
 Mercury -33690-06-03 17:45 J -10583695.83 -10583695.76 -10583695.67 0.0089 0.0073

Mercury -33690-08-30 19:40 J -10583607.73 -10583607.68 -10583607.61 0.0089 0.0080

Mercury -33690-11-26 21:35 J -10583519.62 -10583519.60 -10583519.58 0.0089 0.0088

Mars -33688-04-18 17:45 J -10583011.05 -10583010.76 -10583010.46 0.0089 0.0013

Mars -33686-03-13 19:11 J -10582316.90 -10582316.70 -10582316.46 0.0089 0.0059

Venus -33667-06-11 19:26 J -10575286.75 -10575286.69 -10575286.59 0.0089 0.0082

Venus -33666-01-23 08:23 J -10575061.26 -10575061.15 -10575061.02 0.0089 0.0074

Venus -33666-09-05 21:07 J -10574835.75 -10574835.62 -10574835.46 0.0089 0.0066

Venus -33665-04-18 10:19 J -10574610.24 -10574610.07 -10574609.91 0.0089 0.0058

Venus -33665-11-29 22:33 J -10574384.72 -10574384.56 -10574384.36 0.0089 0.0051

Venus -33664-07-13 11:16 J -10574159.20 -10574159.03 -10574158.82 0.0089 0.0043

Venus -33663-02-24 00:14 J -10573933.68 -10573933.49 -10573933.27 0.0089 0.0034

Venus -33663-10-07 12:57 J -10573708.15 -10573707.96 -10573707.73 0.0088 0.0027

Venus -33662-05-21 01:55 J -10573482.62 -10573482.42 -10573482.19 0.0088 0.0019

Venus -33661-01-01 14:52 J -10573257.09 -10573256.88 -10573256.66 0.0088 0.0010

Venus -33661-08-14 03:50 J -10573031.56 -10573031.34 -10573031.12 0.0088 0.0002

Venus -33660-03-27 16:33 J -10572806.02 -10572805.81 -10572805.58 0.0088 0.0007

Venus -33660-11-08 05:31 J -10572580.48 -10572580.27 -10572580.05 0.0088 0.0014

Venus -33659-06-21 18:14 J -10572354.94 -10572354.74 -10572354.52 0.0088 0.0022

Venus -33658-02-02 06:57 J -10572129.40 -10572129.21 -10572128.99 0.0088 0.0031

Venus -33658-09-15 19:55 J -10571903.86 -10571903.67 -10571903.46 0.0088 0.0039

Venus -33657-04-28 09:07 J -10571678.30 -10571678.12 -10571677.92 0.0088 0.0046

Venus -33657-12-09 22:04 J -10571452.74 -10571452.58 -10571452.39 0.0088 0.0054

Venus -33656-07-23 11:02 J -10571227.18 -10571227.04 -10571226.87 0.0088 0.0062

Venus -33655-03-05 23:59 J -10571001.61 -10571001.50 -10571001.35 0.0088 0.0070

Venus -33655-10-17 12:57 J -10570776.04 -10570775.96 -10570775.84 0.0088 0.0079

Venus -33654-05-31 02:09 J -10570550.43 -10570550.41 -10570550.34 0.0088 0.0086

Moon -33623-09-23 06:43 J -10559112.38 -10559112.22 -10559112.01 0.0088 0.0060

Earth -33623-09-23 07:55 J -10559112.35 -10559112.17 -10559111.95 0.0088 0.0057 *

Earth -33622-09-25 20:09 J -10558744.91 -10558744.66 -10558744.40 0.0088 0.0016

Moon -33622-09-25 20:09 J -10558744.91 -10558744.66 -10558744.38 0.0088 0.0013 *

Earth -33621-09-27 08:09 J -10558377.40 -10558377.16 -10558376.90 0.0088 0.0025
 Moon -33621-09-27 09:50 J -10558377.33 -10558377.09 -10558376.84 0.0088 0.0022 *
 Moon -33620-09-29 17:31 J -10558009.91 -10558009.77 -10558009.58 0.0088 0.0069
 Earth -33620-09-29 20:09 J -10558009.81 -10558009.66 -10558009.47 0.0088 0.0066 *
 Mercury -33612-05-10 10:33 J -10555230.10 -10555230.06 -10555229.98 0.0088 0.0082
 Mercury -33612-08-06 13:40 J -10555142.02 -10555141.93 -10555141.83 0.0088 0.0073
 Mercury -33612-11-02 16:19 J -10555053.92 -10555053.82 -10555053.69 0.0088 0.0065
 Mercury -33611-01-29 19:26 J -10554965.82 -10554965.69 -10554965.55 0.0088 0.0056
 Mercury -33611-04-27 22:04 J -10554877.72 -10554877.58 -10554877.43 0.0088 0.0048
 Mercury -33611-07-25 00:43 J -10554789.61 -10554789.47 -10554789.30 0.0088 0.0040
 Mercury -33611-10-21 03:50 J -10554701.50 -10554701.34 -10554701.18 0.0088 0.0031
 Mercury -33610-01-17 06:28 J -10554613.40 -10554613.23 -10554613.06 0.0088 0.0023
 Mercury -33610-04-15 09:07 J -10554525.29 -10554525.12 -10554524.94 0.0088 0.0015
 Mercury -33610-07-12 11:59 J -10554437.17 -10554437.00 -10554436.83 0.0088 0.0007
 Mercury -33610-10-08 14:38 J -10554349.06 -10554348.89 -10554348.71 0.0088 0.0003
 Mercury -33609-01-04 17:16 J -10554260.95 -10554260.78 -10554260.60 0.0088 0.0010
 Mercury -33609-04-01 19:55 J -10554172.83 -10554172.67 -10554172.49 0.0088 0.0018
 Mercury -33609-06-28 22:33 J -10554084.72 -10554084.56 -10554084.38 0.0088 0.0026
 Mercury -33609-09-25 01:11 J -10553996.60 -10553996.45 -10553996.28 0.0088 0.0034
 Mercury -33609-12-22 03:50 J -10553908.48 -10553908.34 -10553908.18 0.0088 0.0042
 Mars -33608-02-13 22:47 J -10553854.75 -10553854.55 -10553854.30 0.0088 0.0065
 Mercury -33608-03-20 06:28 J -10553820.36 -10553820.23 -10553820.08 0.0088 0.0050
 Mercury -33608-06-16 09:07 J -10553732.24 -10553732.12 -10553731.98 0.0088 0.0058
 Mercury -33608-09-12 11:45 J -10553644.11 -10553644.01 -10553643.89 0.0088 0.0066
 Mercury -33608-12-09 14:09 J -10553555.98 -10553555.91 -10553555.80 0.0088 0.0075
 Mercury -33607-03-07 16:47 J -10553467.84 -10553467.80 -10553467.72 0.0088 0.0082
 Mars -33606-01-10 12:43 J -10553159.29 -10553158.97 -10553158.63 0.0088 0.0014
 Mars -33605-12-06 05:02 J -10552463.58 -10552463.29 -10552462.98 0.0088 0.0037
 Mars -33603-11-01 23:02 J -10551767.54 -10551767.54 -10551767.49 0.0088 0.0088
 Venus -33584-03-13 09:50 J -10545061.12 -10545061.09 -10545061.01 0.0089 0.0086

Venus	-33584-10-24 23:16 J	-10544835.61	-10544835.53	-10544835.40	0.0089	0.0078
Venus	-33583-06-07 12:28 J	-10544610.09	-10544609.98	-10544609.82	0.0089	0.0070
Venus	-33582-01-19 01:40 J	-10544384.56	-10544384.43	-10544384.24	0.0089	0.0062
Venus	-33582-09-01 15:35 J	-10544159.03	-10544158.85	-10544158.67	0.0089	0.0053
Venus	-33581-04-14 04:47 J	-10543933.49	-10543933.30	-10543933.11	0.0089	0.0045
Venus	-33581-11-25 17:59 J	-10543707.94	-10543707.75	-10543707.54	0.0089	0.0037
Venus	-33580-07-09 07:11 J	-10543482.40	-10543482.20	-10543481.99	0.0089	0.0029
Venus	-33579-02-19 20:23 J	-10543256.86	-10543256.65	-10543256.43	0.0089	0.0021
Venus	-33579-10-03 09:35 J	-10543031.31	-10543031.10	-10543030.87	0.0089	0.0013
Venus	-33578-05-16 22:47 J	-10542805.76	-10542805.55	-10542805.32	0.0089	0.0005
Venus	-33578-12-28 11:59 J	-10542580.22	-10542580.00	-10542579.78	0.0089	0.0004
Venus	-33577-08-10 00:57 J	-10542354.67	-10542354.46	-10542354.23	0.0089	0.0012
Venus	-33576-03-23 14:09 J	-10542129.12	-10542128.91	-10542128.69	0.0089	0.0020
Venus	-33576-11-04 03:21 J	-10541903.56	-10541903.36	-10541903.14	0.0089	0.0028
Venus	-33575-06-17 16:19 J	-10541678.01	-10541677.82	-10541677.61	0.0089	0.0036
Venus	-33574-01-29 05:16 J	-10541452.46	-10541452.28	-10541452.08	0.0089	0.0044
Venus	-33574-09-11 18:28 J	-10541226.90	-10541226.73	-10541226.55	0.0089	0.0052
Venus	-33573-04-24 07:26 J	-10541001.34	-10541001.19	-10541001.02	0.0089	0.0060
Venus	-33573-12-05 20:23 J	-10540775.78	-10540775.65	-10540775.50	0.0089	0.0068
Venus	-33572-07-19 09:07 J	-10540550.22	-10540550.12	-10540549.99	0.0089	0.0076
Venus	-33571-03-01 21:50 J	-10540324.64	-10540324.59	-10540324.50	0.0089	0.0084
Jupiter	-33552-06-30 19:11 J	-10533263.89	-10533263.70	-10533263.39	0.0089	0.0079
Earth	-33541-03-21 07:11 J	-10529347.29	-10529347.20	-10529347.07	0.0089	0.0081
Moon	-33541-03-21 07:11 J	-10529347.27	-10529347.20	-10529347.09	0.0089	0.0083 *
Moon	-33540-03-23 16:33 J	-10528980.03	-10528979.81	-10528979.56	0.0089	0.0037
Earth	-33540-03-23 18:28 J	-10528979.95	-10528979.73	-10528979.49	0.0089	0.0039 *
Earth	-33539-03-26 05:45 J	-10528612.51	-10528612.26	-10528612.00	0.0089	0.0003
Moon	-33539-03-26 08:23 J	-10528612.40	-10528612.15	-10528611.90	0.0089	0.0001 *
Moon	-33538-03-28 13:40 J	-10528245.14	-10528244.93	-10528244.70	0.0089	0.0047
Earth	-33538-03-28 16:33 J	-10528245.01	-10528244.81	-10528244.57	0.0089	0.0046 *

Earth -33537-03-30 03:21 J -10527877.38 -10527877.36 -10527877.27 0.0089 0.0087
 Moon -33537-03-30 07:11 J -10527877.25 -10527877.20 -10527877.10 0.0089 0.0085
 Mercury -33531-08-13 02:23 J -10525550.43 -10525550.40 -10525550.34 0.0089 0.0084
 Mercury -33531-11-09 04:19 J -10525462.39 -10525462.32 -10525462.25 0.0089 0.0077
 Mercury -33530-02-05 05:31 J -10525374.34 -10525374.27 -10525374.17 0.0089 0.0071
 Mercury -33530-05-04 07:11 J -10525286.28 -10525286.20 -10525286.09 0.0089 0.0064
 Mercury -33530-07-31 09:07 J -10525198.23 -10525198.12 -10525198.01 0.0089 0.0056
 Mercury -33530-10-27 10:47 J -10525110.17 -10525110.05 -10525109.93 0.0089 0.0049
 Mercury -33529-01-23 12:28 J -10525022.10 -10525021.98 -10525021.85 0.0089 0.0042
 Mercury -33529-04-20 14:09 J -10524934.04 -10524933.91 -10524933.78 0.0089 0.0036
 Mercury -33529-07-17 15:50 J -10524845.98 -10524845.84 -10524845.70 0.0089 0.0029
 Mercury -33529-10-13 17:31 J -10524757.91 -10524757.77 -10524757.63 0.0089 0.0022
 Mercury -33528-01-09 19:11 J -10524669.84 -10524669.70 -10524669.56 0.0089 0.0015
 Mercury -33528-04-07 20:52 J -10524581.77 -10524581.63 -10524581.49 0.0089 0.0008
 Mercury -33528-07-04 22:33 J -10524493.70 -10524493.56 -10524493.41 0.0089 0.0001
 Mercury -33528-10-01 00:14 J -10524405.63 -10524405.49 -10524405.34 0.0089 0.0007
 Mercury -33528-12-28 01:55 J -10524317.56 -10524317.42 -10524317.27 0.0089 0.0014
 Mercury -33527-03-26 03:35 J -10524229.48 -10524229.35 -10524229.20 0.0089 0.0021
 Mercury -33527-06-22 05:16 J -10524141.41 -10524141.28 -10524141.13 0.0089 0.0028
 Mercury -33527-09-18 06:57 J -10524053.33 -10524053.21 -10524053.07 0.0089 0.0035
 Mercury -33527-12-15 08:52 J -10523965.25 -10523965.13 -10523965.00 0.0089 0.0042
 Mars -33526-01-07 21:07 J -10523941.83 -10523941.62 -10523941.36 0.0089 0.0055
 Mercury -33526-03-13 10:33 J -10523877.17 -10523877.06 -10523876.93 0.0089 0.0049
 Mercury -33526-06-09 12:28 J -10523789.09 -10523788.98 -10523788.87 0.0089 0.0056
 Mercury -33526-09-05 14:09 J -10523701.01 -10523700.91 -10523700.80 0.0089 0.0064
 Mercury -33526-12-02 15:35 J -10523612.92 -10523612.85 -10523612.74 0.0089 0.0072
 Mercury -33525-02-28 17:31 J -10523524.83 -10523524.77 -10523524.69 0.0089 0.0078
 Mercury -33525-05-26 19:26 J -10523436.72 -10523436.69 -10523436.64 0.0089 0.0085
 Mars -33525-12-02 02:52 J -10523247.67 -10523247.38 -10523247.08 0.0089 0.0008
 Mars -33523-10-27 05:31 J -10522553.52 -10522553.27 -10522552.99 0.0089 0.0039

Mars	-33521-09-20 06:14 J	-10521859.30	-10521859.24	-10521859.13	0.0089	0.0085
Venus	-33503-09-13 07:40 J	-10515292.23	-10515292.18	-10515292.09	0.0089	0.0084
Venus	-33502-04-26 20:38 J	-10515066.74	-10515066.64	-10515066.52	0.0089	0.0076
Venus	-33502-12-08 09:35 J	-10514841.24	-10514841.10	-10514840.96	0.0089	0.0068
Venus	-33501-07-20 21:50 J	-10514615.73	-10514615.59	-10514615.41	0.0089	0.0061
Venus	-33500-03-03 10:47 J	-10514390.21	-10514390.05	-10514389.86	0.0089	0.0053
Venus	-33500-10-14 23:31 J	-10514164.69	-10514164.52	-10514164.31	0.0089	0.0045
Venus	-33499-05-28 12:28 J	-10513939.17	-10513938.98	-10513938.77	0.0089	0.0037
Venus	-33498-01-09 01:26 J	-10513713.65	-10513713.44	-10513713.23	0.0088	0.0029
Venus	-33498-08-22 14:09 J	-10513488.12	-10513487.91	-10513487.69	0.0088	0.0021
Venus	-33497-04-04 02:52 J	-10513262.58	-10513262.38	-10513262.15	0.0088	0.0014
Venus	-33497-11-15 15:50 J	-10513037.05	-10513036.84	-10513036.61	0.0088	0.0006
Venus	-33496-06-29 04:47 J	-10512811.52	-10512811.30	-10512811.08	0.0088	0.0003
Venus	-33495-02-09 17:31 J	-10512585.98	-10512585.77	-10512585.55	0.0088	0.0011
Venus	-33495-09-23 06:28 J	-10512360.45	-10512360.23	-10512360.01	0.0088	0.0019
Venus	-33494-05-06 19:26 J	-10512134.90	-10512134.69	-10512134.48	0.0088	0.0027
Venus	-33494-12-18 08:09 J	-10511909.35	-10511909.16	-10511908.95	0.0088	0.0035
Venus	-33493-07-30 21:07 J	-10511683.81	-10511683.62	-10511683.42	0.0088	0.0043
Venus	-33492-03-13 09:50 J	-10511458.25	-10511458.09	-10511457.89	0.0088	0.0051
Venus	-33492-10-24 22:47 J	-10511232.70	-10511232.55	-10511232.37	0.0088	0.0059
Venus	-33491-06-07 11:45 J	-10511007.13	-10511007.01	-10511006.84	0.0088	0.0067
Venus	-33490-01-19 00:43 J	-10510781.57	-10510781.47	-10510781.33	0.0088	0.0074
Venus	-33490-09-01 14:09 J	-10510555.98	-10510555.91	-10510555.82	0.0088	0.0082
Moon	-33459-09-22 17:59 J	-10499211.85	-10499211.75	-10499211.63	0.0088	0.0079
Earth	-33459-09-22 18:28 J	-10499211.84	-10499211.73	-10499211.58	0.0088	0.0076 *
Earth	-33458-09-25 06:43 J	-10498844.44	-10498844.22	-10498843.96	0.0088	0.0036
Moon	-33458-09-25 08:09 J	-10498844.38	-10498844.16	-10498843.91	0.0088	0.0032 *
Moon	-33457-09-26 16:19 J	-10498477.08	-10498476.82	-10498476.55	0.0088	0.0003
Earth	-33457-09-26 19:26 J	-10498476.95	-10498476.69	-10498476.43	0.0088	0.0006 *
Earth	-33456-09-29 07:11 J	-10498109.41	-10498109.20	-10498108.97	0.0088	0.0047

Moon -33456-09-29 10:19 J -10498109.26 -10498109.07 -10498108.84 0.0088 0.0051 *
 Moon -33455-10-01 15:21 J -10497741.90 -10497741.86 -10497741.77 0.0088 0.0086
 Mercury -33448-11-08 07:26 J -10495147.23 -10495147.19 -10495147.13 0.0088 0.0084
 Mercury -33447-02-04 10:04 J -10495059.15 -10495059.08 -10495058.97 0.0088 0.0076
 Mercury -33447-05-03 13:11 J -10494971.06 -10494970.95 -10494970.83 0.0088 0.0067
 Mercury -33447-07-30 15:50 J -10494882.96 -10494882.84 -10494882.70 0.0088 0.0059
 Mercury -33447-10-26 18:57 J -10494794.85 -10494794.71 -10494794.56 0.0088 0.0051
 Mercury -33446-01-22 21:35 J -10494706.74 -10494706.60 -10494706.44 0.0088 0.0042
 Mercury -33446-04-21 00:14 J -10494618.64 -10494618.49 -10494618.31 0.0088 0.0035
 Mercury -33446-07-18 03:21 J -10494530.53 -10494530.36 -10494530.19 0.0088 0.0025
 Mercury -33446-10-14 05:59 J -10494442.42 -10494442.25 -10494442.07 0.0088 0.0017
 Mercury -33445-01-10 08:52 J -10494354.30 -10494354.13 -10494353.95 0.0088 0.0009
 Mercury -33445-04-07 11:31 J -10494266.19 -10494266.02 -10494265.84 0.0088 0.0003
 Mercury -33445-07-04 14:23 J -10494178.08 -10494177.90 -10494177.73 0.0088 0.0008
 Mars -33445-09-28 06:43 J -10494092.26 -10494092.22 -10494092.12 0.0088 0.0087
 Mercury -33445-09-30 16:47 J -10494089.96 -10494089.80 -10494089.62 0.0088 0.0017
 Mercury -33445-12-27 19:40 J -10494001.84 -10494001.68 -10494001.51 0.0088 0.0024
 Mercury -33444-03-25 22:19 J -10493913.73 -10493913.57 -10493913.40 0.0088 0.0032
 Mercury -33444-06-22 00:57 J -10493825.61 -10493825.46 -10493825.30 0.0088 0.0040
 Mercury -33444-09-18 03:35 J -10493737.49 -10493737.35 -10493737.20 0.0088 0.0048
 Mercury -33444-12-15 06:14 J -10493649.36 -10493649.24 -10493649.10 0.0088 0.0056
 Mercury -33443-03-13 08:38 J -10493561.24 -10493561.14 -10493561.01 0.0088 0.0065
 Mercury -33443-06-09 11:16 J -10493473.11 -10493473.03 -10493472.92 0.0088 0.0073
 Mars -33443-08-24 18:57 J -10493396.99 -10493396.71 -10493396.39 0.0088 0.0037
 Mercury -33443-09-05 13:55 J -10493384.97 -10493384.92 -10493384.83 0.0088 0.0080
 Mercury -33443-12-02 16:33 J -10493296.81 -10493296.81 -10493296.78 0.0088 0.0088
 Mars -33441-07-20 09:07 J -10492701.44 -10492701.12 -10492700.79 0.0088 0.0015
 Mars -33439-06-16 00:28 J -10492005.66 -10492005.48 -10492005.22 0.0088 0.0067
 Venus -33420-06-14 21:50 J -10485066.62 -10485066.59 -10485066.54 0.0089 0.0087
 Venus -33419-01-26 11:16 J -10484841.12 -10484841.03 -10484840.93 0.0089 0.0079

Venus	-33419-09-09 00:14 J	-10484615.60	-10484615.49	-10484615.34	0.0089	0.0072
Venus	-33418-04-22 13:26 J	-10484390.07	-10484389.94	-10484389.76	0.0089	0.0064
Venus	-33418-12-04 02:52 J	-10484164.53	-10484164.38	-10484164.19	0.0089	0.0056
Venus	-33417-07-16 16:04 J	-10483939.00	-10483938.83	-10483938.63	0.0089	0.0048
Venus	-33416-02-27 05:16 J	-10483713.46	-10483713.28	-10483713.06	0.0089	0.0040
Venus	-33416-10-10 18:43 J	-10483487.91	-10483487.72	-10483487.50	0.0089	0.0032
Venus	-33415-05-24 07:55 J	-10483262.37	-10483262.17	-10483261.94	0.0089	0.0024
Venus	-33414-01-04 21:07 J	-10483036.82	-10483036.62	-10483036.39	0.0089	0.0016
Venus	-33414-08-18 10:33 J	-10482811.28	-10482811.06	-10482810.84	0.0089	0.0008
Venus	-33413-03-30 23:45 J	-10482585.73	-10482585.51	-10482585.29	0.0089	0.0001
Venus	-33413-11-11 12:57 J	-10482360.17	-10482359.96	-10482359.74	0.0089	0.0009
Venus	-33412-06-25 01:55 J	-10482134.62	-10482134.42	-10482134.19	0.0089	0.0017
Venus	-33411-02-05 15:07 J	-10481909.07	-10481908.87	-10481908.65	0.0089	0.0025
Venus	-33411-09-19 04:04 J	-10481683.52	-10481683.33	-10481683.11	0.0089	0.0033
Venus	-33410-05-02 17:16 J	-10481457.96	-10481457.78	-10481457.57	0.0089	0.0041
Venus	-33410-12-14 06:43 J	-10481232.40	-10481232.22	-10481232.04	0.0089	0.0048
Venus	-33409-07-26 19:26 J	-10481006.85	-10481006.69	-10481006.51	0.0089	0.0056
Venus	-33408-03-09 08:23 J	-10480781.29	-10480781.15	-10480780.99	0.0089	0.0064
Venus	-33408-10-20 21:21 J	-10480555.72	-10480555.61	-10480555.47	0.0089	0.0072
Venus	-33407-06-03 10:04 J	-10480330.15	-10480330.08	-10480329.96	0.0089	0.0080
Venus	-33406-01-14 23:16 J	-10480104.56	-10480104.53	-10480104.48	0.0089	0.0087
Earth	-33376-03-23 05:45 J	-10469079.43	-10469079.26	-10469079.05	0.0089	0.0059
Moon	-33376-03-23 08:23 J	-10469079.30	-10469079.15	-10469078.95	0.0089	0.0063 *
Moon	-33375-03-25 13:40 J	-10468712.18	-10468711.93	-10468711.67	0.0089	0.0013
Earth	-33375-03-25 17:16 J	-10468712.03	-10468711.78	-10468711.53	0.0089	0.0017 *
Earth	-33374-03-28 04:04 J	-10468344.56	-10468344.33	-10468344.07	0.0089	0.0026
Moon	-33374-03-28 07:40 J	-10468344.42	-10468344.18	-10468343.93	0.0089	0.0021 *
Moon	-33373-03-29 11:59 J	-10467977.14	-10467977.00	-10467976.84	0.0089	0.0072
Earth	-33373-03-29 15:07 J	-10467977.02	-10467976.87	-10467976.68	0.0089	0.0067 *
Mercury	-33366-02-11 00:43 J	-10465467.50	-10465467.47	-10465467.42	0.0089	0.0086

Mercury -33366-05-10 02:23 J -10465379.46 -10465379.40 -10465379.33 0.0089 0.0079
 Mercury -33366-08-06 03:50 J -10465291.41 -10465291.34 -10465291.24 0.0089 0.0072
 Mercury -33366-11-02 05:31 J -10465203.35 -10465203.27 -10465203.16 0.0089 0.0066
 Mercury -33365-01-29 07:11 J -10465115.30 -10465115.20 -10465115.08 0.0089 0.0059
 Mercury -33365-04-26 08:52 J -10465027.24 -10465027.13 -10465027.01 0.0089 0.0052
 Mercury -33365-07-23 10:33 J -10464939.18 -10464939.06 -10464938.93 0.0089 0.0045
 Mercury -33365-10-19 12:14 J -10464851.11 -10464850.99 -10464850.86 0.0089 0.0038
 Mercury -33364-01-15 13:55 J -10464763.05 -10464762.92 -10464762.78 0.0089 0.0031
 Mercury -33364-04-13 15:35 J -10464674.98 -10464674.85 -10464674.71 0.0089 0.0024
 Mercury -33364-07-10 17:16 J -10464586.92 -10464586.78 -10464586.64 0.0089 0.0017
 Mercury -33364-10-06 18:57 J -10464498.85 -10464498.71 -10464498.56 0.0089 0.0010
 Mercury -33363-01-02 20:38 J -10464410.78 -10464410.64 -10464410.49 0.0089 0.0004
 Mercury -33363-03-31 22:19 J -10464322.71 -10464322.57 -10464322.42 0.0089 0.0005
 Mercury -33363-06-27 23:59 J -10464234.64 -10464234.50 -10464234.35 0.0089 0.0012
 Mars -33363-08-23 03:07 J -10464178.51 -10464178.37 -10464178.20 0.0089 0.0076
 Mercury -33363-09-24 01:40 J -10464146.57 -10464146.43 -10464146.28 0.0089 0.0019
 Mercury -33363-12-21 03:35 J -10464058.49 -10464058.35 -10464058.21 0.0089 0.0025
 Mercury -33362-03-19 05:16 J -10463970.41 -10463970.28 -10463970.15 0.0089 0.0032
 Mercury -33362-06-15 06:57 J -10463882.34 -10463882.21 -10463882.08 0.0089 0.0040
 Mercury -33362-09-11 08:23 J -10463794.26 -10463794.15 -10463794.01 0.0089 0.0048
 Mercury -33362-12-08 10:19 J -10463706.18 -10463706.07 -10463705.95 0.0089 0.0054
 Mercury -33361-03-05 11:59 J -10463618.09 -10463618.00 -10463617.88 0.0089 0.0061
 Mercury -33361-06-01 13:55 J -10463530.01 -10463529.92 -10463529.82 0.0089 0.0068
 Mars -33361-07-17 09:07 J -10463484.40 -10463484.12 -10463483.83 0.0089 0.0029
 Mercury -33361-08-28 15:50 J -10463441.92 -10463441.84 -10463441.77 0.0089 0.0076
 Mercury -33361-11-24 17:16 J -10463353.82 -10463353.78 -10463353.72 0.0089 0.0083
 Mars -33359-06-11 13:40 J -10462790.21 -10462789.93 -10462789.62 0.0089 0.0019
 Mars -33357-05-05 16:33 J -10462096.00 -10462095.81 -10462095.60 0.0089 0.0066
 Venus -33339-12-15 20:38 J -10455297.70 -10455297.64 -10455297.59 0.0089 0.0085
 Venus -33338-07-29 08:38 J -10455072.22 -10455072.14 -10455072.01 0.0089 0.0078

Venus	-33337-03-10 21:50 J	-10454846.72	-10454846.59	-10454846.45	0.0089	0.0070
Venus	-33337-10-22 10:04 J	-10454621.21	-10454621.08	-10454620.90	0.0089	0.0063
Venus	-33336-06-04 23:02 J	-10454395.70	-10454395.54	-10454395.36	0.0089	0.0055
Venus	-33335-01-16 11:59 J	-10454170.18	-10454170.00	-10454169.81	0.0089	0.0047
Venus	-33335-08-30 00:28 J	-10453944.66	-10453944.48	-10453944.27	0.0089	0.0040
Venus	-33334-04-12 13:26 J	-10453719.13	-10453718.94	-10453718.72	0.0088	0.0032
Venus	-33334-11-24 02:23 J	-10453493.60	-10453493.40	-10453493.18	0.0088	0.0024
Venus	-33333-07-06 15:21 J	-10453268.08	-10453267.86	-10453267.64	0.0088	0.0016
Venus	-33332-02-17 04:04 J	-10453042.55	-10453042.33	-10453042.11	0.0088	0.0008
Venus	-33332-09-30 17:02 J	-10452817.01	-10452816.79	-10452816.57	0.0088	0.0001
Venus	-33331-05-14 05:45 J	-10452591.47	-10452591.26	-10452591.04	0.0088	0.0008
Venus	-33331-12-25 18:43 J	-10452365.94	-10452365.72	-10452365.50	0.0088	0.0015
Venus	-33330-08-08 07:26 J	-10452140.40	-10452140.19	-10452139.97	0.0088	0.0023
Venus	-33329-03-20 20:09 J	-10451914.85	-10451914.66	-10451914.44	0.0088	0.0032
Venus	-33329-11-01 09:21 J	-10451689.31	-10451689.11	-10451688.91	0.0088	0.0039
Venus	-33328-06-14 22:04 J	-10451463.76	-10451463.58	-10451463.38	0.0088	0.0047
Venus	-33327-01-26 10:47 J	-10451238.21	-10451238.05	-10451237.86	0.0088	0.0055
Venus	-33327-09-08 23:31 J	-10451012.65	-10451012.52	-10451012.34	0.0088	0.0063
Venus	-33326-04-22 13:11 J	-10450787.08	-10450786.95	-10450786.81	0.0088	0.0070
Venus	-33326-12-04 01:55 J	-10450561.51	-10450561.42	-10450561.30	0.0088	0.0078
Venus	-33325-07-16 14:38 J	-10450335.92	-10450335.89	-10450335.81	0.0088	0.0086
Jupiter	-33309-08-05 03:21 J	-10444472.62	-10444472.36	-10444471.95	0.0088	0.0073
Moon	-33294-09-24 14:38 J	-10438944.07	-10438943.89	-10438943.66	0.0088	0.0057
Earth	-33294-09-24 17:45 J	-10438943.95	-10438943.76	-10438943.54	0.0088	0.0054 *
Earth	-33293-09-26 05:59 J	-10438576.50	-10438576.25	-10438575.98	0.0088	0.0013
Moon	-33293-09-26 09:35 J	-10438576.35	-10438576.10	-10438575.84	0.0088	0.0010 *
Moon	-33292-09-28 14:38 J	-10438209.13	-10438208.89	-10438208.63	0.0088	0.0026
Earth	-33292-09-28 18:14 J	-10438208.98	-10438208.74	-10438208.48	0.0088	0.0028 *
Earth	-33291-10-01 05:59 J	-10437841.40	-10437841.25	-10437841.08	0.0088	0.0070
Moon	-33291-10-01 09:07 J	-10437841.24	-10437841.12	-10437840.95	0.0088	0.0073 *

Mercury -33283-05-09 03:50 J -10435064.35 -10435064.34 -10435064.31 0.0088 0.0088

Mercury -33283-08-05 06:28 J -10434976.29 -10434976.23 -10434976.13 0.0088 0.0080

Mercury -33283-11-01 09:35 J -10434888.20 -10434888.10 -10434887.99 0.0088 0.0071

Mercury -33282-01-28 12:14 J -10434800.10 -10434799.99 -10434799.85 0.0088 0.0063

Mercury -33282-04-26 15:21 J -10434711.99 -10434711.86 -10434711.71 0.0088 0.0054

Mercury -33282-07-23 17:59 J -10434623.89 -10434623.75 -10434623.59 0.0088 0.0046

Mercury -33282-10-19 20:52 J -10434535.78 -10434535.63 -10434535.46 0.0088 0.0037

Mercury -33281-01-15 23:45 J -10434447.67 -10434447.51 -10434447.34 0.0088 0.0029

Mercury -33281-04-13 02:38 J -10434359.56 -10434359.39 -10434359.22 0.0088 0.0020

Mercury -33281-07-10 05:31 J -10434271.44 -10434271.27 -10434271.10 0.0088 0.0012

Mercury -33281-10-06 08:09 J -10434183.33 -10434183.16 -10434182.98 0.0088 0.0004

Mercury -33280-01-02 11:02 J -10434095.22 -10434095.04 -10434094.87 0.0088 0.0005

Mercury -33280-03-31 13:40 J -10434007.10 -10434006.93 -10434006.76 0.0088 0.0013

Mercury -33280-06-27 16:19 J -10433918.98 -10433918.82 -10433918.65 0.0088 0.0021

Mercury -33280-09-23 19:11 J -10433830.86 -10433830.70 -10433830.54 0.0088 0.0029

Mercury -33280-12-20 21:50 J -10433742.75 -10433742.59 -10433742.43 0.0088 0.0038

Mercury -33279-03-19 00:28 J -10433654.63 -10433654.48 -10433654.33 0.0088 0.0046

Mars -33279-04-08 00:43 J -10433634.71 -10433634.47 -10433634.22 0.0088 0.0059

Mercury -33279-06-15 02:52 J -10433566.50 -10433566.38 -10433566.23 0.0088 0.0054

Mercury -33279-09-11 05:31 J -10433478.38 -10433478.27 -10433478.13 0.0088 0.0062

Mercury -33279-12-08 08:09 J -10433390.25 -10433390.16 -10433390.04 0.0088 0.0070

Mercury -33278-03-06 11:02 J -10433302.11 -10433302.04 -10433301.96 0.0088 0.0078

Mercury -33278-06-02 13:40 J -10433213.96 -10433213.93 -10433213.89 0.0088 0.0086

Mars -33277-03-03 13:26 J -10432939.26 -10432938.94 -10432938.60 0.0088 0.0008

Mars -33275-01-28 03:21 J -10432243.62 -10432243.36 -10432243.05 0.0088 0.0044

Venus -33255-04-29 22:33 J -10424846.63 -10424846.56 -10424846.46 0.0089 0.0081

Venus -33255-12-11 11:31 J -10424621.12 -10424621.02 -10424620.87 0.0089 0.0074

Venus -33254-07-25 00:57 J -10424395.59 -10424395.46 -10424395.29 0.0089 0.0066

Venus -33253-03-06 14:23 J -10424170.05 -10424169.90 -10424169.72 0.0089 0.0058

Venus -33253-10-18 03:50 J -10423944.51 -10423944.34 -10423944.15 0.0089 0.0050

Venus	-33252-05-31 17:16 J	-10423718.97	-10423718.78	-10423718.58	0.0089	0.0042
Venus	-33251-01-12 06:28 J	-10423493.43	-10423493.23	-10423493.03	0.0089	0.0034
Venus	-33251-08-25 19:40 J	-10423267.89	-10423267.68	-10423267.47	0.0089	0.0026
Venus	-33250-04-08 08:38 J	-10423042.35	-10423042.14	-10423041.91	0.0089	0.0019
Venus	-33250-11-19 22:04 J	-10422816.80	-10422816.58	-10422816.36	0.0089	0.0011
Venus	-33249-07-02 11:16 J	-10422591.25	-10422591.03	-10422590.81	0.0089	0.0003
Venus	-33248-02-13 00:14 J	-10422365.70	-10422365.49	-10422365.26	0.0089	0.0006
Venus	-33248-09-26 13:26 J	-10422140.15	-10422139.94	-10422139.72	0.0089	0.0013
Venus	-33247-05-10 02:38 J	-10421914.60	-10421914.39	-10421914.17	0.0089	0.0021
Venus	-33247-12-21 15:35 J	-10421689.05	-10421688.85	-10421688.63	0.0089	0.0029
Venus	-33246-08-04 04:33 J	-10421463.50	-10421463.31	-10421463.10	0.0089	0.0037
Venus	-33245-03-16 17:31 J	-10421237.94	-10421237.77	-10421237.56	0.0089	0.0045
Venus	-33245-10-28 07:11 J	-10421012.38	-10421012.20	-10421012.02	0.0089	0.0052
Venus	-33244-06-10 19:55 J	-10420786.82	-10420786.67	-10420786.50	0.0089	0.0060
Venus	-33243-01-22 08:52 J	-10420561.26	-10420561.13	-10420560.97	0.0089	0.0068
Venus	-33243-09-04 21:35 J	-10420335.69	-10420335.60	-10420335.46	0.0089	0.0076
Venus	-33242-04-18 10:47 J	-10420110.11	-10420110.05	-10420109.96	0.0089	0.0083
Moon	-33212-03-22 13:11 J	-10409179.03	-10409178.95	-10409178.82	0.0089	0.0082
Earth	-33212-03-22 17:02 J	-10409178.89	-10409178.79	-10409178.66	0.0089	0.0079 *
Earth	-33211-03-25 03:50 J	-10408811.55	-10408811.34	-10408811.09	0.0089	0.0037
Moon	-33211-03-25 07:26 J	-10408811.41	-10408811.19	-10408810.94	0.0089	0.0034 *
Moon	-33210-03-27 12:14 J	-10408444.24	-10408443.99	-10408443.74	0.0089	0.0003
Earth	-33210-03-27 15:07 J	-10408444.12	-10408443.87	-10408443.61	0.0089	0.0006 *
Earth	-33209-03-29 01:40 J	-10408076.63	-10408076.43	-10408076.19	0.0089	0.0048
Moon	-33209-03-29 04:19 J	-10408076.52	-10408076.32	-10408076.08	0.0089	0.0049 *
Moon	-33208-03-31 12:28 J	-10407709.04	-10407708.98	-10407708.93	0.0089	0.0087
Earth	-33208-03-31 12:57 J	-10407708.96	-10407708.96	-10407708.93	0.0089	0.0089 *
Mercury	-33202-08-11 23:02 J	-10405384.56	-10405384.54	-10405384.51	0.0089	0.0088
Mercury	-33202-11-08 00:28 J	-10405296.52	-10405296.48	-10405296.41	0.0089	0.0081
Mercury	-33201-02-04 02:09 J	-10405208.48	-10405208.41	-10405208.32	0.0089	0.0074

Mercury -33201-05-02 03:50 J -10405120.42 -10405120.34 -10405120.24 0.0089 0.0067

Mercury -33201-07-29 05:31 J -10405032.37 -10405032.27 -10405032.16 0.0089 0.0061

Mercury -33201-10-25 06:57 J -10404944.31 -10404944.21 -10404944.09 0.0089 0.0054

Mercury -33200-01-21 08:38 J -10404856.25 -10404856.14 -10404856.01 0.0089 0.0047

Mercury -33200-04-19 10:19 J -10404768.19 -10404768.07 -10404767.93 0.0089 0.0040

Mercury -33200-07-16 11:59 J -10404680.13 -10404680.00 -10404679.86 0.0089 0.0033

Mercury -33200-10-12 13:40 J -10404592.06 -10404591.93 -10404591.79 0.0089 0.0026

Mercury -33199-01-08 15:21 J -10404504.00 -10404503.86 -10404503.72 0.0089 0.0019

Mercury -33199-04-06 17:02 J -10404415.93 -10404415.79 -10404415.64 0.0089 0.0013

Mercury -33199-07-03 18:43 J -10404327.86 -10404327.72 -10404327.57 0.0089 0.0006

Mercury -33199-09-29 20:23 J -10404239.79 -10404239.65 -10404239.50 0.0089 0.0003

Mercury -33199-12-26 22:04 J -10404151.72 -10404151.58 -10404151.43 0.0089 0.0009

Mercury -33198-03-24 23:45 J -10404063.65 -10404063.51 -10404063.36 0.0089 0.0016

Mercury -33198-06-21 01:26 J -10403975.57 -10403975.44 -10403975.29 0.0089 0.0023

Mercury -33198-09-17 03:07 J -10403887.50 -10403887.37 -10403887.23 0.0089 0.0030

Mercury -33198-12-14 04:47 J -10403799.42 -10403799.30 -10403799.16 0.0089 0.0037

Mars -33197-03-01 15:35 J -10403721.10 -10403720.85 -10403720.60 0.0089 0.0051

Mercury -33197-03-11 06:28 J -10403711.35 -10403711.23 -10403711.09 0.0089 0.0045

Mercury -33197-06-07 08:23 J -10403623.27 -10403623.15 -10403623.03 0.0089 0.0051

Mercury -33197-09-03 10:04 J -10403535.18 -10403535.08 -10403534.97 0.0089 0.0059

Mercury -33197-11-30 11:31 J -10403447.10 -10403447.02 -10403446.90 0.0089 0.0067

Mercury -33196-02-26 13:26 J -10403359.01 -10403358.94 -10403358.85 0.0089 0.0073

Mercury -33196-05-25 15:07 J -10403270.92 -10403270.87 -10403270.79 0.0089 0.0081

Mercury -33196-08-21 17:02 J -10403182.81 -10403182.79 -10403182.76 0.0089 0.0087

Mars -33195-01-24 20:52 J -10403026.93 -10403026.63 -10403026.33 0.0089 0.0003

Mars -33194-12-20 00:57 J -10402332.70 -10402332.46 -10402332.18 0.0089 0.0045

Venus -33174-03-19 08:09 J -10395303.18 -10395303.16 -10395303.10 0.0089 0.0087

Venus -33174-10-30 20:38 J -10395077.71 -10395077.64 -10395077.53 0.0089 0.0080

Venus -33173-06-12 09:35 J -10394852.22 -10394852.10 -10394851.97 0.0089 0.0072

Venus -33172-01-23 21:50 J -10394626.72 -10394626.59 -10394626.42 0.0089 0.0065

Venus	-33172-09-06 10:47 J	-10394401.21	-10394401.05	-10394400.88	0.0089	0.0057
Venus	-33171-04-19 23:31 J	-10394175.69	-10394175.52	-10394175.33	0.0089	0.0050
Venus	-33171-12-01 12:28 J	-10393950.17	-10393949.98	-10393949.78	0.0089	0.0042
Venus	-33170-07-15 00:57 J	-10393724.65	-10393724.46	-10393724.24	0.0089	0.0035
Venus	-33169-02-25 13:55 J	-10393499.12	-10393498.92	-10393498.70	0.0088	0.0027
Venus	-33169-10-08 02:52 J	-10393273.59	-10393273.38	-10393273.17	0.0088	0.0019
Venus	-33168-05-21 15:35 J	-10393048.06	-10393047.85	-10393047.63	0.0088	0.0011
Venus	-33167-01-02 04:33 J	-10392822.53	-10392822.31	-10392822.09	0.0088	0.0003
Venus	-33167-08-15 17:31 J	-10392596.99	-10392596.77	-10392596.55	0.0088	0.0005
Venus	-33166-03-29 06:14 J	-10392371.45	-10392371.24	-10392371.01	0.0088	0.0012
Venus	-33166-11-09 19:11 J	-10392145.91	-10392145.70	-10392145.48	0.0088	0.0020
Venus	-33165-06-22 07:55 J	-10391920.37	-10391920.17	-10391919.95	0.0088	0.0028
Venus	-33164-02-02 20:38 J	-10391694.83	-10391694.64	-10391694.42	0.0088	0.0036
Venus	-33164-09-16 09:50 J	-10391469.28	-10391469.09	-10391468.89	0.0088	0.0043
Venus	-33163-04-29 22:47 J	-10391243.72	-10391243.55	-10391243.36	0.0088	0.0051
Venus	-33163-12-11 11:31 J	-10391018.17	-10391018.02	-10391017.83	0.0088	0.0059
Venus	-33162-07-25 00:43 J	-10390792.61	-10390792.47	-10390792.32	0.0088	0.0066
Venus	-33161-03-06 13:26 J	-10390567.04	-10390566.94	-10390566.80	0.0088	0.0074
Venus	-33161-10-18 02:52 J	-10390341.47	-10390341.38	-10390341.29	0.0088	0.0081
Venus	-33160-05-31 15:50 J	-10390115.84	-10390115.84	-10390115.83	0.0088	0.0088
Jupiter	-33143-10-07 22:47 J	-10383778.05	-10383777.55	-10383776.99	0.0088	0.0034
Earth	-33130-09-24 03:21 J	-10379043.49	-10379043.36	-10379043.21	0.0088	0.0074
Moon	-33130-09-24 06:28 J	-10379043.32	-10379043.23	-10379043.09	0.0088	0.0079 *
Moon	-33129-09-25 12:14 J	-10378676.23	-10378675.99	-10378675.74	0.0088	0.0029
Earth	-33129-09-25 15:50 J	-10378676.07	-10378675.84	-10378675.58	0.0088	0.0033 *
Earth	-33128-09-28 04:19 J	-10378308.58	-10378308.32	-10378308.06	0.0088	0.0009
Moon	-33128-09-28 07:11 J	-10378308.46	-10378308.20	-10378307.93	0.0088	0.0005 *
Moon	-33127-09-30 14:09 J	-10377941.10	-10377940.91	-10377940.70	0.0088	0.0053
Earth	-33127-09-30 16:04 J	-10377941.02	-10377940.83	-10377940.59	0.0088	0.0050 *
Moon	-33126-10-03 06:14 J	-10377573.26	-10377573.24	-10377573.21	0.0088	0.0088

Mercury -33118-02-03 03:07 J -10374893.42 -10374893.37 -10374893.30 0.0088 0.0082

Mercury -33118-05-02 06:14 J -10374805.34 -10374805.24 -10374805.15 0.0088 0.0074

Mercury -33118-07-29 08:52 J -10374717.24 -10374717.13 -10374717.00 0.0088 0.0065

Mercury -33118-10-25 11:31 J -10374629.14 -10374629.02 -10374628.87 0.0088 0.0057

Mercury -33117-01-21 14:38 J -10374541.03 -10374540.89 -10374540.74 0.0088 0.0048

Mercury -33117-04-18 17:16 J -10374452.92 -10374452.78 -10374452.61 0.0088 0.0040

Mercury -33117-07-15 20:23 J -10374364.81 -10374364.65 -10374364.48 0.0088 0.0031

Mercury -33117-10-11 23:02 J -10374276.70 -10374276.54 -10374276.36 0.0088 0.0023

Mercury -33116-01-08 01:55 J -10374188.59 -10374188.42 -10374188.24 0.0088 0.0015

Mercury -33116-04-06 04:47 J -10374100.48 -10374100.30 -10374100.13 0.0088 0.0006

Mercury -33116-07-03 07:26 J -10374012.36 -10374012.19 -10374012.01 0.0088 0.0003

Mercury -33116-09-29 10:19 J -10373924.24 -10373924.07 -10373923.90 0.0088 0.0010

Mars -33116-11-20 07:55 J -10373872.28 -10373872.17 -10373872.04 0.0088 0.0082

Mercury -33116-12-26 12:57 J -10373836.13 -10373835.96 -10373835.79 0.0088 0.0019

Mercury -33115-03-24 15:35 J -10373748.01 -10373747.85 -10373747.68 0.0088 0.0027

Mercury -33115-06-20 18:14 J -10373659.89 -10373659.74 -10373659.57 0.0088 0.0035

Mercury -33115-09-16 20:52 J -10373571.77 -10373571.63 -10373571.47 0.0088 0.0044

Mercury -33115-12-13 23:45 J -10373483.64 -10373483.51 -10373483.36 0.0088 0.0051

Mercury -33114-03-12 02:23 J -10373395.52 -10373395.40 -10373395.27 0.0088 0.0059

Mercury -33114-06-08 05:02 J -10373307.39 -10373307.29 -10373307.17 0.0088 0.0067

Mercury -33114-09-04 07:40 J -10373219.26 -10373219.18 -10373219.08 0.0088 0.0075

Mars -33114-10-16 17:59 J -10373177.03 -10373176.75 -10373176.42 0.0088 0.0032

Mercury -33114-12-01 10:19 J -10373131.11 -10373131.07 -10373131.01 0.0088 0.0083

Mars -33112-09-11 07:40 J -10372481.49 -10372481.18 -10372480.85 0.0088 0.0021

Mars -33110-08-07 21:50 J -10371785.75 -10371785.59 -10371785.37 0.0088 0.0073

Venus -33091-08-01 09:21 J -10364852.17 -10364852.11 -10364852.02 0.0089 0.0083

Venus -33090-03-14 22:33 J -10364626.65 -10364626.56 -10364626.42 0.0089 0.0076

Venus -33090-10-26 12:14 J -10364401.11 -10364400.99 -10364400.83 0.0089 0.0068

Venus -33089-06-08 01:55 J -10364175.58 -10364175.42 -10364175.25 0.0089 0.0060

Venus -33088-01-19 15:21 J -10363950.04 -10363949.86 -10363949.68 0.0089 0.0052

Venus	-33088-09-02 04:19 J	-10363724.50	-10363724.32	-10363724.12	0.0089	0.0045
Venus	-33087-04-15 17:45 J	-10363498.95	-10363498.76	-10363498.55	0.0089	0.0037
Venus	-33087-11-27 06:57 J	-10363273.41	-10363273.21	-10363272.99	0.0089	0.0029
Venus	-33086-07-10 20:23 J	-10363047.87	-10363047.65	-10363047.44	0.0089	0.0021
Venus	-33085-02-21 09:21 J	-10362822.32	-10362822.11	-10362821.88	0.0089	0.0014
Venus	-33085-10-03 22:47 J	-10362596.77	-10362596.55	-10362596.33	0.0089	0.0006
Venus	-33084-05-17 11:59 J	-10362371.22	-10362371.00	-10362370.78	0.0089	0.0002
Venus	-33084-12-29 00:57 J	-10362145.68	-10362145.46	-10362145.24	0.0089	0.0010
Venus	-33083-08-11 13:55 J	-10361920.13	-10361919.92	-10361919.70	0.0089	0.0018
Venus	-33082-03-25 03:07 J	-10361694.58	-10361694.37	-10361694.15	0.0089	0.0025
Venus	-33082-11-05 16:19 J	-10361469.02	-10361468.82	-10361468.61	0.0089	0.0033
Venus	-33081-06-18 05:16 J	-10361243.46	-10361243.28	-10361243.07	0.0089	0.0041
Venus	-33080-01-29 17:59 J	-10361017.91	-10361017.75	-10361017.54	0.0089	0.0049
Venus	-33080-09-12 07:26 J	-10360792.35	-10360792.19	-10360792.01	0.0089	0.0056
Venus	-33079-04-25 20:09 J	-10360566.79	-10360566.66	-10360566.49	0.0089	0.0064
Venus	-33079-12-07 09:35 J	-10360341.22	-10360341.10	-10360340.96	0.0089	0.0071
Venus	-33078-07-20 22:19 J	-10360115.65	-10360115.57	-10360115.45	0.0089	0.0079
Venus	-33077-03-02 11:31 J	-10359890.06	-10359890.02	-10359889.96	0.0089	0.0086
Moon	-33047-03-24 11:59 J	-10348911.16	-10348911.00	-10348910.79	0.0089	0.0061
Earth	-33047-03-24 14:52 J	-10348911.05	-10348910.88	-10348910.66	0.0089	0.0058 *
Earth	-33046-03-27 01:55 J	-10348543.66	-10348543.42	-10348543.16	0.0089	0.0016
Moon	-33046-03-27 04:04 J	-10348543.59	-10348543.33	-10348543.07	0.0089	0.0012 *
Moon	-33045-03-28 11:45 J	-10348176.23	-10348176.01	-10348175.76	0.0089	0.0023
Earth	-33045-03-28 13:11 J	-10348176.19	-10348175.95	-10348175.71	0.0089	0.0027 *
Moon	-33044-03-30 23:02 J	-10347808.67	-10347808.54	-10347808.36	0.0089	0.0073
Earth	-33044-03-30 23:59 J	-10347808.65	-10347808.50	-10347808.33	0.0089	0.0069 *
Mercury	-33037-05-07 22:47 J	-10345213.59	-10345213.55	-10345213.50	0.0089	0.0084
Mercury	-33037-08-03 23:59 J	-10345125.55	-10345125.50	-10345125.41	0.0089	0.0078
Mercury	-33037-10-31 01:40 J	-10345037.50	-10345037.43	-10345037.33	0.0089	0.0071
Mercury	-33036-01-27 03:21 J	-10344949.45	-10344949.36	-10344949.25	0.0089	0.0064

Mercury -33036-04-25 05:16 J -10344861.39 -10344861.28 -10344861.17 0.0089 0.0056
 Mercury -33036-07-22 06:57 J -10344773.33 -10344773.21 -10344773.09 0.0089 0.0050
 Mercury -33036-10-18 08:23 J -10344685.27 -10344685.15 -10344685.02 0.0089 0.0043
 Mercury -33035-01-14 10:04 J -10344597.21 -10344597.08 -10344596.95 0.0089 0.0036
 Mercury -33035-04-12 11:45 J -10344509.14 -10344509.01 -10344508.87 0.0089 0.0029
 Mercury -33035-07-09 13:26 J -10344421.08 -10344420.94 -10344420.80 0.0089 0.0022
 Mercury -33035-10-05 15:07 J -10344333.01 -10344332.87 -10344332.73 0.0089 0.0015
 Mercury -33034-01-01 16:47 J -10344244.94 -10344244.80 -10344244.66 0.0089 0.0008
 Mercury -33034-03-30 18:28 J -10344156.87 -10344156.73 -10344156.59 0.0089 0.0001
 Mercury -33034-06-26 20:09 J -10344068.80 -10344068.66 -10344068.52 0.0089 0.0006
 Mercury -33034-09-22 21:50 J -10343980.73 -10343980.59 -10343980.45 0.0089 0.0013
 Mars -33034-10-15 17:02 J -10343957.94 -10343957.79 -10343957.59 0.0089 0.0073
 Mercury -33034-12-19 23:31 J -10343892.66 -10343892.52 -10343892.38 0.0089 0.0020
 Mercury -33033-03-17 01:11 J -10343804.59 -10343804.45 -10343804.31 0.0089 0.0027
 Mercury -33033-06-13 02:52 J -10343716.51 -10343716.38 -10343716.25 0.0089 0.0034
 Mercury -33033-09-09 04:33 J -10343628.44 -10343628.31 -10343628.18 0.0089 0.0041
 Mercury -33033-12-06 06:14 J -10343540.36 -10343540.24 -10343540.11 0.0089 0.0048
 Mercury -33032-03-04 08:09 J -10343452.28 -10343452.16 -10343452.05 0.0089 0.0056
 Mercury -33032-05-31 09:21 J -10343364.19 -10343364.11 -10343363.99 0.0089 0.0064
 Mercury -33032-08-27 11:16 J -10343276.11 -10343276.03 -10343275.93 0.0089 0.0070
 Mars -33032-09-09 01:26 J -10343263.72 -10343263.44 -10343263.14 0.0089 0.0025
 Mercury -33032-11-23 12:57 J -10343188.02 -10343187.96 -10343187.88 0.0089 0.0077
 Mercury -33031-02-19 14:52 J -10343099.92 -10343099.88 -10343099.83 0.0089 0.0084
 Mars -33030-08-04 06:28 J -10342569.52 -10342569.23 -10342568.94 0.0089 0.0023
 Mars -33028-06-28 09:35 J -10341875.25 -10341875.10 -10341874.89 0.0089 0.0071
 Venus -33010-06-20 20:23 J -10335308.65 -10335308.65 -10335308.65 0.0089 0.0089
 Venus -33009-02-01 08:23 J -10335083.21 -10335083.15 -10335083.05 0.0089 0.0082
 Venus -33009-09-13 21:21 J -10334857.72 -10334857.61 -10334857.49 0.0089 0.0074
 Venus -33008-04-27 09:50 J -10334632.22 -10334632.09 -10334631.93 0.0089 0.0067
 Venus -33008-12-08 22:19 J -10334406.71 -10334406.57 -10334406.39 0.0089 0.0060

Venus	-33007-07-22 11:16 J	-10334181.20	-10334181.03	-10334180.85	0.0089	0.0052
Venus	-33006-03-04 23:45 J	-10333955.68	-10333955.51	-10333955.31	0.0089	0.0045
Venus	-33006-10-16 12:43 J	-10333730.17	-10333729.97	-10333729.77	0.0089	0.0037
Venus	-33005-05-29 01:11 J	-10333504.64	-10333504.45	-10333504.23	0.0089	0.0030
Venus	-33004-01-09 14:09 J	-10333279.12	-10333278.91	-10333278.69	0.0089	0.0022
Venus	-33004-08-23 02:52 J	-10333053.59	-10333053.38	-10333053.16	0.0088	0.0014
Venus	-33003-04-05 15:50 J	-10332828.05	-10332827.84	-10332827.62	0.0088	0.0007
Venus	-33003-11-17 04:47 J	-10332602.52	-10332602.30	-10332602.08	0.0088	0.0001
Venus	-33002-06-30 17:31 J	-10332376.98	-10332376.77	-10332376.55	0.0088	0.0009
Venus	-33001-02-11 06:14 J	-10332151.45	-10332151.24	-10332151.02	0.0088	0.0016
Venus	-33001-09-23 19:11 J	-10331925.91	-10331925.70	-10331925.48	0.0088	0.0024

33RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 33rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-33000-05-07 08:09 J	-10331700.36	-10331700.16	-10331699.95	0.0088	0.0032		
Venus	-33000-12-18 20:52 J	-10331474.81	-10331474.63	-10331474.42	0.0088	0.0039		
Venus	-32999-08-01 09:50 J	-10331249.26	-10331249.09	-10331248.89	0.0088	0.0047		
Venus	-32998-03-14 22:33 J	-10331023.71	-10331023.56	-10331023.36	0.0088	0.0055		
Venus	-32998-10-26 11:45 J	-10330798.16	-10330798.01	-10330797.84	0.0088	0.0062		
Venus	-32997-06-08 00:28 J	-10330572.59	-10330572.48	-10330572.32	0.0088	0.0070		
Venus	-32996-01-19 13:40 J	-10330347.03	-10330346.93	-10330346.81	0.0088	0.0077		

Venus -32996-09-02 02:52 J -10330121.44 -10330121.38 -10330121.31 0.0088 0.0084
 Jupiter -32977-12-09 10:47 J -10323083.62 -10323083.05 -10323082.48 0.0088 0.0001
 Earth -32965-09-25 00:57 J -10318775.66 -10318775.46 -10318775.24 0.0088 0.0053
 Moon -32965-09-25 03:50 J -10318775.53 -10318775.34 -10318775.12 0.0088 0.0056 *
 Moon -32964-09-27 11:45 J -10318408.26 -10318408.01 -10318407.76 0.0088 0.0010
 Earth -32964-09-27 13:26 J -10318408.19 -10318407.94 -10318407.68 0.0088 0.0012 *
 Earth -32963-09-30 01:55 J -10318040.67 -10318040.42 -10318040.18 0.0088 0.0030
 Moon -32963-09-30 02:23 J -10318040.65 -10318040.40 -10318040.14 0.0088 0.0028 *
 Earth -32962-10-02 13:26 J -10317673.06 -10317672.94 -10317672.76 0.0088 0.0072
 Moon -32962-10-02 13:40 J -10317673.04 -10317672.93 -10317672.77 0.0088 0.0074 *
 Mercury -32954-08-03 23:02 J -10314810.56 -10314810.54 -10314810.49 0.0088 0.0086
 Mercury -32954-10-31 02:09 J -10314722.49 -10314722.41 -10314722.32 0.0088 0.0078
 Mercury -32953-01-27 04:47 J -10314634.39 -10314634.30 -10314634.17 0.0088 0.0069
 Mercury -32953-04-24 07:55 J -10314546.29 -10314546.17 -10314546.04 0.0088 0.0061
 Mercury -32953-07-21 10:33 J -10314458.19 -10314458.06 -10314457.90 0.0088 0.0053
 Mercury -32953-10-17 13:40 J -10314370.08 -10314369.93 -10314369.77 0.0088 0.0044
 Mercury -32952-01-13 16:19 J -10314281.97 -10314281.82 -10314281.65 0.0088 0.0036
 Mercury -32952-04-11 19:26 J -10314193.86 -10314193.69 -10314193.52 0.0088 0.0027
 Mercury -32952-07-08 22:04 J -10314105.75 -10314105.58 -10314105.40 0.0088 0.0019
 Mercury -32952-10-05 00:57 J -10314017.63 -10314017.46 -10314017.28 0.0088 0.0010
 Mercury -32951-01-01 03:50 J -10313929.52 -10313929.34 -10313929.16 0.0088 0.0002
 Mercury -32951-03-30 06:28 J -10313841.40 -10313841.23 -10313841.05 0.0088 0.0007
 Mercury -32951-06-26 09:21 J -10313753.28 -10313753.11 -10313752.94 0.0088 0.0015
 Mercury -32951-09-22 11:59 J -10313665.16 -10313665.00 -10313664.83 0.0088 0.0023
 Mercury -32951-12-19 14:52 J -10313577.04 -10313576.88 -10313576.72 0.0088 0.0032
 Mercury -32950-03-17 17:16 J -10313488.92 -10313488.78 -10313488.61 0.0088 0.0040
 Mars -32950-05-30 23:31 J -10313414.77 -10313414.52 -10313414.26 0.0088 0.0055
 Mercury -32950-06-13 19:55 J -10313400.80 -10313400.67 -10313400.51 0.0088 0.0049
 Mercury -32950-09-09 22:47 J -10313312.67 -10313312.55 -10313312.41 0.0088 0.0056
 Mercury -32950-12-07 01:26 J -10313224.55 -10313224.44 -10313224.31 0.0088 0.0064

Mercury -32949-03-04 04:04 J -10313136.41 -10313136.33 -10313136.22 0.0088 0.0072

Mercury -32949-05-31 06:43 J -10313048.28 -10313048.22 -10313048.14 0.0088 0.0080

Mercury -32949-08-27 09:35 J -10312960.10 -10312960.10 -10312960.09 0.0088 0.0088

Mars -32948-04-25 10:19 J -10312719.40 -10312719.07 -10312718.74 0.0088 0.0003

Mars -32946-03-21 23:59 J -10312023.76 -10312023.50 -10312023.21 0.0088 0.0049

Venus -32927-11-02 19:55 J -10304857.72 -10304857.67 -10304857.59 0.0089 0.0085

Venus -32926-06-16 09:07 J -10304632.20 -10304632.12 -10304631.99 0.0089 0.0078

Venus -32925-01-27 22:47 J -10304406.67 -10304406.55 -10304406.40 0.0089 0.0070

Venus -32925-09-09 11:59 J -10304181.14 -10304181.00 -10304180.82 0.0089 0.0063

Venus -32924-04-23 01:26 J -10303955.59 -10303955.44 -10303955.25 0.0089 0.0055

Venus -32924-12-04 15:07 J -10303730.05 -10303729.87 -10303729.68 0.0089 0.0047

Venus -32923-07-18 04:04 J -10303504.51 -10303504.33 -10303504.11 0.0089 0.0040

Venus -32922-02-28 17:31 J -10303278.96 -10303278.77 -10303278.55 0.0089 0.0032

Venus -32922-10-12 07:11 J -10303053.41 -10303053.20 -10303052.99 0.0089 0.0024

Venus -32921-05-24 20:09 J -10302827.87 -10302827.66 -10302827.43 0.0089 0.0017

Venus -32920-01-05 09:35 J -10302602.32 -10302602.10 -10302601.88 0.0089 0.0009

Venus -32920-08-18 22:47 J -10302376.77 -10302376.55 -10302376.33 0.0089 0.0002

Venus -32919-04-01 11:45 J -10302151.23 -10302151.01 -10302150.79 0.0089 0.0007

Venus -32919-11-13 01:11 J -10301925.67 -10301925.45 -10301925.24 0.0089 0.0014

Venus -32918-06-26 13:55 J -10301700.12 -10301699.92 -10301699.69 0.0089 0.0022

Venus -32917-02-07 02:52 J -10301474.57 -10301474.38 -10301474.16 0.0089 0.0030

Venus -32917-09-19 16:04 J -10301249.02 -10301248.83 -10301248.62 0.0089 0.0037

Venus -32916-05-03 05:02 J -10301023.46 -10301023.29 -10301023.08 0.0089 0.0045

Venus -32916-12-14 18:28 J -10300797.90 -10300797.73 -10300797.55 0.0089 0.0052

Venus -32915-07-28 07:11 J -10300572.34 -10300572.20 -10300572.02 0.0089 0.0060

Venus -32914-03-10 20:23 J -10300346.78 -10300346.65 -10300346.50 0.0089 0.0067

Venus -32914-10-22 09:07 J -10300121.21 -10300121.12 -10300120.97 0.0089 0.0075

Venus -32913-06-03 22:19 J -10299895.63 -10299895.57 -10299895.47 0.0089 0.0082

Earth -32883-03-24 00:43 J -10289010.56 -10289010.47 -10289010.32 0.0089 0.0079

Moon -32883-03-24 02:23 J -10289010.47 -10289010.40 -10289010.25 0.0089 0.0082 *

Moon -32882-03-26 11:45 J -10288643.22 -10288643.01 -10288642.77 0.0089 0.0034
 Earth -32882-03-26 11:59 J -10288643.22 -10288643.00 -10288642.75 0.0089 0.0036 *
 Moon -32881-03-27 22:47 J -10288275.82 -10288275.55 -10288275.29 0.0089 0.0003
 Earth -32881-03-27 23:16 J -10288275.78 -10288275.53 -10288275.28 0.0089 0.0006 *
 Earth -32880-03-30 09:35 J -10287908.29 -10287908.10 -10287907.86 0.0089 0.0049
 Moon -32880-03-30 11:31 J -10287908.20 -10287908.02 -10287907.79 0.0089 0.0052 *
 Moon -32879-04-01 17:31 J -10287540.81 -10287540.77 -10287540.68 0.0089 0.0087
 Mercury -32873-11-05 20:38 J -10285130.66 -10285130.64 -10285130.60 0.0089 0.0087
 Mercury -32872-02-01 22:04 J -10285042.62 -10285042.58 -10285042.50 0.0089 0.0080
 Mercury -32872-04-30 23:45 J -10284954.58 -10284954.51 -10284954.42 0.0089 0.0073
 Mercury -32872-07-28 01:26 J -10284866.52 -10284866.44 -10284866.34 0.0089 0.0066
 Mercury -32872-10-24 03:07 J -10284778.47 -10284778.37 -10284778.26 0.0089 0.0059
 Mercury -32871-01-20 04:47 J -10284690.41 -10284690.30 -10284690.18 0.0089 0.0053
 Mercury -32871-04-18 06:28 J -10284602.35 -10284602.23 -10284602.11 0.0089 0.0046
 Mercury -32871-07-15 07:55 J -10284514.29 -10284514.17 -10284514.03 0.0089 0.0039
 Mercury -32871-10-11 09:35 J -10284426.22 -10284426.10 -10284425.96 0.0089 0.0032
 Mercury -32870-01-07 11:16 J -10284338.16 -10284338.03 -10284337.89 0.0089 0.0025
 Mercury -32870-04-05 12:57 J -10284250.09 -10284249.96 -10284249.82 0.0089 0.0018
 Mercury -32870-07-02 14:38 J -10284162.03 -10284161.89 -10284161.74 0.0089 0.0011
 Mercury -32870-09-28 16:19 J -10284073.96 -10284073.82 -10284073.67 0.0089 0.0004
 Mercury -32870-12-25 17:59 J -10283985.89 -10283985.75 -10283985.60 0.0089 0.0004
 Mercury -32869-03-22 19:40 J -10283897.82 -10283897.68 -10283897.53 0.0089 0.0010
 Mercury -32869-06-18 21:21 J -10283809.75 -10283809.61 -10283809.47 0.0089 0.0017
 Mercury -32869-09-14 23:02 J -10283721.68 -10283721.54 -10283721.40 0.0089 0.0024
 Mercury -32869-12-12 00:43 J -10283633.60 -10283633.47 -10283633.33 0.0089 0.0031
 Mercury -32868-03-10 02:23 J -10283545.53 -10283545.40 -10283545.27 0.0089 0.0038
 Mars -32868-04-24 03:07 J -10283500.61 -10283500.37 -10283500.10 0.0089 0.0047
 Mercury -32868-06-06 04:04 J -10283457.45 -10283457.33 -10283457.20 0.0089 0.0045
 Mercury -32868-09-02 05:59 J -10283369.37 -10283369.25 -10283369.14 0.0089 0.0053
 Mercury -32868-11-29 07:26 J -10283281.29 -10283281.19 -10283281.07 0.0089 0.0060

Mercury -32867-02-25 09:07 J -10283193.20 -10283193.12 -10283193.01 0.0089 0.0067

Mercury -32867-05-24 10:47 J -10283105.12 -10283105.05 -10283104.96 0.0089 0.0074

Mercury -32867-08-20 12:43 J -10283017.02 -10283016.97 -10283016.91 0.0089 0.0081

Mercury -32867-11-16 14:23 J -10282928.91 -10282928.90 -10282928.88 0.0089 0.0088

Mars -32866-03-19 11:16 J -10282806.33 -10282806.03 -10282805.73 0.0089 0.0001

Mars -32864-02-10 16:19 J -10282112.06 -10282111.82 -10282111.56 0.0089 0.0049

Venus -32845-05-04 19:26 J -10275088.73 -10275088.69 -10275088.59 0.0089 0.0084

Venus -32845-12-16 08:38 J -10274863.25 -10274863.14 -10274863.03 0.0089 0.0076

Venus -32844-07-29 21:07 J -10274637.75 -10274637.62 -10274637.48 0.0089 0.0069

Venus -32843-03-12 09:35 J -10274412.24 -10274412.10 -10274411.93 0.0089 0.0062

Venus -32843-10-23 22:04 J -10274186.73 -10274186.58 -10274186.38 0.0089 0.0055

Venus -32842-06-06 11:02 J -10273961.22 -10273961.04 -10273960.85 0.0089 0.0047

Venus -32841-01-17 23:31 J -10273735.70 -10273735.52 -10273735.31 0.0089 0.0040

Venus -32841-08-30 12:14 J -10273510.18 -10273509.99 -10273509.77 0.0089 0.0033

Venus -32840-04-13 01:11 J -10273284.65 -10273284.45 -10273284.23 0.0089 0.0025

Venus -32840-11-24 13:55 J -10273059.12 -10273058.92 -10273058.69 0.0088 0.0018

Venus -32839-07-08 02:52 J -10272833.60 -10272833.38 -10272833.16 0.0088 0.0010

Venus -32838-02-18 15:35 J -10272608.07 -10272607.85 -10272607.63 0.0088 0.0002

Venus -32838-10-02 04:19 J -10272382.53 -10272382.32 -10272382.09 0.0088 0.0006

Venus -32837-05-14 17:16 J -10272156.99 -10272156.78 -10272156.56 0.0088 0.0013

Venus -32837-12-26 05:59 J -10271931.45 -10271931.25 -10271931.02 0.0088 0.0021

Venus -32836-08-08 18:57 J -10271705.91 -10271705.71 -10271705.49 0.0088 0.0028

Venus -32835-03-22 07:40 J -10271480.36 -10271480.18 -10271479.96 0.0088 0.0036

Venus -32835-11-02 20:52 J -10271254.81 -10271254.63 -10271254.43 0.0088 0.0043

Venus -32834-06-16 10:04 J -10271029.26 -10271029.08 -10271028.90 0.0088 0.0050

Venus -32833-01-27 22:33 J -10270803.71 -10270803.56 -10270803.38 0.0088 0.0058

Venus -32833-09-09 11:45 J -10270578.15 -10270578.01 -10270577.86 0.0088 0.0065

Venus -32832-04-23 00:28 J -10270352.58 -10270352.48 -10270352.33 0.0088 0.0072

Venus -32832-12-04 13:26 J -10270127.01 -10270126.94 -10270126.82 0.0088 0.0080

Venus -32831-07-18 02:38 J -10269901.42 -10269901.39 -10269901.34 0.0088 0.0087

Jupiter -32810-02-14 02:52 J -10262385.88 -10262385.38 -10262384.83 0.0088 0.0034
 Moon -32801-09-24 07:55 J -10258875.27 -10258875.17 -10258875.04 0.0088 0.0079
 Earth -32801-09-24 09:50 J -10258875.22 -10258875.09 -10258874.95 0.0088 0.0074 *
 Earth -32800-09-26 21:50 J -10258507.82 -10258507.59 -10258507.33 0.0088 0.0033
 Moon -32800-09-26 22:04 J -10258507.82 -10258507.58 -10258507.30 0.0088 0.0029 *
 Earth -32799-09-29 10:19 J -10258140.32 -10258140.07 -10258139.80 0.0088 0.0009
 Moon -32799-09-29 11:31 J -10258140.26 -10258140.02 -10258139.76 0.0088 0.0005 *
 Moon -32798-10-01 20:23 J -10257772.84 -10257772.65 -10257772.41 0.0088 0.0054
 Earth -32798-10-01 22:33 J -10257772.76 -10257772.56 -10257772.33 0.0088 0.0050 *
 Moon -32797-10-03 13:26 J -10257404.94 -10257404.94 -10257404.89 0.0088 0.0088
 Mercury -32789-04-29 21:50 J -10254639.64 -10254639.59 -10254639.51 0.0088 0.0082
 Mercury -32789-07-27 00:43 J -10254551.55 -10254551.47 -10254551.35 0.0088 0.0074
 Mercury -32789-10-23 04:04 J -10254463.45 -10254463.33 -10254463.21 0.0088 0.0065
 Mercury -32788-01-19 06:43 J -10254375.35 -10254375.22 -10254375.08 0.0088 0.0056
 Mercury -32788-04-17 09:50 J -10254287.24 -10254287.09 -10254286.94 0.0088 0.0048
 Mercury -32788-07-14 12:28 J -10254199.13 -10254198.98 -10254198.82 0.0088 0.0039
 Mercury -32788-10-10 15:07 J -10254111.02 -10254110.87 -10254110.69 0.0088 0.0031
 Mercury -32787-01-06 18:14 J -10254022.91 -10254022.74 -10254022.57 0.0088 0.0022
 Mercury -32787-04-04 20:52 J -10253934.80 -10253934.63 -10253934.45 0.0088 0.0015
 Mercury -32787-07-01 23:45 J -10253846.68 -10253846.51 -10253846.33 0.0088 0.0006
 Mercury -32787-09-28 02:38 J -10253758.56 -10253758.39 -10253758.21 0.0088 0.0003
 Mercury -32787-12-25 05:16 J -10253670.45 -10253670.28 -10253670.10 0.0088 0.0012
 Mars -32786-01-12 03:21 J -10253652.49 -10253652.36 -10253652.19 0.0088 0.0079
 Mercury -32786-03-23 08:09 J -10253582.33 -10253582.16 -10253581.99 0.0088 0.0019
 Mercury -32786-06-19 10:47 J -10253494.21 -10253494.05 -10253493.88 0.0088 0.0028
 Mercury -32786-09-15 13:26 J -10253406.09 -10253405.94 -10253405.77 0.0088 0.0036
 Mercury -32786-12-12 16:19 J -10253317.96 -10253317.82 -10253317.66 0.0088 0.0044
 Mercury -32785-03-09 18:57 J -10253229.84 -10253229.71 -10253229.56 0.0088 0.0052
 Mercury -32785-06-05 21:35 J -10253141.71 -10253141.60 -10253141.46 0.0088 0.0061
 Mercury -32785-09-02 00:28 J -10253053.58 -10253053.48 -10253053.37 0.0088 0.0069

Mercury -32785-11-29 03:07 J -10252965.45 -10252965.37 -10252965.28 0.0088 0.0077

Mars -32785-12-07 13:26 J -10252957.24 -10252956.94 -10252956.62 0.0088 0.0028

Mercury -32784-02-25 05:45 J -10252877.30 -10252877.26 -10252877.21 0.0088 0.0085

Mars -32783-11-03 00:43 J -10252261.77 -10252261.47 -10252261.14 0.0088 0.0025

Mars -32781-09-28 13:55 J -10251566.04 -10251565.92 -10251565.72 0.0088 0.0078

Venus -32762-02-04 05:59 J -10244863.27 -10244863.25 -10244863.19 0.0089 0.0087

Venus -32762-09-17 19:26 J -10244637.77 -10244637.69 -10244637.57 0.0089 0.0080

Venus -32761-04-30 09:07 J -10244412.24 -10244412.12 -10244411.98 0.0089 0.0072

Venus -32761-12-11 22:19 J -10244186.70 -10244186.57 -10244186.40 0.0089 0.0065

Venus -32760-07-25 11:59 J -10243961.17 -10243961.00 -10243960.83 0.0089 0.0057

Venus -32759-03-08 01:11 J -10243735.62 -10243735.45 -10243735.26 0.0089 0.0050

Venus -32759-10-19 14:52 J -10243510.07 -10243509.88 -10243509.68 0.0089 0.0042

Venus -32758-06-02 04:04 J -10243284.52 -10243284.33 -10243284.12 0.0089 0.0035

Venus -32757-01-13 17:31 J -10243058.98 -10243058.77 -10243058.56 0.0089 0.0027

Venus -32757-08-26 06:43 J -10242833.43 -10242833.22 -10242833.00 0.0089 0.0020

Venus -32756-04-08 20:09 J -10242607.88 -10242607.66 -10242607.44 0.0089 0.0012

Venus -32756-11-20 09:21 J -10242382.33 -10242382.11 -10242381.89 0.0089 0.0005

Venus -32755-07-03 22:33 J -10242156.78 -10242156.56 -10242156.34 0.0089 0.0003

Venus -32754-02-14 11:31 J -10241931.23 -10241931.02 -10241930.79 0.0089 0.0011

Venus -32754-09-28 00:43 J -10241705.68 -10241705.47 -10241705.25 0.0089 0.0018

Venus -32753-05-10 13:40 J -10241480.13 -10241479.93 -10241479.71 0.0089 0.0026

Venus -32753-12-22 02:52 J -10241254.58 -10241254.38 -10241254.17 0.0089 0.0033

Venus -32752-08-04 15:35 J -10241029.03 -10241028.85 -10241028.63 0.0089 0.0041

Venus -32751-03-18 04:47 J -10240803.47 -10240803.30 -10240803.10 0.0089 0.0048

Venus -32751-10-29 18:14 J -10240577.91 -10240577.74 -10240577.57 0.0089 0.0055

Venus -32750-06-12 06:43 J -10240352.35 -10240352.22 -10240352.04 0.0089 0.0063

Venus -32749-01-23 19:55 J -10240126.79 -10240126.67 -10240126.52 0.0089 0.0070

Venus -32749-09-05 09:07 J -10239901.22 -10239901.12 -10239901.01 0.0089 0.0077

Venus -32748-04-18 21:35 J -10239675.64 -10239675.60 -10239675.51 0.0089 0.0085

Moon -32718-03-25 20:09 J -10228742.83 -10228742.66 -10228742.44 0.0089 0.0061

Earth -32718-03-25 22:04 J -10228742.77 -10228742.58 -10228742.38 0.0089 0.0058 *
 Earth -32717-03-27 08:52 J -10228375.37 -10228375.13 -10228374.87 0.0089 0.0016
 Moon -32717-03-27 11:02 J -10228375.28 -10228375.04 -10228374.79 0.0089 0.0013 *
 Moon -32716-03-29 16:33 J -10228008.05 -10228007.81 -10228007.55 0.0089 0.0023
 Earth -32716-03-29 19:55 J -10228007.91 -10228007.67 -10228007.42 0.0089 0.0027 *
 Earth -32715-04-01 06:28 J -10227640.38 -10227640.23 -10227640.06 0.0089 0.0069
 Moon -32715-04-01 09:35 J -10227640.22 -10227640.10 -10227639.92 0.0089 0.0073 *
 Mercury -32708-08-02 20:09 J -10224959.70 -10224959.66 -10224959.61 0.0089 0.0083
 Mercury -32708-10-29 21:50 J -10224871.66 -10224871.59 -10224871.52 0.0089 0.0076
 Mercury -32707-01-25 23:31 J -10224783.61 -10224783.52 -10224783.44 0.0089 0.0070
 Mercury -32707-04-24 00:43 J -10224695.55 -10224695.47 -10224695.36 0.0089 0.0063
 Mercury -32707-07-21 02:23 J -10224607.50 -10224607.40 -10224607.28 0.0089 0.0056
 Mercury -32707-10-17 04:04 J -10224519.44 -10224519.33 -10224519.20 0.0089 0.0049
 Mercury -32706-01-13 05:45 J -10224431.38 -10224431.26 -10224431.13 0.0089 0.0042
 Mercury -32706-04-11 07:26 J -10224343.31 -10224343.19 -10224343.05 0.0089 0.0036
 Mercury -32706-07-08 09:07 J -10224255.25 -10224255.12 -10224254.98 0.0089 0.0029
 Mercury -32706-10-04 10:47 J -10224167.19 -10224167.05 -10224166.91 0.0089 0.0022
 Mercury -32706-12-31 12:28 J -10224079.12 -10224078.98 -10224078.84 0.0089 0.0015
 Mercury -32705-03-28 14:09 J -10223991.05 -10223990.91 -10223990.77 0.0089 0.0008
 Mercury -32705-06-24 15:50 J -10223902.99 -10223902.84 -10223902.70 0.0089 0.0001
 Mercury -32705-09-20 17:31 J -10223814.92 -10223814.77 -10223814.63 0.0089 0.0007
 Mars -32705-12-07 03:21 J -10223737.51 -10223737.36 -10223737.15 0.0089 0.0071
 Mercury -32705-12-17 19:11 J -10223726.85 -10223726.70 -10223726.56 0.0089 0.0014
 Mercury -32704-03-15 20:52 J -10223638.77 -10223638.63 -10223638.49 0.0089 0.0021
 Mercury -32704-06-11 22:19 J -10223550.70 -10223550.57 -10223550.43 0.0089 0.0028
 Mercury -32704-09-07 23:59 J -10223462.63 -10223462.50 -10223462.36 0.0089 0.0035
 Mercury -32704-12-05 01:40 J -10223374.55 -10223374.43 -10223374.30 0.0089 0.0042
 Mercury -32703-03-03 03:21 J -10223286.47 -10223286.36 -10223286.23 0.0089 0.0049
 Mercury -32703-05-30 05:02 J -10223198.39 -10223198.29 -10223198.17 0.0089 0.0056
 Mercury -32703-08-26 06:43 J -10223110.31 -10223110.22 -10223110.11 0.0089 0.0063

Mars -32703-11-01 11:16 J -10223043.30 -10223043.03 -10223042.72 0.0089 0.0022
 Mercury -32703-11-22 08:38 J -10223022.22 -10223022.14 -10223022.05 0.0089 0.0070
 Mercury -32702-02-18 10:19 J -10222934.13 -10222934.07 -10222934.00 0.0089 0.0078
 Mercury -32702-05-17 11:45 J -10222846.03 -10222846.01 -10222845.95 0.0089 0.0085
 Mars -32701-09-25 18:14 J -10222349.01 -10222348.74 -10222348.44 0.0089 0.0027
 Mars -32699-08-20 23:16 J -10221654.66 -10221654.53 -10221654.34 0.0089 0.0075
 Venus -32681-08-06 06:14 J -10215094.27 -10215094.24 -10215094.16 0.0089 0.0086
 Venus -32680-03-19 19:40 J -10214868.78 -10214868.68 -10214868.58 0.0089 0.0078
 Venus -32680-10-31 08:09 J -10214643.29 -10214643.16 -10214643.03 0.0089 0.0071
 Venus -32679-06-13 20:38 J -10214417.78 -10214417.64 -10214417.49 0.0089 0.0064
 Venus -32678-01-25 09:07 J -10214192.28 -10214192.12 -10214191.95 0.0089 0.0057
 Venus -32678-09-07 21:35 J -10213966.77 -10213966.60 -10213966.41 0.0089 0.0050
 Venus -32677-04-20 10:19 J -10213741.25 -10213741.07 -10213740.86 0.0089 0.0043
 Venus -32677-12-01 23:02 J -10213515.73 -10213515.54 -10213515.33 0.0089 0.0035
 Venus -32676-07-15 11:59 J -10213290.21 -10213290.00 -10213289.79 0.0089 0.0028
 Venus -32675-02-26 00:28 J -10213064.69 -10213064.48 -10213064.26 0.0089 0.0021
 Venus -32675-10-09 13:11 J -10212839.16 -10212838.95 -10212838.73 0.0088 0.0013
 Venus -32674-05-23 02:09 J -10212613.63 -10212613.41 -10212613.19 0.0088 0.0006
 Venus -32673-01-03 14:52 J -10212388.10 -10212387.88 -10212387.66 0.0088 0.0002
 Venus -32673-08-16 03:35 J -10212162.57 -10212162.35 -10212162.13 0.0088 0.0009
 Venus -32672-03-29 16:19 J -10211937.03 -10211936.82 -10211936.59 0.0088 0.0017
 Venus -32672-11-10 05:16 J -10211711.49 -10211711.28 -10211711.06 0.0088 0.0024
 Venus -32671-06-23 17:59 J -10211485.95 -10211485.75 -10211485.53 0.0088 0.0031
 Venus -32670-02-04 06:43 J -10211260.40 -10211260.22 -10211260.01 0.0088 0.0039
 Venus -32670-09-17 19:55 J -10211034.85 -10211034.67 -10211034.48 0.0088 0.0046
 Venus -32669-04-30 08:38 J -10210809.29 -10210809.14 -10210808.94 0.0088 0.0054
 Venus -32669-12-11 21:35 J -10210583.74 -10210583.60 -10210583.42 0.0088 0.0061
 Venus -32668-07-25 10:47 J -10210358.18 -10210358.05 -10210357.90 0.0088 0.0068
 Venus -32667-03-07 23:45 J -10210132.62 -10210132.51 -10210132.38 0.0088 0.0075
 Venus -32667-10-19 12:57 J -10209907.04 -10209906.96 -10209906.88 0.0088 0.0082

Jupiter -32644-04-22 13:40 J -10201686.28 -10201685.93 -10201685.56 0.0088 0.0069
 Earth -32636-09-26 05:02 J -10198607.47 -10198607.29 -10198607.06 0.0088 0.0055
 Moon -32636-09-26 06:43 J -10198607.41 -10198607.22 -10198607.02 0.0088 0.0057 *
 Moon -32635-09-28 15:07 J -10198240.13 -10198239.87 -10198239.60 0.0088 0.0012
 Earth -32635-09-28 17:59 J -10198240.01 -10198239.75 -10198239.49 0.0088 0.0013 *
 Earth -32634-10-01 05:59 J -10197872.49 -10197872.25 -10197872.00 0.0088 0.0028
 Moon -32634-10-01 08:52 J -10197872.36 -10197872.13 -10197871.88 0.0088 0.0027 *
 Moon -32633-10-02 14:09 J -10197505.04 -10197504.91 -10197504.74 0.0088 0.0072
 Earth -32633-10-02 17:59 J -10197504.89 -10197504.75 -10197504.57 0.0088 0.0070 *
 Mercury -32625-10-28 17:45 J -10194556.78 -10194556.76 -10194556.72 0.0088 0.0087
 Mercury -32624-01-24 20:23 J -10194468.71 -10194468.65 -10194468.55 0.0088 0.0078
 Mercury -32624-04-22 23:31 J -10194380.62 -10194380.52 -10194380.40 0.0088 0.0070
 Mercury -32624-07-20 02:09 J -10194292.52 -10194292.41 -10194292.26 0.0088 0.0062
 Mercury -32624-10-16 05:16 J -10194204.41 -10194204.28 -10194204.13 0.0088 0.0053
 Mercury -32623-01-12 08:09 J -10194116.30 -10194116.16 -10194116.00 0.0088 0.0044
 Mercury -32623-04-10 11:02 J -10194028.19 -10194028.04 -10194027.87 0.0088 0.0036
 Mercury -32623-07-07 13:55 J -10193940.08 -10193939.92 -10193939.74 0.0088 0.0027
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 Mercury -32623-12-30 19:40 J -10193763.85 -10193763.68 -10193763.50 0.0088 0.0010
 Mercury -32622-03-28 22:33 J -10193675.74 -10193675.56 -10193675.38 0.0088 0.0002
 Mercury -32622-06-25 01:11 J -10193587.62 -10193587.45 -10193587.27 0.0088 0.0007
 Mercury -32622-09-21 04:04 J -10193499.50 -10193499.33 -10193499.15 0.0088 0.0015
 Mercury -32622-12-18 06:43 J -10193411.38 -10193411.22 -10193411.04 0.0088 0.0024
 Mercury -32621-03-15 09:35 J -10193323.26 -10193323.10 -10193322.93 0.0088 0.0032
 Mercury -32621-06-11 12:14 J -10193235.14 -10193234.99 -10193234.83 0.0088 0.0040
 Mars -32621-07-21 15:21 J -10193195.09 -10193194.86 -10193194.57 0.0088 0.0053
 Mercury -32621-09-07 14:52 J -10193147.01 -10193146.88 -10193146.72 0.0088 0.0048
 Mercury -32621-12-04 17:45 J -10193058.89 -10193058.76 -10193058.62 0.0088 0.0056
 Mercury -32620-03-02 20:23 J -10192970.76 -10192970.65 -10192970.52 0.0088 0.0064
 Mercury -32620-05-29 23:02 J -10192882.63 -10192882.54 -10192882.43 0.0088 0.0073

Mercury	-32620-08-26 01:55 J	-10192794.48	-10192794.42	-10192794.35	0.0088	0.0081
Mars	-32619-06-17 02:09 J	-10192499.74	-10192499.41	-10192499.08	0.0088	0.0000
Mars	-32617-05-12 13:26 J	-10191804.18	-10191803.94	-10191803.64	0.0088	0.0053
Venus	-32598-12-20 04:47 J	-10184643.36	-10184643.30	-10184643.19	0.0089	0.0082
Venus	-32597-08-01 18:14 J	-10184417.84	-10184417.74	-10184417.60	0.0089	0.0075
Venus	-32596-03-15 07:55 J	-10184192.30	-10184192.17	-10184192.02	0.0089	0.0067
Venus	-32596-10-26 21:21 J	-10183966.76	-10183966.61	-10183966.43	0.0089	0.0060
Venus	-32595-06-09 10:33 J	-10183741.22	-10183741.06	-10183740.86	0.0089	0.0053
Venus	-32594-01-21 00:14 J	-10183515.67	-10183515.49	-10183515.29	0.0089	0.0045
Venus	-32594-09-03 13:26 J	-10183290.13	-10183289.94	-10183289.73	0.0089	0.0038
Venus	-32593-04-16 03:07 J	-10183064.58	-10183064.37	-10183064.16	0.0089	0.0030
Venus	-32593-11-27 16:19 J	-10182839.02	-10182838.82	-10182838.59	0.0089	0.0023
Venus	-32592-07-11 05:45 J	-10182613.47	-10182613.26	-10182613.04	0.0089	0.0015
Venus	-32591-02-21 18:57 J	-10182387.92	-10182387.71	-10182387.48	0.0089	0.0008
Venus	-32591-10-05 08:23 J	-10182162.37	-10182162.15	-10182161.93	0.0089	0.0001
Venus	-32590-05-18 21:35 J	-10181936.82	-10181936.60	-10181936.37	0.0089	0.0007
Venus	-32590-12-30 10:33 J	-10181711.26	-10181711.06	-10181710.83	0.0089	0.0015
Venus	-32589-08-11 23:45 J	-10181485.71	-10181485.51	-10181485.29	0.0089	0.0022
Venus	-32588-03-25 13:11 J	-10181260.16	-10181259.95	-10181259.74	0.0089	0.0029
Venus	-32588-11-06 01:55 J	-10181034.60	-10181034.42	-10181034.20	0.0089	0.0037
Venus	-32587-06-19 15:07 J	-10180809.05	-10180808.87	-10180808.67	0.0089	0.0044
Venus	-32586-01-31 04:19 J	-10180583.49	-10180583.32	-10180583.14	0.0089	0.0051
Venus	-32586-09-13 17:02 J	-10180357.94	-10180357.79	-10180357.61	0.0089	0.0059
Venus	-32585-04-26 05:59 J	-10180132.37	-10180132.25	-10180132.08	0.0089	0.0066
Venus	-32585-12-07 19:11 J	-10179906.80	-10179906.70	-10179906.56	0.0089	0.0073
Venus	-32584-07-21 08:09 J	-10179681.23	-10179681.16	-10179681.05	0.0089	0.0080
Venus	-32583-03-03 21:07 J	-10179455.64	-10179455.62	-10179455.56	0.0089	0.0087
Earth	-32554-03-25 06:14 J	-10168842.32	-10168842.24	-10168842.09	0.0089	0.0081
Moon	-32554-03-25 09:35 J	-10168842.18	-10168842.10	-10168842.01	0.0089	0.0084 *
Moon	-32553-03-26 14:23 J	-10168475.12	-10168474.90	-10168474.64	0.0089	0.0035

Earth -32553-03-26 17:31 J -10168474.98 -10168474.77 -10168474.52 0.0089 0.0039 *
 Earth -32552-03-29 04:47 J -10168107.55 -10168107.30 -10168107.05 0.0089 0.0005
 Moon -32552-03-29 08:23 J -10168107.41 -10168107.15 -10168106.90 0.0089 0.0002 *
 Moon -32551-03-31 12:14 J -10167740.19 -10167739.99 -10167739.77 0.0089 0.0050
 Earth -32551-03-31 15:50 J -10167740.06 -10167739.84 -10167739.62 0.0089 0.0047 *
 Earth -32550-04-03 02:09 J -10167372.41 -10167372.41 -10167372.36 0.0089 0.0089
 Moon -32550-04-03 05:31 J -10167372.34 -10167372.27 -10167372.20 0.0089 0.0086
 Mercury -32543-01-31 17:45 J -10164876.77 -10164876.76 -10164876.72 0.0089 0.0087
 Mercury -32543-04-29 19:26 J -10164788.74 -10164788.69 -10164788.62 0.0089 0.0080
 Mercury -32543-07-26 21:07 J -10164700.69 -10164700.62 -10164700.54 0.0089 0.0073
 Mercury -32543-10-22 22:47 J -10164612.64 -10164612.55 -10164612.46 0.0089 0.0067
 Mercury -32542-01-19 00:14 J -10164524.59 -10164524.49 -10164524.38 0.0089 0.0060
 Mercury -32542-04-17 01:55 J -10164436.53 -10164436.42 -10164436.30 0.0089 0.0053
 Mercury -32542-07-14 03:35 J -10164348.47 -10164348.35 -10164348.23 0.0089 0.0046
 Mercury -32542-10-10 05:02 J -10164260.41 -10164260.29 -10164260.15 0.0089 0.0040
 Mercury -32541-01-06 06:43 J -10164172.34 -10164172.22 -10164172.08 0.0089 0.0033
 Mercury -32541-04-03 08:23 J -10164084.28 -10164084.15 -10164084.01 0.0089 0.0026
 Mercury -32541-06-30 10:04 J -10163996.22 -10163996.08 -10163995.94 0.0089 0.0019
 Mercury -32541-09-26 11:45 J -10163908.15 -10163908.01 -10163907.87 0.0089 0.0011
 Mercury -32541-12-23 13:26 J -10163820.08 -10163819.94 -10163819.80 0.0089 0.0004
 Mercury -32540-03-21 15:07 J -10163732.01 -10163731.87 -10163731.73 0.0089 0.0003
 Mercury -32540-06-17 16:47 J -10163643.94 -10163643.80 -10163643.66 0.0089 0.0010
 Mercury -32540-09-13 18:14 J -10163555.87 -10163555.74 -10163555.59 0.0089 0.0017
 Mercury -32540-12-10 19:55 J -10163467.80 -10163467.67 -10163467.52 0.0089 0.0024
 Mercury -32539-03-08 21:35 J -10163379.73 -10163379.60 -10163379.46 0.0089 0.0031
 Mercury -32539-06-04 23:16 J -10163291.65 -10163291.53 -10163291.39 0.0089 0.0038
 Mars -32539-06-16 11:16 J -10163280.29 -10163280.03 -10163279.76 0.0089 0.0045
 Mercury -32539-09-01 00:57 J -10163203.58 -10163203.46 -10163203.33 0.0089 0.0045
 Mercury -32539-11-28 02:38 J -10163115.50 -10163115.39 -10163115.26 0.0089 0.0052
 Mercury -32538-02-24 04:19 J -10163027.42 -10163027.32 -10163027.20 0.0089 0.0059

Mercury -32538-05-23 06:14 J -10162939.33 -10162939.24 -10162939.14 0.0089 0.0066

Mercury -32538-08-19 07:55 J -10162851.25 -10162851.17 -10162851.09 0.0089 0.0074

Mercury -32538-11-15 09:21 J -10162763.15 -10162763.11 -10162763.04 0.0089 0.0081

Mercury -32537-02-11 11:02 J -10162675.04 -10162675.04 -10162675.00 0.0089 0.0088

Mars -32537-05-10 18:28 J -10162586.03 -10162585.73 -10162585.42 0.0089 0.0004

Mars -32535-04-04 23:59 J -10161891.71 -10161891.50 -10161891.22 0.0089 0.0053

Venus -32517-11-07 17:16 J -10155099.81 -10155099.78 -10155099.74 0.0089 0.0087

Venus -32516-06-21 05:16 J -10154874.35 -10154874.28 -10154874.17 0.0089 0.0081

Venus -32515-02-01 17:45 J -10154648.85 -10154648.76 -10154648.61 0.0089 0.0074

Venus -32515-09-15 06:28 J -10154423.35 -10154423.23 -10154423.06 0.0089 0.0067

Venus -32514-04-28 19:11 J -10154197.84 -10154197.70 -10154197.51 0.0089 0.0060

Venus -32514-12-10 07:55 J -10153972.33 -10153972.17 -10153971.97 0.0089 0.0053

Venus -32513-07-22 21:07 J -10153746.81 -10153746.62 -10153746.44 0.0089 0.0045

Venus -32512-03-05 09:35 J -10153521.29 -10153521.10 -10153520.90 0.0089 0.0038

Venus -32512-10-16 22:04 J -10153295.77 -10153295.58 -10153295.36 0.0089 0.0031

Venus -32511-05-30 10:47 J -10153070.25 -10153070.05 -10153069.83 0.0088 0.0024

Venus -32510-01-10 23:31 J -10152844.73 -10152844.52 -10152844.30 0.0088 0.0016

Venus -32510-08-24 12:14 J -10152619.21 -10152618.99 -10152618.77 0.0088 0.0009

Venus -32509-04-06 01:11 J -10152393.67 -10152393.45 -10152393.23 0.0088 0.0002

Venus -32509-11-17 13:55 J -10152168.14 -10152167.92 -10152167.70 0.0088 0.0005

Venus -32508-07-01 02:23 J -10151942.61 -10151942.40 -10151942.17 0.0088 0.0013

Venus -32507-02-11 15:21 J -10151717.08 -10151716.86 -10151716.65 0.0088 0.0020

Venus -32507-09-25 04:04 J -10151491.54 -10151491.33 -10151491.12 0.0088 0.0027

Venus -32506-05-08 16:47 J -10151265.99 -10151265.80 -10151265.58 0.0088 0.0035

Venus -32506-12-20 05:45 J -10151040.44 -10151040.26 -10151040.05 0.0088 0.0041

Venus -32505-08-01 18:43 J -10150814.90 -10150814.72 -10150814.53 0.0088 0.0049

Venus -32504-03-15 07:40 J -10150589.34 -10150589.18 -10150589.00 0.0088 0.0056

Venus -32504-10-26 20:38 J -10150363.79 -10150363.64 -10150363.48 0.0088 0.0063

Venus -32503-06-09 09:07 J -10150138.23 -10150138.12 -10150137.96 0.0088 0.0071

Venus -32502-01-20 22:04 J -10149912.66 -10149912.58 -10149912.45 0.0088 0.0078

Venus -32502-09-03 11:02 J -10149687.08 -10149687.04 -10149686.95 0.0088 0.0085
 Moon -32472-09-25 09:50 J -10138707.17 -10138707.09 -10138706.98 0.0088 0.0081
 Earth -32472-09-25 12:14 J -10138707.09 -10138706.99 -10138706.84 0.0088 0.0077 *
 Earth -32471-09-28 00:28 J -10138339.70 -10138339.48 -10138339.22 0.0088 0.0036
 Moon -32471-09-28 04:04 J -10138339.55 -10138339.33 -10138339.07 0.0088 0.0031 *
 Moon -32470-09-30 09:35 J -10137972.36 -10137972.10 -10137971.83 0.0088 0.0002
 Earth -32470-09-30 13:11 J -10137972.21 -10137971.95 -10137971.69 0.0088 0.0006 *
 Earth -32469-10-02 00:43 J -10137604.66 -10137604.47 -10137604.22 0.0088 0.0048
 Moon -32469-10-02 04:19 J -10137604.51 -10137604.32 -10137604.08 0.0088 0.0053 *
 Moon -32468-10-04 10:19 J -10137237.11 -10137237.07 -10137236.98 0.0088 0.0085
 Mercury -32460-07-25 16:04 J -10134385.88 -10134385.83 -10134385.77 0.0088 0.0083
 Mercury -32460-10-21 18:43 J -10134297.79 -10134297.72 -10134297.61 0.0088 0.0075
 Mercury -32459-01-17 21:50 J -10134209.70 -10134209.59 -10134209.46 0.0088 0.0066
 Mercury -32459-04-16 00:57 J -10134121.59 -10134121.46 -10134121.33 0.0088 0.0058
 Mercury -32459-07-13 03:35 J -10134033.49 -10134033.35 -10134033.19 0.0088 0.0049
 Mercury -32459-10-09 06:43 J -10133945.38 -10133945.22 -10133945.06 0.0088 0.0041
 Mercury -32458-01-05 09:21 J -10133857.27 -10133857.11 -10133856.94 0.0088 0.0032
 Mercury -32458-04-03 12:14 J -10133769.15 -10133768.99 -10133768.81 0.0088 0.0024
 Mercury -32458-06-30 15:07 J -10133681.04 -10133680.87 -10133680.69 0.0088 0.0015
 Mercury -32458-09-26 17:59 J -10133592.92 -10133592.75 -10133592.57 0.0088 0.0007
 Mercury -32458-12-23 20:52 J -10133504.81 -10133504.63 -10133504.45 0.0088 0.0002
 Mars -32457-03-04 16:47 J -10133432.92 -10133432.80 -10133432.61 0.0088 0.0078
 Mercury -32457-03-20 23:31 J -10133416.69 -10133416.52 -10133416.34 0.0088 0.0010
 Mercury -32457-06-17 02:23 J -10133328.57 -10133328.40 -10133328.23 0.0088 0.0018
 Mercury -32457-09-13 05:16 J -10133240.45 -10133240.28 -10133240.11 0.0088 0.0027
 Mercury -32457-12-10 07:40 J -10133152.33 -10133152.18 -10133152.01 0.0088 0.0035
 Mercury -32456-03-08 10:33 J -10133064.20 -10133064.06 -10133063.90 0.0088 0.0043
 Mercury -32456-06-04 13:11 J -10132976.08 -10132975.95 -10132975.80 0.0088 0.0052
 Mercury -32456-08-31 16:04 J -10132887.95 -10132887.83 -10132887.70 0.0088 0.0059
 Mercury -32456-11-27 18:43 J -10132799.82 -10132799.72 -10132799.60 0.0088 0.0068

Mars -32455-01-29 00:43 J -10132737.76 -10132737.47 -10132737.14 0.0088 0.0026
 Mercury -32455-02-23 21:35 J -10132711.68 -10132711.60 -10132711.51 0.0088 0.0076
 Mercury -32455-05-22 23:45 J -10132623.54 -10132623.51 -10132623.43 0.0088 0.0085
 Mars -32454-12-25 11:31 J -10132042.32 -10132042.02 -10132041.70 0.0088 0.0027
 Mars -32452-11-19 23:45 J -10131346.62 -10131346.51 -10131346.33 0.0088 0.0080
 Venus -32433-03-22 14:09 J -10124648.96 -10124648.91 -10124648.83 0.0089 0.0084
 Venus -32433-11-03 03:35 J -10124423.44 -10124423.35 -10124423.22 0.0089 0.0077
 Venus -32432-06-16 17:02 J -10124197.91 -10124197.79 -10124197.64 0.0089 0.0070
 Venus -32431-01-28 06:14 J -10123972.38 -10123972.24 -10123972.06 0.0089 0.0063
 Venus -32431-09-10 20:09 J -10123746.83 -10123746.66 -10123746.49 0.0089 0.0055
 Venus -32430-04-24 09:21 J -10123521.29 -10123521.11 -10123520.92 0.0089 0.0048
 Venus -32430-12-05 22:33 J -10123295.74 -10123295.56 -10123295.35 0.0089 0.0041
 Venus -32429-07-18 12:14 J -10123070.20 -10123069.99 -10123069.79 0.0089 0.0033
 Venus -32428-03-01 01:26 J -10122844.65 -10122844.44 -10122844.22 0.0089 0.0026
 Venus -32428-10-12 14:52 J -10122619.09 -10122618.88 -10122618.66 0.0089 0.0019
 Venus -32427-05-26 04:19 J -10122393.54 -10122393.32 -10122393.10 0.0089 0.0011
 Venus -32426-01-06 17:31 J -10122167.99 -10122167.77 -10122167.55 0.0089 0.0004
 Venus -32426-08-20 06:43 J -10121942.44 -10121942.22 -10121942.00 0.0089 0.0004
 Venus -32425-04-01 19:55 J -10121716.88 -10121716.67 -10121716.44 0.0089 0.0011
 Venus -32425-11-13 09:21 J -10121491.32 -10121491.11 -10121490.89 0.0089 0.0018
 Venus -32424-06-26 22:33 J -10121265.77 -10121265.56 -10121265.35 0.0089 0.0025
 Venus -32423-02-07 11:16 J -10121040.22 -10121040.03 -10121039.81 0.0089 0.0033
 Venus -32423-09-21 00:28 J -10120814.66 -10120814.48 -10120814.27 0.0089 0.0040
 Venus -32422-05-04 13:40 J -10120589.11 -10120588.93 -10120588.73 0.0089 0.0047
 Venus -32422-12-16 02:52 J -10120363.55 -10120363.38 -10120363.20 0.0089 0.0054
 Venus -32421-07-28 15:50 J -10120137.99 -10120137.84 -10120137.67 0.0089 0.0061
 Venus -32420-03-11 05:02 J -10119912.43 -10119912.29 -10119912.15 0.0089 0.0068
 Venus -32420-10-22 17:59 J -10119686.86 -10119686.75 -10119686.63 0.0089 0.0075
 Venus -32419-06-05 06:57 J -10119461.28 -10119461.21 -10119461.12 0.0089 0.0082
 Earth -32389-03-26 01:26 J -10108574.61 -10108574.44 -10108574.24 0.0089 0.0061

Moon -32389-03-26 04:33 J -10108574.46 -10108574.31 -10108574.11 0.0089 0.0064 *
 Moon -32388-03-28 09:21 J -10108207.35 -10108207.11 -10108206.86 0.0089 0.0015
 Earth -32388-03-28 12:43 J -10108207.22 -10108206.97 -10108206.72 0.0089 0.0018 *
 Earth -32387-03-30 23:31 J -10107839.76 -10107839.52 -10107839.26 0.0089 0.0024
 Moon -32387-03-31 02:23 J -10107839.65 -10107839.40 -10107839.14 0.0089 0.0021 *
 Moon -32386-04-02 08:52 J -10107472.26 -10107472.13 -10107471.95 0.0089 0.0069
 Earth -32386-04-02 10:04 J -10107472.22 -10107472.08 -10107471.88 0.0089 0.0067 *
 Mercury -32379-10-28 17:02 J -10104705.82 -10104705.79 -10104705.74 0.0089 0.0084
 Mercury -32378-01-24 18:43 J -10104617.78 -10104617.72 -10104617.65 0.0089 0.0078
 Mercury -32378-04-22 20:09 J -10104529.73 -10104529.66 -10104529.57 0.0089 0.0071
 Mercury -32378-07-19 21:50 J -10104441.68 -10104441.59 -10104441.49 0.0089 0.0064
 Mercury -32378-10-15 23:31 J -10104353.62 -10104353.52 -10104353.41 0.0089 0.0057
 Mercury -32377-01-12 01:11 J -10104265.57 -10104265.45 -10104265.33 0.0089 0.0050
 Mercury -32377-04-09 02:52 J -10104177.51 -10104177.38 -10104177.26 0.0089 0.0044
 Mercury -32377-07-06 04:04 J -10104089.44 -10104089.33 -10104089.19 0.0089 0.0038
 Mercury -32377-10-02 05:45 J -10104001.38 -10104001.26 -10104001.11 0.0089 0.0031
 Mercury -32377-12-29 07:26 J -10103913.32 -10103913.19 -10103913.04 0.0089 0.0024
 Mercury -32376-03-27 09:07 J -10103825.25 -10103825.12 -10103824.97 0.0089 0.0016
 Mercury -32376-06-23 10:47 J -10103737.19 -10103737.05 -10103736.90 0.0089 0.0010
 Mercury -32376-09-19 12:28 J -10103649.12 -10103648.98 -10103648.83 0.0089 0.0003
 Mercury -32376-12-16 14:09 J -10103561.05 -10103560.91 -10103560.76 0.0089 0.0006
 Mars -32375-01-29 07:11 J -10103517.36 -10103517.20 -10103516.99 0.0089 0.0070
 Mercury -32375-03-14 15:50 J -10103472.98 -10103472.84 -10103472.70 0.0089 0.0012
 Mercury -32375-06-10 17:31 J -10103384.91 -10103384.77 -10103384.63 0.0089 0.0019
 Mercury -32375-09-06 19:11 J -10103296.84 -10103296.70 -10103296.56 0.0089 0.0026
 Mercury -32375-12-03 20:52 J -10103208.76 -10103208.63 -10103208.50 0.0089 0.0033
 Mercury -32374-03-01 22:33 J -10103120.69 -10103120.56 -10103120.43 0.0089 0.0040
 Mercury -32374-05-28 23:59 J -10103032.61 -10103032.50 -10103032.37 0.0089 0.0048
 Mercury -32374-08-25 01:40 J -10102944.53 -10102944.43 -10102944.31 0.0089 0.0055
 Mercury -32374-11-21 03:21 J -10102856.45 -10102856.36 -10102856.24 0.0089 0.0062

Mars -32374-12-24 17:31 J -10102823.07 -10102822.77 -10102822.47 0.0089 0.0020
 Mercury -32373-02-17 05:16 J -10102768.36 -10102768.28 -10102768.19 0.0089 0.0069
 Mercury -32373-05-15 06:57 J -10102680.28 -10102680.21 -10102680.13 0.0089 0.0076
 Mercury -32373-08-11 08:38 J -10102592.18 -10102592.14 -10102592.08 0.0089 0.0083
 Mars -32372-11-18 00:28 J -10102128.76 -10102128.48 -10102128.19 0.0089 0.0029
 Mars -32370-10-13 05:16 J -10101434.39 -10101434.28 -10101434.11 0.0089 0.0078
 Venus -32352-09-22 14:52 J -10094879.93 -10094879.88 -10094879.78 0.0089 0.0083
 Venus -32351-05-06 03:35 J -10094654.44 -10094654.35 -10094654.22 0.0089 0.0076
 Venus -32351-12-17 16:19 J -10094428.94 -10094428.82 -10094428.67 0.0089 0.0069
 Venus -32350-07-31 05:02 J -10094203.43 -10094203.29 -10094203.12 0.0089 0.0062
 Venus -32349-03-12 17:45 J -10093977.92 -10093977.76 -10093977.58 0.0089 0.0055
 Venus -32349-10-24 06:28 J -10093752.41 -10093752.23 -10093752.04 0.0089 0.0048
 Venus -32348-06-06 19:11 J -10093526.89 -10093526.70 -10093526.50 0.0088 0.0041
 Venus -32347-01-18 07:40 J -10093301.37 -10093301.18 -10093300.97 0.0088 0.0034
 Venus -32347-08-31 20:23 J -10093075.85 -10093075.65 -10093075.44 0.0088 0.0027
 Venus -32346-04-14 09:21 J -10092850.32 -10092850.11 -10092849.90 0.0088 0.0020
 Venus -32346-11-25 22:04 J -10092624.80 -10092624.58 -10092624.37 0.0088 0.0013
 Venus -32345-07-08 10:33 J -10092399.27 -10092399.06 -10092398.84 0.0088 0.0006
 Venus -32344-02-18 23:16 J -10092173.75 -10092173.53 -10092173.31 0.0088 0.0002
 Venus -32344-10-02 11:59 J -10091948.22 -10091948.00 -10091947.78 0.0088 0.0009
 Venus -32343-05-16 00:57 J -10091722.68 -10091722.46 -10091722.25 0.0088 0.0016
 Venus -32343-12-27 13:40 J -10091497.14 -10091496.93 -10091496.72 0.0088 0.0023
 Venus -32342-08-10 02:09 J -10091271.61 -10091271.41 -10091271.19 0.0088 0.0030
 Venus -32341-03-22 14:52 J -10091046.06 -10091045.88 -10091045.66 0.0088 0.0038
 Venus -32341-11-03 03:50 J -10090820.52 -10090820.34 -10090820.14 0.0088 0.0044
 Venus -32340-06-16 16:33 J -10090594.97 -10090594.81 -10090594.61 0.0088 0.0052
 Venus -32339-01-28 05:31 J -10090369.42 -10090369.27 -10090369.09 0.0088 0.0058
 Venus -32339-09-10 18:14 J -10090143.86 -10090143.74 -10090143.57 0.0088 0.0066
 Venus -32338-04-24 07:26 J -10089918.29 -10089918.19 -10089918.04 0.0088 0.0073
 Venus -32338-12-05 20:23 J -10089692.72 -10089692.65 -10089692.53 0.0088 0.0079

Venus -32337-07-18 09:21 J -10089467.13 -10089467.11 -10089467.04 0.0088 0.0086
 Moon -32307-09-27 02:38 J -10078439.57 -10078439.39 -10078439.19 0.0088 0.0059
 Earth -32307-09-27 06:14 J -10078439.41 -10078439.24 -10078439.02 0.0088 0.0059 *
 Earth -32306-09-29 18:43 J -10078071.97 -10078071.72 -10078071.45 0.0088 0.0017
 Moon -32306-09-29 22:04 J -10078071.85 -10078071.58 -10078071.32 0.0088 0.0017 *
 Moon -32305-10-01 04:33 J -10077704.55 -10077704.31 -10077704.06 0.0088 0.0023
 Earth -32305-10-01 06:57 J -10077704.45 -10077704.21 -10077703.95 0.0088 0.0025 *
 Earth -32304-10-03 18:57 J -10077336.86 -10077336.71 -10077336.52 0.0088 0.0066
 Moon -32304-10-03 20:23 J -10077336.80 -10077336.65 -10077336.46 0.0088 0.0067 *
 Mercury -32295-04-21 13:55 J -10074214.97 -10074214.92 -10074214.83 0.0088 0.0081
 Mercury -32295-07-18 17:02 J -10074126.88 -10074126.79 -10074126.68 0.0088 0.0072
 Mercury -32295-10-14 20:09 J -10074038.78 -10074038.66 -10074038.54 0.0088 0.0064
 Mercury -32294-01-10 22:47 J -10073950.68 -10073950.55 -10073950.40 0.0088 0.0055
 Mercury -32294-04-09 01:55 J -10073862.57 -10073862.42 -10073862.27 0.0088 0.0046
 Mercury -32294-07-06 04:33 J -10073774.46 -10073774.31 -10073774.14 0.0088 0.0038
 Mercury -32294-10-02 07:40 J -10073686.35 -10073686.18 -10073686.01 0.0088 0.0029
 Mercury -32294-12-29 10:19 J -10073598.23 -10073598.07 -10073597.89 0.0088 0.0021
 Mercury -32293-03-26 13:26 J -10073510.12 -10073509.94 -10073509.77 0.0088 0.0012
 Mercury -32293-06-22 16:19 J -10073422.00 -10073421.82 -10073421.65 0.0088 0.0004
 Mercury -32293-09-18 18:57 J -10073333.88 -10073333.71 -10073333.53 0.0088 0.0005
 Mercury -32293-12-15 21:50 J -10073245.76 -10073245.59 -10073245.41 0.0088 0.0013
 Mercury -32292-03-14 00:28 J -10073157.64 -10073157.48 -10073157.30 0.0088 0.0021
 Mercury -32292-06-10 03:21 J -10073069.52 -10073069.36 -10073069.19 0.0088 0.0029
 Mercury -32292-09-06 06:14 J -10072981.40 -10072981.24 -10072981.08 0.0088 0.0038
 Mars -32292-09-12 01:40 J -10072975.67 -10072975.43 -10072975.15 0.0088 0.0052
 Mercury -32292-12-03 08:38 J -10072893.28 -10072893.14 -10072892.98 0.0088 0.0046
 Mercury -32291-03-01 11:31 J -10072805.15 -10072805.02 -10072804.87 0.0088 0.0054
 Mercury -32291-05-28 14:09 J -10072717.02 -10072716.91 -10072716.78 0.0088 0.0063
 Mercury -32291-08-24 17:02 J -10072628.89 -10072628.79 -10072628.68 0.0088 0.0070
 Mercury -32291-11-20 19:40 J -10072540.75 -10072540.68 -10072540.60 0.0088 0.0079

Mercury -32290-02-16 22:33 J -10072452.59 -10072452.56 -10072452.53 0.0088 0.0087

Mars -32290-08-08 09:35 J -10072280.42 -10072280.10 -10072279.77 0.0088 0.0001

Mars -32288-07-03 19:26 J -10071584.93 -10071584.69 -10071584.40 0.0088 0.0054

Venus -32269-06-23 22:47 J -10064654.60 -10064654.55 -10064654.49 0.0089 0.0086

Venus -32268-02-04 12:14 J -10064429.08 -10064428.99 -10064428.89 0.0089 0.0079

Venus -32268-09-18 01:40 J -10064203.55 -10064203.43 -10064203.29 0.0089 0.0072

Venus -32267-05-01 15:07 J -10063978.01 -10063977.87 -10063977.71 0.0089 0.0065

Venus -32267-12-13 04:19 J -10063752.47 -10063752.32 -10063752.14 0.0089 0.0058

Venus -32266-07-26 17:45 J -10063526.93 -10063526.76 -10063526.57 0.0089 0.0051

Venus -32265-03-08 06:57 J -10063301.39 -10063301.21 -10063301.00 0.0089 0.0044

Venus -32265-10-19 20:23 J -10063075.83 -10063075.65 -10063075.43 0.0089 0.0037

Venus -32264-06-02 09:50 J -10062850.28 -10062850.09 -10062849.87 0.0089 0.0030

Venus -32263-01-13 23:16 J -10062624.74 -10062624.53 -10062624.31 0.0089 0.0022

Venus -32263-08-27 12:43 J -10062399.19 -10062398.97 -10062398.75 0.0089 0.0015

Venus -32262-04-10 02:09 J -10062173.63 -10062173.41 -10062173.19 0.0089 0.0008

Venus -32262-11-21 15:35 J -10061948.07 -10061947.85 -10061947.63 0.0089 0.0001

Venus -32261-07-04 04:47 J -10061722.52 -10061722.30 -10061722.08 0.0089 0.0007

Venus -32260-02-14 17:59 J -10061496.97 -10061496.75 -10061496.53 0.0089 0.0014

Venus -32260-09-28 07:11 J -10061271.41 -10061271.20 -10061270.98 0.0089 0.0021

Venus -32259-05-11 20:38 J -10061045.85 -10061045.64 -10061045.43 0.0089 0.0028

Venus -32259-12-23 09:21 J -10060820.29 -10060820.11 -10060819.89 0.0089 0.0036

Venus -32258-08-05 22:33 J -10060594.74 -10060594.56 -10060594.35 0.0089 0.0043

Venus -32257-03-18 11:31 J -10060369.18 -10060369.02 -10060368.82 0.0089 0.0050

Venus -32257-10-30 00:43 J -10060143.62 -10060143.47 -10060143.28 0.0089 0.0057

Venus -32256-06-12 13:55 J -10059918.06 -10059917.92 -10059917.75 0.0089 0.0064

Venus -32255-01-24 02:38 J -10059692.50 -10059692.39 -10059692.23 0.0089 0.0071

Venus -32255-09-06 15:35 J -10059466.93 -10059466.85 -10059466.72 0.0089 0.0078

Venus -32254-04-20 05:02 J -10059241.35 -10059241.29 -10059241.21 0.0089 0.0085

Jupiter -32235-02-05 12:57 J -10052375.17 -10052374.96 -10052374.61 0.0089 0.0076

Moon -32225-03-25 05:59 J -10048674.26 -10048674.25 -10048674.20 0.0089 0.0089

Earth	-32225-03-25 08:38 J	-10048674.19	-10048674.14	-10048674.03	0.0089	0.0084
Earth	-32224-03-27 19:40 J	-10048306.88	-10048306.68	-10048306.43	0.0089	0.0042
Moon	-32224-03-27 22:19 J	-10048306.80	-10048306.57	-10048306.33	0.0089	0.0038 *
Moon	-32223-03-30 05:45 J	-10047939.50	-10047939.26	-10047939.01	0.0089	0.0004
Earth	-32223-03-30 07:11 J	-10047939.45	-10047939.20	-10047938.94	0.0089	0.0001 *
Moon	-32222-04-01 17:45 J	-10047571.98	-10047571.76	-10047571.53	0.0089	0.0047
Earth	-32222-04-01 17:45 J	-10047571.96	-10047571.76	-10047571.52	0.0089	0.0043 *
Earth	-32221-04-03 04:33 J	-10047204.36	-10047204.31	-10047204.22	0.0089	0.0086
Moon	-32221-04-03 05:45 J	-10047204.33	-10047204.26	-10047204.15	0.0089	0.0082 *
Mercury	-32214-04-28 14:38 J	-10044622.89	-10044622.89	-10044622.87	0.0089	0.0089
Mercury	-32214-07-25 16:04 J	-10044534.87	-10044534.83	-10044534.77	0.0089	0.0082
Mercury	-32214-10-21 17:45 J	-10044446.83	-10044446.76	-10044446.68	0.0089	0.0075
Mercury	-32213-01-17 19:26 J	-10044358.78	-10044358.69	-10044358.60	0.0089	0.0069
Mercury	-32213-04-14 20:52 J	-10044270.72	-10044270.63	-10044270.52	0.0089	0.0062
Mercury	-32213-07-11 22:19 J	-10044182.67	-10044182.57	-10044182.45	0.0089	0.0056
Mercury	-32213-10-07 23:59 J	-10044094.61	-10044094.50	-10044094.37	0.0089	0.0048
Mercury	-32212-01-04 01:40 J	-10044006.55	-10044006.43	-10044006.30	0.0089	0.0041
Mercury	-32212-04-02 03:21 J	-10043918.49	-10043918.36	-10043918.23	0.0089	0.0034
Mercury	-32212-06-29 05:02 J	-10043830.42	-10043830.29	-10043830.15	0.0089	0.0027
Mercury	-32212-09-25 06:43 J	-10043742.36	-10043742.22	-10043742.08	0.0089	0.0021
Mercury	-32212-12-22 08:09 J	-10043654.29	-10043654.16	-10043654.01	0.0089	0.0014
Mercury	-32211-03-20 09:50 J	-10043566.23	-10043566.09	-10043565.94	0.0089	0.0007
Mercury	-32211-06-16 11:31 J	-10043478.16	-10043478.02	-10043477.88	0.0089	0.0001
Mercury	-32211-09-12 13:11 J	-10043390.09	-10043389.95	-10043389.81	0.0089	0.0007
Mercury	-32211-12-09 14:52 J	-10043302.02	-10043301.88	-10043301.74	0.0089	0.0014
Mercury	-32210-03-07 16:33 J	-10043213.95	-10043213.81	-10043213.67	0.0089	0.0021
Mercury	-32210-06-03 18:14 J	-10043125.88	-10043125.74	-10043125.61	0.0089	0.0028
Mars	-32210-08-08 11:16 J	-10043060.28	-10043060.03	-10043059.75	0.0089	0.0045
Mercury	-32210-08-30 19:40 J	-10043037.80	-10043037.68	-10043037.54	0.0089	0.0036
Mercury	-32210-11-26 21:21 J	-10042949.73	-10042949.61	-10042949.48	0.0089	0.0043

Mercury -32209-02-22 23:02 J -10042861.65 -10042861.54 -10042861.41 0.0089 0.0050

Mercury -32209-05-21 00:43 J -10042773.57 -10042773.47 -10042773.35 0.0089 0.0057

Mercury -32209-08-17 02:23 J -10042685.49 -10042685.40 -10042685.29 0.0089 0.0064

Mercury -32209-11-13 04:04 J -10042597.40 -10042597.33 -10042597.23 0.0089 0.0071

Mercury -32208-02-09 05:59 J -10042509.31 -10042509.25 -10042509.18 0.0089 0.0078

Mercury -32208-05-08 07:26 J -10042421.21 -10042421.19 -10042421.14 0.0089 0.0086

Mars -32208-07-02 21:07 J -10042365.92 -10042365.62 -10042365.31 0.0089 0.0005

Mars -32206-05-28 03:50 J -10041671.56 -10041671.34 -10041671.09 0.0089 0.0054

Venus -32188-12-25 00:43 J -10034885.51 -10034885.47 -10034885.39 0.0089 0.0085

Venus -32187-08-07 13:26 J -10034660.03 -10034659.94 -10034659.83 0.0089 0.0078

Venus -32186-03-21 02:23 J -10034434.53 -10034434.40 -10034434.27 0.0089 0.0071

Venus -32186-11-01 14:23 J -10034209.03 -10034208.90 -10034208.73 0.0089 0.0065

Venus -32185-06-14 03:07 J -10033983.52 -10033983.37 -10033983.19 0.0089 0.0058

Venus -32184-01-25 15:50 J -10033758.01 -10033757.84 -10033757.66 0.0088 0.0051

Venus -32184-09-08 04:33 J -10033532.50 -10033532.31 -10033532.12 0.0088 0.0044

Venus -32183-04-21 17:16 J -10033306.97 -10033306.78 -10033306.58 0.0088 0.0037

Venus -32183-12-03 05:45 J -10033081.45 -10033081.26 -10033081.04 0.0088 0.0030

Venus -32182-07-16 18:28 J -10032855.93 -10032855.73 -10032855.51 0.0088 0.0023

Venus -32181-02-27 07:11 J -10032630.41 -10032630.20 -10032629.98 0.0088 0.0016

Venus -32181-10-09 19:55 J -10032404.89 -10032404.67 -10032404.45 0.0088 0.0009

Venus -32180-05-23 08:38 J -10032179.36 -10032179.14 -10032178.92 0.0088 0.0003

Venus -32179-01-03 21:21 J -10031953.83 -10031953.61 -10031953.39 0.0088 0.0005

Venus -32179-08-17 10:04 J -10031728.30 -10031728.08 -10031727.86 0.0088 0.0012

Venus -32178-03-30 22:47 J -10031502.76 -10031502.55 -10031502.33 0.0088 0.0019

Venus -32178-11-11 11:31 J -10031277.23 -10031277.02 -10031276.81 0.0088 0.0026

Venus -32177-06-24 00:14 J -10031051.69 -10031051.49 -10031051.28 0.0088 0.0033

Venus -32176-02-04 12:57 J -10030826.15 -10030825.96 -10030825.76 0.0088 0.0040

Venus -32176-09-18 01:40 J -10030600.61 -10030600.43 -10030600.24 0.0088 0.0047

Venus -32175-05-01 14:38 J -10030375.06 -10030374.89 -10030374.71 0.0088 0.0053

Venus -32175-12-13 03:21 J -10030149.50 -10030149.36 -10030149.19 0.0088 0.0061

Venus	-32174-07-26 16:04 J	-10029923.95	-10029923.83	-10029923.67	0.0088	0.0068
Venus	-32173-03-08 04:47 J	-10029698.39	-10029698.30	-10029698.15	0.0088	0.0075
Venus	-32173-10-19 17:45 J	-10029472.82	-10029472.76	-10029472.65	0.0088	0.0081
Venus	-32172-06-02 07:11 J	-10029247.21	-10029247.20	-10029247.16	0.0088	0.0088
Earth	-32143-09-26 11:31 J	-10018539.11	-10018539.02	-10018538.93	0.0088	0.0083
Moon	-32143-09-26 14:09 J	-10018538.92	-10018538.91	-10018538.85	0.0088	0.0087
Moon	-32142-09-28 22:04 J	-10018171.80	-10018171.58	-10018171.34	0.0088	0.0037
Earth	-32142-09-28 23:31 J	-10018171.73	-10018171.52	-10018171.27	0.0088	0.0041 *
Earth	-32141-09-30 12:14 J	-10017804.25	-10017803.99	-10017803.73	0.0088	0.0001
Moon	-32141-09-30 13:11 J	-10017804.22	-10017803.95	-10017803.68	0.0088	0.0003 *
Earth	-32140-10-03 00:14 J	-10017436.72	-10017436.49	-10017436.26	0.0088	0.0043
Moon	-32140-10-03 00:14 J	-10017436.69	-10017436.49	-10017436.27	0.0088	0.0047 *
Moon	-32139-10-05 10:19 J	-10017069.18	-10017069.07	-10017068.95	0.0088	0.0080
Earth	-32139-10-05 11:59 J	-10017069.05	-10017069.00	-10017068.91	0.0088	0.0084 *
Mercury	-32131-10-20 08:38 J	-10014132.14	-10014132.14	-10014132.11	0.0088	0.0088
Mercury	-32130-01-16 11:31 J	-10014044.08	-10014044.02	-10014043.92	0.0088	0.0080
Mercury	-32130-04-14 14:52 J	-10013955.98	-10013955.88	-10013955.77	0.0088	0.0070
Mercury	-32130-07-11 17:31 J	-10013867.88	-10013867.77	-10013867.63	0.0088	0.0062
Mercury	-32130-10-07 20:38 J	-10013779.78	-10013779.64	-10013779.49	0.0088	0.0053
Mercury	-32129-01-03 23:45 J	-10013691.67	-10013691.51	-10013691.36	0.0088	0.0045
Mercury	-32129-04-01 02:23 J	-10013603.55	-10013603.40	-10013603.23	0.0088	0.0036
Mercury	-32129-06-28 05:31 J	-10013515.44	-10013515.27	-10013515.10	0.0088	0.0028
Mercury	-32129-09-24 08:09 J	-10013427.33	-10013427.16	-10013426.98	0.0088	0.0019
Mercury	-32129-12-21 11:02 J	-10013339.21	-10013339.04	-10013338.86	0.0088	0.0011
Mercury	-32128-03-19 13:55 J	-10013251.09	-10013250.92	-10013250.74	0.0088	0.0003
Mars	-32128-04-26 00:43 J	-10013213.61	-10013213.47	-10013213.30	0.0088	0.0078
Mercury	-32128-06-15 16:47 J	-10013162.97	-10013162.80	-10013162.62	0.0088	0.0006
Mercury	-32128-09-11 19:40 J	-10013074.85	-10013074.68	-10013074.51	0.0088	0.0015
Mercury	-32128-12-08 22:19 J	-10012986.73	-10012986.57	-10012986.39	0.0088	0.0023
Mercury	-32127-03-07 01:11 J	-10012898.61	-10012898.45	-10012898.28	0.0088	0.0031

Mercury -32127-06-03 04:04 J -10012810.49 -10012810.33 -10012810.17 0.0088 0.0040

Mercury -32127-08-30 06:28 J -10012722.36 -10012722.23 -10012722.07 0.0088 0.0048

Mercury -32127-11-26 09:21 J -10012634.23 -10012634.11 -10012633.97 0.0088 0.0056

Mercury -32126-02-22 11:59 J -10012546.10 -10012546.00 -10012545.87 0.0088 0.0065

Mars -32126-03-22 06:43 J -10012518.51 -10012518.22 -10012517.88 0.0088 0.0027

Mercury -32126-05-21 14:52 J -10012457.97 -10012457.88 -10012457.78 0.0088 0.0073

Mercury -32126-08-17 17:45 J -10012369.83 -10012369.76 -10012369.69 0.0088 0.0081

Mars -32124-02-14 15:07 J -10011823.18 -10011822.87 -10011822.56 0.0088 0.0027

Mars -32122-01-11 01:55 J -10011127.55 -10011127.42 -10011127.27 0.0088 0.0080

Venus -32105-09-25 06:14 J -10004660.24 -10004660.24 -10004660.21 0.0089 0.0089

Venus -32104-05-08 19:40 J -10004434.75 -10004434.68 -10004434.58 0.0089 0.0082

Venus -32104-12-20 09:07 J -10004209.22 -10004209.12 -10004208.98 0.0089 0.0075

Venus -32103-08-02 22:33 J -10003983.69 -10003983.56 -10003983.40 0.0089 0.0068

Venus -32102-03-16 11:59 J -10003758.14 -10003758.00 -10003757.82 0.0089 0.0061

Venus -32102-10-28 01:40 J -10003532.60 -10003532.43 -10003532.25 0.0089 0.0054

Venus -32101-06-09 14:52 J -10003307.05 -10003306.88 -10003306.68 0.0089 0.0047

Venus -32100-01-21 04:19 J -10003081.51 -10003081.32 -10003081.11 0.0089 0.0040

Venus -32100-09-03 17:45 J -10002855.96 -10002855.76 -10002855.55 0.0089 0.0033

Venus -32099-04-17 06:57 J -10002630.41 -10002630.21 -10002629.98 0.0089 0.0026

Venus -32099-11-28 20:23 J -10002404.86 -10002404.65 -10002404.42 0.0089 0.0019

Venus -32098-07-12 09:50 J -10002179.31 -10002179.09 -10002178.87 0.0089 0.0012

Venus -32097-02-22 23:02 J -10001953.75 -10001953.54 -10001953.31 0.0089 0.0005

Venus -32097-10-05 12:28 J -10001728.20 -10001727.98 -10001727.75 0.0089 0.0003

Venus -32096-05-19 01:55 J -10001502.64 -10001502.42 -10001502.20 0.0089 0.0010

Venus -32096-12-30 15:07 J -10001277.09 -10001276.87 -10001276.65 0.0089 0.0017

Venus -32095-08-13 04:19 J -10001051.53 -10001051.32 -10001051.11 0.0089 0.0024

Venus -32094-03-26 17:31 J -10000825.97 -10000825.77 -10000825.56 0.0089 0.0031

Venus -32094-11-07 06:43 J -10000600.41 -10000600.22 -10000600.01 0.0089 0.0038

Venus -32093-06-19 19:55 J -10000374.85 -10000374.67 -10000374.47 0.0089 0.0045

Venus -32092-01-31 09:07 J -10000149.29 -10000149.12 -10000148.93 0.0089 0.0052

Venus	-32092-09-13 22:04 J	-9999923.73	-9999923.58	-9999923.40	0.0089	0.0059
Venus	-32091-04-27 11:02 J	-9999698.16	-9999698.04	-9999697.87	0.0089	0.0066
Venus	-32091-12-09 00:14 J	-9999472.59	-9999472.49	-9999472.34	0.0089	0.0073
Venus	-32090-07-22 13:40 J	-9999247.02	-9999246.93	-9999246.83	0.0089	0.0080
Venus	-32089-03-04 02:23 J	-9999021.44	-9999021.40	-9999021.33	0.0089	0.0086
Jupiter	-32069-04-03 13:55 J	-9991686.36	-9991685.92	-9991685.45	0.0089	0.0043
Moon	-32060-03-27 01:26 J	-9988406.57	-9988406.44	-9988406.25	0.0089	0.0069
Earth	-32060-03-27 02:09 J	-9988406.56	-9988406.41	-9988406.22	0.0089	0.0066 *
Moon	-32059-03-29 12:57 J	-9988039.20	-9988038.96	-9988038.69	0.0089	0.0021
Earth	-32059-03-29 13:26 J	-9988039.18	-9988038.94	-9988038.69	0.0089	0.0024 *
Earth	-32058-03-31 23:59 J	-9987671.74	-9987671.50	-9987671.24	0.0089	0.0019
Moon	-32058-04-01 01:55 J	-9987671.65	-9987671.42	-9987671.16	0.0089	0.0017 *
Moon	-32057-04-02 07:55 J	-9987304.33	-9987304.17	-9987303.96	0.0089	0.0063
Earth	-32057-04-02 11:02 J	-9987304.21	-9987304.04	-9987303.84	0.0089	0.0061 *
Mercury	-32049-01-23 13:26 J	-9984451.95	-9984451.94	-9984451.90	0.0089	0.0087
Mercury	-32049-04-20 15:07 J	-9984363.92	-9984363.87	-9984363.80	0.0089	0.0080
Mercury	-32049-07-17 16:47 J	-9984275.87	-9984275.80	-9984275.72	0.0089	0.0073
Mercury	-32049-10-13 18:28 J	-9984187.82	-9984187.73	-9984187.64	0.0089	0.0067
Mercury	-32048-01-09 19:40 J	-9984099.77	-9984099.68	-9984099.56	0.0089	0.0061
Mercury	-32048-04-07 21:21 J	-9984011.71	-9984011.61	-9984011.49	0.0089	0.0053
Mercury	-32048-07-04 23:02 J	-9983923.65	-9983923.54	-9983923.41	0.0089	0.0046
Mercury	-32048-10-01 00:43 J	-9983835.59	-9983835.47	-9983835.34	0.0089	0.0039
Mercury	-32048-12-28 02:23 J	-9983747.53	-9983747.40	-9983747.27	0.0089	0.0032
Mercury	-32047-03-26 04:04 J	-9983659.47	-9983659.33	-9983659.20	0.0089	0.0026
Mercury	-32047-06-22 05:31 J	-9983571.40	-9983571.27	-9983571.13	0.0089	0.0019
Mercury	-32047-09-18 07:11 J	-9983483.34	-9983483.20	-9983483.06	0.0089	0.0012
Mercury	-32047-12-15 08:52 J	-9983395.27	-9983395.13	-9983394.99	0.0089	0.0005
Mercury	-32046-03-13 10:33 J	-9983307.20	-9983307.06	-9983306.92	0.0089	0.0003
Mars	-32046-03-23 04:04 J	-9983297.49	-9983297.33	-9983297.12	0.0089	0.0071
Mercury	-32046-06-09 11:59 J	-9983219.14	-9983219.00	-9983218.85	0.0089	0.0010

Mercury	-32046-09-05 13:40 J	-9983131.07	-9983130.93	-9983130.79	0.0089	0.0017
Mercury	-32046-12-02 15:21 J	-9983043.00	-9983042.86	-9983042.72	0.0089	0.0023
Mercury	-32045-02-28 17:02 J	-9982954.92	-9982954.79	-9982954.65	0.0089	0.0030
Mercury	-32045-05-26 18:28 J	-9982866.85	-9982866.73	-9982866.59	0.0089	0.0038
Mercury	-32045-08-22 20:09 J	-9982778.77	-9982778.66	-9982778.52	0.0089	0.0045
Mercury	-32045-11-18 21:50 J	-9982690.69	-9982690.59	-9982690.46	0.0089	0.0052
Mars	-32044-02-14 15:21 J	-9982603.15	-9982602.86	-9982602.56	0.0089	0.0020
Mercury	-32044-02-14 23:31 J	-9982602.62	-9982602.52	-9982602.40	0.0089	0.0059 *
Mercury	-32044-05-14 01:11 J	-9982514.53	-9982514.45	-9982514.34	0.0089	0.0066
Mercury	-32044-08-10 03:07 J	-9982426.45	-9982426.37	-9982426.29	0.0089	0.0073
Mercury	-32044-11-06 04:47 J	-9982338.35	-9982338.30	-9982338.24	0.0089	0.0080
Mercury	-32043-02-02 06:14 J	-9982250.25	-9982250.24	-9982250.20	0.0089	0.0088
Mars	-32042-01-10 00:28 J	-9981908.75	-9981908.48	-9981908.18	0.0089	0.0030
Mars	-32041-12-04 07:26 J	-9981214.31	-9981214.19	-9981214.04	0.0089	0.0079
Venus	-32023-03-28 10:04 J	-9974891.11	-9974891.08	-9974891.02	0.0089	0.0087
Venus	-32023-11-08 22:47 J	-9974665.64	-9974665.55	-9974665.46	0.0089	0.0080
Venus	-32022-06-22 10:47 J	-9974440.15	-9974440.05	-9974439.91	0.0089	0.0074
Venus	-32021-02-02 23:31 J	-9974214.65	-9974214.52	-9974214.37	0.0089	0.0067
Venus	-32021-09-15 11:45 J	-9973989.15	-9973989.01	-9973988.83	0.0089	0.0061
Venus	-32020-04-29 00:43 J	-9973763.63	-9973763.47	-9973763.29	0.0088	0.0054
Venus	-32020-12-10 13:26 J	-9973538.12	-9973537.94	-9973537.75	0.0088	0.0047
Venus	-32019-07-24 02:09 J	-9973312.60	-9973312.41	-9973312.21	0.0088	0.0040
Venus	-32018-03-06 14:23 J	-9973087.08	-9973086.90	-9973086.68	0.0088	0.0034
Venus	-32018-10-18 03:21 J	-9972861.56	-9972861.36	-9972861.15	0.0088	0.0026
Venus	-32017-05-30 16:04 J	-9972636.04	-9972635.83	-9972635.61	0.0088	0.0020
Venus	-32016-01-11 04:47 J	-9972410.52	-9972410.30	-9972410.08	0.0088	0.0013
Venus	-32016-08-24 17:31 J	-9972184.99	-9972184.77	-9972184.55	0.0088	0.0006
Venus	-32015-04-07 06:14 J	-9971959.46	-9971959.24	-9971959.02	0.0088	0.0002
Venus	-32015-11-18 18:57 J	-9971733.92	-9971733.71	-9971733.49	0.0088	0.0008
Venus	-32014-07-02 07:40 J	-9971508.39	-9971508.18	-9971507.96	0.0088	0.0015

Venus	-32013-02-12 20:23 J	-9971282.86	-9971282.65	-9971282.44	0.0088	0.0022
Venus	-32013-09-25 08:52 J	-9971057.33	-9971057.13	-9971056.91	0.0088	0.0029
Venus	-32012-05-08 21:50 J	-9970831.78	-9970831.59	-9970831.38	0.0088	0.0035
Venus	-32012-12-20 10:19 J	-9970606.24	-9970606.07	-9970605.86	0.0088	0.0043
Venus	-32011-08-02 23:31 J	-9970380.70	-9970380.52	-9970380.33	0.0088	0.0049
Venus	-32010-03-16 12:14 J	-9970155.16	-9970154.99	-9970154.82	0.0088	0.0056
Venus	-32010-10-28 00:43 J	-9969929.61	-9969929.47	-9969929.30	0.0088	0.0063
Venus	-32009-06-09 13:40 J	-9969704.05	-9969703.93	-9969703.78	0.0088	0.0069
Venus	-32008-01-21 02:52 J	-9969478.49	-9969478.38	-9969478.27	0.0088	0.0076
Venus	-32008-09-03 15:35 J	-9969252.92	-9969252.85	-9969252.76	0.0088	0.0082

32ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 32nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-31978-09-28 04:04 J	-9958271.51	-9958271.33	-9958271.16	0.0088	0.0066		
Moon	-31978-09-28 03:21 J	-9958271.51	-9958271.36	-9958271.15	0.0088	0.0065	*	
Earth	-31977-09-29 15:50 J	-9957904.08	-9957903.84	-9957903.57	0.0088	0.0024		
Moon	-31977-09-29 17:02 J	-9957904.02	-9957903.79	-9957903.54	0.0088	0.0024	*	
Moon	-31976-10-02 02:23 J	-9957536.65	-9957536.40	-9957536.13	0.0088	0.0018		
Earth	-31976-10-02 04:33 J	-9957536.56	-9957536.31	-9957536.05	0.0088	0.0018	*	
Earth	-31975-10-04 16:19 J	-9957168.99	-9957168.82	-9957168.61	0.0088	0.0060		
Moon	-31975-10-04 19:26 J	-9957168.85	-9957168.69	-9957168.48	0.0088	0.0061	*	

Mercury	-31966-07-17 06:28 J	-9953961.26	-9953961.23	-9953961.20	0.0088	0.0087
Mercury	-31966-10-13 08:52 J	-9953873.19	-9953873.13	-9953873.02	0.0088	0.0079
Mercury	-31965-01-09 11:59 J	-9953785.09	-9953785.00	-9953784.87	0.0088	0.0070
Mercury	-31965-04-06 15:07 J	-9953696.99	-9953696.87	-9953696.73	0.0088	0.0061
Mercury	-31965-07-03 17:59 J	-9953608.88	-9953608.75	-9953608.59	0.0088	0.0052
Mercury	-31965-09-29 21:07 J	-9953520.77	-9953520.62	-9953520.46	0.0088	0.0043
Mercury	-31965-12-26 23:45 J	-9953432.66	-9953432.51	-9953432.33	0.0088	0.0035
Mercury	-31964-03-25 02:52 J	-9953344.54	-9953344.38	-9953344.20	0.0088	0.0026
Mercury	-31964-06-21 05:59 J	-9953256.43	-9953256.25	-9953256.08	0.0088	0.0018
Mercury	-31964-09-17 08:38 J	-9953168.31	-9953168.14	-9953167.96	0.0088	0.0009
Mercury	-31964-12-14 11:31 J	-9953080.19	-9953080.02	-9953079.84	0.0088	0.0002
Mercury	-31963-03-12 14:23 J	-9952992.07	-9952991.90	-9952991.72	0.0088	0.0008
Mercury	-31963-06-08 17:16 J	-9952903.95	-9952903.78	-9952903.61	0.0088	0.0016
Mercury	-31963-09-04 20:09 J	-9952815.83	-9952815.66	-9952815.49	0.0088	0.0025
Mars	-31963-11-03 04:19 J	-9952756.56	-9952756.32	-9952756.04	0.0088	0.0053
Mercury	-31963-12-01 22:47 J	-9952727.71	-9952727.55	-9952727.38	0.0088	0.0033
Mercury	-31962-02-28 01:26 J	-9952639.58	-9952639.44	-9952639.27	0.0088	0.0042
Mercury	-31962-05-27 04:19 J	-9952551.46	-9952551.32	-9952551.17	0.0088	0.0050
Mercury	-31962-08-23 06:57 J	-9952463.33	-9952463.21	-9952463.07	0.0088	0.0058
Mercury	-31962-11-19 09:35 J	-9952375.20	-9952375.10	-9952374.97	0.0088	0.0067
Mercury	-31961-02-15 12:28 J	-9952287.06	-9952286.98	-9952286.88	0.0088	0.0074
Mercury	-31961-05-13 15:07 J	-9952198.91	-9952198.87	-9952198.80	0.0088	0.0083
Mars	-31961-09-28 11:31 J	-9952061.34	-9952061.02	-9952060.69	0.0088	0.0001
Mars	-31959-08-24 19:26 J	-9951365.94	-9951365.69	-9951365.42	0.0088	0.0053
Venus	-31940-08-10 03:07 J	-9944440.44	-9944440.37	-9944440.30	0.0089	0.0084
Venus	-31939-03-23 16:04 J	-9944214.91	-9944214.83	-9944214.70	0.0089	0.0078
Venus	-31939-11-04 05:59 J	-9943989.37	-9943989.25	-9943989.10	0.0089	0.0071
Venus	-31938-06-17 19:26 J	-9943763.83	-9943763.69	-9943763.52	0.0089	0.0064
Venus	-31937-01-29 08:52 J	-9943538.28	-9943538.13	-9943537.95	0.0089	0.0057
Venus	-31937-09-10 22:33 J	-9943312.74	-9943312.56	-9943312.37	0.0089	0.0050

Venus	-31936-04-24 11:59 J	-9943087.19	-9943087.00	-9943086.80	0.0089	0.0043
Venus	-31936-12-06 01:26 J	-9942861.64	-9942861.44	-9942861.23	0.0089	0.0036
Venus	-31935-07-19 14:52 J	-9942636.09	-9942635.88	-9942635.67	0.0089	0.0029
Venus	-31934-03-02 04:04 J	-9942410.54	-9942410.33	-9942410.11	0.0089	0.0022
Venus	-31934-10-13 17:31 J	-9942184.99	-9942184.77	-9942184.55	0.0089	0.0015
Venus	-31933-05-26 06:43 J	-9941959.44	-9941959.22	-9941958.99	0.0089	0.0009
Venus	-31932-01-06 20:09 J	-9941733.88	-9941733.66	-9941733.44	0.0089	0.0002
Venus	-31932-08-20 09:21 J	-9941508.33	-9941508.11	-9941507.89	0.0089	0.0006
Venus	-31931-04-02 22:33 J	-9941282.78	-9941282.56	-9941282.34	0.0089	0.0013
Venus	-31931-11-14 11:45 J	-9941057.21	-9941057.01	-9941056.78	0.0089	0.0020
Venus	-31930-06-28 00:57 J	-9940831.66	-9940831.46	-9940831.24	0.0089	0.0027
Venus	-31929-02-08 14:09 J	-9940606.10	-9940605.91	-9940605.69	0.0089	0.0034
Venus	-31929-09-21 03:35 J	-9940380.54	-9940380.35	-9940380.15	0.0089	0.0040
Venus	-31928-05-04 16:47 J	-9940154.98	-9940154.80	-9940154.61	0.0089	0.0047
Venus	-31928-12-16 05:59 J	-9939929.42	-9939929.25	-9939929.07	0.0089	0.0054
Venus	-31927-07-29 18:57 J	-9939703.86	-9939703.71	-9939703.54	0.0089	0.0061
Venus	-31926-03-12 07:55 J	-9939478.29	-9939478.17	-9939478.01	0.0089	0.0068
Venus	-31926-10-23 21:21 J	-9939252.72	-9939252.61	-9939252.48	0.0089	0.0074
Venus	-31925-06-05 10:19 J	-9939027.14	-9939027.07	-9939026.97	0.0089	0.0081
Venus	-31924-01-16 23:02 J	-9938801.55	-9938801.54	-9938801.48	0.0089	0.0088
Jupiter	-31903-05-31 21:50 J	-9930997.09	-9930996.59	-9930996.06	0.0089	0.0011
Earth	-31895-03-28 19:11 J	-9928138.90	-9928138.70	-9928138.47	0.0089	0.0048
Moon	-31895-03-28 21:07 J	-9928138.82	-9928138.62	-9928138.40	0.0089	0.0044 *
Moon	-31894-03-31 03:07 J	-9927771.62	-9927771.37	-9927771.11	0.0089	0.0010
Earth	-31894-03-31 06:28 J	-9927771.49	-9927771.23	-9927770.98	0.0089	0.0006 *
Earth	-31893-04-01 17:16 J	-9927404.01	-9927403.78	-9927403.55	0.0089	0.0037
Moon	-31893-04-01 20:23 J	-9927403.86	-9927403.65	-9927403.41	0.0089	0.0041 *
Moon	-31892-04-04 00:14 J	-9927036.61	-9927036.49	-9927036.34	0.0089	0.0076
Earth	-31892-04-04 03:35 J	-9927036.44	-9927036.35	-9927036.21	0.0089	0.0080 *
Mercury	-31885-10-19 12:28 J	-9924281.01	-9924280.98	-9924280.93	0.0089	0.0085

Mercury	-31884-01-15 14:09 J	-9924192.97	-9924192.91	-9924192.84	0.0089	0.0078
Mercury	-31884-04-13 15:21 J	-9924104.92	-9924104.86	-9924104.76	0.0089	0.0073
Mercury	-31884-07-10 17:02 J	-9924016.87	-9924016.79	-9924016.68	0.0089	0.0065
Mercury	-31884-10-06 18:43 J	-9923928.82	-9923928.72	-9923928.61	0.0089	0.0058
Mercury	-31883-01-02 20:23 J	-9923840.76	-9923840.65	-9923840.53	0.0089	0.0051
Mercury	-31883-03-31 22:04 J	-9923752.70	-9923752.58	-9923752.46	0.0089	0.0045
Mercury	-31883-06-27 23:31 J	-9923664.64	-9923664.52	-9923664.39	0.0089	0.0038
Mercury	-31883-09-24 01:11 J	-9923576.58	-9923576.45	-9923576.32	0.0089	0.0031
Mercury	-31883-12-21 02:38 J	-9923488.52	-9923488.39	-9923488.25	0.0089	0.0024
Mercury	-31882-03-19 04:19 J	-9923400.45	-9923400.32	-9923400.18	0.0089	0.0017
Mercury	-31882-06-15 05:59 J	-9923312.39	-9923312.25	-9923312.11	0.0089	0.0010
Mercury	-31882-09-11 07:40 J	-9923224.32	-9923224.18	-9923224.04	0.0089	0.0003
Mercury	-31882-12-08 09:21 J	-9923136.26	-9923136.11	-9923135.97	0.0089	0.0005
Mercury	-31881-03-05 10:47 J	-9923048.19	-9923048.05	-9923047.91	0.0089	0.0011
Mercury	-31881-06-01 12:28 J	-9922960.12	-9922959.98	-9922959.84	0.0089	0.0018
Mercury	-31881-08-28 14:09 J	-9922872.05	-9922871.91	-9922871.77	0.0089	0.0025
Mars	-31881-09-29 06:57 J	-9922840.46	-9922840.21	-9922839.94	0.0089	0.0046
Mercury	-31881-11-24 15:35 J	-9922783.97	-9922783.85	-9922783.71	0.0089	0.0032
Mercury	-31880-02-20 17:16 J	-9922695.90	-9922695.78	-9922695.64	0.0089	0.0039
Mercury	-31880-05-19 18:57 J	-9922607.83	-9922607.71	-9922607.58	0.0089	0.0046
Mercury	-31880-08-15 20:38 J	-9922519.75	-9922519.64	-9922519.52	0.0089	0.0053
Mercury	-31880-11-11 22:19 J	-9922431.67	-9922431.57	-9922431.46	0.0089	0.0060
Mercury	-31879-02-08 00:14 J	-9922343.58	-9922343.49	-9922343.40	0.0089	0.0067
Mercury	-31879-05-07 01:26 J	-9922255.50	-9922255.44	-9922255.35	0.0089	0.0075
Mercury	-31879-08-03 03:21 J	-9922167.40	-9922167.36	-9922167.30	0.0089	0.0082
Mars	-31879-08-24 16:47 J	-9922146.09	-9922145.80	-9922145.49	0.0089	0.0005
Mercury	-31879-10-30 05:16 J	-9922079.28	-9922079.28	-9922079.28	0.0089	0.0089
Mars	-31877-07-19 01:26 J	-9921451.65	-9921451.44	-9921451.18	0.0089	0.0055
Venus	-31858-02-10 07:26 J	-9914671.25	-9914671.19	-9914671.09	0.0089	0.0083
Venus	-31858-09-23 20:09 J	-9914445.76	-9914445.66	-9914445.54	0.0089	0.0076

Venus	-31857-05-06 08:23 J	-9914220.26	-9914220.15	-9914220.00	0.0089	0.0070
Venus	-31857-12-17 21:07 J	-9913994.76	-9913994.62	-9913994.46	0.0089	0.0063
Venus	-31856-07-31 09:21 J	-9913769.26	-9913769.11	-9913768.92	0.0089	0.0057
Venus	-31855-03-13 22:04 J	-9913543.75	-9913543.58	-9913543.39	0.0088	0.0050
Venus	-31855-10-25 10:33 J	-9913318.24	-9913318.06	-9913317.86	0.0088	0.0043
Venus	-31854-06-07 23:16 J	-9913092.72	-9913092.53	-9913092.32	0.0088	0.0036
Venus	-31853-01-19 11:59 J	-9912867.21	-9912867.00	-9912866.79	0.0088	0.0030
Venus	-31853-09-01 00:14 J	-9912641.69	-9912641.49	-9912641.26	0.0088	0.0024
Venus	-31852-04-14 13:11 J	-9912416.16	-9912415.95	-9912415.73	0.0088	0.0017
Venus	-31852-11-26 02:09 J	-9912190.63	-9912190.41	-9912190.19	0.0088	0.0010
Venus	-31851-07-09 14:38 J	-9911965.10	-9911964.89	-9911964.67	0.0088	0.0003
Venus	-31850-02-20 03:21 J	-9911739.58	-9911739.36	-9911739.14	0.0088	0.0004
Venus	-31850-10-03 16:04 J	-9911514.05	-9911513.83	-9911513.61	0.0088	0.0011
Venus	-31849-05-16 04:47 J	-9911288.51	-9911288.30	-9911288.08	0.0088	0.0017
Venus	-31849-12-27 17:16 J	-9911062.98	-9911062.78	-9911062.55	0.0088	0.0025
Venus	-31848-08-10 05:59 J	-9910837.44	-9910837.25	-9910837.03	0.0088	0.0031
Venus	-31847-03-23 18:57 J	-9910611.90	-9910611.71	-9910611.50	0.0088	0.0038
Venus	-31847-11-04 07:26 J	-9910386.36	-9910386.19	-9910385.98	0.0088	0.0045
Venus	-31846-06-17 20:09 J	-9910160.82	-9910160.66	-9910160.46	0.0088	0.0051
Venus	-31845-01-29 09:07 J	-9909935.27	-9909935.12	-9909934.94	0.0088	0.0058
Venus	-31845-09-10 21:50 J	-9909709.73	-9909709.59	-9909709.43	0.0088	0.0064
Venus	-31844-04-24 11:02 J	-9909484.16	-9909484.04	-9909483.90	0.0088	0.0071
Venus	-31844-12-05 23:31 J	-9909258.60	-9909258.52	-9909258.39	0.0088	0.0078
Venus	-31843-07-19 12:57 J	-9909033.03	-9909032.96	-9909032.90	0.0088	0.0084
Moon	-31813-09-28 16:04 J	-9898004.04	-9898003.83	-9898003.58	0.0088	0.0045
Earth	-31813-09-28 18:57 J	-9898003.91	-9898003.71	-9898003.47	0.0088	0.0049 *
Earth	-31812-10-01 07:40 J	-9897636.44	-9897636.18	-9897635.92	0.0088	0.0007
Moon	-31812-10-01 10:47 J	-9897636.30	-9897636.05	-9897635.80	0.0088	0.0011 *
Moon	-31811-10-03 15:50 J	-9897269.05	-9897268.84	-9897268.58	0.0088	0.0040
Earth	-31811-10-03 19:55 J	-9897268.90	-9897268.67	-9897268.42	0.0088	0.0035 *

Earth	-31810-10-06 07:40 J	-9896901.28	-9896901.18	-9896901.03	0.0088	0.0078
Moon	-31810-10-06 11:31 J	-9896901.16	-9896901.02	-9896900.86	0.0088	0.0072 *
Mercury	-31801-04-12 03:07 J	-9893790.38	-9893790.37	-9893790.31	0.0088	0.0087
Mercury	-31801-07-09 06:14 J	-9893702.31	-9893702.24	-9893702.14	0.0088	0.0078
Mercury	-31801-10-05 09:21 J	-9893614.21	-9893614.11	-9893613.99	0.0088	0.0069
Mercury	-31800-01-01 12:14 J	-9893526.11	-9893525.99	-9893525.84	0.0088	0.0060
Mercury	-31800-03-30 15:21 J	-9893438.00	-9893437.86	-9893437.71	0.0088	0.0051
Mercury	-31800-06-26 18:28 J	-9893349.89	-9893349.73	-9893349.57	0.0088	0.0042
Mercury	-31800-09-22 21:07 J	-9893261.77	-9893261.62	-9893261.44	0.0088	0.0034
Mercury	-31800-12-20 00:14 J	-9893173.66	-9893173.49	-9893173.32	0.0088	0.0025
Mercury	-31799-03-18 03:07 J	-9893085.54	-9893085.37	-9893085.19	0.0088	0.0017
Mercury	-31799-06-14 05:59 J	-9892997.42	-9892997.25	-9892997.07	0.0088	0.0008
Mars	-31799-06-17 03:07 J	-9892994.51	-9892994.37	-9892994.24	0.0088	0.0080
Mercury	-31799-09-10 08:52 J	-9892909.30	-9892909.13	-9892908.95	0.0088	0.0002
Mercury	-31799-12-07 11:45 J	-9892821.18	-9892821.01	-9892820.83	0.0088	0.0009
Mercury	-31798-03-05 14:38 J	-9892733.06	-9892732.89	-9892732.71	0.0088	0.0017
Mercury	-31798-06-01 17:16 J	-9892644.94	-9892644.78	-9892644.60	0.0088	0.0026
Mercury	-31798-08-28 20:09 J	-9892556.81	-9892556.66	-9892556.49	0.0088	0.0034
Mercury	-31798-11-24 23:02 J	-9892468.69	-9892468.54	-9892468.38	0.0088	0.0043
Mercury	-31797-02-21 01:40 J	-9892380.56	-9892380.43	-9892380.27	0.0088	0.0051
Mars	-31797-05-12 06:57 J	-9892299.51	-9892299.21	-9892298.90	0.0088	0.0028
Mercury	-31797-05-19 04:33 J	-9892292.43	-9892292.31	-9892292.17	0.0088	0.0059
Mercury	-31797-08-15 07:11 J	-9892204.30	-9892204.20	-9892204.07	0.0088	0.0068
Mercury	-31797-11-11 10:04 J	-9892116.16	-9892116.08	-9892115.98	0.0088	0.0076
Mercury	-31796-02-07 12:57 J	-9892028.01	-9892027.96	-9892027.91	0.0088	0.0084
Mars	-31795-04-07 14:09 J	-9891604.21	-9891603.91	-9891603.59	0.0088	0.0025
Mars	-31793-03-02 22:33 J	-9890908.69	-9890908.56	-9890908.40	0.0088	0.0079
Venus	-31776-11-11 09:07 J	-9884446.14	-9884446.12	-9884446.06	0.0089	0.0087
Venus	-31775-06-24 23:02 J	-9884220.63	-9884220.54	-9884220.44	0.0089	0.0080
Venus	-31774-02-05 11:59 J	-9883995.10	-9883995.00	-9883994.85	0.0089	0.0074

Venus	-31774-09-19 01:55 J	-9883769.55	-9883769.42	-9883769.26	0.0089	0.0067
Venus	-31773-05-01 15:35 J	-9883544.00	-9883543.85	-9883543.68	0.0089	0.0060
Venus	-31773-12-13 05:16 J	-9883318.46	-9883318.28	-9883318.10	0.0089	0.0053
Venus	-31772-07-26 18:14 J	-9883092.91	-9883092.74	-9883092.53	0.0089	0.0047
Venus	-31771-03-09 07:55 J	-9882867.36	-9882867.17	-9882866.96	0.0089	0.0040
Venus	-31771-10-20 21:21 J	-9882641.80	-9882641.61	-9882641.39	0.0089	0.0033
Venus	-31770-06-03 10:47 J	-9882416.25	-9882416.05	-9882415.83	0.0089	0.0026
Venus	-31769-01-15 00:14 J	-9882190.70	-9882190.49	-9882190.27	0.0089	0.0019
Venus	-31769-08-27 13:40 J	-9881965.15	-9881964.93	-9881964.71	0.0089	0.0012
Venus	-31768-04-10 02:52 J	-9881739.60	-9881739.38	-9881739.16	0.0089	0.0006
Venus	-31768-11-21 16:19 J	-9881514.04	-9881513.82	-9881513.60	0.0089	0.0002
Venus	-31767-07-05 05:31 J	-9881288.49	-9881288.27	-9881288.05	0.0089	0.0008
Venus	-31766-02-15 18:43 J	-9881062.93	-9881062.72	-9881062.50	0.0089	0.0015
Venus	-31766-09-29 07:55 J	-9880837.37	-9880837.17	-9880836.95	0.0089	0.0022
Venus	-31765-05-11 21:07 J	-9880611.82	-9880611.62	-9880611.40	0.0089	0.0029
Venus	-31765-12-23 10:19 J	-9880386.26	-9880386.07	-9880385.85	0.0089	0.0036
Venus	-31764-08-05 23:45 J	-9880160.70	-9880160.51	-9880160.31	0.0089	0.0042
Venus	-31763-03-19 12:57 J	-9879935.14	-9879934.96	-9879934.77	0.0089	0.0049
Venus	-31763-10-31 01:55 J	-9879709.57	-9879709.42	-9879709.23	0.0089	0.0056
Venus	-31762-06-13 15:35 J	-9879484.00	-9879483.85	-9879483.69	0.0089	0.0062
Venus	-31761-01-25 04:19 J	-9879258.44	-9879258.32	-9879258.16	0.0089	0.0069
Venus	-31761-09-06 17:16 J	-9879032.87	-9879032.78	-9879032.64	0.0089	0.0076
Venus	-31760-04-20 06:43 J	-9878807.29	-9878807.22	-9878807.13	0.0089	0.0082
Venus	-31760-12-01 19:55 J	-9878581.67	-9878581.67	-9878581.64	0.0089	0.0089
Jupiter	-31737-07-29 05:45 J	-9870306.75	-9870306.26	-9870305.73	0.0089	0.0020
Moon	-31731-03-27 21:21 J	-9868238.73	-9868238.61	-9868238.45	0.0089	0.0074
Earth	-31731-03-28 00:14 J	-9868238.60	-9868238.49	-9868238.32	0.0089	0.0074 *
Earth	-31730-03-30 11:45 J	-9867871.25	-9867871.01	-9867870.77	0.0089	0.0031
Moon	-31730-03-30 15:21 J	-9867871.10	-9867870.86	-9867870.62	0.0089	0.0029 *
Moon	-31729-03-31 19:11 J	-9867503.94	-9867503.70	-9867503.44	0.0089	0.0011

Earth	-31729-03-31 22:19 J	-9867503.81	-9867503.57	-9867503.30	0.0089	0.0013	*
Earth	-31728-04-03 08:52 J	-9867136.31	-9867136.13	-9867135.91	0.0089	0.0055	
Moon	-31728-04-03 11:59 J	-9867136.19	-9867136.00	-9867135.79	0.0089	0.0056	*
Mercury	-31720-07-16 11:02 J	-9864110.07	-9864110.04	-9864109.98	0.0089	0.0085	
Mercury	-31720-10-12 12:43 J	-9864022.02	-9864021.97	-9864021.89	0.0089	0.0078	
Mercury	-31719-01-08 14:23 J	-9863933.98	-9863933.90	-9863933.81	0.0089	0.0070	
Mercury	-31719-04-06 16:04 J	-9863845.92	-9863845.83	-9863845.73	0.0089	0.0064	
Mercury	-31719-07-03 17:31 J	-9863757.87	-9863757.77	-9863757.65	0.0089	0.0057	
Mercury	-31719-09-29 19:11 J	-9863669.81	-9863669.70	-9863669.58	0.0089	0.0050	
Mercury	-31719-12-26 20:38 J	-9863581.75	-9863581.64	-9863581.51	0.0089	0.0043	
Mercury	-31718-03-24 22:19 J	-9863493.69	-9863493.57	-9863493.44	0.0089	0.0036	
Mercury	-31718-06-20 23:59 J	-9863405.63	-9863405.50	-9863405.37	0.0089	0.0029	
Mercury	-31718-09-17 01:40 J	-9863317.57	-9863317.43	-9863317.30	0.0089	0.0023	
Mercury	-31718-12-14 03:07 J	-9863229.51	-9863229.37	-9863229.23	0.0089	0.0016	
Mercury	-31717-03-11 04:47 J	-9863141.44	-9863141.30	-9863141.16	0.0089	0.0009	
Mars	-31717-05-13 18:43 J	-9863077.86	-9863077.72	-9863077.50	0.0089	0.0074	
Mercury	-31717-06-07 06:28 J	-9863053.37	-9863053.23	-9863053.09	0.0089	0.0002	
Mercury	-31717-09-03 07:55 J	-9862965.31	-9862965.17	-9862965.02	0.0089	0.0006	
Mercury	-31717-11-30 09:35 J	-9862877.24	-9862877.10	-9862876.96	0.0089	0.0012	
Mercury	-31716-02-26 11:16 J	-9862789.17	-9862789.03	-9862788.89	0.0089	0.0019	
Mercury	-31716-05-25 12:57 J	-9862701.10	-9862700.96	-9862700.83	0.0089	0.0026	
Mercury	-31716-08-21 14:23 J	-9862613.03	-9862612.90	-9862612.76	0.0089	0.0034	
Mercury	-31716-11-17 16:04 J	-9862524.95	-9862524.83	-9862524.70	0.0089	0.0040	
Mercury	-31715-02-13 17:31 J	-9862436.88	-9862436.77	-9862436.64	0.0089	0.0048	
Mars	-31715-04-08 08:52 J	-9862383.43	-9862383.13	-9862382.83	0.0089	0.0021	
Mercury	-31715-05-12 19:11 J	-9862348.80	-9862348.70	-9862348.57	0.0089	0.0055	
Mercury	-31715-08-08 20:52 J	-9862260.72	-9862260.63	-9862260.52	0.0089	0.0062	
Mercury	-31715-11-04 22:33 J	-9862172.64	-9862172.56	-9862172.46	0.0089	0.0069	
Mercury	-31714-02-01 00:14 J	-9862084.55	-9862084.49	-9862084.40	0.0089	0.0076	
Mercury	-31714-04-30 02:09 J	-9861996.45	-9861996.41	-9861996.36	0.0089	0.0083	

Mars	-31713-03-02 18:28 J	-9861688.99	-9861688.73	-9861688.42	0.0089	0.0030
Mars	-31711-01-26 02:38 J	-9860994.49	-9860994.39	-9860994.22	0.0089	0.0080
Venus	-31694-05-14 16:19 J	-9854676.86	-9854676.82	-9854676.74	0.0089	0.0085
Venus	-31694-12-26 05:16 J	-9854451.38	-9854451.28	-9854451.18	0.0089	0.0078
Venus	-31693-08-07 17:16 J	-9854225.89	-9854225.78	-9854225.64	0.0089	0.0072
Venus	-31692-03-21 05:45 J	-9854000.39	-9854000.26	-9854000.10	0.0089	0.0066
Venus	-31692-11-01 18:43 J	-9853774.88	-9853774.72	-9853774.56	0.0089	0.0059
Venus	-31691-06-15 06:43 J	-9853549.38	-9853549.22	-9853549.03	0.0088	0.0053
Venus	-31690-01-26 19:11 J	-9853323.87	-9853323.70	-9853323.50	0.0088	0.0046
Venus	-31690-09-09 07:55 J	-9853098.36	-9853098.17	-9853097.97	0.0088	0.0040
Venus	-31689-04-21 20:23 J	-9852872.84	-9852872.65	-9852872.43	0.0088	0.0034
Venus	-31689-12-03 09:07 J	-9852647.32	-9852647.12	-9852646.90	0.0088	0.0027
Venus	-31688-07-16 21:35 J	-9852421.80	-9852421.60	-9852421.37	0.0088	0.0021
Venus	-31687-02-27 10:19 J	-9852196.28	-9852196.07	-9852195.84	0.0088	0.0014
Venus	-31687-10-10 23:16 J	-9851970.75	-9851970.53	-9851970.31	0.0088	0.0007
Venus	-31686-05-24 11:59 J	-9851745.22	-9851745.00	-9851744.78	0.0088	0.0001
Venus	-31685-01-05 00:43 J	-9851519.69	-9851519.47	-9851519.25	0.0088	0.0007
Venus	-31685-08-17 13:11 J	-9851294.16	-9851293.95	-9851293.73	0.0088	0.0013
Venus	-31684-03-31 01:55 J	-9851068.63	-9851068.42	-9851068.20	0.0088	0.0020
Venus	-31684-11-11 14:38 J	-9850843.09	-9850842.89	-9850842.67	0.0088	0.0027
Venus	-31683-06-25 03:21 J	-9850617.55	-9850617.36	-9850617.15	0.0088	0.0033
Venus	-31682-02-05 16:04 J	-9850392.02	-9850391.83	-9850391.63	0.0088	0.0040
Venus	-31682-09-19 04:33 J	-9850166.48	-9850166.31	-9850166.10	0.0088	0.0047
Venus	-31681-05-01 17:59 J	-9849940.93	-9849940.75	-9849940.58	0.0088	0.0053
Venus	-31681-12-13 06:14 J	-9849715.38	-9849715.24	-9849715.06	0.0088	0.0060
Venus	-31680-07-26 19:26 J	-9849489.83	-9849489.69	-9849489.54	0.0088	0.0066
Venus	-31679-03-09 07:40 J	-9849264.28	-9849264.18	-9849264.03	0.0088	0.0073
Venus	-31679-10-20 20:52 J	-9849038.72	-9849038.63	-9849038.52	0.0088	0.0079
Venus	-31678-06-03 09:21 J	-9848813.14	-9848813.11	-9848813.03	0.0088	0.0086
Earth	-31649-09-27 22:04 J	-9838103.70	-9838103.58	-9838103.42	0.0088	0.0074

Moon	-31649-09-28 01:55 J	-9838103.56	-9838103.42	-9838103.26	0.0088	0.0072	*
Moon	-31648-09-30 07:11 J	-9837736.43	-9837736.20	-9837735.95	0.0088	0.0033	
Earth	-31648-09-30 10:47 J	-9837736.28	-9837736.05	-9837735.80	0.0088	0.0032	*
Earth	-31647-10-02 23:16 J	-9837368.79	-9837368.53	-9837368.27	0.0088	0.0010	
Moon	-31647-10-03 02:52 J	-9837368.64	-9837368.38	-9837368.12	0.0088	0.0010	*
Moon	-31646-10-05 08:38 J	-9837001.32	-9837001.14	-9837000.91	0.0088	0.0051	
Earth	-31646-10-05 11:02 J	-9837001.23	-9837001.04	-9837000.81	0.0088	0.0052	*
Mercury	-31636-01-07 00:28 J	-9833619.51	-9833619.48	-9833619.43	0.0088	0.0086	
Mercury	-31636-04-05 03:50 J	-9833531.43	-9833531.34	-9833531.26	0.0088	0.0077	
Mercury	-31636-07-02 06:14 J	-9833443.33	-9833443.24	-9833443.11	0.0088	0.0069	
Mercury	-31636-09-28 09:21 J	-9833355.23	-9833355.11	-9833354.96	0.0088	0.0060	
Mercury	-31636-12-25 12:43 J	-9833267.12	-9833266.97	-9833266.83	0.0088	0.0051	
Mercury	-31635-03-23 15:21 J	-9833179.01	-9833178.86	-9833178.69	0.0088	0.0042	
Mercury	-31635-06-19 18:28 J	-9833090.89	-9833090.73	-9833090.56	0.0088	0.0033	
Mercury	-31635-09-15 21:07 J	-9833002.78	-9833002.62	-9833002.43	0.0088	0.0026	
Mercury	-31635-12-13 00:14 J	-9832914.66	-9832914.49	-9832914.31	0.0088	0.0016	
Mercury	-31634-03-11 03:21 J	-9832826.54	-9832826.36	-9832826.19	0.0088	0.0008	
Mercury	-31634-06-07 06:14 J	-9832738.42	-9832738.24	-9832738.06	0.0088	0.0002	
Mercury	-31634-09-03 09:07 J	-9832650.30	-9832650.12	-9832649.95	0.0088	0.0010	
Mercury	-31634-11-30 11:45 J	-9832562.18	-9832562.01	-9832561.83	0.0088	0.0018	
Mars	-31634-12-25 03:50 J	-9832537.57	-9832537.34	-9832537.06	0.0088	0.0055	
Mercury	-31633-02-26 14:38 J	-9832474.05	-9832473.89	-9832473.72	0.0088	0.0027	
Mercury	-31633-05-24 17:16 J	-9832385.93	-9832385.78	-9832385.60	0.0088	0.0035	
Mercury	-31633-08-20 20:09 J	-9832297.80	-9832297.66	-9832297.50	0.0088	0.0044	
Mercury	-31633-11-16 23:02 J	-9832209.67	-9832209.54	-9832209.39	0.0088	0.0052	
Mercury	-31632-02-13 01:40 J	-9832121.54	-9832121.43	-9832121.29	0.0088	0.0060	
Mercury	-31632-05-12 04:33 J	-9832033.41	-9832033.31	-9832033.19	0.0088	0.0068	
Mercury	-31632-08-08 07:26 J	-9831945.27	-9831945.19	-9831945.10	0.0088	0.0076	
Mercury	-31632-11-04 10:19 J	-9831857.12	-9831857.07	-9831857.02	0.0088	0.0085	
Mars	-31632-11-19 08:38 J	-9831842.46	-9831842.14	-9831841.81	0.0088	0.0003	

Mars	-31630-10-15 15:35 J	-9831147.09	-9831146.85	-9831146.56	0.0088	0.0051
Venus	-31611-09-26 05:16 J	-9824226.35	-9824226.28	-9824226.20	0.0089	0.0083
Venus	-31610-05-09 18:28 J	-9824000.82	-9824000.73	-9824000.59	0.0089	0.0077
Venus	-31610-12-21 08:09 J	-9823775.28	-9823775.16	-9823775.01	0.0089	0.0070
Venus	-31609-08-02 22:04 J	-9823549.73	-9823549.58	-9823549.42	0.0089	0.0063
Venus	-31608-03-16 11:16 J	-9823324.19	-9823324.03	-9823323.84	0.0089	0.0057
Venus	-31608-10-28 00:57 J	-9823098.63	-9823098.46	-9823098.26	0.0089	0.0050
Venus	-31607-06-10 14:38 J	-9822873.08	-9822872.89	-9822872.69	0.0089	0.0043
Venus	-31606-01-22 03:50 J	-9822647.53	-9822647.34	-9822647.13	0.0089	0.0037
Venus	-31606-09-04 17:16 J	-9822421.98	-9822421.78	-9822421.56	0.0089	0.0030
Venus	-31605-04-17 06:57 J	-9822196.42	-9822196.21	-9822195.99	0.0089	0.0023
Venus	-31605-11-28 20:23 J	-9821970.87	-9821970.65	-9821970.43	0.0089	0.0016
Venus	-31604-07-12 09:35 J	-9821745.32	-9821745.10	-9821744.88	0.0089	0.0010
Venus	-31603-02-22 23:02 J	-9821519.76	-9821519.54	-9821519.32	0.0089	0.0003
Venus	-31603-10-06 12:14 J	-9821294.21	-9821293.99	-9821293.76	0.0089	0.0004
Venus	-31602-05-20 01:26 J	-9821068.65	-9821068.44	-9821068.21	0.0089	0.0011
Venus	-31602-12-31 14:52 J	-9820843.10	-9820842.88	-9820842.66	0.0089	0.0017
Venus	-31601-08-13 03:50 J	-9820617.54	-9820617.34	-9820617.12	0.0089	0.0024
Venus	-31600-03-26 17:02 J	-9820391.99	-9820391.79	-9820391.57	0.0089	0.0031
Venus	-31600-11-07 06:43 J	-9820166.42	-9820166.22	-9820166.02	0.0089	0.0037
Venus	-31599-06-20 19:40 J	-9819940.86	-9819940.68	-9819940.48	0.0089	0.0044
Venus	-31598-02-01 08:38 J	-9819715.31	-9819715.14	-9819714.95	0.0089	0.0051
Venus	-31598-09-14 22:04 J	-9819489.74	-9819489.58	-9819489.41	0.0089	0.0057
Venus	-31597-04-27 11:02 J	-9819264.18	-9819264.04	-9819263.87	0.0089	0.0064
Venus	-31597-12-09 00:28 J	-9819038.60	-9819038.48	-9819038.34	0.0089	0.0070
Venus	-31596-07-22 13:11 J	-9818813.03	-9818812.95	-9818812.82	0.0089	0.0078
Venus	-31595-03-05 02:38 J	-9818587.45	-9818587.39	-9818587.30	0.0089	0.0083
Jupiter	-31571-09-27 16:33 J	-9809615.18	-9809614.81	-9809614.34	0.0089	0.0054
Moon	-31566-03-29 13:11 J	-9807971.15	-9807970.95	-9807970.74	0.0089	0.0052
Earth	-31566-03-29 16:04 J	-9807971.00	-9807970.83	-9807970.61	0.0089	0.0057 *

Earth	-31565-03-31 03:21 J	-9807603.61	-9807603.36	-9807603.11	0.0089	0.0014
Moon	-31565-03-31 05:45 J	-9807603.51	-9807603.26	-9807603.00	0.0089	0.0018 *
Moon	-31564-04-02 12:28 J	-9807236.20	-9807235.98	-9807235.74	0.0089	0.0033
Earth	-31564-04-02 13:40 J	-9807236.15	-9807235.93	-9807235.67	0.0089	0.0030 *
Earth	-31563-04-05 00:28 J	-9806868.61	-9806868.48	-9806868.31	0.0089	0.0072
Moon	-31563-04-05 00:57 J	-9806868.60	-9806868.46	-9806868.26	0.0089	0.0068 *
Mercury	-31555-04-12 09:50 J	-9803939.12	-9803939.09	-9803939.03	0.0089	0.0083
Mercury	-31555-07-09 11:31 J	-9803851.08	-9803851.02	-9803850.94	0.0089	0.0076
Mercury	-31555-10-05 13:11 J	-9803763.03	-9803762.95	-9803762.86	0.0089	0.0069
Mercury	-31554-01-01 14:52 J	-9803674.98	-9803674.88	-9803674.78	0.0089	0.0063
Mercury	-31554-03-30 16:04 J	-9803586.93	-9803586.83	-9803586.71	0.0089	0.0056
Mercury	-31554-06-26 17:45 J	-9803498.87	-9803498.76	-9803498.64	0.0089	0.0049
Mercury	-31554-09-22 19:26 J	-9803410.81	-9803410.69	-9803410.56	0.0089	0.0042
Mercury	-31554-12-19 21:07 J	-9803322.75	-9803322.62	-9803322.49	0.0089	0.0035
Mercury	-31553-03-16 22:33 J	-9803234.69	-9803234.56	-9803234.42	0.0089	0.0028
Mercury	-31553-06-13 00:14 J	-9803146.63	-9803146.49	-9803146.35	0.0089	0.0021
Mercury	-31553-09-09 01:40 J	-9803058.56	-9803058.43	-9803058.28	0.0089	0.0015
Mercury	-31553-12-06 03:21 J	-9802970.50	-9802970.36	-9802970.22	0.0089	0.0008
Mercury	-31552-03-04 05:02 J	-9802882.43	-9802882.29	-9802882.15	0.0089	0.0001
Mercury	-31552-05-31 06:43 J	-9802794.36	-9802794.22	-9802794.08	0.0089	0.0006
Mercury	-31552-08-27 08:09 J	-9802706.30	-9802706.16	-9802706.01	0.0089	0.0014
Mars	-31552-11-20 20:52 J	-9802620.87	-9802620.63	-9802620.36	0.0089	0.0048
Mercury	-31552-11-23 09:50 J	-9802618.23	-9802618.09	-9802617.95	0.0089	0.0020
Mercury	-31551-02-19 11:31 J	-9802530.15	-9802530.02	-9802529.88	0.0089	0.0027
Mercury	-31551-05-18 13:11 J	-9802442.08	-9802441.95	-9802441.82	0.0089	0.0034
Mercury	-31551-08-14 14:52 J	-9802354.01	-9802353.88	-9802353.76	0.0089	0.0042
Mercury	-31551-11-10 16:19 J	-9802265.93	-9802265.82	-9802265.69	0.0089	0.0049
Mercury	-31550-02-06 17:45 J	-9802177.86	-9802177.76	-9802177.63	0.0089	0.0056
Mercury	-31550-05-05 19:26 J	-9802089.78	-9802089.69	-9802089.57	0.0089	0.0063
Mercury	-31550-08-01 21:07 J	-9802001.69	-9802001.62	-9802001.52	0.0089	0.0071

Mars	-31550-10-16 10:04 J	-9801926.39	-9801926.08	-9801925.78	0.0089	0.0003
Mercury	-31550-10-28 23:02 J	-9801913.60	-9801913.54	-9801913.47	0.0089	0.0077
Mercury	-31549-01-25 00:43 J	-9801825.51	-9801825.47	-9801825.42	0.0089	0.0084
Mars	-31548-09-09 19:55 J	-9801231.90	-9801231.67	-9801231.42	0.0089	0.0054
Venus	-31530-08-16 00:57 J	-9794682.48	-9794682.46	-9794682.40	0.0089	0.0087
Venus	-31529-03-28 13:26 J	-9794457.00	-9794456.94	-9794456.83	0.0089	0.0081
Venus	-31529-11-09 01:55 J	-9794231.51	-9794231.42	-9794231.28	0.0089	0.0075
Venus	-31528-06-22 14:38 J	-9794006.02	-9794005.89	-9794005.74	0.0089	0.0068
Venus	-31527-02-03 02:52 J	-9793780.52	-9793780.38	-9793780.21	0.0089	0.0062
Venus	-31527-09-16 15:21 J	-9793555.02	-9793554.86	-9793554.68	0.0089	0.0056
Venus	-31526-04-30 04:19 J	-9793329.50	-9793329.32	-9793329.14	0.0088	0.0049
Venus	-31526-12-11 16:33 J	-9793103.99	-9793103.81	-9793103.61	0.0088	0.0043
Venus	-31525-07-24 04:47 J	-9792878.48	-9792878.30	-9792878.08	0.0088	0.0037
Venus	-31524-03-06 17:45 J	-9792652.97	-9792652.76	-9792652.55	0.0088	0.0030
Venus	-31524-10-18 05:59 J	-9792427.45	-9792427.25	-9792427.03	0.0088	0.0024
Venus	-31523-05-31 18:57 J	-9792201.93	-9792201.71	-9792201.50	0.0088	0.0017
Venus	-31522-01-12 07:26 J	-9791976.41	-9791976.19	-9791975.97	0.0088	0.0010
Venus	-31522-08-25 19:55 J	-9791750.88	-9791750.67	-9791750.45	0.0088	0.0004
Venus	-31521-04-07 08:52 J	-9791525.35	-9791525.13	-9791524.91	0.0088	0.0003
Venus	-31521-11-18 21:21 J	-9791299.82	-9791299.61	-9791299.38	0.0088	0.0010
Venus	-31520-07-02 10:19 J	-9791074.29	-9791074.07	-9791073.86	0.0088	0.0016
Venus	-31519-02-12 22:47 J	-9790848.76	-9790848.55	-9790848.33	0.0088	0.0022
Venus	-31519-09-26 11:31 J	-9790623.22	-9790623.02	-9790622.81	0.0088	0.0029
Venus	-31518-05-10 00:14 J	-9790397.68	-9790397.49	-9790397.28	0.0088	0.0036
Venus	-31518-12-21 13:11 J	-9790172.14	-9790171.95	-9790171.75	0.0088	0.0042
Venus	-31517-08-03 01:40 J	-9789946.60	-9789946.43	-9789946.23	0.0088	0.0048
Venus	-31516-03-16 14:38 J	-9789721.05	-9789720.89	-9789720.71	0.0088	0.0055
Venus	-31516-10-28 03:07 J	-9789495.51	-9789495.37	-9789495.19	0.0088	0.0061
Venus	-31515-06-10 16:04 J	-9789269.95	-9789269.83	-9789269.67	0.0088	0.0068
Venus	-31514-01-22 05:02 J	-9789044.40	-9789044.29	-9789044.16	0.0088	0.0074

Venus	-31514-09-04 17:31 J	-9788818.84	-9788818.77	-9788818.65	0.0088	0.0080
Venus	-31513-04-17 06:28 J	-9788593.25	-9788593.23	-9788593.16	0.0088	0.0087
Earth	-31484-09-29 13:55 J	-9777836.12	-9777835.92	-9777835.72	0.0088	0.0057
Moon	-31484-09-29 16:33 J	-9777836.01	-9777835.81	-9777835.59	0.0088	0.0053 *
Moon	-31483-10-01 23:31 J	-9777468.76	-9777468.52	-9777468.26	0.0088	0.0020
Earth	-31483-10-02 02:09 J	-9777468.67	-9777468.41	-9777468.15	0.0088	0.0015 *
Earth	-31482-10-04 14:09 J	-9777101.14	-9777100.91	-9777100.65	0.0088	0.0027
Moon	-31482-10-04 15:07 J	-9777101.11	-9777100.87	-9777100.60	0.0088	0.0031 *
Earth	-31481-10-06 02:09 J	-9776733.54	-9776733.41	-9776733.21	0.0088	0.0069
Moon	-31481-10-06 02:38 J	-9776733.53	-9776733.39	-9776733.20	0.0088	0.0065 *
Mercury	-31472-10-03 21:21 J	-9773448.63	-9773448.61	-9773448.54	0.0088	0.0086
Mercury	-31472-12-31 00:28 J	-9773360.55	-9773360.48	-9773360.37	0.0088	0.0077
Mercury	-31471-03-29 03:35 J	-9773272.45	-9773272.35	-9773272.22	0.0088	0.0068
Mercury	-31471-06-25 06:43 J	-9773184.34	-9773184.22	-9773184.08	0.0088	0.0059
Mercury	-31471-09-21 09:35 J	-9773096.23	-9773096.10	-9773095.94	0.0088	0.0050
Mercury	-31471-12-18 12:43 J	-9773008.12	-9773007.97	-9773007.81	0.0088	0.0041
Mercury	-31470-03-16 15:50 J	-9772920.01	-9772919.84	-9772919.67	0.0088	0.0032
Mercury	-31470-06-12 18:28 J	-9772831.89	-9772831.73	-9772831.55	0.0088	0.0024
Mars	-31470-08-08 03:21 J	-9772775.45	-9772775.36	-9772775.22	0.0088	0.0083
Mercury	-31470-09-08 21:35 J	-9772743.77	-9772743.60	-9772743.42	0.0088	0.0015
Mercury	-31470-12-06 00:28 J	-9772655.65	-9772655.48	-9772655.30	0.0088	0.0007
Mercury	-31469-03-03 03:21 J	-9772567.53	-9772567.36	-9772567.18	0.0088	0.0003
Mercury	-31469-05-30 06:14 J	-9772479.41	-9772479.24	-9772479.06	0.0088	0.0011
Mercury	-31469-08-26 09:07 J	-9772391.29	-9772391.12	-9772390.94	0.0088	0.0019
Mercury	-31469-11-22 11:59 J	-9772303.17	-9772303.00	-9772302.83	0.0088	0.0027
Mercury	-31468-02-18 14:38 J	-9772215.04	-9772214.89	-9772214.72	0.0088	0.0036
Mercury	-31468-05-17 17:31 J	-9772126.91	-9772126.77	-9772126.61	0.0088	0.0044
Mars	-31468-07-03 06:14 J	-9772080.52	-9772080.24	-9772079.91	0.0088	0.0031
Mercury	-31468-08-13 20:23 J	-9772038.78	-9772038.65	-9772038.50	0.0088	0.0053
Mercury	-31468-11-09 23:02 J	-9771950.65	-9771950.54	-9771950.40	0.0088	0.0061

Mercury	-31467-02-06 01:55 J	-9771862.52	-9771862.42	-9771862.30	0.0088	0.0069
Mercury	-31467-05-05 04:47 J	-9771774.37	-9771774.30	-9771774.21	0.0088	0.0077
Mercury	-31467-08-01 07:40 J	-9771686.22	-9771686.18	-9771686.14	0.0088	0.0086
Mars	-31466-05-29 11:02 J	-9771385.34	-9771385.04	-9771384.71	0.0088	0.0023
Mars	-31464-04-23 17:31 J	-9770689.89	-9770689.77	-9770689.57	0.0088	0.0078
Venus	-31447-12-28 11:02 J	-9764232.07	-9764232.04	-9764231.96	0.0089	0.0086
Venus	-31446-08-11 00:57 J	-9764006.55	-9764006.46	-9764006.36	0.0089	0.0079
Venus	-31445-03-23 14:09 J	-9763781.01	-9763780.91	-9763780.76	0.0089	0.0073
Venus	-31445-11-04 04:19 J	-9763555.47	-9763555.32	-9763555.17	0.0089	0.0066
Venus	-31444-06-17 17:31 J	-9763329.92	-9763329.77	-9763329.59	0.0089	0.0060
Venus	-31443-01-29 07:11 J	-9763104.37	-9763104.20	-9763104.02	0.0089	0.0053
Venus	-31443-09-11 20:38 J	-9762878.82	-9762878.64	-9762878.44	0.0089	0.0047
Venus	-31442-04-25 10:19 J	-9762653.26	-9762653.07	-9762652.87	0.0089	0.0040
Venus	-31442-12-06 23:31 J	-9762427.71	-9762427.52	-9762427.29	0.0089	0.0034
Venus	-31441-07-19 13:11 J	-9762202.15	-9762201.95	-9762201.73	0.0089	0.0027
Venus	-31440-03-02 02:52 J	-9761976.60	-9761976.38	-9761976.17	0.0089	0.0020
Venus	-31440-10-13 16:04 J	-9761751.04	-9761750.83	-9761750.60	0.0089	0.0014
Venus	-31439-05-27 05:45 J	-9761525.48	-9761525.26	-9761525.04	0.0089	0.0007
Venus	-31438-01-07 18:57 J	-9761299.93	-9761299.71	-9761299.49	0.0089	0.0001
Venus	-31438-08-21 08:09 J	-9761074.37	-9761074.16	-9761073.93	0.0089	0.0007
Venus	-31437-04-02 21:35 J	-9760848.82	-9760848.60	-9760848.38	0.0089	0.0013
Venus	-31437-11-14 10:47 J	-9760623.26	-9760623.05	-9760622.83	0.0089	0.0020
Venus	-31436-06-27 23:59 J	-9760397.70	-9760397.50	-9760397.28	0.0089	0.0026
Venus	-31435-02-08 13:11 J	-9760172.15	-9760171.95	-9760171.74	0.0089	0.0033
Venus	-31435-09-22 02:23 J	-9759946.59	-9759946.40	-9759946.19	0.0089	0.0039
Venus	-31434-05-05 15:35 J	-9759721.03	-9759720.85	-9759720.65	0.0089	0.0046
Venus	-31434-12-17 05:02 J	-9759495.46	-9759495.29	-9759495.11	0.0089	0.0052
Venus	-31433-07-29 17:45 J	-9759269.90	-9759269.76	-9759269.57	0.0089	0.0059
Venus	-31432-03-12 07:11 J	-9759044.34	-9759044.20	-9759044.04	0.0089	0.0065
Venus	-31432-10-23 20:38 J	-9758818.77	-9758818.64	-9758818.51	0.0089	0.0071

Venus	-31431-06-06 09:21 J	-9758593.19	-9758593.11	-9758592.99	0.0089	0.0078
Venus	-31430-01-17 22:33 J	-9758367.61	-9758367.56	-9758367.47	0.0089	0.0084
Jupiter	-31405-11-23 22:47 J	-9748925.57	-9748925.55	-9748925.41	0.0089	0.0089
Earth	-31402-03-28 20:38 J	-9748070.71	-9748070.64	-9748070.51	0.0089	0.0083
Moon	-31402-03-28 23:02 J	-9748070.60	-9748070.54	-9748070.42	0.0089	0.0084 *
Moon	-31401-03-30 06:43 J	-9747703.43	-9747703.22	-9747702.98	0.0089	0.0039
Earth	-31401-03-30 07:55 J	-9747703.39	-9747703.17	-9747702.93	0.0089	0.0039 *
Moon	-31400-04-01 18:28 J	-9747335.99	-9747335.73	-9747335.46	0.0089	0.0003
Earth	-31400-04-01 18:57 J	-9747335.96	-9747335.71	-9747335.45	0.0089	0.0003 *
Earth	-31399-04-04 05:16 J	-9746968.47	-9746968.28	-9746968.04	0.0089	0.0047
Moon	-31399-04-04 06:28 J	-9746968.42	-9746968.23	-9746968.00	0.0089	0.0048 *
Moon	-31398-04-06 13:40 J	-9746600.96	-9746600.93	-9746600.87	0.0089	0.0088
Earth	-31398-04-06 16:19 J	-9746600.83	-9746600.82	-9746600.77	0.0089	0.0089
Mercury	-31391-10-11 06:57 J	-9743856.21	-9743856.21	-9743856.19	0.0089	0.0089
Mercury	-31390-01-07 08:38 J	-9743768.18	-9743768.14	-9743768.08	0.0089	0.0082
Mercury	-31390-04-05 10:04 J	-9743680.14	-9743680.08	-9743679.99	0.0089	0.0076
Mercury	-31390-07-02 11:45 J	-9743592.09	-9743592.01	-9743591.92	0.0089	0.0069
Mercury	-31390-09-28 13:11 J	-9743504.04	-9743503.95	-9743503.84	0.0089	0.0062
Mercury	-31390-12-25 14:52 J	-9743415.98	-9743415.88	-9743415.76	0.0089	0.0055
Mercury	-31389-03-22 16:19 J	-9743327.93	-9743327.82	-9743327.69	0.0089	0.0049
Mercury	-31389-06-18 17:59 J	-9743239.87	-9743239.75	-9743239.62	0.0089	0.0041
Mercury	-31389-09-14 19:40 J	-9743151.81	-9743151.68	-9743151.55	0.0089	0.0034
Mercury	-31389-12-11 21:21 J	-9743063.75	-9743063.61	-9743063.48	0.0089	0.0027
Mercury	-31388-03-09 22:47 J	-9742975.68	-9742975.55	-9742975.41	0.0089	0.0021
Mercury	-31388-06-06 00:28 J	-9742887.62	-9742887.48	-9742887.34	0.0089	0.0013
Mars	-31388-07-05 08:23 J	-9742858.29	-9742858.15	-9742857.97	0.0089	0.0076
Mercury	-31388-09-02 02:09 J	-9742799.55	-9742799.41	-9742799.27	0.0089	0.0007
Mercury	-31388-11-29 03:35 J	-9742711.49	-9742711.35	-9742711.21	0.0089	0.0002
Mercury	-31387-02-25 05:16 J	-9742623.42	-9742623.28	-9742623.14	0.0089	0.0007
Mercury	-31387-05-24 06:57 J	-9742535.35	-9742535.21	-9742535.07	0.0089	0.0015

Mercury	-31387-08-20 08:23 J	-9742447.28	-9742447.15	-9742447.01	0.0089	0.0022
Mercury	-31387-11-16 10:04 J	-9742359.21	-9742359.08	-9742358.94	0.0089	0.0029
Mercury	-31386-02-12 11:45 J	-9742271.14	-9742271.01	-9742270.88	0.0089	0.0036
Mercury	-31386-05-11 13:26 J	-9742183.07	-9742182.94	-9742182.82	0.0089	0.0043
Mars	-31386-05-30 21:50 J	-9742163.87	-9742163.59	-9742163.28	0.0089	0.0024
Mercury	-31386-08-07 14:52 J	-9742094.99	-9742094.88	-9742094.75	0.0089	0.0050
Mercury	-31386-11-03 16:33 J	-9742006.91	-9742006.81	-9742006.69	0.0089	0.0057
Mercury	-31385-01-30 18:14 J	-9741918.83	-9741918.74	-9741918.64	0.0089	0.0064
Mercury	-31385-04-27 19:55 J	-9741830.75	-9741830.67	-9741830.58	0.0089	0.0071
Mercury	-31385-07-24 21:35 J	-9741742.66	-9741742.60	-9741742.53	0.0089	0.0078
Mercury	-31385-10-20 23:16 J	-9741654.56	-9741654.53	-9741654.49	0.0089	0.0085
Mars	-31384-04-24 10:04 J	-9741469.36	-9741469.08	-9741468.78	0.0089	0.0028
Mars	-31382-03-19 20:52 J	-9740774.75	-9740774.63	-9740774.47	0.0089	0.0079
Venus	-31366-11-17 10:04 J	-9734688.08	-9734688.08	-9734688.06	0.0089	0.0089
Venus	-31365-06-29 22:19 J	-9734462.63	-9734462.57	-9734462.47	0.0089	0.0083
Venus	-31364-02-10 10:33 J	-9734237.14	-9734237.06	-9734236.93	0.0089	0.0077
Venus	-31364-09-23 23:02 J	-9734011.65	-9734011.54	-9734011.38	0.0089	0.0071
Venus	-31363-05-07 11:31 J	-9733786.14	-9733786.02	-9733785.84	0.0089	0.0065
Venus	-31363-12-19 00:28 J	-9733560.64	-9733560.48	-9733560.31	0.0089	0.0058
Venus	-31362-08-01 12:57 J	-9733335.13	-9733334.96	-9733334.78	0.0089	0.0052
Venus	-31361-03-14 01:11 J	-9733109.62	-9733109.45	-9733109.25	0.0088	0.0046
Venus	-31361-10-25 13:40 J	-9732884.11	-9732883.93	-9732883.72	0.0088	0.0040
Venus	-31360-06-08 02:38 J	-9732658.59	-9732658.39	-9732658.19	0.0088	0.0033
Venus	-31359-01-19 14:52 J	-9732433.08	-9732432.88	-9732432.66	0.0088	0.0027
Venus	-31359-09-02 03:21 J	-9732207.56	-9732207.36	-9732207.14	0.0088	0.0021
Venus	-31358-04-15 16:19 J	-9731982.04	-9731981.82	-9731981.61	0.0088	0.0014
Venus	-31358-11-27 04:47 J	-9731756.52	-9731756.30	-9731756.08	0.0088	0.0008
Venus	-31357-07-09 17:16 J	-9731530.99	-9731530.78	-9731530.56	0.0088	0.0002
Venus	-31356-02-20 05:59 J	-9731305.47	-9731305.25	-9731305.03	0.0088	0.0005
Venus	-31356-10-03 18:28 J	-9731079.94	-9731079.73	-9731079.51	0.0088	0.0012

Venus	-31355-05-17 07:11 J	-9730854.41	-9730854.20	-9730853.98	0.0088	0.0018
Venus	-31355-12-28 19:55 J	-9730628.87	-9730628.67	-9730628.45	0.0088	0.0025
Venus	-31354-08-11 08:52 J	-9730403.34	-9730403.13	-9730402.93	0.0088	0.0031
Venus	-31353-03-23 21:21 J	-9730177.80	-9730177.61	-9730177.40	0.0088	0.0037
Venus	-31353-11-04 10:04 J	-9729952.26	-9729952.08	-9729951.88	0.0088	0.0044
Venus	-31352-06-17 22:33 J	-9729726.72	-9729726.56	-9729726.36	0.0088	0.0051
Venus	-31351-01-29 11:31 J	-9729501.17	-9729501.02	-9729500.84	0.0088	0.0056
Venus	-31351-09-12 00:14 J	-9729275.63	-9729275.49	-9729275.32	0.0088	0.0063
Venus	-31350-04-25 13:26 J	-9729050.07	-9729049.94	-9729049.80	0.0088	0.0069
Venus	-31350-12-07 02:23 J	-9728824.51	-9728824.40	-9728824.28	0.0088	0.0075
Venus	-31349-07-19 14:38 J	-9728598.95	-9728598.89	-9728598.78	0.0088	0.0081
Venus	-31348-03-02 03:21 J	-9728373.37	-9728373.36	-9728373.30	0.0088	0.0088
Moon	-31320-09-28 16:04 J	-9717935.92	-9717935.83	-9717935.71	0.0088	0.0080
Earth	-31320-09-28 17:31 J	-9717935.85	-9717935.77	-9717935.67	0.0088	0.0082 *
Earth	-31319-10-01 05:45 J	-9717568.48	-9717568.26	-9717568.02	0.0088	0.0040
Moon	-31319-10-01 06:14 J	-9717568.46	-9717568.24	-9717567.98	0.0088	0.0042 *
Earth	-31318-10-03 18:14 J	-9717201.00	-9717200.74	-9717200.48	0.0088	0.0002
Moon	-31318-10-03 18:57 J	-9717200.96	-9717200.71	-9717200.46	0.0088	0.0004 *
Moon	-31317-10-05 04:19 J	-9716833.56	-9716833.32	-9716833.09	0.0088	0.0041
Earth	-31317-10-05 05:59 J	-9716833.46	-9716833.25	-9716833.00	0.0088	0.0044 *
Earth	-31316-10-07 17:59 J	-9716465.78	-9716465.75	-9716465.66	0.0088	0.0086
Moon	-31316-10-07 20:38 J	-9716465.65	-9716465.64	-9716465.58	0.0088	0.0087
Mercury	-31307-06-30 18:43 J	-9713277.75	-9713277.72	-9713277.65	0.0088	0.0084
Mercury	-31307-09-26 21:50 J	-9713189.67	-9713189.59	-9713189.48	0.0088	0.0075
Mercury	-31307-12-24 00:57 J	-9713101.57	-9713101.46	-9713101.33	0.0088	0.0067
Mercury	-31306-03-22 03:50 J	-9713013.46	-9713013.34	-9713013.19	0.0088	0.0058
Mercury	-31306-06-18 06:57 J	-9712925.35	-9712925.21	-9712925.05	0.0088	0.0049
Mercury	-31306-09-14 09:50 J	-9712837.24	-9712837.09	-9712836.92	0.0088	0.0041
Mercury	-31306-12-11 12:43 J	-9712749.12	-9712748.97	-9712748.79	0.0088	0.0032
Mercury	-31305-03-08 15:50 J	-9712661.01	-9712660.84	-9712660.66	0.0088	0.0023

Mercury	-31305-06-04 18:57 J	-9712572.89	-9712572.71	-9712572.53	0.0088	0.0014
Mercury	-31305-08-31 21:50 J	-9712484.77	-9712484.59	-9712484.41	0.0088	0.0006
Mercury	-31305-11-28 00:43 J	-9712396.65	-9712396.47	-9712396.29	0.0088	0.0003
Mars	-31304-02-14 05:31 J	-9712318.51	-9712318.27	-9712318.02	0.0088	0.0058
Mercury	-31304-02-24 03:35 J	-9712308.53	-9712308.35	-9712308.17	0.0088	0.0011
Mercury	-31304-05-23 06:14 J	-9712220.40	-9712220.24	-9712220.06	0.0088	0.0020
Mercury	-31304-08-19 09:21 J	-9712132.28	-9712132.11	-9712131.94	0.0088	0.0028
Mercury	-31304-11-15 11:59 J	-9712044.15	-9712044.00	-9712043.83	0.0088	0.0037
Mercury	-31303-02-11 14:52 J	-9711956.02	-9711955.88	-9711955.72	0.0088	0.0045
Mercury	-31303-05-10 17:45 J	-9711867.89	-9711867.76	-9711867.61	0.0088	0.0054
Mercury	-31303-08-06 20:23 J	-9711779.76	-9711779.65	-9711779.51	0.0088	0.0062
Mercury	-31303-11-02 23:16 J	-9711691.62	-9711691.53	-9711691.41	0.0088	0.0070
Mars	-31302-01-10 08:52 J	-9711623.45	-9711623.13	-9711622.80	0.0088	0.0005
Mercury	-31302-01-30 02:09 J	-9711603.48	-9711603.41	-9711603.33	0.0088	0.0078
Mercury	-31302-04-28 05:02 J	-9711515.32	-9711515.29	-9711515.26	0.0088	0.0087
Mars	-31301-12-05 13:40 J	-9710928.17	-9710927.93	-9710927.63	0.0088	0.0050
Venus	-31282-03-31 17:45 J	-9704237.77	-9704237.76	-9704237.72	0.0089	0.0088
Venus	-31282-11-12 07:11 J	-9704012.27	-9704012.20	-9704012.10	0.0089	0.0082
Venus	-31281-06-24 20:38 J	-9703786.73	-9703786.64	-9703786.50	0.0089	0.0076
Venus	-31280-02-05 10:33 J	-9703561.20	-9703561.06	-9703560.92	0.0089	0.0069
Venus	-31280-09-18 23:45 J	-9703335.65	-9703335.51	-9703335.33	0.0089	0.0063
Venus	-31279-05-02 13:11 J	-9703110.10	-9703109.95	-9703109.76	0.0089	0.0057
Venus	-31279-12-14 03:07 J	-9702884.55	-9702884.37	-9702884.18	0.0089	0.0050
Venus	-31278-07-27 16:19 J	-9702659.00	-9702658.82	-9702658.61	0.0089	0.0044
Venus	-31277-03-09 05:59 J	-9702433.44	-9702433.25	-9702433.04	0.0089	0.0037
Venus	-31277-10-20 19:26 J	-9702207.88	-9702207.69	-9702207.47	0.0089	0.0031
Venus	-31276-06-03 09:07 J	-9701982.33	-9701982.12	-9701981.90	0.0089	0.0024
Venus	-31275-01-14 22:33 J	-9701756.77	-9701756.56	-9701756.34	0.0089	0.0018
Venus	-31275-08-28 11:59 J	-9701531.22	-9701531.00	-9701530.78	0.0089	0.0011
Venus	-31274-04-11 01:26 J	-9701305.66	-9701305.44	-9701305.21	0.0089	0.0005

Venus	-31274-11-22 14:52 J	-9701080.10	-9701079.88	-9701079.65	0.0089	0.0003
Venus	-31273-07-05 04:19 J	-9700854.54	-9700854.32	-9700854.10	0.0089	0.0009
Venus	-31272-02-15 17:31 J	-9700628.99	-9700628.77	-9700628.55	0.0089	0.0015
Venus	-31272-09-29 06:43 J	-9700403.43	-9700403.22	-9700403.00	0.0089	0.0022
Venus	-31271-05-12 19:55 J	-9700177.87	-9700177.67	-9700177.45	0.0089	0.0028
Venus	-31271-12-24 09:07 J	-9699952.31	-9699952.12	-9699951.90	0.0089	0.0035
Venus	-31270-08-06 22:19 J	-9699726.75	-9699726.57	-9699726.36	0.0089	0.0041
Venus	-31269-03-19 11:45 J	-9699501.19	-9699501.01	-9699500.82	0.0089	0.0047
Venus	-31269-10-31 00:43 J	-9699275.63	-9699275.47	-9699275.28	0.0089	0.0054
Venus	-31268-06-13 13:55 J	-9699050.07	-9699049.92	-9699049.74	0.0089	0.0060
Venus	-31267-01-25 03:07 J	-9698824.50	-9698824.37	-9698824.21	0.0089	0.0066
Venus	-31267-09-07 16:33 J	-9698598.94	-9698598.81	-9698598.69	0.0089	0.0072
Venus	-31266-04-21 05:02 J	-9698373.36	-9698373.29	-9698373.16	0.0089	0.0079
Venus	-31266-12-02 18:28 J	-9698147.77	-9698147.73	-9698147.65	0.0089	0.0085
Moon	-31237-03-29 11:45 J	-9687803.20	-9687803.01	-9687802.82	0.0089	0.0061
Earth	-31237-03-29 12:14 J	-9687803.16	-9687802.99	-9687802.81	0.0089	0.0066 *
Earth	-31236-03-31 23:16 J	-9687435.77	-9687435.53	-9687435.28	0.0089	0.0023
Moon	-31236-04-01 01:11 J	-9687435.67	-9687435.45	-9687435.20	0.0089	0.0028 *
Moon	-31235-04-03 07:26 J	-9687068.43	-9687068.19	-9687067.93	0.0089	0.0024
Earth	-31235-04-03 10:04 J	-9687068.32	-9687068.08	-9687067.82	0.0089	0.0020 *
Earth	-31234-04-05 20:23 J	-9686700.80	-9686700.65	-9686700.44	0.0089	0.0064
Moon	-31234-04-05 23:59 J	-9686700.67	-9686700.50	-9686700.29	0.0089	0.0059 *
Mercury	-31226-07-08 05:45 J	-9683685.27	-9683685.26	-9683685.23	0.0089	0.0088
Mercury	-31226-10-04 07:11 J	-9683597.24	-9683597.20	-9683597.13	0.0089	0.0082
Mercury	-31226-12-31 08:52 J	-9683509.20	-9683509.13	-9683509.05	0.0089	0.0075
Mercury	-31225-03-28 10:33 J	-9683421.15	-9683421.06	-9683420.97	0.0089	0.0068
Mercury	-31225-06-24 11:45 J	-9683333.09	-9683333.01	-9683332.89	0.0089	0.0062
Mercury	-31225-09-20 13:26 J	-9683245.04	-9683244.94	-9683244.82	0.0089	0.0054
Mercury	-31225-12-17 15:07 J	-9683156.98	-9683156.87	-9683156.75	0.0089	0.0047
Mercury	-31224-03-15 16:47 J	-9683068.92	-9683068.80	-9683068.68	0.0089	0.0040

Mercury	-31224-06-11 18:14 J	-9682980.86	-9682980.74	-9682980.60	0.0089	0.0034
Mercury	-31224-09-07 19:55 J	-9682892.80	-9682892.67	-9682892.53	0.0089	0.0026
Mercury	-31224-12-04 21:35 J	-9682804.74	-9682804.60	-9682804.46	0.0089	0.0020
Mercury	-31223-03-02 23:02 J	-9682716.68	-9682716.54	-9682716.40	0.0089	0.0013
Mercury	-31223-05-30 00:43 J	-9682628.61	-9682628.47	-9682628.33	0.0089	0.0006
Mercury	-31223-08-26 02:23 J	-9682540.54	-9682540.40	-9682540.26	0.0089	0.0002
Mercury	-31223-11-22 03:50 J	-9682452.48	-9682452.34	-9682452.19	0.0089	0.0009
Mars	-31222-01-12 10:33 J	-9682401.29	-9682401.06	-9682400.78	0.0089	0.0051
Mercury	-31222-02-18 05:31 J	-9682364.41	-9682364.27	-9682364.13	0.0089	0.0016
Mercury	-31222-05-17 07:11 J	-9682276.34	-9682276.20	-9682276.06	0.0089	0.0023
Mercury	-31222-08-13 08:38 J	-9682188.27	-9682188.14	-9682188.00	0.0089	0.0030
Mercury	-31222-11-09 10:19 J	-9682100.19	-9682100.07	-9682099.94	0.0089	0.0037
Mercury	-31221-02-05 11:45 J	-9682012.12	-9682012.01	-9682011.87	0.0089	0.0045
Mercury	-31221-05-03 13:26 J	-9681924.04	-9681923.94	-9681923.81	0.0089	0.0051
Mercury	-31221-07-30 15:07 J	-9681835.97	-9681835.87	-9681835.75	0.0089	0.0058
Mercury	-31221-10-26 16:47 J	-9681747.89	-9681747.80	-9681747.69	0.0089	0.0065
Mars	-31221-12-07 00:28 J	-9681706.79	-9681706.48	-9681706.17	0.0089	0.0002
Mercury	-31220-01-22 18:28 J	-9681659.80	-9681659.73	-9681659.64	0.0089	0.0072
Mercury	-31220-04-20 20:09 J	-9681571.71	-9681571.66	-9681571.59	0.0089	0.0080
Mercury	-31220-07-17 22:04 J	-9681483.61	-9681483.58	-9681483.55	0.0089	0.0087
Mars	-31219-11-01 11:45 J	-9681012.24	-9681012.01	-9681011.76	0.0089	0.0054
Venus	-31201-10-01 06:43 J	-9674468.26	-9674468.22	-9674468.13	0.0089	0.0085
Venus	-31200-05-14 19:26 J	-9674242.77	-9674242.69	-9674242.57	0.0089	0.0079
Venus	-31200-12-26 07:55 J	-9674017.28	-9674017.17	-9674017.03	0.0089	0.0073
Venus	-31199-08-08 20:23 J	-9673791.78	-9673791.65	-9673791.49	0.0089	0.0067
Venus	-31198-03-22 08:52 J	-9673566.27	-9673566.13	-9673565.95	0.0089	0.0061
Venus	-31198-11-02 21:21 J	-9673340.76	-9673340.61	-9673340.42	0.0089	0.0055
Venus	-31197-06-15 09:50 J	-9673115.25	-9673115.09	-9673114.89	0.0089	0.0049
Venus	-31196-01-26 22:47 J	-9672889.74	-9672889.55	-9672889.36	0.0088	0.0042
Venus	-31196-09-09 11:16 J	-9672664.23	-9672664.03	-9672663.83	0.0088	0.0036

Venus	-31195-04-22 23:45 J	-9672438.71	-9672438.51	-9672438.30	0.0088	0.0030
Venus	-31195-12-04 12:14 J	-9672213.19	-9672212.99	-9672212.77	0.0088	0.0024
Venus	-31194-07-18 00:57 J	-9671987.67	-9671987.46	-9671987.24	0.0088	0.0017
Venus	-31193-02-28 13:26 J	-9671762.15	-9671761.94	-9671761.72	0.0088	0.0011
Venus	-31193-10-11 02:09 J	-9671536.63	-9671536.41	-9671536.19	0.0088	0.0005
Venus	-31192-05-24 14:38 J	-9671311.10	-9671310.89	-9671310.67	0.0088	0.0003
Venus	-31191-01-05 03:21 J	-9671085.58	-9671085.36	-9671085.14	0.0088	0.0008
Venus	-31191-08-18 15:50 J	-9670860.05	-9670859.84	-9670859.62	0.0088	0.0014
Venus	-31190-04-01 04:33 J	-9670634.52	-9670634.31	-9670634.09	0.0088	0.0021
Venus	-31190-11-12 17:16 J	-9670408.98	-9670408.78	-9670408.56	0.0088	0.0027
Venus	-31189-06-25 05:45 J	-9670183.45	-9670183.26	-9670183.04	0.0088	0.0033
Venus	-31188-02-05 18:28 J	-9669957.91	-9669957.73	-9669957.52	0.0088	0.0040
Venus	-31188-09-19 07:11 J	-9669732.37	-9669732.20	-9669731.99	0.0088	0.0046
Venus	-31187-05-02 20:23 J	-9669506.82	-9669506.65	-9669506.46	0.0088	0.0051
Venus	-31187-12-14 09:21 J	-9669281.27	-9669281.11	-9669280.94	0.0088	0.0058
Venus	-31186-07-27 22:04 J	-9669055.73	-9669055.58	-9669055.42	0.0088	0.0064
Venus	-31185-03-09 10:19 J	-9668830.18	-9668830.07	-9668829.91	0.0088	0.0071
Venus	-31185-10-20 23:16 J	-9668604.62	-9668604.53	-9668604.40	0.0088	0.0076
Venus	-31184-06-03 12:14 J	-9668379.05	-9668378.99	-9668378.89	0.0088	0.0082
Venus	-31183-01-15 01:11 J	-9668153.45	-9668153.45	-9668153.42	0.0088	0.0088
Jupiter	-31162-12-21 23:31 J	-9660142.71	-9660142.52	-9660142.25	0.0088	0.0080
Earth	-31155-09-30 09:50 J	-9657668.24	-9657668.09	-9657667.89	0.0088	0.0065
Moon	-31155-09-30 11:31 J	-9657668.20	-9657668.02	-9657667.84	0.0088	0.0061 *
Moon	-31154-10-02 19:55 J	-9657300.91	-9657300.67	-9657300.40	0.0088	0.0027
Earth	-31154-10-02 22:19 J	-9657300.81	-9657300.57	-9657300.30	0.0088	0.0023 *
Earth	-31153-10-04 10:47 J	-9656933.30	-9656933.05	-9656932.79	0.0088	0.0019
Moon	-31153-10-04 14:09 J	-9656933.16	-9656932.91	-9656932.66	0.0088	0.0023 *
Moon	-31152-10-06 19:26 J	-9656565.88	-9656565.69	-9656565.48	0.0088	0.0057
Earth	-31152-10-06 22:47 J	-9656565.72	-9656565.55	-9656565.35	0.0088	0.0061 *
Mercury	-31142-03-27 16:33 J	-9653106.86	-9653106.81	-9653106.74	0.0088	0.0082

Mercury	-31142-06-23 19:40 J	-9653018.77	-9653018.68	-9653018.58	0.0088	0.0074
Mercury	-31142-09-19 22:19 J	-9652930.67	-9652930.57	-9652930.43	0.0088	0.0065
Mercury	-31142-12-17 01:26 J	-9652842.57	-9652842.44	-9652842.29	0.0088	0.0056
Mercury	-31141-03-14 04:33 J	-9652754.46	-9652754.31	-9652754.15	0.0088	0.0047
Mercury	-31141-06-10 07:26 J	-9652666.34	-9652666.19	-9652666.02	0.0088	0.0039
Mercury	-31141-09-06 10:19 J	-9652578.23	-9652578.07	-9652577.89	0.0088	0.0031
Mars	-31141-09-28 09:21 J	-9652556.18	-9652556.11	-9652556.00	0.0088	0.0085
Mercury	-31141-12-03 13:26 J	-9652490.11	-9652489.94	-9652489.76	0.0088	0.0022
Mercury	-31140-03-01 16:19 J	-9652401.99	-9652401.82	-9652401.63	0.0088	0.0013
Mercury	-31140-05-28 19:26 J	-9652313.87	-9652313.69	-9652313.51	0.0088	0.0004
Mercury	-31140-08-24 22:19 J	-9652225.75	-9652225.57	-9652225.39	0.0088	0.0004
Mercury	-31140-11-21 01:11 J	-9652137.63	-9652137.45	-9652137.27	0.0088	0.0013
Mercury	-31139-02-17 04:04 J	-9652049.50	-9652049.33	-9652049.16	0.0088	0.0021
Mercury	-31139-05-16 06:43 J	-9651961.38	-9651961.22	-9651961.04	0.0088	0.0030
Mercury	-31139-08-12 09:35 J	-9651873.25	-9651873.10	-9651872.93	0.0088	0.0039
Mars	-31139-08-24 09:35 J	-9651861.38	-9651861.10	-9651860.78	0.0088	0.0032
Mercury	-31139-11-08 12:14 J	-9651785.12	-9651784.99	-9651784.82	0.0088	0.0047
Mercury	-31138-02-04 15:07 J	-9651696.99	-9651696.87	-9651696.72	0.0088	0.0056
Mercury	-31138-05-03 18:14 J	-9651608.86	-9651608.74	-9651608.62	0.0088	0.0063
Mercury	-31138-07-30 20:38 J	-9651520.72	-9651520.64	-9651520.52	0.0088	0.0072
Mercury	-31138-10-26 23:31 J	-9651432.57	-9651432.52	-9651432.43	0.0088	0.0080
Mars	-31137-07-19 12:43 J	-9651166.27	-9651165.97	-9651165.64	0.0088	0.0022
Mars	-31135-06-14 17:45 J	-9650470.90	-9650470.76	-9650470.56	0.0088	0.0076
Venus	-31117-02-13 14:09 J	-9644017.97	-9644017.91	-9644017.83	0.0089	0.0084
Venus	-31117-09-26 03:35 J	-9643792.43	-9643792.35	-9643792.22	0.0089	0.0078
Venus	-31116-05-09 17:16 J	-9643566.89	-9643566.78	-9643566.63	0.0089	0.0072
Venus	-31116-12-21 06:43 J	-9643341.35	-9643341.22	-9643341.05	0.0089	0.0066
Venus	-31115-08-03 20:23 J	-9643115.81	-9643115.65	-9643115.48	0.0089	0.0059
Venus	-31114-03-17 09:50 J	-9642890.26	-9642890.09	-9642889.90	0.0089	0.0053
Venus	-31114-10-28 23:16 J	-9642664.70	-9642664.53	-9642664.32	0.0089	0.0047

Venus	-31113-06-10 13:11 J	-9642439.15	-9642438.95	-9642438.75	0.0089	0.0040
Venus	-31112-01-22 02:23 J	-9642213.59	-9642213.40	-9642213.18	0.0089	0.0034
Venus	-31112-09-04 15:50 J	-9641988.04	-9641987.84	-9641987.62	0.0089	0.0028
Venus	-31111-04-18 05:31 J	-9641762.48	-9641762.27	-9641762.05	0.0089	0.0021
Venus	-31111-11-29 18:57 J	-9641536.92	-9641536.71	-9641536.48	0.0089	0.0015
Venus	-31110-07-13 08:38 J	-9641311.36	-9641311.14	-9641310.92	0.0089	0.0008
Venus	-31109-02-23 21:50 J	-9641085.81	-9641085.59	-9641085.36	0.0089	0.0003
Venus	-31109-10-06 11:31 J	-9640860.24	-9640860.02	-9640859.80	0.0089	0.0005
Venus	-31108-05-20 00:43 J	-9640634.68	-9640634.47	-9640634.25	0.0089	0.0011
Venus	-31108-12-31 14:09 J	-9640409.13	-9640408.91	-9640408.69	0.0089	0.0017
Venus	-31107-08-14 03:07 J	-9640183.57	-9640183.37	-9640183.14	0.0089	0.0024
Venus	-31106-03-27 16:33 J	-9639958.01	-9639957.81	-9639957.60	0.0089	0.0030
Venus	-31106-11-08 05:59 J	-9639732.45	-9639732.25	-9639732.05	0.0089	0.0036
Venus	-31105-06-20 18:43 J	-9639506.89	-9639506.72	-9639506.50	0.0089	0.0043
Venus	-31104-02-01 07:55 J	-9639281.33	-9639281.17	-9639280.97	0.0089	0.0049
Venus	-31104-09-14 21:07 J	-9639055.77	-9639055.62	-9639055.43	0.0089	0.0055
Venus	-31103-04-28 10:33 J	-9638830.21	-9638830.06	-9638829.89	0.0089	0.0061
Venus	-31103-12-09 23:45 J	-9638604.64	-9638604.51	-9638604.36	0.0089	0.0067
Venus	-31102-07-23 12:57 J	-9638379.08	-9638378.96	-9638378.83	0.0089	0.0074
Venus	-31101-03-05 01:26 J	-9638153.51	-9638153.44	-9638153.31	0.0089	0.0080
Venus	-31101-10-16 14:38 J	-9637927.92	-9637927.89	-9637927.80	0.0089	0.0086
Moon	-31072-03-31 00:43 J	-9627535.67	-9627535.47	-9627535.24	0.0089	0.0050
Earth	-31072-03-31 04:04 J	-9627535.53	-9627535.33	-9627535.10	0.0089	0.0049 *
Earth	-31071-04-02 15:21 J	-9627168.12	-9627167.86	-9627167.61	0.0089	0.0006
Moon	-31071-04-02 18:43 J	-9627167.97	-9627167.72	-9627167.47	0.0089	0.0005 *
Moon	-31070-04-04 22:19 J	-9626800.78	-9626800.57	-9626800.33	0.0089	0.0038
Earth	-31070-04-05 01:55 J	-9626800.64	-9626800.42	-9626800.17	0.0089	0.0038 *
Earth	-31069-04-06 12:28 J	-9626433.06	-9626432.98	-9626432.84	0.0089	0.0081
Moon	-31069-04-06 15:35 J	-9626432.94	-9626432.85	-9626432.71	0.0089	0.0081 *
Mercury	-31061-04-03 04:19 J	-9623514.33	-9623514.32	-9623514.28	0.0089	0.0087

Mercury	-31061-06-30 05:59 J	-9623426.30	-9623426.25	-9623426.19	0.0089	0.0080
Mercury	-31061-09-26 07:40 J	-9623338.26	-9623338.18	-9623338.10	0.0089	0.0074
Mercury	-31061-12-23 08:52 J	-9623250.20	-9623250.13	-9623250.02	0.0089	0.0067
Mercury	-31060-03-21 10:33 J	-9623162.15	-9623162.06	-9623161.95	0.0089	0.0060
Mercury	-31060-06-17 12:14 J	-9623074.10	-9623073.99	-9623073.87	0.0089	0.0053
Mercury	-31060-09-13 13:40 J	-9622986.04	-9622985.93	-9622985.80	0.0089	0.0047
Mercury	-31060-12-10 15:21 J	-9622897.98	-9622897.86	-9622897.73	0.0089	0.0039
Mercury	-31059-03-08 17:02 J	-9622809.92	-9622809.79	-9622809.66	0.0089	0.0032
Mercury	-31059-06-04 18:43 J	-9622721.86	-9622721.72	-9622721.59	0.0089	0.0026
Mars	-31059-08-26 19:40 J	-9622638.78	-9622638.68	-9622638.50	0.0089	0.0080
Mercury	-31059-08-31 20:09 J	-9622633.80	-9622633.66	-9622633.52	0.0089	0.0019
Mercury	-31059-11-27 21:35 J	-9622545.73	-9622545.60	-9622545.45	0.0089	0.0013
Mercury	-31058-02-23 23:16 J	-9622457.67	-9622457.53	-9622457.38	0.0089	0.0005
Mercury	-31058-05-23 00:57 J	-9622369.60	-9622369.46	-9622369.32	0.0089	0.0003
Mercury	-31058-08-19 02:38 J	-9622281.53	-9622281.39	-9622281.25	0.0089	0.0010
Mercury	-31058-11-15 04:04 J	-9622193.46	-9622193.33	-9622193.19	0.0089	0.0017
Mercury	-31057-02-11 05:45 J	-9622105.39	-9622105.26	-9622105.12	0.0089	0.0024
Mercury	-31057-05-09 07:26 J	-9622017.32	-9622017.19	-9622017.06	0.0089	0.0031
Mars	-31057-07-21 12:43 J	-9621944.26	-9621943.97	-9621943.67	0.0089	0.0026
Mercury	-31057-08-05 08:52 J	-9621929.25	-9621929.13	-9621928.99	0.0089	0.0038
Mercury	-31057-11-01 10:33 J	-9621841.18	-9621841.06	-9621840.93	0.0089	0.0045
Mercury	-31056-01-28 11:59 J	-9621753.10	-9621753.00	-9621752.87	0.0089	0.0053
Mercury	-31056-04-26 13:40 J	-9621665.02	-9621664.93	-9621664.81	0.0089	0.0060
Mercury	-31056-07-23 15:21 J	-9621576.94	-9621576.86	-9621576.75	0.0089	0.0067
Mercury	-31056-10-19 17:16 J	-9621488.86	-9621488.78	-9621488.70	0.0089	0.0073
Mercury	-31055-01-15 18:57 J	-9621400.77	-9621400.71	-9621400.65	0.0089	0.0080
Mercury	-31055-04-13 20:09 J	-9621312.66	-9621312.66	-9621312.62	0.0089	0.0089
Mars	-31055-06-16 01:40 J	-9621249.71	-9621249.43	-9621249.12	0.0089	0.0027
Mars	-31053-05-10 12:14 J	-9620555.09	-9620554.99	-9620554.81	0.0089	0.0080
Venus	-31036-01-02 15:50 J	-9614473.86	-9614473.84	-9614473.77	0.0089	0.0087

Venus	-31036-08-16 04:19 J	-9614248.38	-9614248.32	-9614248.21	0.0089	0.0081
Venus	-31035-03-29 17:02 J	-9614022.89	-9614022.79	-9614022.66	0.0089	0.0075
Venus	-31035-11-10 05:31 J	-9613797.39	-9613797.27	-9613797.12	0.0089	0.0069
Venus	-31034-06-23 18:14 J	-9613571.88	-9613571.74	-9613571.58	0.0089	0.0063
Venus	-31033-02-04 06:43 J	-9613346.38	-9613346.22	-9613346.05	0.0089	0.0057
Venus	-31033-09-16 19:11 J	-9613120.87	-9613120.70	-9613120.52	0.0089	0.0051
Venus	-31032-04-30 07:40 J	-9612895.35	-9612895.18	-9612894.98	0.0089	0.0045
Venus	-31032-12-11 20:23 J	-9612669.84	-9612669.65	-9612669.45	0.0089	0.0039
Venus	-31031-07-25 08:52 J	-9612444.33	-9612444.13	-9612443.92	0.0089	0.0033
Venus	-31030-03-07 21:21 J	-9612218.81	-9612218.61	-9612218.39	0.0088	0.0027
Venus	-31030-10-19 09:50 J	-9611993.29	-9611993.09	-9611992.87	0.0088	0.0021
Venus	-31029-05-31 22:33 J	-9611767.77	-9611767.56	-9611767.34	0.0088	0.0014
Venus	-31028-01-12 11:02 J	-9611542.25	-9611542.04	-9611541.82	0.0088	0.0008
Venus	-31028-08-25 23:45 J	-9611316.73	-9611316.51	-9611316.29	0.0088	0.0002
Venus	-31027-04-08 12:28 J	-9611091.20	-9611090.98	-9611090.76	0.0088	0.0004
Venus	-31027-11-20 00:57 J	-9610865.67	-9610865.46	-9610865.24	0.0088	0.0010
Venus	-31026-07-03 13:26 J	-9610640.15	-9610639.94	-9610639.72	0.0088	0.0017
Venus	-31025-02-14 02:09 J	-9610414.62	-9610414.41	-9610414.20	0.0088	0.0023
Venus	-31025-09-26 14:52 J	-9610189.09	-9610188.88	-9610188.67	0.0088	0.0029
Venus	-31024-05-10 03:21 J	-9609963.55	-9609963.36	-9609963.14	0.0088	0.0035
Venus	-31024-12-21 16:04 J	-9609738.01	-9609737.83	-9609737.62	0.0088	0.0041
Venus	-31023-08-04 04:47 J	-9609512.47	-9609512.30	-9609512.10	0.0088	0.0047
Venus	-31022-03-17 17:31 J	-9609286.93	-9609286.77	-9609286.58	0.0088	0.0053
Venus	-31022-10-29 06:14 J	-9609061.38	-9609061.24	-9609061.06	0.0088	0.0060
Venus	-31021-06-10 19:11 J	-9608835.83	-9608835.70	-9608835.54	0.0088	0.0065
Venus	-31020-01-22 07:55 J	-9608610.28	-9608610.17	-9608610.02	0.0088	0.0072
Venus	-31020-09-04 20:52 J	-9608384.72	-9608384.63	-9608384.51	0.0088	0.0077
Venus	-31019-04-18 09:35 J	-9608159.15	-9608159.10	-9608159.00	0.0088	0.0084

31ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 31st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-30995-02-21 23:16 J		-9599448.98	-9599448.53	-9599447.99	0.0088	0.0044	
Moon	-30991-09-29 12:28 J		-9597768.03	-9597767.98	-9597767.90	0.0088	0.0085	
Earth	-30990-10-02 03:50 J		-9597400.56	-9597400.34	-9597400.12	0.0088	0.0046	
Moon	-30990-10-02 06:43 J		-9597400.42	-9597400.22	-9597399.99	0.0088	0.0049	*
Moon	-30989-10-03 12:14 J		-9597033.25	-9597032.99	-9597032.73	0.0088	0.0001	
Earth	-30989-10-03 15:50 J		-9597033.09	-9597032.84	-9597032.57	0.0088	0.0005	*
Earth	-30988-10-06 03:35 J		-9596665.57	-9596665.35	-9596665.09	0.0088	0.0038	
Moon	-30988-10-06 07:11 J		-9596665.43	-9596665.20	-9596664.95	0.0088	0.0035	*
Moon	-30987-10-08 13:11 J		-9596298.04	-9596297.95	-9596297.85	0.0088	0.0081	
Earth	-30987-10-08 16:19 J		-9596297.93	-9596297.82	-9596297.71	0.0088	0.0079	*
Mercury	-30978-12-22 14:09 J		-9592935.97	-9592935.91	-9592935.82	0.0088	0.0081	
Mercury	-30977-03-19 17:31 J		-9592847.87	-9592847.77	-9592847.67	0.0088	0.0071	
Mercury	-30977-06-15 20:09 J		-9592759.77	-9592759.66	-9592759.52	0.0088	0.0063	
Mercury	-30977-09-11 23:16 J		-9592671.66	-9592671.53	-9592671.38	0.0088	0.0054	
Mercury	-30977-12-09 02:23 J		-9592583.55	-9592583.40	-9592583.24	0.0088	0.0045	
Mercury	-30976-03-07 05:02 J		-9592495.44	-9592495.29	-9592495.11	0.0088	0.0038	
Mercury	-30976-06-03 08:09 J		-9592407.32	-9592407.16	-9592406.98	0.0088	0.0028	
Mercury	-30976-08-30 11:16 J		-9592319.20	-9592319.03	-9592318.85	0.0088	0.0019	
Mercury	-30976-11-26 14:09 J		-9592231.08	-9592230.91	-9592230.73	0.0088	0.0011	

Mercury	-30975-02-22 17:16 J	-9592142.96	-9592142.78	-9592142.60	0.0088	0.0003
Mars	-30975-04-07 14:23 J	-9592099.11	-9592098.90	-9592098.64	0.0088	0.0059
Mercury	-30975-05-21 20:09 J	-9592054.84	-9592054.66	-9592054.48	0.0088	0.0007
Mercury	-30975-08-17 23:02 J	-9591966.72	-9591966.54	-9591966.36	0.0088	0.0015
Mercury	-30975-11-14 01:55 J	-9591878.59	-9591878.42	-9591878.25	0.0088	0.0023
Mercury	-30974-02-10 04:33 J	-9591790.47	-9591790.31	-9591790.13	0.0088	0.0032
Mercury	-30974-05-09 07:40 J	-9591702.34	-9591702.18	-9591702.02	0.0088	0.0040
Mercury	-30974-08-05 10:04 J	-9591614.21	-9591614.08	-9591613.91	0.0088	0.0050
Mercury	-30974-11-01 13:11 J	-9591526.08	-9591525.95	-9591525.81	0.0088	0.0057
Mercury	-30973-01-28 16:04 J	-9591437.94	-9591437.83	-9591437.71	0.0088	0.0066
Mars	-30973-03-02 15:07 J	-9591404.18	-9591403.87	-9591403.54	0.0088	0.0006
Mercury	-30973-04-25 18:43 J	-9591349.80	-9591349.72	-9591349.61	0.0088	0.0074
Mercury	-30973-07-22 21:35 J	-9591261.65	-9591261.60	-9591261.53	0.0088	0.0082
Mars	-30971-01-26 17:59 J	-9590708.99	-9590708.75	-9590708.45	0.0088	0.0048
Venus	-30953-05-16 21:35 J	-9584023.64	-9584023.60	-9584023.54	0.0089	0.0086
Venus	-30953-12-28 11:02 J	-9583798.12	-9583798.04	-9583797.93	0.0089	0.0080
Venus	-30952-08-11 00:28 J	-9583572.58	-9583572.48	-9583572.34	0.0089	0.0074
Venus	-30951-03-24 14:09 J	-9583347.04	-9583346.91	-9583346.76	0.0089	0.0068
Venus	-30951-11-05 03:35 J	-9583121.49	-9583121.35	-9583121.17	0.0089	0.0062
Venus	-30950-06-18 17:02 J	-9582895.94	-9582895.79	-9582895.60	0.0089	0.0056
Venus	-30949-01-30 06:28 J	-9582670.39	-9582670.23	-9582670.03	0.0089	0.0050
Venus	-30949-09-11 20:23 J	-9582444.84	-9582444.65	-9582444.45	0.0089	0.0043
Venus	-30948-04-25 09:50 J	-9582219.29	-9582219.09	-9582218.88	0.0089	0.0037
Venus	-30948-12-06 23:16 J	-9581993.73	-9581993.53	-9581993.31	0.0089	0.0031
Venus	-30947-07-20 12:28 J	-9581768.18	-9581767.98	-9581767.75	0.0089	0.0025
Venus	-30946-03-03 02:09 J	-9581542.62	-9581542.41	-9581542.18	0.0089	0.0018
Venus	-30946-10-14 15:50 J	-9581317.06	-9581316.84	-9581316.62	0.0089	0.0012
Venus	-30945-05-27 05:16 J	-9581091.50	-9581091.28	-9581091.06	0.0089	0.0006
Venus	-30944-01-07 18:43 J	-9580865.94	-9580865.72	-9580865.50	0.0089	0.0001
Venus	-30944-08-21 08:09 J	-9580640.38	-9580640.16	-9580639.94	0.0089	0.0007

Venus	-30943-04-03 21:35 J	-9580414.82	-9580414.60	-9580414.38	0.0089	0.0013
Venus	-30943-11-15 10:47 J	-9580189.26	-9580189.05	-9580188.82	0.0089	0.0020
Venus	-30942-06-29 00:14 J	-9579963.70	-9579963.49	-9579963.27	0.0089	0.0026
Venus	-30941-02-09 13:26 J	-9579738.14	-9579737.94	-9579737.73	0.0089	0.0032
Venus	-30941-09-22 02:52 J	-9579512.58	-9579512.38	-9579512.18	0.0089	0.0038
Venus	-30940-05-05 16:04 J	-9579287.02	-9579286.83	-9579286.63	0.0089	0.0044
Venus	-30940-12-17 05:02 J	-9579061.45	-9579061.29	-9579061.09	0.0089	0.0051
Venus	-30939-07-30 18:14 J	-9578835.89	-9578835.74	-9578835.55	0.0089	0.0057
Venus	-30938-03-13 07:11 J	-9578610.33	-9578610.20	-9578610.02	0.0089	0.0063
Venus	-30938-10-24 20:23 J	-9578384.76	-9578384.65	-9578384.48	0.0089	0.0069
Venus	-30937-06-06 09:35 J	-9578159.19	-9578159.10	-9578158.96	0.0089	0.0075
Venus	-30936-01-17 23:02 J	-9577933.62	-9577933.54	-9577933.44	0.0089	0.0081
Venus	-30936-08-31 11:59 J	-9577708.04	-9577708.00	-9577707.94	0.0089	0.0087
Earth	-30908-03-30 08:52 J	-9567635.24	-9567635.13	-9567634.96	0.0089	0.0075
Moon	-30908-03-30 12:43 J	-9567635.11	-9567634.97	-9567634.79	0.0089	0.0070 *
Moon	-30907-04-01 17:16 J	-9567268.01	-9567267.78	-9567267.55	0.0089	0.0036
Earth	-30907-04-01 20:09 J	-9567267.88	-9567267.66	-9567267.41	0.0089	0.0031 *
Earth	-30906-04-04 07:26 J	-9566900.44	-9566900.19	-9566899.93	0.0089	0.0012
Moon	-30906-04-04 10:19 J	-9566900.32	-9566900.07	-9566899.81	0.0089	0.0016 *
Moon	-30905-04-05 16:33 J	-9566533.00	-9566532.81	-9566532.59	0.0089	0.0051
Earth	-30905-04-05 18:43 J	-9566532.92	-9566532.72	-9566532.52	0.0089	0.0055 *
Mercury	-30897-12-29 03:35 J	-9563343.39	-9563343.35	-9563343.32	0.0089	0.0086
Mercury	-30896-03-27 04:47 J	-9563255.35	-9563255.30	-9563255.23	0.0089	0.0079
Mercury	-30896-06-23 06:14 J	-9563167.31	-9563167.24	-9563167.15	0.0089	0.0073
Mercury	-30896-09-19 07:55 J	-9563079.26	-9563079.17	-9563079.07	0.0089	0.0066
Mercury	-30896-12-16 09:35 J	-9562991.20	-9562991.10	-9562990.99	0.0089	0.0059
Mercury	-30895-03-14 11:16 J	-9562903.15	-9562903.03	-9562902.92	0.0089	0.0052
Mercury	-30895-06-10 12:28 J	-9562815.09	-9562814.98	-9562814.85	0.0089	0.0045
Mercury	-30895-09-06 14:09 J	-9562727.03	-9562726.91	-9562726.78	0.0089	0.0038
Mercury	-30895-12-03 15:50 J	-9562638.97	-9562638.84	-9562638.71	0.0089	0.0031

Mercury	-30894-03-01 17:16 J	-9562550.91	-9562550.78	-9562550.64	0.0089	0.0024
Mercury	-30894-05-28 18:57 J	-9562462.84	-9562462.71	-9562462.57	0.0089	0.0017
Mercury	-30894-08-24 20:38 J	-9562374.78	-9562374.64	-9562374.50	0.0089	0.0010
Mercury	-30894-11-20 22:19 J	-9562286.71	-9562286.57	-9562286.43	0.0089	0.0004
Mercury	-30893-02-16 23:45 J	-9562198.65	-9562198.51	-9562198.37	0.0089	0.0004
Mars	-30893-03-04 23:45 J	-9562181.73	-9562181.51	-9562181.24	0.0089	0.0054
Mercury	-30893-05-15 01:26 J	-9562110.58	-9562110.44	-9562110.30	0.0089	0.0011
Mercury	-30893-08-11 02:52 J	-9562022.51	-9562022.38	-9562022.23	0.0089	0.0018
Mercury	-30893-11-07 04:33 J	-9561934.44	-9561934.31	-9561934.17	0.0089	0.0025
Mercury	-30892-02-03 06:14 J	-9561846.37	-9561846.24	-9561846.11	0.0089	0.0032
Mercury	-30892-05-02 07:40 J	-9561758.30	-9561758.18	-9561758.04	0.0089	0.0040
Mercury	-30892-07-29 09:21 J	-9561670.22	-9561670.11	-9561669.98	0.0089	0.0046
Mercury	-30892-10-25 11:02 J	-9561582.15	-9561582.04	-9561581.92	0.0089	0.0054
Mercury	-30891-01-21 12:43 J	-9561494.07	-9561493.97	-9561493.86	0.0089	0.0061
Mars	-30891-01-28 16:33 J	-9561487.11	-9561486.81	-9561486.50	0.0089	0.0001
Mercury	-30891-04-19 14:09 J	-9561405.99	-9561405.91	-9561405.81	0.0089	0.0068
Mercury	-30891-07-16 15:50 J	-9561317.90	-9561317.84	-9561317.75	0.0089	0.0075
Mercury	-30891-10-12 17:31 J	-9561229.81	-9561229.77	-9561229.71	0.0089	0.0082
Mars	-30890-12-24 05:16 J	-9560792.50	-9560792.28	-9560792.01	0.0089	0.0053
Venus	-30872-04-06 01:26 J	-9554479.45	-9554479.44	-9554479.39	0.0089	0.0088
Venus	-30872-11-17 14:09 J	-9554253.98	-9554253.91	-9554253.82	0.0089	0.0082
Venus	-30871-07-01 02:09 J	-9554028.49	-9554028.41	-9554028.28	0.0089	0.0077
Venus	-30870-02-11 14:38 J	-9553803.00	-9553802.89	-9553802.74	0.0089	0.0071
Venus	-30870-09-25 03:21 J	-9553577.50	-9553577.36	-9553577.20	0.0089	0.0065
Venus	-30869-05-07 16:04 J	-9553351.99	-9553351.83	-9553351.66	0.0089	0.0059
Venus	-30869-12-19 04:33 J	-9553126.48	-9553126.31	-9553126.13	0.0089	0.0053
Venus	-30868-08-01 17:16 J	-9552900.96	-9552900.78	-9552900.60	0.0089	0.0047
Venus	-30867-03-15 05:31 J	-9552675.45	-9552675.27	-9552675.06	0.0089	0.0041
Venus	-30867-10-26 17:59 J	-9552449.93	-9552449.75	-9552449.53	0.0089	0.0036
Venus	-30866-06-09 06:43 J	-9552224.42	-9552224.22	-9552224.01	0.0089	0.0029

Venus	-30865-01-20 19:11 J	-9551998.90	-9551998.70	-9551998.48	0.0088	0.0024
Venus	-30865-09-02 07:55 J	-9551773.38	-9551773.17	-9551772.95	0.0088	0.0017
Venus	-30864-04-15 20:38 J	-9551547.85	-9551547.64	-9551547.42	0.0088	0.0011
Venus	-30864-11-27 09:21 J	-9551322.33	-9551322.11	-9551321.89	0.0088	0.0005
Venus	-30863-07-10 21:50 J	-9551096.80	-9551096.59	-9551096.37	0.0088	0.0002
Venus	-30862-02-21 10:19 J	-9550871.28	-9550871.07	-9550870.85	0.0088	0.0007
Venus	-30862-10-04 23:02 J	-9550645.75	-9550645.54	-9550645.32	0.0088	0.0013
Venus	-30861-05-17 11:31 J	-9550420.22	-9550420.02	-9550419.79	0.0088	0.0020
Venus	-30861-12-29 00:28 J	-9550194.69	-9550194.48	-9550194.27	0.0088	0.0025
Venus	-30860-08-11 12:43 J	-9549969.16	-9549968.97	-9549968.75	0.0088	0.0032
Venus	-30859-03-25 01:26 J	-9549743.62	-9549743.44	-9549743.23	0.0088	0.0037
Venus	-30859-11-05 14:09 J	-9549518.09	-9549517.91	-9549517.70	0.0088	0.0043
Venus	-30858-06-19 02:38 J	-9549292.55	-9549292.39	-9549292.18	0.0088	0.0050
Venus	-30857-01-30 15:50 J	-9549067.01	-9549066.84	-9549066.66	0.0088	0.0055
Venus	-30857-09-12 04:33 J	-9548841.46	-9548841.31	-9548841.14	0.0088	0.0061
Venus	-30856-04-25 17:31 J	-9548615.91	-9548615.77	-9548615.62	0.0088	0.0067
Venus	-30856-12-07 06:14 J	-9548390.35	-9548390.24	-9548390.10	0.0088	0.0073
Venus	-30855-07-20 18:57 J	-9548164.79	-9548164.71	-9548164.59	0.0088	0.0078
Venus	-30854-03-03 07:40 J	-9547939.22	-9547939.18	-9547939.09	0.0088	0.0084
Jupiter	-30829-04-29 13:26 J	-9538750.50	-9538749.94	-9538749.36	0.0088	0.0006
Moon	-30826-10-01 06:14 J	-9537500.39	-9537500.24	-9537500.05	0.0088	0.0066
Earth	-30826-10-01 09:35 J	-9537500.23	-9537500.10	-9537499.91	0.0088	0.0070 *
Earth	-30825-10-02 22:04 J	-9537132.81	-9537132.58	-9537132.32	0.0088	0.0028
Moon	-30825-10-03 01:40 J	-9537132.67	-9537132.43	-9537132.17	0.0088	0.0031 *
Moon	-30824-10-05 08:23 J	-9536765.39	-9536765.15	-9536764.90	0.0088	0.0018
Earth	-30824-10-05 10:33 J	-9536765.31	-9536765.06	-9536764.80	0.0088	0.0015 *
Earth	-30823-10-07 22:19 J	-9536397.75	-9536397.57	-9536397.35	0.0088	0.0057
Moon	-30823-10-07 23:59 J	-9536397.69	-9536397.50	-9536397.26	0.0088	0.0053 *
Mercury	-30813-06-21 09:21 J	-9532853.14	-9532853.11	-9532853.07	0.0088	0.0086
Mercury	-30813-09-17 11:59 J	-9532765.06	-9532765.00	-9532764.89	0.0088	0.0078

Mercury	-30813-12-14 15:07 J	-9532676.96	-9532676.87	-9532676.74	0.0088	0.0069
Mercury	-30812-03-12 18:14 J	-9532588.86	-9532588.74	-9532588.60	0.0088	0.0060
Mercury	-30812-06-08 21:21 J	-9532500.75	-9532500.61	-9532500.46	0.0088	0.0051
Mercury	-30812-09-05 00:28 J	-9532412.64	-9532412.48	-9532412.32	0.0088	0.0043
Mars	-30812-11-19 22:19 J	-9532336.62	-9532336.57	-9532336.45	0.0088	0.0085
Mercury	-30812-12-02 03:21 J	-9532324.52	-9532324.36	-9532324.19	0.0088	0.0034
Mercury	-30811-02-28 06:14 J	-9532236.40	-9532236.24	-9532236.06	0.0088	0.0026
Mercury	-30811-05-27 09:21 J	-9532148.28	-9532148.11	-9532147.93	0.0088	0.0017
Mercury	-30811-08-23 12:14 J	-9532060.16	-9532059.99	-9532059.81	0.0088	0.0008
Mercury	-30811-11-19 15:21 J	-9531972.04	-9531971.86	-9531971.68	0.0088	0.0002
Mercury	-30810-02-15 18:14 J	-9531883.92	-9531883.74	-9531883.56	0.0088	0.0009
Mercury	-30810-05-14 20:52 J	-9531795.80	-9531795.63	-9531795.45	0.0088	0.0018
Mercury	-30810-08-10 23:59 J	-9531707.67	-9531707.50	-9531707.33	0.0088	0.0026
Mars	-30810-10-15 22:04 J	-9531641.87	-9531641.58	-9531641.28	0.0088	0.0032
Mercury	-30810-11-07 02:38 J	-9531619.54	-9531619.39	-9531619.22	0.0088	0.0035
Mercury	-30809-02-03 05:31 J	-9531531.42	-9531531.27	-9531531.11	0.0088	0.0043
Mercury	-30809-05-01 08:38 J	-9531443.29	-9531443.14	-9531443.00	0.0088	0.0052
Mercury	-30809-07-28 11:02 J	-9531355.15	-9531355.04	-9531354.89	0.0088	0.0061
Mercury	-30809-10-24 14:09 J	-9531267.02	-9531266.91	-9531266.79	0.0088	0.0068
Mercury	-30808-01-20 16:33 J	-9531178.87	-9531178.81	-9531178.70	0.0088	0.0077
Mercury	-30808-04-18 19:26 J	-9531090.71	-9531090.69	-9531090.63	0.0088	0.0086
Mars	-30808-09-09 22:19 J	-9530946.87	-9530946.57	-9530946.24	0.0088	0.0021
Mars	-30806-08-06 01:26 J	-9530251.58	-9530251.44	-9530251.25	0.0088	0.0075
Venus	-30789-08-18 05:16 J	-9524029.29	-9524029.28	-9524029.22	0.0089	0.0088
Venus	-30788-03-31 18:57 J	-9523803.77	-9523803.71	-9523803.60	0.0089	0.0082
Venus	-30788-11-12 08:38 J	-9523578.23	-9523578.14	-9523578.00	0.0089	0.0076
Venus	-30787-06-25 22:19 J	-9523352.69	-9523352.57	-9523352.41	0.0089	0.0070
Venus	-30786-02-06 11:45 J	-9523127.14	-9523127.01	-9523126.83	0.0089	0.0064
Venus	-30786-09-20 01:26 J	-9522901.59	-9522901.44	-9522901.25	0.0089	0.0058
Venus	-30785-05-02 14:52 J	-9522676.04	-9522675.88	-9522675.68	0.0089	0.0052

Venus	-30785-12-14 04:33 J	-9522450.49	-9522450.31	-9522450.11	0.0089	0.0046
Venus	-30784-07-27 17:45 J	-9522224.94	-9522224.76	-9522224.54	0.0089	0.0040
Venus	-30783-03-10 07:11 J	-9521999.39	-9521999.20	-9521998.97	0.0089	0.0034
Venus	-30783-10-21 20:52 J	-9521773.83	-9521773.63	-9521773.40	0.0089	0.0028
Venus	-30782-06-04 10:33 J	-9521548.27	-9521548.06	-9521547.84	0.0089	0.0021
Venus	-30781-01-15 23:59 J	-9521322.72	-9521322.50	-9521322.28	0.0089	0.0015
Venus	-30781-08-28 13:26 J	-9521097.16	-9521096.94	-9521096.72	0.0089	0.0009
Venus	-30780-04-11 02:52 J	-9520871.60	-9520871.38	-9520871.16	0.0089	0.0003
Venus	-30780-11-22 16:19 J	-9520646.04	-9520645.82	-9520645.60	0.0089	0.0004
Venus	-30779-07-06 05:31 J	-9520420.48	-9520420.27	-9520420.04	0.0089	0.0010
Venus	-30778-02-16 18:57 J	-9520194.92	-9520194.71	-9520194.49	0.0089	0.0016
Venus	-30778-09-30 08:23 J	-9519969.36	-9519969.15	-9519968.93	0.0089	0.0022
Venus	-30777-05-12 21:35 J	-9519743.80	-9519743.60	-9519743.38	0.0089	0.0028
Venus	-30777-12-24 11:02 J	-9519518.24	-9519518.04	-9519517.83	0.0089	0.0034
Venus	-30776-08-07 00:14 J	-9519292.68	-9519292.49	-9519292.28	0.0089	0.0040
Venus	-30775-03-20 13:26 J	-9519067.12	-9519066.94	-9519066.74	0.0089	0.0046
Venus	-30775-11-01 02:52 J	-9518841.55	-9518841.38	-9518841.20	0.0089	0.0052
Venus	-30774-06-14 15:50 J	-9518615.99	-9518615.84	-9518615.66	0.0089	0.0058
Venus	-30773-01-26 05:02 J	-9518390.43	-9518390.29	-9518390.12	0.0089	0.0064
Venus	-30773-09-07 17:59 J	-9518164.86	-9518164.75	-9518164.60	0.0089	0.0070
Venus	-30772-04-21 06:57 J	-9517939.30	-9517939.21	-9517939.07	0.0089	0.0077
Venus	-30772-12-02 20:52 J	-9517713.72	-9517713.63	-9517713.54	0.0089	0.0082
Venus	-30771-07-16 09:35 J	-9517488.13	-9517488.10	-9517488.05	0.0089	0.0087
Earth	-30743-04-01 02:52 J	-9507367.57	-9507367.38	-9507367.18	0.0089	0.0056
Moon	-30743-04-01 04:33 J	-9507367.48	-9507367.31	-9507367.08	0.0089	0.0058 *
Moon	-30742-04-03 12:14 J	-9507000.22	-9506999.99	-9506999.74	0.0089	0.0013
Earth	-30742-04-03 13:40 J	-9507000.17	-9506999.93	-9506999.67	0.0089	0.0013 *
Earth	-30741-04-05 00:28 J	-9506632.70	-9506632.48	-9506632.23	0.0089	0.0031
Moon	-30741-04-05 00:43 J	-9506632.70	-9506632.47	-9506632.21	0.0089	0.0030 *
Earth	-30740-04-07 11:16 J	-9506265.15	-9506265.03	-9506264.86	0.0089	0.0074

Moon	-30740-04-07 12:57 J	-9506265.08	-9506264.96	-9506264.81	0.0089	0.0075 *
Mercury	-30732-09-25 02:09 J	-9503172.44	-9503172.41	-9503172.35	0.0089	0.0085
Mercury	-30732-12-22 03:50 J	-9503084.40	-9503084.34	-9503084.27	0.0089	0.0077
Mercury	-30731-03-20 05:31 J	-9502996.35	-9502996.27	-9502996.19	0.0089	0.0070
Mercury	-30731-06-16 07:11 J	-9502908.30	-9502908.20	-9502908.11	0.0089	0.0064
Mercury	-30731-09-12 08:23 J	-9502820.25	-9502820.15	-9502820.03	0.0089	0.0057
Mercury	-30731-12-09 09:50 J	-9502732.19	-9502732.09	-9502731.96	0.0089	0.0051
Mercury	-30730-03-07 11:31 J	-9502644.13	-9502644.02	-9502643.89	0.0089	0.0043
Mercury	-30730-06-03 13:11 J	-9502556.08	-9502555.95	-9502555.82	0.0089	0.0036
Mercury	-30730-08-30 14:38 J	-9502468.01	-9502467.89	-9502467.75	0.0089	0.0030
Mars	-30730-10-18 11:02 J	-9502419.14	-9502419.04	-9502418.89	0.0089	0.0081
Mercury	-30730-11-26 16:19 J	-9502379.95	-9502379.82	-9502379.68	0.0089	0.0022
Mercury	-30729-02-22 17:59 J	-9502291.89	-9502291.75	-9502291.61	0.0089	0.0015
Mercury	-30729-05-20 19:26 J	-9502203.83	-9502203.69	-9502203.55	0.0089	0.0009
Mercury	-30729-08-16 21:07 J	-9502115.76	-9502115.62	-9502115.48	0.0089	0.0001
Mercury	-30729-11-12 22:47 J	-9502027.69	-9502027.55	-9502027.41	0.0089	0.0006
Mercury	-30728-02-09 00:14 J	-9501939.63	-9501939.49	-9501939.35	0.0089	0.0013
Mercury	-30728-05-08 01:55 J	-9501851.56	-9501851.42	-9501851.28	0.0089	0.0020
Mercury	-30728-08-04 03:21 J	-9501763.49	-9501763.36	-9501763.22	0.0089	0.0027
Mars	-30728-09-12 04:19 J	-9501724.60	-9501724.32	-9501724.01	0.0089	0.0028
Mercury	-30728-10-31 05:02 J	-9501675.42	-9501675.29	-9501675.15	0.0089	0.0034
Mercury	-30727-01-27 06:43 J	-9501587.34	-9501587.22	-9501587.09	0.0089	0.0041
Mercury	-30727-04-25 08:09 J	-9501499.27	-9501499.16	-9501499.03	0.0089	0.0048
Mercury	-30727-07-22 09:50 J	-9501411.19	-9501411.09	-9501410.97	0.0089	0.0055
Mercury	-30727-10-18 11:31 J	-9501323.11	-9501323.02	-9501322.91	0.0089	0.0062
Mercury	-30726-01-14 13:11 J	-9501235.03	-9501234.95	-9501234.86	0.0089	0.0070
Mercury	-30726-04-12 14:38 J	-9501146.95	-9501146.89	-9501146.80	0.0089	0.0077
Mercury	-30726-07-09 16:19 J	-9501058.85	-9501058.82	-9501058.76	0.0089	0.0084
Mars	-30726-08-07 20:38 J	-9501029.93	-9501029.64	-9501029.34	0.0089	0.0026
Mars	-30724-07-02 09:21 J	-9500335.22	-9500335.11	-9500334.94	0.0089	0.0080

Venus	-30707-02-18 23:45 J	-9494259.56	-9494259.51	-9494259.42	0.0089	0.0084
Venus	-30707-10-02 12:14 J	-9494034.07	-9494033.99	-9494033.87	0.0089	0.0078
Venus	-30706-05-16 00:28 J	-9493808.58	-9493808.48	-9493808.33	0.0089	0.0073
Venus	-30706-12-27 12:57 J	-9493583.08	-9493582.96	-9493582.80	0.0089	0.0067
Venus	-30705-08-09 01:40 J	-9493357.58	-9493357.43	-9493357.26	0.0089	0.0061
Venus	-30704-03-22 14:23 J	-9493132.07	-9493131.90	-9493131.73	0.0089	0.0055
Venus	-30704-11-03 02:38 J	-9492906.56	-9492906.39	-9492906.20	0.0089	0.0050
Venus	-30703-06-16 15:07 J	-9492681.05	-9492680.87	-9492680.67	0.0089	0.0044
Venus	-30702-01-28 03:35 J	-9492455.53	-9492455.35	-9492455.14	0.0089	0.0038
Venus	-30702-09-10 16:19 J	-9492230.02	-9492229.82	-9492229.61	0.0089	0.0032
Venus	-30701-04-23 05:16 J	-9492004.49	-9492004.28	-9492004.07	0.0089	0.0026
Venus	-30701-12-04 17:45 J	-9491778.97	-9491778.76	-9491778.54	0.0089	0.0020
Venus	-30700-07-18 06:14 J	-9491553.45	-9491553.24	-9491553.02	0.0089	0.0014
Venus	-30699-02-28 18:43 J	-9491327.93	-9491327.72	-9491327.49	0.0088	0.0009
Venus	-30699-10-12 07:26 J	-9491102.40	-9491102.19	-9491101.97	0.0088	0.0003
Venus	-30698-05-25 20:09 J	-9490876.87	-9490876.66	-9490876.44	0.0088	0.0004
Venus	-30697-01-06 08:52 J	-9490651.35	-9490651.13	-9490650.91	0.0088	0.0010
Venus	-30697-08-18 21:21 J	-9490425.82	-9490425.61	-9490425.39	0.0088	0.0016
Venus	-30696-04-01 10:04 J	-9490200.29	-9490200.08	-9490199.86	0.0088	0.0021
Venus	-30696-11-12 22:33 J	-9489974.76	-9489974.56	-9489974.34	0.0088	0.0028
Venus	-30695-06-26 11:16 J	-9489749.22	-9489749.03	-9489748.82	0.0088	0.0033
Venus	-30694-02-06 23:45 J	-9489523.69	-9489523.51	-9489523.30	0.0088	0.0039
Venus	-30694-09-20 12:43 J	-9489298.15	-9489297.97	-9489297.78	0.0088	0.0045
Venus	-30693-05-03 01:26 J	-9489072.61	-9489072.44	-9489072.25	0.0088	0.0051
Venus	-30693-12-14 14:09 J	-9488847.06	-9488846.91	-9488846.73	0.0088	0.0057
Venus	-30692-07-28 02:52 J	-9488621.52	-9488621.38	-9488621.21	0.0088	0.0062
Venus	-30691-03-10 15:21 J	-9488395.97	-9488395.86	-9488395.70	0.0088	0.0069
Venus	-30691-10-22 04:47 J	-9488170.42	-9488170.30	-9488170.18	0.0088	0.0074
Venus	-30690-06-04 17:31 J	-9487944.85	-9487944.77	-9487944.66	0.0088	0.0079
Venus	-30689-01-16 06:14 J	-9487719.28	-9487719.24	-9487719.17	0.0088	0.0085

Jupiter	-30663-07-06 04:33 J	-9478051.79	-9478051.31	-9478050.74	0.0088	0.0034
Moon	-30661-10-02 02:23 J	-9477232.57	-9477232.40	-9477232.17	0.0088	0.0054
Earth	-30661-10-02 05:02 J	-9477232.49	-9477232.29	-9477232.06	0.0088	0.0050 *
Earth	-30660-10-04 17:31 J	-9476865.03	-9476864.77	-9476864.51	0.0088	0.0008
Moon	-30660-10-04 18:14 J	-9476865.01	-9476864.74	-9476864.47	0.0088	0.0005 *
Earth	-30659-10-07 05:45 J	-9476497.50	-9476497.26	-9476497.01	0.0088	0.0034
Moon	-30659-10-07 05:45 J	-9476497.48	-9476497.26	-9476497.01	0.0088	0.0032 *
Moon	-30658-10-09 16:04 J	-9476129.92	-9476129.83	-9476129.69	0.0088	0.0079
Earth	-30658-10-09 17:45 J	-9476129.88	-9476129.76	-9476129.62	0.0088	0.0076 *
Mercury	-30648-03-18 07:26 J	-9472682.23	-9472682.19	-9472682.12	0.0088	0.0083
Mercury	-30648-06-14 10:33 J	-9472594.14	-9472594.06	-9472593.95	0.0088	0.0074
Mercury	-30648-09-10 13:55 J	-9472506.04	-9472505.92	-9472505.80	0.0088	0.0065
Mercury	-30648-12-07 16:33 J	-9472417.93	-9472417.81	-9472417.66	0.0088	0.0057
Mercury	-30647-03-05 19:40 J	-9472329.82	-9472329.68	-9472329.52	0.0088	0.0048
Mercury	-30647-06-01 22:47 J	-9472241.71	-9472241.55	-9472241.38	0.0088	0.0039
Mercury	-30647-08-29 01:55 J	-9472153.59	-9472153.42	-9472153.25	0.0088	0.0030
Mercury	-30647-11-25 04:47 J	-9472065.47	-9472065.30	-9472065.12	0.0088	0.0022
Mercury	-30646-02-21 07:40 J	-9471977.35	-9471977.18	-9471976.99	0.0088	0.0013
Mercury	-30646-05-20 10:47 J	-9471889.23	-9471889.05	-9471888.87	0.0088	0.0004
Mars	-30646-05-30 07:11 J	-9471879.42	-9471879.20	-9471878.95	0.0088	0.0058
Mercury	-30646-08-16 13:40 J	-9471801.11	-9471800.93	-9471800.75	0.0088	0.0004
Mercury	-30646-11-12 16:33 J	-9471712.98	-9471712.81	-9471712.63	0.0088	0.0013
Mercury	-30645-02-08 19:26 J	-9471624.86	-9471624.69	-9471624.51	0.0088	0.0022
Mercury	-30645-05-06 22:19 J	-9471536.73	-9471536.57	-9471536.40	0.0088	0.0030
Mercury	-30645-08-03 01:11 J	-9471448.60	-9471448.45	-9471448.28	0.0088	0.0039
Mercury	-30645-10-30 03:50 J	-9471360.47	-9471360.34	-9471360.17	0.0088	0.0048
Mercury	-30644-01-26 06:57 J	-9471272.34	-9471272.21	-9471272.07	0.0088	0.0055
Mars	-30644-04-24 07:11 J	-9471184.51	-9471184.20	-9471183.87	0.0088	0.0005
Mercury	-30644-04-24 09:35 J	-9471184.21	-9471184.10	-9471183.96	0.0088	0.0064 *
Mercury	-30644-07-21 12:28 J	-9471096.07	-9471095.98	-9471095.87	0.0088	0.0072

Mercury	-30644-10-17 15:21 J	-9471007.92	-9471007.86	-9471007.78	0.0088	0.0081
Mars	-30642-03-20 07:26 J	-9470489.43	-9470489.19	-9470488.89	0.0088	0.0050
Venus	-30625-11-19 14:09 J	-9464034.91	-9464034.91	-9464034.89	0.0089	0.0088
Venus	-30624-07-03 03:35 J	-9463809.41	-9463809.35	-9463809.25	0.0089	0.0083
Venus	-30623-02-13 17:31 J	-9463583.87	-9463583.77	-9463583.65	0.0089	0.0077
Venus	-30623-09-27 07:26 J	-9463358.32	-9463358.19	-9463358.06	0.0089	0.0071
Venus	-30622-05-10 20:23 J	-9463132.77	-9463132.65	-9463132.47	0.0089	0.0066
Venus	-30622-12-22 10:04 J	-9462907.23	-9462907.08	-9462906.90	0.0089	0.0060
Venus	-30621-08-03 23:31 J	-9462681.68	-9462681.52	-9462681.32	0.0089	0.0054
Venus	-30620-03-17 13:11 J	-9462456.12	-9462455.95	-9462455.75	0.0089	0.0048
Venus	-30620-10-29 02:52 J	-9462230.56	-9462230.38	-9462230.17	0.0089	0.0042
Venus	-30619-06-11 16:19 J	-9462005.01	-9462004.82	-9462004.60	0.0089	0.0036
Venus	-30618-01-23 05:45 J	-9461779.46	-9461779.26	-9461779.04	0.0089	0.0030
Venus	-30618-09-05 19:11 J	-9461553.90	-9461553.70	-9461553.47	0.0089	0.0024
Venus	-30617-04-18 08:52 J	-9461328.35	-9461328.13	-9461327.91	0.0089	0.0018
Venus	-30617-11-29 22:19 J	-9461102.79	-9461102.57	-9461102.35	0.0089	0.0012
Venus	-30616-07-13 11:45 J	-9460877.23	-9460877.01	-9460876.79	0.0089	0.0006
Venus	-30615-02-24 01:11 J	-9460651.67	-9460651.45	-9460651.23	0.0089	0.0001
Venus	-30615-10-07 14:23 J	-9460426.11	-9460425.90	-9460425.67	0.0089	0.0007
Venus	-30614-05-21 03:50 J	-9460200.55	-9460200.34	-9460200.11	0.0089	0.0013
Venus	-30613-01-01 17:02 J	-9459974.99	-9459974.79	-9459974.56	0.0089	0.0019
Venus	-30613-08-14 06:43 J	-9459749.43	-9459749.22	-9459749.01	0.0089	0.0024
Venus	-30612-03-27 20:09 J	-9459523.87	-9459523.66	-9459523.46	0.0089	0.0030
Venus	-30612-11-08 09:21 J	-9459298.30	-9459298.11	-9459297.90	0.0089	0.0036
Venus	-30611-06-21 22:47 J	-9459072.74	-9459072.55	-9459072.35	0.0089	0.0042
Venus	-30610-02-02 11:45 J	-9458847.18	-9458847.01	-9458846.81	0.0089	0.0048
Venus	-30610-09-16 00:57 J	-9458621.62	-9458621.46	-9458621.27	0.0089	0.0054
Venus	-30609-04-28 14:09 J	-9458396.05	-9458395.91	-9458395.73	0.0089	0.0060
Venus	-30609-12-10 03:21 J	-9458170.48	-9458170.36	-9458170.19	0.0089	0.0066
Venus	-30608-07-23 16:47 J	-9457944.92	-9457944.80	-9457944.66	0.0089	0.0071

Venus	-30607-03-06 05:45 J	-9457719.35	-9457719.26	-9457719.13	0.0089	0.0077
Venus	-30607-10-17 18:43 J	-9457493.77	-9457493.72	-9457493.62	0.0089	0.0083
Venus	-30606-05-31 08:09 J	-9457268.17	-9457268.16	-9457268.12	0.0089	0.0088
Moon	-30579-03-31 09:50 J	-9447467.21	-9447467.09	-9447466.95	0.0089	0.0076
Earth	-30579-03-31 10:33 J	-9447467.16	-9447467.06	-9447466.94	0.0089	0.0080 *
Moon	-30578-04-02 20:52 J	-9447099.85	-9447099.63	-9447099.38	0.0089	0.0041
Earth	-30578-04-02 21:35 J	-9447099.83	-9447099.60	-9447099.36	0.0089	0.0037 *
Earth	-30577-04-04 08:23 J	-9446732.40	-9446732.15	-9446731.89	0.0089	0.0007
Moon	-30577-04-04 09:50 J	-9446732.34	-9446732.09	-9446731.85	0.0089	0.0011 *
Moon	-30576-04-06 16:04 J	-9446365.04	-9446364.83	-9446364.59	0.0089	0.0045
Earth	-30576-04-06 18:57 J	-9446364.90	-9446364.71	-9446364.48	0.0089	0.0050 *
Mercury	-30567-03-25 23:59 J	-9443089.51	-9443089.50	-9443089.47	0.0089	0.0089
Mercury	-30567-06-22 01:40 J	-9443001.48	-9443001.43	-9443001.37	0.0089	0.0082
Mercury	-30567-09-18 02:52 J	-9442913.44	-9442913.38	-9442913.29	0.0089	0.0076
Mercury	-30567-12-15 04:33 J	-9442825.39	-9442825.31	-9442825.21	0.0089	0.0068
Mercury	-30566-03-13 06:14 J	-9442737.34	-9442737.24	-9442737.14	0.0089	0.0061
Mercury	-30566-06-09 07:40 J	-9442649.28	-9442649.18	-9442649.06	0.0089	0.0055
Mercury	-30566-09-05 09:21 J	-9442561.23	-9442561.11	-9442560.99	0.0089	0.0048
Mercury	-30566-12-02 10:47 J	-9442473.17	-9442473.05	-9442472.92	0.0089	0.0041
Mercury	-30565-02-28 12:14 J	-9442385.11	-9442384.99	-9442384.85	0.0089	0.0034
Mercury	-30565-05-26 13:55 J	-9442297.05	-9442296.92	-9442296.78	0.0089	0.0027
Mercury	-30565-08-22 15:21 J	-9442208.99	-9442208.86	-9442208.72	0.0089	0.0021
Mercury	-30565-11-18 17:02 J	-9442120.92	-9442120.79	-9442120.65	0.0089	0.0013
Mercury	-30564-02-14 18:43 J	-9442032.86	-9442032.72	-9442032.58	0.0089	0.0006
Mars	-30564-04-26 17:59 J	-9441961.98	-9441961.75	-9441961.49	0.0089	0.0054
Mercury	-30564-05-13 20:09 J	-9441944.80	-9441944.66	-9441944.51	0.0089	0.0003
Mercury	-30564-08-09 21:50 J	-9441856.73	-9441856.59	-9441856.45	0.0089	0.0008
Mercury	-30564-11-05 23:16 J	-9441768.66	-9441768.53	-9441768.38	0.0089	0.0016
Mercury	-30563-02-02 00:57 J	-9441680.59	-9441680.46	-9441680.32	0.0089	0.0022
Mercury	-30563-05-01 02:38 J	-9441592.52	-9441592.39	-9441592.26	0.0089	0.0029

Mercury	-30563-07-28 04:04 J	-9441504.45	-9441504.33	-9441504.19	0.0089	0.0036
Mercury	-30563-10-24 05:45 J	-9441416.38	-9441416.26	-9441416.13	0.0089	0.0043
Mercury	-30562-01-20 07:26 J	-9441328.30	-9441328.19	-9441328.07	0.0089	0.0050
Mars	-30562-03-22 11:02 J	-9441267.34	-9441267.04	-9441266.73	0.0089	0.0001
Mercury	-30562-04-18 09:07 J	-9441240.23	-9441240.12	-9441240.01	0.0089	0.0058
Mercury	-30562-07-15 10:47 J	-9441152.15	-9441152.05	-9441151.95	0.0089	0.0065
Mercury	-30562-10-11 11:59 J	-9441064.07	-9441064.00	-9441063.90	0.0089	0.0073
Mercury	-30561-01-07 13:40 J	-9440975.98	-9440975.93	-9440975.85	0.0089	0.0080
Mercury	-30561-04-04 15:35 J	-9440887.88	-9440887.85	-9440887.81	0.0089	0.0086
Mars	-30560-02-14 02:38 J	-9440572.62	-9440572.39	-9440572.13	0.0089	0.0053
Venus	-30543-05-23 10:04 J	-9434265.12	-9434265.08	-9434264.99	0.0089	0.0085
Venus	-30542-01-03 22:47 J	-9434039.63	-9434039.55	-9434039.44	0.0089	0.0079
Venus	-30542-08-17 11:02 J	-9433814.14	-9433814.04	-9433813.90	0.0089	0.0074
Venus	-30541-03-29 23:45 J	-9433588.63	-9433588.51	-9433588.36	0.0089	0.0068
Venus	-30541-11-10 11:59 J	-9433363.13	-9433363.00	-9433362.83	0.0089	0.0063
Venus	-30540-06-24 00:43 J	-9433137.63	-9433137.47	-9433137.30	0.0089	0.0057
Venus	-30539-02-04 13:11 J	-9432912.12	-9432911.95	-9432911.77	0.0089	0.0051
Venus	-30539-09-18 01:26 J	-9432686.61	-9432686.44	-9432686.24	0.0089	0.0046
Venus	-30538-05-01 14:09 J	-9432461.09	-9432460.91	-9432460.70	0.0089	0.0040
Venus	-30538-12-13 02:52 J	-9432235.58	-9432235.38	-9432235.18	0.0089	0.0034
Venus	-30537-07-25 15:07 J	-9432010.06	-9432009.87	-9432009.65	0.0089	0.0029
Venus	-30536-03-08 03:50 J	-9431784.54	-9431784.34	-9431784.12	0.0089	0.0023
Venus	-30536-10-19 16:33 J	-9431559.02	-9431558.81	-9431558.59	0.0089	0.0017
Venus	-30535-06-02 05:16 J	-9431333.50	-9431333.28	-9431333.06	0.0089	0.0011
Venus	-30534-01-13 17:45 J	-9431107.97	-9431107.76	-9431107.54	0.0089	0.0006
Venus	-30534-08-27 06:28 J	-9430882.45	-9430882.23	-9430882.01	0.0088	0.0001
Venus	-30533-04-08 19:11 J	-9430656.92	-9430656.70	-9430656.48	0.0088	0.0007
Venus	-30533-11-20 07:40 J	-9430431.39	-9430431.18	-9430430.95	0.0088	0.0013
Venus	-30532-07-03 20:23 J	-9430205.86	-9430205.65	-9430205.43	0.0088	0.0018
Venus	-30531-02-14 09:07 J	-9429980.33	-9429980.12	-9429979.91	0.0088	0.0024

Venus	-30531-09-27 21:35 J	-9429754.80	-9429754.60	-9429754.39	0.0088	0.0030
Venus	-30530-05-11 10:19 J	-9429529.26	-9429529.07	-9429528.86	0.0088	0.0036
Venus	-30530-12-22 23:02 J	-9429303.72	-9429303.54	-9429303.34	0.0088	0.0041
Venus	-30529-08-04 11:59 J	-9429078.19	-9429078.00	-9429077.82	0.0088	0.0047
Venus	-30528-03-18 00:28 J	-9428852.65	-9428852.48	-9428852.30	0.0088	0.0053
Venus	-30528-10-29 12:57 J	-9428627.11	-9428626.96	-9428626.78	0.0088	0.0059
Venus	-30527-06-12 02:09 J	-9428401.56	-9428401.41	-9428401.26	0.0088	0.0064
Venus	-30526-01-23 14:38 J	-9428176.01	-9428175.89	-9428175.74	0.0088	0.0070
Venus	-30526-09-06 03:07 J	-9427950.46	-9427950.37	-9427950.23	0.0088	0.0076
Venus	-30525-04-18 16:19 J	-9427724.89	-9427724.82	-9427724.72	0.0088	0.0081
Venus	-30525-11-30 05:02 J	-9427499.31	-9427499.29	-9427499.22	0.0088	0.0086
Jupiter	-30497-09-06 04:19 J	-9417357.51	-9417357.32	-9417356.99	0.0088	0.0078
Earth	-30497-10-01 12:43 J	-9417332.10	-9417331.97	-9417331.81	0.0088	0.0072
Moon	-30497-10-01 13:26 J	-9417332.09	-9417331.94	-9417331.75	0.0088	0.0069 *
Earth	-30496-10-04 01:11 J	-9416964.68	-9416964.45	-9416964.19	0.0088	0.0030
Moon	-30496-10-04 02:09 J	-9416964.63	-9416964.41	-9416964.16	0.0088	0.0033 *
Moon	-30495-10-06 11:31 J	-9416597.28	-9416597.02	-9416596.74	0.0088	0.0015
Earth	-30495-10-06 13:26 J	-9416597.18	-9416596.94	-9416596.67	0.0088	0.0013 *
Earth	-30494-10-09 01:26 J	-9416229.62	-9416229.44	-9416229.21	0.0088	0.0055
Moon	-30494-10-09 04:33 J	-9416229.51	-9416229.31	-9416229.10	0.0088	0.0051 *
Mercury	-30484-12-13 06:14 J	-9412511.32	-9412511.24	-9412511.16	0.0088	0.0079
Mercury	-30483-03-11 08:52 J	-9412423.22	-9412423.13	-9412423.01	0.0088	0.0071
Mercury	-30483-06-07 11:59 J	-9412335.11	-9412335.00	-9412334.86	0.0088	0.0062
Mercury	-30483-09-03 15:07 J	-9412247.00	-9412246.87	-9412246.71	0.0088	0.0053
Mercury	-30483-11-30 18:14 J	-9412158.89	-9412158.74	-9412158.58	0.0088	0.0044
Mars	-30482-01-11 19:26 J	-9412116.76	-9412116.69	-9412116.57	0.0088	0.0084
Mercury	-30482-02-26 21:21 J	-9412070.77	-9412070.61	-9412070.44	0.0088	0.0035
Mercury	-30482-05-26 00:14 J	-9411982.66	-9411982.49	-9411982.31	0.0088	0.0027
Mercury	-30482-08-22 03:21 J	-9411894.53	-9411894.36	-9411894.18	0.0088	0.0018
Mercury	-30482-11-18 06:14 J	-9411806.41	-9411806.24	-9411806.05	0.0088	0.0010

Mercury	-30481-02-14 09:21 J	-9411718.29	-9411718.11	-9411717.93	0.0088	0.0001
Mercury	-30481-05-12 12:14 J	-9411630.17	-9411629.99	-9411629.81	0.0088	0.0008
Mercury	-30481-08-08 15:07 J	-9411542.04	-9411541.87	-9411541.69	0.0088	0.0017
Mercury	-30481-11-04 17:59 J	-9411453.91	-9411453.75	-9411453.57	0.0088	0.0026
Mars	-30481-12-06 16:47 J	-9411422.08	-9411421.80	-9411421.48	0.0088	0.0031
Mercury	-30480-01-31 20:52 J	-9411365.79	-9411365.63	-9411365.46	0.0088	0.0034
Mercury	-30480-04-29 23:59 J	-9411277.66	-9411277.50	-9411277.34	0.0088	0.0042
Mercury	-30480-07-27 02:38 J	-9411189.52	-9411189.39	-9411189.23	0.0088	0.0051
Mercury	-30480-10-23 05:31 J	-9411101.39	-9411101.27	-9411101.13	0.0088	0.0060
Mercury	-30479-01-19 08:09 J	-9411013.25	-9411013.16	-9411013.03	0.0088	0.0068
Mercury	-30479-04-17 11:16 J	-9410925.11	-9410925.03	-9410924.94	0.0088	0.0076
Mercury	-30479-07-14 14:09 J	-9410836.95	-9410836.91	-9410836.86	0.0088	0.0085
Mars	-30479-11-01 17:31 J	-9410727.06	-9410726.77	-9410726.45	0.0088	0.0023
Mars	-30477-09-26 18:57 J	-9410031.84	-9410031.71	-9410031.53	0.0088	0.0078
Venus	-30460-10-04 13:11 J	-9403815.01	-9403814.95	-9403814.87	0.0089	0.0084
Venus	-30459-05-18 02:23 J	-9403589.47	-9403589.40	-9403589.27	0.0089	0.0079
Venus	-30459-12-29 16:19 J	-9403363.93	-9403363.82	-9403363.68	0.0089	0.0073
Venus	-30458-08-12 05:59 J	-9403138.38	-9403138.25	-9403138.09	0.0089	0.0067
Venus	-30457-03-24 19:40 J	-9402912.83	-9402912.68	-9402912.51	0.0089	0.0061
Venus	-30457-11-05 09:07 J	-9402687.27	-9402687.12	-9402686.93	0.0089	0.0056
Venus	-30456-06-18 22:47 J	-9402461.72	-9402461.55	-9402461.35	0.0089	0.0050
Venus	-30455-01-30 12:14 J	-9402236.17	-9402235.99	-9402235.78	0.0089	0.0044
Venus	-30455-09-13 01:55 J	-9402010.61	-9402010.42	-9402010.21	0.0089	0.0038
Venus	-30454-04-26 15:21 J	-9401785.06	-9401784.86	-9401784.64	0.0089	0.0032
Venus	-30454-12-08 05:02 J	-9401559.50	-9401559.29	-9401559.07	0.0089	0.0026
Venus	-30453-07-20 18:28 J	-9401333.95	-9401333.73	-9401333.51	0.0089	0.0020
Venus	-30452-03-03 07:40 J	-9401108.39	-9401108.18	-9401107.95	0.0089	0.0015
Venus	-30452-10-14 21:21 J	-9400882.83	-9400882.61	-9400882.39	0.0089	0.0008
Venus	-30451-05-28 10:47 J	-9400657.27	-9400657.05	-9400656.83	0.0089	0.0003
Venus	-30450-01-08 23:59 J	-9400431.72	-9400431.50	-9400431.27	0.0089	0.0004

Venus	-30450-08-22 13:26 J	-9400206.16	-9400205.94	-9400205.72	0.0089	0.0009
Venus	-30449-04-04 02:38 J	-9399980.60	-9399980.39	-9399980.17	0.0089	0.0015
Venus	-30449-11-15 16:04 J	-9399755.04	-9399754.83	-9399754.61	0.0089	0.0021
Venus	-30448-06-29 05:16 J	-9399529.48	-9399529.28	-9399529.06	0.0089	0.0027
Venus	-30447-02-09 18:28 J	-9399303.92	-9399303.73	-9399303.51	0.0089	0.0033
Venus	-30447-09-23 07:55 J	-9399078.36	-9399078.17	-9399077.96	0.0089	0.0039
Venus	-30446-05-06 21:35 J	-9398852.79	-9398852.60	-9398852.41	0.0089	0.0044
Venus	-30446-12-18 10:47 J	-9398627.23	-9398627.05	-9398626.86	0.0089	0.0050
Venus	-30445-07-30 23:45 J	-9398401.66	-9398401.51	-9398401.32	0.0089	0.0056
Venus	-30444-03-13 12:57 J	-9398176.10	-9398175.96	-9398175.78	0.0089	0.0062
Venus	-30444-10-25 02:23 J	-9397950.53	-9397950.40	-9397950.24	0.0089	0.0067
Venus	-30443-06-07 15:21 J	-9397724.96	-9397724.86	-9397724.71	0.0089	0.0073
Venus	-30442-01-19 04:47 J	-9397499.39	-9397499.30	-9397499.19	0.0089	0.0078
Venus	-30442-09-01 17:45 J	-9397273.81	-9397273.76	-9397273.67	0.0089	0.0084
Earth	-30414-04-02 05:59 J	-9387199.43	-9387199.25	-9387199.05	0.0089	0.0060
Moon	-30414-04-02 08:09 J	-9387199.33	-9387199.16	-9387198.97	0.0089	0.0062 *
Moon	-30413-04-03 14:09 J	-9386832.16	-9386831.91	-9386831.64	0.0089	0.0015
Earth	-30413-04-03 17:02 J	-9386832.04	-9386831.79	-9386831.54	0.0089	0.0017 *
Earth	-30412-04-06 03:35 J	-9386464.58	-9386464.35	-9386464.10	0.0089	0.0027
Moon	-30412-04-06 07:11 J	-9386464.43	-9386464.20	-9386463.95	0.0089	0.0025 *
Moon	-30411-04-08 11:02 J	-9386097.17	-9386097.04	-9386096.87	0.0089	0.0072
Earth	-30411-04-08 14:23 J	-9386097.04	-9386096.90	-9386096.72	0.0089	0.0070 *
Mercury	-30403-12-20 23:31 J	-9382918.55	-9382918.52	-9382918.48	0.0089	0.0086
Mercury	-30402-03-19 01:11 J	-9382830.51	-9382830.45	-9382830.39	0.0089	0.0079
Mercury	-30402-06-15 02:23 J	-9382742.47	-9382742.40	-9382742.31	0.0089	0.0072
Mercury	-30402-09-11 03:50 J	-9382654.42	-9382654.34	-9382654.23	0.0089	0.0066
Mercury	-30402-12-08 05:31 J	-9382566.37	-9382566.27	-9382566.16	0.0089	0.0059
Mercury	-30401-03-05 07:11 J	-9382478.31	-9382478.20	-9382478.09	0.0089	0.0052
Mercury	-30401-06-01 08:52 J	-9382390.25	-9382390.13	-9382390.01	0.0089	0.0045
Mercury	-30401-08-28 10:04 J	-9382302.20	-9382302.08	-9382301.95	0.0089	0.0038

Mercury	-30401-11-24 11:45 J	-9382214.14	-9382214.01	-9382213.88	0.0089	0.0031
Mars	-30401-12-09 07:11 J	-9382199.31	-9382199.20	-9382199.07	0.0089	0.0082
Mercury	-30400-02-20 13:11 J	-9382126.08	-9382125.95	-9382125.81	0.0089	0.0024
Mercury	-30400-05-19 14:52 J	-9382038.01	-9382037.88	-9382037.74	0.0089	0.0017
Mercury	-30400-08-15 16:33 J	-9381949.95	-9381949.81	-9381949.67	0.0089	0.0010
Mercury	-30400-11-11 17:59 J	-9381861.89	-9381861.75	-9381861.61	0.0089	0.0004
Mercury	-30399-02-07 19:40 J	-9381773.82	-9381773.68	-9381773.54	0.0089	0.0004
Mercury	-30399-05-06 21:07 J	-9381685.75	-9381685.62	-9381685.48	0.0089	0.0011
Mercury	-30399-08-02 22:47 J	-9381597.69	-9381597.55	-9381597.41	0.0089	0.0018
Mercury	-30399-10-30 00:14 J	-9381509.62	-9381509.49	-9381509.35	0.0089	0.0025
Mars	-30399-11-04 02:52 J	-9381504.66	-9381504.38	-9381504.07	0.0089	0.0027
Mercury	-30398-01-26 01:55 J	-9381421.55	-9381421.42	-9381421.29	0.0089	0.0032
Mercury	-30398-04-24 03:21 J	-9381333.48	-9381333.36	-9381333.22	0.0089	0.0040
Mercury	-30398-07-21 05:02 J	-9381245.40	-9381245.29	-9381245.16	0.0089	0.0046
Mercury	-30398-10-17 06:43 J	-9381157.33	-9381157.22	-9381157.10	0.0089	0.0053
Mercury	-30397-01-13 08:23 J	-9381069.25	-9381069.15	-9381069.05	0.0089	0.0060
Mercury	-30397-04-10 10:04 J	-9380981.17	-9380981.08	-9380980.99	0.0089	0.0068
Mercury	-30397-07-07 11:16 J	-9380893.09	-9380893.03	-9380892.94	0.0089	0.0076
Mars	-30397-09-28 19:40 J	-9380809.97	-9380809.68	-9380809.38	0.0089	0.0028
Mercury	-30397-10-03 12:57 J	-9380805.00	-9380804.96	-9380804.89	0.0089	0.0083
Mars	-30395-08-24 09:50 J	-9380115.18	-9380115.09	-9380114.93	0.0089	0.0082
Venus	-30379-08-24 21:21 J	-9374270.66	-9374270.61	-9374270.55	0.0089	0.0085
Venus	-30378-04-07 09:50 J	-9374045.17	-9374045.09	-9374044.99	0.0089	0.0080
Venus	-30378-11-18 22:04 J	-9373819.68	-9373819.58	-9373819.45	0.0089	0.0075
Venus	-30377-07-01 10:47 J	-9373594.18	-9373594.05	-9373593.91	0.0089	0.0069
Venus	-30376-02-11 22:47 J	-9373368.68	-9373368.55	-9373368.38	0.0089	0.0064
Venus	-30376-09-25 11:02 J	-9373143.18	-9373143.04	-9373142.85	0.0089	0.0059
Venus	-30375-05-08 23:45 J	-9372917.67	-9372917.51	-9372917.32	0.0089	0.0053
Venus	-30375-12-20 12:43 J	-9372692.16	-9372691.97	-9372691.79	0.0089	0.0047
Venus	-30374-08-03 00:43 J	-9372466.65	-9372466.47	-9372466.26	0.0089	0.0042

Venus	-30373-03-15 13:26 J	-9372241.13	-9372240.94	-9372240.73	0.0089	0.0036
Venus	-30373-10-27 01:55 J	-9372015.62	-9372015.42	-9372015.21	0.0089	0.0030
Venus	-30372-06-09 14:23 J	-9371790.10	-9371789.90	-9371789.68	0.0089	0.0025
Venus	-30371-01-21 03:07 J	-9371564.58	-9371564.37	-9371564.15	0.0089	0.0019
Venus	-30371-09-03 15:35 J	-9371339.06	-9371338.85	-9371338.63	0.0089	0.0014
Venus	-30370-04-17 04:33 J	-9371113.53	-9371113.31	-9371113.09	0.0089	0.0008
Venus	-30370-11-28 17:16 J	-9370888.00	-9370887.78	-9370887.57	0.0089	0.0002
Venus	-30369-07-11 05:45 J	-9370662.48	-9370662.26	-9370662.04	0.0088	0.0004
Venus	-30368-02-21 18:14 J	-9370436.95	-9370436.74	-9370436.52	0.0088	0.0010
Venus	-30368-10-05 06:57 J	-9370211.42	-9370211.21	-9370210.99	0.0088	0.0015
Venus	-30367-05-18 19:55 J	-9369985.88	-9369985.67	-9369985.46	0.0088	0.0021
Venus	-30367-12-30 08:23 J	-9369760.35	-9369760.15	-9369759.93	0.0088	0.0027
Venus	-30366-08-12 20:52 J	-9369534.82	-9369534.63	-9369534.41	0.0088	0.0033
Venus	-30365-03-25 09:50 J	-9369309.28	-9369309.09	-9369308.89	0.0088	0.0038
Venus	-30365-11-05 22:19 J	-9369083.74	-9369083.57	-9369083.36	0.0088	0.0044
Venus	-30364-06-19 11:31 J	-9368858.20	-9368858.02	-9368857.84	0.0088	0.0049
Venus	-30363-01-30 23:45 J	-9368632.67	-9368632.51	-9368632.32	0.0088	0.0055
Venus	-30363-09-13 12:28 J	-9368407.12	-9368406.98	-9368406.80	0.0088	0.0060
Venus	-30362-04-27 01:26 J	-9368181.57	-9368181.44	-9368181.28	0.0088	0.0066
Venus	-30362-12-08 13:55 J	-9367956.02	-9367955.92	-9367955.76	0.0088	0.0072
Venus	-30361-07-21 02:52 J	-9367730.47	-9367730.38	-9367730.25	0.0088	0.0077
Venus	-30360-03-03 16:04 J	-9367504.91	-9367504.83	-9367504.75	0.0088	0.0082
Venus	-30360-10-15 04:19 J	-9367279.33	-9367279.32	-9367279.26	0.0088	0.0088
Moon	-30332-10-03 07:11 J	-9357064.40	-9357064.20	-9357063.98	0.0088	0.0055
Earth	-30332-10-03 09:50 J	-9357064.30	-9357064.09	-9357063.88	0.0088	0.0051 *
Earth	-30331-10-05 22:19 J	-9356696.83	-9356696.57	-9356696.31	0.0088	0.0009
Moon	-30331-10-06 01:26 J	-9356696.70	-9356696.44	-9356696.18	0.0088	0.0005 *
Moon	-30330-10-08 07:11 J	-9356329.44	-9356329.20	-9356328.95	0.0088	0.0030
Earth	-30330-10-08 10:47 J	-9356329.29	-9356329.05	-9356328.81	0.0088	0.0033 *
Earth	-30329-10-09 22:33 J	-9355961.67	-9355961.56	-9355961.40	0.0088	0.0076

Moon	-30329-10-10 02:38 J	-9355961.49	-9355961.39	-9355961.27	0.0088	0.0079 *
Mercury	-30319-06-13 01:26 J	-9352428.47	-9352428.44	-9352428.36	0.0088	0.0084
Mercury	-30319-09-09 04:33 J	-9352340.38	-9352340.31	-9352340.20	0.0088	0.0076
Mercury	-30319-12-06 07:40 J	-9352252.28	-9352252.18	-9352252.04	0.0088	0.0067
Mercury	-30318-03-04 11:02 J	-9352164.17	-9352164.04	-9352163.90	0.0088	0.0057
Mercury	-30318-05-31 14:09 J	-9352076.06	-9352075.91	-9352075.76	0.0088	0.0048
Mercury	-30318-08-27 17:16 J	-9351987.94	-9351987.78	-9351987.62	0.0088	0.0040
Mercury	-30318-11-23 19:55 J	-9351899.83	-9351899.67	-9351899.49	0.0088	0.0031
Mercury	-30317-02-19 23:02 J	-9351811.71	-9351811.54	-9351811.35	0.0088	0.0022
Mercury	-30317-05-18 02:09 J	-9351723.58	-9351723.41	-9351723.23	0.0088	0.0013
Mars	-30317-07-21 07:40 J	-9351659.40	-9351659.18	-9351658.91	0.0088	0.0057
Mercury	-30317-08-14 05:16 J	-9351635.46	-9351635.28	-9351635.10	0.0088	0.0005
Mercury	-30317-11-10 08:09 J	-9351547.34	-9351547.16	-9351546.98	0.0088	0.0004
Mercury	-30316-02-06 11:02 J	-9351459.21	-9351459.04	-9351458.86	0.0088	0.0013
Mercury	-30316-05-05 14:09 J	-9351371.09	-9351370.91	-9351370.74	0.0088	0.0021
Mercury	-30316-08-01 17:02 J	-9351282.96	-9351282.79	-9351282.62	0.0088	0.0030
Mercury	-30316-10-28 19:40 J	-9351194.83	-9351194.68	-9351194.51	0.0088	0.0039
Mercury	-30315-01-24 22:47 J	-9351106.70	-9351106.55	-9351106.39	0.0088	0.0047
Mercury	-30315-04-23 01:26 J	-9351018.56	-9351018.44	-9351018.29	0.0088	0.0056
Mars	-30315-06-16 05:16 J	-9350964.59	-9350964.28	-9350963.96	0.0088	0.0003
Mercury	-30315-07-20 04:19 J	-9350930.42	-9350930.32	-9350930.18	0.0088	0.0065
Mercury	-30315-10-16 07:40 J	-9350842.28	-9350842.18	-9350842.08	0.0088	0.0073
Mercury	-30314-01-12 10:04 J	-9350754.13	-9350754.08	-9350754.00	0.0088	0.0081
Mars	-30313-05-11 05:16 J	-9350269.52	-9350269.28	-9350269.00	0.0088	0.0052
Venus	-30295-01-05 22:47 J	-9343820.59	-9343820.55	-9343820.46	0.0089	0.0085
Venus	-30295-08-19 12:43 J	-9343595.06	-9343594.97	-9343594.86	0.0089	0.0079
Venus	-30294-04-02 02:09 J	-9343369.51	-9343369.41	-9343369.27	0.0089	0.0074
Venus	-30294-11-13 16:04 J	-9343143.96	-9343143.83	-9343143.68	0.0089	0.0068
Venus	-30293-06-26 05:16 J	-9342918.41	-9342918.28	-9342918.10	0.0089	0.0063
Venus	-30292-02-06 19:11 J	-9342692.86	-9342692.70	-9342692.52	0.0089	0.0057

Venus	-30292-09-20 08:52 J	-9342467.30	-9342467.13	-9342466.94	0.0089	0.0051
Venus	-30291-05-03 22:19 J	-9342241.74	-9342241.57	-9342241.36	0.0089	0.0046
Venus	-30291-12-15 11:59 J	-9342016.18	-9342016.00	-9342015.79	0.0089	0.0040
Venus	-30290-07-29 01:40 J	-9341790.63	-9341790.43	-9341790.22	0.0089	0.0034
Venus	-30289-03-10 15:21 J	-9341565.07	-9341564.86	-9341564.65	0.0089	0.0028
Venus	-30289-10-22 04:33 J	-9341339.51	-9341339.31	-9341339.08	0.0089	0.0023
Venus	-30288-06-04 18:14 J	-9341113.95	-9341113.74	-9341113.52	0.0089	0.0017
Venus	-30287-01-16 07:40 J	-9340888.40	-9340888.18	-9340887.96	0.0089	0.0011
Venus	-30287-08-29 21:07 J	-9340662.84	-9340662.62	-9340662.40	0.0089	0.0005
Venus	-30286-04-12 10:33 J	-9340437.28	-9340437.06	-9340436.84	0.0089	0.0001
Venus	-30286-11-23 23:45 J	-9340211.72	-9340211.51	-9340211.28	0.0089	0.0007
Venus	-30285-07-06 13:11 J	-9339986.17	-9339985.95	-9339985.73	0.0089	0.0012
Venus	-30284-02-17 02:23 J	-9339760.61	-9339760.40	-9339760.18	0.0089	0.0018
Venus	-30284-09-30 15:35 J	-9339535.05	-9339534.85	-9339534.62	0.0089	0.0024
Venus	-30283-05-14 05:02 J	-9339309.49	-9339309.29	-9339309.07	0.0089	0.0030
Venus	-30283-12-25 18:28 J	-9339083.93	-9339083.73	-9339083.52	0.0089	0.0035
Venus	-30282-08-08 07:40 J	-9338858.37	-9338858.18	-9338857.98	0.0089	0.0041
Venus	-30281-03-20 20:38 J	-9338632.81	-9338632.64	-9338632.43	0.0089	0.0047
Venus	-30281-11-01 10:19 J	-9338407.24	-9338407.07	-9338406.88	0.0089	0.0052
Venus	-30280-06-14 23:16 J	-9338181.67	-9338181.53	-9338181.34	0.0089	0.0058
Venus	-30279-01-26 12:43 J	-9337956.11	-9337955.97	-9337955.80	0.0089	0.0063
Venus	-30279-09-09 01:40 J	-9337730.54	-9337730.43	-9337730.27	0.0089	0.0069
Venus	-30278-04-22 15:07 J	-9337504.97	-9337504.87	-9337504.74	0.0089	0.0074
Venus	-30278-12-04 04:19 J	-9337279.40	-9337279.32	-9337279.20	0.0089	0.0080
Venus	-30277-07-16 17:31 J	-9337053.81	-9337053.77	-9337053.69	0.0089	0.0085
Moon	-30250-04-01 12:43 J	-9327299.08	-9327298.97	-9327298.83	0.0089	0.0078
Earth	-30250-04-01 15:50 J	-9327298.92	-9327298.84	-9327298.72	0.0089	0.0082 *
Earth	-30249-04-03 02:38 J	-9326931.60	-9326931.39	-9326931.14	0.0089	0.0039
Moon	-30249-04-03 06:14 J	-9326931.46	-9326931.24	-9326931.01	0.0089	0.0043 *
Moon	-30248-04-05 10:04 J	-9326564.32	-9326564.08	-9326563.82	0.0089	0.0010

Earth	-30248-04-05 13:55 J	-9326564.17	-9326563.92	-9326563.66	0.0089	0.0005 *
Earth	-30247-04-08 00:28 J	-9326196.69	-9326196.48	-9326196.26	0.0089	0.0048
Moon	-30247-04-08 03:21 J	-9326196.58	-9326196.36	-9326196.12	0.0089	0.0044 *
Mercury	-30238-06-20 21:35 J	-9322835.60	-9322835.60	-9322835.59	0.0089	0.0089
Mercury	-30238-09-16 23:02 J	-9322747.58	-9322747.54	-9322747.48	0.0089	0.0082
Mercury	-30238-12-14 00:28 J	-9322659.54	-9322659.48	-9322659.40	0.0089	0.0076
Mercury	-30237-03-11 02:09 J	-9322571.50	-9322571.41	-9322571.32	0.0089	0.0069
Mercury	-30237-06-07 03:21 J	-9322483.44	-9322483.36	-9322483.25	0.0089	0.0063
Mercury	-30237-09-03 05:02 J	-9322395.39	-9322395.29	-9322395.17	0.0089	0.0055
Mercury	-30237-11-30 06:28 J	-9322307.33	-9322307.23	-9322307.10	0.0089	0.0049
Mercury	-30236-02-26 08:09 J	-9322219.28	-9322219.16	-9322219.03	0.0089	0.0041
Mercury	-30236-05-25 09:50 J	-9322131.22	-9322131.09	-9322130.96	0.0089	0.0034
Mercury	-30236-08-21 11:16 J	-9322043.16	-9322043.03	-9322042.89	0.0089	0.0028
Mercury	-30236-11-17 12:57 J	-9321955.10	-9321954.96	-9321954.83	0.0089	0.0021
Mercury	-30235-02-13 14:23 J	-9321867.04	-9321866.90	-9321866.76	0.0089	0.0014
Mercury	-30235-05-12 16:04 J	-9321778.97	-9321778.83	-9321778.69	0.0089	0.0007
Mars	-30235-06-18 17:02 J	-9321742.02	-9321741.79	-9321741.52	0.0089	0.0054
Mercury	-30235-08-08 17:31 J	-9321690.91	-9321690.77	-9321690.63	0.0089	0.0002
Mercury	-30235-11-04 19:11 J	-9321602.84	-9321602.70	-9321602.56	0.0089	0.0007
Mercury	-30234-01-31 20:38 J	-9321514.78	-9321514.64	-9321514.50	0.0089	0.0014
Mercury	-30234-04-29 22:19 J	-9321426.71	-9321426.57	-9321426.43	0.0089	0.0021
Mercury	-30234-07-26 23:45 J	-9321338.64	-9321338.51	-9321338.37	0.0089	0.0029
Mercury	-30234-10-23 01:26 J	-9321250.57	-9321250.44	-9321250.31	0.0089	0.0035
Mercury	-30233-01-19 03:07 J	-9321162.50	-9321162.37	-9321162.25	0.0089	0.0043
Mercury	-30233-04-16 04:19 J	-9321074.42	-9321074.32	-9321074.19	0.0089	0.0050
Mars	-30233-05-13 12:28 J	-9321047.28	-9321046.98	-9321046.66	0.0089	0.0002
Mercury	-30233-07-13 05:59 J	-9320986.35	-9320986.25	-9320986.13	0.0089	0.0057
Mercury	-30233-10-09 07:40 J	-9320898.27	-9320898.18	-9320898.07	0.0089	0.0064
Mercury	-30232-01-05 09:21 J	-9320810.19	-9320810.11	-9320810.02	0.0089	0.0071
Mercury	-30232-04-03 10:47 J	-9320722.10	-9320722.05	-9320721.97	0.0089	0.0079

Mercury	-30232-06-30 12:28 J	-9320634.01	-9320633.98	-9320633.93	0.0089	0.0086
Mars	-30231-04-08 04:47 J	-9320352.51	-9320352.30	-9320352.03	0.0089	0.0057
Venus	-30215-11-26 08:38 J	-9314276.17	-9314276.14	-9314276.07	0.0089	0.0086
Venus	-30214-07-09 21:07 J	-9314050.69	-9314050.62	-9314050.51	0.0089	0.0081
Venus	-30213-02-20 09:21 J	-9313825.20	-9313825.11	-9313824.97	0.0089	0.0076
Venus	-30213-10-02 22:04 J	-9313599.70	-9313599.58	-9313599.44	0.0089	0.0070
Venus	-30212-05-16 10:33 J	-9313374.19	-9313374.06	-9313373.90	0.0089	0.0065
Venus	-30212-12-27 22:47 J	-9313148.69	-9313148.55	-9313148.37	0.0089	0.0060
Venus	-30211-08-10 11:31 J	-9312923.18	-9312923.02	-9312922.84	0.0089	0.0054
Venus	-30210-03-23 23:45 J	-9312697.67	-9312697.51	-9312697.31	0.0089	0.0049
Venus	-30210-11-04 12:43 J	-9312472.16	-9312471.97	-9312471.78	0.0089	0.0043
Venus	-30209-06-17 00:57 J	-9312246.65	-9312246.46	-9312246.26	0.0089	0.0038
Venus	-30208-01-28 13:11 J	-9312021.14	-9312020.95	-9312020.73	0.0089	0.0033
Venus	-30208-09-11 01:55 J	-9311795.62	-9311795.42	-9311795.21	0.0089	0.0027
Venus	-30207-04-24 14:23 J	-9311570.10	-9311569.90	-9311569.68	0.0089	0.0022
Venus	-30207-12-06 03:07 J	-9311344.58	-9311344.37	-9311344.15	0.0089	0.0016
Venus	-30206-07-19 15:35 J	-9311119.06	-9311118.85	-9311118.63	0.0089	0.0010
Venus	-30205-03-01 04:19 J	-9310893.54	-9310893.32	-9310893.10	0.0089	0.0005
Venus	-30205-10-12 16:47 J	-9310668.02	-9310667.80	-9310667.58	0.0089	0.0001
Venus	-30204-05-26 05:31 J	-9310442.48	-9310442.27	-9310442.05	0.0089	0.0007
Venus	-30203-01-06 17:59 J	-9310216.96	-9310216.75	-9310216.52	0.0089	0.0013
Venus	-30203-08-20 06:57 J	-9309991.43	-9309991.21	-9309991.00	0.0088	0.0018
Venus	-30202-04-02 19:26 J	-9309765.89	-9309765.69	-9309765.47	0.0088	0.0024
Venus	-30202-11-14 08:23 J	-9309540.36	-9309540.15	-9309539.95	0.0088	0.0029
Venus	-30201-06-26 20:52 J	-9309314.82	-9309314.63	-9309314.42	0.0088	0.0034
Venus	-30200-02-07 09:21 J	-9309089.29	-9309089.11	-9309088.90	0.0088	0.0040
Venus	-30200-09-20 22:04 J	-9308863.75	-9308863.58	-9308863.38	0.0088	0.0046
Venus	-30199-05-04 11:16 J	-9308638.21	-9308638.03	-9308637.85	0.0088	0.0051
Venus	-30199-12-15 23:45 J	-9308412.66	-9308412.51	-9308412.33	0.0088	0.0057
Venus	-30198-07-29 12:43 J	-9308187.12	-9308186.97	-9308186.81	0.0088	0.0062

Venus	-30197-03-11 00:57 J	-9307961.58	-9307961.46	-9307961.29	0.0088	0.0068
Venus	-30197-10-22 13:55 J	-9307736.03	-9307735.92	-9307735.78	0.0088	0.0073
Venus	-30196-06-05 03:07 J	-9307510.47	-9307510.37	-9307510.26	0.0088	0.0078
Venus	-30195-01-16 15:21 J	-9307284.90	-9307284.86	-9307284.76	0.0088	0.0084
Venus	-30195-08-30 04:33 J	-9307059.31	-9307059.31	-9307059.29	0.0088	0.0088
Earth	-30168-10-02 18:57 J	-9297163.85	-9297163.71	-9297163.56	0.0088	0.0072
Moon	-30168-10-02 21:50 J	-9297163.72	-9297163.59	-9297163.41	0.0088	0.0070 *
Moon	-30167-10-05 03:21 J	-9296796.58	-9296796.36	-9296796.10	0.0088	0.0032
Earth	-30167-10-05 07:11 J	-9296796.43	-9296796.20	-9296795.94	0.0088	0.0030 *
Earth	-30166-10-07 19:40 J	-9296428.93	-9296428.68	-9296428.42	0.0088	0.0013
Moon	-30166-10-07 23:02 J	-9296428.79	-9296428.54	-9296428.27	0.0088	0.0016 *
Moon	-30165-10-09 04:47 J	-9296061.49	-9296061.30	-9296061.08	0.0088	0.0052
Earth	-30165-10-09 07:55 J	-9296061.36	-9296061.17	-9296060.95	0.0088	0.0055 *
Mercury	-30155-12-11 21:35 J	-9292345.60	-9292345.60	-9292345.59	0.0088	0.0088
Mercury	-30154-03-10 00:28 J	-9292257.54	-9292257.48	-9292257.38	0.0088	0.0079
Mercury	-30154-06-06 03:35 J	-9292169.44	-9292169.35	-9292169.23	0.0088	0.0070
Mercury	-30154-09-02 06:43 J	-9292081.34	-9292081.22	-9292081.08	0.0088	0.0062
Mercury	-30154-11-29 10:04 J	-9291993.22	-9291993.08	-9291992.93	0.0088	0.0052
Mercury	-30153-02-25 13:11 J	-9291905.11	-9291904.95	-9291904.79	0.0088	0.0043
Mars	-30153-03-04 23:31 J	-9291896.61	-9291896.52	-9291896.37	0.0088	0.0081
Mercury	-30153-05-23 15:50 J	-9291816.99	-9291816.84	-9291816.66	0.0088	0.0035
Mercury	-30153-08-19 18:57 J	-9291728.87	-9291728.71	-9291728.53	0.0088	0.0026
Mercury	-30153-11-15 22:04 J	-9291640.75	-9291640.58	-9291640.39	0.0088	0.0017
Mercury	-30152-02-12 01:11 J	-9291552.63	-9291552.45	-9291552.27	0.0088	0.0008
Mercury	-30152-05-11 04:19 J	-9291464.50	-9291464.32	-9291464.14	0.0088	0.0002
Mercury	-30152-08-07 07:11 J	-9291376.38	-9291376.20	-9291376.02	0.0088	0.0009
Mercury	-30152-11-03 10:04 J	-9291288.25	-9291288.08	-9291287.90	0.0088	0.0018
Mars	-30151-01-28 20:09 J	-9291201.94	-9291201.66	-9291201.34	0.0088	0.0028
Mercury	-30151-01-30 13:11 J	-9291200.12	-9291199.95	-9291199.78	0.0088	0.0026
Mercury	-30151-04-28 15:50 J	-9291111.99	-9291111.84	-9291111.66	0.0088	0.0036

Mercury	-30151-07-25 18:43 J	-9291023.86	-9291023.72	-9291023.55	0.0088	0.0044
Mercury	-30151-10-21 21:50 J	-9290935.73	-9290935.59	-9290935.44	0.0088	0.0052
Mercury	-30150-01-18 00:28 J	-9290847.59	-9290847.48	-9290847.33	0.0088	0.0061
Mercury	-30150-04-16 03:35 J	-9290759.45	-9290759.35	-9290759.23	0.0088	0.0069
Mercury	-30150-07-13 06:14 J	-9290671.30	-9290671.24	-9290671.14	0.0088	0.0078
Mercury	-30150-10-09 09:07 J	-9290583.14	-9290583.12	-9290583.07	0.0088	0.0087
Mars	-30150-12-24 18:57 J	-9290507.01	-9290506.71	-9290506.40	0.0088	0.0026
Mars	-30148-11-18 19:11 J	-9289811.80	-9289811.70	-9289811.55	0.0088	0.0082
Venus	-30131-04-09 09:35 J	-9283826.15	-9283826.10	-9283826.03	0.0089	0.0085
Venus	-30131-11-20 23:02 J	-9283600.62	-9283600.54	-9283600.43	0.0089	0.0080
Venus	-30130-07-04 12:28 J	-9283375.08	-9283374.98	-9283374.84	0.0089	0.0075
Venus	-30129-02-15 02:23 J	-9283149.53	-9283149.40	-9283149.25	0.0089	0.0069
Venus	-30129-09-27 15:50 J	-9282923.98	-9282923.84	-9282923.67	0.0089	0.0064
Venus	-30128-05-11 05:31 J	-9282698.42	-9282698.27	-9282698.09	0.0089	0.0058
Venus	-30128-12-22 18:57 J	-9282472.87	-9282472.71	-9282472.51	0.0089	0.0053
Venus	-30127-08-05 08:38 J	-9282247.31	-9282247.14	-9282246.94	0.0089	0.0047
Venus	-30126-03-18 22:33 J	-9282021.76	-9282021.56	-9282021.36	0.0089	0.0041
Venus	-30126-10-30 11:59 J	-9281796.19	-9281796.00	-9281795.78	0.0089	0.0036
Venus	-30125-06-12 01:40 J	-9281570.63	-9281570.43	-9281570.22	0.0089	0.0030
Venus	-30124-01-23 14:52 J	-9281345.08	-9281344.88	-9281344.65	0.0089	0.0025
Venus	-30124-09-06 04:33 J	-9281119.52	-9281119.31	-9281119.08	0.0089	0.0019
Venus	-30123-04-19 18:14 J	-9280893.96	-9280893.74	-9280893.52	0.0089	0.0013
Venus	-30123-12-01 07:40 J	-9280668.40	-9280668.18	-9280667.95	0.0089	0.0008
Venus	-30122-07-14 21:07 J	-9280442.84	-9280442.62	-9280442.39	0.0089	0.0002
Venus	-30121-02-25 10:33 J	-9280217.28	-9280217.06	-9280216.84	0.0089	0.0004
Venus	-30121-10-07 23:59 J	-9279991.72	-9279991.50	-9279991.28	0.0089	0.0010
Venus	-30120-05-21 13:26 J	-9279766.16	-9279765.94	-9279765.72	0.0089	0.0015
Venus	-30119-01-02 02:38 J	-9279540.60	-9279540.39	-9279540.17	0.0089	0.0021
Venus	-30119-08-15 15:35 J	-9279315.05	-9279314.85	-9279314.62	0.0089	0.0027
Venus	-30118-03-29 05:02 J	-9279089.49	-9279089.29	-9279089.07	0.0089	0.0032

Venus	-30118-11-09 18:14 J	-9278863.92	-9278863.74	-9278863.52	0.0089	0.0038
Venus	-30117-06-22 07:55 J	-9278638.36	-9278638.17	-9278637.97	0.0089	0.0043
Venus	-30116-02-02 20:52 J	-9278412.80	-9278412.63	-9278412.43	0.0089	0.0049
Venus	-30116-09-16 10:19 J	-9278187.24	-9278187.07	-9278186.89	0.0089	0.0054
Venus	-30115-04-29 23:16 J	-9277961.67	-9277961.53	-9277961.35	0.0089	0.0060
Venus	-30115-12-11 12:43 J	-9277736.10	-9277735.97	-9277735.80	0.0089	0.0065
Venus	-30114-07-25 02:23 J	-9277510.53	-9277510.40	-9277510.27	0.0089	0.0070
Venus	-30113-03-06 15:07 J	-9277284.96	-9277284.87	-9277284.74	0.0089	0.0076
Venus	-30113-10-18 04:19 J	-9277059.39	-9277059.32	-9277059.21	0.0089	0.0081
Venus	-30112-05-31 17:45 J	-9276833.80	-9276833.76	-9276833.70	0.0089	0.0086
Jupiter	-30088-06-16 18:43 J	-9268052.04	-9268051.72	-9268051.36	0.0089	0.0068
Moon	-30085-04-02 09:50 J	-9267031.25	-9267031.09	-9267030.89	0.0089	0.0063
Earth	-30085-04-02 12:57 J	-9267031.12	-9267030.96	-9267030.75	0.0089	0.0061 *
Earth	-30084-04-04 23:59 J	-9266663.73	-9266663.50	-9266663.24	0.0089	0.0018
Moon	-30084-04-05 03:21 J	-9266663.61	-9266663.36	-9266663.10	0.0089	0.0015 *
Moon	-30083-04-07 09:07 J	-9266296.34	-9266296.12	-9266295.87	0.0089	0.0024
Earth	-30083-04-07 11:02 J	-9266296.27	-9266296.04	-9266295.79	0.0089	0.0026 *
Earth	-30082-04-09 21:21 J	-9265928.74	-9265928.61	-9265928.43	0.0089	0.0070
Moon	-30082-04-09 22:04 J	-9265928.71	-9265928.58	-9265928.39	0.0089	0.0072 *
Mercury	-30073-03-16 21:07 J	-9262664.65	-9262664.62	-9262664.57	0.0089	0.0085
Mercury	-30073-06-12 22:47 J	-9262576.61	-9262576.55	-9262576.48	0.0089	0.0078
Mercury	-30073-09-09 00:14 J	-9262488.56	-9262488.49	-9262488.40	0.0089	0.0072
Mercury	-30073-12-06 01:55 J	-9262400.51	-9262400.42	-9262400.33	0.0089	0.0065
Mercury	-30072-03-04 03:07 J	-9262312.46	-9262312.37	-9262312.25	0.0089	0.0059
Mercury	-30072-05-31 04:47 J	-9262224.41	-9262224.30	-9262224.18	0.0089	0.0051
Mercury	-30072-08-27 06:14 J	-9262136.35	-9262136.24	-9262136.11	0.0089	0.0045
Mercury	-30072-11-23 07:55 J	-9262048.29	-9262048.17	-9262048.04	0.0089	0.0037
Mars	-30071-01-31 10:33 J	-9261979.19	-9261979.06	-9261978.91	0.0089	0.0080
Mercury	-30071-02-19 09:35 J	-9261960.23	-9261960.10	-9261959.97	0.0089	0.0030
Mercury	-30071-05-18 11:02 J	-9261872.17	-9261872.04	-9261871.90	0.0089	0.0023

Mercury	-30071-08-14 12:43 J	-9261784.11	-9261783.97	-9261783.84	0.0089	0.0017
Mercury	-30071-11-10 14:09 J	-9261696.05	-9261695.91	-9261695.77	0.0089	0.0010
Mercury	-30070-02-06 15:50 J	-9261607.98	-9261607.84	-9261607.70	0.0089	0.0003
Mercury	-30070-05-05 17:16 J	-9261519.92	-9261519.78	-9261519.64	0.0089	0.0004
Mercury	-30070-08-01 18:57 J	-9261431.85	-9261431.71	-9261431.57	0.0089	0.0012
Mercury	-30070-10-28 20:23 J	-9261343.79	-9261343.65	-9261343.51	0.0089	0.0019
Mars	-30070-12-27 06:14 J	-9261284.52	-9261284.24	-9261283.92	0.0089	0.0025
Mercury	-30069-01-24 22:04 J	-9261255.72	-9261255.58	-9261255.45	0.0089	0.0026
Mercury	-30069-04-21 23:31 J	-9261167.65	-9261167.52	-9261167.39	0.0089	0.0033
Mercury	-30069-07-19 01:11 J	-9261079.58	-9261079.45	-9261079.32	0.0089	0.0040
Mercury	-30069-10-15 02:23 J	-9260991.50	-9260991.40	-9260991.26	0.0089	0.0048
Mercury	-30068-01-11 04:04 J	-9260903.43	-9260903.33	-9260903.21	0.0089	0.0054
Mercury	-30068-04-09 05:45 J	-9260815.35	-9260815.26	-9260815.15	0.0089	0.0061
Mercury	-30068-07-06 07:26 J	-9260727.27	-9260727.19	-9260727.09	0.0089	0.0068
Mercury	-30068-10-02 08:52 J	-9260639.19	-9260639.13	-9260639.04	0.0089	0.0076
Mars	-30068-11-21 00:14 J	-9260589.76	-9260589.49	-9260589.17	0.0089	0.0032
Mercury	-30068-12-29 10:33 J	-9260551.10	-9260551.06	-9260551.00	0.0089	0.0083
Mars	-30066-10-16 16:47 J	-9259894.86	-9259894.80	-9259894.68	0.0089	0.0085
Venus	-30050-02-27 20:23 J	-9254281.69	-9254281.65	-9254281.59	0.0089	0.0086
Venus	-30050-10-11 08:52 J	-9254056.20	-9254056.13	-9254056.03	0.0089	0.0081
Venus	-30049-05-23 21:21 J	-9253830.71	-9253830.61	-9253830.49	0.0089	0.0076
Venus	-30048-01-04 09:35 J	-9253605.21	-9253605.10	-9253604.95	0.0089	0.0071
Venus	-30048-08-17 22:04 J	-9253379.71	-9253379.58	-9253379.42	0.0089	0.0066
Venus	-30047-03-31 10:33 J	-9253154.20	-9253154.06	-9253153.88	0.0089	0.0061
Venus	-30047-11-11 23:31 J	-9252928.69	-9252928.52	-9252928.35	0.0089	0.0055
Venus	-30046-06-25 11:45 J	-9252703.18	-9252703.01	-9252702.82	0.0089	0.0050
Venus	-30045-02-05 23:59 J	-9252477.67	-9252477.50	-9252477.30	0.0089	0.0045
Venus	-30045-09-18 12:28 J	-9252252.16	-9252251.98	-9252251.77	0.0089	0.0040
Venus	-30044-05-02 01:11 J	-9252026.64	-9252026.45	-9252026.24	0.0089	0.0034
Venus	-30044-12-13 13:40 J	-9251801.12	-9251800.93	-9251800.71	0.0089	0.0029

Venus	-30043-07-27 02:23 J	-9251575.61	-9251575.40	-9251575.19	0.0089	0.0023
Venus	-30042-03-09 14:52 J	-9251350.09	-9251349.88	-9251349.66	0.0089	0.0018
Venus	-30042-10-21 03:21 J	-9251124.57	-9251124.36	-9251124.14	0.0089	0.0012
Venus	-30041-06-02 16:04 J	-9250899.05	-9250898.83	-9250898.61	0.0089	0.0007
Venus	-30040-01-14 04:33 J	-9250673.53	-9250673.31	-9250673.09	0.0089	0.0002
Venus	-30040-08-27 17:02 J	-9250448.00	-9250447.79	-9250447.56	0.0089	0.0005
Venus	-30039-04-10 05:59 J	-9250222.47	-9250222.25	-9250222.04	0.0089	0.0010
Venus	-30039-11-21 18:28 J	-9249996.94	-9249996.73	-9249996.51	0.0089	0.0015
Venus	-30038-07-05 06:57 J	-9249771.41	-9249771.21	-9249770.99	0.0088	0.0021
Venus	-30037-02-15 19:55 J	-9249545.88	-9249545.67	-9249545.46	0.0088	0.0026
Venus	-30037-09-28 08:23 J	-9249320.35	-9249320.15	-9249319.94	0.0088	0.0031
Venus	-30036-05-11 21:21 J	-9249094.80	-9249094.61	-9249094.40	0.0088	0.0037
Venus	-30036-12-23 09:50 J	-9248869.26	-9248869.09	-9248868.88	0.0088	0.0043
Venus	-30035-08-05 22:47 J	-9248643.73	-9248643.55	-9248643.36	0.0088	0.0048
Venus	-30034-03-19 11:31 J	-9248418.19	-9248418.02	-9248417.84	0.0088	0.0053
Venus	-30034-10-30 23:59 J	-9248192.64	-9248192.50	-9248192.32	0.0088	0.0059
Venus	-30033-06-12 12:57 J	-9247967.10	-9247966.96	-9247966.79	0.0088	0.0064
Venus	-30032-01-24 01:55 J	-9247741.55	-9247741.42	-9247741.28	0.0088	0.0069
Venus	-30032-09-06 14:52 J	-9247516.00	-9247515.88	-9247515.76	0.0088	0.0074
Venus	-30031-04-20 03:07 J	-9247290.44	-9247290.37	-9247290.25	0.0088	0.0080
Venus	-30031-12-01 16:04 J	-9247064.87	-9247064.83	-9247064.75	0.0088	0.0084
Earth	-30003-10-04 17:16 J	-9236895.99	-9236895.78	-9236895.56	0.0088	0.0050
Moon	-30003-10-04 20:38 J	-9236895.84	-9236895.64	-9236895.42	0.0088	0.0055 *
Moon	-30002-10-07 03:21 J	-9236528.61	-9236528.36	-9236528.10	0.0088	0.0004
Earth	-30002-10-07 05:45 J	-9236528.51	-9236528.26	-9236527.99	0.0088	0.0008 *
Earth	-30001-10-08 17:45 J	-9236160.98	-9236160.76	-9236160.50	0.0088	0.0035
Moon	-30001-10-08 19:55 J	-9236160.91	-9236160.67	-9236160.41	0.0088	0.0031 *

30TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 30th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-30000-10-11 06:14 J		-9235793.35	-9235793.24	-9235793.10	0.0088	0.0077	
Moon	-30000-10-11 05:59 J		-9235793.33	-9235793.25	-9235793.14	0.0088	0.0081	*
Mercury	-29990-09-07 20:52 J		-9232174.69	-9232174.63	-9232174.57	0.0088	0.0083	
Mercury	-29990-12-04 23:59 J		-9232086.60	-9232086.50	-9232086.40	0.0088	0.0074	
Mercury	-29989-03-02 02:38 J		-9231998.49	-9231998.39	-9231998.25	0.0088	0.0065	
Mercury	-29989-05-29 05:45 J		-9231910.38	-9231910.26	-9231910.10	0.0088	0.0056	
Mercury	-29989-08-25 08:52 J		-9231822.27	-9231822.13	-9231821.96	0.0088	0.0048	
Mercury	-29989-11-21 11:59 J		-9231734.15	-9231734.00	-9231733.82	0.0088	0.0039	
Mercury	-29988-02-17 15:07 J		-9231646.03	-9231645.87	-9231645.69	0.0088	0.0030	
Mercury	-29988-05-16 18:28 J		-9231557.91	-9231557.73	-9231557.56	0.0088	0.0020	
Mercury	-29988-08-12 21:21 J		-9231469.79	-9231469.61	-9231469.43	0.0088	0.0012	
Mars	-29988-09-12 13:55 J		-9231439.17	-9231438.92	-9231438.66	0.0088	0.0053	
Mercury	-29988-11-09 00:28 J		-9231381.66	-9231381.48	-9231381.30	0.0088	0.0003	
Mercury	-29987-02-05 03:21 J		-9231293.54	-9231293.36	-9231293.18	0.0088	0.0006	
Mercury	-29987-05-04 06:14 J		-9231205.41	-9231205.24	-9231205.05	0.0088	0.0015	
Mercury	-29987-07-31 09:21 J		-9231117.28	-9231117.11	-9231116.94	0.0088	0.0023	
Mercury	-29987-10-27 11:59 J		-9231029.15	-9231029.00	-9231028.82	0.0088	0.0033	
Mercury	-29986-01-23 15:21 J		-9230941.02	-9230940.86	-9230940.70	0.0088	0.0041	
Mercury	-29986-04-21 17:59 J		-9230852.89	-9230852.75	-9230852.59	0.0088	0.0049	
Mercury	-29986-07-18 20:38 J		-9230764.75	-9230764.64	-9230764.48	0.0088	0.0059	
Mars	-29986-08-08 10:47 J		-9230744.37	-9230744.05	-9230743.73	0.0088	0.0001	

Mercury	-29986-10-14 23:45 J	-9230676.61	-9230676.51	-9230676.38	0.0088	0.0066
Mercury	-29985-01-11 02:23 J	-9230588.47	-9230588.40	-9230588.28	0.0088	0.0076
Mercury	-29985-04-08 05:31 J	-9230500.31	-9230500.27	-9230500.20	0.0088	0.0083
Mars	-29984-07-03 09:07 J	-9230049.35	-9230049.12	-9230048.86	0.0088	0.0056
Venus	-29967-07-11 20:09 J	-9223831.69	-9223831.66	-9223831.57	0.0089	0.0086
Venus	-29966-02-22 10:19 J	-9223606.16	-9223606.07	-9223605.97	0.0089	0.0080
Venus	-29966-10-05 23:45 J	-9223380.61	-9223380.51	-9223380.37	0.0089	0.0075
Venus	-29965-05-18 13:11 J	-9223155.06	-9223154.95	-9223154.79	0.0089	0.0070
Venus	-29965-12-30 02:38 J	-9222929.51	-9222929.39	-9222929.21	0.0089	0.0065
Venus	-29964-08-12 16:33 J	-9222703.96	-9222703.81	-9222703.63	0.0089	0.0059
Venus	-29963-03-26 05:59 J	-9222478.41	-9222478.25	-9222478.05	0.0089	0.0054
Venus	-29963-11-06 19:55 J	-9222252.85	-9222252.67	-9222252.47	0.0089	0.0048
Venus	-29962-06-20 09:21 J	-9222027.29	-9222027.11	-9222026.90	0.0089	0.0043
Venus	-29961-01-31 23:02 J	-9221801.74	-9221801.54	-9221801.33	0.0089	0.0037
Venus	-29961-09-13 12:28 J	-9221576.18	-9221575.98	-9221575.76	0.0089	0.0032
Venus	-29960-04-27 02:09 J	-9221350.61	-9221350.41	-9221350.19	0.0089	0.0026
Venus	-29960-12-08 15:50 J	-9221125.05	-9221124.84	-9221124.62	0.0089	0.0021
Venus	-29959-07-22 05:16 J	-9220899.49	-9220899.28	-9220899.05	0.0089	0.0015
Venus	-29958-03-04 18:43 J	-9220673.93	-9220673.72	-9220673.49	0.0089	0.0010
Venus	-29958-10-16 08:23 J	-9220448.37	-9220448.15	-9220447.93	0.0089	0.0004
Venus	-29957-05-28 21:50 J	-9220222.81	-9220222.59	-9220222.37	0.0089	0.0002
Venus	-29956-01-09 11:16 J	-9219997.25	-9219997.03	-9219996.81	0.0089	0.0007
Venus	-29956-08-23 00:28 J	-9219771.69	-9219771.48	-9219771.26	0.0089	0.0013
Venus	-29955-04-05 13:55 J	-9219546.14	-9219545.92	-9219545.70	0.0089	0.0018
Venus	-29955-11-17 03:07 J	-9219320.57	-9219320.37	-9219320.14	0.0089	0.0024
Venus	-29954-06-30 16:33 J	-9219095.01	-9219094.81	-9219094.60	0.0089	0.0029
Venus	-29953-02-11 05:31 J	-9218869.46	-9218869.27	-9218869.05	0.0089	0.0035
Venus	-29953-09-23 18:57 J	-9218643.90	-9218643.71	-9218643.50	0.0089	0.0040
Venus	-29952-05-07 08:23 J	-9218418.34	-9218418.15	-9218417.96	0.0089	0.0045
Venus	-29952-12-18 21:21 J	-9218192.77	-9218192.61	-9218192.41	0.0089	0.0051

Venus	-29951-08-01 10:47 J	-9217967.21	-9217967.05	-9217966.87	0.0089	0.0056
Venus	-29950-03-15 00:14 J	-9217741.65	-9217741.49	-9217741.33	0.0089	0.0061
Venus	-29950-10-26 12:57 J	-9217516.08	-9217515.96	-9217515.79	0.0089	0.0067
Venus	-29949-06-08 02:23 J	-9217290.51	-9217290.40	-9217290.26	0.0089	0.0072
Venus	-29948-01-19 15:35 J	-9217064.94	-9217064.85	-9217064.73	0.0089	0.0077
Venus	-29948-09-02 04:47 J	-9216839.37	-9216839.30	-9216839.21	0.0089	0.0082
Venus	-29947-04-15 17:59 J	-9216613.78	-9216613.75	-9216613.70	0.0089	0.0087
Jupiter	-29922-08-18 19:55 J	-9207358.16	-9207357.67	-9207357.15	0.0089	0.0025
Earth	-29921-04-01 23:59 J	-9207130.57	-9207130.50	-9207130.36	0.0089	0.0082
Moon	-29921-04-02 02:38 J	-9207130.49	-9207130.39	-9207130.23	0.0089	0.0078 *
Moon	-29920-04-04 09:50 J	-9206763.31	-9206763.09	-9206762.87	0.0089	0.0042
Earth	-29920-04-04 11:31 J	-9206763.24	-9206763.02	-9206762.78	0.0089	0.0038 *
Earth	-29919-04-06 22:19 J	-9206395.82	-9206395.57	-9206395.31	0.0089	0.0006
Moon	-29919-04-06 22:47 J	-9206395.81	-9206395.55	-9206395.29	0.0089	0.0009 *
Earth	-29918-04-09 09:07 J	-9206028.32	-9206028.12	-9206027.90	0.0089	0.0049
Moon	-29918-04-09 10:04 J	-9206028.28	-9206028.08	-9206027.86	0.0089	0.0045 *
Mercury	-29909-09-14 19:26 J	-9202581.70	-9202581.69	-9202581.66	0.0089	0.0088
Mercury	-29909-12-11 20:52 J	-9202493.67	-9202493.63	-9202493.56	0.0089	0.0082
Mercury	-29908-03-09 22:33 J	-9202405.63	-9202405.56	-9202405.48	0.0089	0.0074
Mercury	-29908-06-06 00:14 J	-9202317.58	-9202317.49	-9202317.40	0.0089	0.0068
Mercury	-29908-09-02 01:40 J	-9202229.53	-9202229.43	-9202229.33	0.0089	0.0061
Mercury	-29908-11-29 02:52 J	-9202141.47	-9202141.38	-9202141.26	0.0089	0.0055
Mercury	-29907-02-25 04:33 J	-9202053.42	-9202053.31	-9202053.19	0.0089	0.0047
Mercury	-29907-05-24 05:59 J	-9201965.36	-9201965.25	-9201965.12	0.0089	0.0041
Mercury	-29907-08-20 07:40 J	-9201877.30	-9201877.18	-9201877.05	0.0089	0.0033
Mercury	-29907-11-16 09:21 J	-9201789.24	-9201789.11	-9201788.98	0.0089	0.0026
Mercury	-29906-02-12 10:47 J	-9201701.18	-9201701.05	-9201700.91	0.0089	0.0019
Mercury	-29906-05-11 12:28 J	-9201613.12	-9201612.98	-9201612.84	0.0089	0.0012
Mercury	-29906-08-07 13:55 J	-9201525.06	-9201524.92	-9201524.78	0.0089	0.0005
Mars	-29906-08-10 23:45 J	-9201521.75	-9201521.51	-9201521.23	0.0089	0.0051

Mercury	-29906-11-03 15:35 J	-9201436.99	-9201436.85	-9201436.71	0.0089	0.0003
Mercury	-29905-01-30 17:02 J	-9201348.93	-9201348.79	-9201348.65	0.0089	0.0009
Mercury	-29905-04-27 18:28 J	-9201260.86	-9201260.73	-9201260.59	0.0089	0.0016
Mercury	-29905-07-24 20:09 J	-9201172.79	-9201172.66	-9201172.52	0.0089	0.0023
Mercury	-29905-10-20 21:35 J	-9201084.72	-9201084.60	-9201084.46	0.0089	0.0030
Mercury	-29904-01-16 23:02 J	-9200996.65	-9200996.54	-9200996.40	0.0089	0.0038
Mercury	-29904-04-15 00:43 J	-9200908.58	-9200908.47	-9200908.34	0.0089	0.0044
Mars	-29904-07-05 19:40 J	-9200826.99	-9200826.68	-9200826.36	0.0089	0.0006
Mercury	-29904-07-12 02:23 J	-9200820.51	-9200820.40	-9200820.28	0.0089	0.0051
Mercury	-29904-10-08 03:50 J	-9200732.43	-9200732.34	-9200732.22	0.0089	0.0059
Mercury	-29903-01-04 05:31 J	-9200644.36	-9200644.27	-9200644.17	0.0089	0.0065
Mercury	-29903-04-02 07:11 J	-9200556.27	-9200556.20	-9200556.11	0.0089	0.0072
Mercury	-29903-06-29 08:52 J	-9200468.19	-9200468.13	-9200468.06	0.0089	0.0080
Mercury	-29903-09-25 10:33 J	-9200380.09	-9200380.06	-9200380.03	0.0089	0.0087
Mars	-29902-05-31 12:43 J	-9200132.17	-9200131.97	-9200131.72	0.0089	0.0061
Venus	-29886-06-01 08:23 J	-9194287.17	-9194287.15	-9194287.08	0.0089	0.0087
Venus	-29885-01-12 20:38 J	-9194061.70	-9194061.64	-9194061.53	0.0089	0.0082
Venus	-29885-08-25 09:07 J	-9193836.20	-9193836.12	-9193835.99	0.0089	0.0077
Venus	-29884-04-07 21:50 J	-9193610.70	-9193610.59	-9193610.44	0.0089	0.0072
Venus	-29884-11-19 10:19 J	-9193385.19	-9193385.07	-9193384.91	0.0089	0.0067
Venus	-29883-07-02 23:16 J	-9193159.69	-9193159.53	-9193159.38	0.0089	0.0061
Venus	-29882-02-13 11:31 J	-9192934.18	-9192934.02	-9192933.85	0.0089	0.0056
Venus	-29882-09-26 23:45 J	-9192708.67	-9192708.51	-9192708.32	0.0089	0.0051
Venus	-29881-05-09 12:14 J	-9192483.16	-9192482.99	-9192482.79	0.0089	0.0046
Venus	-29881-12-21 00:43 J	-9192257.65	-9192257.47	-9192257.26	0.0089	0.0041
Venus	-29880-08-03 13:11 J	-9192032.13	-9192031.95	-9192031.73	0.0089	0.0036
Venus	-29879-03-17 01:55 J	-9191806.62	-9191806.42	-9191806.21	0.0089	0.0030
Venus	-29879-10-28 14:23 J	-9191581.10	-9191580.90	-9191580.68	0.0089	0.0025
Venus	-29878-06-11 02:52 J	-9191355.59	-9191355.38	-9191355.16	0.0089	0.0020
Venus	-29877-01-22 15:21 J	-9191130.07	-9191129.86	-9191129.64	0.0089	0.0014

Venus	-29877-09-04 04:04 J	-9190904.55	-9190904.33	-9190904.11	0.0089	0.0009
Venus	-29876-04-17 16:47 J	-9190679.02	-9190678.80	-9190678.59	0.0089	0.0004
Venus	-29876-11-29 05:16 J	-9190453.50	-9190453.28	-9190453.06	0.0089	0.0002
Venus	-29875-07-12 17:45 J	-9190227.98	-9190227.76	-9190227.54	0.0089	0.0007
Venus	-29874-02-23 06:14 J	-9190002.45	-9190002.24	-9190002.02	0.0089	0.0013
Venus	-29874-10-06 18:57 J	-9189776.92	-9189776.71	-9189776.50	0.0089	0.0018
Venus	-29873-05-19 07:26 J	-9189551.39	-9189551.19	-9189550.97	0.0088	0.0024
Venus	-29873-12-30 20:09 J	-9189325.85	-9189325.66	-9189325.44	0.0088	0.0029
Venus	-29872-08-13 09:07 J	-9189100.32	-9189100.12	-9189099.92	0.0088	0.0034
Venus	-29871-03-26 21:21 J	-9188874.78	-9188874.61	-9188874.39	0.0088	0.0040
Venus	-29871-11-07 10:19 J	-9188649.25	-9188649.07	-9188648.87	0.0088	0.0045
Venus	-29870-06-20 23:02 J	-9188423.70	-9188423.54	-9188423.34	0.0088	0.0050
Venus	-29869-02-01 11:59 J	-9188198.16	-9188198.00	-9188197.82	0.0088	0.0055
Venus	-29869-09-14 00:57 J	-9187972.62	-9187972.46	-9187972.30	0.0088	0.0060
Venus	-29868-04-27 13:26 J	-9187747.07	-9187746.94	-9187746.77	0.0088	0.0065
Venus	-29868-12-09 02:09 J	-9187521.52	-9187521.41	-9187521.25	0.0088	0.0071
Venus	-29867-07-22 14:52 J	-9187295.97	-9187295.88	-9187295.74	0.0088	0.0076
Venus	-29866-03-05 03:50 J	-9187070.41	-9187070.34	-9187070.23	0.0088	0.0080
Venus	-29866-10-16 16:33 J	-9186844.84	-9186844.81	-9186844.73	0.0088	0.0086
Moon	-29839-10-04 00:43 J	-9176995.60	-9176995.47	-9176995.28	0.0088	0.0069
Earth	-29839-10-04 03:35 J	-9176995.50	-9176995.35	-9176995.19	0.0088	0.0070 *
Earth	-29838-10-06 15:35 J	-9176628.08	-9176627.85	-9176627.58	0.0088	0.0028
Moon	-29838-10-06 16:47 J	-9176628.04	-9176627.80	-9176627.53	0.0088	0.0030 *
Moon	-29837-10-08 03:50 J	-9176260.58	-9176260.34	-9176260.09	0.0088	0.0017
Earth	-29837-10-08 04:04 J	-9176260.58	-9176260.33	-9176260.06	0.0088	0.0015 *
Moon	-29836-10-10 14:52 J	-9175893.07	-9175892.88	-9175892.65	0.0088	0.0055
Earth	-29836-10-10 16:19 J	-9175893.00	-9175892.82	-9175892.60	0.0088	0.0058 *
Mercury	-29825-03-07 16:33 J	-9172091.82	-9172091.81	-9172091.74	0.0088	0.0087
Mercury	-29825-06-03 19:55 J	-9172003.74	-9172003.67	-9172003.57	0.0088	0.0077
Mercury	-29825-08-30 23:02 J	-9171915.64	-9171915.54	-9171915.41	0.0088	0.0068

Mercury	-29825-11-27 02:09 J	-9171827.53	-9171827.41	-9171827.26	0.0088	0.0059
Mercury	-29824-02-23 05:16 J	-9171739.42	-9171739.28	-9171739.12	0.0088	0.0050
Mars	-29824-04-27 09:50 J	-9171676.21	-9171676.09	-9171675.91	0.0088	0.0078
Mercury	-29824-05-22 08:23 J	-9171651.30	-9171651.15	-9171650.98	0.0088	0.0041
Mercury	-29824-08-18 11:31 J	-9171563.18	-9171563.02	-9171562.84	0.0088	0.0032
Mercury	-29824-11-14 14:38 J	-9171475.06	-9171474.89	-9171474.71	0.0088	0.0023
Mercury	-29823-02-10 17:45 J	-9171386.94	-9171386.76	-9171386.58	0.0088	0.0015
Mercury	-29823-05-09 20:38 J	-9171298.82	-9171298.64	-9171298.45	0.0088	0.0006
Mercury	-29823-08-05 23:45 J	-9171210.69	-9171210.51	-9171210.33	0.0088	0.0003
Mercury	-29823-11-02 02:38 J	-9171122.56	-9171122.39	-9171122.20	0.0088	0.0012
Mercury	-29822-01-29 05:45 J	-9171034.43	-9171034.26	-9171034.08	0.0088	0.0020
Mars	-29822-03-23 04:33 J	-9170981.60	-9170981.31	-9170980.99	0.0088	0.0023
Mercury	-29822-04-27 08:38 J	-9170946.30	-9170946.14	-9170945.96	0.0088	0.0029
Mercury	-29822-07-24 11:31 J	-9170858.17	-9170858.02	-9170857.85	0.0088	0.0038
Mercury	-29822-10-20 14:38 J	-9170770.04	-9170769.89	-9170769.74	0.0088	0.0046
Mercury	-29821-01-16 17:16 J	-9170681.90	-9170681.78	-9170681.63	0.0088	0.0055
Mercury	-29821-04-13 20:23 J	-9170593.77	-9170593.65	-9170593.52	0.0088	0.0064
Mercury	-29821-07-10 23:02 J	-9170505.62	-9170505.54	-9170505.42	0.0088	0.0073
Mercury	-29821-10-07 02:23 J	-9170417.47	-9170417.40	-9170417.33	0.0088	0.0081
Mars	-29820-02-15 01:40 J	-9170286.72	-9170286.43	-9170286.12	0.0088	0.0031
Mars	-29818-01-11 01:26 J	-9169591.48	-9169591.44	-9169591.37	0.0088	0.0087
Venus	-29803-10-13 07:26 J	-9163837.22	-9163837.19	-9163837.11	0.0089	0.0086
Venus	-29802-05-26 21:07 J	-9163611.69	-9163611.62	-9163611.50	0.0089	0.0081
Venus	-29801-01-07 10:33 J	-9163386.15	-9163386.06	-9163385.92	0.0089	0.0076
Venus	-29801-08-20 00:43 J	-9163160.60	-9163160.47	-9163160.33	0.0089	0.0070
Venus	-29800-04-02 14:09 J	-9162935.05	-9162934.91	-9162934.75	0.0089	0.0065
Venus	-29800-11-14 03:35 J	-9162709.49	-9162709.35	-9162709.16	0.0089	0.0060
Venus	-29799-06-27 17:02 J	-9162483.94	-9162483.79	-9162483.59	0.0089	0.0055
Venus	-29798-02-08 06:57 J	-9162258.39	-9162258.21	-9162258.02	0.0089	0.0049
Venus	-29798-09-21 20:23 J	-9162032.83	-9162032.65	-9162032.44	0.0089	0.0044

Venus	-29797-05-04 10:04 J	-9161807.27	-9161807.08	-9161806.87	0.0089	0.0039
Venus	-29797-12-15 23:45 J	-9161581.71	-9161581.51	-9161581.30	0.0089	0.0033
Venus	-29796-07-29 13:11 J	-9161356.15	-9161355.95	-9161355.73	0.0089	0.0028
Venus	-29795-03-12 02:52 J	-9161130.59	-9161130.38	-9161130.16	0.0089	0.0022
Venus	-29795-10-23 16:33 J	-9160905.03	-9160904.81	-9160904.59	0.0089	0.0017
Venus	-29794-06-06 05:59 J	-9160679.46	-9160679.25	-9160679.02	0.0089	0.0012
Venus	-29793-01-17 19:40 J	-9160453.90	-9160453.68	-9160453.46	0.0089	0.0006
Venus	-29793-08-30 09:07 J	-9160228.34	-9160228.12	-9160227.90	0.0089	0.0001
Venus	-29792-04-12 22:33 J	-9160002.78	-9160002.56	-9160002.34	0.0089	0.0005
Venus	-29792-11-24 11:59 J	-9159777.21	-9159777.00	-9159776.77	0.0089	0.0011
Venus	-29791-07-08 01:26 J	-9159551.65	-9159551.44	-9159551.22	0.0089	0.0016
Venus	-29790-02-18 14:52 J	-9159326.09	-9159325.88	-9159325.66	0.0089	0.0021
Venus	-29790-10-02 04:04 J	-9159100.53	-9159100.33	-9159100.11	0.0089	0.0027
Venus	-29789-05-14 17:16 J	-9158874.97	-9158874.78	-9158874.56	0.0089	0.0032
Venus	-29789-12-26 06:43 J	-9158649.41	-9158649.22	-9158649.01	0.0089	0.0037
Venus	-29788-08-08 20:09 J	-9158423.85	-9158423.66	-9158423.46	0.0089	0.0042
Venus	-29787-03-22 09:07 J	-9158198.29	-9158198.12	-9158197.92	0.0089	0.0048
Venus	-29787-11-02 22:19 J	-9157972.73	-9157972.57	-9157972.37	0.0089	0.0053
Venus	-29786-06-16 11:45 J	-9157747.16	-9157747.01	-9157746.83	0.0089	0.0058
Venus	-29785-01-28 00:57 J	-9157521.60	-9157521.46	-9157521.29	0.0089	0.0063
Venus	-29785-09-09 14:09 J	-9157296.04	-9157295.91	-9157295.76	0.0089	0.0068
Venus	-29784-04-23 03:21 J	-9157070.47	-9157070.36	-9157070.23	0.0089	0.0073
Venus	-29784-12-04 16:47 J	-9156844.90	-9156844.80	-9156844.69	0.0089	0.0078
Venus	-29783-07-18 05:59 J	-9156619.32	-9156619.25	-9156619.17	0.0089	0.0083
Venus	-29782-02-28 18:57 J	-9156393.72	-9156393.71	-9156393.67	0.0089	0.0088
Earth	-29756-04-03 22:33 J	-9146862.73	-9146862.56	-9146862.35	0.0089	0.0059
Moon	-29756-04-03 23:02 J	-9146862.72	-9146862.54	-9146862.33	0.0089	0.0061 *
Jupiter	-29756-10-22 18:28 J	-9146661.21	-9146660.73	-9146660.20	0.0089	0.0022
Earth	-29755-04-06 09:50 J	-9146495.33	-9146495.09	-9146494.83	0.0089	0.0015
Moon	-29755-04-06 11:02 J	-9146495.28	-9146495.04	-9146494.80	0.0089	0.0013 *

Moon	-29754-04-08 18:14 J	-9146127.98	-9146127.74	-9146127.48	0.0089	0.0025
Earth	-29754-04-08 20:38 J	-9146127.86	-9146127.64	-9146127.38	0.0089	0.0029 *
Earth	-29753-04-10 07:26 J	-9145760.32	-9145760.19	-9145760.02	0.0089	0.0072
Moon	-29753-04-10 10:33 J	-9145760.19	-9145760.06	-9145759.92	0.0089	0.0074 *
Mercury	-29744-06-11 19:26 J	-9142410.73	-9142410.69	-9142410.64	0.0089	0.0084
Mercury	-29744-09-07 20:38 J	-9142322.69	-9142322.64	-9142322.55	0.0089	0.0078
Mercury	-29744-12-04 22:19 J	-9142234.64	-9142234.57	-9142234.47	0.0089	0.0070
Mercury	-29743-03-02 23:59 J	-9142146.59	-9142146.50	-9142146.40	0.0089	0.0063
Mercury	-29743-05-30 01:26 J	-9142058.54	-9142058.44	-9142058.33	0.0089	0.0056
Mercury	-29743-08-26 03:07 J	-9141970.48	-9141970.37	-9141970.26	0.0089	0.0049
Mercury	-29743-11-22 04:33 J	-9141882.43	-9141882.31	-9141882.19	0.0089	0.0043
Mercury	-29742-02-18 06:14 J	-9141794.37	-9141794.24	-9141794.12	0.0089	0.0036
Mars	-29742-03-25 16:33 J	-9141758.95	-9141758.81	-9141758.63	0.0089	0.0077
Mercury	-29742-05-17 07:26 J	-9141706.31	-9141706.19	-9141706.05	0.0089	0.0030
Mercury	-29742-08-13 09:07 J	-9141618.25	-9141618.12	-9141617.98	0.0089	0.0022
Mercury	-29742-11-09 10:47 J	-9141530.19	-9141530.05	-9141529.91	0.0089	0.0015
Mercury	-29741-02-05 12:14 J	-9141442.13	-9141441.99	-9141441.85	0.0089	0.0008
Mercury	-29741-05-03 13:55 J	-9141354.06	-9141353.92	-9141353.78	0.0089	0.0002
Mercury	-29741-07-30 15:21 J	-9141266.00	-9141265.86	-9141265.72	0.0089	0.0006
Mercury	-29741-10-26 17:02 J	-9141177.93	-9141177.79	-9141177.65	0.0089	0.0013
Mercury	-29740-01-22 18:28 J	-9141089.86	-9141089.73	-9141089.59	0.0089	0.0020
Mars	-29740-02-17 15:21 J	-9141064.15	-9141063.86	-9141063.54	0.0089	0.0020
Mercury	-29740-04-20 19:55 J	-9141001.80	-9141001.67	-9141001.53	0.0089	0.0028
Mercury	-29740-07-17 21:35 J	-9140913.73	-9140913.60	-9140913.47	0.0089	0.0034
Mercury	-29740-10-13 23:16 J	-9140825.65	-9140825.53	-9140825.41	0.0089	0.0041
Mercury	-29739-01-10 00:43 J	-9140737.58	-9140737.47	-9140737.35	0.0089	0.0049
Mercury	-29739-04-08 02:23 J	-9140649.51	-9140649.40	-9140649.29	0.0089	0.0056
Mercury	-29739-07-05 03:35 J	-9140561.43	-9140561.35	-9140561.23	0.0089	0.0064
Mercury	-29739-10-01 05:16 J	-9140473.35	-9140473.28	-9140473.18	0.0089	0.0070
Mercury	-29739-12-28 06:57 J	-9140385.27	-9140385.21	-9140385.13	0.0089	0.0077

Mars	-29738-01-13 10:19 J	-9140369.33	-9140369.07	-9140368.76	0.0089	0.0036
Mercury	-29738-03-26 08:38 J	-9140297.17	-9140297.14	-9140297.09	0.0089	0.0084
Venus	-29722-09-02 20:52 J	-9134292.65	-9134292.63	-9134292.56	0.0089	0.0087
Venus	-29721-04-15 09:21 J	-9134067.17	-9134067.11	-9134067.00	0.0089	0.0082
Venus	-29721-11-26 21:50 J	-9133841.67	-9133841.59	-9133841.46	0.0089	0.0077
Venus	-29720-07-10 10:19 J	-9133616.18	-9133616.07	-9133615.93	0.0089	0.0072
Venus	-29719-02-20 22:47 J	-9133390.68	-9133390.55	-9133390.40	0.0089	0.0067
Venus	-29719-10-04 11:16 J	-9133165.17	-9133165.03	-9133164.86	0.0089	0.0062
Venus	-29718-05-17 23:45 J	-9132939.66	-9132939.51	-9132939.33	0.0089	0.0057
Venus	-29718-12-29 12:14 J	-9132714.15	-9132713.99	-9132713.80	0.0089	0.0052
Venus	-29717-08-11 00:43 J	-9132488.64	-9132488.47	-9132488.27	0.0089	0.0047
Venus	-29716-03-24 13:26 J	-9132263.12	-9132262.94	-9132262.74	0.0089	0.0042
Venus	-29716-11-05 01:55 J	-9132037.61	-9132037.42	-9132037.21	0.0089	0.0037
Venus	-29715-06-18 14:23 J	-9131812.09	-9131811.90	-9131811.69	0.0089	0.0032
Venus	-29714-01-30 02:38 J	-9131586.58	-9131586.39	-9131586.16	0.0089	0.0027
Venus	-29714-09-12 15:35 J	-9131361.06	-9131360.85	-9131360.64	0.0089	0.0021
Venus	-29713-04-25 04:19 J	-9131135.54	-9131135.32	-9131135.11	0.0089	0.0016
Venus	-29713-12-06 16:47 J	-9130910.02	-9130909.80	-9130909.58	0.0089	0.0011
Venus	-29712-07-20 05:16 J	-9130684.50	-9130684.28	-9130684.06	0.0089	0.0006
Venus	-29711-03-02 17:45 J	-9130458.98	-9130458.76	-9130458.54	0.0089	0.0000
Venus	-29711-10-14 06:14 J	-9130233.46	-9130233.24	-9130233.02	0.0089	0.0005
Venus	-29710-05-27 18:57 J	-9130007.93	-9130007.71	-9130007.49	0.0089	0.0010
Venus	-29709-01-08 07:26 J	-9129782.40	-9129782.19	-9129781.97	0.0089	0.0015
Venus	-29709-08-20 19:55 J	-9129556.87	-9129556.67	-9129556.45	0.0089	0.0021
Venus	-29708-04-03 08:38 J	-9129331.34	-9129331.14	-9129330.92	0.0089	0.0026
Venus	-29708-11-14 21:21 J	-9129105.81	-9129105.61	-9129105.40	0.0088	0.0031
Venus	-29707-06-28 10:04 J	-9128880.28	-9128880.08	-9128879.88	0.0088	0.0036
Venus	-29706-02-08 22:19 J	-9128654.74	-9128654.57	-9128654.36	0.0088	0.0042
Venus	-29706-09-22 11:02 J	-9128429.21	-9128429.04	-9128428.83	0.0088	0.0047
Venus	-29705-05-04 23:59 J	-9128203.66	-9128203.50	-9128203.30	0.0088	0.0052

Venus	-29705-12-16 12:43 J	-9127978.12	-9127977.97	-9127977.78	0.0088	0.0057
Venus	-29704-07-30 01:40 J	-9127752.58	-9127752.43	-9127752.26	0.0088	0.0062
Venus	-29703-03-12 14:23 J	-9127527.03	-9127526.90	-9127526.74	0.0088	0.0067
Venus	-29703-10-24 03:07 J	-9127301.48	-9127301.37	-9127301.23	0.0088	0.0072
Venus	-29702-06-06 16:04 J	-9127075.92	-9127075.83	-9127075.71	0.0088	0.0077
Venus	-29701-01-18 04:47 J	-9126850.36	-9126850.30	-9126850.19	0.0088	0.0082
Venus	-29701-08-30 17:31 J	-9126624.79	-9126624.77	-9126624.70	0.0088	0.0087
Moon	-29675-10-03 15:35 J	-9117094.91	-9117094.85	-9117094.78	0.0088	0.0085
Earth	-29674-10-06 02:52 J	-9116727.60	-9116727.38	-9116727.16	0.0088	0.0047
Moon	-29674-10-06 03:07 J	-9116727.55	-9116727.37	-9116727.15	0.0088	0.0052 *
Moon	-29673-10-07 13:55 J	-9116360.19	-9116359.92	-9116359.64	0.0088	0.0002
Earth	-29673-10-07 15:21 J	-9116360.12	-9116359.86	-9116359.60	0.0088	0.0005 *
Earth	-29672-10-10 03:07 J	-9115992.58	-9115992.37	-9115992.11	0.0088	0.0038
Moon	-29672-10-10 05:45 J	-9115992.48	-9115992.26	-9115992.01	0.0088	0.0034 *
Moon	-29671-10-12 12:14 J	-9115625.05	-9115624.99	-9115624.90	0.0088	0.0084
Earth	-29671-10-12 15:35 J	-9115624.94	-9115624.85	-9115624.73	0.0088	0.0080 *
Mercury	-29661-12-02 16:04 J	-9111920.89	-9111920.83	-9111920.73	0.0088	0.0080
Mercury	-29660-02-28 19:11 J	-9111832.79	-9111832.70	-9111832.57	0.0088	0.0071
Mercury	-29660-05-27 22:19 J	-9111744.68	-9111744.57	-9111744.42	0.0088	0.0062
Mercury	-29660-08-24 01:26 J	-9111656.57	-9111656.44	-9111656.28	0.0088	0.0054
Mercury	-29660-11-20 04:33 J	-9111568.45	-9111568.31	-9111568.14	0.0088	0.0045
Mercury	-29659-02-16 07:55 J	-9111480.33	-9111480.17	-9111480.00	0.0088	0.0035
Mercury	-29659-05-15 11:02 J	-9111392.21	-9111392.04	-9111391.87	0.0088	0.0026
Mercury	-29659-08-11 14:09 J	-9111304.09	-9111303.91	-9111303.73	0.0088	0.0017
Mars	-29659-11-05 01:11 J	-9111218.69	-9111218.45	-9111218.16	0.0088	0.0048
Mercury	-29659-11-07 17:02 J	-9111215.97	-9111215.79	-9111215.60	0.0088	0.0009
Mercury	-29658-02-03 20:09 J	-9111127.84	-9111127.66	-9111127.48	0.0088	0.0000
Mercury	-29658-05-02 23:02 J	-9111039.72	-9111039.54	-9111039.35	0.0088	0.0009
Mercury	-29658-07-30 02:09 J	-9110951.59	-9110951.41	-9110951.23	0.0088	0.0018
Mercury	-29658-10-26 05:02 J	-9110863.46	-9110863.29	-9110863.11	0.0088	0.0026

Mercury	-29657-01-22 07:55 J	-9110775.33	-9110775.17	-9110775.00	0.0088	0.0035
Mercury	-29657-04-19 10:47 J	-9110687.19	-9110687.05	-9110686.88	0.0088	0.0044
Mercury	-29657-07-16 13:55 J	-9110599.06	-9110598.92	-9110598.77	0.0088	0.0052
Mars	-29657-09-29 20:23 J	-9110523.97	-9110523.65	-9110523.34	0.0088	0.0006
Mercury	-29657-10-12 16:33 J	-9110510.92	-9110510.81	-9110510.66	0.0088	0.0061
Mercury	-29656-01-08 19:40 J	-9110422.78	-9110422.68	-9110422.56	0.0088	0.0070
Mercury	-29656-04-06 22:19 J	-9110334.63	-9110334.57	-9110334.47	0.0088	0.0079
Mercury	-29656-07-04 01:26 J	-9110246.46	-9110246.44	-9110246.40	0.0088	0.0087
Mars	-29655-08-25 17:31 J	-9109828.98	-9109828.77	-9109828.53	0.0088	0.0062
Venus	-29638-01-14 18:43 J	-9103842.75	-9103842.72	-9103842.64	0.0089	0.0086
Venus	-29638-08-28 08:38 J	-9103617.21	-9103617.14	-9103617.03	0.0089	0.0081
Venus	-29637-04-09 22:19 J	-9103391.67	-9103391.57	-9103391.44	0.0089	0.0076
Venus	-29637-11-21 11:59 J	-9103166.11	-9103166.00	-9103165.85	0.0089	0.0071
Venus	-29636-07-05 01:26 J	-9102940.56	-9102940.44	-9102940.26	0.0089	0.0066
Venus	-29635-02-15 15:07 J	-9102715.01	-9102714.87	-9102714.69	0.0089	0.0061
Venus	-29635-09-29 05:16 J	-9102489.45	-9102489.28	-9102489.11	0.0089	0.0055
Venus	-29634-05-12 18:43 J	-9102263.90	-9102263.72	-9102263.53	0.0089	0.0050
Venus	-29634-12-24 08:09 J	-9102038.34	-9102038.16	-9102037.96	0.0089	0.0045
Venus	-29633-08-05 21:35 J	-9101812.79	-9101812.60	-9101812.39	0.0089	0.0040
Venus	-29632-03-19 11:02 J	-9101587.23	-9101587.04	-9101586.82	0.0089	0.0035
Venus	-29632-10-31 00:57 J	-9101361.67	-9101361.46	-9101361.25	0.0089	0.0029
Venus	-29631-06-13 14:23 J	-9101136.11	-9101135.90	-9101135.68	0.0089	0.0024
Venus	-29630-01-25 03:50 J	-9100910.55	-9100910.34	-9100910.12	0.0089	0.0019
Venus	-29630-09-07 17:16 J	-9100684.99	-9100684.78	-9100684.55	0.0089	0.0013
Venus	-29629-04-20 06:57 J	-9100459.43	-9100459.21	-9100458.99	0.0089	0.0008
Venus	-29629-12-01 20:38 J	-9100233.87	-9100233.64	-9100233.42	0.0089	0.0003
Venus	-29628-07-15 10:04 J	-9100008.31	-9100008.08	-9100007.86	0.0089	0.0003
Venus	-29627-02-25 23:16 J	-9099782.75	-9099782.53	-9099782.30	0.0089	0.0008
Venus	-29627-10-09 12:57 J	-9099557.18	-9099556.96	-9099556.74	0.0089	0.0013
Venus	-29626-05-23 02:09 J	-9099331.62	-9099331.41	-9099331.18	0.0089	0.0019

Venus	-29625-01-03 15:35 J	-9099106.05	-9099105.85	-9099105.63	0.0089	0.0024
Venus	-29625-08-16 05:02 J	-9098880.49	-9098880.29	-9098880.08	0.0089	0.0029
Venus	-29624-03-29 18:28 J	-9098654.93	-9098654.73	-9098654.53	0.0089	0.0034
Venus	-29624-11-10 07:55 J	-9098429.37	-9098429.17	-9098428.97	0.0089	0.0039
Venus	-29623-06-23 20:52 J	-9098203.81	-9098203.63	-9098203.43	0.0089	0.0045
Venus	-29622-02-04 10:04 J	-9097978.25	-9097978.08	-9097977.88	0.0089	0.0050
Venus	-29622-09-17 23:16 J	-9097752.69	-9097752.53	-9097752.34	0.0089	0.0055
Venus	-29621-04-30 12:28 J	-9097527.12	-9097526.98	-9097526.80	0.0089	0.0060
Venus	-29621-12-12 01:40 J	-9097301.56	-9097301.43	-9097301.26	0.0089	0.0065
Venus	-29620-07-25 14:52 J	-9097075.99	-9097075.88	-9097075.72	0.0089	0.0070
Venus	-29619-03-08 04:04 J	-9096850.43	-9096850.33	-9096850.19	0.0089	0.0075
Venus	-29619-10-19 17:02 J	-9096624.86	-9096624.79	-9096624.66	0.0089	0.0080
Venus	-29618-06-02 06:57 J	-9096399.28	-9096399.21	-9096399.14	0.0089	0.0084
Earth	-29592-04-03 10:04 J	-9086962.16	-9086962.08	-9086961.93	0.0089	0.0080
Moon	-29592-04-03 11:31 J	-9086962.12	-9086962.02	-9086961.86	0.0089	0.0077 *
Moon	-29591-04-05 18:57 J	-9086594.93	-9086594.71	-9086594.46	0.0089	0.0040
Earth	-29591-04-05 21:35 J	-9086594.83	-9086594.60	-9086594.36	0.0089	0.0036 *
Earth	-29590-04-08 08:38 J	-9086227.40	-9086227.14	-9086226.89	0.0089	0.0008
Moon	-29590-04-08 11:45 J	-9086227.25	-9086227.01	-9086226.75	0.0089	0.0011 *
Jupiter	-29590-12-23 13:11 J	-9085968.21	-9085967.95	-9085967.56	0.0089	0.0071
Moon	-29589-04-09 15:50 J	-9085860.04	-9085859.84	-9085859.61	0.0089	0.0048
Earth	-29589-04-09 18:57 J	-9085859.89	-9085859.71	-9085859.48	0.0089	0.0052 *
Mercury	-29580-12-10 17:45 J	-9082327.78	-9082327.76	-9082327.71	0.0089	0.0086
Mercury	-29579-03-08 19:11 J	-9082239.75	-9082239.70	-9082239.63	0.0089	0.0080
Mercury	-29579-06-04 20:52 J	-9082151.70	-9082151.63	-9082151.55	0.0089	0.0072
Mercury	-29579-08-31 22:33 J	-9082063.65	-9082063.56	-9082063.47	0.0089	0.0066
Mercury	-29579-11-27 23:59 J	-9081975.60	-9081975.50	-9081975.40	0.0089	0.0059
Mercury	-29578-02-24 01:11 J	-9081887.55	-9081887.45	-9081887.33	0.0089	0.0053
Mercury	-29578-05-23 02:52 J	-9081799.49	-9081799.38	-9081799.25	0.0089	0.0045
Mercury	-29578-08-19 04:19 J	-9081711.43	-9081711.32	-9081711.19	0.0089	0.0039

Mercury	-29578-11-15 05:59 J	-9081623.38	-9081623.25	-9081623.12	0.0089	0.0031
Mercury	-29577-02-11 07:26 J	-9081535.32	-9081535.19	-9081535.05	0.0089	0.0025
Mercury	-29577-05-09 09:07 J	-9081447.26	-9081447.12	-9081446.98	0.0089	0.0017
Mercury	-29577-08-05 10:33 J	-9081359.19	-9081359.06	-9081358.92	0.0089	0.0011
Mars	-29577-10-02 08:23 J	-9081301.39	-9081301.15	-9081300.86	0.0089	0.0047
Mercury	-29577-11-01 12:14 J	-9081271.13	-9081270.99	-9081270.85	0.0089	0.0003
Mercury	-29576-01-28 13:40 J	-9081183.07	-9081182.93	-9081182.79	0.0089	0.0004
Mercury	-29576-04-26 15:21 J	-9081095.00	-9081094.86	-9081094.72	0.0089	0.0011
Mercury	-29576-07-23 16:47 J	-9081006.93	-9081006.80	-9081006.66	0.0089	0.0018
Mercury	-29576-10-19 18:14 J	-9080918.87	-9080918.74	-9080918.60	0.0089	0.0025
Mercury	-29575-01-15 19:55 J	-9080830.80	-9080830.67	-9080830.53	0.0089	0.0032
Mercury	-29575-04-13 21:21 J	-9080742.73	-9080742.61	-9080742.47	0.0089	0.0039
Mercury	-29575-07-10 23:02 J	-9080654.65	-9080654.54	-9080654.41	0.0089	0.0046
Mars	-29575-08-28 06:57 J	-9080606.52	-9080606.21	-9080605.90	0.0089	0.0010
Mercury	-29575-10-07 00:28 J	-9080566.58	-9080566.48	-9080566.36	0.0089	0.0054
Mercury	-29574-01-03 02:09 J	-9080478.50	-9080478.41	-9080478.30	0.0089	0.0061
Mercury	-29574-04-01 03:50 J	-9080390.43	-9080390.34	-9080390.24	0.0089	0.0068
Mercury	-29574-06-28 05:31 J	-9080302.34	-9080302.27	-9080302.19	0.0089	0.0075
Mercury	-29574-09-24 06:43 J	-9080214.25	-9080214.22	-9080214.15	0.0089	0.0083
Mercury	-29574-12-21 08:38 J	-9080126.14	-9080126.14	-9080126.13	0.0089	0.0089
Mars	-29573-07-23 01:26 J	-9079911.62	-9079911.44	-9079911.21	0.0089	0.0066
Venus	-29558-12-05 10:19 J	-9074298.11	-9074298.07	-9074298.02	0.0089	0.0086
Venus	-29557-07-17 22:04 J	-9074072.64	-9074072.58	-9074072.47	0.0089	0.0082
Venus	-29556-02-28 10:33 J	-9073847.15	-9073847.06	-9073846.93	0.0089	0.0077
Venus	-29556-10-11 23:16 J	-9073621.65	-9073621.53	-9073621.40	0.0089	0.0072
Venus	-29555-05-25 11:45 J	-9073396.15	-9073396.01	-9073395.87	0.0089	0.0067
Venus	-29554-01-05 23:31 J	-9073170.65	-9073170.52	-9073170.34	0.0089	0.0063
Venus	-29554-08-19 11:59 J	-9072945.14	-9072945.00	-9072944.81	0.0089	0.0058
Venus	-29553-04-01 00:43 J	-9072719.63	-9072719.47	-9072719.28	0.0089	0.0053
Venus	-29553-11-12 13:11 J	-9072494.12	-9072493.95	-9072493.75	0.0089	0.0048

Venus	-29552-06-26 01:40 J	-9072268.61	-9072268.43	-9072268.23	0.0089	0.0043
Venus	-29551-02-06 14:09 J	-9072043.10	-9072042.91	-9072042.70	0.0089	0.0038
Venus	-29551-09-20 02:38 J	-9071817.58	-9071817.39	-9071817.18	0.0089	0.0033
Venus	-29550-05-03 15:21 J	-9071592.06	-9071591.86	-9071591.64	0.0089	0.0028
Venus	-29550-12-15 04:04 J	-9071366.54	-9071366.33	-9071366.12	0.0089	0.0023
Venus	-29549-07-27 16:33 J	-9071141.02	-9071140.81	-9071140.59	0.0089	0.0018
Venus	-29548-03-10 05:02 J	-9070915.50	-9070915.29	-9070915.07	0.0089	0.0013
Venus	-29548-10-21 17:31 J	-9070689.98	-9070689.77	-9070689.55	0.0089	0.0008
Venus	-29547-06-04 06:14 J	-9070464.46	-9070464.24	-9070464.02	0.0089	0.0002
Venus	-29546-01-15 18:43 J	-9070238.93	-9070238.72	-9070238.50	0.0089	0.0003
Venus	-29546-08-29 07:26 J	-9070013.41	-9070013.19	-9070012.97	0.0089	0.0008
Venus	-29545-04-10 20:09 J	-9069787.88	-9069787.66	-9069787.45	0.0089	0.0013
Venus	-29545-11-22 08:38 J	-9069562.35	-9069562.14	-9069561.93	0.0089	0.0018
Venus	-29544-07-05 21:07 J	-9069336.83	-9069336.62	-9069336.41	0.0089	0.0023
Venus	-29543-02-16 09:21 J	-9069111.30	-9069111.11	-9069110.89	0.0088	0.0029
Venus	-29543-09-29 22:04 J	-9068885.77	-9068885.58	-9068885.36	0.0088	0.0034
Venus	-29542-05-13 10:47 J	-9068660.23	-9068660.05	-9068659.83	0.0088	0.0039
Venus	-29542-12-24 23:31 J	-9068434.69	-9068434.52	-9068434.31	0.0088	0.0044
Venus	-29541-08-06 12:14 J	-9068209.16	-9068208.99	-9068208.79	0.0088	0.0049
Venus	-29540-03-20 00:57 J	-9067983.62	-9067983.46	-9067983.27	0.0088	0.0053
Venus	-29540-10-31 13:40 J	-9067758.08	-9067757.93	-9067757.75	0.0088	0.0058
Venus	-29539-06-14 02:23 J	-9067532.53	-9067532.40	-9067532.22	0.0088	0.0064
Venus	-29538-01-25 15:50 J	-9067306.98	-9067306.84	-9067306.70	0.0088	0.0068
Venus	-29538-09-08 04:19 J	-9067081.43	-9067081.32	-9067081.18	0.0088	0.0073
Venus	-29537-04-20 17:16 J	-9066855.87	-9066855.78	-9066855.66	0.0088	0.0078
Venus	-29537-12-02 05:59 J	-9066630.31	-9066630.25	-9066630.15	0.0088	0.0082
Venus	-29536-07-15 18:43 J	-9066404.73	-9066404.72	-9066404.66	0.0088	0.0087
Moon	-29510-10-05 11:02 J	-9056827.20	-9056827.04	-9056826.85	0.0088	0.0066
Earth	-29510-10-05 13:11 J	-9056827.10	-9056826.95	-9056826.77	0.0088	0.0068 *
Earth	-29509-10-07 01:40 J	-9056459.67	-9056459.43	-9056459.16	0.0088	0.0025

Moon	-29509-10-07 04:33 J	-9056459.55	-9056459.31	-9056459.06	0.0088	0.0026 *
Moon	-29508-10-09 10:47 J	-9056092.29	-9056092.05	-9056091.78	0.0088	0.0020
Earth	-29508-10-09 14:23 J	-9056092.15	-9056091.90	-9056091.64	0.0088	0.0018 *
Earth	-29507-10-12 02:09 J	-9055724.57	-9055724.41	-9055724.20	0.0088	0.0061
Moon	-29507-10-12 05:59 J	-9055724.42	-9055724.25	-9055724.04	0.0088	0.0059 *
Mercury	-29496-06-02 12:57 J	-9051838.02	-9051837.96	-9051837.90	0.0088	0.0082
Mercury	-29496-08-29 16:04 J	-9051749.93	-9051749.83	-9051749.73	0.0088	0.0073
Mercury	-29496-11-25 19:11 J	-9051661.82	-9051661.70	-9051661.58	0.0088	0.0064
Mercury	-29495-02-21 22:19 J	-9051573.71	-9051573.57	-9051573.43	0.0088	0.0056
Mercury	-29495-05-21 01:26 J	-9051485.60	-9051485.44	-9051485.29	0.0088	0.0047
Mars	-29495-06-19 23:16 J	-9051455.68	-9051455.53	-9051455.33	0.0088	0.0072
Mercury	-29495-08-17 04:04 J	-9051397.48	-9051397.33	-9051397.15	0.0088	0.0039
Mercury	-29495-11-13 07:11 J	-9051309.36	-9051309.20	-9051309.01	0.0088	0.0030
Mercury	-29494-02-09 10:33 J	-9051221.24	-9051221.06	-9051220.88	0.0088	0.0020
Mercury	-29494-05-08 13:40 J	-9051133.11	-9051132.93	-9051132.75	0.0088	0.0011
Mercury	-29494-08-04 16:33 J	-9051044.99	-9051044.81	-9051044.62	0.0088	0.0003
Mercury	-29494-10-31 19:40 J	-9050956.86	-9050956.68	-9050956.50	0.0088	0.0007
Mercury	-29493-01-27 22:47 J	-9050868.73	-9050868.55	-9050868.37	0.0088	0.0015
Mercury	-29493-04-25 01:40 J	-9050780.60	-9050780.43	-9050780.25	0.0088	0.0024
Mars	-29493-05-14 17:16 J	-9050761.07	-9050760.78	-9050760.45	0.0088	0.0019
Mercury	-29493-07-22 04:19 J	-9050692.47	-9050692.32	-9050692.14	0.0088	0.0034
Mercury	-29493-10-18 07:26 J	-9050604.34	-9050604.19	-9050604.02	0.0088	0.0042
Mercury	-29492-01-14 10:19 J	-9050516.20	-9050516.07	-9050515.91	0.0088	0.0050
Mercury	-29492-04-12 13:40 J	-9050428.07	-9050427.93	-9050427.80	0.0088	0.0059
Mercury	-29492-07-09 16:19 J	-9050339.93	-9050339.82	-9050339.70	0.0088	0.0067
Mercury	-29492-10-05 18:57 J	-9050251.78	-9050251.71	-9050251.60	0.0088	0.0076
Mercury	-29491-01-01 22:04 J	-9050163.62	-9050163.58	-9050163.52	0.0088	0.0084
Mars	-29491-04-09 11:59 J	-9050066.26	-9050066.00	-9050065.69	0.0088	0.0038
Venus	-29474-04-18 05:59 J	-9043848.28	-9043848.25	-9043848.17	0.0088	0.0086
Venus	-29474-11-29 19:55 J	-9043622.74	-9043622.67	-9043622.56	0.0089	0.0081

Venus	-29473-07-12 09:35 J	-9043397.20	-9043397.10	-9043396.97	0.0089	0.0076
Venus	-29472-02-22 23:16 J	-9043171.65	-9043171.53	-9043171.38	0.0089	0.0071
Venus	-29472-10-06 13:11 J	-9042946.09	-9042945.95	-9042945.79	0.0089	0.0066
Venus	-29471-05-20 02:52 J	-9042720.53	-9042720.38	-9042720.21	0.0089	0.0061
Venus	-29471-12-31 16:33 J	-9042494.98	-9042494.81	-9042494.63	0.0089	0.0056
Venus	-29470-08-14 05:59 J	-9042269.42	-9042269.25	-9042269.06	0.0089	0.0051
Venus	-29469-03-26 19:40 J	-9042043.86	-9042043.68	-9042043.48	0.0089	0.0046
Venus	-29469-11-07 09:21 J	-9041818.30	-9041818.11	-9041817.90	0.0089	0.0041
Venus	-29468-06-20 22:47 J	-9041592.74	-9041592.55	-9041592.33	0.0089	0.0036
Venus	-29467-02-01 12:14 J	-9041367.19	-9041366.99	-9041366.77	0.0089	0.0031
Venus	-29467-09-15 01:40 J	-9041141.63	-9041141.43	-9041141.20	0.0089	0.0026
Venus	-29466-04-28 15:35 J	-9040916.07	-9040915.85	-9040915.63	0.0089	0.0020
Venus	-29466-12-10 05:02 J	-9040690.50	-9040690.29	-9040690.06	0.0089	0.0015
Venus	-29465-07-22 18:28 J	-9040464.94	-9040464.73	-9040464.50	0.0089	0.0010
Venus	-29464-03-05 08:09 J	-9040239.39	-9040239.16	-9040238.94	0.0089	0.0005
Venus	-29464-10-16 21:35 J	-9040013.82	-9040013.60	-9040013.37	0.0089	0.0001
Venus	-29463-05-30 11:02 J	-9039788.26	-9039788.04	-9039787.81	0.0089	0.0006
Venus	-29462-01-11 00:28 J	-9039562.70	-9039562.48	-9039562.25	0.0089	0.0011
Venus	-29462-08-24 13:55 J	-9039337.13	-9039336.92	-9039336.70	0.0089	0.0016
Venus	-29461-04-06 03:21 J	-9039111.57	-9039111.36	-9039111.14	0.0089	0.0021
Venus	-29461-11-17 17:02 J	-9038886.00	-9038885.79	-9038885.58	0.0089	0.0026
Venus	-29460-07-01 06:28 J	-9038660.44	-9038660.23	-9038660.03	0.0089	0.0031
Venus	-29459-02-11 19:26 J	-9038434.88	-9038434.69	-9038434.48	0.0089	0.0037
Venus	-29459-09-25 08:38 J	-9038209.32	-9038209.14	-9038208.93	0.0089	0.0042
Venus	-29458-05-08 22:04 J	-9037983.75	-9037983.58	-9037983.38	0.0089	0.0047
Venus	-29458-12-20 11:16 J	-9037758.19	-9037758.03	-9037757.83	0.0089	0.0052
Venus	-29457-08-02 00:57 J	-9037532.63	-9037532.46	-9037532.29	0.0089	0.0056
Venus	-29456-03-15 14:09 J	-9037307.07	-9037306.91	-9037306.75	0.0089	0.0061
Venus	-29456-10-27 03:07 J	-9037081.50	-9037081.37	-9037081.21	0.0089	0.0066
Venus	-29455-06-09 16:19 J	-9036855.94	-9036855.82	-9036855.67	0.0089	0.0071

Venus	-29454-01-21 05:16 J	-9036630.37	-9036630.28	-9036630.14	0.0089	0.0076
Venus	-29454-09-03 18:14 J	-9036404.80	-9036404.74	-9036404.62	0.0089	0.0081
Venus	-29453-04-16 07:40 J	-9036179.22	-9036179.18	-9036179.10	0.0089	0.0085
Earth	-29427-04-05 10:04 J	-9026694.28	-9026694.08	-9026693.88	0.0089	0.0056
Moon	-29427-04-05 12:57 J	-9026694.14	-9026693.96	-9026693.76	0.0089	0.0059 *
Moon	-29426-04-07 17:02 J	-9026327.04	-9026326.79	-9026326.53	0.0089	0.0009
Earth	-29426-04-07 20:52 J	-9026326.88	-9026326.63	-9026326.38	0.0089	0.0013 *
Earth	-29425-04-09 07:26 J	-9025959.43	-9025959.19	-9025958.95	0.0089	0.0031
Moon	-29425-04-09 10:33 J	-9025959.30	-9025959.06	-9025958.81	0.0089	0.0028 *
Moon	-29424-04-11 15:21 J	-9025591.97	-9025591.86	-9025591.72	0.0089	0.0077
Earth	-29424-04-11 17:45 J	-9025591.87	-9025591.76	-9025591.59	0.0089	0.0075 *
Mercury	-29415-06-10 16:19 J	-9022244.83	-9022244.82	-9022244.79	0.0089	0.0088
Mercury	-29415-09-06 17:45 J	-9022156.80	-9022156.76	-9022156.70	0.0089	0.0082
Mercury	-29415-12-03 19:26 J	-9022068.76	-9022068.69	-9022068.61	0.0089	0.0075
Mercury	-29414-03-01 20:38 J	-9021980.71	-9021980.64	-9021980.54	0.0089	0.0068
Mercury	-29414-05-28 22:19 J	-9021892.66	-9021892.57	-9021892.46	0.0089	0.0061
Mercury	-29414-08-24 23:45 J	-9021804.61	-9021804.51	-9021804.39	0.0089	0.0054
Mercury	-29414-11-21 01:26 J	-9021716.55	-9021716.44	-9021716.32	0.0089	0.0047
Mercury	-29413-02-17 02:52 J	-9021628.50	-9021628.38	-9021628.25	0.0089	0.0040
Mercury	-29413-05-15 04:33 J	-9021540.44	-9021540.31	-9021540.19	0.0089	0.0034
Mars	-29413-05-17 01:26 J	-9021538.61	-9021538.44	-9021538.24	0.0089	0.0073
Mercury	-29413-08-11 05:59 J	-9021452.38	-9021452.25	-9021452.12	0.0089	0.0027
Mercury	-29413-11-07 07:26 J	-9021364.32	-9021364.19	-9021364.05	0.0089	0.0020
Mercury	-29412-02-03 08:52 J	-9021276.26	-9021276.13	-9021275.99	0.0089	0.0013
Mercury	-29412-05-02 10:33 J	-9021188.20	-9021188.06	-9021187.92	0.0089	0.0006
Mercury	-29412-07-29 11:59 J	-9021100.13	-9021100.00	-9021099.86	0.0089	0.0003
Mercury	-29412-10-25 13:40 J	-9021012.07	-9021011.93	-9021011.79	0.0089	0.0008
Mercury	-29411-01-21 15:07 J	-9020924.00	-9020923.87	-9020923.73	0.0089	0.0016
Mars	-29411-04-12 00:28 J	-9020843.78	-9020843.48	-9020843.17	0.0089	0.0015
Mercury	-29411-04-19 16:47 J	-9020835.94	-9020835.80	-9020835.67	0.0089	0.0022

Mercury	-29411-07-16 18:14 J	-9020747.87	-9020747.74	-9020747.60	0.0089	0.0030
Mercury	-29411-10-12 19:55 J	-9020659.80	-9020659.67	-9020659.54	0.0089	0.0036
Mercury	-29410-01-08 21:21 J	-9020571.73	-9020571.61	-9020571.48	0.0089	0.0044
Mercury	-29410-04-06 22:47 J	-9020483.65	-9020483.55	-9020483.42	0.0089	0.0051
Mercury	-29410-07-04 00:28 J	-9020395.58	-9020395.48	-9020395.37	0.0089	0.0058
Mercury	-29410-09-30 01:55 J	-9020307.50	-9020307.42	-9020307.31	0.0089	0.0066
Mercury	-29410-12-27 03:35 J	-9020219.42	-9020219.35	-9020219.26	0.0089	0.0072
Mars	-29409-03-06 21:50 J	-9020148.84	-9020148.59	-9020148.29	0.0089	0.0042
Mercury	-29409-03-24 05:16 J	-9020131.33	-9020131.28	-9020131.21	0.0089	0.0079
Mercury	-29409-06-20 06:57 J	-9020043.24	-9020043.21	-9020043.17	0.0089	0.0087
Venus	-29393-03-07 23:02 J	-9014303.58	-9014303.54	-9014303.48	0.0089	0.0086
Venus	-29393-10-19 11:02 J	-9014078.10	-9014078.04	-9014077.93	0.0089	0.0082
Venus	-29392-06-01 23:31 J	-9013852.61	-9013852.52	-9013852.39	0.0089	0.0077
Venus	-29391-01-13 12:14 J	-9013627.11	-9013626.99	-9013626.86	0.0089	0.0072
Venus	-29391-08-27 00:14 J	-9013401.61	-9013401.49	-9013401.33	0.0089	0.0068
Venus	-29390-04-09 12:57 J	-9013176.10	-9013175.96	-9013175.80	0.0089	0.0063
Venus	-29390-11-21 01:26 J	-9012950.60	-9012950.44	-9012950.27	0.0089	0.0058
Venus	-29389-07-03 13:26 J	-9012725.09	-9012724.94	-9012724.75	0.0089	0.0054
Venus	-29388-02-14 01:55 J	-9012499.59	-9012499.42	-9012499.23	0.0089	0.0049
Venus	-29388-09-27 14:23 J	-9012274.08	-9012273.90	-9012273.70	0.0089	0.0044
Venus	-29387-05-11 03:07 J	-9012048.56	-9012048.37	-9012048.17	0.0089	0.0039
Venus	-29387-12-22 15:35 J	-9011823.04	-9011822.85	-9011822.64	0.0089	0.0034
Venus	-29386-08-05 04:04 J	-9011597.53	-9011597.33	-9011597.12	0.0089	0.0029
Venus	-29385-03-17 16:47 J	-9011372.01	-9011371.80	-9011371.59	0.0089	0.0024
Venus	-29385-10-29 05:02 J	-9011146.49	-9011146.29	-9011146.07	0.0089	0.0020
Venus	-29384-06-11 17:31 J	-9010920.97	-9010920.77	-9010920.54	0.0089	0.0015
Venus	-29383-01-23 06:14 J	-9010695.45	-9010695.24	-9010695.02	0.0089	0.0009
Venus	-29383-09-05 18:43 J	-9010469.93	-9010469.72	-9010469.50	0.0089	0.0005
Venus	-29382-04-19 07:40 J	-9010244.40	-9010244.18	-9010243.97	0.0089	0.0002
Venus	-29382-11-30 20:09 J	-9010018.88	-9010018.66	-9010018.44	0.0089	0.0006

Venus	-29381-07-13 08:38 J	-9009793.36	-9009793.14	-9009792.92	0.0089	0.0010
Venus	-29380-02-23 21:07 J	-9009567.83	-9009567.62	-9009567.40	0.0089	0.0015
Venus	-29380-10-07 09:35 J	-9009342.31	-9009342.10	-9009341.88	0.0089	0.0021
Venus	-29379-05-20 22:19 J	-9009116.77	-9009116.57	-9009116.35	0.0089	0.0025
Venus	-29378-01-01 10:47 J	-9008891.24	-9008891.05	-9008890.83	0.0089	0.0031
Venus	-29378-08-14 23:16 J	-9008665.71	-9008665.53	-9008665.31	0.0088	0.0036
Venus	-29377-03-27 11:59 J	-9008440.18	-9008440.00	-9008439.79	0.0088	0.0040
Venus	-29377-11-08 00:57 J	-9008214.65	-9008214.46	-9008214.27	0.0088	0.0045
Venus	-29376-06-21 13:40 J	-9007989.11	-9007988.93	-9007988.75	0.0088	0.0050
Venus	-29375-02-02 02:09 J	-9007763.57	-9007763.41	-9007763.23	0.0088	0.0055
Venus	-29375-09-15 14:52 J	-9007538.03	-9007537.88	-9007537.71	0.0088	0.0060
Venus	-29374-04-29 03:35 J	-9007312.48	-9007312.35	-9007312.18	0.0088	0.0065
Venus	-29374-12-10 16:19 J	-9007086.94	-9007086.82	-9007086.66	0.0088	0.0069
Venus	-29373-07-23 05:16 J	-9006861.39	-9006861.28	-9006861.15	0.0088	0.0074
Venus	-29372-03-05 17:59 J	-9006635.83	-9006635.75	-9006635.63	0.0088	0.0079
Venus	-29372-10-17 06:43 J	-9006410.27	-9006410.22	-9006410.12	0.0088	0.0083
Venus	-29371-05-30 19:55 J	-9006184.68	-9006184.67	-9006184.63	0.0088	0.0088
Earth	-29346-10-04 23:45 J	-8996926.52	-8996926.51	-8996926.46	0.0088	0.0087
Moon	-29346-10-05 02:38 J	-8996926.44	-8996926.39	-8996926.27	0.0088	0.0083
Moon	-29345-10-06 08:52 J	-8996559.33	-8996559.13	-8996558.89	0.0088	0.0049
Earth	-29345-10-06 12:43 J	-8996559.19	-8996558.97	-8996558.74	0.0088	0.0044 *
Earth	-29344-10-09 01:11 J	-8996191.71	-8996191.45	-8996191.19	0.0088	0.0002
Moon	-29344-10-09 04:47 J	-8996191.56	-8996191.30	-8996191.04	0.0088	0.0003 *
Moon	-29343-10-11 09:50 J	-8995824.30	-8995824.09	-8995823.83	0.0088	0.0037
Earth	-29343-10-11 13:26 J	-8995824.16	-8995823.94	-8995823.70	0.0088	0.0041 *
Earth	-29342-10-14 01:11 J	-8995456.49	-8995456.45	-8995456.34	0.0088	0.0084
Moon	-29342-10-14 04:19 J	-8995456.34	-8995456.32	-8995456.29	0.0088	0.0087 *
Mercury	-29332-12-01 08:38 J	-8991755.16	-8991755.14	-8991755.08	0.0088	0.0086
Mercury	-29331-02-27 11:45 J	-8991667.08	-8991667.01	-8991666.90	0.0088	0.0077
Mercury	-29331-05-26 14:52 J	-8991578.97	-8991578.88	-8991578.74	0.0088	0.0068

Mercury	-29331-08-22 18:14 J	-8991490.86	-8991490.74	-8991490.59	0.0088	0.0059
Mercury	-29331-11-18 21:21 J	-8991402.75	-8991402.61	-8991402.44	0.0088	0.0050
Mercury	-29330-02-15 00:28 J	-8991314.63	-8991314.48	-8991314.30	0.0088	0.0041
Mercury	-29330-05-14 03:35 J	-8991226.51	-8991226.35	-8991226.17	0.0088	0.0032
Mercury	-29330-08-10 06:43 J	-8991138.39	-8991138.22	-8991138.03	0.0088	0.0023
Mercury	-29330-11-06 09:50 J	-8991050.26	-8991050.09	-8991049.90	0.0088	0.0014
Mars	-29330-12-28 13:40 J	-8990998.17	-8990997.93	-8990997.63	0.0088	0.0044
Mercury	-29329-02-02 13:11 J	-8990962.14	-8990961.95	-8990961.77	0.0088	0.0005
Mercury	-29329-04-30 16:04 J	-8990874.01	-8990873.83	-8990873.64	0.0088	0.0004
Mercury	-29329-07-27 19:11 J	-8990785.88	-8990785.70	-8990785.52	0.0088	0.0013
Mercury	-29329-10-23 22:04 J	-8990697.75	-8990697.58	-8990697.40	0.0088	0.0022
Mercury	-29328-01-20 00:57 J	-8990609.62	-8990609.46	-8990609.28	0.0088	0.0030
Mercury	-29328-04-18 03:50 J	-8990521.49	-8990521.34	-8990521.16	0.0088	0.0039
Mercury	-29328-07-15 07:11 J	-8990433.35	-8990433.20	-8990433.05	0.0088	0.0048
Mercury	-29328-10-11 09:50 J	-8990345.22	-8990345.09	-8990344.94	0.0088	0.0056
Mars	-29328-11-22 09:21 J	-8990303.42	-8990303.11	-8990302.79	0.0088	0.0012
Mercury	-29327-01-07 12:43 J	-8990257.08	-8990256.97	-8990256.83	0.0088	0.0065
Mercury	-29327-04-05 15:50 J	-8990168.93	-8990168.84	-8990168.73	0.0088	0.0073
Mercury	-29327-07-02 18:28 J	-8990080.77	-8990080.73	-8990080.65	0.0088	0.0082
Mars	-29326-10-18 04:33 J	-8989608.49	-8989608.31	-8989608.08	0.0088	0.0068
Venus	-29310-07-20 17:16 J	-8983853.82	-8983853.78	-8983853.70	0.0089	0.0086
Venus	-29309-03-02 06:57 J	-8983628.28	-8983628.21	-8983628.10	0.0089	0.0081
Venus	-29309-10-13 21:07 J	-8983402.72	-8983402.62	-8983402.50	0.0089	0.0076
Venus	-29308-05-27 11:02 J	-8983177.17	-8983177.04	-8983176.91	0.0089	0.0071
Venus	-29307-01-08 00:14 J	-8982951.62	-8982951.49	-8982951.32	0.0089	0.0067
Venus	-29307-08-21 13:55 J	-8982726.06	-8982725.92	-8982725.74	0.0089	0.0062
Venus	-29306-04-04 03:35 J	-8982500.50	-8982500.35	-8982500.16	0.0089	0.0057
Venus	-29306-11-15 17:16 J	-8982274.94	-8982274.78	-8982274.58	0.0089	0.0052
Venus	-29305-06-28 06:57 J	-8982049.38	-8982049.21	-8982049.00	0.0089	0.0047
Venus	-29304-02-08 20:38 J	-8981823.83	-8981823.64	-8981823.43	0.0089	0.0042

Venus	-29304-09-22 10:19 J	-8981598.26	-8981598.07	-8981597.86	0.0089	0.0037
Venus	-29303-05-05 23:45 J	-8981372.70	-8981372.51	-8981372.29	0.0089	0.0032
Venus	-29303-12-17 13:26 J	-8981147.14	-8981146.94	-8981146.72	0.0089	0.0027
Venus	-29302-07-31 02:52 J	-8980921.59	-8980921.38	-8980921.16	0.0089	0.0022
Venus	-29301-03-12 16:19 J	-8980696.03	-8980695.82	-8980695.59	0.0089	0.0017
Venus	-29301-10-24 05:59 J	-8980470.46	-8980470.25	-8980470.02	0.0089	0.0012
Venus	-29300-06-06 19:26 J	-8980244.90	-8980244.69	-8980244.46	0.0089	0.0007
Venus	-29299-01-18 09:07 J	-8980019.35	-8980019.12	-8980018.90	0.0089	0.0002
Venus	-29299-08-31 22:19 J	-8979793.79	-8979793.57	-8979793.34	0.0089	0.0004
Venus	-29298-04-14 11:45 J	-8979568.22	-8979568.01	-8979567.78	0.0089	0.0009
Venus	-29298-11-26 01:26 J	-8979342.66	-8979342.44	-8979342.22	0.0089	0.0014
Venus	-29297-07-08 14:38 J	-8979117.10	-8979116.89	-8979116.66	0.0089	0.0019
Venus	-29296-02-19 04:04 J	-8978891.53	-8978891.33	-8978891.11	0.0089	0.0024
Venus	-29296-10-02 17:31 J	-8978665.97	-8978665.77	-8978665.55	0.0089	0.0029
Venus	-29295-05-16 06:57 J	-8978440.40	-8978440.21	-8978439.99	0.0089	0.0034
Venus	-29295-12-27 20:23 J	-8978214.84	-8978214.65	-8978214.44	0.0089	0.0039
Venus	-29294-08-10 09:35 J	-8977989.27	-8977989.10	-8977988.89	0.0089	0.0044
Venus	-29293-03-22 23:16 J	-8977763.71	-8977763.53	-8977763.34	0.0089	0.0048
Venus	-29293-11-03 12:28 J	-8977538.14	-8977537.98	-8977537.79	0.0089	0.0053
Venus	-29292-06-17 01:40 J	-8977312.58	-8977312.43	-8977312.25	0.0089	0.0058
Venus	-29291-01-28 14:52 J	-8977087.02	-8977086.88	-8977086.71	0.0089	0.0063
Venus	-29291-09-11 04:33 J	-8976861.46	-8976861.31	-8976861.17	0.0089	0.0067
Venus	-29290-04-24 17:16 J	-8976635.89	-8976635.78	-8976635.64	0.0089	0.0072
Venus	-29290-12-06 06:28 J	-8976410.32	-8976410.23	-8976410.10	0.0089	0.0077
Venus	-29289-07-18 19:55 J	-8976184.75	-8976184.67	-8976184.57	0.0089	0.0081
Venus	-29288-03-01 08:38 J	-8975959.17	-8975959.14	-8975959.06	0.0089	0.0087
Moon	-29263-04-04 18:43 J	-8966793.87	-8966793.72	-8966793.58	0.0089	0.0073
Earth	-29263-04-04 21:35 J	-8966793.71	-8966793.60	-8966793.45	0.0089	0.0077 *
Earth	-29262-04-07 08:09 J	-8966426.38	-8966426.16	-8966425.90	0.0089	0.0034
Moon	-29262-04-07 11:45 J	-8966426.23	-8966426.01	-8966425.76	0.0089	0.0037 *

Moon	-29261-04-08 17:02 J	-8966059.02	-8966058.79	-8966058.53	0.0089	0.0014
Earth	-29261-04-08 19:11 J	-8966058.94	-8966058.70	-8966058.44	0.0089	0.0011 *
Earth	-29260-04-11 05:59 J	-8965691.44	-8965691.25	-8965691.04	0.0089	0.0054
Moon	-29260-04-11 07:26 J	-8965691.39	-8965691.19	-8965690.95	0.0089	0.0050 *
Mercury	-29250-03-07 16:33 J	-8962073.85	-8962073.81	-8962073.76	0.0089	0.0084
Mercury	-29250-06-03 17:45 J	-8961985.82	-8961985.76	-8961985.68	0.0089	0.0077
Mercury	-29250-08-30 19:11 J	-8961897.77	-8961897.70	-8961897.60	0.0089	0.0070
Mercury	-29250-11-26 20:52 J	-8961809.72	-8961809.63	-8961809.53	0.0089	0.0063
Mercury	-29249-02-22 22:19 J	-8961721.67	-8961721.57	-8961721.46	0.0089	0.0057
Mercury	-29249-05-20 23:59 J	-8961633.61	-8961633.50	-8961633.39	0.0089	0.0050
Mercury	-29249-08-17 01:26 J	-8961545.56	-8961545.44	-8961545.32	0.0089	0.0043
Mercury	-29249-11-13 02:38 J	-8961457.50	-8961457.39	-8961457.25	0.0089	0.0037
Mercury	-29248-02-09 04:19 J	-8961369.44	-8961369.32	-8961369.18	0.0089	0.0029
Mercury	-29248-05-08 05:45 J	-8961281.38	-8961281.26	-8961281.12	0.0089	0.0023
Mercury	-29248-08-04 07:26 J	-8961193.32	-8961193.19	-8961193.05	0.0089	0.0015
Mercury	-29248-10-31 08:52 J	-8961105.26	-8961105.13	-8961104.99	0.0089	0.0009
Mars	-29248-11-24 18:14 J	-8961080.99	-8961080.74	-8961080.43	0.0089	0.0043
Mercury	-29247-01-27 10:33 J	-8961017.20	-8961017.06	-8961016.92	0.0089	0.0001
Mercury	-29247-04-25 11:59 J	-8960929.14	-8960929.00	-8960928.86	0.0089	0.0006
Mercury	-29247-07-22 13:40 J	-8960841.07	-8960840.93	-8960840.79	0.0089	0.0013
Mercury	-29247-10-18 15:07 J	-8960753.00	-8960752.87	-8960752.73	0.0089	0.0020
Mercury	-29246-01-14 16:33 J	-8960664.94	-8960664.81	-8960664.67	0.0089	0.0027
Mercury	-29246-04-12 18:14 J	-8960576.87	-8960576.74	-8960576.61	0.0089	0.0034
Mercury	-29246-07-09 19:40 J	-8960488.80	-8960488.68	-8960488.55	0.0089	0.0041
Mercury	-29246-10-05 21:21 J	-8960400.72	-8960400.61	-8960400.49	0.0089	0.0048
Mars	-29246-10-20 17:02 J	-8960386.10	-8960385.79	-8960385.48	0.0089	0.0015
Mercury	-29245-01-01 22:47 J	-8960312.65	-8960312.55	-8960312.43	0.0089	0.0056
Mercury	-29245-03-30 00:28 J	-8960224.57	-8960224.48	-8960224.38	0.0089	0.0063
Mercury	-29245-06-26 01:55 J	-8960136.49	-8960136.42	-8960136.32	0.0089	0.0070
Mercury	-29245-09-22 03:21 J	-8960048.41	-8960048.36	-8960048.27	0.0089	0.0078

Mercury	-29245-12-19 05:02 J	-8959960.32	-8959960.29	-8959960.23	0.0089	0.0085
Mars	-29244-09-14 12:57 J	-8959691.11	-8959690.96	-8959690.74	0.0089	0.0073
Venus	-29229-06-09 11:31 J	-8954309.06	-8954309.02	-8954308.95	0.0089	0.0086
Venus	-29228-01-21 00:14 J	-8954083.57	-8954083.49	-8954083.41	0.0089	0.0081
Venus	-29228-09-03 12:14 J	-8953858.08	-8953857.99	-8953857.87	0.0089	0.0077
Venus	-29227-04-17 00:28 J	-8953632.58	-8953632.48	-8953632.33	0.0089	0.0073
Venus	-29227-11-28 12:57 J	-8953407.08	-8953406.96	-8953406.80	0.0089	0.0068
Venus	-29226-07-12 01:40 J	-8953181.58	-8953181.43	-8953181.28	0.0089	0.0063
Venus	-29225-02-22 13:40 J	-8952956.07	-8952955.93	-8952955.75	0.0089	0.0059
Venus	-29225-10-05 02:09 J	-8952730.57	-8952730.41	-8952730.23	0.0089	0.0054
Venus	-29224-05-18 14:23 J	-8952505.06	-8952504.90	-8952504.70	0.0089	0.0050
Venus	-29224-12-30 02:52 J	-8952279.55	-8952279.38	-8952279.17	0.0089	0.0045
Venus	-29223-08-12 15:35 J	-8952054.04	-8952053.85	-8952053.65	0.0089	0.0040
Venus	-29222-03-26 04:04 J	-8951828.52	-8951828.33	-8951828.13	0.0089	0.0035
Venus	-29222-11-06 16:19 J	-8951603.01	-8951602.82	-8951602.60	0.0089	0.0031
Venus	-29221-06-19 04:47 J	-8951377.49	-8951377.30	-8951377.08	0.0089	0.0026
Venus	-29220-01-30 17:31 J	-8951151.98	-8951151.77	-8951151.56	0.0089	0.0021
Venus	-29220-09-13 05:59 J	-8950926.46	-8950926.25	-8950926.03	0.0089	0.0016
Venus	-29219-04-26 18:43 J	-8950700.93	-8950700.72	-8950700.50	0.0089	0.0011
Venus	-29219-12-08 07:26 J	-8950475.41	-8950475.19	-8950474.97	0.0089	0.0006
Venus	-29218-07-21 19:55 J	-8950249.89	-8950249.67	-8950249.45	0.0089	0.0002
Venus	-29217-03-03 08:23 J	-8950024.36	-8950024.15	-8950023.93	0.0089	0.0004
Venus	-29217-10-14 21:07 J	-8949798.84	-8949798.62	-8949798.40	0.0089	0.0008
Venus	-29216-05-28 09:35 J	-8949573.31	-8949573.10	-8949572.87	0.0089	0.0014
Venus	-29215-01-08 22:04 J	-8949347.78	-8949347.58	-8949347.35	0.0089	0.0019
Venus	-29215-08-22 11:02 J	-8949122.25	-8949122.04	-8949121.83	0.0089	0.0023
Venus	-29214-04-04 23:31 J	-8948896.72	-8948896.52	-8948896.31	0.0089	0.0028
Venus	-29214-11-16 11:59 J	-8948671.19	-8948671.00	-8948670.78	0.0088	0.0033
Venus	-29213-06-29 00:28 J	-8948445.66	-8948445.48	-8948445.26	0.0088	0.0038
Venus	-29212-02-09 13:26 J	-8948220.13	-8948219.94	-8948219.74	0.0088	0.0042

Venus	-29212-09-23 01:55 J	-8947994.59	-8947994.42	-8947994.22	0.0088	0.0047
Venus	-29211-05-06 14:38 J	-8947769.05	-8947768.89	-8947768.70	0.0088	0.0052
Venus	-29211-12-18 03:07 J	-8947543.51	-8947543.37	-8947543.18	0.0088	0.0057
Venus	-29210-07-31 16:04 J	-8947317.98	-8947317.83	-8947317.66	0.0088	0.0061
Venus	-29209-03-13 04:33 J	-8947092.43	-8947092.31	-8947092.14	0.0088	0.0066
Venus	-29209-10-24 17:45 J	-8946866.89	-8946866.76	-8946866.62	0.0088	0.0070
Venus	-29208-06-07 06:28 J	-8946641.33	-8946641.23	-8946641.10	0.0088	0.0075
Venus	-29207-01-18 18:57 J	-8946415.78	-8946415.71	-8946415.59	0.0088	0.0080
Venus	-29207-09-01 08:09 J	-8946190.22	-8946190.16	-8946190.08	0.0088	0.0084
Venus	-29206-04-14 20:52 J	-8945964.63	-8945964.63	-8945964.59	0.0088	0.0088
Earth	-29181-10-05 23:02 J	-8936658.71	-8936658.54	-8936658.36	0.0088	0.0065
Moon	-29181-10-06 02:09 J	-8936658.57	-8936658.41	-8936658.21	0.0088	0.0064 *
Jupiter	-29180-03-30 07:26 J	-8936483.58	-8936483.19	-8936482.67	0.0088	0.0053
Moon	-29180-10-08 08:38 J	-8936291.38	-8936291.14	-8936290.89	0.0088	0.0023
Earth	-29180-10-08 11:31 J	-8936291.26	-8936291.02	-8936290.75	0.0088	0.0022 *
Earth	-29179-10-11 00:14 J	-8935923.74	-8935923.49	-8935923.23	0.0088	0.0021
Moon	-29179-10-11 02:23 J	-8935923.64	-8935923.40	-8935923.12	0.0088	0.0023 *
Moon	-29178-10-13 11:45 J	-8935556.17	-8935556.01	-8935555.82	0.0088	0.0063
Earth	-29178-10-13 12:28 J	-8935556.14	-8935555.98	-8935555.78	0.0088	0.0064 *
Mercury	-29167-08-28 07:55 J	-8931584.22	-8931584.17	-8931584.07	0.0088	0.0081
Mercury	-29167-11-24 11:16 J	-8931496.12	-8931496.03	-8931495.91	0.0088	0.0071
Mercury	-29166-02-20 14:23 J	-8931408.01	-8931407.90	-8931407.75	0.0088	0.0062
Mercury	-29166-05-19 17:31 J	-8931319.90	-8931319.77	-8931319.61	0.0088	0.0053
Mars	-29166-08-12 12:57 J	-8931235.12	-8931234.96	-8931234.72	0.0088	0.0068
Mercury	-29166-08-15 20:38 J	-8931231.78	-8931231.64	-8931231.46	0.0088	0.0044
Mercury	-29166-11-11 23:45 J	-8931143.66	-8931143.51	-8931143.32	0.0088	0.0036
Mercury	-29165-02-08 03:07 J	-8931055.54	-8931055.37	-8931055.19	0.0088	0.0026
Mercury	-29165-05-06 06:14 J	-8930967.42	-8930967.24	-8930967.06	0.0088	0.0017
Mercury	-29165-08-02 09:21 J	-8930879.29	-8930879.11	-8930878.92	0.0088	0.0008
Mercury	-29165-10-29 12:28 J	-8930791.16	-8930790.98	-8930790.80	0.0088	0.0001

Mercury	-29164-01-25 15:21 J	-8930703.03	-8930702.86	-8930702.67	0.0088	0.0011
Mercury	-29164-04-23 18:28 J	-8930614.90	-8930614.73	-8930614.55	0.0088	0.0019
Mars	-29164-07-07 05:02 J	-8930540.59	-8930540.29	-8930539.96	0.0088	0.0014
Mercury	-29164-07-20 21:35 J	-8930526.77	-8930526.60	-8930526.43	0.0088	0.0027
Mercury	-29164-10-17 00:28 J	-8930438.64	-8930438.48	-8930438.31	0.0088	0.0036
Mercury	-29163-01-13 03:21 J	-8930350.50	-8930350.36	-8930350.19	0.0088	0.0045
Mercury	-29163-04-11 06:28 J	-8930262.37	-8930262.23	-8930262.08	0.0088	0.0054
Mercury	-29163-07-08 09:21 J	-8930174.23	-8930174.11	-8930173.97	0.0088	0.0062
Mercury	-29163-10-04 11:59 J	-8930086.08	-8930086.00	-8930085.87	0.0088	0.0072
Mercury	-29163-12-31 15:21 J	-8929997.93	-8929997.86	-8929997.78	0.0088	0.0079
Mercury	-29162-03-29 18:14 J	-8929909.74	-8929909.74	-8929909.72	0.0088	0.0088
Mars	-29162-06-01 23:59 J	-8929845.76	-8929845.50	-8929845.20	0.0088	0.0043
Venus	-29146-10-22 04:47 J	-8923859.35	-8923859.30	-8923859.23	0.0088	0.0085
Venus	-29145-06-03 18:14 J	-8923633.81	-8923633.74	-8923633.63	0.0089	0.0081
Venus	-29144-01-15 08:09 J	-8923408.26	-8923408.16	-8923408.03	0.0089	0.0076
Venus	-29144-08-28 21:35 J	-8923182.71	-8923182.60	-8923182.44	0.0089	0.0072
Venus	-29143-04-11 11:31 J	-8922957.15	-8922957.02	-8922956.86	0.0089	0.0067
Venus	-29143-11-23 01:26 J	-8922731.59	-8922731.44	-8922731.27	0.0089	0.0062
Venus	-29142-07-06 15:07 J	-8922506.03	-8922505.87	-8922505.69	0.0089	0.0057
Venus	-29141-02-17 04:33 J	-8922280.47	-8922280.31	-8922280.11	0.0089	0.0053
Venus	-29141-09-29 18:14 J	-8922054.91	-8922054.74	-8922054.53	0.0089	0.0048
Venus	-29140-05-13 08:09 J	-8921829.34	-8921829.16	-8921828.95	0.0089	0.0043
Venus	-29140-12-24 21:50 J	-8921603.78	-8921603.59	-8921603.38	0.0089	0.0038
Venus	-29139-08-07 11:31 J	-8921378.22	-8921378.02	-8921377.81	0.0089	0.0033
Venus	-29138-03-21 00:57 J	-8921152.66	-8921152.46	-8921152.24	0.0089	0.0028
Venus	-29138-11-01 14:52 J	-8920927.10	-8920926.88	-8920926.67	0.0089	0.0023
Venus	-29137-06-14 04:04 J	-8920701.54	-8920701.33	-8920701.10	0.0089	0.0019
Venus	-29136-01-25 17:31 J	-8920475.98	-8920475.77	-8920475.54	0.0089	0.0014
Venus	-29136-09-08 07:11 J	-8920250.42	-8920250.20	-8920249.98	0.0089	0.0008
Venus	-29135-04-21 20:38 J	-8920024.86	-8920024.64	-8920024.42	0.0089	0.0004

Venus	-29135-12-03 10:19 J	-8919799.30	-8919799.07	-8919798.85	0.0089	0.0002
Venus	-29134-07-16 23:31 J	-8919573.74	-8919573.52	-8919573.29	0.0089	0.0006
Venus	-29133-02-27 12:57 J	-8919348.18	-8919347.96	-8919347.74	0.0089	0.0011
Venus	-29133-10-10 02:23 J	-8919122.61	-8919122.40	-8919122.18	0.0089	0.0016
Venus	-29132-05-23 15:50 J	-8918897.05	-8918896.84	-8918896.62	0.0089	0.0021
Venus	-29131-01-04 05:02 J	-8918671.49	-8918671.29	-8918671.07	0.0089	0.0026
Venus	-29131-08-17 18:28 J	-8918445.93	-8918445.73	-8918445.51	0.0089	0.0031
Venus	-29130-03-31 07:40 J	-8918220.37	-8918220.18	-8918219.96	0.0089	0.0036
Venus	-29130-11-11 21:35 J	-8917994.80	-8917994.60	-8917994.40	0.0089	0.0040
Venus	-29129-06-24 10:47 J	-8917769.23	-8917769.05	-8917768.85	0.0089	0.0045
Venus	-29128-02-04 23:59 J	-8917543.67	-8917543.50	-8917543.31	0.0089	0.0050
Venus	-29128-09-18 13:11 J	-8917318.11	-8917317.95	-8917317.76	0.0089	0.0055
Venus	-29127-05-02 02:38 J	-8917092.54	-8917092.39	-8917092.22	0.0089	0.0059
Venus	-29127-12-13 15:50 J	-8916866.97	-8916866.84	-8916866.67	0.0089	0.0064
Venus	-29126-07-27 04:47 J	-8916641.41	-8916641.30	-8916641.13	0.0089	0.0069
Venus	-29125-03-08 18:14 J	-8916415.85	-8916415.74	-8916415.60	0.0089	0.0073
Venus	-29125-10-20 07:11 J	-8916190.28	-8916190.20	-8916190.07	0.0089	0.0078
Venus	-29124-06-02 20:38 J	-8915964.71	-8915964.64	-8915964.54	0.0089	0.0082
Venus	-29123-01-14 10:04 J	-8915739.12	-8915739.08	-8915739.03	0.0089	0.0086
Moon	-29098-04-06 18:28 J	-8906525.92	-8906525.73	-8906525.54	0.0089	0.0057
Earth	-29098-04-06 20:38 J	-8906525.83	-8906525.64	-8906525.42	0.0089	0.0053 *
Earth	-29097-04-08 07:26 J	-8906158.43	-8906158.19	-8906157.93	0.0089	0.0010
Moon	-29097-04-08 08:23 J	-8906158.41	-8906158.15	-8906157.89	0.0089	0.0007 *
Earth	-29096-04-10 17:59 J	-8905790.97	-8905790.75	-8905790.50	0.0089	0.0034
Moon	-29096-04-10 17:59 J	-8905790.96	-8905790.75	-8905790.50	0.0089	0.0031 *
Moon	-29095-04-13 03:21 J	-8905423.46	-8905423.36	-8905423.23	0.0089	0.0080
Earth	-29095-04-13 04:33 J	-8905423.42	-8905423.31	-8905423.16	0.0089	0.0077 *
Mercury	-29086-09-05 14:38 J	-8901990.91	-8901990.89	-8901990.84	0.0089	0.0087
Mercury	-29086-12-02 16:19 J	-8901902.87	-8901902.82	-8901902.75	0.0089	0.0079
Mercury	-29085-02-28 17:45 J	-8901814.83	-8901814.76	-8901814.67	0.0089	0.0073

Mercury	-29085-05-26 19:26 J	-8901726.78	-8901726.69	-8901726.60	0.0089	0.0066
Mercury	-29085-08-22 20:38 J	-8901638.73	-8901638.64	-8901638.53	0.0089	0.0059
Mercury	-29085-11-18 22:04 J	-8901550.68	-8901550.58	-8901550.46	0.0089	0.0053
Mercury	-29084-02-14 23:45 J	-8901462.62	-8901462.51	-8901462.39	0.0089	0.0045
Mercury	-29084-05-14 01:11 J	-8901374.57	-8901374.45	-8901374.32	0.0089	0.0039
Mars	-29084-07-09 07:55 J	-8901318.34	-8901318.17	-8901317.94	0.0089	0.0070
Mercury	-29084-08-10 02:52 J	-8901286.51	-8901286.38	-8901286.25	0.0089	0.0031
Mercury	-29084-11-06 04:19 J	-8901198.45	-8901198.32	-8901198.19	0.0089	0.0025
Mercury	-29083-02-02 05:45 J	-8901110.39	-8901110.26	-8901110.12	0.0089	0.0018
Mercury	-29083-05-01 07:11 J	-8901022.33	-8901022.20	-8901022.06	0.0089	0.0011
Mercury	-29083-07-28 08:52 J	-8900934.27	-8900934.13	-8900933.99	0.0089	0.0004
Mercury	-29083-10-24 10:19 J	-8900846.20	-8900846.07	-8900845.93	0.0089	0.0004
Mercury	-29082-01-20 11:59 J	-8900758.14	-8900758.00	-8900757.86	0.0089	0.0010
Mercury	-29082-04-18 13:26 J	-8900670.07	-8900669.94	-8900669.80	0.0089	0.0017
Mars	-29082-06-04 09:35 J	-8900623.40	-8900623.10	-8900622.78	0.0089	0.0011
Mercury	-29082-07-15 14:52 J	-8900582.01	-8900581.88	-8900581.74	0.0089	0.0025
Mercury	-29082-10-11 16:33 J	-8900493.94	-8900493.81	-8900493.68	0.0089	0.0031
Mercury	-29081-01-07 17:59 J	-8900405.87	-8900405.75	-8900405.62	0.0089	0.0039
Mercury	-29081-04-04 19:40 J	-8900317.80	-8900317.68	-8900317.56	0.0089	0.0046
Mercury	-29081-07-01 20:52 J	-8900229.73	-8900229.63	-8900229.50	0.0089	0.0054
Mercury	-29081-09-27 22:33 J	-8900141.65	-8900141.56	-8900141.45	0.0089	0.0060
Mercury	-29081-12-25 00:14 J	-8900053.57	-8900053.49	-8900053.39	0.0089	0.0067
Mercury	-29080-03-23 01:40 J	-8899965.49	-8899965.43	-8899965.34	0.0089	0.0075
Mars	-29080-04-29 07:26 J	-8899928.44	-8899928.19	-8899927.91	0.0089	0.0046
Mercury	-29080-06-19 03:21 J	-8899877.41	-8899877.36	-8899877.29	0.0089	0.0081
Mercury	-29080-09-15 05:02 J	-8899789.30	-8899789.29	-8899789.27	0.0089	0.0088
Venus	-29065-09-10 23:45 J	-8894314.53	-8894314.51	-8894314.42	0.0089	0.0086
Venus	-29064-04-24 12:43 J	-8894089.04	-8894088.97	-8894088.87	0.0089	0.0081
Venus	-29064-12-06 00:57 J	-8893863.55	-8893863.46	-8893863.34	0.0089	0.0077
Venus	-29063-07-19 13:11 J	-8893638.05	-8893637.95	-8893637.80	0.0089	0.0073

Venus	-29062-03-02 01:40 J	-8893412.55	-8893412.43	-8893412.28	0.0089	0.0068
Venus	-29062-10-13 13:55 J	-8893187.05	-8893186.92	-8893186.75	0.0089	0.0064
Venus	-29061-05-26 02:38 J	-8892961.54	-8892961.39	-8892961.22	0.0089	0.0059
Venus	-29060-01-06 14:38 J	-8892736.04	-8892735.89	-8892735.70	0.0089	0.0055
Venus	-29060-08-20 03:21 J	-8892510.53	-8892510.36	-8892510.18	0.0089	0.0050
Venus	-29059-04-02 15:35 J	-8892285.02	-8892284.85	-8892284.65	0.0089	0.0046
Venus	-29059-11-14 04:04 J	-8892059.51	-8892059.33	-8892059.13	0.0089	0.0041
Venus	-29058-06-27 16:19 J	-8891834.00	-8891833.82	-8891833.61	0.0089	0.0037
Venus	-29057-02-08 04:47 J	-8891608.49	-8891608.30	-8891608.09	0.0089	0.0032
Venus	-29057-09-20 17:31 J	-8891382.98	-8891382.77	-8891382.56	0.0089	0.0027
Venus	-29056-05-04 05:45 J	-8891157.46	-8891157.26	-8891157.03	0.0089	0.0023
Venus	-29056-12-15 18:28 J	-8890931.94	-8890931.73	-8890931.51	0.0089	0.0018
Venus	-29055-07-29 06:57 J	-8890706.42	-8890706.21	-8890705.99	0.0089	0.0013
Venus	-29054-03-11 19:26 J	-8890480.90	-8890480.69	-8890480.47	0.0089	0.0008
Venus	-29054-10-23 08:09 J	-8890255.38	-8890255.16	-8890254.94	0.0089	0.0004
Venus	-29053-06-04 20:38 J	-8890029.85	-8890029.64	-8890029.42	0.0089	0.0002
Venus	-29052-01-16 09:07 J	-8889804.33	-8889804.12	-8889803.89	0.0089	0.0007
Venus	-29052-08-29 21:50 J	-8889578.80	-8889578.59	-8889578.37	0.0089	0.0011
Venus	-29051-04-12 10:33 J	-8889353.27	-8889353.06	-8889352.84	0.0089	0.0015
Venus	-29051-11-23 23:02 J	-8889127.75	-8889127.54	-8889127.32	0.0089	0.0020
Venus	-29050-07-07 11:45 J	-8888902.22	-8888902.01	-8888901.80	0.0089	0.0025
Venus	-29049-02-18 00:14 J	-8888676.69	-8888676.49	-8888676.28	0.0088	0.0030
Venus	-29049-09-30 12:43 J	-8888451.16	-8888450.97	-8888450.76	0.0088	0.0035
Venus	-29048-05-14 01:40 J	-8888225.62	-8888225.43	-8888225.23	0.0088	0.0039
Venus	-29048-12-25 14:09 J	-8888000.09	-8887999.91	-8887999.71	0.0088	0.0044
Venus	-29047-08-08 02:38 J	-8887774.55	-8887774.39	-8887774.19	0.0088	0.0049
Venus	-29046-03-21 15:35 J	-8887549.02	-8887548.85	-8887548.67	0.0088	0.0053
Venus	-29046-11-02 04:04 J	-8887323.48	-8887323.33	-8887323.15	0.0088	0.0057
Venus	-29045-06-14 17:02 J	-8887097.94	-8887097.79	-8887097.63	0.0088	0.0062
Venus	-29044-01-26 05:31 J	-8886872.40	-8886872.27	-8886872.11	0.0088	0.0067

Venus	-29044-09-08 18:28 J	-8886646.85	-8886646.73	-8886646.59	0.0088	0.0071
Venus	-29043-04-22 06:57 J	-8886421.30	-8886421.21	-8886421.07	0.0088	0.0076
Venus	-29043-12-03 19:55 J	-8886195.75	-8886195.67	-8886195.56	0.0088	0.0080
Venus	-29042-07-17 09:07 J	-8885970.18	-8885970.12	-8885970.05	0.0088	0.0084
Venus	-29041-02-27 21:50 J	-8885744.59	-8885744.59	-8885744.57	0.0088	0.0088
Moon	-29017-10-05 05:59 J	-8876758.32	-8876758.25	-8876758.12	0.0088	0.0081
Earth	-29017-10-05 08:38 J	-8876758.18	-8876758.14	-8876758.05	0.0088	0.0085 *
Earth	-29016-10-07 21:21 J	-8876390.83	-8876390.61	-8876390.37	0.0088	0.0042
Moon	-29016-10-07 23:16 J	-8876390.75	-8876390.53	-8876390.29	0.0088	0.0046 *
Moon	-29015-10-10 09:21 J	-8876023.36	-8876023.11	-8876022.85	0.0088	0.0005
Earth	-29015-10-10 10:19 J	-8876023.33	-8876023.07	-8876022.81	0.0088	0.0001 *
Jupiter	-29014-06-07 20:38 J	-8875783.20	-8875782.64	-8875782.07	0.0088	0.0003
Moon	-29014-10-12 21:35 J	-8875655.83	-8875655.60	-8875655.34	0.0088	0.0039
Earth	-29014-10-12 22:19 J	-8875655.77	-8875655.57	-8875655.32	0.0088	0.0044 *
Earth	-29013-10-14 10:47 J	-8875288.08	-8875288.05	-8875287.98	0.0088	0.0086
Mercury	-29002-02-26 04:19 J	-8871501.37	-8871501.32	-8871501.26	0.0088	0.0083
Mercury	-29002-05-25 07:26 J	-8871413.28	-8871413.19	-8871413.08	0.0088	0.0074
Mercury	-29002-08-21 10:33 J	-8871325.17	-8871325.06	-8871324.92	0.0088	0.0065
Mercury	-29002-11-17 13:40 J	-8871237.06	-8871236.93	-8871236.77	0.0088	0.0056
Mercury	-29001-02-13 16:47 J	-8871148.94	-8871148.80	-8871148.63	0.0088	0.0048
Mercury	-29001-05-11 20:09 J	-8871060.82	-8871060.66	-8871060.49	0.0088	0.0038
Mercury	-29001-08-07 23:16 J	-8870972.70	-8870972.53	-8870972.35	0.0088	0.0029
Mercury	-29001-11-04 02:23 J	-8870884.57	-8870884.40	-8870884.22	0.0088	0.0020

29TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 29th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-29000-01-31 05:31 J	-8870796.45	-8870796.27	-8870796.08	0.0088	0.0011		
Mars	-29000-02-19 03:21 J	-8870777.63	-8870777.36	-8870777.07	0.0088	0.0039		
Mercury	-29000-04-29 08:38 J	-8870708.32	-8870708.14	-8870707.95	0.0088	0.0003		
Mercury	-29000-07-26 11:45 J	-8870620.19	-8870620.01	-8870619.83	0.0088	0.0007		
Mercury	-29000-10-22 14:52 J	-8870532.06	-8870531.88	-8870531.70	0.0088	0.0016		
Mercury	-28999-01-18 17:45 J	-8870443.93	-8870443.76	-8870443.58	0.0088	0.0025		
Mercury	-28999-04-16 20:52 J	-8870355.80	-8870355.63	-8870355.46	0.0088	0.0033		
Mercury	-28999-07-13 23:45 J	-8870267.66	-8870267.51	-8870267.34	0.0088	0.0042		
Mercury	-28999-10-10 02:38 J	-8870179.52	-8870179.39	-8870179.23	0.0088	0.0051		
Mercury	-28998-01-06 05:45 J	-8870091.38	-8870091.26	-8870091.12	0.0088	0.0060		
Mars	-28998-01-14 19:55 J	-8870082.98	-8870082.67	-8870082.36	0.0088	0.0017		
Mercury	-28998-04-04 08:38 J	-8870003.24	-8870003.14	-8870003.01	0.0088	0.0068		
Mercury	-28998-07-01 11:31 J	-8869915.09	-8869915.02	-8869914.92	0.0088	0.0077		
Mercury	-28998-09-27 14:38 J	-8869826.92	-8869826.89	-8869826.84	0.0088	0.0086		
Mars	-28997-12-09 15:21 J	-8869388.03	-8869387.86	-8869387.68	0.0088	0.0073		
Venus	-28981-01-23 15:35 J	-8863864.90	-8863864.85	-8863864.77	0.0089	0.0085		
Venus	-28981-09-05 05:02 J	-8863639.36	-8863639.29	-8863639.17	0.0089	0.0081		
Venus	-28980-04-18 19:11 J	-8863413.81	-8863413.70	-8863413.58	0.0089	0.0076		
Venus	-28980-11-30 08:38 J	-8863188.25	-8863188.14	-8863187.99	0.0089	0.0072		
Venus	-28979-07-13 22:19 J	-8862962.70	-8862962.57	-8862962.41	0.0089	0.0067		
Venus	-28978-02-24 11:45 J	-8862737.14	-8862737.01	-8862736.83	0.0089	0.0063		
Venus	-28978-10-08 01:40 J	-8862511.58	-8862511.43	-8862511.24	0.0089	0.0058		
Venus	-28977-05-20 15:35 J	-8862286.02	-8862285.85	-8862285.66	0.0089	0.0053		
Venus	-28976-01-01 05:02 J	-8862060.46	-8862060.29	-8862060.08	0.0089	0.0049		
Venus	-28976-08-14 18:43 J	-8861834.90	-8861834.72	-8861834.51	0.0089	0.0044		

Venus	-28975-03-28 08:38 J	-8861609.33	-8861609.14	-8861608.93	0.0089	0.0039
Venus	-28975-11-08 22:33 J	-8861383.77	-8861383.56	-8861383.35	0.0089	0.0034
Venus	-28974-06-22 11:45 J	-8861158.20	-8861158.01	-8861157.78	0.0089	0.0030
Venus	-28973-02-03 01:26 J	-8860932.64	-8860932.44	-8860932.21	0.0089	0.0025
Venus	-28973-09-15 15:07 J	-8860707.08	-8860706.87	-8860706.64	0.0089	0.0020
Venus	-28972-04-29 04:47 J	-8860481.52	-8860481.30	-8860481.08	0.0089	0.0015
Venus	-28972-12-10 18:28 J	-8860255.95	-8860255.73	-8860255.51	0.0089	0.0010
Venus	-28971-07-24 07:55 J	-8860030.39	-8860030.17	-8860029.95	0.0089	0.0005
Venus	-28970-03-06 21:21 J	-8859804.83	-8859804.61	-8859804.39	0.0089	0.0001
Venus	-28970-10-18 10:47 J	-8859579.27	-8859579.05	-8859578.82	0.0089	0.0005
Venus	-28969-05-31 00:14 J	-8859353.71	-8859353.49	-8859353.26	0.0089	0.0009
Venus	-28968-01-11 13:40 J	-8859128.15	-8859127.93	-8859127.71	0.0089	0.0014
Venus	-28968-08-25 02:52 J	-8858902.59	-8858902.38	-8858902.15	0.0089	0.0019
Venus	-28967-04-07 16:33 J	-8858677.02	-8858676.81	-8858676.60	0.0089	0.0023
Venus	-28967-11-19 05:59 J	-8858451.46	-8858451.25	-8858451.04	0.0089	0.0028
Venus	-28966-07-02 19:11 J	-8858225.89	-8858225.70	-8858225.48	0.0089	0.0033
Venus	-28965-02-13 08:52 J	-8858000.33	-8858000.13	-8857999.93	0.0089	0.0037
Venus	-28965-09-25 22:04 J	-8857774.77	-8857774.58	-8857774.38	0.0089	0.0042
Venus	-28964-05-09 11:16 J	-8857549.21	-8857549.03	-8857548.83	0.0089	0.0047
Venus	-28964-12-21 00:57 J	-8857323.64	-8857323.46	-8857323.28	0.0089	0.0051
Venus	-28963-08-03 13:55 J	-8857098.07	-8857097.92	-8857097.73	0.0089	0.0056
Venus	-28962-03-17 03:35 J	-8856872.51	-8856872.35	-8856872.19	0.0089	0.0060
Venus	-28962-10-28 16:33 J	-8856646.94	-8856646.81	-8856646.64	0.0089	0.0065
Venus	-28961-06-10 06:14 J	-8856421.37	-8856421.24	-8856421.10	0.0089	0.0069
Venus	-28960-01-21 18:57 J	-8856195.81	-8856195.71	-8856195.56	0.0089	0.0074
Venus	-28960-09-04 08:23 J	-8855970.24	-8855970.15	-8855970.03	0.0089	0.0078
Venus	-28959-04-17 21:50 J	-8855744.67	-8855744.59	-8855744.51	0.0089	0.0082
Venus	-28959-11-29 10:33 J	-8855519.08	-8855519.06	-8855518.99	0.0089	0.0087
Earth	-28934-04-06 07:55 J	-8846625.28	-8846625.17	-8846625.00	0.0089	0.0075
Moon	-28934-04-06 08:52 J	-8846625.25	-8846625.13	-8846624.94	0.0089	0.0072 *

Earth	-28933-04-07 18:57 J	-8846257.93	-8846257.71	-8846257.46	0.0089	0.0031
Moon	-28933-04-07 19:40 J	-8846257.90	-8846257.68	-8846257.44	0.0089	0.0034 *
Moon	-28932-04-10 04:04 J	-8845890.58	-8845890.33	-8845890.07	0.0089	0.0015
Earth	-28932-04-10 05:59 J	-8845890.50	-8845890.25	-8845890.00	0.0089	0.0012 *
Earth	-28931-04-12 16:19 J	-8845523.01	-8845522.82	-8845522.61	0.0089	0.0056
Moon	-28931-04-12 18:43 J	-8845522.91	-8845522.72	-8845522.51	0.0089	0.0053 *
Mercury	-28921-03-05 13:26 J	-8841907.95	-8841907.94	-8841907.92	0.0089	0.0088
Mercury	-28921-06-01 14:52 J	-8841819.93	-8841819.88	-8841819.83	0.0089	0.0082
Mercury	-28921-08-28 16:04 J	-8841731.89	-8841731.83	-8841731.74	0.0089	0.0075
Mercury	-28921-11-24 17:45 J	-8841643.84	-8841643.76	-8841643.67	0.0089	0.0068
Mercury	-28920-02-20 19:11 J	-8841555.79	-8841555.70	-8841555.60	0.0089	0.0061
Mercury	-28920-05-19 20:38 J	-8841467.74	-8841467.64	-8841467.53	0.0089	0.0055
Mercury	-28920-08-15 22:19 J	-8841379.69	-8841379.57	-8841379.46	0.0089	0.0048
Mercury	-28920-11-11 23:31 J	-8841291.63	-8841291.52	-8841291.39	0.0089	0.0041
Mercury	-28919-02-08 01:11 J	-8841203.57	-8841203.45	-8841203.32	0.0089	0.0034
Mercury	-28919-05-07 02:38 J	-8841115.52	-8841115.39	-8841115.25	0.0089	0.0027
Mercury	-28919-08-03 04:04 J	-8841027.46	-8841027.33	-8841027.19	0.0089	0.0021
Mercury	-28919-10-30 05:45 J	-8840939.40	-8840939.26	-8840939.12	0.0089	0.0013
Mars	-28918-01-17 00:14 J	-8840860.76	-8840860.49	-8840860.19	0.0089	0.0038
Mercury	-28918-01-26 07:11 J	-8840851.33	-8840851.20	-8840851.06	0.0089	0.0007
Mercury	-28918-04-24 08:52 J	-8840763.27	-8840763.13	-8840762.99	0.0089	0.0002
Mercury	-28918-07-21 10:19 J	-8840675.21	-8840675.07	-8840674.93	0.0089	0.0008
Mercury	-28918-10-17 11:45 J	-8840587.14	-8840587.01	-8840586.87	0.0089	0.0015
Mercury	-28917-01-13 13:11 J	-8840499.08	-8840498.95	-8840498.81	0.0089	0.0022
Mercury	-28917-04-10 14:38 J	-8840411.01	-8840410.89	-8840410.75	0.0089	0.0030
Mercury	-28917-07-07 16:19 J	-8840322.94	-8840322.82	-8840322.69	0.0089	0.0036
Mercury	-28917-10-03 17:45 J	-8840234.87	-8840234.76	-8840234.63	0.0089	0.0043
Mars	-28917-12-12 00:43 J	-8840165.77	-8840165.47	-8840165.16	0.0089	0.0020
Mercury	-28917-12-30 19:26 J	-8840146.80	-8840146.69	-8840146.57	0.0089	0.0050
Mercury	-28916-03-28 20:52 J	-8840058.73	-8840058.63	-8840058.51	0.0089	0.0057

Mercury	-28916-06-24 22:33 J	-8839970.65	-8839970.56	-8839970.46	0.0089	0.0064
Mercury	-28916-09-20 23:59 J	-8839882.57	-8839882.50	-8839882.41	0.0089	0.0072
Mercury	-28916-12-18 01:40 J	-8839794.49	-8839794.43	-8839794.36	0.0089	0.0079
Mercury	-28915-03-16 03:21 J	-8839706.39	-8839706.36	-8839706.32	0.0089	0.0086
Mars	-28915-11-06 21:50 J	-8839470.71	-8839470.59	-8839470.39	0.0089	0.0078
Venus	-28901-12-13 12:14 J	-8834320.03	-8834319.99	-8834319.91	0.0089	0.0085
Venus	-28900-07-27 00:43 J	-8834094.54	-8834094.47	-8834094.37	0.0089	0.0081
Venus	-28899-03-09 12:57 J	-8833869.05	-8833868.96	-8833868.83	0.0089	0.0077
Venus	-28899-10-21 01:55 J	-8833643.55	-8833643.42	-8833643.30	0.0089	0.0072
Venus	-28898-06-03 13:55 J	-8833418.04	-8833417.92	-8833417.77	0.0089	0.0068
Venus	-28897-01-15 02:09 J	-8833192.54	-8833192.41	-8833192.24	0.0089	0.0064
Venus	-28897-08-27 14:23 J	-8832967.04	-8832966.90	-8832966.72	0.0089	0.0060
Venus	-28896-04-10 03:21 J	-8832741.52	-8832741.36	-8832741.18	0.0089	0.0055
Venus	-28896-11-21 15:35 J	-8832516.01	-8832515.85	-8832515.66	0.0089	0.0051
Venus	-28895-07-05 04:19 J	-8832290.51	-8832290.32	-8832290.14	0.0089	0.0046
Venus	-28894-02-15 16:19 J	-8832065.00	-8832064.82	-8832064.62	0.0089	0.0042
Venus	-28894-09-29 04:33 J	-8831839.49	-8831839.31	-8831839.10	0.0089	0.0038
Venus	-28893-05-11 17:16 J	-8831613.97	-8831613.78	-8831613.57	0.0089	0.0033
Venus	-28893-12-23 05:31 J	-8831388.46	-8831388.27	-8831388.05	0.0089	0.0029
Venus	-28892-08-05 18:14 J	-8831162.94	-8831162.74	-8831162.53	0.0089	0.0024
Venus	-28891-03-19 06:43 J	-8830937.43	-8830937.22	-8830937.00	0.0089	0.0019
Venus	-28891-10-30 19:11 J	-8830711.91	-8830711.70	-8830711.48	0.0089	0.0015
Venus	-28890-06-13 07:40 J	-8830486.39	-8830486.18	-8830485.96	0.0089	0.0010
Venus	-28889-01-24 20:09 J	-8830260.87	-8830260.66	-8830260.44	0.0089	0.0005
Venus	-28889-09-06 08:38 J	-8830035.35	-8830035.14	-8830034.92	0.0089	0.0002
Venus	-28888-04-19 21:21 J	-8829809.82	-8829809.61	-8829809.39	0.0089	0.0004
Venus	-28888-12-01 10:04 J	-8829584.30	-8829584.08	-8829583.86	0.0089	0.0008
Venus	-28887-07-14 22:33 J	-8829358.77	-8829358.56	-8829358.34	0.0089	0.0013
Venus	-28886-02-25 11:02 J	-8829133.25	-8829133.04	-8829132.82	0.0089	0.0018
Venus	-28886-10-08 23:31 J	-8828907.72	-8828907.52	-8828907.30	0.0089	0.0023

Venus	-28885-05-21 12:28 J	-8828682.18	-8828681.98	-8828681.77	0.0088	0.0027
Venus	-28884-01-02 00:57 J	-8828456.65	-8828456.46	-8828456.24	0.0088	0.0032
Venus	-28884-08-15 13:40 J	-8828231.12	-8828230.93	-8828230.72	0.0088	0.0036
Venus	-28883-03-29 02:09 J	-8828005.59	-8828005.41	-8828005.20	0.0088	0.0041
Venus	-28883-11-09 15:07 J	-8827780.06	-8827779.87	-8827779.68	0.0088	0.0045
Venus	-28882-06-23 03:35 J	-8827554.52	-8827554.35	-8827554.16	0.0088	0.0049
Venus	-28881-02-03 16:19 J	-8827328.99	-8827328.82	-8827328.64	0.0088	0.0054
Venus	-28881-09-16 04:47 J	-8827103.45	-8827103.30	-8827103.12	0.0088	0.0059
Venus	-28880-04-29 17:45 J	-8826877.90	-8826877.76	-8826877.60	0.0088	0.0063
Venus	-28880-12-11 06:43 J	-8826652.36	-8826652.22	-8826652.08	0.0088	0.0067
Venus	-28879-07-24 18:57 J	-8826426.82	-8826426.71	-8826426.56	0.0088	0.0072
Venus	-28878-03-07 07:40 J	-8826201.27	-8826201.18	-8826201.05	0.0088	0.0076
Venus	-28878-10-18 20:38 J	-8825975.72	-8825975.64	-8825975.54	0.0088	0.0080
Venus	-28877-05-31 09:07 J	-8825750.16	-8825750.12	-8825750.02	0.0088	0.0085
Venus	-28876-01-11 22:19 J	-8825524.57	-8825524.57	-8825524.54	0.0088	0.0088
Earth	-28852-10-07 06:57 J	-8816490.37	-8816490.21	-8816490.00	0.0088	0.0063
Moon	-28852-10-07 06:57 J	-8816490.36	-8816490.21	-8816490.01	0.0088	0.0063 *
Moon	-28851-10-09 18:57 J	-8816122.96	-8816122.71	-8816122.43	0.0088	0.0021
Earth	-28851-10-09 19:55 J	-8816122.91	-8816122.67	-8816122.40	0.0088	0.0020 *
Earth	-28850-10-12 08:09 J	-8815755.40	-8815755.16	-8815754.89	0.0088	0.0024
Moon	-28850-10-12 10:47 J	-8815755.29	-8815755.05	-8815754.80	0.0088	0.0023 *
Moon	-28849-10-13 17:59 J	-8815387.92	-8815387.75	-8815387.57	0.0088	0.0066
Earth	-28849-10-13 20:38 J	-8815387.79	-8815387.64	-8815387.45	0.0088	0.0066 *
Jupiter	-28848-08-15 01:40 J	-8815082.85	-8815082.43	-8815081.93	0.0088	0.0051
Mercury	-28838-08-26 23:59 J	-8811418.51	-8811418.50	-8811418.47	0.0088	0.0088
Mercury	-28838-11-23 03:07 J	-8811330.44	-8811330.37	-8811330.27	0.0088	0.0079
Mercury	-28837-02-19 06:28 J	-8811242.33	-8811242.23	-8811242.11	0.0088	0.0069
Mercury	-28837-05-17 09:35 J	-8811154.22	-8811154.10	-8811153.95	0.0088	0.0060
Mercury	-28837-08-13 12:43 J	-8811066.11	-8811065.97	-8811065.81	0.0088	0.0051
Mars	-28837-10-04 00:28 J	-8811014.67	-8811014.48	-8811014.24	0.0088	0.0064

Mercury	-28837-11-09 15:50 J	-8810977.99	-8810977.84	-8810977.66	0.0088	0.0042
Mercury	-28836-02-05 19:11 J	-8810889.87	-8810889.70	-8810889.52	0.0088	0.0033
Mercury	-28836-05-04 22:19 J	-8810801.74	-8810801.57	-8810801.39	0.0088	0.0024
Mercury	-28836-08-01 01:26 J	-8810713.62	-8810713.44	-8810713.25	0.0088	0.0015
Mercury	-28836-10-28 04:33 J	-8810625.49	-8810625.31	-8810625.12	0.0088	0.0006
Mercury	-28835-01-24 07:40 J	-8810537.36	-8810537.18	-8810536.99	0.0088	0.0003
Mercury	-28835-04-22 10:47 J	-8810449.23	-8810449.05	-8810448.87	0.0088	0.0012
Mercury	-28835-07-19 13:40 J	-8810361.10	-8810360.93	-8810360.74	0.0088	0.0021
Mars	-28835-08-29 16:19 J	-8810320.13	-8810319.82	-8810319.51	0.0088	0.0009
Mercury	-28835-10-15 16:33 J	-8810272.97	-8810272.81	-8810272.62	0.0088	0.0031
Mercury	-28834-01-11 19:55 J	-8810184.83	-8810184.67	-8810184.50	0.0088	0.0038
Mercury	-28834-04-09 22:47 J	-8810096.69	-8810096.55	-8810096.39	0.0088	0.0047
Mercury	-28834-07-07 01:40 J	-8810008.55	-8810008.43	-8810008.28	0.0088	0.0056
Mercury	-28834-10-03 04:33 J	-8809920.41	-8809920.31	-8809920.17	0.0088	0.0065
Mercury	-28834-12-30 07:55 J	-8809832.26	-8809832.17	-8809832.07	0.0088	0.0073
Mercury	-28833-03-27 10:33 J	-8809744.10	-8809744.06	-8809743.98	0.0088	0.0083
Mars	-28833-07-24 08:52 J	-8809625.38	-8809625.13	-8809624.85	0.0088	0.0047
Venus	-28818-09-13 13:11 J	-8804095.95	-8804095.95	-8804095.94	0.0088	0.0088
Venus	-28817-04-26 02:23 J	-8803870.44	-8803870.40	-8803870.31	0.0088	0.0085
Venus	-28817-12-07 16:33 J	-8803644.90	-8803644.81	-8803644.71	0.0089	0.0080
Venus	-28816-07-21 05:59 J	-8803419.35	-8803419.25	-8803419.12	0.0089	0.0076
Venus	-28815-03-03 19:26 J	-8803193.80	-8803193.69	-8803193.54	0.0089	0.0072
Venus	-28815-10-15 09:35 J	-8802968.24	-8802968.10	-8802967.95	0.0089	0.0067
Venus	-28814-05-28 23:02 J	-8802742.68	-8802742.54	-8802742.37	0.0089	0.0063
Venus	-28813-01-09 12:57 J	-8802517.13	-8802516.96	-8802516.79	0.0089	0.0058
Venus	-28813-08-22 02:09 J	-8802291.57	-8802291.41	-8802291.21	0.0089	0.0054
Venus	-28812-04-04 16:04 J	-8802066.01	-8802065.83	-8802065.64	0.0089	0.0049
Venus	-28812-11-16 05:45 J	-8801840.44	-8801840.26	-8801840.05	0.0089	0.0045
Venus	-28811-06-29 19:26 J	-8801614.88	-8801614.69	-8801614.48	0.0089	0.0040
Venus	-28810-02-10 08:52 J	-8801389.32	-8801389.13	-8801388.91	0.0089	0.0036

Venus	-28810-09-23 22:47 J	-8801163.75	-8801163.55	-8801163.33	0.0089	0.0031
Venus	-28809-05-06 12:28 J	-8800938.19	-8800937.98	-8800937.76	0.0089	0.0026
Venus	-28809-12-18 01:55 J	-8800712.62	-8800712.42	-8800712.19	0.0089	0.0022
Venus	-28808-07-31 15:35 J	-8800487.06	-8800486.85	-8800486.62	0.0089	0.0017
Venus	-28807-03-14 05:16 J	-8800261.50	-8800261.28	-8800261.06	0.0089	0.0012
Venus	-28807-10-25 18:57 J	-8800035.93	-8800035.71	-8800035.49	0.0089	0.0007
Venus	-28806-06-08 08:23 J	-8799810.37	-8799810.15	-8799809.92	0.0089	0.0003
Venus	-28805-01-19 21:50 J	-8799584.81	-8799584.59	-8799584.36	0.0089	0.0002
Venus	-28805-09-01 11:16 J	-8799359.25	-8799359.03	-8799358.81	0.0089	0.0007
Venus	-28804-04-15 00:43 J	-8799133.69	-8799133.47	-8799133.25	0.0089	0.0011
Venus	-28804-11-26 14:09 J	-8798908.12	-8798907.91	-8798907.69	0.0089	0.0016
Venus	-28803-07-10 03:21 J	-8798682.56	-8798682.36	-8798682.13	0.0089	0.0021
Venus	-28802-02-20 17:02 J	-8798457.00	-8798456.79	-8798456.58	0.0089	0.0025
Venus	-28802-10-04 06:14 J	-8798231.44	-8798231.24	-8798231.02	0.0089	0.0030
Venus	-28801-05-16 19:26 J	-8798005.88	-8798005.69	-8798005.47	0.0089	0.0035
Venus	-28801-12-28 08:52 J	-8797780.31	-8797780.13	-8797779.92	0.0089	0.0039
Venus	-28800-08-10 22:04 J	-8797554.75	-8797554.58	-8797554.37	0.0089	0.0044
Venus	-28799-03-24 11:31 J	-8797329.19	-8797329.02	-8797328.82	0.0089	0.0048
Venus	-28799-11-05 00:43 J	-8797103.63	-8797103.47	-8797103.27	0.0089	0.0053
Venus	-28798-06-18 14:09 J	-8796878.06	-8796877.91	-8796877.72	0.0089	0.0057
Venus	-28797-01-30 03:35 J	-8796652.50	-8796652.35	-8796652.18	0.0089	0.0061
Venus	-28797-09-11 16:33 J	-8796426.93	-8796426.81	-8796426.64	0.0089	0.0066
Venus	-28796-04-25 05:59 J	-8796201.36	-8796201.25	-8796201.10	0.0089	0.0070
Venus	-28796-12-06 19:40 J	-8795975.79	-8795975.68	-8795975.55	0.0089	0.0074
Venus	-28795-07-20 09:07 J	-8795750.22	-8795750.12	-8795750.02	0.0089	0.0078
Venus	-28794-03-02 21:35 J	-8795524.65	-8795524.60	-8795524.49	0.0089	0.0083
Venus	-28794-10-14 10:47 J	-8795299.07	-8795299.05	-8795298.98	0.0089	0.0087
Moon	-28769-04-07 03:50 J	-8786357.52	-8786357.34	-8786357.11	0.0089	0.0057
Earth	-28769-04-07 05:59 J	-8786357.43	-8786357.25	-8786357.02	0.0089	0.0053 *
Earth	-28768-04-09 16:47 J	-8785990.04	-8785989.80	-8785989.54	0.0089	0.0009

Moon	-28768-04-09 19:55 J	-8785989.92	-8785989.67	-8785989.42	0.0089	0.0005 *
Moon	-28767-04-11 23:59 J	-8785622.72	-8785622.50	-8785622.24	0.0089	0.0032
Earth	-28767-04-12 03:35 J	-8785622.58	-8785622.35	-8785622.11	0.0089	0.0035 *
Earth	-28766-04-14 14:23 J	-8785255.02	-8785254.90	-8785254.78	0.0089	0.0078
Moon	-28766-04-14 17:45 J	-8785254.84	-8785254.76	-8785254.64	0.0089	0.0082 *
Mercury	-28757-11-30 13:11 J	-8781736.99	-8781736.95	-8781736.91	0.0089	0.0085
Mercury	-28756-02-26 14:23 J	-8781648.95	-8781648.90	-8781648.82	0.0089	0.0078
Mercury	-28756-05-25 15:50 J	-8781560.91	-8781560.84	-8781560.75	0.0089	0.0072
Mercury	-28756-08-21 17:31 J	-8781472.86	-8781472.77	-8781472.67	0.0089	0.0064
Mercury	-28756-11-17 18:57 J	-8781384.81	-8781384.71	-8781384.60	0.0089	0.0058
Mercury	-28755-02-13 20:38 J	-8781296.75	-8781296.64	-8781296.53	0.0089	0.0051
Mercury	-28755-05-12 21:50 J	-8781208.70	-8781208.59	-8781208.46	0.0089	0.0044
Mercury	-28755-08-08 23:16 J	-8781120.64	-8781120.53	-8781120.39	0.0089	0.0037
Mars	-28755-08-31 12:28 J	-8781098.17	-8781097.98	-8781097.74	0.0089	0.0066
Mercury	-28755-11-05 00:57 J	-8781032.59	-8781032.46	-8781032.33	0.0089	0.0030
Mercury	-28754-02-01 02:23 J	-8780944.53	-8780944.40	-8780944.26	0.0089	0.0023
Mercury	-28754-04-30 04:04 J	-8780856.47	-8780856.33	-8780856.20	0.0089	0.0016
Mercury	-28754-07-27 05:31 J	-8780768.41	-8780768.27	-8780768.13	0.0089	0.0009
Mercury	-28754-10-23 06:57 J	-8780680.35	-8780680.21	-8780680.07	0.0089	0.0003
Mercury	-28753-01-19 08:38 J	-8780592.28	-8780592.14	-8780592.01	0.0089	0.0005
Mercury	-28753-04-16 10:04 J	-8780504.22	-8780504.08	-8780503.94	0.0089	0.0012
Mercury	-28753-07-13 11:31 J	-8780416.15	-8780416.02	-8780415.88	0.0089	0.0019
Mars	-28753-07-26 14:23 J	-8780403.22	-8780402.90	-8780402.59	0.0089	0.0008
Mercury	-28753-10-09 12:57 J	-8780328.09	-8780327.96	-8780327.82	0.0089	0.0026
Mercury	-28752-01-05 14:23 J	-8780240.02	-8780239.90	-8780239.76	0.0089	0.0034
Mercury	-28752-04-03 16:04 J	-8780151.95	-8780151.83	-8780151.70	0.0089	0.0040
Mercury	-28752-06-30 17:31 J	-8780063.88	-8780063.77	-8780063.64	0.0089	0.0047
Mercury	-28752-09-26 19:11 J	-8779975.81	-8779975.70	-8779975.58	0.0089	0.0054
Mercury	-28752-12-23 20:38 J	-8779887.73	-8779887.64	-8779887.53	0.0089	0.0061
Mercury	-28751-03-21 22:19 J	-8779799.65	-8779799.57	-8779799.48	0.0089	0.0068

Mercury	-28751-06-17 23:45 J	-8779711.57	-8779711.51	-8779711.43	0.0089	0.0076
Mars	-28751-06-21 13:11 J	-8779708.18	-8779707.95	-8779707.67	0.0089	0.0051
Mercury	-28751-09-14 01:26 J	-8779623.48	-8779623.44	-8779623.38	0.0089	0.0083
Venus	-28737-08-03 11:59 J	-8774551.00	-8774551.00	-8774550.97	0.0089	0.0089
Venus	-28736-03-17 00:14 J	-8774325.53	-8774325.49	-8774325.41	0.0089	0.0085
Venus	-28736-10-28 12:28 J	-8774100.04	-8774099.98	-8774099.87	0.0089	0.0081
Venus	-28735-06-11 00:43 J	-8773874.55	-8773874.47	-8773874.34	0.0089	0.0077
Venus	-28734-01-22 12:57 J	-8773649.06	-8773648.96	-8773648.81	0.0089	0.0073
Venus	-28734-09-05 01:55 J	-8773423.55	-8773423.42	-8773423.28	0.0089	0.0068
Venus	-28733-04-17 14:23 J	-8773198.04	-8773197.90	-8773197.75	0.0089	0.0064
Venus	-28733-11-29 02:38 J	-8772972.54	-8772972.39	-8772972.22	0.0089	0.0060
Venus	-28732-07-12 14:52 J	-8772747.03	-8772746.88	-8772746.70	0.0089	0.0056
Venus	-28731-02-23 03:35 J	-8772521.52	-8772521.35	-8772521.17	0.0089	0.0051
Venus	-28731-10-06 15:50 J	-8772296.02	-8772295.84	-8772295.65	0.0089	0.0047
Venus	-28730-05-20 04:04 J	-8772070.50	-8772070.33	-8772070.12	0.0089	0.0043
Venus	-28730-12-31 16:33 J	-8771844.99	-8771844.81	-8771844.60	0.0089	0.0039
Venus	-28729-08-13 05:02 J	-8771619.48	-8771619.29	-8771619.08	0.0089	0.0034
Venus	-28728-03-26 17:31 J	-8771393.96	-8771393.77	-8771393.56	0.0089	0.0030
Venus	-28728-11-07 05:59 J	-8771168.45	-8771168.25	-8771168.04	0.0089	0.0025
Venus	-28727-06-20 18:28 J	-8770942.94	-8770942.73	-8770942.52	0.0089	0.0021
Venus	-28726-02-01 06:43 J	-8770717.42	-8770717.22	-8770717.00	0.0089	0.0017
Venus	-28726-09-14 19:26 J	-8770491.91	-8770491.69	-8770491.48	0.0089	0.0012
Venus	-28725-04-27 07:55 J	-8770266.38	-8770266.17	-8770265.95	0.0089	0.0007
Venus	-28725-12-08 20:23 J	-8770040.86	-8770040.65	-8770040.43	0.0089	0.0003
Venus	-28724-07-22 08:52 J	-8769815.34	-8769815.13	-8769814.91	0.0089	0.0002
Venus	-28723-03-04 21:21 J	-8769589.82	-8769589.61	-8769589.39	0.0089	0.0006
Venus	-28723-10-16 09:50 J	-8769364.30	-8769364.09	-8769363.87	0.0089	0.0011
Venus	-28722-05-29 22:33 J	-8769138.77	-8769138.56	-8769138.34	0.0089	0.0015
Venus	-28721-01-10 11:16 J	-8768913.24	-8768913.03	-8768912.82	0.0089	0.0020
Venus	-28721-08-22 23:31 J	-8768687.71	-8768687.52	-8768687.29	0.0088	0.0025

Venus	-28720-04-05 12:28 J	-8768462.18	-8768461.98	-8768461.77	0.0088	0.0029
Venus	-28720-11-17 01:11 J	-8768236.65	-8768236.45	-8768236.24	0.0088	0.0033
Venus	-28719-06-30 13:40 J	-8768011.12	-8768010.93	-8768010.72	0.0088	0.0038
Venus	-28718-02-11 02:23 J	-8767785.58	-8767785.40	-8767785.20	0.0088	0.0042
Venus	-28718-09-24 14:52 J	-8767560.05	-8767559.88	-8767559.68	0.0088	0.0046
Venus	-28717-05-07 03:50 J	-8767334.51	-8767334.34	-8767334.15	0.0088	0.0051
Venus	-28717-12-18 16:33 J	-8767108.97	-8767108.81	-8767108.63	0.0088	0.0055
Venus	-28716-08-01 05:02 J	-8766883.43	-8766883.29	-8766883.11	0.0088	0.0059
Venus	-28715-03-14 17:45 J	-8766657.90	-8766657.76	-8766657.59	0.0088	0.0064
Venus	-28715-10-26 06:28 J	-8766432.35	-8766432.23	-8766432.07	0.0088	0.0068
Venus	-28714-06-08 19:26 J	-8766206.80	-8766206.69	-8766206.55	0.0088	0.0072
Venus	-28713-01-20 08:23 J	-8765981.25	-8765981.15	-8765981.03	0.0088	0.0076
Venus	-28713-09-01 21:21 J	-8765755.70	-8765755.61	-8765755.52	0.0088	0.0080
Venus	-28712-04-15 09:21 J	-8765530.14	-8765530.11	-8765530.01	0.0088	0.0085
Venus	-28712-11-26 22:33 J	-8765304.56	-8765304.56	-8765304.53	0.0088	0.0088
Moon	-28688-10-06 13:55 J	-8756590.00	-8756589.92	-8756589.77	0.0088	0.0081
Earth	-28688-10-06 16:04 J	-8756589.88	-8756589.83	-8756589.73	0.0088	0.0084 *
Earth	-28687-10-09 04:47 J	-8756222.52	-8756222.30	-8756222.06	0.0088	0.0041
Moon	-28687-10-09 06:43 J	-8756222.42	-8756222.22	-8756221.98	0.0088	0.0046 *
Moon	-28686-10-11 14:09 J	-8755855.18	-8755854.91	-8755854.65	0.0088	0.0006
Earth	-28686-10-11 17:31 J	-8755855.03	-8755854.77	-8755854.51	0.0088	0.0002 *
Earth	-28685-10-13 05:31 J	-8755487.47	-8755487.27	-8755487.02	0.0088	0.0045
Moon	-28685-10-13 09:21 J	-8755487.33	-8755487.11	-8755486.87	0.0088	0.0040 *
Earth	-28684-10-15 18:14 J	-8755119.75	-8755119.74	-8755119.69	0.0088	0.0087
Mercury	-28673-05-22 23:02 J	-8751247.59	-8751247.54	-8751247.47	0.0088	0.0083
Mercury	-28673-08-19 02:09 J	-8751159.50	-8751159.41	-8751159.29	0.0088	0.0074
Mercury	-28673-11-15 05:16 J	-8751071.39	-8751071.28	-8751071.14	0.0088	0.0065
Mercury	-28672-02-11 08:38 J	-8750983.28	-8750983.14	-8750982.99	0.0088	0.0055
Mercury	-28672-05-10 11:45 J	-8750895.16	-8750895.01	-8750894.84	0.0088	0.0046
Mercury	-28672-08-06 14:52 J	-8750807.04	-8750806.88	-8750806.70	0.0088	0.0037

Mercury	-28672-11-02 17:59 J	-8750718.91	-8750718.75	-8750718.56	0.0088	0.0028
Mercury	-28671-01-29 21:21 J	-8750630.79	-8750630.61	-8750630.43	0.0088	0.0019
Mars	-28671-04-13 11:59 J	-8750557.27	-8750557.00	-8750556.70	0.0088	0.0036
Mercury	-28671-04-28 00:28 J	-8750542.66	-8750542.48	-8750542.29	0.0088	0.0010
Mercury	-28671-07-25 03:35 J	-8750454.53	-8750454.35	-8750454.16	0.0088	0.0001
Mercury	-28671-10-21 06:43 J	-8750366.40	-8750366.22	-8750366.04	0.0088	0.0008
Mercury	-28670-01-17 09:35 J	-8750278.27	-8750278.10	-8750277.91	0.0088	0.0017
Mercury	-28670-04-15 12:43 J	-8750190.14	-8750189.97	-8750189.79	0.0088	0.0026
Mercury	-28670-07-12 15:35 J	-8750102.00	-8750101.85	-8750101.67	0.0088	0.0035
Mercury	-28670-10-08 18:57 J	-8750013.87	-8750013.71	-8750013.55	0.0088	0.0043
Mercury	-28669-01-04 21:50 J	-8749925.73	-8749925.59	-8749925.44	0.0088	0.0052
Mars	-28669-03-08 03:35 J	-8749862.64	-8749862.35	-8749862.03	0.0088	0.0021
Mercury	-28669-04-02 00:43 J	-8749837.59	-8749837.47	-8749837.33	0.0088	0.0061
Mercury	-28669-06-29 03:35 J	-8749749.44	-8749749.35	-8749749.22	0.0088	0.0070
Mercury	-28669-09-25 06:57 J	-8749661.29	-8749661.21	-8749661.13	0.0088	0.0078
Mercury	-28669-12-22 09:35 J	-8749573.10	-8749573.10	-8749573.06	0.0088	0.0088
Mars	-28667-01-31 21:07 J	-8749167.75	-8749167.62	-8749167.44	0.0088	0.0077
Venus	-28654-12-15 23:16 J	-8744101.55	-8744101.53	-8744101.50	0.0088	0.0088
Venus	-28653-07-28 12:43 J	-8743876.02	-8743875.97	-8743875.89	0.0088	0.0084
Venus	-28652-03-11 02:23 J	-8743650.48	-8743650.40	-8743650.29	0.0088	0.0080
Venus	-28652-10-22 16:04 J	-8743424.92	-8743424.83	-8743424.69	0.0089	0.0076
Venus	-28651-06-05 05:45 J	-8743199.37	-8743199.26	-8743199.11	0.0089	0.0072
Venus	-28650-01-16 19:55 J	-8742973.81	-8742973.67	-8742973.52	0.0089	0.0067
Venus	-28650-08-30 09:21 J	-8742748.26	-8742748.11	-8742747.94	0.0089	0.0063
Venus	-28649-04-11 22:47 J	-8742522.70	-8742522.55	-8742522.36	0.0089	0.0059
Venus	-28649-11-23 12:57 J	-8742297.13	-8742296.96	-8742296.78	0.0089	0.0054
Venus	-28648-07-07 02:23 J	-8742071.58	-8742071.40	-8742071.21	0.0089	0.0050
Venus	-28647-02-17 15:50 J	-8741846.02	-8741845.84	-8741845.63	0.0089	0.0046
Venus	-28647-10-01 05:45 J	-8741620.45	-8741620.26	-8741620.05	0.0089	0.0041
Venus	-28646-05-14 19:11 J	-8741394.89	-8741394.70	-8741394.48	0.0089	0.0037

Venus	-28646-12-26 09:07 J	-8741169.32	-8741169.12	-8741168.91	0.0089	0.0032
Venus	-28645-08-07 22:33 J	-8740943.76	-8740943.56	-8740943.34	0.0089	0.0028
Venus	-28644-03-21 12:14 J	-8740718.20	-8740717.99	-8740717.76	0.0089	0.0023
Venus	-28644-11-02 01:55 J	-8740492.63	-8740492.42	-8740492.19	0.0089	0.0019
Venus	-28643-06-15 15:50 J	-8740267.06	-8740266.84	-8740266.62	0.0089	0.0014
Venus	-28642-01-27 05:16 J	-8740041.50	-8740041.28	-8740041.05	0.0089	0.0009
Venus	-28642-09-09 18:57 J	-8739815.93	-8739815.71	-8739815.49	0.0089	0.0005
Venus	-28641-04-22 08:23 J	-8739590.37	-8739590.15	-8739589.92	0.0089	0.0002
Venus	-28641-12-03 22:04 J	-8739364.80	-8739364.58	-8739364.35	0.0089	0.0005
Venus	-28640-07-17 11:31 J	-8739139.24	-8739139.02	-8739138.79	0.0089	0.0009
Venus	-28639-02-28 00:57 J	-8738913.68	-8738913.46	-8738913.24	0.0089	0.0014
Venus	-28639-10-11 14:23 J	-8738688.11	-8738687.90	-8738687.68	0.0089	0.0018
Venus	-28638-05-25 03:35 J	-8738462.55	-8738462.35	-8738462.12	0.0089	0.0023
Venus	-28637-01-05 17:16 J	-8738236.99	-8738236.78	-8738236.57	0.0089	0.0027
Venus	-28637-08-18 06:14 J	-8738011.43	-8738011.24	-8738011.01	0.0089	0.0032
Venus	-28636-03-31 19:40 J	-8737785.87	-8737785.68	-8737785.46	0.0089	0.0036
Venus	-28636-11-12 09:21 J	-8737560.30	-8737560.11	-8737559.91	0.0089	0.0040
Venus	-28635-06-25 22:19 J	-8737334.74	-8737334.57	-8737334.36	0.0089	0.0045
Venus	-28634-02-06 11:45 J	-8737109.18	-8737109.01	-8737108.81	0.0089	0.0049
Venus	-28634-09-20 01:11 J	-8736883.62	-8736883.45	-8736883.27	0.0089	0.0053
Venus	-28633-05-02 14:09 J	-8736658.05	-8736657.91	-8736657.72	0.0089	0.0058
Venus	-28633-12-14 03:50 J	-8736432.49	-8736432.34	-8736432.17	0.0089	0.0062
Venus	-28632-07-27 17:02 J	-8736206.92	-8736206.79	-8736206.63	0.0089	0.0066
Venus	-28631-03-10 06:28 J	-8735981.36	-8735981.23	-8735981.09	0.0089	0.0070
Venus	-28631-10-21 19:11 J	-8735755.79	-8735755.70	-8735755.55	0.0089	0.0075
Venus	-28630-06-04 08:38 J	-8735530.22	-8735530.14	-8735530.02	0.0089	0.0079
Venus	-28629-01-15 21:50 J	-8735304.64	-8735304.59	-8735304.48	0.0089	0.0083
Venus	-28629-08-28 11:02 J	-8735079.06	-8735079.04	-8735078.97	0.0089	0.0087
Earth	-28605-04-06 16:19 J	-8726456.93	-8726456.82	-8726456.65	0.0089	0.0074
Moon	-28605-04-06 19:40 J	-8726456.81	-8726456.68	-8726456.52	0.0089	0.0072 *

Moon	-28604-04-08 23:59 J	-8726089.73	-8726089.50	-8726089.25	0.0089	0.0033
Earth	-28604-04-09 03:35 J	-8726089.58	-8726089.35	-8726089.10	0.0089	0.0031 *
Earth	-28603-04-11 14:23 J	-8725722.15	-8725721.90	-8725721.64	0.0089	0.0013
Moon	-28603-04-11 17:59 J	-8725722.00	-8725721.75	-8725721.50	0.0089	0.0016 *
Moon	-28602-04-13 21:50 J	-8725354.78	-8725354.59	-8725354.38	0.0089	0.0054
Earth	-28602-04-14 00:57 J	-8725354.64	-8725354.46	-8725354.25	0.0089	0.0057 *
Mercury	-28592-05-31 11:02 J	-8721654.04	-8721654.04	-8721654.00	0.0089	0.0089
Mercury	-28592-08-27 12:43 J	-8721566.01	-8721565.97	-8721565.91	0.0089	0.0081
Mercury	-28592-11-23 14:09 J	-8721477.97	-8721477.91	-8721477.83	0.0089	0.0075
Mercury	-28591-02-19 15:50 J	-8721389.93	-8721389.84	-8721389.75	0.0089	0.0068
Mercury	-28591-05-18 17:02 J	-8721301.88	-8721301.79	-8721301.68	0.0089	0.0061
Mercury	-28591-08-14 18:28 J	-8721213.83	-8721213.73	-8721213.61	0.0089	0.0054
Mercury	-28591-11-10 20:09 J	-8721125.77	-8721125.66	-8721125.54	0.0089	0.0047
Mercury	-28590-02-06 21:35 J	-8721037.72	-8721037.60	-8721037.47	0.0089	0.0040
Mercury	-28590-05-05 23:02 J	-8720949.66	-8720949.54	-8720949.41	0.0089	0.0034
Mercury	-28590-08-02 00:43 J	-8720861.60	-8720861.47	-8720861.34	0.0089	0.0026
Mercury	-28590-10-29 02:09 J	-8720773.54	-8720773.41	-8720773.27	0.0089	0.0019
Mercury	-28589-01-25 03:35 J	-8720685.48	-8720685.35	-8720685.21	0.0089	0.0013
Mars	-28589-03-10 01:40 J	-8720640.70	-8720640.43	-8720640.12	0.0089	0.0036
Mercury	-28589-04-22 05:16 J	-8720597.42	-8720597.28	-8720597.15	0.0089	0.0006
Mercury	-28589-07-19 06:43 J	-8720509.36	-8720509.22	-8720509.08	0.0089	0.0001
Mercury	-28589-10-15 08:09 J	-8720421.30	-8720421.16	-8720421.02	0.0089	0.0009
Mercury	-28588-01-11 09:35 J	-8720333.23	-8720333.10	-8720332.96	0.0089	0.0016
Mercury	-28588-04-09 11:16 J	-8720245.17	-8720245.03	-8720244.90	0.0089	0.0022
Mercury	-28588-07-06 12:43 J	-8720157.10	-8720156.97	-8720156.84	0.0089	0.0030
Mercury	-28588-10-02 14:23 J	-8720069.03	-8720068.90	-8720068.78	0.0089	0.0037
Mercury	-28588-12-29 15:50 J	-8719980.96	-8719980.84	-8719980.72	0.0089	0.0044
Mars	-28587-02-03 02:52 J	-8719945.67	-8719945.38	-8719945.06	0.0089	0.0023
Mercury	-28587-03-27 17:02 J	-8719892.89	-8719892.79	-8719892.66	0.0089	0.0051
Mercury	-28587-06-23 18:43 J	-8719804.82	-8719804.72	-8719804.61	0.0089	0.0058

Mercury	-28587-09-19 20:09 J	-8719716.74	-8719716.66	-8719716.55	0.0089	0.0065
Mercury	-28587-12-16 21:50 J	-8719628.66	-8719628.59	-8719628.50	0.0089	0.0072
Mercury	-28586-03-14 23:16 J	-8719540.58	-8719540.53	-8719540.45	0.0089	0.0080
Mercury	-28586-06-11 00:57 J	-8719452.48	-8719452.46	-8719452.42	0.0089	0.0086
Mars	-28586-12-30 01:26 J	-8719250.55	-8719250.44	-8719250.29	0.0089	0.0081
Venus	-28573-11-04 23:45 J	-8714556.52	-8714556.51	-8714556.46	0.0089	0.0088
Venus	-28572-06-18 11:59 J	-8714331.05	-8714331.00	-8714330.92	0.0089	0.0084
Venus	-28571-01-30 00:28 J	-8714105.56	-8714105.48	-8714105.38	0.0089	0.0080
Venus	-28571-09-12 12:43 J	-8713880.07	-8713879.97	-8713879.85	0.0089	0.0076
Venus	-28570-04-26 01:11 J	-8713654.57	-8713654.45	-8713654.32	0.0089	0.0072
Venus	-28570-12-07 13:40 J	-8713429.07	-8713428.93	-8713428.79	0.0089	0.0068
Venus	-28569-07-20 01:55 J	-8713203.56	-8713203.42	-8713203.27	0.0089	0.0064
Venus	-28568-03-02 14:09 J	-8712978.06	-8712977.91	-8712977.74	0.0089	0.0060
Venus	-28568-10-14 02:38 J	-8712752.55	-8712752.39	-8712752.22	0.0089	0.0056
Venus	-28567-05-27 14:52 J	-8712527.04	-8712526.88	-8712526.69	0.0089	0.0052
Venus	-28566-01-08 03:21 J	-8712301.53	-8712301.36	-8712301.17	0.0089	0.0048
Venus	-28566-08-21 15:35 J	-8712076.02	-8712075.85	-8712075.64	0.0089	0.0044
Venus	-28565-04-03 04:33 J	-8711850.50	-8711850.31	-8711850.12	0.0089	0.0039
Venus	-28565-11-14 16:47 J	-8711624.99	-8711624.80	-8711624.59	0.0089	0.0035
Venus	-28564-06-28 05:02 J	-8711399.48	-8711399.29	-8711399.07	0.0089	0.0031
Venus	-28563-02-08 17:31 J	-8711173.97	-8711173.77	-8711173.56	0.0089	0.0027
Venus	-28563-09-22 05:45 J	-8710948.46	-8710948.26	-8710948.03	0.0089	0.0023
Venus	-28562-05-05 18:43 J	-8710722.93	-8710722.72	-8710722.51	0.0089	0.0018
Venus	-28562-12-17 06:57 J	-8710497.42	-8710497.21	-8710496.99	0.0089	0.0014
Venus	-28561-07-29 19:26 J	-8710271.90	-8710271.69	-8710271.47	0.0089	0.0009
Venus	-28560-03-12 07:55 J	-8710046.39	-8710046.17	-8710045.95	0.0089	0.0005
Venus	-28560-10-23 20:23 J	-8709820.87	-8709820.65	-8709820.43	0.0089	0.0001
Venus	-28559-06-06 08:52 J	-8709595.34	-8709595.13	-8709594.91	0.0089	0.0004
Venus	-28558-01-17 21:21 J	-8709369.82	-8709369.61	-8709369.39	0.0089	0.0008
Venus	-28558-08-31 09:50 J	-8709144.30	-8709144.09	-8709143.87	0.0089	0.0013

Venus	-28557-04-12 22:33 J	-8708918.77	-8708918.56	-8708918.35	0.0089	0.0017
Venus	-28557-11-24 10:47 J	-8708693.25	-8708693.05	-8708692.82	0.0089	0.0022
Venus	-28556-07-07 23:31 J	-8708467.72	-8708467.52	-8708467.30	0.0089	0.0026
Venus	-28555-02-18 12:14 J	-8708242.19	-8708241.99	-8708241.78	0.0088	0.0030
Venus	-28555-10-02 00:28 J	-8708016.66	-8708016.48	-8708016.26	0.0088	0.0035
Venus	-28554-05-15 13:26 J	-8707791.12	-8707790.94	-8707790.73	0.0088	0.0039
Venus	-28554-12-27 02:09 J	-8707565.59	-8707565.41	-8707565.21	0.0088	0.0043
Venus	-28553-08-08 15:07 J	-8707340.06	-8707339.87	-8707339.69	0.0088	0.0047
Venus	-28552-03-22 03:21 J	-8707114.52	-8707114.36	-8707114.17	0.0088	0.0052
Venus	-28552-11-02 16:04 J	-8706888.98	-8706888.83	-8706888.64	0.0088	0.0056
Venus	-28551-06-16 05:02 J	-8706663.44	-8706663.29	-8706663.12	0.0088	0.0060
Venus	-28550-01-27 17:45 J	-8706437.90	-8706437.76	-8706437.60	0.0088	0.0064
Venus	-28550-09-10 06:28 J	-8706212.36	-8706212.23	-8706212.08	0.0088	0.0068
Venus	-28549-04-22 19:26 J	-8705986.81	-8705986.69	-8705986.56	0.0088	0.0072
Venus	-28549-12-04 08:09 J	-8705761.27	-8705761.16	-8705761.05	0.0088	0.0076
Venus	-28548-07-17 20:52 J	-8705535.72	-8705535.63	-8705535.53	0.0088	0.0080
Venus	-28547-02-28 09:35 J	-8705310.16	-8705310.10	-8705310.03	0.0088	0.0084
Venus	-28547-10-11 22:04 J	-8705084.59	-8705084.58	-8705084.54	0.0088	0.0088
Moon	-28523-10-08 10:04 J	-8696322.25	-8696322.08	-8696321.89	0.0088	0.0063
Earth	-28523-10-08 13:11 J	-8696322.11	-8696321.95	-8696321.75	0.0088	0.0063 *
Earth	-28522-10-11 01:40 J	-8695954.67	-8695954.43	-8695954.16	0.0088	0.0020
Moon	-28522-10-11 05:45 J	-8695954.51	-8695954.26	-8695954.00	0.0088	0.0020 *
Moon	-28521-10-12 11:02 J	-8695587.28	-8695587.04	-8695586.78	0.0088	0.0022
Earth	-28521-10-12 14:09 J	-8695587.15	-8695586.91	-8695586.64	0.0088	0.0023 *
Earth	-28520-10-15 02:23 J	-8695219.55	-8695219.40	-8695219.20	0.0088	0.0066
Moon	-28520-10-15 05:16 J	-8695219.44	-8695219.28	-8695219.08	0.0088	0.0065 *
Mercury	-28509-11-20 18:28 J	-8691164.74	-8691164.73	-8691164.70	0.0088	0.0087
Mercury	-28508-02-16 21:35 J	-8691076.67	-8691076.60	-8691076.50	0.0088	0.0078
Mercury	-28508-05-16 00:43 J	-8690988.57	-8690988.47	-8690988.34	0.0088	0.0069
Mercury	-28508-08-12 03:50 J	-8690900.46	-8690900.34	-8690900.19	0.0088	0.0061

Mercury	-28508-11-08 07:11 J	-8690812.34	-8690812.20	-8690812.04	0.0088	0.0051
Mars	-28508-11-26 08:23 J	-8690794.35	-8690794.15	-8690793.91	0.0088	0.0062
Mercury	-28507-02-04 10:19 J	-8690724.22	-8690724.07	-8690723.89	0.0088	0.0042
Mercury	-28507-05-03 13:26 J	-8690636.10	-8690635.94	-8690635.75	0.0088	0.0033
Mercury	-28507-07-30 16:33 J	-8690547.97	-8690547.81	-8690547.62	0.0088	0.0025
Mercury	-28507-10-26 19:55 J	-8690459.85	-8690459.67	-8690459.48	0.0088	0.0015
Mercury	-28506-01-22 23:02 J	-8690371.72	-8690371.54	-8690371.35	0.0088	0.0006
Mercury	-28506-04-21 02:09 J	-8690283.59	-8690283.41	-8690283.22	0.0088	0.0004
Mercury	-28506-07-18 05:16 J	-8690195.46	-8690195.28	-8690195.09	0.0088	0.0012
Mercury	-28506-10-14 08:23 J	-8690107.33	-8690107.15	-8690106.97	0.0088	0.0021
Mars	-28506-10-21 22:04 J	-8690099.88	-8690099.58	-8690099.26	0.0088	0.0007
Mercury	-28505-01-10 11:16 J	-8690019.19	-8690019.03	-8690018.85	0.0088	0.0030
Mercury	-28505-04-07 14:23 J	-8689931.06	-8689930.90	-8689930.73	0.0088	0.0039
Mercury	-28505-07-04 17:16 J	-8689842.92	-8689842.78	-8689842.61	0.0088	0.0048
Mercury	-28505-09-30 20:38 J	-8689754.78	-8689754.64	-8689754.50	0.0088	0.0057
Mercury	-28505-12-27 23:31 J	-8689666.63	-8689666.52	-8689666.39	0.0088	0.0065
Mercury	-28504-03-26 02:23 J	-8689578.48	-8689578.40	-8689578.29	0.0088	0.0074
Mercury	-28504-06-22 05:16 J	-8689490.32	-8689490.28	-8689490.20	0.0088	0.0083
Mars	-28504-09-15 13:40 J	-8689405.16	-8689404.93	-8689404.64	0.0088	0.0050
Venus	-28489-03-18 08:38 J	-8684107.15	-8684107.14	-8684107.09	0.0088	0.0088
Venus	-28489-10-29 22:33 J	-8683881.61	-8683881.56	-8683881.47	0.0088	0.0084
Venus	-28488-06-12 12:14 J	-8683656.07	-8683655.99	-8683655.87	0.0088	0.0080
Venus	-28487-01-24 01:55 J	-8683430.51	-8683430.42	-8683430.28	0.0088	0.0076
Venus	-28487-09-06 15:35 J	-8683204.95	-8683204.85	-8683204.69	0.0089	0.0072
Venus	-28486-04-20 05:16 J	-8682979.40	-8682979.28	-8682979.11	0.0089	0.0068
Venus	-28486-12-01 19:26 J	-8682753.84	-8682753.69	-8682753.52	0.0089	0.0063
Venus	-28485-07-14 09:07 J	-8682528.28	-8682528.12	-8682527.95	0.0089	0.0059
Venus	-28484-02-24 22:33 J	-8682302.72	-8682302.56	-8682302.37	0.0089	0.0055
Venus	-28484-10-08 12:14 J	-8682077.16	-8682076.99	-8682076.79	0.0089	0.0051
Venus	-28483-05-22 02:09 J	-8681851.59	-8681851.41	-8681851.21	0.0089	0.0046

Venus	-28482-01-02 15:35 J	-8681626.03	-8681625.85	-8681625.64	0.0089	0.0042
Venus	-28482-08-16 05:02 J	-8681400.48	-8681400.29	-8681400.07	0.0089	0.0038
Venus	-28481-03-28 18:57 J	-8681174.91	-8681174.71	-8681174.50	0.0089	0.0033
Venus	-28481-11-09 08:38 J	-8680949.34	-8680949.14	-8680948.92	0.0089	0.0029
Venus	-28480-06-22 22:04 J	-8680723.78	-8680723.58	-8680723.35	0.0089	0.0025
Venus	-28479-02-03 11:45 J	-8680498.22	-8680498.01	-8680497.79	0.0089	0.0020
Venus	-28479-09-17 01:26 J	-8680272.66	-8680272.44	-8680272.22	0.0089	0.0015
Venus	-28478-04-30 15:07 J	-8680047.09	-8680046.87	-8680046.65	0.0089	0.0011
Venus	-28478-12-12 04:47 J	-8679821.52	-8679821.30	-8679821.08	0.0089	0.0007
Venus	-28477-07-24 18:14 J	-8679595.96	-8679595.74	-8679595.51	0.0089	0.0003
Venus	-28476-03-07 07:55 J	-8679370.39	-8679370.17	-8679369.95	0.0089	0.0002
Venus	-28476-10-18 21:35 J	-8679144.82	-8679144.60	-8679144.38	0.0089	0.0007
Venus	-28475-06-01 11:02 J	-8678919.26	-8678919.04	-8678918.82	0.0089	0.0011
Venus	-28474-01-13 00:14 J	-8678693.70	-8678693.49	-8678693.26	0.0089	0.0016
Venus	-28474-08-26 13:55 J	-8678468.13	-8678467.92	-8678467.70	0.0089	0.0020
Venus	-28473-04-08 03:21 J	-8678242.57	-8678242.36	-8678242.14	0.0089	0.0024
Venus	-28473-11-19 16:33 J	-8678017.01	-8678016.81	-8678016.58	0.0089	0.0029
Venus	-28472-07-03 05:59 J	-8677791.44	-8677791.25	-8677791.03	0.0089	0.0033
Venus	-28471-02-13 19:26 J	-8677565.88	-8677565.69	-8677565.48	0.0089	0.0037
Venus	-28471-09-27 08:23 J	-8677340.32	-8677340.15	-8677339.93	0.0089	0.0042
Venus	-28470-05-10 21:50 J	-8677114.76	-8677114.59	-8677114.38	0.0089	0.0046
Venus	-28470-12-22 11:31 J	-8676889.19	-8676889.02	-8676888.83	0.0089	0.0050
Venus	-28469-08-04 00:43 J	-8676663.63	-8676663.47	-8676663.28	0.0089	0.0054
Venus	-28468-03-17 14:09 J	-8676438.07	-8676437.91	-8676437.74	0.0089	0.0058
Venus	-28468-10-29 03:35 J	-8676212.51	-8676212.35	-8676212.19	0.0089	0.0062
Venus	-28467-06-11 16:19 J	-8675986.94	-8675986.82	-8675986.65	0.0089	0.0067
Venus	-28466-01-23 05:31 J	-8675761.37	-8675761.27	-8675761.11	0.0089	0.0071
Venus	-28466-09-05 18:43 J	-8675535.81	-8675535.72	-8675535.57	0.0089	0.0075
Venus	-28465-04-18 07:55 J	-8675310.24	-8675310.17	-8675310.04	0.0089	0.0079
Venus	-28465-11-29 21:50 J	-8675084.66	-8675084.59	-8675084.50	0.0089	0.0082

Venus	-28464-07-13 11:02 J	-8674859.08	-8674859.04	-8674858.98	0.0089	0.0086
Earth	-28440-04-08 12:43 J	-8666189.15	-8666188.97	-8666188.74	0.0089	0.0054
Moon	-28440-04-08 16:19 J	-8666189.00	-8666188.82	-8666188.61	0.0089	0.0058 *
Moon	-28439-04-10 21:35 J	-8665821.85	-8665821.60	-8665821.35	0.0089	0.0006
Earth	-28439-04-11 00:14 J	-8665821.74	-8665821.49	-8665821.24	0.0089	0.0010 *
Earth	-28438-04-13 10:33 J	-8665454.28	-8665454.06	-8665453.81	0.0089	0.0034
Moon	-28438-04-13 12:43 J	-8665454.20	-8665453.97	-8665453.71	0.0089	0.0031 *
Earth	-28437-04-14 21:07 J	-8665086.72	-8665086.62	-8665086.47	0.0089	0.0077
Moon	-28437-04-14 20:52 J	-8665086.71	-8665086.63	-8665086.52	0.0089	0.0082 *
Mercury	-28427-02-25 10:47 J	-8661483.08	-8661483.05	-8661483.00	0.0089	0.0085
Mercury	-28427-05-24 12:14 J	-8661395.04	-8661394.99	-8661394.92	0.0089	0.0078
Mercury	-28427-08-20 13:40 J	-8661307.00	-8661306.93	-8661306.84	0.0089	0.0072
Mercury	-28427-11-16 15:21 J	-8661218.95	-8661218.86	-8661218.77	0.0089	0.0064
Mercury	-28426-02-12 16:47 J	-8661130.90	-8661130.80	-8661130.69	0.0089	0.0058
Mercury	-28426-05-11 17:59 J	-8661042.85	-8661042.75	-8661042.62	0.0089	0.0051
Mercury	-28426-08-07 19:40 J	-8660954.79	-8660954.68	-8660954.56	0.0089	0.0044
Mars	-28426-10-23 09:50 J	-8660878.28	-8660878.09	-8660877.84	0.0089	0.0066
Mercury	-28426-11-03 21:07 J	-8660866.74	-8660866.62	-8660866.49	0.0089	0.0037
Mercury	-28425-01-30 22:33 J	-8660778.68	-8660778.56	-8660778.42	0.0089	0.0031
Mercury	-28425-04-28 00:14 J	-8660690.62	-8660690.49	-8660690.36	0.0089	0.0023
Mercury	-28425-07-25 01:40 J	-8660602.56	-8660602.43	-8660602.29	0.0089	0.0016
Mercury	-28425-10-21 03:21 J	-8660514.50	-8660514.36	-8660514.23	0.0089	0.0010
Mercury	-28424-01-17 04:47 J	-8660426.44	-8660426.30	-8660426.16	0.0089	0.0002
Mercury	-28424-04-15 06:14 J	-8660338.38	-8660338.24	-8660338.10	0.0089	0.0005
Mercury	-28424-07-12 07:40 J	-8660250.31	-8660250.18	-8660250.04	0.0089	0.0012
Mars	-28424-09-17 13:55 J	-8660183.22	-8660182.92	-8660182.59	0.0089	0.0007
Mercury	-28424-10-08 09:07 J	-8660162.25	-8660162.12	-8660161.98	0.0089	0.0019
Mercury	-28423-01-04 10:47 J	-8660074.18	-8660074.05	-8660073.92	0.0089	0.0026
Mercury	-28423-04-02 12:14 J	-8659986.11	-8659985.99	-8659985.86	0.0089	0.0033
Mercury	-28423-06-29 13:40 J	-8659898.05	-8659897.93	-8659897.80	0.0089	0.0040

Mercury	-28423-09-25 15:07 J	-8659809.98	-8659809.87	-8659809.74	0.0089	0.0048
Mercury	-28423-12-22 16:47 J	-8659721.90	-8659721.80	-8659721.68	0.0089	0.0054
Mercury	-28422-03-20 18:14 J	-8659633.83	-8659633.74	-8659633.63	0.0089	0.0062
Mercury	-28422-06-16 19:55 J	-8659545.75	-8659545.67	-8659545.58	0.0089	0.0068
Mars	-28422-08-13 14:09 J	-8659488.14	-8659487.91	-8659487.63	0.0089	0.0053
Mercury	-28422-09-12 21:21 J	-8659457.67	-8659457.61	-8659457.53	0.0089	0.0076
Mercury	-28422-12-09 23:02 J	-8659369.58	-8659369.54	-8659369.48	0.0089	0.0083
Venus	-28408-02-06 11:16 J	-8654562.06	-8654562.03	-8654561.99	0.0089	0.0087
Venus	-28408-09-19 23:02 J	-8654336.59	-8654336.54	-8654336.45	0.0089	0.0084
Venus	-28407-05-03 11:31 J	-8654111.09	-8654111.02	-8654110.91	0.0089	0.0080
Venus	-28407-12-14 23:59 J	-8653885.60	-8653885.50	-8653885.38	0.0089	0.0076
Venus	-28406-07-28 12:14 J	-8653660.10	-8653659.99	-8653659.86	0.0089	0.0072
Venus	-28405-03-10 00:43 J	-8653434.60	-8653434.47	-8653434.33	0.0089	0.0068
Venus	-28405-10-21 12:28 J	-8653209.10	-8653208.98	-8653208.81	0.0089	0.0065
Venus	-28404-06-04 00:43 J	-8652983.60	-8652983.47	-8652983.29	0.0089	0.0061
Venus	-28403-01-15 13:11 J	-8652758.10	-8652757.95	-8652757.77	0.0089	0.0057
Venus	-28403-08-29 01:26 J	-8652532.59	-8652532.44	-8652532.24	0.0089	0.0053
Venus	-28402-04-11 14:09 J	-8652307.07	-8652306.91	-8652306.71	0.0089	0.0049
Venus	-28402-11-23 02:23 J	-8652081.56	-8652081.40	-8652081.19	0.0089	0.0045
Venus	-28401-07-05 15:21 J	-8651856.06	-8651855.86	-8651855.67	0.0089	0.0040
Venus	-28400-02-16 03:35 J	-8651630.54	-8651630.35	-8651630.15	0.0089	0.0036
Venus	-28400-09-29 15:50 J	-8651405.03	-8651404.84	-8651404.63	0.0089	0.0032
Venus	-28399-05-13 04:33 J	-8651179.51	-8651179.31	-8651179.10	0.0089	0.0028
Venus	-28399-12-24 16:47 J	-8650954.00	-8650953.80	-8650953.58	0.0089	0.0024
Venus	-28398-08-07 05:16 J	-8650728.48	-8650728.28	-8650728.06	0.0089	0.0020
Venus	-28397-03-19 17:59 J	-8650502.96	-8650502.75	-8650502.54	0.0089	0.0015
Venus	-28397-10-31 06:28 J	-8650277.45	-8650277.23	-8650277.02	0.0089	0.0011
Venus	-28396-06-13 18:57 J	-8650051.93	-8650051.71	-8650051.50	0.0089	0.0007
Venus	-28395-01-25 07:26 J	-8649826.41	-8649826.19	-8649825.98	0.0089	0.0003
Venus	-28395-09-07 19:40 J	-8649600.89	-8649600.68	-8649600.46	0.0089	0.0003

Venus	-28394-04-21 08:23 J	-8649375.37	-8649375.15	-8649374.93	0.0089	0.0006
Venus	-28394-12-02 20:52 J	-8649149.84	-8649149.63	-8649149.41	0.0089	0.0010
Venus	-28393-07-15 09:07 J	-8648924.32	-8648924.12	-8648923.89	0.0089	0.0015
Venus	-28392-02-25 21:35 J	-8648698.80	-8648698.60	-8648698.38	0.0089	0.0019
Venus	-28392-10-09 10:19 J	-8648473.28	-8648473.07	-8648472.86	0.0088	0.0023
Venus	-28391-05-22 23:02 J	-8648247.74	-8648247.54	-8648247.33	0.0088	0.0027
Venus	-28390-01-03 11:31 J	-8648022.21	-8648022.02	-8648021.81	0.0088	0.0031
Venus	-28390-08-16 23:59 J	-8647796.69	-8647796.50	-8647796.28	0.0088	0.0036
Venus	-28389-03-29 12:43 J	-8647571.15	-8647570.97	-8647570.76	0.0088	0.0040
Venus	-28389-11-10 01:26 J	-8647345.62	-8647345.44	-8647345.24	0.0088	0.0044
Venus	-28388-06-23 14:09 J	-8647120.08	-8647119.91	-8647119.72	0.0088	0.0048
Venus	-28387-02-04 02:52 J	-8646894.55	-8646894.38	-8646894.19	0.0088	0.0052
Venus	-28387-09-17 15:50 J	-8646669.01	-8646668.84	-8646668.67	0.0088	0.0056
Venus	-28386-05-01 04:33 J	-8646443.47	-8646443.31	-8646443.14	0.0088	0.0060
Venus	-28386-12-12 17:16 J	-8646217.92	-8646217.78	-8646217.62	0.0088	0.0064
Venus	-28385-07-25 05:59 J	-8645992.38	-8645992.25	-8645992.10	0.0088	0.0068
Venus	-28384-03-07 18:28 J	-8645766.84	-8645766.73	-8645766.59	0.0088	0.0072
Venus	-28384-10-19 07:11 J	-8645541.30	-8645541.20	-8645541.07	0.0088	0.0076
Venus	-28383-06-01 20:09 J	-8645315.74	-8645315.66	-8645315.55	0.0088	0.0080
Venus	-28382-01-13 08:52 J	-8645090.18	-8645090.13	-8645090.04	0.0088	0.0083
Venus	-28382-08-26 21:21 J	-8644864.62	-8644864.61	-8644864.54	0.0088	0.0088
Earth	-28359-10-07 20:38 J	-8636421.69	-8636421.64	-8636421.57	0.0088	0.0086
Moon	-28359-10-07 23:45 J	-8636421.58	-8636421.51	-8636421.38	0.0088	0.0081 *
Moon	-28358-10-10 05:59 J	-8636054.45	-8636054.25	-8636054.02	0.0088	0.0047
Earth	-28358-10-10 09:35 J	-8636054.33	-8636054.10	-8636053.87	0.0088	0.0042 *
Earth	-28357-10-11 22:04 J	-8635686.84	-8635686.58	-8635686.32	0.0088	0.0001
Moon	-28357-10-12 00:28 J	-8635686.75	-8635686.48	-8635686.21	0.0088	0.0005 *
Moon	-28356-10-14 09:07 J	-8635319.34	-8635319.12	-8635318.88	0.0088	0.0039
Earth	-28356-10-14 10:19 J	-8635319.29	-8635319.07	-8635318.83	0.0088	0.0043 *
Earth	-28355-10-16 22:19 J	-8634951.59	-8634951.57	-8634951.49	0.0088	0.0087

Mercury	-28344-08-17 17:02 J	-8630993.84	-8630993.79	-8630993.73	0.0088	0.0084
Mercury	-28344-11-13 20:09 J	-8630905.75	-8630905.66	-8630905.55	0.0088	0.0074
Mercury	-28343-02-09 23:16 J	-8630817.64	-8630817.53	-8630817.39	0.0088	0.0065
Mercury	-28343-05-09 02:23 J	-8630729.53	-8630729.40	-8630729.24	0.0088	0.0056
Mercury	-28343-08-05 05:31 J	-8630641.41	-8630641.27	-8630641.10	0.0088	0.0048
Mercury	-28343-11-01 08:52 J	-8630553.29	-8630553.13	-8630552.95	0.0088	0.0038
Mercury	-28342-01-28 11:59 J	-8630465.16	-8630465.00	-8630464.81	0.0088	0.0029
Mercury	-28342-04-26 15:07 J	-8630377.04	-8630376.87	-8630376.68	0.0088	0.0020
Mars	-28342-06-05 16:47 J	-8630337.07	-8630336.80	-8630336.50	0.0088	0.0034
Mercury	-28342-07-23 18:28 J	-8630288.91	-8630288.73	-8630288.55	0.0088	0.0011
Mercury	-28342-10-19 21:35 J	-8630200.78	-8630200.60	-8630200.41	0.0088	0.0002
Mercury	-28341-01-16 00:43 J	-8630112.65	-8630112.47	-8630112.29	0.0088	0.0007
Mercury	-28341-04-13 03:50 J	-8630024.52	-8630024.34	-8630024.16	0.0088	0.0016
Mercury	-28341-07-10 06:43 J	-8629936.39	-8629936.22	-8629936.04	0.0088	0.0025
Mercury	-28341-10-06 09:50 J	-8629848.25	-8629848.09	-8629847.91	0.0088	0.0034
Mercury	-28340-01-02 12:43 J	-8629760.11	-8629759.97	-8629759.80	0.0088	0.0043
Mercury	-28340-03-31 16:04 J	-8629671.98	-8629671.83	-8629671.68	0.0088	0.0052
Mars	-28340-04-30 05:59 J	-8629642.53	-8629642.25	-8629641.93	0.0088	0.0023
Mercury	-28340-06-27 18:57 J	-8629583.83	-8629583.71	-8629583.57	0.0088	0.0061
Mercury	-28340-09-23 21:50 J	-8629495.69	-8629495.59	-8629495.46	0.0088	0.0070
Mercury	-28340-12-21 00:43 J	-8629407.53	-8629407.47	-8629407.37	0.0088	0.0079
Mercury	-28339-03-19 04:04 J	-8629319.35	-8629319.33	-8629319.29	0.0088	0.0087
Mars	-28338-03-25 21:50 J	-8628947.71	-8628947.59	-8628947.42	0.0088	0.0078
Venus	-28325-06-19 17:45 J	-8624112.79	-8624112.76	-8624112.70	0.0088	0.0087
Venus	-28324-01-31 07:40 J	-8623887.25	-8623887.18	-8623887.10	0.0088	0.0083
Venus	-28324-09-13 21:50 J	-8623661.69	-8623661.59	-8623661.49	0.0088	0.0079
Venus	-28323-04-27 11:02 J	-8623436.13	-8623436.04	-8623435.90	0.0088	0.0076
Venus	-28323-12-09 00:43 J	-8623210.57	-8623210.47	-8623210.31	0.0088	0.0072
Venus	-28322-07-22 14:38 J	-8622985.01	-8622984.89	-8622984.72	0.0088	0.0068
Venus	-28321-03-04 04:19 J	-8622759.45	-8622759.32	-8622759.14	0.0089	0.0064

Venus	-28321-10-15 18:43 J	-8622533.89	-8622533.72	-8622533.55	0.0089	0.0059
Venus	-28320-05-29 08:23 J	-8622308.32	-8622308.15	-8622307.97	0.0089	0.0055
Venus	-28319-01-09 21:50 J	-8622082.76	-8622082.59	-8622082.40	0.0089	0.0051
Venus	-28319-08-23 11:31 J	-8621857.20	-8621857.02	-8621856.82	0.0089	0.0047
Venus	-28318-04-06 00:57 J	-8621631.64	-8621631.46	-8621631.25	0.0089	0.0043
Venus	-28318-11-17 14:38 J	-8621406.07	-8621405.89	-8621405.67	0.0089	0.0039
Venus	-28317-06-30 04:19 J	-8621180.51	-8621180.32	-8621180.10	0.0089	0.0035
Venus	-28316-02-10 18:14 J	-8620954.95	-8620954.74	-8620954.53	0.0089	0.0030
Venus	-28316-09-24 07:40 J	-8620729.38	-8620729.18	-8620728.96	0.0089	0.0026
Venus	-28315-05-07 21:21 J	-8620503.82	-8620503.61	-8620503.39	0.0089	0.0022
Venus	-28315-12-19 10:47 J	-8620278.25	-8620278.05	-8620277.82	0.0089	0.0018
Venus	-28314-08-02 00:43 J	-8620052.69	-8620052.47	-8620052.25	0.0089	0.0013
Venus	-28313-03-14 14:09 J	-8619827.13	-8619826.91	-8619826.68	0.0089	0.0009
Venus	-28313-10-26 03:50 J	-8619601.56	-8619601.34	-8619601.11	0.0089	0.0005
Venus	-28312-06-08 17:31 J	-8619375.99	-8619375.77	-8619375.55	0.0089	0.0000
Venus	-28311-01-20 06:57 J	-8619150.43	-8619150.21	-8619149.98	0.0089	0.0005
Venus	-28311-09-02 20:23 J	-8618924.86	-8618924.65	-8618924.42	0.0089	0.0009
Venus	-28310-04-16 10:04 J	-8618699.30	-8618699.08	-8618698.86	0.0089	0.0013
Venus	-28310-11-27 23:45 J	-8618473.73	-8618473.51	-8618473.29	0.0089	0.0017
Venus	-28309-07-10 12:57 J	-8618248.17	-8618247.96	-8618247.73	0.0089	0.0022
Venus	-28308-02-21 02:23 J	-8618022.60	-8618022.40	-8618022.18	0.0089	0.0026
Venus	-28308-10-04 15:50 J	-8617797.04	-8617796.84	-8617796.62	0.0089	0.0030
Venus	-28307-05-18 05:16 J	-8617571.48	-8617571.28	-8617571.07	0.0089	0.0034
Venus	-28307-12-29 18:57 J	-8617345.91	-8617345.71	-8617345.51	0.0089	0.0038
Venus	-28306-08-12 08:09 J	-8617120.35	-8617120.16	-8617119.96	0.0089	0.0042
Venus	-28305-03-24 21:07 J	-8616894.79	-8616894.62	-8616894.42	0.0089	0.0047
Venus	-28305-11-05 10:33 J	-8616669.23	-8616669.06	-8616668.86	0.0089	0.0051
Venus	-28304-06-18 23:45 J	-8616443.66	-8616443.51	-8616443.32	0.0089	0.0055
Venus	-28303-01-30 12:57 J	-8616218.10	-8616217.96	-8616217.77	0.0089	0.0059
Venus	-28303-09-13 02:09 J	-8615992.54	-8615992.41	-8615992.23	0.0089	0.0063

Venus	-28302-04-26 15:21 J	-8615766.98	-8615766.86	-8615766.69	0.0089	0.0067
Venus	-28302-12-08 04:47 J	-8615541.41	-8615541.30	-8615541.15	0.0089	0.0071
Venus	-28301-07-20 18:28 J	-8615315.85	-8615315.73	-8615315.61	0.0089	0.0074
Venus	-28300-03-03 07:26 J	-8615090.28	-8615090.19	-8615090.08	0.0089	0.0078
Venus	-28300-10-14 20:23 J	-8614864.71	-8614864.65	-8614864.55	0.0089	0.0082
Venus	-28299-05-28 09:35 J	-8614639.13	-8614639.10	-8614639.02	0.0089	0.0086
Moon	-28276-04-07 19:55 J	-8606288.78	-8606288.67	-8606288.51	0.0089	0.0075
Earth	-28276-04-07 22:19 J	-8606288.67	-8606288.57	-8606288.41	0.0089	0.0076 *
Earth	-28275-04-10 09:21 J	-8605921.34	-8605921.11	-8605920.87	0.0089	0.0033
Moon	-28275-04-10 10:19 J	-8605921.29	-8605921.07	-8605920.81	0.0089	0.0035 *
Moon	-28274-04-12 19:26 J	-8605553.93	-8605553.69	-8605553.44	0.0089	0.0013
Earth	-28274-04-12 19:55 J	-8605553.91	-8605553.67	-8605553.41	0.0089	0.0011 *
Moon	-28273-04-14 05:31 J	-8605186.47	-8605186.27	-8605186.05	0.0089	0.0053
Earth	-28273-04-14 06:28 J	-8605186.41	-8605186.23	-8605186.01	0.0089	0.0055 *
Jupiter	-28273-07-27 09:21 J	-8605082.57	-8605082.11	-8605081.65	0.0089	0.0043
Mercury	-28263-08-26 08:52 J	-8601400.13	-8601400.13	-8601400.12	0.0089	0.0089
Mercury	-28263-11-22 10:19 J	-8601312.11	-8601312.07	-8601312.01	0.0089	0.0082
Mercury	-28262-02-18 11:45 J	-8601224.07	-8601224.01	-8601223.93	0.0089	0.0075
Mercury	-28262-05-17 13:11 J	-8601136.03	-8601135.95	-8601135.86	0.0089	0.0069
Mercury	-28262-08-13 14:23 J	-8601047.98	-8601047.90	-8601047.79	0.0089	0.0063
Mercury	-28262-11-09 16:04 J	-8600959.93	-8600959.83	-8600959.72	0.0089	0.0055
Mercury	-28261-02-05 17:31 J	-8600871.88	-8600871.77	-8600871.65	0.0089	0.0048
Mercury	-28261-05-03 18:57 J	-8600783.82	-8600783.71	-8600783.58	0.0089	0.0042
Mercury	-28261-07-30 20:38 J	-8600695.77	-8600695.64	-8600695.51	0.0089	0.0034
Mercury	-28261-10-26 22:04 J	-8600607.71	-8600607.58	-8600607.45	0.0089	0.0027
Mercury	-28260-01-22 23:45 J	-8600519.65	-8600519.51	-8600519.38	0.0089	0.0021
Mercury	-28260-04-21 01:11 J	-8600431.59	-8600431.45	-8600431.32	0.0089	0.0014
Mars	-28260-05-01 20:09 J	-8600420.94	-8600420.66	-8600420.35	0.0089	0.0035
Mercury	-28260-07-18 02:38 J	-8600343.53	-8600343.39	-8600343.25	0.0089	0.0007
Mercury	-28260-10-14 04:04 J	-8600255.47	-8600255.33	-8600255.19	0.0089	0.0001

Mercury	-28259-01-10 05:31 J	-8600167.40	-8600167.27	-8600167.13	0.0089	0.0008
Mercury	-28259-04-08 07:11 J	-8600079.34	-8600079.20	-8600079.07	0.0089	0.0014
Mercury	-28259-07-05 08:38 J	-8599991.27	-8599991.14	-8599991.00	0.0089	0.0021
Mercury	-28259-10-01 10:04 J	-8599903.21	-8599903.08	-8599902.94	0.0089	0.0029
Mercury	-28259-12-28 11:45 J	-8599815.14	-8599815.01	-8599814.89	0.0089	0.0036
Mercury	-28258-03-26 12:57 J	-8599727.07	-8599726.96	-8599726.83	0.0089	0.0043
Mars	-28258-03-27 23:31 J	-8599725.81	-8599725.52	-8599725.20	0.0089	0.0025
Mercury	-28258-06-22 14:38 J	-8599639.00	-8599638.89	-8599638.77	0.0089	0.0050
Mercury	-28258-09-18 16:04 J	-8599550.93	-8599550.83	-8599550.71	0.0089	0.0057
Mercury	-28258-12-15 17:31 J	-8599462.85	-8599462.77	-8599462.66	0.0089	0.0064
Mercury	-28257-03-12 19:11 J	-8599374.77	-8599374.70	-8599374.61	0.0089	0.0071
Mercury	-28257-06-08 20:38 J	-8599286.69	-8599286.64	-8599286.56	0.0089	0.0079
Mercury	-28257-09-04 22:19 J	-8599198.60	-8599198.57	-8599198.52	0.0089	0.0085
Mars	-28256-02-20 00:28 J	-8599030.59	-8599030.48	-8599030.36	0.0089	0.0083
Venus	-28244-05-10 21:50 J	-8594567.61	-8594567.59	-8594567.52	0.0089	0.0087
Venus	-28244-12-22 10:19 J	-8594342.13	-8594342.07	-8594341.98	0.0089	0.0083
Venus	-28243-08-04 22:47 J	-8594116.64	-8594116.55	-8594116.45	0.0089	0.0079
Venus	-28242-03-18 10:47 J	-8593891.14	-8593891.05	-8593890.92	0.0089	0.0076
Venus	-28242-10-29 23:02 J	-8593665.65	-8593665.54	-8593665.40	0.0089	0.0072
Venus	-28241-06-11 11:31 J	-8593440.15	-8593440.02	-8593439.88	0.0089	0.0068
Venus	-28240-01-22 23:31 J	-8593214.65	-8593214.52	-8593214.36	0.0089	0.0065
Venus	-28240-09-05 11:45 J	-8592989.15	-8592989.01	-8592988.83	0.0089	0.0061
Venus	-28239-04-19 00:14 J	-8592763.64	-8592763.49	-8592763.31	0.0089	0.0057
Venus	-28239-11-30 12:43 J	-8592538.13	-8592537.97	-8592537.79	0.0089	0.0053
Venus	-28238-07-14 00:57 J	-8592312.63	-8592312.46	-8592312.27	0.0089	0.0049
Venus	-28237-02-24 13:26 J	-8592087.12	-8592086.94	-8592086.75	0.0089	0.0045
Venus	-28237-10-07 01:40 J	-8591861.61	-8591861.43	-8591861.23	0.0089	0.0041
Venus	-28236-05-20 14:09 J	-8591636.10	-8591635.91	-8591635.70	0.0089	0.0037
Venus	-28235-01-01 02:38 J	-8591410.59	-8591410.39	-8591410.18	0.0089	0.0033
Venus	-28235-08-14 15:07 J	-8591185.07	-8591184.87	-8591184.66	0.0089	0.0029

Venus	-28234-03-28 03:35 J	-8590959.56	-8590959.35	-8590959.14	0.0089	0.0025
Venus	-28234-11-08 16:04 J	-8590734.04	-8590733.83	-8590733.62	0.0089	0.0021
Venus	-28233-06-21 04:19 J	-8590508.53	-8590508.32	-8590508.10	0.0089	0.0017
Venus	-28232-02-01 16:47 J	-8590283.01	-8590282.80	-8590282.58	0.0089	0.0013
Venus	-28232-09-15 05:16 J	-8590057.49	-8590057.28	-8590057.06	0.0089	0.0009
Venus	-28231-04-28 17:59 J	-8589831.97	-8589831.75	-8589831.53	0.0089	0.0005
Venus	-28231-12-10 06:28 J	-8589606.45	-8589606.23	-8589606.02	0.0089	0.0001
Venus	-28230-07-23 18:43 J	-8589380.93	-8589380.72	-8589380.50	0.0089	0.0004
Venus	-28229-03-05 07:11 J	-8589155.42	-8589155.20	-8589154.98	0.0089	0.0008
Venus	-28229-10-16 19:40 J	-8588929.89	-8588929.68	-8588929.46	0.0089	0.0012
Venus	-28228-05-30 08:23 J	-8588704.37	-8588704.15	-8588703.94	0.0089	0.0016
Venus	-28227-01-10 20:52 J	-8588478.84	-8588478.63	-8588478.42	0.0089	0.0020
Venus	-28227-08-24 09:07 J	-8588253.32	-8588253.12	-8588252.90	0.0088	0.0024
Venus	-28226-04-06 21:35 J	-8588027.80	-8588027.60	-8588027.38	0.0088	0.0028
Venus	-28226-11-18 10:04 J	-8587802.27	-8587802.08	-8587801.86	0.0088	0.0033
Venus	-28225-06-30 22:47 J	-8587576.74	-8587576.55	-8587576.34	0.0088	0.0036
Venus	-28224-02-11 11:16 J	-8587351.21	-8587351.03	-8587350.82	0.0088	0.0041
Venus	-28224-09-24 23:59 J	-8587125.68	-8587125.50	-8587125.30	0.0088	0.0044
Venus	-28223-05-08 12:43 J	-8586900.14	-8586899.97	-8586899.77	0.0088	0.0048
Venus	-28223-12-20 01:26 J	-8586674.60	-8586674.44	-8586674.25	0.0088	0.0052
Venus	-28222-08-02 13:55 J	-8586449.07	-8586448.92	-8586448.73	0.0088	0.0057
Venus	-28221-03-15 02:38 J	-8586223.53	-8586223.39	-8586223.21	0.0088	0.0060
Venus	-28221-10-26 15:50 J	-8585997.99	-8585997.84	-8585997.69	0.0088	0.0064
Venus	-28220-06-09 04:33 J	-8585772.44	-8585772.31	-8585772.16	0.0088	0.0068
Venus	-28219-01-20 17:16 J	-8585546.89	-8585546.78	-8585546.64	0.0088	0.0072
Venus	-28219-09-03 05:45 J	-8585321.35	-8585321.26	-8585321.12	0.0088	0.0076
Venus	-28218-04-16 19:11 J	-8585095.80	-8585095.70	-8585095.61	0.0088	0.0079
Venus	-28218-11-28 07:40 J	-8584870.25	-8584870.18	-8584870.09	0.0088	0.0083
Venus	-28217-07-10 20:09 J	-8584644.68	-8584644.66	-8584644.59	0.0088	0.0087
Earth	-28194-10-09 15:21 J	-8576154.01	-8576153.86	-8576153.66	0.0088	0.0066

Moon	-28194-10-09 17:45 J	-8576153.92	-8576153.76	-8576153.56	0.0088	0.0066 *
Moon	-28193-10-11 03:21 J	-8575786.59	-8575786.36	-8575786.10	0.0088	0.0022
Earth	-28193-10-11 04:04 J	-8575786.57	-8575786.33	-8575786.06	0.0088	0.0023 *
Moon	-28192-10-13 15:50 J	-8575419.09	-8575418.84	-8575418.56	0.0088	0.0019
Earth	-28192-10-13 16:47 J	-8575419.05	-8575418.80	-8575418.54	0.0088	0.0020 *
Earth	-28191-10-16 05:02 J	-8575051.46	-8575051.29	-8575051.09	0.0088	0.0063
Moon	-28191-10-16 05:59 J	-8575051.39	-8575051.25	-8575051.04	0.0088	0.0064 *
Mercury	-28179-05-14 15:07 J	-8570822.94	-8570822.87	-8570822.79	0.0088	0.0081
Mercury	-28179-08-10 18:14 J	-8570734.84	-8570734.74	-8570734.62	0.0088	0.0071
Mercury	-28179-11-06 21:21 J	-8570646.73	-8570646.61	-8570646.47	0.0088	0.0062
Mars	-28178-01-18 09:35 J	-8570574.28	-8570574.10	-8570573.85	0.0088	0.0063
Mercury	-28178-02-03 00:28 J	-8570558.61	-8570558.48	-8570558.31	0.0088	0.0054
Mercury	-28178-05-02 03:50 J	-8570470.49	-8570470.34	-8570470.17	0.0088	0.0044
Mercury	-28178-07-29 06:57 J	-8570382.37	-8570382.21	-8570382.03	0.0088	0.0035
Mercury	-28178-10-25 10:04 J	-8570294.24	-8570294.08	-8570293.89	0.0088	0.0026
Mercury	-28177-01-21 13:26 J	-8570206.12	-8570205.94	-8570205.75	0.0088	0.0017
Mercury	-28177-04-18 16:33 J	-8570117.99	-8570117.81	-8570117.62	0.0088	0.0008
Mercury	-28177-07-15 19:55 J	-8570029.86	-8570029.67	-8570029.49	0.0088	0.0002
Mercury	-28177-10-11 23:02 J	-8569941.73	-8569941.54	-8569941.36	0.0088	0.0011
Mars	-28177-12-12 23:45 J	-8569879.82	-8569879.51	-8569879.20	0.0088	0.0006
Mercury	-28176-01-08 01:55 J	-8569853.59	-8569853.42	-8569853.24	0.0088	0.0019
Mercury	-28176-04-06 05:02 J	-8569765.46	-8569765.29	-8569765.11	0.0088	0.0028
Mercury	-28176-07-03 07:55 J	-8569677.32	-8569677.17	-8569676.99	0.0088	0.0038
Mercury	-28176-09-29 11:02 J	-8569589.18	-8569589.04	-8569588.87	0.0088	0.0046
Mercury	-28176-12-26 13:55 J	-8569501.04	-8569500.92	-8569500.76	0.0088	0.0056
Mercury	-28175-03-24 17:02 J	-8569412.90	-8569412.79	-8569412.65	0.0088	0.0064
Mercury	-28175-06-20 20:09 J	-8569324.75	-8569324.66	-8569324.55	0.0088	0.0073
Mercury	-28175-09-16 23:02 J	-8569236.59	-8569236.54	-8569236.45	0.0088	0.0082
Mars	-28175-11-07 13:11 J	-8569185.18	-8569184.95	-8569184.67	0.0088	0.0050
Venus	-28161-09-21 02:09 J	-8564118.43	-8564118.41	-8564118.34	0.0088	0.0087

Venus	-28160-05-04 16:04 J	-8563892.89	-8563892.83	-8563892.73	0.0088	0.0083
Venus	-28160-12-16 05:59 J	-8563667.34	-8563667.25	-8563667.14	0.0088	0.0079
Venus	-28159-07-29 19:55 J	-8563441.78	-8563441.67	-8563441.55	0.0088	0.0075
Venus	-28158-03-12 09:07 J	-8563216.23	-8563216.12	-8563215.96	0.0088	0.0072
Venus	-28158-10-23 23:02 J	-8562990.66	-8562990.54	-8562990.37	0.0088	0.0068
Venus	-28157-06-05 12:57 J	-8562765.10	-8562764.96	-8562764.79	0.0089	0.0064
Venus	-28156-01-17 02:38 J	-8562539.53	-8562539.39	-8562539.20	0.0089	0.0060
Venus	-28156-08-30 16:33 J	-8562313.97	-8562313.81	-8562313.62	0.0089	0.0056
Venus	-28155-04-13 06:14 J	-8562088.41	-8562088.24	-8562088.04	0.0089	0.0052
Venus	-28155-11-24 19:55 J	-8561862.84	-8561862.67	-8561862.46	0.0089	0.0048
Venus	-28154-07-08 09:35 J	-8561637.28	-8561637.10	-8561636.89	0.0089	0.0044
Venus	-28153-02-18 23:16 J	-8561411.71	-8561411.53	-8561411.31	0.0089	0.0040
Venus	-28153-10-01 12:57 J	-8561186.15	-8561185.96	-8561185.74	0.0089	0.0036
Venus	-28152-05-15 03:07 J	-8560960.58	-8560960.37	-8560960.16	0.0089	0.0031
Venus	-28152-12-26 16:33 J	-8560735.02	-8560734.81	-8560734.59	0.0089	0.0027
Venus	-28151-08-09 05:59 J	-8560509.46	-8560509.25	-8560509.03	0.0089	0.0023
Venus	-28150-03-22 19:40 J	-8560283.89	-8560283.68	-8560283.46	0.0089	0.0019
Venus	-28150-11-03 09:21 J	-8560058.33	-8560058.11	-8560057.89	0.0089	0.0015
Venus	-28149-06-15 22:47 J	-8559832.76	-8559832.55	-8559832.32	0.0089	0.0011
Venus	-28148-01-27 12:28 J	-8559607.20	-8559606.98	-8559606.75	0.0089	0.0006
Venus	-28148-09-10 02:09 J	-8559381.63	-8559381.41	-8559381.19	0.0089	0.0002
Venus	-28147-04-23 15:35 J	-8559156.07	-8559155.85	-8559155.62	0.0089	0.0003
Venus	-28147-12-05 05:16 J	-8558930.50	-8558930.28	-8558930.05	0.0089	0.0006
Venus	-28146-07-18 18:43 J	-8558704.93	-8558704.72	-8558704.49	0.0089	0.0011
Venus	-28145-02-29 08:09 J	-8558479.37	-8558479.16	-8558478.93	0.0089	0.0015
Venus	-28145-10-11 21:50 J	-8558253.80	-8558253.59	-8558253.37	0.0089	0.0019
Venus	-28144-05-25 11:16 J	-8558028.23	-8558028.03	-8558027.80	0.0089	0.0023
Venus	-28143-01-06 00:57 J	-8557802.67	-8557802.46	-8557802.24	0.0089	0.0027
Venus	-28143-08-19 14:23 J	-8557577.10	-8557576.90	-8557576.69	0.0089	0.0031
Venus	-28142-04-02 03:50 J	-8557351.54	-8557351.34	-8557351.13	0.0089	0.0035

Venus	-28142-11-13 17:16 J	-8557125.97	-8557125.78	-8557125.57	0.0089	0.0039
Venus	-28141-06-26 06:43 J	-8556900.41	-8556900.22	-8556900.02	0.0089	0.0043
Venus	-28140-02-06 19:55 J	-8556674.85	-8556674.67	-8556674.47	0.0089	0.0047
Venus	-28140-09-20 09:07 J	-8556449.29	-8556449.12	-8556448.92	0.0089	0.0051
Venus	-28139-05-03 22:33 J	-8556223.72	-8556223.56	-8556223.38	0.0089	0.0055
Venus	-28139-12-15 11:45 J	-8555998.16	-8555998.01	-8555997.83	0.0089	0.0059
Venus	-28138-07-29 00:57 J	-8555772.60	-8555772.46	-8555772.28	0.0089	0.0063
Venus	-28137-03-10 14:09 J	-8555547.03	-8555546.91	-8555546.74	0.0089	0.0067
Venus	-28137-10-22 03:35 J	-8555321.47	-8555321.35	-8555321.20	0.0089	0.0070
Venus	-28136-06-04 16:47 J	-8555095.90	-8555095.80	-8555095.66	0.0089	0.0074
Venus	-28135-01-16 05:59 J	-8554870.34	-8554870.25	-8554870.13	0.0089	0.0078
Venus	-28135-08-29 19:26 J	-8554644.77	-8554644.69	-8554644.60	0.0089	0.0081
Venus	-28134-04-12 08:23 J	-8554419.20	-8554419.15	-8554419.07	0.0089	0.0085
Venus	-28134-11-23 22:04 J	-8554193.60	-8554193.58	-8554193.56	0.0089	0.0088
Earth	-28111-04-09 17:16 J	-8546020.95	-8546020.78	-8546020.56	0.0089	0.0057
Moon	-28111-04-09 17:59 J	-8546020.91	-8546020.75	-8546020.55	0.0089	0.0061 *
Moon	-28110-04-12 03:07 J	-8545653.63	-8545653.37	-8545653.10	0.0089	0.0009
Earth	-28110-04-12 04:33 J	-8545653.56	-8545653.31	-8545653.06	0.0089	0.0013 *
Earth	-28109-04-13 14:38 J	-8545286.11	-8545285.89	-8545285.63	0.0089	0.0032
Moon	-28109-04-13 17:16 J	-8545286.01	-8545285.78	-8545285.53	0.0089	0.0027 *
Moon	-28108-04-15 22:33 J	-8544918.68	-8544918.56	-8544918.44	0.0089	0.0079
Earth	-28108-04-16 01:26 J	-8544918.56	-8544918.44	-8544918.28	0.0089	0.0074 *
Jupiter	-28107-09-28 04:19 J	-8544388.84	-8544388.32	-8544387.80	0.0089	0.0008
Mercury	-28098-05-23 08:09 J	-8541229.18	-8541229.16	-8541229.12	0.0089	0.0087
Mercury	-28098-08-19 09:50 J	-8541141.15	-8541141.09	-8541141.03	0.0089	0.0080
Mercury	-28098-11-15 11:02 J	-8541053.11	-8541053.04	-8541052.95	0.0089	0.0073
Mercury	-28097-02-11 12:28 J	-8540965.06	-8540964.98	-8540964.88	0.0089	0.0066
Mercury	-28097-05-09 13:55 J	-8540877.01	-8540876.92	-8540876.81	0.0089	0.0060
Mercury	-28097-08-05 15:35 J	-8540788.96	-8540788.85	-8540788.74	0.0089	0.0052
Mercury	-28097-11-01 17:02 J	-8540700.91	-8540700.79	-8540700.67	0.0089	0.0046

Mars	-28097-12-14 01:55 J	-8540658.63	-8540658.42	-8540658.19	0.0089	0.0066
Mercury	-28096-01-28 18:14 J	-8540612.85	-8540612.74	-8540612.60	0.0089	0.0039
Mercury	-28096-04-26 19:55 J	-8540524.79	-8540524.67	-8540524.54	0.0089	0.0032
Mercury	-28096-07-23 21:21 J	-8540436.74	-8540436.61	-8540436.47	0.0089	0.0025
Mercury	-28096-10-19 22:47 J	-8540348.68	-8540348.55	-8540348.41	0.0089	0.0018
Mercury	-28095-01-16 00:28 J	-8540260.62	-8540260.48	-8540260.34	0.0089	0.0011
Mercury	-28095-04-14 01:55 J	-8540172.56	-8540172.42	-8540172.28	0.0089	0.0004
Mercury	-28095-07-11 03:21 J	-8540084.49	-8540084.36	-8540084.22	0.0089	0.0004
Mercury	-28095-10-07 05:02 J	-8539996.43	-8539996.29	-8539996.16	0.0089	0.0010
Mars	-28095-11-09 06:14 J	-8539963.56	-8539963.24	-8539962.92	0.0089	0.0005
Mercury	-28094-01-03 06:28 J	-8539908.37	-8539908.23	-8539908.10	0.0089	0.0017
Mercury	-28094-04-01 07:55 J	-8539820.30	-8539820.17	-8539820.03	0.0089	0.0024
Mercury	-28094-06-28 09:21 J	-8539732.23	-8539732.11	-8539731.98	0.0089	0.0031
Mercury	-28094-09-24 10:47 J	-8539644.17	-8539644.05	-8539643.92	0.0089	0.0038
Mercury	-28094-12-21 12:28 J	-8539556.10	-8539555.98	-8539555.86	0.0089	0.0045
Mercury	-28093-03-18 13:55 J	-8539468.03	-8539467.92	-8539467.80	0.0089	0.0052
Mercury	-28093-06-14 15:35 J	-8539379.95	-8539379.85	-8539379.75	0.0089	0.0059
Mercury	-28093-09-10 17:02 J	-8539291.88	-8539291.79	-8539291.69	0.0089	0.0066
Mars	-28093-10-04 08:09 J	-8539268.38	-8539268.16	-8539267.88	0.0089	0.0054
Mercury	-28093-12-07 18:43 J	-8539203.80	-8539203.72	-8539203.64	0.0089	0.0074
Mercury	-28092-03-05 19:55 J	-8539115.71	-8539115.67	-8539115.60	0.0089	0.0081
Mercury	-28092-06-01 21:21 J	-8539027.61	-8539027.61	-8539027.57	0.0089	0.0088
Venus	-28080-08-12 08:09 J	-8534573.20	-8534573.16	-8534573.09	0.0089	0.0086
Venus	-28079-03-25 20:52 J	-8534347.70	-8534347.63	-8534347.55	0.0089	0.0082
Venus	-28079-11-06 08:52 J	-8534122.21	-8534122.13	-8534122.02	0.0089	0.0079
Venus	-28078-06-19 21:21 J	-8533896.72	-8533896.61	-8533896.49	0.0089	0.0075
Venus	-28077-01-31 09:07 J	-8533671.22	-8533671.12	-8533670.97	0.0089	0.0072
Venus	-28077-09-12 21:50 J	-8533445.72	-8533445.59	-8533445.45	0.0089	0.0068
Venus	-28076-04-26 09:50 J	-8533220.21	-8533220.09	-8533219.92	0.0089	0.0065
Venus	-28076-12-07 22:19 J	-8532994.71	-8532994.57	-8532994.40	0.0089	0.0061

Venus	-28075-07-21 10:47 J	-8532769.21	-8532769.05	-8532768.88	0.0089	0.0057
Venus	-28074-03-03 22:33 J	-8532543.71	-8532543.56	-8532543.36	0.0089	0.0054
Venus	-28074-10-15 11:02 J	-8532318.20	-8532318.04	-8532317.84	0.0089	0.0050
Venus	-28073-05-27 23:31 J	-8532092.69	-8532092.52	-8532092.32	0.0089	0.0046
Venus	-28072-01-08 11:59 J	-8531867.19	-8531867.00	-8531866.81	0.0089	0.0042
Venus	-28072-08-22 00:14 J	-8531641.68	-8531641.49	-8531641.29	0.0089	0.0038
Venus	-28071-04-04 12:57 J	-8531416.16	-8531415.96	-8531415.76	0.0089	0.0034
Venus	-28071-11-16 00:57 J	-8531190.65	-8531190.46	-8531190.24	0.0089	0.0031
Venus	-28070-06-29 13:26 J	-8530965.14	-8530964.94	-8530964.73	0.0089	0.0026
Venus	-28069-02-10 01:40 J	-8530739.63	-8530739.43	-8530739.21	0.0089	0.0023
Venus	-28069-09-22 14:09 J	-8530514.11	-8530513.91	-8530513.69	0.0089	0.0019
Venus	-28068-05-06 02:52 J	-8530288.59	-8530288.38	-8530288.16	0.0089	0.0015
Venus	-28068-12-17 15:21 J	-8530063.07	-8530062.86	-8530062.64	0.0089	0.0011
Venus	-28067-07-31 03:50 J	-8529837.55	-8529837.34	-8529837.12	0.0089	0.0007
Venus	-28066-03-13 16:19 J	-8529612.03	-8529611.82	-8529611.60	0.0089	0.0003
Venus	-28066-10-25 04:47 J	-8529386.51	-8529386.30	-8529386.08	0.0089	0.0002
Venus	-28065-06-06 17:16 J	-8529160.99	-8529160.78	-8529160.56	0.0089	0.0006
Venus	-28064-01-18 05:45 J	-8528935.47	-8528935.26	-8528935.04	0.0089	0.0010
Venus	-28064-08-31 18:14 J	-8528709.95	-8528709.74	-8528709.52	0.0089	0.0014
Venus	-28063-04-14 06:43 J	-8528484.42	-8528484.22	-8528484.00	0.0088	0.0018
Venus	-28063-11-25 19:11 J	-8528258.90	-8528258.70	-8528258.48	0.0088	0.0022
Venus	-28062-07-09 07:40 J	-8528033.38	-8528033.18	-8528032.96	0.0088	0.0025
Venus	-28061-02-19 20:09 J	-8527807.86	-8527807.66	-8527807.44	0.0088	0.0029
Venus	-28061-10-02 08:52 J	-8527582.33	-8527582.13	-8527581.93	0.0088	0.0033
Venus	-28060-05-15 21:35 J	-8527356.80	-8527356.60	-8527356.40	0.0088	0.0037
Venus	-28060-12-27 10:04 J	-8527131.27	-8527131.08	-8527130.88	0.0088	0.0041
Venus	-28059-08-09 22:33 J	-8526905.74	-8526905.56	-8526905.36	0.0088	0.0045
Venus	-28058-03-23 11:02 J	-8526680.21	-8526680.04	-8526679.84	0.0088	0.0049
Venus	-28058-11-03 23:45 J	-8526454.67	-8526454.51	-8526454.32	0.0088	0.0052
Venus	-28057-06-16 12:28 J	-8526229.13	-8526228.98	-8526228.80	0.0088	0.0056

Venus	-28056-01-28 01:26 J	-8526003.59	-8526003.44	-8526003.27	0.0088	0.0060
Venus	-28056-09-10 13:55 J	-8525778.06	-8525777.92	-8525777.75	0.0088	0.0064
Venus	-28055-04-24 02:38 J	-8525552.51	-8525552.39	-8525552.23	0.0088	0.0068
Venus	-28055-12-05 15:50 J	-8525326.97	-8525326.84	-8525326.71	0.0088	0.0071
Venus	-28054-07-19 04:19 J	-8525101.42	-8525101.32	-8525101.19	0.0088	0.0075
Venus	-28053-02-29 16:47 J	-8524875.88	-8524875.80	-8524875.68	0.0088	0.0079
Venus	-28053-10-12 05:45 J	-8524650.33	-8524650.26	-8524650.16	0.0088	0.0082
Venus	-28052-05-25 18:28 J	-8524424.76	-8524424.73	-8524424.65	0.0088	0.0086
Moon	-28030-10-08 20:52 J	-8516253.67	-8516253.63	-8516253.58	0.0088	0.0086
Moon	-28029-10-10 08:38 J	-8515886.34	-8515886.14	-8515885.90	0.0088	0.0052
Earth	-28029-10-10 09:35 J	-8515886.30	-8515886.10	-8515885.86	0.0088	0.0047 *
Earth	-28028-10-12 22:33 J	-8515518.82	-8515518.56	-8515518.30	0.0088	0.0004
Moon	-28028-10-13 00:57 J	-8515518.71	-8515518.46	-8515518.20	0.0088	0.0000 *
Moon	-28027-10-15 07:55 J	-8515151.40	-8515151.17	-8515150.91	0.0088	0.0035
Earth	-28027-10-15 11:02 J	-8515151.27	-8515151.04	-8515150.80	0.0088	0.0039 *
Earth	-28026-10-17 23:16 J	-8514783.60	-8514783.53	-8514783.42	0.0088	0.0082
Moon	-28026-10-18 02:38 J	-8514783.40	-8514783.39	-8514783.33	0.0088	0.0087
Mercury	-28015-11-12 09:35 J	-8510740.11	-8510740.10	-8510740.08	0.0088	0.0088
Mercury	-28014-02-08 12:43 J	-8510652.04	-8510651.97	-8510651.88	0.0088	0.0078
Mercury	-28014-05-07 15:50 J	-8510563.94	-8510563.84	-8510563.71	0.0088	0.0069
Mercury	-28014-08-03 18:57 J	-8510475.82	-8510475.71	-8510475.55	0.0088	0.0061
Mercury	-28014-10-30 22:19 J	-8510387.71	-8510387.57	-8510387.40	0.0088	0.0051
Mercury	-28013-01-27 01:40 J	-8510299.59	-8510299.43	-8510299.26	0.0088	0.0042
Mercury	-28013-04-24 05:02 J	-8510211.46	-8510211.29	-8510211.12	0.0088	0.0032
Mercury	-28013-07-21 08:09 J	-8510123.34	-8510123.16	-8510122.98	0.0088	0.0023
Mars	-28013-07-27 14:09 J	-8510117.17	-8510116.91	-8510116.60	0.0088	0.0035
Mercury	-28013-10-17 11:16 J	-8510035.21	-8510035.03	-8510034.84	0.0088	0.0014
Mercury	-28012-01-13 14:38 J	-8509947.08	-8509946.89	-8509946.71	0.0088	0.0006
Mercury	-28012-04-11 17:45 J	-8509858.95	-8509858.76	-8509858.58	0.0088	0.0004
Mercury	-28012-07-08 20:38 J	-8509770.82	-8509770.64	-8509770.45	0.0088	0.0013

Mercury	-28012-10-04 23:45 J	-8509682.68	-8509682.51	-8509682.33	0.0088	0.0022
Mercury	-28011-01-01 02:38 J	-8509594.55	-8509594.39	-8509594.20	0.0088	0.0032
Mercury	-28011-03-30 05:45 J	-8509506.41	-8509506.26	-8509506.08	0.0088	0.0040
Mars	-28011-06-22 03:50 J	-8509422.63	-8509422.34	-8509422.03	0.0088	0.0021
Mercury	-28011-06-26 09:07 J	-8509418.27	-8509418.12	-8509417.97	0.0088	0.0049
Mercury	-28011-09-22 11:59 J	-8509330.13	-8509330.00	-8509329.85	0.0088	0.0058
Mercury	-28011-12-19 14:52 J	-8509241.98	-8509241.88	-8509241.74	0.0088	0.0067
Mercury	-28010-03-17 17:59 J	-8509153.83	-8509153.75	-8509153.64	0.0088	0.0075
Mercury	-28010-06-13 20:52 J	-8509065.66	-8509065.63	-8509065.56	0.0088	0.0084
Mars	-28009-05-16 17:59 J	-8508727.88	-8508727.75	-8508727.59	0.0088	0.0078

28TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 28th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-27997-12-23 10:19 J	-8504124.11	-8504124.07	-8504124.00	0.0088	0.0086		
Venus	-27996-08-05 23:45 J	-8503898.57	-8503898.51	-8503898.40	0.0088	0.0083		
Venus	-27995-03-19 13:40 J	-8503673.01	-8503672.93	-8503672.81	0.0088	0.0079		
Venus	-27995-10-31 03:50 J	-8503447.45	-8503447.34	-8503447.21	0.0088	0.0075		
Venus	-27994-06-13 17:16 J	-8503221.89	-8503221.78	-8503221.63	0.0088	0.0071		
Venus	-27993-01-25 06:57 J	-8502996.33	-8502996.21	-8502996.04	0.0088	0.0068		
Venus	-27993-09-06 20:52 J	-8502770.77	-8502770.63	-8502770.46	0.0089	0.0064		
Venus	-27992-04-20 10:47 J	-8502545.20	-8502545.05	-8502544.87	0.0089	0.0060		

Venus	-27992-12-02 00:43 J	-8502319.63	-8502319.47	-8502319.29	0.0089	0.0056
Venus	-27991-07-15 14:38 J	-8502094.07	-8502093.89	-8502093.71	0.0089	0.0052
Venus	-27990-02-26 03:50 J	-8501868.50	-8501868.34	-8501868.13	0.0089	0.0049
Venus	-27990-10-09 17:45 J	-8501642.93	-8501642.76	-8501642.55	0.0089	0.0045
Venus	-27989-05-22 07:40 J	-8501417.37	-8501417.18	-8501416.97	0.0089	0.0041
Venus	-27988-01-02 21:21 J	-8501191.80	-8501191.61	-8501191.39	0.0089	0.0037
Venus	-27988-08-16 11:02 J	-8500966.24	-8500966.04	-8500965.82	0.0089	0.0033
Venus	-27987-03-30 00:43 J	-8500740.67	-8500740.47	-8500740.25	0.0089	0.0029
Venus	-27987-11-10 14:23 J	-8500515.10	-8500514.90	-8500514.68	0.0089	0.0025
Venus	-27986-06-24 04:04 J	-8500289.54	-8500289.33	-8500289.11	0.0089	0.0021
Venus	-27985-02-04 17:31 J	-8500063.98	-8500063.77	-8500063.54	0.0089	0.0017
Venus	-27985-09-17 07:11 J	-8499838.42	-8499838.20	-8499837.97	0.0089	0.0013
Venus	-27984-04-30 20:52 J	-8499612.85	-8499612.63	-8499612.41	0.0089	0.0008
Venus	-27984-12-12 10:33 J	-8499387.28	-8499387.06	-8499386.84	0.0089	0.0004
Venus	-27983-07-25 23:59 J	-8499161.72	-8499161.50	-8499161.28	0.0089	0.0001
Venus	-27982-03-08 13:26 J	-8498936.16	-8498935.94	-8498935.71	0.0089	0.0004
Venus	-27982-10-20 03:07 J	-8498710.59	-8498710.37	-8498710.15	0.0089	0.0008
Venus	-27981-06-01 16:33 J	-8498485.02	-8498484.81	-8498484.58	0.0089	0.0012
Venus	-27980-01-13 05:59 J	-8498259.46	-8498259.25	-8498259.02	0.0089	0.0016
Venus	-27980-08-26 19:26 J	-8498033.90	-8498033.69	-8498033.46	0.0089	0.0020
Venus	-27979-04-09 09:07 J	-8497808.33	-8497808.12	-8497807.90	0.0089	0.0024
Venus	-27979-11-20 22:33 J	-8497582.76	-8497582.56	-8497582.34	0.0089	0.0028
Venus	-27978-07-04 11:59 J	-8497357.19	-8497357.00	-8497356.78	0.0089	0.0032
Venus	-27977-02-15 01:26 J	-8497131.63	-8497131.44	-8497131.23	0.0089	0.0036
Venus	-27977-09-27 14:52 J	-8496906.07	-8496905.88	-8496905.67	0.0089	0.0040
Venus	-27976-05-11 04:04 J	-8496680.50	-8496680.33	-8496680.12	0.0089	0.0044
Venus	-27976-12-22 17:31 J	-8496454.93	-8496454.77	-8496454.56	0.0089	0.0048
Venus	-27975-08-05 07:11 J	-8496229.37	-8496229.20	-8496229.01	0.0089	0.0051
Venus	-27974-03-18 20:23 J	-8496003.81	-8496003.65	-8496003.47	0.0089	0.0055
Venus	-27974-10-30 09:35 J	-8495778.25	-8495778.10	-8495777.92	0.0089	0.0059

Venus	-27973-06-11 22:47 J	-8495552.68	-8495552.55	-8495552.37	0.0089	0.0063
Venus	-27972-01-23 12:14 J	-8495327.12	-8495326.99	-8495326.83	0.0089	0.0066
Venus	-27972-09-06 01:11 J	-8495101.56	-8495101.45	-8495101.29	0.0089	0.0070
Venus	-27971-04-19 14:52 J	-8494876.00	-8494875.88	-8494875.75	0.0089	0.0073
Venus	-27971-12-01 03:50 J	-8494650.43	-8494650.34	-8494650.21	0.0089	0.0077
Venus	-27970-07-14 17:31 J	-8494424.86	-8494424.77	-8494424.68	0.0089	0.0080
Venus	-27969-02-25 06:14 J	-8494199.29	-8494199.24	-8494199.15	0.0089	0.0084
Venus	-27969-10-07 19:40 J	-8493973.71	-8493973.68	-8493973.64	0.0089	0.0087
Moon	-27947-04-08 23:16 J	-8486120.62	-8486120.53	-8486120.39	0.0089	0.0080
Earth	-27947-04-09 01:11 J	-8486120.53	-8486120.45	-8486120.31	0.0089	0.0081 *
Earth	-27946-04-11 12:14 J	-8485753.21	-8485752.99	-8485752.75	0.0089	0.0037
Moon	-27946-04-11 14:52 J	-8485753.10	-8485752.88	-8485752.65	0.0089	0.0037 *
Moon	-27945-04-12 19:40 J	-8485385.93	-8485385.68	-8485385.42	0.0089	0.0008
Earth	-27945-04-12 23:02 J	-8485385.79	-8485385.54	-8485385.29	0.0089	0.0007 *
Earth	-27944-04-15 09:07 J	-8485018.31	-8485018.12	-8485017.89	0.0089	0.0050
Moon	-27944-04-15 12:43 J	-8485018.16	-8485017.97	-8485017.74	0.0089	0.0050 *
Jupiter	-27941-11-29 12:57 J	-8483694.29	-8483693.96	-8483693.54	0.0089	0.0063
Mercury	-27933-02-17 07:26 J	-8481058.22	-8481058.19	-8481058.14	0.0089	0.0085
Mercury	-27933-05-15 08:38 J	-8480970.19	-8480970.14	-8480970.06	0.0089	0.0078
Mercury	-27933-08-11 10:19 J	-8480882.14	-8480882.07	-8480881.98	0.0089	0.0071
Mercury	-27933-11-07 11:45 J	-8480794.10	-8480794.01	-8480793.91	0.0089	0.0064
Mercury	-27932-02-03 13:11 J	-8480706.05	-8480705.95	-8480705.84	0.0089	0.0057
Mercury	-27932-05-02 14:38 J	-8480617.99	-8480617.89	-8480617.77	0.0089	0.0051
Mercury	-27932-07-29 16:19 J	-8480529.94	-8480529.82	-8480529.70	0.0089	0.0044
Mercury	-27932-10-25 17:31 J	-8480441.89	-8480441.77	-8480441.64	0.0089	0.0037
Mercury	-27931-01-21 18:57 J	-8480353.83	-8480353.71	-8480353.57	0.0089	0.0030
Mercury	-27931-04-19 20:38 J	-8480265.77	-8480265.64	-8480265.51	0.0089	0.0023
Mars	-27931-06-23 09:35 J	-8480201.38	-8480201.10	-8480200.80	0.0089	0.0036
Mercury	-27931-07-16 22:04 J	-8480177.71	-8480177.58	-8480177.44	0.0089	0.0016
Mercury	-27931-10-12 23:31 J	-8480089.65	-8480089.52	-8480089.38	0.0089	0.0009

Mercury	-27930-01-09 01:11 J	-8480001.59	-8480001.45	-8480001.32	0.0089	0.0004
Mercury	-27930-04-07 02:38 J	-8479913.53	-8479913.39	-8479913.26	0.0089	0.0005
Mercury	-27930-07-04 04:04 J	-8479825.47	-8479825.33	-8479825.19	0.0089	0.0012
Mercury	-27930-09-30 05:31 J	-8479737.40	-8479737.27	-8479737.13	0.0089	0.0019
Mercury	-27930-12-27 06:57 J	-8479649.34	-8479649.21	-8479649.07	0.0089	0.0026
Mercury	-27929-03-24 08:23 J	-8479561.27	-8479561.15	-8479561.01	0.0089	0.0033
Mars	-27929-05-18 12:57 J	-8479506.24	-8479505.96	-8479505.63	0.0089	0.0025
Mercury	-27929-06-20 09:50 J	-8479473.20	-8479473.09	-8479472.96	0.0089	0.0041
Mercury	-27929-09-16 11:31 J	-8479385.13	-8479385.02	-8479384.90	0.0089	0.0047
Mercury	-27929-12-13 12:57 J	-8479297.06	-8479296.96	-8479296.84	0.0089	0.0054
Mercury	-27928-03-11 14:38 J	-8479208.99	-8479208.89	-8479208.79	0.0089	0.0061
Mercury	-27928-06-07 16:04 J	-8479120.91	-8479120.83	-8479120.74	0.0089	0.0068
Mercury	-27928-09-03 17:45 J	-8479032.83	-8479032.76	-8479032.69	0.0089	0.0075
Mercury	-27928-11-30 18:57 J	-8478944.74	-8478944.71	-8478944.65	0.0089	0.0083
Mars	-27927-04-13 15:07 J	-8478810.95	-8478810.87	-8478810.73	0.0089	0.0083
Venus	-27916-04-02 06:14 J	-8474804.25	-8474804.24	-8474804.21	0.0089	0.0088
Venus	-27916-11-13 18:28 J	-8474578.78	-8474578.73	-8474578.66	0.0089	0.0085
Venus	-27915-06-27 06:28 J	-8474353.29	-8474353.23	-8474353.13	0.0089	0.0082
Venus	-27914-02-07 19:11 J	-8474127.80	-8474127.70	-8474127.60	0.0089	0.0078
Venus	-27914-09-21 07:11 J	-8473902.30	-8473902.20	-8473902.08	0.0089	0.0075
Venus	-27913-05-03 19:11 J	-8473676.80	-8473676.70	-8473676.55	0.0089	0.0072
Venus	-27913-12-15 07:55 J	-8473451.30	-8473451.17	-8473451.02	0.0089	0.0068
Venus	-27912-07-28 19:55 J	-8473225.80	-8473225.67	-8473225.50	0.0089	0.0065
Venus	-27911-03-11 08:23 J	-8473000.30	-8473000.15	-8472999.98	0.0089	0.0061
Venus	-27911-10-22 20:23 J	-8472774.79	-8472774.65	-8472774.46	0.0089	0.0058
Venus	-27910-06-05 08:52 J	-8472549.29	-8472549.13	-8472548.95	0.0089	0.0054
Venus	-27909-01-16 21:21 J	-8472323.79	-8472323.61	-8472323.43	0.0089	0.0050
Venus	-27909-08-29 09:21 J	-8472098.28	-8472098.11	-8472097.91	0.0089	0.0047
Venus	-27908-04-11 21:50 J	-8471872.77	-8471872.59	-8471872.39	0.0089	0.0043
Venus	-27908-11-23 10:19 J	-8471647.26	-8471647.07	-8471646.87	0.0089	0.0039

Venus	-27907-07-06 22:19 J	-8471421.76	-8471421.57	-8471421.36	0.0089	0.0036
Venus	-27906-02-17 10:33 J	-8471196.25	-8471196.06	-8471195.84	0.0089	0.0032
Venus	-27906-09-30 23:02 J	-8470970.74	-8470970.54	-8470970.33	0.0089	0.0028
Venus	-27905-05-13 11:31 J	-8470745.22	-8470745.02	-8470744.80	0.0089	0.0024
Venus	-27905-12-24 23:59 J	-8470519.71	-8470519.50	-8470519.28	0.0089	0.0020
Venus	-27904-08-07 12:14 J	-8470294.19	-8470293.99	-8470293.77	0.0089	0.0017
Venus	-27903-03-21 00:43 J	-8470068.68	-8470068.47	-8470068.25	0.0089	0.0013
Venus	-27903-11-01 13:11 J	-8469843.16	-8469842.95	-8469842.73	0.0089	0.0009
Venus	-27902-06-15 01:55 J	-8469617.64	-8469617.42	-8469617.21	0.0089	0.0005
Venus	-27901-01-26 14:09 J	-8469392.12	-8469391.91	-8469391.69	0.0089	0.0002
Venus	-27901-09-08 02:38 J	-8469166.60	-8469166.39	-8469166.17	0.0089	0.0004
Venus	-27900-04-21 15:21 J	-8468941.08	-8468940.86	-8468940.64	0.0088	0.0007
Venus	-27900-12-03 03:50 J	-8468715.56	-8468715.34	-8468715.12	0.0088	0.0011
Venus	-27899-07-16 16:19 J	-8468490.04	-8468489.82	-8468489.61	0.0088	0.0015
Venus	-27898-02-27 04:33 J	-8468264.52	-8468264.31	-8468264.09	0.0088	0.0019
Venus	-27898-10-10 17:02 J	-8468038.99	-8468038.79	-8468038.57	0.0088	0.0022
Venus	-27897-05-23 05:31 J	-8467813.46	-8467813.27	-8467813.04	0.0088	0.0027
Venus	-27896-01-03 18:28 J	-8467587.94	-8467587.73	-8467587.53	0.0088	0.0030
Venus	-27896-08-17 06:43 J	-8467362.41	-8467362.22	-8467362.01	0.0088	0.0034
Venus	-27895-03-30 19:11 J	-8467136.89	-8467136.70	-8467136.49	0.0088	0.0038
Venus	-27895-11-11 07:40 J	-8466911.36	-8466911.18	-8466910.97	0.0088	0.0042
Venus	-27894-06-24 20:38 J	-8466685.83	-8466685.64	-8466685.45	0.0088	0.0045
Venus	-27893-02-05 09:07 J	-8466460.30	-8466460.12	-8466459.93	0.0088	0.0049
Venus	-27893-09-17 21:35 J	-8466234.76	-8466234.60	-8466234.41	0.0088	0.0052
Venus	-27892-05-01 10:04 J	-8466009.23	-8466009.08	-8466008.89	0.0088	0.0057
Venus	-27892-12-12 23:02 J	-8465783.69	-8465783.54	-8465783.37	0.0088	0.0060
Venus	-27891-07-26 11:31 J	-8465558.15	-8465558.02	-8465557.85	0.0088	0.0064
Venus	-27890-03-09 00:28 J	-8465332.61	-8465332.48	-8465332.33	0.0088	0.0067
Venus	-27890-10-20 12:57 J	-8465107.07	-8465106.96	-8465106.81	0.0088	0.0071
Venus	-27889-06-02 02:09 J	-8464881.52	-8464881.41	-8464881.28	0.0088	0.0074

Venus	-27888-01-13 14:38 J	-8464655.97	-8464655.89	-8464655.76	0.0088	0.0078
Venus	-27888-08-27 03:50 J	-8464430.42	-8464430.34	-8464430.24	0.0088	0.0080
Venus	-27887-04-09 16:04 J	-8464204.86	-8464204.83	-8464204.73	0.0088	0.0085
Venus	-27887-11-21 05:02 J	-8463979.30	-8463979.29	-8463979.23	0.0088	0.0088
Earth	-27865-10-09 13:26 J	-8455986.07	-8455985.94	-8455985.77	0.0088	0.0072
Moon	-27865-10-09 15:50 J	-8455985.96	-8455985.84	-8455985.68	0.0088	0.0074 *
Moon	-27864-10-11 23:02 J	-8455618.79	-8455618.54	-8455618.28	0.0088	0.0026
Earth	-27864-10-12 02:23 J	-8455618.63	-8455618.40	-8455618.14	0.0088	0.0029 *
Earth	-27863-10-14 15:21 J	-8455251.12	-8455250.86	-8455250.60	0.0088	0.0014
Moon	-27863-10-14 18:57 J	-8455250.97	-8455250.71	-8455250.45	0.0088	0.0012 *
Moon	-27862-10-16 23:31 J	-8454883.68	-8454883.52	-8454883.29	0.0088	0.0059
Earth	-27862-10-17 03:35 J	-8454883.53	-8454883.35	-8454883.14	0.0088	0.0057 *
Mercury	-27850-08-09 06:43 J	-8450569.24	-8450569.22	-8450569.16	0.0088	0.0086
Mercury	-27850-11-05 10:33 J	-8450481.15	-8450481.06	-8450480.97	0.0088	0.0077
Mercury	-27849-02-01 13:26 J	-8450393.05	-8450392.94	-8450392.81	0.0088	0.0068
Mars	-27849-03-11 06:28 J	-8450354.41	-8450354.23	-8450353.99	0.0088	0.0064
Mercury	-27849-04-29 16:33 J	-8450304.93	-8450304.81	-8450304.65	0.0088	0.0059
Mercury	-27849-07-26 19:55 J	-8450216.81	-8450216.67	-8450216.50	0.0088	0.0049
Mercury	-27849-10-22 23:02 J	-8450128.69	-8450128.54	-8450128.36	0.0088	0.0040
Mercury	-27848-01-19 02:38 J	-8450040.57	-8450040.39	-8450040.22	0.0088	0.0031
Mercury	-27848-04-17 05:45 J	-8449952.44	-8449952.26	-8449952.08	0.0088	0.0021
Mercury	-27848-07-14 08:52 J	-8449864.31	-8449864.13	-8449863.94	0.0088	0.0012
Mercury	-27848-10-10 11:59 J	-8449776.18	-8449776.00	-8449775.81	0.0088	0.0004
Mercury	-27847-01-06 15:07 J	-8449688.05	-8449687.87	-8449687.68	0.0088	0.0007
Mars	-27847-02-03 17:16 J	-8449660.08	-8449659.78	-8449659.47	0.0088	0.0008
Mercury	-27847-04-04 18:14 J	-8449599.91	-8449599.74	-8449599.55	0.0088	0.0015
Mercury	-27847-07-01 21:21 J	-8449511.78	-8449511.61	-8449511.42	0.0088	0.0024
Mercury	-27847-09-28 00:28 J	-8449423.64	-8449423.48	-8449423.30	0.0088	0.0033
Mercury	-27847-12-25 03:21 J	-8449335.50	-8449335.36	-8449335.18	0.0088	0.0043
Mercury	-27846-03-23 06:57 J	-8449247.36	-8449247.21	-8449247.06	0.0088	0.0051

Mercury	-27846-06-19 09:50 J	-8449159.22	-8449159.09	-8449158.95	0.0088	0.0060
Mercury	-27846-09-15 12:43 J	-8449071.07	-8449070.97	-8449070.84	0.0088	0.0069
Mercury	-27846-12-12 15:35 J	-8448982.92	-8448982.85	-8448982.74	0.0088	0.0078
Mars	-27846-12-30 07:11 J	-8448965.45	-8448965.20	-8448964.93	0.0088	0.0049
Mercury	-27845-03-09 18:43 J	-8448894.74	-8448894.72	-8448894.67	0.0088	0.0086
Venus	-27833-08-13 03:50 J	-8444355.34	-8444355.34	-8444355.32	0.0088	0.0088
Venus	-27832-03-26 17:02 J	-8444129.82	-8444129.79	-8444129.70	0.0088	0.0086
Venus	-27832-11-07 07:11 J	-8443904.26	-8443904.20	-8443904.10	0.0088	0.0082
Venus	-27831-06-20 20:38 J	-8443678.71	-8443678.64	-8443678.51	0.0088	0.0079
Venus	-27830-02-01 10:47 J	-8443453.16	-8443453.05	-8443452.92	0.0088	0.0075
Venus	-27830-09-15 00:14 J	-8443227.59	-8443227.49	-8443227.33	0.0088	0.0072
Venus	-27829-04-27 14:09 J	-8443002.03	-8443001.91	-8443001.74	0.0088	0.0068
Venus	-27829-12-09 04:19 J	-8442776.47	-8442776.32	-8442776.16	0.0089	0.0064
Venus	-27828-07-22 17:45 J	-8442550.91	-8442550.76	-8442550.58	0.0089	0.0060
Venus	-27827-03-05 07:26 J	-8442325.34	-8442325.19	-8442325.00	0.0089	0.0057
Venus	-27827-10-16 21:35 J	-8442099.77	-8442099.60	-8442099.41	0.0089	0.0053
Venus	-27826-05-30 11:31 J	-8441874.20	-8441874.02	-8441873.83	0.0089	0.0049
Venus	-27825-01-11 00:57 J	-8441648.64	-8441648.46	-8441648.25	0.0089	0.0045
Venus	-27825-08-23 14:38 J	-8441423.07	-8441422.89	-8441422.68	0.0089	0.0042
Venus	-27824-04-06 04:33 J	-8441197.50	-8441197.31	-8441197.10	0.0089	0.0038
Venus	-27824-11-17 18:28 J	-8440971.93	-8440971.73	-8440971.52	0.0089	0.0034
Venus	-27823-07-01 08:09 J	-8440746.36	-8440746.16	-8440745.94	0.0089	0.0030
Venus	-27822-02-11 21:50 J	-8440520.80	-8440520.59	-8440520.37	0.0089	0.0026
Venus	-27822-09-25 11:31 J	-8440295.23	-8440295.02	-8440294.80	0.0089	0.0022
Venus	-27821-05-08 00:57 J	-8440069.66	-8440069.46	-8440069.23	0.0089	0.0019
Venus	-27821-12-19 14:52 J	-8439844.10	-8439843.88	-8439843.65	0.0089	0.0014
Venus	-27820-08-02 04:19 J	-8439618.53	-8439618.32	-8439618.09	0.0089	0.0011
Venus	-27819-03-15 17:59 J	-8439392.97	-8439392.75	-8439392.52	0.0089	0.0007
Venus	-27819-10-27 07:40 J	-8439167.40	-8439167.18	-8439166.95	0.0089	0.0003
Venus	-27818-06-09 21:21 J	-8438941.84	-8438941.61	-8438941.39	0.0089	0.0002

Venus	-27817-01-21 10:47 J	-8438716.27	-8438716.05	-8438715.83	0.0089	0.0005
Venus	-27817-09-03 00:14 J	-8438490.71	-8438490.49	-8438490.27	0.0089	0.0009
Venus	-27816-04-16 13:55 J	-8438265.14	-8438264.92	-8438264.70	0.0089	0.0013
Venus	-27816-11-28 03:21 J	-8438039.57	-8438039.36	-8438039.14	0.0089	0.0017
Venus	-27815-07-11 16:47 J	-8437814.01	-8437813.80	-8437813.58	0.0089	0.0021
Venus	-27814-02-22 06:14 J	-8437588.44	-8437588.24	-8437588.02	0.0089	0.0025
Venus	-27814-10-05 19:40 J	-8437362.88	-8437362.68	-8437362.46	0.0089	0.0029
Venus	-27813-05-18 09:07 J	-8437137.31	-8437137.12	-8437136.90	0.0089	0.0033
Venus	-27813-12-29 23:02 J	-8436911.74	-8436911.54	-8436911.34	0.0089	0.0036
Venus	-27812-08-12 12:14 J	-8436686.18	-8436685.99	-8436685.78	0.0089	0.0040
Venus	-27811-03-26 01:40 J	-8436460.61	-8436460.43	-8436460.23	0.0089	0.0044
Venus	-27811-11-06 14:52 J	-8436235.04	-8436234.88	-8436234.67	0.0089	0.0048
Venus	-27810-06-20 04:33 J	-8436009.48	-8436009.31	-8436009.12	0.0089	0.0051
Venus	-27809-01-31 17:45 J	-8435783.92	-8435783.76	-8435783.57	0.0089	0.0055
Venus	-27809-09-13 07:26 J	-8435558.36	-8435558.19	-8435558.02	0.0089	0.0058
Venus	-27808-04-26 20:23 J	-8435332.79	-8435332.65	-8435332.48	0.0089	0.0062
Venus	-27808-12-08 09:35 J	-8435107.23	-8435107.10	-8435106.93	0.0089	0.0066
Venus	-27807-07-21 23:02 J	-8434881.66	-8434881.54	-8434881.39	0.0089	0.0069
Venus	-27806-03-04 11:59 J	-8434656.10	-8434656.00	-8434655.85	0.0089	0.0073
Venus	-27806-10-16 01:11 J	-8434430.54	-8434430.45	-8434430.32	0.0089	0.0077
Venus	-27805-05-28 14:52 J	-8434204.97	-8434204.88	-8434204.78	0.0089	0.0079
Venus	-27804-01-09 03:35 J	-8433979.40	-8433979.35	-8433979.25	0.0089	0.0083
Venus	-27804-08-22 16:47 J	-8433753.83	-8433753.80	-8433753.72	0.0089	0.0087
Moon	-27782-04-10 16:04 J	-8425853.00	-8425852.83	-8425852.66	0.0089	0.0066
Earth	-27782-04-10 19:11 J	-8425852.87	-8425852.70	-8425852.50	0.0089	0.0061 *
Earth	-27781-04-12 05:45 J	-8425485.49	-8425485.26	-8425485.00	0.0089	0.0019
Moon	-27781-04-12 09:35 J	-8425485.35	-8425485.10	-8425484.85	0.0089	0.0013 *
Moon	-27780-04-14 13:11 J	-8425118.18	-8425117.95	-8425117.69	0.0089	0.0021
Earth	-27780-04-14 16:33 J	-8425118.05	-8425117.81	-8425117.56	0.0089	0.0026 *
Earth	-27779-04-17 03:07 J	-8424750.53	-8424750.37	-8424750.21	0.0089	0.0069

Moon	-27779-04-17 04:33 J	-8424750.43	-8424750.31	-8424750.13	0.0089	0.0074 *
Mercury	-27769-11-13 06:43 J	-8420887.27	-8420887.22	-8420887.17	0.0089	0.0083
Mercury	-27768-02-09 07:55 J	-8420799.23	-8420799.17	-8420799.09	0.0089	0.0076
Mercury	-27768-05-08 09:21 J	-8420711.18	-8420711.11	-8420711.02	0.0089	0.0069
Mercury	-27768-08-04 10:47 J	-8420623.14	-8420623.05	-8420622.94	0.0089	0.0063
Mercury	-27768-10-31 12:28 J	-8420535.08	-8420534.98	-8420534.87	0.0089	0.0056
Mercury	-27767-01-27 13:40 J	-8420447.03	-8420446.93	-8420446.81	0.0089	0.0049
Mars	-27767-02-04 09:21 J	-8420439.28	-8420439.11	-8420438.87	0.0089	0.0068
Mercury	-27767-04-25 15:07 J	-8420358.98	-8420358.87	-8420358.74	0.0089	0.0042
Mercury	-27767-07-22 16:47 J	-8420270.92	-8420270.80	-8420270.67	0.0089	0.0035
Mercury	-27767-10-18 18:14 J	-8420182.87	-8420182.74	-8420182.61	0.0089	0.0028
Mercury	-27766-01-14 19:40 J	-8420094.81	-8420094.68	-8420094.54	0.0089	0.0021
Mercury	-27766-04-12 21:07 J	-8420006.75	-8420006.62	-8420006.48	0.0089	0.0015
Mercury	-27766-07-09 22:33 J	-8419918.69	-8419918.56	-8419918.42	0.0089	0.0008
Mercury	-27766-10-06 00:14 J	-8419830.63	-8419830.49	-8419830.36	0.0089	0.0002
Mars	-27766-12-31 16:33 J	-8419744.12	-8419743.81	-8419743.49	0.0089	0.0007
Mercury	-27765-01-02 01:40 J	-8419742.57	-8419742.43	-8419742.29	0.0089	0.0007
Mercury	-27765-03-30 03:07 J	-8419654.51	-8419654.37	-8419654.23	0.0089	0.0014
Mercury	-27765-06-26 04:33 J	-8419566.44	-8419566.31	-8419566.17	0.0089	0.0021
Mercury	-27765-09-22 05:59 J	-8419478.38	-8419478.25	-8419478.12	0.0089	0.0028
Mercury	-27765-12-19 07:26 J	-8419390.31	-8419390.19	-8419390.06	0.0089	0.0035
Mercury	-27764-03-17 09:07 J	-8419302.24	-8419302.12	-8419302.00	0.0089	0.0042
Mercury	-27764-06-13 10:19 J	-8419214.17	-8419214.07	-8419213.94	0.0089	0.0049
Mercury	-27764-09-09 11:45 J	-8419126.10	-8419126.01	-8419125.89	0.0089	0.0057
Mars	-27764-11-25 19:40 J	-8419048.91	-8419048.68	-8419048.40	0.0089	0.0053
Mercury	-27764-12-06 13:26 J	-8419038.03	-8419037.94	-8419037.83	0.0089	0.0063
Mercury	-27763-03-04 14:52 J	-8418949.95	-8418949.88	-8418949.78	0.0089	0.0070
Mercury	-27763-05-31 16:33 J	-8418861.87	-8418861.81	-8418861.74	0.0089	0.0077
Mercury	-27763-08-27 17:59 J	-8418773.78	-8418773.75	-8418773.70	0.0089	0.0084
Venus	-27752-07-04 15:50 J	-8414809.87	-8414809.84	-8414809.80	0.0089	0.0087

Venus	-27751-02-15 03:50 J	-8414584.40	-8414584.34	-8414584.26	0.0089	0.0084
Venus	-27751-09-28 16:04 J	-8414358.91	-8414358.83	-8414358.73	0.0089	0.0081
Venus	-27750-05-12 04:04 J	-8414133.41	-8414133.33	-8414133.20	0.0089	0.0078
Venus	-27750-12-23 16:19 J	-8413907.91	-8413907.82	-8413907.68	0.0089	0.0075
Venus	-27749-08-05 05:02 J	-8413682.41	-8413682.29	-8413682.15	0.0089	0.0071
Venus	-27748-03-18 17:16 J	-8413456.90	-8413456.78	-8413456.63	0.0089	0.0068
Venus	-27748-10-30 05:16 J	-8413231.40	-8413231.28	-8413231.11	0.0089	0.0065
Venus	-27747-06-12 17:59 J	-8413005.90	-8413005.75	-8413005.59	0.0089	0.0061
Venus	-27746-01-24 05:59 J	-8412780.40	-8412780.25	-8412780.07	0.0089	0.0058
Venus	-27746-09-06 18:28 J	-8412554.89	-8412554.73	-8412554.55	0.0089	0.0054
Venus	-27745-04-19 06:43 J	-8412329.38	-8412329.22	-8412329.02	0.0089	0.0051
Venus	-27745-11-30 19:11 J	-8412103.87	-8412103.70	-8412103.51	0.0089	0.0047
Venus	-27744-07-14 07:11 J	-8411878.37	-8411878.20	-8411877.99	0.0089	0.0044
Venus	-27743-02-24 19:40 J	-8411652.86	-8411652.68	-8411652.48	0.0089	0.0040
Venus	-27743-10-08 07:55 J	-8411427.35	-8411427.17	-8411426.96	0.0089	0.0037
Venus	-27742-05-21 20:23 J	-8411201.84	-8411201.65	-8411201.44	0.0089	0.0033
Venus	-27741-01-02 08:52 J	-8410976.33	-8410976.13	-8410975.92	0.0089	0.0029
Venus	-27741-08-14 20:52 J	-8410750.82	-8410750.63	-8410750.41	0.0089	0.0026
Venus	-27740-03-28 09:21 J	-8410525.31	-8410525.11	-8410524.89	0.0089	0.0022
Venus	-27740-11-08 21:50 J	-8410299.80	-8410299.59	-8410299.37	0.0089	0.0018
Venus	-27739-06-22 10:04 J	-8410074.29	-8410074.08	-8410073.86	0.0089	0.0015
Venus	-27738-02-02 22:33 J	-8409848.77	-8409848.56	-8409848.34	0.0089	0.0011
Venus	-27738-09-16 11:02 J	-8409623.26	-8409623.04	-8409622.82	0.0089	0.0007
Venus	-27737-04-28 23:31 J	-8409397.73	-8409397.52	-8409397.30	0.0089	0.0004
Venus	-27737-12-10 12:14 J	-8409172.21	-8409171.99	-8409171.78	0.0089	0.0002
Venus	-27736-07-24 00:28 J	-8408946.69	-8408946.48	-8408946.26	0.0088	0.0005
Venus	-27735-03-06 12:57 J	-8408721.18	-8408720.96	-8408720.74	0.0088	0.0008
Venus	-27735-10-18 01:26 J	-8408495.65	-8408495.44	-8408495.22	0.0088	0.0012
Venus	-27734-05-31 13:55 J	-8408270.13	-8408269.92	-8408269.70	0.0088	0.0016
Venus	-27733-01-12 02:23 J	-8408044.60	-8408044.40	-8408044.18	0.0088	0.0020

Venus	-27733-08-24 14:52 J	-8407819.08	-8407818.88	-8407818.66	0.0088	0.0023
Venus	-27732-04-07 03:35 J	-8407593.56	-8407593.35	-8407593.14	0.0088	0.0027
Venus	-27732-11-18 15:50 J	-8407368.03	-8407367.84	-8407367.63	0.0088	0.0031
Venus	-27731-07-02 04:19 J	-8407142.51	-8407142.32	-8407142.11	0.0088	0.0034
Venus	-27730-02-12 17:02 J	-8406916.98	-8406916.79	-8406916.59	0.0088	0.0038
Venus	-27730-09-26 05:16 J	-8406691.46	-8406691.28	-8406691.07	0.0088	0.0042
Venus	-27729-05-08 18:14 J	-8406465.92	-8406465.74	-8406465.55	0.0088	0.0045
Venus	-27729-12-20 06:43 J	-8406240.39	-8406240.22	-8406240.03	0.0088	0.0048
Venus	-27728-08-02 18:57 J	-8406014.87	-8406014.71	-8406014.51	0.0088	0.0053
Venus	-27727-03-16 07:40 J	-8405789.34	-8405789.18	-8405789.00	0.0088	0.0056
Venus	-27727-10-27 20:09 J	-8405563.80	-8405563.66	-8405563.48	0.0088	0.0059
Venus	-27726-06-10 09:07 J	-8405338.26	-8405338.12	-8405337.95	0.0088	0.0063
Venus	-27725-01-21 21:35 J	-8405112.72	-8405112.60	-8405112.43	0.0088	0.0067
Venus	-27725-09-03 10:33 J	-8404887.18	-8404887.06	-8404886.91	0.0088	0.0069
Venus	-27724-04-16 23:31 J	-8404661.64	-8404661.52	-8404661.39	0.0088	0.0073
Venus	-27724-11-28 11:45 J	-8404436.09	-8404436.01	-8404435.87	0.0088	0.0077
Venus	-27723-07-12 00:43 J	-8404210.54	-8404210.47	-8404210.35	0.0088	0.0080
Venus	-27722-02-22 13:40 J	-8403984.99	-8403984.93	-8403984.84	0.0088	0.0083
Venus	-27722-10-06 02:52 J	-8403759.43	-8403759.38	-8403759.33	0.0088	0.0086
Earth	-27700-10-11 05:59 J	-8395718.44	-8395718.25	-8395718.03	0.0088	0.0054
Moon	-27700-10-11 09:50 J	-8395718.27	-8395718.09	-8395717.88	0.0088	0.0058 *
Moon	-27699-10-13 15:50 J	-8395351.09	-8395350.84	-8395350.58	0.0088	0.0008
Earth	-27699-10-13 18:57 J	-8395350.97	-8395350.71	-8395350.45	0.0088	0.0011 *
Earth	-27698-10-16 07:11 J	-8394983.43	-8394983.20	-8394982.94	0.0088	0.0032
Moon	-27698-10-16 10:04 J	-8394983.32	-8394983.08	-8394982.81	0.0088	0.0028 *
Moon	-27697-10-17 18:14 J	-8394615.83	-8394615.74	-8394615.61	0.0088	0.0079
Earth	-27697-10-17 19:40 J	-8394615.79	-8394615.68	-8394615.52	0.0088	0.0075 *
Mercury	-27685-05-05 03:50 J	-8390398.37	-8390398.34	-8390398.28	0.0088	0.0086
Mercury	-27685-08-01 07:11 J	-8390310.28	-8390310.20	-8390310.09	0.0088	0.0076
Mercury	-27685-10-28 10:47 J	-8390222.17	-8390222.05	-8390221.93	0.0088	0.0067

Mercury	-27684-01-24 13:55 J	-8390134.06	-8390133.92	-8390133.77	0.0088	0.0057
Mercury	-27684-04-22 17:02 J	-8390045.94	-8390045.79	-8390045.62	0.0088	0.0048
Mercury	-27684-07-19 20:09 J	-8389957.81	-8389957.66	-8389957.48	0.0088	0.0039
Mars	-27684-09-18 07:55 J	-8389897.43	-8389897.17	-8389896.87	0.0088	0.0038
Mercury	-27684-10-15 23:31 J	-8389869.69	-8389869.52	-8389869.34	0.0088	0.0030
Mercury	-27683-01-12 02:52 J	-8389781.56	-8389781.38	-8389781.20	0.0088	0.0021
Mercury	-27683-04-10 05:59 J	-8389693.43	-8389693.25	-8389693.06	0.0088	0.0012
Mercury	-27683-07-07 09:21 J	-8389605.30	-8389605.11	-8389604.93	0.0088	0.0003
Mercury	-27683-10-03 12:28 J	-8389517.17	-8389516.98	-8389516.80	0.0088	0.0007
Mercury	-27683-12-30 15:21 J	-8389429.03	-8389428.86	-8389428.67	0.0088	0.0017
Mercury	-27682-03-28 18:28 J	-8389340.89	-8389340.73	-8389340.54	0.0088	0.0026
Mercury	-27682-06-24 21:35 J	-8389252.76	-8389252.60	-8389252.42	0.0088	0.0034
Mars	-27682-08-13 18:57 J	-8389203.01	-8389202.71	-8389202.40	0.0088	0.0018
Mercury	-27682-09-21 00:43 J	-8389164.62	-8389164.47	-8389164.30	0.0088	0.0043
Mercury	-27682-12-18 03:50 J	-8389076.48	-8389076.34	-8389076.18	0.0088	0.0052
Mercury	-27681-03-15 07:11 J	-8388988.33	-8388988.20	-8388988.07	0.0088	0.0061
Mercury	-27681-06-11 10:19 J	-8388900.18	-8388900.07	-8388899.96	0.0088	0.0070
Mercury	-27681-09-07 13:11 J	-8388812.02	-8388811.95	-8388811.86	0.0088	0.0078
Mercury	-27681-12-04 16:04 J	-8388723.84	-8388723.83	-8388723.79	0.0088	0.0087
Mars	-27680-07-08 08:09 J	-8388508.30	-8388508.16	-8388507.98	0.0088	0.0075
Venus	-27669-11-14 10:33 J	-8384361.07	-8384361.06	-8384361.01	0.0088	0.0088
Venus	-27668-06-28 00:14 J	-8384135.53	-8384135.49	-8384135.40	0.0088	0.0085
Venus	-27667-02-08 13:55 J	-8383909.98	-8383909.92	-8383909.81	0.0088	0.0082
Venus	-27667-09-22 04:04 J	-8383684.42	-8383684.33	-8383684.21	0.0088	0.0078
Venus	-27666-05-05 17:45 J	-8383458.86	-8383458.76	-8383458.62	0.0088	0.0075
Venus	-27666-12-17 07:55 J	-8383233.30	-8383233.17	-8383233.04	0.0088	0.0071
Venus	-27665-07-29 21:07 J	-8383007.75	-8383007.62	-8383007.46	0.0088	0.0068
Venus	-27664-03-12 10:47 J	-8382782.18	-8382782.05	-8382781.88	0.0089	0.0065
Venus	-27664-10-24 00:43 J	-8382556.62	-8382556.47	-8382556.29	0.0089	0.0061
Venus	-27663-06-06 14:52 J	-8382331.05	-8382330.88	-8382330.71	0.0089	0.0057

Venus	-27662-01-18 04:04 J	-8382105.49	-8382105.33	-8382105.13	0.0089	0.0054
Venus	-27662-08-31 17:59 J	-8381879.92	-8381879.75	-8381879.55	0.0089	0.0050
Venus	-27661-04-13 07:40 J	-8381654.36	-8381654.18	-8381653.97	0.0089	0.0046
Venus	-27661-11-24 21:35 J	-8381428.78	-8381428.60	-8381428.39	0.0089	0.0043
Venus	-27660-07-08 11:16 J	-8381203.22	-8381203.03	-8381202.82	0.0089	0.0039
Venus	-27659-02-19 01:11 J	-8380977.65	-8380977.45	-8380977.24	0.0089	0.0035
Venus	-27659-10-02 14:38 J	-8380752.08	-8380751.89	-8380751.66	0.0089	0.0032
Venus	-27658-05-16 04:33 J	-8380526.51	-8380526.31	-8380526.09	0.0089	0.0028
Venus	-27658-12-27 18:28 J	-8380300.94	-8380300.73	-8380300.51	0.0089	0.0024
Venus	-27657-08-09 08:09 J	-8380075.38	-8380075.16	-8380074.94	0.0089	0.0020
Venus	-27656-03-22 21:35 J	-8379849.81	-8379849.60	-8379849.37	0.0089	0.0017
Venus	-27656-11-03 11:16 J	-8379624.24	-8379624.03	-8379623.80	0.0089	0.0013
Venus	-27655-06-17 00:57 J	-8379398.67	-8379398.46	-8379398.23	0.0089	0.0009
Venus	-27654-01-28 14:38 J	-8379173.11	-8379172.89	-8379172.67	0.0089	0.0005
Venus	-27654-09-11 04:19 J	-8378947.55	-8378947.32	-8378947.10	0.0089	0.0002
Venus	-27653-04-23 17:45 J	-8378721.98	-8378721.76	-8378721.54	0.0089	0.0003
Venus	-27653-12-05 07:11 J	-8378496.41	-8378496.20	-8378495.97	0.0089	0.0007
Venus	-27652-07-18 20:38 J	-8378270.85	-8378270.64	-8378270.41	0.0089	0.0011
Venus	-27651-03-01 10:19 J	-8378045.29	-8378045.07	-8378044.85	0.0089	0.0014
Venus	-27651-10-12 23:45 J	-8377819.72	-8377819.51	-8377819.29	0.0089	0.0018
Venus	-27650-05-26 13:11 J	-8377594.16	-8377593.95	-8377593.72	0.0089	0.0022
Venus	-27649-01-07 02:38 J	-8377368.59	-8377368.39	-8377368.16	0.0089	0.0026
Venus	-27649-08-19 16:19 J	-8377143.03	-8377142.82	-8377142.61	0.0089	0.0029
Venus	-27648-04-02 05:31 J	-8376917.46	-8376917.27	-8376917.05	0.0089	0.0033
Venus	-27648-11-13 19:11 J	-8376691.89	-8376691.70	-8376691.49	0.0089	0.0037
Venus	-27647-06-27 08:52 J	-8376466.32	-8376466.13	-8376465.93	0.0089	0.0040
Venus	-27646-02-07 22:04 J	-8376240.76	-8376240.58	-8376240.38	0.0089	0.0044
Venus	-27646-09-21 11:45 J	-8376015.20	-8376015.01	-8376014.82	0.0089	0.0047
Venus	-27645-05-04 00:57 J	-8375789.63	-8375789.46	-8375789.27	0.0089	0.0051
Venus	-27645-12-15 14:09 J	-8375564.06	-8375563.91	-8375563.71	0.0089	0.0055

Venus	-27644-07-29 03:50 J	-8375338.49	-8375338.34	-8375338.16	0.0089	0.0058
Venus	-27643-03-11 16:47 J	-8375112.93	-8375112.80	-8375112.62	0.0089	0.0062
Venus	-27643-10-23 06:14 J	-8374887.37	-8374887.24	-8374887.07	0.0089	0.0065
Venus	-27642-06-05 19:55 J	-8374661.80	-8374661.67	-8374661.52	0.0089	0.0068
Venus	-27641-01-17 08:52 J	-8374436.24	-8374436.13	-8374435.98	0.0089	0.0072
Venus	-27641-08-29 22:04 J	-8374210.68	-8374210.58	-8374210.44	0.0089	0.0075
Venus	-27640-04-12 11:31 J	-8373985.11	-8373985.02	-8373984.91	0.0089	0.0078
Venus	-27640-11-24 00:43 J	-8373759.54	-8373759.47	-8373759.37	0.0089	0.0082
Venus	-27639-07-07 14:09 J	-8373533.97	-8373533.91	-8373533.84	0.0089	0.0085
Venus	-27638-02-18 02:38 J	-8373308.40	-8373308.39	-8373308.32	0.0089	0.0088
Earth	-27618-04-10 01:11 J	-8365952.49	-8365952.45	-8365952.38	0.0089	0.0087
Moon	-27618-04-10 04:04 J	-8365952.35	-8365952.33	-8365952.24	0.0089	0.0088
Moon	-27617-04-11 09:21 J	-8365585.33	-8365585.11	-8365584.89	0.0089	0.0044
Earth	-27617-04-11 11:45 J	-8365585.22	-8365585.01	-8365584.77	0.0089	0.0043 *
Earth	-27616-04-13 22:33 J	-8365217.81	-8365217.56	-8365217.30	0.0089	0.0001
Moon	-27616-04-14 00:43 J	-8365217.73	-8365217.47	-8365217.21	0.0089	0.0001 *
Moon	-27615-04-16 08:23 J	-8364850.34	-8364850.15	-8364849.91	0.0089	0.0045
Earth	-27615-04-16 09:07 J	-8364850.34	-8364850.12	-8364849.89	0.0089	0.0044 *
Moon	-27614-04-18 18:28 J	-8364482.75	-8364482.73	-8364482.64	0.0089	0.0088
Earth	-27614-04-18 18:57 J	-8364482.73	-8364482.71	-8364482.62	0.0089	0.0088 *
Mercury	-27604-05-14 04:04 J	-8360804.34	-8360804.33	-8360804.30	0.0089	0.0088
Mercury	-27604-08-10 05:31 J	-8360716.31	-8360716.27	-8360716.21	0.0089	0.0082
Mercury	-27604-11-06 07:11 J	-8360628.27	-8360628.20	-8360628.13	0.0089	0.0075
Mercury	-27603-02-02 08:23 J	-8360540.23	-8360540.15	-8360540.05	0.0089	0.0068
Mercury	-27603-05-01 09:50 J	-8360452.18	-8360452.09	-8360451.98	0.0089	0.0061
Mercury	-27603-07-28 11:16 J	-8360364.13	-8360364.03	-8360363.91	0.0089	0.0054
Mercury	-27603-10-24 12:57 J	-8360276.08	-8360275.96	-8360275.85	0.0089	0.0047
Mercury	-27602-01-20 14:23 J	-8360188.02	-8360187.90	-8360187.78	0.0089	0.0041
Mercury	-27602-04-18 15:50 J	-8360099.97	-8360099.84	-8360099.71	0.0089	0.0034
Mercury	-27602-07-15 17:02 J	-8360011.91	-8360011.79	-8360011.65	0.0089	0.0027

Mars	-27602-08-14 15:21 J	-8359982.13	-8359981.86	-8359981.55	0.0089	0.0039
Mercury	-27602-10-11 18:43 J	-8359923.85	-8359923.72	-8359923.59	0.0089	0.0020
Mercury	-27601-01-07 20:09 J	-8359835.79	-8359835.66	-8359835.52	0.0089	0.0013
Mercury	-27601-04-04 21:35 J	-8359747.73	-8359747.60	-8359747.46	0.0089	0.0006
Mercury	-27601-07-01 23:02 J	-8359659.67	-8359659.54	-8359659.40	0.0089	0.0003
Mercury	-27601-09-28 00:28 J	-8359571.61	-8359571.48	-8359571.34	0.0089	0.0009
Mercury	-27601-12-25 01:55 J	-8359483.55	-8359483.42	-8359483.28	0.0089	0.0015
Mercury	-27600-03-23 03:21 J	-8359395.48	-8359395.36	-8359395.22	0.0089	0.0023
Mercury	-27600-06-19 05:02 J	-8359307.42	-8359307.29	-8359307.16	0.0089	0.0029
Mars	-27600-07-09 21:35 J	-8359286.90	-8359286.60	-8359286.28	0.0089	0.0022
Mercury	-27600-09-15 06:28 J	-8359219.35	-8359219.23	-8359219.10	0.0089	0.0036
Mercury	-27600-12-12 07:55 J	-8359131.29	-8359131.17	-8359131.04	0.0089	0.0043
Mercury	-27599-03-10 09:21 J	-8359043.22	-8359043.11	-8359042.99	0.0089	0.0050
Mercury	-27599-06-06 10:47 J	-8358955.14	-8358955.05	-8358954.93	0.0089	0.0058
Mercury	-27599-09-02 12:28 J	-8358867.07	-8358866.98	-8358866.88	0.0089	0.0064
Mercury	-27599-11-29 13:55 J	-8358778.99	-8358778.92	-8358778.83	0.0089	0.0071
Mercury	-27598-02-25 15:35 J	-8358690.91	-8358690.85	-8358690.79	0.0089	0.0078
Mercury	-27598-05-24 17:02 J	-8358602.82	-8358602.79	-8358602.75	0.0089	0.0086
Mars	-27598-06-05 00:57 J	-8358591.55	-8358591.46	-8358591.30	0.0089	0.0082
Venus	-27588-10-06 01:11 J	-8354815.49	-8354815.45	-8354815.40	0.0089	0.0086
Venus	-27587-05-19 13:26 J	-8354590.01	-8354589.94	-8354589.87	0.0089	0.0083
Venus	-27587-12-31 01:40 J	-8354364.52	-8354364.43	-8354364.34	0.0089	0.0080
Venus	-27586-08-13 13:40 J	-8354139.03	-8354138.93	-8354138.82	0.0089	0.0077
Venus	-27585-03-26 01:55 J	-8353913.53	-8353913.42	-8353913.29	0.0089	0.0074
Venus	-27585-11-06 14:09 J	-8353688.03	-8353687.91	-8353687.77	0.0089	0.0071
Venus	-27584-06-20 02:09 J	-8353462.53	-8353462.41	-8353462.25	0.0089	0.0068
Venus	-27583-01-31 14:23 J	-8353237.03	-8353236.90	-8353236.73	0.0089	0.0065
Venus	-27583-09-14 02:52 J	-8353011.52	-8353011.38	-8353011.21	0.0089	0.0061
Venus	-27582-04-27 15:21 J	-8352786.01	-8352785.86	-8352785.68	0.0089	0.0058
Venus	-27582-12-09 03:21 J	-8352560.51	-8352560.36	-8352560.17	0.0089	0.0055

Venus	-27581-07-21 16:04 J	-8352335.00	-8352334.83	-8352334.65	0.0089	0.0051
Venus	-27580-03-04 04:04 J	-8352109.50	-8352109.33	-8352109.13	0.0089	0.0048
Venus	-27580-10-15 16:33 J	-8351883.99	-8351883.81	-8351883.61	0.0089	0.0044
Venus	-27579-05-29 04:47 J	-8351658.48	-8351658.30	-8351658.10	0.0089	0.0041
Venus	-27578-01-09 17:16 J	-8351432.97	-8351432.78	-8351432.58	0.0089	0.0037
Venus	-27578-08-23 05:31 J	-8351207.46	-8351207.27	-8351207.06	0.0089	0.0034
Venus	-27577-04-04 17:59 J	-8350981.95	-8350981.75	-8350981.54	0.0089	0.0030
Venus	-27577-11-16 06:14 J	-8350756.44	-8350756.24	-8350756.03	0.0089	0.0027
Venus	-27576-06-29 18:43 J	-8350530.93	-8350530.72	-8350530.52	0.0089	0.0023
Venus	-27575-02-10 06:43 J	-8350305.42	-8350305.22	-8350305.00	0.0089	0.0020
Venus	-27575-09-23 19:11 J	-8350079.91	-8350079.70	-8350079.49	0.0089	0.0016
Venus	-27574-05-07 07:40 J	-8349854.39	-8349854.18	-8349853.96	0.0089	0.0012
Venus	-27574-12-18 20:09 J	-8349628.88	-8349628.66	-8349628.45	0.0089	0.0009
Venus	-27573-07-31 08:23 J	-8349403.36	-8349403.15	-8349402.93	0.0089	0.0005
Venus	-27572-03-13 20:52 J	-8349177.85	-8349177.63	-8349177.42	0.0088	0.0002
Venus	-27572-10-25 09:21 J	-8348952.33	-8348952.11	-8348951.90	0.0088	0.0003
Venus	-27571-06-07 21:50 J	-8348726.81	-8348726.59	-8348726.37	0.0088	0.0006
Venus	-27570-01-19 10:19 J	-8348501.29	-8348501.07	-8348500.85	0.0088	0.0009
Venus	-27570-09-01 22:33 J	-8348275.77	-8348275.56	-8348275.34	0.0088	0.0013
Venus	-27569-04-14 11:16 J	-8348050.24	-8348050.03	-8348049.81	0.0088	0.0017
Venus	-27569-11-25 23:45 J	-8347824.72	-8347824.51	-8347824.29	0.0088	0.0020
Venus	-27568-07-09 12:14 J	-8347599.19	-8347598.99	-8347598.77	0.0088	0.0024
Venus	-27567-02-20 00:43 J	-8347373.67	-8347373.47	-8347373.26	0.0088	0.0027
Venus	-27567-10-03 13:26 J	-8347148.15	-8347147.94	-8347147.74	0.0088	0.0031
Venus	-27566-05-17 01:55 J	-8346922.61	-8346922.42	-8346922.21	0.0088	0.0034
Venus	-27566-12-28 14:38 J	-8346697.09	-8346696.89	-8346696.69	0.0088	0.0038
Venus	-27565-08-10 02:52 J	-8346471.56	-8346471.38	-8346471.18	0.0088	0.0041
Venus	-27564-03-23 15:35 J	-8346246.04	-8346245.85	-8346245.66	0.0088	0.0045
Venus	-27564-11-04 03:50 J	-8346020.51	-8346020.34	-8346020.14	0.0088	0.0049
Venus	-27563-06-17 16:47 J	-8345794.97	-8345794.80	-8345794.62	0.0088	0.0052

Venus	-27562-01-29 05:02 J	-8345569.44	-8345569.29	-8345569.10	0.0088	0.0056
Venus	-27562-09-11 17:45 J	-8345343.91	-8345343.76	-8345343.58	0.0088	0.0059
Venus	-27561-04-24 06:43 J	-8345118.37	-8345118.22	-8345118.06	0.0088	0.0062
Venus	-27561-12-05 18:57 J	-8344892.84	-8344892.71	-8344892.54	0.0088	0.0065
Venus	-27560-07-19 07:40 J	-8344667.30	-8344667.18	-8344667.02	0.0088	0.0069
Venus	-27559-03-01 20:38 J	-8344441.76	-8344441.64	-8344441.51	0.0088	0.0071
Venus	-27559-10-13 09:21 J	-8344216.22	-8344216.11	-8344215.99	0.0088	0.0075
Venus	-27558-05-26 21:50 J	-8343990.66	-8343990.59	-8343990.46	0.0088	0.0078
Venus	-27557-01-07 10:47 J	-8343765.11	-8343765.05	-8343764.94	0.0088	0.0081
Venus	-27557-08-19 23:31 J	-8343539.56	-8343539.52	-8343539.43	0.0088	0.0084
Venus	-27556-04-02 12:14 J	-8343314.00	-8343313.99	-8343313.93	0.0088	0.0088
Moon	-27536-10-10 05:59 J	-8335818.31	-8335818.25	-8335818.15	0.0088	0.0083
Earth	-27536-10-10 08:52 J	-8335818.21	-8335818.13	-8335817.99	0.0088	0.0080 *
Earth	-27535-10-12 21:50 J	-8335450.82	-8335450.59	-8335450.34	0.0088	0.0037
Moon	-27535-10-12 23:31 J	-8335450.75	-8335450.52	-8335450.26	0.0088	0.0034 *
Moon	-27534-10-15 09:35 J	-8335083.35	-8335083.10	-8335082.85	0.0088	0.0004
Earth	-27534-10-15 10:33 J	-8335083.32	-8335083.06	-8335082.79	0.0088	0.0006 *
Earth	-27533-10-16 23:02 J	-8334715.75	-8334715.54	-8334715.31	0.0088	0.0049
Moon	-27533-10-16 22:33 J	-8334715.75	-8334715.56	-8334715.32	0.0088	0.0052 *
Jupiter	-27531-02-20 14:38 J	-8334224.01	-8334223.89	-8334223.63	0.0088	0.0083
Mercury	-27520-01-30 01:11 J	-8330227.50	-8330227.45	-8330227.40	0.0088	0.0084
Mercury	-27520-04-28 04:19 J	-8330139.41	-8330139.32	-8330139.22	0.0088	0.0075
Mars	-27520-05-02 22:19 J	-8330134.75	-8330134.57	-8330134.36	0.0088	0.0068
Mercury	-27520-07-25 07:26 J	-8330051.30	-8330051.19	-8330051.05	0.0088	0.0066
Mercury	-27520-10-21 10:33 J	-8329963.18	-8329963.06	-8329962.90	0.0088	0.0057
Mercury	-27519-01-17 14:09 J	-8329875.06	-8329874.91	-8329874.75	0.0088	0.0048
Mercury	-27519-04-15 17:16 J	-8329786.94	-8329786.78	-8329786.60	0.0088	0.0039
Mercury	-27519-07-12 20:38 J	-8329698.81	-8329698.64	-8329698.46	0.0088	0.0029
Mercury	-27519-10-08 23:45 J	-8329610.68	-8329610.51	-8329610.32	0.0088	0.0020
Mercury	-27518-01-05 03:07 J	-8329522.55	-8329522.37	-8329522.18	0.0088	0.0011

Mars	-27518-03-28 08:23 J	-8329440.45	-8329440.15	-8329439.84	0.0088	0.0012
Mercury	-27518-04-03 06:14 J	-8329434.42	-8329434.24	-8329434.05	0.0088	0.0003
Mercury	-27518-06-30 09:35 J	-8329346.29	-8329346.10	-8329345.92	0.0088	0.0008
Mercury	-27518-09-26 12:28 J	-8329258.15	-8329257.98	-8329257.79	0.0088	0.0017
Mercury	-27518-12-23 15:35 J	-8329170.02	-8329169.85	-8329169.66	0.0088	0.0026
Mercury	-27517-03-20 18:43 J	-8329081.88	-8329081.72	-8329081.54	0.0088	0.0035
Mercury	-27517-06-16 21:50 J	-8328993.74	-8328993.59	-8328993.42	0.0088	0.0044
Mercury	-27517-09-13 00:57 J	-8328905.59	-8328905.46	-8328905.30	0.0088	0.0053
Mercury	-27517-12-10 04:19 J	-8328817.45	-8328817.32	-8328817.19	0.0088	0.0062
Mars	-27516-02-19 19:11 J	-8328745.95	-8328745.70	-8328745.42	0.0088	0.0045
Mercury	-27516-03-08 07:26 J	-8328729.30	-8328729.19	-8328729.08	0.0088	0.0070
Mercury	-27516-06-04 10:19 J	-8328641.14	-8328641.07	-8328640.98	0.0088	0.0079
Mercury	-27516-08-31 13:40 J	-8328552.93	-8328552.93	-8328552.93	0.0088	0.0088
Venus	-27504-02-15 16:33 J	-8324366.83	-8324366.81	-8324366.75	0.0088	0.0087
Venus	-27504-09-29 06:28 J	-8324141.28	-8324141.23	-8324141.14	0.0088	0.0084
Venus	-27503-05-12 20:23 J	-8323915.73	-8323915.65	-8323915.54	0.0088	0.0081
Venus	-27503-12-24 10:04 J	-8323690.17	-8323690.08	-8323689.95	0.0088	0.0078
Venus	-27502-08-06 23:45 J	-8323464.61	-8323464.51	-8323464.37	0.0088	0.0074
Venus	-27501-03-19 13:55 J	-8323239.05	-8323238.92	-8323238.78	0.0088	0.0071
Venus	-27501-10-31 03:35 J	-8323013.48	-8323013.35	-8323013.19	0.0088	0.0068
Venus	-27500-06-13 17:02 J	-8322787.92	-8322787.79	-8322787.61	0.0088	0.0065
Venus	-27499-01-25 07:11 J	-8322562.36	-8322562.20	-8322562.03	0.0089	0.0061
Venus	-27499-09-07 20:38 J	-8322336.79	-8322336.64	-8322336.45	0.0089	0.0058
Venus	-27498-04-21 10:47 J	-8322111.22	-8322111.05	-8322110.87	0.0089	0.0054
Venus	-27498-12-03 00:14 J	-8321885.66	-8321885.49	-8321885.29	0.0089	0.0051
Venus	-27497-07-15 14:09 J	-8321660.09	-8321659.91	-8321659.71	0.0089	0.0047
Venus	-27496-02-26 03:35 J	-8321434.53	-8321434.35	-8321434.14	0.0089	0.0044
Venus	-27496-10-09 17:45 J	-8321208.95	-8321208.76	-8321208.55	0.0089	0.0040
Venus	-27495-05-23 07:11 J	-8320983.38	-8320983.20	-8320982.98	0.0089	0.0037
Venus	-27494-01-03 21:07 J	-8320757.82	-8320757.62	-8320757.40	0.0089	0.0033

Venus	-27494-08-17 11:02 J	-8320532.25	-8320532.04	-8320531.83	0.0089	0.0029
Venus	-27493-03-30 00:28 J	-8320306.68	-8320306.48	-8320306.25	0.0089	0.0026
Venus	-27493-11-10 14:23 J	-8320081.11	-8320080.90	-8320080.67	0.0089	0.0022
Venus	-27492-06-24 04:19 J	-8319855.54	-8319855.32	-8319855.10	0.0089	0.0018
Venus	-27491-02-04 17:45 J	-8319629.97	-8319629.76	-8319629.53	0.0089	0.0015
Venus	-27491-09-18 07:40 J	-8319404.40	-8319404.18	-8319403.96	0.0089	0.0011
Venus	-27490-05-01 21:21 J	-8319178.83	-8319178.61	-8319178.39	0.0089	0.0007
Venus	-27490-12-13 11:02 J	-8318953.26	-8318953.04	-8318952.82	0.0089	0.0003
Venus	-27489-07-26 00:28 J	-8318727.70	-8318727.48	-8318727.25	0.0089	0.0001
Venus	-27488-03-08 14:09 J	-8318502.14	-8318501.91	-8318501.69	0.0089	0.0004
Venus	-27488-10-20 03:35 J	-8318276.57	-8318276.35	-8318276.12	0.0089	0.0008
Venus	-27487-06-02 17:16 J	-8318051.00	-8318050.78	-8318050.56	0.0089	0.0011
Venus	-27486-01-14 06:43 J	-8317825.44	-8317825.22	-8317825.00	0.0089	0.0015
Venus	-27486-08-27 19:55 J	-8317599.88	-8317599.67	-8317599.44	0.0089	0.0019
Venus	-27485-04-09 09:35 J	-8317374.31	-8317374.10	-8317373.88	0.0089	0.0022
Venus	-27485-11-20 23:02 J	-8317148.74	-8317148.54	-8317148.32	0.0089	0.0026
Venus	-27484-07-04 12:43 J	-8316923.18	-8316922.97	-8316922.76	0.0089	0.0029
Venus	-27483-02-15 01:55 J	-8316697.62	-8316697.42	-8316697.20	0.0089	0.0033
Venus	-27483-09-28 15:07 J	-8316472.05	-8316471.87	-8316471.65	0.0089	0.0037
Venus	-27482-05-12 04:47 J	-8316246.49	-8316246.30	-8316246.09	0.0089	0.0040
Venus	-27482-12-23 18:14 J	-8316020.92	-8316020.74	-8316020.53	0.0089	0.0044
Venus	-27481-08-05 07:40 J	-8315795.35	-8315795.18	-8315794.98	0.0089	0.0047
Venus	-27480-03-18 20:52 J	-8315569.79	-8315569.63	-8315569.43	0.0089	0.0051
Venus	-27480-10-30 10:33 J	-8315344.22	-8315344.06	-8315343.87	0.0089	0.0054
Venus	-27479-06-12 23:59 J	-8315118.66	-8315118.50	-8315118.32	0.0089	0.0057
Venus	-27478-01-24 13:11 J	-8314893.09	-8314892.95	-8314892.77	0.0089	0.0061
Venus	-27478-09-07 02:38 J	-8314667.53	-8314667.39	-8314667.22	0.0089	0.0064
Venus	-27477-04-19 16:04 J	-8314441.96	-8314441.83	-8314441.68	0.0089	0.0067
Venus	-27477-12-01 05:31 J	-8314216.40	-8314216.27	-8314216.13	0.0089	0.0070
Venus	-27476-07-14 18:14 J	-8313990.83	-8313990.74	-8313990.59	0.0089	0.0074

Venus	-27475-02-25 07:26 J	-8313765.27	-8313765.19	-8313765.05	0.0089	0.0077
Venus	-27475-10-08 20:38 J	-8313539.71	-8313539.64	-8313539.52	0.0089	0.0080
Venus	-27474-05-22 09:50 J	-8313314.14	-8313314.09	-8313313.99	0.0089	0.0083
Venus	-27473-01-02 23:16 J	-8313088.57	-8313088.53	-8313088.46	0.0089	0.0086
Venus	-27473-08-15 12:28 J	-8312862.98	-8312862.98	-8312862.95	0.0089	0.0089
Earth	-27453-04-10 17:02 J	-8305684.92	-8305684.79	-8305684.61	0.0089	0.0070
Moon	-27453-04-10 18:28 J	-8305684.86	-8305684.73	-8305684.56	0.0089	0.0073 *
Moon	-27452-04-13 03:50 J	-8305317.57	-8305317.34	-8305317.10	0.0089	0.0021
Earth	-27452-04-13 04:19 J	-8305317.56	-8305317.32	-8305317.08	0.0089	0.0026 *
Moon	-27451-04-15 13:26 J	-8304950.20	-8304949.94	-8304949.68	0.0089	0.0013
Earth	-27451-04-15 14:38 J	-8304950.13	-8304949.89	-8304949.63	0.0089	0.0018 *
Earth	-27450-04-18 00:57 J	-8304582.62	-8304582.46	-8304582.25	0.0089	0.0062
Moon	-27450-04-18 03:35 J	-8304582.51	-8304582.35	-8304582.18	0.0089	0.0066 *
Mercury	-27439-02-08 03:07 J	-8300633.39	-8300633.37	-8300633.34	0.0089	0.0087
Mercury	-27439-05-07 04:33 J	-8300545.36	-8300545.31	-8300545.25	0.0089	0.0081
Mercury	-27439-08-03 05:45 J	-8300457.32	-8300457.26	-8300457.17	0.0089	0.0074
Mercury	-27439-10-30 07:11 J	-8300369.28	-8300369.20	-8300369.10	0.0089	0.0067
Mercury	-27438-01-26 08:38 J	-8300281.23	-8300281.14	-8300281.03	0.0089	0.0061
Mars	-27438-03-28 12:28 J	-8300220.16	-8300219.98	-8300219.77	0.0089	0.0072
Mercury	-27438-04-24 10:19 J	-8300193.18	-8300193.07	-8300192.96	0.0089	0.0053
Mercury	-27438-07-21 11:45 J	-8300105.12	-8300105.01	-8300104.89	0.0089	0.0046
Mercury	-27438-10-17 13:11 J	-8300017.07	-8300016.95	-8300016.83	0.0089	0.0040
Mercury	-27437-01-13 14:23 J	-8299929.02	-8299928.90	-8299928.76	0.0089	0.0033
Mercury	-27437-04-10 16:04 J	-8299840.96	-8299840.83	-8299840.70	0.0089	0.0026
Mercury	-27437-07-07 17:31 J	-8299752.90	-8299752.77	-8299752.63	0.0089	0.0019
Mercury	-27437-10-03 18:57 J	-8299664.84	-8299664.71	-8299664.57	0.0089	0.0012
Mercury	-27437-12-30 20:23 J	-8299576.78	-8299576.65	-8299576.51	0.0089	0.0005
Mars	-27436-02-20 20:23 J	-8299524.96	-8299524.65	-8299524.33	0.0089	0.0010
Mercury	-27436-03-28 21:50 J	-8299488.72	-8299488.59	-8299488.45	0.0089	0.0003
Mercury	-27436-06-24 23:16 J	-8299400.66	-8299400.53	-8299400.39	0.0089	0.0010

Mercury	-27436-09-21 00:43 J	-8299312.60	-8299312.47	-8299312.33	0.0089	0.0017
Mercury	-27436-12-18 02:09 J	-8299224.53	-8299224.41	-8299224.27	0.0089	0.0024
Mercury	-27435-03-16 03:35 J	-8299136.47	-8299136.35	-8299136.21	0.0089	0.0031
Mercury	-27435-06-12 05:16 J	-8299048.40	-8299048.28	-8299048.15	0.0089	0.0037
Mercury	-27435-09-08 06:43 J	-8298960.33	-8298960.22	-8298960.10	0.0089	0.0044
Mercury	-27435-12-05 08:09 J	-8298872.26	-8298872.16	-8298872.04	0.0089	0.0051
Mars	-27434-01-17 01:40 J	-8298829.68	-8298829.43	-8298829.16	0.0089	0.0051
Mercury	-27434-03-03 09:35 J	-8298784.19	-8298784.10	-8298783.99	0.0089	0.0058
Mercury	-27434-05-30 11:02 J	-8298696.12	-8298696.04	-8298695.93	0.0089	0.0066
Mercury	-27434-08-26 12:43 J	-8298608.04	-8298607.97	-8298607.88	0.0089	0.0072
Mercury	-27434-11-22 14:09 J	-8298519.96	-8298519.91	-8298519.84	0.0089	0.0080
Mercury	-27433-02-18 15:50 J	-8298431.87	-8298431.84	-8298431.81	0.0089	0.0086
Venus	-27424-05-26 21:50 J	-8295046.60	-8295046.59	-8295046.55	0.0089	0.0088
Venus	-27423-01-07 10:04 J	-8294821.13	-8294821.08	-8294821.01	0.0089	0.0085
Venus	-27423-08-20 22:33 J	-8294595.64	-8294595.56	-8294595.48	0.0089	0.0082
Venus	-27422-04-03 10:19 J	-8294370.14	-8294370.07	-8294369.95	0.0089	0.0080
Venus	-27422-11-14 22:33 J	-8294144.64	-8294144.56	-8294144.43	0.0089	0.0077
Venus	-27421-06-27 10:47 J	-8293919.15	-8293919.05	-8293918.91	0.0089	0.0074
Venus	-27420-02-07 22:47 J	-8293693.65	-8293693.55	-8293693.39	0.0089	0.0071
Venus	-27420-09-21 11:02 J	-8293468.15	-8293468.04	-8293467.87	0.0089	0.0068
Venus	-27419-05-04 23:59 J	-8293242.64	-8293242.50	-8293242.35	0.0089	0.0064
Venus	-27419-12-16 12:14 J	-8293017.14	-8293016.99	-8293016.83	0.0089	0.0061
Venus	-27418-07-30 00:14 J	-8292791.64	-8292791.49	-8292791.31	0.0089	0.0058
Venus	-27417-03-11 12:28 J	-8292566.13	-8292565.98	-8292565.79	0.0089	0.0055
Venus	-27417-10-23 00:43 J	-8292340.62	-8292340.47	-8292340.27	0.0089	0.0052
Venus	-27416-06-05 13:26 J	-8292115.12	-8292114.94	-8292114.75	0.0089	0.0048
Venus	-27415-01-17 01:26 J	-8291889.61	-8291889.44	-8291889.24	0.0089	0.0045
Venus	-27415-08-30 13:40 J	-8291664.10	-8291663.93	-8291663.72	0.0089	0.0042
Venus	-27414-04-13 02:23 J	-8291438.59	-8291438.40	-8291438.20	0.0089	0.0038
Venus	-27414-11-24 14:38 J	-8291213.08	-8291212.89	-8291212.68	0.0089	0.0035

Venus	-27413-07-07 02:52 J	-8290987.57	-8290987.38	-8290987.17	0.0089	0.0032
Venus	-27412-02-17 15:21 J	-8290762.06	-8290761.86	-8290761.65	0.0089	0.0028
Venus	-27412-10-01 03:21 J	-8290536.55	-8290536.36	-8290536.14	0.0089	0.0025
Venus	-27411-05-14 16:04 J	-8290311.04	-8290310.83	-8290310.62	0.0089	0.0021
Venus	-27411-12-26 04:19 J	-8290085.53	-8290085.32	-8290085.10	0.0089	0.0018
Venus	-27410-08-08 16:33 J	-8289860.02	-8289859.81	-8289859.59	0.0089	0.0014
Venus	-27409-03-21 05:02 J	-8289634.51	-8289634.29	-8289634.08	0.0089	0.0011
Venus	-27409-11-01 17:16 J	-8289408.99	-8289408.78	-8289408.56	0.0089	0.0007
Venus	-27408-06-15 05:45 J	-8289183.48	-8289183.26	-8289183.04	0.0089	0.0004
Venus	-27407-01-26 17:59 J	-8288957.96	-8288957.75	-8288957.53	0.0089	0.0002
Venus	-27407-09-09 06:28 J	-8288732.45	-8288732.23	-8288732.01	0.0088	0.0003
Venus	-27406-04-22 18:57 J	-8288506.92	-8288506.71	-8288506.49	0.0088	0.0007
Venus	-27406-12-04 07:26 J	-8288281.41	-8288281.19	-8288280.97	0.0088	0.0010
Venus	-27405-07-16 19:55 J	-8288055.89	-8288055.67	-8288055.46	0.0088	0.0014
Venus	-27404-02-27 08:09 J	-8287830.37	-8287830.16	-8287829.94	0.0088	0.0017
Venus	-27404-10-10 20:38 J	-8287604.84	-8287604.64	-8287604.42	0.0088	0.0021
Venus	-27403-05-24 09:21 J	-8287379.31	-8287379.11	-8287378.89	0.0088	0.0024
Venus	-27402-01-04 21:50 J	-8287153.79	-8287153.59	-8287153.37	0.0088	0.0028
Venus	-27402-08-18 10:19 J	-8286928.26	-8286928.07	-8286927.86	0.0088	0.0031
Venus	-27401-03-30 22:47 J	-8286702.74	-8286702.55	-8286702.34	0.0088	0.0035
Venus	-27401-11-11 11:31 J	-8286477.21	-8286477.02	-8286476.82	0.0088	0.0038
Venus	-27400-06-24 23:45 J	-8286251.68	-8286251.51	-8286251.30	0.0088	0.0042
Venus	-27399-02-05 12:28 J	-8286026.16	-8286025.98	-8286025.78	0.0088	0.0045
Venus	-27399-09-19 00:43 J	-8285800.63	-8285800.47	-8285800.26	0.0088	0.0049
Venus	-27398-05-02 13:26 J	-8285575.10	-8285574.94	-8285574.74	0.0088	0.0052
Venus	-27398-12-14 02:09 J	-8285349.57	-8285349.41	-8285349.22	0.0088	0.0055
Venus	-27397-07-26 14:52 J	-8285124.04	-8285123.88	-8285123.70	0.0088	0.0058
Venus	-27396-03-09 03:35 J	-8284898.50	-8284898.35	-8284898.19	0.0088	0.0061
Venus	-27396-10-20 15:50 J	-8284672.97	-8284672.84	-8284672.67	0.0088	0.0064
Venus	-27395-06-03 04:47 J	-8284447.43	-8284447.30	-8284447.14	0.0088	0.0067

Venus	-27394-01-14 17:31 J	-8284221.89	-8284221.77	-8284221.62	0.0088	0.0070
Venus	-27394-08-28 06:14 J	-8283996.35	-8283996.24	-8283996.11	0.0088	0.0073
Venus	-27393-04-09 18:57 J	-8283770.81	-8283770.71	-8283770.59	0.0088	0.0076
Venus	-27393-11-21 07:40 J	-8283545.26	-8283545.18	-8283545.07	0.0088	0.0079
Venus	-27392-07-04 20:23 J	-8283319.70	-8283319.65	-8283319.55	0.0088	0.0083
Venus	-27391-02-15 09:21 J	-8283094.15	-8283094.11	-8283094.04	0.0088	0.0085
Venus	-27391-09-28 22:19 J	-8282868.57	-8282868.57	-8282868.55	0.0088	0.0088
Earth	-27371-10-12 00:28 J	-8275550.64	-8275550.48	-8275550.27	0.0088	0.0063
Moon	-27371-10-12 00:28 J	-8275550.63	-8275550.48	-8275550.29	0.0088	0.0066 *
Moon	-27370-10-14 12:14 J	-8275183.25	-8275182.99	-8275182.72	0.0088	0.0017
Earth	-27370-10-14 13:11 J	-8275183.19	-8275182.95	-8275182.68	0.0088	0.0020 *
Earth	-27369-10-16 01:55 J	-8274815.67	-8274815.42	-8274815.16	0.0088	0.0023
Moon	-27369-10-16 03:35 J	-8274815.59	-8274815.35	-8274815.09	0.0088	0.0020 *
Moon	-27368-10-18 10:47 J	-8274448.20	-8274448.05	-8274447.87	0.0088	0.0069
Earth	-27368-10-18 14:09 J	-8274448.07	-8274447.91	-8274447.73	0.0088	0.0066 *
Jupiter	-27365-04-20 00:57 J	-8273533.96	-8273533.46	-8273532.89	0.0088	0.0029
Mercury	-27356-10-26 21:50 J	-8270056.63	-8270056.59	-8270056.53	0.0088	0.0084
Mercury	-27355-01-23 00:57 J	-8269968.54	-8269968.46	-8269968.35	0.0088	0.0075
Mercury	-27355-04-21 04:19 J	-8269880.43	-8269880.32	-8269880.18	0.0088	0.0066
Mercury	-27355-07-18 07:55 J	-8269792.31	-8269792.17	-8269792.03	0.0088	0.0056
Mercury	-27355-10-14 11:02 J	-8269704.19	-8269704.04	-8269703.88	0.0088	0.0047
Mars	-27355-11-09 21:35 J	-8269677.84	-8269677.60	-8269677.30	0.0088	0.0042
Mercury	-27354-01-10 14:09 J	-8269616.07	-8269615.91	-8269615.73	0.0088	0.0038
Mercury	-27354-04-08 17:16 J	-8269527.94	-8269527.78	-8269527.59	0.0088	0.0030
Mercury	-27354-07-05 20:52 J	-8269439.81	-8269439.63	-8269439.45	0.0088	0.0020
Mercury	-27354-10-01 23:59 J	-8269351.68	-8269351.50	-8269351.31	0.0088	0.0010
Mercury	-27354-12-29 03:21 J	-8269263.55	-8269263.36	-8269263.18	0.0088	0.0002
Mercury	-27353-03-26 06:28 J	-8269175.41	-8269175.23	-8269175.04	0.0088	0.0008
Mercury	-27353-06-22 09:35 J	-8269087.28	-8269087.10	-8269086.92	0.0088	0.0017
Mercury	-27353-09-18 12:43 J	-8268999.14	-8268998.97	-8268998.79	0.0088	0.0026

Mars	-27353-10-04 08:23 J	-8268983.46	-8268983.15	-8268982.85	0.0088	0.0014
Mercury	-27353-12-15 15:50 J	-8268911.00	-8268910.84	-8268910.66	0.0088	0.0035
Mercury	-27352-03-13 18:57 J	-8268822.86	-8268822.71	-8268822.54	0.0088	0.0044
Mercury	-27352-06-09 22:04 J	-8268734.72	-8268734.58	-8268734.43	0.0088	0.0053
Mercury	-27352-09-06 01:11 J	-8268646.57	-8268646.45	-8268646.31	0.0088	0.0062
Mercury	-27352-12-03 04:04 J	-8268558.42	-8268558.33	-8268558.21	0.0088	0.0071
Mercury	-27351-03-01 07:11 J	-8268470.26	-8268470.20	-8268470.11	0.0088	0.0080
Mars	-27351-08-29 19:55 J	-8268288.84	-8268288.67	-8268288.48	0.0088	0.0071
Venus	-27340-05-19 23:02 J	-8264372.59	-8264372.54	-8264372.49	0.0088	0.0086
Venus	-27340-12-31 12:43 J	-8264147.04	-8264146.97	-8264146.89	0.0088	0.0083
Venus	-27339-08-14 02:38 J	-8263921.48	-8263921.39	-8263921.29	0.0088	0.0080
Venus	-27338-03-27 16:19 J	-8263695.92	-8263695.82	-8263695.70	0.0088	0.0077
Venus	-27338-11-08 06:14 J	-8263470.35	-8263470.24	-8263470.11	0.0088	0.0074
Venus	-27337-06-20 19:55 J	-8263244.79	-8263244.67	-8263244.52	0.0088	0.0071
Venus	-27336-02-01 09:35 J	-8263019.23	-8263019.10	-8263018.94	0.0088	0.0068
Venus	-27336-09-14 23:16 J	-8262793.66	-8262793.53	-8262793.36	0.0088	0.0065
Venus	-27335-04-28 13:26 J	-8262568.10	-8262567.94	-8262567.77	0.0088	0.0061
Venus	-27335-12-10 03:07 J	-8262342.53	-8262342.37	-8262342.19	0.0089	0.0058
Venus	-27334-07-23 16:33 J	-8262116.97	-8262116.81	-8262116.62	0.0089	0.0055
Venus	-27333-03-05 06:43 J	-8261891.40	-8261891.22	-8261891.04	0.0089	0.0051
Venus	-27333-10-16 20:09 J	-8261665.83	-8261665.66	-8261665.46	0.0089	0.0048
Venus	-27332-05-30 09:50 J	-8261440.27	-8261440.09	-8261439.88	0.0089	0.0045
Venus	-27331-01-10 23:45 J	-8261214.70	-8261214.51	-8261214.31	0.0089	0.0041
Venus	-27331-08-24 13:11 J	-8260989.14	-8260988.95	-8260988.73	0.0089	0.0038
Venus	-27330-04-07 03:07 J	-8260763.57	-8260763.37	-8260763.16	0.0089	0.0034
Venus	-27330-11-18 16:47 J	-8260538.00	-8260537.80	-8260537.58	0.0089	0.0031
Venus	-27329-07-01 06:43 J	-8260312.43	-8260312.22	-8260312.01	0.0089	0.0027
Venus	-27328-02-11 20:09 J	-8260086.87	-8260086.66	-8260086.43	0.0089	0.0024
Venus	-27328-09-25 10:04 J	-8259861.29	-8259861.08	-8259860.86	0.0089	0.0020
Venus	-27327-05-08 23:45 J	-8259635.72	-8259635.51	-8259635.28	0.0089	0.0016

Venus	-27327-12-20 13:40 J	-8259410.15	-8259409.93	-8259409.71	0.0089	0.0013
Venus	-27326-08-03 03:07 J	-8259184.59	-8259184.37	-8259184.14	0.0089	0.0010
Venus	-27325-03-15 16:47 J	-8258959.02	-8258958.80	-8258958.57	0.0089	0.0006
Venus	-27325-10-27 06:43 J	-8258733.44	-8258733.22	-8258733.00	0.0089	0.0002
Venus	-27324-06-09 20:23 J	-8258507.88	-8258507.65	-8258507.43	0.0089	0.0002
Venus	-27323-01-21 09:50 J	-8258282.31	-8258282.09	-8258281.87	0.0089	0.0005
Venus	-27323-09-03 23:16 J	-8258056.75	-8258056.53	-8258056.30	0.0089	0.0009
Venus	-27322-04-17 12:57 J	-8257831.18	-8257830.96	-8257830.74	0.0089	0.0012
Venus	-27322-11-29 02:23 J	-8257605.61	-8257605.40	-8257605.17	0.0089	0.0016
Venus	-27321-07-11 16:04 J	-8257380.05	-8257379.83	-8257379.61	0.0089	0.0019
Venus	-27320-02-22 05:16 J	-8257154.48	-8257154.28	-8257154.05	0.0089	0.0023
Venus	-27320-10-05 18:57 J	-8256928.92	-8256928.71	-8256928.49	0.0089	0.0026
Venus	-27319-05-19 08:09 J	-8256703.35	-8256703.16	-8256702.93	0.0089	0.0030
Venus	-27319-12-30 21:50 J	-8256477.79	-8256477.59	-8256477.37	0.0089	0.0033
Venus	-27318-08-13 11:31 J	-8256252.22	-8256252.02	-8256251.82	0.0089	0.0036
Venus	-27317-03-26 00:28 J	-8256026.66	-8256026.48	-8256026.26	0.0089	0.0040
Venus	-27317-11-06 14:09 J	-8255801.09	-8255800.91	-8255800.70	0.0089	0.0043
Venus	-27316-06-20 03:21 J	-8255575.52	-8255575.36	-8255575.15	0.0089	0.0047
Venus	-27315-01-31 17:02 J	-8255349.96	-8255349.79	-8255349.59	0.0089	0.0050
Venus	-27315-09-14 06:28 J	-8255124.40	-8255124.23	-8255124.04	0.0089	0.0053
Venus	-27314-04-27 19:55 J	-8254898.83	-8254898.67	-8254898.49	0.0089	0.0056
Venus	-27314-12-09 09:07 J	-8254673.26	-8254673.12	-8254672.93	0.0089	0.0060
Venus	-27313-07-21 22:33 J	-8254447.70	-8254447.56	-8254447.38	0.0089	0.0063
Venus	-27312-03-04 11:59 J	-8254222.13	-8254222.00	-8254221.84	0.0089	0.0066
Venus	-27312-10-16 01:11 J	-8253996.57	-8253996.45	-8253996.29	0.0089	0.0069
Venus	-27311-05-29 14:38 J	-8253771.00	-8253770.89	-8253770.75	0.0089	0.0072
Venus	-27310-01-10 03:50 J	-8253545.44	-8253545.34	-8253545.20	0.0089	0.0076
Venus	-27310-08-23 17:02 J	-8253319.87	-8253319.79	-8253319.67	0.0089	0.0078
Venus	-27309-04-05 06:14 J	-8253094.31	-8253094.24	-8253094.13	0.0089	0.0081
Venus	-27309-11-16 19:26 J	-8252868.74	-8252868.69	-8252868.60	0.0089	0.0084

Venus	-27308-06-30 08:23 J	-8252643.17	-8252643.15	-8252643.07	0.0089	0.0087
Moon	-27288-04-12 07:11 J	-8245417.40	-8245417.20	-8245416.98	0.0089	0.0052
Earth	-27288-04-12 08:38 J	-8245417.34	-8245417.14	-8245416.93	0.0089	0.0053 *
Earth	-27287-04-14 19:26 J	-8245049.94	-8245049.69	-8245049.43	0.0089	0.0009
Moon	-27287-04-14 22:04 J	-8245049.82	-8245049.58	-8245049.32	0.0089	0.0011 *
Moon	-27286-04-17 02:23 J	-8244682.61	-8244682.40	-8244682.15	0.0089	0.0037
Earth	-27286-04-17 05:59 J	-8244682.47	-8244682.25	-8244682.01	0.0089	0.0035 *
Earth	-27285-04-18 16:19 J	-8244314.92	-8244314.82	-8244314.68	0.0089	0.0079
Moon	-27285-04-18 19:40 J	-8244314.77	-8244314.68	-8244314.53	0.0089	0.0079 *
Mercury	-27275-11-05 01:40 J	-8240462.44	-8240462.43	-8240462.39	0.0089	0.0087
Mercury	-27274-02-01 03:07 J	-8240374.41	-8240374.37	-8240374.30	0.0089	0.0080
Mercury	-27274-04-30 04:33 J	-8240286.37	-8240286.31	-8240286.22	0.0089	0.0074
Mercury	-27274-07-27 06:14 J	-8240198.33	-8240198.24	-8240198.15	0.0089	0.0066
Mercury	-27274-10-23 07:40 J	-8240110.28	-8240110.18	-8240110.08	0.0089	0.0059
Mercury	-27273-01-19 09:07 J	-8240022.23	-8240022.12	-8240022.01	0.0089	0.0053
Mercury	-27273-04-16 10:19 J	-8239934.17	-8239934.07	-8239933.94	0.0089	0.0046
Mercury	-27273-07-13 11:45 J	-8239846.12	-8239846.01	-8239845.88	0.0089	0.0040
Mars	-27273-10-04 16:47 J	-8239763.06	-8239762.80	-8239762.49	0.0089	0.0044
Mercury	-27273-10-09 13:26 J	-8239758.06	-8239757.94	-8239757.81	0.0089	0.0032
Mercury	-27272-01-05 14:52 J	-8239670.01	-8239669.88	-8239669.75	0.0089	0.0025
Mercury	-27272-04-03 16:19 J	-8239581.95	-8239581.82	-8239581.68	0.0089	0.0018
Mercury	-27272-06-30 17:45 J	-8239493.89	-8239493.76	-8239493.62	0.0089	0.0011
Mercury	-27272-09-26 19:11 J	-8239405.83	-8239405.70	-8239405.56	0.0089	0.0005
Mercury	-27272-12-23 20:38 J	-8239317.77	-8239317.64	-8239317.50	0.0089	0.0004
Mercury	-27271-03-21 22:04 J	-8239229.71	-8239229.58	-8239229.44	0.0089	0.0011
Mercury	-27271-06-17 23:31 J	-8239141.65	-8239141.52	-8239141.38	0.0089	0.0017
Mars	-27271-08-31 00:14 J	-8239067.79	-8239067.49	-8239067.16	0.0089	0.0019
Mercury	-27271-09-14 00:57 J	-8239053.58	-8239053.46	-8239053.32	0.0089	0.0024
Mercury	-27271-12-11 02:23 J	-8238965.52	-8238965.40	-8238965.26	0.0089	0.0032
Mercury	-27270-03-09 04:04 J	-8238877.45	-8238877.33	-8238877.20	0.0089	0.0038

Mercury	-27270-06-05 05:31 J	-8238789.38	-8238789.27	-8238789.15	0.0089	0.0045
Mercury	-27270-09-01 06:57 J	-8238701.31	-8238701.21	-8238701.09	0.0089	0.0052
Mercury	-27270-11-28 08:23 J	-8238613.24	-8238613.15	-8238613.04	0.0089	0.0059
Mercury	-27269-02-24 09:50 J	-8238525.17	-8238525.09	-8238524.98	0.0089	0.0067
Mercury	-27269-05-22 11:31 J	-8238437.09	-8238437.02	-8238436.94	0.0089	0.0073
Mars	-27269-07-26 04:47 J	-8238372.42	-8238372.30	-8238372.13	0.0089	0.0080
Mercury	-27269-08-18 12:57 J	-8238349.01	-8238348.96	-8238348.89	0.0089	0.0080
Mercury	-27269-11-14 14:38 J	-8238260.91	-8238260.89	-8238260.86	0.0089	0.0087
Venus	-27260-08-28 06:28 J	-8235052.25	-8235052.23	-8235052.17	0.0089	0.0087
Venus	-27259-04-10 18:57 J	-8234826.76	-8234826.71	-8234826.63	0.0089	0.0084
Venus	-27259-11-22 06:57 J	-8234601.27	-8234601.21	-8234601.10	0.0089	0.0082
Venus	-27258-07-05 19:11 J	-8234375.78	-8234375.70	-8234375.58	0.0089	0.0079
Venus	-27257-02-16 07:26 J	-8234150.28	-8234150.19	-8234150.06	0.0089	0.0076
Venus	-27257-09-28 19:40 J	-8233924.78	-8233924.68	-8233924.54	0.0089	0.0073
Venus	-27256-05-12 07:55 J	-8233699.28	-8233699.17	-8233699.02	0.0089	0.0070
Venus	-27256-12-23 20:09 J	-8233473.78	-8233473.66	-8233473.50	0.0089	0.0067
Venus	-27255-08-06 08:23 J	-8233248.28	-8233248.15	-8233247.99	0.0089	0.0064
Venus	-27254-03-19 20:52 J	-8233022.78	-8233022.63	-8233022.47	0.0089	0.0061
Venus	-27254-10-31 08:52 J	-8232797.28	-8232797.13	-8232796.95	0.0089	0.0058
Venus	-27253-06-12 21:07 J	-8232571.77	-8232571.62	-8232571.43	0.0089	0.0055
Venus	-27252-01-24 09:21 J	-8232346.27	-8232346.11	-8232345.92	0.0089	0.0052
Venus	-27252-09-06 21:35 J	-8232120.76	-8232120.60	-8232120.40	0.0089	0.0049
Venus	-27251-04-20 10:04 J	-8231895.25	-8231895.08	-8231894.87	0.0089	0.0046
Venus	-27251-12-01 22:47 J	-8231669.74	-8231669.55	-8231669.36	0.0089	0.0042
Venus	-27250-07-15 11:02 J	-8231444.23	-8231444.04	-8231443.84	0.0089	0.0039
Venus	-27249-02-25 23:16 J	-8231218.72	-8231218.53	-8231218.33	0.0089	0.0036
Venus	-27249-10-08 11:31 J	-8230993.21	-8230993.02	-8230992.81	0.0089	0.0033
Venus	-27248-05-22 00:14 J	-8230767.69	-8230767.49	-8230767.29	0.0089	0.0029
Venus	-27247-01-02 12:28 J	-8230542.18	-8230541.98	-8230541.77	0.0089	0.0026
Venus	-27247-08-16 00:43 J	-8230316.67	-8230316.47	-8230316.25	0.0089	0.0022

Venus	-27246-03-29 13:11 J	-8230091.16	-8230090.95	-8230090.74	0.0089	0.0019
Venus	-27246-11-10 01:26 J	-8229865.65	-8229865.44	-8229865.22	0.0089	0.0016
Venus	-27245-06-22 13:40 J	-8229640.14	-8229639.93	-8229639.71	0.0089	0.0013
Venus	-27244-02-03 02:09 J	-8229414.62	-8229414.41	-8229414.19	0.0089	0.0009
Venus	-27244-09-16 14:38 J	-8229189.11	-8229188.89	-8229188.68	0.0089	0.0006
Venus	-27243-04-30 03:07 J	-8228963.59	-8228963.37	-8228963.16	0.0089	0.0003
Venus	-27243-12-11 15:21 J	-8228738.07	-8228737.86	-8228737.64	0.0089	0.0002
Venus	-27242-07-25 03:50 J	-8228512.56	-8228512.34	-8228512.13	0.0088	0.0005
Venus	-27241-03-06 16:04 J	-8228287.05	-8228286.83	-8228286.61	0.0088	0.0008
Venus	-27241-10-18 04:19 J	-8228061.53	-8228061.32	-8228061.10	0.0088	0.0012
Venus	-27240-05-31 17:02 J	-8227836.00	-8227835.79	-8227835.57	0.0088	0.0014
Venus	-27239-01-12 05:31 J	-8227610.48	-8227610.27	-8227610.05	0.0088	0.0018
Venus	-27239-08-25 17:45 J	-8227384.96	-8227384.76	-8227384.53	0.0088	0.0022
Venus	-27238-04-08 06:28 J	-8227159.43	-8227159.23	-8227159.02	0.0088	0.0025
Venus	-27238-11-19 19:11 J	-8226933.91	-8226933.70	-8226933.50	0.0088	0.0028
Venus	-27237-07-02 07:26 J	-8226708.38	-8226708.19	-8226707.98	0.0088	0.0031
Venus	-27236-02-12 19:55 J	-8226482.86	-8226482.67	-8226482.46	0.0088	0.0035
Venus	-27236-09-26 08:38 J	-8226257.33	-8226257.14	-8226256.94	0.0088	0.0038
Venus	-27235-05-09 21:21 J	-8226031.80	-8226031.61	-8226031.41	0.0088	0.0041
Venus	-27235-12-21 09:35 J	-8225806.27	-8225806.10	-8225805.89	0.0088	0.0045
Venus	-27234-08-03 22:04 J	-8225580.74	-8225580.58	-8225580.38	0.0088	0.0048
Venus	-27233-03-16 10:47 J	-8225355.22	-8225355.05	-8225354.86	0.0088	0.0051
Venus	-27233-10-27 23:31 J	-8225129.69	-8225129.52	-8225129.34	0.0088	0.0053
Venus	-27232-06-10 12:14 J	-8224904.15	-8224903.99	-8224903.82	0.0088	0.0057
Venus	-27231-01-22 00:57 J	-8224678.62	-8224678.46	-8224678.30	0.0088	0.0060
Venus	-27231-09-04 13:40 J	-8224453.09	-8224452.93	-8224452.78	0.0088	0.0063
Venus	-27230-04-18 02:09 J	-8224227.55	-8224227.41	-8224227.26	0.0088	0.0066
Venus	-27230-11-29 14:52 J	-8224002.02	-8224001.88	-8224001.74	0.0088	0.0069
Venus	-27229-07-12 03:35 J	-8223776.48	-8223776.35	-8223776.22	0.0088	0.0072
Venus	-27228-02-22 16:04 J	-8223550.94	-8223550.83	-8223550.71	0.0088	0.0075

Venus	-27228-10-06 04:47 J	-8223325.39	-8223325.30	-8223325.19	0.0088	0.0078
Venus	-27227-05-19 17:31 J	-8223099.84	-8223099.77	-8223099.67	0.0088	0.0080
Venus	-27227-12-31 06:14 J	-8222874.29	-8222874.24	-8222874.15	0.0088	0.0083
Venus	-27226-08-13 18:43 J	-8222648.74	-8222648.72	-8222648.64	0.0088	0.0087
Earth	-27206-10-13 17:02 J	-8215283.02	-8215282.79	-8215282.57	0.0088	0.0045
Moon	-27206-10-13 19:11 J	-8215282.90	-8215282.70	-8215282.45	0.0088	0.0042 *
Moon	-27205-10-15 02:09 J	-8214915.67	-8214915.41	-8214915.14	0.0088	0.0006
Earth	-27205-10-15 05:16 J	-8214915.54	-8214915.28	-8214915.01	0.0088	0.0003 *
Earth	-27204-10-17 17:45 J	-8214547.99	-8214547.76	-8214547.53	0.0088	0.0040
Moon	-27204-10-17 21:21 J	-8214547.83	-8214547.61	-8214547.37	0.0088	0.0044 *
Moon	-27203-10-20 02:23 J	-8214180.48	-8214180.40	-8214180.27	0.0088	0.0080
Earth	-27203-10-20 05:31 J	-8214180.31	-8214180.27	-8214180.16	0.0088	0.0084 *
Jupiter	-27199-06-21 22:33 J	-8212840.07	-8212839.56	-8212839.00	0.0088	0.0028
Mars	-27191-06-24 13:11 J	-8209915.09	-8209914.95	-8209914.74	0.0088	0.0072
Mercury	-27191-07-23 18:28 J	-8209885.76	-8209885.73	-8209885.65	0.0088	0.0084
Mercury	-27191-10-19 22:19 J	-8209797.67	-8209797.57	-8209797.47	0.0088	0.0075
Mercury	-27190-01-16 01:26 J	-8209709.56	-8209709.44	-8209709.31	0.0088	0.0065
Mercury	-27190-04-14 04:33 J	-8209621.44	-8209621.31	-8209621.16	0.0088	0.0056
Mercury	-27190-07-11 07:40 J	-8209533.32	-8209533.18	-8209533.01	0.0088	0.0047
Mercury	-27190-10-07 11:16 J	-8209445.20	-8209445.03	-8209444.86	0.0088	0.0038
Mercury	-27189-01-03 14:23 J	-8209357.07	-8209356.90	-8209356.72	0.0088	0.0028
Mercury	-27189-03-31 17:45 J	-8209268.94	-8209268.76	-8209268.58	0.0088	0.0019
Mars	-27189-05-18 20:52 J	-8209220.92	-8209220.63	-8209220.31	0.0088	0.0017
Mercury	-27189-06-27 20:52 J	-8209180.81	-8209180.63	-8209180.44	0.0088	0.0010
Mercury	-27189-09-24 00:14 J	-8209092.68	-8209092.49	-8209092.31	0.0088	0.0001
Mercury	-27189-12-21 03:21 J	-8209004.54	-8209004.36	-8209004.17	0.0088	0.0008
Mercury	-27188-03-19 06:28 J	-8208916.41	-8208916.23	-8208916.04	0.0088	0.0018
Mercury	-27188-06-15 09:35 J	-8208828.27	-8208828.10	-8208827.92	0.0088	0.0027
Mercury	-27188-09-11 12:28 J	-8208740.13	-8208739.98	-8208739.79	0.0088	0.0037
Mercury	-27188-12-08 15:35 J	-8208651.99	-8208651.85	-8208651.67	0.0088	0.0045

Mercury	-27187-03-06 19:11 J	-8208563.85	-8208563.70	-8208563.55	0.0088	0.0054
Mars	-27187-04-13 06:43 J	-8208526.47	-8208526.22	-8208525.93	0.0088	0.0041
Mercury	-27187-06-02 22:19 J	-8208475.70	-8208475.57	-8208475.44	0.0088	0.0063
Mercury	-27187-08-30 01:26 J	-8208387.55	-8208387.44	-8208387.33	0.0088	0.0071
Mercury	-27187-11-26 04:19 J	-8208299.38	-8208299.32	-8208299.24	0.0088	0.0080
Venus	-27176-01-07 14:38 J	-8204603.90	-8204603.89	-8204603.85	0.0088	0.0088
Venus	-27176-08-21 04:33 J	-8204378.36	-8204378.31	-8204378.24	0.0088	0.0085
Venus	-27175-04-03 18:43 J	-8204152.80	-8204152.72	-8204152.64	0.0088	0.0082
Venus	-27175-11-15 07:55 J	-8203927.24	-8203927.17	-8203927.04	0.0088	0.0080
Venus	-27174-06-28 21:50 J	-8203701.68	-8203701.59	-8203701.45	0.0088	0.0076
Venus	-27173-02-09 11:31 J	-8203476.12	-8203476.02	-8203475.87	0.0088	0.0074
Venus	-27173-09-22 01:40 J	-8203250.55	-8203250.43	-8203250.27	0.0088	0.0070
Venus	-27172-05-05 15:21 J	-8203024.98	-8203024.86	-8203024.69	0.0088	0.0068
Venus	-27172-12-17 05:16 J	-8202799.41	-8202799.28	-8202799.10	0.0088	0.0065
Venus	-27171-07-30 19:26 J	-8202573.85	-8202573.69	-8202573.52	0.0088	0.0061
Venus	-27170-03-13 09:07 J	-8202348.28	-8202348.12	-8202347.94	0.0088	0.0058
Venus	-27170-10-24 23:02 J	-8202122.71	-8202122.54	-8202122.36	0.0088	0.0055
Venus	-27169-06-06 12:43 J	-8201897.14	-8201896.97	-8201896.78	0.0089	0.0052
Venus	-27168-01-18 02:09 J	-8201671.58	-8201671.41	-8201671.20	0.0089	0.0049
Venus	-27168-08-31 16:19 J	-8201446.01	-8201445.82	-8201445.63	0.0089	0.0045
Venus	-27167-04-14 05:45 J	-8201220.44	-8201220.26	-8201220.05	0.0089	0.0042
Venus	-27167-11-25 19:26 J	-8200994.87	-8200994.69	-8200994.47	0.0089	0.0039
Venus	-27166-07-09 09:35 J	-8200769.31	-8200769.10	-8200768.90	0.0089	0.0035
Venus	-27165-02-19 23:02 J	-8200543.74	-8200543.54	-8200543.33	0.0089	0.0032
Venus	-27165-10-02 12:43 J	-8200318.17	-8200317.97	-8200317.75	0.0089	0.0029
Venus	-27164-05-16 02:38 J	-8200092.60	-8200092.39	-8200092.17	0.0089	0.0025
Venus	-27164-12-27 16:04 J	-8199867.04	-8199866.83	-8199866.60	0.0089	0.0022
Venus	-27163-08-10 05:45 J	-8199641.47	-8199641.26	-8199641.03	0.0089	0.0019
Venus	-27162-03-23 19:40 J	-8199415.90	-8199415.68	-8199415.46	0.0089	0.0015
Venus	-27162-11-04 09:21 J	-8199190.33	-8199190.11	-8199189.88	0.0089	0.0011

Venus	-27161-06-16 23:02 J	-8198964.76	-8198964.54	-8198964.31	0.0089	0.0008
Venus	-27160-01-28 12:43 J	-8198739.19	-8198738.97	-8198738.75	0.0089	0.0005
Venus	-27160-09-11 02:23 J	-8198513.62	-8198513.40	-8198513.18	0.0089	0.0001
Venus	-27159-04-24 16:04 J	-8198288.05	-8198287.83	-8198287.61	0.0089	0.0002
Venus	-27159-12-06 05:45 J	-8198062.48	-8198062.26	-8198062.04	0.0089	0.0006
Venus	-27158-07-19 19:11 J	-8197836.92	-8197836.70	-8197836.47	0.0089	0.0009
Venus	-27157-03-01 08:38 J	-8197611.35	-8197611.14	-8197610.91	0.0089	0.0013
Venus	-27157-10-12 22:19 J	-8197385.78	-8197385.57	-8197385.35	0.0089	0.0016
Venus	-27156-05-26 11:59 J	-8197160.22	-8197160.00	-8197159.78	0.0089	0.0019
Venus	-27155-01-07 01:11 J	-8196934.65	-8196934.45	-8196934.22	0.0089	0.0023
Venus	-27155-08-20 14:52 J	-8196709.09	-8196708.88	-8196708.67	0.0089	0.0026
Venus	-27154-04-03 04:19 J	-8196483.53	-8196483.32	-8196483.11	0.0089	0.0029
Venus	-27154-11-14 17:31 J	-8196257.96	-8196257.77	-8196257.55	0.0089	0.0033
Venus	-27153-06-27 07:11 J	-8196032.40	-8196032.20	-8196031.99	0.0089	0.0036
Venus	-27152-02-07 20:38 J	-8195806.84	-8195806.64	-8195806.44	0.0089	0.0039
Venus	-27152-09-21 09:35 J	-8195581.27	-8195581.10	-8195580.88	0.0089	0.0043
Venus	-27151-05-04 23:02 J	-8195355.71	-8195355.54	-8195355.33	0.0089	0.0046
Venus	-27151-12-16 12:43 J	-8195130.14	-8195129.97	-8195129.77	0.0089	0.0049
Venus	-27150-07-30 02:09 J	-8194904.58	-8194904.41	-8194904.22	0.0089	0.0052
Venus	-27149-03-11 15:35 J	-8194679.01	-8194678.85	-8194678.67	0.0089	0.0055
Venus	-27149-10-23 05:02 J	-8194453.45	-8194453.29	-8194453.12	0.0089	0.0058
Venus	-27148-06-05 18:28 J	-8194227.88	-8194227.73	-8194227.57	0.0089	0.0061
Venus	-27147-01-17 07:55 J	-8194002.32	-8194002.17	-8194002.01	0.0089	0.0064
Venus	-27147-08-30 21:21 J	-8193776.75	-8193776.61	-8193776.47	0.0089	0.0067
Venus	-27146-04-13 10:33 J	-8193551.19	-8193551.06	-8193550.92	0.0089	0.0070
Venus	-27146-11-24 23:45 J	-8193325.62	-8193325.51	-8193325.37	0.0089	0.0073
Venus	-27145-07-07 12:57 J	-8193100.06	-8193099.96	-8193099.83	0.0089	0.0076
Venus	-27144-02-18 01:55 J	-8192874.49	-8192874.42	-8192874.29	0.0089	0.0080
Venus	-27144-10-01 15:07 J	-8192648.93	-8192648.87	-8192648.76	0.0089	0.0082
Venus	-27143-05-15 04:33 J	-8192423.36	-8192423.31	-8192423.23	0.0089	0.0085

Venus	-27143-12-26 17:45 J	-8192197.79	-8192197.76	-8192197.70	0.0089	0.0087
Saturn	-27140-10-01 10:04 J	-8191188.71	-8191188.08	-8191187.38	0.0089	0.0014
Earth	-27124-04-11 12:43 J	-8185517.06	-8185516.97	-8185516.83	0.0089	0.0080
Moon	-27124-04-11 15:50 J	-8185516.92	-8185516.84	-8185516.75	0.0089	0.0084 *
Moon	-27123-04-13 20:09 J	-8185149.89	-8185149.66	-8185149.41	0.0089	0.0031
Earth	-27123-04-13 23:31 J	-8185149.73	-8185149.52	-8185149.27	0.0089	0.0036 *
Earth	-27122-04-16 10:33 J	-8184782.31	-8184782.06	-8184781.80	0.0089	0.0008
Moon	-27122-04-16 14:09 J	-8184782.17	-8184781.91	-8184781.66	0.0089	0.0003 *
Moon	-27121-04-17 18:28 J	-8184414.92	-8184414.73	-8184414.54	0.0089	0.0056
Earth	-27121-04-17 21:07 J	-8184414.81	-8184414.62	-8184414.40	0.0089	0.0052 *
Mercury	-27110-08-02 00:28 J	-8180291.50	-8180291.48	-8180291.44	0.0089	0.0087
Mercury	-27110-10-29 02:09 J	-8180203.47	-8180203.41	-8180203.35	0.0089	0.0080
Mercury	-27109-01-25 03:21 J	-8180115.43	-8180115.36	-8180115.27	0.0089	0.0073
Mercury	-27109-04-22 04:47 J	-8180027.38	-8180027.30	-8180027.20	0.0089	0.0066
Mars	-27109-05-18 09:07 J	-8180001.25	-8180001.12	-8180000.92	0.0089	0.0078
Mercury	-27109-07-19 06:14 J	-8179939.33	-8179939.24	-8179939.13	0.0089	0.0059
Mercury	-27109-10-15 07:40 J	-8179851.28	-8179851.18	-8179851.06	0.0089	0.0053
Mercury	-27108-01-11 09:07 J	-8179763.23	-8179763.12	-8179763.00	0.0089	0.0046
Mercury	-27108-04-09 10:47 J	-8179675.17	-8179675.05	-8179674.93	0.0089	0.0039
Mercury	-27108-07-06 12:14 J	-8179587.12	-8179586.99	-8179586.87	0.0089	0.0032
Mercury	-27108-10-02 13:26 J	-8179499.06	-8179498.94	-8179498.80	0.0089	0.0025
Mercury	-27108-12-29 14:52 J	-8179411.01	-8179410.88	-8179410.74	0.0089	0.0019
Mercury	-27107-03-27 16:33 J	-8179322.95	-8179322.81	-8179322.68	0.0089	0.0011
Mars	-27107-04-13 20:09 J	-8179305.98	-8179305.66	-8179305.34	0.0089	0.0015
Mercury	-27107-06-23 17:59 J	-8179234.89	-8179234.75	-8179234.61	0.0089	0.0004
Mercury	-27107-09-19 19:26 J	-8179146.83	-8179146.69	-8179146.55	0.0089	0.0003
Mercury	-27107-12-16 20:52 J	-8179058.76	-8179058.63	-8179058.49	0.0089	0.0010
Mercury	-27106-03-14 22:19 J	-8178970.70	-8178970.57	-8178970.43	0.0089	0.0017
Mercury	-27106-06-10 23:45 J	-8178882.64	-8178882.51	-8178882.37	0.0089	0.0024
Mercury	-27106-09-07 01:11 J	-8178794.57	-8178794.45	-8178794.31	0.0089	0.0032

Mercury	-27106-12-04 02:52 J	-8178706.51	-8178706.38	-8178706.26	0.0089	0.0038
Mercury	-27105-03-01 04:19 J	-8178618.44	-8178618.32	-8178618.20	0.0089	0.0045
Mars	-27105-03-09 03:07 J	-8178610.62	-8178610.37	-8178610.07	0.0089	0.0048
Mercury	-27105-05-28 05:45 J	-8178530.37	-8178530.26	-8178530.15	0.0089	0.0053
Mercury	-27105-08-24 07:11 J	-8178442.29	-8178442.20	-8178442.09	0.0089	0.0060
Mercury	-27105-11-20 08:52 J	-8178354.22	-8178354.13	-8178354.04	0.0089	0.0067
Mercury	-27104-02-16 10:04 J	-8178266.14	-8178266.08	-8178265.99	0.0089	0.0074
Mercury	-27104-05-15 11:31 J	-8178178.06	-8178178.02	-8178177.95	0.0089	0.0081
Mercury	-27104-08-11 13:11 J	-8178089.96	-8178089.95	-8178089.92	0.0089	0.0088
Venus	-27096-04-18 03:07 J	-8175283.38	-8175283.37	-8175283.32	0.0089	0.0088
Venus	-27096-11-29 15:07 J	-8175057.89	-8175057.87	-8175057.78	0.0089	0.0086
Venus	-27095-07-13 03:35 J	-8174832.40	-8174832.35	-8174832.25	0.0089	0.0083
Venus	-27094-02-23 16:04 J	-8174606.91	-8174606.83	-8174606.73	0.0089	0.0080
Venus	-27094-10-07 04:04 J	-8174381.41	-8174381.33	-8174381.20	0.0089	0.0078
Venus	-27093-05-19 16:19 J	-8174155.91	-8174155.82	-8174155.68	0.0089	0.0075
Venus	-27093-12-31 04:47 J	-8173930.41	-8173930.30	-8173930.16	0.0089	0.0072
Venus	-27092-08-13 17:16 J	-8173704.91	-8173704.78	-8173704.65	0.0089	0.0069
Venus	-27091-03-27 05:02 J	-8173479.41	-8173479.29	-8173479.12	0.0089	0.0067
Venus	-27091-11-07 17:16 J	-8173253.91	-8173253.78	-8173253.61	0.0089	0.0064
Venus	-27090-06-21 05:31 J	-8173028.41	-8173028.27	-8173028.09	0.0089	0.0061
Venus	-27089-02-01 17:45 J	-8172802.91	-8172802.76	-8172802.58	0.0089	0.0058
Venus	-27089-09-14 05:59 J	-8172577.40	-8172577.25	-8172577.06	0.0089	0.0055
Venus	-27088-04-27 18:28 J	-8172351.89	-8172351.73	-8172351.54	0.0089	0.0052
Venus	-27088-12-09 06:43 J	-8172126.39	-8172126.22	-8172126.03	0.0089	0.0049
Venus	-27087-07-22 18:57 J	-8171900.88	-8171900.71	-8171900.51	0.0089	0.0046
Venus	-27086-03-05 07:11 J	-8171675.38	-8171675.20	-8171675.00	0.0089	0.0043
Venus	-27086-10-16 19:26 J	-8171449.87	-8171449.69	-8171449.48	0.0089	0.0040
Venus	-27085-05-29 07:55 J	-8171224.35	-8171224.17	-8171223.96	0.0089	0.0037
Venus	-27084-01-09 20:09 J	-8170998.84	-8170998.66	-8170998.44	0.0089	0.0034
Venus	-27084-08-23 08:52 J	-8170773.33	-8170773.13	-8170772.93	0.0089	0.0030

Venus	-27083-04-05 21:07 J	-8170547.82	-8170547.62	-8170547.41	0.0089	0.0027
Venus	-27083-11-17 09:21 J	-8170322.31	-8170322.11	-8170321.89	0.0089	0.0024
Venus	-27082-06-30 21:50 J	-8170096.80	-8170096.59	-8170096.38	0.0089	0.0021
Venus	-27081-02-11 10:04 J	-8169871.29	-8169871.08	-8169870.86	0.0089	0.0017
Venus	-27081-09-23 22:33 J	-8169645.77	-8169645.56	-8169645.35	0.0089	0.0014
Venus	-27080-05-07 11:02 J	-8169420.25	-8169420.04	-8169419.82	0.0089	0.0011
Venus	-27080-12-18 23:16 J	-8169194.74	-8169194.53	-8169194.31	0.0089	0.0008
Venus	-27079-08-01 11:45 J	-8168969.23	-8168969.01	-8168968.79	0.0089	0.0004
Venus	-27078-03-14 23:59 J	-8168743.72	-8168743.50	-8168743.28	0.0089	0.0001
Venus	-27078-10-26 12:28 J	-8168518.20	-8168517.98	-8168517.77	0.0089	0.0002
Venus	-27077-06-08 00:43 J	-8168292.68	-8168292.47	-8168292.25	0.0089	0.0006
Venus	-27076-01-19 13:11 J	-8168067.16	-8168066.95	-8168066.73	0.0088	0.0009
Venus	-27076-09-02 01:40 J	-8167841.65	-8167841.43	-8167841.22	0.0088	0.0012
Venus	-27075-04-15 13:55 J	-8167616.13	-8167615.92	-8167615.70	0.0088	0.0015
Venus	-27075-11-27 02:23 J	-8167390.61	-8167390.40	-8167390.18	0.0088	0.0018
Venus	-27074-07-10 14:52 J	-8167165.09	-8167164.88	-8167164.66	0.0088	0.0022
Venus	-27073-02-21 03:21 J	-8166939.56	-8166939.36	-8166939.15	0.0088	0.0025
Venus	-27073-10-03 16:04 J	-8166714.04	-8166713.83	-8166713.63	0.0088	0.0028
Venus	-27072-05-17 04:19 J	-8166488.51	-8166488.32	-8166488.10	0.0088	0.0032
Venus	-27072-12-28 17:02 J	-8166262.98	-8166262.79	-8166262.58	0.0088	0.0034
Venus	-27071-08-11 05:31 J	-8166037.46	-8166037.27	-8166037.06	0.0088	0.0038
Venus	-27070-03-24 17:59 J	-8165811.93	-8165811.75	-8165811.54	0.0088	0.0041
Venus	-27070-11-05 06:43 J	-8165586.40	-8165586.22	-8165586.02	0.0088	0.0044
Venus	-27069-06-17 19:26 J	-8165360.87	-8165360.69	-8165360.50	0.0088	0.0047
Venus	-27068-01-29 08:09 J	-8165135.34	-8165135.16	-8165134.97	0.0088	0.0050
Venus	-27068-09-11 20:38 J	-8164909.81	-8164909.64	-8164909.46	0.0088	0.0053
Venus	-27067-04-25 09:21 J	-8164684.27	-8164684.11	-8164683.94	0.0088	0.0056
Venus	-27067-12-06 21:50 J	-8164458.74	-8164458.59	-8164458.42	0.0088	0.0059
Venus	-27066-07-20 10:33 J	-8164233.21	-8164233.06	-8164232.90	0.0088	0.0061
Venus	-27065-03-01 23:02 J	-8164007.67	-8164007.54	-8164007.38	0.0088	0.0065

Venus	-27065-10-13 11:31 J	-8163782.14	-8163782.02	-8163781.86	0.0088	0.0068
Venus	-27064-05-27 00:14 J	-8163556.60	-8163556.49	-8163556.33	0.0088	0.0071
Venus	-27063-01-07 12:57 J	-8163331.06	-8163330.96	-8163330.81	0.0088	0.0073
Venus	-27063-08-21 01:55 J	-8163105.52	-8163105.42	-8163105.30	0.0088	0.0076
Venus	-27062-04-03 14:23 J	-8162879.98	-8162879.90	-8162879.78	0.0088	0.0079
Venus	-27062-11-15 03:07 J	-8162654.43	-8162654.37	-8162654.26	0.0088	0.0081
Venus	-27061-06-27 16:33 J	-8162428.88	-8162428.81	-8162428.74	0.0088	0.0084
Venus	-27060-02-08 05:02 J	-8162203.32	-8162203.29	-8162203.23	0.0088	0.0086
Moon	-27042-10-12 16:33 J	-8155382.95	-8155382.81	-8155382.66	0.0088	0.0072
Earth	-27042-10-12 19:55 J	-8155382.80	-8155382.67	-8155382.50	0.0088	0.0071 *
Earth	-27041-10-14 08:23 J	-8155015.38	-8155015.15	-8155014.89	0.0088	0.0028
Moon	-27041-10-14 11:59 J	-8155015.24	-8155015.00	-8155014.74	0.0088	0.0026 *
Moon	-27040-10-16 17:45 J	-8154648.02	-8154647.76	-8154647.50	0.0088	0.0012
Earth	-27040-10-16 21:07 J	-8154647.87	-8154647.62	-8154647.36	0.0088	0.0015 *
Earth	-27039-10-19 09:07 J	-8154280.30	-8154280.12	-8154279.90	0.0088	0.0058
Moon	-27039-10-19 11:45 J	-8154280.19	-8154280.01	-8154279.80	0.0088	0.0060 *
Mercury	-27026-04-19 15:35 J	-8149714.89	-8149714.85	-8149714.77	0.0088	0.0084
Mercury	-27026-07-16 18:57 J	-8149626.79	-8149626.71	-8149626.59	0.0088	0.0074
Mercury	-27026-10-12 22:33 J	-8149538.68	-8149538.56	-8149538.43	0.0088	0.0064
Mars	-27025-01-01 13:26 J	-8149458.17	-8149457.94	-8149457.65	0.0088	0.0047
Mercury	-27025-01-09 01:40 J	-8149450.57	-8149450.43	-8149450.27	0.0088	0.0055
Mercury	-27025-04-06 04:47 J	-8149362.44	-8149362.30	-8149362.12	0.0088	0.0046
Mercury	-27025-07-03 08:09 J	-8149274.32	-8149274.16	-8149273.98	0.0088	0.0037
Mercury	-27025-09-29 11:45 J	-8149186.19	-8149186.01	-8149185.84	0.0088	0.0027
Mercury	-27025-12-26 14:52 J	-8149098.06	-8149097.88	-8149097.70	0.0088	0.0018
Mercury	-27024-03-24 17:59 J	-8149009.93	-8149009.75	-8149009.56	0.0088	0.0009
Mercury	-27024-06-20 21:21 J	-8148921.80	-8148921.61	-8148921.42	0.0088	0.0000
Mercury	-27024-09-17 00:28 J	-8148833.66	-8148833.48	-8148833.29	0.0088	0.0009
Mars	-27024-11-25 21:35 J	-8148763.89	-8148763.60	-8148763.28	0.0088	0.0011
Mercury	-27024-12-14 03:35 J	-8148745.53	-8148745.35	-8148745.16	0.0088	0.0019

Mercury	-27023-03-12 06:57 J	-8148657.39	-8148657.21	-8148657.04	0.0088	0.0027
Mercury	-27023-06-08 10:04 J	-8148569.25	-8148569.08	-8148568.91	0.0088	0.0037
Mercury	-27023-09-04 13:11 J	-8148481.11	-8148480.95	-8148480.79	0.0088	0.0046
Mercury	-27023-12-01 16:19 J	-8148392.96	-8148392.82	-8148392.67	0.0088	0.0055
Mercury	-27022-02-27 19:26 J	-8148304.81	-8148304.69	-8148304.56	0.0088	0.0064
Mercury	-27022-05-26 22:33 J	-8148216.66	-8148216.56	-8148216.45	0.0088	0.0072
Mercury	-27022-08-23 01:26 J	-8148128.49	-8148128.44	-8148128.36	0.0088	0.0082
Mars	-27022-10-21 07:11 J	-8148069.36	-8148069.20	-8148068.97	0.0088	0.0068
Venus	-27012-04-10 20:38 J	-8144609.66	-8144609.64	-8144609.57	0.0088	0.0087
Venus	-27012-11-22 10:47 J	-8144384.11	-8144384.05	-8144383.97	0.0088	0.0084
Venus	-27011-07-06 00:43 J	-8144158.55	-8144158.47	-8144158.38	0.0088	0.0081
Venus	-27010-02-16 13:55 J	-8143933.00	-8143932.92	-8143932.79	0.0088	0.0079
Venus	-27010-09-30 04:04 J	-8143707.43	-8143707.33	-8143707.20	0.0088	0.0076
Venus	-27009-05-12 17:59 J	-8143481.86	-8143481.75	-8143481.61	0.0088	0.0073
Venus	-27009-12-24 07:55 J	-8143256.30	-8143256.17	-8143256.03	0.0088	0.0070
Venus	-27008-08-06 21:35 J	-8143030.73	-8143030.60	-8143030.44	0.0088	0.0067
Venus	-27007-03-20 11:31 J	-8142805.17	-8142805.02	-8142804.86	0.0088	0.0064
Venus	-27007-11-01 01:26 J	-8142579.59	-8142579.44	-8142579.27	0.0088	0.0061
Venus	-27006-06-14 15:07 J	-8142354.03	-8142353.87	-8142353.69	0.0088	0.0058
Venus	-27005-01-26 05:02 J	-8142128.46	-8142128.29	-8142128.11	0.0088	0.0055
Venus	-27005-09-07 18:43 J	-8141902.89	-8141902.72	-8141902.53	0.0088	0.0052
Venus	-27004-04-21 08:23 J	-8141677.32	-8141677.15	-8141676.95	0.0088	0.0049
Venus	-27004-12-02 22:19 J	-8141451.75	-8141451.57	-8141451.37	0.0089	0.0046
Venus	-27003-07-16 11:45 J	-8141226.19	-8141226.01	-8141225.79	0.0089	0.0043
Venus	-27002-02-27 01:26 J	-8141000.62	-8141000.44	-8141000.22	0.0089	0.0040
Venus	-27002-10-10 15:35 J	-8140775.05	-8140774.85	-8140774.64	0.0089	0.0036
Venus	-27001-05-23 05:16 J	-8140549.48	-8140549.28	-8140549.07	0.0089	0.0033

27TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 27th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-27000-01-03 18:57 J		-8140323.92	-8140323.71	-8140323.49	0.0089	0.0030	
Venus	-27000-08-17 08:23 J		-8140098.35	-8140098.15	-8140097.92	0.0089	0.0027	
Venus	-26999-03-30 22:04 J		-8139872.78	-8139872.58	-8139872.35	0.0089	0.0024	
Venus	-26999-11-11 11:59 J		-8139647.21	-8139647.00	-8139646.77	0.0089	0.0020	
Venus	-26998-06-25 01:40 J		-8139421.64	-8139421.43	-8139421.20	0.0089	0.0017	
Venus	-26997-02-05 15:21 J		-8139196.08	-8139195.86	-8139195.63	0.0089	0.0013	
Venus	-26997-09-18 05:02 J		-8138970.51	-8138970.29	-8138970.06	0.0089	0.0010	
Venus	-26996-05-01 18:43 J		-8138744.94	-8138744.72	-8138744.49	0.0089	0.0007	
Venus	-26996-12-13 08:38 J		-8138519.36	-8138519.14	-8138518.92	0.0089	0.0003	
Venus	-26995-07-26 22:19 J		-8138293.80	-8138293.57	-8138293.35	0.0089	0.0001	
Venus	-26994-03-09 11:45 J		-8138068.23	-8138068.01	-8138067.78	0.0089	0.0004	
Venus	-26994-10-21 01:26 J		-8137842.66	-8137842.44	-8137842.21	0.0089	0.0007	
Venus	-26993-06-02 15:07 J		-8137617.09	-8137616.87	-8137616.64	0.0089	0.0010	
Venus	-26992-01-14 04:47 J		-8137391.52	-8137391.30	-8137391.08	0.0089	0.0013	
Venus	-26992-08-27 18:14 J		-8137165.95	-8137165.74	-8137165.51	0.0089	0.0017	
Venus	-26991-04-10 07:40 J		-8136940.39	-8136940.18	-8136939.95	0.0089	0.0020	
Venus	-26991-11-21 21:21 J		-8136714.81	-8136714.61	-8136714.38	0.0089	0.0023	
Venus	-26990-07-05 11:02 J		-8136489.25	-8136489.04	-8136488.83	0.0089	0.0026	
Venus	-26989-02-16 00:28 J		-8136263.69	-8136263.48	-8136263.27	0.0089	0.0029	
Venus	-26989-09-28 13:55 J		-8136038.13	-8136037.92	-8136037.71	0.0089	0.0032	
Venus	-26988-05-12 03:07 J		-8135812.56	-8135812.37	-8135812.15	0.0089	0.0036	

Venus	-26988-12-23 16:33 J	-8135586.99	-8135586.81	-8135586.59	0.0089	0.0039
Venus	-26987-08-06 05:59 J	-8135361.43	-8135361.25	-8135361.04	0.0089	0.0042
Venus	-26986-03-19 19:26 J	-8135135.87	-8135135.69	-8135135.49	0.0089	0.0045
Venus	-26986-10-31 08:52 J	-8134910.31	-8134910.13	-8134909.93	0.0089	0.0048
Venus	-26985-06-12 22:19 J	-8134684.74	-8134684.57	-8134684.38	0.0089	0.0051
Venus	-26984-01-24 11:31 J	-8134459.18	-8134459.02	-8134458.83	0.0089	0.0054
Venus	-26984-09-07 00:57 J	-8134233.62	-8134233.46	-8134233.28	0.0089	0.0057
Venus	-26983-04-20 14:09 J	-8134008.05	-8134007.91	-8134007.73	0.0089	0.0060
Venus	-26983-12-02 03:35 J	-8133782.48	-8133782.35	-8133782.17	0.0089	0.0063
Venus	-26982-07-15 17:02 J	-8133556.92	-8133556.79	-8133556.63	0.0089	0.0066
Venus	-26981-02-26 06:43 J	-8133331.36	-8133331.22	-8133331.08	0.0089	0.0069
Venus	-26981-10-08 19:40 J	-8133105.80	-8133105.68	-8133105.54	0.0089	0.0072
Venus	-26980-05-22 08:52 J	-8132880.23	-8132880.13	-8132879.99	0.0089	0.0074
Venus	-26979-01-02 22:04 J	-8132654.66	-8132654.58	-8132654.44	0.0089	0.0078
Venus	-26979-08-16 11:45 J	-8132429.10	-8132429.01	-8132428.91	0.0089	0.0080
Venus	-26978-03-30 00:28 J	-8132203.54	-8132203.48	-8132203.37	0.0089	0.0083
Venus	-26978-11-10 14:09 J	-8131977.97	-8131977.91	-8131977.84	0.0089	0.0085
Venus	-26977-06-23 02:52 J	-8131752.40	-8131752.38	-8131752.32	0.0089	0.0088
Earth	-26959-04-13 03:50 J	-8125249.49	-8125249.34	-8125249.14	0.0089	0.0063
Moon	-26959-04-13 07:40 J	-8125249.35	-8125249.18	-8125248.98	0.0089	0.0062 *
Moon	-26958-04-15 12:28 J	-8124882.22	-8124881.98	-8124881.74	0.0089	0.0022
Earth	-26958-04-15 14:52 J	-8124882.11	-8124881.88	-8124881.62	0.0089	0.0020 *
Earth	-26957-04-17 01:40 J	-8124514.66	-8124514.43	-8124514.18	0.0089	0.0025
Moon	-26957-04-17 03:21 J	-8124514.59	-8124514.36	-8124514.09	0.0089	0.0027 *
Moon	-26956-04-19 11:16 J	-8124147.17	-8124147.03	-8124146.85	0.0089	0.0067
Earth	-26956-04-19 12:14 J	-8124147.13	-8124146.99	-8124146.80	0.0089	0.0069 *
Mercury	-26945-04-27 23:16 J	-8120120.55	-8120120.53	-8120120.49	0.0089	0.0086
Mercury	-26945-07-25 00:43 J	-8120032.52	-8120032.47	-8120032.40	0.0089	0.0079
Mercury	-26945-10-21 02:09 J	-8119944.48	-8119944.41	-8119944.33	0.0089	0.0073
Mercury	-26944-01-17 03:35 J	-8119856.43	-8119856.35	-8119856.25	0.0089	0.0066

Mercury	-26944-04-15 04:47 J	-8119768.38	-8119768.30	-8119768.18	0.0089	0.0060
Mercury	-26944-07-12 06:28 J	-8119680.33	-8119680.23	-8119680.11	0.0089	0.0052
Mercury	-26944-10-08 07:55 J	-8119592.28	-8119592.17	-8119592.05	0.0089	0.0045
Mars	-26944-11-25 13:26 J	-8119544.20	-8119543.94	-8119543.65	0.0089	0.0049
Mercury	-26943-01-04 09:21 J	-8119504.23	-8119504.11	-8119503.98	0.0089	0.0038
Mercury	-26943-04-02 10:47 J	-8119416.17	-8119416.05	-8119415.92	0.0089	0.0031
Mercury	-26943-06-29 12:14 J	-8119328.11	-8119327.99	-8119327.85	0.0089	0.0024
Mercury	-26943-09-25 13:40 J	-8119240.06	-8119239.93	-8119239.79	0.0089	0.0018
Mercury	-26943-12-22 15:21 J	-8119152.00	-8119151.86	-8119151.73	0.0089	0.0010
Mercury	-26942-03-20 16:47 J	-8119063.94	-8119063.80	-8119063.67	0.0089	0.0004
Mercury	-26942-06-16 18:14 J	-8118975.88	-8118975.74	-8118975.60	0.0089	0.0004
Mercury	-26942-09-12 19:40 J	-8118887.82	-8118887.68	-8118887.54	0.0089	0.0011
Mars	-26942-10-21 23:31 J	-8118848.83	-8118848.52	-8118848.19	0.0089	0.0014
Mercury	-26942-12-09 21:07 J	-8118799.75	-8118799.62	-8118799.48	0.0089	0.0018
Mercury	-26941-03-06 22:33 J	-8118711.69	-8118711.56	-8118711.43	0.0089	0.0025
Mercury	-26941-06-02 23:59 J	-8118623.62	-8118623.50	-8118623.37	0.0089	0.0032
Mercury	-26941-08-30 01:26 J	-8118535.56	-8118535.44	-8118535.31	0.0089	0.0039
Mercury	-26941-11-26 02:52 J	-8118447.49	-8118447.38	-8118447.25	0.0089	0.0046
Mercury	-26940-02-22 04:19 J	-8118359.42	-8118359.32	-8118359.20	0.0089	0.0053
Mercury	-26940-05-21 05:59 J	-8118271.35	-8118271.25	-8118271.15	0.0089	0.0060
Mercury	-26940-08-17 07:26 J	-8118183.27	-8118183.19	-8118183.09	0.0089	0.0067
Mars	-26940-09-16 05:59 J	-8118153.38	-8118153.25	-8118153.05	0.0089	0.0077
Mercury	-26940-11-13 08:52 J	-8118095.19	-8118095.13	-8118095.05	0.0089	0.0075
Mercury	-26939-02-09 10:33 J	-8118007.11	-8118007.06	-8118007.00	0.0089	0.0082
Mercury	-26939-05-08 11:59 J	-8117919.01	-8117919.00	-8117918.98	0.0089	0.0089
Venus	-26933-12-06 23:31 J	-8115514.52	-8115514.52	-8115514.50	0.0089	0.0089
Venus	-26932-07-20 11:59 J	-8115289.05	-8115289.00	-8115288.95	0.0089	0.0086
Venus	-26931-03-02 23:59 J	-8115063.55	-8115063.50	-8115063.42	0.0089	0.0084
Venus	-26931-10-14 12:43 J	-8114838.06	-8114837.97	-8114837.89	0.0089	0.0081
Venus	-26930-05-28 00:28 J	-8114612.56	-8114612.48	-8114612.37	0.0089	0.0079

Venus	-26929-01-08 13:11 J	-8114387.06	-8114386.95	-8114386.84	0.0089	0.0076
Venus	-26929-08-21 00:57 J	-8114161.56	-8114161.46	-8114161.32	0.0089	0.0074
Venus	-26928-04-03 13:40 J	-8113936.05	-8113935.93	-8113935.79	0.0089	0.0071
Venus	-26928-11-15 01:40 J	-8113710.55	-8113710.43	-8113710.27	0.0089	0.0069
Venus	-26927-06-28 13:55 J	-8113485.05	-8113484.92	-8113484.76	0.0089	0.0066
Venus	-26926-02-09 02:09 J	-8113259.54	-8113259.41	-8113259.24	0.0089	0.0063
Venus	-26926-09-22 14:38 J	-8113034.04	-8113033.89	-8113033.73	0.0089	0.0060
Venus	-26925-05-05 02:38 J	-8112808.53	-8112808.39	-8112808.20	0.0089	0.0058
Venus	-26925-12-16 15:07 J	-8112583.03	-8112582.87	-8112582.69	0.0089	0.0055
Venus	-26924-07-30 03:21 J	-8112357.52	-8112357.36	-8112357.17	0.0089	0.0052
Venus	-26923-03-12 15:35 J	-8112132.02	-8112131.85	-8112131.66	0.0089	0.0049
Venus	-26923-10-24 03:50 J	-8111906.51	-8111906.34	-8111906.14	0.0089	0.0046
Venus	-26922-06-06 16:19 J	-8111681.00	-8111680.82	-8111680.63	0.0089	0.0043
Venus	-26921-01-18 04:33 J	-8111455.50	-8111455.31	-8111455.11	0.0089	0.0040
Venus	-26921-08-30 16:47 J	-8111229.99	-8111229.80	-8111229.60	0.0089	0.0037
Venus	-26920-04-13 05:16 J	-8111004.47	-8111004.28	-8111004.07	0.0089	0.0034
Venus	-26920-11-24 17:45 J	-8110778.96	-8110778.76	-8110778.56	0.0089	0.0031
Venus	-26919-07-08 05:59 J	-8110553.45	-8110553.25	-8110553.04	0.0089	0.0028
Venus	-26918-02-18 18:14 J	-8110327.94	-8110327.74	-8110327.53	0.0089	0.0025
Venus	-26918-10-02 06:43 J	-8110102.43	-8110102.22	-8110102.01	0.0089	0.0022
Venus	-26917-05-14 19:11 J	-8109876.91	-8109876.70	-8109876.48	0.0089	0.0019
Venus	-26917-12-26 07:40 J	-8109651.39	-8109651.18	-8109650.97	0.0089	0.0016
Venus	-26916-08-08 19:55 J	-8109425.88	-8109425.67	-8109425.45	0.0089	0.0013
Venus	-26915-03-22 08:09 J	-8109200.37	-8109200.16	-8109199.93	0.0089	0.0010
Venus	-26915-11-02 20:38 J	-8108974.85	-8108974.64	-8108974.42	0.0089	0.0007
Venus	-26914-06-16 09:07 J	-8108749.33	-8108749.12	-8108748.90	0.0089	0.0003
Venus	-26913-01-27 21:35 J	-8108523.82	-8108523.60	-8108523.39	0.0089	0.0001
Venus	-26913-09-09 09:50 J	-8108298.30	-8108298.09	-8108297.87	0.0089	0.0003
Venus	-26912-04-22 22:19 J	-8108072.78	-8108072.57	-8108072.35	0.0089	0.0006
Venus	-26912-12-04 10:33 J	-8107847.27	-8107847.06	-8107846.83	0.0089	0.0010

Venus	-26911-07-17 23:02 J	-8107621.75	-8107621.54	-8107621.32	0.0088	0.0012
Venus	-26910-02-28 11:16 J	-8107396.24	-8107396.03	-8107395.81	0.0088	0.0016
Venus	-26910-10-11 23:45 J	-8107170.72	-8107170.51	-8107170.29	0.0088	0.0019
Venus	-26909-05-24 12:28 J	-8106945.19	-8106944.98	-8106944.77	0.0088	0.0022
Venus	-26908-01-05 00:57 J	-8106719.67	-8106719.46	-8106719.25	0.0088	0.0025
Venus	-26908-08-18 13:26 J	-8106494.15	-8106493.94	-8106493.73	0.0088	0.0028
Venus	-26907-04-01 01:55 J	-8106268.62	-8106268.42	-8106268.22	0.0088	0.0031
Venus	-26907-11-12 14:23 J	-8106043.10	-8106042.90	-8106042.70	0.0088	0.0034
Venus	-26906-06-26 02:38 J	-8105817.57	-8105817.39	-8105817.17	0.0088	0.0038
Venus	-26905-02-06 15:21 J	-8105592.04	-8105591.86	-8105591.65	0.0088	0.0040
Venus	-26905-09-19 03:50 J	-8105366.51	-8105366.34	-8105366.13	0.0088	0.0043
Venus	-26904-05-02 16:33 J	-8105140.98	-8105140.81	-8105140.61	0.0088	0.0046
Venus	-26904-12-14 05:31 J	-8104915.45	-8104915.27	-8104915.09	0.0088	0.0049
Venus	-26903-07-27 17:59 J	-8104689.92	-8104689.75	-8104689.57	0.0088	0.0052
Venus	-26902-03-10 06:28 J	-8104464.39	-8104464.23	-8104464.05	0.0088	0.0055
Venus	-26902-10-21 18:57 J	-8104238.86	-8104238.71	-8104238.53	0.0088	0.0058
Venus	-26901-06-03 07:40 J	-8104013.32	-8104013.18	-8104013.00	0.0088	0.0061
Venus	-26900-01-14 20:09 J	-8103787.79	-8103787.66	-8103787.48	0.0088	0.0064
Venus	-26900-08-28 09:21 J	-8103562.25	-8103562.11	-8103561.96	0.0088	0.0066
Venus	-26899-04-10 21:35 J	-8103336.72	-8103336.60	-8103336.45	0.0088	0.0069
Venus	-26899-11-22 10:04 J	-8103111.18	-8103111.08	-8103110.93	0.0088	0.0072
Venus	-26898-07-05 23:16 J	-8102885.64	-8102885.53	-8102885.40	0.0088	0.0074
Venus	-26897-02-16 11:45 J	-8102660.10	-8102660.01	-8102659.88	0.0088	0.0077
Venus	-26897-09-29 00:14 J	-8102434.56	-8102434.49	-8102434.36	0.0088	0.0080
Venus	-26896-05-12 13:26 J	-8102209.01	-8102208.94	-8102208.85	0.0088	0.0081
Venus	-26896-12-24 01:55 J	-8101983.46	-8101983.42	-8101983.33	0.0088	0.0084
Venus	-26895-08-06 14:52 J	-8101757.90	-8101757.88	-8101757.82	0.0088	0.0086
Moon	-26877-10-13 10:04 J	-8095115.28	-8095115.08	-8095114.85	0.0088	0.0049
Earth	-26877-10-13 12:43 J	-8095115.16	-8095114.97	-8095114.74	0.0088	0.0053 *
Earth	-26876-10-16 01:26 J	-8094747.69	-8094747.44	-8094747.17	0.0088	0.0010

Moon	-26876-10-16 03:50 J	-8094747.59	-8094747.34	-8094747.06	0.0088	0.0014 *
Moon	-26875-10-18 13:11 J	-8094380.17	-8094379.95	-8094379.71	0.0088	0.0037
Earth	-26875-10-18 13:55 J	-8094380.15	-8094379.92	-8094379.67	0.0088	0.0033 *
Moon	-26874-10-21 01:40 J	-8094012.57	-8094012.43	-8094012.26	0.0088	0.0072
Earth	-26874-10-21 01:55 J	-8094012.53	-8094012.42	-8094012.27	0.0088	0.0076 *
Mars	-26862-08-16 07:26 J	-8089695.33	-8089695.19	-8089695.02	0.0088	0.0075
Mercury	-26861-01-14 12:57 J	-8089544.01	-8089543.96	-8089543.88	0.0088	0.0082
Mercury	-26861-04-11 16:04 J	-8089455.91	-8089455.83	-8089455.70	0.0088	0.0073
Mercury	-26861-07-08 19:40 J	-8089367.80	-8089367.68	-8089367.54	0.0088	0.0063
Mercury	-26861-10-04 22:47 J	-8089279.68	-8089279.55	-8089279.39	0.0088	0.0054
Mercury	-26860-01-01 02:09 J	-8089191.56	-8089191.41	-8089191.24	0.0088	0.0045
Mercury	-26860-03-30 05:16 J	-8089103.44	-8089103.28	-8089103.09	0.0088	0.0036
Mercury	-26860-06-26 08:52 J	-8089015.31	-8089015.13	-8089014.95	0.0088	0.0026
Mars	-26860-07-10 14:52 J	-8089001.18	-8089000.88	-8089000.58	0.0088	0.0019
Mercury	-26860-09-22 11:59 J	-8088927.18	-8088927.00	-8088926.81	0.0088	0.0017
Mercury	-26860-12-19 15:21 J	-8088839.05	-8088838.86	-8088838.67	0.0088	0.0008
Mercury	-26859-03-17 18:28 J	-8088750.91	-8088750.73	-8088750.54	0.0088	0.0002
Mercury	-26859-06-13 21:50 J	-8088662.78	-8088662.59	-8088662.41	0.0088	0.0010
Mercury	-26859-09-10 00:57 J	-8088574.64	-8088574.46	-8088574.28	0.0088	0.0020
Mercury	-26859-12-07 03:50 J	-8088486.50	-8088486.34	-8088486.15	0.0088	0.0029
Mercury	-26858-03-05 06:57 J	-8088398.36	-8088398.21	-8088398.03	0.0088	0.0038
Mercury	-26858-06-01 10:04 J	-8088310.22	-8088310.08	-8088309.91	0.0088	0.0047
Mars	-26858-06-04 22:19 J	-8088306.84	-8088306.57	-8088306.28	0.0088	0.0037
Mercury	-26858-08-28 13:11 J	-8088222.07	-8088221.95	-8088221.79	0.0088	0.0056
Mercury	-26858-11-24 16:19 J	-8088133.93	-8088133.82	-8088133.68	0.0088	0.0065
Mercury	-26857-02-20 19:26 J	-8088045.77	-8088045.69	-8088045.57	0.0088	0.0074
Mercury	-26857-05-18 23:02 J	-8087957.60	-8087957.54	-8087957.48	0.0088	0.0083
Venus	-26849-11-29 13:40 J	-8084840.93	-8084840.93	-8084840.86	0.0088	0.0088
Venus	-26848-07-13 03:50 J	-8084615.39	-8084615.34	-8084615.26	0.0088	0.0085
Venus	-26847-02-23 17:16 J	-8084389.84	-8084389.78	-8084389.67	0.0088	0.0082

Venus	-26847-10-07 07:26 J	-8084164.27	-8084164.19	-8084164.08	0.0088	0.0080
Venus	-26846-05-20 21:35 J	-8083938.71	-8083938.60	-8083938.49	0.0088	0.0077
Venus	-26845-01-01 10:47 J	-8083713.15	-8083713.05	-8083712.91	0.0088	0.0075
Venus	-26845-08-14 00:43 J	-8083487.59	-8083487.47	-8083487.33	0.0088	0.0072
Venus	-26844-03-27 14:38 J	-8083262.02	-8083261.89	-8083261.74	0.0088	0.0069
Venus	-26844-11-08 04:04 J	-8083036.45	-8083036.33	-8083036.16	0.0088	0.0067
Venus	-26843-06-21 17:59 J	-8082810.89	-8082810.75	-8082810.58	0.0088	0.0064
Venus	-26842-02-02 07:40 J	-8082585.32	-8082585.18	-8082585.00	0.0088	0.0061
Venus	-26842-09-15 21:50 J	-8082359.75	-8082359.59	-8082359.41	0.0088	0.0058
Venus	-26841-04-28 11:31 J	-8082134.18	-8082134.02	-8082133.83	0.0088	0.0055
Venus	-26841-12-10 01:26 J	-8081908.61	-8081908.44	-8081908.25	0.0088	0.0052
Venus	-26840-07-23 15:21 J	-8081683.04	-8081682.86	-8081682.67	0.0088	0.0049
Venus	-26839-03-06 05:02 J	-8081457.47	-8081457.29	-8081457.09	0.0088	0.0046
Venus	-26839-10-17 18:57 J	-8081231.90	-8081231.71	-8081231.51	0.0088	0.0043
Venus	-26838-05-31 08:38 J	-8081006.33	-8081006.14	-8081005.93	0.0089	0.0040
Venus	-26837-01-11 22:19 J	-8080780.77	-8080780.57	-8080780.36	0.0089	0.0037
Venus	-26837-08-24 11:59 J	-8080555.20	-8080555.00	-8080554.79	0.0089	0.0034
Venus	-26836-04-07 01:40 J	-8080329.63	-8080329.43	-8080329.21	0.0089	0.0031
Venus	-26836-11-18 15:21 J	-8080104.06	-8080103.86	-8080103.64	0.0089	0.0028
Venus	-26835-07-02 05:02 J	-8079878.50	-8079878.29	-8079878.07	0.0089	0.0025
Venus	-26834-02-12 18:43 J	-8079652.93	-8079652.72	-8079652.50	0.0089	0.0021
Venus	-26834-09-26 08:09 J	-8079427.36	-8079427.16	-8079426.92	0.0089	0.0019
Venus	-26833-05-08 22:04 J	-8079201.80	-8079201.58	-8079201.35	0.0089	0.0015
Venus	-26833-12-20 11:45 J	-8078976.23	-8078976.01	-8078975.78	0.0089	0.0012
Venus	-26832-08-03 01:26 J	-8078750.66	-8078750.44	-8078750.22	0.0089	0.0009
Venus	-26831-03-16 15:07 J	-8078525.09	-8078524.87	-8078524.65	0.0089	0.0005
Venus	-26831-10-28 04:47 J	-8078299.52	-8078299.30	-8078299.08	0.0089	0.0002
Venus	-26830-06-10 18:28 J	-8078073.95	-8078073.73	-8078073.51	0.0089	0.0001
Venus	-26829-01-22 08:09 J	-8077848.39	-8077848.16	-8077847.94	0.0089	0.0004
Venus	-26829-09-03 21:35 J	-8077622.82	-8077622.60	-8077622.37	0.0089	0.0007

Venus	-26828-04-17 11:02 J	-8077397.25	-8077397.04	-8077396.81	0.0089	0.0011
Venus	-26828-11-29 00:57 J	-8077171.68	-8077171.46	-8077171.24	0.0089	0.0014
Venus	-26827-07-12 14:23 J	-8076946.11	-8076945.90	-8076945.67	0.0089	0.0017
Venus	-26826-02-23 04:04 J	-8076720.54	-8076720.33	-8076720.11	0.0089	0.0020
Venus	-26826-10-06 17:31 J	-8076494.98	-8076494.77	-8076494.55	0.0089	0.0023
Venus	-26825-05-19 07:11 J	-8076269.41	-8076269.20	-8076268.99	0.0089	0.0026
Venus	-26825-12-30 20:38 J	-8076043.84	-8076043.64	-8076043.42	0.0089	0.0029
Venus	-26824-08-13 10:04 J	-8075818.28	-8075818.08	-8075817.87	0.0089	0.0032
Venus	-26823-03-26 23:31 J	-8075592.72	-8075592.52	-8075592.31	0.0089	0.0035
Venus	-26823-11-07 12:57 J	-8075367.15	-8075366.96	-8075366.75	0.0089	0.0038
Venus	-26822-06-21 02:23 J	-8075141.59	-8075141.40	-8075141.20	0.0089	0.0041
Venus	-26821-02-01 15:50 J	-8074916.03	-8074915.84	-8074915.64	0.0089	0.0044
Venus	-26821-09-14 05:02 J	-8074690.47	-8074690.29	-8074690.09	0.0089	0.0047
Venus	-26820-04-27 18:28 J	-8074464.90	-8074464.73	-8074464.54	0.0089	0.0050
Venus	-26820-12-09 07:55 J	-8074239.34	-8074239.17	-8074238.98	0.0089	0.0053
Venus	-26819-07-22 21:07 J	-8074013.77	-8074013.62	-8074013.43	0.0089	0.0056
Venus	-26818-03-05 10:19 J	-8073788.21	-8073788.07	-8073787.88	0.0089	0.0059
Venus	-26818-10-16 23:59 J	-8073562.65	-8073562.50	-8073562.33	0.0089	0.0061
Venus	-26817-05-29 13:11 J	-8073337.09	-8073336.95	-8073336.78	0.0089	0.0064
Venus	-26816-01-10 02:38 J	-8073111.52	-8073111.39	-8073111.23	0.0089	0.0067
Venus	-26816-08-23 16:19 J	-8072885.96	-8072885.82	-8072885.68	0.0089	0.0069
Venus	-26815-04-06 05:16 J	-8072660.39	-8072660.28	-8072660.14	0.0089	0.0072
Venus	-26815-11-17 18:28 J	-8072434.83	-8072434.73	-8072434.59	0.0089	0.0075
Venus	-26814-07-01 07:55 J	-8072209.26	-8072209.17	-8072209.05	0.0089	0.0077
Venus	-26813-02-11 20:52 J	-8071983.70	-8071983.63	-8071983.51	0.0089	0.0080
Venus	-26813-09-24 10:19 J	-8071758.14	-8071758.07	-8071757.97	0.0089	0.0082
Venus	-26812-05-07 23:45 J	-8071532.57	-8071532.51	-8071532.44	0.0089	0.0084
Venus	-26812-12-19 12:28 J	-8071307.00	-8071306.98	-8071306.91	0.0089	0.0087
Venus	-26811-08-02 02:09 J	-8071081.41	-8071081.41	-8071081.40	0.0089	0.0089
Earth	-26795-04-12 09:35 J	-8065349.10	-8065349.10	-8065349.10	0.0089	0.0089

Earth	-26794-04-14 19:40 J	-8064981.88	-8064981.68	-8064981.44	0.0089	0.0047
Moon	-26794-04-14 21:35 J	-8064981.83	-8064981.60	-8064981.37	0.0089	0.0042 *
Earth	-26793-04-16 06:43 J	-8064614.47	-8064614.22	-8064613.96	0.0089	0.0003
Moon	-26793-04-16 06:57 J	-8064614.46	-8064614.21	-8064613.97	0.0089	0.0006 *
Moon	-26792-04-18 16:04 J	-8064247.04	-8064246.83	-8064246.59	0.0089	0.0046
Earth	-26792-04-18 17:02 J	-8064247.00	-8064246.79	-8064246.55	0.0089	0.0042 *
Earth	-26791-04-21 03:35 J	-8063879.40	-8063879.35	-8063879.25	0.0089	0.0085
Moon	-26791-04-21 05:45 J	-8063879.33	-8063879.26	-8063879.13	0.0089	0.0082 *
Mercury	-26780-01-22 22:04 J	-8059949.61	-8059949.58	-8059949.53	0.0089	0.0086
Mercury	-26780-04-20 23:45 J	-8059861.57	-8059861.51	-8059861.45	0.0089	0.0079
Mars	-26780-07-09 05:31 J	-8059782.35	-8059782.27	-8059782.11	0.0089	0.0084
Mercury	-26780-07-18 00:43 J	-8059773.53	-8059773.47	-8059773.37	0.0089	0.0073
Mercury	-26780-10-14 02:23 J	-8059685.48	-8059685.40	-8059685.30	0.0089	0.0065
Mercury	-26779-01-10 03:50 J	-8059597.44	-8059597.34	-8059597.23	0.0089	0.0058
Mercury	-26779-04-08 05:16 J	-8059509.39	-8059509.28	-8059509.17	0.0089	0.0051
Mercury	-26779-07-05 06:43 J	-8059421.33	-8059421.22	-8059421.10	0.0089	0.0044
Mercury	-26779-10-01 08:09 J	-8059333.28	-8059333.16	-8059333.03	0.0089	0.0038
Mercury	-26779-12-28 09:35 J	-8059245.22	-8059245.10	-8059244.97	0.0089	0.0031
Mercury	-26778-03-26 11:02 J	-8059157.17	-8059157.04	-8059156.90	0.0089	0.0024
Mars	-26778-06-04 17:31 J	-8059087.08	-8059086.77	-8059086.45	0.0089	0.0020
Mercury	-26778-06-22 12:28 J	-8059069.11	-8059068.98	-8059068.84	0.0089	0.0017
Mercury	-26778-09-18 13:55 J	-8058981.05	-8058980.92	-8058980.78	0.0089	0.0010
Mercury	-26778-12-15 15:35 J	-8058892.99	-8058892.85	-8058892.72	0.0089	0.0003
Mercury	-26777-03-12 17:02 J	-8058804.93	-8058804.79	-8058804.66	0.0089	0.0004
Mercury	-26777-06-08 18:28 J	-8058716.87	-8058716.73	-8058716.59	0.0089	0.0011
Mercury	-26777-09-04 19:55 J	-8058628.80	-8058628.67	-8058628.54	0.0089	0.0018
Mercury	-26777-12-01 21:21 J	-8058540.74	-8058540.61	-8058540.48	0.0089	0.0026
Mercury	-26776-02-27 22:47 J	-8058452.67	-8058452.55	-8058452.42	0.0089	0.0033
Mars	-26776-04-30 03:07 J	-8058391.64	-8058391.37	-8058391.07	0.0089	0.0043
Mercury	-26776-05-27 00:28 J	-8058364.61	-8058364.48	-8058364.36	0.0089	0.0040

Mercury	-26776-08-23 01:55 J	-8058276.54	-8058276.42	-8058276.30	0.0089	0.0047
Mercury	-26776-11-19 03:07 J	-8058188.47	-8058188.37	-8058188.25	0.0089	0.0054
Mercury	-26775-02-15 04:33 J	-8058100.40	-8058100.31	-8058100.20	0.0089	0.0062
Mercury	-26775-05-14 06:14 J	-8058012.32	-8058012.24	-8058012.15	0.0089	0.0068
Mercury	-26775-08-10 07:40 J	-8057924.24	-8057924.18	-8057924.10	0.0089	0.0075
Mercury	-26775-11-06 09:07 J	-8057836.16	-8057836.12	-8057836.06	0.0089	0.0083
Venus	-26768-03-10 08:09 J	-8055520.18	-8055520.16	-8055520.09	0.0089	0.0088
Venus	-26768-10-21 20:23 J	-8055294.69	-8055294.65	-8055294.56	0.0089	0.0085
Venus	-26767-06-04 09:07 J	-8055069.19	-8055069.12	-8055069.04	0.0089	0.0082
Venus	-26766-01-15 21:07 J	-8054843.70	-8054843.62	-8054843.51	0.0089	0.0080
Venus	-26766-08-29 09:07 J	-8054618.20	-8054618.12	-8054617.99	0.0089	0.0078
Venus	-26765-04-10 21:50 J	-8054392.69	-8054392.59	-8054392.46	0.0089	0.0075
Venus	-26765-11-22 10:04 J	-8054167.18	-8054167.08	-8054166.94	0.0089	0.0073
Venus	-26764-07-05 22:33 J	-8053941.68	-8053941.56	-8053941.42	0.0089	0.0070
Venus	-26763-02-16 10:33 J	-8053716.18	-8053716.06	-8053715.90	0.0089	0.0068
Venus	-26763-09-29 23:02 J	-8053490.67	-8053490.54	-8053490.38	0.0089	0.0065
Venus	-26762-05-13 11:31 J	-8053265.16	-8053265.02	-8053264.86	0.0089	0.0062
Venus	-26762-12-24 23:31 J	-8053039.66	-8053039.52	-8053039.34	0.0089	0.0060
Venus	-26761-08-06 11:59 J	-8052814.16	-8052814.00	-8052813.83	0.0089	0.0057
Venus	-26760-03-20 00:28 J	-8052588.65	-8052588.48	-8052588.31	0.0089	0.0054
Venus	-26760-10-31 12:14 J	-8052363.14	-8052362.99	-8052362.79	0.0089	0.0052
Venus	-26759-06-14 00:43 J	-8052137.64	-8052137.47	-8052137.28	0.0089	0.0049
Venus	-26758-01-25 12:57 J	-8051912.13	-8051911.96	-8051911.77	0.0089	0.0046
Venus	-26758-09-08 01:26 J	-8051686.63	-8051686.44	-8051686.25	0.0089	0.0043
Venus	-26757-04-20 13:26 J	-8051461.11	-8051460.94	-8051460.73	0.0089	0.0041
Venus	-26757-12-02 01:55 J	-8051235.61	-8051235.42	-8051235.22	0.0089	0.0038
Venus	-26756-07-15 14:09 J	-8051010.10	-8051009.91	-8051009.70	0.0089	0.0035
Venus	-26755-02-26 02:23 J	-8050784.59	-8050784.40	-8050784.19	0.0089	0.0032
Venus	-26755-10-09 14:38 J	-8050559.08	-8050558.89	-8050558.67	0.0089	0.0029
Venus	-26754-05-23 03:07 J	-8050333.57	-8050333.37	-8050333.15	0.0089	0.0026

Venus	-26753-01-03 15:35 J	-8050108.05	-8050107.85	-8050107.64	0.0089	0.0023
Venus	-26753-08-16 04:04 J	-8049882.54	-8049882.33	-8049882.12	0.0089	0.0020
Venus	-26752-03-29 16:19 J	-8049657.03	-8049656.82	-8049656.60	0.0089	0.0017
Venus	-26752-11-10 04:47 J	-8049431.51	-8049431.30	-8049431.08	0.0089	0.0014
Venus	-26751-06-23 17:16 J	-8049205.99	-8049205.78	-8049205.56	0.0089	0.0011
Venus	-26750-02-04 05:45 J	-8048980.48	-8048980.26	-8048980.05	0.0089	0.0008
Venus	-26750-09-17 17:59 J	-8048754.96	-8048754.75	-8048754.53	0.0089	0.0005
Venus	-26749-04-30 06:43 J	-8048529.44	-8048529.22	-8048529.01	0.0089	0.0002
Venus	-26749-12-11 18:57 J	-8048303.92	-8048303.71	-8048303.49	0.0089	0.0002
Venus	-26748-07-25 07:26 J	-8048078.41	-8048078.19	-8048077.97	0.0089	0.0004
Venus	-26747-03-07 19:40 J	-8047852.89	-8047852.68	-8047852.46	0.0089	0.0007
Venus	-26747-10-19 08:09 J	-8047627.38	-8047627.16	-8047626.94	0.0089	0.0010
Venus	-26746-06-01 20:38 J	-8047401.85	-8047401.64	-8047401.42	0.0088	0.0013
Venus	-26745-01-13 09:07 J	-8047176.33	-8047176.12	-8047175.90	0.0088	0.0016
Venus	-26745-08-25 21:35 J	-8046950.81	-8046950.60	-8046950.39	0.0088	0.0019
Venus	-26744-04-08 10:04 J	-8046725.29	-8046725.08	-8046724.87	0.0088	0.0022
Venus	-26744-11-19 22:33 J	-8046499.77	-8046499.56	-8046499.35	0.0088	0.0025
Venus	-26743-07-03 11:02 J	-8046274.25	-8046274.04	-8046273.83	0.0088	0.0028
Venus	-26742-02-13 23:16 J	-8046048.73	-8046048.53	-8046048.32	0.0088	0.0031
Venus	-26742-09-27 11:45 J	-8045823.20	-8045823.01	-8045822.80	0.0088	0.0034
Venus	-26741-05-10 00:28 J	-8045597.67	-8045597.48	-8045597.27	0.0088	0.0037
Venus	-26741-12-21 12:57 J	-8045372.14	-8045371.96	-8045371.75	0.0088	0.0040
Venus	-26740-08-04 01:26 J	-8045146.61	-8045146.44	-8045146.23	0.0088	0.0043
Venus	-26739-03-17 13:55 J	-8044921.09	-8044920.92	-8044920.71	0.0088	0.0046
Venus	-26739-10-29 03:07 J	-8044695.56	-8044695.37	-8044695.19	0.0088	0.0048
Venus	-26738-06-11 15:35 J	-8044470.02	-8044469.85	-8044469.66	0.0088	0.0051
Venus	-26737-01-23 04:19 J	-8044244.48	-8044244.32	-8044244.14	0.0088	0.0053
Venus	-26737-09-04 16:47 J	-8044018.95	-8044018.80	-8044018.61	0.0088	0.0056
Venus	-26736-04-18 05:45 J	-8043793.42	-8043793.26	-8043793.09	0.0088	0.0059
Venus	-26736-11-29 18:14 J	-8043567.89	-8043567.74	-8043567.57	0.0088	0.0061

Venus	-26735-07-13 06:43 J	-8043342.35	-8043342.22	-8043342.05	0.0088	0.0064
Venus	-26734-02-23 19:40 J	-8043116.81	-8043116.68	-8043116.53	0.0088	0.0067
Venus	-26734-10-07 08:09 J	-8042891.28	-8042891.16	-8042891.01	0.0088	0.0069
Venus	-26733-05-19 21:07 J	-8042665.74	-8042665.62	-8042665.48	0.0088	0.0072
Venus	-26733-12-31 09:35 J	-8042440.20	-8042440.10	-8042439.96	0.0088	0.0074
Venus	-26732-08-13 22:33 J	-8042214.66	-8042214.56	-8042214.44	0.0088	0.0076
Venus	-26731-03-27 10:47 J	-8041989.12	-8041989.05	-8041988.93	0.0088	0.0080
Venus	-26731-11-07 23:45 J	-8041763.57	-8041763.51	-8041763.41	0.0088	0.0082
Venus	-26730-06-21 12:57 J	-8041538.02	-8041537.96	-8041537.88	0.0088	0.0084
Venus	-26729-02-02 01:26 J	-8041312.46	-8041312.44	-8041312.37	0.0088	0.0086
Venus	-26729-09-14 14:38 J	-8041086.89	-8041086.89	-8041086.87	0.0088	0.0088
Earth	-26713-10-12 17:02 J	-8035214.88	-8035214.79	-8035214.64	0.0088	0.0078
Moon	-26713-10-12 18:57 J	-8035214.82	-8035214.71	-8035214.58	0.0088	0.0078 *
Moon	-26712-10-15 05:45 J	-8034847.49	-8034847.26	-8034847.02	0.0088	0.0033
Earth	-26712-10-15 05:59 J	-8034847.47	-8034847.25	-8034846.99	0.0088	0.0035 *
Moon	-26711-10-17 17:59 J	-8034480.02	-8034479.75	-8034479.48	0.0088	0.0007
Earth	-26711-10-17 18:43 J	-8034479.97	-8034479.72	-8034479.45	0.0088	0.0009 *
Earth	-26710-10-20 07:26 J	-8034112.40	-8034112.19	-8034111.98	0.0088	0.0051
Moon	-26710-10-20 09:07 J	-8034112.30	-8034112.12	-8034111.90	0.0088	0.0053 *
Mercury	-26697-10-10 10:33 J	-8029373.12	-8029373.06	-8029372.97	0.0088	0.0080
Mercury	-26696-01-06 13:40 J	-8029285.02	-8029284.93	-8029284.80	0.0088	0.0071
Mars	-26696-02-22 08:52 J	-8029238.36	-8029238.13	-8029237.85	0.0088	0.0049
Mercury	-26696-04-04 17:16 J	-8029196.90	-8029196.78	-8029196.64	0.0088	0.0061
Mercury	-26696-07-01 20:23 J	-8029108.79	-8029108.65	-8029108.48	0.0088	0.0052
Mercury	-26696-09-27 23:45 J	-8029020.66	-8029020.51	-8029020.33	0.0088	0.0043
Mercury	-26696-12-25 03:21 J	-8028932.54	-8028932.36	-8028932.19	0.0088	0.0033
Mercury	-26695-03-23 06:28 J	-8028844.41	-8028844.23	-8028844.05	0.0088	0.0024
Mercury	-26695-06-19 09:35 J	-8028756.28	-8028756.10	-8028755.91	0.0088	0.0015
Mercury	-26695-09-15 12:57 J	-8028668.14	-8028667.96	-8028667.77	0.0088	0.0006
Mercury	-26695-12-12 16:04 J	-8028580.01	-8028579.83	-8028579.64	0.0088	0.0004

Mars	-26694-01-17 17:02 J	-8028544.09	-8028543.79	-8028543.48	0.0088	0.0008
Mercury	-26694-03-10 19:26 J	-8028491.87	-8028491.69	-8028491.50	0.0088	0.0013
Mercury	-26694-06-06 22:19 J	-8028403.74	-8028403.57	-8028403.38	0.0088	0.0022
Mercury	-26694-09-03 01:26 J	-8028315.60	-8028315.44	-8028315.25	0.0088	0.0032
Mercury	-26694-11-30 04:47 J	-8028227.46	-8028227.30	-8028227.13	0.0088	0.0040
Mercury	-26693-02-26 07:55 J	-8028139.31	-8028139.17	-8028139.01	0.0088	0.0049
Mercury	-26693-05-24 11:02 J	-8028051.17	-8028051.04	-8028050.89	0.0088	0.0058
Mercury	-26693-08-20 13:55 J	-8027963.02	-8027962.92	-8027962.78	0.0088	0.0068
Mercury	-26693-11-16 17:02 J	-8027874.86	-8027874.79	-8027874.68	0.0088	0.0076
Mars	-26693-12-12 00:57 J	-8027849.64	-8027849.46	-8027849.22	0.0088	0.0066
Mercury	-26692-02-12 20:09 J	-8027786.69	-8027786.66	-8027786.59	0.0088	0.0085
Venus	-26685-07-20 07:26 J	-8025072.20	-8025072.19	-8025072.14	0.0088	0.0087
Venus	-26684-03-02 21:07 J	-8024846.66	-8024846.62	-8024846.54	0.0088	0.0085
Venus	-26684-10-14 11:16 J	-8024621.10	-8024621.03	-8024620.94	0.0088	0.0083
Venus	-26683-05-28 00:43 J	-8024395.54	-8024395.47	-8024395.36	0.0088	0.0081
Venus	-26682-01-08 14:23 J	-8024169.98	-8024169.90	-8024169.77	0.0088	0.0078
Venus	-26682-08-22 04:19 J	-8023944.42	-8023944.32	-8023944.19	0.0088	0.0076
Venus	-26681-04-03 18:28 J	-8023718.86	-8023718.73	-8023718.61	0.0088	0.0073
Venus	-26681-11-15 07:55 J	-8023493.29	-8023493.17	-8023493.02	0.0088	0.0070
Venus	-26680-06-28 21:50 J	-8023267.73	-8023267.59	-8023267.44	0.0088	0.0068
Venus	-26679-02-09 11:02 J	-8023042.16	-8023042.04	-8023041.86	0.0088	0.0066
Venus	-26679-09-23 01:11 J	-8022816.59	-8022816.45	-8022816.28	0.0088	0.0063
Venus	-26678-05-06 15:07 J	-8022591.03	-8022590.87	-8022590.70	0.0088	0.0060
Venus	-26678-12-18 04:33 J	-8022365.46	-8022365.31	-8022365.12	0.0088	0.0058
Venus	-26677-07-30 18:28 J	-8022139.89	-8022139.73	-8022139.54	0.0088	0.0054
Venus	-26676-03-13 08:23 J	-8021914.32	-8021914.15	-8021913.96	0.0088	0.0052
Venus	-26676-10-24 22:19 J	-8021688.75	-8021688.57	-8021688.37	0.0088	0.0049
Venus	-26675-06-07 12:14 J	-8021463.18	-8021462.99	-8021462.79	0.0088	0.0046
Venus	-26674-01-19 02:09 J	-8021237.61	-8021237.41	-8021237.22	0.0088	0.0043
Venus	-26674-09-01 15:21 J	-8021012.04	-8021011.86	-8021011.64	0.0088	0.0041

Venus	-26673-04-14 05:16 J	-8020786.47	-8020786.28	-8020786.06	0.0088	0.0038
Venus	-26673-11-25 19:11 J	-8020560.90	-8020560.70	-8020560.48	0.0089	0.0034
Venus	-26672-07-09 08:52 J	-8020335.33	-8020335.13	-8020334.91	0.0089	0.0032
Venus	-26671-02-19 22:33 J	-8020109.76	-8020109.56	-8020109.34	0.0089	0.0029
Venus	-26671-10-03 12:14 J	-8019884.19	-8019883.99	-8019883.76	0.0089	0.0026
Venus	-26670-05-17 02:09 J	-8019658.62	-8019658.41	-8019658.19	0.0089	0.0022
Venus	-26670-12-28 15:50 J	-8019433.05	-8019432.84	-8019432.61	0.0089	0.0020
Venus	-26669-08-10 05:16 J	-8019207.49	-8019207.28	-8019207.05	0.0089	0.0017
Venus	-26668-03-23 18:57 J	-8018981.92	-8018981.71	-8018981.48	0.0089	0.0014
Venus	-26668-11-04 08:52 J	-8018756.35	-8018756.13	-8018755.90	0.0089	0.0010
Venus	-26667-06-17 22:33 J	-8018530.78	-8018530.56	-8018530.34	0.0089	0.0007
Venus	-26666-01-29 11:59 J	-8018305.22	-8018305.00	-8018304.77	0.0089	0.0005
Venus	-26666-09-12 01:40 J	-8018079.65	-8018079.43	-8018079.20	0.0089	0.0002
Venus	-26665-04-24 15:21 J	-8017854.08	-8017853.86	-8017853.63	0.0089	0.0002
Venus	-26665-12-06 05:02 J	-8017628.51	-8017628.29	-8017628.06	0.0089	0.0005
Venus	-26664-07-19 18:43 J	-8017402.94	-8017402.72	-8017402.50	0.0089	0.0008
Venus	-26663-03-02 08:09 J	-8017177.38	-8017177.16	-8017176.93	0.0089	0.0011
Venus	-26663-10-13 21:50 J	-8016951.81	-8016951.59	-8016951.37	0.0089	0.0014
Venus	-26662-05-27 11:31 J	-8016726.24	-8016726.02	-8016725.80	0.0089	0.0017
Venus	-26661-01-08 00:57 J	-8016500.67	-8016500.46	-8016500.23	0.0089	0.0020
Venus	-26661-08-20 14:38 J	-8016275.10	-8016274.89	-8016274.67	0.0089	0.0023
Venus	-26660-04-03 04:04 J	-8016049.54	-8016049.33	-8016049.11	0.0089	0.0026
Venus	-26660-11-14 17:31 J	-8015823.97	-8015823.77	-8015823.55	0.0089	0.0029
Venus	-26659-06-28 06:57 J	-8015598.40	-8015598.21	-8015597.99	0.0089	0.0032
Venus	-26658-02-08 20:23 J	-8015372.84	-8015372.65	-8015372.43	0.0089	0.0035
Venus	-26658-09-22 09:50 J	-8015147.28	-8015147.09	-8015146.88	0.0089	0.0038
Venus	-26657-05-04 23:31 J	-8014921.72	-8014921.52	-8014921.32	0.0089	0.0040
Venus	-26657-12-16 12:57 J	-8014696.15	-8014695.96	-8014695.76	0.0089	0.0043
Venus	-26656-07-30 02:09 J	-8014470.59	-8014470.41	-8014470.21	0.0089	0.0046
Venus	-26655-03-12 15:21 J	-8014245.03	-8014244.86	-8014244.66	0.0089	0.0049

Venus	-26655-10-24 04:33 J	-8014019.47	-8014019.31	-8014019.11	0.0089	0.0052
Venus	-26654-06-06 18:14 J	-8013793.91	-8013793.74	-8013793.56	0.0089	0.0054
Venus	-26653-01-18 07:26 J	-8013568.34	-8013568.19	-8013568.00	0.0089	0.0057
Venus	-26653-08-30 20:38 J	-8013342.78	-8013342.64	-8013342.46	0.0089	0.0060
Venus	-26652-04-13 10:19 J	-8013117.22	-8013117.07	-8013116.91	0.0089	0.0062
Venus	-26652-11-24 23:16 J	-8012891.66	-8012891.53	-8012891.36	0.0089	0.0065
Venus	-26651-07-08 12:57 J	-8012666.10	-8012665.96	-8012665.81	0.0089	0.0068
Venus	-26650-02-19 01:55 J	-8012440.54	-8012440.42	-8012440.27	0.0089	0.0070
Venus	-26650-10-02 15:21 J	-8012214.97	-8012214.86	-8012214.72	0.0089	0.0073
Venus	-26649-05-15 04:19 J	-8011989.41	-8011989.32	-8011989.18	0.0089	0.0076
Venus	-26649-12-26 17:59 J	-8011763.84	-8011763.75	-8011763.63	0.0089	0.0077
Venus	-26648-08-09 07:26 J	-8011538.28	-8011538.19	-8011538.09	0.0089	0.0080
Venus	-26647-03-22 20:09 J	-8011312.72	-8011312.66	-8011312.55	0.0089	0.0082
Venus	-26647-11-03 09:21 J	-8011087.16	-8011087.11	-8011087.02	0.0089	0.0084
Venus	-26646-06-16 22:33 J	-8010861.59	-8010861.56	-8010861.49	0.0089	0.0087
Venus	-26645-01-28 11:59 J	-8010636.02	-8010636.00	-8010635.96	0.0089	0.0088
Earth	-26630-04-14 02:09 J	-8005081.55	-8005081.41	-8005081.25	0.0089	0.0072
Moon	-26630-04-14 01:55 J	-8005081.55	-8005081.42	-8005081.24	0.0089	0.0070 *
Moon	-26629-04-15 10:47 J	-8004714.29	-8004714.05	-8004713.80	0.0089	0.0031
Earth	-26629-04-15 12:28 J	-8004714.20	-8004713.98	-8004713.72	0.0089	0.0029 *
Earth	-26628-04-17 23:16 J	-8004346.77	-8004346.53	-8004346.27	0.0089	0.0016
Moon	-26628-04-18 01:40 J	-8004346.66	-8004346.43	-8004346.18	0.0089	0.0018 *
Moon	-26627-04-20 06:28 J	-8003979.41	-8003979.23	-8003979.01	0.0089	0.0057
Earth	-26627-04-20 09:50 J	-8003979.26	-8003979.09	-8003978.88	0.0089	0.0059 *
Jupiter	-26624-06-14 20:52 J	-8002827.95	-8002827.63	-8002827.24	0.0089	0.0066
Mercury	-26616-10-19 21:07 J	-7999778.65	-7999778.62	-7999778.57	0.0089	0.0085
Mercury	-26615-01-15 22:19 J	-7999690.62	-7999690.57	-7999690.49	0.0089	0.0078
Mercury	-26615-04-13 23:45 J	-7999602.58	-7999602.51	-7999602.42	0.0089	0.0071
Mercury	-26615-07-11 01:11 J	-7999514.53	-7999514.45	-7999514.35	0.0089	0.0065
Mercury	-26615-10-07 02:38 J	-7999426.48	-7999426.39	-7999426.28	0.0089	0.0058

Mercury -26614-01-03 04:19 J -7999338.43 -7999338.32 -7999338.21 0.0089 0.0050

Mars -26614-01-16 11:45 J -7999325.25 -7999325.01 -7999324.73 0.0089 0.0054

Mercury -26614-04-01 05:45 J -7999250.38 -7999250.26 -7999250.14 0.0089 0.0043

Mercury -26614-06-28 07:11 J -7999162.32 -7999162.20 -7999162.08 0.0089 0.0037

Mercury -26614-09-24 08:38 J -7999074.27 -7999074.14 -7999074.01 0.0089 0.0030

Mercury -26614-12-21 10:04 J -7998986.21 -7998986.08 -7998985.95 0.0089 0.0023

Mercury -26613-03-18 11:31 J -7998898.15 -7998898.02 -7998897.89 0.0089 0.0016

Mercury -26613-06-14 12:57 J -7998810.10 -7998809.96 -7998809.83 0.0089 0.0009

Mercury -26613-09-10 14:23 J -7998722.04 -7998721.90 -7998721.76 0.0089 0.0002

Mercury -26613-12-07 15:50 J -7998633.98 -7998633.84 -7998633.70 0.0089 0.0005

Mars -26613-12-11 22:47 J -7998629.86 -7998629.55 -7998629.22 0.0089 0.0011

Mercury -26612-03-05 17:16 J -7998545.91 -7998545.78 -7998545.64 0.0089 0.0012

Mercury -26612-06-01 18:43 J -7998457.85 -7998457.72 -7998457.58 0.0089 0.0019

Mercury -26612-08-28 20:09 J -7998369.79 -7998369.66 -7998369.52 0.0089 0.0027

Mercury -26612-11-24 21:35 J -7998281.72 -7998281.60 -7998281.47 0.0089 0.0034

Mercury -26611-02-20 23:16 J -7998193.65 -7998193.53 -7998193.41 0.0089 0.0041

Mercury -26611-05-20 00:43 J -7998105.58 -7998105.47 -7998105.35 0.0089 0.0048

Mercury -26611-08-16 01:55 J -7998017.51 -7998017.42 -7998017.30 0.0089 0.0055

Mars -26611-11-07 08:09 J -7997934.34 -7997934.16 -7997933.97 0.0089 0.0073

Mercury -26611-11-12 03:21 J -7997929.44 -7997929.36 -7997929.25 0.0089 0.0063

Mercury -26610-02-08 05:02 J -7997841.37 -7997841.29 -7997841.20 0.0089 0.0069

Mercury -26610-05-07 06:28 J -7997753.29 -7997753.23 -7997753.15 0.0089 0.0076

Mercury -26610-08-03 07:55 J -7997665.20 -7997665.17 -7997665.11 0.0089 0.0084

Venus -26605-03-17 17:02 J -7995976.79 -7995976.79 -7995976.76 0.0089 0.0089

Venus -26605-10-29 05:02 J -7995751.31 -7995751.29 -7995751.22 0.0089 0.0088

Venus -26604-06-11 17:16 J -7995525.82 -7995525.78 -7995525.69 0.0089 0.0085

Venus -26603-01-23 05:31 J -7995300.32 -7995300.27 -7995300.17 0.0089 0.0083

Venus -26603-09-05 18:14 J -7995074.82 -7995074.74 -7995074.64 0.0089 0.0080

Venus -26602-04-19 06:28 J -7994849.32 -7994849.23 -7994849.12 0.0089 0.0078

Venus -26602-11-30 18:43 J -7994623.81 -7994623.72 -7994623.59 0.0089 0.0076

Venus	-26601-07-13 06:43 J	-7994398.31	-7994398.22	-7994398.08	0.0089	0.0074
Venus	-26600-02-23 19:26 J	-7994172.81	-7994172.69	-7994172.55	0.0089	0.0071
Venus	-26600-10-07 07:26 J	-7993947.30	-7993947.19	-7993947.03	0.0089	0.0069
Venus	-26599-05-20 20:09 J	-7993721.80	-7993721.66	-7993721.51	0.0089	0.0066
Venus	-26598-01-01 08:09 J	-7993496.29	-7993496.16	-7993495.99	0.0089	0.0064
Venus	-26598-08-14 20:52 J	-7993270.78	-7993270.63	-7993270.47	0.0089	0.0061
Venus	-26597-03-27 08:52 J	-7993045.27	-7993045.13	-7993044.95	0.0089	0.0059
Venus	-26597-11-07 21:35 J	-7992819.76	-7992819.60	-7992819.43	0.0089	0.0056
Venus	-26596-06-21 09:35 J	-7992594.26	-7992594.10	-7992593.92	0.0089	0.0054
Venus	-26595-02-01 22:04 J	-7992368.75	-7992368.58	-7992368.40	0.0089	0.0051
Venus	-26595-09-15 10:04 J	-7992143.24	-7992143.08	-7992142.88	0.0089	0.0049
Venus	-26594-04-28 22:33 J	-7991917.73	-7991917.56	-7991917.36	0.0089	0.0046
Venus	-26594-12-10 11:02 J	-7991692.22	-7991692.04	-7991691.85	0.0089	0.0043
Venus	-26593-07-22 23:02 J	-7991466.72	-7991466.54	-7991466.33	0.0089	0.0041
Venus	-26592-03-05 11:16 J	-7991241.21	-7991241.03	-7991240.82	0.0089	0.0038
Venus	-26592-10-16 23:45 J	-7991015.70	-7991015.51	-7991015.30	0.0089	0.0035
Venus	-26591-05-30 12:14 J	-7990790.19	-7990789.99	-7990789.79	0.0089	0.0032
Venus	-26590-01-11 00:14 J	-7990564.68	-7990564.49	-7990564.27	0.0089	0.0030
Venus	-26590-08-24 12:43 J	-7990339.17	-7990338.97	-7990338.76	0.0089	0.0027
Venus	-26589-04-06 01:11 J	-7990113.66	-7990113.45	-7990113.24	0.0089	0.0024
Venus	-26589-11-17 13:26 J	-7989888.14	-7989887.94	-7989887.72	0.0089	0.0021
Venus	-26588-07-01 01:55 J	-7989662.63	-7989662.42	-7989662.21	0.0089	0.0018
Venus	-26587-02-11 14:09 J	-7989437.12	-7989436.91	-7989436.69	0.0089	0.0015
Venus	-26587-09-25 02:23 J	-7989211.60	-7989211.40	-7989211.17	0.0089	0.0013
Venus	-26586-05-08 15:07 J	-7988986.08	-7988985.87	-7988985.65	0.0089	0.0010
Venus	-26586-12-20 03:35 J	-7988760.56	-7988760.35	-7988760.13	0.0089	0.0007
Venus	-26585-08-01 16:04 J	-7988535.05	-7988534.83	-7988534.62	0.0089	0.0004
Venus	-26584-03-15 04:19 J	-7988309.53	-7988309.32	-7988309.10	0.0089	0.0002
Venus	-26584-10-26 16:47 J	-7988084.02	-7988083.80	-7988083.58	0.0089	0.0002
Venus	-26583-06-09 05:16 J	-7987858.49	-7987858.28	-7987858.06	0.0089	0.0005

Venus	-26582-01-20 17:45 J	-7987632.98	-7987632.76	-7987632.54	0.0089	0.0008
Venus	-26582-09-03 06:14 J	-7987407.46	-7987407.24	-7987407.03	0.0089	0.0011
Venus	-26581-04-15 18:28 J	-7987181.94	-7987181.73	-7987181.51	0.0089	0.0014
Venus	-26581-11-27 06:57 J	-7986956.42	-7986956.21	-7986955.99	0.0089	0.0016
Venus	-26580-07-10 19:11 J	-7986730.90	-7986730.70	-7986730.47	0.0089	0.0020
Venus	-26579-02-21 07:55 J	-7986505.38	-7986505.17	-7986504.96	0.0088	0.0022
Venus	-26579-10-04 20:23 J	-7986279.86	-7986279.65	-7986279.44	0.0088	0.0025
Venus	-26578-05-18 08:52 J	-7986054.33	-7986054.13	-7986053.92	0.0088	0.0028
Venus	-26578-12-29 21:21 J	-7985828.81	-7985828.61	-7985828.40	0.0088	0.0030
Venus	-26577-08-11 09:35 J	-7985603.29	-7985603.10	-7985602.88	0.0088	0.0034
Venus	-26576-03-24 22:04 J	-7985377.76	-7985377.58	-7985377.37	0.0088	0.0036
Venus	-26576-11-05 10:47 J	-7985152.24	-7985152.05	-7985151.85	0.0088	0.0039
Venus	-26575-06-18 23:31 J	-7984926.70	-7984926.52	-7984926.32	0.0088	0.0042
Venus	-26574-01-30 11:59 J	-7984701.17	-7984701.00	-7984700.80	0.0088	0.0044
Venus	-26574-09-13 00:57 J	-7984475.65	-7984475.46	-7984475.28	0.0088	0.0047
Venus	-26573-04-25 13:26 J	-7984250.11	-7984249.94	-7984249.75	0.0088	0.0050
Venus	-26573-12-07 01:55 J	-7984024.58	-7984024.42	-7984024.23	0.0088	0.0052
Venus	-26572-07-20 14:52 J	-7983799.05	-7983798.88	-7983798.70	0.0088	0.0055
Venus	-26571-03-03 03:21 J	-7983573.51	-7983573.36	-7983573.18	0.0088	0.0057
Venus	-26571-10-14 15:50 J	-7983347.98	-7983347.84	-7983347.66	0.0088	0.0060
Venus	-26570-05-28 04:47 J	-7983122.44	-7983122.30	-7983122.13	0.0088	0.0063
Venus	-26569-01-08 17:45 J	-7982896.90	-7982896.76	-7982896.61	0.0088	0.0065
Venus	-26569-08-21 06:14 J	-7982671.37	-7982671.24	-7982671.08	0.0088	0.0067
Venus	-26568-04-03 18:57 J	-7982445.83	-7982445.71	-7982445.56	0.0088	0.0070
Venus	-26568-11-15 07:26 J	-7982220.29	-7982220.19	-7982220.04	0.0088	0.0072
Venus	-26567-06-28 20:23 J	-7981994.75	-7981994.65	-7981994.51	0.0088	0.0075
Venus	-26566-02-09 09:21 J	-7981769.20	-7981769.11	-7981768.99	0.0088	0.0077
Venus	-26566-09-22 21:50 J	-7981543.66	-7981543.59	-7981543.47	0.0088	0.0079
Venus	-26565-05-05 10:33 J	-7981318.12	-7981318.06	-7981317.95	0.0088	0.0081
Saturn	-26565-11-08 03:21 J	-7981131.97	-7981131.36	-7981130.65	0.0088	0.0031

Venus	-26565-12-16 23:31 J	-7981092.57	-7981092.52	-7981092.43	0.0088	0.0083
Venus	-26564-07-30 12:28 J	-7980867.02	-7980866.98	-7980866.91	0.0088	0.0085
Venus	-26563-03-13 01:26 J	-7980641.46	-7980641.44	-7980641.40	0.0088	0.0087
Moon	-26548-10-14 10:33 J	-7974947.27	-7974947.06	-7974946.85	0.0088	0.0054
Earth	-26548-10-14 11:31 J	-7974947.19	-7974947.02	-7974946.81	0.0088	0.0059 *
Earth	-26547-10-17 00:14 J	-7974579.74	-7974579.49	-7974579.22	0.0088	0.0016
Moon	-26547-10-17 02:38 J	-7974579.63	-7974579.39	-7974579.13	0.0088	0.0020 *
Moon	-26546-10-19 09:21 J	-7974212.34	-7974212.11	-7974211.85	0.0088	0.0032
Earth	-26546-10-19 12:43 J	-7974212.20	-7974211.97	-7974211.70	0.0088	0.0028 *
Earth	-26545-10-21 00:57 J	-7973844.59	-7973844.46	-7973844.28	0.0088	0.0071
Moon	-26545-10-21 04:19 J	-7973844.46	-7973844.32	-7973844.12	0.0088	0.0067 *
Mars	-26533-10-07 08:09 J	-7969475.26	-7969475.16	-7969474.98	0.0088	0.0078
Mercury	-26532-04-10 05:02 J	-7969290.30	-7969290.29	-7969290.26	0.0088	0.0087
Mercury	-26532-07-07 08:09 J	-7969202.23	-7969202.16	-7969202.05	0.0088	0.0078
Mercury	-26532-10-03 11:45 J	-7969114.12	-7969114.01	-7969113.88	0.0088	0.0068
Mercury	-26532-12-30 14:52 J	-7969026.00	-7969025.88	-7969025.73	0.0088	0.0059
Mercury	-26531-03-28 18:14 J	-7968937.88	-7968937.74	-7968937.57	0.0088	0.0050
Mercury	-26531-06-24 21:50 J	-7968849.76	-7968849.59	-7968849.42	0.0088	0.0040
Mars	-26531-09-01 13:26 J	-7968781.23	-7968780.94	-7968780.64	0.0088	0.0021
Mercury	-26531-09-21 00:57 J	-7968761.63	-7968761.46	-7968761.28	0.0088	0.0031
Mercury	-26531-12-18 04:04 J	-7968673.50	-7968673.33	-7968673.14	0.0088	0.0022
Mercury	-26530-03-16 07:40 J	-7968585.37	-7968585.18	-7968585.00	0.0088	0.0013
Mercury	-26530-06-12 10:47 J	-7968497.23	-7968497.05	-7968496.86	0.0088	0.0004
Mercury	-26530-09-08 14:09 J	-7968409.10	-7968408.91	-7968408.73	0.0088	0.0006
Mercury	-26530-12-05 17:16 J	-7968320.96	-7968320.78	-7968320.59	0.0088	0.0015
Mercury	-26529-03-02 20:23 J	-7968232.82	-7968232.65	-7968232.47	0.0088	0.0024
Mercury	-26529-05-29 23:45 J	-7968144.68	-7968144.51	-7968144.34	0.0088	0.0033
Mars	-26529-07-26 20:38 J	-7968086.90	-7968086.64	-7968086.34	0.0088	0.0036
Mercury	-26529-08-26 02:52 J	-7968056.54	-7968056.38	-7968056.22	0.0088	0.0042
Mercury	-26529-11-22 05:59 J	-7967968.40	-7967968.25	-7967968.10	0.0088	0.0051

Mercury	-26528-02-18 09:07 J	-7967880.25	-7967880.12	-7967879.98	0.0088	0.0061
Mercury	-26528-05-17 12:14 J	-7967792.10	-7967791.99	-7967791.87	0.0088	0.0070
Mercury	-26528-08-13 15:21 J	-7967703.93	-7967703.86	-7967703.77	0.0088	0.0078
Mercury	-26528-11-09 18:28 J	-7967615.74	-7967615.73	-7967615.70	0.0088	0.0087
Venus	-26521-03-10 01:26 J	-7965303.44	-7965303.44	-7965303.38	0.0088	0.0088
Venus	-26521-10-21 15:21 J	-7965077.89	-7965077.86	-7965077.77	0.0088	0.0085
Venus	-26520-06-04 05:45 J	-7964852.33	-7964852.26	-7964852.18	0.0088	0.0083
Venus	-26519-01-15 19:11 J	-7964626.77	-7964626.70	-7964626.59	0.0088	0.0081
Venus	-26519-08-29 08:52 J	-7964401.21	-7964401.13	-7964401.01	0.0088	0.0079
Venus	-26518-04-11 22:33 J	-7964175.65	-7964175.56	-7964175.42	0.0088	0.0077
Venus	-26518-11-23 12:43 J	-7963950.08	-7963949.97	-7963949.84	0.0088	0.0074
Venus	-26517-07-06 02:09 J	-7963724.52	-7963724.41	-7963724.26	0.0088	0.0072
Venus	-26516-02-16 15:50 J	-7963498.96	-7963498.84	-7963498.68	0.0088	0.0069
Venus	-26516-09-30 05:45 J	-7963273.39	-7963273.26	-7963273.09	0.0088	0.0067
Venus	-26515-05-13 19:26 J	-7963047.82	-7963047.69	-7963047.51	0.0088	0.0064
Venus	-26515-12-25 09:21 J	-7962822.26	-7962822.11	-7962821.94	0.0088	0.0062
Venus	-26514-08-07 22:47 J	-7962596.69	-7962596.55	-7962596.36	0.0088	0.0059
Venus	-26513-03-20 12:43 J	-7962371.13	-7962370.97	-7962370.78	0.0088	0.0057
Venus	-26513-11-01 02:38 J	-7962145.56	-7962145.39	-7962145.20	0.0088	0.0054
Venus	-26512-06-14 16:04 J	-7961919.99	-7961919.83	-7961919.62	0.0088	0.0052
Venus	-26511-01-26 05:59 J	-7961694.42	-7961694.25	-7961694.05	0.0088	0.0049
Venus	-26511-09-08 19:55 J	-7961468.85	-7961468.67	-7961468.47	0.0088	0.0046
Venus	-26510-04-22 09:50 J	-7961243.28	-7961243.09	-7961242.89	0.0088	0.0043
Venus	-26510-12-03 23:16 J	-7961017.71	-7961017.53	-7961017.31	0.0088	0.0041
Venus	-26509-07-16 13:11 J	-7960792.14	-7960791.95	-7960791.74	0.0088	0.0037
Venus	-26508-02-27 02:52 J	-7960566.58	-7960566.38	-7960566.16	0.0088	0.0035
Venus	-26508-10-10 16:47 J	-7960341.00	-7960340.80	-7960340.58	0.0089	0.0032
Venus	-26507-05-24 06:43 J	-7960115.43	-7960115.22	-7960115.01	0.0089	0.0029
Venus	-26506-01-04 20:09 J	-7959889.86	-7959889.66	-7959889.43	0.0089	0.0027
Venus	-26506-08-18 09:50 J	-7959664.29	-7959664.09	-7959663.86	0.0089	0.0024

Venus	-26505-03-30 23:31 J	-7959438.73	-7959438.52	-7959438.29	0.0089	0.0021
Venus	-26505-11-11 13:26 J	-7959213.15	-7959212.94	-7959212.71	0.0089	0.0018
Venus	-26504-06-25 03:07 J	-7958987.59	-7958987.37	-7958987.14	0.0089	0.0015
Venus	-26503-02-05 16:47 J	-7958762.02	-7958761.80	-7958761.58	0.0089	0.0012
Venus	-26503-09-19 06:28 J	-7958536.46	-7958536.23	-7958536.01	0.0089	0.0009
Venus	-26502-05-02 20:09 J	-7958310.89	-7958310.66	-7958310.44	0.0089	0.0006
Venus	-26502-12-14 09:35 J	-7958085.32	-7958085.10	-7958084.87	0.0089	0.0004
Venus	-26501-07-26 23:16 J	-7957859.75	-7957859.53	-7957859.31	0.0089	0.0000
Venus	-26500-03-09 12:43 J	-7957634.19	-7957633.97	-7957633.74	0.0089	0.0003
Venus	-26500-10-21 02:23 J	-7957408.62	-7957408.40	-7957408.17	0.0089	0.0006
Venus	-26499-06-03 16:04 J	-7957183.05	-7957182.83	-7957182.61	0.0089	0.0009
Venus	-26498-01-15 05:31 J	-7956957.48	-7956957.27	-7956957.04	0.0089	0.0012
Venus	-26498-08-28 19:11 J	-7956731.92	-7956731.70	-7956731.48	0.0089	0.0014
Venus	-26497-04-10 08:38 J	-7956506.35	-7956506.14	-7956505.91	0.0089	0.0018
Venus	-26497-11-21 22:33 J	-7956280.78	-7956280.56	-7956280.34	0.0089	0.0020
Venus	-26496-07-05 11:59 J	-7956055.21	-7956055.00	-7956054.78	0.0089	0.0023
Venus	-26495-02-16 01:26 J	-7955829.64	-7955829.44	-7955829.22	0.0089	0.0026
Venus	-26495-09-29 14:52 J	-7955604.08	-7955603.88	-7955603.66	0.0089	0.0029
Venus	-26494-05-13 04:19 J	-7955378.51	-7955378.32	-7955378.10	0.0089	0.0032
Venus	-26494-12-24 18:14 J	-7955152.94	-7955152.74	-7955152.53	0.0089	0.0034
Venus	-26493-08-06 07:40 J	-7954927.38	-7954927.18	-7954926.97	0.0089	0.0037
Venus	-26492-03-19 20:52 J	-7954701.82	-7954701.63	-7954701.42	0.0089	0.0040
Venus	-26492-10-31 10:19 J	-7954476.25	-7954476.07	-7954475.86	0.0089	0.0043
Venus	-26491-06-13 23:45 J	-7954250.69	-7954250.51	-7954250.31	0.0089	0.0045
Venus	-26490-01-25 12:57 J	-7954025.13	-7954024.96	-7954024.75	0.0089	0.0048
Venus	-26490-09-08 02:38 J	-7953799.57	-7953799.39	-7953799.20	0.0089	0.0050
Venus	-26489-04-20 15:50 J	-7953574.01	-7953573.84	-7953573.65	0.0089	0.0053
Venus	-26489-12-02 05:02 J	-7953348.44	-7953348.29	-7953348.10	0.0089	0.0056
Venus	-26488-07-15 18:28 J	-7953122.88	-7953122.73	-7953122.55	0.0089	0.0058
Venus	-26487-02-26 07:26 J	-7952897.32	-7952897.19	-7952897.00	0.0089	0.0062

Venus	-26487-10-09 20:52 J	-7952671.76	-7952671.63	-7952671.46	0.0089	0.0064
Venus	-26486-05-23 10:33 J	-7952446.20	-7952446.06	-7952445.91	0.0089	0.0065
Venus	-26485-01-03 23:31 J	-7952220.64	-7952220.52	-7952220.36	0.0089	0.0068
Venus	-26485-08-16 12:57 J	-7951995.08	-7951994.96	-7951994.81	0.0089	0.0070
Venus	-26484-03-30 02:23 J	-7951769.52	-7951769.40	-7951769.27	0.0089	0.0073
Venus	-26484-11-10 15:21 J	-7951543.96	-7951543.86	-7951543.72	0.0089	0.0075
Venus	-26483-06-24 04:33 J	-7951318.40	-7951318.31	-7951318.18	0.0089	0.0078
Venus	-26482-02-04 17:59 J	-7951092.83	-7951092.75	-7951092.63	0.0089	0.0079
Venus	-26482-09-18 07:11 J	-7950867.27	-7950867.20	-7950867.10	0.0089	0.0081
Venus	-26481-04-30 20:23 J	-7950641.71	-7950641.65	-7950641.56	0.0089	0.0083
Venus	-26481-12-12 09:35 J	-7950416.15	-7950416.10	-7950416.03	0.0089	0.0085
Venus	-26480-07-25 22:33 J	-7950190.58	-7950190.56	-7950190.50	0.0089	0.0088
Venus	-26479-03-08 11:59 J	-7949965.00	-7949965.00	-7949964.99	0.0089	0.0089
Earth	-26465-04-14 19:11 J	-7944813.88	-7944813.70	-7944813.48	0.0089	0.0054
Moon	-26465-04-14 22:19 J	-7944813.76	-7944813.57	-7944813.35	0.0089	0.0050 *
Moon	-26464-04-17 02:52 J	-7944446.63	-7944446.38	-7944446.12	0.0089	0.0013
Earth	-26464-04-17 06:14 J	-7944446.49	-7944446.24	-7944445.98	0.0089	0.0010 *
Earth	-26463-04-19 16:19 J	-7944079.03	-7944078.82	-7944078.56	0.0089	0.0035
Moon	-26463-04-19 19:55 J	-7944078.88	-7944078.67	-7944078.42	0.0089	0.0039 *
Moon	-26462-04-21 23:59 J	-7943711.62	-7943711.50	-7943711.34	0.0089	0.0075
Earth	-26462-04-22 03:07 J	-7943711.47	-7943711.37	-7943711.23	0.0089	0.0078 *
Jupiter	-26458-08-10 21:50 J	-7942140.10	-7942139.59	-7942139.06	0.0089	0.0008
Mercury	-26451-07-16 20:09 J	-7939607.70	-7939607.66	-7939607.60	0.0089	0.0083
Mars	-26451-08-30 05:31 J	-7939563.31	-7939563.27	-7939563.18	0.0089	0.0088
Mercury	-26451-10-12 21:35 J	-7939519.66	-7939519.60	-7939519.52	0.0089	0.0076
Mercury	-26450-01-08 23:02 J	-7939431.61	-7939431.54	-7939431.45	0.0089	0.0070
Mercury	-26450-04-07 00:28 J	-7939343.57	-7939343.48	-7939343.38	0.0089	0.0063
Mercury	-26450-07-04 01:55 J	-7939255.52	-7939255.42	-7939255.31	0.0089	0.0056
Mercury	-26450-09-30 03:07 J	-7939167.47	-7939167.37	-7939167.24	0.0089	0.0050
Mercury	-26450-12-27 04:33 J	-7939079.42	-7939079.31	-7939079.18	0.0089	0.0043

Mercury	-26449-03-24 06:14 J	-7938991.36	-7938991.24	-7938991.11	0.0089	0.0035
Mercury	-26449-06-20 07:40 J	-7938903.31	-7938903.18	-7938903.05	0.0089	0.0028
Mars	-26449-07-25 19:26 J	-7938867.99	-7938867.69	-7938867.36	0.0089	0.0024
Mercury	-26449-09-16 09:07 J	-7938815.25	-7938815.12	-7938814.99	0.0089	0.0021
Mercury	-26449-12-13 10:33 J	-7938727.19	-7938727.06	-7938726.92	0.0089	0.0014
Mercury	-26448-03-11 11:59 J	-7938639.13	-7938639.00	-7938638.86	0.0089	0.0007
Mercury	-26448-06-07 13:26 J	-7938551.07	-7938550.94	-7938550.80	0.0089	0.0002
Mercury	-26448-09-03 14:52 J	-7938463.01	-7938462.88	-7938462.74	0.0089	0.0007
Mercury	-26448-11-30 16:19 J	-7938374.95	-7938374.82	-7938374.68	0.0089	0.0014
Mercury	-26447-02-26 17:45 J	-7938286.89	-7938286.76	-7938286.62	0.0089	0.0021
Mercury	-26447-05-25 19:11 J	-7938198.82	-7938198.70	-7938198.56	0.0089	0.0028
Mars	-26447-06-21 06:14 J	-7938172.51	-7938172.24	-7938171.93	0.0089	0.0041
Mercury	-26447-08-21 20:38 J	-7938110.76	-7938110.64	-7938110.51	0.0089	0.0035
Mercury	-26447-11-17 22:04 J	-7938022.69	-7938022.58	-7938022.45	0.0089	0.0043
Mercury	-26446-02-13 23:31 J	-7937934.62	-7937934.52	-7937934.39	0.0089	0.0050
Mercury	-26446-05-13 01:11 J	-7937846.55	-7937846.45	-7937846.34	0.0089	0.0056
Mercury	-26446-08-09 02:38 J	-7937758.48	-7937758.39	-7937758.29	0.0089	0.0064
Mercury	-26446-11-05 04:19 J	-7937670.40	-7937670.32	-7937670.24	0.0089	0.0071
Mercury	-26445-02-01 05:45 J	-7937582.32	-7937582.26	-7937582.19	0.0089	0.0078
Mercury	-26445-04-29 06:57 J	-7937494.24	-7937494.21	-7937494.16	0.0089	0.0085
Venus	-26442-11-06 14:23 J	-7936207.90	-7936207.90	-7936207.85	0.0089	0.0089
Venus	-26441-06-19 02:52 J	-7935982.42	-7935982.38	-7935982.32	0.0089	0.0086
Venus	-26440-01-30 15:07 J	-7935756.92	-7935756.87	-7935756.79	0.0089	0.0085
Venus	-26440-09-13 03:21 J	-7935531.43	-7935531.36	-7935531.27	0.0089	0.0083
Venus	-26439-04-26 15:50 J	-7935305.92	-7935305.84	-7935305.74	0.0089	0.0080
Venus	-26439-12-08 04:04 J	-7935080.42	-7935080.33	-7935080.22	0.0089	0.0078
Venus	-26438-07-21 16:19 J	-7934854.92	-7934854.82	-7934854.70	0.0089	0.0076
Venus	-26437-03-03 04:19 J	-7934629.42	-7934629.32	-7934629.18	0.0089	0.0075
Venus	-26437-10-14 16:33 J	-7934403.91	-7934403.81	-7934403.66	0.0089	0.0072
Venus	-26436-05-28 04:47 J	-7934178.41	-7934178.30	-7934178.15	0.0089	0.0070

Venus	-26435-01-08 17:16 J	-7933952.91	-7933952.78	-7933952.63	0.0089	0.0068
Venus	-26435-08-22 05:31 J	-7933727.40	-7933727.27	-7933727.11	0.0089	0.0065
Venus	-26434-04-04 17:45 J	-7933501.89	-7933501.76	-7933501.59	0.0089	0.0063
Venus	-26434-11-16 06:28 J	-7933276.38	-7933276.23	-7933276.07	0.0089	0.0060
Venus	-26433-06-28 18:28 J	-7933050.88	-7933050.73	-7933050.55	0.0089	0.0058
Venus	-26432-02-09 06:43 J	-7932825.37	-7932825.22	-7932825.04	0.0089	0.0056
Venus	-26432-09-22 19:11 J	-7932599.86	-7932599.70	-7932599.52	0.0089	0.0053
Venus	-26431-05-06 07:26 J	-7932374.35	-7932374.19	-7932373.99	0.0089	0.0051
Venus	-26431-12-17 19:55 J	-7932148.84	-7932148.67	-7932148.47	0.0089	0.0048
Venus	-26430-07-31 08:09 J	-7931923.33	-7931923.16	-7931922.96	0.0089	0.0046
Venus	-26429-03-12 20:38 J	-7931697.82	-7931697.64	-7931697.44	0.0089	0.0043
Venus	-26429-10-24 09:07 J	-7931472.31	-7931472.12	-7931471.93	0.0089	0.0040
Venus	-26428-06-06 21:07 J	-7931246.80	-7931246.62	-7931246.41	0.0089	0.0038
Venus	-26427-01-18 09:35 J	-7931021.29	-7931021.10	-7931020.89	0.0089	0.0035
Venus	-26427-08-31 21:35 J	-7930795.78	-7930795.60	-7930795.38	0.0089	0.0033
Venus	-26426-04-14 10:19 J	-7930570.27	-7930570.07	-7930569.86	0.0089	0.0030
Venus	-26426-11-25 22:47 J	-7930344.76	-7930344.55	-7930344.34	0.0089	0.0027
Venus	-26425-07-08 10:47 J	-7930119.25	-7930119.05	-7930118.83	0.0089	0.0025
Venus	-26424-02-18 23:02 J	-7929893.74	-7929893.54	-7929893.32	0.0089	0.0022
Venus	-26424-10-02 11:31 J	-7929668.23	-7929668.02	-7929667.80	0.0089	0.0019
Venus	-26423-05-15 23:59 J	-7929442.71	-7929442.50	-7929442.28	0.0089	0.0017
Venus	-26423-12-27 12:28 J	-7929217.19	-7929216.98	-7929216.76	0.0089	0.0014
Venus	-26422-08-10 00:43 J	-7928991.68	-7928991.47	-7928991.25	0.0089	0.0011
Venus	-26421-03-22 13:11 J	-7928766.16	-7928765.95	-7928765.73	0.0089	0.0008
Venus	-26421-11-03 01:40 J	-7928540.65	-7928540.43	-7928540.21	0.0089	0.0005
Venus	-26420-06-16 14:09 J	-7928315.12	-7928314.91	-7928314.69	0.0089	0.0003
Venus	-26419-01-28 02:38 J	-7928089.61	-7928089.39	-7928089.17	0.0089	0.0000
Venus	-26419-09-10 15:07 J	-7927864.09	-7927863.87	-7927863.65	0.0089	0.0003
Venus	-26418-04-24 03:35 J	-7927638.56	-7927638.35	-7927638.13	0.0089	0.0006
Venus	-26418-12-05 16:04 J	-7927413.04	-7927412.83	-7927412.61	0.0089	0.0009

Venus	-26417-07-18 04:19 J	-7927187.53	-7927187.32	-7927187.09	0.0089	0.0012
Venus	-26416-02-28 17:02 J	-7926962.01	-7926961.79	-7926961.58	0.0089	0.0014
Venus	-26416-10-12 05:16 J	-7926736.49	-7926736.28	-7926736.06	0.0089	0.0017
Venus	-26415-05-25 17:59 J	-7926510.96	-7926510.75	-7926510.53	0.0089	0.0019
Venus	-26414-01-06 06:14 J	-7926285.44	-7926285.24	-7926285.01	0.0088	0.0023
Venus	-26414-08-19 18:57 J	-7926059.92	-7926059.71	-7926059.50	0.0088	0.0025
Venus	-26413-04-01 07:11 J	-7925834.40	-7925834.20	-7925833.98	0.0088	0.0028
Venus	-26413-11-12 19:40 J	-7925608.87	-7925608.68	-7925608.46	0.0088	0.0030
Venus	-26412-06-26 08:23 J	-7925383.35	-7925383.15	-7925382.94	0.0088	0.0033
Venus	-26411-02-06 20:52 J	-7925157.82	-7925157.63	-7925157.42	0.0088	0.0036
Venus	-26411-09-20 09:07 J	-7924932.30	-7924932.12	-7924931.90	0.0088	0.0039
Venus	-26410-05-03 22:04 J	-7924706.77	-7924706.58	-7924706.38	0.0088	0.0041
Venus	-26410-12-15 10:33 J	-7924481.24	-7924481.06	-7924480.86	0.0088	0.0043
Venus	-26409-07-27 23:16 J	-7924255.71	-7924255.53	-7924255.34	0.0088	0.0046
Venus	-26408-03-10 11:45 J	-7924030.18	-7924030.01	-7924029.82	0.0088	0.0048
Venus	-26408-10-22 00:43 J	-7923804.65	-7923804.47	-7923804.29	0.0088	0.0051
Venus	-26407-06-04 13:11 J	-7923579.11	-7923578.95	-7923578.76	0.0088	0.0053
Venus	-26406-01-16 02:09 J	-7923353.58	-7923353.41	-7923353.24	0.0088	0.0056
Venus	-26406-08-29 14:23 J	-7923128.04	-7923127.90	-7923127.71	0.0088	0.0059
Venus	-26405-04-11 03:21 J	-7922902.51	-7922902.36	-7922902.19	0.0088	0.0061
Venus	-26405-11-22 15:50 J	-7922676.97	-7922676.84	-7922676.67	0.0088	0.0063
Venus	-26404-07-06 04:47 J	-7922451.43	-7922451.30	-7922451.14	0.0088	0.0065
Venus	-26403-02-16 17:31 J	-7922225.89	-7922225.77	-7922225.61	0.0088	0.0068
Venus	-26403-09-30 06:28 J	-7922000.36	-7922000.23	-7922000.09	0.0088	0.0070
Venus	-26402-05-13 18:43 J	-7921774.82	-7921774.72	-7921774.57	0.0088	0.0073
Venus	-26402-12-25 07:40 J	-7921549.28	-7921549.18	-7921549.04	0.0088	0.0074
Venus	-26401-08-06 20:23 J	-7921323.74	-7921323.65	-7921323.52	0.0088	0.0077
Venus	-26400-03-20 09:21 J	-7921098.20	-7921098.11	-7921098.00	0.0088	0.0078
Venus	-26400-10-31 22:04 J	-7920872.65	-7920872.58	-7920872.48	0.0088	0.0081
Venus	-26399-06-14 11:02 J	-7920647.10	-7920647.04	-7920646.95	0.0088	0.0082

Venus	-26398-01-25 23:59 J	-7920421.55	-7920421.50	-7920421.43	0.0088	0.0084
Venus	-26398-09-08 12:43 J	-7920196.00	-7920195.97	-7920195.91	0.0088	0.0086
Venus	-26397-04-21 01:55 J	-7919970.42	-7919970.42	-7919970.41	0.0088	0.0088
Earth	-26384-10-13 17:59 J	-7915046.82	-7915046.75	-7915046.64	0.0088	0.0082
Moon	-26384-10-13 20:52 J	-7915046.70	-7915046.63	-7915046.52	0.0088	0.0082 *
Moon	-26383-10-16 03:21 J	-7914679.58	-7914679.36	-7914679.11	0.0088	0.0038
Earth	-26383-10-16 06:43 J	-7914679.44	-7914679.22	-7914678.97	0.0088	0.0039 *
Earth	-26382-10-18 19:40 J	-7914311.94	-7914311.68	-7914311.42	0.0088	0.0004
Moon	-26382-10-18 23:31 J	-7914311.78	-7914311.52	-7914311.26	0.0088	0.0004 *
Moon	-26381-10-20 04:47 J	-7913944.50	-7913944.30	-7913944.07	0.0088	0.0048
Earth	-26381-10-20 08:23 J	-7913944.37	-7913944.15	-7913943.93	0.0088	0.0047 *
Mercury	-26367-01-05 02:52 J	-7909119.41	-7909119.38	-7909119.31	0.0088	0.0084
Mercury	-26367-04-03 06:14 J	-7909031.32	-7909031.24	-7909031.12	0.0088	0.0075
Mars	-26367-04-16 13:26 J	-7909018.17	-7909017.94	-7909017.67	0.0088	0.0050
Mercury	-26367-06-30 09:50 J	-7908943.21	-7908943.09	-7908942.96	0.0088	0.0065
Mercury	-26367-09-26 12:57 J	-7908855.09	-7908854.96	-7908854.80	0.0088	0.0056
Mercury	-26367-12-23 16:19 J	-7908766.97	-7908766.82	-7908766.65	0.0088	0.0047
Mercury	-26366-03-21 19:40 J	-7908678.84	-7908678.68	-7908678.50	0.0088	0.0037
Mercury	-26366-06-17 23:02 J	-7908590.71	-7908590.54	-7908590.35	0.0088	0.0028
Mercury	-26366-09-14 02:23 J	-7908502.58	-7908502.40	-7908502.21	0.0088	0.0019
Mercury	-26366-12-11 05:45 J	-7908414.45	-7908414.26	-7908414.07	0.0088	0.0009
Mercury	-26365-03-08 08:52 J	-7908326.31	-7908326.13	-7908325.94	0.0088	0.0002
Mars	-26365-03-10 18:28 J	-7908324.02	-7908323.73	-7908323.41	0.0088	0.0008
Mercury	-26365-06-04 12:14 J	-7908238.18	-7908237.99	-7908237.80	0.0088	0.0009
Mercury	-26365-08-31 15:21 J	-7908150.04	-7908149.86	-7908149.67	0.0088	0.0018
Mercury	-26365-11-27 18:43 J	-7908061.90	-7908061.72	-7908061.54	0.0088	0.0028
Mercury	-26364-02-23 21:35 J	-7907973.76	-7907973.60	-7907973.42	0.0088	0.0037
Mercury	-26364-05-23 00:43 J	-7907885.61	-7907885.47	-7907885.30	0.0088	0.0046
Mercury	-26364-08-19 03:50 J	-7907797.47	-7907797.34	-7907797.18	0.0088	0.0055
Mercury	-26364-11-15 06:57 J	-7907709.32	-7907709.21	-7907709.06	0.0088	0.0064

Mars	-26363-02-03 01:40 J	-7907629.62	-7907629.43	-7907629.21	0.0088	0.0064
Mercury	-26363-02-11 10:04 J	-7907621.16	-7907621.08	-7907620.96	0.0088	0.0074
Mercury	-26363-05-10 13:11 J	-7907532.99	-7907532.95	-7907532.86	0.0088	0.0082
Venus	-26358-03-18 06:57 J	-7905760.21	-7905760.21	-7905760.20	0.0088	0.0088
Venus	-26358-10-29 20:23 J	-7905534.67	-7905534.65	-7905534.59	0.0088	0.0086
Venus	-26357-06-11 10:19 J	-7905309.12	-7905309.07	-7905308.99	0.0088	0.0084
Venus	-26356-01-22 23:59 J	-7905083.56	-7905083.50	-7905083.41	0.0088	0.0082
Venus	-26356-09-05 13:55 J	-7904858.00	-7904857.92	-7904857.81	0.0088	0.0080
Venus	-26355-04-19 03:35 J	-7904632.43	-7904632.35	-7904632.23	0.0088	0.0078
Venus	-26355-11-30 17:16 J	-7904406.87	-7904406.78	-7904406.64	0.0088	0.0077
Venus	-26354-07-14 06:57 J	-7904181.30	-7904181.21	-7904181.06	0.0088	0.0075
Venus	-26353-02-24 21:21 J	-7903955.74	-7903955.61	-7903955.48	0.0088	0.0072
Venus	-26353-10-07 11:02 J	-7903730.16	-7903730.04	-7903729.89	0.0088	0.0070
Venus	-26352-05-21 00:43 J	-7903504.60	-7903504.47	-7903504.31	0.0088	0.0067
Venus	-26351-01-01 14:09 J	-7903279.03	-7903278.91	-7903278.73	0.0088	0.0066
Venus	-26351-08-15 04:19 J	-7903053.47	-7903053.32	-7903053.15	0.0088	0.0063
Venus	-26350-03-28 17:45 J	-7902827.90	-7902827.76	-7902827.57	0.0088	0.0061
Venus	-26350-11-09 07:55 J	-7902602.33	-7902602.17	-7902601.99	0.0088	0.0058
Venus	-26349-06-21 21:21 J	-7902376.77	-7902376.61	-7902376.42	0.0088	0.0056
Venus	-26348-02-02 11:16 J	-7902151.20	-7902151.03	-7902150.84	0.0088	0.0053
Venus	-26348-09-16 00:57 J	-7901925.63	-7901925.46	-7901925.26	0.0088	0.0050
Venus	-26347-04-29 14:52 J	-7901700.06	-7901699.88	-7901699.68	0.0088	0.0048
Venus	-26347-12-11 04:19 J	-7901474.49	-7901474.32	-7901474.11	0.0088	0.0046
Venus	-26346-07-24 18:14 J	-7901248.93	-7901248.74	-7901248.53	0.0088	0.0043
Venus	-26345-03-06 08:09 J	-7901023.36	-7901023.16	-7901022.96	0.0088	0.0040
Venus	-26345-10-17 21:50 J	-7900797.78	-7900797.59	-7900797.38	0.0088	0.0038
Venus	-26344-05-31 11:45 J	-7900572.21	-7900572.01	-7900571.80	0.0088	0.0035
Venus	-26343-01-12 01:40 J	-7900346.64	-7900346.43	-7900346.22	0.0088	0.0032
Venus	-26343-08-25 15:07 J	-7900121.07	-7900120.87	-7900120.65	0.0088	0.0029
Venus	-26342-04-08 04:47 J	-7899895.50	-7899895.30	-7899895.07	0.0089	0.0027

Venus	-26342-11-19 18:43 J	-7899669.93	-7899669.72	-7899669.50	0.0089	0.0024
Venus	-26341-07-02 08:38 J	-7899444.36	-7899444.14	-7899443.92	0.0089	0.0021
Venus	-26340-02-12 22:04 J	-7899218.79	-7899218.58	-7899218.35	0.0089	0.0019
Venus	-26340-09-26 11:59 J	-7898993.22	-7898993.00	-7898992.78	0.0089	0.0016
Venus	-26339-05-10 01:40 J	-7898767.65	-7898767.43	-7898767.21	0.0089	0.0013
Venus	-26339-12-21 15:21 J	-7898542.08	-7898541.86	-7898541.64	0.0089	0.0010
Venus	-26338-08-04 04:47 J	-7898316.52	-7898316.30	-7898316.07	0.0089	0.0008
Venus	-26337-03-16 18:28 J	-7898090.95	-7898090.73	-7898090.50	0.0089	0.0005
Venus	-26337-10-28 08:09 J	-7897865.38	-7897865.16	-7897864.93	0.0089	0.0002
Venus	-26336-06-10 21:50 J	-7897639.81	-7897639.59	-7897639.37	0.0089	0.0001
Venus	-26335-01-22 11:16 J	-7897414.25	-7897414.03	-7897413.80	0.0089	0.0004
Venus	-26335-09-05 00:43 J	-7897188.69	-7897188.47	-7897188.24	0.0089	0.0007
Venus	-26334-04-18 14:23 J	-7896963.12	-7896962.90	-7896962.68	0.0089	0.0009
Venus	-26334-11-30 04:04 J	-7896737.55	-7896737.33	-7896737.11	0.0089	0.0012
Venus	-26333-07-12 17:31 J	-7896511.98	-7896511.77	-7896511.54	0.0089	0.0015
Venus	-26332-02-23 06:57 J	-7896286.42	-7896286.21	-7896285.98	0.0089	0.0018
Venus	-26332-10-06 20:23 J	-7896060.85	-7896060.65	-7896060.42	0.0089	0.0021
Venus	-26331-05-20 10:19 J	-7895835.29	-7895835.07	-7895834.86	0.0089	0.0023
Venus	-26331-12-31 23:45 J	-7895609.72	-7895609.51	-7895609.29	0.0089	0.0026
Venus	-26330-08-14 13:11 J	-7895384.15	-7895383.95	-7895383.73	0.0089	0.0029
Venus	-26329-03-27 02:52 J	-7895158.59	-7895158.38	-7895158.17	0.0089	0.0031
Venus	-26329-11-07 16:19 J	-7894933.02	-7894932.82	-7894932.61	0.0089	0.0034
Venus	-26328-06-21 05:31 J	-7894707.45	-7894707.27	-7894707.05	0.0089	0.0037
Venus	-26327-02-01 19:11 J	-7894481.89	-7894481.70	-7894481.49	0.0089	0.0039
Venus	-26327-09-15 08:23 J	-7894256.33	-7894256.15	-7894255.94	0.0089	0.0042
Venus	-26326-04-28 22:04 J	-7894030.77	-7894030.58	-7894030.38	0.0089	0.0044
Venus	-26326-12-10 11:16 J	-7893805.20	-7893805.03	-7893804.83	0.0089	0.0047
Venus	-26325-07-23 00:43 J	-7893579.64	-7893579.47	-7893579.27	0.0089	0.0049
Venus	-26324-03-05 13:55 J	-7893354.08	-7893353.92	-7893353.72	0.0089	0.0052
Venus	-26324-10-17 03:21 J	-7893128.52	-7893128.36	-7893128.18	0.0089	0.0054

Venus	-26323-05-30 16:19 J	-7892902.96	-7892902.82	-7892902.63	0.0089	0.0057
Venus	-26322-01-11 05:59 J	-7892677.40	-7892677.25	-7892677.07	0.0089	0.0059
Venus	-26322-08-24 19:11 J	-7892451.84	-7892451.70	-7892451.53	0.0089	0.0062
Venus	-26321-04-06 08:09 J	-7892226.29	-7892226.16	-7892225.98	0.0089	0.0064
Venus	-26321-11-17 21:35 J	-7892000.73	-7892000.60	-7892000.43	0.0089	0.0066
Venus	-26320-07-01 11:02 J	-7891775.17	-7891775.04	-7891774.88	0.0089	0.0068
Venus	-26319-02-12 00:14 J	-7891549.61	-7891549.49	-7891549.34	0.0089	0.0070
Venus	-26319-09-25 13:40 J	-7891324.05	-7891323.93	-7891323.80	0.0089	0.0072
Venus	-26318-05-09 02:52 J	-7891098.49	-7891098.38	-7891098.25	0.0089	0.0074
Venus	-26318-12-20 16:19 J	-7890872.93	-7890872.82	-7890872.70	0.0089	0.0076
Venus	-26317-08-02 05:31 J	-7890647.37	-7890647.27	-7890647.16	0.0089	0.0078
Venus	-26316-03-15 18:28 J	-7890421.81	-7890421.73	-7890421.62	0.0089	0.0081
Venus	-26316-10-27 07:40 J	-7890196.25	-7890196.18	-7890196.09	0.0089	0.0082
Venus	-26315-06-09 20:38 J	-7889970.69	-7889970.64	-7889970.55	0.0089	0.0085
Venus	-26314-01-21 09:50 J	-7889745.12	-7889745.09	-7889745.01	0.0089	0.0086
Venus	-26314-09-03 22:47 J	-7889519.56	-7889519.55	-7889519.49	0.0089	0.0088
Moon	-26301-04-13 23:45 J	-7884913.63	-7884913.51	-7884913.35	0.0089	0.0074
Earth	-26301-04-14 03:21 J	-7884913.46	-7884913.36	-7884913.21	0.0089	0.0078 *
Earth	-26300-04-16 14:23 J	-7884546.13	-7884545.90	-7884545.66	0.0089	0.0034
Moon	-26300-04-16 17:31 J	-7884545.99	-7884545.77	-7884545.52	0.0089	0.0037 *
Moon	-26299-04-18 22:04 J	-7884178.83	-7884178.58	-7884178.33	0.0089	0.0013
Earth	-26299-04-19 00:57 J	-7884178.70	-7884178.46	-7884178.20	0.0089	0.0010 *
Earth	-26298-04-21 11:16 J	-7883811.22	-7883811.03	-7883810.82	0.0089	0.0054
Moon	-26298-04-21 13:11 J	-7883811.14	-7883810.95	-7883810.71	0.0089	0.0051 *
Jupiter	-26292-10-09 10:04 J	-7881448.44	-7881448.08	-7881447.62	0.0089	0.0056
Mercury	-26286-01-14 17:59 J	-7879524.76	-7879524.75	-7879524.72	0.0089	0.0088
Mercury	-26286-04-12 19:26 J	-7879436.73	-7879436.69	-7879436.63	0.0089	0.0081
Mercury	-26286-07-09 20:52 J	-7879348.69	-7879348.63	-7879348.55	0.0089	0.0075
Mercury	-26286-10-05 22:19 J	-7879260.65	-7879260.57	-7879260.48	0.0089	0.0068
Mercury	-26285-01-01 23:45 J	-7879172.60	-7879172.51	-7879172.41	0.0089	0.0061

Mars	-26285-03-08 15:21 J	-7879106.10	-7879105.86	-7879105.60	0.0089	0.0057
Mercury	-26285-03-30 00:57 J	-7879084.55	-7879084.46	-7879084.34	0.0089	0.0054
Mercury	-26285-06-26 02:23 J	-7878996.50	-7878996.40	-7878996.27	0.0089	0.0048
Mercury	-26285-09-22 03:50 J	-7878908.45	-7878908.34	-7878908.21	0.0089	0.0041
Mercury	-26285-12-19 05:31 J	-7878820.39	-7878820.27	-7878820.14	0.0089	0.0033
Mercury	-26284-03-17 06:57 J	-7878732.34	-7878732.21	-7878732.08	0.0089	0.0026
Mercury	-26284-06-13 08:23 J	-7878644.28	-7878644.15	-7878644.02	0.0089	0.0019
Mercury	-26284-09-09 09:50 J	-7878556.22	-7878556.09	-7878555.95	0.0089	0.0012
Mercury	-26284-12-06 11:16 J	-7878468.16	-7878468.03	-7878467.89	0.0089	0.0005
Mars	-26283-02-02 04:47 J	-7878410.62	-7878410.30	-7878409.97	0.0089	0.0008
Mercury	-26283-03-04 12:43 J	-7878380.11	-7878379.97	-7878379.83	0.0089	0.0002
Mercury	-26283-05-31 14:09 J	-7878292.04	-7878291.91	-7878291.77	0.0089	0.0009
Mercury	-26283-08-27 15:35 J	-7878203.98	-7878203.85	-7878203.71	0.0089	0.0016
Mercury	-26283-11-23 17:02 J	-7878115.92	-7878115.79	-7878115.66	0.0089	0.0023
Mercury	-26282-02-19 18:28 J	-7878027.86	-7878027.73	-7878027.60	0.0089	0.0030
Mercury	-26282-05-18 19:55 J	-7877939.79	-7877939.67	-7877939.54	0.0089	0.0037
Mercury	-26282-08-14 21:21 J	-7877851.72	-7877851.61	-7877851.49	0.0089	0.0044
Mercury	-26282-11-10 22:47 J	-7877763.65	-7877763.55	-7877763.43	0.0089	0.0051
Mars	-26282-12-29 15:21 J	-7877715.03	-7877714.86	-7877714.64	0.0089	0.0072
Mercury	-26281-02-07 00:14 J	-7877675.58	-7877675.49	-7877675.38	0.0089	0.0058
Mercury	-26281-05-05 01:40 J	-7877587.51	-7877587.43	-7877587.33	0.0089	0.0066
Mercury	-26281-08-01 03:21 J	-7877499.44	-7877499.36	-7877499.28	0.0089	0.0072
Mercury	-26281-10-28 04:47 J	-7877411.35	-7877411.30	-7877411.23	0.0089	0.0080
Mercury	-26280-01-24 06:28 J	-7877323.26	-7877323.23	-7877323.20	0.0089	0.0087
Venus	-26279-11-13 23:59 J	-7876664.50	-7876664.50	-7876664.47	0.0089	0.0089
Venus	-26278-06-27 12:14 J	-7876439.02	-7876438.99	-7876438.93	0.0089	0.0087
Venus	-26277-02-08 00:43 J	-7876213.52	-7876213.47	-7876213.40	0.0089	0.0085
Venus	-26277-09-20 13:11 J	-7875988.02	-7875987.95	-7875987.87	0.0089	0.0084
Venus	-26276-05-04 01:40 J	-7875762.51	-7875762.43	-7875762.34	0.0089	0.0082
Venus	-26276-12-15 13:26 J	-7875537.01	-7875536.94	-7875536.82	0.0089	0.0080

Venus	-26275-07-29 01:55 J	-7875311.50	-7875311.42	-7875311.30	0.0089	0.0078
Venus	-26274-03-11 14:09 J	-7875086.00	-7875085.91	-7875085.78	0.0089	0.0076
Venus	-26274-10-23 02:23 J	-7874860.49	-7874860.40	-7874860.26	0.0089	0.0075
Venus	-26273-06-04 14:38 J	-7874634.99	-7874634.89	-7874634.74	0.0089	0.0073
Venus	-26272-01-16 02:52 J	-7874409.49	-7874409.38	-7874409.23	0.0089	0.0071
Venus	-26272-08-29 15:07 J	-7874183.98	-7874183.87	-7874183.71	0.0089	0.0069
Venus	-26271-04-12 03:35 J	-7873958.47	-7873958.35	-7873958.18	0.0089	0.0066
Venus	-26271-11-23 16:19 J	-7873732.97	-7873732.82	-7873732.67	0.0089	0.0064
Venus	-26270-07-07 04:19 J	-7873507.46	-7873507.32	-7873507.15	0.0089	0.0062
Venus	-26269-02-17 16:33 J	-7873281.96	-7873281.81	-7873281.64	0.0089	0.0059
Venus	-26269-09-30 04:47 J	-7873056.45	-7873056.30	-7873056.12	0.0089	0.0057
Venus	-26268-05-13 17:31 J	-7872830.94	-7872830.77	-7872830.60	0.0089	0.0054
Venus	-26268-12-25 05:31 J	-7872605.43	-7872605.27	-7872605.08	0.0089	0.0052
Venus	-26267-08-07 17:45 J	-7872379.92	-7872379.76	-7872379.56	0.0089	0.0050
Venus	-26266-03-21 06:28 J	-7872154.41	-7872154.23	-7872154.04	0.0089	0.0047
Venus	-26266-11-01 18:43 J	-7871928.90	-7871928.72	-7871928.53	0.0089	0.0045
Venus	-26265-06-14 06:43 J	-7871703.39	-7871703.22	-7871703.01	0.0089	0.0043
Venus	-26264-01-25 19:26 J	-7871477.88	-7871477.69	-7871477.49	0.0089	0.0040
Venus	-26264-09-08 07:26 J	-7871252.37	-7871252.19	-7871251.98	0.0089	0.0038
Venus	-26263-04-21 20:09 J	-7871026.85	-7871026.66	-7871026.45	0.0089	0.0035
Venus	-26263-12-03 08:23 J	-7870801.34	-7870801.15	-7870800.94	0.0089	0.0033
Venus	-26262-07-16 20:52 J	-7870575.83	-7870575.63	-7870575.42	0.0089	0.0030
Venus	-26261-02-27 08:52 J	-7870350.32	-7870350.13	-7870349.91	0.0089	0.0028
Venus	-26261-10-09 21:21 J	-7870124.81	-7870124.61	-7870124.40	0.0089	0.0025
Venus	-26260-05-23 09:35 J	-7869899.30	-7869899.10	-7869898.88	0.0089	0.0023
Venus	-26259-01-03 22:04 J	-7869673.78	-7869673.58	-7869673.36	0.0089	0.0020
Venus	-26259-08-17 10:33 J	-7869448.27	-7869448.06	-7869447.85	0.0089	0.0017
Venus	-26258-03-30 22:47 J	-7869222.76	-7869222.55	-7869222.33	0.0089	0.0015
Venus	-26258-11-11 11:02 J	-7868997.25	-7868997.04	-7868996.82	0.0089	0.0012
Venus	-26257-06-23 23:31 J	-7868771.73	-7868771.52	-7868771.30	0.0089	0.0009

Venus	-26256-02-04 11:45 J	-7868546.22	-7868546.01	-7868545.79	0.0089	0.0007
Venus	-26256-09-18 00:14 J	-7868320.70	-7868320.49	-7868320.27	0.0089	0.0004
Venus	-26255-05-01 12:57 J	-7868095.18	-7868094.96	-7868094.75	0.0089	0.0002
Venus	-26255-12-13 01:11 J	-7867869.66	-7867869.45	-7867869.23	0.0089	0.0003
Venus	-26254-07-26 13:40 J	-7867644.14	-7867643.93	-7867643.71	0.0089	0.0004
Venus	-26253-03-08 02:09 J	-7867418.63	-7867418.41	-7867418.19	0.0089	0.0007
Venus	-26253-10-19 14:23 J	-7867193.11	-7867192.90	-7867192.67	0.0089	0.0010
Venus	-26252-06-02 03:21 J	-7866967.58	-7866967.36	-7866967.15	0.0089	0.0012
Venus	-26251-01-13 15:35 J	-7866742.06	-7866741.85	-7866741.63	0.0089	0.0015
Venus	-26251-08-27 04:04 J	-7866516.54	-7866516.33	-7866516.11	0.0089	0.0017
Venus	-26250-04-09 16:33 J	-7866291.02	-7866290.81	-7866290.59	0.0089	0.0020
Venus	-26250-11-21 05:02 J	-7866065.49	-7866065.29	-7866065.07	0.0089	0.0022
Venus	-26249-07-03 17:45 J	-7865839.97	-7865839.76	-7865839.55	0.0088	0.0025
Venus	-26248-02-14 05:59 J	-7865614.45	-7865614.25	-7865614.03	0.0088	0.0028
Venus	-26248-09-27 18:43 J	-7865388.92	-7865388.72	-7865388.51	0.0088	0.0030
Venus	-26247-05-11 07:11 J	-7865163.39	-7865163.20	-7865162.99	0.0088	0.0033
Venus	-26247-12-22 19:55 J	-7864937.87	-7864937.67	-7864937.47	0.0088	0.0035
Venus	-26246-08-05 08:09 J	-7864712.35	-7864712.16	-7864711.95	0.0088	0.0038
Venus	-26245-03-17 20:52 J	-7864486.82	-7864486.63	-7864486.43	0.0088	0.0040
Venus	-26245-10-29 09:07 J	-7864261.29	-7864261.12	-7864260.91	0.0088	0.0043
Venus	-26244-06-11 22:04 J	-7864035.76	-7864035.58	-7864035.38	0.0088	0.0045
Venus	-26243-01-23 10:33 J	-7863810.23	-7863810.06	-7863809.86	0.0088	0.0048
Venus	-26243-09-05 23:16 J	-7863584.70	-7863584.53	-7863584.34	0.0088	0.0050
Venus	-26242-04-19 11:45 J	-7863359.17	-7863359.01	-7863358.81	0.0088	0.0052
Venus	-26242-12-01 00:28 J	-7863133.63	-7863133.48	-7863133.29	0.0088	0.0055
Venus	-26241-07-13 13:26 J	-7862908.09	-7862907.94	-7862907.76	0.0088	0.0057
Venus	-26240-02-24 02:23 J	-7862682.56	-7862682.40	-7862682.23	0.0088	0.0059
Venus	-26240-10-07 14:52 J	-7862457.02	-7862456.88	-7862456.71	0.0088	0.0061
Venus	-26239-05-21 03:35 J	-7862231.48	-7862231.35	-7862231.18	0.0088	0.0064
Venus	-26238-01-01 16:33 J	-7862005.94	-7862005.81	-7862005.65	0.0088	0.0065

Venus	-26238-08-15 05:16 J	-7861780.41	-7861780.28	-7861780.12	0.0088	0.0068
Venus	-26237-03-27 18:14 J	-7861554.87	-7861554.74	-7861554.60	0.0088	0.0069
Venus	-26237-11-08 06:57 J	-7861329.33	-7861329.21	-7861329.07	0.0088	0.0072
Venus	-26236-06-21 19:55 J	-7861103.78	-7861103.67	-7861103.54	0.0088	0.0074
Venus	-26235-02-02 08:38 J	-7860878.24	-7860878.14	-7860878.01	0.0088	0.0076
Venus	-26235-09-15 21:35 J	-7860652.70	-7860652.60	-7860652.49	0.0088	0.0077
Venus	-26234-04-29 10:04 J	-7860427.15	-7860427.08	-7860426.97	0.0088	0.0080
Venus	-26234-12-10 23:02 J	-7860201.61	-7860201.54	-7860201.44	0.0088	0.0081
Venus	-26233-07-23 11:45 J	-7859976.06	-7859976.01	-7859975.91	0.0088	0.0084
Venus	-26232-03-06 00:43 J	-7859750.51	-7859750.47	-7859750.39	0.0088	0.0085
Venus	-26232-10-17 13:55 J	-7859524.95	-7859524.92	-7859524.87	0.0088	0.0087
Earth	-26219-10-15 13:26 J	-7854779.10	-7854778.94	-7854778.73	0.0088	0.0062
Moon	-26219-10-15 17:31 J	-7854778.96	-7854778.77	-7854778.56	0.0088	0.0057 *
Moon	-26218-10-17 23:31 J	-7854411.77	-7854411.52	-7854411.27	0.0088	0.0023
Earth	-26218-10-18 02:23 J	-7854411.64	-7854411.40	-7854411.13	0.0088	0.0019 *
Earth	-26217-10-19 14:52 J	-7854044.12	-7854043.88	-7854043.61	0.0088	0.0025
Moon	-26217-10-19 17:02 J	-7854044.03	-7854043.79	-7854043.52	0.0088	0.0029 *
Moon	-26216-10-22 01:40 J	-7853676.58	-7853676.43	-7853676.23	0.0088	0.0064
Earth	-26216-10-22 03:07 J	-7853676.51	-7853676.37	-7853676.17	0.0088	0.0068 *
Mars	-26204-11-29 16:04 J	-7849254.95	-7849254.83	-7849254.67	0.0088	0.0078
Mercury	-26203-10-02 01:26 J	-7848948.50	-7848948.44	-7848948.35	0.0088	0.0080
Mercury	-26203-12-29 04:33 J	-7848860.40	-7848860.31	-7848860.18	0.0088	0.0071
Mercury	-26202-03-27 08:23 J	-7848772.29	-7848772.15	-7848772.02	0.0088	0.0061
Mercury	-26202-06-23 11:31 J	-7848684.16	-7848684.02	-7848683.86	0.0088	0.0052
Mercury	-26202-09-19 14:38 J	-7848596.04	-7848595.89	-7848595.71	0.0088	0.0043
Mars	-26202-10-24 20:52 J	-7848560.91	-7848560.63	-7848560.32	0.0088	0.0022
Mercury	-26202-12-16 18:14 J	-7848507.91	-7848507.74	-7848507.56	0.0088	0.0033
Mercury	-26201-03-13 21:35 J	-7848419.78	-7848419.60	-7848419.42	0.0088	0.0024
Mercury	-26201-06-10 00:43 J	-7848331.65	-7848331.47	-7848331.28	0.0088	0.0015
Mercury	-26201-09-06 04:04 J	-7848243.51	-7848243.33	-7848243.14	0.0088	0.0006

Mercury	-26201-12-03 07:26 J	-7848155.38	-7848155.19	-7848155.00	0.0088	0.0004
Mercury	-26200-03-01 10:33 J	-7848067.24	-7848067.06	-7848066.87	0.0088	0.0013
Mercury	-26200-05-28 13:55 J	-7847979.10	-7847978.92	-7847978.74	0.0088	0.0022
Mercury	-26200-08-24 16:47 J	-7847890.96	-7847890.80	-7847890.61	0.0088	0.0032
Mars	-26200-09-18 02:23 J	-7847866.66	-7847866.40	-7847866.10	0.0088	0.0036
Mercury	-26200-11-20 20:09 J	-7847802.82	-7847802.66	-7847802.49	0.0088	0.0041
Mercury	-26199-02-16 23:16 J	-7847714.67	-7847714.53	-7847714.36	0.0088	0.0050
Mercury	-26199-05-16 02:23 J	-7847626.52	-7847626.40	-7847626.25	0.0088	0.0059
Mercury	-26199-08-12 05:31 J	-7847538.37	-7847538.27	-7847538.13	0.0088	0.0069
Mercury	-26199-11-08 08:52 J	-7847450.21	-7847450.13	-7847450.03	0.0088	0.0077
Mercury	-26198-02-04 11:59 J	-7847362.02	-7847362.00	-7847361.95	0.0088	0.0086
Venus	-26195-11-06 02:23 J	-7845991.41	-7845991.40	-7845991.34	0.0088	0.0087
Venus	-26194-06-19 16:04 J	-7845765.86	-7845765.83	-7845765.75	0.0088	0.0085
Venus	-26193-01-31 05:59 J	-7845540.31	-7845540.25	-7845540.17	0.0088	0.0083
Venus	-26193-09-12 19:55 J	-7845314.74	-7845314.67	-7845314.58	0.0088	0.0082
Venus	-26192-04-26 09:50 J	-7845089.18	-7845089.09	-7845088.99	0.0088	0.0080
Venus	-26192-12-07 23:02 J	-7844863.62	-7844863.54	-7844863.41	0.0088	0.0078
Venus	-26191-07-21 12:43 J	-7844638.06	-7844637.97	-7844637.83	0.0088	0.0076
Venus	-26190-03-04 02:23 J	-7844412.49	-7844412.40	-7844412.25	0.0088	0.0075
Venus	-26190-10-15 17:02 J	-7844186.92	-7844186.79	-7844186.66	0.0088	0.0072
Venus	-26189-05-28 06:43 J	-7843961.35	-7843961.22	-7843961.08	0.0088	0.0070
Venus	-26188-01-08 20:23 J	-7843735.79	-7843735.65	-7843735.50	0.0088	0.0068
Venus	-26188-08-22 10:04 J	-7843510.22	-7843510.08	-7843509.92	0.0088	0.0065
Venus	-26187-04-04 23:45 J	-7843284.65	-7843284.51	-7843284.34	0.0088	0.0063
Venus	-26187-11-16 13:26 J	-7843059.08	-7843058.94	-7843058.76	0.0088	0.0061
Venus	-26186-06-30 03:35 J	-7842833.51	-7842833.35	-7842833.18	0.0088	0.0059
Venus	-26185-02-10 17:02 J	-7842607.95	-7842607.79	-7842607.60	0.0088	0.0057
Venus	-26185-09-23 06:43 J	-7842382.38	-7842382.22	-7842382.02	0.0088	0.0055
Venus	-26184-05-06 20:52 J	-7842156.81	-7842156.63	-7842156.44	0.0088	0.0052
Venus	-26184-12-18 10:19 J	-7841931.24	-7841931.07	-7841930.87	0.0088	0.0050

Venus	-26183-07-31 23:45 J	-7841705.68	-7841705.51	-7841705.30	0.0088	0.0048
Venus	-26182-03-14 13:40 J	-7841480.11	-7841479.93	-7841479.72	0.0088	0.0045
Venus	-26182-10-26 03:21 J	-7841254.54	-7841254.36	-7841254.14	0.0088	0.0043
Venus	-26181-06-07 17:16 J	-7841028.97	-7841028.78	-7841028.57	0.0088	0.0040
Venus	-26180-01-19 06:43 J	-7840803.40	-7840803.22	-7840803.00	0.0088	0.0038
Venus	-26180-09-01 20:38 J	-7840577.84	-7840577.64	-7840577.42	0.0088	0.0035
Venus	-26179-04-15 10:33 J	-7840352.27	-7840352.06	-7840351.85	0.0088	0.0032
Venus	-26179-11-27 00:14 J	-7840126.69	-7840126.49	-7840126.27	0.0088	0.0030
Venus	-26178-07-10 14:09 J	-7839901.12	-7839900.91	-7839900.70	0.0088	0.0027
Venus	-26177-02-21 03:35 J	-7839675.55	-7839675.35	-7839675.12	0.0088	0.0025
Venus	-26177-10-03 17:31 J	-7839449.98	-7839449.77	-7839449.55	0.0089	0.0022
Venus	-26176-05-17 07:26 J	-7839224.41	-7839224.19	-7839223.97	0.0089	0.0019
Venus	-26176-12-28 20:52 J	-7838998.84	-7838998.63	-7838998.40	0.0089	0.0017
Venus	-26175-08-11 10:47 J	-7838773.27	-7838773.05	-7838772.83	0.0089	0.0014
Venus	-26174-03-25 00:28 J	-7838547.70	-7838547.48	-7838547.26	0.0089	0.0011
Venus	-26174-11-05 14:09 J	-7838322.13	-7838321.91	-7838321.68	0.0089	0.0009
Venus	-26173-06-18 04:04 J	-7838096.56	-7838096.33	-7838096.11	0.0089	0.0006
Venus	-26172-01-29 17:31 J	-7837870.99	-7837870.77	-7837870.54	0.0089	0.0003
Venus	-26172-09-12 07:11 J	-7837645.43	-7837645.20	-7837644.98	0.0089	0.0001
Venus	-26171-04-25 20:38 J	-7837419.86	-7837419.64	-7837419.41	0.0089	0.0003
Venus	-26171-12-07 10:33 J	-7837194.29	-7837194.06	-7837193.84	0.0089	0.0005
Venus	-26170-07-20 23:59 J	-7836968.72	-7836968.50	-7836968.28	0.0089	0.0007
Venus	-26169-03-02 13:26 J	-7836743.16	-7836742.94	-7836742.72	0.0089	0.0010
Venus	-26169-10-14 02:52 J	-7836517.59	-7836517.38	-7836517.15	0.0089	0.0013
Venus	-26168-05-27 16:33 J	-7836292.03	-7836291.81	-7836291.59	0.0089	0.0015
Venus	-26167-01-08 06:14 J	-7836066.46	-7836066.24	-7836066.02	0.0089	0.0018
Venus	-26167-08-21 19:26 J	-7835840.89	-7835840.69	-7835840.46	0.0089	0.0021
Venus	-26166-04-04 09:07 J	-7835615.33	-7835615.12	-7835614.90	0.0089	0.0023
Venus	-26166-11-15 22:33 J	-7835389.76	-7835389.56	-7835389.33	0.0089	0.0026
Venus	-26165-06-28 12:28 J	-7835164.19	-7835163.98	-7835163.77	0.0089	0.0028

Venus	-26164-02-09 01:40 J	-7834938.63	-7834938.43	-7834938.21	0.0089	0.0031
Venus	-26164-09-22 15:21 J	-7834713.06	-7834712.86	-7834712.65	0.0089	0.0033
Venus	-26163-05-06 04:33 J	-7834487.50	-7834487.31	-7834487.09	0.0089	0.0036
Venus	-26163-12-17 18:28 J	-7834261.93	-7834261.73	-7834261.53	0.0089	0.0038
Venus	-26162-07-31 07:40 J	-7834036.37	-7834036.18	-7834035.97	0.0089	0.0041
Venus	-26161-03-12 21:07 J	-7833810.80	-7833810.62	-7833810.42	0.0089	0.0043
Venus	-26161-10-24 10:19 J	-7833585.24	-7833585.07	-7833584.86	0.0089	0.0046
Venus	-26160-06-06 23:45 J	-7833359.68	-7833359.51	-7833359.31	0.0089	0.0048
Venus	-26159-01-18 13:26 J	-7833134.12	-7833133.94	-7833133.75	0.0089	0.0050
Venus	-26159-09-01 02:23 J	-7832908.56	-7832908.40	-7832908.20	0.0089	0.0053
Venus	-26158-04-14 15:35 J	-7832683.00	-7832682.85	-7832682.66	0.0089	0.0055
Venus	-26158-11-26 05:02 J	-7832457.44	-7832457.29	-7832457.10	0.0089	0.0057
Venus	-26157-07-08 18:28 J	-7832231.88	-7832231.73	-7832231.56	0.0089	0.0059
Venus	-26156-02-19 07:55 J	-7832006.33	-7832006.17	-7832006.01	0.0089	0.0061
Venus	-26156-10-02 21:07 J	-7831780.77	-7831780.62	-7831780.47	0.0089	0.0064
Venus	-26155-05-16 09:50 J	-7831555.21	-7831555.09	-7831554.92	0.0089	0.0066
Venus	-26155-12-27 23:16 J	-7831329.65	-7831329.53	-7831329.37	0.0089	0.0068
Venus	-26154-08-10 12:28 J	-7831104.10	-7831103.98	-7831103.83	0.0089	0.0070
Venus	-26153-03-23 01:26 J	-7830878.54	-7830878.44	-7830878.29	0.0089	0.0073
Venus	-26153-11-03 14:38 J	-7830652.99	-7830652.89	-7830652.74	0.0089	0.0074
Venus	-26152-06-17 03:50 J	-7830427.43	-7830427.34	-7830427.20	0.0089	0.0076
Venus	-26151-01-28 17:31 J	-7830201.87	-7830201.77	-7830201.65	0.0089	0.0078
Venus	-26151-09-11 06:28 J	-7829976.31	-7829976.23	-7829976.11	0.0089	0.0080
Venus	-26150-04-24 19:26 J	-7829750.75	-7829750.69	-7829750.58	0.0089	0.0082
Venus	-26150-12-06 08:38 J	-7829525.20	-7829525.14	-7829525.04	0.0089	0.0083
Venus	-26149-07-18 22:04 J	-7829299.64	-7829299.58	-7829299.50	0.0089	0.0085
Venus	-26148-03-01 10:47 J	-7829074.08	-7829074.05	-7829073.97	0.0089	0.0087
Venus	-26148-10-13 00:14 J	-7828848.52	-7828848.49	-7828848.44	0.0089	0.0088
Venus	-26147-05-26 13:11 J	-7828622.95	-7828622.95	-7828622.93	0.0089	0.0089
Moon	-26136-04-15 20:23 J	-7824645.82	-7824645.65	-7824645.43	0.0089	0.0056

Earth	-26136-04-15 23:02 J	-7824645.71	-7824645.54	-7824645.33	0.0089	0.0058	*
Earth	-26135-04-18 09:50 J	-7824278.33	-7824278.09	-7824277.83	0.0089	0.0014	
Moon	-26135-04-18 11:45 J	-7824278.26	-7824278.01	-7824277.75	0.0089	0.0017	*
Moon	-26134-04-20 19:40 J	-7823910.90	-7823910.68	-7823910.44	0.0089	0.0034	
Earth	-26134-04-20 20:23 J	-7823910.88	-7823910.65	-7823910.40	0.0089	0.0030	*
Moon	-26133-04-22 05:45 J	-7823543.39	-7823543.26	-7823543.08	0.0089	0.0072	
Earth	-26133-04-22 07:11 J	-7823543.33	-7823543.20	-7823543.05	0.0089	0.0074	*
Mercury	-26122-10-11 17:31 J	-7819353.79	-7819353.77	-7819353.72	0.0089	0.0086	
Mercury	-26121-01-07 18:57 J	-7819265.76	-7819265.71	-7819265.64	0.0089	0.0079	
Mercury	-26121-04-04 20:23 J	-7819177.72	-7819177.65	-7819177.56	0.0089	0.0072	
Mercury	-26121-07-01 21:35 J	-7819089.68	-7819089.60	-7819089.49	0.0089	0.0066	
Mercury	-26121-09-27 23:02 J	-7819001.63	-7819001.54	-7819001.42	0.0089	0.0059	
Mercury	-26121-12-25 00:28 J	-7818913.58	-7818913.48	-7818913.36	0.0089	0.0052	
Mercury	-26120-03-23 02:09 J	-7818825.52	-7818825.41	-7818825.29	0.0089	0.0044	
Mercury	-26120-06-19 03:35 J	-7818737.47	-7818737.35	-7818737.23	0.0089	0.0037	
Mercury	-26120-09-15 05:02 J	-7818649.42	-7818649.29	-7818649.16	0.0089	0.0030	
Mars	-26120-09-16 04:04 J	-7818648.63	-7818648.33	-7818648.00	0.0089	0.0025	
Mercury	-26120-12-12 06:28 J	-7818561.36	-7818561.23	-7818561.10	0.0089	0.0023	
Mercury	-26119-03-10 07:55 J	-7818473.30	-7818473.17	-7818473.04	0.0089	0.0016	
Mercury	-26119-06-06 09:21 J	-7818385.25	-7818385.11	-7818384.98	0.0089	0.0009	
Mercury	-26119-09-02 10:47 J	-7818297.19	-7818297.05	-7818296.92	0.0089	0.0003	
Mercury	-26119-11-29 12:14 J	-7818209.13	-7818208.99	-7818208.85	0.0089	0.0005	
Mercury	-26118-02-25 13:40 J	-7818121.07	-7818120.93	-7818120.80	0.0089	0.0011	
Mercury	-26118-05-24 15:07 J	-7818033.00	-7818032.87	-7818032.74	0.0089	0.0019	
Mars	-26118-08-12 16:19 J	-7817953.10	-7817952.82	-7817952.52	0.0089	0.0040	
Mercury	-26118-08-20 16:33 J	-7817944.94	-7817944.81	-7817944.68	0.0089	0.0026	
Mercury	-26118-11-16 17:59 J	-7817856.88	-7817856.75	-7817856.62	0.0089	0.0033	
Mercury	-26117-02-12 19:26 J	-7817768.81	-7817768.69	-7817768.57	0.0089	0.0040	
Mercury	-26117-05-10 20:52 J	-7817680.74	-7817680.63	-7817680.51	0.0089	0.0047	
Mercury	-26117-08-06 22:04 J	-7817592.67	-7817592.58	-7817592.46	0.0089	0.0054	

Mercury	-26117-11-02 23:31 J	-7817504.60	-7817504.52	-7817504.41	0.0089	0.0062
Mercury	-26116-01-30 01:11 J	-7817416.53	-7817416.45	-7817416.36	0.0089	0.0068
Mercury	-26116-04-28 02:38 J	-7817328.45	-7817328.39	-7817328.31	0.0089	0.0075
Mercury	-26116-07-25 04:04 J	-7817240.37	-7817240.33	-7817240.27	0.0089	0.0082
Venus	-26116-11-21 10:04 J	-7817121.09	-7817121.08	-7817121.05	0.0089	0.0089
Venus	-26115-07-04 22:04 J	-7816895.60	-7816895.58	-7816895.52	0.0089	0.0088
Venus	-26114-02-15 10:47 J	-7816670.10	-7816670.05	-7816669.99	0.0089	0.0086
Venus	-26114-09-28 22:47 J	-7816444.60	-7816444.55	-7816444.46	0.0089	0.0084
Venus	-26113-05-11 11:16 J	-7816219.10	-7816219.03	-7816218.94	0.0089	0.0083
Venus	-26113-12-22 23:59 J	-7815993.59	-7815993.50	-7815993.41	0.0089	0.0081
Venus	-26112-08-05 11:45 J	-7815768.08	-7815768.01	-7815767.89	0.0089	0.0080
Venus	-26111-03-19 00:28 J	-7815542.57	-7815542.48	-7815542.36	0.0089	0.0077
Venus	-26111-10-30 12:57 J	-7815317.07	-7815316.96	-7815316.84	0.0089	0.0075
Venus	-26110-06-13 01:11 J	-7815091.56	-7815091.45	-7815091.32	0.0089	0.0074
Venus	-26109-01-24 12:57 J	-7814866.06	-7814865.96	-7814865.81	0.0089	0.0073
Venus	-26109-09-06 01:26 J	-7814640.55	-7814640.44	-7814640.29	0.0089	0.0070
Venus	-26108-04-19 13:55 J	-7814415.04	-7814414.92	-7814414.76	0.0089	0.0068
Venus	-26108-12-01 02:09 J	-7814189.53	-7814189.41	-7814189.25	0.0089	0.0066
Venus	-26107-07-14 14:23 J	-7813964.03	-7813963.90	-7813963.73	0.0089	0.0064
Venus	-26106-02-25 02:38 J	-7813738.52	-7813738.39	-7813738.22	0.0089	0.0062
Venus	-26106-10-08 14:52 J	-7813513.02	-7813512.88	-7813512.70	0.0089	0.0060
Venus	-26105-05-21 03:35 J	-7813287.51	-7813287.35	-7813287.18	0.0089	0.0058
Venus	-26104-01-01 15:50 J	-7813062.00	-7813061.84	-7813061.67	0.0089	0.0055
Venus	-26104-08-15 04:04 J	-7812836.49	-7812836.33	-7812836.15	0.0089	0.0053
Venus	-26103-03-28 16:19 J	-7812610.98	-7812610.82	-7812610.63	0.0089	0.0051
Venus	-26103-11-09 04:33 J	-7812385.47	-7812385.31	-7812385.11	0.0089	0.0049
Venus	-26102-06-22 16:47 J	-7812159.97	-7812159.80	-7812159.60	0.0089	0.0047
Venus	-26101-02-03 05:16 J	-7811934.46	-7811934.28	-7811934.08	0.0089	0.0044
Venus	-26101-09-15 17:31 J	-7811708.95	-7811708.77	-7811708.57	0.0089	0.0042
Venus	-26100-04-29 05:59 J	-7811483.43	-7811483.25	-7811483.04	0.0089	0.0040

Venus	-26100-12-10 18:43 J	-7811257.91	-7811257.72	-7811257.52	0.0089	0.0037
Venus	-26099-07-24 06:43 J	-7811032.40	-7811032.22	-7811032.01	0.0089	0.0035
Venus	-26098-03-06 19:26 J	-7810806.89	-7810806.69	-7810806.49	0.0089	0.0032
Venus	-26098-10-18 07:40 J	-7810581.38	-7810581.18	-7810580.97	0.0089	0.0030
Venus	-26097-05-30 19:55 J	-7810355.86	-7810355.67	-7810355.45	0.0089	0.0028
Venus	-26096-01-11 08:23 J	-7810130.35	-7810130.15	-7810129.94	0.0089	0.0025
Venus	-26096-08-24 20:38 J	-7809904.84	-7809904.64	-7809904.42	0.0089	0.0023
Venus	-26095-04-07 09:07 J	-7809679.32	-7809679.12	-7809678.90	0.0089	0.0020
Venus	-26095-11-18 21:21 J	-7809453.81	-7809453.61	-7809453.39	0.0089	0.0018
Venus	-26094-07-02 09:35 J	-7809228.30	-7809228.10	-7809227.87	0.0089	0.0016
Venus	-26093-02-12 22:04 J	-7809002.79	-7809002.58	-7809002.36	0.0089	0.0013
Venus	-26093-09-25 10:19 J	-7808777.27	-7808777.07	-7808776.84	0.0089	0.0011
Venus	-26092-05-08 23:02 J	-7808551.75	-7808551.54	-7808551.32	0.0089	0.0008
Venus	-26092-12-20 11:16 J	-7808326.24	-7808326.03	-7808325.81	0.0089	0.0006
Venus	-26091-08-02 23:45 J	-7808100.72	-7808100.51	-7808100.29	0.0089	0.0003
Venus	-26090-03-16 12:14 J	-7807875.21	-7807874.99	-7807874.78	0.0089	0.0001
Venus	-26090-10-28 00:28 J	-7807649.69	-7807649.48	-7807649.26	0.0089	0.0003
Venus	-26089-06-09 13:11 J	-7807424.17	-7807423.95	-7807423.73	0.0089	0.0005
Venus	-26088-01-21 01:26 J	-7807198.65	-7807198.44	-7807198.22	0.0089	0.0008
Venus	-26088-09-03 14:09 J	-7806973.13	-7806972.91	-7806972.70	0.0089	0.0010
Venus	-26087-04-17 02:23 J	-7806747.61	-7806747.40	-7806747.18	0.0089	0.0013
Venus	-26087-11-28 15:07 J	-7806522.08	-7806521.87	-7806521.66	0.0089	0.0015
Venus	-26086-07-12 03:21 J	-7806296.56	-7806296.36	-7806296.14	0.0089	0.0018
Venus	-26085-02-22 16:04 J	-7806071.04	-7806070.83	-7806070.62	0.0089	0.0020
Venus	-26085-10-05 04:19 J	-7805845.52	-7805845.32	-7805845.10	0.0089	0.0023
Venus	-26084-05-18 17:02 J	-7805619.99	-7805619.79	-7805619.57	0.0089	0.0025
Venus	-26084-12-30 05:31 J	-7805394.46	-7805394.27	-7805394.05	0.0088	0.0028
Venus	-26083-08-12 17:59 J	-7805168.94	-7805168.75	-7805168.53	0.0088	0.0030
Venus	-26082-03-26 06:43 J	-7804943.42	-7804943.22	-7804943.01	0.0088	0.0032
Venus	-26082-11-06 18:57 J	-7804717.90	-7804717.71	-7804717.49	0.0088	0.0035

Venus	-26081-06-19 07:55 J	-7804492.37	-7804492.17	-7804491.97	0.0088	0.0037
Venus	-26080-01-30 20:09 J	-7804266.84	-7804266.66	-7804266.45	0.0088	0.0039
Venus	-26080-09-13 08:52 J	-7804041.31	-7804041.13	-7804040.93	0.0088	0.0041
Venus	-26079-04-26 21:21 J	-7803815.79	-7803815.61	-7803815.41	0.0088	0.0044
Venus	-26079-12-08 10:19 J	-7803590.26	-7803590.07	-7803589.89	0.0088	0.0046
Venus	-26078-07-21 22:33 J	-7803364.73	-7803364.56	-7803364.36	0.0088	0.0048
Venus	-26077-03-03 11:16 J	-7803139.20	-7803139.03	-7803138.84	0.0088	0.0051
Venus	-26077-10-14 23:59 J	-7802913.67	-7802913.50	-7802913.31	0.0088	0.0053
Venus	-26076-05-28 12:57 J	-7802688.13	-7802687.96	-7802687.78	0.0088	0.0055
Venus	-26075-01-09 01:11 J	-7802462.59	-7802462.45	-7802462.26	0.0088	0.0058
Venus	-26075-08-22 14:09 J	-7802237.06	-7802236.91	-7802236.73	0.0088	0.0059
Venus	-26074-04-05 02:52 J	-7802011.52	-7802011.38	-7802011.21	0.0088	0.0061
Venus	-26074-11-16 15:35 J	-7801785.98	-7801785.85	-7801785.68	0.0088	0.0063
Venus	-26073-06-29 04:33 J	-7801560.44	-7801560.31	-7801560.14	0.0088	0.0066
Venus	-26072-02-09 17:16 J	-7801334.90	-7801334.78	-7801334.62	0.0088	0.0068
Venus	-26072-09-23 06:14 J	-7801109.36	-7801109.24	-7801109.09	0.0088	0.0069
Venus	-26071-05-06 18:57 J	-7800883.82	-7800883.71	-7800883.56	0.0088	0.0071
Venus	-26071-12-18 07:40 J	-7800658.28	-7800658.18	-7800658.03	0.0088	0.0073
Venus	-26070-07-31 21:07 J	-7800432.73	-7800432.62	-7800432.50	0.0088	0.0075
Venus	-26069-03-13 09:35 J	-7800207.19	-7800207.10	-7800206.98	0.0088	0.0077
Venus	-26069-10-24 22:19 J	-7799981.65	-7799981.57	-7799981.45	0.0088	0.0079
Venus	-26068-06-07 11:16 J	-7799756.10	-7799756.03	-7799755.92	0.0088	0.0080
Venus	-26067-01-19 00:28 J	-7799530.55	-7799530.48	-7799530.39	0.0088	0.0082
Venus	-26067-09-01 13:11 J	-7799305.00	-7799304.95	-7799304.86	0.0088	0.0083
Venus	-26066-04-15 01:40 J	-7799079.46	-7799079.43	-7799079.34	0.0088	0.0086
Venus	-26066-11-26 14:52 J	-7798853.90	-7798853.88	-7798853.82	0.0088	0.0087
Venus	-26065-07-09 04:04 J	-7798628.33	-7798628.33	-7798628.29	0.0088	0.0088
Moon	-26055-10-14 19:55 J	-7794878.75	-7794878.67	-7794878.59	0.0088	0.0083
Earth	-26055-10-14 22:33 J	-7794878.63	-7794878.56	-7794878.47	0.0088	0.0083 *
Earth	-26054-10-17 11:02 J	-7794511.27	-7794511.04	-7794510.80	0.0088	0.0040

Moon	-26054-10-17 13:11 J	-7794511.18	-7794510.95	-7794510.70	0.0088	0.0040 *
Moon	-26053-10-18 23:02 J	-7794143.79	-7794143.54	-7794143.28	0.0088	0.0003
Earth	-26053-10-18 23:45 J	-7794143.77	-7794143.51	-7794143.25	0.0088	0.0003 *
Moon	-26052-10-21 11:31 J	-7793776.23	-7793776.02	-7793775.77	0.0088	0.0046
Earth	-26052-10-21 11:45 J	-7793776.21	-7793776.01	-7793775.77	0.0088	0.0046 *
Mercury	-26038-04-01 20:23 J	-7788865.67	-7788865.65	-7788865.59	0.0088	0.0086
Mars	-26038-06-08 23:59 J	-7788797.74	-7788797.50	-7788797.24	0.0088	0.0049
Mercury	-26038-06-28 23:59 J	-7788777.58	-7788777.50	-7788777.40	0.0088	0.0076
Mercury	-26038-09-25 03:07 J	-7788689.47	-7788689.37	-7788689.23	0.0088	0.0067
Mercury	-26038-12-22 06:43 J	-7788601.36	-7788601.22	-7788601.07	0.0088	0.0057
Mercury	-26037-03-19 09:50 J	-7788513.23	-7788513.09	-7788512.91	0.0088	0.0049
Mercury	-26037-06-15 13:11 J	-7788425.10	-7788424.95	-7788424.77	0.0088	0.0039
Mercury	-26037-09-11 16:47 J	-7788336.98	-7788336.80	-7788336.62	0.0088	0.0029
Mercury	-26037-12-08 19:55 J	-7788248.84	-7788248.67	-7788248.48	0.0088	0.0020
Mercury	-26036-03-06 23:16 J	-7788160.71	-7788160.53	-7788160.34	0.0088	0.0011
Mars	-26036-05-03 04:47 J	-7788103.60	-7788103.30	-7788102.99	0.0088	0.0008
Mercury	-26036-06-03 02:38 J	-7788072.57	-7788072.39	-7788072.20	0.0088	0.0002
Mercury	-26036-08-30 05:59 J	-7787984.44	-7787984.25	-7787984.06	0.0088	0.0008
Mercury	-26036-11-26 09:21 J	-7787896.30	-7787896.11	-7787895.93	0.0088	0.0017
Mercury	-26035-02-22 12:14 J	-7787808.16	-7787807.99	-7787807.80	0.0088	0.0027
Mercury	-26035-05-21 15:35 J	-7787720.01	-7787719.85	-7787719.67	0.0088	0.0036
Mercury	-26035-08-17 18:43 J	-7787631.87	-7787631.72	-7787631.55	0.0088	0.0045
Mercury	-26035-11-13 22:04 J	-7787543.72	-7787543.58	-7787543.43	0.0088	0.0054
Mercury	-26034-02-10 01:11 J	-7787455.57	-7787455.45	-7787455.31	0.0088	0.0063
Mars	-26034-03-28 10:47 J	-7787409.24	-7787409.05	-7787408.83	0.0088	0.0066
Mercury	-26034-05-09 04:19 J	-7787367.41	-7787367.32	-7787367.20	0.0088	0.0073
Mercury	-26034-08-05 07:40 J	-7787279.24	-7787279.18	-7787279.11	0.0088	0.0081
Venus	-26032-04-01 19:40 J	-7786673.68	-7786673.68	-7786673.67	0.0088	0.0088
Venus	-26032-11-13 09:21 J	-7786448.14	-7786448.11	-7786448.07	0.0088	0.0087
Venus	-26031-06-26 22:33 J	-7786222.59	-7786222.56	-7786222.48	0.0088	0.0085

Venus	-26030-02-07 12:43 J	-7785997.04	-7785996.97	-7785996.90	0.0088	0.0083
Venus	-26030-09-21 02:09 J	-7785771.47	-7785771.41	-7785771.31	0.0088	0.0082
Venus	-26029-05-03 15:50 J	-7785545.91	-7785545.84	-7785545.73	0.0088	0.0081
Venus	-26029-12-15 05:45 J	-7785320.35	-7785320.26	-7785320.15	0.0088	0.0079
Venus	-26028-07-28 18:57 J	-7785094.79	-7785094.71	-7785094.57	0.0088	0.0078
Venus	-26027-03-11 08:52 J	-7784869.22	-7784869.13	-7784868.99	0.0088	0.0075
Venus	-26027-10-22 22:47 J	-7784643.65	-7784643.55	-7784643.41	0.0088	0.0073
Venus	-26026-06-05 12:43 J	-7784418.09	-7784417.97	-7784417.83	0.0088	0.0071
Venus	-26025-01-17 02:23 J	-7784192.52	-7784192.40	-7784192.25	0.0088	0.0070
Venus	-26025-08-29 16:19 J	-7783966.95	-7783966.82	-7783966.67	0.0088	0.0067
Venus	-26024-04-12 05:59 J	-7783741.38	-7783741.25	-7783741.08	0.0088	0.0066
Venus	-26024-11-23 19:55 J	-7783515.81	-7783515.67	-7783515.50	0.0088	0.0063
Venus	-26023-07-07 09:35 J	-7783290.25	-7783290.10	-7783289.92	0.0088	0.0061
Venus	-26022-02-17 23:16 J	-7783064.68	-7783064.53	-7783064.34	0.0088	0.0060
Venus	-26022-10-01 13:11 J	-7782839.10	-7782838.95	-7782838.76	0.0088	0.0057
Venus	-26021-05-14 02:52 J	-7782613.53	-7782613.38	-7782613.18	0.0088	0.0056
Venus	-26021-12-25 17:02 J	-7782387.96	-7782387.79	-7782387.60	0.0088	0.0053
Venus	-26020-08-08 06:43 J	-7782162.39	-7782162.22	-7782162.03	0.0088	0.0051
Venus	-26019-03-21 20:23 J	-7781936.82	-7781936.65	-7781936.45	0.0088	0.0048
Venus	-26019-11-02 10:04 J	-7781711.25	-7781711.08	-7781710.87	0.0088	0.0047
Venus	-26018-06-15 23:59 J	-7781485.68	-7781485.50	-7781485.29	0.0088	0.0044
Venus	-26017-01-27 13:40 J	-7781260.12	-7781259.93	-7781259.72	0.0088	0.0041
Venus	-26017-09-09 03:07 J	-7781034.55	-7781034.37	-7781034.15	0.0088	0.0040
Venus	-26016-04-22 17:02 J	-7780808.98	-7780808.79	-7780808.57	0.0088	0.0037
Venus	-26016-12-04 06:43 J	-7780583.41	-7780583.22	-7780583.00	0.0088	0.0035
Venus	-26015-07-17 20:38 J	-7780357.85	-7780357.64	-7780357.43	0.0088	0.0032
Venus	-26014-02-28 10:04 J	-7780132.28	-7780132.08	-7780131.85	0.0088	0.0030
Venus	-26014-10-12 00:14 J	-7779906.70	-7779906.49	-7779906.28	0.0088	0.0027
Venus	-26013-05-24 13:40 J	-7779681.13	-7779680.93	-7779680.70	0.0089	0.0025
Venus	-26012-01-05 03:35 J	-7779455.57	-7779455.35	-7779455.13	0.0089	0.0022

Venus	-26012-08-18 17:02 J	-7779230.00	-7779229.79	-7779229.56	0.0089	0.0020
Venus	-26011-04-01 06:57 J	-7779004.43	-7779004.21	-7779003.99	0.0089	0.0017
Venus	-26011-11-12 20:38 J	-7778778.85	-7778778.64	-7778778.41	0.0089	0.0015
Venus	-26010-06-26 10:33 J	-7778553.28	-7778553.06	-7778552.84	0.0089	0.0012
Venus	-26009-02-06 23:59 J	-7778327.72	-7778327.50	-7778327.27	0.0089	0.0010
Venus	-26009-09-19 13:55 J	-7778102.15	-7778101.92	-7778101.70	0.0089	0.0007
Venus	-26008-05-03 03:35 J	-7777876.58	-7777876.35	-7777876.13	0.0089	0.0004
Venus	-26008-12-14 17:16 J	-7777651.00	-7777650.78	-7777650.56	0.0089	0.0002
Venus	-26007-07-28 06:57 J	-7777425.44	-7777425.21	-7777424.99	0.0089	0.0002
Venus	-26006-03-10 20:23 J	-7777199.87	-7777199.65	-7777199.43	0.0089	0.0003
Venus	-26006-10-22 10:04 J	-7776974.30	-7776974.08	-7776973.86	0.0089	0.0006
Venus	-26005-06-03 23:31 J	-7776748.74	-7776748.52	-7776748.29	0.0089	0.0008
Venus	-26004-01-15 13:11 J	-7776523.17	-7776522.95	-7776522.73	0.0089	0.0011
Venus	-26004-08-29 02:38 J	-7776297.61	-7776297.39	-7776297.17	0.0089	0.0013
Venus	-26003-04-11 16:04 J	-7776072.05	-7776071.83	-7776071.61	0.0089	0.0016
Venus	-26003-11-23 05:45 J	-7775846.48	-7775846.26	-7775846.04	0.0089	0.0018
Venus	-26002-07-06 19:11 J	-7775620.91	-7775620.70	-7775620.48	0.0089	0.0021
Venus	-26001-02-17 08:38 J	-7775395.35	-7775395.14	-7775394.92	0.0089	0.0023
Venus	-26001-09-29 21:50 J	-7775169.79	-7775169.59	-7775169.36	0.0089	0.0026

26TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 26th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Venus	-26000-05-13 11:31 J	-7774944.22	-7774944.02	-7774943.80	0.0089	0.0028
Venus	-26000-12-25 00:57 J	-7774718.65	-7774718.46	-7774718.24	0.0089	0.0031
Venus	-25999-08-07 14:38 J	-7774493.09	-7774492.89	-7774492.68	0.0089	0.0033
Venus	-25998-03-21 04:04 J	-7774267.53	-7774267.33	-7774267.12	0.0089	0.0035
Venus	-25998-11-01 17:31 J	-7774041.96	-7774041.77	-7774041.56	0.0089	0.0038
Venus	-25997-06-14 06:57 J	-7773816.39	-7773816.21	-7773816.00	0.0089	0.0040
Venus	-25996-01-25 20:38 J	-7773590.83	-7773590.64	-7773590.44	0.0089	0.0042
Venus	-25996-09-08 10:04 J	-7773365.27	-7773365.08	-7773364.88	0.0089	0.0044
Venus	-25995-04-21 23:16 J	-7773139.71	-7773139.53	-7773139.33	0.0089	0.0047
Venus	-25995-12-03 12:43 J	-7772914.14	-7772913.97	-7772913.77	0.0089	0.0049
Venus	-25994-07-17 02:09 J	-7772688.58	-7772688.41	-7772688.22	0.0089	0.0051
Venus	-25993-02-27 15:21 J	-7772463.02	-7772462.86	-7772462.67	0.0089	0.0053
Venus	-25993-10-10 04:47 J	-7772237.47	-7772237.30	-7772237.12	0.0089	0.0055
Venus	-25992-05-23 17:59 J	-7772011.91	-7772011.75	-7772011.57	0.0089	0.0058
Venus	-25991-01-04 07:26 J	-7771786.35	-7771786.19	-7771786.02	0.0089	0.0060
Venus	-25991-08-17 20:38 J	-7771560.79	-7771560.64	-7771560.47	0.0089	0.0062
Venus	-25990-03-31 09:50 J	-7771335.24	-7771335.09	-7771334.93	0.0089	0.0064
Venus	-25990-11-11 23:02 J	-7771109.68	-7771109.54	-7771109.38	0.0089	0.0065
Venus	-25989-06-24 12:14 J	-7770884.12	-7770883.99	-7770883.84	0.0089	0.0067
Venus	-25988-02-05 01:26 J	-7770658.56	-7770658.44	-7770658.29	0.0089	0.0069
Venus	-25988-09-18 14:23 J	-7770433.01	-7770432.90	-7770432.75	0.0089	0.0071
Venus	-25987-05-02 03:35 J	-7770207.46	-7770207.35	-7770207.21	0.0089	0.0073
Venus	-25987-12-13 17:02 J	-7769981.90	-7769981.79	-7769981.66	0.0089	0.0075
Venus	-25986-07-27 05:59 J	-7769756.34	-7769756.25	-7769756.12	0.0089	0.0077
Venus	-25985-03-08 18:57 J	-7769530.79	-7769530.71	-7769530.58	0.0089	0.0079
Venus	-25985-10-20 08:23 J	-7769305.23	-7769305.15	-7769305.04	0.0089	0.0080
Venus	-25984-06-02 21:21 J	-7769079.68	-7769079.61	-7769079.50	0.0089	0.0081
Venus	-25983-01-14 10:47 J	-7768854.12	-7768854.05	-7768853.96	0.0089	0.0083
Venus	-25983-08-27 23:31 J	-7768628.56	-7768628.52	-7768628.42	0.0089	0.0085

Venus	-25982-04-10 12:43 J	-7768403.01	-7768402.97	-7768402.89	0.0089	0.0086
Venus	-25982-11-22 02:09 J	-7768177.46	-7768177.41	-7768177.36	0.0089	0.0087
Venus	-25981-07-04 14:38 J	-7767951.90	-7767951.89	-7767951.84	0.0089	0.0089
Earth	-25972-04-15 09:07 J	-7764745.23	-7764745.12	-7764745.01	0.0089	0.0080
Moon	-25972-04-15 10:04 J	-7764745.20	-7764745.08	-7764744.93	0.0089	0.0076 *
Earth	-25971-04-17 19:26 J	-7764377.90	-7764377.69	-7764377.44	0.0089	0.0037
Moon	-25971-04-17 19:40 J	-7764377.89	-7764377.68	-7764377.46	0.0089	0.0040 *
Moon	-25970-04-20 05:31 J	-7764010.52	-7764010.27	-7764010.00	0.0089	0.0012
Earth	-25970-04-20 06:28 J	-7764010.48	-7764010.23	-7764009.97	0.0089	0.0008 *
Earth	-25969-04-21 16:47 J	-7763642.99	-7763642.80	-7763642.58	0.0089	0.0052
Moon	-25969-04-21 19:11 J	-7763642.89	-7763642.70	-7763642.48	0.0089	0.0048 *
Mercury	-25957-04-10 15:50 J	-7759270.84	-7759270.84	-7759270.83	0.0089	0.0089
Mercury	-25957-07-07 17:16 J	-7759182.82	-7759182.78	-7759182.73	0.0089	0.0082
Mercury	-25957-10-03 18:43 J	-7759094.79	-7759094.72	-7759094.65	0.0089	0.0076
Mercury	-25957-12-30 20:09 J	-7759006.74	-7759006.66	-7759006.57	0.0089	0.0069
Mercury	-25956-03-28 21:35 J	-7758918.70	-7758918.60	-7758918.50	0.0089	0.0062
Mars	-25956-04-30 03:50 J	-7758886.56	-7758886.34	-7758886.06	0.0089	0.0057
Mercury	-25956-06-24 22:47 J	-7758830.65	-7758830.55	-7758830.44	0.0089	0.0055
Mercury	-25956-09-21 00:14 J	-7758742.60	-7758742.49	-7758742.37	0.0089	0.0048
Mercury	-25956-12-18 01:40 J	-7758654.54	-7758654.43	-7758654.30	0.0089	0.0041
Mercury	-25955-03-16 03:07 J	-7758566.49	-7758566.37	-7758566.24	0.0089	0.0034
Mercury	-25955-06-12 04:33 J	-7758478.43	-7758478.31	-7758478.18	0.0089	0.0027
Mercury	-25955-09-08 05:59 J	-7758390.38	-7758390.25	-7758390.11	0.0089	0.0020
Mercury	-25955-12-05 07:26 J	-7758302.32	-7758302.19	-7758302.05	0.0089	0.0014
Mercury	-25954-03-03 08:52 J	-7758214.26	-7758214.13	-7758213.99	0.0089	0.0007
Mars	-25954-03-26 18:28 J	-7758191.05	-7758190.73	-7758190.40	0.0089	0.0008
Mercury	-25954-05-30 10:19 J	-7758126.20	-7758126.07	-7758125.93	0.0089	0.0003
Mercury	-25954-08-26 11:45 J	-7758038.14	-7758038.01	-7758037.87	0.0089	0.0008
Mercury	-25954-11-22 13:11 J	-7757950.08	-7757949.95	-7757949.81	0.0089	0.0015
Mercury	-25953-02-18 14:38 J	-7757862.02	-7757861.89	-7757861.75	0.0089	0.0022

Venus	-25953-04-17 08:09 J	-7757803.16	-7757803.16	-7757803.13	0.0089	0.0089
Mercury	-25953-05-16 16:04 J	-7757773.95	-7757773.83	-7757773.70	0.0089	0.0029
Mercury	-25953-08-12 17:31 J	-7757685.89	-7757685.77	-7757685.64	0.0089	0.0036
Mercury	-25953-11-08 18:57 J	-7757597.82	-7757597.71	-7757597.59	0.0089	0.0043
Venus	-25953-11-28 20:52 J	-7757577.66	-7757577.63	-7757577.59	0.0089	0.0088
Mercury	-25952-02-04 20:23 J	-7757509.76	-7757509.65	-7757509.53	0.0089	0.0050
Mars	-25952-02-19 05:59 J	-7757495.41	-7757495.25	-7757495.03	0.0089	0.0073
Mercury	-25952-05-03 21:50 J	-7757421.69	-7757421.59	-7757421.48	0.0089	0.0057
Venus	-25952-07-12 08:52 J	-7757352.16	-7757352.13	-7757352.06	0.0089	0.0087
Mercury	-25952-07-30 23:16 J	-7757333.61	-7757333.53	-7757333.43	0.0089	0.0064
Mercury	-25952-10-27 00:43 J	-7757245.54	-7757245.47	-7757245.38	0.0089	0.0072
Mercury	-25951-01-23 02:09 J	-7757157.46	-7757157.41	-7757157.33	0.0089	0.0079
Venus	-25951-02-22 21:07 J	-7757126.66	-7757126.62	-7757126.54	0.0089	0.0086
Mercury	-25951-04-21 03:50 J	-7757069.37	-7757069.34	-7757069.30	0.0089	0.0085
Venus	-25951-10-06 09:50 J	-7756901.16	-7756901.09	-7756901.01	0.0089	0.0084
Venus	-25950-05-19 21:50 J	-7756675.65	-7756675.59	-7756675.49	0.0089	0.0083
Venus	-25950-12-31 10:04 J	-7756450.15	-7756450.08	-7756449.97	0.0089	0.0081
Venus	-25949-08-12 22:33 J	-7756224.64	-7756224.56	-7756224.45	0.0089	0.0079
Venus	-25948-03-26 11:31 J	-7755999.13	-7755999.02	-7755998.92	0.0089	0.0078
Venus	-25948-11-06 23:16 J	-7755773.62	-7755773.53	-7755773.40	0.0089	0.0077
Venus	-25947-06-20 11:45 J	-7755548.11	-7755548.01	-7755547.88	0.0089	0.0075
Venus	-25946-01-31 23:45 J	-7755322.60	-7755322.51	-7755322.36	0.0089	0.0074
Venus	-25946-09-14 12:14 J	-7755097.10	-7755096.99	-7755096.84	0.0089	0.0072
Venus	-25945-04-27 00:57 J	-7754871.58	-7754871.46	-7754871.31	0.0089	0.0069
Venus	-25945-12-08 13:26 J	-7754646.07	-7754645.94	-7754645.80	0.0089	0.0067
Venus	-25944-07-22 01:55 J	-7754420.57	-7754420.42	-7754420.28	0.0089	0.0066
Venus	-25943-03-04 13:40 J	-7754195.06	-7754194.93	-7754194.76	0.0089	0.0064
Venus	-25943-10-16 01:55 J	-7753969.55	-7753969.42	-7753969.24	0.0089	0.0062
Venus	-25942-05-29 14:23 J	-7753744.04	-7753743.90	-7753743.73	0.0089	0.0060
Venus	-25941-01-10 02:38 J	-7753518.54	-7753518.39	-7753518.21	0.0089	0.0058

Venus	-25941-08-22 14:52 J	-7753293.03	-7753292.88	-7753292.70	0.0089	0.0056
Venus	-25940-04-05 03:21 J	-7753067.52	-7753067.36	-7753067.18	0.0089	0.0054
Venus	-25940-11-16 15:35 J	-7752842.01	-7752841.85	-7752841.66	0.0089	0.0052
Venus	-25939-06-30 03:50 J	-7752616.51	-7752616.34	-7752616.15	0.0089	0.0050
Venus	-25938-02-10 15:50 J	-7752391.00	-7752390.84	-7752390.64	0.0089	0.0048
Venus	-25938-09-24 04:04 J	-7752165.49	-7752165.33	-7752165.12	0.0089	0.0046
Venus	-25937-05-06 17:02 J	-7751939.98	-7751939.79	-7751939.60	0.0089	0.0043
Venus	-25937-12-18 05:02 J	-7751714.47	-7751714.29	-7751714.09	0.0089	0.0041
Venus	-25936-07-31 17:16 J	-7751488.96	-7751488.78	-7751488.57	0.0089	0.0039
Venus	-25935-03-14 05:31 J	-7751263.45	-7751263.27	-7751263.06	0.0089	0.0037
Venus	-25935-10-25 18:14 J	-7751037.94	-7751037.74	-7751037.54	0.0089	0.0034
Venus	-25934-06-08 06:28 J	-7750812.42	-7750812.23	-7750812.02	0.0089	0.0032
Venus	-25933-01-19 18:43 J	-7750586.91	-7750586.72	-7750586.50	0.0089	0.0030
Venus	-25933-09-01 07:11 J	-7750361.40	-7750361.20	-7750360.99	0.0089	0.0028
Venus	-25932-04-14 19:55 J	-7750135.88	-7750135.67	-7750135.46	0.0089	0.0025
Venus	-25932-11-26 08:09 J	-7749910.37	-7749910.16	-7749909.95	0.0089	0.0023
Venus	-25931-07-09 20:23 J	-7749684.85	-7749684.65	-7749684.43	0.0089	0.0021
Venus	-25930-02-20 08:52 J	-7749459.34	-7749459.13	-7749458.92	0.0089	0.0018
Venus	-25930-10-03 21:07 J	-7749233.83	-7749233.62	-7749233.40	0.0089	0.0016
Venus	-25929-05-16 09:35 J	-7749008.31	-7749008.10	-7749007.88	0.0089	0.0014
Venus	-25929-12-27 22:04 J	-7748782.80	-7748782.58	-7748782.37	0.0089	0.0011
Venus	-25928-08-10 10:19 J	-7748557.28	-7748557.07	-7748556.85	0.0089	0.0009
Venus	-25927-03-23 22:33 J	-7748331.77	-7748331.56	-7748331.34	0.0089	0.0007
Venus	-25927-11-04 11:02 J	-7748106.25	-7748106.04	-7748105.82	0.0089	0.0004
Venus	-25926-06-17 23:31 J	-7747880.74	-7747880.52	-7747880.30	0.0089	0.0002
Venus	-25925-01-29 11:59 J	-7747655.22	-7747655.00	-7747654.79	0.0089	0.0002
Venus	-25925-09-11 00:14 J	-7747429.70	-7747429.49	-7747429.27	0.0089	0.0003
Venus	-25924-04-24 12:43 J	-7747204.18	-7747203.97	-7747203.75	0.0089	0.0006
Venus	-25924-12-06 01:11 J	-7746978.66	-7746978.45	-7746978.23	0.0089	0.0008
Venus	-25923-07-19 13:40 J	-7746753.14	-7746752.93	-7746752.71	0.0089	0.0010

Venus	-25922-03-02 02:09 J	-7746527.62	-7746527.41	-7746527.19	0.0089	0.0013
Venus	-25922-10-13 14:23 J	-7746302.10	-7746301.90	-7746301.67	0.0089	0.0016
Venus	-25921-05-26 03:21 J	-7746076.57	-7746076.36	-7746076.14	0.0089	0.0017
Venus	-25920-01-06 15:50 J	-7745851.05	-7745850.84	-7745850.62	0.0089	0.0020
Venus	-25920-08-20 04:19 J	-7745625.52	-7745625.32	-7745625.10	0.0089	0.0022
Venus	-25919-04-02 16:47 J	-7745400.00	-7745399.80	-7745399.58	0.0088	0.0025
Venus	-25919-11-14 05:31 J	-7745174.48	-7745174.27	-7745174.06	0.0088	0.0027
Venus	-25918-06-27 17:45 J	-7744948.95	-7744948.76	-7744948.54	0.0088	0.0030
Venus	-25917-02-08 06:28 J	-7744723.42	-7744723.23	-7744723.01	0.0088	0.0032
Venus	-25917-09-20 19:11 J	-7744497.90	-7744497.70	-7744497.49	0.0088	0.0034
Venus	-25916-05-04 07:55 J	-7744272.37	-7744272.17	-7744271.97	0.0088	0.0036
Venus	-25916-12-15 20:09 J	-7744046.84	-7744046.66	-7744046.45	0.0088	0.0038
Venus	-25915-07-29 08:38 J	-7743821.32	-7743821.14	-7743820.93	0.0088	0.0041
Venus	-25914-03-11 21:21 J	-7743595.79	-7743595.61	-7743595.41	0.0088	0.0043
Venus	-25914-10-23 10:04 J	-7743370.26	-7743370.08	-7743369.88	0.0088	0.0045
Venus	-25913-06-04 22:47 J	-7743144.73	-7743144.55	-7743144.35	0.0088	0.0047
Venus	-25912-01-16 11:31 J	-7742919.19	-7742919.02	-7742918.83	0.0088	0.0049
Venus	-25912-08-30 00:14 J	-7742693.67	-7742693.49	-7742693.31	0.0088	0.0051
Venus	-25911-04-12 12:28 J	-7742468.13	-7742467.98	-7742467.79	0.0088	0.0053
Venus	-25911-11-24 01:11 J	-7742242.60	-7742242.45	-7742242.26	0.0088	0.0055
Venus	-25910-07-07 14:09 J	-7742017.06	-7742016.91	-7742016.73	0.0088	0.0057
Venus	-25909-02-18 02:52 J	-7741791.52	-7741791.38	-7741791.20	0.0088	0.0059
Venus	-25909-09-30 15:35 J	-7741565.99	-7741565.85	-7741565.67	0.0088	0.0061
Venus	-25908-05-14 04:47 J	-7741340.45	-7741340.30	-7741340.14	0.0088	0.0063
Venus	-25908-12-25 17:31 J	-7741114.91	-7741114.77	-7741114.61	0.0088	0.0065
Venus	-25907-08-08 06:14 J	-7740889.37	-7740889.24	-7740889.08	0.0088	0.0067
Venus	-25906-03-21 18:57 J	-7740663.83	-7740663.71	-7740663.55	0.0088	0.0069
Venus	-25906-11-02 07:40 J	-7740438.29	-7740438.18	-7740438.02	0.0088	0.0071
Venus	-25905-06-14 21:07 J	-7740212.74	-7740212.62	-7740212.49	0.0088	0.0072
Venus	-25904-01-26 09:50 J	-7739987.20	-7739987.09	-7739986.96	0.0088	0.0073

Venus	-25904-09-08 22:19 J	-7739761.66	-7739761.57	-7739761.43	0.0088	0.0076
Venus	-25903-04-22 11:31 J	-7739536.12	-7739536.02	-7739535.90	0.0088	0.0077
Venus	-25903-12-04 00:14 J	-7739310.57	-7739310.49	-7739310.37	0.0088	0.0078
Venus	-25902-07-17 13:40 J	-7739085.02	-7739084.93	-7739084.84	0.0088	0.0080
Venus	-25901-02-28 02:09 J	-7738859.47	-7738859.41	-7738859.31	0.0088	0.0082
Venus	-25901-10-10 15:35 J	-7738633.93	-7738633.85	-7738633.78	0.0088	0.0083
Venus	-25900-05-24 03:50 J	-7738408.38	-7738408.34	-7738408.25	0.0088	0.0085
Venus	-25899-01-04 17:02 J	-7738182.82	-7738182.79	-7738182.72	0.0088	0.0086
Venus	-25899-08-18 05:45 J	-7737957.27	-7737957.26	-7737957.19	0.0088	0.0087
Venus	-25898-03-31 19:11 J	-7737731.70	-7737731.70	-7737731.68	0.0088	0.0088
Moon	-25890-10-16 18:43 J	-7734610.89	-7734610.72	-7734610.51	0.0088	0.0058
Earth	-25890-10-16 19:26 J	-7734610.85	-7734610.69	-7734610.48	0.0088	0.0062 *
Moon	-25889-10-18 07:11 J	-7734243.45	-7734243.20	-7734242.93	0.0088	0.0023
Earth	-25889-10-18 08:09 J	-7734243.40	-7734243.16	-7734242.89	0.0088	0.0019 *
Earth	-25888-10-20 20:52 J	-7733875.88	-7733875.63	-7733875.37	0.0088	0.0024
Moon	-25888-10-20 22:33 J	-7733875.78	-7733875.56	-7733875.30	0.0088	0.0029 *
Moon	-25887-10-23 06:14 J	-7733508.40	-7733508.24	-7733508.03	0.0088	0.0063
Earth	-25887-10-23 09:35 J	-7733508.27	-7733508.10	-7733507.93	0.0088	0.0067 *
Jupiter	-25882-01-09 13:40 J	-7731969.03	-7731968.93	-7731968.69	0.0088	0.0084
Mars	-25874-01-22 06:28 J	-7729034.34	-7729034.23	-7729034.05	0.0088	0.0077
Mercury	-25874-12-27 19:11 J	-7728694.75	-7728694.70	-7728694.60	0.0088	0.0081
Mercury	-25873-03-24 22:47 J	-7728606.65	-7728606.55	-7728606.43	0.0088	0.0071
Mercury	-25873-06-21 02:09 J	-7728518.53	-7728518.41	-7728518.26	0.0088	0.0062
Mercury	-25873-09-17 05:45 J	-7728430.41	-7728430.26	-7728430.11	0.0088	0.0052
Mercury	-25873-12-14 08:52 J	-7728342.28	-7728342.13	-7728341.95	0.0088	0.0043
Mars	-25873-12-16 09:50 J	-7728340.37	-7728340.09	-7728339.78	0.0088	0.0020
Mercury	-25872-03-12 12:28 J	-7728254.16	-7728253.98	-7728253.81	0.0088	0.0033
Mercury	-25872-06-08 15:35 J	-7728166.02	-7728165.85	-7728165.66	0.0088	0.0024
Mercury	-25872-09-04 18:57 J	-7728077.89	-7728077.71	-7728077.52	0.0088	0.0015
Mercury	-25872-12-01 22:19 J	-7727989.76	-7727989.57	-7727989.38	0.0088	0.0006

Mercury	-25871-02-28 01:40 J	-7727901.62	-7727901.43	-7727901.24	0.0088	0.0004
Mercury	-25871-05-27 04:47 J	-7727813.48	-7727813.30	-7727813.11	0.0088	0.0013
Mercury	-25871-08-23 08:09 J	-7727725.34	-7727725.16	-7727724.98	0.0088	0.0022
Mars	-25871-11-10 14:52 J	-7727646.13	-7727645.88	-7727645.58	0.0088	0.0039
Mercury	-25871-11-19 11:16 J	-7727637.20	-7727637.03	-7727636.85	0.0088	0.0032
Mercury	-25870-02-15 14:23 J	-7727549.05	-7727548.90	-7727548.72	0.0088	0.0041
Mercury	-25870-05-14 17:45 J	-7727460.91	-7727460.76	-7727460.60	0.0088	0.0050
Mercury	-25870-08-10 20:52 J	-7727372.76	-7727372.63	-7727372.48	0.0088	0.0059
Mercury	-25870-11-07 00:14 J	-7727284.60	-7727284.49	-7727284.37	0.0088	0.0068
Mercury	-25869-02-03 03:21 J	-7727196.44	-7727196.36	-7727196.26	0.0088	0.0078
Venus	-25869-04-09 02:23 J	-7727130.41	-7727130.40	-7727130.36	0.0088	0.0087
Mercury	-25869-05-01 06:43 J	-7727108.25	-7727108.22	-7727108.19	0.0088	0.0086
Venus	-25869-11-20 15:50 J	-7726904.86	-7726904.84	-7726904.77	0.0088	0.0086
Venus	-25868-07-04 05:59 J	-7726679.30	-7726679.25	-7726679.18	0.0088	0.0084
Venus	-25867-02-14 19:26 J	-7726453.74	-7726453.69	-7726453.60	0.0088	0.0083
Venus	-25867-09-28 09:07 J	-7726228.18	-7726228.12	-7726228.01	0.0088	0.0082
Venus	-25866-05-11 23:02 J	-7726002.61	-7726002.54	-7726002.43	0.0088	0.0080
Venus	-25866-12-23 12:28 J	-7725777.05	-7725776.98	-7725776.86	0.0088	0.0079
Venus	-25865-08-05 02:23 J	-7725551.49	-7725551.40	-7725551.28	0.0088	0.0077
Venus	-25864-03-18 16:19 J	-7725325.93	-7725325.82	-7725325.70	0.0088	0.0076
Venus	-25864-10-30 05:45 J	-7725100.36	-7725100.26	-7725100.12	0.0088	0.0074
Venus	-25863-06-12 19:26 J	-7724874.80	-7724874.69	-7724874.54	0.0088	0.0073
Venus	-25862-01-24 09:21 J	-7724649.24	-7724649.11	-7724648.97	0.0088	0.0071
Venus	-25862-09-06 23:16 J	-7724423.67	-7724423.53	-7724423.39	0.0088	0.0069
Venus	-25861-04-19 12:28 J	-7724198.10	-7724197.98	-7724197.81	0.0088	0.0068
Venus	-25861-12-01 02:23 J	-7723972.53	-7723972.40	-7723972.23	0.0088	0.0065
Venus	-25860-07-14 16:04 J	-7723746.97	-7723746.83	-7723746.65	0.0088	0.0064
Venus	-25859-02-25 05:59 J	-7723521.40	-7723521.25	-7723521.08	0.0088	0.0061
Venus	-25859-10-08 19:55 J	-7723295.82	-7723295.67	-7723295.49	0.0088	0.0059
Venus	-25858-05-22 09:35 J	-7723070.25	-7723070.10	-7723069.91	0.0088	0.0058

Venus	-25857-01-02 23:31 J	-7722844.68	-7722844.52	-7722844.34	0.0088	0.0055
Venus	-25857-08-15 13:11 J	-7722619.12	-7722618.95	-7722618.76	0.0088	0.0053
Venus	-25856-03-29 02:52 J	-7722393.54	-7722393.38	-7722393.18	0.0088	0.0052
Venus	-25856-11-09 16:47 J	-7722167.97	-7722167.80	-7722167.60	0.0088	0.0049
Venus	-25855-06-23 06:28 J	-7721942.40	-7721942.23	-7721942.02	0.0088	0.0048
Venus	-25854-02-03 20:38 J	-7721716.83	-7721716.64	-7721716.44	0.0088	0.0045
Venus	-25854-09-17 10:19 J	-7721491.26	-7721491.07	-7721490.86	0.0088	0.0043
Venus	-25853-04-29 23:59 J	-7721265.69	-7721265.50	-7721265.29	0.0088	0.0041
Venus	-25853-12-11 13:40 J	-7721040.12	-7721039.93	-7721039.71	0.0088	0.0039
Venus	-25852-07-25 03:21 J	-7720814.55	-7720814.36	-7720814.14	0.0088	0.0036
Venus	-25851-03-07 17:16 J	-7720588.98	-7720588.78	-7720588.57	0.0088	0.0034
Venus	-25851-10-19 06:57 J	-7720363.41	-7720363.21	-7720362.99	0.0088	0.0032
Venus	-25850-06-01 20:38 J	-7720137.84	-7720137.64	-7720137.42	0.0088	0.0029
Venus	-25849-01-13 10:33 J	-7719912.27	-7719912.06	-7719911.84	0.0088	0.0027
Venus	-25849-08-25 23:59 J	-7719686.71	-7719686.50	-7719686.27	0.0088	0.0025
Venus	-25848-04-08 13:40 J	-7719461.14	-7719460.93	-7719460.70	0.0089	0.0023
Venus	-25848-11-20 03:35 J	-7719235.56	-7719235.35	-7719235.12	0.0089	0.0020
Venus	-25847-07-03 17:16 J	-7719009.99	-7719009.78	-7719009.55	0.0089	0.0018
Venus	-25846-02-14 06:57 J	-7718784.43	-7718784.21	-7718783.98	0.0089	0.0015
Venus	-25846-09-27 20:38 J	-7718558.85	-7718558.64	-7718558.41	0.0089	0.0013
Venus	-25845-05-10 10:19 J	-7718333.28	-7718333.07	-7718332.84	0.0089	0.0011
Venus	-25845-12-22 00:14 J	-7718107.71	-7718107.49	-7718107.26	0.0089	0.0008
Venus	-25844-08-04 13:55 J	-7717882.14	-7717881.92	-7717881.69	0.0089	0.0006
Venus	-25843-03-18 03:35 J	-7717656.57	-7717656.35	-7717656.12	0.0089	0.0003
Venus	-25843-10-29 17:31 J	-7717431.00	-7717430.77	-7717430.55	0.0089	0.0001
Venus	-25842-06-12 07:11 J	-7717205.43	-7717205.20	-7717204.98	0.0089	0.0002
Venus	-25841-01-23 20:38 J	-7716979.86	-7716979.64	-7716979.41	0.0089	0.0004
Venus	-25841-09-05 10:19 J	-7716754.29	-7716754.07	-7716753.85	0.0089	0.0006
Venus	-25840-04-18 23:45 J	-7716528.73	-7716528.51	-7716528.28	0.0089	0.0009
Venus	-25840-11-30 13:26 J	-7716303.16	-7716302.94	-7716302.71	0.0089	0.0011

Venus	-25839-07-14 02:52 J	-7716077.59	-7716077.38	-7716077.15	0.0089	0.0014
Venus	-25838-02-24 16:33 J	-7715852.03	-7715851.81	-7715851.59	0.0089	0.0016
Venus	-25838-10-08 05:45 J	-7715626.47	-7715626.26	-7715626.03	0.0089	0.0019
Venus	-25837-05-20 19:26 J	-7715400.90	-7715400.69	-7715400.47	0.0089	0.0021
Venus	-25836-01-01 08:52 J	-7715175.33	-7715175.13	-7715174.90	0.0089	0.0023
Venus	-25836-08-14 22:33 J	-7714949.77	-7714949.56	-7714949.35	0.0089	0.0025
Venus	-25835-03-28 11:45 J	-7714724.21	-7714724.01	-7714723.79	0.0089	0.0028
Venus	-25835-11-09 01:26 J	-7714498.64	-7714498.44	-7714498.23	0.0089	0.0030
Venus	-25834-06-22 14:52 J	-7714273.08	-7714272.88	-7714272.67	0.0089	0.0032
Venus	-25833-02-03 04:33 J	-7714047.52	-7714047.31	-7714047.11	0.0089	0.0034
Venus	-25833-09-15 17:31 J	-7713821.96	-7713821.77	-7713821.55	0.0089	0.0037
Venus	-25832-04-29 06:57 J	-7713596.39	-7713596.21	-7713595.99	0.0089	0.0039
Venus	-25832-12-10 20:38 J	-7713370.82	-7713370.64	-7713370.43	0.0089	0.0041
Venus	-25831-07-24 10:04 J	-7713145.26	-7713145.08	-7713144.88	0.0089	0.0043
Venus	-25830-03-06 23:31 J	-7712919.70	-7712919.52	-7712919.32	0.0089	0.0045
Venus	-25830-10-18 12:57 J	-7712694.14	-7712693.96	-7712693.77	0.0089	0.0047
Venus	-25829-05-31 02:23 J	-7712468.58	-7712468.40	-7712468.21	0.0089	0.0049
Venus	-25828-01-11 15:50 J	-7712243.02	-7712242.84	-7712242.66	0.0089	0.0051
Venus	-25828-08-25 05:02 J	-7712017.46	-7712017.29	-7712017.11	0.0089	0.0053
Venus	-25827-04-07 18:14 J	-7711791.90	-7711791.74	-7711791.56	0.0089	0.0055
Venus	-25827-11-19 07:26 J	-7711566.35	-7711566.19	-7711566.01	0.0089	0.0057
Venus	-25826-07-02 20:38 J	-7711340.79	-7711340.64	-7711340.46	0.0089	0.0059
Venus	-25825-02-13 09:50 J	-7711115.23	-7711115.09	-7711114.92	0.0089	0.0061
Venus	-25825-09-25 22:47 J	-7710889.68	-7710889.55	-7710889.37	0.0089	0.0064
Venus	-25824-05-09 11:59 J	-7710664.13	-7710664.00	-7710663.83	0.0089	0.0065
Venus	-25824-12-21 01:40 J	-7710438.57	-7710438.43	-7710438.28	0.0089	0.0066
Venus	-25823-08-03 14:38 J	-7710213.02	-7710212.89	-7710212.74	0.0089	0.0068
Venus	-25822-03-17 03:35 J	-7709987.47	-7709987.35	-7709987.20	0.0089	0.0070
Venus	-25822-10-28 17:02 J	-7709761.91	-7709761.79	-7709761.66	0.0089	0.0072
Venus	-25821-06-10 05:59 J	-7709536.36	-7709536.25	-7709536.11	0.0089	0.0073

Venus	-25820-01-21 19:40 J	-7709310.80	-7709310.68	-7709310.57	0.0089	0.0075
Venus	-25820-09-04 08:23 J	-7709085.25	-7709085.15	-7709085.03	0.0089	0.0076
Venus	-25819-04-17 21:35 J	-7708859.70	-7708859.60	-7708859.49	0.0089	0.0078
Venus	-25819-11-29 10:19 J	-7708634.14	-7708634.07	-7708633.95	0.0089	0.0080
Venus	-25818-07-12 23:45 J	-7708408.59	-7708408.51	-7708408.41	0.0089	0.0081
Venus	-25817-02-23 13:11 J	-7708183.04	-7708182.95	-7708182.87	0.0089	0.0082
Venus	-25817-10-06 01:40 J	-7707957.49	-7707957.43	-7707957.33	0.0089	0.0083
Venus	-25816-05-19 14:38 J	-7707731.94	-7707731.89	-7707731.80	0.0089	0.0085
Venus	-25816-12-31 03:50 J	-7707506.38	-7707506.34	-7707506.26	0.0089	0.0086
Venus	-25815-08-13 16:47 J	-7707280.83	-7707280.80	-7707280.73	0.0089	0.0087
Venus	-25814-03-27 05:45 J	-7707055.28	-7707055.26	-7707055.21	0.0089	0.0088
Venus	-25814-11-07 18:43 J	-7706829.73	-7706829.72	-7706829.68	0.0089	0.0089
Moon	-25807-04-17 04:33 J	-7704477.49	-7704477.31	-7704477.09	0.0089	0.0057
Earth	-25807-04-17 05:59 J	-7704477.42	-7704477.25	-7704477.03	0.0089	0.0059 *
Earth	-25806-04-19 17:16 J	-7704110.03	-7704109.78	-7704109.53	0.0089	0.0014
Moon	-25806-04-19 19:11 J	-7704109.93	-7704109.70	-7704109.44	0.0089	0.0018 *
Moon	-25805-04-21 00:43 J	-7703742.71	-7703742.47	-7703742.23	0.0089	0.0032
Earth	-25805-04-21 03:50 J	-7703742.56	-7703742.34	-7703742.09	0.0089	0.0030 *
Earth	-25804-04-23 14:09 J	-7703375.03	-7703374.91	-7703374.74	0.0089	0.0074
Moon	-25804-04-23 17:31 J	-7703374.89	-7703374.77	-7703374.59	0.0089	0.0072 *
Mars	-25793-12-12 04:19 J	-7699124.32	-7699124.32	-7699124.28	0.0089	0.0089
Mercury	-25792-01-05 15:50 J	-7699099.88	-7699099.84	-7699099.81	0.0089	0.0086
Mercury	-25792-04-03 16:47 J	-7699011.84	-7699011.80	-7699011.72	0.0089	0.0080
Mercury	-25792-06-30 18:14 J	-7698923.80	-7698923.74	-7698923.65	0.0089	0.0073
Mercury	-25792-09-26 19:40 J	-7698835.76	-7698835.68	-7698835.58	0.0089	0.0066
Mercury	-25792-12-23 21:07 J	-7698747.71	-7698747.62	-7698747.51	0.0089	0.0059
Venus	-25791-01-29 18:43 J	-7698710.72	-7698710.72	-7698710.72	0.0089	0.0089
Mercury	-25791-03-21 22:33 J	-7698659.66	-7698659.56	-7698659.44	0.0089	0.0052
Mercury	-25791-06-17 23:59 J	-7698571.61	-7698571.50	-7698571.38	0.0089	0.0045
Venus	-25791-09-12 06:43 J	-7698485.23	-7698485.22	-7698485.17	0.0089	0.0089

Mercury -25791-09-14 01:40 J -7698483.56 -7698483.43 -7698483.31 0.0089 0.0038

Mars -25791-11-07 20:52 J -7698428.93 -7698428.63 -7698428.30 0.0089 0.0024

Mercury -25791-12-11 03:07 J -7698395.50 -7698395.37 -7698395.25 0.0089 0.0031

Mercury -25790-03-09 04:19 J -7698307.45 -7698307.32 -7698307.19 0.0089 0.0024

Venus -25790-04-25 19:11 J -7698259.73 -7698259.70 -7698259.64 0.0089 0.0087

Mercury -25790-06-05 05:45 J -7698219.39 -7698219.26 -7698219.12 0.0089 0.0017

Mercury -25790-09-01 07:11 J -7698131.33 -7698131.20 -7698131.06 0.0089 0.0010

Mercury -25790-11-28 08:38 J -7698043.27 -7698043.14 -7698043.00 0.0089 0.0003

Venus -25790-12-07 07:26 J -7698034.22 -7698034.19 -7698034.12 0.0089 0.0087

Mercury -25789-02-24 10:04 J -7697955.21 -7697955.08 -7697954.94 0.0089 0.0005

Mercury -25789-05-22 11:31 J -7697867.15 -7697867.02 -7697866.88 0.0089 0.0011

Venus -25789-07-19 19:40 J -7697808.72 -7697808.68 -7697808.59 0.0089 0.0086

Mercury -25789-08-18 12:57 J -7697779.09 -7697778.96 -7697778.82 0.0089 0.0018

Mars -25789-10-03 10:33 J -7697733.34 -7697733.06 -7697732.76 0.0089 0.0042

Mercury -25789-11-14 14:23 J -7697691.03 -7697690.90 -7697690.77 0.0089 0.0025

Mercury -25788-02-10 15:50 J -7697602.96 -7697602.84 -7697602.71 0.0089 0.0032

Venus -25788-03-02 08:09 J -7697583.21 -7697583.16 -7697583.06 0.0089 0.0085

Mercury -25788-05-09 17:16 J -7697514.90 -7697514.78 -7697514.66 0.0089 0.0039

Mercury -25788-08-05 18:43 J -7697426.83 -7697426.72 -7697426.60 0.0089 0.0047

Venus -25788-10-13 21:07 J -7697357.70 -7697357.62 -7697357.54 0.0089 0.0083

Mercury -25788-11-01 20:09 J -7697338.76 -7697338.66 -7697338.55 0.0089 0.0054

Mercury -25787-01-28 21:35 J -7697250.69 -7697250.60 -7697250.49 0.0089 0.0061

Mercury -25787-04-26 22:47 J -7697162.62 -7697162.55 -7697162.45 0.0089 0.0069

Venus -25787-05-27 09:07 J -7697132.19 -7697132.12 -7697132.02 0.0089 0.0082

Mercury -25787-07-24 00:14 J -7697074.54 -7697074.49 -7697074.40 0.0089 0.0076

Mercury -25787-10-20 01:55 J -7696986.46 -7696986.42 -7696986.36 0.0089 0.0082

Venus -25786-01-07 21:07 J -7696906.69 -7696906.62 -7696906.51 0.0089 0.0081

Mercury -25786-01-16 03:35 J -7696898.35 -7696898.35 -7696898.34 0.0089 0.0089

Venus -25786-08-21 09:21 J -7696681.18 -7696681.11 -7696680.99 0.0089 0.0080

Venus -25785-04-02 22:19 J -7696455.67 -7696455.57 -7696455.46 0.0089 0.0078

Venus	-25785-11-14 10:19 J	-7696230.16	-7696230.07	-7696229.94	0.0089	0.0077
Venus	-25784-06-27 23:02 J	-7696004.65	-7696004.54	-7696004.42	0.0089	0.0075
Venus	-25783-02-08 11:02 J	-7695779.15	-7695779.04	-7695778.91	0.0089	0.0073
Venus	-25783-09-21 23:31 J	-7695553.64	-7695553.52	-7695553.39	0.0089	0.0072
Venus	-25782-05-05 11:31 J	-7695328.13	-7695328.02	-7695327.86	0.0089	0.0071
Venus	-25782-12-17 00:14 J	-7695102.62	-7695102.49	-7695102.34	0.0089	0.0068
Venus	-25781-07-29 12:43 J	-7694877.11	-7694876.97	-7694876.82	0.0089	0.0067
Venus	-25780-03-12 00:43 J	-7694651.59	-7694651.47	-7694651.30	0.0089	0.0065
Venus	-25780-10-23 13:11 J	-7694426.08	-7694425.95	-7694425.78	0.0089	0.0064
Venus	-25779-06-06 01:40 J	-7694200.58	-7694200.43	-7694200.27	0.0089	0.0062
Venus	-25778-01-17 13:40 J	-7693975.07	-7693974.93	-7693974.75	0.0089	0.0060
Venus	-25778-08-31 02:09 J	-7693749.56	-7693749.41	-7693749.23	0.0089	0.0058
Venus	-25777-04-12 14:38 J	-7693524.04	-7693523.89	-7693523.71	0.0089	0.0056
Venus	-25777-11-24 02:52 J	-7693298.53	-7693298.38	-7693298.19	0.0089	0.0055
Venus	-25776-07-07 15:21 J	-7693073.03	-7693072.86	-7693072.68	0.0089	0.0052
Venus	-25775-02-18 03:35 J	-7692847.52	-7692847.35	-7692847.16	0.0089	0.0050
Venus	-25775-10-01 15:50 J	-7692622.01	-7692621.84	-7692621.65	0.0089	0.0048
Venus	-25774-05-15 04:19 J	-7692396.50	-7692396.32	-7692396.13	0.0089	0.0046
Venus	-25774-12-26 16:33 J	-7692170.99	-7692170.81	-7692170.62	0.0089	0.0044
Venus	-25773-08-08 04:47 J	-7691945.48	-7691945.30	-7691945.10	0.0089	0.0042
Venus	-25772-03-21 17:02 J	-7691719.97	-7691719.79	-7691719.59	0.0089	0.0040
Venus	-25772-11-02 05:31 J	-7691494.46	-7691494.27	-7691494.07	0.0089	0.0038
Venus	-25771-06-15 17:45 J	-7691268.95	-7691268.76	-7691268.56	0.0089	0.0036
Venus	-25770-01-27 05:59 J	-7691043.44	-7691043.25	-7691043.04	0.0089	0.0034
Venus	-25770-09-09 18:14 J	-7690817.93	-7690817.74	-7690817.53	0.0089	0.0032
Venus	-25769-04-22 06:43 J	-7690592.41	-7690592.22	-7690592.00	0.0089	0.0030
Venus	-25769-12-03 18:57 J	-7690366.90	-7690366.71	-7690366.49	0.0089	0.0028
Venus	-25768-07-17 07:40 J	-7690141.39	-7690141.18	-7690140.97	0.0089	0.0025
Venus	-25767-02-27 19:55 J	-7689915.87	-7689915.67	-7689915.46	0.0089	0.0023
Venus	-25767-10-11 08:09 J	-7689690.36	-7689690.16	-7689689.94	0.0089	0.0021

Venus	-25766-05-24 20:38 J	-7689464.84	-7689464.64	-7689464.41	0.0089	0.0019
Venus	-25765-01-05 09:21 J	-7689239.32	-7689239.11	-7689238.90	0.0089	0.0016
Venus	-25765-08-17 21:35 J	-7689013.81	-7689013.60	-7689013.38	0.0089	0.0014
Venus	-25764-03-31 10:04 J	-7688788.30	-7688788.08	-7688787.87	0.0089	0.0012
Venus	-25764-11-11 22:19 J	-7688562.78	-7688562.57	-7688562.35	0.0089	0.0010
Venus	-25763-06-25 10:33 J	-7688337.27	-7688337.06	-7688336.83	0.0089	0.0008
Venus	-25762-02-05 23:02 J	-7688111.75	-7688111.54	-7688111.32	0.0089	0.0005
Venus	-25762-09-19 11:31 J	-7687886.24	-7687886.02	-7687885.80	0.0089	0.0003
Venus	-25761-05-01 23:59 J	-7687660.72	-7687660.50	-7687660.28	0.0089	0.0001
Venus	-25761-12-13 12:14 J	-7687435.20	-7687434.99	-7687434.77	0.0089	0.0003
Venus	-25760-07-27 00:43 J	-7687209.69	-7687209.47	-7687209.25	0.0089	0.0004
Venus	-25759-03-09 12:57 J	-7686984.17	-7686983.96	-7686983.74	0.0089	0.0006
Venus	-25759-10-21 01:26 J	-7686758.65	-7686758.44	-7686758.22	0.0089	0.0008
Venus	-25758-06-03 13:55 J	-7686533.13	-7686532.92	-7686532.70	0.0089	0.0011
Venus	-25757-01-15 02:38 J	-7686307.61	-7686307.39	-7686307.18	0.0089	0.0013
Venus	-25757-08-27 14:52 J	-7686082.09	-7686081.88	-7686081.66	0.0089	0.0015
Venus	-25756-04-10 03:21 J	-7685856.57	-7685856.36	-7685856.14	0.0089	0.0018
Venus	-25756-11-21 15:50 J	-7685631.04	-7685630.84	-7685630.62	0.0089	0.0020
Venus	-25755-07-05 04:33 J	-7685405.52	-7685405.31	-7685405.10	0.0089	0.0022
Venus	-25754-02-15 16:47 J	-7685179.99	-7685179.80	-7685179.58	0.0089	0.0025
Venus	-25754-09-29 05:31 J	-7684954.47	-7684954.27	-7684954.05	0.0088	0.0027
Venus	-25753-05-11 18:14 J	-7684728.94	-7684728.74	-7684728.53	0.0088	0.0029
Venus	-25753-12-23 06:43 J	-7684503.41	-7684503.22	-7684503.00	0.0088	0.0031
Venus	-25752-08-05 19:26 J	-7684277.89	-7684277.69	-7684277.48	0.0088	0.0033
Venus	-25751-03-19 07:55 J	-7684052.37	-7684052.17	-7684051.96	0.0088	0.0035
Venus	-25751-10-30 20:38 J	-7683826.84	-7683826.64	-7683826.44	0.0088	0.0037
Venus	-25750-06-13 09:07 J	-7683601.30	-7683601.12	-7683600.91	0.0088	0.0039
Venus	-25749-01-24 21:35 J	-7683375.78	-7683375.60	-7683375.39	0.0088	0.0042
Venus	-25749-09-06 10:19 J	-7683150.25	-7683150.07	-7683149.87	0.0088	0.0043
Venus	-25748-04-19 22:47 J	-7682924.72	-7682924.55	-7682924.35	0.0088	0.0046

Venus	-25748-12-01 11:31 J	-7682699.19	-7682699.02	-7682698.82	0.0088	0.0047
Venus	-25747-07-15 00:14 J	-7682473.66	-7682473.49	-7682473.30	0.0088	0.0049
Venus	-25746-02-25 12:43 J	-7682248.13	-7682247.97	-7682247.77	0.0088	0.0052
Venus	-25746-10-09 01:26 J	-7682022.60	-7682022.44	-7682022.25	0.0088	0.0053
Venus	-25745-05-21 14:38 J	-7681797.06	-7681796.89	-7681796.72	0.0088	0.0055
Venus	-25744-01-02 03:21 J	-7681571.52	-7681571.36	-7681571.19	0.0088	0.0057
Venus	-25744-08-15 16:04 J	-7681345.99	-7681345.83	-7681345.66	0.0088	0.0058
Venus	-25743-03-29 04:33 J	-7681120.45	-7681120.31	-7681120.13	0.0088	0.0061
Venus	-25743-11-09 17:16 J	-7680894.91	-7680894.78	-7680894.60	0.0088	0.0063
Venus	-25742-06-23 06:43 J	-7680669.36	-7680669.22	-7680669.06	0.0088	0.0064
Venus	-25741-02-03 19:26 J	-7680443.82	-7680443.69	-7680443.53	0.0088	0.0066
Venus	-25741-09-16 08:09 J	-7680218.28	-7680218.16	-7680218.00	0.0088	0.0067
Venus	-25740-04-29 21:21 J	-7679992.74	-7679992.61	-7679992.47	0.0088	0.0069
Venus	-25740-12-11 09:50 J	-7679767.20	-7679767.09	-7679766.94	0.0088	0.0071
Venus	-25739-07-24 22:47 J	-7679541.65	-7679541.55	-7679541.40	0.0088	0.0072
Venus	-25738-03-07 11:59 J	-7679316.11	-7679316.00	-7679315.87	0.0088	0.0073
Venus	-25738-10-19 00:28 J	-7679090.57	-7679090.48	-7679090.34	0.0088	0.0076
Venus	-25737-05-31 13:40 J	-7678865.02	-7678864.93	-7678864.80	0.0088	0.0076
Venus	-25736-01-12 02:52 J	-7678639.47	-7678639.38	-7678639.27	0.0088	0.0078
Venus	-25736-08-25 15:21 J	-7678413.93	-7678413.86	-7678413.74	0.0088	0.0080
Venus	-25735-04-08 04:33 J	-7678188.38	-7678188.31	-7678188.20	0.0088	0.0080
Venus	-25735-11-19 17:45 J	-7677962.83	-7677962.76	-7677962.67	0.0088	0.0081
Venus	-25734-07-03 06:57 J	-7677737.28	-7677737.21	-7677737.13	0.0088	0.0083
Venus	-25733-02-13 19:26 J	-7677511.73	-7677511.69	-7677511.60	0.0088	0.0084
Venus	-25733-09-26 08:38 J	-7677286.18	-7677286.14	-7677286.06	0.0088	0.0085
Venus	-25732-05-09 21:35 J	-7677060.62	-7677060.60	-7677060.53	0.0088	0.0086
Venus	-25732-12-21 10:47 J	-7676835.06	-7676835.05	-7676835.00	0.0088	0.0087
Venus	-25731-08-04 00:28 J	-7676609.48	-7676609.48	-7676609.47	0.0088	0.0088
Moon	-25726-10-16 03:35 J	-7674710.41	-7674710.35	-7674710.22	0.0088	0.0082
Earth	-25726-10-16 04:33 J	-7674710.36	-7674710.31	-7674710.18	0.0088	0.0083 *

Earth	-25725-10-17 17:59 J	-7674342.98	-7674342.75	-7674342.51	0.0088	0.0039
Moon	-25725-10-17 20:09 J	-7674342.88	-7674342.66	-7674342.42	0.0088	0.0040 *
Moon	-25724-10-20 03:21 J	-7673975.62	-7673975.36	-7673975.09	0.0088	0.0005
Earth	-25724-10-20 06:43 J	-7673975.48	-7673975.22	-7673974.96	0.0088	0.0004 *
Earth	-25723-10-22 18:28 J	-7673607.93	-7673607.73	-7673607.48	0.0088	0.0047
Moon	-25723-10-22 22:04 J	-7673607.78	-7673607.58	-7673607.34	0.0088	0.0047 *
Jupiter	-25716-03-11 20:23 J	-7671276.20	-7671275.65	-7671275.08	0.0088	0.0011
Mercury	-25709-06-26 14:52 J	-7668611.91	-7668611.88	-7668611.81	0.0088	0.0085
Mars	-25709-07-31 17:31 J	-7668577.00	-7668576.77	-7668576.49	0.0088	0.0047
Mercury	-25709-09-22 18:43 J	-7668523.82	-7668523.72	-7668523.62	0.0088	0.0075
Mercury	-25709-12-19 21:50 J	-7668435.70	-7668435.59	-7668435.45	0.0088	0.0066
Mercury	-25708-03-18 01:26 J	-7668347.58	-7668347.44	-7668347.30	0.0088	0.0057
Mercury	-25708-06-14 04:33 J	-7668259.46	-7668259.31	-7668259.14	0.0088	0.0047
Mercury	-25708-09-10 07:55 J	-7668171.33	-7668171.17	-7668170.99	0.0088	0.0038
Mercury	-25708-12-07 11:16 J	-7668083.20	-7668083.03	-7668082.84	0.0088	0.0028
Venus	-25707-01-21 06:28 J	-7668038.25	-7668038.23	-7668038.21	0.0088	0.0088
Mercury	-25707-03-05 14:38 J	-7667995.07	-7667994.89	-7667994.70	0.0088	0.0019
Mercury	-25707-06-01 17:59 J	-7667906.93	-7667906.75	-7667906.56	0.0088	0.0010
Mars	-25707-06-25 20:52 J	-7667882.93	-7667882.63	-7667882.33	0.0088	0.0010
Mercury	-25707-08-28 21:21 J	-7667818.80	-7667818.61	-7667818.42	0.0088	0.0000
Venus	-25707-09-03 20:09 J	-7667812.69	-7667812.66	-7667812.62	0.0088	0.0086
Mercury	-25707-11-25 00:43 J	-7667730.66	-7667730.47	-7667730.29	0.0088	0.0009
Mercury	-25706-02-21 03:50 J	-7667642.52	-7667642.34	-7667642.15	0.0088	0.0019
Venus	-25706-04-17 09:50 J	-7667587.14	-7667587.09	-7667587.03	0.0088	0.0085
Mercury	-25706-05-20 06:57 J	-7667554.38	-7667554.21	-7667554.02	0.0088	0.0028
Mercury	-25706-08-16 10:19 J	-7667466.23	-7667466.07	-7667465.89	0.0088	0.0037
Mercury	-25706-11-12 13:26 J	-7667378.09	-7667377.94	-7667377.77	0.0088	0.0047
Venus	-25706-11-28 23:16 J	-7667361.58	-7667361.53	-7667361.45	0.0088	0.0084
Mercury	-25705-02-08 16:47 J	-7667289.94	-7667289.80	-7667289.65	0.0088	0.0055
Mercury	-25705-05-06 20:09 J	-7667201.78	-7667201.66	-7667201.53	0.0088	0.0065

Mars	-25705-05-20 01:40 J	-7667188.61	-7667188.43	-7667188.23	0.0088	0.0068
Venus	-25705-07-11 12:57 J	-7667136.02	-7667135.96	-7667135.88	0.0088	0.0083
Mercury	-25705-08-02 23:02 J	-7667113.62	-7667113.54	-7667113.42	0.0088	0.0074
Mercury	-25705-10-30 02:09 J	-7667025.45	-7667025.41	-7667025.33	0.0088	0.0083
Venus	-25704-02-22 02:23 J	-7666910.45	-7666910.40	-7666910.29	0.0088	0.0083
Venus	-25704-10-05 16:19 J	-7666684.88	-7666684.82	-7666684.71	0.0088	0.0081
Venus	-25703-05-19 06:28 J	-7666459.32	-7666459.23	-7666459.13	0.0088	0.0079
Venus	-25703-12-30 19:55 J	-7666233.75	-7666233.67	-7666233.55	0.0088	0.0078
Venus	-25702-08-13 09:35 J	-7666008.19	-7666008.10	-7666007.97	0.0088	0.0077
Venus	-25701-03-25 23:31 J	-7665782.62	-7665782.52	-7665782.39	0.0088	0.0075
Venus	-25701-11-06 13:11 J	-7665557.05	-7665556.95	-7665556.81	0.0088	0.0074
Venus	-25700-06-20 03:07 J	-7665331.49	-7665331.37	-7665331.23	0.0088	0.0072
Venus	-25699-01-31 16:33 J	-7665105.92	-7665105.81	-7665105.66	0.0088	0.0071
Venus	-25699-09-14 06:28 J	-7664880.35	-7664880.23	-7664880.07	0.0088	0.0070
Venus	-25698-04-27 20:38 J	-7664654.78	-7664654.64	-7664654.50	0.0088	0.0068
Venus	-25698-12-09 09:50 J	-7664429.22	-7664429.09	-7664428.92	0.0088	0.0067
Venus	-25697-07-21 23:45 J	-7664203.65	-7664203.51	-7664203.35	0.0088	0.0064
Venus	-25696-03-04 13:40 J	-7663978.09	-7663977.93	-7663977.77	0.0088	0.0063
Venus	-25696-10-16 03:07 J	-7663752.51	-7663752.37	-7663752.19	0.0088	0.0061
Venus	-25695-05-29 16:47 J	-7663526.94	-7663526.80	-7663526.61	0.0088	0.0060
Venus	-25694-01-10 06:43 J	-7663301.38	-7663301.22	-7663301.04	0.0088	0.0057
Venus	-25694-08-23 20:23 J	-7663075.81	-7663075.65	-7663075.46	0.0088	0.0056
Venus	-25693-04-05 10:19 J	-7662850.24	-7662850.07	-7662849.88	0.0088	0.0054
Venus	-25693-11-17 00:14 J	-7662624.67	-7662624.49	-7662624.30	0.0088	0.0052
Venus	-25692-06-30 13:55 J	-7662399.10	-7662398.92	-7662398.73	0.0088	0.0050
Venus	-25691-02-11 03:35 J	-7662173.53	-7662173.35	-7662173.15	0.0088	0.0048
Venus	-25691-09-24 17:31 J	-7661947.95	-7661947.77	-7661947.57	0.0088	0.0046
Venus	-25690-05-08 07:26 J	-7661722.38	-7661722.19	-7661721.99	0.0088	0.0044
Venus	-25690-12-19 21:07 J	-7661496.81	-7661496.62	-7661496.41	0.0088	0.0042
Venus	-25689-08-01 10:47 J	-7661271.24	-7661271.05	-7661270.84	0.0088	0.0040

Venus	-25688-03-15 00:28 J	-7661045.67	-7661045.48	-7661045.26	0.0088	0.0038
Venus	-25688-10-26 14:23 J	-7660820.09	-7660819.90	-7660819.68	0.0088	0.0036
Venus	-25687-06-09 04:04 J	-7660594.52	-7660594.33	-7660594.11	0.0088	0.0034
Venus	-25686-01-20 17:45 J	-7660368.96	-7660368.76	-7660368.54	0.0088	0.0031
Venus	-25686-09-03 07:40 J	-7660143.39	-7660143.18	-7660142.96	0.0088	0.0029
Venus	-25685-04-15 21:21 J	-7659917.82	-7659917.61	-7659917.39	0.0088	0.0027
Venus	-25685-11-27 11:02 J	-7659692.25	-7659692.04	-7659691.82	0.0089	0.0025
Venus	-25684-07-11 00:43 J	-7659466.68	-7659466.47	-7659466.25	0.0089	0.0022
Venus	-25683-02-21 14:09 J	-7659241.12	-7659240.91	-7659240.68	0.0089	0.0021
Venus	-25683-10-05 04:04 J	-7659015.54	-7659015.33	-7659015.10	0.0089	0.0018
Venus	-25682-05-18 17:45 J	-7658789.97	-7658789.76	-7658789.53	0.0089	0.0016
Venus	-25682-12-30 07:26 J	-7658564.40	-7658564.19	-7658563.96	0.0089	0.0014
Venus	-25681-08-11 21:07 J	-7658338.84	-7658338.62	-7658338.39	0.0089	0.0011
Venus	-25680-03-25 10:47 J	-7658113.27	-7658113.05	-7658112.82	0.0089	0.0009
Venus	-25680-11-06 00:43 J	-7657887.69	-7657887.47	-7657887.25	0.0089	0.0006
Venus	-25679-06-19 14:23 J	-7657662.12	-7657661.90	-7657661.68	0.0089	0.0004
Venus	-25678-01-31 04:04 J	-7657436.56	-7657436.33	-7657436.11	0.0089	0.0002
Venus	-25678-09-13 17:45 J	-7657210.99	-7657210.76	-7657210.54	0.0089	0.0002
Venus	-25677-04-26 07:26 J	-7656985.42	-7656985.19	-7656984.97	0.0089	0.0003
Venus	-25677-12-07 21:07 J	-7656759.84	-7656759.62	-7656759.40	0.0089	0.0005
Venus	-25676-07-21 10:33 J	-7656534.28	-7656534.06	-7656533.83	0.0089	0.0008
Venus	-25675-03-04 00:14 J	-7656308.71	-7656308.49	-7656308.27	0.0089	0.0009
Venus	-25675-10-15 13:40 J	-7656083.14	-7656082.93	-7656082.70	0.0089	0.0012
Venus	-25674-05-29 03:21 J	-7655857.57	-7655857.36	-7655857.13	0.0089	0.0014
Venus	-25673-01-09 17:02 J	-7655632.01	-7655631.79	-7655631.57	0.0089	0.0016
Venus	-25673-08-22 06:14 J	-7655406.44	-7655406.24	-7655406.01	0.0089	0.0019
Venus	-25672-04-04 19:55 J	-7655180.88	-7655180.67	-7655180.45	0.0089	0.0021
Venus	-25672-11-16 09:21 J	-7654955.31	-7654955.11	-7654954.88	0.0089	0.0023
Venus	-25671-06-29 23:02 J	-7654729.75	-7654729.54	-7654729.32	0.0089	0.0025
Venus	-25670-02-10 12:28 J	-7654504.19	-7654503.98	-7654503.77	0.0089	0.0027

Venus	-25670-09-24 01:55 J	-7654278.63	-7654278.42	-7654278.21	0.0089	0.0029
Venus	-25669-05-06 15:21 J	-7654053.06	-7654052.86	-7654052.65	0.0089	0.0031
Venus	-25669-12-18 04:33 J	-7653827.50	-7653827.31	-7653827.09	0.0089	0.0034
Venus	-25668-07-31 17:59 J	-7653601.93	-7653601.75	-7653601.53	0.0089	0.0036
Venus	-25667-03-14 07:26 J	-7653376.37	-7653376.19	-7653375.97	0.0089	0.0038
Venus	-25667-10-25 20:52 J	-7653150.81	-7653150.63	-7653150.42	0.0089	0.0040
Venus	-25666-06-08 10:19 J	-7652925.25	-7652925.07	-7652924.86	0.0089	0.0042
Venus	-25665-01-19 23:45 J	-7652699.68	-7652699.51	-7652699.30	0.0089	0.0044
Venus	-25665-09-01 13:11 J	-7652474.12	-7652473.95	-7652473.74	0.0089	0.0046
Venus	-25664-04-15 02:38 J	-7652248.56	-7652248.39	-7652248.19	0.0089	0.0048
Venus	-25664-11-26 16:04 J	-7652023.00	-7652022.83	-7652022.63	0.0089	0.0050
Venus	-25663-07-10 05:45 J	-7651797.44	-7651797.26	-7651797.08	0.0089	0.0051
Venus	-25662-02-20 18:57 J	-7651571.88	-7651571.71	-7651571.53	0.0089	0.0053
Venus	-25662-10-04 07:55 J	-7651346.32	-7651346.17	-7651345.98	0.0089	0.0056
Venus	-25661-05-16 21:07 J	-7651120.77	-7651120.62	-7651120.43	0.0089	0.0057
Venus	-25661-12-28 11:02 J	-7650895.21	-7650895.04	-7650894.88	0.0089	0.0059
Venus	-25660-08-10 23:59 J	-7650669.65	-7650669.50	-7650669.33	0.0089	0.0060
Venus	-25659-03-24 12:43 J	-7650444.10	-7650443.97	-7650443.79	0.0089	0.0063
Venus	-25659-11-05 02:23 J	-7650218.55	-7650218.40	-7650218.25	0.0089	0.0064
Venus	-25658-06-18 15:21 J	-7649993.00	-7649992.86	-7649992.70	0.0089	0.0065
Venus	-25657-01-30 04:19 J	-7649767.44	-7649767.32	-7649767.15	0.0089	0.0067
Venus	-25657-09-11 17:45 J	-7649541.89	-7649541.76	-7649541.61	0.0089	0.0068
Venus	-25656-04-25 06:28 J	-7649316.34	-7649316.23	-7649316.07	0.0089	0.0070
Venus	-25656-12-06 19:55 J	-7649090.79	-7649090.67	-7649090.53	0.0089	0.0071
Venus	-25655-07-20 08:38 J	-7648865.24	-7648865.14	-7648864.99	0.0089	0.0074
Venus	-25654-03-02 21:50 J	-7648639.69	-7648639.59	-7648639.45	0.0089	0.0075
Venus	-25654-10-14 11:02 J	-7648414.14	-7648414.04	-7648413.91	0.0089	0.0076
Venus	-25653-05-27 00:28 J	-7648188.59	-7648188.48	-7648188.37	0.0089	0.0077
Venus	-25652-01-07 13:11 J	-7647963.03	-7647962.95	-7647962.82	0.0089	0.0078
Venus	-25652-08-21 02:09 J	-7647737.48	-7647737.41	-7647737.29	0.0089	0.0080

Venus	-25651-04-03 15:21 J	-7647511.94	-7647511.86	-7647511.75	0.0089	0.0080
Venus	-25651-11-15 04:19 J	-7647286.39	-7647286.32	-7647286.22	0.0089	0.0082
Venus	-25650-06-28 17:16 J	-7647060.84	-7647060.78	-7647060.68	0.0089	0.0083
Venus	-25649-02-09 06:28 J	-7646835.29	-7646835.23	-7646835.14	0.0089	0.0083
Venus	-25649-09-21 19:11 J	-7646609.75	-7646609.70	-7646609.61	0.0089	0.0085
Venus	-25648-05-05 07:55 J	-7646384.21	-7646384.17	-7646384.08	0.0089	0.0086
Venus	-25648-12-16 20:52 J	-7646158.66	-7646158.63	-7646158.55	0.0089	0.0086
Venus	-25647-07-30 09:35 J	-7645933.12	-7645933.10	-7645933.03	0.0089	0.0087
Venus	-25646-03-12 22:47 J	-7645707.58	-7645707.55	-7645707.50	0.0089	0.0088
Venus	-25646-10-24 11:16 J	-7645482.04	-7645482.03	-7645481.98	0.0089	0.0089
Venus	-25645-06-06 00:14 J	-7645256.49	-7645256.49	-7645256.46	0.0089	0.0089
Earth	-25643-04-16 17:31 J	-7644576.87	-7644576.77	-7644576.64	0.0089	0.0080
Moon	-25643-04-16 20:09 J	-7644576.77	-7644576.66	-7644576.50	0.0089	0.0076 *
Moon	-25642-04-19 01:26 J	-7644209.67	-7644209.44	-7644209.21	0.0089	0.0040
Earth	-25642-04-19 04:33 J	-7644209.54	-7644209.31	-7644209.08	0.0089	0.0036 *
Earth	-25641-04-20 14:52 J	-7643842.13	-7643841.88	-7643841.62	0.0089	0.0008
Moon	-25641-04-20 18:28 J	-7643841.97	-7643841.73	-7643841.47	0.0089	0.0012 *
Moon	-25640-04-22 22:19 J	-7643474.76	-7643474.57	-7643474.34	0.0089	0.0048
Earth	-25640-04-23 01:40 J	-7643474.63	-7643474.43	-7643474.21	0.0089	0.0052 *
Venus	-25631-08-19 03:50 J	-7640069.34	-7640069.34	-7640069.34	0.0089	0.0089
Venus	-25630-04-01 16:04 J	-7639843.84	-7639843.83	-7639843.79	0.0089	0.0089
Venus	-25630-11-13 04:19 J	-7639618.33	-7639618.32	-7639618.26	0.0089	0.0088
Venus	-25629-06-25 16:47 J	-7639392.82	-7639392.80	-7639392.74	0.0089	0.0088
Venus	-25628-02-06 05:31 J	-7639167.31	-7639167.27	-7639167.21	0.0089	0.0087
Mercury	-25628-07-06 14:09 J	-7639016.92	-7639016.91	-7639016.90	0.0089	0.0089
Venus	-25628-09-19 18:14 J	-7638941.79	-7638941.74	-7638941.68	0.0089	0.0086
Mercury	-25628-10-02 15:21 J	-7638928.90	-7638928.86	-7638928.80	0.0089	0.0082
Mercury	-25628-12-29 16:47 J	-7638840.86	-7638840.80	-7638840.72	0.0089	0.0075
Mercury	-25627-03-27 18:14 J	-7638752.82	-7638752.74	-7638752.65	0.0089	0.0068
Venus	-25627-05-03 06:14 J	-7638716.28	-7638716.24	-7638716.15	0.0089	0.0085

Mars	-25627-06-21 22:19 J	-7638666.80	-7638666.57	-7638666.28	0.0089	0.0056
Mercury	-25627-06-23 19:40 J	-7638664.77	-7638664.68	-7638664.58	0.0089	0.0061
Mercury	-25627-09-19 21:07 J	-7638576.72	-7638576.62	-7638576.51	0.0089	0.0055
Venus	-25627-12-14 18:43 J	-7638490.77	-7638490.72	-7638490.63	0.0089	0.0084
Mercury	-25627-12-16 22:33 J	-7638488.67	-7638488.56	-7638488.44	0.0089	0.0048
Mercury	-25626-03-14 23:59 J	-7638400.62	-7638400.50	-7638400.38	0.0089	0.0041
Mercury	-25626-06-11 01:26 J	-7638312.56	-7638312.44	-7638312.31	0.0089	0.0034
Venus	-25626-07-28 07:11 J	-7638265.25	-7638265.20	-7638265.10	0.0089	0.0084
Mercury	-25626-09-07 02:52 J	-7638224.51	-7638224.38	-7638224.25	0.0089	0.0027
Mercury	-25626-12-04 04:19 J	-7638136.45	-7638136.32	-7638136.19	0.0089	0.0020
Mercury	-25625-03-01 05:45 J	-7638048.39	-7638048.26	-7638048.13	0.0089	0.0013
Venus	-25625-03-09 19:40 J	-7638039.74	-7638039.68	-7638039.57	0.0089	0.0083
Mars	-25625-05-17 15:07 J	-7637971.19	-7637970.87	-7637970.55	0.0089	0.0011
Mercury	-25625-05-28 07:11 J	-7637960.34	-7637960.20	-7637960.07	0.0089	0.0006
Mercury	-25625-08-24 08:38 J	-7637872.28	-7637872.14	-7637872.01	0.0089	0.0001
Venus	-25625-10-21 08:09 J	-7637814.22	-7637814.16	-7637814.05	0.0089	0.0082
Mercury	-25625-11-20 10:04 J	-7637784.22	-7637784.08	-7637783.95	0.0089	0.0008
Mercury	-25624-02-16 11:31 J	-7637696.16	-7637696.02	-7637695.89	0.0089	0.0015
Mercury	-25624-05-15 12:57 J	-7637608.09	-7637607.96	-7637607.83	0.0089	0.0022
Venus	-25624-06-03 20:23 J	-7637588.72	-7637588.65	-7637588.53	0.0089	0.0081
Mercury	-25624-08-11 14:23 J	-7637520.03	-7637519.90	-7637519.77	0.0089	0.0029
Mercury	-25624-11-07 15:50 J	-7637431.97	-7637431.84	-7637431.72	0.0089	0.0036
Venus	-25623-01-15 08:52 J	-7637363.21	-7637363.13	-7637363.01	0.0089	0.0079
Mercury	-25623-02-03 17:16 J	-7637343.90	-7637343.78	-7637343.66	0.0089	0.0044
Mars	-25623-04-13 04:33 J	-7637275.48	-7637275.31	-7637275.13	0.0089	0.0076
Mercury	-25623-05-02 18:43 J	-7637255.83	-7637255.72	-7637255.61	0.0089	0.0051
Mercury	-25623-07-29 20:09 J	-7637167.76	-7637167.66	-7637167.56	0.0089	0.0058
Venus	-25623-08-28 21:07 J	-7637137.70	-7637137.62	-7637137.49	0.0089	0.0079
Mercury	-25623-10-25 21:21 J	-7637079.69	-7637079.61	-7637079.51	0.0089	0.0065
Mercury	-25622-01-21 22:47 J	-7636991.62	-7636991.55	-7636991.46	0.0089	0.0072

Venus	-25622-04-11 10:04 J	-7636912.18	-7636912.08	-7636911.96	0.0089	0.0077
Mercury	-25622-04-20 00:14 J	-7636903.54	-7636903.49	-7636903.41	0.0089	0.0080
Mercury	-25622-07-17 01:55 J	-7636815.45	-7636815.42	-7636815.38	0.0089	0.0086
Venus	-25622-11-22 22:19 J	-7636686.67	-7636686.57	-7636686.45	0.0089	0.0075
Venus	-25621-07-05 10:19 J	-7636461.17	-7636461.07	-7636460.93	0.0089	0.0075
Venus	-25620-02-15 22:33 J	-7636235.66	-7636235.56	-7636235.41	0.0089	0.0073
Venus	-25620-09-29 11:16 J	-7636010.15	-7636010.03	-7636009.89	0.0089	0.0071
Venus	-25619-05-12 23:16 J	-7635784.64	-7635784.53	-7635784.38	0.0089	0.0071
Venus	-25619-12-24 11:59 J	-7635559.13	-7635559.00	-7635558.86	0.0089	0.0069
Venus	-25618-08-06 23:59 J	-7635333.62	-7635333.50	-7635333.34	0.0089	0.0067
Venus	-25617-03-19 12:43 J	-7635108.11	-7635107.97	-7635107.82	0.0089	0.0066
Venus	-25617-10-31 00:43 J	-7634882.60	-7634882.47	-7634882.30	0.0089	0.0064
Venus	-25616-06-13 13:11 J	-7634657.09	-7634656.95	-7634656.79	0.0089	0.0063
Venus	-25615-01-25 01:11 J	-7634431.59	-7634431.45	-7634431.27	0.0089	0.0061
Venus	-25615-09-07 13:40 J	-7634206.07	-7634205.93	-7634205.75	0.0089	0.0060
Venus	-25614-04-21 02:23 J	-7633980.56	-7633980.40	-7633980.23	0.0089	0.0058
Venus	-25614-12-02 14:23 J	-7633755.05	-7633754.90	-7633754.71	0.0089	0.0056
Venus	-25613-07-15 02:52 J	-7633529.54	-7633529.38	-7633529.20	0.0089	0.0054
Venus	-25612-02-25 15:21 J	-7633304.03	-7633303.86	-7633303.68	0.0089	0.0052
Venus	-25612-10-09 03:35 J	-7633078.52	-7633078.35	-7633078.16	0.0089	0.0051
Venus	-25611-05-22 15:35 J	-7632853.01	-7632852.85	-7632852.65	0.0089	0.0049
Venus	-25610-01-03 04:04 J	-7632627.50	-7632627.33	-7632627.13	0.0089	0.0047
Venus	-25610-08-16 16:19 J	-7632401.99	-7632401.82	-7632401.62	0.0089	0.0045
Venus	-25609-03-29 04:47 J	-7632176.48	-7632176.30	-7632176.10	0.0089	0.0043
Venus	-25609-11-09 17:02 J	-7631950.97	-7631950.79	-7631950.59	0.0089	0.0041
Venus	-25608-06-23 05:16 J	-7631725.46	-7631725.28	-7631725.08	0.0089	0.0039
Venus	-25607-02-03 17:45 J	-7631499.95	-7631499.76	-7631499.56	0.0089	0.0037
Venus	-25607-09-17 05:59 J	-7631274.44	-7631274.25	-7631274.05	0.0089	0.0035
Venus	-25606-04-30 18:28 J	-7631048.93	-7631048.73	-7631048.53	0.0089	0.0033
Venus	-25606-12-12 06:43 J	-7630823.42	-7630823.22	-7630823.01	0.0089	0.0031

Venus	-25605-07-24 18:57 J	-7630597.91	-7630597.71	-7630597.50	0.0089	0.0029
Venus	-25604-03-07 07:11 J	-7630372.40	-7630372.20	-7630371.99	0.0089	0.0027
Venus	-25604-10-18 19:40 J	-7630146.89	-7630146.68	-7630146.47	0.0089	0.0025
Venus	-25603-06-01 07:55 J	-7629921.37	-7629921.17	-7629920.95	0.0089	0.0023
Venus	-25602-01-12 20:23 J	-7629695.85	-7629695.65	-7629695.43	0.0089	0.0021
Venus	-25602-08-26 08:38 J	-7629470.34	-7629470.14	-7629469.92	0.0089	0.0019
Venus	-25601-04-07 21:07 J	-7629244.82	-7629244.62	-7629244.40	0.0089	0.0017
Venus	-25601-11-19 09:35 J	-7629019.31	-7629019.10	-7629018.88	0.0089	0.0015
Venus	-25600-07-02 22:04 J	-7628793.79	-7628793.58	-7628793.36	0.0089	0.0012
Venus	-25599-02-13 10:19 J	-7628568.28	-7628568.07	-7628567.85	0.0089	0.0011
Venus	-25599-09-26 22:47 J	-7628342.76	-7628342.55	-7628342.33	0.0089	0.0008
Venus	-25598-05-10 11:31 J	-7628117.24	-7628117.02	-7628116.81	0.0089	0.0006
Venus	-25598-12-21 23:45 J	-7627891.72	-7627891.51	-7627891.29	0.0089	0.0004
Venus	-25597-08-03 12:14 J	-7627666.21	-7627665.99	-7627665.77	0.0089	0.0002
Venus	-25596-03-17 00:28 J	-7627440.69	-7627440.48	-7627440.26	0.0089	0.0001
Venus	-25596-10-28 12:57 J	-7627215.18	-7627214.96	-7627214.74	0.0089	0.0003
Venus	-25595-06-11 01:26 J	-7626989.65	-7626989.44	-7626989.22	0.0089	0.0005
Venus	-25594-01-22 13:55 J	-7626764.14	-7626763.92	-7626763.70	0.0089	0.0007
Venus	-25594-09-05 02:23 J	-7626538.62	-7626538.40	-7626538.19	0.0089	0.0009
Venus	-25593-04-17 14:38 J	-7626313.10	-7626312.89	-7626312.67	0.0089	0.0011
Venus	-25593-11-29 03:07 J	-7626087.58	-7626087.37	-7626087.15	0.0089	0.0013
Venus	-25592-07-12 15:35 J	-7625862.06	-7625861.85	-7625861.63	0.0089	0.0015
Venus	-25591-02-23 04:04 J	-7625636.54	-7625636.33	-7625636.11	0.0089	0.0017
Venus	-25591-10-06 16:33 J	-7625411.02	-7625410.81	-7625410.59	0.0089	0.0020
Venus	-25590-05-20 05:16 J	-7625185.49	-7625185.28	-7625185.07	0.0089	0.0022
Venus	-25590-12-31 17:45 J	-7624959.96	-7624959.76	-7624959.54	0.0089	0.0024
Venus	-25589-08-13 06:14 J	-7624734.44	-7624734.24	-7624734.02	0.0088	0.0026
Venus	-25588-03-26 18:57 J	-7624508.92	-7624508.71	-7624508.50	0.0088	0.0028
Venus	-25588-11-07 07:26 J	-7624283.39	-7624283.19	-7624282.98	0.0088	0.0030
Venus	-25587-06-20 20:09 J	-7624057.86	-7624057.66	-7624057.45	0.0088	0.0032

Venus	-25586-02-01 08:52 J	-7623832.33	-7623832.13	-7623831.92	0.0088	0.0034
Venus	-25586-09-14 21:21 J	-7623606.80	-7623606.61	-7623606.40	0.0088	0.0036
Venus	-25585-04-27 10:04 J	-7623381.27	-7623381.08	-7623380.88	0.0088	0.0038
Venus	-25585-12-08 22:33 J	-7623155.75	-7623155.56	-7623155.36	0.0088	0.0040
Venus	-25584-07-22 11:16 J	-7622930.22	-7622930.03	-7622929.83	0.0088	0.0042
Venus	-25583-03-04 23:45 J	-7622704.69	-7622704.51	-7622704.31	0.0088	0.0044
Venus	-25583-10-16 12:14 J	-7622479.16	-7622478.99	-7622478.78	0.0088	0.0046
Venus	-25582-05-30 00:57 J	-7622253.63	-7622253.46	-7622253.26	0.0088	0.0048
Venus	-25581-01-10 13:40 J	-7622028.09	-7622027.93	-7622027.73	0.0088	0.0049
Venus	-25581-08-23 02:38 J	-7621802.57	-7621802.39	-7621802.21	0.0088	0.0051
Venus	-25580-04-05 15:07 J	-7621577.04	-7621576.87	-7621576.68	0.0088	0.0053
Venus	-25580-11-17 03:35 J	-7621351.50	-7621351.35	-7621351.16	0.0088	0.0055
Venus	-25579-06-30 16:33 J	-7621125.96	-7621125.81	-7621125.62	0.0088	0.0056
Venus	-25578-02-11 05:45 J	-7620900.42	-7620900.26	-7620900.09	0.0088	0.0058
Venus	-25578-09-24 18:14 J	-7620674.89	-7620674.74	-7620674.56	0.0088	0.0060
Venus	-25577-05-07 06:57 J	-7620449.35	-7620449.21	-7620449.03	0.0088	0.0061
Venus	-25577-12-18 19:55 J	-7620223.81	-7620223.67	-7620223.50	0.0088	0.0063
Venus	-25576-08-01 08:38 J	-7619998.27	-7619998.14	-7619997.97	0.0088	0.0065
Venus	-25575-03-14 21:50 J	-7619772.73	-7619772.59	-7619772.44	0.0088	0.0066
Venus	-25575-10-26 10:33 J	-7619547.19	-7619547.06	-7619546.90	0.0088	0.0067
Venus	-25574-06-08 23:45 J	-7619321.64	-7619321.51	-7619321.36	0.0088	0.0068
Venus	-25573-01-20 12:14 J	-7619096.10	-7619095.99	-7619095.83	0.0088	0.0071
Venus	-25573-09-02 01:26 J	-7618870.55	-7618870.44	-7618870.30	0.0088	0.0071
Venus	-25572-04-15 14:23 J	-7618645.01	-7618644.90	-7618644.77	0.0088	0.0073
Venus	-25572-11-27 03:07 J	-7618419.47	-7618419.37	-7618419.23	0.0088	0.0074
Venus	-25571-07-10 16:19 J	-7618193.92	-7618193.82	-7618193.69	0.0088	0.0075
Venus	-25570-02-21 05:16 J	-7617968.37	-7617968.28	-7617968.15	0.0088	0.0077
Venus	-25570-10-04 18:28 J	-7617742.83	-7617742.73	-7617742.62	0.0088	0.0077
Venus	-25569-05-17 07:26 J	-7617517.28	-7617517.19	-7617517.09	0.0088	0.0079
Venus	-25569-12-28 19:55 J	-7617291.73	-7617291.67	-7617291.55	0.0088	0.0080

Venus	-25568-08-11 09:07 J	-7617066.18	-7617066.12	-7617066.01	0.0088	0.0081
Venus	-25567-03-24 22:04 J	-7616840.63	-7616840.58	-7616840.47	0.0088	0.0083
Venus	-25567-11-05 11:16 J	-7616615.08	-7616615.03	-7616614.93	0.0088	0.0083
Venus	-25566-06-19 00:57 J	-7616389.52	-7616389.46	-7616389.39	0.0088	0.0084
Venus	-25565-01-30 13:55 J	-7616163.97	-7616163.92	-7616163.85	0.0088	0.0084
Venus	-25565-09-12 02:52 J	-7615938.41	-7615938.38	-7615938.31	0.0088	0.0086
Venus	-25564-04-25 16:04 J	-7615712.86	-7615712.83	-7615712.77	0.0088	0.0086
Venus	-25564-12-07 05:02 J	-7615487.30	-7615487.29	-7615487.23	0.0088	0.0087
Venus	-25563-07-20 18:57 J	-7615261.73	-7615261.71	-7615261.68	0.0088	0.0087
Venus	-25562-03-03 08:23 J	-7615036.15	-7615036.15	-7615036.14	0.0088	0.0088
Moon	-25561-10-17 00:28 J	-7614442.68	-7614442.48	-7614442.27	0.0088	0.0055
Earth	-25561-10-17 03:35 J	-7614442.52	-7614442.35	-7614442.14	0.0088	0.0060 *
Earth	-25560-10-19 16:19 J	-7614075.07	-7614074.82	-7614074.55	0.0088	0.0017
Moon	-25560-10-19 20:09 J	-7614074.91	-7614074.66	-7614074.40	0.0088	0.0021 *
Moon	-25559-10-22 01:26 J	-7613707.67	-7613707.44	-7613707.18	0.0088	0.0031
Earth	-25559-10-22 05:02 J	-7613707.53	-7613707.29	-7613707.03	0.0088	0.0026 *
Earth	-25558-10-24 17:45 J	-7613339.92	-7613339.76	-7613339.60	0.0088	0.0069
Moon	-25558-10-24 20:23 J	-7613339.80	-7613339.65	-7613339.44	0.0088	0.0065 *
Jupiter	-25550-05-11 13:40 J	-7610584.29	-7610583.93	-7610583.50	0.0088	0.0062
Venus	-25547-08-10 07:55 J	-7609397.17	-7609397.17	-7609397.14	0.0088	0.0088
Venus	-25546-03-23 21:21 J	-7609171.62	-7609171.61	-7609171.56	0.0088	0.0087
Venus	-25546-11-04 11:16 J	-7608946.06	-7608946.03	-7608945.99	0.0088	0.0086
Mars	-25545-03-16 01:26 J	-7608813.57	-7608813.44	-7608813.24	0.0088	0.0074
Venus	-25545-06-17 00:14 J	-7608720.51	-7608720.49	-7608720.41	0.0088	0.0086
Venus	-25544-01-28 13:55 J	-7608494.95	-7608494.92	-7608494.84	0.0088	0.0085
Mercury	-25544-03-23 14:09 J	-7608440.97	-7608440.91	-7608440.81	0.0088	0.0079
Mercury	-25544-06-19 17:59 J	-7608352.87	-7608352.75	-7608352.64	0.0088	0.0070
Venus	-25544-09-11 03:50 J	-7608269.39	-7608269.34	-7608269.26	0.0088	0.0084
Mercury	-25544-09-15 21:07 J	-7608264.75	-7608264.62	-7608264.47	0.0088	0.0060
Mercury	-25544-12-13 00:14 J	-7608176.63	-7608176.49	-7608176.32	0.0088	0.0051

Mars	-25543-02-08 05:16 J	-7608119.58	-7608119.28	-7608118.99	0.0088	0.0017
Mercury	-25543-03-11 03:50 J	-7608088.50	-7608088.34	-7608088.16	0.0088	0.0041
Venus	-25543-04-24 17:31 J	-7608043.83	-7608043.77	-7608043.69	0.0088	0.0083
Mercury	-25543-06-07 07:11 J	-7608000.37	-7608000.20	-7608000.02	0.0088	0.0032
Mercury	-25543-09-03 10:33 J	-7607912.24	-7607912.06	-7607911.87	0.0088	0.0023
Mercury	-25543-11-30 13:55 J	-7607824.10	-7607823.92	-7607823.73	0.0088	0.0013
Venus	-25543-12-06 07:11 J	-7607818.27	-7607818.20	-7607818.11	0.0088	0.0082
Mercury	-25542-02-26 17:16 J	-7607735.97	-7607735.78	-7607735.59	0.0088	0.0004
Mercury	-25542-05-25 20:38 J	-7607647.83	-7607647.64	-7607647.45	0.0088	0.0006
Venus	-25542-07-19 20:38 J	-7607592.71	-7607592.64	-7607592.54	0.0088	0.0082
Mercury	-25542-08-21 23:45 J	-7607559.69	-7607559.51	-7607559.32	0.0088	0.0015
Mercury	-25542-11-18 03:07 J	-7607471.55	-7607471.37	-7607471.19	0.0088	0.0024
Mars	-25541-01-03 08:23 J	-7607425.41	-7607425.15	-7607424.87	0.0088	0.0041
Mercury	-25541-02-14 06:28 J	-7607383.41	-7607383.23	-7607383.06	0.0088	0.0034
Venus	-25541-03-01 10:19 J	-7607367.15	-7607367.07	-7607366.97	0.0088	0.0081
Mercury	-25541-05-12 09:21 J	-7607295.26	-7607295.11	-7607294.93	0.0088	0.0043
Mercury	-25541-08-08 12:43 J	-7607207.11	-7607206.97	-7607206.81	0.0088	0.0052
Venus	-25541-10-12 23:59 J	-7607141.58	-7607141.50	-7607141.39	0.0088	0.0079
Mercury	-25541-11-04 15:50 J	-7607118.96	-7607118.84	-7607118.69	0.0088	0.0061
Mercury	-25540-01-31 19:11 J	-7607030.80	-7607030.70	-7607030.58	0.0088	0.0070
Mercury	-25540-04-29 22:33 J	-7606942.64	-7606942.56	-7606942.48	0.0088	0.0079
Venus	-25540-05-26 13:40 J	-7606916.02	-7606915.93	-7606915.81	0.0088	0.0078
Venus	-25539-01-07 03:07 J	-7606690.45	-7606690.37	-7606690.24	0.0088	0.0078
Venus	-25539-08-20 16:47 J	-7606464.88	-7606464.80	-7606464.66	0.0088	0.0077
Venus	-25538-04-03 07:11 J	-7606239.32	-7606239.20	-7606239.08	0.0088	0.0075
Venus	-25538-11-14 20:38 J	-7606013.75	-7606013.64	-7606013.50	0.0088	0.0073
Venus	-25537-06-27 10:04 J	-7605788.18	-7605788.08	-7605787.93	0.0088	0.0073
Venus	-25536-02-08 00:14 J	-7605562.61	-7605562.49	-7605562.35	0.0088	0.0071
Venus	-25536-09-21 13:55 J	-7605337.04	-7605336.92	-7605336.76	0.0088	0.0069
Venus	-25535-05-05 03:35 J	-7605111.47	-7605111.35	-7605111.19	0.0088	0.0068

Venus	-25535-12-16 17:31 J	-7604885.90	-7604885.77	-7604885.61	0.0088	0.0066
Venus	-25534-07-30 06:57 J	-7604660.34	-7604660.21	-7604660.03	0.0088	0.0065
Venus	-25533-03-11 20:52 J	-7604434.77	-7604434.63	-7604434.46	0.0088	0.0064
Venus	-25533-10-23 11:02 J	-7604209.20	-7604209.04	-7604208.88	0.0088	0.0062
Venus	-25532-06-06 00:14 J	-7603983.63	-7603983.49	-7603983.30	0.0088	0.0061
Venus	-25531-01-17 14:09 J	-7603758.06	-7603757.91	-7603757.73	0.0088	0.0059
Venus	-25531-08-31 04:04 J	-7603532.49	-7603532.33	-7603532.15	0.0088	0.0057
Venus	-25530-04-13 17:31 J	-7603306.93	-7603306.77	-7603306.57	0.0088	0.0056
Venus	-25530-11-25 07:26 J	-7603081.36	-7603081.19	-7603081.00	0.0088	0.0053
Venus	-25529-07-07 21:07 J	-7602855.79	-7602855.62	-7602855.42	0.0088	0.0052
Venus	-25528-02-18 11:02 J	-7602630.22	-7602630.04	-7602629.85	0.0088	0.0050
Venus	-25528-10-02 00:28 J	-7602404.64	-7602404.48	-7602404.27	0.0088	0.0049
Venus	-25527-05-15 14:23 J	-7602179.07	-7602178.90	-7602178.69	0.0088	0.0047
Venus	-25527-12-27 04:19 J	-7601953.50	-7601953.32	-7601953.11	0.0088	0.0044
Venus	-25526-08-09 17:59 J	-7601727.93	-7601727.75	-7601727.54	0.0088	0.0043
Venus	-25525-03-22 07:55 J	-7601502.36	-7601502.17	-7601501.96	0.0088	0.0040
Venus	-25525-11-02 21:50 J	-7601276.78	-7601276.59	-7601276.38	0.0088	0.0039
Venus	-25524-06-16 11:31 J	-7601051.21	-7601051.02	-7601050.80	0.0088	0.0037
Venus	-25523-01-28 01:26 J	-7600825.64	-7600825.44	-7600825.22	0.0088	0.0035
Venus	-25523-09-10 15:07 J	-7600600.07	-7600599.87	-7600599.65	0.0088	0.0033
Venus	-25522-04-24 05:02 J	-7600374.49	-7600374.29	-7600374.07	0.0088	0.0030
Venus	-25522-12-05 18:43 J	-7600148.92	-7600148.72	-7600148.49	0.0088	0.0029
Venus	-25521-07-18 08:23 J	-7599923.35	-7599923.15	-7599922.92	0.0088	0.0027
Venus	-25520-02-28 22:04 J	-7599697.78	-7599697.58	-7599697.35	0.0088	0.0025
Venus	-25520-10-12 11:59 J	-7599472.21	-7599472.00	-7599471.77	0.0089	0.0022
Venus	-25519-05-26 01:40 J	-7599246.64	-7599246.43	-7599246.20	0.0089	0.0020
Venus	-25518-01-06 15:35 J	-7599021.07	-7599020.85	-7599020.63	0.0089	0.0018
Venus	-25518-08-20 05:16 J	-7598795.50	-7598795.28	-7598795.06	0.0089	0.0016
Venus	-25517-04-01 18:43 J	-7598569.94	-7598569.72	-7598569.49	0.0089	0.0014
Venus	-25517-11-13 08:38 J	-7598344.36	-7598344.14	-7598343.92	0.0089	0.0012

Venus	-25516-06-26 22:19 J	-7598118.79	-7598118.57	-7598118.35	0.0089	0.0010
Venus	-25515-02-07 11:45 J	-7597893.23	-7597893.01	-7597892.78	0.0089	0.0008
Venus	-25515-09-21 01:26 J	-7597667.66	-7597667.44	-7597667.21	0.0089	0.0005
Venus	-25514-05-04 15:07 J	-7597442.09	-7597441.87	-7597441.64	0.0089	0.0004
Venus	-25514-12-16 05:02 J	-7597216.52	-7597216.29	-7597216.07	0.0089	0.0001
Venus	-25513-07-28 18:28 J	-7596990.95	-7596990.73	-7596990.50	0.0089	0.0002
Venus	-25512-03-11 08:09 J	-7596765.38	-7596765.16	-7596764.93	0.0089	0.0004
Venus	-25512-10-22 21:50 J	-7596539.81	-7596539.59	-7596539.36	0.0089	0.0006
Venus	-25511-06-05 11:31 J	-7596314.24	-7596314.02	-7596313.79	0.0089	0.0008
Venus	-25510-01-17 01:11 J	-7596088.67	-7596088.45	-7596088.23	0.0089	0.0010
Venus	-25510-08-30 14:38 J	-7595863.10	-7595862.89	-7595862.66	0.0089	0.0012
Venus	-25509-04-12 04:19 J	-7595637.54	-7595637.32	-7595637.10	0.0089	0.0014
Venus	-25509-11-23 17:59 J	-7595411.97	-7595411.75	-7595411.53	0.0089	0.0016
Venus	-25508-07-07 07:40 J	-7595186.40	-7595186.18	-7595185.97	0.0089	0.0018
Venus	-25507-02-17 21:07 J	-7594960.84	-7594960.62	-7594960.41	0.0089	0.0020
Venus	-25507-10-01 10:04 J	-7594735.28	-7594735.08	-7594734.85	0.0089	0.0023
Venus	-25506-05-14 23:45 J	-7594509.72	-7594509.51	-7594509.29	0.0089	0.0025
Venus	-25506-12-26 13:11 J	-7594284.15	-7594283.95	-7594283.73	0.0089	0.0027
Venus	-25505-08-08 02:38 J	-7594058.59	-7594058.39	-7594058.17	0.0089	0.0029
Venus	-25504-03-21 15:50 J	-7593833.03	-7593832.84	-7593832.61	0.0089	0.0031
Venus	-25504-11-02 05:16 J	-7593607.47	-7593607.28	-7593607.05	0.0089	0.0033
Venus	-25503-06-15 18:43 J	-7593381.90	-7593381.72	-7593381.50	0.0089	0.0035
Venus	-25502-01-27 08:38 J	-7593156.34	-7593156.14	-7593155.94	0.0089	0.0036
Venus	-25502-09-09 21:50 J	-7592930.78	-7592930.59	-7592930.38	0.0089	0.0038
Venus	-25501-04-22 11:16 J	-7592705.22	-7592705.03	-7592704.83	0.0089	0.0040
Venus	-25501-12-04 00:43 J	-7592479.66	-7592479.47	-7592479.27	0.0089	0.0042
Venus	-25500-07-17 13:55 J	-7592254.10	-7592253.92	-7592253.71	0.0089	0.0044
Venus	-25499-02-28 03:21 J	-7592028.54	-7592028.36	-7592028.16	0.0089	0.0046
Venus	-25499-10-11 16:33 J	-7591802.98	-7591802.81	-7591802.61	0.0089	0.0048
Venus	-25498-05-25 06:14 J	-7591577.42	-7591577.24	-7591577.05	0.0089	0.0049

Venus	-25497-01-05 19:26 J	-7591351.85	-7591351.69	-7591351.49	0.0089	0.0051
Venus	-25497-08-18 08:38 J	-7591126.30	-7591126.14	-7591125.94	0.0089	0.0053
Venus	-25496-03-31 22:19 J	-7590900.74	-7590900.57	-7590900.40	0.0089	0.0054
Venus	-25496-11-12 11:16 J	-7590675.19	-7590675.03	-7590674.85	0.0089	0.0056
Venus	-25495-06-26 00:14 J	-7590449.63	-7590449.49	-7590449.30	0.0089	0.0059
Venus	-25494-02-06 13:55 J	-7590224.07	-7590223.92	-7590223.75	0.0089	0.0059
Venus	-25494-09-20 02:38 J	-7589998.52	-7589998.39	-7589998.20	0.0089	0.0062
Venus	-25493-05-02 16:04 J	-7589772.97	-7589772.83	-7589772.66	0.0089	0.0062
Venus	-25493-12-14 05:02 J	-7589547.42	-7589547.29	-7589547.11	0.0089	0.0064
Venus	-25492-07-27 18:14 J	-7589321.87	-7589321.74	-7589321.57	0.0089	0.0066
Venus	-25491-03-10 07:40 J	-7589096.32	-7589096.18	-7589096.03	0.0089	0.0067
Venus	-25491-10-21 20:23 J	-7588870.77	-7588870.65	-7588870.49	0.0089	0.0068
Venus	-25490-06-04 09:35 J	-7588645.22	-7588645.10	-7588644.95	0.0089	0.0069
Venus	-25489-01-15 23:02 J	-7588419.67	-7588419.54	-7588419.40	0.0089	0.0070
Venus	-25489-08-28 12:14 J	-7588194.12	-7588193.99	-7588193.86	0.0089	0.0072
Venus	-25488-04-11 00:43 J	-7587968.57	-7587968.47	-7587968.32	0.0089	0.0073
Venus	-25488-11-22 13:55 J	-7587743.02	-7587742.92	-7587742.78	0.0089	0.0074
Venus	-25487-07-06 02:52 J	-7587517.47	-7587517.38	-7587517.24	0.0089	0.0076
Venus	-25486-02-16 16:04 J	-7587291.92	-7587291.83	-7587291.70	0.0089	0.0077
Venus	-25486-09-30 05:02 J	-7587066.37	-7587066.29	-7587066.16	0.0089	0.0078
Venus	-25485-05-12 17:59 J	-7586840.83	-7586840.75	-7586840.62	0.0089	0.0079
Venus	-25485-12-24 06:57 J	-7586615.28	-7586615.21	-7586615.08	0.0089	0.0080
Venus	-25484-08-06 19:55 J	-7586389.74	-7586389.67	-7586389.55	0.0089	0.0081
Venus	-25483-03-20 09:21 J	-7586164.20	-7586164.11	-7586164.01	0.0089	0.0081
Venus	-25483-10-31 22:04 J	-7585938.66	-7585938.58	-7585938.48	0.0089	0.0082
Venus	-25482-06-14 10:47 J	-7585713.12	-7585713.05	-7585712.95	0.0089	0.0082
Venus	-25481-01-25 23:31 J	-7585487.57	-7585487.52	-7585487.42	0.0089	0.0083
Venus	-25481-09-07 12:43 J	-7585262.03	-7585261.97	-7585261.89	0.0089	0.0084
Venus	-25480-04-21 01:11 J	-7585036.50	-7585036.45	-7585036.36	0.0089	0.0084
Venus	-25480-12-02 14:09 J	-7584810.96	-7584810.91	-7584810.83	0.0089	0.0085

Venus	-25479-07-16 02:38 J	-7584585.43	-7584585.39	-7584585.30	0.0089	0.0086
Venus	-25478-02-26 15:50 J	-7584359.89	-7584359.84	-7584359.77	0.0089	0.0086
Earth	-25478-04-18 16:33 J	-7584309.00	-7584308.81	-7584308.61	0.0089	0.0057
Moon	-25478-04-18 19:55 J	-7584308.86	-7584308.67	-7584308.46	0.0089	0.0055 *
Venus	-25478-10-10 04:19 J	-7584134.35	-7584134.32	-7584134.24	0.0089	0.0086
Moon	-25477-04-19 23:59 J	-7583941.74	-7583941.50	-7583941.25	0.0089	0.0015
Earth	-25477-04-20 03:07 J	-7583941.61	-7583941.37	-7583941.11	0.0089	0.0014 *
Venus	-25477-05-22 17:02 J	-7583908.82	-7583908.79	-7583908.72	0.0089	0.0087
Venus	-25476-01-03 05:59 J	-7583683.29	-7583683.25	-7583683.19	0.0089	0.0087
Earth	-25476-04-22 13:55 J	-7583574.16	-7583573.92	-7583573.68	0.0089	0.0031
Moon	-25476-04-22 16:04 J	-7583574.06	-7583573.83	-7583573.58	0.0089	0.0033 *
Venus	-25476-08-16 18:14 J	-7583457.76	-7583457.74	-7583457.66	0.0089	0.0088
Venus	-25475-03-30 07:11 J	-7583232.22	-7583232.20	-7583232.13	0.0089	0.0087
Moon	-25475-04-24 23:02 J	-7583206.67	-7583206.54	-7583206.39	0.0089	0.0073
Earth	-25475-04-25 00:14 J	-7583206.61	-7583206.49	-7583206.34	0.0089	0.0075 *
Venus	-25475-11-10 19:55 J	-7583006.69	-7583006.67	-7583006.61	0.0089	0.0088
Venus	-25474-06-24 08:38 J	-7582781.16	-7582781.14	-7582781.08	0.0089	0.0088
Venus	-25473-02-04 21:21 J	-7582555.63	-7582555.61	-7582555.54	0.0089	0.0088
Venus	-25473-09-17 10:04 J	-7582330.10	-7582330.08	-7582330.02	0.0089	0.0088
Venus	-25472-04-30 22:47 J	-7582104.58	-7582104.55	-7582104.49	0.0089	0.0087
Venus	-25472-12-12 11:16 J	-7581879.05	-7581879.03	-7581878.96	0.0089	0.0088
Venus	-25471-07-25 23:45 J	-7581653.53	-7581653.51	-7581653.44	0.0089	0.0088
Venus	-25470-03-08 12:57 J	-7581428.00	-7581427.96	-7581427.90	0.0089	0.0087
Venus	-25470-10-20 01:26 J	-7581202.48	-7581202.44	-7581202.38	0.0089	0.0087
Venus	-25469-06-01 13:40 J	-7580976.96	-7580976.93	-7580976.86	0.0089	0.0087
Venus	-25468-01-13 01:55 J	-7580751.44	-7580751.42	-7580751.33	0.0089	0.0087
Venus	-25468-08-26 14:52 J	-7580525.93	-7580525.88	-7580525.81	0.0089	0.0086
Venus	-25467-04-09 03:07 J	-7580300.41	-7580300.37	-7580300.28	0.0089	0.0086
Venus	-25467-11-20 15:50 J	-7580074.89	-7580074.84	-7580074.76	0.0089	0.0085
Venus	-25466-07-04 04:04 J	-7579849.38	-7579849.33	-7579849.24	0.0089	0.0085

Venus	-25465-02-14 16:47 J	-7579623.86	-7579623.80	-7579623.71	0.0089	0.0084
Venus	-25465-09-27 05:02 J	-7579398.34	-7579398.29	-7579398.19	0.0089	0.0083
Venus	-25464-05-10 17:31 J	-7579172.83	-7579172.77	-7579172.67	0.0089	0.0083
Venus	-25464-12-22 05:59 J	-7578947.32	-7578947.25	-7578947.15	0.0089	0.0082
Mars	-25463-02-02 23:59 J	-7578904.53	-7578904.50	-7578904.39	0.0089	0.0088
Mercury	-25463-04-02 13:55 J	-7578845.95	-7578845.92	-7578845.87	0.0089	0.0085
Mercury	-25463-06-29 15:21 J	-7578757.91	-7578757.86	-7578757.79	0.0089	0.0078
Venus	-25463-08-04 18:43 J	-7578721.80	-7578721.72	-7578721.62	0.0089	0.0081
Mercury	-25463-09-25 16:47 J	-7578669.87	-7578669.80	-7578669.71	0.0089	0.0071
Mercury	-25463-12-22 18:14 J	-7578581.83	-7578581.74	-7578581.64	0.0089	0.0064
Venus	-25462-03-18 06:57 J	-7578496.28	-7578496.21	-7578496.09	0.0089	0.0080
Mercury	-25462-03-20 19:40 J	-7578493.78	-7578493.68	-7578493.57	0.0089	0.0057
Mercury	-25462-06-16 21:07 J	-7578405.73	-7578405.62	-7578405.51	0.0089	0.0050
Mercury	-25462-09-12 22:33 J	-7578317.68	-7578317.56	-7578317.44	0.0089	0.0044
Venus	-25462-10-29 19:26 J	-7578270.77	-7578270.69	-7578270.57	0.0089	0.0079
Mercury	-25462-12-09 23:59 J	-7578229.62	-7578229.50	-7578229.38	0.0089	0.0037
Mars	-25462-12-30 17:59 J	-7578209.07	-7578208.75	-7578208.43	0.0089	0.0021
Mercury	-25461-03-07 01:26 J	-7578141.57	-7578141.44	-7578141.31	0.0089	0.0030
Mercury	-25461-06-03 02:38 J	-7578053.51	-7578053.39	-7578053.25	0.0089	0.0023
Venus	-25461-06-11 07:55 J	-7578045.25	-7578045.17	-7578045.05	0.0089	0.0078
Mercury	-25461-08-30 04:04 J	-7577965.46	-7577965.33	-7577965.19	0.0089	0.0016
Mercury	-25461-11-26 05:31 J	-7577877.40	-7577877.27	-7577877.13	0.0089	0.0009
Venus	-25460-01-22 20:23 J	-7577819.74	-7577819.65	-7577819.53	0.0089	0.0077
Mercury	-25460-02-22 06:57 J	-7577789.34	-7577789.21	-7577789.07	0.0089	0.0004
Mercury	-25460-05-21 08:23 J	-7577701.28	-7577701.15	-7577701.01	0.0089	0.0006
Mercury	-25460-08-17 09:50 J	-7577613.22	-7577613.09	-7577612.95	0.0089	0.0013
Venus	-25460-09-05 08:52 J	-7577594.22	-7577594.13	-7577594.00	0.0089	0.0076
Mercury	-25460-11-13 11:16 J	-7577525.16	-7577525.03	-7577524.89	0.0089	0.0020
Mars	-25460-11-25 09:07 J	-7577513.38	-7577513.12	-7577512.82	0.0089	0.0045
Mercury	-25459-02-09 12:43 J	-7577437.10	-7577436.97	-7577436.84	0.0089	0.0027

Venus	-25459-04-18 21:21 J	-7577368.70	-7577368.61	-7577368.48	0.0089	0.0075
Mercury	-25459-05-08 14:09 J	-7577349.03	-7577348.91	-7577348.78	0.0089	0.0034
Mercury	-25459-08-04 15:35 J	-7577260.97	-7577260.85	-7577260.72	0.0089	0.0041
Mercury	-25459-10-31 17:02 J	-7577172.90	-7577172.79	-7577172.67	0.0089	0.0048
Venus	-25459-11-30 09:35 J	-7577143.19	-7577143.10	-7577142.96	0.0089	0.0075
Mercury	-25458-01-27 18:14 J	-7577084.83	-7577084.74	-7577084.62	0.0089	0.0056
Mercury	-25458-04-25 19:55 J	-7576996.76	-7576996.67	-7576996.57	0.0089	0.0062
Venus	-25458-07-13 22:04 J	-7576917.68	-7576917.58	-7576917.44	0.0089	0.0073
Mercury	-25458-07-22 21:21 J	-7576908.69	-7576908.61	-7576908.52	0.0089	0.0069
Mercury	-25458-10-18 22:47 J	-7576820.61	-7576820.55	-7576820.47	0.0089	0.0076
Mercury	-25457-01-15 00:14 J	-7576732.53	-7576732.49	-7576732.43	0.0089	0.0083
Venus	-25457-02-24 10:47 J	-7576692.17	-7576692.05	-7576691.91	0.0089	0.0072
Venus	-25457-10-06 23:02 J	-7576466.66	-7576466.54	-7576466.40	0.0089	0.0071
Venus	-25456-05-20 11:16 J	-7576241.15	-7576241.03	-7576240.88	0.0089	0.0070
Venus	-25456-12-31 23:31 J	-7576015.64	-7576015.52	-7576015.36	0.0089	0.0068
Venus	-25455-08-14 11:45 J	-7575790.13	-7575790.01	-7575789.85	0.0089	0.0067
Venus	-25454-03-28 00:28 J	-7575564.61	-7575564.48	-7575564.32	0.0089	0.0066
Venus	-25454-11-08 12:43 J	-7575339.10	-7575338.97	-7575338.81	0.0089	0.0064
Venus	-25453-06-21 00:43 J	-7575113.60	-7575113.47	-7575113.29	0.0089	0.0064
Venus	-25452-02-01 13:11 J	-7574888.09	-7574887.95	-7574887.78	0.0089	0.0062
Venus	-25452-09-15 01:26 J	-7574662.58	-7574662.44	-7574662.26	0.0089	0.0060
Venus	-25451-04-28 14:09 J	-7574437.06	-7574436.91	-7574436.74	0.0089	0.0058
Venus	-25451-12-10 02:09 J	-7574211.55	-7574211.41	-7574211.22	0.0089	0.0057
Venus	-25450-07-23 14:38 J	-7573986.04	-7573985.89	-7573985.71	0.0089	0.0055
Venus	-25449-03-05 03:07 J	-7573760.53	-7573760.37	-7573760.19	0.0089	0.0054
Venus	-25449-10-16 15:21 J	-7573535.02	-7573534.86	-7573534.67	0.0089	0.0052
Venus	-25448-05-30 03:50 J	-7573309.51	-7573309.34	-7573309.15	0.0089	0.0050
Venus	-25447-01-10 16:19 J	-7573084.00	-7573083.82	-7573083.64	0.0089	0.0048
Venus	-25447-08-24 04:19 J	-7572858.49	-7572858.32	-7572858.12	0.0089	0.0047
Venus	-25446-04-06 17:02 J	-7572632.97	-7572632.79	-7572632.60	0.0089	0.0045

Venus	-25446-11-18 05:16 J	-7572407.46	-7572407.28	-7572407.08	0.0089	0.0044
Venus	-25445-06-30 17:16 J	-7572181.95	-7572181.78	-7572181.57	0.0089	0.0042
Venus	-25444-02-11 05:45 J	-7571956.44	-7571956.26	-7571956.06	0.0089	0.0040
Venus	-25444-09-24 17:59 J	-7571730.93	-7571730.75	-7571730.54	0.0089	0.0038
Venus	-25443-05-08 06:28 J	-7571505.41	-7571505.23	-7571505.02	0.0089	0.0036
Venus	-25443-12-19 18:57 J	-7571279.90	-7571279.71	-7571279.51	0.0089	0.0034
Venus	-25442-08-02 06:57 J	-7571054.40	-7571054.21	-7571054.00	0.0089	0.0033
Venus	-25441-03-14 19:11 J	-7570828.89	-7570828.70	-7570828.48	0.0089	0.0031
Venus	-25441-10-26 07:40 J	-7570603.38	-7570603.18	-7570602.97	0.0089	0.0029
Venus	-25440-06-08 19:55 J	-7570377.87	-7570377.67	-7570377.45	0.0089	0.0027
Venus	-25439-01-20 08:09 J	-7570152.35	-7570152.16	-7570151.94	0.0089	0.0025
Venus	-25439-09-02 20:38 J	-7569926.84	-7569926.64	-7569926.43	0.0089	0.0023
Venus	-25438-04-16 09:07 J	-7569701.33	-7569701.12	-7569700.91	0.0089	0.0021
Venus	-25438-11-27 21:21 J	-7569475.81	-7569475.61	-7569475.39	0.0089	0.0019
Venus	-25437-07-10 09:50 J	-7569250.30	-7569250.09	-7569249.88	0.0089	0.0017
Venus	-25436-02-20 22:04 J	-7569024.79	-7569024.58	-7569024.36	0.0089	0.0015
Venus	-25436-10-04 10:33 J	-7568799.27	-7568799.06	-7568798.85	0.0089	0.0013
Venus	-25435-05-17 23:02 J	-7568573.75	-7568573.54	-7568573.32	0.0089	0.0011
Venus	-25435-12-29 11:31 J	-7568348.23	-7568348.02	-7568347.80	0.0089	0.0009
Venus	-25434-08-11 23:59 J	-7568122.72	-7568122.50	-7568122.29	0.0089	0.0007
Venus	-25433-03-24 12:14 J	-7567897.21	-7567896.99	-7567896.77	0.0089	0.0005
Venus	-25433-11-05 00:43 J	-7567671.69	-7567671.47	-7567671.26	0.0089	0.0003
Venus	-25432-06-18 13:11 J	-7567446.17	-7567445.95	-7567445.74	0.0089	0.0001
Venus	-25431-01-30 01:26 J	-7567220.65	-7567220.44	-7567220.22	0.0089	0.0002
Venus	-25431-09-12 13:55 J	-7566995.14	-7566994.92	-7566994.70	0.0089	0.0003
Venus	-25430-04-26 02:23 J	-7566769.62	-7566769.40	-7566769.18	0.0089	0.0005
Venus	-25430-12-07 14:38 J	-7566544.10	-7566543.89	-7566543.67	0.0089	0.0008
Venus	-25429-07-20 03:07 J	-7566318.58	-7566318.37	-7566318.15	0.0089	0.0009
Venus	-25428-03-02 15:21 J	-7566093.07	-7566092.86	-7566092.64	0.0089	0.0012
Venus	-25428-10-14 03:50 J	-7565867.55	-7565867.34	-7565867.12	0.0089	0.0013

Venus	-25427-05-27 16:19 J	-7565642.02	-7565641.82	-7565641.59	0.0089	0.0016
Venus	-25426-01-08 04:47 J	-7565416.50	-7565416.30	-7565416.07	0.0089	0.0018
Venus	-25426-08-21 17:16 J	-7565190.98	-7565190.78	-7565190.56	0.0089	0.0020
Venus	-25425-04-03 05:45 J	-7564965.46	-7564965.26	-7564965.04	0.0089	0.0021
Venus	-25425-11-14 18:14 J	-7564739.94	-7564739.74	-7564739.52	0.0089	0.0024
Venus	-25424-06-28 06:57 J	-7564514.41	-7564514.21	-7564513.99	0.0088	0.0025
Venus	-25423-02-08 19:26 J	-7564288.88	-7564288.69	-7564288.47	0.0088	0.0028
Venus	-25423-09-22 08:23 J	-7564063.36	-7564063.15	-7564062.94	0.0088	0.0029
Venus	-25422-05-05 20:52 J	-7563837.83	-7563837.63	-7563837.42	0.0088	0.0031
Venus	-25422-12-17 09:35 J	-7563612.30	-7563612.10	-7563611.89	0.0088	0.0033
Venus	-25421-07-29 22:04 J	-7563386.77	-7563386.58	-7563386.37	0.0088	0.0035
Venus	-25420-03-12 10:33 J	-7563161.25	-7563161.06	-7563160.85	0.0088	0.0037
Venus	-25420-10-23 23:16 J	-7562935.72	-7562935.53	-7562935.32	0.0088	0.0038
Venus	-25419-06-06 12:14 J	-7562710.18	-7562709.99	-7562709.79	0.0088	0.0040
Venus	-25418-01-18 00:57 J	-7562484.65	-7562484.46	-7562484.26	0.0088	0.0042
Venus	-25418-08-31 13:26 J	-7562259.12	-7562258.94	-7562258.74	0.0088	0.0043
Venus	-25417-04-13 01:55 J	-7562033.59	-7562033.42	-7562033.22	0.0088	0.0045
Venus	-25417-11-24 14:52 J	-7561808.06	-7561807.88	-7561807.69	0.0088	0.0047
Venus	-25416-07-08 03:35 J	-7561582.53	-7561582.35	-7561582.16	0.0088	0.0049
Venus	-25415-02-18 16:04 J	-7561356.99	-7561356.83	-7561356.63	0.0088	0.0050
Venus	-25415-10-02 05:02 J	-7561131.46	-7561131.29	-7561131.11	0.0088	0.0052
Venus	-25414-05-15 17:31 J	-7560905.93	-7560905.77	-7560905.58	0.0088	0.0054
Venus	-25414-12-27 06:14 J	-7560680.39	-7560680.24	-7560680.05	0.0088	0.0055
Venus	-25413-08-08 19:11 J	-7560454.86	-7560454.70	-7560454.52	0.0088	0.0057
Venus	-25412-03-22 07:55 J	-7560229.32	-7560229.17	-7560228.99	0.0088	0.0058
Venus	-25412-11-02 20:52 J	-7560003.78	-7560003.63	-7560003.46	0.0088	0.0060
Venus	-25411-06-16 09:35 J	-7559778.24	-7559778.10	-7559777.92	0.0088	0.0061
Venus	-25410-01-27 22:47 J	-7559552.69	-7559552.55	-7559552.38	0.0088	0.0062
Venus	-25410-09-10 11:45 J	-7559327.15	-7559327.01	-7559326.85	0.0088	0.0064
Venus	-25409-04-23 00:14 J	-7559101.61	-7559101.49	-7559101.32	0.0088	0.0066

Venus	-25409-12-04 13:26 J	-7558876.07	-7558875.94	-7558875.78	0.0088	0.0066
Venus	-25408-07-18 02:38 J	-7558650.52	-7558650.39	-7558650.24	0.0088	0.0068
Venus	-25407-02-28 15:21 J	-7558424.98	-7558424.86	-7558424.70	0.0088	0.0069
Venus	-25407-10-12 04:19 J	-7558199.43	-7558199.32	-7558199.17	0.0088	0.0070
Venus	-25406-05-25 17:16 J	-7557973.89	-7557973.78	-7557973.63	0.0088	0.0072
Venus	-25405-01-06 06:28 J	-7557748.34	-7557748.23	-7557748.09	0.0088	0.0072
Venus	-25405-08-18 19:26 J	-7557522.80	-7557522.69	-7557522.56	0.0088	0.0073
Venus	-25404-04-01 08:23 J	-7557297.25	-7557297.15	-7557297.02	0.0088	0.0075
Venus	-25404-11-12 21:35 J	-7557071.71	-7557071.60	-7557071.48	0.0088	0.0075
Venus	-25403-06-26 10:33 J	-7556846.16	-7556846.06	-7556845.94	0.0088	0.0076
Venus	-25402-02-06 23:31 J	-7556620.61	-7556620.52	-7556620.40	0.0088	0.0078
Venus	-25402-09-20 12:28 J	-7556395.06	-7556394.98	-7556394.86	0.0088	0.0078
Venus	-25401-05-03 01:26 J	-7556169.51	-7556169.44	-7556169.32	0.0088	0.0079
Venus	-25401-12-14 14:23 J	-7555943.96	-7555943.90	-7555943.78	0.0088	0.0081
Venus	-25400-07-28 04:19 J	-7555718.40	-7555718.32	-7555718.23	0.0088	0.0081
Venus	-25399-03-10 17:16 J	-7555492.85	-7555492.78	-7555492.68	0.0088	0.0081
Venus	-25399-10-22 06:14 J	-7555267.30	-7555267.24	-7555267.14	0.0088	0.0082
Venus	-25398-06-04 19:55 J	-7555041.74	-7555041.67	-7555041.60	0.0088	0.0083
Venus	-25397-01-16 08:52 J	-7554816.19	-7554816.13	-7554816.05	0.0088	0.0083
Venus	-25397-08-28 21:50 J	-7554590.63	-7554590.59	-7554590.50	0.0088	0.0084
Earth	-25397-10-16 12:57 J	-7554542.03	-7554541.96	-7554541.82	0.0088	0.0081
Moon	-25397-10-16 16:47 J	-7554541.88	-7554541.80	-7554541.66	0.0088	0.0080 *
Venus	-25396-04-11 11:16 J	-7554365.07	-7554365.03	-7554364.95	0.0088	0.0084
Moon	-25396-10-18 23:02 J	-7554174.76	-7554174.54	-7554174.30	0.0088	0.0039
Earth	-25396-10-19 02:23 J	-7554174.63	-7554174.40	-7554174.15	0.0088	0.0037 *
Venus	-25396-11-23 00:28 J	-7554139.51	-7554139.48	-7554139.40	0.0088	0.0085
Venus	-25395-07-06 13:55 J	-7553913.95	-7553913.92	-7553913.84	0.0088	0.0085
Earth	-25395-10-21 15:07 J	-7553807.13	-7553806.87	-7553806.60	0.0088	0.0006
Moon	-25395-10-21 17:45 J	-7553807.02	-7553806.76	-7553806.49	0.0088	0.0007 *
Venus	-25394-02-17 03:21 J	-7553688.40	-7553688.36	-7553688.29	0.0088	0.0085

Venus	-25394-09-30 16:19 J	-7553462.84	-7553462.82	-7553462.74	0.0088	0.0086
Moon	-25394-10-24 01:26 J	-7553439.63	-7553439.44	-7553439.21	0.0088	0.0049
Earth	-25394-10-24 03:35 J	-7553439.55	-7553439.35	-7553439.12	0.0088	0.0049 *
Venus	-25393-05-13 05:45 J	-7553237.28	-7553237.26	-7553237.19	0.0088	0.0086
Venus	-25393-12-24 19:11 J	-7553011.72	-7553011.70	-7553011.64	0.0088	0.0086
Venus	-25392-08-07 08:52 J	-7552786.16	-7552786.13	-7552786.08	0.0088	0.0086
Venus	-25391-03-20 22:19 J	-7552560.60	-7552560.57	-7552560.52	0.0088	0.0086
Venus	-25391-11-01 11:45 J	-7552335.05	-7552335.01	-7552334.97	0.0088	0.0086
Venus	-25390-06-15 00:57 J	-7552109.49	-7552109.46	-7552109.41	0.0088	0.0086
Venus	-25389-01-26 14:23 J	-7551883.93	-7551883.90	-7551883.86	0.0088	0.0086
Venus	-25389-09-08 03:50 J	-7551658.37	-7551658.34	-7551658.29	0.0088	0.0086
Venus	-25388-04-21 17:02 J	-7551432.81	-7551432.79	-7551432.73	0.0088	0.0086
Venus	-25388-12-03 06:28 J	-7551207.26	-7551207.23	-7551207.17	0.0088	0.0086
Venus	-25387-07-16 19:55 J	-7550981.70	-7550981.67	-7550981.60	0.0088	0.0086
Venus	-25386-02-27 09:21 J	-7550756.13	-7550756.11	-7550756.04	0.0088	0.0086
Venus	-25386-10-10 23:02 J	-7550530.57	-7550530.54	-7550530.47	0.0088	0.0085
Venus	-25385-05-23 12:28 J	-7550305.01	-7550304.98	-7550304.90	0.0088	0.0085
Venus	-25384-01-04 02:23 J	-7550079.45	-7550079.40	-7550079.33	0.0088	0.0084
Venus	-25384-08-17 15:50 J	-7549853.89	-7549853.84	-7549853.76	0.0088	0.0084
Venus	-25383-03-31 05:45 J	-7549628.32	-7549628.26	-7549628.19	0.0088	0.0083
Venus	-25383-11-11 18:57 J	-7549402.76	-7549402.71	-7549402.62	0.0088	0.0083
Venus	-25382-06-25 08:52 J	-7549177.20	-7549177.13	-7549177.05	0.0088	0.0082
Venus	-25381-02-05 22:04 J	-7548951.64	-7548951.58	-7548951.48	0.0088	0.0082
Venus	-25381-09-18 11:59 J	-7548726.07	-7548726.00	-7548725.90	0.0088	0.0081
Venus	-25380-05-02 01:40 J	-7548500.51	-7548500.43	-7548500.33	0.0088	0.0081
Mercury	-25380-09-21 10:04 J	-7548358.12	-7548358.08	-7548358.00	0.0088	0.0083
Mars	-25380-09-23 13:55 J	-7548356.18	-7548355.92	-7548355.66	0.0088	0.0044
Venus	-25380-12-13 14:52 J	-7548274.94	-7548274.88	-7548274.76	0.0088	0.0080
Mercury	-25380-12-18 13:40 J	-7548270.02	-7548269.93	-7548269.82	0.0088	0.0073
Mercury	-25379-03-16 16:47 J	-7548181.91	-7548181.80	-7548181.65	0.0088	0.0064

Mercury	-25379-06-12 20:23 J	-7548093.79	-7548093.65	-7548093.49	0.0088	0.0054
Venus	-25379-07-27 04:33 J	-7548049.38	-7548049.31	-7548049.18	0.0088	0.0079
Mercury	-25379-09-08 23:45 J	-7548005.66	-7548005.51	-7548005.34	0.0088	0.0045
Mercury	-25379-12-06 03:07 J	-7547917.53	-7547917.37	-7547917.19	0.0088	0.0035
Mercury	-25378-03-04 06:28 J	-7547829.40	-7547829.23	-7547829.04	0.0088	0.0026
Venus	-25378-03-09 18:14 J	-7547823.82	-7547823.74	-7547823.61	0.0088	0.0079
Mercury	-25378-05-31 10:04 J	-7547741.27	-7547741.08	-7547740.90	0.0088	0.0016
Mars	-25378-08-18 17:16 J	-7547662.07	-7547661.78	-7547661.47	0.0088	0.0014
Mercury	-25378-08-27 13:11 J	-7547653.13	-7547652.95	-7547652.75	0.0088	0.0008
Venus	-25378-10-21 07:55 J	-7547598.25	-7547598.17	-7547598.04	0.0088	0.0078
Mercury	-25378-11-23 16:33 J	-7547564.99	-7547564.81	-7547564.62	0.0088	0.0003
Mercury	-25377-02-19 19:55 J	-7547476.86	-7547476.67	-7547476.48	0.0088	0.0012
Mercury	-25377-05-17 23:02 J	-7547388.71	-7547388.54	-7547388.35	0.0088	0.0021
Venus	-25377-06-02 21:35 J	-7547372.69	-7547372.60	-7547372.47	0.0088	0.0077
Mercury	-25377-08-14 02:23 J	-7547300.57	-7547300.40	-7547300.22	0.0088	0.0030
Mercury	-25377-11-10 05:31 J	-7547212.43	-7547212.27	-7547212.09	0.0088	0.0040
Venus	-25376-01-14 11:16 J	-7547147.13	-7547147.03	-7547146.90	0.0088	0.0075
Mercury	-25376-02-06 08:38 J	-7547124.28	-7547124.14	-7547123.97	0.0088	0.0049
Mercury	-25376-05-05 11:59 J	-7547036.13	-7547036.00	-7547035.85	0.0088	0.0058
Mars	-25376-07-12 21:07 J	-7546967.78	-7546967.62	-7546967.44	0.0088	0.0072
Mercury	-25376-08-01 15:21 J	-7546947.97	-7546947.86	-7546947.73	0.0088	0.0067
Venus	-25376-08-28 00:57 J	-7546921.56	-7546921.46	-7546921.32	0.0088	0.0075
Mercury	-25376-10-28 18:43 J	-7546859.81	-7546859.72	-7546859.63	0.0088	0.0076
Mercury	-25375-01-24 21:50 J	-7546771.62	-7546771.59	-7546771.54	0.0088	0.0086
Venus	-25375-04-10 14:38 J	-7546695.99	-7546695.89	-7546695.74	0.0088	0.0074
Venus	-25375-11-22 04:19 J	-7546470.43	-7546470.32	-7546470.17	0.0088	0.0072
Venus	-25374-07-05 17:59 J	-7546244.86	-7546244.75	-7546244.60	0.0088	0.0071
Venus	-25373-02-16 07:40 J	-7546019.29	-7546019.18	-7546019.02	0.0088	0.0070
Venus	-25373-09-28 21:50 J	-7545793.72	-7545793.59	-7545793.44	0.0088	0.0069
Venus	-25372-05-12 11:31 J	-7545568.15	-7545568.02	-7545567.86	0.0088	0.0067

Venus	-25372-12-24 00:57 J	-7545342.58	-7545342.46	-7545342.29	0.0088	0.0067
Venus	-25371-08-06 15:07 J	-7545117.01	-7545116.87	-7545116.71	0.0088	0.0065
Venus	-25370-03-20 04:47 J	-7544891.44	-7544891.30	-7544891.13	0.0088	0.0063
Venus	-25370-10-31 18:28 J	-7544665.87	-7544665.73	-7544665.55	0.0088	0.0062
Venus	-25369-06-13 08:23 J	-7544440.30	-7544440.15	-7544439.98	0.0088	0.0060
Venus	-25368-01-24 21:50 J	-7544214.73	-7544214.59	-7544214.40	0.0088	0.0060
Venus	-25368-09-07 11:59 J	-7543989.16	-7543989.00	-7543988.82	0.0088	0.0057
Venus	-25367-04-21 01:26 J	-7543763.59	-7543763.44	-7543763.24	0.0088	0.0057
Venus	-25367-12-02 15:21 J	-7543538.02	-7543537.86	-7543537.67	0.0088	0.0055
Venus	-25366-07-16 05:16 J	-7543312.46	-7543312.28	-7543312.10	0.0088	0.0053
Venus	-25365-02-26 18:43 J	-7543086.89	-7543086.72	-7543086.52	0.0088	0.0051
Venus	-25365-10-09 08:38 J	-7542861.31	-7542861.14	-7542860.94	0.0088	0.0050
Venus	-25364-05-22 22:04 J	-7542635.74	-7542635.58	-7542635.37	0.0088	0.0049
Venus	-25363-01-03 11:59 J	-7542410.18	-7542410.00	-7542409.79	0.0088	0.0046
Venus	-25363-08-17 01:40 J	-7542184.61	-7542184.43	-7542184.22	0.0088	0.0045
Venus	-25362-03-30 15:35 J	-7541959.04	-7541958.85	-7541958.65	0.0088	0.0043
Venus	-25362-11-11 05:16 J	-7541733.47	-7541733.28	-7541733.07	0.0088	0.0041
Venus	-25361-06-23 18:57 J	-7541507.90	-7541507.71	-7541507.49	0.0088	0.0040
Venus	-25360-02-04 08:38 J	-7541282.33	-7541282.14	-7541281.92	0.0088	0.0038
Venus	-25360-09-17 22:33 J	-7541056.75	-7541056.56	-7541056.34	0.0088	0.0036
Venus	-25359-05-01 12:28 J	-7540831.18	-7540830.98	-7540830.76	0.0088	0.0034
Venus	-25359-12-13 02:23 J	-7540605.60	-7540605.40	-7540605.19	0.0088	0.0032
Venus	-25358-07-26 16:04 J	-7540380.03	-7540379.83	-7540379.61	0.0088	0.0030
Venus	-25357-03-08 05:59 J	-7540154.46	-7540154.25	-7540154.04	0.0088	0.0028
Venus	-25357-10-19 19:55 J	-7539928.89	-7539928.67	-7539928.46	0.0088	0.0026
Venus	-25356-06-02 09:35 J	-7539703.31	-7539703.10	-7539702.88	0.0088	0.0024
Venus	-25355-01-13 23:02 J	-7539477.74	-7539477.54	-7539477.31	0.0088	0.0023
Venus	-25355-08-27 12:43 J	-7539252.18	-7539251.97	-7539251.74	0.0089	0.0021
Venus	-25354-04-10 02:23 J	-7539026.61	-7539026.40	-7539026.17	0.0089	0.0019
Venus	-25354-11-21 16:19 J	-7538801.03	-7538800.82	-7538800.59	0.0089	0.0016

Venus	-25353-07-04 05:59 J	-7538575.46	-7538575.25	-7538575.02	0.0089	0.0014
Venus	-25352-02-14 19:40 J	-7538349.90	-7538349.68	-7538349.45	0.0089	0.0012
Venus	-25352-09-28 09:21 J	-7538124.33	-7538124.11	-7538123.88	0.0089	0.0010
Venus	-25351-05-11 23:02 J	-7537898.76	-7537898.54	-7537898.31	0.0089	0.0008
Venus	-25351-12-23 12:43 J	-7537673.19	-7537672.97	-7537672.74	0.0089	0.0006
Venus	-25350-08-06 02:23 J	-7537447.62	-7537447.40	-7537447.17	0.0089	0.0004
Venus	-25349-03-18 16:04 J	-7537222.05	-7537221.83	-7537221.61	0.0089	0.0002
Venus	-25349-10-30 05:45 J	-7536996.48	-7536996.26	-7536996.03	0.0089	0.0001
Venus	-25348-06-12 19:26 J	-7536770.91	-7536770.69	-7536770.46	0.0089	0.0002
Venus	-25347-01-24 09:07 J	-7536545.34	-7536545.12	-7536544.90	0.0089	0.0004
Venus	-25347-09-06 22:47 J	-7536319.78	-7536319.55	-7536319.33	0.0089	0.0006
Venus	-25346-04-20 12:28 J	-7536094.21	-7536093.98	-7536093.76	0.0089	0.0008
Venus	-25346-12-02 02:09 J	-7535868.63	-7535868.41	-7535868.19	0.0089	0.0010
Venus	-25345-07-14 15:50 J	-7535643.06	-7535642.84	-7535642.62	0.0089	0.0012
Venus	-25344-02-25 05:16 J	-7535417.50	-7535417.28	-7535417.06	0.0089	0.0014
Venus	-25344-10-08 18:57 J	-7535191.93	-7535191.71	-7535191.49	0.0089	0.0016
Venus	-25343-05-22 08:23 J	-7534966.36	-7534966.15	-7534965.93	0.0089	0.0018
Venus	-25342-01-02 22:04 J	-7534740.79	-7534740.58	-7534740.36	0.0089	0.0020
Venus	-25342-08-16 11:31 J	-7534515.23	-7534515.02	-7534514.80	0.0089	0.0022
Venus	-25341-03-29 00:57 J	-7534289.67	-7534289.46	-7534289.24	0.0089	0.0024
Venus	-25341-11-09 14:23 J	-7534064.10	-7534063.90	-7534063.68	0.0089	0.0026
Venus	-25340-06-23 03:50 J	-7533838.54	-7533838.34	-7533838.12	0.0089	0.0028
Venus	-25339-02-03 17:31 J	-7533612.98	-7533612.77	-7533612.56	0.0089	0.0029
Venus	-25339-09-17 06:43 J	-7533387.42	-7533387.22	-7533387.00	0.0089	0.0031
Venus	-25338-04-30 20:09 J	-7533161.86	-7533161.66	-7533161.45	0.0089	0.0033
Venus	-25338-12-12 09:35 J	-7532936.29	-7532936.10	-7532935.89	0.0089	0.0035
Venus	-25337-07-24 22:47 J	-7532710.73	-7532710.55	-7532710.33	0.0089	0.0037
Venus	-25336-03-07 12:14 J	-7532485.18	-7532484.99	-7532484.78	0.0089	0.0039
Venus	-25336-10-19 01:40 J	-7532259.62	-7532259.43	-7532259.22	0.0089	0.0040
Venus	-25335-06-01 15:07 J	-7532034.06	-7532033.87	-7532033.67	0.0089	0.0042

Venus	-25334-01-13 04:19 J	-7531808.49	-7531808.32	-7531808.11	0.0089	0.0044
Venus	-25334-08-26 17:59 J	-7531582.93	-7531582.75	-7531582.56	0.0089	0.0045
Venus	-25333-04-08 07:11 J	-7531357.38	-7531357.20	-7531357.00	0.0089	0.0047
Venus	-25333-11-19 20:23 J	-7531131.82	-7531131.65	-7531131.45	0.0089	0.0049
Venus	-25332-07-03 09:50 J	-7530906.26	-7530906.09	-7530905.89	0.0089	0.0051
Venus	-25331-02-13 23:02 J	-7530680.70	-7530680.54	-7530680.34	0.0089	0.0052
Venus	-25331-09-27 12:28 J	-7530455.14	-7530454.98	-7530454.79	0.0089	0.0053
Venus	-25330-05-11 01:26 J	-7530229.59	-7530229.44	-7530229.25	0.0089	0.0055
Venus	-25330-12-22 14:52 J	-7530004.03	-7530003.88	-7530003.69	0.0089	0.0057
Venus	-25329-08-04 03:50 J	-7529778.48	-7529778.34	-7529778.15	0.0089	0.0059
Venus	-25328-03-17 17:16 J	-7529552.93	-7529552.78	-7529552.60	0.0089	0.0059
Venus	-25328-10-29 06:28 J	-7529327.38	-7529327.23	-7529327.06	0.0089	0.0060
Venus	-25327-06-11 19:11 J	-7529101.83	-7529101.70	-7529101.52	0.0089	0.0063
Venus	-25326-01-23 08:38 J	-7528876.28	-7528876.14	-7528875.97	0.0089	0.0063
Venus	-25326-09-05 21:50 J	-7528650.73	-7528650.59	-7528650.43	0.0089	0.0064
Venus	-25325-04-18 10:47 J	-7528425.19	-7528425.05	-7528424.89	0.0089	0.0066
Venus	-25325-11-29 23:31 J	-7528199.64	-7528199.52	-7528199.35	0.0089	0.0067
Venus	-25324-07-13 12:43 J	-7527974.09	-7527973.97	-7527973.81	0.0089	0.0068
Venus	-25323-02-24 01:40 J	-7527748.54	-7527748.43	-7527748.27	0.0089	0.0070
Venus	-25323-10-07 14:52 J	-7527523.00	-7527522.88	-7527522.73	0.0089	0.0070
Venus	-25322-05-21 03:50 J	-7527297.45	-7527297.34	-7527297.19	0.0089	0.0071
Venus	-25321-01-01 16:47 J	-7527071.90	-7527071.80	-7527071.65	0.0089	0.0073
Venus	-25321-08-14 05:45 J	-7526846.36	-7526846.26	-7526846.11	0.0089	0.0074
Venus	-25320-03-27 18:43 J	-7526620.81	-7526620.72	-7526620.57	0.0089	0.0075
Venus	-25320-11-08 08:09 J	-7526395.27	-7526395.16	-7526395.03	0.0089	0.0075
Venus	-25319-06-21 21:07 J	-7526169.73	-7526169.62	-7526169.50	0.0089	0.0076
Venus	-25318-02-02 09:50 J	-7525944.18	-7525944.09	-7525943.96	0.0089	0.0077
Venus	-25318-09-15 22:47 J	-7525718.64	-7525718.55	-7525718.42	0.0089	0.0077
Venus	-25317-04-28 11:59 J	-7525493.10	-7525493.00	-7525492.89	0.0089	0.0078
Venus	-25317-12-10 00:28 J	-7525267.56	-7525267.48	-7525267.36	0.0089	0.0079

Venus	-25316-07-23 13:40 J	-7525042.02	-7525041.93	-7525041.82	0.0089	0.0079
Venus	-25315-03-06 02:23 J	-7524816.48	-7524816.40	-7524816.29	0.0089	0.0079
Venus	-25315-10-17 15:21 J	-7524590.95	-7524590.86	-7524590.76	0.0089	0.0080
Moon	-25314-04-18 01:40 J	-7524408.54	-7524408.43	-7524408.26	0.0089	0.0074
Earth	-25314-04-18 04:33 J	-7524408.41	-7524408.31	-7524408.16	0.0089	0.0078 *
Venus	-25314-05-31 03:50 J	-7524365.42	-7524365.34	-7524365.23	0.0089	0.0080
Venus	-25313-01-11 16:47 J	-7524139.88	-7524139.80	-7524139.70	0.0089	0.0081
Earth	-25313-04-19 15:21 J	-7524041.08	-7524040.86	-7524040.61	0.0089	0.0034
Moon	-25313-04-19 17:45 J	-7524040.98	-7524040.76	-7524040.51	0.0089	0.0038 *
Venus	-25313-08-24 05:16 J	-7523914.35	-7523914.28	-7523914.17	0.0089	0.0081
Venus	-25312-04-06 17:59 J	-7523688.82	-7523688.75	-7523688.64	0.0089	0.0082
Moon	-25312-04-22 00:57 J	-7523673.69	-7523673.46	-7523673.21	0.0089	0.0015
Earth	-25312-04-22 02:09 J	-7523673.66	-7523673.41	-7523673.15	0.0089	0.0010 *
Venus	-25312-11-18 06:57 J	-7523463.29	-7523463.21	-7523463.11	0.0089	0.0082
Moon	-25311-04-24 12:14 J	-7523306.20	-7523305.99	-7523305.76	0.0089	0.0050
Earth	-25311-04-24 12:28 J	-7523306.17	-7523305.98	-7523305.76	0.0089	0.0054 *
Venus	-25311-07-01 19:40 J	-7523237.76	-7523237.68	-7523237.59	0.0089	0.0082
Venus	-25310-02-12 08:09 J	-7523012.22	-7523012.16	-7523012.05	0.0089	0.0082
Venus	-25310-09-25 20:52 J	-7522786.69	-7522786.63	-7522786.52	0.0089	0.0082
Venus	-25309-05-08 09:35 J	-7522561.16	-7522561.10	-7522561.00	0.0089	0.0082
Venus	-25309-12-19 22:04 J	-7522335.64	-7522335.58	-7522335.47	0.0089	0.0083
Venus	-25308-08-02 10:47 J	-7522110.11	-7522110.05	-7522109.94	0.0089	0.0083
Venus	-25307-03-15 23:45 J	-7521884.57	-7521884.51	-7521884.41	0.0089	0.0082
Venus	-25307-10-27 12:57 J	-7521659.05	-7521658.96	-7521658.88	0.0089	0.0082
Venus	-25306-06-10 01:11 J	-7521433.52	-7521433.45	-7521433.35	0.0089	0.0082
Venus	-25305-01-21 13:40 J	-7521208.00	-7521207.93	-7521207.82	0.0089	0.0082
Venus	-25305-09-03 02:09 J	-7520982.47	-7520982.41	-7520982.30	0.0089	0.0082
Venus	-25304-04-16 15:21 J	-7520756.95	-7520756.86	-7520756.77	0.0089	0.0081
Venus	-25304-11-28 03:35 J	-7520531.43	-7520531.35	-7520531.25	0.0089	0.0081
Venus	-25303-07-11 15:50 J	-7520305.91	-7520305.84	-7520305.72	0.0089	0.0081

Venus	-25302-02-22 04:47 J	-7520080.39	-7520080.30	-7520080.20	0.0089	0.0080
Venus	-25302-10-05 17:02 J	-7519854.87	-7519854.79	-7519854.68	0.0089	0.0080
Venus	-25301-05-18 05:45 J	-7519629.35	-7519629.26	-7519629.16	0.0089	0.0079
Venus	-25301-12-29 17:45 J	-7519403.84	-7519403.76	-7519403.64	0.0089	0.0079
Venus	-25300-08-12 06:28 J	-7519178.32	-7519178.23	-7519178.11	0.0089	0.0078
Venus	-25299-03-25 18:43 J	-7518952.80	-7518952.72	-7518952.59	0.0089	0.0078
Mercury	-25299-10-01 12:43 J	-7518762.99	-7518762.97	-7518762.94	0.0089	0.0087
Venus	-25299-11-06 07:26 J	-7518727.29	-7518727.19	-7518727.07	0.0089	0.0076
Mercury	-25299-12-28 14:09 J	-7518674.96	-7518674.91	-7518674.85	0.0089	0.0081
Mercury	-25298-03-26 15:35 J	-7518586.92	-7518586.85	-7518586.77	0.0089	0.0074
Venus	-25298-06-19 19:55 J	-7518501.77	-7518501.67	-7518501.55	0.0089	0.0076
Mercury	-25298-06-22 17:02 J	-7518498.88	-7518498.79	-7518498.70	0.0089	0.0067
Mars	-25298-08-13 20:52 J	-7518446.87	-7518446.63	-7518446.34	0.0089	0.0052
Mercury	-25298-09-18 18:14 J	-7518410.83	-7518410.74	-7518410.63	0.0089	0.0060
Mercury	-25298-12-15 19:40 J	-7518322.78	-7518322.68	-7518322.57	0.0089	0.0053
Venus	-25297-01-31 08:23 J	-7518276.26	-7518276.15	-7518276.03	0.0089	0.0075
Mercury	-25297-03-12 21:07 J	-7518234.73	-7518234.62	-7518234.50	0.0089	0.0046
Mercury	-25297-06-08 22:33 J	-7518146.68	-7518146.56	-7518146.44	0.0089	0.0039
Mercury	-25297-09-04 23:59 J	-7518058.63	-7518058.50	-7518058.37	0.0089	0.0032
Venus	-25297-09-12 20:23 J	-7518050.74	-7518050.65	-7518050.50	0.0089	0.0075
Mercury	-25297-12-02 01:26 J	-7517970.57	-7517970.44	-7517970.31	0.0089	0.0025
Mercury	-25296-02-28 02:52 J	-7517882.51	-7517882.38	-7517882.25	0.0089	0.0018
Venus	-25296-04-26 08:52 J	-7517825.23	-7517825.13	-7517824.98	0.0089	0.0074
Mercury	-25296-05-27 04:19 J	-7517794.46	-7517794.32	-7517794.19	0.0089	0.0012
Mars	-25296-07-09 13:40 J	-7517751.24	-7517750.93	-7517750.60	0.0089	0.0015
Mercury	-25296-08-23 05:31 J	-7517706.40	-7517706.27	-7517706.13	0.0089	0.0006
Mercury	-25296-11-19 06:57 J	-7517618.34	-7517618.21	-7517618.07	0.0089	0.0004
Venus	-25296-12-07 21:21 J	-7517599.71	-7517599.61	-7517599.46	0.0089	0.0073
Mercury	-25295-02-15 08:23 J	-7517530.28	-7517530.15	-7517530.01	0.0089	0.0010
Mercury	-25295-05-14 09:50 J	-7517442.22	-7517442.09	-7517441.95	0.0089	0.0017

Venus	-25295-07-21 09:50 J	-7517374.20	-7517374.09	-7517373.94	0.0089	0.0072
Mercury	-25295-08-10 11:16 J	-7517354.16	-7517354.03	-7517353.89	0.0089	0.0024
Mercury	-25295-11-06 12:43 J	-7517266.09	-7517265.97	-7517265.84	0.0089	0.0031
Mercury	-25294-02-02 14:09 J	-7517178.03	-7517177.91	-7517177.78	0.0089	0.0038
Venus	-25294-03-03 22:33 J	-7517148.68	-7517148.56	-7517148.41	0.0089	0.0070
Mercury	-25294-05-01 15:35 J	-7517089.96	-7517089.85	-7517089.73	0.0089	0.0045
Mars	-25294-06-05 03:50 J	-7517055.44	-7517055.34	-7517055.16	0.0089	0.0081
Mercury	-25294-07-28 17:02 J	-7517001.89	-7517001.79	-7517001.67	0.0089	0.0052
Venus	-25294-10-15 10:47 J	-7516923.16	-7516923.05	-7516922.89	0.0089	0.0070
Mercury	-25294-10-24 18:28 J	-7516913.82	-7516913.73	-7516913.62	0.0089	0.0059
Mercury	-25293-01-20 19:55 J	-7516825.75	-7516825.67	-7516825.57	0.0089	0.0066
Mercury	-25293-04-17 21:21 J	-7516737.68	-7516737.61	-7516737.53	0.0089	0.0074
Venus	-25293-05-27 23:16 J	-7516697.65	-7516697.53	-7516697.38	0.0089	0.0068
Mercury	-25293-07-14 23:02 J	-7516649.60	-7516649.54	-7516649.48	0.0089	0.0081
Mercury	-25293-10-11 00:28 J	-7516561.50	-7516561.48	-7516561.46	0.0089	0.0088
Venus	-25292-01-08 11:31 J	-7516472.14	-7516472.02	-7516471.86	0.0089	0.0068
Venus	-25292-08-21 23:59 J	-7516246.63	-7516246.50	-7516246.34	0.0089	0.0066
Venus	-25291-04-04 12:57 J	-7516021.11	-7516020.96	-7516020.82	0.0089	0.0065
Venus	-25291-11-16 00:57 J	-7515795.60	-7515795.46	-7515795.30	0.0089	0.0064
Venus	-25290-06-29 13:11 J	-7515570.09	-7515569.95	-7515569.78	0.0089	0.0062
Venus	-25289-02-10 01:26 J	-7515344.58	-7515344.44	-7515344.27	0.0089	0.0061
Venus	-25289-09-22 13:26 J	-7515119.07	-7515118.94	-7515118.75	0.0089	0.0061
Venus	-25288-05-06 02:09 J	-7514893.56	-7514893.41	-7514893.24	0.0089	0.0059
Venus	-25288-12-17 14:23 J	-7514668.05	-7514667.90	-7514667.72	0.0089	0.0057
Venus	-25287-07-31 02:52 J	-7514442.54	-7514442.38	-7514442.21	0.0089	0.0056
Venus	-25286-03-13 15:07 J	-7514217.03	-7514216.87	-7514216.69	0.0089	0.0054
Venus	-25286-10-25 03:07 J	-7513991.52	-7513991.37	-7513991.18	0.0089	0.0053
Venus	-25285-06-06 15:35 J	-7513766.01	-7513765.85	-7513765.66	0.0089	0.0051
Venus	-25284-01-18 03:50 J	-7513540.50	-7513540.34	-7513540.15	0.0089	0.0050
Venus	-25284-08-31 16:19 J	-7513314.99	-7513314.82	-7513314.63	0.0089	0.0048

Venus	-25283-04-14 04:33 J	-7513089.47	-7513089.31	-7513089.11	0.0089	0.0047
Venus	-25283-11-25 17:02 J	-7512863.96	-7512863.79	-7512863.59	0.0089	0.0045
Venus	-25282-07-09 05:31 J	-7512638.45	-7512638.27	-7512638.08	0.0089	0.0043
Venus	-25281-02-19 17:31 J	-7512412.94	-7512412.77	-7512412.56	0.0089	0.0042
Venus	-25281-10-02 05:59 J	-7512187.43	-7512187.25	-7512187.04	0.0089	0.0040
Venus	-25280-05-15 18:43 J	-7511961.91	-7511961.72	-7511961.52	0.0089	0.0038
Venus	-25280-12-27 06:43 J	-7511736.40	-7511736.22	-7511736.01	0.0089	0.0037
Venus	-25279-08-09 19:11 J	-7511510.89	-7511510.70	-7511510.49	0.0089	0.0035
Venus	-25278-03-23 07:40 J	-7511285.38	-7511285.18	-7511284.98	0.0089	0.0033
Venus	-25278-11-03 19:40 J	-7511059.87	-7511059.68	-7511059.46	0.0089	0.0032
Venus	-25277-06-16 07:55 J	-7510834.36	-7510834.17	-7510833.95	0.0089	0.0030
Venus	-25276-01-27 20:23 J	-7510608.85	-7510608.65	-7510608.44	0.0089	0.0028
Venus	-25276-09-10 08:52 J	-7510383.34	-7510383.13	-7510382.92	0.0089	0.0026
Venus	-25275-04-23 21:21 J	-7510157.82	-7510157.61	-7510157.40	0.0089	0.0024
Venus	-25275-12-05 09:21 J	-7509932.31	-7509932.11	-7509931.89	0.0089	0.0023
Venus	-25274-07-18 21:35 J	-7509706.80	-7509706.60	-7509706.38	0.0089	0.0021
Venus	-25273-02-29 10:04 J	-7509481.29	-7509481.08	-7509480.87	0.0089	0.0019
Venus	-25273-10-11 22:19 J	-7509255.77	-7509255.57	-7509255.35	0.0089	0.0017
Venus	-25272-05-25 11:02 J	-7509030.25	-7509030.04	-7509029.83	0.0089	0.0015
Venus	-25271-01-05 23:16 J	-7508804.74	-7508804.53	-7508804.31	0.0089	0.0013
Venus	-25271-08-19 11:31 J	-7508579.23	-7508579.02	-7508578.80	0.0089	0.0012
Venus	-25270-04-01 23:59 J	-7508353.71	-7508353.50	-7508353.28	0.0089	0.0010
Venus	-25270-11-13 12:28 J	-7508128.19	-7508127.98	-7508127.76	0.0089	0.0008
Venus	-25269-06-26 00:57 J	-7507902.68	-7507902.46	-7507902.24	0.0089	0.0006
Venus	-25268-02-06 13:26 J	-7507677.16	-7507676.94	-7507676.73	0.0089	0.0004
Venus	-25268-09-20 01:40 J	-7507451.64	-7507451.43	-7507451.21	0.0089	0.0003
Venus	-25267-05-03 14:23 J	-7507226.12	-7507225.90	-7507225.68	0.0089	0.0000
Venus	-25267-12-15 02:52 J	-7507000.60	-7507000.38	-7507000.17	0.0089	0.0002
Venus	-25266-07-28 15:07 J	-7506775.08	-7506774.87	-7506774.65	0.0089	0.0004
Venus	-25265-03-10 03:35 J	-7506549.57	-7506549.35	-7506549.14	0.0089	0.0006

Venus	-25265-10-21 15:50 J	-7506324.05	-7506323.84	-7506323.62	0.0089	0.0008
Venus	-25264-06-04 04:33 J	-7506098.53	-7506098.31	-7506098.09	0.0089	0.0009
Venus	-25263-01-15 16:47 J	-7505873.01	-7505872.80	-7505872.58	0.0089	0.0012
Venus	-25263-08-29 05:16 J	-7505647.49	-7505647.28	-7505647.06	0.0089	0.0013
Venus	-25262-04-11 17:45 J	-7505421.97	-7505421.76	-7505421.54	0.0089	0.0015
Venus	-25262-11-23 06:14 J	-7505196.45	-7505196.24	-7505196.03	0.0089	0.0017
Venus	-25261-07-05 18:43 J	-7504970.93	-7504970.72	-7504970.50	0.0089	0.0019
Venus	-25260-02-16 07:11 J	-7504745.41	-7504745.20	-7504744.99	0.0089	0.0020
Venus	-25260-09-29 19:26 J	-7504519.89	-7504519.69	-7504519.47	0.0089	0.0023
Venus	-25259-05-13 08:09 J	-7504294.36	-7504294.16	-7504293.94	0.0089	0.0024
Venus	-25259-12-24 20:52 J	-7504068.84	-7504068.63	-7504068.42	0.0088	0.0026
Venus	-25258-08-07 09:21 J	-7503843.31	-7503843.11	-7503842.90	0.0088	0.0028
Venus	-25257-03-19 21:50 J	-7503617.79	-7503617.59	-7503617.38	0.0088	0.0030
Venus	-25257-10-31 10:19 J	-7503392.26	-7503392.07	-7503391.85	0.0088	0.0032
Venus	-25256-06-13 23:02 J	-7503166.73	-7503166.54	-7503166.32	0.0088	0.0034
Venus	-25255-01-25 11:59 J	-7502941.20	-7502941.00	-7502940.79	0.0088	0.0035
Venus	-25255-09-08 00:28 J	-7502715.67	-7502715.48	-7502715.27	0.0088	0.0037
Venus	-25254-04-21 12:57 J	-7502490.14	-7502489.96	-7502489.75	0.0088	0.0039
Venus	-25254-12-03 01:55 J	-7502264.61	-7502264.42	-7502264.22	0.0088	0.0040
Venus	-25253-07-15 14:23 J	-7502039.08	-7502038.90	-7502038.69	0.0088	0.0042
Venus	-25252-02-26 02:52 J	-7501813.55	-7501813.38	-7501813.17	0.0088	0.0044
Venus	-25252-10-09 15:50 J	-7501588.02	-7501587.84	-7501587.64	0.0088	0.0045
Venus	-25251-05-23 04:19 J	-7501362.49	-7501362.32	-7501362.11	0.0088	0.0047
Venus	-25250-01-03 17:16 J	-7501136.95	-7501136.78	-7501136.59	0.0088	0.0048
Venus	-25250-08-17 05:45 J	-7500911.42	-7500911.26	-7500911.06	0.0088	0.0050
Venus	-25249-03-29 18:43 J	-7500685.89	-7500685.72	-7500685.53	0.0088	0.0051
Venus	-25249-11-10 07:11 J	-7500460.36	-7500460.20	-7500460.00	0.0088	0.0053
Venus	-25248-06-23 20:23 J	-7500234.82	-7500234.65	-7500234.47	0.0088	0.0054
Venus	-25247-02-04 08:52 J	-7500009.28	-7500009.13	-7500008.94	0.0088	0.0055
Venus	-25247-09-17 21:50 J	-7499783.75	-7499783.59	-7499783.41	0.0088	0.0056

Venus	-25246-05-01 10:47 J	-7499558.21	-7499558.05	-7499557.88	0.0088	0.0058
Venus	-25246-12-12 23:16 J	-7499332.67	-7499332.53	-7499332.34	0.0088	0.0060
Venus	-25245-07-25 12:28 J	-7499107.12	-7499106.98	-7499106.80	0.0088	0.0060
Venus	-25244-03-08 01:40 J	-7498881.58	-7498881.43	-7498881.27	0.0088	0.0061
Venus	-25244-10-19 14:09 J	-7498656.04	-7498655.91	-7498655.73	0.0088	0.0063
Venus	-25243-06-02 03:07 J	-7498430.50	-7498430.37	-7498430.19	0.0088	0.0065
Venus	-25242-01-13 16:19 J	-7498204.95	-7498204.82	-7498204.66	0.0088	0.0065
Venus	-25242-08-27 05:16 J	-7497979.41	-7497979.28	-7497979.12	0.0088	0.0066
Venus	-25241-04-08 18:14 J	-7497753.86	-7497753.74	-7497753.58	0.0088	0.0067
Venus	-25241-11-20 07:11 J	-7497528.32	-7497528.20	-7497528.04	0.0088	0.0069
Venus	-25240-07-03 20:23 J	-7497302.77	-7497302.65	-7497302.50	0.0088	0.0069
Venus	-25239-02-14 09:21 J	-7497077.22	-7497077.11	-7497076.95	0.0088	0.0071
Venus	-25239-09-27 22:19 J	-7496851.68	-7496851.57	-7496851.42	0.0088	0.0072
Venus	-25238-05-11 11:16 J	-7496626.13	-7496626.03	-7496625.88	0.0088	0.0073
Venus	-25238-12-23 00:14 J	-7496400.58	-7496400.49	-7496400.34	0.0088	0.0074
Venus	-25237-08-04 14:09 J	-7496175.03	-7496174.91	-7496174.79	0.0088	0.0074
Venus	-25236-03-18 02:52 J	-7495949.48	-7495949.38	-7495949.25	0.0088	0.0075
Venus	-25236-10-29 15:50 J	-7495723.93	-7495723.84	-7495723.71	0.0088	0.0075
Venus	-25235-06-12 04:47 J	-7495498.38	-7495498.30	-7495498.16	0.0088	0.0076
Venus	-25234-01-23 18:28 J	-7495272.83	-7495272.73	-7495272.62	0.0088	0.0076
Venus	-25234-09-06 07:26 J	-7495047.28	-7495047.19	-7495047.07	0.0088	0.0077
Venus	-25233-04-18 20:23 J	-7494821.73	-7494821.65	-7494821.52	0.0088	0.0078
Venus	-25233-11-30 09:50 J	-7494596.17	-7494596.09	-7494595.97	0.0088	0.0078
Venus	-25232-07-13 23:31 J	-7494370.61	-7494370.52	-7494370.42	0.0088	0.0079
Earth	-25232-10-18 12:14 J	-7494274.16	-7494273.99	-7494273.77	0.0088	0.0058
Moon	-25232-10-18 14:52 J	-7494274.07	-7494273.88	-7494273.64	0.0088	0.0053 *
Venus	-25231-02-24 12:28 J	-7494145.06	-7494144.98	-7494144.86	0.0088	0.0079
Venus	-25231-10-08 01:55 J	-7493919.50	-7493919.42	-7493919.31	0.0088	0.0079
Moon	-25231-10-21 00:43 J	-7493906.72	-7493906.47	-7493906.22	0.0088	0.0018
Earth	-25231-10-21 01:40 J	-7493906.69	-7493906.43	-7493906.17	0.0088	0.0014 *

Venus	-25230-05-21 14:52 J	-7493693.95	-7493693.88	-7493693.76	0.0088	0.0080
Earth	-25230-10-23 14:09 J	-7493539.14	-7493538.91	-7493538.64	0.0088	0.0029
Moon	-25230-10-23 14:38 J	-7493539.13	-7493538.89	-7493538.62	0.0088	0.0033 *
Venus	-25229-01-02 04:19 J	-7493468.39	-7493468.32	-7493468.21	0.0088	0.0080
Venus	-25229-08-14 17:59 J	-7493242.83	-7493242.75	-7493242.65	0.0088	0.0080
Earth	-25229-10-25 02:52 J	-7493171.52	-7493171.38	-7493171.22	0.0088	0.0072
Moon	-25229-10-25 03:50 J	-7493171.48	-7493171.34	-7493171.16	0.0088	0.0068 *
Venus	-25228-03-28 07:40 J	-7493017.27	-7493017.18	-7493017.09	0.0088	0.0081
Venus	-25228-11-08 20:23 J	-7492791.71	-7492791.65	-7492791.54	0.0088	0.0081
Venus	-25227-06-22 09:50 J	-7492566.16	-7492566.09	-7492565.98	0.0088	0.0081
Venus	-25226-02-02 23:16 J	-7492340.60	-7492340.53	-7492340.43	0.0088	0.0081
Venus	-25226-09-16 12:43 J	-7492115.04	-7492114.97	-7492114.87	0.0088	0.0081
Venus	-25225-04-29 01:55 J	-7491889.48	-7491889.42	-7491889.31	0.0088	0.0081
Venus	-25225-12-10 15:21 J	-7491663.93	-7491663.86	-7491663.76	0.0088	0.0081
Venus	-25224-07-24 04:47 J	-7491438.36	-7491438.30	-7491438.19	0.0088	0.0081
Venus	-25223-03-06 18:14 J	-7491212.81	-7491212.74	-7491212.63	0.0088	0.0081
Venus	-25223-10-18 07:26 J	-7490987.25	-7490987.19	-7490987.07	0.0088	0.0081
Venus	-25222-05-31 21:21 J	-7490761.69	-7490761.61	-7490761.51	0.0088	0.0080
Venus	-25221-01-12 10:33 J	-7490536.13	-7490536.06	-7490535.95	0.0088	0.0080
Venus	-25221-08-24 23:59 J	-7490310.57	-7490310.50	-7490310.38	0.0088	0.0080
Venus	-25220-04-07 14:09 J	-7490085.00	-7490084.91	-7490084.82	0.0088	0.0079
Venus	-25220-11-19 03:21 J	-7489859.44	-7489859.36	-7489859.25	0.0088	0.0079
Venus	-25219-07-02 16:33 J	-7489633.88	-7489633.81	-7489633.69	0.0088	0.0079
Venus	-25218-02-13 06:28 J	-7489408.32	-7489408.23	-7489408.12	0.0088	0.0078
Venus	-25218-09-26 19:55 J	-7489182.75	-7489182.67	-7489182.54	0.0088	0.0078
Venus	-25217-05-09 09:35 J	-7488957.19	-7488957.10	-7488956.97	0.0088	0.0077
Venus	-25217-12-20 23:31 J	-7488731.62	-7488731.52	-7488731.41	0.0088	0.0076
Mars	-25216-05-09 00:14 J	-7488592.66	-7488592.49	-7488592.31	0.0088	0.0070
Venus	-25216-08-03 12:43 J	-7488506.06	-7488505.97	-7488505.83	0.0088	0.0076
Venus	-25215-03-17 02:38 J	-7488280.49	-7488280.39	-7488280.26	0.0088	0.0075

Mercury	-25215-03-22 05:59 J	-7488275.27	-7488275.25	-7488275.20	0.0088	0.0087
Mercury	-25215-06-18 09:21 J	-7488187.18	-7488187.11	-7488187.00	0.0088	0.0077
Mercury	-25215-09-14 12:57 J	-7488099.07	-7488098.96	-7488098.83	0.0088	0.0067
Venus	-25215-10-28 16:19 J	-7488054.93	-7488054.82	-7488054.69	0.0088	0.0074
Mercury	-25215-12-11 16:04 J	-7488010.95	-7488010.83	-7488010.67	0.0088	0.0058
Mercury	-25214-03-09 19:40 J	-7487922.83	-7487922.68	-7487922.51	0.0088	0.0048
Mars	-25214-04-03 00:43 J	-7487898.76	-7487898.47	-7487898.16	0.0088	0.0013
Mercury	-25214-06-05 23:02 J	-7487834.70	-7487834.54	-7487834.36	0.0088	0.0039
Venus	-25214-06-11 06:14 J	-7487829.36	-7487829.24	-7487829.12	0.0088	0.0074
Mercury	-25214-09-02 02:38 J	-7487746.57	-7487746.39	-7487746.21	0.0088	0.0029
Mercury	-25214-11-29 05:45 J	-7487658.43	-7487658.26	-7487658.06	0.0088	0.0020
Venus	-25213-01-22 19:11 J	-7487603.80	-7487603.70	-7487603.55	0.0088	0.0073
Mercury	-25213-02-25 09:21 J	-7487570.30	-7487570.11	-7487569.92	0.0088	0.0010
Mercury	-25213-05-23 12:43 J	-7487482.16	-7487481.97	-7487481.78	0.0088	0.0001
Mercury	-25213-08-19 15:50 J	-7487394.02	-7487393.84	-7487393.65	0.0088	0.0009
Venus	-25213-09-04 09:07 J	-7487378.23	-7487378.12	-7487377.97	0.0088	0.0072
Mercury	-25213-11-15 19:11 J	-7487305.88	-7487305.70	-7487305.51	0.0088	0.0018
Mercury	-25212-02-11 22:33 J	-7487217.74	-7487217.56	-7487217.38	0.0088	0.0027
Mars	-25212-02-25 04:04 J	-7487204.58	-7487204.33	-7487204.06	0.0088	0.0046
Venus	-25212-04-17 22:47 J	-7487152.66	-7487152.55	-7487152.40	0.0088	0.0071
Mercury	-25212-05-11 01:40 J	-7487129.59	-7487129.43	-7487129.25	0.0088	0.0037
Mercury	-25212-08-07 04:47 J	-7487041.45	-7487041.30	-7487041.13	0.0088	0.0046
Mercury	-25212-11-03 08:09 J	-7486953.30	-7486953.16	-7486953.00	0.0088	0.0055
Venus	-25212-11-29 12:28 J	-7486927.10	-7486926.98	-7486926.83	0.0088	0.0070
Mercury	-25211-01-30 11:16 J	-7486865.14	-7486865.03	-7486864.89	0.0088	0.0065
Mercury	-25211-04-28 14:38 J	-7486776.98	-7486776.89	-7486776.78	0.0088	0.0073
Venus	-25211-07-13 01:55 J	-7486701.54	-7486701.42	-7486701.26	0.0088	0.0070
Mercury	-25211-07-25 17:59 J	-7486688.81	-7486688.75	-7486688.68	0.0088	0.0082
Venus	-25210-02-23 15:35 J	-7486475.97	-7486475.85	-7486475.69	0.0088	0.0069
Venus	-25210-10-07 05:31 J	-7486250.40	-7486250.27	-7486250.11	0.0088	0.0067

Venus	-25209-05-19 18:57 J	-7486024.84	-7486024.71	-7486024.54	0.0088	0.0067
Venus	-25209-12-31 08:38 J	-7485799.27	-7485799.14	-7485798.97	0.0088	0.0065
Venus	-25208-08-13 22:19 J	-7485573.70	-7485573.57	-7485573.39	0.0088	0.0064
Venus	-25207-03-27 12:28 J	-7485348.13	-7485347.98	-7485347.82	0.0088	0.0063
Venus	-25207-11-08 02:09 J	-7485122.56	-7485122.41	-7485122.24	0.0088	0.0061
Venus	-25206-06-21 15:35 J	-7484896.99	-7484896.85	-7484896.66	0.0088	0.0061
Venus	-25205-02-02 05:16 J	-7484671.42	-7484671.28	-7484671.09	0.0088	0.0060
Venus	-25205-09-14 19:26 J	-7484445.84	-7484445.69	-7484445.50	0.0088	0.0058
Venus	-25204-04-28 09:07 J	-7484220.27	-7484220.12	-7484219.92	0.0088	0.0057
Venus	-25204-12-09 23:16 J	-7483994.70	-7483994.53	-7483994.35	0.0088	0.0055
Venus	-25203-07-23 12:43 J	-7483769.13	-7483768.97	-7483768.77	0.0088	0.0054
Venus	-25202-03-06 02:23 J	-7483543.56	-7483543.40	-7483543.20	0.0088	0.0052
Venus	-25202-10-17 16:33 J	-7483317.98	-7483317.81	-7483317.61	0.0088	0.0050
Venus	-25201-05-30 05:59 J	-7483092.41	-7483092.25	-7483092.04	0.0088	0.0050
Venus	-25200-01-10 19:55 J	-7482866.84	-7482866.67	-7482866.47	0.0088	0.0048
Venus	-25200-08-24 10:04 J	-7482641.27	-7482641.08	-7482640.89	0.0088	0.0046
Venus	-25199-04-06 23:31 J	-7482415.70	-7482415.52	-7482415.32	0.0088	0.0044
Venus	-25199-11-18 13:26 J	-7482190.13	-7482189.94	-7482189.74	0.0088	0.0043
Venus	-25198-07-02 02:52 J	-7481964.56	-7481964.38	-7481964.17	0.0088	0.0041
Venus	-25197-02-12 16:33 J	-7481739.00	-7481738.81	-7481738.59	0.0088	0.0040
Venus	-25197-09-25 06:43 J	-7481513.42	-7481513.22	-7481513.01	0.0088	0.0038
Venus	-25196-05-08 20:09 J	-7481287.85	-7481287.66	-7481287.44	0.0088	0.0036
Venus	-25196-12-20 10:04 J	-7481062.28	-7481062.08	-7481061.86	0.0088	0.0034
Venus	-25195-08-02 23:45 J	-7480836.71	-7480836.51	-7480836.29	0.0088	0.0033
Venus	-25194-03-16 13:40 J	-7480611.14	-7480610.93	-7480610.72	0.0088	0.0031
Venus	-25194-10-28 03:21 J	-7480385.56	-7480385.36	-7480385.13	0.0088	0.0029
Venus	-25193-06-09 17:16 J	-7480159.99	-7480159.78	-7480159.56	0.0088	0.0027
Venus	-25192-01-21 06:57 J	-7479934.41	-7479934.21	-7479933.98	0.0088	0.0026
Venus	-25192-09-03 20:52 J	-7479708.84	-7479708.63	-7479708.41	0.0088	0.0024
Venus	-25191-04-17 10:33 J	-7479483.27	-7479483.06	-7479482.84	0.0088	0.0022

Venus	-25191-11-29 00:28 J	-7479257.69	-7479257.48	-7479257.26	0.0088	0.0020
Venus	-25190-07-12 14:09 J	-7479032.12	-7479031.91	-7479031.68	0.0089	0.0018
Venus	-25189-02-23 03:50 J	-7478806.55	-7478806.34	-7478806.11	0.0089	0.0016
Venus	-25189-10-05 17:31 J	-7478580.98	-7478580.77	-7478580.54	0.0089	0.0015
Venus	-25188-05-19 07:26 J	-7478355.41	-7478355.19	-7478354.97	0.0089	0.0013
Venus	-25188-12-30 21:07 J	-7478129.84	-7478129.62	-7478129.40	0.0089	0.0011
Venus	-25187-08-13 10:47 J	-7477904.28	-7477904.05	-7477903.83	0.0089	0.0009
Venus	-25186-03-27 00:14 J	-7477678.71	-7477678.49	-7477678.26	0.0089	0.0007
Venus	-25186-11-07 13:55 J	-7477453.14	-7477452.92	-7477452.69	0.0089	0.0006
Venus	-25185-06-20 03:35 J	-7477227.57	-7477227.35	-7477227.12	0.0089	0.0004
Venus	-25184-01-31 17:16 J	-7477002.00	-7477001.78	-7477001.56	0.0089	0.0001
Venus	-25184-09-14 06:57 J	-7476776.44	-7476776.21	-7476775.99	0.0089	0.0002
Venus	-25183-04-27 20:23 J	-7476550.87	-7476550.65	-7476550.42	0.0089	0.0003
Venus	-25183-12-09 10:04 J	-7476325.30	-7476325.08	-7476324.85	0.0089	0.0005
Venus	-25182-07-22 23:45 J	-7476099.73	-7476099.51	-7476099.29	0.0089	0.0006
Venus	-25181-03-04 13:11 J	-7475874.17	-7475873.95	-7475873.72	0.0089	0.0009
Venus	-25181-10-16 03:07 J	-7475648.60	-7475648.37	-7475648.15	0.0089	0.0010
Venus	-25180-05-29 16:33 J	-7475423.03	-7475422.81	-7475422.58	0.0089	0.0012
Venus	-25179-01-10 06:14 J	-7475197.46	-7475197.24	-7475197.02	0.0089	0.0014
Venus	-25179-08-23 19:40 J	-7474971.89	-7474971.68	-7474971.45	0.0089	0.0016
Venus	-25178-04-06 09:07 J	-7474746.33	-7474746.12	-7474745.89	0.0089	0.0018
Venus	-25178-11-17 22:47 J	-7474520.76	-7474520.55	-7474520.32	0.0089	0.0020
Venus	-25177-06-30 12:28 J	-7474295.19	-7474294.98	-7474294.76	0.0089	0.0021
Venus	-25176-02-11 01:55 J	-7474069.63	-7474069.42	-7474069.20	0.0089	0.0023
Venus	-25176-09-24 15:21 J	-7473844.06	-7473843.86	-7473843.64	0.0089	0.0025
Venus	-25175-05-08 04:47 J	-7473618.50	-7473618.30	-7473618.08	0.0089	0.0027
Venus	-25175-12-19 18:28 J	-7473392.94	-7473392.73	-7473392.51	0.0089	0.0028
Venus	-25174-08-02 07:40 J	-7473167.38	-7473167.18	-7473166.96	0.0089	0.0030
Venus	-25173-03-14 21:07 J	-7472941.82	-7472941.62	-7472941.40	0.0089	0.0032
Venus	-25173-10-26 10:47 J	-7472716.26	-7472716.05	-7472715.85	0.0089	0.0033

Venus	-25172-06-08 23:59 J	-7472490.70	-7472490.50	-7472490.29	0.0089	0.0035
Venus	-25171-01-20 13:11 J	-7472265.13	-7472264.95	-7472264.73	0.0089	0.0037
Venus	-25171-09-03 02:52 J	-7472039.58	-7472039.38	-7472039.18	0.0089	0.0038
Venus	-25170-04-16 16:04 J	-7471814.02	-7471813.83	-7471813.63	0.0089	0.0040
Venus	-25170-11-28 05:16 J	-7471588.46	-7471588.28	-7471588.07	0.0089	0.0042
Venus	-25169-07-10 18:43 J	-7471362.90	-7471362.72	-7471362.51	0.0089	0.0043
Venus	-25168-02-21 07:55 J	-7471137.34	-7471137.17	-7471136.96	0.0089	0.0045
Venus	-25168-10-04 21:21 J	-7470911.78	-7470911.61	-7470911.41	0.0089	0.0046
Venus	-25167-05-18 10:33 J	-7470686.23	-7470686.06	-7470685.85	0.0089	0.0048
Venus	-25167-12-30 00:14 J	-7470460.66	-7470460.49	-7470460.30	0.0089	0.0049
Venus	-25166-08-12 13:40 J	-7470235.11	-7470234.93	-7470234.75	0.0089	0.0050
Venus	-25165-03-25 02:38 J	-7470009.55	-7470009.39	-7470009.20	0.0089	0.0052
Venus	-25165-11-05 15:50 J	-7469784.00	-7469783.84	-7469783.65	0.0089	0.0054
Venus	-25164-06-19 05:16 J	-7469558.44	-7469558.28	-7469558.10	0.0089	0.0055
Venus	-25163-01-30 18:14 J	-7469332.89	-7469332.74	-7469332.55	0.0089	0.0057
Venus	-25163-09-13 07:26 J	-7469107.34	-7469107.19	-7469107.00	0.0089	0.0058
Venus	-25162-04-26 20:38 J	-7468881.79	-7468881.64	-7468881.46	0.0089	0.0059
Venus	-25162-12-08 09:50 J	-7468656.24	-7468656.09	-7468655.91	0.0089	0.0060
Venus	-25161-07-20 23:16 J	-7468430.69	-7468430.53	-7468430.37	0.0089	0.0061
Venus	-25160-03-03 12:14 J	-7468205.14	-7468204.99	-7468204.83	0.0089	0.0062
Venus	-25160-10-15 00:57 J	-7467979.60	-7467979.46	-7467979.29	0.0089	0.0063
Venus	-25159-05-28 13:55 J	-7467754.05	-7467753.92	-7467753.75	0.0089	0.0064
Venus	-25158-01-09 03:07 J	-7467528.50	-7467528.37	-7467528.20	0.0089	0.0065
Venus	-25158-08-22 16:04 J	-7467302.96	-7467302.83	-7467302.66	0.0089	0.0066
Venus	-25157-04-04 05:02 J	-7467077.41	-7467077.29	-7467077.13	0.0089	0.0067
Venus	-25157-11-15 18:28 J	-7466851.87	-7466851.73	-7466851.59	0.0089	0.0068
Venus	-25156-06-29 07:11 J	-7466626.33	-7466626.20	-7466626.05	0.0089	0.0069
Venus	-25155-02-09 20:09 J	-7466400.78	-7466400.66	-7466400.51	0.0089	0.0070
Venus	-25155-09-23 09:07 J	-7466175.24	-7466175.12	-7466174.97	0.0089	0.0071
Venus	-25154-05-06 21:50 J	-7465949.69	-7465949.59	-7465949.43	0.0089	0.0072

Venus	-25154-12-18 11:16 J	-7465724.15	-7465724.03	-7465723.89	0.0089	0.0072
Venus	-25153-07-30 23:59 J	-7465498.61	-7465498.50	-7465498.36	0.0089	0.0073
Venus	-25152-03-13 13:26 J	-7465273.07	-7465272.94	-7465272.82	0.0089	0.0073
Venus	-25152-10-25 01:55 J	-7465047.53	-7465047.42	-7465047.29	0.0089	0.0074
Venus	-25151-06-07 14:23 J	-7464821.99	-7464821.90	-7464821.75	0.0089	0.0075
Venus	-25150-01-19 03:35 J	-7464596.45	-7464596.35	-7464596.22	0.0089	0.0075
Venus	-25150-09-01 16:47 J	-7464370.92	-7464370.80	-7464370.69	0.0089	0.0075
Venus	-25149-04-14 05:02 J	-7464145.39	-7464145.29	-7464145.16	0.0089	0.0075
Moon	-25149-04-19 03:07 J	-7464140.55	-7464140.37	-7464140.16	0.0089	0.0052
Earth	-25149-04-19 04:19 J	-7464140.51	-7464140.32	-7464140.11	0.0089	0.0054 *
Venus	-25149-11-25 17:59 J	-7463919.86	-7463919.75	-7463919.63	0.0089	0.0076
Moon	-25148-04-21 14:23 J	-7463773.15	-7463772.90	-7463772.63	0.0089	0.0013
Earth	-25148-04-21 14:52 J	-7463773.13	-7463772.88	-7463772.62	0.0089	0.0010 *
Venus	-25148-07-09 06:14 J	-7463694.33	-7463694.24	-7463694.10	0.0089	0.0077
Venus	-25147-02-19 19:11 J	-7463468.79	-7463468.70	-7463468.57	0.0089	0.0077
Earth	-25147-04-24 00:57 J	-7463405.68	-7463405.46	-7463405.21	0.0089	0.0033
Moon	-25147-04-24 02:52 J	-7463405.60	-7463405.38	-7463405.14	0.0089	0.0035 *
Venus	-25147-10-03 08:09 J	-7463243.26	-7463243.16	-7463243.04	0.0089	0.0077
Moon	-25146-04-26 09:21 J	-7463038.25	-7463038.11	-7463037.97	0.0089	0.0075
Earth	-25146-04-26 11:31 J	-7463038.13	-7463038.02	-7463037.88	0.0089	0.0077 *
Venus	-25146-05-16 20:52 J	-7463017.73	-7463017.63	-7463017.51	0.0089	0.0077
Venus	-25146-12-28 09:35 J	-7462792.20	-7462792.10	-7462791.99	0.0089	0.0077
Venus	-25145-08-09 21:50 J	-7462566.68	-7462566.59	-7462566.46	0.0089	0.0077
Venus	-25144-03-23 10:33 J	-7462341.14	-7462341.06	-7462340.93	0.0089	0.0077
Venus	-25144-11-03 23:02 J	-7462115.62	-7462115.54	-7462115.40	0.0089	0.0078
Venus	-25143-06-17 11:45 J	-7461890.09	-7461890.01	-7461889.88	0.0089	0.0078
Venus	-25142-01-29 00:57 J	-7461664.56	-7461664.46	-7461664.35	0.0089	0.0077
Venus	-25142-09-11 13:26 J	-7461439.04	-7461438.94	-7461438.82	0.0089	0.0077
Jupiter	-25141-03-24 14:23 J	-7461244.01	-7461243.90	-7461243.72	0.0089	0.0086
Venus	-25141-04-24 01:55 J	-7461213.51	-7461213.42	-7461213.29	0.0089	0.0077

Venus	-25141-12-05 14:23 J	-7460987.99	-7460987.90	-7460987.77	0.0089	0.0077
Venus	-25140-07-19 03:07 J	-7460762.46	-7460762.37	-7460762.24	0.0089	0.0076
Venus	-25139-03-01 16:04 J	-7460536.93	-7460536.83	-7460536.71	0.0089	0.0076
Venus	-25139-10-13 04:33 J	-7460311.41	-7460311.31	-7460311.18	0.0089	0.0075
Venus	-25138-05-26 16:47 J	-7460085.89	-7460085.80	-7460085.66	0.0089	0.0076
Venus	-25137-01-07 05:31 J	-7459860.37	-7459860.27	-7459860.14	0.0089	0.0075
Venus	-25137-08-19 17:45 J	-7459634.85	-7459634.76	-7459634.62	0.0089	0.0075
Venus	-25136-04-02 06:43 J	-7459409.33	-7459409.22	-7459409.09	0.0089	0.0074
Venus	-25136-11-13 18:57 J	-7459183.81	-7459183.71	-7459183.57	0.0089	0.0073
Venus	-25135-06-27 07:26 J	-7458958.30	-7458958.19	-7458958.05	0.0089	0.0073
Venus	-25134-02-07 20:09 J	-7458732.78	-7458732.66	-7458732.53	0.0089	0.0072
Mars	-25134-03-27 21:07 J	-7458684.69	-7458684.62	-7458684.47	0.0089	0.0085
Mercury	-25134-06-28 12:43 J	-7458592.01	-7458591.97	-7458591.92	0.0089	0.0083
Venus	-25134-09-21 08:09 J	-7458507.26	-7458507.16	-7458507.01	0.0089	0.0072
Mercury	-25134-09-24 14:09 J	-7458503.97	-7458503.91	-7458503.84	0.0089	0.0076
Mercury	-25134-12-21 15:35 J	-7458415.93	-7458415.85	-7458415.76	0.0089	0.0069
Mercury	-25133-03-18 17:02 J	-7458327.88	-7458327.79	-7458327.70	0.0089	0.0063
Venus	-25133-05-03 20:52 J	-7458281.75	-7458281.63	-7458281.49	0.0089	0.0071
Mercury	-25133-06-14 18:28 J	-7458239.84	-7458239.73	-7458239.63	0.0089	0.0056
Mercury	-25133-09-10 19:40 J	-7458151.79	-7458151.68	-7458151.56	0.0089	0.0049
Mercury	-25133-12-07 21:07 J	-7458063.73	-7458063.62	-7458063.50	0.0089	0.0042
Venus	-25133-12-15 09:21 J	-7458056.23	-7458056.11	-7458055.97	0.0089	0.0070
Mars	-25132-02-20 16:47 J	-7457989.11	-7457988.80	-7457988.46	0.0089	0.0018
Mercury	-25132-03-05 22:19 J	-7457975.68	-7457975.57	-7457975.43	0.0089	0.0036
Mercury	-25132-06-01 23:45 J	-7457887.63	-7457887.51	-7457887.37	0.0089	0.0029
Venus	-25132-07-28 21:21 J	-7457830.72	-7457830.61	-7457830.45	0.0089	0.0070
Mercury	-25132-08-29 01:26 J	-7457799.57	-7457799.44	-7457799.31	0.0089	0.0021
Mercury	-25132-11-25 02:52 J	-7457711.52	-7457711.38	-7457711.25	0.0089	0.0014
Mercury	-25131-02-21 04:19 J	-7457623.46	-7457623.32	-7457623.19	0.0089	0.0007
Venus	-25131-03-11 10:04 J	-7457605.20	-7457605.08	-7457604.92	0.0089	0.0068

Mercury	-25131-05-20 05:31 J	-7457535.40	-7457535.27	-7457535.13	0.0089	0.0003
Mercury	-25131-08-16 06:57 J	-7457447.34	-7457447.21	-7457447.07	0.0089	0.0007
Venus	-25131-10-22 22:33 J	-7457379.68	-7457379.56	-7457379.40	0.0089	0.0068
Mercury	-25131-11-12 08:23 J	-7457359.28	-7457359.15	-7457359.01	0.0089	0.0014
Mars	-25130-01-17 09:21 J	-7457293.36	-7457293.11	-7457292.82	0.0089	0.0050
Mercury	-25130-02-08 09:50 J	-7457271.22	-7457271.09	-7457270.96	0.0089	0.0021
Mercury	-25130-05-07 11:16 J	-7457183.16	-7457183.03	-7457182.90	0.0089	0.0028
Venus	-25130-06-05 11:02 J	-7457154.17	-7457154.04	-7457153.88	0.0089	0.0066
Mercury	-25130-08-03 12:43 J	-7457095.09	-7457094.97	-7457094.84	0.0089	0.0035
Mercury	-25130-10-30 14:09 J	-7457007.03	-7457006.91	-7457006.79	0.0089	0.0042
Venus	-25129-01-16 23:31 J	-7456928.66	-7456928.52	-7456928.36	0.0089	0.0065
Mercury	-25129-01-26 15:35 J	-7456918.96	-7456918.85	-7456918.73	0.0089	0.0049
Mercury	-25129-04-23 17:02 J	-7456830.89	-7456830.79	-7456830.68	0.0089	0.0056
Mercury	-25129-07-20 18:28 J	-7456742.82	-7456742.73	-7456742.63	0.0089	0.0064
Venus	-25129-08-29 11:59 J	-7456703.14	-7456703.00	-7456702.84	0.0089	0.0064
Mercury	-25129-10-16 20:09 J	-7456654.75	-7456654.66	-7456654.58	0.0089	0.0071
Mercury	-25128-01-12 21:07 J	-7456566.67	-7456566.62	-7456566.54	0.0089	0.0079
Mercury	-25128-04-10 22:47 J	-7456478.58	-7456478.55	-7456478.50	0.0089	0.0085
Venus	-25128-04-12 00:28 J	-7456477.62	-7456477.48	-7456477.32	0.0089	0.0063
Venus	-25128-11-23 12:57 J	-7456252.10	-7456251.96	-7456251.80	0.0089	0.0062
Venus	-25127-07-07 01:11 J	-7456026.59	-7456026.45	-7456026.28	0.0089	0.0061
Venus	-25126-02-17 13:26 J	-7455801.08	-7455800.94	-7455800.76	0.0089	0.0061
Venus	-25126-10-01 01:55 J	-7455575.56	-7455575.42	-7455575.24	0.0089	0.0059
Venus	-25125-05-13 14:09 J	-7455350.05	-7455349.91	-7455349.72	0.0089	0.0058
Venus	-25125-12-25 02:52 J	-7455124.54	-7455124.38	-7455124.21	0.0089	0.0057
Venus	-25124-08-07 15:07 J	-7454899.03	-7454898.87	-7454898.69	0.0089	0.0055
Venus	-25123-03-21 03:21 J	-7454673.51	-7454673.36	-7454673.17	0.0089	0.0055
Venus	-25123-11-01 15:35 J	-7454448.00	-7454447.85	-7454447.66	0.0089	0.0053
Venus	-25122-06-15 04:04 J	-7454222.50	-7454222.33	-7454222.15	0.0089	0.0052
Venus	-25121-01-26 16:19 J	-7453996.99	-7453996.82	-7453996.63	0.0089	0.0050

Venus	-25121-09-08 04:33 J	-7453771.48	-7453771.31	-7453771.12	0.0089	0.0049
Venus	-25120-04-21 17:16 J	-7453545.96	-7453545.78	-7453545.60	0.0089	0.0047
Venus	-25120-12-03 05:16 J	-7453320.45	-7453320.28	-7453320.08	0.0089	0.0046
Venus	-25119-07-16 17:16 J	-7453094.94	-7453094.78	-7453094.57	0.0089	0.0046
Venus	-25118-02-27 05:45 J	-7452869.43	-7452869.26	-7452869.06	0.0089	0.0043
Venus	-25118-10-10 17:59 J	-7452643.92	-7452643.75	-7452643.54	0.0089	0.0042
Venus	-25117-05-23 06:28 J	-7452418.41	-7452418.23	-7452418.02	0.0089	0.0040
Venus	-25116-01-03 19:11 J	-7452192.90	-7452192.70	-7452192.51	0.0089	0.0039
Venus	-25116-08-17 07:11 J	-7451967.38	-7451967.20	-7451966.99	0.0089	0.0037
Venus	-25115-03-30 19:55 J	-7451741.87	-7451741.67	-7451741.47	0.0089	0.0035
Venus	-25115-11-11 07:55 J	-7451516.36	-7451516.17	-7451515.96	0.0089	0.0034
Venus	-25114-06-24 20:23 J	-7451290.85	-7451290.65	-7451290.44	0.0089	0.0032
Venus	-25113-02-05 08:23 J	-7451065.33	-7451065.15	-7451064.93	0.0089	0.0031
Venus	-25113-09-17 20:52 J	-7450839.82	-7450839.63	-7450839.42	0.0089	0.0029
Venus	-25112-05-01 09:35 J	-7450614.30	-7450614.10	-7450613.89	0.0089	0.0027
Venus	-25112-12-12 21:35 J	-7450388.79	-7450388.60	-7450388.38	0.0089	0.0026
Venus	-25111-07-26 10:04 J	-7450163.28	-7450163.08	-7450162.87	0.0089	0.0024
Venus	-25110-03-08 22:19 J	-7449937.78	-7449937.57	-7449937.36	0.0089	0.0022
Venus	-25110-10-20 10:33 J	-7449712.26	-7449712.06	-7449711.84	0.0089	0.0021
Venus	-25109-06-01 23:02 J	-7449486.75	-7449486.54	-7449486.33	0.0089	0.0019
Venus	-25108-01-13 11:16 J	-7449261.24	-7449261.03	-7449260.81	0.0089	0.0017
Venus	-25108-08-26 23:31 J	-7449035.73	-7449035.52	-7449035.30	0.0089	0.0016
Venus	-25107-04-09 11:59 J	-7448810.21	-7448810.00	-7448809.78	0.0089	0.0014
Venus	-25107-11-21 00:14 J	-7448584.70	-7448584.49	-7448584.27	0.0089	0.0012
Venus	-25106-07-04 12:43 J	-7448359.19	-7448358.97	-7448358.76	0.0089	0.0010
Venus	-25105-02-15 00:57 J	-7448133.67	-7448133.46	-7448133.24	0.0089	0.0008
Venus	-25105-09-27 13:26 J	-7447908.16	-7447907.94	-7447907.72	0.0089	0.0007
Venus	-25104-05-11 01:55 J	-7447682.63	-7447682.42	-7447682.20	0.0089	0.0005
Venus	-25104-12-22 14:23 J	-7447457.12	-7447456.90	-7447456.68	0.0089	0.0003
Venus	-25103-08-05 02:52 J	-7447231.60	-7447231.38	-7447231.17	0.0089	0.0002

Venus	-25102-03-18 15:07 J	-7447006.08	-7447005.87	-7447005.65	0.0089	0.0002
Venus	-25102-10-30 03:35 J	-7446780.56	-7446780.35	-7446780.13	0.0089	0.0003
Venus	-25101-06-11 16:04 J	-7446555.04	-7446554.83	-7446554.61	0.0089	0.0005
Venus	-25100-01-23 04:33 J	-7446329.52	-7446329.31	-7446329.09	0.0089	0.0006
Venus	-25100-09-05 17:02 J	-7446104.00	-7446103.79	-7446103.57	0.0089	0.0008
Venus	-25099-04-19 05:31 J	-7445878.48	-7445878.27	-7445878.05	0.0089	0.0009
Venus	-25099-11-30 17:45 J	-7445652.97	-7445652.76	-7445652.53	0.0089	0.0012
Venus	-25098-07-14 06:28 J	-7445427.45	-7445427.23	-7445427.02	0.0089	0.0013
Venus	-25097-02-24 18:43 J	-7445201.93	-7445201.72	-7445201.50	0.0089	0.0015
Venus	-25097-10-07 07:11 J	-7444976.41	-7444976.20	-7444975.98	0.0089	0.0017
Venus	-25096-05-20 19:55 J	-7444750.88	-7444750.67	-7444750.45	0.0089	0.0018
Venus	-25095-01-01 08:23 J	-7444525.36	-7444525.15	-7444524.93	0.0089	0.0020
Venus	-25095-08-14 20:38 J	-7444299.84	-7444299.64	-7444299.42	0.0089	0.0022
Venus	-25094-03-28 09:07 J	-7444074.32	-7444074.12	-7444073.90	0.0088	0.0024
Venus	-25094-11-08 21:50 J	-7443848.80	-7443848.59	-7443848.38	0.0088	0.0025
Venus	-25093-06-21 10:33 J	-7443623.26	-7443623.06	-7443622.85	0.0088	0.0026
Venus	-25092-02-01 23:02 J	-7443397.74	-7443397.54	-7443397.32	0.0088	0.0028
Venus	-25092-09-15 11:45 J	-7443172.21	-7443172.01	-7443171.80	0.0088	0.0030
Venus	-25091-04-29 00:14 J	-7442946.68	-7442946.49	-7442946.28	0.0088	0.0032
Venus	-25091-12-10 12:43 J	-7442721.16	-7442720.97	-7442720.75	0.0088	0.0034
Venus	-25090-07-24 01:40 J	-7442495.62	-7442495.43	-7442495.22	0.0088	0.0035
Venus	-25089-03-05 14:09 J	-7442270.10	-7442269.91	-7442269.70	0.0088	0.0036
Venus	-25089-10-17 03:07 J	-7442044.57	-7442044.37	-7442044.17	0.0088	0.0038
Venus	-25088-05-30 15:35 J	-7441819.03	-7441818.85	-7441818.64	0.0088	0.0040
Venus	-25087-01-11 04:33 J	-7441593.50	-7441593.31	-7441593.11	0.0088	0.0041
Venus	-25087-08-24 17:02 J	-7441367.97	-7441367.79	-7441367.58	0.0088	0.0042
Venus	-25086-04-07 05:45 J	-7441142.44	-7441142.26	-7441142.06	0.0088	0.0044
Venus	-25086-11-18 18:14 J	-7440916.91	-7440916.74	-7440916.53	0.0088	0.0046
Venus	-25085-07-01 07:26 J	-7440691.37	-7440691.19	-7440691.00	0.0088	0.0046
Venus	-25084-02-11 20:23 J	-7440465.83	-7440465.65	-7440465.47	0.0088	0.0048

Venus	-25084-09-25 08:38 J	-7440240.30	-7440240.14	-7440239.94	0.0088	0.0050
Venus	-25083-05-08 21:35 J	-7440014.77	-7440014.60	-7440014.41	0.0088	0.0050
Venus	-25083-12-20 10:33 J	-7439789.24	-7439789.06	-7439788.88	0.0088	0.0052
Venus	-25082-08-02 23:02 J	-7439563.70	-7439563.54	-7439563.35	0.0088	0.0053
Venus	-25081-03-15 11:59 J	-7439338.16	-7439338.00	-7439337.82	0.0088	0.0054
Venus	-25081-10-27 00:57 J	-7439112.63	-7439112.46	-7439112.28	0.0088	0.0055
Venus	-25080-06-09 13:55 J	-7438887.08	-7438886.92	-7438886.75	0.0088	0.0057
Venus	-25079-01-21 02:23 J	-7438661.54	-7438661.40	-7438661.21	0.0088	0.0058
Venus	-25079-09-03 15:21 J	-7438436.00	-7438435.86	-7438435.68	0.0088	0.0059
Venus	-25078-04-17 04:19 J	-7438210.46	-7438210.32	-7438210.14	0.0088	0.0060
Venus	-25078-11-28 17:16 J	-7437984.92	-7437984.78	-7437984.60	0.0088	0.0061
Venus	-25077-07-11 06:28 J	-7437759.37	-7437759.23	-7437759.06	0.0088	0.0062
Venus	-25076-02-21 19:26 J	-7437533.82	-7437533.69	-7437533.52	0.0088	0.0063
Venus	-25076-10-05 08:23 J	-7437308.28	-7437308.15	-7437307.98	0.0088	0.0064
Venus	-25075-05-18 21:21 J	-7437082.74	-7437082.61	-7437082.44	0.0088	0.0065
Venus	-25075-12-30 10:19 J	-7436857.19	-7436857.07	-7436856.90	0.0088	0.0066
Venus	-25074-08-12 23:31 J	-7436631.64	-7436631.52	-7436631.36	0.0088	0.0067
Venus	-25073-03-25 12:57 J	-7436406.10	-7436405.96	-7436405.81	0.0088	0.0067
Venus	-25073-11-06 01:40 J	-7436180.55	-7436180.43	-7436180.27	0.0088	0.0069
Venus	-25072-06-19 14:38 J	-7435955.00	-7435954.89	-7435954.73	0.0088	0.0070
Venus	-25071-01-31 03:35 J	-7435729.45	-7435729.35	-7435729.19	0.0088	0.0071
Venus	-25071-09-13 17:02 J	-7435503.91	-7435503.79	-7435503.64	0.0088	0.0071
Venus	-25070-04-27 05:59 J	-7435278.36	-7435278.25	-7435278.10	0.0088	0.0071
Venus	-25070-12-08 18:57 J	-7435052.81	-7435052.71	-7435052.56	0.0088	0.0072
Venus	-25069-07-21 08:23 J	-7434827.26	-7434827.15	-7434827.00	0.0088	0.0073
Venus	-25068-03-03 21:21 J	-7434601.70	-7434601.61	-7434601.46	0.0088	0.0074
Venus	-25068-10-15 10:47 J	-7434376.15	-7434376.05	-7434375.91	0.0088	0.0073
Moon	-25068-10-17 21:07 J	-7434373.71	-7434373.62	-7434373.47	0.0088	0.0077
Earth	-25068-10-17 22:19 J	-7434373.66	-7434373.57	-7434373.42	0.0088	0.0079 *
Venus	-25067-05-29 00:28 J	-7434150.60	-7434150.48	-7434150.36	0.0088	0.0074

Moon	-25067-10-20 10:33 J	-7434006.28	-7434006.06	-7434005.79	0.0088	0.0037
Earth	-25067-10-20 11:16 J	-7434006.25	-7434006.03	-7434005.77	0.0088	0.0035 *
Venus	-25066-01-09 13:11 J	-7433925.05	-7433924.95	-7433924.81	0.0088	0.0074
Venus	-25066-08-23 02:52 J	-7433699.49	-7433699.38	-7433699.25	0.0088	0.0074
Earth	-25066-10-23 00:14 J	-7433638.75	-7433638.49	-7433638.22	0.0088	0.0009
Moon	-25066-10-23 01:26 J	-7433638.68	-7433638.44	-7433638.18	0.0088	0.0010 *
Venus	-25065-04-04 15:50 J	-7433473.93	-7433473.84	-7433473.70	0.0088	0.0075
Moon	-25065-10-24 10:19 J	-7433271.28	-7433271.07	-7433270.84	0.0088	0.0051
Earth	-25065-10-24 12:43 J	-7433271.16	-7433270.97	-7433270.74	0.0088	0.0052 *
Venus	-25065-11-16 05:16 J	-7433248.38	-7433248.28	-7433248.14	0.0088	0.0075
Venus	-25064-06-29 18:43 J	-7433022.82	-7433022.72	-7433022.59	0.0088	0.0075
Venus	-25063-02-10 08:09 J	-7432797.26	-7432797.16	-7432797.03	0.0088	0.0075
Venus	-25063-09-23 21:35 J	-7432571.70	-7432571.60	-7432571.47	0.0088	0.0075
Venus	-25062-05-07 11:16 J	-7432346.14	-7432346.03	-7432345.92	0.0088	0.0075
Venus	-25062-12-18 23:59 J	-7432120.59	-7432120.50	-7432120.36	0.0088	0.0076
Venus	-25061-07-31 13:26 J	-7431895.02	-7431894.94	-7431894.80	0.0088	0.0076
Venus	-25060-03-14 03:35 J	-7431669.46	-7431669.35	-7431669.24	0.0088	0.0076
Venus	-25060-10-25 16:47 J	-7431443.91	-7431443.80	-7431443.68	0.0088	0.0076
Venus	-25059-06-08 06:14 J	-7431218.35	-7431218.24	-7431218.12	0.0088	0.0075
Venus	-25058-01-19 19:26 J	-7430992.79	-7430992.69	-7430992.56	0.0088	0.0075
Venus	-25058-09-02 08:52 J	-7430767.23	-7430767.13	-7430767.00	0.0088	0.0075
Venus	-25057-04-14 22:19 J	-7430541.67	-7430541.57	-7430541.44	0.0088	0.0075
Venus	-25057-11-26 11:31 J	-7430316.11	-7430316.02	-7430315.87	0.0088	0.0075
Venus	-25056-07-10 01:26 J	-7430090.55	-7430090.44	-7430090.31	0.0088	0.0074
Venus	-25055-02-20 14:38 J	-7429864.99	-7429864.89	-7429864.75	0.0088	0.0075
Venus	-25055-10-04 04:04 J	-7429639.42	-7429639.33	-7429639.18	0.0088	0.0074
Venus	-25054-05-17 17:59 J	-7429413.86	-7429413.75	-7429413.61	0.0088	0.0073
Venus	-25054-12-29 07:11 J	-7429188.30	-7429188.20	-7429188.05	0.0088	0.0073
Venus	-25053-08-10 21:07 J	-7428962.73	-7428962.62	-7428962.47	0.0088	0.0073
Venus	-25052-03-24 10:33 J	-7428737.16	-7428737.06	-7428736.90	0.0088	0.0072

Venus	-25052-11-05 00:28 J	-7428511.60	-7428511.48	-7428511.33	0.0088	0.0071
Venus	-25051-06-18 14:23 J	-7428286.03	-7428285.90	-7428285.77	0.0088	0.0070
Mars	-25051-11-16 11:45 J	-7428135.26	-7428135.01	-7428134.72	0.0088	0.0040
Mercury	-25051-12-17 05:31 J	-7428104.34	-7428104.27	-7428104.19	0.0088	0.0080
Venus	-25050-01-30 03:35 J	-7428060.47	-7428060.35	-7428060.20	0.0088	0.0070
Mercury	-25050-03-15 08:38 J	-7428016.23	-7428016.14	-7428016.01	0.0088	0.0071
Mercury	-25050-06-11 12:14 J	-7427928.11	-7427927.99	-7427927.84	0.0088	0.0061
Mercury	-25050-09-07 15:50 J	-7427839.99	-7427839.84	-7427839.68	0.0088	0.0052
Venus	-25050-09-12 17:31 J	-7427834.89	-7427834.77	-7427834.62	0.0088	0.0069
Mercury	-25050-12-04 18:57 J	-7427751.86	-7427751.71	-7427751.53	0.0088	0.0043
Mercury	-25049-03-01 22:47 J	-7427663.73	-7427663.55	-7427663.38	0.0088	0.0033
Venus	-25049-04-25 07:11 J	-7427609.33	-7427609.20	-7427609.05	0.0088	0.0069
Mercury	-25049-05-29 01:55 J	-7427575.60	-7427575.42	-7427575.23	0.0088	0.0023
Mercury	-25049-08-25 05:16 J	-7427487.46	-7427487.28	-7427487.09	0.0088	0.0014
Mars	-25049-10-10 13:26 J	-7427441.23	-7427440.94	-7427440.64	0.0088	0.0018
Mercury	-25049-11-21 08:52 J	-7427399.32	-7427399.13	-7427398.94	0.0088	0.0005
Venus	-25049-12-06 20:38 J	-7427383.76	-7427383.64	-7427383.48	0.0088	0.0068
Mercury	-25048-02-17 11:59 J	-7427311.18	-7427311.00	-7427310.81	0.0088	0.0006
Mercury	-25048-05-16 15:21 J	-7427223.04	-7427222.86	-7427222.67	0.0088	0.0015
Venus	-25048-07-20 10:19 J	-7427158.20	-7427158.07	-7427157.91	0.0088	0.0067
Mercury	-25048-08-12 18:28 J	-7427134.90	-7427134.73	-7427134.54	0.0088	0.0025
Mercury	-25048-11-08 22:04 J	-7427046.76	-7427046.58	-7427046.41	0.0088	0.0033
Mercury	-25047-02-05 00:57 J	-7426958.61	-7426958.46	-7426958.28	0.0088	0.0043
Venus	-25047-03-02 23:59 J	-7426932.63	-7426932.50	-7426932.34	0.0088	0.0066
Mercury	-25047-05-04 04:19 J	-7426870.46	-7426870.32	-7426870.16	0.0088	0.0052
Mercury	-25047-07-31 07:40 J	-7426782.31	-7426782.18	-7426782.04	0.0088	0.0061
Mars	-25047-09-04 16:04 J	-7426746.95	-7426746.83	-7426746.66	0.0088	0.0077
Venus	-25047-10-14 13:40 J	-7426707.06	-7426706.93	-7426706.76	0.0088	0.0065
Mercury	-25047-10-27 11:02 J	-7426694.15	-7426694.04	-7426693.93	0.0088	0.0071
Mercury	-25046-01-23 13:55 J	-7426605.98	-7426605.92	-7426605.82	0.0088	0.0080

Venus	-25046-05-28 03:21 J	-7426481.50	-7426481.36	-7426481.19	0.0088	0.0064
Venus	-25045-01-08 17:02 J	-7426255.93	-7426255.79	-7426255.62	0.0088	0.0063
Venus	-25045-08-21 06:43 J	-7426030.36	-7426030.22	-7426030.05	0.0088	0.0062
Venus	-25044-04-03 20:23 J	-7425804.80	-7425804.65	-7425804.48	0.0088	0.0061
Venus	-25044-11-15 10:04 J	-7425579.23	-7425579.08	-7425578.90	0.0088	0.0060
Venus	-25043-06-28 23:45 J	-7425353.66	-7425353.51	-7425353.33	0.0088	0.0059
Venus	-25042-02-09 13:11 J	-7425128.10	-7425127.95	-7425127.76	0.0088	0.0059
Venus	-25042-09-23 03:07 J	-7424902.52	-7424902.37	-7424902.18	0.0088	0.0057
Venus	-25041-05-05 17:16 J	-7424676.95	-7424676.78	-7424676.60	0.0088	0.0056
Venus	-25041-12-17 06:57 J	-7424451.38	-7424451.21	-7424451.03	0.0088	0.0054
Venus	-25040-07-30 20:23 J	-7424225.81	-7424225.65	-7424225.46	0.0088	0.0053
Venus	-25039-03-13 10:04 J	-7424000.24	-7424000.08	-7423999.88	0.0088	0.0052
Venus	-25039-10-25 00:14 J	-7423774.67	-7423774.49	-7423774.30	0.0088	0.0051
Venus	-25038-06-07 13:55 J	-7423549.10	-7423548.92	-7423548.72	0.0088	0.0049
Venus	-25037-01-19 03:35 J	-7423323.52	-7423323.35	-7423323.15	0.0088	0.0048
Venus	-25037-08-31 17:31 J	-7423097.95	-7423097.77	-7423097.57	0.0088	0.0047
Venus	-25036-04-14 07:11 J	-7422872.38	-7422872.20	-7422871.99	0.0088	0.0045
Venus	-25036-11-25 21:07 J	-7422646.81	-7422646.62	-7422646.42	0.0088	0.0044
Venus	-25035-07-09 10:47 J	-7422421.24	-7422421.05	-7422420.84	0.0088	0.0042
Venus	-25034-02-20 00:43 J	-7422195.67	-7422195.47	-7422195.27	0.0088	0.0041
Venus	-25034-10-03 14:09 J	-7421970.09	-7421969.91	-7421969.69	0.0088	0.0040
Venus	-25033-05-16 04:19 J	-7421744.52	-7421744.32	-7421744.12	0.0088	0.0038
Venus	-25033-12-27 17:45 J	-7421518.95	-7421518.76	-7421518.54	0.0088	0.0036
Venus	-25032-08-10 07:26 J	-7421293.39	-7421293.19	-7421292.97	0.0088	0.0035
Venus	-25031-03-23 21:07 J	-7421067.82	-7421067.62	-7421067.40	0.0088	0.0033
Venus	-25031-11-04 11:02 J	-7420842.24	-7420842.04	-7420841.82	0.0088	0.0032
Venus	-25030-06-18 00:57 J	-7420616.67	-7420616.46	-7420616.25	0.0088	0.0030
Venus	-25029-01-29 14:23 J	-7420391.10	-7420390.90	-7420390.67	0.0088	0.0029
Venus	-25029-09-11 04:19 J	-7420165.53	-7420165.32	-7420165.10	0.0088	0.0027
Venus	-25028-04-24 18:14 J	-7419939.96	-7419939.74	-7419939.52	0.0088	0.0025

Venus	-25028-12-06 07:55 J	-7419714.38	-7419714.17	-7419713.95	0.0088	0.0023
Venus	-25027-07-19 21:35 J	-7419488.81	-7419488.60	-7419488.37	0.0088	0.0022
Venus	-25026-03-02 11:31 J	-7419263.24	-7419263.02	-7419262.80	0.0088	0.0020
Venus	-25026-10-14 01:26 J	-7419037.66	-7419037.44	-7419037.22	0.0088	0.0018
Venus	-25025-05-26 15:07 J	-7418812.09	-7418811.87	-7418811.64	0.0088	0.0016
Venus	-25024-01-07 04:47 J	-7418586.51	-7418586.30	-7418586.07	0.0089	0.0015
Venus	-25024-08-20 18:43 J	-7418360.94	-7418360.72	-7418360.50	0.0089	0.0013
Venus	-25023-04-03 08:09 J	-7418135.37	-7418135.16	-7418134.93	0.0089	0.0012
Venus	-25023-11-14 22:04 J	-7417909.80	-7417909.58	-7417909.35	0.0089	0.0010
Venus	-25022-06-28 11:45 J	-7417684.23	-7417684.01	-7417683.78	0.0089	0.0008
Venus	-25021-02-09 01:26 J	-7417458.66	-7417458.44	-7417458.21	0.0089	0.0006
Venus	-25021-09-21 15:07 J	-7417233.09	-7417232.87	-7417232.64	0.0089	0.0004
Venus	-25020-05-05 04:47 J	-7417007.52	-7417007.30	-7417007.08	0.0089	0.0002
Venus	-25020-12-16 18:28 J	-7416781.95	-7416781.73	-7416781.50	0.0089	0.0001
Venus	-25019-07-30 08:09 J	-7416556.39	-7416556.16	-7416555.94	0.0089	0.0002
Venus	-25018-03-12 21:35 J	-7416330.82	-7416330.60	-7416330.37	0.0089	0.0003
Venus	-25018-10-24 11:16 J	-7416105.25	-7416105.03	-7416104.80	0.0089	0.0005
Venus	-25017-06-06 00:57 J	-7415879.68	-7415879.46	-7415879.24	0.0089	0.0006
Venus	-25016-01-17 14:38 J	-7415654.11	-7415653.89	-7415653.67	0.0089	0.0008
Venus	-25016-08-31 04:04 J	-7415428.55	-7415428.33	-7415428.11	0.0089	0.0010
Venus	-25015-04-13 17:31 J	-7415202.98	-7415202.77	-7415202.54	0.0089	0.0012
Venus	-25015-11-25 07:11 J	-7414977.41	-7414977.20	-7414976.97	0.0089	0.0014
Venus	-25014-07-08 21:07 J	-7414751.84	-7414751.62	-7414751.40	0.0089	0.0015
Venus	-25013-02-19 10:33 J	-7414526.28	-7414526.06	-7414525.84	0.0089	0.0017
Venus	-25013-10-01 23:59 J	-7414300.71	-7414300.50	-7414300.28	0.0089	0.0019
Venus	-25012-05-15 13:40 J	-7414075.15	-7414074.93	-7414074.71	0.0089	0.0020
Venus	-25012-12-27 03:07 J	-7413849.58	-7413849.37	-7413849.14	0.0089	0.0022
Venus	-25011-08-09 16:33 J	-7413624.01	-7413623.81	-7413623.58	0.0089	0.0024
Venus	-25010-03-23 06:14 J	-7413398.45	-7413398.24	-7413398.03	0.0089	0.0025
Venus	-25010-11-03 19:26 J	-7413172.89	-7413172.69	-7413172.46	0.0089	0.0027

Venus	-25009-06-16 08:52 J	-7412947.33	-7412947.13	-7412946.91	0.0089	0.0029
Venus	-25008-01-27 22:33 J	-7412721.76	-7412721.56	-7412721.35	0.0089	0.0030
Venus	-25008-09-10 11:45 J	-7412496.21	-7412496.01	-7412495.79	0.0089	0.0032
Venus	-25007-04-24 01:11 J	-7412270.65	-7412270.45	-7412270.24	0.0089	0.0033
Venus	-25007-12-05 14:23 J	-7412045.09	-7412044.90	-7412044.68	0.0089	0.0035
Venus	-25006-07-19 04:04 J	-7411819.53	-7411819.33	-7411819.12	0.0089	0.0036
Venus	-25005-02-29 17:02 J	-7411593.97	-7411593.79	-7411593.57	0.0089	0.0038
Venus	-25005-10-12 06:28 J	-7411368.42	-7411368.23	-7411368.02	0.0089	0.0039
Venus	-25004-05-25 19:40 J	-7411142.86	-7411142.68	-7411142.47	0.0089	0.0041
Venus	-25003-01-06 09:07 J	-7410917.30	-7410917.12	-7410916.91	0.0089	0.0042
Venus	-25003-08-19 22:33 J	-7410691.74	-7410691.56	-7410691.36	0.0089	0.0044
Venus	-25002-04-02 11:31 J	-7410466.19	-7410466.02	-7410465.81	0.0089	0.0045
Venus	-25002-11-14 00:57 J	-7410240.63	-7410240.46	-7410240.26	0.0089	0.0046
Venus	-25001-06-26 14:38 J	-7410015.08	-7410014.89	-7410014.71	0.0089	0.0047

25TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 25th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-25000-02-07 03:35 J	-7409789.52	-7409789.35	-7409789.15	0.0089	0.0049		
Venus	-25000-09-20 16:47 J	-7409563.96	-7409563.80	-7409563.60	0.0089	0.0050		
Venus	-24999-05-04 06:14 J	-7409338.41	-7409338.24	-7409338.05	0.0089	0.0051		
Venus	-24999-12-15 19:26 J	-7409112.86	-7409112.69	-7409112.50	0.0089	0.0053		

Venus	-24998-07-29 08:52 J	-7408887.30	-7408887.13	-7408886.95	0.0089	0.0054
Venus	-24997-03-10 22:04 J	-7408661.75	-7408661.58	-7408661.41	0.0089	0.0055
Venus	-24997-10-22 10:33 J	-7408436.21	-7408436.06	-7408435.87	0.0089	0.0056
Venus	-24996-06-04 23:45 J	-7408210.66	-7408210.51	-7408210.32	0.0089	0.0057
Venus	-24995-01-16 12:57 J	-7407985.11	-7407984.96	-7407984.78	0.0089	0.0058
Venus	-24995-08-30 01:55 J	-7407759.56	-7407759.42	-7407759.24	0.0089	0.0059
Venus	-24994-04-12 14:52 J	-7407534.02	-7407533.88	-7407533.70	0.0089	0.0060
Venus	-24994-11-24 03:50 J	-7407308.48	-7407308.34	-7407308.16	0.0089	0.0061
Venus	-24993-07-06 17:16 J	-7407082.93	-7407082.78	-7407082.62	0.0089	0.0062
Venus	-24992-02-17 06:14 J	-7406857.38	-7406857.24	-7406857.07	0.0089	0.0063
Venus	-24992-09-30 19:11 J	-7406631.84	-7406631.70	-7406631.54	0.0089	0.0064
Venus	-24991-05-14 07:55 J	-7406406.30	-7406406.17	-7406406.00	0.0089	0.0065
Venus	-24991-12-25 20:52 J	-7406180.75	-7406180.63	-7406180.46	0.0089	0.0066
Venus	-24990-08-08 10:19 J	-7405955.21	-7405955.07	-7405954.92	0.0089	0.0066
Venus	-24989-03-20 23:02 J	-7405729.67	-7405729.54	-7405729.38	0.0089	0.0066
Venus	-24989-11-01 11:45 J	-7405504.13	-7405504.01	-7405503.84	0.0089	0.0067
Venus	-24988-06-15 00:57 J	-7405278.59	-7405278.46	-7405278.31	0.0089	0.0068
Venus	-24987-01-26 13:40 J	-7405053.04	-7405052.93	-7405052.76	0.0089	0.0069
Venus	-24987-09-09 02:52 J	-7404827.50	-7404827.38	-7404827.23	0.0089	0.0069
Venus	-24986-04-22 15:35 J	-7404601.97	-7404601.85	-7404601.70	0.0089	0.0069
Venus	-24986-12-04 04:33 J	-7404376.43	-7404376.31	-7404376.16	0.0089	0.0070
Moon	-24985-04-18 15:50 J	-7404239.98	-7404239.84	-7404239.66	0.0089	0.0071
Earth	-24985-04-18 16:33 J	-7404239.93	-7404239.81	-7404239.65	0.0089	0.0075 *
Venus	-24985-07-16 17:45 J	-7404150.90	-7404150.76	-7404150.63	0.0089	0.0070
Venus	-24984-02-27 06:14 J	-7403925.36	-7403925.24	-7403925.09	0.0089	0.0070
Earth	-24984-04-21 03:21 J	-7403872.59	-7403872.36	-7403872.12	0.0089	0.0031
Moon	-24984-04-21 04:47 J	-7403872.51	-7403872.30	-7403872.06	0.0089	0.0035 *
Venus	-24984-10-10 19:11 J	-7403699.82	-7403699.70	-7403699.56	0.0089	0.0071
Moon	-24983-04-23 10:47 J	-7403505.30	-7403505.05	-7403504.79	0.0089	0.0017
Earth	-24983-04-23 14:09 J	-7403505.16	-7403504.91	-7403504.66	0.0089	0.0013 *

Venus	-24983-05-24 07:55 J	-7403474.29	-7403474.17	-7403474.03	0.0089	0.0071
Venus	-24982-01-04 20:23 J	-7403248.76	-7403248.65	-7403248.50	0.0089	0.0071
Earth	-24982-04-25 23:59 J	-7403137.67	-7403137.50	-7403137.28	0.0089	0.0057
Moon	-24982-04-26 03:21 J	-7403137.55	-7403137.36	-7403137.14	0.0089	0.0052 *
Venus	-24982-08-18 09:07 J	-7403023.23	-7403023.12	-7403022.97	0.0089	0.0072
Venus	-24981-03-30 21:50 J	-7402797.70	-7402797.59	-7402797.44	0.0089	0.0072
Venus	-24981-11-11 10:33 J	-7402572.17	-7402572.06	-7402571.92	0.0089	0.0072
Venus	-24980-06-24 23:16 J	-7402346.65	-7402346.53	-7402346.39	0.0089	0.0072
Venus	-24979-02-05 11:59 J	-7402121.11	-7402121.00	-7402120.86	0.0089	0.0072
Venus	-24979-09-19 00:43 J	-7401895.59	-7401895.47	-7401895.33	0.0089	0.0072
Venus	-24978-05-02 13:11 J	-7401670.06	-7401669.95	-7401669.81	0.0089	0.0072
Venus	-24978-12-14 01:55 J	-7401444.54	-7401444.42	-7401444.28	0.0089	0.0072
Venus	-24977-07-26 14:23 J	-7401219.01	-7401218.90	-7401218.75	0.0089	0.0072
Venus	-24976-03-09 03:07 J	-7400993.48	-7400993.37	-7400993.22	0.0089	0.0072
Venus	-24976-10-20 15:35 J	-7400767.96	-7400767.85	-7400767.70	0.0089	0.0072
Jupiter	-24975-05-25 05:31 J	-7400551.78	-7400551.27	-7400550.74	0.0089	0.0009
Venus	-24975-06-03 04:33 J	-7400542.43	-7400542.31	-7400542.17	0.0089	0.0071
Venus	-24974-01-14 17:02 J	-7400316.91	-7400316.79	-7400316.65	0.0089	0.0071
Venus	-24974-08-28 05:31 J	-7400091.38	-7400091.27	-7400091.12	0.0089	0.0070
Venus	-24973-04-09 18:28 J	-7399865.86	-7399865.73	-7399865.59	0.0089	0.0070
Venus	-24973-11-21 06:43 J	-7399640.34	-7399640.22	-7399640.07	0.0089	0.0069
Venus	-24972-07-04 19:26 J	-7399414.82	-7399414.69	-7399414.55	0.0089	0.0069
Venus	-24971-02-15 07:40 J	-7399189.30	-7399189.18	-7399189.02	0.0089	0.0069
Venus	-24971-09-28 20:38 J	-7398963.78	-7398963.64	-7398963.50	0.0089	0.0068
Venus	-24970-05-12 08:38 J	-7398738.26	-7398738.14	-7398737.98	0.0089	0.0068
Venus	-24970-12-23 21:21 J	-7398512.75	-7398512.61	-7398512.47	0.0089	0.0067
Mercury	-24970-12-27 11:31 J	-7398509.05	-7398509.02	-7398508.98	0.0089	0.0086
Mercury	-24969-03-24 12:57 J	-7398421.02	-7398420.96	-7398420.90	0.0089	0.0079
Mercury	-24969-06-20 14:09 J	-7398332.98	-7398332.91	-7398332.82	0.0089	0.0072
Venus	-24969-08-05 09:21 J	-7398287.23	-7398287.11	-7398286.95	0.0089	0.0067

Mercury -24969-09-16 15:21 J -7398244.93 -7398244.86 -7398244.75 0.0089 0.0066

Mars -24969-10-04 18:43 J -7398227.00 -7398226.72 -7398226.44 0.0089 0.0049

Mercury -24969-12-13 16:47 J -7398156.89 -7398156.80 -7398156.69 0.0089 0.0059

Mercury -24968-03-11 18:14 J -7398068.84 -7398068.74 -7398068.62 0.0089 0.0052

Venus -24968-03-18 22:04 J -7398061.71 -7398061.58 -7398061.42 0.0089 0.0066

Mercury -24968-06-07 19:40 J -7397980.79 -7397980.68 -7397980.56 0.0089 0.0045

Mercury -24968-09-03 21:07 J -7397892.74 -7397892.62 -7397892.49 0.0089 0.0038

Venus -24968-10-30 10:33 J -7397836.20 -7397836.06 -7397835.90 0.0089 0.0065

Mercury -24968-11-30 22:33 J -7397804.68 -7397804.56 -7397804.43 0.0089 0.0031

Mercury -24967-02-26 23:59 J -7397716.63 -7397716.50 -7397716.37 0.0089 0.0024

Mercury -24967-05-26 01:26 J -7397628.57 -7397628.44 -7397628.31 0.0089 0.0017

Venus -24967-06-12 22:33 J -7397610.68 -7397610.56 -7397610.39 0.0089 0.0065

Mercury -24967-08-22 02:52 J -7397540.52 -7397540.38 -7397540.25 0.0089 0.0010

Mars -24967-08-31 12:14 J -7397531.30 -7397530.99 -7397530.65 0.0089 0.0019

Mercury -24967-11-18 04:19 J -7397452.46 -7397452.32 -7397452.19 0.0089 0.0003

Venus -24966-01-24 11:02 J -7397385.17 -7397385.04 -7397384.87 0.0089 0.0064

Mercury -24966-02-14 05:31 J -7397364.40 -7397364.27 -7397364.13 0.0089 0.0006

Mercury -24966-05-13 06:57 J -7397276.34 -7397276.21 -7397276.07 0.0089 0.0012

Mercury -24966-08-09 08:23 J -7397188.28 -7397188.15 -7397188.01 0.0089 0.0018

Venus -24966-09-06 23:31 J -7397159.66 -7397159.52 -7397159.35 0.0089 0.0063

Mercury -24966-11-05 09:50 J -7397100.22 -7397100.09 -7397099.96 0.0089 0.0025

Mercury -24965-02-01 11:16 J -7397012.15 -7397012.03 -7397011.90 0.0089 0.0032

Venus -24965-04-19 12:14 J -7396934.14 -7396933.99 -7396933.83 0.0089 0.0062

Mercury -24965-04-29 12:43 J -7396924.09 -7396923.97 -7396923.85 0.0089 0.0039

Mercury -24965-07-26 14:09 J -7396836.02 -7396835.91 -7396835.79 0.0089 0.0047

Mars -24965-07-27 04:33 J -7396835.40 -7396835.31 -7396835.19 0.0089 0.0085

Mercury -24965-10-22 15:35 J -7396747.96 -7396747.85 -7396747.74 0.0089 0.0054

Venus -24965-12-01 00:43 J -7396708.62 -7396708.47 -7396708.31 0.0089 0.0061

Mercury -24964-01-18 17:02 J -7396659.89 -7396659.79 -7396659.69 0.0089 0.0061

Mercury -24964-04-16 18:14 J -7396571.81 -7396571.74 -7396571.64 0.0089 0.0068

Mercury	-24964-07-13 19:40 J	-7396483.74	-7396483.68	-7396483.59	0.0089	0.0075
Venus	-24964-07-14 13:11 J	-7396483.11	-7396482.95	-7396482.79	0.0089	0.0060
Mercury	-24964-10-09 21:07 J	-7396395.66	-7396395.62	-7396395.55	0.0089	0.0083
Mercury	-24963-01-05 23:02 J	-7396307.54	-7396307.54	-7396307.54	0.0089	0.0089
Venus	-24963-02-25 01:26 J	-7396257.59	-7396257.44	-7396257.27	0.0089	0.0059
Venus	-24963-10-08 13:55 J	-7396032.08	-7396031.92	-7396031.75	0.0089	0.0058
Venus	-24962-05-22 02:23 J	-7395806.56	-7395806.40	-7395806.23	0.0089	0.0057
Venus	-24961-01-02 14:38 J	-7395581.05	-7395580.89	-7395580.72	0.0089	0.0056
Venus	-24961-08-15 03:07 J	-7395355.54	-7395355.37	-7395355.20	0.0089	0.0055
Venus	-24960-03-28 15:35 J	-7395130.02	-7395129.85	-7395129.67	0.0089	0.0053
Venus	-24960-11-09 03:50 J	-7394904.51	-7394904.34	-7394904.16	0.0089	0.0052
Venus	-24959-06-22 16:04 J	-7394679.00	-7394678.83	-7394678.64	0.0089	0.0051
Venus	-24958-02-03 04:19 J	-7394453.49	-7394453.32	-7394453.13	0.0089	0.0050
Venus	-24958-09-16 16:33 J	-7394227.97	-7394227.81	-7394227.61	0.0089	0.0049
Venus	-24957-04-29 05:16 J	-7394002.46	-7394002.28	-7394002.09	0.0089	0.0048
Venus	-24957-12-10 17:31 J	-7393776.95	-7393776.77	-7393776.58	0.0089	0.0046
Venus	-24956-07-24 05:31 J	-7393551.44	-7393551.27	-7393551.07	0.0089	0.0046
Venus	-24955-03-06 17:45 J	-7393325.93	-7393325.76	-7393325.55	0.0089	0.0044
Venus	-24955-10-18 06:28 J	-7393100.42	-7393100.23	-7393100.04	0.0089	0.0042
Venus	-24954-05-31 18:28 J	-7392874.91	-7392874.73	-7392874.53	0.0089	0.0041
Venus	-24953-01-12 06:43 J	-7392649.40	-7392649.22	-7392649.01	0.0089	0.0040
Venus	-24953-08-24 19:11 J	-7392423.89	-7392423.70	-7392423.50	0.0089	0.0038
Venus	-24952-04-07 07:26 J	-7392198.37	-7392198.19	-7392197.98	0.0089	0.0037
Venus	-24952-11-18 20:09 J	-7391972.86	-7391972.66	-7391972.46	0.0089	0.0035
Venus	-24951-07-02 08:09 J	-7391747.35	-7391747.16	-7391746.95	0.0089	0.0034
Venus	-24950-02-12 20:23 J	-7391521.84	-7391521.65	-7391521.44	0.0089	0.0033
Venus	-24950-09-26 08:52 J	-7391296.32	-7391296.13	-7391295.92	0.0089	0.0031
Venus	-24949-05-08 21:35 J	-7391070.80	-7391070.60	-7391070.40	0.0089	0.0029
Venus	-24949-12-20 09:50 J	-7390845.29	-7390845.09	-7390844.88	0.0089	0.0028
Venus	-24948-08-02 22:19 J	-7390619.78	-7390619.57	-7390619.36	0.0089	0.0026

Venus	-24947-03-16 10:19 J	-7390394.26	-7390394.07	-7390393.85	0.0089	0.0025
Venus	-24947-10-27 23:02 J	-7390168.75	-7390168.54	-7390168.34	0.0089	0.0023
Venus	-24946-06-10 11:02 J	-7389943.24	-7389943.04	-7389942.82	0.0089	0.0022
Venus	-24945-01-21 23:31 J	-7389717.73	-7389717.52	-7389717.31	0.0089	0.0020
Venus	-24945-09-03 11:45 J	-7389492.21	-7389492.01	-7389491.79	0.0089	0.0019
Venus	-24944-04-17 00:14 J	-7389266.70	-7389266.49	-7389266.27	0.0089	0.0017
Venus	-24944-11-28 12:28 J	-7389041.19	-7389040.98	-7389040.76	0.0089	0.0016
Venus	-24943-07-12 00:43 J	-7388815.68	-7388815.47	-7388815.25	0.0089	0.0014
Venus	-24942-02-22 13:11 J	-7388590.16	-7388589.95	-7388589.74	0.0089	0.0012
Venus	-24942-10-06 01:26 J	-7388364.65	-7388364.44	-7388364.22	0.0089	0.0011
Venus	-24941-05-18 13:55 J	-7388139.13	-7388138.92	-7388138.70	0.0089	0.0009
Venus	-24941-12-30 02:09 J	-7387913.62	-7387913.41	-7387913.18	0.0089	0.0008
Venus	-24940-08-12 14:38 J	-7387688.10	-7387687.89	-7387687.67	0.0089	0.0006
Venus	-24939-03-26 03:07 J	-7387462.59	-7387462.37	-7387462.16	0.0089	0.0004
Venus	-24939-11-06 15:21 J	-7387237.07	-7387236.86	-7387236.64	0.0089	0.0003
Venus	-24938-06-20 03:50 J	-7387011.55	-7387011.34	-7387011.12	0.0089	0.0002
Venus	-24937-01-31 16:19 J	-7386786.03	-7386785.82	-7386785.60	0.0089	0.0001
Venus	-24937-09-13 04:47 J	-7386560.52	-7386560.30	-7386560.08	0.0089	0.0003
Venus	-24936-04-26 17:16 J	-7386334.99	-7386334.78	-7386334.56	0.0089	0.0004
Venus	-24936-12-08 05:45 J	-7386109.48	-7386109.26	-7386109.04	0.0089	0.0006
Venus	-24935-07-21 18:14 J	-7385883.96	-7385883.74	-7385883.52	0.0089	0.0008
Venus	-24934-03-04 06:28 J	-7385658.44	-7385658.23	-7385658.01	0.0089	0.0009
Venus	-24934-10-15 18:57 J	-7385432.92	-7385432.71	-7385432.49	0.0089	0.0011
Venus	-24933-05-28 07:40 J	-7385207.39	-7385207.18	-7385206.96	0.0089	0.0012
Venus	-24932-01-08 20:09 J	-7384981.87	-7384981.66	-7384981.44	0.0089	0.0014
Venus	-24932-08-22 08:23 J	-7384756.36	-7384756.15	-7384755.93	0.0089	0.0016
Venus	-24931-04-04 20:52 J	-7384530.84	-7384530.63	-7384530.41	0.0089	0.0017
Venus	-24931-11-16 09:21 J	-7384305.32	-7384305.11	-7384304.89	0.0089	0.0019
Venus	-24930-06-29 21:50 J	-7384079.79	-7384079.59	-7384079.37	0.0089	0.0021
Venus	-24929-02-10 10:33 J	-7383854.27	-7383854.06	-7383853.85	0.0089	0.0022

Venus	-24929-09-22 22:47 J	-7383628.75	-7383628.55	-7383628.33	0.0088	0.0024
Venus	-24928-05-06 11:16 J	-7383403.22	-7383403.03	-7383402.81	0.0088	0.0026
Venus	-24928-12-17 23:59 J	-7383177.70	-7383177.50	-7383177.28	0.0088	0.0027
Venus	-24927-07-31 12:28 J	-7382952.18	-7382951.98	-7382951.76	0.0088	0.0028
Venus	-24926-03-14 01:11 J	-7382726.65	-7382726.45	-7382726.24	0.0088	0.0030
Venus	-24926-10-25 13:40 J	-7382501.12	-7382500.93	-7382500.71	0.0088	0.0031
Venus	-24925-06-07 02:38 J	-7382275.59	-7382275.39	-7382275.18	0.0088	0.0033
Venus	-24924-01-18 15:07 J	-7382050.06	-7382049.87	-7382049.65	0.0088	0.0034
Venus	-24924-09-01 03:50 J	-7381824.53	-7381824.34	-7381824.13	0.0088	0.0036
Venus	-24923-04-14 16:47 J	-7381599.00	-7381598.80	-7381598.60	0.0088	0.0037
Venus	-24923-11-26 05:02 J	-7381373.47	-7381373.29	-7381373.07	0.0088	0.0039
Venus	-24922-07-09 18:14 J	-7381147.93	-7381147.74	-7381147.54	0.0088	0.0040
Venus	-24921-02-20 06:43 J	-7380922.40	-7380922.22	-7380922.01	0.0088	0.0041
Venus	-24921-10-02 19:26 J	-7380696.87	-7380696.69	-7380696.48	0.0088	0.0043
Venus	-24920-05-16 08:23 J	-7380471.34	-7380471.15	-7380470.95	0.0088	0.0043
Venus	-24920-12-27 21:21 J	-7380245.80	-7380245.61	-7380245.42	0.0088	0.0045
Venus	-24919-08-10 09:35 J	-7380020.27	-7380020.10	-7380019.89	0.0088	0.0047
Venus	-24918-03-23 22:33 J	-7379794.73	-7379794.56	-7379794.36	0.0088	0.0047
Venus	-24918-11-04 11:16 J	-7379569.20	-7379569.03	-7379568.83	0.0088	0.0049
Venus	-24917-06-17 00:14 J	-7379343.66	-7379343.49	-7379343.30	0.0088	0.0050
Venus	-24916-01-28 13:11 J	-7379118.12	-7379117.95	-7379117.76	0.0088	0.0051
Venus	-24916-09-11 01:40 J	-7378892.59	-7378892.43	-7378892.23	0.0088	0.0052
Venus	-24915-04-24 14:23 J	-7378667.05	-7378666.90	-7378666.70	0.0088	0.0054
Venus	-24915-12-06 03:21 J	-7378441.51	-7378441.36	-7378441.17	0.0088	0.0054
Venus	-24914-07-19 16:33 J	-7378215.97	-7378215.81	-7378215.62	0.0088	0.0055
Venus	-24913-03-01 05:31 J	-7377990.43	-7377990.27	-7377990.09	0.0088	0.0056
Venus	-24913-10-12 18:28 J	-7377764.88	-7377764.73	-7377764.55	0.0088	0.0057
Venus	-24912-05-26 07:11 J	-7377539.34	-7377539.20	-7377539.01	0.0088	0.0059
Venus	-24911-01-06 20:23 J	-7377313.80	-7377313.65	-7377313.47	0.0088	0.0059
Venus	-24911-08-20 09:50 J	-7377088.25	-7377088.09	-7377087.93	0.0088	0.0060

Venus	-24910-04-02 22:47 J	-7376862.70	-7376862.55	-7376862.38	0.0088	0.0060
Venus	-24910-11-14 11:45 J	-7376637.16	-7376637.01	-7376636.84	0.0088	0.0061
Venus	-24909-06-27 00:43 J	-7376411.61	-7376411.47	-7376411.30	0.0088	0.0062
Venus	-24908-02-07 13:40 J	-7376186.06	-7376185.93	-7376185.75	0.0088	0.0063
Venus	-24908-09-21 03:07 J	-7375960.52	-7375960.37	-7375960.21	0.0088	0.0064
Venus	-24907-05-04 16:04 J	-7375734.97	-7375734.83	-7375734.67	0.0088	0.0064
Venus	-24907-12-16 04:47 J	-7375509.42	-7375509.30	-7375509.13	0.0088	0.0066
Venus	-24906-07-29 18:28 J	-7375283.87	-7375283.73	-7375283.57	0.0088	0.0065
Venus	-24905-03-11 07:26 J	-7375058.32	-7375058.19	-7375058.03	0.0088	0.0066
Venus	-24905-10-22 20:52 J	-7374832.77	-7374832.63	-7374832.48	0.0088	0.0067
Venus	-24904-06-05 09:35 J	-7374607.23	-7374607.10	-7374606.94	0.0088	0.0067
Venus	-24903-01-16 22:33 J	-7374381.68	-7374381.56	-7374381.39	0.0088	0.0068
Venus	-24903-08-30 11:59 J	-7374156.12	-7374156.00	-7374155.84	0.0088	0.0068
Earth	-24903-10-19 21:50 J	-7374105.78	-7374105.59	-7374105.37	0.0088	0.0055
Moon	-24903-10-19 23:59 J	-7374105.69	-7374105.50	-7374105.28	0.0088	0.0051 *
Venus	-24902-04-13 01:26 J	-7373930.57	-7373930.44	-7373930.29	0.0088	0.0068
Moon	-24902-10-22 07:40 J	-7373738.43	-7373738.18	-7373737.90	0.0088	0.0016
Earth	-24902-10-22 10:47 J	-7373738.31	-7373738.05	-7373737.79	0.0088	0.0012 *
Venus	-24902-11-24 14:23 J	-7373705.02	-7373704.90	-7373704.74	0.0088	0.0069
Venus	-24901-07-07 03:50 J	-7373479.46	-7373479.34	-7373479.19	0.0088	0.0069
Earth	-24901-10-23 23:31 J	-7373370.77	-7373370.52	-7373370.28	0.0088	0.0031
Moon	-24901-10-24 02:23 J	-7373370.62	-7373370.40	-7373370.15	0.0088	0.0037 *
Venus	-24900-02-17 17:16 J	-7373253.91	-7373253.78	-7373253.64	0.0088	0.0069
Venus	-24900-10-01 06:43 J	-7373028.35	-7373028.22	-7373028.08	0.0088	0.0070
Moon	-24900-10-26 08:23 J	-7373003.30	-7373003.15	-7373002.99	0.0088	0.0070
Earth	-24900-10-26 11:45 J	-7373003.12	-7373003.01	-7373002.85	0.0088	0.0075 *
Venus	-24899-05-14 19:26 J	-7372802.80	-7372802.69	-7372802.53	0.0088	0.0070
Venus	-24899-12-26 08:52 J	-7372577.24	-7372577.13	-7372576.97	0.0088	0.0070
Venus	-24898-08-08 22:33 J	-7372351.68	-7372351.56	-7372351.41	0.0088	0.0070
Venus	-24897-03-21 11:59 J	-7372126.12	-7372126.00	-7372125.85	0.0088	0.0070

Venus	-24897-11-02 01:26 J	-7371900.56	-7371900.44	-7371900.30	0.0088	0.0070
Venus	-24896-06-15 14:38 J	-7371675.01	-7371674.89	-7371674.74	0.0088	0.0071
Venus	-24895-01-27 04:04 J	-7371449.45	-7371449.33	-7371449.18	0.0088	0.0070
Venus	-24895-09-09 17:31 J	-7371223.88	-7371223.77	-7371223.62	0.0088	0.0071
Venus	-24894-04-23 06:57 J	-7370998.33	-7370998.21	-7370998.06	0.0088	0.0070
Venus	-24894-12-04 20:23 J	-7370772.77	-7370772.65	-7370772.50	0.0088	0.0070
Venus	-24893-07-17 09:35 J	-7370547.21	-7370547.10	-7370546.94	0.0088	0.0070
Venus	-24892-02-27 23:45 J	-7370321.65	-7370321.51	-7370321.38	0.0088	0.0070
Venus	-24892-10-11 12:57 J	-7370096.09	-7370095.96	-7370095.81	0.0088	0.0069
Venus	-24891-05-25 02:09 J	-7369870.53	-7369870.41	-7369870.25	0.0088	0.0069
Venus	-24890-01-05 15:21 J	-7369644.97	-7369644.86	-7369644.69	0.0088	0.0069
Venus	-24890-08-19 05:31 J	-7369419.40	-7369419.27	-7369419.12	0.0088	0.0068
Venus	-24889-03-31 18:43 J	-7369193.84	-7369193.72	-7369193.56	0.0088	0.0068
Venus	-24889-11-12 08:38 J	-7368968.28	-7368968.14	-7368967.99	0.0088	0.0067
Venus	-24888-06-25 21:50 J	-7368742.72	-7368742.59	-7368742.43	0.0088	0.0067
Venus	-24887-02-06 11:45 J	-7368517.15	-7368517.01	-7368516.86	0.0088	0.0066
Mars	-24887-07-01 21:07 J	-7368371.80	-7368371.62	-7368371.42	0.0088	0.0067
Venus	-24887-09-20 01:11 J	-7368291.58	-7368291.45	-7368291.29	0.0088	0.0066
Venus	-24886-05-03 14:52 J	-7368066.01	-7368065.88	-7368065.72	0.0088	0.0066
Mercury	-24886-06-17 01:11 J	-7368021.49	-7368021.45	-7368021.39	0.0088	0.0084
Mercury	-24886-09-13 04:19 J	-7367933.40	-7367933.32	-7367933.20	0.0088	0.0075
Mercury	-24886-12-10 07:55 J	-7367845.28	-7367845.17	-7367845.03	0.0088	0.0065
Venus	-24886-12-15 04:19 J	-7367840.45	-7367840.32	-7367840.15	0.0088	0.0065
Mercury	-24885-03-07 11:31 J	-7367757.16	-7367757.02	-7367756.87	0.0088	0.0056
Mars	-24885-05-25 22:33 J	-7367677.86	-7367677.56	-7367677.26	0.0088	0.0010
Mercury	-24885-06-03 14:52 J	-7367669.03	-7367668.88	-7367668.71	0.0088	0.0046
Venus	-24885-07-27 17:59 J	-7367614.88	-7367614.75	-7367614.58	0.0088	0.0064
Mercury	-24885-08-30 18:28 J	-7367580.90	-7367580.73	-7367580.56	0.0088	0.0036
Mercury	-24885-11-26 21:35 J	-7367492.77	-7367492.60	-7367492.41	0.0088	0.0027
Mercury	-24884-02-23 01:11 J	-7367404.64	-7367404.45	-7367404.26	0.0088	0.0017

Venus	-24884-03-10 07:55 J	-7367389.31	-7367389.17	-7367389.00	0.0088	0.0063
Mercury	-24884-05-22 04:33 J	-7367316.50	-7367316.31	-7367316.12	0.0088	0.0008
Mercury	-24884-08-18 07:55 J	-7367228.36	-7367228.17	-7367227.98	0.0088	0.0002
Venus	-24884-10-21 21:50 J	-7367163.74	-7367163.59	-7367163.43	0.0088	0.0062
Mercury	-24884-11-14 11:16 J	-7367140.22	-7367140.03	-7367139.84	0.0088	0.0011
Mercury	-24883-02-10 14:38 J	-7367052.07	-7367051.89	-7367051.71	0.0088	0.0020
Mars	-24883-04-19 23:59 J	-7366983.73	-7366983.50	-7366983.23	0.0088	0.0049
Mercury	-24883-05-09 17:45 J	-7366963.93	-7366963.76	-7366963.57	0.0088	0.0030
Venus	-24883-06-04 11:02 J	-7366938.18	-7366938.04	-7366937.86	0.0088	0.0062
Mercury	-24883-08-05 21:07 J	-7366875.78	-7366875.62	-7366875.45	0.0088	0.0039
Mercury	-24883-11-02 00:28 J	-7366787.63	-7366787.48	-7366787.32	0.0088	0.0049
Venus	-24882-01-16 00:43 J	-7366712.61	-7366712.47	-7366712.29	0.0088	0.0061
Mercury	-24882-01-29 03:35 J	-7366699.48	-7366699.35	-7366699.20	0.0088	0.0058
Mercury	-24882-04-27 06:43 J	-7366611.32	-7366611.22	-7366611.08	0.0088	0.0068
Mercury	-24882-07-24 10:19 J	-7366523.16	-7366523.07	-7366522.97	0.0088	0.0076
Venus	-24882-08-29 14:38 J	-7366487.04	-7366486.89	-7366486.71	0.0088	0.0060
Mercury	-24882-10-20 13:40 J	-7366434.97	-7366434.93	-7366434.89	0.0088	0.0086
Venus	-24881-04-11 04:19 J	-7366261.47	-7366261.32	-7366261.14	0.0088	0.0060
Venus	-24881-11-22 18:14 J	-7366035.90	-7366035.74	-7366035.57	0.0088	0.0058
Venus	-24880-07-06 07:55 J	-7365810.34	-7365810.17	-7365810.00	0.0088	0.0057
Venus	-24879-02-16 21:35 J	-7365584.77	-7365584.60	-7365584.43	0.0088	0.0057
Venus	-24879-09-30 11:16 J	-7365359.20	-7365359.03	-7365358.85	0.0088	0.0056
Venus	-24878-05-14 00:57 J	-7365133.63	-7365133.46	-7365133.28	0.0088	0.0055
Venus	-24878-12-25 14:38 J	-7364908.06	-7364907.89	-7364907.71	0.0088	0.0054
Venus	-24877-08-07 04:19 J	-7364682.49	-7364682.32	-7364682.13	0.0088	0.0052
Venus	-24876-03-20 17:59 J	-7364456.92	-7364456.75	-7364456.56	0.0088	0.0051
Venus	-24876-11-01 07:40 J	-7364231.35	-7364231.18	-7364230.98	0.0088	0.0050
Venus	-24875-06-14 21:21 J	-7364005.78	-7364005.61	-7364005.41	0.0088	0.0049
Venus	-24874-01-26 11:02 J	-7363780.21	-7363780.04	-7363779.83	0.0088	0.0048
Venus	-24874-09-09 01:11 J	-7363554.63	-7363554.45	-7363554.25	0.0088	0.0047

Venus	-24873-04-21 14:52 J	-7363329.06	-7363328.88	-7363328.67	0.0088	0.0046
Venus	-24873-12-03 04:33 J	-7363103.49	-7363103.31	-7363103.10	0.0088	0.0045
Venus	-24872-07-16 18:43 J	-7362877.92	-7362877.72	-7362877.52	0.0088	0.0043
Venus	-24871-02-27 08:23 J	-7362652.34	-7362652.15	-7362651.95	0.0088	0.0041
Venus	-24871-10-10 22:04 J	-7362426.77	-7362426.58	-7362426.37	0.0088	0.0040
Venus	-24870-05-24 12:14 J	-7362201.19	-7362200.99	-7362200.79	0.0088	0.0039
Venus	-24869-01-05 01:40 J	-7361975.62	-7361975.43	-7361975.21	0.0088	0.0038
Venus	-24869-08-17 15:21 J	-7361750.05	-7361749.86	-7361749.64	0.0088	0.0036
Venus	-24868-03-31 05:16 J	-7361524.48	-7361524.28	-7361524.07	0.0088	0.0035
Venus	-24868-11-11 18:57 J	-7361298.91	-7361298.71	-7361298.49	0.0088	0.0033
Venus	-24867-06-25 08:52 J	-7361073.34	-7361073.13	-7361072.92	0.0088	0.0032
Venus	-24866-02-05 22:19 J	-7360847.77	-7360847.57	-7360847.35	0.0088	0.0031
Venus	-24866-09-19 12:14 J	-7360622.20	-7360621.99	-7360621.77	0.0088	0.0029
Venus	-24865-05-02 01:55 J	-7360396.63	-7360396.42	-7360396.20	0.0088	0.0027
Venus	-24865-12-13 15:50 J	-7360171.05	-7360170.84	-7360170.62	0.0088	0.0026
Venus	-24864-07-27 05:16 J	-7359945.49	-7359945.28	-7359945.05	0.0088	0.0024
Venus	-24863-03-09 19:11 J	-7359719.92	-7359719.70	-7359719.48	0.0088	0.0023
Venus	-24863-10-21 08:52 J	-7359494.34	-7359494.13	-7359493.90	0.0088	0.0021
Venus	-24862-06-03 22:47 J	-7359268.77	-7359268.55	-7359268.33	0.0088	0.0020
Venus	-24861-01-15 12:28 J	-7359043.20	-7359042.98	-7359042.76	0.0088	0.0018
Venus	-24861-08-28 02:09 J	-7358817.63	-7358817.41	-7358817.19	0.0089	0.0016
Venus	-24860-04-10 15:50 J	-7358592.05	-7358591.84	-7358591.61	0.0089	0.0015
Venus	-24860-11-22 05:45 J	-7358366.48	-7358366.26	-7358366.03	0.0089	0.0013
Venus	-24859-07-05 19:26 J	-7358140.91	-7358140.69	-7358140.46	0.0089	0.0012
Venus	-24858-02-16 09:21 J	-7357915.34	-7357915.11	-7357914.89	0.0089	0.0010
Venus	-24858-09-29 22:47 J	-7357689.76	-7357689.55	-7357689.32	0.0089	0.0009
Venus	-24857-05-12 12:43 J	-7357464.19	-7357463.97	-7357463.75	0.0089	0.0007
Venus	-24857-12-24 02:23 J	-7357238.62	-7357238.40	-7357238.17	0.0089	0.0005
Venus	-24856-08-06 16:04 J	-7357013.05	-7357012.83	-7357012.61	0.0089	0.0003
Venus	-24855-03-20 05:45 J	-7356787.49	-7356787.26	-7356787.04	0.0089	0.0002

Venus	-24855-10-31 19:26 J	-7356561.91	-7356561.69	-7356561.47	0.0089	0.0000
Venus	-24854-06-14 09:07 J	-7356336.35	-7356336.12	-7356335.90	0.0089	0.0002
Venus	-24853-01-25 22:33 J	-7356110.78	-7356110.56	-7356110.33	0.0089	0.0003
Venus	-24853-09-07 12:14 J	-7355885.22	-7355884.99	-7355884.77	0.0089	0.0005
Venus	-24852-04-21 01:40 J	-7355659.65	-7355659.43	-7355659.20	0.0089	0.0006
Venus	-24852-12-02 15:21 J	-7355434.08	-7355433.86	-7355433.63	0.0089	0.0008
Venus	-24851-07-16 04:47 J	-7355208.51	-7355208.30	-7355208.07	0.0089	0.0010
Venus	-24850-02-26 18:14 J	-7354982.95	-7354982.74	-7354982.51	0.0089	0.0012
Venus	-24850-10-10 07:55 J	-7354757.38	-7354757.17	-7354756.94	0.0089	0.0013
Venus	-24849-05-22 21:35 J	-7354531.82	-7354531.60	-7354531.38	0.0089	0.0015
Venus	-24848-01-03 11:16 J	-7354306.25	-7354306.03	-7354305.81	0.0089	0.0016
Venus	-24848-08-17 00:43 J	-7354080.68	-7354080.47	-7354080.24	0.0089	0.0018
Venus	-24847-03-30 14:23 J	-7353855.12	-7353854.90	-7353854.68	0.0089	0.0019
Venus	-24847-11-11 03:50 J	-7353629.55	-7353629.34	-7353629.11	0.0089	0.0021
Venus	-24846-06-24 17:45 J	-7353403.98	-7353403.76	-7353403.55	0.0089	0.0022
Venus	-24845-02-05 06:57 J	-7353178.41	-7353178.21	-7353177.99	0.0089	0.0024
Venus	-24845-09-17 20:38 J	-7352952.85	-7352952.64	-7352952.43	0.0089	0.0025
Venus	-24844-05-01 09:50 J	-7352727.29	-7352727.09	-7352726.87	0.0089	0.0027
Venus	-24844-12-12 23:31 J	-7352501.72	-7352501.52	-7352501.30	0.0089	0.0028
Venus	-24843-07-26 12:43 J	-7352276.16	-7352275.97	-7352275.75	0.0089	0.0030
Venus	-24842-03-09 02:09 J	-7352050.61	-7352050.41	-7352050.19	0.0089	0.0031
Venus	-24842-10-20 15:21 J	-7351825.05	-7351824.86	-7351824.64	0.0089	0.0033
Venus	-24841-06-02 04:47 J	-7351599.49	-7351599.30	-7351599.08	0.0089	0.0034
Venus	-24840-01-13 18:28 J	-7351373.93	-7351373.73	-7351373.52	0.0089	0.0035
Venus	-24840-08-27 07:26 J	-7351148.37	-7351148.19	-7351147.97	0.0089	0.0037
Venus	-24839-04-09 20:52 J	-7350922.82	-7350922.63	-7350922.42	0.0089	0.0038
Venus	-24839-11-21 10:19 J	-7350697.26	-7350697.07	-7350696.87	0.0089	0.0039
Venus	-24838-07-04 23:45 J	-7350471.71	-7350471.51	-7350471.31	0.0089	0.0041
Venus	-24837-02-15 12:43 J	-7350246.15	-7350245.97	-7350245.76	0.0089	0.0042
Venus	-24837-09-28 02:09 J	-7350020.59	-7350020.41	-7350020.21	0.0089	0.0043

Venus	-24836-05-11 15:21 J	-7349795.04	-7349794.86	-7349794.66	0.0089	0.0044
Venus	-24836-12-23 04:47 J	-7349569.48	-7349569.30	-7349569.10	0.0089	0.0045
Venus	-24835-08-05 18:14 J	-7349343.93	-7349343.74	-7349343.55	0.0089	0.0047
Venus	-24834-03-19 06:57 J	-7349118.38	-7349118.21	-7349118.01	0.0089	0.0048
Venus	-24834-10-30 20:09 J	-7348892.82	-7348892.66	-7348892.46	0.0089	0.0049
Venus	-24833-06-12 09:21 J	-7348667.27	-7348667.11	-7348666.91	0.0089	0.0050
Venus	-24832-01-23 22:47 J	-7348441.71	-7348441.55	-7348441.36	0.0089	0.0051
Venus	-24832-09-06 11:45 J	-7348216.17	-7348216.01	-7348215.81	0.0089	0.0053
Venus	-24831-04-20 00:57 J	-7347990.62	-7347990.46	-7347990.27	0.0089	0.0053
Venus	-24831-12-01 13:55 J	-7347765.07	-7347764.92	-7347764.72	0.0089	0.0055
Venus	-24830-07-15 03:07 J	-7347539.53	-7347539.37	-7347539.18	0.0089	0.0055
Venus	-24829-02-25 16:33 J	-7347313.98	-7347313.81	-7347313.64	0.0089	0.0056
Venus	-24829-10-08 05:16 J	-7347088.44	-7347088.28	-7347088.10	0.0089	0.0057
Venus	-24828-05-21 18:14 J	-7346862.89	-7346862.74	-7346862.56	0.0089	0.0058
Venus	-24827-01-02 07:11 J	-7346637.35	-7346637.20	-7346637.02	0.0089	0.0058
Venus	-24827-08-15 20:09 J	-7346411.81	-7346411.66	-7346411.48	0.0089	0.0059
Venus	-24826-03-29 09:21 J	-7346186.27	-7346186.11	-7346185.94	0.0089	0.0060
Venus	-24826-11-09 22:04 J	-7345960.73	-7345960.58	-7345960.41	0.0089	0.0060
Venus	-24825-06-22 10:47 J	-7345735.19	-7345735.05	-7345734.87	0.0089	0.0062
Venus	-24824-02-03 00:14 J	-7345509.64	-7345509.49	-7345509.33	0.0089	0.0062
Venus	-24824-09-16 12:43 J	-7345284.10	-7345283.97	-7345283.79	0.0089	0.0063
Venus	-24823-04-30 01:55 J	-7345058.57	-7345058.42	-7345058.26	0.0089	0.0063
Venus	-24823-12-11 14:38 J	-7344833.03	-7344832.89	-7344832.72	0.0089	0.0063
Venus	-24822-07-25 03:50 J	-7344607.49	-7344607.34	-7344607.19	0.0089	0.0064
Venus	-24821-03-06 16:19 J	-7344381.95	-7344381.82	-7344381.64	0.0089	0.0065
Venus	-24821-10-18 05:31 J	-7344156.41	-7344156.27	-7344156.11	0.0089	0.0065
Moon	-24820-04-20 12:28 J	-7343972.18	-7343971.98	-7343971.75	0.0089	0.0050
Earth	-24820-04-20 15:35 J	-7343972.05	-7343971.85	-7343971.64	0.0089	0.0052 *
Venus	-24820-05-31 18:28 J	-7343930.87	-7343930.73	-7343930.58	0.0089	0.0065
Venus	-24819-01-12 06:57 J	-7343705.34	-7343705.21	-7343705.04	0.0089	0.0066

Earth	-24819-04-23 01:55 J	-7343604.66	-7343604.42	-7343604.16	0.0089	0.0009
Moon	-24819-04-23 05:45 J	-7343604.51	-7343604.26	-7343604.01	0.0089	0.0009 *
Venus	-24819-08-25 19:55 J	-7343479.80	-7343479.67	-7343479.51	0.0089	0.0066
Venus	-24818-04-08 08:38 J	-7343254.27	-7343254.14	-7343253.98	0.0089	0.0066
Moon	-24818-04-25 09:07 J	-7343237.34	-7343237.12	-7343236.88	0.0089	0.0037
Earth	-24818-04-25 12:28 J	-7343237.20	-7343236.98	-7343236.74	0.0089	0.0036 *
Venus	-24818-11-19 21:35 J	-7343028.74	-7343028.60	-7343028.45	0.0089	0.0066
Earth	-24817-04-26 22:33 J	-7342869.65	-7342869.56	-7342869.42	0.0089	0.0080
Moon	-24817-04-27 02:23 J	-7342869.52	-7342869.40	-7342869.27	0.0089	0.0077 *
Venus	-24817-07-02 09:50 J	-7342803.21	-7342803.09	-7342802.92	0.0089	0.0067
Venus	-24816-02-12 22:47 J	-7342577.68	-7342577.55	-7342577.39	0.0089	0.0066
Venus	-24816-09-26 11:31 J	-7342352.15	-7342352.02	-7342351.86	0.0089	0.0066
Venus	-24815-05-09 23:59 J	-7342126.63	-7342126.50	-7342126.34	0.0089	0.0067
Venus	-24815-12-21 12:43 J	-7341901.10	-7341900.97	-7341900.81	0.0089	0.0067
Venus	-24814-08-04 01:26 J	-7341675.57	-7341675.44	-7341675.28	0.0089	0.0066
Venus	-24813-03-16 14:09 J	-7341450.04	-7341449.91	-7341449.75	0.0089	0.0066
Venus	-24813-10-28 02:38 J	-7341224.52	-7341224.39	-7341224.23	0.0089	0.0067
Venus	-24812-06-10 15:07 J	-7340998.99	-7340998.87	-7340998.70	0.0089	0.0067
Venus	-24811-01-22 04:19 J	-7340773.47	-7340773.32	-7340773.18	0.0089	0.0066
Venus	-24811-09-04 16:33 J	-7340547.94	-7340547.81	-7340547.65	0.0089	0.0066
Venus	-24810-04-18 05:02 J	-7340322.42	-7340322.29	-7340322.12	0.0089	0.0066
Venus	-24810-11-29 17:31 J	-7340096.89	-7340096.77	-7340096.60	0.0089	0.0066
Venus	-24809-07-12 06:28 J	-7339871.37	-7339871.23	-7339871.07	0.0089	0.0065
Jupiter	-24809-07-23 13:55 J	-7339860.20	-7339859.92	-7339859.52	0.0089	0.0069
Venus	-24808-02-22 18:57 J	-7339645.84	-7339645.71	-7339645.54	0.0089	0.0065
Venus	-24808-10-06 07:26 J	-7339420.32	-7339420.19	-7339420.02	0.0089	0.0065
Venus	-24807-05-19 20:09 J	-7339194.80	-7339194.66	-7339194.50	0.0089	0.0064
Venus	-24807-12-31 08:23 J	-7338969.28	-7338969.15	-7338968.98	0.0089	0.0064
Venus	-24806-08-13 21:21 J	-7338743.76	-7338743.61	-7338743.45	0.0089	0.0063
Venus	-24805-03-26 09:35 J	-7338518.23	-7338518.10	-7338517.92	0.0089	0.0063

Mars	-24805-05-18 18:28 J	-7338464.84	-7338464.73	-7338464.57	0.0089	0.0082
Mercury	-24805-06-26 10:04 J	-7338426.09	-7338426.08	-7338426.06	0.0089	0.0088
Mercury	-24805-09-22 11:31 J	-7338338.07	-7338338.02	-7338337.96	0.0089	0.0081
Venus	-24805-11-06 22:19 J	-7338292.72	-7338292.57	-7338292.40	0.0089	0.0062
Mercury	-24805-12-19 12:57 J	-7338250.03	-7338249.96	-7338249.89	0.0089	0.0075
Mercury	-24804-03-17 14:23 J	-7338161.99	-7338161.90	-7338161.81	0.0089	0.0068
Mercury	-24804-06-13 15:21 J	-7338073.94	-7338073.86	-7338073.75	0.0089	0.0062
Venus	-24804-06-20 10:33 J	-7338067.20	-7338067.06	-7338066.89	0.0089	0.0061
Mercury	-24804-09-09 16:47 J	-7337985.89	-7337985.80	-7337985.68	0.0089	0.0055
Mercury	-24804-12-06 18:14 J	-7337897.84	-7337897.74	-7337897.62	0.0089	0.0048
Venus	-24803-01-31 23:02 J	-7337841.68	-7337841.54	-7337841.37	0.0089	0.0061
Mercury	-24803-03-04 19:40 J	-7337809.79	-7337809.68	-7337809.55	0.0089	0.0041
Mars	-24803-04-14 14:09 J	-7337769.23	-7337768.91	-7337768.58	0.0089	0.0014
Mercury	-24803-05-31 21:07 J	-7337721.74	-7337721.62	-7337721.49	0.0089	0.0034
Mercury	-24803-08-27 22:33 J	-7337633.68	-7337633.56	-7337633.43	0.0089	0.0026
Venus	-24803-09-14 11:31 J	-7337616.17	-7337616.02	-7337615.85	0.0089	0.0060
Mercury	-24803-11-23 23:59 J	-7337545.63	-7337545.50	-7337545.37	0.0089	0.0019
Mercury	-24802-02-20 01:26 J	-7337457.57	-7337457.44	-7337457.31	0.0089	0.0012
Venus	-24802-04-27 23:45 J	-7337390.65	-7337390.51	-7337390.33	0.0089	0.0059
Mercury	-24802-05-19 02:52 J	-7337369.51	-7337369.38	-7337369.25	0.0089	0.0005
Mercury	-24802-08-15 04:19 J	-7337281.46	-7337281.32	-7337281.19	0.0089	0.0002
Mercury	-24802-11-11 05:31 J	-7337193.40	-7337193.27	-7337193.13	0.0089	0.0010
Venus	-24802-12-09 12:14 J	-7337165.14	-7337164.99	-7337164.81	0.0089	0.0059
Mercury	-24801-02-07 06:57 J	-7337105.34	-7337105.21	-7337105.07	0.0089	0.0016
Mars	-24801-03-10 07:26 J	-7337073.43	-7337073.19	-7337072.91	0.0089	0.0054
Mercury	-24801-05-05 08:23 J	-7337017.28	-7337017.15	-7337017.01	0.0089	0.0023
Venus	-24801-07-22 00:43 J	-7336939.62	-7336939.47	-7336939.29	0.0089	0.0058
Mercury	-24801-08-01 09:50 J	-7336929.21	-7336929.09	-7336928.96	0.0089	0.0030
Mercury	-24801-10-28 11:02 J	-7336841.15	-7336841.04	-7336840.90	0.0089	0.0038
Mercury	-24800-01-24 12:28 J	-7336753.09	-7336752.98	-7336752.85	0.0089	0.0045

Venus	-24800-03-04 13:26 J	-7336714.10	-7336713.94	-7336713.77	0.0089	0.0057
Mercury	-24800-04-22 13:55 J	-7336665.02	-7336664.92	-7336664.80	0.0089	0.0051
Mercury	-24800-07-19 15:21 J	-7336576.95	-7336576.86	-7336576.74	0.0089	0.0059
Mercury	-24800-10-15 16:47 J	-7336488.88	-7336488.80	-7336488.70	0.0089	0.0066
Venus	-24800-10-16 01:26 J	-7336488.59	-7336488.44	-7336488.26	0.0089	0.0056
Mercury	-24799-01-11 18:14 J	-7336400.81	-7336400.74	-7336400.65	0.0089	0.0073
Mercury	-24799-04-09 19:40 J	-7336312.73	-7336312.68	-7336312.61	0.0089	0.0080
Venus	-24799-05-29 13:40 J	-7336263.08	-7336262.93	-7336262.74	0.0089	0.0056
Mercury	-24799-07-06 21:21 J	-7336224.64	-7336224.61	-7336224.58	0.0089	0.0086
Venus	-24798-01-10 02:09 J	-7336037.57	-7336037.41	-7336037.22	0.0089	0.0054
Venus	-24798-08-23 14:38 J	-7335812.05	-7335811.89	-7335811.71	0.0089	0.0053
Venus	-24797-04-05 03:07 J	-7335586.53	-7335586.37	-7335586.18	0.0089	0.0053
Venus	-24797-11-16 15:35 J	-7335361.01	-7335360.85	-7335360.66	0.0089	0.0051
Venus	-24796-06-30 03:50 J	-7335135.50	-7335135.34	-7335135.15	0.0089	0.0051
Venus	-24795-02-10 16:19 J	-7334909.99	-7334909.82	-7334909.63	0.0089	0.0049
Venus	-24795-09-24 04:33 J	-7334684.47	-7334684.31	-7334684.11	0.0089	0.0049
Venus	-24794-05-07 17:02 J	-7334458.96	-7334458.79	-7334458.59	0.0089	0.0047
Venus	-24794-12-19 05:16 J	-7334233.44	-7334233.28	-7334233.08	0.0089	0.0047
Venus	-24793-07-31 17:45 J	-7334007.93	-7334007.76	-7334007.56	0.0089	0.0045
Venus	-24792-03-14 05:59 J	-7333782.42	-7333782.25	-7333782.05	0.0089	0.0044
Venus	-24792-10-25 18:43 J	-7333556.91	-7333556.72	-7333556.53	0.0089	0.0043
Venus	-24791-06-08 06:43 J	-7333331.40	-7333331.22	-7333331.02	0.0089	0.0042
Venus	-24790-01-19 18:57 J	-7333105.89	-7333105.71	-7333105.51	0.0089	0.0040
Venus	-24790-09-02 07:11 J	-7332880.38	-7332880.20	-7332880.00	0.0089	0.0039
Venus	-24789-04-14 19:26 J	-7332654.87	-7332654.69	-7332654.48	0.0089	0.0039
Venus	-24789-11-26 08:09 J	-7332429.36	-7332429.16	-7332428.96	0.0089	0.0036
Venus	-24788-07-09 20:09 J	-7332203.85	-7332203.66	-7332203.45	0.0089	0.0035
Venus	-24787-02-20 08:23 J	-7331978.34	-7331978.15	-7331977.94	0.0089	0.0034
Venus	-24787-10-03 20:52 J	-7331752.83	-7331752.63	-7331752.43	0.0089	0.0033
Venus	-24786-05-17 09:07 J	-7331527.31	-7331527.12	-7331526.91	0.0089	0.0031

Venus	-24786-12-28 21:21 J	-7331301.80	-7331301.61	-7331301.39	0.0089	0.0030
Venus	-24785-08-10 09:50 J	-7331076.29	-7331076.09	-7331075.88	0.0089	0.0028
Venus	-24784-03-23 22:04 J	-7330850.78	-7330850.58	-7330850.37	0.0089	0.0027
Venus	-24784-11-04 10:19 J	-7330625.26	-7330625.07	-7330624.85	0.0089	0.0026
Venus	-24783-06-17 22:47 J	-7330399.75	-7330399.55	-7330399.33	0.0089	0.0024
Venus	-24782-01-29 11:02 J	-7330174.24	-7330174.04	-7330173.82	0.0089	0.0023
Venus	-24782-09-11 23:31 J	-7329948.72	-7329948.52	-7329948.30	0.0089	0.0021
Venus	-24781-04-24 11:59 J	-7329723.20	-7329723.00	-7329722.78	0.0089	0.0020
Venus	-24781-12-06 00:28 J	-7329497.69	-7329497.48	-7329497.27	0.0089	0.0018
Venus	-24780-07-19 12:43 J	-7329272.18	-7329271.97	-7329271.76	0.0089	0.0017
Venus	-24779-03-02 00:57 J	-7329046.67	-7329046.46	-7329046.24	0.0089	0.0015
Venus	-24779-10-13 13:11 J	-7328821.16	-7328820.95	-7328820.73	0.0089	0.0014
Venus	-24778-05-27 01:40 J	-7328595.64	-7328595.43	-7328595.21	0.0089	0.0013
Venus	-24777-01-07 14:09 J	-7328370.12	-7328369.91	-7328369.69	0.0089	0.0011
Venus	-24777-08-20 02:23 J	-7328144.61	-7328144.40	-7328144.18	0.0089	0.0009
Venus	-24776-04-02 14:38 J	-7327919.10	-7327918.89	-7327918.67	0.0089	0.0008
Venus	-24776-11-14 03:07 J	-7327693.59	-7327693.37	-7327693.15	0.0089	0.0006
Venus	-24775-06-27 15:35 J	-7327468.07	-7327467.85	-7327467.64	0.0089	0.0005
Venus	-24774-02-08 03:50 J	-7327242.56	-7327242.34	-7327242.12	0.0089	0.0003
Venus	-24774-09-21 16:19 J	-7327017.04	-7327016.82	-7327016.61	0.0089	0.0002
Venus	-24773-05-04 04:47 J	-7326791.52	-7326791.30	-7326791.08	0.0089	0.0001
Venus	-24773-12-15 17:16 J	-7326566.00	-7326565.78	-7326565.57	0.0089	0.0002
Venus	-24772-07-29 05:31 J	-7326340.48	-7326340.27	-7326340.05	0.0089	0.0003
Venus	-24771-03-11 17:59 J	-7326114.97	-7326114.75	-7326114.53	0.0089	0.0004
Venus	-24771-10-23 06:28 J	-7325889.45	-7325889.23	-7325889.01	0.0089	0.0006
Venus	-24770-06-05 18:57 J	-7325663.92	-7325663.71	-7325663.49	0.0089	0.0008
Venus	-24769-01-17 07:40 J	-7325438.40	-7325438.18	-7325437.96	0.0089	0.0009
Venus	-24769-08-29 19:55 J	-7325212.88	-7325212.67	-7325212.45	0.0089	0.0011
Venus	-24768-04-12 08:38 J	-7324987.36	-7324987.14	-7324986.93	0.0089	0.0012
Venus	-24768-11-23 20:52 J	-7324761.84	-7324761.63	-7324761.41	0.0089	0.0014

Venus	-24767-07-07 09:35 J	-7324536.31	-7324536.10	-7324535.89	0.0089	0.0015
Venus	-24766-02-17 21:50 J	-7324310.79	-7324310.59	-7324310.37	0.0089	0.0017
Venus	-24766-10-01 10:33 J	-7324085.27	-7324085.06	-7324084.85	0.0089	0.0018
Venus	-24765-05-13 23:02 J	-7323859.75	-7323859.54	-7323859.32	0.0089	0.0019
Venus	-24765-12-25 11:31 J	-7323634.23	-7323634.02	-7323633.80	0.0088	0.0021
Venus	-24764-08-08 00:14 J	-7323408.70	-7323408.49	-7323408.28	0.0088	0.0022
Venus	-24763-03-21 12:28 J	-7323183.18	-7323182.98	-7323182.76	0.0088	0.0024
Venus	-24763-11-02 01:11 J	-7322957.66	-7322957.45	-7322957.24	0.0088	0.0025
Venus	-24762-06-15 13:40 J	-7322732.13	-7322731.93	-7322731.71	0.0088	0.0026
Venus	-24761-01-27 02:23 J	-7322506.60	-7322506.40	-7322506.19	0.0088	0.0028
Venus	-24761-09-08 14:38 J	-7322281.08	-7322280.89	-7322280.67	0.0088	0.0030
Venus	-24760-04-22 03:21 J	-7322055.55	-7322055.36	-7322055.14	0.0088	0.0031
Venus	-24760-12-03 16:04 J	-7321830.03	-7321829.83	-7321829.62	0.0088	0.0032
Venus	-24759-07-17 04:47 J	-7321604.49	-7321604.30	-7321604.09	0.0088	0.0033
Venus	-24758-02-27 17:31 J	-7321378.96	-7321378.77	-7321378.56	0.0088	0.0034
Venus	-24758-10-11 06:14 J	-7321153.43	-7321153.24	-7321153.03	0.0088	0.0036
Venus	-24757-05-23 19:11 J	-7320927.90	-7320927.70	-7320927.50	0.0088	0.0037
Venus	-24756-01-04 07:40 J	-7320702.36	-7320702.18	-7320701.97	0.0088	0.0038
Venus	-24756-08-17 20:23 J	-7320476.83	-7320476.65	-7320476.44	0.0088	0.0040
Venus	-24755-03-31 09:07 J	-7320251.30	-7320251.12	-7320250.91	0.0088	0.0041
Venus	-24755-11-11 22:04 J	-7320025.77	-7320025.58	-7320025.38	0.0088	0.0042
Venus	-24754-06-25 11:02 J	-7319800.23	-7319800.04	-7319799.84	0.0088	0.0043
Venus	-24753-02-05 23:31 J	-7319574.69	-7319574.52	-7319574.31	0.0088	0.0044
Venus	-24753-09-18 12:14 J	-7319349.16	-7319348.99	-7319348.78	0.0088	0.0045
Venus	-24752-05-02 00:57 J	-7319123.63	-7319123.46	-7319123.26	0.0088	0.0046
Venus	-24752-12-13 13:40 J	-7318898.10	-7318897.93	-7318897.72	0.0088	0.0048
Venus	-24751-07-27 02:38 J	-7318672.55	-7318672.39	-7318672.19	0.0088	0.0049
Venus	-24750-03-09 15:35 J	-7318447.02	-7318446.85	-7318446.65	0.0088	0.0049
Venus	-24750-10-21 04:19 J	-7318221.48	-7318221.32	-7318221.12	0.0088	0.0051
Venus	-24749-06-02 17:16 J	-7317995.94	-7317995.78	-7317995.58	0.0088	0.0051

Venus	-24748-01-14 06:14 J	-7317770.40	-7317770.24	-7317770.05	0.0088	0.0052
Venus	-24748-08-27 18:57 J	-7317544.86	-7317544.71	-7317544.51	0.0088	0.0054
Venus	-24747-04-10 07:55 J	-7317319.32	-7317319.17	-7317318.97	0.0088	0.0054
Venus	-24747-11-21 21:21 J	-7317093.78	-7317093.61	-7317093.43	0.0088	0.0054
Venus	-24746-07-05 10:19 J	-7316868.23	-7316868.07	-7316867.89	0.0088	0.0055
Venus	-24745-02-15 23:16 J	-7316642.68	-7316642.53	-7316642.34	0.0088	0.0056
Venus	-24745-09-28 12:14 J	-7316417.14	-7316416.99	-7316416.80	0.0088	0.0057
Venus	-24744-05-12 01:40 J	-7316191.60	-7316191.43	-7316191.26	0.0088	0.0057
Venus	-24744-12-23 14:23 J	-7315966.05	-7315965.90	-7315965.72	0.0088	0.0058
Venus	-24743-08-06 03:35 J	-7315740.50	-7315740.35	-7315740.17	0.0088	0.0059
Venus	-24742-03-19 17:02 J	-7315514.95	-7315514.79	-7315514.62	0.0088	0.0059
Venus	-24742-10-31 05:45 J	-7315289.40	-7315289.26	-7315289.08	0.0088	0.0061
Venus	-24741-06-12 19:26 J	-7315063.85	-7315063.69	-7315063.53	0.0088	0.0061
Venus	-24740-01-24 08:09 J	-7314838.30	-7314838.16	-7314837.99	0.0088	0.0061
Venus	-24740-09-06 21:35 J	-7314612.75	-7314612.60	-7314612.44	0.0088	0.0062
Venus	-24739-04-20 10:19 J	-7314387.21	-7314387.07	-7314386.89	0.0088	0.0063
Moon	-24739-10-19 04:19 J	-7314205.44	-7314205.32	-7314205.15	0.0088	0.0073
Earth	-24739-10-19 07:26 J	-7314205.29	-7314205.19	-7314205.02	0.0088	0.0076 *
Venus	-24739-12-01 23:45 J	-7314161.66	-7314161.51	-7314161.35	0.0088	0.0063
Venus	-24738-07-15 12:43 J	-7313936.10	-7313935.97	-7313935.79	0.0088	0.0063
Earth	-24738-10-21 20:38 J	-7313837.88	-7313837.64	-7313837.39	0.0088	0.0032
Moon	-24738-10-21 23:45 J	-7313837.73	-7313837.51	-7313837.25	0.0088	0.0036 *
Venus	-24737-02-26 02:09 J	-7313710.55	-7313710.41	-7313710.24	0.0088	0.0063
Venus	-24737-10-08 15:35 J	-7313485.00	-7313484.85	-7313484.69	0.0088	0.0063
Moon	-24737-10-23 05:45 J	-7313470.51	-7313470.26	-7313470.00	0.0088	0.0012
Earth	-24737-10-23 09:21 J	-7313470.36	-7313470.11	-7313469.84	0.0088	0.0011 *
Venus	-24736-05-22 04:19 J	-7313259.45	-7313259.32	-7313259.14	0.0088	0.0064
Earth	-24736-10-25 21:35 J	-7313102.78	-7313102.60	-7313102.37	0.0088	0.0054
Moon	-24736-10-26 01:11 J	-7313102.65	-7313102.45	-7313102.22	0.0088	0.0052 *
Venus	-24735-01-02 17:45 J	-7313033.90	-7313033.76	-7313033.59	0.0088	0.0064

Venus	-24735-08-16 07:11 J	-7312808.33	-7312808.20	-7312808.03	0.0088	0.0065
Venus	-24734-03-29 20:52 J	-7312582.78	-7312582.63	-7312582.48	0.0088	0.0064
Venus	-24734-11-10 09:35 J	-7312357.22	-7312357.10	-7312356.92	0.0088	0.0065
Venus	-24733-06-22 23:02 J	-7312131.67	-7312131.54	-7312131.37	0.0088	0.0065
Venus	-24732-02-03 12:28 J	-7311906.11	-7311905.98	-7311905.81	0.0088	0.0065
Venus	-24732-09-17 01:55 J	-7311680.55	-7311680.42	-7311680.25	0.0088	0.0065
Venus	-24731-04-30 15:21 J	-7311454.99	-7311454.86	-7311454.69	0.0088	0.0065
Venus	-24731-12-12 04:47 J	-7311229.43	-7311229.30	-7311229.13	0.0088	0.0065
Venus	-24730-07-25 18:14 J	-7311003.86	-7311003.74	-7311003.56	0.0088	0.0065
Venus	-24729-03-07 08:23 J	-7310778.30	-7310778.15	-7310778.00	0.0088	0.0064
Venus	-24729-10-18 21:35 J	-7310552.74	-7310552.60	-7310552.44	0.0088	0.0064
Venus	-24728-06-01 10:47 J	-7310327.19	-7310327.05	-7310326.88	0.0088	0.0064
Venus	-24727-01-13 00:14 J	-7310101.63	-7310101.49	-7310101.32	0.0088	0.0064
Venus	-24727-08-26 13:40 J	-7309876.06	-7309875.93	-7309875.75	0.0088	0.0064
Venus	-24726-04-09 03:35 J	-7309650.50	-7309650.35	-7309650.19	0.0088	0.0064
Venus	-24726-11-20 16:47 J	-7309424.94	-7309424.80	-7309424.63	0.0088	0.0063
Venus	-24725-07-03 06:14 J	-7309199.38	-7309199.24	-7309199.07	0.0088	0.0063
Venus	-24724-02-13 20:09 J	-7308973.82	-7308973.66	-7308973.51	0.0088	0.0063
Venus	-24724-09-27 09:21 J	-7308748.25	-7308748.11	-7308747.94	0.0088	0.0062
Venus	-24723-05-10 22:47 J	-7308522.69	-7308522.55	-7308522.37	0.0088	0.0062
Venus	-24723-12-22 12:28 J	-7308297.13	-7308296.98	-7308296.81	0.0088	0.0061
Venus	-24722-08-05 01:55 J	-7308071.56	-7308071.42	-7308071.24	0.0088	0.0061
Mars	-24721-01-09 07:11 J	-7307914.46	-7307914.20	-7307913.91	0.0088	0.0037
Mercury	-24721-03-12 23:59 J	-7307850.56	-7307850.50	-7307850.39	0.0088	0.0079
Venus	-24721-03-17 15:35 J	-7307845.99	-7307845.85	-7307845.67	0.0088	0.0060
Mercury	-24721-06-09 03:35 J	-7307762.45	-7307762.35	-7307762.22	0.0088	0.0069
Mercury	-24721-09-05 07:11 J	-7307674.33	-7307674.20	-7307674.05	0.0088	0.0060
Venus	-24721-10-29 05:31 J	-7307620.43	-7307620.27	-7307620.10	0.0088	0.0060
Mercury	-24721-12-02 10:33 J	-7307586.21	-7307586.06	-7307585.89	0.0088	0.0050
Mercury	-24720-02-28 14:09 J	-7307498.08	-7307497.91	-7307497.74	0.0088	0.0040

Mercury -24720-05-27 17:16 J -7307409.94 -7307409.78 -7307409.59 0.0088 0.0031
 Venus -24720-06-11 18:43 J -7307394.86 -7307394.72 -7307394.53 0.0088 0.0060
 Mercury -24720-08-23 20:52 J -7307321.81 -7307321.63 -7307321.44 0.0088 0.0021
 Mercury -24720-11-20 00:14 J -7307233.67 -7307233.49 -7307233.30 0.0088 0.0012
 Mars -24720-12-03 09:07 J -7307220.41 -7307220.12 -7307219.82 0.0088 0.0021
 Venus -24719-01-23 08:38 J -7307169.30 -7307169.14 -7307168.96 0.0088 0.0058
 Mercury -24719-02-16 03:35 J -7307145.53 -7307145.35 -7307145.15 0.0088 0.0004
 Mercury -24719-05-15 07:11 J -7307057.39 -7307057.20 -7307057.01 0.0088 0.0007
 Mercury -24719-08-11 10:19 J -7306969.25 -7306969.07 -7306968.88 0.0088 0.0017
 Venus -24719-09-05 22:47 J -7306943.72 -7306943.55 -7306943.38 0.0088 0.0058
 Mercury -24719-11-07 13:40 J -7306881.11 -7306880.93 -7306880.74 0.0088 0.0026
 Mercury -24718-02-03 16:47 J -7306792.96 -7306792.80 -7306792.61 0.0088 0.0036
 Venus -24718-04-19 11:59 J -7306718.15 -7306718.00 -7306717.81 0.0088 0.0057
 Mercury -24718-05-02 20:09 J -7306704.81 -7306704.66 -7306704.49 0.0088 0.0045
 Mercury -24718-07-29 23:31 J -7306616.66 -7306616.52 -7306616.36 0.0088 0.0054
 Mercury -24718-10-26 02:38 J -7306528.50 -7306528.39 -7306528.24 0.0088 0.0064
 Mars -24718-10-28 11:31 J -7306526.12 -7306526.02 -7306525.88 0.0088 0.0080
 Venus -24718-12-01 01:40 J -7306492.59 -7306492.43 -7306492.24 0.0088 0.0056
 Mercury -24717-01-22 05:59 J -7306440.34 -7306440.25 -7306440.13 0.0088 0.0073
 Mercury -24717-04-19 09:07 J -7306352.17 -7306352.12 -7306352.03 0.0088 0.0083
 Venus -24717-07-13 15:21 J -7306267.02 -7306266.86 -7306266.67 0.0088 0.0056
 Venus -24716-02-24 05:16 J -7306041.45 -7306041.28 -7306041.10 0.0088 0.0055
 Venus -24716-10-07 18:43 J -7305815.88 -7305815.72 -7305815.52 0.0088 0.0054
 Venus -24715-05-21 08:23 J -7305590.31 -7305590.15 -7305589.95 0.0088 0.0053
 Venus -24714-01-01 22:04 J -7305364.74 -7305364.58 -7305364.38 0.0088 0.0052
 Venus -24714-08-15 11:45 J -7305139.18 -7305139.01 -7305138.81 0.0088 0.0051
 Venus -24713-03-28 01:26 J -7304913.61 -7304913.44 -7304913.24 0.0088 0.0050
 Venus -24713-11-08 15:07 J -7304688.04 -7304687.87 -7304687.67 0.0088 0.0050
 Venus -24712-06-22 04:47 J -7304462.47 -7304462.30 -7304462.10 0.0088 0.0049
 Venus -24711-02-02 18:28 J -7304236.90 -7304236.73 -7304236.52 0.0088 0.0047

Venus	-24711-09-16 08:23 J	-7304011.33	-7304011.15	-7304010.95	0.0088	0.0046
Venus	-24710-04-29 22:04 J	-7303785.76	-7303785.58	-7303785.37	0.0088	0.0045
Venus	-24710-12-11 11:45 J	-7303560.19	-7303560.01	-7303559.80	0.0088	0.0044
Venus	-24709-07-24 01:26 J	-7303334.62	-7303334.44	-7303334.23	0.0088	0.0043
Venus	-24708-03-06 15:35 J	-7303109.05	-7303108.85	-7303108.65	0.0088	0.0042
Venus	-24708-10-18 05:16 J	-7302883.47	-7302883.28	-7302883.07	0.0088	0.0041
Venus	-24707-05-31 18:57 J	-7302657.90	-7302657.71	-7302657.49	0.0088	0.0040
Venus	-24706-01-12 08:38 J	-7302432.32	-7302432.14	-7302431.92	0.0088	0.0039
Venus	-24706-08-25 22:47 J	-7302206.75	-7302206.55	-7302206.34	0.0088	0.0037
Venus	-24705-04-07 12:28 J	-7301981.18	-7301980.98	-7301980.77	0.0088	0.0036
Venus	-24705-11-19 02:09 J	-7301755.60	-7301755.41	-7301755.19	0.0088	0.0035
Venus	-24704-07-02 16:19 J	-7301530.03	-7301529.82	-7301529.61	0.0088	0.0033
Venus	-24703-02-13 05:45 J	-7301304.46	-7301304.26	-7301304.04	0.0088	0.0032
Venus	-24703-09-26 19:40 J	-7301078.88	-7301078.68	-7301078.46	0.0088	0.0030
Venus	-24702-05-10 09:35 J	-7300853.31	-7300853.10	-7300852.88	0.0088	0.0029
Venus	-24702-12-21 23:16 J	-7300627.74	-7300627.53	-7300627.31	0.0088	0.0028
Venus	-24701-08-03 12:43 J	-7300402.17	-7300401.97	-7300401.74	0.0088	0.0027
Venus	-24700-03-17 02:38 J	-7300176.60	-7300176.39	-7300176.17	0.0088	0.0025
Venus	-24700-10-28 16:33 J	-7299951.02	-7299950.81	-7299950.59	0.0088	0.0023
Venus	-24699-06-11 05:59 J	-7299725.45	-7299725.25	-7299725.02	0.0088	0.0023
Venus	-24698-01-22 19:55 J	-7299499.88	-7299499.67	-7299499.45	0.0088	0.0021
Venus	-24698-09-05 09:35 J	-7299274.31	-7299274.10	-7299273.87	0.0088	0.0019
Venus	-24697-04-17 23:31 J	-7299048.74	-7299048.52	-7299048.30	0.0088	0.0018
Venus	-24697-11-29 13:11 J	-7298823.16	-7298822.95	-7298822.72	0.0088	0.0016
Venus	-24696-07-13 02:52 J	-7298597.59	-7298597.38	-7298597.15	0.0088	0.0015
Venus	-24695-02-23 16:33 J	-7298372.02	-7298371.81	-7298371.58	0.0089	0.0014
Venus	-24695-10-07 06:28 J	-7298146.45	-7298146.23	-7298146.00	0.0089	0.0012
Venus	-24694-05-20 20:09 J	-7297920.87	-7297920.66	-7297920.43	0.0089	0.0011
Venus	-24693-01-01 10:04 J	-7297695.30	-7297695.08	-7297694.85	0.0089	0.0009
Venus	-24693-08-13 23:45 J	-7297469.73	-7297469.51	-7297469.28	0.0089	0.0007

Venus	-24692-03-27 13:26 J	-7297244.16	-7297243.94	-7297243.71	0.0089	0.0006
Venus	-24692-11-08 03:21 J	-7297018.58	-7297018.36	-7297018.14	0.0089	0.0004
Venus	-24691-06-21 17:02 J	-7296793.01	-7296792.79	-7296792.57	0.0089	0.0003
Venus	-24690-02-02 06:43 J	-7296567.44	-7296567.22	-7296567.00	0.0089	0.0001
Venus	-24690-09-15 20:09 J	-7296341.88	-7296341.66	-7296341.43	0.0089	0.0002
Venus	-24689-04-28 09:50 J	-7296116.31	-7296116.09	-7296115.86	0.0089	0.0002
Venus	-24689-12-09 23:31 J	-7295890.74	-7295890.52	-7295890.29	0.0089	0.0004
Venus	-24688-07-23 13:11 J	-7295665.17	-7295664.95	-7295664.73	0.0089	0.0005
Venus	-24687-03-06 02:38 J	-7295439.61	-7295439.39	-7295439.16	0.0089	0.0006
Venus	-24687-10-17 16:19 J	-7295214.04	-7295213.82	-7295213.60	0.0089	0.0008
Venus	-24686-05-31 05:45 J	-7294988.48	-7294988.26	-7294988.03	0.0089	0.0009
Venus	-24685-01-11 19:26 J	-7294762.91	-7294762.69	-7294762.47	0.0089	0.0011
Venus	-24685-08-24 08:52 J	-7294537.35	-7294537.13	-7294536.90	0.0089	0.0012
Venus	-24684-04-06 22:19 J	-7294311.78	-7294311.57	-7294311.34	0.0089	0.0014
Venus	-24684-11-18 11:59 J	-7294086.21	-7294086.00	-7294085.77	0.0089	0.0015
Venus	-24683-07-02 01:26 J	-7293860.65	-7293860.44	-7293860.21	0.0089	0.0017
Venus	-24682-02-12 15:07 J	-7293635.08	-7293634.87	-7293634.65	0.0089	0.0018
Venus	-24682-09-26 04:19 J	-7293409.52	-7293409.32	-7293409.09	0.0089	0.0020
Venus	-24681-05-08 17:59 J	-7293183.96	-7293183.75	-7293183.52	0.0089	0.0021
Venus	-24681-12-20 07:40 J	-7292958.39	-7292958.18	-7292957.96	0.0089	0.0022
Venus	-24680-08-02 21:07 J	-7292732.82	-7292732.62	-7292732.40	0.0089	0.0024
Venus	-24679-03-16 10:33 J	-7292507.26	-7292507.06	-7292506.84	0.0089	0.0025
Venus	-24679-10-28 00:14 J	-7292281.70	-7292281.49	-7292281.28	0.0089	0.0026
Venus	-24678-06-10 13:26 J	-7292056.14	-7292055.94	-7292055.72	0.0089	0.0028
Venus	-24677-01-22 02:52 J	-7291830.58	-7291830.38	-7291830.16	0.0089	0.0029
Venus	-24677-09-03 16:19 J	-7291605.02	-7291604.82	-7291604.60	0.0089	0.0030
Venus	-24676-04-17 05:31 J	-7291379.46	-7291379.27	-7291379.05	0.0089	0.0032
Venus	-24676-11-28 18:57 J	-7291153.90	-7291153.71	-7291153.49	0.0089	0.0033
Venus	-24675-07-12 08:23 J	-7290928.35	-7290928.15	-7290927.94	0.0089	0.0034
Venus	-24674-02-22 21:35 J	-7290702.79	-7290702.60	-7290702.39	0.0089	0.0035

Venus	-24674-10-06 11:02 J	-7290477.24	-7290477.04	-7290476.84	0.0089	0.0036
Venus	-24673-05-18 23:59 J	-7290251.69	-7290251.50	-7290251.29	0.0089	0.0038
Venus	-24673-12-30 13:26 J	-7290026.13	-7290025.94	-7290025.73	0.0089	0.0039
Venus	-24672-08-13 02:38 J	-7289800.57	-7289800.39	-7289800.18	0.0089	0.0040
Venus	-24671-03-26 15:50 J	-7289575.02	-7289574.84	-7289574.63	0.0089	0.0041
Venus	-24671-11-07 05:02 J	-7289349.47	-7289349.29	-7289349.08	0.0089	0.0042
Venus	-24670-06-20 18:28 J	-7289123.91	-7289123.73	-7289123.53	0.0089	0.0043
Venus	-24669-02-01 07:40 J	-7288898.36	-7288898.18	-7288897.98	0.0089	0.0045
Venus	-24669-09-13 20:52 J	-7288672.81	-7288672.63	-7288672.43	0.0089	0.0045
Venus	-24668-04-27 10:04 J	-7288447.25	-7288447.08	-7288446.88	0.0089	0.0046
Venus	-24668-12-08 23:16 J	-7288221.70	-7288221.53	-7288221.33	0.0089	0.0047
Venus	-24667-07-22 12:28 J	-7287996.15	-7287995.98	-7287995.78	0.0089	0.0048
Venus	-24666-03-05 01:40 J	-7287770.60	-7287770.43	-7287770.23	0.0089	0.0049
Venus	-24666-10-16 14:38 J	-7287545.05	-7287544.89	-7287544.69	0.0089	0.0050
Venus	-24665-05-29 04:04 J	-7287319.50	-7287319.33	-7287319.15	0.0089	0.0051
Venus	-24664-01-09 17:02 J	-7287093.95	-7287093.79	-7287093.60	0.0089	0.0052
Venus	-24664-08-23 05:59 J	-7286868.41	-7286868.25	-7286868.06	0.0089	0.0053
Venus	-24663-04-05 18:57 J	-7286642.87	-7286642.71	-7286642.52	0.0089	0.0053
Venus	-24663-11-17 08:09 J	-7286417.33	-7286417.16	-7286416.98	0.0089	0.0054
Venus	-24662-06-30 20:52 J	-7286191.79	-7286191.63	-7286191.44	0.0089	0.0055
Venus	-24661-02-11 09:50 J	-7285966.24	-7285966.09	-7285965.90	0.0089	0.0056
Venus	-24661-09-23 23:02 J	-7285740.70	-7285740.54	-7285740.36	0.0089	0.0056
Venus	-24660-05-07 11:45 J	-7285515.16	-7285515.01	-7285514.82	0.0089	0.0057
Venus	-24660-12-19 00:57 J	-7285289.62	-7285289.46	-7285289.29	0.0089	0.0057
Venus	-24659-08-01 13:40 J	-7285064.08	-7285063.93	-7285063.75	0.0089	0.0057
Venus	-24658-03-15 02:52 J	-7284838.54	-7284838.38	-7284838.21	0.0089	0.0058
Venus	-24658-10-26 15:21 J	-7284613.00	-7284612.86	-7284612.68	0.0089	0.0059
Venus	-24657-06-08 04:33 J	-7284387.47	-7284387.31	-7284387.14	0.0089	0.0059
Venus	-24656-01-19 17:16 J	-7284161.93	-7284161.78	-7284161.60	0.0089	0.0059
Earth	-24656-04-20 03:21 J	-7284071.50	-7284071.36	-7284071.21	0.0089	0.0073

Moon	-24656-04-20 06:28 J	-7284071.37	-7284071.23	-7284071.05	0.0089	0.0069 *
Venus	-24656-09-02 06:14 J	-7283936.39	-7283936.24	-7283936.07	0.0089	0.0059
Venus	-24655-04-15 19:11 J	-7283710.86	-7283710.70	-7283710.53	0.0089	0.0060
Moon	-24655-04-22 10:19 J	-7283704.28	-7283704.07	-7283703.82	0.0089	0.0034
Earth	-24655-04-22 13:55 J	-7283704.14	-7283703.92	-7283703.66	0.0089	0.0030 *
Venus	-24655-11-27 07:40 J	-7283485.32	-7283485.18	-7283485.00	0.0089	0.0060
Earth	-24654-04-25 00:43 J	-7283336.71	-7283336.47	-7283336.21	0.0089	0.0015
Moon	-24654-04-25 03:21 J	-7283336.60	-7283336.36	-7283336.09	0.0089	0.0020 *
Venus	-24654-07-10 20:38 J	-7283259.79	-7283259.64	-7283259.47	0.0089	0.0060
Venus	-24653-02-21 09:35 J	-7283034.25	-7283034.10	-7283033.93	0.0089	0.0061
Moon	-24653-04-26 08:52 J	-7282969.31	-7282969.13	-7282968.92	0.0089	0.0054
Earth	-24653-04-26 10:47 J	-7282969.22	-7282969.05	-7282968.83	0.0089	0.0059 *
Venus	-24653-10-03 22:19 J	-7282808.72	-7282808.57	-7282808.40	0.0089	0.0061
Venus	-24652-05-17 11:16 J	-7282583.19	-7282583.03	-7282582.87	0.0089	0.0061
Venus	-24652-12-28 23:59 J	-7282357.66	-7282357.50	-7282357.34	0.0089	0.0061
Venus	-24651-08-11 12:14 J	-7282132.13	-7282131.99	-7282131.81	0.0089	0.0061
Venus	-24650-03-25 00:57 J	-7281906.60	-7281906.46	-7281906.28	0.0089	0.0061
Venus	-24650-11-05 13:26 J	-7281681.07	-7281680.94	-7281680.76	0.0089	0.0062
Venus	-24649-06-18 02:09 J	-7281455.55	-7281455.41	-7281455.23	0.0089	0.0061
Venus	-24648-01-29 14:52 J	-7281230.02	-7281229.88	-7281229.71	0.0089	0.0061
Venus	-24648-09-12 03:50 J	-7281004.50	-7281004.34	-7281004.18	0.0089	0.0061
Venus	-24647-04-25 16:19 J	-7280778.97	-7280778.82	-7280778.66	0.0089	0.0061
Venus	-24647-12-07 04:47 J	-7280553.45	-7280553.30	-7280553.13	0.0089	0.0061
Venus	-24646-07-20 17:16 J	-7280327.93	-7280327.78	-7280327.61	0.0089	0.0061
Venus	-24645-03-02 05:45 J	-7280102.40	-7280102.26	-7280102.08	0.0089	0.0061
Venus	-24645-10-13 18:14 J	-7279876.87	-7279876.74	-7279876.56	0.0089	0.0061
Venus	-24644-05-27 07:11 J	-7279651.35	-7279651.20	-7279651.03	0.0089	0.0060
Venus	-24643-01-07 19:26 J	-7279425.83	-7279425.69	-7279425.51	0.0089	0.0060
Venus	-24643-08-21 07:55 J	-7279200.31	-7279200.17	-7279199.99	0.0089	0.0060
Venus	-24642-04-03 20:52 J	-7278974.78	-7278974.63	-7278974.46	0.0089	0.0059

Venus	-24642-11-15 09:07 J	-7278749.26	-7278749.12	-7278748.93	0.0089	0.0059
Venus	-24641-06-27 21:50 J	-7278523.74	-7278523.59	-7278523.41	0.0089	0.0058
Venus	-24640-02-08 10:04 J	-7278298.22	-7278298.08	-7278297.89	0.0089	0.0058
Mercury	-24640-03-23 10:04 J	-7278255.12	-7278255.08	-7278255.03	0.0089	0.0084
Mercury	-24640-06-19 11:31 J	-7278167.08	-7278167.02	-7278166.95	0.0089	0.0078
Mercury	-24640-09-15 12:57 J	-7278079.04	-7278078.96	-7278078.88	0.0089	0.0071
Venus	-24640-09-21 22:47 J	-7278072.70	-7278072.55	-7278072.37	0.0089	0.0057
Mars	-24640-11-26 13:40 J	-7278007.19	-7278006.93	-7278006.63	0.0089	0.0047
Mercury	-24640-12-12 13:55 J	-7277991.00	-7277990.92	-7277990.81	0.0089	0.0065
Mercury	-24639-03-10 15:21 J	-7277902.95	-7277902.86	-7277902.74	0.0089	0.0058
Venus	-24639-05-05 11:02 J	-7277847.18	-7277847.04	-7277846.85	0.0089	0.0057
Mercury	-24639-06-06 16:47 J	-7277814.90	-7277814.80	-7277814.68	0.0089	0.0051
Mercury	-24639-09-02 18:14 J	-7277726.85	-7277726.74	-7277726.62	0.0089	0.0043
Mercury	-24639-11-29 19:40 J	-7277638.80	-7277638.68	-7277638.55	0.0089	0.0036
Venus	-24639-12-16 23:45 J	-7277621.67	-7277621.51	-7277621.33	0.0089	0.0055
Mercury	-24638-02-25 21:07 J	-7277550.74	-7277550.62	-7277550.49	0.0089	0.0029
Mercury	-24638-05-24 22:33 J	-7277462.69	-7277462.56	-7277462.43	0.0089	0.0022
Venus	-24638-07-30 12:14 J	-7277396.15	-7277395.99	-7277395.81	0.0089	0.0055
Mercury	-24638-08-20 23:59 J	-7277374.63	-7277374.50	-7277374.37	0.0089	0.0015
Mars	-24638-10-23 08:52 J	-7277311.44	-7277311.13	-7277310.80	0.0089	0.0021
Mercury	-24638-11-17 01:26 J	-7277286.58	-7277286.44	-7277286.31	0.0089	0.0009
Mercury	-24637-02-13 02:38 J	-7277198.52	-7277198.39	-7277198.25	0.0089	0.0004
Venus	-24637-03-12 00:28 J	-7277170.63	-7277170.48	-7277170.29	0.0089	0.0055
Mercury	-24637-05-11 04:04 J	-7277110.46	-7277110.33	-7277110.19	0.0089	0.0006
Mercury	-24637-08-07 05:31 J	-7277022.40	-7277022.27	-7277022.13	0.0089	0.0013
Venus	-24637-10-23 12:57 J	-7276945.12	-7276944.96	-7276944.77	0.0089	0.0054
Mercury	-24637-11-03 06:57 J	-7276934.34	-7276934.21	-7276934.08	0.0089	0.0020
Mercury	-24636-01-30 08:23 J	-7276846.28	-7276846.15	-7276846.02	0.0089	0.0027
Mercury	-24636-04-28 09:50 J	-7276758.22	-7276758.09	-7276757.97	0.0089	0.0034
Venus	-24636-06-06 01:40 J	-7276719.61	-7276719.43	-7276719.26	0.0089	0.0053

Mercury	-24636-07-25 11:16 J	-7276670.15	-7276670.03	-7276669.91	0.0089	0.0041
Mars	-24636-09-18 00:57 J	-7276615.47	-7276615.46	-7276615.38	0.0089	0.0089
Mercury	-24636-10-21 12:28 J	-7276582.09	-7276581.98	-7276581.86	0.0089	0.0048
Venus	-24635-01-17 13:26 J	-7276494.09	-7276493.94	-7276493.74	0.0089	0.0053
Mercury	-24635-01-17 13:55 J	-7276494.02	-7276493.92	-7276493.81	0.0089	0.0055 *
Mercury	-24635-04-15 15:21 J	-7276405.95	-7276405.86	-7276405.76	0.0089	0.0062
Mercury	-24635-07-12 16:47 J	-7276317.88	-7276317.80	-7276317.71	0.0089	0.0069
Venus	-24635-08-31 01:55 J	-7276268.58	-7276268.42	-7276268.23	0.0089	0.0052
Mercury	-24635-10-08 18:14 J	-7276229.80	-7276229.74	-7276229.66	0.0089	0.0076
Mercury	-24634-01-04 19:40 J	-7276141.72	-7276141.68	-7276141.62	0.0089	0.0083
Venus	-24634-04-13 14:38 J	-7276043.06	-7276042.89	-7276042.70	0.0089	0.0051
Venus	-24634-11-25 03:07 J	-7275817.54	-7275817.37	-7275817.19	0.0089	0.0050
Venus	-24633-07-07 15:07 J	-7275592.03	-7275591.87	-7275591.67	0.0089	0.0049
Venus	-24632-02-18 03:35 J	-7275366.52	-7275366.35	-7275366.16	0.0089	0.0048
Venus	-24632-10-01 15:50 J	-7275141.00	-7275140.84	-7275140.64	0.0089	0.0048
Venus	-24631-05-15 04:19 J	-7274915.49	-7274915.32	-7274915.12	0.0089	0.0046
Venus	-24631-12-26 16:47 J	-7274689.97	-7274689.80	-7274689.60	0.0089	0.0045
Venus	-24630-08-09 05:16 J	-7274464.46	-7274464.28	-7274464.08	0.0089	0.0044
Venus	-24629-03-21 17:45 J	-7274238.94	-7274238.76	-7274238.56	0.0089	0.0043
Venus	-24629-11-02 05:59 J	-7274013.43	-7274013.25	-7274013.05	0.0089	0.0042
Venus	-24628-06-15 18:14 J	-7273787.91	-7273787.74	-7273787.53	0.0089	0.0042
Venus	-24627-01-27 06:43 J	-7273562.40	-7273562.22	-7273562.02	0.0089	0.0040
Venus	-24627-09-09 18:57 J	-7273336.89	-7273336.71	-7273336.50	0.0089	0.0039
Venus	-24626-04-23 07:26 J	-7273111.37	-7273111.19	-7273110.98	0.0089	0.0038
Venus	-24626-12-04 19:40 J	-7272885.86	-7272885.68	-7272885.47	0.0089	0.0037
Venus	-24625-07-17 07:55 J	-7272660.35	-7272660.17	-7272659.96	0.0089	0.0036
Venus	-24624-02-27 20:23 J	-7272434.84	-7272434.65	-7272434.44	0.0089	0.0035
Venus	-24624-10-11 08:38 J	-7272209.33	-7272209.14	-7272208.93	0.0089	0.0033
Venus	-24623-05-24 20:52 J	-7271983.82	-7271983.63	-7271983.42	0.0089	0.0033
Venus	-24622-01-05 09:07 J	-7271758.31	-7271758.12	-7271757.90	0.0089	0.0031

Venus	-24622-08-18 21:21 J	-7271532.80	-7271532.61	-7271532.39	0.0089	0.0030
Venus	-24621-03-31 10:04 J	-7271307.28	-7271307.08	-7271306.87	0.0089	0.0028
Venus	-24621-11-11 22:19 J	-7271081.77	-7271081.57	-7271081.36	0.0089	0.0027
Venus	-24620-06-25 10:33 J	-7270856.26	-7270856.06	-7270855.85	0.0089	0.0026
Venus	-24619-02-05 22:47 J	-7270630.75	-7270630.55	-7270630.34	0.0089	0.0025
Venus	-24619-09-19 11:16 J	-7270405.24	-7270405.03	-7270404.82	0.0089	0.0023
Venus	-24618-05-02 23:45 J	-7270179.72	-7270179.51	-7270179.30	0.0089	0.0022
Venus	-24618-12-14 11:59 J	-7269954.20	-7269954.00	-7269953.78	0.0089	0.0021
Venus	-24617-07-27 00:28 J	-7269728.69	-7269728.48	-7269728.27	0.0089	0.0019
Venus	-24616-03-09 12:43 J	-7269503.18	-7269502.97	-7269502.76	0.0089	0.0018
Venus	-24616-10-21 00:57 J	-7269277.66	-7269277.46	-7269277.24	0.0089	0.0017
Venus	-24615-06-03 13:40 J	-7269052.15	-7269051.93	-7269051.72	0.0089	0.0015
Venus	-24614-01-15 01:55 J	-7268826.63	-7268826.42	-7268826.21	0.0089	0.0014
Venus	-24614-08-28 14:09 J	-7268601.12	-7268600.91	-7268600.69	0.0089	0.0013
Venus	-24613-04-10 02:38 J	-7268375.61	-7268375.39	-7268375.18	0.0089	0.0011
Venus	-24613-11-21 14:52 J	-7268150.09	-7268149.88	-7268149.66	0.0089	0.0010
Venus	-24612-07-05 03:07 J	-7267924.58	-7267924.37	-7267924.15	0.0089	0.0009
Venus	-24611-02-15 15:35 J	-7267699.07	-7267698.85	-7267698.64	0.0089	0.0007
Venus	-24611-09-29 03:50 J	-7267473.56	-7267473.34	-7267473.12	0.0089	0.0006
Venus	-24610-05-12 16:19 J	-7267248.04	-7267247.82	-7267247.60	0.0089	0.0004
Venus	-24610-12-24 04:33 J	-7267022.52	-7267022.31	-7267022.09	0.0089	0.0004
Venus	-24609-08-05 17:02 J	-7266797.01	-7266796.79	-7266796.58	0.0089	0.0002
Venus	-24608-03-19 05:16 J	-7266571.50	-7266571.28	-7266571.06	0.0089	0.0000
Venus	-24608-10-30 17:45 J	-7266345.98	-7266345.76	-7266345.55	0.0089	0.0002
Venus	-24607-06-13 06:14 J	-7266120.46	-7266120.24	-7266120.02	0.0089	0.0003
Venus	-24606-01-24 18:43 J	-7265894.94	-7265894.72	-7265894.51	0.0089	0.0004
Venus	-24606-09-07 06:57 J	-7265669.42	-7265669.21	-7265668.99	0.0089	0.0006
Venus	-24605-04-19 19:26 J	-7265443.90	-7265443.69	-7265443.47	0.0089	0.0007
Venus	-24605-12-01 07:55 J	-7265218.38	-7265218.17	-7265217.95	0.0089	0.0009
Venus	-24604-07-14 20:23 J	-7264992.86	-7264992.65	-7264992.43	0.0089	0.0010

Venus	-24603-02-25 08:52 J	-7264767.34	-7264767.13	-7264766.91	0.0089	0.0011
Venus	-24603-10-08 21:21 J	-7264541.82	-7264541.61	-7264541.39	0.0089	0.0013
Venus	-24602-05-22 10:04 J	-7264316.29	-7264316.08	-7264315.86	0.0089	0.0014
Venus	-24601-01-02 22:33 J	-7264090.77	-7264090.56	-7264090.34	0.0089	0.0015
Venus	-24601-08-15 11:02 J	-7263865.25	-7263865.04	-7263864.82	0.0089	0.0017
Venus	-24600-03-28 23:31 J	-7263639.73	-7263639.52	-7263639.30	0.0088	0.0018
Venus	-24600-11-09 11:45 J	-7263414.21	-7263414.01	-7263413.78	0.0088	0.0020
Venus	-24599-06-23 00:43 J	-7263188.68	-7263188.47	-7263188.25	0.0088	0.0020
Venus	-24598-02-03 13:11 J	-7262963.16	-7262962.95	-7262962.73	0.0088	0.0022
Venus	-24598-09-17 01:40 J	-7262737.63	-7262737.43	-7262737.21	0.0088	0.0023
Venus	-24597-04-29 14:09 J	-7262512.11	-7262511.91	-7262511.69	0.0088	0.0025
Venus	-24597-12-11 02:52 J	-7262286.59	-7262286.38	-7262286.17	0.0088	0.0026
Venus	-24596-07-24 15:35 J	-7262061.06	-7262060.85	-7262060.64	0.0088	0.0027
Venus	-24595-03-07 03:50 J	-7261835.53	-7261835.34	-7261835.12	0.0088	0.0029
Venus	-24595-10-18 16:33 J	-7261610.01	-7261609.81	-7261609.59	0.0088	0.0030
Venus	-24594-06-01 05:16 J	-7261384.47	-7261384.28	-7261384.06	0.0088	0.0031
Venus	-24593-01-12 18:14 J	-7261158.94	-7261158.74	-7261158.53	0.0088	0.0032
Venus	-24593-08-25 06:57 J	-7260933.41	-7260933.21	-7260933.01	0.0088	0.0033
Venus	-24592-04-07 19:11 J	-7260707.88	-7260707.70	-7260707.48	0.0088	0.0035
Saturn	-24592-09-26 15:35 J	-7260536.34	-7260535.85	-7260535.22	0.0088	0.0057
Venus	-24592-11-19 08:09 J	-7260482.35	-7260482.16	-7260481.95	0.0088	0.0035
Venus	-24591-07-02 21:07 J	-7260256.81	-7260256.62	-7260256.41	0.0088	0.0036
Venus	-24590-02-13 09:50 J	-7260031.28	-7260031.09	-7260030.88	0.0088	0.0038
Venus	-24590-09-26 22:33 J	-7259805.74	-7259805.56	-7259805.35	0.0088	0.0039
Venus	-24589-05-09 11:31 J	-7259580.21	-7259580.02	-7259579.82	0.0088	0.0039
Venus	-24589-12-21 00:14 J	-7259354.68	-7259354.49	-7259354.29	0.0088	0.0040
Venus	-24588-08-03 13:11 J	-7259129.14	-7259128.95	-7259128.75	0.0088	0.0041
Venus	-24587-03-17 01:55 J	-7258903.60	-7258903.42	-7258903.22	0.0088	0.0042
Venus	-24587-10-28 14:38 J	-7258678.07	-7258677.89	-7258677.68	0.0088	0.0044
Venus	-24586-06-11 03:35 J	-7258452.53	-7258452.35	-7258452.15	0.0088	0.0044

Venus	-24585-01-22 16:19 J	-7258226.99	-7258226.82	-7258226.61	0.0088	0.0046
Venus	-24585-09-04 05:02 J	-7258001.46	-7258001.29	-7258001.08	0.0088	0.0047
Venus	-24584-04-17 17:59 J	-7257775.92	-7257775.75	-7257775.55	0.0088	0.0047
Venus	-24584-11-29 07:11 J	-7257550.38	-7257550.20	-7257550.01	0.0088	0.0048
Venus	-24583-07-12 20:09 J	-7257324.84	-7257324.66	-7257324.47	0.0088	0.0049
Venus	-24582-02-23 09:07 J	-7257099.29	-7257099.12	-7257098.93	0.0088	0.0049
Venus	-24582-10-06 21:50 J	-7256873.75	-7256873.59	-7256873.39	0.0088	0.0050
Venus	-24581-05-19 10:47 J	-7256648.21	-7256648.05	-7256647.85	0.0088	0.0051
Venus	-24581-12-30 23:59 J	-7256422.67	-7256422.50	-7256422.31	0.0088	0.0052
Venus	-24580-08-13 12:57 J	-7256197.12	-7256196.96	-7256196.77	0.0088	0.0053
Venus	-24579-03-27 01:55 J	-7255971.58	-7255971.42	-7255971.22	0.0088	0.0053
Venus	-24579-11-07 15:21 J	-7255746.03	-7255745.86	-7255745.68	0.0088	0.0053
Venus	-24578-06-21 04:19 J	-7255520.48	-7255520.32	-7255520.13	0.0088	0.0054
Venus	-24577-02-01 17:45 J	-7255294.93	-7255294.76	-7255294.59	0.0088	0.0055
Venus	-24577-09-14 06:28 J	-7255069.39	-7255069.23	-7255069.04	0.0088	0.0055
Venus	-24576-04-27 19:55 J	-7254843.84	-7254843.67	-7254843.50	0.0088	0.0056
Venus	-24576-12-09 08:38 J	-7254618.29	-7254618.14	-7254617.95	0.0088	0.0057
Venus	-24575-07-22 22:19 J	-7254392.74	-7254392.57	-7254392.40	0.0088	0.0056
Venus	-24574-03-05 11:02 J	-7254167.19	-7254167.04	-7254166.85	0.0088	0.0058
Venus	-24574-10-17 00:28 J	-7253941.64	-7253941.48	-7253941.30	0.0088	0.0057
Moon	-24574-10-21 02:23 J	-7253937.59	-7253937.40	-7253937.16	0.0088	0.0050
Earth	-24574-10-21 06:14 J	-7253937.44	-7253937.24	-7253937.02	0.0088	0.0053 *
Venus	-24573-05-29 13:11 J	-7253716.09	-7253715.95	-7253715.76	0.0088	0.0058
Earth	-24573-10-22 18:57 J	-7253569.97	-7253569.71	-7253569.44	0.0088	0.0010
Moon	-24573-10-22 22:04 J	-7253569.84	-7253569.58	-7253569.31	0.0088	0.0014 *
Venus	-24572-01-10 02:38 J	-7253490.54	-7253490.39	-7253490.21	0.0088	0.0058
Venus	-24572-08-23 16:04 J	-7253264.99	-7253264.83	-7253264.65	0.0088	0.0058
Moon	-24572-10-25 05:02 J	-7253202.51	-7253202.29	-7253202.05	0.0088	0.0037
Earth	-24572-10-25 07:11 J	-7253202.42	-7253202.20	-7253201.94	0.0088	0.0033 *
Venus	-24571-04-06 05:31 J	-7253039.44	-7253039.27	-7253039.10	0.0088	0.0059

Earth	-24571-10-27 19:40 J	-7252834.79	-7252834.68	-7252834.53	0.0088	0.0076
Moon	-24571-10-27 20:23 J	-7252834.78	-7252834.65	-7252834.47	0.0088	0.0073 *
Venus	-24571-11-17 18:14 J	-7252813.88	-7252813.74	-7252813.55	0.0088	0.0059
Venus	-24570-07-01 07:40 J	-7252588.33	-7252588.18	-7252588.00	0.0088	0.0059
Venus	-24569-02-11 20:52 J	-7252362.78	-7252362.63	-7252362.45	0.0088	0.0059
Venus	-24569-09-24 10:19 J	-7252137.22	-7252137.07	-7252136.89	0.0088	0.0059
Venus	-24568-05-07 23:45 J	-7251911.67	-7251911.51	-7251911.34	0.0088	0.0059
Venus	-24568-12-19 13:11 J	-7251686.11	-7251685.95	-7251685.78	0.0088	0.0059
Venus	-24567-08-02 02:38 J	-7251460.55	-7251460.39	-7251460.22	0.0088	0.0059
Venus	-24566-03-15 16:04 J	-7251234.99	-7251234.83	-7251234.66	0.0088	0.0059
Venus	-24566-10-27 05:31 J	-7251009.43	-7251009.27	-7251009.10	0.0088	0.0059
Venus	-24565-06-08 18:43 J	-7250783.87	-7250783.72	-7250783.54	0.0088	0.0060
Venus	-24564-01-20 08:09 J	-7250558.31	-7250558.16	-7250557.98	0.0088	0.0059
Venus	-24564-09-02 21:50 J	-7250332.74	-7250332.59	-7250332.41	0.0088	0.0059
Venus	-24563-04-16 11:16 J	-7250107.18	-7250107.03	-7250106.85	0.0088	0.0059
Venus	-24563-11-28 00:28 J	-7249881.62	-7249881.48	-7249881.29	0.0088	0.0059
Venus	-24562-07-11 14:23 J	-7249656.06	-7249655.90	-7249655.73	0.0088	0.0058
Venus	-24561-02-22 03:50 J	-7249430.50	-7249430.34	-7249430.16	0.0088	0.0058
Venus	-24561-10-04 17:02 J	-7249204.94	-7249204.79	-7249204.60	0.0088	0.0058
Venus	-24560-05-18 06:57 J	-7248979.37	-7248979.21	-7248979.04	0.0088	0.0058
Venus	-24560-12-29 20:09 J	-7248753.81	-7248753.66	-7248753.47	0.0088	0.0058
Venus	-24559-08-12 09:35 J	-7248528.25	-7248528.10	-7248527.91	0.0088	0.0057
Venus	-24558-03-25 23:31 J	-7248302.68	-7248302.52	-7248302.34	0.0088	0.0056
Mars	-24558-08-24 17:31 J	-7248150.95	-7248150.77	-7248150.55	0.0088	0.0065
Venus	-24558-11-06 12:43 J	-7248077.12	-7248076.97	-7248076.77	0.0088	0.0057
Venus	-24557-06-19 02:38 J	-7247851.56	-7247851.39	-7247851.21	0.0088	0.0055
Mercury	-24557-09-10 19:40 J	-7247767.73	-7247767.68	-7247767.61	0.0088	0.0083
Mercury	-24557-12-07 23:31 J	-7247679.63	-7247679.52	-7247679.42	0.0088	0.0074
Venus	-24556-01-30 15:50 J	-7247625.99	-7247625.84	-7247625.64	0.0088	0.0056
Mercury	-24556-03-06 02:38 J	-7247591.51	-7247591.39	-7247591.25	0.0088	0.0064

Mercury -24556-06-02 06:14 J -7247503.39 -7247503.24 -7247503.09 0.0088 0.0054
 Mars -24556-07-18 17:02 J -7247457.08 -7247456.79 -7247456.48 0.0088 0.0007
 Mercury -24556-08-29 09:21 J -7247415.26 -7247415.11 -7247414.93 0.0088 0.0045
 Venus -24556-09-13 05:59 J -7247400.42 -7247400.25 -7247400.07 0.0088 0.0054
 Mercury -24556-11-25 12:57 J -7247327.13 -7247326.96 -7247326.78 0.0088 0.0035
 Mercury -24555-02-21 16:33 J -7247238.99 -7247238.81 -7247238.63 0.0088 0.0026
 Venus -24555-04-26 19:26 J -7247174.85 -7247174.69 -7247174.50 0.0088 0.0054
 Mercury -24555-05-20 19:55 J -7247150.86 -7247150.67 -7247150.48 0.0088 0.0016
 Mercury -24555-08-16 23:16 J -7247062.72 -7247062.53 -7247062.34 0.0088 0.0007
 Mercury -24555-11-13 02:38 J -7246974.58 -7246974.39 -7246974.20 0.0088 0.0004
 Venus -24555-12-08 09:07 J -7246949.29 -7246949.12 -7246948.93 0.0088 0.0053
 Mercury -24554-02-09 05:59 J -7246886.43 -7246886.25 -7246886.06 0.0088 0.0013
 Mercury -24554-05-08 09:21 J -7246798.29 -7246798.11 -7246797.92 0.0088 0.0022
 Mars -24554-06-12 17:59 J -7246762.97 -7246762.75 -7246762.48 0.0088 0.0052
 Venus -24554-07-21 23:02 J -7246723.72 -7246723.54 -7246723.36 0.0088 0.0053
 Mercury -24554-08-04 12:43 J -7246710.14 -7246709.97 -7246709.79 0.0088 0.0031
 Mercury -24554-10-31 15:50 J -7246622.00 -7246621.84 -7246621.66 0.0088 0.0041
 Mercury -24553-01-27 19:11 J -7246533.84 -7246533.70 -7246533.53 0.0088 0.0050
 Venus -24553-03-03 12:14 J -7246498.15 -7246497.99 -7246497.79 0.0088 0.0053
 Mercury -24553-04-24 22:47 J -7246445.69 -7246445.55 -7246445.41 0.0088 0.0060
 Mercury -24553-07-22 01:40 J -7246357.53 -7246357.43 -7246357.30 0.0088 0.0069
 Venus -24553-10-15 02:09 J -7246272.58 -7246272.41 -7246272.21 0.0088 0.0052
 Mercury -24553-10-18 05:02 J -7246269.36 -7246269.29 -7246269.19 0.0088 0.0078
 Mercury -24552-01-14 08:23 J -7246181.16 -7246181.15 -7246181.12 0.0088 0.0088
 Venus -24552-05-28 16:04 J -7246047.01 -7246046.83 -7246046.64 0.0088 0.0051
 Venus -24551-01-09 05:31 J -7245821.44 -7245821.27 -7245821.07 0.0088 0.0050
 Venus -24551-08-22 19:11 J -7245595.87 -7245595.70 -7245595.49 0.0088 0.0050
 Venus -24550-04-05 09:07 J -7245370.30 -7245370.12 -7245369.92 0.0088 0.0048
 Venus -24550-11-16 23:02 J -7245144.73 -7245144.54 -7245144.35 0.0088 0.0047
 Venus -24549-06-29 12:43 J -7244919.16 -7244918.97 -7244918.78 0.0088 0.0047

Venus	-24548-02-10 01:55 J	-7244693.59	-7244693.42	-7244693.21	0.0088	0.0046
Venus	-24548-09-23 15:50 J	-7244468.02	-7244467.84	-7244467.63	0.0088	0.0045
Venus	-24547-05-07 05:31 J	-7244242.45	-7244242.27	-7244242.06	0.0088	0.0045
Venus	-24547-12-18 19:11 J	-7244016.88	-7244016.70	-7244016.49	0.0088	0.0044
Venus	-24546-08-01 08:52 J	-7243791.31	-7243791.13	-7243790.92	0.0088	0.0043
Venus	-24545-03-13 22:33 J	-7243565.74	-7243565.56	-7243565.34	0.0088	0.0042
Venus	-24545-10-25 12:28 J	-7243340.17	-7243339.98	-7243339.77	0.0088	0.0040
Venus	-24544-06-08 02:09 J	-7243114.60	-7243114.41	-7243114.19	0.0088	0.0039
Venus	-24543-01-19 15:50 J	-7242889.03	-7242888.84	-7242888.62	0.0088	0.0038
Venus	-24543-09-02 05:31 J	-7242663.45	-7242663.27	-7242663.05	0.0088	0.0038
Venus	-24542-04-15 19:40 J	-7242437.88	-7242437.68	-7242437.47	0.0088	0.0036
Venus	-24542-11-27 09:35 J	-7242212.31	-7242212.10	-7242211.89	0.0088	0.0035
Venus	-24541-07-09 23:02 J	-7241986.74	-7241986.54	-7241986.32	0.0088	0.0034
Venus	-24540-02-20 12:57 J	-7241761.16	-7241760.96	-7241760.74	0.0088	0.0032
Venus	-24540-10-04 02:38 J	-7241535.58	-7241535.39	-7241535.16	0.0088	0.0032
Venus	-24539-05-17 16:33 J	-7241310.01	-7241309.81	-7241309.59	0.0088	0.0030
Venus	-24539-12-29 06:28 J	-7241084.44	-7241084.23	-7241084.01	0.0088	0.0029
Venus	-24538-08-11 20:09 J	-7240858.87	-7240858.66	-7240858.44	0.0088	0.0028
Venus	-24537-03-24 09:50 J	-7240633.29	-7240633.09	-7240632.87	0.0088	0.0027
Venus	-24537-11-04 23:45 J	-7240407.72	-7240407.51	-7240407.29	0.0088	0.0025
Venus	-24536-06-18 13:40 J	-7240182.15	-7240181.93	-7240181.71	0.0088	0.0024
Venus	-24535-01-30 03:07 J	-7239956.58	-7239956.37	-7239956.14	0.0088	0.0023
Venus	-24535-09-12 16:47 J	-7239731.01	-7239730.80	-7239730.57	0.0088	0.0022
Venus	-24534-04-26 06:43 J	-7239505.44	-7239505.22	-7239505.00	0.0088	0.0020
Venus	-24534-12-07 20:23 J	-7239279.86	-7239279.65	-7239279.42	0.0088	0.0019
Venus	-24533-07-20 10:04 J	-7239054.30	-7239054.08	-7239053.86	0.0088	0.0017
Venus	-24532-03-02 23:31 J	-7238828.73	-7238828.52	-7238828.29	0.0088	0.0017
Venus	-24532-10-14 13:40 J	-7238603.15	-7238602.93	-7238602.71	0.0089	0.0015
Venus	-24531-05-28 03:07 J	-7238377.58	-7238377.37	-7238377.14	0.0089	0.0014
Venus	-24530-01-08 17:02 J	-7238152.01	-7238151.79	-7238151.56	0.0089	0.0012

Venus	-24530-08-22 06:43 J	-7237926.44	-7237926.22	-7237925.99	0.0089	0.0011
Venus	-24529-04-03 20:23 J	-7237700.87	-7237700.65	-7237700.42	0.0089	0.0009
Venus	-24529-11-15 10:19 J	-7237475.29	-7237475.07	-7237474.84	0.0089	0.0008
Venus	-24528-06-28 23:59 J	-7237249.72	-7237249.50	-7237249.27	0.0089	0.0007
Venus	-24527-02-09 13:40 J	-7237024.15	-7237023.93	-7237023.70	0.0089	0.0005
Venus	-24527-09-23 03:35 J	-7236798.58	-7236798.35	-7236798.13	0.0089	0.0004
Venus	-24526-05-06 17:16 J	-7236573.01	-7236572.78	-7236572.56	0.0089	0.0002
Venus	-24526-12-18 06:57 J	-7236347.43	-7236347.21	-7236346.98	0.0089	0.0001
Venus	-24525-07-30 20:38 J	-7236121.86	-7236121.64	-7236121.42	0.0089	0.0001
Venus	-24524-03-13 10:19 J	-7235896.30	-7235896.07	-7235895.85	0.0089	0.0002
Venus	-24524-10-24 23:59 J	-7235670.72	-7235670.50	-7235670.28	0.0089	0.0003
Venus	-24523-06-07 13:40 J	-7235445.16	-7235444.93	-7235444.71	0.0089	0.0005
Venus	-24522-01-19 03:07 J	-7235219.59	-7235219.37	-7235219.14	0.0089	0.0006
Venus	-24522-09-01 16:33 J	-7234994.02	-7234993.81	-7234993.58	0.0089	0.0008
Venus	-24521-04-14 06:14 J	-7234768.46	-7234768.24	-7234768.02	0.0089	0.0009
Venus	-24521-11-25 19:55 J	-7234542.89	-7234542.67	-7234542.45	0.0089	0.0010
Venus	-24520-07-09 09:21 J	-7234317.32	-7234317.11	-7234316.88	0.0089	0.0012
Venus	-24519-02-19 22:47 J	-7234091.76	-7234091.55	-7234091.32	0.0089	0.0013
Venus	-24519-10-03 12:28 J	-7233866.20	-7233865.98	-7233865.76	0.0089	0.0014
Venus	-24518-05-17 02:09 J	-7233640.63	-7233640.41	-7233640.19	0.0089	0.0015
Venus	-24518-12-28 15:35 J	-7233415.06	-7233414.85	-7233414.63	0.0089	0.0017
Venus	-24517-08-10 05:02 J	-7233189.50	-7233189.29	-7233189.06	0.0089	0.0018
Venus	-24516-03-23 18:43 J	-7232963.94	-7232963.72	-7232963.50	0.0089	0.0019
Venus	-24516-11-04 07:55 J	-7232738.37	-7232738.17	-7232737.94	0.0089	0.0021
Venus	-24515-06-17 21:35 J	-7232512.81	-7232512.60	-7232512.38	0.0089	0.0022
Venus	-24514-01-29 11:16 J	-7232287.24	-7232287.03	-7232286.81	0.0089	0.0023
Venus	-24514-09-12 00:43 J	-7232061.68	-7232061.47	-7232061.25	0.0089	0.0024
Venus	-24513-04-24 14:09 J	-7231836.12	-7231835.91	-7231835.69	0.0089	0.0025
Venus	-24513-12-06 03:21 J	-7231610.55	-7231610.36	-7231610.13	0.0089	0.0027
Venus	-24512-07-19 16:47 J	-7231384.99	-7231384.80	-7231384.57	0.0089	0.0028

Venus	-24511-03-02 06:14 J	-7231159.44	-7231159.24	-7231159.02	0.0089	0.0029
Venus	-24511-10-13 19:40 J	-7230933.88	-7230933.68	-7230933.47	0.0089	0.0030
Venus	-24510-05-27 08:52 J	-7230708.33	-7230708.13	-7230707.91	0.0089	0.0031
Venus	-24509-01-07 22:19 J	-7230482.77	-7230482.57	-7230482.35	0.0089	0.0033
Venus	-24509-08-20 11:45 J	-7230257.21	-7230257.01	-7230256.80	0.0089	0.0033
Venus	-24508-04-03 00:57 J	-7230031.66	-7230031.46	-7230031.25	0.0089	0.0034
Venus	-24508-11-14 14:09 J	-7229806.11	-7229805.91	-7229805.70	0.0089	0.0036
Venus	-24507-06-28 03:35 J	-7229580.55	-7229580.35	-7229580.15	0.0089	0.0037
Venus	-24506-02-08 16:47 J	-7229355.00	-7229354.80	-7229354.60	0.0089	0.0038
Venus	-24506-09-22 05:59 J	-7229129.45	-7229129.25	-7229129.05	0.0089	0.0039
Venus	-24505-05-04 19:11 J	-7228903.90	-7228903.70	-7228903.50	0.0089	0.0040
Venus	-24505-12-16 08:23 J	-7228678.34	-7228678.15	-7228677.95	0.0089	0.0040
Venus	-24504-07-29 21:35 J	-7228452.79	-7228452.60	-7228452.40	0.0089	0.0041
Venus	-24503-03-12 10:33 J	-7228227.24	-7228227.06	-7228226.85	0.0089	0.0043
Venus	-24503-10-23 23:45 J	-7228001.69	-7228001.51	-7228001.31	0.0089	0.0043
Venus	-24502-06-06 12:43 J	-7227776.14	-7227775.97	-7227775.76	0.0089	0.0045
Venus	-24501-01-18 01:55 J	-7227550.59	-7227550.42	-7227550.21	0.0089	0.0046
Venus	-24501-08-30 15:21 J	-7227325.04	-7227324.86	-7227324.66	0.0089	0.0046
Venus	-24500-04-13 04:19 J	-7227099.49	-7227099.32	-7227099.12	0.0089	0.0047
Venus	-24500-11-24 17:16 J	-7226873.95	-7226873.78	-7226873.58	0.0089	0.0047
Venus	-24499-07-08 06:14 J	-7226648.40	-7226648.24	-7226648.03	0.0089	0.0048
Venus	-24498-02-18 19:40 J	-7226422.86	-7226422.68	-7226422.49	0.0089	0.0049
Venus	-24498-10-02 08:23 J	-7226197.31	-7226197.15	-7226196.95	0.0089	0.0050
Venus	-24497-05-14 21:50 J	-7225971.77	-7225971.59	-7225971.41	0.0089	0.0050
Venus	-24497-12-26 10:19 J	-7225746.23	-7225746.07	-7225745.87	0.0089	0.0051
Venus	-24496-08-08 23:16 J	-7225520.69	-7225520.53	-7225520.33	0.0089	0.0051
Venus	-24495-03-22 12:14 J	-7225295.15	-7225294.99	-7225294.80	0.0089	0.0052
Venus	-24495-11-03 00:57 J	-7225069.62	-7225069.46	-7225069.26	0.0089	0.0052
Venus	-24494-06-16 13:55 J	-7224844.08	-7224843.92	-7224843.73	0.0089	0.0053
Venus	-24493-01-28 03:21 J	-7224618.54	-7224618.36	-7224618.19	0.0089	0.0053

Venus	-24493-09-09 15:50 J	-7224393.00	-7224392.84	-7224392.65	0.0089	0.0053
Venus	-24492-04-23 04:47 J	-7224167.47	-7224167.30	-7224167.12	0.0089	0.0054
Venus	-24492-12-04 17:16 J	-7223941.93	-7223941.78	-7223941.59	0.0089	0.0055
Earth	-24491-04-22 01:26 J	-7223803.65	-7223803.44	-7223803.23	0.0089	0.0051
Moon	-24491-04-22 04:04 J	-7223803.53	-7223803.33	-7223803.10	0.0089	0.0049 *
Venus	-24491-07-18 06:14 J	-7223716.39	-7223716.24	-7223716.05	0.0089	0.0055
Venus	-24490-02-28 19:26 J	-7223490.85	-7223490.69	-7223490.51	0.0089	0.0055
Moon	-24490-04-24 10:19 J	-7223436.31	-7223436.07	-7223435.82	0.0089	0.0008
Earth	-24490-04-24 11:45 J	-7223436.26	-7223436.01	-7223435.75	0.0089	0.0008 *
Venus	-24490-10-12 08:23 J	-7223265.32	-7223265.15	-7223264.98	0.0089	0.0055
Earth	-24489-04-25 22:19 J	-7223068.79	-7223068.57	-7223068.33	0.0089	0.0037
Moon	-24489-04-25 22:47 J	-7223068.77	-7223068.55	-7223068.29	0.0089	0.0038 *
Venus	-24489-05-24 20:52 J	-7223039.79	-7223039.63	-7223039.44	0.0089	0.0055
Venus	-24488-01-05 09:35 J	-7222814.25	-7222814.10	-7222813.91	0.0089	0.0056
Earth	-24488-04-28 08:23 J	-7222701.23	-7222701.15	-7222701.00	0.0089	0.0081
Moon	-24488-04-28 09:35 J	-7222701.21	-7222701.10	-7222700.98	0.0089	0.0079 *
Venus	-24488-08-18 22:33 J	-7222588.72	-7222588.56	-7222588.38	0.0089	0.0056
Venus	-24487-04-01 11:16 J	-7222363.18	-7222363.03	-7222362.84	0.0089	0.0056
Venus	-24487-11-13 00:14 J	-7222137.65	-7222137.49	-7222137.31	0.0089	0.0056
Venus	-24486-06-26 12:57 J	-7221912.12	-7221911.96	-7221911.79	0.0089	0.0056
Venus	-24485-02-07 01:40 J	-7221686.59	-7221686.43	-7221686.25	0.0089	0.0056
Venus	-24485-09-19 14:23 J	-7221461.06	-7221460.90	-7221460.73	0.0089	0.0056
Venus	-24484-05-03 02:52 J	-7221235.54	-7221235.38	-7221235.20	0.0089	0.0056
Venus	-24484-12-14 15:21 J	-7221010.02	-7221009.86	-7221009.68	0.0089	0.0056
Venus	-24483-07-28 04:04 J	-7220784.49	-7220784.33	-7220784.15	0.0089	0.0056
Venus	-24482-03-10 16:47 J	-7220558.96	-7220558.80	-7220558.62	0.0089	0.0055
Venus	-24482-10-22 05:16 J	-7220333.44	-7220333.28	-7220333.10	0.0089	0.0055
Venus	-24481-06-03 17:45 J	-7220107.92	-7220107.76	-7220107.58	0.0089	0.0055
Venus	-24480-01-15 06:43 J	-7219882.39	-7219882.22	-7219882.05	0.0089	0.0055
Venus	-24480-08-28 18:57 J	-7219656.87	-7219656.71	-7219656.53	0.0089	0.0055

Venus	-24479-04-11 07:26 J	-7219431.34	-7219431.19	-7219431.00	0.0089	0.0055
Venus	-24479-11-22 19:55 J	-7219205.82	-7219205.67	-7219205.48	0.0089	0.0055
Venus	-24478-07-06 08:52 J	-7218980.30	-7218980.13	-7218979.96	0.0089	0.0054
Venus	-24477-02-16 21:07 J	-7218754.78	-7218754.62	-7218754.43	0.0089	0.0054
Venus	-24477-09-29 09:35 J	-7218529.25	-7218529.10	-7218528.91	0.0089	0.0053
Venus	-24476-05-12 22:19 J	-7218303.73	-7218303.57	-7218303.39	0.0089	0.0053
Mars	-24476-07-10 10:33 J	-7218245.17	-7218245.06	-7218244.87	0.0089	0.0080
Mercury	-24476-09-21 08:38 J	-7218172.16	-7218172.14	-7218172.11	0.0089	0.0088
Mercury	-24476-12-18 10:04 J	-7218084.13	-7218084.08	-7218084.03	0.0089	0.0081
Venus	-24476-12-24 10:33 J	-7218078.21	-7218078.06	-7218077.86	0.0089	0.0053
Mercury	-24475-03-16 11:02 J	-7217996.10	-7217996.04	-7217995.95	0.0089	0.0075
Mercury	-24475-06-12 12:28 J	-7217908.05	-7217907.98	-7217907.88	0.0089	0.0068
Venus	-24475-08-06 23:16 J	-7217852.69	-7217852.53	-7217852.34	0.0089	0.0052
Mercury	-24475-09-08 13:55 J	-7217820.01	-7217819.92	-7217819.81	0.0089	0.0061
Mercury	-24475-12-05 15:21 J	-7217731.96	-7217731.86	-7217731.74	0.0089	0.0054
Mercury	-24474-03-03 16:47 J	-7217643.91	-7217643.80	-7217643.68	0.0089	0.0046
Venus	-24474-03-20 11:45 J	-7217627.17	-7217627.01	-7217626.82	0.0089	0.0051
Mercury	-24474-05-30 18:14 J	-7217555.86	-7217555.74	-7217555.62	0.0089	0.0039
Mars	-24474-06-06 08:09 J	-7217549.48	-7217549.16	-7217548.82	0.0089	0.0012
Mercury	-24474-08-26 19:40 J	-7217467.80	-7217467.68	-7217467.55	0.0089	0.0032
Venus	-24474-11-01 00:28 J	-7217401.65	-7217401.48	-7217401.30	0.0089	0.0050
Mercury	-24474-11-22 21:07 J	-7217379.75	-7217379.62	-7217379.49	0.0089	0.0025
Mercury	-24473-02-18 22:33 J	-7217291.69	-7217291.56	-7217291.43	0.0089	0.0019
Mercury	-24473-05-16 23:45 J	-7217203.64	-7217203.51	-7217203.37	0.0089	0.0012
Venus	-24473-06-13 12:28 J	-7217176.14	-7217175.98	-7217175.78	0.0089	0.0051
Mercury	-24473-08-13 01:11 J	-7217115.58	-7217115.45	-7217115.31	0.0089	0.0005
Mercury	-24473-11-09 02:38 J	-7217027.52	-7217027.39	-7217027.25	0.0089	0.0003
Venus	-24472-01-25 01:11 J	-7216950.62	-7216950.45	-7216950.26	0.0089	0.0049
Mercury	-24472-02-05 04:04 J	-7216939.46	-7216939.33	-7216939.20	0.0089	0.0009
Mars	-24472-05-02 02:38 J	-7216853.63	-7216853.39	-7216853.12	0.0089	0.0057

Mercury	-24472-05-04 05:31 J	-7216851.40	-7216851.27	-7216851.14	0.0089	0.0017
Mercury	-24472-07-31 06:57 J	-7216763.34	-7216763.21	-7216763.08	0.0089	0.0024
Venus	-24472-09-07 13:40 J	-7216725.10	-7216724.93	-7216724.75	0.0089	0.0049
Mercury	-24472-10-27 08:09 J	-7216675.28	-7216675.16	-7216675.03	0.0089	0.0031
Mercury	-24471-01-23 09:35 J	-7216587.22	-7216587.10	-7216586.97	0.0089	0.0038
Venus	-24471-04-21 01:55 J	-7216499.59	-7216499.42	-7216499.22	0.0089	0.0048
Mercury	-24471-04-21 11:02 J	-7216499.15	-7216499.04	-7216498.92	0.0089	0.0045
Mercury	-24471-07-18 12:28 J	-7216411.09	-7216410.98	-7216410.87	0.0089	0.0052
Mercury	-24471-10-14 13:40 J	-7216323.02	-7216322.93	-7216322.82	0.0089	0.0059
Venus	-24471-12-02 14:23 J	-7216274.07	-7216273.90	-7216273.71	0.0089	0.0047
Mercury	-24470-01-10 15:07 J	-7216234.95	-7216234.87	-7216234.77	0.0089	0.0066
Mercury	-24470-04-08 16:33 J	-7216146.87	-7216146.81	-7216146.72	0.0089	0.0073
Mercury	-24470-07-05 17:59 J	-7216058.79	-7216058.75	-7216058.68	0.0089	0.0080
Venus	-24470-07-16 02:52 J	-7216048.56	-7216048.38	-7216048.19	0.0089	0.0047
Mercury	-24470-10-01 19:26 J	-7215970.70	-7215970.69	-7215970.65	0.0089	0.0088
Venus	-24469-02-26 14:52 J	-7215823.05	-7215822.88	-7215822.68	0.0089	0.0047
Venus	-24469-10-09 03:21 J	-7215597.53	-7215597.36	-7215597.16	0.0089	0.0045
Venus	-24468-05-22 15:50 J	-7215372.02	-7215371.84	-7215371.65	0.0089	0.0044
Venus	-24467-01-03 04:19 J	-7215146.51	-7215146.32	-7215146.13	0.0089	0.0044
Venus	-24467-08-16 16:19 J	-7214920.99	-7214920.82	-7214920.62	0.0089	0.0043
Venus	-24466-03-30 04:47 J	-7214695.48	-7214695.30	-7214695.10	0.0089	0.0042
Venus	-24466-11-10 17:16 J	-7214469.96	-7214469.78	-7214469.58	0.0089	0.0041
Venus	-24465-06-23 05:31 J	-7214244.45	-7214244.27	-7214244.07	0.0089	0.0040
Venus	-24464-02-03 17:59 J	-7214018.94	-7214018.75	-7214018.55	0.0089	0.0039
Venus	-24464-09-17 06:14 J	-7213793.42	-7213793.24	-7213793.04	0.0089	0.0039
Venus	-24463-04-30 18:57 J	-7213567.90	-7213567.71	-7213567.51	0.0089	0.0037
Venus	-24463-12-12 07:11 J	-7213342.39	-7213342.20	-7213342.00	0.0089	0.0036
Venus	-24462-07-25 19:26 J	-7213116.88	-7213116.69	-7213116.48	0.0089	0.0036
Venus	-24461-03-07 07:55 J	-7212891.37	-7212891.17	-7212890.97	0.0089	0.0034
Venus	-24461-10-18 20:09 J	-7212665.85	-7212665.66	-7212665.46	0.0089	0.0033

Venus	-24460-06-01 08:23 J	-7212440.34	-7212440.15	-7212439.94	0.0089	0.0032
Venus	-24459-01-12 20:38 J	-7212214.83	-7212214.64	-7212214.43	0.0089	0.0031
Venus	-24459-08-26 08:52 J	-7211989.32	-7211989.13	-7211988.92	0.0089	0.0031
Venus	-24458-04-08 21:21 J	-7211763.81	-7211763.61	-7211763.40	0.0089	0.0029
Venus	-24458-11-20 09:35 J	-7211538.30	-7211538.10	-7211537.89	0.0089	0.0028
Venus	-24457-07-02 21:50 J	-7211312.79	-7211312.59	-7211312.38	0.0089	0.0027
Venus	-24456-02-13 10:04 J	-7211087.28	-7211087.08	-7211086.87	0.0089	0.0026
Venus	-24456-09-26 22:19 J	-7210861.77	-7210861.57	-7210861.35	0.0089	0.0025
Venus	-24455-05-10 10:47 J	-7210636.25	-7210636.05	-7210635.83	0.0089	0.0024
Venus	-24455-12-21 23:16 J	-7210410.74	-7210410.53	-7210410.32	0.0089	0.0022
Venus	-24454-08-04 11:31 J	-7210185.23	-7210185.02	-7210184.81	0.0089	0.0021
Venus	-24453-03-16 23:45 J	-7209959.72	-7209959.51	-7209959.30	0.0089	0.0020
Venus	-24453-10-28 11:59 J	-7209734.20	-7209734.00	-7209733.78	0.0089	0.0019
Venus	-24452-06-11 00:28 J	-7209508.69	-7209508.48	-7209508.26	0.0089	0.0018
Venus	-24451-01-22 12:57 J	-7209283.17	-7209282.96	-7209282.75	0.0089	0.0016
Venus	-24451-09-05 01:11 J	-7209057.66	-7209057.45	-7209057.23	0.0089	0.0015
Venus	-24450-04-18 13:40 J	-7208832.14	-7208831.93	-7208831.71	0.0089	0.0014
Venus	-24450-11-30 01:55 J	-7208606.62	-7208606.42	-7208606.20	0.0089	0.0013
Venus	-24449-07-12 14:23 J	-7208381.11	-7208380.90	-7208380.68	0.0089	0.0011
Venus	-24448-02-23 02:52 J	-7208155.60	-7208155.38	-7208155.17	0.0089	0.0010
Venus	-24448-10-06 15:07 J	-7207930.08	-7207929.87	-7207929.65	0.0089	0.0009
Venus	-24447-05-20 03:35 J	-7207704.56	-7207704.35	-7207704.13	0.0089	0.0008
Venus	-24447-12-31 15:50 J	-7207479.05	-7207478.84	-7207478.62	0.0089	0.0007
Venus	-24446-08-14 04:19 J	-7207253.54	-7207253.32	-7207253.10	0.0089	0.0005
Venus	-24445-03-26 16:33 J	-7207028.02	-7207027.81	-7207027.59	0.0089	0.0004
Venus	-24445-11-07 05:02 J	-7206802.51	-7206802.29	-7206802.08	0.0089	0.0003
Venus	-24444-06-20 17:31 J	-7206576.99	-7206576.77	-7206576.56	0.0089	0.0002
Venus	-24443-02-01 05:45 J	-7206351.48	-7206351.26	-7206351.04	0.0089	0.0001
Venus	-24443-09-14 18:14 J	-7206125.96	-7206125.74	-7206125.53	0.0089	0.0002
Venus	-24442-04-28 06:28 J	-7205900.44	-7205900.23	-7205900.01	0.0089	0.0003

Venus	-24442-12-09 18:57 J	-7205674.93	-7205674.71	-7205674.49	0.0089	0.0004
Venus	-24441-07-22 07:11 J	-7205449.41	-7205449.20	-7205448.97	0.0089	0.0006
Venus	-24440-03-04 19:40 J	-7205223.89	-7205223.68	-7205223.46	0.0089	0.0007
Venus	-24440-10-16 08:09 J	-7204998.37	-7204998.16	-7204997.94	0.0089	0.0008
Venus	-24439-05-29 20:52 J	-7204772.84	-7204772.63	-7204772.41	0.0089	0.0009
Venus	-24438-01-10 09:21 J	-7204547.32	-7204547.11	-7204546.89	0.0089	0.0010
Venus	-24438-08-23 21:50 J	-7204321.80	-7204321.59	-7204321.37	0.0089	0.0011
Venus	-24437-04-05 10:19 J	-7204096.28	-7204096.07	-7204095.85	0.0089	0.0013
Venus	-24437-11-16 22:47 J	-7203870.76	-7203870.55	-7203870.33	0.0089	0.0014
Venus	-24436-06-30 11:16 J	-7203645.23	-7203645.03	-7203644.80	0.0088	0.0016
Venus	-24435-02-10 23:59 J	-7203419.71	-7203419.50	-7203419.28	0.0088	0.0016
Venus	-24435-09-24 12:28 J	-7203194.19	-7203193.98	-7203193.76	0.0088	0.0018
Venus	-24434-05-08 00:57 J	-7202968.67	-7202968.46	-7202968.24	0.0088	0.0019
Venus	-24434-12-19 13:40 J	-7202743.14	-7202742.93	-7202742.72	0.0088	0.0020
Venus	-24433-08-01 02:09 J	-7202517.62	-7202517.41	-7202517.20	0.0088	0.0021
Venus	-24432-03-14 14:23 J	-7202292.10	-7202291.90	-7202291.67	0.0088	0.0023
Venus	-24432-10-26 03:07 J	-7202066.57	-7202066.37	-7202066.15	0.0088	0.0023
Venus	-24431-06-08 15:50 J	-7201841.04	-7201840.84	-7201840.62	0.0088	0.0024
Venus	-24430-01-20 04:19 J	-7201615.52	-7201615.32	-7201615.10	0.0088	0.0026
Venus	-24430-09-02 17:02 J	-7201389.99	-7201389.79	-7201389.58	0.0088	0.0027
Venus	-24429-04-15 05:31 J	-7201164.47	-7201164.27	-7201164.05	0.0088	0.0028
Venus	-24429-11-26 18:14 J	-7200938.94	-7200938.74	-7200938.53	0.0088	0.0029
Venus	-24428-07-10 06:43 J	-7200713.41	-7200713.22	-7200712.99	0.0088	0.0031
Venus	-24427-02-20 19:40 J	-7200487.88	-7200487.68	-7200487.47	0.0088	0.0031
Venus	-24427-10-04 08:09 J	-7200262.35	-7200262.16	-7200261.94	0.0088	0.0033
Venus	-24426-05-17 21:07 J	-7200036.81	-7200036.62	-7200036.41	0.0088	0.0033
Venus	-24426-12-29 09:50 J	-7199811.28	-7199811.09	-7199810.88	0.0088	0.0034
Venus	-24425-08-10 22:33 J	-7199585.75	-7199585.56	-7199585.34	0.0088	0.0035
Venus	-24424-03-24 11:16 J	-7199360.21	-7199360.03	-7199359.81	0.0088	0.0037
Venus	-24424-11-05 00:14 J	-7199134.68	-7199134.49	-7199134.28	0.0088	0.0037

Venus	-24423-06-18 13:26 J	-7198909.14	-7198908.94	-7198908.74	0.0088	0.0038
Venus	-24422-01-30 02:09 J	-7198683.60	-7198683.41	-7198683.21	0.0088	0.0039
Venus	-24422-09-12 14:52 J	-7198458.07	-7198457.88	-7198457.67	0.0088	0.0040
Venus	-24421-04-25 03:35 J	-7198232.53	-7198232.35	-7198232.14	0.0088	0.0040
Venus	-24421-12-06 16:19 J	-7198007.00	-7198006.82	-7198006.61	0.0088	0.0042
Venus	-24420-07-20 05:16 J	-7197781.45	-7197781.28	-7197781.07	0.0088	0.0043
Venus	-24419-03-02 18:43 J	-7197555.92	-7197555.72	-7197555.53	0.0088	0.0043
Venus	-24419-10-14 07:26 J	-7197330.38	-7197330.19	-7197330.00	0.0088	0.0043
Venus	-24418-05-27 20:09 J	-7197104.84	-7197104.66	-7197104.46	0.0088	0.0044
Venus	-24417-01-08 08:52 J	-7196879.30	-7196879.13	-7196878.92	0.0088	0.0045
Venus	-24417-08-20 22:19 J	-7196653.76	-7196653.57	-7196653.38	0.0088	0.0046
Venus	-24416-04-03 11:02 J	-7196428.22	-7196428.04	-7196427.84	0.0088	0.0046
Venus	-24416-11-14 23:45 J	-7196202.68	-7196202.51	-7196202.30	0.0088	0.0048
Venus	-24415-06-28 13:11 J	-7195977.13	-7195976.95	-7195976.76	0.0088	0.0048
Venus	-24414-02-09 02:09 J	-7195751.58	-7195751.41	-7195751.21	0.0088	0.0048
Venus	-24414-09-22 15:35 J	-7195526.04	-7195525.85	-7195525.67	0.0088	0.0049
Venus	-24413-05-05 04:19 J	-7195300.49	-7195300.32	-7195300.12	0.0088	0.0049
Venus	-24413-12-16 17:16 J	-7195074.94	-7195074.78	-7195074.58	0.0088	0.0050
Venus	-24412-07-30 06:43 J	-7194849.39	-7194849.22	-7194849.02	0.0088	0.0050
Venus	-24411-03-12 20:09 J	-7194623.84	-7194623.66	-7194623.48	0.0088	0.0050
Venus	-24411-10-24 08:52 J	-7194398.29	-7194398.13	-7194397.93	0.0088	0.0052
Venus	-24410-06-06 22:19 J	-7194172.74	-7194172.57	-7194172.38	0.0088	0.0051
Earth	-24410-10-20 14:38 J	-7194036.99	-7194036.89	-7194036.72	0.0088	0.0076
Moon	-24410-10-20 17:31 J	-7194036.90	-7194036.77	-7194036.59	0.0088	0.0072 *
Venus	-24409-01-18 11:16 J	-7193947.19	-7193947.03	-7193946.83	0.0088	0.0052
Venus	-24409-08-31 00:43 J	-7193721.64	-7193721.47	-7193721.28	0.0088	0.0052
Moon	-24409-10-22 02:09 J	-7193669.63	-7193669.41	-7193669.16	0.0088	0.0034
Earth	-24409-10-22 04:04 J	-7193669.57	-7193669.33	-7193669.08	0.0088	0.0031 *
Venus	-24408-04-13 13:55 J	-7193496.09	-7193495.92	-7193495.73	0.0088	0.0052
Earth	-24408-10-24 16:33 J	-7193302.06	-7193301.81	-7193301.54	0.0088	0.0012

Moon	-24408-10-24 17:45 J	-7193302.03	-7193301.76	-7193301.49	0.0088	0.0014 *
Venus	-24408-11-25 02:52 J	-7193270.54	-7193270.38	-7193270.18	0.0088	0.0053
Venus	-24407-07-08 16:04 J	-7193044.99	-7193044.83	-7193044.63	0.0088	0.0054
Earth	-24407-10-27 05:02 J	-7192934.48	-7192934.29	-7192934.07	0.0088	0.0055
Moon	-24407-10-27 05:45 J	-7192934.44	-7192934.26	-7192934.03	0.0088	0.0053 *
Venus	-24406-02-19 05:31 J	-7192819.43	-7192819.27	-7192819.08	0.0088	0.0053
Venus	-24406-10-02 18:57 J	-7192593.88	-7192593.71	-7192593.53	0.0088	0.0053
Venus	-24405-05-15 08:09 J	-7192368.33	-7192368.16	-7192367.98	0.0088	0.0054
Venus	-24405-12-26 21:07 J	-7192142.78	-7192142.62	-7192142.43	0.0088	0.0054
Venus	-24404-08-09 10:33 J	-7191917.22	-7191917.06	-7191916.87	0.0088	0.0054
Venus	-24403-03-22 23:59 J	-7191691.66	-7191691.50	-7191691.31	0.0088	0.0054
Venus	-24403-11-03 13:11 J	-7191466.11	-7191465.95	-7191465.76	0.0088	0.0054
Venus	-24402-06-17 02:38 J	-7191240.55	-7191240.39	-7191240.20	0.0088	0.0054
Venus	-24401-01-28 16:04 J	-7191014.99	-7191014.83	-7191014.64	0.0088	0.0054
Venus	-24401-09-10 05:31 J	-7190789.43	-7190789.27	-7190789.08	0.0088	0.0054
Venus	-24400-04-23 18:57 J	-7190563.87	-7190563.71	-7190563.52	0.0088	0.0054
Jupiter	-24400-10-05 15:50 J	-7190399.00	-7190398.84	-7190398.64	0.0088	0.0083
Venus	-24400-12-05 08:23 J	-7190338.31	-7190338.15	-7190337.96	0.0088	0.0054
Venus	-24399-07-18 21:50 J	-7190112.75	-7190112.59	-7190112.39	0.0088	0.0054
Venus	-24398-03-01 11:45 J	-7189887.19	-7189887.01	-7189886.83	0.0088	0.0053
Venus	-24398-10-13 00:57 J	-7189661.62	-7189661.46	-7189661.27	0.0088	0.0053
Venus	-24397-05-25 14:23 J	-7189436.06	-7189435.90	-7189435.71	0.0088	0.0053
Venus	-24396-01-06 03:50 J	-7189210.50	-7189210.34	-7189210.15	0.0088	0.0053
Venus	-24396-08-19 17:45 J	-7188984.94	-7188984.76	-7188984.58	0.0088	0.0053
Venus	-24395-04-02 07:11 J	-7188759.37	-7188759.20	-7188759.01	0.0088	0.0052
Venus	-24395-11-13 20:23 J	-7188533.81	-7188533.65	-7188533.45	0.0088	0.0052
Venus	-24394-06-27 09:50 J	-7188308.25	-7188308.09	-7188307.89	0.0088	0.0052
Venus	-24393-02-07 23:31 J	-7188082.69	-7188082.52	-7188082.33	0.0088	0.0051
Venus	-24393-09-20 12:57 J	-7187857.12	-7187856.96	-7187856.76	0.0088	0.0051
Mars	-24392-03-03 01:40 J	-7187693.69	-7187693.43	-7187693.14	0.0088	0.0036

Mercury -24392-03-11 15:21 J -7187684.86 -7187684.86 -7187684.86 0.0088 0.0088
 Venus -24392-05-04 02:52 J -7187631.56 -7187631.38 -7187631.19 0.0088 0.0050
 Mercury -24392-06-07 18:43 J -7187596.80 -7187596.72 -7187596.63 0.0088 0.0078
 Mercury -24392-09-03 21:50 J -7187508.69 -7187508.59 -7187508.46 0.0088 0.0069
 Mercury -24392-12-01 01:26 J -7187420.57 -7187420.44 -7187420.29 0.0088 0.0059
 Venus -24392-12-15 16:04 J -7187406.00 -7187405.83 -7187405.63 0.0088 0.0050
 Mercury -24391-02-27 05:02 J -7187332.45 -7187332.29 -7187332.13 0.0088 0.0050
 Mercury -24391-05-26 08:09 J -7187244.32 -7187244.16 -7187243.98 0.0088 0.0040
 Venus -24391-07-29 05:59 J -7187180.43 -7187180.25 -7187180.06 0.0088 0.0049
 Mercury -24391-08-22 11:45 J -7187156.18 -7187156.01 -7187155.82 0.0088 0.0031
 Mercury -24391-11-18 15:07 J -7187068.05 -7187067.87 -7187067.68 0.0088 0.0021
 Mars -24390-01-26 01:11 J -7186999.73 -7186999.45 -7186999.15 0.0088 0.0023
 Mercury -24390-02-14 18:43 J -7186979.91 -7186979.72 -7186979.53 0.0088 0.0011
 Venus -24390-03-11 19:11 J -7186954.87 -7186954.70 -7186954.49 0.0088 0.0050
 Mercury -24390-05-13 22:04 J -7186891.77 -7186891.58 -7186891.39 0.0088 0.0002
 Mercury -24390-08-10 01:26 J -7186803.63 -7186803.44 -7186803.25 0.0088 0.0008
 Venus -24390-10-23 09:07 J -7186729.30 -7186729.12 -7186728.92 0.0088 0.0048
 Mercury -24390-11-06 04:47 J -7186715.49 -7186715.30 -7186715.11 0.0088 0.0017
 Mercury -24389-02-02 07:55 J -7186627.34 -7186627.17 -7186626.98 0.0088 0.0027
 Mercury -24389-04-30 11:16 J -7186539.19 -7186539.03 -7186538.85 0.0088 0.0036
 Venus -24389-06-04 22:33 J -7186503.73 -7186503.56 -7186503.35 0.0088 0.0048
 Mercury -24389-07-27 14:52 J -7186451.04 -7186450.88 -7186450.72 0.0088 0.0046
 Mercury -24389-10-23 17:45 J -7186362.89 -7186362.76 -7186362.60 0.0088 0.0055
 Mars -24389-12-20 02:38 J -7186305.48 -7186305.39 -7186305.27 0.0088 0.0083
 Venus -24388-01-16 12:14 J -7186278.16 -7186277.99 -7186277.78 0.0088 0.0048
 Mercury -24388-01-19 21:21 J -7186274.73 -7186274.61 -7186274.48 0.0088 0.0064
 Mercury -24388-04-18 00:43 J -7186186.57 -7186186.47 -7186186.36 0.0088 0.0074
 Mercury -24388-07-15 03:35 J -7186098.39 -7186098.35 -7186098.27 0.0088 0.0083
 Venus -24388-08-30 02:23 J -7186052.59 -7186052.40 -7186052.21 0.0088 0.0046
 Venus -24387-04-12 15:50 J -7185827.02 -7185826.84 -7185826.64 0.0088 0.0046

Venus	-24387-11-24 05:31 J	-7185601.45	-7185601.27	-7185601.06	0.0088	0.0045
Venus	-24386-07-07 19:26 J	-7185375.88	-7185375.69	-7185375.49	0.0088	0.0044
Venus	-24385-02-18 08:38 J	-7185150.31	-7185150.14	-7185149.92	0.0088	0.0045
Venus	-24385-09-30 22:47 J	-7184924.74	-7184924.55	-7184924.34	0.0088	0.0043
Venus	-24384-05-14 12:28 J	-7184699.16	-7184698.98	-7184698.77	0.0088	0.0043
Venus	-24384-12-26 02:23 J	-7184473.59	-7184473.40	-7184473.20	0.0088	0.0041
Venus	-24383-08-08 16:04 J	-7184248.03	-7184247.83	-7184247.63	0.0088	0.0041
Venus	-24382-03-22 05:31 J	-7184022.46	-7184022.27	-7184022.06	0.0088	0.0040
Venus	-24382-11-02 19:11 J	-7183796.88	-7183796.70	-7183796.48	0.0088	0.0040
Venus	-24381-06-15 08:52 J	-7183571.31	-7183571.13	-7183570.91	0.0088	0.0039
Venus	-24380-01-26 22:47 J	-7183345.75	-7183345.55	-7183345.34	0.0088	0.0037
Venus	-24380-09-09 12:28 J	-7183120.17	-7183119.98	-7183119.76	0.0088	0.0037
Venus	-24379-04-23 02:09 J	-7182894.60	-7182894.41	-7182894.19	0.0088	0.0036
Venus	-24379-12-04 16:04 J	-7182669.03	-7182668.83	-7182668.62	0.0088	0.0034
Venus	-24378-07-18 05:45 J	-7182443.46	-7182443.26	-7182443.04	0.0088	0.0033
Venus	-24377-02-28 19:26 J	-7182217.89	-7182217.69	-7182217.47	0.0088	0.0033
Venus	-24377-10-11 09:21 J	-7181992.31	-7181992.11	-7181991.89	0.0088	0.0032
Venus	-24376-05-24 23:16 J	-7181766.74	-7181766.53	-7181766.31	0.0088	0.0030
Venus	-24375-01-05 12:57 J	-7181541.16	-7181540.96	-7181540.74	0.0088	0.0029
Venus	-24375-08-19 02:38 J	-7181315.59	-7181315.39	-7181315.17	0.0088	0.0029
Venus	-24374-04-01 16:33 J	-7181090.02	-7181089.81	-7181089.59	0.0088	0.0027
Venus	-24374-11-13 06:14 J	-7180864.44	-7180864.24	-7180864.01	0.0088	0.0027
Venus	-24373-06-25 20:09 J	-7180638.86	-7180638.66	-7180638.43	0.0088	0.0025
Venus	-24372-02-06 10:04 J	-7180413.29	-7180413.08	-7180412.86	0.0088	0.0024
Venus	-24372-09-19 23:59 J	-7180187.72	-7180187.50	-7180187.28	0.0088	0.0023
Venus	-24371-05-03 13:40 J	-7179962.14	-7179961.93	-7179961.71	0.0088	0.0022
Venus	-24371-12-15 03:21 J	-7179736.57	-7179736.36	-7179736.13	0.0088	0.0021
Venus	-24370-07-28 17:02 J	-7179511.00	-7179510.79	-7179510.56	0.0088	0.0020
Venus	-24369-03-10 06:43 J	-7179285.43	-7179285.22	-7179284.99	0.0088	0.0019
Venus	-24369-10-21 20:52 J	-7179059.85	-7179059.63	-7179059.41	0.0088	0.0017

Venus	-24368-06-04 10:33 J	-7178834.28	-7178834.06	-7178833.84	0.0088	0.0016
Venus	-24367-01-15 23:59 J	-7178608.71	-7178608.50	-7178608.27	0.0089	0.0015
Venus	-24367-08-29 13:40 J	-7178383.14	-7178382.93	-7178382.70	0.0089	0.0014
Venus	-24366-04-12 03:21 J	-7178157.57	-7178157.36	-7178157.13	0.0089	0.0012
Venus	-24366-11-23 17:16 J	-7177932.00	-7177931.78	-7177931.55	0.0089	0.0011
Venus	-24365-07-06 06:57 J	-7177706.43	-7177706.21	-7177705.98	0.0089	0.0010
Venus	-24364-02-16 20:38 J	-7177480.86	-7177480.64	-7177480.41	0.0089	0.0008
Venus	-24364-09-30 10:19 J	-7177255.29	-7177255.07	-7177254.84	0.0089	0.0007
Venus	-24363-05-14 00:14 J	-7177029.72	-7177029.49	-7177029.27	0.0089	0.0006
Venus	-24363-12-25 13:55 J	-7176804.14	-7176803.92	-7176803.70	0.0089	0.0005
Venus	-24362-08-08 03:35 J	-7176578.57	-7176578.35	-7176578.13	0.0089	0.0003
Venus	-24361-03-20 17:16 J	-7176353.00	-7176352.78	-7176352.56	0.0089	0.0002
Venus	-24361-11-01 06:57 J	-7176127.43	-7176127.21	-7176126.98	0.0089	0.0002
Venus	-24360-06-14 20:52 J	-7175901.86	-7175901.63	-7175901.41	0.0089	0.0001
Venus	-24359-01-26 10:19 J	-7175676.29	-7175676.07	-7175675.84	0.0089	0.0003
Venus	-24359-09-08 23:59 J	-7175450.72	-7175450.50	-7175450.27	0.0089	0.0003
Venus	-24358-04-22 13:40 J	-7175225.15	-7175224.93	-7175224.71	0.0089	0.0004
Venus	-24358-12-04 03:21 J	-7174999.58	-7174999.36	-7174999.14	0.0089	0.0005
Venus	-24357-07-16 16:47 J	-7174774.02	-7174773.80	-7174773.57	0.0089	0.0007
Venus	-24356-02-27 06:28 J	-7174548.45	-7174548.23	-7174548.01	0.0089	0.0008
Venus	-24356-10-10 19:55 J	-7174322.89	-7174322.67	-7174322.45	0.0089	0.0009
Venus	-24355-05-24 09:35 J	-7174097.32	-7174097.10	-7174096.88	0.0089	0.0010
Venus	-24354-01-04 23:02 J	-7173871.76	-7173871.54	-7173871.31	0.0089	0.0012
Venus	-24354-08-18 12:28 J	-7173646.19	-7173645.98	-7173645.75	0.0089	0.0013
Venus	-24353-03-31 01:55 J	-7173420.63	-7173420.42	-7173420.19	0.0089	0.0014
Venus	-24353-11-11 15:35 J	-7173195.07	-7173194.85	-7173194.63	0.0089	0.0015
Venus	-24352-06-25 05:16 J	-7172969.50	-7172969.28	-7172969.07	0.0089	0.0016
Venus	-24351-02-05 18:28 J	-7172743.94	-7172743.73	-7172743.50	0.0089	0.0018
Venus	-24351-09-19 07:55 J	-7172518.38	-7172518.17	-7172517.94	0.0089	0.0019
Venus	-24350-05-02 21:21 J	-7172292.82	-7172292.61	-7172292.38	0.0089	0.0020

Venus	-24350-12-14 11:02 J	-7172067.25	-7172067.04	-7172066.82	0.0089	0.0021
Venus	-24349-07-27 00:28 J	-7171841.69	-7171841.48	-7171841.26	0.0089	0.0022
Venus	-24348-03-09 13:55 J	-7171616.13	-7171615.92	-7171615.70	0.0089	0.0023
Venus	-24348-10-21 03:21 J	-7171390.57	-7171390.36	-7171390.14	0.0089	0.0024
Venus	-24347-06-03 16:47 J	-7171165.00	-7171164.80	-7171164.58	0.0089	0.0025
Venus	-24346-01-15 06:28 J	-7170939.44	-7170939.23	-7170939.02	0.0089	0.0026
Venus	-24346-08-28 19:40 J	-7170713.88	-7170713.68	-7170713.46	0.0089	0.0027
Venus	-24345-04-10 09:07 J	-7170488.33	-7170488.12	-7170487.91	0.0089	0.0028
Venus	-24345-11-21 22:33 J	-7170262.77	-7170262.56	-7170262.35	0.0089	0.0029
Venus	-24344-07-05 11:45 J	-7170037.21	-7170037.01	-7170036.80	0.0089	0.0030
Venus	-24343-02-16 00:57 J	-7169811.66	-7169811.46	-7169811.24	0.0089	0.0031
Venus	-24343-09-29 14:09 J	-7169586.10	-7169585.91	-7169585.69	0.0089	0.0032
Venus	-24342-05-13 03:21 J	-7169360.55	-7169360.36	-7169360.14	0.0089	0.0033
Venus	-24342-12-24 16:47 J	-7169135.00	-7169134.80	-7169134.59	0.0089	0.0034
Venus	-24341-08-06 05:45 J	-7168909.44	-7168909.26	-7168909.04	0.0089	0.0036
Venus	-24340-03-19 18:57 J	-7168683.90	-7168683.71	-7168683.49	0.0089	0.0036
Venus	-24340-10-31 08:09 J	-7168458.35	-7168458.16	-7168457.95	0.0089	0.0037
Venus	-24339-06-13 21:35 J	-7168232.79	-7168232.60	-7168232.40	0.0089	0.0037
Venus	-24338-01-25 10:47 J	-7168007.24	-7168007.05	-7168006.84	0.0089	0.0038
Venus	-24338-09-07 23:45 J	-7167781.69	-7167781.51	-7167781.30	0.0089	0.0040
Venus	-24337-04-20 12:57 J	-7167556.14	-7167555.96	-7167555.75	0.0089	0.0040
Venus	-24337-12-02 02:23 J	-7167330.59	-7167330.40	-7167330.20	0.0089	0.0041
Venus	-24336-07-15 15:21 J	-7167105.04	-7167104.86	-7167104.66	0.0089	0.0041
Venus	-24335-02-26 04:33 J	-7166879.49	-7166879.31	-7166879.11	0.0089	0.0042
Venus	-24335-10-09 17:45 J	-7166653.95	-7166653.76	-7166653.56	0.0089	0.0043
Venus	-24334-05-23 06:43 J	-7166428.40	-7166428.22	-7166428.02	0.0089	0.0043
Venus	-24333-01-03 19:40 J	-7166202.85	-7166202.68	-7166202.47	0.0089	0.0044
Venus	-24333-08-16 08:52 J	-7165977.31	-7165977.13	-7165976.93	0.0089	0.0045
Venus	-24332-03-29 21:35 J	-7165751.77	-7165751.60	-7165751.39	0.0089	0.0046
Venus	-24332-11-10 10:47 J	-7165526.23	-7165526.05	-7165525.85	0.0089	0.0046

Venus	-24331-06-23 23:31 J	-7165300.69	-7165300.52	-7165300.32	0.0089	0.0046
Venus	-24330-02-04 12:43 J	-7165075.15	-7165074.97	-7165074.77	0.0089	0.0047
Venus	-24330-09-18 01:26 J	-7164849.61	-7164849.44	-7164849.24	0.0089	0.0047
Venus	-24329-04-30 14:23 J	-7164624.07	-7164623.90	-7164623.71	0.0089	0.0048
Venus	-24329-12-12 03:35 J	-7164398.54	-7164398.35	-7164398.17	0.0089	0.0048
Venus	-24328-07-25 16:04 J	-7164173.00	-7164172.83	-7164172.64	0.0089	0.0048
Venus	-24327-03-08 05:02 J	-7163947.46	-7163947.29	-7163947.10	0.0089	0.0049
Moon	-24327-04-21 10:33 J	-7163903.20	-7163903.06	-7163902.89	0.0089	0.0069
Earth	-24327-04-21 12:14 J	-7163903.12	-7163902.99	-7163902.83	0.0089	0.0073 *
Venus	-24327-10-19 17:31 J	-7163721.93	-7163721.77	-7163721.56	0.0089	0.0050
Earth	-24326-04-23 22:47 J	-7163535.78	-7163535.55	-7163535.30	0.0089	0.0029
Moon	-24326-04-23 23:02 J	-7163535.78	-7163535.54	-7163535.29	0.0089	0.0034 *
Venus	-24326-06-02 06:28 J	-7163496.39	-7163496.23	-7163496.03	0.0089	0.0050
Venus	-24325-01-13 19:26 J	-7163270.86	-7163270.69	-7163270.50	0.0089	0.0050
Earth	-24325-04-25 09:21 J	-7163168.36	-7163168.11	-7163167.86	0.0089	0.0015
Moon	-24325-04-25 10:33 J	-7163168.30	-7163168.06	-7163167.82	0.0089	0.0019 *
Venus	-24325-08-26 08:23 J	-7163045.32	-7163045.15	-7163044.96	0.0089	0.0050
Venus	-24324-04-08 21:21 J	-7162819.79	-7162819.61	-7162819.43	0.0089	0.0050
Moon	-24324-04-27 17:45 J	-7162800.95	-7162800.76	-7162800.54	0.0089	0.0054
Earth	-24324-04-27 19:40 J	-7162800.85	-7162800.68	-7162800.47	0.0089	0.0058 *
Venus	-24324-11-20 09:35 J	-7162594.26	-7162594.10	-7162593.90	0.0089	0.0051
Venus	-24323-07-03 22:33 J	-7162368.72	-7162368.56	-7162368.37	0.0089	0.0050
Venus	-24322-02-14 11:31 J	-7162143.19	-7162143.02	-7162142.83	0.0089	0.0050
Venus	-24322-09-28 00:14 J	-7161917.66	-7161917.49	-7161917.30	0.0089	0.0050
Venus	-24321-05-10 12:57 J	-7161692.13	-7161691.96	-7161691.77	0.0089	0.0050
Venus	-24321-12-22 01:26 J	-7161466.60	-7161466.44	-7161466.24	0.0089	0.0051
Venus	-24320-08-04 14:09 J	-7161241.07	-7161240.91	-7161240.72	0.0089	0.0051
Venus	-24319-03-18 02:52 J	-7161015.54	-7161015.38	-7161015.18	0.0089	0.0051
Venus	-24319-10-29 15:35 J	-7160790.02	-7160789.85	-7160789.66	0.0089	0.0050
Venus	-24318-06-12 04:04 J	-7160564.49	-7160564.33	-7160564.14	0.0089	0.0051

Venus	-24317-01-23 16:33 J	-7160338.97	-7160338.81	-7160338.61	0.0089	0.0051
Venus	-24317-09-05 05:16 J	-7160113.44	-7160113.28	-7160113.09	0.0089	0.0050
Venus	-24316-04-18 18:14 J	-7159887.92	-7159887.74	-7159887.56	0.0089	0.0050
Venus	-24316-11-30 06:28 J	-7159662.40	-7159662.23	-7159662.04	0.0089	0.0050
Venus	-24315-07-13 18:57 J	-7159436.88	-7159436.71	-7159436.52	0.0089	0.0050
Venus	-24314-02-24 07:26 J	-7159211.35	-7159211.19	-7159210.99	0.0089	0.0050
Venus	-24314-10-07 19:55 J	-7158985.83	-7158985.67	-7158985.47	0.0089	0.0049
Venus	-24313-05-20 08:38 J	-7158760.31	-7158760.14	-7158759.95	0.0089	0.0049
Venus	-24313-12-31 20:52 J	-7158534.79	-7158534.63	-7158534.43	0.0089	0.0049
Venus	-24312-08-14 09:21 J	-7158309.27	-7158309.11	-7158308.91	0.0089	0.0049
Venus	-24311-03-27 22:19 J	-7158083.74	-7158083.57	-7158083.38	0.0089	0.0048
Mercury	-24311-06-18 08:09 J	-7158001.19	-7158001.16	-7158001.11	0.0089	0.0085
Mercury	-24311-09-14 09:50 J	-7157913.16	-7157913.09	-7157913.03	0.0089	0.0078
Venus	-24311-11-08 10:33 J	-7157858.22	-7157858.06	-7157857.86	0.0089	0.0048
Mercury	-24311-12-11 10:47 J	-7157825.11	-7157825.05	-7157824.95	0.0089	0.0071
Mars	-24310-01-18 04:04 J	-7157787.60	-7157787.33	-7157787.03	0.0089	0.0046
Mercury	-24310-03-09 12:14 J	-7157737.07	-7157736.99	-7157736.89	0.0089	0.0064
Mercury	-24310-06-05 13:40 J	-7157649.02	-7157648.93	-7157648.82	0.0089	0.0057
Venus	-24310-06-21 23:16 J	-7157632.70	-7157632.53	-7157632.34	0.0089	0.0047
Mercury	-24310-09-01 15:07 J	-7157560.97	-7157560.87	-7157560.75	0.0089	0.0050
Mercury	-24310-11-28 16:33 J	-7157472.92	-7157472.81	-7157472.69	0.0089	0.0043
Venus	-24309-02-02 11:45 J	-7157407.18	-7157407.01	-7157406.82	0.0089	0.0046
Mercury	-24309-02-24 17:59 J	-7157384.87	-7157384.75	-7157384.63	0.0089	0.0036
Mercury	-24309-05-22 19:26 J	-7157296.82	-7157296.69	-7157296.56	0.0089	0.0029
Mercury	-24309-08-18 20:38 J	-7157208.76	-7157208.64	-7157208.50	0.0089	0.0023
Venus	-24309-09-15 00:28 J	-7157181.66	-7157181.48	-7157181.29	0.0089	0.0046
Mercury	-24309-11-14 22:04 J	-7157120.71	-7157120.58	-7157120.44	0.0089	0.0016
Mars	-24309-12-14 00:28 J	-7157091.78	-7157091.48	-7157091.14	0.0089	0.0024
Mercury	-24308-02-10 23:31 J	-7157032.65	-7157032.52	-7157032.38	0.0089	0.0009
Venus	-24308-04-28 12:43 J	-7156956.14	-7156955.97	-7156955.77	0.0089	0.0045

Mercury	-24308-05-10 00:57 J	-7156944.59	-7156944.46	-7156944.32	0.0089	0.0002
Mercury	-24308-08-06 02:23 J	-7156856.53	-7156856.40	-7156856.27	0.0089	0.0006
Mercury	-24308-11-02 03:35 J	-7156768.48	-7156768.35	-7156768.21	0.0089	0.0014
Venus	-24308-12-10 01:11 J	-7156730.63	-7156730.45	-7156730.25	0.0089	0.0045
Mercury	-24307-01-29 05:02 J	-7156680.41	-7156680.29	-7156680.15	0.0089	0.0020
Mercury	-24307-04-27 06:28 J	-7156592.35	-7156592.23	-7156592.10	0.0089	0.0027
Venus	-24307-07-23 13:26 J	-7156505.11	-7156504.94	-7156504.74	0.0089	0.0044
Mercury	-24307-07-24 07:55 J	-7156504.29	-7156504.17	-7156504.04	0.0089	0.0034
Mercury	-24307-10-20 09:21 J	-7156416.23	-7156416.11	-7156415.99	0.0089	0.0041
Mercury	-24306-01-16 10:33 J	-7156328.16	-7156328.06	-7156327.93	0.0089	0.0049
Venus	-24306-03-06 02:09 J	-7156279.59	-7156279.41	-7156279.22	0.0089	0.0043
Mercury	-24306-04-14 11:59 J	-7156240.09	-7156240.00	-7156239.88	0.0089	0.0056
Mercury	-24306-07-11 13:26 J	-7156152.02	-7156151.94	-7156151.83	0.0089	0.0063
Mercury	-24306-10-07 14:52 J	-7156063.95	-7156063.88	-7156063.78	0.0089	0.0070
Venus	-24306-10-17 14:38 J	-7156054.08	-7156053.89	-7156053.70	0.0089	0.0043
Mercury	-24305-01-03 16:19 J	-7155975.88	-7155975.82	-7155975.74	0.0089	0.0077
Mercury	-24305-03-31 17:59 J	-7155887.79	-7155887.75	-7155887.70	0.0089	0.0083
Venus	-24305-05-30 02:38 J	-7155828.56	-7155828.39	-7155828.18	0.0089	0.0043
Venus	-24304-01-10 15:07 J	-7155603.05	-7155602.87	-7155602.67	0.0089	0.0042
Venus	-24304-08-24 03:21 J	-7155377.54	-7155377.36	-7155377.15	0.0089	0.0041
Venus	-24303-04-06 15:50 J	-7155152.02	-7155151.84	-7155151.63	0.0089	0.0041
Venus	-24303-11-18 04:19 J	-7154926.50	-7154926.32	-7154926.12	0.0089	0.0040
Venus	-24302-07-01 16:19 J	-7154700.99	-7154700.82	-7154700.61	0.0089	0.0040
Venus	-24301-02-12 04:47 J	-7154475.48	-7154475.30	-7154475.09	0.0089	0.0038
Venus	-24301-09-24 17:16 J	-7154249.97	-7154249.78	-7154249.58	0.0089	0.0037
Venus	-24300-05-08 05:45 J	-7154024.45	-7154024.26	-7154024.06	0.0089	0.0036
Venus	-24300-12-19 18:14 J	-7153798.94	-7153798.74	-7153798.54	0.0089	0.0035
Venus	-24299-08-02 06:14 J	-7153573.42	-7153573.24	-7153573.03	0.0089	0.0035
Venus	-24298-03-15 18:43 J	-7153347.91	-7153347.72	-7153347.51	0.0089	0.0034
Venus	-24298-10-27 06:57 J	-7153122.39	-7153122.21	-7153121.99	0.0089	0.0033

Venus	-24297-06-08 19:26 J	-7152896.88	-7152896.69	-7152896.48	0.0089	0.0032
Venus	-24296-01-20 07:40 J	-7152671.37	-7152671.18	-7152670.96	0.0089	0.0032
Venus	-24296-09-02 20:09 J	-7152445.85	-7152445.66	-7152445.45	0.0089	0.0030
Venus	-24295-04-16 08:38 J	-7152220.34	-7152220.14	-7152219.93	0.0089	0.0029
Venus	-24295-11-27 21:07 J	-7151994.82	-7151994.62	-7151994.42	0.0089	0.0028
Venus	-24294-07-11 09:21 J	-7151769.32	-7151769.11	-7151768.91	0.0089	0.0027
Venus	-24293-02-21 21:35 J	-7151543.81	-7151543.60	-7151543.39	0.0089	0.0026
Venus	-24293-10-04 09:50 J	-7151318.29	-7151318.09	-7151317.88	0.0089	0.0025
Venus	-24292-05-17 22:19 J	-7151092.78	-7151092.57	-7151092.36	0.0089	0.0024
Venus	-24292-12-29 10:33 J	-7150867.27	-7150867.06	-7150866.85	0.0089	0.0023
Venus	-24291-08-11 22:47 J	-7150641.76	-7150641.55	-7150641.34	0.0089	0.0022
Venus	-24290-03-25 11:02 J	-7150416.25	-7150416.04	-7150415.83	0.0089	0.0021
Venus	-24290-11-05 23:16 J	-7150190.74	-7150190.53	-7150190.32	0.0089	0.0020
Venus	-24289-06-18 11:31 J	-7149965.23	-7149965.02	-7149964.81	0.0089	0.0019
Venus	-24288-01-29 23:45 J	-7149739.72	-7149739.51	-7149739.29	0.0089	0.0018
Venus	-24288-09-12 11:59 J	-7149514.21	-7149514.00	-7149513.78	0.0089	0.0017
Venus	-24287-04-26 00:28 J	-7149288.69	-7149288.48	-7149288.26	0.0089	0.0016
Venus	-24287-12-07 12:43 J	-7149063.17	-7149062.97	-7149062.75	0.0089	0.0015
Venus	-24286-07-21 00:57 J	-7148837.66	-7148837.46	-7148837.24	0.0089	0.0014
Venus	-24285-03-02 13:26 J	-7148612.15	-7148611.94	-7148611.72	0.0089	0.0013
Venus	-24285-10-14 01:40 J	-7148386.64	-7148386.43	-7148386.21	0.0089	0.0012
Venus	-24284-05-27 14:23 J	-7148161.11	-7148160.90	-7148160.68	0.0089	0.0010
Venus	-24283-01-08 02:38 J	-7147935.60	-7147935.39	-7147935.17	0.0089	0.0009
Venus	-24283-08-21 15:07 J	-7147710.09	-7147709.87	-7147709.66	0.0089	0.0008
Venus	-24282-04-04 03:21 J	-7147484.57	-7147484.36	-7147484.14	0.0089	0.0007
Venus	-24282-11-15 15:50 J	-7147259.06	-7147258.84	-7147258.63	0.0089	0.0006
Venus	-24281-06-28 04:04 J	-7147033.54	-7147033.33	-7147033.11	0.0089	0.0005
Venus	-24280-02-08 16:33 J	-7146808.03	-7146807.81	-7146807.60	0.0089	0.0004
Venus	-24280-09-22 04:47 J	-7146582.51	-7146582.30	-7146582.08	0.0089	0.0002
Venus	-24279-05-05 17:16 J	-7146357.00	-7146356.78	-7146356.56	0.0089	0.0001

Venus	-24279-12-17 05:45 J	-7146131.48	-7146131.26	-7146131.05	0.0089	0.0002
Venus	-24278-07-30 17:59 J	-7145905.97	-7145905.75	-7145905.53	0.0089	0.0001
Venus	-24277-03-12 06:14 J	-7145680.45	-7145680.24	-7145680.02	0.0089	0.0002
Venus	-24277-10-23 18:43 J	-7145454.94	-7145454.72	-7145454.50	0.0089	0.0003
Venus	-24276-06-06 07:11 J	-7145229.41	-7145229.20	-7145228.98	0.0089	0.0005
Venus	-24275-01-17 19:40 J	-7145003.90	-7145003.68	-7145003.46	0.0089	0.0006
Venus	-24275-08-31 08:09 J	-7144778.38	-7144778.16	-7144777.95	0.0089	0.0007
Venus	-24274-04-13 20:23 J	-7144552.86	-7144552.65	-7144552.43	0.0089	0.0008
Venus	-24274-11-25 08:52 J	-7144327.34	-7144327.13	-7144326.91	0.0089	0.0009
Venus	-24273-07-07 21:21 J	-7144101.82	-7144101.61	-7144101.38	0.0089	0.0011
Venus	-24272-02-18 10:04 J	-7143876.29	-7143876.08	-7143875.86	0.0088	0.0011
Venus	-24272-10-01 22:33 J	-7143650.77	-7143650.56	-7143650.34	0.0088	0.0013
Venus	-24271-05-15 11:16 J	-7143425.25	-7143425.03	-7143424.82	0.0088	0.0014
Venus	-24271-12-26 23:45 J	-7143199.72	-7143199.51	-7143199.29	0.0088	0.0015
Venus	-24270-08-09 12:14 J	-7142974.20	-7142973.99	-7142973.77	0.0088	0.0016
Venus	-24269-03-22 00:43 J	-7142748.68	-7142748.47	-7142748.25	0.0088	0.0017
Venus	-24269-11-02 13:26 J	-7142523.15	-7142522.94	-7142522.73	0.0088	0.0018
Venus	-24268-06-16 02:09 J	-7142297.62	-7142297.41	-7142297.20	0.0088	0.0019
Venus	-24267-01-27 14:23 J	-7142072.10	-7142071.90	-7142071.67	0.0088	0.0021
Venus	-24267-09-10 02:52 J	-7141846.58	-7141846.38	-7141846.15	0.0088	0.0022
Venus	-24266-04-23 15:35 J	-7141621.05	-7141620.85	-7141620.63	0.0088	0.0022
Venus	-24266-12-05 04:04 J	-7141395.53	-7141395.33	-7141395.11	0.0088	0.0023
Venus	-24265-07-17 16:47 J	-7141170.00	-7141169.80	-7141169.58	0.0088	0.0024
Venus	-24264-02-28 05:31 J	-7140944.47	-7140944.27	-7140944.05	0.0088	0.0025
Venus	-24264-10-11 17:59 J	-7140718.95	-7140718.75	-7140718.53	0.0088	0.0026
Venus	-24263-05-25 06:57 J	-7140493.42	-7140493.21	-7140493.00	0.0088	0.0027
Venus	-24262-01-05 19:40 J	-7140267.89	-7140267.68	-7140267.47	0.0088	0.0028
Venus	-24262-08-19 08:23 J	-7140042.36	-7140042.15	-7140041.94	0.0088	0.0029
Venus	-24261-03-31 21:07 J	-7139816.83	-7139816.62	-7139816.41	0.0088	0.0030
Venus	-24261-11-12 09:50 J	-7139591.29	-7139591.09	-7139590.88	0.0088	0.0030

Venus	-24260-06-25 22:33 J	-7139365.75	-7139365.56	-7139365.34	0.0088	0.0032
Venus	-24259-02-06 11:31 J	-7139140.22	-7139140.02	-7139139.81	0.0088	0.0032
Venus	-24259-09-20 00:14 J	-7138914.69	-7138914.49	-7138914.28	0.0088	0.0033
Venus	-24258-05-03 12:57 J	-7138689.15	-7138688.96	-7138688.75	0.0088	0.0034
Venus	-24258-12-15 01:55 J	-7138463.62	-7138463.42	-7138463.21	0.0088	0.0035
Venus	-24257-07-27 14:52 J	-7138238.07	-7138237.88	-7138237.67	0.0088	0.0035
Venus	-24256-03-10 03:35 J	-7138012.54	-7138012.35	-7138012.14	0.0088	0.0037
Venus	-24256-10-21 16:19 J	-7137787.00	-7137786.82	-7137786.60	0.0088	0.0038
Venus	-24255-06-04 05:31 J	-7137561.47	-7137561.27	-7137561.07	0.0088	0.0038
Venus	-24254-01-15 18:14 J	-7137335.93	-7137335.74	-7137335.53	0.0088	0.0039
Venus	-24254-08-29 06:57 J	-7137110.39	-7137110.21	-7137109.99	0.0088	0.0040
Venus	-24253-04-10 19:55 J	-7136884.85	-7136884.67	-7136884.46	0.0088	0.0040
Venus	-24253-11-22 08:52 J	-7136659.31	-7136659.13	-7136658.92	0.0088	0.0041
Venus	-24252-07-05 21:50 J	-7136433.77	-7136433.59	-7136433.38	0.0088	0.0041
Venus	-24251-02-16 11:02 J	-7136208.23	-7136208.04	-7136207.84	0.0088	0.0042
Venus	-24251-09-29 23:45 J	-7135982.69	-7135982.51	-7135982.30	0.0088	0.0042
Venus	-24250-05-13 12:28 J	-7135757.15	-7135756.98	-7135756.76	0.0088	0.0044
Venus	-24250-12-25 01:40 J	-7135531.61	-7135531.43	-7135531.22	0.0088	0.0044
Venus	-24249-08-06 14:52 J	-7135306.06	-7135305.88	-7135305.67	0.0088	0.0044
Venus	-24248-03-20 04:04 J	-7135080.51	-7135080.33	-7135080.13	0.0088	0.0044
Venus	-24248-10-31 17:02 J	-7134854.97	-7134854.79	-7134854.58	0.0088	0.0045
Venus	-24247-06-14 06:14 J	-7134629.42	-7134629.24	-7134629.04	0.0088	0.0045
Venus	-24246-01-25 19:40 J	-7134403.87	-7134403.68	-7134403.49	0.0088	0.0046
Venus	-24246-09-08 08:23 J	-7134178.32	-7134178.15	-7134177.94	0.0088	0.0047
Venus	-24245-04-20 21:50 J	-7133952.77	-7133952.59	-7133952.39	0.0088	0.0046
Moon	-24245-10-21 11:02 J	-7133769.23	-7133769.04	-7133768.79	0.0088	0.0051
Earth	-24245-10-21 11:16 J	-7133769.21	-7133769.03	-7133768.80	0.0088	0.0054 *
Venus	-24245-12-02 10:47 J	-7133727.22	-7133727.05	-7133726.84	0.0088	0.0047
Venus	-24244-07-16 00:14 J	-7133501.67	-7133501.49	-7133501.29	0.0088	0.0047
Earth	-24244-10-24 00:14 J	-7133401.74	-7133401.49	-7133401.21	0.0088	0.0012

Moon	-24244-10-24 01:11 J	-7133401.69	-7133401.45	-7133401.19	0.0088	0.0014 *
Venus	-24243-02-26 13:26 J	-7133276.11	-7133275.94	-7133275.74	0.0088	0.0047
Venus	-24243-10-10 02:52 J	-7133050.56	-7133050.38	-7133050.19	0.0088	0.0047
Moon	-24243-10-26 10:47 J	-7133034.29	-7133034.05	-7133033.80	0.0088	0.0036
Earth	-24243-10-26 12:57 J	-7133034.18	-7133033.96	-7133033.70	0.0088	0.0033 *
Venus	-24242-05-23 15:35 J	-7132825.02	-7132824.85	-7132824.64	0.0088	0.0048
Earth	-24242-10-29 01:26 J	-7132666.54	-7132666.44	-7132666.28	0.0088	0.0076
Moon	-24242-10-29 05:02 J	-7132666.43	-7132666.29	-7132666.14	0.0088	0.0073 *
Venus	-24241-01-04 04:47 J	-7132599.46	-7132599.30	-7132599.09	0.0088	0.0049
Venus	-24241-08-16 18:28 J	-7132373.91	-7132373.73	-7132373.53	0.0088	0.0048
Venus	-24240-03-30 07:40 J	-7132148.35	-7132148.18	-7132147.98	0.0088	0.0048
Venus	-24240-11-10 21:07 J	-7131922.80	-7131922.62	-7131922.43	0.0088	0.0048
Venus	-24239-06-24 10:19 J	-7131697.25	-7131697.07	-7131696.88	0.0088	0.0048
Venus	-24238-02-04 23:45 J	-7131471.70	-7131471.51	-7131471.32	0.0088	0.0048
Venus	-24238-09-18 13:11 J	-7131246.14	-7131245.95	-7131245.76	0.0088	0.0049
Venus	-24237-05-01 01:55 J	-7131020.58	-7131020.42	-7131020.21	0.0088	0.0050
Venus	-24237-12-12 15:21 J	-7130795.02	-7130794.86	-7130794.65	0.0088	0.0049
Venus	-24236-07-26 05:16 J	-7130569.46	-7130569.28	-7130569.09	0.0088	0.0048
Venus	-24235-03-08 18:43 J	-7130343.90	-7130343.72	-7130343.53	0.0088	0.0048
Venus	-24235-10-20 08:09 J	-7130118.34	-7130118.16	-7130117.97	0.0088	0.0048
Venus	-24234-06-02 21:21 J	-7129892.78	-7129892.61	-7129892.41	0.0088	0.0048
Jupiter	-24234-12-15 04:19 J	-7129697.88	-7129697.32	-7129696.75	0.0088	0.0004
Venus	-24233-01-14 10:47 J	-7129667.22	-7129667.05	-7129666.85	0.0088	0.0048
Venus	-24233-08-27 00:28 J	-7129441.65	-7129441.48	-7129441.28	0.0088	0.0048
Venus	-24232-04-09 13:55 J	-7129216.09	-7129215.92	-7129215.71	0.0088	0.0048
Venus	-24232-11-21 03:50 J	-7128990.53	-7128990.34	-7128990.15	0.0088	0.0047
Venus	-24231-07-04 17:02 J	-7128764.97	-7128764.79	-7128764.59	0.0088	0.0048
Venus	-24230-02-15 06:28 J	-7128539.40	-7128539.23	-7128539.02	0.0088	0.0047
Venus	-24230-09-28 20:09 J	-7128313.83	-7128313.66	-7128313.45	0.0088	0.0047
Venus	-24229-05-11 09:50 J	-7128088.27	-7128088.09	-7128087.89	0.0088	0.0047

Mars	-24229-10-16 09:21 J	-7127930.29	-7127930.11	-7127929.89	0.0088	0.0065
Venus	-24229-12-22 23:16 J	-7127862.71	-7127862.53	-7127862.33	0.0088	0.0046
Venus	-24228-08-05 12:43 J	-7127637.14	-7127636.97	-7127636.76	0.0088	0.0046
Mercury	-24228-12-06 13:26 J	-7127513.97	-7127513.94	-7127513.86	0.0088	0.0084
Mercury	-24227-03-04 17:02 J	-7127425.88	-7127425.79	-7127425.67	0.0088	0.0074
Venus	-24227-03-19 02:23 J	-7127411.58	-7127411.40	-7127411.19	0.0088	0.0046
Mercury	-24227-05-31 20:38 J	-7127337.76	-7127337.64	-7127337.50	0.0088	0.0064
Mercury	-24227-08-27 23:59 J	-7127249.64	-7127249.50	-7127249.34	0.0088	0.0055
Mars	-24227-09-10 09:35 J	-7127236.39	-7127236.10	-7127235.79	0.0088	0.0006
Venus	-24227-10-30 15:50 J	-7127186.01	-7127185.84	-7127185.63	0.0088	0.0045
Mercury	-24227-11-24 03:35 J	-7127161.51	-7127161.35	-7127161.18	0.0088	0.0045
Mercury	-24226-02-20 07:11 J	-7127073.38	-7127073.20	-7127073.03	0.0088	0.0036
Mercury	-24226-05-19 10:19 J	-7126985.24	-7126985.07	-7126984.88	0.0088	0.0026
Venus	-24226-06-13 05:45 J	-7126960.45	-7126960.26	-7126960.06	0.0088	0.0044
Mercury	-24226-08-15 13:55 J	-7126897.11	-7126896.92	-7126896.73	0.0088	0.0016
Mercury	-24226-11-11 17:16 J	-7126808.97	-7126808.78	-7126808.59	0.0088	0.0007
Venus	-24225-01-24 18:57 J	-7126734.89	-7126734.71	-7126734.50	0.0088	0.0044
Mercury	-24225-02-07 20:38 J	-7126720.83	-7126720.64	-7126720.45	0.0088	0.0003
Mercury	-24225-05-05 23:59 J	-7126632.68	-7126632.50	-7126632.31	0.0088	0.0012
Mercury	-24225-08-02 03:21 J	-7126544.54	-7126544.36	-7126544.17	0.0088	0.0022
Mars	-24225-08-04 09:07 J	-7126542.34	-7126542.12	-7126541.86	0.0088	0.0053
Venus	-24225-09-06 09:07 J	-7126509.32	-7126509.12	-7126508.92	0.0088	0.0043
Mercury	-24225-10-29 06:43 J	-7126456.39	-7126456.22	-7126456.04	0.0088	0.0031
Mercury	-24224-01-25 10:04 J	-7126368.24	-7126368.08	-7126367.91	0.0088	0.0041
Venus	-24224-04-19 22:19 J	-7126283.75	-7126283.57	-7126283.36	0.0088	0.0044
Mercury	-24224-04-23 13:11 J	-7126280.09	-7126279.95	-7126279.78	0.0088	0.0050
Mercury	-24224-07-20 16:33 J	-7126191.94	-7126191.81	-7126191.66	0.0088	0.0060
Mercury	-24224-10-16 19:40 J	-7126103.78	-7126103.68	-7126103.54	0.0088	0.0069
Venus	-24224-12-01 12:14 J	-7126058.18	-7126057.99	-7126057.79	0.0088	0.0043
Mercury	-24223-01-12 23:02 J	-7126015.61	-7126015.54	-7126015.44	0.0088	0.0078

Mercury	-24223-04-11 02:23 J	-7125927.41	-7125927.40	-7125927.36	0.0088	0.0088
Venus	-24223-07-15 01:40 J	-7125832.61	-7125832.43	-7125832.22	0.0088	0.0042
Venus	-24222-02-25 15:35 J	-7125607.05	-7125606.85	-7125606.65	0.0088	0.0041
Venus	-24222-10-09 05:02 J	-7125381.47	-7125381.29	-7125381.07	0.0088	0.0041
Venus	-24221-05-21 18:57 J	-7125155.90	-7125155.71	-7125155.50	0.0088	0.0040
Venus	-24220-01-02 08:52 J	-7124930.33	-7124930.13	-7124929.93	0.0088	0.0039
Venus	-24220-08-15 22:19 J	-7124704.76	-7124704.57	-7124704.36	0.0088	0.0039
Venus	-24219-03-29 11:59 J	-7124479.19	-7124479.00	-7124478.78	0.0088	0.0038
Venus	-24219-11-10 01:55 J	-7124253.61	-7124253.42	-7124253.21	0.0088	0.0037
Venus	-24218-06-23 15:50 J	-7124028.05	-7124027.84	-7124027.64	0.0088	0.0037
Venus	-24217-02-04 05:02 J	-7123802.48	-7123802.29	-7123802.07	0.0088	0.0037
Venus	-24217-09-16 18:57 J	-7123576.90	-7123576.71	-7123576.49	0.0088	0.0036
Venus	-24216-04-30 08:52 J	-7123351.33	-7123351.13	-7123350.92	0.0088	0.0034
Venus	-24216-12-11 22:33 J	-7123125.76	-7123125.56	-7123125.34	0.0088	0.0034
Venus	-24215-07-25 12:28 J	-7122900.19	-7122899.98	-7122899.78	0.0088	0.0033
Venus	-24214-03-08 01:40 J	-7122674.62	-7122674.43	-7122674.20	0.0088	0.0032
Venus	-24214-10-19 15:35 J	-7122449.05	-7122448.85	-7122448.63	0.0088	0.0031
Venus	-24213-06-01 05:16 J	-7122223.48	-7122223.28	-7122223.05	0.0088	0.0031
Venus	-24212-01-12 18:57 J	-7121997.91	-7121997.71	-7121997.48	0.0088	0.0030
Venus	-24212-08-26 08:52 J	-7121772.34	-7121772.13	-7121771.91	0.0088	0.0028
Venus	-24211-04-08 22:33 J	-7121546.77	-7121546.56	-7121546.34	0.0088	0.0028
Venus	-24211-11-20 12:28 J	-7121321.19	-7121320.98	-7121320.76	0.0088	0.0026
Venus	-24210-07-04 02:09 J	-7121095.62	-7121095.41	-7121095.19	0.0088	0.0026
Venus	-24209-02-14 15:50 J	-7120870.05	-7120869.84	-7120869.61	0.0088	0.0025
Venus	-24209-09-27 05:45 J	-7120644.47	-7120644.26	-7120644.03	0.0088	0.0024
Venus	-24208-05-10 19:40 J	-7120418.89	-7120418.68	-7120418.46	0.0088	0.0022
Venus	-24208-12-22 09:21 J	-7120193.32	-7120193.11	-7120192.88	0.0088	0.0022
Venus	-24207-08-04 23:16 J	-7119967.75	-7119967.53	-7119967.31	0.0088	0.0020
Venus	-24206-03-18 12:57 J	-7119742.17	-7119741.96	-7119741.73	0.0088	0.0020
Venus	-24206-10-30 02:52 J	-7119516.59	-7119516.38	-7119516.15	0.0088	0.0018

Venus	-24205-06-11 16:33 J	-7119291.02	-7119290.81	-7119290.58	0.0088	0.0018
Venus	-24204-01-23 06:14 J	-7119065.45	-7119065.24	-7119065.01	0.0088	0.0017
Venus	-24204-09-05 19:55 J	-7118839.88	-7118839.67	-7118839.44	0.0088	0.0016
Venus	-24203-04-19 09:50 J	-7118614.31	-7118614.09	-7118613.86	0.0088	0.0014
Venus	-24203-11-30 23:31 J	-7118388.73	-7118388.52	-7118388.29	0.0089	0.0014
Venus	-24202-07-14 13:26 J	-7118163.16	-7118162.94	-7118162.72	0.0089	0.0012
Venus	-24201-02-25 03:07 J	-7117937.59	-7117937.37	-7117937.15	0.0089	0.0011
Venus	-24201-10-07 16:47 J	-7117712.02	-7117711.80	-7117711.58	0.0089	0.0010
Venus	-24200-05-21 06:28 J	-7117486.45	-7117486.23	-7117486.00	0.0089	0.0009
Venus	-24199-01-01 20:09 J	-7117260.88	-7117260.66	-7117260.43	0.0089	0.0008
Venus	-24199-08-15 09:50 J	-7117035.31	-7117035.09	-7117034.86	0.0089	0.0007
Venus	-24198-03-28 23:31 J	-7116809.74	-7116809.52	-7116809.29	0.0089	0.0005
Venus	-24198-11-09 13:26 J	-7116584.16	-7116583.94	-7116583.72	0.0089	0.0004
Venus	-24197-06-22 03:07 J	-7116358.59	-7116358.37	-7116358.14	0.0089	0.0003
Venus	-24196-02-02 16:47 J	-7116133.02	-7116132.80	-7116132.57	0.0089	0.0002
Venus	-24196-09-16 06:28 J	-7115907.45	-7115907.23	-7115907.00	0.0089	0.0001
Venus	-24195-04-29 20:09 J	-7115681.88	-7115681.66	-7115681.43	0.0089	0.0001
Venus	-24195-12-11 10:04 J	-7115456.31	-7115456.08	-7115455.86	0.0089	0.0002
Venus	-24194-07-24 23:45 J	-7115230.74	-7115230.51	-7115230.29	0.0089	0.0003
Venus	-24193-03-06 13:11 J	-7115005.17	-7115004.95	-7115004.72	0.0089	0.0004
Venus	-24193-10-18 02:52 J	-7114779.60	-7114779.38	-7114779.15	0.0089	0.0005
Venus	-24192-05-31 16:33 J	-7114554.03	-7114553.81	-7114553.58	0.0089	0.0006
Venus	-24191-01-12 06:14 J	-7114328.46	-7114328.24	-7114328.02	0.0089	0.0007
Venus	-24191-08-25 19:55 J	-7114102.90	-7114102.67	-7114102.45	0.0089	0.0008
Venus	-24190-04-08 09:21 J	-7113877.33	-7113877.11	-7113876.89	0.0089	0.0009
Venus	-24190-11-19 23:02 J	-7113651.76	-7113651.54	-7113651.32	0.0089	0.0010
Venus	-24189-07-02 12:28 J	-7113426.20	-7113425.98	-7113425.76	0.0089	0.0011
Venus	-24188-02-13 01:55 J	-7113200.64	-7113200.42	-7113200.20	0.0089	0.0012
Venus	-24188-09-26 15:21 J	-7112975.08	-7112974.86	-7112974.64	0.0089	0.0013
Venus	-24187-05-10 04:33 J	-7112749.52	-7112749.31	-7112749.08	0.0089	0.0015

Venus	-24187-12-21 18:14 J	-7112523.95	-7112523.74	-7112523.51	0.0089	0.0016
Venus	-24186-08-04 07:40 J	-7112298.39	-7112298.18	-7112297.95	0.0089	0.0017
Venus	-24185-03-16 21:07 J	-7112072.83	-7112072.62	-7112072.39	0.0089	0.0018
Venus	-24185-10-28 10:33 J	-7111847.27	-7111847.06	-7111846.83	0.0089	0.0019
Venus	-24184-06-10 23:59 J	-7111621.70	-7111621.50	-7111621.27	0.0089	0.0020
Venus	-24183-01-22 13:40 J	-7111396.14	-7111395.93	-7111395.71	0.0089	0.0021
Venus	-24183-09-05 02:52 J	-7111170.58	-7111170.38	-7111170.15	0.0089	0.0022
Venus	-24182-04-18 16:19 J	-7110945.02	-7110944.82	-7110944.59	0.0089	0.0023
Venus	-24182-11-30 06:14 J	-7110719.46	-7110719.24	-7110719.03	0.0089	0.0023
Venus	-24181-07-12 19:26 J	-7110493.90	-7110493.69	-7110493.47	0.0089	0.0024
Venus	-24180-02-23 08:52 J	-7110268.34	-7110268.13	-7110267.91	0.0089	0.0025
Venus	-24180-10-06 22:04 J	-7110042.78	-7110042.58	-7110042.36	0.0089	0.0026
Venus	-24179-05-20 11:16 J	-7109817.23	-7109817.03	-7109816.81	0.0089	0.0027
Venus	-24178-01-01 00:43 J	-7109591.67	-7109591.47	-7109591.25	0.0089	0.0028
Venus	-24178-08-14 13:55 J	-7109366.12	-7109365.92	-7109365.70	0.0089	0.0029
Venus	-24177-03-27 03:21 J	-7109140.57	-7109140.36	-7109140.15	0.0089	0.0030
Venus	-24177-11-07 16:33 J	-7108915.02	-7108914.81	-7108914.60	0.0089	0.0030
Venus	-24176-06-21 05:31 J	-7108689.47	-7108689.27	-7108689.05	0.0089	0.0032
Venus	-24175-02-01 18:43 J	-7108463.91	-7108463.72	-7108463.50	0.0089	0.0033
Venus	-24175-09-15 07:55 J	-7108238.36	-7108238.17	-7108237.95	0.0089	0.0033
Venus	-24174-04-28 21:21 J	-7108012.82	-7108012.61	-7108012.41	0.0089	0.0034
Venus	-24174-12-10 10:19 J	-7107787.26	-7107787.07	-7107786.86	0.0089	0.0034
Venus	-24173-07-22 23:16 J	-7107561.72	-7107561.53	-7107561.31	0.0089	0.0036
Venus	-24172-03-05 12:57 J	-7107336.17	-7107335.96	-7107335.76	0.0089	0.0036
Venus	-24172-10-17 01:40 J	-7107110.62	-7107110.43	-7107110.22	0.0089	0.0037
Venus	-24171-05-30 14:38 J	-7106885.07	-7106884.89	-7106884.67	0.0089	0.0038
Venus	-24170-01-11 04:04 J	-7106659.52	-7106659.33	-7106659.12	0.0089	0.0038
Venus	-24170-08-24 17:02 J	-7106433.97	-7106433.79	-7106433.58	0.0089	0.0038
Venus	-24169-04-06 06:28 J	-7106208.43	-7106208.23	-7106208.04	0.0089	0.0039
Venus	-24169-11-17 19:11 J	-7105982.88	-7105982.70	-7105982.49	0.0089	0.0039

Venus	-24168-07-01 08:09 J	-7105757.34	-7105757.16	-7105756.95	0.0089	0.0040
Venus	-24167-02-11 21:21 J	-7105531.79	-7105531.61	-7105531.40	0.0089	0.0041
Venus	-24167-09-25 10:19 J	-7105306.25	-7105306.07	-7105305.86	0.0089	0.0041
Venus	-24166-05-08 23:16 J	-7105080.71	-7105080.53	-7105080.32	0.0089	0.0041
Venus	-24166-12-20 12:28 J	-7104855.17	-7104854.98	-7104854.79	0.0089	0.0042
Venus	-24165-08-02 01:11 J	-7104629.63	-7104629.45	-7104629.25	0.0089	0.0042
Venus	-24164-03-15 14:09 J	-7104404.09	-7104403.91	-7104403.71	0.0089	0.0042
Venus	-24164-10-27 03:07 J	-7104178.56	-7104178.37	-7104178.17	0.0089	0.0043
Venus	-24163-06-09 15:35 J	-7103953.02	-7103952.85	-7103952.64	0.0089	0.0044
Venus	-24162-01-21 04:47 J	-7103727.48	-7103727.30	-7103727.10	0.0089	0.0043
Earth	-24162-04-23 09:07 J	-7103635.31	-7103635.12	-7103634.90	0.0089	0.0052
Moon	-24162-04-23 10:19 J	-7103635.25	-7103635.07	-7103634.85	0.0089	0.0051 *
Venus	-24162-09-03 17:45 J	-7103501.95	-7103501.76	-7103501.57	0.0089	0.0044
Venus	-24161-04-16 06:14 J	-7103276.41	-7103276.24	-7103276.04	0.0089	0.0044
Moon	-24161-04-24 17:16 J	-7103268.04	-7103267.78	-7103267.52	0.0089	0.0008
Earth	-24161-04-24 19:55 J	-7103267.92	-7103267.67	-7103267.41	0.0089	0.0008 *
Venus	-24161-11-27 18:57 J	-7103050.88	-7103050.71	-7103050.50	0.0089	0.0045
Earth	-24160-04-27 06:14 J	-7102900.47	-7102900.24	-7102900.00	0.0089	0.0036
Moon	-24160-04-27 09:07 J	-7102900.34	-7102900.12	-7102899.88	0.0089	0.0037 *
Venus	-24160-07-11 07:55 J	-7102825.35	-7102825.17	-7102824.97	0.0089	0.0044
Venus	-24159-02-21 20:52 J	-7102599.81	-7102599.63	-7102599.43	0.0089	0.0045
Moon	-24159-04-29 12:43 J	-7102533.07	-7102532.97	-7102532.83	0.0089	0.0079
Earth	-24159-04-29 16:04 J	-7102532.91	-7102532.83	-7102532.68	0.0089	0.0080 *
Venus	-24159-10-05 09:50 J	-7102374.28	-7102374.09	-7102373.90	0.0089	0.0045
Venus	-24158-05-18 22:04 J	-7102148.75	-7102148.58	-7102148.37	0.0089	0.0046
Venus	-24158-12-30 10:47 J	-7101923.21	-7101923.05	-7101922.84	0.0089	0.0046
Venus	-24157-08-11 23:45 J	-7101697.68	-7101697.51	-7101697.31	0.0089	0.0045
Venus	-24156-03-25 12:28 J	-7101472.15	-7101471.98	-7101471.77	0.0089	0.0046
Venus	-24156-11-06 01:11 J	-7101246.62	-7101246.45	-7101246.24	0.0089	0.0046
Venus	-24155-06-19 13:55 J	-7101021.09	-7101020.92	-7101020.71	0.0089	0.0046

Venus	-24154-01-31 02:38 J	-7100795.56	-7100795.39	-7100795.18	0.0089	0.0046
Venus	-24154-09-13 15:21 J	-7100570.03	-7100569.86	-7100569.66	0.0089	0.0045
Venus	-24153-04-26 03:50 J	-7100344.51	-7100344.34	-7100344.13	0.0089	0.0046
Venus	-24153-12-07 16:47 J	-7100118.98	-7100118.80	-7100118.61	0.0089	0.0045
Venus	-24152-07-21 05:16 J	-7099893.46	-7099893.28	-7099893.09	0.0089	0.0045
Venus	-24151-03-03 17:59 J	-7099667.93	-7099667.75	-7099667.56	0.0089	0.0045
Venus	-24151-10-15 06:28 J	-7099442.41	-7099442.23	-7099442.04	0.0089	0.0044
Venus	-24150-05-28 18:43 J	-7099216.89	-7099216.72	-7099216.52	0.0089	0.0045
Venus	-24149-01-09 07:11 J	-7098991.37	-7098991.20	-7098991.00	0.0089	0.0044
Venus	-24149-08-21 20:09 J	-7098765.85	-7098765.66	-7098765.47	0.0089	0.0044
Venus	-24148-04-04 08:38 J	-7098540.32	-7098540.14	-7098539.95	0.0089	0.0043
Venus	-24148-11-15 20:52 J	-7098314.80	-7098314.63	-7098314.43	0.0089	0.0044
Venus	-24147-06-29 09:21 J	-7098089.29	-7098089.11	-7098088.91	0.0089	0.0043
Mars	-24147-08-31 21:50 J	-7098025.69	-7098025.59	-7098025.40	0.0089	0.0081
Mercury	-24147-12-17 06:28 J	-7097918.23	-7097918.23	-7097918.20	0.0089	0.0089
Venus	-24146-02-09 22:04 J	-7097863.76	-7097863.58	-7097863.39	0.0089	0.0042
Mercury	-24146-03-15 07:55 J	-7097830.21	-7097830.17	-7097830.11	0.0089	0.0082
Mercury	-24146-06-11 09:21 J	-7097742.18	-7097742.11	-7097742.03	0.0089	0.0075
Mercury	-24146-09-07 10:47 J	-7097654.13	-7097654.05	-7097653.96	0.0089	0.0068
Venus	-24146-09-23 10:19 J	-7097638.24	-7097638.07	-7097637.87	0.0089	0.0043
Mercury	-24146-12-04 11:59 J	-7097566.09	-7097566.00	-7097565.90	0.0089	0.0061
Mercury	-24145-03-01 13:26 J	-7097478.04	-7097477.94	-7097477.83	0.0089	0.0054
Venus	-24145-05-05 23:02 J	-7097412.72	-7097412.54	-7097412.34	0.0089	0.0042
Mercury	-24145-05-28 14:38 J	-7097389.99	-7097389.89	-7097389.76	0.0089	0.0048
Mars	-24145-07-27 19:55 J	-7097329.99	-7097329.67	-7097329.33	0.0089	0.0011
Mercury	-24145-08-24 16:04 J	-7097301.94	-7097301.83	-7097301.70	0.0089	0.0041
Mercury	-24145-11-20 17:31 J	-7097213.89	-7097213.77	-7097213.64	0.0089	0.0033
Venus	-24145-12-17 11:16 J	-7097187.21	-7097187.03	-7097186.82	0.0089	0.0042
Mercury	-24144-02-16 18:57 J	-7097125.83	-7097125.71	-7097125.58	0.0089	0.0026
Mercury	-24144-05-15 20:23 J	-7097037.78	-7097037.65	-7097037.52	0.0089	0.0019

Venus	-24144-07-30 23:45 J	-7096961.69	-7096961.51	-7096961.30	0.0089	0.0041
Mercury	-24144-08-11 21:50 J	-7096949.72	-7096949.59	-7096949.46	0.0089	0.0012
Mercury	-24144-11-07 23:16 J	-7096861.67	-7096861.53	-7096861.40	0.0089	0.0005
Mercury	-24143-02-04 00:43 J	-7096773.61	-7096773.47	-7096773.34	0.0089	0.0003
Venus	-24143-03-13 12:28 J	-7096736.16	-7096735.98	-7096735.78	0.0089	0.0041
Mercury	-24143-05-03 01:55 J	-7096685.55	-7096685.42	-7096685.28	0.0089	0.0009
Mars	-24143-06-23 15:50 J	-7096634.08	-7096633.84	-7096633.57	0.0089	0.0058
Mercury	-24143-07-30 03:21 J	-7096597.49	-7096597.36	-7096597.22	0.0089	0.0016
Venus	-24143-10-25 00:43 J	-7096510.65	-7096510.47	-7096510.26	0.0089	0.0040
Mercury	-24143-10-26 04:47 J	-7096509.43	-7096509.30	-7096509.17	0.0089	0.0023
Mercury	-24142-01-22 05:59 J	-7096421.37	-7096421.25	-7096421.11	0.0089	0.0031
Mercury	-24142-04-20 07:26 J	-7096333.30	-7096333.19	-7096333.06	0.0089	0.0037
Venus	-24142-06-07 13:26 J	-7096285.13	-7096284.94	-7096284.74	0.0089	0.0039
Mercury	-24142-07-17 08:52 J	-7096245.24	-7096245.13	-7096245.00	0.0089	0.0044
Mercury	-24142-10-13 10:19 J	-7096157.17	-7096157.07	-7096156.95	0.0089	0.0051
Mercury	-24141-01-09 11:45 J	-7096069.10	-7096069.01	-7096068.90	0.0089	0.0058
Venus	-24141-01-19 01:26 J	-7096059.62	-7096059.44	-7096059.23	0.0089	0.0040
Mercury	-24141-04-06 13:11 J	-7095981.04	-7095980.95	-7095980.85	0.0089	0.0065
Mercury	-24141-07-03 14:38 J	-7095892.96	-7095892.89	-7095892.81	0.0089	0.0072
Venus	-24141-08-31 14:09 J	-7095834.10	-7095833.91	-7095833.71	0.0089	0.0038
Mercury	-24141-09-29 16:04 J	-7095804.88	-7095804.83	-7095804.77	0.0089	0.0079
Mercury	-24141-12-26 17:31 J	-7095716.79	-7095716.77	-7095716.74	0.0089	0.0087
Venus	-24140-04-14 02:23 J	-7095608.58	-7095608.40	-7095608.19	0.0089	0.0038
Venus	-24140-11-25 14:52 J	-7095383.06	-7095382.88	-7095382.67	0.0089	0.0037
Venus	-24139-07-09 03:21 J	-7095157.55	-7095157.36	-7095157.16	0.0089	0.0037
Venus	-24138-02-19 15:21 J	-7094932.04	-7094931.86	-7094931.65	0.0089	0.0037
Venus	-24138-10-03 03:50 J	-7094706.53	-7094706.34	-7094706.13	0.0089	0.0036
Venus	-24137-05-15 16:04 J	-7094481.01	-7094480.83	-7094480.62	0.0089	0.0035
Venus	-24137-12-27 04:33 J	-7094255.50	-7094255.31	-7094255.10	0.0089	0.0034
Venus	-24136-08-09 16:47 J	-7094029.99	-7094029.80	-7094029.59	0.0089	0.0034

Venus	-24135-03-23 05:31 J	-7093804.47	-7093804.27	-7093804.07	0.0089	0.0033
Venus	-24135-11-03 17:31 J	-7093578.96	-7093578.77	-7093578.56	0.0089	0.0032
Venus	-24134-06-17 05:45 J	-7093353.45	-7093353.26	-7093353.05	0.0089	0.0031
Venus	-24133-01-28 18:14 J	-7093127.94	-7093127.74	-7093127.53	0.0089	0.0030
Venus	-24133-09-10 06:43 J	-7092902.43	-7092902.22	-7092902.02	0.0089	0.0030
Venus	-24132-04-23 18:57 J	-7092676.90	-7092676.71	-7092676.50	0.0089	0.0029
Venus	-24132-12-05 07:11 J	-7092451.39	-7092451.20	-7092450.98	0.0089	0.0028
Venus	-24131-07-18 19:40 J	-7092225.88	-7092225.68	-7092225.47	0.0089	0.0027
Venus	-24130-03-01 07:55 J	-7092000.37	-7092000.17	-7091999.95	0.0089	0.0026
Venus	-24130-10-12 20:23 J	-7091774.85	-7091774.65	-7091774.44	0.0089	0.0025
Venus	-24129-05-25 08:52 J	-7091549.34	-7091549.13	-7091548.92	0.0089	0.0024
Venus	-24128-01-05 20:52 J	-7091323.82	-7091323.63	-7091323.41	0.0089	0.0024
Venus	-24128-08-19 09:21 J	-7091098.31	-7091098.11	-7091097.90	0.0089	0.0023
Venus	-24127-04-01 21:35 J	-7090872.80	-7090872.60	-7090872.38	0.0089	0.0022
Venus	-24127-11-13 09:50 J	-7090647.29	-7090647.09	-7090646.87	0.0089	0.0021
Venus	-24126-06-26 22:19 J	-7090421.78	-7090421.57	-7090421.36	0.0089	0.0020
Venus	-24125-02-07 10:33 J	-7090196.27	-7090196.06	-7090195.85	0.0089	0.0019
Venus	-24125-09-19 22:47 J	-7089970.76	-7089970.55	-7089970.34	0.0089	0.0018
Venus	-24124-05-03 11:16 J	-7089745.24	-7089745.03	-7089744.82	0.0089	0.0017
Venus	-24124-12-14 23:31 J	-7089519.73	-7089519.52	-7089519.31	0.0089	0.0016
Venus	-24123-07-28 11:31 J	-7089294.22	-7089294.02	-7089293.80	0.0089	0.0016
Venus	-24122-03-10 23:45 J	-7089068.71	-7089068.51	-7089068.28	0.0089	0.0015
Venus	-24122-10-22 12:14 J	-7088843.20	-7088842.99	-7088842.77	0.0089	0.0014
Venus	-24121-06-04 00:43 J	-7088617.68	-7088617.47	-7088617.25	0.0089	0.0012
Venus	-24120-01-15 12:57 J	-7088392.17	-7088391.96	-7088391.74	0.0089	0.0012
Venus	-24120-08-29 01:26 J	-7088166.65	-7088166.44	-7088166.22	0.0089	0.0010
Venus	-24119-04-11 13:40 J	-7087941.14	-7087940.93	-7087940.71	0.0089	0.0010
Venus	-24119-11-23 02:09 J	-7087715.62	-7087715.41	-7087715.19	0.0089	0.0008
Venus	-24118-07-06 14:38 J	-7087490.11	-7087489.89	-7087489.67	0.0089	0.0007
Venus	-24117-02-17 02:52 J	-7087264.59	-7087264.38	-7087264.16	0.0089	0.0007

Venus	-24117-09-29 15:21 J	-7087039.08	-7087038.86	-7087038.64	0.0089	0.0005
Venus	-24116-05-13 03:50 J	-7086813.55	-7086813.34	-7086813.12	0.0089	0.0004
Venus	-24116-12-24 16:19 J	-7086588.04	-7086587.82	-7086587.61	0.0089	0.0004
Venus	-24115-08-07 04:33 J	-7086362.53	-7086362.31	-7086362.09	0.0089	0.0002
Venus	-24114-03-20 16:47 J	-7086137.01	-7086136.80	-7086136.58	0.0089	0.0001
Venus	-24114-11-01 05:16 J	-7085911.50	-7085911.28	-7085911.07	0.0089	0.0001
Venus	-24113-06-13 17:45 J	-7085685.98	-7085685.76	-7085685.54	0.0089	0.0001
Venus	-24112-01-25 05:59 J	-7085460.46	-7085460.25	-7085460.03	0.0089	0.0002
Venus	-24112-09-07 18:28 J	-7085234.95	-7085234.73	-7085234.52	0.0089	0.0003
Venus	-24111-04-21 06:43 J	-7085009.43	-7085009.22	-7085009.00	0.0089	0.0004
Venus	-24111-12-02 19:11 J	-7084783.92	-7084783.70	-7084783.48	0.0089	0.0005
Venus	-24110-07-16 07:40 J	-7084558.40	-7084558.18	-7084557.97	0.0089	0.0006
Venus	-24109-02-26 19:55 J	-7084332.88	-7084332.67	-7084332.45	0.0089	0.0007
Venus	-24109-10-09 08:23 J	-7084107.37	-7084107.15	-7084106.93	0.0089	0.0008
Venus	-24108-05-22 21:07 J	-7083881.84	-7083881.62	-7083881.41	0.0089	0.0009
Venus	-24107-01-03 09:35 J	-7083656.32	-7083656.10	-7083655.89	0.0088	0.0010
Venus	-24107-08-16 22:04 J	-7083430.80	-7083430.58	-7083430.37	0.0088	0.0011
Venus	-24106-03-30 10:33 J	-7083205.28	-7083205.06	-7083204.85	0.0088	0.0012
Venus	-24106-11-10 23:02 J	-7082979.76	-7082979.54	-7082979.33	0.0088	0.0013
Venus	-24105-06-23 11:45 J	-7082754.23	-7082754.01	-7082753.80	0.0088	0.0014
Venus	-24104-02-04 00:14 J	-7082528.70	-7082528.49	-7082528.27	0.0088	0.0015
Venus	-24104-09-17 12:43 J	-7082303.18	-7082302.97	-7082302.75	0.0088	0.0016
Venus	-24103-05-01 01:11 J	-7082077.66	-7082077.45	-7082077.23	0.0088	0.0017
Venus	-24103-12-12 13:55 J	-7081852.13	-7081851.92	-7081851.71	0.0088	0.0018
Venus	-24102-07-26 02:23 J	-7081626.61	-7081626.40	-7081626.18	0.0088	0.0019
Venus	-24101-03-07 14:52 J	-7081401.08	-7081400.88	-7081400.66	0.0088	0.0020
Venus	-24101-10-19 03:35 J	-7081175.56	-7081175.35	-7081175.13	0.0088	0.0020
Venus	-24100-06-01 16:04 J	-7080950.03	-7080949.83	-7080949.60	0.0088	0.0022
Venus	-24099-01-13 04:47 J	-7080724.50	-7080724.30	-7080724.08	0.0088	0.0022
Venus	-24099-08-26 17:16 J	-7080498.98	-7080498.78	-7080498.56	0.0088	0.0023

Venus	-24098-04-09 06:14 J	-7080273.45	-7080273.24	-7080273.03	0.0088	0.0024
Venus	-24098-11-20 18:43 J	-7080047.93	-7080047.72	-7080047.50	0.0088	0.0025
Venus	-24097-07-03 07:26 J	-7079822.39	-7079822.19	-7079821.97	0.0088	0.0026
Venus	-24096-02-13 20:09 J	-7079596.86	-7079596.66	-7079596.44	0.0088	0.0027
Venus	-24096-09-27 08:52 J	-7079371.33	-7079371.13	-7079370.91	0.0088	0.0027
Venus	-24095-05-10 21:35 J	-7079145.80	-7079145.60	-7079145.38	0.0088	0.0028
Venus	-24095-12-22 10:33 J	-7078920.27	-7078920.06	-7078919.85	0.0088	0.0029
Venus	-24094-08-04 23:16 J	-7078694.73	-7078694.53	-7078694.31	0.0088	0.0030
Venus	-24093-03-17 11:59 J	-7078469.19	-7078469.00	-7078468.78	0.0088	0.0031
Venus	-24093-10-29 00:57 J	-7078243.66	-7078243.46	-7078243.24	0.0088	0.0031
Venus	-24092-06-11 13:55 J	-7078018.12	-7078017.92	-7078017.70	0.0088	0.0032
Venus	-24091-01-23 02:52 J	-7077792.58	-7077792.38	-7077792.17	0.0088	0.0032
Venus	-24091-09-05 15:35 J	-7077567.04	-7077566.85	-7077566.63	0.0088	0.0033
Venus	-24090-04-19 04:33 J	-7077341.51	-7077341.31	-7077341.10	0.0088	0.0033
Venus	-24090-11-30 17:16 J	-7077115.97	-7077115.78	-7077115.56	0.0088	0.0034
Venus	-24089-07-13 06:43 J	-7076890.42	-7076890.22	-7076890.02	0.0088	0.0035
Venus	-24088-02-23 19:26 J	-7076664.88	-7076664.69	-7076664.48	0.0088	0.0035
Venus	-24088-10-07 08:09 J	-7076439.35	-7076439.16	-7076438.94	0.0088	0.0036
Venus	-24087-05-20 21:07 J	-7076213.81	-7076213.62	-7076213.41	0.0088	0.0037
Venus	-24086-01-01 10:04 J	-7075988.27	-7075988.08	-7075987.87	0.0088	0.0037
Venus	-24086-08-14 23:16 J	-7075762.72	-7075762.53	-7075762.32	0.0088	0.0037
Venus	-24085-03-27 11:59 J	-7075537.18	-7075537.00	-7075536.78	0.0088	0.0039
Venus	-24085-11-08 01:11 J	-7075311.64	-7075311.45	-7075311.24	0.0088	0.0039
Venus	-24084-06-21 14:09 J	-7075086.10	-7075085.91	-7075085.70	0.0088	0.0039
Venus	-24083-02-02 03:21 J	-7074860.55	-7074860.36	-7074860.15	0.0088	0.0039
Venus	-24083-09-15 16:19 J	-7074635.00	-7074634.82	-7074634.61	0.0088	0.0040
Venus	-24082-04-29 05:31 J	-7074409.46	-7074409.27	-7074409.06	0.0088	0.0040
Venus	-24082-12-10 18:43 J	-7074183.91	-7074183.72	-7074183.52	0.0088	0.0040
Venus	-24081-07-23 07:40 J	-7073958.36	-7073958.18	-7073957.96	0.0088	0.0041
Earth	-24081-10-20 18:43 J	-7073868.84	-7073868.72	-7073868.58	0.0088	0.0077

Moon	-24081-10-20 20:23 J	-7073868.77	-7073868.65	-7073868.49	0.0088	0.0074 *
Venus	-24080-03-05 21:07 J	-7073732.81	-7073732.62	-7073732.41	0.0088	0.0041
Venus	-24080-10-17 10:19 J	-7073507.26	-7073507.07	-7073506.86	0.0088	0.0041
Moon	-24080-10-23 05:02 J	-7073501.52	-7073501.29	-7073501.03	0.0088	0.0036
Earth	-24080-10-23 07:40 J	-7073501.41	-7073501.18	-7073500.93	0.0088	0.0033 *
Venus	-24079-05-30 23:16 J	-7073281.71	-7073281.53	-7073281.32	0.0088	0.0042
Earth	-24079-10-25 20:38 J	-7073133.90	-7073133.64	-7073133.37	0.0088	0.0010
Moon	-24079-10-25 23:45 J	-7073133.75	-7073133.51	-7073133.24	0.0088	0.0014 *
Venus	-24078-01-11 12:28 J	-7073056.16	-7073055.98	-7073055.77	0.0088	0.0042
Venus	-24078-08-25 01:55 J	-7072830.60	-7072830.42	-7072830.21	0.0088	0.0042
Moon	-24078-10-28 05:16 J	-7072766.47	-7072766.28	-7072766.04	0.0088	0.0050
Earth	-24078-10-28 09:07 J	-7072766.31	-7072766.12	-7072765.90	0.0088	0.0053 *
Venus	-24077-04-06 15:21 J	-7072605.05	-7072604.86	-7072604.66	0.0088	0.0042
Venus	-24077-11-18 04:47 J	-7072379.50	-7072379.30	-7072379.11	0.0088	0.0042
Venus	-24076-07-01 17:31 J	-7072153.95	-7072153.77	-7072153.56	0.0088	0.0043
Venus	-24075-02-12 06:57 J	-7071928.39	-7071928.21	-7071928.00	0.0088	0.0043
Venus	-24075-09-25 20:09 J	-7071702.84	-7071702.66	-7071702.45	0.0088	0.0043
Venus	-24074-05-09 09:21 J	-7071477.29	-7071477.11	-7071476.90	0.0088	0.0044
Venus	-24074-12-20 22:47 J	-7071251.73	-7071251.55	-7071251.35	0.0088	0.0043
Venus	-24073-08-02 12:14 J	-7071026.18	-7071025.99	-7071025.79	0.0088	0.0043
Venus	-24072-03-16 01:26 J	-7070800.62	-7070800.44	-7070800.23	0.0088	0.0044
Venus	-24072-10-27 14:52 J	-7070575.07	-7070574.88	-7070574.68	0.0088	0.0043
Venus	-24071-06-10 04:04 J	-7070349.51	-7070349.33	-7070349.12	0.0088	0.0043
Venus	-24070-01-21 17:31 J	-7070123.95	-7070123.77	-7070123.56	0.0088	0.0043
Venus	-24070-09-04 06:57 J	-7069898.39	-7069898.21	-7069898.00	0.0088	0.0044
Venus	-24069-04-16 20:23 J	-7069672.83	-7069672.65	-7069672.44	0.0088	0.0044
Venus	-24069-11-28 09:50 J	-7069447.27	-7069447.09	-7069446.88	0.0088	0.0043
Venus	-24068-07-11 23:16 J	-7069221.71	-7069221.53	-7069221.32	0.0088	0.0043
Venus	-24067-02-22 13:11 J	-7068996.14	-7068995.95	-7068995.75	0.0088	0.0043
Venus	-24067-10-06 02:38 J	-7068770.58	-7068770.39	-7068770.19	0.0088	0.0042

Venus	-24066-05-19 16:04 J	-7068545.02	-7068544.83	-7068544.62	0.0088	0.0042
Venus	-24066-12-31 05:31 J	-7068319.45	-7068319.27	-7068319.06	0.0088	0.0042
Venus	-24065-08-12 18:57 J	-7068093.89	-7068093.71	-7068093.49	0.0088	0.0042
Venus	-24064-03-26 08:52 J	-7067868.32	-7067868.13	-7067867.93	0.0088	0.0041
Venus	-24064-11-06 22:19 J	-7067642.76	-7067642.57	-7067642.36	0.0088	0.0041
Mars	-24063-04-25 14:23 J	-7067473.17	-7067472.90	-7067472.62	0.0088	0.0036
Venus	-24063-06-20 11:45 J	-7067417.20	-7067417.01	-7067416.80	0.0088	0.0041
Mercury	-24063-09-02 11:45 J	-7067343.07	-7067343.01	-7067342.92	0.0088	0.0081
Mercury	-24063-11-29 15:35 J	-7067254.96	-7067254.85	-7067254.74	0.0088	0.0071
Venus	-24062-02-01 01:26 J	-7067191.63	-7067191.44	-7067191.23	0.0088	0.0040
Mercury	-24062-02-25 18:43 J	-7067166.84	-7067166.72	-7067166.57	0.0088	0.0061
Mercury	-24062-05-24 22:19 J	-7067078.72	-7067078.57	-7067078.41	0.0088	0.0051
Mercury	-24062-08-21 01:40 J	-7066990.59	-7066990.43	-7066990.25	0.0088	0.0042
Venus	-24062-09-14 15:07 J	-7066966.06	-7066965.87	-7066965.66	0.0088	0.0040
Mercury	-24062-11-17 05:16 J	-7066902.45	-7066902.28	-7066902.10	0.0088	0.0032
Mercury	-24061-02-13 08:38 J	-7066814.32	-7066814.14	-7066813.95	0.0088	0.0023
Mars	-24061-03-19 14:38 J	-7066779.18	-7066778.89	-7066778.60	0.0088	0.0023
Venus	-24061-04-27 04:33 J	-7066740.50	-7066740.31	-7066740.09	0.0088	0.0040
Mercury	-24061-05-11 11:59 J	-7066726.18	-7066726.00	-7066725.80	0.0088	0.0013
Mercury	-24061-08-07 15:35 J	-7066638.04	-7066637.85	-7066637.66	0.0088	0.0003
Mercury	-24061-11-03 18:57 J	-7066549.90	-7066549.71	-7066549.52	0.0088	0.0006
Venus	-24061-12-08 18:14 J	-7066514.93	-7066514.74	-7066514.53	0.0088	0.0039
Mercury	-24060-01-30 22:04 J	-7066461.76	-7066461.58	-7066461.38	0.0088	0.0016
Mercury	-24060-04-29 01:40 J	-7066373.61	-7066373.43	-7066373.25	0.0088	0.0025
Venus	-24060-07-22 07:40 J	-7066289.37	-7066289.18	-7066288.97	0.0088	0.0039
Mercury	-24060-07-26 04:47 J	-7066285.46	-7066285.30	-7066285.12	0.0088	0.0035
Mercury	-24060-10-22 08:09 J	-7066197.31	-7066197.16	-7066196.99	0.0088	0.0044
Mercury	-24059-01-18 11:45 J	-7066109.16	-7066109.01	-7066108.86	0.0088	0.0053
Mars	-24059-02-11 14:09 J	-7066084.97	-7066084.91	-7066084.77	0.0088	0.0083
Venus	-24059-03-04 21:21 J	-7066063.80	-7066063.61	-7066063.40	0.0088	0.0039

Mercury	-24059-04-16 14:38 J	-7066021.00	-7066020.89	-7066020.74	0.0088	0.0063
Mercury	-24059-07-13 18:14 J	-7065932.84	-7065932.74	-7065932.63	0.0088	0.0072
Mercury	-24059-10-09 21:35 J	-7065844.66	-7065844.60	-7065844.53	0.0088	0.0082
Venus	-24059-10-16 11:02 J	-7065838.23	-7065838.04	-7065837.83	0.0088	0.0038
Venus	-24058-05-30 00:43 J	-7065612.66	-7065612.47	-7065612.26	0.0088	0.0038
Venus	-24057-01-10 14:09 J	-7065387.10	-7065386.91	-7065386.69	0.0088	0.0037
Venus	-24057-08-23 04:04 J	-7065161.52	-7065161.33	-7065161.11	0.0088	0.0036
Venus	-24056-04-05 17:45 J	-7064935.95	-7064935.76	-7064935.54	0.0088	0.0036
Venus	-24056-11-17 07:26 J	-7064710.38	-7064710.19	-7064709.97	0.0088	0.0036
Venus	-24055-06-30 21:21 J	-7064484.81	-7064484.61	-7064484.40	0.0088	0.0035
Venus	-24054-02-11 10:47 J	-7064259.24	-7064259.05	-7064258.83	0.0088	0.0034
Venus	-24054-09-25 00:57 J	-7064033.66	-7064033.46	-7064033.25	0.0088	0.0033
Venus	-24053-05-07 14:52 J	-7063808.09	-7063807.88	-7063807.67	0.0088	0.0033
Venus	-24053-12-19 04:19 J	-7063582.52	-7063582.32	-7063582.10	0.0088	0.0032
Venus	-24052-08-01 17:59 J	-7063356.95	-7063356.75	-7063356.53	0.0088	0.0032
Venus	-24051-03-15 07:55 J	-7063131.38	-7063131.17	-7063130.95	0.0088	0.0031
Venus	-24051-10-26 21:35 J	-7062905.80	-7062905.60	-7062905.38	0.0088	0.0030
Venus	-24050-06-09 11:16 J	-7062680.23	-7062680.03	-7062679.80	0.0088	0.0030
Venus	-24049-01-21 01:11 J	-7062454.66	-7062454.45	-7062454.23	0.0088	0.0028
Venus	-24049-09-02 14:52 J	-7062229.09	-7062228.88	-7062228.66	0.0088	0.0028
Venus	-24048-04-16 04:33 J	-7062003.52	-7062003.31	-7062003.09	0.0088	0.0027
Venus	-24048-11-27 18:14 J	-7061777.94	-7061777.74	-7061777.51	0.0088	0.0026
Venus	-24047-07-11 07:55 J	-7061552.37	-7061552.17	-7061551.94	0.0088	0.0026
Venus	-24046-02-21 21:50 J	-7061326.80	-7061326.59	-7061326.37	0.0088	0.0025
Venus	-24046-10-05 11:45 J	-7061101.23	-7061101.01	-7061100.79	0.0088	0.0024
Venus	-24045-05-18 01:11 J	-7060875.65	-7060875.45	-7060875.22	0.0088	0.0023
Venus	-24045-12-29 15:07 J	-7060650.08	-7060649.87	-7060649.64	0.0088	0.0022
Venus	-24044-08-12 04:47 J	-7060424.51	-7060424.30	-7060424.07	0.0088	0.0021
Venus	-24043-03-25 18:28 J	-7060198.94	-7060198.73	-7060198.50	0.0088	0.0021
Venus	-24043-11-06 08:38 J	-7059973.36	-7059973.14	-7059972.92	0.0088	0.0019

Venus	-24042-06-19 22:19 J	-7059747.78	-7059747.57	-7059747.34	0.0088	0.0019
Venus	-24041-01-31 12:14 J	-7059522.21	-7059521.99	-7059521.77	0.0088	0.0018
Venus	-24041-09-13 01:55 J	-7059296.64	-7059296.42	-7059296.19	0.0088	0.0017
Venus	-24040-04-26 15:50 J	-7059071.06	-7059070.84	-7059070.62	0.0088	0.0016
Venus	-24040-12-08 05:31 J	-7058845.49	-7058845.27	-7058845.04	0.0088	0.0015
Venus	-24039-07-21 19:26 J	-7058619.91	-7058619.69	-7058619.47	0.0088	0.0014
Venus	-24038-03-04 09:07 J	-7058394.34	-7058394.12	-7058393.90	0.0089	0.0013
Venus	-24038-10-15 22:47 J	-7058168.77	-7058168.55	-7058168.32	0.0089	0.0012
Venus	-24037-05-28 12:43 J	-7057943.20	-7057942.97	-7057942.75	0.0089	0.0011
Venus	-24036-01-09 02:23 J	-7057717.63	-7057717.40	-7057717.18	0.0089	0.0010
Venus	-24036-08-22 15:50 J	-7057492.06	-7057491.84	-7057491.61	0.0089	0.0009
Venus	-24035-04-05 05:31 J	-7057266.49	-7057266.27	-7057266.04	0.0089	0.0008
Venus	-24035-11-16 19:26 J	-7057040.92	-7057040.69	-7057040.47	0.0089	0.0007
Venus	-24034-06-30 09:07 J	-7056815.35	-7056815.12	-7056814.90	0.0089	0.0006
Venus	-24033-02-10 22:33 J	-7056589.78	-7056589.56	-7056589.33	0.0089	0.0006
Venus	-24033-09-23 12:14 J	-7056364.21	-7056363.99	-7056363.76	0.0089	0.0004
Venus	-24032-05-07 01:55 J	-7056138.64	-7056138.42	-7056138.19	0.0089	0.0003
Venus	-24032-12-18 15:50 J	-7055913.07	-7055912.84	-7055912.62	0.0089	0.0002
Venus	-24031-08-01 05:31 J	-7055687.50	-7055687.27	-7055687.05	0.0089	0.0002
Venus	-24030-03-14 18:57 J	-7055461.93	-7055461.71	-7055461.48	0.0089	0.0002
Venus	-24030-10-26 08:52 J	-7055236.36	-7055236.13	-7055235.91	0.0089	0.0001
Venus	-24029-06-07 22:33 J	-7055010.78	-7055010.56	-7055010.34	0.0089	0.0002
Venus	-24028-01-19 12:14 J	-7054785.21	-7054784.99	-7054784.77	0.0089	0.0003
Venus	-24028-09-02 01:55 J	-7054559.65	-7054559.42	-7054559.20	0.0089	0.0004
Venus	-24027-04-15 15:21 J	-7054334.08	-7054333.86	-7054333.63	0.0089	0.0005
Venus	-24027-11-27 05:16 J	-7054108.50	-7054108.28	-7054108.06	0.0089	0.0006
Venus	-24026-07-10 18:43 J	-7053882.94	-7053882.72	-7053882.49	0.0089	0.0007
Venus	-24025-02-21 08:23 J	-7053657.37	-7053657.15	-7053656.93	0.0089	0.0008
Venus	-24025-10-03 21:50 J	-7053431.81	-7053431.59	-7053431.37	0.0089	0.0009
Venus	-24024-05-17 11:16 J	-7053206.25	-7053206.03	-7053205.80	0.0089	0.0010

Venus	-24024-12-29 00:57 J	-7052980.68	-7052980.46	-7052980.24	0.0089	0.0011
Venus	-24023-08-11 14:23 J	-7052755.12	-7052754.90	-7052754.67	0.0089	0.0012
Venus	-24022-03-25 03:50 J	-7052529.56	-7052529.34	-7052529.12	0.0089	0.0013
Venus	-24022-11-05 17:16 J	-7052303.99	-7052303.78	-7052303.55	0.0089	0.0014
Venus	-24021-06-18 06:57 J	-7052078.43	-7052078.21	-7052077.99	0.0089	0.0014
Venus	-24020-01-29 20:23 J	-7051852.87	-7051852.65	-7051852.43	0.0089	0.0015
Venus	-24020-09-12 09:50 J	-7051627.31	-7051627.09	-7051626.87	0.0089	0.0016
Venus	-24019-04-25 23:16 J	-7051401.75	-7051401.53	-7051401.31	0.0089	0.0017
Venus	-24019-12-07 12:43 J	-7051176.18	-7051175.97	-7051175.75	0.0089	0.0018
Venus	-24018-07-21 02:09 J	-7050950.62	-7050950.41	-7050950.19	0.0089	0.0019
Venus	-24017-03-02 15:35 J	-7050725.06	-7050724.85	-7050724.63	0.0089	0.0020
Venus	-24017-10-14 04:47 J	-7050499.50	-7050499.30	-7050499.07	0.0089	0.0021
Venus	-24016-05-27 18:28 J	-7050273.94	-7050273.73	-7050273.51	0.0089	0.0021
Venus	-24015-01-08 07:55 J	-7050048.38	-7050048.17	-7050047.95	0.0089	0.0022
Venus	-24015-08-21 21:21 J	-7049822.82	-7049822.61	-7049822.39	0.0089	0.0023
Venus	-24014-04-04 10:33 J	-7049597.26	-7049597.06	-7049596.84	0.0089	0.0024
Venus	-24014-11-15 23:59 J	-7049371.71	-7049371.50	-7049371.28	0.0089	0.0025
Venus	-24013-06-28 13:11 J	-7049146.15	-7049145.95	-7049145.73	0.0089	0.0025
Venus	-24012-02-09 02:38 J	-7048920.59	-7048920.39	-7048920.17	0.0089	0.0026
Venus	-24012-09-22 15:35 J	-7048695.04	-7048694.85	-7048694.62	0.0089	0.0027
Venus	-24011-05-06 05:02 J	-7048469.49	-7048469.29	-7048469.08	0.0089	0.0027
Venus	-24011-12-17 18:14 J	-7048243.94	-7048243.74	-7048243.52	0.0089	0.0028
Venus	-24010-07-31 07:11 J	-7048018.39	-7048018.20	-7048017.97	0.0089	0.0030
Venus	-24009-03-12 20:38 J	-7047792.84	-7047792.64	-7047792.43	0.0089	0.0029
Venus	-24009-10-24 09:35 J	-7047567.30	-7047567.10	-7047566.88	0.0089	0.0030
Venus	-24008-06-06 23:02 J	-7047341.75	-7047341.54	-7047341.34	0.0089	0.0031
Venus	-24007-01-18 11:59 J	-7047116.20	-7047116.00	-7047115.79	0.0089	0.0031
Venus	-24007-09-01 00:57 J	-7046890.65	-7046890.46	-7046890.24	0.0089	0.0032
Venus	-24006-04-14 14:09 J	-7046665.11	-7046664.91	-7046664.70	0.0089	0.0033
Venus	-24006-11-26 03:07 J	-7046439.56	-7046439.37	-7046439.15	0.0089	0.0033

Venus	-24005-07-08 16:33 J	-7046214.01	-7046213.81	-7046213.61	0.0089	0.0034
Venus	-24004-02-19 05:31 J	-7045988.46	-7045988.27	-7045988.06	0.0089	0.0034
Venus	-24004-10-02 18:43 J	-7045762.92	-7045762.72	-7045762.52	0.0089	0.0035
Venus	-24003-05-16 07:26 J	-7045537.38	-7045537.19	-7045536.97	0.0089	0.0036
Venus	-24003-12-27 20:38 J	-7045311.83	-7045311.64	-7045311.43	0.0089	0.0036
Venus	-24002-08-10 09:35 J	-7045086.29	-7045086.10	-7045085.89	0.0089	0.0036
Venus	-24001-03-22 22:33 J	-7044860.74	-7044860.56	-7044860.35	0.0089	0.0037
Venus	-24001-11-03 11:45 J	-7044635.21	-7044635.01	-7044634.81	0.0089	0.0037

24TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 24th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-24000-06-17 00:28 J	-7044409.67	-7044409.48	-7044409.27	0.0089	0.0037		
Venus	-23999-01-28 13:26 J	-7044184.13	-7044183.94	-7044183.73	0.0089	0.0038		
Venus	-23999-09-11 02:23 J	-7043958.59	-7043958.40	-7043958.20	0.0089	0.0038		
Moon	-23998-04-22 16:19 J	-7043734.96	-7043734.82	-7043734.64	0.0089	0.0069		
Earth	-23998-04-22 18:43 J	-7043734.83	-7043734.72	-7043734.55	0.0089	0.0075	*	
Venus	-23998-04-24 15:07 J	-7043733.06	-7043732.87	-7043732.66	0.0089	0.0038		
Venus	-23998-12-06 03:50 J	-7043507.52	-7043507.34	-7043507.13	0.0089	0.0039		
Earth	-23997-04-24 05:31 J	-7043367.50	-7043367.27	-7043367.03	0.0089	0.0031		
Moon	-23997-04-24 08:52 J	-7043367.35	-7043367.13	-7043366.89	0.0089	0.0036	*	
Venus	-23997-07-18 16:47 J	-7043281.99	-7043281.80	-7043281.60	0.0089	0.0039		

Venus	-23996-03-01 05:59 J	-7043056.45	-7043056.25	-7043056.06	0.0089	0.0039
Moon	-23996-04-26 12:28 J	-7043000.22	-7042999.98	-7042999.73	0.0089	0.0017
Earth	-23996-04-26 15:50 J	-7043000.08	-7042999.84	-7042999.58	0.0089	0.0013 *
Venus	-23996-10-12 18:14 J	-7042830.92	-7042830.74	-7042830.53	0.0089	0.0040
Earth	-23995-04-29 01:55 J	-7042632.60	-7042632.42	-7042632.21	0.0089	0.0056
Moon	-23995-04-29 05:31 J	-7042632.46	-7042632.27	-7042632.05	0.0089	0.0051 *
Venus	-23995-05-26 07:11 J	-7042605.39	-7042605.20	-7042605.00	0.0089	0.0039
Venus	-23994-01-06 19:55 J	-7042379.86	-7042379.67	-7042379.47	0.0089	0.0040
Venus	-23994-08-20 08:38 J	-7042154.32	-7042154.14	-7042153.93	0.0089	0.0040
Venus	-23993-04-01 21:35 J	-7041928.79	-7041928.60	-7041928.40	0.0089	0.0040
Venus	-23993-11-13 10:19 J	-7041703.26	-7041703.07	-7041702.87	0.0089	0.0040
Venus	-23992-06-26 23:02 J	-7041477.73	-7041477.54	-7041477.34	0.0089	0.0040
Venus	-23991-02-07 11:59 J	-7041252.19	-7041252.00	-7041251.81	0.0089	0.0040
Venus	-23991-09-21 00:43 J	-7041026.66	-7041026.47	-7041026.28	0.0089	0.0040
Venus	-23990-05-04 13:26 J	-7040801.14	-7040800.94	-7040800.75	0.0089	0.0040
Venus	-23990-12-16 01:40 J	-7040575.61	-7040575.43	-7040575.22	0.0089	0.0040
Venus	-23989-07-28 14:38 J	-7040350.08	-7040349.89	-7040349.69	0.0089	0.0040
Venus	-23988-03-11 03:21 J	-7040124.55	-7040124.36	-7040124.16	0.0089	0.0040
Venus	-23988-10-22 16:04 J	-7039899.02	-7039898.83	-7039898.63	0.0089	0.0040
Venus	-23987-06-05 04:33 J	-7039673.50	-7039673.31	-7039673.11	0.0089	0.0040
Venus	-23986-01-16 17:02 J	-7039447.98	-7039447.79	-7039447.59	0.0089	0.0039
Venus	-23986-08-30 05:31 J	-7039222.45	-7039222.27	-7039222.06	0.0089	0.0039
Venus	-23985-04-11 17:59 J	-7038996.93	-7038996.75	-7038996.54	0.0089	0.0040
Venus	-23985-11-23 06:28 J	-7038771.41	-7038771.23	-7038771.02	0.0089	0.0040
Venus	-23984-07-06 19:26 J	-7038545.89	-7038545.69	-7038545.50	0.0089	0.0039
Venus	-23983-02-17 07:40 J	-7038320.36	-7038320.18	-7038319.97	0.0089	0.0039
Venus	-23983-09-30 20:09 J	-7038094.84	-7038094.66	-7038094.45	0.0089	0.0038
Venus	-23982-05-14 08:38 J	-7037869.32	-7037869.14	-7037868.93	0.0089	0.0038
Mercury	-23982-09-13 05:59 J	-7037747.27	-7037747.25	-7037747.20	0.0089	0.0086
Mercury	-23982-12-10 07:26 J	-7037659.24	-7037659.19	-7037659.12	0.0089	0.0079

Venus -23982-12-25 21:21 J -7037643.81 -7037643.61 -7037643.41 0.0089 0.0038

Mercury -23981-03-07 08:38 J -7037571.20 -7037571.14 -7037571.05 0.0089 0.0073

Mars -23981-03-10 12:57 J -7037568.23 -7037567.96 -7037567.66 0.0089 0.0046

Mercury -23981-06-03 10:04 J -7037483.16 -7037483.08 -7037482.98 0.0089 0.0066

Venus -23981-08-07 09:35 J -7037418.29 -7037418.10 -7037417.89 0.0089 0.0037

Mercury -23981-08-30 11:31 J -7037395.11 -7037395.02 -7037394.91 0.0089 0.0059

Mercury -23981-11-26 12:57 J -7037307.06 -7037306.96 -7037306.85 0.0089 0.0052

Mercury -23980-02-22 14:23 J -7037219.01 -7037218.90 -7037218.78 0.0089 0.0045

Venus -23980-03-20 22:04 J -7037192.76 -7037192.58 -7037192.37 0.0089 0.0037

Mercury -23980-05-21 15:50 J -7037130.96 -7037130.84 -7037130.72 0.0089 0.0038

Mercury -23980-08-17 17:16 J -7037042.91 -7037042.78 -7037042.66 0.0089 0.0031

Venus -23980-11-01 10:47 J -7036967.24 -7036967.05 -7036966.85 0.0089 0.0037

Mercury -23980-11-13 18:28 J -7036954.85 -7036954.73 -7036954.60 0.0089 0.0024

Mars -23979-02-04 10:19 J -7036872.37 -7036872.07 -7036871.73 0.0089 0.0024

Mercury -23979-02-09 19:55 J -7036866.80 -7036866.67 -7036866.54 0.0089 0.0017

Mercury -23979-05-08 21:21 J -7036778.74 -7036778.61 -7036778.48 0.0089 0.0010

Venus -23979-06-14 23:02 J -7036741.72 -7036741.54 -7036741.33 0.0089 0.0036

Mercury -23979-08-04 22:47 J -7036690.69 -7036690.55 -7036690.42 0.0089 0.0003

Mercury -23979-11-01 00:14 J -7036602.63 -7036602.49 -7036602.36 0.0089 0.0005

Venus -23978-01-26 11:31 J -7036516.21 -7036516.02 -7036515.81 0.0089 0.0036

Mercury -23978-01-28 01:26 J -7036514.57 -7036514.44 -7036514.30 0.0089 0.0012

Mercury -23978-04-26 02:52 J -7036426.51 -7036426.38 -7036426.25 0.0089 0.0018

Mercury -23978-07-23 04:19 J -7036338.45 -7036338.32 -7036338.19 0.0089 0.0025

Venus -23978-09-08 23:59 J -7036290.69 -7036290.50 -7036290.29 0.0089 0.0036

Mercury -23978-10-19 05:45 J -7036250.38 -7036250.26 -7036250.13 0.0089 0.0032

Mercury -23977-01-15 07:11 J -7036162.32 -7036162.20 -7036162.08 0.0089 0.0039

Mercury -23977-04-12 08:38 J -7036074.26 -7036074.14 -7036074.03 0.0089 0.0047

Venus -23977-04-21 12:28 J -7036065.16 -7036064.98 -7036064.77 0.0089 0.0035

Mercury -23977-07-09 10:04 J -7035986.19 -7035986.08 -7035985.98 0.0089 0.0054

Mercury -23977-10-05 11:02 J -7035898.12 -7035898.04 -7035897.93 0.0089 0.0062

Venus	-23977-12-03 01:11 J	-7035839.65	-7035839.45	-7035839.25	0.0089	0.0034
Mercury	-23976-01-01 12:28 J	-7035810.05	-7035809.98	-7035809.88	0.0089	0.0069
Mercury	-23976-03-30 13:55 J	-7035721.98	-7035721.92	-7035721.83	0.0089	0.0076
Mercury	-23976-06-26 15:21 J	-7035633.89	-7035633.86	-7035633.79	0.0089	0.0083
Venus	-23976-07-16 13:26 J	-7035614.13	-7035613.94	-7035613.73	0.0089	0.0034
Venus	-23975-02-27 01:55 J	-7035388.61	-7035388.42	-7035388.21	0.0089	0.0034
Venus	-23975-10-10 14:09 J	-7035163.10	-7035162.91	-7035162.70	0.0089	0.0033
Venus	-23974-05-24 02:38 J	-7034937.58	-7034937.39	-7034937.18	0.0089	0.0033
Venus	-23973-01-04 14:52 J	-7034712.07	-7034711.88	-7034711.67	0.0089	0.0032
Venus	-23973-08-17 03:21 J	-7034486.56	-7034486.36	-7034486.15	0.0089	0.0031
Venus	-23972-03-30 15:35 J	-7034261.04	-7034260.85	-7034260.64	0.0089	0.0031
Venus	-23972-11-11 04:04 J	-7034035.53	-7034035.33	-7034035.12	0.0089	0.0030
Venus	-23971-06-24 16:04 J	-7033810.02	-7033809.83	-7033809.61	0.0089	0.0030
Venus	-23970-02-05 04:33 J	-7033584.51	-7033584.31	-7033584.10	0.0089	0.0029
Venus	-23970-09-18 16:47 J	-7033359.00	-7033358.80	-7033358.59	0.0089	0.0029
Venus	-23969-05-01 05:02 J	-7033133.48	-7033133.29	-7033133.07	0.0089	0.0029
Venus	-23969-12-12 17:31 J	-7032907.97	-7032907.77	-7032907.56	0.0089	0.0027
Venus	-23968-07-26 05:59 J	-7032682.46	-7032682.25	-7032682.04	0.0089	0.0026
Venus	-23967-03-08 17:59 J	-7032456.94	-7032456.75	-7032456.53	0.0089	0.0026
Venus	-23967-10-20 06:28 J	-7032231.43	-7032231.23	-7032231.02	0.0089	0.0025
Venus	-23966-06-02 18:57 J	-7032005.92	-7032005.71	-7032005.50	0.0089	0.0024
Venus	-23965-01-14 07:11 J	-7031780.40	-7031780.20	-7031779.99	0.0089	0.0023
Venus	-23965-08-26 19:26 J	-7031554.89	-7031554.69	-7031554.47	0.0089	0.0023
Venus	-23964-04-09 07:55 J	-7031329.37	-7031329.17	-7031328.96	0.0089	0.0022
Venus	-23964-11-20 20:09 J	-7031103.86	-7031103.66	-7031103.44	0.0089	0.0021
Venus	-23963-07-04 08:38 J	-7030878.35	-7030878.14	-7030877.93	0.0089	0.0020
Venus	-23962-02-14 20:38 J	-7030652.84	-7030652.64	-7030652.42	0.0089	0.0020
Venus	-23962-09-28 08:52 J	-7030427.33	-7030427.13	-7030426.91	0.0089	0.0019
Venus	-23961-05-10 21:21 J	-7030201.81	-7030201.61	-7030201.39	0.0089	0.0018
Venus	-23961-12-22 09:50 J	-7029976.30	-7029976.09	-7029975.88	0.0089	0.0017

Venus	-23960-08-04 22:04 J	-7029750.79	-7029750.58	-7029750.37	0.0089	0.0016
Venus	-23959-03-18 10:04 J	-7029525.28	-7029525.08	-7029524.86	0.0089	0.0016
Venus	-23959-10-29 22:19 J	-7029299.77	-7029299.57	-7029299.35	0.0089	0.0015
Venus	-23958-06-12 10:47 J	-7029074.26	-7029074.05	-7029073.83	0.0089	0.0014
Venus	-23957-01-23 23:02 J	-7028848.75	-7028848.54	-7028848.32	0.0089	0.0013
Venus	-23957-09-05 11:16 J	-7028623.24	-7028623.03	-7028622.81	0.0089	0.0012
Venus	-23956-04-18 23:45 J	-7028397.72	-7028397.51	-7028397.30	0.0089	0.0011
Venus	-23956-11-30 11:59 J	-7028172.21	-7028172.00	-7028171.78	0.0089	0.0010
Venus	-23955-07-14 00:14 J	-7027946.70	-7027946.49	-7027946.27	0.0089	0.0010
Venus	-23954-02-24 12:28 J	-7027721.19	-7027720.98	-7027720.76	0.0089	0.0009
Venus	-23954-10-08 00:57 J	-7027495.67	-7027495.46	-7027495.24	0.0089	0.0008
Venus	-23953-05-20 13:26 J	-7027270.15	-7027269.94	-7027269.72	0.0089	0.0007
Venus	-23952-01-01 01:55 J	-7027044.64	-7027044.42	-7027044.20	0.0089	0.0006
Venus	-23952-08-14 14:09 J	-7026819.12	-7026818.91	-7026818.69	0.0089	0.0005
Venus	-23951-03-28 02:38 J	-7026593.61	-7026593.39	-7026593.17	0.0089	0.0004
Venus	-23951-11-08 14:52 J	-7026368.09	-7026367.88	-7026367.66	0.0089	0.0004
Venus	-23950-06-22 03:21 J	-7026142.57	-7026142.36	-7026142.14	0.0089	0.0003
Venus	-23949-02-02 15:50 J	-7025917.06	-7025916.84	-7025916.62	0.0089	0.0001
Venus	-23949-09-15 04:19 J	-7025691.54	-7025691.32	-7025691.11	0.0089	0.0002
Venus	-23948-04-28 16:33 J	-7025466.02	-7025465.81	-7025465.59	0.0089	0.0001
Venus	-23948-12-10 05:02 J	-7025240.51	-7025240.29	-7025240.07	0.0089	0.0001
Venus	-23947-07-23 17:16 J	-7025014.99	-7025014.78	-7025014.56	0.0089	0.0002
Venus	-23946-03-06 05:45 J	-7024789.48	-7024789.26	-7024789.04	0.0089	0.0003
Venus	-23946-10-17 17:59 J	-7024563.96	-7024563.75	-7024563.53	0.0089	0.0004
Venus	-23945-05-30 06:43 J	-7024338.44	-7024338.22	-7024338.00	0.0089	0.0005
Venus	-23944-01-10 18:57 J	-7024112.92	-7024112.71	-7024112.49	0.0089	0.0006
Venus	-23944-08-24 07:26 J	-7023887.41	-7023887.19	-7023886.97	0.0089	0.0007
Venus	-23943-04-06 19:40 J	-7023661.89	-7023661.68	-7023661.46	0.0088	0.0008
Venus	-23943-11-18 08:09 J	-7023436.37	-7023436.16	-7023435.94	0.0088	0.0009
Venus	-23942-07-01 20:52 J	-7023210.84	-7023210.63	-7023210.41	0.0088	0.0009

Venus	-23941-02-12 09:21 J	-7022985.32	-7022985.11	-7022984.89	0.0088	0.0010
Venus	-23941-09-24 21:50 J	-7022759.80	-7022759.59	-7022759.37	0.0088	0.0011
Venus	-23940-05-08 10:33 J	-7022534.28	-7022534.06	-7022533.84	0.0088	0.0012
Venus	-23940-12-19 23:02 J	-7022308.75	-7022308.54	-7022308.32	0.0088	0.0013
Venus	-23939-08-02 11:31 J	-7022083.23	-7022083.02	-7022082.80	0.0088	0.0014
Venus	-23938-03-16 00:14 J	-7021857.70	-7021857.49	-7021857.27	0.0088	0.0014
Venus	-23938-10-27 12:43 J	-7021632.18	-7021631.97	-7021631.75	0.0088	0.0015
Venus	-23937-06-09 01:40 J	-7021406.65	-7021406.43	-7021406.22	0.0088	0.0016
Venus	-23936-01-20 14:09 J	-7021181.12	-7021180.91	-7021180.69	0.0088	0.0017
Venus	-23936-09-03 02:38 J	-7020955.60	-7020955.39	-7020955.17	0.0088	0.0017
Venus	-23935-04-16 15:07 J	-7020730.08	-7020729.87	-7020729.65	0.0088	0.0018
Venus	-23935-11-28 03:35 J	-7020504.55	-7020504.35	-7020504.12	0.0088	0.0020
Venus	-23934-07-11 16:33 J	-7020279.02	-7020278.81	-7020278.59	0.0088	0.0020
Venus	-23933-02-22 05:16 J	-7020053.49	-7020053.28	-7020053.07	0.0088	0.0020
Venus	-23933-10-04 17:45 J	-7019827.97	-7019827.76	-7019827.54	0.0088	0.0021
Venus	-23932-05-18 06:14 J	-7019602.44	-7019602.24	-7019602.02	0.0088	0.0022
Venus	-23932-12-29 19:11 J	-7019376.91	-7019376.70	-7019376.49	0.0088	0.0023
Venus	-23931-08-12 07:40 J	-7019151.38	-7019151.18	-7019150.96	0.0088	0.0024
Venus	-23930-03-25 20:23 J	-7018925.85	-7018925.65	-7018925.43	0.0088	0.0024
Venus	-23930-11-06 09:07 J	-7018700.32	-7018700.12	-7018699.90	0.0088	0.0025
Venus	-23929-06-18 22:04 J	-7018474.78	-7018474.58	-7018474.36	0.0088	0.0026
Venus	-23928-01-30 10:47 J	-7018249.25	-7018249.05	-7018248.83	0.0088	0.0026
Venus	-23928-09-12 23:31 J	-7018023.71	-7018023.52	-7018023.29	0.0088	0.0027
Venus	-23927-04-26 12:28 J	-7017798.18	-7017797.98	-7017797.76	0.0088	0.0027
Venus	-23927-12-08 01:11 J	-7017572.65	-7017572.45	-7017572.23	0.0088	0.0028
Venus	-23926-07-21 14:23 J	-7017347.10	-7017346.90	-7017346.68	0.0088	0.0029
Venus	-23925-03-03 03:21 J	-7017121.56	-7017121.36	-7017121.15	0.0088	0.0029
Venus	-23925-10-14 16:19 J	-7016896.03	-7016895.82	-7016895.61	0.0088	0.0030
Venus	-23924-05-28 05:02 J	-7016670.49	-7016670.29	-7016670.07	0.0088	0.0030
Venus	-23923-01-08 17:45 J	-7016444.95	-7016444.76	-7016444.54	0.0088	0.0031

Venus	-23923-08-22 06:57 J	-7016219.41	-7016219.21	-7016219.00	0.0088	0.0031
Venus	-23922-04-04 19:40 J	-7015993.87	-7015993.68	-7015993.46	0.0088	0.0032
Venus	-23922-11-16 08:52 J	-7015768.33	-7015768.13	-7015767.92	0.0088	0.0032
Venus	-23921-06-28 22:04 J	-7015542.79	-7015542.58	-7015542.38	0.0088	0.0033
Venus	-23920-02-09 10:47 J	-7015317.25	-7015317.05	-7015316.84	0.0088	0.0033
Venus	-23920-09-22 23:45 J	-7015091.71	-7015091.51	-7015091.30	0.0088	0.0034
Venus	-23919-05-06 12:43 J	-7014866.17	-7014865.97	-7014865.76	0.0088	0.0034
Venus	-23919-12-18 01:40 J	-7014640.62	-7014640.43	-7014640.21	0.0088	0.0035
Venus	-23918-07-31 14:52 J	-7014415.07	-7014414.88	-7014414.66	0.0088	0.0035
Venus	-23917-03-13 04:04 J	-7014189.53	-7014189.33	-7014189.12	0.0088	0.0035
Venus	-23917-10-24 17:16 J	-7013963.98	-7013963.78	-7013963.57	0.0088	0.0035
Venus	-23916-06-07 05:59 J	-7013738.43	-7013738.25	-7013738.03	0.0088	0.0036
Earth	-23916-10-22 13:11 J	-7013601.13	-7013600.95	-7013600.73	0.0088	0.0057
Moon	-23916-10-22 16:47 J	-7013600.99	-7013600.80	-7013600.59	0.0088	0.0054 *
Venus	-23915-01-18 19:11 J	-7013512.89	-7013512.70	-7013512.48	0.0088	0.0037
Venus	-23915-09-01 08:38 J	-7013287.33	-7013287.14	-7013286.93	0.0088	0.0036
Moon	-23915-10-24 22:33 J	-7013233.81	-7013233.56	-7013233.30	0.0088	0.0017
Earth	-23915-10-25 02:09 J	-7013233.66	-7013233.41	-7013233.14	0.0088	0.0014 *
Venus	-23914-04-14 22:04 J	-7013061.78	-7013061.58	-7013061.37	0.0088	0.0036
Earth	-23914-10-27 15:07 J	-7012866.11	-7012865.87	-7012865.62	0.0088	0.0029
Moon	-23914-10-27 18:14 J	-7012865.97	-7012865.74	-7012865.48	0.0088	0.0033 *
Venus	-23914-11-26 11:02 J	-7012836.23	-7012836.04	-7012835.82	0.0088	0.0037
Venus	-23913-07-09 00:14 J	-7012610.68	-7012610.49	-7012610.27	0.0088	0.0037
Moon	-23913-10-29 01:26 J	-7012498.59	-7012498.44	-7012498.28	0.0088	0.0070
Earth	-23913-10-29 03:21 J	-7012498.47	-7012498.36	-7012498.18	0.0088	0.0073 *
Venus	-23912-02-19 13:40 J	-7012385.12	-7012384.93	-7012384.72	0.0088	0.0037
Venus	-23912-10-03 02:52 J	-7012159.57	-7012159.38	-7012159.16	0.0088	0.0037
Venus	-23911-05-16 16:19 J	-7011934.02	-7011933.82	-7011933.61	0.0088	0.0037
Venus	-23911-12-28 05:31 J	-7011708.46	-7011708.27	-7011708.06	0.0088	0.0037
Venus	-23910-08-10 19:11 J	-7011482.90	-7011482.70	-7011482.50	0.0088	0.0037

Venus	-23909-03-23 08:09 J	-7011257.35	-7011257.16	-7011256.95	0.0088	0.0038
Venus	-23909-11-03 21:21 J	-7011031.80	-7011031.61	-7011031.39	0.0088	0.0038
Venus	-23908-06-17 10:33 J	-7010806.24	-7010806.06	-7010805.84	0.0088	0.0038
Venus	-23907-01-28 23:59 J	-7010580.69	-7010580.50	-7010580.29	0.0088	0.0038
Venus	-23907-09-11 13:26 J	-7010355.13	-7010354.94	-7010354.73	0.0088	0.0038
Venus	-23906-04-25 02:52 J	-7010129.57	-7010129.38	-7010129.17	0.0088	0.0038
Venus	-23906-12-06 16:04 J	-7009904.02	-7009903.83	-7009903.61	0.0088	0.0038
Venus	-23905-07-19 05:31 J	-7009678.46	-7009678.27	-7009678.05	0.0088	0.0038
Venus	-23904-03-01 18:57 J	-7009452.90	-7009452.71	-7009452.49	0.0088	0.0038
Venus	-23904-10-13 08:52 J	-7009227.34	-7009227.13	-7009226.93	0.0088	0.0038
Venus	-23903-05-26 22:04 J	-7009001.78	-7009001.58	-7009001.37	0.0088	0.0037
Venus	-23902-01-07 11:31 J	-7008776.21	-7008776.02	-7008775.81	0.0088	0.0037
Venus	-23902-08-21 01:11 J	-7008550.65	-7008550.45	-7008550.24	0.0088	0.0037
Venus	-23901-04-02 14:38 J	-7008325.08	-7008324.89	-7008324.67	0.0088	0.0037
Venus	-23901-11-14 04:04 J	-7008099.52	-7008099.33	-7008099.11	0.0088	0.0037
Venus	-23900-06-27 17:59 J	-7007873.96	-7007873.75	-7007873.55	0.0088	0.0037
Mars	-23900-12-08 20:52 J	-7007709.79	-7007709.63	-7007709.40	0.0088	0.0066
Venus	-23899-02-08 07:26 J	-7007648.39	-7007648.19	-7007647.98	0.0088	0.0036
Venus	-23899-09-21 20:52 J	-7007422.82	-7007422.63	-7007422.41	0.0088	0.0036
Mercury	-23898-03-03 06:14 J	-7007260.25	-7007260.24	-7007260.20	0.0088	0.0087
Venus	-23898-05-05 10:33 J	-7007197.26	-7007197.06	-7007196.85	0.0088	0.0036
Mercury	-23898-05-30 09:50 J	-7007172.17	-7007172.09	-7007171.99	0.0088	0.0077
Mercury	-23898-08-26 13:40 J	-7007084.05	-7007083.93	-7007083.81	0.0088	0.0068
Mars	-23898-11-02 19:26 J	-7007015.98	-7007015.69	-7007015.39	0.0088	0.0007
Mercury	-23898-11-22 16:47 J	-7006995.93	-7006995.80	-7006995.64	0.0088	0.0058
Venus	-23898-12-17 00:14 J	-7006971.69	-7006971.49	-7006971.28	0.0088	0.0036
Mercury	-23897-02-18 20:23 J	-7006907.80	-7006907.65	-7006907.48	0.0088	0.0048
Mercury	-23897-05-16 23:59 J	-7006819.67	-7006819.50	-7006819.33	0.0088	0.0039
Venus	-23897-07-29 13:40 J	-7006746.13	-7006745.93	-7006745.72	0.0088	0.0035
Mercury	-23897-08-13 03:07 J	-7006731.54	-7006731.37	-7006731.18	0.0088	0.0029

Mercury	-23897-11-09 06:43 J	-7006643.40	-7006643.22	-7006643.03	0.0088	0.0019
Mercury	-23896-02-05 10:04 J	-7006555.26	-7006555.08	-7006554.88	0.0088	0.0010
Venus	-23896-03-12 03:07 J	-7006520.56	-7006520.37	-7006520.15	0.0088	0.0035
Mercury	-23896-05-04 13:40 J	-7006467.12	-7006466.93	-7006466.74	0.0088	0.0001
Mercury	-23896-07-31 17:02 J	-7006378.98	-7006378.79	-7006378.60	0.0088	0.0009
Mars	-23896-09-26 18:43 J	-7006321.93	-7006321.72	-7006321.45	0.0088	0.0053
Venus	-23896-10-23 17:02 J	-7006295.00	-7006294.79	-7006294.58	0.0088	0.0035
Mercury	-23896-10-27 20:09 J	-7006290.84	-7006290.66	-7006290.46	0.0088	0.0019
Mercury	-23895-01-23 23:45 J	-7006202.69	-7006202.51	-7006202.33	0.0088	0.0028
Mercury	-23895-04-22 02:52 J	-7006114.54	-7006114.38	-7006114.20	0.0088	0.0038
Venus	-23895-06-06 06:28 J	-7006069.43	-7006069.23	-7006069.02	0.0088	0.0034
Mercury	-23895-07-19 06:14 J	-7006026.39	-7006026.24	-7006026.07	0.0088	0.0048
Mercury	-23895-10-15 09:21 J	-7005938.23	-7005938.11	-7005937.95	0.0088	0.0057
Mercury	-23894-01-11 12:43 J	-7005850.08	-7005849.97	-7005849.83	0.0088	0.0067
Venus	-23894-01-17 19:55 J	-7005843.87	-7005843.67	-7005843.45	0.0088	0.0034
Mercury	-23894-04-09 16:19 J	-7005761.91	-7005761.82	-7005761.72	0.0088	0.0075
Mercury	-23894-07-06 19:11 J	-7005673.72	-7005673.70	-7005673.63	0.0088	0.0085
Venus	-23894-08-31 09:35 J	-7005618.30	-7005618.10	-7005617.88	0.0088	0.0034
Venus	-23893-04-12 23:16 J	-7005392.73	-7005392.53	-7005392.31	0.0088	0.0033
Venus	-23893-11-24 12:57 J	-7005167.16	-7005166.96	-7005166.75	0.0088	0.0033
Venus	-23892-07-08 02:23 J	-7004941.60	-7004941.40	-7004941.18	0.0088	0.0032
Venus	-23891-02-18 16:19 J	-7004716.03	-7004715.82	-7004715.61	0.0088	0.0032
Venus	-23891-10-02 05:59 J	-7004490.45	-7004490.25	-7004490.03	0.0088	0.0031
Venus	-23890-05-15 19:55 J	-7004264.88	-7004264.67	-7004264.46	0.0088	0.0031
Venus	-23890-12-27 09:21 J	-7004039.31	-7004039.11	-7004038.89	0.0088	0.0030
Venus	-23889-08-08 23:16 J	-7003813.74	-7003813.53	-7003813.32	0.0088	0.0029
Venus	-23888-03-22 12:43 J	-7003588.17	-7003587.97	-7003587.75	0.0088	0.0029
Venus	-23888-11-03 02:38 J	-7003362.59	-7003362.39	-7003362.17	0.0088	0.0028
Venus	-23887-06-16 16:19 J	-7003137.02	-7003136.82	-7003136.60	0.0088	0.0028
Venus	-23886-01-28 05:59 J	-7002911.45	-7002911.25	-7002911.02	0.0088	0.0028

Venus	-23886-09-10 19:55 J	-7002685.88	-7002685.67	-7002685.45	0.0088	0.0027
Venus	-23885-04-23 09:35 J	-7002460.30	-7002460.10	-7002459.87	0.0088	0.0026
Venus	-23885-12-04 23:31 J	-7002234.73	-7002234.52	-7002234.30	0.0088	0.0025
Venus	-23884-07-18 13:11 J	-7002009.16	-7002008.95	-7002008.73	0.0088	0.0025
Venus	-23883-03-01 02:38 J	-7001783.59	-7001783.39	-7001783.16	0.0088	0.0025
Venus	-23883-10-12 16:33 J	-7001558.01	-7001557.81	-7001557.58	0.0088	0.0024
Venus	-23882-05-26 06:28 J	-7001332.44	-7001332.23	-7001332.01	0.0088	0.0023
Venus	-23881-01-06 19:55 J	-7001106.87	-7001106.67	-7001106.44	0.0088	0.0023
Venus	-23881-08-19 09:50 J	-7000881.30	-7000881.09	-7000880.87	0.0088	0.0021
Venus	-23880-04-01 23:31 J	-7000655.73	-7000655.52	-7000655.29	0.0088	0.0021
Venus	-23880-11-13 13:26 J	-7000430.15	-7000429.94	-7000429.72	0.0088	0.0020
Venus	-23879-06-27 03:21 J	-7000204.58	-7000204.36	-7000204.14	0.0088	0.0019
Venus	-23878-02-07 16:47 J	-6999979.01	-6999978.80	-6999978.57	0.0088	0.0018
Venus	-23878-09-21 06:43 J	-6999753.44	-6999753.22	-6999752.99	0.0088	0.0017
Venus	-23877-05-03 20:38 J	-6999527.86	-6999527.64	-6999527.42	0.0088	0.0016
Venus	-23877-12-15 10:19 J	-6999302.28	-6999302.07	-6999301.84	0.0088	0.0016
Venus	-23876-07-29 00:14 J	-6999076.71	-6999076.49	-6999076.27	0.0088	0.0015
Venus	-23875-03-11 13:55 J	-6998851.14	-6998850.92	-6998850.69	0.0088	0.0014
Venus	-23875-10-23 03:50 J	-6998625.56	-6998625.34	-6998625.11	0.0088	0.0013
Venus	-23874-06-05 17:45 J	-6998399.98	-6998399.76	-6998399.54	0.0088	0.0012
Venus	-23873-01-17 07:26 J	-6998174.41	-6998174.19	-6998173.96	0.0088	0.0012
Venus	-23873-08-29 21:07 J	-6997948.84	-6997948.62	-6997948.39	0.0089	0.0011
Venus	-23872-04-12 11:02 J	-6997723.26	-6997723.04	-6997722.82	0.0089	0.0010
Venus	-23872-11-24 00:43 J	-6997497.69	-6997497.47	-6997497.24	0.0089	0.0009
Venus	-23871-07-07 14:23 J	-6997272.12	-6997271.90	-6997271.67	0.0089	0.0009
Venus	-23870-02-18 04:04 J	-6997046.55	-6997046.33	-6997046.10	0.0089	0.0008
Venus	-23870-10-01 17:45 J	-6996820.98	-6996820.76	-6996820.53	0.0089	0.0007
Venus	-23869-05-14 07:40 J	-6996595.41	-6996595.18	-6996594.96	0.0089	0.0006
Venus	-23869-12-25 21:21 J	-6996369.84	-6996369.61	-6996369.39	0.0089	0.0005
Venus	-23868-08-08 10:47 J	-6996144.27	-6996144.05	-6996143.82	0.0089	0.0005

Venus	-23867-03-22 00:28 J	-6995918.70	-6995918.48	-6995918.25	0.0089	0.0004
Venus	-23867-11-02 14:23 J	-6995693.13	-6995692.90	-6995692.68	0.0089	0.0002
Venus	-23866-06-16 04:04 J	-6995467.56	-6995467.33	-6995467.11	0.0089	0.0001
Venus	-23865-01-27 17:45 J	-6995241.99	-6995241.76	-6995241.54	0.0089	0.0001
Venus	-23865-09-09 07:11 J	-6995016.42	-6995016.20	-6995015.97	0.0089	0.0002
Venus	-23864-04-22 20:52 J	-6994790.85	-6994790.63	-6994790.40	0.0089	0.0002
Venus	-23864-12-04 10:47 J	-6994565.27	-6994565.05	-6994564.83	0.0089	0.0002
Venus	-23863-07-18 00:28 J	-6994339.70	-6994339.48	-6994339.26	0.0089	0.0003
Venus	-23862-02-28 14:09 J	-6994114.14	-6994113.91	-6994113.69	0.0089	0.0004
Venus	-23862-10-12 03:35 J	-6993888.57	-6993888.35	-6993888.12	0.0089	0.0005
Venus	-23861-05-24 17:16 J	-6993663.00	-6993662.78	-6993662.56	0.0089	0.0006
Venus	-23860-01-05 06:57 J	-6993437.43	-6993437.21	-6993436.99	0.0089	0.0006
Venus	-23860-08-18 20:38 J	-6993211.87	-6993211.64	-6993211.42	0.0089	0.0007
Venus	-23859-04-01 10:04 J	-6992986.30	-6992986.08	-6992985.86	0.0089	0.0008
Venus	-23859-11-12 23:31 J	-6992760.74	-6992760.52	-6992760.29	0.0089	0.0009
Venus	-23858-06-26 12:57 J	-6992535.17	-6992534.96	-6992534.73	0.0089	0.0010
Venus	-23857-02-07 02:23 J	-6992309.61	-6992309.40	-6992309.17	0.0089	0.0011
Venus	-23857-09-19 16:04 J	-6992084.05	-6992083.83	-6992083.61	0.0089	0.0011
Venus	-23856-05-03 05:31 J	-6991858.49	-6991858.27	-6991858.05	0.0089	0.0012
Venus	-23856-12-14 18:57 J	-6991632.93	-6991632.71	-6991632.49	0.0089	0.0013
Venus	-23855-07-28 08:23 J	-6991407.36	-6991407.15	-6991406.93	0.0089	0.0014
Venus	-23854-03-10 21:50 J	-6991181.81	-6991181.59	-6991181.37	0.0089	0.0014
Venus	-23854-10-22 11:16 J	-6990956.25	-6990956.03	-6990955.81	0.0089	0.0015
Venus	-23853-06-04 00:28 J	-6990730.69	-6990730.48	-6990730.25	0.0089	0.0016
Venus	-23852-01-15 13:55 J	-6990505.12	-6990504.92	-6990504.69	0.0089	0.0017
Venus	-23852-08-29 03:21 J	-6990279.57	-6990279.36	-6990279.13	0.0089	0.0018
Venus	-23851-04-11 16:47 J	-6990054.01	-6990053.80	-6990053.58	0.0089	0.0018
Venus	-23851-11-23 06:14 J	-6989828.45	-6989828.24	-6989828.02	0.0089	0.0019
Venus	-23850-07-06 19:40 J	-6989602.89	-6989602.68	-6989602.46	0.0089	0.0020
Venus	-23849-02-17 09:07 J	-6989377.33	-6989377.12	-6989376.90	0.0089	0.0020

Venus	-23849-09-29 22:19 J	-6989151.78	-6989151.57	-6989151.35	0.0089	0.0021
Venus	-23848-05-13 11:31 J	-6988926.22	-6988926.02	-6988925.79	0.0089	0.0022
Venus	-23848-12-25 01:11 J	-6988700.66	-6988700.45	-6988700.23	0.0089	0.0022
Venus	-23847-08-07 14:23 J	-6988475.11	-6988474.90	-6988474.68	0.0089	0.0023
Venus	-23846-03-21 03:35 J	-6988249.56	-6988249.35	-6988249.13	0.0089	0.0024
Venus	-23846-11-01 16:47 J	-6988024.01	-6988023.80	-6988023.58	0.0089	0.0024
Venus	-23845-06-14 05:45 J	-6987798.46	-6987798.26	-6987798.03	0.0089	0.0025
Venus	-23844-01-25 19:11 J	-6987572.90	-6987572.70	-6987572.48	0.0089	0.0025
Venus	-23844-09-08 08:09 J	-6987347.36	-6987347.16	-6987346.94	0.0089	0.0027
Venus	-23843-04-21 21:35 J	-6987121.81	-6987121.60	-6987121.39	0.0089	0.0026
Venus	-23843-12-03 10:33 J	-6986896.26	-6986896.06	-6986895.84	0.0089	0.0027
Venus	-23842-07-16 23:45 J	-6986670.72	-6986670.51	-6986670.30	0.0089	0.0028
Venus	-23841-02-27 12:43 J	-6986445.16	-6986444.97	-6986444.75	0.0089	0.0028
Venus	-23841-10-10 01:55 J	-6986219.62	-6986219.42	-6986219.21	0.0089	0.0029
Venus	-23840-05-23 14:52 J	-6985994.08	-6985993.88	-6985993.66	0.0089	0.0029
Venus	-23839-01-04 04:04 J	-6985768.53	-6985768.33	-6985768.11	0.0089	0.0030
Venus	-23839-08-17 17:02 J	-6985542.98	-6985542.79	-6985542.57	0.0089	0.0030
Venus	-23838-03-31 06:14 J	-6985317.44	-6985317.24	-6985317.03	0.0089	0.0030
Venus	-23838-11-11 19:26 J	-6985091.90	-6985091.69	-6985091.48	0.0089	0.0031
Venus	-23837-06-24 08:09 J	-6984866.35	-6984866.16	-6984865.94	0.0089	0.0031
Venus	-23836-02-04 21:21 J	-6984640.80	-6984640.61	-6984640.39	0.0089	0.0032
Venus	-23836-09-18 10:33 J	-6984415.26	-6984415.06	-6984414.85	0.0089	0.0032
Venus	-23835-05-01 23:16 J	-6984189.72	-6984189.53	-6984189.32	0.0089	0.0032
Venus	-23835-12-13 12:14 J	-6983964.19	-6983963.99	-6983963.78	0.0089	0.0032
Venus	-23834-07-27 01:11 J	-6983738.65	-6983738.45	-6983738.24	0.0089	0.0033
Venus	-23833-03-08 13:55 J	-6983513.10	-6983512.92	-6983512.70	0.0089	0.0034
Moon	-23833-04-23 11:02 J	-6983467.23	-6983467.04	-6983466.84	0.0089	0.0055
Earth	-23833-04-23 14:23 J	-6983467.08	-6983466.90	-6983466.68	0.0089	0.0054 *
Venus	-23833-10-20 02:52 J	-6983287.57	-6983287.38	-6983287.17	0.0089	0.0033
Earth	-23832-04-26 01:11 J	-6983099.70	-6983099.45	-6983099.20	0.0089	0.0011

Moon	-23832-04-26 04:04 J	-6983099.58	-6983099.33	-6983099.07	0.0089	0.0011 *
Venus	-23832-06-02 15:50 J	-6983062.04	-6983061.84	-6983061.63	0.0089	0.0033
Venus	-23831-01-14 04:33 J	-6982836.50	-6982836.31	-6982836.10	0.0089	0.0034
Moon	-23831-04-28 08:38 J	-6982732.35	-6982732.14	-6982731.90	0.0089	0.0034
Earth	-23831-04-28 11:31 J	-6982732.25	-6982732.02	-6982731.78	0.0089	0.0033 *
Venus	-23831-08-27 17:31 J	-6982610.97	-6982610.77	-6982610.57	0.0089	0.0034
Venus	-23830-04-10 05:59 J	-6982385.44	-6982385.25	-6982385.03	0.0089	0.0034
Earth	-23830-04-30 21:21 J	-6982364.72	-6982364.61	-6982364.45	0.0089	0.0076
Moon	-23830-04-30 22:33 J	-6982364.67	-6982364.56	-6982364.40	0.0089	0.0076 *
Venus	-23830-11-21 18:43 J	-6982159.91	-6982159.72	-6982159.50	0.0089	0.0035
Venus	-23829-07-04 07:26 J	-6981934.37	-6981934.19	-6981933.97	0.0089	0.0035
Venus	-23828-02-14 20:23 J	-6981708.84	-6981708.65	-6981708.44	0.0089	0.0035
Venus	-23828-09-28 09:07 J	-6981483.31	-6981483.12	-6981482.91	0.0089	0.0035
Venus	-23827-05-11 21:50 J	-6981257.78	-6981257.59	-6981257.38	0.0089	0.0035
Venus	-23827-12-23 10:33 J	-6981032.25	-6981032.06	-6981031.85	0.0089	0.0035
Venus	-23826-08-05 23:16 J	-6980806.72	-6980806.53	-6980806.32	0.0089	0.0035
Venus	-23825-03-18 12:14 J	-6980581.19	-6980580.99	-6980580.79	0.0089	0.0035
Venus	-23825-10-30 00:57 J	-6980355.66	-6980355.46	-6980355.26	0.0089	0.0035
Venus	-23824-06-12 13:26 J	-6980130.13	-6980129.94	-6980129.73	0.0089	0.0035
Venus	-23823-01-24 02:09 J	-6979904.60	-6979904.41	-6979904.20	0.0089	0.0035
Venus	-23823-09-06 14:52 J	-6979679.08	-6979678.88	-6979678.68	0.0089	0.0034
Venus	-23822-04-20 03:21 J	-6979453.55	-6979453.36	-6979453.15	0.0089	0.0035
Venus	-23822-12-01 15:50 J	-6979228.03	-6979227.84	-6979227.63	0.0089	0.0035
Venus	-23821-07-14 04:19 J	-6979002.50	-6979002.32	-6979002.10	0.0089	0.0035
Venus	-23820-02-24 17:02 J	-6978776.98	-6978776.79	-6978776.58	0.0089	0.0034
Venus	-23820-10-08 05:31 J	-6978551.46	-6978551.27	-6978551.06	0.0089	0.0034
Venus	-23819-05-21 18:14 J	-6978325.94	-6978325.74	-6978325.54	0.0089	0.0034
Venus	-23818-01-02 06:28 J	-6978100.42	-6978100.23	-6978100.02	0.0089	0.0034
Venus	-23818-08-15 18:57 J	-6977874.90	-6977874.71	-6977874.50	0.0089	0.0034
Mars	-23818-10-23 02:23 J	-6977806.49	-6977806.40	-6977806.24	0.0089	0.0083

Venus -23817-03-28 07:26 J -6977649.38 -6977649.19 -6977648.97 0.0089 0.0034
 Mercury -23817-06-09 05:45 J -6977576.30 -6977576.26 -6977576.22 0.0089 0.0084
 Mercury -23817-09-05 06:43 J -6977488.27 -6977488.22 -6977488.14 0.0089 0.0077
 Venus -23817-11-08 19:55 J -6977423.86 -6977423.67 -6977423.46 0.0089 0.0033
 Mercury -23817-12-02 08:09 J -6977400.23 -6977400.16 -6977400.07 0.0089 0.0070
 Mercury -23816-02-28 09:35 J -6977312.18 -6977312.10 -6977312.00 0.0089 0.0063
 Mercury -23816-05-27 11:02 J -6977224.14 -6977224.04 -6977223.93 0.0089 0.0056
 Venus -23816-06-22 08:38 J -6977198.34 -6977198.14 -6977197.94 0.0089 0.0033
 Mercury -23816-08-23 12:28 J -6977136.09 -6977135.98 -6977135.87 0.0089 0.0049
 Mars -23816-09-18 02:09 J -6977110.74 -6977110.41 -6977110.08 0.0089 0.0013
 Mercury -23816-11-19 13:40 J -6977048.04 -6977047.93 -6977047.81 0.0089 0.0043
 Venus -23815-02-02 20:52 J -6976972.82 -6976972.63 -6976972.42 0.0089 0.0032
 Mercury -23815-02-15 15:07 J -6976959.99 -6976959.87 -6976959.74 0.0089 0.0036
 Mercury -23815-05-14 16:33 J -6976871.93 -6976871.81 -6976871.68 0.0089 0.0029
 Mercury -23815-08-10 17:59 J -6976783.88 -6976783.75 -6976783.62 0.0089 0.0022
 Venus -23815-09-16 09:07 J -6976747.30 -6976747.12 -6976746.90 0.0089 0.0033
 Mercury -23815-11-06 19:11 J -6976695.83 -6976695.70 -6976695.56 0.0089 0.0015
 Mercury -23814-02-02 20:38 J -6976607.77 -6976607.64 -6976607.50 0.0089 0.0008
 Venus -23814-04-29 22:04 J -6976521.78 -6976521.58 -6976521.38 0.0089 0.0032
 Mercury -23814-05-01 22:04 J -6976519.71 -6976519.58 -6976519.44 0.0089 0.0001
 Mercury -23814-07-28 23:31 J -6976431.65 -6976431.52 -6976431.39 0.0089 0.0006
 Mars -23814-08-14 22:47 J -6976414.79 -6976414.55 -6976414.28 0.0089 0.0057
 Mercury -23814-10-25 00:57 J -6976343.60 -6976343.46 -6976343.33 0.0089 0.0013
 Venus -23814-12-11 10:19 J -6976296.27 -6976296.07 -6976295.86 0.0089 0.0031
 Mercury -23813-01-21 02:23 J -6976255.54 -6976255.40 -6976255.27 0.0089 0.0021
 Mercury -23813-04-18 03:35 J -6976167.47 -6976167.35 -6976167.22 0.0089 0.0028
 Mercury -23813-07-15 05:02 J -6976079.41 -6976079.29 -6976079.16 0.0089 0.0035
 Venus -23813-07-23 22:33 J -6976070.75 -6976070.56 -6976070.34 0.0089 0.0031
 Mercury -23813-10-11 06:28 J -6975991.35 -6975991.23 -6975991.11 0.0089 0.0042
 Mercury -23812-01-07 07:55 J -6975903.28 -6975903.17 -6975903.06 0.0089 0.0049

Venus	-23812-03-06 11:16 J	-6975845.23	-6975845.03	-6975844.82	0.0089	0.0031
Mercury	-23812-04-05 09:07 J	-6975815.22	-6975815.12	-6975815.01	0.0089	0.0056
Mercury	-23812-07-02 10:33 J	-6975727.15	-6975727.06	-6975726.96	0.0089	0.0063
Mercury	-23812-09-28 11:59 J	-6975639.07	-6975639.00	-6975638.91	0.0089	0.0070
Venus	-23812-10-17 23:31 J	-6975619.71	-6975619.52	-6975619.30	0.0089	0.0031
Mercury	-23812-12-25 13:26 J	-6975551.00	-6975550.94	-6975550.87	0.0089	0.0077
Mercury	-23811-03-23 14:52 J	-6975462.92	-6975462.88	-6975462.83	0.0089	0.0084
Venus	-23811-05-31 11:59 J	-6975394.19	-6975394.00	-6975393.79	0.0089	0.0030
Venus	-23810-01-12 00:28 J	-6975168.68	-6975168.48	-6975168.27	0.0089	0.0029
Venus	-23810-08-25 12:43 J	-6974943.16	-6974942.97	-6974942.75	0.0089	0.0029
Venus	-23809-04-07 01:26 J	-6974717.64	-6974717.44	-6974717.23	0.0089	0.0028
Venus	-23809-11-18 13:40 J	-6974492.12	-6974491.93	-6974491.72	0.0089	0.0028
Venus	-23808-07-02 02:09 J	-6974266.61	-6974266.41	-6974266.20	0.0089	0.0027
Venus	-23807-02-12 14:09 J	-6974041.10	-6974040.91	-6974040.69	0.0089	0.0028
Venus	-23807-09-26 02:52 J	-6973815.59	-6973815.38	-6973815.18	0.0089	0.0026
Venus	-23806-05-09 15:07 J	-6973590.07	-6973589.87	-6973589.66	0.0089	0.0026
Venus	-23806-12-21 03:35 J	-6973364.56	-6973364.35	-6973364.15	0.0089	0.0025
Venus	-23805-08-02 15:35 J	-6973139.05	-6973138.85	-6973138.63	0.0089	0.0025
Venus	-23804-03-16 04:04 J	-6972913.53	-6972913.33	-6972913.12	0.0089	0.0024
Venus	-23804-10-27 16:04 J	-6972688.02	-6972687.83	-6972687.61	0.0089	0.0024
Venus	-23803-06-10 04:33 J	-6972462.51	-6972462.31	-6972462.10	0.0089	0.0023
Venus	-23802-01-21 16:47 J	-6972237.00	-6972236.80	-6972236.58	0.0089	0.0023
Venus	-23802-09-04 05:02 J	-6972011.49	-6972011.29	-6972011.07	0.0089	0.0022
Venus	-23801-04-16 17:45 J	-6971785.97	-6971785.76	-6971785.55	0.0089	0.0021
Venus	-23801-11-28 05:45 J	-6971560.46	-6971560.26	-6971560.04	0.0089	0.0021
Venus	-23800-07-11 18:14 J	-6971334.95	-6971334.74	-6971334.53	0.0089	0.0020
Venus	-23799-02-22 06:28 J	-6971109.43	-6971109.23	-6971109.01	0.0089	0.0020
Venus	-23799-10-05 18:43 J	-6970883.92	-6970883.72	-6970883.50	0.0089	0.0019
Venus	-23798-05-19 07:26 J	-6970658.40	-6970658.19	-6970657.98	0.0089	0.0018
Venus	-23798-12-30 19:26 J	-6970432.89	-6970432.69	-6970432.47	0.0089	0.0018

Venus	-23797-08-12 07:55 J	-6970207.38	-6970207.17	-6970206.95	0.0089	0.0017
Venus	-23796-03-25 20:09 J	-6969981.87	-6969981.66	-6969981.44	0.0089	0.0016
Venus	-23796-11-06 08:38 J	-6969756.35	-6969756.14	-6969755.93	0.0089	0.0015
Venus	-23795-06-19 20:38 J	-6969530.84	-6969530.64	-6969530.42	0.0089	0.0015
Venus	-23794-01-31 09:07 J	-6969305.33	-6969305.12	-6969304.91	0.0089	0.0014
Venus	-23794-09-13 21:21 J	-6969079.82	-6969079.61	-6969079.39	0.0089	0.0013
Venus	-23793-04-26 09:35 J	-6968854.31	-6968854.10	-6968853.88	0.0089	0.0013
Venus	-23793-12-07 22:04 J	-6968628.79	-6968628.58	-6968628.37	0.0089	0.0012
Venus	-23792-07-21 10:19 J	-6968403.29	-6968403.07	-6968402.86	0.0089	0.0011
Venus	-23791-03-03 22:19 J	-6968177.78	-6968177.57	-6968177.35	0.0089	0.0011
Venus	-23791-10-15 10:33 J	-6967952.27	-6967952.06	-6967951.84	0.0089	0.0010
Venus	-23790-05-28 23:16 J	-6967726.75	-6967726.53	-6967726.32	0.0089	0.0009
Venus	-23789-01-09 11:31 J	-6967501.24	-6967501.02	-6967500.80	0.0089	0.0008
Venus	-23789-08-21 23:45 J	-6967275.72	-6967275.51	-6967275.29	0.0089	0.0007
Venus	-23788-04-04 11:59 J	-6967050.21	-6967050.00	-6967049.78	0.0089	0.0007
Venus	-23788-11-16 00:28 J	-6966824.70	-6966824.48	-6966824.27	0.0089	0.0006
Venus	-23787-06-29 12:43 J	-6966599.18	-6966598.97	-6966598.75	0.0089	0.0005
Venus	-23786-02-10 01:11 J	-6966373.67	-6966373.45	-6966373.23	0.0089	0.0004
Venus	-23786-09-23 13:26 J	-6966148.15	-6966147.94	-6966147.72	0.0089	0.0004
Venus	-23785-05-06 01:55 J	-6965922.63	-6965922.42	-6965922.20	0.0089	0.0003
Venus	-23785-12-17 14:23 J	-6965697.12	-6965696.90	-6965696.68	0.0089	0.0002
Venus	-23784-07-31 02:38 J	-6965471.60	-6965471.39	-6965471.17	0.0089	0.0002
Venus	-23783-03-13 15:07 J	-6965246.09	-6965245.87	-6965245.65	0.0089	0.0001
Venus	-23783-10-25 03:21 J	-6965020.57	-6965020.36	-6965020.14	0.0089	0.0002
Venus	-23782-06-07 16:04 J	-6964795.05	-6964794.83	-6964794.62	0.0089	0.0002
Venus	-23781-01-19 04:19 J	-6964569.53	-6964569.32	-6964569.10	0.0089	0.0002
Venus	-23781-08-31 16:33 J	-6964344.02	-6964343.81	-6964343.59	0.0089	0.0004
Venus	-23780-04-14 05:02 J	-6964118.51	-6964118.29	-6964118.07	0.0089	0.0004
Venus	-23780-11-25 17:16 J	-6963892.99	-6963892.78	-6963892.56	0.0089	0.0005
Venus	-23779-07-09 05:45 J	-6963667.47	-6963667.26	-6963667.04	0.0089	0.0006

Venus	-23778-02-19 18:14 J	-6963441.95	-6963441.74	-6963441.52	0.0088	0.0006
Venus	-23778-10-03 06:43 J	-6963216.44	-6963216.22	-6963216.00	0.0088	0.0007
Venus	-23777-05-15 19:11 J	-6962990.92	-6962990.70	-6962990.48	0.0088	0.0007
Venus	-23777-12-27 07:40 J	-6962765.40	-6962765.18	-6962764.96	0.0088	0.0008
Venus	-23776-08-09 20:09 J	-6962539.88	-6962539.66	-6962539.44	0.0088	0.0009
Venus	-23775-03-23 08:38 J	-6962314.36	-6962314.14	-6962313.92	0.0088	0.0010
Venus	-23775-11-03 21:07 J	-6962088.83	-6962088.62	-6962088.40	0.0088	0.0011
Venus	-23774-06-17 09:50 J	-6961863.30	-6961863.09	-6961862.87	0.0088	0.0011
Venus	-23773-01-28 22:33 J	-6961637.78	-6961637.56	-6961637.34	0.0088	0.0012
Venus	-23773-09-10 11:02 J	-6961412.25	-6961412.04	-6961411.82	0.0088	0.0013
Venus	-23772-04-23 23:31 J	-6961186.73	-6961186.52	-6961186.30	0.0088	0.0013
Venus	-23772-12-05 11:59 J	-6960961.20	-6960961.00	-6960960.77	0.0088	0.0015
Venus	-23771-07-19 00:57 J	-6960735.67	-6960735.46	-6960735.24	0.0088	0.0015
Venus	-23770-03-01 13:26 J	-6960510.15	-6960509.94	-6960509.72	0.0088	0.0016
Venus	-23770-10-13 01:55 J	-6960284.62	-6960284.42	-6960284.19	0.0088	0.0017
Venus	-23769-05-25 14:52 J	-6960059.10	-6960058.88	-6960058.66	0.0088	0.0017
Venus	-23768-01-06 03:21 J	-6959833.57	-6959833.36	-6959833.14	0.0088	0.0017
Venus	-23768-08-19 15:50 J	-6959608.04	-6959607.84	-6959607.61	0.0088	0.0019
Venus	-23767-04-02 04:47 J	-6959382.51	-6959382.30	-6959382.09	0.0088	0.0018
Venus	-23767-11-13 17:16 J	-6959156.99	-6959156.78	-6959156.56	0.0088	0.0019
Venus	-23766-06-27 06:14 J	-6958931.45	-6958931.24	-6958931.02	0.0088	0.0020
Venus	-23765-02-07 18:57 J	-6958705.92	-6958705.71	-6958705.49	0.0088	0.0020
Venus	-23765-09-20 07:26 J	-6958480.39	-6958480.19	-6958479.97	0.0088	0.0021
Venus	-23764-05-03 20:23 J	-6958254.86	-6958254.65	-6958254.44	0.0088	0.0021
Venus	-23764-12-15 08:52 J	-6958029.33	-6958029.13	-6958028.90	0.0088	0.0023
Venus	-23763-07-28 22:04 J	-6957803.79	-6957803.58	-6957803.36	0.0088	0.0023
Venus	-23762-03-11 10:47 J	-6957578.25	-6957578.05	-6957577.83	0.0088	0.0023
Venus	-23762-10-22 23:31 J	-6957352.72	-6957352.52	-6957352.29	0.0088	0.0024
Venus	-23761-06-04 12:28 J	-6957127.18	-6957126.98	-6957126.76	0.0088	0.0024
Venus	-23760-01-16 01:11 J	-6956901.64	-6956901.45	-6956901.22	0.0088	0.0026

Venus	-23760-08-29 14:23 J	-6956676.11	-6956675.90	-6956675.68	0.0088	0.0025
Venus	-23759-04-12 03:07 J	-6956450.57	-6956450.37	-6956450.14	0.0088	0.0026
Venus	-23759-11-23 16:04 J	-6956225.03	-6956224.83	-6956224.61	0.0088	0.0026
Venus	-23758-07-07 05:16 J	-6955999.48	-6955999.28	-6955999.06	0.0088	0.0027
Venus	-23757-02-17 18:14 J	-6955773.94	-6955773.74	-6955773.52	0.0088	0.0027
Venus	-23757-09-30 07:11 J	-6955548.41	-6955548.20	-6955547.98	0.0088	0.0027
Venus	-23756-05-13 19:55 J	-6955322.87	-6955322.67	-6955322.45	0.0088	0.0028
Venus	-23756-12-25 08:52 J	-6955097.33	-6955097.13	-6955096.91	0.0088	0.0028
Venus	-23755-08-07 22:19 J	-6954871.78	-6954871.57	-6954871.36	0.0088	0.0028
Venus	-23754-03-21 11:02 J	-6954646.24	-6954646.04	-6954645.82	0.0088	0.0029
Venus	-23754-11-02 00:14 J	-6954420.70	-6954420.49	-6954420.28	0.0088	0.0029
Venus	-23753-06-14 12:57 J	-6954195.16	-6954194.96	-6954194.74	0.0088	0.0030
Venus	-23752-01-26 02:09 J	-6953969.61	-6953969.41	-6953969.19	0.0088	0.0030
Venus	-23752-09-08 15:21 J	-6953744.06	-6953743.86	-6953743.65	0.0088	0.0030
Moon	-23752-10-21 15:07 J	-6953700.97	-6953700.87	-6953700.73	0.0088	0.0078
Earth	-23752-10-21 18:28 J	-6953700.81	-6953700.73	-6953700.61	0.0088	0.0081 *
Venus	-23751-04-22 04:33 J	-6953518.52	-6953518.31	-6953518.10	0.0088	0.0030
Earth	-23751-10-24 07:11 J	-6953333.42	-6953333.20	-6953332.95	0.0088	0.0038
Moon	-23751-10-24 10:33 J	-6953333.28	-6953333.06	-6953332.81	0.0088	0.0041 *
Venus	-23751-12-03 17:16 J	-6953292.97	-6953292.78	-6953292.56	0.0088	0.0031
Venus	-23750-07-17 06:43 J	-6953067.42	-6953067.22	-6953067.00	0.0088	0.0031
Moon	-23750-10-26 17:59 J	-6952966.00	-6952965.75	-6952965.49	0.0088	0.0009
Earth	-23750-10-26 20:23 J	-6952965.91	-6952965.65	-6952965.39	0.0088	0.0005 *
Venus	-23749-02-27 19:55 J	-6952841.87	-6952841.67	-6952841.45	0.0088	0.0031
Venus	-23749-10-10 09:07 J	-6952616.32	-6952616.12	-6952615.90	0.0088	0.0031
Earth	-23749-10-28 09:07 J	-6952598.34	-6952598.12	-6952597.90	0.0088	0.0048
Moon	-23749-10-28 09:35 J	-6952598.31	-6952598.10	-6952597.85	0.0088	0.0045 *
Venus	-23748-05-23 22:04 J	-6952390.77	-6952390.58	-6952390.36	0.0088	0.0032
Venus	-23747-01-04 11:16 J	-6952165.22	-6952165.03	-6952164.80	0.0088	0.0032
Venus	-23747-08-18 00:57 J	-6951939.66	-6951939.46	-6951939.25	0.0088	0.0032

Venus	-23746-03-31 14:09 J	-6951714.11	-6951713.91	-6951713.69	0.0088	0.0032
Venus	-23746-11-12 03:35 J	-6951488.55	-6951488.35	-6951488.14	0.0088	0.0032
Venus	-23745-06-24 16:47 J	-6951263.00	-6951262.80	-6951262.59	0.0088	0.0032
Venus	-23744-02-05 05:59 J	-6951037.45	-6951037.25	-6951037.03	0.0088	0.0033
Venus	-23744-09-18 19:26 J	-6950811.89	-6950811.69	-6950811.48	0.0088	0.0032
Venus	-23743-05-02 08:52 J	-6950586.34	-6950586.13	-6950585.92	0.0088	0.0032
Venus	-23743-12-13 21:50 J	-6950360.78	-6950360.59	-6950360.37	0.0088	0.0033
Venus	-23742-07-27 11:31 J	-6950135.23	-6950135.02	-6950134.81	0.0088	0.0032
Venus	-23741-03-09 00:57 J	-6949909.67	-6949909.46	-6949909.25	0.0088	0.0033
Venus	-23741-10-20 13:55 J	-6949684.11	-6949683.92	-6949683.70	0.0088	0.0033
Venus	-23740-06-03 03:35 J	-6949458.56	-6949458.35	-6949458.14	0.0088	0.0032
Venus	-23739-01-14 17:02 J	-6949233.00	-6949232.79	-6949232.59	0.0088	0.0032
Venus	-23739-08-28 06:28 J	-6949007.44	-6949007.23	-6949007.02	0.0088	0.0032
Venus	-23738-04-10 19:55 J	-6948781.87	-6948781.67	-6948781.46	0.0088	0.0032
Venus	-23738-11-22 09:21 J	-6948556.31	-6948556.11	-6948555.90	0.0088	0.0032
Venus	-23737-07-04 22:47 J	-6948330.75	-6948330.55	-6948330.34	0.0088	0.0032
Venus	-23736-02-15 12:14 J	-6948105.19	-6948104.99	-6948104.77	0.0088	0.0032
Venus	-23736-09-29 01:40 J	-6947879.62	-6947879.43	-6947879.20	0.0088	0.0032
Venus	-23735-05-12 15:21 J	-6947654.06	-6947653.86	-6947653.64	0.0088	0.0032
Venus	-23735-12-24 05:02 J	-6947428.49	-6947428.29	-6947428.07	0.0088	0.0031
Mars	-23734-06-17 23:16 J	-6947252.78	-6947252.53	-6947252.24	0.0088	0.0038
Venus	-23734-08-06 18:43 J	-6947202.93	-6947202.72	-6947202.51	0.0088	0.0031
Mercury	-23734-11-28 03:50 J	-6947089.37	-6947089.34	-6947089.28	0.0088	0.0085
Mercury	-23733-02-24 07:26 J	-6947001.28	-6947001.19	-6947001.08	0.0088	0.0075
Venus	-23733-03-19 08:09 J	-6946977.36	-6946977.16	-6946976.94	0.0088	0.0031
Mercury	-23733-05-22 10:33 J	-6946913.16	-6946913.06	-6946912.91	0.0088	0.0067
Mercury	-23733-08-18 14:09 J	-6946825.04	-6946824.91	-6946824.74	0.0088	0.0057
Venus	-23733-10-30 21:35 J	-6946751.79	-6946751.60	-6946751.37	0.0088	0.0031
Mercury	-23733-11-14 17:59 J	-6946736.91	-6946736.75	-6946736.58	0.0088	0.0046
Mercury	-23732-02-10 21:35 J	-6946648.78	-6946648.60	-6946648.43	0.0088	0.0037

Mercury -23732-05-10 00:43 J -6946560.64 -6946560.47 -6946560.28 0.0088 0.0027
 Mars -23732-05-11 21:35 J -6946558.88 -6946558.60 -6946558.30 0.0088 0.0021
 Venus -23732-06-13 11:31 J -6946526.23 -6946526.02 -6946525.81 0.0088 0.0030
 Mercury -23732-08-06 04:19 J -6946472.50 -6946472.32 -6946472.13 0.0088 0.0017
 Mercury -23732-11-02 07:40 J -6946384.36 -6946384.18 -6946383.98 0.0088 0.0008
 Venus -23731-01-25 00:57 J -6946300.66 -6946300.46 -6946300.24 0.0088 0.0030
 Mercury -23731-01-29 11:16 J -6946296.22 -6946296.03 -6946295.84 0.0088 0.0002
 Mercury -23731-04-27 14:38 J -6946208.08 -6946207.89 -6946207.70 0.0088 0.0012
 Mercury -23731-07-24 17:59 J -6946119.93 -6946119.75 -6946119.56 0.0088 0.0021
 Venus -23731-09-07 14:38 J -6946075.09 -6946074.89 -6946074.67 0.0088 0.0030
 Mercury -23731-10-20 21:07 J -6946031.78 -6946031.62 -6946031.43 0.0088 0.0031
 Mercury -23730-01-17 00:43 J -6945943.63 -6945943.47 -6945943.30 0.0088 0.0040
 Mars -23730-04-05 20:23 J -6945864.73 -6945864.65 -6945864.50 0.0088 0.0082
 Mercury -23730-04-15 03:50 J -6945855.48 -6945855.34 -6945855.17 0.0088 0.0050
 Venus -23730-04-21 04:33 J -6945849.52 -6945849.31 -6945849.10 0.0088 0.0030
 Mercury -23730-07-12 07:11 J -6945767.33 -6945767.20 -6945767.05 0.0088 0.0059
 Mercury -23730-10-08 10:47 J -6945679.16 -6945679.05 -6945678.93 0.0088 0.0068
 Venus -23730-12-02 17:59 J -6945623.96 -6945623.75 -6945623.53 0.0088 0.0029
 Mercury -23729-01-04 13:40 J -6945590.99 -6945590.93 -6945590.82 0.0088 0.0078
 Mercury -23729-04-01 17:16 J -6945502.79 -6945502.78 -6945502.74 0.0088 0.0087
 Venus -23729-07-15 07:26 J -6945398.39 -6945398.19 -6945397.97 0.0088 0.0029
 Venus -23728-02-25 20:52 J -6945172.83 -6945172.63 -6945172.40 0.0088 0.0029
 Venus -23728-10-09 10:47 J -6944947.25 -6944947.05 -6944946.83 0.0088 0.0028
 Venus -23727-05-23 00:14 J -6944721.69 -6944721.49 -6944721.26 0.0088 0.0029
 Venus -23726-01-03 14:09 J -6944496.12 -6944495.91 -6944495.69 0.0088 0.0028
 Venus -23726-08-17 03:35 J -6944270.55 -6944270.35 -6944270.12 0.0088 0.0028
 Venus -23725-03-29 17:16 J -6944044.98 -6944044.78 -6944044.55 0.0088 0.0027
 Venus -23725-11-10 07:11 J -6943819.41 -6943819.20 -6943818.98 0.0088 0.0026
 Venus -23724-06-23 20:38 J -6943593.84 -6943593.64 -6943593.41 0.0088 0.0027
 Venus -23723-02-04 10:33 J -6943368.27 -6943368.06 -6943367.83 0.0088 0.0025

Venus	-23723-09-18 00:14 J	-6943142.69	-6943142.49	-6943142.26	0.0088	0.0026
Venus	-23722-05-01 14:09 J	-6942917.11	-6942916.91	-6942916.68	0.0088	0.0025
Venus	-23722-12-13 03:50 J	-6942691.54	-6942691.34	-6942691.11	0.0088	0.0024
Venus	-23721-07-25 17:45 J	-6942465.97	-6942465.76	-6942465.54	0.0088	0.0023
Venus	-23720-03-08 07:40 J	-6942240.40	-6942240.18	-6942239.96	0.0088	0.0023
Venus	-23720-10-19 21:21 J	-6942014.82	-6942014.61	-6942014.38	0.0088	0.0022
Venus	-23719-06-02 11:16 J	-6941789.25	-6941789.03	-6941788.81	0.0088	0.0022
Venus	-23718-01-14 00:43 J	-6941563.68	-6941563.47	-6941563.24	0.0088	0.0022
Venus	-23718-08-27 14:38 J	-6941338.11	-6941337.89	-6941337.67	0.0088	0.0020
Venus	-23717-04-09 04:04 J	-6941112.53	-6941112.33	-6941112.10	0.0088	0.0021
Venus	-23717-11-20 17:59 J	-6940886.96	-6940886.75	-6940886.52	0.0088	0.0020
Venus	-23716-07-04 07:55 J	-6940661.39	-6940661.17	-6940660.95	0.0088	0.0019
Venus	-23715-02-14 21:21 J	-6940435.82	-6940435.61	-6940435.38	0.0088	0.0018
Venus	-23715-09-28 11:16 J	-6940210.25	-6940210.03	-6940209.81	0.0088	0.0017
Venus	-23714-05-12 01:11 J	-6939984.67	-6939984.45	-6939984.23	0.0088	0.0017
Venus	-23714-12-23 14:38 J	-6939759.10	-6939758.89	-6939758.66	0.0088	0.0017
Venus	-23713-08-05 04:19 J	-6939533.53	-6939533.32	-6939533.09	0.0088	0.0016
Venus	-23712-03-18 18:14 J	-6939307.96	-6939307.74	-6939307.52	0.0088	0.0015
Venus	-23712-10-30 07:55 J	-6939082.38	-6939082.17	-6939081.94	0.0088	0.0015
Venus	-23711-06-12 21:50 J	-6938856.81	-6938856.59	-6938856.36	0.0088	0.0014
Venus	-23710-01-24 11:45 J	-6938631.23	-6938631.01	-6938630.79	0.0088	0.0013
Venus	-23710-09-07 01:11 J	-6938405.66	-6938405.45	-6938405.22	0.0088	0.0013
Venus	-23709-04-19 15:07 J	-6938180.09	-6938179.87	-6938179.64	0.0088	0.0012
Venus	-23709-12-01 05:02 J	-6937954.51	-6937954.29	-6937954.06	0.0088	0.0011
Venus	-23708-07-14 18:57 J	-6937728.94	-6937728.71	-6937728.49	0.0089	0.0010
Venus	-23707-02-25 08:23 J	-6937503.36	-6937503.15	-6937502.92	0.0089	0.0010
Venus	-23707-10-08 22:19 J	-6937277.79	-6937277.57	-6937277.34	0.0089	0.0009
Venus	-23706-05-22 12:14 J	-6937052.22	-6937051.99	-6937051.77	0.0089	0.0008
Venus	-23705-01-03 01:55 J	-6936826.64	-6936826.42	-6936826.20	0.0089	0.0007
Venus	-23705-08-15 15:21 J	-6936601.08	-6936600.86	-6936600.63	0.0089	0.0007

Venus	-23704-03-29 05:16 J	-6936375.51	-6936375.28	-6936375.06	0.0089	0.0006
Venus	-23704-11-09 18:57 J	-6936149.93	-6936149.71	-6936149.48	0.0089	0.0005
Venus	-23703-06-23 08:38 J	-6935924.36	-6935924.14	-6935923.91	0.0089	0.0004
Venus	-23702-02-03 22:19 J	-6935698.79	-6935698.57	-6935698.35	0.0089	0.0003
Venus	-23702-09-17 11:59 J	-6935473.23	-6935473.00	-6935472.78	0.0089	0.0003
Venus	-23701-04-30 01:26 J	-6935247.66	-6935247.44	-6935247.21	0.0089	0.0003
Venus	-23701-12-11 15:21 J	-6935022.08	-6935021.86	-6935021.64	0.0089	0.0001
Venus	-23700-07-25 05:02 J	-6934796.52	-6934796.29	-6934796.07	0.0089	0.0001
Venus	-23699-03-07 18:43 J	-6934570.95	-6934570.72	-6934570.50	0.0089	0.0002
Venus	-23699-10-19 08:23 J	-6934345.38	-6934345.15	-6934344.93	0.0089	0.0002
Venus	-23698-06-01 21:50 J	-6934119.81	-6934119.59	-6934119.36	0.0089	0.0003
Venus	-23697-01-13 11:45 J	-6933894.23	-6933894.01	-6933893.79	0.0089	0.0003
Venus	-23697-08-26 01:11 J	-6933668.67	-6933668.45	-6933668.22	0.0089	0.0004
Venus	-23696-04-08 14:52 J	-6933443.10	-6933442.88	-6933442.65	0.0089	0.0004
Venus	-23696-11-20 04:47 J	-6933217.53	-6933217.30	-6933217.08	0.0089	0.0005
Venus	-23695-07-03 18:14 J	-6932991.96	-6932991.74	-6932991.51	0.0089	0.0006
Venus	-23694-02-14 07:55 J	-6932766.39	-6932766.17	-6932765.95	0.0089	0.0006
Venus	-23694-09-27 21:21 J	-6932540.83	-6932540.61	-6932540.38	0.0089	0.0007
Venus	-23693-05-10 10:47 J	-6932315.26	-6932315.05	-6932314.82	0.0089	0.0008
Venus	-23693-12-22 00:43 J	-6932089.69	-6932089.47	-6932089.25	0.0089	0.0008
Venus	-23692-08-04 14:09 J	-6931864.13	-6931863.91	-6931863.69	0.0089	0.0009
Venus	-23691-03-18 03:21 J	-6931638.57	-6931638.36	-6931638.13	0.0089	0.0010
Venus	-23691-10-29 17:02 J	-6931413.01	-6931412.79	-6931412.57	0.0089	0.0010
Venus	-23690-06-12 06:28 J	-6931187.45	-6931187.23	-6931187.01	0.0089	0.0011
Venus	-23689-01-23 19:55 J	-6930961.89	-6930961.67	-6930961.45	0.0089	0.0012
Venus	-23689-09-05 09:21 J	-6930736.33	-6930736.11	-6930735.89	0.0089	0.0012
Venus	-23688-04-18 22:33 J	-6930510.77	-6930510.56	-6930510.33	0.0089	0.0013
Venus	-23688-11-30 11:59 J	-6930285.21	-6930285.00	-6930284.77	0.0089	0.0014
Venus	-23687-07-14 01:40 J	-6930059.65	-6930059.43	-6930059.21	0.0089	0.0014
Venus	-23686-02-24 14:52 J	-6929834.09	-6929833.88	-6929833.65	0.0089	0.0015

Venus	-23686-10-08 04:04 J	-6929608.53	-6929608.33	-6929608.10	0.0089	0.0016
Venus	-23685-05-20 17:45 J	-6929382.98	-6929382.76	-6929382.54	0.0089	0.0016
Venus	-23684-01-01 06:57 J	-6929157.41	-6929157.21	-6929156.98	0.0089	0.0017
Venus	-23684-08-14 20:38 J	-6928931.86	-6928931.64	-6928931.42	0.0089	0.0017
Venus	-23683-03-28 09:50 J	-6928706.30	-6928706.09	-6928705.87	0.0089	0.0018
Venus	-23683-11-08 23:16 J	-6928480.75	-6928480.53	-6928480.32	0.0089	0.0018
Venus	-23682-06-22 12:14 J	-6928255.19	-6928254.99	-6928254.76	0.0089	0.0020
Venus	-23681-02-03 01:55 J	-6928029.64	-6928029.42	-6928029.21	0.0089	0.0020
Venus	-23681-09-15 14:52 J	-6927804.08	-6927803.88	-6927803.66	0.0089	0.0020
Venus	-23680-04-29 04:19 J	-6927578.54	-6927578.32	-6927578.11	0.0089	0.0021
Venus	-23680-12-10 17:16 J	-6927352.98	-6927352.78	-6927352.56	0.0089	0.0021
Venus	-23679-07-24 06:43 J	-6927127.44	-6927127.22	-6927127.01	0.0089	0.0022
Venus	-23678-03-06 19:40 J	-6926901.89	-6926901.68	-6926901.46	0.0089	0.0022
Venus	-23678-10-18 08:52 J	-6926676.34	-6926676.13	-6926675.92	0.0089	0.0023
Venus	-23677-05-30 21:50 J	-6926450.80	-6926450.59	-6926450.37	0.0089	0.0023
Venus	-23676-01-11 11:02 J	-6926225.25	-6926225.04	-6926224.82	0.0089	0.0023
Venus	-23676-08-24 23:59 J	-6925999.70	-6925999.50	-6925999.28	0.0089	0.0024
Venus	-23675-04-07 12:57 J	-6925774.16	-6925773.96	-6925773.74	0.0089	0.0025
Venus	-23675-11-19 01:55 J	-6925548.62	-6925548.42	-6925548.20	0.0089	0.0025
Venus	-23674-07-02 15:07 J	-6925323.07	-6925322.87	-6925322.65	0.0089	0.0025
Venus	-23673-02-13 04:19 J	-6925097.52	-6925097.32	-6925097.10	0.0089	0.0026
Venus	-23673-09-25 17:16 J	-6924871.98	-6924871.78	-6924871.56	0.0089	0.0026
Venus	-23672-05-09 06:14 J	-6924646.44	-6924646.24	-6924646.02	0.0089	0.0026
Venus	-23672-12-20 19:26 J	-6924420.90	-6924420.69	-6924420.48	0.0089	0.0026
Venus	-23671-08-03 08:09 J	-6924195.35	-6924195.16	-6924194.94	0.0089	0.0027
Venus	-23670-03-16 21:21 J	-6923969.81	-6923969.61	-6923969.39	0.0089	0.0027
Venus	-23670-10-28 10:19 J	-6923744.27	-6923744.07	-6923743.86	0.0089	0.0027
Earth	-23669-04-22 22:04 J	-6923566.68	-6923566.58	-6923566.44	0.0089	0.0079
Moon	-23669-04-23 01:11 J	-6923566.57	-6923566.45	-6923566.28	0.0089	0.0074 *
Venus	-23669-06-09 23:16 J	-6923518.73	-6923518.53	-6923518.32	0.0089	0.0028

Venus	-23668-01-21 11:59 J	-6923293.19	-6923293.00	-6923292.78	0.0089	0.0028
Moon	-23668-04-25 06:57 J	-6923199.42	-6923199.21	-6923198.97	0.0089	0.0040
Earth	-23668-04-25 08:38 J	-6923199.36	-6923199.14	-6923198.89	0.0089	0.0035 *
Venus	-23668-09-04 00:57 J	-6923067.66	-6923067.46	-6923067.24	0.0089	0.0028
Venus	-23667-04-17 13:55 J	-6922842.12	-6922841.92	-6922841.71	0.0089	0.0028
Earth	-23667-04-27 19:26 J	-6922831.94	-6922831.69	-6922831.44	0.0089	0.0008
Moon	-23667-04-27 20:38 J	-6922831.90	-6922831.64	-6922831.38	0.0089	0.0013 *
Venus	-23667-11-29 02:38 J	-6922616.59	-6922616.39	-6922616.18	0.0089	0.0029
Earth	-23666-04-30 05:16 J	-6922464.46	-6922464.28	-6922464.05	0.0089	0.0053
Moon	-23666-04-30 05:59 J	-6922464.45	-6922464.25	-6922464.03	0.0089	0.0047 *
Venus	-23666-07-12 15:35 J	-6922391.05	-6922390.85	-6922390.64	0.0089	0.0029
Venus	-23665-02-23 04:33 J	-6922165.52	-6922165.31	-6922165.10	0.0089	0.0029
Venus	-23665-10-05 17:02 J	-6921939.99	-6921939.79	-6921939.57	0.0089	0.0029
Venus	-23664-05-19 05:45 J	-6921714.46	-6921714.26	-6921714.05	0.0089	0.0029
Venus	-23664-12-30 18:28 J	-6921488.93	-6921488.73	-6921488.52	0.0089	0.0029
Venus	-23663-08-13 07:11 J	-6921263.39	-6921263.20	-6921262.98	0.0089	0.0030
Venus	-23662-03-26 20:09 J	-6921037.86	-6921037.66	-6921037.45	0.0089	0.0029
Venus	-23662-11-07 08:52 J	-6920812.33	-6920812.13	-6920811.92	0.0089	0.0029
Venus	-23661-06-19 21:21 J	-6920586.80	-6920586.61	-6920586.39	0.0089	0.0030
Venus	-23660-01-31 10:19 J	-6920361.27	-6920361.07	-6920360.86	0.0089	0.0029
Venus	-23660-09-13 22:47 J	-6920135.74	-6920135.55	-6920135.33	0.0089	0.0030
Venus	-23659-04-27 11:31 J	-6919910.21	-6919910.02	-6919909.81	0.0089	0.0030
Venus	-23659-12-09 00:14 J	-6919684.69	-6919684.49	-6919684.28	0.0089	0.0029
Jupiter	-23659-12-23 15:50 J	-6919669.95	-6919669.84	-6919669.60	0.0089	0.0085
Venus	-23658-07-22 12:57 J	-6919459.16	-6919458.96	-6919458.75	0.0089	0.0029
Venus	-23657-03-04 01:40 J	-6919233.63	-6919233.43	-6919233.22	0.0089	0.0029
Venus	-23657-10-15 14:09 J	-6919008.10	-6919007.91	-6919007.69	0.0089	0.0030
Venus	-23656-05-29 02:52 J	-6918782.58	-6918782.38	-6918782.17	0.0089	0.0029
Venus	-23655-01-09 15:21 J	-6918557.06	-6918556.86	-6918556.65	0.0089	0.0029
Venus	-23655-08-23 03:50 J	-6918331.53	-6918331.34	-6918331.12	0.0089	0.0029

Venus	-23654-04-05 16:47 J	-6918106.00	-6918105.80	-6918105.60	0.0089	0.0029
Venus	-23654-11-17 05:16 J	-6917880.48	-6917880.28	-6917880.08	0.0089	0.0029
Venus	-23653-06-29 17:31 J	-6917654.97	-6917654.77	-6917654.56	0.0089	0.0029
Mercury	-23653-12-08 03:35 J	-6917493.36	-6917493.35	-6917493.33	0.0089	0.0089
Venus	-23652-02-10 05:59 J	-6917429.45	-6917429.25	-6917429.04	0.0089	0.0028
Mercury	-23652-03-06 05:02 J	-6917405.34	-6917405.29	-6917405.24	0.0089	0.0082
Mars	-23652-05-01 14:23 J	-6917349.15	-6917348.90	-6917348.59	0.0089	0.0050
Mercury	-23652-06-02 06:14 J	-6917317.30	-6917317.24	-6917317.16	0.0089	0.0075
Mercury	-23652-08-29 07:26 J	-6917229.26	-6917229.19	-6917229.09	0.0089	0.0069
Venus	-23652-09-23 18:28 J	-6917203.93	-6917203.73	-6917203.52	0.0089	0.0028
Mercury	-23652-11-25 08:52 J	-6917141.21	-6917141.13	-6917141.02	0.0089	0.0062
Mercury	-23651-02-21 10:19 J	-6917053.17	-6917053.07	-6917052.96	0.0089	0.0054
Venus	-23651-05-07 06:57 J	-6916978.41	-6916978.21	-6916978.00	0.0089	0.0028
Mercury	-23651-05-20 11:45 J	-6916965.12	-6916965.01	-6916964.89	0.0089	0.0047
Mercury	-23651-08-16 13:11 J	-6916877.07	-6916876.95	-6916876.83	0.0089	0.0040
Mercury	-23651-11-12 14:38 J	-6916789.02	-6916788.89	-6916788.77	0.0089	0.0034
Venus	-23651-12-18 19:26 J	-6916752.89	-6916752.69	-6916752.48	0.0089	0.0028
Mercury	-23650-02-08 15:50 J	-6916700.96	-6916700.84	-6916700.71	0.0089	0.0027
Mars	-23650-03-28 13:11 J	-6916653.25	-6916652.95	-6916652.61	0.0089	0.0021
Mercury	-23650-05-07 17:16 J	-6916612.91	-6916612.78	-6916612.65	0.0089	0.0020
Venus	-23650-08-01 07:55 J	-6916527.37	-6916527.17	-6916526.96	0.0089	0.0027
Mercury	-23650-08-03 18:43 J	-6916524.85	-6916524.72	-6916524.59	0.0089	0.0013
Mercury	-23650-10-30 20:09 J	-6916436.80	-6916436.66	-6916436.53	0.0089	0.0006
Mercury	-23649-01-26 21:21 J	-6916348.74	-6916348.61	-6916348.47	0.0089	0.0003
Venus	-23649-03-13 20:23 J	-6916301.85	-6916301.65	-6916301.44	0.0089	0.0027
Mercury	-23649-04-23 22:47 J	-6916260.68	-6916260.55	-6916260.42	0.0089	0.0008
Mercury	-23649-07-21 00:14 J	-6916172.62	-6916172.49	-6916172.36	0.0089	0.0015
Mercury	-23649-10-17 01:40 J	-6916084.56	-6916084.43	-6916084.30	0.0089	0.0022
Venus	-23649-10-25 08:38 J	-6916076.33	-6916076.14	-6916075.92	0.0089	0.0027
Mercury	-23648-01-13 02:52 J	-6915996.50	-6915996.38	-6915996.25	0.0089	0.0029

Mercury	-23648-04-11 04:19 J	-6915908.44	-6915908.32	-6915908.19	0.0089	0.0036
Venus	-23648-06-07 21:21 J	-6915850.82	-6915850.61	-6915850.41	0.0089	0.0027
Mercury	-23648-07-08 05:45 J	-6915820.38	-6915820.26	-6915820.14	0.0089	0.0043
Mercury	-23648-10-04 07:11 J	-6915732.31	-6915732.20	-6915732.09	0.0089	0.0050
Mercury	-23648-12-31 08:38 J	-6915644.24	-6915644.14	-6915644.04	0.0089	0.0058
Venus	-23647-01-19 09:35 J	-6915625.30	-6915625.10	-6915624.89	0.0089	0.0026
Mercury	-23647-03-29 10:04 J	-6915556.17	-6915556.08	-6915555.99	0.0089	0.0065
Mercury	-23647-06-25 11:02 J	-6915468.10	-6915468.04	-6915467.94	0.0089	0.0073
Venus	-23647-09-01 21:50 J	-6915399.78	-6915399.59	-6915399.37	0.0089	0.0026
Mercury	-23647-09-21 12:28 J	-6915380.02	-6915379.98	-6915379.90	0.0089	0.0079
Mercury	-23647-12-18 13:55 J	-6915291.94	-6915291.92	-6915291.87	0.0089	0.0086
Venus	-23646-04-15 10:19 J	-6915174.26	-6915174.07	-6915173.85	0.0089	0.0026
Venus	-23646-11-26 23:02 J	-6914948.74	-6914948.54	-6914948.33	0.0089	0.0025
Venus	-23645-07-09 11:16 J	-6914723.23	-6914723.03	-6914722.82	0.0089	0.0025
Venus	-23644-02-19 23:45 J	-6914497.71	-6914497.51	-6914497.30	0.0089	0.0025
Venus	-23644-10-03 11:59 J	-6914272.20	-6914272.00	-6914271.78	0.0089	0.0024
Venus	-23643-05-17 00:28 J	-6914046.68	-6914046.48	-6914046.27	0.0089	0.0024
Venus	-23643-12-28 12:57 J	-6913821.17	-6913820.96	-6913820.75	0.0089	0.0023
Venus	-23642-08-11 00:57 J	-6913595.65	-6913595.46	-6913595.24	0.0089	0.0024
Venus	-23641-03-23 13:40 J	-6913370.14	-6913369.93	-6913369.72	0.0089	0.0023
Venus	-23641-11-04 01:40 J	-6913144.63	-6913144.43	-6913144.21	0.0089	0.0023
Venus	-23640-06-17 13:55 J	-6912919.12	-6912918.92	-6912918.70	0.0089	0.0022
Venus	-23639-01-29 02:23 J	-6912693.61	-6912693.40	-6912693.19	0.0089	0.0021
Venus	-23639-09-11 14:23 J	-6912468.10	-6912467.90	-6912467.68	0.0089	0.0021
Venus	-23638-04-25 03:07 J	-6912242.58	-6912242.37	-6912242.16	0.0089	0.0020
Venus	-23638-12-06 15:07 J	-6912017.07	-6912016.87	-6912016.65	0.0089	0.0020
Venus	-23637-07-19 03:35 J	-6911791.56	-6911791.35	-6911791.14	0.0089	0.0019
Venus	-23636-03-01 15:35 J	-6911566.05	-6911565.85	-6911565.63	0.0089	0.0019
Venus	-23636-10-13 04:04 J	-6911340.54	-6911340.33	-6911340.12	0.0089	0.0018
Venus	-23635-05-26 16:19 J	-6911115.02	-6911114.82	-6911114.60	0.0089	0.0018

Venus	-23634-01-07 04:47 J	-6910889.51	-6910889.30	-6910889.09	0.0089	0.0017
Venus	-23634-08-20 16:47 J	-6910664.00	-6910663.80	-6910663.58	0.0089	0.0017
Venus	-23633-04-02 05:16 J	-6910438.48	-6910438.28	-6910438.06	0.0089	0.0016
Venus	-23633-11-13 17:45 J	-6910212.97	-6910212.76	-6910212.55	0.0089	0.0015
Venus	-23632-06-27 05:59 J	-6909987.46	-6909987.25	-6909987.03	0.0089	0.0015
Venus	-23631-02-07 18:28 J	-6909761.95	-6909761.73	-6909761.52	0.0089	0.0014
Venus	-23631-09-21 06:28 J	-6909536.43	-6909536.23	-6909536.01	0.0089	0.0014
Venus	-23630-05-04 19:11 J	-6909310.92	-6909310.70	-6909310.49	0.0089	0.0013
Venus	-23630-12-16 07:11 J	-6909085.40	-6909085.20	-6909084.98	0.0089	0.0013
Venus	-23629-07-28 19:40 J	-6908859.90	-6908859.68	-6908859.47	0.0089	0.0012
Venus	-23628-03-11 07:55 J	-6908634.39	-6908634.17	-6908633.96	0.0089	0.0011
Venus	-23628-10-22 19:55 J	-6908408.88	-6908408.67	-6908408.45	0.0089	0.0011
Venus	-23627-06-05 08:38 J	-6908183.36	-6908183.14	-6908182.93	0.0089	0.0010
Venus	-23626-01-16 20:38 J	-6907957.85	-6907957.64	-6907957.42	0.0089	0.0010
Venus	-23626-08-30 08:52 J	-6907732.34	-6907732.13	-6907731.91	0.0089	0.0009
Venus	-23625-04-11 21:21 J	-6907506.83	-6907506.61	-6907506.40	0.0089	0.0008
Venus	-23625-11-23 09:35 J	-6907281.31	-6907281.10	-6907280.88	0.0089	0.0008
Venus	-23624-07-06 21:50 J	-6907055.80	-6907055.59	-6907055.37	0.0089	0.0007
Venus	-23623-02-17 10:04 J	-6906830.29	-6906830.08	-6906829.86	0.0089	0.0007
Venus	-23623-09-30 22:33 J	-6906604.78	-6906604.56	-6906604.35	0.0089	0.0006
Venus	-23622-05-14 11:02 J	-6906379.26	-6906379.04	-6906378.82	0.0089	0.0005
Venus	-23622-12-25 23:16 J	-6906153.74	-6906153.53	-6906153.31	0.0089	0.0005
Venus	-23621-08-07 11:45 J	-6905928.23	-6905928.01	-6905927.80	0.0089	0.0004
Venus	-23620-03-20 23:59 J	-6905702.71	-6905702.50	-6905702.28	0.0089	0.0003
Venus	-23620-11-01 12:28 J	-6905477.20	-6905476.98	-6905476.76	0.0089	0.0002
Venus	-23619-06-15 00:57 J	-6905251.68	-6905251.46	-6905251.24	0.0089	0.0002
Venus	-23618-01-26 13:26 J	-6905026.16	-6905025.94	-6905025.72	0.0089	0.0001
Venus	-23618-09-09 01:40 J	-6904800.64	-6904800.43	-6904800.21	0.0089	0.0001
Venus	-23617-04-21 14:09 J	-6904575.13	-6904574.91	-6904574.69	0.0089	0.0001
Venus	-23617-12-03 02:23 J	-6904349.61	-6904349.40	-6904349.18	0.0089	0.0002

Venus	-23616-07-16 14:52 J	-6904124.10	-6904123.88	-6904123.66	0.0089	0.0002
Venus	-23615-02-27 03:21 J	-6903898.58	-6903898.36	-6903898.15	0.0089	0.0002
Venus	-23615-10-10 15:35 J	-6903673.06	-6903672.85	-6903672.63	0.0088	0.0003
Venus	-23614-05-24 04:19 J	-6903447.54	-6903447.32	-6903447.11	0.0088	0.0004
Venus	-23613-01-04 16:33 J	-6903222.03	-6903221.81	-6903221.59	0.0088	0.0004
Venus	-23613-08-17 05:02 J	-6902996.51	-6902996.29	-6902996.08	0.0088	0.0005
Venus	-23612-03-30 17:16 J	-6902770.99	-6902770.78	-6902770.56	0.0088	0.0005
Venus	-23612-11-11 05:45 J	-6902545.48	-6902545.26	-6902545.04	0.0088	0.0006
Venus	-23611-06-24 18:28 J	-6902319.95	-6902319.73	-6902319.52	0.0088	0.0007
Venus	-23610-02-05 06:57 J	-6902094.43	-6902094.21	-6902093.99	0.0088	0.0007
Venus	-23610-09-18 19:11 J	-6901868.91	-6901868.70	-6901868.48	0.0088	0.0008
Venus	-23609-05-01 07:55 J	-6901643.39	-6901643.17	-6901642.95	0.0088	0.0009
Venus	-23609-12-12 20:23 J	-6901417.87	-6901417.65	-6901417.43	0.0088	0.0009
Venus	-23608-07-26 09:07 J	-6901192.34	-6901192.12	-6901191.91	0.0088	0.0010
Venus	-23607-03-08 21:35 J	-6900966.82	-6900966.60	-6900966.38	0.0088	0.0010
Venus	-23607-10-20 10:04 J	-6900741.29	-6900741.08	-6900740.86	0.0088	0.0011
Venus	-23606-06-02 22:47 J	-6900515.76	-6900515.55	-6900515.33	0.0088	0.0012
Venus	-23605-01-14 11:31 J	-6900290.24	-6900290.02	-6900289.80	0.0088	0.0012
Venus	-23605-08-26 23:59 J	-6900064.71	-6900064.50	-6900064.28	0.0088	0.0013
Venus	-23604-04-09 12:28 J	-6899839.19	-6899838.98	-6899838.75	0.0088	0.0014
Venus	-23604-11-21 01:11 J	-6899613.66	-6899613.45	-6899613.23	0.0088	0.0014
Venus	-23603-07-04 13:55 J	-6899388.13	-6899387.92	-6899387.69	0.0088	0.0015
Venus	-23602-02-15 02:38 J	-6899162.60	-6899162.39	-6899162.17	0.0088	0.0015
Venus	-23602-09-28 15:21 J	-6898937.07	-6898936.86	-6898936.64	0.0088	0.0015
Venus	-23601-05-11 03:50 J	-6898711.55	-6898711.34	-6898711.12	0.0088	0.0016
Venus	-23601-12-22 16:33 J	-6898486.02	-6898485.81	-6898485.59	0.0088	0.0017
Venus	-23600-08-05 05:16 J	-6898260.49	-6898260.28	-6898260.06	0.0088	0.0017
Venus	-23599-03-18 18:14 J	-6898034.96	-6898034.74	-6898034.53	0.0088	0.0018
Venus	-23599-10-30 06:43 J	-6897809.43	-6897809.22	-6897809.00	0.0088	0.0018
Venus	-23598-06-12 19:40 J	-6897583.89	-6897583.68	-6897583.46	0.0088	0.0018

Venus	-23597-01-24 08:23 J	-6897358.36	-6897358.15	-6897357.93	0.0088	0.0019
Venus	-23597-09-05 21:21 J	-6897132.83	-6897132.61	-6897132.40	0.0088	0.0019
Venus	-23596-04-19 09:50 J	-6896907.29	-6896907.09	-6896906.86	0.0088	0.0020
Venus	-23596-11-30 22:47 J	-6896681.76	-6896681.55	-6896681.33	0.0088	0.0021
Venus	-23595-07-14 11:45 J	-6896456.21	-6896456.01	-6896455.78	0.0088	0.0021
Venus	-23594-02-25 00:57 J	-6896230.67	-6896230.46	-6896230.24	0.0088	0.0021
Venus	-23594-10-08 13:55 J	-6896005.13	-6896004.92	-6896004.71	0.0088	0.0021
Venus	-23593-05-21 02:38 J	-6895779.60	-6895779.39	-6895779.17	0.0088	0.0022
Venus	-23592-01-01 15:35 J	-6895554.06	-6895553.85	-6895553.63	0.0088	0.0022
Venus	-23592-08-15 04:33 J	-6895328.51	-6895328.31	-6895328.08	0.0088	0.0023
Venus	-23591-03-28 17:31 J	-6895102.97	-6895102.77	-6895102.54	0.0088	0.0023
Venus	-23591-11-09 06:43 J	-6894877.43	-6894877.22	-6894877.00	0.0088	0.0023
Venus	-23590-06-22 19:26 J	-6894651.89	-6894651.69	-6894651.46	0.0088	0.0024
Venus	-23589-02-03 08:38 J	-6894426.35	-6894426.14	-6894425.92	0.0088	0.0024
Venus	-23589-09-15 21:35 J	-6894200.80	-6894200.60	-6894200.38	0.0088	0.0024
Venus	-23588-04-29 10:47 J	-6893975.26	-6893975.05	-6893974.84	0.0088	0.0024
Venus	-23588-12-10 23:31 J	-6893749.72	-6893749.52	-6893749.29	0.0088	0.0025
Venus	-23587-07-24 12:43 J	-6893524.17	-6893523.97	-6893523.74	0.0088	0.0026
Moon	-23587-10-23 09:35 J	-6893433.25	-6893433.10	-6893432.89	0.0088	0.0061
Earth	-23587-10-23 11:16 J	-6893433.18	-6893433.03	-6893432.82	0.0088	0.0064 *
Venus	-23586-03-07 01:55 J	-6893298.62	-6893298.42	-6893298.20	0.0088	0.0025
Venus	-23586-10-18 15:07 J	-6893073.08	-6893072.87	-6893072.65	0.0088	0.0026
Earth	-23586-10-26 00:28 J	-6893065.73	-6893065.48	-6893065.22	0.0088	0.0020
Moon	-23586-10-26 01:11 J	-6893065.71	-6893065.45	-6893065.18	0.0088	0.0023 *
Venus	-23585-05-31 04:04 J	-6892847.53	-6892847.33	-6892847.11	0.0088	0.0026
Earth	-23585-10-27 13:26 J	-6892698.19	-6892697.94	-6892697.69	0.0088	0.0023
Moon	-23585-10-27 14:09 J	-6892698.14	-6892697.91	-6892697.65	0.0088	0.0026 *
Venus	-23584-01-11 17:16 J	-6892621.99	-6892621.78	-6892621.56	0.0088	0.0026
Venus	-23584-08-25 06:43 J	-6892396.43	-6892396.22	-6892396.00	0.0088	0.0026
Moon	-23584-10-29 23:45 J	-6892330.67	-6892330.51	-6892330.30	0.0088	0.0064

Earth	-23584-10-30 01:26 J	-6892330.58	-6892330.44	-6892330.24	0.0088	0.0067 *
Venus	-23583-04-07 19:55 J	-6892170.88	-6892170.67	-6892170.45	0.0088	0.0026
Venus	-23583-11-19 08:52 J	-6891945.33	-6891945.13	-6891944.90	0.0088	0.0027
Venus	-23582-07-02 22:04 J	-6891719.78	-6891719.58	-6891719.35	0.0088	0.0027
Venus	-23581-02-13 11:31 J	-6891494.22	-6891494.02	-6891493.80	0.0088	0.0027
Venus	-23581-09-26 00:57 J	-6891268.67	-6891268.46	-6891268.24	0.0088	0.0027
Venus	-23580-05-09 14:09 J	-6891043.11	-6891042.91	-6891042.69	0.0088	0.0027
Venus	-23580-12-21 03:35 J	-6890817.56	-6890817.35	-6890817.13	0.0088	0.0027
Venus	-23579-08-03 17:02 J	-6890592.00	-6890591.79	-6890591.57	0.0088	0.0027
Venus	-23578-03-17 06:14 J	-6890366.44	-6890366.24	-6890366.02	0.0088	0.0027
Venus	-23578-10-28 19:40 J	-6890140.89	-6890140.68	-6890140.46	0.0088	0.0027
Venus	-23577-06-10 08:52 J	-6889915.34	-6889915.13	-6889914.91	0.0088	0.0027
Venus	-23576-01-21 22:19 J	-6889689.78	-6889689.57	-6889689.36	0.0088	0.0027
Venus	-23576-09-04 11:45 J	-6889464.22	-6889464.01	-6889463.79	0.0088	0.0027
Venus	-23575-04-18 01:11 J	-6889238.66	-6889238.45	-6889238.24	0.0088	0.0027
Venus	-23575-11-29 14:23 J	-6889013.11	-6889012.90	-6889012.68	0.0088	0.0027
Venus	-23574-07-13 03:50 J	-6888787.55	-6888787.34	-6888787.12	0.0088	0.0027
Venus	-23573-02-23 17:16 J	-6888561.99	-6888561.78	-6888561.56	0.0088	0.0027
Venus	-23573-10-06 06:43 J	-6888336.43	-6888336.22	-6888336.00	0.0088	0.0027
Venus	-23572-05-19 20:09 J	-6888110.87	-6888110.66	-6888110.44	0.0088	0.0027
Venus	-23572-12-31 09:35 J	-6887885.31	-6887885.10	-6887884.88	0.0088	0.0027
Venus	-23571-08-13 23:02 J	-6887659.74	-6887659.54	-6887659.31	0.0088	0.0027
Mars	-23570-01-31 01:40 J	-6887489.59	-6887489.43	-6887489.23	0.0088	0.0069
Venus	-23570-03-27 12:28 J	-6887434.18	-6887433.98	-6887433.75	0.0088	0.0027
Venus	-23570-11-08 02:23 J	-6887208.61	-6887208.40	-6887208.19	0.0088	0.0027
Venus	-23569-06-20 15:50 J	-6886983.05	-6886982.84	-6886982.62	0.0088	0.0026
Mercury	-23569-08-24 00:57 J	-6886918.50	-6886918.46	-6886918.39	0.0088	0.0084
Mercury	-23569-11-20 04:33 J	-6886830.40	-6886830.31	-6886830.20	0.0088	0.0074
Mars	-23569-12-25 00:14 J	-6886795.78	-6886795.49	-6886795.19	0.0088	0.0010
Venus	-23568-02-01 05:16 J	-6886757.49	-6886757.28	-6886757.06	0.0088	0.0026

Mercury	-23568-02-16 08:09 J	-6886742.28	-6886742.16	-6886742.02	0.0088	0.0064
Mercury	-23568-05-15 11:31 J	-6886654.16	-6886654.02	-6886653.86	0.0088	0.0055
Mercury	-23568-08-11 15:07 J	-6886566.03	-6886565.87	-6886565.70	0.0088	0.0045
Venus	-23568-09-14 18:57 J	-6886531.91	-6886531.71	-6886531.48	0.0088	0.0026
Mercury	-23568-11-07 18:43 J	-6886477.89	-6886477.72	-6886477.54	0.0088	0.0035
Mercury	-23567-02-03 21:50 J	-6886389.76	-6886389.59	-6886389.39	0.0088	0.0027
Venus	-23567-04-28 08:38 J	-6886306.35	-6886306.14	-6886305.92	0.0088	0.0026
Mercury	-23567-05-03 01:26 J	-6886301.62	-6886301.44	-6886301.24	0.0088	0.0016
Mercury	-23567-07-30 05:02 J	-6886213.48	-6886213.29	-6886213.10	0.0088	0.0006
Mercury	-23567-10-26 08:23 J	-6886125.34	-6886125.15	-6886124.95	0.0088	0.0004
Mars	-23567-11-18 22:47 J	-6886101.79	-6886101.55	-6886101.29	0.0088	0.0049
Venus	-23567-12-09 22:04 J	-6886080.78	-6886080.58	-6886080.35	0.0088	0.0026
Mercury	-23566-01-22 11:45 J	-6886037.19	-6886037.01	-6886036.81	0.0088	0.0013
Mercury	-23566-04-20 15:21 J	-6885949.04	-6885948.86	-6885948.68	0.0088	0.0023
Mercury	-23566-07-17 18:28 J	-6885860.90	-6885860.73	-6885860.54	0.0088	0.0032
Venus	-23566-07-23 11:59 J	-6885855.22	-6885855.00	-6885854.79	0.0088	0.0025
Mercury	-23566-10-13 21:50 J	-6885772.74	-6885772.59	-6885772.41	0.0088	0.0042
Mercury	-23565-01-10 01:11 J	-6885684.59	-6885684.45	-6885684.28	0.0088	0.0051
Venus	-23565-03-05 01:26 J	-6885629.65	-6885629.44	-6885629.22	0.0088	0.0025
Mercury	-23565-04-07 04:47 J	-6885596.43	-6885596.30	-6885596.16	0.0088	0.0061
Mercury	-23565-07-04 07:55 J	-6885508.27	-6885508.17	-6885508.04	0.0088	0.0070
Mercury	-23565-09-30 11:16 J	-6885420.10	-6885420.03	-6885419.94	0.0088	0.0080
Venus	-23565-10-16 15:07 J	-6885404.08	-6885403.87	-6885403.65	0.0088	0.0025
Venus	-23564-05-30 04:33 J	-6885178.51	-6885178.31	-6885178.08	0.0088	0.0025
Venus	-23563-01-10 18:14 J	-6884952.95	-6884952.74	-6884952.52	0.0088	0.0025
Venus	-23563-08-24 07:55 J	-6884727.38	-6884727.17	-6884726.95	0.0088	0.0024
Venus	-23562-04-06 21:21 J	-6884501.81	-6884501.61	-6884501.38	0.0088	0.0024
Venus	-23562-11-18 11:16 J	-6884276.24	-6884276.03	-6884275.81	0.0088	0.0023
Venus	-23561-07-01 00:43 J	-6884050.68	-6884050.47	-6884050.24	0.0088	0.0023
Venus	-23560-02-11 14:23 J	-6883825.11	-6883824.90	-6883824.68	0.0088	0.0023

Venus	-23560-09-25 04:19 J	-6883599.53	-6883599.32	-6883599.10	0.0088	0.0022
Venus	-23559-05-08 17:59 J	-6883373.96	-6883373.75	-6883373.53	0.0088	0.0022
Venus	-23559-12-20 07:26 J	-6883148.39	-6883148.19	-6883147.96	0.0088	0.0023
Venus	-23558-08-02 21:21 J	-6882922.82	-6882922.61	-6882922.39	0.0088	0.0021
Venus	-23557-03-15 11:02 J	-6882697.25	-6882697.04	-6882696.81	0.0088	0.0021
Venus	-23557-10-27 00:57 J	-6882471.67	-6882471.46	-6882471.23	0.0088	0.0021
Venus	-23556-06-09 14:38 J	-6882246.10	-6882245.89	-6882245.66	0.0088	0.0020
Venus	-23555-01-21 04:33 J	-6882020.53	-6882020.31	-6882020.09	0.0088	0.0020
Venus	-23555-09-03 18:14 J	-6881794.95	-6881794.74	-6881794.51	0.0088	0.0019
Venus	-23554-04-17 08:09 J	-6881569.38	-6881569.16	-6881568.94	0.0088	0.0019
Venus	-23554-11-28 21:50 J	-6881343.80	-6881343.59	-6881343.36	0.0088	0.0018
Venus	-23553-07-11 11:45 J	-6881118.23	-6881118.01	-6881117.79	0.0088	0.0018
Venus	-23552-02-22 01:26 J	-6880892.66	-6880892.44	-6880892.22	0.0088	0.0017
Venus	-23552-10-05 15:21 J	-6880667.08	-6880666.86	-6880666.64	0.0088	0.0017
Venus	-23551-05-19 05:02 J	-6880441.51	-6880441.29	-6880441.07	0.0088	0.0016
Venus	-23551-12-30 18:28 J	-6880215.94	-6880215.73	-6880215.49	0.0088	0.0017
Venus	-23550-08-13 08:23 J	-6879990.37	-6879990.15	-6879989.92	0.0088	0.0015
Venus	-23549-03-25 22:04 J	-6879764.80	-6879764.58	-6879764.35	0.0088	0.0015
Venus	-23549-11-06 11:59 J	-6879539.22	-6879539.00	-6879538.77	0.0088	0.0014
Venus	-23548-06-20 01:55 J	-6879313.65	-6879313.42	-6879313.20	0.0088	0.0014
Venus	-23547-01-31 15:21 J	-6879088.07	-6879087.86	-6879087.63	0.0088	0.0014
Venus	-23547-09-14 05:16 J	-6878862.50	-6878862.28	-6878862.06	0.0088	0.0013
Venus	-23546-04-27 18:57 J	-6878636.93	-6878636.71	-6878636.48	0.0088	0.0012
Venus	-23546-12-09 08:52 J	-6878411.35	-6878411.13	-6878410.91	0.0088	0.0011
Venus	-23545-07-21 22:33 J	-6878185.78	-6878185.56	-6878185.33	0.0088	0.0011
Venus	-23544-03-04 12:14 J	-6877960.21	-6877959.99	-6877959.76	0.0088	0.0011
Venus	-23544-10-16 02:09 J	-6877734.63	-6877734.41	-6877734.18	0.0088	0.0010
Venus	-23543-05-29 15:50 J	-6877509.05	-6877508.84	-6877508.61	0.0089	0.0010
Venus	-23542-01-10 05:45 J	-6877283.48	-6877283.26	-6877283.03	0.0089	0.0009
Venus	-23542-08-23 19:26 J	-6877057.91	-6877057.69	-6877057.46	0.0089	0.0008

Venus	-23541-04-05 09:21 J	-6876832.33	-6876832.11	-6876831.89	0.0089	0.0007
Venus	-23541-11-16 23:16 J	-6876606.76	-6876606.53	-6876606.31	0.0089	0.0007
Venus	-23540-06-30 12:57 J	-6876381.18	-6876380.96	-6876380.74	0.0089	0.0006
Venus	-23539-02-11 02:38 J	-6876155.62	-6876155.39	-6876155.17	0.0089	0.0006
Venus	-23539-09-24 16:19 J	-6875930.05	-6875929.82	-6875929.60	0.0089	0.0005
Venus	-23538-05-08 05:45 J	-6875704.48	-6875704.26	-6875704.03	0.0089	0.0005
Venus	-23538-12-19 19:40 J	-6875478.90	-6875478.68	-6875478.46	0.0089	0.0004
Venus	-23537-08-01 09:07 J	-6875253.34	-6875253.12	-6875252.89	0.0089	0.0004
Venus	-23536-03-14 22:47 J	-6875027.77	-6875027.55	-6875027.32	0.0089	0.0003
Venus	-23536-10-26 12:28 J	-6874802.20	-6874801.98	-6874801.75	0.0089	0.0002
Venus	-23535-06-09 02:09 J	-6874576.63	-6874576.41	-6874576.18	0.0089	0.0002
Venus	-23534-01-20 15:50 J	-6874351.06	-6874350.84	-6874350.61	0.0089	0.0001
Venus	-23534-09-03 05:31 J	-6874125.50	-6874125.27	-6874125.05	0.0089	0.0001
Venus	-23533-04-15 18:57 J	-6873899.93	-6873899.71	-6873899.48	0.0089	0.0002
Venus	-23533-11-27 08:52 J	-6873674.35	-6873674.13	-6873673.91	0.0089	0.0001
Venus	-23532-07-10 22:33 J	-6873448.79	-6873448.56	-6873448.34	0.0089	0.0002
Venus	-23531-02-21 11:59 J	-6873223.22	-6873223.00	-6873222.77	0.0089	0.0003
Venus	-23531-10-05 01:40 J	-6872997.65	-6872997.43	-6872997.21	0.0089	0.0003
Venus	-23530-05-18 15:21 J	-6872772.08	-6872771.86	-6872771.64	0.0089	0.0004
Venus	-23530-12-30 05:02 J	-6872546.51	-6872546.29	-6872546.07	0.0089	0.0004
Venus	-23529-08-11 18:28 J	-6872320.95	-6872320.73	-6872320.50	0.0089	0.0005
Venus	-23528-03-25 07:55 J	-6872095.38	-6872095.17	-6872094.94	0.0089	0.0006
Venus	-23528-11-05 21:35 J	-6871869.82	-6871869.60	-6871869.37	0.0089	0.0006
Venus	-23527-06-19 11:02 J	-6871644.25	-6871644.04	-6871643.81	0.0089	0.0007
Venus	-23526-01-31 00:43 J	-6871418.69	-6871418.47	-6871418.25	0.0089	0.0007
Venus	-23526-09-13 14:09 J	-6871193.13	-6871192.91	-6871192.69	0.0089	0.0008
Venus	-23525-04-26 03:35 J	-6870967.57	-6870967.35	-6870967.13	0.0089	0.0008
Venus	-23525-12-07 17:02 J	-6870742.01	-6870741.79	-6870741.56	0.0089	0.0009
Venus	-23524-07-21 06:28 J	-6870516.45	-6870516.23	-6870516.00	0.0089	0.0010
Venus	-23523-03-03 19:55 J	-6870290.89	-6870290.67	-6870290.45	0.0089	0.0010

Venus	-23523-10-15 09:21 J	-6870065.33	-6870065.11	-6870064.89	0.0089	0.0011
Venus	-23522-05-28 22:33 J	-6869839.77	-6869839.56	-6869839.33	0.0089	0.0011
Venus	-23521-01-09 11:59 J	-6869614.21	-6869614.00	-6869613.77	0.0089	0.0012
Venus	-23521-08-22 01:26 J	-6869388.65	-6869388.44	-6869388.21	0.0089	0.0012
Venus	-23520-04-04 14:38 J	-6869163.10	-6869162.89	-6869162.66	0.0089	0.0013
Venus	-23520-11-16 04:19 J	-6868937.54	-6868937.32	-6868937.10	0.0089	0.0013
Venus	-23519-06-29 17:31 J	-6868711.98	-6868711.77	-6868711.54	0.0089	0.0014
Venus	-23518-02-10 06:57 J	-6868486.42	-6868486.21	-6868485.98	0.0089	0.0014
Venus	-23518-09-23 20:09 J	-6868260.87	-6868260.66	-6868260.43	0.0089	0.0015
Venus	-23517-05-06 09:35 J	-6868035.31	-6868035.10	-6868034.88	0.0089	0.0015
Venus	-23517-12-17 22:47 J	-6867809.75	-6867809.55	-6867809.32	0.0089	0.0017
Venus	-23516-07-31 12:14 J	-6867584.20	-6867583.99	-6867583.76	0.0089	0.0016
Venus	-23515-03-14 01:40 J	-6867358.64	-6867358.43	-6867358.21	0.0089	0.0016
Venus	-23515-10-25 14:38 J	-6867133.09	-6867132.89	-6867132.66	0.0089	0.0017
Venus	-23514-06-08 04:04 J	-6866907.54	-6866907.33	-6866907.11	0.0089	0.0017
Venus	-23513-01-19 17:02 J	-6866681.99	-6866681.79	-6866681.56	0.0089	0.0018
Venus	-23513-09-01 06:14 J	-6866456.44	-6866456.24	-6866456.01	0.0089	0.0019
Venus	-23512-04-14 19:26 J	-6866230.90	-6866230.69	-6866230.47	0.0089	0.0019
Venus	-23512-11-26 08:23 J	-6866005.35	-6866005.15	-6866004.93	0.0089	0.0019
Venus	-23511-07-09 21:35 J	-6865779.81	-6865779.60	-6865779.38	0.0089	0.0019
Venus	-23510-02-20 10:47 J	-6865554.26	-6865554.05	-6865553.83	0.0089	0.0020
Venus	-23510-10-03 23:45 J	-6865328.72	-6865328.51	-6865328.29	0.0089	0.0020
Venus	-23509-05-16 12:43 J	-6865103.17	-6865102.97	-6865102.75	0.0089	0.0021
Venus	-23509-12-28 01:55 J	-6864877.63	-6864877.42	-6864877.20	0.0089	0.0021
Venus	-23508-08-10 14:52 J	-6864652.08	-6864651.88	-6864651.66	0.0089	0.0021
Venus	-23507-03-24 03:50 J	-6864426.54	-6864426.34	-6864426.12	0.0089	0.0022
Venus	-23507-11-04 17:02 J	-6864201.00	-6864200.79	-6864200.58	0.0089	0.0021
Venus	-23506-06-18 05:59 J	-6863975.46	-6863975.25	-6863975.03	0.0089	0.0022
Venus	-23505-01-29 18:57 J	-6863749.91	-6863749.71	-6863749.49	0.0089	0.0022
Venus	-23505-09-11 07:55 J	-6863524.37	-6863524.17	-6863523.95	0.0089	0.0023

Earth	-23504-04-24 16:19 J	-6863299.01	-6863298.82	-6863298.63	0.0089	0.0060
Moon	-23504-04-24 15:50 J	-6863299.00	-6863298.84	-6863298.62	0.0089	0.0062 *
Venus	-23504-04-24 20:52 J	-6863298.83	-6863298.63	-6863298.41	0.0089	0.0023 *
Venus	-23504-12-06 09:50 J	-6863073.30	-6863073.09	-6863072.87	0.0089	0.0023
Earth	-23503-04-27 02:38 J	-6862931.63	-6862931.39	-6862931.13	0.0089	0.0017
Moon	-23503-04-27 03:35 J	-6862931.59	-6862931.35	-6862931.11	0.0089	0.0016 *
Venus	-23503-07-19 22:33 J	-6862847.76	-6862847.56	-6862847.34	0.0089	0.0023
Venus	-23502-03-02 11:45 J	-6862622.21	-6862622.01	-6862621.79	0.0089	0.0023
Moon	-23502-04-29 11:02 J	-6862564.28	-6862564.04	-6862563.78	0.0089	0.0027
Earth	-23502-04-29 12:57 J	-6862564.19	-6862563.96	-6862563.71	0.0089	0.0027 *
Venus	-23502-10-14 00:28 J	-6862396.68	-6862396.48	-6862396.26	0.0089	0.0024
Earth	-23501-04-30 23:16 J	-6862196.67	-6862196.53	-6862196.36	0.0089	0.0070
Moon	-23501-05-01 02:38 J	-6862196.53	-6862196.39	-6862196.24	0.0089	0.0072 *
Venus	-23501-05-26 13:26 J	-6862171.15	-6862170.94	-6862170.73	0.0089	0.0023
Venus	-23500-01-07 02:09 J	-6861945.62	-6861945.41	-6861945.20	0.0089	0.0024
Venus	-23500-08-20 15:07 J	-6861720.08	-6861719.87	-6861719.66	0.0089	0.0024
Venus	-23499-04-03 03:50 J	-6861494.55	-6861494.34	-6861494.13	0.0089	0.0024
Venus	-23499-11-14 16:19 J	-6861269.02	-6861268.82	-6861268.60	0.0089	0.0024
Venus	-23498-06-28 05:02 J	-6861043.49	-6861043.29	-6861043.07	0.0089	0.0024
Venus	-23497-02-08 17:45 J	-6860817.96	-6860817.76	-6860817.54	0.0089	0.0025
Venus	-23497-09-21 06:28 J	-6860592.43	-6860592.23	-6860592.01	0.0089	0.0024
Venus	-23496-05-04 19:11 J	-6860366.90	-6860366.70	-6860366.49	0.0089	0.0024
Venus	-23496-12-16 07:55 J	-6860141.38	-6860141.17	-6860140.96	0.0089	0.0024
Venus	-23495-07-29 20:23 J	-6859915.85	-6859915.65	-6859915.43	0.0089	0.0025
Venus	-23494-03-12 09:21 J	-6859690.31	-6859690.11	-6859689.90	0.0089	0.0024
Venus	-23494-10-23 22:04 J	-6859464.79	-6859464.58	-6859464.37	0.0089	0.0024
Venus	-23493-06-05 10:33 J	-6859239.26	-6859239.06	-6859238.85	0.0089	0.0024
Venus	-23492-01-16 23:16 J	-6859013.74	-6859013.53	-6859013.32	0.0089	0.0024
Jupiter	-23492-02-19 13:55 J	-6858980.44	-6858979.92	-6858979.39	0.0089	0.0002
Venus	-23492-08-30 11:45 J	-6858788.21	-6858788.01	-6858787.79	0.0089	0.0025

Venus	-23491-04-13 00:28 J	-6858562.68	-6858562.48	-6858562.26	0.0089	0.0025
Venus	-23491-11-24 13:11 J	-6858337.15	-6858336.95	-6858336.74	0.0089	0.0024
Venus	-23490-07-08 01:40 J	-6858111.63	-6858111.43	-6858111.21	0.0089	0.0024
Venus	-23489-02-18 14:09 J	-6857886.11	-6857885.91	-6857885.69	0.0089	0.0024
Venus	-23489-10-01 02:38 J	-6857660.58	-6857660.39	-6857660.17	0.0089	0.0024
Mars	-23489-12-13 00:43 J	-6857587.52	-6857587.47	-6857587.36	0.0089	0.0087
Venus	-23488-05-14 15:21 J	-6857435.06	-6857434.86	-6857434.65	0.0089	0.0024
Mercury	-23488-09-04 02:38 J	-6857322.40	-6857322.39	-6857322.35	0.0089	0.0088
Mercury	-23488-12-01 04:04 J	-6857234.38	-6857234.33	-6857234.27	0.0089	0.0081
Venus	-23488-12-26 03:50 J	-6857209.55	-6857209.34	-6857209.13	0.0089	0.0024
Mercury	-23487-02-27 05:31 J	-6857146.34	-6857146.27	-6857146.19	0.0089	0.0074
Mercury	-23487-05-26 06:57 J	-6857058.30	-6857058.21	-6857058.12	0.0089	0.0067
Venus	-23487-08-08 16:19 J	-6856984.03	-6856983.82	-6856983.61	0.0089	0.0023
Mercury	-23487-08-22 08:09 J	-6856970.25	-6856970.16	-6856970.06	0.0089	0.0060
Mars	-23487-11-09 00:43 J	-6856891.79	-6856891.47	-6856891.13	0.0089	0.0016
Mercury	-23487-11-18 09:21 J	-6856882.20	-6856882.11	-6856881.99	0.0089	0.0054
Mercury	-23486-02-14 10:47 J	-6856794.15	-6856794.05	-6856793.93	0.0089	0.0046
Venus	-23486-03-22 04:47 J	-6856758.50	-6856758.30	-6856758.08	0.0089	0.0023
Mercury	-23486-05-13 12:14 J	-6856706.10	-6856705.99	-6856705.86	0.0089	0.0039
Mercury	-23486-08-09 13:40 J	-6856618.05	-6856617.93	-6856617.80	0.0089	0.0032
Venus	-23486-11-02 17:16 J	-6856532.98	-6856532.78	-6856532.57	0.0089	0.0023
Mercury	-23486-11-05 15:07 J	-6856530.00	-6856529.87	-6856529.74	0.0089	0.0025
Mercury	-23485-02-01 16:33 J	-6856441.94	-6856441.81	-6856441.68	0.0089	0.0018
Mercury	-23485-04-29 17:45 J	-6856353.89	-6856353.76	-6856353.62	0.0089	0.0012
Venus	-23485-06-15 05:31 J	-6856307.47	-6856307.27	-6856307.05	0.0089	0.0023
Mercury	-23485-07-26 19:11 J	-6856265.83	-6856265.70	-6856265.57	0.0089	0.0004
Mars	-23485-10-04 22:47 J	-6856195.81	-6856195.55	-6856195.28	0.0089	0.0054
Mercury	-23485-10-22 20:38 J	-6856177.78	-6856177.64	-6856177.51	0.0089	0.0003
Mercury	-23484-01-18 21:50 J	-6856089.72	-6856089.59	-6856089.45	0.0089	0.0010
Venus	-23484-01-26 17:59 J	-6856081.95	-6856081.75	-6856081.54	0.0089	0.0023

Mercury	-23484-04-16 23:16 J	-6856001.66	-6856001.53	-6856001.40	0.0089	0.0017
Mercury	-23484-07-14 00:43 J	-6855913.60	-6855913.47	-6855913.34	0.0089	0.0024
Venus	-23484-09-09 06:28 J	-6855856.43	-6855856.23	-6855856.02	0.0089	0.0023
Mercury	-23484-10-10 02:09 J	-6855825.54	-6855825.41	-6855825.29	0.0089	0.0031
Mercury	-23483-01-06 03:21 J	-6855737.48	-6855737.36	-6855737.23	0.0089	0.0038
Mercury	-23483-04-04 04:33 J	-6855649.41	-6855649.31	-6855649.18	0.0089	0.0046
Venus	-23483-04-22 18:57 J	-6855630.91	-6855630.71	-6855630.49	0.0089	0.0023
Mercury	-23483-07-01 05:59 J	-6855561.35	-6855561.25	-6855561.13	0.0089	0.0052
Mercury	-23483-09-27 07:26 J	-6855473.28	-6855473.19	-6855473.08	0.0089	0.0059
Venus	-23483-12-04 07:26 J	-6855405.39	-6855405.19	-6855404.98	0.0089	0.0022
Mercury	-23483-12-24 08:52 J	-6855385.21	-6855385.13	-6855385.03	0.0089	0.0066
Mercury	-23482-03-22 10:19 J	-6855297.14	-6855297.07	-6855296.99	0.0089	0.0073
Mercury	-23482-06-18 11:45 J	-6855209.06	-6855209.01	-6855208.95	0.0089	0.0080
Venus	-23482-07-17 19:40 J	-6855179.88	-6855179.68	-6855179.46	0.0089	0.0022
Mercury	-23482-09-14 13:11 J	-6855120.97	-6855120.95	-6855120.92	0.0089	0.0087
Venus	-23481-02-28 08:23 J	-6854954.36	-6854954.15	-6854953.94	0.0089	0.0022
Venus	-23481-10-10 20:38 J	-6854728.84	-6854728.64	-6854728.43	0.0089	0.0021
Venus	-23480-05-24 09:07 J	-6854503.33	-6854503.12	-6854502.91	0.0089	0.0021
Venus	-23479-01-04 21:21 J	-6854277.81	-6854277.61	-6854277.39	0.0089	0.0021
Venus	-23479-08-18 10:04 J	-6854052.29	-6854052.08	-6854051.87	0.0089	0.0020
Venus	-23478-03-31 22:19 J	-6853826.77	-6853826.57	-6853826.35	0.0089	0.0020
Venus	-23478-11-12 10:47 J	-6853601.26	-6853601.05	-6853600.84	0.0089	0.0020
Venus	-23477-06-24 23:16 J	-6853375.74	-6853375.53	-6853375.32	0.0089	0.0020
Venus	-23476-02-05 11:16 J	-6853150.23	-6853150.03	-6853149.81	0.0089	0.0020
Venus	-23476-09-18 23:45 J	-6852924.72	-6852924.51	-6852924.30	0.0089	0.0019
Venus	-23475-05-02 12:14 J	-6852699.20	-6852698.99	-6852698.78	0.0089	0.0018
Venus	-23475-12-14 00:28 J	-6852473.69	-6852473.48	-6852473.27	0.0089	0.0018
Venus	-23474-07-27 12:43 J	-6852248.18	-6852247.97	-6852247.75	0.0089	0.0018
Venus	-23473-03-09 00:57 J	-6852022.67	-6852022.46	-6852022.24	0.0089	0.0017
Venus	-23473-10-20 13:11 J	-6851797.16	-6851796.95	-6851796.73	0.0089	0.0017

Venus	-23472-06-03 01:26 J	-6851571.64	-6851571.44	-6851571.22	0.0089	0.0017
Venus	-23471-01-14 13:55 J	-6851346.13	-6851345.92	-6851345.71	0.0089	0.0016
Venus	-23471-08-28 01:55 J	-6851120.62	-6851120.42	-6851120.20	0.0089	0.0016
Venus	-23470-04-10 14:23 J	-6850895.11	-6850894.90	-6850894.68	0.0089	0.0016
Venus	-23470-11-22 02:38 J	-6850669.60	-6850669.39	-6850669.17	0.0089	0.0015
Venus	-23469-07-04 14:52 J	-6850444.09	-6850443.88	-6850443.66	0.0089	0.0015
Venus	-23468-02-15 03:21 J	-6850218.57	-6850218.36	-6850218.15	0.0089	0.0014
Venus	-23468-09-28 15:21 J	-6849993.06	-6849992.86	-6849992.64	0.0089	0.0014
Venus	-23467-05-12 04:04 J	-6849767.54	-6849767.33	-6849767.12	0.0089	0.0013
Venus	-23467-12-23 16:19 J	-6849542.03	-6849541.82	-6849541.60	0.0089	0.0013
Venus	-23466-08-06 04:47 J	-6849316.52	-6849316.30	-6849316.09	0.0089	0.0012
Venus	-23465-03-18 16:47 J	-6849091.01	-6849090.80	-6849090.58	0.0089	0.0012
Venus	-23465-10-30 05:16 J	-6848865.49	-6848865.28	-6848865.07	0.0089	0.0011
Venus	-23464-06-12 17:31 J	-6848639.98	-6848639.77	-6848639.55	0.0089	0.0011
Venus	-23463-01-24 05:45 J	-6848414.47	-6848414.26	-6848414.04	0.0089	0.0010
Venus	-23463-09-06 17:59 J	-6848188.96	-6848188.75	-6848188.53	0.0089	0.0010
Venus	-23462-04-20 06:28 J	-6847963.45	-6847963.23	-6847963.02	0.0089	0.0009
Venus	-23462-12-01 18:43 J	-6847737.94	-6847737.72	-6847737.51	0.0089	0.0009
Venus	-23461-07-14 06:43 J	-6847512.43	-6847512.22	-6847512.00	0.0089	0.0009
Venus	-23460-02-24 19:11 J	-6847286.92	-6847286.70	-6847286.49	0.0089	0.0008
Venus	-23460-10-08 07:11 J	-6847061.41	-6847061.20	-6847060.98	0.0089	0.0008
Venus	-23459-05-21 19:55 J	-6846835.89	-6846835.67	-6846835.46	0.0089	0.0007
Venus	-23458-01-02 07:55 J	-6846610.38	-6846610.17	-6846609.95	0.0089	0.0007
Venus	-23458-08-15 20:23 J	-6846384.87	-6846384.65	-6846384.44	0.0089	0.0006
Venus	-23457-03-28 08:23 J	-6846159.36	-6846159.15	-6846158.93	0.0089	0.0006
Venus	-23457-11-08 20:52 J	-6845933.84	-6845933.63	-6845933.41	0.0089	0.0005
Venus	-23456-06-22 09:21 J	-6845708.33	-6845708.11	-6845707.89	0.0089	0.0004
Venus	-23455-02-02 21:35 J	-6845482.81	-6845482.60	-6845482.38	0.0089	0.0004
Venus	-23455-09-16 10:04 J	-6845257.30	-6845257.08	-6845256.86	0.0089	0.0003
Venus	-23454-04-29 22:33 J	-6845031.78	-6845031.56	-6845031.35	0.0089	0.0003

Venus	-23454-12-11 10:47 J	-6844806.26	-6844806.05	-6844805.83	0.0089	0.0002
Venus	-23453-07-23 23:16 J	-6844580.75	-6844580.53	-6844580.31	0.0089	0.0001
Venus	-23452-03-06 11:31 J	-6844355.23	-6844355.02	-6844354.80	0.0089	0.0002
Venus	-23452-10-17 23:59 J	-6844129.72	-6844129.50	-6844129.28	0.0088	0.0001
Venus	-23451-05-31 12:28 J	-6843904.19	-6843903.98	-6843903.76	0.0088	0.0002
Venus	-23450-01-12 00:57 J	-6843678.68	-6843678.46	-6843678.24	0.0088	0.0001
Venus	-23450-08-25 13:11 J	-6843453.16	-6843452.95	-6843452.73	0.0088	0.0003
Venus	-23449-04-07 01:40 J	-6843227.65	-6843227.43	-6843227.21	0.0088	0.0002
Venus	-23449-11-18 14:09 J	-6843002.13	-6843001.91	-6843001.70	0.0088	0.0003
Venus	-23448-07-02 02:38 J	-6842776.61	-6842776.39	-6842776.17	0.0088	0.0003
Venus	-23447-02-12 15:07 J	-6842551.09	-6842550.87	-6842550.65	0.0088	0.0003
Venus	-23447-09-26 03:21 J	-6842325.57	-6842325.36	-6842325.14	0.0088	0.0004
Venus	-23446-05-09 15:50 J	-6842100.05	-6842099.84	-6842099.62	0.0088	0.0005
Venus	-23446-12-21 04:19 J	-6841874.54	-6841874.32	-6841874.10	0.0088	0.0005
Venus	-23445-08-02 16:47 J	-6841649.01	-6841648.80	-6841648.58	0.0088	0.0006
Venus	-23444-03-16 05:16 J	-6841423.49	-6841423.28	-6841423.06	0.0088	0.0006
Venus	-23444-10-27 17:59 J	-6841197.97	-6841197.75	-6841197.54	0.0088	0.0007
Venus	-23443-06-10 06:28 J	-6840972.44	-6840972.23	-6840972.01	0.0088	0.0007
Venus	-23442-01-21 19:11 J	-6840746.92	-6840746.70	-6840746.48	0.0088	0.0007
Venus	-23442-09-04 07:40 J	-6840521.40	-6840521.18	-6840520.96	0.0088	0.0008
Venus	-23441-04-16 20:09 J	-6840295.87	-6840295.66	-6840295.44	0.0088	0.0009
Venus	-23441-11-28 08:52 J	-6840070.35	-6840070.13	-6840069.91	0.0088	0.0009
Venus	-23440-07-11 21:35 J	-6839844.81	-6839844.60	-6839844.38	0.0088	0.0010
Venus	-23439-02-22 10:19 J	-6839619.29	-6839619.07	-6839618.85	0.0088	0.0010
Venus	-23439-10-05 23:02 J	-6839393.76	-6839393.54	-6839393.32	0.0088	0.0010
Venus	-23438-05-19 11:31 J	-6839168.23	-6839168.02	-6839167.80	0.0088	0.0011
Venus	-23438-12-31 00:14 J	-6838942.71	-6838942.49	-6838942.27	0.0088	0.0011
Venus	-23437-08-12 12:57 J	-6838717.18	-6838716.96	-6838716.74	0.0088	0.0012
Venus	-23436-03-26 01:26 J	-6838491.65	-6838491.44	-6838491.21	0.0088	0.0012
Venus	-23436-11-06 14:23 J	-6838266.12	-6838265.90	-6838265.69	0.0088	0.0013

Venus	-23435-06-20 02:52 J	-6838040.59	-6838040.38	-6838040.15	0.0088	0.0013
Venus	-23434-01-31 15:50 J	-6837815.06	-6837814.84	-6837814.62	0.0088	0.0013
Venus	-23434-09-14 04:19 J	-6837589.53	-6837589.32	-6837589.10	0.0088	0.0014
Venus	-23433-04-26 17:02 J	-6837364.00	-6837363.79	-6837363.57	0.0088	0.0014
Venus	-23433-12-08 05:45 J	-6837138.47	-6837138.26	-6837138.04	0.0088	0.0015
Venus	-23432-07-21 18:43 J	-6836912.93	-6836912.72	-6836912.50	0.0088	0.0015
Venus	-23431-03-04 07:40 J	-6836687.40	-6836687.18	-6836686.96	0.0088	0.0015
Venus	-23431-10-15 20:09 J	-6836461.86	-6836461.66	-6836461.43	0.0088	0.0017
Venus	-23430-05-29 09:07 J	-6836236.33	-6836236.12	-6836235.90	0.0088	0.0016
Venus	-23429-01-09 22:04 J	-6836010.79	-6836010.58	-6836010.36	0.0088	0.0017
Venus	-23429-08-22 11:02 J	-6835785.25	-6835785.04	-6835784.82	0.0088	0.0017
Venus	-23428-04-04 23:59 J	-6835559.71	-6835559.50	-6835559.28	0.0088	0.0017
Venus	-23428-11-16 12:57 J	-6835334.17	-6835333.96	-6835333.74	0.0088	0.0017
Venus	-23427-06-30 01:55 J	-6835108.63	-6835108.42	-6835108.20	0.0088	0.0018
Venus	-23426-02-10 14:52 J	-6834883.09	-6834882.88	-6834882.66	0.0088	0.0018
Venus	-23426-09-24 03:50 J	-6834657.55	-6834657.34	-6834657.12	0.0088	0.0018
Venus	-23425-05-06 16:33 J	-6834432.01	-6834431.81	-6834431.58	0.0088	0.0019
Venus	-23425-12-18 05:45 J	-6834206.47	-6834206.26	-6834206.04	0.0088	0.0019
Venus	-23424-07-31 18:57 J	-6833980.92	-6833980.71	-6833980.49	0.0088	0.0019
Venus	-23423-03-14 08:09 J	-6833755.38	-6833755.16	-6833754.95	0.0088	0.0019
Moon	-23423-10-22 14:38 J	-6833532.94	-6833532.89	-6833532.78	0.0088	0.0084
Earth	-23423-10-22 15:21 J	-6833532.86	-6833532.86	-6833532.84	0.0088	0.0088 *
Venus	-23423-10-25 20:52 J	-6833529.84	-6833529.63	-6833529.41	0.0088	0.0020
Venus	-23422-06-08 09:50 J	-6833304.30	-6833304.09	-6833303.87	0.0088	0.0020
Earth	-23422-10-25 03:50 J	-6833165.55	-6833165.34	-6833165.09	0.0088	0.0045
Moon	-23422-10-25 05:02 J	-6833165.49	-6833165.29	-6833165.07	0.0088	0.0049 *
Venus	-23421-01-19 23:02 J	-6833078.76	-6833078.54	-6833078.32	0.0088	0.0020
Venus	-23421-09-01 12:14 J	-6832853.21	-6832852.99	-6832852.77	0.0088	0.0020
Moon	-23421-10-26 14:09 J	-6832798.18	-6832797.91	-6832797.64	0.0088	0.0002
Earth	-23421-10-26 16:47 J	-6832798.06	-6832797.80	-6832797.53	0.0088	0.0003 *

Venus	-23420-04-15 00:57 J	-6832627.66	-6832627.46	-6832627.23	0.0088	0.0021
Earth	-23420-10-29 05:02 J	-6832430.50	-6832430.29	-6832430.04	0.0088	0.0041
Moon	-23420-10-29 08:23 J	-6832430.38	-6832430.15	-6832429.91	0.0088	0.0037 *
Venus	-23420-11-26 14:09 J	-6832402.11	-6832401.91	-6832401.68	0.0088	0.0021
Venus	-23419-07-10 03:21 J	-6832176.57	-6832176.36	-6832176.13	0.0088	0.0021
Moon	-23419-10-31 14:09 J	-6832062.91	-6832062.91	-6832062.87	0.0088	0.0088
Earth	-23419-10-31 17:45 J	-6832062.82	-6832062.76	-6832062.66	0.0088	0.0084
Venus	-23418-02-20 16:33 J	-6831951.02	-6831950.81	-6831950.58	0.0088	0.0021
Venus	-23418-10-04 05:59 J	-6831725.47	-6831725.25	-6831725.03	0.0088	0.0021
Venus	-23417-05-16 19:11 J	-6831499.92	-6831499.70	-6831499.48	0.0088	0.0021
Venus	-23417-12-28 08:09 J	-6831274.36	-6831274.16	-6831273.93	0.0088	0.0022
Venus	-23416-08-10 21:35 J	-6831048.80	-6831048.60	-6831048.37	0.0088	0.0022
Venus	-23415-03-24 11:02 J	-6830823.25	-6830823.04	-6830822.82	0.0088	0.0022
Venus	-23415-11-05 00:14 J	-6830597.70	-6830597.49	-6830597.26	0.0088	0.0022
Venus	-23414-06-18 13:26 J	-6830372.14	-6830371.94	-6830371.71	0.0088	0.0022
Venus	-23413-01-30 02:52 J	-6830146.59	-6830146.38	-6830146.16	0.0088	0.0022
Venus	-23413-09-11 16:19 J	-6829921.03	-6829920.82	-6829920.59	0.0088	0.0022
Venus	-23412-04-25 05:45 J	-6829695.47	-6829695.26	-6829695.04	0.0088	0.0022
Venus	-23412-12-06 19:11 J	-6829469.91	-6829469.70	-6829469.48	0.0088	0.0022
Venus	-23411-07-20 08:23 J	-6829244.36	-6829244.15	-6829243.93	0.0088	0.0022
Venus	-23410-03-02 21:50 J	-6829018.80	-6829018.59	-6829018.37	0.0088	0.0022
Venus	-23410-10-14 11:16 J	-6828793.24	-6828793.03	-6828792.81	0.0088	0.0022
Venus	-23409-05-27 00:28 J	-6828567.69	-6828567.48	-6828567.25	0.0088	0.0023
Venus	-23408-01-07 13:55 J	-6828342.13	-6828341.92	-6828341.69	0.0088	0.0022
Venus	-23408-08-21 03:35 J	-6828116.56	-6828116.35	-6828116.13	0.0088	0.0022
Venus	-23407-04-03 17:02 J	-6827891.00	-6827890.79	-6827890.57	0.0088	0.0022
Venus	-23407-11-15 06:28 J	-6827665.44	-6827665.23	-6827665.01	0.0088	0.0022
Venus	-23406-06-28 19:40 J	-6827439.88	-6827439.68	-6827439.45	0.0088	0.0022
Venus	-23405-02-09 09:21 J	-6827214.32	-6827214.11	-6827213.89	0.0088	0.0022
Mars	-23405-08-09 01:26 J	-6827032.68	-6827032.44	-6827032.16	0.0088	0.0042

Venus	-23405-09-21 23:02 J	-6826988.75	-6826988.54	-6826988.32	0.0088	0.0022
Venus	-23404-05-05 12:28 J	-6826763.19	-6826762.98	-6826762.75	0.0088	0.0022
Mercury	-23404-05-20 22:04 J	-6826747.63	-6826747.58	-6826747.51	0.0088	0.0083
Mercury	-23404-08-17 01:40 J	-6826659.53	-6826659.43	-6826659.32	0.0088	0.0073
Mercury	-23404-11-13 04:47 J	-6826571.41	-6826571.30	-6826571.15	0.0088	0.0064
Venus	-23404-12-17 01:55 J	-6826537.62	-6826537.42	-6826537.19	0.0088	0.0022
Mercury	-23403-02-09 08:23 J	-6826483.28	-6826483.15	-6826482.98	0.0088	0.0054
Mercury	-23403-05-08 11:59 J	-6826395.15	-6826395.00	-6826394.82	0.0088	0.0045
Mars	-23403-07-03 23:31 J	-6826338.81	-6826338.52	-6826338.22	0.0088	0.0017
Venus	-23403-07-30 15:50 J	-6826312.06	-6826311.84	-6826311.62	0.0088	0.0021
Mercury	-23403-08-04 15:50 J	-6826307.02	-6826306.84	-6826306.67	0.0088	0.0034
Mercury	-23403-10-31 18:57 J	-6826218.88	-6826218.71	-6826218.51	0.0088	0.0025
Mercury	-23402-01-27 22:33 J	-6826130.74	-6826130.56	-6826130.36	0.0088	0.0015
Venus	-23402-03-13 05:31 J	-6826086.49	-6826086.27	-6826086.05	0.0088	0.0021
Mercury	-23402-04-26 02:09 J	-6826042.60	-6826042.41	-6826042.22	0.0088	0.0005
Mercury	-23402-07-23 05:31 J	-6825954.46	-6825954.27	-6825954.08	0.0088	0.0004
Mercury	-23402-10-19 08:52 J	-6825866.31	-6825866.13	-6825865.93	0.0088	0.0014
Venus	-23402-10-24 18:57 J	-6825860.92	-6825860.71	-6825860.48	0.0088	0.0021
Mercury	-23401-01-15 12:28 J	-6825778.17	-6825777.98	-6825777.80	0.0088	0.0023
Mercury	-23401-04-12 15:35 J	-6825690.02	-6825689.85	-6825689.66	0.0088	0.0033
Mars	-23401-05-27 21:50 J	-6825644.70	-6825644.59	-6825644.42	0.0088	0.0077
Venus	-23401-06-06 08:38 J	-6825635.35	-6825635.14	-6825634.92	0.0088	0.0021
Mercury	-23401-07-09 18:57 J	-6825601.86	-6825601.71	-6825601.53	0.0088	0.0043
Mercury	-23401-10-05 22:19 J	-6825513.71	-6825513.57	-6825513.40	0.0088	0.0052
Mercury	-23400-01-02 01:40 J	-6825425.55	-6825425.43	-6825425.28	0.0088	0.0062
Venus	-23400-01-17 22:04 J	-6825409.79	-6825409.58	-6825409.35	0.0088	0.0021
Mercury	-23400-03-31 05:02 J	-6825337.38	-6825337.29	-6825337.16	0.0088	0.0071
Mercury	-23400-06-27 08:38 J	-6825249.21	-6825249.14	-6825249.06	0.0088	0.0080
Venus	-23400-08-31 11:45 J	-6825184.22	-6825184.01	-6825183.78	0.0088	0.0021
Venus	-23399-04-14 01:40 J	-6824958.65	-6824958.43	-6824958.21	0.0088	0.0020

Venus	-23399-11-25 15:07 J	-6824733.08	-6824732.87	-6824732.64	0.0088	0.0021
Venus	-23398-07-09 04:47 J	-6824507.52	-6824507.30	-6824507.08	0.0088	0.0020
Venus	-23397-02-19 18:14 J	-6824281.95	-6824281.74	-6824281.51	0.0088	0.0020
Venus	-23397-10-02 07:55 J	-6824056.38	-6824056.17	-6824055.94	0.0088	0.0020
Venus	-23396-05-15 21:50 J	-6823830.81	-6823830.59	-6823830.37	0.0088	0.0019
Venus	-23396-12-27 11:16 J	-6823605.24	-6823605.03	-6823604.80	0.0088	0.0020
Venus	-23395-08-10 00:57 J	-6823379.67	-6823379.46	-6823379.23	0.0088	0.0019
Venus	-23394-03-23 14:23 J	-6823154.10	-6823153.90	-6823153.66	0.0088	0.0020
Venus	-23394-11-04 04:19 J	-6822928.53	-6822928.32	-6822928.09	0.0088	0.0019
Venus	-23393-06-16 17:59 J	-6822702.96	-6822702.75	-6822702.52	0.0088	0.0018
Venus	-23392-01-28 07:40 J	-6822477.39	-6822477.18	-6822476.95	0.0088	0.0018
Venus	-23392-09-10 21:35 J	-6822251.82	-6822251.60	-6822251.38	0.0088	0.0017
Venus	-23391-04-24 11:16 J	-6822026.24	-6822026.03	-6822025.80	0.0088	0.0017
Venus	-23391-12-06 01:11 J	-6821800.67	-6821800.45	-6821800.23	0.0088	0.0017
Venus	-23390-07-19 14:52 J	-6821575.10	-6821574.88	-6821574.66	0.0088	0.0016
Venus	-23389-03-01 04:33 J	-6821349.53	-6821349.31	-6821349.08	0.0088	0.0016
Venus	-23389-10-12 18:28 J	-6821123.95	-6821123.73	-6821123.50	0.0088	0.0016
Venus	-23388-05-26 08:09 J	-6820898.37	-6820898.16	-6820897.93	0.0088	0.0016
Venus	-23387-01-06 21:50 J	-6820672.80	-6820672.59	-6820672.36	0.0088	0.0016
Venus	-23387-08-20 11:45 J	-6820447.23	-6820447.01	-6820446.79	0.0088	0.0015
Venus	-23386-04-03 01:26 J	-6820221.66	-6820221.44	-6820221.21	0.0088	0.0014
Venus	-23386-11-14 15:21 J	-6819996.08	-6819995.86	-6819995.64	0.0088	0.0014
Venus	-23385-06-27 05:02 J	-6819770.51	-6819770.29	-6819770.06	0.0088	0.0013
Venus	-23384-02-07 18:43 J	-6819544.94	-6819544.72	-6819544.49	0.0088	0.0013
Venus	-23384-09-21 08:23 J	-6819319.37	-6819319.15	-6819318.92	0.0088	0.0013
Venus	-23383-05-04 22:04 J	-6819093.80	-6819093.58	-6819093.35	0.0088	0.0013
Venus	-23383-12-16 11:59 J	-6818868.22	-6818868.00	-6818867.78	0.0088	0.0012
Venus	-23382-07-30 01:40 J	-6818642.65	-6818642.43	-6818642.21	0.0088	0.0011
Venus	-23381-03-11 15:21 J	-6818417.08	-6818416.86	-6818416.63	0.0088	0.0011
Venus	-23381-10-23 05:16 J	-6818191.50	-6818191.28	-6818191.06	0.0088	0.0010

Venus	-23380-06-05 18:57 J	-6817965.93	-6817965.71	-6817965.48	0.0088	0.0010
Venus	-23379-01-17 08:38 J	-6817740.36	-6817740.14	-6817739.91	0.0088	0.0010
Venus	-23379-08-30 22:19 J	-6817514.78	-6817514.57	-6817514.34	0.0088	0.0010
Venus	-23378-04-13 12:14 J	-6817289.21	-6817288.99	-6817288.76	0.0089	0.0009
Venus	-23378-11-25 02:09 J	-6817063.63	-6817063.41	-6817063.18	0.0089	0.0008
Venus	-23377-07-07 15:50 J	-6816838.06	-6816837.84	-6816837.61	0.0089	0.0008
Venus	-23376-02-18 05:31 J	-6816612.48	-6816612.27	-6816612.04	0.0089	0.0008
Venus	-23376-10-01 19:26 J	-6816386.91	-6816386.69	-6816386.46	0.0089	0.0007
Venus	-23375-05-15 09:07 J	-6816161.34	-6816161.12	-6816160.89	0.0089	0.0007
Venus	-23375-12-26 23:02 J	-6815935.76	-6815935.54	-6815935.31	0.0089	0.0006
Venus	-23374-08-09 12:43 J	-6815710.19	-6815709.97	-6815709.74	0.0089	0.0005
Venus	-23373-03-22 02:23 J	-6815484.62	-6815484.40	-6815484.17	0.0089	0.0005
Venus	-23373-11-02 16:04 J	-6815259.05	-6815258.83	-6815258.60	0.0089	0.0005
Venus	-23372-06-16 05:59 J	-6815033.48	-6815033.25	-6815033.03	0.0089	0.0004
Venus	-23371-01-27 19:26 J	-6814807.91	-6814807.69	-6814807.46	0.0089	0.0004
Venus	-23371-09-10 09:07 J	-6814582.34	-6814582.12	-6814581.89	0.0089	0.0003
Venus	-23370-04-23 22:47 J	-6814356.77	-6814356.55	-6814356.33	0.0089	0.0002
Venus	-23370-12-05 12:28 J	-6814131.20	-6814130.98	-6814130.75	0.0089	0.0002
Venus	-23369-07-18 02:09 J	-6813905.63	-6813905.41	-6813905.18	0.0089	0.0002
Venus	-23368-02-28 15:50 J	-6813680.06	-6813679.84	-6813679.62	0.0089	0.0001
Venus	-23368-10-12 05:16 J	-6813454.50	-6813454.28	-6813454.05	0.0089	0.0002
Venus	-23367-05-25 18:57 J	-6813228.93	-6813228.71	-6813228.48	0.0089	0.0002
Venus	-23366-01-06 08:52 J	-6813003.36	-6813003.13	-6813002.91	0.0089	0.0002
Venus	-23366-08-19 22:19 J	-6812777.79	-6812777.57	-6812777.34	0.0089	0.0001
Venus	-23365-04-01 11:59 J	-6812552.22	-6812552.00	-6812551.78	0.0089	0.0002
Venus	-23365-11-13 01:40 J	-6812326.65	-6812326.43	-6812326.21	0.0089	0.0002
Venus	-23364-06-26 15:21 J	-6812101.09	-6812100.86	-6812100.64	0.0089	0.0003
Venus	-23363-02-07 04:47 J	-6811875.52	-6811875.30	-6811875.07	0.0089	0.0004
Venus	-23363-09-20 18:28 J	-6811649.95	-6811649.73	-6811649.51	0.0089	0.0004
Venus	-23362-05-04 07:55 J	-6811424.39	-6811424.17	-6811423.95	0.0089	0.0004

Venus	-23362-12-15 21:35 J	-6811198.82	-6811198.60	-6811198.38	0.0089	0.0004
Venus	-23361-07-28 11:02 J	-6810973.26	-6810973.04	-6810972.81	0.0089	0.0005
Venus	-23360-03-11 00:28 J	-6810747.70	-6810747.48	-6810747.26	0.0089	0.0005
Venus	-23360-10-22 13:55 J	-6810522.14	-6810521.92	-6810521.70	0.0089	0.0006
Venus	-23359-06-05 03:21 J	-6810296.58	-6810296.36	-6810296.14	0.0089	0.0006
Venus	-23358-01-16 16:47 J	-6810071.02	-6810070.80	-6810070.57	0.0089	0.0007
Venus	-23358-08-30 06:14 J	-6809845.46	-6809845.24	-6809845.02	0.0089	0.0007
Venus	-23357-04-11 19:26 J	-6809619.90	-6809619.69	-6809619.46	0.0089	0.0008
Venus	-23357-11-23 08:52 J	-6809394.35	-6809394.13	-6809393.90	0.0089	0.0008
Venus	-23356-07-06 22:19 J	-6809168.79	-6809168.57	-6809168.35	0.0089	0.0009
Venus	-23355-02-17 11:45 J	-6808943.23	-6808943.01	-6808942.79	0.0089	0.0009
Venus	-23355-10-01 01:11 J	-6808717.67	-6808717.45	-6808717.23	0.0089	0.0010
Venus	-23354-05-14 14:23 J	-6808492.12	-6808491.90	-6808491.68	0.0089	0.0010
Venus	-23354-12-26 03:50 J	-6808266.56	-6808266.34	-6808266.12	0.0089	0.0010
Venus	-23353-08-07 17:02 J	-6808041.00	-6808040.79	-6808040.56	0.0089	0.0011
Venus	-23352-03-21 06:28 J	-6807815.45	-6807815.23	-6807815.01	0.0089	0.0011
Venus	-23352-11-01 19:40 J	-6807589.90	-6807589.68	-6807589.46	0.0089	0.0011
Venus	-23351-06-15 08:52 J	-6807364.34	-6807364.13	-6807363.90	0.0089	0.0012
Venus	-23350-01-26 22:19 J	-6807138.78	-6807138.57	-6807138.35	0.0089	0.0012
Venus	-23350-09-09 11:45 J	-6806913.23	-6806913.01	-6806912.79	0.0089	0.0013
Venus	-23349-04-22 00:43 J	-6806687.68	-6806687.47	-6806687.25	0.0089	0.0013
Venus	-23349-12-03 13:55 J	-6806462.13	-6806461.92	-6806461.70	0.0089	0.0013
Venus	-23348-07-17 03:21 J	-6806236.58	-6806236.36	-6806236.15	0.0089	0.0014
Venus	-23347-02-27 16:19 J	-6806011.03	-6806010.82	-6806010.60	0.0089	0.0014
Venus	-23347-10-11 05:31 J	-6805785.48	-6805785.27	-6805785.05	0.0089	0.0014
Venus	-23346-05-24 18:28 J	-6805559.94	-6805559.73	-6805559.51	0.0089	0.0015
Venus	-23345-01-05 07:26 J	-6805334.39	-6805334.19	-6805333.96	0.0089	0.0016
Venus	-23345-08-17 20:38 J	-6805108.85	-6805108.64	-6805108.42	0.0089	0.0015
Venus	-23344-03-31 09:50 J	-6804883.31	-6804883.09	-6804882.87	0.0089	0.0015
Venus	-23344-11-11 22:47 J	-6804657.76	-6804657.55	-6804657.33	0.0089	0.0016

Venus	-23343-06-25 11:45 J	-6804432.22	-6804432.01	-6804431.79	0.0089	0.0016
Venus	-23342-02-06 00:57 J	-6804206.67	-6804206.46	-6804206.24	0.0089	0.0016
Venus	-23342-09-19 13:55 J	-6803981.13	-6803980.92	-6803980.70	0.0089	0.0017
Venus	-23341-05-02 02:52 J	-6803755.59	-6803755.38	-6803755.16	0.0089	0.0017
Venus	-23341-12-13 15:35 J	-6803530.05	-6803529.85	-6803529.62	0.0089	0.0018
Earth	-23340-04-23 21:50 J	-6803398.65	-6803398.59	-6803398.51	0.0089	0.0086
Moon	-23340-04-23 23:02 J	-6803398.62	-6803398.54	-6803398.42	0.0089	0.0082 *
Venus	-23340-07-27 04:47 J	-6803304.51	-6803304.30	-6803304.08	0.0089	0.0017
Venus	-23339-03-09 17:59 J	-6803078.96	-6803078.75	-6803078.54	0.0089	0.0017
Moon	-23339-04-26 05:31 J	-6803031.47	-6803031.27	-6803031.02	0.0089	0.0047
Earth	-23339-04-26 08:09 J	-6803031.36	-6803031.16	-6803030.92	0.0089	0.0043 *
Venus	-23339-10-21 06:57 J	-6802853.42	-6802853.21	-6802853.00	0.0089	0.0018
Earth	-23338-04-28 19:11 J	-6802663.95	-6802663.70	-6802663.45	0.0089	0.0001
Moon	-23338-04-28 22:04 J	-6802663.83	-6802663.58	-6802663.33	0.0089	0.0006 *
Venus	-23338-06-03 19:55 J	-6802627.89	-6802627.67	-6802627.46	0.0089	0.0018
Venus	-23337-01-15 08:38 J	-6802402.35	-6802402.14	-6802401.92	0.0089	0.0018
Moon	-23337-04-30 01:40 J	-6802296.64	-6802296.43	-6802296.18	0.0089	0.0041
Earth	-23337-04-30 05:45 J	-6802296.47	-6802296.26	-6802296.04	0.0089	0.0045 *
Venus	-23337-08-27 21:35 J	-6802176.81	-6802176.60	-6802176.38	0.0089	0.0018
Venus	-23336-04-10 10:33 J	-6801951.27	-6801951.06	-6801950.84	0.0089	0.0018
Earth	-23336-05-02 15:35 J	-6801928.86	-6801928.85	-6801928.78	0.0089	0.0088
Venus	-23336-11-21 23:16 J	-6801725.74	-6801725.53	-6801725.31	0.0089	0.0018
Venus	-23335-07-05 12:14 J	-6801500.20	-6801499.99	-6801499.78	0.0089	0.0018
Venus	-23334-02-16 00:57 J	-6801274.67	-6801274.46	-6801274.24	0.0089	0.0019
Venus	-23334-09-29 13:55 J	-6801049.13	-6801048.92	-6801048.71	0.0089	0.0019
Venus	-23333-05-12 02:23 J	-6800823.61	-6800823.40	-6800823.18	0.0089	0.0019
Venus	-23333-12-23 15:07 J	-6800598.08	-6800597.87	-6800597.65	0.0089	0.0019
Venus	-23332-08-06 03:50 J	-6800372.55	-6800372.34	-6800372.12	0.0089	0.0019
Venus	-23331-03-19 16:33 J	-6800147.01	-6800146.81	-6800146.59	0.0089	0.0019
Venus	-23331-10-31 05:16 J	-6799921.49	-6799921.28	-6799921.06	0.0089	0.0019

Venus	-23330-06-13 17:59 J	-6799695.96	-6799695.75	-6799695.54	0.0089	0.0019
Venus	-23329-01-25 06:28 J	-6799470.43	-6799470.23	-6799470.01	0.0089	0.0020
Venus	-23329-09-06 19:11 J	-6799244.90	-6799244.70	-6799244.48	0.0089	0.0020
Venus	-23328-04-20 07:55 J	-6799019.37	-6799019.17	-6799018.95	0.0089	0.0020
Venus	-23328-12-01 20:38 J	-6798793.85	-6798793.64	-6798793.43	0.0089	0.0019
Venus	-23327-07-15 09:07 J	-6798568.32	-6798568.12	-6798567.90	0.0089	0.0020
Venus	-23326-02-25 21:50 J	-6798342.79	-6798342.59	-6798342.37	0.0089	0.0020
Jupiter	-23326-04-21 05:59 J	-6798288.40	-6798288.25	-6798287.99	0.0089	0.0083
Venus	-23326-10-09 10:33 J	-6798117.27	-6798117.06	-6798116.84	0.0089	0.0019
Venus	-23325-05-21 23:02 J	-6797891.74	-6797891.54	-6797891.32	0.0089	0.0020
Venus	-23324-01-02 11:45 J	-6797666.22	-6797666.01	-6797665.80	0.0089	0.0019
Venus	-23324-08-16 00:14 J	-6797440.70	-6797440.49	-6797440.27	0.0089	0.0019
Venus	-23323-03-29 12:57 J	-6797215.17	-6797214.96	-6797214.75	0.0089	0.0019
Mercury	-23323-06-01 01:40 J	-6797151.45	-6797151.43	-6797151.38	0.0089	0.0087
Mars	-23323-06-22 09:50 J	-6797130.35	-6797130.09	-6797129.82	0.0089	0.0054
Mercury	-23323-08-28 03:07 J	-6797063.42	-6797063.37	-6797063.30	0.0089	0.0080
Venus	-23323-11-10 01:26 J	-6796989.65	-6796989.44	-6796989.23	0.0089	0.0019
Mercury	-23323-11-24 04:33 J	-6796975.38	-6796975.31	-6796975.23	0.0089	0.0073
Mercury	-23322-02-20 05:59 J	-6796887.34	-6796887.25	-6796887.16	0.0089	0.0066
Mercury	-23322-05-19 07:11 J	-6796799.29	-6796799.20	-6796799.09	0.0089	0.0059
Venus	-23322-06-23 13:40 J	-6796764.13	-6796763.93	-6796763.71	0.0089	0.0020
Mercury	-23322-08-15 08:38 J	-6796711.24	-6796711.14	-6796711.03	0.0089	0.0052
Mercury	-23322-11-11 09:50 J	-6796623.19	-6796623.09	-6796622.96	0.0089	0.0046
Venus	-23321-02-04 02:09 J	-6796538.61	-6796538.41	-6796538.19	0.0089	0.0019
Mercury	-23321-02-07 11:16 J	-6796535.14	-6796535.03	-6796534.90	0.0089	0.0038
Mercury	-23321-05-05 12:43 J	-6796447.09	-6796446.97	-6796446.84	0.0089	0.0031
Mars	-23321-05-18 08:52 J	-6796434.44	-6796434.13	-6796433.79	0.0089	0.0017
Mercury	-23321-08-01 14:09 J	-6796359.04	-6796358.91	-6796358.78	0.0089	0.0024
Venus	-23321-09-16 14:38 J	-6796313.09	-6796312.89	-6796312.67	0.0089	0.0019
Mercury	-23321-10-28 15:35 J	-6796270.98	-6796270.85	-6796270.72	0.0089	0.0017

Mercury	-23320-01-24 17:02 J	-6796182.93	-6796182.79	-6796182.66	0.0089	0.0011
Mercury	-23320-04-22 18:14 J	-6796094.87	-6796094.74	-6796094.60	0.0089	0.0004
Venus	-23320-04-30 03:21 J	-6796087.57	-6796087.36	-6796087.15	0.0089	0.0019
Mercury	-23320-07-19 19:40 J	-6796006.81	-6796006.68	-6796006.55	0.0089	0.0004
Mercury	-23320-10-15 20:52 J	-6795918.76	-6795918.63	-6795918.49	0.0089	0.0011
Venus	-23320-12-11 15:35 J	-6795862.05	-6795861.85	-6795861.63	0.0089	0.0019
Mercury	-23319-01-11 22:19 J	-6795830.70	-6795830.57	-6795830.43	0.0089	0.0018
Mercury	-23319-04-09 23:45 J	-6795742.64	-6795742.51	-6795742.38	0.0089	0.0025
Mars	-23319-04-14 06:14 J	-6795738.30	-6795738.24	-6795738.14	0.0089	0.0087
Mercury	-23319-07-07 01:11 J	-6795654.58	-6795654.45	-6795654.33	0.0089	0.0032
Venus	-23319-07-25 04:04 J	-6795636.54	-6795636.33	-6795636.12	0.0089	0.0018
Mercury	-23319-10-03 02:23 J	-6795566.51	-6795566.40	-6795566.27	0.0089	0.0039
Mercury	-23319-12-30 03:50 J	-6795478.45	-6795478.34	-6795478.22	0.0089	0.0046
Venus	-23318-03-07 16:33 J	-6795411.02	-6795410.81	-6795410.60	0.0089	0.0018
Mercury	-23318-03-28 05:02 J	-6795390.38	-6795390.29	-6795390.17	0.0089	0.0053
Mercury	-23318-06-24 06:28 J	-6795302.32	-6795302.23	-6795302.12	0.0089	0.0060
Mercury	-23318-09-20 07:55 J	-6795214.25	-6795214.17	-6795214.07	0.0089	0.0067
Venus	-23318-10-19 04:47 J	-6795185.50	-6795185.30	-6795185.08	0.0089	0.0018
Mercury	-23318-12-17 09:21 J	-6795126.18	-6795126.11	-6795126.03	0.0089	0.0074
Mercury	-23317-03-14 10:47 J	-6795038.10	-6795038.05	-6795037.99	0.0089	0.0081
Venus	-23317-05-31 17:02 J	-6794959.99	-6794959.79	-6794959.57	0.0089	0.0019
Mercury	-23317-06-10 12:14 J	-6794950.00	-6794949.99	-6794949.97	0.0089	0.0088
Venus	-23316-01-12 05:31 J	-6794734.47	-6794734.27	-6794734.05	0.0089	0.0018
Venus	-23316-08-25 17:59 J	-6794508.96	-6794508.75	-6794508.54	0.0089	0.0018
Venus	-23315-04-08 06:28 J	-6794283.44	-6794283.23	-6794283.01	0.0089	0.0018
Venus	-23315-11-19 18:57 J	-6794057.92	-6794057.71	-6794057.50	0.0089	0.0017
Venus	-23314-07-03 07:11 J	-6793832.41	-6793832.20	-6793831.98	0.0089	0.0017
Venus	-23313-02-13 19:26 J	-6793606.89	-6793606.69	-6793606.47	0.0089	0.0017
Venus	-23313-09-26 08:09 J	-6793381.37	-6793381.16	-6793380.95	0.0089	0.0016
Venus	-23312-05-09 20:38 J	-6793155.85	-6793155.64	-6793155.43	0.0089	0.0016

Venus	-23312-12-21 08:52 J	-6792930.34	-6792930.13	-6792929.91	0.0089	0.0016
Venus	-23311-08-03 21:07 J	-6792704.83	-6792704.62	-6792704.40	0.0089	0.0016
Venus	-23310-03-17 09:35 J	-6792479.31	-6792479.10	-6792478.89	0.0089	0.0015
Venus	-23310-10-28 21:50 J	-6792253.80	-6792253.59	-6792253.37	0.0089	0.0015
Venus	-23309-06-10 10:04 J	-6792028.29	-6792028.08	-6792027.86	0.0089	0.0015
Venus	-23308-01-21 22:19 J	-6791802.78	-6791802.57	-6791802.35	0.0089	0.0015
Venus	-23308-09-04 10:47 J	-6791577.26	-6791577.05	-6791576.84	0.0089	0.0014
Venus	-23307-04-17 23:02 J	-6791351.75	-6791351.54	-6791351.32	0.0089	0.0014
Venus	-23307-11-29 11:16 J	-6791126.24	-6791126.03	-6791125.81	0.0089	0.0014
Venus	-23306-07-12 23:31 J	-6790900.73	-6790900.52	-6790900.30	0.0089	0.0014
Venus	-23305-02-23 11:45 J	-6790675.22	-6790675.01	-6790674.79	0.0089	0.0013
Venus	-23305-10-05 23:59 J	-6790449.71	-6790449.50	-6790449.28	0.0089	0.0013
Venus	-23304-05-19 12:28 J	-6790224.19	-6790223.98	-6790223.76	0.0089	0.0013
Venus	-23304-12-31 00:43 J	-6789998.68	-6789998.47	-6789998.25	0.0089	0.0012
Venus	-23303-08-13 12:57 J	-6789773.17	-6789772.96	-6789772.74	0.0089	0.0012
Venus	-23302-03-27 01:11 J	-6789547.66	-6789547.45	-6789547.23	0.0089	0.0012
Venus	-23302-11-07 13:40 J	-6789322.14	-6789321.93	-6789321.71	0.0089	0.0011
Venus	-23301-06-20 01:55 J	-6789096.63	-6789096.42	-6789096.20	0.0089	0.0011
Venus	-23300-01-31 14:09 J	-6788871.12	-6788870.91	-6788870.69	0.0089	0.0011
Venus	-23300-09-14 02:38 J	-6788645.60	-6788645.39	-6788645.17	0.0089	0.0010
Venus	-23299-04-27 15:07 J	-6788420.08	-6788419.87	-6788419.65	0.0089	0.0010
Venus	-23299-12-09 03:21 J	-6788194.57	-6788194.36	-6788194.14	0.0089	0.0009
Venus	-23298-07-22 15:35 J	-6787969.06	-6787968.85	-6787968.63	0.0089	0.0009
Venus	-23297-03-04 03:50 J	-6787743.55	-6787743.34	-6787743.12	0.0089	0.0009
Venus	-23297-10-15 16:04 J	-6787518.04	-6787517.83	-6787517.61	0.0089	0.0009
Venus	-23296-05-29 04:33 J	-6787292.52	-6787292.31	-6787292.09	0.0089	0.0008
Venus	-23295-01-09 16:47 J	-6787067.01	-6787066.80	-6787066.58	0.0089	0.0008
Venus	-23295-08-23 05:02 J	-6786841.50	-6786841.29	-6786841.07	0.0089	0.0007
Venus	-23294-04-05 17:16 J	-6786615.99	-6786615.78	-6786615.56	0.0089	0.0007
Venus	-23294-11-17 05:31 J	-6786390.48	-6786390.27	-6786390.05	0.0089	0.0007

Venus	-23293-06-29 17:59 J	-6786164.97	-6786164.75	-6786164.53	0.0089	0.0006
Venus	-23292-02-10 06:14 J	-6785939.45	-6785939.24	-6785939.02	0.0089	0.0005
Venus	-23292-09-23 18:28 J	-6785713.94	-6785713.73	-6785713.51	0.0089	0.0005
Venus	-23291-05-07 06:57 J	-6785488.43	-6785488.21	-6785487.99	0.0089	0.0005
Venus	-23291-12-18 19:11 J	-6785262.91	-6785262.70	-6785262.48	0.0089	0.0004
Venus	-23290-08-01 07:26 J	-6785037.40	-6785037.19	-6785036.97	0.0089	0.0005
Venus	-23289-03-13 19:55 J	-6784811.89	-6784811.67	-6784811.45	0.0089	0.0003
Venus	-23289-10-25 08:09 J	-6784586.37	-6784586.16	-6784585.94	0.0089	0.0004
Venus	-23288-06-07 20:52 J	-6784360.85	-6784360.63	-6784360.41	0.0089	0.0003
Venus	-23287-01-19 09:21 J	-6784135.33	-6784135.11	-6784134.90	0.0088	0.0003
Venus	-23287-09-01 21:35 J	-6783909.82	-6783909.60	-6783909.38	0.0088	0.0002
Venus	-23286-04-15 09:50 J	-6783684.30	-6783684.09	-6783683.87	0.0088	0.0002
Venus	-23286-11-26 22:19 J	-6783458.79	-6783458.57	-6783458.35	0.0088	0.0001
Venus	-23285-07-09 10:47 J	-6783233.27	-6783233.05	-6783232.83	0.0088	0.0001
Venus	-23284-02-19 23:16 J	-6783007.75	-6783007.53	-6783007.31	0.0088	0.0000
Venus	-23284-10-03 11:31 J	-6782782.23	-6782782.02	-6782781.80	0.0088	0.0002
Venus	-23283-05-16 23:59 J	-6782556.71	-6782556.50	-6782556.28	0.0088	0.0002
Venus	-23283-12-28 12:28 J	-6782331.20	-6782330.98	-6782330.76	0.0088	0.0001
Venus	-23282-08-11 00:57 J	-6782105.68	-6782105.46	-6782105.25	0.0088	0.0002
Venus	-23281-03-23 13:11 J	-6781880.17	-6781879.95	-6781879.73	0.0088	0.0002
Venus	-23281-11-04 01:40 J	-6781654.65	-6781654.43	-6781654.21	0.0088	0.0002
Venus	-23280-06-17 14:09 J	-6781429.12	-6781428.91	-6781428.69	0.0088	0.0004
Venus	-23279-01-29 02:38 J	-6781203.60	-6781203.39	-6781203.17	0.0088	0.0004
Venus	-23279-09-11 15:07 J	-6780978.09	-6780977.87	-6780977.65	0.0088	0.0004
Venus	-23278-04-25 03:35 J	-6780752.57	-6780752.35	-6780752.13	0.0088	0.0004
Venus	-23278-12-06 16:04 J	-6780527.04	-6780526.83	-6780526.61	0.0088	0.0005
Venus	-23277-07-19 04:47 J	-6780301.52	-6780301.30	-6780301.08	0.0088	0.0005
Venus	-23276-03-01 17:31 J	-6780075.99	-6780075.77	-6780075.55	0.0088	0.0005
Venus	-23276-10-13 05:59 J	-6779850.47	-6779850.25	-6779850.03	0.0088	0.0006
Venus	-23275-05-26 18:43 J	-6779624.94	-6779624.72	-6779624.50	0.0088	0.0006

Venus	-23274-01-07 07:11 J	-6779399.41	-6779399.20	-6779398.98	0.0088	0.0007
Venus	-23274-08-20 19:55 J	-6779173.89	-6779173.67	-6779173.45	0.0088	0.0007
Venus	-23273-04-02 08:38 J	-6778948.36	-6778948.14	-6778947.92	0.0088	0.0007
Venus	-23273-11-13 21:07 J	-6778722.83	-6778722.62	-6778722.40	0.0088	0.0008
Venus	-23272-06-27 09:50 J	-6778497.30	-6778497.09	-6778496.86	0.0088	0.0009
Venus	-23271-02-07 22:47 J	-6778271.77	-6778271.55	-6778271.33	0.0088	0.0008
Venus	-23271-09-21 11:16 J	-6778046.24	-6778046.03	-6778045.81	0.0088	0.0009
Venus	-23270-05-04 23:59 J	-6777820.72	-6777820.50	-6777820.28	0.0088	0.0009
Venus	-23270-12-16 12:43 J	-6777595.19	-6777594.97	-6777594.75	0.0088	0.0009
Venus	-23269-07-29 01:26 J	-6777369.65	-6777369.44	-6777369.22	0.0088	0.0010
Venus	-23268-03-11 14:09 J	-6777144.12	-6777143.91	-6777143.69	0.0088	0.0010
Venus	-23268-10-23 02:52 J	-6776918.59	-6776918.38	-6776918.16	0.0088	0.0010
Venus	-23267-06-05 15:35 J	-6776693.06	-6776692.85	-6776692.62	0.0088	0.0011
Venus	-23266-01-17 04:19 J	-6776467.53	-6776467.32	-6776467.09	0.0088	0.0011
Venus	-23266-08-30 17:16 J	-6776242.00	-6776241.78	-6776241.56	0.0088	0.0011
Venus	-23265-04-12 06:14 J	-6776016.46	-6776016.24	-6776016.02	0.0088	0.0011
Venus	-23265-11-23 18:57 J	-6775790.93	-6775790.71	-6775790.49	0.0088	0.0012
Venus	-23264-07-07 07:55 J	-6775565.38	-6775565.17	-6775564.94	0.0088	0.0012
Venus	-23263-02-17 20:52 J	-6775339.84	-6775339.63	-6775339.41	0.0088	0.0012
Venus	-23263-10-01 09:35 J	-6775114.31	-6775114.10	-6775113.87	0.0088	0.0014
Venus	-23262-05-14 22:33 J	-6774888.77	-6774888.56	-6774888.33	0.0088	0.0013
Venus	-23262-12-26 11:45 J	-6774663.23	-6774663.01	-6774662.79	0.0088	0.0013
Venus	-23261-08-08 00:57 J	-6774437.68	-6774437.46	-6774437.24	0.0088	0.0013
Venus	-23260-03-21 13:40 J	-6774212.14	-6774211.93	-6774211.70	0.0088	0.0014
Venus	-23260-11-02 02:52 J	-6773986.60	-6773986.38	-6773986.16	0.0088	0.0014
Venus	-23259-06-15 15:50 J	-6773761.06	-6773760.84	-6773760.62	0.0088	0.0014
Venus	-23258-01-27 04:47 J	-6773535.51	-6773535.30	-6773535.08	0.0088	0.0014
Venus	-23258-09-09 17:59 J	-6773309.97	-6773309.75	-6773309.53	0.0088	0.0014
Moon	-23258-10-24 04:33 J	-6773265.45	-6773265.31	-6773265.12	0.0088	0.0069
Earth	-23258-10-24 07:40 J	-6773265.33	-6773265.18	-6773265.01	0.0088	0.0070 *

Venus	-23257-04-22 06:57 J	-6773084.43	-6773084.21	-6773083.99	0.0088	0.0015
Earth	-23257-10-25 20:23 J	-6772897.90	-6772897.65	-6772897.40	0.0088	0.0027
Moon	-23257-10-25 23:45 J	-6772897.74	-6772897.51	-6772897.25	0.0088	0.0029 *
Venus	-23257-12-03 19:55 J	-6772858.88	-6772858.67	-6772858.44	0.0088	0.0015
Venus	-23256-07-17 09:07 J	-6772633.34	-6772633.12	-6772632.90	0.0088	0.0015
Moon	-23256-10-28 05:16 J	-6772530.53	-6772530.28	-6772530.01	0.0088	0.0017
Earth	-23256-10-28 08:52 J	-6772530.38	-6772530.13	-6772529.86	0.0088	0.0016 *
Venus	-23255-02-27 22:19 J	-6772407.79	-6772407.57	-6772407.35	0.0088	0.0015
Venus	-23255-10-11 11:02 J	-6772182.25	-6772182.04	-6772181.81	0.0088	0.0016
Earth	-23255-10-30 21:35 J	-6772162.79	-6772162.60	-6772162.40	0.0088	0.0058
Moon	-23255-10-31 00:43 J	-6772162.65	-6772162.47	-6772162.25	0.0088	0.0056 *
Venus	-23254-05-25 00:14 J	-6771956.70	-6771956.49	-6771956.26	0.0088	0.0016
Venus	-23253-01-05 13:26 J	-6771731.16	-6771730.94	-6771730.72	0.0088	0.0016
Venus	-23253-08-18 02:38 J	-6771505.60	-6771505.39	-6771505.16	0.0088	0.0016
Venus	-23252-03-31 16:04 J	-6771280.05	-6771279.83	-6771279.61	0.0088	0.0016
Venus	-23252-11-12 05:16 J	-6771054.50	-6771054.28	-6771054.06	0.0088	0.0016
Venus	-23251-06-25 18:28 J	-6770828.95	-6770828.73	-6770828.51	0.0088	0.0016
Venus	-23250-02-06 07:26 J	-6770603.40	-6770603.19	-6770602.96	0.0088	0.0017
Venus	-23250-09-19 20:52 J	-6770377.84	-6770377.63	-6770377.40	0.0088	0.0017
Venus	-23249-05-02 10:04 J	-6770152.29	-6770152.08	-6770151.85	0.0088	0.0017
Venus	-23249-12-13 23:31 J	-6769926.73	-6769926.52	-6769926.29	0.0088	0.0017
Venus	-23248-07-27 12:57 J	-6769701.17	-6769700.96	-6769700.74	0.0088	0.0017
Venus	-23247-03-10 02:09 J	-6769475.62	-6769475.41	-6769475.18	0.0088	0.0017
Venus	-23247-10-21 15:35 J	-6769250.06	-6769249.85	-6769249.62	0.0088	0.0017
Venus	-23246-06-04 05:02 J	-6769024.51	-6769024.29	-6769024.07	0.0088	0.0017
Venus	-23245-01-15 18:14 J	-6768798.95	-6768798.74	-6768798.51	0.0088	0.0017
Venus	-23245-08-28 07:55 J	-6768573.39	-6768573.17	-6768572.95	0.0088	0.0017
Venus	-23244-04-10 21:07 J	-6768347.83	-6768347.62	-6768347.39	0.0088	0.0017
Venus	-23244-11-22 10:33 J	-6768122.28	-6768122.06	-6768121.84	0.0088	0.0017
Venus	-23243-07-05 23:59 J	-6767896.72	-6767896.50	-6767896.28	0.0088	0.0017

Venus	-23242-02-16 13:11 J	-6767671.16	-6767670.95	-6767670.72	0.0088	0.0018
Venus	-23242-09-30 02:52 J	-6767445.60	-6767445.38	-6767445.16	0.0088	0.0017
Mars	-23241-03-24 02:38 J	-6767269.51	-6767269.39	-6767269.20	0.0088	0.0075
Venus	-23241-05-12 16:19 J	-6767220.04	-6767219.82	-6767219.60	0.0088	0.0017
Venus	-23241-12-24 05:45 J	-6766994.48	-6766994.26	-6766994.04	0.0088	0.0017
Venus	-23240-08-06 19:11 J	-6766768.92	-6766768.70	-6766768.47	0.0088	0.0017
Mercury	-23239-02-14 18:43 J	-6766576.77	-6766576.72	-6766576.65	0.0088	0.0083
Mars	-23239-02-15 23:02 J	-6766575.83	-6766575.54	-6766575.25	0.0088	0.0015
Venus	-23239-03-20 08:38 J	-6766543.35	-6766543.14	-6766542.91	0.0088	0.0017
Mercury	-23239-05-13 22:19 J	-6766488.67	-6766488.57	-6766488.46	0.0088	0.0073
Mercury	-23239-08-10 01:26 J	-6766400.55	-6766400.44	-6766400.28	0.0088	0.0064
Venus	-23239-10-31 22:19 J	-6766317.79	-6766317.57	-6766317.35	0.0088	0.0017
Mercury	-23239-11-06 05:02 J	-6766312.42	-6766312.29	-6766312.12	0.0088	0.0054
Mercury	-23238-02-02 08:52 J	-6766224.29	-6766224.13	-6766223.96	0.0088	0.0044
Mercury	-23238-05-01 12:28 J	-6766136.16	-6766135.98	-6766135.80	0.0088	0.0034
Venus	-23238-06-14 11:45 J	-6766092.22	-6766092.01	-6766091.78	0.0088	0.0017
Mercury	-23238-07-28 15:35 J	-6766048.02	-6766047.85	-6766047.65	0.0088	0.0025
Mercury	-23238-10-24 19:11 J	-6765959.88	-6765959.70	-6765959.50	0.0088	0.0015
Mars	-23237-01-10 20:38 J	-6765881.88	-6765881.64	-6765881.37	0.0088	0.0044
Mercury	-23237-01-20 22:47 J	-6765871.74	-6765871.55	-6765871.36	0.0088	0.0005
Venus	-23237-01-26 01:26 J	-6765866.66	-6765866.44	-6765866.22	0.0088	0.0017
Mercury	-23237-04-18 02:09 J	-6765783.60	-6765783.41	-6765783.21	0.0088	0.0005
Mercury	-23237-07-15 05:45 J	-6765695.45	-6765695.26	-6765695.07	0.0088	0.0014
Venus	-23237-09-07 15:07 J	-6765641.09	-6765640.87	-6765640.64	0.0088	0.0017
Mercury	-23237-10-11 08:52 J	-6765607.30	-6765607.13	-6765606.93	0.0088	0.0024
Mercury	-23236-01-07 12:28 J	-6765519.15	-6765518.98	-6765518.80	0.0088	0.0033
Mercury	-23236-04-05 15:35 J	-6765431.00	-6765430.85	-6765430.67	0.0088	0.0043
Venus	-23236-04-21 04:33 J	-6765415.52	-6765415.31	-6765415.08	0.0088	0.0017
Mercury	-23236-07-02 19:11 J	-6765342.84	-6765342.70	-6765342.54	0.0088	0.0052
Mercury	-23236-09-28 22:19 J	-6765254.68	-6765254.57	-6765254.41	0.0088	0.0062

Venus	-23236-12-02 18:14 J	-6765189.95	-6765189.74	-6765189.51	0.0088	0.0017
Mercury	-23236-12-26 01:55 J	-6765166.52	-6765166.42	-6765166.30	0.0088	0.0071
Mercury	-23235-03-24 05:02 J	-6765078.34	-6765078.29	-6765078.19	0.0088	0.0081
Venus	-23235-07-16 08:09 J	-6764964.38	-6764964.16	-6764963.94	0.0088	0.0017
Venus	-23234-02-26 21:35 J	-6764738.82	-6764738.60	-6764738.37	0.0088	0.0016
Venus	-23234-10-10 11:16 J	-6764513.24	-6764513.03	-6764512.80	0.0088	0.0017
Venus	-23233-05-23 00:57 J	-6764287.67	-6764287.46	-6764287.23	0.0088	0.0016
Venus	-23232-01-03 14:38 J	-6764062.11	-6764061.89	-6764061.66	0.0088	0.0016
Venus	-23232-08-17 04:04 J	-6763836.54	-6763836.33	-6763836.10	0.0088	0.0016
Venus	-23231-03-30 17:45 J	-6763610.97	-6763610.76	-6763610.53	0.0088	0.0016
Venus	-23231-11-11 07:40 J	-6763385.40	-6763385.18	-6763384.96	0.0088	0.0015
Venus	-23230-06-24 21:07 J	-6763159.83	-6763159.62	-6763159.39	0.0088	0.0016
Venus	-23229-02-05 10:47 J	-6762934.27	-6762934.05	-6762933.82	0.0088	0.0015
Venus	-23229-09-18 00:28 J	-6762708.69	-6762708.48	-6762708.25	0.0088	0.0015
Venus	-23228-05-01 14:09 J	-6762483.12	-6762482.91	-6762482.68	0.0088	0.0015
Venus	-23228-12-13 04:04 J	-6762257.55	-6762257.33	-6762257.11	0.0088	0.0015
Venus	-23227-07-26 17:45 J	-6762031.98	-6762031.76	-6762031.54	0.0088	0.0014
Venus	-23226-03-09 07:26 J	-6761806.41	-6761806.19	-6761805.97	0.0088	0.0014
Venus	-23226-10-20 21:07 J	-6761580.83	-6761580.62	-6761580.39	0.0088	0.0014
Venus	-23225-06-02 10:47 J	-6761355.26	-6761355.05	-6761354.81	0.0088	0.0015
Venus	-23224-01-14 00:43 J	-6761129.69	-6761129.47	-6761129.24	0.0088	0.0014
Venus	-23224-08-27 14:23 J	-6760904.11	-6760903.90	-6760903.67	0.0088	0.0014
Venus	-23223-04-10 04:19 J	-6760678.54	-6760678.32	-6760678.09	0.0088	0.0013
Venus	-23223-11-21 18:14 J	-6760452.96	-6760452.74	-6760452.52	0.0088	0.0013
Venus	-23222-07-05 07:55 J	-6760227.39	-6760227.17	-6760226.94	0.0088	0.0013
Venus	-23221-02-15 21:35 J	-6760001.82	-6760001.60	-6760001.37	0.0088	0.0012
Venus	-23221-09-28 11:31 J	-6759776.24	-6759776.02	-6759775.79	0.0088	0.0012
Venus	-23220-05-12 01:26 J	-6759550.67	-6759550.44	-6759550.22	0.0088	0.0012
Venus	-23220-12-23 15:07 J	-6759325.09	-6759324.87	-6759324.65	0.0088	0.0011
Venus	-23219-08-06 04:33 J	-6759099.52	-6759099.31	-6759099.08	0.0088	0.0012

Venus	-23218-03-19 18:28 J	-6758873.95	-6758873.73	-6758873.51	0.0088	0.0011
Venus	-23218-10-31 08:23 J	-6758648.38	-6758648.15	-6758647.93	0.0088	0.0011
Venus	-23217-06-12 22:04 J	-6758422.80	-6758422.58	-6758422.36	0.0088	0.0010
Venus	-23216-01-24 11:45 J	-6758197.23	-6758197.01	-6758196.79	0.0088	0.0010
Venus	-23216-09-07 01:26 J	-6757971.66	-6757971.44	-6757971.22	0.0088	0.0010
Venus	-23215-04-20 15:07 J	-6757746.09	-6757745.87	-6757745.64	0.0088	0.0009
Venus	-23215-12-02 05:02 J	-6757520.52	-6757520.29	-6757520.07	0.0089	0.0009
Venus	-23214-07-15 18:43 J	-6757294.94	-6757294.72	-6757294.50	0.0089	0.0009
Venus	-23213-02-26 08:23 J	-6757069.37	-6757069.15	-6757068.93	0.0089	0.0008
Venus	-23213-10-08 22:19 J	-6756843.80	-6756843.57	-6756843.35	0.0089	0.0008
Venus	-23212-05-22 11:59 J	-6756618.22	-6756618.00	-6756617.78	0.0089	0.0007
Venus	-23211-01-03 01:40 J	-6756392.65	-6756392.43	-6756392.20	0.0089	0.0007
Venus	-23211-08-16 15:35 J	-6756167.08	-6756166.85	-6756166.63	0.0089	0.0007
Venus	-23210-03-30 05:16 J	-6755941.50	-6755941.28	-6755941.06	0.0089	0.0006
Venus	-23210-11-10 18:57 J	-6755715.93	-6755715.71	-6755715.48	0.0089	0.0007
Venus	-23209-06-23 08:52 J	-6755490.35	-6755490.13	-6755489.91	0.0089	0.0006
Venus	-23208-02-03 22:33 J	-6755264.78	-6755264.56	-6755264.34	0.0089	0.0005
Venus	-23208-09-17 12:14 J	-6755039.21	-6755038.99	-6755038.77	0.0089	0.0005
Venus	-23207-05-01 01:55 J	-6754813.64	-6754813.42	-6754813.20	0.0089	0.0005
Venus	-23207-12-12 15:35 J	-6754588.07	-6754587.85	-6754587.62	0.0089	0.0005
Venus	-23206-07-26 05:16 J	-6754362.50	-6754362.28	-6754362.05	0.0089	0.0004
Venus	-23205-03-07 18:57 J	-6754136.94	-6754136.71	-6754136.49	0.0089	0.0004
Venus	-23205-10-19 08:23 J	-6753911.37	-6753911.15	-6753910.92	0.0089	0.0004
Venus	-23204-06-01 22:04 J	-6753685.80	-6753685.58	-6753685.35	0.0089	0.0003
Venus	-23203-01-13 11:45 J	-6753460.23	-6753460.01	-6753459.78	0.0089	0.0003
Venus	-23203-08-27 01:26 J	-6753234.66	-6753234.44	-6753234.22	0.0089	0.0002
Venus	-23202-04-09 14:52 J	-6753009.10	-6753008.88	-6753008.65	0.0089	0.0002
Venus	-23202-11-21 04:47 J	-6752783.53	-6752783.30	-6752783.08	0.0089	0.0002
Venus	-23201-07-03 18:14 J	-6752557.96	-6752557.74	-6752557.51	0.0089	0.0002
Venus	-23200-02-14 07:55 J	-6752332.39	-6752332.17	-6752331.95	0.0089	0.0001

Venus	-23200-09-27 21:21 J	-6752106.83	-6752106.61	-6752106.38	0.0089	0.0002
Venus	-23199-05-11 11:02 J	-6751881.26	-6751881.04	-6751880.81	0.0089	0.0001
Venus	-23199-12-23 00:43 J	-6751655.69	-6751655.47	-6751655.24	0.0089	0.0002
Venus	-23198-08-05 14:23 J	-6751430.12	-6751429.90	-6751429.68	0.0089	0.0001
Venus	-23197-03-18 04:04 J	-6751204.56	-6751204.33	-6751204.11	0.0089	0.0002
Venus	-23197-10-29 17:31 J	-6750978.99	-6750978.77	-6750978.55	0.0089	0.0002
Venus	-23196-06-12 06:57 J	-6750753.43	-6750753.21	-6750752.98	0.0089	0.0003
Venus	-23195-01-23 20:38 J	-6750527.86	-6750527.64	-6750527.42	0.0089	0.0003
Venus	-23195-09-06 10:04 J	-6750302.30	-6750302.08	-6750301.85	0.0089	0.0003
Venus	-23194-04-19 23:31 J	-6750076.74	-6750076.52	-6750076.30	0.0089	0.0003
Venus	-23194-12-01 12:57 J	-6749851.18	-6749850.96	-6749850.73	0.0089	0.0004
Venus	-23193-07-14 02:23 J	-6749625.62	-6749625.40	-6749625.17	0.0089	0.0004
Venus	-23192-02-24 16:04 J	-6749400.06	-6749399.83	-6749399.61	0.0089	0.0004
Venus	-23192-10-08 05:16 J	-6749174.50	-6749174.28	-6749174.06	0.0089	0.0004
Venus	-23191-05-21 18:43 J	-6748948.94	-6748948.72	-6748948.50	0.0089	0.0005
Venus	-23190-01-02 08:09 J	-6748723.38	-6748723.16	-6748722.94	0.0089	0.0005
Venus	-23190-08-15 21:21 J	-6748497.83	-6748497.61	-6748497.38	0.0089	0.0006
Venus	-23189-03-28 10:47 J	-6748272.27	-6748272.05	-6748271.83	0.0089	0.0006
Venus	-23189-11-08 23:59 J	-6748046.72	-6748046.50	-6748046.28	0.0089	0.0006
Venus	-23188-06-22 13:26 J	-6747821.16	-6747820.94	-6747820.72	0.0089	0.0007
Venus	-23187-02-03 02:52 J	-6747595.60	-6747595.38	-6747595.16	0.0089	0.0007
Venus	-23187-09-16 16:04 J	-6747370.05	-6747369.83	-6747369.61	0.0089	0.0007
Venus	-23186-04-30 05:16 J	-6747144.49	-6747144.28	-6747144.05	0.0089	0.0008
Venus	-23186-12-11 18:43 J	-6746918.94	-6746918.72	-6746918.50	0.0089	0.0008
Venus	-23185-07-24 07:55 J	-6746693.38	-6746693.17	-6746692.94	0.0089	0.0008
Venus	-23184-03-06 21:21 J	-6746467.83	-6746467.61	-6746467.39	0.0089	0.0008
Venus	-23184-10-18 10:33 J	-6746242.28	-6746242.06	-6746241.84	0.0089	0.0009
Venus	-23183-05-31 23:45 J	-6746016.73	-6746016.51	-6746016.29	0.0089	0.0009
Venus	-23182-01-12 12:57 J	-6745791.18	-6745790.96	-6745790.74	0.0089	0.0009
Venus	-23182-08-26 02:09 J	-6745565.63	-6745565.41	-6745565.19	0.0089	0.0009

Venus	-23181-04-07 15:07 J	-6745340.08	-6745339.87	-6745339.65	0.0089	0.0010
Venus	-23181-11-19 04:04 J	-6745114.54	-6745114.33	-6745114.10	0.0089	0.0011
Venus	-23180-07-02 17:16 J	-6744888.99	-6744888.78	-6744888.56	0.0089	0.0010
Venus	-23179-02-13 06:28 J	-6744663.44	-6744663.23	-6744663.01	0.0089	0.0011
Venus	-23179-09-26 19:26 J	-6744437.90	-6744437.69	-6744437.47	0.0089	0.0011
Venus	-23178-05-10 08:23 J	-6744212.36	-6744212.15	-6744211.93	0.0089	0.0011
Venus	-23178-12-21 21:21 J	-6743986.82	-6743986.61	-6743986.39	0.0089	0.0011
Venus	-23177-08-03 10:33 J	-6743761.28	-6743761.06	-6743760.84	0.0089	0.0011
Venus	-23176-03-16 23:31 J	-6743535.73	-6743535.52	-6743535.30	0.0089	0.0012
Venus	-23176-10-28 12:14 J	-6743310.19	-6743309.99	-6743309.76	0.0089	0.0013
Earth	-23175-04-25 13:26 J	-6743131.08	-6743130.94	-6743130.76	0.0089	0.0069
Moon	-23175-04-25 16:33 J	-6743130.93	-6743130.81	-6743130.63	0.0089	0.0072 *
Venus	-23175-06-11 01:26 J	-6743084.66	-6743084.44	-6743084.22	0.0089	0.0012
Venus	-23174-01-22 14:23 J	-6742859.11	-6742858.90	-6742858.68	0.0089	0.0012
Moon	-23174-04-27 20:52 J	-6742763.87	-6742763.63	-6742763.38	0.0089	0.0024
Earth	-23174-04-28 00:14 J	-6742763.73	-6742763.49	-6742763.24	0.0089	0.0025 *
Venus	-23174-09-05 03:21 J	-6742633.57	-6742633.36	-6742633.14	0.0089	0.0012
Venus	-23173-04-17 16:19 J	-6742408.03	-6742407.82	-6742407.60	0.0089	0.0013
Earth	-23173-04-29 10:47 J	-6742396.29	-6742396.05	-6742395.79	0.0089	0.0018
Moon	-23173-04-29 14:23 J	-6742396.15	-6742395.90	-6742395.64	0.0089	0.0017 *
Venus	-23173-11-29 05:16 J	-6742182.50	-6742182.28	-6742182.07	0.0089	0.0013
Moon	-23172-05-01 19:11 J	-6742028.86	-6742028.70	-6742028.52	0.0089	0.0064
Earth	-23172-05-01 21:21 J	-6742028.78	-6742028.61	-6742028.41	0.0089	0.0062 *
Venus	-23172-07-12 17:59 J	-6741956.96	-6741956.75	-6741956.53	0.0089	0.0013
Venus	-23171-02-23 06:57 J	-6741731.42	-6741731.21	-6741730.98	0.0089	0.0014
Venus	-23171-10-06 19:55 J	-6741505.88	-6741505.67	-6741505.45	0.0089	0.0013
Venus	-23170-05-20 08:38 J	-6741280.35	-6741280.14	-6741279.92	0.0089	0.0014
Venus	-23170-12-31 21:35 J	-6741054.81	-6741054.60	-6741054.38	0.0089	0.0013
Venus	-23169-08-13 10:19 J	-6740829.28	-6740829.07	-6740828.85	0.0089	0.0014
Venus	-23168-03-26 23:16 J	-6740603.74	-6740603.53	-6740603.31	0.0089	0.0014

Venus	-23168-11-07 11:59 J	-6740378.21	-6740378.00	-6740377.79	0.0089	0.0014
Venus	-23167-06-21 00:28 J	-6740152.69	-6740152.48	-6740152.26	0.0089	0.0014
Venus	-23166-02-01 13:11 J	-6739927.16	-6739926.95	-6739926.73	0.0089	0.0014
Venus	-23166-09-15 01:55 J	-6739701.63	-6739701.42	-6739701.20	0.0089	0.0014
Venus	-23165-04-27 14:38 J	-6739476.10	-6739475.89	-6739475.67	0.0089	0.0014
Venus	-23165-12-09 03:21 J	-6739250.57	-6739250.36	-6739250.14	0.0089	0.0014
Venus	-23164-07-22 15:50 J	-6739025.05	-6739024.84	-6739024.62	0.0089	0.0015
Venus	-23163-03-05 04:47 J	-6738799.51	-6738799.30	-6738799.09	0.0089	0.0014
Venus	-23163-10-16 17:16 J	-6738573.99	-6738573.78	-6738573.56	0.0089	0.0015
Venus	-23162-05-30 05:59 J	-6738348.46	-6738348.25	-6738348.04	0.0089	0.0014
Venus	-23161-01-10 18:28 J	-6738122.94	-6738122.73	-6738122.51	0.0089	0.0015
Venus	-23161-08-23 07:11 J	-6737897.41	-6737897.20	-6737896.98	0.0089	0.0015
Venus	-23160-04-05 19:55 J	-6737671.88	-6737671.67	-6737671.45	0.0089	0.0015
Venus	-23160-11-17 08:38 J	-6737446.35	-6737446.14	-6737445.93	0.0089	0.0014
Venus	-23159-06-30 21:07 J	-6737220.83	-6737220.62	-6737220.40	0.0089	0.0015
Venus	-23158-02-11 09:50 J	-6736995.30	-6736995.09	-6736994.88	0.0089	0.0014
Mercury	-23158-02-26 00:43 J	-6736980.49	-6736980.47	-6736980.43	0.0089	0.0086
Mercury	-23158-05-25 01:55 J	-6736892.46	-6736892.42	-6736892.34	0.0089	0.0080
Mercury	-23158-08-21 03:21 J	-6736804.42	-6736804.36	-6736804.27	0.0089	0.0073
Venus	-23158-09-24 22:19 J	-6736769.78	-6736769.57	-6736769.35	0.0089	0.0014
Mercury	-23158-11-17 04:47 J	-6736716.38	-6736716.30	-6736716.20	0.0089	0.0065
Mars	-23158-12-30 16:33 J	-6736673.13	-6736672.81	-6736672.49	0.0089	0.0022
Mercury	-23157-02-13 06:14 J	-6736628.33	-6736628.24	-6736628.13	0.0089	0.0058
Venus	-23157-05-07 10:47 J	-6736544.26	-6736544.05	-6736543.83	0.0089	0.0015
Mercury	-23157-05-11 07:40 J	-6736540.29	-6736540.18	-6736540.07	0.0089	0.0051
Mercury	-23157-08-07 09:07 J	-6736452.24	-6736452.12	-6736452.01	0.0089	0.0044
Mercury	-23157-11-03 10:19 J	-6736364.19	-6736364.07	-6736363.95	0.0089	0.0038
Venus	-23157-12-18 23:16 J	-6736318.74	-6736318.53	-6736318.31	0.0089	0.0015
Mercury	-23156-01-30 11:45 J	-6736276.13	-6736276.01	-6736275.88	0.0089	0.0031
Mercury	-23156-04-28 13:11 J	-6736188.08	-6736187.95	-6736187.82	0.0089	0.0024

Mercury -23156-07-25 14:23 J -6736100.03 -6736099.90 -6736099.76 0.0089 0.0017
 Venus -23156-08-01 11:45 J -6736093.22 -6736093.01 -6736092.79 0.0089 0.0014
 Mercury -23156-10-21 15:50 J -6736011.97 -6736011.84 -6736011.71 0.0089 0.0010
 Mars -23156-11-25 15:21 J -6735977.11 -6735976.86 -6735976.55 0.0089 0.0050
 Mercury -23155-01-17 17:16 J -6735923.92 -6735923.78 -6735923.65 0.0089 0.0003
 Venus -23155-03-15 00:14 J -6735867.69 -6735867.49 -6735867.27 0.0089 0.0015
 Mercury -23155-04-15 18:28 J -6735835.86 -6735835.73 -6735835.59 0.0089 0.0006
 Mercury -23155-07-12 19:55 J -6735747.80 -6735747.67 -6735747.53 0.0089 0.0011
 Mercury -23155-10-08 21:21 J -6735659.74 -6735659.61 -6735659.48 0.0089 0.0018
 Venus -23155-10-26 12:43 J -6735642.18 -6735641.97 -6735641.75 0.0089 0.0014
 Mercury -23154-01-04 22:47 J -6735571.68 -6735571.55 -6735571.42 0.0089 0.0025
 Mercury -23154-04-02 23:59 J -6735483.62 -6735483.50 -6735483.37 0.0089 0.0033
 Venus -23154-06-09 01:11 J -6735416.66 -6735416.45 -6735416.24 0.0089 0.0014
 Mercury -23154-06-30 01:26 J -6735395.56 -6735395.44 -6735395.32 0.0089 0.0039
 Mercury -23154-09-26 02:52 J -6735307.49 -6735307.38 -6735307.27 0.0089 0.0046
 Mercury -23154-12-23 04:19 J -6735219.43 -6735219.32 -6735219.21 0.0089 0.0054
 Venus -23153-01-20 13:26 J -6735191.14 -6735190.94 -6735190.72 0.0089 0.0015
 Mercury -23153-03-20 05:45 J -6735131.36 -6735131.26 -6735131.17 0.0089 0.0061
 Mercury -23153-06-16 06:43 J -6735043.29 -6735043.22 -6735043.12 0.0089 0.0068
 Venus -23153-09-02 01:55 J -6734965.63 -6734965.42 -6734965.20 0.0089 0.0014
 Mercury -23153-09-12 08:09 J -6734955.22 -6734955.16 -6734955.07 0.0089 0.0075
 Mercury -23153-12-09 09:35 J -6734867.14 -6734867.10 -6734867.04 0.0089 0.0082
 Mercury -23152-03-07 11:16 J -6734779.03 -6734779.03 -6734779.02 0.0089 0.0089
 Venus -23152-04-15 14:23 J -6734740.10 -6734739.90 -6734739.68 0.0089 0.0014
 Venus -23152-11-27 02:52 J -6734514.59 -6734514.38 -6734514.16 0.0089 0.0014
 Venus -23151-07-10 15:07 J -6734289.07 -6734288.87 -6734288.65 0.0089 0.0014
 Venus -23150-02-21 03:36 J -6734063.56 -6734063.35 -6734063.13 0.0089 0.0014
 Venus -23150-10-04 16:04 J -6733838.04 -6733837.83 -6733837.62 0.0089 0.0014
 Venus -23149-05-17 04:33 J -6733612.52 -6733612.31 -6733612.10 0.0089 0.0013
 Venus -23149-12-28 16:48 J -6733387.01 -6733386.80 -6733386.58 0.0089 0.0013

Venus	-23148-08-11 05:16 J	-6733161.49	-6733161.28	-6733161.07	0.0089	0.0013
Venus	-23147-03-24 17:45 J	-6732935.97	-6732935.76	-6732935.55	0.0089	0.0013
Venus	-23147-11-05 06:00 J	-6732710.46	-6732710.25	-6732710.03	0.0089	0.0013
Venus	-23146-06-18 18:14 J	-6732484.94	-6732484.74	-6732484.52	0.0089	0.0013
Venus	-23145-01-30 06:43 J	-6732259.43	-6732259.22	-6732259.00	0.0089	0.0013
Venus	-23145-09-11 19:11 J	-6732033.91	-6732033.70	-6732033.49	0.0089	0.0012
Venus	-23144-04-25 07:40 J	-6731808.39	-6731808.18	-6731807.97	0.0089	0.0012
Venus	-23144-12-06 19:55 J	-6731582.88	-6731582.67	-6731582.46	0.0089	0.0012
Venus	-23143-07-20 08:09 J	-6731357.37	-6731357.16	-6731356.95	0.0089	0.0012
Venus	-23142-03-02 20:23 J	-6731131.86	-6731131.65	-6731131.44	0.0089	0.0012
Venus	-23142-10-14 08:38 J	-6730906.35	-6730906.14	-6730905.92	0.0089	0.0012
Venus	-23141-05-26 21:07 J	-6730680.84	-6730680.62	-6730680.41	0.0089	0.0011
Venus	-23140-01-07 09:21 J	-6730455.33	-6730455.11	-6730454.90	0.0089	0.0011
Venus	-23140-08-20 21:21 J	-6730229.82	-6730229.61	-6730229.39	0.0089	0.0011
Venus	-23139-04-03 09:36 J	-6730004.31	-6730004.10	-6730003.88	0.0089	0.0011
Venus	-23139-11-14 21:50 J	-6729778.79	-6729778.59	-6729778.37	0.0089	0.0011
Venus	-23138-06-28 10:19 J	-6729553.29	-6729553.07	-6729552.86	0.0089	0.0010
Venus	-23137-02-08 22:33 J	-6729327.78	-6729327.56	-6729327.35	0.0089	0.0010
Venus	-23137-09-21 10:48 J	-6729102.26	-6729102.05	-6729101.83	0.0089	0.0010
Venus	-23136-05-04 23:16 J	-6728876.74	-6728876.53	-6728876.32	0.0089	0.0010
Venus	-23136-12-16 11:31 J	-6728651.23	-6728651.02	-6728650.80	0.0089	0.0009
Venus	-23135-07-29 23:45 J	-6728425.72	-6728425.51	-6728425.29	0.0089	0.0009
Venus	-23134-03-12 12:00 J	-6728200.21	-6728200.00	-6728199.78	0.0089	0.0009
Venus	-23134-10-24 00:14 J	-6727974.70	-6727974.49	-6727974.27	0.0089	0.0009
Venus	-23133-06-05 12:43 J	-6727749.18	-6727748.97	-6727748.75	0.0089	0.0009
Venus	-23132-01-17 01:11 J	-6727523.67	-6727523.45	-6727523.24	0.0089	0.0008
Venus	-23132-08-30 13:26 J	-6727298.15	-6727297.94	-6727297.72	0.0089	0.0008
Venus	-23131-04-13 01:40 J	-6727072.64	-6727072.43	-6727072.21	0.0089	0.0008
Venus	-23131-11-24 13:55 J	-6726847.13	-6726846.92	-6726846.70	0.0089	0.0007
Venus	-23130-07-08 02:23 J	-6726621.62	-6726621.40	-6726621.19	0.0089	0.0007

Venus	-23129-02-18 14:38 J	-6726396.11	-6726395.89	-6726395.68	0.0089	0.0007
Venus	-23129-10-01 02:52 J	-6726170.60	-6726170.38	-6726170.17	0.0089	0.0006
Venus	-23128-05-14 15:07 J	-6725945.08	-6725944.87	-6725944.65	0.0089	0.0007
Venus	-23128-12-26 03:36 J	-6725719.57	-6725719.35	-6725719.14	0.0089	0.0006
Venus	-23127-08-08 15:50 J	-6725494.06	-6725493.84	-6725493.63	0.0089	0.0006
Venus	-23126-03-22 03:50 J	-6725268.55	-6725268.34	-6725268.12	0.0089	0.0006
Venus	-23126-11-02 16:19 J	-6725043.04	-6725042.82	-6725042.60	0.0089	0.0005
Venus	-23125-06-15 04:48 J	-6724817.52	-6724817.30	-6724817.08	0.0089	0.0005
Venus	-23124-01-26 17:02 J	-6724592.00	-6724591.79	-6724591.57	0.0089	0.0005
Venus	-23124-09-09 05:31 J	-6724366.49	-6724366.27	-6724366.06	0.0089	0.0004
Venus	-23123-04-22 17:45 J	-6724140.97	-6724140.76	-6724140.54	0.0088	0.0004
Venus	-23123-12-04 06:14 J	-6723915.46	-6723915.24	-6723915.02	0.0088	0.0003
Venus	-23122-07-17 18:43 J	-6723689.94	-6723689.72	-6723689.50	0.0088	0.0003
Venus	-23121-02-28 06:57 J	-6723464.42	-6723464.21	-6723463.99	0.0088	0.0004
Venus	-23121-10-10 19:26 J	-6723238.90	-6723238.69	-6723238.47	0.0088	0.0003
Venus	-23120-05-24 08:09 J	-6723013.38	-6723013.16	-6723012.95	0.0088	0.0003
Venus	-23119-01-04 20:23 J	-6722787.86	-6722787.65	-6722787.43	0.0088	0.0002
Venus	-23119-08-18 08:52 J	-6722562.35	-6722562.13	-6722561.91	0.0088	0.0002
Venus	-23118-03-31 21:07 J	-6722336.83	-6722336.62	-6722336.40	0.0088	0.0002
Venus	-23118-11-12 09:36 J	-6722111.31	-6722111.10	-6722110.88	0.0088	0.0002
Venus	-23117-06-24 22:19 J	-6721885.79	-6721885.57	-6721885.35	0.0088	0.0001
Venus	-23116-02-05 10:48 J	-6721660.27	-6721660.05	-6721659.84	0.0088	0.0002
Venus	-23116-09-18 23:02 J	-6721434.76	-6721434.54	-6721434.32	0.0088	0.0001
Venus	-23115-05-02 11:31 J	-6721209.24	-6721209.02	-6721208.80	0.0088	0.0000
Venus	-23115-12-14 00:00 J	-6720983.72	-6720983.50	-6720983.28	0.0088	0.0001
Venus	-23114-07-27 12:28 J	-6720758.20	-6720757.98	-6720757.76	0.0088	0.0001
Venus	-23113-03-09 00:57 J	-6720532.68	-6720532.46	-6720532.24	0.0088	0.0001
Venus	-23113-10-20 13:26 J	-6720307.16	-6720306.94	-6720306.72	0.0088	0.0001
Venus	-23112-06-03 02:09 J	-6720081.63	-6720081.41	-6720081.20	0.0088	0.0002
Venus	-23111-01-14 14:38 J	-6719856.11	-6719855.89	-6719855.67	0.0088	0.0002

Venus	-23111-08-28 03:07 J	-6719630.59	-6719630.37	-6719630.15	0.0088	0.0002
Venus	-23110-04-10 15:36 J	-6719405.06	-6719404.85	-6719404.63	0.0088	0.0003
Venus	-23110-11-22 04:19 J	-6719179.54	-6719179.32	-6719179.10	0.0088	0.0003
Venus	-23109-07-04 17:16 J	-6718954.00	-6718953.78	-6718953.57	0.0088	0.0004
Venus	-23108-02-15 05:45 J	-6718728.48	-6718728.26	-6718728.04	0.0088	0.0003
Venus	-23108-09-28 18:28 J	-6718502.95	-6718502.73	-6718502.51	0.0088	0.0004
Venus	-23107-05-12 06:57 J	-6718277.43	-6718277.21	-6718276.99	0.0088	0.0004
Venus	-23107-12-23 19:40 J	-6718051.90	-6718051.68	-6718051.46	0.0088	0.0004
Venus	-23106-08-06 08:23 J	-6717826.37	-6717826.15	-6717825.93	0.0088	0.0005
Venus	-23105-03-18 21:07 J	-6717600.84	-6717600.62	-6717600.40	0.0088	0.0005
Venus	-23105-10-30 09:50 J	-6717375.31	-6717375.09	-6717374.87	0.0088	0.0005
Venus	-23104-06-12 22:33 J	-6717149.78	-6717149.56	-6717149.34	0.0088	0.0005
Venus	-23103-01-24 11:16 J	-6716924.25	-6716924.03	-6716923.81	0.0088	0.0005
Venus	-23103-09-07 00:00 J	-6716698.72	-6716698.50	-6716698.28	0.0088	0.0006
Venus	-23102-04-20 12:43 J	-6716473.19	-6716472.97	-6716472.75	0.0088	0.0006
Venus	-23102-12-02 01:26 J	-6716247.66	-6716247.44	-6716247.22	0.0088	0.0006
Venus	-23101-07-14 14:09 J	-6716022.12	-6716021.91	-6716021.68	0.0088	0.0007
Venus	-23100-02-25 03:07 J	-6715796.59	-6715796.37	-6715796.15	0.0088	0.0007
Venus	-23100-10-08 15:50 J	-6715571.06	-6715570.84	-6715570.62	0.0088	0.0007
Venus	-23099-05-22 04:33 J	-6715345.53	-6715345.31	-6715345.08	0.0088	0.0008
Venus	-23098-01-02 17:31 J	-6715119.99	-6715119.77	-6715119.55	0.0088	0.0008
Venus	-23098-08-16 06:28 J	-6714894.45	-6714894.23	-6714894.00	0.0088	0.0008
Venus	-23097-03-28 19:26 J	-6714668.91	-6714668.69	-6714668.47	0.0088	0.0008
Venus	-23097-11-09 08:23 J	-6714443.37	-6714443.15	-6714442.93	0.0088	0.0008
Venus	-23096-06-22 21:21 J	-6714217.83	-6714217.61	-6714217.39	0.0088	0.0008
Venus	-23095-02-03 10:19 J	-6713992.29	-6713992.07	-6713991.84	0.0088	0.0009
Venus	-23095-09-16 23:16 J	-6713766.74	-6713766.53	-6713766.30	0.0088	0.0009
Venus	-23094-04-30 12:28 J	-6713541.20	-6713540.98	-6713540.76	0.0088	0.0009
Venus	-23094-12-12 01:26 J	-6713315.66	-6713315.44	-6713315.22	0.0088	0.0009
Venus	-23093-07-24 14:38 J	-6713090.11	-6713089.89	-6713089.67	0.0088	0.0009

Moon	-23093-10-24 18:57 J	-6712997.88	-6712997.71	-6712997.49	0.0088	0.0058
Earth	-23093-10-24 23:02 J	-6712997.74	-6712997.54	-6712997.32	0.0088	0.0053 *
Venus	-23092-03-07 03:36 J	-6712864.57	-6712864.35	-6712864.13	0.0088	0.0010
Venus	-23092-10-18 16:33 J	-6712639.03	-6712638.81	-6712638.58	0.0088	0.0010
Earth	-23092-10-27 11:45 J	-6712630.27	-6712630.01	-6712629.75	0.0088	0.0010
Moon	-23092-10-27 14:52 J	-6712630.15	-6712629.88	-6712629.61	0.0088	0.0006 *
Venus	-23091-06-01 05:31 J	-6712413.48	-6712413.27	-6712413.04	0.0088	0.0010
Moon	-23091-10-29 21:50 J	-6712262.81	-6712262.59	-6712262.33	0.0088	0.0029
Earth	-23091-10-30 00:14 J	-6712262.72	-6712262.49	-6712262.23	0.0088	0.0033 *
Venus	-23090-01-12 18:43 J	-6712187.94	-6712187.72	-6712187.50	0.0088	0.0010
Venus	-23090-08-26 07:55 J	-6711962.39	-6711962.17	-6711961.95	0.0088	0.0010
Earth	-23090-11-01 12:43 J	-6711895.09	-6711894.97	-6711894.82	0.0088	0.0075
Moon	-23090-11-01 14:09 J	-6711895.01	-6711894.91	-6711894.78	0.0088	0.0079 *
Venus	-23089-04-07 20:52 J	-6711736.84	-6711736.63	-6711736.40	0.0088	0.0011
Venus	-23089-11-19 10:04 J	-6711511.30	-6711511.08	-6711510.86	0.0088	0.0011
Venus	-23088-07-02 23:02 J	-6711285.75	-6711285.54	-6711285.31	0.0088	0.0011
Venus	-23087-02-13 12:14 J	-6711060.20	-6711059.99	-6711059.76	0.0088	0.0011
Venus	-23087-09-27 01:40 J	-6710834.65	-6710834.43	-6710834.21	0.0088	0.0011
Venus	-23086-05-10 14:52 J	-6710609.10	-6710608.88	-6710608.66	0.0088	0.0011
Venus	-23086-12-22 04:04 J	-6710383.55	-6710383.33	-6710383.11	0.0088	0.0011
Venus	-23085-08-03 17:31 J	-6710157.99	-6710157.77	-6710157.55	0.0088	0.0011
Venus	-23084-03-17 06:28 J	-6709932.44	-6709932.23	-6709932.00	0.0088	0.0012
Venus	-23084-10-28 19:55 J	-6709706.89	-6709706.67	-6709706.44	0.0088	0.0012
Venus	-23083-06-11 09:07 J	-6709481.33	-6709481.12	-6709480.89	0.0088	0.0012
Venus	-23082-01-22 22:33 J	-6709255.78	-6709255.56	-6709255.33	0.0088	0.0012
Venus	-23082-09-05 12:00 J	-6709030.21	-6709030.00	-6709029.77	0.0088	0.0012
Venus	-23081-04-18 01:26 J	-6708804.65	-6708804.44	-6708804.21	0.0088	0.0012
Venus	-23081-11-29 14:52 J	-6708579.10	-6708578.88	-6708578.66	0.0088	0.0012
Venus	-23080-07-13 04:19 J	-6708353.54	-6708353.32	-6708353.10	0.0088	0.0012
Venus	-23079-02-23 17:31 J	-6708127.99	-6708127.77	-6708127.54	0.0088	0.0012

Venus	-23079-10-07 07:11 J	-6707902.42	-6707902.20	-6707901.98	0.0088	0.0012
Venus	-23078-05-20 20:23 J	-6707676.87	-6707676.65	-6707676.42	0.0088	0.0012
Venus	-23077-01-01 09:50 J	-6707451.31	-6707451.09	-6707450.87	0.0088	0.0012
Venus	-23077-08-13 23:16 J	-6707225.75	-6707225.53	-6707225.30	0.0088	0.0012
Venus	-23076-03-27 12:43 J	-6707000.19	-6706999.97	-6706999.74	0.0088	0.0012
Mars	-23076-10-01 01:11 J	-6706812.68	-6706812.45	-6706812.18	0.0088	0.0048
Venus	-23076-11-08 02:09 J	-6706774.63	-6706774.41	-6706774.18	0.0088	0.0013
Venus	-23075-06-21 15:36 J	-6706549.07	-6706548.85	-6706548.63	0.0088	0.0012
Mercury	-23075-11-11 15:21 J	-6706405.91	-6706405.86	-6706405.78	0.0088	0.0083
Venus	-23074-02-02 04:48 J	-6706323.51	-6706323.30	-6706323.07	0.0088	0.0013
Mercury	-23074-02-07 18:57 J	-6706317.80	-6706317.71	-6706317.59	0.0088	0.0073
Mercury	-23074-05-06 22:33 J	-6706229.68	-6706229.56	-6706229.42	0.0088	0.0063
Mercury	-23074-08-03 01:55 J	-6706141.56	-6706141.42	-6706141.25	0.0088	0.0054
Mars	-23074-08-25 21:07 J	-6706118.90	-6706118.62	-6706118.31	0.0088	0.0012
Venus	-23074-09-15 18:28 J	-6706097.94	-6706097.73	-6706097.50	0.0088	0.0013
Mercury	-23074-10-30 05:31 J	-6706053.43	-6706053.27	-6706053.09	0.0088	0.0044
Mercury	-23073-01-26 09:07 J	-6705965.29	-6705965.12	-6705964.94	0.0088	0.0034
Mercury	-23073-04-23 12:43 J	-6705877.16	-6705876.97	-6705876.79	0.0088	0.0024
Venus	-23073-04-28 08:09 J	-6705872.38	-6705872.16	-6705871.93	0.0088	0.0013
Mercury	-23073-07-20 16:04 J	-6705789.02	-6705788.83	-6705788.64	0.0088	0.0015
Mercury	-23073-10-16 19:40 J	-6705700.87	-6705700.68	-6705700.49	0.0088	0.0005
Venus	-23073-12-09 21:36 J	-6705646.81	-6705646.60	-6705646.37	0.0088	0.0013
Mercury	-23072-01-12 23:02 J	-6705612.73	-6705612.54	-6705612.35	0.0088	0.0005
Mercury	-23072-04-11 02:23 J	-6705524.58	-6705524.40	-6705524.21	0.0088	0.0014
Mercury	-23072-07-08 05:45 J	-6705436.44	-6705436.26	-6705436.07	0.0088	0.0024
Mars	-23072-07-19 18:00 J	-6705424.89	-6705424.75	-6705424.54	0.0088	0.0072
Venus	-23072-07-23 11:02 J	-6705421.25	-6705421.04	-6705420.81	0.0088	0.0013
Mercury	-23072-10-04 09:21 J	-6705348.29	-6705348.11	-6705347.93	0.0088	0.0033
Mercury	-23072-12-31 12:28 J	-6705260.13	-6705259.98	-6705259.80	0.0088	0.0043
Venus	-23071-03-06 00:57 J	-6705195.68	-6705195.46	-6705195.24	0.0088	0.0013

Mercury	-23071-03-29 15:50 J	-6705171.98	-6705171.84	-6705171.67	0.0088	0.0053
Mercury	-23071-06-25 19:11 J	-6705083.82	-6705083.70	-6705083.55	0.0088	0.0063
Mercury	-23071-09-21 22:33 J	-6704995.65	-6704995.56	-6704995.43	0.0088	0.0072
Venus	-23071-10-17 14:38 J	-6704970.11	-6704969.89	-6704969.67	0.0088	0.0012
Mercury	-23071-12-19 01:55 J	-6704907.47	-6704907.42	-6704907.33	0.0088	0.0081
Venus	-23070-05-31 04:19 J	-6704744.55	-6704744.32	-6704744.10	0.0088	0.0013
Venus	-23069-01-11 17:45 J	-6704518.98	-6704518.76	-6704518.53	0.0088	0.0012
Venus	-23069-08-24 07:26 J	-6704293.41	-6704293.19	-6704292.96	0.0088	0.0012
Venus	-23068-04-06 21:07 J	-6704067.84	-6704067.62	-6704067.40	0.0088	0.0012
Venus	-23068-11-18 10:48 J	-6703842.27	-6703842.05	-6703841.83	0.0088	0.0012
Venus	-23067-07-02 00:14 J	-6703616.71	-6703616.49	-6703616.26	0.0088	0.0012
Venus	-23066-02-12 13:55 J	-6703391.14	-6703390.92	-6703390.69	0.0088	0.0012
Venus	-23066-09-26 03:36 J	-6703165.57	-6703165.35	-6703165.12	0.0088	0.0012
Venus	-23065-05-08 17:16 J	-6702940.00	-6702939.78	-6702939.55	0.0088	0.0012
Venus	-23065-12-20 06:57 J	-6702714.43	-6702714.21	-6702713.98	0.0088	0.0012
Venus	-23064-08-02 20:23 J	-6702488.87	-6702488.65	-6702488.42	0.0088	0.0012
Venus	-23063-03-16 10:04 J	-6702263.30	-6702263.08	-6702262.85	0.0088	0.0012
Venus	-23063-10-28 00:00 J	-6702037.72	-6702037.50	-6702037.28	0.0088	0.0012
Venus	-23062-06-10 13:40 J	-6701812.15	-6701811.93	-6701811.71	0.0088	0.0012
Venus	-23061-01-22 03:21 J	-6701586.58	-6701586.36	-6701586.14	0.0088	0.0011
Venus	-23061-09-03 17:02 J	-6701361.01	-6701360.79	-6701360.57	0.0088	0.0011
Venus	-23060-04-17 06:43 J	-6701135.44	-6701135.22	-6701134.99	0.0088	0.0011
Venus	-23060-11-28 20:23 J	-6700909.87	-6700909.65	-6700909.42	0.0088	0.0011
Venus	-23059-07-12 10:04 J	-6700684.30	-6700684.08	-6700683.85	0.0088	0.0011
Venus	-23058-02-23 00:00 J	-6700458.72	-6700458.50	-6700458.28	0.0088	0.0011
Venus	-23058-10-06 13:55 J	-6700233.14	-6700232.92	-6700232.70	0.0088	0.0011
Venus	-23057-05-19 03:36 J	-6700007.57	-6700007.35	-6700007.12	0.0088	0.0011
Venus	-23057-12-30 17:16 J	-6699781.99	-6699781.78	-6699781.55	0.0088	0.0011
Venus	-23056-08-13 07:11 J	-6699556.42	-6699556.20	-6699555.98	0.0088	0.0010
Venus	-23055-03-26 20:52 J	-6699330.85	-6699330.63	-6699330.40	0.0088	0.0010

Venus	-23055-11-07 10:48 J	-6699105.27	-6699105.05	-6699104.82	0.0088	0.0010
Venus	-23054-06-21 00:43 J	-6698879.70	-6698879.47	-6698879.25	0.0088	0.0010
Venus	-23053-02-01 14:23 J	-6698654.13	-6698653.90	-6698653.68	0.0088	0.0009
Venus	-23053-09-14 03:50 J	-6698428.55	-6698428.34	-6698428.11	0.0088	0.0010
Venus	-23052-04-27 17:45 J	-6698202.98	-6698202.76	-6698202.53	0.0088	0.0009
Venus	-23052-12-09 07:26 J	-6697977.41	-6697977.19	-6697976.96	0.0088	0.0009
Venus	-23051-07-22 21:21 J	-6697751.84	-6697751.61	-6697751.39	0.0088	0.0009
Venus	-23050-03-05 10:48 J	-6697526.27	-6697526.05	-6697525.82	0.0088	0.0009
Venus	-23050-10-17 00:43 J	-6697300.69	-6697300.47	-6697300.24	0.0088	0.0008
Venus	-23049-05-29 14:23 J	-6697075.12	-6697074.90	-6697074.67	0.0089	0.0008
Venus	-23048-01-10 04:19 J	-6696849.55	-6696849.32	-6696849.10	0.0089	0.0008
Venus	-23048-08-23 18:00 J	-6696623.97	-6696623.75	-6696623.53	0.0089	0.0008
Venus	-23047-04-06 07:40 J	-6696398.40	-6696398.18	-6696397.95	0.0089	0.0007
Venus	-23047-11-17 21:36 J	-6696172.82	-6696172.60	-6696172.38	0.0089	0.0007
Venus	-23046-07-01 11:16 J	-6695947.25	-6695947.03	-6695946.80	0.0089	0.0007
Venus	-23045-02-12 01:11 J	-6695721.68	-6695721.45	-6695721.23	0.0089	0.0007
Venus	-23045-09-24 14:52 J	-6695496.11	-6695495.88	-6695495.66	0.0089	0.0007
Venus	-23044-05-08 04:33 J	-6695270.53	-6695270.31	-6695270.08	0.0089	0.0006
Venus	-23044-12-19 18:28 J	-6695044.95	-6695044.73	-6695044.51	0.0089	0.0006
Venus	-23043-08-02 08:09 J	-6694819.38	-6694819.16	-6694818.94	0.0089	0.0006
Venus	-23042-03-15 21:50 J	-6694593.81	-6694593.59	-6694593.37	0.0089	0.0006
Venus	-23042-10-27 11:31 J	-6694368.24	-6694368.02	-6694367.79	0.0089	0.0005
Venus	-23041-06-09 01:11 J	-6694142.67	-6694142.45	-6694142.22	0.0089	0.0005
Venus	-23040-01-20 14:52 J	-6693917.10	-6693916.88	-6693916.65	0.0089	0.0005
Venus	-23040-09-03 04:33 J	-6693691.53	-6693691.31	-6693691.09	0.0089	0.0005
Venus	-23039-04-16 18:00 J	-6693465.97	-6693465.75	-6693465.52	0.0089	0.0005
Venus	-23039-11-28 07:55 J	-6693240.39	-6693240.17	-6693239.95	0.0089	0.0004
Venus	-23038-07-11 21:36 J	-6693014.83	-6693014.60	-6693014.38	0.0089	0.0004
Venus	-23037-02-22 11:02 J	-6692789.26	-6692789.04	-6692788.82	0.0089	0.0004
Venus	-23037-10-05 00:28 J	-6692563.70	-6692563.48	-6692563.25	0.0089	0.0004

Venus	-23036-05-18 14:09 J	-6692338.13	-6692337.91	-6692337.69	0.0089	0.0003
Venus	-23036-12-30 03:50 J	-6692112.56	-6692112.34	-6692112.12	0.0089	0.0003
Venus	-23035-08-12 17:31 J	-6691887.00	-6691886.77	-6691886.55	0.0089	0.0003
Venus	-23034-03-26 06:57 J	-6691661.43	-6691661.21	-6691660.99	0.0089	0.0002
Venus	-23034-11-06 20:38 J	-6691435.87	-6691435.64	-6691435.42	0.0089	0.0002
Venus	-23033-06-19 10:04 J	-6691210.30	-6691210.08	-6691209.85	0.0089	0.0002
Venus	-23032-01-30 23:45 J	-6690984.73	-6690984.51	-6690984.29	0.0089	0.0002
Venus	-23032-09-13 13:26 J	-6690759.17	-6690758.94	-6690758.72	0.0089	0.0002
Venus	-23031-04-27 02:52 J	-6690533.60	-6690533.38	-6690533.16	0.0089	0.0001
Venus	-23031-12-08 16:33 J	-6690308.03	-6690307.81	-6690307.59	0.0089	0.0001
Venus	-23030-07-22 06:00 J	-6690082.47	-6690082.25	-6690082.03	0.0089	0.0001
Venus	-23029-03-03 19:26 J	-6689856.91	-6689856.69	-6689856.47	0.0089	0.0001
Venus	-23029-10-15 08:52 J	-6689631.35	-6689631.13	-6689630.91	0.0089	0.0001
Venus	-23028-05-28 22:19 J	-6689405.79	-6689405.57	-6689405.35	0.0089	0.0000
Venus	-23027-01-09 11:45 J	-6689180.23	-6689180.01	-6689179.78	0.0089	0.0002
Venus	-23027-08-23 01:11 J	-6688954.67	-6688954.45	-6688954.23	0.0089	0.0001
Venus	-23026-04-05 14:23 J	-6688729.12	-6688728.90	-6688728.67	0.0089	0.0002
Venus	-23026-11-17 03:50 J	-6688503.56	-6688503.34	-6688503.12	0.0089	0.0001
Venus	-23025-06-29 17:16 J	-6688278.00	-6688277.78	-6688277.56	0.0089	0.0002
Venus	-23024-02-10 06:43 J	-6688052.44	-6688052.22	-6688052.00	0.0089	0.0002
Venus	-23024-09-23 19:55 J	-6687826.89	-6687826.67	-6687826.45	0.0089	0.0002
Venus	-23023-05-07 09:07 J	-6687601.34	-6687601.12	-6687600.89	0.0089	0.0003
Venus	-23023-12-18 22:33 J	-6687375.78	-6687375.56	-6687375.34	0.0089	0.0003
Venus	-23022-08-01 12:00 J	-6687150.22	-6687150.00	-6687149.78	0.0089	0.0003
Venus	-23021-03-14 01:11 J	-6686924.67	-6686924.45	-6686924.23	0.0089	0.0003
Venus	-23021-10-25 14:23 J	-6686699.12	-6686698.90	-6686698.68	0.0089	0.0004
Venus	-23020-06-08 03:36 J	-6686473.56	-6686473.35	-6686473.12	0.0089	0.0004
Venus	-23019-01-19 17:02 J	-6686248.01	-6686247.79	-6686247.57	0.0089	0.0004
Venus	-23019-09-02 06:28 J	-6686022.45	-6686022.23	-6686022.01	0.0089	0.0004
Venus	-23018-04-15 19:40 J	-6685796.90	-6685796.68	-6685796.46	0.0089	0.0004

Venus	-23018-11-27 08:52 J	-6685571.35	-6685571.13	-6685570.91	0.0089	0.0005
Venus	-23017-07-09 22:04 J	-6685345.80	-6685345.58	-6685345.36	0.0089	0.0005
Venus	-23016-02-20 11:16 J	-6685120.25	-6685120.03	-6685119.81	0.0089	0.0005
Venus	-23016-10-04 00:28 J	-6684894.70	-6684894.48	-6684894.26	0.0089	0.0005
Venus	-23015-05-17 13:26 J	-6684669.16	-6684668.94	-6684668.72	0.0089	0.0005
Venus	-23015-12-29 02:38 J	-6684443.61	-6684443.39	-6684443.17	0.0089	0.0005
Venus	-23014-08-11 15:36 J	-6684218.07	-6684217.85	-6684217.63	0.0089	0.0006
Venus	-23013-03-24 04:33 J	-6683992.52	-6683992.31	-6683992.08	0.0089	0.0007
Venus	-23013-11-04 17:45 J	-6683766.98	-6683766.76	-6683766.54	0.0089	0.0006
Venus	-23012-06-18 06:43 J	-6683541.44	-6683541.22	-6683541.00	0.0089	0.0006
Venus	-23011-01-29 19:40 J	-6683315.89	-6683315.68	-6683315.46	0.0089	0.0007
Venus	-23011-09-12 08:38 J	-6683090.35	-6683090.14	-6683089.92	0.0089	0.0007
Venus	-23010-04-25 21:36 J	-6682864.81	-6682864.60	-6682864.38	0.0089	0.0007
Earth	-23010-04-27 04:48 J	-6682863.48	-6682863.30	-6682863.07	0.0089	0.0053
Moon	-23010-04-27 07:55 J	-6682863.35	-6682863.17	-6682862.95	0.0089	0.0056 *
Venus	-23010-12-07 10:33 J	-6682639.27	-6682639.06	-6682638.84	0.0089	0.0007
Moon	-23009-04-28 13:26 J	-6682496.18	-6682495.94	-6682495.69	0.0089	0.0005
Earth	-23009-04-28 15:50 J	-6682496.09	-6682495.84	-6682495.58	0.0089	0.0009 *
Venus	-23009-07-19 23:31 J	-6682413.73	-6682413.52	-6682413.30	0.0089	0.0007
Venus	-23008-03-02 12:43 J	-6682188.19	-6682187.97	-6682187.75	0.0089	0.0007
Earth	-23008-05-01 02:23 J	-6682128.63	-6682128.40	-6682128.17	0.0089	0.0035
Moon	-23008-05-01 03:07 J	-6682128.61	-6682128.37	-6682128.12	0.0089	0.0031 *
Venus	-23008-10-14 01:40 J	-6681962.65	-6681962.43	-6681962.22	0.0089	0.0008
Earth	-23007-05-03 12:28 J	-6681761.08	-6681760.98	-6681760.84	0.0089	0.0078
Moon	-23007-05-03 12:28 J	-6681761.04	-6681760.98	-6681760.86	0.0089	0.0083 *
Venus	-23007-05-27 14:23 J	-6681737.11	-6681736.90	-6681736.68	0.0089	0.0008
Venus	-23006-01-08 03:21 J	-6681511.57	-6681511.36	-6681511.14	0.0089	0.0008
Venus	-23006-08-21 16:19 J	-6681286.04	-6681285.82	-6681285.60	0.0089	0.0008
Venus	-23005-04-03 05:16 J	-6681060.50	-6681060.28	-6681060.06	0.0089	0.0008
Venus	-23005-11-14 18:00 J	-6680834.96	-6680834.75	-6680834.53	0.0089	0.0008

Venus	-23004-06-28 06:57 J	-6680609.43	-6680609.21	-6680608.99	0.0089	0.0008
Venus	-23003-02-08 19:40 J	-6680383.89	-6680383.68	-6680383.46	0.0089	0.0009
Venus	-23003-09-22 08:38 J	-6680158.36	-6680158.14	-6680157.93	0.0089	0.0009
Venus	-23002-05-05 21:07 J	-6679932.83	-6679932.62	-6679932.40	0.0089	0.0009
Venus	-23002-12-17 09:50 J	-6679707.30	-6679707.09	-6679706.87	0.0089	0.0009
Venus	-23001-07-29 22:33 J	-6679481.77	-6679481.56	-6679481.34	0.0089	0.0009

23RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 23rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-23000-03-12 11:16 J	-6679256.24	-6679256.03	-6679255.81	0.0089	0.0010		
Venus	-23000-10-24 00:00 J	-6679030.71	-6679030.50	-6679030.28	0.0089	0.0009		
Venus	-22999-06-06 12:43 J	-6678805.19	-6678804.97	-6678804.76	0.0089	0.0009		
Venus	-22998-01-18 01:11 J	-6678579.66	-6678579.45	-6678579.23	0.0089	0.0010		
Venus	-22998-08-31 13:55 J	-6678354.13	-6678353.92	-6678353.70	0.0089	0.0010		
Venus	-22997-04-13 02:38 J	-6678128.60	-6678128.39	-6678128.17	0.0089	0.0010		
Venus	-22997-11-24 15:21 J	-6677903.08	-6677902.86	-6677902.65	0.0089	0.0010		
Venus	-22996-07-08 03:50 J	-6677677.56	-6677677.34	-6677677.12	0.0089	0.0010		
Venus	-22995-02-18 16:19 J	-6677452.03	-6677451.82	-6677451.60	0.0089	0.0010		
Venus	-22995-10-02 05:02 J	-6677226.50	-6677226.29	-6677226.07	0.0089	0.0010		
Venus	-22994-05-15 17:31 J	-6677000.98	-6677000.77	-6677000.55	0.0089	0.0010		
Mars	-22994-08-12 19:26 J	-6676911.90	-6676911.69	-6676911.41	0.0089	0.0062		

Mercury	-22994-11-22 23:45 J	-6676809.54	-6676809.51	-6676809.47	0.0089	0.0086
Venus	-22994-12-27 06:14 J	-6676775.45	-6676775.24	-6676775.02	0.0089	0.0010
Mercury	-22993-02-19 00:43 J	-6676721.51	-6676721.47	-6676721.39	0.0089	0.0080
Mercury	-22993-05-17 02:09 J	-6676633.47	-6676633.41	-6676633.32	0.0089	0.0073
Venus	-22993-08-08 18:43 J	-6676549.93	-6676549.72	-6676549.50	0.0089	0.0010
Mercury	-22993-08-13 03:36 J	-6676545.43	-6676545.35	-6676545.25	0.0089	0.0065
Mercury	-22993-11-09 05:02 J	-6676457.38	-6676457.29	-6676457.18	0.0089	0.0058
Mercury	-22992-02-05 06:28 J	-6676369.33	-6676369.23	-6676369.12	0.0089	0.0051
Venus	-22992-03-22 07:26 J	-6676324.40	-6676324.19	-6676323.97	0.0089	0.0010
Mercury	-22992-05-04 07:40 J	-6676281.29	-6676281.18	-6676281.06	0.0089	0.0045
Mars	-22992-07-08 21:21 J	-6676215.93	-6676215.61	-6676215.27	0.0089	0.0011
Mercury	-22992-07-31 09:07 J	-6676193.23	-6676193.12	-6676192.99	0.0089	0.0038
Mercury	-22992-10-27 10:33 J	-6676105.18	-6676105.06	-6676104.93	0.0089	0.0030
Venus	-22992-11-02 19:55 J	-6676098.88	-6676098.67	-6676098.45	0.0089	0.0010
Mercury	-22991-01-23 12:00 J	-6676017.13	-6676017.00	-6676016.87	0.0089	0.0023
Mercury	-22991-04-21 13:26 J	-6675929.08	-6675928.94	-6675928.81	0.0089	0.0017
Venus	-22991-06-16 08:23 J	-6675873.36	-6675873.15	-6675872.93	0.0089	0.0010
Mercury	-22991-07-18 14:38 J	-6675841.02	-6675840.89	-6675840.75	0.0089	0.0010
Mercury	-22991-10-14 16:04 J	-6675752.96	-6675752.83	-6675752.70	0.0089	0.0002
Mercury	-22990-01-10 17:31 J	-6675664.91	-6675664.77	-6675664.64	0.0089	0.0005
Venus	-22990-01-27 20:52 J	-6675647.84	-6675647.63	-6675647.41	0.0089	0.0010
Mercury	-22990-04-08 18:43 J	-6675576.85	-6675576.72	-6675576.58	0.0089	0.0012
Mars	-22990-06-04 20:09 J	-6675519.76	-6675519.66	-6675519.49	0.0089	0.0082
Mercury	-22990-07-05 20:09 J	-6675488.79	-6675488.66	-6675488.53	0.0089	0.0019
Venus	-22990-09-10 09:21 J	-6675422.32	-6675422.11	-6675421.89	0.0089	0.0010
Mercury	-22990-10-01 21:36 J	-6675400.73	-6675400.60	-6675400.47	0.0089	0.0026
Mercury	-22990-12-28 22:48 J	-6675312.67	-6675312.55	-6675312.42	0.0089	0.0033
Mercury	-22989-03-26 00:00 J	-6675224.61	-6675224.50	-6675224.37	0.0089	0.0041
Venus	-22989-04-22 21:50 J	-6675196.80	-6675196.59	-6675196.37	0.0089	0.0010
Mercury	-22989-06-22 01:26 J	-6675136.54	-6675136.44	-6675136.32	0.0089	0.0047

Mercury	-22989-09-18 02:52 J	-6675048.48	-6675048.38	-6675048.26	0.0089	0.0054
Venus	-22989-12-04 10:19 J	-6674971.28	-6674971.07	-6674970.85	0.0089	0.0010
Mercury	-22989-12-15 04:19 J	-6674960.41	-6674960.32	-6674960.21	0.0089	0.0061
Mercury	-22988-03-13 05:45 J	-6674872.34	-6674872.26	-6674872.17	0.0089	0.0068
Mercury	-22988-06-09 06:57 J	-6674784.27	-6674784.21	-6674784.12	0.0089	0.0076
Venus	-22988-07-17 22:48 J	-6674745.77	-6674745.55	-6674745.34	0.0089	0.0010
Mercury	-22988-09-05 08:23 J	-6674696.19	-6674696.15	-6674696.09	0.0089	0.0083
Venus	-22987-02-28 11:02 J	-6674520.25	-6674520.04	-6674519.82	0.0089	0.0010
Venus	-22987-10-11 23:31 J	-6674294.73	-6674294.52	-6674294.30	0.0089	0.0010
Venus	-22986-05-25 12:00 J	-6674069.21	-6674069.00	-6674068.79	0.0089	0.0010
Venus	-22985-01-06 00:14 J	-6673843.70	-6673843.49	-6673843.27	0.0089	0.0010
Venus	-22985-08-18 12:43 J	-6673618.18	-6673617.97	-6673617.75	0.0089	0.0010
Venus	-22984-04-01 01:11 J	-6673392.66	-6673392.45	-6673392.23	0.0089	0.0010
Venus	-22984-11-12 13:26 J	-6673167.15	-6673166.94	-6673166.72	0.0089	0.0010
Venus	-22983-06-26 01:55 J	-6672941.63	-6672941.42	-6672941.20	0.0089	0.0010
Venus	-22982-02-06 14:09 J	-6672716.12	-6672715.91	-6672715.69	0.0089	0.0010
Venus	-22982-09-20 02:38 J	-6672490.60	-6672490.39	-6672490.17	0.0089	0.0010
Venus	-22981-05-02 15:07 J	-6672265.08	-6672264.87	-6672264.65	0.0089	0.0010
Venus	-22981-12-14 03:36 J	-6672039.56	-6672039.35	-6672039.13	0.0089	0.0010
Venus	-22980-07-27 15:50 J	-6671814.05	-6671813.84	-6671813.62	0.0089	0.0010
Venus	-22979-03-10 04:19 J	-6671588.53	-6671588.32	-6671588.10	0.0089	0.0010
Venus	-22979-10-21 16:33 J	-6671363.02	-6671362.81	-6671362.59	0.0089	0.0010
Venus	-22978-06-04 05:02 J	-6671137.50	-6671137.29	-6671137.07	0.0089	0.0010
Venus	-22977-01-15 17:16 J	-6670911.99	-6670911.78	-6670911.56	0.0089	0.0010
Venus	-22977-08-28 05:45 J	-6670686.48	-6670686.26	-6670686.05	0.0089	0.0009
Venus	-22976-04-10 18:00 J	-6670460.96	-6670460.75	-6670460.53	0.0089	0.0009
Venus	-22976-11-22 06:14 J	-6670235.45	-6670235.24	-6670235.02	0.0089	0.0009
Venus	-22975-07-05 18:28 J	-6670009.94	-6670009.73	-6670009.51	0.0089	0.0009
Venus	-22974-02-16 06:43 J	-6669784.43	-6669784.22	-6669784.00	0.0089	0.0009
Venus	-22974-09-29 18:57 J	-6669558.92	-6669558.71	-6669558.49	0.0089	0.0009

Venus	-22973-05-12 07:26 J	-6669333.40	-6669333.19	-6669332.97	0.0089	0.0009
Venus	-22973-12-23 19:40 J	-6669107.89	-6669107.68	-6669107.46	0.0089	0.0009
Venus	-22972-08-06 07:55 J	-6668882.38	-6668882.17	-6668881.95	0.0089	0.0009
Venus	-22971-03-19 20:09 J	-6668656.87	-6668656.66	-6668656.44	0.0089	0.0009
Venus	-22971-10-31 08:23 J	-6668431.36	-6668431.15	-6668430.93	0.0089	0.0009
Venus	-22970-06-13 20:52 J	-6668205.84	-6668205.63	-6668205.41	0.0089	0.0008
Venus	-22969-01-25 09:21 J	-6667980.33	-6667980.11	-6667979.90	0.0089	0.0008
Venus	-22969-09-06 21:36 J	-6667754.82	-6667754.60	-6667754.39	0.0089	0.0008
Venus	-22968-04-20 09:50 J	-6667529.30	-6667529.09	-6667528.87	0.0089	0.0008
Venus	-22968-12-01 22:19 J	-6667303.79	-6667303.57	-6667303.36	0.0089	0.0008
Venus	-22967-07-15 10:33 J	-6667078.27	-6667078.06	-6667077.84	0.0089	0.0008
Venus	-22966-02-25 22:48 J	-6666852.76	-6666852.55	-6666852.33	0.0089	0.0007
Venus	-22966-10-09 11:02 J	-6666627.25	-6666627.04	-6666626.82	0.0089	0.0008
Venus	-22965-05-21 23:31 J	-6666401.73	-6666401.52	-6666401.30	0.0089	0.0007
Venus	-22964-01-02 12:00 J	-6666176.22	-6666176.00	-6666175.79	0.0089	0.0007
Venus	-22964-08-16 00:14 J	-6665950.71	-6665950.49	-6665950.28	0.0089	0.0007
Venus	-22963-03-29 12:14 J	-6665725.20	-6665724.99	-6665724.77	0.0089	0.0007
Venus	-22963-11-10 00:43 J	-6665499.69	-6665499.47	-6665499.26	0.0089	0.0007
Venus	-22962-06-23 12:57 J	-6665274.17	-6665273.96	-6665273.74	0.0089	0.0007
Venus	-22961-02-04 01:11 J	-6665048.66	-6665048.45	-6665048.23	0.0089	0.0007
Venus	-22961-09-16 13:26 J	-6664823.15	-6664822.94	-6664822.72	0.0089	0.0007
Venus	-22960-04-30 01:55 J	-6664597.64	-6664597.42	-6664597.20	0.0089	0.0006
Venus	-22960-12-11 14:09 J	-6664372.12	-6664371.91	-6664371.69	0.0089	0.0006
Venus	-22959-07-25 02:23 J	-6664146.61	-6664146.40	-6664146.18	0.0089	0.0006
Venus	-22958-03-07 14:52 J	-6663921.10	-6663920.88	-6663920.66	0.0089	0.0005
Venus	-22958-10-19 03:07 J	-6663695.58	-6663695.37	-6663695.15	0.0088	0.0005
Venus	-22957-05-31 15:36 J	-6663470.06	-6663469.85	-6663469.63	0.0088	0.0005
Venus	-22956-01-12 04:04 J	-6663244.54	-6663244.33	-6663244.11	0.0088	0.0005
Venus	-22956-08-25 16:33 J	-6663019.03	-6663018.81	-6663018.59	0.0088	0.0005
Venus	-22955-04-08 04:48 J	-6662793.51	-6662793.30	-6662793.08	0.0088	0.0004

Venus	-22955-11-19 17:16 J	-6662568.00	-6662567.78	-6662567.56	0.0088	0.0004
Venus	-22954-07-03 05:45 J	-6662342.47	-6662342.26	-6662342.04	0.0088	0.0005
Venus	-22953-02-13 18:14 J	-6662116.95	-6662116.74	-6662116.52	0.0088	0.0004
Venus	-22953-09-26 06:43 J	-6661891.44	-6661891.22	-6661891.00	0.0088	0.0003
Venus	-22952-05-09 19:11 J	-6661665.92	-6661665.70	-6661665.48	0.0088	0.0003
Venus	-22952-12-21 07:40 J	-6661440.40	-6661440.18	-6661439.97	0.0088	0.0003
Venus	-22951-08-03 20:09 J	-6661214.88	-6661214.66	-6661214.45	0.0088	0.0003
Venus	-22950-03-17 08:23 J	-6660989.36	-6660989.15	-6660988.93	0.0088	0.0003
Venus	-22950-10-28 20:52 J	-6660763.84	-6660763.63	-6660763.41	0.0088	0.0003
Venus	-22949-06-10 09:36 J	-6660538.32	-6660538.10	-6660537.88	0.0088	0.0003
Venus	-22948-01-21 22:04 J	-6660312.80	-6660312.58	-6660312.36	0.0088	0.0002
Venus	-22948-09-04 10:33 J	-6660087.28	-6660087.06	-6660086.85	0.0088	0.0003
Venus	-22947-04-17 22:48 J	-6659861.76	-6659861.55	-6659861.33	0.0088	0.0003
Venus	-22947-11-29 11:31 J	-6659636.24	-6659636.02	-6659635.80	0.0088	0.0002
Venus	-22946-07-13 00:14 J	-6659410.71	-6659410.49	-6659410.27	0.0088	0.0002
Venus	-22945-02-23 12:43 J	-6659185.19	-6659184.97	-6659184.75	0.0088	0.0001
Venus	-22945-10-06 01:11 J	-6658959.66	-6658959.45	-6658959.23	0.0088	0.0002
Venus	-22944-05-19 13:55 J	-6658734.14	-6658733.92	-6658733.70	0.0088	0.0001
Venus	-22944-12-31 02:38 J	-6658508.61	-6658508.39	-6658508.17	0.0088	0.0001
Venus	-22943-08-13 15:21 J	-6658283.08	-6658282.86	-6658282.64	0.0088	0.0001
Venus	-22942-03-27 03:50 J	-6658057.55	-6658057.34	-6658057.12	0.0088	0.0002
Venus	-22942-11-07 16:33 J	-6657832.03	-6657831.81	-6657831.59	0.0088	0.0001
Venus	-22941-06-20 05:31 J	-6657606.49	-6657606.27	-6657606.05	0.0088	0.0001
Venus	-22940-01-31 18:14 J	-6657380.96	-6657380.74	-6657380.52	0.0088	0.0002
Venus	-22940-09-14 06:43 J	-6657155.44	-6657155.22	-6657155.00	0.0088	0.0002
Venus	-22939-04-27 19:26 J	-6656929.91	-6656929.69	-6656929.47	0.0088	0.0001
Venus	-22939-12-09 08:09 J	-6656704.38	-6656704.16	-6656703.94	0.0088	0.0001
Venus	-22938-07-22 21:07 J	-6656478.84	-6656478.62	-6656478.40	0.0088	0.0001
Venus	-22937-03-04 09:50 J	-6656253.31	-6656253.09	-6656252.87	0.0088	0.0001
Venus	-22937-10-15 22:33 J	-6656027.78	-6656027.56	-6656027.34	0.0088	0.0002

Venus	-22936-05-29 11:16 J	-6655802.25	-6655802.03	-6655801.81	0.0088	0.0002
Venus	-22935-01-10 00:00 J	-6655576.72	-6655576.50	-6655576.28	0.0088	0.0002
Venus	-22935-08-23 12:57 J	-6655351.18	-6655350.96	-6655350.74	0.0088	0.0002
Venus	-22934-04-06 01:40 J	-6655125.65	-6655125.43	-6655125.21	0.0088	0.0003
Venus	-22934-11-17 14:38 J	-6654900.11	-6654899.89	-6654899.67	0.0088	0.0003
Venus	-22933-06-30 03:36 J	-6654674.58	-6654674.35	-6654674.13	0.0088	0.0003
Venus	-22932-02-10 16:19 J	-6654449.04	-6654448.82	-6654448.60	0.0088	0.0003
Venus	-22932-09-24 05:16 J	-6654223.50	-6654223.28	-6654223.06	0.0088	0.0003
Venus	-22931-05-07 18:14 J	-6653997.96	-6653997.74	-6653997.52	0.0088	0.0003
Venus	-22931-12-19 07:11 J	-6653772.42	-6653772.20	-6653771.98	0.0088	0.0004
Venus	-22930-08-01 20:23 J	-6653546.87	-6653546.65	-6653546.43	0.0088	0.0004
Venus	-22929-03-14 09:21 J	-6653321.33	-6653321.11	-6653320.89	0.0088	0.0004
Earth	-22929-10-24 01:55 J	-6653097.51	-6653097.42	-6653097.29	0.0088	0.0079
Moon	-22929-10-24 04:48 J	-6653097.39	-6653097.30	-6653097.15	0.0088	0.0078 *
Venus	-22929-10-25 22:19 J	-6653095.79	-6653095.57	-6653095.35	0.0088	0.0004
Venus	-22928-06-08 11:16 J	-6652870.25	-6652870.03	-6652869.81	0.0088	0.0004
Moon	-22928-10-26 13:11 J	-6652730.16	-6652729.95	-6652729.70	0.0088	0.0037
Earth	-22928-10-26 14:52 J	-6652730.10	-6652729.88	-6652729.63	0.0088	0.0036 *
Venus	-22927-01-20 00:14 J	-6652644.71	-6652644.49	-6652644.26	0.0088	0.0005
Venus	-22927-09-02 13:26 J	-6652419.16	-6652418.94	-6652418.72	0.0088	0.0005
Earth	-22927-10-29 03:36 J	-6652362.61	-6652362.35	-6652362.08	0.0088	0.0007
Moon	-22927-10-29 04:04 J	-6652362.60	-6652362.33	-6652362.05	0.0088	0.0008 *
Venus	-22926-04-16 02:23 J	-6652193.62	-6652193.40	-6652193.17	0.0088	0.0005
Earth	-22926-10-31 15:50 J	-6651995.04	-6651994.84	-6651994.60	0.0088	0.0050
Moon	-22926-10-31 16:04 J	-6651995.02	-6651994.83	-6651994.59	0.0088	0.0049 *
Venus	-22926-11-27 15:36 J	-6651968.07	-6651967.85	-6651967.63	0.0088	0.0005
Venus	-22925-07-10 04:33 J	-6651742.53	-6651742.31	-6651742.08	0.0088	0.0005
Venus	-22924-02-20 17:45 J	-6651516.98	-6651516.76	-6651516.54	0.0088	0.0005
Venus	-22924-10-04 06:43 J	-6651291.44	-6651291.22	-6651290.99	0.0088	0.0006
Venus	-22923-05-17 19:40 J	-6651065.89	-6651065.68	-6651065.45	0.0088	0.0006

Venus	-22923-12-29 08:52 J	-6650840.35	-6650840.13	-6650839.90	0.0088	0.0006
Venus	-22922-08-11 22:19 J	-6650614.79	-6650614.57	-6650614.35	0.0088	0.0006
Venus	-22921-03-24 11:31 J	-6650389.25	-6650389.02	-6650388.80	0.0088	0.0006
Venus	-22921-11-05 00:28 J	-6650163.70	-6650163.48	-6650163.25	0.0088	0.0006
Venus	-22920-06-18 13:40 J	-6649938.15	-6649937.93	-6649937.70	0.0088	0.0006
Venus	-22919-01-30 02:52 J	-6649712.60	-6649712.38	-6649712.15	0.0088	0.0007
Venus	-22919-09-12 16:19 J	-6649487.04	-6649486.82	-6649486.59	0.0088	0.0007
Venus	-22918-04-26 05:45 J	-6649261.48	-6649261.26	-6649261.04	0.0088	0.0007
Venus	-22918-12-07 18:57 J	-6649035.93	-6649035.71	-6649035.48	0.0088	0.0007
Venus	-22917-07-20 08:23 J	-6648810.37	-6648810.15	-6648809.93	0.0088	0.0007
Venus	-22916-03-02 21:36 J	-6648584.82	-6648584.60	-6648584.37	0.0088	0.0007
Venus	-22916-10-14 11:02 J	-6648359.26	-6648359.04	-6648358.81	0.0088	0.0007
Venus	-22915-05-28 00:28 J	-6648133.70	-6648133.48	-6648133.26	0.0088	0.0007
Venus	-22914-01-08 13:55 J	-6647908.15	-6647907.92	-6647907.70	0.0088	0.0007
Venus	-22914-08-22 03:21 J	-6647682.58	-6647682.36	-6647682.14	0.0088	0.0007
Venus	-22913-04-03 16:48 J	-6647457.02	-6647456.80	-6647456.58	0.0088	0.0007
Venus	-22913-11-15 06:00 J	-6647231.47	-6647231.25	-6647231.02	0.0088	0.0008
Mars	-22912-05-16 01:40 J	-6647049.54	-6647049.43	-6647049.31	0.0088	0.0080
Venus	-22912-06-28 19:26 J	-6647005.91	-6647005.69	-6647005.46	0.0088	0.0008
Venus	-22911-02-09 08:52 J	-6646780.35	-6646780.13	-6646779.90	0.0088	0.0008
Venus	-22911-09-22 22:19 J	-6646554.79	-6646554.57	-6646554.34	0.0088	0.0008
Mars	-22910-04-09 22:04 J	-6646355.86	-6646355.58	-6646355.28	0.0088	0.0021
Venus	-22910-05-06 11:45 J	-6646329.23	-6646329.01	-6646328.78	0.0088	0.0008
Mercury	-22910-08-08 12:00 J	-6646235.05	-6646235.00	-6646234.92	0.0088	0.0083
Mercury	-22910-11-04 15:36 J	-6646146.94	-6646146.85	-6646146.73	0.0088	0.0073
Venus	-22910-12-18 01:11 J	-6646103.67	-6646103.45	-6646103.22	0.0088	0.0008
Mercury	-22909-01-31 19:11 J	-6646058.82	-6646058.70	-6646058.56	0.0088	0.0063
Mercury	-22909-04-28 22:33 J	-6645970.70	-6645970.56	-6645970.39	0.0088	0.0054
Mercury	-22909-07-26 02:09 J	-6645882.57	-6645882.41	-6645882.23	0.0088	0.0044
Venus	-22909-07-30 14:38 J	-6645878.11	-6645877.89	-6645877.66	0.0088	0.0008

Mercury	-22909-10-22 05:45 J	-6645794.43	-6645794.26	-6645794.08	0.0088	0.0034
Mercury	-22908-01-18 09:21 J	-6645706.29	-6645706.11	-6645705.92	0.0088	0.0024
Mars	-22908-03-03 17:45 J	-6645662.00	-6645661.76	-6645661.47	0.0088	0.0039
Venus	-22908-03-13 04:19 J	-6645652.54	-6645652.32	-6645652.10	0.0088	0.0008
Mercury	-22908-04-16 12:43 J	-6645618.15	-6645617.97	-6645617.77	0.0088	0.0015
Mercury	-22908-07-13 16:19 J	-6645530.01	-6645529.82	-6645529.63	0.0088	0.0005
Mercury	-22908-10-09 19:40 J	-6645441.87	-6645441.68	-6645441.48	0.0088	0.0005
Venus	-22908-10-24 17:45 J	-6645426.98	-6645426.76	-6645426.53	0.0088	0.0008
Mercury	-22907-01-05 23:16 J	-6645353.72	-6645353.53	-6645353.34	0.0088	0.0014
Mercury	-22907-04-04 02:23 J	-6645265.57	-6645265.40	-6645265.20	0.0088	0.0024
Venus	-22907-06-07 07:26 J	-6645201.41	-6645201.19	-6645200.97	0.0088	0.0008
Mercury	-22907-07-01 05:45 J	-6645177.42	-6645177.26	-6645177.07	0.0088	0.0034
Mercury	-22907-09-27 09:21 J	-6645089.27	-6645089.11	-6645088.94	0.0088	0.0043
Mercury	-22907-12-24 12:28 J	-6645001.11	-6645000.98	-6645000.81	0.0088	0.0053
Venus	-22906-01-18 20:52 J	-6644975.85	-6644975.63	-6644975.40	0.0088	0.0008
Mercury	-22906-03-22 16:04 J	-6644912.95	-6644912.83	-6644912.69	0.0088	0.0062
Mercury	-22906-06-18 19:11 J	-6644824.79	-6644824.70	-6644824.57	0.0088	0.0072
Venus	-22906-09-01 10:33 J	-6644750.28	-6644750.06	-6644749.83	0.0088	0.0008
Mercury	-22906-09-14 22:48 J	-6644736.61	-6644736.55	-6644736.47	0.0088	0.0081
Venus	-22905-04-14 00:14 J	-6644524.71	-6644524.49	-6644524.26	0.0088	0.0008
Venus	-22905-11-25 13:55 J	-6644299.14	-6644298.92	-6644298.70	0.0088	0.0008
Venus	-22904-07-09 03:21 J	-6644073.58	-6644073.36	-6644073.13	0.0088	0.0009
Venus	-22903-02-19 17:02 J	-6643848.01	-6643847.79	-6643847.56	0.0088	0.0009
Venus	-22903-10-03 06:57 J	-6643622.44	-6643622.21	-6643621.99	0.0088	0.0009
Venus	-22902-05-16 20:38 J	-6643396.87	-6643396.64	-6643396.42	0.0088	0.0009
Venus	-22902-12-28 10:04 J	-6643171.30	-6643171.08	-6643170.85	0.0088	0.0009
Venus	-22901-08-09 23:45 J	-6642945.73	-6642945.51	-6642945.28	0.0088	0.0009
Venus	-22900-03-23 13:26 J	-6642720.16	-6642719.94	-6642719.71	0.0088	0.0009
Venus	-22900-11-04 03:07 J	-6642494.59	-6642494.37	-6642494.14	0.0088	0.0009
Venus	-22899-06-17 16:48 J	-6642269.02	-6642268.80	-6642268.57	0.0088	0.0009

Venus	-22898-01-29 06:14 J	-6642043.45	-6642043.24	-6642043.01	0.0088	0.0009
Venus	-22898-09-11 20:09 J	-6641817.88	-6641817.66	-6641817.44	0.0088	0.0009
Venus	-22897-04-24 09:50 J	-6641592.31	-6641592.09	-6641591.87	0.0088	0.0009
Venus	-22897-12-05 23:31 J	-6641366.75	-6641366.52	-6641366.30	0.0088	0.0009
Venus	-22896-07-19 12:57 J	-6641141.18	-6641140.96	-6641140.73	0.0088	0.0009
Venus	-22895-03-02 02:38 J	-6640915.61	-6640915.39	-6640915.16	0.0088	0.0009
Venus	-22895-10-13 16:33 J	-6640690.03	-6640689.81	-6640689.58	0.0088	0.0009
Venus	-22894-05-27 06:14 J	-6640464.46	-6640464.24	-6640464.01	0.0088	0.0009
Venus	-22893-01-07 20:09 J	-6640238.89	-6640238.66	-6640238.44	0.0088	0.0009
Venus	-22893-08-20 09:50 J	-6640013.32	-6640013.09	-6640012.87	0.0088	0.0009
Venus	-22892-04-02 23:31 J	-6639787.74	-6639787.52	-6639787.30	0.0088	0.0009
Venus	-22892-11-14 13:26 J	-6639562.17	-6639561.94	-6639561.72	0.0088	0.0009
Venus	-22891-06-28 03:07 J	-6639336.59	-6639336.37	-6639336.14	0.0088	0.0008
Venus	-22890-02-08 16:48 J	-6639111.02	-6639110.80	-6639110.57	0.0088	0.0009
Venus	-22890-09-22 06:43 J	-6638885.45	-6638885.22	-6638885.00	0.0088	0.0008
Venus	-22889-05-04 20:23 J	-6638659.87	-6638659.65	-6638659.42	0.0088	0.0008
Venus	-22889-12-16 10:04 J	-6638434.30	-6638434.08	-6638433.85	0.0088	0.0009
Venus	-22888-07-29 23:45 J	-6638208.73	-6638208.51	-6638208.28	0.0088	0.0009
Venus	-22887-03-12 13:26 J	-6637983.16	-6637982.94	-6637982.71	0.0088	0.0009
Venus	-22887-10-24 03:21 J	-6637757.58	-6637757.36	-6637757.13	0.0088	0.0008
Venus	-22886-06-06 17:02 J	-6637532.01	-6637531.79	-6637531.56	0.0088	0.0008
Venus	-22885-01-18 06:43 J	-6637306.44	-6637306.22	-6637305.99	0.0088	0.0008
Venus	-22885-08-30 20:23 J	-6637080.87	-6637080.65	-6637080.42	0.0089	0.0008
Venus	-22884-04-13 10:19 J	-6636855.30	-6636855.07	-6636854.85	0.0089	0.0008
Venus	-22884-11-25 00:00 J	-6636629.72	-6636629.50	-6636629.27	0.0089	0.0008
Venus	-22883-07-08 13:40 J	-6636404.15	-6636403.93	-6636403.70	0.0089	0.0008
Venus	-22882-02-19 03:21 J	-6636178.58	-6636178.36	-6636178.13	0.0089	0.0008
Venus	-22882-10-02 17:02 J	-6635953.01	-6635952.79	-6635952.56	0.0089	0.0008
Venus	-22881-05-15 06:43 J	-6635727.44	-6635727.22	-6635726.99	0.0089	0.0008
Venus	-22881-12-26 20:38 J	-6635501.86	-6635501.64	-6635501.41	0.0089	0.0007

Venus	-22880-08-09 10:19 J	-6635276.29	-6635276.07	-6635275.84	0.0089	0.0007
Venus	-22879-03-23 00:00 J	-6635050.72	-6635050.50	-6635050.27	0.0089	0.0007
Venus	-22879-11-03 13:55 J	-6634825.14	-6634824.92	-6634824.70	0.0089	0.0007
Venus	-22878-06-17 03:36 J	-6634599.57	-6634599.35	-6634599.12	0.0089	0.0007
Venus	-22877-01-28 17:31 J	-6634374.00	-6634373.77	-6634373.55	0.0089	0.0007
Venus	-22877-09-10 06:57 J	-6634148.43	-6634148.21	-6634147.98	0.0089	0.0007
Venus	-22876-04-23 20:38 J	-6633922.86	-6633922.64	-6633922.41	0.0089	0.0007
Venus	-22876-12-05 10:33 J	-6633697.28	-6633697.06	-6633696.83	0.0089	0.0006
Venus	-22875-07-19 00:14 J	-6633471.71	-6633471.49	-6633471.26	0.0089	0.0006
Venus	-22874-03-01 13:55 J	-6633246.14	-6633245.92	-6633245.70	0.0089	0.0006
Venus	-22874-10-13 03:36 J	-6633020.58	-6633020.35	-6633020.13	0.0089	0.0006
Venus	-22873-05-25 17:02 J	-6632795.01	-6632794.79	-6632794.56	0.0089	0.0006
Venus	-22872-01-06 06:43 J	-6632569.44	-6632569.22	-6632568.99	0.0089	0.0006
Venus	-22872-08-19 20:23 J	-6632343.87	-6632343.65	-6632343.43	0.0089	0.0005
Venus	-22871-04-02 09:50 J	-6632118.31	-6632118.09	-6632117.86	0.0089	0.0006
Venus	-22871-11-13 23:31 J	-6631892.74	-6631892.52	-6631892.30	0.0089	0.0005
Venus	-22870-06-27 13:11 J	-6631667.17	-6631666.95	-6631666.73	0.0089	0.0005
Venus	-22869-02-08 02:52 J	-6631441.61	-6631441.38	-6631441.16	0.0089	0.0005
Venus	-22869-09-20 16:19 J	-6631216.04	-6631215.82	-6631215.60	0.0089	0.0005
Venus	-22868-05-04 05:45 J	-6630990.48	-6630990.26	-6630990.03	0.0089	0.0005
Venus	-22868-12-15 19:26 J	-6630764.91	-6630764.69	-6630764.46	0.0089	0.0005
Venus	-22867-07-29 09:07 J	-6630539.34	-6630539.12	-6630538.90	0.0089	0.0004
Venus	-22866-03-11 22:33 J	-6630313.78	-6630313.56	-6630313.33	0.0089	0.0005
Venus	-22866-10-23 12:14 J	-6630088.21	-6630087.99	-6630087.77	0.0089	0.0004
Venus	-22865-06-05 01:40 J	-6629862.65	-6629862.43	-6629862.20	0.0089	0.0004
Venus	-22864-01-16 15:21 J	-6629637.08	-6629636.86	-6629636.64	0.0089	0.0004
Venus	-22864-08-30 04:48 J	-6629411.52	-6629411.30	-6629411.08	0.0089	0.0004
Venus	-22863-04-12 18:14 J	-6629185.96	-6629185.74	-6629185.52	0.0089	0.0003
Venus	-22863-11-24 07:40 J	-6628960.40	-6628960.18	-6628959.96	0.0089	0.0003
Venus	-22862-07-07 21:07 J	-6628734.84	-6628734.62	-6628734.40	0.0089	0.0003

Venus	-22861-02-18 10:33 J	-6628509.28	-6628509.06	-6628508.83	0.0089	0.0003
Venus	-22861-10-01 00:00 J	-6628283.72	-6628283.50	-6628283.28	0.0089	0.0003
Venus	-22860-05-14 13:11 J	-6628058.17	-6628057.95	-6628057.72	0.0089	0.0003
Venus	-22860-12-26 02:38 J	-6627832.61	-6627832.39	-6627832.17	0.0089	0.0003
Venus	-22859-08-08 16:04 J	-6627607.05	-6627606.83	-6627606.61	0.0089	0.0002
Venus	-22858-03-22 05:16 J	-6627381.50	-6627381.28	-6627381.06	0.0089	0.0002
Venus	-22858-11-02 18:28 J	-6627155.95	-6627155.73	-6627155.51	0.0089	0.0002
Venus	-22857-06-15 07:55 J	-6626930.39	-6626930.17	-6626929.95	0.0089	0.0002
Venus	-22856-01-26 21:07 J	-6626704.84	-6626704.62	-6626704.39	0.0089	0.0003
Venus	-22856-09-09 10:33 J	-6626479.28	-6626479.06	-6626478.84	0.0089	0.0002
Venus	-22855-04-22 23:45 J	-6626253.73	-6626253.51	-6626253.29	0.0089	0.0001
Venus	-22855-12-04 12:57 J	-6626028.18	-6626027.96	-6626027.74	0.0089	0.0001
Venus	-22854-07-18 02:09 J	-6625802.63	-6625802.41	-6625802.19	0.0089	0.0002
Venus	-22853-02-28 15:36 J	-6625577.07	-6625576.85	-6625576.63	0.0089	0.0001
Venus	-22853-10-11 04:48 J	-6625351.52	-6625351.30	-6625351.08	0.0089	0.0000
Venus	-22852-05-24 18:00 J	-6625125.97	-6625125.75	-6625125.53	0.0089	0.0001
Venus	-22851-01-05 07:11 J	-6624900.42	-6624900.20	-6624899.98	0.0089	0.0000
Venus	-22851-08-18 20:23 J	-6624674.87	-6624674.65	-6624674.43	0.0089	0.0000
Venus	-22850-04-01 09:36 J	-6624449.32	-6624449.10	-6624448.88	0.0089	0.0002
Venus	-22850-11-12 22:33 J	-6624223.78	-6624223.56	-6624223.34	0.0089	0.0000
Venus	-22849-06-25 11:31 J	-6623998.23	-6623998.02	-6623997.80	0.0089	0.0002
Venus	-22848-02-06 00:43 J	-6623772.69	-6623772.47	-6623772.25	0.0089	0.0001
Venus	-22848-09-19 13:40 J	-6623547.14	-6623546.93	-6623546.71	0.0089	0.0002
Venus	-22847-05-03 02:38 J	-6623321.61	-6623321.39	-6623321.17	0.0089	0.0002
Venus	-22847-12-14 15:36 J	-6623096.06	-6623095.85	-6623095.63	0.0089	0.0002
Moon	-22846-04-26 07:40 J	-6622963.24	-6622963.18	-6622963.05	0.0089	0.0083
Earth	-22846-04-26 09:21 J	-6622963.20	-6622963.11	-6622962.97	0.0089	0.0080 *
Venus	-22846-07-28 04:33 J	-6622870.52	-6622870.31	-6622870.09	0.0089	0.0003
Venus	-22845-03-09 17:45 J	-6622644.98	-6622644.76	-6622644.54	0.0089	0.0002
Earth	-22845-04-27 19:55 J	-6622595.89	-6622595.67	-6622595.42	0.0089	0.0036

Moon	-22845-04-27 21:07 J	-6622595.86	-6622595.62	-6622595.37	0.0089	0.0034 *
Venus	-22845-10-21 06:43 J	-6622419.44	-6622419.22	-6622419.00	0.0089	0.0002
Earth	-22844-04-30 06:43 J	-6622228.47	-6622228.22	-6622227.96	0.0089	0.0008
Moon	-22844-04-30 07:40 J	-6622228.43	-6622228.18	-6622227.94	0.0089	0.0005 *
Venus	-22844-06-03 19:40 J	-6622193.90	-6622193.68	-6622193.47	0.0089	0.0003
Venus	-22843-01-15 08:38 J	-6621968.36	-6621968.14	-6621967.93	0.0089	0.0003
Moon	-22843-05-02 14:52 J	-6621861.07	-6621860.88	-6621860.66	0.0089	0.0054
Earth	-22843-05-02 17:16 J	-6621860.99	-6621860.78	-6621860.57	0.0089	0.0051 *
Venus	-22843-08-28 21:36 J	-6621742.82	-6621742.60	-6621742.39	0.0089	0.0003
Venus	-22842-04-11 10:19 J	-6621517.28	-6621517.07	-6621516.85	0.0089	0.0003
Venus	-22842-11-22 23:16 J	-6621291.75	-6621291.53	-6621291.31	0.0089	0.0003
Venus	-22841-07-05 12:14 J	-6621066.21	-6621065.99	-6621065.77	0.0089	0.0003
Venus	-22840-02-16 01:11 J	-6620840.67	-6620840.45	-6620840.23	0.0089	0.0003
Venus	-22840-09-29 14:09 J	-6620615.13	-6620614.91	-6620614.69	0.0089	0.0003
Venus	-22839-05-13 02:52 J	-6620389.59	-6620389.38	-6620389.16	0.0089	0.0003
Venus	-22839-12-24 15:50 J	-6620164.06	-6620163.84	-6620163.63	0.0089	0.0004
Venus	-22838-08-07 04:33 J	-6619938.53	-6619938.31	-6619938.09	0.0089	0.0004
Venus	-22837-03-19 17:31 J	-6619712.99	-6619712.77	-6619712.55	0.0089	0.0004
Venus	-22837-10-31 06:14 J	-6619487.46	-6619487.24	-6619487.02	0.0089	0.0004
Venus	-22836-06-13 18:57 J	-6619261.93	-6619261.71	-6619261.49	0.0089	0.0004
Venus	-22835-01-25 07:40 J	-6619036.40	-6619036.18	-6619035.96	0.0089	0.0004
Venus	-22835-09-07 20:23 J	-6618810.87	-6618810.65	-6618810.43	0.0089	0.0004
Venus	-22834-04-21 09:07 J	-6618585.34	-6618585.12	-6618584.90	0.0089	0.0004
Venus	-22834-12-02 21:50 J	-6618359.81	-6618359.59	-6618359.38	0.0089	0.0005
Venus	-22833-07-15 10:19 J	-6618134.28	-6618134.07	-6618133.85	0.0089	0.0005
Venus	-22832-02-25 23:02 J	-6617908.76	-6617908.54	-6617908.32	0.0089	0.0005
Venus	-22832-10-09 11:31 J	-6617683.23	-6617683.02	-6617682.80	0.0089	0.0006
Venus	-22831-05-23 00:14 J	-6617457.71	-6617457.49	-6617457.27	0.0089	0.0005
Venus	-22830-01-03 12:43 J	-6617232.18	-6617231.97	-6617231.75	0.0089	0.0005
Venus	-22830-08-17 01:26 J	-6617006.65	-6617006.44	-6617006.22	0.0089	0.0005

Venus	-22829-03-29 14:09 J	-6616781.12	-6616780.91	-6616780.69	0.0089	0.0005
Mercury	-22829-08-18 22:33 J	-6616638.59	-6616638.56	-6616638.52	0.0089	0.0086
Venus	-22829-11-10 02:52 J	-6616555.60	-6616555.38	-6616555.17	0.0089	0.0006
Mercury	-22829-11-15 00:00 J	-6616550.56	-6616550.50	-6616550.44	0.0089	0.0079
Mercury	-22828-02-11 00:57 J	-6616462.52	-6616462.46	-6616462.37	0.0089	0.0073
Mars	-22828-02-19 01:11 J	-6616454.75	-6616454.45	-6616454.12	0.0089	0.0029
Mercury	-22828-05-10 02:23 J	-6616374.48	-6616374.40	-6616374.30	0.0089	0.0065
Venus	-22828-06-23 15:21 J	-6616330.08	-6616329.86	-6616329.64	0.0089	0.0006
Mercury	-22828-08-06 03:50 J	-6616286.43	-6616286.34	-6616286.23	0.0089	0.0058
Mercury	-22828-11-02 05:16 J	-6616198.38	-6616198.28	-6616198.17	0.0089	0.0051
Mercury	-22827-01-29 06:28 J	-6616110.33	-6616110.23	-6616110.10	0.0089	0.0045
Venus	-22827-02-04 03:50 J	-6616104.55	-6616104.34	-6616104.12	0.0089	0.0006
Mercury	-22827-04-27 07:55 J	-6616022.28	-6616022.17	-6616022.04	0.0089	0.0038
Mercury	-22827-07-24 09:21 J	-6615934.23	-6615934.11	-6615933.98	0.0089	0.0030
Venus	-22827-09-17 16:33 J	-6615879.03	-6615878.81	-6615878.60	0.0089	0.0006
Mercury	-22827-10-20 10:48 J	-6615846.18	-6615846.05	-6615845.92	0.0089	0.0023
Mars	-22826-01-16 02:38 J	-6615758.67	-6615758.39	-6615758.08	0.0089	0.0043
Mercury	-22826-01-16 12:14 J	-6615758.12	-6615757.99	-6615757.86	0.0089	0.0016 *
Mercury	-22826-04-14 13:26 J	-6615670.07	-6615669.94	-6615669.80	0.0089	0.0010
Venus	-22826-05-01 05:02 J	-6615653.50	-6615653.29	-6615653.07	0.0089	0.0006
Mercury	-22826-07-11 14:52 J	-6615582.01	-6615581.88	-6615581.75	0.0089	0.0002
Mercury	-22826-10-07 16:19 J	-6615493.96	-6615493.82	-6615493.69	0.0089	0.0005
Venus	-22826-12-12 17:31 J	-6615427.98	-6615427.77	-6615427.55	0.0089	0.0007
Mercury	-22825-01-03 17:31 J	-6615405.90	-6615405.77	-6615405.63	0.0089	0.0012
Mercury	-22825-03-31 18:57 J	-6615317.84	-6615317.71	-6615317.58	0.0089	0.0019
Mercury	-22825-06-27 20:09 J	-6615229.78	-6615229.66	-6615229.52	0.0089	0.0027
Venus	-22825-07-25 06:00 J	-6615202.46	-6615202.25	-6615202.03	0.0089	0.0007
Mercury	-22825-09-23 21:36 J	-6615141.72	-6615141.60	-6615141.47	0.0089	0.0033
Mercury	-22825-12-20 23:02 J	-6615053.65	-6615053.54	-6615053.41	0.0089	0.0040
Venus	-22824-03-07 18:43 J	-6614976.94	-6614976.72	-6614976.51	0.0089	0.0006

Mercury	-22824-03-19 00:28 J	-6614965.59	-6614965.48	-6614965.36	0.0089	0.0047
Mercury	-22824-06-15 01:40 J	-6614877.52	-6614877.43	-6614877.31	0.0089	0.0055
Mercury	-22824-09-11 03:07 J	-6614789.46	-6614789.37	-6614789.26	0.0089	0.0062
Venus	-22824-10-19 07:11 J	-6614751.42	-6614751.20	-6614750.99	0.0089	0.0006
Mercury	-22824-12-08 04:33 J	-6614701.39	-6614701.31	-6614701.22	0.0089	0.0069
Mercury	-22823-03-06 06:00 J	-6614613.31	-6614613.25	-6614613.17	0.0089	0.0076
Venus	-22823-06-01 19:26 J	-6614525.90	-6614525.69	-6614525.47	0.0089	0.0007
Mercury	-22823-06-02 07:26 J	-6614525.23	-6614525.19	-6614525.14	0.0089	0.0083
Venus	-22822-01-13 07:55 J	-6614300.38	-6614300.17	-6614299.95	0.0089	0.0006
Venus	-22822-08-26 20:23 J	-6614074.87	-6614074.65	-6614074.44	0.0089	0.0006
Venus	-22821-04-08 08:52 J	-6613849.34	-6613849.13	-6613848.91	0.0089	0.0007
Venus	-22821-11-19 21:07 J	-6613623.83	-6613623.62	-6613623.40	0.0089	0.0007
Venus	-22820-07-03 09:36 J	-6613398.32	-6613398.10	-6613397.89	0.0089	0.0007
Venus	-22819-02-13 21:50 J	-6613172.80	-6613172.59	-6613172.37	0.0089	0.0007
Venus	-22819-09-27 10:19 J	-6612947.29	-6612947.07	-6612946.86	0.0089	0.0007
Venus	-22818-05-10 22:48 J	-6612721.76	-6612721.55	-6612721.33	0.0089	0.0007
Venus	-22818-12-22 11:02 J	-6612496.25	-6612496.04	-6612495.82	0.0089	0.0007
Venus	-22817-08-03 23:31 J	-6612270.74	-6612270.52	-6612270.31	0.0089	0.0007
Venus	-22816-03-17 11:45 J	-6612045.22	-6612045.01	-6612044.79	0.0089	0.0007
Venus	-22816-10-29 00:14 J	-6611819.70	-6611819.49	-6611819.27	0.0089	0.0007
Venus	-22815-06-11 12:43 J	-6611594.19	-6611593.97	-6611593.76	0.0089	0.0007
Venus	-22814-01-23 00:57 J	-6611368.67	-6611368.46	-6611368.24	0.0089	0.0007
Venus	-22814-09-05 13:26 J	-6611143.16	-6611142.94	-6611142.73	0.0089	0.0007
Venus	-22813-04-18 01:55 J	-6610917.64	-6610917.42	-6610917.21	0.0089	0.0007
Venus	-22813-11-29 14:09 J	-6610692.12	-6610691.91	-6610691.69	0.0089	0.0007
Venus	-22812-07-13 02:23 J	-6610466.61	-6610466.40	-6610466.18	0.0089	0.0007
Venus	-22811-02-23 14:38 J	-6610241.10	-6610240.89	-6610240.67	0.0089	0.0008
Venus	-22811-10-07 03:07 J	-6610015.59	-6610015.37	-6610015.16	0.0089	0.0007
Venus	-22810-05-20 15:36 J	-6609790.07	-6609789.85	-6609789.64	0.0089	0.0007
Venus	-22809-01-01 03:50 J	-6609564.56	-6609564.34	-6609564.13	0.0089	0.0007

Venus	-22809-08-13 15:50 J	-6609339.05	-6609338.84	-6609338.62	0.0089	0.0008
Venus	-22808-03-27 04:19 J	-6609113.54	-6609113.32	-6609113.11	0.0089	0.0007
Venus	-22808-11-07 16:33 J	-6608888.03	-6608887.81	-6608887.60	0.0089	0.0007
Venus	-22807-06-21 04:48 J	-6608662.51	-6608662.30	-6608662.08	0.0089	0.0007
Venus	-22806-02-01 17:02 J	-6608437.00	-6608436.79	-6608436.57	0.0089	0.0008
Venus	-22806-09-15 05:16 J	-6608211.49	-6608211.28	-6608211.06	0.0089	0.0008
Venus	-22805-04-27 17:45 J	-6607985.97	-6607985.76	-6607985.54	0.0089	0.0007
Venus	-22805-12-09 06:00 J	-6607760.46	-6607760.25	-6607760.03	0.0089	0.0008
Venus	-22804-07-22 18:14 J	-6607534.95	-6607534.74	-6607534.52	0.0089	0.0008
Venus	-22803-03-05 06:28 J	-6607309.44	-6607309.23	-6607309.01	0.0089	0.0008
Venus	-22803-10-16 18:57 J	-6607083.92	-6607083.71	-6607083.49	0.0089	0.0007
Venus	-22802-05-30 07:26 J	-6606858.40	-6606858.19	-6606857.97	0.0089	0.0007
Venus	-22801-01-10 19:40 J	-6606632.89	-6606632.68	-6606632.46	0.0089	0.0008
Venus	-22801-08-23 08:09 J	-6606407.37	-6606407.16	-6606406.94	0.0089	0.0007
Venus	-22800-04-05 20:23 J	-6606181.86	-6606181.65	-6606181.43	0.0089	0.0007
Venus	-22800-11-17 08:38 J	-6605956.35	-6605956.14	-6605955.92	0.0089	0.0008
Venus	-22799-06-30 21:07 J	-6605730.83	-6605730.62	-6605730.40	0.0089	0.0007
Venus	-22798-02-11 09:21 J	-6605505.32	-6605505.11	-6605504.89	0.0089	0.0008
Venus	-22798-09-24 21:50 J	-6605279.81	-6605279.59	-6605279.38	0.0089	0.0007
Venus	-22797-05-07 10:04 J	-6605054.29	-6605054.08	-6605053.86	0.0089	0.0007
Venus	-22797-12-18 22:19 J	-6604828.78	-6604828.57	-6604828.35	0.0089	0.0008
Venus	-22796-08-01 10:48 J	-6604603.27	-6604603.05	-6604602.84	0.0089	0.0007
Venus	-22795-03-14 23:02 J	-6604377.76	-6604377.54	-6604377.32	0.0089	0.0007
Venus	-22795-10-26 11:16 J	-6604152.24	-6604152.03	-6604151.81	0.0089	0.0007
Venus	-22794-06-08 23:45 J	-6603926.72	-6603926.51	-6603926.29	0.0089	0.0007
Venus	-22793-01-20 12:14 J	-6603701.21	-6603700.99	-6603700.78	0.0089	0.0007
Venus	-22793-09-02 00:28 J	-6603475.70	-6603475.48	-6603475.26	0.0088	0.0007
Venus	-22792-04-15 12:43 J	-6603250.18	-6603249.97	-6603249.75	0.0088	0.0007
Venus	-22792-11-27 01:11 J	-6603024.67	-6603024.45	-6603024.23	0.0088	0.0007
Venus	-22791-07-10 13:40 J	-6602799.15	-6602798.93	-6602798.71	0.0088	0.0006

Venus	-22790-02-21 02:09 J	-6602573.63	-6602573.41	-6602573.19	0.0088	0.0006
Venus	-22790-10-04 14:23 J	-6602348.11	-6602347.90	-6602347.68	0.0088	0.0007
Venus	-22789-05-17 02:52 J	-6602122.59	-6602122.38	-6602122.16	0.0088	0.0007
Venus	-22789-12-28 15:21 J	-6601897.07	-6601896.86	-6601896.64	0.0088	0.0007
Venus	-22788-08-11 03:50 J	-6601671.55	-6601671.34	-6601671.12	0.0088	0.0006
Venus	-22787-03-24 16:19 J	-6601446.04	-6601445.82	-6601445.60	0.0088	0.0006
Venus	-22787-11-05 04:48 J	-6601220.52	-6601220.30	-6601220.08	0.0088	0.0006
Venus	-22786-06-18 17:16 J	-6600994.99	-6600994.78	-6600994.56	0.0088	0.0006
Venus	-22785-01-30 05:45 J	-6600769.47	-6600769.26	-6600769.04	0.0088	0.0006
Venus	-22785-09-11 18:14 J	-6600543.95	-6600543.74	-6600543.52	0.0088	0.0006
Venus	-22784-04-25 06:43 J	-6600318.44	-6600318.22	-6600318.00	0.0088	0.0006
Venus	-22784-12-06 19:11 J	-6600092.92	-6600092.70	-6600092.48	0.0088	0.0005
Venus	-22783-07-20 07:40 J	-6599867.39	-6599867.18	-6599866.96	0.0088	0.0006
Venus	-22782-03-02 20:09 J	-6599641.87	-6599641.66	-6599641.44	0.0088	0.0006
Venus	-22782-10-14 08:38 J	-6599416.35	-6599416.14	-6599415.92	0.0088	0.0005
Venus	-22781-05-26 21:07 J	-6599190.83	-6599190.62	-6599190.39	0.0088	0.0006
Venus	-22780-01-07 09:50 J	-6598965.31	-6598965.09	-6598964.87	0.0088	0.0005
Venus	-22780-08-20 22:19 J	-6598739.79	-6598739.57	-6598739.35	0.0088	0.0005
Venus	-22779-04-03 10:48 J	-6598514.26	-6598514.05	-6598513.83	0.0088	0.0005
Venus	-22779-11-14 23:31 J	-6598288.74	-6598288.52	-6598288.30	0.0088	0.0004
Venus	-22778-06-28 12:14 J	-6598063.21	-6598062.99	-6598062.77	0.0088	0.0005
Venus	-22777-02-09 00:57 J	-6597837.68	-6597837.46	-6597837.24	0.0088	0.0004
Venus	-22777-09-21 13:40 J	-6597612.15	-6597611.93	-6597611.71	0.0088	0.0004
Venus	-22776-05-05 02:09 J	-6597386.63	-6597386.41	-6597386.19	0.0088	0.0004
Venus	-22776-12-16 14:52 J	-6597161.10	-6597160.88	-6597160.66	0.0088	0.0004
Venus	-22775-07-30 03:50 J	-6596935.56	-6596935.34	-6596935.12	0.0088	0.0004
Venus	-22774-03-12 16:33 J	-6596710.03	-6596709.81	-6596709.59	0.0088	0.0004
Venus	-22774-10-24 05:16 J	-6596484.50	-6596484.28	-6596484.06	0.0088	0.0003
Venus	-22773-06-05 18:00 J	-6596258.97	-6596258.75	-6596258.53	0.0088	0.0003
Venus	-22772-01-17 06:43 J	-6596033.44	-6596033.22	-6596033.00	0.0088	0.0003

Venus	-22772-08-30 19:26 J	-6595807.91	-6595807.69	-6595807.47	0.0088	0.0003
Venus	-22771-04-13 08:09 J	-6595582.38	-6595582.16	-6595581.94	0.0088	0.0003
Venus	-22771-11-24 21:07 J	-6595356.84	-6595356.62	-6595356.40	0.0088	0.0003
Venus	-22770-07-08 09:50 J	-6595131.31	-6595131.09	-6595130.87	0.0088	0.0003
Venus	-22769-02-18 22:48 J	-6594905.77	-6594905.55	-6594905.33	0.0088	0.0003
Venus	-22769-10-01 11:31 J	-6594680.24	-6594680.02	-6594679.80	0.0088	0.0002
Venus	-22768-05-15 00:14 J	-6594454.71	-6594454.49	-6594454.27	0.0088	0.0002
Venus	-22768-12-26 13:11 J	-6594229.17	-6594228.95	-6594228.73	0.0088	0.0002
Venus	-22767-08-09 02:09 J	-6594003.63	-6594003.41	-6594003.19	0.0088	0.0002
Venus	-22766-03-22 15:07 J	-6593778.09	-6593777.87	-6593777.65	0.0088	0.0002
Venus	-22766-11-03 04:04 J	-6593552.55	-6593552.33	-6593552.11	0.0088	0.0002
Venus	-22765-06-15 17:02 J	-6593327.01	-6593326.79	-6593326.57	0.0088	0.0002
Venus	-22764-01-27 06:00 J	-6593101.47	-6593101.25	-6593101.03	0.0088	0.0001
Venus	-22764-09-09 19:11 J	-6592875.93	-6592875.70	-6592875.48	0.0088	0.0002
Earth	-22764-10-25 17:45 J	-6592829.92	-6592829.76	-6592829.55	0.0088	0.0062
Moon	-22764-10-25 18:00 J	-6592829.92	-6592829.75	-6592829.56	0.0088	0.0066 *
Venus	-22763-04-23 08:09 J	-6592650.38	-6592650.16	-6592649.94	0.0088	0.0001
Earth	-22763-10-28 06:43 J	-6592462.46	-6592462.22	-6592461.95	0.0088	0.0019
Moon	-22763-10-28 08:23 J	-6592462.39	-6592462.15	-6592461.89	0.0088	0.0015 *
Venus	-22763-12-04 21:07 J	-6592424.84	-6592424.62	-6592424.40	0.0088	0.0001
Venus	-22762-07-18 10:19 J	-6592199.29	-6592199.07	-6592198.85	0.0088	0.0001
Moon	-22762-10-30 17:16 J	-6592095.03	-6592094.78	-6592094.51	0.0088	0.0020
Earth	-22762-10-30 19:26 J	-6592094.93	-6592094.69	-6592094.43	0.0088	0.0024 *
Venus	-22761-02-28 23:16 J	-6591973.75	-6591973.53	-6591973.30	0.0088	0.0002
Venus	-22761-10-11 12:28 J	-6591748.20	-6591747.98	-6591747.76	0.0088	0.0001
Earth	-22761-11-01 07:55 J	-6591727.32	-6591727.17	-6591726.98	0.0088	0.0067
Moon	-22761-11-01 11:02 J	-6591727.16	-6591727.04	-6591726.87	0.0088	0.0072 *
Venus	-22760-05-25 01:26 J	-6591522.66	-6591522.44	-6591522.22	0.0088	0.0001
Venus	-22759-01-05 14:38 J	-6591297.12	-6591296.89	-6591296.67	0.0088	0.0001
Venus	-22759-08-19 03:50 J	-6591071.56	-6591071.34	-6591071.12	0.0088	0.0000

Venus	-22758-04-01 17:02 J	-6590846.02	-6590845.79	-6590845.57	0.0088	0.0001
Venus	-22758-11-13 06:00 J	-6590620.47	-6590620.25	-6590620.03	0.0088	0.0001
Venus	-22757-06-25 18:57 J	-6590394.93	-6590394.71	-6590394.48	0.0088	0.0002
Venus	-22756-02-06 08:09 J	-6590169.38	-6590169.16	-6590168.93	0.0088	0.0002
Venus	-22756-09-19 21:36 J	-6589943.83	-6589943.60	-6589943.38	0.0088	0.0002
Venus	-22755-05-03 10:48 J	-6589718.28	-6589718.05	-6589717.83	0.0088	0.0002
Venus	-22755-12-15 00:00 J	-6589492.73	-6589492.50	-6589492.28	0.0088	0.0002
Venus	-22754-07-28 13:11 J	-6589267.17	-6589266.95	-6589266.73	0.0088	0.0001
Venus	-22753-03-10 02:23 J	-6589041.62	-6589041.40	-6589041.17	0.0088	0.0002
Venus	-22753-10-21 15:50 J	-6588816.07	-6588815.84	-6588815.62	0.0088	0.0002
Venus	-22752-06-04 05:02 J	-6588590.51	-6588590.29	-6588590.07	0.0088	0.0002
Venus	-22751-01-15 18:14 J	-6588364.96	-6588364.74	-6588364.51	0.0088	0.0003
Jupiter	-22751-08-13 18:14 J	-6588155.30	-6588154.74	-6588154.18	0.0088	0.0015
Venus	-22751-08-29 07:55 J	-6588139.40	-6588139.17	-6588138.95	0.0088	0.0002
Venus	-22750-04-11 21:07 J	-6587913.84	-6587913.62	-6587913.39	0.0088	0.0003
Venus	-22750-11-23 10:33 J	-6587688.28	-6587688.06	-6587687.83	0.0088	0.0002
Venus	-22749-07-06 00:00 J	-6587462.73	-6587462.50	-6587462.28	0.0088	0.0003
Venus	-22748-02-16 13:11 J	-6587237.17	-6587236.95	-6587236.72	0.0088	0.0003
Venus	-22748-09-30 02:52 J	-6587011.60	-6587011.38	-6587011.16	0.0088	0.0003
Venus	-22747-05-13 16:19 J	-6586786.05	-6586785.82	-6586785.60	0.0088	0.0003
Mars	-22747-11-22 23:31 J	-6586592.73	-6586592.52	-6586592.26	0.0088	0.0054
Venus	-22747-12-25 05:31 J	-6586560.49	-6586560.27	-6586560.04	0.0088	0.0004
Venus	-22746-08-07 18:57 J	-6586334.93	-6586334.71	-6586334.48	0.0088	0.0004
Venus	-22745-03-20 08:23 J	-6586109.37	-6586109.15	-6586108.92	0.0088	0.0004
Mercury	-22745-05-04 09:07 J	-6586064.18	-6586064.12	-6586064.05	0.0088	0.0082
Mercury	-22745-07-31 12:43 J	-6585976.07	-6585975.97	-6585975.86	0.0088	0.0072
Mars	-22745-10-16 20:38 J	-6585898.93	-6585898.64	-6585898.34	0.0088	0.0006
Mercury	-22745-10-27 15:50 J	-6585887.95	-6585887.84	-6585887.69	0.0088	0.0063
Venus	-22745-10-31 21:50 J	-6585883.81	-6585883.59	-6585883.36	0.0088	0.0004
Mercury	-22744-01-23 19:26 J	-6585799.83	-6585799.69	-6585799.52	0.0088	0.0053

Mercury	-22744-04-21 23:16 J	-6585711.70	-6585711.53	-6585711.36	0.0088	0.0043
Venus	-22744-06-14 11:16 J	-6585658.25	-6585658.03	-6585657.80	0.0088	0.0004
Mercury	-22744-07-19 02:23 J	-6585623.56	-6585623.40	-6585623.20	0.0088	0.0034
Mercury	-22744-10-15 06:00 J	-6585535.42	-6585535.25	-6585535.05	0.0088	0.0024
Mercury	-22743-01-11 09:36 J	-6585447.28	-6585447.10	-6585446.90	0.0088	0.0014
Venus	-22743-01-26 00:43 J	-6585432.69	-6585432.47	-6585432.24	0.0088	0.0004
Mercury	-22743-04-09 13:11 J	-6585359.14	-6585358.95	-6585358.76	0.0088	0.0004
Mercury	-22743-07-06 16:33 J	-6585271.00	-6585270.81	-6585270.61	0.0088	0.0005
Venus	-22743-09-08 14:23 J	-6585207.13	-6585206.90	-6585206.68	0.0088	0.0004
Mars	-22743-09-10 16:33 J	-6585204.98	-6585204.81	-6585204.59	0.0088	0.0066
Mercury	-22743-10-02 19:55 J	-6585182.85	-6585182.67	-6585182.47	0.0088	0.0015
Mercury	-22743-12-29 23:31 J	-6585094.70	-6585094.52	-6585094.33	0.0088	0.0024
Mercury	-22742-03-28 02:52 J	-6585006.55	-6585006.38	-6585006.20	0.0088	0.0034
Venus	-22742-04-22 03:50 J	-6584981.56	-6584981.34	-6584981.11	0.0088	0.0004
Mercury	-22742-06-24 06:00 J	-6584918.40	-6584918.25	-6584918.07	0.0088	0.0044
Mercury	-22742-09-20 09:36 J	-6584830.24	-6584830.10	-6584829.94	0.0088	0.0053
Venus	-22742-12-03 17:16 J	-6584756.00	-6584755.78	-6584755.55	0.0088	0.0004
Mercury	-22742-12-17 12:43 J	-6584742.08	-6584741.97	-6584741.82	0.0088	0.0063
Mercury	-22741-03-14 16:19 J	-6584653.92	-6584653.82	-6584653.70	0.0088	0.0072
Mercury	-22741-06-10 19:26 J	-6584565.74	-6584565.69	-6584565.60	0.0088	0.0082
Venus	-22741-07-16 06:43 J	-6584530.44	-6584530.22	-6584529.99	0.0088	0.0005
Venus	-22740-02-26 20:23 J	-6584304.87	-6584304.65	-6584304.43	0.0088	0.0004
Venus	-22740-10-10 10:04 J	-6584079.30	-6584079.08	-6584078.85	0.0088	0.0005
Venus	-22739-05-23 23:45 J	-6583853.74	-6583853.51	-6583853.29	0.0088	0.0005
Venus	-22738-01-04 13:11 J	-6583628.17	-6583627.95	-6583627.72	0.0088	0.0005
Venus	-22738-08-18 02:52 J	-6583402.60	-6583402.38	-6583402.15	0.0088	0.0005
Venus	-22737-03-30 16:33 J	-6583177.03	-6583176.81	-6583176.58	0.0088	0.0005
Venus	-22737-11-11 06:14 J	-6582951.46	-6582951.24	-6582951.01	0.0088	0.0005
Venus	-22736-06-24 19:55 J	-6582725.89	-6582725.67	-6582725.44	0.0088	0.0005
Venus	-22735-02-05 09:36 J	-6582500.33	-6582500.10	-6582499.88	0.0088	0.0005

Venus	-22735-09-18 23:16 J	-6582274.75	-6582274.53	-6582274.30	0.0088	0.0005
Venus	-22734-05-02 12:57 J	-6582049.18	-6582048.96	-6582048.73	0.0088	0.0006
Venus	-22734-12-14 02:38 J	-6581823.62	-6581823.39	-6581823.17	0.0088	0.0006
Venus	-22733-07-26 16:04 J	-6581598.05	-6581597.83	-6581597.60	0.0088	0.0006
Venus	-22732-03-09 05:45 J	-6581372.48	-6581372.26	-6581372.03	0.0088	0.0006
Venus	-22732-10-20 19:40 J	-6581146.91	-6581146.68	-6581146.46	0.0088	0.0006
Venus	-22731-06-03 09:21 J	-6580921.34	-6580921.11	-6580920.89	0.0088	0.0006
Venus	-22730-01-14 22:48 J	-6580695.77	-6580695.55	-6580695.32	0.0088	0.0007
Venus	-22730-08-28 12:28 J	-6580470.20	-6580469.98	-6580469.75	0.0088	0.0007
Venus	-22729-04-10 02:09 J	-6580244.63	-6580244.41	-6580244.18	0.0088	0.0007
Venus	-22729-11-21 16:04 J	-6580019.05	-6580018.83	-6580018.61	0.0088	0.0006
Venus	-22728-07-05 05:45 J	-6579793.48	-6579793.26	-6579793.03	0.0088	0.0007
Venus	-22727-02-15 19:26 J	-6579567.91	-6579567.69	-6579567.46	0.0088	0.0007
Venus	-22727-09-29 09:21 J	-6579342.34	-6579342.11	-6579341.89	0.0088	0.0007
Venus	-22726-05-12 23:02 J	-6579116.76	-6579116.54	-6579116.31	0.0088	0.0007
Venus	-22726-12-24 12:43 J	-6578891.19	-6578890.97	-6578890.74	0.0088	0.0007
Venus	-22725-08-06 02:38 J	-6578665.61	-6578665.39	-6578665.17	0.0088	0.0007
Venus	-22724-03-19 16:19 J	-6578440.04	-6578439.82	-6578439.59	0.0088	0.0007
Venus	-22724-10-31 06:14 J	-6578214.46	-6578214.24	-6578214.01	0.0088	0.0007
Venus	-22723-06-13 19:55 J	-6577988.89	-6577988.67	-6577988.44	0.0088	0.0008
Venus	-22722-01-25 09:50 J	-6577763.31	-6577763.09	-6577762.87	0.0088	0.0007
Venus	-22722-09-07 23:31 J	-6577537.74	-6577537.52	-6577537.30	0.0088	0.0007
Venus	-22721-04-20 13:11 J	-6577312.17	-6577311.95	-6577311.72	0.0088	0.0007
Venus	-22721-12-02 03:07 J	-6577086.60	-6577086.37	-6577086.15	0.0088	0.0007
Venus	-22720-07-15 16:48 J	-6576861.03	-6576860.80	-6576860.58	0.0088	0.0008
Venus	-22719-02-26 06:28 J	-6576635.46	-6576635.23	-6576635.01	0.0089	0.0008
Venus	-22719-10-09 20:09 J	-6576409.88	-6576409.66	-6576409.44	0.0089	0.0008
Venus	-22718-05-23 09:50 J	-6576184.31	-6576184.09	-6576183.87	0.0089	0.0008
Venus	-22717-01-03 23:31 J	-6575958.74	-6575958.52	-6575958.29	0.0089	0.0008
Venus	-22717-08-16 13:11 J	-6575733.17	-6575732.95	-6575732.72	0.0089	0.0008

Venus	-22716-03-30 02:52 J	-6575507.60	-6575507.38	-6575507.15	0.0089	0.0008
Venus	-22716-11-10 16:48 J	-6575282.03	-6575281.80	-6575281.58	0.0089	0.0008
Venus	-22715-06-24 06:28 J	-6575056.45	-6575056.23	-6575056.01	0.0089	0.0008
Venus	-22714-02-04 20:09 J	-6574830.88	-6574830.66	-6574830.44	0.0089	0.0008
Venus	-22714-09-18 09:50 J	-6574605.31	-6574605.09	-6574604.87	0.0089	0.0008
Venus	-22713-04-30 23:31 J	-6574379.74	-6574379.52	-6574379.29	0.0089	0.0008
Venus	-22713-12-12 13:26 J	-6574154.16	-6574153.94	-6574153.72	0.0089	0.0008
Venus	-22712-07-26 03:07 J	-6573928.59	-6573928.37	-6573928.15	0.0089	0.0008
Venus	-22711-03-08 16:48 J	-6573703.02	-6573702.80	-6573702.58	0.0089	0.0008
Venus	-22711-10-20 06:28 J	-6573477.45	-6573477.23	-6573477.01	0.0089	0.0008
Venus	-22710-06-02 20:09 J	-6573251.88	-6573251.66	-6573251.44	0.0089	0.0008
Venus	-22709-01-14 09:50 J	-6573026.31	-6573026.09	-6573025.86	0.0089	0.0008
Venus	-22709-08-26 23:31 J	-6572800.74	-6572800.52	-6572800.30	0.0089	0.0008
Venus	-22708-04-09 12:57 J	-6572575.18	-6572574.96	-6572574.73	0.0089	0.0008
Venus	-22708-11-21 02:38 J	-6572349.61	-6572349.39	-6572349.16	0.0089	0.0008
Venus	-22707-07-04 16:19 J	-6572124.04	-6572123.82	-6572123.59	0.0089	0.0008
Venus	-22706-02-15 06:00 J	-6571898.47	-6571898.25	-6571898.03	0.0089	0.0008
Venus	-22706-09-28 19:26 J	-6571672.91	-6571672.69	-6571672.47	0.0089	0.0008
Venus	-22705-05-11 08:52 J	-6571447.35	-6571447.13	-6571446.90	0.0089	0.0008
Venus	-22705-12-22 22:33 J	-6571221.78	-6571221.56	-6571221.33	0.0089	0.0008
Venus	-22704-08-05 12:00 J	-6570996.21	-6570996.00	-6570995.77	0.0089	0.0008
Venus	-22703-03-19 01:40 J	-6570770.65	-6570770.43	-6570770.21	0.0089	0.0008
Venus	-22703-10-30 15:07 J	-6570545.09	-6570544.87	-6570544.64	0.0089	0.0008
Venus	-22702-06-13 04:48 J	-6570319.52	-6570319.30	-6570319.08	0.0089	0.0007
Venus	-22701-01-24 18:28 J	-6570093.95	-6570093.73	-6570093.51	0.0089	0.0007
Venus	-22701-09-06 07:55 J	-6569868.39	-6569868.17	-6569867.95	0.0089	0.0007
Venus	-22700-04-19 21:21 J	-6569642.83	-6569642.61	-6569642.39	0.0089	0.0007
Venus	-22700-12-01 11:02 J	-6569417.26	-6569417.04	-6569416.82	0.0089	0.0007
Venus	-22699-07-15 00:28 J	-6569191.70	-6569191.48	-6569191.25	0.0089	0.0007
Venus	-22698-02-25 14:09 J	-6568966.13	-6568965.91	-6568965.69	0.0089	0.0007

Venus	-22698-10-09 03:36 J	-6568740.57	-6568740.35	-6568740.13	0.0089	0.0007
Venus	-22697-05-21 16:48 J	-6568515.01	-6568514.80	-6568514.57	0.0089	0.0007
Venus	-22696-01-02 06:28 J	-6568289.45	-6568289.23	-6568289.01	0.0089	0.0007
Venus	-22696-08-15 19:55 J	-6568063.89	-6568063.67	-6568063.45	0.0089	0.0007
Venus	-22695-03-29 09:07 J	-6567838.34	-6567838.12	-6567837.89	0.0089	0.0007
Venus	-22695-11-09 22:33 J	-6567612.78	-6567612.56	-6567612.34	0.0089	0.0007
Venus	-22694-06-23 11:45 J	-6567387.22	-6567387.01	-6567386.78	0.0089	0.0007
Venus	-22693-02-04 01:11 J	-6567161.67	-6567161.45	-6567161.22	0.0089	0.0007
Venus	-22693-09-16 14:38 J	-6566936.11	-6566935.89	-6566935.67	0.0089	0.0006
Venus	-22692-04-30 03:50 J	-6566710.56	-6566710.34	-6566710.12	0.0089	0.0006
Venus	-22692-12-11 17:02 J	-6566485.01	-6566484.79	-6566484.57	0.0089	0.0006
Venus	-22691-07-25 06:28 J	-6566259.45	-6566259.23	-6566259.01	0.0089	0.0006
Venus	-22690-03-07 19:40 J	-6566033.90	-6566033.68	-6566033.46	0.0089	0.0006
Venus	-22690-10-19 08:52 J	-6565808.35	-6565808.13	-6565807.91	0.0089	0.0006
Venus	-22689-05-31 22:04 J	-6565582.79	-6565582.58	-6565582.35	0.0089	0.0006
Venus	-22688-01-12 11:31 J	-6565357.24	-6565357.02	-6565356.80	0.0089	0.0005
Venus	-22688-08-26 00:43 J	-6565131.69	-6565131.47	-6565131.25	0.0089	0.0005
Venus	-22687-04-08 13:55 J	-6564906.14	-6564905.92	-6564905.70	0.0089	0.0005
Venus	-22687-11-20 03:07 J	-6564680.59	-6564680.37	-6564680.15	0.0089	0.0005
Venus	-22686-07-03 16:19 J	-6564455.04	-6564454.82	-6564454.60	0.0089	0.0005
Venus	-22685-02-14 05:31 J	-6564229.48	-6564229.27	-6564229.04	0.0089	0.0005
Venus	-22685-09-26 18:43 J	-6564003.94	-6564003.72	-6564003.50	0.0089	0.0005
Venus	-22684-05-10 07:55 J	-6563778.39	-6563778.17	-6563777.95	0.0089	0.0005
Venus	-22684-12-21 20:52 J	-6563552.85	-6563552.63	-6563552.41	0.0089	0.0005
Venus	-22683-08-04 10:04 J	-6563327.30	-6563327.08	-6563326.86	0.0089	0.0004
Venus	-22682-03-17 23:02 J	-6563101.75	-6563101.54	-6563101.32	0.0089	0.0005
Venus	-22682-10-29 12:00 J	-6562876.21	-6562876.00	-6562875.78	0.0089	0.0004
Earth	-22681-04-27 00:57 J	-6562695.62	-6562695.46	-6562695.26	0.0089	0.0063
Moon	-22681-04-27 01:40 J	-6562695.56	-6562695.43	-6562695.24	0.0089	0.0067 *
Venus	-22681-06-11 00:57 J	-6562650.67	-6562650.46	-6562650.24	0.0089	0.0004

Venus	-22680-01-22 13:55 J	-6562425.13	-6562424.92	-6562424.69	0.0089	0.0005
Moon	-22680-04-29 09:36 J	-6562328.36	-6562328.10	-6562327.85	0.0089	0.0016
Earth	-22680-04-29 11:45 J	-6562328.25	-6562328.01	-6562327.76	0.0089	0.0019 *
Venus	-22680-09-05 03:07 J	-6562199.59	-6562199.37	-6562199.16	0.0089	0.0004
Venus	-22679-04-18 15:50 J	-6561974.05	-6561973.84	-6561973.62	0.0089	0.0004
Earth	-22679-05-01 22:04 J	-6561960.81	-6561960.58	-6561960.32	0.0089	0.0024
Moon	-22679-05-02 01:11 J	-6561960.68	-6561960.45	-6561960.19	0.0089	0.0022 *
Venus	-22679-11-30 04:48 J	-6561748.52	-6561748.30	-6561748.08	0.0089	0.0003
Moon	-22678-05-04 05:16 J	-6561593.42	-6561593.28	-6561593.12	0.0089	0.0071
Earth	-22678-05-04 08:23 J	-6561593.29	-6561593.15	-6561592.96	0.0089	0.0068 *
Venus	-22678-07-13 17:45 J	-6561522.98	-6561522.76	-6561522.54	0.0089	0.0003
Venus	-22677-02-24 06:43 J	-6561297.43	-6561297.22	-6561297.00	0.0089	0.0003
Venus	-22677-10-06 19:40 J	-6561071.90	-6561071.68	-6561071.46	0.0089	0.0003
Venus	-22676-05-20 08:23 J	-6560846.36	-6560846.15	-6560845.93	0.0089	0.0003
Venus	-22676-12-31 21:21 J	-6560620.83	-6560620.61	-6560620.39	0.0089	0.0002
Venus	-22675-08-14 10:19 J	-6560395.29	-6560395.07	-6560394.85	0.0089	0.0002
Venus	-22674-03-27 23:16 J	-6560169.75	-6560169.53	-6560169.31	0.0089	0.0002
Venus	-22674-11-08 12:00 J	-6559944.21	-6559944.00	-6559943.78	0.0089	0.0003
Venus	-22673-06-21 00:57 J	-6559718.68	-6559718.46	-6559718.24	0.0089	0.0002
Venus	-22672-02-01 13:40 J	-6559493.14	-6559492.93	-6559492.71	0.0089	0.0002
Venus	-22672-09-15 02:38 J	-6559267.61	-6559267.39	-6559267.18	0.0089	0.0002
Venus	-22671-04-28 15:21 J	-6559042.08	-6559041.86	-6559041.64	0.0089	0.0001
Venus	-22671-12-10 04:04 J	-6558816.55	-6558816.33	-6558816.12	0.0089	0.0002
Venus	-22670-07-23 16:48 J	-6558591.02	-6558590.80	-6558590.59	0.0089	0.0002
Venus	-22669-03-05 05:31 J	-6558365.49	-6558365.27	-6558365.05	0.0089	0.0001
Venus	-22669-10-16 18:14 J	-6558139.96	-6558139.74	-6558139.53	0.0089	0.0002
Venus	-22668-05-30 06:43 J	-6557914.44	-6557914.22	-6557914.00	0.0089	0.0000
Venus	-22667-01-10 19:26 J	-6557688.91	-6557688.69	-6557688.48	0.0089	0.0002
Venus	-22667-08-24 07:55 J	-6557463.38	-6557463.17	-6557462.95	0.0089	0.0001
Venus	-22666-04-06 20:38 J	-6557237.85	-6557237.64	-6557237.42	0.0089	0.0001

Venus	-22666-11-18 09:21 J	-6557012.33	-6557012.11	-6557011.90	0.0089	0.0001
Venus	-22665-06-30 21:50 J	-6556786.81	-6556786.59	-6556786.37	0.0089	0.0001
Mars	-22665-10-02 03:21 J	-6556693.55	-6556693.36	-6556693.13	0.0089	0.0070
Venus	-22664-02-11 10:19 J	-6556561.28	-6556561.07	-6556560.85	0.0089	0.0002
Mercury	-22664-05-15 21:07 J	-6556467.64	-6556467.62	-6556467.57	0.0089	0.0086
Mercury	-22664-08-11 22:33 J	-6556379.61	-6556379.56	-6556379.49	0.0089	0.0079
Venus	-22664-09-24 23:02 J	-6556335.76	-6556335.54	-6556335.32	0.0089	0.0001
Mercury	-22664-11-07 23:45 J	-6556291.57	-6556291.51	-6556291.42	0.0089	0.0073
Mercury	-22663-02-04 01:11 J	-6556203.53	-6556203.45	-6556203.35	0.0089	0.0066
Mercury	-22663-05-03 02:38 J	-6556115.48	-6556115.39	-6556115.28	0.0089	0.0058
Venus	-22663-05-08 11:45 J	-6556110.23	-6556110.01	-6556109.80	0.0089	0.0001
Mercury	-22663-07-30 04:04 J	-6556027.43	-6556027.33	-6556027.22	0.0089	0.0051
Mars	-22663-08-29 06:14 J	-6555997.57	-6555997.24	-6555996.90	0.0089	0.0003
Mercury	-22663-10-26 05:16 J	-6555939.39	-6555939.28	-6555939.16	0.0089	0.0045
Venus	-22663-12-20 00:14 J	-6555884.71	-6555884.49	-6555884.27	0.0089	0.0001
Mercury	-22662-01-22 06:43 J	-6555851.33	-6555851.22	-6555851.09	0.0089	0.0038
Mercury	-22662-04-20 08:09 J	-6555763.28	-6555763.16	-6555763.03	0.0089	0.0030
Mercury	-22662-07-17 09:36 J	-6555675.23	-6555675.10	-6555674.97	0.0089	0.0023
Venus	-22662-08-02 12:43 J	-6555659.18	-6555658.97	-6555658.75	0.0089	0.0002
Mercury	-22662-10-13 10:48 J	-6555587.18	-6555587.05	-6555586.91	0.0089	0.0017
Mercury	-22661-01-09 12:14 J	-6555499.12	-6555498.99	-6555498.85	0.0089	0.0010
Venus	-22661-03-15 01:26 J	-6555433.65	-6555433.44	-6555433.22	0.0089	0.0002
Mercury	-22661-04-06 13:40 J	-6555411.06	-6555410.93	-6555410.80	0.0089	0.0002
Mercury	-22661-07-03 15:07 J	-6555323.01	-6555322.87	-6555322.74	0.0089	0.0005
Mars	-22661-07-25 06:43 J	-6555301.37	-6555301.22	-6555301.00	0.0089	0.0075
Mercury	-22661-09-29 16:19 J	-6555234.95	-6555234.82	-6555234.68	0.0089	0.0012
Venus	-22661-10-26 14:09 J	-6555208.13	-6555207.91	-6555207.70	0.0089	0.0002
Mercury	-22661-12-26 17:45 J	-6555146.89	-6555146.76	-6555146.63	0.0089	0.0019
Mercury	-22660-03-24 18:57 J	-6555058.83	-6555058.71	-6555058.57	0.0089	0.0027
Venus	-22660-06-09 02:38 J	-6554982.61	-6554982.39	-6554982.18	0.0089	0.0002

Mercury	-22660-06-20 20:23 J	-6554970.77	-6554970.65	-6554970.52	0.0089	0.0033
Mercury	-22660-09-16 21:50 J	-6554882.70	-6554882.59	-6554882.47	0.0089	0.0040
Mercury	-22660-12-13 23:02 J	-6554794.64	-6554794.54	-6554794.41	0.0089	0.0048
Venus	-22659-01-20 15:07 J	-6554757.09	-6554756.87	-6554756.66	0.0089	0.0002
Mercury	-22659-03-12 00:28 J	-6554706.58	-6554706.48	-6554706.36	0.0089	0.0055
Mercury	-22659-06-08 01:55 J	-6554618.51	-6554618.42	-6554618.31	0.0089	0.0062
Venus	-22659-09-03 03:36 J	-6554531.57	-6554531.35	-6554531.13	0.0089	0.0002
Mercury	-22659-09-04 03:21 J	-6554530.44	-6554530.36	-6554530.27	0.0089	0.0069
Mercury	-22659-12-01 04:48 J	-6554442.36	-6554442.30	-6554442.22	0.0089	0.0076
Mercury	-22658-02-27 06:14 J	-6554354.28	-6554354.24	-6554354.19	0.0089	0.0083
Venus	-22658-04-16 16:04 J	-6554306.04	-6554305.83	-6554305.61	0.0089	0.0003
Venus	-22658-11-28 04:33 J	-6554080.52	-6554080.31	-6554080.09	0.0089	0.0003
Venus	-22657-07-10 17:02 J	-6553855.00	-6553854.79	-6553854.57	0.0089	0.0003
Venus	-22656-02-21 05:31 J	-6553629.49	-6553629.27	-6553629.06	0.0089	0.0003
Venus	-22656-10-04 18:00 J	-6553403.97	-6553403.75	-6553403.54	0.0089	0.0003
Venus	-22655-05-18 06:28 J	-6553178.45	-6553178.23	-6553178.02	0.0089	0.0004
Venus	-22655-12-29 18:43 J	-6552952.93	-6552952.72	-6552952.50	0.0089	0.0003
Venus	-22654-08-12 06:57 J	-6552727.42	-6552727.21	-6552726.99	0.0089	0.0005
Venus	-22653-03-24 19:26 J	-6552501.90	-6552501.69	-6552501.47	0.0089	0.0004
Venus	-22653-11-05 07:55 J	-6552276.38	-6552276.17	-6552275.95	0.0089	0.0004
Venus	-22652-06-18 20:09 J	-6552050.87	-6552050.66	-6552050.44	0.0089	0.0005
Venus	-22651-01-30 08:38 J	-6551825.36	-6551825.14	-6551824.92	0.0089	0.0004
Venus	-22651-09-12 21:07 J	-6551599.84	-6551599.62	-6551599.41	0.0089	0.0005
Venus	-22650-04-26 09:36 J	-6551374.32	-6551374.10	-6551373.88	0.0089	0.0005
Venus	-22650-12-07 21:50 J	-6551148.80	-6551148.59	-6551148.37	0.0089	0.0005
Venus	-22649-07-20 10:19 J	-6550923.28	-6550923.07	-6550922.85	0.0089	0.0005
Venus	-22648-03-02 22:33 J	-6550697.77	-6550697.56	-6550697.34	0.0089	0.0006
Venus	-22648-10-14 11:02 J	-6550472.25	-6550472.04	-6550471.82	0.0089	0.0005
Venus	-22647-05-27 23:31 J	-6550246.73	-6550246.52	-6550246.30	0.0089	0.0005
Venus	-22646-01-08 11:45 J	-6550021.22	-6550021.01	-6550020.79	0.0089	0.0006

Venus	-22646-08-22 00:14 J	-6549795.71	-6549795.49	-6549795.28	0.0089	0.0006
Venus	-22645-04-03 12:28 J	-6549570.19	-6549569.98	-6549569.76	0.0089	0.0006
Venus	-22645-11-15 00:43 J	-6549344.68	-6549344.47	-6549344.25	0.0089	0.0006
Venus	-22644-06-28 13:11 J	-6549119.17	-6549118.95	-6549118.74	0.0089	0.0006
Venus	-22643-02-09 01:26 J	-6548893.66	-6548893.44	-6548893.23	0.0089	0.0006
Venus	-22643-09-22 13:40 J	-6548668.14	-6548667.93	-6548667.71	0.0089	0.0006
Venus	-22642-05-06 01:55 J	-6548442.63	-6548442.42	-6548442.20	0.0089	0.0007
Venus	-22642-12-17 14:23 J	-6548217.11	-6548216.90	-6548216.68	0.0089	0.0007
Venus	-22641-07-30 02:38 J	-6547991.61	-6547991.39	-6547991.18	0.0089	0.0007
Venus	-22640-03-12 14:52 J	-6547766.10	-6547765.88	-6547765.67	0.0089	0.0007
Venus	-22640-10-24 03:07 J	-6547540.58	-6547540.37	-6547540.15	0.0089	0.0007
Venus	-22639-06-06 15:36 J	-6547315.07	-6547314.85	-6547314.63	0.0089	0.0007
Venus	-22638-01-18 03:50 J	-6547089.55	-6547089.34	-6547089.12	0.0089	0.0007
Venus	-22638-08-31 16:04 J	-6546864.04	-6546863.83	-6546863.61	0.0089	0.0007
Venus	-22637-04-13 04:19 J	-6546638.53	-6546638.32	-6546638.10	0.0089	0.0008
Venus	-22637-11-24 16:48 J	-6546413.01	-6546412.80	-6546412.58	0.0089	0.0007
Venus	-22636-07-08 05:02 J	-6546187.50	-6546187.29	-6546187.07	0.0089	0.0008
Venus	-22635-02-18 17:31 J	-6545961.98	-6545961.77	-6545961.55	0.0089	0.0008
Venus	-22635-10-02 05:45 J	-6545736.47	-6545736.26	-6545736.04	0.0089	0.0008
Venus	-22634-05-15 18:14 J	-6545510.95	-6545510.74	-6545510.52	0.0089	0.0008
Venus	-22634-12-27 06:43 J	-6545285.44	-6545285.22	-6545285.01	0.0089	0.0008
Venus	-22633-08-08 18:57 J	-6545059.93	-6545059.71	-6545059.49	0.0089	0.0008
Venus	-22632-03-22 07:11 J	-6544834.41	-6544834.20	-6544833.98	0.0089	0.0008
Venus	-22632-11-02 19:26 J	-6544608.90	-6544608.69	-6544608.47	0.0089	0.0008
Venus	-22631-06-16 07:55 J	-6544383.38	-6544383.17	-6544382.95	0.0089	0.0008
Venus	-22630-01-27 20:09 J	-6544157.87	-6544157.66	-6544157.44	0.0089	0.0009
Venus	-22630-09-10 08:23 J	-6543932.36	-6543932.15	-6543931.93	0.0089	0.0009
Venus	-22629-04-22 20:52 J	-6543706.84	-6543706.63	-6543706.41	0.0089	0.0008
Venus	-22629-12-04 09:07 J	-6543481.33	-6543481.12	-6543480.90	0.0089	0.0009
Venus	-22628-07-17 21:36 J	-6543255.81	-6543255.60	-6543255.38	0.0089	0.0008

Venus	-22627-02-28 09:50 J	-6543030.30	-6543030.09	-6543029.87	0.0089	0.0009
Venus	-22627-10-11 22:19 J	-6542804.79	-6542804.57	-6542804.35	0.0088	0.0008
Venus	-22626-05-25 10:48 J	-6542579.27	-6542579.05	-6542578.83	0.0088	0.0009
Venus	-22625-01-05 23:16 J	-6542353.75	-6542353.53	-6542353.32	0.0088	0.0009
Venus	-22625-08-18 11:31 J	-6542128.23	-6542128.02	-6542127.80	0.0088	0.0009
Venus	-22624-04-01 00:00 J	-6541902.72	-6541902.50	-6541902.28	0.0088	0.0009
Venus	-22624-11-12 12:28 J	-6541677.20	-6541676.98	-6541676.76	0.0088	0.0009
Venus	-22623-06-26 01:11 J	-6541451.67	-6541451.45	-6541451.23	0.0088	0.0009
Venus	-22622-02-06 13:40 J	-6541226.15	-6541225.93	-6541225.71	0.0088	0.0009
Venus	-22622-09-20 02:09 J	-6541000.63	-6541000.41	-6541000.20	0.0088	0.0009
Venus	-22621-05-02 14:23 J	-6540775.11	-6540774.90	-6540774.68	0.0088	0.0009
Venus	-22621-12-14 02:52 J	-6540549.59	-6540549.38	-6540549.16	0.0088	0.0009
Venus	-22620-07-27 15:36 J	-6540324.07	-6540323.85	-6540323.63	0.0088	0.0009
Venus	-22619-03-10 04:04 J	-6540098.55	-6540098.33	-6540098.11	0.0088	0.0009
Venus	-22619-10-21 16:33 J	-6539873.03	-6539872.81	-6539872.59	0.0088	0.0009
Venus	-22618-06-04 05:02 J	-6539647.50	-6539647.29	-6539647.07	0.0088	0.0009
Venus	-22617-01-15 17:31 J	-6539421.98	-6539421.77	-6539421.55	0.0088	0.0009
Venus	-22617-08-28 06:00 J	-6539196.46	-6539196.25	-6539196.03	0.0088	0.0009
Venus	-22616-04-10 18:28 J	-6538970.94	-6538970.73	-6538970.51	0.0088	0.0009
Venus	-22616-11-22 07:11 J	-6538745.42	-6538745.20	-6538744.98	0.0088	0.0009
Venus	-22615-07-05 19:55 J	-6538519.89	-6538519.67	-6538519.45	0.0088	0.0009
Venus	-22614-02-16 08:23 J	-6538294.36	-6538294.15	-6538293.93	0.0088	0.0009
Venus	-22614-09-29 20:52 J	-6538068.84	-6538068.63	-6538068.41	0.0088	0.0009
Venus	-22613-05-12 09:36 J	-6537843.32	-6537843.10	-6537842.88	0.0088	0.0008
Venus	-22613-12-23 22:19 J	-6537617.79	-6537617.57	-6537617.35	0.0088	0.0009
Venus	-22612-08-06 11:02 J	-6537392.26	-6537392.04	-6537391.82	0.0088	0.0008
Venus	-22611-03-19 23:45 J	-6537166.73	-6537166.51	-6537166.29	0.0088	0.0008
Venus	-22611-10-31 12:28 J	-6536941.20	-6536940.98	-6536940.76	0.0088	0.0008
Venus	-22610-06-14 01:11 J	-6536715.67	-6536715.45	-6536715.23	0.0088	0.0008
Venus	-22609-01-25 13:55 J	-6536490.14	-6536489.92	-6536489.70	0.0088	0.0008

Venus	-22609-09-07 02:38 J	-6536264.61	-6536264.39	-6536264.17	0.0088	0.0008
Venus	-22608-04-20 15:21 J	-6536039.08	-6536038.86	-6536038.64	0.0088	0.0008
Venus	-22608-12-02 04:04 J	-6535813.55	-6535813.33	-6535813.11	0.0088	0.0008
Venus	-22607-07-15 17:02 J	-6535588.01	-6535587.79	-6535587.57	0.0088	0.0008
Venus	-22606-02-26 05:45 J	-6535362.48	-6535362.26	-6535362.04	0.0088	0.0008
Venus	-22606-10-09 18:28 J	-6535136.95	-6535136.73	-6535136.51	0.0088	0.0008
Venus	-22605-05-22 07:11 J	-6534911.42	-6534911.20	-6534910.98	0.0088	0.0008
Venus	-22604-01-02 19:55 J	-6534685.88	-6534685.67	-6534685.44	0.0088	0.0008
Venus	-22604-08-16 08:52 J	-6534460.35	-6534460.13	-6534459.90	0.0088	0.0008
Venus	-22603-03-29 21:50 J	-6534234.81	-6534234.59	-6534234.37	0.0088	0.0007
Venus	-22603-11-10 10:33 J	-6534009.28	-6534009.06	-6534008.84	0.0088	0.0007
Venus	-22602-06-23 23:31 J	-6533783.74	-6533783.52	-6533783.30	0.0088	0.0007
Venus	-22601-02-04 12:14 J	-6533558.21	-6533557.99	-6533557.76	0.0088	0.0007
Venus	-22601-09-17 01:11 J	-6533332.67	-6533332.45	-6533332.23	0.0088	0.0007
Venus	-22600-04-30 14:09 J	-6533107.13	-6533106.91	-6533106.69	0.0088	0.0007
Earth	-22600-10-24 21:36 J	-6532929.62	-6532929.60	-6532929.54	0.0088	0.0087
Moon	-22600-10-24 23:45 J	-6532929.53	-6532929.51	-6532929.48	0.0088	0.0087
Venus	-22600-12-12 03:07 J	-6532881.59	-6532881.37	-6532881.15	0.0088	0.0007
Venus	-22599-07-25 16:04 J	-6532656.04	-6532655.83	-6532655.60	0.0088	0.0007
Moon	-22599-10-27 07:11 J	-6532562.42	-6532562.20	-6532561.95	0.0088	0.0043
Earth	-22599-10-27 10:19 J	-6532562.28	-6532562.07	-6532561.83	0.0088	0.0044 *
Venus	-22598-03-08 05:16 J	-6532430.50	-6532430.28	-6532430.06	0.0088	0.0006
Venus	-22598-10-19 18:14 J	-6532204.96	-6532204.74	-6532204.52	0.0088	0.0006
Earth	-22598-10-29 23:16 J	-6532194.79	-6532194.53	-6532194.26	0.0088	0.0002
Moon	-22598-10-30 02:38 J	-6532194.65	-6532194.39	-6532194.13	0.0088	0.0001 *
Venus	-22597-06-01 07:11 J	-6531979.42	-6531979.20	-6531978.98	0.0088	0.0006
Moon	-22597-10-31 07:55 J	-6531827.38	-6531827.17	-6531826.92	0.0088	0.0042
Earth	-22597-10-31 11:45 J	-6531827.22	-6531827.01	-6531826.76	0.0088	0.0042 *
Venus	-22596-01-12 20:23 J	-6531753.87	-6531753.65	-6531753.43	0.0088	0.0006
Venus	-22596-08-26 09:36 J	-6531528.32	-6531528.10	-6531527.88	0.0088	0.0006

Earth	-22596-11-03 00:28 J	-6531459.54	-6531459.48	-6531459.40	0.0088	0.0084
Moon	-22596-11-03 03:36 J	-6531459.41	-6531459.35	-6531459.26	0.0088	0.0084 *
Venus	-22595-04-08 22:33 J	-6531302.78	-6531302.56	-6531302.33	0.0088	0.0006
Venus	-22595-11-20 11:45 J	-6531077.23	-6531077.01	-6531076.79	0.0088	0.0005
Venus	-22594-07-04 00:43 J	-6530851.69	-6530851.47	-6530851.24	0.0088	0.0005
Venus	-22593-02-14 13:55 J	-6530626.14	-6530625.92	-6530625.70	0.0088	0.0005
Venus	-22593-09-27 03:07 J	-6530400.59	-6530400.37	-6530400.15	0.0088	0.0005
Venus	-22592-05-10 16:04 J	-6530175.05	-6530174.83	-6530174.60	0.0088	0.0005
Venus	-22592-12-22 05:16 J	-6529949.50	-6529949.28	-6529949.06	0.0088	0.0005
Venus	-22591-08-04 18:28 J	-6529723.95	-6529723.73	-6529723.50	0.0088	0.0005
Venus	-22590-03-18 07:40 J	-6529498.40	-6529498.18	-6529497.95	0.0088	0.0004
Venus	-22590-10-29 20:52 J	-6529272.85	-6529272.63	-6529272.41	0.0088	0.0004
Venus	-22589-06-11 10:04 J	-6529047.30	-6529047.08	-6529046.86	0.0088	0.0004
Venus	-22588-01-22 23:16 J	-6528821.75	-6528821.53	-6528821.31	0.0088	0.0004
Venus	-22588-09-05 12:43 J	-6528596.19	-6528595.97	-6528595.75	0.0088	0.0004
Venus	-22587-04-19 01:55 J	-6528370.64	-6528370.42	-6528370.19	0.0088	0.0004
Venus	-22587-11-30 15:21 J	-6528145.09	-6528144.86	-6528144.64	0.0088	0.0003
Venus	-22586-07-14 04:33 J	-6527919.53	-6527919.31	-6527919.08	0.0088	0.0003
Venus	-22585-02-24 18:00 J	-6527693.97	-6527693.75	-6527693.53	0.0088	0.0003
Venus	-22585-10-07 07:26 J	-6527468.41	-6527468.19	-6527467.96	0.0088	0.0003
Jupiter	-22585-10-13 15:21 J	-6527462.09	-6527461.86	-6527461.53	0.0088	0.0076
Venus	-22584-05-20 20:52 J	-6527242.85	-6527242.63	-6527242.41	0.0088	0.0002
Venus	-22583-01-01 10:19 J	-6527017.30	-6527017.07	-6527016.85	0.0088	0.0002
Mars	-22583-07-08 04:19 J	-6526829.35	-6526829.32	-6526829.24	0.0088	0.0086
Venus	-22583-08-14 23:45 J	-6526791.73	-6526791.51	-6526791.29	0.0088	0.0002
Venus	-22582-03-28 13:11 J	-6526566.18	-6526565.95	-6526565.73	0.0088	0.0002
Venus	-22582-11-09 02:38 J	-6526340.62	-6526340.39	-6526340.17	0.0088	0.0002
Mars	-22581-05-31 23:02 J	-6526135.82	-6526135.54	-6526135.26	0.0088	0.0026
Venus	-22581-06-21 16:04 J	-6526115.06	-6526114.83	-6526114.61	0.0088	0.0002
Mercury	-22580-01-29 06:14 J	-6525893.30	-6525893.24	-6525893.16	0.0088	0.0081

Venus	-22580-02-02 05:16 J	-6525889.50	-6525889.28	-6525889.05	0.0088	0.0002
Mercury	-22580-04-27 09:21 J	-6525805.20	-6525805.11	-6525804.97	0.0088	0.0072
Mercury	-22580-07-24 12:57 J	-6525717.08	-6525716.96	-6525716.80	0.0088	0.0062
Venus	-22580-09-15 18:57 J	-6525663.93	-6525663.71	-6525663.48	0.0088	0.0001
Mercury	-22580-10-20 16:48 J	-6525628.95	-6525628.80	-6525628.64	0.0088	0.0052
Mercury	-22579-01-16 20:23 J	-6525540.82	-6525540.65	-6525540.48	0.0088	0.0042
Mercury	-22579-04-15 00:00 J	-6525452.68	-6525452.50	-6525452.32	0.0088	0.0032
Mars	-22579-04-25 18:28 J	-6525441.98	-6525441.73	-6525441.43	0.0088	0.0034
Venus	-22579-04-29 08:23 J	-6525438.37	-6525438.15	-6525437.92	0.0088	0.0001
Mercury	-22579-07-12 03:21 J	-6525364.54	-6525364.36	-6525364.17	0.0088	0.0023
Mercury	-22579-10-08 06:57 J	-6525276.40	-6525276.21	-6525276.02	0.0088	0.0013
Venus	-22579-12-10 21:50 J	-6525212.81	-6525212.59	-6525212.36	0.0088	0.0001
Mercury	-22578-01-04 10:19 J	-6525188.26	-6525188.07	-6525187.87	0.0088	0.0004
Mercury	-22578-04-02 13:40 J	-6525100.12	-6525099.93	-6525099.73	0.0088	0.0007
Mercury	-22578-06-29 17:16 J	-6525011.97	-6525011.78	-6525011.59	0.0088	0.0016
Venus	-22578-07-24 11:16 J	-6524987.25	-6524987.03	-6524986.80	0.0088	0.0000
Mercury	-22578-09-25 20:23 J	-6524923.82	-6524923.65	-6524923.45	0.0088	0.0026
Mercury	-22578-12-23 00:00 J	-6524835.67	-6524835.50	-6524835.32	0.0088	0.0035
Venus	-22577-03-06 00:43 J	-6524761.69	-6524761.47	-6524761.24	0.0088	0.0001
Mercury	-22577-03-20 03:21 J	-6524747.52	-6524747.36	-6524747.19	0.0088	0.0045
Mercury	-22577-06-16 06:57 J	-6524659.36	-6524659.21	-6524659.06	0.0088	0.0054
Mercury	-22577-09-12 10:04 J	-6524571.20	-6524571.08	-6524570.94	0.0088	0.0064
Venus	-22577-10-17 14:23 J	-6524536.13	-6524535.90	-6524535.68	0.0088	0.0001
Mercury	-22577-12-09 13:40 J	-6524483.03	-6524482.93	-6524482.82	0.0088	0.0073
Mercury	-22576-03-07 16:48 J	-6524394.85	-6524394.80	-6524394.72	0.0088	0.0083
Venus	-22576-05-31 03:50 J	-6524310.56	-6524310.34	-6524310.11	0.0088	0.0001
Venus	-22575-01-11 17:16 J	-6524085.00	-6524084.78	-6524084.55	0.0088	0.0002
Venus	-22575-08-25 06:57 J	-6523859.43	-6523859.21	-6523858.99	0.0088	0.0001
Venus	-22574-04-07 20:38 J	-6523633.87	-6523633.64	-6523633.42	0.0088	0.0002
Venus	-22574-11-19 10:04 J	-6523408.30	-6523408.08	-6523407.85	0.0088	0.0002

Venus	-22573-07-01 23:45 J	-6523182.74	-6523182.51	-6523182.29	0.0088	0.0001
Venus	-22572-02-12 13:26 J	-6522957.17	-6522956.94	-6522956.72	0.0088	0.0002
Venus	-22572-09-26 03:07 J	-6522731.59	-6522731.37	-6522731.14	0.0088	0.0002
Venus	-22571-05-09 16:48 J	-6522506.03	-6522505.80	-6522505.58	0.0088	0.0002
Venus	-22571-12-21 06:28 J	-6522280.46	-6522280.23	-6522280.01	0.0088	0.0002
Venus	-22570-08-03 19:55 J	-6522054.89	-6522054.67	-6522054.44	0.0088	0.0003
Venus	-22569-03-16 09:36 J	-6521829.32	-6521829.10	-6521828.87	0.0088	0.0003
Venus	-22569-10-27 23:31 J	-6521603.75	-6521603.52	-6521603.30	0.0088	0.0003
Venus	-22568-06-10 12:57 J	-6521378.18	-6521377.96	-6521377.73	0.0088	0.0004
Venus	-22567-01-22 02:38 J	-6521152.61	-6521152.39	-6521152.16	0.0088	0.0003
Venus	-22567-09-04 16:19 J	-6520927.05	-6520926.82	-6520926.60	0.0088	0.0003
Venus	-22566-04-18 06:00 J	-6520701.48	-6520701.25	-6520701.03	0.0088	0.0004
Venus	-22566-11-29 19:40 J	-6520475.91	-6520475.68	-6520475.46	0.0088	0.0004
Venus	-22565-07-12 09:07 J	-6520250.34	-6520250.12	-6520249.89	0.0088	0.0005
Venus	-22564-02-22 22:48 J	-6520024.77	-6520024.55	-6520024.32	0.0088	0.0004
Venus	-22564-10-06 12:43 J	-6519799.20	-6519798.97	-6519798.75	0.0088	0.0005
Venus	-22563-05-20 02:09 J	-6519573.63	-6519573.41	-6519573.18	0.0088	0.0006
Venus	-22563-12-31 15:50 J	-6519348.06	-6519347.84	-6519347.61	0.0088	0.0006
Venus	-22562-08-14 05:31 J	-6519122.49	-6519122.27	-6519122.04	0.0088	0.0006
Venus	-22561-03-26 19:26 J	-6518896.92	-6518896.69	-6518896.47	0.0088	0.0005
Venus	-22561-11-07 09:21 J	-6518671.34	-6518671.11	-6518670.89	0.0088	0.0006
Venus	-22560-06-20 23:02 J	-6518445.77	-6518445.54	-6518445.32	0.0088	0.0006
Venus	-22559-02-01 12:43 J	-6518220.19	-6518219.97	-6518219.74	0.0088	0.0006
Venus	-22559-09-15 02:23 J	-6517994.62	-6517994.40	-6517994.17	0.0088	0.0006
Venus	-22558-04-28 16:04 J	-6517769.05	-6517768.83	-6517768.60	0.0088	0.0007
Venus	-22558-12-10 06:00 J	-6517543.47	-6517543.25	-6517543.02	0.0088	0.0007
Venus	-22557-07-22 19:40 J	-6517317.90	-6517317.68	-6517317.45	0.0088	0.0007
Venus	-22556-03-05 09:21 J	-6517092.33	-6517092.11	-6517091.88	0.0088	0.0007
Venus	-22556-10-16 23:16 J	-6516866.75	-6516866.53	-6516866.30	0.0088	0.0007
Venus	-22555-05-30 12:57 J	-6516641.18	-6516640.96	-6516640.73	0.0088	0.0007

Venus	-22554-01-11 02:38 J	-6516415.61	-6516415.39	-6516415.16	0.0088	0.0008
Venus	-22554-08-24 16:19 J	-6516190.04	-6516189.82	-6516189.59	0.0089	0.0008
Venus	-22553-04-06 06:00 J	-6515964.47	-6515964.25	-6515964.02	0.0089	0.0008
Venus	-22553-11-17 19:55 J	-6515738.89	-6515738.67	-6515738.45	0.0089	0.0008
Venus	-22552-07-01 09:36 J	-6515513.32	-6515513.10	-6515512.88	0.0089	0.0008
Venus	-22551-02-11 23:02 J	-6515287.75	-6515287.54	-6515287.31	0.0089	0.0009
Venus	-22551-09-25 12:43 J	-6515062.19	-6515061.97	-6515061.74	0.0089	0.0009
Venus	-22550-05-09 02:38 J	-6514836.61	-6514836.39	-6514836.17	0.0089	0.0008
Venus	-22550-12-20 16:19 J	-6514611.04	-6514610.82	-6514610.59	0.0089	0.0009
Venus	-22549-08-02 06:00 J	-6514385.47	-6514385.25	-6514385.02	0.0089	0.0009
Venus	-22548-03-15 19:40 J	-6514159.90	-6514159.68	-6514159.45	0.0089	0.0009
Venus	-22548-10-27 09:36 J	-6513934.32	-6513934.10	-6513933.88	0.0089	0.0009
Venus	-22547-06-09 23:16 J	-6513708.75	-6513708.53	-6513708.31	0.0089	0.0009
Venus	-22546-01-21 12:57 J	-6513483.18	-6513482.96	-6513482.73	0.0089	0.0009
Venus	-22546-09-04 02:38 J	-6513257.61	-6513257.39	-6513257.16	0.0089	0.0010
Venus	-22545-04-16 16:19 J	-6513032.04	-6513031.82	-6513031.59	0.0089	0.0010
Venus	-22545-11-28 06:14 J	-6512806.46	-6512806.24	-6512806.02	0.0089	0.0010
Venus	-22544-07-11 19:55 J	-6512580.89	-6512580.67	-6512580.45	0.0089	0.0010
Venus	-22543-02-22 09:36 J	-6512355.32	-6512355.10	-6512354.88	0.0089	0.0010
Venus	-22543-10-05 23:02 J	-6512129.76	-6512129.54	-6512129.31	0.0089	0.0010
Venus	-22542-05-19 12:43 J	-6511904.19	-6511903.97	-6511903.75	0.0089	0.0010
Venus	-22542-12-31 02:23 J	-6511678.62	-6511678.40	-6511678.18	0.0089	0.0010
Venus	-22541-08-12 16:04 J	-6511453.05	-6511452.83	-6511452.61	0.0089	0.0010
Venus	-22540-03-26 05:31 J	-6511227.49	-6511227.27	-6511227.05	0.0089	0.0010
Venus	-22540-11-06 18:57 J	-6511001.93	-6511001.71	-6511001.48	0.0089	0.0011
Venus	-22539-06-20 08:23 J	-6510776.36	-6510776.15	-6510775.92	0.0089	0.0011
Venus	-22538-01-31 22:04 J	-6510550.79	-6510550.58	-6510550.35	0.0089	0.0011
Venus	-22538-09-14 11:31 J	-6510325.23	-6510325.02	-6510324.79	0.0089	0.0011
Venus	-22537-04-27 00:57 J	-6510099.67	-6510099.46	-6510099.23	0.0089	0.0011
Venus	-22537-12-08 14:38 J	-6509874.10	-6509873.89	-6509873.66	0.0089	0.0011

Venus	-22536-07-22 04:19 J	-6509648.54	-6509648.32	-6509648.10	0.0089	0.0011
Venus	-22535-03-04 17:45 J	-6509422.98	-6509422.76	-6509422.54	0.0089	0.0011
Venus	-22535-10-16 07:11 J	-6509197.42	-6509197.20	-6509196.97	0.0089	0.0011
Venus	-22534-05-29 20:38 J	-6508971.85	-6508971.64	-6508971.41	0.0089	0.0011
Venus	-22533-01-10 10:19 J	-6508746.29	-6508746.07	-6508745.85	0.0089	0.0011
Venus	-22533-08-22 23:45 J	-6508520.72	-6508520.51	-6508520.28	0.0089	0.0011
Venus	-22532-04-05 13:11 J	-6508295.16	-6508294.95	-6508294.73	0.0089	0.0011
Venus	-22532-11-17 02:38 J	-6508069.60	-6508069.39	-6508069.17	0.0089	0.0011
Venus	-22531-06-30 16:04 J	-6507844.04	-6507843.83	-6507843.61	0.0089	0.0011
Venus	-22530-02-11 05:31 J	-6507618.48	-6507618.27	-6507618.04	0.0089	0.0011
Venus	-22530-09-24 18:57 J	-6507392.93	-6507392.71	-6507392.49	0.0089	0.0011
Venus	-22529-05-07 08:09 J	-6507167.37	-6507167.16	-6507166.94	0.0089	0.0011
Venus	-22529-12-18 21:36 J	-6506941.82	-6506941.60	-6506941.38	0.0089	0.0011
Venus	-22528-08-01 10:48 J	-6506716.26	-6506716.05	-6506715.82	0.0089	0.0011
Venus	-22527-03-15 00:00 J	-6506490.71	-6506490.50	-6506490.27	0.0089	0.0012
Venus	-22527-10-26 13:26 J	-6506265.16	-6506264.94	-6506264.72	0.0089	0.0011
Venus	-22526-06-09 02:38 J	-6506039.61	-6506039.39	-6506039.17	0.0089	0.0011
Venus	-22525-01-20 16:04 J	-6505814.05	-6505813.83	-6505813.61	0.0089	0.0011
Venus	-22525-09-02 05:16 J	-6505588.50	-6505588.28	-6505588.06	0.0089	0.0010
Venus	-22524-04-15 18:28 J	-6505362.95	-6505362.73	-6505362.51	0.0089	0.0010
Venus	-22524-11-27 07:40 J	-6505137.40	-6505137.18	-6505136.96	0.0089	0.0010
Venus	-22523-07-10 20:52 J	-6504911.85	-6504911.63	-6504911.41	0.0089	0.0010
Venus	-22522-02-21 10:04 J	-6504686.29	-6504686.08	-6504685.86	0.0089	0.0010
Venus	-22522-10-04 23:16 J	-6504460.74	-6504460.53	-6504460.31	0.0089	0.0010
Venus	-22521-05-17 12:28 J	-6504235.20	-6504234.98	-6504234.76	0.0089	0.0010
Venus	-22521-12-29 01:40 J	-6504009.65	-6504009.43	-6504009.21	0.0089	0.0010
Venus	-22520-08-11 14:52 J	-6503784.10	-6503783.88	-6503783.66	0.0089	0.0010
Venus	-22519-03-25 04:04 J	-6503558.55	-6503558.33	-6503558.11	0.0089	0.0010
Venus	-22519-11-05 17:16 J	-6503333.00	-6503332.78	-6503332.57	0.0089	0.0010
Venus	-22518-06-19 06:14 J	-6503107.46	-6503107.24	-6503107.02	0.0089	0.0010

Venus	-22517-01-30 19:26 J	-6502881.91	-6502881.69	-6502881.47	0.0089	0.0009
Earth	-22517-04-26 06:14 J	-6502795.24	-6502795.24	-6502795.21	0.0089	0.0089
Venus	-22517-09-12 08:23 J	-6502656.37	-6502656.15	-6502655.93	0.0089	0.0009
Venus	-22516-04-25 21:21 J	-6502430.83	-6502430.61	-6502430.39	0.0089	0.0009
Earth	-22516-04-28 16:33 J	-6502428.01	-6502427.81	-6502427.57	0.0089	0.0046
Moon	-22516-04-28 20:09 J	-6502427.87	-6502427.66	-6502427.44	0.0089	0.0043 *
Venus	-22516-12-07 10:19 J	-6502205.29	-6502205.07	-6502204.85	0.0089	0.0009
Moon	-22515-05-01 00:00 J	-6502060.75	-6502060.50	-6502060.25	0.0089	0.0007
Earth	-22515-05-01 03:36 J	-6502060.60	-6502060.35	-6502060.09	0.0089	0.0003 *
Venus	-22515-07-20 23:16 J	-6501979.74	-6501979.53	-6501979.31	0.0089	0.0009
Venus	-22514-03-03 12:28 J	-6501754.20	-6501753.98	-6501753.76	0.0089	0.0009
Earth	-22514-05-03 13:40 J	-6501693.14	-6501692.93	-6501692.69	0.0089	0.0041
Moon	-22514-05-03 17:02 J	-6501693.01	-6501692.79	-6501692.56	0.0089	0.0044 *
Venus	-22514-10-15 01:11 J	-6501528.66	-6501528.45	-6501528.23	0.0089	0.0009
Moon	-22513-05-04 21:07 J	-6501325.70	-6501325.62	-6501325.49	0.0089	0.0081
Earth	-22513-05-05 00:28 J	-6501325.56	-6501325.48	-6501325.39	0.0089	0.0084 *
Venus	-22513-05-27 14:09 J	-6501303.13	-6501302.91	-6501302.69	0.0089	0.0008
Venus	-22512-01-08 03:07 J	-6501077.59	-6501077.37	-6501077.15	0.0089	0.0008
Venus	-22512-08-21 15:50 J	-6500852.05	-6500851.84	-6500851.61	0.0089	0.0009
Venus	-22511-04-04 04:48 J	-6500626.51	-6500626.30	-6500626.07	0.0089	0.0009
Venus	-22511-11-15 17:45 J	-6500400.97	-6500400.76	-6500400.54	0.0089	0.0008
Venus	-22510-06-29 06:43 J	-6500175.44	-6500175.22	-6500175.00	0.0089	0.0008
Venus	-22509-02-09 19:40 J	-6499949.90	-6499949.68	-6499949.46	0.0089	0.0007
Venus	-22509-09-22 08:23 J	-6499724.36	-6499724.15	-6499723.93	0.0089	0.0008
Venus	-22508-05-05 21:21 J	-6499498.82	-6499498.61	-6499498.39	0.0089	0.0007
Venus	-22508-12-17 10:04 J	-6499273.29	-6499273.08	-6499272.86	0.0089	0.0007
Venus	-22507-07-30 23:02 J	-6499047.76	-6499047.54	-6499047.32	0.0089	0.0007
Venus	-22506-03-13 12:00 J	-6498822.22	-6498822.00	-6498821.78	0.0089	0.0006
Venus	-22506-10-25 00:43 J	-6498596.69	-6498596.47	-6498596.25	0.0089	0.0006
Venus	-22505-06-06 13:26 J	-6498371.16	-6498370.94	-6498370.72	0.0089	0.0006

Venus	-22504-01-18 02:09 J	-6498145.63	-6498145.41	-6498145.19	0.0089	0.0006
Venus	-22504-08-31 14:52 J	-6497920.10	-6497919.88	-6497919.66	0.0089	0.0006
Venus	-22503-04-14 03:36 J	-6497694.56	-6497694.35	-6497694.13	0.0089	0.0005
Venus	-22503-11-25 16:19 J	-6497469.04	-6497468.82	-6497468.61	0.0089	0.0005
Venus	-22502-07-09 04:48 J	-6497243.51	-6497243.30	-6497243.08	0.0089	0.0005
Venus	-22501-02-19 17:31 J	-6497017.99	-6497017.77	-6497017.55	0.0089	0.0005
Venus	-22501-10-02 06:00 J	-6496792.46	-6496792.25	-6496792.03	0.0089	0.0005
Venus	-22500-05-15 18:43 J	-6496566.94	-6496566.72	-6496566.50	0.0089	0.0004
Venus	-22500-12-27 07:11 J	-6496341.41	-6496341.20	-6496340.98	0.0089	0.0004
Mercury	-22499-02-09 20:09 J	-6496296.69	-6496296.66	-6496296.62	0.0089	0.0086
Mars	-22499-04-11 09:50 J	-6496236.37	-6496236.09	-6496235.76	0.0089	0.0038
Mercury	-22499-05-08 21:36 J	-6496208.65	-6496208.60	-6496208.53	0.0089	0.0079
Mercury	-22499-08-04 23:02 J	-6496120.62	-6496120.54	-6496120.46	0.0089	0.0072
Venus	-22499-08-09 19:40 J	-6496115.89	-6496115.68	-6496115.46	0.0089	0.0005
Mercury	-22499-11-01 00:00 J	-6496032.57	-6496032.50	-6496032.39	0.0089	0.0066
Mercury	-22498-01-28 01:26 J	-6495944.53	-6495944.44	-6495944.33	0.0089	0.0058
Venus	-22498-03-23 08:38 J	-6495890.36	-6495890.14	-6495889.93	0.0089	0.0004
Mercury	-22498-04-26 02:52 J	-6495856.48	-6495856.38	-6495856.26	0.0089	0.0051
Mercury	-22498-07-23 04:19 J	-6495768.43	-6495768.32	-6495768.20	0.0089	0.0044
Mercury	-22498-10-19 05:31 J	-6495680.38	-6495680.27	-6495680.14	0.0089	0.0038
Venus	-22498-11-03 21:07 J	-6495664.84	-6495664.62	-6495664.40	0.0089	0.0003
Mercury	-22497-01-15 06:57 J	-6495592.33	-6495592.21	-6495592.08	0.0089	0.0030
Mars	-22497-03-07 12:28 J	-6495540.27	-6495539.98	-6495539.65	0.0089	0.0036
Mercury	-22497-04-12 08:23 J	-6495504.28	-6495504.15	-6495504.02	0.0089	0.0023
Venus	-22497-06-16 09:36 J	-6495439.32	-6495439.10	-6495438.88	0.0089	0.0003
Mercury	-22497-07-09 09:50 J	-6495416.22	-6495416.09	-6495415.96	0.0089	0.0016
Mercury	-22497-10-05 11:16 J	-6495328.17	-6495328.03	-6495327.90	0.0089	0.0009
Mercury	-22496-01-01 12:28 J	-6495240.11	-6495239.98	-6495239.84	0.0089	0.0003
Venus	-22496-01-27 22:04 J	-6495213.79	-6495213.58	-6495213.36	0.0089	0.0003
Mercury	-22496-03-30 13:55 J	-6495152.05	-6495151.92	-6495151.79	0.0089	0.0005

Mercury	-22496-06-26 15:21 J	-6495063.99	-6495063.86	-6495063.73	0.0089	0.0012
Venus	-22496-09-10 10:48 J	-6494988.27	-6494988.05	-6494987.84	0.0089	0.0003
Mercury	-22496-09-22 16:33 J	-6494975.94	-6494975.81	-6494975.67	0.0089	0.0019
Mercury	-22496-12-19 18:00 J	-6494887.88	-6494887.75	-6494887.62	0.0089	0.0026
Mercury	-22495-03-17 19:26 J	-6494799.81	-6494799.69	-6494799.57	0.0089	0.0033
Venus	-22495-04-23 23:31 J	-6494762.74	-6494762.52	-6494762.31	0.0089	0.0002
Mercury	-22495-06-13 20:38 J	-6494711.75	-6494711.64	-6494711.51	0.0089	0.0041
Mercury	-22495-09-09 22:04 J	-6494623.69	-6494623.58	-6494623.46	0.0089	0.0048
Venus	-22495-12-05 12:00 J	-6494537.22	-6494537.00	-6494536.79	0.0089	0.0002
Mercury	-22495-12-06 23:31 J	-6494535.62	-6494535.52	-6494535.41	0.0089	0.0055
Mercury	-22494-03-05 00:57 J	-6494447.55	-6494447.46	-6494447.36	0.0089	0.0062
Mercury	-22494-06-01 02:23 J	-6494359.48	-6494359.40	-6494359.32	0.0089	0.0069
Venus	-22494-07-19 00:28 J	-6494311.70	-6494311.48	-6494311.26	0.0089	0.0002
Mercury	-22494-08-28 03:36 J	-6494271.41	-6494271.35	-6494271.27	0.0089	0.0076
Mercury	-22494-11-24 04:48 J	-6494183.33	-6494183.30	-6494183.24	0.0089	0.0084
Venus	-22493-02-29 12:57 J	-6494086.17	-6494085.96	-6494085.74	0.0089	0.0001
Venus	-22493-10-12 01:26 J	-6493860.65	-6493860.44	-6493860.22	0.0089	0.0001
Venus	-22492-05-25 13:55 J	-6493635.13	-6493634.92	-6493634.70	0.0089	0.0001
Venus	-22491-01-06 02:23 J	-6493409.62	-6493409.40	-6493409.19	0.0089	0.0001
Venus	-22491-08-19 14:52 J	-6493184.10	-6493183.88	-6493183.67	0.0089	0.0001
Venus	-22490-04-02 03:21 J	-6492958.58	-6492958.36	-6492958.15	0.0089	0.0001
Venus	-22490-11-13 15:36 J	-6492733.06	-6492732.85	-6492732.63	0.0089	0.0002
Venus	-22489-06-26 04:04 J	-6492507.55	-6492507.33	-6492507.12	0.0089	0.0001
Venus	-22488-02-06 16:19 J	-6492282.03	-6492281.82	-6492281.60	0.0089	0.0001
Venus	-22488-09-20 04:48 J	-6492056.52	-6492056.30	-6492056.09	0.0089	0.0001
Venus	-22487-05-03 17:16 J	-6491831.00	-6491830.78	-6491830.56	0.0089	0.0001
Venus	-22487-12-15 05:31 J	-6491605.48	-6491605.27	-6491605.05	0.0089	0.0003
Venus	-22486-07-28 18:00 J	-6491379.97	-6491379.75	-6491379.54	0.0089	0.0002
Venus	-22485-03-10 06:14 J	-6491154.45	-6491154.24	-6491154.02	0.0089	0.0003
Venus	-22485-10-21 18:43 J	-6490928.94	-6490928.72	-6490928.50	0.0089	0.0002

Venus	-22484-06-04 07:11 J	-6490703.42	-6490703.20	-6490702.99	0.0089	0.0003
Venus	-22483-01-15 19:26 J	-6490477.90	-6490477.69	-6490477.47	0.0089	0.0003
Venus	-22483-08-29 07:55 J	-6490252.38	-6490252.17	-6490251.95	0.0089	0.0003
Venus	-22482-04-11 20:23 J	-6490026.86	-6490026.65	-6490026.43	0.0089	0.0003
Venus	-22482-11-23 08:52 J	-6489801.35	-6489801.13	-6489800.92	0.0089	0.0004
Venus	-22481-07-05 21:07 J	-6489575.83	-6489575.62	-6489575.40	0.0089	0.0004
Venus	-22480-02-16 09:21 J	-6489350.32	-6489350.11	-6489349.89	0.0089	0.0005
Venus	-22480-09-29 21:50 J	-6489124.80	-6489124.59	-6489124.37	0.0089	0.0004
Venus	-22479-05-13 10:19 J	-6488899.28	-6488899.07	-6488898.85	0.0089	0.0005
Venus	-22479-12-24 22:33 J	-6488673.77	-6488673.56	-6488673.34	0.0089	0.0005
Venus	-22478-08-07 11:02 J	-6488448.26	-6488448.04	-6488447.83	0.0089	0.0005
Venus	-22477-03-19 23:02 J	-6488222.75	-6488222.54	-6488222.32	0.0089	0.0006
Venus	-22477-10-31 11:31 J	-6487997.24	-6487997.02	-6487996.81	0.0089	0.0006
Venus	-22476-06-13 23:45 J	-6487771.72	-6487771.51	-6487771.29	0.0089	0.0006
Venus	-22475-01-25 12:14 J	-6487546.21	-6487545.99	-6487545.78	0.0089	0.0006
Venus	-22475-09-08 00:28 J	-6487320.70	-6487320.48	-6487320.26	0.0089	0.0006
Venus	-22474-04-21 12:43 J	-6487095.18	-6487094.97	-6487094.75	0.0089	0.0007
Venus	-22474-12-03 01:11 J	-6486869.67	-6486869.45	-6486869.24	0.0089	0.0007
Venus	-22473-07-15 13:26 J	-6486644.16	-6486643.94	-6486643.73	0.0089	0.0007
Venus	-22472-02-26 01:40 J	-6486418.64	-6486418.43	-6486418.21	0.0089	0.0007
Venus	-22472-10-09 13:55 J	-6486193.13	-6486192.92	-6486192.70	0.0089	0.0008
Venus	-22471-05-23 02:38 J	-6485967.61	-6485967.39	-6485967.18	0.0089	0.0008
Venus	-22470-01-03 14:52 J	-6485742.09	-6485741.88	-6485741.66	0.0089	0.0008
Venus	-22470-08-17 03:07 J	-6485516.58	-6485516.37	-6485516.15	0.0089	0.0009
Venus	-22469-03-29 15:36 J	-6485291.06	-6485290.85	-6485290.63	0.0089	0.0008
Venus	-22469-11-10 03:50 J	-6485065.55	-6485065.34	-6485065.12	0.0089	0.0009
Venus	-22468-06-23 16:33 J	-6484840.03	-6484839.81	-6484839.60	0.0089	0.0009
Venus	-22467-02-04 04:48 J	-6484614.51	-6484614.30	-6484614.08	0.0089	0.0009
Venus	-22467-09-17 17:02 J	-6484389.00	-6484388.79	-6484388.57	0.0089	0.0009
Venus	-22466-05-01 05:31 J	-6484163.49	-6484163.27	-6484163.05	0.0089	0.0009

Venus	-22466-12-12 17:45 J	-6483937.97	-6483937.76	-6483937.54	0.0089	0.0010
Venus	-22465-07-25 06:14 J	-6483712.46	-6483712.24	-6483712.03	0.0089	0.0010
Venus	-22464-03-07 18:28 J	-6483486.94	-6483486.73	-6483486.51	0.0089	0.0010
Venus	-22464-10-19 06:43 J	-6483261.43	-6483261.22	-6483261.00	0.0089	0.0010
Venus	-22463-06-01 19:11 J	-6483035.91	-6483035.70	-6483035.48	0.0089	0.0011
Venus	-22462-01-13 07:40 J	-6482810.39	-6482810.18	-6482809.96	0.0089	0.0010
Venus	-22462-08-26 19:55 J	-6482584.88	-6482584.67	-6482584.45	0.0089	0.0011
Venus	-22461-04-08 08:23 J	-6482359.37	-6482359.15	-6482358.94	0.0088	0.0011
Venus	-22461-11-19 20:38 J	-6482133.85	-6482133.64	-6482133.42	0.0088	0.0011
Venus	-22460-07-03 09:07 J	-6481908.33	-6481908.12	-6481907.90	0.0088	0.0011
Venus	-22459-02-13 21:36 J	-6481682.81	-6481682.60	-6481682.38	0.0088	0.0011
Venus	-22459-09-27 10:04 J	-6481457.30	-6481457.08	-6481456.86	0.0088	0.0011
Venus	-22458-05-10 22:33 J	-6481231.78	-6481231.56	-6481231.34	0.0088	0.0011
Venus	-22458-12-22 11:02 J	-6481006.26	-6481006.04	-6481005.82	0.0088	0.0011
Venus	-22457-08-03 23:31 J	-6480780.73	-6480780.52	-6480780.30	0.0088	0.0012
Venus	-22456-03-17 12:00 J	-6480555.21	-6480555.00	-6480554.78	0.0088	0.0012
Venus	-22456-10-29 00:14 J	-6480329.69	-6480329.49	-6480329.26	0.0088	0.0013
Venus	-22455-06-11 12:57 J	-6480104.17	-6480103.96	-6480103.74	0.0088	0.0012
Venus	-22454-01-23 01:26 J	-6479878.65	-6479878.44	-6479878.21	0.0088	0.0013
Venus	-22454-09-05 13:55 J	-6479653.13	-6479652.92	-6479652.69	0.0088	0.0013
Venus	-22453-04-18 02:23 J	-6479427.61	-6479427.40	-6479427.18	0.0088	0.0013
Venus	-22453-11-29 15:07 J	-6479202.09	-6479201.87	-6479201.65	0.0088	0.0012
Venus	-22452-07-13 03:50 J	-6478976.56	-6478976.34	-6478976.12	0.0088	0.0012
Venus	-22451-02-23 16:19 J	-6478751.04	-6478750.82	-6478750.60	0.0088	0.0012
Venus	-22451-10-07 04:48 J	-6478525.52	-6478525.30	-6478525.08	0.0088	0.0013
Venus	-22450-05-20 17:16 J	-6478299.99	-6478299.78	-6478299.56	0.0088	0.0013
Venus	-22449-01-01 06:00 J	-6478074.47	-6478074.25	-6478074.04	0.0088	0.0013
Venus	-22449-08-13 18:28 J	-6477848.94	-6477848.73	-6477848.51	0.0088	0.0013
Venus	-22448-03-27 06:57 J	-6477623.42	-6477623.21	-6477622.99	0.0088	0.0013
Venus	-22448-11-07 19:40 J	-6477397.89	-6477397.68	-6477397.46	0.0088	0.0013

Venus	-22447-06-21 08:23 J	-6477172.36	-6477172.15	-6477171.93	0.0088	0.0013
Venus	-22446-02-01 21:07 J	-6476946.83	-6476946.62	-6476946.40	0.0088	0.0013
Venus	-22446-09-15 09:36 J	-6476721.31	-6476721.10	-6476720.87	0.0088	0.0013
Venus	-22445-04-27 22:19 J	-6476495.78	-6476495.57	-6476495.34	0.0088	0.0013
Venus	-22445-12-09 11:02 J	-6476270.25	-6476270.04	-6476269.81	0.0088	0.0013
Venus	-22444-07-23 00:00 J	-6476044.71	-6476044.50	-6476044.27	0.0088	0.0013
Venus	-22443-03-05 12:43 J	-6475819.18	-6475818.97	-6475818.74	0.0088	0.0014
Venus	-22443-10-17 01:40 J	-6475593.65	-6475593.43	-6475593.21	0.0088	0.0013
Venus	-22442-05-30 14:23 J	-6475368.11	-6475367.90	-6475367.68	0.0088	0.0013
Venus	-22441-01-11 03:07 J	-6475142.58	-6475142.37	-6475142.15	0.0088	0.0013
Venus	-22441-08-23 16:04 J	-6474917.04	-6474916.83	-6474916.61	0.0088	0.0013
Venus	-22440-04-06 04:48 J	-6474691.51	-6474691.30	-6474691.07	0.0088	0.0013
Venus	-22440-11-17 17:31 J	-6474465.98	-6474465.77	-6474465.54	0.0088	0.0013
Venus	-22439-07-01 06:28 J	-6474240.44	-6474240.23	-6474240.00	0.0088	0.0013
Venus	-22438-02-11 19:26 J	-6474014.91	-6474014.69	-6474014.47	0.0088	0.0012
Venus	-22438-09-25 08:23 J	-6473789.37	-6473789.15	-6473788.93	0.0088	0.0012
Venus	-22437-05-07 21:07 J	-6473563.84	-6473563.62	-6473563.40	0.0088	0.0012
Venus	-22437-12-19 10:04 J	-6473338.30	-6473338.08	-6473337.86	0.0088	0.0012
Venus	-22436-08-01 23:02 J	-6473112.76	-6473112.54	-6473112.32	0.0088	0.0012
Venus	-22435-03-15 12:00 J	-6472887.22	-6472887.00	-6472886.78	0.0088	0.0012
Earth	-22435-10-26 14:38 J	-6472662.02	-6472661.89	-6472661.70	0.0088	0.0069
Moon	-22435-10-26 18:57 J	-6472661.84	-6472661.71	-6472661.56	0.0088	0.0073 *
Venus	-22435-10-27 00:43 J	-6472661.68	-6472661.47	-6472661.24	0.0088	0.0012 *
Venus	-22434-06-09 13:40 J	-6472436.14	-6472435.93	-6472435.70	0.0088	0.0012
Moon	-22434-10-29 00:28 J	-6472294.72	-6472294.48	-6472294.22	0.0088	0.0022
Earth	-22434-10-29 03:50 J	-6472294.58	-6472294.34	-6472294.08	0.0088	0.0026 *
Venus	-22433-01-21 02:38 J	-6472210.60	-6472210.39	-6472210.16	0.0088	0.0012
Venus	-22433-09-02 15:50 J	-6471985.05	-6471984.84	-6471984.61	0.0088	0.0012
Earth	-22433-10-30 16:33 J	-6471927.06	-6471926.81	-6471926.55	0.0088	0.0017
Moon	-22433-10-30 19:40 J	-6471926.93	-6471926.68	-6471926.40	0.0088	0.0013 *

Venus	-22432-04-16 05:02 J	-6471759.51	-6471759.29	-6471759.07	0.0088	0.0011
Moon	-22432-11-02 03:07 J	-6471559.54	-6471559.37	-6471559.20	0.0088	0.0064
Earth	-22432-11-02 04:48 J	-6471559.47	-6471559.30	-6471559.08	0.0088	0.0060 *
Venus	-22432-11-27 18:00 J	-6471533.97	-6471533.75	-6471533.53	0.0088	0.0011
Venus	-22431-07-11 07:11 J	-6471308.42	-6471308.20	-6471307.98	0.0088	0.0011
Venus	-22430-02-21 20:09 J	-6471082.87	-6471082.66	-6471082.43	0.0088	0.0011
Venus	-22430-10-05 09:21 J	-6470857.33	-6470857.11	-6470856.89	0.0088	0.0011
Venus	-22429-05-17 22:19 J	-6470631.78	-6470631.57	-6470631.34	0.0088	0.0011
Venus	-22429-12-29 11:31 J	-6470406.24	-6470406.02	-6470405.79	0.0088	0.0011
Venus	-22428-08-12 00:57 J	-6470180.68	-6470180.46	-6470180.24	0.0088	0.0010
Venus	-22427-03-25 13:55 J	-6469955.14	-6469954.92	-6469954.69	0.0088	0.0010
Venus	-22427-11-06 03:07 J	-6469729.59	-6469729.37	-6469729.15	0.0088	0.0010
Venus	-22426-06-19 16:04 J	-6469504.05	-6469503.83	-6469503.60	0.0088	0.0010
Venus	-22425-01-31 05:16 J	-6469278.50	-6469278.28	-6469278.05	0.0088	0.0010
Venus	-22425-09-12 18:43 J	-6469052.94	-6469052.72	-6469052.50	0.0088	0.0009
Venus	-22424-04-26 07:55 J	-6468827.39	-6468827.17	-6468826.95	0.0088	0.0009
Venus	-22424-12-07 20:52 J	-6468601.85	-6468601.63	-6468601.40	0.0088	0.0009
Venus	-22423-07-21 10:04 J	-6468376.30	-6468376.08	-6468375.85	0.0088	0.0009
Venus	-22422-03-03 23:31 J	-6468150.74	-6468150.52	-6468150.30	0.0088	0.0008
Venus	-22422-10-15 12:43 J	-6467925.19	-6467924.97	-6467924.74	0.0088	0.0008
Venus	-22421-05-28 02:09 J	-6467699.64	-6467699.41	-6467699.19	0.0088	0.0008
Venus	-22420-01-08 15:21 J	-6467474.08	-6467473.86	-6467473.63	0.0088	0.0008
Venus	-22420-08-22 04:48 J	-6467248.52	-6467248.30	-6467248.07	0.0088	0.0008
Venus	-22419-04-04 18:14 J	-6467022.96	-6467022.74	-6467022.51	0.0088	0.0007
Venus	-22419-11-16 07:40 J	-6466797.40	-6466797.18	-6466796.96	0.0088	0.0007
Venus	-22418-06-29 20:52 J	-6466571.85	-6466571.63	-6466571.40	0.0088	0.0007
Mars	-22417-01-15 04:33 J	-6466372.53	-6466372.31	-6466372.09	0.0088	0.0058
Venus	-22417-02-10 10:19 J	-6466346.29	-6466346.07	-6466345.84	0.0088	0.0007
Venus	-22417-09-23 00:00 J	-6466120.72	-6466120.50	-6466120.28	0.0088	0.0006
Venus	-22416-05-06 13:26 J	-6465895.16	-6465894.94	-6465894.72	0.0088	0.0006

Mercury -22416-10-26 03:21 J -6465722.43 -6465722.36 -6465722.27 0.0088 0.0080

Mars -22416-12-08 23:31 J -6465678.82 -6465678.52 -6465678.23 0.0088 0.0002

Venus -22416-12-18 02:52 J -6465669.61 -6465669.38 -6465669.16 0.0088 0.0006

Mercury -22415-01-22 06:57 J -6465634.32 -6465634.21 -6465634.08 0.0088 0.0070

Mercury -22415-04-20 10:33 J -6465546.19 -6465546.06 -6465545.91 0.0088 0.0060

Mercury -22415-07-17 13:55 J -6465458.06 -6465457.92 -6465457.75 0.0088 0.0051

Venus -22415-07-31 16:04 J -6465444.05 -6465443.83 -6465443.60 0.0088 0.0006

Mercury -22415-10-13 17:31 J -6465369.93 -6465369.77 -6465369.59 0.0088 0.0041

Mercury -22414-01-09 21:07 J -6465281.80 -6465281.62 -6465281.43 0.0088 0.0031

Venus -22414-03-14 05:45 J -6465218.49 -6465218.26 -6465218.04 0.0088 0.0005

Mercury -22414-04-08 00:43 J -6465193.66 -6465193.47 -6465193.28 0.0088 0.0021

Mercury -22414-07-05 04:04 J -6465105.52 -6465105.33 -6465105.13 0.0088 0.0012

Mercury -22414-10-01 07:40 J -6465017.37 -6465017.18 -6465016.99 0.0088 0.0002

Venus -22414-10-25 19:11 J -6464992.92 -6464992.70 -6464992.47 0.0088 0.0005

Mars -22414-11-02 18:28 J -6464984.91 -6464984.73 -6464984.49 0.0088 0.0062

Mercury -22414-12-28 11:02 J -6464929.23 -6464929.04 -6464928.84 0.0088 0.0008

Mercury -22413-03-25 14:38 J -6464841.08 -6464840.89 -6464840.70 0.0088 0.0017

Venus -22413-06-07 08:38 J -6464767.36 -6464767.14 -6464766.91 0.0088 0.0005

Mercury -22413-06-21 18:00 J -6464752.93 -6464752.75 -6464752.56 0.0088 0.0027

Mercury -22413-09-17 21:07 J -6464664.78 -6464664.62 -6464664.43 0.0088 0.0037

Mercury -22413-12-15 00:43 J -6464576.62 -6464576.47 -6464576.30 0.0088 0.0046

Venus -22412-01-18 22:04 J -6464541.80 -6464541.58 -6464541.35 0.0088 0.0004

Mercury -22412-03-13 04:04 J -6464488.47 -6464488.33 -6464488.17 0.0088 0.0056

Mercury -22412-06-09 07:40 J -6464400.30 -6464400.18 -6464400.05 0.0088 0.0065

Venus -22412-09-01 11:31 J -6464316.24 -6464316.02 -6464315.79 0.0088 0.0004

Mercury -22412-09-05 10:48 J -6464312.13 -6464312.05 -6464311.94 0.0088 0.0075

Mercury -22412-12-02 14:23 J -6464223.95 -6464223.90 -6464223.84 0.0088 0.0084

Venus -22411-04-15 01:11 J -6464090.68 -6464090.45 -6464090.23 0.0088 0.0004

Venus -22411-11-26 14:38 J -6463865.11 -6463864.89 -6463864.67 0.0088 0.0003

Venus -22410-07-10 04:04 J -6463639.55 -6463639.33 -6463639.10 0.0088 0.0003

Venus	-22409-02-20 17:31 J	-6463413.99	-6463413.77	-6463413.54	0.0088	0.0003
Venus	-22409-10-03 07:26 J	-6463188.42	-6463188.19	-6463187.97	0.0088	0.0003
Venus	-22408-05-16 20:52 J	-6462962.85	-6462962.63	-6462962.40	0.0088	0.0003
Venus	-22408-12-28 10:33 J	-6462737.29	-6462737.06	-6462736.84	0.0088	0.0002
Venus	-22407-08-11 00:14 J	-6462511.72	-6462511.49	-6462511.27	0.0088	0.0002
Venus	-22406-03-24 13:40 J	-6462286.15	-6462285.93	-6462285.70	0.0088	0.0002
Venus	-22406-11-05 03:36 J	-6462060.58	-6462060.35	-6462060.13	0.0088	0.0001
Venus	-22405-06-17 17:16 J	-6461835.01	-6461834.78	-6461834.56	0.0088	0.0001
Venus	-22404-01-29 06:43 J	-6461609.44	-6461609.22	-6461608.99	0.0088	0.0002
Venus	-22404-09-11 20:38 J	-6461383.87	-6461383.64	-6461383.42	0.0088	0.0001
Venus	-22403-04-25 10:19 J	-6461158.30	-6461158.07	-6461157.85	0.0088	0.0001
Venus	-22403-12-07 00:00 J	-6460932.73	-6460932.50	-6460932.28	0.0088	0.0001
Venus	-22402-07-20 13:26 J	-6460707.16	-6460706.94	-6460706.71	0.0088	0.0002
Venus	-22401-03-02 03:07 J	-6460481.59	-6460481.37	-6460481.14	0.0088	0.0002
Venus	-22401-10-13 17:02 J	-6460256.02	-6460255.79	-6460255.57	0.0088	0.0002
Venus	-22400-05-27 06:43 J	-6460030.45	-6460030.22	-6460030.00	0.0088	0.0002
Venus	-22399-01-07 20:09 J	-6459804.88	-6459804.66	-6459804.43	0.0088	0.0003
Venus	-22399-08-21 09:50 J	-6459579.31	-6459579.09	-6459578.86	0.0088	0.0003
Venus	-22398-04-03 23:31 J	-6459353.74	-6459353.52	-6459353.29	0.0088	0.0003
Venus	-22398-11-15 13:11 J	-6459128.17	-6459127.95	-6459127.72	0.0088	0.0004
Venus	-22397-06-28 02:52 J	-6458902.60	-6458902.38	-6458902.15	0.0088	0.0004
Venus	-22396-02-08 16:33 J	-6458677.03	-6458676.81	-6458676.58	0.0088	0.0004
Venus	-22396-09-22 06:14 J	-6458451.46	-6458451.24	-6458451.01	0.0088	0.0005
Venus	-22395-05-05 20:09 J	-6458225.89	-6458225.66	-6458225.44	0.0088	0.0005
Venus	-22395-12-17 09:50 J	-6458000.31	-6458000.09	-6457999.86	0.0088	0.0005
Venus	-22394-07-30 23:31 J	-6457774.74	-6457774.52	-6457774.29	0.0088	0.0005
Venus	-22393-03-12 13:11 J	-6457549.17	-6457548.95	-6457548.72	0.0088	0.0006
Venus	-22393-10-24 03:07 J	-6457323.59	-6457323.37	-6457323.14	0.0088	0.0006
Venus	-22392-06-06 16:48 J	-6457098.02	-6457097.80	-6457097.57	0.0088	0.0007
Venus	-22391-01-18 06:43 J	-6456872.44	-6456872.22	-6456872.00	0.0088	0.0006

Venus	-22391-08-31 20:23 J	-6456646.87	-6456646.65	-6456646.43	0.0088	0.0007
Venus	-22390-04-14 10:04 J	-6456421.30	-6456421.08	-6456420.85	0.0088	0.0007
Venus	-22390-11-25 23:45 J	-6456195.73	-6456195.51	-6456195.28	0.0088	0.0008
Venus	-22389-07-08 13:40 J	-6455970.15	-6455969.93	-6455969.71	0.0088	0.0008
Venus	-22388-02-19 03:07 J	-6455744.59	-6455744.37	-6455744.14	0.0089	0.0008
Venus	-22388-10-02 16:48 J	-6455519.02	-6455518.80	-6455518.57	0.0089	0.0009
Venus	-22387-05-16 06:28 J	-6455293.45	-6455293.23	-6455293.00	0.0089	0.0009
Venus	-22387-12-27 20:23 J	-6455067.88	-6455067.65	-6455067.43	0.0089	0.0009
Venus	-22386-08-10 09:50 J	-6454842.31	-6454842.09	-6454841.86	0.0089	0.0009
Venus	-22385-03-22 23:31 J	-6454616.74	-6454616.52	-6454616.29	0.0089	0.0009
Venus	-22385-11-03 13:11 J	-6454391.17	-6454390.95	-6454390.72	0.0089	0.0010
Venus	-22384-06-17 03:07 J	-6454165.60	-6454165.37	-6454165.15	0.0089	0.0010
Venus	-22383-01-28 16:33 J	-6453940.03	-6453939.81	-6453939.58	0.0089	0.0010
Venus	-22383-09-11 06:14 J	-6453714.46	-6453714.24	-6453714.01	0.0089	0.0010
Venus	-22382-04-24 19:55 J	-6453488.89	-6453488.67	-6453488.44	0.0089	0.0011
Venus	-22382-12-06 09:50 J	-6453263.31	-6453263.09	-6453262.87	0.0089	0.0011
Venus	-22381-07-18 23:31 J	-6453037.74	-6453037.52	-6453037.30	0.0089	0.0011
Venus	-22380-03-01 12:57 J	-6452812.17	-6452811.96	-6452811.73	0.0089	0.0012
Venus	-22380-10-13 02:38 J	-6452586.60	-6452586.39	-6452586.16	0.0089	0.0012
Venus	-22379-05-26 16:19 J	-6452361.03	-6452360.82	-6452360.59	0.0089	0.0012
Venus	-22378-01-07 06:14 J	-6452135.46	-6452135.24	-6452135.02	0.0089	0.0012
Venus	-22378-08-20 19:55 J	-6451909.89	-6451909.67	-6451909.45	0.0089	0.0012
Venus	-22377-04-02 09:21 J	-6451684.33	-6451684.11	-6451683.88	0.0089	0.0013
Venus	-22377-11-13 23:02 J	-6451458.76	-6451458.54	-6451458.32	0.0089	0.0013
Venus	-22376-06-27 12:43 J	-6451233.19	-6451232.97	-6451232.75	0.0089	0.0013
Venus	-22375-02-08 02:23 J	-6451007.62	-6451007.40	-6451007.18	0.0089	0.0013
Venus	-22375-09-21 15:50 J	-6450782.06	-6450781.84	-6450781.62	0.0089	0.0013
Venus	-22374-05-05 05:02 J	-6450556.50	-6450556.29	-6450556.06	0.0089	0.0014
Venus	-22374-12-16 18:43 J	-6450330.93	-6450330.72	-6450330.49	0.0089	0.0014
Venus	-22373-07-29 08:23 J	-6450105.36	-6450105.15	-6450104.92	0.0089	0.0014

Venus	-22372-03-11 21:50 J	-6449879.80	-6449879.59	-6449879.36	0.0089	0.0014
Venus	-22372-10-23 11:16 J	-6449654.24	-6449654.03	-6449653.80	0.0089	0.0014
Venus	-22371-06-06 00:57 J	-6449428.68	-6449428.46	-6449428.24	0.0089	0.0014
Venus	-22370-01-17 14:38 J	-6449203.11	-6449202.89	-6449202.67	0.0089	0.0014
Venus	-22370-08-31 04:04 J	-6448977.55	-6448977.33	-6448977.11	0.0089	0.0014
Venus	-22369-04-12 17:31 J	-6448751.99	-6448751.77	-6448751.55	0.0089	0.0014
Venus	-22369-11-24 06:57 J	-6448526.43	-6448526.21	-6448525.99	0.0089	0.0015
Venus	-22368-07-07 20:23 J	-6448300.86	-6448300.65	-6448300.42	0.0089	0.0015
Venus	-22367-02-18 10:04 J	-6448075.30	-6448075.08	-6448074.86	0.0089	0.0015
Venus	-22367-10-01 23:31 J	-6447849.74	-6447849.52	-6447849.30	0.0089	0.0015
Venus	-22366-05-15 12:57 J	-6447624.18	-6447623.96	-6447623.74	0.0089	0.0015
Venus	-22366-12-27 02:23 J	-6447398.61	-6447398.40	-6447398.18	0.0089	0.0015
Venus	-22365-08-08 15:50 J	-6447173.05	-6447172.84	-6447172.62	0.0089	0.0015
Venus	-22364-03-22 05:16 J	-6446947.50	-6446947.28	-6446947.06	0.0089	0.0015
Venus	-22364-11-02 18:28 J	-6446721.94	-6446721.73	-6446721.51	0.0089	0.0015
Venus	-22363-06-16 07:55 J	-6446496.39	-6446496.17	-6446495.95	0.0089	0.0015
Venus	-22362-01-27 21:07 J	-6446270.83	-6446270.62	-6446270.40	0.0089	0.0016
Venus	-22362-09-10 10:33 J	-6446045.28	-6446045.06	-6446044.84	0.0089	0.0015
Venus	-22361-04-22 23:45 J	-6445819.73	-6445819.51	-6445819.29	0.0089	0.0015
Venus	-22361-12-04 12:57 J	-6445594.18	-6445593.96	-6445593.74	0.0089	0.0015
Venus	-22360-07-18 02:09 J	-6445368.62	-6445368.41	-6445368.19	0.0089	0.0015
Venus	-22359-02-28 15:21 J	-6445143.07	-6445142.86	-6445142.64	0.0089	0.0016
Venus	-22359-10-12 04:33 J	-6444917.52	-6444917.31	-6444917.09	0.0089	0.0016
Venus	-22358-05-25 17:45 J	-6444691.97	-6444691.76	-6444691.54	0.0089	0.0015
Venus	-22357-01-06 06:57 J	-6444466.42	-6444466.21	-6444465.99	0.0089	0.0016
Venus	-22357-08-18 20:09 J	-6444240.87	-6444240.66	-6444240.44	0.0089	0.0015
Venus	-22356-04-01 09:21 J	-6444015.32	-6444015.11	-6444014.89	0.0089	0.0015
Venus	-22356-11-12 22:33 J	-6443789.77	-6443789.56	-6443789.34	0.0089	0.0015
Venus	-22355-06-26 11:31 J	-6443564.22	-6443564.02	-6443563.79	0.0089	0.0016
Venus	-22354-02-07 00:57 J	-6443338.67	-6443338.46	-6443338.24	0.0089	0.0015

Venus	-22354-09-20 13:55 J	-6443113.12	-6443112.92	-6443112.69	0.0089	0.0016
Venus	-22353-05-03 03:07 J	-6442887.58	-6442887.37	-6442887.15	0.0089	0.0015
Venus	-22353-12-14 16:19 J	-6442662.04	-6442661.82	-6442661.60	0.0089	0.0015
Moon	-22352-04-27 19:40 J	-6442527.81	-6442527.68	-6442527.54	0.0089	0.0075
Earth	-22352-04-27 23:02 J	-6442527.68	-6442527.54	-6442527.38	0.0089	0.0072 *
Venus	-22352-07-28 05:16 J	-6442436.49	-6442436.28	-6442436.06	0.0089	0.0015
Venus	-22351-03-10 18:28 J	-6442210.94	-6442210.73	-6442210.51	0.0089	0.0014
Earth	-22351-04-30 09:21 J	-6442160.34	-6442160.11	-6442159.86	0.0089	0.0029
Moon	-22351-04-30 12:43 J	-6442160.21	-6442159.97	-6442159.71	0.0089	0.0026 *
Venus	-22351-10-22 07:26 J	-6441985.40	-6441985.19	-6441984.97	0.0089	0.0014
Moon	-22350-05-02 18:00 J	-6441792.98	-6441792.75	-6441792.50	0.0089	0.0013
Earth	-22350-05-02 20:09 J	-6441792.91	-6441792.66	-6441792.41	0.0089	0.0015 *
Venus	-22350-06-04 20:09 J	-6441759.87	-6441759.66	-6441759.43	0.0089	0.0015
Venus	-22349-01-16 09:07 J	-6441534.32	-6441534.12	-6441533.89	0.0089	0.0015
Earth	-22349-05-04 06:00 J	-6441425.41	-6441425.25	-6441425.03	0.0089	0.0059
Moon	-22349-05-04 07:26 J	-6441425.35	-6441425.19	-6441424.97	0.0089	0.0062 *
Venus	-22349-08-28 22:19 J	-6441308.78	-6441308.57	-6441308.35	0.0089	0.0014
Venus	-22348-04-11 11:16 J	-6441083.25	-6441083.03	-6441082.81	0.0089	0.0014
Venus	-22348-11-23 00:00 J	-6440857.71	-6440857.50	-6440857.28	0.0089	0.0014
Venus	-22347-07-06 12:57 J	-6440632.17	-6440631.96	-6440631.74	0.0089	0.0013
Venus	-22346-02-17 01:55 J	-6440406.63	-6440406.42	-6440406.20	0.0089	0.0013
Venus	-22346-09-30 14:38 J	-6440181.10	-6440180.89	-6440180.67	0.0089	0.0013
Venus	-22345-05-13 03:36 J	-6439955.57	-6439955.35	-6439955.13	0.0089	0.0013
Venus	-22345-12-24 16:19 J	-6439730.03	-6439729.82	-6439729.60	0.0089	0.0013
Venus	-22344-08-07 05:16 J	-6439504.49	-6439504.28	-6439504.06	0.0089	0.0012
Venus	-22343-03-20 18:14 J	-6439278.95	-6439278.74	-6439278.52	0.0089	0.0012
Venus	-22343-11-01 06:57 J	-6439053.42	-6439053.21	-6439052.99	0.0089	0.0012
Venus	-22342-06-14 19:55 J	-6438827.89	-6438827.67	-6438827.46	0.0089	0.0012
Venus	-22341-01-26 08:38 J	-6438602.35	-6438602.14	-6438601.92	0.0089	0.0012
Venus	-22341-09-07 21:21 J	-6438376.82	-6438376.61	-6438376.39	0.0089	0.0012

Venus	-22340-04-21 10:19 J	-6438151.28	-6438151.07	-6438150.85	0.0089	0.0011
Venus	-22340-12-02 23:02 J	-6437925.75	-6437925.54	-6437925.32	0.0089	0.0011
Venus	-22339-07-16 11:45 J	-6437700.22	-6437700.01	-6437699.79	0.0089	0.0011
Venus	-22338-02-27 00:28 J	-6437474.69	-6437474.48	-6437474.26	0.0089	0.0010
Venus	-22338-10-10 13:11 J	-6437249.16	-6437248.95	-6437248.73	0.0089	0.0010
Venus	-22337-05-23 01:55 J	-6437023.64	-6437023.42	-6437023.21	0.0089	0.0010
Venus	-22336-01-03 14:23 J	-6436798.11	-6436797.90	-6436797.68	0.0089	0.0009
Venus	-22336-08-17 02:52 J	-6436572.59	-6436572.38	-6436572.16	0.0089	0.0010
Mars	-22336-11-22 13:40 J	-6436475.06	-6436474.93	-6436474.72	0.0089	0.0078
Venus	-22335-03-30 15:50 J	-6436347.06	-6436346.84	-6436346.62	0.0089	0.0009
Mercury	-22335-11-06 18:57 J	-6436125.73	-6436125.71	-6436125.65	0.0089	0.0086
Venus	-22335-11-11 04:19 J	-6436121.53	-6436121.32	-6436121.10	0.0089	0.0009
Mercury	-22334-02-02 20:23 J	-6436037.70	-6436037.65	-6436037.57	0.0089	0.0079
Mercury	-22334-05-01 21:50 J	-6435949.66	-6435949.59	-6435949.50	0.0089	0.0071
Venus	-22334-06-24 16:48 J	-6435896.01	-6435895.80	-6435895.58	0.0089	0.0009
Mercury	-22334-07-28 23:16 J	-6435861.62	-6435861.53	-6435861.43	0.0089	0.0064
Mars	-22334-10-19 18:00 J	-6435779.08	-6435778.75	-6435778.41	0.0089	0.0005
Mercury	-22334-10-25 00:28 J	-6435773.57	-6435773.48	-6435773.37	0.0089	0.0058
Mercury	-22333-01-21 01:55 J	-6435685.52	-6435685.42	-6435685.31	0.0089	0.0051
Venus	-22333-02-05 05:31 J	-6435670.49	-6435670.27	-6435670.05	0.0089	0.0008
Mercury	-22333-04-18 03:21 J	-6435597.47	-6435597.36	-6435597.24	0.0089	0.0043
Mercury	-22333-07-15 04:48 J	-6435509.42	-6435509.30	-6435509.18	0.0089	0.0036
Venus	-22333-09-17 18:00 J	-6435444.96	-6435444.75	-6435444.53	0.0089	0.0008
Mercury	-22333-10-11 06:00 J	-6435421.37	-6435421.25	-6435421.12	0.0089	0.0030
Mercury	-22332-01-07 07:26 J	-6435333.32	-6435333.19	-6435333.06	0.0089	0.0023
Mercury	-22332-04-05 08:52 J	-6435245.26	-6435245.13	-6435245.00	0.0089	0.0016
Venus	-22332-05-01 06:43 J	-6435219.43	-6435219.22	-6435219.00	0.0089	0.0007
Mercury	-22332-07-02 10:04 J	-6435157.21	-6435157.08	-6435156.94	0.0089	0.0009
Mars	-22332-09-14 19:55 J	-6435082.85	-6435082.67	-6435082.42	0.0089	0.0069
Mercury	-22332-09-28 11:31 J	-6435069.15	-6435069.02	-6435068.89	0.0089	0.0001

Venus	-22332-12-12 19:11 J	-6434993.91	-6434993.70	-6434993.48	0.0089	0.0007
Mercury	-22332-12-25 12:57 J	-6434981.10	-6434980.96	-6434980.83	0.0089	0.0006
Mercury	-22331-03-23 14:09 J	-6434893.04	-6434892.91	-6434892.77	0.0089	0.0013
Mercury	-22331-06-19 15:36 J	-6434804.98	-6434804.85	-6434804.72	0.0089	0.0020
Venus	-22331-07-26 07:55 J	-6434768.39	-6434768.17	-6434767.96	0.0089	0.0007
Mercury	-22331-09-15 17:02 J	-6434716.92	-6434716.79	-6434716.66	0.0089	0.0027
Mercury	-22331-12-12 18:14 J	-6434628.86	-6434628.74	-6434628.61	0.0089	0.0034
Venus	-22330-03-08 20:23 J	-6434542.86	-6434542.65	-6434542.43	0.0089	0.0006
Mercury	-22330-03-10 19:40 J	-6434540.79	-6434540.68	-6434540.56	0.0089	0.0041
Mercury	-22330-06-06 20:52 J	-6434452.73	-6434452.63	-6434452.51	0.0089	0.0049
Mercury	-22330-09-02 22:19 J	-6434364.66	-6434364.57	-6434364.46	0.0089	0.0055
Venus	-22330-10-20 08:52 J	-6434317.34	-6434317.13	-6434316.91	0.0089	0.0007
Mercury	-22330-11-29 23:45 J	-6434276.60	-6434276.51	-6434276.41	0.0089	0.0062
Mercury	-22329-02-26 01:11 J	-6434188.53	-6434188.45	-6434188.36	0.0089	0.0069
Mercury	-22329-05-24 02:38 J	-6434100.45	-6434100.39	-6434100.32	0.0089	0.0077
Venus	-22329-06-01 21:36 J	-6434091.82	-6434091.60	-6434091.38	0.0089	0.0006
Mercury	-22329-08-20 04:04 J	-6434012.37	-6434012.33	-6434012.28	0.0089	0.0084
Venus	-22328-01-13 10:04 J	-6433866.29	-6433866.08	-6433865.86	0.0089	0.0005
Venus	-22328-08-26 22:33 J	-6433640.77	-6433640.56	-6433640.34	0.0089	0.0005
Venus	-22327-04-09 11:16 J	-6433415.24	-6433415.03	-6433414.81	0.0089	0.0005
Venus	-22327-11-20 23:45 J	-6433189.72	-6433189.51	-6433189.29	0.0089	0.0004
Venus	-22326-07-04 12:14 J	-6432964.21	-6432963.99	-6432963.78	0.0089	0.0004
Venus	-22325-02-15 00:28 J	-6432738.69	-6432738.48	-6432738.26	0.0089	0.0004
Venus	-22325-09-27 12:57 J	-6432513.17	-6432512.96	-6432512.74	0.0089	0.0003
Venus	-22324-05-11 01:40 J	-6432287.65	-6432287.43	-6432287.22	0.0089	0.0003
Venus	-22324-12-22 13:55 J	-6432062.13	-6432061.92	-6432061.70	0.0089	0.0003
Venus	-22323-08-05 02:23 J	-6431836.62	-6431836.40	-6431836.19	0.0089	0.0002
Venus	-22322-03-18 14:38 J	-6431611.10	-6431610.89	-6431610.67	0.0089	0.0002
Venus	-22322-10-30 03:07 J	-6431385.59	-6431385.37	-6431385.15	0.0089	0.0001
Venus	-22321-06-11 15:21 J	-6431160.07	-6431159.86	-6431159.64	0.0089	0.0002

Venus	-22320-01-23 03:50 J	-6430934.56	-6430934.34	-6430934.12	0.0089	0.0000
Venus	-22320-09-05 16:04 J	-6430709.04	-6430708.83	-6430708.61	0.0089	0.0002
Venus	-22319-04-19 04:33 J	-6430483.52	-6430483.31	-6430483.09	0.0089	0.0002
Venus	-22319-11-30 17:02 J	-6430258.00	-6430257.79	-6430257.57	0.0089	0.0001
Venus	-22318-07-14 05:16 J	-6430032.49	-6430032.28	-6430032.06	0.0089	0.0002
Venus	-22317-02-24 17:45 J	-6429806.98	-6429806.76	-6429806.54	0.0089	0.0002
Venus	-22317-10-07 06:14 J	-6429581.46	-6429581.24	-6429581.03	0.0089	0.0002
Venus	-22316-05-20 18:43 J	-6429355.94	-6429355.72	-6429355.50	0.0089	0.0002
Venus	-22315-01-01 06:57 J	-6429130.42	-6429130.21	-6429129.99	0.0089	0.0003
Venus	-22315-08-14 19:26 J	-6428904.91	-6428904.69	-6428904.48	0.0089	0.0003
Venus	-22314-03-28 07:40 J	-6428679.39	-6428679.18	-6428678.96	0.0089	0.0004
Venus	-22314-11-08 20:09 J	-6428453.88	-6428453.66	-6428453.45	0.0089	0.0004
Venus	-22313-06-21 08:23 J	-6428228.36	-6428228.15	-6428227.93	0.0089	0.0004
Venus	-22312-02-01 20:38 J	-6428002.85	-6428002.64	-6428002.42	0.0089	0.0005
Venus	-22312-09-15 09:07 J	-6427777.34	-6427777.12	-6427776.91	0.0089	0.0005
Venus	-22311-04-28 21:21 J	-6427551.82	-6427551.61	-6427551.39	0.0089	0.0006
Venus	-22311-12-10 09:36 J	-6427326.31	-6427326.10	-6427325.88	0.0089	0.0006
Venus	-22310-07-23 22:04 J	-6427100.80	-6427100.58	-6427100.37	0.0089	0.0006
Venus	-22309-03-05 10:19 J	-6426875.29	-6426875.07	-6426874.86	0.0089	0.0006
Venus	-22309-10-16 22:33 J	-6426649.77	-6426649.56	-6426649.34	0.0089	0.0007
Venus	-22308-05-30 11:02 J	-6426424.25	-6426424.04	-6426423.82	0.0089	0.0007
Venus	-22307-01-10 23:16 J	-6426198.74	-6426198.53	-6426198.31	0.0089	0.0007
Venus	-22307-08-24 11:31 J	-6425973.23	-6425973.02	-6425972.80	0.0089	0.0008
Venus	-22306-04-07 00:00 J	-6425747.72	-6425747.50	-6425747.29	0.0089	0.0008
Venus	-22306-11-18 12:14 J	-6425522.20	-6425521.99	-6425521.77	0.0089	0.0008
Venus	-22305-07-01 00:43 J	-6425296.68	-6425296.47	-6425296.25	0.0089	0.0009
Venus	-22304-02-11 13:11 J	-6425071.17	-6425070.95	-6425070.74	0.0089	0.0009
Venus	-22304-09-25 01:26 J	-6424845.65	-6424845.44	-6424845.22	0.0089	0.0009
Venus	-22303-05-08 13:55 J	-6424620.13	-6424619.92	-6424619.70	0.0089	0.0010
Venus	-22303-12-20 02:23 J	-6424394.62	-6424394.40	-6424394.19	0.0089	0.0010

Venus	-22302-08-02 14:38 J	-6424169.10	-6424168.89	-6424168.67	0.0089	0.0010
Venus	-22301-03-15 02:52 J	-6423943.59	-6423943.38	-6423943.16	0.0089	0.0011
Venus	-22301-10-26 15:21 J	-6423718.07	-6423717.86	-6423717.64	0.0089	0.0011
Venus	-22300-06-09 03:50 J	-6423492.55	-6423492.34	-6423492.12	0.0089	0.0012
Venus	-22299-01-20 16:19 J	-6423267.03	-6423266.82	-6423266.60	0.0089	0.0012
Venus	-22299-09-03 04:33 J	-6423041.52	-6423041.31	-6423041.09	0.0089	0.0012
Venus	-22298-04-16 16:48 J	-6422816.01	-6422815.80	-6422815.58	0.0089	0.0013
Venus	-22298-11-28 05:16 J	-6422590.49	-6422590.28	-6422590.06	0.0089	0.0013
Venus	-22297-07-10 17:45 J	-6422364.97	-6422364.76	-6422364.54	0.0089	0.0013
Venus	-22296-02-21 06:14 J	-6422139.45	-6422139.24	-6422139.02	0.0089	0.0013
Venus	-22296-10-04 18:28 J	-6421913.94	-6421913.73	-6421913.51	0.0088	0.0013
Venus	-22295-05-18 06:57 J	-6421688.42	-6421688.21	-6421687.99	0.0088	0.0014
Venus	-22295-12-29 19:26 J	-6421462.90	-6421462.69	-6421462.47	0.0088	0.0014
Venus	-22294-08-12 07:40 J	-6421237.39	-6421237.18	-6421236.96	0.0088	0.0014
Venus	-22293-03-24 20:09 J	-6421011.87	-6421011.66	-6421011.44	0.0088	0.0015
Venus	-22293-11-05 08:38 J	-6420786.35	-6420786.14	-6420785.92	0.0088	0.0015
Venus	-22292-06-18 21:21 J	-6420560.82	-6420560.61	-6420560.39	0.0088	0.0015
Venus	-22291-01-30 09:50 J	-6420335.30	-6420335.09	-6420334.87	0.0088	0.0015
Venus	-22291-09-12 22:19 J	-6420109.78	-6420109.57	-6420109.35	0.0088	0.0015
Venus	-22290-04-26 10:48 J	-6419884.26	-6419884.05	-6419883.83	0.0088	0.0016
Venus	-22290-12-07 23:31 J	-6419658.73	-6419658.52	-6419658.30	0.0088	0.0015
Venus	-22289-07-20 12:14 J	-6419433.21	-6419432.99	-6419432.78	0.0088	0.0016
Venus	-22288-03-03 00:28 J	-6419207.68	-6419207.48	-6419207.25	0.0088	0.0017
Venus	-22288-10-14 13:11 J	-6418982.16	-6418981.95	-6418981.73	0.0088	0.0016
Venus	-22287-05-28 01:40 J	-6418756.64	-6418756.43	-6418756.21	0.0088	0.0016
Venus	-22286-01-08 14:23 J	-6418531.11	-6418530.90	-6418530.68	0.0088	0.0016
Venus	-22286-08-22 02:52 J	-6418305.59	-6418305.38	-6418305.16	0.0088	0.0017
Venus	-22285-04-03 15:36 J	-6418080.07	-6418079.85	-6418079.64	0.0088	0.0017
Venus	-22285-11-15 03:50 J	-6417854.54	-6417854.34	-6417854.11	0.0088	0.0017
Venus	-22284-06-28 16:33 J	-6417629.02	-6417628.81	-6417628.59	0.0088	0.0017

Venus	-22283-02-09 05:16 J	-6417403.49	-6417403.28	-6417403.06	0.0088	0.0017
Venus	-22283-09-22 17:45 J	-6417177.97	-6417177.76	-6417177.54	0.0088	0.0017
Venus	-22282-05-06 06:28 J	-6416952.44	-6416952.23	-6416952.01	0.0088	0.0017
Venus	-22282-12-17 18:57 J	-6416726.92	-6416726.71	-6416726.49	0.0088	0.0017
Venus	-22281-07-30 07:55 J	-6416501.38	-6416501.17	-6416500.95	0.0088	0.0017
Venus	-22280-03-12 20:38 J	-6416275.85	-6416275.64	-6416275.42	0.0088	0.0017
Venus	-22280-10-24 09:21 J	-6416050.32	-6416050.11	-6416049.89	0.0088	0.0017
Venus	-22279-06-06 22:04 J	-6415824.79	-6415824.58	-6415824.36	0.0088	0.0017
Venus	-22278-01-18 10:48 J	-6415599.26	-6415599.05	-6415598.83	0.0088	0.0017
Venus	-22278-08-31 23:45 J	-6415373.73	-6415373.51	-6415373.30	0.0088	0.0018
Venus	-22277-04-13 12:28 J	-6415148.20	-6415147.98	-6415147.76	0.0088	0.0018
Venus	-22277-11-25 00:57 J	-6414922.66	-6414922.46	-6414922.23	0.0088	0.0018
Venus	-22276-07-08 13:55 J	-6414697.12	-6414696.92	-6414696.69	0.0088	0.0018
Venus	-22275-02-19 02:52 J	-6414471.59	-6414471.38	-6414471.16	0.0088	0.0018
Venus	-22275-10-02 15:36 J	-6414246.06	-6414245.85	-6414245.62	0.0088	0.0018
Venus	-22274-05-16 04:19 J	-6414020.53	-6414020.32	-6414020.09	0.0088	0.0018
Venus	-22274-12-27 17:16 J	-6413794.99	-6413794.78	-6413794.56	0.0088	0.0018
Venus	-22273-08-09 06:28 J	-6413569.45	-6413569.23	-6413569.01	0.0088	0.0017
Venus	-22272-03-22 18:57 J	-6413343.91	-6413343.71	-6413343.48	0.0088	0.0018
Venus	-22272-11-03 08:09 J	-6413118.38	-6413118.16	-6413117.94	0.0088	0.0017
Venus	-22271-06-16 20:52 J	-6412892.84	-6412892.63	-6412892.41	0.0088	0.0017
Venus	-22270-01-28 09:50 J	-6412667.31	-6412667.09	-6412666.87	0.0088	0.0017
Venus	-22270-09-10 22:48 J	-6412441.76	-6412441.55	-6412441.33	0.0088	0.0017
Earth	-22270-10-28 08:52 J	-6412394.33	-6412394.13	-6412393.90	0.0088	0.0050
Moon	-22270-10-28 11:16 J	-6412394.23	-6412394.03	-6412393.79	0.0088	0.0049 *
Venus	-22269-04-23 11:45 J	-6412216.22	-6412216.01	-6412215.79	0.0088	0.0017
Moon	-22269-10-29 19:40 J	-6412026.93	-6412026.68	-6412026.42	0.0088	0.0008
Earth	-22269-10-29 21:50 J	-6412026.86	-6412026.59	-6412026.33	0.0088	0.0007 *
Venus	-22269-12-05 00:43 J	-6411990.68	-6411990.47	-6411990.25	0.0088	0.0017
Venus	-22268-07-18 13:40 J	-6411765.14	-6411764.93	-6411764.70	0.0088	0.0017

Earth	-22268-11-01 09:50 J	-6411659.31	-6411659.09	-6411658.83	0.0088	0.0036
Moon	-22268-11-01 11:02 J	-6411659.28	-6411659.04	-6411658.79	0.0088	0.0036 *
Venus	-22267-03-01 02:38 J	-6411539.60	-6411539.39	-6411539.16	0.0088	0.0017
Venus	-22267-10-12 15:50 J	-6411314.05	-6411313.84	-6411313.62	0.0088	0.0017
Earth	-22267-11-03 22:48 J	-6411291.66	-6411291.55	-6411291.42	0.0088	0.0078
Moon	-22267-11-03 23:31 J	-6411291.62	-6411291.52	-6411291.39	0.0088	0.0077 *
Venus	-22266-05-26 04:48 J	-6411088.51	-6411088.30	-6411088.07	0.0088	0.0017
Venus	-22265-01-06 18:00 J	-6410862.96	-6410862.75	-6410862.53	0.0088	0.0016
Venus	-22265-08-19 07:11 J	-6410637.41	-6410637.20	-6410636.97	0.0088	0.0016
Venus	-22264-04-01 20:23 J	-6410411.86	-6410411.65	-6410411.43	0.0088	0.0016
Venus	-22264-11-13 09:36 J	-6410186.32	-6410186.10	-6410185.88	0.0088	0.0016
Venus	-22263-06-26 22:33 J	-6409960.77	-6409960.56	-6409960.33	0.0088	0.0016
Venus	-22262-02-07 11:45 J	-6409735.22	-6409735.01	-6409734.78	0.0088	0.0016
Venus	-22262-09-21 01:11 J	-6409509.67	-6409509.45	-6409509.23	0.0088	0.0015
Venus	-22261-05-03 14:09 J	-6409284.12	-6409283.91	-6409283.68	0.0088	0.0015
Venus	-22261-12-15 03:21 J	-6409058.57	-6409058.36	-6409058.13	0.0088	0.0015
Venus	-22260-07-28 16:33 J	-6408833.02	-6408832.81	-6408832.58	0.0088	0.0015
Venus	-22259-03-11 06:00 J	-6408607.47	-6408607.25	-6408607.03	0.0088	0.0014
Venus	-22259-10-22 19:11 J	-6408381.92	-6408381.70	-6408381.48	0.0088	0.0014
Venus	-22258-06-05 08:09 J	-6408156.37	-6408156.16	-6408155.93	0.0088	0.0014
Venus	-22257-01-16 21:21 J	-6407930.82	-6407930.61	-6407930.38	0.0088	0.0014
Venus	-22257-08-29 11:02 J	-6407705.26	-6407705.04	-6407704.82	0.0088	0.0013
Venus	-22256-04-12 00:14 J	-6407479.71	-6407479.49	-6407479.27	0.0088	0.0013
Venus	-22256-11-23 13:26 J	-6407254.16	-6407253.94	-6407253.71	0.0088	0.0013
Venus	-22255-07-07 02:52 J	-6407028.60	-6407028.38	-6407028.16	0.0088	0.0012
Venus	-22254-02-17 16:04 J	-6406803.05	-6406802.83	-6406802.60	0.0088	0.0012
Venus	-22254-10-01 05:31 J	-6406577.48	-6406577.27	-6406577.04	0.0088	0.0012
Venus	-22253-05-13 18:57 J	-6406351.92	-6406351.71	-6406351.48	0.0088	0.0012
Venus	-22253-12-25 08:38 J	-6406126.37	-6406126.14	-6406125.92	0.0088	0.0011
Mars	-22252-07-24 06:43 J	-6405915.49	-6405915.22	-6405914.93	0.0088	0.0030

Venus	-22252-08-07 21:50 J	-6405900.81	-6405900.59	-6405900.36	0.0088	0.0011
Venus	-22251-03-21 11:16 J	-6405675.24	-6405675.03	-6405674.80	0.0088	0.0011
Mercury	-22251-04-25 21:21 J	-6405639.61	-6405639.61	-6405639.58	0.0088	0.0088
Mercury	-22251-07-23 00:57 J	-6405551.53	-6405551.46	-6405551.36	0.0088	0.0078
Mercury	-22251-10-19 04:33 J	-6405463.42	-6405463.31	-6405463.17	0.0088	0.0068
Venus	-22251-11-02 00:57 J	-6405449.68	-6405449.46	-6405449.24	0.0088	0.0010
Mercury	-22250-01-15 08:09 J	-6405375.29	-6405375.16	-6405375.00	0.0088	0.0058
Mercury	-22250-04-13 11:45 J	-6405287.16	-6405287.01	-6405286.84	0.0088	0.0048
Venus	-22250-06-15 14:23 J	-6405224.12	-6405223.90	-6405223.68	0.0088	0.0010
Mars	-22250-06-18 01:40 J	-6405221.70	-6405221.43	-6405221.15	0.0088	0.0030
Mercury	-22250-07-10 15:07 J	-6405199.03	-6405198.87	-6405198.68	0.0088	0.0039
Mercury	-22250-10-06 18:43 J	-6405110.89	-6405110.72	-6405110.53	0.0088	0.0029
Mercury	-22249-01-02 22:19 J	-6405022.75	-6405022.57	-6405022.37	0.0088	0.0019
Venus	-22249-01-27 03:36 J	-6404998.56	-6404998.35	-6404998.12	0.0088	0.0010
Mercury	-22249-03-31 01:55 J	-6404934.61	-6404934.42	-6404934.23	0.0088	0.0009
Mercury	-22249-06-27 05:31 J	-6404846.47	-6404846.27	-6404846.08	0.0088	0.0001
Venus	-22249-09-08 17:16 J	-6404773.00	-6404772.78	-6404772.55	0.0088	0.0009
Mercury	-22249-09-23 08:52 J	-6404758.32	-6404758.13	-6404757.94	0.0088	0.0010
Mercury	-22249-12-20 12:14 J	-6404670.17	-6404669.99	-6404669.80	0.0088	0.0020
Mercury	-22248-03-18 15:36 J	-6404582.02	-6404581.85	-6404581.66	0.0088	0.0030
Venus	-22248-04-22 06:43 J	-6404547.44	-6404547.22	-6404546.99	0.0088	0.0009
Mercury	-22248-06-14 19:11 J	-6404493.87	-6404493.70	-6404493.52	0.0088	0.0039
Mercury	-22248-09-10 22:19 J	-6404405.71	-6404405.57	-6404405.39	0.0088	0.0049
Venus	-22248-12-03 20:23 J	-6404321.88	-6404321.65	-6404321.43	0.0088	0.0008
Mercury	-22248-12-08 02:09 J	-6404317.55	-6404317.41	-6404317.27	0.0088	0.0058
Mercury	-22247-03-06 05:16 J	-6404229.39	-6404229.28	-6404229.15	0.0088	0.0068
Mercury	-22247-06-02 08:52 J	-6404141.21	-6404141.13	-6404141.04	0.0088	0.0077
Venus	-22247-07-17 09:36 J	-6404096.32	-6404096.10	-6404095.87	0.0088	0.0008
Mercury	-22247-08-29 12:00 J	-6404053.01	-6404053.00	-6404052.96	0.0088	0.0087
Venus	-22246-02-27 23:02 J	-6403870.76	-6403870.54	-6403870.31	0.0088	0.0008

Venus	-22246-10-11 12:43 J	-6403645.19	-6403644.97	-6403644.74	0.0088	0.0007
Venus	-22245-05-24 02:09 J	-6403419.63	-6403419.41	-6403419.18	0.0088	0.0007
Venus	-22244-01-04 15:50 J	-6403194.07	-6403193.84	-6403193.62	0.0088	0.0006
Venus	-22244-08-18 05:16 J	-6402968.50	-6402968.28	-6402968.06	0.0088	0.0006
Venus	-22243-03-31 18:43 J	-6402742.94	-6402742.72	-6402742.49	0.0088	0.0006
Venus	-22243-11-12 08:23 J	-6402517.37	-6402517.15	-6402516.92	0.0088	0.0005
Venus	-22242-06-25 22:04 J	-6402291.81	-6402291.58	-6402291.36	0.0088	0.0005
Venus	-22241-02-06 11:31 J	-6402066.24	-6402066.02	-6402065.79	0.0088	0.0005
Venus	-22241-09-19 01:11 J	-6401840.67	-6401840.45	-6401840.22	0.0088	0.0004
Venus	-22240-05-02 14:52 J	-6401615.10	-6401614.88	-6401614.65	0.0088	0.0004
Venus	-22240-12-14 04:33 J	-6401389.53	-6401389.31	-6401389.08	0.0088	0.0003
Venus	-22239-07-27 18:14 J	-6401163.97	-6401163.74	-6401163.52	0.0088	0.0003
Venus	-22238-03-10 07:55 J	-6400938.40	-6400938.17	-6400937.95	0.0088	0.0002
Venus	-22238-10-21 21:36 J	-6400712.82	-6400712.60	-6400712.37	0.0088	0.0003
Venus	-22237-06-03 11:16 J	-6400487.25	-6400487.03	-6400486.80	0.0088	0.0002
Venus	-22236-01-15 00:57 J	-6400261.68	-6400261.46	-6400261.23	0.0088	0.0001
Venus	-22236-08-28 14:38 J	-6400036.12	-6400035.89	-6400035.67	0.0088	0.0001
Venus	-22235-04-11 04:19 J	-6399810.55	-6399810.32	-6399810.10	0.0088	0.0000
Venus	-22235-11-22 18:00 J	-6399584.97	-6399584.75	-6399584.52	0.0088	0.0001
Venus	-22234-07-06 07:40 J	-6399359.41	-6399359.18	-6399358.96	0.0088	0.0001
Venus	-22233-02-16 21:07 J	-6399133.84	-6399133.62	-6399133.39	0.0088	0.0003
Venus	-22233-09-29 11:02 J	-6398908.27	-6398908.04	-6398907.82	0.0088	0.0002
Venus	-22232-05-13 00:43 J	-6398682.70	-6398682.47	-6398682.25	0.0088	0.0002
Venus	-22232-12-24 14:23 J	-6398457.13	-6398456.90	-6398456.68	0.0088	0.0003
Venus	-22231-08-07 03:50 J	-6398231.56	-6398231.34	-6398231.11	0.0088	0.0004
Venus	-22230-03-20 17:31 J	-6398005.99	-6398005.77	-6398005.54	0.0088	0.0004
Venus	-22230-11-01 07:26 J	-6397780.41	-6397780.19	-6397779.96	0.0088	0.0004
Venus	-22229-06-13 21:07 J	-6397554.84	-6397554.62	-6397554.39	0.0088	0.0005
Venus	-22228-01-25 10:48 J	-6397329.27	-6397329.05	-6397328.82	0.0088	0.0005
Venus	-22228-09-08 00:28 J	-6397103.70	-6397103.48	-6397103.25	0.0088	0.0006

Venus	-22227-04-21 14:23 J	-6396878.12	-6396877.90	-6396877.68	0.0088	0.0006
Venus	-22227-12-03 04:04 J	-6396652.55	-6396652.33	-6396652.10	0.0088	0.0007
Venus	-22226-07-16 18:00 J	-6396426.97	-6396426.75	-6396426.53	0.0088	0.0006
Venus	-22225-02-27 07:40 J	-6396201.40	-6396201.18	-6396200.95	0.0088	0.0007
Venus	-22225-10-09 21:21 J	-6395975.83	-6395975.61	-6395975.38	0.0088	0.0008
Venus	-22224-05-23 11:16 J	-6395750.25	-6395750.03	-6395749.81	0.0088	0.0008
Venus	-22223-01-04 00:57 J	-6395524.68	-6395524.46	-6395524.23	0.0088	0.0008
Venus	-22223-08-17 14:38 J	-6395299.11	-6395298.89	-6395298.67	0.0089	0.0009
Venus	-22222-03-31 04:19 J	-6395073.54	-6395073.32	-6395073.10	0.0089	0.0009
Venus	-22222-11-11 18:00 J	-6394847.97	-6394847.75	-6394847.52	0.0089	0.0010
Venus	-22221-06-24 07:55 J	-6394622.40	-6394622.17	-6394621.95	0.0089	0.0010
Venus	-22220-02-04 21:21 J	-6394396.83	-6394396.61	-6394396.38	0.0089	0.0010
Venus	-22220-09-18 11:02 J	-6394171.26	-6394171.04	-6394170.82	0.0089	0.0011
Venus	-22219-05-02 00:43 J	-6393945.69	-6393945.47	-6393945.25	0.0089	0.0011
Venus	-22219-12-13 14:23 J	-6393720.12	-6393719.90	-6393719.67	0.0089	0.0012
Venus	-22218-07-27 04:04 J	-6393494.55	-6393494.33	-6393494.11	0.0089	0.0012
Venus	-22217-03-08 17:31 J	-6393268.98	-6393268.77	-6393268.54	0.0089	0.0013
Venus	-22217-10-20 07:11 J	-6393043.41	-6393043.20	-6393042.97	0.0089	0.0013
Venus	-22216-06-02 21:07 J	-6392817.84	-6392817.62	-6392817.40	0.0089	0.0013
Venus	-22215-01-14 10:33 J	-6392592.27	-6392592.06	-6392591.83	0.0089	0.0014
Venus	-22215-08-28 00:14 J	-6392366.70	-6392366.49	-6392366.26	0.0089	0.0014
Venus	-22214-04-10 14:09 J	-6392141.13	-6392140.91	-6392140.69	0.0089	0.0014
Venus	-22214-11-22 03:36 J	-6391915.56	-6391915.35	-6391915.12	0.0089	0.0015
Venus	-22213-07-04 17:31 J	-6391689.99	-6391689.77	-6391689.55	0.0089	0.0015
Venus	-22212-02-15 07:11 J	-6391464.42	-6391464.20	-6391463.98	0.0089	0.0015
Venus	-22212-09-28 20:38 J	-6391238.85	-6391238.64	-6391238.41	0.0089	0.0015
Venus	-22211-05-12 10:04 J	-6391013.29	-6391013.08	-6391012.85	0.0089	0.0016
Venus	-22211-12-24 00:00 J	-6390787.72	-6390787.50	-6390787.28	0.0089	0.0016
Venus	-22210-08-06 13:40 J	-6390562.15	-6390561.93	-6390561.71	0.0089	0.0016
Venus	-22209-03-19 02:52 J	-6390336.59	-6390336.38	-6390336.15	0.0089	0.0017

Venus	-22209-10-30 16:19 J	-6390111.03	-6390110.82	-6390110.59	0.0089	0.0017
Venus	-22208-06-13 06:00 J	-6389885.46	-6389885.25	-6389885.03	0.0089	0.0017
Venus	-22207-01-24 19:40 J	-6389659.90	-6389659.68	-6389659.46	0.0089	0.0017
Venus	-22207-09-07 09:07 J	-6389434.34	-6389434.12	-6389433.90	0.0089	0.0017
Venus	-22206-04-20 22:19 J	-6389208.78	-6389208.57	-6389208.34	0.0089	0.0018
Venus	-22206-12-02 12:00 J	-6388983.21	-6388983.00	-6388982.78	0.0089	0.0018
Venus	-22205-07-15 01:26 J	-6388757.65	-6388757.44	-6388757.22	0.0089	0.0018
Venus	-22204-02-25 15:07 J	-6388532.09	-6388531.87	-6388531.66	0.0089	0.0018
Venus	-22204-10-09 04:19 J	-6388306.53	-6388306.32	-6388306.10	0.0089	0.0019
Venus	-22203-05-22 17:45 J	-6388080.97	-6388080.76	-6388080.54	0.0089	0.0019
Venus	-22202-01-03 07:11 J	-6387855.40	-6387855.20	-6387854.97	0.0089	0.0019
Venus	-22202-08-16 20:52 J	-6387629.84	-6387629.63	-6387629.41	0.0089	0.0019
Venus	-22201-03-29 10:19 J	-6387404.29	-6387404.07	-6387403.85	0.0089	0.0019
Venus	-22201-11-09 23:45 J	-6387178.73	-6387178.51	-6387178.30	0.0089	0.0019
Venus	-22200-06-23 13:11 J	-6386953.17	-6386952.95	-6386952.74	0.0089	0.0019
Venus	-22199-02-04 02:38 J	-6386727.60	-6386727.39	-6386727.17	0.0089	0.0020
Venus	-22199-09-17 15:50 J	-6386502.05	-6386501.84	-6386501.62	0.0089	0.0020
Venus	-22198-05-01 05:02 J	-6386276.49	-6386276.29	-6386276.06	0.0089	0.0020
Venus	-22198-12-12 18:28 J	-6386050.94	-6386050.73	-6386050.51	0.0089	0.0020
Venus	-22197-07-25 07:40 J	-6385825.38	-6385825.18	-6385824.95	0.0089	0.0020
Venus	-22196-03-07 21:07 J	-6385599.83	-6385599.62	-6385599.40	0.0089	0.0020
Venus	-22196-10-19 10:19 J	-6385374.28	-6385374.07	-6385373.85	0.0089	0.0020
Venus	-22195-06-01 23:31 J	-6385148.73	-6385148.52	-6385148.30	0.0089	0.0020
Venus	-22194-01-13 12:43 J	-6384923.17	-6384922.97	-6384922.75	0.0089	0.0021
Venus	-22194-08-27 01:55 J	-6384697.62	-6384697.42	-6384697.20	0.0089	0.0021
Venus	-22193-04-08 15:07 J	-6384472.07	-6384471.87	-6384471.65	0.0089	0.0021
Venus	-22193-11-20 04:19 J	-6384246.53	-6384246.32	-6384246.10	0.0089	0.0020
Venus	-22192-07-03 17:31 J	-6384020.98	-6384020.77	-6384020.55	0.0089	0.0020
Venus	-22191-02-14 06:43 J	-6383795.42	-6383795.22	-6383795.00	0.0089	0.0021
Venus	-22191-09-27 19:55 J	-6383569.88	-6383569.67	-6383569.45	0.0089	0.0020

Venus	-22190-05-11 09:07 J	-6383344.33	-6383344.12	-6383343.90	0.0089	0.0020
Venus	-22190-12-22 22:04 J	-6383118.78	-6383118.58	-6383118.35	0.0089	0.0021
Venus	-22189-08-04 11:16 J	-6382893.23	-6382893.03	-6382892.81	0.0089	0.0021
Venus	-22188-03-18 00:28 J	-6382667.68	-6382667.48	-6382667.25	0.0089	0.0021
Venus	-22188-10-29 13:40 J	-6382442.14	-6382441.93	-6382441.71	0.0089	0.0020
Moon	-22187-04-29 14:09 J	-6382260.09	-6382259.91	-6382259.69	0.0089	0.0050
Earth	-22187-04-29 16:33 J	-6382260.00	-6382259.81	-6382259.60	0.0089	0.0054 *
Venus	-22187-06-12 02:38 J	-6382216.59	-6382216.39	-6382216.16	0.0089	0.0020
Venus	-22186-01-23 16:04 J	-6381991.04	-6381990.83	-6381990.62	0.0089	0.0020
Earth	-22186-05-02 03:07 J	-6381892.61	-6381892.37	-6381892.11	0.0089	0.0011
Moon	-22186-05-02 03:36 J	-6381892.60	-6381892.35	-6381892.08	0.0089	0.0014 *
Venus	-22186-09-06 05:02 J	-6381765.50	-6381765.29	-6381765.07	0.0089	0.0020
Venus	-22185-04-18 18:00 J	-6381539.96	-6381539.75	-6381539.53	0.0089	0.0020
Earth	-22185-05-03 13:26 J	-6381525.16	-6381524.94	-6381524.69	0.0089	0.0033
Moon	-22185-05-03 13:55 J	-6381525.13	-6381524.92	-6381524.68	0.0089	0.0037 *
Venus	-22185-11-30 06:57 J	-6381314.42	-6381314.21	-6381313.99	0.0089	0.0019
Moon	-22184-05-05 22:04 J	-6381157.71	-6381157.58	-6381157.40	0.0089	0.0073
Earth	-22184-05-05 23:45 J	-6381157.61	-6381157.51	-6381157.35	0.0089	0.0077 *
Venus	-22184-07-13 19:55 J	-6381088.88	-6381088.67	-6381088.45	0.0089	0.0019
Venus	-22183-02-24 08:52 J	-6380863.34	-6380863.13	-6380862.91	0.0089	0.0019
Venus	-22183-10-07 21:36 J	-6380637.80	-6380637.60	-6380637.37	0.0089	0.0020
Venus	-22182-05-21 10:48 J	-6380412.26	-6380412.05	-6380411.84	0.0089	0.0019
Venus	-22181-01-01 23:31 J	-6380186.73	-6380186.52	-6380186.30	0.0089	0.0019
Venus	-22181-08-14 12:14 J	-6379961.19	-6379960.99	-6379960.77	0.0089	0.0019
Venus	-22180-03-28 01:11 J	-6379735.65	-6379735.45	-6379735.23	0.0089	0.0019
Venus	-22180-11-08 14:23 J	-6379510.12	-6379509.90	-6379509.69	0.0089	0.0018
Venus	-22179-06-22 02:52 J	-6379284.58	-6379284.38	-6379284.16	0.0089	0.0018
Venus	-22178-02-02 15:50 J	-6379059.05	-6379058.84	-6379058.62	0.0089	0.0017
Venus	-22178-09-16 04:33 J	-6378833.51	-6378833.31	-6378833.09	0.0089	0.0017
Venus	-22177-04-28 17:31 J	-6378607.98	-6378607.77	-6378607.55	0.0089	0.0017

Venus	-22177-12-10 06:14 J	-6378382.45	-6378382.24	-6378382.02	0.0089	0.0017
Venus	-22176-07-23 18:57 J	-6378156.91	-6378156.71	-6378156.49	0.0089	0.0017
Venus	-22175-03-06 07:55 J	-6377931.38	-6377931.17	-6377930.95	0.0089	0.0016
Venus	-22175-10-17 20:52 J	-6377705.85	-6377705.63	-6377705.42	0.0089	0.0016
Venus	-22174-05-31 09:21 J	-6377480.32	-6377480.11	-6377479.89	0.0089	0.0016
Venus	-22173-01-11 22:04 J	-6377254.79	-6377254.58	-6377254.36	0.0089	0.0015
Venus	-22173-08-24 10:48 J	-6377029.26	-6377029.05	-6377028.83	0.0089	0.0015
Venus	-22172-04-06 23:31 J	-6376803.72	-6376803.52	-6376803.30	0.0089	0.0015
Venus	-22172-11-18 12:14 J	-6376578.20	-6376577.99	-6376577.77	0.0089	0.0014
Venus	-22171-07-02 00:57 J	-6376352.67	-6376352.46	-6376352.25	0.0089	0.0014
Venus	-22170-02-12 13:26 J	-6376127.15	-6376126.94	-6376126.72	0.0089	0.0013
Mars	-22170-06-02 00:28 J	-6376017.75	-6376017.48	-6376017.17	0.0089	0.0044
Mercury	-22170-08-03 18:28 J	-6375954.77	-6375954.73	-6375954.68	0.0089	0.0084
Venus	-22170-09-26 02:09 J	-6375901.62	-6375901.41	-6375901.20	0.0089	0.0013
Mercury	-22170-10-30 19:40 J	-6375866.73	-6375866.68	-6375866.60	0.0089	0.0077
Mercury	-22169-01-26 20:52 J	-6375778.69	-6375778.63	-6375778.53	0.0089	0.0071
Mercury	-22169-04-23 22:19 J	-6375690.65	-6375690.57	-6375690.47	0.0089	0.0063
Venus	-22169-05-08 14:38 J	-6375676.10	-6375675.89	-6375675.67	0.0089	0.0013
Mercury	-22169-07-20 23:45 J	-6375602.61	-6375602.51	-6375602.40	0.0089	0.0056
Mercury	-22169-10-17 00:57 J	-6375514.56	-6375514.46	-6375514.34	0.0089	0.0050
Venus	-22169-12-20 03:07 J	-6375450.58	-6375450.37	-6375450.15	0.0089	0.0012
Mercury	-22168-01-13 02:23 J	-6375426.51	-6375426.40	-6375426.28	0.0089	0.0043
Mercury	-22168-04-11 03:50 J	-6375338.46	-6375338.34	-6375338.22	0.0089	0.0035
Mars	-22168-04-28 03:36 J	-6375321.65	-6375321.35	-6375321.02	0.0089	0.0030
Mercury	-22168-07-08 05:16 J	-6375250.41	-6375250.28	-6375250.16	0.0089	0.0028
Venus	-22168-08-02 15:50 J	-6375225.05	-6375224.84	-6375224.63	0.0089	0.0012
Mercury	-22168-10-04 06:28 J	-6375162.35	-6375162.23	-6375162.10	0.0089	0.0022
Mercury	-22168-12-31 07:55 J	-6375074.30	-6375074.17	-6375074.04	0.0089	0.0014
Venus	-22167-03-16 04:19 J	-6374999.53	-6374999.32	-6374999.10	0.0089	0.0012
Mercury	-22167-03-29 09:21 J	-6374986.24	-6374986.11	-6374985.98	0.0089	0.0007

Mercury	-22167-06-25 10:33 J	-6374898.19	-6374898.06	-6374897.92	0.0089	0.0003
Mercury	-22167-09-21 12:00 J	-6374810.13	-6374810.00	-6374809.87	0.0089	0.0007
Venus	-22167-10-27 16:48 J	-6374774.01	-6374773.80	-6374773.58	0.0089	0.0011
Mercury	-22167-12-18 13:26 J	-6374722.07	-6374721.94	-6374721.81	0.0089	0.0014
Mercury	-22166-03-16 14:38 J	-6374634.01	-6374633.89	-6374633.75	0.0089	0.0021
Venus	-22166-06-10 05:31 J	-6374548.49	-6374548.27	-6374548.06	0.0089	0.0010
Mercury	-22166-06-12 16:04 J	-6374545.95	-6374545.83	-6374545.70	0.0089	0.0028
Mercury	-22166-09-08 17:16 J	-6374457.89	-6374457.78	-6374457.65	0.0089	0.0035
Mercury	-22166-12-05 18:43 J	-6374369.83	-6374369.72	-6374369.60	0.0089	0.0042
Venus	-22165-01-21 18:00 J	-6374322.96	-6374322.75	-6374322.54	0.0089	0.0010
Mercury	-22165-03-02 20:09 J	-6374281.77	-6374281.66	-6374281.54	0.0089	0.0049
Mercury	-22165-05-29 21:21 J	-6374193.70	-6374193.61	-6374193.49	0.0089	0.0057
Mercury	-22165-08-25 22:48 J	-6374105.63	-6374105.55	-6374105.45	0.0089	0.0064
Venus	-22165-09-03 06:28 J	-6374097.44	-6374097.23	-6374097.01	0.0089	0.0010
Mercury	-22165-11-22 00:14 J	-6374017.56	-6374017.49	-6374017.40	0.0089	0.0071
Mercury	-22164-02-18 01:40 J	-6373929.49	-6373929.43	-6373929.36	0.0089	0.0078
Venus	-22164-04-16 19:11 J	-6373871.91	-6373871.70	-6373871.48	0.0089	0.0009
Mercury	-22164-05-17 03:07 J	-6373841.41	-6373841.37	-6373841.33	0.0089	0.0085
Venus	-22164-11-28 07:40 J	-6373646.39	-6373646.18	-6373645.96	0.0089	0.0009
Venus	-22163-07-11 20:09 J	-6373420.87	-6373420.66	-6373420.44	0.0089	0.0009
Venus	-22162-02-22 08:38 J	-6373195.35	-6373195.14	-6373194.92	0.0089	0.0008
Venus	-22162-10-05 21:21 J	-6372969.83	-6372969.61	-6372969.40	0.0089	0.0008
Venus	-22161-05-18 09:50 J	-6372744.30	-6372744.09	-6372743.87	0.0089	0.0007
Venus	-22161-12-29 22:19 J	-6372518.78	-6372518.57	-6372518.35	0.0089	0.0007
Venus	-22160-08-12 10:48 J	-6372293.26	-6372293.05	-6372292.83	0.0089	0.0006
Venus	-22159-03-25 23:16 J	-6372067.74	-6372067.53	-6372067.31	0.0089	0.0006
Venus	-22159-11-06 11:45 J	-6371842.23	-6371842.01	-6371841.80	0.0089	0.0005
Venus	-22158-06-20 00:00 J	-6371616.71	-6371616.50	-6371616.28	0.0089	0.0005
Venus	-22157-01-31 12:28 J	-6371391.20	-6371390.98	-6371390.76	0.0089	0.0004
Venus	-22157-09-13 00:43 J	-6371165.68	-6371165.47	-6371165.25	0.0089	0.0005

Venus	-22156-04-26 13:26 J	-6370940.16	-6370939.94	-6370939.73	0.0089	0.0003
Venus	-22156-12-08 01:40 J	-6370714.64	-6370714.43	-6370714.21	0.0089	0.0003
Venus	-22155-07-21 14:09 J	-6370489.13	-6370488.91	-6370488.70	0.0089	0.0002
Venus	-22154-03-04 02:23 J	-6370263.61	-6370263.40	-6370263.18	0.0089	0.0002
Venus	-22154-10-15 14:52 J	-6370038.10	-6370037.88	-6370037.67	0.0089	0.0002
Venus	-22153-05-28 03:21 J	-6369812.58	-6369812.36	-6369812.15	0.0089	0.0001
Venus	-22152-01-08 15:36 J	-6369587.06	-6369586.85	-6369586.63	0.0089	0.0002
Venus	-22152-08-22 04:04 J	-6369361.55	-6369361.33	-6369361.11	0.0089	0.0000
Venus	-22151-04-04 16:33 J	-6369136.03	-6369135.81	-6369135.60	0.0089	0.0001
Venus	-22151-11-16 04:48 J	-6368910.51	-6368910.30	-6368910.08	0.0089	0.0002
Venus	-22150-06-29 17:16 J	-6368684.99	-6368684.78	-6368684.56	0.0089	0.0002
Venus	-22149-02-10 05:45 J	-6368459.48	-6368459.26	-6368459.05	0.0089	0.0002
Venus	-22149-09-22 18:00 J	-6368233.96	-6368233.75	-6368233.53	0.0089	0.0003
Venus	-22148-05-06 06:28 J	-6368008.44	-6368008.23	-6368008.01	0.0089	0.0004
Venus	-22148-12-17 18:57 J	-6367782.93	-6367782.71	-6367782.49	0.0089	0.0004
Venus	-22147-07-31 07:11 J	-6367557.41	-6367557.20	-6367556.98	0.0089	0.0004
Venus	-22146-03-13 19:26 J	-6367331.90	-6367331.69	-6367331.47	0.0089	0.0005
Venus	-22146-10-25 07:55 J	-6367106.39	-6367106.17	-6367105.96	0.0089	0.0005
Venus	-22145-06-06 20:23 J	-6366880.87	-6366880.65	-6366880.44	0.0089	0.0006
Venus	-22144-01-18 08:38 J	-6366655.35	-6366655.14	-6366654.92	0.0089	0.0006
Venus	-22144-08-31 20:52 J	-6366429.84	-6366429.63	-6366429.41	0.0089	0.0007
Venus	-22143-04-14 09:21 J	-6366204.33	-6366204.11	-6366203.90	0.0089	0.0007
Venus	-22143-11-25 21:21 J	-6365978.82	-6365978.61	-6365978.39	0.0089	0.0008
Venus	-22142-07-09 09:50 J	-6365753.30	-6365753.09	-6365752.87	0.0089	0.0008
Venus	-22141-02-19 22:04 J	-6365527.79	-6365527.58	-6365527.36	0.0089	0.0009
Venus	-22141-10-02 10:33 J	-6365302.28	-6365302.06	-6365301.85	0.0089	0.0009
Venus	-22140-05-15 22:48 J	-6365076.76	-6365076.55	-6365076.33	0.0089	0.0010
Venus	-22140-12-27 11:16 J	-6364851.24	-6364851.03	-6364850.81	0.0089	0.0010
Venus	-22139-08-09 23:31 J	-6364625.73	-6364625.52	-6364625.30	0.0089	0.0011
Venus	-22138-03-23 12:00 J	-6364400.21	-6364400.00	-6364399.78	0.0089	0.0011

Venus	-22138-11-04 00:14 J	-6364174.70	-6364174.49	-6364174.27	0.0089	0.0012
Venus	-22137-06-16 12:57 J	-6363949.17	-6363948.96	-6363948.74	0.0089	0.0012
Venus	-22136-01-28 01:26 J	-6363723.66	-6363723.44	-6363723.23	0.0089	0.0012
Venus	-22136-09-10 13:40 J	-6363498.14	-6363497.93	-6363497.71	0.0089	0.0013
Venus	-22135-04-24 02:09 J	-6363272.63	-6363272.41	-6363272.20	0.0089	0.0013
Venus	-22135-12-05 14:23 J	-6363047.11	-6363046.90	-6363046.68	0.0089	0.0013
Venus	-22134-07-19 02:52 J	-6362821.59	-6362821.38	-6362821.16	0.0089	0.0014
Venus	-22133-02-29 15:07 J	-6362596.08	-6362595.87	-6362595.65	0.0089	0.0015
Venus	-22133-10-12 03:36 J	-6362370.56	-6362370.35	-6362370.13	0.0089	0.0015
Venus	-22132-05-25 16:04 J	-6362145.04	-6362144.83	-6362144.61	0.0089	0.0015
Venus	-22131-01-06 04:19 J	-6361919.52	-6361919.32	-6361919.10	0.0089	0.0016
Venus	-22131-08-19 16:48 J	-6361694.01	-6361693.80	-6361693.58	0.0089	0.0016
Venus	-22130-04-02 05:02 J	-6361468.49	-6361468.29	-6361468.07	0.0089	0.0016
Venus	-22130-11-13 17:31 J	-6361242.98	-6361242.77	-6361242.55	0.0088	0.0017
Venus	-22129-06-26 06:14 J	-6361017.45	-6361017.24	-6361017.02	0.0088	0.0017
Venus	-22128-02-06 18:28 J	-6360791.93	-6360791.73	-6360791.51	0.0088	0.0017
Venus	-22128-09-20 06:57 J	-6360566.42	-6360566.21	-6360565.99	0.0088	0.0018
Venus	-22127-05-03 19:26 J	-6360340.90	-6360340.69	-6360340.47	0.0088	0.0018
Venus	-22127-12-15 07:55 J	-6360115.38	-6360115.17	-6360114.95	0.0088	0.0018
Venus	-22126-07-28 20:23 J	-6359889.85	-6359889.65	-6359889.42	0.0088	0.0019
Venus	-22125-03-10 09:07 J	-6359664.33	-6359664.12	-6359663.90	0.0088	0.0019
Venus	-22125-10-21 21:36 J	-6359438.81	-6359438.60	-6359438.38	0.0088	0.0019
Venus	-22124-06-04 10:19 J	-6359213.28	-6359213.07	-6359212.85	0.0088	0.0019
Venus	-22123-01-15 22:48 J	-6358987.76	-6358987.55	-6358987.33	0.0088	0.0020
Venus	-22123-08-29 11:31 J	-6358762.23	-6358762.02	-6358761.81	0.0088	0.0020
Venus	-22122-04-11 23:45 J	-6358536.71	-6358536.51	-6358536.28	0.0088	0.0021
Venus	-22122-11-23 12:28 J	-6358311.18	-6358310.98	-6358310.76	0.0088	0.0020
Venus	-22121-07-06 01:26 J	-6358085.65	-6358085.44	-6358085.23	0.0088	0.0020
Venus	-22120-02-16 13:55 J	-6357860.13	-6357859.92	-6357859.70	0.0088	0.0021
Venus	-22120-09-30 02:23 J	-6357634.61	-6357634.40	-6357634.18	0.0088	0.0021

Venus	-22119-05-13 14:52 J	-6357409.08	-6357408.88	-6357408.66	0.0088	0.0021
Venus	-22119-12-25 03:36 J	-6357183.56	-6357183.35	-6357183.13	0.0088	0.0021
Venus	-22118-08-07 16:19 J	-6356958.03	-6356957.82	-6356957.60	0.0088	0.0022
Venus	-22117-03-20 05:02 J	-6356732.50	-6356732.29	-6356732.07	0.0088	0.0022
Venus	-22117-10-31 17:31 J	-6356506.97	-6356506.77	-6356506.55	0.0088	0.0022
Venus	-22116-06-14 06:14 J	-6356281.44	-6356281.24	-6356281.02	0.0088	0.0022
Venus	-22115-01-25 18:57 J	-6356055.92	-6356055.71	-6356055.49	0.0088	0.0022
Venus	-22115-09-08 07:40 J	-6355830.39	-6355830.18	-6355829.96	0.0088	0.0022
Venus	-22114-04-21 20:23 J	-6355604.86	-6355604.65	-6355604.43	0.0088	0.0022
Venus	-22114-12-03 09:07 J	-6355379.32	-6355379.12	-6355378.90	0.0088	0.0023
Venus	-22113-07-15 22:19 J	-6355153.78	-6355153.57	-6355153.36	0.0088	0.0022
Venus	-22112-02-26 11:02 J	-6354928.25	-6354928.04	-6354927.82	0.0088	0.0022
Venus	-22112-10-09 23:31 J	-6354702.72	-6354702.52	-6354702.29	0.0088	0.0023
Venus	-22111-05-23 12:28 J	-6354477.18	-6354476.98	-6354476.76	0.0088	0.0023
Venus	-22110-01-04 01:11 J	-6354251.65	-6354251.45	-6354251.22	0.0088	0.0023
Venus	-22110-08-17 14:09 J	-6354026.11	-6354025.91	-6354025.68	0.0088	0.0023
Venus	-22109-03-30 03:07 J	-6353800.57	-6353800.37	-6353800.14	0.0088	0.0023
Venus	-22109-11-10 16:04 J	-6353575.04	-6353574.83	-6353574.61	0.0088	0.0023
Venus	-22108-06-24 04:48 J	-6353349.50	-6353349.30	-6353349.07	0.0088	0.0023
Venus	-22107-02-04 17:45 J	-6353123.96	-6353123.76	-6353123.54	0.0088	0.0023
Venus	-22107-09-18 06:43 J	-6352898.43	-6352898.22	-6352898.00	0.0088	0.0023
Venus	-22106-05-01 19:26 J	-6352672.89	-6352672.69	-6352672.46	0.0088	0.0023
Moon	-22106-10-27 14:23 J	-6352494.01	-6352493.90	-6352493.77	0.0088	0.0077
Earth	-22106-10-27 15:21 J	-6352493.99	-6352493.86	-6352493.70	0.0088	0.0073 *
Venus	-22106-12-13 08:38 J	-6352447.35	-6352447.14	-6352446.92	0.0088	0.0022
Venus	-22105-07-25 21:21 J	-6352221.81	-6352221.61	-6352221.38	0.0088	0.0023
Moon	-22105-10-29 04:04 J	-6352126.58	-6352126.33	-6352126.06	0.0088	0.0027
Earth	-22105-10-29 03:50 J	-6352126.57	-6352126.34	-6352126.08	0.0088	0.0031 *
Venus	-22104-03-08 10:33 J	-6351996.27	-6351996.06	-6351995.84	0.0088	0.0022
Venus	-22104-10-19 23:31 J	-6351770.73	-6351770.52	-6351770.30	0.0088	0.0022

Earth	-22104-10-31 16:48 J	-6351759.06	-6351758.80	-6351758.54	0.0088	0.0012
Moon	-22104-10-31 17:31 J	-6351759.02	-6351758.77	-6351758.51	0.0088	0.0008 *
Venus	-22103-06-02 12:14 J	-6351545.19	-6351544.99	-6351544.77	0.0088	0.0022
Moon	-22103-11-03 02:23 J	-6351391.58	-6351391.40	-6351391.18	0.0088	0.0059
Earth	-22103-11-03 05:02 J	-6351391.47	-6351391.29	-6351391.07	0.0088	0.0055 *
Venus	-22102-01-14 01:11 J	-6351319.65	-6351319.45	-6351319.22	0.0088	0.0022
Venus	-22102-08-27 14:23 J	-6351094.10	-6351093.90	-6351093.67	0.0088	0.0022
Venus	-22101-04-09 03:36 J	-6350868.56	-6350868.35	-6350868.13	0.0088	0.0022
Venus	-22101-11-20 16:33 J	-6350643.02	-6350642.81	-6350642.58	0.0088	0.0022
Venus	-22100-07-04 05:45 J	-6350417.47	-6350417.26	-6350417.04	0.0088	0.0021
Venus	-22099-02-14 18:57 J	-6350191.92	-6350191.71	-6350191.49	0.0088	0.0021
Venus	-22099-09-28 08:09 J	-6349966.37	-6349966.16	-6349965.94	0.0088	0.0021
Venus	-22098-05-11 21:07 J	-6349740.83	-6349740.62	-6349740.39	0.0088	0.0021
Venus	-22098-12-23 10:19 J	-6349515.28	-6349515.07	-6349514.85	0.0088	0.0021
Venus	-22097-08-04 23:45 J	-6349289.73	-6349289.51	-6349289.29	0.0088	0.0020
Venus	-22096-03-18 12:57 J	-6349064.18	-6349063.96	-6349063.74	0.0088	0.0020
Venus	-22096-10-30 01:55 J	-6348838.63	-6348838.42	-6348838.19	0.0088	0.0020
Venus	-22095-06-12 15:07 J	-6348613.08	-6348612.87	-6348612.65	0.0088	0.0020
Venus	-22094-01-24 04:04 J	-6348387.53	-6348387.33	-6348387.10	0.0088	0.0020
Venus	-22094-09-06 17:45 J	-6348161.97	-6348161.76	-6348161.54	0.0088	0.0019
Venus	-22093-04-19 06:57 J	-6347936.42	-6347936.21	-6347935.99	0.0088	0.0019
Venus	-22093-11-30 19:55 J	-6347710.87	-6347710.67	-6347710.44	0.0088	0.0019
Venus	-22092-07-14 09:21 J	-6347485.32	-6347485.11	-6347484.89	0.0088	0.0018
Venus	-22091-02-24 22:33 J	-6347259.77	-6347259.56	-6347259.33	0.0088	0.0018
Venus	-22091-10-08 11:45 J	-6347034.22	-6347034.01	-6347033.78	0.0088	0.0018
Venus	-22090-05-22 01:26 J	-6346808.66	-6346808.44	-6346808.22	0.0088	0.0017
Venus	-22089-01-02 14:38 J	-6346583.11	-6346582.89	-6346582.67	0.0088	0.0017
Venus	-22089-08-15 03:50 J	-6346357.55	-6346357.34	-6346357.11	0.0088	0.0017
Mars	-22088-03-08 14:23 J	-6346152.09	-6346151.90	-6346151.67	0.0088	0.0061
Venus	-22088-03-28 17:31 J	-6346131.99	-6346131.77	-6346131.55	0.0088	0.0016

Venus	-22088-11-09 06:43 J	-6345906.43	-6345906.22	-6345905.99	0.0088	0.0016
Venus	-22087-06-22 20:23 J	-6345680.87	-6345680.65	-6345680.43	0.0088	0.0015
Mercury	-22086-01-20 19:11 J	-6345468.73	-6345468.70	-6345468.64	0.0088	0.0085
Mars	-22086-01-31 09:21 J	-6345458.40	-6345458.11	-6345457.81	0.0088	0.0002
Venus	-22086-02-03 09:36 J	-6345455.31	-6345455.10	-6345454.87	0.0088	0.0015
Mercury	-22086-04-18 22:48 J	-6345380.64	-6345380.55	-6345380.44	0.0088	0.0075
Mercury	-22086-07-16 02:38 J	-6345292.52	-6345292.39	-6345292.26	0.0088	0.0065
Venus	-22086-09-16 23:16 J	-6345229.75	-6345229.53	-6345229.30	0.0088	0.0015
Mercury	-22086-10-12 06:14 J	-6345204.39	-6345204.24	-6345204.09	0.0088	0.0055
Mercury	-22085-01-08 09:21 J	-6345116.26	-6345116.11	-6345115.93	0.0088	0.0046
Mercury	-22085-04-05 12:57 J	-6345028.12	-6345027.96	-6345027.77	0.0088	0.0036
Venus	-22085-04-29 12:43 J	-6345004.18	-6345003.97	-6345003.74	0.0088	0.0014
Mercury	-22085-07-02 16:33 J	-6344939.98	-6344939.81	-6344939.61	0.0088	0.0026
Mercury	-22085-09-28 20:23 J	-6344851.84	-6344851.65	-6344851.46	0.0088	0.0016
Venus	-22085-12-11 02:09 J	-6344778.62	-6344778.41	-6344778.18	0.0088	0.0014
Mars	-22085-12-25 04:33 J	-6344764.49	-6344764.31	-6344764.06	0.0088	0.0060
Mercury	-22085-12-25 23:45 J	-6344763.70	-6344763.51	-6344763.31	0.0088	0.0007
Mercury	-22084-03-24 03:21 J	-6344675.55	-6344675.36	-6344675.17	0.0088	0.0003
Mercury	-22084-06-20 06:43 J	-6344587.41	-6344587.22	-6344587.02	0.0088	0.0013
Venus	-22084-07-24 15:50 J	-6344553.06	-6344552.84	-6344552.62	0.0088	0.0013
Mercury	-22084-09-16 10:04 J	-6344499.26	-6344499.08	-6344498.88	0.0088	0.0023
Mercury	-22084-12-13 13:40 J	-6344411.11	-6344410.93	-6344410.75	0.0088	0.0032
Venus	-22083-03-07 05:02 J	-6344327.50	-6344327.29	-6344327.06	0.0088	0.0013
Mercury	-22083-03-11 17:02 J	-6344322.95	-6344322.79	-6344322.61	0.0088	0.0042
Mercury	-22083-06-07 20:23 J	-6344234.79	-6344234.65	-6344234.48	0.0088	0.0052
Mercury	-22083-09-04 00:00 J	-6344146.63	-6344146.50	-6344146.36	0.0088	0.0061
Venus	-22083-10-18 18:57 J	-6344101.94	-6344101.71	-6344101.49	0.0088	0.0012
Mercury	-22083-12-01 03:07 J	-6344058.46	-6344058.37	-6344058.24	0.0088	0.0071
Mercury	-22082-02-27 06:57 J	-6343970.28	-6343970.21	-6343970.13	0.0088	0.0080
Venus	-22082-06-01 08:09 J	-6343876.37	-6343876.16	-6343875.93	0.0088	0.0012

Venus	-22081-01-12 21:50 J	-6343650.81	-6343650.59	-6343650.37	0.0088	0.0011
Venus	-22081-08-25 11:16 J	-6343425.25	-6343425.03	-6343424.80	0.0088	0.0011
Venus	-22080-04-08 00:43 J	-6343199.69	-6343199.47	-6343199.24	0.0088	0.0011
Venus	-22080-11-19 14:23 J	-6342974.12	-6342973.90	-6342973.68	0.0088	0.0010
Venus	-22079-07-03 03:50 J	-6342748.56	-6342748.34	-6342748.11	0.0088	0.0010
Venus	-22078-02-13 17:16 J	-6342523.00	-6342522.78	-6342522.55	0.0088	0.0009
Venus	-22078-09-27 06:57 J	-6342297.43	-6342297.21	-6342296.98	0.0088	0.0009
Venus	-22077-05-09 20:38 J	-6342071.86	-6342071.64	-6342071.41	0.0088	0.0008
Venus	-22077-12-21 10:19 J	-6341846.30	-6341846.07	-6341845.85	0.0088	0.0007
Venus	-22076-08-03 23:45 J	-6341620.73	-6341620.51	-6341620.28	0.0088	0.0007
Venus	-22075-03-17 13:26 J	-6341395.16	-6341394.94	-6341394.72	0.0088	0.0006
Venus	-22075-10-29 03:07 J	-6341169.59	-6341169.37	-6341169.14	0.0088	0.0006
Venus	-22074-06-11 16:48 J	-6340944.02	-6340943.80	-6340943.57	0.0088	0.0006
Venus	-22073-01-23 06:28 J	-6340718.45	-6340718.23	-6340718.00	0.0088	0.0005
Venus	-22073-09-04 20:09 J	-6340492.88	-6340492.66	-6340492.43	0.0088	0.0004
Venus	-22072-04-18 09:50 J	-6340267.31	-6340267.09	-6340266.86	0.0088	0.0004
Venus	-22072-11-29 23:31 J	-6340041.74	-6340041.52	-6340041.29	0.0088	0.0004
Venus	-22071-07-13 13:11 J	-6339816.17	-6339815.95	-6339815.72	0.0088	0.0003
Venus	-22070-02-24 02:52 J	-6339590.60	-6339590.38	-6339590.15	0.0088	0.0002
Venus	-22070-10-07 16:33 J	-6339365.03	-6339364.81	-6339364.58	0.0088	0.0002
Venus	-22069-05-20 06:14 J	-6339139.46	-6339139.24	-6339139.01	0.0088	0.0002
Venus	-22069-12-31 19:55 J	-6338913.89	-6338913.67	-6338913.44	0.0088	0.0001
Venus	-22068-08-14 09:36 J	-6338688.33	-6338688.10	-6338687.88	0.0088	0.0000
Venus	-22067-03-27 23:16 J	-6338462.76	-6338462.53	-6338462.31	0.0088	0.0001
Venus	-22067-11-08 12:57 J	-6338237.18	-6338236.96	-6338236.73	0.0088	0.0001
Venus	-22066-06-22 02:38 J	-6338011.61	-6338011.39	-6338011.16	0.0088	0.0002
Venus	-22065-02-02 16:19 J	-6337786.05	-6337785.82	-6337785.60	0.0088	0.0003
Venus	-22065-09-15 06:00 J	-6337560.48	-6337560.25	-6337560.03	0.0088	0.0003
Venus	-22064-04-28 19:26 J	-6337334.91	-6337334.69	-6337334.46	0.0088	0.0004
Venus	-22064-12-10 09:21 J	-6337109.33	-6337109.11	-6337108.89	0.0088	0.0004

Venus	-22063-07-23 23:02 J	-6336883.76	-6336883.54	-6336883.32	0.0088	0.0005
Venus	-22062-03-06 12:43 J	-6336658.19	-6336657.97	-6336657.75	0.0088	0.0005
Venus	-22062-10-18 02:23 J	-6336432.62	-6336432.40	-6336432.17	0.0088	0.0006
Venus	-22061-05-30 16:19 J	-6336207.05	-6336206.82	-6336206.60	0.0088	0.0006
Venus	-22060-01-11 06:00 J	-6335981.47	-6335981.25	-6335981.02	0.0088	0.0007
Venus	-22060-08-24 19:40 J	-6335755.90	-6335755.68	-6335755.45	0.0088	0.0008
Venus	-22059-04-07 09:21 J	-6335530.33	-6335530.11	-6335529.88	0.0088	0.0008
Venus	-22059-11-18 23:16 J	-6335304.75	-6335304.53	-6335304.31	0.0088	0.0009
Venus	-22058-07-02 12:57 J	-6335079.18	-6335078.96	-6335078.73	0.0089	0.0009
Venus	-22057-02-13 02:38 J	-6334853.61	-6334853.39	-6334853.17	0.0089	0.0010
Venus	-22057-09-25 16:04 J	-6334628.04	-6334627.83	-6334627.60	0.0089	0.0011
Venus	-22056-05-09 06:00 J	-6334402.47	-6334402.25	-6334402.03	0.0089	0.0011
Venus	-22056-12-20 19:40 J	-6334176.90	-6334176.68	-6334176.46	0.0089	0.0011
Venus	-22055-08-03 09:21 J	-6333951.33	-6333951.11	-6333950.89	0.0089	0.0012
Venus	-22054-03-16 22:48 J	-6333725.77	-6333725.55	-6333725.32	0.0089	0.0013
Venus	-22054-10-28 12:28 J	-6333500.20	-6333499.98	-6333499.75	0.0089	0.0013
Venus	-22053-06-10 02:09 J	-6333274.63	-6333274.41	-6333274.18	0.0089	0.0013
Venus	-22052-01-21 15:50 J	-6333049.06	-6333048.84	-6333048.61	0.0089	0.0014
Venus	-22052-09-04 05:16 J	-6332823.49	-6332823.28	-6332823.05	0.0089	0.0015
Venus	-22051-04-17 19:11 J	-6332597.92	-6332597.70	-6332597.48	0.0089	0.0015
Venus	-22051-11-29 08:38 J	-6332372.35	-6332372.14	-6332371.91	0.0089	0.0016
Venus	-22050-07-12 22:33 J	-6332146.78	-6332146.56	-6332146.34	0.0089	0.0016
Venus	-22049-02-23 12:14 J	-6331921.21	-6331920.99	-6331920.77	0.0089	0.0016
Venus	-22049-10-06 01:40 J	-6331695.64	-6331695.43	-6331695.20	0.0089	0.0017
Venus	-22048-05-19 15:36 J	-6331470.07	-6331469.85	-6331469.63	0.0089	0.0017
Venus	-22048-12-31 05:02 J	-6331244.50	-6331244.29	-6331244.06	0.0089	0.0018
Venus	-22047-08-13 18:57 J	-6331018.93	-6331018.71	-6331018.49	0.0089	0.0018
Venus	-22046-03-27 08:23 J	-6330793.36	-6330793.15	-6330792.93	0.0089	0.0018
Venus	-22046-11-07 22:04 J	-6330567.79	-6330567.58	-6330567.36	0.0089	0.0019
Venus	-22045-06-20 11:45 J	-6330342.23	-6330342.01	-6330341.79	0.0089	0.0019

Venus	-22044-02-01 01:11 J	-6330116.66	-6330116.45	-6330116.22	0.0089	0.0020
Venus	-22044-09-14 14:52 J	-6329891.09	-6329890.88	-6329890.66	0.0089	0.0020
Venus	-22043-04-28 04:19 J	-6329665.53	-6329665.32	-6329665.10	0.0089	0.0020
Venus	-22043-12-09 17:45 J	-6329439.97	-6329439.76	-6329439.53	0.0089	0.0021
Venus	-22042-07-23 07:26 J	-6329214.40	-6329214.19	-6329213.97	0.0089	0.0021
Venus	-22041-03-04 20:52 J	-6328988.84	-6328988.63	-6328988.41	0.0089	0.0021
Venus	-22041-10-16 10:04 J	-6328763.28	-6328763.08	-6328762.85	0.0089	0.0022
Venus	-22040-05-29 23:45 J	-6328537.72	-6328537.51	-6328537.29	0.0089	0.0022
Venus	-22039-01-10 13:26 J	-6328312.16	-6328311.94	-6328311.73	0.0089	0.0022
Venus	-22039-08-24 02:38 J	-6328086.60	-6328086.39	-6328086.17	0.0089	0.0023
Venus	-22038-04-06 16:04 J	-6327861.04	-6327860.83	-6327860.61	0.0089	0.0023
Venus	-22038-11-18 05:31 J	-6327635.48	-6327635.27	-6327635.05	0.0089	0.0023
Venus	-22037-06-30 18:57 J	-6327409.92	-6327409.71	-6327409.49	0.0089	0.0023
Venus	-22036-02-11 08:38 J	-6327184.35	-6327184.14	-6327183.93	0.0089	0.0024
Venus	-22036-09-24 21:50 J	-6326958.80	-6326958.59	-6326958.37	0.0089	0.0024
Venus	-22035-05-08 11:16 J	-6326733.24	-6326733.03	-6326732.81	0.0089	0.0024
Venus	-22035-12-20 00:43 J	-6326507.68	-6326507.47	-6326507.25	0.0089	0.0024
Venus	-22034-08-02 14:09 J	-6326282.12	-6326281.91	-6326281.69	0.0089	0.0024
Venus	-22033-03-15 03:36 J	-6326056.56	-6326056.35	-6326056.14	0.0089	0.0025
Venus	-22033-10-26 16:33 J	-6325831.01	-6325830.81	-6325830.58	0.0089	0.0026
Venus	-22032-06-09 06:00 J	-6325605.45	-6325605.25	-6325605.03	0.0089	0.0025
Venus	-22031-01-20 19:26 J	-6325379.89	-6325379.69	-6325379.47	0.0089	0.0025
Venus	-22031-09-03 08:38 J	-6325154.34	-6325154.14	-6325153.92	0.0089	0.0025
Venus	-22030-04-16 21:50 J	-6324928.79	-6324928.59	-6324928.37	0.0089	0.0025
Venus	-22030-11-28 11:02 J	-6324703.24	-6324703.04	-6324702.82	0.0089	0.0025
Venus	-22029-07-11 00:14 J	-6324477.69	-6324477.49	-6324477.27	0.0089	0.0025
Venus	-22028-02-21 13:26 J	-6324252.14	-6324251.94	-6324251.72	0.0089	0.0026
Venus	-22028-10-05 02:38 J	-6324026.59	-6324026.39	-6324026.17	0.0089	0.0026
Venus	-22027-05-18 15:50 J	-6323801.05	-6323800.84	-6323800.63	0.0089	0.0025
Venus	-22027-12-30 05:02 J	-6323575.50	-6323575.29	-6323575.08	0.0089	0.0025

Venus	-22026-08-12 18:00 J	-6323349.95	-6323349.75	-6323349.53	0.0089	0.0026
Venus	-22025-03-25 07:11 J	-6323124.40	-6323124.20	-6323123.98	0.0089	0.0026
Venus	-22025-11-05 20:23 J	-6322898.86	-6322898.65	-6322898.44	0.0089	0.0025
Venus	-22024-06-19 09:21 J	-6322673.31	-6322673.11	-6322672.89	0.0089	0.0026
Venus	-22023-01-30 22:33 J	-6322447.76	-6322447.56	-6322447.34	0.0089	0.0026
Earth	-22023-04-29 00:14 J	-6322359.61	-6322359.49	-6322359.36	0.0089	0.0078
Moon	-22023-04-29 00:14 J	-6322359.58	-6322359.49	-6322359.35	0.0089	0.0081 *
Venus	-22023-09-13 11:45 J	-6322222.21	-6322222.01	-6322221.79	0.0089	0.0025
Venus	-22022-04-27 00:43 J	-6321996.67	-6321996.47	-6321996.25	0.0089	0.0025
Earth	-22022-05-01 11:02 J	-6321992.27	-6321992.04	-6321991.80	0.0089	0.0035
Moon	-22022-05-01 11:45 J	-6321992.22	-6321992.01	-6321991.76	0.0089	0.0034 *
Venus	-22022-12-08 13:40 J	-6321771.13	-6321770.93	-6321770.71	0.0089	0.0026
Moon	-22021-05-02 19:26 J	-6321624.94	-6321624.69	-6321624.42	0.0089	0.0007
Earth	-22021-05-02 21:50 J	-6321624.84	-6321624.59	-6321624.34	0.0089	0.0009 *
Venus	-22021-07-21 02:52 J	-6321545.58	-6321545.38	-6321545.16	0.0089	0.0025
Venus	-22020-03-03 16:19 J	-6321320.03	-6321319.82	-6321319.61	0.0089	0.0025
Earth	-22020-05-05 08:09 J	-6321257.36	-6321257.16	-6321256.95	0.0089	0.0052
Moon	-22020-05-05 10:48 J	-6321257.24	-6321257.05	-6321256.85	0.0089	0.0055 *
Venus	-22020-10-15 05:02 J	-6321094.49	-6321094.29	-6321094.07	0.0089	0.0025
Venus	-22019-05-28 18:00 J	-6320868.95	-6320868.75	-6320868.53	0.0089	0.0025
Venus	-22018-01-09 06:57 J	-6320643.41	-6320643.21	-6320643.00	0.0089	0.0024
Venus	-22018-08-22 19:40 J	-6320417.88	-6320417.68	-6320417.46	0.0089	0.0025
Venus	-22017-04-04 08:38 J	-6320192.33	-6320192.14	-6320191.91	0.0089	0.0025
Venus	-22017-11-15 21:50 J	-6319966.80	-6319966.59	-6319966.38	0.0089	0.0024
Venus	-22016-06-29 10:33 J	-6319741.26	-6319741.06	-6319740.84	0.0089	0.0024
Venus	-22015-02-09 23:16 J	-6319515.73	-6319515.53	-6319515.31	0.0089	0.0024
Venus	-22015-09-23 12:14 J	-6319290.19	-6319289.99	-6319289.77	0.0089	0.0023
Venus	-22014-05-07 01:11 J	-6319064.66	-6319064.45	-6319064.24	0.0089	0.0023
Venus	-22014-12-18 13:55 J	-6318839.13	-6318838.92	-6318838.71	0.0089	0.0022
Venus	-22013-07-31 02:38 J	-6318613.59	-6318613.39	-6318613.17	0.0089	0.0022

Venus	-22012-03-13 15:50 J	-6318388.05	-6318387.84	-6318387.63	0.0089	0.0022
Venus	-22012-10-25 04:33 J	-6318162.52	-6318162.31	-6318162.10	0.0089	0.0021
Venus	-22011-06-07 17:02 J	-6317936.99	-6317936.79	-6317936.57	0.0089	0.0022
Venus	-22010-01-19 05:45 J	-6317711.46	-6317711.26	-6317711.03	0.0089	0.0022
Venus	-22010-09-01 18:43 J	-6317485.92	-6317485.72	-6317485.50	0.0089	0.0021
Jupiter	-22010-11-09 06:57 J	-6317417.70	-6317417.21	-6317416.67	0.0089	0.0014
Venus	-22009-04-14 07:40 J	-6317260.39	-6317260.18	-6317259.96	0.0089	0.0020
Venus	-22009-11-25 20:38 J	-6317034.86	-6317034.64	-6317034.43	0.0089	0.0020
Venus	-22008-07-09 09:07 J	-6316809.33	-6316809.12	-6316808.90	0.0089	0.0020
Venus	-22007-02-19 21:50 J	-6316583.79	-6316583.59	-6316583.37	0.0089	0.0019
Venus	-22007-10-03 10:33 J	-6316358.27	-6316358.06	-6316357.84	0.0089	0.0019
Mars	-22006-01-13 09:07 J	-6316256.22	-6316256.12	-6316255.96	0.0089	0.0083
Venus	-22006-05-16 23:16 J	-6316132.74	-6316132.53	-6316132.32	0.0089	0.0018
Venus	-22006-12-28 12:00 J	-6315907.21	-6315907.00	-6315906.79	0.0089	0.0018
Mercury	-22005-02-01 16:33 J	-6315871.81	-6315871.81	-6315871.80	0.0089	0.0089
Mercury	-22005-04-29 17:45 J	-6315783.80	-6315783.76	-6315783.70	0.0089	0.0082
Mercury	-22005-07-26 18:57 J	-6315695.77	-6315695.71	-6315695.63	0.0089	0.0076
Venus	-22005-08-10 00:28 J	-6315681.69	-6315681.48	-6315681.26	0.0089	0.0017
Mercury	-22005-10-22 20:23 J	-6315607.72	-6315607.65	-6315607.56	0.0089	0.0068
Mars	-22005-12-09 14:09 J	-6315560.24	-6315559.91	-6315559.57	0.0089	0.0009
Mercury	-22004-01-18 21:50 J	-6315519.68	-6315519.59	-6315519.49	0.0089	0.0061
Venus	-22004-03-23 12:57 J	-6315456.16	-6315455.96	-6315455.73	0.0089	0.0018
Mercury	-22004-04-16 23:02 J	-6315431.63	-6315431.54	-6315431.43	0.0089	0.0055
Mercury	-22004-07-14 00:28 J	-6315343.59	-6315343.48	-6315343.36	0.0089	0.0048
Mercury	-22004-10-10 01:55 J	-6315255.54	-6315255.42	-6315255.30	0.0089	0.0040
Venus	-22004-11-04 01:40 J	-6315230.64	-6315230.43	-6315230.21	0.0089	0.0017
Mercury	-22003-01-06 03:07 J	-6315167.49	-6315167.37	-6315167.24	0.0089	0.0034
Mercury	-22003-04-04 04:33 J	-6315079.43	-6315079.31	-6315079.18	0.0089	0.0027
Venus	-22003-06-17 14:09 J	-6315005.12	-6315004.91	-6315004.69	0.0089	0.0016
Mercury	-22003-07-01 06:00 J	-6314991.38	-6314991.25	-6314991.12	0.0089	0.0020

Mercury	-22003-09-27 07:26 J	-6314903.33	-6314903.19	-6314903.06	0.0089	0.0013
Mars	-22003-11-05 16:19 J	-6314864.02	-6314863.82	-6314863.56	0.0089	0.0065
Mercury	-22003-12-24 08:38 J	-6314815.27	-6314815.14	-6314815.00	0.0089	0.0006
Venus	-22002-01-29 02:38 J	-6314779.59	-6314779.39	-6314779.17	0.0089	0.0016
Mercury	-22002-03-22 10:04 J	-6314727.21	-6314727.08	-6314726.95	0.0089	0.0002
Mercury	-22002-06-18 11:16 J	-6314639.16	-6314639.03	-6314638.89	0.0089	0.0009
Venus	-22002-09-11 15:07 J	-6314554.07	-6314553.87	-6314553.64	0.0089	0.0016
Mercury	-22002-09-14 12:43 J	-6314551.10	-6314550.97	-6314550.84	0.0089	0.0016
Mercury	-22002-12-11 14:09 J	-6314463.04	-6314462.91	-6314462.78	0.0089	0.0023
Mercury	-22001-03-08 15:36 J	-6314374.98	-6314374.85	-6314374.73	0.0089	0.0030
Venus	-22001-04-24 04:04 J	-6314328.54	-6314328.33	-6314328.12	0.0089	0.0014
Mercury	-22001-06-04 16:48 J	-6314286.92	-6314286.80	-6314286.68	0.0089	0.0037
Mercury	-22001-08-31 18:14 J	-6314198.86	-6314198.74	-6314198.62	0.0089	0.0044
Mercury	-22001-11-27 19:26 J	-6314110.79	-6314110.69	-6314110.57	0.0089	0.0051
Venus	-22001-12-05 16:19 J	-6314103.02	-6314102.82	-6314102.59	0.0089	0.0015

22ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 22nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-22000-02-23 20:38 J	-6314022.73	-6314022.64	-6314022.52	0.0089	0.0059		
Mercury	-22000-05-22 22:04 J	-6313934.66	-6313934.58	-6313934.48	0.0089	0.0066		
Venus	-22000-07-19 05:02 J	-6313877.50	-6313877.29	-6313877.07	0.0089	0.0013		

Mercury	-22000-08-18 23:31 J	-6313846.59	-6313846.52	-6313846.43	0.0089	0.0072
Mercury	-22000-11-15 00:57 J	-6313758.51	-6313758.46	-6313758.39	0.0089	0.0079
Mercury	-21999-02-11 02:23 J	-6313670.42	-6313670.40	-6313670.36	0.0089	0.0086
Venus	-21999-03-01 17:31 J	-6313651.98	-6313651.77	-6313651.55	0.0089	0.0013
Venus	-21999-10-13 06:00 J	-6313426.46	-6313426.25	-6313426.03	0.0089	0.0013
Venus	-21998-05-26 18:28 J	-6313200.93	-6313200.73	-6313200.51	0.0089	0.0013
Venus	-21997-01-07 07:11 J	-6312975.41	-6312975.20	-6312974.98	0.0089	0.0011
Venus	-21997-08-19 19:40 J	-6312749.89	-6312749.68	-6312749.46	0.0089	0.0011
Venus	-21996-04-02 08:23 J	-6312524.37	-6312524.15	-6312523.94	0.0089	0.0010
Venus	-21996-11-13 20:52 J	-6312298.85	-6312298.63	-6312298.42	0.0089	0.0010
Venus	-21995-06-27 09:07 J	-6312073.33	-6312073.12	-6312072.90	0.0089	0.0009
Venus	-21994-02-07 21:36 J	-6311847.81	-6311847.60	-6311847.38	0.0089	0.0009
Venus	-21994-09-21 10:04 J	-6311622.29	-6311622.08	-6311621.86	0.0089	0.0008
Venus	-21993-05-03 22:48 J	-6311396.77	-6311396.55	-6311396.34	0.0089	0.0007
Venus	-21993-12-15 11:02 J	-6311171.25	-6311171.04	-6311170.82	0.0089	0.0007
Venus	-21992-07-28 23:31 J	-6310945.74	-6310945.52	-6310945.31	0.0089	0.0006
Venus	-21991-03-11 11:45 J	-6310720.22	-6310720.01	-6310719.79	0.0089	0.0006
Venus	-21991-10-23 00:14 J	-6310494.71	-6310494.49	-6310494.28	0.0089	0.0005
Venus	-21990-06-05 12:43 J	-6310269.19	-6310268.97	-6310268.76	0.0089	0.0004
Venus	-21989-01-17 00:57 J	-6310043.67	-6310043.46	-6310043.24	0.0089	0.0004
Venus	-21989-08-29 13:26 J	-6309818.16	-6309817.94	-6309817.73	0.0089	0.0004
Venus	-21988-04-12 01:40 J	-6309592.64	-6309592.43	-6309592.21	0.0089	0.0003
Venus	-21988-11-23 14:09 J	-6309367.13	-6309366.91	-6309366.70	0.0089	0.0002
Venus	-21987-07-07 02:23 J	-6309141.61	-6309141.40	-6309141.18	0.0089	0.0001
Venus	-21986-02-17 14:38 J	-6308916.10	-6308915.89	-6308915.67	0.0089	0.0003
Venus	-21986-10-01 03:07 J	-6308690.58	-6308690.37	-6308690.15	0.0089	0.0001
Venus	-21985-05-13 15:36 J	-6308465.06	-6308464.85	-6308464.63	0.0089	0.0002
Venus	-21985-12-25 04:04 J	-6308239.54	-6308239.33	-6308239.11	0.0089	0.0001
Venus	-21984-08-07 16:33 J	-6308014.03	-6308013.81	-6308013.60	0.0089	0.0002
Venus	-21983-03-21 04:48 J	-6307788.51	-6307788.30	-6307788.08	0.0089	0.0002

Venus	-21983-11-01 17:16 J	-6307563.00	-6307562.78	-6307562.57	0.0089	0.0003
Venus	-21982-06-15 05:45 J	-6307337.48	-6307337.26	-6307337.05	0.0089	0.0004
Venus	-21981-01-26 18:00 J	-6307111.96	-6307111.75	-6307111.53	0.0089	0.0004
Venus	-21981-09-08 06:28 J	-6306886.45	-6306886.23	-6306886.02	0.0089	0.0005
Venus	-21980-04-21 18:43 J	-6306660.93	-6306660.72	-6306660.50	0.0089	0.0006
Venus	-21980-12-03 07:11 J	-6306435.42	-6306435.20	-6306434.99	0.0089	0.0006
Venus	-21979-07-16 19:26 J	-6306209.90	-6306209.69	-6306209.47	0.0089	0.0007
Venus	-21978-02-27 07:40 J	-6305984.39	-6305984.18	-6305983.96	0.0089	0.0007
Venus	-21978-10-10 20:09 J	-6305758.88	-6305758.66	-6305758.45	0.0089	0.0008
Venus	-21977-05-23 08:23 J	-6305533.36	-6305533.15	-6305532.93	0.0089	0.0009
Venus	-21976-01-03 20:52 J	-6305307.84	-6305307.63	-6305307.41	0.0089	0.0009
Venus	-21976-08-17 09:07 J	-6305082.33	-6305082.12	-6305081.90	0.0089	0.0010
Venus	-21975-03-30 21:21 J	-6304856.82	-6304856.61	-6304856.39	0.0089	0.0010
Venus	-21975-11-11 09:50 J	-6304631.30	-6304631.09	-6304630.87	0.0089	0.0011
Venus	-21974-06-24 22:04 J	-6304405.78	-6304405.58	-6304405.35	0.0089	0.0012
Venus	-21973-02-05 10:48 J	-6304180.27	-6304180.05	-6304179.84	0.0089	0.0012
Venus	-21973-09-17 23:02 J	-6303954.75	-6303954.54	-6303954.32	0.0089	0.0012
Venus	-21972-05-01 11:31 J	-6303729.23	-6303729.02	-6303728.80	0.0089	0.0013
Venus	-21972-12-12 23:45 J	-6303503.72	-6303503.51	-6303503.29	0.0089	0.0014
Venus	-21971-07-26 12:14 J	-6303278.20	-6303277.99	-6303277.77	0.0089	0.0014
Venus	-21970-03-09 00:43 J	-6303052.68	-6303052.47	-6303052.25	0.0089	0.0015
Venus	-21970-10-20 12:57 J	-6302827.16	-6302826.96	-6302826.73	0.0089	0.0016
Venus	-21969-06-02 01:40 J	-6302601.64	-6302601.43	-6302601.21	0.0089	0.0016
Venus	-21968-01-13 14:09 J	-6302376.12	-6302375.91	-6302375.69	0.0089	0.0016
Venus	-21968-08-27 02:38 J	-6302150.60	-6302150.39	-6302150.18	0.0089	0.0017
Venus	-21967-04-09 14:52 J	-6301925.09	-6301924.88	-6301924.66	0.0089	0.0017
Venus	-21967-11-21 03:21 J	-6301699.57	-6301699.36	-6301699.15	0.0089	0.0018
Venus	-21966-07-04 15:50 J	-6301474.05	-6301473.84	-6301473.62	0.0089	0.0018
Venus	-21965-02-15 04:19 J	-6301248.53	-6301248.32	-6301248.10	0.0089	0.0019
Venus	-21965-09-27 16:33 J	-6301023.01	-6301022.81	-6301022.59	0.0089	0.0019

Venus	-21964-05-11 05:02 J	-6300797.50	-6300797.29	-6300797.07	0.0088	0.0020
Venus	-21964-12-22 17:16 J	-6300571.98	-6300571.78	-6300571.55	0.0088	0.0021
Venus	-21963-08-05 06:00 J	-6300346.46	-6300346.25	-6300346.03	0.0088	0.0021
Venus	-21962-03-18 18:28 J	-6300120.94	-6300120.73	-6300120.52	0.0088	0.0021
Venus	-21962-10-30 06:43 J	-6299895.42	-6299895.22	-6299895.00	0.0088	0.0022
Venus	-21961-06-11 19:40 J	-6299669.89	-6299669.68	-6299669.47	0.0088	0.0022
Venus	-21960-01-23 07:55 J	-6299444.37	-6299444.17	-6299443.95	0.0088	0.0022
Venus	-21960-09-05 20:38 J	-6299218.85	-6299218.64	-6299218.43	0.0088	0.0022
Venus	-21959-04-19 08:52 J	-6298993.33	-6298993.13	-6298992.91	0.0088	0.0023
Venus	-21959-11-30 21:36 J	-6298767.80	-6298767.60	-6298767.38	0.0088	0.0023
Venus	-21958-07-14 10:33 J	-6298542.27	-6298542.06	-6298541.85	0.0088	0.0024
Venus	-21957-02-24 22:48 J	-6298316.75	-6298316.55	-6298316.32	0.0088	0.0025
Venus	-21957-10-07 11:31 J	-6298091.22	-6298091.02	-6298090.80	0.0088	0.0024
Venus	-21956-05-21 00:14 J	-6297865.70	-6297865.49	-6297865.28	0.0088	0.0024
Venus	-21955-01-01 12:28 J	-6297640.17	-6297639.98	-6297639.75	0.0088	0.0026
Venus	-21955-08-15 01:11 J	-6297414.65	-6297414.45	-6297414.23	0.0088	0.0026
Venus	-21954-03-28 13:55 J	-6297189.12	-6297188.92	-6297188.70	0.0088	0.0026
Venus	-21954-11-09 02:38 J	-6296963.59	-6296963.39	-6296963.17	0.0088	0.0026
Venus	-21953-06-21 15:07 J	-6296738.07	-6296737.87	-6296737.65	0.0088	0.0026
Venus	-21952-02-02 03:50 J	-6296512.54	-6296512.34	-6296512.12	0.0088	0.0026
Venus	-21952-09-15 16:33 J	-6296287.01	-6296286.81	-6296286.59	0.0088	0.0026
Venus	-21951-04-29 05:16 J	-6296061.49	-6296061.28	-6296061.07	0.0088	0.0026
Venus	-21951-12-10 18:00 J	-6295835.96	-6295835.75	-6295835.54	0.0088	0.0027
Venus	-21950-07-24 06:28 J	-6295610.42	-6295610.23	-6295610.00	0.0088	0.0028
Venus	-21949-03-05 19:26 J	-6295384.89	-6295384.69	-6295384.47	0.0088	0.0027
Venus	-21949-10-17 08:09 J	-6295159.36	-6295159.16	-6295158.95	0.0088	0.0027
Venus	-21948-05-30 20:52 J	-6294933.83	-6294933.63	-6294933.42	0.0088	0.0027
Venus	-21947-01-11 09:36 J	-6294708.30	-6294708.10	-6294707.88	0.0088	0.0027
Venus	-21947-08-24 22:33 J	-6294482.76	-6294482.56	-6294482.34	0.0088	0.0028
Venus	-21946-04-07 11:31 J	-6294257.23	-6294257.02	-6294256.81	0.0088	0.0028

Venus	-21946-11-19 00:00 J	-6294031.69	-6294031.50	-6294031.27	0.0088	0.0028
Venus	-21945-07-01 12:57 J	-6293806.15	-6293805.96	-6293805.73	0.0088	0.0028
Venus	-21944-02-12 01:55 J	-6293580.62	-6293580.42	-6293580.20	0.0088	0.0028
Venus	-21944-09-25 14:52 J	-6293355.08	-6293354.88	-6293354.66	0.0088	0.0028
Venus	-21943-05-09 03:50 J	-6293129.54	-6293129.34	-6293129.12	0.0088	0.0028
Venus	-21943-12-20 16:33 J	-6292904.01	-6292903.81	-6292903.59	0.0088	0.0028
Venus	-21942-08-03 05:45 J	-6292678.46	-6292678.26	-6292678.04	0.0088	0.0028
Venus	-21941-03-15 18:43 J	-6292452.92	-6292452.72	-6292452.50	0.0088	0.0028
Venus	-21941-10-27 07:26 J	-6292227.38	-6292227.19	-6292226.96	0.0088	0.0028
Earth	-21941-10-28 10:48 J	-6292226.25	-6292226.05	-6292225.83	0.0088	0.0053
Moon	-21941-10-28 12:28 J	-6292226.17	-6292225.98	-6292225.76	0.0088	0.0051 *
Venus	-21940-06-09 20:23 J	-6292001.85	-6292001.65	-6292001.43	0.0088	0.0028
Moon	-21940-10-30 21:21 J	-6291858.87	-6291858.61	-6291858.34	0.0088	0.0012
Earth	-21940-10-30 23:31 J	-6291858.77	-6291858.52	-6291858.25	0.0088	0.0011 *
Venus	-21939-01-21 09:21 J	-6291776.31	-6291776.11	-6291775.89	0.0088	0.0028
Venus	-21939-09-03 22:19 J	-6291550.76	-6291550.57	-6291550.34	0.0088	0.0028
Earth	-21939-11-02 12:00 J	-6291491.23	-6291491.00	-6291490.74	0.0088	0.0032
Moon	-21939-11-02 15:36 J	-6291491.08	-6291490.85	-6291490.61	0.0088	0.0034 *
Venus	-21938-04-17 11:45 J	-6291325.22	-6291325.01	-6291324.80	0.0088	0.0027
Moon	-21938-11-04 20:38 J	-6291123.75	-6291123.64	-6291123.46	0.0088	0.0073
Earth	-21938-11-05 00:14 J	-6291123.60	-6291123.49	-6291123.32	0.0088	0.0075 *
Venus	-21938-11-29 00:28 J	-6291099.68	-6291099.48	-6291099.26	0.0088	0.0027
Venus	-21937-07-11 13:40 J	-6290874.14	-6290873.93	-6290873.72	0.0088	0.0027
Venus	-21936-02-22 02:38 J	-6290648.60	-6290648.39	-6290648.17	0.0088	0.0027
Venus	-21936-10-05 15:36 J	-6290423.05	-6290422.85	-6290422.63	0.0088	0.0027
Venus	-21935-05-19 04:33 J	-6290197.51	-6290197.31	-6290197.08	0.0088	0.0027
Venus	-21935-12-30 17:45 J	-6289971.96	-6289971.76	-6289971.53	0.0088	0.0027
Venus	-21934-08-13 07:26 J	-6289746.40	-6289746.19	-6289745.98	0.0088	0.0026
Venus	-21933-03-25 20:23 J	-6289520.86	-6289520.65	-6289520.43	0.0088	0.0026
Venus	-21933-11-06 09:36 J	-6289295.31	-6289295.10	-6289294.88	0.0088	0.0026

Venus	-21932-06-19 22:33 J	-6289069.76	-6289069.56	-6289069.33	0.0088	0.0026
Venus	-21931-01-31 12:00 J	-6288844.21	-6288844.00	-6288843.78	0.0088	0.0025
Venus	-21931-09-14 01:11 J	-6288618.65	-6288618.45	-6288618.23	0.0088	0.0025
Venus	-21930-04-27 14:23 J	-6288393.10	-6288392.90	-6288392.67	0.0088	0.0025
Venus	-21930-12-09 03:50 J	-6288167.55	-6288167.34	-6288167.12	0.0088	0.0024
Venus	-21929-07-21 17:02 J	-6287942.00	-6287941.79	-6287941.57	0.0088	0.0024
Venus	-21928-03-04 06:14 J	-6287716.45	-6287716.24	-6287716.02	0.0088	0.0024
Venus	-21928-10-15 19:26 J	-6287490.90	-6287490.69	-6287490.47	0.0088	0.0024
Venus	-21927-05-29 08:38 J	-6287265.35	-6287265.14	-6287264.91	0.0088	0.0023
Venus	-21926-01-09 21:50 J	-6287039.79	-6287039.59	-6287039.36	0.0088	0.0023
Venus	-21926-08-23 11:31 J	-6286814.24	-6286814.02	-6286813.80	0.0088	0.0022
Venus	-21925-04-05 00:43 J	-6286588.68	-6286588.47	-6286588.25	0.0088	0.0022
Venus	-21925-11-16 13:40 J	-6286363.13	-6286362.93	-6286362.70	0.0088	0.0022
Venus	-21924-06-30 03:07 J	-6286137.58	-6286137.37	-6286137.14	0.0088	0.0021
Venus	-21923-02-10 16:19 J	-6285912.02	-6285911.82	-6285911.59	0.0088	0.0021
Mars	-21923-09-15 19:55 J	-6285694.92	-6285694.67	-6285694.37	0.0088	0.0032
Venus	-21923-09-24 06:14 J	-6285686.46	-6285686.24	-6285686.02	0.0088	0.0020
Venus	-21922-05-07 19:26 J	-6285460.90	-6285460.69	-6285460.46	0.0088	0.0020
Mercury	-21922-10-17 17:45 J	-6285297.83	-6285297.76	-6285297.69	0.0088	0.0081
Venus	-21922-12-19 08:52 J	-6285235.34	-6285235.13	-6285234.90	0.0088	0.0019
Mercury	-21921-01-13 20:52 J	-6285209.72	-6285209.63	-6285209.50	0.0088	0.0072
Mercury	-21921-04-11 00:28 J	-6285121.60	-6285121.48	-6285121.33	0.0088	0.0062
Mercury	-21921-07-08 04:04 J	-6285033.47	-6285033.33	-6285033.16	0.0088	0.0052
Venus	-21921-07-31 22:19 J	-6285009.78	-6285009.57	-6285009.34	0.0088	0.0019
Mars	-21921-08-09 14:38 J	-6285001.16	-6285000.89	-6285000.60	0.0088	0.0029
Mercury	-21921-10-04 07:40 J	-6284945.34	-6284945.18	-6284945.00	0.0088	0.0042
Mercury	-21921-12-31 11:31 J	-6284857.20	-6284857.02	-6284856.84	0.0088	0.0032
Venus	-21920-03-14 11:45 J	-6284784.22	-6284784.01	-6284783.78	0.0088	0.0018
Mercury	-21920-03-29 14:38 J	-6284769.06	-6284768.89	-6284768.69	0.0088	0.0023
Mercury	-21920-06-25 18:28 J	-6284680.92	-6284680.73	-6284680.54	0.0088	0.0013

Mercury	-21920-09-21 22:04 J	-6284592.77	-6284592.58	-6284592.39	0.0088	0.0003
Venus	-21920-10-26 01:11 J	-6284558.66	-6284558.45	-6284558.22	0.0088	0.0018
Mercury	-21920-12-19 01:26 J	-6284504.63	-6284504.44	-6284504.24	0.0088	0.0007
Mercury	-21919-03-17 04:48 J	-6284416.48	-6284416.30	-6284416.10	0.0088	0.0017
Venus	-21919-06-08 14:52 J	-6284333.10	-6284332.88	-6284332.66	0.0088	0.0017
Mercury	-21919-06-13 08:23 J	-6284328.33	-6284328.15	-6284327.96	0.0088	0.0026
Mercury	-21919-09-09 11:45 J	-6284240.18	-6284240.01	-6284239.82	0.0088	0.0036
Mercury	-21919-12-06 15:07 J	-6284152.02	-6284151.87	-6284151.69	0.0088	0.0046
Venus	-21918-01-20 04:19 J	-6284107.53	-6284107.32	-6284107.09	0.0088	0.0017
Mercury	-21918-03-04 18:57 J	-6284063.86	-6284063.71	-6284063.56	0.0088	0.0055
Mercury	-21918-05-31 22:04 J	-6283975.70	-6283975.58	-6283975.44	0.0088	0.0065
Mercury	-21918-08-28 01:11 J	-6283887.52	-6283887.45	-6283887.32	0.0088	0.0075
Venus	-21918-09-02 18:00 J	-6283881.97	-6283881.75	-6283881.53	0.0088	0.0016
Mercury	-21918-11-24 05:02 J	-6283799.33	-6283799.29	-6283799.23	0.0088	0.0084
Venus	-21917-04-15 07:26 J	-6283656.41	-6283656.19	-6283655.96	0.0088	0.0016
Venus	-21917-11-26 20:52 J	-6283430.84	-6283430.63	-6283430.40	0.0088	0.0015
Venus	-21916-07-10 10:19 J	-6283205.28	-6283205.07	-6283204.84	0.0088	0.0015
Venus	-21915-02-20 23:45 J	-6282979.72	-6282979.51	-6282979.28	0.0088	0.0014
Venus	-21915-10-04 13:40 J	-6282754.15	-6282753.93	-6282753.71	0.0088	0.0013
Venus	-21914-05-18 02:52 J	-6282528.59	-6282528.38	-6282528.15	0.0088	0.0014
Venus	-21914-12-29 16:33 J	-6282303.03	-6282302.81	-6282302.58	0.0088	0.0012
Venus	-21913-08-11 06:00 J	-6282077.47	-6282077.25	-6282077.02	0.0088	0.0012
Venus	-21912-03-24 19:26 J	-6281851.90	-6281851.69	-6281851.46	0.0088	0.0012
Venus	-21912-11-05 09:21 J	-6281626.33	-6281626.11	-6281625.89	0.0088	0.0010
Venus	-21911-06-18 22:48 J	-6281400.77	-6281400.55	-6281400.32	0.0088	0.0010
Venus	-21910-01-30 12:28 J	-6281175.20	-6281174.98	-6281174.76	0.0088	0.0009
Venus	-21910-09-13 02:09 J	-6280949.63	-6280949.41	-6280949.19	0.0088	0.0008
Venus	-21909-04-25 15:36 J	-6280724.07	-6280723.85	-6280723.62	0.0088	0.0008
Venus	-21909-12-07 05:31 J	-6280498.50	-6280498.27	-6280498.05	0.0088	0.0007
Venus	-21908-07-20 18:57 J	-6280272.93	-6280272.71	-6280272.48	0.0088	0.0007

Venus	-21907-03-03 08:38 J	-6280047.36	-6280047.14	-6280046.91	0.0088	0.0006
Venus	-21907-10-14 22:33 J	-6279821.78	-6279821.56	-6279821.33	0.0088	0.0005
Venus	-21906-05-28 12:14 J	-6279596.21	-6279595.99	-6279595.76	0.0088	0.0005
Venus	-21905-01-09 01:55 J	-6279370.64	-6279370.42	-6279370.19	0.0088	0.0004
Venus	-21905-08-21 15:36 J	-6279145.07	-6279144.85	-6279144.62	0.0088	0.0003
Venus	-21904-04-04 05:16 J	-6278919.50	-6278919.28	-6278919.05	0.0088	0.0003
Venus	-21904-11-15 19:11 J	-6278693.93	-6278693.70	-6278693.48	0.0088	0.0002
Venus	-21903-06-29 08:38 J	-6278468.36	-6278468.14	-6278467.91	0.0088	0.0003
Venus	-21902-02-09 22:19 J	-6278242.79	-6278242.57	-6278242.34	0.0088	0.0002
Venus	-21902-09-23 12:00 J	-6278017.22	-6278017.00	-6278016.77	0.0088	0.0001
Venus	-21901-05-06 01:40 J	-6277791.65	-6277791.43	-6277791.20	0.0088	0.0002
Venus	-21901-12-17 15:21 J	-6277566.08	-6277565.86	-6277565.63	0.0088	0.0002
Venus	-21900-07-31 05:02 J	-6277340.51	-6277340.29	-6277340.06	0.0088	0.0002
Venus	-21899-03-13 18:43 J	-6277114.94	-6277114.72	-6277114.50	0.0088	0.0003
Venus	-21899-10-25 08:23 J	-6276889.37	-6276889.15	-6276888.92	0.0088	0.0004
Venus	-21898-06-07 22:19 J	-6276663.80	-6276663.57	-6276663.35	0.0088	0.0005
Venus	-21897-01-19 12:00 J	-6276438.23	-6276438.00	-6276437.78	0.0088	0.0005
Venus	-21897-09-01 01:26 J	-6276212.66	-6276212.44	-6276212.21	0.0088	0.0006
Venus	-21896-04-14 15:21 J	-6275987.09	-6275986.86	-6275986.64	0.0088	0.0007
Venus	-21896-11-26 05:02 J	-6275761.51	-6275761.29	-6275761.06	0.0088	0.0008
Venus	-21895-07-09 18:57 J	-6275535.94	-6275535.71	-6275535.49	0.0088	0.0008
Venus	-21894-02-20 08:38 J	-6275310.36	-6275310.14	-6275309.92	0.0088	0.0009
Venus	-21894-10-03 22:19 J	-6275084.79	-6275084.57	-6275084.35	0.0088	0.0009
Venus	-21893-05-16 12:00 J	-6274859.22	-6274859.00	-6274858.77	0.0088	0.0010
Venus	-21893-12-28 01:40 J	-6274633.64	-6274633.43	-6274633.20	0.0089	0.0011
Venus	-21892-08-10 15:21 J	-6274408.07	-6274407.86	-6274407.63	0.0089	0.0012
Venus	-21891-03-24 05:16 J	-6274182.51	-6274182.28	-6274182.06	0.0089	0.0012
Venus	-21891-11-04 18:43 J	-6273956.93	-6273956.72	-6273956.49	0.0089	0.0013
Venus	-21890-06-18 08:23 J	-6273731.36	-6273731.15	-6273730.92	0.0089	0.0014
Venus	-21889-01-29 22:19 J	-6273505.79	-6273505.57	-6273505.35	0.0089	0.0014

Venus	-21889-09-11 11:45 J	-6273280.23	-6273280.01	-6273279.79	0.0089	0.0015
Venus	-21888-04-25 01:26 J	-6273054.66	-6273054.44	-6273054.22	0.0089	0.0015
Venus	-21888-12-06 15:07 J	-6272829.09	-6272828.87	-6272828.65	0.0089	0.0016
Venus	-21887-07-20 04:33 J	-6272603.52	-6272603.31	-6272603.08	0.0089	0.0017
Venus	-21886-03-02 18:14 J	-6272377.95	-6272377.74	-6272377.51	0.0089	0.0017
Venus	-21886-10-14 07:40 J	-6272152.39	-6272152.18	-6272151.95	0.0089	0.0018
Venus	-21885-05-26 21:36 J	-6271926.82	-6271926.60	-6271926.38	0.0089	0.0018
Venus	-21884-01-07 11:02 J	-6271701.25	-6271701.04	-6271700.81	0.0089	0.0019
Venus	-21884-08-21 00:57 J	-6271475.68	-6271475.46	-6271475.24	0.0089	0.0019
Venus	-21883-04-03 14:23 J	-6271250.11	-6271249.90	-6271249.68	0.0089	0.0020
Venus	-21883-11-15 04:04 J	-6271024.54	-6271024.33	-6271024.11	0.0089	0.0020
Venus	-21882-06-28 17:31 J	-6270798.97	-6270798.77	-6270798.54	0.0089	0.0021
Venus	-21881-02-09 07:26 J	-6270573.41	-6270573.19	-6270572.97	0.0089	0.0021
Venus	-21881-09-21 20:52 J	-6270347.84	-6270347.63	-6270347.41	0.0089	0.0022
Venus	-21880-05-05 10:33 J	-6270122.27	-6270122.06	-6270121.84	0.0089	0.0022
Venus	-21880-12-17 00:00 J	-6269896.70	-6269896.50	-6269896.27	0.0089	0.0023
Venus	-21879-07-30 13:55 J	-6269671.14	-6269670.92	-6269670.71	0.0089	0.0023
Venus	-21878-03-13 03:07 J	-6269445.57	-6269445.37	-6269445.15	0.0089	0.0024
Venus	-21878-10-24 16:48 J	-6269220.01	-6269219.80	-6269219.59	0.0089	0.0024
Venus	-21877-06-06 06:00 J	-6268994.45	-6268994.25	-6268994.02	0.0089	0.0025
Venus	-21876-01-17 19:40 J	-6268768.88	-6268768.68	-6268768.46	0.0089	0.0025
Venus	-21876-08-31 09:21 J	-6268543.32	-6268543.11	-6268542.90	0.0089	0.0025
Venus	-21875-04-13 22:33 J	-6268317.77	-6268317.56	-6268317.34	0.0089	0.0026
Venus	-21875-11-25 12:00 J	-6268092.21	-6268092.00	-6268091.78	0.0089	0.0026
Venus	-21874-07-09 01:11 J	-6267866.64	-6267866.45	-6267866.22	0.0089	0.0027
Venus	-21873-02-19 14:52 J	-6267641.08	-6267640.88	-6267640.66	0.0089	0.0027
Venus	-21873-10-02 04:19 J	-6267415.52	-6267415.32	-6267415.10	0.0089	0.0027
Venus	-21872-05-15 17:45 J	-6267189.97	-6267189.76	-6267189.55	0.0089	0.0028
Venus	-21872-12-27 06:57 J	-6266964.40	-6266964.21	-6266963.98	0.0089	0.0029
Venus	-21871-08-09 20:38 J	-6266738.84	-6266738.64	-6266738.42	0.0089	0.0028

Venus	-21870-03-23 10:04 J	-6266513.29	-6266513.08	-6266512.87	0.0089	0.0028
Venus	-21870-11-03 23:16 J	-6266287.73	-6266287.53	-6266287.31	0.0089	0.0029
Venus	-21869-06-16 12:43 J	-6266062.17	-6266061.97	-6266061.75	0.0089	0.0029
Venus	-21868-01-28 02:09 J	-6265836.61	-6265836.41	-6265836.19	0.0089	0.0029
Venus	-21868-09-10 15:36 J	-6265611.05	-6265610.85	-6265610.63	0.0089	0.0029
Venus	-21867-04-24 05:02 J	-6265385.50	-6265385.29	-6265385.08	0.0089	0.0030
Venus	-21867-12-05 18:00 J	-6265159.94	-6265159.75	-6265159.53	0.0089	0.0030
Venus	-21866-07-19 07:26 J	-6264934.39	-6264934.19	-6264933.97	0.0089	0.0030
Venus	-21865-02-29 20:52 J	-6264708.83	-6264708.63	-6264708.42	0.0089	0.0030
Venus	-21865-10-12 10:04 J	-6264483.28	-6264483.08	-6264482.87	0.0089	0.0030
Venus	-21864-05-25 23:16 J	-6264257.73	-6264257.53	-6264257.32	0.0089	0.0030
Venus	-21863-01-06 12:28 J	-6264032.18	-6264031.98	-6264031.77	0.0089	0.0031
Venus	-21863-08-20 01:40 J	-6263806.63	-6263806.43	-6263806.22	0.0089	0.0031
Venus	-21862-04-02 14:52 J	-6263581.08	-6263580.88	-6263580.67	0.0089	0.0031
Venus	-21862-11-14 04:04 J	-6263355.53	-6263355.33	-6263355.12	0.0089	0.0031
Venus	-21861-06-26 17:02 J	-6263129.99	-6263129.79	-6263129.58	0.0089	0.0031
Venus	-21860-02-07 06:28 J	-6262904.44	-6262904.23	-6262904.03	0.0089	0.0031
Venus	-21860-09-20 19:26 J	-6262678.89	-6262678.69	-6262678.48	0.0089	0.0031
Venus	-21859-05-04 08:23 J	-6262453.35	-6262453.15	-6262452.94	0.0089	0.0031
Venus	-21859-12-15 21:36 J	-6262227.80	-6262227.60	-6262227.39	0.0089	0.0031
Moon	-21858-04-30 17:16 J	-6262091.97	-6262091.78	-6262091.55	0.0089	0.0054
Earth	-21858-04-30 19:40 J	-6262091.85	-6262091.68	-6262091.46	0.0089	0.0059 *
Venus	-21858-07-29 10:33 J	-6262002.26	-6262002.06	-6262001.85	0.0089	0.0031
Venus	-21857-03-10 23:45 J	-6261776.71	-6261776.51	-6261776.30	0.0089	0.0031
Earth	-21857-05-02 06:43 J	-6261724.47	-6261724.22	-6261723.97	0.0089	0.0015
Moon	-21857-05-02 09:36 J	-6261724.33	-6261724.10	-6261723.84	0.0089	0.0020 *
Venus	-21857-10-22 12:43 J	-6261551.16	-6261550.97	-6261550.75	0.0089	0.0031
Moon	-21856-05-04 13:55 J	-6261357.15	-6261356.92	-6261356.68	0.0089	0.0033
Earth	-21856-05-04 17:16 J	-6261357.01	-6261356.78	-6261356.53	0.0089	0.0029 *
Venus	-21856-06-05 01:40 J	-6261325.62	-6261325.43	-6261325.21	0.0089	0.0031

Venus	-21855-01-16 14:52 J	-6261100.07	-6261099.88	-6261099.66	0.0089	0.0030
Earth	-21855-05-07 03:50 J	-6260989.48	-6260989.34	-6260989.18	0.0089	0.0072
Moon	-21855-05-07 07:11 J	-6260989.35	-6260989.20	-6260989.01	0.0089	0.0068 *
Venus	-21855-08-30 03:50 J	-6260874.53	-6260874.34	-6260874.12	0.0089	0.0030
Venus	-21854-04-12 17:16 J	-6260648.99	-6260648.78	-6260648.58	0.0089	0.0030
Venus	-21854-11-24 06:00 J	-6260423.45	-6260423.25	-6260423.04	0.0089	0.0030
Venus	-21853-07-06 18:57 J	-6260197.91	-6260197.71	-6260197.50	0.0089	0.0029
Venus	-21852-02-17 07:55 J	-6259972.37	-6259972.17	-6259971.96	0.0089	0.0029
Venus	-21852-09-30 20:38 J	-6259746.83	-6259746.64	-6259746.42	0.0089	0.0029
Venus	-21851-05-14 09:36 J	-6259521.30	-6259521.10	-6259520.89	0.0089	0.0029
Venus	-21851-12-25 22:19 J	-6259295.77	-6259295.57	-6259295.35	0.0089	0.0029
Venus	-21850-08-08 11:02 J	-6259070.23	-6259070.04	-6259069.82	0.0089	0.0029
Venus	-21849-03-21 00:14 J	-6258844.69	-6258844.49	-6258844.28	0.0089	0.0028
Venus	-21849-11-01 12:57 J	-6258619.16	-6258618.96	-6258618.75	0.0089	0.0028
Venus	-21848-06-15 01:40 J	-6258393.63	-6258393.43	-6258393.22	0.0089	0.0027
Venus	-21847-01-26 14:38 J	-6258168.10	-6258167.89	-6258167.68	0.0089	0.0027
Venus	-21847-09-09 03:21 J	-6257942.56	-6257942.36	-6257942.15	0.0089	0.0026
Venus	-21846-04-22 16:04 J	-6257717.03	-6257716.83	-6257716.61	0.0089	0.0026
Venus	-21846-12-04 05:02 J	-6257491.50	-6257491.29	-6257491.08	0.0089	0.0026
Venus	-21845-07-16 17:31 J	-6257265.97	-6257265.77	-6257265.55	0.0089	0.0026
Venus	-21844-02-27 06:14 J	-6257040.43	-6257040.24	-6257040.02	0.0089	0.0025
Venus	-21844-10-10 19:11 J	-6256814.90	-6256814.70	-6256814.49	0.0089	0.0024
Jupiter	-21843-01-02 22:48 J	-6256730.72	-6256730.55	-6256730.25	0.0089	0.0081
Venus	-21843-05-24 07:40 J	-6256589.37	-6256589.18	-6256588.96	0.0089	0.0025
Venus	-21842-01-04 20:38 J	-6256363.85	-6256363.64	-6256363.43	0.0089	0.0024
Venus	-21842-08-18 09:07 J	-6256138.32	-6256138.12	-6256137.90	0.0089	0.0024
Venus	-21841-03-30 22:04 J	-6255912.78	-6255912.58	-6255912.36	0.0089	0.0023
Mars	-21841-07-22 23:45 J	-6255798.76	-6255798.51	-6255798.19	0.0089	0.0048
Mercury	-21841-10-28 16:04 J	-6255700.86	-6255700.83	-6255700.80	0.0089	0.0087
Venus	-21841-11-11 10:33 J	-6255687.26	-6255687.06	-6255686.84	0.0089	0.0023

Mercury	-21840-01-24 17:02 J	-6255612.83	-6255612.79	-6255612.72	0.0089	0.0081
Mercury	-21840-04-22 18:28 J	-6255524.79	-6255524.73	-6255524.64	0.0089	0.0073
Venus	-21840-06-24 23:16 J	-6255461.73	-6255461.53	-6255461.31	0.0089	0.0022
Mercury	-21840-07-19 19:55 J	-6255436.75	-6255436.67	-6255436.57	0.0089	0.0066
Mercury	-21840-10-15 21:07 J	-6255348.70	-6255348.62	-6255348.51	0.0089	0.0060
Mercury	-21839-01-11 22:33 J	-6255260.66	-6255260.56	-6255260.44	0.0089	0.0052
Venus	-21839-02-05 11:45 J	-6255236.21	-6255236.01	-6255235.79	0.0089	0.0022
Mercury	-21839-04-10 00:00 J	-6255172.61	-6255172.50	-6255172.38	0.0089	0.0045
Mars	-21839-06-19 04:48 J	-6255102.62	-6255102.30	-6255101.98	0.0089	0.0027
Mercury	-21839-07-07 01:26 J	-6255084.56	-6255084.44	-6255084.32	0.0089	0.0038
Venus	-21839-09-19 00:28 J	-6255010.68	-6255010.48	-6255010.26	0.0089	0.0021
Mercury	-21839-10-03 02:38 J	-6254996.51	-6254996.39	-6254996.26	0.0089	0.0032
Mercury	-21839-12-30 04:04 J	-6254908.46	-6254908.33	-6254908.20	0.0089	0.0024
Mercury	-21838-03-28 05:31 J	-6254820.40	-6254820.27	-6254820.14	0.0089	0.0017
Venus	-21838-05-02 13:11 J	-6254785.16	-6254784.95	-6254784.73	0.0089	0.0020
Mercury	-21838-06-24 06:43 J	-6254732.35	-6254732.22	-6254732.08	0.0089	0.0011
Mercury	-21838-09-20 08:09 J	-6254644.29	-6254644.16	-6254644.03	0.0089	0.0003
Venus	-21838-12-14 01:40 J	-6254559.63	-6254559.43	-6254559.21	0.0089	0.0020
Mercury	-21838-12-17 09:36 J	-6254556.24	-6254556.10	-6254555.97	0.0089	0.0004
Mercury	-21837-03-14 10:48 J	-6254468.18	-6254468.05	-6254467.91	0.0089	0.0011
Mercury	-21837-06-10 12:14 J	-6254380.12	-6254379.99	-6254379.86	0.0089	0.0018
Venus	-21837-07-26 14:23 J	-6254334.11	-6254333.90	-6254333.69	0.0089	0.0019
Mercury	-21837-09-06 13:26 J	-6254292.06	-6254291.94	-6254291.80	0.0089	0.0025
Mercury	-21837-12-03 14:52 J	-6254204.00	-6254203.88	-6254203.75	0.0089	0.0032
Mercury	-21836-03-01 16:04 J	-6254115.94	-6254115.83	-6254115.70	0.0089	0.0040
Venus	-21836-03-09 02:52 J	-6254108.59	-6254108.38	-6254108.17	0.0089	0.0018
Mercury	-21836-05-28 17:31 J	-6254027.88	-6254027.77	-6254027.65	0.0089	0.0046
Mercury	-21836-08-24 18:57 J	-6253939.81	-6253939.71	-6253939.60	0.0089	0.0053
Venus	-21836-10-20 15:21 J	-6253883.07	-6253882.86	-6253882.64	0.0089	0.0018
Mercury	-21836-11-20 20:09 J	-6253851.75	-6253851.66	-6253851.55	0.0089	0.0061

Mercury	-21835-02-16 21:36 J	-6253763.68	-6253763.60	-6253763.50	0.0089	0.0068
Mercury	-21835-05-15 23:02 J	-6253675.60	-6253675.54	-6253675.46	0.0089	0.0075
Venus	-21835-06-03 03:50 J	-6253657.55	-6253657.34	-6253657.12	0.0089	0.0017
Mercury	-21835-08-12 00:28 J	-6253587.53	-6253587.48	-6253587.42	0.0089	0.0082
Mercury	-21835-11-08 01:55 J	-6253499.43	-6253499.42	-6253499.40	0.0089	0.0089
Venus	-21834-01-14 16:19 J	-6253432.03	-6253431.82	-6253431.60	0.0089	0.0017
Venus	-21834-08-28 04:48 J	-6253206.50	-6253206.30	-6253206.08	0.0089	0.0016
Venus	-21833-04-09 17:31 J	-6252980.98	-6252980.77	-6252980.55	0.0089	0.0015
Venus	-21833-11-21 06:00 J	-6252755.46	-6252755.25	-6252755.03	0.0089	0.0015
Venus	-21832-07-04 18:28 J	-6252529.94	-6252529.73	-6252529.51	0.0089	0.0014
Venus	-21831-02-15 06:57 J	-6252304.42	-6252304.21	-6252303.99	0.0089	0.0013
Venus	-21831-09-28 19:40 J	-6252078.90	-6252078.68	-6252078.47	0.0089	0.0013
Venus	-21830-05-12 08:09 J	-6251853.37	-6251853.16	-6251852.94	0.0089	0.0012
Venus	-21830-12-23 20:38 J	-6251627.85	-6251627.64	-6251627.42	0.0089	0.0012
Venus	-21829-08-05 09:07 J	-6251402.33	-6251402.12	-6251401.90	0.0089	0.0011
Venus	-21828-03-18 21:36 J	-6251176.81	-6251176.60	-6251176.38	0.0089	0.0010
Venus	-21828-10-30 10:04 J	-6250951.29	-6250951.08	-6250950.86	0.0089	0.0009
Venus	-21827-06-12 22:33 J	-6250725.77	-6250725.56	-6250725.34	0.0089	0.0008
Venus	-21826-01-24 10:48 J	-6250500.26	-6250500.05	-6250499.83	0.0089	0.0008
Venus	-21826-09-06 23:16 J	-6250274.74	-6250274.53	-6250274.31	0.0089	0.0007
Venus	-21825-04-19 11:45 J	-6250049.22	-6250049.01	-6250048.79	0.0089	0.0007
Venus	-21825-12-01 00:14 J	-6249823.71	-6249823.49	-6249823.28	0.0089	0.0006
Venus	-21824-07-14 12:28 J	-6249598.19	-6249597.98	-6249597.76	0.0089	0.0005
Venus	-21823-02-25 00:57 J	-6249372.68	-6249372.46	-6249372.25	0.0089	0.0004
Venus	-21823-10-08 13:11 J	-6249147.16	-6249146.95	-6249146.73	0.0089	0.0003
Venus	-21822-05-22 01:40 J	-6248921.64	-6248921.43	-6248921.21	0.0089	0.0003
Venus	-21821-01-02 14:09 J	-6248696.13	-6248695.91	-6248695.70	0.0089	0.0002
Venus	-21821-08-15 02:23 J	-6248470.61	-6248470.40	-6248470.18	0.0089	0.0001
Venus	-21820-03-28 14:52 J	-6248245.10	-6248244.88	-6248244.67	0.0089	0.0001
Venus	-21820-11-09 03:07 J	-6248019.58	-6248019.37	-6248019.15	0.0089	0.0001

Venus	-21819-06-22 15:36 J	-6247794.06	-6247793.85	-6247793.63	0.0089	0.0001
Venus	-21818-02-03 04:04 J	-6247568.55	-6247568.33	-6247568.12	0.0089	0.0002
Venus	-21818-09-16 16:19 J	-6247343.03	-6247342.82	-6247342.60	0.0089	0.0003
Venus	-21817-04-29 04:48 J	-6247117.51	-6247117.30	-6247117.08	0.0089	0.0004
Venus	-21817-12-10 17:16 J	-6246892.00	-6246891.78	-6246891.56	0.0089	0.0004
Venus	-21816-07-24 05:31 J	-6246666.48	-6246666.27	-6246666.05	0.0089	0.0005
Venus	-21815-03-06 17:45 J	-6246440.97	-6246440.76	-6246440.54	0.0089	0.0006
Venus	-21815-10-18 06:14 J	-6246215.45	-6246215.24	-6246215.02	0.0089	0.0006
Venus	-21814-05-31 18:43 J	-6245989.93	-6245989.72	-6245989.50	0.0089	0.0007
Venus	-21813-01-12 06:57 J	-6245764.42	-6245764.21	-6245763.99	0.0089	0.0008
Venus	-21813-08-24 19:11 J	-6245538.91	-6245538.70	-6245538.48	0.0089	0.0009
Venus	-21812-04-07 07:40 J	-6245313.39	-6245313.18	-6245312.96	0.0089	0.0009
Venus	-21812-11-18 19:55 J	-6245087.88	-6245087.67	-6245087.45	0.0089	0.0010
Venus	-21811-07-02 08:23 J	-6244862.36	-6244862.15	-6244861.93	0.0089	0.0011
Venus	-21810-02-12 20:38 J	-6244636.85	-6244636.64	-6244636.42	0.0089	0.0011
Venus	-21810-09-26 09:07 J	-6244411.34	-6244411.12	-6244410.91	0.0089	0.0012
Venus	-21809-05-08 21:21 J	-6244185.82	-6244185.61	-6244185.39	0.0089	0.0013
Venus	-21809-12-20 09:50 J	-6243960.30	-6243960.09	-6243959.88	0.0089	0.0013
Venus	-21808-08-02 22:04 J	-6243734.79	-6243734.58	-6243734.36	0.0089	0.0014
Venus	-21807-03-16 10:19 J	-6243509.28	-6243509.07	-6243508.85	0.0089	0.0015
Venus	-21807-10-27 22:48 J	-6243283.76	-6243283.55	-6243283.33	0.0089	0.0015
Venus	-21806-06-10 11:31 J	-6243058.23	-6243058.02	-6243057.81	0.0089	0.0016
Venus	-21805-01-21 23:45 J	-6242832.71	-6242832.51	-6242832.29	0.0089	0.0017
Venus	-21805-09-03 12:14 J	-6242607.20	-6242606.99	-6242606.77	0.0089	0.0017
Venus	-21804-04-17 00:43 J	-6242381.68	-6242381.47	-6242381.26	0.0089	0.0018
Venus	-21804-11-28 12:57 J	-6242156.16	-6242155.96	-6242155.74	0.0089	0.0019
Venus	-21803-07-12 01:40 J	-6241930.64	-6241930.43	-6241930.21	0.0089	0.0019
Venus	-21802-02-22 14:09 J	-6241705.12	-6241704.91	-6241704.70	0.0089	0.0020
Venus	-21802-10-06 02:23 J	-6241479.60	-6241479.40	-6241479.18	0.0089	0.0021
Venus	-21801-05-18 15:07 J	-6241254.08	-6241253.87	-6241253.66	0.0089	0.0021

Venus	-21801-12-30 03:21 J	-6241028.56	-6241028.36	-6241028.14	0.0089	0.0022
Venus	-21800-08-12 15:36 J	-6240803.05	-6240802.85	-6240802.62	0.0089	0.0023
Venus	-21799-03-26 04:19 J	-6240577.53	-6240577.32	-6240577.11	0.0089	0.0023
Venus	-21799-11-06 16:33 J	-6240352.01	-6240351.81	-6240351.59	0.0088	0.0024
Venus	-21798-06-20 05:16 J	-6240126.48	-6240126.28	-6240126.06	0.0088	0.0024
Venus	-21797-01-31 17:45 J	-6239900.96	-6239900.76	-6239900.54	0.0088	0.0024
Venus	-21797-09-13 06:14 J	-6239675.45	-6239675.24	-6239675.03	0.0088	0.0025
Venus	-21796-04-26 18:28 J	-6239449.93	-6239449.73	-6239449.51	0.0088	0.0026
Venus	-21796-12-08 07:11 J	-6239224.41	-6239224.20	-6239223.99	0.0088	0.0026
Venus	-21795-07-21 19:40 J	-6238998.88	-6238998.68	-6238998.46	0.0088	0.0027
Venus	-21794-03-04 08:23 J	-6238773.35	-6238773.15	-6238772.94	0.0088	0.0027
Venus	-21794-10-15 20:52 J	-6238547.83	-6238547.63	-6238547.41	0.0088	0.0027
Venus	-21793-05-28 09:36 J	-6238322.30	-6238322.10	-6238321.89	0.0088	0.0027
Venus	-21792-01-08 22:19 J	-6238096.78	-6238096.57	-6238096.36	0.0088	0.0028
Venus	-21792-08-22 10:48 J	-6237871.25	-6237871.05	-6237870.83	0.0088	0.0028
Venus	-21791-04-04 23:31 J	-6237645.72	-6237645.52	-6237645.31	0.0088	0.0029
Venus	-21791-11-16 12:00 J	-6237420.20	-6237420.00	-6237419.78	0.0088	0.0029
Venus	-21790-06-30 00:57 J	-6237194.66	-6237194.46	-6237194.25	0.0088	0.0029
Venus	-21789-02-10 13:40 J	-6236969.14	-6236968.93	-6236968.72	0.0088	0.0030
Venus	-21789-09-23 02:09 J	-6236743.61	-6236743.41	-6236743.20	0.0088	0.0030
Venus	-21788-05-06 14:38 J	-6236518.08	-6236517.89	-6236517.67	0.0088	0.0031
Venus	-21788-12-18 03:36 J	-6236292.56	-6236292.35	-6236292.15	0.0088	0.0031
Venus	-21787-07-31 16:04 J	-6236067.02	-6236066.83	-6236066.61	0.0088	0.0031
Venus	-21786-03-14 04:48 J	-6235841.49	-6235841.30	-6235841.08	0.0088	0.0032
Venus	-21786-10-25 17:31 J	-6235615.97	-6235615.77	-6235615.56	0.0088	0.0032
Venus	-21785-06-07 06:28 J	-6235390.44	-6235390.23	-6235390.03	0.0088	0.0032
Venus	-21784-01-18 18:43 J	-6235164.91	-6235164.72	-6235164.50	0.0088	0.0032
Venus	-21784-09-01 07:40 J	-6234939.38	-6234939.18	-6234938.97	0.0088	0.0032
Venus	-21783-04-14 20:23 J	-6234713.84	-6234713.65	-6234713.44	0.0088	0.0032
Venus	-21783-11-26 09:21 J	-6234488.31	-6234488.11	-6234487.90	0.0088	0.0032

Venus	-21782-07-09 22:19 J	-6234262.78	-6234262.57	-6234262.37	0.0088	0.0032
Venus	-21781-02-20 10:48 J	-6234037.24	-6234037.05	-6234036.83	0.0088	0.0033
Venus	-21781-10-02 23:31 J	-6233811.71	-6233811.52	-6233811.30	0.0088	0.0033
Venus	-21780-05-16 12:28 J	-6233586.17	-6233585.98	-6233585.76	0.0088	0.0033
Venus	-21780-12-28 01:26 J	-6233360.64	-6233360.44	-6233360.23	0.0088	0.0033
Venus	-21779-08-10 14:23 J	-6233135.09	-6233134.90	-6233134.68	0.0088	0.0033
Venus	-21778-03-24 03:21 J	-6232909.55	-6232909.36	-6232909.14	0.0088	0.0033
Venus	-21778-11-04 16:19 J	-6232684.01	-6232683.82	-6232683.61	0.0088	0.0033
Venus	-21777-06-17 05:16 J	-6232458.48	-6232458.28	-6232458.07	0.0088	0.0033
Moon	-21777-10-27 15:36 J	-6232325.96	-6232325.85	-6232325.72	0.0088	0.0078
Earth	-21777-10-27 18:28 J	-6232325.84	-6232325.73	-6232325.57	0.0088	0.0075 *
Venus	-21776-01-28 18:00 J	-6232232.94	-6232232.75	-6232232.53	0.0088	0.0033
Venus	-21776-09-11 07:11 J	-6232007.40	-6232007.20	-6232006.99	0.0088	0.0033
Earth	-21776-10-30 07:26 J	-6231958.43	-6231958.19	-6231957.94	0.0088	0.0032
Moon	-21776-10-30 10:48 J	-6231958.29	-6231958.05	-6231957.80	0.0088	0.0028 *
Venus	-21775-04-24 20:09 J	-6231781.86	-6231781.66	-6231781.45	0.0088	0.0033
Moon	-21775-11-01 16:19 J	-6231591.08	-6231590.82	-6231590.55	0.0088	0.0006
Earth	-21775-11-01 20:09 J	-6231590.92	-6231590.66	-6231590.39	0.0088	0.0010 *
Venus	-21775-12-06 08:52 J	-6231556.32	-6231556.13	-6231555.91	0.0088	0.0033
Venus	-21774-07-19 22:04 J	-6231330.78	-6231330.58	-6231330.37	0.0088	0.0033
Earth	-21774-11-04 08:23 J	-6231223.34	-6231223.15	-6231222.93	0.0088	0.0053
Moon	-21774-11-04 11:31 J	-6231223.20	-6231223.02	-6231222.80	0.0088	0.0057 *
Venus	-21773-03-01 11:02 J	-6231105.24	-6231105.04	-6231104.82	0.0088	0.0033
Venus	-21773-10-12 23:45 J	-6230879.70	-6230879.51	-6230879.28	0.0088	0.0033
Venus	-21772-05-26 13:11 J	-6230654.16	-6230653.95	-6230653.74	0.0088	0.0032
Venus	-21771-01-07 02:09 J	-6230428.61	-6230428.41	-6230428.20	0.0088	0.0032
Venus	-21771-08-20 15:07 J	-6230203.06	-6230202.87	-6230202.65	0.0088	0.0032
Venus	-21770-04-03 04:19 J	-6229977.52	-6229977.32	-6229977.10	0.0088	0.0032
Venus	-21770-11-14 17:16 J	-6229751.97	-6229751.78	-6229751.56	0.0088	0.0032
Venus	-21769-06-27 06:43 J	-6229526.43	-6229526.22	-6229526.01	0.0088	0.0031

Venus	-21768-02-07 19:40 J	-6229300.88	-6229300.68	-6229300.47	0.0088	0.0031
Venus	-21768-09-21 08:52 J	-6229075.33	-6229075.13	-6229074.91	0.0088	0.0031
Venus	-21767-05-04 22:04 J	-6228849.78	-6228849.58	-6228849.36	0.0088	0.0031
Venus	-21767-12-16 11:31 J	-6228624.23	-6228624.02	-6228623.81	0.0088	0.0030
Venus	-21766-07-30 00:43 J	-6228398.68	-6228398.47	-6228398.26	0.0088	0.0030
Venus	-21765-03-11 13:40 J	-6228173.12	-6228172.93	-6228172.70	0.0088	0.0030
Venus	-21765-10-23 03:21 J	-6227947.57	-6227947.36	-6227947.15	0.0088	0.0029
Venus	-21764-06-05 16:19 J	-6227722.02	-6227721.82	-6227721.60	0.0088	0.0029
Venus	-21763-01-17 05:31 J	-6227496.47	-6227496.27	-6227496.05	0.0088	0.0029
Venus	-21763-08-30 19:11 J	-6227270.91	-6227270.70	-6227270.49	0.0088	0.0028
Venus	-21762-04-13 08:23 J	-6227045.36	-6227045.15	-6227044.93	0.0088	0.0028
Venus	-21762-11-24 21:50 J	-6226819.80	-6226819.59	-6226819.38	0.0088	0.0027
Venus	-21761-07-07 10:48 J	-6226594.25	-6226594.05	-6226593.83	0.0088	0.0027
Venus	-21760-02-18 00:00 J	-6226368.70	-6226368.50	-6226368.27	0.0088	0.0027
Venus	-21760-10-01 13:40 J	-6226143.14	-6226142.93	-6226142.71	0.0088	0.0026
Mars	-21759-05-01 08:38 J	-6225931.33	-6225931.14	-6225930.91	0.0088	0.0062
Venus	-21759-05-15 02:52 J	-6225917.58	-6225917.38	-6225917.16	0.0088	0.0026
Venus	-21759-12-26 16:19 J	-6225692.03	-6225691.82	-6225691.60	0.0088	0.0025
Venus	-21758-08-09 05:31 J	-6225466.47	-6225466.27	-6225466.04	0.0088	0.0025
Venus	-21757-03-21 18:57 J	-6225240.92	-6225240.71	-6225240.48	0.0088	0.0024
Mars	-21757-03-25 02:09 J	-6225237.70	-6225237.41	-6225237.11	0.0088	0.0002
Mercury	-21757-04-16 12:28 J	-6225214.99	-6225214.98	-6225214.95	0.0088	0.0087
Mercury	-21757-07-13 16:04 J	-6225126.91	-6225126.83	-6225126.73	0.0088	0.0077
Mercury	-21757-10-09 19:11 J	-6225038.80	-6225038.70	-6225038.55	0.0088	0.0068
Venus	-21757-11-02 08:23 J	-6225015.35	-6225015.15	-6225014.92	0.0088	0.0024
Mercury	-21756-01-05 23:02 J	-6224950.67	-6224950.54	-6224950.38	0.0088	0.0058
Mercury	-21756-04-04 02:38 J	-6224862.54	-6224862.39	-6224862.22	0.0088	0.0048
Venus	-21756-06-15 21:50 J	-6224789.80	-6224789.59	-6224789.36	0.0088	0.0023
Mercury	-21756-07-01 06:14 J	-6224774.41	-6224774.24	-6224774.06	0.0088	0.0038
Mercury	-21756-09-27 09:50 J	-6224686.27	-6224686.09	-6224685.90	0.0088	0.0028

Mercury	-21756-12-24 13:26 J	-6224598.13	-6224597.94	-6224597.75	0.0088	0.0018
Venus	-21755-01-27 11:31 J	-6224564.24	-6224564.02	-6224563.80	0.0088	0.0022
Mars	-21755-02-16 20:38 J	-6224543.86	-6224543.64	-6224543.42	0.0088	0.0059
Mercury	-21755-03-22 16:48 J	-6224509.98	-6224509.80	-6224509.60	0.0088	0.0009
Mercury	-21755-06-18 20:38 J	-6224421.84	-6224421.64	-6224421.45	0.0088	0.0002
Venus	-21755-09-10 00:57 J	-6224338.67	-6224338.46	-6224338.23	0.0088	0.0022
Mercury	-21755-09-15 00:00 J	-6224333.69	-6224333.50	-6224333.31	0.0088	0.0011
Mercury	-21755-12-12 03:21 J	-6224245.54	-6224245.36	-6224245.16	0.0088	0.0021
Mercury	-21754-03-10 06:43 J	-6224157.39	-6224157.22	-6224157.03	0.0088	0.0031
Venus	-21754-04-23 14:38 J	-6224113.11	-6224112.89	-6224112.67	0.0088	0.0021
Mercury	-21754-06-06 10:19 J	-6224069.23	-6224069.07	-6224068.89	0.0088	0.0040
Mercury	-21754-09-02 13:40 J	-6223981.07	-6223980.93	-6223980.76	0.0088	0.0050
Mercury	-21754-11-29 17:02 J	-6223892.91	-6223892.79	-6223892.63	0.0088	0.0060
Venus	-21754-12-05 03:50 J	-6223887.54	-6223887.34	-6223887.11	0.0088	0.0021
Mercury	-21753-02-25 20:38 J	-6223804.74	-6223804.64	-6223804.51	0.0088	0.0069
Mercury	-21753-05-24 00:00 J	-6223716.57	-6223716.50	-6223716.40	0.0088	0.0079
Venus	-21753-07-17 17:31 J	-6223661.98	-6223661.77	-6223661.55	0.0088	0.0020
Venus	-21752-02-28 07:11 J	-6223436.42	-6223436.20	-6223435.98	0.0088	0.0019
Venus	-21752-10-11 20:38 J	-6223210.85	-6223210.64	-6223210.41	0.0088	0.0019
Venus	-21751-05-25 10:19 J	-6222985.29	-6222985.07	-6222984.85	0.0088	0.0018
Venus	-21750-01-05 23:45 J	-6222759.72	-6222759.51	-6222759.28	0.0088	0.0018
Venus	-21750-08-19 13:11 J	-6222534.16	-6222533.95	-6222533.72	0.0088	0.0017
Venus	-21749-04-01 02:52 J	-6222308.60	-6222308.38	-6222308.16	0.0088	0.0016
Venus	-21749-11-12 16:33 J	-6222083.03	-6222082.81	-6222082.59	0.0088	0.0015
Venus	-21748-06-26 06:00 J	-6221857.47	-6221857.25	-6221857.03	0.0088	0.0015
Venus	-21747-02-06 19:26 J	-6221631.91	-6221631.69	-6221631.46	0.0088	0.0014
Venus	-21747-09-20 09:07 J	-6221406.34	-6221406.12	-6221405.89	0.0088	0.0013
Venus	-21746-05-03 22:48 J	-6221180.77	-6221180.55	-6221180.33	0.0088	0.0012
Venus	-21746-12-15 12:14 J	-6220955.21	-6220954.99	-6220954.76	0.0088	0.0012
Venus	-21745-07-28 01:40 J	-6220729.64	-6220729.43	-6220729.20	0.0088	0.0011

Venus	-21744-03-10 15:21 J	-6220504.08	-6220503.86	-6220503.63	0.0088	0.0010
Venus	-21744-10-22 05:16 J	-6220278.50	-6220278.28	-6220278.06	0.0088	0.0009
Venus	-21743-06-04 18:57 J	-6220052.94	-6220052.71	-6220052.49	0.0088	0.0009
Venus	-21742-01-16 08:23 J	-6219827.37	-6219827.15	-6219826.92	0.0088	0.0008
Venus	-21742-08-29 22:04 J	-6219601.80	-6219601.58	-6219601.35	0.0088	0.0007
Venus	-21741-04-11 11:45 J	-6219376.23	-6219376.01	-6219375.78	0.0088	0.0006
Venus	-21741-11-23 01:40 J	-6219150.66	-6219150.43	-6219150.21	0.0088	0.0005
Venus	-21740-07-06 15:21 J	-6218925.09	-6218924.86	-6218924.64	0.0088	0.0005
Venus	-21739-02-17 05:02 J	-6218699.52	-6218699.29	-6218699.07	0.0088	0.0004
Venus	-21739-09-30 18:43 J	-6218473.94	-6218473.72	-6218473.49	0.0088	0.0003
Venus	-21738-05-14 08:23 J	-6218248.37	-6218248.15	-6218247.92	0.0088	0.0002
Venus	-21738-12-25 22:04 J	-6218022.80	-6218022.58	-6218022.35	0.0088	0.0002
Venus	-21737-08-07 11:45 J	-6217797.24	-6217797.01	-6217796.79	0.0088	0.0001
Venus	-21736-03-21 01:26 J	-6217571.67	-6217571.44	-6217571.22	0.0088	0.0001
Venus	-21736-11-01 15:07 J	-6217346.09	-6217345.87	-6217345.64	0.0088	0.0001
Venus	-21735-06-15 04:48 J	-6217120.52	-6217120.30	-6217120.07	0.0088	0.0002
Venus	-21734-01-26 18:28 J	-6216894.96	-6216894.73	-6216894.51	0.0088	0.0003
Venus	-21734-09-09 07:55 J	-6216669.39	-6216669.17	-6216668.94	0.0088	0.0004
Venus	-21733-04-21 21:36 J	-6216443.82	-6216443.60	-6216443.37	0.0088	0.0005
Venus	-21733-12-03 11:31 J	-6216218.25	-6216218.02	-6216217.80	0.0088	0.0005
Venus	-21732-07-17 01:11 J	-6215992.68	-6215992.45	-6215992.23	0.0088	0.0006
Venus	-21731-02-27 14:52 J	-6215767.11	-6215766.88	-6215766.66	0.0088	0.0007
Venus	-21731-10-11 04:33 J	-6215541.53	-6215541.31	-6215541.09	0.0088	0.0007
Venus	-21730-05-24 18:14 J	-6215315.96	-6215315.74	-6215315.51	0.0088	0.0008
Venus	-21729-01-05 07:55 J	-6215090.39	-6215090.17	-6215089.94	0.0088	0.0009
Venus	-21729-08-17 21:50 J	-6214864.82	-6214864.59	-6214864.37	0.0088	0.0010
Venus	-21728-03-31 11:16 J	-6214639.25	-6214639.03	-6214638.80	0.0088	0.0011
Venus	-21728-11-12 01:11 J	-6214413.67	-6214413.45	-6214413.22	0.0089	0.0012
Venus	-21727-06-25 14:52 J	-6214188.09	-6214187.88	-6214187.65	0.0089	0.0013
Venus	-21726-02-06 04:33 J	-6213962.52	-6213962.31	-6213962.08	0.0089	0.0013

Venus	-21726-09-19 18:28 J	-6213736.95	-6213736.73	-6213736.51	0.0089	0.0014
Venus	-21725-05-02 07:55 J	-6213511.38	-6213511.17	-6213510.94	0.0089	0.0015
Venus	-21725-12-13 21:50 J	-6213285.81	-6213285.59	-6213285.37	0.0089	0.0015
Venus	-21724-07-27 11:31 J	-6213060.24	-6213060.02	-6213059.80	0.0089	0.0016
Venus	-21723-03-10 00:57 J	-6212834.67	-6212834.46	-6212834.23	0.0089	0.0017
Venus	-21723-10-21 14:38 J	-6212609.10	-6212608.89	-6212608.67	0.0089	0.0018
Venus	-21722-06-04 04:04 J	-6212383.54	-6212383.33	-6212383.10	0.0089	0.0019
Venus	-21721-01-15 18:00 J	-6212157.96	-6212157.75	-6212157.53	0.0089	0.0019
Venus	-21721-08-28 07:26 J	-6211932.40	-6211932.19	-6211931.96	0.0089	0.0020
Venus	-21720-04-10 20:52 J	-6211706.83	-6211706.63	-6211706.40	0.0089	0.0021
Venus	-21720-11-22 10:48 J	-6211481.26	-6211481.05	-6211480.83	0.0089	0.0021
Venus	-21719-07-06 00:28 J	-6211255.69	-6211255.48	-6211255.26	0.0089	0.0022
Venus	-21718-02-16 13:55 J	-6211030.12	-6211029.92	-6211029.69	0.0089	0.0023
Venus	-21718-09-30 03:36 J	-6210804.56	-6210804.35	-6210804.13	0.0089	0.0023
Venus	-21717-05-12 17:16 J	-6210578.99	-6210578.78	-6210578.56	0.0089	0.0024
Venus	-21717-12-24 06:43 J	-6210353.42	-6210353.22	-6210352.99	0.0089	0.0025
Venus	-21716-08-06 20:38 J	-6210127.85	-6210127.64	-6210127.42	0.0089	0.0025
Venus	-21715-03-20 10:04 J	-6209902.28	-6209902.08	-6209901.86	0.0089	0.0026
Venus	-21715-10-31 23:45 J	-6209676.72	-6209676.51	-6209676.29	0.0089	0.0026
Venus	-21714-06-14 13:11 J	-6209451.15	-6209450.95	-6209450.73	0.0089	0.0027
Venus	-21713-01-26 03:07 J	-6209225.58	-6209225.37	-6209225.16	0.0089	0.0027
Venus	-21713-09-07 16:19 J	-6209000.02	-6208999.82	-6208999.60	0.0089	0.0028
Venus	-21712-04-21 06:00 J	-6208774.46	-6208774.25	-6208774.04	0.0089	0.0028
Venus	-21712-12-02 19:26 J	-6208548.89	-6208548.69	-6208548.47	0.0089	0.0029
Venus	-21711-07-16 09:07 J	-6208323.33	-6208323.12	-6208322.91	0.0089	0.0029
Venus	-21710-02-26 22:19 J	-6208097.77	-6208097.57	-6208097.35	0.0089	0.0030
Venus	-21710-10-10 11:45 J	-6207872.21	-6207872.01	-6207871.79	0.0089	0.0031
Venus	-21709-05-23 00:57 J	-6207646.65	-6207646.46	-6207646.24	0.0089	0.0031
Venus	-21708-01-03 14:38 J	-6207421.09	-6207420.89	-6207420.67	0.0089	0.0031
Venus	-21708-08-17 03:50 J	-6207195.53	-6207195.34	-6207195.12	0.0089	0.0032

Venus	-21707-03-30 17:16 J	-6206969.97	-6206969.78	-6206969.56	0.0089	0.0032
Venus	-21707-11-11 06:43 J	-6206744.42	-6206744.22	-6206744.01	0.0089	0.0032
Venus	-21706-06-24 19:55 J	-6206518.86	-6206518.67	-6206518.45	0.0089	0.0033
Venus	-21705-02-05 09:36 J	-6206293.30	-6206293.10	-6206292.89	0.0089	0.0033
Venus	-21705-09-17 23:02 J	-6206067.74	-6206067.54	-6206067.33	0.0089	0.0033
Venus	-21704-05-01 12:28 J	-6205842.19	-6205841.98	-6205841.78	0.0089	0.0034
Venus	-21704-12-13 01:26 J	-6205616.63	-6205616.44	-6205616.22	0.0089	0.0034
Venus	-21703-07-26 14:52 J	-6205391.07	-6205390.88	-6205390.66	0.0089	0.0034
Venus	-21702-03-09 04:33 J	-6205165.51	-6205165.31	-6205165.11	0.0089	0.0034
Venus	-21702-10-20 17:45 J	-6204939.96	-6204939.76	-6204939.55	0.0089	0.0035
Venus	-21701-06-02 06:43 J	-6204714.40	-6204714.22	-6204714.00	0.0089	0.0036
Venus	-21700-01-13 20:09 J	-6204488.85	-6204488.66	-6204488.44	0.0089	0.0036
Venus	-21700-08-27 09:36 J	-6204263.30	-6204263.10	-6204262.89	0.0089	0.0035
Venus	-21699-04-09 22:48 J	-6204037.75	-6204037.55	-6204037.34	0.0089	0.0035
Venus	-21699-11-21 12:00 J	-6203812.20	-6203812.00	-6203811.79	0.0089	0.0036
Venus	-21698-07-05 01:11 J	-6203586.65	-6203586.45	-6203586.25	0.0089	0.0036
Venus	-21697-02-15 14:23 J	-6203361.10	-6203360.90	-6203360.69	0.0089	0.0036
Venus	-21697-09-28 03:36 J	-6203135.55	-6203135.35	-6203135.15	0.0089	0.0036
Venus	-21696-05-11 16:19 J	-6202910.01	-6202909.82	-6202909.60	0.0089	0.0036
Venus	-21696-12-23 05:45 J	-6202684.46	-6202684.26	-6202684.06	0.0089	0.0036
Venus	-21695-08-05 18:57 J	-6202458.91	-6202458.71	-6202458.51	0.0089	0.0036
Venus	-21694-03-19 08:09 J	-6202233.36	-6202233.16	-6202232.96	0.0089	0.0036
Earth	-21694-04-30 05:31 J	-6202191.36	-6202191.27	-6202191.14	0.0089	0.0081
Moon	-21694-04-30 08:52 J	-6202191.20	-6202191.13	-6202191.01	0.0089	0.0083 *
Venus	-21694-10-30 21:07 J	-6202007.82	-6202007.62	-6202007.42	0.0089	0.0036
Moon	-21693-05-01 12:57 J	-6201824.18	-6201823.96	-6201823.72	0.0089	0.0037
Earth	-21693-05-01 16:19 J	-6201824.03	-6201823.82	-6201823.57	0.0089	0.0038 *
Venus	-21693-06-12 10:04 J	-6201782.28	-6201782.08	-6201781.88	0.0089	0.0036
Venus	-21692-01-23 23:16 J	-6201556.73	-6201556.53	-6201556.33	0.0089	0.0036
Earth	-21692-05-04 02:52 J	-6201456.62	-6201456.38	-6201456.12	0.0089	0.0007

Moon	-21692-05-04 06:28 J	-6201456.49	-6201456.23	-6201455.98	0.0089	0.0004 *
Venus	-21692-09-06 12:14 J	-6201331.18	-6201330.99	-6201330.78	0.0089	0.0036
Venus	-21691-04-20 01:11 J	-6201105.64	-6201105.45	-6201105.24	0.0089	0.0036
Moon	-21691-05-06 10:33 J	-6201089.24	-6201089.06	-6201088.84	0.0089	0.0051
Earth	-21691-05-06 13:11 J	-6201089.13	-6201088.95	-6201088.71	0.0089	0.0050 *
Venus	-21691-12-01 14:09 J	-6200880.10	-6200879.91	-6200879.70	0.0089	0.0036
Venus	-21690-07-15 03:07 J	-6200654.56	-6200654.37	-6200654.15	0.0089	0.0036
Venus	-21689-02-25 16:19 J	-6200429.01	-6200428.82	-6200428.61	0.0089	0.0035
Venus	-21689-10-08 05:31 J	-6200203.47	-6200203.27	-6200203.07	0.0089	0.0035
Venus	-21688-05-21 18:28 J	-6199977.93	-6199977.73	-6199977.53	0.0089	0.0035
Venus	-21687-01-02 07:11 J	-6199752.39	-6199752.20	-6199751.99	0.0089	0.0035
Venus	-21687-08-15 20:09 J	-6199526.85	-6199526.66	-6199526.45	0.0089	0.0034
Venus	-21686-03-29 09:21 J	-6199301.31	-6199301.11	-6199300.91	0.0089	0.0034
Venus	-21686-11-09 22:04 J	-6199075.77	-6199075.58	-6199075.37	0.0089	0.0034
Venus	-21685-06-22 10:48 J	-6198850.24	-6198850.05	-6198849.84	0.0089	0.0034
Venus	-21684-02-02 23:31 J	-6198624.70	-6198624.52	-6198624.30	0.0089	0.0034
Venus	-21684-09-16 12:28 J	-6198399.17	-6198398.98	-6198398.77	0.0089	0.0033
Venus	-21683-04-30 01:11 J	-6198173.64	-6198173.45	-6198173.23	0.0089	0.0033
Venus	-21683-12-11 14:09 J	-6197948.11	-6197947.91	-6197947.70	0.0089	0.0032
Venus	-21682-07-25 02:52 J	-6197722.57	-6197722.38	-6197722.17	0.0089	0.0031
Venus	-21681-03-06 15:36 J	-6197497.04	-6197496.85	-6197496.63	0.0089	0.0031
Venus	-21681-10-18 04:33 J	-6197271.51	-6197271.31	-6197271.10	0.0089	0.0030
Venus	-21680-05-31 17:02 J	-6197045.98	-6197045.79	-6197045.57	0.0089	0.0030
Venus	-21679-01-12 06:00 J	-6196820.45	-6196820.25	-6196820.04	0.0089	0.0030
Venus	-21679-08-25 18:28 J	-6196594.92	-6196594.73	-6196594.51	0.0089	0.0030
Venus	-21678-04-08 07:40 J	-6196369.38	-6196369.18	-6196368.97	0.0089	0.0029
Venus	-21678-11-19 20:09 J	-6196143.85	-6196143.66	-6196143.44	0.0089	0.0028
Mars	-21677-03-05 12:00 J	-6196037.08	-6196037.00	-6196036.86	0.0089	0.0085
Venus	-21677-07-02 08:52 J	-6195918.33	-6195918.13	-6195917.91	0.0089	0.0028
Venus	-21676-02-12 21:36 J	-6195692.80	-6195692.60	-6195692.38	0.0089	0.0027

Mercury	-21676-07-25 15:36 J	-6195529.88	-6195529.85	-6195529.80	0.0089	0.0084
Venus	-21676-09-26 10:19 J	-6195467.27	-6195467.07	-6195466.86	0.0089	0.0027
Mercury	-21676-10-21 16:48 J	-6195441.85	-6195441.80	-6195441.72	0.0089	0.0078
Mercury	-21675-01-17 18:14 J	-6195353.81	-6195353.74	-6195353.65	0.0089	0.0070
Mars	-21675-01-30 18:14 J	-6195341.06	-6195340.74	-6195340.39	0.0089	0.0011
Mercury	-21675-04-15 19:40 J	-6195265.77	-6195265.68	-6195265.58	0.0089	0.0063
Venus	-21675-05-09 23:16 J	-6195241.74	-6195241.53	-6195241.32	0.0089	0.0026
Mercury	-21675-07-12 20:52 J	-6195177.72	-6195177.63	-6195177.52	0.0089	0.0057
Mercury	-21675-10-08 22:19 J	-6195089.67	-6195089.57	-6195089.45	0.0089	0.0050
Venus	-21675-12-21 11:31 J	-6195016.21	-6195016.02	-6195015.80	0.0089	0.0026
Mercury	-21674-01-04 23:45 J	-6195001.62	-6195001.51	-6195001.39	0.0089	0.0042
Mercury	-21674-04-03 00:57 J	-6194913.57	-6194913.46	-6194913.33	0.0089	0.0036
Mercury	-21674-06-30 02:23 J	-6194825.52	-6194825.40	-6194825.27	0.0089	0.0028
Venus	-21674-08-04 00:14 J	-6194790.69	-6194790.49	-6194790.27	0.0089	0.0025
Mercury	-21674-09-26 03:50 J	-6194737.47	-6194737.34	-6194737.21	0.0089	0.0021
Mercury	-21674-12-23 05:16 J	-6194649.41	-6194649.28	-6194649.15	0.0089	0.0014
Mars	-21674-12-27 22:04 J	-6194644.79	-6194644.58	-6194644.32	0.0089	0.0064
Venus	-21673-03-16 12:43 J	-6194565.16	-6194564.97	-6194564.75	0.0089	0.0025
Mercury	-21673-03-20 06:28 J	-6194561.36	-6194561.23	-6194561.09	0.0089	0.0008
Mercury	-21673-06-16 07:55 J	-6194473.30	-6194473.17	-6194473.04	0.0089	0.0001
Mercury	-21673-09-12 09:07 J	-6194385.25	-6194385.12	-6194384.98	0.0089	0.0008
Venus	-21673-10-28 01:26 J	-6194339.64	-6194339.44	-6194339.22	0.0089	0.0023
Mercury	-21673-12-09 10:33 J	-6194297.19	-6194297.06	-6194296.93	0.0089	0.0014
Mercury	-21672-03-07 12:00 J	-6194209.13	-6194209.00	-6194208.87	0.0089	0.0021
Mercury	-21672-06-03 13:11 J	-6194121.07	-6194120.95	-6194120.82	0.0089	0.0028
Venus	-21672-06-10 13:55 J	-6194114.12	-6194113.92	-6194113.70	0.0089	0.0023
Mercury	-21672-08-30 14:23 J	-6194033.01	-6194032.90	-6194032.77	0.0089	0.0036
Mercury	-21672-11-26 15:50 J	-6193944.95	-6193944.84	-6193944.71	0.0089	0.0042
Venus	-21671-01-22 02:23 J	-6193888.60	-6193888.40	-6193888.18	0.0089	0.0022
Mercury	-21671-02-22 17:16 J	-6193856.89	-6193856.78	-6193856.66	0.0089	0.0049

Mercury	-21671-05-21 18:28 J	-6193768.82	-6193768.73	-6193768.61	0.0089	0.0057
Mercury	-21671-08-17 19:55 J	-6193680.75	-6193680.67	-6193680.57	0.0089	0.0064
Venus	-21671-09-04 14:52 J	-6193663.08	-6193662.88	-6193662.66	0.0089	0.0022
Mercury	-21671-11-13 21:21 J	-6193592.68	-6193592.61	-6193592.52	0.0089	0.0070
Mercury	-21670-02-09 22:48 J	-6193504.61	-6193504.55	-6193504.48	0.0089	0.0077
Venus	-21670-04-18 03:36 J	-6193437.55	-6193437.35	-6193437.13	0.0089	0.0021
Mercury	-21670-05-09 00:14 J	-6193416.53	-6193416.49	-6193416.45	0.0089	0.0085
Venus	-21670-11-29 16:19 J	-6193212.03	-6193211.82	-6193211.61	0.0089	0.0020
Venus	-21669-07-12 04:33 J	-6192986.51	-6192986.31	-6192986.09	0.0089	0.0019
Venus	-21668-02-22 17:02 J	-6192761.00	-6192760.79	-6192760.57	0.0089	0.0018
Venus	-21668-10-06 05:31 J	-6192535.47	-6192535.27	-6192535.05	0.0089	0.0018
Venus	-21667-05-19 18:00 J	-6192309.95	-6192309.75	-6192309.53	0.0089	0.0017
Venus	-21667-12-31 06:28 J	-6192084.43	-6192084.23	-6192084.01	0.0089	0.0017
Venus	-21666-08-13 19:11 J	-6191858.91	-6191858.70	-6191858.49	0.0089	0.0015
Venus	-21665-03-26 07:40 J	-6191633.39	-6191633.18	-6191632.96	0.0089	0.0015
Venus	-21665-11-06 20:09 J	-6191407.87	-6191407.66	-6191407.44	0.0089	0.0014
Venus	-21664-06-20 08:38 J	-6191182.35	-6191182.14	-6191181.92	0.0089	0.0013
Venus	-21663-01-31 21:07 J	-6190956.83	-6190956.62	-6190956.41	0.0089	0.0012
Venus	-21663-09-14 09:36 J	-6190731.31	-6190731.10	-6190730.89	0.0089	0.0011
Venus	-21662-04-27 22:04 J	-6190505.79	-6190505.58	-6190505.36	0.0089	0.0011
Venus	-21662-12-09 10:33 J	-6190280.27	-6190280.06	-6190279.84	0.0089	0.0010
Venus	-21661-07-21 22:48 J	-6190054.76	-6190054.55	-6190054.33	0.0089	0.0009
Venus	-21660-03-04 11:16 J	-6189829.24	-6189829.03	-6189828.81	0.0089	0.0008
Venus	-21660-10-15 23:45 J	-6189603.73	-6189603.51	-6189603.30	0.0089	0.0007
Venus	-21659-05-29 12:14 J	-6189378.21	-6189377.99	-6189377.78	0.0089	0.0006
Venus	-21658-01-10 00:28 J	-6189152.69	-6189152.48	-6189152.26	0.0089	0.0006
Venus	-21658-08-23 12:57 J	-6188927.18	-6188926.96	-6188926.75	0.0089	0.0005
Venus	-21657-04-05 01:11 J	-6188701.66	-6188701.45	-6188701.23	0.0089	0.0004
Venus	-21657-11-16 13:40 J	-6188476.15	-6188475.93	-6188475.72	0.0089	0.0003
Venus	-21656-06-30 01:55 J	-6188250.63	-6188250.42	-6188250.20	0.0089	0.0002

Venus	-21655-02-10 14:23 J	-6188025.12	-6188024.90	-6188024.69	0.0089	0.0002
Venus	-21655-09-24 02:38 J	-6187799.60	-6187799.39	-6187799.17	0.0089	0.0001
Venus	-21654-05-07 15:07 J	-6187574.08	-6187573.87	-6187573.65	0.0089	0.0002
Venus	-21654-12-19 03:36 J	-6187348.57	-6187348.35	-6187348.13	0.0089	0.0001
Venus	-21653-07-31 15:50 J	-6187123.05	-6187122.84	-6187122.62	0.0089	0.0003
Venus	-21652-03-14 04:19 J	-6186897.54	-6186897.32	-6186897.10	0.0089	0.0003
Venus	-21652-10-25 16:48 J	-6186672.02	-6186671.80	-6186671.59	0.0089	0.0004
Venus	-21651-06-08 05:16 J	-6186446.49	-6186446.28	-6186446.06	0.0089	0.0005
Venus	-21650-01-19 17:31 J	-6186220.98	-6186220.77	-6186220.55	0.0089	0.0006
Venus	-21650-09-02 06:00 J	-6185995.46	-6185995.25	-6185995.03	0.0089	0.0006
Venus	-21649-04-14 18:28 J	-6185769.95	-6185769.73	-6185769.52	0.0089	0.0007
Venus	-21649-11-26 06:43 J	-6185544.43	-6185544.22	-6185544.00	0.0089	0.0008
Venus	-21648-07-09 19:11 J	-6185318.92	-6185318.70	-6185318.49	0.0089	0.0009
Venus	-21647-02-20 07:26 J	-6185093.40	-6185093.19	-6185092.97	0.0089	0.0010
Venus	-21647-10-03 19:40 J	-6184867.89	-6184867.68	-6184867.46	0.0089	0.0011
Venus	-21646-05-17 08:09 J	-6184642.37	-6184642.16	-6184641.94	0.0089	0.0012
Venus	-21646-12-28 20:23 J	-6184416.85	-6184416.65	-6184416.42	0.0089	0.0013
Venus	-21645-08-10 08:52 J	-6184191.34	-6184191.13	-6184190.91	0.0089	0.0013
Venus	-21644-03-23 21:07 J	-6183965.83	-6183965.62	-6183965.40	0.0089	0.0014
Venus	-21644-11-04 09:36 J	-6183740.31	-6183740.10	-6183739.89	0.0089	0.0015
Venus	-21643-06-17 22:04 J	-6183514.79	-6183514.58	-6183514.36	0.0089	0.0016
Venus	-21642-01-29 10:19 J	-6183289.27	-6183289.07	-6183288.85	0.0089	0.0017
Venus	-21642-09-11 22:48 J	-6183063.76	-6183063.55	-6183063.33	0.0089	0.0017
Venus	-21641-04-24 11:16 J	-6182838.24	-6182838.03	-6182837.82	0.0089	0.0018
Venus	-21641-12-05 23:31 J	-6182612.73	-6182612.52	-6182612.30	0.0089	0.0019
Venus	-21640-07-19 12:00 J	-6182387.20	-6182387.00	-6182386.78	0.0089	0.0020
Venus	-21639-03-02 00:14 J	-6182161.69	-6182161.49	-6182161.26	0.0089	0.0021
Venus	-21639-10-13 12:57 J	-6181936.17	-6181935.96	-6181935.74	0.0089	0.0021
Venus	-21638-05-27 01:26 J	-6181710.64	-6181710.44	-6181710.22	0.0089	0.0022
Venus	-21637-01-07 13:55 J	-6181485.12	-6181484.92	-6181484.70	0.0089	0.0022

Venus	-21637-08-20 02:09 J	-6181259.61	-6181259.41	-6181259.19	0.0089	0.0024
Venus	-21636-04-02 14:52 J	-6181034.09	-6181033.88	-6181033.67	0.0089	0.0024
Venus	-21636-11-14 03:07 J	-6180808.57	-6180808.37	-6180808.15	0.0089	0.0025
Venus	-21635-06-27 15:36 J	-6180583.04	-6180582.85	-6180582.63	0.0089	0.0026
Venus	-21634-02-08 04:19 J	-6180357.52	-6180357.32	-6180357.11	0.0089	0.0026
Venus	-21634-09-21 16:33 J	-6180132.01	-6180131.81	-6180131.59	0.0089	0.0027
Venus	-21633-05-04 04:48 J	-6179906.49	-6179906.30	-6179906.08	0.0088	0.0028
Venus	-21633-12-15 17:31 J	-6179680.97	-6179680.77	-6179680.56	0.0088	0.0028
Venus	-21632-07-29 06:00 J	-6179455.45	-6179455.25	-6179455.03	0.0088	0.0028
Venus	-21631-03-11 18:43 J	-6179229.93	-6179229.72	-6179229.51	0.0088	0.0029
Venus	-21631-10-23 06:57 J	-6179004.41	-6179004.21	-6179003.99	0.0088	0.0030
Venus	-21630-06-05 19:40 J	-6178778.88	-6178778.68	-6178778.47	0.0088	0.0030
Venus	-21629-01-17 08:09 J	-6178553.36	-6178553.16	-6178552.95	0.0088	0.0030
Venus	-21629-08-29 20:23 J	-6178327.84	-6178327.65	-6178327.43	0.0088	0.0032
Venus	-21628-04-12 09:07 J	-6178102.31	-6178102.12	-6178101.91	0.0088	0.0032
Venus	-21628-11-23 21:36 J	-6177876.79	-6177876.60	-6177876.38	0.0088	0.0032
Venus	-21627-07-07 10:33 J	-6177651.25	-6177651.06	-6177650.85	0.0088	0.0033
Venus	-21626-02-17 23:02 J	-6177425.73	-6177425.54	-6177425.32	0.0088	0.0033
Venus	-21626-10-01 11:45 J	-6177200.20	-6177200.01	-6177199.80	0.0088	0.0034
Venus	-21625-05-14 00:28 J	-6176974.68	-6176974.48	-6176974.27	0.0088	0.0034
Venus	-21625-12-25 12:57 J	-6176749.15	-6176748.96	-6176748.74	0.0088	0.0034
Venus	-21624-08-08 01:55 J	-6176523.61	-6176523.42	-6176523.21	0.0088	0.0035
Venus	-21623-03-21 14:23 J	-6176298.09	-6176297.90	-6176297.68	0.0088	0.0035
Venus	-21623-11-02 03:07 J	-6176072.56	-6176072.37	-6176072.16	0.0088	0.0036
Venus	-21622-06-15 16:04 J	-6175847.03	-6175846.83	-6175846.63	0.0088	0.0036
Venus	-21621-01-27 04:33 J	-6175621.50	-6175621.31	-6175621.10	0.0088	0.0036
Venus	-21621-09-08 17:16 J	-6175395.97	-6175395.78	-6175395.57	0.0088	0.0036
Venus	-21620-04-22 06:00 J	-6175170.44	-6175170.25	-6175170.04	0.0088	0.0037
Venus	-21620-12-03 18:28 J	-6174944.91	-6174944.73	-6174944.51	0.0088	0.0037
Venus	-21619-07-17 07:26 J	-6174719.37	-6174719.19	-6174718.97	0.0088	0.0037

Venus	-21618-02-27 20:23 J	-6174493.84	-6174493.65	-6174493.44	0.0088	0.0037
Venus	-21618-10-11 09:07 J	-6174268.31	-6174268.12	-6174267.91	0.0088	0.0037
Venus	-21617-05-23 22:04 J	-6174042.78	-6174042.58	-6174042.38	0.0088	0.0038
Venus	-21616-01-04 10:19 J	-6173817.25	-6173817.07	-6173816.85	0.0088	0.0039
Venus	-21616-08-17 23:31 J	-6173591.71	-6173591.52	-6173591.31	0.0088	0.0038
Venus	-21615-03-31 12:28 J	-6173366.17	-6173365.98	-6173365.77	0.0088	0.0038
Venus	-21615-11-12 01:26 J	-6173140.63	-6173140.44	-6173140.23	0.0088	0.0038
Venus	-21614-06-25 14:09 J	-6172915.09	-6172914.91	-6172914.70	0.0088	0.0039
Venus	-21613-02-06 03:07 J	-6172689.55	-6172689.37	-6172689.16	0.0088	0.0039
Venus	-21613-09-18 16:19 J	-6172464.01	-6172463.82	-6172463.62	0.0088	0.0038
Venus	-21612-05-02 05:16 J	-6172238.47	-6172238.28	-6172238.08	0.0088	0.0038
Moon	-21612-10-29 12:43 J	-6172058.18	-6172057.97	-6172057.76	0.0088	0.0051
Earth	-21612-10-29 15:36 J	-6172058.03	-6172057.85	-6172057.62	0.0088	0.0054 *
Venus	-21612-12-13 18:14 J	-6172012.93	-6172012.74	-6172012.54	0.0088	0.0038
Venus	-21611-07-27 07:11 J	-6171787.39	-6171787.20	-6171786.99	0.0088	0.0038
Earth	-21611-11-01 04:33 J	-6171690.56	-6171690.31	-6171690.04	0.0088	0.0011
Moon	-21611-11-01 07:55 J	-6171690.42	-6171690.17	-6171689.90	0.0088	0.0013 *
Venus	-21610-03-09 20:09 J	-6171561.85	-6171561.66	-6171561.45	0.0088	0.0039
Venus	-21610-10-21 09:07 J	-6171336.31	-6171336.12	-6171335.91	0.0088	0.0038
Moon	-21610-11-03 15:21 J	-6171323.09	-6171322.86	-6171322.62	0.0088	0.0034
Earth	-21610-11-03 17:02 J	-6171323.01	-6171322.79	-6171322.52	0.0088	0.0032 *
Venus	-21609-06-02 22:04 J	-6171110.77	-6171110.58	-6171110.37	0.0088	0.0038
Earth	-21609-11-05 06:00 J	-6170955.38	-6170955.25	-6170955.10	0.0088	0.0074
Moon	-21609-11-05 07:26 J	-6170955.34	-6170955.19	-6170955.03	0.0088	0.0072 *
Venus	-21608-01-14 11:02 J	-6170885.23	-6170885.04	-6170884.83	0.0088	0.0038
Venus	-21608-08-28 00:14 J	-6170659.68	-6170659.49	-6170659.28	0.0088	0.0038
Venus	-21607-04-10 13:11 J	-6170434.14	-6170433.95	-6170433.73	0.0088	0.0038
Venus	-21607-11-22 02:38 J	-6170208.59	-6170208.39	-6170208.19	0.0088	0.0037
Venus	-21606-07-05 15:21 J	-6169983.05	-6169982.86	-6169982.65	0.0088	0.0037
Venus	-21605-02-16 04:19 J	-6169757.51	-6169757.32	-6169757.11	0.0088	0.0037

Venus	-21605-09-28 17:31 J	-6169531.96	-6169531.77	-6169531.56	0.0088	0.0037
Venus	-21604-05-12 06:28 J	-6169306.42	-6169306.23	-6169306.01	0.0088	0.0037
Venus	-21604-12-23 19:55 J	-6169080.87	-6169080.67	-6169080.46	0.0088	0.0036
Venus	-21603-08-06 09:07 J	-6168855.32	-6168855.12	-6168854.91	0.0088	0.0036
Venus	-21602-03-19 22:04 J	-6168629.77	-6168629.58	-6168629.36	0.0088	0.0036
Venus	-21602-10-31 11:31 J	-6168404.22	-6168404.02	-6168403.81	0.0088	0.0035
Venus	-21601-06-13 00:28 J	-6168178.67	-6168178.48	-6168178.26	0.0088	0.0035
Venus	-21600-01-24 13:40 J	-6167953.12	-6167952.93	-6167952.71	0.0088	0.0035
Venus	-21600-09-07 03:21 J	-6167727.56	-6167727.36	-6167727.15	0.0088	0.0034
Venus	-21599-04-20 16:33 J	-6167502.01	-6167501.81	-6167501.59	0.0088	0.0034
Venus	-21599-12-02 06:00 J	-6167276.46	-6167276.25	-6167276.04	0.0088	0.0033
Venus	-21598-07-15 18:57 J	-6167050.90	-6167050.71	-6167050.49	0.0088	0.0033
Venus	-21597-02-26 08:09 J	-6166825.35	-6166825.16	-6166824.94	0.0088	0.0033
Venus	-21597-10-08 21:50 J	-6166599.79	-6166599.59	-6166599.38	0.0088	0.0032
Venus	-21596-05-22 10:48 J	-6166374.24	-6166374.05	-6166373.82	0.0088	0.0032
Venus	-21595-01-03 00:14 J	-6166148.69	-6166148.49	-6166148.27	0.0088	0.0031
Venus	-21595-08-16 13:26 J	-6165923.13	-6165922.94	-6165922.71	0.0088	0.0031
Venus	-21594-03-30 02:52 J	-6165697.58	-6165697.38	-6165697.16	0.0088	0.0030
Mars	-21594-11-08 16:19 J	-6165474.09	-6165473.82	-6165473.54	0.0088	0.0031
Venus	-21594-11-10 16:33 J	-6165472.02	-6165471.81	-6165471.60	0.0088	0.0029
Venus	-21593-06-23 05:31 J	-6165246.47	-6165246.27	-6165246.05	0.0088	0.0029
Mercury	-21592-01-11 10:48 J	-6165044.09	-6165044.05	-6165043.97	0.0088	0.0083
Venus	-21592-02-03 18:57 J	-6165020.91	-6165020.71	-6165020.49	0.0088	0.0028
Mercury	-21592-04-09 14:23 J	-6164955.99	-6164955.90	-6164955.77	0.0088	0.0073
Mercury	-21592-07-06 18:00 J	-6164867.87	-6164867.75	-6164867.60	0.0088	0.0063
Venus	-21592-09-17 08:23 J	-6164795.35	-6164795.15	-6164794.92	0.0088	0.0028
Mars	-21592-10-02 09:36 J	-6164780.36	-6164780.10	-6164779.80	0.0088	0.0030
Mercury	-21592-10-02 21:50 J	-6164779.74	-6164779.59	-6164779.43	0.0088	0.0053
Mercury	-21592-12-30 01:26 J	-6164691.61	-6164691.44	-6164691.27	0.0088	0.0043
Mercury	-21591-03-28 05:02 J	-6164603.47	-6164603.29	-6164603.11	0.0088	0.0033

Venus	-21591-04-30 21:50 J	-6164569.79	-6164569.59	-6164569.36	0.0088	0.0027
Mercury	-21591-06-24 08:23 J	-6164515.33	-6164515.15	-6164514.95	0.0088	0.0024
Mercury	-21591-09-20 12:00 J	-6164427.19	-6164427.00	-6164426.80	0.0088	0.0014
Venus	-21591-12-12 11:31 J	-6164344.23	-6164344.02	-6164343.80	0.0088	0.0026
Mercury	-21591-12-17 15:36 J	-6164339.04	-6164338.85	-6164338.65	0.0088	0.0004
Mercury	-21590-03-15 19:11 J	-6164250.89	-6164250.70	-6164250.51	0.0088	0.0006
Mercury	-21590-06-11 22:33 J	-6164162.75	-6164162.56	-6164162.36	0.0088	0.0016
Venus	-21590-07-26 00:43 J	-6164118.67	-6164118.47	-6164118.24	0.0088	0.0026
Mercury	-21590-09-08 02:09 J	-6164074.59	-6164074.41	-6164074.22	0.0088	0.0025
Mercury	-21590-12-05 05:31 J	-6163986.44	-6163986.27	-6163986.09	0.0088	0.0035
Mercury	-21589-03-02 08:52 J	-6163898.28	-6163898.13	-6163897.95	0.0088	0.0045
Venus	-21589-03-07 14:09 J	-6163893.11	-6163892.91	-6163892.68	0.0088	0.0025
Mercury	-21589-05-29 12:14 J	-6163810.12	-6163809.99	-6163809.82	0.0088	0.0055
Mercury	-21589-08-25 15:50 J	-6163721.96	-6163721.84	-6163721.70	0.0088	0.0064
Venus	-21589-10-19 04:04 J	-6163667.54	-6163667.33	-6163667.11	0.0088	0.0024
Mercury	-21589-11-21 19:11 J	-6163633.79	-6163633.70	-6163633.58	0.0088	0.0074
Mercury	-21588-02-17 23:02 J	-6163545.60	-6163545.54	-6163545.48	0.0088	0.0083
Venus	-21588-06-01 17:16 J	-6163441.98	-6163441.78	-6163441.55	0.0088	0.0024
Venus	-21587-01-13 06:57 J	-6163216.42	-6163216.21	-6163215.99	0.0088	0.0023
Venus	-21587-08-26 20:38 J	-6162990.85	-6162990.64	-6162990.42	0.0088	0.0022
Venus	-21586-04-09 10:19 J	-6162765.29	-6162765.07	-6162764.85	0.0088	0.0021
Venus	-21586-11-20 23:31 J	-6162539.72	-6162539.52	-6162539.29	0.0088	0.0021
Venus	-21585-07-03 13:11 J	-6162314.16	-6162313.95	-6162313.72	0.0088	0.0020
Venus	-21584-02-14 02:38 J	-6162088.60	-6162088.39	-6162088.16	0.0088	0.0020
Venus	-21584-09-27 16:33 J	-6161863.03	-6161862.81	-6161862.59	0.0088	0.0018
Venus	-21583-05-11 06:14 J	-6161637.46	-6161637.24	-6161637.02	0.0088	0.0017
Venus	-21583-12-22 19:40 J	-6161411.90	-6161411.68	-6161411.46	0.0088	0.0017
Venus	-21582-08-05 09:07 J	-6161186.34	-6161186.12	-6161185.89	0.0088	0.0016
Venus	-21581-03-17 22:33 J	-6160960.77	-6160960.56	-6160960.33	0.0088	0.0015
Venus	-21581-10-29 12:14 J	-6160735.20	-6160734.99	-6160734.76	0.0088	0.0015

Venus	-21580-06-12 01:55 J	-6160509.63	-6160509.42	-6160509.19	0.0088	0.0013
Venus	-21579-01-23 15:36 J	-6160284.07	-6160283.85	-6160283.62	0.0088	0.0012
Venus	-21579-09-06 05:16 J	-6160058.50	-6160058.28	-6160058.06	0.0088	0.0011
Venus	-21578-04-19 18:57 J	-6159832.93	-6159832.71	-6159832.49	0.0088	0.0011
Venus	-21578-12-01 08:38 J	-6159607.36	-6159607.14	-6159606.92	0.0088	0.0010
Venus	-21577-07-13 22:04 J	-6159381.80	-6159381.58	-6159381.35	0.0088	0.0009
Venus	-21576-02-24 11:45 J	-6159156.23	-6159156.01	-6159155.78	0.0088	0.0008
Venus	-21576-10-08 01:40 J	-6158930.65	-6158930.43	-6158930.20	0.0088	0.0007
Venus	-21575-05-21 15:21 J	-6158705.08	-6158704.86	-6158704.63	0.0088	0.0006
Venus	-21574-01-02 05:02 J	-6158479.51	-6158479.29	-6158479.06	0.0088	0.0006
Venus	-21574-08-15 18:43 J	-6158253.94	-6158253.72	-6158253.49	0.0088	0.0005
Venus	-21573-03-28 08:38 J	-6158028.37	-6158028.14	-6158027.92	0.0088	0.0004
Venus	-21573-11-08 22:19 J	-6157802.79	-6157802.57	-6157802.34	0.0088	0.0003
Venus	-21572-06-22 12:00 J	-6157577.22	-6157577.00	-6157576.77	0.0088	0.0002
Venus	-21571-02-03 01:40 J	-6157351.65	-6157351.43	-6157351.20	0.0088	0.0002
Venus	-21571-09-16 15:21 J	-6157126.08	-6157125.86	-6157125.63	0.0088	0.0001
Venus	-21570-04-30 05:02 J	-6156900.51	-6156900.29	-6156900.06	0.0088	0.0002
Venus	-21570-12-11 18:43 J	-6156674.94	-6156674.72	-6156674.49	0.0088	0.0003
Venus	-21569-07-24 08:23 J	-6156449.37	-6156449.15	-6156448.92	0.0088	0.0004
Venus	-21568-03-06 22:04 J	-6156223.81	-6156223.58	-6156223.36	0.0088	0.0004
Venus	-21568-10-18 11:45 J	-6155998.23	-6155998.01	-6155997.78	0.0088	0.0005
Venus	-21567-06-01 01:26 J	-6155772.66	-6155772.44	-6155772.21	0.0088	0.0006
Venus	-21566-01-12 15:07 J	-6155547.09	-6155546.87	-6155546.64	0.0088	0.0007
Venus	-21566-08-26 04:33 J	-6155321.52	-6155321.31	-6155321.08	0.0088	0.0009
Venus	-21565-04-07 18:14 J	-6155095.95	-6155095.74	-6155095.51	0.0088	0.0010
Venus	-21565-11-19 08:09 J	-6154870.38	-6154870.16	-6154869.93	0.0088	0.0010
Venus	-21564-07-02 22:04 J	-6154644.81	-6154644.58	-6154644.36	0.0088	0.0011
Venus	-21563-02-13 11:45 J	-6154419.24	-6154419.01	-6154418.79	0.0089	0.0012
Venus	-21563-09-27 01:11 J	-6154193.67	-6154193.45	-6154193.22	0.0089	0.0013
Venus	-21562-05-10 14:52 J	-6153968.09	-6153967.88	-6153967.65	0.0089	0.0014

Venus	-21562-12-22 04:48 J	-6153742.52	-6153742.30	-6153742.08	0.0089	0.0015
Venus	-21561-08-03 18:28 J	-6153516.95	-6153516.73	-6153516.51	0.0089	0.0015
Venus	-21560-03-17 07:55 J	-6153291.38	-6153291.17	-6153290.94	0.0089	0.0017
Venus	-21560-10-28 21:36 J	-6153065.81	-6153065.60	-6153065.37	0.0089	0.0018
Venus	-21559-06-11 11:31 J	-6152840.23	-6152840.02	-6152839.80	0.0089	0.0018
Venus	-21558-01-23 01:11 J	-6152614.66	-6152614.45	-6152614.23	0.0089	0.0019
Venus	-21558-09-05 14:52 J	-6152389.10	-6152388.88	-6152388.66	0.0089	0.0020
Venus	-21557-04-18 04:19 J	-6152163.53	-6152163.32	-6152163.10	0.0089	0.0021
Venus	-21557-11-29 18:00 J	-6151937.96	-6151937.75	-6151937.52	0.0089	0.0022
Venus	-21556-07-13 07:26 J	-6151712.39	-6151712.19	-6151711.96	0.0089	0.0023
Venus	-21555-02-23 21:21 J	-6151486.82	-6151486.61	-6151486.39	0.0089	0.0023
Venus	-21555-10-07 10:48 J	-6151261.26	-6151261.05	-6151260.83	0.0089	0.0024
Venus	-21554-05-21 00:14 J	-6151035.69	-6151035.49	-6151035.26	0.0089	0.0025
Venus	-21553-01-01 13:55 J	-6150810.12	-6150809.92	-6150809.69	0.0089	0.0026
Venus	-21553-08-14 03:36 J	-6150584.56	-6150584.35	-6150584.13	0.0089	0.0026
Venus	-21552-03-27 17:02 J	-6150358.99	-6150358.79	-6150358.57	0.0089	0.0027
Venus	-21552-11-08 06:28 J	-6150133.42	-6150133.23	-6150133.00	0.0089	0.0028
Venus	-21551-06-21 20:23 J	-6149907.86	-6149907.65	-6149907.43	0.0089	0.0028
Venus	-21550-02-02 10:04 J	-6149682.29	-6149682.08	-6149681.86	0.0089	0.0029
Venus	-21550-09-15 23:31 J	-6149456.72	-6149456.52	-6149456.30	0.0089	0.0030
Venus	-21549-04-28 13:11 J	-6149231.16	-6149230.95	-6149230.74	0.0089	0.0030
Venus	-21549-12-10 02:38 J	-6149005.58	-6149005.39	-6149005.17	0.0089	0.0031
Venus	-21548-07-23 16:19 J	-6148780.02	-6148779.82	-6148779.60	0.0089	0.0032
Venus	-21547-03-06 06:00 J	-6148554.45	-6148554.25	-6148554.04	0.0089	0.0032
Venus	-21547-10-17 19:11 J	-6148328.89	-6148328.70	-6148328.48	0.0089	0.0033
Venus	-21546-05-31 09:07 J	-6148103.33	-6148103.12	-6148102.92	0.0089	0.0033
Venus	-21545-01-11 22:19 J	-6147877.76	-6147877.57	-6147877.35	0.0089	0.0034
Venus	-21545-08-24 11:45 J	-6147652.20	-6147652.01	-6147651.79	0.0089	0.0035
Venus	-21544-04-07 01:11 J	-6147426.64	-6147426.45	-6147426.24	0.0089	0.0035
Venus	-21544-11-18 14:52 J	-6147201.08	-6147200.88	-6147200.68	0.0089	0.0036

Venus	-21543-07-02 04:04 J	-6146975.52	-6146975.33	-6146975.12	0.0089	0.0036
Venus	-21542-02-12 17:45 J	-6146749.96	-6146749.76	-6146749.56	0.0089	0.0036
Venus	-21542-09-26 06:43 J	-6146524.41	-6146524.22	-6146524.00	0.0089	0.0037
Venus	-21541-05-08 20:09 J	-6146298.85	-6146298.66	-6146298.45	0.0089	0.0037
Venus	-21541-12-20 09:21 J	-6146073.29	-6146073.11	-6146072.89	0.0089	0.0038
Venus	-21540-08-02 23:02 J	-6145847.73	-6145847.54	-6145847.33	0.0089	0.0038
Venus	-21539-03-16 12:28 J	-6145622.17	-6145621.98	-6145621.78	0.0089	0.0038
Venus	-21539-10-28 01:26 J	-6145396.62	-6145396.44	-6145396.22	0.0089	0.0039
Venus	-21538-06-10 14:52 J	-6145171.06	-6145170.88	-6145170.67	0.0089	0.0039
Venus	-21537-01-22 04:33 J	-6144945.50	-6144945.31	-6144945.11	0.0089	0.0039
Venus	-21537-09-03 18:00 J	-6144719.95	-6144719.75	-6144719.55	0.0089	0.0040
Venus	-21536-04-17 06:57 J	-6144494.39	-6144494.21	-6144494.00	0.0089	0.0040
Venus	-21536-11-28 20:09 J	-6144268.84	-6144268.66	-6144268.45	0.0089	0.0041
Venus	-21535-07-12 09:36 J	-6144043.29	-6144043.10	-6144042.89	0.0089	0.0040
Venus	-21534-02-22 23:02 J	-6143817.73	-6143817.54	-6143817.34	0.0089	0.0041
Venus	-21534-10-06 12:14 J	-6143592.18	-6143591.99	-6143591.79	0.0089	0.0041
Venus	-21533-05-19 01:11 J	-6143366.63	-6143366.45	-6143366.24	0.0089	0.0041
Venus	-21533-12-30 14:23 J	-6143141.08	-6143140.90	-6143140.69	0.0089	0.0041
Venus	-21532-08-13 03:36 J	-6142915.53	-6142915.35	-6142915.14	0.0089	0.0041
Venus	-21531-03-26 16:48 J	-6142689.98	-6142689.80	-6142689.60	0.0089	0.0041
Venus	-21531-11-07 05:45 J	-6142464.44	-6142464.26	-6142464.05	0.0089	0.0041
Venus	-21530-06-20 18:43 J	-6142238.90	-6142238.72	-6142238.51	0.0089	0.0042
Venus	-21529-02-01 07:55 J	-6142013.35	-6142013.17	-6142012.96	0.0089	0.0042
Earth	-21529-05-01 03:50 J	-6141923.53	-6141923.34	-6141923.15	0.0089	0.0059
Moon	-21529-05-01 06:28 J	-6141923.41	-6141923.23	-6141923.00	0.0089	0.0055 *
Venus	-21529-09-13 20:52 J	-6141787.80	-6141787.63	-6141787.42	0.0089	0.0042
Venus	-21528-04-27 10:04 J	-6141562.26	-6141562.08	-6141561.87	0.0089	0.0041
Moon	-21528-05-03 12:14 J	-6141556.23	-6141555.99	-6141555.75	0.0089	0.0020
Earth	-21528-05-03 14:23 J	-6141556.15	-6141555.90	-6141555.65	0.0089	0.0016 *
Venus	-21528-12-08 23:02 J	-6141336.72	-6141336.54	-6141336.33	0.0089	0.0041

Earth	-21527-05-06 00:43 J	-6141188.70	-6141188.47	-6141188.22	0.0089	0.0027
Moon	-21527-05-06 02:23 J	-6141188.64	-6141188.40	-6141188.15	0.0089	0.0031 *
Venus	-21527-07-22 12:14 J	-6141111.18	-6141110.99	-6141110.79	0.0089	0.0041
Venus	-21526-03-05 01:26 J	-6140885.63	-6140885.44	-6140885.24	0.0089	0.0041
Earth	-21526-05-08 10:48 J	-6140821.18	-6140821.05	-6140820.87	0.0089	0.0071
Moon	-21526-05-08 11:02 J	-6140821.18	-6140821.04	-6140820.86	0.0089	0.0066 *
Venus	-21526-10-16 14:23 J	-6140660.09	-6140659.90	-6140659.70	0.0089	0.0040
Venus	-21525-05-29 03:07 J	-6140434.55	-6140434.37	-6140434.16	0.0089	0.0041
Venus	-21524-01-09 16:04 J	-6140209.01	-6140208.83	-6140208.62	0.0089	0.0041
Venus	-21524-08-23 05:02 J	-6139983.46	-6139983.29	-6139983.08	0.0089	0.0041
Venus	-21523-04-05 18:28 J	-6139757.92	-6139757.73	-6139757.53	0.0089	0.0040
Venus	-21523-11-17 07:11 J	-6139532.38	-6139532.20	-6139531.99	0.0089	0.0040
Venus	-21522-06-30 20:09 J	-6139306.84	-6139306.66	-6139306.45	0.0089	0.0039
Venus	-21521-02-11 09:21 J	-6139081.30	-6139081.11	-6139080.91	0.0089	0.0039
Venus	-21521-09-23 22:04 J	-6138855.77	-6138855.58	-6138855.38	0.0089	0.0039
Venus	-21520-05-07 10:48 J	-6138630.23	-6138630.05	-6138629.84	0.0089	0.0039
Venus	-21520-12-19 00:00 J	-6138404.70	-6138404.50	-6138404.31	0.0089	0.0038
Venus	-21519-08-01 12:28 J	-6138179.17	-6138178.98	-6138178.77	0.0089	0.0038
Venus	-21518-03-15 01:11 J	-6137953.63	-6137953.45	-6137953.23	0.0089	0.0038
Venus	-21518-10-26 14:09 J	-6137728.10	-6137727.91	-6137727.70	0.0089	0.0037
Venus	-21517-06-08 02:38 J	-6137502.57	-6137502.39	-6137502.17	0.0089	0.0037
Venus	-21516-01-19 15:36 J	-6137277.04	-6137276.85	-6137276.64	0.0089	0.0036
Venus	-21516-09-02 04:19 J	-6137051.51	-6137051.32	-6137051.11	0.0089	0.0035
Venus	-21515-04-15 17:16 J	-6136825.97	-6136825.78	-6136825.57	0.0089	0.0035
Venus	-21515-11-27 05:45 J	-6136600.45	-6136600.26	-6136600.05	0.0089	0.0035
Venus	-21514-07-10 18:28 J	-6136374.92	-6136374.73	-6136374.52	0.0089	0.0034
Venus	-21513-02-21 07:11 J	-6136149.39	-6136149.20	-6136148.98	0.0089	0.0033
Venus	-21513-10-03 19:55 J	-6135923.86	-6135923.67	-6135923.45	0.0089	0.0033
Venus	-21512-05-17 08:52 J	-6135698.33	-6135698.13	-6135697.92	0.0089	0.0032
Mars	-21512-09-13 07:26 J	-6135579.46	-6135579.19	-6135578.89	0.0089	0.0048

Venus	-21512-12-28 21:21 J	-6135472.80	-6135472.61	-6135472.39	0.0089	0.0032
Mercury	-21511-01-23 13:55 J	-6135446.92	-6135446.92	-6135446.88	0.0089	0.0088
Mercury	-21511-04-21 15:21 J	-6135358.90	-6135358.86	-6135358.80	0.0089	0.0081
Mercury	-21511-07-18 16:33 J	-6135270.87	-6135270.81	-6135270.72	0.0089	0.0075
Venus	-21511-08-11 10:19 J	-6135247.27	-6135247.07	-6135246.86	0.0089	0.0030
Mercury	-21511-10-14 18:00 J	-6135182.82	-6135182.75	-6135182.65	0.0089	0.0067
Mercury	-21510-01-10 19:26 J	-6135094.78	-6135094.69	-6135094.59	0.0089	0.0060
Venus	-21510-03-24 22:48 J	-6135021.74	-6135021.55	-6135021.33	0.0089	0.0030
Mercury	-21510-04-08 20:38 J	-6135006.73	-6135006.64	-6135006.52	0.0089	0.0054
Mercury	-21510-07-05 22:04 J	-6134918.68	-6134918.58	-6134918.46	0.0089	0.0047
Mars	-21510-08-10 13:11 J	-6134883.27	-6134882.95	-6134882.63	0.0089	0.0027
Mercury	-21510-10-01 23:31 J	-6134830.63	-6134830.52	-6134830.40	0.0089	0.0039
Venus	-21510-11-05 11:31 J	-6134796.21	-6134796.02	-6134795.80	0.0089	0.0030
Mercury	-21510-12-29 00:57 J	-6134742.58	-6134742.46	-6134742.34	0.0089	0.0032
Mercury	-21509-03-26 02:09 J	-6134654.53	-6134654.41	-6134654.28	0.0089	0.0026
Venus	-21509-06-18 00:14 J	-6134570.69	-6134570.49	-6134570.28	0.0089	0.0029
Mercury	-21509-06-22 03:36 J	-6134566.48	-6134566.35	-6134566.22	0.0089	0.0018
Mercury	-21509-09-18 05:02 J	-6134478.42	-6134478.29	-6134478.16	0.0089	0.0011
Mercury	-21509-12-15 06:14 J	-6134390.37	-6134390.24	-6134390.10	0.0089	0.0005
Venus	-21508-01-29 12:57 J	-6134345.16	-6134344.96	-6134344.75	0.0089	0.0028
Mercury	-21508-03-13 07:40 J	-6134302.31	-6134302.18	-6134302.05	0.0089	0.0003
Mercury	-21508-06-09 09:07 J	-6134214.25	-6134214.12	-6134213.99	0.0089	0.0010
Mercury	-21508-09-05 10:19 J	-6134126.20	-6134126.07	-6134125.94	0.0089	0.0017
Venus	-21508-09-12 01:26 J	-6134119.64	-6134119.44	-6134119.23	0.0089	0.0027
Mercury	-21508-12-02 11:45 J	-6134038.14	-6134038.01	-6134037.88	0.0089	0.0024
Mercury	-21507-02-28 12:57 J	-6133950.08	-6133949.96	-6133949.83	0.0089	0.0031
Venus	-21507-04-25 14:09 J	-6133894.11	-6133893.91	-6133893.70	0.0089	0.0026
Mercury	-21507-05-27 14:23 J	-6133862.02	-6133861.90	-6133861.78	0.0089	0.0038
Mercury	-21507-08-23 15:36 J	-6133773.95	-6133773.85	-6133773.73	0.0089	0.0046
Mercury	-21507-11-19 17:02 J	-6133685.89	-6133685.79	-6133685.68	0.0089	0.0053

Venus	-21507-12-07 02:38 J	-6133668.59	-6133668.39	-6133668.17	0.0089	0.0026
Mercury	-21506-02-15 18:28 J	-6133597.82	-6133597.73	-6133597.63	0.0089	0.0060
Mercury	-21506-05-14 19:55 J	-6133509.76	-6133509.67	-6133509.58	0.0089	0.0067
Venus	-21506-07-20 15:21 J	-6133443.07	-6133442.86	-6133442.65	0.0089	0.0025
Mercury	-21506-08-10 21:21 J	-6133421.68	-6133421.61	-6133421.54	0.0089	0.0074
Mercury	-21506-11-06 22:48 J	-6133333.61	-6133333.55	-6133333.50	0.0089	0.0081
Mercury	-21505-02-02 23:45 J	-6133245.52	-6133245.51	-6133245.48	0.0089	0.0088
Venus	-21505-03-02 03:36 J	-6133217.55	-6133217.35	-6133217.13	0.0089	0.0024
Venus	-21505-10-13 16:04 J	-6132992.02	-6132991.83	-6132991.61	0.0089	0.0024
Venus	-21504-05-27 04:48 J	-6132766.50	-6132766.30	-6132766.08	0.0089	0.0022
Venus	-21503-01-07 17:16 J	-6132540.98	-6132540.78	-6132540.56	0.0089	0.0022
Venus	-21503-08-21 05:45 J	-6132315.46	-6132315.26	-6132315.04	0.0089	0.0021
Venus	-21502-04-03 18:28 J	-6132089.94	-6132089.73	-6132089.52	0.0089	0.0020
Venus	-21502-11-15 06:43 J	-6131864.42	-6131864.22	-6131864.00	0.0089	0.0019
Venus	-21501-06-27 19:11 J	-6131638.90	-6131638.70	-6131638.48	0.0089	0.0018
Venus	-21500-02-08 07:40 J	-6131413.39	-6131413.18	-6131412.96	0.0089	0.0017
Venus	-21500-09-21 20:09 J	-6131187.87	-6131187.66	-6131187.44	0.0089	0.0016
Venus	-21499-05-05 08:52 J	-6130962.34	-6130962.13	-6130961.91	0.0089	0.0015
Venus	-21499-12-16 21:21 J	-6130736.82	-6130736.61	-6130736.39	0.0089	0.0014
Venus	-21498-07-30 09:50 J	-6130511.30	-6130511.09	-6130510.88	0.0089	0.0013
Venus	-21497-03-11 22:19 J	-6130285.78	-6130285.57	-6130285.36	0.0089	0.0013
Venus	-21497-10-23 10:48 J	-6130060.26	-6130060.05	-6130059.84	0.0089	0.0012
Venus	-21496-06-05 23:02 J	-6129834.74	-6129834.54	-6129834.31	0.0089	0.0012
Venus	-21495-01-17 11:31 J	-6129609.23	-6129609.02	-6129608.80	0.0089	0.0010
Venus	-21495-08-31 00:00 J	-6129383.71	-6129383.50	-6129383.28	0.0089	0.0009
Venus	-21494-04-13 12:28 J	-6129158.19	-6129157.98	-6129157.76	0.0089	0.0008
Venus	-21494-11-25 00:43 J	-6128932.68	-6128932.47	-6128932.25	0.0089	0.0007
Venus	-21493-07-07 13:11 J	-6128707.16	-6128706.95	-6128706.73	0.0089	0.0006
Venus	-21492-02-18 01:26 J	-6128481.65	-6128481.44	-6128481.22	0.0089	0.0005
Venus	-21492-10-01 13:55 J	-6128256.14	-6128255.92	-6128255.71	0.0089	0.0004

Venus	-21491-05-15 02:23 J	-6128030.62	-6128030.40	-6128030.18	0.0089	0.0003
Venus	-21491-12-26 14:38 J	-6127805.10	-6127804.89	-6127804.67	0.0089	0.0002
Venus	-21490-08-09 02:52 J	-6127579.59	-6127579.38	-6127579.16	0.0089	0.0002
Venus	-21489-03-21 15:21 J	-6127354.08	-6127353.86	-6127353.65	0.0089	0.0001
Venus	-21489-11-02 03:36 J	-6127128.56	-6127128.35	-6127128.13	0.0089	0.0002
Venus	-21488-06-15 16:04 J	-6126903.04	-6126902.83	-6126902.61	0.0089	0.0002
Venus	-21487-01-27 04:33 J	-6126677.53	-6126677.31	-6126677.10	0.0089	0.0003
Venus	-21487-09-09 16:48 J	-6126452.01	-6126451.80	-6126451.58	0.0089	0.0004
Venus	-21486-04-23 05:16 J	-6126226.49	-6126226.28	-6126226.06	0.0089	0.0005
Venus	-21486-12-04 17:45 J	-6126000.98	-6126000.76	-6126000.55	0.0089	0.0006
Venus	-21485-07-17 06:00 J	-6125775.46	-6125775.25	-6125775.03	0.0089	0.0007
Venus	-21484-02-27 18:28 J	-6125549.95	-6125549.73	-6125549.52	0.0089	0.0008
Venus	-21484-10-11 06:43 J	-6125324.43	-6125324.22	-6125324.00	0.0089	0.0009
Venus	-21483-05-24 19:11 J	-6125098.91	-6125098.70	-6125098.48	0.0089	0.0010
Venus	-21482-01-05 07:40 J	-6124873.39	-6124873.18	-6124872.96	0.0089	0.0011
Venus	-21482-08-18 19:55 J	-6124647.88	-6124647.67	-6124647.45	0.0089	0.0012
Venus	-21481-03-31 08:09 J	-6124422.37	-6124422.16	-6124421.94	0.0089	0.0013
Venus	-21481-11-11 20:38 J	-6124196.85	-6124196.64	-6124196.42	0.0089	0.0014
Venus	-21480-06-25 09:07 J	-6123971.33	-6123971.12	-6123970.90	0.0089	0.0015
Venus	-21479-02-05 21:21 J	-6123745.82	-6123745.61	-6123745.39	0.0089	0.0016
Venus	-21479-09-19 09:36 J	-6123520.30	-6123520.10	-6123519.88	0.0089	0.0017
Venus	-21478-05-02 22:04 J	-6123294.79	-6123294.58	-6123294.36	0.0089	0.0017
Venus	-21478-12-14 10:33 J	-6123069.27	-6123069.06	-6123068.85	0.0089	0.0018
Venus	-21477-07-26 23:02 J	-6122843.75	-6122843.54	-6122843.33	0.0089	0.0019
Venus	-21476-03-09 11:16 J	-6122618.24	-6122618.03	-6122617.82	0.0089	0.0020
Venus	-21476-10-20 23:31 J	-6122392.72	-6122392.52	-6122392.30	0.0089	0.0021
Venus	-21475-06-03 12:14 J	-6122167.20	-6122166.99	-6122166.78	0.0089	0.0022
Venus	-21474-01-15 00:28 J	-6121941.68	-6121941.48	-6121941.26	0.0089	0.0023
Venus	-21474-08-28 12:57 J	-6121716.16	-6121715.96	-6121715.74	0.0089	0.0024
Venus	-21473-04-10 01:11 J	-6121490.64	-6121490.45	-6121490.23	0.0089	0.0025

Venus	-21473-11-21 13:40 J	-6121265.12	-6121264.93	-6121264.71	0.0089	0.0026
Venus	-21472-07-05 02:38 J	-6121039.59	-6121039.39	-6121039.18	0.0089	0.0026
Venus	-21471-02-15 15:07 J	-6120814.07	-6120813.87	-6120813.66	0.0089	0.0027
Venus	-21471-09-29 03:21 J	-6120588.55	-6120588.36	-6120588.14	0.0089	0.0028
Venus	-21470-05-12 15:50 J	-6120363.03	-6120362.84	-6120362.62	0.0089	0.0029
Venus	-21470-12-24 04:33 J	-6120137.51	-6120137.31	-6120137.10	0.0088	0.0029
Venus	-21469-08-05 17:02 J	-6119911.99	-6119911.79	-6119911.58	0.0088	0.0030
Venus	-21468-03-19 05:16 J	-6119686.47	-6119686.28	-6119686.06	0.0088	0.0031
Venus	-21468-10-30 17:45 J	-6119460.95	-6119460.76	-6119460.54	0.0088	0.0032
Venus	-21467-06-13 06:43 J	-6119235.42	-6119235.22	-6119235.02	0.0088	0.0032
Venus	-21466-01-24 18:57 J	-6119009.90	-6119009.71	-6119009.50	0.0088	0.0033
Venus	-21466-09-07 07:26 J	-6118784.38	-6118784.19	-6118783.98	0.0088	0.0033
Venus	-21465-04-19 20:09 J	-6118558.86	-6118558.66	-6118558.46	0.0088	0.0034
Venus	-21465-12-01 08:23 J	-6118333.34	-6118333.15	-6118332.94	0.0088	0.0035
Venus	-21464-07-14 20:52 J	-6118107.81	-6118107.63	-6118107.41	0.0088	0.0036
Venus	-21463-02-25 09:50 J	-6117882.29	-6117882.09	-6117881.89	0.0088	0.0036
Venus	-21463-10-08 22:04 J	-6117656.76	-6117656.58	-6117656.36	0.0088	0.0037
Venus	-21462-05-22 11:02 J	-6117431.24	-6117431.04	-6117430.84	0.0088	0.0037
Venus	-21461-01-02 23:16 J	-6117205.71	-6117205.53	-6117205.32	0.0088	0.0038
Venus	-21461-08-15 12:28 J	-6116980.18	-6116979.98	-6116979.79	0.0088	0.0038
Venus	-21460-03-29 00:43 J	-6116754.65	-6116754.47	-6116754.26	0.0088	0.0039
Venus	-21460-11-09 13:40 J	-6116529.12	-6116528.93	-6116528.73	0.0088	0.0039
Venus	-21459-06-23 02:09 J	-6116303.59	-6116303.41	-6116303.20	0.0088	0.0039
Venus	-21458-02-03 15:07 J	-6116078.06	-6116077.87	-6116077.67	0.0088	0.0040
Venus	-21458-09-17 03:36 J	-6115852.53	-6115852.35	-6115852.14	0.0088	0.0040
Venus	-21457-04-29 16:19 J	-6115627.01	-6115626.82	-6115626.62	0.0088	0.0040
Venus	-21457-12-11 04:48 J	-6115401.48	-6115401.30	-6115401.09	0.0088	0.0041
Venus	-21456-07-24 17:45 J	-6115175.94	-6115175.76	-6115175.55	0.0088	0.0041
Venus	-21455-03-07 06:43 J	-6114950.41	-6114950.22	-6114950.02	0.0088	0.0041
Venus	-21455-10-18 19:26 J	-6114724.88	-6114724.69	-6114724.49	0.0088	0.0042

Venus	-21454-06-01 07:55 J	-6114499.35	-6114499.17	-6114498.97	0.0088	0.0042
Venus	-21453-01-12 20:38 J	-6114273.82	-6114273.64	-6114273.44	0.0088	0.0042
Venus	-21453-08-25 09:36 J	-6114048.29	-6114048.10	-6114047.90	0.0088	0.0042
Venus	-21452-04-07 22:33 J	-6113822.75	-6113822.56	-6113822.37	0.0088	0.0043
Venus	-21452-11-19 10:48 J	-6113597.22	-6113597.05	-6113596.84	0.0088	0.0044
Venus	-21451-07-02 23:45 J	-6113371.69	-6113371.51	-6113371.30	0.0088	0.0043
Venus	-21450-02-13 12:43 J	-6113146.15	-6113145.97	-6113145.77	0.0088	0.0043
Venus	-21450-09-27 01:40 J	-6112920.61	-6112920.43	-6112920.23	0.0088	0.0043
Venus	-21449-05-09 14:38 J	-6112695.08	-6112694.89	-6112694.69	0.0088	0.0043
Venus	-21449-12-21 03:21 J	-6112469.54	-6112469.36	-6112469.16	0.0088	0.0044
Venus	-21448-08-03 16:33 J	-6112243.99	-6112243.81	-6112243.61	0.0088	0.0044
Earth	-21448-10-29 00:00 J	-6112157.61	-6112157.50	-6112157.34	0.0088	0.0075
Moon	-21448-10-29 02:52 J	-6112157.48	-6112157.38	-6112157.24	0.0088	0.0078 *
Venus	-21447-03-17 05:31 J	-6112018.45	-6112018.27	-6112018.07	0.0088	0.0044
Venus	-21447-10-28 18:28 J	-6111792.92	-6111792.73	-6111792.53	0.0088	0.0044
Moon	-21447-10-31 11:02 J	-6111790.27	-6111790.04	-6111789.79	0.0088	0.0029
Earth	-21447-10-31 13:26 J	-6111790.18	-6111789.94	-6111789.69	0.0088	0.0032 *
Venus	-21446-06-11 07:26 J	-6111567.38	-6111567.19	-6111566.99	0.0088	0.0043
Earth	-21446-11-03 02:23 J	-6111422.66	-6111422.40	-6111422.14	0.0088	0.0010
Moon	-21446-11-03 02:52 J	-6111422.64	-6111422.38	-6111422.10	0.0088	0.0007 *
Venus	-21445-01-22 20:23 J	-6111341.84	-6111341.65	-6111341.45	0.0088	0.0043
Venus	-21445-09-04 09:36 J	-6111116.29	-6111116.10	-6111115.90	0.0088	0.0043
Earth	-21445-11-04 14:38 J	-6111055.08	-6111054.89	-6111054.67	0.0088	0.0053
Moon	-21445-11-04 15:36 J	-6111055.04	-6111054.85	-6111054.66	0.0088	0.0056 *
Venus	-21444-04-17 22:33 J	-6110890.74	-6110890.56	-6110890.36	0.0088	0.0043
Venus	-21444-11-29 11:31 J	-6110665.20	-6110665.02	-6110664.82	0.0088	0.0043
Venus	-21443-07-13 00:28 J	-6110439.66	-6110439.48	-6110439.27	0.0088	0.0043
Venus	-21442-02-23 13:26 J	-6110214.12	-6110213.94	-6110213.73	0.0088	0.0043
Venus	-21442-10-07 02:23 J	-6109988.57	-6109988.40	-6109988.19	0.0088	0.0043
Venus	-21441-05-19 15:50 J	-6109763.03	-6109762.84	-6109762.64	0.0088	0.0042

Venus	-21441-12-31 04:48 J	-6109537.49	-6109537.30	-6109537.10	0.0088	0.0042
Venus	-21440-08-13 18:00 J	-6109311.94	-6109311.75	-6109311.55	0.0088	0.0042
Venus	-21439-03-27 06:57 J	-6109086.39	-6109086.21	-6109086.00	0.0088	0.0042
Venus	-21439-11-07 20:23 J	-6108860.85	-6108860.65	-6108860.45	0.0088	0.0041
Venus	-21438-06-21 09:07 J	-6108635.30	-6108635.12	-6108634.91	0.0088	0.0041
Venus	-21437-02-01 22:19 J	-6108409.75	-6108409.57	-6108409.36	0.0088	0.0041
Venus	-21437-09-14 12:00 J	-6108184.20	-6108184.00	-6108183.80	0.0088	0.0040
Venus	-21436-04-28 00:57 J	-6107958.65	-6107958.46	-6107958.25	0.0088	0.0040
Venus	-21436-12-09 14:09 J	-6107733.09	-6107732.91	-6107732.70	0.0088	0.0040
Venus	-21435-07-23 03:36 J	-6107507.54	-6107507.35	-6107507.14	0.0088	0.0039
Venus	-21434-03-05 16:48 J	-6107281.99	-6107281.80	-6107281.59	0.0088	0.0039
Jupiter	-21434-03-07 02:23 J	-6107280.61	-6107280.40	-6107280.09	0.0088	0.0078
Venus	-21434-10-17 06:14 J	-6107056.43	-6107056.24	-6107056.03	0.0088	0.0038
Venus	-21433-05-29 19:26 J	-6106830.88	-6106830.69	-6106830.48	0.0088	0.0038
Venus	-21432-01-10 08:52 J	-6106605.32	-6106605.13	-6106604.92	0.0088	0.0037
Venus	-21432-08-23 22:04 J	-6106379.77	-6106379.58	-6106379.36	0.0088	0.0037
Venus	-21431-04-06 11:31 J	-6106154.21	-6106154.02	-6106153.80	0.0088	0.0036
Venus	-21431-11-18 00:43 J	-6105928.66	-6105928.47	-6105928.25	0.0088	0.0036
Mars	-21430-06-24 05:16 J	-6105710.47	-6105710.28	-6105710.05	0.0088	0.0061
Venus	-21430-07-01 14:09 J	-6105703.10	-6105702.91	-6105702.69	0.0088	0.0035
Venus	-21429-02-12 03:36 J	-6105477.55	-6105477.35	-6105477.14	0.0088	0.0034
Venus	-21429-09-24 16:48 J	-6105251.99	-6105251.80	-6105251.57	0.0088	0.0034
Venus	-21428-05-08 06:28 J	-6105026.43	-6105026.23	-6105026.01	0.0088	0.0033
Mars	-21428-05-18 00:00 J	-6105016.79	-6105016.50	-6105016.20	0.0088	0.0001
Mercury	-21428-07-12 06:28 J	-6104961.24	-6104961.23	-6104961.20	0.0088	0.0087
Mercury	-21428-10-08 10:04 J	-6104873.16	-6104873.08	-6104872.98	0.0088	0.0077
Venus	-21428-12-19 19:55 J	-6104800.87	-6104800.67	-6104800.46	0.0088	0.0032
Mercury	-21427-01-04 13:55 J	-6104785.05	-6104784.92	-6104784.80	0.0088	0.0067
Mercury	-21427-04-02 17:02 J	-6104696.92	-6104696.79	-6104696.63	0.0088	0.0058
Mercury	-21427-06-29 20:38 J	-6104608.79	-6104608.64	-6104608.46	0.0088	0.0048

Venus	-21427-08-02 09:21 J	-6104575.32	-6104575.11	-6104574.90	0.0088	0.0031
Mercury	-21427-09-26 00:14 J	-6104520.65	-6104520.49	-6104520.30	0.0088	0.0038
Mercury	-21427-12-23 03:50 J	-6104432.51	-6104432.34	-6104432.15	0.0088	0.0028
Venus	-21426-03-15 22:19 J	-6104349.76	-6104349.57	-6104349.34	0.0088	0.0031
Mercury	-21426-03-21 07:26 J	-6104344.37	-6104344.19	-6104343.99	0.0088	0.0018
Mars	-21426-04-11 18:00 J	-6104322.95	-6104322.75	-6104322.53	0.0088	0.0061
Mercury	-21426-06-17 11:02 J	-6104256.23	-6104256.04	-6104255.84	0.0088	0.0009
Mercury	-21426-09-13 14:38 J	-6104168.08	-6104167.89	-6104167.69	0.0088	0.0002
Venus	-21426-10-27 12:00 J	-6104124.20	-6104124.00	-6104123.78	0.0088	0.0030
Mercury	-21426-12-10 18:14 J	-6104079.93	-6104079.74	-6104079.55	0.0088	0.0011
Mercury	-21425-03-07 21:36 J	-6103991.78	-6103991.60	-6103991.41	0.0088	0.0021
Mercury	-21425-06-04 00:57 J	-6103903.63	-6103903.46	-6103903.27	0.0088	0.0031
Venus	-21425-06-09 01:40 J	-6103898.64	-6103898.43	-6103898.22	0.0088	0.0029
Mercury	-21425-08-31 04:19 J	-6103815.48	-6103815.32	-6103815.13	0.0088	0.0041
Mercury	-21425-11-27 07:55 J	-6103727.32	-6103727.17	-6103727.00	0.0088	0.0050
Venus	-21424-01-20 15:07 J	-6103673.08	-6103672.87	-6103672.66	0.0088	0.0028
Mercury	-21424-02-23 11:16 J	-6103639.15	-6103639.03	-6103638.87	0.0088	0.0060
Mercury	-21424-05-22 14:38 J	-6103550.99	-6103550.89	-6103550.75	0.0088	0.0070
Mercury	-21424-08-18 18:28 J	-6103462.81	-6103462.73	-6103462.64	0.0088	0.0079
Venus	-21424-09-03 04:19 J	-6103447.52	-6103447.32	-6103447.09	0.0088	0.0028
Venus	-21423-04-16 18:00 J	-6103221.96	-6103221.75	-6103221.53	0.0088	0.0027
Venus	-21423-11-28 07:26 J	-6102996.39	-6102996.19	-6102995.96	0.0088	0.0027
Venus	-21422-07-11 21:07 J	-6102770.83	-6102770.62	-6102770.40	0.0088	0.0025
Venus	-21421-02-22 10:48 J	-6102545.27	-6102545.05	-6102544.84	0.0088	0.0024
Venus	-21421-10-05 00:14 J	-6102319.70	-6102319.49	-6102319.26	0.0088	0.0024
Venus	-21420-05-18 13:40 J	-6102094.13	-6102093.93	-6102093.70	0.0088	0.0024
Venus	-21420-12-30 03:21 J	-6101868.57	-6101868.36	-6101868.13	0.0088	0.0022
Venus	-21419-08-12 16:48 J	-6101643.00	-6101642.80	-6101642.57	0.0088	0.0022
Venus	-21418-03-26 06:28 J	-6101417.44	-6101417.23	-6101417.00	0.0088	0.0020
Venus	-21418-11-06 20:09 J	-6101191.87	-6101191.66	-6101191.43	0.0088	0.0019

Venus	-21417-06-19 09:50 J	-6100966.31	-6100966.09	-6100965.87	0.0088	0.0018
Venus	-21416-01-30 23:16 J	-6100740.74	-6100740.53	-6100740.30	0.0088	0.0017
Venus	-21416-09-13 12:57 J	-6100515.18	-6100514.96	-6100514.73	0.0088	0.0016
Venus	-21415-04-27 02:38 J	-6100289.61	-6100289.39	-6100289.17	0.0088	0.0015
Venus	-21415-12-08 16:04 J	-6100064.05	-6100063.83	-6100063.60	0.0088	0.0014
Venus	-21414-07-22 05:45 J	-6099838.48	-6099838.26	-6099838.04	0.0088	0.0013
Venus	-21413-03-03 19:11 J	-6099612.92	-6099612.70	-6099612.47	0.0088	0.0012
Venus	-21413-10-15 09:07 J	-6099387.34	-6099387.12	-6099386.90	0.0088	0.0011
Venus	-21412-05-28 22:48 J	-6099161.77	-6099161.55	-6099161.33	0.0088	0.0010
Venus	-21411-01-09 12:14 J	-6098936.21	-6098935.99	-6098935.76	0.0088	0.0010
Venus	-21411-08-23 01:55 J	-6098710.64	-6098710.42	-6098710.19	0.0088	0.0008
Venus	-21410-04-05 15:36 J	-6098485.07	-6098484.85	-6098484.62	0.0088	0.0007
Venus	-21410-11-17 05:31 J	-6098259.49	-6098259.27	-6098259.04	0.0088	0.0006
Venus	-21409-06-29 19:11 J	-6098033.92	-6098033.70	-6098033.47	0.0088	0.0005
Venus	-21408-02-10 08:52 J	-6097808.35	-6097808.13	-6097807.90	0.0088	0.0004
Venus	-21408-09-23 22:33 J	-6097582.78	-6097582.56	-6097582.33	0.0088	0.0003
Venus	-21407-05-07 12:28 J	-6097357.21	-6097356.98	-6097356.76	0.0088	0.0002
Venus	-21407-12-19 02:09 J	-6097131.63	-6097131.41	-6097131.19	0.0088	0.0001
Venus	-21406-08-01 15:50 J	-6096906.07	-6096905.84	-6096905.62	0.0088	0.0000
Venus	-21405-03-14 05:31 J	-6096680.50	-6096680.27	-6096680.05	0.0088	0.0001
Venus	-21405-10-25 19:11 J	-6096454.92	-6096454.70	-6096454.47	0.0088	0.0003
Venus	-21404-06-08 08:52 J	-6096229.35	-6096229.13	-6096228.90	0.0088	0.0004
Venus	-21403-01-19 22:33 J	-6096003.78	-6096003.56	-6096003.33	0.0088	0.0005
Venus	-21403-09-02 12:14 J	-6095778.21	-6095777.99	-6095777.76	0.0088	0.0006
Venus	-21402-04-16 01:55 J	-6095552.64	-6095552.42	-6095552.20	0.0088	0.0007
Venus	-21402-11-27 15:36 J	-6095327.07	-6095326.85	-6095326.62	0.0088	0.0008
Venus	-21401-07-10 05:16 J	-6095101.50	-6095101.28	-6095101.05	0.0088	0.0009
Venus	-21400-02-20 18:57 J	-6094875.93	-6094875.71	-6094875.48	0.0088	0.0010
Venus	-21400-10-04 08:38 J	-6094650.36	-6094650.14	-6094649.91	0.0088	0.0011
Venus	-21399-05-17 22:19 J	-6094424.79	-6094424.57	-6094424.34	0.0088	0.0012

Venus	-21399-12-29 12:14 J	-6094199.21	-6094198.99	-6094198.77	0.0089	0.0013
Venus	-21398-08-12 01:55 J	-6093973.64	-6093973.42	-6093973.20	0.0089	0.0014
Venus	-21397-03-24 15:36 J	-6093748.07	-6093747.85	-6093747.63	0.0089	0.0015
Venus	-21397-11-05 05:02 J	-6093522.50	-6093522.29	-6093522.06	0.0089	0.0017
Venus	-21396-06-18 18:57 J	-6093296.92	-6093296.71	-6093296.48	0.0089	0.0017
Venus	-21395-01-30 08:38 J	-6093071.35	-6093071.14	-6093070.91	0.0089	0.0018
Venus	-21395-09-12 22:19 J	-6092845.78	-6092845.57	-6092845.34	0.0089	0.0019
Venus	-21394-04-26 12:14 J	-6092620.21	-6092619.99	-6092619.77	0.0089	0.0020
Venus	-21394-12-08 01:55 J	-6092394.63	-6092394.42	-6092394.20	0.0089	0.0021
Venus	-21393-07-20 15:36 J	-6092169.06	-6092168.85	-6092168.63	0.0089	0.0022
Venus	-21392-03-03 05:16 J	-6091943.49	-6091943.28	-6091943.06	0.0089	0.0023
Venus	-21392-10-14 18:43 J	-6091717.93	-6091717.72	-6091717.50	0.0089	0.0024
Venus	-21391-05-28 08:23 J	-6091492.36	-6091492.15	-6091491.93	0.0089	0.0025
Venus	-21390-01-08 22:04 J	-6091266.79	-6091266.58	-6091266.36	0.0089	0.0026
Venus	-21390-08-22 11:31 J	-6091041.22	-6091041.02	-6091040.80	0.0089	0.0027
Venus	-21389-04-04 00:57 J	-6090815.66	-6090815.46	-6090815.24	0.0089	0.0028
Venus	-21389-11-15 14:38 J	-6090590.09	-6090589.89	-6090589.67	0.0089	0.0029
Venus	-21388-06-29 04:04 J	-6090364.52	-6090364.33	-6090364.10	0.0089	0.0030
Venus	-21387-02-09 18:00 J	-6090138.96	-6090138.75	-6090138.54	0.0089	0.0030
Venus	-21387-09-23 07:26 J	-6089913.39	-6089913.19	-6089912.98	0.0089	0.0031
Venus	-21386-05-06 20:52 J	-6089687.83	-6089687.63	-6089687.41	0.0089	0.0032
Venus	-21386-12-18 10:33 J	-6089462.26	-6089462.06	-6089461.84	0.0089	0.0033
Venus	-21385-07-31 00:14 J	-6089236.69	-6089236.49	-6089236.28	0.0089	0.0033
Venus	-21384-03-13 13:40 J	-6089011.13	-6089010.93	-6089010.72	0.0089	0.0034
Venus	-21384-10-25 03:07 J	-6088785.56	-6088785.37	-6088785.15	0.0089	0.0035
Venus	-21383-06-07 16:33 J	-6088560.00	-6088559.81	-6088559.59	0.0089	0.0036
Venus	-21382-01-19 06:28 J	-6088334.43	-6088334.23	-6088334.02	0.0089	0.0036
Venus	-21382-09-01 19:55 J	-6088108.86	-6088108.67	-6088108.46	0.0089	0.0037
Venus	-21381-04-14 09:07 J	-6087883.30	-6087883.12	-6087882.90	0.0089	0.0038
Venus	-21381-11-25 22:48 J	-6087657.74	-6087657.55	-6087657.34	0.0089	0.0038

Venus	-21380-07-09 12:14 J	-6087432.18	-6087431.99	-6087431.78	0.0089	0.0039
Venus	-21379-02-20 01:55 J	-6087206.61	-6087206.42	-6087206.22	0.0089	0.0039
Venus	-21379-10-03 15:07 J	-6086981.05	-6086980.87	-6086980.66	0.0089	0.0040
Venus	-21378-05-17 04:48 J	-6086755.50	-6086755.30	-6086755.10	0.0089	0.0040
Venus	-21378-12-28 18:00 J	-6086529.94	-6086529.75	-6086529.54	0.0089	0.0041
Venus	-21377-08-10 07:40 J	-6086304.38	-6086304.18	-6086303.99	0.0089	0.0042
Venus	-21376-03-23 20:38 J	-6086078.82	-6086078.64	-6086078.43	0.0089	0.0042
Venus	-21376-11-04 10:04 J	-6085853.27	-6085853.08	-6085852.88	0.0089	0.0043
Venus	-21375-06-17 23:16 J	-6085627.71	-6085627.53	-6085627.33	0.0089	0.0043
Venus	-21374-01-29 12:43 J	-6085402.15	-6085401.97	-6085401.77	0.0089	0.0043
Venus	-21374-09-12 02:09 J	-6085176.60	-6085176.41	-6085176.21	0.0089	0.0044
Venus	-21373-04-24 15:07 J	-6084951.04	-6084950.87	-6084950.66	0.0089	0.0044
Venus	-21373-12-06 04:33 J	-6084725.49	-6084725.31	-6084725.11	0.0089	0.0045
Venus	-21372-07-19 18:00 J	-6084499.93	-6084499.75	-6084499.55	0.0089	0.0045
Venus	-21371-03-02 07:11 J	-6084274.37	-6084274.20	-6084273.99	0.0089	0.0045
Venus	-21371-10-13 20:38 J	-6084048.82	-6084048.64	-6084048.44	0.0089	0.0045
Venus	-21370-05-27 09:50 J	-6083823.27	-6083823.09	-6083822.89	0.0089	0.0046
Venus	-21369-01-07 23:16 J	-6083597.71	-6083597.53	-6083597.33	0.0089	0.0046
Venus	-21369-08-20 12:14 J	-6083372.16	-6083371.99	-6083371.78	0.0089	0.0046
Venus	-21368-04-03 01:40 J	-6083146.61	-6083146.43	-6083146.23	0.0089	0.0046
Venus	-21368-11-14 14:52 J	-6082921.06	-6082920.88	-6082920.68	0.0089	0.0046
Venus	-21367-06-28 04:04 J	-6082695.51	-6082695.33	-6082695.13	0.0089	0.0046
Venus	-21366-02-08 17:16 J	-6082469.96	-6082469.78	-6082469.58	0.0089	0.0046
Venus	-21366-09-22 06:14 J	-6082244.41	-6082244.24	-6082244.04	0.0089	0.0047
Moon	-21365-04-30 13:40 J	-6082023.03	-6082022.93	-6082022.83	0.0089	0.0081
Earth	-21365-04-30 15:36 J	-6082022.95	-6082022.85	-6082022.73	0.0089	0.0080 *
Venus	-21365-05-04 19:26 J	-6082018.87	-6082018.69	-6082018.49	0.0089	0.0047
Venus	-21365-12-16 08:23 J	-6081793.32	-6081793.15	-6081792.95	0.0089	0.0047
Earth	-21364-05-03 02:09 J	-6081655.63	-6081655.41	-6081655.17	0.0089	0.0037
Moon	-21364-05-03 03:07 J	-6081655.61	-6081655.37	-6081655.13	0.0089	0.0036 *

Venus	-21364-07-29 21:36 J	-6081567.78	-6081567.60	-6081567.41	0.0089	0.0046
Venus	-21363-03-12 10:33 J	-6081342.23	-6081342.06	-6081341.86	0.0089	0.0047
Earth	-21363-05-05 12:43 J	-6081288.22	-6081287.97	-6081287.72	0.0089	0.0006
Moon	-21363-05-05 12:43 J	-6081288.22	-6081287.97	-6081287.73	0.0089	0.0005 *
Venus	-21363-10-23 23:31 J	-6081116.69	-6081116.52	-6081116.31	0.0089	0.0047
Moon	-21362-05-07 21:07 J	-6080920.81	-6080920.62	-6080920.38	0.0089	0.0051
Earth	-21362-05-07 22:48 J	-6080920.74	-6080920.55	-6080920.32	0.0089	0.0050 *
Venus	-21362-06-06 12:28 J	-6080891.15	-6080890.98	-6080890.77	0.0089	0.0047
Venus	-21361-01-18 01:26 J	-6080665.60	-6080665.44	-6080665.23	0.0089	0.0047
Venus	-21361-08-30 14:52 J	-6080440.06	-6080439.88	-6080439.69	0.0089	0.0046
Venus	-21360-04-13 03:50 J	-6080214.52	-6080214.34	-6080214.14	0.0089	0.0046
Venus	-21360-11-24 16:48 J	-6079988.98	-6079988.80	-6079988.60	0.0089	0.0045
Venus	-21359-07-08 05:31 J	-6079763.44	-6079763.27	-6079763.06	0.0089	0.0046
Venus	-21358-02-18 18:43 J	-6079537.89	-6079537.72	-6079537.52	0.0089	0.0045
Venus	-21358-10-02 07:55 J	-6079312.35	-6079312.17	-6079311.98	0.0089	0.0045
Venus	-21357-05-14 20:38 J	-6079086.82	-6079086.64	-6079086.44	0.0089	0.0045
Venus	-21357-12-26 09:21 J	-6078861.28	-6078861.11	-6078860.90	0.0089	0.0045
Venus	-21356-08-08 22:33 J	-6078635.74	-6078635.56	-6078635.36	0.0089	0.0044
Venus	-21355-03-22 11:31 J	-6078410.20	-6078410.02	-6078409.82	0.0089	0.0043
Venus	-21355-11-03 00:28 J	-6078184.66	-6078184.48	-6078184.28	0.0089	0.0043
Venus	-21354-06-16 13:11 J	-6077959.13	-6077958.95	-6077958.75	0.0089	0.0042
Venus	-21353-01-28 02:09 J	-6077733.60	-6077733.41	-6077733.22	0.0089	0.0042
Venus	-21353-09-09 14:38 J	-6077508.07	-6077507.89	-6077507.68	0.0089	0.0042
Venus	-21352-04-23 03:50 J	-6077282.53	-6077282.34	-6077282.15	0.0089	0.0041
Venus	-21352-12-04 16:19 J	-6077057.00	-6077056.82	-6077056.62	0.0089	0.0040
Venus	-21351-07-18 05:02 J	-6076831.47	-6076831.29	-6076831.09	0.0089	0.0040
Venus	-21350-02-28 17:45 J	-6076605.94	-6076605.76	-6076605.55	0.0089	0.0039
Venus	-21350-10-12 06:28 J	-6076380.41	-6076380.23	-6076380.02	0.0089	0.0039
Venus	-21349-05-24 19:26 J	-6076154.89	-6076154.69	-6076154.50	0.0089	0.0038
Venus	-21348-01-05 07:40 J	-6075929.36	-6075929.18	-6075928.97	0.0089	0.0038

Mars	-21348-04-26 21:50 J	-6075817.66	-6075817.59	-6075817.44	0.0089	0.0085
Venus	-21348-08-18 20:38 J	-6075703.83	-6075703.64	-6075703.44	0.0089	0.0037
Venus	-21347-04-01 09:36 J	-6075478.30	-6075478.10	-6075477.90	0.0089	0.0036
Mercury	-21347-10-20 13:55 J	-6075275.95	-6075275.92	-6075275.87	0.0089	0.0085
Venus	-21347-11-12 21:50 J	-6075252.77	-6075252.59	-6075252.38	0.0089	0.0036
Mercury	-21346-01-16 15:21 J	-6075187.92	-6075187.86	-6075187.79	0.0089	0.0077
Mars	-21346-03-24 04:33 J	-6075121.64	-6075121.31	-6075120.97	0.0089	0.0009
Mercury	-21346-04-14 16:48 J	-6075099.88	-6075099.80	-6075099.72	0.0089	0.0070
Venus	-21346-06-26 10:33 J	-6075027.25	-6075027.06	-6075026.85	0.0089	0.0035
Mercury	-21346-07-11 18:00 J	-6075011.83	-6075011.75	-6075011.65	0.0089	0.0064
Mercury	-21346-10-07 19:26 J	-6074923.79	-6074923.69	-6074923.59	0.0089	0.0057
Mercury	-21345-01-03 20:52 J	-6074835.74	-6074835.63	-6074835.52	0.0089	0.0050
Venus	-21345-02-06 23:16 J	-6074801.72	-6074801.53	-6074801.32	0.0089	0.0034
Mercury	-21345-03-31 22:04 J	-6074747.69	-6074747.58	-6074747.46	0.0089	0.0043
Mercury	-21345-06-27 23:31 J	-6074659.64	-6074659.52	-6074659.40	0.0089	0.0036
Venus	-21345-09-19 11:45 J	-6074576.19	-6074576.01	-6074575.79	0.0089	0.0034
Mercury	-21345-09-24 00:57 J	-6074571.59	-6074571.46	-6074571.34	0.0089	0.0029
Mercury	-21345-12-21 02:09 J	-6074483.54	-6074483.41	-6074483.28	0.0089	0.0022
Mars	-21344-02-17 08:52 J	-6074425.33	-6074425.13	-6074424.87	0.0089	0.0065
Mercury	-21344-03-19 03:36 J	-6074395.48	-6074395.35	-6074395.22	0.0089	0.0015
Venus	-21344-05-03 00:43 J	-6074350.66	-6074350.47	-6074350.26	0.0089	0.0032
Mercury	-21344-06-15 04:48 J	-6074307.43	-6074307.30	-6074307.16	0.0089	0.0008
Mercury	-21344-09-11 06:14 J	-6074219.37	-6074219.24	-6074219.11	0.0089	0.0001
Mercury	-21344-12-08 07:40 J	-6074131.32	-6074131.18	-6074131.05	0.0089	0.0007
Venus	-21344-12-14 13:26 J	-6074125.14	-6074124.94	-6074124.73	0.0089	0.0031
Mercury	-21343-03-06 08:52 J	-6074043.26	-6074043.13	-6074043.00	0.0089	0.0014
Mercury	-21343-06-02 10:19 J	-6073955.20	-6073955.07	-6073954.94	0.0089	0.0021
Venus	-21343-07-28 01:55 J	-6073899.61	-6073899.42	-6073899.21	0.0089	0.0031
Mercury	-21343-08-29 11:45 J	-6073867.14	-6073867.01	-6073866.89	0.0089	0.0028
Mercury	-21343-11-25 12:43 J	-6073779.08	-6073778.97	-6073778.83	0.0089	0.0036

Mercury	-21342-02-21 14:09 J	-6073691.02	-6073690.91	-6073690.78	0.0089	0.0042
Venus	-21342-03-10 14:38 J	-6073674.09	-6073673.89	-6073673.68	0.0089	0.0030
Mercury	-21342-05-20 15:36 J	-6073602.96	-6073602.85	-6073602.73	0.0089	0.0049
Mercury	-21342-08-16 16:48 J	-6073514.89	-6073514.80	-6073514.68	0.0089	0.0057
Venus	-21342-10-22 02:52 J	-6073448.57	-6073448.38	-6073448.16	0.0089	0.0030
Mercury	-21342-11-12 18:14 J	-6073426.82	-6073426.74	-6073426.64	0.0089	0.0063
Mercury	-21341-02-08 19:40 J	-6073338.75	-6073338.68	-6073338.59	0.0089	0.0070
Mercury	-21341-05-06 21:07 J	-6073250.68	-6073250.62	-6073250.55	0.0089	0.0077
Venus	-21341-06-03 15:36 J	-6073223.04	-6073222.85	-6073222.63	0.0089	0.0028
Mercury	-21341-08-02 22:19 J	-6073162.60	-6073162.57	-6073162.52	0.0089	0.0085
Venus	-21340-01-15 04:04 J	-6072997.52	-6072997.33	-6072997.11	0.0089	0.0027
Venus	-21340-08-28 16:33 J	-6072772.00	-6072771.81	-6072771.59	0.0089	0.0027
Venus	-21339-04-11 05:16 J	-6072546.48	-6072546.28	-6072546.07	0.0089	0.0025
Venus	-21339-11-22 17:45 J	-6072320.96	-6072320.76	-6072320.54	0.0089	0.0024
Venus	-21338-07-06 06:14 J	-6072095.44	-6072095.24	-6072095.03	0.0089	0.0023
Venus	-21337-02-16 18:43 J	-6071869.93	-6071869.72	-6071869.51	0.0089	0.0022
Venus	-21337-09-29 07:11 J	-6071644.41	-6071644.20	-6071643.99	0.0089	0.0021
Venus	-21336-05-12 19:40 J	-6071418.88	-6071418.68	-6071418.46	0.0089	0.0021
Venus	-21336-12-24 08:09 J	-6071193.36	-6071193.16	-6071192.94	0.0089	0.0020
Venus	-21335-08-06 20:38 J	-6070967.85	-6070967.64	-6070967.42	0.0089	0.0019
Venus	-21334-03-20 09:07 J	-6070742.33	-6070742.12	-6070741.90	0.0089	0.0018
Venus	-21334-10-31 21:36 J	-6070516.81	-6070516.60	-6070516.38	0.0089	0.0016
Venus	-21333-06-13 10:04 J	-6070291.29	-6070291.08	-6070290.86	0.0089	0.0016
Venus	-21332-01-24 22:33 J	-6070065.77	-6070065.56	-6070065.34	0.0089	0.0014
Venus	-21332-09-07 11:02 J	-6069840.25	-6069840.04	-6069839.82	0.0089	0.0013
Venus	-21331-04-20 23:31 J	-6069614.73	-6069614.52	-6069614.30	0.0089	0.0013
Venus	-21331-12-02 12:00 J	-6069389.21	-6069389.00	-6069388.78	0.0089	0.0011
Venus	-21330-07-16 00:28 J	-6069163.69	-6069163.48	-6069163.26	0.0089	0.0010
Venus	-21329-02-26 12:57 J	-6068938.18	-6068937.96	-6068937.75	0.0089	0.0009
Venus	-21329-10-09 01:11 J	-6068712.66	-6068712.45	-6068712.23	0.0089	0.0008

Venus	-21328-05-22 13:55 J	-6068487.14	-6068486.92	-6068486.71	0.0089	0.0007
Venus	-21327-01-03 02:09 J	-6068261.62	-6068261.41	-6068261.19	0.0089	0.0006
Venus	-21327-08-16 14:23 J	-6068036.11	-6068035.90	-6068035.68	0.0089	0.0005
Venus	-21326-03-30 02:52 J	-6067810.59	-6067810.38	-6067810.16	0.0089	0.0004
Venus	-21326-11-10 15:07 J	-6067585.08	-6067584.87	-6067584.65	0.0089	0.0003
Venus	-21325-06-23 03:36 J	-6067359.56	-6067359.35	-6067359.13	0.0089	0.0002
Venus	-21324-02-03 16:04 J	-6067134.05	-6067133.83	-6067133.62	0.0089	0.0001
Venus	-21324-09-17 04:19 J	-6066908.53	-6066908.32	-6066908.10	0.0089	0.0001
Venus	-21323-04-30 16:48 J	-6066683.02	-6066682.80	-6066682.58	0.0089	0.0002
Venus	-21323-12-12 05:02 J	-6066457.50	-6066457.29	-6066457.07	0.0089	0.0004
Venus	-21322-07-25 17:31 J	-6066231.99	-6066231.77	-6066231.56	0.0089	0.0004
Venus	-21321-03-07 05:45 J	-6066006.47	-6066006.26	-6066006.04	0.0089	0.0005
Venus	-21321-10-18 18:14 J	-6065780.96	-6065780.74	-6065780.53	0.0089	0.0006
Venus	-21320-06-01 06:43 J	-6065555.43	-6065555.22	-6065555.00	0.0089	0.0008
Venus	-21319-01-12 19:11 J	-6065329.92	-6065329.70	-6065329.49	0.0089	0.0009
Venus	-21319-08-26 07:26 J	-6065104.40	-6065104.19	-6065103.97	0.0089	0.0010
Venus	-21318-04-08 19:55 J	-6064878.88	-6064878.67	-6064878.46	0.0089	0.0011
Venus	-21318-11-20 08:09 J	-6064653.37	-6064653.16	-6064652.94	0.0089	0.0012
Venus	-21317-07-02 20:38 J	-6064427.85	-6064427.64	-6064427.42	0.0089	0.0013
Venus	-21316-02-13 09:07 J	-6064202.33	-6064202.12	-6064201.91	0.0089	0.0014
Venus	-21316-09-26 21:36 J	-6063976.82	-6063976.60	-6063976.39	0.0089	0.0015
Venus	-21315-05-10 09:50 J	-6063751.30	-6063751.09	-6063750.87	0.0089	0.0016
Venus	-21315-12-21 22:04 J	-6063525.79	-6063525.58	-6063525.36	0.0089	0.0018
Venus	-21314-08-04 10:19 J	-6063300.27	-6063300.07	-6063299.85	0.0089	0.0019
Venus	-21313-03-16 22:33 J	-6063074.76	-6063074.56	-6063074.33	0.0089	0.0020
Venus	-21313-10-28 11:02 J	-6062849.24	-6062849.04	-6062848.82	0.0089	0.0021
Venus	-21312-06-10 23:31 J	-6062623.72	-6062623.52	-6062623.30	0.0089	0.0022
Venus	-21311-01-22 12:00 J	-6062398.20	-6062398.00	-6062397.78	0.0089	0.0022
Venus	-21311-09-05 00:14 J	-6062172.69	-6062172.49	-6062172.27	0.0089	0.0024
Venus	-21310-04-18 12:28 J	-6061947.18	-6061946.98	-6061946.76	0.0089	0.0025

Venus	-21310-11-30 00:57 J	-6061721.66	-6061721.46	-6061721.24	0.0089	0.0026
Venus	-21309-07-12 13:26 J	-6061496.13	-6061495.94	-6061495.72	0.0089	0.0027
Venus	-21308-02-23 02:09 J	-6061270.62	-6061270.41	-6061270.20	0.0089	0.0027
Venus	-21308-10-06 14:38 J	-6061045.10	-6061044.89	-6061044.68	0.0089	0.0028
Venus	-21307-05-20 03:07 J	-6060819.58	-6060819.37	-6060819.16	0.0089	0.0029
Venus	-21307-12-31 15:21 J	-6060594.05	-6060593.86	-6060593.64	0.0089	0.0030
Venus	-21306-08-14 03:50 J	-6060368.53	-6060368.34	-6060368.13	0.0089	0.0031
Venus	-21305-03-26 16:19 J	-6060143.01	-6060142.82	-6060142.61	0.0089	0.0032
Venus	-21305-11-07 04:48 J	-6059917.49	-6059917.30	-6059917.09	0.0089	0.0033
Venus	-21304-06-20 17:31 J	-6059691.96	-6059691.77	-6059691.56	0.0088	0.0033
Venus	-21303-02-01 05:45 J	-6059466.44	-6059466.26	-6059466.04	0.0088	0.0035
Venus	-21303-09-14 18:28 J	-6059240.92	-6059240.73	-6059240.52	0.0088	0.0035
Venus	-21302-04-28 06:57 J	-6059015.40	-6059015.21	-6059015.00	0.0088	0.0036
Venus	-21302-12-09 19:26 J	-6058789.88	-6058789.69	-6058789.48	0.0088	0.0036
Venus	-21301-07-22 07:55 J	-6058564.35	-6058564.17	-6058563.96	0.0088	0.0038
Venus	-21300-03-04 20:38 J	-6058338.83	-6058338.64	-6058338.44	0.0088	0.0038
Venus	-21300-10-16 09:07 J	-6058113.31	-6058113.12	-6058112.92	0.0088	0.0039
Venus	-21299-05-29 21:21 J	-6057887.79	-6057887.61	-6057887.40	0.0088	0.0040
Venus	-21298-01-10 10:19 J	-6057662.26	-6057662.07	-6057661.87	0.0088	0.0040
Venus	-21298-08-23 22:48 J	-6057436.74	-6057436.55	-6057436.35	0.0088	0.0041
Venus	-21297-04-05 11:02 J	-6057211.21	-6057211.04	-6057210.83	0.0088	0.0042
Venus	-21297-11-17 00:00 J	-6056985.69	-6056985.50	-6056985.30	0.0088	0.0042
Venus	-21296-06-30 12:28 J	-6056760.15	-6056759.98	-6056759.77	0.0088	0.0043
Venus	-21295-02-11 01:11 J	-6056534.63	-6056534.45	-6056534.24	0.0088	0.0043
Venus	-21295-09-24 13:55 J	-6056309.10	-6056308.92	-6056308.72	0.0088	0.0044
Venus	-21294-05-08 02:23 J	-6056083.57	-6056083.40	-6056083.19	0.0088	0.0044
Venus	-21294-12-19 15:21 J	-6055858.04	-6055857.86	-6055857.66	0.0088	0.0044
Venus	-21293-08-01 04:04 J	-6055632.50	-6055632.33	-6055632.12	0.0088	0.0045
Venus	-21292-03-14 16:48 J	-6055406.97	-6055406.80	-6055406.59	0.0088	0.0046
Venus	-21292-10-26 05:45 J	-6055181.44	-6055181.26	-6055181.07	0.0088	0.0046

Venus	-21291-06-08 18:14 J	-6054955.91	-6054955.74	-6054955.54	0.0088	0.0046
Venus	-21290-01-20 07:11 J	-6054730.38	-6054730.20	-6054730.01	0.0088	0.0046
Venus	-21290-09-02 19:40 J	-6054504.84	-6054504.68	-6054504.47	0.0088	0.0048
Venus	-21289-04-15 08:38 J	-6054279.31	-6054279.14	-6054278.94	0.0088	0.0047
Venus	-21289-11-26 21:36 J	-6054053.78	-6054053.60	-6054053.41	0.0088	0.0047
Venus	-21288-07-10 10:33 J	-6053828.24	-6053828.06	-6053827.87	0.0088	0.0048
Venus	-21287-02-20 23:02 J	-6053602.71	-6053602.54	-6053602.34	0.0088	0.0048
Venus	-21287-10-04 11:45 J	-6053377.18	-6053377.01	-6053376.81	0.0088	0.0048
Venus	-21286-05-18 00:43 J	-6053151.65	-6053151.47	-6053151.28	0.0088	0.0048
Venus	-21286-12-29 13:26 J	-6052926.11	-6052925.94	-6052925.74	0.0088	0.0049
Venus	-21285-08-11 02:38 J	-6052700.57	-6052700.39	-6052700.20	0.0088	0.0048
Venus	-21284-03-24 15:36 J	-6052475.03	-6052474.85	-6052474.66	0.0088	0.0049
Venus	-21284-11-05 04:04 J	-6052249.50	-6052249.33	-6052249.13	0.0088	0.0049
Venus	-21283-06-18 17:02 J	-6052023.96	-6052023.79	-6052023.59	0.0088	0.0049
Earth	-21283-10-30 22:48 J	-6051889.74	-6051889.55	-6051889.32	0.0088	0.0053
Moon	-21283-10-30 23:31 J	-6051889.73	-6051889.52	-6051889.29	0.0088	0.0050 *
Venus	-21282-01-30 06:00 J	-6051798.42	-6051798.25	-6051798.05	0.0088	0.0049
Venus	-21282-09-12 18:57 J	-6051572.87	-6051572.71	-6051572.51	0.0088	0.0049
Earth	-21282-11-02 11:45 J	-6051522.26	-6051522.01	-6051521.74	0.0088	0.0010
Moon	-21282-11-02 12:28 J	-6051522.22	-6051521.98	-6051521.72	0.0088	0.0014 *
Venus	-21281-04-25 07:55 J	-6051347.33	-6051347.17	-6051346.97	0.0088	0.0049
Moon	-21281-11-03 21:50 J	-6051154.81	-6051154.59	-6051154.32	0.0088	0.0036
Earth	-21281-11-04 00:43 J	-6051154.71	-6051154.47	-6051154.23	0.0088	0.0032 *
Venus	-21281-12-06 20:52 J	-6051121.79	-6051121.63	-6051121.42	0.0088	0.0049
Venus	-21280-07-20 10:04 J	-6050896.25	-6050896.08	-6050895.88	0.0088	0.0049
Earth	-21280-11-06 13:11 J	-6050787.07	-6050786.95	-6050786.80	0.0088	0.0075
Moon	-21280-11-06 15:36 J	-6050786.97	-6050786.85	-6050786.69	0.0088	0.0073 *
Venus	-21279-03-02 23:31 J	-6050670.70	-6050670.52	-6050670.34	0.0088	0.0048
Venus	-21279-10-14 12:28 J	-6050445.16	-6050444.98	-6050444.79	0.0088	0.0048
Venus	-21278-05-28 01:26 J	-6050219.62	-6050219.44	-6050219.25	0.0088	0.0048

Venus	-21277-01-08 14:23 J	-6049994.08	-6049993.90	-6049993.71	0.0088	0.0048
Venus	-21277-08-21 03:21 J	-6049768.53	-6049768.36	-6049768.16	0.0088	0.0048
Venus	-21276-04-03 16:19 J	-6049542.98	-6049542.82	-6049542.61	0.0088	0.0048
Venus	-21276-11-15 05:45 J	-6049317.44	-6049317.26	-6049317.07	0.0088	0.0047
Venus	-21275-06-28 18:43 J	-6049091.90	-6049091.72	-6049091.52	0.0088	0.0047
Venus	-21274-02-09 07:40 J	-6048866.35	-6048866.18	-6048865.98	0.0088	0.0047
Venus	-21274-09-22 21:07 J	-6048640.80	-6048640.62	-6048640.43	0.0088	0.0046
Venus	-21273-05-05 10:04 J	-6048415.26	-6048415.08	-6048414.88	0.0088	0.0046
Venus	-21273-12-16 23:02 J	-6048189.71	-6048189.54	-6048189.33	0.0088	0.0046
Venus	-21272-07-30 12:28 J	-6047964.16	-6047963.98	-6047963.78	0.0088	0.0045
Venus	-21271-03-13 01:26 J	-6047738.61	-6047738.44	-6047738.23	0.0088	0.0045
Venus	-21271-10-24 14:52 J	-6047513.06	-6047512.88	-6047512.68	0.0088	0.0044
Venus	-21270-06-07 04:04 J	-6047287.51	-6047287.33	-6047287.13	0.0088	0.0044
Venus	-21269-01-18 17:31 J	-6047061.96	-6047061.77	-6047061.57	0.0088	0.0043
Venus	-21269-08-31 06:43 J	-6046836.40	-6046836.22	-6046836.01	0.0088	0.0043
Venus	-21268-04-13 20:09 J	-6046610.85	-6046610.66	-6046610.45	0.0088	0.0042
Jupiter	-21268-05-14 06:00 J	-6046580.77	-6046580.25	-6046579.70	0.0088	0.0026
Venus	-21268-11-25 09:21 J	-6046385.29	-6046385.11	-6046384.90	0.0088	0.0042
Venus	-21267-07-08 22:48 J	-6046159.74	-6046159.55	-6046159.35	0.0088	0.0041
Venus	-21266-02-19 12:14 J	-6045934.19	-6045933.99	-6045933.79	0.0088	0.0040
Venus	-21266-10-03 01:26 J	-6045708.62	-6045708.44	-6045708.22	0.0088	0.0040
Venus	-21265-05-15 14:52 J	-6045483.07	-6045482.88	-6045482.67	0.0088	0.0039
Venus	-21265-12-27 04:33 J	-6045257.51	-6045257.31	-6045257.11	0.0088	0.0038
Mars	-21265-12-31 13:26 J	-6045253.19	-6045252.94	-6045252.64	0.0088	0.0030
Venus	-21264-08-09 17:31 J	-6045031.96	-6045031.77	-6045031.55	0.0088	0.0038
Venus	-21263-03-23 06:57 J	-6044806.40	-6044806.21	-6044805.99	0.0088	0.0037
Mercury	-21263-04-08 05:16 J	-6044790.33	-6044790.28	-6044790.19	0.0088	0.0082
Mercury	-21263-07-05 08:52 J	-6044702.22	-6044702.13	-6044702.00	0.0088	0.0072
Mercury	-21263-10-01 12:28 J	-6044614.10	-6044613.98	-6044613.82	0.0088	0.0063
Venus	-21263-11-03 20:38 J	-6044580.84	-6044580.64	-6044580.43	0.0088	0.0036

Mars	-21263-11-25 07:55 J	-6044559.43	-6044559.17	-6044558.88	0.0088	0.0032
Mercury	-21263-12-28 16:19 J	-6044525.97	-6044525.82	-6044525.66	0.0088	0.0052
Mercury	-21262-03-26 19:55 J	-6044437.84	-6044437.67	-6044437.50	0.0088	0.0042
Venus	-21262-06-17 10:04 J	-6044355.29	-6044355.08	-6044354.88	0.0088	0.0035
Mercury	-21262-06-22 23:31 J	-6044349.70	-6044349.52	-6044349.34	0.0088	0.0032
Mercury	-21262-09-19 02:52 J	-6044261.56	-6044261.38	-6044261.18	0.0088	0.0023
Mercury	-21262-12-16 06:28 J	-6044173.42	-6044173.23	-6044173.03	0.0088	0.0013
Venus	-21261-01-28 23:02 J	-6044129.73	-6044129.54	-6044129.32	0.0088	0.0035
Mercury	-21261-03-13 10:04 J	-6044085.27	-6044085.08	-6044084.88	0.0088	0.0003
Mercury	-21261-06-09 13:40 J	-6043997.12	-6043996.93	-6043996.74	0.0088	0.0007
Mercury	-21261-09-05 17:02 J	-6043908.97	-6043908.79	-6043908.59	0.0088	0.0017
Venus	-21261-09-10 12:43 J	-6043904.17	-6043903.97	-6043903.75	0.0088	0.0034
Mercury	-21261-12-02 20:23 J	-6043820.82	-6043820.65	-6043820.45	0.0088	0.0027
Mercury	-21260-03-01 00:00 J	-6043732.67	-6043732.50	-6043732.31	0.0088	0.0037
Venus	-21260-04-24 02:09 J	-6043678.61	-6043678.41	-6043678.19	0.0088	0.0033
Mercury	-21260-05-28 03:21 J	-6043644.51	-6043644.36	-6043644.18	0.0088	0.0047
Mercury	-21260-08-24 06:43 J	-6043556.35	-6043556.22	-6043556.05	0.0088	0.0056
Mercury	-21260-11-20 10:33 J	-6043468.18	-6043468.06	-6043467.93	0.0088	0.0065
Venus	-21260-12-05 15:36 J	-6043453.05	-6043452.85	-6043452.63	0.0088	0.0032
Mercury	-21259-02-16 13:55 J	-6043380.01	-6043379.92	-6043379.81	0.0088	0.0075
Mercury	-21259-05-15 17:02 J	-6043291.81	-6043291.79	-6043291.72	0.0088	0.0085
Venus	-21259-07-19 05:02 J	-6043227.49	-6043227.29	-6043227.07	0.0088	0.0031
Venus	-21258-03-01 18:43 J	-6043001.93	-6043001.72	-6043001.51	0.0088	0.0030
Venus	-21258-10-13 08:23 J	-6042776.36	-6042776.15	-6042775.94	0.0088	0.0029
Venus	-21257-05-25 21:50 J	-6042550.80	-6042550.59	-6042550.37	0.0088	0.0029
Venus	-21256-01-06 11:31 J	-6042325.23	-6042325.02	-6042324.81	0.0088	0.0027
Venus	-21256-08-20 00:43 J	-6042099.67	-6042099.47	-6042099.24	0.0088	0.0027
Venus	-21255-04-02 14:38 J	-6041874.10	-6041873.89	-6041873.67	0.0088	0.0026
Venus	-21255-11-14 04:19 J	-6041648.53	-6041648.32	-6041648.10	0.0088	0.0025
Venus	-21254-06-27 18:00 J	-6041422.97	-6041422.75	-6041422.54	0.0088	0.0024

Venus	-21253-02-08 07:26 J	-6041197.40	-6041197.19	-6041196.97	0.0088	0.0023
Venus	-21253-09-20 21:07 J	-6040971.83	-6040971.62	-6040971.40	0.0088	0.0022
Venus	-21252-05-04 10:48 J	-6040746.27	-6040746.05	-6040745.83	0.0088	0.0020
Venus	-21252-12-16 00:14 J	-6040520.70	-6040520.49	-6040520.26	0.0088	0.0020
Venus	-21251-07-29 13:55 J	-6040295.14	-6040294.92	-6040294.70	0.0088	0.0018
Venus	-21250-03-12 03:21 J	-6040069.57	-6040069.36	-6040069.13	0.0088	0.0017
Venus	-21250-10-23 17:02 J	-6039844.00	-6039843.79	-6039843.56	0.0088	0.0017
Venus	-21249-06-05 06:43 J	-6039618.43	-6039618.22	-6039617.99	0.0088	0.0015
Venus	-21248-01-16 20:09 J	-6039392.87	-6039392.66	-6039392.42	0.0088	0.0015
Venus	-21248-08-30 10:04 J	-6039167.30	-6039167.08	-6039166.86	0.0088	0.0013
Venus	-21247-04-12 23:31 J	-6038941.74	-6038941.52	-6038941.29	0.0088	0.0012
Venus	-21247-11-24 13:26 J	-6038716.16	-6038715.94	-6038715.72	0.0088	0.0010
Venus	-21246-07-08 02:52 J	-6038490.60	-6038490.38	-6038490.15	0.0088	0.0010
Venus	-21245-02-18 16:33 J	-6038265.03	-6038264.81	-6038264.58	0.0088	0.0008
Venus	-21245-10-01 06:14 J	-6038039.46	-6038039.24	-6038039.01	0.0088	0.0007
Venus	-21244-05-14 20:09 J	-6037813.89	-6037813.66	-6037813.44	0.0088	0.0006
Venus	-21244-12-26 09:50 J	-6037588.31	-6037588.09	-6037587.87	0.0088	0.0005
Venus	-21243-08-08 23:31 J	-6037362.75	-6037362.52	-6037362.30	0.0088	0.0003
Venus	-21242-03-22 13:11 J	-6037137.17	-6037136.95	-6037136.73	0.0088	0.0002
Venus	-21242-11-03 03:07 J	-6036911.60	-6036911.37	-6036911.15	0.0088	0.0001
Venus	-21241-06-15 16:48 J	-6036686.02	-6036685.80	-6036685.57	0.0088	0.0000
Venus	-21240-01-27 06:28 J	-6036460.45	-6036460.23	-6036460.00	0.0088	0.0001
Venus	-21240-09-09 20:09 J	-6036234.89	-6036234.66	-6036234.44	0.0088	0.0003
Venus	-21239-04-23 09:50 J	-6036009.31	-6036009.09	-6036008.87	0.0088	0.0004
Venus	-21239-12-04 23:31 J	-6035783.74	-6035783.52	-6035783.29	0.0088	0.0005
Venus	-21238-07-18 13:11 J	-6035558.17	-6035557.95	-6035557.72	0.0088	0.0006
Venus	-21237-02-29 02:52 J	-6035332.60	-6035332.38	-6035332.16	0.0088	0.0007
Venus	-21237-10-11 16:33 J	-6035107.03	-6035106.81	-6035106.59	0.0088	0.0009
Venus	-21236-05-25 06:14 J	-6034881.46	-6034881.24	-6034881.02	0.0088	0.0010
Venus	-21235-01-05 19:55 J	-6034655.89	-6034655.67	-6034655.45	0.0089	0.0011

Venus	-21235-08-19 09:21 J	-6034430.33	-6034430.11	-6034429.88	0.0089	0.0012
Venus	-21234-04-01 23:02 J	-6034204.76	-6034204.54	-6034204.31	0.0089	0.0013
Venus	-21234-11-13 12:43 J	-6033979.18	-6033978.97	-6033978.74	0.0089	0.0015
Venus	-21233-06-26 02:38 J	-6033753.61	-6033753.39	-6033753.17	0.0089	0.0016
Venus	-21232-02-06 16:19 J	-6033528.04	-6033527.82	-6033527.60	0.0089	0.0017
Venus	-21232-09-20 06:00 J	-6033302.47	-6033302.25	-6033302.03	0.0089	0.0018
Venus	-21231-05-03 19:40 J	-6033076.90	-6033076.68	-6033076.46	0.0089	0.0019
Venus	-21231-12-15 09:07 J	-6032851.32	-6032851.12	-6032850.89	0.0089	0.0021
Venus	-21230-07-28 23:02 J	-6032625.75	-6032625.54	-6032625.32	0.0089	0.0021
Venus	-21229-03-10 12:28 J	-6032400.18	-6032399.98	-6032399.75	0.0089	0.0023
Venus	-21229-10-22 02:23 J	-6032174.61	-6032174.40	-6032174.18	0.0089	0.0023
Venus	-21228-06-04 16:04 J	-6031949.04	-6031948.83	-6031948.61	0.0089	0.0025
Venus	-21227-01-16 05:45 J	-6031723.46	-6031723.26	-6031723.04	0.0089	0.0026
Venus	-21227-08-29 19:26 J	-6031497.90	-6031497.69	-6031497.47	0.0089	0.0027
Venus	-21226-04-12 08:52 J	-6031272.33	-6031272.13	-6031271.90	0.0089	0.0028
Venus	-21226-11-23 22:33 J	-6031046.76	-6031046.56	-6031046.33	0.0089	0.0029
Venus	-21225-07-06 12:14 J	-6030821.19	-6030820.99	-6030820.77	0.0089	0.0030
Venus	-21224-02-17 01:55 J	-6030595.62	-6030595.42	-6030595.20	0.0089	0.0031
Venus	-21224-09-30 15:21 J	-6030370.06	-6030369.86	-6030369.64	0.0089	0.0032
Venus	-21223-05-14 05:02 J	-6030144.49	-6030144.29	-6030144.08	0.0089	0.0033
Venus	-21223-12-25 18:28 J	-6029918.92	-6029918.73	-6029918.51	0.0089	0.0034
Venus	-21222-08-08 08:09 J	-6029693.35	-6029693.16	-6029692.94	0.0089	0.0035
Venus	-21221-03-20 21:36 J	-6029467.79	-6029467.60	-6029467.38	0.0089	0.0036
Venus	-21221-11-01 11:31 J	-6029242.22	-6029242.02	-6029241.82	0.0089	0.0036
Venus	-21220-06-15 00:57 J	-6029016.66	-6029016.46	-6029016.25	0.0089	0.0037
Venus	-21219-01-26 14:23 J	-6028791.09	-6028790.90	-6028790.69	0.0089	0.0038
Venus	-21219-09-09 03:50 J	-6028565.52	-6028565.34	-6028565.12	0.0089	0.0039
Venus	-21218-04-22 17:16 J	-6028339.96	-6028339.78	-6028339.56	0.0089	0.0040
Venus	-21218-12-04 07:11 J	-6028114.39	-6028114.20	-6028114.00	0.0089	0.0040
Venus	-21217-07-16 20:38 J	-6027888.82	-6027888.64	-6027888.43	0.0089	0.0041

Venus	-21216-02-27 10:04 J	-6027663.26	-6027663.08	-6027662.87	0.0089	0.0042
Venus	-21216-10-10 23:31 J	-6027437.70	-6027437.52	-6027437.31	0.0089	0.0043
Venus	-21215-05-24 13:11 J	-6027212.13	-6027211.95	-6027211.75	0.0089	0.0043
Venus	-21214-01-05 02:38 J	-6026986.57	-6026986.39	-6026986.18	0.0089	0.0044
Venus	-21214-08-18 16:04 J	-6026761.00	-6026760.83	-6026760.62	0.0089	0.0045
Venus	-21213-03-31 05:31 J	-6026535.45	-6026535.27	-6026535.07	0.0089	0.0046
Venus	-21213-11-11 18:43 J	-6026309.89	-6026309.72	-6026309.51	0.0089	0.0046
Venus	-21212-06-25 08:23 J	-6026084.33	-6026084.15	-6026083.95	0.0089	0.0046
Venus	-21211-02-05 21:36 J	-6025858.77	-6025858.60	-6025858.39	0.0089	0.0047
Venus	-21211-09-19 11:02 J	-6025633.21	-6025633.04	-6025632.84	0.0089	0.0048
Venus	-21210-05-03 00:14 J	-6025407.66	-6025407.49	-6025407.29	0.0089	0.0048
Venus	-21210-12-14 13:40 J	-6025182.10	-6025181.93	-6025181.73	0.0089	0.0048
Venus	-21209-07-27 02:52 J	-6024956.55	-6024956.38	-6024956.18	0.0089	0.0049
Venus	-21208-03-09 16:19 J	-6024730.99	-6024730.82	-6024730.62	0.0089	0.0049
Venus	-21208-10-21 05:45 J	-6024505.44	-6024505.26	-6024505.07	0.0089	0.0049
Venus	-21207-06-03 18:43 J	-6024279.89	-6024279.72	-6024279.52	0.0089	0.0050
Venus	-21206-01-15 08:09 J	-6024054.33	-6024054.16	-6024053.97	0.0089	0.0050
Venus	-21206-08-28 21:36 J	-6023828.77	-6023828.60	-6023828.41	0.0089	0.0050
Venus	-21205-04-10 10:48 J	-6023603.22	-6023603.05	-6023602.86	0.0089	0.0051
Venus	-21205-11-21 23:45 J	-6023377.67	-6023377.51	-6023377.31	0.0089	0.0051
Venus	-21204-07-05 12:57 J	-6023152.12	-6023151.96	-6023151.76	0.0089	0.0052
Venus	-21203-02-16 02:23 J	-6022926.56	-6022926.40	-6022926.20	0.0089	0.0052
Venus	-21203-09-29 15:36 J	-6022701.01	-6022700.85	-6022700.65	0.0089	0.0052
Venus	-21202-05-13 04:48 J	-6022475.47	-6022475.30	-6022475.11	0.0089	0.0052
Venus	-21202-12-24 18:00 J	-6022249.92	-6022249.75	-6022249.56	0.0089	0.0052
Venus	-21201-08-06 07:11 J	-6022024.37	-6022024.20	-6022024.01	0.0089	0.0052
Venus	-21200-03-19 20:23 J	-6021798.82	-6021798.65	-6021798.46	0.0089	0.0052
Earth	-21200-05-02 14:09 J	-6021755.09	-6021754.91	-6021754.70	0.0089	0.0057
Moon	-21200-05-02 14:52 J	-6021755.06	-6021754.88	-6021754.66	0.0089	0.0053 *
Venus	-21200-10-31 09:36 J	-6021573.28	-6021573.10	-6021572.92	0.0089	0.0052

Moon	-21199-05-04 23:16 J	-6021387.78	-6021387.53	-6021387.27	0.0089	0.0019
Earth	-21199-05-05 00:57 J	-6021387.71	-6021387.46	-6021387.21	0.0089	0.0014 *
Venus	-21199-06-13 22:33 J	-6021347.73	-6021347.56	-6021347.38	0.0089	0.0052
Venus	-21198-01-25 11:31 J	-6021122.19	-6021122.02	-6021121.83	0.0089	0.0052
Earth	-21198-05-07 11:16 J	-6021020.26	-6021020.03	-6021019.78	0.0089	0.0029
Moon	-21198-05-07 13:40 J	-6021020.14	-6021019.93	-6021019.68	0.0089	0.0034 *
Venus	-21198-09-08 00:28 J	-6020896.65	-6020896.48	-6020896.29	0.0089	0.0052
Venus	-21197-04-20 13:26 J	-6020671.10	-6020670.94	-6020670.75	0.0089	0.0052
Moon	-21197-05-08 18:14 J	-6020652.90	-6020652.74	-6020652.56	0.0089	0.0067
Earth	-21197-05-08 21:36 J	-6020652.74	-6020652.60	-6020652.44	0.0089	0.0072 *
Venus	-21197-12-02 02:23 J	-6020445.56	-6020445.40	-6020445.21	0.0089	0.0051
Venus	-21196-07-15 15:07 J	-6020220.02	-6020219.87	-6020219.67	0.0089	0.0052
Venus	-21195-02-26 04:33 J	-6019994.48	-6019994.31	-6019994.12	0.0089	0.0051
Venus	-21195-10-09 17:31 J	-6019768.94	-6019768.77	-6019768.58	0.0089	0.0051
Venus	-21194-05-23 06:14 J	-6019543.40	-6019543.24	-6019543.04	0.0089	0.0051
Venus	-21193-01-03 19:11 J	-6019317.86	-6019317.70	-6019317.50	0.0089	0.0050
Venus	-21193-08-16 08:23 J	-6019092.32	-6019092.15	-6019091.96	0.0089	0.0050
Venus	-21192-03-29 21:21 J	-6018866.78	-6018866.61	-6018866.42	0.0089	0.0049
Venus	-21192-11-10 10:33 J	-6018641.24	-6018641.06	-6018640.88	0.0089	0.0049
Venus	-21191-06-23 23:16 J	-6018415.71	-6018415.53	-6018415.34	0.0089	0.0048
Venus	-21190-02-04 12:00 J	-6018190.17	-6018190.00	-6018189.80	0.0089	0.0048
Venus	-21190-09-18 01:11 J	-6017964.63	-6017964.45	-6017964.26	0.0089	0.0048
Venus	-21189-04-30 13:55 J	-6017739.09	-6017738.92	-6017738.72	0.0089	0.0047
Venus	-21189-12-12 02:52 J	-6017513.56	-6017513.38	-6017513.19	0.0089	0.0047
Venus	-21188-07-25 15:21 J	-6017288.03	-6017287.86	-6017287.66	0.0089	0.0047
Venus	-21187-03-08 04:19 J	-6017062.49	-6017062.32	-6017062.12	0.0089	0.0046
Venus	-21187-10-19 17:02 J	-6016836.96	-6016836.79	-6016836.59	0.0089	0.0045
Venus	-21186-06-02 05:45 J	-6016611.43	-6016611.26	-6016611.06	0.0089	0.0045
Venus	-21185-01-13 18:28 J	-6016385.91	-6016385.73	-6016385.53	0.0089	0.0044
Venus	-21185-08-26 06:57 J	-6016160.38	-6016160.21	-6016160.00	0.0089	0.0044

Venus	-21184-04-08 19:55 J	-6015934.84	-6015934.67	-6015934.46	0.0089	0.0043
Venus	-21184-11-20 08:52 J	-6015709.32	-6015709.13	-6015708.93	0.0089	0.0041
Venus	-21183-07-03 21:36 J	-6015483.79	-6015483.60	-6015483.41	0.0089	0.0041
Mars	-21183-11-04 20:09 J	-6015359.92	-6015359.66	-6015359.34	0.0089	0.0046
Venus	-21182-02-14 09:50 J	-6015258.26	-6015258.09	-6015257.88	0.0089	0.0041
Mercury	-21182-04-20 12:43 J	-6015192.99	-6015192.97	-6015192.94	0.0089	0.0087
Mercury	-21182-07-17 14:09 J	-6015104.96	-6015104.91	-6015104.85	0.0089	0.0080
Venus	-21182-09-27 22:33 J	-6015032.74	-6015032.56	-6015032.35	0.0089	0.0040
Mercury	-21182-10-13 15:21 J	-6015016.92	-6015016.86	-6015016.78	0.0089	0.0074
Mercury	-21181-01-09 16:48 J	-6014928.88	-6014928.80	-6014928.71	0.0089	0.0067
Mercury	-21181-04-06 18:14 J	-6014840.84	-6014840.74	-6014840.64	0.0089	0.0060
Venus	-21181-05-10 11:31 J	-6014807.21	-6014807.02	-6014806.82	0.0089	0.0039
Mercury	-21181-07-03 19:26 J	-6014752.79	-6014752.69	-6014752.58	0.0089	0.0053
Mercury	-21181-09-29 20:52 J	-6014664.74	-6014664.63	-6014664.52	0.0089	0.0046
Mars	-21181-10-01 02:23 J	-6014663.70	-6014663.40	-6014663.06	0.0089	0.0029
Venus	-21181-12-22 00:14 J	-6014581.68	-6014581.49	-6014581.29	0.0089	0.0038
Mercury	-21181-12-26 22:19 J	-6014576.69	-6014576.57	-6014576.46	0.0089	0.0039
Mercury	-21180-03-24 23:31 J	-6014488.64	-6014488.52	-6014488.40	0.0089	0.0032
Mercury	-21180-06-21 00:57 J	-6014400.59	-6014400.46	-6014400.34	0.0089	0.0025
Venus	-21180-08-04 12:57 J	-6014356.16	-6014355.96	-6014355.76	0.0089	0.0037
Mercury	-21180-09-17 02:09 J	-6014312.54	-6014312.41	-6014312.28	0.0089	0.0018
Mercury	-21180-12-14 03:36 J	-6014224.48	-6014224.35	-6014224.22	0.0089	0.0011
Mercury	-21179-03-12 04:48 J	-6014136.43	-6014136.30	-6014136.16	0.0089	0.0005
Venus	-21179-03-18 01:40 J	-6014130.63	-6014130.43	-6014130.23	0.0089	0.0036
Mercury	-21179-06-08 06:14 J	-6014048.37	-6014048.24	-6014048.11	0.0089	0.0003
Mercury	-21179-09-04 07:40 J	-6013960.31	-6013960.18	-6013960.05	0.0089	0.0011
Venus	-21179-10-29 13:55 J	-6013905.10	-6013904.92	-6013904.70	0.0089	0.0036
Mercury	-21179-12-01 08:52 J	-6013872.26	-6013872.13	-6013872.00	0.0089	0.0018
Mercury	-21178-02-27 10:19 J	-6013784.20	-6013784.07	-6013783.94	0.0089	0.0025
Mercury	-21178-05-26 11:45 J	-6013696.14	-6013696.01	-6013695.89	0.0089	0.0032

Venus	-21178-06-12 02:38 J	-6013679.58	-6013679.39	-6013679.18	0.0089	0.0034
Mercury	-21178-08-22 12:43 J	-6013608.08	-6013607.97	-6013607.84	0.0089	0.0040
Mercury	-21178-11-18 14:09 J	-6013520.01	-6013519.91	-6013519.79	0.0089	0.0046
Venus	-21177-01-23 15:21 J	-6013454.05	-6013453.86	-6013453.65	0.0089	0.0033
Mercury	-21177-02-14 15:36 J	-6013431.95	-6013431.85	-6013431.74	0.0089	0.0053
Mercury	-21177-05-12 16:48 J	-6013343.88	-6013343.80	-6013343.69	0.0089	0.0061
Mercury	-21177-08-08 18:14 J	-6013255.82	-6013255.74	-6013255.64	0.0089	0.0068
Venus	-21177-09-05 03:50 J	-6013228.53	-6013228.34	-6013228.12	0.0089	0.0033
Mercury	-21177-11-04 19:40 J	-6013167.74	-6013167.68	-6013167.60	0.0089	0.0074
Mercury	-21176-01-31 21:07 J	-6013079.67	-6013079.62	-6013079.56	0.0089	0.0081
Venus	-21176-04-18 16:33 J	-6013003.00	-6013002.81	-6013002.59	0.0089	0.0032
Mercury	-21176-04-29 22:33 J	-6012991.57	-6012991.56	-6012991.54	0.0089	0.0089
Venus	-21176-11-30 05:16 J	-6012777.48	-6012777.28	-6012777.07	0.0089	0.0030
Venus	-21175-07-13 17:45 J	-6012551.96	-6012551.76	-6012551.55	0.0089	0.0029
Venus	-21174-02-24 06:14 J	-6012326.44	-6012326.24	-6012326.03	0.0089	0.0028
Venus	-21174-10-07 18:43 J	-6012100.92	-6012100.72	-6012100.51	0.0089	0.0027
Venus	-21173-05-20 07:11 J	-6011875.39	-6011875.20	-6011874.98	0.0089	0.0026
Venus	-21173-12-31 19:40 J	-6011649.88	-6011649.68	-6011649.46	0.0089	0.0025
Venus	-21172-08-14 08:09 J	-6011424.36	-6011424.16	-6011423.94	0.0089	0.0024
Venus	-21171-03-27 20:52 J	-6011198.84	-6011198.63	-6011198.42	0.0089	0.0023
Venus	-21171-11-08 09:07 J	-6010973.32	-6010973.12	-6010972.90	0.0089	0.0022
Venus	-21170-06-21 21:36 J	-6010747.81	-6010747.60	-6010747.39	0.0089	0.0021
Venus	-21169-02-02 10:04 J	-6010522.29	-6010522.08	-6010521.87	0.0089	0.0019
Venus	-21169-09-14 22:19 J	-6010296.77	-6010296.57	-6010296.35	0.0089	0.0019
Venus	-21168-04-28 11:02 J	-6010071.25	-6010071.04	-6010070.82	0.0089	0.0017
Venus	-21168-12-09 23:16 J	-6009845.73	-6009845.53	-6009845.31	0.0089	0.0017
Venus	-21167-07-23 11:45 J	-6009620.21	-6009620.01	-6009619.79	0.0089	0.0015
Venus	-21166-03-06 00:28 J	-6009394.70	-6009394.48	-6009394.27	0.0089	0.0014
Venus	-21166-10-17 12:43 J	-6009169.18	-6009168.97	-6009168.75	0.0089	0.0013
Venus	-21165-05-30 01:26 J	-6008943.65	-6008943.44	-6008943.23	0.0089	0.0011

Venus	-21164-01-10 13:40 J	-6008718.14	-6008717.93	-6008717.71	0.0089	0.0010
Venus	-21164-08-24 02:09 J	-6008492.62	-6008492.41	-6008492.19	0.0089	0.0009
Venus	-21163-04-06 14:38 J	-6008267.10	-6008266.89	-6008266.67	0.0089	0.0008
Venus	-21163-11-18 03:07 J	-6008041.59	-6008041.37	-6008041.16	0.0089	0.0007
Venus	-21162-07-01 15:21 J	-6007816.07	-6007815.86	-6007815.64	0.0089	0.0005
Venus	-21161-02-12 03:36 J	-6007590.56	-6007590.35	-6007590.13	0.0089	0.0005
Venus	-21161-09-24 16:04 J	-6007365.05	-6007364.83	-6007364.61	0.0089	0.0003
Venus	-21160-05-08 04:33 J	-6007139.53	-6007139.31	-6007139.09	0.0089	0.0001
Venus	-21160-12-19 16:48 J	-6006914.01	-6006913.80	-6006913.58	0.0089	0.0002
Venus	-21159-08-02 05:16 J	-6006688.50	-6006688.28	-6006688.07	0.0089	0.0002
Venus	-21158-03-15 17:31 J	-6006462.99	-6006462.77	-6006462.56	0.0089	0.0002
Venus	-21158-10-27 05:45 J	-6006237.47	-6006237.26	-6006237.04	0.0089	0.0004
Venus	-21157-06-08 18:14 J	-6006011.95	-6006011.74	-6006011.52	0.0089	0.0005
Venus	-21156-01-20 06:43 J	-6005786.44	-6005786.22	-6005786.01	0.0089	0.0006
Venus	-21156-09-02 18:57 J	-6005560.92	-6005560.71	-6005560.49	0.0089	0.0007
Venus	-21155-04-16 07:11 J	-6005335.41	-6005335.20	-6005334.98	0.0089	0.0009
Venus	-21155-11-27 19:40 J	-6005109.89	-6005109.68	-6005109.46	0.0089	0.0010
Venus	-21154-07-11 08:09 J	-6004884.37	-6004884.16	-6004883.94	0.0089	0.0011
Venus	-21153-02-21 20:38 J	-6004658.85	-6004658.64	-6004658.43	0.0089	0.0012
Venus	-21153-10-04 09:07 J	-6004433.34	-6004433.12	-6004432.91	0.0089	0.0013
Venus	-21152-05-17 21:21 J	-6004207.82	-6004207.61	-6004207.39	0.0089	0.0015
Venus	-21152-12-29 09:50 J	-6003982.30	-6003982.09	-6003981.87	0.0089	0.0016
Venus	-21151-08-11 22:04 J	-6003756.78	-6003756.58	-6003756.36	0.0089	0.0017
Venus	-21150-03-25 10:33 J	-6003531.27	-6003531.06	-6003530.84	0.0089	0.0018
Venus	-21150-11-05 23:02 J	-6003305.75	-6003305.54	-6003305.33	0.0089	0.0019
Venus	-21149-06-18 11:16 J	-6003080.23	-6003080.03	-6003079.81	0.0089	0.0021
Venus	-21148-01-29 23:45 J	-6002854.71	-6002854.51	-6002854.29	0.0089	0.0022
Venus	-21148-09-12 12:00 J	-6002629.20	-6002629.00	-6002628.78	0.0089	0.0023
Venus	-21147-04-26 00:28 J	-6002403.68	-6002403.48	-6002403.27	0.0089	0.0024
Venus	-21147-12-07 12:57 J	-6002178.17	-6002177.96	-6002177.75	0.0089	0.0025

Venus	-21146-07-21 01:26 J	-6001952.65	-6001952.44	-6001952.23	0.0089	0.0026
Venus	-21145-03-02 13:40 J	-6001727.13	-6001726.93	-6001726.72	0.0089	0.0027
Venus	-21145-10-14 02:09 J	-6001501.61	-6001501.41	-6001501.20	0.0089	0.0028
Venus	-21144-05-27 14:38 J	-6001276.09	-6001275.89	-6001275.68	0.0089	0.0029
Venus	-21143-01-08 02:52 J	-6001050.57	-6001050.38	-6001050.17	0.0089	0.0030
Venus	-21143-08-21 15:07 J	-6000825.06	-6000824.87	-6000824.65	0.0089	0.0032
Venus	-21142-04-04 03:36 J	-6000599.54	-6000599.35	-6000599.13	0.0089	0.0033
Venus	-21142-11-15 16:04 J	-6000374.01	-6000373.83	-6000373.61	0.0089	0.0034
Venus	-21141-06-28 04:48 J	-6000148.49	-6000148.30	-6000148.09	0.0089	0.0035
Venus	-21140-02-08 17:16 J	-5999922.96	-5999922.78	-5999922.56	0.0089	0.0036
Venus	-21140-09-22 05:45 J	-5999697.44	-5999697.26	-5999697.05	0.0088	0.0036
Venus	-21139-05-05 18:28 J	-5999471.92	-5999471.73	-5999471.53	0.0088	0.0037
Venus	-21139-12-17 06:57 J	-5999246.40	-5999246.21	-5999246.01	0.0088	0.0038
Venus	-21138-07-30 19:40 J	-5999020.87	-5999020.68	-5999020.48	0.0088	0.0039
Venus	-21137-03-12 07:55 J	-5998795.35	-5998795.17	-5998794.96	0.0088	0.0040
Venus	-21137-10-23 20:23 J	-5998569.83	-5998569.65	-5998569.44	0.0088	0.0041
Venus	-21136-06-06 08:52 J	-5998344.31	-5998344.13	-5998343.92	0.0088	0.0042
Venus	-21135-01-17 21:21 J	-5998118.78	-5998118.61	-5998118.40	0.0088	0.0043
Venus	-21135-08-31 10:19 J	-5997893.26	-5997893.07	-5997892.88	0.0088	0.0043
Venus	-21134-04-13 22:33 J	-5997667.74	-5997667.56	-5997667.36	0.0088	0.0044
Venus	-21134-11-25 11:02 J	-5997442.21	-5997442.04	-5997441.84	0.0088	0.0045
Venus	-21133-07-07 23:45 J	-5997216.68	-5997216.51	-5997216.31	0.0088	0.0045
Venus	-21132-02-18 12:28 J	-5996991.16	-5996990.98	-5996990.79	0.0088	0.0046
Venus	-21132-10-02 00:43 J	-5996765.64	-5996765.47	-5996765.27	0.0088	0.0047
Venus	-21131-05-15 13:11 J	-5996540.11	-5996539.95	-5996539.74	0.0088	0.0048
Venus	-21131-12-27 02:09 J	-5996314.59	-5996314.41	-5996314.22	0.0088	0.0047
Venus	-21130-08-09 14:38 J	-5996089.05	-5996088.89	-5996088.69	0.0088	0.0049
Venus	-21129-03-22 03:36 J	-5995863.52	-5995863.35	-5995863.16	0.0088	0.0049
Venus	-21129-11-02 16:04 J	-5995637.99	-5995637.83	-5995637.63	0.0088	0.0049
Venus	-21128-06-16 05:02 J	-5995412.46	-5995412.29	-5995412.10	0.0088	0.0050

Venus	-21127-01-27 17:31 J	-5995186.93	-5995186.77	-5995186.57	0.0088	0.0051
Venus	-21127-09-10 06:28 J	-5994961.40	-5994961.23	-5994961.04	0.0088	0.0051
Venus	-21126-04-23 18:57 J	-5994735.87	-5994735.71	-5994735.51	0.0088	0.0052
Venus	-21126-12-05 07:55 J	-5994510.34	-5994510.17	-5994509.98	0.0088	0.0052
Venus	-21125-07-17 20:38 J	-5994284.80	-5994284.64	-5994284.44	0.0088	0.0052
Venus	-21124-02-28 09:36 J	-5994059.27	-5994059.10	-5994058.91	0.0088	0.0052
Venus	-21124-10-11 22:19 J	-5993833.74	-5993833.57	-5993833.38	0.0088	0.0053
Venus	-21123-05-25 10:48 J	-5993608.20	-5993608.05	-5993607.85	0.0088	0.0053
Venus	-21122-01-05 23:45 J	-5993382.67	-5993382.51	-5993382.32	0.0088	0.0053
Venus	-21122-08-19 12:43 J	-5993157.13	-5993156.97	-5993156.78	0.0088	0.0053
Venus	-21121-04-01 01:40 J	-5992931.60	-5992931.43	-5992931.25	0.0088	0.0053
Venus	-21121-11-12 14:38 J	-5992706.06	-5992705.89	-5992705.71	0.0088	0.0054
Venus	-21120-06-26 02:52 J	-5992480.53	-5992480.38	-5992480.18	0.0088	0.0055
Venus	-21119-02-06 15:50 J	-5992254.99	-5992254.84	-5992254.65	0.0088	0.0054
Venus	-21119-09-20 04:48 J	-5992029.45	-5992029.30	-5992029.11	0.0088	0.0054
Earth	-21119-10-30 08:23 J	-5991989.28	-5991989.15	-5991988.99	0.0088	0.0074
Moon	-21119-10-30 09:50 J	-5991989.20	-5991989.09	-5991988.95	0.0088	0.0076 *
Venus	-21118-05-03 17:45 J	-5991803.92	-5991803.76	-5991803.57	0.0088	0.0054
Moon	-21118-11-01 18:57 J	-5991621.95	-5991621.71	-5991621.44	0.0088	0.0027
Earth	-21118-11-01 21:07 J	-5991621.85	-5991621.62	-5991621.36	0.0088	0.0031 *
Venus	-21118-12-15 06:43 J	-5991578.38	-5991578.22	-5991578.03	0.0088	0.0054
Venus	-21117-07-27 19:55 J	-5991352.83	-5991352.67	-5991352.49	0.0088	0.0054
Earth	-21117-11-03 10:04 J	-5991254.33	-5991254.08	-5991253.81	0.0088	0.0012
Moon	-21117-11-03 13:26 J	-5991254.19	-5991253.94	-5991253.68	0.0088	0.0009 *
Venus	-21116-03-10 08:52 J	-5991127.29	-5991127.13	-5991126.94	0.0088	0.0054
Venus	-21116-10-21 21:50 J	-5990901.75	-5990901.59	-5990901.40	0.0088	0.0054
Moon	-21116-11-05 19:11 J	-5990886.88	-5990886.70	-5990886.48	0.0088	0.0058
Earth	-21116-11-05 22:33 J	-5990886.74	-5990886.56	-5990886.33	0.0088	0.0055 *
Venus	-21115-06-04 10:48 J	-5990676.21	-5990676.05	-5990675.86	0.0088	0.0054
Venus	-21114-01-15 23:45 J	-5990450.67	-5990450.51	-5990450.32	0.0088	0.0054

Venus	-21114-08-29 12:57 J	-5990225.12	-5990224.96	-5990224.77	0.0088	0.0054
Venus	-21113-04-11 02:23 J	-5989999.57	-5989999.40	-5989999.22	0.0088	0.0053
Venus	-21113-11-22 15:21 J	-5989774.03	-5989773.86	-5989773.68	0.0088	0.0053
Venus	-21112-07-06 04:19 J	-5989548.48	-5989548.32	-5989548.13	0.0088	0.0053
Venus	-21111-02-16 17:16 J	-5989322.94	-5989322.78	-5989322.58	0.0088	0.0053
Venus	-21111-09-30 06:57 J	-5989097.39	-5989097.21	-5989097.03	0.0088	0.0052
Venus	-21110-05-13 19:40 J	-5988871.84	-5988871.68	-5988871.49	0.0088	0.0052
Venus	-21110-12-25 08:38 J	-5988646.30	-5988646.14	-5988645.94	0.0088	0.0052
Venus	-21109-08-06 22:19 J	-5988420.75	-5988420.57	-5988420.39	0.0088	0.0051
Venus	-21108-03-20 11:02 J	-5988195.20	-5988195.04	-5988194.84	0.0088	0.0051
Venus	-21108-11-01 00:00 J	-5987969.66	-5987969.50	-5987969.29	0.0088	0.0051
Venus	-21107-06-14 13:26 J	-5987744.11	-5987743.94	-5987743.75	0.0088	0.0050
Venus	-21106-01-26 02:23 J	-5987518.56	-5987518.40	-5987518.20	0.0088	0.0050
Venus	-21106-09-08 16:04 J	-5987293.01	-5987292.83	-5987292.64	0.0088	0.0049
Venus	-21105-04-21 05:02 J	-5987067.46	-5987067.29	-5987067.09	0.0088	0.0049
Venus	-21105-12-02 18:28 J	-5986841.91	-5986841.73	-5986841.53	0.0088	0.0048
Venus	-21104-07-16 07:55 J	-5986616.36	-5986616.17	-5986615.98	0.0088	0.0047
Venus	-21103-02-26 20:52 J	-5986390.80	-5986390.63	-5986390.42	0.0088	0.0047
Venus	-21103-10-10 10:33 J	-5986165.24	-5986165.06	-5986164.86	0.0088	0.0046
Venus	-21102-05-24 00:00 J	-5985939.69	-5985939.50	-5985939.31	0.0088	0.0045
Venus	-21101-01-04 12:57 J	-5985714.13	-5985713.96	-5985713.75	0.0088	0.0045
Mars	-21101-08-16 06:14 J	-5985489.43	-5985489.24	-5985489.00	0.0088	0.0059
Venus	-21101-08-17 02:38 J	-5985488.58	-5985488.39	-5985488.19	0.0088	0.0044
Venus	-21100-03-30 16:04 J	-5985263.02	-5985262.83	-5985262.63	0.0088	0.0043
Venus	-21100-11-11 05:02 J	-5985037.46	-5985037.29	-5985037.07	0.0088	0.0043
Venus	-21099-06-24 18:28 J	-5984811.91	-5984811.73	-5984811.51	0.0088	0.0042
Mars	-21099-07-10 23:31 J	-5984795.81	-5984795.52	-5984795.22	0.0088	0.0003
Mercury	-21099-10-07 00:57 J	-5984707.48	-5984707.46	-5984707.40	0.0088	0.0086
Mercury	-21098-01-03 04:33 J	-5984619.39	-5984619.31	-5984619.20	0.0088	0.0076
Venus	-21098-02-05 07:55 J	-5984586.35	-5984586.17	-5984585.96	0.0088	0.0041

Mercury	-21098-04-01 08:09 J	-5984531.27	-5984531.16	-5984531.02	0.0088	0.0066
Mercury	-21098-06-28 11:45 J	-5984443.14	-5984443.01	-5984442.84	0.0088	0.0057
Venus	-21098-09-18 21:36 J	-5984360.79	-5984360.60	-5984360.39	0.0088	0.0040
Mercury	-21098-09-24 15:36 J	-5984355.01	-5984354.85	-5984354.68	0.0088	0.0046
Mercury	-21098-12-21 19:11 J	-5984266.87	-5984266.70	-5984266.52	0.0088	0.0036
Mercury	-21097-03-18 22:48 J	-5984178.73	-5984178.55	-5984178.36	0.0088	0.0026
Venus	-21097-05-01 11:02 J	-5984135.23	-5984135.04	-5984134.83	0.0088	0.0039
Mars	-21097-06-03 16:33 J	-5984101.99	-5984101.81	-5984101.59	0.0088	0.0064
Mercury	-21097-06-15 02:23 J	-5984090.59	-5984090.40	-5984090.21	0.0088	0.0017
Mercury	-21097-09-11 05:45 J	-5984002.45	-5984002.26	-5984002.06	0.0088	0.0007
Mercury	-21097-12-08 09:21 J	-5983914.30	-5983914.11	-5983913.91	0.0088	0.0004
Venus	-21097-12-13 00:28 J	-5983909.68	-5983909.48	-5983909.27	0.0088	0.0038
Mercury	-21096-03-06 12:57 J	-5983826.15	-5983825.96	-5983825.77	0.0088	0.0013
Mercury	-21096-06-02 16:19 J	-5983738.00	-5983737.82	-5983737.63	0.0088	0.0023
Venus	-21096-07-26 13:55 J	-5983684.12	-5983683.92	-5983683.72	0.0088	0.0037
Mercury	-21096-08-29 19:55 J	-5983649.85	-5983649.67	-5983649.49	0.0088	0.0033
Mercury	-21096-11-25 23:16 J	-5983561.69	-5983561.53	-5983561.35	0.0088	0.0042
Mercury	-21095-02-22 02:38 J	-5983473.53	-5983473.39	-5983473.22	0.0088	0.0052
Venus	-21095-03-09 03:07 J	-5983458.56	-5983458.37	-5983458.16	0.0088	0.0037
Mercury	-21095-05-21 06:00 J	-5983385.37	-5983385.25	-5983385.09	0.0088	0.0062
Mercury	-21095-08-17 09:50 J	-5983297.20	-5983297.09	-5983296.97	0.0088	0.0071
Venus	-21095-10-20 16:48 J	-5983233.00	-5983232.80	-5983232.59	0.0088	0.0035
Mercury	-21095-11-13 12:57 J	-5983209.01	-5983208.96	-5983208.87	0.0088	0.0082
Venus	-21094-06-03 06:14 J	-5983007.44	-5983007.24	-5983007.03	0.0088	0.0034
Venus	-21093-01-14 19:40 J	-5982781.88	-5982781.68	-5982781.47	0.0088	0.0033
Venus	-21093-08-27 09:07 J	-5982556.32	-5982556.12	-5982555.90	0.0088	0.0033
Venus	-21092-04-09 22:48 J	-5982330.76	-5982330.55	-5982330.34	0.0088	0.0031
Venus	-21092-11-21 12:14 J	-5982105.19	-5982104.99	-5982104.77	0.0088	0.0030
Venus	-21091-07-05 01:40 J	-5981879.63	-5981879.43	-5981879.21	0.0088	0.0029
Venus	-21090-02-15 15:21 J	-5981654.07	-5981653.86	-5981653.64	0.0088	0.0028

Venus	-21090-09-29 05:02 J	-5981428.50	-5981428.29	-5981428.07	0.0088	0.0027
Venus	-21089-05-11 18:28 J	-5981202.93	-5981202.73	-5981202.50	0.0088	0.0026
Venus	-21089-12-23 08:09 J	-5980977.37	-5980977.16	-5980976.94	0.0088	0.0025
Venus	-21088-08-05 21:36 J	-5980751.80	-5980751.60	-5980751.37	0.0088	0.0024
Venus	-21087-03-19 11:31 J	-5980526.24	-5980526.02	-5980525.80	0.0088	0.0022
Venus	-21087-10-31 01:11 J	-5980300.66	-5980300.45	-5980300.23	0.0088	0.0021
Venus	-21086-06-13 14:52 J	-5980075.10	-5980074.88	-5980074.66	0.0088	0.0020
Venus	-21085-01-25 04:19 J	-5979849.53	-5979849.32	-5979849.09	0.0088	0.0019
Venus	-21085-09-06 17:45 J	-5979623.97	-5979623.76	-5979623.53	0.0088	0.0019
Venus	-21084-04-20 07:40 J	-5979398.40	-5979398.18	-5979397.96	0.0088	0.0016
Venus	-21084-12-01 21:21 J	-5979172.83	-5979172.61	-5979172.39	0.0088	0.0015
Venus	-21083-07-15 10:48 J	-5978947.26	-5978947.05	-5978946.82	0.0088	0.0014
Venus	-21082-02-26 00:28 J	-5978721.70	-5978721.48	-5978721.25	0.0088	0.0013
Venus	-21082-10-09 14:09 J	-5978496.13	-5978495.91	-5978495.68	0.0088	0.0012
Venus	-21081-05-22 03:50 J	-5978270.56	-5978270.34	-5978270.11	0.0088	0.0010
Venus	-21080-01-02 17:31 J	-5978044.99	-5978044.77	-5978044.54	0.0088	0.0009
Venus	-21080-08-16 07:11 J	-5977819.42	-5977819.20	-5977818.98	0.0088	0.0008
Venus	-21079-03-29 20:52 J	-5977593.85	-5977593.63	-5977593.41	0.0088	0.0006
Venus	-21079-11-10 10:33 J	-5977368.28	-5977368.06	-5977367.83	0.0088	0.0006
Venus	-21078-06-24 00:28 J	-5977142.71	-5977142.48	-5977142.26	0.0088	0.0004
Venus	-21077-02-04 14:09 J	-5976917.14	-5976916.91	-5976916.69	0.0088	0.0002
Venus	-21077-09-17 03:50 J	-5976691.56	-5976691.34	-5976691.12	0.0088	0.0001
Venus	-21076-04-30 17:31 J	-5976465.99	-5976465.77	-5976465.54	0.0088	0.0001
Venus	-21076-12-12 07:26 J	-5976240.42	-5976240.19	-5976239.97	0.0088	0.0002
Venus	-21075-07-25 21:07 J	-5976014.84	-5976014.62	-5976014.39	0.0088	0.0003
Venus	-21074-03-08 10:48 J	-5975789.27	-5975789.05	-5975788.82	0.0088	0.0004
Venus	-21074-10-20 00:43 J	-5975563.70	-5975563.47	-5975563.25	0.0088	0.0006
Venus	-21073-06-01 14:09 J	-5975338.13	-5975337.91	-5975337.68	0.0088	0.0008
Venus	-21072-01-13 04:04 J	-5975112.55	-5975112.33	-5975112.11	0.0088	0.0008
Venus	-21072-08-26 17:45 J	-5974886.99	-5974886.76	-5974886.54	0.0088	0.0010

Venus	-21071-04-09 07:11 J	-5974661.42	-5974661.20	-5974660.97	0.0088	0.0011
Venus	-21071-11-20 20:52 J	-5974435.84	-5974435.63	-5974435.40	0.0089	0.0013
Venus	-21070-07-04 10:48 J	-5974210.27	-5974210.05	-5974209.83	0.0089	0.0014
Venus	-21069-02-15 00:28 J	-5973984.70	-5973984.48	-5973984.26	0.0089	0.0015
Venus	-21069-09-27 13:55 J	-5973759.13	-5973758.92	-5973758.69	0.0089	0.0016
Venus	-21068-05-11 03:36 J	-5973533.56	-5973533.35	-5973533.13	0.0089	0.0017
Venus	-21068-12-22 17:16 J	-5973307.99	-5973307.78	-5973307.55	0.0089	0.0019
Venus	-21067-08-05 07:11 J	-5973082.42	-5973082.20	-5973081.98	0.0089	0.0020
Venus	-21066-03-18 20:23 J	-5972856.85	-5972856.65	-5972856.42	0.0089	0.0022
Venus	-21066-10-30 10:19 J	-5972631.28	-5972631.07	-5972630.85	0.0089	0.0023
Venus	-21065-06-12 00:00 J	-5972405.71	-5972405.50	-5972405.28	0.0089	0.0024
Venus	-21064-01-23 13:55 J	-5972180.13	-5972179.92	-5972179.70	0.0089	0.0025
Venus	-21064-09-06 03:36 J	-5971954.56	-5971954.35	-5971954.14	0.0089	0.0026
Venus	-21063-04-19 17:16 J	-5971728.99	-5971728.78	-5971728.57	0.0089	0.0027
Venus	-21063-12-01 06:43 J	-5971503.42	-5971503.22	-5971502.99	0.0089	0.0029
Venus	-21062-07-14 20:23 J	-5971277.85	-5971277.65	-5971277.43	0.0089	0.0030
Venus	-21061-02-25 10:04 J	-5971052.28	-5971052.08	-5971051.86	0.0089	0.0031
Venus	-21061-10-07 23:45 J	-5970826.71	-5970826.51	-5970826.29	0.0089	0.0032
Venus	-21060-05-21 13:26 J	-5970601.14	-5970600.94	-5970600.73	0.0089	0.0033
Venus	-21059-01-02 03:07 J	-5970375.57	-5970375.37	-5970375.16	0.0089	0.0034
Venus	-21059-08-15 16:48 J	-5970150.00	-5970149.80	-5970149.59	0.0089	0.0035
Venus	-21058-03-29 06:14 J	-5969924.44	-5969924.24	-5969924.03	0.0089	0.0036
Venus	-21058-11-09 19:40 J	-5969698.87	-5969698.68	-5969698.47	0.0089	0.0037
Venus	-21057-06-22 09:21 J	-5969473.31	-5969473.11	-5969472.91	0.0089	0.0038
Venus	-21056-02-02 22:48 J	-5969247.74	-5969247.55	-5969247.34	0.0089	0.0039
Venus	-21056-09-16 12:14 J	-5969022.18	-5969021.99	-5969021.78	0.0089	0.0040
Venus	-21055-04-30 01:40 J	-5968796.61	-5968796.43	-5968796.22	0.0089	0.0041
Venus	-21055-12-11 15:21 J	-5968571.05	-5968570.86	-5968570.65	0.0089	0.0042
Venus	-21054-07-25 04:48 J	-5968345.48	-5968345.30	-5968345.09	0.0089	0.0043
Venus	-21053-03-06 18:14 J	-5968119.92	-5968119.74	-5968119.53	0.0089	0.0044

Venus	-21053-10-18 07:40 J	-5967894.35	-5967894.18	-5967893.97	0.0089	0.0045
Venus	-21052-05-31 21:36 J	-5967668.79	-5967668.60	-5967668.41	0.0089	0.0045
Venus	-21051-01-12 11:02 J	-5967443.22	-5967443.04	-5967442.84	0.0089	0.0046
Venus	-21051-08-26 00:28 J	-5967217.65	-5967217.48	-5967217.28	0.0089	0.0047
Venus	-21050-04-08 13:55 J	-5966992.09	-5966991.92	-5966991.72	0.0089	0.0048
Venus	-21050-11-20 03:36 J	-5966766.53	-5966766.35	-5966766.16	0.0089	0.0048
Venus	-21049-07-02 16:48 J	-5966540.97	-5966540.80	-5966540.60	0.0089	0.0050
Venus	-21048-02-13 06:14 J	-5966315.40	-5966315.24	-5966315.04	0.0089	0.0050
Venus	-21048-09-26 20:09 J	-5966089.84	-5966089.66	-5966089.48	0.0089	0.0050
Venus	-21047-05-10 09:07 J	-5965864.29	-5965864.12	-5965863.92	0.0089	0.0051
Venus	-21047-12-21 22:19 J	-5965638.73	-5965638.57	-5965638.37	0.0089	0.0053
Venus	-21046-08-04 12:00 J	-5965413.17	-5965413.00	-5965412.81	0.0089	0.0052
Venus	-21045-03-17 01:11 J	-5965187.61	-5965187.45	-5965187.26	0.0089	0.0053
Venus	-21045-10-28 14:38 J	-5964962.06	-5964961.89	-5964961.70	0.0089	0.0053
Venus	-21044-06-11 03:36 J	-5964736.50	-5964736.35	-5964736.15	0.0089	0.0055
Venus	-21043-01-22 17:16 J	-5964510.94	-5964510.78	-5964510.59	0.0089	0.0054
Venus	-21043-09-05 06:43 J	-5964285.39	-5964285.22	-5964285.04	0.0089	0.0055
Venus	-21042-04-18 19:40 J	-5964059.84	-5964059.68	-5964059.49	0.0089	0.0055
Venus	-21042-11-30 09:07 J	-5963834.28	-5963834.12	-5963833.94	0.0089	0.0055
Venus	-21041-07-12 22:33 J	-5963608.73	-5963608.56	-5963608.39	0.0089	0.0056
Venus	-21040-02-23 11:31 J	-5963383.17	-5963383.02	-5963382.83	0.0089	0.0056
Venus	-21040-10-07 00:43 J	-5963157.62	-5963157.47	-5963157.28	0.0089	0.0057
Venus	-21039-05-20 14:09 J	-5962932.07	-5962931.91	-5962931.73	0.0089	0.0056
Venus	-21038-01-01 03:21 J	-5962706.52	-5962706.36	-5962706.18	0.0089	0.0057
Venus	-21038-08-14 16:48 J	-5962480.96	-5962480.80	-5962480.63	0.0089	0.0057
Venus	-21037-03-27 05:45 J	-5962255.41	-5962255.26	-5962255.07	0.0089	0.0057
Venus	-21037-11-07 18:57 J	-5962029.86	-5962029.71	-5962029.53	0.0089	0.0057
Moon	-21036-05-02 00:43 J	-5961854.58	-5961854.47	-5961854.33	0.0089	0.0078
Earth	-21036-05-02 02:52 J	-5961854.48	-5961854.38	-5961854.23	0.0089	0.0078 *
Venus	-21036-06-21 07:55 J	-5961804.31	-5961804.17	-5961803.98	0.0089	0.0058

Venus	-21035-02-01 21:21 J	-5961578.76	-5961578.61	-5961578.43	0.0089	0.0057
Earth	-21035-05-04 13:40 J	-5961487.16	-5961486.93	-5961486.69	0.0089	0.0035
Moon	-21035-05-04 16:19 J	-5961487.04	-5961486.82	-5961486.58	0.0089	0.0034 *
Venus	-21035-09-15 10:19 J	-5961353.22	-5961353.07	-5961352.88	0.0089	0.0058
Venus	-21034-04-28 23:16 J	-5961127.67	-5961127.53	-5961127.34	0.0089	0.0058
Moon	-21034-05-06 20:52 J	-5961119.88	-5961119.63	-5961119.37	0.0089	0.0007
Earth	-21034-05-07 00:28 J	-5961119.73	-5961119.48	-5961119.23	0.0089	0.0008 *
Venus	-21034-12-10 12:14 J	-5960902.13	-5960901.99	-5960901.80	0.0089	0.0058
Earth	-21033-05-08 10:19 J	-5960752.26	-5960752.07	-5960751.84	0.0089	0.0052
Moon	-21033-05-08 13:55 J	-5960752.11	-5960751.92	-5960751.69	0.0089	0.0052 *
Venus	-21033-07-23 01:55 J	-5960676.59	-5960676.42	-5960676.25	0.0089	0.0057
Venus	-21032-03-05 14:52 J	-5960451.04	-5960450.88	-5960450.71	0.0089	0.0057
Venus	-21032-10-17 03:36 J	-5960225.50	-5960225.35	-5960225.17	0.0089	0.0057
Venus	-21031-05-30 16:33 J	-5959999.96	-5959999.81	-5959999.63	0.0089	0.0056
Venus	-21030-01-11 05:16 J	-5959774.43	-5959774.28	-5959774.09	0.0089	0.0057
Venus	-21030-08-24 18:43 J	-5959548.89	-5959548.72	-5959548.55	0.0089	0.0056
Venus	-21029-04-06 07:26 J	-5959323.34	-5959323.19	-5959323.00	0.0089	0.0056
Venus	-21029-11-17 20:23 J	-5959097.81	-5959097.65	-5959097.46	0.0089	0.0055
Venus	-21028-07-01 09:21 J	-5958872.27	-5958872.11	-5958871.93	0.0089	0.0055
Venus	-21027-02-11 22:19 J	-5958646.73	-5958646.57	-5958646.38	0.0089	0.0054
Venus	-21027-09-25 11:31 J	-5958421.19	-5958421.02	-5958420.85	0.0089	0.0054
Venus	-21026-05-09 00:14 J	-5958195.65	-5958195.49	-5958195.31	0.0089	0.0053
Venus	-21026-12-20 12:43 J	-5957970.12	-5957969.97	-5957969.77	0.0089	0.0054
Venus	-21025-08-02 01:55 J	-5957744.58	-5957744.42	-5957744.23	0.0089	0.0053
Venus	-21024-03-15 15:07 J	-5957519.04	-5957518.87	-5957518.69	0.0089	0.0052
Venus	-21024-10-27 03:36 J	-5957293.51	-5957293.35	-5957293.15	0.0089	0.0052
Venus	-21023-06-09 16:33 J	-5957067.98	-5957067.81	-5957067.62	0.0089	0.0051
Venus	-21022-01-21 05:02 J	-5956842.45	-5956842.29	-5956842.09	0.0089	0.0051
Venus	-21022-09-03 18:00 J	-5956616.92	-5956616.75	-5956616.55	0.0089	0.0050
Venus	-21021-04-16 06:57 J	-5956391.38	-5956391.21	-5956391.02	0.0089	0.0049

Venus	-21021-11-27 19:26 J	-5956165.85	-5956165.69	-5956165.49	0.0089	0.0049
Venus	-21020-07-11 08:09 J	-5955940.33	-5955940.16	-5955939.96	0.0089	0.0048
Venus	-21019-02-21 21:07 J	-5955714.80	-5955714.62	-5955714.43	0.0089	0.0046
Mars	-21019-06-18 12:00 J	-5955598.10	-5955598.00	-5955597.84	0.0089	0.0083
Venus	-21019-10-05 09:50 J	-5955489.27	-5955489.09	-5955488.90	0.0089	0.0046
Venus	-21018-05-18 22:33 J	-5955263.74	-5955263.56	-5955263.37	0.0089	0.0045
Venus	-21018-12-30 10:48 J	-5955038.22	-5955038.05	-5955037.84	0.0089	0.0045
Mercury	-21017-01-15 12:43 J	-5955022.00	-5955021.97	-5955021.91	0.0089	0.0084
Mercury	-21017-04-12 14:09 J	-5954933.97	-5954933.91	-5954933.84	0.0089	0.0077
Mars	-21017-05-14 18:43 J	-5954902.05	-5954901.72	-5954901.38	0.0089	0.0007
Mercury	-21017-07-09 15:36 J	-5954845.93	-5954845.85	-5954845.77	0.0089	0.0070
Venus	-21017-08-11 23:31 J	-5954812.69	-5954812.52	-5954812.32	0.0089	0.0043
Mercury	-21017-10-05 16:48 J	-5954757.89	-5954757.80	-5954757.70	0.0089	0.0063
Mercury	-21016-01-01 18:14 J	-5954669.84	-5954669.74	-5954669.64	0.0089	0.0056
Venus	-21016-03-25 12:14 J	-5954587.16	-5954586.99	-5954586.78	0.0089	0.0043
Mercury	-21016-03-30 19:40 J	-5954581.79	-5954581.68	-5954581.57	0.0089	0.0049
Mercury	-21016-06-26 20:52 J	-5954493.75	-5954493.63	-5954493.51	0.0089	0.0042
Mercury	-21016-09-22 22:04 J	-5954405.70	-5954405.58	-5954405.45	0.0089	0.0035
Venus	-21016-11-06 00:57 J	-5954361.64	-5954361.46	-5954361.26	0.0089	0.0041
Mercury	-21016-12-19 23:31 J	-5954317.64	-5954317.52	-5954317.39	0.0089	0.0028
Mercury	-21015-03-18 00:43 J	-5954229.59	-5954229.47	-5954229.33	0.0089	0.0021
Mars	-21015-04-11 00:14 J	-5954205.70	-5954205.49	-5954205.26	0.0089	0.0068
Mercury	-21015-06-14 02:09 J	-5954141.54	-5954141.41	-5954141.28	0.0089	0.0014
Venus	-21015-06-19 13:26 J	-5954136.12	-5954135.94	-5954135.73	0.0089	0.0041
Mercury	-21015-09-10 03:36 J	-5954053.48	-5954053.35	-5954053.22	0.0089	0.0007
Mercury	-21015-12-07 04:48 J	-5953965.43	-5953965.30	-5953965.16	0.0089	0.0003
Venus	-21014-01-31 02:09 J	-5953910.59	-5953910.41	-5953910.21	0.0089	0.0040
Mercury	-21014-03-05 06:14 J	-5953877.37	-5953877.24	-5953877.11	0.0089	0.0007
Mercury	-21014-06-01 07:40 J	-5953789.31	-5953789.18	-5953789.05	0.0089	0.0015
Mercury	-21014-08-28 08:52 J	-5953701.26	-5953701.13	-5953701.00	0.0089	0.0022

Venus	-21014-09-13 14:52 J	-5953685.07	-5953684.88	-5953684.68	0.0089	0.0038
Mercury	-21014-11-24 10:19 J	-5953613.20	-5953613.07	-5953612.95	0.0089	0.0029
Mercury	-21013-02-20 11:31 J	-5953525.14	-5953525.02	-5953524.89	0.0089	0.0036
Venus	-21013-04-26 03:36 J	-5953459.54	-5953459.35	-5953459.14	0.0089	0.0038
Mercury	-21013-05-18 12:57 J	-5953437.07	-5953436.96	-5953436.84	0.0089	0.0043
Mercury	-21013-08-14 14:23 J	-5953349.01	-5953348.90	-5953348.79	0.0089	0.0050
Mercury	-21013-11-10 15:21 J	-5953260.95	-5953260.86	-5953260.74	0.0089	0.0058
Venus	-21013-12-07 16:19 J	-5953234.01	-5953233.82	-5953233.62	0.0089	0.0036
Mercury	-21012-02-06 16:48 J	-5953172.88	-5953172.80	-5953172.70	0.0089	0.0065
Mercury	-21012-05-05 18:14 J	-5953084.81	-5953084.74	-5953084.65	0.0089	0.0071
Venus	-21012-07-21 04:48 J	-5953008.49	-5953008.30	-5953008.09	0.0089	0.0035
Mercury	-21012-08-01 19:40 J	-5952996.73	-5952996.68	-5952996.61	0.0089	0.0078
Mercury	-21012-10-28 21:07 J	-5952908.65	-5952908.62	-5952908.58	0.0089	0.0085
Venus	-21011-03-03 17:16 J	-5952782.96	-5952782.78	-5952782.57	0.0089	0.0035
Venus	-21011-10-15 06:00 J	-5952557.44	-5952557.25	-5952557.04	0.0089	0.0033
Venus	-21010-05-28 18:28 J	-5952331.92	-5952331.73	-5952331.51	0.0089	0.0033
Venus	-21009-01-09 06:57 J	-5952106.40	-5952106.21	-5952105.99	0.0089	0.0032
Venus	-21009-08-21 19:55 J	-5951880.88	-5951880.67	-5951880.47	0.0089	0.0030
Venus	-21008-04-04 08:23 J	-5951655.35	-5951655.15	-5951654.94	0.0089	0.0029
Venus	-21008-11-15 20:38 J	-5951429.83	-5951429.64	-5951429.42	0.0089	0.0028
Venus	-21007-06-29 09:07 J	-5951204.32	-5951204.12	-5951203.90	0.0089	0.0026
Venus	-21006-02-09 21:36 J	-5950978.80	-5950978.60	-5950978.39	0.0089	0.0025
Venus	-21006-09-23 10:19 J	-5950753.28	-5950753.07	-5950752.87	0.0089	0.0024
Venus	-21005-05-05 22:48 J	-5950527.76	-5950527.55	-5950527.34	0.0089	0.0022
Venus	-21005-12-17 11:02 J	-5950302.24	-5950302.04	-5950301.82	0.0089	0.0021
Venus	-21004-07-30 23:31 J	-5950076.72	-5950076.52	-5950076.30	0.0089	0.0020
Venus	-21003-03-13 12:00 J	-5949851.21	-5949851.00	-5949850.79	0.0089	0.0019
Venus	-21003-10-25 00:28 J	-5949625.69	-5949625.48	-5949625.27	0.0089	0.0017
Venus	-21002-06-07 12:57 J	-5949400.17	-5949399.96	-5949399.74	0.0089	0.0016
Venus	-21001-01-19 01:11 J	-5949174.65	-5949174.45	-5949174.23	0.0089	0.0016

Venus -21001-08-31 13:55 J -5948949.13 -5948948.92 -5948948.71 0.0089 0.0013

21ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 21st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-21000-04-14 02:23 J		-5948723.61	-5948723.40	-5948723.18	0.0089	0.0012	
Venus	-21000-11-25 14:38 J		-5948498.09	-5948497.89	-5948497.67	0.0089	0.0012	
Venus	-20999-07-09 03:21 J		-5948272.58	-5948272.36	-5948272.15	0.0089	0.0010	
Venus	-20998-02-19 15:36 J		-5948047.06	-5948046.85	-5948046.63	0.0089	0.0008	
Venus	-20998-10-03 04:04 J		-5947821.54	-5947821.33	-5947821.11	0.0089	0.0007	
Venus	-20997-05-15 16:33 J		-5947596.02	-5947595.81	-5947595.59	0.0089	0.0006	
Venus	-20997-12-27 05:02 J		-5947370.50	-5947370.29	-5947370.07	0.0089	0.0004	
Venus	-20996-08-09 17:16 J		-5947144.99	-5947144.78	-5947144.56	0.0089	0.0003	
Venus	-20995-03-23 05:45 J		-5946919.48	-5946919.26	-5946919.05	0.0089	0.0002	
Venus	-20995-11-03 18:00 J		-5946693.96	-5946693.75	-5946693.53	0.0089	0.0001	
Venus	-20994-06-17 06:28 J		-5946468.44	-5946468.23	-5946468.01	0.0089	0.0002	
Venus	-20993-01-28 18:43 J		-5946242.93	-5946242.72	-5946242.50	0.0089	0.0003	
Venus	-20993-09-10 07:11 J		-5946017.42	-5946017.20	-5946016.99	0.0089	0.0004	
Venus	-20992-04-23 19:26 J		-5945791.90	-5945791.69	-5945791.47	0.0089	0.0006	
Venus	-20992-12-05 07:40 J		-5945566.39	-5945566.18	-5945565.96	0.0089	0.0007	
Venus	-20991-07-18 20:09 J		-5945340.87	-5945340.66	-5945340.44	0.0089	0.0008	
Venus	-20990-03-01 08:23 J		-5945115.36	-5945115.15	-5945114.93	0.0089	0.0010	

Venus	-20990-10-12 20:52 J	-5944889.85	-5944889.63	-5944889.42	0.0089	0.0011
Venus	-20989-05-25 09:21 J	-5944664.32	-5944664.11	-5944663.89	0.0089	0.0012
Venus	-20988-01-05 21:36 J	-5944438.81	-5944438.60	-5944438.38	0.0089	0.0014
Venus	-20988-08-19 10:04 J	-5944213.29	-5944213.08	-5944212.87	0.0089	0.0015
Venus	-20987-04-01 22:19 J	-5943987.78	-5943987.57	-5943987.35	0.0089	0.0016
Venus	-20987-11-13 10:33 J	-5943762.26	-5943762.06	-5943761.83	0.0089	0.0018
Venus	-20986-06-26 23:16 J	-5943536.73	-5943536.53	-5943536.31	0.0089	0.0019
Venus	-20985-02-07 11:45 J	-5943311.22	-5943311.01	-5943310.80	0.0089	0.0020
Venus	-20985-09-20 00:14 J	-5943085.70	-5943085.49	-5943085.28	0.0089	0.0021
Venus	-20984-05-03 12:14 J	-5942860.19	-5942859.99	-5942859.77	0.0089	0.0023
Venus	-20984-12-15 00:43 J	-5942634.67	-5942634.47	-5942634.25	0.0089	0.0024
Venus	-20983-07-28 13:11 J	-5942409.15	-5942408.95	-5942408.74	0.0089	0.0025
Venus	-20982-03-11 01:26 J	-5942183.64	-5942183.44	-5942183.22	0.0089	0.0027
Venus	-20982-10-22 13:40 J	-5941958.12	-5941957.93	-5941957.71	0.0089	0.0028
Venus	-20981-06-04 02:23 J	-5941732.60	-5941732.40	-5941732.19	0.0089	0.0029
Venus	-20980-01-15 14:52 J	-5941507.08	-5941506.88	-5941506.67	0.0089	0.0030
Venus	-20980-08-29 03:07 J	-5941281.57	-5941281.37	-5941281.16	0.0089	0.0031
Venus	-20979-04-11 15:21 J	-5941056.05	-5941055.86	-5941055.65	0.0089	0.0032
Venus	-20979-11-23 03:36 J	-5940830.53	-5940830.35	-5940830.13	0.0089	0.0034
Venus	-20978-07-06 16:19 J	-5940605.01	-5940604.82	-5940604.61	0.0089	0.0035
Venus	-20977-02-17 04:48 J	-5940379.49	-5940379.30	-5940379.09	0.0089	0.0036
Venus	-20977-09-29 17:16 J	-5940153.97	-5940153.78	-5940153.57	0.0089	0.0037
Venus	-20976-05-13 05:45 J	-5939928.45	-5939928.26	-5939928.06	0.0089	0.0038
Venus	-20976-12-24 18:14 J	-5939702.93	-5939702.74	-5939702.54	0.0088	0.0039
Venus	-20975-08-07 06:43 J	-5939477.40	-5939477.22	-5939477.01	0.0088	0.0040
Venus	-20974-03-20 19:26 J	-5939251.88	-5939251.69	-5939251.49	0.0088	0.0041
Venus	-20974-11-01 07:55 J	-5939026.36	-5939026.17	-5939025.97	0.0088	0.0042
Venus	-20973-06-13 20:23 J	-5938800.83	-5938800.65	-5938800.45	0.0088	0.0043
Venus	-20972-01-25 09:07 J	-5938575.30	-5938575.12	-5938574.93	0.0088	0.0044
Venus	-20972-09-07 21:36 J	-5938349.78	-5938349.60	-5938349.41	0.0088	0.0045

Venus	-20971-04-21 09:50 J	-5938124.26	-5938124.09	-5938123.89	0.0088	0.0046
Venus	-20971-12-02 22:33 J	-5937898.74	-5937898.56	-5937898.36	0.0088	0.0046
Venus	-20970-07-16 11:02 J	-5937673.20	-5937673.04	-5937672.84	0.0088	0.0048
Venus	-20969-02-26 23:31 J	-5937447.68	-5937447.52	-5937447.31	0.0088	0.0049
Venus	-20969-10-09 12:28 J	-5937222.16	-5937221.98	-5937221.79	0.0088	0.0049
Venus	-20968-05-23 00:57 J	-5936996.63	-5936996.46	-5936996.27	0.0088	0.0050
Venus	-20967-01-03 13:11 J	-5936771.11	-5936770.95	-5936770.75	0.0088	0.0051
Venus	-20967-08-17 01:55 J	-5936545.58	-5936545.42	-5936545.22	0.0088	0.0051
Venus	-20966-03-30 14:52 J	-5936320.05	-5936319.88	-5936319.70	0.0088	0.0052
Venus	-20966-11-11 03:07 J	-5936094.53	-5936094.37	-5936094.18	0.0088	0.0053
Venus	-20965-06-23 15:50 J	-5935869.00	-5935868.84	-5935868.65	0.0088	0.0053
Venus	-20964-02-04 04:48 J	-5935643.47	-5935643.30	-5935643.12	0.0088	0.0054
Venus	-20964-09-17 17:16 J	-5935417.94	-5935417.78	-5935417.59	0.0088	0.0054
Venus	-20963-05-01 06:14 J	-5935192.41	-5935192.24	-5935192.07	0.0088	0.0055
Venus	-20963-12-12 18:43 J	-5934966.88	-5934966.72	-5934966.54	0.0088	0.0055
Venus	-20962-07-26 07:55 J	-5934741.34	-5934741.17	-5934741.00	0.0088	0.0056
Venus	-20961-03-07 20:23 J	-5934515.81	-5934515.65	-5934515.47	0.0088	0.0056
Venus	-20961-10-19 09:21 J	-5934290.27	-5934290.11	-5934289.94	0.0088	0.0057
Venus	-20960-06-01 21:36 J	-5934064.74	-5934064.60	-5934064.41	0.0088	0.0058
Venus	-20959-01-13 10:33 J	-5933839.21	-5933839.06	-5933838.88	0.0088	0.0058
Venus	-20959-08-26 23:16 J	-5933613.67	-5933613.53	-5933613.34	0.0088	0.0058
Venus	-20958-04-09 12:14 J	-5933388.14	-5933387.99	-5933387.81	0.0088	0.0058
Venus	-20958-11-21 01:11 J	-5933162.60	-5933162.45	-5933162.27	0.0088	0.0058
Venus	-20957-07-03 14:09 J	-5932937.07	-5932936.91	-5932936.74	0.0088	0.0059
Venus	-20956-02-14 02:38 J	-5932711.53	-5932711.39	-5932711.21	0.0088	0.0059
Venus	-20956-09-27 15:36 J	-5932486.00	-5932485.85	-5932485.67	0.0088	0.0059
Venus	-20955-05-11 04:19 J	-5932260.47	-5932260.32	-5932260.14	0.0088	0.0059
Venus	-20955-12-22 17:16 J	-5932034.93	-5932034.78	-5932034.61	0.0088	0.0059
Venus	-20954-08-05 06:14 J	-5931809.39	-5931809.24	-5931809.06	0.0088	0.0060
Earth	-20954-11-01 07:11 J	-5931721.39	-5931721.20	-5931720.96	0.0088	0.0051

Moon	-20954-11-01 10:33 J	-5931721.26	-5931721.06	-5931720.83	0.0088	0.0048 *
Venus	-20953-03-17 19:11 J	-5931583.85	-5931583.70	-5931583.53	0.0088	0.0059
Venus	-20953-10-29 08:09 J	-5931358.32	-5931358.16	-5931357.99	0.0088	0.0059
Moon	-20953-11-02 16:33 J	-5931354.06	-5931353.81	-5931353.54	0.0088	0.0012
Earth	-20953-11-02 20:38 J	-5931353.90	-5931353.64	-5931353.38	0.0088	0.0008 *
Venus	-20952-06-11 20:52 J	-5931132.78	-5931132.63	-5931132.45	0.0088	0.0059
Earth	-20952-11-05 09:07 J	-5930986.35	-5930986.12	-5930985.87	0.0088	0.0034
Moon	-20952-11-05 12:28 J	-5930986.21	-5930985.98	-5930985.73	0.0088	0.0037 *
Venus	-20951-01-23 09:50 J	-5930907.24	-5930907.09	-5930906.92	0.0088	0.0059
Venus	-20951-09-05 23:02 J	-5930681.69	-5930681.54	-5930681.37	0.0088	0.0059
Moon	-20951-11-07 18:14 J	-5930618.85	-5930618.74	-5930618.58	0.0088	0.0075
Earth	-20951-11-07 21:21 J	-5930618.71	-5930618.61	-5930618.46	0.0088	0.0078 *
Venus	-20950-04-19 12:00 J	-5930456.15	-5930456.00	-5930455.82	0.0088	0.0059
Venus	-20950-12-01 00:57 J	-5930230.61	-5930230.46	-5930230.28	0.0088	0.0059
Venus	-20949-07-13 13:55 J	-5930005.07	-5930004.92	-5930004.74	0.0088	0.0059
Venus	-20948-02-24 02:52 J	-5929779.52	-5929779.38	-5929779.19	0.0088	0.0059
Venus	-20948-10-07 16:19 J	-5929553.98	-5929553.82	-5929553.65	0.0088	0.0058
Venus	-20947-05-21 05:16 J	-5929328.43	-5929328.28	-5929328.10	0.0088	0.0058
Venus	-20946-01-01 18:14 J	-5929102.89	-5929102.74	-5929102.55	0.0088	0.0058
Venus	-20946-08-15 07:26 J	-5928877.34	-5928877.19	-5928877.00	0.0088	0.0058
Venus	-20945-03-27 20:52 J	-5928651.79	-5928651.63	-5928651.45	0.0088	0.0057
Venus	-20945-11-08 09:50 J	-5928426.25	-5928426.09	-5928425.91	0.0088	0.0057
Venus	-20944-06-21 23:02 J	-5928200.70	-5928200.54	-5928200.36	0.0088	0.0056
Venus	-20943-02-02 12:00 J	-5927975.16	-5927975.00	-5927974.81	0.0088	0.0056
Venus	-20943-09-16 01:40 J	-5927749.60	-5927749.43	-5927749.26	0.0088	0.0055
Venus	-20942-04-29 14:23 J	-5927524.05	-5927523.90	-5927523.71	0.0088	0.0055
Venus	-20942-12-11 03:50 J	-5927298.51	-5927298.34	-5927298.16	0.0088	0.0054
Venus	-20941-07-23 16:48 J	-5927072.96	-5927072.80	-5927072.61	0.0088	0.0054
Venus	-20940-03-06 06:00 J	-5926847.41	-5926847.25	-5926847.06	0.0088	0.0053
Venus	-20940-10-17 19:11 J	-5926621.86	-5926621.70	-5926621.50	0.0088	0.0053

Venus	-20939-05-31 08:38 J	-5926396.31	-5926396.14	-5926395.95	0.0088	0.0052
Venus	-20938-01-11 22:04 J	-5926170.76	-5926170.58	-5926170.39	0.0088	0.0051
Venus	-20938-08-25 11:02 J	-5925945.20	-5925945.04	-5925944.83	0.0088	0.0051
Venus	-20937-04-07 00:28 J	-5925719.64	-5925719.48	-5925719.28	0.0088	0.0050
Venus	-20937-11-18 13:55 J	-5925494.09	-5925493.92	-5925493.72	0.0088	0.0049
Venus	-20936-07-02 03:21 J	-5925268.53	-5925268.36	-5925268.16	0.0088	0.0048
Venus	-20935-02-12 17:02 J	-5925042.98	-5925042.79	-5925042.60	0.0088	0.0047
Mars	-20935-02-23 14:52 J	-5925032.15	-5925031.88	-5925031.59	0.0088	0.0027
Venus	-20935-09-26 06:14 J	-5924817.41	-5924817.24	-5924817.03	0.0088	0.0047
Venus	-20934-05-09 19:40 J	-5924591.85	-5924591.68	-5924591.47	0.0088	0.0046
Mercury	-20934-07-04 00:14 J	-5924536.56	-5924536.49	-5924536.40	0.0088	0.0080
Mercury	-20934-09-30 03:50 J	-5924448.44	-5924448.34	-5924448.21	0.0088	0.0070
Venus	-20934-12-21 09:07 J	-5924366.30	-5924366.12	-5924365.91	0.0088	0.0045
Mercury	-20934-12-27 07:26 J	-5924360.32	-5924360.19	-5924360.04	0.0088	0.0060
Mars	-20933-01-18 08:09 J	-5924338.40	-5924338.16	-5924337.86	0.0088	0.0035
Mercury	-20933-03-24 11:16 J	-5924272.19	-5924272.03	-5924271.87	0.0088	0.0050
Mercury	-20933-06-20 14:52 J	-5924184.05	-5924183.88	-5924183.71	0.0088	0.0040
Venus	-20933-08-02 22:33 J	-5924140.74	-5924140.56	-5924140.35	0.0088	0.0044
Mercury	-20933-09-16 18:28 J	-5924095.91	-5924095.73	-5924095.55	0.0088	0.0030
Mercury	-20933-12-13 21:50 J	-5924007.77	-5924007.59	-5924007.39	0.0088	0.0021
Mercury	-20932-03-12 01:26 J	-5923919.63	-5923919.44	-5923919.24	0.0088	0.0011
Venus	-20932-03-16 12:00 J	-5923915.18	-5923915.00	-5923914.79	0.0088	0.0043
Mercury	-20932-06-08 05:16 J	-5923831.48	-5923831.28	-5923831.09	0.0088	0.0002
Mercury	-20932-09-04 08:38 J	-5923743.33	-5923743.14	-5923742.94	0.0088	0.0009
Venus	-20932-10-28 01:26 J	-5923689.62	-5923689.44	-5923689.23	0.0088	0.0042
Mercury	-20932-12-01 12:14 J	-5923655.18	-5923654.99	-5923654.80	0.0088	0.0019
Mercury	-20931-02-27 15:36 J	-5923567.03	-5923566.85	-5923566.66	0.0088	0.0029
Mercury	-20931-05-26 18:57 J	-5923478.87	-5923478.71	-5923478.52	0.0088	0.0039
Venus	-20931-06-10 14:52 J	-5923464.06	-5923463.88	-5923463.67	0.0088	0.0041
Mercury	-20931-08-22 22:48 J	-5923390.71	-5923390.55	-5923390.39	0.0088	0.0048

Mercury	-20931-11-19 02:09 J	-5923302.55	-5923302.41	-5923302.26	0.0088	0.0058
Venus	-20930-01-22 04:19 J	-5923238.51	-5923238.32	-5923238.11	0.0088	0.0040
Mercury	-20930-02-15 05:16 J	-5923214.38	-5923214.28	-5923214.14	0.0088	0.0069
Mercury	-20930-05-14 09:07 J	-5923126.20	-5923126.12	-5923126.02	0.0088	0.0078
Mercury	-20930-08-10 12:28 J	-5923037.99	-5923037.98	-5923037.94	0.0088	0.0087
Venus	-20930-09-04 17:45 J	-5923012.95	-5923012.76	-5923012.54	0.0088	0.0039
Venus	-20929-04-17 07:11 J	-5922787.39	-5922787.20	-5922786.98	0.0088	0.0038
Venus	-20929-11-28 21:07 J	-5922561.83	-5922561.62	-5922561.42	0.0088	0.0037
Venus	-20928-07-12 10:19 J	-5922336.27	-5922336.07	-5922335.86	0.0088	0.0035
Venus	-20927-02-22 23:45 J	-5922110.71	-5922110.51	-5922110.30	0.0088	0.0034
Venus	-20927-10-06 13:26 J	-5921885.14	-5921884.94	-5921884.72	0.0088	0.0033
Venus	-20926-05-20 02:52 J	-5921659.58	-5921659.38	-5921659.16	0.0088	0.0032
Venus	-20926-12-31 16:19 J	-5921434.01	-5921433.82	-5921433.59	0.0088	0.0031
Venus	-20925-08-13 06:14 J	-5921208.45	-5921208.24	-5921208.03	0.0088	0.0029
Venus	-20924-03-26 19:40 J	-5920982.89	-5920982.68	-5920982.46	0.0088	0.0028
Venus	-20924-11-07 09:21 J	-5920757.31	-5920757.11	-5920756.89	0.0088	0.0027
Venus	-20923-06-20 22:48 J	-5920531.75	-5920531.55	-5920531.32	0.0088	0.0026
Venus	-20922-02-01 12:43 J	-5920306.18	-5920305.97	-5920305.75	0.0088	0.0024
Venus	-20922-09-15 02:09 J	-5920080.62	-5920080.41	-5920080.18	0.0088	0.0024
Venus	-20921-04-27 15:50 J	-5919855.05	-5919854.84	-5919854.61	0.0088	0.0022
Venus	-20921-12-09 05:45 J	-5919629.48	-5919629.26	-5919629.04	0.0088	0.0020
Venus	-20920-07-22 19:11 J	-5919403.91	-5919403.70	-5919403.47	0.0088	0.0019
Venus	-20919-03-05 08:38 J	-5919178.35	-5919178.14	-5919177.91	0.0088	0.0018
Venus	-20919-10-16 22:33 J	-5918952.78	-5918952.56	-5918952.33	0.0088	0.0016
Venus	-20918-05-30 12:14 J	-5918727.21	-5918726.99	-5918726.77	0.0088	0.0015
Venus	-20917-01-11 01:55 J	-5918501.64	-5918501.42	-5918501.20	0.0088	0.0014
Venus	-20917-08-23 15:21 J	-5918276.08	-5918275.86	-5918275.63	0.0088	0.0012
Venus	-20916-04-06 05:02 J	-5918050.51	-5918050.29	-5918050.07	0.0088	0.0011
Venus	-20916-11-17 18:43 J	-5917824.94	-5917824.72	-5917824.49	0.0088	0.0009
Venus	-20915-07-01 08:23 J	-5917599.37	-5917599.15	-5917598.92	0.0088	0.0008

Venus	-20914-02-11 22:04 J	-5917373.80	-5917373.58	-5917373.36	0.0088	0.0007
Venus	-20914-09-25 11:45 J	-5917148.24	-5917148.01	-5917147.79	0.0088	0.0005
Venus	-20913-05-08 01:26 J	-5916922.67	-5916922.44	-5916922.22	0.0088	0.0004
Venus	-20913-12-19 15:07 J	-5916697.09	-5916696.87	-5916696.64	0.0088	0.0002
Venus	-20912-08-02 04:48 J	-5916471.52	-5916471.30	-5916471.07	0.0088	0.0001
Venus	-20911-03-15 18:28 J	-5916245.95	-5916245.73	-5916245.50	0.0088	0.0001
Venus	-20911-10-27 08:23 J	-5916020.38	-5916020.15	-5916019.93	0.0088	0.0002
Venus	-20910-06-09 22:04 J	-5915794.80	-5915794.58	-5915794.36	0.0088	0.0003
Venus	-20909-01-21 11:45 J	-5915569.23	-5915569.01	-5915568.78	0.0088	0.0005
Venus	-20909-09-03 01:26 J	-5915343.66	-5915343.44	-5915343.21	0.0088	0.0006
Venus	-20908-04-16 15:07 J	-5915118.09	-5915117.87	-5915117.64	0.0088	0.0008
Venus	-20908-11-28 05:02 J	-5914892.51	-5914892.29	-5914892.07	0.0088	0.0009
Venus	-20907-07-11 18:43 J	-5914666.94	-5914666.72	-5914666.50	0.0088	0.0011
Venus	-20906-02-22 08:09 J	-5914441.37	-5914441.16	-5914440.93	0.0088	0.0013
Venus	-20906-10-05 22:04 J	-5914215.80	-5914215.58	-5914215.36	0.0089	0.0014
Venus	-20905-05-18 11:31 J	-5913990.23	-5913990.02	-5913989.79	0.0089	0.0015
Venus	-20905-12-30 01:11 J	-5913764.66	-5913764.45	-5913764.22	0.0089	0.0017
Venus	-20904-08-12 15:07 J	-5913539.09	-5913538.87	-5913538.65	0.0089	0.0018
Venus	-20903-03-26 04:33 J	-5913313.52	-5913313.31	-5913313.09	0.0089	0.0019
Venus	-20903-11-06 18:14 J	-5913087.95	-5913087.74	-5913087.51	0.0089	0.0021
Venus	-20902-06-20 08:09 J	-5912862.38	-5912862.16	-5912861.94	0.0089	0.0022
Venus	-20901-01-31 21:36 J	-5912636.81	-5912636.60	-5912636.38	0.0089	0.0024
Venus	-20901-09-13 11:16 J	-5912411.24	-5912411.03	-5912410.81	0.0089	0.0025
Venus	-20900-04-27 00:57 J	-5912185.67	-5912185.46	-5912185.24	0.0089	0.0026
Venus	-20900-12-08 14:38 J	-5911960.09	-5911959.89	-5911959.67	0.0089	0.0028
Venus	-20899-07-22 04:19 J	-5911734.52	-5911734.32	-5911734.10	0.0089	0.0029
Venus	-20898-03-04 18:14 J	-5911508.95	-5911508.74	-5911508.53	0.0089	0.0030
Venus	-20898-10-16 07:40 J	-5911283.38	-5911283.18	-5911282.96	0.0089	0.0031
Venus	-20897-05-28 21:21 J	-5911057.81	-5911057.61	-5911057.39	0.0089	0.0033
Venus	-20896-01-09 11:16 J	-5910832.23	-5910832.03	-5910831.82	0.0089	0.0034

Venus	-20896-08-23 00:57 J	-5910606.66	-5910606.46	-5910606.25	0.0089	0.0035
Venus	-20895-04-05 14:38 J	-5910381.09	-5910380.89	-5910380.69	0.0089	0.0036
Venus	-20895-11-17 03:50 J	-5910155.52	-5910155.34	-5910155.12	0.0089	0.0038
Venus	-20894-06-30 17:31 J	-5909929.95	-5909929.77	-5909929.55	0.0089	0.0039
Venus	-20893-02-11 07:26 J	-5909704.38	-5909704.19	-5909703.98	0.0089	0.0040
Venus	-20893-09-23 20:52 J	-5909478.82	-5909478.63	-5909478.42	0.0089	0.0041
Venus	-20892-05-07 10:33 J	-5909253.25	-5909253.06	-5909252.86	0.0089	0.0042
Venus	-20892-12-19 00:14 J	-5909027.68	-5909027.49	-5909027.29	0.0089	0.0043
Venus	-20891-08-01 13:40 J	-5908802.12	-5908801.93	-5908801.73	0.0089	0.0044
Venus	-20890-03-15 03:07 J	-5908576.55	-5908576.37	-5908576.17	0.0089	0.0045
Venus	-20890-10-26 16:33 J	-5908350.99	-5908350.81	-5908350.61	0.0089	0.0046
Venus	-20889-06-08 06:00 J	-5908125.43	-5908125.25	-5908125.05	0.0089	0.0047
Venus	-20888-01-19 19:40 J	-5907899.86	-5907899.68	-5907899.48	0.0089	0.0048
Venus	-20888-09-02 09:07 J	-5907674.29	-5907674.12	-5907673.92	0.0089	0.0049
Venus	-20887-04-15 22:33 J	-5907448.73	-5907448.56	-5907448.37	0.0089	0.0050
Venus	-20887-11-27 12:00 J	-5907223.17	-5907223.00	-5907222.80	0.0089	0.0051
Venus	-20886-07-11 01:26 J	-5906997.60	-5906997.44	-5906997.24	0.0089	0.0052
Venus	-20885-02-21 15:21 J	-5906772.04	-5906771.86	-5906771.68	0.0089	0.0052
Venus	-20885-10-04 04:33 J	-5906546.47	-5906546.31	-5906546.12	0.0089	0.0053
Venus	-20884-05-17 18:00 J	-5906320.91	-5906320.75	-5906320.56	0.0089	0.0054
Venus	-20884-12-29 07:26 J	-5906095.35	-5906095.19	-5906095.00	0.0089	0.0055
Venus	-20883-08-11 21:07 J	-5905869.78	-5905869.62	-5905869.44	0.0089	0.0055
Venus	-20882-03-25 10:19 J	-5905644.22	-5905644.07	-5905643.88	0.0089	0.0056
Venus	-20882-11-05 23:31 J	-5905418.67	-5905418.52	-5905418.33	0.0089	0.0057
Venus	-20881-06-18 13:11 J	-5905193.11	-5905192.95	-5905192.77	0.0089	0.0057
Venus	-20880-01-30 02:23 J	-5904967.55	-5904967.40	-5904967.22	0.0089	0.0058
Venus	-20880-09-12 15:50 J	-5904741.99	-5904741.84	-5904741.66	0.0089	0.0059
Venus	-20879-04-26 04:48 J	-5904516.44	-5904516.30	-5904516.11	0.0089	0.0060
Venus	-20879-12-07 18:14 J	-5904290.89	-5904290.74	-5904290.56	0.0089	0.0060
Venus	-20878-07-21 07:26 J	-5904065.33	-5904065.19	-5904065.01	0.0089	0.0060

Venus	-20877-03-02 20:52 J	-5903839.78	-5903839.63	-5903839.45	0.0089	0.0060
Venus	-20877-10-14 10:19 J	-5903614.23	-5903614.07	-5903613.90	0.0089	0.0061
Venus	-20876-05-27 23:02 J	-5903388.68	-5903388.54	-5903388.36	0.0089	0.0062
Venus	-20875-01-08 12:28 J	-5903163.12	-5903162.98	-5903162.80	0.0089	0.0061
Venus	-20875-08-22 01:55 J	-5902937.57	-5902937.42	-5902937.25	0.0089	0.0061
Venus	-20874-04-04 15:21 J	-5902712.02	-5902711.86	-5902711.70	0.0089	0.0062
Venus	-20874-11-16 04:04 J	-5902486.47	-5902486.33	-5902486.15	0.0089	0.0062
Venus	-20873-06-28 17:16 J	-5902260.92	-5902260.78	-5902260.60	0.0089	0.0062
Venus	-20872-02-09 06:28 J	-5902035.36	-5902035.23	-5902035.05	0.0089	0.0063
Venus	-20872-09-22 19:55 J	-5901809.81	-5901809.67	-5901809.50	0.0089	0.0062
Moon	-20871-05-03 22:33 J	-5901586.75	-5901586.56	-5901586.34	0.0089	0.0051
Earth	-20871-05-04 01:55 J	-5901586.60	-5901586.42	-5901586.20	0.0089	0.0055 *
Venus	-20871-05-06 08:52 J	-5901584.27	-5901584.13	-5901583.96	0.0089	0.0063
Venus	-20871-12-17 22:04 J	-5901358.72	-5901358.58	-5901358.41	0.0089	0.0063
Earth	-20870-05-06 12:43 J	-5901219.21	-5901218.97	-5901218.71	0.0089	0.0012
Moon	-20870-05-06 16:19 J	-5901219.07	-5901218.82	-5901218.57	0.0089	0.0017 *
Venus	-20870-07-31 11:16 J	-5901133.17	-5901133.03	-5901132.86	0.0089	0.0062
Venus	-20869-03-13 00:28 J	-5900907.62	-5900907.48	-5900907.31	0.0089	0.0062
Moon	-20869-05-07 20:09 J	-5900851.88	-5900851.66	-5900851.42	0.0089	0.0036
Earth	-20869-05-07 23:16 J	-5900851.76	-5900851.53	-5900851.29	0.0089	0.0031 *
Venus	-20869-10-24 13:26 J	-5900682.08	-5900681.94	-5900681.77	0.0089	0.0063
Earth	-20868-05-10 09:36 J	-5900484.23	-5900484.10	-5900483.95	0.0089	0.0074
Moon	-20868-05-10 11:16 J	-5900484.17	-5900484.03	-5900483.84	0.0089	0.0070 *
Venus	-20868-06-07 02:23 J	-5900456.54	-5900456.40	-5900456.22	0.0089	0.0062
Venus	-20867-01-18 15:21 J	-5900230.99	-5900230.86	-5900230.68	0.0089	0.0063
Venus	-20867-09-01 04:48 J	-5900005.45	-5900005.30	-5900005.14	0.0089	0.0062
Venus	-20866-04-14 17:45 J	-5899779.91	-5899779.76	-5899779.59	0.0089	0.0062
Venus	-20866-11-26 06:28 J	-5899554.37	-5899554.23	-5899554.05	0.0089	0.0062
Venus	-20865-07-08 19:55 J	-5899328.83	-5899328.67	-5899328.51	0.0089	0.0061
Venus	-20864-02-19 08:38 J	-5899103.29	-5899103.14	-5899102.97	0.0089	0.0061

Venus	-20864-10-02 21:21 J	-5898877.75	-5898877.61	-5898877.43	0.0089	0.0060
Venus	-20863-05-16 10:33 J	-5898652.22	-5898652.06	-5898651.90	0.0089	0.0060
Venus	-20863-12-27 23:02 J	-5898426.68	-5898426.54	-5898426.36	0.0089	0.0060
Venus	-20862-08-10 12:14 J	-5898201.14	-5898200.99	-5898200.82	0.0089	0.0059
Venus	-20861-03-23 01:11 J	-5897975.60	-5897975.45	-5897975.27	0.0089	0.0058
Venus	-20861-11-03 14:09 J	-5897750.07	-5897749.91	-5897749.74	0.0089	0.0058
Venus	-20860-06-17 02:38 J	-5897524.53	-5897524.39	-5897524.20	0.0089	0.0058
Venus	-20859-01-28 15:50 J	-5897299.00	-5897298.84	-5897298.66	0.0089	0.0057
Venus	-20859-09-11 04:33 J	-5897073.46	-5897073.31	-5897073.12	0.0089	0.0056
Venus	-20858-04-24 17:31 J	-5896847.92	-5896847.77	-5896847.58	0.0089	0.0056
Venus	-20858-12-06 06:28 J	-5896622.39	-5896622.23	-5896622.05	0.0089	0.0055
Venus	-20857-07-18 19:26 J	-5896396.86	-5896396.69	-5896396.51	0.0089	0.0054
Venus	-20856-03-01 07:55 J	-5896171.33	-5896171.17	-5896170.98	0.0089	0.0054
Venus	-20856-10-12 20:38 J	-5895945.80	-5895945.64	-5895945.45	0.0089	0.0053
Venus	-20855-05-26 09:36 J	-5895720.27	-5895720.10	-5895719.92	0.0089	0.0052
Venus	-20854-01-06 22:19 J	-5895494.74	-5895494.57	-5895494.39	0.0089	0.0051
Venus	-20854-08-20 11:02 J	-5895269.22	-5895269.04	-5895268.86	0.0089	0.0050
Mars	-20854-12-27 11:45 J	-5895140.28	-5895140.01	-5895139.68	0.0089	0.0044
Venus	-20853-04-01 23:45 J	-5895043.68	-5895043.51	-5895043.32	0.0089	0.0049
Mercury	-20853-07-15 11:31 J	-5894939.04	-5894939.02	-5894938.98	0.0089	0.0086
Mercury	-20853-10-11 12:57 J	-5894851.01	-5894850.96	-5894850.89	0.0089	0.0079
Venus	-20853-11-13 12:28 J	-5894818.16	-5894817.98	-5894817.79	0.0089	0.0048
Mercury	-20852-01-07 14:09 J	-5894762.97	-5894762.91	-5894762.82	0.0089	0.0073
Mercury	-20852-04-05 15:36 J	-5894674.93	-5894674.85	-5894674.75	0.0089	0.0065
Venus	-20852-06-27 01:11 J	-5894592.64	-5894592.45	-5894592.27	0.0089	0.0047
Mercury	-20852-07-02 17:02 J	-5894586.89	-5894586.79	-5894586.69	0.0089	0.0058
Mercury	-20852-09-28 18:14 J	-5894498.84	-5894498.74	-5894498.63	0.0089	0.0052
Mars	-20852-11-22 17:45 J	-5894444.05	-5894443.76	-5894443.42	0.0089	0.0033
Mercury	-20852-12-25 19:40 J	-5894410.79	-5894410.68	-5894410.56	0.0089	0.0044
Venus	-20851-02-07 13:40 J	-5894367.11	-5894366.93	-5894366.74	0.0089	0.0046

Mercury	-20851-03-23 20:52 J	-5894322.74	-5894322.63	-5894322.50	0.0089	0.0038
Mercury	-20851-06-19 22:19 J	-5894234.69	-5894234.57	-5894234.44	0.0089	0.0031
Mercury	-20851-09-15 23:45 J	-5894146.64	-5894146.51	-5894146.39	0.0089	0.0024
Venus	-20851-09-21 02:23 J	-5894141.59	-5894141.40	-5894141.21	0.0089	0.0045
Mercury	-20851-12-13 00:57 J	-5894058.59	-5894058.46	-5894058.33	0.0089	0.0017
Mercury	-20850-03-11 02:23 J	-5893970.53	-5893970.40	-5893970.27	0.0089	0.0010
Venus	-20850-05-04 15:07 J	-5893916.06	-5893915.87	-5893915.68	0.0089	0.0044
Mercury	-20850-06-07 03:36 J	-5893882.48	-5893882.35	-5893882.21	0.0089	0.0003
Mercury	-20850-09-03 05:02 J	-5893794.42	-5893794.29	-5893794.16	0.0089	0.0005
Mercury	-20850-11-30 06:14 J	-5893706.37	-5893706.24	-5893706.10	0.0089	0.0012
Venus	-20850-12-16 03:36 J	-5893690.54	-5893690.35	-5893690.16	0.0089	0.0043
Mercury	-20849-02-26 07:40 J	-5893618.31	-5893618.18	-5893618.05	0.0089	0.0019
Mercury	-20849-05-24 09:07 J	-5893530.25	-5893530.12	-5893530.00	0.0089	0.0026
Venus	-20849-07-28 16:04 J	-5893465.01	-5893464.83	-5893464.63	0.0089	0.0042
Mercury	-20849-08-20 10:19 J	-5893442.19	-5893442.07	-5893441.94	0.0089	0.0033
Mercury	-20849-11-16 11:31 J	-5893354.13	-5893354.02	-5893353.89	0.0089	0.0040
Mercury	-20848-02-12 12:57 J	-5893266.07	-5893265.96	-5893265.84	0.0089	0.0047
Venus	-20848-03-11 04:48 J	-5893239.49	-5893239.30	-5893239.10	0.0089	0.0041
Mercury	-20848-05-11 14:09 J	-5893178.00	-5893177.91	-5893177.79	0.0089	0.0055
Mercury	-20848-08-07 15:36 J	-5893089.94	-5893089.85	-5893089.74	0.0089	0.0061
Venus	-20848-10-22 17:16 J	-5893013.96	-5893013.78	-5893013.58	0.0089	0.0040
Mercury	-20848-11-03 17:02 J	-5893001.87	-5893001.79	-5893001.70	0.0089	0.0068
Mercury	-20847-01-30 18:28 J	-5892913.80	-5892913.73	-5892913.66	0.0089	0.0075
Mercury	-20847-04-28 19:40 J	-5892825.72	-5892825.68	-5892825.62	0.0089	0.0083
Venus	-20847-06-05 05:45 J	-5892788.44	-5892788.26	-5892788.05	0.0089	0.0039
Venus	-20846-01-16 18:14 J	-5892562.92	-5892562.74	-5892562.53	0.0089	0.0038
Venus	-20846-08-30 06:57 J	-5892337.39	-5892337.21	-5892337.00	0.0089	0.0036
Venus	-20845-04-11 19:55 J	-5892111.87	-5892111.67	-5892111.47	0.0089	0.0035
Venus	-20845-11-23 08:23 J	-5891886.35	-5891886.15	-5891885.95	0.0089	0.0033
Venus	-20844-07-06 20:38 J	-5891660.83	-5891660.64	-5891660.42	0.0089	0.0033

Venus	-20843-02-17 09:07 J	-5891435.31	-5891435.12	-5891434.90	0.0089	0.0031
Venus	-20843-09-30 21:50 J	-5891209.79	-5891209.59	-5891209.38	0.0089	0.0030
Venus	-20842-05-14 10:19 J	-5890984.26	-5890984.07	-5890983.85	0.0089	0.0029
Venus	-20842-12-25 22:48 J	-5890758.75	-5890758.55	-5890758.34	0.0089	0.0027
Venus	-20841-08-07 11:16 J	-5890533.23	-5890533.03	-5890532.82	0.0089	0.0026
Venus	-20840-03-20 23:45 J	-5890307.71	-5890307.51	-5890307.30	0.0089	0.0024
Venus	-20840-11-01 12:00 J	-5890082.20	-5890082.00	-5890081.78	0.0089	0.0023
Venus	-20839-06-15 00:43 J	-5889856.68	-5889856.47	-5889856.26	0.0089	0.0021
Venus	-20838-01-26 12:57 J	-5889631.16	-5889630.96	-5889630.74	0.0089	0.0020
Venus	-20838-09-09 01:26 J	-5889405.65	-5889405.44	-5889405.23	0.0089	0.0019
Venus	-20837-04-21 13:55 J	-5889180.13	-5889179.92	-5889179.70	0.0089	0.0017
Venus	-20837-12-03 02:09 J	-5888954.61	-5888954.41	-5888954.19	0.0089	0.0016
Venus	-20836-07-16 14:38 J	-5888729.10	-5888728.89	-5888728.67	0.0089	0.0015
Venus	-20835-02-27 03:07 J	-5888503.58	-5888503.37	-5888503.15	0.0089	0.0013
Venus	-20835-10-10 15:36 J	-5888278.06	-5888277.85	-5888277.63	0.0089	0.0012
Venus	-20834-05-24 04:04 J	-5888052.54	-5888052.33	-5888052.11	0.0089	0.0011
Venus	-20833-01-04 16:33 J	-5887827.02	-5887826.81	-5887826.59	0.0089	0.0009
Venus	-20833-08-17 05:02 J	-5887601.50	-5887601.29	-5887601.07	0.0089	0.0007
Venus	-20832-03-30 17:31 J	-5887375.99	-5887375.77	-5887375.56	0.0089	0.0006
Venus	-20832-11-11 06:00 J	-5887150.47	-5887150.25	-5887150.04	0.0089	0.0005
Venus	-20831-06-24 18:28 J	-5886924.95	-5886924.73	-5886924.52	0.0089	0.0003
Venus	-20830-02-05 06:43 J	-5886699.43	-5886699.22	-5886699.00	0.0089	0.0001
Venus	-20830-09-18 18:57 J	-5886473.92	-5886473.71	-5886473.49	0.0089	0.0002
Venus	-20829-05-01 07:26 J	-5886248.40	-5886248.19	-5886247.97	0.0089	0.0002
Venus	-20829-12-12 19:55 J	-5886022.89	-5886022.67	-5886022.46	0.0089	0.0003
Venus	-20828-07-26 08:09 J	-5885797.37	-5885797.16	-5885796.94	0.0089	0.0005
Venus	-20827-03-08 20:23 J	-5885571.86	-5885571.65	-5885571.43	0.0089	0.0006
Venus	-20827-10-20 08:52 J	-5885346.35	-5885346.13	-5885345.92	0.0089	0.0008
Venus	-20826-06-02 21:21 J	-5885120.82	-5885120.61	-5885120.39	0.0089	0.0009
Venus	-20825-01-14 09:36 J	-5884895.31	-5884895.10	-5884894.88	0.0089	0.0011

Venus	-20825-08-26 22:04 J	-5884669.80	-5884669.58	-5884669.37	0.0089	0.0012
Venus	-20824-04-09 10:04 J	-5884444.28	-5884444.08	-5884443.86	0.0089	0.0014
Venus	-20824-11-20 22:33 J	-5884218.77	-5884218.56	-5884218.34	0.0089	0.0015
Venus	-20823-07-04 11:02 J	-5883993.25	-5883993.04	-5883992.82	0.0089	0.0017
Venus	-20822-02-14 23:31 J	-5883767.73	-5883767.52	-5883767.30	0.0089	0.0018
Venus	-20822-09-28 12:00 J	-5883542.21	-5883542.00	-5883541.79	0.0089	0.0019
Venus	-20821-05-11 00:14 J	-5883316.69	-5883316.49	-5883316.27	0.0089	0.0021
Venus	-20821-12-22 12:43 J	-5883091.17	-5883090.97	-5883090.75	0.0089	0.0022
Venus	-20820-08-05 00:57 J	-5882865.65	-5882865.46	-5882865.24	0.0089	0.0024
Venus	-20819-03-18 13:26 J	-5882640.14	-5882639.94	-5882639.72	0.0089	0.0025
Venus	-20819-10-30 01:40 J	-5882414.62	-5882414.43	-5882414.20	0.0089	0.0027
Venus	-20818-06-12 14:23 J	-5882189.09	-5882188.90	-5882188.68	0.0089	0.0028
Venus	-20817-01-24 02:52 J	-5881963.58	-5881963.38	-5881963.17	0.0089	0.0029
Venus	-20817-09-05 15:07 J	-5881738.06	-5881737.87	-5881737.65	0.0089	0.0031
Venus	-20816-04-19 03:36 J	-5881512.55	-5881512.35	-5881512.14	0.0089	0.0032
Venus	-20816-11-30 16:04 J	-5881287.03	-5881286.83	-5881286.63	0.0089	0.0033
Venus	-20815-07-14 04:19 J	-5881061.51	-5881061.32	-5881061.11	0.0089	0.0035
Venus	-20814-02-24 16:48 J	-5880835.99	-5880835.80	-5880835.59	0.0089	0.0036
Venus	-20814-10-08 05:16 J	-5880610.47	-5880610.28	-5880610.08	0.0089	0.0037
Venus	-20813-05-20 17:45 J	-5880384.95	-5880384.76	-5880384.56	0.0089	0.0038
Venus	-20812-01-01 06:14 J	-5880159.43	-5880159.24	-5880159.04	0.0089	0.0039
Venus	-20812-08-14 18:14 J	-5879933.91	-5879933.74	-5879933.53	0.0089	0.0041
Venus	-20811-03-28 06:43 J	-5879708.40	-5879708.22	-5879708.01	0.0089	0.0042
Venus	-20811-11-08 19:11 J	-5879482.87	-5879482.70	-5879482.49	0.0089	0.0043
Venus	-20810-06-22 07:55 J	-5879257.35	-5879257.17	-5879256.97	0.0088	0.0044
Venus	-20809-02-02 20:23 J	-5879031.82	-5879031.65	-5879031.45	0.0088	0.0045
Venus	-20809-09-15 09:07 J	-5878806.30	-5878806.12	-5878805.93	0.0088	0.0046
Venus	-20808-04-28 21:36 J	-5878580.78	-5878580.60	-5878580.41	0.0088	0.0047
Venus	-20808-12-10 10:04 J	-5878355.26	-5878355.08	-5878354.89	0.0088	0.0048
Venus	-20807-07-23 22:48 J	-5878129.73	-5878129.55	-5878129.36	0.0088	0.0049

Venus	-20806-03-06 11:16 J	-5877904.20	-5877904.03	-5877903.84	0.0088	0.0050
Venus	-20806-10-17 23:45 J	-5877678.68	-5877678.51	-5877678.32	0.0088	0.0051
Venus	-20805-05-30 12:14 J	-5877453.15	-5877452.99	-5877452.80	0.0088	0.0052
Venus	-20804-01-11 00:43 J	-5877227.63	-5877227.47	-5877227.28	0.0088	0.0053
Venus	-20804-08-24 13:26 J	-5877002.10	-5877001.94	-5877001.76	0.0088	0.0053
Venus	-20803-04-07 01:55 J	-5876776.58	-5876776.42	-5876776.23	0.0088	0.0054
Venus	-20803-11-18 14:23 J	-5876551.05	-5876550.90	-5876550.71	0.0088	0.0055
Venus	-20802-07-02 03:21 J	-5876325.52	-5876325.36	-5876325.19	0.0088	0.0056
Venus	-20801-02-12 15:50 J	-5876100.00	-5876099.84	-5876099.66	0.0088	0.0057
Venus	-20801-09-25 04:19 J	-5875874.47	-5875874.32	-5875874.14	0.0088	0.0057
Venus	-20800-05-08 16:33 J	-5875648.95	-5875648.81	-5875648.62	0.0088	0.0059
Venus	-20800-12-20 05:31 J	-5875423.42	-5875423.27	-5875423.09	0.0088	0.0059
Venus	-20799-08-02 18:14 J	-5875197.88	-5875197.74	-5875197.56	0.0088	0.0059
Venus	-20798-03-16 07:11 J	-5874972.35	-5874972.20	-5874972.03	0.0088	0.0060
Venus	-20798-10-27 19:40 J	-5874746.82	-5874746.68	-5874746.51	0.0088	0.0060
Venus	-20797-06-09 08:38 J	-5874521.29	-5874521.14	-5874520.98	0.0088	0.0061
Venus	-20796-01-20 21:07 J	-5874295.76	-5874295.62	-5874295.45	0.0088	0.0061
Venus	-20796-09-03 10:19 J	-5874070.22	-5874070.07	-5874069.91	0.0088	0.0062
Venus	-20795-04-16 22:48 J	-5873844.69	-5873844.55	-5873844.38	0.0088	0.0062
Venus	-20795-11-28 11:45 J	-5873619.16	-5873619.01	-5873618.85	0.0088	0.0063
Venus	-20794-07-12 00:14 J	-5873393.62	-5873393.49	-5873393.31	0.0088	0.0064
Venus	-20793-02-22 13:26 J	-5873168.08	-5873167.94	-5873167.78	0.0088	0.0063
Venus	-20793-10-05 02:23 J	-5872942.55	-5872942.40	-5872942.25	0.0088	0.0064
Venus	-20792-05-18 14:38 J	-5872717.01	-5872716.89	-5872716.71	0.0088	0.0065
Venus	-20792-12-30 03:36 J	-5872491.48	-5872491.35	-5872491.18	0.0088	0.0065
Venus	-20791-08-12 16:48 J	-5872265.94	-5872265.80	-5872265.64	0.0088	0.0064
Venus	-20790-03-26 05:45 J	-5872040.40	-5872040.26	-5872040.10	0.0088	0.0065
Moon	-20790-10-31 13:55 J	-5871821.03	-5871820.92	-5871820.75	0.0088	0.0075
Earth	-20790-10-31 17:31 J	-5871820.89	-5871820.77	-5871820.58	0.0088	0.0071 *
Venus	-20790-11-06 18:43 J	-5871814.87	-5871814.72	-5871814.57	0.0088	0.0065

Venus	-20789-06-19 06:57 J	-5871589.33	-5871589.21	-5871589.03	0.0088	0.0065
Earth	-20789-11-02 06:43 J	-5871453.46	-5871453.22	-5871452.96	0.0088	0.0028
Moon	-20789-11-02 10:04 J	-5871453.32	-5871453.08	-5871452.81	0.0088	0.0025 *
Venus	-20788-01-30 19:55 J	-5871363.79	-5871363.67	-5871363.50	0.0088	0.0065
Venus	-20788-09-13 08:52 J	-5871138.25	-5871138.13	-5871137.95	0.0088	0.0066
Moon	-20788-11-04 17:16 J	-5871086.03	-5871085.78	-5871085.53	0.0088	0.0011
Earth	-20788-11-04 19:26 J	-5871085.94	-5871085.69	-5871085.42	0.0088	0.0014 *
Venus	-20787-04-26 21:50 J	-5870912.71	-5870912.59	-5870912.42	0.0088	0.0065
Earth	-20787-11-07 07:40 J	-5870718.36	-5870718.18	-5870717.96	0.0088	0.0057
Moon	-20787-11-07 09:36 J	-5870718.28	-5870718.10	-5870717.88	0.0088	0.0060 *
Venus	-20787-12-08 10:48 J	-5870687.17	-5870687.05	-5870686.88	0.0088	0.0065
Venus	-20786-07-22 00:28 J	-5870461.63	-5870461.48	-5870461.33	0.0088	0.0065
Venus	-20785-03-03 13:11 J	-5870236.09	-5870235.95	-5870235.79	0.0088	0.0064
Venus	-20785-10-15 02:09 J	-5870010.55	-5870010.41	-5870010.25	0.0088	0.0064
Venus	-20784-05-28 15:07 J	-5869785.01	-5869784.87	-5869784.71	0.0088	0.0064
Venus	-20783-01-09 04:04 J	-5869559.46	-5869559.33	-5869559.16	0.0088	0.0064
Venus	-20783-08-22 17:16 J	-5869333.91	-5869333.78	-5869333.61	0.0088	0.0064
Venus	-20782-04-05 06:43 J	-5869108.37	-5869108.22	-5869108.06	0.0088	0.0063
Venus	-20782-11-16 19:40 J	-5868882.82	-5868882.68	-5868882.51	0.0088	0.0063
Venus	-20781-06-29 08:23 J	-5868657.28	-5868657.15	-5868656.97	0.0088	0.0063
Venus	-20780-02-09 21:50 J	-5868431.73	-5868431.59	-5868431.42	0.0088	0.0062
Venus	-20780-09-23 11:02 J	-5868206.18	-5868206.04	-5868205.86	0.0088	0.0062
Venus	-20779-05-07 00:28 J	-5867980.63	-5867980.48	-5867980.31	0.0088	0.0061
Venus	-20779-12-18 13:11 J	-5867755.09	-5867754.95	-5867754.77	0.0088	0.0061
Venus	-20778-08-01 02:38 J	-5867529.54	-5867529.39	-5867529.22	0.0088	0.0060
Venus	-20777-03-13 15:36 J	-5867303.99	-5867303.85	-5867303.67	0.0088	0.0060
Venus	-20777-10-25 05:02 J	-5867078.44	-5867078.29	-5867078.11	0.0088	0.0059
Venus	-20776-06-07 18:28 J	-5866852.90	-5866852.73	-5866852.57	0.0088	0.0058
Venus	-20775-01-19 07:11 J	-5866627.35	-5866627.20	-5866627.01	0.0088	0.0058
Venus	-20775-09-01 20:38 J	-5866401.79	-5866401.64	-5866401.46	0.0088	0.0057

Venus	-20774-04-15 10:04 J	-5866176.24	-5866176.08	-5866175.90	0.0088	0.0056
Venus	-20774-11-26 22:48 J	-5865950.70	-5865950.55	-5865950.35	0.0088	0.0057
Venus	-20773-07-09 12:14 J	-5865725.15	-5865724.99	-5865724.80	0.0088	0.0055
Venus	-20772-02-20 01:40 J	-5865499.59	-5865499.43	-5865499.24	0.0088	0.0054
Venus	-20772-10-03 15:07 J	-5865274.03	-5865273.87	-5865273.68	0.0088	0.0053
Mars	-20772-10-09 06:57 J	-5865268.41	-5865268.21	-5865267.96	0.0088	0.0057
Venus	-20771-05-17 04:33 J	-5865048.48	-5865048.31	-5865048.12	0.0088	0.0052
Venus	-20771-12-28 18:00 J	-5864822.92	-5864822.75	-5864822.56	0.0088	0.0051
Venus	-20770-08-11 07:26 J	-5864597.37	-5864597.19	-5864597.00	0.0088	0.0050
Mars	-20770-09-03 00:43 J	-5864574.77	-5864574.47	-5864574.18	0.0088	0.0005
Mercury	-20769-01-01 19:55 J	-5864453.72	-5864453.67	-5864453.61	0.0088	0.0084
Venus	-20769-03-23 20:52 J	-5864371.81	-5864371.63	-5864371.44	0.0088	0.0049
Mercury	-20769-03-29 23:31 J	-5864365.62	-5864365.52	-5864365.41	0.0088	0.0075
Mercury	-20769-06-26 03:21 J	-5864277.50	-5864277.36	-5864277.23	0.0088	0.0064
Mercury	-20769-09-22 06:28 J	-5864189.37	-5864189.23	-5864189.06	0.0088	0.0055
Venus	-20769-11-04 10:19 J	-5864146.25	-5864146.07	-5864145.88	0.0088	0.0048
Mercury	-20769-12-19 10:04 J	-5864101.23	-5864101.08	-5864100.90	0.0088	0.0045
Mercury	-20768-03-17 13:40 J	-5864013.09	-5864012.93	-5864012.73	0.0088	0.0035
Mercury	-20768-06-13 17:31 J	-5863924.95	-5863924.77	-5863924.58	0.0088	0.0025
Venus	-20768-06-17 23:45 J	-5863920.69	-5863920.51	-5863920.32	0.0088	0.0047
Mars	-20768-07-27 17:45 J	-5863880.92	-5863880.76	-5863880.54	0.0088	0.0067
Mercury	-20768-09-09 21:07 J	-5863836.81	-5863836.62	-5863836.42	0.0088	0.0015
Mercury	-20768-12-07 00:43 J	-5863748.66	-5863748.47	-5863748.27	0.0088	0.0005
Venus	-20767-01-29 13:11 J	-5863695.14	-5863694.95	-5863694.76	0.0088	0.0046
Mercury	-20767-03-05 04:19 J	-5863660.51	-5863660.32	-5863660.12	0.0088	0.0005
Mercury	-20767-06-01 07:55 J	-5863572.36	-5863572.17	-5863571.98	0.0088	0.0015
Mercury	-20767-08-28 11:16 J	-5863484.21	-5863484.03	-5863483.84	0.0088	0.0025
Venus	-20767-09-12 02:38 J	-5863469.57	-5863469.39	-5863469.19	0.0088	0.0045
Mercury	-20767-11-24 14:38 J	-5863396.05	-5863395.89	-5863395.70	0.0088	0.0035
Mercury	-20766-02-20 18:28 J	-5863307.89	-5863307.73	-5863307.56	0.0088	0.0044

Venus	-20766-04-25 16:04 J	-5863244.01	-5863243.83	-5863243.63	0.0088	0.0044
Mercury	-20766-05-19 21:50 J	-5863219.73	-5863219.59	-5863219.43	0.0088	0.0054
Mercury	-20766-08-16 01:11 J	-5863131.57	-5863131.45	-5863131.30	0.0088	0.0064
Mercury	-20766-11-12 04:33 J	-5863043.39	-5863043.31	-5863043.18	0.0088	0.0074
Venus	-20766-12-07 05:31 J	-5863018.46	-5863018.27	-5863018.07	0.0088	0.0043
Mercury	-20765-02-08 08:23 J	-5862955.20	-5862955.15	-5862955.08	0.0088	0.0083
Venus	-20765-07-19 18:43 J	-5862792.90	-5862792.72	-5862792.51	0.0088	0.0042
Venus	-20764-03-02 08:09 J	-5862567.34	-5862567.16	-5862566.95	0.0088	0.0041
Venus	-20764-10-13 22:04 J	-5862341.78	-5862341.58	-5862341.38	0.0088	0.0039
Venus	-20763-05-27 11:31 J	-5862116.22	-5862116.02	-5862115.81	0.0088	0.0038
Venus	-20762-01-08 00:43 J	-5861890.66	-5861890.47	-5861890.25	0.0088	0.0037
Venus	-20762-08-21 14:09 J	-5861665.10	-5861664.91	-5861664.69	0.0088	0.0036
Venus	-20761-04-03 03:50 J	-5861439.54	-5861439.34	-5861439.12	0.0088	0.0035
Venus	-20761-11-14 17:31 J	-5861213.97	-5861213.77	-5861213.56	0.0088	0.0033
Venus	-20760-06-28 06:57 J	-5860988.41	-5860988.21	-5860987.99	0.0088	0.0032
Venus	-20759-02-08 20:38 J	-5860762.84	-5860762.64	-5860762.42	0.0088	0.0030
Venus	-20759-09-22 10:19 J	-5860537.28	-5860537.07	-5860536.85	0.0088	0.0029
Venus	-20758-05-05 23:45 J	-5860311.71	-5860311.51	-5860311.28	0.0088	0.0028
Venus	-20758-12-17 13:40 J	-5860086.14	-5860085.93	-5860085.71	0.0088	0.0026
Venus	-20757-07-30 03:07 J	-5859860.58	-5859860.37	-5859860.15	0.0088	0.0025
Venus	-20756-03-12 16:48 J	-5859635.01	-5859634.80	-5859634.58	0.0088	0.0024
Venus	-20756-10-24 06:28 J	-5859409.44	-5859409.23	-5859409.00	0.0088	0.0022
Venus	-20755-06-06 20:23 J	-5859183.87	-5859183.65	-5859183.43	0.0088	0.0021
Venus	-20754-01-18 09:50 J	-5858958.30	-5858958.09	-5858957.86	0.0088	0.0019
Venus	-20754-08-31 23:45 J	-5858732.73	-5858732.51	-5858732.29	0.0088	0.0018
Venus	-20753-04-13 13:11 J	-5858507.16	-5858506.95	-5858506.72	0.0088	0.0016
Venus	-20753-11-25 03:07 J	-5858281.59	-5858281.37	-5858281.15	0.0088	0.0014
Venus	-20752-07-08 16:33 J	-5858056.03	-5858055.81	-5858055.58	0.0088	0.0013
Venus	-20751-02-19 06:14 J	-5857830.46	-5857830.24	-5857830.01	0.0088	0.0011
Venus	-20751-10-02 19:55 J	-5857604.89	-5857604.67	-5857604.44	0.0088	0.0010

Venus	-20750-05-16 09:36 J	-5857379.32	-5857379.10	-5857378.87	0.0088	0.0008
Venus	-20750-12-27 23:16 J	-5857153.75	-5857153.53	-5857153.30	0.0088	0.0007
Venus	-20749-08-09 12:57 J	-5856928.19	-5856927.96	-5856927.74	0.0088	0.0005
Venus	-20748-03-23 02:38 J	-5856702.62	-5856702.39	-5856702.17	0.0088	0.0004
Venus	-20748-11-03 16:19 J	-5856477.04	-5856476.82	-5856476.59	0.0088	0.0002
Venus	-20747-06-17 06:00 J	-5856251.47	-5856251.25	-5856251.02	0.0088	0.0002
Venus	-20746-01-28 19:40 J	-5856025.90	-5856025.68	-5856025.45	0.0088	0.0002
Venus	-20746-09-11 09:21 J	-5855800.33	-5855800.11	-5855799.88	0.0088	0.0003
Venus	-20745-04-23 23:02 J	-5855574.76	-5855574.54	-5855574.31	0.0088	0.0005
Venus	-20745-12-05 12:57 J	-5855349.18	-5855348.96	-5855348.73	0.0088	0.0006
Venus	-20744-07-19 02:38 J	-5855123.61	-5855123.39	-5855123.16	0.0088	0.0008
Venus	-20743-03-01 16:19 J	-5854898.04	-5854897.82	-5854897.59	0.0088	0.0009
Venus	-20743-10-13 06:00 J	-5854672.47	-5854672.25	-5854672.02	0.0088	0.0011
Venus	-20742-05-26 19:40 J	-5854446.89	-5854446.68	-5854446.45	0.0088	0.0013
Venus	-20741-01-07 09:36 J	-5854221.32	-5854221.10	-5854220.87	0.0088	0.0014
Venus	-20741-08-19 23:02 J	-5853995.75	-5853995.54	-5853995.31	0.0089	0.0016
Venus	-20740-04-02 12:57 J	-5853770.18	-5853769.96	-5853769.74	0.0089	0.0017
Venus	-20740-11-14 02:38 J	-5853544.60	-5853544.39	-5853544.17	0.0089	0.0018
Venus	-20739-06-27 16:19 J	-5853319.03	-5853318.82	-5853318.60	0.0089	0.0020
Venus	-20738-02-08 05:45 J	-5853093.46	-5853093.26	-5853093.03	0.0089	0.0022
Venus	-20738-09-21 19:40 J	-5852867.90	-5852867.68	-5852867.46	0.0089	0.0023
Venus	-20737-05-04 09:07 J	-5852642.33	-5852642.12	-5852641.90	0.0089	0.0025
Venus	-20737-12-15 23:02 J	-5852416.75	-5852416.54	-5852416.33	0.0089	0.0026
Venus	-20736-07-29 12:28 J	-5852191.18	-5852190.98	-5852190.76	0.0089	0.0027
Venus	-20735-03-12 02:09 J	-5851965.62	-5851965.41	-5851965.19	0.0089	0.0029
Venus	-20735-10-23 15:50 J	-5851740.05	-5851739.84	-5851739.63	0.0089	0.0030
Venus	-20734-06-06 05:16 J	-5851514.48	-5851514.28	-5851514.06	0.0089	0.0032
Venus	-20733-01-17 19:11 J	-5851288.90	-5851288.70	-5851288.49	0.0089	0.0033
Venus	-20733-08-30 08:38 J	-5851063.33	-5851063.14	-5851062.92	0.0089	0.0035
Venus	-20732-04-12 22:19 J	-5850837.76	-5850837.57	-5850837.36	0.0089	0.0036

Venus	-20732-11-24 12:14 J	-5850612.19	-5850611.99	-5850611.78	0.0089	0.0037
Venus	-20731-07-08 01:40 J	-5850386.62	-5850386.43	-5850386.22	0.0089	0.0039
Venus	-20730-02-18 15:21 J	-5850161.05	-5850160.86	-5850160.65	0.0089	0.0040
Venus	-20730-10-02 05:02 J	-5849935.48	-5849935.29	-5849935.08	0.0089	0.0041
Venus	-20729-05-14 18:57 J	-5849709.91	-5849709.71	-5849709.52	0.0089	0.0042
Venus	-20729-12-26 08:09 J	-5849484.33	-5849484.16	-5849483.95	0.0089	0.0044
Venus	-20728-08-08 21:50 J	-5849258.77	-5849258.59	-5849258.38	0.0089	0.0045
Venus	-20727-03-22 11:31 J	-5849033.20	-5849033.02	-5849032.82	0.0089	0.0046
Venus	-20727-11-03 00:57 J	-5848807.64	-5848807.46	-5848807.26	0.0089	0.0047
Venus	-20726-06-16 14:38 J	-5848582.07	-5848581.89	-5848581.70	0.0089	0.0048
Venus	-20725-01-28 04:19 J	-5848356.50	-5848356.32	-5848356.13	0.0089	0.0049
Venus	-20725-09-09 17:16 J	-5848130.94	-5848130.78	-5848130.57	0.0089	0.0051
Venus	-20724-04-23 06:43 J	-5847905.38	-5847905.22	-5847905.02	0.0089	0.0052
Venus	-20724-12-04 20:23 J	-5847679.81	-5847679.65	-5847679.45	0.0089	0.0053
Venus	-20723-07-18 09:50 J	-5847454.25	-5847454.09	-5847453.89	0.0089	0.0054
Venus	-20722-02-28 23:16 J	-5847228.68	-5847228.53	-5847228.33	0.0089	0.0055
Venus	-20722-10-12 13:11 J	-5847003.12	-5847002.95	-5847002.77	0.0089	0.0055
Venus	-20721-05-25 02:38 J	-5846777.56	-5846777.39	-5846777.21	0.0089	0.0056
Venus	-20720-01-05 16:04 J	-5846551.99	-5846551.83	-5846551.65	0.0089	0.0057
Venus	-20720-08-19 05:31 J	-5846326.42	-5846326.27	-5846326.09	0.0089	0.0058
Venus	-20719-04-01 18:57 J	-5846100.86	-5846100.71	-5846100.53	0.0089	0.0059
Venus	-20719-11-13 08:09 J	-5845875.30	-5845875.16	-5845874.97	0.0089	0.0060
Venus	-20718-06-26 22:04 J	-5845649.74	-5845649.58	-5845649.41	0.0089	0.0060
Venus	-20717-02-07 11:16 J	-5845424.17	-5845424.03	-5845423.85	0.0089	0.0062
Venus	-20717-09-20 00:43 J	-5845198.61	-5845198.47	-5845198.29	0.0089	0.0062
Venus	-20716-05-03 14:23 J	-5844973.05	-5844972.90	-5844972.74	0.0089	0.0062
Venus	-20716-12-15 03:21 J	-5844747.49	-5844747.36	-5844747.18	0.0089	0.0064
Venus	-20715-07-28 17:16 J	-5844521.93	-5844521.78	-5844521.63	0.0089	0.0064
Venus	-20714-03-11 06:14 J	-5844296.37	-5844296.24	-5844296.07	0.0089	0.0065
Venus	-20714-10-22 19:26 J	-5844070.82	-5844070.69	-5844070.52	0.0089	0.0065

Venus	-20713-06-04 08:38 J	-5843845.27	-5843845.14	-5843844.97	0.0089	0.0066
Venus	-20712-01-15 22:19 J	-5843619.71	-5843619.57	-5843619.42	0.0089	0.0066
Venus	-20712-08-29 11:16 J	-5843394.16	-5843394.03	-5843393.86	0.0089	0.0066
Venus	-20711-04-12 00:28 J	-5843168.61	-5843168.48	-5843168.32	0.0089	0.0067
Venus	-20711-11-23 13:55 J	-5842943.06	-5842942.92	-5842942.77	0.0089	0.0067
Venus	-20710-07-07 02:38 J	-5842717.51	-5842717.39	-5842717.22	0.0089	0.0068
Venus	-20709-02-17 16:04 J	-5842491.95	-5842491.83	-5842491.66	0.0089	0.0068
Venus	-20709-09-30 05:16 J	-5842266.40	-5842266.28	-5842266.12	0.0089	0.0068
Venus	-20708-05-13 18:28 J	-5842040.86	-5842040.73	-5842040.57	0.0089	0.0068
Venus	-20708-12-25 07:55 J	-5841815.31	-5841815.17	-5841815.02	0.0089	0.0067
Earth	-20707-05-03 14:23 J	-5841686.01	-5841685.90	-5841685.74	0.0089	0.0075
Moon	-20707-05-03 17:45 J	-5841685.88	-5841685.76	-5841685.60	0.0089	0.0075 *
Venus	-20707-08-07 21:07 J	-5841589.76	-5841589.62	-5841589.47	0.0089	0.0068
Venus	-20706-03-21 10:19 J	-5841364.20	-5841364.07	-5841363.92	0.0089	0.0068
Moon	-20706-05-05 22:33 J	-5841318.79	-5841318.56	-5841318.32	0.0089	0.0031
Earth	-20706-05-06 01:11 J	-5841318.67	-5841318.45	-5841318.20	0.0089	0.0033 *
Venus	-20706-11-01 23:31 J	-5841138.66	-5841138.52	-5841138.37	0.0089	0.0068
Earth	-20705-05-07 12:00 J	-5840951.25	-5840951.00	-5840950.74	0.0089	0.0011
Moon	-20705-05-07 14:09 J	-5840951.16	-5840950.91	-5840950.65	0.0089	0.0010 *
Venus	-20705-06-14 12:28 J	-5840913.11	-5840912.98	-5840912.83	0.0089	0.0068
Venus	-20704-01-26 01:40 J	-5840687.56	-5840687.43	-5840687.28	0.0089	0.0068
Moon	-20704-05-09 22:04 J	-5840583.77	-5840583.58	-5840583.38	0.0089	0.0054
Earth	-20704-05-09 22:19 J	-5840583.76	-5840583.57	-5840583.35	0.0089	0.0054 *
Venus	-20704-09-08 14:38 J	-5840462.01	-5840461.89	-5840461.73	0.0089	0.0068
Venus	-20703-04-22 03:50 J	-5840236.47	-5840236.34	-5840236.19	0.0089	0.0067
Venus	-20703-12-03 16:33 J	-5840010.93	-5840010.81	-5840010.64	0.0089	0.0068
Venus	-20702-07-17 05:31 J	-5839785.39	-5839785.27	-5839785.10	0.0089	0.0068
Venus	-20701-02-27 18:57 J	-5839559.84	-5839559.71	-5839559.56	0.0089	0.0067
Venus	-20701-10-10 07:40 J	-5839334.31	-5839334.18	-5839334.02	0.0089	0.0067
Venus	-20700-05-23 20:23 J	-5839108.77	-5839108.65	-5839108.48	0.0089	0.0067

Venus	-20699-01-04 09:36 J	-5838883.23	-5838883.10	-5838882.94	0.0089	0.0066
Venus	-20699-08-17 22:19 J	-5838657.70	-5838657.57	-5838657.40	0.0089	0.0066
Venus	-20698-03-31 11:31 J	-5838432.16	-5838432.02	-5838431.86	0.0089	0.0065
Venus	-20698-11-12 00:14 J	-5838206.62	-5838206.49	-5838206.32	0.0089	0.0065
Venus	-20697-06-24 13:11 J	-5837981.09	-5837980.95	-5837980.79	0.0089	0.0064
Venus	-20696-02-05 01:55 J	-5837755.55	-5837755.42	-5837755.25	0.0089	0.0064
Venus	-20696-09-18 14:52 J	-5837530.02	-5837529.88	-5837529.71	0.0089	0.0063
Venus	-20695-05-02 04:04 J	-5837304.48	-5837304.33	-5837304.17	0.0089	0.0062
Venus	-20695-12-13 16:33 J	-5837078.95	-5837078.81	-5837078.63	0.0089	0.0062
Venus	-20694-07-27 05:31 J	-5836853.42	-5836853.27	-5836853.10	0.0089	0.0061
Venus	-20693-03-08 18:43 J	-5836627.88	-5836627.72	-5836627.56	0.0089	0.0060
Jupiter	-20693-06-09 01:40 J	-5836535.87	-5836535.43	-5836534.93	0.0089	0.0042
Venus	-20693-10-20 06:57 J	-5836402.35	-5836402.21	-5836402.02	0.0089	0.0060
Venus	-20692-06-02 19:55 J	-5836176.82	-5836176.67	-5836176.49	0.0089	0.0059
Venus	-20691-01-14 08:52 J	-5835951.29	-5835951.13	-5835950.95	0.0089	0.0057
Venus	-20691-08-27 21:36 J	-5835725.75	-5835725.60	-5835725.42	0.0089	0.0057
Venus	-20690-04-10 10:33 J	-5835500.22	-5835500.06	-5835499.88	0.0089	0.0056
Mars	-20690-08-10 03:21 J	-5835378.47	-5835378.36	-5835378.17	0.0089	0.0081
Venus	-20690-11-21 23:16 J	-5835274.69	-5835274.53	-5835274.35	0.0089	0.0055
Venus	-20689-07-04 12:00 J	-5835049.17	-5835049.00	-5835048.82	0.0089	0.0054
Mercury	-20688-01-13 10:19 J	-5834856.07	-5834856.07	-5834856.05	0.0089	0.0089
Venus	-20688-02-15 00:43 J	-5834823.64	-5834823.47	-5834823.29	0.0089	0.0053
Mercury	-20688-04-11 11:31 J	-5834768.05	-5834768.02	-5834767.96	0.0089	0.0083
Mars	-20688-07-06 10:48 J	-5834682.38	-5834682.05	-5834681.71	0.0089	0.0005
Mercury	-20688-07-08 12:57 J	-5834680.02	-5834679.96	-5834679.88	0.0089	0.0075
Venus	-20688-09-28 13:11 J	-5834598.11	-5834597.95	-5834597.76	0.0089	0.0052
Mercury	-20688-10-04 14:23 J	-5834591.98	-5834591.90	-5834591.81	0.0089	0.0068
Mercury	-20688-12-31 15:36 J	-5834503.94	-5834503.85	-5834503.75	0.0089	0.0062
Mercury	-20687-03-29 17:02 J	-5834415.89	-5834415.79	-5834415.68	0.0089	0.0054
Venus	-20687-05-12 01:55 J	-5834372.59	-5834372.42	-5834372.23	0.0089	0.0051

Mercury	-20687-06-25 18:14 J	-5834327.84	-5834327.74	-5834327.62	0.0089	0.0048
Mercury	-20687-09-21 19:40 J	-5834239.79	-5834239.68	-5834239.56	0.0089	0.0041
Mercury	-20687-12-18 21:07 J	-5834151.74	-5834151.62	-5834151.50	0.0089	0.0033
Venus	-20687-12-23 14:38 J	-5834147.06	-5834146.89	-5834146.70	0.0089	0.0050
Mercury	-20686-03-16 22:19 J	-5834063.69	-5834063.57	-5834063.44	0.0089	0.0027
Mars	-20686-06-02 15:36 J	-5833986.02	-5833985.85	-5833985.61	0.0089	0.0072
Mercury	-20686-06-12 23:45 J	-5833975.64	-5833975.51	-5833975.38	0.0089	0.0019
Venus	-20686-08-06 03:07 J	-5833921.54	-5833921.37	-5833921.18	0.0089	0.0049
Mercury	-20686-09-09 00:57 J	-5833887.59	-5833887.46	-5833887.32	0.0089	0.0013
Mercury	-20686-12-06 02:23 J	-5833799.53	-5833799.40	-5833799.27	0.0089	0.0005
Mercury	-20685-03-03 03:50 J	-5833711.48	-5833711.34	-5833711.21	0.0089	0.0003
Venus	-20685-03-18 15:50 J	-5833696.01	-5833695.84	-5833695.65	0.0089	0.0047
Mercury	-20685-05-30 05:02 J	-5833623.42	-5833623.29	-5833623.16	0.0089	0.0009
Mercury	-20685-08-26 06:28 J	-5833535.36	-5833535.23	-5833535.10	0.0089	0.0016
Venus	-20685-10-30 04:19 J	-5833470.49	-5833470.32	-5833470.12	0.0089	0.0046
Mercury	-20685-11-22 07:40 J	-5833447.31	-5833447.18	-5833447.05	0.0089	0.0023
Mercury	-20684-02-18 09:07 J	-5833359.25	-5833359.12	-5833359.00	0.0089	0.0030
Mercury	-20684-05-17 10:19 J	-5833271.19	-5833271.07	-5833270.94	0.0089	0.0037
Venus	-20684-06-12 16:48 J	-5833244.97	-5833244.80	-5833244.60	0.0089	0.0045
Mercury	-20684-08-13 11:31 J	-5833183.12	-5833183.02	-5833182.89	0.0089	0.0044
Mercury	-20684-11-09 12:57 J	-5833095.06	-5833094.96	-5833094.84	0.0089	0.0051
Venus	-20683-01-24 05:45 J	-5833019.45	-5833019.26	-5833019.07	0.0089	0.0044
Mercury	-20683-02-05 14:09 J	-5833007.00	-5833006.91	-5833006.80	0.0089	0.0059
Mercury	-20683-05-04 15:36 J	-5832918.93	-5832918.85	-5832918.75	0.0089	0.0065
Mercury	-20683-07-31 17:02 J	-5832830.86	-5832830.79	-5832830.71	0.0089	0.0072
Venus	-20683-09-06 18:14 J	-5832793.92	-5832793.74	-5832793.54	0.0089	0.0042
Mercury	-20683-10-27 18:28 J	-5832742.78	-5832742.73	-5832742.67	0.0089	0.0079
Mercury	-20682-01-23 19:55 J	-5832654.70	-5832654.67	-5832654.64	0.0089	0.0086
Venus	-20682-04-20 06:43 J	-5832568.39	-5832568.22	-5832568.01	0.0089	0.0042
Venus	-20682-12-01 19:11 J	-5832342.87	-5832342.70	-5832342.49	0.0089	0.0041

Venus	-20681-07-14 08:09 J	-5832117.35	-5832117.16	-5832116.96	0.0089	0.0039
Venus	-20680-02-24 20:38 J	-5831891.83	-5831891.64	-5831891.44	0.0089	0.0037
Venus	-20680-10-08 09:07 J	-5831666.30	-5831666.12	-5831665.91	0.0089	0.0036
Venus	-20679-05-21 22:04 J	-5831440.78	-5831440.58	-5831440.38	0.0089	0.0035
Venus	-20678-01-02 10:19 J	-5831215.26	-5831215.07	-5831214.86	0.0089	0.0034
Venus	-20678-08-15 22:48 J	-5830989.74	-5830989.55	-5830989.33	0.0089	0.0032
Venus	-20677-03-28 11:31 J	-5830764.22	-5830764.02	-5830763.81	0.0089	0.0030
Venus	-20677-11-08 23:45 J	-5830538.70	-5830538.51	-5830538.29	0.0089	0.0030
Venus	-20676-06-22 12:28 J	-5830313.18	-5830312.98	-5830312.77	0.0089	0.0027
Venus	-20675-02-03 00:43 J	-5830087.66	-5830087.47	-5830087.25	0.0089	0.0026
Venus	-20675-09-16 13:26 J	-5829862.15	-5829861.94	-5829861.73	0.0089	0.0024
Venus	-20674-04-30 01:40 J	-5829636.62	-5829636.43	-5829636.21	0.0089	0.0023
Venus	-20674-12-11 14:23 J	-5829411.11	-5829410.90	-5829410.69	0.0089	0.0021
Venus	-20673-07-24 02:23 J	-5829185.60	-5829185.40	-5829185.17	0.0089	0.0021
Venus	-20672-03-06 15:07 J	-5828960.08	-5828959.87	-5828959.66	0.0089	0.0018
Venus	-20672-10-18 03:21 J	-5828734.56	-5828734.36	-5828734.14	0.0089	0.0017
Venus	-20671-05-31 16:04 J	-5828509.04	-5828508.83	-5828508.62	0.0089	0.0015
Venus	-20670-01-12 04:19 J	-5828283.53	-5828283.32	-5828283.10	0.0089	0.0014
Venus	-20670-08-25 16:48 J	-5828058.01	-5828057.80	-5828057.58	0.0089	0.0012
Venus	-20669-04-07 05:16 J	-5827832.49	-5827832.28	-5827832.07	0.0089	0.0010
Venus	-20669-11-18 17:31 J	-5827606.98	-5827606.77	-5827606.55	0.0089	0.0009
Venus	-20668-07-02 06:14 J	-5827381.46	-5827381.24	-5827381.03	0.0089	0.0007
Venus	-20667-02-12 18:28 J	-5827155.94	-5827155.73	-5827155.51	0.0089	0.0006
Venus	-20667-09-26 06:57 J	-5826930.43	-5826930.21	-5826929.99	0.0089	0.0004
Venus	-20666-05-09 19:26 J	-5826704.90	-5826704.69	-5826704.47	0.0089	0.0003
Venus	-20666-12-21 07:55 J	-5826479.39	-5826479.17	-5826478.96	0.0089	0.0001
Venus	-20665-08-02 20:09 J	-5826253.87	-5826253.66	-5826253.44	0.0089	0.0001
Venus	-20664-03-16 08:23 J	-5826028.36	-5826028.15	-5826027.93	0.0089	0.0003
Venus	-20664-10-27 20:52 J	-5825802.84	-5825802.63	-5825802.41	0.0089	0.0004
Venus	-20663-06-10 09:21 J	-5825577.32	-5825577.11	-5825576.89	0.0089	0.0006

Venus	-20662-01-21 21:50 J	-5825351.81	-5825351.59	-5825351.38	0.0089	0.0007
Venus	-20662-09-04 09:50 J	-5825126.30	-5825126.09	-5825125.87	0.0089	0.0009
Venus	-20661-04-16 22:19 J	-5824900.78	-5824900.57	-5824900.35	0.0089	0.0010
Venus	-20661-11-28 10:33 J	-5824675.27	-5824675.06	-5824674.84	0.0089	0.0012
Venus	-20660-07-11 22:48 J	-5824449.75	-5824449.55	-5824449.33	0.0089	0.0014
Venus	-20659-02-22 11:16 J	-5824224.24	-5824224.03	-5824223.81	0.0089	0.0015
Venus	-20659-10-05 23:31 J	-5823998.72	-5823998.52	-5823998.30	0.0089	0.0017
Venus	-20658-05-19 12:14 J	-5823773.21	-5823772.99	-5823772.78	0.0089	0.0018
Venus	-20658-12-31 00:28 J	-5823547.69	-5823547.48	-5823547.27	0.0089	0.0020
Venus	-20657-08-12 12:28 J	-5823322.17	-5823321.98	-5823321.75	0.0089	0.0022
Venus	-20656-03-26 00:57 J	-5823096.66	-5823096.46	-5823096.24	0.0089	0.0023
Venus	-20656-11-06 13:26 J	-5822871.14	-5822870.94	-5822870.72	0.0089	0.0025
Venus	-20655-06-20 02:09 J	-5822645.61	-5822645.41	-5822645.20	0.0089	0.0026
Venus	-20654-01-31 14:23 J	-5822420.09	-5822419.90	-5822419.68	0.0089	0.0028
Venus	-20654-09-14 02:52 J	-5822194.58	-5822194.38	-5822194.17	0.0089	0.0029
Venus	-20653-04-26 15:07 J	-5821969.06	-5821968.87	-5821968.65	0.0089	0.0031
Venus	-20653-12-08 03:36 J	-5821743.54	-5821743.35	-5821743.14	0.0089	0.0032
Venus	-20652-07-21 16:19 J	-5821518.02	-5821517.82	-5821517.62	0.0089	0.0033
Venus	-20651-03-04 04:33 J	-5821292.50	-5821292.31	-5821292.10	0.0089	0.0035
Venus	-20651-10-15 17:02 J	-5821066.98	-5821066.79	-5821066.59	0.0089	0.0036
Venus	-20650-05-29 05:16 J	-5820841.46	-5820841.28	-5820841.07	0.0089	0.0038
Venus	-20649-01-09 17:45 J	-5820615.94	-5820615.76	-5820615.55	0.0089	0.0039
Venus	-20649-08-22 06:28 J	-5820390.42	-5820390.23	-5820390.04	0.0089	0.0040
Venus	-20648-04-04 18:28 J	-5820164.91	-5820164.73	-5820164.52	0.0089	0.0042
Venus	-20648-11-16 06:57 J	-5819939.39	-5819939.21	-5819939.01	0.0089	0.0043
Venus	-20647-06-29 19:40 J	-5819713.86	-5819713.68	-5819713.48	0.0089	0.0044
Venus	-20646-02-10 07:55 J	-5819488.34	-5819488.17	-5819487.97	0.0089	0.0046
Venus	-20646-09-23 20:23 J	-5819262.82	-5819262.65	-5819262.45	0.0089	0.0047
Venus	-20645-05-06 08:52 J	-5819037.30	-5819037.13	-5819036.94	0.0088	0.0048
Venus	-20645-12-17 21:21 J	-5818811.78	-5818811.61	-5818811.42	0.0088	0.0049

Venus	-20644-07-31 10:04 J	-5818586.25	-5818586.08	-5818585.89	0.0088	0.0050
Venus	-20643-03-13 22:48 J	-5818360.73	-5818360.55	-5818360.37	0.0088	0.0051
Venus	-20643-10-25 10:48 J	-5818135.20	-5818135.05	-5818134.85	0.0088	0.0053
Venus	-20642-06-07 23:31 J	-5817909.68	-5817909.52	-5817909.33	0.0088	0.0053
Venus	-20641-01-19 12:00 J	-5817684.15	-5817684.00	-5817683.81	0.0088	0.0055
Venus	-20641-09-01 00:43 J	-5817458.62	-5817458.47	-5817458.28	0.0088	0.0055
Venus	-20640-04-14 13:11 J	-5817233.10	-5817232.95	-5817232.76	0.0088	0.0057
Venus	-20640-11-26 01:40 J	-5817007.57	-5817007.43	-5817007.24	0.0088	0.0058
Venus	-20639-07-09 14:23 J	-5816782.04	-5816781.90	-5816781.71	0.0088	0.0059
Venus	-20638-02-20 03:07 J	-5816556.51	-5816556.37	-5816556.19	0.0088	0.0059
Venus	-20638-10-03 16:04 J	-5816330.99	-5816330.83	-5816330.67	0.0088	0.0060
Venus	-20637-05-16 04:33 J	-5816105.46	-5816105.31	-5816105.15	0.0088	0.0061
Venus	-20637-12-27 16:48 J	-5815879.94	-5815879.80	-5815879.63	0.0088	0.0062
Venus	-20636-08-10 05:31 J	-5815654.40	-5815654.27	-5815654.10	0.0088	0.0063
Venus	-20635-03-23 18:00 J	-5815428.88	-5815428.75	-5815428.57	0.0088	0.0064
Venus	-20635-11-04 06:57 J	-5815203.35	-5815203.21	-5815203.05	0.0088	0.0064
Venus	-20634-06-17 19:26 J	-5814977.82	-5814977.69	-5814977.52	0.0088	0.0064
Venus	-20633-01-29 07:55 J	-5814752.29	-5814752.17	-5814752.00	0.0088	0.0065
Venus	-20633-09-10 20:52 J	-5814526.76	-5814526.63	-5814526.47	0.0088	0.0066
Venus	-20632-04-24 09:21 J	-5814301.23	-5814301.11	-5814300.94	0.0088	0.0066
Venus	-20632-12-05 22:19 J	-5814075.70	-5814075.57	-5814075.42	0.0088	0.0067
Venus	-20631-07-19 11:02 J	-5813850.16	-5813850.04	-5813849.88	0.0088	0.0067
Venus	-20630-03-02 00:00 J	-5813624.63	-5813624.50	-5813624.35	0.0088	0.0067
Venus	-20630-10-13 12:28 J	-5813399.10	-5813398.98	-5813398.82	0.0088	0.0068
Venus	-20629-05-26 01:26 J	-5813173.57	-5813173.44	-5813173.29	0.0088	0.0068
Venus	-20628-01-06 14:23 J	-5812948.03	-5812947.90	-5812947.76	0.0088	0.0069
Venus	-20628-08-20 03:07 J	-5812722.49	-5812722.37	-5812722.22	0.0088	0.0069
Venus	-20627-04-02 16:04 J	-5812496.95	-5812496.83	-5812496.68	0.0088	0.0069
Venus	-20627-11-14 05:02 J	-5812271.42	-5812271.29	-5812271.15	0.0088	0.0069
Venus	-20626-06-27 18:00 J	-5812045.88	-5812045.75	-5812045.61	0.0088	0.0070

Venus	-20625-02-08 06:14 J	-5811820.35	-5811820.24	-5811820.08	0.0088	0.0071
Venus	-20625-09-20 19:26 J	-5811594.81	-5811594.69	-5811594.54	0.0088	0.0070
Moon	-20625-11-01 14:09 J	-5811553.11	-5811552.91	-5811552.67	0.0088	0.0046
Earth	-20625-11-01 17:02 J	-5811553.00	-5811552.79	-5811552.57	0.0088	0.0048 *
Venus	-20624-05-04 08:09 J	-5811369.27	-5811369.16	-5811369.00	0.0088	0.0070
Earth	-20624-11-04 05:45 J	-5811185.52	-5811185.26	-5811185.00	0.0088	0.0006
Moon	-20624-11-04 06:43 J	-5811185.49	-5811185.22	-5811184.95	0.0088	0.0009 *
Venus	-20624-12-15 21:07 J	-5811143.73	-5811143.62	-5811143.47	0.0088	0.0070
Venus	-20623-07-29 10:04 J	-5810918.19	-5810918.08	-5810917.93	0.0088	0.0070
Earth	-20623-11-06 18:28 J	-5810817.97	-5810817.73	-5810817.49	0.0088	0.0037
Moon	-20623-11-06 18:00 J	-5810817.96	-5810817.75	-5810817.51	0.0088	0.0040 *
Venus	-20622-03-11 23:02 J	-5810692.65	-5810692.54	-5810692.39	0.0088	0.0070
Venus	-20622-10-23 11:45 J	-5810467.12	-5810467.01	-5810466.85	0.0088	0.0071
Moon	-20622-11-09 05:16 J	-5810450.38	-5810450.28	-5810450.11	0.0088	0.0076
Earth	-20622-11-09 06:28 J	-5810450.31	-5810450.23	-5810450.09	0.0088	0.0080 *
Venus	-20621-06-05 00:43 J	-5810241.58	-5810241.47	-5810241.31	0.0088	0.0070
Venus	-20620-01-16 13:40 J	-5810016.04	-5810015.93	-5810015.77	0.0088	0.0070
Venus	-20620-08-30 03:07 J	-5809790.49	-5809790.37	-5809790.22	0.0088	0.0070
Venus	-20619-04-12 16:04 J	-5809564.95	-5809564.83	-5809564.68	0.0088	0.0069
Venus	-20619-11-24 05:02 J	-5809339.41	-5809339.29	-5809339.14	0.0088	0.0069
Venus	-20618-07-07 18:00 J	-5809113.87	-5809113.75	-5809113.59	0.0088	0.0069
Venus	-20617-02-18 07:26 J	-5808888.32	-5808888.19	-5808888.05	0.0088	0.0068
Venus	-20617-09-30 20:23 J	-5808662.77	-5808662.65	-5808662.49	0.0088	0.0068
Venus	-20616-05-14 09:21 J	-5808437.23	-5808437.11	-5808436.95	0.0088	0.0068
Venus	-20616-12-25 22:48 J	-5808211.68	-5808211.55	-5808211.40	0.0088	0.0067
Venus	-20615-08-08 11:45 J	-5807986.13	-5807986.01	-5807985.84	0.0088	0.0067
Venus	-20614-03-22 01:11 J	-5807760.58	-5807760.45	-5807760.29	0.0088	0.0066
Venus	-20614-11-02 14:09 J	-5807535.04	-5807534.91	-5807534.74	0.0088	0.0066
Venus	-20613-06-15 03:21 J	-5807309.49	-5807309.36	-5807309.19	0.0088	0.0065
Venus	-20612-01-26 16:48 J	-5807083.94	-5807083.80	-5807083.64	0.0088	0.0064

Venus	-20612-09-09 05:45 J	-5806858.39	-5806858.26	-5806858.08	0.0088	0.0064
Venus	-20611-04-22 19:11 J	-5806632.84	-5806632.70	-5806632.53	0.0088	0.0063
Venus	-20611-12-04 08:38 J	-5806407.29	-5806407.14	-5806406.98	0.0088	0.0062
Venus	-20610-07-17 21:21 J	-5806181.74	-5806181.61	-5806181.43	0.0088	0.0062
Venus	-20609-02-28 10:33 J	-5805956.20	-5805956.06	-5805955.87	0.0088	0.0061
Venus	-20609-10-11 00:14 J	-5805730.64	-5805730.49	-5805730.32	0.0088	0.0060
Venus	-20608-05-24 13:26 J	-5805505.09	-5805504.94	-5805504.76	0.0088	0.0059
Mars	-20608-05-25 00:14 J	-5805504.53	-5805504.49	-5805504.43	0.0088	0.0086
Venus	-20607-01-05 02:52 J	-5805279.54	-5805279.38	-5805279.20	0.0088	0.0058
Venus	-20607-08-18 16:04 J	-5805053.98	-5805053.83	-5805053.65	0.0088	0.0057
Venus	-20606-04-01 05:31 J	-5804828.43	-5804828.27	-5804828.09	0.0088	0.0056
Mars	-20606-04-18 15:50 J	-5804811.10	-5804810.84	-5804810.54	0.0088	0.0025
Venus	-20606-11-12 18:57 J	-5804602.87	-5804602.71	-5804602.53	0.0088	0.0055
Venus	-20605-06-25 08:23 J	-5804377.32	-5804377.15	-5804376.97	0.0088	0.0054
Mercury	-20605-09-27 18:43 J	-5804282.78	-5804282.72	-5804282.61	0.0088	0.0079
Mercury	-20605-12-24 22:19 J	-5804194.67	-5804194.57	-5804194.43	0.0088	0.0069
Venus	-20604-02-05 21:36 J	-5804151.76	-5804151.60	-5804151.41	0.0088	0.0053
Mars	-20604-03-12 09:07 J	-5804117.38	-5804117.12	-5804116.85	0.0088	0.0037
Mercury	-20604-03-23 02:09 J	-5804106.54	-5804106.41	-5804106.25	0.0088	0.0059
Mercury	-20604-06-19 05:45 J	-5804018.41	-5804018.26	-5804018.08	0.0088	0.0049
Mercury	-20604-09-15 09:21 J	-5803930.27	-5803930.11	-5803929.92	0.0088	0.0039
Venus	-20604-09-19 11:16 J	-5803926.20	-5803926.03	-5803925.84	0.0088	0.0052
Mercury	-20604-12-12 12:57 J	-5803842.13	-5803841.96	-5803841.76	0.0088	0.0029
Mercury	-20603-03-10 16:48 J	-5803753.99	-5803753.80	-5803753.61	0.0088	0.0019
Venus	-20603-05-03 00:43 J	-5803700.64	-5803700.47	-5803700.28	0.0088	0.0051
Mercury	-20603-06-06 20:23 J	-5803665.84	-5803665.65	-5803665.45	0.0088	0.0009
Mercury	-20603-09-03 00:00 J	-5803577.69	-5803577.50	-5803577.30	0.0088	0.0001
Mercury	-20603-11-30 03:36 J	-5803489.54	-5803489.35	-5803489.16	0.0088	0.0011
Venus	-20603-12-14 13:55 J	-5803475.08	-5803474.92	-5803474.71	0.0088	0.0050
Mercury	-20602-02-26 06:57 J	-5803401.39	-5803401.21	-5803401.01	0.0088	0.0021

Mercury	-20602-05-25 10:19 J	-5803313.24	-5803313.07	-5803312.87	0.0088	0.0031
Venus	-20602-07-28 03:21 J	-5803249.53	-5803249.36	-5803249.15	0.0088	0.0049
Mercury	-20602-08-21 13:55 J	-5803225.08	-5803224.92	-5803224.73	0.0088	0.0041
Mercury	-20602-11-17 17:45 J	-5803136.92	-5803136.76	-5803136.60	0.0088	0.0050
Mercury	-20601-02-13 21:07 J	-5803048.75	-5803048.62	-5803048.47	0.0088	0.0060
Venus	-20601-03-09 17:16 J	-5803023.97	-5803023.78	-5803023.59	0.0088	0.0047
Mercury	-20601-05-12 00:28 J	-5802960.58	-5802960.48	-5802960.35	0.0088	0.0070
Mercury	-20601-08-08 03:50 J	-5802872.40	-5802872.34	-5802872.24	0.0088	0.0080
Venus	-20601-10-21 06:43 J	-5802798.40	-5802798.22	-5802798.02	0.0088	0.0046
Venus	-20600-06-03 19:55 J	-5802572.84	-5802572.67	-5802572.46	0.0088	0.0046
Venus	-20599-01-15 09:21 J	-5802347.28	-5802347.11	-5802346.90	0.0088	0.0044
Venus	-20599-08-28 23:02 J	-5802121.73	-5802121.54	-5802121.33	0.0088	0.0042
Venus	-20598-04-11 12:28 J	-5801896.17	-5801895.98	-5801895.77	0.0088	0.0041
Venus	-20598-11-23 01:55 J	-5801670.60	-5801670.42	-5801670.20	0.0088	0.0040
Venus	-20597-07-05 15:36 J	-5801445.05	-5801444.85	-5801444.64	0.0088	0.0038
Venus	-20596-02-16 04:48 J	-5801219.49	-5801219.30	-5801219.08	0.0088	0.0037
Venus	-20596-09-29 18:43 J	-5800993.92	-5800993.72	-5800993.51	0.0088	0.0035
Venus	-20595-05-13 07:55 J	-5800768.36	-5800768.17	-5800767.94	0.0088	0.0035
Venus	-20595-12-24 21:50 J	-5800542.80	-5800542.59	-5800542.38	0.0088	0.0032
Venus	-20594-08-07 11:02 J	-5800317.24	-5800317.04	-5800316.82	0.0088	0.0031
Venus	-20593-03-20 00:57 J	-5800091.67	-5800091.46	-5800091.25	0.0088	0.0029
Venus	-20593-10-31 14:23 J	-5799866.10	-5799865.90	-5799865.67	0.0088	0.0028
Venus	-20592-06-14 04:19 J	-5799640.53	-5799640.32	-5799640.10	0.0088	0.0026
Venus	-20591-01-25 17:45 J	-5799414.97	-5799414.76	-5799414.54	0.0088	0.0025
Venus	-20591-09-08 07:26 J	-5799189.40	-5799189.19	-5799188.97	0.0088	0.0023
Venus	-20590-04-21 20:52 J	-5798963.83	-5798963.63	-5798963.40	0.0088	0.0022
Venus	-20590-12-03 10:48 J	-5798738.26	-5798738.05	-5798737.82	0.0088	0.0020
Venus	-20589-07-16 00:28 J	-5798512.69	-5798512.48	-5798512.26	0.0088	0.0019
Venus	-20588-02-26 13:55 J	-5798287.13	-5798286.92	-5798286.69	0.0088	0.0018
Venus	-20588-10-10 03:50 J	-5798061.56	-5798061.34	-5798061.11	0.0088	0.0015

Venus	-20587-05-23 17:31 J	-5797835.99	-5797835.77	-5797835.54	0.0088	0.0014
Venus	-20586-01-04 07:11 J	-5797610.42	-5797610.20	-5797609.97	0.0088	0.0012
Venus	-20586-08-17 20:52 J	-5797384.85	-5797384.63	-5797384.41	0.0088	0.0010
Venus	-20585-03-30 10:33 J	-5797159.29	-5797159.06	-5797158.84	0.0088	0.0009
Venus	-20585-11-11 00:14 J	-5796933.71	-5796933.49	-5796933.26	0.0088	0.0007
Venus	-20584-06-24 13:55 J	-5796708.14	-5796707.92	-5796707.69	0.0088	0.0005
Venus	-20583-02-05 03:36 J	-5796482.58	-5796482.35	-5796482.13	0.0088	0.0003
Venus	-20583-09-18 17:02 J	-5796257.01	-5796256.79	-5796256.56	0.0088	0.0003
Venus	-20582-05-02 06:43 J	-5796031.44	-5796031.22	-5796030.99	0.0088	0.0002
Venus	-20582-12-13 20:38 J	-5795805.87	-5795805.64	-5795805.42	0.0088	0.0002
Venus	-20581-07-26 10:19 J	-5795580.30	-5795580.07	-5795579.85	0.0088	0.0003
Venus	-20580-03-08 23:45 J	-5795354.73	-5795354.51	-5795354.28	0.0088	0.0006
Venus	-20580-10-20 13:40 J	-5795129.15	-5795128.93	-5795128.70	0.0088	0.0007
Venus	-20579-06-03 03:21 J	-5794903.58	-5794903.36	-5794903.13	0.0088	0.0009
Venus	-20578-01-14 17:02 J	-5794678.00	-5794677.79	-5794677.56	0.0088	0.0011
Venus	-20578-08-28 06:57 J	-5794452.43	-5794452.21	-5794451.99	0.0088	0.0012
Venus	-20577-04-09 20:38 J	-5794226.86	-5794226.64	-5794226.42	0.0088	0.0013
Venus	-20577-11-21 10:19 J	-5794001.28	-5794001.07	-5794000.84	0.0088	0.0016
Venus	-20576-07-05 00:14 J	-5793775.71	-5793775.49	-5793775.27	0.0088	0.0017
Venus	-20575-02-15 13:55 J	-5793550.14	-5793549.92	-5793549.70	0.0089	0.0019
Venus	-20575-09-29 03:21 J	-5793324.57	-5793324.36	-5793324.13	0.0089	0.0021
Venus	-20574-05-12 17:16 J	-5793098.99	-5793098.78	-5793098.56	0.0089	0.0022
Venus	-20574-12-24 06:57 J	-5792873.42	-5792873.21	-5792872.99	0.0089	0.0024
Venus	-20573-08-05 20:23 J	-5792647.85	-5792647.65	-5792647.42	0.0089	0.0026
Venus	-20572-03-19 10:19 J	-5792422.28	-5792422.07	-5792421.85	0.0089	0.0027
Venus	-20572-10-30 23:45 J	-5792196.71	-5792196.51	-5792196.29	0.0089	0.0029
Venus	-20571-06-13 13:40 J	-5791971.14	-5791970.93	-5791970.72	0.0089	0.0030
Venus	-20570-01-25 03:07 J	-5791745.57	-5791745.37	-5791745.15	0.0089	0.0032
Venus	-20570-09-07 17:02 J	-5791520.00	-5791519.79	-5791519.58	0.0089	0.0033
Venus	-20569-04-20 06:14 J	-5791294.43	-5791294.24	-5791294.02	0.0089	0.0035

Venus	-20569-12-01 20:23 J	-5791068.86	-5791068.65	-5791068.45	0.0089	0.0036
Venus	-20568-07-15 09:50 J	-5790843.28	-5790843.09	-5790842.88	0.0089	0.0038
Venus	-20567-02-25 23:31 J	-5790617.71	-5790617.52	-5790617.31	0.0089	0.0039
Venus	-20567-10-09 12:57 J	-5790392.14	-5790391.96	-5790391.75	0.0089	0.0041
Venus	-20566-05-23 02:38 J	-5790166.57	-5790166.39	-5790166.18	0.0089	0.0042
Venus	-20565-01-03 16:19 J	-5789941.00	-5789940.82	-5789940.61	0.0089	0.0044
Venus	-20565-08-16 06:00 J	-5789715.43	-5789715.25	-5789715.04	0.0089	0.0045
Venus	-20564-03-29 19:40 J	-5789489.86	-5789489.68	-5789489.48	0.0089	0.0046
Venus	-20564-11-10 09:07 J	-5789264.29	-5789264.12	-5789263.91	0.0089	0.0048
Venus	-20563-06-23 22:48 J	-5789038.72	-5789038.55	-5789038.35	0.0089	0.0049
Venus	-20562-02-04 12:43 J	-5788813.15	-5788812.97	-5788812.78	0.0089	0.0050
Venus	-20562-09-18 02:23 J	-5788587.58	-5788587.40	-5788587.22	0.0089	0.0051
Venus	-20561-04-30 15:21 J	-5788362.02	-5788361.86	-5788361.66	0.0089	0.0053
Venus	-20561-12-12 05:02 J	-5788136.45	-5788136.29	-5788136.10	0.0089	0.0054
Venus	-20560-07-25 18:43 J	-5787910.88	-5787910.72	-5787910.53	0.0089	0.0055
Venus	-20559-03-08 08:09 J	-5787685.32	-5787685.16	-5787684.97	0.0089	0.0056
Venus	-20559-10-19 21:36 J	-5787459.76	-5787459.60	-5787459.42	0.0089	0.0057
Venus	-20558-06-02 11:02 J	-5787234.19	-5787234.04	-5787233.86	0.0089	0.0058
Venus	-20557-01-14 00:43 J	-5787008.63	-5787008.47	-5787008.30	0.0089	0.0059
Venus	-20557-08-26 14:09 J	-5786783.06	-5786782.91	-5786782.74	0.0089	0.0060
Venus	-20556-04-09 03:21 J	-5786557.50	-5786557.36	-5786557.18	0.0089	0.0061
Venus	-20556-11-20 16:48 J	-5786331.94	-5786331.80	-5786331.63	0.0089	0.0062
Venus	-20555-07-04 06:14 J	-5786106.38	-5786106.24	-5786106.07	0.0089	0.0063
Venus	-20554-02-14 19:40 J	-5785880.81	-5785880.68	-5785880.51	0.0089	0.0064
Venus	-20554-09-28 09:07 J	-5785655.25	-5785655.12	-5785654.95	0.0089	0.0065
Venus	-20553-05-10 22:48 J	-5785429.69	-5785429.55	-5785429.39	0.0089	0.0065
Venus	-20553-12-22 12:00 J	-5785204.13	-5785204.00	-5785203.83	0.0089	0.0067
Venus	-20552-08-05 01:26 J	-5784978.56	-5784978.44	-5784978.28	0.0089	0.0067
Venus	-20551-03-18 15:21 J	-5784753.00	-5784752.86	-5784752.72	0.0089	0.0068
Venus	-20551-10-30 04:19 J	-5784527.44	-5784527.32	-5784527.16	0.0089	0.0068

Venus	-20550-06-12 17:31 J	-5784301.89	-5784301.77	-5784301.61	0.0089	0.0069
Venus	-20549-01-24 07:11 J	-5784076.33	-5784076.20	-5784076.05	0.0089	0.0070
Venus	-20549-09-05 20:23 J	-5783850.77	-5783850.65	-5783850.50	0.0089	0.0070
Venus	-20548-04-19 09:50 J	-5783625.22	-5783625.09	-5783624.95	0.0089	0.0070
Venus	-20548-11-30 22:48 J	-5783399.66	-5783399.55	-5783399.40	0.0089	0.0071
Venus	-20547-07-14 12:00 J	-5783174.11	-5783174.00	-5783173.85	0.0089	0.0072
Venus	-20546-02-25 01:40 J	-5782948.55	-5782948.43	-5782948.30	0.0089	0.0072
Venus	-20546-10-08 14:23 J	-5782723.00	-5782722.90	-5782722.75	0.0089	0.0073
Venus	-20545-05-21 03:36 J	-5782497.46	-5782497.35	-5782497.20	0.0089	0.0073
Venus	-20544-01-01 17:02 J	-5782271.90	-5782271.79	-5782271.65	0.0089	0.0073
Venus	-20544-08-15 06:28 J	-5782046.35	-5782046.23	-5782046.10	0.0089	0.0073
Venus	-20543-03-28 19:11 J	-5781820.80	-5781820.70	-5781820.55	0.0089	0.0073
Venus	-20543-11-09 08:23 J	-5781595.25	-5781595.15	-5781595.00	0.0089	0.0073
Earth	-20542-05-05 13:11 J	-5781418.13	-5781417.95	-5781417.73	0.0089	0.0053
Moon	-20542-05-05 15:21 J	-5781418.08	-5781417.86	-5781417.64	0.0089	0.0049 *
Venus	-20542-06-22 21:36 J	-5781369.71	-5781369.60	-5781369.46	0.0089	0.0073
Venus	-20541-02-03 10:48 J	-5781144.15	-5781144.05	-5781143.91	0.0089	0.0073
Moon	-20541-05-06 23:31 J	-5781050.76	-5781050.52	-5781050.28	0.0089	0.0015
Earth	-20541-05-07 00:00 J	-5781050.74	-5781050.50	-5781050.24	0.0089	0.0011 *
Venus	-20541-09-16 00:00 J	-5780918.61	-5780918.50	-5780918.36	0.0089	0.0073
Venus	-20540-04-29 12:57 J	-5780693.06	-5780692.96	-5780692.81	0.0089	0.0074
Moon	-20540-05-09 09:21 J	-5780683.33	-5780683.11	-5780682.85	0.0089	0.0037
Earth	-20540-05-09 10:48 J	-5780683.28	-5780683.05	-5780682.81	0.0089	0.0033 *
Venus	-20540-12-11 02:09 J	-5780467.51	-5780467.41	-5780467.26	0.0089	0.0073
Earth	-20539-05-11 21:07 J	-5780315.74	-5780315.62	-5780315.47	0.0089	0.0075
Moon	-20539-05-11 22:48 J	-5780315.67	-5780315.55	-5780315.38	0.0089	0.0072 *
Venus	-20539-07-24 15:36 J	-5780241.97	-5780241.85	-5780241.72	0.0089	0.0073
Venus	-20538-03-07 04:48 J	-5780016.42	-5780016.30	-5780016.17	0.0089	0.0073
Venus	-20538-10-18 17:45 J	-5779790.87	-5779790.76	-5779790.62	0.0089	0.0072
Venus	-20537-05-31 06:28 J	-5779565.33	-5779565.23	-5779565.08	0.0089	0.0073

Venus	-20536-01-11 19:55 J	-5779339.79	-5779339.67	-5779339.54	0.0089	0.0072
Venus	-20536-08-25 08:38 J	-5779114.25	-5779114.14	-5779113.99	0.0089	0.0072
Venus	-20535-04-07 21:36 J	-5778888.71	-5778888.60	-5778888.45	0.0089	0.0072
Venus	-20535-11-19 10:48 J	-5778663.17	-5778663.05	-5778662.91	0.0089	0.0071
Venus	-20534-07-02 23:31 J	-5778437.64	-5778437.52	-5778437.37	0.0089	0.0070
Venus	-20533-02-13 12:43 J	-5778212.10	-5778211.97	-5778211.83	0.0089	0.0070
Venus	-20533-09-26 01:11 J	-5777986.56	-5777986.45	-5777986.29	0.0089	0.0070
Venus	-20532-05-09 14:23 J	-5777761.03	-5777760.90	-5777760.75	0.0089	0.0069
Venus	-20532-12-21 02:52 J	-5777535.50	-5777535.38	-5777535.22	0.0089	0.0069
Venus	-20531-08-03 15:50 J	-5777309.96	-5777309.84	-5777309.68	0.0089	0.0068
Venus	-20530-03-17 05:02 J	-5777084.43	-5777084.29	-5777084.14	0.0089	0.0067
Venus	-20530-10-28 18:00 J	-5776858.89	-5776858.75	-5776858.60	0.0089	0.0066
Venus	-20529-06-10 06:14 J	-5776633.36	-5776633.24	-5776633.07	0.0089	0.0066
Venus	-20528-01-21 19:11 J	-5776407.83	-5776407.70	-5776407.53	0.0089	0.0065
Venus	-20528-09-04 08:09 J	-5776182.30	-5776182.16	-5776181.99	0.0089	0.0063
Venus	-20527-04-17 21:07 J	-5775956.76	-5775956.62	-5775956.45	0.0089	0.0063
Jupiter	-20527-08-12 07:26 J	-5775840.50	-5775840.19	-5775839.79	0.0089	0.0067
Venus	-20527-11-29 09:50 J	-5775731.23	-5775731.09	-5775730.92	0.0089	0.0062
Venus	-20526-07-12 22:48 J	-5775505.70	-5775505.55	-5775505.39	0.0089	0.0061
Venus	-20525-02-23 11:31 J	-5775280.17	-5775280.02	-5775279.85	0.0089	0.0060
Venus	-20525-10-06 00:14 J	-5775054.64	-5775054.49	-5775054.32	0.0089	0.0059
Mars	-20524-02-17 02:23 J	-5774920.67	-5774920.40	-5774920.07	0.0089	0.0042
Venus	-20524-05-19 12:57 J	-5774829.11	-5774828.96	-5774828.78	0.0089	0.0058
Mercury	-20524-10-10 10:19 J	-5774685.09	-5774685.07	-5774685.02	0.0089	0.0086
Venus	-20524-12-31 01:40 J	-5774603.59	-5774603.43	-5774603.25	0.0089	0.0057
Mercury	-20523-01-06 11:45 J	-5774597.06	-5774597.01	-5774596.94	0.0089	0.0078
Mercury	-20523-04-04 12:57 J	-5774509.02	-5774508.96	-5774508.87	0.0089	0.0072
Mercury	-20523-07-01 14:23 J	-5774420.98	-5774420.90	-5774420.80	0.0089	0.0064
Venus	-20523-08-13 14:09 J	-5774378.06	-5774377.91	-5774377.73	0.0089	0.0056
Mercury	-20523-09-27 15:50 J	-5774332.94	-5774332.84	-5774332.74	0.0089	0.0057

Mercury -20523-12-24 17:02 J -5774244.89 -5774244.79 -5774244.67 0.0089 0.0051

Mars -20522-01-14 09:07 J -5774224.40 -5774224.12 -5774223.78 0.0089 0.0036

Mercury -20522-03-22 18:28 J -5774156.84 -5774156.73 -5774156.61 0.0089 0.0043

Venus -20522-03-27 02:52 J -5774152.54 -5774152.38 -5774152.19 0.0089 0.0055

Mercury -20522-06-18 19:40 J -5774068.79 -5774068.68 -5774068.55 0.0089 0.0037

Mercury -20522-09-14 21:07 J -5773980.74 -5773980.62 -5773980.49 0.0089 0.0029

Venus -20522-11-07 15:21 J -5773927.01 -5773926.86 -5773926.67 0.0089 0.0054

Mercury -20522-12-11 22:33 J -5773892.69 -5773892.56 -5773892.43 0.0089 0.0022

Mercury -20521-03-08 23:45 J -5773804.64 -5773804.51 -5773804.38 0.0089 0.0015

Mercury -20521-06-05 01:11 J -5773716.58 -5773716.45 -5773716.32 0.0089 0.0009

Venus -20521-06-20 04:19 J -5773701.49 -5773701.32 -5773701.14 0.0089 0.0052

Mercury -20521-09-01 02:23 J -5773628.53 -5773628.40 -5773628.27 0.0089 0.0002

Mercury -20521-11-28 03:50 J -5773540.47 -5773540.34 -5773540.21 0.0089 0.0006

Venus -20520-01-31 16:48 J -5773475.97 -5773475.80 -5773475.61 0.0089 0.0051

Mercury -20520-02-24 05:02 J -5773452.42 -5773452.29 -5773452.15 0.0089 0.0013

Mercury -20520-05-23 06:28 J -5773364.36 -5773364.23 -5773364.10 0.0089 0.0020

Mercury -20520-08-19 07:40 J -5773276.30 -5773276.18 -5773276.05 0.0089 0.0027

Venus -20520-09-14 05:16 J -5773250.45 -5773250.28 -5773250.09 0.0089 0.0049

Mercury -20520-11-15 09:07 J -5773188.24 -5773188.12 -5773188.00 0.0089 0.0034

Mercury -20519-02-11 10:19 J -5773100.18 -5773100.07 -5773099.95 0.0089 0.0041

Venus -20519-04-27 17:45 J -5773024.92 -5773024.76 -5773024.56 0.0089 0.0049

Mercury -20519-05-10 11:31 J -5773012.12 -5773012.02 -5773011.90 0.0089 0.0049

Mercury -20519-08-06 12:57 J -5772924.05 -5772923.96 -5772923.85 0.0089 0.0055

Mercury -20519-11-02 14:23 J -5772835.99 -5772835.90 -5772835.80 0.0089 0.0062

Venus -20519-12-09 06:43 J -5772799.40 -5772799.22 -5772799.03 0.0089 0.0047

Mercury -20518-01-29 15:36 J -5772747.92 -5772747.85 -5772747.76 0.0089 0.0070

Mercury -20518-04-27 17:02 J -5772659.85 -5772659.79 -5772659.71 0.0089 0.0076

Venus -20518-07-22 18:57 J -5772573.88 -5772573.71 -5772573.51 0.0089 0.0046

Mercury -20518-07-24 18:28 J -5772571.77 -5772571.73 -5772571.68 0.0089 0.0083

Venus -20517-03-04 07:26 J -5772348.36 -5772348.19 -5772347.98 0.0089 0.0045

Venus	-20517-10-15 20:23 J	-5772122.84	-5772122.65	-5772122.46	0.0089	0.0043
Venus	-20516-05-29 08:52 J	-5771897.31	-5771897.13	-5771896.93	0.0089	0.0041
Venus	-20515-01-09 21:36 J	-5771671.79	-5771671.60	-5771671.41	0.0089	0.0040
Venus	-20515-08-23 09:50 J	-5771446.27	-5771446.09	-5771445.88	0.0089	0.0039
Venus	-20514-04-05 22:48 J	-5771220.75	-5771220.55	-5771220.35	0.0089	0.0037
Venus	-20514-11-17 11:02 J	-5770995.23	-5770995.04	-5770994.83	0.0089	0.0036
Venus	-20513-06-29 23:45 J	-5770769.71	-5770769.51	-5770769.31	0.0089	0.0034
Venus	-20512-02-10 12:00 J	-5770544.19	-5770544.00	-5770543.79	0.0089	0.0033
Venus	-20512-09-24 00:43 J	-5770318.67	-5770318.47	-5770318.26	0.0089	0.0031
Venus	-20511-05-07 13:11 J	-5770093.14	-5770092.95	-5770092.73	0.0089	0.0029
Venus	-20511-12-19 01:55 J	-5769867.62	-5769867.42	-5769867.21	0.0089	0.0027
Venus	-20510-08-01 14:09 J	-5769642.11	-5769641.91	-5769641.70	0.0089	0.0026
Venus	-20509-03-14 02:38 J	-5769416.59	-5769416.39	-5769416.18	0.0089	0.0024
Venus	-20509-10-25 15:07 J	-5769191.08	-5769190.87	-5769190.66	0.0089	0.0023
Venus	-20508-06-08 03:21 J	-5768965.56	-5768965.36	-5768965.14	0.0089	0.0022
Venus	-20507-01-19 15:50 J	-5768740.04	-5768739.84	-5768739.62	0.0089	0.0020
Venus	-20507-09-02 04:33 J	-5768514.53	-5768514.31	-5768514.10	0.0089	0.0018
Venus	-20506-04-15 16:48 J	-5768289.01	-5768288.80	-5768288.58	0.0089	0.0016
Venus	-20506-11-27 05:16 J	-5768063.49	-5768063.28	-5768063.07	0.0089	0.0014
Venus	-20505-07-09 17:45 J	-5767837.98	-5767837.76	-5767837.55	0.0089	0.0013
Venus	-20504-02-20 06:00 J	-5767612.46	-5767612.25	-5767612.03	0.0089	0.0011
Venus	-20504-10-03 18:28 J	-5767386.95	-5767386.73	-5767386.52	0.0089	0.0009
Venus	-20503-05-17 06:57 J	-5767161.42	-5767161.21	-5767160.99	0.0089	0.0007
Venus	-20503-12-28 19:26 J	-5766935.91	-5766935.69	-5766935.47	0.0089	0.0006
Venus	-20502-08-11 07:40 J	-5766710.39	-5766710.18	-5766709.96	0.0089	0.0004
Venus	-20501-03-23 20:09 J	-5766484.87	-5766484.66	-5766484.44	0.0089	0.0002
Venus	-20501-11-04 08:38 J	-5766259.36	-5766259.14	-5766258.92	0.0089	0.0000
Venus	-20500-06-17 21:07 J	-5766033.83	-5766033.62	-5766033.40	0.0089	0.0002
Venus	-20499-01-29 09:36 J	-5765808.32	-5765808.10	-5765807.88	0.0089	0.0003
Venus	-20499-09-11 21:50 J	-5765582.80	-5765582.59	-5765582.37	0.0089	0.0005

Venus	-20498-04-25 10:19 J	-5765357.28	-5765357.07	-5765356.85	0.0089	0.0007
Venus	-20498-12-06 22:48 J	-5765131.77	-5765131.55	-5765131.34	0.0089	0.0008
Venus	-20497-07-19 11:02 J	-5764906.25	-5764906.04	-5764905.82	0.0089	0.0010
Venus	-20496-03-01 23:16 J	-5764680.74	-5764680.53	-5764680.31	0.0089	0.0012
Venus	-20496-10-13 11:31 J	-5764455.22	-5764455.02	-5764454.80	0.0089	0.0014
Venus	-20495-05-27 00:14 J	-5764229.70	-5764229.49	-5764229.28	0.0089	0.0015
Venus	-20494-01-07 12:28 J	-5764004.19	-5764003.98	-5764003.76	0.0089	0.0017
Venus	-20494-08-21 00:43 J	-5763778.68	-5763778.47	-5763778.25	0.0089	0.0019
Venus	-20493-04-02 13:11 J	-5763553.16	-5763552.95	-5763552.74	0.0089	0.0020
Venus	-20493-11-14 01:26 J	-5763327.65	-5763327.44	-5763327.23	0.0089	0.0022
Venus	-20492-06-27 13:40 J	-5763102.12	-5763101.93	-5763101.71	0.0089	0.0024
Venus	-20491-02-08 02:23 J	-5762876.61	-5762876.40	-5762876.19	0.0089	0.0025
Venus	-20491-09-21 14:38 J	-5762651.09	-5762650.89	-5762650.68	0.0089	0.0027
Venus	-20490-05-05 02:52 J	-5762425.57	-5762425.38	-5762425.16	0.0089	0.0029
Venus	-20490-12-16 15:21 J	-5762200.06	-5762199.86	-5762199.65	0.0089	0.0030
Venus	-20489-07-29 03:50 J	-5761974.54	-5761974.34	-5761974.13	0.0089	0.0032
Venus	-20488-03-11 16:19 J	-5761749.02	-5761748.82	-5761748.61	0.0089	0.0033
Venus	-20488-10-23 04:33 J	-5761523.50	-5761523.31	-5761523.10	0.0089	0.0035
Venus	-20487-06-05 17:02 J	-5761297.97	-5761297.79	-5761297.58	0.0089	0.0037
Venus	-20486-01-17 05:31 J	-5761072.45	-5761072.27	-5761072.06	0.0089	0.0038
Venus	-20486-08-30 17:45 J	-5760846.94	-5760846.76	-5760846.55	0.0089	0.0040
Venus	-20485-04-12 06:14 J	-5760621.42	-5760621.24	-5760621.03	0.0089	0.0041
Venus	-20485-11-23 18:57 J	-5760395.90	-5760395.71	-5760395.52	0.0089	0.0042
Venus	-20484-07-07 07:11 J	-5760170.37	-5760170.20	-5760170.00	0.0089	0.0044
Venus	-20483-02-17 19:55 J	-5759944.85	-5759944.67	-5759944.48	0.0089	0.0045
Venus	-20483-10-01 07:55 J	-5759719.34	-5759719.17	-5759718.97	0.0089	0.0047
Venus	-20482-05-14 20:23 J	-5759493.82	-5759493.65	-5759493.45	0.0089	0.0048
Venus	-20482-12-26 09:07 J	-5759268.30	-5759268.12	-5759267.94	0.0089	0.0049
Venus	-20481-08-07 21:07 J	-5759042.78	-5759042.62	-5759042.42	0.0089	0.0051
Venus	-20480-03-21 09:50 J	-5758817.26	-5758817.09	-5758816.90	0.0088	0.0052

Venus	-20480-11-01 22:19 J	-5758591.74	-5758591.57	-5758591.39	0.0088	0.0053
Venus	-20479-06-15 10:33 J	-5758366.21	-5758366.06	-5758365.87	0.0088	0.0055
Venus	-20478-01-26 23:02 J	-5758140.69	-5758140.54	-5758140.35	0.0088	0.0056
Venus	-20478-09-09 11:45 J	-5757915.16	-5757915.01	-5757914.83	0.0088	0.0057
Venus	-20477-04-22 00:14 J	-5757689.64	-5757689.49	-5757689.31	0.0088	0.0058
Venus	-20477-12-03 12:57 J	-5757464.11	-5757463.96	-5757463.79	0.0088	0.0059
Venus	-20476-07-17 01:40 J	-5757238.58	-5757238.43	-5757238.26	0.0088	0.0060
Venus	-20475-02-27 14:23 J	-5757013.05	-5757012.90	-5757012.74	0.0088	0.0061
Venus	-20475-10-11 02:52 J	-5756787.53	-5756787.38	-5756787.22	0.0088	0.0062
Venus	-20474-05-24 15:21 J	-5756562.00	-5756561.86	-5756561.70	0.0088	0.0063
Venus	-20473-01-05 04:04 J	-5756336.47	-5756336.33	-5756336.17	0.0088	0.0064
Venus	-20473-08-17 16:48 J	-5756110.94	-5756110.80	-5756110.65	0.0088	0.0065
Venus	-20472-03-31 05:16 J	-5755885.41	-5755885.28	-5755885.12	0.0088	0.0066
Venus	-20472-11-11 17:45 J	-5755659.89	-5755659.76	-5755659.60	0.0088	0.0067
Venus	-20471-06-25 06:28 J	-5755434.36	-5755434.23	-5755434.07	0.0088	0.0067
Venus	-20470-02-05 18:57 J	-5755208.83	-5755208.71	-5755208.55	0.0088	0.0068
Venus	-20470-09-19 07:55 J	-5754983.30	-5754983.17	-5754983.03	0.0088	0.0069
Venus	-20469-05-01 20:23 J	-5754757.77	-5754757.65	-5754757.50	0.0088	0.0070
Venus	-20469-12-13 08:52 J	-5754532.24	-5754532.13	-5754531.98	0.0088	0.0070
Venus	-20468-07-26 22:04 J	-5754306.71	-5754306.58	-5754306.45	0.0088	0.0071
Venus	-20467-03-09 10:33 J	-5754081.17	-5754081.06	-5754080.92	0.0088	0.0071
Venus	-20467-10-20 23:02 J	-5753855.65	-5753855.54	-5753855.39	0.0088	0.0072
Venus	-20466-06-03 11:45 J	-5753630.12	-5753630.01	-5753629.87	0.0088	0.0073
Venus	-20465-01-15 00:57 J	-5753404.58	-5753404.46	-5753404.34	0.0088	0.0073
Venus	-20465-08-27 13:26 J	-5753179.04	-5753178.94	-5753178.80	0.0088	0.0073
Venus	-20464-04-10 02:38 J	-5752953.51	-5752953.39	-5752953.27	0.0088	0.0074
Venus	-20464-11-21 15:07 J	-5752727.97	-5752727.87	-5752727.73	0.0088	0.0074
Venus	-20463-07-05 04:04 J	-5752502.43	-5752502.33	-5752502.20	0.0088	0.0074
Venus	-20462-02-15 17:02 J	-5752276.90	-5752276.79	-5752276.66	0.0088	0.0075
Venus	-20462-09-29 05:31 J	-5752051.36	-5752051.27	-5752051.13	0.0088	0.0075

Venus	-20461-05-11 18:28 J	-5751825.82	-5751825.73	-5751825.59	0.0088	0.0075
Earth	-20461-11-01 03:07 J	-5751652.53	-5751652.37	-5751652.20	0.0088	0.0069
Moon	-20461-11-01 03:50 J	-5751652.48	-5751652.34	-5751652.16	0.0088	0.0071 *
Venus	-20461-12-23 07:26 J	-5751600.28	-5751600.19	-5751600.06	0.0088	0.0075
Venus	-20460-08-05 20:38 J	-5751374.74	-5751374.64	-5751374.51	0.0088	0.0075
Earth	-20460-11-03 15:36 J	-5751285.09	-5751284.85	-5751284.59	0.0088	0.0026
Moon	-20460-11-03 16:04 J	-5751285.06	-5751284.83	-5751284.57	0.0088	0.0024 *
Venus	-20459-03-19 09:36 J	-5751149.20	-5751149.10	-5751148.98	0.0088	0.0075
Venus	-20459-10-30 22:33 J	-5750923.67	-5750923.56	-5750923.44	0.0088	0.0075
Moon	-20459-11-06 02:38 J	-5750917.65	-5750917.39	-5750917.12	0.0088	0.0014
Earth	-20459-11-06 04:33 J	-5750917.57	-5750917.31	-5750917.05	0.0088	0.0016 *
Venus	-20458-06-13 11:16 J	-5750698.13	-5750698.03	-5750697.91	0.0088	0.0075
Earth	-20458-11-08 16:48 J	-5750549.97	-5750549.80	-5750549.58	0.0088	0.0059
Moon	-20458-11-08 19:11 J	-5750549.86	-5750549.70	-5750549.50	0.0088	0.0062 *
Venus	-20457-01-25 00:14 J	-5750472.59	-5750472.49	-5750472.37	0.0088	0.0075
Venus	-20457-09-06 13:11 J	-5750247.05	-5750246.95	-5750246.82	0.0088	0.0075
Venus	-20456-04-20 02:09 J	-5750021.51	-5750021.41	-5750021.28	0.0088	0.0075
Venus	-20456-12-01 14:52 J	-5749795.97	-5749795.88	-5749795.74	0.0088	0.0075
Venus	-20455-07-15 03:50 J	-5749570.43	-5749570.34	-5749570.20	0.0088	0.0075
Venus	-20454-02-25 17:16 J	-5749344.89	-5749344.78	-5749344.66	0.0088	0.0074
Venus	-20454-10-09 06:00 J	-5749119.35	-5749119.25	-5749119.11	0.0088	0.0074
Venus	-20453-05-21 18:57 J	-5748893.81	-5748893.71	-5748893.57	0.0088	0.0074
Venus	-20452-01-02 08:23 J	-5748668.27	-5748668.15	-5748668.02	0.0088	0.0073
Venus	-20452-08-15 21:21 J	-5748442.72	-5748442.61	-5748442.47	0.0088	0.0073
Venus	-20451-03-29 10:19 J	-5748217.17	-5748217.07	-5748216.92	0.0088	0.0073
Venus	-20451-11-09 23:31 J	-5747991.63	-5747991.52	-5747991.38	0.0088	0.0072
Venus	-20450-06-23 12:28 J	-5747766.08	-5747765.98	-5747765.83	0.0088	0.0072
Venus	-20449-02-04 01:40 J	-5747540.54	-5747540.43	-5747540.28	0.0088	0.0071
Venus	-20449-09-16 15:21 J	-5747314.98	-5747314.86	-5747314.72	0.0088	0.0070
Venus	-20448-04-30 04:19 J	-5747089.43	-5747089.32	-5747089.17	0.0088	0.0070

Venus	-20448-12-11 17:31 J	-5746863.89	-5746863.77	-5746863.61	0.0088	0.0069
Venus	-20447-07-25 06:57 J	-5746638.34	-5746638.21	-5746638.06	0.0088	0.0068
Venus	-20446-03-07 19:40 J	-5746412.79	-5746412.68	-5746412.51	0.0088	0.0068
Venus	-20446-10-19 09:07 J	-5746187.24	-5746187.12	-5746186.95	0.0088	0.0067
Venus	-20445-05-31 22:19 J	-5745961.69	-5745961.57	-5745961.40	0.0088	0.0066
Venus	-20444-01-12 11:45 J	-5745736.15	-5745736.01	-5745735.85	0.0088	0.0065
Venus	-20444-08-26 00:57 J	-5745510.59	-5745510.46	-5745510.29	0.0088	0.0065
Venus	-20443-04-08 14:23 J	-5745285.04	-5745284.90	-5745284.74	0.0088	0.0063
Venus	-20443-11-20 03:36 J	-5745059.49	-5745059.35	-5745059.18	0.0088	0.0062
Mars	-20443-12-02 08:23 J	-5745047.35	-5745047.15	-5745046.90	0.0088	0.0055
Venus	-20442-07-03 16:48 J	-5744833.95	-5744833.80	-5744833.63	0.0088	0.0061
Venus	-20441-02-14 06:00 J	-5744608.39	-5744608.25	-5744608.07	0.0088	0.0061
Venus	-20441-09-26 19:40 J	-5744382.83	-5744382.68	-5744382.50	0.0088	0.0059
Mars	-20441-10-26 01:11 J	-5744353.74	-5744353.45	-5744353.16	0.0088	0.0007
Mercury	-20440-03-28 14:38 J	-5744199.95	-5744199.89	-5744199.83	0.0088	0.0084
Venus	-20440-05-10 08:52 J	-5744157.28	-5744157.13	-5744156.94	0.0088	0.0058
Mercury	-20440-06-24 18:14 J	-5744111.85	-5744111.74	-5744111.64	0.0088	0.0073
Mercury	-20440-09-20 21:50 J	-5744023.73	-5744023.59	-5744023.46	0.0088	0.0063
Mercury	-20440-12-18 01:26 J	-5743935.60	-5743935.44	-5743935.29	0.0088	0.0053
Venus	-20440-12-21 22:19 J	-5743931.72	-5743931.57	-5743931.38	0.0088	0.0057
Mercury	-20439-03-16 05:02 J	-5743847.46	-5743847.29	-5743847.12	0.0088	0.0044
Mercury	-20439-06-12 08:23 J	-5743759.32	-5743759.15	-5743758.96	0.0088	0.0034
Venus	-20439-08-04 11:31 J	-5743706.17	-5743706.02	-5743705.83	0.0088	0.0056
Mercury	-20439-09-08 12:00 J	-5743671.18	-5743671.00	-5743670.80	0.0088	0.0024
Mars	-20439-09-19 17:31 J	-5743659.93	-5743659.77	-5743659.57	0.0088	0.0069
Mercury	-20439-12-05 15:36 J	-5743583.03	-5743582.85	-5743582.65	0.0088	0.0014
Mercury	-20438-03-03 19:26 J	-5743494.89	-5743494.69	-5743494.50	0.0088	0.0004
Venus	-20438-03-18 01:26 J	-5743480.61	-5743480.44	-5743480.26	0.0088	0.0054
Mercury	-20438-05-30 23:02 J	-5743406.74	-5743406.54	-5743406.35	0.0088	0.0006
Mercury	-20438-08-27 02:23 J	-5743318.59	-5743318.40	-5743318.20	0.0088	0.0016

Venus	-20438-10-29 14:52 J	-5743255.05	-5743254.88	-5743254.69	0.0088	0.0053
Mercury	-20438-11-23 06:00 J	-5743230.43	-5743230.25	-5743230.06	0.0088	0.0026
Mercury	-20437-02-19 09:21 J	-5743142.27	-5743142.11	-5743141.92	0.0088	0.0036
Mercury	-20437-05-17 12:57 J	-5743054.11	-5743053.96	-5743053.78	0.0088	0.0046
Venus	-20437-06-11 04:04 J	-5743029.49	-5743029.33	-5743029.13	0.0088	0.0052
Mercury	-20437-08-13 16:19 J	-5742965.95	-5742965.82	-5742965.65	0.0088	0.0056
Mercury	-20437-11-09 20:09 J	-5742877.78	-5742877.66	-5742877.53	0.0088	0.0065
Venus	-20436-01-22 17:31 J	-5742803.93	-5742803.77	-5742803.57	0.0088	0.0051
Mercury	-20436-02-05 23:31 J	-5742789.61	-5742789.52	-5742789.41	0.0088	0.0075
Mercury	-20436-05-05 02:52 J	-5742701.41	-5742701.38	-5742701.31	0.0088	0.0085
Venus	-20436-09-05 07:11 J	-5742578.37	-5742578.20	-5742578.00	0.0088	0.0050
Venus	-20435-04-18 20:38 J	-5742352.81	-5742352.64	-5742352.44	0.0088	0.0048
Venus	-20435-11-30 10:33 J	-5742127.25	-5742127.06	-5742126.87	0.0088	0.0047
Venus	-20434-07-13 23:45 J	-5741901.69	-5741901.51	-5741901.31	0.0088	0.0045
Venus	-20433-02-24 12:57 J	-5741676.13	-5741675.96	-5741675.74	0.0088	0.0044
Venus	-20433-10-07 02:52 J	-5741450.57	-5741450.38	-5741450.17	0.0088	0.0042
Venus	-20432-05-20 16:19 J	-5741225.00	-5741224.82	-5741224.61	0.0088	0.0041
Venus	-20431-01-01 05:45 J	-5740999.44	-5740999.26	-5740999.04	0.0088	0.0040
Venus	-20431-08-14 19:26 J	-5740773.89	-5740773.69	-5740773.48	0.0088	0.0038
Venus	-20430-03-28 08:52 J	-5740548.32	-5740548.13	-5740547.92	0.0088	0.0036
Venus	-20430-11-08 22:33 J	-5740322.76	-5740322.56	-5740322.34	0.0088	0.0035
Venus	-20429-06-21 12:00 J	-5740097.19	-5740097.00	-5740096.78	0.0088	0.0033
Venus	-20428-02-02 01:40 J	-5739871.63	-5739871.43	-5739871.21	0.0088	0.0031
Venus	-20428-09-15 15:21 J	-5739646.07	-5739645.86	-5739645.64	0.0088	0.0030
Venus	-20427-04-29 04:48 J	-5739420.50	-5739420.30	-5739420.07	0.0088	0.0028
Venus	-20427-12-10 18:28 J	-5739194.93	-5739194.73	-5739194.50	0.0088	0.0027
Venus	-20426-07-24 08:23 J	-5738969.37	-5738969.15	-5738968.94	0.0088	0.0024
Venus	-20425-03-05 21:36 J	-5738743.80	-5738743.60	-5738743.37	0.0088	0.0024
Venus	-20425-10-17 11:31 J	-5738518.23	-5738518.02	-5738517.79	0.0088	0.0022
Venus	-20424-05-31 01:26 J	-5738292.66	-5738292.44	-5738292.22	0.0088	0.0019

Venus	-20423-01-11 15:07 J	-5738067.09	-5738066.87	-5738066.65	0.0088	0.0017
Venus	-20423-08-25 04:48 J	-5737841.52	-5737841.30	-5737841.08	0.0088	0.0016
Venus	-20422-04-07 18:14 J	-5737615.95	-5737615.74	-5737615.51	0.0088	0.0014
Venus	-20422-11-19 08:09 J	-5737390.38	-5737390.16	-5737389.93	0.0088	0.0012
Venus	-20421-07-01 21:50 J	-5737164.81	-5737164.59	-5737164.36	0.0088	0.0011
Venus	-20420-02-12 11:31 J	-5736939.24	-5736939.02	-5736938.79	0.0088	0.0009
Venus	-20420-09-26 01:11 J	-5736713.67	-5736713.45	-5736713.23	0.0088	0.0007
Venus	-20419-05-09 14:52 J	-5736488.11	-5736487.88	-5736487.66	0.0088	0.0005
Venus	-20419-12-21 04:33 J	-5736262.53	-5736262.31	-5736262.09	0.0088	0.0003
Venus	-20418-08-03 18:14 J	-5736036.97	-5736036.74	-5736036.52	0.0088	0.0002
Venus	-20417-03-16 07:40 J	-5735811.40	-5735811.18	-5735810.95	0.0088	0.0001
Venus	-20417-10-27 21:36 J	-5735585.83	-5735585.60	-5735585.38	0.0088	0.0003
Venus	-20416-06-10 11:16 J	-5735360.26	-5735360.03	-5735359.81	0.0088	0.0004
Venus	-20415-01-22 00:43 J	-5735134.69	-5735134.47	-5735134.24	0.0088	0.0007
Venus	-20415-09-04 14:23 J	-5734909.12	-5734908.90	-5734908.67	0.0088	0.0008
Venus	-20414-04-18 04:04 J	-5734683.55	-5734683.33	-5734683.10	0.0088	0.0010
Venus	-20414-11-29 18:00 J	-5734457.97	-5734457.75	-5734457.53	0.0088	0.0012
Venus	-20413-07-12 07:40 J	-5734232.40	-5734232.18	-5734231.95	0.0088	0.0013
Venus	-20412-02-22 21:21 J	-5734006.83	-5734006.61	-5734006.39	0.0088	0.0015
Venus	-20412-10-06 11:02 J	-5733781.26	-5733781.04	-5733780.82	0.0088	0.0017
Venus	-20411-05-20 00:43 J	-5733555.68	-5733555.47	-5733555.24	0.0089	0.0019
Venus	-20411-12-31 14:23 J	-5733330.11	-5733329.90	-5733329.67	0.0089	0.0021
Venus	-20410-08-14 04:04 J	-5733104.54	-5733104.33	-5733104.10	0.0089	0.0023
Venus	-20409-03-26 18:00 J	-5732878.96	-5732878.75	-5732878.53	0.0089	0.0024
Venus	-20409-11-07 07:40 J	-5732653.39	-5732653.18	-5732652.96	0.0089	0.0026
Venus	-20408-06-20 21:21 J	-5732427.82	-5732427.61	-5732427.39	0.0089	0.0028
Venus	-20407-02-01 10:48 J	-5732202.25	-5732202.05	-5732201.82	0.0089	0.0030
Venus	-20407-09-15 00:43 J	-5731976.68	-5731976.47	-5731976.26	0.0089	0.0031
Venus	-20406-04-28 14:09 J	-5731751.11	-5731750.91	-5731750.69	0.0089	0.0033
Venus	-20406-12-10 03:50 J	-5731525.53	-5731525.34	-5731525.12	0.0089	0.0035

Venus	-20405-07-22 17:45 J	-5731299.96	-5731299.76	-5731299.56	0.0089	0.0036
Venus	-20404-03-05 07:11 J	-5731074.40	-5731074.20	-5731073.99	0.0089	0.0038
Venus	-20404-10-16 20:23 J	-5730848.83	-5730848.65	-5730848.43	0.0089	0.0040
Venus	-20403-05-30 10:19 J	-5730623.26	-5730623.07	-5730622.86	0.0089	0.0041
Venus	-20402-01-11 00:00 J	-5730397.68	-5730397.50	-5730397.29	0.0089	0.0043
Venus	-20402-08-24 13:40 J	-5730172.11	-5730171.93	-5730171.73	0.0089	0.0044
Venus	-20401-04-06 03:07 J	-5729946.55	-5729946.37	-5729946.16	0.0089	0.0046
Venus	-20401-11-17 17:02 J	-5729720.97	-5729720.79	-5729720.60	0.0089	0.0047
Venus	-20400-07-01 06:28 J	-5729495.40	-5729495.23	-5729495.03	0.0089	0.0049
Venus	-20399-02-11 20:09 J	-5729269.83	-5729269.66	-5729269.46	0.0089	0.0050
Venus	-20399-09-25 09:36 J	-5729044.26	-5729044.10	-5729043.90	0.0089	0.0052
Venus	-20398-05-08 23:16 J	-5728818.69	-5728818.53	-5728818.33	0.0089	0.0053
Venus	-20398-12-20 13:11 J	-5728593.11	-5728592.95	-5728592.76	0.0089	0.0054
Venus	-20397-08-02 02:38 J	-5728367.54	-5728367.39	-5728367.20	0.0089	0.0056
Venus	-20396-03-15 16:19 J	-5728141.98	-5728141.82	-5728141.64	0.0089	0.0057
Venus	-20396-10-27 06:00 J	-5727916.41	-5727916.25	-5727916.08	0.0089	0.0058
Venus	-20395-06-09 19:40 J	-5727690.84	-5727690.68	-5727690.51	0.0089	0.0059
Venus	-20394-01-21 08:52 J	-5727465.27	-5727465.13	-5727464.95	0.0089	0.0061
Venus	-20394-09-03 22:19 J	-5727239.71	-5727239.57	-5727239.39	0.0089	0.0062
Venus	-20393-04-16 11:45 J	-5727014.15	-5727014.01	-5727013.83	0.0089	0.0063
Venus	-20393-11-28 01:11 J	-5726788.58	-5726788.45	-5726788.28	0.0089	0.0064
Venus	-20392-07-11 14:52 J	-5726563.02	-5726562.88	-5726562.72	0.0089	0.0065
Venus	-20391-02-22 04:19 J	-5726337.45	-5726337.32	-5726337.16	0.0089	0.0066
Venus	-20391-10-05 17:45 J	-5726111.89	-5726111.76	-5726111.60	0.0089	0.0067
Venus	-20390-05-19 06:57 J	-5725886.33	-5725886.21	-5725886.05	0.0089	0.0068
Venus	-20390-12-30 20:23 J	-5725660.76	-5725660.65	-5725660.49	0.0089	0.0070
Venus	-20389-08-12 09:50 J	-5725435.20	-5725435.09	-5725434.93	0.0089	0.0070
Venus	-20388-03-25 23:16 J	-5725209.64	-5725209.53	-5725209.37	0.0089	0.0071
Venus	-20388-11-06 12:57 J	-5724984.08	-5724983.96	-5724983.82	0.0089	0.0071
Venus	-20387-06-20 02:09 J	-5724758.52	-5724758.41	-5724758.26	0.0089	0.0073

Venus	-20386-01-31 15:36 J	-5724532.95	-5724532.85	-5724532.70	0.0089	0.0073
Venus	-20386-09-14 05:16 J	-5724307.39	-5724307.28	-5724307.15	0.0089	0.0074
Venus	-20385-04-26 18:28 J	-5724081.83	-5724081.73	-5724081.59	0.0089	0.0074
Venus	-20385-12-08 07:40 J	-5723856.28	-5723856.18	-5723856.04	0.0089	0.0075
Venus	-20384-07-21 21:07 J	-5723630.72	-5723630.62	-5723630.49	0.0089	0.0076
Venus	-20383-03-04 10:19 J	-5723405.16	-5723405.07	-5723404.93	0.0089	0.0077
Venus	-20383-10-15 23:45 J	-5723179.60	-5723179.51	-5723179.38	0.0089	0.0077
Venus	-20382-05-29 13:26 J	-5722954.05	-5722953.94	-5722953.83	0.0089	0.0077
Venus	-20381-01-10 02:09 J	-5722728.50	-5722728.41	-5722728.28	0.0089	0.0078
Venus	-20381-08-22 15:36 J	-5722502.94	-5722502.85	-5722502.73	0.0089	0.0078
Venus	-20380-04-05 05:02 J	-5722277.39	-5722277.29	-5722277.18	0.0089	0.0078
Venus	-20380-11-16 17:45 J	-5722051.85	-5722051.76	-5722051.64	0.0089	0.0078
Venus	-20379-06-30 06:57 J	-5721826.30	-5721826.21	-5721826.09	0.0089	0.0078
Venus	-20378-02-10 20:09 J	-5721600.74	-5721600.66	-5721600.54	0.0089	0.0079
Earth	-20378-05-05 01:40 J	-5721517.56	-5721517.43	-5721517.28	0.0089	0.0074
Moon	-20378-05-05 01:40 J	-5721517.55	-5721517.43	-5721517.28	0.0089	0.0074 *
Venus	-20378-09-24 09:21 J	-5721375.20	-5721375.11	-5721374.99	0.0089	0.0079
Moon	-20377-05-06 11:31 J	-5721150.26	-5721150.02	-5721149.77	0.0089	0.0031
Earth	-20377-05-06 12:00 J	-5721150.22	-5721150.00	-5721149.74	0.0089	0.0032 *
Venus	-20377-05-06 22:19 J	-5721149.65	-5721149.57	-5721149.45	0.0089	0.0079
Venus	-20377-12-18 11:31 J	-5720924.11	-5720924.02	-5720923.90	0.0089	0.0079
Earth	-20376-05-08 22:48 J	-5720782.80	-5720782.55	-5720782.29	0.0089	0.0012
Moon	-20376-05-09 01:11 J	-5720782.69	-5720782.45	-5720782.20	0.0089	0.0012 *
Venus	-20376-08-01 00:28 J	-5720698.56	-5720698.48	-5720698.36	0.0089	0.0079
Venus	-20375-03-14 13:40 J	-5720473.01	-5720472.93	-5720472.80	0.0089	0.0079
Moon	-20375-05-11 05:31 J	-5720415.45	-5720415.27	-5720415.04	0.0089	0.0055
Earth	-20375-05-11 09:07 J	-5720415.31	-5720415.12	-5720414.91	0.0089	0.0055 *
Venus	-20375-10-26 02:52 J	-5720247.47	-5720247.38	-5720247.26	0.0089	0.0078
Venus	-20374-06-08 15:50 J	-5720021.92	-5720021.84	-5720021.71	0.0089	0.0078
Venus	-20373-01-20 05:16 J	-5719796.38	-5719796.28	-5719796.17	0.0089	0.0078

Venus	-20373-09-01 18:14 J	-5719570.83	-5719570.74	-5719570.62	0.0089	0.0078
Venus	-20372-04-15 07:11 J	-5719345.29	-5719345.20	-5719345.07	0.0089	0.0078
Venus	-20372-11-26 20:09 J	-5719119.75	-5719119.66	-5719119.53	0.0089	0.0077
Venus	-20371-07-10 09:21 J	-5718894.21	-5718894.11	-5718893.99	0.0089	0.0077
Venus	-20370-02-20 22:19 J	-5718668.67	-5718668.57	-5718668.44	0.0089	0.0076
Venus	-20370-10-04 11:31 J	-5718443.13	-5718443.02	-5718442.90	0.0089	0.0076
Venus	-20369-05-17 00:00 J	-5718217.59	-5718217.50	-5718217.36	0.0089	0.0076
Venus	-20369-12-28 13:11 J	-5717992.06	-5717991.95	-5717991.82	0.0089	0.0075
Venus	-20368-08-11 01:40 J	-5717766.52	-5717766.43	-5717766.28	0.0089	0.0075
Venus	-20367-03-24 14:52 J	-5717540.99	-5717540.88	-5717540.74	0.0089	0.0074
Venus	-20367-11-05 03:50 J	-5717315.45	-5717315.34	-5717315.20	0.0089	0.0073
Venus	-20366-06-18 16:19 J	-5717089.92	-5717089.82	-5717089.67	0.0089	0.0072
Venus	-20365-01-30 05:16 J	-5716864.39	-5716864.28	-5716864.13	0.0089	0.0071
Venus	-20365-09-11 18:14 J	-5716638.86	-5716638.74	-5716638.59	0.0089	0.0070
Venus	-20364-04-25 07:11 J	-5716413.32	-5716413.20	-5716413.05	0.0089	0.0070
Venus	-20364-12-06 19:55 J	-5716187.79	-5716187.67	-5716187.52	0.0089	0.0069
Venus	-20363-07-20 08:52 J	-5715962.26	-5715962.13	-5715961.98	0.0089	0.0068
Venus	-20362-03-02 21:50 J	-5715736.73	-5715736.59	-5715736.45	0.0089	0.0067
Venus	-20362-10-14 10:33 J	-5715511.20	-5715511.06	-5715510.91	0.0089	0.0066
Venus	-20361-05-26 23:16 J	-5715285.67	-5715285.53	-5715285.37	0.0089	0.0065
Mars	-20361-09-30 17:02 J	-5715158.93	-5715158.79	-5715158.62	0.0089	0.0079
Venus	-20360-01-07 12:00 J	-5715060.14	-5715060.00	-5715059.84	0.0089	0.0064
Venus	-20360-08-21 00:43 J	-5714834.61	-5714834.47	-5714834.31	0.0089	0.0063
Venus	-20359-04-03 13:26 J	-5714609.08	-5714608.94	-5714608.77	0.0089	0.0062
Mercury	-20359-04-10 09:07 J	-5714602.13	-5714602.12	-5714602.09	0.0089	0.0089
Mercury	-20359-07-07 10:33 J	-5714514.11	-5714514.06	-5714514.00	0.0089	0.0081
Mars	-20359-08-28 00:57 J	-5714462.80	-5714462.46	-5714462.12	0.0089	0.0002
Mercury	-20359-10-03 11:45 J	-5714426.07	-5714426.01	-5714425.93	0.0089	0.0075
Venus	-20359-11-15 02:09 J	-5714383.55	-5714383.41	-5714383.23	0.0089	0.0061
Mercury	-20359-12-30 13:11 J	-5714338.03	-5714337.95	-5714337.86	0.0089	0.0068

Mercury	-20358-03-28 14:23 J	-5714249.99	-5714249.90	-5714249.80	0.0089	0.0061
Mercury	-20358-06-24 15:50 J	-5714161.94	-5714161.84	-5714161.73	0.0089	0.0054
Venus	-20358-06-28 14:38 J	-5714158.03	-5714157.89	-5714157.70	0.0089	0.0060
Mercury	-20358-09-20 17:16 J	-5714073.89	-5714073.78	-5714073.67	0.0089	0.0047
Mercury	-20358-12-17 18:28 J	-5713985.85	-5713985.73	-5713985.61	0.0089	0.0040
Venus	-20357-02-09 03:50 J	-5713932.50	-5713932.34	-5713932.17	0.0089	0.0058
Mercury	-20357-03-14 19:55 J	-5713897.79	-5713897.67	-5713897.55	0.0089	0.0033
Mercury	-20357-06-10 21:07 J	-5713809.74	-5713809.62	-5713809.49	0.0089	0.0026
Mars	-20357-07-24 07:11 J	-5713766.38	-5713766.20	-5713766.00	0.0089	0.0074
Mercury	-20357-09-06 22:33 J	-5713721.69	-5713721.56	-5713721.43	0.0089	0.0019
Venus	-20357-09-21 16:19 J	-5713706.98	-5713706.82	-5713706.64	0.0089	0.0057
Mercury	-20357-12-03 23:45 J	-5713633.64	-5713633.51	-5713633.38	0.0089	0.0012
Mercury	-20356-03-02 01:11 J	-5713545.58	-5713545.45	-5713545.32	0.0089	0.0005
Venus	-20356-05-05 04:48 J	-5713481.45	-5713481.30	-5713481.11	0.0089	0.0056
Mercury	-20356-05-29 02:23 J	-5713457.53	-5713457.40	-5713457.26	0.0089	0.0003
Mercury	-20356-08-25 03:50 J	-5713369.47	-5713369.34	-5713369.21	0.0089	0.0010
Mercury	-20356-11-21 05:02 J	-5713281.42	-5713281.29	-5713281.16	0.0089	0.0017
Venus	-20356-12-16 17:16 J	-5713255.93	-5713255.78	-5713255.58	0.0089	0.0055
Mercury	-20355-02-17 06:28 J	-5713193.36	-5713193.23	-5713193.10	0.0089	0.0024
Mercury	-20355-05-16 07:55 J	-5713105.30	-5713105.17	-5713105.05	0.0089	0.0031
Venus	-20355-07-30 06:14 J	-5713030.41	-5713030.24	-5713030.06	0.0089	0.0053
Mercury	-20355-08-12 09:07 J	-5713017.24	-5713017.12	-5713017.00	0.0089	0.0038
Mercury	-20355-11-08 10:33 J	-5712929.18	-5712929.06	-5712928.95	0.0089	0.0045
Mercury	-20354-02-04 11:31 J	-5712841.11	-5712841.02	-5712840.90	0.0089	0.0053
Venus	-20354-03-12 18:43 J	-5712804.88	-5712804.72	-5712804.53	0.0089	0.0051
Mercury	-20354-05-03 12:57 J	-5712753.05	-5712752.96	-5712752.85	0.0089	0.0059
Mercury	-20354-07-30 14:23 J	-5712664.98	-5712664.90	-5712664.80	0.0089	0.0066
Venus	-20354-10-24 07:26 J	-5712579.36	-5712579.19	-5712579.00	0.0089	0.0050
Mercury	-20354-10-26 15:36 J	-5712576.91	-5712576.85	-5712576.76	0.0089	0.0074
Mercury	-20353-01-22 17:02 J	-5712488.84	-5712488.79	-5712488.72	0.0089	0.0080

Mercury	-20353-04-19 18:28 J	-5712400.75	-5712400.73	-5712400.70	0.0089	0.0087
Venus	-20353-06-05 19:40 J	-5712353.84	-5712353.68	-5712353.48	0.0089	0.0049
Venus	-20352-01-17 08:38 J	-5712128.32	-5712128.14	-5712127.95	0.0089	0.0047
Venus	-20352-08-30 20:52 J	-5711902.80	-5711902.63	-5711902.43	0.0089	0.0045
Venus	-20351-04-13 09:50 J	-5711677.28	-5711677.09	-5711676.90	0.0089	0.0044
Venus	-20351-11-24 22:04 J	-5711451.76	-5711451.58	-5711451.38	0.0089	0.0042
Venus	-20350-07-08 10:48 J	-5711226.24	-5711226.05	-5711225.85	0.0089	0.0040
Venus	-20349-02-18 23:02 J	-5711000.72	-5711000.54	-5711000.33	0.0089	0.0039
Venus	-20349-10-01 11:45 J	-5710775.20	-5710775.01	-5710774.81	0.0089	0.0037
Venus	-20348-05-15 00:28 J	-5710549.67	-5710549.48	-5710549.27	0.0089	0.0036
Venus	-20348-12-26 12:57 J	-5710324.15	-5710323.96	-5710323.75	0.0089	0.0034
Venus	-20347-08-09 01:26 J	-5710098.63	-5710098.44	-5710098.23	0.0089	0.0032
Venus	-20346-03-22 14:09 J	-5709873.11	-5709872.91	-5709872.71	0.0089	0.0031
Venus	-20346-11-03 02:23 J	-5709647.59	-5709647.40	-5709647.19	0.0089	0.0029
Venus	-20345-06-15 14:52 J	-5709422.07	-5709421.88	-5709421.66	0.0089	0.0027
Venus	-20344-01-27 03:21 J	-5709196.56	-5709196.36	-5709196.14	0.0089	0.0026
Venus	-20344-09-09 15:50 J	-5708971.04	-5708970.84	-5708970.63	0.0089	0.0024
Venus	-20343-04-23 04:19 J	-5708745.52	-5708745.32	-5708745.10	0.0089	0.0022
Venus	-20343-12-04 16:33 J	-5708520.01	-5708519.81	-5708519.59	0.0089	0.0021
Venus	-20342-07-18 05:02 J	-5708294.50	-5708294.29	-5708294.07	0.0089	0.0018
Venus	-20341-02-28 17:31 J	-5708068.98	-5708068.77	-5708068.56	0.0089	0.0016
Venus	-20341-10-11 06:00 J	-5707843.47	-5707843.25	-5707843.04	0.0089	0.0015
Venus	-20340-05-24 18:14 J	-5707617.94	-5707617.74	-5707617.52	0.0089	0.0013
Venus	-20339-01-05 06:43 J	-5707392.43	-5707392.22	-5707392.00	0.0089	0.0011
Venus	-20339-08-18 18:57 J	-5707166.92	-5707166.71	-5707166.49	0.0089	0.0009
Venus	-20338-04-01 07:26 J	-5706941.40	-5706941.19	-5706940.97	0.0089	0.0007
Venus	-20338-11-12 19:55 J	-5706715.89	-5706715.67	-5706715.46	0.0089	0.0005
Venus	-20337-06-25 08:23 J	-5706490.37	-5706490.15	-5706489.94	0.0089	0.0004
Venus	-20336-02-05 20:38 J	-5706264.85	-5706264.64	-5706264.42	0.0089	0.0002
Venus	-20336-09-19 09:07 J	-5706039.34	-5706039.12	-5706038.90	0.0089	0.0000

Venus	-20335-05-02 21:36 J	-5705813.82	-5705813.60	-5705813.38	0.0089	0.0002
Venus	-20335-12-14 10:04 J	-5705588.30	-5705588.08	-5705587.87	0.0089	0.0004
Venus	-20334-07-27 22:19 J	-5705362.78	-5705362.57	-5705362.35	0.0089	0.0006
Venus	-20333-03-09 10:33 J	-5705137.27	-5705137.06	-5705136.84	0.0089	0.0008
Venus	-20333-10-20 23:02 J	-5704911.75	-5704911.54	-5704911.32	0.0089	0.0010
Venus	-20332-06-03 11:45 J	-5704686.23	-5704686.01	-5704685.80	0.0089	0.0011
Venus	-20331-01-15 00:00 J	-5704460.71	-5704460.50	-5704460.28	0.0089	0.0013
Venus	-20331-08-28 12:14 J	-5704235.20	-5704234.99	-5704234.77	0.0089	0.0015
Venus	-20330-04-11 00:28 J	-5704009.68	-5704009.48	-5704009.26	0.0089	0.0017
Venus	-20330-11-22 12:43 J	-5703784.17	-5703783.97	-5703783.75	0.0089	0.0019
Venus	-20329-07-05 01:11 J	-5703558.65	-5703558.45	-5703558.23	0.0089	0.0021
Venus	-20328-02-15 13:40 J	-5703333.13	-5703332.93	-5703332.71	0.0089	0.0022
Venus	-20328-09-29 01:55 J	-5703107.62	-5703107.42	-5703107.20	0.0089	0.0024
Venus	-20327-05-12 14:23 J	-5702882.10	-5702881.90	-5702881.69	0.0089	0.0026
Venus	-20327-12-24 02:38 J	-5702656.59	-5702656.39	-5702656.17	0.0089	0.0028
Venus	-20326-08-06 14:52 J	-5702431.07	-5702430.88	-5702430.66	0.0089	0.0030
Venus	-20325-03-19 03:21 J	-5702205.55	-5702205.36	-5702205.15	0.0089	0.0031
Venus	-20325-10-30 15:50 J	-5701980.03	-5701979.84	-5701979.63	0.0089	0.0033
Venus	-20324-06-13 04:19 J	-5701754.51	-5701754.32	-5701754.11	0.0089	0.0035
Venus	-20323-01-24 17:02 J	-5701528.99	-5701528.79	-5701528.59	0.0089	0.0036
Venus	-20323-09-07 05:02 J	-5701303.47	-5701303.29	-5701303.08	0.0089	0.0038
Venus	-20322-04-20 17:31 J	-5701077.95	-5701077.77	-5701077.56	0.0089	0.0040
Venus	-20322-12-02 06:14 J	-5700852.43	-5700852.24	-5700852.05	0.0089	0.0041
Venus	-20321-07-14 18:28 J	-5700626.90	-5700626.73	-5700626.52	0.0089	0.0043
Venus	-20320-02-25 07:11 J	-5700401.38	-5700401.20	-5700401.01	0.0089	0.0044
Venus	-20320-10-08 19:26 J	-5700175.86	-5700175.69	-5700175.49	0.0089	0.0046
Venus	-20319-05-22 07:40 J	-5699950.34	-5699950.18	-5699949.98	0.0089	0.0048
Venus	-20318-01-02 20:23 J	-5699724.82	-5699724.65	-5699724.46	0.0089	0.0049
Venus	-20318-08-16 08:38 J	-5699499.30	-5699499.14	-5699498.94	0.0089	0.0051
Venus	-20317-03-28 21:07 J	-5699273.78	-5699273.62	-5699273.43	0.0089	0.0052

Venus	-20317-11-09 09:50 J	-5699048.26	-5699048.09	-5699047.91	0.0089	0.0053
Venus	-20316-06-22 22:04 J	-5698822.73	-5698822.58	-5698822.39	0.0089	0.0055
Venus	-20315-02-03 10:48 J	-5698597.21	-5698597.05	-5698596.88	0.0088	0.0056
Venus	-20315-09-16 22:48 J	-5698371.69	-5698371.55	-5698371.36	0.0088	0.0058
Venus	-20314-04-30 11:16 J	-5698146.17	-5698146.03	-5698145.85	0.0088	0.0059
Venus	-20314-12-12 00:00 J	-5697920.65	-5697920.50	-5697920.33	0.0088	0.0060
Venus	-20313-07-24 12:43 J	-5697695.12	-5697694.97	-5697694.80	0.0088	0.0061
Venus	-20312-03-07 00:57 J	-5697469.59	-5697469.46	-5697469.29	0.0088	0.0063
Venus	-20312-10-18 13:26 J	-5697244.07	-5697243.94	-5697243.77	0.0088	0.0064
Venus	-20311-06-01 02:09 J	-5697018.54	-5697018.41	-5697018.25	0.0088	0.0065
Venus	-20310-01-12 14:38 J	-5696793.02	-5696792.89	-5696792.73	0.0088	0.0066
Venus	-20310-08-26 03:21 J	-5696567.49	-5696567.36	-5696567.20	0.0088	0.0067
Venus	-20309-04-07 16:04 J	-5696341.96	-5696341.83	-5696341.68	0.0088	0.0068
Venus	-20309-11-19 04:33 J	-5696116.43	-5696116.31	-5696116.16	0.0088	0.0069
Venus	-20308-07-02 17:16 J	-5695890.90	-5695890.78	-5695890.63	0.0088	0.0070
Venus	-20307-02-13 06:00 J	-5695665.37	-5695665.25	-5695665.11	0.0088	0.0071
Venus	-20307-09-26 18:28 J	-5695439.84	-5695439.73	-5695439.59	0.0088	0.0072
Venus	-20306-05-10 06:57 J	-5695214.31	-5695214.21	-5695214.07	0.0088	0.0073
Venus	-20306-12-21 19:26 J	-5694988.78	-5694988.69	-5694988.54	0.0088	0.0074
Venus	-20305-08-03 08:09 J	-5694763.25	-5694763.16	-5694763.01	0.0088	0.0075
Venus	-20304-03-16 21:21 J	-5694537.72	-5694537.61	-5694537.49	0.0088	0.0075
Venus	-20304-10-28 09:36 J	-5694312.19	-5694312.10	-5694311.97	0.0088	0.0076
Venus	-20303-06-10 22:04 J	-5694086.66	-5694086.58	-5694086.44	0.0088	0.0077
Venus	-20302-01-22 11:02 J	-5693861.13	-5693861.04	-5693860.92	0.0088	0.0077
Venus	-20302-09-04 23:45 J	-5693635.60	-5693635.51	-5693635.39	0.0088	0.0077
Venus	-20301-04-17 12:43 J	-5693410.07	-5693409.97	-5693409.86	0.0088	0.0078
Venus	-20301-11-29 00:57 J	-5693184.53	-5693184.46	-5693184.33	0.0088	0.0079
Venus	-20300-07-12 14:09 J	-5692959.00	-5692958.91	-5692958.80	0.0088	0.0079
Venus	-20299-02-23 02:38 J	-5692733.46	-5692733.39	-5692733.27	0.0088	0.0079
Venus	-20299-10-06 15:36 J	-5692507.93	-5692507.85	-5692507.74	0.0088	0.0079

Venus	-20298-05-20 04:33 J	-5692282.39	-5692282.31	-5692282.21	0.0088	0.0080
Venus	-20298-12-31 17:02 J	-5692056.86	-5692056.79	-5692056.68	0.0088	0.0080
Venus	-20297-08-13 06:14 J	-5691831.31	-5691831.24	-5691831.13	0.0088	0.0080
Venus	-20296-03-26 19:11 J	-5691605.77	-5691605.70	-5691605.60	0.0088	0.0080
Moon	-20296-11-02 22:19 J	-5691384.78	-5691384.57	-5691384.31	0.0088	0.0043
Earth	-20296-11-03 00:28 J	-5691384.68	-5691384.48	-5691384.24	0.0088	0.0048 *
Venus	-20296-11-07 08:09 J	-5691380.24	-5691380.16	-5691380.06	0.0088	0.0081
Venus	-20295-06-20 21:07 J	-5691154.70	-5691154.62	-5691154.53	0.0088	0.0081
Earth	-20295-11-05 13:40 J	-5691017.19	-5691016.93	-5691016.66	0.0088	0.0005
Moon	-20295-11-05 16:48 J	-5691017.05	-5691016.80	-5691016.54	0.0088	0.0009 *
Venus	-20294-02-01 09:36 J	-5690929.16	-5690929.10	-5690928.99	0.0088	0.0081
Venus	-20294-09-14 22:33 J	-5690703.62	-5690703.56	-5690703.45	0.0088	0.0081
Moon	-20294-11-07 23:02 J	-5690649.77	-5690649.54	-5690649.30	0.0088	0.0041
Earth	-20294-11-08 02:09 J	-5690649.63	-5690649.41	-5690649.16	0.0088	0.0038 *
Venus	-20293-04-27 11:31 J	-5690478.08	-5690478.02	-5690477.91	0.0088	0.0081
Earth	-20293-11-09 14:38 J	-5690281.97	-5690281.89	-5690281.76	0.0088	0.0081
Moon	-20293-11-09 18:14 J	-5690281.84	-5690281.74	-5690281.58	0.0088	0.0077 *
Venus	-20293-12-09 00:28 J	-5690252.54	-5690252.48	-5690252.37	0.0088	0.0081
Venus	-20292-07-22 13:55 J	-5690027.00	-5690026.92	-5690026.83	0.0088	0.0081
Venus	-20291-03-05 02:52 J	-5689801.46	-5689801.38	-5689801.29	0.0088	0.0080
Venus	-20291-10-16 15:36 J	-5689575.92	-5689575.85	-5689575.75	0.0088	0.0080
Venus	-20290-05-30 04:19 J	-5689350.39	-5689350.32	-5689350.20	0.0088	0.0080
Venus	-20289-01-10 17:16 J	-5689124.85	-5689124.78	-5689124.66	0.0088	0.0080
Venus	-20289-08-23 06:43 J	-5688899.30	-5688899.22	-5688899.11	0.0088	0.0079
Venus	-20288-04-05 19:40 J	-5688673.76	-5688673.68	-5688673.57	0.0088	0.0079
Venus	-20288-11-17 09:07 J	-5688448.22	-5688448.12	-5688448.02	0.0088	0.0078
Venus	-20287-06-30 21:36 J	-5688222.68	-5688222.60	-5688222.48	0.0088	0.0078
Venus	-20286-02-11 11:16 J	-5687997.13	-5687997.03	-5687996.93	0.0088	0.0077
Venus	-20286-09-25 00:00 J	-5687771.58	-5687771.50	-5687771.37	0.0088	0.0077
Venus	-20285-05-07 13:40 J	-5687546.04	-5687545.93	-5687545.82	0.0088	0.0076

Venus	-20285-12-19 02:23 J	-5687320.49	-5687320.40	-5687320.27	0.0088	0.0076
Venus	-20284-08-01 15:50 J	-5687094.94	-5687094.84	-5687094.72	0.0088	0.0075
Venus	-20283-03-15 05:16 J	-5686869.40	-5686869.28	-5686869.16	0.0088	0.0074
Venus	-20283-10-26 18:00 J	-5686643.85	-5686643.75	-5686643.61	0.0088	0.0074
Venus	-20282-06-09 07:26 J	-5686418.30	-5686418.19	-5686418.05	0.0088	0.0073
Venus	-20281-01-20 20:38 J	-5686192.75	-5686192.64	-5686192.50	0.0088	0.0072
Venus	-20281-09-02 10:04 J	-5685967.20	-5685967.08	-5685966.94	0.0088	0.0071
Venus	-20280-04-15 23:31 J	-5685741.65	-5685741.52	-5685741.38	0.0088	0.0070
Venus	-20280-11-27 12:43 J	-5685516.10	-5685515.97	-5685515.83	0.0088	0.0069
Venus	-20279-07-11 01:55 J	-5685290.55	-5685290.42	-5685290.27	0.0088	0.0068
Mars	-20279-07-17 23:02 J	-5685283.59	-5685283.54	-5685283.44	0.0088	0.0085
Venus	-20278-02-21 15:07 J	-5685065.00	-5685064.87	-5685064.72	0.0088	0.0067
Venus	-20278-10-05 04:33 J	-5684839.45	-5684839.31	-5684839.16	0.0088	0.0066
Venus	-20277-05-17 17:45 J	-5684613.90	-5684613.76	-5684613.60	0.0088	0.0065
Mars	-20277-06-10 16:33 J	-5684590.08	-5684589.81	-5684589.51	0.0088	0.0023
Venus	-20277-12-29 06:57 J	-5684388.35	-5684388.21	-5684388.04	0.0088	0.0064
Venus	-20276-08-11 20:09 J	-5684162.80	-5684162.66	-5684162.49	0.0088	0.0063
Mercury	-20276-12-23 13:11 J	-5684029.02	-5684028.95	-5684028.85	0.0088	0.0078
Mercury	-20275-03-21 16:48 J	-5683940.91	-5683940.80	-5683940.66	0.0088	0.0068
Venus	-20275-03-25 09:21 J	-5683937.24	-5683937.11	-5683936.93	0.0088	0.0062
Mars	-20275-05-05 08:52 J	-5683896.38	-5683896.13	-5683895.85	0.0088	0.0039
Mercury	-20275-06-17 20:38 J	-5683852.78	-5683852.64	-5683852.49	0.0088	0.0058
Mercury	-20275-09-14 00:14 J	-5683764.65	-5683764.49	-5683764.32	0.0088	0.0048
Venus	-20275-11-05 23:16 J	-5683711.69	-5683711.53	-5683711.36	0.0088	0.0060
Mercury	-20275-12-11 03:50 J	-5683676.51	-5683676.34	-5683676.16	0.0088	0.0038
Mercury	-20274-03-09 07:26 J	-5683588.37	-5683588.19	-5683588.00	0.0088	0.0028
Mercury	-20274-06-05 11:02 J	-5683500.23	-5683500.04	-5683499.84	0.0088	0.0018
Venus	-20274-06-19 12:28 J	-5683486.13	-5683485.98	-5683485.80	0.0088	0.0059
Mercury	-20274-09-01 14:38 J	-5683412.08	-5683411.89	-5683411.69	0.0088	0.0009
Mercury	-20274-11-28 18:14 J	-5683323.93	-5683323.74	-5683323.54	0.0088	0.0003

Venus	-20273-01-31 01:40 J	-5683260.58	-5683260.43	-5683260.24	0.0088	0.0058
Mercury	-20273-02-24 21:50 J	-5683235.78	-5683235.59	-5683235.39	0.0088	0.0012
Mercury	-20273-05-23 01:26 J	-5683147.63	-5683147.44	-5683147.25	0.0088	0.0021
Mercury	-20273-08-19 05:02 J	-5683059.47	-5683059.29	-5683059.11	0.0088	0.0031
Venus	-20273-09-12 15:36 J	-5683035.02	-5683034.85	-5683034.68	0.0088	0.0056
Mercury	-20273-11-15 08:23 J	-5682971.31	-5682971.15	-5682970.97	0.0088	0.0041
Mercury	-20272-02-11 12:00 J	-5682883.15	-5682883.00	-5682882.84	0.0088	0.0051
Venus	-20272-04-26 04:48 J	-5682809.46	-5682809.30	-5682809.11	0.0088	0.0055
Mercury	-20272-05-10 15:21 J	-5682794.98	-5682794.86	-5682794.71	0.0088	0.0061
Mercury	-20272-08-06 18:43 J	-5682706.81	-5682706.72	-5682706.58	0.0088	0.0071
Mercury	-20272-11-02 22:33 J	-5682618.63	-5682618.56	-5682618.48	0.0088	0.0081
Venus	-20272-12-07 18:00 J	-5682583.90	-5682583.75	-5682583.55	0.0088	0.0054
Venus	-20271-07-21 07:40 J	-5682358.35	-5682358.18	-5682357.99	0.0088	0.0052
Venus	-20270-03-03 20:52 J	-5682132.79	-5682132.63	-5682132.42	0.0088	0.0052
Venus	-20270-10-15 10:48 J	-5681907.22	-5681907.05	-5681906.85	0.0088	0.0049
Venus	-20269-05-28 00:14 J	-5681681.66	-5681681.49	-5681681.28	0.0088	0.0048
Venus	-20268-01-08 13:55 J	-5681456.10	-5681455.92	-5681455.72	0.0088	0.0046
Venus	-20268-08-22 03:36 J	-5681230.54	-5681230.35	-5681230.16	0.0088	0.0045
Venus	-20267-04-04 16:48 J	-5681004.98	-5681004.80	-5681004.59	0.0088	0.0043
Venus	-20267-11-16 06:28 J	-5680779.42	-5680779.23	-5680779.02	0.0088	0.0041
Venus	-20266-06-29 20:09 J	-5680553.86	-5680553.66	-5680553.46	0.0088	0.0040
Venus	-20265-02-10 09:21 J	-5680328.30	-5680328.11	-5680327.89	0.0088	0.0038
Venus	-20265-09-22 23:02 J	-5680102.73	-5680102.54	-5680102.33	0.0088	0.0036
Venus	-20264-05-06 12:43 J	-5679877.17	-5679876.97	-5679876.76	0.0088	0.0035
Venus	-20264-12-18 01:55 J	-5679651.61	-5679651.42	-5679651.19	0.0088	0.0033
Venus	-20263-07-31 15:36 J	-5679426.05	-5679425.85	-5679425.63	0.0088	0.0031
Venus	-20262-03-14 05:16 J	-5679200.49	-5679200.28	-5679200.06	0.0088	0.0029
Venus	-20262-10-25 18:57 J	-5678974.91	-5678974.71	-5678974.49	0.0088	0.0028
Venus	-20261-06-07 08:52 J	-5678749.35	-5678749.13	-5678748.92	0.0088	0.0026
Venus	-20260-01-18 22:04 J	-5678523.78	-5678523.58	-5678523.35	0.0088	0.0024

Venus	-20260-09-01 11:45 J	-5678298.22	-5678298.01	-5678297.78	0.0088	0.0022
Venus	-20259-04-15 01:26 J	-5678072.65	-5678072.44	-5678072.21	0.0088	0.0020
Venus	-20259-11-26 15:21 J	-5677847.07	-5677846.86	-5677846.63	0.0088	0.0018
Venus	-20258-07-10 05:02 J	-5677621.50	-5677621.29	-5677621.06	0.0088	0.0016
Venus	-20257-02-20 18:43 J	-5677395.94	-5677395.72	-5677395.49	0.0088	0.0014
Venus	-20257-10-03 08:23 J	-5677170.37	-5677170.15	-5677169.92	0.0088	0.0013
Venus	-20256-05-16 22:19 J	-5676944.79	-5676944.57	-5676944.35	0.0088	0.0011
Venus	-20256-12-28 12:00 J	-5676719.22	-5676719.00	-5676718.78	0.0088	0.0009
Venus	-20255-08-11 01:40 J	-5676493.66	-5676493.43	-5676493.21	0.0088	0.0007
Venus	-20254-03-24 15:21 J	-5676268.09	-5676267.86	-5676267.64	0.0088	0.0005
Venus	-20254-11-05 05:02 J	-5676042.51	-5676042.29	-5676042.06	0.0088	0.0003
Venus	-20253-06-17 18:43 J	-5675816.94	-5675816.72	-5675816.49	0.0088	0.0001
Venus	-20252-01-29 08:23 J	-5675591.37	-5675591.15	-5675590.92	0.0088	0.0001
Venus	-20252-09-11 22:04 J	-5675365.81	-5675365.58	-5675365.36	0.0088	0.0003
Venus	-20251-04-25 11:31 J	-5675140.24	-5675140.02	-5675139.79	0.0088	0.0006
Venus	-20251-12-07 01:26 J	-5674914.66	-5674914.44	-5674914.22	0.0088	0.0007
Venus	-20250-07-20 15:07 J	-5674689.09	-5674688.87	-5674688.65	0.0088	0.0009
Venus	-20249-03-02 04:33 J	-5674463.52	-5674463.31	-5674463.08	0.0088	0.0012
Venus	-20249-10-13 18:14 J	-5674237.95	-5674237.74	-5674237.51	0.0088	0.0014
Venus	-20248-05-27 08:09 J	-5674012.38	-5674012.16	-5674011.94	0.0088	0.0015
Venus	-20247-01-07 22:04 J	-5673786.80	-5673786.58	-5673786.36	0.0088	0.0017
Venus	-20247-08-21 11:31 J	-5673561.23	-5673561.02	-5673560.79	0.0088	0.0019
Venus	-20246-04-04 01:11 J	-5673335.66	-5673335.45	-5673335.23	0.0089	0.0021
Venus	-20246-11-15 15:07 J	-5673110.08	-5673109.87	-5673109.65	0.0089	0.0023
Venus	-20245-06-28 04:48 J	-5672884.51	-5672884.30	-5672884.08	0.0089	0.0025
Venus	-20244-02-08 18:28 J	-5672658.93	-5672658.73	-5672658.51	0.0089	0.0027
Venus	-20244-09-22 08:09 J	-5672433.36	-5672433.16	-5672432.94	0.0089	0.0028
Venus	-20243-05-05 21:36 J	-5672207.79	-5672207.60	-5672207.37	0.0089	0.0031
Venus	-20243-12-17 11:45 J	-5671982.21	-5671982.01	-5671981.80	0.0089	0.0032
Venus	-20242-07-31 01:26 J	-5671756.64	-5671756.44	-5671756.23	0.0089	0.0034

Venus	-20241-03-12 14:52 J	-5671531.07	-5671530.88	-5671530.66	0.0089	0.0036
Venus	-20241-10-24 04:19 J	-5671305.50	-5671305.32	-5671305.10	0.0089	0.0038
Venus	-20240-06-06 18:00 J	-5671079.93	-5671079.75	-5671079.53	0.0089	0.0040
Venus	-20239-01-18 07:55 J	-5670854.36	-5670854.17	-5670853.97	0.0089	0.0041
Venus	-20239-08-31 21:21 J	-5670628.79	-5670628.61	-5670628.40	0.0089	0.0043
Venus	-20238-04-14 10:48 J	-5670403.23	-5670403.05	-5670402.84	0.0089	0.0045
Venus	-20238-11-26 00:43 J	-5670177.65	-5670177.47	-5670177.27	0.0089	0.0046
Venus	-20237-07-08 14:09 J	-5669952.08	-5669951.91	-5669951.71	0.0089	0.0048
Venus	-20236-02-19 03:36 J	-5669726.51	-5669726.35	-5669726.14	0.0089	0.0050
Venus	-20236-10-02 17:31 J	-5669500.94	-5669500.77	-5669500.58	0.0089	0.0051
Venus	-20235-05-16 06:43 J	-5669275.37	-5669275.22	-5669275.02	0.0089	0.0053
Venus	-20235-12-27 20:52 J	-5669049.80	-5669049.63	-5669049.45	0.0089	0.0054
Venus	-20234-08-10 10:04 J	-5668824.23	-5668824.08	-5668823.88	0.0089	0.0056
Venus	-20233-03-23 00:00 J	-5668598.66	-5668598.50	-5668598.32	0.0089	0.0057
Venus	-20233-11-03 13:11 J	-5668373.09	-5668372.95	-5668372.76	0.0089	0.0059
Venus	-20232-06-17 02:52 J	-5668147.52	-5668147.38	-5668147.19	0.0089	0.0060
Venus	-20231-01-28 16:48 J	-5667921.95	-5667921.80	-5667921.63	0.0089	0.0061
Venus	-20231-09-11 06:00 J	-5667696.38	-5667696.25	-5667696.07	0.0089	0.0063
Venus	-20230-04-24 19:40 J	-5667470.81	-5667470.68	-5667470.51	0.0089	0.0064
Venus	-20230-12-06 09:21 J	-5667245.25	-5667245.11	-5667244.95	0.0089	0.0065
Venus	-20229-07-18 23:02 J	-5667019.68	-5667019.54	-5667019.39	0.0089	0.0066
Venus	-20228-03-01 12:14 J	-5666794.11	-5666793.99	-5666793.83	0.0089	0.0068
Venus	-20228-10-13 01:40 J	-5666568.55	-5666568.43	-5666568.27	0.0089	0.0069
Venus	-20227-05-26 15:07 J	-5666342.99	-5666342.87	-5666342.71	0.0089	0.0070
Venus	-20226-01-07 04:48 J	-5666117.42	-5666117.30	-5666117.15	0.0089	0.0071
Venus	-20226-08-20 18:14 J	-5665891.86	-5665891.74	-5665891.60	0.0089	0.0072
Venus	-20225-04-02 07:26 J	-5665666.29	-5665666.19	-5665666.04	0.0089	0.0073
Venus	-20225-11-13 20:52 J	-5665440.73	-5665440.63	-5665440.49	0.0089	0.0074
Venus	-20224-06-27 10:04 J	-5665215.17	-5665215.08	-5665214.94	0.0089	0.0075
Venus	-20223-02-07 23:31 J	-5664989.61	-5664989.52	-5664989.38	0.0089	0.0076

Venus	-20223-09-21 13:26 J	-5664764.05	-5664763.94	-5664763.82	0.0089	0.0077
Venus	-20222-05-05 02:38 J	-5664538.49	-5664538.39	-5664538.27	0.0089	0.0077
Venus	-20222-12-16 15:50 J	-5664312.92	-5664312.84	-5664312.72	0.0089	0.0078
Venus	-20221-07-29 05:02 J	-5664087.36	-5664087.29	-5664087.16	0.0089	0.0080
Venus	-20220-03-11 18:57 J	-5663861.80	-5663861.71	-5663861.60	0.0089	0.0080
Venus	-20220-10-23 08:09 J	-5663636.24	-5663636.16	-5663636.05	0.0089	0.0080
Venus	-20219-06-05 21:50 J	-5663410.68	-5663410.59	-5663410.50	0.0089	0.0081
Venus	-20218-01-17 10:48 J	-5663185.12	-5663185.05	-5663184.94	0.0089	0.0082
Venus	-20218-08-31 00:28 J	-5662959.56	-5662959.48	-5662959.39	0.0089	0.0082
Venus	-20217-04-12 13:26 J	-5662734.00	-5662733.94	-5662733.84	0.0089	0.0082
Venus	-20217-11-24 02:52 J	-5662508.45	-5662508.38	-5662508.29	0.0089	0.0083
Venus	-20216-07-07 15:50 J	-5662282.90	-5662282.84	-5662282.74	0.0089	0.0083
Venus	-20215-02-18 05:16 J	-5662057.34	-5662057.28	-5662057.19	0.0089	0.0083
Venus	-20215-10-01 18:28 J	-5661831.79	-5661831.73	-5661831.64	0.0089	0.0084
Venus	-20214-05-15 07:40 J	-5661606.24	-5661606.18	-5661606.09	0.0089	0.0084
Venus	-20214-12-26 20:52 J	-5661380.70	-5661380.63	-5661380.55	0.0089	0.0084
Earth	-20213-05-05 23:45 J	-5661249.69	-5661249.51	-5661249.28	0.0089	0.0053
Moon	-20213-05-06 02:23 J	-5661249.60	-5661249.40	-5661249.18	0.0089	0.0048 *
Venus	-20213-08-08 10:04 J	-5661155.15	-5661155.08	-5661155.00	0.0089	0.0084
Venus	-20212-03-21 22:48 J	-5660929.60	-5660929.55	-5660929.45	0.0089	0.0084
Moon	-20212-05-08 07:26 J	-5660882.44	-5660882.19	-5660881.93	0.0089	0.0014
Earth	-20212-05-08 10:48 J	-5660882.30	-5660882.05	-5660881.80	0.0089	0.0009 *
Venus	-20212-11-02 12:28 J	-5660704.05	-5660703.98	-5660703.91	0.0089	0.0084
Earth	-20211-05-10 20:52 J	-5660514.85	-5660514.63	-5660514.38	0.0089	0.0034
Moon	-20211-05-11 00:14 J	-5660514.70	-5660514.49	-5660514.24	0.0089	0.0039 *
Venus	-20211-06-16 01:26 J	-5660478.51	-5660478.44	-5660478.36	0.0089	0.0084
Venus	-20210-01-27 14:38 J	-5660252.96	-5660252.89	-5660252.81	0.0089	0.0084
Moon	-20210-05-13 04:04 J	-5660147.46	-5660147.33	-5660147.17	0.0089	0.0072
Earth	-20210-05-13 06:57 J	-5660147.31	-5660147.21	-5660147.05	0.0089	0.0077 *
Venus	-20210-09-10 03:36 J	-5660027.41	-5660027.35	-5660027.26	0.0089	0.0084

Venus	-20209-04-22 16:33 J	-5659801.87	-5659801.81	-5659801.72	0.0089	0.0084
Venus	-20209-12-04 05:31 J	-5659576.33	-5659576.27	-5659576.17	0.0089	0.0083
Venus	-20208-07-17 18:57 J	-5659350.79	-5659350.71	-5659350.63	0.0089	0.0083
Venus	-20207-02-28 07:55 J	-5659125.24	-5659125.17	-5659125.08	0.0089	0.0083
Venus	-20207-10-11 20:38 J	-5658899.70	-5658899.64	-5658899.53	0.0089	0.0083
Venus	-20206-05-25 10:04 J	-5658674.16	-5658674.08	-5658673.99	0.0089	0.0082
Venus	-20205-01-05 22:33 J	-5658448.62	-5658448.56	-5658448.45	0.0089	0.0082
Venus	-20205-08-18 12:00 J	-5658223.08	-5658223.00	-5658222.90	0.0089	0.0081
Venus	-20204-04-01 00:43 J	-5657997.54	-5657997.47	-5657997.35	0.0089	0.0081
Venus	-20204-11-12 13:40 J	-5657772.01	-5657771.93	-5657771.81	0.0089	0.0080
Venus	-20203-06-26 02:52 J	-5657546.48	-5657546.38	-5657546.28	0.0089	0.0079
Venus	-20202-02-06 15:21 J	-5657320.94	-5657320.86	-5657320.74	0.0089	0.0079
Venus	-20202-09-20 04:19 J	-5657095.41	-5657095.32	-5657095.20	0.0089	0.0078
Venus	-20201-05-02 17:16 J	-5656869.88	-5656869.78	-5656869.66	0.0089	0.0077
Venus	-20201-12-14 06:14 J	-5656644.35	-5656644.24	-5656644.12	0.0089	0.0076
Venus	-20200-07-27 18:57 J	-5656418.82	-5656418.71	-5656418.59	0.0089	0.0075
Venus	-20199-03-10 07:26 J	-5656193.29	-5656193.19	-5656193.05	0.0089	0.0074
Venus	-20199-10-21 20:09 J	-5655967.76	-5655967.66	-5655967.51	0.0089	0.0074
Venus	-20198-06-04 08:52 J	-5655742.23	-5655742.13	-5655741.98	0.0089	0.0073
Venus	-20197-01-15 22:19 J	-5655516.70	-5655516.57	-5655516.44	0.0089	0.0071
Venus	-20197-08-28 10:48 J	-5655291.18	-5655291.05	-5655290.91	0.0089	0.0070
Venus	-20196-04-10 23:45 J	-5655065.64	-5655065.51	-5655065.37	0.0089	0.0069
Venus	-20196-11-22 12:14 J	-5654840.11	-5654839.99	-5654839.83	0.0089	0.0068
Mars	-20195-04-10 13:40 J	-5654701.21	-5654700.93	-5654700.61	0.0089	0.0040
Venus	-20195-07-06 00:57 J	-5654614.59	-5654614.46	-5654614.30	0.0089	0.0067
Mercury	-20194-01-05 08:52 J	-5654431.15	-5654431.13	-5654431.08	0.0089	0.0085
Venus	-20194-02-16 13:40 J	-5654389.06	-5654388.93	-5654388.77	0.0089	0.0065
Mercury	-20194-04-03 10:19 J	-5654343.12	-5654343.07	-5654343.00	0.0089	0.0078
Mercury	-20194-06-30 11:31 J	-5654255.08	-5654255.02	-5654254.93	0.0089	0.0072
Mercury	-20194-09-26 12:57 J	-5654167.04	-5654166.96	-5654166.86	0.0089	0.0064

Venus	-20194-09-30 02:52 J	-5654163.53	-5654163.38	-5654163.23	0.0089	0.0064
Mercury	-20194-12-23 14:23 J	-5654079.00	-5654078.90	-5654078.80	0.0089	0.0057
Mars	-20193-03-06 20:52 J	-5654004.92	-5654004.63	-5654004.30	0.0089	0.0037
Mercury	-20193-03-20 15:36 J	-5653990.95	-5653990.85	-5653990.73	0.0089	0.0050
Venus	-20193-05-12 15:21 J	-5653938.00	-5653937.86	-5653937.70	0.0089	0.0063
Mercury	-20193-06-16 17:02 J	-5653902.90	-5653902.79	-5653902.67	0.0089	0.0043
Mercury	-20193-09-12 18:14 J	-5653814.85	-5653814.74	-5653814.61	0.0089	0.0037
Mercury	-20193-12-09 19:40 J	-5653726.80	-5653726.68	-5653726.55	0.0089	0.0029
Venus	-20193-12-24 03:50 J	-5653712.48	-5653712.34	-5653712.17	0.0089	0.0062
Mercury	-20192-03-07 20:52 J	-5653638.75	-5653638.63	-5653638.49	0.0089	0.0023
Mercury	-20192-06-03 22:19 J	-5653550.70	-5653550.57	-5653550.44	0.0089	0.0015
Venus	-20192-08-06 16:19 J	-5653486.96	-5653486.82	-5653486.64	0.0089	0.0061
Mercury	-20192-08-30 23:45 J	-5653462.64	-5653462.51	-5653462.38	0.0089	0.0008
Mercury	-20192-11-27 00:57 J	-5653374.59	-5653374.46	-5653374.32	0.0089	0.0002
Mercury	-20191-02-23 02:23 J	-5653286.53	-5653286.40	-5653286.27	0.0089	0.0006
Venus	-20191-03-20 05:16 J	-5653261.43	-5653261.28	-5653261.10	0.0089	0.0059
Mercury	-20191-05-22 03:36 J	-5653198.48	-5653198.35	-5653198.22	0.0089	0.0013
Mercury	-20191-08-18 05:02 J	-5653110.42	-5653110.29	-5653110.16	0.0089	0.0020
Venus	-20191-10-31 17:45 J	-5653035.91	-5653035.76	-5653035.58	0.0089	0.0057
Mercury	-20191-11-14 06:14 J	-5653022.36	-5653022.24	-5653022.11	0.0089	0.0027
Mercury	-20190-02-10 07:40 J	-5652934.30	-5652934.18	-5652934.06	0.0089	0.0034
Mercury	-20190-05-09 08:52 J	-5652846.24	-5652846.13	-5652846.01	0.0089	0.0041
Venus	-20190-06-14 06:28 J	-5652810.39	-5652810.23	-5652810.05	0.0089	0.0056
Mercury	-20190-08-05 10:19 J	-5652758.18	-5652758.07	-5652757.96	0.0089	0.0048
Mercury	-20190-11-01 11:31 J	-5652670.11	-5652670.02	-5652669.91	0.0089	0.0056
Venus	-20189-01-25 18:57 J	-5652584.87	-5652584.71	-5652584.52	0.0089	0.0054
Mercury	-20189-01-28 12:57 J	-5652582.05	-5652581.96	-5652581.86	0.0089	0.0062
Mercury	-20189-04-25 14:23 J	-5652493.98	-5652493.90	-5652493.82	0.0089	0.0069
Mercury	-20189-07-22 15:36 J	-5652405.91	-5652405.85	-5652405.78	0.0089	0.0077
Venus	-20189-09-07 07:40 J	-5652359.35	-5652359.18	-5652359.00	0.0089	0.0053

Mercury	-20189-10-18 17:02 J	-5652317.83	-5652317.79	-5652317.74	0.0089	0.0084
Venus	-20188-04-20 20:09 J	-5652133.82	-5652133.66	-5652133.47	0.0089	0.0051
Venus	-20188-12-02 08:52 J	-5651908.30	-5651908.13	-5651907.94	0.0089	0.0049
Venus	-20187-07-15 21:21 J	-5651682.78	-5651682.61	-5651682.42	0.0089	0.0048
Venus	-20186-02-26 09:36 J	-5651457.27	-5651457.10	-5651456.90	0.0089	0.0047
Venus	-20186-10-09 22:19 J	-5651231.74	-5651231.57	-5651231.37	0.0089	0.0045
Venus	-20185-05-22 11:16 J	-5651006.22	-5651006.03	-5651005.84	0.0089	0.0043
Venus	-20184-01-02 23:16 J	-5650780.70	-5650780.53	-5650780.32	0.0089	0.0042
Venus	-20184-08-16 12:00 J	-5650555.18	-5650555.00	-5650554.80	0.0089	0.0039
Venus	-20183-03-30 00:43 J	-5650329.66	-5650329.47	-5650329.27	0.0089	0.0037
Venus	-20183-11-10 12:57 J	-5650104.14	-5650103.96	-5650103.75	0.0089	0.0036
Venus	-20182-06-24 01:26 J	-5649878.62	-5649878.44	-5649878.22	0.0089	0.0035
Venus	-20181-02-04 14:09 J	-5649653.10	-5649652.91	-5649652.70	0.0089	0.0032
Venus	-20181-09-17 02:38 J	-5649427.58	-5649427.39	-5649427.18	0.0089	0.0030
Venus	-20180-04-30 15:21 J	-5649202.06	-5649201.86	-5649201.65	0.0089	0.0028
Venus	-20180-12-12 03:50 J	-5648976.54	-5648976.34	-5648976.13	0.0089	0.0026
Venus	-20179-07-25 16:19 J	-5648751.03	-5648750.82	-5648750.61	0.0089	0.0025
Venus	-20178-03-08 04:48 J	-5648525.51	-5648525.30	-5648525.09	0.0089	0.0023
Venus	-20178-10-19 17:02 J	-5648299.99	-5648299.79	-5648299.57	0.0089	0.0021
Venus	-20177-06-01 05:31 J	-5648074.47	-5648074.27	-5648074.05	0.0089	0.0019
Venus	-20176-01-12 18:00 J	-5647848.96	-5647848.75	-5647848.53	0.0089	0.0017
Venus	-20176-08-26 06:14 J	-5647623.44	-5647623.24	-5647623.02	0.0089	0.0015
Venus	-20175-04-08 18:43 J	-5647397.93	-5647397.72	-5647397.50	0.0089	0.0013
Venus	-20175-11-20 07:11 J	-5647172.41	-5647172.20	-5647171.98	0.0089	0.0011
Venus	-20174-07-03 19:26 J	-5646946.90	-5646946.69	-5646946.47	0.0089	0.0009
Venus	-20173-02-14 07:55 J	-5646721.38	-5646721.17	-5646720.95	0.0089	0.0007
Venus	-20173-09-26 20:23 J	-5646495.87	-5646495.65	-5646495.44	0.0089	0.0005
Venus	-20172-05-10 08:52 J	-5646270.35	-5646270.13	-5646269.92	0.0089	0.0003
Venus	-20172-12-21 21:07 J	-5646044.83	-5646044.62	-5646044.40	0.0089	0.0002
Venus	-20171-08-04 09:36 J	-5645819.32	-5645819.10	-5645818.89	0.0089	0.0001

Venus	-20170-03-17 21:50 J	-5645593.80	-5645593.59	-5645593.37	0.0089	0.0003
Venus	-20170-10-29 10:19 J	-5645368.29	-5645368.07	-5645367.85	0.0089	0.0005
Venus	-20169-06-10 22:48 J	-5645142.76	-5645142.55	-5645142.33	0.0089	0.0007
Venus	-20168-01-22 11:16 J	-5644917.24	-5644917.03	-5644916.81	0.0089	0.0009
Venus	-20168-09-04 23:31 J	-5644691.73	-5644691.52	-5644691.30	0.0089	0.0011
Venus	-20167-04-18 12:00 J	-5644466.21	-5644466.00	-5644465.79	0.0089	0.0013
Venus	-20167-11-30 00:14 J	-5644240.70	-5644240.49	-5644240.27	0.0089	0.0015
Venus	-20166-07-13 12:43 J	-5644015.18	-5644014.97	-5644014.75	0.0089	0.0017
Venus	-20165-02-24 00:57 J	-5643789.66	-5643789.46	-5643789.24	0.0089	0.0019
Venus	-20165-10-06 13:11 J	-5643564.15	-5643563.95	-5643563.73	0.0089	0.0021
Venus	-20164-05-20 01:40 J	-5643338.63	-5643338.43	-5643338.21	0.0089	0.0023
Venus	-20164-12-31 13:55 J	-5643113.11	-5643112.92	-5643112.70	0.0089	0.0025
Venus	-20163-08-14 02:09 J	-5642887.60	-5642887.41	-5642887.19	0.0089	0.0027
Venus	-20162-03-27 14:52 J	-5642662.09	-5642661.88	-5642661.68	0.0089	0.0028
Venus	-20162-11-08 03:07 J	-5642436.57	-5642436.37	-5642436.16	0.0089	0.0030
Venus	-20161-06-20 15:36 J	-5642211.05	-5642210.85	-5642210.64	0.0089	0.0032
Venus	-20160-02-01 03:50 J	-5641985.53	-5641985.34	-5641985.13	0.0089	0.0034
Venus	-20160-09-14 16:04 J	-5641760.02	-5641759.83	-5641759.62	0.0089	0.0036
Venus	-20159-04-28 04:19 J	-5641534.50	-5641534.32	-5641534.11	0.0089	0.0038
Venus	-20159-12-09 17:02 J	-5641308.98	-5641308.79	-5641308.59	0.0089	0.0039
Venus	-20158-07-23 05:16 J	-5641083.46	-5641083.28	-5641083.07	0.0089	0.0041
Venus	-20157-03-04 17:45 J	-5640857.94	-5640857.76	-5640857.56	0.0089	0.0043
Venus	-20157-10-16 06:28 J	-5640632.42	-5640632.23	-5640632.04	0.0089	0.0044
Venus	-20156-05-29 18:43 J	-5640406.90	-5640406.72	-5640406.52	0.0089	0.0046
Venus	-20155-01-10 06:57 J	-5640181.37	-5640181.21	-5640181.01	0.0089	0.0048
Venus	-20155-08-23 19:26 J	-5639955.85	-5639955.69	-5639955.49	0.0089	0.0050
Venus	-20154-04-06 08:09 J	-5639730.33	-5639730.16	-5639729.98	0.0089	0.0051
Venus	-20154-11-17 20:23 J	-5639504.81	-5639504.65	-5639504.46	0.0089	0.0053
Venus	-20153-06-30 09:21 J	-5639279.28	-5639279.11	-5639278.94	0.0089	0.0054
Venus	-20152-02-10 21:21 J	-5639053.76	-5639053.61	-5639053.42	0.0089	0.0056

Venus	-20152-09-24 10:04 J	-5638828.24	-5638828.08	-5638827.91	0.0089	0.0057
Venus	-20151-05-07 22:19 J	-5638602.72	-5638602.57	-5638602.40	0.0088	0.0059
Venus	-20151-12-19 11:02 J	-5638377.20	-5638377.04	-5638376.88	0.0088	0.0060
Venus	-20150-08-01 23:16 J	-5638151.67	-5638151.53	-5638151.36	0.0088	0.0062
Venus	-20149-03-14 11:45 J	-5637926.15	-5637926.01	-5637925.84	0.0088	0.0063
Venus	-20149-10-26 00:00 J	-5637700.63	-5637700.50	-5637700.33	0.0088	0.0065
Venus	-20148-06-08 12:43 J	-5637475.10	-5637474.97	-5637474.81	0.0088	0.0065
Venus	-20147-01-20 01:11 J	-5637249.58	-5637249.45	-5637249.29	0.0088	0.0067
Venus	-20147-09-02 13:55 J	-5637024.05	-5637023.92	-5637023.77	0.0088	0.0068
Venus	-20146-04-16 02:09 J	-5636798.53	-5636798.41	-5636798.26	0.0088	0.0069
Venus	-20146-11-27 14:38 J	-5636573.00	-5636572.89	-5636572.74	0.0088	0.0071
Venus	-20145-07-10 03:36 J	-5636347.46	-5636347.35	-5636347.21	0.0088	0.0071
Venus	-20144-02-20 16:04 J	-5636121.93	-5636121.83	-5636121.69	0.0088	0.0073
Venus	-20144-10-04 04:48 J	-5635896.41	-5635896.30	-5635896.17	0.0088	0.0074
Venus	-20143-05-17 17:16 J	-5635670.88	-5635670.78	-5635670.65	0.0088	0.0075
Venus	-20143-12-29 06:00 J	-5635445.35	-5635445.25	-5635445.12	0.0088	0.0076
Venus	-20142-08-11 18:43 J	-5635219.81	-5635219.72	-5635219.59	0.0088	0.0077
Venus	-20141-03-24 07:26 J	-5634994.28	-5634994.19	-5634994.07	0.0088	0.0078
Venus	-20141-11-04 19:55 J	-5634768.75	-5634768.67	-5634768.55	0.0088	0.0079
Venus	-20140-06-18 08:38 J	-5634543.22	-5634543.14	-5634543.02	0.0088	0.0079
Venus	-20139-01-29 21:50 J	-5634317.68	-5634317.59	-5634317.50	0.0088	0.0080
Venus	-20139-09-12 10:19 J	-5634092.15	-5634092.07	-5634091.98	0.0088	0.0081
Venus	-20138-04-25 22:48 J	-5633866.62	-5633866.55	-5633866.45	0.0088	0.0081
Venus	-20138-12-07 11:16 J	-5633641.09	-5633641.03	-5633640.93	0.0088	0.0082
Venus	-20137-07-20 00:14 J	-5633415.55	-5633415.49	-5633415.40	0.0088	0.0083
Venus	-20136-03-02 12:43 J	-5633190.02	-5633189.97	-5633189.87	0.0088	0.0084
Venus	-20136-10-14 01:40 J	-5632964.48	-5632964.43	-5632964.35	0.0088	0.0084
Venus	-20135-05-27 14:09 J	-5632738.95	-5632738.91	-5632738.82	0.0088	0.0084
Venus	-20134-01-08 03:07 J	-5632513.42	-5632513.37	-5632513.29	0.0088	0.0084
Venus	-20134-08-21 16:19 J	-5632287.87	-5632287.82	-5632287.76	0.0088	0.0085

Venus	-20133-04-03 04:33 J	-5632062.34	-5632062.31	-5632062.23	0.0088	0.0086
Venus	-20133-11-14 17:31 J	-5631836.80	-5631836.77	-5631836.70	0.0088	0.0086
Venus	-20132-06-28 06:43 J	-5631611.27	-5631611.22	-5631611.16	0.0088	0.0085
Earth	-20132-11-02 09:21 J	-5631484.26	-5631484.11	-5631483.93	0.0088	0.0068
Moon	-20132-11-02 12:14 J	-5631484.11	-5631483.99	-5631483.81	0.0088	0.0071 *
Venus	-20131-02-08 19:40 J	-5631385.73	-5631385.68	-5631385.63	0.0088	0.0086
Venus	-20131-09-22 08:09 J	-5631160.18	-5631160.16	-5631160.09	0.0088	0.0086
Moon	-20131-11-04 18:43 J	-5631116.97	-5631116.72	-5631116.46	0.0088	0.0024
Earth	-20131-11-04 22:19 J	-5631116.81	-5631116.57	-5631116.31	0.0088	0.0026 *
Venus	-20130-05-05 21:07 J	-5630934.65	-5630934.62	-5630934.55	0.0088	0.0086
Earth	-20130-11-07 11:02 J	-5630749.29	-5630749.04	-5630748.77	0.0088	0.0017
Moon	-20130-11-07 14:38 J	-5630749.14	-5630748.89	-5630748.62	0.0088	0.0014 *
Venus	-20130-12-17 10:04 J	-5630709.11	-5630709.08	-5630709.02	0.0088	0.0086
Venus	-20129-07-29 23:02 J	-5630483.56	-5630483.54	-5630483.48	0.0088	0.0086
Moon	-20129-11-08 20:23 J	-5630381.81	-5630381.65	-5630381.45	0.0088	0.0062
Earth	-20129-11-08 23:45 J	-5630381.69	-5630381.51	-5630381.30	0.0088	0.0059 *
Venus	-20128-03-12 12:00 J	-5630258.03	-5630258.00	-5630257.94	0.0088	0.0086
Venus	-20128-10-24 00:43 J	-5630032.49	-5630032.47	-5630032.40	0.0088	0.0087
Venus	-20127-06-06 13:40 J	-5629806.95	-5629806.93	-5629806.86	0.0088	0.0086
Venus	-20126-01-18 03:07 J	-5629581.41	-5629581.37	-5629581.32	0.0088	0.0086
Venus	-20126-08-31 16:04 J	-5629355.87	-5629355.83	-5629355.77	0.0088	0.0085
Venus	-20125-04-13 04:48 J	-5629130.33	-5629130.30	-5629130.22	0.0088	0.0085
Venus	-20125-11-24 17:45 J	-5628904.80	-5628904.76	-5628904.68	0.0088	0.0085
Venus	-20124-07-08 06:57 J	-5628679.26	-5628679.21	-5628679.14	0.0088	0.0084
Venus	-20123-02-18 19:40 J	-5628453.72	-5628453.68	-5628453.59	0.0088	0.0084
Venus	-20123-10-02 09:07 J	-5628228.18	-5628228.12	-5628228.04	0.0088	0.0084
Venus	-20122-05-15 21:50 J	-5628002.64	-5628002.59	-5628002.50	0.0088	0.0083
Venus	-20122-12-27 11:16 J	-5627777.10	-5627777.03	-5627776.95	0.0088	0.0082
Venus	-20121-08-09 00:00 J	-5627551.55	-5627551.50	-5627551.40	0.0088	0.0082
Venus	-20120-03-22 13:26 J	-5627326.01	-5627325.94	-5627325.84	0.0088	0.0081

Venus	-20120-11-03 02:52 J	-5627100.47	-5627100.38	-5627100.29	0.0088	0.0080
Venus	-20119-06-16 15:21 J	-5626874.92	-5626874.86	-5626874.74	0.0088	0.0080
Venus	-20118-01-28 04:48 J	-5626649.38	-5626649.30	-5626649.19	0.0088	0.0079
Venus	-20118-09-10 18:14 J	-5626423.82	-5626423.74	-5626423.63	0.0088	0.0078
Venus	-20117-04-23 07:40 J	-5626198.28	-5626198.18	-5626198.07	0.0088	0.0077
Venus	-20117-12-04 20:52 J	-5625972.73	-5625972.63	-5625972.51	0.0088	0.0076
Venus	-20116-07-18 10:19 J	-5625747.18	-5625747.07	-5625746.96	0.0088	0.0075
Venus	-20115-02-28 23:31 J	-5625521.64	-5625521.52	-5625521.40	0.0088	0.0074
Venus	-20115-10-12 12:14 J	-5625296.08	-5625295.99	-5625295.84	0.0088	0.0074
Venus	-20114-05-26 02:09 J	-5625070.53	-5625070.41	-5625070.28	0.0088	0.0072
Venus	-20113-01-06 15:21 J	-5624844.98	-5624844.86	-5624844.73	0.0088	0.0071
Mars	-20113-01-25 05:31 J	-5624826.48	-5624826.27	-5624826.02	0.0088	0.0054
Venus	-20113-08-19 04:33 J	-5624619.43	-5624619.31	-5624619.17	0.0088	0.0070
Venus	-20112-04-01 17:45 J	-5624393.88	-5624393.76	-5624393.61	0.0088	0.0069
Venus	-20112-11-13 06:57 J	-5624168.33	-5624168.21	-5624168.05	0.0088	0.0068
Mars	-20112-12-18 23:16 J	-5624132.82	-5624132.53	-5624132.23	0.0088	0.0008
Mercury	-20111-06-23 07:55 J	-5623946.20	-5623946.17	-5623946.08	0.0088	0.0084
Venus	-20111-06-26 20:38 J	-5623942.78	-5623942.64	-5623942.49	0.0088	0.0067
Mercury	-20111-09-19 11:45 J	-5623858.10	-5623858.01	-5623857.89	0.0088	0.0074
Mercury	-20111-12-16 15:21 J	-5623769.97	-5623769.86	-5623769.71	0.0088	0.0064
Venus	-20110-02-07 09:36 J	-5623717.23	-5623717.10	-5623716.93	0.0088	0.0066
Mercury	-20110-03-14 18:57 J	-5623681.84	-5623681.71	-5623681.54	0.0088	0.0054
Mercury	-20110-06-10 22:48 J	-5623593.71	-5623593.55	-5623593.37	0.0088	0.0044
Mercury	-20110-09-07 02:23 J	-5623505.57	-5623505.40	-5623505.21	0.0088	0.0034
Venus	-20110-09-20 23:02 J	-5623491.67	-5623491.54	-5623491.37	0.0088	0.0064
Mars	-20110-11-12 16:04 J	-5623438.97	-5623438.83	-5623438.62	0.0088	0.0071
Mercury	-20110-12-04 06:00 J	-5623417.43	-5623417.25	-5623417.05	0.0088	0.0024
Mercury	-20109-03-01 09:36 J	-5623329.28	-5623329.10	-5623328.90	0.0088	0.0015
Venus	-20109-05-03 12:43 J	-5623266.12	-5623265.97	-5623265.81	0.0088	0.0063
Mercury	-20109-05-28 13:26 J	-5623241.14	-5623240.94	-5623240.74	0.0088	0.0004

Mercury	-20109-08-24 17:02 J	-5623152.99	-5623152.79	-5623152.60	0.0088	0.0006
Mercury	-20109-11-20 20:38 J	-5623064.83	-5623064.64	-5623064.45	0.0088	0.0016
Venus	-20109-12-15 01:55 J	-5623040.57	-5623040.42	-5623040.25	0.0088	0.0061
Mercury	-20108-02-17 00:00 J	-5622976.68	-5622976.50	-5622976.31	0.0088	0.0026
Mercury	-20108-05-16 03:36 J	-5622888.52	-5622888.35	-5622888.17	0.0088	0.0036
Venus	-20108-07-28 15:07 J	-5622815.01	-5622814.87	-5622814.69	0.0088	0.0060
Mercury	-20108-08-12 06:57 J	-5622800.36	-5622800.21	-5622800.03	0.0088	0.0046
Mercury	-20108-11-08 10:19 J	-5622712.20	-5622712.07	-5622711.90	0.0088	0.0056
Mercury	-20107-02-04 14:23 J	-5622624.03	-5622623.90	-5622623.77	0.0088	0.0065
Venus	-20107-03-11 04:48 J	-5622589.46	-5622589.30	-5622589.12	0.0088	0.0058
Mercury	-20107-05-03 17:45 J	-5622535.85	-5622535.76	-5622535.65	0.0088	0.0075
Mercury	-20107-07-30 21:07 J	-5622447.65	-5622447.62	-5622447.56	0.0088	0.0085
Venus	-20107-10-22 18:14 J	-5622363.89	-5622363.74	-5622363.55	0.0088	0.0057
Venus	-20106-06-05 07:55 J	-5622138.33	-5622138.17	-5622137.98	0.0088	0.0055
Venus	-20105-01-16 21:36 J	-5621912.77	-5621912.60	-5621912.42	0.0088	0.0053
Venus	-20105-08-29 10:48 J	-5621687.21	-5621687.05	-5621686.85	0.0088	0.0052
Venus	-20104-04-12 00:28 J	-5621461.65	-5621461.48	-5621461.29	0.0088	0.0050
Venus	-20104-11-23 13:55 J	-5621236.09	-5621235.92	-5621235.72	0.0088	0.0049
Venus	-20103-07-07 03:21 J	-5621010.53	-5621010.36	-5621010.15	0.0088	0.0047
Venus	-20102-02-17 17:02 J	-5620784.97	-5620784.79	-5620784.59	0.0088	0.0045
Venus	-20102-10-01 06:43 J	-5620559.40	-5620559.22	-5620559.01	0.0088	0.0044
Venus	-20101-05-13 20:38 J	-5620333.84	-5620333.64	-5620333.45	0.0088	0.0042
Venus	-20101-12-25 09:36 J	-5620108.28	-5620108.10	-5620107.88	0.0088	0.0040
Venus	-20100-08-07 23:16 J	-5619882.72	-5619882.53	-5619882.32	0.0088	0.0038
Venus	-20099-03-21 12:43 J	-5619657.16	-5619656.97	-5619656.75	0.0088	0.0036
Venus	-20099-11-02 02:23 J	-5619431.59	-5619431.40	-5619431.18	0.0088	0.0035
Venus	-20098-06-15 16:04 J	-5619206.03	-5619205.83	-5619205.61	0.0088	0.0032
Venus	-20097-01-27 05:45 J	-5618980.47	-5618980.26	-5618980.05	0.0088	0.0030
Venus	-20097-09-08 19:11 J	-5618754.90	-5618754.70	-5618754.48	0.0088	0.0029
Venus	-20096-04-22 08:52 J	-5618529.34	-5618529.13	-5618528.91	0.0088	0.0027

Venus	-20096-12-03 22:33 J	-5618303.77	-5618303.56	-5618303.34	0.0088	0.0025
Venus	-20095-07-17 12:14 J	-5618078.21	-5618077.99	-5618077.77	0.0088	0.0023
Venus	-20094-02-28 01:55 J	-5617852.64	-5617852.42	-5617852.20	0.0088	0.0021
Venus	-20094-10-11 15:36 J	-5617627.07	-5617626.85	-5617626.63	0.0088	0.0019
Venus	-20093-05-24 05:16 J	-5617401.50	-5617401.28	-5617401.06	0.0088	0.0017
Venus	-20092-01-04 18:57 J	-5617175.93	-5617175.71	-5617175.49	0.0088	0.0014
Venus	-20092-08-18 08:38 J	-5616950.36	-5616950.14	-5616949.92	0.0088	0.0012
Venus	-20091-03-31 22:19 J	-5616724.79	-5616724.57	-5616724.35	0.0088	0.0010
Venus	-20091-11-12 12:00 J	-5616499.22	-5616499.00	-5616498.77	0.0088	0.0009
Venus	-20090-06-26 01:55 J	-5616273.65	-5616273.42	-5616273.20	0.0088	0.0006
Venus	-20089-02-06 15:36 J	-5616048.08	-5616047.85	-5616047.63	0.0088	0.0004
Venus	-20089-09-19 05:02 J	-5615822.51	-5615822.29	-5615822.06	0.0088	0.0003
Venus	-20088-05-02 18:43 J	-5615596.94	-5615596.72	-5615596.49	0.0088	0.0001
Venus	-20088-12-14 08:38 J	-5615371.37	-5615371.14	-5615370.92	0.0088	0.0002
Venus	-20087-07-27 22:04 J	-5615145.80	-5615145.58	-5615145.35	0.0088	0.0005
Venus	-20086-03-10 11:45 J	-5614920.23	-5614920.01	-5614919.78	0.0088	0.0006
Venus	-20086-10-22 01:26 J	-5614694.66	-5614694.44	-5614694.21	0.0088	0.0008
Venus	-20085-06-03 15:07 J	-5614469.09	-5614468.87	-5614468.65	0.0088	0.0010
Venus	-20084-01-15 04:48 J	-5614243.52	-5614243.30	-5614243.08	0.0088	0.0013
Venus	-20084-08-28 18:28 J	-5614017.95	-5614017.73	-5614017.51	0.0088	0.0015
Venus	-20083-04-11 07:55 J	-5613792.38	-5613792.17	-5613791.94	0.0088	0.0017
Venus	-20083-11-22 21:50 J	-5613566.81	-5613566.59	-5613566.37	0.0089	0.0019
Venus	-20082-07-06 11:31 J	-5613341.23	-5613341.02	-5613340.80	0.0089	0.0021
Venus	-20081-02-17 01:11 J	-5613115.66	-5613115.45	-5613115.23	0.0089	0.0023
Venus	-20081-09-29 14:52 J	-5612890.09	-5612889.88	-5612889.66	0.0089	0.0025
Venus	-20080-05-13 04:33 J	-5612664.52	-5612664.31	-5612664.09	0.0089	0.0027
Venus	-20080-12-24 18:28 J	-5612438.94	-5612438.73	-5612438.51	0.0089	0.0029
Venus	-20079-08-07 08:09 J	-5612213.36	-5612213.16	-5612212.94	0.0089	0.0031
Venus	-20078-03-20 21:50 J	-5611987.79	-5611987.59	-5611987.38	0.0089	0.0033
Venus	-20078-11-01 11:31 J	-5611762.22	-5611762.02	-5611761.81	0.0089	0.0035

Venus	-20077-06-14 01:11 J	-5611536.64	-5611536.45	-5611536.24	0.0089	0.0037
Venus	-20076-01-25 14:52 J	-5611311.07	-5611310.88	-5611310.67	0.0089	0.0039
Venus	-20076-09-08 04:33 J	-5611085.50	-5611085.31	-5611085.10	0.0089	0.0041
Venus	-20075-04-21 18:00 J	-5610859.93	-5610859.75	-5610859.54	0.0089	0.0043
Venus	-20075-12-03 08:09 J	-5610634.35	-5610634.16	-5610633.97	0.0089	0.0044
Venus	-20074-07-16 21:36 J	-5610408.78	-5610408.60	-5610408.40	0.0089	0.0046
Venus	-20073-02-27 11:16 J	-5610183.21	-5610183.03	-5610182.84	0.0089	0.0048
Venus	-20073-10-10 00:43 J	-5609957.64	-5609957.47	-5609957.27	0.0089	0.0050
Venus	-20072-05-23 14:09 J	-5609732.07	-5609731.91	-5609731.71	0.0089	0.0052
Venus	-20071-01-04 04:04 J	-5609506.50	-5609506.33	-5609506.14	0.0089	0.0053
Venus	-20071-08-17 17:31 J	-5609280.93	-5609280.77	-5609280.58	0.0089	0.0055
Venus	-20070-03-31 06:57 J	-5609055.36	-5609055.21	-5609055.02	0.0089	0.0057
Venus	-20070-11-11 20:52 J	-5608829.79	-5608829.63	-5608829.45	0.0089	0.0058
Venus	-20069-06-24 10:19 J	-5608604.22	-5608604.07	-5608603.89	0.0089	0.0060
Venus	-20068-02-05 00:14 J	-5608378.64	-5608378.49	-5608378.32	0.0089	0.0061
Venus	-20068-09-18 13:26 J	-5608153.07	-5608152.94	-5608152.76	0.0089	0.0063
Venus	-20067-05-02 03:21 J	-5607927.51	-5607927.36	-5607927.20	0.0089	0.0064
Venus	-20067-12-13 16:48 J	-5607701.93	-5607701.80	-5607701.63	0.0089	0.0066
Venus	-20066-07-27 06:28 J	-5607476.36	-5607476.23	-5607476.07	0.0089	0.0067
Venus	-20065-03-08 19:55 J	-5607250.79	-5607250.67	-5607250.51	0.0089	0.0069
Venus	-20065-10-20 09:36 J	-5607025.22	-5607025.10	-5607024.95	0.0089	0.0070
Venus	-20064-06-02 23:02 J	-5606799.65	-5606799.54	-5606799.39	0.0089	0.0071
Venus	-20063-01-14 12:57 J	-5606574.08	-5606573.96	-5606573.83	0.0089	0.0072
Venus	-20063-08-28 01:55 J	-5606348.52	-5606348.42	-5606348.27	0.0089	0.0074
Venus	-20062-04-10 15:21 J	-5606122.95	-5606122.86	-5606122.72	0.0089	0.0076
Venus	-20062-11-22 05:02 J	-5605897.39	-5605897.29	-5605897.16	0.0089	0.0076
Venus	-20061-07-04 18:28 J	-5605671.83	-5605671.73	-5605671.61	0.0089	0.0077
Venus	-20060-02-15 07:55 J	-5605446.26	-5605446.17	-5605446.05	0.0089	0.0078
Venus	-20060-09-28 21:21 J	-5605220.70	-5605220.61	-5605220.50	0.0089	0.0079
Venus	-20059-05-12 10:33 J	-5604995.14	-5604995.06	-5604994.95	0.0089	0.0080

Venus	-20059-12-24 00:00 J	-5604769.57	-5604769.50	-5604769.39	0.0089	0.0081
Venus	-20058-08-06 13:11 J	-5604544.01	-5604543.95	-5604543.84	0.0089	0.0082
Venus	-20057-03-19 02:38 J	-5604318.45	-5604318.39	-5604318.29	0.0089	0.0083
Venus	-20057-10-30 16:19 J	-5604092.89	-5604092.82	-5604092.74	0.0089	0.0083
Venus	-20056-06-13 05:31 J	-5603867.33	-5603867.27	-5603867.19	0.0089	0.0084
Venus	-20055-01-24 18:43 J	-5603641.76	-5603641.72	-5603641.63	0.0089	0.0085
Venus	-20055-09-07 08:23 J	-5603416.20	-5603416.15	-5603416.08	0.0089	0.0085
Venus	-20054-04-20 21:21 J	-5603190.64	-5603190.61	-5603190.53	0.0089	0.0087
Venus	-20054-12-02 11:02 J	-5602965.08	-5602965.04	-5602964.98	0.0089	0.0087
Venus	-20053-07-15 00:00 J	-5602739.52	-5602739.50	-5602739.43	0.0089	0.0088
Venus	-20052-02-25 13:40 J	-5602513.96	-5602513.93	-5602513.88	0.0089	0.0088
Venus	-20052-10-09 02:38 J	-5602288.40	-5602288.39	-5602288.33	0.0089	0.0088
Venus	-20051-05-22 16:04 J	-5602062.84	-5602062.83	-5602062.78	0.0089	0.0088
Venus	-20050-01-03 05:16 J	-5601837.29	-5601837.28	-5601837.24	0.0089	0.0089
Venus	-20050-08-16 18:43 J	-5601611.73	-5601611.72	-5601611.69	0.0089	0.0089
Venus	-20049-03-29 07:55 J	-5601386.17	-5601386.17	-5601386.15	0.0089	0.0089
Moon	-20049-05-05 07:40 J	-5601349.30	-5601349.18	-5601349.01	0.0089	0.0073
Earth	-20049-05-05 11:02 J	-5601349.16	-5601349.04	-5601348.87	0.0089	0.0073 *
Venus	-20049-11-09 20:52 J	-5601160.63	-5601160.63	-5601160.60	0.0089	0.0089
Earth	-20048-05-07 21:50 J	-5600981.82	-5600981.59	-5600981.35	0.0089	0.0031
Moon	-20048-05-08 01:11 J	-5600981.67	-5600981.45	-5600981.20	0.0089	0.0031 *
Venus	-20048-06-23 10:04 J	-5600935.08	-5600935.08	-5600935.06	0.0089	0.0089
Venus	-20047-02-03 23:16 J	-5600709.53	-5600709.53	-5600709.51	0.0089	0.0089
Moon	-20047-05-10 05:02 J	-5600614.53	-5600614.29	-5600614.04	0.0089	0.0013
Earth	-20047-05-10 08:09 J	-5600614.40	-5600614.16	-5600613.90	0.0089	0.0012 *
Venus	-20047-09-17 12:28 J	-5600483.98	-5600483.98	-5600483.96	0.0089	0.0089
Venus	-20046-05-01 01:26 J	-5600258.44	-5600258.44	-5600258.42	0.0089	0.0089
Earth	-20046-05-12 18:28 J	-5600246.92	-5600246.73	-5600246.52	0.0089	0.0054
Moon	-20046-05-12 21:07 J	-5600246.81	-5600246.62	-5600246.41	0.0089	0.0055 *
Venus	-20046-12-12 14:23 J	-5600032.90	-5600032.90	-5600032.87	0.0089	0.0089

Venus	-20045-07-25 03:36 J	-5599807.36	-5599807.35	-5599807.32	0.0089	0.0089
Venus	-20044-03-07 16:33 J	-5599581.82	-5599581.81	-5599581.77	0.0089	0.0089
Venus	-20044-10-19 05:31 J	-5599356.28	-5599356.27	-5599356.22	0.0089	0.0088
Venus	-20043-06-01 18:14 J	-5599130.75	-5599130.74	-5599130.67	0.0089	0.0089
Venus	-20042-01-13 07:40 J	-5598905.21	-5598905.18	-5598905.13	0.0089	0.0088
Venus	-20042-08-26 20:23 J	-5598679.67	-5598679.65	-5598679.58	0.0089	0.0088
Venus	-20041-04-08 10:04 J	-5598454.12	-5598454.08	-5598454.02	0.0089	0.0087
Venus	-20041-11-19 22:33 J	-5598228.59	-5598228.56	-5598228.48	0.0089	0.0087
Venus	-20040-07-03 12:00 J	-5598003.05	-5598003.00	-5598002.93	0.0089	0.0086
Venus	-20039-02-14 00:43 J	-5597777.51	-5597777.47	-5597777.39	0.0089	0.0085
Venus	-20039-09-27 13:40 J	-5597551.98	-5597551.93	-5597551.84	0.0089	0.0085
Venus	-20038-05-11 02:52 J	-5597326.44	-5597326.38	-5597326.30	0.0089	0.0084
Venus	-20038-12-22 15:21 J	-5597100.91	-5597100.86	-5597100.76	0.0089	0.0083
Venus	-20037-08-04 04:19 J	-5596875.38	-5596875.32	-5596875.22	0.0089	0.0082
Venus	-20036-03-17 17:16 J	-5596649.85	-5596649.78	-5596649.67	0.0089	0.0082
Venus	-20036-10-29 06:00 J	-5596424.32	-5596424.25	-5596424.13	0.0089	0.0081
Venus	-20035-06-11 18:57 J	-5596198.79	-5596198.71	-5596198.60	0.0089	0.0079
Venus	-20034-01-23 07:40 J	-5595973.27	-5595973.18	-5595973.06	0.0089	0.0079
Venus	-20034-09-05 20:23 J	-5595747.74	-5595747.65	-5595747.52	0.0089	0.0078
Venus	-20033-04-18 09:21 J	-5595522.20	-5595522.11	-5595521.98	0.0089	0.0076
Venus	-20033-11-29 22:04 J	-5595296.68	-5595296.58	-5595296.45	0.0089	0.0075
Venus	-20032-07-13 11:16 J	-5595071.15	-5595071.03	-5595070.91	0.0089	0.0074
Mars	-20032-11-22 02:38 J	-5594939.54	-5594939.39	-5594939.22	0.0089	0.0079
Venus	-20031-02-23 23:45 J	-5594845.62	-5594845.51	-5594845.38	0.0089	0.0073
Venus	-20031-10-07 12:28 J	-5594620.10	-5594619.98	-5594619.84	0.0089	0.0071
Venus	-20030-05-21 00:57 J	-5594394.57	-5594394.46	-5594394.30	0.0089	0.0071
Mercury	-20030-07-06 07:40 J	-5594348.19	-5594348.18	-5594348.17	0.0089	0.0089
Mercury	-20030-10-02 09:07 J	-5594260.17	-5594260.12	-5594260.07	0.0089	0.0082
Mars	-20030-10-19 10:33 J	-5594243.40	-5594243.06	-5594242.72	0.0089	0.0002
Mercury	-20030-12-29 10:04 J	-5594172.14	-5594172.08	-5594172.00	0.0089	0.0075

Venus	-20029-01-01 14:09 J	-5594169.04	-5594168.91	-5594168.77	0.0089	0.0069
Mercury	-20029-03-26 11:31 J	-5594084.10	-5594084.02	-5594083.93	0.0089	0.0068
Mercury	-20029-06-22 12:43 J	-5593996.05	-5593995.97	-5593995.86	0.0089	0.0061
Venus	-20029-08-14 02:38 J	-5593943.52	-5593943.39	-5593943.24	0.0089	0.0068
Mercury	-20029-09-18 14:09 J	-5593908.01	-5593907.91	-5593907.80	0.0089	0.0054
Mercury	-20029-12-15 15:21 J	-5593819.96	-5593819.86	-5593819.74	0.0089	0.0048
Mercury	-20028-03-13 16:48 J	-5593731.91	-5593731.80	-5593731.68	0.0089	0.0040
Venus	-20028-03-27 15:21 J	-5593717.99	-5593717.86	-5593717.70	0.0089	0.0066
Mercury	-20028-06-09 18:00 J	-5593643.86	-5593643.75	-5593643.62	0.0089	0.0034
Mercury	-20028-09-05 19:26 J	-5593555.81	-5593555.69	-5593555.56	0.0089	0.0026
Mars	-20028-09-14 17:16 J	-5593546.95	-5593546.78	-5593546.58	0.0089	0.0075
Venus	-20028-11-08 04:19 J	-5593492.46	-5593492.32	-5593492.17	0.0089	0.0065
Mercury	-20028-12-02 20:52 J	-5593467.76	-5593467.63	-5593467.50	0.0089	0.0019
Mercury	-20027-02-28 22:04 J	-5593379.70	-5593379.58	-5593379.44	0.0089	0.0013
Mercury	-20027-05-27 23:31 J	-5593291.65	-5593291.52	-5593291.39	0.0089	0.0005
Venus	-20027-06-21 16:33 J	-5593266.94	-5593266.81	-5593266.64	0.0089	0.0064
Mercury	-20027-08-24 00:57 J	-5593203.60	-5593203.46	-5593203.33	0.0089	0.0003
Mercury	-20027-11-20 02:09 J	-5593115.54	-5593115.41	-5593115.28	0.0089	0.0009
Venus	-20026-02-02 05:31 J	-5593041.42	-5593041.27	-5593041.11	0.0089	0.0062
Mercury	-20026-02-16 03:36 J	-5593027.48	-5593027.35	-5593027.22	0.0089	0.0016
Mercury	-20026-05-15 04:48 J	-5592939.42	-5592939.30	-5592939.17	0.0089	0.0023
Mercury	-20026-08-11 06:14 J	-5592851.36	-5592851.24	-5592851.12	0.0089	0.0030
Venus	-20026-09-15 18:00 J	-5592815.89	-5592815.75	-5592815.58	0.0089	0.0060
Mercury	-20026-11-07 07:26 J	-5592763.30	-5592763.19	-5592763.06	0.0089	0.0038
Mercury	-20025-02-03 08:52 J	-5592675.24	-5592675.13	-5592675.01	0.0089	0.0044
Venus	-20025-04-28 06:57 J	-5592590.37	-5592590.21	-5592590.04	0.0089	0.0058
Mercury	-20025-05-01 10:19 J	-5592587.18	-5592587.07	-5592586.96	0.0089	0.0052
Mercury	-20025-07-28 11:31 J	-5592499.12	-5592499.02	-5592498.92	0.0089	0.0059
Mercury	-20025-10-24 12:57 J	-5592411.05	-5592410.96	-5592410.87	0.0089	0.0066
Venus	-20025-12-09 19:40 J	-5592364.85	-5592364.68	-5592364.51	0.0089	0.0057

Mercury	-20024-01-20 13:55 J	-5592322.98	-5592322.92	-5592322.83	0.0089	0.0073
Mercury	-20024-04-18 15:21 J	-5592234.90	-5592234.86	-5592234.79	0.0089	0.0080
Mercury	-20024-07-15 16:33 J	-5592146.82	-5592146.81	-5592146.77	0.0089	0.0088
Venus	-20024-07-23 07:55 J	-5592139.33	-5592139.17	-5592138.99	0.0089	0.0055
Venus	-20023-03-05 20:38 J	-5591913.81	-5591913.64	-5591913.46	0.0089	0.0053
Venus	-20023-10-17 09:21 J	-5591688.29	-5591688.11	-5591687.94	0.0089	0.0052
Venus	-20022-05-30 21:36 J	-5591462.77	-5591462.60	-5591462.41	0.0089	0.0050
Venus	-20021-01-11 10:04 J	-5591237.25	-5591237.08	-5591236.89	0.0089	0.0048
Venus	-20021-08-23 22:33 J	-5591011.73	-5591011.56	-5591011.36	0.0089	0.0047
Venus	-20020-04-06 11:16 J	-5590786.21	-5590786.03	-5590785.84	0.0089	0.0045
Venus	-20020-11-17 23:31 J	-5590560.69	-5590560.52	-5590560.32	0.0089	0.0043
Venus	-20019-07-01 12:00 J	-5590335.18	-5590335.00	-5590334.79	0.0089	0.0041
Venus	-20018-02-12 00:28 J	-5590109.66	-5590109.48	-5590109.27	0.0089	0.0039
Venus	-20018-09-25 12:57 J	-5589884.14	-5589883.96	-5589883.75	0.0089	0.0038
Venus	-20017-05-08 01:40 J	-5589658.62	-5589658.43	-5589658.22	0.0089	0.0035
Venus	-20017-12-19 14:09 J	-5589433.10	-5589432.91	-5589432.70	0.0089	0.0034
Venus	-20016-08-02 02:38 J	-5589207.58	-5589207.39	-5589207.18	0.0089	0.0032
Venus	-20015-03-15 15:07 J	-5588982.07	-5588981.87	-5588981.66	0.0089	0.0030
Venus	-20015-10-27 03:36 J	-5588756.55	-5588756.35	-5588756.14	0.0089	0.0028
Venus	-20014-06-09 16:19 J	-5588531.02	-5588530.82	-5588530.61	0.0089	0.0025
Venus	-20013-01-21 04:48 J	-5588305.51	-5588305.30	-5588305.09	0.0089	0.0023
Venus	-20013-09-02 17:02 J	-5588079.99	-5588079.79	-5588079.57	0.0089	0.0022
Venus	-20012-04-16 05:31 J	-5587854.47	-5587854.27	-5587854.05	0.0089	0.0019
Venus	-20012-11-27 18:00 J	-5587628.96	-5587628.75	-5587628.54	0.0089	0.0017
Venus	-20011-07-11 06:14 J	-5587403.44	-5587403.24	-5587403.02	0.0089	0.0015
Venus	-20010-02-21 18:43 J	-5587177.93	-5587177.72	-5587177.50	0.0089	0.0013
Venus	-20010-10-05 06:57 J	-5586952.42	-5586952.21	-5586951.99	0.0089	0.0011
Venus	-20009-05-17 19:26 J	-5586726.90	-5586726.69	-5586726.47	0.0089	0.0010
Venus	-20009-12-29 07:55 J	-5586501.38	-5586501.17	-5586500.95	0.0089	0.0007
Venus	-20008-08-11 20:09 J	-5586275.87	-5586275.66	-5586275.44	0.0089	0.0005

Venus	-20007-03-25 08:38 J	-5586050.36	-5586050.14	-5586049.92	0.0089	0.0003
Venus	-20007-11-05 20:52 J	-5585824.84	-5585824.63	-5585824.41	0.0089	0.0002
Venus	-20006-06-19 09:36 J	-5585599.32	-5585599.10	-5585598.89	0.0089	0.0002
Venus	-20005-01-30 21:50 J	-5585373.80	-5585373.59	-5585373.37	0.0089	0.0004
Venus	-20005-09-12 10:04 J	-5585148.29	-5585148.08	-5585147.86	0.0089	0.0006
Venus	-20004-04-25 22:33 J	-5584922.77	-5584922.56	-5584922.34	0.0089	0.0008
Venus	-20004-12-07 11:02 J	-5584697.25	-5584697.04	-5584696.83	0.0089	0.0010
Venus	-20003-07-20 23:31 J	-5584471.74	-5584471.52	-5584471.31	0.0089	0.0012
Venus	-20002-03-03 11:45 J	-5584246.22	-5584246.01	-5584245.79	0.0089	0.0014
Venus	-20002-10-15 00:14 J	-5584020.70	-5584020.49	-5584020.28	0.0089	0.0016
Venus	-20001-05-27 12:28 J	-5583795.18	-5583794.98	-5583794.76	0.0089	0.0019

20TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 20th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-20000-01-08 00:57 J	-5583569.66	-5583569.46	-5583569.24	0.0089	0.0021		
Venus	-20000-08-21 13:11 J	-5583344.15	-5583343.95	-5583343.73	0.0089	0.0023		
Venus	-19999-04-04 01:40 J	-5583118.63	-5583118.43	-5583118.22	0.0089	0.0025		
Venus	-19999-11-15 13:55 J	-5582893.11	-5582892.92	-5582892.70	0.0089	0.0027		
Venus	-19998-06-29 02:23 J	-5582667.59	-5582667.40	-5582667.18	0.0089	0.0029		
Venus	-19997-02-09 14:52 J	-5582442.08	-5582441.88	-5582441.67	0.0089	0.0031		
Venus	-19997-09-22 03:07 J	-5582216.56	-5582216.37	-5582216.16	0.0089	0.0033		

Venus	-19996-05-05 15:21 J	-5581991.05	-5581990.86	-5581990.65	0.0089	0.0035
Venus	-19996-12-17 03:36 J	-5581765.53	-5581765.35	-5581765.13	0.0089	0.0037
Venus	-19995-07-30 16:04 J	-5581540.01	-5581539.83	-5581539.62	0.0089	0.0039
Venus	-19994-03-13 04:19 J	-5581314.49	-5581314.32	-5581314.11	0.0089	0.0041
Venus	-19994-10-24 17:02 J	-5581088.97	-5581088.79	-5581088.59	0.0089	0.0042
Venus	-19993-06-06 05:31 J	-5580863.45	-5580863.27	-5580863.08	0.0089	0.0044
Venus	-19992-01-17 17:45 J	-5580637.93	-5580637.76	-5580637.56	0.0089	0.0046
Venus	-19992-08-31 06:14 J	-5580412.41	-5580412.24	-5580412.05	0.0089	0.0048
Venus	-19991-04-13 18:28 J	-5580186.89	-5580186.73	-5580186.54	0.0089	0.0050
Venus	-19991-11-25 06:43 J	-5579961.37	-5579961.22	-5579961.02	0.0089	0.0052
Venus	-19990-07-08 19:40 J	-5579735.84	-5579735.68	-5579735.50	0.0089	0.0053
Venus	-19989-02-19 08:09 J	-5579510.32	-5579510.16	-5579509.98	0.0089	0.0055
Venus	-19989-10-01 20:23 J	-5579284.80	-5579284.65	-5579284.47	0.0089	0.0057
Venus	-19988-05-15 09:07 J	-5579059.28	-5579059.12	-5579058.95	0.0089	0.0058
Venus	-19988-12-26 21:21 J	-5578833.76	-5578833.61	-5578833.44	0.0089	0.0060
Venus	-19987-08-09 09:50 J	-5578608.23	-5578608.09	-5578607.92	0.0088	0.0061
Venus	-19986-03-22 22:19 J	-5578382.71	-5578382.57	-5578382.40	0.0088	0.0063
Venus	-19986-11-03 10:33 J	-5578157.18	-5578157.06	-5578156.89	0.0088	0.0065
Venus	-19985-06-15 23:16 J	-5577931.66	-5577931.53	-5577931.37	0.0088	0.0066
Venus	-19984-01-27 11:31 J	-5577706.14	-5577706.02	-5577705.85	0.0088	0.0068
Venus	-19984-09-10 00:14 J	-5577480.61	-5577480.49	-5577480.34	0.0088	0.0069
Venus	-19983-04-23 12:57 J	-5577255.09	-5577254.96	-5577254.83	0.0088	0.0070
Venus	-19983-12-05 00:57 J	-5577029.57	-5577029.46	-5577029.31	0.0088	0.0072
Venus	-19982-07-18 13:40 J	-5576804.03	-5576803.93	-5576803.79	0.0088	0.0073
Venus	-19981-02-29 02:23 J	-5576578.51	-5576578.40	-5576578.27	0.0088	0.0074
Venus	-19981-10-11 14:23 J	-5576352.98	-5576352.90	-5576352.76	0.0088	0.0076
Venus	-19980-05-25 03:07 J	-5576127.46	-5576127.37	-5576127.24	0.0088	0.0076
Venus	-19979-01-05 15:36 J	-5575901.93	-5575901.85	-5575901.72	0.0088	0.0078
Venus	-19979-08-19 04:33 J	-5575676.40	-5575676.31	-5575676.20	0.0088	0.0078
Venus	-19978-04-01 17:02 J	-5575450.86	-5575450.79	-5575450.68	0.0088	0.0080

Venus	-19978-11-13 05:45 J	-5575225.33	-5575225.26	-5575225.16	0.0088	0.0081
Venus	-19977-06-25 18:28 J	-5574999.80	-5574999.73	-5574999.63	0.0088	0.0082
Venus	-19976-02-06 06:57 J	-5574774.26	-5574774.21	-5574774.11	0.0088	0.0083
Venus	-19976-09-19 19:40 J	-5574548.73	-5574548.68	-5574548.59	0.0088	0.0084
Venus	-19975-05-03 08:09 J	-5574323.20	-5574323.16	-5574323.07	0.0088	0.0085
Venus	-19975-12-14 20:52 J	-5574097.66	-5574097.63	-5574097.55	0.0088	0.0085
Venus	-19974-07-28 10:04 J	-5573872.12	-5573872.08	-5573872.02	0.0088	0.0086
Venus	-19973-03-09 22:33 J	-5573646.58	-5573646.56	-5573646.50	0.0088	0.0087
Venus	-19973-10-21 11:02 J	-5573421.05	-5573421.04	-5573420.98	0.0088	0.0088
Venus	-19972-06-04 00:14 J	-5573195.51	-5573195.49	-5573195.47	0.0088	0.0088
Venus	-19971-01-15 12:57 J	-5572969.96	-5572969.96	-5572969.96	0.0088	0.0088
Earth	-19967-11-04 05:45 J	-5571216.46	-5571216.26	-5571216.02	0.0088	0.0048
Moon	-19967-11-04 09:21 J	-5571216.32	-5571216.11	-5571215.86	0.0088	0.0044 *
Moon	-19966-11-06 16:19 J	-5570849.07	-5570848.82	-5570848.56	0.0088	0.0009
Earth	-19966-11-06 18:57 J	-5570848.97	-5570848.71	-5570848.45	0.0088	0.0005 *
Earth	-19965-11-08 07:26 J	-5570481.41	-5570481.19	-5570480.94	0.0088	0.0037
Moon	-19965-11-08 10:04 J	-5570481.32	-5570481.08	-5570480.84	0.0088	0.0040 *
Moon	-19964-11-10 20:09 J	-5570113.79	-5570113.66	-5570113.53	0.0088	0.0076
Earth	-19964-11-10 20:38 J	-5570113.74	-5570113.64	-5570113.52	0.0088	0.0079 *
Venus	-19957-03-29 22:04 J	-5567782.58	-5567782.58	-5567782.56	0.0088	0.0088
Venus	-19957-11-10 11:02 J	-5567557.05	-5567557.04	-5567557.00	0.0088	0.0087
Venus	-19956-06-23 23:45 J	-5567331.52	-5567331.51	-5567331.45	0.0088	0.0087
Venus	-19955-02-04 12:57 J	-5567105.98	-5567105.96	-5567105.89	0.0088	0.0086
Venus	-19955-09-18 02:23 J	-5566880.44	-5566880.40	-5566880.33	0.0088	0.0085
Venus	-19954-05-01 15:50 J	-5566654.89	-5566654.84	-5566654.77	0.0088	0.0084
Venus	-19954-12-13 04:33 J	-5566429.35	-5566429.31	-5566429.22	0.0088	0.0084
Venus	-19953-07-25 17:45 J	-5566203.81	-5566203.76	-5566203.66	0.0088	0.0083
Venus	-19952-03-08 06:57 J	-5565978.27	-5565978.21	-5565978.11	0.0088	0.0082
Venus	-19952-10-19 20:23 J	-5565752.72	-5565752.65	-5565752.54	0.0088	0.0081
Jupiter	-19952-12-01 20:23 J	-5565710.21	-5565709.65	-5565709.09	0.0088	0.0003

Venus	-19951-06-02 09:36 J	-5565527.17	-5565527.10	-5565526.99	0.0088	0.0080
Venus	-19950-01-13 22:48 J	-5565301.62	-5565301.55	-5565301.43	0.0088	0.0079
Venus	-19950-08-27 12:00 J	-5565076.07	-5565076.00	-5565075.87	0.0088	0.0078
Mars	-19950-09-09 20:09 J	-5565062.69	-5565062.66	-5565062.56	0.0088	0.0086
Venus	-19949-04-09 01:55 J	-5564850.52	-5564850.42	-5564850.31	0.0088	0.0076
Venus	-19949-11-20 15:07 J	-5564624.98	-5564624.87	-5564624.75	0.0088	0.0075
Venus	-19948-07-04 04:04 J	-5564399.43	-5564399.33	-5564399.19	0.0088	0.0074
Mars	-19948-08-03 12:14 J	-5564369.26	-5564368.99	-5564368.70	0.0088	0.0023
Venus	-19947-02-14 17:16 J	-5564173.88	-5564173.78	-5564173.63	0.0088	0.0073
Venus	-19947-09-28 07:11 J	-5563948.33	-5563948.20	-5563948.07	0.0088	0.0071
Mercury	-19946-03-20 06:57 J	-5563775.29	-5563775.21	-5563775.12	0.0088	0.0079
Venus	-19946-05-11 20:09 J	-5563722.77	-5563722.66	-5563722.51	0.0088	0.0070
Mercury	-19946-06-16 10:33 J	-5563687.17	-5563687.06	-5563686.93	0.0088	0.0069
Mars	-19946-06-28 04:48 J	-5563675.56	-5563675.30	-5563675.04	0.0088	0.0039
Mercury	-19946-09-12 14:09 J	-5563599.05	-5563598.91	-5563598.76	0.0088	0.0060
Mercury	-19946-12-09 17:45 J	-5563510.91	-5563510.76	-5563510.59	0.0088	0.0050
Venus	-19946-12-23 09:21 J	-5563497.23	-5563497.11	-5563496.95	0.0088	0.0069
Mercury	-19945-03-06 21:36 J	-5563422.78	-5563422.60	-5563422.43	0.0088	0.0039
Mercury	-19945-06-03 01:11 J	-5563334.64	-5563334.45	-5563334.27	0.0088	0.0029
Venus	-19945-08-04 22:48 J	-5563271.68	-5563271.55	-5563271.39	0.0088	0.0067
Mercury	-19945-08-30 04:48 J	-5563246.49	-5563246.30	-5563246.11	0.0088	0.0020
Mercury	-19945-11-26 08:09 J	-5563158.35	-5563158.16	-5563157.96	0.0088	0.0010
Mercury	-19944-02-22 12:00 J	-5563070.20	-5563070.00	-5563069.81	0.0088	0.0001
Venus	-19944-03-18 12:00 J	-5563046.13	-5563046.00	-5563045.83	0.0088	0.0066
Mercury	-19944-05-21 15:36 J	-5562982.05	-5562981.85	-5562981.66	0.0088	0.0010
Mercury	-19944-08-17 18:57 J	-5562893.90	-5562893.71	-5562893.52	0.0088	0.0020
Venus	-19944-10-30 01:40 J	-5562820.57	-5562820.43	-5562820.27	0.0088	0.0064
Mercury	-19944-11-13 22:33 J	-5562805.74	-5562805.56	-5562805.37	0.0088	0.0030
Mercury	-19943-02-10 01:55 J	-5562717.58	-5562717.42	-5562717.24	0.0088	0.0040
Mercury	-19943-05-09 05:31 J	-5562629.42	-5562629.27	-5562629.10	0.0088	0.0050

Venus	-19943-06-12 14:52 J	-5562595.02	-5562594.88	-5562594.70	0.0088	0.0063
Mercury	-19943-08-05 08:52 J	-5562541.25	-5562541.13	-5562540.97	0.0088	0.0060
Mercury	-19943-11-01 12:14 J	-5562453.08	-5562452.99	-5562452.85	0.0088	0.0070
Venus	-19942-01-24 04:19 J	-5562369.46	-5562369.32	-5562369.14	0.0088	0.0061
Mercury	-19942-01-28 16:04 J	-5562364.90	-5562364.83	-5562364.74	0.0088	0.0080
Venus	-19942-09-06 18:00 J	-5562143.91	-5562143.75	-5562143.58	0.0088	0.0060
Venus	-19941-04-19 07:11 J	-5561918.35	-5561918.20	-5561918.01	0.0088	0.0058
Venus	-19941-11-30 20:52 J	-5561692.79	-5561692.63	-5561692.45	0.0088	0.0056
Venus	-19940-07-14 10:33 J	-5561467.23	-5561467.06	-5561466.88	0.0088	0.0054
Venus	-19939-02-24 23:31 J	-5561241.67	-5561241.52	-5561241.32	0.0088	0.0053
Venus	-19939-10-08 13:26 J	-5561016.11	-5561015.94	-5561015.74	0.0088	0.0051
Venus	-19938-05-22 03:07 J	-5560790.55	-5560790.37	-5560790.17	0.0088	0.0049
Venus	-19937-01-02 16:33 J	-5560564.99	-5560564.81	-5560564.61	0.0088	0.0047
Venus	-19937-08-15 06:14 J	-5560339.43	-5560339.24	-5560339.04	0.0088	0.0045
Venus	-19936-03-28 19:55 J	-5560113.86	-5560113.67	-5560113.47	0.0088	0.0043
Venus	-19936-11-09 09:36 J	-5559888.30	-5559888.10	-5559887.90	0.0088	0.0042
Venus	-19935-06-22 23:16 J	-5559662.73	-5559662.53	-5559662.33	0.0088	0.0040
Venus	-19934-02-03 12:43 J	-5559437.17	-5559436.97	-5559436.77	0.0088	0.0038
Venus	-19934-09-17 01:55 J	-5559211.61	-5559211.42	-5559211.20	0.0088	0.0036
Venus	-19933-04-29 15:50 J	-5558986.05	-5558985.84	-5558985.63	0.0088	0.0034
Venus	-19933-12-11 05:16 J	-5558760.48	-5558760.28	-5558760.06	0.0088	0.0032
Venus	-19932-07-24 18:57 J	-5558534.92	-5558534.71	-5558534.50	0.0088	0.0030
Venus	-19931-03-07 08:23 J	-5558309.36	-5558309.15	-5558308.93	0.0088	0.0028
Venus	-19931-10-18 22:04 J	-5558083.79	-5558083.58	-5558083.36	0.0088	0.0025
Venus	-19930-06-01 11:45 J	-5557858.22	-5557858.01	-5557857.79	0.0088	0.0023
Venus	-19929-01-13 01:11 J	-5557632.66	-5557632.45	-5557632.22	0.0088	0.0022
Venus	-19929-08-25 14:52 J	-5557407.09	-5557406.88	-5557406.65	0.0088	0.0019
Venus	-19928-04-08 04:33 J	-5557181.52	-5557181.31	-5557181.08	0.0088	0.0017
Venus	-19928-11-19 18:28 J	-5556955.95	-5556955.73	-5556955.50	0.0088	0.0015
Venus	-19927-07-03 08:09 J	-5556730.38	-5556730.16	-5556729.93	0.0088	0.0013

Venus	-19926-02-13 21:50 J	-5556504.81	-5556504.59	-5556504.36	0.0088	0.0010
Venus	-19926-09-27 11:31 J	-5556279.24	-5556279.02	-5556278.79	0.0088	0.0008
Venus	-19925-05-10 01:11 J	-5556053.67	-5556053.45	-5556053.22	0.0088	0.0007
Venus	-19925-12-21 15:07 J	-5555828.09	-5555827.87	-5555827.64	0.0088	0.0004
Venus	-19924-08-04 04:48 J	-5555602.52	-5555602.30	-5555602.07	0.0088	0.0002
Venus	-19923-03-17 18:28 J	-5555376.95	-5555376.73	-5555376.50	0.0088	0.0001
Venus	-19923-10-29 08:09 J	-5555151.38	-5555151.16	-5555150.93	0.0088	0.0004
Venus	-19922-06-11 21:50 J	-5554925.81	-5554925.59	-5554925.36	0.0088	0.0006
Venus	-19921-01-23 11:45 J	-5554700.24	-5554700.01	-5554699.79	0.0088	0.0008
Venus	-19921-09-05 01:11 J	-5554474.67	-5554474.45	-5554474.22	0.0088	0.0010
Venus	-19920-04-18 14:52 J	-5554249.10	-5554248.88	-5554248.65	0.0088	0.0012
Venus	-19920-11-30 04:33 J	-5554023.52	-5554023.31	-5554023.08	0.0088	0.0014
Venus	-19919-07-13 18:14 J	-5553797.95	-5553797.74	-5553797.51	0.0088	0.0016
Venus	-19918-02-24 07:55 J	-5553572.38	-5553572.17	-5553571.95	0.0089	0.0019
Venus	-19918-10-07 21:36 J	-5553346.82	-5553346.60	-5553346.38	0.0089	0.0021
Venus	-19917-05-20 11:16 J	-5553121.24	-5553121.03	-5553120.81	0.0089	0.0023
Venus	-19916-01-01 00:57 J	-5552895.67	-5552895.46	-5552895.24	0.0089	0.0025
Venus	-19916-08-14 14:23 J	-5552670.10	-5552669.90	-5552669.67	0.0089	0.0028
Venus	-19915-03-28 04:04 J	-5552444.53	-5552444.33	-5552444.10	0.0089	0.0030
Venus	-19915-11-08 17:45 J	-5552218.95	-5552218.76	-5552218.53	0.0089	0.0032
Venus	-19914-06-22 07:40 J	-5551993.38	-5551993.18	-5551992.96	0.0089	0.0034
Venus	-19913-02-02 21:21 J	-5551767.80	-5551767.61	-5551767.39	0.0089	0.0036
Venus	-19913-09-15 11:02 J	-5551542.23	-5551542.04	-5551541.83	0.0089	0.0038
Venus	-19912-04-29 00:43 J	-5551316.66	-5551316.47	-5551316.26	0.0089	0.0040
Venus	-19912-12-10 14:38 J	-5551091.08	-5551090.89	-5551090.68	0.0089	0.0042
Venus	-19911-07-24 04:19 J	-5550865.50	-5550865.32	-5550865.12	0.0089	0.0044
Venus	-19910-03-06 17:45 J	-5550639.93	-5550639.76	-5550639.55	0.0089	0.0046
Venus	-19910-10-18 07:26 J	-5550414.36	-5550414.19	-5550413.99	0.0089	0.0048
Venus	-19909-05-30 20:52 J	-5550188.79	-5550188.63	-5550188.42	0.0089	0.0050
Venus	-19908-01-11 10:33 J	-5549963.22	-5549963.06	-5549962.85	0.0089	0.0052

Venus	-19908-08-25 00:43 J	-5549737.65	-5549737.47	-5549737.29	0.0089	0.0053
Venus	-19907-04-07 14:09 J	-5549512.08	-5549511.91	-5549511.73	0.0089	0.0055
Venus	-19907-11-19 03:36 J	-5549286.51	-5549286.35	-5549286.17	0.0089	0.0057
Venus	-19906-07-02 17:02 J	-5549060.94	-5549060.79	-5549060.61	0.0089	0.0059
Venus	-19905-02-13 06:28 J	-5548835.37	-5548835.23	-5548835.04	0.0089	0.0061
Venus	-19905-09-25 20:23 J	-5548609.80	-5548609.65	-5548609.48	0.0089	0.0062
Venus	-19904-05-09 09:50 J	-5548384.23	-5548384.09	-5548383.92	0.0089	0.0064
Venus	-19904-12-20 23:16 J	-5548158.66	-5548158.53	-5548158.36	0.0089	0.0066
Venus	-19903-08-03 13:11 J	-5547933.08	-5547932.95	-5547932.79	0.0089	0.0067
Venus	-19902-03-17 02:23 J	-5547707.51	-5547707.40	-5547707.23	0.0089	0.0069
Venus	-19902-10-28 16:19 J	-5547481.94	-5547481.82	-5547481.67	0.0089	0.0070
Venus	-19901-06-10 05:31 J	-5547256.37	-5547256.27	-5547256.11	0.0089	0.0072
Venus	-19900-01-21 19:26 J	-5547030.80	-5547030.69	-5547030.55	0.0089	0.0073
Venus	-19900-09-04 09:21 J	-5546805.23	-5546805.11	-5546804.99	0.0089	0.0074
Venus	-19899-04-17 22:19 J	-5546579.66	-5546579.57	-5546579.43	0.0089	0.0076
Venus	-19899-11-29 12:00 J	-5546354.09	-5546354.00	-5546353.87	0.0089	0.0077
Venus	-19898-07-13 01:55 J	-5546128.52	-5546128.42	-5546128.31	0.0089	0.0078
Venus	-19897-02-23 14:52 J	-5545902.95	-5545902.88	-5545902.75	0.0089	0.0080
Venus	-19897-10-06 04:33 J	-5545677.38	-5545677.31	-5545677.20	0.0089	0.0081
Venus	-19896-05-19 18:00 J	-5545451.82	-5545451.75	-5545451.65	0.0089	0.0082
Venus	-19896-12-31 07:26 J	-5545226.25	-5545226.19	-5545226.09	0.0089	0.0084
Venus	-19895-08-13 20:52 J	-5545000.68	-5545000.63	-5545000.54	0.0089	0.0085
Venus	-19894-03-27 10:19 J	-5544775.11	-5544775.07	-5544774.99	0.0089	0.0086
Venus	-19894-11-07 23:45 J	-5544549.55	-5544549.51	-5544549.44	0.0089	0.0086
Venus	-19893-06-20 12:57 J	-5544323.98	-5544323.96	-5544323.90	0.0089	0.0087
Venus	-19892-02-01 02:23 J	-5544098.41	-5544098.40	-5544098.35	0.0089	0.0088
Venus	-19892-09-14 15:50 J	-5543872.84	-5543872.84	-5543872.80	0.0089	0.0089
Moon	-19884-05-07 05:31 J	-5541081.47	-5541081.27	-5541081.05	0.0089	0.0048
Earth	-19884-05-07 08:23 J	-5541081.33	-5541081.15	-5541080.92	0.0089	0.0053 *
Earth	-19883-05-09 19:26 J	-5540713.95	-5540713.69	-5540713.44	0.0089	0.0010

Moon	-19883-05-09 21:36 J	-5540713.85	-5540713.60	-5540713.34	0.0089	0.0015 *
Moon	-19882-05-12 04:19 J	-5540346.52	-5540346.32	-5540346.08	0.0089	0.0038
Earth	-19882-05-12 05:45 J	-5540346.49	-5540346.26	-5540346.02	0.0089	0.0033 *
Moon	-19881-05-13 16:04 J	-5539978.97	-5539978.83	-5539978.66	0.0089	0.0071
Earth	-19881-05-13 15:36 J	-5539978.96	-5539978.85	-5539978.69	0.0089	0.0075 *
Venus	-19874-08-12 13:26 J	-5537331.94	-5537331.94	-5537331.91	0.0089	0.0089
Venus	-19873-03-25 02:23 J	-5537106.41	-5537106.40	-5537106.35	0.0089	0.0088
Venus	-19873-11-05 15:21 J	-5536880.89	-5536880.86	-5536880.81	0.0089	0.0088
Venus	-19872-06-19 04:04 J	-5536655.36	-5536655.33	-5536655.26	0.0089	0.0087
Venus	-19871-01-30 17:02 J	-5536429.84	-5536429.79	-5536429.72	0.0089	0.0086
Venus	-19871-09-13 06:00 J	-5536204.31	-5536204.25	-5536204.18	0.0089	0.0085
Venus	-19870-04-26 18:57 J	-5535978.78	-5535978.71	-5535978.63	0.0089	0.0084
Venus	-19870-12-08 07:26 J	-5535753.25	-5535753.19	-5535753.09	0.0089	0.0083
Venus	-19869-07-20 20:09 J	-5535527.73	-5535527.66	-5535527.56	0.0089	0.0082
Venus	-19868-03-03 08:52 J	-5535302.20	-5535302.13	-5535302.02	0.0089	0.0081
Venus	-19868-10-14 21:36 J	-5535076.68	-5535076.60	-5535076.48	0.0089	0.0079
Venus	-19867-05-28 10:48 J	-5534851.15	-5534851.05	-5534850.94	0.0089	0.0078
Venus	-19866-01-08 23:16 J	-5534625.63	-5534625.53	-5534625.41	0.0089	0.0077
Mars	-19866-06-01 20:09 J	-5534481.93	-5534481.66	-5534481.33	0.0089	0.0042
Venus	-19866-08-22 11:45 J	-5534400.11	-5534400.01	-5534399.88	0.0089	0.0075
Mercury	-19865-04-01 07:11 J	-5534177.22	-5534177.20	-5534177.16	0.0089	0.0086
Venus	-19865-04-04 00:57 J	-5534174.58	-5534174.46	-5534174.34	0.0089	0.0074
Mercury	-19865-06-28 08:23 J	-5534089.19	-5534089.15	-5534089.08	0.0089	0.0080
Mercury	-19865-09-24 09:50 J	-5534001.16	-5534001.09	-5534001.01	0.0089	0.0072
Venus	-19865-11-15 13:26 J	-5533949.05	-5533948.94	-5533948.80	0.0089	0.0072
Mercury	-19865-12-21 11:16 J	-5533913.11	-5533913.03	-5533912.94	0.0089	0.0065
Mercury	-19864-03-19 12:28 J	-5533825.07	-5533824.98	-5533824.87	0.0089	0.0059
Mars	-19864-04-28 03:36 J	-5533785.63	-5533785.35	-5533785.01	0.0089	0.0037
Mercury	-19864-06-15 13:55 J	-5533737.02	-5533736.92	-5533736.81	0.0089	0.0051
Venus	-19864-06-29 01:55 J	-5533723.53	-5533723.42	-5533723.27	0.0089	0.0071

Mercury	-19864-09-11 15:07 J	-5533648.98	-5533648.87	-5533648.75	0.0089	0.0045
Mercury	-19864-12-08 16:33 J	-5533560.93	-5533560.81	-5533560.69	0.0089	0.0037
Venus	-19863-02-09 14:38 J	-5533498.01	-5533497.89	-5533497.74	0.0089	0.0070
Mercury	-19863-03-06 17:45 J	-5533472.88	-5533472.76	-5533472.63	0.0089	0.0031
Mercury	-19863-06-02 19:11 J	-5533384.82	-5533384.70	-5533384.57	0.0089	0.0023
Mercury	-19863-08-29 20:38 J	-5533296.77	-5533296.64	-5533296.51	0.0089	0.0016
Venus	-19863-09-23 03:21 J	-5533272.48	-5533272.36	-5533272.20	0.0089	0.0068
Mercury	-19863-11-25 21:50 J	-5533208.72	-5533208.59	-5533208.46	0.0089	0.0009
Mercury	-19862-02-21 23:16 J	-5533120.66	-5533120.53	-5533120.40	0.0089	0.0003
Venus	-19862-05-06 16:19 J	-5533046.95	-5533046.82	-5533046.66	0.0089	0.0066
Mercury	-19862-05-21 00:28 J	-5533032.61	-5533032.48	-5533032.34	0.0089	0.0005
Mercury	-19862-08-17 01:55 J	-5532944.55	-5532944.42	-5532944.29	0.0089	0.0012
Mercury	-19862-11-13 03:07 J	-5532856.49	-5532856.37	-5532856.24	0.0089	0.0019
Venus	-19862-12-18 05:16 J	-5532821.43	-5532821.28	-5532821.13	0.0089	0.0065
Mercury	-19861-02-09 04:33 J	-5532768.44	-5532768.31	-5532768.18	0.0089	0.0026
Mercury	-19861-05-07 05:45 J	-5532680.38	-5532680.26	-5532680.13	0.0089	0.0033
Venus	-19861-07-30 17:31 J	-5532595.90	-5532595.77	-5532595.60	0.0089	0.0063
Mercury	-19861-08-03 07:11 J	-5532592.32	-5532592.20	-5532592.08	0.0089	0.0040
Mercury	-19861-10-30 08:23 J	-5532504.25	-5532504.15	-5532504.03	0.0089	0.0047
Mercury	-19860-01-26 09:50 J	-5532416.19	-5532416.09	-5532415.98	0.0089	0.0054
Venus	-19860-03-13 06:14 J	-5532370.38	-5532370.24	-5532370.07	0.0089	0.0062
Mercury	-19860-04-24 11:02 J	-5532328.12	-5532328.04	-5532327.93	0.0089	0.0062
Mercury	-19860-07-21 12:28 J	-5532240.06	-5532239.98	-5532239.89	0.0089	0.0069
Mercury	-19860-10-17 13:55 J	-5532151.99	-5532151.92	-5532151.85	0.0089	0.0075
Venus	-19860-10-24 19:11 J	-5532144.86	-5532144.70	-5532144.54	0.0089	0.0060
Mercury	-19859-01-13 15:21 J	-5532063.91	-5532063.86	-5532063.81	0.0089	0.0083
Venus	-19859-06-07 07:26 J	-5531919.34	-5531919.19	-5531919.01	0.0089	0.0058
Venus	-19858-01-18 19:55 J	-5531693.82	-5531693.67	-5531693.48	0.0089	0.0057
Venus	-19858-09-01 08:38 J	-5531468.30	-5531468.14	-5531467.96	0.0089	0.0054
Venus	-19857-04-13 21:21 J	-5531242.77	-5531242.61	-5531242.43	0.0089	0.0052

Venus	-19857-11-25 09:50 J	-5531017.26	-5531017.09	-5531016.90	0.0089	0.0051
Venus	-19856-07-08 22:19 J	-5530791.74	-5530791.57	-5530791.38	0.0089	0.0049
Venus	-19855-02-19 11:02 J	-5530566.22	-5530566.04	-5530565.86	0.0089	0.0047
Venus	-19855-10-02 23:31 J	-5530340.71	-5530340.52	-5530340.33	0.0089	0.0045
Venus	-19854-05-16 11:45 J	-5530115.18	-5530115.01	-5530114.80	0.0089	0.0043
Venus	-19854-12-28 00:14 J	-5529889.67	-5529889.49	-5529889.28	0.0089	0.0041
Venus	-19853-08-09 12:57 J	-5529664.15	-5529663.96	-5529663.76	0.0089	0.0039
Venus	-19852-03-23 01:26 J	-5529438.63	-5529438.44	-5529438.24	0.0089	0.0037
Venus	-19852-11-03 13:55 J	-5529213.12	-5529212.92	-5529212.72	0.0089	0.0035
Venus	-19851-06-17 02:23 J	-5528987.60	-5528987.40	-5528987.19	0.0089	0.0033
Venus	-19850-01-28 14:52 J	-5528762.08	-5528761.88	-5528761.67	0.0089	0.0030
Venus	-19850-09-11 03:21 J	-5528536.56	-5528536.36	-5528536.15	0.0089	0.0028
Venus	-19849-04-23 15:50 J	-5528311.04	-5528310.84	-5528310.63	0.0089	0.0026
Venus	-19849-12-05 04:19 J	-5528085.52	-5528085.32	-5528085.10	0.0089	0.0024
Venus	-19848-07-18 16:33 J	-5527860.00	-5527859.81	-5527859.59	0.0089	0.0023
Venus	-19847-03-01 05:02 J	-5527634.49	-5527634.29	-5527634.07	0.0089	0.0020
Venus	-19847-10-12 17:45 J	-5527408.97	-5527408.76	-5527408.55	0.0089	0.0017
Venus	-19846-05-26 06:14 J	-5527183.45	-5527183.24	-5527183.02	0.0089	0.0015
Venus	-19845-01-06 18:28 J	-5526957.94	-5526957.73	-5526957.51	0.0089	0.0013
Venus	-19845-08-19 06:57 J	-5526732.42	-5526732.21	-5526731.99	0.0089	0.0011
Venus	-19844-04-01 19:11 J	-5526506.91	-5526506.70	-5526506.48	0.0089	0.0009
Venus	-19844-11-13 07:40 J	-5526281.40	-5526281.18	-5526280.96	0.0089	0.0006
Venus	-19843-06-26 20:09 J	-5526055.88	-5526055.66	-5526055.45	0.0089	0.0004
Venus	-19842-02-07 08:23 J	-5525830.36	-5525830.15	-5525829.93	0.0089	0.0002
Venus	-19842-09-20 20:38 J	-5525604.85	-5525604.64	-5525604.42	0.0089	0.0002
Venus	-19841-05-03 09:07 J	-5525379.34	-5525379.12	-5525378.90	0.0089	0.0003
Venus	-19841-12-14 21:21 J	-5525153.82	-5525153.61	-5525153.39	0.0089	0.0005
Venus	-19840-07-28 09:50 J	-5524928.31	-5524928.09	-5524927.88	0.0089	0.0007
Venus	-19839-03-10 22:04 J	-5524702.79	-5524702.58	-5524702.36	0.0089	0.0009
Venus	-19839-10-22 10:19 J	-5524477.28	-5524477.07	-5524476.85	0.0089	0.0012

Venus	-19838-06-04 22:48 J	-5524251.75	-5524251.55	-5524251.33	0.0089	0.0014
Venus	-19837-01-16 11:16 J	-5524026.24	-5524026.03	-5524025.81	0.0089	0.0016
Venus	-19837-08-28 23:45 J	-5523800.72	-5523800.51	-5523800.30	0.0089	0.0018
Venus	-19836-04-11 12:00 J	-5523575.21	-5523575.00	-5523574.79	0.0089	0.0020
Venus	-19836-11-23 00:14 J	-5523349.69	-5523349.49	-5523349.27	0.0089	0.0023
Venus	-19835-07-06 12:43 J	-5523124.17	-5523123.97	-5523123.75	0.0089	0.0025
Venus	-19834-02-17 01:11 J	-5522898.65	-5522898.45	-5522898.24	0.0089	0.0027
Venus	-19834-09-30 13:26 J	-5522673.13	-5522672.94	-5522672.72	0.0089	0.0029
Venus	-19833-05-13 01:55 J	-5522447.62	-5522447.42	-5522447.21	0.0089	0.0031
Venus	-19833-12-24 14:23 J	-5522222.10	-5522221.90	-5522221.70	0.0089	0.0033
Venus	-19832-08-07 02:38 J	-5521996.58	-5521996.39	-5521996.19	0.0089	0.0035
Venus	-19831-03-20 15:07 J	-5521771.07	-5521770.87	-5521770.67	0.0089	0.0037
Venus	-19831-11-01 03:07 J	-5521545.55	-5521545.37	-5521545.16	0.0089	0.0040
Venus	-19830-06-14 15:36 J	-5521320.03	-5521319.85	-5521319.64	0.0089	0.0042
Venus	-19829-01-26 03:50 J	-5521094.51	-5521094.34	-5521094.13	0.0089	0.0044
Venus	-19829-09-07 16:04 J	-5520868.99	-5520868.83	-5520868.62	0.0089	0.0046
Venus	-19828-04-21 04:33 J	-5520643.48	-5520643.31	-5520643.11	0.0089	0.0047
Venus	-19828-12-02 17:16 J	-5520417.96	-5520417.78	-5520417.60	0.0089	0.0049
Venus	-19827-07-16 05:45 J	-5520192.43	-5520192.26	-5520192.08	0.0089	0.0051
Venus	-19826-02-26 18:00 J	-5519966.91	-5519966.75	-5519966.57	0.0089	0.0053
Venus	-19826-10-10 06:14 J	-5519741.39	-5519741.24	-5519741.05	0.0089	0.0055
Venus	-19825-05-22 18:43 J	-5519515.87	-5519515.72	-5519515.54	0.0089	0.0057
Venus	-19824-01-03 07:11 J	-5519290.35	-5519290.20	-5519290.02	0.0089	0.0059
Venus	-19824-08-16 19:26 J	-5519064.82	-5519064.69	-5519064.50	0.0088	0.0061
Venus	-19823-03-30 08:23 J	-5518839.30	-5518839.15	-5518838.99	0.0088	0.0062
Venus	-19823-11-10 20:38 J	-5518613.77	-5518613.64	-5518613.47	0.0088	0.0064
Venus	-19822-06-24 09:07 J	-5518388.24	-5518388.12	-5518387.95	0.0088	0.0066
Venus	-19821-02-04 21:50 J	-5518162.72	-5518162.59	-5518162.44	0.0088	0.0067
Venus	-19821-09-17 10:04 J	-5517937.20	-5517937.08	-5517936.92	0.0088	0.0069
Venus	-19820-04-30 22:19 J	-5517711.67	-5517711.57	-5517711.41	0.0088	0.0071

Venus	-19820-12-12 11:02 J	-5517486.15	-5517486.04	-5517485.90	0.0088	0.0072
Venus	-19819-07-25 23:31 J	-5517260.62	-5517260.52	-5517260.37	0.0088	0.0074
Venus	-19818-03-08 12:14 J	-5517035.09	-5517034.99	-5517034.86	0.0088	0.0075
Venus	-19818-10-20 00:57 J	-5516809.57	-5516809.46	-5516809.35	0.0088	0.0076
Venus	-19817-06-01 12:57 J	-5516584.04	-5516583.96	-5516583.83	0.0088	0.0078
Venus	-19816-01-13 01:40 J	-5516358.51	-5516358.43	-5516358.32	0.0088	0.0079
Venus	-19816-08-26 14:23 J	-5516132.98	-5516132.90	-5516132.80	0.0088	0.0080
Venus	-19815-04-09 02:23 J	-5515907.45	-5515907.40	-5515907.29	0.0088	0.0082
Venus	-19815-11-20 15:07 J	-5515681.92	-5515681.87	-5515681.77	0.0088	0.0083
Venus	-19814-07-04 03:50 J	-5515456.39	-5515456.34	-5515456.25	0.0088	0.0084
Venus	-19813-02-14 16:33 J	-5515230.85	-5515230.81	-5515230.73	0.0088	0.0085
Venus	-19813-09-27 05:16 J	-5515005.32	-5515005.28	-5515005.22	0.0088	0.0086
Venus	-19812-05-10 17:45 J	-5514779.78	-5514779.76	-5514779.70	0.0088	0.0087
Venus	-19812-12-22 06:28 J	-5514554.24	-5514554.23	-5514554.19	0.0088	0.0088
Moon	-19803-11-03 10:04 J	-5511316.20	-5511316.08	-5511315.90	0.0088	0.0072
Earth	-19803-11-03 12:43 J	-5511316.10	-5511315.97	-5511315.79	0.0088	0.0070 *
Earth	-19802-11-06 01:40 J	-5510948.67	-5510948.43	-5510948.17	0.0088	0.0028
Moon	-19802-11-06 02:52 J	-5510948.63	-5510948.38	-5510948.11	0.0088	0.0027 *
Moon	-19801-11-07 14:09 J	-5510581.15	-5510580.91	-5510580.65	0.0088	0.0013
Earth	-19801-11-07 14:23 J	-5510581.14	-5510580.90	-5510580.62	0.0088	0.0016 *
Moon	-19800-11-10 02:23 J	-5510213.60	-5510213.40	-5510213.20	0.0088	0.0059
Earth	-19800-11-10 02:52 J	-5510213.55	-5510213.38	-5510213.16	0.0088	0.0057 *
Venus	-19788-06-09 17:02 J	-5505983.80	-5505983.79	-5505983.75	0.0088	0.0087
Venus	-19787-01-21 06:14 J	-5505758.27	-5505758.24	-5505758.18	0.0088	0.0086
Venus	-19787-09-03 19:26 J	-5505532.72	-5505532.69	-5505532.62	0.0088	0.0085
Venus	-19786-04-17 08:52 J	-5505307.18	-5505307.13	-5505307.05	0.0088	0.0084
Venus	-19786-11-28 21:50 J	-5505081.64	-5505081.59	-5505081.49	0.0088	0.0083
Venus	-19785-07-11 11:02 J	-5504856.09	-5504856.04	-5504855.93	0.0088	0.0082
Venus	-19784-02-22 00:57 J	-5504630.55	-5504630.46	-5504630.37	0.0088	0.0080
Mars	-19784-03-19 00:43 J	-5504605.69	-5504605.47	-5504605.24	0.0088	0.0055

Venus	-19784-10-05 14:09 J	-5504404.99	-5504404.91	-5504404.80	0.0088	0.0079
Venus	-19783-05-19 03:21 J	-5504179.44	-5504179.36	-5504179.24	0.0088	0.0078
Venus	-19783-12-30 17:02 J	-5503953.89	-5503953.79	-5503953.68	0.0088	0.0076
Mars	-19782-02-10 16:33 J	-5503912.10	-5503911.81	-5503911.51	0.0088	0.0007
Venus	-19782-08-13 06:00 J	-5503728.35	-5503728.25	-5503728.12	0.0088	0.0075
Mercury	-19782-09-18 01:11 J	-5503692.47	-5503692.45	-5503692.39	0.0088	0.0086
Mercury	-19782-12-15 04:48 J	-5503604.38	-5503604.30	-5503604.18	0.0088	0.0076
Mercury	-19781-03-12 08:38 J	-5503516.26	-5503516.14	-5503516.00	0.0088	0.0066
Venus	-19781-03-25 19:11 J	-5503502.80	-5503502.70	-5503502.55	0.0088	0.0074
Mercury	-19781-06-08 12:14 J	-5503428.13	-5503427.99	-5503427.83	0.0088	0.0056
Mercury	-19781-09-04 15:50 J	-5503339.99	-5503339.84	-5503339.66	0.0088	0.0046
Venus	-19781-11-06 08:52 J	-5503277.24	-5503277.13	-5503276.99	0.0088	0.0072
Mercury	-19781-12-01 19:26 J	-5503251.85	-5503251.69	-5503251.50	0.0088	0.0036
Mars	-19780-01-04 08:38 J	-5503218.30	-5503218.14	-5503217.95	0.0088	0.0070
Mercury	-19780-02-27 23:16 J	-5503163.71	-5503163.53	-5503163.34	0.0088	0.0026
Mercury	-19780-05-27 02:52 J	-5503075.57	-5503075.38	-5503075.18	0.0088	0.0016
Venus	-19780-06-19 21:50 J	-5503051.69	-5503051.59	-5503051.43	0.0088	0.0071
Mercury	-19780-08-23 06:28 J	-5502987.42	-5502987.23	-5502987.03	0.0088	0.0006
Mercury	-19780-11-19 10:04 J	-5502899.27	-5502899.08	-5502898.88	0.0088	0.0005
Venus	-19779-01-31 11:31 J	-5502826.14	-5502826.02	-5502825.87	0.0088	0.0069
Mercury	-19779-02-15 13:40 J	-5502811.12	-5502810.93	-5502810.73	0.0088	0.0014
Mercury	-19779-05-14 17:16 J	-5502722.97	-5502722.78	-5502722.59	0.0088	0.0024
Mercury	-19779-08-10 20:38 J	-5502634.81	-5502634.64	-5502634.45	0.0088	0.0034
Venus	-19779-09-14 01:11 J	-5502600.59	-5502600.45	-5502600.30	0.0088	0.0067
Mercury	-19779-11-07 00:14 J	-5502546.65	-5502546.49	-5502546.31	0.0088	0.0044
Mercury	-19778-02-03 03:36 J	-5502458.49	-5502458.35	-5502458.18	0.0088	0.0054
Venus	-19778-04-27 14:09 J	-5502375.03	-5502374.91	-5502374.74	0.0088	0.0066
Mercury	-19778-05-02 07:26 J	-5502370.32	-5502370.19	-5502370.05	0.0088	0.0063
Mercury	-19778-07-29 10:48 J	-5502282.14	-5502282.05	-5502281.93	0.0088	0.0073
Mercury	-19778-10-25 14:23 J	-5502193.95	-5502193.90	-5502193.83	0.0088	0.0083

Venus	-19778-12-09 03:36 J	-5502149.48	-5502149.35	-5502149.18	0.0088	0.0064
Venus	-19777-07-21 17:02 J	-5501923.93	-5501923.79	-5501923.62	0.0088	0.0063
Venus	-19776-03-04 06:43 J	-5501698.38	-5501698.22	-5501698.05	0.0088	0.0061
Venus	-19776-10-15 19:55 J	-5501472.81	-5501472.67	-5501472.48	0.0088	0.0059
Venus	-19775-05-29 09:36 J	-5501247.25	-5501247.10	-5501246.91	0.0088	0.0057
Venus	-19774-01-09 23:02 J	-5501021.70	-5501021.54	-5501021.35	0.0088	0.0055
Venus	-19774-08-23 12:28 J	-5500796.14	-5500795.98	-5500795.78	0.0088	0.0054
Venus	-19773-04-05 02:09 J	-5500570.58	-5500570.41	-5500570.22	0.0088	0.0051
Venus	-19773-11-16 15:50 J	-5500345.02	-5500344.84	-5500344.64	0.0088	0.0049
Venus	-19772-06-30 05:16 J	-5500119.45	-5500119.28	-5500119.08	0.0088	0.0048
Venus	-19771-02-10 18:57 J	-5499893.89	-5499893.71	-5499893.51	0.0088	0.0045
Venus	-19771-09-24 08:38 J	-5499668.33	-5499668.14	-5499667.94	0.0088	0.0043
Venus	-19770-05-07 22:04 J	-5499442.77	-5499442.58	-5499442.37	0.0088	0.0041
Venus	-19770-12-19 11:31 J	-5499217.20	-5499217.02	-5499216.80	0.0088	0.0040
Venus	-19769-08-01 01:11 J	-5498991.64	-5498991.45	-5498991.24	0.0088	0.0037
Venus	-19768-03-14 14:38 J	-5498766.08	-5498765.89	-5498765.67	0.0088	0.0035
Venus	-19768-10-26 04:33 J	-5498540.51	-5498540.31	-5498540.10	0.0088	0.0033
Venus	-19767-06-08 18:14 J	-5498314.95	-5498314.74	-5498314.53	0.0088	0.0030
Venus	-19766-01-20 07:40 J	-5498089.39	-5498089.18	-5498088.96	0.0088	0.0028
Venus	-19766-09-02 21:07 J	-5497863.83	-5497863.62	-5497863.40	0.0088	0.0026
Venus	-19765-04-15 10:33 J	-5497638.26	-5497638.06	-5497637.83	0.0088	0.0024
Venus	-19765-11-27 00:28 J	-5497412.69	-5497412.48	-5497412.26	0.0088	0.0022
Venus	-19764-07-10 14:09 J	-5497187.13	-5497186.91	-5497186.69	0.0088	0.0019
Venus	-19763-02-21 03:36 J	-5496961.56	-5496961.35	-5496961.12	0.0088	0.0017
Venus	-19763-10-04 17:31 J	-5496735.99	-5496735.77	-5496735.55	0.0088	0.0015
Venus	-19762-05-18 07:11 J	-5496510.42	-5496510.20	-5496509.98	0.0088	0.0012
Venus	-19762-12-29 20:52 J	-5496284.85	-5496284.63	-5496284.41	0.0088	0.0010
Venus	-19761-08-11 10:33 J	-5496059.28	-5496059.06	-5496058.84	0.0088	0.0008
Venus	-19760-03-25 00:14 J	-5495833.72	-5495833.49	-5495833.27	0.0088	0.0005
Venus	-19760-11-05 14:09 J	-5495608.14	-5495607.91	-5495607.69	0.0088	0.0004

Venus	-19759-06-19 03:50 J	-5495382.57	-5495382.34	-5495382.12	0.0088	0.0001
Venus	-19758-01-30 17:31 J	-5495157.00	-5495156.77	-5495156.55	0.0088	0.0002
Venus	-19758-09-13 07:11 J	-5494931.43	-5494931.20	-5494930.98	0.0088	0.0004
Venus	-19757-04-25 20:52 J	-5494705.85	-5494705.63	-5494705.41	0.0088	0.0006
Venus	-19757-12-07 10:33 J	-5494480.28	-5494480.06	-5494479.83	0.0088	0.0009
Venus	-19756-07-21 00:14 J	-5494254.71	-5494254.49	-5494254.26	0.0088	0.0011
Venus	-19755-03-03 13:55 J	-5494029.14	-5494028.92	-5494028.69	0.0088	0.0013
Venus	-19755-10-15 03:36 J	-5493803.57	-5493803.35	-5493803.13	0.0088	0.0016
Venus	-19754-05-28 17:16 J	-5493578.00	-5493577.78	-5493577.56	0.0088	0.0018
Venus	-19753-01-09 06:57 J	-5493352.42	-5493352.21	-5493351.99	0.0089	0.0020
Venus	-19753-08-21 20:38 J	-5493126.85	-5493126.64	-5493126.42	0.0089	0.0023
Venus	-19752-04-04 10:19 J	-5492901.28	-5492901.07	-5492900.85	0.0089	0.0025
Venus	-19752-11-15 23:45 J	-5492675.71	-5492675.51	-5492675.28	0.0089	0.0028
Venus	-19751-06-29 13:26 J	-5492450.13	-5492449.94	-5492449.71	0.0089	0.0030
Venus	-19750-02-10 03:21 J	-5492224.56	-5492224.36	-5492224.14	0.0089	0.0032
Venus	-19750-09-23 17:02 J	-5491998.99	-5491998.79	-5491998.58	0.0089	0.0034
Venus	-19749-05-06 06:43 J	-5491773.42	-5491773.22	-5491773.01	0.0089	0.0036
Venus	-19749-12-17 20:23 J	-5491547.84	-5491547.65	-5491547.43	0.0089	0.0039
Venus	-19748-07-31 10:04 J	-5491322.26	-5491322.08	-5491321.87	0.0089	0.0041
Venus	-19747-03-13 23:45 J	-5491096.69	-5491096.51	-5491096.30	0.0089	0.0043
Venus	-19747-10-25 13:26 J	-5490871.12	-5490870.94	-5490870.73	0.0089	0.0045
Venus	-19746-06-08 03:21 J	-5490645.54	-5490645.36	-5490645.16	0.0089	0.0047
Venus	-19745-01-19 17:02 J	-5490419.96	-5490419.79	-5490419.59	0.0089	0.0049
Venus	-19745-09-01 06:43 J	-5490194.39	-5490194.22	-5490194.03	0.0089	0.0051
Venus	-19744-04-14 20:23 J	-5489968.82	-5489968.65	-5489968.46	0.0089	0.0053
Venus	-19744-11-26 10:04 J	-5489743.24	-5489743.08	-5489742.89	0.0089	0.0055
Venus	-19743-07-09 23:45 J	-5489517.67	-5489517.51	-5489517.33	0.0089	0.0057
Venus	-19742-02-20 13:26 J	-5489292.10	-5489291.94	-5489291.76	0.0089	0.0059
Venus	-19742-10-04 02:52 J	-5489066.53	-5489066.38	-5489066.20	0.0089	0.0061
Venus	-19741-05-16 16:19 J	-5488840.96	-5488840.82	-5488840.64	0.0089	0.0063

Venus	-19741-12-28 06:00 J	-5488615.38	-5488615.25	-5488615.08	0.0089	0.0065
Venus	-19740-08-10 19:55 J	-5488389.81	-5488389.67	-5488389.52	0.0089	0.0066
Venus	-19739-03-24 09:21 J	-5488164.24	-5488164.11	-5488163.96	0.0089	0.0068
Venus	-19739-11-04 22:33 J	-5487938.67	-5487938.56	-5487938.40	0.0089	0.0070
Venus	-19738-06-18 12:00 J	-5487713.10	-5487713.00	-5487712.84	0.0089	0.0072
Venus	-19737-01-30 01:55 J	-5487487.53	-5487487.42	-5487487.28	0.0089	0.0073
Venus	-19737-09-11 15:21 J	-5487261.96	-5487261.86	-5487261.72	0.0089	0.0075
Venus	-19736-04-25 05:02 J	-5487036.39	-5487036.29	-5487036.16	0.0089	0.0076
Venus	-19736-12-06 18:28 J	-5486810.82	-5486810.73	-5486810.60	0.0089	0.0078
Venus	-19735-07-20 08:09 J	-5486585.24	-5486585.16	-5486585.04	0.0089	0.0079
Venus	-19734-03-02 21:36 J	-5486359.67	-5486359.60	-5486359.49	0.0089	0.0081
Venus	-19734-10-14 11:16 J	-5486134.10	-5486134.03	-5486133.93	0.0089	0.0082
Venus	-19733-05-27 00:57 J	-5485908.53	-5485908.46	-5485908.38	0.0089	0.0083
Venus	-19732-01-07 14:09 J	-5485682.95	-5485682.91	-5485682.82	0.0089	0.0085
Venus	-19732-08-21 03:50 J	-5485457.38	-5485457.34	-5485457.27	0.0089	0.0086
Venus	-19731-04-03 17:16 J	-5485231.80	-5485231.78	-5485231.72	0.0089	0.0087
Venus	-19731-11-15 06:43 J	-5485006.23	-5485006.22	-5485006.18	0.0089	0.0088
Earth	-19720-05-06 18:14 J	-5481180.87	-5481180.74	-5481180.60	0.0089	0.0075
Moon	-19720-05-06 20:09 J	-5481180.78	-5481180.66	-5481180.50	0.0089	0.0074 *
Moon	-19719-05-09 03:36 J	-5480813.56	-5480813.35	-5480813.10	0.0089	0.0034
Earth	-19719-05-09 04:48 J	-5480813.53	-5480813.30	-5480813.05	0.0089	0.0032 *
Moon	-19718-05-11 14:38 J	-5480446.14	-5480445.89	-5480445.62	0.0089	0.0012
Earth	-19718-05-11 15:21 J	-5480446.11	-5480445.86	-5480445.60	0.0089	0.0010 *
Earth	-19717-05-13 01:40 J	-5480078.62	-5480078.43	-5480078.22	0.0089	0.0053
Moon	-19717-05-13 02:52 J	-5480078.56	-5480078.38	-5480078.16	0.0089	0.0052 *
Venus	-19706-07-29 05:16 J	-5475984.28	-5475984.28	-5475984.25	0.0089	0.0089
Venus	-19705-03-10 17:45 J	-5475758.76	-5475758.76	-5475758.69	0.0089	0.0089
Venus	-19705-10-22 07:11 J	-5475533.24	-5475533.20	-5475533.15	0.0089	0.0087
Venus	-19704-06-04 19:40 J	-5475307.72	-5475307.68	-5475307.61	0.0089	0.0086
Venus	-19703-01-16 08:23 J	-5475082.20	-5475082.15	-5475082.07	0.0089	0.0084

Venus	-19703-08-29 20:52 J	-5474856.68	-5474856.63	-5474856.53	0.0089	0.0084
Mars	-19702-01-13 06:14 J	-5474720.36	-5474720.24	-5474720.07	0.0089	0.0081
Venus	-19702-04-12 10:04 J	-5474631.15	-5474631.08	-5474630.98	0.0089	0.0082
Venus	-19702-11-23 22:33 J	-5474405.63	-5474405.56	-5474405.45	0.0089	0.0081
Venus	-19701-07-06 11:31 J	-5474180.11	-5474180.02	-5474179.91	0.0089	0.0079
Mars	-19701-12-09 14:09 J	-5474024.25	-5474023.91	-5474023.57	0.0089	0.0003
Mercury	-19701-12-27 06:57 J	-5474006.25	-5474006.21	-5474006.16	0.0089	0.0084
Venus	-19700-02-17 00:00 J	-5473954.59	-5473954.50	-5473954.38	0.0089	0.0078
Mercury	-19700-03-25 08:23 J	-5473918.21	-5473918.15	-5473918.08	0.0089	0.0077
Mercury	-19700-06-21 09:36 J	-5473830.17	-5473830.10	-5473830.01	0.0089	0.0070
Mercury	-19700-09-17 11:02 J	-5473742.13	-5473742.04	-5473741.95	0.0089	0.0063
Venus	-19700-09-30 12:57 J	-5473729.07	-5473728.96	-5473728.84	0.0089	0.0076
Mercury	-19700-12-14 12:00 J	-5473654.09	-5473654.00	-5473653.88	0.0089	0.0056
Mercury	-19699-03-12 13:26 J	-5473566.04	-5473565.94	-5473565.82	0.0089	0.0049
Venus	-19699-05-14 01:26 J	-5473503.54	-5473503.44	-5473503.31	0.0089	0.0075
Mercury	-19699-06-08 14:38 J	-5473477.99	-5473477.89	-5473477.76	0.0089	0.0043
Mercury	-19699-09-04 16:04 J	-5473389.94	-5473389.83	-5473389.70	0.0089	0.0035
Mars	-19699-11-05 21:07 J	-5473327.79	-5473327.62	-5473327.41	0.0089	0.0074
Mercury	-19699-12-01 17:31 J	-5473301.89	-5473301.77	-5473301.64	0.0089	0.0028
Venus	-19699-12-25 14:23 J	-5473278.02	-5473277.90	-5473277.77	0.0089	0.0073
Mercury	-19698-02-27 18:43 J	-5473213.84	-5473213.72	-5473213.59	0.0089	0.0021
Mercury	-19698-05-26 20:09 J	-5473125.79	-5473125.66	-5473125.53	0.0089	0.0014
Venus	-19698-08-08 02:38 J	-5473052.50	-5473052.39	-5473052.24	0.0089	0.0071
Mercury	-19698-08-22 21:36 J	-5473037.73	-5473037.60	-5473037.47	0.0089	0.0007
Mercury	-19698-11-18 22:48 J	-5472949.68	-5472949.55	-5472949.42	0.0089	0.0001
Mercury	-19697-02-15 00:14 J	-5472861.62	-5472861.49	-5472861.36	0.0089	0.0008
Venus	-19697-03-20 15:21 J	-5472826.98	-5472826.86	-5472826.71	0.0089	0.0070
Mercury	-19697-05-13 01:26 J	-5472773.57	-5472773.44	-5472773.31	0.0089	0.0014
Mercury	-19697-08-09 02:52 J	-5472685.51	-5472685.38	-5472685.25	0.0089	0.0021
Venus	-19697-11-01 04:19 J	-5472601.45	-5472601.32	-5472601.17	0.0089	0.0068

Mercury	-19697-11-05 04:04 J	-5472597.45	-5472597.33	-5472597.20	0.0089	0.0028
Mercury	-19696-02-01 05:31 J	-5472509.39	-5472509.27	-5472509.15	0.0089	0.0035
Mercury	-19696-04-30 06:43 J	-5472421.33	-5472421.22	-5472421.10	0.0089	0.0043
Venus	-19696-06-14 16:33 J	-5472375.93	-5472375.81	-5472375.64	0.0089	0.0066
Mercury	-19696-07-27 08:09 J	-5472333.27	-5472333.16	-5472333.05	0.0089	0.0050
Mercury	-19696-10-23 09:36 J	-5472245.20	-5472245.10	-5472245.00	0.0089	0.0057
Mercury	-19695-01-19 10:33 J	-5472157.14	-5472157.06	-5472156.96	0.0089	0.0064
Venus	-19695-01-26 05:16 J	-5472150.41	-5472150.28	-5472150.11	0.0089	0.0064
Mercury	-19695-04-17 12:00 J	-5472069.07	-5472069.00	-5472068.91	0.0089	0.0071
Mercury	-19695-07-14 13:11 J	-5471981.00	-5471980.95	-5471980.87	0.0089	0.0078
Venus	-19695-09-08 18:00 J	-5471924.89	-5471924.75	-5471924.58	0.0089	0.0063
Mercury	-19695-10-10 14:38 J	-5471892.92	-5471892.89	-5471892.84	0.0089	0.0085
Venus	-19694-04-22 06:43 J	-5471699.36	-5471699.22	-5471699.05	0.0089	0.0061
Venus	-19694-12-03 19:26 J	-5471473.84	-5471473.69	-5471473.52	0.0089	0.0059
Venus	-19693-07-16 07:55 J	-5471248.32	-5471248.17	-5471247.99	0.0089	0.0057
Venus	-19692-02-26 20:38 J	-5471022.81	-5471022.64	-5471022.47	0.0089	0.0055
Venus	-19692-10-10 09:07 J	-5470797.29	-5470797.12	-5470796.94	0.0089	0.0053
Venus	-19691-05-23 21:50 J	-5470571.77	-5470571.59	-5470571.41	0.0089	0.0051
Venus	-19690-01-04 10:04 J	-5470346.25	-5470346.08	-5470345.89	0.0089	0.0049
Venus	-19690-08-17 22:33 J	-5470120.74	-5470120.56	-5470120.37	0.0089	0.0047
Venus	-19689-03-30 11:02 J	-5469895.22	-5469895.04	-5469894.84	0.0089	0.0044
Venus	-19689-11-10 23:31 J	-5469669.70	-5469669.52	-5469669.32	0.0089	0.0042
Venus	-19688-06-24 11:45 J	-5469444.19	-5469444.01	-5469443.80	0.0089	0.0041
Venus	-19687-02-05 00:14 J	-5469218.67	-5469218.49	-5469218.28	0.0089	0.0038
Venus	-19687-09-18 12:43 J	-5468993.15	-5468992.97	-5468992.76	0.0089	0.0036
Venus	-19686-05-02 01:26 J	-5468767.63	-5468767.44	-5468767.23	0.0089	0.0034
Venus	-19686-12-13 13:55 J	-5468542.12	-5468541.92	-5468541.71	0.0089	0.0031
Venus	-19685-07-26 02:09 J	-5468316.60	-5468316.41	-5468316.19	0.0089	0.0029
Venus	-19684-03-08 14:38 J	-5468091.09	-5468090.89	-5468090.67	0.0089	0.0027
Venus	-19684-10-20 03:21 J	-5467865.57	-5467865.36	-5467865.15	0.0089	0.0025

Venus	-19683-06-02 15:50 J	-5467640.04	-5467639.84	-5467639.62	0.0089	0.0022
Venus	-19682-01-14 04:19 J	-5467414.53	-5467414.32	-5467414.10	0.0089	0.0020
Venus	-19682-08-27 16:33 J	-5467189.01	-5467188.81	-5467188.59	0.0089	0.0018
Venus	-19681-04-09 05:16 J	-5466963.49	-5466963.28	-5466963.07	0.0089	0.0015
Venus	-19681-11-20 17:31 J	-5466737.98	-5466737.77	-5466737.55	0.0089	0.0013
Venus	-19680-07-04 06:00 J	-5466512.46	-5466512.25	-5466512.03	0.0089	0.0011
Venus	-19679-02-14 18:28 J	-5466286.95	-5466286.73	-5466286.52	0.0089	0.0008
Venus	-19679-09-28 06:43 J	-5466061.43	-5466061.22	-5466061.00	0.0089	0.0006
Venus	-19678-05-11 19:11 J	-5465835.91	-5465835.70	-5465835.48	0.0089	0.0004
Venus	-19678-12-23 07:40 J	-5465610.40	-5465610.18	-5465609.97	0.0089	0.0001
Venus	-19677-08-04 19:55 J	-5465384.89	-5465384.67	-5465384.45	0.0089	0.0001
Venus	-19676-03-18 08:09 J	-5465159.37	-5465159.16	-5465158.94	0.0089	0.0004
Venus	-19676-10-29 20:38 J	-5464933.86	-5464933.64	-5464933.43	0.0089	0.0006
Venus	-19675-06-12 09:07 J	-5464708.34	-5464708.12	-5464707.91	0.0089	0.0008
Venus	-19674-01-23 21:21 J	-5464482.82	-5464482.61	-5464482.39	0.0089	0.0011
Venus	-19674-09-06 09:36 J	-5464257.31	-5464257.10	-5464256.88	0.0089	0.0013
Venus	-19673-04-18 22:04 J	-5464031.79	-5464031.58	-5464031.37	0.0089	0.0015
Venus	-19673-11-30 10:04 J	-5463806.28	-5463806.08	-5463805.85	0.0089	0.0018
Venus	-19672-07-13 22:48 J	-5463580.76	-5463580.55	-5463580.34	0.0089	0.0020
Venus	-19671-02-24 11:16 J	-5463355.24	-5463355.03	-5463354.82	0.0089	0.0022
Venus	-19671-10-07 23:16 J	-5463129.72	-5463129.53	-5463129.31	0.0089	0.0025
Venus	-19670-05-21 11:45 J	-5462904.20	-5462904.01	-5462903.79	0.0089	0.0027
Venus	-19669-01-02 00:14 J	-5462678.68	-5462678.49	-5462678.28	0.0089	0.0029
Venus	-19669-08-14 12:28 J	-5462453.17	-5462452.98	-5462452.76	0.0089	0.0032
Venus	-19668-03-28 00:57 J	-5462227.65	-5462227.46	-5462227.25	0.0089	0.0034
Venus	-19668-11-08 13:11 J	-5462002.13	-5462001.95	-5462001.74	0.0089	0.0036
Venus	-19667-06-22 01:55 J	-5461776.61	-5461776.42	-5461776.22	0.0089	0.0038
Venus	-19666-02-02 14:23 J	-5461551.09	-5461550.90	-5461550.71	0.0089	0.0040
Venus	-19666-09-16 02:38 J	-5461325.58	-5461325.39	-5461325.20	0.0089	0.0042
Venus	-19665-04-28 14:38 J	-5461100.06	-5461099.89	-5461099.69	0.0089	0.0045

Venus	-19665-12-10 02:52 J	-5460874.54	-5460874.38	-5460874.18	0.0089	0.0047
Venus	-19664-07-23 15:21 J	-5460649.02	-5460648.86	-5460648.66	0.0089	0.0049
Venus	-19663-03-06 03:50 J	-5460423.50	-5460423.34	-5460423.15	0.0089	0.0051
Venus	-19663-10-17 16:04 J	-5460197.99	-5460197.83	-5460197.64	0.0089	0.0053
Venus	-19662-05-31 04:33 J	-5459972.47	-5459972.31	-5459972.13	0.0089	0.0055
Venus	-19661-01-11 16:48 J	-5459746.95	-5459746.80	-5459746.61	0.0089	0.0057
Venus	-19661-08-24 05:16 J	-5459521.43	-5459521.28	-5459521.10	0.0089	0.0059
Venus	-19660-04-06 17:31 J	-5459295.91	-5459295.77	-5459295.59	0.0089	0.0061
Venus	-19660-11-18 06:00 J	-5459070.38	-5459070.25	-5459070.08	0.0089	0.0063
Venus	-19659-07-01 18:57 J	-5458844.86	-5458844.71	-5458844.56	0.0088	0.0064
Venus	-19658-02-12 07:11 J	-5458619.33	-5458619.20	-5458619.04	0.0088	0.0066
Venus	-19658-09-25 19:26 J	-5458393.81	-5458393.69	-5458393.53	0.0088	0.0068
Venus	-19657-05-08 07:55 J	-5458168.29	-5458168.17	-5458168.02	0.0088	0.0070
Venus	-19657-12-19 20:52 J	-5457942.76	-5457942.63	-5457942.50	0.0088	0.0071
Venus	-19656-08-02 09:07 J	-5457717.23	-5457717.12	-5457716.98	0.0088	0.0073
Venus	-19655-03-15 21:21 J	-5457491.70	-5457491.61	-5457491.47	0.0088	0.0075
Venus	-19655-10-27 10:19 J	-5457266.18	-5457266.07	-5457265.96	0.0088	0.0076
Venus	-19654-06-09 22:33 J	-5457040.65	-5457040.56	-5457040.44	0.0088	0.0078
Venus	-19653-01-21 10:48 J	-5456815.12	-5456815.05	-5456814.93	0.0088	0.0079
Venus	-19653-09-02 23:31 J	-5456589.59	-5456589.52	-5456589.42	0.0088	0.0081
Venus	-19652-04-16 12:14 J	-5456364.07	-5456363.99	-5456363.91	0.0088	0.0082
Venus	-19652-11-28 00:14 J	-5456138.54	-5456138.49	-5456138.40	0.0088	0.0084
Venus	-19651-07-11 13:11 J	-5455913.00	-5455912.95	-5455912.88	0.0088	0.0085
Venus	-19650-02-22 01:55 J	-5455687.47	-5455687.42	-5455687.37	0.0088	0.0086
Venus	-19650-10-05 13:55 J	-5455461.93	-5455461.92	-5455461.86	0.0088	0.0087
Venus	-19649-05-18 02:52 J	-5455236.38	-5455236.38	-5455236.37	0.0088	0.0088
Earth	-19638-11-05 07:55 J	-5451048.36	-5451048.17	-5451047.93	0.0088	0.0051
Moon	-19638-11-05 09:07 J	-5451048.33	-5451048.12	-5451047.90	0.0088	0.0046 *
Moon	-19637-11-06 19:26 J	-5450680.96	-5450680.69	-5450680.42	0.0088	0.0012
Earth	-19637-11-06 21:07 J	-5450680.88	-5450680.62	-5450680.36	0.0088	0.0008 *

Earth	-19636-11-09 09:21 J	-5450313.34	-5450313.11	-5450312.85	0.0088	0.0034
Moon	-19636-11-09 11:45 J	-5450313.22	-5450313.01	-5450312.76	0.0088	0.0038 *
Moon	-19635-11-11 18:28 J	-5449945.87	-5449945.73	-5449945.56	0.0088	0.0071
Earth	-19635-11-11 21:50 J	-5449945.69	-5449945.59	-5449945.43	0.0088	0.0076 *
Venus	-19621-10-12 20:23 J	-5444861.66	-5444861.65	-5444861.59	0.0088	0.0087
Venus	-19620-05-26 09:36 J	-5444636.12	-5444636.10	-5444636.02	0.0088	0.0086
Venus	-19619-01-06 23:16 J	-5444410.58	-5444410.53	-5444410.46	0.0088	0.0084
Venus	-19619-08-20 12:14 J	-5444185.04	-5444184.99	-5444184.89	0.0088	0.0083
Mars	-19619-09-26 03:07 J	-5444148.63	-5444148.37	-5444148.07	0.0088	0.0026
Venus	-19618-04-03 01:26 J	-5443959.49	-5443959.44	-5443959.33	0.0088	0.0082
Venus	-19618-11-14 15:07 J	-5443733.94	-5443733.87	-5443733.76	0.0088	0.0080
Mercury	-19617-06-13 22:48 J	-5443521.58	-5443521.55	-5443521.47	0.0088	0.0084
Venus	-19617-06-27 04:19 J	-5443508.40	-5443508.32	-5443508.20	0.0088	0.0079
Mars	-19617-08-19 19:40 J	-5443454.94	-5443454.68	-5443454.41	0.0088	0.0037
Mercury	-19617-09-10 03:07 J	-5443433.48	-5443433.37	-5443433.27	0.0088	0.0074
Mercury	-19617-12-07 06:28 J	-5443345.36	-5443345.23	-5443345.09	0.0088	0.0064
Venus	-19616-02-07 17:45 J	-5443282.85	-5443282.76	-5443282.64	0.0088	0.0077
Mercury	-19616-03-05 10:19 J	-5443257.23	-5443257.07	-5443256.92	0.0088	0.0053
Mercury	-19616-06-01 13:55 J	-5443169.09	-5443168.92	-5443168.75	0.0088	0.0043
Mercury	-19616-08-28 17:31 J	-5443080.95	-5443080.77	-5443080.59	0.0088	0.0033
Venus	-19616-09-21 07:40 J	-5443057.29	-5443057.18	-5443057.07	0.0088	0.0075
Mercury	-19616-11-24 21:07 J	-5442992.81	-5442992.62	-5442992.43	0.0088	0.0023
Mercury	-19615-02-21 00:43 J	-5442904.66	-5442904.47	-5442904.27	0.0088	0.0013
Venus	-19615-05-04 20:38 J	-5442831.74	-5442831.64	-5442831.50	0.0088	0.0074
Mercury	-19615-05-20 04:19 J	-5442816.51	-5442816.32	-5442816.12	0.0088	0.0004
Mercury	-19615-08-16 07:55 J	-5442728.36	-5442728.17	-5442727.97	0.0088	0.0007
Mercury	-19615-11-12 11:31 J	-5442640.21	-5442640.02	-5442639.82	0.0088	0.0017
Venus	-19615-12-16 10:04 J	-5442606.19	-5442606.08	-5442605.94	0.0088	0.0072
Mercury	-19614-02-08 14:52 J	-5442552.05	-5442551.88	-5442551.68	0.0088	0.0027
Mercury	-19614-05-07 18:43 J	-5442463.90	-5442463.72	-5442463.54	0.0088	0.0036

Venus	-19614-07-29 23:31 J	-5442380.65	-5442380.52	-5442380.38	0.0088	0.0070
Mercury	-19614-08-03 22:04 J	-5442375.74	-5442375.58	-5442375.41	0.0088	0.0047
Mercury	-19614-10-31 01:40 J	-5442287.57	-5442287.43	-5442287.27	0.0088	0.0056
Mercury	-19613-01-27 05:02 J	-5442199.40	-5442199.29	-5442199.15	0.0088	0.0066
Venus	-19613-03-11 12:28 J	-5442155.10	-5442154.98	-5442154.82	0.0088	0.0069
Mercury	-19613-04-24 08:38 J	-5442111.22	-5442111.14	-5442111.03	0.0088	0.0076
Mercury	-19613-07-21 12:00 J	-5442023.02	-5442023.00	-5442022.94	0.0088	0.0086
Venus	-19613-10-23 02:09 J	-5441929.54	-5441929.41	-5441929.25	0.0088	0.0067
Venus	-19612-06-05 15:36 J	-5441703.98	-5441703.85	-5441703.68	0.0088	0.0065
Venus	-19611-01-17 05:02 J	-5441478.43	-5441478.29	-5441478.12	0.0088	0.0063
Venus	-19611-08-30 18:28 J	-5441252.88	-5441252.73	-5441252.56	0.0088	0.0061
Venus	-19610-04-13 07:55 J	-5441027.32	-5441027.17	-5441026.99	0.0088	0.0060
Venus	-19610-11-24 21:36 J	-5440801.76	-5440801.60	-5440801.42	0.0088	0.0057
Venus	-19609-07-07 11:02 J	-5440576.20	-5440576.04	-5440575.86	0.0088	0.0055
Venus	-19608-02-18 00:28 J	-5440350.65	-5440350.48	-5440350.29	0.0088	0.0053
Venus	-19608-10-01 14:09 J	-5440125.08	-5440124.91	-5440124.72	0.0088	0.0051
Venus	-19607-05-15 03:36 J	-5439899.52	-5439899.35	-5439899.15	0.0088	0.0050
Venus	-19607-12-26 17:16 J	-5439673.96	-5439673.78	-5439673.58	0.0088	0.0047
Venus	-19606-08-09 06:43 J	-5439448.40	-5439448.22	-5439448.01	0.0088	0.0045
Venus	-19605-03-21 20:38 J	-5439222.83	-5439222.64	-5439222.44	0.0088	0.0043
Venus	-19605-11-02 10:19 J	-5438997.26	-5438997.07	-5438996.87	0.0088	0.0040
Venus	-19604-06-15 23:45 J	-5438771.70	-5438771.51	-5438771.30	0.0088	0.0038
Venus	-19603-01-27 13:11 J	-5438546.14	-5438545.95	-5438545.73	0.0088	0.0037
Venus	-19603-09-10 03:07 J	-5438320.57	-5438320.37	-5438320.16	0.0088	0.0034
Venus	-19602-04-23 16:33 J	-5438095.01	-5438094.81	-5438094.59	0.0088	0.0031
Venus	-19602-12-05 06:14 J	-5437869.44	-5437869.24	-5437869.02	0.0088	0.0029
Venus	-19601-07-17 19:55 J	-5437643.88	-5437643.67	-5437643.45	0.0088	0.0027
Venus	-19600-02-28 09:21 J	-5437418.32	-5437418.11	-5437417.88	0.0088	0.0024
Venus	-19600-10-11 23:02 J	-5437192.75	-5437192.54	-5437192.31	0.0088	0.0022
Venus	-19599-05-25 12:43 J	-5436967.18	-5436966.97	-5436966.74	0.0088	0.0020

Venus	-19598-01-06 02:23 J	-5436741.62	-5436741.40	-5436741.18	0.0088	0.0017
Venus	-19598-08-19 16:04 J	-5436516.05	-5436515.83	-5436515.61	0.0088	0.0015
Venus	-19597-04-01 05:31 J	-5436290.49	-5436290.27	-5436290.04	0.0088	0.0012
Venus	-19597-11-12 19:26 J	-5436064.91	-5436064.69	-5436064.46	0.0088	0.0010
Venus	-19596-06-26 09:07 J	-5435839.34	-5435839.12	-5435838.89	0.0088	0.0007
Venus	-19595-02-06 22:48 J	-5435613.77	-5435613.55	-5435613.32	0.0088	0.0005
Venus	-19595-09-20 12:28 J	-5435388.20	-5435387.98	-5435387.75	0.0088	0.0002
Venus	-19594-05-04 02:09 J	-5435162.63	-5435162.41	-5435162.18	0.0088	0.0001
Venus	-19594-12-15 16:04 J	-5434937.06	-5434936.83	-5434936.61	0.0088	0.0003
Venus	-19593-07-28 05:45 J	-5434711.48	-5434711.26	-5434711.04	0.0088	0.0005
Venus	-19592-03-10 19:26 J	-5434485.91	-5434485.69	-5434485.47	0.0088	0.0007
Venus	-19592-10-22 09:07 J	-5434260.34	-5434260.12	-5434259.89	0.0088	0.0010
Venus	-19591-06-04 22:48 J	-5434034.77	-5434034.55	-5434034.32	0.0088	0.0012
Venus	-19590-01-16 12:43 J	-5433809.20	-5433808.97	-5433808.75	0.0088	0.0015
Venus	-19590-08-30 02:09 J	-5433583.63	-5433583.41	-5433583.19	0.0088	0.0017
Venus	-19589-04-11 15:50 J	-5433358.06	-5433357.84	-5433357.62	0.0089	0.0020
Venus	-19589-11-23 05:31 J	-5433132.48	-5433132.27	-5433132.05	0.0089	0.0022
Venus	-19588-07-06 19:11 J	-5432906.91	-5432906.70	-5432906.48	0.0089	0.0025
Venus	-19587-02-17 08:38 J	-5432681.34	-5432681.14	-5432680.91	0.0089	0.0028
Venus	-19587-09-30 22:19 J	-5432455.77	-5432455.57	-5432455.35	0.0089	0.0030
Venus	-19586-05-14 12:00 J	-5432230.20	-5432230.00	-5432229.78	0.0089	0.0032
Venus	-19586-12-26 01:40 J	-5432004.62	-5432004.43	-5432004.21	0.0089	0.0035
Venus	-19585-08-07 15:21 J	-5431779.05	-5431778.86	-5431778.64	0.0089	0.0037
Venus	-19584-03-21 05:02 J	-5431553.48	-5431553.29	-5431553.08	0.0089	0.0039
Venus	-19584-11-01 18:57 J	-5431327.91	-5431327.71	-5431327.51	0.0089	0.0041
Venus	-19583-06-15 08:09 J	-5431102.33	-5431102.16	-5431101.94	0.0089	0.0044
Venus	-19582-01-26 22:04 J	-5430876.76	-5430876.58	-5430876.37	0.0089	0.0046
Venus	-19582-09-09 11:45 J	-5430651.18	-5430651.01	-5430650.81	0.0089	0.0048
Venus	-19581-04-22 01:40 J	-5430425.61	-5430425.43	-5430425.24	0.0089	0.0050
Venus	-19581-12-03 15:36 J	-5430200.03	-5430199.85	-5430199.67	0.0089	0.0052

Venus	-19580-07-17 04:48 J	-5429974.45	-5429974.30	-5429974.10	0.0089	0.0055
Venus	-19579-02-27 18:28 J	-5429748.88	-5429748.73	-5429748.54	0.0089	0.0057
Venus	-19579-10-11 08:09 J	-5429523.31	-5429523.16	-5429522.97	0.0089	0.0059
Venus	-19578-05-24 21:50 J	-5429297.73	-5429297.59	-5429297.41	0.0089	0.0061
Venus	-19577-01-05 11:45 J	-5429072.15	-5429072.01	-5429071.84	0.0089	0.0063
Venus	-19577-08-18 01:11 J	-5428846.58	-5428846.45	-5428846.28	0.0089	0.0065
Venus	-19576-03-31 14:52 J	-5428621.01	-5428620.88	-5428620.72	0.0089	0.0067
Venus	-19576-11-12 04:19 J	-5428395.44	-5428395.32	-5428395.16	0.0089	0.0069
Venus	-19575-06-25 17:45 J	-5428169.87	-5428169.76	-5428169.60	0.0089	0.0071
Venus	-19574-02-06 07:55 J	-5427944.29	-5427944.17	-5427944.04	0.0089	0.0072
Venus	-19574-09-19 21:21 J	-5427718.72	-5427718.61	-5427718.48	0.0089	0.0074
Venus	-19573-05-02 10:33 J	-5427493.15	-5427493.06	-5427492.92	0.0089	0.0076
Venus	-19573-12-14 00:14 J	-5427267.58	-5427267.49	-5427267.36	0.0089	0.0078
Venus	-19572-07-27 14:09 J	-5427042.00	-5427041.91	-5427041.80	0.0089	0.0079
Venus	-19571-03-10 03:21 J	-5426816.43	-5426816.36	-5426816.25	0.0089	0.0081
Venus	-19571-10-21 17:16 J	-5426590.85	-5426590.78	-5426590.69	0.0089	0.0082
Venus	-19570-06-04 06:28 J	-5426365.28	-5426365.23	-5426365.14	0.0089	0.0084
Venus	-19569-01-15 20:38 J	-5426139.70	-5426139.64	-5426139.58	0.0089	0.0085
Venus	-19569-08-28 09:36 J	-5425914.12	-5425914.10	-5425914.03	0.0089	0.0087
Venus	-19568-04-10 23:31 J	-5425688.54	-5425688.52	-5425688.49	0.0089	0.0088
Moon	-19555-05-08 13:11 J	-5420913.16	-5420912.95	-5420912.73	0.0089	0.0051
Earth	-19555-05-08 13:26 J	-5420913.12	-5420912.94	-5420912.72	0.0089	0.0055 *
Earth	-19554-05-11 00:28 J	-5420545.73	-5420545.48	-5420545.23	0.0089	0.0013
Moon	-19554-05-11 02:23 J	-5420545.63	-5420545.40	-5420545.15	0.0089	0.0018 *
Moon	-19553-05-12 08:09 J	-5420178.40	-5420178.16	-5420177.92	0.0089	0.0034
Earth	-19553-05-12 10:48 J	-5420178.28	-5420178.05	-5420177.80	0.0089	0.0030 *
Earth	-19552-05-14 20:52 J	-5419810.75	-5419810.63	-5419810.46	0.0089	0.0072
Moon	-19552-05-15 00:14 J	-5419810.63	-5419810.49	-5419810.30	0.0089	0.0068 *
Venus	-19539-12-01 07:11 J	-5414862.21	-5414862.20	-5414862.15	0.0089	0.0089
Venus	-19538-07-14 19:40 J	-5414636.70	-5414636.68	-5414636.61	0.0089	0.0087

Venus	-19537-02-25 08:38 J	-5414411.18	-5414411.14	-5414411.06	0.0089	0.0086
Mars	-19537-07-22 21:36 J	-5414262.89	-5414262.60	-5414262.30	0.0089	0.0044
Venus	-19537-10-07 21:07 J	-5414185.66	-5414185.62	-5414185.52	0.0089	0.0085
Venus	-19536-05-21 10:19 J	-5413960.14	-5413960.07	-5413959.98	0.0089	0.0083
Mercury	-19536-06-27 05:16 J	-5413923.29	-5413923.28	-5413923.26	0.0089	0.0088
Mercury	-19536-09-23 06:28 J	-5413835.27	-5413835.23	-5413835.17	0.0089	0.0082
Mercury	-19536-12-20 07:55 J	-5413747.24	-5413747.17	-5413747.10	0.0089	0.0075
Venus	-19535-01-01 22:33 J	-5413734.62	-5413734.56	-5413734.44	0.0089	0.0082
Mercury	-19535-03-18 09:07 J	-5413659.20	-5413659.12	-5413659.03	0.0089	0.0068
Mercury	-19535-06-14 10:33 J	-5413571.16	-5413571.06	-5413570.97	0.0089	0.0061
Mars	-19535-06-19 04:48 J	-5413566.61	-5413566.30	-5413565.98	0.0089	0.0034
Venus	-19535-08-15 11:31 J	-5413509.10	-5413509.02	-5413508.91	0.0089	0.0079
Mercury	-19535-09-10 11:31 J	-5413483.11	-5413483.02	-5413482.90	0.0089	0.0055
Mercury	-19535-12-07 12:57 J	-5413395.06	-5413394.96	-5413394.84	0.0089	0.0047
Mercury	-19534-03-05 14:09 J	-5413307.02	-5413306.91	-5413306.78	0.0089	0.0041
Venus	-19534-03-29 00:28 J	-5413283.58	-5413283.48	-5413283.37	0.0089	0.0078
Mercury	-19534-06-01 15:36 J	-5413218.97	-5413218.85	-5413218.72	0.0089	0.0033
Mercury	-19534-08-28 17:02 J	-5413130.91	-5413130.79	-5413130.66	0.0089	0.0026
Venus	-19534-11-09 12:43 J	-5413058.06	-5413057.97	-5413057.83	0.0089	0.0076
Mercury	-19534-11-24 18:14 J	-5413042.86	-5413042.74	-5413042.61	0.0089	0.0019
Mercury	-19533-02-20 19:40 J	-5412954.81	-5412954.68	-5412954.55	0.0089	0.0012
Mercury	-19533-05-18 21:07 J	-5412866.76	-5412866.62	-5412866.49	0.0089	0.0006
Venus	-19533-06-22 01:26 J	-5412832.54	-5412832.44	-5412832.30	0.0089	0.0074
Mercury	-19533-08-14 22:19 J	-5412778.70	-5412778.57	-5412778.44	0.0089	0.0002
Mercury	-19533-11-10 23:45 J	-5412690.65	-5412690.51	-5412690.38	0.0089	0.0010
Venus	-19532-02-02 14:09 J	-5412607.02	-5412606.91	-5412606.77	0.0089	0.0073
Mercury	-19532-02-07 00:57 J	-5412602.59	-5412602.46	-5412602.33	0.0089	0.0016
Mercury	-19532-05-06 02:09 J	-5412514.53	-5412514.41	-5412514.28	0.0089	0.0024
Mercury	-19532-08-02 03:36 J	-5412426.47	-5412426.35	-5412426.22	0.0089	0.0030
Venus	-19532-09-16 02:52 J	-5412381.50	-5412381.38	-5412381.24	0.0089	0.0071

Mercury	-19532-10-29 04:48 J	-5412338.41	-5412338.30	-5412338.17	0.0089	0.0038
Mercury	-19531-01-25 06:14 J	-5412250.35	-5412250.24	-5412250.12	0.0089	0.0045
Mercury	-19531-04-23 07:40 J	-5412162.29	-5412162.18	-5412162.07	0.0089	0.0052
Venus	-19531-04-29 15:50 J	-5412155.97	-5412155.84	-5412155.70	0.0089	0.0069
Mercury	-19531-07-20 08:52 J	-5412074.22	-5412074.13	-5412074.03	0.0089	0.0059
Mercury	-19531-10-16 10:19 J	-5411986.16	-5411986.07	-5411985.98	0.0089	0.0066
Venus	-19531-12-11 04:04 J	-5411930.45	-5411930.33	-5411930.16	0.0089	0.0067
Mercury	-19530-01-12 11:16 J	-5411898.09	-5411898.03	-5411897.94	0.0089	0.0074
Mercury	-19530-04-10 12:43 J	-5411810.01	-5411809.97	-5411809.90	0.0089	0.0080
Mercury	-19530-07-07 14:09 J	-5411721.93	-5411721.91	-5411721.88	0.0089	0.0087
Venus	-19530-07-24 16:48 J	-5411704.93	-5411704.80	-5411704.63	0.0089	0.0065
Venus	-19529-03-06 05:16 J	-5411479.41	-5411479.28	-5411479.10	0.0089	0.0064
Venus	-19529-10-17 18:00 J	-5411253.89	-5411253.75	-5411253.57	0.0089	0.0061
Venus	-19528-05-31 06:43 J	-5411028.36	-5411028.22	-5411028.04	0.0089	0.0059
Venus	-19527-01-11 19:11 J	-5410802.84	-5410802.70	-5410802.51	0.0089	0.0057
Venus	-19527-08-25 08:09 J	-5410577.33	-5410577.16	-5410576.99	0.0089	0.0055
Venus	-19526-04-07 20:38 J	-5410351.81	-5410351.64	-5410351.46	0.0089	0.0053
Venus	-19526-11-19 09:07 J	-5410126.29	-5410126.12	-5410125.93	0.0089	0.0050
Venus	-19525-07-01 21:21 J	-5409900.77	-5409900.61	-5409900.41	0.0089	0.0049
Venus	-19524-02-12 09:50 J	-5409675.26	-5409675.09	-5409674.89	0.0089	0.0046
Venus	-19524-09-25 22:33 J	-5409449.74	-5409449.56	-5409449.37	0.0089	0.0044
Venus	-19523-05-09 11:02 J	-5409224.22	-5409224.04	-5409223.84	0.0089	0.0041
Venus	-19523-12-20 23:16 J	-5408998.71	-5408998.53	-5408998.32	0.0089	0.0040
Venus	-19522-08-03 11:45 J	-5408773.19	-5408773.01	-5408772.80	0.0089	0.0037
Venus	-19521-03-16 00:14 J	-5408547.68	-5408547.49	-5408547.28	0.0089	0.0035
Venus	-19521-10-27 12:43 J	-5408322.16	-5408321.97	-5408321.76	0.0089	0.0032
Venus	-19520-06-10 01:11 J	-5408096.64	-5408096.45	-5408096.24	0.0089	0.0030
Venus	-19519-01-21 13:40 J	-5407871.13	-5407870.93	-5407870.72	0.0089	0.0027
Venus	-19519-09-04 01:55 J	-5407645.61	-5407645.42	-5407645.20	0.0089	0.0025
Venus	-19518-04-17 14:23 J	-5407420.10	-5407419.90	-5407419.68	0.0089	0.0023

Venus	-19518-11-29 03:07 J	-5407194.58	-5407194.37	-5407194.16	0.0089	0.0020
Venus	-19517-07-11 15:21 J	-5406969.06	-5406968.86	-5406968.64	0.0089	0.0018
Venus	-19516-02-22 03:50 J	-5406743.55	-5406743.34	-5406743.12	0.0089	0.0015
Venus	-19516-10-05 16:19 J	-5406518.03	-5406517.82	-5406517.60	0.0089	0.0013
Venus	-19515-05-19 05:02 J	-5406292.51	-5406292.29	-5406292.08	0.0089	0.0010
Venus	-19515-12-30 17:16 J	-5406066.99	-5406066.78	-5406066.56	0.0089	0.0008
Venus	-19514-08-13 05:31 J	-5405841.48	-5405841.27	-5405841.05	0.0089	0.0006
Venus	-19513-03-25 18:00 J	-5405615.97	-5405615.75	-5405615.54	0.0089	0.0003
Venus	-19513-11-06 06:14 J	-5405390.45	-5405390.24	-5405390.02	0.0089	0.0001
Venus	-19512-06-19 18:43 J	-5405164.93	-5405164.72	-5405164.50	0.0089	0.0002
Venus	-19511-01-31 06:57 J	-5404939.42	-5404939.21	-5404938.99	0.0089	0.0005
Venus	-19511-09-13 19:26 J	-5404713.91	-5404713.69	-5404713.48	0.0089	0.0007
Venus	-19510-04-27 07:26 J	-5404488.39	-5404488.19	-5404487.97	0.0089	0.0010
Venus	-19510-12-08 19:55 J	-5404262.88	-5404262.67	-5404262.45	0.0089	0.0012
Venus	-19509-07-21 08:09 J	-5404037.37	-5404037.16	-5404036.94	0.0089	0.0015
Venus	-19508-03-03 20:23 J	-5403811.85	-5403811.65	-5403811.43	0.0089	0.0017
Venus	-19508-10-15 08:52 J	-5403586.34	-5403586.13	-5403585.91	0.0089	0.0019
Venus	-19507-05-28 21:07 J	-5403360.82	-5403360.62	-5403360.40	0.0089	0.0022
Venus	-19506-01-09 09:36 J	-5403135.30	-5403135.10	-5403134.88	0.0089	0.0024
Venus	-19506-08-22 21:50 J	-5402909.79	-5402909.59	-5402909.37	0.0089	0.0027
Venus	-19505-04-04 10:19 J	-5402684.27	-5402684.07	-5402683.86	0.0089	0.0029
Venus	-19505-11-15 22:48 J	-5402458.75	-5402458.55	-5402458.34	0.0089	0.0031
Venus	-19504-06-29 11:02 J	-5402233.22	-5402233.04	-5402232.82	0.0089	0.0034
Venus	-19503-02-09 23:31 J	-5402007.71	-5402007.52	-5402007.31	0.0089	0.0036
Venus	-19503-09-23 12:14 J	-5401782.19	-5401781.99	-5401781.80	0.0089	0.0038
Venus	-19502-05-07 00:14 J	-5401556.67	-5401556.49	-5401556.29	0.0089	0.0041
Venus	-19502-12-18 12:43 J	-5401331.15	-5401330.97	-5401330.77	0.0089	0.0043
Venus	-19501-07-31 01:11 J	-5401105.63	-5401105.45	-5401105.26	0.0089	0.0045
Venus	-19500-03-13 13:11 J	-5400880.11	-5400879.95	-5400879.75	0.0089	0.0048
Venus	-19500-10-25 01:40 J	-5400654.60	-5400654.43	-5400654.24	0.0089	0.0050

Venus	-19499-06-07 14:09 J	-5400429.07	-5400428.91	-5400428.72	0.0089	0.0052
Venus	-19498-01-19 02:38 J	-5400203.55	-5400203.39	-5400203.21	0.0089	0.0054
Venus	-19498-09-01 15:07 J	-5399978.04	-5399977.87	-5399977.70	0.0089	0.0056
Venus	-19497-04-14 03:21 J	-5399752.52	-5399752.36	-5399752.19	0.0089	0.0058
Venus	-19497-11-25 15:50 J	-5399527.00	-5399526.84	-5399526.68	0.0089	0.0060
Venus	-19496-07-09 03:50 J	-5399301.47	-5399301.34	-5399301.16	0.0089	0.0063
Venus	-19495-02-19 16:04 J	-5399075.95	-5399075.83	-5399075.65	0.0089	0.0065
Venus	-19495-10-03 05:02 J	-5398850.43	-5398850.29	-5398850.14	0.0088	0.0066
Venus	-19494-05-16 17:16 J	-5398624.91	-5398624.78	-5398624.63	0.0088	0.0068
Venus	-19494-12-28 05:45 J	-5398399.39	-5398399.26	-5398399.12	0.0088	0.0070
Venus	-19493-08-09 18:14 J	-5398173.86	-5398173.74	-5398173.60	0.0088	0.0072
Venus	-19492-03-23 06:28 J	-5397948.33	-5397948.23	-5397948.09	0.0088	0.0074
Venus	-19492-11-03 18:57 J	-5397722.80	-5397722.71	-5397722.58	0.0088	0.0076
Venus	-19491-06-17 07:26 J	-5397497.27	-5397497.19	-5397497.06	0.0088	0.0077
Venus	-19490-01-28 20:09 J	-5397271.74	-5397271.66	-5397271.55	0.0088	0.0079
Venus	-19490-09-11 08:23 J	-5397046.22	-5397046.15	-5397046.04	0.0088	0.0081
Venus	-19489-04-23 20:52 J	-5396820.69	-5396820.63	-5396820.53	0.0088	0.0082
Venus	-19489-12-05 09:36 J	-5396595.16	-5396595.10	-5396595.02	0.0088	0.0084
Venus	-19488-07-18 22:04 J	-5396369.62	-5396369.58	-5396369.50	0.0088	0.0085
Venus	-19487-03-01 10:48 J	-5396144.08	-5396144.05	-5396144.00	0.0088	0.0087
Venus	-19487-10-12 23:02 J	-5395918.54	-5395918.54	-5395918.51	0.0088	0.0088
Moon	-19474-11-04 11:02 J	-5391148.16	-5391148.04	-5391147.88	0.0088	0.0074
Earth	-19474-11-04 13:11 J	-5391148.06	-5391147.95	-5391147.78	0.0088	0.0075 *
Earth	-19473-11-06 02:09 J	-5390780.64	-5390780.41	-5390780.16	0.0088	0.0032
Moon	-19473-11-06 05:02 J	-5390780.51	-5390780.29	-5390780.03	0.0088	0.0032 *
Moon	-19472-11-08 11:16 J	-5390413.28	-5390413.03	-5390412.76	0.0088	0.0009
Earth	-19472-11-08 14:52 J	-5390413.14	-5390412.88	-5390412.61	0.0088	0.0010 *
Earth	-19471-11-11 03:07 J	-5390045.56	-5390045.37	-5390045.14	0.0088	0.0052
Moon	-19471-11-11 06:57 J	-5390045.40	-5390045.21	-5390044.98	0.0088	0.0054 *
Mars	-19455-05-11 11:31 J	-5384385.21	-5384385.02	-5384384.78	0.0088	0.0059

Venus	-19454-07-05 10:04 J	-5383965.08	-5383965.08	-5383965.01	0.0088	0.0087
Venus	-19453-02-15 23:45 J	-5383739.55	-5383739.51	-5383739.44	0.0088	0.0085
Mars	-19453-04-04 04:04 J	-5383691.62	-5383691.33	-5383691.03	0.0088	0.0004
Venus	-19453-09-28 12:57 J	-5383514.00	-5383513.96	-5383513.87	0.0088	0.0084
Mercury	-19452-03-10 20:23 J	-5383350.70	-5383350.65	-5383350.56	0.0088	0.0082
Venus	-19452-05-12 02:38 J	-5383288.45	-5383288.39	-5383288.30	0.0088	0.0082
Mercury	-19452-06-07 00:00 J	-5383262.59	-5383262.50	-5383262.37	0.0088	0.0072
Mercury	-19452-09-03 04:04 J	-5383174.47	-5383174.33	-5383174.19	0.0088	0.0061
Mercury	-19452-11-30 07:40 J	-5383086.33	-5383086.18	-5383086.01	0.0088	0.0051
Venus	-19452-12-23 16:04 J	-5383062.91	-5383062.83	-5383062.73	0.0088	0.0080
Mercury	-19451-02-26 11:16 J	-5382998.20	-5382998.03	-5382997.85	0.0088	0.0041
Mars	-19451-02-26 20:23 J	-5382997.82	-5382997.65	-5382997.45	0.0088	0.0067
Mercury	-19451-05-25 15:07 J	-5382910.05	-5382909.87	-5382909.69	0.0088	0.0031
Venus	-19451-08-06 05:02 J	-5382837.36	-5382837.29	-5382837.17	0.0088	0.0079
Mercury	-19451-08-21 18:43 J	-5382821.91	-5382821.72	-5382821.53	0.0088	0.0021
Mercury	-19451-11-17 22:19 J	-5382733.76	-5382733.57	-5382733.37	0.0088	0.0011
Mercury	-19450-02-14 01:55 J	-5382645.61	-5382645.42	-5382645.22	0.0088	0.0002
Venus	-19450-03-19 18:28 J	-5382611.81	-5382611.73	-5382611.60	0.0088	0.0077
Mercury	-19450-05-13 05:31 J	-5382557.46	-5382557.27	-5382557.07	0.0088	0.0009
Mercury	-19450-08-09 08:52 J	-5382469.31	-5382469.13	-5382468.93	0.0088	0.0020
Venus	-19450-10-31 08:09 J	-5382386.26	-5382386.16	-5382386.03	0.0088	0.0075
Mercury	-19450-11-05 12:28 J	-5382381.15	-5382380.98	-5382380.78	0.0088	0.0029
Mercury	-19449-02-01 16:04 J	-5382292.99	-5382292.83	-5382292.64	0.0088	0.0039
Mercury	-19449-04-29 19:26 J	-5382204.83	-5382204.69	-5382204.51	0.0088	0.0049
Venus	-19449-06-12 21:36 J	-5382160.71	-5382160.60	-5382160.47	0.0088	0.0073
Mercury	-19449-07-26 23:31 J	-5382116.67	-5382116.52	-5382116.38	0.0088	0.0058
Mercury	-19449-10-23 02:52 J	-5382028.49	-5382028.38	-5382028.25	0.0088	0.0068
Mercury	-19448-01-19 06:14 J	-5381940.31	-5381940.24	-5381940.14	0.0088	0.0079
Venus	-19448-01-24 11:02 J	-5381935.16	-5381935.04	-5381934.90	0.0088	0.0072
Mercury	-19448-04-17 10:04 J	-5381852.08	-5381852.08	-5381852.07	0.0088	0.0088

Venus	-19448-09-07 00:00 J	-5381709.61	-5381709.50	-5381709.34	0.0088	0.0070
Venus	-19447-04-20 13:26 J	-5381484.06	-5381483.94	-5381483.78	0.0088	0.0068
Venus	-19447-12-02 02:52 J	-5381258.51	-5381258.38	-5381258.21	0.0088	0.0066
Venus	-19446-07-15 16:04 J	-5381032.96	-5381032.83	-5381032.65	0.0088	0.0065
Venus	-19445-02-26 05:31 J	-5380807.40	-5380807.27	-5380807.08	0.0088	0.0062
Venus	-19445-10-08 19:40 J	-5380581.84	-5380581.68	-5380581.51	0.0088	0.0060
Venus	-19444-05-22 09:07 J	-5380356.28	-5380356.12	-5380355.95	0.0088	0.0057
Venus	-19443-01-02 22:19 J	-5380130.73	-5380130.57	-5380130.38	0.0088	0.0055
Venus	-19443-08-16 11:45 J	-5379905.17	-5379905.01	-5379904.82	0.0088	0.0053
Venus	-19442-03-30 01:11 J	-5379679.61	-5379679.45	-5379679.25	0.0088	0.0051
Venus	-19442-11-10 15:21 J	-5379454.05	-5379453.86	-5379453.67	0.0088	0.0049
Venus	-19441-06-23 04:33 J	-5379228.49	-5379228.31	-5379228.10	0.0088	0.0047
Venus	-19440-02-03 18:00 J	-5379002.92	-5379002.75	-5379002.54	0.0088	0.0045
Venus	-19440-09-17 07:40 J	-5378777.36	-5378777.18	-5378776.97	0.0088	0.0042
Venus	-19439-04-30 21:21 J	-5378551.80	-5378551.61	-5378551.40	0.0088	0.0040
Venus	-19439-12-12 11:02 J	-5378326.23	-5378326.04	-5378325.82	0.0088	0.0037
Venus	-19438-07-26 00:43 J	-5378100.67	-5378100.47	-5378100.26	0.0088	0.0035
Venus	-19437-03-07 14:09 J	-5377875.11	-5377874.91	-5377874.69	0.0088	0.0032
Venus	-19437-10-19 04:04 J	-5377649.54	-5377649.33	-5377649.11	0.0088	0.0030
Venus	-19436-06-01 17:31 J	-5377423.97	-5377423.77	-5377423.54	0.0088	0.0028
Venus	-19435-01-13 07:26 J	-5377198.41	-5377198.19	-5377197.98	0.0088	0.0025
Venus	-19435-08-26 20:38 J	-5376972.85	-5376972.64	-5376972.41	0.0088	0.0023
Venus	-19434-04-09 10:33 J	-5376747.28	-5376747.06	-5376746.84	0.0088	0.0020
Venus	-19434-11-21 00:00 J	-5376521.71	-5376521.50	-5376521.27	0.0088	0.0018
Venus	-19433-07-03 13:55 J	-5376296.14	-5376295.92	-5376295.70	0.0088	0.0015
Venus	-19432-02-14 03:21 J	-5376070.58	-5376070.36	-5376070.13	0.0088	0.0012
Venus	-19432-09-27 17:02 J	-5375845.01	-5375844.79	-5375844.56	0.0088	0.0009
Venus	-19431-05-11 06:43 J	-5375619.44	-5375619.22	-5375618.99	0.0088	0.0007
Venus	-19431-12-22 20:23 J	-5375393.87	-5375393.65	-5375393.42	0.0088	0.0005
Venus	-19430-08-05 10:04 J	-5375168.30	-5375168.08	-5375167.85	0.0088	0.0002

Venus	-19429-03-17 23:45 J	-5374942.73	-5374942.51	-5374942.28	0.0088	0.0001
Venus	-19429-10-29 13:40 J	-5374717.16	-5374716.93	-5374716.71	0.0088	0.0004
Venus	-19428-06-12 03:21 J	-5374491.58	-5374491.36	-5374491.13	0.0088	0.0006
Venus	-19427-01-23 17:02 J	-5374266.01	-5374265.79	-5374265.56	0.0088	0.0009
Venus	-19427-09-06 06:43 J	-5374040.44	-5374040.22	-5374039.99	0.0088	0.0011
Venus	-19426-04-19 20:38 J	-5373814.87	-5373814.64	-5373814.42	0.0088	0.0014
Venus	-19426-12-01 10:19 J	-5373589.29	-5373589.07	-5373588.85	0.0088	0.0016
Venus	-19425-07-14 00:00 J	-5373363.71	-5373363.50	-5373363.27	0.0088	0.0019
Venus	-19424-02-24 13:40 J	-5373138.14	-5373137.93	-5373137.71	0.0088	0.0022
Venus	-19424-10-08 03:07 J	-5372912.57	-5372912.37	-5372912.14	0.0089	0.0025
Venus	-19423-05-21 17:02 J	-5372687.00	-5372686.79	-5372686.57	0.0089	0.0027
Venus	-19422-01-02 06:43 J	-5372461.42	-5372461.22	-5372461.00	0.0089	0.0029
Venus	-19422-08-15 20:23 J	-5372235.85	-5372235.65	-5372235.43	0.0089	0.0032
Venus	-19421-03-28 09:50 J	-5372010.28	-5372010.09	-5372009.87	0.0089	0.0035
Venus	-19421-11-08 23:45 J	-5371784.71	-5371784.51	-5371784.30	0.0089	0.0037
Venus	-19420-06-22 13:40 J	-5371559.13	-5371558.93	-5371558.73	0.0089	0.0039
Venus	-19419-02-03 03:07 J	-5371333.56	-5371333.37	-5371333.16	0.0089	0.0042
Venus	-19419-09-16 16:48 J	-5371107.99	-5371107.80	-5371107.60	0.0089	0.0044
Venus	-19418-04-30 06:14 J	-5370882.42	-5370882.24	-5370882.04	0.0089	0.0047
Venus	-19418-12-11 20:09 J	-5370656.84	-5370656.66	-5370656.46	0.0089	0.0049
Venus	-19417-07-24 10:04 J	-5370431.26	-5370431.08	-5370430.90	0.0089	0.0051
Venus	-19416-03-06 23:16 J	-5370205.69	-5370205.53	-5370205.33	0.0089	0.0054
Venus	-19416-10-18 12:57 J	-5369980.11	-5369979.96	-5369979.77	0.0089	0.0056
Venus	-19415-06-01 02:52 J	-5369754.54	-5369754.38	-5369754.20	0.0089	0.0058
Venus	-19414-01-12 16:48 J	-5369528.96	-5369528.80	-5369528.63	0.0089	0.0060
Venus	-19414-08-26 06:43 J	-5369303.38	-5369303.22	-5369303.07	0.0089	0.0062
Venus	-19413-04-07 19:40 J	-5369077.81	-5369077.68	-5369077.50	0.0089	0.0065
Venus	-19413-11-19 09:21 J	-5368852.23	-5368852.11	-5368851.94	0.0089	0.0067
Venus	-19412-07-02 23:02 J	-5368626.66	-5368626.54	-5368626.38	0.0089	0.0069
Venus	-19411-02-13 12:43 J	-5368401.08	-5368400.97	-5368400.81	0.0089	0.0071

Venus	-19411-09-27 02:23 J	-5368175.51	-5368175.40	-5368175.26	0.0089	0.0073
Venus	-19410-05-10 15:50 J	-5367949.94	-5367949.84	-5367949.70	0.0089	0.0075
Venus	-19410-12-22 05:31 J	-5367724.36	-5367724.27	-5367724.14	0.0089	0.0077
Venus	-19409-08-03 18:57 J	-5367498.78	-5367498.71	-5367498.58	0.0089	0.0079
Venus	-19408-03-17 09:07 J	-5367273.21	-5367273.12	-5367273.02	0.0089	0.0080
Venus	-19408-10-28 22:19 J	-5367047.64	-5367047.57	-5367047.47	0.0089	0.0082
Venus	-19407-06-11 11:45 J	-5366822.06	-5366822.01	-5366821.92	0.0089	0.0084
Venus	-19406-01-23 01:55 J	-5366596.48	-5366596.42	-5366596.37	0.0089	0.0085
Venus	-19406-09-05 14:52 J	-5366370.90	-5366370.88	-5366370.82	0.0089	0.0087
Venus	-19405-04-18 04:33 J	-5366145.31	-5366145.31	-5366145.28	0.0089	0.0089
Earth	-19391-05-07 20:52 J	-5361012.71	-5361012.63	-5361012.48	0.0089	0.0080
Moon	-19391-05-07 23:02 J	-5361012.63	-5361012.54	-5361012.40	0.0089	0.0078 *
Moon	-19390-05-10 04:48 J	-5360645.53	-5360645.30	-5360645.06	0.0089	0.0038
Earth	-19390-05-10 08:09 J	-5360645.39	-5360645.16	-5360644.92	0.0089	0.0037 *
Earth	-19389-05-11 18:43 J	-5360277.96	-5360277.72	-5360277.46	0.0089	0.0007
Moon	-19389-05-11 22:19 J	-5360277.82	-5360277.57	-5360277.31	0.0089	0.0008 *
Moon	-19388-05-14 01:55 J	-5359910.62	-5359910.42	-5359910.19	0.0089	0.0047
Earth	-19388-05-14 05:16 J	-5359910.47	-5359910.28	-5359910.05	0.0089	0.0048 *
Jupiter	-19376-01-18 13:26 J	-5355643.20	-5355642.94	-5355642.65	0.0089	0.0076
Mars	-19373-03-05 02:38 J	-5354501.48	-5354501.39	-5354501.27	0.0089	0.0085
Venus	-19372-01-09 07:11 J	-5354191.20	-5354191.20	-5354191.18	0.0089	0.0089
Venus	-19372-08-22 19:55 J	-5353965.70	-5353965.67	-5353965.62	0.0089	0.0088
Mars	-19371-01-30 10:48 J	-5353805.38	-5353805.05	-5353804.71	0.0089	0.0007
Mercury	-19371-03-24 04:19 J	-5353752.33	-5353752.32	-5353752.28	0.0089	0.0088
Venus	-19371-04-05 08:23 J	-5353740.18	-5353740.15	-5353740.07	0.0089	0.0086
Mercury	-19371-06-20 05:45 J	-5353664.30	-5353664.26	-5353664.19	0.0089	0.0080
Mercury	-19371-09-16 06:57 J	-5353576.27	-5353576.21	-5353576.12	0.0089	0.0074
Venus	-19371-11-16 21:07 J	-5353514.67	-5353514.62	-5353514.53	0.0089	0.0085
Mercury	-19371-12-13 08:23 J	-5353488.23	-5353488.15	-5353488.05	0.0089	0.0066
Mercury	-19370-03-11 09:50 J	-5353400.18	-5353400.09	-5353399.99	0.0089	0.0059

Mercury	-19370-06-07 11:02 J	-5353312.14	-5353312.04	-5353311.93	0.0089	0.0052
Venus	-19370-06-30 09:50 J	-5353289.16	-5353289.09	-5353289.00	0.0089	0.0083
Mercury	-19370-09-03 12:28 J	-5353224.09	-5353223.98	-5353223.87	0.0089	0.0045
Mercury	-19370-11-30 13:40 J	-5353136.04	-5353135.93	-5353135.80	0.0089	0.0038
Mars	-19370-12-27 17:16 J	-5353108.96	-5353108.78	-5353108.55	0.0089	0.0071
Venus	-19369-02-10 22:48 J	-5353063.64	-5353063.55	-5353063.46	0.0089	0.0081
Mercury	-19369-02-26 15:07 J	-5353047.99	-5353047.87	-5353047.75	0.0089	0.0031
Mercury	-19369-05-24 16:19 J	-5352959.94	-5352959.82	-5352959.69	0.0089	0.0025
Mercury	-19369-08-20 17:45 J	-5352871.89	-5352871.76	-5352871.63	0.0089	0.0017
Venus	-19369-09-23 10:48 J	-5352838.12	-5352838.05	-5352837.92	0.0089	0.0080
Mercury	-19369-11-16 18:57 J	-5352783.84	-5352783.71	-5352783.57	0.0089	0.0011
Mercury	-19368-02-12 20:23 J	-5352695.78	-5352695.65	-5352695.52	0.0089	0.0003
Venus	-19368-05-06 23:45 J	-5352612.60	-5352612.51	-5352612.38	0.0089	0.0078
Mercury	-19368-05-11 21:36 J	-5352607.73	-5352607.60	-5352607.46	0.0089	0.0005
Mercury	-19368-08-07 23:02 J	-5352519.67	-5352519.54	-5352519.41	0.0089	0.0011
Mercury	-19368-11-04 00:14 J	-5352431.62	-5352431.49	-5352431.36	0.0089	0.0018
Venus	-19368-12-18 12:28 J	-5352387.08	-5352386.98	-5352386.85	0.0089	0.0075
Mercury	-19367-01-31 01:26 J	-5352343.56	-5352343.44	-5352343.30	0.0089	0.0025
Mercury	-19367-04-29 02:52 J	-5352255.50	-5352255.38	-5352255.25	0.0089	0.0032
Mercury	-19367-07-26 04:04 J	-5352167.44	-5352167.33	-5352167.20	0.0089	0.0039
Venus	-19367-08-01 00:57 J	-5352161.56	-5352161.46	-5352161.32	0.0089	0.0074
Mercury	-19367-10-22 05:31 J	-5352079.38	-5352079.27	-5352079.15	0.0089	0.0046
Mercury	-19366-01-18 06:43 J	-5351991.32	-5351991.22	-5351991.10	0.0089	0.0053
Venus	-19366-03-14 13:40 J	-5351936.04	-5351935.93	-5351935.79	0.0089	0.0072
Mercury	-19366-04-16 08:09 J	-5351903.25	-5351903.16	-5351903.06	0.0089	0.0060
Mercury	-19366-07-13 09:21 J	-5351815.18	-5351815.11	-5351815.01	0.0089	0.0067
Mercury	-19366-10-09 10:48 J	-5351727.12	-5351727.05	-5351726.97	0.0089	0.0074
Venus	-19366-10-26 02:23 J	-5351710.52	-5351710.40	-5351710.25	0.0089	0.0070
Mercury	-19365-01-05 12:00 J	-5351639.04	-5351639.00	-5351638.94	0.0089	0.0082
Mercury	-19365-04-02 13:26 J	-5351550.95	-5351550.94	-5351550.92	0.0089	0.0089

Venus	-19365-06-07 15:07 J	-5351485.00	-5351484.87	-5351484.72	0.0089	0.0067
Venus	-19364-01-19 03:36 J	-5351259.48	-5351259.35	-5351259.19	0.0089	0.0065
Venus	-19364-09-01 16:04 J	-5351033.96	-5351033.83	-5351033.66	0.0089	0.0064
Venus	-19363-04-15 04:48 J	-5350808.44	-5350808.30	-5350808.12	0.0089	0.0061
Venus	-19363-11-26 17:16 J	-5350582.92	-5350582.78	-5350582.59	0.0089	0.0060
Venus	-19362-07-10 06:14 J	-5350357.40	-5350357.24	-5350357.07	0.0089	0.0057
Venus	-19361-02-20 18:43 J	-5350131.88	-5350131.72	-5350131.54	0.0089	0.0054
Venus	-19361-10-03 06:57 J	-5349906.36	-5349906.21	-5349906.01	0.0089	0.0053
Venus	-19360-05-16 19:40 J	-5349680.84	-5349680.68	-5349680.48	0.0089	0.0050
Venus	-19360-12-28 08:23 J	-5349455.32	-5349455.15	-5349454.96	0.0089	0.0047
Venus	-19359-08-10 20:38 J	-5349229.81	-5349229.64	-5349229.44	0.0089	0.0045
Venus	-19358-03-24 09:21 J	-5349004.30	-5349004.11	-5349003.92	0.0089	0.0043
Venus	-19358-11-04 21:36 J	-5348778.78	-5348778.60	-5348778.39	0.0089	0.0040
Venus	-19357-06-17 10:04 J	-5348553.26	-5348553.08	-5348552.87	0.0089	0.0038
Venus	-19356-01-28 22:33 J	-5348327.75	-5348327.56	-5348327.35	0.0089	0.0036
Venus	-19356-09-11 10:48 J	-5348102.23	-5348102.05	-5348101.83	0.0089	0.0034
Venus	-19355-04-24 23:31 J	-5347876.71	-5347876.52	-5347876.31	0.0089	0.0030
Venus	-19355-12-06 11:45 J	-5347651.20	-5347651.01	-5347650.79	0.0089	0.0028
Venus	-19354-07-20 00:28 J	-5347425.69	-5347425.48	-5347425.27	0.0089	0.0025
Venus	-19353-03-01 12:43 J	-5347200.17	-5347199.97	-5347199.75	0.0089	0.0023
Venus	-19353-10-13 01:11 J	-5346974.65	-5346974.45	-5346974.23	0.0089	0.0020
Venus	-19352-05-26 13:40 J	-5346749.13	-5346748.93	-5346748.71	0.0089	0.0018
Venus	-19351-01-07 02:09 J	-5346523.61	-5346523.41	-5346523.19	0.0089	0.0015
Venus	-19351-08-20 14:38 J	-5346298.10	-5346297.89	-5346297.67	0.0089	0.0013
Venus	-19350-04-03 03:07 J	-5346072.58	-5346072.37	-5346072.15	0.0089	0.0010
Venus	-19350-11-14 15:36 J	-5345847.07	-5345846.85	-5345846.64	0.0089	0.0007
Venus	-19349-06-27 04:04 J	-5345621.55	-5345621.33	-5345621.11	0.0089	0.0005
Venus	-19348-02-07 16:19 J	-5345396.03	-5345395.82	-5345395.60	0.0089	0.0003
Venus	-19348-09-21 04:48 J	-5345170.52	-5345170.30	-5345170.08	0.0089	0.0001
Venus	-19347-05-04 17:02 J	-5344945.00	-5344944.79	-5344944.57	0.0089	0.0004

Venus	-19347-12-16 05:31 J	-5344719.49	-5344719.27	-5344719.05	0.0089	0.0006
Venus	-19346-07-29 17:45 J	-5344493.97	-5344493.76	-5344493.54	0.0089	0.0008
Venus	-19345-03-11 06:00 J	-5344268.46	-5344268.25	-5344268.03	0.0089	0.0011
Venus	-19345-10-22 18:14 J	-5344042.95	-5344042.74	-5344042.52	0.0089	0.0014
Venus	-19344-06-05 06:43 J	-5343817.43	-5343817.22	-5343817.00	0.0089	0.0016
Venus	-19343-01-16 18:57 J	-5343591.91	-5343591.71	-5343591.49	0.0089	0.0019
Venus	-19343-08-30 07:26 J	-5343366.40	-5343366.19	-5343365.98	0.0089	0.0021
Venus	-19342-04-12 19:26 J	-5343140.89	-5343140.69	-5343140.47	0.0089	0.0024
Venus	-19342-11-24 07:55 J	-5342915.37	-5342915.17	-5342914.96	0.0089	0.0026
Venus	-19341-07-06 20:23 J	-5342689.85	-5342689.65	-5342689.44	0.0089	0.0029
Venus	-19340-02-17 08:52 J	-5342464.33	-5342464.13	-5342463.93	0.0089	0.0031
Venus	-19340-09-30 20:52 J	-5342238.82	-5342238.63	-5342238.42	0.0089	0.0034
Venus	-19339-05-14 09:21 J	-5342013.30	-5342013.11	-5342012.90	0.0089	0.0036
Venus	-19339-12-25 21:36 J	-5341787.78	-5341787.60	-5341787.39	0.0089	0.0039
Venus	-19338-08-08 10:04 J	-5341562.26	-5341562.08	-5341561.88	0.0089	0.0041
Venus	-19337-03-20 22:19 J	-5341336.74	-5341336.57	-5341336.37	0.0089	0.0044
Venus	-19337-11-01 10:48 J	-5341111.22	-5341111.05	-5341110.85	0.0089	0.0046
Venus	-19336-06-14 23:31 J	-5340885.70	-5340885.52	-5340885.34	0.0089	0.0048
Venus	-19335-01-26 11:31 J	-5340660.18	-5340660.02	-5340659.83	0.0089	0.0051
Venus	-19335-09-09 00:00 J	-5340434.66	-5340434.50	-5340434.32	0.0089	0.0053
Venus	-19334-04-22 12:28 J	-5340209.15	-5340208.98	-5340208.81	0.0089	0.0055
Venus	-19334-12-04 00:28 J	-5339983.63	-5339983.48	-5339983.30	0.0089	0.0058
Venus	-19333-07-16 12:57 J	-5339758.10	-5339757.96	-5339757.78	0.0089	0.0060
Venus	-19332-02-27 01:26 J	-5339532.58	-5339532.44	-5339532.27	0.0089	0.0062
Venus	-19332-10-10 13:40 J	-5339307.07	-5339306.93	-5339306.77	0.0089	0.0064
Venus	-19331-05-24 02:09 J	-5339081.55	-5339081.41	-5339081.26	0.0089	0.0066
Venus	-19330-01-04 14:38 J	-5338856.03	-5338855.89	-5338855.75	0.0088	0.0068
Venus	-19330-08-18 02:52 J	-5338630.50	-5338630.38	-5338630.24	0.0088	0.0070
Venus	-19329-03-30 15:21 J	-5338404.98	-5338404.86	-5338404.73	0.0088	0.0072
Venus	-19329-11-11 03:36 J	-5338179.46	-5338179.35	-5338179.22	0.0088	0.0074

Venus	-19328-06-24 16:04 J	-5337953.93	-5337953.83	-5337953.71	0.0088	0.0076
Venus	-19327-02-05 04:33 J	-5337728.40	-5337728.31	-5337728.20	0.0088	0.0078
Venus	-19327-09-18 16:48 J	-5337502.87	-5337502.80	-5337502.69	0.0088	0.0080
Venus	-19326-05-02 05:16 J	-5337277.35	-5337277.28	-5337277.18	0.0088	0.0082
Venus	-19326-12-13 17:31 J	-5337051.81	-5337051.77	-5337051.67	0.0088	0.0084
Venus	-19325-07-26 06:43 J	-5336826.27	-5336826.22	-5336826.15	0.0088	0.0085
Venus	-19324-03-08 18:57 J	-5336600.73	-5336600.71	-5336600.65	0.0088	0.0087
Venus	-19324-10-20 07:26 J	-5336375.19	-5336375.19	-5336375.16	0.0088	0.0088
Moon	-19309-11-05 03:21 J	-5330880.56	-5330880.36	-5330880.14	0.0088	0.0051
Earth	-19309-11-05 06:43 J	-5330880.40	-5330880.22	-5330879.99	0.0088	0.0056 *
Earth	-19308-11-07 19:40 J	-5330512.93	-5330512.68	-5330512.41	0.0088	0.0014
Moon	-19308-11-07 23:16 J	-5330512.79	-5330512.53	-5330512.27	0.0088	0.0018 *
Moon	-19307-11-10 05:02 J	-5330145.51	-5330145.29	-5330145.04	0.0088	0.0033
Earth	-19307-11-10 08:09 J	-5330145.39	-5330145.16	-5330144.89	0.0088	0.0028 *
Earth	-19306-11-12 20:23 J	-5329777.78	-5329777.65	-5329777.47	0.0088	0.0070
Moon	-19306-11-12 22:33 J	-5329777.73	-5329777.56	-5329777.37	0.0088	0.0065 *
Mars	-19290-11-18 11:16 J	-5323928.29	-5323928.03	-5323927.74	0.0088	0.0030
Venus	-19288-08-13 10:19 J	-5323294.08	-5323294.07	-5323294.03	0.0088	0.0087
Mars	-19288-10-12 03:21 J	-5323234.62	-5323234.36	-5323234.08	0.0088	0.0033
Mercury	-19288-12-05 17:16 J	-5323179.83	-5323179.78	-5323179.68	0.0088	0.0081
Mercury	-19287-03-03 21:07 J	-5323091.72	-5323091.62	-5323091.49	0.0088	0.0071
Venus	-19287-03-27 00:00 J	-5323068.55	-5323068.50	-5323068.45	0.0088	0.0085
Mercury	-19287-05-31 00:43 J	-5323003.59	-5323003.47	-5323003.31	0.0088	0.0061
Mercury	-19287-08-27 04:48 J	-5322915.46	-5322915.30	-5322915.14	0.0088	0.0050
Venus	-19287-11-07 12:57 J	-5322843.00	-5322842.96	-5322842.87	0.0088	0.0084
Mercury	-19287-11-23 08:23 J	-5322827.32	-5322827.15	-5322826.97	0.0088	0.0040
Mercury	-19286-02-19 12:00 J	-5322739.18	-5322739.00	-5322738.81	0.0088	0.0030
Mercury	-19286-05-18 15:50 J	-5322651.03	-5322650.84	-5322650.65	0.0088	0.0020
Venus	-19286-06-21 02:23 J	-5322617.46	-5322617.40	-5322617.30	0.0088	0.0082
Mercury	-19286-08-14 19:26 J	-5322562.89	-5322562.69	-5322562.50	0.0088	0.0010

Mercury	-19286-11-10 23:02 J	-5322474.74	-5322474.54	-5322474.34	0.0088	0.0000
Venus	-19285-02-01 15:50 J	-5322391.91	-5322391.84	-5322391.73	0.0088	0.0080
Mercury	-19285-02-07 02:38 J	-5322386.58	-5322386.39	-5322386.19	0.0088	0.0010
Mercury	-19285-05-05 06:00 J	-5322298.43	-5322298.25	-5322298.05	0.0088	0.0020
Mercury	-19285-08-01 09:36 J	-5322210.27	-5322210.10	-5322209.90	0.0088	0.0030
Venus	-19285-09-14 05:31 J	-5322166.36	-5322166.27	-5322166.16	0.0088	0.0078
Mercury	-19285-10-28 13:11 J	-5322122.11	-5322121.95	-5322121.76	0.0088	0.0040
Mercury	-19284-01-24 16:48 J	-5322033.95	-5322033.80	-5322033.63	0.0088	0.0050
Mercury	-19284-04-22 20:09 J	-5321945.78	-5321945.66	-5321945.50	0.0088	0.0060
Venus	-19284-04-27 18:57 J	-5321940.81	-5321940.71	-5321940.59	0.0088	0.0076
Mercury	-19284-07-20 00:14 J	-5321857.61	-5321857.49	-5321857.37	0.0088	0.0070
Mercury	-19284-10-16 03:36 J	-5321769.42	-5321769.35	-5321769.26	0.0088	0.0079
Venus	-19284-12-09 08:23 J	-5321715.26	-5321715.15	-5321715.03	0.0088	0.0074
Venus	-19283-07-22 21:36 J	-5321489.71	-5321489.60	-5321489.46	0.0088	0.0072
Venus	-19282-03-05 11:02 J	-5321264.16	-5321264.04	-5321263.90	0.0088	0.0070
Venus	-19282-10-17 00:28 J	-5321038.60	-5321038.48	-5321038.32	0.0088	0.0068
Venus	-19281-05-29 13:55 J	-5320813.05	-5320812.92	-5320812.76	0.0088	0.0066
Venus	-19280-01-10 03:07 J	-5320587.50	-5320587.37	-5320587.19	0.0088	0.0064
Venus	-19280-08-23 16:33 J	-5320361.95	-5320361.81	-5320361.63	0.0088	0.0062
Venus	-19279-04-06 06:14 J	-5320136.39	-5320136.24	-5320136.06	0.0088	0.0060
Venus	-19279-11-17 19:40 J	-5319910.83	-5319910.68	-5319910.49	0.0088	0.0058
Venus	-19278-07-01 09:07 J	-5319685.27	-5319685.12	-5319684.93	0.0088	0.0055
Venus	-19277-02-11 23:02 J	-5319459.72	-5319459.54	-5319459.36	0.0088	0.0052
Venus	-19277-09-24 12:14 J	-5319234.16	-5319233.99	-5319233.79	0.0088	0.0051
Venus	-19276-05-08 01:40 J	-5319008.60	-5319008.43	-5319008.22	0.0088	0.0048
Venus	-19276-12-19 15:36 J	-5318783.03	-5318782.85	-5318782.65	0.0088	0.0045
Venus	-19275-08-02 05:02 J	-5318557.47	-5318557.29	-5318557.08	0.0088	0.0043
Venus	-19274-03-15 18:43 J	-5318331.91	-5318331.72	-5318331.51	0.0088	0.0040
Venus	-19274-10-27 08:23 J	-5318106.34	-5318106.15	-5318105.94	0.0088	0.0038
Venus	-19273-06-08 22:04 J	-5317880.77	-5317880.58	-5317880.36	0.0088	0.0036

Venus	-19272-01-20 11:31 J	-5317655.21	-5317655.02	-5317654.79	0.0088	0.0033
Venus	-19272-09-03 01:11 J	-5317429.65	-5317429.45	-5317429.23	0.0088	0.0030
Venus	-19271-04-16 15:07 J	-5317204.08	-5317203.87	-5317203.66	0.0088	0.0028
Venus	-19271-11-28 04:33 J	-5316978.51	-5316978.31	-5316978.08	0.0088	0.0025
Venus	-19270-07-11 18:14 J	-5316752.95	-5316752.74	-5316752.51	0.0088	0.0023
Venus	-19269-02-22 07:55 J	-5316527.39	-5316527.17	-5316526.95	0.0088	0.0020
Venus	-19269-10-04 21:21 J	-5316301.82	-5316301.61	-5316301.38	0.0088	0.0017
Venus	-19268-05-18 11:02 J	-5316076.25	-5316076.04	-5316075.81	0.0088	0.0015
Venus	-19268-12-30 00:57 J	-5315850.69	-5315850.46	-5315850.24	0.0088	0.0012
Venus	-19267-08-12 14:23 J	-5315625.12	-5315624.90	-5315624.68	0.0088	0.0009
Venus	-19266-03-26 03:50 J	-5315399.56	-5315399.34	-5315399.11	0.0088	0.0007
Venus	-19266-11-06 17:45 J	-5315173.98	-5315173.76	-5315173.54	0.0088	0.0004
Venus	-19265-06-19 07:26 J	-5314948.41	-5314948.19	-5314947.97	0.0088	0.0001
Venus	-19264-01-30 21:07 J	-5314722.85	-5314722.62	-5314722.40	0.0088	0.0002
Venus	-19264-09-13 10:48 J	-5314497.28	-5314497.05	-5314496.83	0.0088	0.0005
Venus	-19263-04-27 00:14 J	-5314271.71	-5314271.49	-5314271.26	0.0088	0.0008
Venus	-19263-12-08 14:09 J	-5314046.13	-5314045.91	-5314045.68	0.0088	0.0010
Venus	-19262-07-22 03:50 J	-5313820.56	-5313820.34	-5313820.11	0.0088	0.0013
Venus	-19261-03-03 17:31 J	-5313594.98	-5313594.77	-5313594.54	0.0088	0.0016
Venus	-19261-10-15 07:11 J	-5313369.41	-5313369.20	-5313368.97	0.0088	0.0018
Venus	-19260-05-28 21:07 J	-5313143.84	-5313143.62	-5313143.40	0.0088	0.0021
Venus	-19259-01-09 10:48 J	-5312918.26	-5312918.05	-5312917.83	0.0088	0.0023
Venus	-19259-08-23 00:14 J	-5312692.69	-5312692.49	-5312692.26	0.0089	0.0027
Venus	-19258-04-05 14:09 J	-5312467.12	-5312466.91	-5312466.69	0.0089	0.0029
Venus	-19258-11-17 03:50 J	-5312241.54	-5312241.34	-5312241.12	0.0089	0.0032
Venus	-19257-06-29 17:45 J	-5312015.97	-5312015.76	-5312015.55	0.0089	0.0034
Venus	-19256-02-10 07:11 J	-5311790.39	-5311790.20	-5311789.99	0.0089	0.0037
Venus	-19256-09-23 20:38 J	-5311564.82	-5311564.64	-5311564.42	0.0089	0.0040
Venus	-19255-05-07 10:33 J	-5311339.25	-5311339.06	-5311338.86	0.0089	0.0042
Venus	-19255-12-19 00:00 J	-5311113.67	-5311113.50	-5311113.29	0.0089	0.0045

Venus	-19254-08-01 13:55 J	-5310888.10	-5310887.92	-5310887.72	0.0089	0.0047
Venus	-19253-03-14 03:21 J	-5310662.53	-5310662.36	-5310662.16	0.0089	0.0050
Venus	-19253-10-25 17:02 J	-5310436.96	-5310436.79	-5310436.60	0.0089	0.0052
Venus	-19252-06-08 06:28 J	-5310211.38	-5310211.23	-5310211.03	0.0089	0.0055
Venus	-19251-01-19 20:23 J	-5309985.80	-5309985.65	-5309985.46	0.0089	0.0057
Venus	-19251-09-02 10:19 J	-5309760.23	-5309760.07	-5309759.90	0.0089	0.0059
Venus	-19250-04-15 23:31 J	-5309534.65	-5309534.52	-5309534.33	0.0089	0.0062
Venus	-19250-11-27 13:26 J	-5309309.07	-5309308.94	-5309308.77	0.0089	0.0064
Venus	-19249-07-10 03:21 J	-5309083.50	-5309083.36	-5309083.20	0.0089	0.0066
Venus	-19248-02-20 17:16 J	-5308857.92	-5308857.78	-5308857.63	0.0089	0.0068
Venus	-19248-10-04 06:28 J	-5308632.34	-5308632.23	-5308632.07	0.0089	0.0071
Venus	-19247-05-17 20:09 J	-5308406.76	-5308406.66	-5308406.51	0.0089	0.0073
Venus	-19247-12-29 10:04 J	-5308181.18	-5308181.08	-5308180.94	0.0089	0.0075
Venus	-19246-08-11 23:45 J	-5307955.60	-5307955.51	-5307955.38	0.0089	0.0077
Venus	-19245-03-24 13:26 J	-5307730.03	-5307729.94	-5307729.83	0.0089	0.0079
Venus	-19245-11-05 02:52 J	-5307504.45	-5307504.38	-5307504.27	0.0089	0.0081
Venus	-19244-06-18 16:33 J	-5307278.87	-5307278.81	-5307278.72	0.0089	0.0083
Venus	-19243-01-30 06:00 J	-5307053.29	-5307053.25	-5307053.16	0.0089	0.0085
Venus	-19243-09-12 19:26 J	-5306827.71	-5306827.69	-5306827.61	0.0089	0.0087
Venus	-19242-04-26 09:36 J	-5306602.12	-5306602.10	-5306602.08	0.0089	0.0088
Earth	-19226-05-09 14:38 J	-5300745.05	-5300744.89	-5300744.69	0.0089	0.0062
Moon	-19226-05-09 18:43 J	-5300744.91	-5300744.72	-5300744.52	0.0089	0.0057 *
Moon	-19225-05-10 22:19 J	-5300377.80	-5300377.57	-5300377.31	0.0089	0.0023
Earth	-19225-05-11 01:26 J	-5300377.67	-5300377.44	-5300377.18	0.0089	0.0019 *
Earth	-19224-05-13 12:00 J	-5300010.24	-5300010.00	-5300009.75	0.0089	0.0024
Moon	-19224-05-13 14:52 J	-5300010.12	-5300009.88	-5300009.63	0.0089	0.0028 *
Moon	-19223-05-15 20:52 J	-5299642.80	-5299642.63	-5299642.44	0.0089	0.0061
Earth	-19223-05-15 22:48 J	-5299642.72	-5299642.55	-5299642.37	0.0089	0.0066 *
Jupiter	-19210-03-17 13:26 J	-5294954.42	-5294953.94	-5294953.43	0.0089	0.0030
Mars	-19208-09-12 13:40 J	-5294044.18	-5294043.93	-5294043.62	0.0089	0.0049

Mercury	-19207-12-19 03:50 J	-5293581.37	-5293581.34	-5293581.30	0.0089	0.0086
Mercury	-19206-03-17 05:16 J	-5293493.34	-5293493.28	-5293493.22	0.0089	0.0079
Mercury	-19206-06-13 06:14 J	-5293405.30	-5293405.24	-5293405.15	0.0089	0.0073
Mars	-19206-08-09 22:04 J	-5293347.89	-5293347.58	-5293347.25	0.0089	0.0029
Mercury	-19206-09-09 07:40 J	-5293317.26	-5293317.18	-5293317.08	0.0089	0.0065
Venus	-19206-10-01 19:11 J	-5293294.73	-5293294.70	-5293294.65	0.0089	0.0088
Mercury	-19206-12-06 08:52 J	-5293229.22	-5293229.13	-5293229.02	0.0089	0.0059
Mercury	-19205-03-03 10:19 J	-5293141.17	-5293141.07	-5293140.95	0.0089	0.0051
Venus	-19205-05-14 07:40 J	-5293069.21	-5293069.18	-5293069.10	0.0089	0.0086
Mercury	-19205-05-30 11:31 J	-5293053.12	-5293053.02	-5293052.89	0.0089	0.0045
Mercury	-19205-08-26 12:57 J	-5292965.07	-5292964.96	-5292964.83	0.0089	0.0037
Mercury	-19205-11-22 14:23 J	-5292877.02	-5292876.90	-5292876.78	0.0089	0.0030
Venus	-19205-12-25 20:23 J	-5292843.70	-5292843.65	-5292843.56	0.0089	0.0084
Mercury	-19204-02-18 15:36 J	-5292788.97	-5292788.85	-5292788.72	0.0089	0.0023
Mercury	-19204-05-17 17:02 J	-5292700.92	-5292700.79	-5292700.66	0.0089	0.0016
Venus	-19204-08-08 08:52 J	-5292618.19	-5292618.13	-5292618.02	0.0089	0.0083
Mercury	-19204-08-13 18:14 J	-5292612.87	-5292612.74	-5292612.60	0.0089	0.0010
Mercury	-19204-11-09 19:40 J	-5292524.81	-5292524.68	-5292524.55	0.0089	0.0002
Mercury	-19203-02-05 20:52 J	-5292436.76	-5292436.63	-5292436.49	0.0089	0.0006
Venus	-19203-03-21 21:36 J	-5292392.67	-5292392.60	-5292392.48	0.0089	0.0081
Mercury	-19203-05-04 22:19 J	-5292348.70	-5292348.57	-5292348.44	0.0089	0.0012
Mercury	-19203-07-31 23:31 J	-5292260.64	-5292260.52	-5292260.39	0.0089	0.0019
Mercury	-19203-10-28 00:43 J	-5292172.59	-5292172.47	-5292172.33	0.0089	0.0027
Venus	-19203-11-02 10:19 J	-5292167.15	-5292167.07	-5292166.95	0.0089	0.0078
Mercury	-19202-01-24 02:09 J	-5292084.53	-5292084.41	-5292084.28	0.0089	0.0033
Mercury	-19202-04-22 03:21 J	-5291996.47	-5291996.36	-5291996.23	0.0089	0.0041
Venus	-19202-06-15 22:48 J	-5291941.64	-5291941.55	-5291941.41	0.0089	0.0077
Mercury	-19202-07-19 04:48 J	-5291908.41	-5291908.30	-5291908.18	0.0089	0.0047
Mercury	-19202-10-15 06:00 J	-5291820.34	-5291820.25	-5291820.14	0.0089	0.0055
Mercury	-19201-01-11 07:26 J	-5291732.28	-5291732.19	-5291732.09	0.0089	0.0061

Venus	-19201-01-27 11:31 J	-5291716.12	-5291716.02	-5291715.88	0.0089	0.0074
Mercury	-19201-04-08 08:38 J	-5291644.21	-5291644.14	-5291644.05	0.0089	0.0069
Mercury	-19201-07-05 10:04 J	-5291556.14	-5291556.08	-5291556.01	0.0089	0.0076
Venus	-19201-09-09 00:00 J	-5291490.60	-5291490.50	-5291490.35	0.0089	0.0072
Mercury	-19201-10-01 11:31 J	-5291468.07	-5291468.02	-5291467.97	0.0089	0.0083
Venus	-19200-04-22 13:11 J	-5291265.08	-5291264.95	-5291264.81	0.0089	0.0070
Venus	-19200-12-04 01:40 J	-5291039.56	-5291039.43	-5291039.28	0.0089	0.0068
Venus	-19199-07-17 14:09 J	-5290814.04	-5290813.91	-5290813.75	0.0089	0.0065
Venus	-19198-02-28 02:38 J	-5290588.53	-5290588.39	-5290588.22	0.0089	0.0063
Venus	-19198-10-11 15:36 J	-5290363.01	-5290362.85	-5290362.69	0.0089	0.0061
Venus	-19197-05-24 04:04 J	-5290137.48	-5290137.33	-5290137.16	0.0089	0.0059
Venus	-19196-01-04 16:33 J	-5289911.96	-5289911.81	-5289911.63	0.0089	0.0056
Venus	-19196-08-18 05:16 J	-5289686.45	-5289686.28	-5289686.10	0.0089	0.0054
Venus	-19195-03-31 17:45 J	-5289460.93	-5289460.76	-5289460.58	0.0089	0.0051
Venus	-19195-11-12 06:00 J	-5289235.41	-5289235.25	-5289235.05	0.0089	0.0049
Venus	-19194-06-25 18:43 J	-5289009.89	-5289009.72	-5289009.53	0.0089	0.0046
Venus	-19193-02-06 06:57 J	-5288784.38	-5288784.21	-5288784.00	0.0089	0.0044
Venus	-19193-09-18 19:26 J	-5288558.87	-5288558.69	-5288558.48	0.0089	0.0042
Venus	-19192-05-02 08:23 J	-5288333.35	-5288333.15	-5288332.96	0.0089	0.0039
Venus	-19192-12-13 20:23 J	-5288107.83	-5288107.65	-5288107.44	0.0089	0.0036
Venus	-19191-07-27 08:52 J	-5287882.32	-5287882.13	-5287881.92	0.0089	0.0034
Venus	-19190-03-09 21:07 J	-5287656.81	-5287656.62	-5287656.40	0.0089	0.0031
Venus	-19190-10-21 09:36 J	-5287431.29	-5287431.10	-5287430.88	0.0089	0.0029
Venus	-19189-06-02 22:04 J	-5287205.77	-5287205.58	-5287205.36	0.0089	0.0026
Venus	-19188-01-14 10:33 J	-5286980.26	-5286980.06	-5286979.84	0.0089	0.0023
Venus	-19188-08-27 23:02 J	-5286754.75	-5286754.54	-5286754.33	0.0089	0.0020
Venus	-19187-04-10 11:16 J	-5286529.23	-5286529.03	-5286528.81	0.0089	0.0018
Venus	-19187-11-21 23:45 J	-5286303.72	-5286303.51	-5286303.29	0.0089	0.0015
Venus	-19186-07-05 12:28 J	-5286078.20	-5286077.98	-5286077.77	0.0089	0.0012
Venus	-19185-02-16 00:43 J	-5285852.68	-5285852.47	-5285852.25	0.0089	0.0010

Venus	-19185-09-28 13:11 J	-5285627.16	-5285626.95	-5285626.73	0.0089	0.0007
Venus	-19184-05-12 01:40 J	-5285401.64	-5285401.43	-5285401.21	0.0089	0.0004
Venus	-19184-12-23 14:09 J	-5285176.13	-5285175.91	-5285175.70	0.0089	0.0002
Venus	-19183-08-06 02:23 J	-5284950.61	-5284950.40	-5284950.18	0.0089	0.0002
Venus	-19182-03-19 14:52 J	-5284725.10	-5284724.88	-5284724.67	0.0089	0.0004
Venus	-19182-10-31 03:07 J	-5284499.58	-5284499.37	-5284499.15	0.0089	0.0007
Venus	-19181-06-12 15:36 J	-5284274.06	-5284273.85	-5284273.63	0.0089	0.0010
Venus	-19180-01-24 04:04 J	-5284048.55	-5284048.33	-5284048.12	0.0089	0.0012
Venus	-19180-09-06 16:19 J	-5283823.03	-5283822.82	-5283822.61	0.0089	0.0015
Venus	-19179-04-20 04:19 J	-5283597.52	-5283597.32	-5283597.10	0.0089	0.0018
Venus	-19179-12-01 16:33 J	-5283372.01	-5283371.81	-5283371.59	0.0089	0.0021
Venus	-19178-07-15 05:16 J	-5283146.49	-5283146.28	-5283146.07	0.0089	0.0023
Venus	-19177-02-25 17:16 J	-5282920.97	-5282920.78	-5282920.56	0.0089	0.0026
Venus	-19177-10-08 05:31 J	-5282695.46	-5282695.27	-5282695.05	0.0089	0.0029
Venus	-19176-05-21 18:00 J	-5282469.94	-5282469.75	-5282469.54	0.0089	0.0031
Venus	-19175-01-02 06:14 J	-5282244.43	-5282244.24	-5282244.02	0.0089	0.0034
Venus	-19175-08-15 18:43 J	-5282018.91	-5282018.72	-5282018.51	0.0089	0.0036
Venus	-19174-03-29 06:57 J	-5281793.39	-5281793.21	-5281793.00	0.0089	0.0039
Venus	-19174-11-09 19:40 J	-5281567.87	-5281567.68	-5281567.49	0.0089	0.0041
Venus	-19173-06-22 07:55 J	-5281342.35	-5281342.17	-5281341.97	0.0089	0.0044
Venus	-19172-02-02 20:09 J	-5281116.83	-5281116.66	-5281116.46	0.0089	0.0047
Venus	-19172-09-16 08:38 J	-5280891.31	-5280891.14	-5280890.95	0.0089	0.0049
Venus	-19171-04-29 20:38 J	-5280665.79	-5280665.64	-5280665.44	0.0089	0.0052
Venus	-19171-12-11 09:21 J	-5280440.27	-5280440.11	-5280439.93	0.0089	0.0054
Venus	-19170-07-24 22:04 J	-5280214.75	-5280214.58	-5280214.41	0.0089	0.0056
Venus	-19169-03-06 10:04 J	-5279989.23	-5279989.08	-5279988.90	0.0089	0.0059
Venus	-19169-10-17 22:33 J	-5279763.71	-5279763.56	-5279763.39	0.0089	0.0061
Venus	-19168-05-31 11:02 J	-5279538.18	-5279538.04	-5279537.88	0.0089	0.0063
Venus	-19167-01-11 23:02 J	-5279312.66	-5279312.54	-5279312.37	0.0089	0.0066
Venus	-19167-08-25 11:31 J	-5279087.14	-5279087.02	-5279086.87	0.0088	0.0068

Venus	-19166-04-08 00:00 J	-5278861.62	-5278861.50	-5278861.36	0.0088	0.0070
Venus	-19166-11-19 12:28 J	-5278636.10	-5278635.98	-5278635.85	0.0088	0.0072
Venus	-19165-07-02 00:57 J	-5278410.57	-5278410.46	-5278410.34	0.0088	0.0074
Venus	-19164-02-12 12:43 J	-5278185.05	-5278184.97	-5278184.83	0.0088	0.0077
Venus	-19164-09-26 01:11 J	-5277959.53	-5277959.45	-5277959.33	0.0088	0.0079
Venus	-19163-05-09 13:26 J	-5277734.00	-5277733.94	-5277733.82	0.0088	0.0081
Venus	-19163-12-21 01:55 J	-5277508.47	-5277508.42	-5277508.32	0.0088	0.0082
Venus	-19162-08-03 14:52 J	-5277282.94	-5277282.88	-5277282.81	0.0088	0.0084
Venus	-19161-03-16 03:21 J	-5277057.40	-5277057.36	-5277057.30	0.0088	0.0086
Venus	-19161-10-27 15:36 J	-5276831.86	-5276831.85	-5276831.81	0.0088	0.0088
Earth	-19145-11-04 10:48 J	-5270980.15	-5270980.05	-5270979.94	0.0088	0.0080
Moon	-19145-11-04 13:40 J	-5270980.01	-5270979.93	-5270979.79	0.0088	0.0080 *
Moon	-19144-11-06 20:52 J	-5270612.84	-5270612.63	-5270612.38	0.0088	0.0039
Earth	-19144-11-06 23:16 J	-5270612.74	-5270612.53	-5270612.27	0.0088	0.0039 *
Earth	-19143-11-09 12:14 J	-5270245.25	-5270244.99	-5270244.73	0.0088	0.0003
Moon	-19143-11-09 14:09 J	-5270245.18	-5270244.91	-5270244.64	0.0088	0.0003 *
Earth	-19142-11-12 00:28 J	-5269877.69	-5269877.48	-5269877.24	0.0088	0.0045
Moon	-19142-11-12 00:28 J	-5269877.68	-5269877.48	-5269877.25	0.0088	0.0045 *
Moon	-19141-11-13 11:45 J	-5269510.02	-5269510.01	-5269509.94	0.0088	0.0087
Earth	-19141-11-13 12:57 J	-5269509.97	-5269509.96	-5269509.90	0.0088	0.0087 *
Mars	-19126-07-03 18:28 J	-5264164.93	-5264164.73	-5264164.53	0.0088	0.0064
Mars	-19124-05-27 09:36 J	-5263471.39	-5263471.10	-5263470.80	0.0088	0.0001
Mercury	-19123-09-01 14:23 J	-5263008.96	-5263008.90	-5263008.81	0.0088	0.0080
Mercury	-19123-11-28 18:00 J	-5262920.85	-5262920.75	-5262920.62	0.0088	0.0070
Mercury	-19122-02-24 21:50 J	-5262832.72	-5262832.59	-5262832.44	0.0088	0.0060
Mars	-19122-04-21 00:43 J	-5262777.66	-5262777.47	-5262777.24	0.0088	0.0062
Mercury	-19122-05-24 01:26 J	-5262744.59	-5262744.44	-5262744.27	0.0088	0.0050
Mercury	-19122-08-20 05:02 J	-5262656.45	-5262656.29	-5262656.10	0.0088	0.0040
Venus	-19122-09-22 09:50 J	-5262623.10	-5262623.09	-5262623.04	0.0088	0.0087
Mercury	-19122-11-16 08:52 J	-5262568.31	-5262568.13	-5262567.94	0.0088	0.0030

Mercury	-19121-02-12 12:28 J	-5262480.17	-5262479.98	-5262479.78	0.0088	0.0020
Venus	-19121-05-04 23:16 J	-5262397.57	-5262397.53	-5262397.46	0.0088	0.0085
Mercury	-19121-05-10 16:04 J	-5262392.02	-5262391.83	-5262391.63	0.0088	0.0010
Mercury	-19121-08-06 19:55 J	-5262303.87	-5262303.67	-5262303.47	0.0088	0.0001
Mercury	-19121-11-02 23:31 J	-5262215.72	-5262215.52	-5262215.33	0.0088	0.0010
Venus	-19121-12-16 12:43 J	-5262172.03	-5262171.97	-5262171.89	0.0088	0.0083
Mercury	-19120-01-30 03:07 J	-5262127.56	-5262127.37	-5262127.18	0.0088	0.0020
Mercury	-19120-04-28 06:43 J	-5262039.40	-5262039.22	-5262039.04	0.0088	0.0030
Mercury	-19120-07-25 10:19 J	-5261951.24	-5261951.07	-5261950.90	0.0088	0.0040
Venus	-19120-07-30 01:55 J	-5261946.49	-5261946.42	-5261946.32	0.0088	0.0081
Mercury	-19120-10-21 13:40 J	-5261863.08	-5261862.93	-5261862.76	0.0088	0.0050
Mercury	-19119-01-17 17:16 J	-5261774.91	-5261774.78	-5261774.63	0.0088	0.0060
Venus	-19119-03-12 15:21 J	-5261720.94	-5261720.86	-5261720.75	0.0088	0.0079
Mercury	-19119-04-15 20:52 J	-5261686.74	-5261686.63	-5261686.50	0.0088	0.0070
Mercury	-19119-07-13 00:14 J	-5261598.55	-5261598.49	-5261598.39	0.0088	0.0080
Venus	-19119-10-24 04:48 J	-5261495.38	-5261495.30	-5261495.17	0.0088	0.0077
Venus	-19118-06-06 18:14 J	-5261269.83	-5261269.74	-5261269.60	0.0088	0.0075
Venus	-19117-01-18 07:40 J	-5261044.29	-5261044.18	-5261044.04	0.0088	0.0073
Venus	-19117-08-30 20:52 J	-5260818.74	-5260818.63	-5260818.47	0.0088	0.0071
Venus	-19116-04-13 10:48 J	-5260593.18	-5260593.05	-5260592.91	0.0088	0.0068
Venus	-19116-11-25 00:00 J	-5260367.63	-5260367.50	-5260367.34	0.0088	0.0066
Venus	-19115-07-08 13:11 J	-5260142.08	-5260141.95	-5260141.77	0.0088	0.0064
Venus	-19114-02-19 03:07 J	-5259916.53	-5259916.37	-5259916.21	0.0088	0.0061
Venus	-19114-10-02 16:19 J	-5259690.97	-5259690.82	-5259690.64	0.0088	0.0059
Venus	-19113-05-15 06:14 J	-5259465.41	-5259465.24	-5259465.07	0.0088	0.0057
Venus	-19113-12-26 19:26 J	-5259239.86	-5259239.69	-5259239.50	0.0088	0.0054
Venus	-19112-08-09 09:07 J	-5259014.30	-5259014.12	-5259013.94	0.0088	0.0052
Venus	-19111-03-22 22:19 J	-5258788.74	-5258788.57	-5258788.37	0.0088	0.0049
Venus	-19111-11-03 12:14 J	-5258563.18	-5258562.99	-5258562.80	0.0088	0.0047
Venus	-19110-06-17 01:40 J	-5258337.61	-5258337.43	-5258337.23	0.0088	0.0044

Venus	-19109-01-28 15:21 J	-5258112.05	-5258111.86	-5258111.66	0.0088	0.0041
Venus	-19109-09-10 04:33 J	-5257886.49	-5257886.31	-5257886.09	0.0088	0.0040
Venus	-19108-04-23 18:28 J	-5257660.93	-5257660.73	-5257660.52	0.0088	0.0036
Venus	-19108-12-05 08:09 J	-5257435.36	-5257435.16	-5257434.94	0.0088	0.0034
Venus	-19107-07-18 21:36 J	-5257209.79	-5257209.60	-5257209.37	0.0088	0.0032
Venus	-19106-03-01 11:16 J	-5256984.23	-5256984.03	-5256983.80	0.0088	0.0029
Venus	-19106-10-13 01:11 J	-5256758.66	-5256758.45	-5256758.23	0.0088	0.0025
Venus	-19105-05-25 14:52 J	-5256533.09	-5256532.88	-5256532.66	0.0088	0.0023
Venus	-19104-01-06 04:19 J	-5256307.53	-5256307.32	-5256307.09	0.0088	0.0020
Venus	-19104-08-19 18:00 J	-5256081.96	-5256081.75	-5256081.52	0.0088	0.0017
Venus	-19103-04-02 07:40 J	-5255856.40	-5255856.18	-5255855.95	0.0088	0.0014
Venus	-19103-11-13 21:36 J	-5255630.82	-5255630.60	-5255630.38	0.0088	0.0011
Venus	-19102-06-27 11:16 J	-5255405.25	-5255405.03	-5255404.81	0.0088	0.0008
Venus	-19101-02-08 00:43 J	-5255179.69	-5255179.47	-5255179.24	0.0088	0.0006
Venus	-19101-09-20 14:23 J	-5254954.12	-5254953.90	-5254953.67	0.0088	0.0003
Venus	-19100-05-04 04:04 J	-5254728.55	-5254728.33	-5254728.11	0.0088	0.0000
Venus	-19100-12-15 17:45 J	-5254502.98	-5254502.76	-5254502.53	0.0088	0.0003
Venus	-19099-07-29 07:26 J	-5254277.41	-5254277.19	-5254276.96	0.0088	0.0006
Venus	-19098-03-11 21:07 J	-5254051.84	-5254051.62	-5254051.40	0.0088	0.0009
Venus	-19098-10-23 10:48 J	-5253826.27	-5253826.05	-5253825.82	0.0088	0.0011
Venus	-19097-06-05 00:28 J	-5253600.70	-5253600.48	-5253600.25	0.0088	0.0014
Venus	-19096-01-16 14:09 J	-5253375.12	-5253374.91	-5253374.68	0.0088	0.0017
Venus	-19096-08-30 04:04 J	-5253149.55	-5253149.33	-5253149.11	0.0088	0.0020
Venus	-19095-04-12 17:31 J	-5252923.98	-5252923.77	-5252923.54	0.0088	0.0023
Venus	-19095-11-24 07:26 J	-5252698.40	-5252698.19	-5252697.97	0.0088	0.0026
Venus	-19094-07-07 21:07 J	-5252472.82	-5252472.62	-5252472.40	0.0089	0.0028
Venus	-19093-02-18 11:02 J	-5252247.25	-5252247.04	-5252246.83	0.0089	0.0031
Venus	-19093-10-01 00:28 J	-5252021.68	-5252021.48	-5252021.26	0.0089	0.0034
Venus	-19092-05-14 14:09 J	-5251796.10	-5251795.91	-5251795.70	0.0089	0.0037
Venus	-19092-12-26 03:50 J	-5251570.52	-5251570.34	-5251570.12	0.0089	0.0040

Venus	-19091-08-08 17:45 J	-5251344.95	-5251344.76	-5251344.56	0.0089	0.0042
Venus	-19090-03-22 07:11 J	-5251119.38	-5251119.20	-5251118.99	0.0089	0.0045
Venus	-19090-11-02 20:38 J	-5250893.81	-5250893.64	-5250893.43	0.0089	0.0048
Venus	-19089-06-15 10:33 J	-5250668.23	-5250668.06	-5250667.86	0.0089	0.0050
Venus	-19088-01-27 00:00 J	-5250442.66	-5250442.50	-5250442.30	0.0089	0.0053
Venus	-19088-09-09 13:55 J	-5250217.09	-5250216.92	-5250216.74	0.0089	0.0055
Venus	-19087-04-23 03:21 J	-5249991.51	-5249991.36	-5249991.18	0.0089	0.0058
Venus	-19087-12-04 17:16 J	-5249765.93	-5249765.78	-5249765.61	0.0089	0.0060
Venus	-19086-07-18 06:43 J	-5249540.36	-5249540.22	-5249540.04	0.0089	0.0063
Venus	-19085-02-28 20:38 J	-5249314.78	-5249314.64	-5249314.48	0.0089	0.0065
Venus	-19085-10-11 09:50 J	-5249089.21	-5249089.09	-5249088.92	0.0089	0.0068
Venus	-19084-05-24 23:45 J	-5248863.63	-5248863.51	-5248863.36	0.0089	0.0070
Venus	-19083-01-05 13:40 J	-5248638.05	-5248637.93	-5248637.79	0.0089	0.0072
Venus	-19083-08-19 02:52 J	-5248412.47	-5248412.38	-5248412.23	0.0089	0.0075
Venus	-19082-04-01 16:48 J	-5248186.89	-5248186.80	-5248186.67	0.0089	0.0077
Venus	-19082-11-13 06:28 J	-5247961.31	-5247961.23	-5247961.11	0.0089	0.0079
Venus	-19081-06-25 20:09 J	-5247735.73	-5247735.66	-5247735.55	0.0089	0.0081
Venus	-19080-02-06 10:04 J	-5247510.15	-5247510.08	-5247509.99	0.0089	0.0083
Venus	-19080-09-19 23:31 J	-5247284.57	-5247284.52	-5247284.44	0.0089	0.0085
Venus	-19079-05-03 13:11 J	-5247058.98	-5247058.95	-5247058.90	0.0089	0.0087
Moon	-19062-05-08 17:45 J	-5240844.82	-5240844.76	-5240844.66	0.0089	0.0084
Earth	-19062-05-08 20:52 J	-5240844.67	-5240844.63	-5240844.54	0.0089	0.0087 *
Earth	-19061-05-10 07:26 J	-5240477.39	-5240477.19	-5240476.95	0.0089	0.0045
Moon	-19061-05-10 09:50 J	-5240477.30	-5240477.09	-5240476.85	0.0089	0.0047 *
Moon	-19060-05-12 17:31 J	-5240110.02	-5240109.77	-5240109.53	0.0089	0.0001
Earth	-19060-05-12 18:28 J	-5240109.98	-5240109.73	-5240109.47	0.0089	0.0002 *
Moon	-19059-05-15 05:02 J	-5239742.52	-5239742.29	-5239742.04	0.0089	0.0039
Earth	-19059-05-15 04:48 J	-5239742.51	-5239742.30	-5239742.06	0.0089	0.0041 *
Earth	-19058-05-17 15:21 J	-5239374.94	-5239374.86	-5239374.75	0.0089	0.0083
Moon	-19058-05-17 16:33 J	-5239374.85	-5239374.81	-5239374.71	0.0089	0.0086 *

Mars	-19042-03-22 22:48 J	-5233586.88	-5233586.55	-5233586.21	0.0089	0.0013
Mercury	-19042-09-15 02:52 J	-5233410.41	-5233410.38	-5233410.33	0.0089	0.0085
Mercury	-19042-12-12 04:04 J	-5233322.38	-5233322.33	-5233322.26	0.0089	0.0079
Mercury	-19041-03-09 05:31 J	-5233234.34	-5233234.27	-5233234.19	0.0089	0.0071
Mercury	-19041-06-05 06:43 J	-5233146.30	-5233146.22	-5233146.12	0.0089	0.0065
Mercury	-19041-09-01 08:09 J	-5233058.25	-5233058.16	-5233058.05	0.0089	0.0057
Mercury	-19041-11-28 09:36 J	-5232970.21	-5232970.10	-5232969.99	0.0089	0.0050
Mars	-19040-02-16 06:57 J	-5232890.44	-5232890.21	-5232889.97	0.0089	0.0065
Mercury	-19040-02-24 10:48 J	-5232882.16	-5232882.05	-5232881.93	0.0089	0.0043
Venus	-19040-03-29 05:16 J	-5232849.28	-5232849.28	-5232849.27	0.0089	0.0089
Mercury	-19040-05-23 12:14 J	-5232794.11	-5232793.99	-5232793.87	0.0089	0.0036
Mercury	-19040-08-19 13:26 J	-5232706.06	-5232705.94	-5232705.81	0.0089	0.0029
Venus	-19040-11-09 17:31 J	-5232623.79	-5232623.77	-5232623.70	0.0089	0.0088
Mercury	-19040-11-15 14:52 J	-5232618.01	-5232617.88	-5232617.75	0.0089	0.0022
Mercury	-19039-02-11 16:04 J	-5232529.96	-5232529.83	-5232529.70	0.0089	0.0015
Mercury	-19039-05-10 17:31 J	-5232441.90	-5232441.77	-5232441.64	0.0089	0.0009
Venus	-19039-06-23 06:14 J	-5232398.28	-5232398.24	-5232398.16	0.0089	0.0085
Mercury	-19039-08-06 18:43 J	-5232353.85	-5232353.72	-5232353.59	0.0089	0.0002
Mercury	-19039-11-02 20:09 J	-5232265.80	-5232265.66	-5232265.53	0.0089	0.0006
Mercury	-19038-01-29 21:21 J	-5232177.74	-5232177.61	-5232177.48	0.0089	0.0013
Venus	-19038-02-03 18:43 J	-5232172.77	-5232172.72	-5232172.62	0.0089	0.0084
Mercury	-19038-04-27 22:33 J	-5232089.68	-5232089.56	-5232089.43	0.0089	0.0020
Mercury	-19038-07-25 00:00 J	-5232001.63	-5232001.50	-5232001.37	0.0089	0.0027
Venus	-19038-09-17 07:26 J	-5231947.26	-5231947.19	-5231947.08	0.0089	0.0081
Mercury	-19038-10-21 01:11 J	-5231913.57	-5231913.45	-5231913.32	0.0089	0.0034
Mercury	-19037-01-17 02:23 J	-5231825.51	-5231825.40	-5231825.27	0.0089	0.0041
Mercury	-19037-04-14 03:50 J	-5231737.45	-5231737.34	-5231737.22	0.0089	0.0048
Venus	-19037-04-29 20:09 J	-5231721.73	-5231721.66	-5231721.54	0.0089	0.0079
Mercury	-19037-07-11 05:02 J	-5231649.38	-5231649.29	-5231649.18	0.0089	0.0055
Mercury	-19037-10-07 06:28 J	-5231561.32	-5231561.23	-5231561.13	0.0089	0.0062

Venus	-19037-12-11 09:07 J	-5231496.22	-5231496.12	-5231496.00	0.0089	0.0077
Mercury	-19036-01-03 07:40 J	-5231473.25	-5231473.18	-5231473.09	0.0089	0.0069
Mercury	-19036-04-01 09:07 J	-5231385.18	-5231385.12	-5231385.05	0.0089	0.0076
Mercury	-19036-06-28 10:19 J	-5231297.10	-5231297.07	-5231297.01	0.0089	0.0084
Venus	-19036-07-24 21:36 J	-5231270.70	-5231270.60	-5231270.47	0.0089	0.0074
Venus	-19035-03-07 10:04 J	-5231045.19	-5231045.08	-5231044.94	0.0089	0.0072
Venus	-19035-10-18 22:33 J	-5230819.67	-5230819.56	-5230819.40	0.0089	0.0070
Venus	-19034-06-01 11:31 J	-5230594.15	-5230594.02	-5230593.87	0.0089	0.0068
Venus	-19033-01-13 00:00 J	-5230368.63	-5230368.50	-5230368.34	0.0089	0.0065
Venus	-19033-08-25 12:57 J	-5230143.11	-5230142.96	-5230142.81	0.0089	0.0063
Venus	-19032-04-08 01:11 J	-5229917.59	-5229917.45	-5229917.28	0.0089	0.0060
Venus	-19032-11-19 14:09 J	-5229692.07	-5229691.91	-5229691.75	0.0089	0.0058
Venus	-19031-07-03 02:23 J	-5229466.56	-5229466.40	-5229466.22	0.0089	0.0055
Venus	-19030-02-13 15:07 J	-5229241.04	-5229240.87	-5229240.69	0.0089	0.0053
Venus	-19030-09-27 03:21 J	-5229015.52	-5229015.36	-5229015.16	0.0089	0.0051
Venus	-19029-05-09 16:19 J	-5228790.00	-5228789.82	-5228789.63	0.0089	0.0047
Venus	-19029-12-21 04:33 J	-5228564.48	-5228564.31	-5228564.11	0.0089	0.0045
Venus	-19028-08-03 17:02 J	-5228338.96	-5228338.79	-5228338.58	0.0089	0.0042
Venus	-19027-03-17 05:45 J	-5228113.45	-5228113.26	-5228113.06	0.0089	0.0039
Venus	-19027-10-28 18:00 J	-5227887.93	-5227887.75	-5227887.54	0.0089	0.0037
Venus	-19026-06-11 06:28 J	-5227662.41	-5227662.23	-5227662.01	0.0089	0.0035
Venus	-19025-01-22 18:57 J	-5227436.90	-5227436.71	-5227436.50	0.0089	0.0032
Venus	-19025-09-04 07:40 J	-5227211.39	-5227211.18	-5227210.98	0.0089	0.0028
Venus	-19024-04-17 19:40 J	-5226985.87	-5226985.68	-5226985.46	0.0089	0.0026
Venus	-19024-11-29 08:09 J	-5226760.36	-5226760.16	-5226759.94	0.0089	0.0023
Venus	-19023-07-12 20:38 J	-5226534.84	-5226534.64	-5226534.42	0.0089	0.0020
Venus	-19022-02-23 09:07 J	-5226309.33	-5226309.12	-5226308.91	0.0089	0.0017
Venus	-19022-10-06 21:21 J	-5226083.82	-5226083.61	-5226083.39	0.0089	0.0015
Venus	-19021-05-19 09:50 J	-5225858.30	-5225858.09	-5225857.87	0.0089	0.0012
Venus	-19021-12-30 22:19 J	-5225632.78	-5225632.57	-5225632.35	0.0089	0.0009

Venus	-19020-08-13 10:48 J	-5225407.27	-5225407.05	-5225406.83	0.0089	0.0006
Venus	-19019-03-26 23:02 J	-5225181.75	-5225181.54	-5225181.32	0.0089	0.0004
Venus	-19019-11-07 11:31 J	-5224956.23	-5224956.02	-5224955.80	0.0089	0.0001
Venus	-19018-06-21 00:00 J	-5224730.71	-5224730.50	-5224730.28	0.0089	0.0003
Venus	-19017-02-01 12:28 J	-5224505.19	-5224504.98	-5224504.76	0.0089	0.0005
Venus	-19017-09-14 00:43 J	-5224279.68	-5224279.47	-5224279.25	0.0089	0.0008
Venus	-19016-04-27 13:11 J	-5224054.16	-5224053.95	-5224053.74	0.0089	0.0011
Venus	-19016-12-09 01:26 J	-5223828.65	-5223828.44	-5223828.22	0.0089	0.0014
Venus	-19015-07-22 13:40 J	-5223603.13	-5223602.93	-5223602.71	0.0089	0.0017
Venus	-19014-03-05 01:55 J	-5223377.62	-5223377.42	-5223377.20	0.0089	0.0020
Venus	-19014-10-16 14:23 J	-5223152.10	-5223151.90	-5223151.69	0.0089	0.0022
Venus	-19013-05-29 02:52 J	-5222926.59	-5222926.38	-5222926.17	0.0089	0.0025
Venus	-19012-01-09 15:07 J	-5222701.07	-5222700.87	-5222700.66	0.0089	0.0028
Venus	-19012-08-23 03:07 J	-5222475.56	-5222475.37	-5222475.15	0.0089	0.0031
Venus	-19011-04-05 15:21 J	-5222250.05	-5222249.86	-5222249.65	0.0089	0.0034
Venus	-19011-11-17 03:50 J	-5222024.53	-5222024.34	-5222024.14	0.0089	0.0036
Venus	-19010-06-30 16:04 J	-5221799.01	-5221798.83	-5221798.62	0.0089	0.0039
Venus	-19009-02-11 04:19 J	-5221573.49	-5221573.32	-5221573.11	0.0089	0.0042
Venus	-19009-09-23 16:48 J	-5221347.98	-5221347.80	-5221347.60	0.0089	0.0044
Venus	-19008-05-07 05:02 J	-5221122.46	-5221122.29	-5221122.09	0.0089	0.0047
Venus	-19008-12-18 17:45 J	-5220896.94	-5220896.76	-5220896.58	0.0089	0.0049
Venus	-19007-08-01 06:00 J	-5220671.42	-5220671.25	-5220671.07	0.0089	0.0052
Venus	-19006-03-14 18:00 J	-5220445.90	-5220445.75	-5220445.56	0.0089	0.0055
Venus	-19006-10-26 06:43 J	-5220220.38	-5220220.22	-5220220.05	0.0089	0.0057
Venus	-19005-06-07 18:57 J	-5219994.85	-5219994.71	-5219994.53	0.0089	0.0060
Venus	-19004-01-19 07:26 J	-5219769.33	-5219769.19	-5219769.02	0.0089	0.0062
Venus	-19004-09-01 19:40 J	-5219543.81	-5219543.68	-5219543.51	0.0089	0.0064
Venus	-19003-04-15 08:09 J	-5219318.29	-5219318.16	-5219318.01	0.0088	0.0067
Venus	-19003-11-26 20:38 J	-5219092.77	-5219092.64	-5219092.50	0.0088	0.0069
Venus	-19002-07-10 08:52 J	-5218867.24	-5218867.13	-5218866.98	0.0088	0.0072

Venus -19001-02-20 21:21 J -5218641.71 -5218641.61 -5218641.48 0.0088 0.0074

Venus -19001-10-03 09:50 J -5218416.19 -5218416.09 -5218415.97 0.0088 0.0076

19TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 19th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-19000-05-16 22:19 J		-5218190.67	-5218190.57	-5218190.47	0.0088	0.0078	
Venus	-19000-12-28 10:04 J		-5217965.14	-5217965.08	-5217964.96	0.0088	0.0081	
Venus	-18999-08-10 22:33 J		-5217739.61	-5217739.56	-5217739.46	0.0088	0.0083	
Venus	-18998-03-24 11:02 J		-5217514.08	-5217514.04	-5217513.96	0.0088	0.0085	
Venus	-18998-11-04 23:16 J		-5217288.55	-5217288.53	-5217288.46	0.0088	0.0087	
Venus	-18997-06-17 12:14 J		-5217062.99	-5217062.99	-5217062.98	0.0088	0.0088	
Earth	-18980-11-06 03:07 J		-5210712.55	-5210712.37	-5210712.18	0.0088	0.0063	
Moon	-18980-11-06 03:21 J		-5210712.54	-5210712.36	-5210712.14	0.0088	0.0059	*
Earth	-18979-11-08 15:21 J		-5210345.10	-5210344.86	-5210344.59	0.0088	0.0022	
Moon	-18979-11-08 15:36 J		-5210345.08	-5210344.85	-5210344.60	0.0088	0.0026	*
Moon	-18978-11-11 02:23 J		-5209977.65	-5209977.40	-5209977.13	0.0088	0.0025	
Earth	-18978-11-11 04:04 J		-5209977.57	-5209977.33	-5209977.06	0.0088	0.0020	*
Earth	-18977-11-12 16:33 J		-5209609.98	-5209609.81	-5209609.61	0.0088	0.0062	
Moon	-18977-11-12 19:11 J		-5209609.88	-5209609.70	-5209609.49	0.0088	0.0058	*
Mars	-18960-01-09 15:07 J		-5203708.13	-5203707.87	-5203707.60	0.0088	0.0036	
Mars	-18959-12-04 06:57 J		-5203014.48	-5203014.21	-5203013.92	0.0088	0.0027	

Mercury	-18958-05-29 11:02 J	-5202838.10	-5202838.04	-5202837.95	0.0088	0.0080
Mercury	-18958-08-25 14:38 J	-5202749.99	-5202749.89	-5202749.76	0.0088	0.0070
Mercury	-18958-11-21 18:28 J	-5202661.86	-5202661.73	-5202661.58	0.0088	0.0060
Mercury	-18957-02-17 22:04 J	-5202573.73	-5202573.58	-5202573.41	0.0088	0.0050
Mercury	-18957-05-16 01:40 J	-5202485.59	-5202485.43	-5202485.24	0.0088	0.0040
Mercury	-18957-08-12 05:31 J	-5202397.45	-5202397.27	-5202397.08	0.0088	0.0030
Mercury	-18957-11-08 09:07 J	-5202309.30	-5202309.12	-5202308.92	0.0088	0.0020
Mercury	-18956-02-04 12:57 J	-5202221.16	-5202220.96	-5202220.77	0.0088	0.0010
Mercury	-18956-05-03 16:33 J	-5202133.01	-5202132.81	-5202132.61	0.0088	0.0001
Mercury	-18956-07-30 20:09 J	-5202044.85	-5202044.66	-5202044.46	0.0088	0.0010
Mercury	-18956-10-26 23:45 J	-5201956.70	-5201956.51	-5201956.32	0.0088	0.0020
Venus	-18956-10-31 09:07 J	-5201952.15	-5201952.12	-5201952.06	0.0088	0.0086
Mercury	-18955-01-23 03:21 J	-5201868.54	-5201868.36	-5201868.17	0.0088	0.0030
Mercury	-18955-04-21 06:57 J	-5201780.38	-5201780.21	-5201780.03	0.0088	0.0040
Venus	-18955-06-13 22:33 J	-5201726.61	-5201726.56	-5201726.48	0.0088	0.0084
Mercury	-18955-07-18 10:33 J	-5201692.22	-5201692.06	-5201691.90	0.0088	0.0050
Mercury	-18955-10-14 14:09 J	-5201604.05	-5201603.91	-5201603.76	0.0088	0.0060
Mercury	-18954-01-10 17:45 J	-5201515.87	-5201515.76	-5201515.64	0.0088	0.0070
Venus	-18954-01-25 11:45 J	-5201501.07	-5201501.01	-5201500.91	0.0088	0.0082
Mercury	-18954-04-08 21:07 J	-5201427.68	-5201427.62	-5201427.53	0.0088	0.0080
Venus	-18954-09-08 01:11 J	-5201275.52	-5201275.45	-5201275.34	0.0088	0.0080
Venus	-18953-04-20 15:07 J	-5201049.97	-5201049.87	-5201049.76	0.0088	0.0077
Venus	-18953-12-02 04:19 J	-5200824.42	-5200824.32	-5200824.19	0.0088	0.0075
Venus	-18952-07-15 17:31 J	-5200598.87	-5200598.77	-5200598.63	0.0088	0.0073
Venus	-18951-02-26 06:43 J	-5200373.32	-5200373.22	-5200373.06	0.0088	0.0071
Venus	-18951-10-09 20:38 J	-5200147.77	-5200147.64	-5200147.49	0.0088	0.0068
Venus	-18950-05-23 09:50 J	-5199922.21	-5199922.09	-5199921.92	0.0088	0.0066
Venus	-18949-01-03 23:31 J	-5199696.66	-5199696.52	-5199696.35	0.0088	0.0063
Venus	-18949-08-16 12:43 J	-5199471.11	-5199470.97	-5199470.79	0.0088	0.0061
Venus	-18948-03-30 02:23 J	-5199245.56	-5199245.40	-5199245.22	0.0088	0.0058

Venus	-18948-11-10 16:19 J	-5199020.00	-5199019.82	-5199019.65	0.0088	0.0056
Venus	-18947-06-24 05:16 J	-5198794.44	-5198794.28	-5198794.08	0.0088	0.0053
Venus	-18946-02-04 18:57 J	-5198568.88	-5198568.71	-5198568.52	0.0088	0.0050
Venus	-18946-09-18 08:09 J	-5198343.33	-5198343.16	-5198342.95	0.0088	0.0048
Venus	-18945-04-30 21:50 J	-5198117.77	-5198117.59	-5198117.38	0.0088	0.0045
Venus	-18945-12-12 11:31 J	-5197892.21	-5197892.02	-5197891.81	0.0088	0.0042
Venus	-18944-07-26 01:11 J	-5197666.65	-5197666.45	-5197666.25	0.0088	0.0040
Venus	-18943-03-08 14:23 J	-5197441.08	-5197440.90	-5197440.68	0.0088	0.0038
Venus	-18943-10-20 04:19 J	-5197215.52	-5197215.32	-5197215.10	0.0088	0.0034
Venus	-18942-06-02 18:00 J	-5196989.95	-5196989.75	-5196989.53	0.0088	0.0031
Venus	-18941-01-14 07:40 J	-5196764.39	-5196764.18	-5196763.96	0.0088	0.0028
Venus	-18941-08-26 21:21 J	-5196538.82	-5196538.61	-5196538.39	0.0088	0.0025
Venus	-18940-04-09 11:02 J	-5196313.26	-5196313.04	-5196312.82	0.0088	0.0023
Venus	-18940-11-21 00:43 J	-5196087.68	-5196087.47	-5196087.25	0.0088	0.0020
Venus	-18939-07-04 14:09 J	-5195862.12	-5195861.91	-5195861.68	0.0088	0.0018
Venus	-18938-02-15 04:04 J	-5195636.55	-5195636.33	-5195636.11	0.0088	0.0014
Venus	-18938-09-28 17:31 J	-5195410.99	-5195410.77	-5195410.54	0.0088	0.0011
Venus	-18937-05-11 07:11 J	-5195185.42	-5195185.20	-5195184.97	0.0088	0.0008
Venus	-18937-12-22 20:52 J	-5194959.85	-5194959.63	-5194959.40	0.0088	0.0005
Venus	-18936-08-05 10:33 J	-5194734.28	-5194734.06	-5194733.83	0.0088	0.0002
Venus	-18935-03-19 00:14 J	-5194508.72	-5194508.49	-5194508.27	0.0088	0.0002
Venus	-18935-10-30 13:40 J	-5194283.15	-5194282.93	-5194282.70	0.0088	0.0005
Venus	-18934-06-13 03:21 J	-5194057.58	-5194057.36	-5194057.13	0.0088	0.0007
Venus	-18933-01-24 17:16 J	-5193832.01	-5193831.78	-5193831.56	0.0088	0.0010
Venus	-18933-09-06 06:43 J	-5193606.44	-5193606.22	-5193605.99	0.0088	0.0013
Venus	-18932-04-19 20:23 J	-5193380.87	-5193380.65	-5193380.43	0.0088	0.0016
Venus	-18932-12-01 10:04 J	-5193155.29	-5193155.08	-5193154.85	0.0088	0.0019
Venus	-18931-07-15 00:00 J	-5192929.72	-5192929.50	-5192929.28	0.0088	0.0022
Venus	-18930-02-25 13:26 J	-5192704.14	-5192703.94	-5192703.71	0.0088	0.0025
Venus	-18930-10-09 03:07 J	-5192478.57	-5192478.37	-5192478.15	0.0088	0.0028

Venus	-18929-05-21 16:48 J	-5192253.00	-5192252.80	-5192252.58	0.0088	0.0031
Venus	-18928-01-02 06:43 J	-5192027.42	-5192027.22	-5192027.00	0.0089	0.0033
Venus	-18928-08-15 20:23 J	-5191801.84	-5191801.65	-5191801.43	0.0089	0.0036
Venus	-18927-03-29 10:19 J	-5191576.27	-5191576.07	-5191575.87	0.0089	0.0039
Venus	-18927-11-10 00:00 J	-5191350.69	-5191350.50	-5191350.30	0.0089	0.0042
Venus	-18926-06-23 13:40 J	-5191125.11	-5191124.93	-5191124.73	0.0089	0.0045
Venus	-18925-02-04 03:07 J	-5190899.54	-5190899.37	-5190899.16	0.0089	0.0048
Venus	-18925-09-16 16:48 J	-5190673.96	-5190673.80	-5190673.60	0.0089	0.0051
Venus	-18924-04-30 06:43 J	-5190448.39	-5190448.22	-5190448.03	0.0089	0.0053
Venus	-18924-12-11 20:23 J	-5190222.81	-5190222.65	-5190222.46	0.0089	0.0056
Venus	-18923-07-25 09:50 J	-5189997.23	-5189997.09	-5189996.90	0.0089	0.0059
Venus	-18922-03-07 23:45 J	-5189771.66	-5189771.51	-5189771.34	0.0089	0.0061
Venus	-18922-10-19 13:11 J	-5189546.09	-5189545.95	-5189545.78	0.0089	0.0064
Venus	-18921-06-01 03:07 J	-5189320.51	-5189320.37	-5189320.22	0.0089	0.0066
Venus	-18920-01-12 16:33 J	-5189094.93	-5189094.81	-5189094.65	0.0089	0.0069
Venus	-18920-08-26 06:28 J	-5188869.35	-5188869.23	-5188869.09	0.0089	0.0071
Venus	-18919-04-08 19:40 J	-5188643.78	-5188643.68	-5188643.53	0.0089	0.0074
Venus	-18919-11-20 09:36 J	-5188418.20	-5188418.10	-5188417.97	0.0089	0.0076
Venus	-18918-07-03 23:02 J	-5188192.62	-5188192.54	-5188192.41	0.0089	0.0079
Venus	-18917-02-14 12:57 J	-5187967.03	-5187966.96	-5187966.85	0.0089	0.0081
Venus	-18917-09-27 02:38 J	-5187741.45	-5187741.39	-5187741.30	0.0089	0.0083
Venus	-18916-05-10 16:33 J	-5187515.86	-5187515.81	-5187515.74	0.0089	0.0085
Venus	-18916-12-22 05:45 J	-5187290.27	-5187290.26	-5187290.19	0.0089	0.0088
Moon	-18897-05-09 12:00 J	-5180577.14	-5180577.00	-5180576.82	0.0089	0.0067
Earth	-18897-05-09 12:28 J	-5180577.11	-5180576.98	-5180576.80	0.0089	0.0070 *
Moon	-18896-05-11 22:48 J	-5180209.80	-5180209.55	-5180209.30	0.0089	0.0031
Earth	-18896-05-11 23:45 J	-5180209.75	-5180209.51	-5180209.27	0.0089	0.0028 *
Earth	-18895-05-14 10:04 J	-5179842.32	-5179842.08	-5179841.82	0.0089	0.0015
Moon	-18895-05-14 11:31 J	-5179842.25	-5179842.02	-5179841.77	0.0089	0.0018 *
Moon	-18894-05-16 17:45 J	-5179474.96	-5179474.76	-5179474.54	0.0089	0.0053

Earth	-18894-05-16 20:38 J	-5179474.82	-5179474.64	-5179474.43	0.0089	0.0057 *
Mars	-18879-11-02 22:19 J	-5173825.82	-5173825.57	-5173825.29	0.0089	0.0057
Mercury	-18877-06-11 01:40 J	-5173239.45	-5173239.43	-5173239.37	0.0089	0.0086
Mercury	-18877-09-07 03:07 J	-5173151.42	-5173151.37	-5173151.29	0.0089	0.0078
Mars	-18877-09-29 06:43 J	-5173129.53	-5173129.22	-5173128.87	0.0089	0.0023
Mercury	-18877-12-04 04:33 J	-5173063.38	-5173063.31	-5173063.22	0.0089	0.0071
Mercury	-18876-03-02 05:45 J	-5172975.34	-5172975.26	-5172975.16	0.0089	0.0064
Mercury	-18876-05-29 07:11 J	-5172887.29	-5172887.20	-5172887.09	0.0089	0.0057
Mercury	-18876-08-25 08:23 J	-5172799.25	-5172799.15	-5172799.03	0.0089	0.0050
Mercury	-18876-11-21 09:50 J	-5172711.20	-5172711.09	-5172710.97	0.0089	0.0043
Mercury	-18875-02-17 11:02 J	-5172623.15	-5172623.04	-5172622.91	0.0089	0.0037
Mercury	-18875-05-16 12:28 J	-5172535.10	-5172534.98	-5172534.85	0.0089	0.0029
Mercury	-18875-08-12 13:40 J	-5172447.05	-5172446.93	-5172446.79	0.0089	0.0023
Mercury	-18875-11-08 15:07 J	-5172359.00	-5172358.87	-5172358.74	0.0089	0.0015
Mercury	-18874-02-04 16:33 J	-5172270.94	-5172270.81	-5172270.68	0.0089	0.0008
Mercury	-18874-05-03 17:45 J	-5172182.89	-5172182.76	-5172182.63	0.0089	0.0001
Venus	-18874-05-08 03:21 J	-5172178.37	-5172178.36	-5172178.31	0.0089	0.0088
Mercury	-18874-07-30 19:11 J	-5172094.84	-5172094.70	-5172094.57	0.0089	0.0007
Mercury	-18874-10-26 20:23 J	-5172006.78	-5172006.65	-5172006.52	0.0089	0.0013
Venus	-18874-12-19 15:50 J	-5171952.87	-5171952.84	-5171952.76	0.0089	0.0087
Mercury	-18873-01-22 21:36 J	-5171918.72	-5171918.60	-5171918.47	0.0089	0.0021
Mercury	-18873-04-19 23:02 J	-5171830.67	-5171830.54	-5171830.41	0.0089	0.0027
Mercury	-18873-07-17 00:14 J	-5171742.61	-5171742.49	-5171742.36	0.0089	0.0034
Venus	-18873-08-01 05:02 J	-5171727.36	-5171727.29	-5171727.22	0.0089	0.0084
Mercury	-18873-10-13 01:26 J	-5171654.55	-5171654.44	-5171654.31	0.0089	0.0042
Mercury	-18872-01-09 02:52 J	-5171566.49	-5171566.38	-5171566.26	0.0089	0.0048
Venus	-18872-03-14 17:16 J	-5171501.85	-5171501.78	-5171501.68	0.0089	0.0082
Mercury	-18872-04-07 04:19 J	-5171478.42	-5171478.32	-5171478.22	0.0089	0.0055
Mercury	-18872-07-04 05:31 J	-5171390.36	-5171390.27	-5171390.17	0.0089	0.0063
Mercury	-18872-09-30 06:57 J	-5171302.29	-5171302.21	-5171302.13	0.0089	0.0070

Venus	-18872-10-26 05:45 J	-5171276.33	-5171276.26	-5171276.14	0.0089	0.0080
Mercury	-18872-12-27 08:09 J	-5171214.22	-5171214.16	-5171214.09	0.0089	0.0077
Mercury	-18871-03-25 09:36 J	-5171126.14	-5171126.10	-5171126.06	0.0089	0.0084
Venus	-18871-06-08 18:28 J	-5171050.82	-5171050.73	-5171050.60	0.0089	0.0077
Venus	-18870-01-20 07:11 J	-5170825.30	-5170825.20	-5170825.07	0.0089	0.0075
Venus	-18870-09-02 19:40 J	-5170599.79	-5170599.68	-5170599.54	0.0089	0.0072
Venus	-18869-04-15 08:23 J	-5170374.27	-5170374.15	-5170374.00	0.0089	0.0070
Venus	-18869-11-26 20:52 J	-5170148.75	-5170148.63	-5170148.47	0.0089	0.0067
Venus	-18868-07-10 09:36 J	-5169923.24	-5169923.10	-5169922.94	0.0089	0.0065
Venus	-18867-02-20 21:50 J	-5169697.72	-5169697.59	-5169697.41	0.0089	0.0063
Venus	-18867-10-04 10:33 J	-5169472.20	-5169472.06	-5169471.88	0.0089	0.0060
Venus	-18866-05-17 23:45 J	-5169246.68	-5169246.51	-5169246.35	0.0089	0.0057
Venus	-18866-12-29 11:45 J	-5169021.16	-5169021.01	-5169020.82	0.0089	0.0055
Venus	-18865-08-11 00:28 J	-5168795.64	-5168795.48	-5168795.29	0.0089	0.0051
Venus	-18864-03-24 13:11 J	-5168570.13	-5168569.95	-5168569.77	0.0089	0.0049
Venus	-18864-11-05 01:26 J	-5168344.61	-5168344.44	-5168344.24	0.0089	0.0046
Venus	-18863-06-18 14:09 J	-5168119.09	-5168118.91	-5168118.71	0.0089	0.0043
Venus	-18862-01-30 02:38 J	-5167893.57	-5167893.39	-5167893.19	0.0089	0.0040
Venus	-18862-09-12 15:07 J	-5167668.06	-5167667.87	-5167667.67	0.0089	0.0037
Venus	-18861-04-25 03:50 J	-5167442.54	-5167442.34	-5167442.14	0.0089	0.0034
Venus	-18861-12-06 15:50 J	-5167217.02	-5167216.84	-5167216.62	0.0089	0.0032
Venus	-18860-07-20 04:19 J	-5166991.51	-5166991.32	-5166991.10	0.0089	0.0029
Venus	-18859-03-02 16:48 J	-5166766.00	-5166765.80	-5166765.58	0.0089	0.0026
Venus	-18859-10-14 05:16 J	-5166540.48	-5166540.28	-5166540.07	0.0089	0.0023
Venus	-18858-05-27 17:45 J	-5166314.96	-5166314.76	-5166314.54	0.0089	0.0020
Venus	-18857-01-08 06:14 J	-5166089.45	-5166089.24	-5166089.02	0.0089	0.0017
Venus	-18857-08-20 18:28 J	-5165863.94	-5165863.73	-5165863.51	0.0089	0.0014
Venus	-18856-04-03 06:57 J	-5165638.42	-5165638.21	-5165637.99	0.0089	0.0011
Venus	-18856-11-14 19:26 J	-5165412.91	-5165412.69	-5165412.48	0.0089	0.0008
Venus	-18855-06-28 07:55 J	-5165187.39	-5165187.17	-5165186.95	0.0089	0.0005

Venus	-18854-02-08 20:23 J	-5164961.87	-5164961.65	-5164961.44	0.0089	0.0003
Venus	-18854-09-22 08:38 J	-5164736.35	-5164736.14	-5164735.92	0.0089	0.0001
Venus	-18853-05-04 21:07 J	-5164510.84	-5164510.62	-5164510.40	0.0089	0.0004
Venus	-18853-12-16 09:21 J	-5164285.32	-5164285.11	-5164284.89	0.0089	0.0007
Venus	-18852-07-29 21:50 J	-5164059.80	-5164059.59	-5164059.37	0.0089	0.0010
Venus	-18851-03-12 10:04 J	-5163834.28	-5163834.08	-5163833.86	0.0089	0.0013
Venus	-18851-10-23 22:33 J	-5163608.77	-5163608.56	-5163608.34	0.0089	0.0016
Venus	-18850-06-06 11:02 J	-5163383.24	-5163383.04	-5163382.82	0.0089	0.0019
Venus	-18849-01-17 23:16 J	-5163157.73	-5163157.53	-5163157.31	0.0089	0.0022
Venus	-18849-08-30 11:45 J	-5162932.21	-5162932.01	-5162931.80	0.0089	0.0024
Venus	-18848-04-13 00:00 J	-5162706.70	-5162706.50	-5162706.29	0.0089	0.0027
Venus	-18848-11-24 12:28 J	-5162481.18	-5162480.98	-5162480.78	0.0089	0.0030
Venus	-18847-07-08 00:43 J	-5162255.66	-5162255.47	-5162255.26	0.0089	0.0033
Venus	-18846-02-18 12:57 J	-5162030.15	-5162029.96	-5162029.75	0.0089	0.0036
Venus	-18846-10-02 01:11 J	-5161804.63	-5161804.45	-5161804.24	0.0089	0.0039
Venus	-18845-05-14 13:26 J	-5161579.11	-5161578.94	-5161578.73	0.0089	0.0042
Venus	-18845-12-26 02:09 J	-5161353.60	-5161353.41	-5161353.22	0.0089	0.0044
Venus	-18844-08-08 14:09 J	-5161128.08	-5161127.91	-5161127.71	0.0089	0.0047
Venus	-18843-03-22 02:23 J	-5160902.56	-5160902.40	-5160902.21	0.0089	0.0050
Venus	-18843-11-02 14:38 J	-5160677.04	-5160676.89	-5160676.70	0.0089	0.0053
Venus	-18842-06-16 03:21 J	-5160451.52	-5160451.36	-5160451.18	0.0089	0.0055
Venus	-18841-01-27 15:36 J	-5160226.00	-5160225.85	-5160225.67	0.0089	0.0058
Venus	-18841-09-09 03:50 J	-5160000.48	-5160000.34	-5160000.16	0.0089	0.0060
Venus	-18840-04-22 16:19 J	-5159774.96	-5159774.82	-5159774.66	0.0089	0.0063
Venus	-18840-12-04 04:33 J	-5159549.44	-5159549.31	-5159549.15	0.0089	0.0066
Venus	-18839-07-17 17:16 J	-5159323.91	-5159323.78	-5159323.63	0.0089	0.0068
Venus	-18838-02-28 05:16 J	-5159098.38	-5159098.28	-5159098.12	0.0088	0.0071
Venus	-18838-10-11 18:00 J	-5158872.86	-5158872.75	-5158872.62	0.0088	0.0073
Venus	-18837-05-24 06:00 J	-5158647.34	-5158647.25	-5158647.11	0.0088	0.0076
Venus	-18836-01-04 18:28 J	-5158421.81	-5158421.73	-5158421.61	0.0088	0.0078

Venus	-18836-08-18 07:11 J	-5158196.28	-5158196.20	-5158196.10	0.0088	0.0080
Venus	-18835-03-31 19:11 J	-5157970.76	-5157970.70	-5157970.60	0.0088	0.0082
Venus	-18835-11-12 07:26 J	-5157745.23	-5157745.19	-5157745.10	0.0088	0.0085
Venus	-18834-06-25 20:09 J	-5157519.69	-5157519.66	-5157519.60	0.0088	0.0087
Moon	-18816-11-05 06:57 J	-5150812.22	-5150812.21	-5150812.14	0.0088	0.0087
Moon	-18815-11-07 16:19 J	-5150445.03	-5150444.82	-5150444.58	0.0088	0.0048
Earth	-18815-11-07 18:14 J	-5150444.94	-5150444.74	-5150444.49	0.0088	0.0047 *
Earth	-18814-11-10 07:26 J	-5150077.45	-5150077.19	-5150076.93	0.0088	0.0005
Moon	-18814-11-10 10:19 J	-5150077.32	-5150077.07	-5150076.81	0.0088	0.0004 *
Moon	-18813-11-11 16:19 J	-5149710.05	-5149709.82	-5149709.57	0.0088	0.0035
Earth	-18813-11-11 19:55 J	-5149709.89	-5149709.67	-5149709.42	0.0088	0.0037 *
Earth	-18812-11-14 08:38 J	-5149342.25	-5149342.14	-5149342.02	0.0088	0.0078
Moon	-18812-11-14 11:31 J	-5149342.10	-5149342.02	-5149341.88	0.0088	0.0079 *
Mars	-18797-08-24 19:40 J	-5143944.84	-5143944.68	-5143944.51	0.0088	0.0071
Mars	-18795-07-19 11:31 J	-5143251.30	-5143251.02	-5143250.72	0.0088	0.0008
Mercury	-18793-02-23 07:40 J	-5142667.25	-5142667.18	-5142667.09	0.0088	0.0080
Mercury	-18793-05-21 11:31 J	-5142579.13	-5142579.02	-5142578.90	0.0088	0.0070
Mars	-18793-06-12 02:52 J	-5142557.57	-5142557.38	-5142557.12	0.0088	0.0056
Mercury	-18793-08-17 15:07 J	-5142491.01	-5142490.87	-5142490.72	0.0088	0.0060
Mercury	-18793-11-13 18:43 J	-5142402.87	-5142402.72	-5142402.55	0.0088	0.0050
Mercury	-18792-02-09 22:19 J	-5142314.74	-5142314.57	-5142314.39	0.0088	0.0040
Mercury	-18792-05-09 01:55 J	-5142226.59	-5142226.42	-5142226.22	0.0088	0.0030
Mercury	-18792-08-05 05:45 J	-5142138.45	-5142138.26	-5142138.07	0.0088	0.0020
Mercury	-18792-11-01 09:21 J	-5142050.30	-5142050.11	-5142049.91	0.0088	0.0010
Mercury	-18791-01-28 12:57 J	-5141962.15	-5141961.96	-5141961.76	0.0088	0.0002
Mercury	-18791-04-26 16:33 J	-5141874.00	-5141873.81	-5141873.61	0.0088	0.0010
Mercury	-18791-07-23 20:09 J	-5141785.84	-5141785.66	-5141785.46	0.0088	0.0020
Mercury	-18791-10-19 23:45 J	-5141697.69	-5141697.51	-5141697.32	0.0088	0.0030
Mercury	-18790-01-16 03:21 J	-5141609.53	-5141609.36	-5141609.18	0.0088	0.0040
Mercury	-18790-04-14 06:57 J	-5141521.36	-5141521.21	-5141521.04	0.0088	0.0050

Venus	-18790-04-28 18:28 J	-5141506.74	-5141506.73	-5141506.67	0.0088	0.0087
Mercury	-18790-07-11 10:33 J	-5141433.19	-5141433.06	-5141432.91	0.0088	0.0060
Mercury	-18790-10-07 13:55 J	-5141345.02	-5141344.92	-5141344.78	0.0088	0.0070
Venus	-18790-12-10 07:40 J	-5141281.21	-5141281.18	-5141281.09	0.0088	0.0085
Mercury	-18789-01-03 17:31 J	-5141256.83	-5141256.77	-5141256.67	0.0088	0.0080
Venus	-18789-07-22 21:21 J	-5141055.67	-5141055.61	-5141055.52	0.0088	0.0082
Venus	-18788-03-05 10:33 J	-5140830.13	-5140830.06	-5140829.95	0.0088	0.0080
Venus	-18788-10-17 00:00 J	-5140604.57	-5140604.50	-5140604.37	0.0088	0.0078
Venus	-18787-05-30 13:55 J	-5140379.02	-5140378.92	-5140378.80	0.0088	0.0075
Venus	-18786-01-11 03:07 J	-5140153.48	-5140153.37	-5140153.23	0.0088	0.0073
Venus	-18786-08-24 16:33 J	-5139927.93	-5139927.81	-5139927.66	0.0088	0.0071
Venus	-18785-04-06 05:45 J	-5139702.37	-5139702.26	-5139702.09	0.0088	0.0068
Venus	-18785-11-17 19:40 J	-5139476.82	-5139476.68	-5139476.52	0.0088	0.0065
Venus	-18784-07-01 09:21 J	-5139251.26	-5139251.11	-5139250.95	0.0088	0.0062
Venus	-18783-02-11 22:19 J	-5139025.71	-5139025.57	-5139025.39	0.0088	0.0060
Venus	-18783-09-25 12:00 J	-5138800.16	-5138800.00	-5138799.82	0.0088	0.0057
Venus	-18782-05-09 01:40 J	-5138574.60	-5138574.43	-5138574.25	0.0088	0.0054
Venus	-18782-12-20 14:52 J	-5138349.04	-5138348.88	-5138348.68	0.0088	0.0052
Venus	-18781-08-02 04:19 J	-5138123.49	-5138123.32	-5138123.12	0.0088	0.0049
Venus	-18780-03-15 17:45 J	-5137897.93	-5137897.76	-5137897.55	0.0088	0.0047
Venus	-18780-10-27 07:40 J	-5137672.37	-5137672.18	-5137671.98	0.0088	0.0043
Venus	-18779-06-09 21:07 J	-5137446.81	-5137446.62	-5137446.41	0.0088	0.0041
Venus	-18778-01-21 10:48 J	-5137221.24	-5137221.05	-5137220.84	0.0088	0.0037
Venus	-18778-09-04 00:28 J	-5136995.68	-5136995.48	-5136995.27	0.0088	0.0034
Venus	-18777-04-16 13:55 J	-5136770.12	-5136769.92	-5136769.70	0.0088	0.0032
Venus	-18777-11-28 03:50 J	-5136544.55	-5136544.34	-5136544.13	0.0088	0.0029
Venus	-18776-07-11 17:31 J	-5136318.98	-5136318.77	-5136318.55	0.0088	0.0026
Venus	-18775-02-22 07:11 J	-5136093.42	-5136093.20	-5136092.99	0.0088	0.0023
Venus	-18775-10-05 20:38 J	-5135867.85	-5135867.64	-5135867.41	0.0088	0.0020
Venus	-18774-05-19 10:19 J	-5135642.28	-5135642.07	-5135641.84	0.0088	0.0017

Venus	-18774-12-31 00:00 J	-5135416.72	-5135416.50	-5135416.27	0.0088	0.0014
Venus	-18773-08-12 13:40 J	-5135191.15	-5135190.93	-5135190.70	0.0088	0.0010
Venus	-18772-03-26 03:21 J	-5134965.58	-5134965.36	-5134965.14	0.0088	0.0007
Venus	-18772-11-06 17:02 J	-5134740.01	-5134739.79	-5134739.56	0.0088	0.0004
Venus	-18771-06-20 06:43 J	-5134514.44	-5134514.22	-5134513.99	0.0088	0.0002
Venus	-18770-01-31 20:23 J	-5134288.87	-5134288.65	-5134288.43	0.0088	0.0002
Venus	-18770-09-14 09:50 J	-5134063.31	-5134063.09	-5134062.86	0.0088	0.0005
Venus	-18769-04-26 23:31 J	-5133837.74	-5133837.52	-5133837.29	0.0088	0.0008
Venus	-18769-12-08 13:11 J	-5133612.17	-5133611.95	-5133611.72	0.0088	0.0011
Venus	-18768-07-22 02:52 J	-5133386.60	-5133386.38	-5133386.15	0.0088	0.0014
Venus	-18767-03-04 16:19 J	-5133161.03	-5133160.82	-5133160.59	0.0088	0.0018
Venus	-18767-10-16 06:00 J	-5132935.46	-5132935.25	-5132935.02	0.0088	0.0021
Venus	-18766-05-29 19:40 J	-5132709.89	-5132709.68	-5132709.45	0.0088	0.0024
Venus	-18765-01-10 09:21 J	-5132484.31	-5132484.11	-5132483.88	0.0088	0.0027
Venus	-18765-08-22 23:02 J	-5132258.74	-5132258.54	-5132258.32	0.0088	0.0030
Venus	-18764-04-05 12:43 J	-5132033.17	-5132032.97	-5132032.75	0.0089	0.0033
Venus	-18764-11-17 02:38 J	-5131807.59	-5131807.39	-5131807.18	0.0089	0.0036
Venus	-18763-06-30 16:19 J	-5131582.01	-5131581.82	-5131581.61	0.0089	0.0039
Venus	-18762-02-11 06:00 J	-5131356.44	-5131356.25	-5131356.04	0.0089	0.0042
Venus	-18762-09-24 19:40 J	-5131130.86	-5131130.68	-5131130.48	0.0089	0.0045
Venus	-18761-05-07 09:07 J	-5130905.29	-5130905.12	-5130904.91	0.0089	0.0048
Venus	-18761-12-18 23:02 J	-5130679.71	-5130679.54	-5130679.34	0.0089	0.0051
Venus	-18760-08-01 13:11 J	-5130454.13	-5130453.95	-5130453.77	0.0089	0.0053
Venus	-18759-03-15 02:38 J	-5130228.55	-5130228.39	-5130228.21	0.0089	0.0056
Venus	-18759-10-26 16:04 J	-5130002.98	-5130002.83	-5130002.65	0.0089	0.0059
Venus	-18758-06-09 05:45 J	-5129777.40	-5129777.26	-5129777.09	0.0089	0.0062
Venus	-18757-01-20 19:11 J	-5129551.83	-5129551.70	-5129551.52	0.0089	0.0065
Venus	-18757-09-02 09:21 J	-5129326.25	-5129326.11	-5129325.96	0.0089	0.0067
Venus	-18756-04-15 22:33 J	-5129100.68	-5129100.56	-5129100.40	0.0089	0.0070
Venus	-18756-11-27 12:00 J	-5128875.10	-5128875.00	-5128874.84	0.0089	0.0073

Venus	-18755-07-11 01:55 J	-5128649.52	-5128649.42	-5128649.28	0.0089	0.0075
Venus	-18754-02-21 15:21 J	-5128423.94	-5128423.86	-5128423.72	0.0089	0.0078
Venus	-18754-10-05 05:16 J	-5128198.36	-5128198.28	-5128198.17	0.0089	0.0080
Venus	-18753-05-17 18:43 J	-5127972.78	-5127972.72	-5127972.62	0.0089	0.0083
Venus	-18753-12-29 08:38 J	-5127747.18	-5127747.14	-5127747.06	0.0089	0.0085
Venus	-18752-08-11 22:33 J	-5127521.59	-5127521.56	-5127521.51	0.0089	0.0087
Earth	-18732-05-11 04:33 J	-5120309.50	-5120309.31	-5120309.10	0.0089	0.0054
Moon	-18732-05-11 06:43 J	-5120309.39	-5120309.22	-5120309.01	0.0089	0.0058 *
Moon	-18731-05-13 12:28 J	-5119942.24	-5119941.98	-5119941.72	0.0089	0.0009
Earth	-18731-05-13 15:21 J	-5119942.11	-5119941.86	-5119941.61	0.0089	0.0012 *
Earth	-18730-05-16 01:26 J	-5119574.66	-5119574.44	-5119574.19	0.0089	0.0031
Moon	-18730-05-16 05:16 J	-5119574.52	-5119574.28	-5119574.04	0.0089	0.0028 *
Moon	-18729-05-17 08:23 J	-5119207.25	-5119207.15	-5119206.99	0.0089	0.0076
Earth	-18729-05-17 12:00 J	-5119207.13	-5119207.00	-5119206.84	0.0089	0.0072 *
Mars	-18713-05-12 04:19 J	-5113368.64	-5113368.32	-5113367.98	0.0089	0.0022
Mercury	-18712-03-08 00:43 J	-5113068.49	-5113068.47	-5113068.42	0.0089	0.0085
Mercury	-18712-06-04 02:09 J	-5112980.47	-5112980.41	-5112980.34	0.0089	0.0078
Mercury	-18712-08-31 03:21 J	-5112892.43	-5112892.36	-5112892.27	0.0089	0.0071
Mercury	-18712-11-27 04:48 J	-5112804.39	-5112804.30	-5112804.21	0.0089	0.0064
Mercury	-18711-02-23 06:00 J	-5112716.34	-5112716.25	-5112716.14	0.0089	0.0058
Mars	-18711-04-08 12:43 J	-5112672.21	-5112671.97	-5112671.69	0.0089	0.0057
Mercury	-18711-05-22 07:26 J	-5112628.29	-5112628.19	-5112628.08	0.0089	0.0050
Mercury	-18711-08-18 08:38 J	-5112540.25	-5112540.14	-5112540.02	0.0089	0.0044
Mercury	-18711-11-14 10:04 J	-5112452.20	-5112452.08	-5112451.96	0.0089	0.0036
Mercury	-18710-02-10 11:16 J	-5112364.15	-5112364.03	-5112363.90	0.0089	0.0030
Mercury	-18710-05-09 12:43 J	-5112276.09	-5112275.97	-5112275.84	0.0089	0.0022
Mercury	-18710-08-05 13:55 J	-5112188.04	-5112187.92	-5112187.78	0.0089	0.0016
Mercury	-18710-11-01 15:21 J	-5112099.99	-5112099.86	-5112099.73	0.0089	0.0008
Mercury	-18709-01-28 16:48 J	-5112011.94	-5112011.80	-5112011.67	0.0089	0.0003
Mercury	-18709-04-25 18:00 J	-5111923.88	-5111923.75	-5111923.62	0.0089	0.0006

Mercury	-18709-07-22 19:11 J	-5111835.83	-5111835.70	-5111835.56	0.0089	0.0014
Mercury	-18709-10-18 20:38 J	-5111747.77	-5111747.64	-5111747.51	0.0089	0.0020
Venus	-18709-11-02 12:28 J	-5111732.98	-5111732.98	-5111732.94	0.0089	0.0089
Mercury	-18708-01-14 21:50 J	-5111659.71	-5111659.59	-5111659.46	0.0089	0.0027
Mercury	-18708-04-12 23:16 J	-5111571.65	-5111571.53	-5111571.41	0.0089	0.0034
Venus	-18708-06-16 01:26 J	-5111507.48	-5111507.44	-5111507.38	0.0089	0.0087
Mercury	-18708-07-10 00:28 J	-5111483.59	-5111483.48	-5111483.36	0.0089	0.0041
Mercury	-18708-10-06 01:55 J	-5111395.53	-5111395.42	-5111395.31	0.0089	0.0048
Mercury	-18707-01-02 03:07 J	-5111307.47	-5111307.37	-5111307.26	0.0089	0.0056
Venus	-18707-01-27 13:40 J	-5111281.97	-5111281.93	-5111281.83	0.0089	0.0085
Mercury	-18707-03-31 04:33 J	-5111219.40	-5111219.31	-5111219.22	0.0089	0.0063
Mercury	-18707-06-27 05:45 J	-5111131.34	-5111131.26	-5111131.17	0.0089	0.0070
Venus	-18707-09-10 02:52 J	-5111056.46	-5111056.38	-5111056.29	0.0089	0.0082
Mercury	-18707-09-23 07:11 J	-5111043.26	-5111043.20	-5111043.13	0.0089	0.0077
Mercury	-18707-12-20 08:09 J	-5110955.19	-5110955.16	-5110955.10	0.0089	0.0084
Venus	-18706-04-23 15:21 J	-5110830.94	-5110830.86	-5110830.75	0.0089	0.0079
Venus	-18706-12-05 04:04 J	-5110605.43	-5110605.33	-5110605.21	0.0089	0.0077
Venus	-18705-07-17 16:19 J	-5110379.92	-5110379.82	-5110379.68	0.0089	0.0075
Venus	-18704-02-28 05:16 J	-5110154.40	-5110154.28	-5110154.15	0.0089	0.0072
Venus	-18704-10-11 17:31 J	-5109928.88	-5109928.77	-5109928.61	0.0089	0.0069
Venus	-18703-05-25 06:28 J	-5109703.36	-5109703.23	-5109703.08	0.0089	0.0066
Venus	-18702-01-05 19:11 J	-5109477.85	-5109477.70	-5109477.55	0.0089	0.0064
Venus	-18702-08-19 07:11 J	-5109252.33	-5109252.20	-5109252.02	0.0089	0.0062
Venus	-18701-03-31 19:55 J	-5109026.81	-5109026.67	-5109026.49	0.0089	0.0059
Venus	-18701-11-12 08:38 J	-5108801.30	-5108801.14	-5108800.96	0.0089	0.0055
Venus	-18700-06-25 21:21 J	-5108575.78	-5108575.61	-5108575.43	0.0089	0.0052
Venus	-18699-02-06 10:04 J	-5108350.26	-5108350.08	-5108349.90	0.0089	0.0050
Venus	-18699-09-19 22:04 J	-5108124.74	-5108124.58	-5108124.37	0.0089	0.0048
Venus	-18698-05-03 10:48 J	-5107899.22	-5107899.05	-5107898.84	0.0089	0.0044
Venus	-18698-12-14 23:31 J	-5107673.70	-5107673.52	-5107673.32	0.0089	0.0041

Venus	-18697-07-27 12:00 J	-5107448.19	-5107448.00	-5107447.79	0.0089	0.0038
Venus	-18696-03-10 00:28 J	-5107222.67	-5107222.48	-5107222.27	0.0089	0.0035
Venus	-18696-10-21 12:57 J	-5106997.15	-5106996.96	-5106996.75	0.0089	0.0032
Venus	-18695-06-04 01:26 J	-5106771.63	-5106771.44	-5106771.22	0.0089	0.0029
Venus	-18694-01-15 13:55 J	-5106546.12	-5106545.92	-5106545.70	0.0089	0.0026
Venus	-18694-08-29 02:09 J	-5106320.60	-5106320.41	-5106320.19	0.0089	0.0023
Venus	-18693-04-10 14:38 J	-5106095.09	-5106094.89	-5106094.67	0.0089	0.0020
Venus	-18693-11-22 03:07 J	-5105869.58	-5105869.37	-5105869.15	0.0089	0.0017
Venus	-18692-07-05 15:36 J	-5105644.06	-5105643.85	-5105643.63	0.0089	0.0014
Venus	-18691-02-16 03:50 J	-5105418.55	-5105418.34	-5105418.12	0.0089	0.0011
Venus	-18691-09-29 16:19 J	-5105193.03	-5105192.82	-5105192.60	0.0089	0.0008
Venus	-18690-05-13 04:48 J	-5104967.51	-5104967.30	-5104967.08	0.0089	0.0004
Venus	-18690-12-24 17:16 J	-5104742.00	-5104741.78	-5104741.57	0.0089	0.0002
Venus	-18689-08-06 05:31 J	-5104516.49	-5104516.27	-5104516.05	0.0089	0.0002
Venus	-18688-03-19 17:45 J	-5104290.97	-5104290.76	-5104290.54	0.0089	0.0005
Venus	-18688-10-31 06:14 J	-5104065.45	-5104065.24	-5104065.02	0.0089	0.0008
Venus	-18687-06-13 18:43 J	-5103839.93	-5103839.72	-5103839.50	0.0089	0.0011
Venus	-18686-01-25 07:11 J	-5103614.41	-5103614.20	-5103613.98	0.0089	0.0014
Venus	-18686-09-07 19:26 J	-5103388.90	-5103388.69	-5103388.47	0.0089	0.0017
Venus	-18685-04-20 07:55 J	-5103163.38	-5103163.17	-5103162.96	0.0089	0.0020
Venus	-18685-12-01 20:23 J	-5102937.86	-5102937.65	-5102937.44	0.0089	0.0023
Venus	-18684-07-15 08:52 J	-5102712.34	-5102712.13	-5102711.93	0.0089	0.0026
Venus	-18683-02-25 21:07 J	-5102486.82	-5102486.62	-5102486.42	0.0089	0.0029
Venus	-18683-10-09 09:21 J	-5102261.31	-5102261.11	-5102260.90	0.0089	0.0032
Venus	-18682-05-22 21:50 J	-5102035.79	-5102035.59	-5102035.39	0.0089	0.0035
Venus	-18681-01-03 10:04 J	-5101810.27	-5101810.08	-5101809.88	0.0089	0.0038
Venus	-18681-08-15 22:19 J	-5101584.76	-5101584.57	-5101584.37	0.0089	0.0041
Venus	-18680-03-29 10:33 J	-5101359.24	-5101359.06	-5101358.86	0.0089	0.0044
Venus	-18680-11-09 22:48 J	-5101133.72	-5101133.55	-5101133.36	0.0089	0.0047
Venus	-18679-06-23 11:16 J	-5100908.20	-5100908.03	-5100907.84	0.0089	0.0050

Venus	-18678-02-03 23:31 J	-5100682.68	-5100682.52	-5100682.33	0.0089	0.0053
Venus	-18678-09-17 11:45 J	-5100457.16	-5100457.01	-5100456.83	0.0089	0.0056
Venus	-18677-04-30 00:28 J	-5100231.65	-5100231.48	-5100231.32	0.0089	0.0058
Venus	-18677-12-11 12:28 J	-5100006.12	-5100005.98	-5100005.81	0.0089	0.0061
Venus	-18676-07-25 00:57 J	-5099780.60	-5099780.46	-5099780.30	0.0089	0.0064
Venus	-18675-03-07 12:57 J	-5099555.08	-5099554.96	-5099554.79	0.0089	0.0067
Venus	-18675-10-19 01:40 J	-5099329.55	-5099329.43	-5099329.28	0.0089	0.0069
Venus	-18674-06-01 13:55 J	-5099104.03	-5099103.92	-5099103.77	0.0088	0.0072
Venus	-18673-01-13 02:52 J	-5098878.50	-5098878.38	-5098878.27	0.0088	0.0074
Venus	-18673-08-25 14:52 J	-5098652.97	-5098652.88	-5098652.76	0.0088	0.0077
Venus	-18672-04-08 02:52 J	-5098427.45	-5098427.38	-5098427.25	0.0088	0.0080
Venus	-18672-11-19 15:36 J	-5098201.91	-5098201.85	-5098201.75	0.0088	0.0082
Venus	-18671-07-03 04:33 J	-5097976.38	-5097976.31	-5097976.25	0.0088	0.0084
Venus	-18670-02-13 16:19 J	-5097750.84	-5097750.82	-5097750.75	0.0088	0.0087
Earth	-18651-11-06 21:21 J	-5090544.74	-5090544.61	-5090544.44	0.0088	0.0072
Moon	-18651-11-07 00:43 J	-5090544.61	-5090544.47	-5090544.29	0.0088	0.0068 *
Moon	-18650-11-09 06:28 J	-5090177.45	-5090177.23	-5090176.97	0.0088	0.0035
Earth	-18650-11-09 10:19 J	-5090177.30	-5090177.07	-5090176.81	0.0088	0.0030 *
Earth	-18649-11-10 23:02 J	-5089809.80	-5089809.54	-5089809.28	0.0088	0.0011
Moon	-18649-11-11 02:23 J	-5089809.65	-5089809.40	-5089809.13	0.0088	0.0016 *
Moon	-18648-11-13 08:38 J	-5089442.34	-5089442.14	-5089441.92	0.0088	0.0049
Earth	-18648-11-13 11:16 J	-5089442.22	-5089442.03	-5089441.81	0.0088	0.0053 *
Jupiter	-18635-06-16 07:55 J	-5084844.50	-5084844.17	-5084843.71	0.0088	0.0063
Mars	-18631-03-03 16:33 J	-5083488.06	-5083487.81	-5083487.55	0.0088	0.0043
Mars	-18629-01-26 07:40 J	-5082794.44	-5082794.18	-5082793.88	0.0088	0.0021
Mercury	-18629-11-19 04:19 J	-5082496.39	-5082496.32	-5082496.23	0.0088	0.0080
Mercury	-18628-02-15 07:55 J	-5082408.27	-5082408.17	-5082408.04	0.0088	0.0070
Mercury	-18628-05-14 11:45 J	-5082320.15	-5082320.01	-5082319.86	0.0088	0.0060
Mercury	-18628-08-10 15:21 J	-5082232.01	-5082231.86	-5082231.69	0.0088	0.0050
Mercury	-18628-11-06 18:57 J	-5082143.87	-5082143.71	-5082143.52	0.0088	0.0040

Mars	-18628-12-20 00:28 J	-5082100.54	-5082100.48	-5082100.38	0.0088	0.0084
Mercury	-18627-02-02 22:33 J	-5082055.73	-5082055.56	-5082055.36	0.0088	0.0030
Mercury	-18627-05-02 02:23 J	-5081967.59	-5081967.40	-5081967.20	0.0088	0.0020
Mercury	-18627-07-29 06:00 J	-5081879.44	-5081879.25	-5081879.05	0.0088	0.0010
Mercury	-18627-10-25 09:50 J	-5081791.29	-5081791.09	-5081790.90	0.0088	0.0001
Mercury	-18626-01-21 13:26 J	-5081703.14	-5081702.94	-5081702.75	0.0088	0.0010
Mercury	-18626-04-19 17:02 J	-5081614.98	-5081614.79	-5081614.60	0.0088	0.0020
Mercury	-18626-07-16 20:38 J	-5081526.82	-5081526.64	-5081526.46	0.0088	0.0030
Mercury	-18626-10-13 00:00 J	-5081438.66	-5081438.50	-5081438.32	0.0088	0.0040
Mercury	-18625-01-09 03:36 J	-5081350.50	-5081350.35	-5081350.18	0.0088	0.0050
Mercury	-18625-04-06 07:11 J	-5081262.33	-5081262.20	-5081262.05	0.0088	0.0060
Mercury	-18625-07-03 10:48 J	-5081174.16	-5081174.05	-5081173.92	0.0088	0.0070
Mercury	-18625-09-29 14:09 J	-5081085.97	-5081085.91	-5081085.81	0.0088	0.0080
Venus	-18625-10-24 04:33 J	-5081061.33	-5081061.31	-5081061.27	0.0088	0.0087
Venus	-18624-06-06 17:31 J	-5080835.80	-5080835.77	-5080835.68	0.0088	0.0085
Venus	-18623-01-18 07:11 J	-5080610.26	-5080610.20	-5080610.11	0.0088	0.0082
Venus	-18623-08-31 20:23 J	-5080384.72	-5080384.65	-5080384.54	0.0088	0.0080
Venus	-18622-04-14 10:04 J	-5080159.17	-5080159.08	-5080158.97	0.0088	0.0077
Venus	-18622-11-25 23:16 J	-5079933.62	-5079933.53	-5079933.39	0.0088	0.0075
Venus	-18621-07-08 12:57 J	-5079708.08	-5079707.96	-5079707.82	0.0088	0.0072
Venus	-18620-02-19 02:38 J	-5079482.53	-5079482.39	-5079482.25	0.0088	0.0069
Venus	-18620-10-02 15:36 J	-5079256.97	-5079256.85	-5079256.68	0.0088	0.0067
Venus	-18619-05-16 05:16 J	-5079031.42	-5079031.28	-5079031.11	0.0088	0.0064
Venus	-18619-12-27 18:43 J	-5078805.87	-5078805.72	-5078805.55	0.0088	0.0062
Venus	-18618-08-10 08:23 J	-5078580.31	-5078580.15	-5078579.98	0.0088	0.0058
Venus	-18617-03-22 21:21 J	-5078354.76	-5078354.61	-5078354.42	0.0088	0.0056
Venus	-18617-11-03 11:02 J	-5078129.20	-5078129.04	-5078128.84	0.0088	0.0053
Venus	-18616-06-17 00:28 J	-5077903.64	-5077903.48	-5077903.28	0.0088	0.0050
Venus	-18615-01-28 13:55 J	-5077678.09	-5077677.92	-5077677.71	0.0088	0.0047
Venus	-18615-09-11 03:21 J	-5077452.53	-5077452.36	-5077452.15	0.0088	0.0045

Venus	-18614-04-24 17:02 J	-5077226.98	-5077226.79	-5077226.58	0.0088	0.0041
Venus	-18614-12-06 06:43 J	-5077001.41	-5077001.22	-5077001.01	0.0088	0.0038
Venus	-18613-07-18 20:09 J	-5076775.85	-5076775.66	-5076775.44	0.0088	0.0035
Venus	-18612-03-01 09:36 J	-5076550.29	-5076550.10	-5076549.87	0.0088	0.0033
Venus	-18612-10-12 23:16 J	-5076324.73	-5076324.53	-5076324.30	0.0088	0.0029
Venus	-18611-05-26 13:11 J	-5076099.16	-5076098.95	-5076098.73	0.0088	0.0026
Venus	-18610-01-07 02:52 J	-5075873.60	-5075873.38	-5075873.16	0.0088	0.0022
Venus	-18610-08-20 16:19 J	-5075648.03	-5075647.82	-5075647.59	0.0088	0.0020
Venus	-18609-04-02 06:00 J	-5075422.47	-5075422.25	-5075422.02	0.0088	0.0016
Venus	-18609-11-13 19:40 J	-5075196.89	-5075196.68	-5075196.45	0.0088	0.0014
Venus	-18608-06-27 09:21 J	-5074971.32	-5074971.11	-5074970.88	0.0088	0.0011
Venus	-18607-02-07 23:16 J	-5074745.76	-5074745.53	-5074745.31	0.0088	0.0007
Venus	-18607-09-21 12:43 J	-5074520.19	-5074519.97	-5074519.74	0.0088	0.0004
Venus	-18606-05-05 02:23 J	-5074294.62	-5074294.40	-5074294.17	0.0088	0.0002
Venus	-18606-12-16 16:19 J	-5074069.05	-5074068.82	-5074068.60	0.0088	0.0003
Venus	-18605-07-29 05:45 J	-5073843.48	-5073843.26	-5073843.03	0.0088	0.0007
Venus	-18604-03-11 19:26 J	-5073617.91	-5073617.69	-5073617.46	0.0088	0.0009
Venus	-18604-10-23 09:07 J	-5073392.34	-5073392.12	-5073391.90	0.0088	0.0013
Venus	-18603-06-05 22:48 J	-5073166.77	-5073166.55	-5073166.33	0.0088	0.0016
Venus	-18602-01-17 12:14 J	-5072941.20	-5072940.99	-5072940.76	0.0088	0.0019
Venus	-18602-08-31 01:55 J	-5072715.63	-5072715.42	-5072715.20	0.0088	0.0022
Venus	-18601-04-12 15:21 J	-5072490.06	-5072489.86	-5072489.63	0.0088	0.0026
Venus	-18601-11-24 05:16 J	-5072264.48	-5072264.28	-5072264.06	0.0088	0.0029
Venus	-18600-07-07 18:57 J	-5072038.91	-5072038.71	-5072038.49	0.0088	0.0032
Venus	-18599-02-18 08:52 J	-5071813.34	-5071813.13	-5071812.92	0.0088	0.0035
Venus	-18599-10-01 22:33 J	-5071587.76	-5071587.56	-5071587.36	0.0089	0.0038
Venus	-18598-05-15 11:45 J	-5071362.19	-5071362.01	-5071361.79	0.0089	0.0042
Venus	-18598-12-27 01:40 J	-5071136.61	-5071136.43	-5071136.22	0.0089	0.0045
Venus	-18597-08-08 15:21 J	-5070911.03	-5070910.86	-5070910.65	0.0089	0.0048
Venus	-18596-03-22 05:02 J	-5070685.45	-5070685.29	-5070685.09	0.0089	0.0051

Venus	-18596-11-02 18:43 J	-5070459.88	-5070459.72	-5070459.52	0.0089	0.0054
Venus	-18595-06-16 08:23 J	-5070234.30	-5070234.15	-5070233.95	0.0089	0.0057
Venus	-18594-01-27 22:19 J	-5070008.72	-5070008.57	-5070008.39	0.0089	0.0060
Venus	-18594-09-10 12:14 J	-5069783.14	-5069782.99	-5069782.82	0.0089	0.0062
Venus	-18593-04-23 01:55 J	-5069557.56	-5069557.42	-5069557.26	0.0089	0.0065
Venus	-18593-12-04 15:36 J	-5069331.98	-5069331.85	-5069331.70	0.0089	0.0068
Venus	-18592-07-18 05:02 J	-5069106.40	-5069106.29	-5069106.14	0.0089	0.0071
Venus	-18591-02-28 18:43 J	-5068880.83	-5068880.72	-5068880.58	0.0089	0.0074
Venus	-18591-10-12 08:38 J	-5068655.25	-5068655.14	-5068655.02	0.0089	0.0076
Venus	-18590-05-25 21:50 J	-5068429.67	-5068429.59	-5068429.47	0.0089	0.0079
Venus	-18589-01-06 11:31 J	-5068204.08	-5068204.02	-5068203.91	0.0089	0.0082
Venus	-18589-08-19 01:26 J	-5067978.50	-5067978.44	-5067978.36	0.0089	0.0084
Venus	-18588-04-01 14:38 J	-5067752.91	-5067752.89	-5067752.82	0.0089	0.0087
Moon	-18568-05-10 05:16 J	-5060409.39	-5060409.28	-5060409.14	0.0089	0.0078
Earth	-18568-05-10 08:38 J	-5060409.23	-5060409.14	-5060409.01	0.0089	0.0081 *
Earth	-18567-05-12 19:11 J	-5060041.91	-5060041.70	-5060041.45	0.0089	0.0039
Moon	-18567-05-12 22:33 J	-5060041.76	-5060041.56	-5060041.31	0.0089	0.0042 *
Moon	-18566-05-15 02:52 J	-5059674.63	-5059674.38	-5059674.12	0.0089	0.0008
Earth	-18566-05-15 06:14 J	-5059674.49	-5059674.24	-5059673.98	0.0089	0.0005 *
Earth	-18565-05-16 16:19 J	-5059307.01	-5059306.82	-5059306.58	0.0089	0.0047
Moon	-18565-05-16 19:26 J	-5059306.91	-5059306.69	-5059306.46	0.0089	0.0043 *
Earth	-18564-05-19 03:21 J	-5058939.40	-5058939.36	-5058939.31	0.0089	0.0088
Mars	-18550-12-24 01:40 J	-5053607.64	-5053607.43	-5053607.19	0.0089	0.0067
Mars	-18548-11-19 10:33 J	-5052911.39	-5052911.06	-5052910.72	0.0089	0.0013
Mercury	-18548-12-02 23:45 J	-5052897.54	-5052897.51	-5052897.47	0.0089	0.0085
Mercury	-18547-03-01 00:57 J	-5052809.51	-5052809.46	-5052809.39	0.0089	0.0079
Mercury	-18547-05-28 02:23 J	-5052721.47	-5052721.40	-5052721.32	0.0089	0.0072
Mercury	-18547-08-24 03:36 J	-5052633.43	-5052633.35	-5052633.25	0.0089	0.0065
Mercury	-18547-11-20 05:02 J	-5052545.39	-5052545.29	-5052545.19	0.0089	0.0058
Mercury	-18546-02-16 06:14 J	-5052457.34	-5052457.24	-5052457.13	0.0089	0.0051

Mercury	-18546-05-15 07:40 J	-5052369.29	-5052369.18	-5052369.07	0.0089	0.0044
Mercury	-18546-08-11 08:52 J	-5052281.24	-5052281.13	-5052281.01	0.0089	0.0037
Mercury	-18546-11-07 10:19 J	-5052193.20	-5052193.07	-5052192.95	0.0089	0.0029
Mercury	-18545-02-03 11:31 J	-5052105.14	-5052105.02	-5052104.89	0.0089	0.0023
Mercury	-18545-05-01 12:57 J	-5052017.09	-5052016.96	-5052016.83	0.0089	0.0015
Mercury	-18545-07-28 14:09 J	-5051929.04	-5051928.91	-5051928.78	0.0089	0.0009
Mercury	-18545-10-24 15:36 J	-5051840.98	-5051840.85	-5051840.72	0.0089	0.0002
Mercury	-18544-01-20 16:48 J	-5051752.93	-5051752.80	-5051752.67	0.0089	0.0006
Mercury	-18544-04-18 18:00 J	-5051664.87	-5051664.75	-5051664.61	0.0089	0.0013
Mercury	-18544-07-15 19:26 J	-5051576.82	-5051576.69	-5051576.56	0.0089	0.0020
Mercury	-18544-10-11 20:38 J	-5051488.76	-5051488.64	-5051488.51	0.0089	0.0027
Mercury	-18543-01-07 21:50 J	-5051400.70	-5051400.59	-5051400.46	0.0089	0.0035
Mercury	-18543-04-05 23:16 J	-5051312.64	-5051312.53	-5051312.41	0.0089	0.0041
Venus	-18543-04-30 21:50 J	-5051287.59	-5051287.59	-5051287.57	0.0089	0.0089
Mercury	-18543-07-03 00:28 J	-5051224.58	-5051224.48	-5051224.36	0.0089	0.0049
Mercury	-18543-09-29 01:55 J	-5051136.52	-5051136.42	-5051136.31	0.0089	0.0055
Venus	-18543-12-12 10:33 J	-5051062.10	-5051062.06	-5051062.00	0.0089	0.0087
Mercury	-18543-12-26 03:07 J	-5051048.45	-5051048.37	-5051048.26	0.0089	0.0063
Mercury	-18542-03-24 04:33 J	-5050960.38	-5050960.31	-5050960.22	0.0089	0.0070
Mercury	-18542-06-20 06:00 J	-5050872.31	-5050872.25	-5050872.18	0.0089	0.0076
Venus	-18542-07-25 22:48 J	-5050836.60	-5050836.55	-5050836.46	0.0089	0.0085
Mercury	-18542-09-16 07:11 J	-5050784.24	-5050784.20	-5050784.15	0.0089	0.0084
Venus	-18541-03-07 11:45 J	-5050611.08	-5050611.01	-5050610.91	0.0089	0.0082
Venus	-18541-10-19 00:00 J	-5050385.57	-5050385.50	-5050385.37	0.0089	0.0080
Venus	-18540-06-01 12:57 J	-5050160.05	-5050159.96	-5050159.83	0.0089	0.0077
Venus	-18539-01-13 01:40 J	-5049934.54	-5049934.43	-5049934.30	0.0089	0.0074
Venus	-18539-08-26 13:55 J	-5049709.03	-5049708.92	-5049708.77	0.0089	0.0071
Venus	-18538-04-09 02:38 J	-5049483.51	-5049483.39	-5049483.23	0.0089	0.0069
Venus	-18538-11-20 15:21 J	-5049257.99	-5049257.86	-5049257.70	0.0089	0.0065
Venus	-18537-07-03 03:50 J	-5049032.48	-5049032.34	-5049032.17	0.0089	0.0063

Venus	-18536-02-13 16:33 J	-5048806.96	-5048806.81	-5048806.64	0.0089	0.0060
Venus	-18536-09-27 05:16 J	-5048581.44	-5048581.28	-5048581.11	0.0089	0.0057
Venus	-18535-05-10 18:00 J	-5048355.92	-5048355.75	-5048355.58	0.0089	0.0054
Venus	-18535-12-22 06:28 J	-5048130.40	-5048130.23	-5048130.05	0.0089	0.0051
Venus	-18534-08-04 18:57 J	-5047904.89	-5047904.71	-5047904.52	0.0089	0.0048
Venus	-18533-03-17 07:26 J	-5047679.37	-5047679.19	-5047679.00	0.0089	0.0045
Venus	-18533-10-28 20:09 J	-5047453.85	-5047453.66	-5047453.47	0.0089	0.0041
Venus	-18532-06-11 08:38 J	-5047228.33	-5047228.14	-5047227.94	0.0089	0.0039
Venus	-18531-01-22 21:07 J	-5047002.81	-5047002.62	-5047002.41	0.0089	0.0036
Venus	-18531-09-05 09:36 J	-5046777.29	-5046777.10	-5046776.89	0.0089	0.0032
Venus	-18530-04-18 22:04 J	-5046551.77	-5046551.58	-5046551.36	0.0089	0.0029
Venus	-18530-11-30 10:33 J	-5046326.26	-5046326.06	-5046325.84	0.0089	0.0026
Venus	-18529-07-12 23:02 J	-5046100.74	-5046100.54	-5046100.32	0.0089	0.0023
Venus	-18528-02-23 11:45 J	-5045875.22	-5045875.01	-5045874.80	0.0089	0.0020
Venus	-18528-10-07 00:00 J	-5045649.71	-5045649.50	-5045649.28	0.0089	0.0016
Venus	-18527-05-20 12:28 J	-5045424.19	-5045423.98	-5045423.76	0.0089	0.0013
Venus	-18526-01-01 00:57 J	-5045198.67	-5045198.46	-5045198.24	0.0089	0.0010
Venus	-18526-08-14 13:11 J	-5044973.16	-5044972.95	-5044972.73	0.0089	0.0007
Venus	-18525-03-27 01:40 J	-5044747.65	-5044747.43	-5044747.21	0.0089	0.0003
Venus	-18525-11-07 14:09 J	-5044522.13	-5044521.91	-5044521.70	0.0089	0.0002
Venus	-18524-06-21 02:38 J	-5044296.61	-5044296.39	-5044296.18	0.0089	0.0003
Venus	-18523-02-01 14:52 J	-5044071.09	-5044070.88	-5044070.66	0.0089	0.0006
Venus	-18523-09-15 03:21 J	-5043845.58	-5043845.36	-5043845.15	0.0089	0.0009
Venus	-18522-04-28 15:36 J	-5043620.06	-5043619.85	-5043619.63	0.0089	0.0013
Venus	-18522-12-10 03:50 J	-5043394.54	-5043394.34	-5043394.12	0.0089	0.0016
Venus	-18521-07-22 16:19 J	-5043169.02	-5043168.82	-5043168.60	0.0089	0.0019
Venus	-18520-03-05 04:48 J	-5042943.50	-5042943.30	-5042943.09	0.0089	0.0022
Venus	-18520-10-16 17:16 J	-5042717.99	-5042717.78	-5042717.57	0.0089	0.0025
Venus	-18519-05-30 05:31 J	-5042492.46	-5042492.27	-5042492.05	0.0089	0.0029
Venus	-18518-01-10 18:00 J	-5042266.94	-5042266.75	-5042266.54	0.0089	0.0032

Venus	-18518-08-24 06:14 J	-5042041.43	-5042041.24	-5042041.03	0.0089	0.0035
Venus	-18517-04-05 18:28 J	-5041815.91	-5041815.73	-5041815.52	0.0089	0.0038
Venus	-18517-11-17 06:57 J	-5041590.39	-5041590.21	-5041590.01	0.0089	0.0041
Venus	-18516-06-30 19:26 J	-5041364.87	-5041364.69	-5041364.49	0.0089	0.0044
Venus	-18515-02-11 07:40 J	-5041139.35	-5041139.18	-5041138.98	0.0089	0.0047
Venus	-18515-09-24 20:09 J	-5040913.83	-5040913.66	-5040913.48	0.0089	0.0050
Venus	-18514-05-08 08:23 J	-5040688.32	-5040688.15	-5040687.97	0.0089	0.0053
Venus	-18514-12-19 20:38 J	-5040462.80	-5040462.64	-5040462.46	0.0089	0.0056
Venus	-18513-08-01 08:52 J	-5040237.27	-5040237.13	-5040236.95	0.0089	0.0059
Venus	-18512-03-14 21:07 J	-5040011.76	-5040011.62	-5040011.45	0.0089	0.0062
Venus	-18512-10-26 09:21 J	-5039786.24	-5039786.11	-5039785.94	0.0089	0.0065
Venus	-18511-06-08 22:19 J	-5039560.71	-5039560.57	-5039560.43	0.0089	0.0067
Venus	-18510-01-20 10:19 J	-5039335.19	-5039335.07	-5039334.93	0.0089	0.0070
Venus	-18510-09-02 22:33 J	-5039109.67	-5039109.56	-5039109.42	0.0089	0.0073
Venus	-18509-04-15 10:48 J	-5038884.14	-5038884.05	-5038883.92	0.0089	0.0076
Venus	-18509-11-26 23:31 J	-5038658.61	-5038658.52	-5038658.41	0.0088	0.0078
Venus	-18508-07-10 11:45 J	-5038433.08	-5038433.01	-5038432.90	0.0088	0.0081
Venus	-18507-02-21 00:00 J	-5038207.55	-5038207.50	-5038207.40	0.0088	0.0084
Venus	-18507-10-04 12:28 J	-5037982.01	-5037981.98	-5037981.91	0.0088	0.0086
Venus	-18506-05-18 00:57 J	-5037756.46	-5037756.46	-5037756.43	0.0088	0.0088
Earth	-18486-11-08 13:40 J	-5030277.11	-5030276.93	-5030276.70	0.0088	0.0055
Moon	-18486-11-08 17:31 J	-5030276.97	-5030276.77	-5030276.56	0.0088	0.0056 *
Moon	-18485-11-10 00:00 J	-5029909.75	-5029909.50	-5029909.24	0.0088	0.0011
Earth	-18485-11-10 02:23 J	-5029909.65	-5029909.40	-5029909.13	0.0088	0.0014 *
Earth	-18484-11-12 14:52 J	-5029542.12	-5029541.88	-5029541.62	0.0088	0.0028
Moon	-18484-11-12 16:04 J	-5029542.08	-5029541.83	-5029541.56	0.0088	0.0026 *
Moon	-18483-11-15 02:52 J	-5029174.51	-5029174.38	-5029174.22	0.0088	0.0071
Earth	-18483-11-15 03:07 J	-5029174.50	-5029174.37	-5029174.18	0.0088	0.0070 *
Jupiter	-18469-08-19 20:52 J	-5024148.08	-5024147.63	-5024147.13	0.0088	0.0047
Mars	-18468-10-16 22:48 J	-5023724.65	-5023724.55	-5023724.39	0.0088	0.0079

Mars	-18466-09-10 14:23 J	-5023031.18	-5023030.90	-5023030.60	0.0088	0.0015
Mars	-18464-08-04 05:02 J	-5022337.52	-5022337.29	-5022337.04	0.0088	0.0049
Mercury	-18464-08-16 00:57 J	-5022325.52	-5022325.46	-5022325.37	0.0088	0.0080
Mercury	-18464-11-12 04:48 J	-5022237.41	-5022237.30	-5022237.17	0.0088	0.0070
Mercury	-18463-02-08 08:23 J	-5022149.28	-5022149.15	-5022149.00	0.0088	0.0060
Mercury	-18463-05-07 12:00 J	-5022061.15	-5022061.00	-5022060.83	0.0088	0.0050
Mercury	-18463-08-03 15:36 J	-5021973.01	-5021972.85	-5021972.66	0.0088	0.0040
Mercury	-18463-10-30 19:26 J	-5021884.87	-5021884.69	-5021884.50	0.0088	0.0030
Mercury	-18462-01-26 23:02 J	-5021796.72	-5021796.54	-5021796.34	0.0088	0.0020
Mercury	-18462-04-25 02:52 J	-5021708.58	-5021708.38	-5021708.19	0.0088	0.0010
Mercury	-18462-07-22 06:28 J	-5021620.43	-5021620.23	-5021620.03	0.0088	0.0000
Mercury	-18462-10-18 10:04 J	-5021532.27	-5021532.08	-5021531.88	0.0088	0.0010
Mercury	-18461-01-14 13:40 J	-5021444.12	-5021443.93	-5021443.74	0.0088	0.0020
Mercury	-18461-04-11 17:16 J	-5021355.96	-5021355.78	-5021355.59	0.0088	0.0030
Mercury	-18461-07-08 20:52 J	-5021267.80	-5021267.63	-5021267.45	0.0088	0.0040
Mercury	-18461-10-05 00:28 J	-5021179.64	-5021179.48	-5021179.32	0.0088	0.0050
Mercury	-18460-01-01 03:50 J	-5021091.47	-5021091.34	-5021091.18	0.0088	0.0060
Mercury	-18460-03-30 07:26 J	-5021003.29	-5021003.19	-5021003.06	0.0088	0.0070
Mercury	-18460-06-26 11:02 J	-5020915.11	-5020915.04	-5020914.95	0.0088	0.0080
Venus	-18459-04-21 14:09 J	-5020615.92	-5020615.91	-5020615.87	0.0088	0.0087
Venus	-18459-12-03 03:21 J	-5020390.39	-5020390.36	-5020390.28	0.0088	0.0085
Venus	-18458-07-16 16:48 J	-5020164.86	-5020164.80	-5020164.70	0.0088	0.0082
Venus	-18457-02-27 06:43 J	-5019939.32	-5019939.22	-5019939.13	0.0088	0.0079
Venus	-18457-10-09 19:40 J	-5019713.77	-5019713.68	-5019713.55	0.0088	0.0077
Venus	-18456-05-23 09:07 J	-5019488.22	-5019488.12	-5019487.98	0.0088	0.0074
Venus	-18455-01-03 22:48 J	-5019262.67	-5019262.55	-5019262.41	0.0088	0.0071
Venus	-18455-08-17 12:14 J	-5019037.12	-5019036.99	-5019036.84	0.0088	0.0069
Venus	-18454-03-31 01:26 J	-5018811.57	-5018811.44	-5018811.27	0.0088	0.0066
Venus	-18454-11-11 15:07 J	-5018586.01	-5018585.87	-5018585.70	0.0088	0.0063
Venus	-18453-06-24 04:33 J	-5018360.45	-5018360.31	-5018360.13	0.0088	0.0060

Venus	-18452-02-04 18:00 J	-5018134.90	-5018134.75	-5018134.56	0.0088	0.0057
Venus	-18452-09-18 07:26 J	-5017909.35	-5017909.19	-5017908.99	0.0088	0.0054
Venus	-18451-05-01 20:52 J	-5017683.79	-5017683.63	-5017683.43	0.0088	0.0051
Venus	-18451-12-13 10:19 J	-5017458.23	-5017458.07	-5017457.86	0.0088	0.0049
Venus	-18450-07-27 00:14 J	-5017232.68	-5017232.49	-5017232.29	0.0088	0.0045
Venus	-18449-03-08 13:40 J	-5017007.12	-5017006.93	-5017006.73	0.0088	0.0041
Venus	-18449-10-20 03:07 J	-5016781.56	-5016781.37	-5016781.16	0.0088	0.0038
Venus	-18448-06-02 16:33 J	-5016556.00	-5016555.81	-5016555.59	0.0088	0.0036
Venus	-18447-01-14 06:00 J	-5016330.44	-5016330.25	-5016330.02	0.0088	0.0033
Venus	-18447-08-27 19:55 J	-5016104.88	-5016104.67	-5016104.46	0.0088	0.0029
Venus	-18446-04-10 09:21 J	-5015879.32	-5015879.11	-5015878.89	0.0088	0.0025
Venus	-18446-11-21 23:02 J	-5015653.75	-5015653.54	-5015653.32	0.0088	0.0022
Venus	-18445-07-04 12:28 J	-5015428.19	-5015427.98	-5015427.75	0.0088	0.0020
Venus	-18444-02-15 02:23 J	-5015202.62	-5015202.40	-5015202.18	0.0088	0.0016
Venus	-18444-09-28 15:50 J	-5014977.06	-5014976.84	-5014976.61	0.0088	0.0013
Venus	-18443-05-12 05:31 J	-5014751.49	-5014751.27	-5014751.04	0.0088	0.0009
Venus	-18443-12-23 19:11 J	-5014525.92	-5014525.70	-5014525.47	0.0088	0.0006
Venus	-18442-08-06 08:52 J	-5014300.35	-5014300.13	-5014299.90	0.0088	0.0003
Venus	-18441-03-18 22:33 J	-5014074.78	-5014074.56	-5014074.33	0.0088	0.0001
Venus	-18441-10-30 12:14 J	-5013849.21	-5013848.99	-5013848.76	0.0088	0.0004
Venus	-18440-06-13 01:55 J	-5013623.64	-5013623.42	-5013623.19	0.0088	0.0008
Venus	-18439-01-24 15:21 J	-5013398.07	-5013397.86	-5013397.63	0.0088	0.0012
Venus	-18439-09-07 05:02 J	-5013172.51	-5013172.29	-5013172.06	0.0088	0.0014
Venus	-18438-04-20 18:43 J	-5012946.94	-5012946.72	-5012946.50	0.0088	0.0018
Venus	-18438-12-02 08:09 J	-5012721.36	-5012721.16	-5012720.93	0.0088	0.0022
Venus	-18437-07-14 21:50 J	-5012495.79	-5012495.59	-5012495.36	0.0088	0.0025
Venus	-18436-02-25 11:31 J	-5012270.22	-5012270.02	-5012269.80	0.0088	0.0028
Venus	-18436-10-09 01:11 J	-5012044.65	-5012044.45	-5012044.23	0.0088	0.0031
Venus	-18435-05-22 14:38 J	-5011819.08	-5011818.89	-5011818.67	0.0088	0.0034
Venus	-18434-01-03 04:19 J	-5011593.50	-5011593.32	-5011593.10	0.0089	0.0038

Venus	-18434-08-16 18:00 J	-5011367.93	-5011367.75	-5011367.53	0.0089	0.0041
Venus	-18433-03-29 07:40 J	-5011142.36	-5011142.18	-5011141.97	0.0089	0.0044
Venus	-18433-11-09 21:36 J	-5010916.78	-5010916.60	-5010916.40	0.0089	0.0047
Venus	-18432-06-23 11:16 J	-5010691.21	-5010691.03	-5010690.84	0.0089	0.0050
Venus	-18431-02-04 00:43 J	-5010465.63	-5010465.47	-5010465.27	0.0089	0.0054
Venus	-18431-09-17 14:23 J	-5010240.05	-5010239.90	-5010239.71	0.0089	0.0057
Venus	-18430-05-01 04:04 J	-5010014.47	-5010014.33	-5010014.14	0.0089	0.0060
Venus	-18430-12-12 18:00 J	-5009788.89	-5009788.75	-5009788.57	0.0089	0.0063
Venus	-18429-07-25 07:40 J	-5009563.31	-5009563.18	-5009563.01	0.0089	0.0066
Venus	-18428-03-07 21:21 J	-5009337.73	-5009337.61	-5009337.45	0.0089	0.0069
Venus	-18428-10-19 11:02 J	-5009112.15	-5009112.04	-5009111.89	0.0089	0.0072
Venus	-18427-06-02 00:28 J	-5008886.57	-5008886.48	-5008886.33	0.0089	0.0075
Venus	-18426-01-13 14:52 J	-5008660.98	-5008660.88	-5008660.77	0.0089	0.0077
Venus	-18426-08-27 04:19 J	-5008435.40	-5008435.32	-5008435.21	0.0089	0.0080
Venus	-18425-04-08 17:45 J	-5008209.82	-5008209.76	-5008209.66	0.0089	0.0083
Venus	-18425-11-20 07:11 J	-5007984.23	-5007984.20	-5007984.12	0.0089	0.0086
Venus	-18424-07-03 21:21 J	-5007758.63	-5007758.61	-5007758.58	0.0089	0.0088
Moon	-18403-05-11 21:21 J	-5000141.76	-5000141.61	-5000141.45	0.0089	0.0069
Earth	-18403-05-12 00:00 J	-5000141.66	-5000141.50	-5000141.31	0.0089	0.0065 *
Earth	-18402-05-14 10:48 J	-4999774.29	-4999774.05	-4999773.80	0.0089	0.0023
Moon	-18402-05-14 13:11 J	-4999774.20	-4999773.95	-4999773.69	0.0089	0.0019 *
Moon	-18401-05-15 20:09 J	-4999406.89	-4999406.66	-4999406.41	0.0089	0.0016
Earth	-18401-05-15 21:36 J	-4999406.85	-4999406.60	-4999406.35	0.0089	0.0020 *
Moon	-18400-05-18 07:11 J	-4999039.35	-4999039.20	-4999039.00	0.0089	0.0065
Earth	-18400-05-18 07:40 J	-4999039.34	-4999039.18	-4999038.97	0.0089	0.0062 *
Mars	-18384-07-02 07:40 J	-4993150.48	-4993150.18	-4993149.84	0.0089	0.0033
Mercury	-18383-08-29 22:48 J	-4992726.59	-4992726.55	-4992726.52	0.0089	0.0086
Mercury	-18383-11-26 00:00 J	-4992638.56	-4992638.50	-4992638.44	0.0089	0.0079
Mercury	-18382-02-22 01:26 J	-4992550.52	-4992550.44	-4992550.37	0.0089	0.0072
Mercury	-18382-05-21 02:38 J	-4992462.48	-4992462.39	-4992462.30	0.0089	0.0065

Mars	-18382-05-29 16:19 J	-4992454.08	-4992453.82	-4992453.51	0.0089	0.0048
Mercury	-18382-08-17 03:36 J	-4992374.43	-4992374.35	-4992374.24	0.0089	0.0059
Mercury	-18382-11-13 05:16 J	-4992286.39	-4992286.28	-4992286.17	0.0089	0.0051
Mercury	-18381-02-09 06:28 J	-4992198.34	-4992198.23	-4992198.11	0.0089	0.0044
Mercury	-18381-05-07 07:55 J	-4992110.29	-4992110.17	-4992110.05	0.0089	0.0037
Mercury	-18381-08-03 09:07 J	-4992022.24	-4992022.12	-4992022.00	0.0089	0.0030
Mercury	-18381-10-30 10:19 J	-4991934.19	-4991934.07	-4991933.94	0.0089	0.0023
Mercury	-18380-01-26 11:45 J	-4991846.14	-4991846.01	-4991845.88	0.0089	0.0016
Mercury	-18380-04-24 12:57 J	-4991758.09	-4991757.96	-4991757.82	0.0089	0.0009
Mercury	-18380-07-21 14:23 J	-4991670.03	-4991669.90	-4991669.77	0.0089	0.0002
Mercury	-18380-10-17 15:36 J	-4991581.98	-4991581.85	-4991581.71	0.0089	0.0006
Mercury	-18379-01-13 17:02 J	-4991493.92	-4991493.79	-4991493.66	0.0089	0.0013
Mercury	-18379-04-11 18:14 J	-4991405.86	-4991405.74	-4991405.61	0.0089	0.0020
Mercury	-18379-07-08 19:40 J	-4991317.81	-4991317.68	-4991317.56	0.0089	0.0027
Mercury	-18379-10-04 20:52 J	-4991229.75	-4991229.63	-4991229.50	0.0089	0.0034
Mercury	-18379-12-31 22:04 J	-4991141.69	-4991141.58	-4991141.45	0.0089	0.0041
Mercury	-18378-03-29 23:31 J	-4991053.63	-4991053.52	-4991053.40	0.0089	0.0048
Mercury	-18378-06-26 00:43 J	-4990965.56	-4990965.47	-4990965.36	0.0089	0.0056
Mercury	-18378-09-22 02:09 J	-4990877.50	-4990877.41	-4990877.31	0.0089	0.0062
Venus	-18378-10-27 07:11 J	-4990842.20	-4990842.20	-4990842.20	0.0089	0.0089
Mercury	-18378-12-19 03:21 J	-4990789.43	-4990789.36	-4990789.27	0.0089	0.0070
Mercury	-18377-03-16 04:48 J	-4990701.36	-4990701.30	-4990701.23	0.0089	0.0077
Venus	-18377-06-08 19:40 J	-4990616.72	-4990616.68	-4990616.62	0.0089	0.0087
Mercury	-18377-06-12 06:14 J	-4990613.28	-4990613.24	-4990613.19	0.0089	0.0084
Venus	-18376-01-20 08:09 J	-4990391.21	-4990391.16	-4990391.07	0.0089	0.0084
Venus	-18376-09-02 20:52 J	-4990165.70	-4990165.63	-4990165.52	0.0089	0.0081
Venus	-18375-04-16 09:36 J	-4989940.18	-4989940.10	-4989939.98	0.0089	0.0079
Venus	-18375-11-27 22:19 J	-4989714.67	-4989714.57	-4989714.44	0.0089	0.0076
Venus	-18374-07-11 11:02 J	-4989489.16	-4989489.04	-4989488.91	0.0089	0.0073
Venus	-18373-02-21 23:45 J	-4989263.64	-4989263.51	-4989263.38	0.0089	0.0070

Venus	-18373-10-04 12:14 J	-4989038.13	-4989037.99	-4989037.84	0.0089	0.0067
Venus	-18372-05-18 00:57 J	-4988812.61	-4988812.46	-4988812.31	0.0089	0.0064
Venus	-18372-12-29 13:40 J	-4988587.09	-4988586.93	-4988586.78	0.0089	0.0061
Venus	-18371-08-12 01:55 J	-4988361.58	-4988361.42	-4988361.25	0.0089	0.0058
Venus	-18370-03-25 14:23 J	-4988136.06	-4988135.90	-4988135.72	0.0089	0.0055
Venus	-18370-11-06 02:52 J	-4987910.54	-4987910.38	-4987910.19	0.0089	0.0052
Venus	-18369-06-18 15:36 J	-4987685.02	-4987684.85	-4987684.66	0.0089	0.0048
Venus	-18368-01-30 04:04 J	-4987459.51	-4987459.33	-4987459.14	0.0089	0.0045
Venus	-18368-09-12 16:33 J	-4987233.99	-4987233.81	-4987233.61	0.0089	0.0042
Venus	-18367-04-26 05:02 J	-4987008.47	-4987008.29	-4987008.08	0.0089	0.0039
Venus	-18367-12-07 18:00 J	-4986782.95	-4986782.75	-4986782.55	0.0089	0.0036
Venus	-18366-07-21 06:14 J	-4986557.43	-4986557.24	-4986557.03	0.0089	0.0032
Venus	-18365-03-02 18:43 J	-4986331.92	-4986331.72	-4986331.51	0.0089	0.0029
Venus	-18365-10-14 07:11 J	-4986106.40	-4986106.20	-4986105.98	0.0089	0.0026
Venus	-18364-05-27 19:55 J	-4985880.87	-4985880.67	-4985880.46	0.0089	0.0023
Venus	-18363-01-08 08:23 J	-4985655.36	-4985655.15	-4985654.94	0.0089	0.0019
Venus	-18363-08-21 20:38 J	-4985429.84	-4985429.64	-4985429.42	0.0089	0.0016
Venus	-18362-04-04 09:07 J	-4985204.33	-4985204.12	-4985203.90	0.0089	0.0013
Venus	-18362-11-15 21:36 J	-4984978.81	-4984978.60	-4984978.38	0.0089	0.0009
Venus	-18361-06-28 10:04 J	-4984753.29	-4984753.08	-4984752.86	0.0089	0.0006
Venus	-18360-02-08 22:33 J	-4984527.78	-4984527.56	-4984527.34	0.0089	0.0003
Venus	-18360-09-22 10:48 J	-4984302.26	-4984302.05	-4984301.83	0.0089	0.0002
Venus	-18359-05-05 23:16 J	-4984076.74	-4984076.53	-4984076.31	0.0089	0.0004
Venus	-18359-12-17 11:31 J	-4983851.23	-4983851.02	-4983850.80	0.0089	0.0008
Venus	-18358-07-31 00:00 J	-4983625.71	-4983625.50	-4983625.28	0.0089	0.0011
Venus	-18357-03-12 12:28 J	-4983400.20	-4983399.98	-4983399.77	0.0089	0.0014
Venus	-18357-10-24 00:43 J	-4983174.68	-4983174.47	-4983174.25	0.0089	0.0018
Venus	-18356-06-06 13:11 J	-4982949.15	-4982948.95	-4982948.73	0.0089	0.0021
Venus	-18355-01-18 01:40 J	-4982723.63	-4982723.43	-4982723.22	0.0089	0.0024
Venus	-18355-08-31 14:09 J	-4982498.12	-4982497.91	-4982497.71	0.0089	0.0027

Venus	-18354-04-14 02:09 J	-4982272.60	-4982272.41	-4982272.19	0.0089	0.0031
Venus	-18354-11-25 14:38 J	-4982047.08	-4982046.89	-4982046.68	0.0089	0.0034
Venus	-18353-07-08 03:21 J	-4981821.55	-4981821.36	-4981821.16	0.0089	0.0037
Venus	-18352-02-18 15:50 J	-4981596.03	-4981595.84	-4981595.64	0.0089	0.0040
Venus	-18352-10-02 03:50 J	-4981370.51	-4981370.34	-4981370.13	0.0089	0.0044
Venus	-18351-05-15 16:19 J	-4981144.99	-4981144.82	-4981144.62	0.0089	0.0047
Venus	-18351-12-27 04:48 J	-4980919.47	-4980919.30	-4980919.11	0.0089	0.0050
Venus	-18350-08-09 17:02 J	-4980693.95	-4980693.79	-4980693.60	0.0089	0.0053
Venus	-18349-03-22 05:31 J	-4980468.43	-4980468.27	-4980468.09	0.0089	0.0056
Venus	-18349-11-02 17:45 J	-4980242.91	-4980242.76	-4980242.59	0.0089	0.0059
Venus	-18348-06-16 06:14 J	-4980017.38	-4980017.24	-4980017.07	0.0089	0.0062
Venus	-18347-01-27 18:43 J	-4979791.86	-4979791.72	-4979791.57	0.0089	0.0065
Venus	-18347-09-10 06:57 J	-4979566.34	-4979566.21	-4979566.06	0.0089	0.0068
Venus	-18346-04-23 19:11 J	-4979340.82	-4979340.70	-4979340.56	0.0089	0.0071
Venus	-18346-12-05 07:26 J	-4979115.29	-4979115.19	-4979115.06	0.0089	0.0074
Venus	-18345-07-17 19:55 J	-4978889.76	-4978889.67	-4978889.55	0.0089	0.0077
Venus	-18344-02-28 08:09 J	-4978664.23	-4978664.16	-4978664.04	0.0089	0.0080
Venus	-18344-10-11 20:52 J	-4978438.70	-4978438.63	-4978438.54	0.0089	0.0082
Venus	-18343-05-25 08:52 J	-4978213.17	-4978213.13	-4978213.05	0.0088	0.0085
Venus	-18342-01-05 21:07 J	-4977987.63	-4977987.62	-4977987.56	0.0088	0.0088
Moon	-18322-11-07 15:50 J	-4970376.94	-4970376.84	-4970376.69	0.0088	0.0076
Earth	-18322-11-07 18:00 J	-4970376.85	-4970376.75	-4970376.63	0.0088	0.0080 *
Earth	-18321-11-09 06:14 J	-4970009.47	-4970009.24	-4970009.00	0.0088	0.0038
Moon	-18321-11-09 07:11 J	-4970009.42	-4970009.20	-4970008.95	0.0088	0.0042 *
Earth	-18320-11-11 18:57 J	-4969641.97	-4969641.71	-4969641.45	0.0088	0.0003
Moon	-18320-11-11 19:26 J	-4969641.94	-4969641.69	-4969641.43	0.0088	0.0007 *
Moon	-18319-11-14 05:45 J	-4969274.49	-4969274.26	-4969274.01	0.0088	0.0041
Earth	-18319-11-14 06:57 J	-4969274.41	-4969274.21	-4969273.96	0.0088	0.0045 *
Earth	-18318-11-16 19:26 J	-4968906.72	-4968906.69	-4968906.62	0.0088	0.0086
Mars	-18302-04-25 21:21 J	-4963267.83	-4963267.61	-4963267.35	0.0088	0.0050

Mars	-18300-03-19 13:11 J	-4962574.24	-4962573.95	-4962573.66	0.0088	0.0014
Mercury	-18299-05-12 22:19 J	-4962154.65	-4962154.57	-4962154.49	0.0088	0.0079
Mercury	-18299-08-09 01:55 J	-4962066.54	-4962066.42	-4962066.30	0.0088	0.0069
Mercury	-18299-11-05 05:31 J	-4961978.41	-4961978.27	-4961978.12	0.0088	0.0059
Mercury	-18298-02-01 09:07 J	-4961890.28	-4961890.12	-4961889.95	0.0088	0.0049
Mars	-18298-02-11 03:21 J	-4961880.48	-4961880.36	-4961880.22	0.0088	0.0078
Mercury	-18298-04-30 12:43 J	-4961802.14	-4961801.97	-4961801.78	0.0088	0.0039
Mercury	-18298-07-27 16:33 J	-4961713.99	-4961713.81	-4961713.62	0.0088	0.0029
Mercury	-18298-10-23 20:09 J	-4961625.85	-4961625.66	-4961625.46	0.0088	0.0019
Mercury	-18297-01-19 23:45 J	-4961537.70	-4961537.51	-4961537.31	0.0088	0.0009
Mercury	-18297-04-17 03:36 J	-4961449.55	-4961449.35	-4961449.16	0.0088	0.0002
Mercury	-18297-07-14 07:11 J	-4961361.40	-4961361.20	-4961361.01	0.0088	0.0011
Mercury	-18297-10-10 10:33 J	-4961273.24	-4961273.06	-4961272.86	0.0088	0.0021
Mercury	-18296-01-06 14:09 J	-4961185.09	-4961184.91	-4961184.72	0.0088	0.0031
Mercury	-18296-04-04 17:45 J	-4961096.92	-4961096.76	-4961096.58	0.0088	0.0041
Mercury	-18296-07-01 21:21 J	-4961008.76	-4961008.61	-4961008.44	0.0088	0.0051
Mercury	-18296-09-28 00:43 J	-4960920.59	-4960920.47	-4960920.31	0.0088	0.0061
Mercury	-18296-12-25 04:19 J	-4960832.42	-4960832.32	-4960832.19	0.0088	0.0071
Mercury	-18295-03-23 07:55 J	-4960744.23	-4960744.17	-4960744.08	0.0088	0.0081
Venus	-18294-10-18 00:14 J	-4960170.50	-4960170.49	-4960170.43	0.0088	0.0087
Venus	-18293-05-30 13:55 J	-4959944.97	-4959944.92	-4959944.85	0.0088	0.0084
Venus	-18292-01-11 03:21 J	-4959719.44	-4959719.36	-4959719.27	0.0088	0.0081
Venus	-18292-08-24 16:04 J	-4959493.90	-4959493.83	-4959493.70	0.0088	0.0079
Venus	-18291-04-07 05:45 J	-4959268.35	-4959268.26	-4959268.13	0.0088	0.0076
Venus	-18291-11-18 19:11 J	-4959042.80	-4959042.70	-4959042.55	0.0088	0.0073
Venus	-18290-07-02 08:52 J	-4958817.25	-4958817.13	-4958816.98	0.0088	0.0070
Venus	-18289-02-12 22:19 J	-4958591.70	-4958591.57	-4958591.41	0.0088	0.0067
Venus	-18289-09-25 11:45 J	-4958366.15	-4958366.01	-4958365.84	0.0088	0.0064
Venus	-18288-05-09 01:11 J	-4958140.59	-4958140.45	-4958140.27	0.0088	0.0061
Venus	-18288-12-20 14:38 J	-4957915.04	-4957914.89	-4957914.70	0.0088	0.0058

Venus	-18287-08-03 04:04 J	-4957689.49	-4957689.33	-4957689.14	0.0088	0.0055
Venus	-18286-03-16 18:00 J	-4957463.93	-4957463.75	-4957463.57	0.0088	0.0052
Venus	-18286-10-28 07:26 J	-4957238.37	-4957238.19	-4957238.00	0.0088	0.0048
Venus	-18285-06-09 20:52 J	-4957012.81	-4957012.63	-4957012.43	0.0088	0.0045
Venus	-18284-01-21 10:04 J	-4956787.26	-4956787.08	-4956786.86	0.0088	0.0042
Venus	-18284-09-04 00:00 J	-4956561.70	-4956561.50	-4956561.30	0.0088	0.0039
Venus	-18283-04-17 13:11 J	-4956336.15	-4956335.95	-4956335.73	0.0088	0.0035
Venus	-18283-11-29 02:52 J	-4956110.58	-4956110.38	-4956110.16	0.0088	0.0032
Venus	-18282-07-12 16:33 J	-4955885.02	-4955884.81	-4955884.60	0.0088	0.0029
Venus	-18281-02-23 06:00 J	-4955659.46	-4955659.25	-4955659.03	0.0088	0.0025
Venus	-18281-10-05 19:26 J	-4955433.90	-4955433.69	-4955433.46	0.0088	0.0022
Venus	-18280-05-19 09:07 J	-4955208.33	-4955208.12	-4955207.89	0.0088	0.0019
Venus	-18280-12-30 22:48 J	-4954982.77	-4954982.55	-4954982.32	0.0088	0.0015
Venus	-18279-08-13 12:28 J	-4954757.20	-4954756.98	-4954756.76	0.0088	0.0012
Venus	-18278-03-27 01:55 J	-4954531.64	-4954531.42	-4954531.19	0.0088	0.0009
Venus	-18278-11-07 15:50 J	-4954306.06	-4954305.84	-4954305.62	0.0088	0.0005
Venus	-18277-06-20 05:31 J	-4954080.49	-4954080.27	-4954080.04	0.0088	0.0001
Venus	-18276-01-31 19:11 J	-4953854.92	-4953854.70	-4953854.48	0.0088	0.0002
Venus	-18276-09-14 08:52 J	-4953629.36	-4953629.13	-4953628.91	0.0088	0.0006
Venus	-18275-04-27 22:19 J	-4953403.79	-4953403.57	-4953403.34	0.0088	0.0009
Venus	-18275-12-09 12:14 J	-4953178.21	-4953177.99	-4953177.77	0.0088	0.0013
Venus	-18274-07-23 01:40 J	-4952952.64	-4952952.43	-4952952.20	0.0088	0.0016
Venus	-18273-03-04 15:21 J	-4952727.07	-4952726.86	-4952726.63	0.0088	0.0020
Venus	-18273-10-16 05:02 J	-4952501.50	-4952501.29	-4952501.07	0.0088	0.0023
Venus	-18272-05-29 18:28 J	-4952275.93	-4952275.73	-4952275.50	0.0088	0.0027
Venus	-18271-01-10 08:23 J	-4952050.36	-4952050.15	-4952049.94	0.0088	0.0030
Venus	-18271-08-23 21:36 J	-4951824.79	-4951824.60	-4951824.37	0.0088	0.0034
Venus	-18270-04-06 11:16 J	-4951599.22	-4951599.03	-4951598.81	0.0088	0.0037
Venus	-18270-11-18 01:11 J	-4951373.64	-4951373.45	-4951373.24	0.0088	0.0040
Venus	-18269-06-30 14:38 J	-4951148.07	-4951147.89	-4951147.68	0.0089	0.0044

Venus	-18268-02-11 04:19 J	-4950922.50	-4950922.32	-4950922.12	0.0089	0.0047
Venus	-18268-09-24 18:00 J	-4950696.92	-4950696.75	-4950696.56	0.0089	0.0050
Venus	-18267-05-08 07:55 J	-4950471.35	-4950471.17	-4950470.99	0.0089	0.0053
Venus	-18267-12-19 21:21 J	-4950245.77	-4950245.61	-4950245.42	0.0089	0.0057
Venus	-18266-08-02 11:02 J	-4950020.19	-4950020.04	-4950019.86	0.0089	0.0060
Venus	-18265-03-15 00:43 J	-4949794.61	-4949794.47	-4949794.30	0.0089	0.0063
Venus	-18265-10-26 14:23 J	-4949569.03	-4949568.90	-4949568.74	0.0089	0.0066
Venus	-18264-06-09 04:19 J	-4949343.45	-4949343.32	-4949343.18	0.0089	0.0069
Venus	-18263-01-20 18:00 J	-4949117.87	-4949117.75	-4949117.61	0.0089	0.0072
Venus	-18263-09-03 07:40 J	-4948892.29	-4948892.18	-4948892.05	0.0089	0.0075
Venus	-18262-04-16 21:21 J	-4948666.71	-4948666.61	-4948666.50	0.0089	0.0078
Venus	-18262-11-28 11:02 J	-4948441.12	-4948441.04	-4948440.94	0.0089	0.0081
Venus	-18261-07-11 00:43 J	-4948215.53	-4948215.47	-4948215.39	0.0089	0.0084
Venus	-18260-02-21 14:09 J	-4947989.93	-4947989.91	-4947989.85	0.0089	0.0087
Moon	-18239-05-11 06:14 J	-4940241.25	-4940241.24	-4940241.18	0.0089	0.0089
Moon	-18238-05-13 15:21 J	-4939874.06	-4939873.86	-4939873.65	0.0089	0.0051
Earth	-18238-05-13 15:50 J	-4939874.04	-4939873.84	-4939873.61	0.0089	0.0049 *
Moon	-18237-05-15 02:23 J	-4939506.66	-4939506.40	-4939506.13	0.0089	0.0004
Earth	-18237-05-15 02:52 J	-4939506.63	-4939506.38	-4939506.12	0.0089	0.0007 *
Earth	-18236-05-17 13:26 J	-4939139.17	-4939138.94	-4939138.70	0.0089	0.0036
Moon	-18236-05-17 15:36 J	-4939139.08	-4939138.85	-4939138.62	0.0089	0.0034 *
Moon	-18235-05-19 20:52 J	-4938771.72	-4938771.63	-4938771.49	0.0089	0.0080
Earth	-18235-05-19 23:45 J	-4938771.61	-4938771.51	-4938771.36	0.0089	0.0078 *
Mars	-18220-02-12 06:14 J	-4933389.39	-4933389.24	-4933389.05	0.0089	0.0077
Mars	-18218-01-09 14:52 J	-4932693.22	-4932692.88	-4932692.54	0.0089	0.0003
Mercury	-18218-05-26 21:21 J	-4932555.63	-4932555.61	-4932555.56	0.0089	0.0086
Mercury	-18218-08-22 22:33 J	-4932467.60	-4932467.56	-4932467.48	0.0089	0.0080
Mercury	-18218-11-19 00:00 J	-4932379.56	-4932379.50	-4932379.41	0.0089	0.0072
Mercury	-18217-02-15 01:11 J	-4932291.52	-4932291.45	-4932291.35	0.0089	0.0066
Mercury	-18217-05-13 02:38 J	-4932203.48	-4932203.39	-4932203.28	0.0089	0.0058

Mercury	-18217-08-09 03:50 J	-4932115.43	-4932115.34	-4932115.22	0.0089	0.0052
Mercury	-18217-11-05 05:16 J	-4932027.39	-4932027.28	-4932027.16	0.0089	0.0044
Mars	-18217-12-05 22:48 J	-4931996.65	-4931996.55	-4931996.38	0.0089	0.0083
Mercury	-18216-02-01 06:28 J	-4931939.34	-4931939.23	-4931939.10	0.0089	0.0038
Mercury	-18216-04-30 07:55 J	-4931851.29	-4931851.17	-4931851.04	0.0089	0.0030
Mercury	-18216-07-27 09:07 J	-4931763.24	-4931763.12	-4931762.98	0.0089	0.0024
Mercury	-18216-10-23 10:33 J	-4931675.19	-4931675.06	-4931674.93	0.0089	0.0016
Mercury	-18215-01-19 12:00 J	-4931587.13	-4931587.00	-4931586.87	0.0089	0.0009
Mercury	-18215-04-17 13:11 J	-4931499.08	-4931498.95	-4931498.82	0.0089	0.0002
Mercury	-18215-07-14 14:38 J	-4931411.02	-4931410.89	-4931410.76	0.0089	0.0006
Mercury	-18215-10-10 15:50 J	-4931322.97	-4931322.84	-4931322.71	0.0089	0.0012
Mercury	-18214-01-06 17:16 J	-4931234.91	-4931234.78	-4931234.66	0.0089	0.0020
Mercury	-18214-04-04 18:28 J	-4931146.85	-4931146.73	-4931146.60	0.0089	0.0027
Mercury	-18214-07-01 19:55 J	-4931058.79	-4931058.67	-4931058.55	0.0089	0.0034
Mercury	-18214-09-27 21:07 J	-4930970.73	-4930970.62	-4930970.50	0.0089	0.0041
Mercury	-18214-12-24 22:33 J	-4930882.67	-4930882.56	-4930882.45	0.0089	0.0048
Mercury	-18213-03-21 23:31 J	-4930794.61	-4930794.52	-4930794.40	0.0089	0.0056
Mercury	-18213-06-18 00:57 J	-4930706.54	-4930706.46	-4930706.36	0.0089	0.0062
Mercury	-18213-09-14 02:09 J	-4930618.48	-4930618.41	-4930618.31	0.0089	0.0070
Mercury	-18213-12-11 03:36 J	-4930530.41	-4930530.35	-4930530.27	0.0089	0.0076
Mercury	-18212-03-09 05:02 J	-4930442.33	-4930442.29	-4930442.24	0.0089	0.0083
Venus	-18212-04-23 16:04 J	-4930396.83	-4930396.83	-4930396.80	0.0089	0.0089
Venus	-18212-12-05 04:33 J	-4930171.34	-4930171.31	-4930171.23	0.0089	0.0087
Venus	-18211-07-18 17:16 J	-4929945.83	-4929945.78	-4929945.68	0.0089	0.0084
Venus	-18210-03-01 06:14 J	-4929720.32	-4929720.24	-4929720.14	0.0089	0.0080
Venus	-18210-10-12 18:57 J	-4929494.81	-4929494.71	-4929494.59	0.0089	0.0077
Venus	-18209-05-25 07:40 J	-4929269.29	-4929269.18	-4929269.05	0.0089	0.0075
Venus	-18208-01-05 20:09 J	-4929043.77	-4929043.66	-4929043.51	0.0089	0.0072
Venus	-18208-08-19 08:38 J	-4928818.26	-4928818.14	-4928817.98	0.0089	0.0069
Venus	-18207-04-01 21:21 J	-4928592.74	-4928592.61	-4928592.45	0.0089	0.0065

Venus	-18207-11-13 09:50 J	-4928367.23	-4928367.09	-4928366.92	0.0089	0.0062
Venus	-18206-06-26 22:19 J	-4928141.71	-4928141.57	-4928141.38	0.0089	0.0060
Venus	-18205-02-07 11:16 J	-4927916.19	-4927916.03	-4927915.86	0.0089	0.0056
Venus	-18205-09-19 23:45 J	-4927690.68	-4927690.51	-4927690.33	0.0089	0.0052
Venus	-18204-05-03 12:14 J	-4927465.15	-4927464.99	-4927464.79	0.0089	0.0049
Venus	-18204-12-15 00:43 J	-4927239.64	-4927239.47	-4927239.27	0.0089	0.0046
Venus	-18203-07-28 13:26 J	-4927014.12	-4927013.94	-4927013.74	0.0089	0.0043
Venus	-18202-03-11 01:55 J	-4926788.60	-4926788.42	-4926788.22	0.0089	0.0039
Venus	-18202-10-22 14:23 J	-4926563.08	-4926562.90	-4926562.69	0.0089	0.0036
Venus	-18201-06-04 03:21 J	-4926337.56	-4926337.36	-4926337.16	0.0089	0.0032
Venus	-18200-01-15 15:36 J	-4926112.04	-4926111.85	-4926111.63	0.0089	0.0030
Venus	-18200-08-29 04:04 J	-4925886.52	-4925886.33	-4925886.11	0.0089	0.0026
Venus	-18199-04-11 16:48 J	-4925661.00	-4925660.80	-4925660.58	0.0089	0.0022
Venus	-18199-11-23 05:16 J	-4925435.48	-4925435.28	-4925435.06	0.0089	0.0019
Venus	-18198-07-06 18:00 J	-4925209.96	-4925209.75	-4925209.54	0.0089	0.0015
Venus	-18197-02-17 06:14 J	-4924984.45	-4924984.24	-4924984.02	0.0089	0.0012
Venus	-18197-09-29 18:57 J	-4924758.93	-4924758.71	-4924758.50	0.0089	0.0008
Venus	-18196-05-13 07:11 J	-4924533.41	-4924533.20	-4924532.98	0.0089	0.0005
Venus	-18196-12-24 19:40 J	-4924307.89	-4924307.68	-4924307.46	0.0089	0.0002
Venus	-18195-08-07 08:09 J	-4924082.38	-4924082.16	-4924081.95	0.0089	0.0002
Venus	-18194-03-20 20:23 J	-4923856.86	-4923856.65	-4923856.43	0.0089	0.0006
Venus	-18194-11-01 08:52 J	-4923631.35	-4923631.13	-4923630.92	0.0089	0.0009
Venus	-18193-06-13 21:07 J	-4923405.82	-4923405.62	-4923405.39	0.0089	0.0013
Venus	-18192-01-25 09:36 J	-4923180.31	-4923180.10	-4923179.88	0.0089	0.0016
Venus	-18192-09-07 22:04 J	-4922954.79	-4922954.58	-4922954.37	0.0089	0.0019
Venus	-18191-04-21 10:19 J	-4922729.27	-4922729.07	-4922728.86	0.0089	0.0023
Venus	-18191-12-02 22:48 J	-4922503.76	-4922503.55	-4922503.34	0.0089	0.0026
Venus	-18190-07-16 11:02 J	-4922278.23	-4922278.04	-4922277.82	0.0089	0.0030
Venus	-18189-02-26 23:31 J	-4922052.71	-4922052.52	-4922052.31	0.0089	0.0033
Venus	-18189-10-09 12:00 J	-4921827.19	-4921827.00	-4921826.80	0.0089	0.0036

Venus	-18188-05-23 00:14 J	-4921601.67	-4921601.49	-4921601.28	0.0089	0.0040
Venus	-18187-01-03 12:43 J	-4921376.15	-4921375.97	-4921375.77	0.0089	0.0043
Venus	-18187-08-17 01:11 J	-4921150.63	-4921150.45	-4921150.26	0.0089	0.0046
Venus	-18186-03-30 13:11 J	-4920925.11	-4920924.95	-4920924.75	0.0089	0.0050
Venus	-18186-11-11 01:40 J	-4920699.58	-4920699.43	-4920699.24	0.0089	0.0053
Venus	-18185-06-23 14:23 J	-4920474.06	-4920473.90	-4920473.72	0.0089	0.0056
Venus	-18184-02-04 02:52 J	-4920248.53	-4920248.38	-4920248.21	0.0089	0.0059
Venus	-18184-09-17 15:21 J	-4920023.01	-4920022.86	-4920022.71	0.0089	0.0062
Venus	-18183-05-01 03:07 J	-4919797.49	-4919797.37	-4919797.20	0.0089	0.0066
Venus	-18183-12-12 15:36 J	-4919571.97	-4919571.85	-4919571.70	0.0089	0.0069
Venus	-18182-07-26 04:04 J	-4919346.44	-4919346.33	-4919346.19	0.0089	0.0072
Venus	-18181-03-07 16:19 J	-4919120.91	-4919120.82	-4919120.68	0.0089	0.0075
Venus	-18181-10-19 04:33 J	-4918895.39	-4918895.31	-4918895.18	0.0089	0.0078
Venus	-18180-06-01 16:48 J	-4918669.86	-4918669.80	-4918669.68	0.0089	0.0081
Venus	-18179-01-13 05:45 J	-4918444.33	-4918444.26	-4918444.18	0.0089	0.0083
Venus	-18179-08-26 18:00 J	-4918218.79	-4918218.75	-4918218.69	0.0089	0.0086
Earth	-18157-11-08 10:48 J	-4910109.21	-4910109.05	-4910108.84	0.0088	0.0062
Moon	-18157-11-08 11:31 J	-4910109.17	-4910109.02	-4910108.82	0.0088	0.0065 *
Moon	-18156-11-10 21:21 J	-4909741.87	-4909741.61	-4909741.34	0.0088	0.0017
Earth	-18156-11-10 23:31 J	-4909741.76	-4909741.52	-4909741.25	0.0088	0.0021 *
Earth	-18155-11-13 11:45 J	-4909374.25	-4909374.01	-4909373.74	0.0088	0.0021
Moon	-18155-11-13 14:52 J	-4909374.12	-4909373.88	-4909373.62	0.0088	0.0018 *
Moon	-18154-11-15 21:07 J	-4909006.80	-4909006.62	-4909006.44	0.0088	0.0064
Earth	-18154-11-16 00:00 J	-4909006.66	-4909006.50	-4909006.29	0.0088	0.0062 *
Mars	-18139-12-09 04:48 J	-4903504.34	-4903504.30	-4903504.18	0.0088	0.0085
Mars	-18137-11-01 21:21 J	-4902810.88	-4902810.61	-4902810.31	0.0088	0.0021
Mars	-18135-09-26 12:57 J	-4902117.20	-4902116.96	-4902116.69	0.0088	0.0044
Mercury	-18134-02-06 19:11 J	-4901983.78	-4901983.70	-4901983.60	0.0088	0.0078
Mercury	-18134-05-05 23:02 J	-4901895.66	-4901895.54	-4901895.41	0.0088	0.0068
Mercury	-18134-08-02 02:38 J	-4901807.53	-4901807.39	-4901807.23	0.0088	0.0058

Mercury	-18134-10-29 06:14 J	-4901719.39	-4901719.24	-4901719.06	0.0088	0.0048
Mercury	-18133-01-25 09:50 J	-4901631.25	-4901631.09	-4901630.90	0.0088	0.0038
Mercury	-18133-04-22 13:40 J	-4901543.11	-4901542.93	-4901542.74	0.0088	0.0028
Mercury	-18133-07-19 17:16 J	-4901454.96	-4901454.78	-4901454.58	0.0088	0.0018
Mercury	-18133-10-15 21:07 J	-4901366.82	-4901366.62	-4901366.42	0.0088	0.0008
Mercury	-18132-01-12 00:43 J	-4901278.66	-4901278.47	-4901278.27	0.0088	0.0003
Mercury	-18132-04-10 04:19 J	-4901190.51	-4901190.32	-4901190.12	0.0088	0.0013
Mercury	-18132-07-07 07:55 J	-4901102.35	-4901102.17	-4901101.97	0.0088	0.0023
Mercury	-18132-10-03 11:16 J	-4901014.20	-4901014.03	-4901013.83	0.0088	0.0033
Mercury	-18132-12-30 14:52 J	-4900926.03	-4900925.88	-4900925.69	0.0088	0.0043
Mercury	-18131-03-28 18:28 J	-4900837.87	-4900837.73	-4900837.56	0.0088	0.0053
Mercury	-18131-06-24 22:33 J	-4900749.70	-4900749.56	-4900749.43	0.0088	0.0062
Mercury	-18131-09-21 01:55 J	-4900661.52	-4900661.42	-4900661.30	0.0088	0.0072
Mercury	-18131-12-18 05:31 J	-4900573.33	-4900573.27	-4900573.20	0.0088	0.0082
Venus	-18128-04-14 11:16 J	-4899725.06	-4899725.03	-4899724.97	0.0088	0.0086
Venus	-18128-11-26 00:43 J	-4899499.52	-4899499.47	-4899499.39	0.0088	0.0083
Venus	-18127-07-09 14:09 J	-4899273.99	-4899273.91	-4899273.81	0.0088	0.0080
Venus	-18126-02-20 03:36 J	-4899048.45	-4899048.35	-4899048.24	0.0088	0.0077
Venus	-18126-10-03 17:02 J	-4898822.90	-4898822.79	-4898822.66	0.0088	0.0074
Venus	-18125-05-16 06:28 J	-4898597.35	-4898597.23	-4898597.09	0.0088	0.0071
Venus	-18125-12-27 19:40 J	-4898371.80	-4898371.68	-4898371.52	0.0088	0.0068
Venus	-18124-08-10 09:07 J	-4898146.25	-4898146.12	-4898145.96	0.0088	0.0065
Venus	-18123-03-23 22:33 J	-4897920.70	-4897920.56	-4897920.39	0.0088	0.0062
Venus	-18123-11-04 12:00 J	-4897695.14	-4897695.00	-4897694.81	0.0088	0.0059
Venus	-18122-06-18 01:55 J	-4897469.59	-4897469.42	-4897469.24	0.0088	0.0055
Venus	-18121-01-29 15:07 J	-4897244.03	-4897243.87	-4897243.67	0.0088	0.0052
Venus	-18121-09-11 04:33 J	-4897018.48	-4897018.31	-4897018.11	0.0088	0.0049
Venus	-18120-04-24 18:14 J	-4896792.92	-4896792.74	-4896792.54	0.0088	0.0045
Venus	-18120-12-06 07:40 J	-4896567.36	-4896567.18	-4896566.97	0.0088	0.0042
Venus	-18119-07-19 21:07 J	-4896341.81	-4896341.62	-4896341.40	0.0088	0.0039

Venus	-18118-03-02 10:33 J	-4896116.25	-4896116.06	-4896115.84	0.0088	0.0036
Venus	-18118-10-14 00:00 J	-4895890.69	-4895890.50	-4895890.27	0.0088	0.0032
Venus	-18117-05-26 13:40 J	-4895665.13	-4895664.93	-4895664.71	0.0088	0.0029
Venus	-18116-01-07 03:07 J	-4895439.57	-4895439.37	-4895439.14	0.0088	0.0025
Venus	-18116-08-20 16:48 J	-4895214.01	-4895213.80	-4895213.58	0.0088	0.0021
Venus	-18115-04-03 06:14 J	-4894988.45	-4894988.24	-4894988.01	0.0088	0.0018
Venus	-18115-11-14 19:55 J	-4894762.88	-4894762.67	-4894762.44	0.0088	0.0015
Venus	-18114-06-28 09:36 J	-4894537.32	-4894537.10	-4894536.87	0.0088	0.0011
Venus	-18113-02-08 23:16 J	-4894311.75	-4894311.53	-4894311.31	0.0088	0.0007
Venus	-18113-09-21 12:43 J	-4894086.19	-4894085.97	-4894085.74	0.0088	0.0004
Venus	-18112-05-05 02:23 J	-4893860.62	-4893860.40	-4893860.17	0.0088	0.0000
Venus	-18112-12-16 16:04 J	-4893635.05	-4893634.83	-4893634.60	0.0088	0.0004
Venus	-18111-07-30 05:45 J	-4893409.48	-4893409.26	-4893409.03	0.0088	0.0007
Venus	-18110-03-12 19:26 J	-4893183.91	-4893183.69	-4893183.47	0.0088	0.0011
Venus	-18110-10-24 08:52 J	-4892958.34	-4892958.13	-4892957.90	0.0088	0.0015
Venus	-18109-06-05 22:48 J	-4892732.77	-4892732.55	-4892732.33	0.0088	0.0018
Venus	-18108-01-17 12:14 J	-4892507.20	-4892506.99	-4892506.76	0.0088	0.0022
Venus	-18108-08-31 01:40 J	-4892281.63	-4892281.43	-4892281.20	0.0088	0.0026
Venus	-18107-04-13 15:36 J	-4892056.06	-4892055.85	-4892055.63	0.0088	0.0028
Venus	-18107-11-25 05:02 J	-4891830.48	-4891830.29	-4891830.06	0.0088	0.0033
Venus	-18106-07-08 18:57 J	-4891604.91	-4891604.71	-4891604.50	0.0088	0.0036
Venus	-18105-02-19 08:23 J	-4891379.34	-4891379.15	-4891378.94	0.0088	0.0039
Venus	-18105-10-01 22:04 J	-4891153.77	-4891153.58	-4891153.38	0.0088	0.0043
Venus	-18104-05-15 11:16 J	-4890928.20	-4890928.03	-4890927.81	0.0088	0.0047
Venus	-18104-12-27 01:11 J	-4890702.62	-4890702.45	-4890702.25	0.0089	0.0050
Venus	-18103-08-09 15:07 J	-4890477.04	-4890476.87	-4890476.68	0.0089	0.0053
Venus	-18102-03-23 04:19 J	-4890251.47	-4890251.32	-4890251.12	0.0089	0.0057
Venus	-18102-11-03 18:00 J	-4890025.89	-4890025.75	-4890025.56	0.0089	0.0060
Venus	-18101-06-16 07:55 J	-4889800.32	-4889800.17	-4889800.00	0.0089	0.0063
Venus	-18100-01-27 21:50 J	-4889574.73	-4889574.59	-4889574.44	0.0089	0.0066

Venus	-18100-09-10 11:02 J	-4889349.15	-4889349.04	-4889348.88	0.0089	0.0070
Venus	-18099-04-24 00:43 J	-4889123.57	-4889123.47	-4889123.32	0.0089	0.0073
Venus	-18099-12-05 14:38 J	-4888897.99	-4888897.89	-4888897.76	0.0089	0.0076
Venus	-18098-07-19 04:33 J	-4888672.40	-4888672.31	-4888672.20	0.0089	0.0079
Venus	-18097-02-29 18:14 J	-4888446.81	-4888446.74	-4888446.65	0.0089	0.0082
Venus	-18097-10-12 07:55 J	-4888221.22	-4888221.17	-4888221.10	0.0089	0.0085
Venus	-18096-05-25 21:36 J	-4887995.61	-4887995.60	-4887995.57	0.0089	0.0088
Moon	-18074-05-12 19:55 J	-4879973.79	-4879973.67	-4879973.53	0.0089	0.0078
Earth	-18074-05-12 21:21 J	-4879973.74	-4879973.61	-4879973.46	0.0089	0.0074 *
Earth	-18073-05-14 07:55 J	-4879606.39	-4879606.17	-4879605.92	0.0089	0.0032
Moon	-18073-05-14 09:50 J	-4879606.31	-4879606.09	-4879605.84	0.0089	0.0028 *
Moon	-18072-05-16 15:50 J	-4879239.10	-4879238.84	-4879238.58	0.0089	0.0005
Earth	-18072-05-16 18:57 J	-4879238.96	-4879238.71	-4879238.45	0.0089	0.0010 *
Earth	-18071-05-19 05:45 J	-4878871.47	-4878871.26	-4878871.05	0.0089	0.0052
Moon	-18071-05-19 08:38 J	-4878871.31	-4878871.14	-4878870.92	0.0089	0.0057 *
Mars	-18055-08-22 15:36 J	-4872932.12	-4872931.85	-4872931.52	0.0089	0.0042
Mercury	-18053-02-20 20:38 J	-4872384.67	-4872384.64	-4872384.60	0.0089	0.0086
Mercury	-18053-05-18 21:50 J	-4872296.64	-4872296.59	-4872296.52	0.0089	0.0079
Mars	-18053-07-19 00:14 J	-4872235.79	-4872235.49	-4872235.17	0.0089	0.0039
Mercury	-18053-08-14 23:16 J	-4872208.60	-4872208.53	-4872208.45	0.0089	0.0072
Mercury	-18053-11-11 00:28 J	-4872120.56	-4872120.48	-4872120.38	0.0089	0.0065
Mercury	-18052-02-07 01:55 J	-4872032.52	-4872032.42	-4872032.32	0.0089	0.0058
Mercury	-18052-05-06 03:07 J	-4871944.47	-4871944.37	-4871944.26	0.0089	0.0051
Mercury	-18052-08-02 04:33 J	-4871856.42	-4871856.31	-4871856.20	0.0089	0.0044
Mercury	-18052-10-29 05:45 J	-4871768.38	-4871768.26	-4871768.14	0.0089	0.0037
Mercury	-18051-01-25 06:57 J	-4871680.33	-4871680.21	-4871680.08	0.0089	0.0030
Mercury	-18051-04-23 08:23 J	-4871592.28	-4871592.15	-4871592.02	0.0089	0.0022
Mercury	-18051-07-20 09:36 J	-4871504.22	-4871504.10	-4871503.97	0.0089	0.0016
Mercury	-18051-10-16 11:02 J	-4871416.17	-4871416.04	-4871415.91	0.0089	0.0008
Mercury	-18050-01-12 12:14 J	-4871328.12	-4871327.99	-4871327.85	0.0089	0.0003

Mercury	-18050-04-10 13:40 J	-4871240.06	-4871239.93	-4871239.80	0.0089	0.0006
Mercury	-18050-07-07 14:52 J	-4871152.01	-4871151.88	-4871151.75	0.0089	0.0013
Mercury	-18050-10-03 16:04 J	-4871063.95	-4871063.83	-4871063.69	0.0089	0.0021
Mercury	-18050-12-30 17:31 J	-4870975.89	-4870975.77	-4870975.64	0.0089	0.0027
Mercury	-18049-03-27 18:43 J	-4870887.83	-4870887.72	-4870887.59	0.0089	0.0034
Mercury	-18049-06-23 20:09 J	-4870799.77	-4870799.66	-4870799.54	0.0089	0.0041
Mercury	-18049-09-19 21:21 J	-4870711.71	-4870711.61	-4870711.49	0.0089	0.0049
Mercury	-18049-12-16 22:48 J	-4870623.65	-4870623.55	-4870623.44	0.0089	0.0055
Mercury	-18048-03-15 00:00 J	-4870535.58	-4870535.50	-4870535.40	0.0089	0.0063
Mercury	-18048-06-11 01:26 J	-4870447.52	-4870447.44	-4870447.36	0.0089	0.0070
Mercury	-18048-09-07 02:38 J	-4870359.45	-4870359.39	-4870359.31	0.0089	0.0077
Mercury	-18048-12-04 04:04 J	-4870271.37	-4870271.33	-4870271.28	0.0089	0.0084
Venus	-18047-10-20 01:40 J	-4869951.44	-4869951.43	-4869951.38	0.0089	0.0089
Venus	-18046-06-02 14:38 J	-4869725.93	-4869725.89	-4869725.81	0.0089	0.0085
Venus	-18045-01-14 03:07 J	-4869500.43	-4869500.37	-4869500.26	0.0089	0.0083
Venus	-18045-08-26 15:50 J	-4869274.92	-4869274.84	-4869274.72	0.0089	0.0080
Venus	-18044-04-09 04:33 J	-4869049.40	-4869049.31	-4869049.18	0.0089	0.0076
Venus	-18044-11-20 17:02 J	-4868823.89	-4868823.79	-4868823.64	0.0089	0.0074
Venus	-18043-07-04 06:00 J	-4868598.37	-4868598.25	-4868598.10	0.0089	0.0070
Venus	-18042-02-14 18:28 J	-4868372.86	-4868372.73	-4868372.57	0.0089	0.0067
Venus	-18042-09-28 06:57 J	-4868147.34	-4868147.21	-4868147.04	0.0089	0.0064
Venus	-18041-05-10 20:09 J	-4867921.82	-4867921.66	-4867921.50	0.0089	0.0060
Venus	-18041-12-22 08:23 J	-4867696.31	-4867696.15	-4867695.97	0.0089	0.0057
Venus	-18040-08-04 20:38 J	-4867470.79	-4867470.64	-4867470.45	0.0089	0.0054
Venus	-18039-03-18 09:36 J	-4867245.28	-4867245.10	-4867244.92	0.0089	0.0050
Venus	-18039-10-29 21:50 J	-4867019.76	-4867019.59	-4867019.39	0.0089	0.0047
Venus	-18038-06-12 10:33 J	-4866794.24	-4866794.06	-4866793.86	0.0089	0.0043
Venus	-18037-01-23 23:16 J	-4866568.72	-4866568.53	-4866568.33	0.0089	0.0039
Venus	-18037-09-05 11:31 J	-4866343.20	-4866343.02	-4866342.81	0.0089	0.0036
Venus	-18036-04-19 00:14 J	-4866117.68	-4866117.49	-4866117.28	0.0089	0.0032

Venus	-18036-11-30 12:43 J	-4865892.16	-4865891.97	-4865891.76	0.0089	0.0029
Venus	-18035-07-14 01:26 J	-4865666.64	-4865666.44	-4865666.23	0.0089	0.0025
Venus	-18034-02-24 13:40 J	-4865441.13	-4865440.93	-4865440.71	0.0089	0.0022
Venus	-18034-10-08 02:23 J	-4865215.61	-4865215.40	-4865215.18	0.0089	0.0018
Venus	-18033-05-20 14:52 J	-4864990.08	-4864989.88	-4864989.65	0.0089	0.0015
Venus	-18032-01-01 03:36 J	-4864764.56	-4864764.35	-4864764.13	0.0089	0.0011
Venus	-18032-08-14 16:04 J	-4864539.04	-4864538.83	-4864538.61	0.0089	0.0007
Venus	-18031-03-28 04:33 J	-4864313.53	-4864313.31	-4864313.09	0.0089	0.0004
Venus	-18031-11-08 17:02 J	-4864088.01	-4864087.79	-4864087.58	0.0089	0.0001
Venus	-18030-06-22 05:31 J	-4863862.48	-4863862.27	-4863862.05	0.0089	0.0004
Venus	-18029-02-02 18:00 J	-4863636.97	-4863636.75	-4863636.53	0.0089	0.0007
Venus	-18029-09-15 06:14 J	-4863411.45	-4863411.24	-4863411.02	0.0089	0.0011
Venus	-18028-04-28 18:43 J	-4863185.93	-4863185.72	-4863185.51	0.0089	0.0014
Venus	-18028-12-10 06:57 J	-4862960.41	-4862960.21	-4862959.99	0.0089	0.0018
Venus	-18027-07-23 19:40 J	-4862734.89	-4862734.68	-4862734.47	0.0089	0.0021
Venus	-18026-03-06 07:40 J	-4862509.38	-4862509.18	-4862508.96	0.0089	0.0025
Venus	-18026-10-17 20:23 J	-4862283.86	-4862283.65	-4862283.45	0.0089	0.0028
Venus	-18025-05-30 08:38 J	-4862058.33	-4862058.14	-4862057.93	0.0089	0.0032
Venus	-18024-01-10 20:52 J	-4861832.81	-4861832.63	-4861832.42	0.0089	0.0036
Venus	-18024-08-24 09:21 J	-4861607.29	-4861607.11	-4861606.91	0.0089	0.0039
Venus	-18023-04-06 22:04 J	-4861381.77	-4861381.58	-4861381.39	0.0089	0.0042
Venus	-18023-11-18 10:04 J	-4861156.25	-4861156.08	-4861155.88	0.0089	0.0046
Venus	-18022-07-01 22:48 J	-4860930.72	-4860930.55	-4860930.36	0.0089	0.0049
Venus	-18021-02-12 11:02 J	-4860705.20	-4860705.04	-4860704.85	0.0089	0.0053
Venus	-18021-09-24 23:31 J	-4860479.67	-4860479.52	-4860479.34	0.0089	0.0056
Venus	-18020-05-08 12:00 J	-4860254.15	-4860254.00	-4860253.83	0.0089	0.0059
Venus	-18020-12-20 00:14 J	-4860028.63	-4860028.49	-4860028.32	0.0089	0.0063
Venus	-18019-08-02 12:43 J	-4859803.10	-4859802.97	-4859802.81	0.0089	0.0066
Venus	-18018-03-16 01:11 J	-4859577.57	-4859577.45	-4859577.30	0.0089	0.0069
Venus	-18018-10-27 13:40 J	-4859352.05	-4859351.93	-4859351.80	0.0089	0.0072

Venus	-18017-06-09 01:40 J	-4859126.52	-4859126.43	-4859126.29	0.0089	0.0076
Venus	-18016-01-20 14:09 J	-4858900.99	-4858900.91	-4858900.79	0.0089	0.0079
Venus	-18016-09-03 02:23 J	-4858675.46	-4858675.40	-4858675.29	0.0089	0.0082
Venus	-18015-04-16 14:38 J	-4858449.92	-4858449.89	-4858449.80	0.0089	0.0085
Venus	-18015-11-28 03:07 J	-4858224.38	-4858224.37	-4858224.31	0.0089	0.0088

18TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 18th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-17993-11-07 13:55 J	-4850209.00	-4850208.92	-4850208.81	0.0088	0.0082		
Earth	-17993-11-07 16:19 J	-4850208.86	-4850208.82	-4850208.74	0.0088	0.0085	*	
Earth	-17992-11-10 04:33 J	-4849841.51	-4849841.31	-4849841.06	0.0088	0.0044		
Moon	-17992-11-10 08:23 J	-4849841.36	-4849841.15	-4849840.93	0.0088	0.0047	*	
Moon	-17991-11-12 13:55 J	-4849474.18	-4849473.92	-4849473.66	0.0088	0.0001		
Earth	-17991-11-12 17:31 J	-4849474.03	-4849473.77	-4849473.50	0.0088	0.0003	*	
Earth	-17990-11-15 05:31 J	-4849106.49	-4849106.27	-4849106.02	0.0088	0.0039		
Moon	-17990-11-15 09:07 J	-4849106.35	-4849106.12	-4849105.86	0.0088	0.0035	*	
Moon	-17989-11-16 14:38 J	-4848738.94	-4848738.89	-4848738.78	0.0088	0.0084		
Earth	-17989-11-16 18:00 J	-4848738.84	-4848738.75	-4848738.62	0.0088	0.0080	*	
Mars	-17973-06-17 06:28 J	-4843047.44	-4843047.23	-4843046.98	0.0088	0.0055		
Mars	-17971-05-11 22:04 J	-4842353.87	-4842353.58	-4842353.28	0.0088	0.0010		
Mercury	-17970-08-07 12:43 J	-4841900.98	-4841900.97	-4841900.92	0.0088	0.0087		

Mercury	-17970-11-03 16:19 J	-4841812.89	-4841812.82	-4841812.70	0.0088	0.0077
Mercury	-17969-01-30 20:38 J	-4841724.77	-4841724.64	-4841724.51	0.0088	0.0066
Mars	-17969-04-04 13:11 J	-4841660.08	-4841659.95	-4841659.77	0.0088	0.0074
Mercury	-17969-04-28 00:14 J	-4841636.64	-4841636.49	-4841636.34	0.0088	0.0056
Mercury	-17969-07-25 03:50 J	-4841548.50	-4841548.34	-4841548.17	0.0088	0.0046
Mercury	-17969-10-21 07:26 J	-4841460.36	-4841460.19	-4841460.00	0.0088	0.0036
Mercury	-17968-01-17 11:02 J	-4841372.22	-4841372.04	-4841371.84	0.0088	0.0026
Mercury	-17968-04-15 14:52 J	-4841284.07	-4841283.88	-4841283.68	0.0088	0.0016
Mercury	-17968-07-12 18:28 J	-4841195.92	-4841195.73	-4841195.53	0.0088	0.0006
Mercury	-17968-10-08 22:04 J	-4841107.77	-4841107.58	-4841107.38	0.0088	0.0005
Mercury	-17967-01-05 01:55 J	-4841019.62	-4841019.42	-4841019.23	0.0088	0.0014
Mercury	-17967-04-03 05:31 J	-4840931.46	-4840931.27	-4840931.08	0.0088	0.0024
Mercury	-17967-06-30 09:07 J	-4840843.30	-4840843.12	-4840842.94	0.0088	0.0034
Mercury	-17967-09-26 12:43 J	-4840755.14	-4840754.97	-4840754.80	0.0088	0.0044
Mercury	-17967-12-23 16:19 J	-4840666.97	-4840666.82	-4840666.66	0.0088	0.0054
Mercury	-17966-03-21 19:55 J	-4840578.80	-4840578.67	-4840578.53	0.0088	0.0064
Mercury	-17966-06-17 23:31 J	-4840490.62	-4840490.52	-4840490.41	0.0088	0.0074
Mercury	-17966-09-14 02:52 J	-4840402.42	-4840402.38	-4840402.31	0.0088	0.0084
Venus	-17963-02-27 09:21 J	-4839505.11	-4839505.11	-4839505.10	0.0088	0.0088
Venus	-17963-10-10 22:33 J	-4839279.60	-4839279.56	-4839279.49	0.0088	0.0085
Venus	-17962-05-24 11:45 J	-4839054.07	-4839054.01	-4839053.91	0.0088	0.0082
Venus	-17961-01-05 00:57 J	-4838828.53	-4838828.46	-4838828.34	0.0088	0.0079
Venus	-17961-08-17 14:23 J	-4838602.99	-4838602.90	-4838602.77	0.0088	0.0076
Venus	-17960-03-31 04:19 J	-4838377.44	-4838377.32	-4838377.19	0.0088	0.0072
Venus	-17960-11-11 17:45 J	-4838151.89	-4838151.76	-4838151.62	0.0088	0.0069
Venus	-17959-06-25 06:57 J	-4837926.34	-4837926.21	-4837926.05	0.0088	0.0066
Venus	-17958-02-05 20:09 J	-4837700.79	-4837700.66	-4837700.48	0.0088	0.0063
Venus	-17958-09-19 10:04 J	-4837475.24	-4837475.08	-4837474.91	0.0088	0.0059
Venus	-17957-05-01 23:16 J	-4837249.68	-4837249.53	-4837249.34	0.0088	0.0056
Venus	-17957-12-13 12:43 J	-4837024.12	-4837023.97	-4837023.77	0.0088	0.0053

Venus	-17956-07-27 02:23 J	-4836798.57	-4836798.40	-4836798.20	0.0088	0.0050
Venus	-17955-03-09 15:50 J	-4836573.01	-4836572.84	-4836572.63	0.0088	0.0046
Venus	-17955-10-21 05:31 J	-4836347.45	-4836347.27	-4836347.06	0.0088	0.0042
Venus	-17954-06-03 19:26 J	-4836121.89	-4836121.69	-4836121.49	0.0088	0.0039
Venus	-17953-01-15 08:38 J	-4835896.34	-4835896.14	-4835895.92	0.0088	0.0035
Venus	-17953-08-27 22:19 J	-4835670.78	-4835670.57	-4835670.36	0.0088	0.0031
Venus	-17952-04-10 11:31 J	-4835445.22	-4835445.02	-4835444.79	0.0088	0.0028
Venus	-17952-11-22 01:11 J	-4835219.65	-4835219.45	-4835219.22	0.0088	0.0025
Venus	-17951-07-05 14:52 J	-4834994.09	-4834993.88	-4834993.66	0.0088	0.0021
Venus	-17950-02-16 04:19 J	-4834768.53	-4834768.32	-4834768.09	0.0088	0.0017
Venus	-17950-09-29 17:45 J	-4834542.97	-4834542.76	-4834542.53	0.0088	0.0014
Venus	-17949-05-12 07:26 J	-4834317.41	-4834317.19	-4834316.96	0.0088	0.0010
Venus	-17949-12-23 21:07 J	-4834091.84	-4834091.62	-4834091.39	0.0088	0.0006
Venus	-17948-08-06 10:48 J	-4833866.28	-4833866.05	-4833865.83	0.0088	0.0002
Venus	-17947-03-20 00:14 J	-4833640.71	-4833640.49	-4833640.26	0.0088	0.0002
Venus	-17947-10-31 13:55 J	-4833415.14	-4833414.92	-4833414.69	0.0088	0.0005
Venus	-17946-06-14 03:36 J	-4833189.57	-4833189.35	-4833189.13	0.0088	0.0009
Venus	-17945-01-25 17:16 J	-4832964.00	-4832963.78	-4832963.56	0.0088	0.0013
Venus	-17945-09-07 06:43 J	-4832738.43	-4832738.22	-4832737.99	0.0088	0.0016
Venus	-17944-04-20 20:09 J	-4832512.86	-4832512.66	-4832512.43	0.0088	0.0021
Venus	-17944-12-02 10:19 J	-4832287.29	-4832287.07	-4832286.85	0.0088	0.0024
Venus	-17943-07-15 23:45 J	-4832061.71	-4832061.51	-4832061.29	0.0088	0.0028
Venus	-17942-02-26 13:11 J	-4831836.14	-4831835.95	-4831835.72	0.0088	0.0032
Venus	-17942-10-10 03:07 J	-4831610.57	-4831610.37	-4831610.16	0.0088	0.0035
Venus	-17941-05-22 16:33 J	-4831385.00	-4831384.81	-4831384.60	0.0088	0.0038
Venus	-17940-01-03 06:28 J	-4831159.42	-4831159.23	-4831159.03	0.0088	0.0042
Venus	-17940-08-16 19:55 J	-4830933.85	-4830933.67	-4830933.47	0.0088	0.0046
Venus	-17939-03-30 09:07 J	-4830708.28	-4830708.12	-4830707.91	0.0088	0.0050
Venus	-17939-11-10 23:02 J	-4830482.71	-4830482.54	-4830482.35	0.0089	0.0053
Venus	-17938-06-24 12:28 J	-4830257.13	-4830256.98	-4830256.79	0.0089	0.0057

Venus	-17937-02-05 02:09 J	-4830031.56	-4830031.41	-4830031.23	0.0089	0.0060
Venus	-17937-09-17 16:04 J	-4829805.98	-4829805.83	-4829805.67	0.0089	0.0063
Venus	-17936-05-01 05:16 J	-4829580.41	-4829580.28	-4829580.11	0.0089	0.0067
Venus	-17936-12-12 19:11 J	-4829354.82	-4829354.70	-4829354.55	0.0089	0.0070
Venus	-17935-07-26 09:07 J	-4829129.24	-4829129.12	-4829128.99	0.0089	0.0073
Venus	-17934-03-08 22:19 J	-4828903.66	-4828903.57	-4828903.44	0.0089	0.0077
Venus	-17934-10-20 12:00 J	-4828678.08	-4828678.00	-4828677.89	0.0089	0.0080
Venus	-17933-06-02 01:40 J	-4828452.49	-4828452.43	-4828452.33	0.0089	0.0083
Venus	-17932-01-13 15:36 J	-4828226.89	-4828226.85	-4828226.79	0.0089	0.0086
Moon	-17909-05-13 11:45 J	-4819706.19	-4819706.01	-4819705.80	0.0089	0.0058
Earth	-17909-05-13 14:52 J	-4819706.06	-4819705.88	-4819705.67	0.0089	0.0056 *
Earth	-17908-05-16 01:40 J	-4819338.67	-4819338.43	-4819338.17	0.0089	0.0015
Moon	-17908-05-16 05:31 J	-4819338.52	-4819338.27	-4819338.02	0.0089	0.0013 *
Moon	-17907-05-18 09:21 J	-4818971.34	-4818971.11	-4818970.86	0.0089	0.0027
Earth	-17907-05-18 12:28 J	-4818971.21	-4818970.98	-4818970.73	0.0089	0.0028 *
Earth	-17906-05-20 22:48 J	-4818603.68	-4818603.55	-4818603.36	0.0089	0.0070
Moon	-17906-05-21 01:40 J	-4818603.56	-4818603.43	-4818603.25	0.0089	0.0072 *
Jupiter	-17894-09-17 04:48 J	-4814101.72	-4814101.30	-4814100.82	0.0089	0.0047
Mars	-17891-04-04 17:31 J	-4813170.86	-4813170.77	-4813170.65	0.0089	0.0085
Mars	-17889-03-01 02:38 J	-4812474.73	-4812474.39	-4812474.05	0.0089	0.0005
Mercury	-17889-11-16 19:55 J	-4812213.71	-4812213.67	-4812213.63	0.0089	0.0085
Mercury	-17888-02-12 21:07 J	-4812125.68	-4812125.62	-4812125.55	0.0089	0.0078
Mercury	-17888-05-11 22:33 J	-4812037.64	-4812037.56	-4812037.48	0.0089	0.0071
Mercury	-17888-08-07 23:45 J	-4811949.60	-4811949.51	-4811949.42	0.0089	0.0064
Mercury	-17888-11-04 01:11 J	-4811861.55	-4811861.45	-4811861.35	0.0089	0.0057
Mars	-17887-01-26 10:19 J	-4811778.21	-4811778.07	-4811777.85	0.0089	0.0076
Mercury	-17887-01-31 02:23 J	-4811773.51	-4811773.40	-4811773.29	0.0089	0.0050
Mercury	-17887-04-29 03:36 J	-4811685.46	-4811685.35	-4811685.23	0.0089	0.0043
Mercury	-17887-07-26 05:02 J	-4811597.41	-4811597.29	-4811597.17	0.0089	0.0036
Mercury	-17887-10-22 06:14 J	-4811509.36	-4811509.24	-4811509.11	0.0089	0.0029

Mercury	-17886-01-18 07:40 J	-4811421.31	-4811421.18	-4811421.06	0.0089	0.0022
Mercury	-17886-04-16 08:52 J	-4811333.26	-4811333.13	-4811333.00	0.0089	0.0015
Mercury	-17886-07-13 10:04 J	-4811245.21	-4811245.08	-4811244.94	0.0089	0.0008
Mercury	-17886-10-09 11:31 J	-4811157.15	-4811157.02	-4811156.89	0.0089	0.0001
Mercury	-17885-01-05 12:43 J	-4811069.10	-4811068.97	-4811068.83	0.0089	0.0007
Mercury	-17885-04-02 14:09 J	-4810981.04	-4810980.91	-4810980.78	0.0089	0.0014
Mercury	-17885-06-29 15:21 J	-4810892.98	-4810892.86	-4810892.73	0.0089	0.0021
Mercury	-17885-09-25 16:48 J	-4810804.93	-4810804.80	-4810804.68	0.0089	0.0028
Mercury	-17885-12-22 18:00 J	-4810716.87	-4810716.75	-4810716.62	0.0089	0.0035
Mercury	-17884-03-20 19:11 J	-4810628.81	-4810628.70	-4810628.58	0.0089	0.0042
Mercury	-17884-06-16 20:23 J	-4810540.75	-4810540.65	-4810540.53	0.0089	0.0050
Mercury	-17884-09-12 21:50 J	-4810452.68	-4810452.59	-4810452.48	0.0089	0.0056
Mercury	-17884-12-09 23:02 J	-4810364.62	-4810364.54	-4810364.43	0.0089	0.0064
Mercury	-17883-03-08 00:28 J	-4810276.55	-4810276.48	-4810276.39	0.0089	0.0071
Mercury	-17883-06-04 01:55 J	-4810188.48	-4810188.42	-4810188.35	0.0089	0.0077
Mercury	-17883-08-31 03:07 J	-4810100.40	-4810100.37	-4810100.32	0.0089	0.0085
Venus	-17881-04-16 12:00 J	-4809506.02	-4809506.00	-4809505.93	0.0089	0.0088
Venus	-17881-11-28 00:43 J	-4809280.52	-4809280.47	-4809280.37	0.0089	0.0084
Venus	-17880-07-11 13:40 J	-4809055.01	-4809054.93	-4809054.83	0.0089	0.0081
Venus	-17879-02-22 02:23 J	-4808829.49	-4808829.40	-4808829.28	0.0089	0.0077
Venus	-17879-10-05 14:52 J	-4808603.98	-4808603.88	-4808603.74	0.0089	0.0075
Venus	-17878-05-19 04:04 J	-4808378.46	-4808378.33	-4808378.20	0.0089	0.0071
Venus	-17878-12-30 16:33 J	-4808152.94	-4808152.81	-4808152.66	0.0089	0.0067
Venus	-17877-08-12 04:48 J	-4807927.43	-4807927.30	-4807927.13	0.0089	0.0065
Venus	-17876-03-25 17:45 J	-4807701.91	-4807701.76	-4807701.59	0.0089	0.0061
Venus	-17876-11-06 06:00 J	-4807476.39	-4807476.25	-4807476.06	0.0089	0.0058
Venus	-17875-06-19 18:57 J	-4807250.87	-4807250.71	-4807250.53	0.0089	0.0054
Venus	-17874-01-31 07:11 J	-4807025.36	-4807025.20	-4807025.00	0.0089	0.0051
Venus	-17874-09-13 19:55 J	-4806799.84	-4806799.67	-4806799.48	0.0089	0.0047
Venus	-17873-04-26 08:23 J	-4806574.32	-4806574.15	-4806573.95	0.0089	0.0043

Venus	-17873-12-07 21:07 J	-4806348.81	-4806348.62	-4806348.42	0.0089	0.0039
Venus	-17872-07-21 09:36 J	-4806123.29	-4806123.10	-4806122.90	0.0089	0.0036
Venus	-17871-03-03 21:50 J	-4805897.77	-4805897.59	-4805897.37	0.0089	0.0033
Venus	-17871-10-15 10:33 J	-4805672.26	-4805672.06	-4805671.85	0.0089	0.0029
Venus	-17870-05-28 23:02 J	-4805446.73	-4805446.54	-4805446.32	0.0089	0.0026
Venus	-17869-01-09 11:45 J	-4805221.21	-4805221.01	-4805220.79	0.0089	0.0021
Venus	-17869-08-22 00:14 J	-4804995.69	-4804995.49	-4804995.27	0.0089	0.0018
Venus	-17868-04-04 12:57 J	-4804770.18	-4804769.96	-4804769.75	0.0089	0.0014
Venus	-17868-11-16 01:26 J	-4804544.65	-4804544.44	-4804544.22	0.0089	0.0010
Venus	-17867-06-29 14:09 J	-4804319.13	-4804318.91	-4804318.70	0.0089	0.0006
Venus	-17866-02-10 02:23 J	-4804093.61	-4804093.40	-4804093.18	0.0089	0.0003
Venus	-17866-09-23 14:52 J	-4803868.09	-4803867.88	-4803867.66	0.0089	0.0002
Venus	-17865-05-06 03:21 J	-4803642.57	-4803642.36	-4803642.14	0.0089	0.0005
Venus	-17865-12-17 15:50 J	-4803417.05	-4803416.84	-4803416.62	0.0089	0.0009
Venus	-17864-07-31 04:19 J	-4803191.54	-4803191.32	-4803191.11	0.0089	0.0012
Venus	-17863-03-13 16:33 J	-4802966.02	-4802965.81	-4802965.59	0.0089	0.0016
Venus	-17863-10-25 04:48 J	-4802740.50	-4802740.30	-4802740.08	0.0089	0.0020
Venus	-17862-06-07 17:16 J	-4802514.98	-4802514.78	-4802514.56	0.0089	0.0024
Venus	-17861-01-19 05:45 J	-4802289.46	-4802289.26	-4802289.05	0.0089	0.0027
Venus	-17861-08-31 18:00 J	-4802063.94	-4802063.75	-4802063.53	0.0089	0.0031
Venus	-17860-04-14 06:43 J	-4801838.42	-4801838.22	-4801838.02	0.0089	0.0034
Venus	-17860-11-25 18:43 J	-4801612.90	-4801612.72	-4801612.51	0.0089	0.0038
Venus	-17859-07-09 07:11 J	-4801387.37	-4801387.20	-4801386.99	0.0089	0.0042
Venus	-17858-02-19 19:40 J	-4801161.85	-4801161.68	-4801161.48	0.0089	0.0045
Venus	-17858-10-03 07:55 J	-4800936.33	-4800936.17	-4800935.97	0.0089	0.0049
Venus	-17857-05-15 20:38 J	-4800710.81	-4800710.64	-4800710.46	0.0089	0.0052
Venus	-17857-12-27 08:52 J	-4800485.28	-4800485.13	-4800484.95	0.0089	0.0056
Venus	-17856-08-09 21:21 J	-4800259.76	-4800259.61	-4800259.44	0.0089	0.0059
Venus	-17855-03-23 09:36 J	-4800034.23	-4800034.10	-4800033.93	0.0089	0.0063
Venus	-17855-11-03 22:19 J	-4799808.70	-4799808.57	-4799808.42	0.0089	0.0066

Venus	-17854-06-17 11:02 J	-4799583.17	-4799583.04	-4799582.90	0.0089	0.0069
Venus	-17853-01-28 23:02 J	-4799357.64	-4799357.54	-4799357.40	0.0089	0.0073
Venus	-17853-09-10 11:31 J	-4799132.11	-4799132.02	-4799131.89	0.0089	0.0076
Venus	-17852-04-24 00:00 J	-4798906.59	-4798906.50	-4798906.39	0.0089	0.0079
Venus	-17852-12-05 12:43 J	-4798681.05	-4798680.97	-4798680.89	0.0089	0.0082
Venus	-17851-07-19 00:43 J	-4798455.50	-4798455.47	-4798455.39	0.0089	0.0086
Venus	-17850-03-01 13:11 J	-4798229.95	-4798229.95	-4798229.92	0.0089	0.0089
Saturn	-17849-06-20 22:19 J	-4797753.17	-4797752.57	-4797751.88	0.0089	0.0043
Moon	-17828-11-09 07:11 J	-4789941.35	-4789941.20	-4789941.03	0.0088	0.0070
Earth	-17828-11-09 10:33 J	-4789941.20	-4789941.06	-4789940.86	0.0088	0.0067 *
Earth	-17827-11-11 23:31 J	-4789573.77	-4789573.52	-4789573.27	0.0088	0.0025
Moon	-17827-11-12 02:23 J	-4789573.64	-4789573.40	-4789573.13	0.0088	0.0022 *
Moon	-17826-11-14 09:21 J	-4789206.36	-4789206.11	-4789205.85	0.0088	0.0013
Earth	-17826-11-14 11:45 J	-4789206.26	-4789206.01	-4789205.74	0.0088	0.0016 *
Earth	-17825-11-16 00:00 J	-4788838.68	-4788838.50	-4788838.28	0.0088	0.0057
Moon	-17825-11-16 01:55 J	-4788838.60	-4788838.42	-4788838.20	0.0088	0.0060 *
Mars	-17808-12-25 09:36 J	-4782590.37	-4782590.10	-4782589.81	0.0088	0.0024
Mars	-17806-11-19 00:28 J	-4781896.71	-4781896.48	-4781896.19	0.0088	0.0041
Mercury	-17805-05-03 10:48 J	-4781730.10	-4781730.05	-4781729.98	0.0088	0.0084
Mercury	-17805-07-30 14:23 J	-4781641.99	-4781641.90	-4781641.78	0.0088	0.0074
Mercury	-17805-10-26 18:00 J	-4781553.87	-4781553.75	-4781553.60	0.0088	0.0064
Mercury	-17804-01-22 21:36 J	-4781465.73	-4781465.60	-4781465.42	0.0088	0.0054
Mercury	-17804-04-21 01:26 J	-4781377.60	-4781377.44	-4781377.25	0.0088	0.0044
Mercury	-17804-07-18 05:31 J	-4781289.46	-4781289.27	-4781289.09	0.0088	0.0033
Mercury	-17804-10-14 09:07 J	-4781201.31	-4781201.12	-4781200.93	0.0088	0.0023
Mercury	-17803-01-10 12:43 J	-4781113.16	-4781112.97	-4781112.77	0.0088	0.0013
Mercury	-17803-04-08 16:19 J	-4781025.01	-4781024.82	-4781024.62	0.0088	0.0004
Mercury	-17803-07-05 20:09 J	-4780936.86	-4780936.66	-4780936.47	0.0088	0.0007
Mercury	-17803-10-01 23:45 J	-4780848.70	-4780848.51	-4780848.32	0.0088	0.0017
Mercury	-17803-12-29 03:21 J	-4780760.55	-4780760.36	-4780760.17	0.0088	0.0027

Mercury	-17802-03-27 06:57 J	-4780672.38	-4780672.21	-4780672.03	0.0088	0.0037
Mercury	-17802-06-23 10:33 J	-4780584.22	-4780584.06	-4780583.89	0.0088	0.0047
Mercury	-17802-09-19 14:09 J	-4780496.05	-4780495.91	-4780495.76	0.0088	0.0057
Mercury	-17802-12-16 17:45 J	-4780407.88	-4780407.76	-4780407.63	0.0088	0.0067
Mercury	-17801-03-13 21:21 J	-4780319.69	-4780319.61	-4780319.51	0.0088	0.0077
Mercury	-17801-06-10 00:43 J	-4780231.48	-4780231.47	-4780231.43	0.0088	0.0087
Venus	-17798-08-25 21:21 J	-4779059.64	-4779059.61	-4779059.56	0.0088	0.0086
Venus	-17797-04-07 10:33 J	-4778834.11	-4778834.06	-4778833.97	0.0088	0.0083
Venus	-17797-11-19 00:00 J	-4778608.58	-4778608.50	-4778608.39	0.0088	0.0080
Venus	-17796-07-02 13:11 J	-4778383.04	-4778382.95	-4778382.82	0.0088	0.0077
Venus	-17795-02-13 02:52 J	-4778157.49	-4778157.38	-4778157.25	0.0088	0.0073
Venus	-17795-09-26 16:04 J	-4777931.95	-4777931.83	-4777931.68	0.0088	0.0070
Venus	-17794-05-10 05:16 J	-4777706.40	-4777706.28	-4777706.11	0.0088	0.0067
Venus	-17794-12-21 18:57 J	-4777480.85	-4777480.71	-4777480.54	0.0088	0.0063
Venus	-17793-08-03 08:09 J	-4777255.30	-4777255.16	-4777254.97	0.0088	0.0060
Venus	-17792-03-16 21:50 J	-4777029.75	-4777029.59	-4777029.41	0.0088	0.0056
Venus	-17792-10-28 11:16 J	-4776804.19	-4776804.03	-4776803.83	0.0088	0.0053
Venus	-17791-06-11 00:57 J	-4776578.63	-4776578.46	-4776578.26	0.0088	0.0049
Venus	-17790-01-22 14:38 J	-4776353.08	-4776352.89	-4776352.69	0.0088	0.0046
Venus	-17790-09-05 03:50 J	-4776127.52	-4776127.34	-4776127.13	0.0088	0.0042
Venus	-17789-04-17 17:31 J	-4775901.96	-4775901.77	-4775901.56	0.0088	0.0038
Venus	-17789-11-29 07:26 J	-4775676.40	-4775676.19	-4775675.99	0.0088	0.0035
Venus	-17788-07-12 20:38 J	-4775450.84	-4775450.64	-4775450.42	0.0088	0.0031
Venus	-17787-02-23 10:04 J	-4775225.28	-4775225.08	-4775224.86	0.0088	0.0027
Venus	-17787-10-06 23:45 J	-4774999.72	-4774999.51	-4774999.29	0.0088	0.0023
Venus	-17786-05-20 13:26 J	-4774774.16	-4774773.94	-4774773.73	0.0088	0.0020
Venus	-17785-01-01 02:38 J	-4774548.60	-4774548.39	-4774548.16	0.0088	0.0016
Venus	-17785-08-13 16:19 J	-4774323.04	-4774322.82	-4774322.59	0.0088	0.0012
Venus	-17784-03-27 05:45 J	-4774097.48	-4774097.26	-4774097.03	0.0088	0.0008
Venus	-17784-11-07 19:26 J	-4773871.91	-4773871.69	-4773871.46	0.0088	0.0005

Venus	-17783-06-21 09:07 J	-4773646.34	-4773646.12	-4773645.90	0.0088	0.0001
Venus	-17782-02-01 22:33 J	-4773420.78	-4773420.56	-4773420.33	0.0088	0.0004
Venus	-17782-09-15 12:00 J	-4773195.22	-4773195.00	-4773194.77	0.0088	0.0008
Venus	-17781-04-28 01:40 J	-4772969.65	-4772969.43	-4772969.20	0.0088	0.0011
Venus	-17781-12-09 15:36 J	-4772744.07	-4772743.85	-4772743.63	0.0088	0.0015
Venus	-17780-07-23 05:02 J	-4772518.50	-4772518.29	-4772518.06	0.0088	0.0019
Venus	-17779-03-05 18:43 J	-4772292.93	-4772292.72	-4772292.50	0.0088	0.0022
Venus	-17779-10-17 08:09 J	-4772067.36	-4772067.16	-4772066.93	0.0088	0.0026
Venus	-17778-05-30 22:04 J	-4771841.79	-4771841.58	-4771841.37	0.0088	0.0030
Venus	-17777-01-11 11:45 J	-4771616.21	-4771616.01	-4771615.80	0.0088	0.0034
Venus	-17777-08-24 01:11 J	-4771390.64	-4771390.45	-4771390.23	0.0088	0.0038
Venus	-17776-04-06 14:52 J	-4771165.07	-4771164.88	-4771164.67	0.0088	0.0041
Venus	-17776-11-18 04:48 J	-4770939.49	-4770939.30	-4770939.10	0.0088	0.0045
Venus	-17775-07-01 18:14 J	-4770713.91	-4770713.74	-4770713.54	0.0088	0.0049
Venus	-17774-02-12 07:40 J	-4770488.34	-4770488.18	-4770487.98	0.0088	0.0053
Venus	-17774-09-25 21:36 J	-4770262.77	-4770262.60	-4770262.42	0.0088	0.0056
Venus	-17773-05-08 11:02 J	-4770037.19	-4770037.04	-4770036.86	0.0089	0.0060
Venus	-17773-12-20 00:28 J	-4769811.61	-4769811.48	-4769811.30	0.0089	0.0064
Venus	-17772-08-02 14:23 J	-4769586.03	-4769585.90	-4769585.74	0.0089	0.0067
Venus	-17771-03-16 03:50 J	-4769360.45	-4769360.34	-4769360.18	0.0089	0.0071
Venus	-17771-10-27 17:31 J	-4769134.88	-4769134.77	-4769134.63	0.0089	0.0074
Venus	-17770-06-10 07:26 J	-4768909.29	-4768909.19	-4768909.08	0.0089	0.0077
Venus	-17769-01-21 20:38 J	-4768683.70	-4768683.64	-4768683.52	0.0089	0.0081
Venus	-17769-09-03 10:33 J	-4768458.12	-4768458.06	-4768457.98	0.0089	0.0084
Venus	-17768-04-17 00:28 J	-4768232.52	-4768232.48	-4768232.44	0.0089	0.0087
Earth	-17745-05-12 22:48 J	-4759805.65	-4759805.55	-4759805.43	0.0089	0.0080
Moon	-17745-05-13 01:40 J	-4759805.48	-4759805.43	-4759805.32	0.0089	0.0085 *
Moon	-17744-05-15 06:28 J	-4759438.46	-4759438.23	-4759438.00	0.0089	0.0034
Earth	-17744-05-15 09:21 J	-4759438.32	-4759438.11	-4759437.86	0.0089	0.0039 *
Earth	-17743-05-17 20:23 J	-4759070.90	-4759070.65	-4759070.39	0.0089	0.0004

Moon	-17743-05-17 22:48 J	-4759070.81	-4759070.55	-4759070.29	0.0089	0.0001 *
Moon	-17742-05-20 05:45 J	-4758703.46	-4758703.26	-4758703.05	0.0089	0.0050
Earth	-17742-05-20 06:57 J	-4758703.42	-4758703.21	-4758702.98	0.0089	0.0045 *
Moon	-17741-05-21 17:45 J	-4758335.84	-4758335.76	-4758335.64	0.0089	0.0083
Earth	-17741-05-21 17:16 J	-4758335.81	-4758335.78	-4758335.70	0.0089	0.0088 *
Jupiter	-17728-11-17 19:11 J	-4753407.99	-4753407.70	-4753407.31	0.0089	0.0069
Mars	-17726-10-13 06:57 J	-4752713.47	-4752713.21	-4752712.90	0.0089	0.0048
Mercury	-17724-08-13 19:11 J	-4752042.74	-4752042.70	-4752042.65	0.0089	0.0083
Mars	-17724-09-08 15:36 J	-4752017.14	-4752016.85	-4752016.50	0.0089	0.0034
Mercury	-17724-11-09 20:23 J	-4751954.70	-4751954.65	-4751954.57	0.0089	0.0077
Mercury	-17723-02-05 21:36 J	-4751866.67	-4751866.60	-4751866.50	0.0089	0.0070
Mercury	-17723-05-04 23:02 J	-4751778.62	-4751778.54	-4751778.44	0.0089	0.0062
Mercury	-17723-08-01 00:14 J	-4751690.58	-4751690.49	-4751690.38	0.0089	0.0056
Mercury	-17723-10-28 01:40 J	-4751602.53	-4751602.43	-4751602.31	0.0089	0.0048
Mercury	-17722-01-24 02:52 J	-4751514.49	-4751514.38	-4751514.25	0.0089	0.0042
Mercury	-17722-04-22 04:19 J	-4751426.44	-4751426.32	-4751426.20	0.0089	0.0034
Mercury	-17722-07-19 05:31 J	-4751338.39	-4751338.27	-4751338.14	0.0089	0.0028
Mercury	-17722-10-15 06:57 J	-4751250.34	-4751250.21	-4751250.08	0.0089	0.0020
Mercury	-17721-01-11 08:09 J	-4751162.28	-4751162.16	-4751162.02	0.0089	0.0014
Mercury	-17721-04-08 09:36 J	-4751074.23	-4751074.10	-4751073.97	0.0089	0.0006
Mercury	-17721-07-05 10:48 J	-4750986.18	-4750986.05	-4750985.91	0.0089	0.0003
Mercury	-17721-10-01 12:14 J	-4750898.12	-4750897.99	-4750897.86	0.0089	0.0008
Mercury	-17721-12-28 13:26 J	-4750810.07	-4750809.94	-4750809.81	0.0089	0.0015
Mercury	-17720-03-26 14:52 J	-4750722.01	-4750721.88	-4750721.75	0.0089	0.0022
Mercury	-17720-06-22 16:04 J	-4750633.95	-4750633.83	-4750633.70	0.0089	0.0029
Mercury	-17720-09-18 17:16 J	-4750545.89	-4750545.78	-4750545.65	0.0089	0.0037
Mercury	-17720-12-15 18:43 J	-4750457.83	-4750457.72	-4750457.60	0.0089	0.0043
Mercury	-17719-03-13 19:55 J	-4750369.77	-4750369.67	-4750369.56	0.0089	0.0051
Mercury	-17719-06-09 21:21 J	-4750281.71	-4750281.61	-4750281.51	0.0089	0.0058
Mercury	-17719-09-05 22:33 J	-4750193.64	-4750193.56	-4750193.46	0.0089	0.0065

Mercury	-17719-12-03 00:00 J	-4750105.58	-4750105.50	-4750105.42	0.0089	0.0072
Mercury	-17718-03-01 01:11 J	-4750017.50	-4750017.45	-4750017.38	0.0089	0.0079
Mercury	-17718-05-28 02:38 J	-4749929.42	-4749929.39	-4749929.36	0.0089	0.0086
Venus	-17716-03-01 10:04 J	-4749286.09	-4749286.08	-4749286.03	0.0089	0.0089
Venus	-17716-10-12 22:48 J	-4749060.59	-4749060.55	-4749060.47	0.0089	0.0086
Venus	-17715-05-26 11:31 J	-4748835.08	-4748835.02	-4748834.91	0.0089	0.0083
Venus	-17714-01-07 00:28 J	-4748609.57	-4748609.48	-4748609.36	0.0089	0.0079
Venus	-17714-08-20 12:57 J	-4748384.05	-4748383.96	-4748383.82	0.0089	0.0076
Venus	-17713-04-02 02:09 J	-4748158.54	-4748158.41	-4748158.28	0.0089	0.0072
Venus	-17713-11-13 14:23 J	-4747933.02	-4747932.90	-4747932.74	0.0089	0.0069
Venus	-17712-06-27 03:21 J	-4747707.50	-4747707.36	-4747707.20	0.0089	0.0065
Venus	-17711-02-07 15:36 J	-4747481.98	-4747481.85	-4747481.67	0.0089	0.0062
Venus	-17711-09-21 04:33 J	-4747256.47	-4747256.31	-4747256.14	0.0089	0.0057
Venus	-17710-05-04 16:48 J	-4747030.95	-4747030.80	-4747030.60	0.0089	0.0055
Venus	-17710-12-16 05:31 J	-4746805.43	-4746805.27	-4746805.07	0.0089	0.0051
Venus	-17709-07-28 18:14 J	-4746579.92	-4746579.74	-4746579.55	0.0089	0.0046
Venus	-17708-03-11 06:57 J	-4746354.40	-4746354.21	-4746354.02	0.0089	0.0043
Venus	-17708-10-22 19:11 J	-4746128.88	-4746128.70	-4746128.49	0.0089	0.0039
Venus	-17707-06-05 07:55 J	-4745903.36	-4745903.17	-4745902.96	0.0089	0.0035
Venus	-17706-01-16 20:38 J	-4745677.84	-4745677.64	-4745677.44	0.0089	0.0031
Venus	-17706-08-30 08:52 J	-4745452.33	-4745452.13	-4745451.91	0.0089	0.0028
Venus	-17705-04-11 21:21 J	-4745226.81	-4745226.61	-4745226.39	0.0089	0.0024
Venus	-17705-11-23 10:04 J	-4745001.29	-4745001.08	-4745000.87	0.0089	0.0020
Venus	-17704-07-06 22:33 J	-4744775.77	-4744775.56	-4744775.34	0.0089	0.0017
Venus	-17703-02-17 11:16 J	-4744550.25	-4744550.03	-4744549.82	0.0089	0.0012
Venus	-17703-09-30 23:31 J	-4744324.73	-4744324.52	-4744324.29	0.0089	0.0009
Venus	-17702-05-14 12:14 J	-4744099.20	-4744098.99	-4744098.77	0.0089	0.0005
Venus	-17702-12-26 00:57 J	-4743873.68	-4743873.46	-4743873.25	0.0089	0.0002
Venus	-17701-08-07 13:26 J	-4743648.16	-4743647.94	-4743647.73	0.0089	0.0003
Venus	-17700-03-21 01:40 J	-4743422.64	-4743422.43	-4743422.21	0.0089	0.0007

Venus	-17700-11-01 14:09 J	-4743197.12	-4743196.91	-4743196.69	0.0089	0.0011
Venus	-17699-06-15 02:52 J	-4742971.59	-4742971.38	-4742971.16	0.0089	0.0015
Venus	-17698-01-26 15:21 J	-4742746.07	-4742745.86	-4742745.65	0.0089	0.0018
Venus	-17698-09-09 03:36 J	-4742520.55	-4742520.35	-4742520.14	0.0089	0.0022
Venus	-17697-04-21 15:50 J	-4742295.04	-4742294.84	-4742294.62	0.0089	0.0026
Venus	-17697-12-03 04:19 J	-4742069.52	-4742069.32	-4742069.11	0.0089	0.0030
Venus	-17696-07-16 16:33 J	-4741843.99	-4741843.81	-4741843.59	0.0089	0.0034
Venus	-17695-02-27 05:16 J	-4741618.47	-4741618.28	-4741618.08	0.0089	0.0037
Venus	-17695-10-10 17:31 J	-4741392.95	-4741392.77	-4741392.57	0.0089	0.0041
Venus	-17694-05-24 05:45 J	-4741167.43	-4741167.26	-4741167.05	0.0089	0.0045
Venus	-17693-01-04 18:28 J	-4740941.91	-4740941.73	-4740941.54	0.0089	0.0048
Venus	-17693-08-17 06:43 J	-4740716.38	-4740716.22	-4740716.03	0.0089	0.0052
Venus	-17692-03-30 18:57 J	-4740490.86	-4740490.71	-4740490.53	0.0089	0.0056
Venus	-17692-11-11 07:26 J	-4740265.34	-4740265.19	-4740265.02	0.0089	0.0059
Venus	-17691-06-24 19:55 J	-4740039.80	-4740039.67	-4740039.50	0.0089	0.0063
Venus	-17690-02-05 08:38 J	-4739814.28	-4739814.14	-4739813.99	0.0089	0.0066
Venus	-17690-09-18 20:38 J	-4739588.75	-4739588.64	-4739588.49	0.0089	0.0070
Venus	-17689-05-01 09:21 J	-4739363.22	-4739363.11	-4739362.98	0.0089	0.0073
Venus	-17689-12-12 21:21 J	-4739137.69	-4739137.61	-4739137.48	0.0089	0.0077
Venus	-17688-07-26 10:04 J	-4738912.15	-4738912.08	-4738911.97	0.0089	0.0080
Venus	-17687-03-08 22:48 J	-4738686.62	-4738686.55	-4738686.47	0.0089	0.0083
Venus	-17687-10-20 10:48 J	-4738461.07	-4738461.05	-4738460.98	0.0089	0.0087
Moon	-17664-11-08 20:09 J	-4730040.68	-4730040.66	-4730040.57	0.0088	0.0086
Moon	-17663-11-11 03:50 J	-4729673.53	-4729673.34	-4729673.11	0.0088	0.0050
Earth	-17663-11-11 05:45 J	-4729673.45	-4729673.26	-4729673.01	0.0088	0.0048 *
Earth	-17662-11-13 18:57 J	-4729305.97	-4729305.71	-4729305.45	0.0088	0.0006
Moon	-17662-11-13 19:55 J	-4729305.95	-4729305.67	-4729305.40	0.0088	0.0004 *
Earth	-17661-11-15 07:11 J	-4728938.43	-4728938.20	-4728937.95	0.0088	0.0035
Moon	-17661-11-15 07:11 J	-4728938.43	-4728938.20	-4728937.96	0.0088	0.0032 *
Moon	-17660-11-17 18:14 J	-4728570.85	-4728570.74	-4728570.62	0.0088	0.0079

Earth	-17660-11-17 19:26 J	-4728570.80	-4728570.69	-4728570.54	0.0088	0.0076 *
Mars	-17644-08-09 21:21 J	-4722826.80	-4722826.61	-4722826.36	0.0088	0.0058
Mars	-17642-07-04 13:26 J	-4722133.23	-4722132.94	-4722132.65	0.0088	0.0007
Mercury	-17640-01-28 08:38 J	-4721559.20	-4721559.14	-4721559.05	0.0088	0.0081
Mercury	-17640-04-26 12:14 J	-4721471.09	-4721470.99	-4721470.86	0.0088	0.0071
Mars	-17640-05-28 03:36 J	-4721439.49	-4721439.35	-4721439.16	0.0088	0.0072
Mercury	-17640-07-23 16:04 J	-4721382.96	-4721382.83	-4721382.68	0.0088	0.0061
Mercury	-17640-10-19 19:40 J	-4721294.83	-4721294.68	-4721294.50	0.0088	0.0051
Mercury	-17639-01-15 23:16 J	-4721206.69	-4721206.53	-4721206.34	0.0088	0.0041
Mercury	-17639-04-14 03:21 J	-4721118.54	-4721118.36	-4721118.17	0.0088	0.0030
Mercury	-17639-07-11 07:11 J	-4721030.40	-4721030.20	-4721030.01	0.0088	0.0020
Mercury	-17639-10-07 10:48 J	-4720942.25	-4720942.05	-4720941.86	0.0088	0.0010
Mercury	-17638-01-03 14:23 J	-4720854.10	-4720853.90	-4720853.70	0.0088	0.0000
Mercury	-17638-04-01 18:00 J	-4720765.94	-4720765.75	-4720765.55	0.0088	0.0010
Mercury	-17638-06-28 21:36 J	-4720677.79	-4720677.60	-4720677.40	0.0088	0.0020
Mercury	-17638-09-25 01:11 J	-4720589.63	-4720589.45	-4720589.26	0.0088	0.0030
Mercury	-17638-12-22 05:02 J	-4720501.46	-4720501.29	-4720501.12	0.0088	0.0040
Mercury	-17637-03-19 08:38 J	-4720413.30	-4720413.14	-4720412.98	0.0088	0.0050
Mercury	-17637-06-15 12:14 J	-4720325.13	-4720324.99	-4720324.84	0.0088	0.0060
Mercury	-17637-09-11 15:50 J	-4720236.95	-4720236.84	-4720236.72	0.0088	0.0070
Mercury	-17637-12-08 19:26 J	-4720148.76	-4720148.69	-4720148.61	0.0088	0.0080
Venus	-17633-07-09 20:23 J	-4718839.65	-4718839.65	-4718839.61	0.0088	0.0088
Venus	-17632-02-20 09:50 J	-4718614.13	-4718614.09	-4718614.01	0.0088	0.0084
Venus	-17632-10-03 23:02 J	-4718388.60	-4718388.54	-4718388.43	0.0088	0.0081
Venus	-17631-05-17 12:14 J	-4718163.06	-4718162.99	-4718162.86	0.0088	0.0078
Venus	-17631-12-29 01:55 J	-4717937.52	-4717937.42	-4717937.29	0.0088	0.0074
Venus	-17630-08-11 15:07 J	-4717711.98	-4717711.87	-4717711.72	0.0088	0.0071
Venus	-17629-03-24 04:33 J	-4717486.44	-4717486.31	-4717486.15	0.0088	0.0067
Venus	-17629-11-04 18:28 J	-4717260.88	-4717260.73	-4717260.57	0.0088	0.0064
Venus	-17628-06-18 07:40 J	-4717035.33	-4717035.18	-4717035.00	0.0088	0.0060

Venus	-17627-01-29 21:07 J	-4716809.78	-4716809.62	-4716809.43	0.0088	0.0057
Venus	-17627-09-12 10:19 J	-4716584.23	-4716584.07	-4716583.87	0.0088	0.0053
Venus	-17626-04-26 00:00 J	-4716358.67	-4716358.50	-4716358.30	0.0088	0.0049
Venus	-17626-12-07 13:40 J	-4716133.11	-4716132.93	-4716132.72	0.0088	0.0045
Venus	-17625-07-20 03:21 J	-4715907.55	-4715907.36	-4715907.16	0.0088	0.0041
Venus	-17624-03-02 16:33 J	-4715681.99	-4715681.81	-4715681.59	0.0088	0.0038
Venus	-17624-10-14 06:14 J	-4715456.43	-4715456.24	-4715456.02	0.0088	0.0034
Venus	-17623-05-27 19:55 J	-4715230.87	-4715230.67	-4715230.45	0.0088	0.0030
Venus	-17622-01-08 09:21 J	-4715005.31	-4715005.11	-4715004.88	0.0088	0.0027
Venus	-17622-08-21 23:02 J	-4714779.75	-4714779.54	-4714779.32	0.0088	0.0022
Venus	-17621-04-03 12:28 J	-4714554.19	-4714553.98	-4714553.75	0.0088	0.0018
Venus	-17621-11-15 02:09 J	-4714328.63	-4714328.41	-4714328.18	0.0088	0.0015
Venus	-17620-06-28 15:50 J	-4714103.06	-4714102.84	-4714102.62	0.0088	0.0010
Venus	-17619-02-09 05:16 J	-4713877.50	-4713877.28	-4713877.05	0.0088	0.0007
Venus	-17619-09-22 18:43 J	-4713651.94	-4713651.72	-4713651.49	0.0088	0.0003
Venus	-17618-05-06 08:09 J	-4713426.38	-4713426.16	-4713425.93	0.0088	0.0003
Venus	-17618-12-17 21:50 J	-4713200.81	-4713200.59	-4713200.36	0.0088	0.0006
Venus	-17617-07-30 11:31 J	-4712975.24	-4712975.02	-4712974.80	0.0088	0.0009
Venus	-17616-03-13 00:57 J	-4712749.68	-4712749.46	-4712749.23	0.0088	0.0013
Venus	-17616-10-24 14:23 J	-4712524.11	-4712523.90	-4712523.67	0.0088	0.0017
Venus	-17615-06-07 04:04 J	-4712298.54	-4712298.33	-4712298.11	0.0088	0.0021
Venus	-17614-01-18 17:31 J	-4712072.97	-4712072.77	-4712072.54	0.0088	0.0026
Venus	-17614-09-01 07:26 J	-4711847.40	-4711847.19	-4711846.98	0.0088	0.0029
Venus	-17613-04-13 20:52 J	-4711621.83	-4711621.63	-4711621.41	0.0088	0.0033
Venus	-17613-11-25 10:33 J	-4711396.25	-4711396.06	-4711395.84	0.0088	0.0037
Venus	-17612-07-09 00:14 J	-4711170.68	-4711170.49	-4711170.28	0.0088	0.0041
Venus	-17611-02-19 13:55 J	-4710945.10	-4710944.92	-4710944.71	0.0088	0.0044
Venus	-17611-10-03 03:21 J	-4710719.53	-4710719.36	-4710719.15	0.0088	0.0049
Venus	-17610-05-16 17:16 J	-4710493.95	-4710493.78	-4710493.59	0.0088	0.0052
Venus	-17610-12-28 06:57 J	-4710268.37	-4710268.21	-4710268.03	0.0088	0.0056

Venus	-17609-08-09 20:23 J	-4710042.80	-4710042.65	-4710042.47	0.0088	0.0060
Venus	-17608-03-23 09:50 J	-4709817.22	-4709817.09	-4709816.91	0.0089	0.0064
Venus	-17608-11-03 23:45 J	-4709591.64	-4709591.51	-4709591.35	0.0089	0.0067
Venus	-17607-06-17 13:11 J	-4709366.07	-4709365.95	-4709365.80	0.0089	0.0071
Venus	-17606-01-29 02:38 J	-4709140.48	-4709140.39	-4709140.24	0.0089	0.0075
Venus	-17606-09-11 16:33 J	-4708914.90	-4708914.81	-4708914.69	0.0089	0.0078
Venus	-17605-04-24 05:45 J	-4708689.32	-4708689.26	-4708689.14	0.0089	0.0082
Venus	-17605-12-05 19:40 J	-4708463.72	-4708463.68	-4708463.60	0.0089	0.0085
Venus	-17604-07-19 09:36 J	-4708238.11	-4708238.10	-4708238.07	0.0089	0.0088
Earth	-17580-05-14 18:28 J	-4699537.89	-4699537.73	-4699537.52	0.0089	0.0061
Moon	-17580-05-14 20:52 J	-4699537.80	-4699537.63	-4699537.42	0.0089	0.0062 *
Moon	-17579-05-17 04:33 J	-4699170.54	-4699170.31	-4699170.06	0.0089	0.0019
Earth	-17579-05-17 05:16 J	-4699170.51	-4699170.28	-4699170.02	0.0089	0.0019 *
Moon	-17578-05-19 15:21 J	-4698803.10	-4698802.86	-4698802.59	0.0089	0.0023
Earth	-17578-05-19 15:50 J	-4698803.07	-4698802.84	-4698802.58	0.0089	0.0024 *
Earth	-17577-05-21 02:23 J	-4698435.56	-4698435.40	-4698435.21	0.0089	0.0065
Moon	-17577-05-21 03:50 J	-4698435.49	-4698435.34	-4698435.16	0.0089	0.0066 *
Mars	-17560-04-21 22:48 J	-4692255.88	-4692255.55	-4692255.21	0.0089	0.0009
Mercury	-17559-02-11 17:16 J	-4691959.78	-4691959.78	-4691959.75	0.0089	0.0089
Mercury	-17559-05-10 18:43 J	-4691871.76	-4691871.72	-4691871.66	0.0089	0.0081
Mercury	-17559-08-06 19:55 J	-4691783.73	-4691783.67	-4691783.59	0.0089	0.0075
Mercury	-17559-11-02 21:21 J	-4691695.69	-4691695.61	-4691695.52	0.0089	0.0067
Mercury	-17558-01-29 22:33 J	-4691607.64	-4691607.56	-4691607.45	0.0089	0.0061
Mars	-17558-03-19 07:11 J	-4691559.38	-4691559.20	-4691558.97	0.0089	0.0072
Mercury	-17558-04-28 00:00 J	-4691519.60	-4691519.50	-4691519.39	0.0089	0.0053
Mercury	-17558-07-25 01:11 J	-4691431.55	-4691431.45	-4691431.33	0.0089	0.0046
Mercury	-17558-10-21 02:23 J	-4691343.51	-4691343.40	-4691343.27	0.0089	0.0040
Mercury	-17557-01-17 03:50 J	-4691255.46	-4691255.34	-4691255.21	0.0089	0.0032
Mercury	-17557-04-14 05:16 J	-4691167.40	-4691167.28	-4691167.15	0.0089	0.0025
Mercury	-17557-07-11 06:28 J	-4691079.35	-4691079.23	-4691079.10	0.0089	0.0018

Mercury	-17557-10-07 07:55 J	-4690991.30	-4690991.17	-4690991.04	0.0089	0.0011
Mercury	-17556-01-03 09:07 J	-4690903.25	-4690903.12	-4690902.99	0.0089	0.0004
Mercury	-17556-04-01 10:33 J	-4690815.19	-4690815.06	-4690814.93	0.0089	0.0004
Mercury	-17556-06-28 11:45 J	-4690727.14	-4690727.01	-4690726.88	0.0089	0.0010
Mercury	-17556-09-24 12:57 J	-4690639.08	-4690638.96	-4690638.82	0.0089	0.0018
Mercury	-17556-12-21 14:23 J	-4690551.03	-4690550.90	-4690550.77	0.0089	0.0024
Mercury	-17555-03-19 15:36 J	-4690462.97	-4690462.85	-4690462.72	0.0089	0.0032
Mercury	-17555-06-15 17:02 J	-4690374.91	-4690374.79	-4690374.67	0.0089	0.0038
Mercury	-17555-09-11 18:14 J	-4690286.85	-4690286.74	-4690286.62	0.0089	0.0046
Mercury	-17555-12-08 19:40 J	-4690198.79	-4690198.68	-4690198.58	0.0089	0.0053
Mercury	-17554-03-06 20:52 J	-4690110.72	-4690110.63	-4690110.53	0.0089	0.0060
Mercury	-17554-06-02 22:19 J	-4690022.66	-4690022.57	-4690022.49	0.0089	0.0067
Mercury	-17554-08-29 23:16 J	-4689934.59	-4689934.53	-4689934.44	0.0089	0.0074
Mercury	-17554-11-26 00:28 J	-4689846.51	-4689846.48	-4689846.41	0.0089	0.0082
Mercury	-17553-02-22 01:55 J	-4689758.43	-4689758.42	-4689758.39	0.0089	0.0088
Venus	-17551-08-27 21:50 J	-4688840.62	-4688840.59	-4688840.52	0.0089	0.0087
Venus	-17550-04-10 10:33 J	-4688615.12	-4688615.06	-4688614.96	0.0089	0.0083
Venus	-17550-11-21 23:31 J	-4688389.61	-4688389.52	-4688389.41	0.0089	0.0079
Venus	-17549-07-04 11:45 J	-4688164.09	-4688164.01	-4688163.87	0.0089	0.0077
Venus	-17548-02-15 00:43 J	-4687938.58	-4687938.47	-4687938.33	0.0089	0.0073
Venus	-17548-09-28 13:40 J	-4687713.06	-4687712.93	-4687712.79	0.0089	0.0069
Venus	-17547-05-12 02:09 J	-4687487.54	-4687487.41	-4687487.25	0.0089	0.0065
Venus	-17547-12-23 14:52 J	-4687262.02	-4687261.88	-4687261.71	0.0089	0.0061
Venus	-17546-08-06 03:36 J	-4687036.51	-4687036.35	-4687036.18	0.0089	0.0058
Venus	-17545-03-18 16:19 J	-4686810.99	-4686810.82	-4686810.65	0.0089	0.0054
Venus	-17545-10-30 04:33 J	-4686585.47	-4686585.31	-4686585.12	0.0089	0.0050
Venus	-17544-06-12 17:16 J	-4686359.95	-4686359.78	-4686359.58	0.0089	0.0046
Venus	-17543-01-24 05:45 J	-4686134.44	-4686134.26	-4686134.06	0.0089	0.0043
Venus	-17543-09-06 18:28 J	-4685908.92	-4685908.73	-4685908.53	0.0089	0.0038
Venus	-17542-04-20 06:57 J	-4685683.40	-4685683.21	-4685683.01	0.0089	0.0035

Venus	-17542-12-01 19:40 J	-4685457.89	-4685457.68	-4685457.48	0.0089	0.0031
Venus	-17541-07-14 07:40 J	-4685232.37	-4685232.18	-4685231.96	0.0089	0.0028
Venus	-17540-02-24 20:23 J	-4685006.85	-4685006.65	-4685006.43	0.0089	0.0023
Venus	-17540-10-08 08:52 J	-4684781.33	-4684781.13	-4684780.91	0.0089	0.0019
Venus	-17539-05-21 21:21 J	-4684555.81	-4684555.61	-4684555.39	0.0089	0.0016
Venus	-17538-01-02 10:04 J	-4684330.29	-4684330.08	-4684329.86	0.0089	0.0011
Venus	-17538-08-15 22:33 J	-4684104.78	-4684104.56	-4684104.34	0.0089	0.0007
Venus	-17537-03-28 11:02 J	-4683879.26	-4683879.04	-4683878.82	0.0089	0.0003
Venus	-17537-11-08 23:31 J	-4683653.73	-4683653.52	-4683653.30	0.0089	0.0001
Venus	-17536-06-22 12:14 J	-4683428.21	-4683427.99	-4683427.77	0.0089	0.0005
Venus	-17535-02-03 00:43 J	-4683202.68	-4683202.47	-4683202.25	0.0089	0.0009
Venus	-17535-09-16 12:57 J	-4682977.16	-4682976.96	-4682976.74	0.0089	0.0013
Venus	-17534-04-30 01:26 J	-4682751.64	-4682751.44	-4682751.22	0.0089	0.0017
Venus	-17534-12-11 13:55 J	-4682526.12	-4682525.92	-4682525.70	0.0089	0.0021
Venus	-17533-07-24 02:23 J	-4682300.60	-4682300.40	-4682300.18	0.0089	0.0025
Venus	-17532-03-06 14:38 J	-4682075.08	-4682074.89	-4682074.67	0.0089	0.0029
Venus	-17532-10-18 03:21 J	-4681849.56	-4681849.36	-4681849.15	0.0089	0.0032
Venus	-17531-05-31 15:50 J	-4681624.03	-4681623.84	-4681623.64	0.0089	0.0036
Venus	-17530-01-12 04:19 J	-4681398.51	-4681398.32	-4681398.12	0.0089	0.0040
Venus	-17530-08-25 16:33 J	-4681172.99	-4681172.81	-4681172.61	0.0089	0.0044
Venus	-17529-04-07 04:48 J	-4680947.47	-4680947.30	-4680947.10	0.0089	0.0048
Venus	-17529-11-18 17:02 J	-4680721.94	-4680721.79	-4680721.59	0.0089	0.0052
Venus	-17528-07-02 06:00 J	-4680496.41	-4680496.25	-4680496.08	0.0089	0.0055
Venus	-17527-02-12 18:14 J	-4680270.89	-4680270.74	-4680270.57	0.0089	0.0059
Venus	-17527-09-26 06:28 J	-4680045.37	-4680045.23	-4680045.06	0.0089	0.0063
Venus	-17526-05-09 19:11 J	-4679819.84	-4679819.70	-4679819.56	0.0089	0.0066
Venus	-17526-12-21 07:11 J	-4679594.31	-4679594.20	-4679594.05	0.0089	0.0070
Venus	-17525-08-02 19:40 J	-4679368.78	-4679368.68	-4679368.54	0.0089	0.0074
Venus	-17524-03-16 08:23 J	-4679143.25	-4679143.15	-4679143.03	0.0089	0.0077
Venus	-17524-10-27 20:23 J	-4678917.71	-4678917.65	-4678917.53	0.0089	0.0081

Venus	-17523-06-10 09:07 J	-4678692.17	-4678692.12	-4678692.03	0.0089	0.0084
Venus	-17522-01-21 21:21 J	-4678466.62	-4678466.61	-4678466.55	0.0089	0.0088
Earth	-17499-11-10 13:11 J	-4669773.09	-4669772.95	-4669772.77	0.0088	0.0069
Moon	-17499-11-10 13:40 J	-4669773.05	-4669772.93	-4669772.75	0.0088	0.0074 *
Earth	-17498-11-13 01:55 J	-4669405.66	-4669405.42	-4669405.16	0.0088	0.0028
Moon	-17498-11-13 03:07 J	-4669405.61	-4669405.37	-4669405.12	0.0088	0.0024 *
Moon	-17497-11-14 12:57 J	-4669038.23	-4669037.96	-4669037.69	0.0088	0.0009
Earth	-17497-11-14 14:38 J	-4669038.14	-4669037.89	-4669037.62	0.0088	0.0013 *
Earth	-17496-11-17 03:07 J	-4668670.57	-4668670.37	-4668670.16	0.0088	0.0054
Moon	-17496-11-17 05:45 J	-4668670.44	-4668670.26	-4668670.05	0.0088	0.0058 *
Mars	-17478-02-17 02:23 J	-4662369.67	-4662369.40	-4662369.11	0.0088	0.0025
Mars	-17476-01-10 18:14 J	-4661675.98	-4661675.74	-4661675.46	0.0088	0.0040
Mercury	-17476-07-29 03:21 J	-4661476.37	-4661476.36	-4661476.32	0.0088	0.0087
Mercury	-17476-10-25 07:11 J	-4661388.28	-4661388.20	-4661388.10	0.0088	0.0077
Mercury	-17475-01-21 10:48 J	-4661300.17	-4661300.05	-4661299.91	0.0088	0.0067
Mercury	-17475-04-19 14:23 J	-4661212.03	-4661211.90	-4661211.73	0.0088	0.0057
Mercury	-17475-07-16 18:00 J	-4661123.90	-4661123.75	-4661123.56	0.0088	0.0047
Mercury	-17475-10-12 21:50 J	-4661035.76	-4661035.59	-4661035.40	0.0088	0.0037
Mercury	-17474-01-09 01:26 J	-4660947.61	-4660947.44	-4660947.24	0.0088	0.0027
Mercury	-17474-04-07 05:31 J	-4660859.47	-4660859.27	-4660859.08	0.0088	0.0016
Mercury	-17474-07-04 09:07 J	-4660771.32	-4660771.12	-4660770.92	0.0088	0.0006
Mercury	-17474-09-30 12:43 J	-4660683.16	-4660682.97	-4660682.77	0.0088	0.0004
Mercury	-17474-12-27 16:19 J	-4660595.01	-4660594.82	-4660594.62	0.0088	0.0014
Mercury	-17473-03-24 19:55 J	-4660506.85	-4660506.67	-4660506.47	0.0088	0.0024
Mercury	-17473-06-20 23:31 J	-4660418.69	-4660418.52	-4660418.33	0.0088	0.0034
Mercury	-17473-09-17 03:21 J	-4660330.53	-4660330.36	-4660330.19	0.0088	0.0044
Mercury	-17473-12-14 06:57 J	-4660242.36	-4660242.21	-4660242.05	0.0088	0.0054
Mercury	-17472-03-12 10:33 J	-4660154.19	-4660154.06	-4660153.92	0.0088	0.0064
Mercury	-17472-06-08 14:09 J	-4660066.01	-4660065.91	-4660065.80	0.0088	0.0074
Mercury	-17472-09-04 17:45 J	-4659977.80	-4659977.76	-4659977.70	0.0088	0.0084

Venus	-17467-01-05 09:36 J	-4658394.14	-4658394.10	-4658394.03	0.0088	0.0085
Venus	-17467-08-18 22:33 J	-4658168.62	-4658168.56	-4658168.45	0.0088	0.0082
Venus	-17466-04-01 12:00 J	-4657943.08	-4657943.00	-4657942.88	0.0088	0.0079
Venus	-17466-11-13 01:26 J	-4657717.53	-4657717.44	-4657717.30	0.0088	0.0075
Venus	-17465-06-25 14:52 J	-4657491.99	-4657491.88	-4657491.73	0.0088	0.0071
Venus	-17464-02-06 04:19 J	-4657266.45	-4657266.32	-4657266.16	0.0088	0.0068
Venus	-17464-09-19 17:31 J	-4657040.90	-4657040.77	-4657040.59	0.0088	0.0064
Venus	-17463-05-03 06:57 J	-4656815.35	-4656815.21	-4656815.03	0.0088	0.0060
Venus	-17463-12-14 20:38 J	-4656589.80	-4656589.64	-4656589.45	0.0088	0.0056
Venus	-17462-07-28 10:19 J	-4656364.25	-4656364.07	-4656363.89	0.0088	0.0052
Venus	-17461-03-09 23:45 J	-4656138.69	-4656138.51	-4656138.32	0.0088	0.0049
Venus	-17461-10-21 12:57 J	-4655913.13	-4655912.96	-4655912.75	0.0088	0.0045
Venus	-17460-06-04 02:38 J	-4655687.58	-4655687.39	-4655687.18	0.0088	0.0041
Venus	-17459-01-15 16:04 J	-4655462.02	-4655461.83	-4655461.61	0.0088	0.0037
Venus	-17459-08-29 05:45 J	-4655236.46	-4655236.26	-4655236.04	0.0088	0.0033
Venus	-17458-04-11 19:11 J	-4655010.90	-4655010.70	-4655010.48	0.0088	0.0029
Venus	-17458-11-23 08:52 J	-4654785.33	-4654785.13	-4654784.90	0.0088	0.0025
Venus	-17457-07-05 22:33 J	-4654559.77	-4654559.56	-4654559.33	0.0088	0.0021
Venus	-17456-02-16 12:00 J	-4654334.21	-4654334.00	-4654333.77	0.0088	0.0018
Venus	-17456-09-30 01:40 J	-4654108.65	-4654108.43	-4654108.20	0.0088	0.0013
Venus	-17455-05-13 15:21 J	-4653883.08	-4653882.86	-4653882.64	0.0088	0.0009
Venus	-17455-12-25 05:02 J	-4653657.51	-4653657.29	-4653657.07	0.0088	0.0005
Venus	-17454-08-07 18:28 J	-4653431.95	-4653431.73	-4653431.50	0.0088	0.0001
Venus	-17453-03-20 08:09 J	-4653206.39	-4653206.16	-4653205.94	0.0088	0.0004
Venus	-17453-10-31 21:36 J	-4652980.82	-4652980.60	-4652980.37	0.0088	0.0008
Venus	-17452-06-14 11:16 J	-4652755.25	-4652755.03	-4652754.81	0.0088	0.0012
Venus	-17451-01-26 00:43 J	-4652529.69	-4652529.47	-4652529.25	0.0088	0.0016
Venus	-17451-09-08 14:23 J	-4652304.12	-4652303.90	-4652303.68	0.0088	0.0020
Venus	-17450-04-22 03:50 J	-4652078.55	-4652078.34	-4652078.12	0.0088	0.0024
Venus	-17450-12-03 17:31 J	-4651852.98	-4651852.77	-4651852.55	0.0088	0.0028

Venus	-17449-07-16 07:11 J	-4651627.41	-4651627.20	-4651626.99	0.0088	0.0032
Venus	-17448-02-26 20:52 J	-4651401.83	-4651401.63	-4651401.42	0.0088	0.0036
Venus	-17448-10-10 10:19 J	-4651176.26	-4651176.07	-4651175.86	0.0088	0.0040
Venus	-17447-05-24 00:00 J	-4650950.69	-4650950.50	-4650950.30	0.0088	0.0044
Venus	-17446-01-04 13:40 J	-4650725.11	-4650724.93	-4650724.73	0.0088	0.0048
Venus	-17446-08-18 03:21 J	-4650499.53	-4650499.36	-4650499.17	0.0088	0.0052
Venus	-17445-03-30 16:48 J	-4650273.96	-4650273.80	-4650273.61	0.0088	0.0056
Venus	-17445-11-11 06:28 J	-4650048.38	-4650048.23	-4650048.05	0.0088	0.0060
Venus	-17444-06-24 20:09 J	-4649822.80	-4649822.66	-4649822.49	0.0088	0.0064
Venus	-17443-02-05 09:36 J	-4649597.22	-4649597.10	-4649596.93	0.0089	0.0068
Venus	-17443-09-18 23:45 J	-4649371.64	-4649371.51	-4649371.37	0.0089	0.0071
Venus	-17442-05-02 12:57 J	-4649146.06	-4649145.96	-4649145.82	0.0089	0.0075
Venus	-17442-12-14 02:38 J	-4648920.47	-4648920.39	-4648920.27	0.0089	0.0079
Venus	-17441-07-26 16:48 J	-4648694.88	-4648694.80	-4648694.72	0.0089	0.0082
Venus	-17440-03-09 06:00 J	-4648469.29	-4648469.25	-4648469.18	0.0089	0.0086
Earth	-17416-05-14 04:48 J	-4639637.38	-4639637.30	-4639637.18	0.0089	0.0082
Moon	-17416-05-14 03:50 J	-4639637.37	-4639637.34	-4639637.24	0.0089	0.0087 *
Moon	-17415-05-16 15:07 J	-4639270.11	-4639269.87	-4639269.62	0.0089	0.0035
Earth	-17415-05-16 15:36 J	-4639270.06	-4639269.85	-4639269.61	0.0089	0.0040 *
Earth	-17414-05-19 02:23 J	-4638902.65	-4638902.40	-4638902.14	0.0089	0.0002
Moon	-17414-05-19 04:48 J	-4638902.55	-4638902.30	-4638902.06	0.0089	0.0003 *
Moon	-17413-05-20 10:04 J	-4638535.28	-4638535.08	-4638534.84	0.0089	0.0047
Earth	-17413-05-20 13:11 J	-4638535.17	-4638534.95	-4638534.73	0.0089	0.0043 *
Earth	-17412-05-22 23:16 J	-4638167.59	-4638167.53	-4638167.42	0.0089	0.0084
Moon	-17412-05-23 02:52 J	-4638167.47	-4638167.38	-4638167.25	0.0089	0.0080 *
Mars	-17397-12-03 07:11 J	-4632494.45	-4632494.20	-4632493.89	0.0089	0.0051
Mars	-17395-10-30 16:04 J	-4631798.13	-4631797.83	-4631797.49	0.0089	0.0031
Mercury	-17395-11-08 17:16 J	-4631788.81	-4631788.78	-4631788.75	0.0089	0.0086
Mercury	-17394-02-04 18:28 J	-4631700.78	-4631700.73	-4631700.67	0.0089	0.0079
Mercury	-17394-05-03 19:55 J	-4631612.75	-4631612.67	-4631612.59	0.0089	0.0072

Mercury	-17394-07-30 21:07 J	-4631524.71	-4631524.62	-4631524.53	0.0089	0.0065
Mercury	-17394-10-26 22:33 J	-4631436.66	-4631436.56	-4631436.46	0.0089	0.0058
Mercury	-17393-01-22 23:45 J	-4631348.62	-4631348.51	-4631348.40	0.0089	0.0051
Mercury	-17393-04-20 00:57 J	-4631260.57	-4631260.46	-4631260.34	0.0089	0.0044
Mercury	-17393-07-17 02:23 J	-4631172.52	-4631172.40	-4631172.28	0.0089	0.0037
Mercury	-17393-10-13 03:36 J	-4631084.47	-4631084.35	-4631084.22	0.0089	0.0030
Mercury	-17392-01-09 05:02 J	-4630996.42	-4630996.29	-4630996.17	0.0089	0.0023
Mercury	-17392-04-07 06:14 J	-4630908.37	-4630908.24	-4630908.11	0.0089	0.0016
Mercury	-17392-07-04 07:40 J	-4630820.31	-4630820.18	-4630820.05	0.0089	0.0009
Mercury	-17392-09-30 08:52 J	-4630732.26	-4630732.13	-4630732.00	0.0089	0.0001
Mercury	-17392-12-27 10:04 J	-4630644.21	-4630644.08	-4630643.94	0.0089	0.0007
Mercury	-17391-03-25 11:31 J	-4630556.15	-4630556.02	-4630555.89	0.0089	0.0013
Mercury	-17391-06-21 12:43 J	-4630468.09	-4630467.97	-4630467.84	0.0089	0.0020
Mercury	-17391-09-17 13:55 J	-4630380.04	-4630379.92	-4630379.79	0.0089	0.0027
Mercury	-17391-12-14 15:21 J	-4630291.98	-4630291.86	-4630291.74	0.0089	0.0034
Mercury	-17390-03-12 16:33 J	-4630203.92	-4630203.81	-4630203.69	0.0089	0.0041
Mercury	-17390-06-08 17:45 J	-4630115.86	-4630115.76	-4630115.64	0.0089	0.0049
Mercury	-17390-09-04 19:11 J	-4630027.80	-4630027.70	-4630027.59	0.0089	0.0055
Mercury	-17390-12-01 20:23 J	-4629939.73	-4629939.65	-4629939.55	0.0089	0.0063
Mercury	-17389-02-27 21:50 J	-4629851.67	-4629851.59	-4629851.50	0.0089	0.0069
Mercury	-17389-05-25 23:02 J	-4629763.60	-4629763.54	-4629763.46	0.0089	0.0077
Mercury	-17389-08-22 00:28 J	-4629675.52	-4629675.48	-4629675.43	0.0089	0.0084
Venus	-17386-07-12 21:21 J	-4628620.64	-4628620.61	-4628620.55	0.0089	0.0087
Venus	-17385-02-23 10:19 J	-4628395.14	-4628395.07	-4628394.99	0.0089	0.0084
Venus	-17385-10-05 22:33 J	-4628169.63	-4628169.56	-4628169.44	0.0089	0.0081
Venus	-17384-05-19 11:31 J	-4627944.11	-4627944.02	-4627943.89	0.0089	0.0077
Venus	-17384-12-31 00:28 J	-4627718.60	-4627718.48	-4627718.35	0.0089	0.0073
Venus	-17383-08-13 12:43 J	-4627493.08	-4627492.97	-4627492.81	0.0089	0.0069
Venus	-17382-03-27 01:26 J	-4627267.57	-4627267.44	-4627267.27	0.0089	0.0066
Venus	-17382-11-07 14:09 J	-4627042.05	-4627041.91	-4627041.73	0.0089	0.0062

Venus	-17381-06-20 03:07 J	-4626816.52	-4626816.37	-4626816.19	0.0089	0.0058
Venus	-17380-01-31 15:50 J	-4626591.01	-4626590.84	-4626590.66	0.0089	0.0054
Venus	-17380-09-14 04:19 J	-4626365.49	-4626365.32	-4626365.13	0.0089	0.0050
Venus	-17379-04-27 17:02 J	-4626139.97	-4626139.79	-4626139.60	0.0089	0.0046
Venus	-17379-12-09 05:45 J	-4625914.45	-4625914.26	-4625914.07	0.0089	0.0042
Venus	-17378-07-22 18:14 J	-4625688.93	-4625688.74	-4625688.54	0.0089	0.0038
Venus	-17377-03-04 06:43 J	-4625463.42	-4625463.22	-4625463.02	0.0089	0.0034
Venus	-17377-10-15 19:11 J	-4625237.90	-4625237.70	-4625237.49	0.0089	0.0030
Venus	-17376-05-29 07:55 J	-4625012.38	-4625012.17	-4625011.96	0.0089	0.0025
Venus	-17375-01-09 20:23 J	-4624786.86	-4624786.65	-4624786.44	0.0089	0.0021
Venus	-17375-08-23 08:38 J	-4624561.34	-4624561.14	-4624560.92	0.0089	0.0018
Venus	-17374-04-05 21:07 J	-4624335.83	-4624335.62	-4624335.40	0.0089	0.0014
Venus	-17374-11-17 09:50 J	-4624110.31	-4624110.09	-4624109.88	0.0089	0.0009
Venus	-17373-06-29 22:19 J	-4623884.78	-4623884.57	-4623884.35	0.0089	0.0005
Venus	-17372-02-10 10:48 J	-4623659.26	-4623659.05	-4623658.83	0.0089	0.0002
Venus	-17372-09-23 23:16 J	-4623433.74	-4623433.53	-4623433.31	0.0089	0.0003
Venus	-17371-05-07 11:45 J	-4623208.22	-4623208.01	-4623207.79	0.0089	0.0007
Venus	-17371-12-19 00:14 J	-4622982.70	-4622982.49	-4622982.27	0.0089	0.0011
Venus	-17370-08-01 12:43 J	-4622757.18	-4622756.97	-4622756.75	0.0089	0.0015
Venus	-17369-03-14 01:11 J	-4622531.66	-4622531.45	-4622531.23	0.0089	0.0019
Venus	-17369-10-25 13:55 J	-4622306.13	-4622305.92	-4622305.72	0.0089	0.0023
Venus	-17368-06-08 02:23 J	-4622080.60	-4622080.40	-4622080.19	0.0089	0.0027
Venus	-17367-01-19 14:52 J	-4621855.08	-4621854.88	-4621854.68	0.0089	0.0031
Venus	-17367-09-02 02:52 J	-4621629.56	-4621629.38	-4621629.17	0.0089	0.0036
Venus	-17366-04-15 15:36 J	-4621404.04	-4621403.85	-4621403.65	0.0089	0.0039
Venus	-17366-11-27 04:04 J	-4621178.52	-4621178.33	-4621178.14	0.0089	0.0043
Venus	-17365-07-09 16:33 J	-4620952.99	-4620952.81	-4620952.62	0.0089	0.0047
Venus	-17364-02-20 04:48 J	-4620727.47	-4620727.30	-4620727.11	0.0089	0.0051
Venus	-17364-10-03 17:02 J	-4620501.95	-4620501.79	-4620501.61	0.0089	0.0055
Venus	-17363-05-17 05:31 J	-4620276.42	-4620276.27	-4620276.10	0.0089	0.0059

Venus	-17363-12-28 17:45 J	-4620050.90	-4620050.76	-4620050.59	0.0089	0.0063
Venus	-17362-08-11 06:00 J	-4619825.37	-4619825.25	-4619825.09	0.0089	0.0067
Venus	-17361-03-23 18:43 J	-4619599.84	-4619599.72	-4619599.58	0.0089	0.0070
Venus	-17361-11-04 06:57 J	-4619374.31	-4619374.21	-4619374.08	0.0089	0.0074
Venus	-17360-06-17 19:11 J	-4619148.78	-4619148.70	-4619148.57	0.0089	0.0078
Venus	-17359-01-29 07:55 J	-4618923.24	-4618923.17	-4618923.07	0.0089	0.0081
Venus	-17359-09-11 20:09 J	-4618697.70	-4618697.66	-4618697.58	0.0089	0.0085
Venus	-17358-04-25 08:52 J	-4618472.14	-4618472.13	-4618472.10	0.0089	0.0088
Moon	-17334-11-12 07:26 J	-4609505.39	-4609505.19	-4609504.95	0.0088	0.0051
Earth	-17334-11-12 10:04 J	-4609505.28	-4609505.08	-4609504.84	0.0088	0.0049 *
Earth	-17333-11-13 22:48 J	-4609137.80	-4609137.55	-4609137.28	0.0088	0.0008
Moon	-17333-11-14 01:55 J	-4609137.67	-4609137.42	-4609137.16	0.0088	0.0006 *
Moon	-17332-11-16 07:40 J	-4608770.41	-4608770.18	-4608769.92	0.0088	0.0031
Earth	-17332-11-16 11:31 J	-4608770.25	-4608770.02	-4608769.77	0.0088	0.0033 *
Earth	-17331-11-19 00:00 J	-4608402.62	-4608402.50	-4608402.35	0.0088	0.0074
Moon	-17331-11-19 03:50 J	-4608402.46	-4608402.34	-4608402.20	0.0088	0.0076 *
Mars	-17315-10-02 16:33 J	-4602606.01	-4602605.81	-4602605.57	0.0088	0.0058
Mars	-17313-08-26 08:23 J	-4601912.44	-4601912.15	-4601911.86	0.0088	0.0007
Mercury	-17311-04-25 01:55 J	-4601305.47	-4601305.42	-4601305.34	0.0088	0.0083
Mars	-17311-07-21 00:28 J	-4601218.63	-4601218.48	-4601218.30	0.0088	0.0072
Mercury	-17311-07-22 05:31 J	-4601217.36	-4601217.27	-4601217.14	0.0088	0.0073
Mercury	-17311-10-18 09:07 J	-4601129.23	-4601129.12	-4601128.96	0.0088	0.0063
Mercury	-17310-01-14 13:26 J	-4601041.10	-4601040.94	-4601040.79	0.0088	0.0052
Mercury	-17310-04-12 17:02 J	-4600952.96	-4600952.79	-4600952.62	0.0088	0.0042
Mercury	-17310-07-09 20:38 J	-4600864.82	-4600864.64	-4600864.45	0.0088	0.0032
Mercury	-17310-10-06 00:14 J	-4600776.68	-4600776.49	-4600776.29	0.0088	0.0022
Mercury	-17309-01-02 04:04 J	-4600688.53	-4600688.33	-4600688.13	0.0088	0.0012
Mercury	-17309-03-30 07:40 J	-4600600.38	-4600600.18	-4600599.98	0.0088	0.0002
Mercury	-17309-06-26 11:16 J	-4600512.22	-4600512.03	-4600511.83	0.0088	0.0009
Mercury	-17309-09-22 14:52 J	-4600424.07	-4600423.88	-4600423.68	0.0088	0.0019

Mercury	-17309-12-19 18:28 J	-4600335.91	-4600335.73	-4600335.53	0.0088	0.0029
Mercury	-17308-03-17 22:04 J	-4600247.74	-4600247.58	-4600247.39	0.0088	0.0039
Mercury	-17308-06-14 01:40 J	-4600159.58	-4600159.43	-4600159.25	0.0088	0.0049
Mercury	-17308-09-10 05:16 J	-4600071.41	-4600071.28	-4600071.12	0.0088	0.0059
Mercury	-17308-12-07 08:52 J	-4599983.23	-4599983.13	-4599982.99	0.0088	0.0069
Mercury	-17307-03-05 12:28 J	-4599895.04	-4599894.98	-4599894.87	0.0088	0.0079
Venus	-17303-11-20 09:36 J	-4598174.12	-4598174.10	-4598174.03	0.0088	0.0086
Venus	-17302-07-03 23:16 J	-4597948.59	-4597948.53	-4597948.44	0.0088	0.0082
Venus	-17301-02-14 12:43 J	-4597723.06	-4597722.97	-4597722.86	0.0088	0.0079
Venus	-17301-09-27 01:40 J	-4597497.52	-4597497.43	-4597497.29	0.0088	0.0075
Venus	-17300-05-10 15:07 J	-4597271.98	-4597271.87	-4597271.72	0.0088	0.0072
Venus	-17300-12-22 04:48 J	-4597046.43	-4597046.30	-4597046.15	0.0088	0.0067
Venus	-17299-08-04 18:14 J	-4596820.89	-4596820.74	-4596820.58	0.0088	0.0063
Venus	-17298-03-18 07:40 J	-4596595.34	-4596595.18	-4596595.01	0.0088	0.0060
Venus	-17298-10-29 20:38 J	-4596369.79	-4596369.64	-4596369.44	0.0088	0.0057
Venus	-17297-06-11 10:19 J	-4596144.23	-4596144.07	-4596143.87	0.0088	0.0052
Venus	-17296-01-22 23:45 J	-4595918.68	-4595918.51	-4595918.31	0.0088	0.0048
Venus	-17296-09-05 13:11 J	-4595693.13	-4595692.95	-4595692.74	0.0088	0.0044
Venus	-17295-04-19 02:38 J	-4595467.57	-4595467.39	-4595467.17	0.0088	0.0040
Venus	-17295-11-30 16:19 J	-4595242.01	-4595241.82	-4595241.60	0.0088	0.0036
Venus	-17294-07-14 06:14 J	-4595016.45	-4595016.24	-4595016.03	0.0088	0.0032
Venus	-17293-02-24 19:40 J	-4594790.89	-4594790.68	-4594790.47	0.0088	0.0027
Venus	-17293-10-07 09:07 J	-4594565.33	-4594565.12	-4594564.90	0.0088	0.0023
Venus	-17292-05-20 22:33 J	-4594339.77	-4594339.56	-4594339.33	0.0088	0.0020
Venus	-17291-01-01 12:14 J	-4594114.20	-4594113.99	-4594113.76	0.0088	0.0015
Venus	-17291-08-15 01:55 J	-4593888.64	-4593888.42	-4593888.20	0.0088	0.0011
Venus	-17290-03-28 15:21 J	-4593663.08	-4593662.86	-4593662.63	0.0088	0.0007
Venus	-17290-11-09 05:02 J	-4593437.51	-4593437.29	-4593437.06	0.0088	0.0003
Venus	-17289-06-21 18:43 J	-4593211.95	-4593211.72	-4593211.50	0.0088	0.0002
Venus	-17288-02-02 08:09 J	-4592986.38	-4592986.16	-4592985.93	0.0088	0.0006

Venus	-17288-09-15 21:36 J	-4592760.82	-4592760.60	-4592760.37	0.0088	0.0010
Venus	-17287-04-29 11:02 J	-4592535.25	-4592535.04	-4592534.81	0.0088	0.0015
Venus	-17287-12-11 00:43 J	-4592309.68	-4592309.47	-4592309.24	0.0088	0.0019
Venus	-17286-07-24 14:23 J	-4592084.11	-4592083.90	-4592083.68	0.0088	0.0023
Venus	-17285-03-06 04:04 J	-4591858.55	-4591858.33	-4591858.12	0.0088	0.0027
Venus	-17285-10-17 17:31 J	-4591632.98	-4591632.77	-4591632.56	0.0088	0.0031
Venus	-17284-05-31 06:43 J	-4591407.41	-4591407.22	-4591407.00	0.0088	0.0036
Venus	-17283-01-11 20:23 J	-4591181.83	-4591181.65	-4591181.43	0.0088	0.0040
Venus	-17283-08-25 10:04 J	-4590956.26	-4590956.08	-4590955.87	0.0088	0.0044
Venus	-17282-04-07 23:45 J	-4590730.69	-4590730.51	-4590730.31	0.0088	0.0047
Venus	-17282-11-19 13:26 J	-4590505.11	-4590504.94	-4590504.74	0.0088	0.0052
Venus	-17281-07-02 03:07 J	-4590279.53	-4590279.37	-4590279.18	0.0088	0.0056
Venus	-17280-02-12 16:48 J	-4590053.95	-4590053.80	-4590053.62	0.0088	0.0060
Venus	-17280-09-26 06:14 J	-4589828.37	-4589828.24	-4589828.06	0.0088	0.0064
Venus	-17279-05-09 19:55 J	-4589602.79	-4589602.67	-4589602.50	0.0088	0.0068
Venus	-17279-12-21 09:36 J	-4589377.20	-4589377.10	-4589376.94	0.0089	0.0072
Venus	-17278-08-03 23:16 J	-4589151.62	-4589151.53	-4589151.39	0.0089	0.0076
Venus	-17277-03-16 13:26 J	-4588926.03	-4588925.94	-4588925.84	0.0089	0.0079
Venus	-17277-10-28 02:52 J	-4588700.45	-4588700.38	-4588700.29	0.0089	0.0083
Venus	-17276-06-10 16:19 J	-4588474.85	-4588474.82	-4588474.76	0.0089	0.0087
Earth	-17251-05-16 02:09 J	-4579369.57	-4579369.41	-4579369.20	0.0089	0.0062
Moon	-17251-05-16 04:33 J	-4579369.48	-4579369.31	-4579369.12	0.0089	0.0061 *
Moon	-17250-05-18 10:04 J	-4579002.33	-4579002.08	-4579001.82	0.0089	0.0020
Earth	-17250-05-18 13:26 J	-4579002.18	-4579001.94	-4579001.69	0.0089	0.0020 *
Earth	-17249-05-19 23:45 J	-4578634.74	-4578634.51	-4578634.25	0.0089	0.0022
Moon	-17249-05-20 03:21 J	-4578634.60	-4578634.36	-4578634.11	0.0089	0.0022 *
Moon	-17248-05-22 06:57 J	-4578267.38	-4578267.21	-4578267.03	0.0089	0.0064
Earth	-17248-05-22 10:04 J	-4578267.23	-4578267.08	-4578266.87	0.0089	0.0064 *
Mars	-17231-06-13 03:36 J	-4572036.67	-4572036.35	-4572036.00	0.0089	0.0011
Mercury	-17230-08-05 17:02 J	-4571617.83	-4571617.79	-4571617.74	0.0089	0.0083

Mercury	-17230-11-01 18:28 J	-4571529.80	-4571529.73	-4571529.66	0.0089	0.0076
Mercury	-17229-01-28 19:40 J	-4571441.76	-4571441.68	-4571441.59	0.0089	0.0069
Mercury	-17229-04-25 20:52 J	-4571353.72	-4571353.63	-4571353.53	0.0089	0.0062
Mars	-17229-05-09 11:31 J	-4571340.18	-4571340.02	-4571339.77	0.0089	0.0072
Mercury	-17229-07-22 22:19 J	-4571265.67	-4571265.57	-4571265.47	0.0089	0.0055
Mercury	-17229-10-18 23:31 J	-4571177.62	-4571177.52	-4571177.40	0.0089	0.0048
Mercury	-17228-01-15 00:57 J	-4571089.58	-4571089.46	-4571089.34	0.0089	0.0041
Mercury	-17228-04-13 02:09 J	-4571001.53	-4571001.41	-4571001.28	0.0089	0.0034
Mercury	-17228-07-10 03:36 J	-4570913.48	-4570913.35	-4570913.23	0.0089	0.0026
Mercury	-17228-10-06 04:48 J	-4570825.43	-4570825.30	-4570825.17	0.0089	0.0019
Mercury	-17227-01-02 06:14 J	-4570737.37	-4570737.24	-4570737.11	0.0089	0.0012
Mercury	-17227-03-31 07:26 J	-4570649.32	-4570649.19	-4570649.06	0.0089	0.0005
Mercury	-17227-06-27 08:52 J	-4570561.27	-4570561.13	-4570561.00	0.0089	0.0003
Mercury	-17227-09-23 10:04 J	-4570473.21	-4570473.08	-4570472.95	0.0089	0.0009
Mercury	-17227-12-20 11:16 J	-4570385.16	-4570385.03	-4570384.90	0.0089	0.0016
Mercury	-17226-03-18 12:28 J	-4570297.10	-4570296.98	-4570296.84	0.0089	0.0024
Mercury	-17226-06-14 13:55 J	-4570209.04	-4570208.92	-4570208.79	0.0089	0.0030
Mercury	-17226-09-10 15:07 J	-4570120.98	-4570120.87	-4570120.74	0.0089	0.0037
Mercury	-17226-12-07 16:19 J	-4570032.92	-4570032.82	-4570032.69	0.0089	0.0045
Mercury	-17225-03-04 17:45 J	-4569944.86	-4569944.76	-4569944.65	0.0089	0.0051
Mercury	-17225-05-31 18:57 J	-4569856.80	-4569856.71	-4569856.60	0.0089	0.0059
Mercury	-17225-08-27 20:23 J	-4569768.73	-4569768.65	-4569768.56	0.0089	0.0066
Mercury	-17225-11-23 21:36 J	-4569680.67	-4569680.60	-4569680.52	0.0089	0.0073
Mercury	-17224-02-19 23:02 J	-4569592.59	-4569592.54	-4569592.48	0.0089	0.0080
Mercury	-17224-05-19 00:28 J	-4569504.51	-4569504.48	-4569504.45	0.0089	0.0087
Venus	-17221-05-26 21:21 J	-4568400.62	-4568400.61	-4568400.55	0.0089	0.0088
Venus	-17220-01-07 10:04 J	-4568175.13	-4568175.08	-4568174.99	0.0089	0.0085
Venus	-17220-08-20 22:48 J	-4567949.62	-4567949.55	-4567949.44	0.0089	0.0081
Venus	-17219-04-03 11:45 J	-4567724.11	-4567724.01	-4567723.90	0.0089	0.0077
Venus	-17219-11-15 00:28 J	-4567498.60	-4567498.48	-4567498.35	0.0089	0.0073

Venus	-17218-06-28 12:43 J	-4567273.08	-4567272.97	-4567272.81	0.0089	0.0069
Venus	-17217-02-09 01:26 J	-4567047.57	-4567047.44	-4567047.28	0.0089	0.0065
Venus	-17217-09-21 13:55 J	-4566822.05	-4566821.92	-4566821.74	0.0089	0.0062
Venus	-17216-05-05 02:52 J	-4566596.53	-4566596.38	-4566596.20	0.0089	0.0057
Venus	-17216-12-16 15:21 J	-4566371.01	-4566370.86	-4566370.67	0.0089	0.0054
Venus	-17215-07-30 04:04 J	-4566145.50	-4566145.33	-4566145.13	0.0089	0.0049
Venus	-17214-03-12 16:33 J	-4565919.98	-4565919.81	-4565919.60	0.0089	0.0045
Venus	-17214-10-24 05:31 J	-4565694.46	-4565694.27	-4565694.07	0.0089	0.0041
Venus	-17213-06-05 18:14 J	-4565468.93	-4565468.74	-4565468.54	0.0089	0.0037
Venus	-17212-01-17 06:43 J	-4565243.42	-4565243.22	-4565243.01	0.0089	0.0032
Venus	-17212-08-30 19:11 J	-4565017.90	-4565017.70	-4565017.49	0.0089	0.0028
Venus	-17211-04-13 07:40 J	-4564792.38	-4564792.18	-4564791.97	0.0089	0.0024
Venus	-17211-11-24 20:09 J	-4564566.86	-4564566.66	-4564566.44	0.0089	0.0020
Venus	-17210-07-08 08:38 J	-4564341.34	-4564341.14	-4564340.92	0.0089	0.0016
Venus	-17209-02-18 21:21 J	-4564115.82	-4564115.61	-4564115.40	0.0089	0.0011
Venus	-17209-10-01 09:50 J	-4563890.31	-4563890.09	-4563889.88	0.0089	0.0007
Venus	-17208-05-14 22:19 J	-4563664.78	-4563664.57	-4563664.35	0.0089	0.0003
Venus	-17208-12-26 10:48 J	-4563439.27	-4563439.05	-4563438.83	0.0089	0.0001
Venus	-17207-08-08 23:16 J	-4563213.75	-4563213.53	-4563213.31	0.0089	0.0005
Venus	-17206-03-22 11:31 J	-4562988.23	-4562988.02	-4562987.80	0.0089	0.0010
Venus	-17206-11-03 00:00 J	-4562762.70	-4562762.50	-4562762.28	0.0089	0.0014
Venus	-17205-06-15 12:43 J	-4562537.18	-4562536.97	-4562536.75	0.0089	0.0018
Venus	-17204-01-27 01:11 J	-4562311.65	-4562311.45	-4562311.23	0.0089	0.0022
Venus	-17204-09-09 13:40 J	-4562086.13	-4562085.93	-4562085.72	0.0089	0.0026
Venus	-17203-04-23 02:23 J	-4561860.61	-4561860.40	-4561860.20	0.0089	0.0030
Venus	-17203-12-04 14:23 J	-4561635.08	-4561634.90	-4561634.68	0.0089	0.0035
Venus	-17202-07-18 03:07 J	-4561409.55	-4561409.37	-4561409.16	0.0089	0.0039
Venus	-17201-02-28 15:36 J	-4561184.03	-4561183.85	-4561183.65	0.0089	0.0043
Venus	-17201-10-11 03:50 J	-4560958.51	-4560958.34	-4560958.14	0.0089	0.0047
Venus	-17200-05-24 16:19 J	-4560732.98	-4560732.82	-4560732.63	0.0089	0.0051

Venus	-17199-01-05 04:48 J	-4560507.45	-4560507.30	-4560507.12	0.0089	0.0055
Venus	-17199-08-18 17:16 J	-4560281.93	-4560281.78	-4560281.61	0.0089	0.0059
Venus	-17198-04-01 05:31 J	-4560056.40	-4560056.27	-4560056.10	0.0089	0.0063
Venus	-17198-11-12 18:00 J	-4559830.88	-4559830.75	-4559830.59	0.0089	0.0067
Venus	-17197-06-25 06:28 J	-4559605.34	-4559605.23	-4559605.08	0.0089	0.0071
Venus	-17196-02-05 18:43 J	-4559379.81	-4559379.72	-4559379.58	0.0089	0.0075
Venus	-17196-09-19 07:26 J	-4559154.28	-4559154.19	-4559154.08	0.0089	0.0078
Venus	-17195-05-02 19:40 J	-4558928.75	-4558928.68	-4558928.59	0.0089	0.0082
Venus	-17195-12-14 07:55 J	-4558703.20	-4558703.17	-4558703.10	0.0089	0.0086
Earth	-17170-11-11 19:11 J	-4549604.86	-4549604.70	-4549604.54	0.0088	0.0070
Moon	-17170-11-11 22:19 J	-4549604.69	-4549604.57	-4549604.41	0.0088	0.0074 *
Moon	-17169-11-13 04:04 J	-4549237.57	-4549237.33	-4549237.07	0.0088	0.0024
Earth	-17169-11-13 07:26 J	-4549237.42	-4549237.19	-4549236.92	0.0088	0.0029 *
Earth	-17168-11-15 20:23 J	-4548869.91	-4548869.65	-4548869.39	0.0088	0.0013
Moon	-17168-11-15 23:45 J	-4548869.76	-4548869.51	-4548869.24	0.0088	0.0009 *
Moon	-17167-11-18 05:45 J	-4548502.44	-4548502.26	-4548502.05	0.0088	0.0058
Earth	-17167-11-18 08:52 J	-4548502.33	-4548502.13	-4548501.92	0.0088	0.0054 *
Jupiter	-17152-02-25 23:02 J	-4543289.06	-4543288.54	-4543287.95	0.0088	0.0015
Mars	-17149-04-10 23:31 J	-4542148.79	-4542148.52	-4542148.23	0.0088	0.0025
Mars	-17147-03-05 14:09 J	-4541455.15	-4541454.91	-4541454.63	0.0088	0.0041
Mercury	-17147-10-23 21:21 J	-4541222.61	-4541222.61	-4541222.61	0.0088	0.0088
Mercury	-17146-01-20 00:43 J	-4541134.54	-4541134.47	-4541134.36	0.0088	0.0078
Mercury	-17146-04-18 04:19 J	-4541046.42	-4541046.32	-4541046.17	0.0088	0.0068
Mercury	-17146-07-15 08:09 J	-4540958.29	-4540958.16	-4540958.00	0.0088	0.0058
Mercury	-17146-10-11 12:14 J	-4540870.16	-4540869.99	-4540869.83	0.0088	0.0047
Mercury	-17145-01-07 15:50 J	-4540782.02	-4540781.84	-4540781.66	0.0088	0.0037
Mercury	-17145-04-04 19:26 J	-4540693.87	-4540693.69	-4540693.50	0.0088	0.0027
Mercury	-17145-07-01 23:02 J	-4540605.73	-4540605.54	-4540605.34	0.0088	0.0017
Mercury	-17145-09-28 02:52 J	-4540517.58	-4540517.38	-4540517.18	0.0088	0.0007
Mercury	-17145-12-25 06:28 J	-4540429.43	-4540429.23	-4540429.03	0.0088	0.0003

Mercury	-17144-03-23 10:04 J	-4540341.27	-4540341.08	-4540340.88	0.0088	0.0013
Mercury	-17144-06-19 13:55 J	-4540253.11	-4540252.92	-4540252.73	0.0088	0.0023
Mercury	-17144-09-15 17:31 J	-4540164.95	-4540164.77	-4540164.59	0.0088	0.0033
Mercury	-17144-12-12 21:07 J	-4540076.79	-4540076.62	-4540076.45	0.0088	0.0043
Mercury	-17143-03-11 00:14 J	-4539988.62	-4539988.49	-4539988.31	0.0088	0.0054
Mercury	-17143-06-07 04:04 J	-4539900.45	-4539900.33	-4539900.18	0.0088	0.0064
Mercury	-17143-09-03 07:40 J	-4539812.27	-4539812.18	-4539812.06	0.0088	0.0074
Mercury	-17143-11-30 11:16 J	-4539724.07	-4539724.03	-4539723.95	0.0088	0.0084
Venus	-17138-10-05 10:04 J	-4537954.10	-4537954.08	-4537954.02	0.0088	0.0086
Venus	-17137-05-17 23:45 J	-4537728.58	-4537728.51	-4537728.43	0.0088	0.0083
Venus	-17137-12-29 12:43 J	-4537503.04	-4537502.97	-4537502.85	0.0088	0.0079
Venus	-17136-08-12 02:09 J	-4537277.51	-4537277.41	-4537277.27	0.0088	0.0075
Venus	-17135-03-25 15:36 J	-4537051.96	-4537051.85	-4537051.70	0.0088	0.0071
Venus	-17135-11-06 05:02 J	-4536826.41	-4536826.29	-4536826.12	0.0088	0.0067
Venus	-17134-06-19 18:28 J	-4536600.86	-4536600.73	-4536600.55	0.0088	0.0064
Venus	-17133-01-31 07:55 J	-4536375.32	-4536375.17	-4536374.99	0.0088	0.0059
Venus	-17133-09-12 21:21 J	-4536149.77	-4536149.61	-4536149.42	0.0088	0.0055
Venus	-17132-04-26 10:48 J	-4535924.22	-4535924.05	-4535923.85	0.0088	0.0051
Venus	-17132-12-08 00:14 J	-4535698.66	-4535698.49	-4535698.28	0.0088	0.0047
Venus	-17131-07-21 13:40 J	-4535473.11	-4535472.93	-4535472.72	0.0088	0.0043
Venus	-17130-03-04 03:36 J	-4535247.55	-4535247.35	-4535247.15	0.0088	0.0038
Venus	-17130-10-15 17:02 J	-4535021.99	-4535021.79	-4535021.58	0.0088	0.0034
Venus	-17129-05-28 06:28 J	-4534796.43	-4534796.23	-4534796.01	0.0088	0.0030
Venus	-17128-01-08 19:55 J	-4534570.87	-4534570.67	-4534570.44	0.0088	0.0026
Venus	-17128-08-22 09:21 J	-4534345.31	-4534345.11	-4534344.88	0.0088	0.0022
Venus	-17127-04-04 23:16 J	-4534119.75	-4534119.53	-4534119.31	0.0088	0.0017
Venus	-17127-11-16 12:57 J	-4533894.18	-4533893.96	-4533893.74	0.0088	0.0013
Venus	-17126-06-30 02:23 J	-4533668.61	-4533668.40	-4533668.17	0.0088	0.0009
Venus	-17125-02-10 16:04 J	-4533443.05	-4533442.83	-4533442.60	0.0088	0.0005
Venus	-17125-09-23 05:45 J	-4533217.49	-4533217.26	-4533217.04	0.0088	0.0001

Venus	-17124-05-06 19:11 J	-4532991.92	-4532991.70	-4532991.47	0.0088	0.0004
Venus	-17124-12-18 08:52 J	-4532766.35	-4532766.13	-4532765.90	0.0088	0.0009
Venus	-17123-07-31 22:19 J	-4532540.78	-4532540.57	-4532540.34	0.0088	0.0013
Venus	-17122-03-14 12:00 J	-4532315.22	-4532315.00	-4532314.78	0.0088	0.0017
Venus	-17122-10-26 01:26 J	-4532089.65	-4532089.44	-4532089.21	0.0088	0.0022
Venus	-17121-06-07 15:07 J	-4531864.08	-4531863.87	-4531863.65	0.0088	0.0026
Venus	-17120-01-19 04:33 J	-4531638.51	-4531638.31	-4531638.09	0.0088	0.0030
Venus	-17120-09-01 18:00 J	-4531412.94	-4531412.75	-4531412.53	0.0088	0.0035
Venus	-17119-04-15 07:40 J	-4531187.37	-4531187.18	-4531186.97	0.0088	0.0039
Venus	-17119-11-26 21:21 J	-4530961.80	-4530961.61	-4530961.41	0.0088	0.0043
Venus	-17118-07-10 10:48 J	-4530736.22	-4530736.05	-4530735.84	0.0088	0.0047
Venus	-17117-02-21 00:14 J	-4530510.65	-4530510.49	-4530510.29	0.0088	0.0052
Venus	-17117-10-03 13:55 J	-4530285.08	-4530284.92	-4530284.73	0.0088	0.0056
Venus	-17116-05-17 03:36 J	-4530059.50	-4530059.35	-4530059.17	0.0088	0.0060
Venus	-17116-12-28 17:16 J	-4529833.91	-4529833.78	-4529833.61	0.0088	0.0064
Venus	-17115-08-11 06:57 J	-4529608.33	-4529608.21	-4529608.05	0.0088	0.0068
Venus	-17114-03-24 20:38 J	-4529382.75	-4529382.64	-4529382.49	0.0089	0.0072
Venus	-17114-11-05 10:19 J	-4529157.17	-4529157.07	-4529156.94	0.0089	0.0076
Venus	-17113-06-18 00:00 J	-4528931.58	-4528931.50	-4528931.39	0.0089	0.0080
Venus	-17112-01-29 13:40 J	-4528705.98	-4528705.93	-4528705.84	0.0089	0.0084
Venus	-17112-09-12 03:07 J	-4528480.38	-4528480.37	-4528480.31	0.0089	0.0088
Moon	-17087-05-15 11:16 J	-4519469.09	-4519469.03	-4519468.95	0.0089	0.0086
Earth	-17087-05-15 13:55 J	-4519468.99	-4519468.92	-4519468.78	0.0089	0.0082 *
Earth	-17086-05-18 00:57 J	-4519101.67	-4519101.46	-4519101.21	0.0089	0.0040
Moon	-17086-05-18 04:48 J	-4519101.52	-4519101.30	-4519101.05	0.0089	0.0035 *
Moon	-17085-05-19 08:52 J	-4518734.38	-4518734.13	-4518733.87	0.0089	0.0003
Earth	-17085-05-19 12:14 J	-4518734.25	-4518733.99	-4518733.74	0.0089	0.0002 *
Earth	-17084-05-21 22:19 J	-4518366.77	-4518366.57	-4518366.33	0.0089	0.0043
Moon	-17084-05-22 01:26 J	-4518366.64	-4518366.44	-4518366.21	0.0089	0.0048 *
Moon	-17083-05-24 07:26 J	-4517999.29	-4517999.19	-4517999.07	0.0089	0.0080

Earth	-17083-05-24 08:52 J	-4517999.19	-4517999.13	-4517999.03	0.0089	0.0084 *
Mars	-17067-01-24 15:36 J	-4512275.10	-4512274.85	-4512274.54	0.0089	0.0051
Mars	-17066-12-22 00:00 J	-4511578.79	-4511578.50	-4511578.16	0.0089	0.0032
Mercury	-17065-02-03 15:36 J	-4511534.87	-4511534.85	-4511534.81	0.0089	0.0087
Mercury	-17065-05-01 16:48 J	-4511446.85	-4511446.80	-4511446.73	0.0089	0.0080
Mercury	-17065-07-28 18:14 J	-4511358.81	-4511358.74	-4511358.66	0.0089	0.0073
Mercury	-17065-10-24 19:26 J	-4511270.77	-4511270.69	-4511270.59	0.0089	0.0066
Mercury	-17064-01-20 20:52 J	-4511182.72	-4511182.63	-4511182.53	0.0089	0.0058
Mercury	-17064-04-18 22:04 J	-4511094.68	-4511094.58	-4511094.47	0.0089	0.0052
Mercury	-17064-07-15 23:31 J	-4511006.63	-4511006.52	-4511006.41	0.0089	0.0044
Mercury	-17064-10-12 00:43 J	-4510918.58	-4510918.47	-4510918.35	0.0089	0.0037
Mercury	-17063-01-08 02:09 J	-4510830.53	-4510830.41	-4510830.29	0.0089	0.0030
Mercury	-17063-04-06 03:21 J	-4510742.48	-4510742.36	-4510742.23	0.0089	0.0023
Mercury	-17063-07-03 04:48 J	-4510654.43	-4510654.30	-4510654.17	0.0089	0.0016
Mercury	-17063-09-29 06:00 J	-4510566.38	-4510566.25	-4510566.12	0.0089	0.0009
Mercury	-17063-12-26 07:26 J	-4510478.32	-4510478.19	-4510478.06	0.0089	0.0003
Mercury	-17062-03-24 08:38 J	-4510390.27	-4510390.14	-4510390.01	0.0089	0.0005
Mercury	-17062-06-20 10:04 J	-4510302.21	-4510302.08	-4510301.95	0.0089	0.0012
Mercury	-17062-09-16 11:16 J	-4510214.16	-4510214.03	-4510213.90	0.0089	0.0019
Mercury	-17062-12-13 12:28 J	-4510126.10	-4510125.98	-4510125.85	0.0089	0.0026
Mercury	-17061-03-10 13:55 J	-4510038.04	-4510037.92	-4510037.80	0.0089	0.0033
Mercury	-17061-06-06 15:07 J	-4509949.98	-4509949.87	-4509949.75	0.0089	0.0041
Mercury	-17061-09-02 16:33 J	-4509861.92	-4509861.81	-4509861.70	0.0089	0.0048
Mercury	-17061-11-29 17:45 J	-4509773.86	-4509773.76	-4509773.65	0.0089	0.0055
Mercury	-17060-02-25 19:11 J	-4509685.80	-4509685.70	-4509685.61	0.0089	0.0062
Mercury	-17060-05-24 20:09 J	-4509597.73	-4509597.66	-4509597.57	0.0089	0.0069
Mercury	-17060-08-20 21:21 J	-4509509.66	-4509509.61	-4509509.53	0.0089	0.0077
Mercury	-17060-11-16 22:48 J	-4509421.58	-4509421.55	-4509421.49	0.0089	0.0083
Venus	-17056-04-10 22:04 J	-4508180.59	-4508180.58	-4508180.54	0.0089	0.0089
Venus	-17056-11-22 10:48 J	-4507955.10	-4507955.05	-4507954.97	0.0089	0.0085

Venus	-17055-07-05 23:31 J	-4507729.60	-4507729.52	-4507729.42	0.0089	0.0081
Venus	-17054-02-16 12:14 J	-4507504.09	-4507503.99	-4507503.87	0.0089	0.0077
Venus	-17054-09-30 00:43 J	-4507278.58	-4507278.47	-4507278.33	0.0089	0.0073
Venus	-17053-05-12 13:26 J	-4507053.06	-4507052.94	-4507052.79	0.0089	0.0069
Venus	-17053-12-24 02:09 J	-4506827.55	-4506827.41	-4506827.25	0.0089	0.0065
Venus	-17052-08-06 14:38 J	-4506602.03	-4506601.89	-4506601.72	0.0089	0.0061
Venus	-17051-03-20 03:21 J	-4506376.52	-4506376.36	-4506376.18	0.0089	0.0056
Venus	-17051-10-31 15:50 J	-4506151.00	-4506150.84	-4506150.65	0.0089	0.0053
Venus	-17050-06-14 04:33 J	-4505925.47	-4505925.31	-4505925.11	0.0089	0.0049
Venus	-17049-01-25 17:45 J	-4505699.95	-4505699.76	-4505699.58	0.0089	0.0044
Venus	-17049-09-07 06:00 J	-4505474.43	-4505474.25	-4505474.05	0.0089	0.0040
Venus	-17048-04-20 18:28 J	-4505248.91	-4505248.73	-4505248.52	0.0089	0.0036
Venus	-17048-12-02 07:11 J	-4505023.39	-4505023.20	-4505022.99	0.0089	0.0031
Venus	-17047-07-15 19:55 J	-4504797.87	-4504797.67	-4504797.46	0.0089	0.0027
Venus	-17046-02-26 08:23 J	-4504572.36	-4504572.15	-4504571.94	0.0089	0.0022
Venus	-17046-10-09 20:52 J	-4504346.84	-4504346.63	-4504346.41	0.0089	0.0018
Venus	-17045-05-22 09:36 J	-4504121.32	-4504121.10	-4504120.89	0.0089	0.0014
Venus	-17044-01-02 22:04 J	-4503895.80	-4503895.58	-4503895.37	0.0089	0.0009
Venus	-17044-08-16 10:19 J	-4503670.28	-4503670.07	-4503669.85	0.0089	0.0005
Venus	-17043-03-29 22:48 J	-4503444.76	-4503444.55	-4503444.33	0.0089	0.0001
Venus	-17043-11-10 11:16 J	-4503219.24	-4503219.03	-4503218.81	0.0089	0.0004
Venus	-17042-06-24 00:00 J	-4502993.72	-4502993.50	-4502993.29	0.0089	0.0008
Venus	-17041-02-04 12:28 J	-4502768.20	-4502767.98	-4502767.77	0.0089	0.0012
Venus	-17041-09-17 00:28 J	-4502542.68	-4502542.48	-4502542.25	0.0089	0.0017
Venus	-17040-04-30 12:57 J	-4502317.16	-4502316.96	-4502316.74	0.0089	0.0021
Venus	-17040-12-12 01:40 J	-4502091.64	-4502091.43	-4502091.22	0.0089	0.0025
Venus	-17039-07-25 14:09 J	-4501866.11	-4501865.91	-4501865.70	0.0089	0.0029
Venus	-17038-03-08 02:23 J	-4501640.59	-4501640.40	-4501640.19	0.0089	0.0034
Venus	-17038-10-19 14:52 J	-4501415.06	-4501414.88	-4501414.67	0.0089	0.0038
Venus	-17037-06-01 03:36 J	-4501189.53	-4501189.35	-4501189.15	0.0089	0.0042

Venus	-17036-01-12 16:04 J	-4500964.01	-4500963.83	-4500963.64	0.0089	0.0046
Venus	-17036-08-26 04:04 J	-4500738.48	-4500738.33	-4500738.13	0.0089	0.0051
Venus	-17035-04-08 16:33 J	-4500512.96	-4500512.81	-4500512.62	0.0089	0.0055
Venus	-17035-11-20 05:02 J	-4500287.43	-4500287.29	-4500287.11	0.0089	0.0059
Venus	-17034-07-03 17:45 J	-4500061.90	-4500061.76	-4500061.59	0.0089	0.0063
Venus	-17033-02-14 06:14 J	-4499836.37	-4499836.24	-4499836.09	0.0089	0.0067
Venus	-17033-09-26 18:28 J	-4499610.84	-4499610.73	-4499610.59	0.0089	0.0071
Venus	-17032-05-10 06:43 J	-4499385.31	-4499385.22	-4499385.08	0.0089	0.0075
Venus	-17032-12-21 19:11 J	-4499159.78	-4499159.70	-4499159.58	0.0089	0.0079
Venus	-17031-08-04 07:40 J	-4498934.24	-4498934.18	-4498934.09	0.0089	0.0083
Venus	-17030-03-17 19:55 J	-4498708.69	-4498708.67	-4498708.60	0.0089	0.0087
Moon	-17006-11-11 01:11 J	-4489704.45	-4489704.45	-4489704.43	0.0088	0.0088
Earth	-17005-11-12 17:31 J	-4489336.98	-4489336.77	-4489336.55	0.0088	0.0049
Moon	-17005-11-12 20:38 J	-4489336.85	-4489336.64	-4489336.41	0.0088	0.0050 *
Moon	-17004-11-15 03:21 J	-4488969.61	-4488969.36	-4488969.10	0.0088	0.0006
Earth	-17004-11-15 06:00 J	-4488969.51	-4488969.25	-4488968.99	0.0088	0.0008 *
Earth	-17003-11-17 18:14 J	-4488601.97	-4488601.74	-4488601.49	0.0088	0.0033
Moon	-17003-11-17 20:09 J	-4488601.91	-4488601.66	-4488601.40	0.0088	0.0031 *
Earth	-17002-11-20 06:28 J	-4488234.35	-4488234.23	-4488234.07	0.0088	0.0075
Moon	-17002-11-20 06:14 J	-4488234.34	-4488234.24	-4488234.09	0.0088	0.0076 *

17TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 17th millennium BCE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mars	-16986-11-25 15:36 J	-4482385.06	-4482384.85	-4482384.61	0.0088	0.0057
Mars	-16984-10-19 08:09 J	-4481691.45	-4481691.16	-4481690.86	0.0088	0.0009
Mercury	-16982-07-20 19:55 J	-4481051.71	-4481051.67	-4481051.58	0.0088	0.0083
Mars	-16982-09-12 22:48 J	-4480997.69	-4480997.55	-4480997.38	0.0088	0.0074
Mercury	-16982-10-17 00:00 J	-4480963.60	-4480963.50	-4480963.38	0.0088	0.0072
Mercury	-16981-01-13 03:36 J	-4480875.48	-4480875.35	-4480875.20	0.0088	0.0062
Mercury	-16981-04-10 07:11 J	-4480787.34	-4480787.20	-4480787.03	0.0088	0.0052
Mercury	-16981-07-07 11:02 J	-4480699.20	-4480699.04	-4480698.86	0.0088	0.0042
Mercury	-16981-10-03 14:38 J	-4480611.06	-4480610.89	-4480610.69	0.0088	0.0032
Mercury	-16981-12-30 18:28 J	-4480522.92	-4480522.73	-4480522.53	0.0088	0.0022
Mercury	-16980-03-28 22:04 J	-4480434.77	-4480434.58	-4480434.38	0.0088	0.0012
Mercury	-16980-06-25 01:55 J	-4480346.62	-4480346.42	-4480346.22	0.0088	0.0002
Mercury	-16980-09-21 05:31 J	-4480258.46	-4480258.27	-4480258.07	0.0088	0.0009
Mercury	-16980-12-18 09:07 J	-4480170.31	-4480170.12	-4480169.92	0.0088	0.0019
Mercury	-16979-03-16 12:43 J	-4480082.15	-4480081.97	-4480081.77	0.0088	0.0029
Mercury	-16979-06-12 16:19 J	-4479993.98	-4479993.82	-4479993.63	0.0088	0.0039
Mercury	-16979-09-08 19:55 J	-4479905.82	-4479905.67	-4479905.49	0.0088	0.0049
Mercury	-16979-12-05 23:45 J	-4479817.65	-4479817.51	-4479817.36	0.0088	0.0059
Mercury	-16978-03-04 03:21 J	-4479729.47	-4479729.36	-4479729.23	0.0088	0.0069
Mercury	-16978-05-31 06:57 J	-4479641.28	-4479641.21	-4479641.12	0.0088	0.0079
Venus	-16973-08-19 11:02 J	-4477734.07	-4477734.04	-4477733.99	0.0088	0.0086
Venus	-16972-04-02 00:28 J	-4477508.55	-4477508.48	-4477508.40	0.0088	0.0082
Venus	-16972-11-13 14:09 J	-4477283.01	-4477282.91	-4477282.81	0.0088	0.0079
Venus	-16971-06-27 03:36 J	-4477057.47	-4477057.35	-4477057.23	0.0088	0.0075
Venus	-16970-02-07 16:48 J	-4476831.93	-4476831.80	-4476831.66	0.0088	0.0071
Venus	-16970-09-21 06:14 J	-4476606.38	-4476606.24	-4476606.09	0.0088	0.0066
Venus	-16969-05-03 19:26 J	-4476380.83	-4476380.69	-4476380.52	0.0088	0.0063
Venus	-16969-12-15 08:52 J	-4476155.28	-4476155.13	-4476154.95	0.0088	0.0058
Venus	-16968-07-28 22:19 J	-4475929.73	-4475929.57	-4475929.38	0.0088	0.0054

Venus	-16967-03-11 11:31 J	-4475704.18	-4475704.02	-4475703.82	0.0088	0.0050
Venus	-16967-10-23 01:26 J	-4475478.63	-4475478.44	-4475478.25	0.0088	0.0046
Venus	-16966-06-05 14:38 J	-4475253.08	-4475252.89	-4475252.68	0.0088	0.0042
Venus	-16965-01-17 04:04 J	-4475027.52	-4475027.33	-4475027.12	0.0088	0.0037
Venus	-16965-08-29 17:16 J	-4474801.97	-4474801.78	-4474801.55	0.0088	0.0034
Venus	-16964-04-12 07:11 J	-4474576.41	-4474576.20	-4474575.99	0.0088	0.0028
Venus	-16964-11-23 20:38 J	-4474350.84	-4474350.64	-4474350.41	0.0088	0.0024
Venus	-16963-07-07 10:04 J	-4474125.28	-4474125.08	-4474124.85	0.0088	0.0021
Venus	-16962-02-17 23:45 J	-4473899.72	-4473899.51	-4473899.28	0.0088	0.0016
Venus	-16962-10-01 13:26 J	-4473674.16	-4473673.94	-4473673.72	0.0088	0.0011
Venus	-16961-05-14 03:07 J	-4473448.60	-4473448.37	-4473448.15	0.0088	0.0007
Venus	-16961-12-25 16:48 J	-4473223.03	-4473222.80	-4473222.58	0.0088	0.0002
Venus	-16960-08-08 06:14 J	-4472997.46	-4472997.24	-4472997.01	0.0088	0.0003
Venus	-16959-03-21 19:55 J	-4472771.89	-4472771.67	-4472771.45	0.0088	0.0007
Venus	-16959-11-02 09:21 J	-4472546.32	-4472546.11	-4472545.88	0.0088	0.0012
Venus	-16958-06-15 23:16 J	-4472320.76	-4472320.53	-4472320.31	0.0088	0.0016
Venus	-16957-01-27 12:28 J	-4472095.19	-4472094.98	-4472094.75	0.0088	0.0021
Venus	-16957-09-09 02:09 J	-4471869.62	-4471869.41	-4471869.19	0.0088	0.0025
Venus	-16956-04-22 15:36 J	-4471644.05	-4471643.85	-4471643.63	0.0088	0.0029
Venus	-16956-12-04 05:16 J	-4471418.47	-4471418.28	-4471418.06	0.0088	0.0034
Venus	-16955-07-17 19:11 J	-4471192.90	-4471192.70	-4471192.50	0.0088	0.0038
Venus	-16954-02-28 08:23 J	-4470967.33	-4470967.15	-4470966.94	0.0088	0.0043
Venus	-16954-10-11 22:04 J	-4470741.76	-4470741.58	-4470741.38	0.0088	0.0047
Venus	-16953-05-24 11:45 J	-4470516.19	-4470516.01	-4470515.82	0.0088	0.0051
Venus	-16952-01-05 01:11 J	-4470290.61	-4470290.45	-4470290.26	0.0088	0.0055
Venus	-16952-08-18 14:52 J	-4470065.03	-4470064.88	-4470064.70	0.0088	0.0060
Venus	-16951-04-01 04:33 J	-4469839.45	-4469839.31	-4469839.15	0.0088	0.0064
Venus	-16951-11-12 18:14 J	-4469613.87	-4469613.74	-4469613.59	0.0088	0.0068
Venus	-16950-06-26 07:55 J	-4469388.29	-4469388.17	-4469388.03	0.0088	0.0072
Venus	-16949-02-06 21:07 J	-4469162.70	-4469162.62	-4469162.48	0.0089	0.0077

Venus	-16949-09-19 10:48 J	-4468937.12	-4468937.05	-4468936.93	0.0089	0.0081
Venus	-16948-05-03 00:28 J	-4468711.52	-4468711.48	-4468711.39	0.0089	0.0085
Venus	-16948-12-14 14:38 J	-4468485.89	-4468485.89	-4468485.86	0.0089	0.0088
Moon	-16922-05-17 09:36 J	-4459201.28	-4459201.10	-4459200.91	0.0089	0.0060
Earth	-16922-05-17 12:28 J	-4459201.14	-4459200.98	-4459200.76	0.0089	0.0060 *
Earth	-16921-05-19 00:00 J	-4458833.75	-4458833.50	-4458833.25	0.0089	0.0019
Moon	-16921-05-19 02:09 J	-4458833.66	-4458833.41	-4458833.15	0.0089	0.0019 *
Moon	-16920-05-21 09:07 J	-4458466.36	-4458466.12	-4458465.88	0.0089	0.0023
Earth	-16920-05-21 10:19 J	-4458466.30	-4458466.07	-4458465.81	0.0089	0.0024 *
Earth	-16919-05-23 20:52 J	-4458098.78	-4458098.63	-4458098.43	0.0089	0.0064
Moon	-16919-05-23 21:21 J	-4458098.77	-4458098.61	-4458098.40	0.0089	0.0064 *
Mars	-16902-08-04 15:07 J	-4451817.20	-4451816.87	-4451816.52	0.0089	0.0009
Mercury	-16901-10-30 15:50 J	-4451363.89	-4451363.84	-4451363.79	0.0089	0.0083
Mercury	-16900-01-26 17:02 J	-4451275.85	-4451275.79	-4451275.72	0.0089	0.0076
Mercury	-16900-04-24 18:28 J	-4451187.81	-4451187.73	-4451187.65	0.0089	0.0069
Mars	-16900-06-30 22:48 J	-4451120.72	-4451120.55	-4451120.33	0.0089	0.0073
Mercury	-16900-07-21 19:40 J	-4451099.77	-4451099.68	-4451099.58	0.0089	0.0062
Mercury	-16900-10-17 20:52 J	-4451011.73	-4451011.63	-4451011.52	0.0089	0.0055
Mercury	-16899-01-13 22:19 J	-4450923.68	-4450923.57	-4450923.46	0.0089	0.0048
Mercury	-16899-04-11 23:31 J	-4450835.63	-4450835.52	-4450835.40	0.0089	0.0041
Mercury	-16899-07-09 00:57 J	-4450747.58	-4450747.46	-4450747.34	0.0089	0.0034
Mercury	-16899-10-05 02:09 J	-4450659.53	-4450659.41	-4450659.28	0.0089	0.0027
Mercury	-16898-01-01 03:21 J	-4450571.48	-4450571.36	-4450571.23	0.0089	0.0020
Mercury	-16898-03-30 04:48 J	-4450483.43	-4450483.30	-4450483.17	0.0089	0.0012
Mercury	-16898-06-26 06:00 J	-4450395.38	-4450395.25	-4450395.12	0.0089	0.0006
Mercury	-16898-09-22 07:26 J	-4450307.32	-4450307.19	-4450307.06	0.0089	0.0002
Mercury	-16898-12-19 08:38 J	-4450219.27	-4450219.14	-4450219.01	0.0089	0.0009
Mercury	-16897-03-16 09:50 J	-4450131.21	-4450131.09	-4450130.95	0.0089	0.0016
Mercury	-16897-06-12 11:16 J	-4450043.16	-4450043.03	-4450042.90	0.0089	0.0023
Mercury	-16897-09-08 12:28 J	-4449955.10	-4449954.98	-4449954.85	0.0089	0.0030

Mercury	-16897-12-05 13:40 J	-4449867.04	-4449866.93	-4449866.80	0.0089	0.0038
Mercury	-16896-03-03 15:07 J	-4449778.98	-4449778.87	-4449778.75	0.0089	0.0044
Mercury	-16896-05-30 16:19 J	-4449690.92	-4449690.82	-4449690.70	0.0089	0.0052
Mercury	-16896-08-26 17:45 J	-4449602.86	-4449602.76	-4449602.66	0.0089	0.0058
Mercury	-16896-11-22 18:57 J	-4449514.79	-4449514.71	-4449514.61	0.0089	0.0066
Mercury	-16895-02-18 20:23 J	-4449426.72	-4449426.65	-4449426.57	0.0089	0.0073
Mercury	-16895-05-17 21:36 J	-4449338.65	-4449338.60	-4449338.54	0.0089	0.0080
Mercury	-16895-08-13 23:02 J	-4449250.57	-4449250.54	-4449250.51	0.0089	0.0087
Venus	-16891-02-23 22:48 J	-4447960.56	-4447960.55	-4447960.51	0.0089	0.0089
Venus	-16891-10-07 11:31 J	-4447735.08	-4447735.02	-4447734.94	0.0089	0.0085
Venus	-16890-05-21 00:14 J	-4447509.57	-4447509.49	-4447509.38	0.0089	0.0081
Venus	-16889-01-01 12:43 J	-4447284.06	-4447283.97	-4447283.84	0.0089	0.0077
Venus	-16889-08-14 01:26 J	-4447058.55	-4447058.44	-4447058.30	0.0089	0.0072
Venus	-16888-03-27 13:55 J	-4446833.04	-4446832.92	-4446832.76	0.0089	0.0069
Venus	-16888-11-08 02:23 J	-4446607.52	-4446607.40	-4446607.22	0.0089	0.0065
Venus	-16887-06-21 15:36 J	-4446382.00	-4446381.85	-4446381.68	0.0089	0.0060
Venus	-16886-02-02 04:04 J	-4446156.49	-4446156.33	-4446156.15	0.0089	0.0056
Venus	-16886-09-15 16:33 J	-4445930.97	-4445930.81	-4445930.62	0.0089	0.0051
Venus	-16885-04-28 05:16 J	-4445705.45	-4445705.28	-4445705.08	0.0089	0.0047
Venus	-16885-12-09 18:00 J	-4445479.93	-4445479.75	-4445479.55	0.0089	0.0043
Venus	-16884-07-23 06:28 J	-4445254.41	-4445254.23	-4445254.02	0.0089	0.0038
Venus	-16883-03-05 19:26 J	-4445028.89	-4445028.69	-4445028.49	0.0089	0.0034
Venus	-16883-10-17 07:55 J	-4444803.37	-4444803.17	-4444802.96	0.0089	0.0029
Venus	-16882-05-30 20:23 J	-4444577.84	-4444577.65	-4444577.43	0.0089	0.0025
Venus	-16881-01-11 09:07 J	-4444352.32	-4444352.12	-4444351.90	0.0089	0.0021
Venus	-16881-08-23 21:36 J	-4444126.81	-4444126.60	-4444126.38	0.0089	0.0016
Venus	-16880-04-06 10:19 J	-4443901.29	-4443901.07	-4443900.86	0.0089	0.0011
Venus	-16880-11-17 22:48 J	-4443675.77	-4443675.55	-4443675.33	0.0089	0.0007
Venus	-16879-07-01 11:31 J	-4443450.24	-4443450.02	-4443449.81	0.0089	0.0003
Venus	-16878-02-11 23:45 J	-4443224.72	-4443224.51	-4443224.29	0.0089	0.0003

Venus	-16878-09-25 12:14 J	-4442999.20	-4442998.99	-4442998.77	0.0089	0.0007
Venus	-16877-05-08 00:43 J	-4442773.68	-4442773.47	-4442773.25	0.0089	0.0011
Venus	-16877-12-19 13:11 J	-4442548.16	-4442547.95	-4442547.73	0.0089	0.0015
Venus	-16876-08-02 01:26 J	-4442322.64	-4442322.44	-4442322.22	0.0089	0.0020
Venus	-16875-03-15 13:55 J	-4442097.12	-4442096.92	-4442096.70	0.0089	0.0024
Venus	-16875-10-27 02:09 J	-4441871.60	-4441871.41	-4441871.19	0.0089	0.0029
Venus	-16874-06-09 14:52 J	-4441646.07	-4441645.88	-4441645.67	0.0089	0.0033
Venus	-16873-01-21 03:36 J	-4441420.54	-4441420.35	-4441420.15	0.0089	0.0037
Venus	-16873-09-02 15:36 J	-4441195.02	-4441194.85	-4441194.64	0.0089	0.0042
Venus	-16872-04-16 04:19 J	-4440969.50	-4440969.32	-4440969.13	0.0089	0.0046
Venus	-16872-11-27 16:48 J	-4440743.97	-4440743.80	-4440743.61	0.0089	0.0050
Venus	-16871-07-11 05:16 J	-4440518.43	-4440518.28	-4440518.09	0.0089	0.0055
Venus	-16870-02-21 17:45 J	-4440292.91	-4440292.76	-4440292.58	0.0089	0.0059
Venus	-16870-10-05 06:14 J	-4440067.38	-4440067.24	-4440067.08	0.0089	0.0063
Venus	-16869-05-17 18:43 J	-4439841.85	-4439841.72	-4439841.57	0.0089	0.0067
Venus	-16869-12-29 07:11 J	-4439616.32	-4439616.20	-4439616.06	0.0089	0.0071
Venus	-16868-08-11 19:55 J	-4439390.78	-4439390.67	-4439390.56	0.0089	0.0075
Venus	-16867-03-25 07:40 J	-4439165.25	-4439165.18	-4439165.06	0.0089	0.0080
Venus	-16867-11-05 20:09 J	-4438939.71	-4438939.66	-4438939.57	0.0089	0.0084
Venus	-16866-06-19 08:23 J	-4438714.15	-4438714.15	-4438714.08	0.0089	0.0088
Moon	-16841-11-12 01:40 J	-4429436.56	-4429436.43	-4429436.28	0.0088	0.0073
Earth	-16841-11-12 03:21 J	-4429436.50	-4429436.36	-4429436.17	0.0088	0.0068 *
Earth	-16840-11-14 16:04 J	-4429069.07	-4429068.83	-4429068.57	0.0088	0.0027
Moon	-16840-11-14 17:02 J	-4429069.04	-4429068.79	-4429068.52	0.0088	0.0024 *
Earth	-16839-11-17 04:19 J	-4428701.56	-4428701.32	-4428701.05	0.0088	0.0014
Moon	-16839-11-17 04:19 J	-4428701.56	-4428701.32	-4428701.06	0.0088	0.0010 *
Moon	-16838-11-19 14:52 J	-4428334.05	-4428333.88	-4428333.65	0.0088	0.0060
Earth	-16838-11-19 17:02 J	-4428333.99	-4428333.79	-4428333.58	0.0088	0.0055 *
Mars	-16820-06-03 23:16 J	-4421927.80	-4421927.53	-4421927.23	0.0088	0.0024
Mars	-16818-04-28 15:50 J	-4421234.10	-4421233.84	-4421233.58	0.0088	0.0042

Mercury	-16817-01-18 15:36 J	-4420968.86	-4420968.85	-4420968.82	0.0088	0.0087
Mercury	-16817-04-15 19:11 J	-4420880.78	-4420880.70	-4420880.60	0.0088	0.0077
Mercury	-16817-07-12 22:48 J	-4420792.66	-4420792.55	-4420792.41	0.0088	0.0067
Mercury	-16817-10-09 02:38 J	-4420704.53	-4420704.39	-4420704.23	0.0088	0.0057
Mercury	-16816-01-05 06:14 J	-4420616.39	-4420616.24	-4420616.06	0.0088	0.0047
Mercury	-16816-04-03 09:50 J	-4420528.25	-4420528.09	-4420527.89	0.0088	0.0037
Mercury	-16816-06-30 13:55 J	-4420440.11	-4420439.92	-4420439.73	0.0088	0.0026
Mercury	-16816-09-26 17:31 J	-4420351.96	-4420351.77	-4420351.57	0.0088	0.0016
Mercury	-16816-12-23 21:21 J	-4420263.81	-4420263.61	-4420263.41	0.0088	0.0006
Mercury	-16815-03-22 00:57 J	-4420175.66	-4420175.46	-4420175.26	0.0088	0.0004
Mercury	-16815-06-18 04:33 J	-4420087.50	-4420087.31	-4420087.11	0.0088	0.0014
Mercury	-16815-09-14 08:23 J	-4419999.34	-4419999.15	-4419998.96	0.0088	0.0024
Mercury	-16815-12-11 12:00 J	-4419911.18	-4419911.00	-4419910.82	0.0088	0.0034
Mercury	-16814-03-09 15:21 J	-4419823.02	-4419822.86	-4419822.68	0.0088	0.0045
Mercury	-16814-06-05 18:57 J	-4419734.85	-4419734.71	-4419734.54	0.0088	0.0055
Mercury	-16814-09-01 22:33 J	-4419646.67	-4419646.56	-4419646.41	0.0088	0.0065
Mercury	-16814-11-29 02:09 J	-4419558.49	-4419558.41	-4419558.29	0.0088	0.0075
Mercury	-16813-02-25 05:45 J	-4419470.29	-4419470.26	-4419470.19	0.0088	0.0085
Venus	-16808-07-04 12:00 J	-4417514.03	-4417514.00	-4417513.95	0.0088	0.0086
Venus	-16807-02-15 01:11 J	-4417288.51	-4417288.45	-4417288.36	0.0088	0.0083
Venus	-16807-09-28 14:38 J	-4417062.98	-4417062.89	-4417062.78	0.0088	0.0078
Venus	-16806-05-12 04:04 J	-4416837.43	-4416837.33	-4416837.20	0.0088	0.0074
Venus	-16806-12-23 17:31 J	-4416611.89	-4416611.77	-4416611.62	0.0088	0.0070
Venus	-16805-08-05 06:43 J	-4416386.34	-4416386.22	-4416386.05	0.0088	0.0066
Venus	-16804-03-18 20:38 J	-4416160.79	-4416160.64	-4416160.48	0.0088	0.0062
Venus	-16804-10-30 10:04 J	-4415935.24	-4415935.08	-4415934.90	0.0088	0.0057
Venus	-16803-06-12 23:16 J	-4415709.69	-4415709.53	-4415709.33	0.0088	0.0053
Venus	-16802-01-24 13:11 J	-4415484.14	-4415483.95	-4415483.76	0.0088	0.0049
Venus	-16802-09-07 02:09 J	-4415258.59	-4415258.41	-4415258.20	0.0088	0.0045
Venus	-16801-04-19 15:36 J	-4415033.03	-4415032.85	-4415032.63	0.0088	0.0040

Venus	-16801-12-01 05:16 J	-4414807.47	-4414807.28	-4414807.06	0.0088	0.0036
Venus	-16800-07-14 18:43 J	-4414581.92	-4414581.72	-4414581.50	0.0088	0.0031
Venus	-16799-02-25 08:23 J	-4414356.36	-4414356.15	-4414355.93	0.0088	0.0026
Venus	-16799-10-08 21:36 J	-4414130.80	-4414130.60	-4414130.37	0.0088	0.0023
Venus	-16798-05-22 11:16 J	-4413905.24	-4413905.03	-4413904.80	0.0088	0.0018
Venus	-16797-01-03 00:57 J	-4413679.68	-4413679.46	-4413679.23	0.0088	0.0013
Venus	-16797-08-15 14:38 J	-4413454.12	-4413453.89	-4413453.67	0.0088	0.0008
Venus	-16796-03-29 04:04 J	-4413228.55	-4413228.33	-4413228.11	0.0088	0.0004
Venus	-16796-11-09 17:45 J	-4413002.98	-4413002.76	-4413002.54	0.0088	0.0001
Venus	-16795-06-23 07:26 J	-4412777.42	-4412777.19	-4412776.97	0.0088	0.0005
Venus	-16794-02-03 20:52 J	-4412551.85	-4412551.63	-4412551.40	0.0088	0.0010
Venus	-16794-09-17 10:19 J	-4412326.28	-4412326.07	-4412325.84	0.0088	0.0015
Venus	-16793-04-29 23:45 J	-4412100.71	-4412100.51	-4412100.28	0.0088	0.0020
Venus	-16793-12-11 13:40 J	-4411875.14	-4411874.93	-4411874.71	0.0088	0.0024
Venus	-16792-07-25 03:07 J	-4411649.57	-4411649.37	-4411649.14	0.0088	0.0029
Venus	-16791-03-07 16:48 J	-4411424.00	-4411423.80	-4411423.58	0.0088	0.0033
Venus	-16791-10-19 06:14 J	-4411198.43	-4411198.24	-4411198.02	0.0088	0.0038
Venus	-16790-06-01 19:55 J	-4410972.86	-4410972.67	-4410972.46	0.0088	0.0042
Venus	-16789-01-13 09:21 J	-4410747.28	-4410747.11	-4410746.90	0.0088	0.0047
Venus	-16789-08-25 23:02 J	-4410521.71	-4410521.54	-4410521.34	0.0088	0.0051
Venus	-16788-04-08 12:57 J	-4410296.14	-4410295.96	-4410295.79	0.0088	0.0055
Venus	-16788-11-20 02:09 J	-4410070.56	-4410070.41	-4410070.23	0.0088	0.0060
Venus	-16787-07-03 15:50 J	-4409844.98	-4409844.84	-4409844.67	0.0088	0.0064
Venus	-16786-02-14 05:45 J	-4409619.40	-4409619.26	-4409619.12	0.0089	0.0068
Venus	-16786-09-27 18:43 J	-4409393.82	-4409393.72	-4409393.57	0.0089	0.0073
Venus	-16785-05-10 08:23 J	-4409168.24	-4409168.15	-4409168.02	0.0089	0.0077
Venus	-16785-12-21 22:19 J	-4408942.64	-4408942.57	-4408942.47	0.0089	0.0081
Venus	-16784-08-04 12:14 J	-4408717.05	-4408716.99	-4408716.93	0.0089	0.0085
Earth	-16758-05-17 00:57 J	-4399300.55	-4399300.46	-4399300.32	0.0089	0.0080
Moon	-16758-05-17 04:04 J	-4399300.41	-4399300.33	-4399300.24	0.0089	0.0084 *

Moon	-16757-05-18 10:48 J	-4398933.26	-4398933.05	-4398932.80	0.0089	0.0034
Earth	-16757-05-18 12:00 J	-4398933.22	-4398933.00	-4398932.76	0.0089	0.0038 *
Moon	-16756-05-20 23:02 J	-4398565.80	-4398565.54	-4398565.27	0.0089	0.0001
Earth	-16756-05-20 23:02 J	-4398565.79	-4398565.54	-4398565.28	0.0089	0.0004 *
Earth	-16755-05-23 09:36 J	-4398198.30	-4398198.10	-4398197.86	0.0089	0.0044
Moon	-16755-05-23 10:33 J	-4398198.25	-4398198.06	-4398197.84	0.0089	0.0049 *
Moon	-16754-05-25 17:45 J	-4397830.86	-4397830.76	-4397830.64	0.0089	0.0081
Earth	-16754-05-25 20:09 J	-4397830.71	-4397830.66	-4397830.57	0.0089	0.0086 *
Mars	-16738-03-18 06:00 J	-4392055.51	-4392055.25	-4392054.94	0.0089	0.0049
Mars	-16736-02-11 13:40 J	-4391359.22	-4391358.93	-4391358.59	0.0089	0.0034
Mercury	-16736-04-30 14:38 J	-4391280.92	-4391280.89	-4391280.86	0.0089	0.0086
Mercury	-16736-07-27 15:36 J	-4391192.89	-4391192.85	-4391192.78	0.0089	0.0080
Mercury	-16736-10-23 17:16 J	-4391104.86	-4391104.78	-4391104.70	0.0089	0.0072
Mercury	-16735-01-19 18:28 J	-4391016.82	-4391016.73	-4391016.64	0.0089	0.0065
Mercury	-16735-04-17 19:26 J	-4390928.77	-4390928.69	-4390928.58	0.0089	0.0059
Mercury	-16735-07-14 21:07 J	-4390840.73	-4390840.62	-4390840.51	0.0089	0.0051
Mercury	-16735-10-10 22:04 J	-4390752.68	-4390752.58	-4390752.45	0.0089	0.0045
Mercury	-16734-01-06 23:45 J	-4390664.63	-4390664.51	-4390664.39	0.0089	0.0037
Mercury	-16734-04-05 00:57 J	-4390576.58	-4390576.46	-4390576.34	0.0089	0.0030
Mercury	-16734-07-02 02:09 J	-4390488.53	-4390488.41	-4390488.28	0.0089	0.0023
Mercury	-16734-09-28 03:36 J	-4390400.48	-4390400.35	-4390400.22	0.0089	0.0016
Mercury	-16734-12-25 04:48 J	-4390312.43	-4390312.30	-4390312.17	0.0089	0.0009
Mercury	-16733-03-22 06:14 J	-4390224.37	-4390224.24	-4390224.11	0.0089	0.0002
Mercury	-16733-06-18 07:26 J	-4390136.32	-4390136.19	-4390136.06	0.0089	0.0006
Mercury	-16733-09-14 08:38 J	-4390048.26	-4390048.14	-4390048.00	0.0089	0.0013
Mercury	-16733-12-11 10:04 J	-4389960.21	-4389960.08	-4389959.95	0.0089	0.0020
Mercury	-16732-03-09 11:16 J	-4389872.15	-4389872.03	-4389871.90	0.0089	0.0027
Mercury	-16732-06-05 12:28 J	-4389784.09	-4389783.98	-4389783.85	0.0089	0.0034
Mercury	-16732-09-01 13:40 J	-4389696.03	-4389695.93	-4389695.80	0.0089	0.0042
Mercury	-16732-11-28 15:07 J	-4389607.97	-4389607.87	-4389607.75	0.0089	0.0048

Mercury	-16731-02-24 16:19 J	-4389519.91	-4389519.82	-4389519.71	0.0089	0.0056
Mercury	-16731-05-23 17:45 J	-4389431.85	-4389431.76	-4389431.66	0.0089	0.0062
Mercury	-16731-08-19 18:57 J	-4389343.78	-4389343.71	-4389343.62	0.0089	0.0070
Mercury	-16731-11-15 20:23 J	-4389255.71	-4389255.65	-4389255.58	0.0089	0.0076
Mercury	-16730-02-11 21:50 J	-4389167.63	-4389167.59	-4389167.54	0.0089	0.0083
Venus	-16726-01-09 00:00 J	-4387740.51	-4387740.50	-4387740.46	0.0089	0.0089
Venus	-16726-08-22 12:28 J	-4387515.03	-4387514.98	-4387514.89	0.0089	0.0085
Venus	-16725-04-04 01:11 J	-4387289.52	-4387289.45	-4387289.34	0.0089	0.0081
Venus	-16725-11-15 13:40 J	-4387064.02	-4387063.93	-4387063.79	0.0089	0.0077
Venus	-16724-06-29 02:52 J	-4386838.50	-4386838.38	-4386838.25	0.0089	0.0072
Venus	-16723-02-09 15:07 J	-4386612.99	-4386612.87	-4386612.71	0.0089	0.0068
Venus	-16723-09-23 03:36 J	-4386387.48	-4386387.35	-4386387.17	0.0089	0.0064
Venus	-16722-05-06 16:33 J	-4386161.96	-4386161.81	-4386161.64	0.0089	0.0059
Venus	-16722-12-18 05:02 J	-4385936.45	-4385936.29	-4385936.10	0.0089	0.0055
Venus	-16721-07-30 17:31 J	-4385710.93	-4385710.77	-4385710.57	0.0089	0.0050
Venus	-16720-03-13 06:14 J	-4385485.41	-4385485.24	-4385485.04	0.0089	0.0046
Venus	-16720-10-24 18:43 J	-4385259.89	-4385259.72	-4385259.51	0.0089	0.0041
Venus	-16719-06-07 07:40 J	-4385034.37	-4385034.18	-4385033.97	0.0089	0.0036
Venus	-16718-01-18 20:09 J	-4384808.85	-4384808.66	-4384808.45	0.0089	0.0032
Venus	-16718-09-01 08:52 J	-4384583.33	-4384583.13	-4384582.92	0.0089	0.0027
Venus	-16717-04-13 21:21 J	-4384357.81	-4384357.61	-4384357.39	0.0089	0.0023
Venus	-16717-11-25 10:04 J	-4384132.29	-4384132.08	-4384131.87	0.0089	0.0018
Venus	-16716-07-08 22:48 J	-4383906.76	-4383906.55	-4383906.34	0.0089	0.0014
Venus	-16715-02-19 11:16 J	-4383681.24	-4383681.03	-4383680.81	0.0089	0.0009
Venus	-16715-10-02 23:45 J	-4383455.72	-4383455.51	-4383455.29	0.0089	0.0005
Venus	-16714-05-16 12:14 J	-4383230.20	-4383229.99	-4383229.77	0.0089	0.0002
Venus	-16714-12-28 00:43 J	-4383004.68	-4383004.47	-4383004.25	0.0089	0.0005
Venus	-16713-08-09 13:11 J	-4382779.16	-4382778.95	-4382778.73	0.0089	0.0009
Venus	-16712-03-23 01:26 J	-4382553.64	-4382553.44	-4382553.22	0.0089	0.0015
Venus	-16712-11-03 14:09 J	-4382328.12	-4382327.91	-4382327.70	0.0089	0.0018

Venus	-16711-06-17 02:38 J	-4382102.59	-4382102.39	-4382102.18	0.0089	0.0023
Venus	-16710-01-28 15:07 J	-4381877.07	-4381876.87	-4381876.66	0.0089	0.0028
Venus	-16710-09-11 03:21 J	-4381651.55	-4381651.36	-4381651.15	0.0089	0.0032
Venus	-16709-04-23 15:36 J	-4381426.03	-4381425.85	-4381425.64	0.0089	0.0037
Venus	-16709-12-05 04:04 J	-4381200.51	-4381200.33	-4381200.12	0.0089	0.0041
Venus	-16708-07-18 17:02 J	-4380974.98	-4380974.79	-4380974.61	0.0089	0.0045
Venus	-16707-03-01 05:02 J	-4380749.45	-4380749.29	-4380749.09	0.0089	0.0050
Venus	-16707-10-12 17:45 J	-4380523.93	-4380523.76	-4380523.58	0.0089	0.0054
Venus	-16706-05-26 06:00 J	-4380298.40	-4380298.25	-4380298.07	0.0089	0.0059
Venus	-16705-01-06 18:28 J	-4380072.87	-4380072.73	-4380072.56	0.0089	0.0063
Venus	-16705-08-19 07:11 J	-4379847.33	-4379847.20	-4379847.05	0.0089	0.0067
Venus	-16704-04-01 19:11 J	-4379621.80	-4379621.70	-4379621.55	0.0089	0.0072
Venus	-16704-11-13 07:40 J	-4379396.27	-4379396.18	-4379396.04	0.0089	0.0076
Venus	-16703-06-26 20:23 J	-4379170.72	-4379170.65	-4379170.54	0.0089	0.0080
Venus	-16702-02-07 08:52 J	-4378945.18	-4378945.13	-4378945.04	0.0089	0.0084
Venus	-16702-09-20 21:21 J	-4378719.62	-4378719.61	-4378719.57	0.0089	0.0088
Earth	-16677-11-11 13:40 J	-4369535.94	-4369535.93	-4369535.88	0.0088	0.0087
Moon	-16677-11-11 14:23 J	-4369535.93	-4369535.90	-4369535.83	0.0088	0.0087 *
Earth	-16676-11-14 02:23 J	-4369168.62	-4369168.40	-4369168.18	0.0088	0.0047
Moon	-16676-11-14 02:52 J	-4369168.58	-4369168.38	-4369168.15	0.0088	0.0047 *
Moon	-16675-11-16 13:11 J	-4368801.21	-4368800.95	-4368800.67	0.0088	0.0005
Earth	-16675-11-16 14:52 J	-4368801.14	-4368800.88	-4368800.62	0.0088	0.0006 *
Earth	-16674-11-19 02:52 J	-4368433.60	-4368433.38	-4368433.12	0.0088	0.0036
Moon	-16674-11-19 05:45 J	-4368433.48	-4368433.26	-4368433.00	0.0088	0.0035 *
Moon	-16673-11-20 11:45 J	-4368066.12	-4368066.01	-4368065.85	0.0088	0.0076
Earth	-16673-11-20 15:36 J	-4368065.97	-4368065.85	-4368065.71	0.0088	0.0076 *
Mars	-16656-01-17 16:04 J	-4362164.05	-4362163.83	-4362163.60	0.0088	0.0055
Mars	-16655-12-12 08:23 J	-4361470.43	-4361470.15	-4361469.85	0.0088	0.0011
Mercury	-16653-10-14 14:23 J	-4360797.95	-4360797.90	-4360797.81	0.0088	0.0082
Mars	-16653-11-05 00:28 J	-4360776.59	-4360776.48	-4360776.31	0.0088	0.0077

Mercury	-16652-01-10 18:28 J	-4360709.84	-4360709.73	-4360709.61	0.0088	0.0071
Mercury	-16652-04-08 22:04 J	-4360621.71	-4360621.58	-4360621.43	0.0088	0.0061
Mercury	-16652-07-06 01:55 J	-4360533.57	-4360533.42	-4360533.25	0.0088	0.0051
Mercury	-16652-10-02 05:31 J	-4360445.43	-4360445.27	-4360445.08	0.0088	0.0041
Mercury	-16652-12-29 09:07 J	-4360357.29	-4360357.12	-4360356.92	0.0088	0.0031
Mercury	-16651-03-27 12:57 J	-4360269.14	-4360268.96	-4360268.76	0.0088	0.0021
Mercury	-16651-06-23 16:48 J	-4360180.99	-4360180.80	-4360180.60	0.0088	0.0010
Mercury	-16651-09-19 20:38 J	-4360092.84	-4360092.64	-4360092.45	0.0088	0.0001
Mercury	-16651-12-17 00:14 J	-4360004.69	-4360004.49	-4360004.29	0.0088	0.0010
Mercury	-16650-03-15 03:50 J	-4359916.53	-4359916.34	-4359916.14	0.0088	0.0020
Mercury	-16650-06-11 07:26 J	-4359828.37	-4359828.19	-4359828.00	0.0088	0.0030
Mercury	-16650-09-07 11:16 J	-4359740.21	-4359740.03	-4359739.85	0.0088	0.0040
Mercury	-16650-12-04 14:52 J	-4359652.04	-4359651.88	-4359651.72	0.0088	0.0050
Mercury	-16649-03-01 18:00 J	-4359563.87	-4359563.75	-4359563.58	0.0088	0.0062
Mercury	-16649-05-28 21:50 J	-4359475.69	-4359475.59	-4359475.46	0.0088	0.0071
Mercury	-16649-08-25 01:26 J	-4359387.50	-4359387.44	-4359387.34	0.0088	0.0081
Venus	-16643-05-19 12:43 J	-4357294.00	-4357293.97	-4357293.91	0.0088	0.0086
Venus	-16643-12-31 02:09 J	-4357068.47	-4357068.41	-4357068.32	0.0088	0.0082
Venus	-16642-08-13 15:21 J	-4356842.94	-4356842.86	-4356842.74	0.0088	0.0078
Venus	-16641-03-26 05:16 J	-4356617.40	-4356617.28	-4356617.16	0.0088	0.0074
Venus	-16641-11-06 18:28 J	-4356391.85	-4356391.73	-4356391.58	0.0088	0.0070
Venus	-16640-06-20 07:55 J	-4356166.30	-4356166.17	-4356166.00	0.0088	0.0065
Venus	-16639-01-31 21:36 J	-4355940.75	-4355940.60	-4355940.43	0.0088	0.0061
Venus	-16639-09-14 10:48 J	-4355715.21	-4355715.05	-4355714.86	0.0088	0.0056
Venus	-16638-04-28 00:00 J	-4355489.65	-4355489.50	-4355489.29	0.0088	0.0053
Venus	-16638-12-09 13:55 J	-4355264.10	-4355263.92	-4355263.72	0.0088	0.0047
Venus	-16637-07-22 03:07 J	-4355038.54	-4355038.37	-4355038.15	0.0088	0.0044
Venus	-16636-03-04 16:48 J	-4354812.99	-4354812.80	-4354812.59	0.0088	0.0038
Venus	-16636-10-16 06:28 J	-4354587.43	-4354587.23	-4354587.02	0.0088	0.0034
Venus	-16635-05-29 19:40 J	-4354361.88	-4354361.68	-4354361.45	0.0088	0.0030

Venus	-16634-01-10 09:21 J	-4354136.32	-4354136.11	-4354135.89	0.0088	0.0024
Venus	-16634-08-23 22:48 J	-4353910.76	-4353910.55	-4353910.32	0.0088	0.0020
Venus	-16633-04-05 12:14 J	-4353685.20	-4353684.99	-4353684.76	0.0088	0.0015
Venus	-16633-11-17 01:55 J	-4353459.64	-4353459.42	-4353459.19	0.0088	0.0011
Venus	-16632-06-30 15:36 J	-4353234.07	-4353233.85	-4353233.62	0.0088	0.0006
Venus	-16631-02-11 05:02 J	-4353008.51	-4353008.29	-4353008.06	0.0088	0.0002
Venus	-16631-09-24 18:43 J	-4352782.95	-4352782.72	-4352782.50	0.0088	0.0004
Venus	-16630-05-08 08:09 J	-4352557.38	-4352557.16	-4352556.93	0.0088	0.0008
Venus	-16630-12-19 21:50 J	-4352331.81	-4352331.59	-4352331.36	0.0088	0.0013
Venus	-16629-08-01 11:31 J	-4352106.24	-4352106.02	-4352105.80	0.0088	0.0018
Venus	-16628-03-15 00:57 J	-4351880.67	-4351880.46	-4351880.23	0.0088	0.0023
Venus	-16628-10-26 14:23 J	-4351655.10	-4351654.90	-4351654.67	0.0088	0.0028
Venus	-16627-06-09 04:19 J	-4351429.52	-4351429.32	-4351429.11	0.0088	0.0032
Venus	-16626-01-20 17:45 J	-4351203.95	-4351203.76	-4351203.54	0.0088	0.0037
Venus	-16626-09-03 07:11 J	-4350978.38	-4350978.20	-4350977.98	0.0088	0.0042
Venus	-16625-04-15 21:07 J	-4350752.80	-4350752.62	-4350752.42	0.0088	0.0046
Venus	-16625-11-27 10:33 J	-4350527.22	-4350527.06	-4350526.86	0.0088	0.0051
Venus	-16624-07-11 00:28 J	-4350301.65	-4350301.48	-4350301.30	0.0088	0.0055
Venus	-16623-02-21 13:55 J	-4350076.07	-4350075.92	-4350075.74	0.0088	0.0060
Venus	-16623-10-05 03:36 J	-4349850.49	-4349850.35	-4349850.19	0.0088	0.0064
Venus	-16622-05-18 16:48 J	-4349624.92	-4349624.80	-4349624.63	0.0088	0.0069
Venus	-16622-12-30 06:43 J	-4349399.33	-4349399.22	-4349399.08	0.0089	0.0073
Venus	-16621-08-11 20:38 J	-4349173.74	-4349173.64	-4349173.53	0.0089	0.0077
Venus	-16620-03-25 09:50 J	-4348948.16	-4348948.09	-4348947.99	0.0089	0.0082
Venus	-16620-11-05 23:31 J	-4348722.56	-4348722.52	-4348722.45	0.0089	0.0086
Moon	-16593-05-18 00:14 J	-4339032.69	-4339032.49	-4339032.28	0.0089	0.0057
Earth	-16593-05-18 00:14 J	-4339032.66	-4339032.49	-4339032.27	0.0089	0.0058 *
Earth	-16592-05-20 11:16 J	-4338665.27	-4338665.03	-4338664.77	0.0089	0.0017
Moon	-16592-05-20 12:57 J	-4338665.19	-4338664.96	-4338664.70	0.0089	0.0019 *
Moon	-16591-05-22 19:40 J	-4338297.92	-4338297.68	-4338297.42	0.0089	0.0025

Earth	-16591-05-22 22:19 J	-4338297.81	-4338297.57	-4338297.32	0.0089	0.0024 *
Earth	-16590-05-25 08:52 J	-4337930.29	-4337930.13	-4337929.95	0.0089	0.0066
Moon	-16590-05-25 12:00 J	-4337930.15	-4337930.00	-4337929.81	0.0089	0.0065 *
Jupiter	-16577-04-28 07:26 J	-4333208.53	-4333208.19	-4333207.73	0.0089	0.0059
Mars	-16575-10-29 22:19 J	-4332293.62	-4332293.57	-4332293.49	0.0089	0.0088
Mars	-16573-09-25 06:00 J	-4331597.58	-4331597.25	-4331596.90	0.0089	0.0007
Mercury	-16572-10-29 13:11 J	-4331197.95	-4331197.95	-4331197.93	0.0089	0.0089
Mercury	-16571-01-25 14:23 J	-4331109.93	-4331109.90	-4331109.83	0.0089	0.0083
Mercury	-16571-04-23 15:50 J	-4331021.90	-4331021.84	-4331021.76	0.0089	0.0075
Mercury	-16571-07-20 17:02 J	-4330933.86	-4330933.79	-4330933.69	0.0089	0.0069
Mars	-16571-08-22 13:11 J	-4330901.10	-4330900.95	-4330900.74	0.0089	0.0076
Mercury	-16571-10-16 18:28 J	-4330845.82	-4330845.73	-4330845.63	0.0089	0.0061
Mercury	-16570-01-12 19:40 J	-4330757.77	-4330757.68	-4330757.56	0.0089	0.0054
Mercury	-16570-04-10 21:07 J	-4330669.73	-4330669.62	-4330669.50	0.0089	0.0047
Mercury	-16570-07-07 22:19 J	-4330581.68	-4330581.57	-4330581.44	0.0089	0.0040
Mercury	-16570-10-03 23:31 J	-4330493.63	-4330493.52	-4330493.39	0.0089	0.0034
Mercury	-16570-12-31 00:57 J	-4330405.58	-4330405.46	-4330405.33	0.0089	0.0026
Mercury	-16569-03-28 02:23 J	-4330317.53	-4330317.40	-4330317.27	0.0089	0.0019
Mercury	-16569-06-24 03:36 J	-4330229.48	-4330229.35	-4330229.22	0.0089	0.0012
Mercury	-16569-09-20 05:02 J	-4330141.42	-4330141.29	-4330141.16	0.0089	0.0005
Mercury	-16569-12-17 06:14 J	-4330053.37	-4330053.24	-4330053.11	0.0089	0.0002
Mercury	-16568-03-15 07:26 J	-4329965.32	-4329965.19	-4329965.05	0.0089	0.0010
Mercury	-16568-06-11 08:52 J	-4329877.26	-4329877.13	-4329877.00	0.0089	0.0016
Mercury	-16568-09-07 10:04 J	-4329789.20	-4329789.08	-4329788.95	0.0089	0.0024
Mercury	-16568-12-04 11:16 J	-4329701.15	-4329701.03	-4329700.90	0.0089	0.0031
Mercury	-16567-03-02 12:43 J	-4329613.09	-4329612.97	-4329612.85	0.0089	0.0038
Mercury	-16567-05-29 14:09 J	-4329525.03	-4329524.91	-4329524.80	0.0089	0.0045
Mercury	-16567-08-25 15:21 J	-4329436.97	-4329436.86	-4329436.75	0.0089	0.0052
Mercury	-16567-11-21 16:19 J	-4329348.90	-4329348.82	-4329348.71	0.0089	0.0060
Mercury	-16566-02-17 17:45 J	-4329260.84	-4329260.76	-4329260.66	0.0089	0.0066

Mercury	-16566-05-16 18:57 J	-4329172.77	-4329172.71	-4329172.62	0.0089	0.0074
Mercury	-16566-08-12 20:23 J	-4329084.70	-4329084.65	-4329084.59	0.0089	0.0080
Mercury	-16566-11-08 21:36 J	-4328996.61	-4328996.60	-4328996.56	0.0089	0.0088
Venus	-16562-11-24 00:57 J	-4327520.47	-4327520.46	-4327520.42	0.0089	0.0089
Venus	-16561-07-06 13:26 J	-4327294.99	-4327294.94	-4327294.85	0.0089	0.0085
Venus	-16560-02-17 02:38 J	-4327069.49	-4327069.39	-4327069.30	0.0089	0.0080
Venus	-16560-09-30 14:52 J	-4326843.98	-4326843.88	-4326843.75	0.0089	0.0076
Venus	-16559-05-14 03:21 J	-4326618.46	-4326618.36	-4326618.20	0.0089	0.0072
Venus	-16559-12-25 16:19 J	-4326392.95	-4326392.82	-4326392.66	0.0089	0.0067
Venus	-16558-08-08 04:48 J	-4326167.44	-4326167.30	-4326167.13	0.0089	0.0062
Venus	-16557-03-20 17:31 J	-4325941.92	-4325941.77	-4325941.60	0.0089	0.0058
Venus	-16557-11-01 06:00 J	-4325716.41	-4325716.25	-4325716.06	0.0089	0.0053
Venus	-16556-06-14 18:57 J	-4325490.89	-4325490.71	-4325490.52	0.0089	0.0048
Venus	-16555-01-26 07:11 J	-4325265.37	-4325265.20	-4325264.99	0.0089	0.0044
Venus	-16555-09-08 19:55 J	-4325039.85	-4325039.67	-4325039.46	0.0089	0.0039
Venus	-16554-04-22 08:38 J	-4324814.33	-4324814.14	-4324813.93	0.0089	0.0035
Venus	-16554-12-03 21:07 J	-4324588.81	-4324588.62	-4324588.41	0.0089	0.0030
Venus	-16553-07-16 09:50 J	-4324363.29	-4324363.09	-4324362.88	0.0089	0.0025
Venus	-16552-02-26 22:33 J	-4324137.77	-4324137.56	-4324137.35	0.0089	0.0021
Venus	-16552-10-10 11:02 J	-4323912.25	-4323912.04	-4323911.82	0.0089	0.0016
Venus	-16551-05-23 23:45 J	-4323686.72	-4323686.51	-4323686.29	0.0089	0.0011
Venus	-16550-01-04 12:28 J	-4323461.20	-4323460.98	-4323460.77	0.0089	0.0007
Venus	-16550-08-18 00:57 J	-4323235.68	-4323235.46	-4323235.25	0.0089	0.0002
Venus	-16549-03-30 13:26 J	-4323010.16	-4323009.94	-4323009.73	0.0089	0.0003
Venus	-16549-11-11 01:55 J	-4322784.63	-4322784.42	-4322784.20	0.0089	0.0008
Venus	-16548-06-24 14:38 J	-4322559.11	-4322558.89	-4322558.68	0.0089	0.0012
Venus	-16547-02-05 02:52 J	-4322333.59	-4322333.38	-4322333.16	0.0089	0.0017
Venus	-16547-09-18 15:07 J	-4322108.07	-4322107.87	-4322107.65	0.0089	0.0022
Venus	-16546-05-02 03:50 J	-4321882.54	-4321882.34	-4321882.13	0.0089	0.0026
Venus	-16546-12-13 16:04 J	-4321657.02	-4321656.83	-4321656.62	0.0089	0.0031

Venus	-16545-07-26 04:33 J	-4321431.50	-4321431.31	-4321431.10	0.0089	0.0036
Venus	-16544-03-08 17:02 J	-4321205.97	-4321205.79	-4321205.59	0.0089	0.0040
Venus	-16544-10-20 05:16 J	-4320980.45	-4320980.28	-4320980.08	0.0089	0.0045
Venus	-16543-06-02 18:14 J	-4320754.92	-4320754.74	-4320754.56	0.0089	0.0049
Venus	-16542-01-14 06:14 J	-4320529.40	-4320529.24	-4320529.06	0.0089	0.0054
Venus	-16542-08-27 18:57 J	-4320303.87	-4320303.71	-4320303.55	0.0089	0.0058
Venus	-16541-04-09 06:57 J	-4320078.34	-4320078.21	-4320078.04	0.0089	0.0063
Venus	-16541-11-20 19:40 J	-4319852.81	-4319852.68	-4319852.53	0.0089	0.0067
Venus	-16540-07-04 07:55 J	-4319627.27	-4319627.17	-4319627.02	0.0089	0.0072
Venus	-16539-02-14 20:38 J	-4319401.74	-4319401.64	-4319401.52	0.0089	0.0076
Venus	-16539-09-28 09:07 J	-4319176.20	-4319176.12	-4319176.02	0.0089	0.0080
Venus	-16538-05-11 21:07 J	-4318950.66	-4318950.62	-4318950.53	0.0089	0.0085
Venus	-16538-12-23 10:04 J	-4318725.08	-4318725.08	-4318725.07	0.0089	0.0089
Moon	-16512-11-13 10:04 J	-4309268.22	-4309268.08	-4309267.90	0.0088	0.0070
Earth	-16512-11-13 12:28 J	-4309268.13	-4309267.98	-4309267.78	0.0088	0.0066 *
Earth	-16511-11-16 01:26 J	-4308900.68	-4308900.44	-4308900.18	0.0088	0.0025
Moon	-16511-11-16 04:04 J	-4308900.57	-4308900.33	-4308900.07	0.0088	0.0021 *
Moon	-16510-11-18 10:19 J	-4308533.33	-4308533.07	-4308532.80	0.0088	0.0011
Earth	-16510-11-18 13:40 J	-4308533.17	-4308532.93	-4308532.66	0.0088	0.0017 *
Earth	-16509-11-20 02:09 J	-4308165.60	-4308165.41	-4308165.20	0.0088	0.0056
Moon	-16509-11-20 05:31 J	-4308165.44	-4308165.27	-4308165.06	0.0088	0.0061 *
Mars	-16493-09-02 09:07 J	-4302400.12	-4302400.12	-4302400.10	0.0088	0.0088
Mars	-16491-07-28 01:26 J	-4301706.73	-4301706.44	-4301706.16	0.0088	0.0021
Mars	-16489-06-20 16:33 J	-4301013.04	-4301012.81	-4301012.54	0.0088	0.0045
Mercury	-16488-04-14 10:04 J	-4300715.11	-4300715.08	-4300715.04	0.0088	0.0086
Mercury	-16488-07-11 13:40 J	-4300627.01	-4300626.93	-4300626.82	0.0088	0.0076
Mercury	-16488-10-07 17:16 J	-4300538.89	-4300538.78	-4300538.63	0.0088	0.0066
Mercury	-16487-01-03 21:07 J	-4300450.76	-4300450.62	-4300450.46	0.0088	0.0056
Mercury	-16487-04-02 00:43 J	-4300362.62	-4300362.47	-4300362.28	0.0088	0.0046
Mercury	-16487-06-29 04:48 J	-4300274.48	-4300274.30	-4300274.12	0.0088	0.0035

Mercury	-16487-09-25 08:23 J	-4300186.33	-4300186.15	-4300185.95	0.0088	0.0025
Mercury	-16487-12-22 12:14 J	-4300098.18	-4300097.99	-4300097.79	0.0088	0.0015
Mercury	-16486-03-20 15:50 J	-4300010.03	-4300009.84	-4300009.64	0.0088	0.0005
Mercury	-16486-06-16 19:40 J	-4299921.88	-4299921.68	-4299921.48	0.0088	0.0005
Mercury	-16486-09-12 23:16 J	-4299833.72	-4299833.53	-4299833.33	0.0088	0.0016
Mercury	-16486-12-10 02:52 J	-4299745.56	-4299745.38	-4299745.18	0.0088	0.0026
Mercury	-16485-03-07 06:28 J	-4299657.40	-4299657.23	-4299657.04	0.0088	0.0036
Mercury	-16485-06-03 10:04 J	-4299569.23	-4299569.08	-4299568.90	0.0088	0.0046
Mercury	-16485-08-30 13:55 J	-4299481.06	-4299480.92	-4299480.76	0.0088	0.0056
Mercury	-16485-11-26 17:31 J	-4299392.89	-4299392.77	-4299392.63	0.0088	0.0066
Mercury	-16484-02-22 21:07 J	-4299304.70	-4299304.62	-4299304.51	0.0088	0.0076
Mercury	-16484-05-22 00:57 J	-4299216.49	-4299216.46	-4299216.42	0.0088	0.0086
Venus	-16478-04-03 13:40 J	-4297073.95	-4297073.93	-4297073.86	0.0088	0.0086
Venus	-16478-11-15 03:36 J	-4296848.42	-4296848.35	-4296848.26	0.0088	0.0082
Venus	-16477-06-27 16:48 J	-4296622.89	-4296622.80	-4296622.68	0.0088	0.0077
Venus	-16476-02-08 06:00 J	-4296397.35	-4296397.25	-4296397.10	0.0088	0.0073
Venus	-16476-09-21 19:40 J	-4296171.81	-4296171.68	-4296171.53	0.0088	0.0068
Venus	-16475-05-05 08:52 J	-4295946.26	-4295946.13	-4295945.96	0.0088	0.0064
Venus	-16475-12-16 22:48 J	-4295720.71	-4295720.55	-4295720.38	0.0088	0.0059
Venus	-16474-07-30 12:00 J	-4295495.16	-4295495.00	-4295494.81	0.0088	0.0055
Venus	-16473-03-12 01:40 J	-4295269.61	-4295269.43	-4295269.24	0.0088	0.0050
Venus	-16473-10-23 15:21 J	-4295044.05	-4295043.86	-4295043.67	0.0088	0.0046
Venus	-16472-06-06 04:33 J	-4294818.49	-4294818.31	-4294818.10	0.0088	0.0041
Venus	-16471-01-17 18:00 J	-4294592.94	-4294592.75	-4294592.53	0.0088	0.0037
Venus	-16471-08-31 07:40 J	-4294367.39	-4294367.18	-4294366.97	0.0088	0.0032
Venus	-16470-04-13 20:52 J	-4294141.83	-4294141.63	-4294141.40	0.0088	0.0027
Venus	-16470-11-25 10:33 J	-4293916.27	-4293916.06	-4293915.83	0.0088	0.0022
Venus	-16469-07-08 00:14 J	-4293690.71	-4293690.49	-4293690.27	0.0088	0.0017
Venus	-16468-02-18 13:40 J	-4293465.15	-4293464.93	-4293464.70	0.0088	0.0013
Venus	-16468-10-02 03:07 J	-4293239.59	-4293239.37	-4293239.14	0.0088	0.0008

Venus	-16467-05-15 16:33 J	-4293014.03	-4293013.81	-4293013.58	0.0088	0.0004
Venus	-16467-12-27 06:14 J	-4292788.46	-4292788.24	-4292788.01	0.0088	0.0002
Venus	-16466-08-09 19:55 J	-4292562.90	-4292562.67	-4292562.45	0.0088	0.0007
Venus	-16465-03-22 09:21 J	-4292337.33	-4292337.11	-4292336.89	0.0088	0.0011
Venus	-16465-11-02 22:48 J	-4292111.76	-4292111.55	-4292111.32	0.0088	0.0016
Venus	-16464-06-16 12:14 J	-4291886.20	-4291885.99	-4291885.76	0.0088	0.0022
Venus	-16463-01-28 02:09 J	-4291660.62	-4291660.41	-4291660.20	0.0088	0.0026
Venus	-16463-09-10 15:36 J	-4291435.05	-4291434.85	-4291434.63	0.0088	0.0031
Venus	-16462-04-24 05:02 J	-4291209.48	-4291209.29	-4291209.07	0.0088	0.0036
Venus	-16462-12-05 18:43 J	-4290983.90	-4290983.72	-4290983.50	0.0088	0.0041
Venus	-16461-07-18 08:38 J	-4290758.33	-4290758.14	-4290757.94	0.0088	0.0045
Venus	-16460-02-28 22:04 J	-4290532.75	-4290532.58	-4290532.38	0.0088	0.0050
Venus	-16460-10-12 11:31 J	-4290307.18	-4290307.02	-4290306.83	0.0088	0.0055
Venus	-16459-05-26 01:26 J	-4290081.60	-4290081.44	-4290081.27	0.0088	0.0059
Venus	-16458-01-06 14:52 J	-4289856.02	-4289855.88	-4289855.71	0.0088	0.0064
Venus	-16458-08-20 04:19 J	-4289630.44	-4289630.32	-4289630.15	0.0088	0.0069
Venus	-16457-04-01 18:14 J	-4289404.86	-4289404.74	-4289404.60	0.0088	0.0073
Venus	-16457-11-13 07:26 J	-4289179.27	-4289179.19	-4289179.06	0.0089	0.0078
Venus	-16456-06-26 21:21 J	-4288953.68	-4288953.61	-4288953.51	0.0089	0.0082
Venus	-16455-02-07 10:33 J	-4288728.08	-4288728.06	-4288727.98	0.0089	0.0087
Earth	-16429-05-17 12:43 J	-4279132.08	-4279131.97	-4279131.82	0.0089	0.0077
Moon	-16429-05-17 14:23 J	-4279131.97	-4279131.90	-4279131.78	0.0089	0.0082 *
Moon	-16428-05-19 20:23 J	-4278764.87	-4278764.65	-4278764.39	0.0089	0.0033
Earth	-16428-05-19 23:45 J	-4278764.73	-4278764.51	-4278764.27	0.0089	0.0036 *
Earth	-16427-05-22 10:33 J	-4278397.31	-4278397.06	-4278396.80	0.0089	0.0005
Moon	-16427-05-22 13:40 J	-4278397.18	-4278396.93	-4278396.67	0.0089	0.0002 *
Moon	-16426-05-24 17:16 J	-4278029.97	-4278029.78	-4278029.56	0.0089	0.0051
Earth	-16426-05-24 21:07 J	-4278029.83	-4278029.62	-4278029.39	0.0089	0.0046 *
Earth	-16425-05-26 07:40 J	-4277662.22	-4277662.18	-4277662.11	0.0089	0.0087
Moon	-16425-05-26 10:19 J	-4277662.14	-4277662.07	-4277661.94	0.0089	0.0083 *

Jupiter	-16411-06-28 09:36 J	-4272516.37	-4272516.10	-4272515.74	0.0089	0.0072
Mars	-16409-05-08 21:21 J	-4271835.87	-4271835.61	-4271835.29	0.0089	0.0047
Mars	-16407-04-05 05:02 J	-4271139.57	-4271139.29	-4271138.95	0.0089	0.0037
Mercury	-16407-07-26 13:40 J	-4271026.97	-4271026.93	-4271026.89	0.0089	0.0085
Mercury	-16407-10-22 14:38 J	-4270938.94	-4270938.89	-4270938.81	0.0089	0.0078
Mercury	-16406-01-18 15:50 J	-4270850.90	-4270850.84	-4270850.74	0.0089	0.0072
Mercury	-16406-04-16 17:31 J	-4270762.86	-4270762.77	-4270762.68	0.0089	0.0064
Mercury	-16406-07-13 18:28 J	-4270674.81	-4270674.73	-4270674.62	0.0089	0.0058
Mercury	-16406-10-09 20:09 J	-4270586.77	-4270586.66	-4270586.55	0.0089	0.0050
Mercury	-16405-01-05 21:21 J	-4270498.72	-4270498.61	-4270498.49	0.0089	0.0043
Mercury	-16405-04-02 22:33 J	-4270410.67	-4270410.56	-4270410.43	0.0089	0.0036
Mercury	-16405-06-30 00:00 J	-4270322.62	-4270322.50	-4270322.38	0.0089	0.0029
Mercury	-16405-09-26 01:11 J	-4270234.57	-4270234.45	-4270234.32	0.0089	0.0022
Mercury	-16405-12-23 02:23 J	-4270146.52	-4270146.40	-4270146.26	0.0089	0.0015
Mercury	-16404-03-21 03:50 J	-4270058.47	-4270058.34	-4270058.21	0.0089	0.0008
Mercury	-16404-06-17 05:02 J	-4269970.42	-4269970.29	-4269970.16	0.0089	0.0003
Mercury	-16404-09-13 06:28 J	-4269882.36	-4269882.23	-4269882.10	0.0089	0.0007
Mercury	-16404-12-10 07:40 J	-4269794.31	-4269794.18	-4269794.05	0.0089	0.0014
Mercury	-16403-03-08 08:52 J	-4269706.25	-4269706.13	-4269706.00	0.0089	0.0021
Mercury	-16403-06-04 10:19 J	-4269618.20	-4269618.07	-4269617.95	0.0089	0.0028
Mercury	-16403-08-31 11:31 J	-4269530.14	-4269530.02	-4269529.90	0.0089	0.0035
Mercury	-16403-11-27 12:57 J	-4269442.08	-4269441.96	-4269441.85	0.0089	0.0042
Mercury	-16402-02-23 14:09 J	-4269354.02	-4269353.91	-4269353.80	0.0089	0.0049
Mercury	-16402-05-22 15:07 J	-4269265.96	-4269265.87	-4269265.75	0.0089	0.0057
Mercury	-16402-08-18 16:33 J	-4269177.89	-4269177.81	-4269177.71	0.0089	0.0063
Mercury	-16402-11-14 17:45 J	-4269089.83	-4269089.76	-4269089.67	0.0089	0.0071
Mercury	-16401-02-10 19:11 J	-4269001.76	-4269001.70	-4269001.63	0.0089	0.0077
Mercury	-16401-05-08 20:23 J	-4268913.68	-4268913.65	-4268913.60	0.0089	0.0085
Venus	-16397-10-08 01:40 J	-4267300.44	-4267300.43	-4267300.37	0.0089	0.0089
Venus	-16396-05-21 14:52 J	-4267074.94	-4267074.88	-4267074.80	0.0089	0.0084

Venus	-16395-01-02 03:21 J	-4266849.44	-4266849.36	-4266849.24	0.0089	0.0079
Venus	-16395-08-15 16:04 J	-4266623.93	-4266623.83	-4266623.70	0.0089	0.0075
Venus	-16394-03-29 04:33 J	-4266398.42	-4266398.31	-4266398.16	0.0089	0.0070
Venus	-16394-11-09 17:16 J	-4266172.91	-4266172.78	-4266172.62	0.0089	0.0066
Venus	-16393-06-22 05:45 J	-4265947.39	-4265947.26	-4265947.08	0.0089	0.0062
Venus	-16392-02-02 18:28 J	-4265721.88	-4265721.73	-4265721.54	0.0089	0.0057
Venus	-16392-09-16 07:11 J	-4265496.37	-4265496.20	-4265496.01	0.0089	0.0052
Venus	-16391-04-29 19:40 J	-4265270.85	-4265270.68	-4265270.48	0.0089	0.0047
Venus	-16391-12-11 08:23 J	-4265045.33	-4265045.15	-4265044.95	0.0089	0.0042
Venus	-16390-07-24 20:52 J	-4264819.81	-4264819.63	-4264819.42	0.0089	0.0038
Venus	-16389-03-06 09:36 J	-4264594.30	-4264594.10	-4264593.90	0.0089	0.0033
Venus	-16389-10-17 21:50 J	-4264368.78	-4264368.59	-4264368.37	0.0089	0.0029
Venus	-16388-05-31 10:48 J	-4264143.25	-4264143.05	-4264142.84	0.0089	0.0023
Venus	-16387-01-11 23:16 J	-4263917.73	-4263917.53	-4263917.31	0.0089	0.0018
Venus	-16387-08-25 12:00 J	-4263692.21	-4263692.00	-4263691.79	0.0089	0.0013
Venus	-16386-04-08 00:28 J	-4263466.69	-4263466.48	-4263466.26	0.0089	0.0009
Venus	-16386-11-19 13:11 J	-4263241.17	-4263240.95	-4263240.74	0.0089	0.0004
Venus	-16385-07-02 01:55 J	-4263015.64	-4263015.42	-4263015.21	0.0089	0.0002
Venus	-16384-02-12 14:23 J	-4262790.12	-4262789.90	-4262789.69	0.0089	0.0006
Venus	-16384-09-26 02:38 J	-4262564.60	-4262564.39	-4262564.17	0.0089	0.0011
Venus	-16383-05-09 15:21 J	-4262339.07	-4262338.86	-4262338.65	0.0089	0.0016
Venus	-16383-12-21 03:50 J	-4262113.55	-4262113.34	-4262113.13	0.0089	0.0020
Venus	-16382-08-03 16:19 J	-4261888.02	-4261887.82	-4261887.61	0.0089	0.0025
Venus	-16381-03-16 04:33 J	-4261662.50	-4261662.31	-4261662.09	0.0089	0.0030
Venus	-16381-10-27 17:02 J	-4261436.98	-4261436.79	-4261436.58	0.0089	0.0035
Venus	-16380-06-10 05:31 J	-4261211.45	-4261211.27	-4261211.06	0.0089	0.0040
Venus	-16379-01-21 18:00 J	-4260985.92	-4260985.75	-4260985.55	0.0089	0.0044
Venus	-16379-09-04 06:14 J	-4260760.40	-4260760.24	-4260760.04	0.0089	0.0049
Venus	-16378-04-17 18:28 J	-4260534.88	-4260534.73	-4260534.53	0.0089	0.0054
Venus	-16378-11-29 07:11 J	-4260309.35	-4260309.20	-4260309.02	0.0089	0.0058

Venus	-16377-07-11 19:40 J	-4260083.81	-4260083.68	-4260083.51	0.0089	0.0063
Venus	-16376-02-22 08:23 J	-4259858.28	-4259858.15	-4259858.00	0.0089	0.0067
Venus	-16376-10-05 20:23 J	-4259632.75	-4259632.65	-4259632.50	0.0089	0.0072
Venus	-16375-05-19 09:07 J	-4259407.22	-4259407.12	-4259407.00	0.0089	0.0076
Venus	-16375-12-30 21:21 J	-4259181.68	-4259181.61	-4259181.50	0.0089	0.0081
Venus	-16374-08-13 10:04 J	-4258956.13	-4258956.08	-4258956.01	0.0089	0.0085
Earth	-16348-11-12 22:33 J	-4249367.60	-4249367.56	-4249367.47	0.0088	0.0086
Moon	-16348-11-13 02:23 J	-4249367.45	-4249367.40	-4249367.33	0.0088	0.0086
Moon	-16347-11-15 08:09 J	-4249000.38	-4249000.16	-4248999.93	0.0088	0.0045
Earth	-16347-11-15 11:02 J	-4249000.24	-4249000.04	-4248999.79	0.0088	0.0046 *
Earth	-16346-11-18 00:00 J	-4248632.76	-4248632.50	-4248632.23	0.0088	0.0005
Moon	-16346-11-18 03:50 J	-4248632.60	-4248632.34	-4248632.08	0.0088	0.0003 *
Moon	-16345-11-19 09:36 J	-4248265.33	-4248265.10	-4248264.86	0.0088	0.0036
Earth	-16345-11-19 12:43 J	-4248265.21	-4248264.97	-4248264.73	0.0088	0.0037 *
Earth	-16344-11-22 00:43 J	-4247897.57	-4247897.47	-4247897.32	0.0088	0.0078
Moon	-16344-11-22 02:52 J	-4247897.48	-4247897.38	-4247897.24	0.0088	0.0078 *
Mars	-16327-03-12 17:02 J	-4241942.99	-4241942.79	-4241942.53	0.0088	0.0054
Mars	-16325-02-04 10:04 J	-4241249.36	-4241249.08	-4241248.78	0.0088	0.0013
Mars	-16324-12-29 01:40 J	-4240555.54	-4240555.43	-4240555.29	0.0088	0.0079
Mercury	-16323-01-09 08:52 J	-4240544.19	-4240544.13	-4240544.04	0.0088	0.0081
Mercury	-16323-04-07 12:28 J	-4240456.07	-4240455.98	-4240455.84	0.0088	0.0071
Mercury	-16323-07-04 16:48 J	-4240367.94	-4240367.80	-4240367.66	0.0088	0.0060
Mercury	-16323-09-30 20:23 J	-4240279.81	-4240279.65	-4240279.48	0.0088	0.0050
Mercury	-16323-12-28 00:00 J	-4240191.67	-4240191.50	-4240191.32	0.0088	0.0040
Mercury	-16322-03-26 03:36 J	-4240103.52	-4240103.35	-4240103.15	0.0088	0.0030
Mercury	-16322-06-22 07:26 J	-4240015.38	-4240015.19	-4240014.99	0.0088	0.0020
Mercury	-16322-09-18 11:16 J	-4239927.23	-4239927.03	-4239926.83	0.0088	0.0010
Mercury	-16322-12-15 15:07 J	-4239839.07	-4239838.87	-4239838.68	0.0088	0.0002
Mercury	-16321-03-12 18:43 J	-4239750.92	-4239750.72	-4239750.52	0.0088	0.0011
Mercury	-16321-06-08 22:19 J	-4239662.76	-4239662.57	-4239662.37	0.0088	0.0021

Mercury	-16321-09-05 01:55 J	-4239574.60	-4239574.42	-4239574.23	0.0088	0.0031
Mercury	-16321-12-02 05:45 J	-4239486.43	-4239486.26	-4239486.08	0.0088	0.0041
Mercury	-16320-02-28 09:36 J	-4239398.26	-4239398.10	-4239397.95	0.0088	0.0052
Mercury	-16320-05-27 12:43 J	-4239310.09	-4239309.97	-4239309.81	0.0088	0.0062
Mercury	-16320-08-23 16:19 J	-4239221.91	-4239221.82	-4239221.69	0.0088	0.0072
Mercury	-16320-11-19 19:55 J	-4239133.71	-4239133.67	-4239133.58	0.0088	0.0083
Venus	-16313-02-16 14:52 J	-4236853.92	-4236853.88	-4236853.81	0.0088	0.0086
Venus	-16313-09-29 04:04 J	-4236628.40	-4236628.33	-4236628.23	0.0088	0.0081
Venus	-16312-05-12 17:45 J	-4236402.86	-4236402.76	-4236402.64	0.0088	0.0077
Venus	-16312-12-24 06:57 J	-4236177.32	-4236177.21	-4236177.07	0.0088	0.0072
Venus	-16311-08-06 20:38 J	-4235951.78	-4235951.64	-4235951.49	0.0088	0.0067
Venus	-16310-03-20 09:36 J	-4235726.23	-4235726.10	-4235725.92	0.0088	0.0063
Venus	-16310-10-31 23:16 J	-4235500.68	-4235500.53	-4235500.34	0.0088	0.0059
Venus	-16309-06-13 12:57 J	-4235275.13	-4235274.96	-4235274.77	0.0088	0.0054
Venus	-16308-01-25 02:09 J	-4235049.57	-4235049.41	-4235049.20	0.0088	0.0049
Venus	-16308-09-07 15:50 J	-4234824.02	-4234823.84	-4234823.63	0.0088	0.0044
Venus	-16307-04-21 05:16 J	-4234598.46	-4234598.28	-4234598.06	0.0088	0.0040
Venus	-16307-12-02 19:11 J	-4234372.90	-4234372.70	-4234372.49	0.0088	0.0034
Venus	-16306-07-16 08:38 J	-4234147.34	-4234147.14	-4234146.92	0.0088	0.0030
Venus	-16305-02-26 22:19 J	-4233921.78	-4233921.57	-4233921.35	0.0088	0.0025
Venus	-16305-10-09 11:45 J	-4233696.23	-4233696.01	-4233695.79	0.0088	0.0020
Venus	-16304-05-23 00:57 J	-4233470.67	-4233470.46	-4233470.23	0.0088	0.0016
Venus	-16303-01-03 14:38 J	-4233245.10	-4233244.89	-4233244.66	0.0088	0.0010
Venus	-16303-08-17 04:19 J	-4233019.54	-4233019.32	-4233019.10	0.0088	0.0005
Venus	-16302-03-30 17:45 J	-4232793.98	-4232793.76	-4232793.53	0.0088	0.0001
Venus	-16302-11-11 07:26 J	-4232568.42	-4232568.19	-4232567.97	0.0088	0.0005
Venus	-16301-06-23 20:52 J	-4232342.85	-4232342.63	-4232342.40	0.0088	0.0010
Venus	-16300-02-04 10:19 J	-4232117.28	-4232117.07	-4232116.84	0.0088	0.0015
Venus	-16300-09-18 00:00 J	-4231891.72	-4231891.50	-4231891.28	0.0088	0.0020
Venus	-16299-05-01 13:26 J	-4231666.15	-4231665.94	-4231665.72	0.0088	0.0025

Venus	-16299-12-13 03:07 J	-4231440.57	-4231440.37	-4231440.15	0.0088	0.0030
Venus	-16298-07-26 16:33 J	-4231215.00	-4231214.81	-4231214.59	0.0088	0.0035
Venus	-16297-03-08 06:14 J	-4230989.43	-4230989.24	-4230989.03	0.0088	0.0039
Venus	-16297-10-19 19:40 J	-4230763.86	-4230763.68	-4230763.47	0.0088	0.0044
Venus	-16296-06-02 09:07 J	-4230538.28	-4230538.12	-4230537.91	0.0088	0.0050
Venus	-16295-01-13 23:16 J	-4230312.70	-4230312.53	-4230312.35	0.0088	0.0054
Venus	-16295-08-27 12:43 J	-4230087.12	-4230086.97	-4230086.79	0.0088	0.0059
Venus	-16294-04-10 02:09 J	-4229861.54	-4229861.41	-4229861.23	0.0088	0.0064
Venus	-16294-11-21 15:50 J	-4229635.96	-4229635.84	-4229635.68	0.0088	0.0069
Venus	-16293-07-04 05:45 J	-4229410.38	-4229410.26	-4229410.12	0.0088	0.0073
Venus	-16292-02-14 19:11 J	-4229184.79	-4229184.70	-4229184.58	0.0089	0.0078
Venus	-16292-09-28 08:23 J	-4228959.20	-4228959.15	-4228959.04	0.0089	0.0083
Venus	-16291-05-11 22:19 J	-4228733.59	-4228733.57	-4228733.51	0.0089	0.0087
Earth	-16264-05-19 12:28 J	-4218864.17	-4218863.98	-4218863.78	0.0089	0.0056
Moon	-16264-05-19 15:36 J	-4218864.03	-4218863.85	-4218863.63	0.0089	0.0055 *
Moon	-16263-05-21 19:40 J	-4218496.92	-4218496.68	-4218496.42	0.0089	0.0017
Earth	-16263-05-21 23:02 J	-4218496.78	-4218496.54	-4218496.28	0.0089	0.0015 *
Earth	-16262-05-24 09:36 J	-4218129.33	-4218129.10	-4218128.84	0.0089	0.0026
Moon	-16262-05-24 13:11 J	-4218129.19	-4218128.95	-4218128.70	0.0089	0.0026 *
Moon	-16261-05-25 18:28 J	-4217761.89	-4217761.73	-4217761.55	0.0089	0.0066
Earth	-16261-05-25 20:09 J	-4217761.80	-4217761.66	-4217761.47	0.0089	0.0067 *
Mars	-16246-12-21 12:57 J	-4212074.01	-4212073.96	-4212073.83	0.0089	0.0087
Mars	-16244-11-16 20:38 J	-4211377.98	-4211377.64	-4211377.30	0.0089	0.0004
Mercury	-16242-01-24 12:14 J	-4210944.00	-4210943.99	-4210943.96	0.0089	0.0088
Mercury	-16242-04-22 13:26 J	-4210855.98	-4210855.94	-4210855.88	0.0089	0.0082
Mercury	-16242-07-19 14:52 J	-4210767.94	-4210767.88	-4210767.80	0.0089	0.0074
Mars	-16242-10-14 04:19 J	-4210681.48	-4210681.32	-4210681.15	0.0089	0.0078
Mercury	-16242-10-15 16:04 J	-4210679.90	-4210679.83	-4210679.74	0.0089	0.0068
Mercury	-16241-01-11 17:16 J	-4210591.86	-4210591.78	-4210591.67	0.0089	0.0061
Mercury	-16241-04-08 18:43 J	-4210503.82	-4210503.72	-4210503.61	0.0089	0.0053

Mercury	-16241-07-05 19:55 J	-4210415.77	-4210415.67	-4210415.55	0.0089	0.0047
Mercury	-16241-10-01 21:21 J	-4210327.72	-4210327.61	-4210327.49	0.0089	0.0039
Mercury	-16241-12-28 22:33 J	-4210239.67	-4210239.56	-4210239.43	0.0089	0.0032
Mercury	-16240-03-27 00:00 J	-4210151.62	-4210151.50	-4210151.37	0.0089	0.0025
Mercury	-16240-06-23 01:11 J	-4210063.57	-4210063.45	-4210063.32	0.0089	0.0018
Mercury	-16240-09-19 02:38 J	-4209975.52	-4209975.39	-4209975.26	0.0089	0.0011
Mercury	-16240-12-16 03:50 J	-4209887.47	-4209887.34	-4209887.21	0.0089	0.0004
Mercury	-16239-03-14 05:16 J	-4209799.42	-4209799.28	-4209799.15	0.0089	0.0004
Mercury	-16239-06-10 06:28 J	-4209711.36	-4209711.23	-4209711.10	0.0089	0.0010
Mercury	-16239-09-06 07:40 J	-4209623.31	-4209623.18	-4209623.05	0.0089	0.0017
Mercury	-16239-12-03 08:52 J	-4209535.25	-4209535.13	-4209535.00	0.0089	0.0025
Mercury	-16238-03-01 10:19 J	-4209447.19	-4209447.07	-4209446.95	0.0089	0.0031
Mercury	-16238-05-28 11:31 J	-4209359.13	-4209359.02	-4209358.90	0.0089	0.0039
Mercury	-16238-08-24 12:57 J	-4209271.07	-4209270.96	-4209270.85	0.0089	0.0045
Mercury	-16238-11-20 14:09 J	-4209183.01	-4209182.91	-4209182.80	0.0089	0.0053
Mercury	-16237-02-16 15:36 J	-4209094.95	-4209094.85	-4209094.75	0.0089	0.0060
Mercury	-16237-05-14 16:48 J	-4209006.88	-4209006.80	-4209006.71	0.0089	0.0067
Mercury	-16237-08-10 18:14 J	-4208918.82	-4208918.74	-4208918.67	0.0089	0.0074
Mercury	-16237-11-06 19:26 J	-4208830.74	-4208830.69	-4208830.64	0.0089	0.0081
Mercury	-16236-02-02 20:23 J	-4208742.65	-4208742.65	-4208742.61	0.0089	0.0089
Venus	-16232-08-23 02:52 J	-4207080.41	-4207080.38	-4207080.33	0.0089	0.0088
Venus	-16231-04-05 15:21 J	-4206854.91	-4206854.86	-4206854.76	0.0089	0.0083
Venus	-16231-11-17 04:19 J	-4206629.41	-4206629.32	-4206629.21	0.0089	0.0079
Venus	-16230-06-30 16:48 J	-4206403.90	-4206403.80	-4206403.66	0.0089	0.0074
Venus	-16229-02-11 05:31 J	-4206178.38	-4206178.27	-4206178.11	0.0089	0.0070
Venus	-16229-09-23 18:14 J	-4205952.87	-4205952.74	-4205952.57	0.0089	0.0065
Venus	-16228-05-07 07:11 J	-4205727.35	-4205727.20	-4205727.03	0.0089	0.0060
Venus	-16228-12-18 19:26 J	-4205501.84	-4205501.69	-4205501.50	0.0089	0.0055
Venus	-16227-08-01 08:09 J	-4205276.32	-4205276.16	-4205275.97	0.0089	0.0050
Venus	-16226-03-14 20:38 J	-4205050.81	-4205050.64	-4205050.44	0.0089	0.0046

Venus	-16226-10-26 09:21 J	-4204825.29	-4204825.11	-4204824.91	0.0089	0.0040
Venus	-16225-06-07 22:04 J	-4204599.77	-4204599.58	-4204599.37	0.0089	0.0036
Venus	-16224-01-19 10:48 J	-4204374.25	-4204374.05	-4204373.84	0.0089	0.0030
Venus	-16224-09-01 23:16 J	-4204148.73	-4204148.53	-4204148.32	0.0089	0.0026
Venus	-16223-04-15 11:31 J	-4203923.22	-4203923.02	-4203922.79	0.0089	0.0021
Venus	-16223-11-27 00:14 J	-4203697.70	-4203697.49	-4203697.27	0.0089	0.0016
Venus	-16222-07-10 12:57 J	-4203472.17	-4203471.96	-4203471.74	0.0089	0.0011
Venus	-16221-02-21 01:26 J	-4203246.65	-4203246.44	-4203246.22	0.0089	0.0006
Venus	-16221-10-03 14:09 J	-4203021.13	-4203020.91	-4203020.70	0.0089	0.0001
Venus	-16220-05-17 02:38 J	-4202795.60	-4202795.39	-4202795.17	0.0089	0.0004
Venus	-16220-12-28 15:07 J	-4202570.08	-4202569.87	-4202569.65	0.0089	0.0009
Venus	-16219-08-11 03:36 J	-4202344.56	-4202344.35	-4202344.13	0.0089	0.0014
Venus	-16218-03-24 16:04 J	-4202119.03	-4202118.83	-4202118.61	0.0089	0.0019
Venus	-16218-11-05 04:33 J	-4201893.51	-4201893.31	-4201893.09	0.0089	0.0024
Venus	-16217-06-17 17:02 J	-4201667.98	-4201667.79	-4201667.57	0.0089	0.0029
Venus	-16216-01-29 05:31 J	-4201442.45	-4201442.27	-4201442.05	0.0089	0.0034
Venus	-16216-09-11 18:00 J	-4201216.93	-4201216.75	-4201216.54	0.0089	0.0039
Venus	-16215-04-25 06:43 J	-4200991.41	-4200991.22	-4200991.03	0.0089	0.0043
Venus	-16215-12-06 18:57 J	-4200765.88	-4200765.71	-4200765.52	0.0089	0.0048
Venus	-16214-07-20 07:26 J	-4200540.35	-4200540.19	-4200540.00	0.0089	0.0053
Venus	-16213-03-01 19:40 J	-4200314.83	-4200314.68	-4200314.50	0.0089	0.0058
Venus	-16213-10-13 08:23 J	-4200089.30	-4200089.15	-4200088.99	0.0089	0.0062
Venus	-16212-05-26 20:38 J	-4199863.77	-4199863.64	-4199863.49	0.0089	0.0067
Venus	-16211-01-07 08:52 J	-4199638.24	-4199638.13	-4199637.98	0.0089	0.0072
Venus	-16211-08-20 21:36 J	-4199412.70	-4199412.60	-4199412.48	0.0089	0.0076
Venus	-16210-04-03 09:36 J	-4199187.16	-4199187.10	-4199186.99	0.0089	0.0081
Venus	-16210-11-14 22:33 J	-4198961.62	-4198961.56	-4198961.50	0.0089	0.0085
Earth	-16183-11-14 21:07 J	-4189099.78	-4189099.62	-4189099.42	0.0088	0.0064
Moon	-16183-11-15 00:43 J	-4189099.63	-4189099.47	-4189099.30	0.0088	0.0069 *
Moon	-16182-11-17 06:57 J	-4188732.45	-4188732.21	-4188731.95	0.0088	0.0020

Earth	-16182-11-17 09:35 J	-4188732.33	-4188732.10	-4188731.83	0.0088	0.0024 *
Earth	-16181-11-18 22:19 J	-4188364.82	-4188364.57	-4188364.30	0.0088	0.0017
Moon	-16181-11-19 00:14 J	-4188364.75	-4188364.49	-4188364.21	0.0088	0.0013 *
Moon	-16180-11-21 10:04 J	-4187997.23	-4187997.08	-4187996.87	0.0088	0.0063
Earth	-16180-11-21 10:48 J	-4187997.23	-4187997.05	-4187996.84	0.0088	0.0058 *
Mars	-16164-10-26 09:21 J	-4182179.16	-4182179.11	-4182179.06	0.0088	0.0086
Mars	-16162-09-20 02:09 J	-4181485.69	-4181485.41	-4181485.11	0.0088	0.0020
Mars	-16160-08-13 18:43 J	-4180791.94	-4180791.72	-4180791.45	0.0088	0.0047
Mercury	-16159-07-10 04:04 J	-4180461.35	-4180461.33	-4180461.27	0.0088	0.0086
Mercury	-16159-10-06 07:55 J	-4180373.25	-4180373.17	-4180373.05	0.0088	0.0076
Mercury	-16158-01-02 12:00 J	-4180285.13	-4180285.00	-4180284.86	0.0088	0.0065
Mercury	-16158-03-31 15:35 J	-4180197.00	-4180196.85	-4180196.69	0.0088	0.0055
Mercury	-16158-06-27 19:11 J	-4180108.86	-4180108.70	-4180108.52	0.0088	0.0045
Mercury	-16158-09-23 23:02 J	-4180020.71	-4180020.54	-4180020.35	0.0088	0.0035
Mercury	-16158-12-21 02:38 J	-4179932.57	-4179932.39	-4179932.19	0.0088	0.0025
Mercury	-16157-03-18 06:43 J	-4179844.42	-4179844.22	-4179844.03	0.0088	0.0014
Mercury	-16157-06-14 10:19 J	-4179756.27	-4179756.07	-4179755.87	0.0088	0.0004
Mercury	-16157-09-10 14:09 J	-4179668.11	-4179667.91	-4179667.72	0.0088	0.0006
Mercury	-16157-12-07 17:45 J	-4179579.95	-4179579.76	-4179579.56	0.0088	0.0016
Mercury	-16156-03-05 21:07 J	-4179491.79	-4179491.62	-4179491.42	0.0088	0.0027
Mercury	-16156-06-02 00:57 J	-4179403.63	-4179403.46	-4179403.27	0.0088	0.0037
Mercury	-16156-08-29 04:33 J	-4179315.46	-4179315.31	-4179315.13	0.0088	0.0047
Mercury	-16156-11-25 08:09 J	-4179227.29	-4179227.16	-4179226.99	0.0088	0.0057
Mercury	-16155-02-21 12:00 J	-4179139.12	-4179139.00	-4179138.86	0.0088	0.0067
Mercury	-16155-05-20 15:35 J	-4179050.93	-4179050.85	-4179050.74	0.0088	0.0077
Mercury	-16155-08-16 19:26 J	-4178962.71	-4178962.69	-4178962.66	0.0088	0.0087
Venus	-16149-12-31 15:35 J	-4176633.88	-4176633.85	-4176633.77	0.0088	0.0085
Venus	-16148-08-14 05:02 J	-4176408.36	-4176408.29	-4176408.18	0.0088	0.0081
Venus	-16147-03-27 18:43 J	-4176182.83	-4176182.72	-4176182.60	0.0088	0.0076
Venus	-16147-11-08 07:55 J	-4175957.28	-4175957.17	-4175957.02	0.0088	0.0071

Venus	-16146-06-21 21:21 J	-4175731.74	-4175731.61	-4175731.45	0.0088	0.0066
Venus	-16145-02-02 10:48 J	-4175506.20	-4175506.05	-4175505.88	0.0088	0.0062
Venus	-16145-09-15 00:28 J	-4175280.65	-4175280.48	-4175280.31	0.0088	0.0057
Venus	-16144-04-28 13:26 J	-4175055.10	-4175054.94	-4175054.74	0.0088	0.0052
Venus	-16144-12-10 03:07 J	-4174829.54	-4174829.37	-4174829.16	0.0088	0.0047
Venus	-16143-07-23 16:48 J	-4174603.99	-4174603.80	-4174603.59	0.0088	0.0042
Venus	-16142-03-06 06:14 J	-4174378.43	-4174378.24	-4174378.03	0.0088	0.0037
Venus	-16142-10-17 19:40 J	-4174152.87	-4174152.68	-4174152.46	0.0088	0.0033
Venus	-16141-05-30 09:21 J	-4173927.32	-4173927.11	-4173926.89	0.0088	0.0027
Venus	-16140-01-10 22:48 J	-4173701.76	-4173701.55	-4173701.32	0.0088	0.0023
Venus	-16140-08-24 12:28 J	-4173476.20	-4173475.98	-4173475.76	0.0088	0.0017
Venus	-16139-04-07 01:55 J	-4173250.64	-4173250.42	-4173250.19	0.0088	0.0012
Venus	-16139-11-18 15:35 J	-4173025.07	-4173024.85	-4173024.62	0.0088	0.0007
Venus	-16138-07-02 05:16 J	-4172799.51	-4172799.28	-4172799.06	0.0088	0.0003
Venus	-16137-02-12 18:43 J	-4172573.95	-4172573.72	-4172573.50	0.0088	0.0003
Venus	-16137-09-25 07:55 J	-4172348.38	-4172348.17	-4172347.94	0.0088	0.0009
Venus	-16136-05-08 21:21 J	-4172122.82	-4172122.61	-4172122.38	0.0088	0.0014
Venus	-16136-12-20 11:02 J	-4171897.25	-4171897.04	-4171896.81	0.0088	0.0019
Venus	-16135-08-03 00:28 J	-4171671.68	-4171671.48	-4171671.25	0.0088	0.0024
Venus	-16134-03-16 14:09 J	-4171446.11	-4171445.91	-4171445.69	0.0088	0.0028
Venus	-16134-10-28 03:35 J	-4171220.55	-4171220.35	-4171220.13	0.0088	0.0033
Venus	-16133-06-09 17:02 J	-4170994.97	-4170994.79	-4170994.57	0.0088	0.0039
Venus	-16132-01-21 06:43 J	-4170769.40	-4170769.22	-4170769.01	0.0088	0.0044
Venus	-16132-09-03 20:09 J	-4170543.83	-4170543.66	-4170543.45	0.0088	0.0049
Venus	-16131-04-17 09:50 J	-4170318.25	-4170318.09	-4170317.89	0.0088	0.0053
Venus	-16131-11-28 23:31 J	-4170092.67	-4170092.52	-4170092.33	0.0088	0.0058
Venus	-16130-07-12 13:40 J	-4169867.09	-4169866.93	-4169866.77	0.0088	0.0063
Venus	-16129-02-23 03:07 J	-4169641.50	-4169641.37	-4169641.22	0.0088	0.0068
Venus	-16129-10-05 16:33 J	-4169415.92	-4169415.81	-4169415.67	0.0088	0.0073
Venus	-16128-05-19 06:00 J	-4169190.33	-4169190.25	-4169190.12	0.0088	0.0078

Venus	-16128-12-30 19:40 J	-4168964.73	-4168964.68	-4168964.57	0.0088	0.0083
Venus	-16127-08-13 09:50 J	-4168739.12	-4168739.09	-4168739.04	0.0089	0.0087
Moon	-16100-05-18 20:24 J	-4158963.74	-4158963.65	-4158963.52	0.0089	0.0080
Earth	-16100-05-19 00:00 J	-4158963.61	-4158963.50	-4158963.35	0.0089	0.0076 *
Earth	-16099-05-21 10:48 J	-4158596.27	-4158596.05	-4158595.80	0.0089	0.0035
Moon	-16099-05-21 13:40 J	-4158596.16	-4158595.93	-4158595.68	0.0089	0.0031 *
Moon	-16098-05-23 19:55 J	-4158228.92	-4158228.67	-4158228.43	0.0089	0.0002
Earth	-16098-05-23 21:50 J	-4158228.84	-4158228.59	-4158228.33	0.0089	0.0007 *
Earth	-16097-05-25 08:24 J	-4157861.36	-4157861.15	-4157860.93	0.0089	0.0047
Moon	-16097-05-25 08:52 J	-4157861.32	-4157861.13	-4157860.89	0.0089	0.0052 *
Moon	-16096-05-27 19:40 J	-4157493.75	-4157493.68	-4157493.58	0.0089	0.0084
Earth	-16096-05-27 18:43 J	-4157493.74	-4157493.72	-4157493.65	0.0089	0.0088 *
Mars	-16080-06-30 12:00 J	-4151616.27	-4151616.00	-4151615.69	0.0089	0.0045
Mars	-16078-05-27 19:11 J	-4150920.00	-4150919.70	-4150919.38	0.0089	0.0038
Mercury	-16078-10-21 12:28 J	-4150773.02	-4150772.98	-4150772.94	0.0089	0.0085
Mercury	-16077-01-17 13:40 J	-4150684.99	-4150684.93	-4150684.86	0.0089	0.0078
Mercury	-16077-04-14 14:52 J	-4150596.95	-4150596.88	-4150596.79	0.0089	0.0071
Mercury	-16077-07-11 16:19 J	-4150508.91	-4150508.82	-4150508.73	0.0089	0.0064
Mercury	-16077-10-07 17:31 J	-4150420.86	-4150420.77	-4150420.66	0.0089	0.0057
Mercury	-16076-01-03 18:57 J	-4150332.82	-4150332.71	-4150332.60	0.0089	0.0049
Mercury	-16076-04-01 20:09 J	-4150244.77	-4150244.66	-4150244.54	0.0089	0.0043
Mercury	-16076-06-28 21:21 J	-4150156.72	-4150156.61	-4150156.48	0.0089	0.0036
Mercury	-16076-09-24 22:48 J	-4150068.67	-4150068.55	-4150068.43	0.0089	0.0028
Mercury	-16076-12-22 00:00 J	-4149980.62	-4149980.50	-4149980.37	0.0089	0.0021
Mercury	-16075-03-20 01:26 J	-4149892.57	-4149892.44	-4149892.31	0.0089	0.0014
Mercury	-16075-06-16 02:38 J	-4149804.52	-4149804.39	-4149804.26	0.0089	0.0007
Mercury	-16075-09-12 03:50 J	-4149716.47	-4149716.34	-4149716.20	0.0089	0.0003
Mercury	-16075-12-09 05:16 J	-4149628.41	-4149628.28	-4149628.15	0.0089	0.0007
Mercury	-16074-03-07 06:28 J	-4149540.36	-4149540.23	-4149540.10	0.0089	0.0014
Mercury	-16074-06-03 07:40 J	-4149452.30	-4149452.18	-4149452.05	0.0089	0.0021

Mercury	-16074-08-30 08:52 J	-4149364.24	-4149364.13	-4149364.00	0.0089	0.0029
Mercury	-16074-11-26 10:19 J	-4149276.19	-4149276.07	-4149275.95	0.0089	0.0035
Mercury	-16073-02-22 11:31 J	-4149188.13	-4149188.02	-4149187.90	0.0089	0.0043
Mercury	-16073-05-20 12:57 J	-4149100.07	-4149099.96	-4149099.85	0.0089	0.0049
Mercury	-16073-08-16 14:09 J	-4149012.00	-4149011.91	-4149011.80	0.0089	0.0056
Mercury	-16073-11-12 15:21 J	-4148923.94	-4148923.86	-4148923.76	0.0089	0.0064
Mercury	-16072-02-08 16:48 J	-4148835.87	-4148835.80	-4148835.72	0.0089	0.0070
Mercury	-16072-05-07 18:00 J	-4148747.80	-4148747.75	-4148747.68	0.0089	0.0078
Mercury	-16072-08-03 19:26 J	-4148659.73	-4148659.69	-4148659.65	0.0089	0.0085
Venus	-16067-07-08 03:07 J	-4146860.39	-4146860.37	-4146860.30	0.0089	0.0087
Venus	-16066-02-18 15:50 J	-4146634.90	-4146634.84	-4146634.74	0.0089	0.0083
Venus	-16066-10-02 04:48 J	-4146409.39	-4146409.30	-4146409.19	0.0089	0.0078
Venus	-16065-05-14 17:16 J	-4146183.88	-4146183.78	-4146183.63	0.0089	0.0073
Venus	-16065-12-26 06:00 J	-4145958.37	-4145958.25	-4145958.09	0.0089	0.0069
Venus	-16064-08-08 18:43 J	-4145732.85	-4145732.72	-4145732.55	0.0089	0.0064
Venus	-16063-03-22 07:26 J	-4145507.34	-4145507.19	-4145507.01	0.0089	0.0058
Venus	-16063-11-02 20:09 J	-4145281.82	-4145281.66	-4145281.48	0.0089	0.0053
Venus	-16062-06-16 08:52 J	-4145056.30	-4145056.13	-4145055.94	0.0089	0.0049
Venus	-16061-01-27 21:35 J	-4144830.78	-4144830.60	-4144830.41	0.0089	0.0043
Venus	-16061-09-09 10:04 J	-4144605.27	-4144605.08	-4144604.88	0.0089	0.0038
Venus	-16060-04-22 22:33 J	-4144379.75	-4144379.56	-4144379.35	0.0089	0.0034
Venus	-16060-12-04 11:16 J	-4144154.23	-4144154.03	-4144153.82	0.0089	0.0028
Venus	-16059-07-17 23:45 J	-4143928.71	-4143928.51	-4143928.29	0.0089	0.0024
Venus	-16058-02-28 12:14 J	-4143703.19	-4143702.99	-4143702.77	0.0089	0.0019
Venus	-16058-10-12 00:57 J	-4143477.67	-4143477.46	-4143477.24	0.0089	0.0013
Venus	-16057-05-24 13:26 J	-4143252.15	-4143251.94	-4143251.72	0.0089	0.0009
Venus	-16056-01-05 02:09 J	-4143026.63	-4143026.41	-4143026.19	0.0089	0.0003
Venus	-16056-08-18 14:38 J	-4142801.11	-4142800.89	-4142800.67	0.0089	0.0002
Venus	-16055-04-01 03:07 J	-4142575.59	-4142575.37	-4142575.15	0.0089	0.0007
Venus	-16055-11-12 15:35 J	-4142350.06	-4142349.85	-4142349.63	0.0089	0.0012

Venus	-16054-06-26 04:19 J	-4142124.53	-4142124.32	-4142124.10	0.0089	0.0017
Venus	-16053-02-06 16:48 J	-4141899.00	-4141898.80	-4141898.59	0.0089	0.0022
Venus	-16053-09-19 05:16 J	-4141673.48	-4141673.28	-4141673.07	0.0089	0.0027
Venus	-16052-05-02 17:45 J	-4141447.95	-4141447.76	-4141447.55	0.0089	0.0032
Venus	-16052-12-14 06:14 J	-4141222.43	-4141222.24	-4141222.04	0.0089	0.0037
Venus	-16051-07-27 18:57 J	-4140996.90	-4140996.71	-4140996.52	0.0089	0.0042
Venus	-16050-03-10 07:26 J	-4140771.37	-4140771.19	-4140771.00	0.0089	0.0047
Venus	-16050-10-21 19:40 J	-4140545.84	-4140545.68	-4140545.49	0.0089	0.0052
Venus	-16049-06-03 08:09 J	-4140320.31	-4140320.16	-4140319.98	0.0089	0.0057
Venus	-16048-01-14 20:38 J	-4140094.78	-4140094.64	-4140094.48	0.0089	0.0062
Venus	-16048-08-28 08:52 J	-4139869.25	-4139869.13	-4139868.97	0.0089	0.0067
Venus	-16047-04-10 21:07 J	-4139643.72	-4139643.62	-4139643.47	0.0089	0.0072
Venus	-16047-11-22 09:50 J	-4139418.19	-4139418.09	-4139417.97	0.0089	0.0076
Venus	-16046-07-05 22:19 J	-4139192.64	-4139192.57	-4139192.47	0.0089	0.0081
Venus	-16045-02-16 10:33 J	-4138967.09	-4138967.06	-4138966.98	0.0089	0.0086
Moon	-16019-11-14 04:33 J	-4129199.35	-4129199.31	-4129199.22	0.0088	0.0085
Earth	-16019-11-14 06:28 J	-4129199.28	-4129199.23	-4129199.12	0.0088	0.0085 *
Earth	-16018-11-16 19:40 J	-4128831.91	-4128831.68	-4128831.46	0.0088	0.0044
Moon	-16018-11-16 21:07 J	-4128831.86	-4128831.62	-4128831.39	0.0088	0.0044 *
Moon	-16017-11-18 07:55 J	-4128464.43	-4128464.17	-4128463.92	0.0088	0.0003
Earth	-16017-11-18 08:09 J	-4128464.42	-4128464.16	-4128463.90	0.0088	0.0003 *
Moon	-16016-11-20 18:43 J	-4128096.94	-4128096.72	-4128096.46	0.0088	0.0038
Earth	-16016-11-20 20:24 J	-4128096.88	-4128096.65	-4128096.40	0.0088	0.0037 *
Earth	-16015-11-23 08:24 J	-4127729.24	-4127729.15	-4127729.00	0.0088	0.0078
Moon	-16015-11-23 10:33 J	-4127729.15	-4127729.06	-4127728.92	0.0088	0.0079 *

16TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 16th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-15998-05-05 16:19 J		-4121722.02	-4121721.82	-4121721.56	0.0088	0.0053	
Mars	-15996-03-29 09:07 J		-4121028.40	-4121028.12	-4121027.82	0.0088	0.0014	
Mars	-15994-02-21 01:40 J		-4120334.52	-4120334.43	-4120334.29	0.0088	0.0081	
Mercury	-15994-04-06 03:07 J		-4120290.43	-4120290.37	-4120290.28	0.0088	0.0081	
Mercury	-15994-07-03 06:43 J		-4120202.32	-4120202.22	-4120202.08	0.0088	0.0071	
Mercury	-15994-09-29 10:48 J		-4120114.19	-4120114.05	-4120113.90	0.0088	0.0060	
Mercury	-15994-12-26 14:24 J		-4120026.05	-4120025.90	-4120025.73	0.0088	0.0050	
Mercury	-15993-03-23 18:00 J		-4119937.91	-4119937.75	-4119937.56	0.0088	0.0040	
Mercury	-15993-06-19 21:50 J		-4119849.77	-4119849.59	-4119849.40	0.0088	0.0030	
Mercury	-15993-09-16 01:26 J		-4119761.62	-4119761.44	-4119761.23	0.0088	0.0020	
Mercury	-15993-12-13 05:16 J		-4119673.47	-4119673.28	-4119673.08	0.0088	0.0010	
Mercury	-15992-03-11 09:07 J		-4119585.32	-4119585.12	-4119584.92	0.0088	0.0001	
Mercury	-15992-06-07 12:43 J		-4119497.16	-4119496.97	-4119496.77	0.0088	0.0011	
Mercury	-15992-09-03 16:19 J		-4119409.00	-4119408.82	-4119408.62	0.0088	0.0021	
Mercury	-15992-11-30 20:09 J		-4119320.84	-4119320.66	-4119320.47	0.0088	0.0031	
Mercury	-15991-02-26 23:45 J		-4119232.68	-4119232.51	-4119232.33	0.0088	0.0041	
Mercury	-15991-05-26 03:07 J		-4119144.51	-4119144.37	-4119144.19	0.0088	0.0052	
Mercury	-15991-08-22 06:57 J		-4119056.34	-4119056.21	-4119056.06	0.0088	0.0062	
Mercury	-15991-11-18 10:33 J		-4118968.15	-4118968.06	-4118967.93	0.0088	0.0072	
Mercury	-15990-02-14 14:09 J		-4118879.96	-4118879.91	-4118879.82	0.0088	0.0082	
Venus	-15984-11-15 16:33 J		-4116413.86	-4116413.81	-4116413.73	0.0088	0.0084	

Venus	-15983-06-29 06:00 J	-4116188.33	-4116188.25	-4116188.14	0.0088	0.0079
Venus	-15982-02-09 19:40 J	-4115962.80	-4115962.68	-4115962.57	0.0088	0.0075
Venus	-15982-09-23 08:24 J	-4115737.26	-4115737.15	-4115736.99	0.0088	0.0070
Venus	-15981-05-05 21:50 J	-4115511.72	-4115511.59	-4115511.42	0.0088	0.0065
Venus	-15981-12-17 11:16 J	-4115286.17	-4115286.03	-4115285.85	0.0088	0.0061
Venus	-15980-07-31 00:43 J	-4115060.62	-4115060.47	-4115060.28	0.0088	0.0056
Venus	-15979-03-13 14:24 J	-4114835.08	-4114834.90	-4114834.71	0.0088	0.0050
Venus	-15979-10-25 03:50 J	-4114609.52	-4114609.34	-4114609.14	0.0088	0.0045
Venus	-15978-06-07 17:16 J	-4114383.97	-4114383.78	-4114383.57	0.0088	0.0040
Venus	-15977-01-19 06:43 J	-4114158.41	-4114158.22	-4114158.00	0.0088	0.0036
Venus	-15977-08-31 20:09 J	-4113932.85	-4113932.66	-4113932.43	0.0088	0.0031
Venus	-15976-04-14 09:50 J	-4113707.30	-4113707.09	-4113706.87	0.0088	0.0025
Venus	-15976-11-25 23:31 J	-4113481.73	-4113481.52	-4113481.29	0.0088	0.0020
Venus	-15975-07-09 13:11 J	-4113256.17	-4113255.95	-4113255.72	0.0088	0.0015
Venus	-15974-02-20 02:52 J	-4113030.61	-4113030.38	-4113030.16	0.0088	0.0009
Venus	-15974-10-03 16:19 J	-4112805.04	-4112804.82	-4112804.60	0.0088	0.0004
Venus	-15973-05-16 05:45 J	-4112579.48	-4112579.26	-4112579.03	0.0088	0.0001
Venus	-15973-12-27 19:26 J	-4112353.91	-4112353.69	-4112353.47	0.0088	0.0006
Venus	-15972-08-10 08:52 J	-4112128.35	-4112128.13	-4112127.90	0.0088	0.0011
Venus	-15971-03-23 22:19 J	-4111902.78	-4111902.57	-4111902.34	0.0088	0.0017
Venus	-15971-11-04 12:00 J	-4111677.22	-4111677.00	-4111676.78	0.0088	0.0022
Venus	-15970-06-18 01:26 J	-4111451.65	-4111451.44	-4111451.22	0.0088	0.0027
Venus	-15969-01-29 14:38 J	-4111226.08	-4111225.89	-4111225.66	0.0088	0.0033
Venus	-15969-09-11 04:04 J	-4111000.51	-4111000.33	-4111000.11	0.0088	0.0038
Venus	-15968-04-24 17:45 J	-4110774.94	-4110774.76	-4110774.55	0.0088	0.0042
Venus	-15968-12-06 07:26 J	-4110549.36	-4110549.19	-4110548.99	0.0088	0.0048
Venus	-15967-07-19 20:52 J	-4110323.79	-4110323.63	-4110323.43	0.0088	0.0053
Venus	-15966-03-02 10:33 J	-4110098.21	-4110098.06	-4110097.87	0.0088	0.0058
Venus	-15966-10-14 00:00 J	-4109872.64	-4109872.50	-4109872.32	0.0088	0.0063
Venus	-15965-05-26 13:40 J	-4109647.06	-4109646.93	-4109646.77	0.0088	0.0068

Venus	-15964-01-07 03:21 J	-4109421.47	-4109421.36	-4109421.21	0.0088	0.0073
Venus	-15964-08-20 17:02 J	-4109195.88	-4109195.79	-4109195.66	0.0088	0.0078
Venus	-15963-04-03 06:28 J	-4108970.28	-4108970.23	-4108970.12	0.0088	0.0083
Venus	-15963-11-14 20:38 J	-4108744.67	-4108744.64	-4108744.59	0.0088	0.0087
Moon	-15935-05-20 21:50 J	-4098695.79	-4098695.59	-4098695.39	0.0089	0.0053
Earth	-15935-05-20 23:02 J	-4098695.74	-4098695.54	-4098695.33	0.0089	0.0054 *
Earth	-15934-05-23 09:35 J	-4098328.34	-4098328.10	-4098327.84	0.0089	0.0014
Moon	-15934-05-23 10:19 J	-4098328.32	-4098328.07	-4098327.80	0.0089	0.0015 *
Earth	-15933-05-24 20:09 J	-4097960.89	-4097960.66	-4097960.40	0.0089	0.0027
Moon	-15933-05-24 20:52 J	-4097960.85	-4097960.63	-4097960.38	0.0089	0.0029 *
Moon	-15932-05-27 04:19 J	-4097593.47	-4097593.32	-4097593.12	0.0089	0.0066
Earth	-15932-05-27 06:57 J	-4097593.36	-4097593.21	-4097593.03	0.0089	0.0067 *
Mars	-15916-02-11 01:55 J	-4091854.48	-4091854.42	-4091854.29	0.0089	0.0086
Mars	-15914-01-08 09:07 J	-4091158.46	-4091158.12	-4091157.78	0.0089	0.0003
Mercury	-15913-04-20 11:02 J	-4090690.05	-4090690.04	-4090690.02	0.0089	0.0088
Mercury	-15913-07-17 12:14 J	-4090602.03	-4090601.99	-4090601.93	0.0089	0.0082
Mercury	-15913-10-13 13:26 J	-4090514.00	-4090513.94	-4090513.86	0.0089	0.0075
Mars	-15913-12-04 15:35 J	-4090461.97	-4090461.85	-4090461.66	0.0089	0.0080
Mercury	-15912-01-09 14:52 J	-4090425.96	-4090425.88	-4090425.79	0.0089	0.0067
Mercury	-15912-04-07 16:04 J	-4090337.92	-4090337.83	-4090337.72	0.0089	0.0061
Mercury	-15912-07-04 17:31 J	-4090249.87	-4090249.77	-4090249.66	0.0089	0.0053
Mercury	-15912-09-30 18:43 J	-4090161.82	-4090161.72	-4090161.60	0.0089	0.0046
Mercury	-15912-12-27 19:55 J	-4090073.78	-4090073.67	-4090073.54	0.0089	0.0040
Mercury	-15911-03-25 21:21 J	-4089985.73	-4089985.61	-4089985.48	0.0089	0.0032
Mercury	-15911-06-21 22:33 J	-4089897.68	-4089897.56	-4089897.43	0.0089	0.0026
Mercury	-15911-09-18 00:00 J	-4089809.63	-4089809.50	-4089809.37	0.0089	0.0018
Mercury	-15911-12-15 01:11 J	-4089721.57	-4089721.45	-4089721.31	0.0089	0.0011
Mercury	-15910-03-13 02:38 J	-4089633.52	-4089633.39	-4089633.26	0.0089	0.0004
Mercury	-15910-06-09 03:50 J	-4089545.47	-4089545.34	-4089545.21	0.0089	0.0004
Mercury	-15910-09-05 05:16 J	-4089457.41	-4089457.28	-4089457.15	0.0089	0.0010

Mercury	-15910-12-02 06:28 J	-4089369.36	-4089369.23	-4089369.10	0.0089	0.0017
Mercury	-15909-02-28 07:40 J	-4089281.30	-4089281.18	-4089281.05	0.0089	0.0025
Mercury	-15909-05-26 09:07 J	-4089193.24	-4089193.12	-4089193.00	0.0089	0.0031
Mercury	-15909-08-22 10:19 J	-4089105.18	-4089105.07	-4089104.95	0.0089	0.0039
Mercury	-15909-11-18 11:31 J	-4089017.13	-4089017.02	-4089016.90	0.0089	0.0046
Mercury	-15908-02-14 12:57 J	-4088929.06	-4088928.96	-4088928.85	0.0089	0.0053
Mercury	-15908-05-13 14:09 J	-4088841.00	-4088840.91	-4088840.81	0.0089	0.0060
Mercury	-15908-08-09 15:35 J	-4088752.94	-4088752.85	-4088752.76	0.0089	0.0067
Mercury	-15908-11-05 16:33 J	-4088664.87	-4088664.81	-4088664.72	0.0089	0.0074
Mercury	-15907-02-01 17:45 J	-4088576.79	-4088576.76	-4088576.69	0.0089	0.0082
Mercury	-15907-04-30 19:11 J	-4088488.71	-4088488.70	-4088488.67	0.0089	0.0088
Venus	-15902-05-23 03:50 J	-4086640.38	-4086640.34	-4086640.27	0.0089	0.0087
Venus	-15901-01-03 16:33 J	-4086414.88	-4086414.81	-4086414.71	0.0089	0.0082
Venus	-15901-08-16 05:31 J	-4086189.38	-4086189.27	-4086189.16	0.0089	0.0077
Venus	-15900-03-29 17:31 J	-4085963.87	-4085963.77	-4085963.61	0.0089	0.0073
Venus	-15900-11-10 06:28 J	-4085738.35	-4085738.23	-4085738.07	0.0089	0.0067
Venus	-15899-06-23 19:11 J	-4085512.83	-4085512.70	-4085512.52	0.0089	0.0062
Venus	-15898-02-04 07:55 J	-4085287.32	-4085287.17	-4085286.99	0.0089	0.0057
Venus	-15898-09-17 20:24 J	-4085061.80	-4085061.65	-4085061.45	0.0089	0.0053
Venus	-15897-04-30 09:35 J	-4084836.28	-4084836.10	-4084835.92	0.0089	0.0047
Venus	-15897-12-11 22:04 J	-4084610.77	-4084610.58	-4084610.38	0.0089	0.0042
Venus	-15896-07-25 10:33 J	-4084385.25	-4084385.06	-4084384.85	0.0089	0.0037
Venus	-15895-03-07 23:02 J	-4084159.73	-4084159.54	-4084159.33	0.0089	0.0032
Venus	-15895-10-19 11:31 J	-4083934.21	-4083934.02	-4083933.80	0.0089	0.0027
Venus	-15894-06-02 00:14 J	-4083708.69	-4083708.49	-4083708.27	0.0089	0.0021
Venus	-15893-01-13 12:43 J	-4083483.17	-4083482.97	-4083482.74	0.0089	0.0016
Venus	-15893-08-26 01:26 J	-4083257.65	-4083257.44	-4083257.22	0.0089	0.0010
Venus	-15892-04-08 13:55 J	-4083032.14	-4083031.92	-4083031.70	0.0089	0.0005
Venus	-15892-11-20 02:24 J	-4082806.61	-4082806.40	-4082806.18	0.0089	0.0001
Venus	-15891-07-03 15:07 J	-4082581.09	-4082580.87	-4082580.65	0.0089	0.0005

Venus	-15890-02-14 03:35 J	-4082355.57	-4082355.35	-4082355.14	0.0089	0.0010
Venus	-15890-09-27 16:04 J	-4082130.05	-4082129.83	-4082129.62	0.0089	0.0015
Venus	-15889-05-10 04:33 J	-4081904.52	-4081904.31	-4081904.10	0.0089	0.0021
Venus	-15889-12-21 16:48 J	-4081679.00	-4081678.80	-4081678.58	0.0089	0.0026
Venus	-15888-08-04 05:16 J	-4081453.47	-4081453.28	-4081453.06	0.0089	0.0031
Venus	-15887-03-17 17:45 J	-4081227.94	-4081227.76	-4081227.55	0.0089	0.0036
Venus	-15887-10-29 06:14 J	-4081002.42	-4081002.24	-4081002.03	0.0089	0.0041
Venus	-15886-06-11 18:57 J	-4080776.88	-4080776.71	-4080776.51	0.0089	0.0046
Venus	-15885-01-23 07:26 J	-4080551.36	-4080551.19	-4080551.00	0.0089	0.0051
Venus	-15885-09-04 19:55 J	-4080325.83	-4080325.67	-4080325.49	0.0089	0.0056
Venus	-15884-04-18 08:24 J	-4080100.30	-4080100.15	-4080099.99	0.0089	0.0061
Venus	-15884-11-29 20:52 J	-4079874.77	-4079874.63	-4079874.48	0.0089	0.0066
Venus	-15883-07-13 09:21 J	-4079649.23	-4079649.11	-4079648.97	0.0089	0.0071
Venus	-15882-02-23 21:35 J	-4079423.69	-4079423.60	-4079423.47	0.0089	0.0076
Venus	-15882-10-07 09:50 J	-4079198.15	-4079198.09	-4079197.98	0.0089	0.0081
Venus	-15881-05-19 22:04 J	-4078972.60	-4078972.58	-4078972.49	0.0089	0.0086
Saturn	-15876-03-04 12:14 J	-4077223.71	-4077222.99	-4077222.26	0.0089	0.0001
Earth	-15854-11-16 04:04 J	-4068931.48	-4068931.33	-4068931.12	0.0088	0.0064
Moon	-15854-11-16 04:48 J	-4068931.44	-4068931.30	-4068931.12	0.0088	0.0068 *
Moon	-15853-11-17 15:21 J	-4068564.11	-4068563.86	-4068563.58	0.0088	0.0020
Earth	-15853-11-17 17:02 J	-4068564.04	-4068563.79	-4068563.54	0.0088	0.0024 *
Earth	-15852-11-20 05:02 J	-4068196.53	-4068196.29	-4068196.02	0.0088	0.0017
Moon	-15852-11-20 08:09 J	-4068196.41	-4068196.16	-4068195.91	0.0088	0.0012 *
Moon	-15851-11-22 14:09 J	-4067829.08	-4067828.91	-4067828.71	0.0088	0.0062
Earth	-15851-11-22 17:16 J	-4067828.96	-4067828.78	-4067828.56	0.0088	0.0058 *
Jupiter	-15836-10-04 17:45 J	-4062399.27	-4062398.76	-4062398.19	0.0088	0.0024
Mars	-15835-12-19 07:11 J	-4061958.25	-4061958.20	-4061958.14	0.0088	0.0086
Mars	-15833-11-12 00:43 J	-4061264.75	-4061264.47	-4061264.18	0.0088	0.0019
Mars	-15831-10-06 16:19 J	-4060571.05	-4060570.82	-4060570.56	0.0088	0.0048
Mercury	-15830-10-04 22:19 J	-4060207.60	-4060207.57	-4060207.52	0.0088	0.0086

Mercury	-15829-01-01 01:55 J	-4060119.50	-4060119.42	-4060119.31	0.0088	0.0076
Mercury	-15829-03-29 05:31 J	-4060031.38	-4060031.27	-4060031.12	0.0088	0.0066
Mercury	-15829-06-25 09:21 J	-4059943.25	-4059943.11	-4059942.94	0.0088	0.0056
Mercury	-15829-09-21 13:26 J	-4059855.11	-4059854.94	-4059854.77	0.0088	0.0045
Mercury	-15829-12-18 17:02 J	-4059766.97	-4059766.79	-4059766.61	0.0088	0.0035
Mercury	-15828-03-16 20:38 J	-4059678.82	-4059678.64	-4059678.44	0.0088	0.0025
Mercury	-15828-06-13 00:28 J	-4059590.67	-4059590.48	-4059590.28	0.0088	0.0015
Mercury	-15828-09-09 04:04 J	-4059502.52	-4059502.33	-4059502.13	0.0088	0.0005
Mercury	-15828-12-06 07:55 J	-4059414.37	-4059414.17	-4059413.97	0.0088	0.0005
Mercury	-15827-03-04 11:31 J	-4059326.21	-4059326.02	-4059325.82	0.0088	0.0016
Mercury	-15827-05-31 15:07 J	-4059238.05	-4059237.87	-4059237.67	0.0088	0.0026
Mercury	-15827-08-27 18:43 J	-4059149.89	-4059149.72	-4059149.53	0.0088	0.0036
Mercury	-15827-11-23 22:19 J	-4059061.72	-4059061.57	-4059061.39	0.0088	0.0047
Mercury	-15826-02-20 02:09 J	-4058973.55	-4058973.41	-4058973.25	0.0088	0.0056
Mercury	-15826-05-19 05:45 J	-4058885.38	-4058885.26	-4058885.12	0.0088	0.0067
Mercury	-15826-08-15 09:35 J	-4058797.19	-4058797.10	-4058797.00	0.0088	0.0076
Mercury	-15826-11-11 12:43 J	-4058708.97	-4058708.97	-4058708.91	0.0088	0.0087
Venus	-15819-09-30 16:48 J	-4056193.86	-4056193.80	-4056193.72	0.0088	0.0083
Venus	-15818-05-14 06:14 J	-4055968.33	-4055968.24	-4055968.14	0.0088	0.0079
Venus	-15818-12-25 19:11 J	-4055742.80	-4055742.70	-4055742.56	0.0088	0.0074
Venus	-15817-08-07 08:24 J	-4055517.26	-4055517.15	-4055516.98	0.0088	0.0070
Venus	-15816-03-20 21:50 J	-4055291.72	-4055291.59	-4055291.41	0.0088	0.0064
Venus	-15816-11-01 11:16 J	-4055066.17	-4055066.03	-4055065.84	0.0088	0.0059
Venus	-15815-06-15 01:11 J	-4054840.62	-4054840.45	-4054840.27	0.0088	0.0054
Venus	-15814-01-26 14:24 J	-4054615.08	-4054614.90	-4054614.70	0.0088	0.0049
Venus	-15814-09-09 03:50 J	-4054389.53	-4054389.34	-4054389.14	0.0088	0.0043
Venus	-15813-04-21 17:16 J	-4054163.97	-4054163.78	-4054163.57	0.0088	0.0038
Venus	-15813-12-03 06:43 J	-4053938.41	-4053938.22	-4053938.00	0.0088	0.0034
Venus	-15812-07-16 20:24 J	-4053712.85	-4053712.65	-4053712.43	0.0088	0.0028
Venus	-15811-02-27 10:04 J	-4053487.30	-4053487.08	-4053486.86	0.0088	0.0023

Venus	-15811-10-10 23:31 J	-4053261.74	-4053261.52	-4053261.30	0.0088	0.0017
Venus	-15810-05-24 12:57 J	-4053036.18	-4053035.96	-4053035.73	0.0088	0.0012
Venus	-15809-01-05 02:38 J	-4052810.61	-4052810.39	-4052810.16	0.0088	0.0007
Venus	-15809-08-17 16:19 J	-4052585.05	-4052584.82	-4052584.60	0.0088	0.0002
Venus	-15808-03-31 05:45 J	-4052359.48	-4052359.26	-4052359.03	0.0088	0.0004
Venus	-15808-11-11 19:26 J	-4052133.91	-4052133.69	-4052133.47	0.0088	0.0009
Venus	-15807-06-25 08:52 J	-4051908.35	-4051908.13	-4051907.90	0.0088	0.0015
Venus	-15806-02-05 22:33 J	-4051682.78	-4051682.56	-4051682.34	0.0088	0.0020
Venus	-15806-09-19 11:45 J	-4051457.21	-4051457.01	-4051456.78	0.0088	0.0025
Venus	-15805-05-02 01:26 J	-4051231.64	-4051231.44	-4051231.22	0.0088	0.0030
Venus	-15805-12-13 15:07 J	-4051006.07	-4051005.87	-4051005.66	0.0088	0.0036
Venus	-15804-07-27 04:48 J	-4050780.50	-4050780.30	-4050780.10	0.0088	0.0041
Venus	-15803-03-09 18:00 J	-4050554.93	-4050554.75	-4050554.54	0.0088	0.0046
Venus	-15803-10-21 07:26 J	-4050329.35	-4050329.19	-4050328.99	0.0088	0.0052
Venus	-15802-06-03 21:07 J	-4050103.78	-4050103.62	-4050103.43	0.0088	0.0057
Venus	-15801-01-15 10:48 J	-4049878.20	-4049878.05	-4049877.88	0.0088	0.0062
Venus	-15801-08-28 00:28 J	-4049652.62	-4049652.48	-4049652.32	0.0088	0.0067
Venus	-15800-04-10 13:55 J	-4049427.03	-4049426.92	-4049426.77	0.0088	0.0072
Venus	-15800-11-22 03:50 J	-4049201.44	-4049201.34	-4049201.23	0.0088	0.0077
Venus	-15799-07-05 17:16 J	-4048975.85	-4048975.78	-4048975.68	0.0088	0.0082
Venus	-15798-02-16 06:57 J	-4048750.24	-4048750.21	-4048750.16	0.0088	0.0087
Earth	-15771-05-20 09:07 J	-4038795.23	-4038795.12	-4038794.95	0.0089	0.0075
Moon	-15771-05-20 09:35 J	-4038795.22	-4038795.10	-4038794.98	0.0089	0.0079 *
Earth	-15770-05-22 20:38 J	-4038427.87	-4038427.64	-4038427.40	0.0089	0.0034
Moon	-15770-05-22 21:35 J	-4038427.81	-4038427.60	-4038427.35	0.0089	0.0031 *
Moon	-15769-05-24 05:31 J	-4038060.53	-4038060.27	-4038060.01	0.0089	0.0002
Earth	-15769-05-24 07:40 J	-4038060.44	-4038060.18	-4038059.93	0.0089	0.0006 *
Earth	-15768-05-26 17:45 J	-4037692.95	-4037692.76	-4037692.52	0.0089	0.0048
Moon	-15768-05-26 21:21 J	-4037692.80	-4037692.61	-4037692.39	0.0089	0.0051 *
Moon	-15767-05-29 01:11 J	-4037325.51	-4037325.45	-4037325.34	0.0089	0.0084

Earth	-15767-05-29 04:48 J	-4037325.33	-4037325.30	-4037325.23	0.0089	0.0087
Mars	-15751-08-21 22:19 J	-4031396.84	-4031396.57	-4031396.26	0.0089	0.0045
Mars	-15749-07-18 04:19 J	-4030700.60	-4030700.32	-4030699.99	0.0089	0.0039
Mercury	-15748-01-15 10:48 J	-4030519.08	-4030519.05	-4030519.01	0.0089	0.0086
Mercury	-15748-04-13 12:00 J	-4030431.05	-4030431.00	-4030430.93	0.0089	0.0079
Mercury	-15748-07-10 13:26 J	-4030343.01	-4030342.94	-4030342.86	0.0089	0.0071
Mercury	-15748-10-06 14:38 J	-4030254.97	-4030254.89	-4030254.79	0.0089	0.0065
Mercury	-15747-01-02 16:04 J	-4030166.93	-4030166.83	-4030166.73	0.0089	0.0057
Mercury	-15747-03-31 17:16 J	-4030078.88	-4030078.78	-4030078.67	0.0089	0.0050
Mercury	-15747-06-27 18:28 J	-4029990.83	-4029990.73	-4029990.61	0.0089	0.0044
Mercury	-15747-09-23 19:55 J	-4029902.79	-4029902.67	-4029902.55	0.0089	0.0036
Mercury	-15747-12-20 21:07 J	-4029814.74	-4029814.62	-4029814.49	0.0089	0.0030
Mercury	-15746-03-18 22:33 J	-4029726.69	-4029726.56	-4029726.43	0.0089	0.0022
Mercury	-15746-06-14 23:45 J	-4029638.63	-4029638.51	-4029638.38	0.0089	0.0015
Mercury	-15746-09-11 01:11 J	-4029550.58	-4029550.45	-4029550.32	0.0089	0.0008
Mercury	-15746-12-08 02:24 J	-4029462.53	-4029462.40	-4029462.27	0.0089	0.0002
Mercury	-15745-03-05 03:50 J	-4029374.47	-4029374.34	-4029374.21	0.0089	0.0007
Mercury	-15745-06-01 05:02 J	-4029286.42	-4029286.29	-4029286.16	0.0089	0.0013
Mercury	-15745-08-28 06:14 J	-4029198.36	-4029198.24	-4029198.11	0.0089	0.0020
Mercury	-15745-11-24 07:40 J	-4029110.31	-4029110.18	-4029110.06	0.0089	0.0027
Mercury	-15744-02-20 08:52 J	-4029022.25	-4029022.13	-4029022.01	0.0089	0.0034
Mercury	-15744-05-19 10:04 J	-4028934.19	-4028934.08	-4028933.96	0.0089	0.0042
Mercury	-15744-08-15 11:31 J	-4028846.13	-4028846.02	-4028845.91	0.0089	0.0048
Mercury	-15744-11-11 12:43 J	-4028758.07	-4028757.97	-4028757.86	0.0089	0.0056
Mercury	-15743-02-07 14:09 J	-4028670.00	-4028669.91	-4028669.82	0.0089	0.0063
Mercury	-15743-05-06 15:21 J	-4028581.94	-4028581.86	-4028581.78	0.0089	0.0070
Mercury	-15743-08-02 16:48 J	-4028493.87	-4028493.80	-4028493.74	0.0089	0.0077
Mercury	-15743-10-29 17:45 J	-4028405.79	-4028405.76	-4028405.71	0.0089	0.0084
Venus	-15737-04-06 03:21 J	-4026420.39	-4026420.36	-4026420.28	0.0089	0.0087
Venus	-15737-11-17 16:04 J	-4026194.89	-4026194.83	-4026194.71	0.0089	0.0082

Venus	-15736-07-01 04:48 J	-4025969.38	-4025969.30	-4025969.16	0.0089	0.0077
Venus	-15735-02-11 17:31 J	-4025743.87	-4025743.77	-4025743.61	0.0089	0.0072
Venus	-15735-09-25 06:43 J	-4025518.36	-4025518.22	-4025518.07	0.0089	0.0066
Venus	-15734-05-08 19:26 J	-4025292.84	-4025292.69	-4025292.53	0.0089	0.0060
Venus	-15734-12-20 07:55 J	-4025067.33	-4025067.17	-4025066.99	0.0089	0.0056
Venus	-15733-08-01 20:38 J	-4024841.81	-4024841.64	-4024841.45	0.0089	0.0050
Venus	-15732-03-15 09:07 J	-4024616.29	-4024616.12	-4024615.92	0.0089	0.0045
Venus	-15732-10-26 22:04 J	-4024390.77	-4024390.58	-4024390.38	0.0089	0.0040
Venus	-15731-06-09 10:48 J	-4024165.24	-4024165.05	-4024164.85	0.0089	0.0034
Venus	-15730-01-20 23:16 J	-4023939.73	-4023939.53	-4023939.32	0.0089	0.0029
Venus	-15730-09-03 11:45 J	-4023714.21	-4023714.01	-4023713.79	0.0089	0.0024
Venus	-15729-04-16 00:28 J	-4023488.69	-4023488.48	-4023488.27	0.0089	0.0018
Venus	-15729-11-27 12:57 J	-4023263.17	-4023262.96	-4023262.74	0.0089	0.0013
Venus	-15728-07-11 01:40 J	-4023037.64	-4023037.43	-4023037.21	0.0089	0.0008
Venus	-15727-02-21 14:09 J	-4022812.12	-4022811.91	-4022811.69	0.0089	0.0003
Venus	-15727-10-05 02:38 J	-4022586.61	-4022586.39	-4022586.17	0.0089	0.0003
Venus	-15726-05-18 15:07 J	-4022361.08	-4022360.87	-4022360.65	0.0089	0.0008
Venus	-15726-12-30 03:35 J	-4022135.56	-4022135.35	-4022135.13	0.0089	0.0013
Venus	-15725-08-11 15:50 J	-4021910.04	-4021909.84	-4021909.61	0.0089	0.0019
Venus	-15724-03-25 04:19 J	-4021684.52	-4021684.32	-4021684.10	0.0089	0.0025
Venus	-15724-11-05 17:02 J	-4021458.99	-4021458.79	-4021458.58	0.0089	0.0029
Venus	-15723-06-19 05:45 J	-4021233.46	-4021233.26	-4021233.06	0.0089	0.0034
Venus	-15722-01-30 18:00 J	-4021007.93	-4021007.75	-4021007.55	0.0089	0.0040
Venus	-15722-09-13 06:28 J	-4020782.41	-4020782.23	-4020782.03	0.0089	0.0045
Venus	-15721-04-25 18:57 J	-4020556.88	-4020556.71	-4020556.52	0.0089	0.0050
Venus	-15721-12-07 07:26 J	-4020331.35	-4020331.19	-4020331.01	0.0089	0.0055
Venus	-15720-07-20 20:09 J	-4020105.81	-4020105.66	-4020105.50	0.0089	0.0060
Venus	-15719-03-03 08:38 J	-4019880.28	-4019880.14	-4019879.99	0.0089	0.0065
Venus	-15719-10-14 21:07 J	-4019654.75	-4019654.62	-4019654.49	0.0089	0.0070
Venus	-15718-05-28 09:07 J	-4019429.21	-4019429.12	-4019428.98	0.0089	0.0076

Venus	-15717-01-08 22:04 J	-4019203.67	-4019203.58	-4019203.49	0.0089	0.0080
Venus	-15717-08-21 10:33 J	-4018978.12	-4018978.06	-4018978.00	0.0089	0.0085
Moon	-15690-11-15 11:02 J	-4009031.10	-4009031.04	-4009030.98	0.0088	0.0086
Earth	-15690-11-15 12:57 J	-4009031.01	-4009030.96	-4009030.86	0.0088	0.0084 *
Earth	-15689-11-17 01:11 J	-4008663.65	-4008663.45	-4008663.20	0.0088	0.0045
Moon	-15689-11-17 04:19 J	-4008663.54	-4008663.32	-4008663.10	0.0088	0.0044 *
Moon	-15688-11-19 10:04 J	-4008296.34	-4008296.08	-4008295.81	0.0088	0.0005
Earth	-15688-11-19 13:55 J	-4008296.18	-4008295.92	-4008295.66	0.0088	0.0004 *
Earth	-15687-11-22 01:55 J	-4007928.64	-4007928.42	-4007928.17	0.0088	0.0037
Moon	-15687-11-22 05:31 J	-4007928.49	-4007928.27	-4007928.02	0.0088	0.0038 *
Moon	-15686-11-24 11:16 J	-4007561.15	-4007561.03	-4007560.90	0.0088	0.0077
Earth	-15686-11-24 14:38 J	-4007561.01	-4007560.89	-4007560.75	0.0088	0.0077 *
Mars	-15669-06-27 12:28 J	-4001501.21	-4001500.98	-4001500.74	0.0088	0.0053
Mars	-15667-05-22 05:45 J	-4000807.55	-4000807.26	-4000806.97	0.0088	0.0014
Mars	-15665-04-14 21:07 J	-4000113.72	-4000113.62	-4000113.50	0.0088	0.0081
Mercury	-15665-06-30 20:52 J	-4000036.69	-4000036.63	-4000036.56	0.0088	0.0082
Mercury	-15665-09-27 00:28 J	-3999948.58	-3999948.48	-3999948.36	0.0088	0.0072
Mercury	-15665-12-24 04:04 J	-3999860.46	-3999860.33	-3999860.18	0.0088	0.0062
Mercury	-15664-03-22 07:40 J	-3999772.32	-3999772.18	-3999772.00	0.0088	0.0052
Mercury	-15664-06-18 11:31 J	-3999684.18	-3999684.02	-3999683.83	0.0088	0.0042
Mercury	-15664-09-14 15:21 J	-3999596.04	-3999595.86	-3999595.67	0.0088	0.0031
Mercury	-15664-12-11 19:11 J	-3999507.89	-3999507.70	-3999507.51	0.0088	0.0021
Mercury	-15663-03-09 22:48 J	-3999419.74	-3999419.55	-3999419.35	0.0088	0.0011
Mercury	-15663-06-06 02:38 J	-3999331.59	-3999331.39	-3999331.19	0.0088	0.0001
Mercury	-15663-09-02 06:14 J	-3999243.43	-3999243.24	-3999243.04	0.0088	0.0009
Mercury	-15663-11-29 09:50 J	-3999155.28	-3999155.09	-3999154.89	0.0088	0.0020
Mercury	-15662-02-25 13:26 J	-3999067.12	-3999066.94	-3999066.74	0.0088	0.0030
Mercury	-15662-05-24 17:02 J	-3998978.95	-3998978.79	-3998978.60	0.0088	0.0040
Mercury	-15662-08-20 20:52 J	-3998890.79	-3998890.63	-3998890.46	0.0088	0.0050
Mercury	-15662-11-17 00:28 J	-3998802.61	-3998802.48	-3998802.33	0.0088	0.0060

Mercury	-15661-02-13 04:19 J	-3998714.43	-3998714.32	-3998714.20	0.0088	0.0070
Mercury	-15661-05-11 07:55 J	-3998626.24	-3998626.17	-3998626.09	0.0088	0.0080
Venus	-15654-01-02 03:35 J	-3996199.37	-3996199.35	-3996199.33	0.0088	0.0088
Venus	-15654-08-15 16:04 J	-3995973.87	-3995973.83	-3995973.72	0.0088	0.0084
Venus	-15653-03-28 06:14 J	-3995748.34	-3995748.24	-3995748.14	0.0088	0.0078
Venus	-15653-11-08 19:40 J	-3995522.80	-3995522.68	-3995522.55	0.0088	0.0073
Venus	-15652-06-22 08:52 J	-3995297.26	-3995297.13	-3995296.98	0.0088	0.0068
Venus	-15651-02-02 22:04 J	-3995071.72	-3995071.58	-3995071.41	0.0088	0.0063
Venus	-15651-09-16 11:16 J	-3994846.18	-3994846.03	-3994845.84	0.0088	0.0058
Venus	-15650-04-30 00:43 J	-3994620.63	-3994620.47	-3994620.27	0.0088	0.0052
Venus	-15650-12-11 14:09 J	-3994395.08	-3994394.91	-3994394.70	0.0088	0.0047
Venus	-15649-07-24 03:50 J	-3994169.53	-3994169.34	-3994169.13	0.0088	0.0042
Venus	-15648-03-06 17:16 J	-3993943.98	-3993943.78	-3993943.57	0.0088	0.0036
Venus	-15648-10-18 06:28 J	-3993718.42	-3993718.23	-3993718.00	0.0088	0.0031
Venus	-15647-05-31 20:09 J	-3993492.87	-3993492.66	-3993492.44	0.0088	0.0026
Venus	-15646-01-12 09:35 J	-3993267.31	-3993267.10	-3993266.87	0.0088	0.0021
Venus	-15646-08-25 23:02 J	-3993041.75	-3993041.54	-3993041.31	0.0088	0.0015
Venus	-15645-04-07 12:43 J	-3992816.19	-3992815.97	-3992815.74	0.0088	0.0010
Venus	-15645-11-19 02:24 J	-3992590.62	-3992590.40	-3992590.17	0.0088	0.0004
Venus	-15644-07-02 16:04 J	-3992365.06	-3992364.83	-3992364.61	0.0088	0.0002
Venus	-15643-02-13 05:31 J	-3992139.49	-3992139.27	-3992139.04	0.0088	0.0007
Venus	-15643-09-26 18:57 J	-3991913.93	-3991913.71	-3991913.48	0.0088	0.0012
Venus	-15642-05-10 08:38 J	-3991688.36	-3991688.14	-3991687.92	0.0088	0.0018
Venus	-15642-12-21 22:04 J	-3991462.79	-3991462.58	-3991462.35	0.0088	0.0023
Venus	-15641-08-03 11:45 J	-3991237.22	-3991237.01	-3991236.79	0.0088	0.0029
Venus	-15640-03-17 00:57 J	-3991011.65	-3991011.46	-3991011.23	0.0088	0.0035
Venus	-15640-10-28 14:38 J	-3990786.08	-3990785.89	-3990785.68	0.0088	0.0040
Venus	-15639-06-11 04:19 J	-3990560.51	-3990560.32	-3990560.12	0.0088	0.0045
Venus	-15638-01-22 17:31 J	-3990334.93	-3990334.77	-3990334.56	0.0088	0.0051
Venus	-15638-09-05 07:11 J	-3990109.36	-3990109.20	-3990109.01	0.0088	0.0056

Venus	-15637-04-17 20:52 J	-3989883.78	-3989883.63	-3989883.46	0.0088	0.0061
Venus	-15637-11-29 10:33 J	-3989658.20	-3989658.06	-3989657.90	0.0088	0.0066
Venus	-15636-07-12 23:45 J	-3989432.62	-3989432.51	-3989432.35	0.0088	0.0072
Venus	-15635-02-23 13:26 J	-3989207.03	-3989206.94	-3989206.81	0.0088	0.0077
Venus	-15635-10-07 02:52 J	-3988981.44	-3988981.38	-3988981.27	0.0088	0.0082
Venus	-15634-05-20 16:33 J	-3988755.83	-3988755.81	-3988755.74	0.0088	0.0087
Moon	-15606-05-22 03:50 J	-3978527.54	-3978527.34	-3978527.12	0.0089	0.0052
Earth	-15606-05-22 06:28 J	-3978527.41	-3978527.23	-3978527.01	0.0089	0.0056 *
Earth	-15605-05-23 17:31 J	-3978160.01	-3978159.77	-3978159.50	0.0089	0.0015
Moon	-15605-05-23 20:52 J	-3978159.87	-3978159.63	-3978159.38	0.0089	0.0016 *
Moon	-15604-05-26 00:57 J	-3977792.69	-3977792.46	-3977792.21	0.0089	0.0028
Earth	-15604-05-26 04:33 J	-3977792.54	-3977792.31	-3977792.05	0.0089	0.0026 *
Earth	-15603-05-28 15:07 J	-3977425.02	-3977424.87	-3977424.68	0.0089	0.0067
Moon	-15603-05-28 18:14 J	-3977424.90	-3977424.74	-3977424.54	0.0089	0.0065 *
Mars	-15587-04-04 11:02 J	-3971635.09	-3971635.04	-3971634.92	0.0089	0.0087
Mars	-15585-02-29 17:02 J	-3970939.13	-3970938.79	-3970938.45	0.0089	0.0004
Mercury	-15584-10-12 10:48 J	-3970348.10	-3970348.05	-3970348.00	0.0089	0.0083
Mercury	-15583-01-08 12:00 J	-3970260.06	-3970260.00	-3970259.93	0.0089	0.0076
Mars	-15583-01-25 23:16 J	-3970242.68	-3970242.53	-3970242.36	0.0089	0.0079
Mercury	-15583-04-06 13:11 J	-3970172.02	-3970171.95	-3970171.86	0.0089	0.0069
Mercury	-15583-07-03 14:38 J	-3970083.98	-3970083.89	-3970083.80	0.0089	0.0062
Mercury	-15583-09-29 15:50 J	-3969995.94	-3969995.84	-3969995.73	0.0089	0.0055
Mercury	-15583-12-26 17:16 J	-3969907.89	-3969907.78	-3969907.67	0.0089	0.0048
Mercury	-15582-03-24 18:28 J	-3969819.85	-3969819.73	-3969819.61	0.0089	0.0041
Mercury	-15582-06-20 19:40 J	-3969731.80	-3969731.68	-3969731.55	0.0089	0.0034
Mercury	-15582-09-16 21:07 J	-3969643.75	-3969643.62	-3969643.50	0.0089	0.0026
Mercury	-15582-12-13 22:19 J	-3969555.70	-3969555.57	-3969555.44	0.0089	0.0019
Mercury	-15581-03-10 23:45 J	-3969467.64	-3969467.51	-3969467.38	0.0089	0.0013
Mercury	-15581-06-07 00:57 J	-3969379.59	-3969379.46	-3969379.33	0.0089	0.0005
Mercury	-15581-09-03 02:09 J	-3969291.54	-3969291.41	-3969291.28	0.0089	0.0003

Mercury	-15581-11-30 03:35 J	-3969203.48	-3969203.35	-3969203.22	0.0089	0.0009
Mercury	-15580-02-26 04:48 J	-3969115.43	-3969115.30	-3969115.17	0.0089	0.0016
Mercury	-15580-05-25 06:00 J	-3969027.37	-3969027.25	-3969027.12	0.0089	0.0023
Mercury	-15580-08-21 07:11 J	-3968939.31	-3968939.20	-3968939.07	0.0089	0.0031
Mercury	-15580-11-17 08:38 J	-3968851.25	-3968851.14	-3968851.02	0.0089	0.0037
Mercury	-15579-02-13 09:50 J	-3968763.19	-3968763.09	-3968762.97	0.0089	0.0045
Mercury	-15579-05-12 11:16 J	-3968675.13	-3968675.03	-3968674.92	0.0089	0.0051
Mercury	-15579-08-08 12:28 J	-3968587.07	-3968586.98	-3968586.88	0.0089	0.0058
Mercury	-15579-11-04 13:40 J	-3968499.01	-3968498.93	-3968498.83	0.0089	0.0066
Mercury	-15578-01-31 15:07 J	-3968410.94	-3968410.87	-3968410.79	0.0089	0.0073
Mercury	-15578-04-29 16:33 J	-3968322.87	-3968322.81	-3968322.75	0.0089	0.0080
Mercury	-15578-07-26 17:45 J	-3968234.78	-3968234.76	-3968234.73	0.0089	0.0087
Venus	-15572-02-19 03:21 J	-3966200.40	-3966200.36	-3966200.28	0.0089	0.0085
Venus	-15572-10-02 15:50 J	-3965974.91	-3965974.84	-3965974.72	0.0089	0.0081
Venus	-15571-05-16 05:16 J	-3965749.40	-3965749.28	-3965749.17	0.0089	0.0075
Venus	-15571-12-27 17:31 J	-3965523.89	-3965523.77	-3965523.62	0.0089	0.0070
Venus	-15570-08-10 06:00 J	-3965298.38	-3965298.25	-3965298.08	0.0089	0.0065
Venus	-15569-03-22 18:43 J	-3965072.87	-3965072.72	-3965072.54	0.0089	0.0059
Venus	-15569-11-03 07:11 J	-3964847.35	-3964847.20	-3964847.01	0.0089	0.0054
Venus	-15568-06-16 20:24 J	-3964621.83	-3964621.65	-3964621.46	0.0089	0.0048
Venus	-15567-01-28 08:52 J	-3964396.31	-3964396.13	-3964395.93	0.0089	0.0043
Venus	-15567-09-10 21:21 J	-3964170.79	-3964170.61	-3964170.40	0.0089	0.0038
Venus	-15566-04-24 10:04 J	-3963945.27	-3963945.08	-3963944.87	0.0089	0.0033
Venus	-15566-12-05 22:48 J	-3963719.75	-3963719.55	-3963719.34	0.0089	0.0027
Venus	-15565-07-18 11:31 J	-3963494.23	-3963494.02	-3963493.81	0.0089	0.0022
Venus	-15564-03-01 00:00 J	-3963268.71	-3963268.50	-3963268.28	0.0089	0.0016
Venus	-15564-10-12 12:28 J	-3963043.19	-3963042.98	-3963042.76	0.0089	0.0011
Venus	-15563-05-26 01:11 J	-3962817.66	-3962817.45	-3962817.23	0.0089	0.0005
Venus	-15562-01-06 13:40 J	-3962592.14	-3962591.93	-3962591.71	0.0089	0.0001
Venus	-15562-08-20 02:09 J	-3962366.62	-3962366.41	-3962366.19	0.0089	0.0006

Venus	-15561-04-01 14:38 J	-3962141.10	-3962140.89	-3962140.67	0.0089	0.0011
Venus	-15561-11-13 03:07 J	-3961915.58	-3961915.37	-3961915.16	0.0089	0.0017
Venus	-15560-06-26 15:35 J	-3961690.05	-3961689.85	-3961689.63	0.0089	0.0022
Venus	-15559-02-07 04:04 J	-3961464.53	-3961464.33	-3961464.12	0.0089	0.0027
Venus	-15559-09-20 16:19 J	-3961239.01	-3961238.82	-3961238.60	0.0089	0.0033
Venus	-15558-05-04 04:48 J	-3961013.48	-3961013.30	-3961013.09	0.0089	0.0038
Venus	-15558-12-15 17:31 J	-3960787.96	-3960787.77	-3960787.58	0.0089	0.0043
Venus	-15557-07-28 05:45 J	-3960562.42	-3960562.26	-3960562.06	0.0089	0.0049
Venus	-15556-03-10 18:14 J	-3960336.89	-3960336.74	-3960336.55	0.0089	0.0054
Venus	-15556-10-22 06:57 J	-3960111.36	-3960111.21	-3960111.04	0.0089	0.0059
Venus	-15555-06-04 19:40 J	-3959885.83	-3959885.68	-3959885.53	0.0089	0.0064
Venus	-15554-01-16 07:40 J	-3959660.29	-3959660.18	-3959660.03	0.0089	0.0070
Venus	-15554-08-29 20:09 J	-3959434.76	-3959434.66	-3959434.52	0.0089	0.0075
Venus	-15553-04-11 08:38 J	-3959209.21	-3959209.14	-3959209.03	0.0089	0.0080
Venus	-15553-11-22 21:07 J	-3958983.66	-3958983.62	-3958983.54	0.0089	0.0085
Moon	-15525-11-16 05:16 J	-3948763.42	-3948763.28	-3948763.10	0.0088	0.0070
Earth	-15525-11-16 08:38 J	-3948763.29	-3948763.14	-3948762.94	0.0088	0.0066 *
Earth	-15524-11-18 21:07 J	-3948395.86	-3948395.62	-3948395.36	0.0088	0.0026
Moon	-15524-11-19 01:11 J	-3948395.71	-3948395.45	-3948395.20	0.0088	0.0020 *
Moon	-15523-11-21 06:57 J	-3948028.46	-3948028.21	-3948027.95	0.0088	0.0011
Earth	-15523-11-21 09:35 J	-3948028.34	-3948028.10	-3948027.83	0.0088	0.0016 *
Earth	-15522-11-23 21:35 J	-3947660.78	-3947660.60	-3947660.38	0.0088	0.0055
Moon	-15522-11-24 00:00 J	-3947660.68	-3947660.50	-3947660.28	0.0088	0.0059 *
Mars	-15503-01-04 16:33 J	-3941044.09	-3941043.81	-3941043.52	0.0088	0.0020
Mars	-15502-11-29 10:04 J	-3940350.31	-3940350.08	-3940349.82	0.0088	0.0047
Mercury	-15500-03-27 18:43 J	-3939865.79	-3939865.72	-3939865.62	0.0088	0.0079
Mercury	-15500-06-23 22:19 J	-3939777.67	-3939777.57	-3939777.43	0.0088	0.0069
Mercury	-15500-09-20 02:09 J	-3939689.54	-3939689.41	-3939689.25	0.0088	0.0059
Mercury	-15500-12-17 06:14 J	-3939601.40	-3939601.24	-3939601.07	0.0088	0.0048
Mercury	-15499-03-15 09:50 J	-3939513.26	-3939513.09	-3939512.91	0.0088	0.0038

Mercury	-15499-06-11 13:26 J	-3939425.12	-3939424.94	-3939424.74	0.0088	0.0028
Mercury	-15499-09-07 17:16 J	-3939336.97	-3939336.78	-3939336.58	0.0088	0.0018
Mercury	-15499-12-04 20:52 J	-3939248.82	-3939248.63	-3939248.42	0.0088	0.0008
Mercury	-15498-03-03 00:43 J	-3939160.67	-3939160.47	-3939160.27	0.0088	0.0003
Mercury	-15498-05-30 04:19 J	-3939072.51	-3939072.32	-3939072.12	0.0088	0.0013
Mercury	-15498-08-26 07:55 J	-3938984.35	-3938984.17	-3938983.97	0.0088	0.0023
Mercury	-15498-11-22 11:45 J	-3938896.19	-3938896.01	-3938895.82	0.0088	0.0033
Mercury	-15497-02-18 15:21 J	-3938808.02	-3938807.86	-3938807.68	0.0088	0.0043
Mercury	-15497-05-16 19:11 J	-3938719.86	-3938719.70	-3938719.54	0.0088	0.0053
Mercury	-15497-08-12 22:19 J	-3938631.68	-3938631.57	-3938631.41	0.0088	0.0064
Mercury	-15497-11-09 02:09 J	-3938543.50	-3938543.41	-3938543.29	0.0088	0.0074
Mercury	-15496-02-05 05:45 J	-3938455.30	-3938455.26	-3938455.18	0.0088	0.0084
Venus	-15490-11-17 02:09 J	-3935979.42	-3935979.41	-3935979.36	0.0088	0.0087
Venus	-15489-06-29 15:21 J	-3935753.91	-3935753.86	-3935753.75	0.0088	0.0083
Venus	-15488-02-10 04:48 J	-3935528.38	-3935528.30	-3935528.17	0.0088	0.0077
Venus	-15488-09-23 18:28 J	-3935302.85	-3935302.73	-3935302.59	0.0088	0.0072
Venus	-15487-05-07 07:40 J	-3935077.31	-3935077.18	-3935077.02	0.0088	0.0067
Venus	-15487-12-18 21:07 J	-3934851.76	-3934851.62	-3934851.44	0.0088	0.0061
Venus	-15486-08-01 10:33 J	-3934626.22	-3934626.06	-3934625.87	0.0088	0.0056
Venus	-15485-03-14 00:00 J	-3934400.67	-3934400.50	-3934400.30	0.0088	0.0051
Venus	-15485-10-25 13:26 J	-3934175.12	-3934174.94	-3934174.73	0.0088	0.0045
Venus	-15484-06-08 03:07 J	-3933949.57	-3933949.37	-3933949.17	0.0088	0.0040
Venus	-15483-01-19 16:19 J	-3933724.01	-3933723.82	-3933723.60	0.0088	0.0034
Venus	-15483-09-02 05:31 J	-3933498.46	-3933498.27	-3933498.04	0.0088	0.0030
Venus	-15482-04-15 19:11 J	-3933272.91	-3933272.70	-3933272.48	0.0088	0.0023
Venus	-15482-11-27 08:52 J	-3933047.34	-3933047.13	-3933046.90	0.0088	0.0018
Venus	-15481-07-09 22:33 J	-3932821.78	-3932821.56	-3932821.34	0.0088	0.0012
Venus	-15480-02-20 12:00 J	-3932596.22	-3932596.00	-3932595.78	0.0088	0.0007
Venus	-15480-10-04 01:26 J	-3932370.66	-3932370.44	-3932370.21	0.0088	0.0002
Venus	-15479-05-17 15:07 J	-3932145.10	-3932144.87	-3932144.65	0.0088	0.0004

Venus	-15479-12-29 04:33 J	-3931919.53	-3931919.31	-3931919.08	0.0088	0.0010
Venus	-15478-08-11 18:14 J	-3931693.96	-3931693.74	-3931693.52	0.0088	0.0015
Venus	-15477-03-24 07:40 J	-3931468.39	-3931468.18	-3931467.95	0.0088	0.0021
Venus	-15477-11-04 21:21 J	-3931242.82	-3931242.61	-3931242.39	0.0088	0.0026
Venus	-15476-06-18 10:48 J	-3931017.25	-3931017.05	-3931016.83	0.0088	0.0032
Venus	-15475-01-30 00:28 J	-3930791.67	-3930791.48	-3930791.27	0.0088	0.0038
Venus	-15475-09-12 13:40 J	-3930566.10	-3930565.93	-3930565.71	0.0088	0.0044
Venus	-15474-04-26 03:21 J	-3930340.53	-3930340.36	-3930340.16	0.0088	0.0049
Venus	-15474-12-07 17:02 J	-3930114.95	-3930114.79	-3930114.60	0.0088	0.0054
Venus	-15473-07-20 06:43 J	-3929889.37	-3929889.22	-3929889.04	0.0088	0.0060
Venus	-15472-03-02 20:24 J	-3929663.79	-3929663.65	-3929663.49	0.0088	0.0065
Venus	-15472-10-14 09:35 J	-3929438.21	-3929438.10	-3929437.94	0.0088	0.0071
Venus	-15471-05-27 23:16 J	-3929212.63	-3929212.53	-3929212.40	0.0088	0.0076
Venus	-15470-01-08 12:57 J	-3928987.03	-3928986.96	-3928986.85	0.0088	0.0081
Venus	-15470-08-22 02:38 J	-3928761.43	-3928761.39	-3928761.33	0.0088	0.0086
Earth	-15442-05-21 16:04 J	-3918626.94	-3918626.83	-3918626.69	0.0089	0.0077
Moon	-15442-05-21 19:26 J	-3918626.78	-3918626.69	-3918626.56	0.0089	0.0080 *
Moon	-15441-05-22 23:45 J	-3918259.73	-3918259.51	-3918259.26	0.0089	0.0032
Earth	-15441-05-23 03:07 J	-3918259.59	-3918259.37	-3918259.12	0.0089	0.0036 *
Earth	-15440-05-25 14:09 J	-3917892.16	-3917891.91	-3917891.65	0.0089	0.0005
Moon	-15440-05-25 17:45 J	-3917892.02	-3917891.76	-3917891.50	0.0089	0.0000 *
Moon	-15439-05-27 23:02 J	-3917524.74	-3917524.54	-3917524.33	0.0089	0.0049
Earth	-15439-05-28 00:43 J	-3917524.66	-3917524.47	-3917524.23	0.0089	0.0046 *
Earth	-15438-05-30 11:31 J	-3917157.07	-3917157.02	-3917156.92	0.0089	0.0086
Moon	-15438-05-30 12:57 J	-3917157.04	-3917156.96	-3917156.82	0.0089	0.0082 *
Mars	-15422-10-13 03:35 J	-3911177.62	-3911177.35	-3911177.04	0.0089	0.0047
Mars	-15420-09-08 09:07 J	-3910481.41	-3910481.12	-3910480.79	0.0089	0.0037
Mercury	-15419-04-12 08:52 J	-3910265.14	-3910265.13	-3910265.09	0.0089	0.0088
Mercury	-15419-07-09 10:19 J	-3910177.12	-3910177.07	-3910177.01	0.0089	0.0080
Mercury	-15419-10-05 11:31 J	-3910089.08	-3910089.02	-3910088.94	0.0089	0.0074

Mercury	-15418-01-01 12:57 J	-3910001.04	-3910000.96	-3910000.87	0.0089	0.0066
Mercury	-15418-03-30 14:09 J	-3909913.00	-3909912.91	-3909912.81	0.0089	0.0060
Mercury	-15418-06-26 15:21 J	-3909824.96	-3909824.86	-3909824.75	0.0089	0.0053
Mercury	-15418-09-22 16:48 J	-3909736.91	-3909736.80	-3909736.69	0.0089	0.0045
Mercury	-15418-12-19 18:00 J	-3909648.86	-3909648.75	-3909648.63	0.0089	0.0039
Mercury	-15417-03-16 19:26 J	-3909560.81	-3909560.69	-3909560.57	0.0089	0.0031
Mercury	-15417-06-12 20:38 J	-3909472.76	-3909472.64	-3909472.51	0.0089	0.0024
Mercury	-15417-09-08 21:50 J	-3909384.71	-3909384.59	-3909384.46	0.0089	0.0018
Mercury	-15417-12-05 23:16 J	-3909296.66	-3909296.53	-3909296.40	0.0089	0.0010
Mercury	-15416-03-04 00:28 J	-3909208.61	-3909208.48	-3909208.35	0.0089	0.0004
Mercury	-15416-05-31 01:55 J	-3909120.55	-3909120.42	-3909120.29	0.0089	0.0004
Mercury	-15416-08-27 03:07 J	-3909032.50	-3909032.37	-3909032.24	0.0089	0.0011
Mercury	-15416-11-23 04:19 J	-3908944.44	-3908944.32	-3908944.19	0.0089	0.0018
Mercury	-15415-02-19 05:45 J	-3908856.39	-3908856.26	-3908856.14	0.0089	0.0025
Mercury	-15415-05-18 06:57 J	-3908768.33	-3908768.21	-3908768.08	0.0089	0.0032
Mercury	-15415-08-14 08:09 J	-3908680.27	-3908680.16	-3908680.03	0.0089	0.0040
Mercury	-15415-11-10 09:35 J	-3908592.21	-3908592.10	-3908591.99	0.0089	0.0046
Mercury	-15414-02-06 10:48 J	-3908504.15	-3908504.05	-3908503.94	0.0089	0.0054
Mercury	-15414-05-05 12:14 J	-3908416.09	-3908415.99	-3908415.89	0.0089	0.0060
Mercury	-15414-08-01 13:26 J	-3908328.02	-3908327.94	-3908327.85	0.0089	0.0068
Mercury	-15414-10-28 14:52 J	-3908239.95	-3908239.88	-3908239.81	0.0089	0.0075
Mercury	-15413-01-24 16:04 J	-3908151.88	-3908151.83	-3908151.78	0.0089	0.0082
Mercury	-15413-04-21 17:31 J	-3908063.78	-3908063.77	-3908063.76	0.0089	0.0089
Venus	-15407-01-04 02:38 J	-3905980.43	-3905980.39	-3905980.30	0.0089	0.0085
Venus	-15407-08-17 15:21 J	-3905754.94	-3905754.86	-3905754.74	0.0089	0.0079
Venus	-15406-03-31 04:19 J	-3905529.43	-3905529.32	-3905529.19	0.0089	0.0074
Venus	-15406-11-11 16:48 J	-3905303.92	-3905303.80	-3905303.65	0.0089	0.0068
Venus	-15405-06-24 05:31 J	-3905078.41	-3905078.27	-3905078.10	0.0089	0.0063
Venus	-15404-02-04 18:28 J	-3904852.89	-3904852.73	-3904852.57	0.0089	0.0058
Venus	-15404-09-18 06:43 J	-3904627.38	-3904627.22	-3904627.03	0.0089	0.0052

Venus	-15403-05-01 19:11 J	-3904401.86	-3904401.70	-3904401.49	0.0089	0.0047
Venus	-15403-12-13 08:09 J	-3904176.34	-3904176.16	-3904175.96	0.0089	0.0041
Venus	-15402-07-26 20:38 J	-3903950.82	-3903950.64	-3903950.43	0.0089	0.0036
Venus	-15401-03-08 09:21 J	-3903725.30	-3903725.11	-3903724.90	0.0089	0.0030
Venus	-15401-10-19 21:50 J	-3903499.78	-3903499.59	-3903499.37	0.0089	0.0025
Venus	-15400-06-02 10:48 J	-3903274.26	-3903274.05	-3903273.83	0.0089	0.0019
Venus	-15399-01-13 23:31 J	-3903048.73	-3903048.52	-3903048.31	0.0089	0.0014
Venus	-15399-08-27 12:00 J	-3902823.21	-3902823.00	-3902822.78	0.0089	0.0008
Venus	-15398-04-10 00:28 J	-3902597.69	-3902597.48	-3902597.26	0.0089	0.0003
Venus	-15398-11-21 12:57 J	-3902372.17	-3902371.96	-3902371.74	0.0089	0.0004
Venus	-15397-07-04 01:40 J	-3902146.64	-3902146.43	-3902146.21	0.0089	0.0009
Venus	-15396-02-14 14:09 J	-3901921.12	-3901920.91	-3901920.70	0.0089	0.0014
Venus	-15396-09-28 02:24 J	-3901695.60	-3901695.40	-3901695.18	0.0089	0.0020
Venus	-15395-05-11 14:52 J	-3901470.08	-3901469.88	-3901469.66	0.0089	0.0025
Venus	-15395-12-23 03:07 J	-3901244.56	-3901244.37	-3901244.15	0.0089	0.0031
Venus	-15394-08-05 15:50 J	-3901019.03	-3901018.84	-3901018.64	0.0089	0.0036
Venus	-15393-03-18 04:04 J	-3900793.51	-3900793.33	-3900793.12	0.0089	0.0042
Venus	-15393-10-29 16:33 J	-3900567.98	-3900567.81	-3900567.61	0.0089	0.0047
Venus	-15392-06-12 04:48 J	-3900342.45	-3900342.30	-3900342.10	0.0089	0.0053
Venus	-15391-01-23 17:31 J	-3900116.92	-3900116.77	-3900116.59	0.0089	0.0058
Venus	-15391-09-06 06:00 J	-3899891.39	-3899891.25	-3899891.09	0.0089	0.0063
Venus	-15390-04-19 18:00 J	-3899665.86	-3899665.75	-3899665.59	0.0089	0.0069
Venus	-15390-12-01 06:43 J	-3899440.32	-3899440.22	-3899440.08	0.0089	0.0074
Venus	-15389-07-13 19:26 J	-3899214.77	-3899214.69	-3899214.58	0.0089	0.0079
Venus	-15388-02-24 07:55 J	-3898989.22	-3898989.17	-3898989.09	0.0089	0.0084
Earth	-15361-11-15 15:50 J	-3888862.87	-3888862.84	-3888862.78	0.0088	0.0087
Moon	-15360-11-18 01:40 J	-3888495.65	-3888495.43	-3888495.21	0.0088	0.0046
Earth	-15360-11-18 04:33 J	-3888495.53	-3888495.31	-3888495.09	0.0088	0.0047 *
Earth	-15359-11-20 16:48 J	-3888128.06	-3888127.80	-3888127.54	0.0088	0.0007
Moon	-15359-11-20 18:28 J	-3888128.00	-3888127.73	-3888127.46	0.0088	0.0008 *

Moon	-15358-11-23 04:19 J	-3887760.53	-3887760.32	-3887760.07	0.0088	0.0035
Earth	-15358-11-23 04:48 J	-3887760.53	-3887760.30	-3887760.05	0.0088	0.0033 *
Moon	-15357-11-24 16:19 J	-3887392.95	-3887392.82	-3887392.64	0.0088	0.0072
Earth	-15357-11-24 16:48 J	-3887392.92	-3887392.80	-3887392.63	0.0088	0.0074 *
Mars	-15340-08-20 01:26 J	-3881280.65	-3881280.44	-3881280.20	0.0088	0.0056
Mars	-15338-07-14 18:57 J	-3880587.00	-3880586.71	-3880586.41	0.0088	0.0012
Mars	-15336-06-07 12:14 J	-3879893.11	-3879892.99	-3879892.86	0.0088	0.0079
Mercury	-15336-09-25 12:43 J	-3879782.98	-3879782.97	-3879782.92	0.0088	0.0087
Mercury	-15336-12-22 16:19 J	-3879694.89	-3879694.82	-3879694.70	0.0088	0.0077
Mercury	-15335-03-20 20:24 J	-3879606.77	-3879606.65	-3879606.51	0.0088	0.0066
Mercury	-15335-06-17 00:00 J	-3879518.64	-3879518.50	-3879518.33	0.0088	0.0056
Mercury	-15335-09-13 03:50 J	-3879430.50	-3879430.34	-3879430.16	0.0088	0.0046
Mercury	-15335-12-10 07:26 J	-3879342.36	-3879342.19	-3879342.00	0.0088	0.0036
Mercury	-15334-03-08 11:31 J	-3879254.21	-3879254.02	-3879253.83	0.0088	0.0025
Mercury	-15334-06-04 15:07 J	-3879166.06	-3879165.87	-3879165.67	0.0088	0.0015
Mercury	-15334-08-31 18:57 J	-3879077.91	-3879077.71	-3879077.51	0.0088	0.0005
Mercury	-15334-11-27 22:33 J	-3878989.76	-3878989.56	-3878989.36	0.0088	0.0005
Mercury	-15333-02-24 02:09 J	-3878901.60	-3878901.41	-3878901.21	0.0088	0.0016
Mercury	-15333-05-22 05:45 J	-3878813.44	-3878813.26	-3878813.06	0.0088	0.0026
Mercury	-15333-08-18 09:35 J	-3878725.27	-3878725.10	-3878724.91	0.0088	0.0036
Mercury	-15333-11-14 13:11 J	-3878637.11	-3878636.95	-3878636.77	0.0088	0.0046
Mercury	-15332-02-10 16:48 J	-3878548.94	-3878548.80	-3878548.64	0.0088	0.0056
Mercury	-15332-05-09 20:38 J	-3878460.76	-3878460.64	-3878460.50	0.0088	0.0066
Mercury	-15332-08-06 00:28 J	-3878372.58	-3878372.48	-3878372.38	0.0088	0.0076
Mercury	-15332-11-02 03:35 J	-3878284.36	-3878284.35	-3878284.29	0.0088	0.0087
Venus	-15325-10-01 00:43 J	-3875759.49	-3875759.47	-3875759.41	0.0088	0.0087
Venus	-15324-05-14 14:09 J	-3875533.98	-3875533.91	-3875533.81	0.0088	0.0081
Venus	-15324-12-26 03:21 J	-3875308.44	-3875308.36	-3875308.22	0.0088	0.0076
Venus	-15323-08-08 17:02 J	-3875082.91	-3875082.79	-3875082.64	0.0088	0.0071
Venus	-15322-03-22 06:14 J	-3874857.37	-3874857.24	-3874857.07	0.0088	0.0066

Venus	-15322-11-02 19:40 J	-3874631.82	-3874631.68	-3874631.49	0.0088	0.0060
Venus	-15321-06-15 09:21 J	-3874406.27	-3874406.11	-3874405.92	0.0088	0.0054
Venus	-15320-01-26 22:33 J	-3874180.73	-3874180.56	-3874180.36	0.0088	0.0049
Venus	-15320-09-09 12:00 J	-3873955.18	-3873955.00	-3873954.79	0.0088	0.0044
Venus	-15319-04-23 01:40 J	-3873729.63	-3873729.43	-3873729.23	0.0088	0.0038
Venus	-15319-12-04 15:07 J	-3873504.07	-3873503.87	-3873503.65	0.0088	0.0032
Venus	-15318-07-18 04:33 J	-3873278.52	-3873278.31	-3873278.09	0.0088	0.0027
Venus	-15317-02-28 17:45 J	-3873052.96	-3873052.76	-3873052.53	0.0088	0.0022
Venus	-15317-10-11 07:26 J	-3872827.41	-3872827.19	-3872826.97	0.0088	0.0015
Venus	-15316-05-24 20:52 J	-3872601.85	-3872601.63	-3872601.40	0.0088	0.0010
Venus	-15315-01-05 10:33 J	-3872376.29	-3872376.06	-3872375.84	0.0088	0.0004
Venus	-15315-08-19 00:00 J	-3872150.72	-3872150.50	-3872150.28	0.0088	0.0002
Venus	-15314-04-01 13:26 J	-3871925.16	-3871924.94	-3871924.72	0.0088	0.0007
Venus	-15314-11-13 02:52 J	-3871699.59	-3871699.38	-3871699.15	0.0088	0.0013
Venus	-15313-06-25 16:33 J	-3871474.03	-3871473.81	-3871473.59	0.0088	0.0018
Venus	-15312-02-06 06:00 J	-3871248.46	-3871248.25	-3871248.03	0.0088	0.0024
Venus	-15312-09-19 19:40 J	-3871022.89	-3871022.68	-3871022.47	0.0088	0.0030
Venus	-15311-05-03 09:07 J	-3870797.32	-3870797.12	-3870796.91	0.0088	0.0035
Venus	-15311-12-14 22:33 J	-3870571.74	-3870571.56	-3870571.34	0.0088	0.0042
Venus	-15310-07-28 12:28 J	-3870346.16	-3870345.98	-3870345.78	0.0088	0.0047
Venus	-15309-03-10 01:55 J	-3870120.59	-3870120.42	-3870120.23	0.0088	0.0052
Venus	-15309-10-21 15:35 J	-3869895.01	-3869894.85	-3869894.67	0.0088	0.0058
Venus	-15308-06-04 04:48 J	-3869669.43	-3869669.30	-3869669.12	0.0088	0.0064
Venus	-15307-01-15 18:43 J	-3869443.85	-3869443.72	-3869443.57	0.0088	0.0069
Venus	-15307-08-29 08:09 J	-3869218.26	-3869218.16	-3869218.02	0.0088	0.0075
Venus	-15306-04-11 21:50 J	-3868992.67	-3868992.59	-3868992.48	0.0088	0.0080
Venus	-15306-11-23 11:45 J	-3868767.07	-3868767.01	-3868766.95	0.0088	0.0085
Earth	-15277-05-22 11:16 J	-3858359.20	-3858359.03	-3858358.82	0.0089	0.0058
Moon	-15277-05-22 14:24 J	-3858359.09	-3858358.90	-3858358.69	0.0089	0.0056 *
Moon	-15276-05-24 20:09 J	-3857991.89	-3857991.66	-3857991.41	0.0089	0.0020

Earth	-15276-05-24 22:19 J	-3857991.80	-3857991.57	-3857991.30	0.0089	0.0019 *
Earth	-15275-05-27 09:21 J	-3857624.35	-3857624.11	-3857623.86	0.0089	0.0023
Moon	-15275-05-27 10:04 J	-3857624.32	-3857624.08	-3857623.82	0.0089	0.0025 *
Earth	-15274-05-29 19:55 J	-3857256.83	-3857256.67	-3857256.47	0.0089	0.0063
Moon	-15274-05-29 20:38 J	-3857256.81	-3857256.64	-3857256.45	0.0089	0.0061 *
Jupiter	-15261-11-18 20:24 J	-3852335.02	-3852334.65	-3852334.22	0.0089	0.0058
Mars	-15258-05-26 13:40 J	-3851415.93	-3851415.93	-3851415.88	0.0089	0.0089
Mars	-15256-04-21 18:57 J	-3850720.04	-3850719.71	-3850719.37	0.0089	0.0007
Mercury	-15254-01-07 08:38 J	-3850094.17	-3850094.14	-3850094.10	0.0089	0.0085
Mars	-15254-03-19 00:14 J	-3850023.64	-3850023.49	-3850023.29	0.0089	0.0077
Mercury	-15254-04-05 09:50 J	-3850006.14	-3850006.09	-3850006.02	0.0089	0.0079
Mercury	-15254-07-02 11:02 J	-3849918.10	-3849918.04	-3849917.95	0.0089	0.0072
Mercury	-15254-09-28 12:28 J	-3849830.06	-3849829.98	-3849829.88	0.0089	0.0064
Mercury	-15254-12-25 13:40 J	-3849742.02	-3849741.93	-3849741.82	0.0089	0.0058
Mercury	-15253-03-22 15:07 J	-3849653.97	-3849653.87	-3849653.76	0.0089	0.0050
Mercury	-15253-06-18 16:19 J	-3849565.93	-3849565.82	-3849565.70	0.0089	0.0043
Mercury	-15253-09-14 17:31 J	-3849477.88	-3849477.77	-3849477.64	0.0089	0.0037
Mercury	-15253-12-11 18:57 J	-3849389.83	-3849389.71	-3849389.58	0.0089	0.0029
Mercury	-15252-03-09 20:09 J	-3849301.78	-3849301.66	-3849301.53	0.0089	0.0023
Mercury	-15252-06-05 21:35 J	-3849213.73	-3849213.60	-3849213.47	0.0089	0.0015
Mercury	-15252-09-01 22:48 J	-3849125.68	-3849125.55	-3849125.42	0.0089	0.0008
Mercury	-15252-11-29 00:14 J	-3849037.62	-3849037.49	-3849037.36	0.0089	0.0002
Mercury	-15251-02-25 01:26 J	-3848949.57	-3848949.44	-3848949.31	0.0089	0.0006
Mercury	-15251-05-24 02:38 J	-3848861.52	-3848861.39	-3848861.26	0.0089	0.0013
Mercury	-15251-08-20 03:50 J	-3848773.46	-3848773.34	-3848773.20	0.0089	0.0021
Mercury	-15251-11-16 05:16 J	-3848685.40	-3848685.28	-3848685.15	0.0089	0.0027
Mercury	-15250-02-12 06:28 J	-3848597.35	-3848597.23	-3848597.10	0.0089	0.0034
Mercury	-15250-05-11 07:40 J	-3848509.29	-3848509.18	-3848509.06	0.0089	0.0042
Mercury	-15250-08-07 09:07 J	-3848421.23	-3848421.12	-3848421.01	0.0089	0.0048
Mercury	-15250-11-03 10:19 J	-3848333.17	-3848333.07	-3848332.96	0.0089	0.0056

Mercury	-15249-01-30 11:31 J	-3848245.10	-3848245.02	-3848244.92	0.0089	0.0063
Mercury	-15249-04-27 12:57 J	-3848157.04	-3848156.96	-3848156.88	0.0089	0.0069
Mercury	-15249-07-24 14:09 J	-3848068.97	-3848068.91	-3848068.84	0.0089	0.0077
Mercury	-15249-10-20 15:35 J	-3847980.89	-3847980.85	-3847980.80	0.0089	0.0084
Venus	-15243-04-07 13:11 J	-3845985.96	-3845985.95	-3845985.93	0.0089	0.0089
Venus	-15243-11-19 01:40 J	-3845760.49	-3845760.43	-3845760.34	0.0089	0.0084
Venus	-15242-07-02 14:09 J	-3845534.99	-3845534.91	-3845534.78	0.0089	0.0079
Venus	-15241-02-13 03:07 J	-3845309.49	-3845309.37	-3845309.24	0.0089	0.0073
Venus	-15241-09-25 15:35 J	-3845083.98	-3845083.85	-3845083.70	0.0089	0.0067
Venus	-15240-05-09 04:33 J	-3844858.46	-3844858.31	-3844858.15	0.0089	0.0062
Venus	-15240-12-20 16:48 J	-3844632.95	-3844632.80	-3844632.62	0.0089	0.0056
Venus	-15239-08-03 05:31 J	-3844407.44	-3844407.27	-3844407.08	0.0089	0.0051
Venus	-15238-03-16 18:00 J	-3844181.92	-3844181.75	-3844181.55	0.0089	0.0045
Venus	-15238-10-28 06:43 J	-3843956.40	-3843956.22	-3843956.02	0.0089	0.0040
Venus	-15237-06-09 19:26 J	-3843730.88	-3843730.69	-3843730.48	0.0089	0.0034
Venus	-15236-01-21 08:09 J	-3843505.36	-3843505.16	-3843504.95	0.0089	0.0028
Venus	-15236-09-03 20:52 J	-3843279.84	-3843279.63	-3843279.42	0.0089	0.0022
Venus	-15235-04-17 09:21 J	-3843054.32	-3843054.11	-3843053.89	0.0089	0.0017
Venus	-15235-11-28 22:04 J	-3842828.80	-3842828.58	-3842828.37	0.0089	0.0011
Venus	-15234-07-12 10:48 J	-3842603.27	-3842603.05	-3842602.84	0.0089	0.0006
Venus	-15233-02-22 23:16 J	-3842377.75	-3842377.53	-3842377.31	0.0089	0.0000
Venus	-15233-10-05 11:45 J	-3842152.22	-3842152.01	-3842151.79	0.0089	0.0006
Venus	-15232-05-19 00:14 J	-3841926.70	-3841926.49	-3841926.27	0.0089	0.0012
Venus	-15232-12-30 12:43 J	-3841701.18	-3841700.97	-3841700.75	0.0089	0.0017
Venus	-15231-08-13 01:11 J	-3841475.65	-3841475.45	-3841475.23	0.0089	0.0023
Venus	-15230-03-26 13:26 J	-3841250.13	-3841249.94	-3841249.72	0.0089	0.0029
Venus	-15230-11-07 02:09 J	-3841024.60	-3841024.41	-3841024.20	0.0089	0.0034
Venus	-15229-06-19 14:38 J	-3840799.07	-3840798.89	-3840798.69	0.0089	0.0040
Venus	-15228-01-31 03:07 J	-3840573.55	-3840573.37	-3840573.18	0.0089	0.0045
Venus	-15228-09-13 15:21 J	-3840348.02	-3840347.86	-3840347.67	0.0089	0.0051

Venus	-15227-04-27 04:04 J	-3840122.49	-3840122.33	-3840122.16	0.0089	0.0056
Venus	-15227-12-08 16:04 J	-3839896.96	-3839896.83	-3839896.65	0.0089	0.0062
Venus	-15226-07-22 05:02 J	-3839671.43	-3839671.29	-3839671.14	0.0089	0.0067
Venus	-15225-03-03 17:02 J	-3839445.89	-3839445.79	-3839445.64	0.0089	0.0073
Venus	-15225-10-15 05:31 J	-3839220.35	-3839220.27	-3839220.15	0.0089	0.0078
Venus	-15224-05-28 18:14 J	-3838994.80	-3838994.74	-3838994.66	0.0089	0.0083
Venus	-15223-01-09 06:28 J	-3838769.23	-3838769.23	-3838769.19	0.0089	0.0089
Earth	-15196-11-17 09:50 J	-3828595.23	-3828595.09	-3828594.91	0.0088	0.0069
Moon	-15196-11-17 11:45 J	-3828595.16	-3828595.01	-3828594.86	0.0088	0.0073 *
Earth	-15195-11-19 22:33 J	-3828227.80	-3828227.56	-3828227.31	0.0088	0.0029
Moon	-15195-11-19 22:33 J	-3828227.79	-3828227.56	-3828227.31	0.0088	0.0025 *
Moon	-15194-11-22 09:07 J	-3827860.38	-3827860.12	-3827859.84	0.0088	0.0007
Earth	-15194-11-22 10:48 J	-3827860.30	-3827860.05	-3827859.78	0.0088	0.0011 *
Earth	-15193-11-23 23:16 J	-3827492.74	-3827492.53	-3827492.32	0.0088	0.0051
Moon	-15193-11-24 00:57 J	-3827492.64	-3827492.46	-3827492.24	0.0088	0.0055 *
Moon	-15192-11-26 07:40 J	-3827125.20	-3827125.18	-3827125.09	0.0088	0.0086
Mars	-15174-02-27 02:38 J	-3820823.67	-3820823.39	-3820823.10	0.0088	0.0024
Mars	-15172-01-20 19:11 J	-3820129.94	-3820129.70	-3820129.43	0.0088	0.0044
Mercury	-15171-06-22 10:04 J	-3819612.11	-3819612.08	-3819612.02	0.0088	0.0085
Mercury	-15171-09-18 13:55 J	-3819524.01	-3819523.92	-3819523.81	0.0088	0.0075
Mercury	-15171-12-15 17:31 J	-3819435.89	-3819435.77	-3819435.62	0.0088	0.0065
Mercury	-15170-03-13 21:07 J	-3819347.75	-3819347.62	-3819347.44	0.0088	0.0055
Mercury	-15170-06-10 01:11 J	-3819259.61	-3819259.45	-3819259.27	0.0088	0.0044
Mercury	-15170-09-06 05:02 J	-3819171.47	-3819171.29	-3819171.10	0.0088	0.0034
Mercury	-15170-12-03 08:38 J	-3819083.32	-3819083.14	-3819082.94	0.0088	0.0024
Mercury	-15169-02-29 12:28 J	-3818995.17	-3818994.98	-3818994.78	0.0088	0.0014
Mercury	-15169-05-27 16:19 J	-3818907.02	-3818906.82	-3818906.62	0.0088	0.0004
Mercury	-15169-08-23 19:55 J	-3818818.87	-3818818.67	-3818818.47	0.0088	0.0007
Mercury	-15169-11-19 23:31 J	-3818730.71	-3818730.52	-3818730.32	0.0088	0.0017
Mercury	-15168-02-16 03:21 J	-3818642.55	-3818642.36	-3818642.17	0.0088	0.0027

Mercury	-15168-05-15 06:43 J	-3818554.38	-3818554.22	-3818554.02	0.0088	0.0038
Mercury	-15168-08-11 10:19 J	-3818466.22	-3818466.07	-3818465.88	0.0088	0.0048
Mercury	-15168-11-07 14:09 J	-3818378.04	-3818377.91	-3818377.75	0.0088	0.0058
Mercury	-15167-02-03 17:45 J	-3818289.87	-3818289.76	-3818289.62	0.0088	0.0068
Mercury	-15167-05-02 21:35 J	-3818201.68	-3818201.60	-3818201.50	0.0088	0.0078
Venus	-15160-08-15 22:19 J	-3815539.59	-3815539.57	-3815539.49	0.0088	0.0086
Venus	-15159-03-29 12:00 J	-3815314.08	-3815314.00	-3815313.90	0.0088	0.0080
Venus	-15159-11-10 01:11 J	-3815088.54	-3815088.45	-3815088.31	0.0088	0.0076
Venus	-15158-06-23 15:07 J	-3814863.00	-3814862.87	-3814862.73	0.0088	0.0069
Venus	-15157-02-04 04:04 J	-3814637.46	-3814637.33	-3814637.15	0.0088	0.0065
Venus	-15157-09-16 17:45 J	-3814411.91	-3814411.76	-3814411.58	0.0088	0.0058
Venus	-15156-04-30 06:57 J	-3814186.37	-3814186.21	-3814186.01	0.0088	0.0053
Venus	-15156-12-11 20:38 J	-3813960.81	-3813960.64	-3813960.43	0.0088	0.0048
Venus	-15155-07-25 10:19 J	-3813735.26	-3813735.07	-3813734.87	0.0088	0.0042
Venus	-15154-03-07 23:31 J	-3813509.71	-3813509.52	-3813509.30	0.0088	0.0036
Venus	-15154-10-19 12:57 J	-3813284.16	-3813283.96	-3813283.74	0.0088	0.0031
Venus	-15153-06-01 02:38 J	-3813058.60	-3813058.39	-3813058.17	0.0088	0.0024
Venus	-15152-01-12 15:50 J	-3812833.04	-3812832.84	-3812832.61	0.0088	0.0020
Venus	-15152-08-26 05:31 J	-3812607.49	-3812607.27	-3812607.04	0.0088	0.0013
Venus	-15151-04-08 18:57 J	-3812381.93	-3812381.71	-3812381.48	0.0088	0.0007
Venus	-15151-11-20 08:38 J	-3812156.37	-3812156.14	-3812155.92	0.0088	0.0002
Venus	-15150-07-03 22:04 J	-3811930.80	-3811930.58	-3811930.36	0.0088	0.0004
Venus	-15149-02-14 11:31 J	-3811705.24	-3811705.02	-3811704.80	0.0088	0.0010
Venus	-15149-09-27 00:43 J	-3811479.68	-3811479.47	-3811479.24	0.0088	0.0017
Venus	-15148-05-10 14:24 J	-3811254.11	-3811253.90	-3811253.68	0.0088	0.0022
Venus	-15148-12-22 04:04 J	-3811028.54	-3811028.33	-3811028.11	0.0088	0.0027
Venus	-15147-08-04 17:31 J	-3810802.96	-3810802.77	-3810802.55	0.0088	0.0033
Venus	-15146-03-18 07:26 J	-3810577.39	-3810577.19	-3810576.99	0.0088	0.0039
Venus	-15146-10-29 20:38 J	-3810351.82	-3810351.64	-3810351.44	0.0088	0.0045
Venus	-15145-06-11 10:04 J	-3810126.25	-3810126.08	-3810125.88	0.0088	0.0051

Venus	-15144-01-22 23:45 J	-3809900.66	-3809900.51	-3809900.32	0.0088	0.0056
Venus	-15144-09-05 13:26 J	-3809675.09	-3809674.94	-3809674.77	0.0088	0.0062
Venus	-15143-04-19 02:52 J	-3809449.50	-3809449.38	-3809449.22	0.0088	0.0068
Venus	-15143-11-30 16:48 J	-3809223.92	-3809223.80	-3809223.67	0.0088	0.0073
Venus	-15142-07-14 06:14 J	-3808998.33	-3808998.24	-3808998.12	0.0088	0.0079
Venus	-15141-02-24 20:09 J	-3808772.73	-3808772.66	-3808772.59	0.0088	0.0084
Moon	-15113-05-21 18:14 J	-3798458.81	-3798458.74	-3798458.65	0.0089	0.0084
Earth	-15113-05-21 19:26 J	-3798458.78	-3798458.69	-3798458.57	0.0089	0.0081 *
Earth	-15112-05-24 06:28 J	-3798091.45	-3798091.23	-3798091.00	0.0089	0.0040
Moon	-15112-05-24 06:57 J	-3798091.43	-3798091.21	-3798090.95	0.0089	0.0037 *
Earth	-15111-05-26 17:31 J	-3797724.02	-3797723.77	-3797723.51	0.0089	0.0000
Moon	-15111-05-26 18:14 J	-3797723.98	-3797723.74	-3797723.49	0.0089	0.0004 *
Moon	-15110-05-29 01:40 J	-3797356.64	-3797356.43	-3797356.18	0.0089	0.0043
Earth	-15110-05-29 04:04 J	-3797356.54	-3797356.33	-3797356.09	0.0089	0.0040 *
Earth	-15109-05-30 14:38 J	-3796988.98	-3796988.89	-3796988.76	0.0089	0.0081
Moon	-15109-05-30 17:45 J	-3796988.88	-3796988.76	-3796988.63	0.0089	0.0077 *
Jupiter	-15094-01-13 17:02 J	-3791648.09	-3791647.79	-3791647.40	0.0089	0.0068
Mars	-15093-12-03 01:40 J	-3790958.69	-3790958.43	-3790958.13	0.0089	0.0051
Mars	-15091-10-30 07:11 J	-3790262.51	-3790262.20	-3790261.88	0.0089	0.0033
Mercury	-15090-10-04 07:55 J	-3789923.20	-3789923.17	-3789923.12	0.0089	0.0084
Mercury	-15090-12-31 09:07 J	-3789835.17	-3789835.12	-3789835.04	0.0089	0.0077
Mercury	-15089-03-28 10:33 J	-3789747.13	-3789747.06	-3789746.97	0.0089	0.0070
Mercury	-15089-06-24 11:45 J	-3789659.09	-3789659.01	-3789658.91	0.0089	0.0063
Mercury	-15089-09-20 12:57 J	-3789571.05	-3789570.96	-3789570.84	0.0089	0.0057
Mercury	-15089-12-17 14:24 J	-3789483.00	-3789482.90	-3789482.78	0.0089	0.0049
Mercury	-15088-03-15 15:35 J	-3789394.95	-3789394.85	-3789394.72	0.0089	0.0042
Mercury	-15088-06-11 17:02 J	-3789306.91	-3789306.79	-3789306.67	0.0089	0.0035
Mercury	-15088-09-07 18:28 J	-3789218.86	-3789218.73	-3789218.61	0.0089	0.0028
Mercury	-15088-12-04 19:40 J	-3789130.80	-3789130.68	-3789130.55	0.0089	0.0021
Mercury	-15087-03-02 20:52 J	-3789042.75	-3789042.63	-3789042.50	0.0089	0.0014

Mercury	-15087-05-29 22:19 J	-3788954.70	-3788954.57	-3788954.44	0.0089	0.0007
Mercury	-15087-08-25 23:31 J	-3788866.65	-3788866.52	-3788866.39	0.0089	0.0002
Mercury	-15087-11-22 00:57 J	-3788778.59	-3788778.46	-3788778.33	0.0089	0.0008
Mercury	-15086-02-18 02:09 J	-3788690.54	-3788690.41	-3788690.28	0.0089	0.0014
Mercury	-15086-05-17 03:21 J	-3788602.48	-3788602.36	-3788602.23	0.0089	0.0022
Mercury	-15086-08-13 04:48 J	-3788514.43	-3788514.30	-3788514.18	0.0089	0.0029
Mercury	-15086-11-09 06:00 J	-3788426.37	-3788426.25	-3788426.13	0.0089	0.0036
Mercury	-15085-02-05 07:11 J	-3788338.31	-3788338.20	-3788338.08	0.0089	0.0043
Mercury	-15085-05-03 08:38 J	-3788250.25	-3788250.14	-3788250.03	0.0089	0.0050
Mercury	-15085-07-30 09:50 J	-3788162.19	-3788162.09	-3788161.99	0.0089	0.0057
Mercury	-15085-10-26 10:48 J	-3788074.13	-3788074.05	-3788073.94	0.0089	0.0065
Mercury	-15084-01-22 12:14 J	-3787986.06	-3787985.99	-3787985.90	0.0089	0.0071
Mercury	-15084-04-20 13:26 J	-3787897.99	-3787897.94	-3787897.87	0.0089	0.0078
Mercury	-15084-07-17 14:38 J	-3787809.91	-3787809.89	-3787809.84	0.0089	0.0086
Venus	-15078-02-20 11:16 J	-3785766.04	-3785766.03	-3785765.98	0.0089	0.0088
Venus	-15078-10-04 00:14 J	-3785540.56	-3785540.49	-3785540.40	0.0089	0.0083
Venus	-15077-05-16 12:43 J	-3785315.06	-3785314.97	-3785314.84	0.0089	0.0077
Venus	-15077-12-28 01:26 J	-3785089.55	-3785089.44	-3785089.29	0.0089	0.0072
Venus	-15076-08-10 13:55 J	-3784864.04	-3784863.92	-3784863.75	0.0089	0.0066
Venus	-15075-03-24 02:38 J	-3784638.53	-3784638.39	-3784638.22	0.0089	0.0060
Venus	-15075-11-04 15:21 J	-3784413.02	-3784412.86	-3784412.68	0.0089	0.0055
Venus	-15074-06-18 03:50 J	-3784187.50	-3784187.34	-3784187.14	0.0089	0.0050
Venus	-15073-01-29 16:33 J	-3783961.98	-3783961.81	-3783961.61	0.0089	0.0043
Venus	-15073-09-11 05:16 J	-3783736.47	-3783736.28	-3783736.08	0.0089	0.0037
Venus	-15072-04-24 17:45 J	-3783510.95	-3783510.76	-3783510.55	0.0089	0.0032
Venus	-15072-12-06 06:28 J	-3783285.43	-3783285.23	-3783285.02	0.0089	0.0026
Venus	-15071-07-19 19:11 J	-3783059.91	-3783059.70	-3783059.49	0.0089	0.0020
Venus	-15070-03-02 07:40 J	-3782834.39	-3782834.18	-3782833.96	0.0089	0.0014
Venus	-15070-10-13 20:09 J	-3782608.87	-3782608.66	-3782608.44	0.0089	0.0009
Venus	-15069-05-26 08:52 J	-3782383.34	-3782383.13	-3782382.91	0.0089	0.0003

Venus	-15068-01-06 21:35 J	-3782157.82	-3782157.60	-3782157.38	0.0089	0.0003
Venus	-15068-08-20 10:04 J	-3781932.30	-3781932.08	-3781931.86	0.0089	0.0009
Venus	-15067-04-02 22:19 J	-3781706.77	-3781706.57	-3781706.34	0.0089	0.0015
Venus	-15067-11-14 11:02 J	-3781481.25	-3781481.04	-3781480.83	0.0089	0.0020
Venus	-15066-06-27 23:31 J	-3781255.72	-3781255.52	-3781255.30	0.0089	0.0026
Venus	-15065-02-08 12:00 J	-3781030.19	-3781030.00	-3781029.79	0.0089	0.0032
Venus	-15065-09-21 00:14 J	-3780804.67	-3780804.49	-3780804.28	0.0089	0.0038
Venus	-15064-05-04 12:57 J	-3780579.14	-3780578.96	-3780578.77	0.0089	0.0043
Venus	-15064-12-16 01:11 J	-3780353.62	-3780353.45	-3780353.26	0.0089	0.0049
Venus	-15063-07-29 13:40 J	-3780128.08	-3780127.93	-3780127.74	0.0089	0.0055
Venus	-15062-03-12 02:09 J	-3779902.56	-3779902.41	-3779902.24	0.0089	0.0060
Venus	-15062-10-23 14:24 J	-3779677.03	-3779676.90	-3779676.74	0.0089	0.0066
Venus	-15061-06-05 03:07 J	-3779451.49	-3779451.37	-3779451.23	0.0089	0.0071
Venus	-15060-01-16 15:07 J	-3779225.95	-3779225.87	-3779225.74	0.0089	0.0077
Venus	-15060-08-30 03:50 J	-3779000.41	-3779000.34	-3779000.25	0.0089	0.0082
Venus	-15059-04-12 15:50 J	-3778774.85	-3778774.84	-3778774.78	0.0089	0.0088
Moon	-15031-11-19 01:40 J	-3768327.64	-3768327.43	-3768327.20	0.0088	0.0049
Earth	-15031-11-19 03:07 J	-3768327.56	-3768327.37	-3768327.14	0.0088	0.0052 *
Earth	-15030-11-21 15:50 J	-3767960.10	-3767959.84	-3767959.58	0.0088	0.0012
Moon	-15030-11-21 18:43 J	-3767959.96	-3767959.72	-3767959.46	0.0088	0.0015 *
Moon	-15029-11-23 00:43 J	-3767592.71	-3767592.47	-3767592.21	0.0088	0.0030
Earth	-15029-11-23 04:19 J	-3767592.57	-3767592.32	-3767592.07	0.0088	0.0028 *
Earth	-15028-11-25 16:19 J	-3767224.98	-3767224.82	-3767224.65	0.0088	0.0067
Moon	-15028-11-25 19:26 J	-3767224.83	-3767224.69	-3767224.48	0.0088	0.0067 *
Mars	-15011-10-12 08:52 J	-3761060.32	-3761060.13	-3761059.90	0.0088	0.0061
Mars	-15009-09-05 03:21 J	-3760366.66	-3760366.36	-3760366.07	0.0088	0.0007
Mars	-15007-07-30 19:26 J	-3759672.83	-3759672.69	-3759672.53	0.0088	0.0075
Mercury	-15006-03-19 07:11 J	-3759441.24	-3759441.20	-3759441.13	0.0088	0.0084
Mercury	-15006-06-15 10:48 J	-3759353.13	-3759353.05	-3759352.92	0.0088	0.0074
Mercury	-15006-09-11 14:38 J	-3759265.01	-3759264.89	-3759264.74	0.0088	0.0064

Mercury	-15006-12-08 18:43 J	-3759176.87	-3759176.72	-3759176.56	0.0088	0.0053
Mercury	-15005-03-05 22:19 J	-3759088.73	-3759088.57	-3759088.39	0.0088	0.0043
Mercury	-15005-06-02 01:55 J	-3759000.59	-3759000.42	-3759000.22	0.0088	0.0033
Mercury	-15005-08-29 05:45 J	-3758912.44	-3758912.26	-3758912.06	0.0088	0.0023
Mercury	-15005-11-25 09:35 J	-3758824.29	-3758824.10	-3758823.90	0.0088	0.0013
Mercury	-15004-02-21 13:26 J	-3758736.14	-3758735.94	-3758735.74	0.0088	0.0002
Mercury	-15004-05-20 17:02 J	-3758647.98	-3758647.79	-3758647.59	0.0088	0.0008
Mercury	-15004-08-16 20:52 J	-3758559.82	-3758559.63	-3758559.44	0.0088	0.0018
Mercury	-15004-11-13 00:14 J	-3758471.66	-3758471.49	-3758471.29	0.0088	0.0029
Mercury	-15003-02-09 04:04 J	-3758383.50	-3758383.33	-3758383.14	0.0088	0.0039
Mercury	-15003-05-08 07:40 J	-3758295.33	-3758295.18	-3758295.00	0.0088	0.0049
Mercury	-15003-08-04 11:31 J	-3758207.16	-3758207.02	-3758206.87	0.0088	0.0059
Mercury	-15003-10-31 15:07 J	-3758118.98	-3758118.87	-3758118.74	0.0088	0.0069
Mercury	-15002-01-27 18:57 J	-3758030.79	-3758030.71	-3758030.62	0.0088	0.0079

15TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 15th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-14995-06-30 19:55 J	-3755319.70	-3755319.67	-3755319.59	0.0088	0.0085		
Venus	-14994-02-11 09:35 J	-3755094.19	-3755094.10	-3755094.00	0.0088	0.0079		
Venus	-14994-09-24 22:33 J	-3754868.66	-3754868.56	-3754868.42	0.0088	0.0074		
Venus	-14993-05-07 12:14 J	-3754643.12	-3754642.99	-3754642.84	0.0088	0.0068		

Venus	-14993-12-19 01:26 J	-3754417.57	-3754417.44	-3754417.26	0.0088	0.0063
Venus	-14992-08-01 14:52 J	-3754192.03	-3754191.88	-3754191.69	0.0088	0.0058
Venus	-14991-03-15 04:33 J	-3753966.48	-3753966.31	-3753966.12	0.0088	0.0051
Venus	-14991-10-26 18:14 J	-3753740.93	-3753740.74	-3753740.55	0.0088	0.0046
Venus	-14990-06-09 07:11 J	-3753515.38	-3753515.20	-3753514.98	0.0088	0.0041
Venus	-14989-01-20 20:52 J	-3753289.83	-3753289.63	-3753289.41	0.0088	0.0034
Venus	-14989-09-02 10:19 J	-3753064.27	-3753064.07	-3753063.85	0.0088	0.0028
Venus	-14988-04-15 23:45 J	-3752838.72	-3752838.51	-3752838.29	0.0088	0.0023
Venus	-14988-11-27 13:26 J	-3752613.16	-3752612.94	-3752612.72	0.0088	0.0017
Venus	-14987-07-11 02:52 J	-3752387.60	-3752387.38	-3752387.15	0.0088	0.0011
Venus	-14986-02-21 16:19 J	-3752162.04	-3752161.82	-3752161.59	0.0088	0.0005
Venus	-14986-10-05 05:45 J	-3751936.48	-3751936.26	-3751936.04	0.0088	0.0001
Venus	-14985-05-17 19:11 J	-3751710.92	-3751710.70	-3751710.48	0.0088	0.0007
Venus	-14985-12-29 08:38 J	-3751485.35	-3751485.14	-3751484.91	0.0088	0.0013
Venus	-14984-08-11 22:19 J	-3751259.79	-3751259.57	-3751259.35	0.0088	0.0019
Venus	-14983-03-25 11:45 J	-3751034.22	-3751034.01	-3751033.79	0.0088	0.0025
Venus	-14983-11-06 01:11 J	-3750808.65	-3750808.45	-3750808.23	0.0088	0.0030
Venus	-14982-06-19 14:38 J	-3750583.08	-3750582.89	-3750582.68	0.0088	0.0036
Venus	-14981-01-31 04:04 J	-3750357.51	-3750357.33	-3750357.12	0.0088	0.0043
Venus	-14981-09-12 17:31 J	-3750131.94	-3750131.77	-3750131.56	0.0088	0.0049
Venus	-14980-04-26 07:26 J	-3749906.36	-3749906.19	-3749906.01	0.0088	0.0054
Venus	-14980-12-07 21:07 J	-3749680.77	-3749680.62	-3749680.45	0.0088	0.0060
Venus	-14979-07-21 10:33 J	-3749455.19	-3749455.06	-3749454.89	0.0088	0.0066
Venus	-14978-03-04 00:00 J	-3749229.61	-3749229.50	-3749229.34	0.0088	0.0072
Venus	-14978-10-15 13:55 J	-3749004.02	-3749003.92	-3749003.80	0.0088	0.0077
Venus	-14977-05-28 03:21 J	-3748778.42	-3748778.36	-3748778.26	0.0088	0.0083
Venus	-14976-01-08 17:02 J	-3748552.79	-3748552.79	-3748552.75	0.0088	0.0088
Earth	-14948-05-23 13:11 J	-3738191.13	-3738190.95	-3738190.77	0.0089	0.0064
Moon	-14948-05-23 14:24 J	-3738191.08	-3738190.90	-3738190.72	0.0089	0.0061 *
Moon	-14947-05-25 21:21 J	-3737823.84	-3737823.61	-3737823.34	0.0089	0.0028

Earth	-14947-05-26 00:00 J	-3737823.74	-3737823.50	-3737823.25	0.0089	0.0024 *
Earth	-14946-05-28 10:48 J	-3737456.29	-3737456.05	-3737455.79	0.0089	0.0017
Moon	-14946-05-28 14:09 J	-3737456.15	-3737455.91	-3737455.66	0.0089	0.0020 *
Moon	-14945-05-29 18:14 J	-3737088.93	-3737088.74	-3737088.53	0.0089	0.0054
Earth	-14945-05-29 21:50 J	-3737088.78	-3737088.59	-3737088.39	0.0089	0.0057 *
Mars	-14927-06-12 12:57 J	-3730501.28	-3730500.96	-3730500.61	0.0089	0.0012
Mars	-14925-05-08 17:45 J	-3729804.94	-3729804.76	-3729804.53	0.0089	0.0072
Mercury	-14925-06-30 07:11 J	-3729752.23	-3729752.20	-3729752.14	0.0089	0.0083
Mercury	-14925-09-26 08:24 J	-3729664.20	-3729664.15	-3729664.07	0.0089	0.0077
Mercury	-14925-12-23 09:50 J	-3729576.16	-3729576.09	-3729576.00	0.0089	0.0069
Mercury	-14924-03-21 11:02 J	-3729488.12	-3729488.04	-3729487.93	0.0089	0.0062
Mercury	-14924-06-17 12:14 J	-3729400.08	-3729399.99	-3729399.87	0.0089	0.0056
Mercury	-14924-09-13 13:55 J	-3729312.03	-3729311.92	-3729311.81	0.0089	0.0048
Mercury	-14924-12-10 15:07 J	-3729223.98	-3729223.87	-3729223.75	0.0089	0.0041
Mercury	-14923-03-08 16:33 J	-3729135.93	-3729135.81	-3729135.69	0.0089	0.0034
Mercury	-14923-06-04 17:45 J	-3729047.89	-3729047.76	-3729047.64	0.0089	0.0027
Mercury	-14923-08-31 18:57 J	-3728959.83	-3728959.71	-3728959.58	0.0089	0.0020
Mercury	-14923-11-27 20:09 J	-3728871.78	-3728871.66	-3728871.52	0.0089	0.0013
Mercury	-14922-02-23 21:35 J	-3728783.73	-3728783.60	-3728783.47	0.0089	0.0006
Mercury	-14922-05-22 22:48 J	-3728695.68	-3728695.55	-3728695.42	0.0089	0.0003
Mercury	-14922-08-19 00:14 J	-3728607.62	-3728607.49	-3728607.36	0.0089	0.0009
Mercury	-14922-11-15 01:26 J	-3728519.57	-3728519.44	-3728519.31	0.0089	0.0015
Mercury	-14921-02-11 02:38 J	-3728431.51	-3728431.39	-3728431.26	0.0089	0.0023
Mercury	-14921-05-09 04:04 J	-3728343.46	-3728343.33	-3728343.21	0.0089	0.0030
Mercury	-14921-08-05 05:16 J	-3728255.40	-3728255.28	-3728255.16	0.0089	0.0037
Mercury	-14921-11-01 06:28 J	-3728167.34	-3728167.23	-3728167.11	0.0089	0.0044
Mercury	-14920-01-28 07:55 J	-3728079.28	-3728079.17	-3728079.07	0.0089	0.0051
Mercury	-14920-04-26 09:07 J	-3727991.22	-3727991.12	-3727991.02	0.0089	0.0058
Mercury	-14920-07-23 10:04 J	-3727903.15	-3727903.08	-3727902.98	0.0089	0.0065
Mercury	-14920-10-19 11:16 J	-3727815.09	-3727815.03	-3727814.94	0.0089	0.0073

Mercury	-14919-01-15 12:43 J	-3727727.02	-3727726.97	-3727726.90	0.0089	0.0079
Mercury	-14919-04-13 13:55 J	-3727638.94	-3727638.92	-3727638.87	0.0089	0.0086
Venus	-14913-01-05 09:07 J	-3725546.14	-3725546.12	-3725546.06	0.0089	0.0087
Venus	-14913-08-17 22:04 J	-3725320.66	-3725320.58	-3725320.49	0.0089	0.0082
Venus	-14912-03-31 10:19 J	-3725095.16	-3725095.07	-3725094.94	0.0089	0.0077
Venus	-14912-11-11 23:16 J	-3724869.65	-3724869.53	-3724869.39	0.0089	0.0070
Venus	-14911-06-25 12:14 J	-3724644.13	-3724643.99	-3724643.84	0.0089	0.0065
Venus	-14910-02-06 00:28 J	-3724418.62	-3724418.48	-3724418.30	0.0089	0.0059
Venus	-14910-09-19 13:11 J	-3724193.11	-3724192.95	-3724192.76	0.0089	0.0053
Venus	-14909-05-02 01:55 J	-3723967.59	-3723967.42	-3723967.23	0.0089	0.0047
Venus	-14909-12-13 14:38 J	-3723742.08	-3723741.89	-3723741.69	0.0089	0.0041
Venus	-14908-07-27 03:07 J	-3723516.56	-3723516.37	-3723516.16	0.0089	0.0036
Venus	-14907-03-09 15:50 J	-3723291.04	-3723290.84	-3723290.63	0.0089	0.0030
Venus	-14907-10-21 04:04 J	-3723065.52	-3723065.33	-3723065.11	0.0089	0.0024
Venus	-14906-06-03 16:48 J	-3722840.00	-3722839.80	-3722839.57	0.0089	0.0019
Venus	-14905-01-15 05:31 J	-3722614.48	-3722614.27	-3722614.05	0.0089	0.0012
Venus	-14905-08-27 18:14 J	-3722388.96	-3722388.74	-3722388.53	0.0089	0.0006
Venus	-14904-04-10 06:43 J	-3722163.44	-3722163.22	-3722163.00	0.0089	0.0000
Venus	-14904-11-21 19:11 J	-3721937.91	-3721937.70	-3721937.48	0.0089	0.0006
Venus	-14903-07-05 07:55 J	-3721712.38	-3721712.17	-3721711.95	0.0089	0.0012
Venus	-14902-02-15 20:24 J	-3721486.85	-3721486.65	-3721486.43	0.0089	0.0018
Venus	-14902-09-29 09:07 J	-3721261.33	-3721261.12	-3721260.91	0.0089	0.0023
Venus	-14901-05-11 21:35 J	-3721035.80	-3721035.60	-3721035.39	0.0089	0.0029
Venus	-14901-12-23 10:04 J	-3720810.28	-3720810.08	-3720809.88	0.0089	0.0035
Venus	-14900-08-05 22:33 J	-3720584.75	-3720584.56	-3720584.36	0.0089	0.0041
Venus	-14899-03-19 10:48 J	-3720359.22	-3720359.05	-3720358.85	0.0089	0.0047
Venus	-14899-10-30 23:02 J	-3720133.69	-3720133.54	-3720133.34	0.0089	0.0053
Venus	-14898-06-13 12:00 J	-3719908.16	-3719908.00	-3719907.83	0.0089	0.0058
Venus	-14897-01-25 00:14 J	-3719682.63	-3719682.49	-3719682.33	0.0089	0.0064
Venus	-14897-09-06 12:28 J	-3719457.09	-3719456.98	-3719456.83	0.0089	0.0070

Venus	-14896-04-20 01:11 J	-3719231.56	-3719231.45	-3719231.33	0.0089	0.0075
Venus	-14896-12-01 13:11 J	-3719006.02	-3719005.95	-3719005.84	0.0089	0.0081
Venus	-14895-07-15 02:09 J	-3718780.45	-3718780.41	-3718780.36	0.0089	0.0086
Earth	-14867-11-18 07:40 J	-3708427.29	-3708427.18	-3708427.02	0.0088	0.0075
Moon	-14867-11-18 11:16 J	-3708427.14	-3708427.03	-3708426.92	0.0088	0.0079 *
Moon	-14866-11-20 16:33 J	-3708060.04	-3708059.81	-3708059.55	0.0088	0.0032
Earth	-14866-11-20 20:24 J	-3708059.88	-3708059.65	-3708059.40	0.0088	0.0036 *
Earth	-14865-11-22 08:52 J	-3707692.39	-3707692.13	-3707691.87	0.0088	0.0004
Moon	-14865-11-22 12:14 J	-3707692.25	-3707691.99	-3707691.72	0.0088	0.0001 *
Moon	-14864-11-24 17:31 J	-3707324.96	-3707324.77	-3707324.53	0.0088	0.0048
Earth	-14864-11-24 20:52 J	-3707324.84	-3707324.63	-3707324.39	0.0088	0.0044 *
Earth	-14863-11-27 08:38 J	-3706957.18	-3706957.14	-3706957.03	0.0088	0.0084
Moon	-14863-11-27 11:45 J	-3706957.12	-3706957.01	-3706956.89	0.0088	0.0080 *
Mars	-14845-04-20 06:28 J	-3700603.49	-3700603.23	-3700602.94	0.0088	0.0030
Mars	-14843-03-15 00:43 J	-3699909.72	-3699909.47	-3699909.19	0.0088	0.0038
Mercury	-14842-12-14 03:50 J	-3699270.37	-3699270.34	-3699270.26	0.0088	0.0084
Mercury	-14841-03-11 07:40 J	-3699182.27	-3699182.18	-3699182.06	0.0088	0.0074
Mercury	-14841-06-07 11:45 J	-3699094.14	-3699094.01	-3699093.87	0.0088	0.0063
Mercury	-14841-09-03 15:21 J	-3699006.01	-3699005.86	-3699005.70	0.0088	0.0053
Mercury	-14841-11-30 18:57 J	-3698917.87	-3698917.71	-3698917.52	0.0088	0.0043
Mercury	-14840-02-26 22:48 J	-3698829.73	-3698829.55	-3698829.36	0.0088	0.0033
Mercury	-14840-05-26 02:24 J	-3698741.58	-3698741.40	-3698741.19	0.0088	0.0023
Mercury	-14840-08-22 06:28 J	-3698653.43	-3698653.23	-3698653.03	0.0088	0.0012
Mercury	-14840-11-18 10:04 J	-3698565.28	-3698565.08	-3698564.88	0.0088	0.0002
Mercury	-14839-02-14 13:55 J	-3698477.12	-3698476.92	-3698476.72	0.0088	0.0008
Mercury	-14839-05-13 17:16 J	-3698388.96	-3698388.78	-3698388.57	0.0088	0.0019
Mercury	-14839-08-09 21:07 J	-3698300.80	-3698300.62	-3698300.42	0.0088	0.0029
Mercury	-14839-11-06 00:43 J	-3698212.63	-3698212.47	-3698212.28	0.0088	0.0039
Mercury	-14838-02-02 04:33 J	-3698124.47	-3698124.31	-3698124.14	0.0088	0.0049
Mercury	-14838-05-01 08:24 J	-3698036.29	-3698036.15	-3698036.00	0.0088	0.0059

Mercury	-14838-07-28 12:14 J	-3697948.11	-3697947.99	-3697947.87	0.0088	0.0069
Mercury	-14838-10-24 15:21 J	-3697859.92	-3697859.86	-3697859.76	0.0088	0.0080
Venus	-14830-05-15 16:48 J	-3695099.84	-3695099.80	-3695099.72	0.0088	0.0085
Venus	-14830-12-27 06:00 J	-3694874.32	-3694874.25	-3694874.12	0.0088	0.0079
Venus	-14829-08-08 19:26 J	-3694648.79	-3694648.69	-3694648.54	0.0088	0.0073
Venus	-14828-03-22 09:07 J	-3694423.25	-3694423.12	-3694422.97	0.0088	0.0067
Venus	-14828-11-02 22:48 J	-3694197.71	-3694197.55	-3694197.39	0.0088	0.0061
Venus	-14827-06-16 11:45 J	-3693972.16	-3693972.01	-3693971.82	0.0088	0.0056
Venus	-14826-01-28 01:11 J	-3693746.62	-3693746.45	-3693746.25	0.0088	0.0050
Venus	-14826-09-10 14:38 J	-3693521.07	-3693520.89	-3693520.68	0.0088	0.0044
Venus	-14825-04-23 04:04 J	-3693295.52	-3693295.33	-3693295.11	0.0088	0.0039
Venus	-14825-12-04 17:45 J	-3693069.96	-3693069.76	-3693069.54	0.0088	0.0033
Venus	-14824-07-18 07:26 J	-3692844.40	-3692844.19	-3692843.97	0.0088	0.0026
Venus	-14823-02-28 20:52 J	-3692618.84	-3692618.63	-3692618.41	0.0088	0.0020
Venus	-14823-10-12 10:19 J	-3692393.29	-3692393.07	-3692392.85	0.0088	0.0014
Venus	-14822-05-25 23:45 J	-3692167.73	-3692167.51	-3692167.29	0.0088	0.0008
Venus	-14821-01-06 13:11 J	-3691942.17	-3691941.95	-3691941.72	0.0088	0.0003
Venus	-14821-08-19 02:38 J	-3691716.61	-3691716.39	-3691716.16	0.0088	0.0004
Venus	-14820-04-01 16:04 J	-3691491.05	-3691490.83	-3691490.60	0.0088	0.0010
Venus	-14820-11-13 05:45 J	-3691265.48	-3691265.26	-3691265.04	0.0088	0.0016
Venus	-14819-06-26 19:11 J	-3691039.92	-3691039.70	-3691039.48	0.0088	0.0022
Venus	-14818-02-07 08:38 J	-3690814.35	-3690814.14	-3690813.93	0.0088	0.0028
Venus	-14818-09-20 21:50 J	-3690588.79	-3690588.59	-3690588.37	0.0088	0.0034
Venus	-14817-05-03 11:16 J	-3690363.22	-3690363.03	-3690362.82	0.0088	0.0040
Venus	-14817-12-15 00:57 J	-3690137.64	-3690137.46	-3690137.26	0.0088	0.0046
Venus	-14816-07-28 14:38 J	-3689912.06	-3689911.89	-3689911.70	0.0088	0.0052
Venus	-14815-03-11 04:04 J	-3689686.49	-3689686.33	-3689686.15	0.0088	0.0058
Venus	-14815-10-22 17:31 J	-3689460.91	-3689460.77	-3689460.60	0.0088	0.0063
Venus	-14814-06-05 06:57 J	-3689235.33	-3689235.21	-3689235.05	0.0088	0.0070
Venus	-14813-01-16 21:07 J	-3689009.73	-3689009.62	-3689009.50	0.0088	0.0075

Venus	-14813-08-29 10:33 J	-3688784.14	-3688784.06	-3688783.96	0.0088	0.0081
Venus	-14812-04-12 00:00 J	-3688558.53	-3688558.50	-3688558.44	0.0088	0.0087
Moon	-14784-05-22 16:04 J	-3678290.83	-3678290.83	-3678290.82	0.0089	0.0089
Earth	-14784-05-22 18:28 J	-3678290.76	-3678290.73	-3678290.66	0.0089	0.0088
Earth	-14783-05-25 05:31 J	-3677923.47	-3677923.27	-3677923.04	0.0089	0.0048
Moon	-14783-05-25 08:52 J	-3677923.34	-3677923.13	-3677922.90	0.0089	0.0044 *
Moon	-14782-05-27 13:11 J	-3677556.20	-3677555.95	-3677555.69	0.0089	0.0010
Earth	-14782-05-27 16:48 J	-3677556.05	-3677555.80	-3677555.54	0.0089	0.0008 *
Earth	-14781-05-29 03:35 J	-3677188.58	-3677188.35	-3677188.11	0.0089	0.0033
Moon	-14781-05-29 06:28 J	-3677188.45	-3677188.23	-3677187.98	0.0089	0.0036 *
Moon	-14780-05-31 11:31 J	-3676821.16	-3676821.02	-3676820.85	0.0089	0.0069
Earth	-14780-05-31 14:24 J	-3676821.04	-3676820.90	-3676820.74	0.0089	0.0073 *
Mars	-14763-01-23 16:48 J	-3670740.03	-3670739.80	-3670739.52	0.0089	0.0058
Mars	-14762-12-20 21:35 J	-3670043.90	-3670043.60	-3670043.26	0.0089	0.0026
Mercury	-14760-03-27 06:28 J	-3669581.27	-3669581.23	-3669581.17	0.0089	0.0083
Mercury	-14760-06-23 07:40 J	-3669493.24	-3669493.18	-3669493.10	0.0089	0.0076
Mercury	-14760-09-19 09:07 J	-3669405.20	-3669405.12	-3669405.03	0.0089	0.0068
Mercury	-14760-12-16 10:19 J	-3669317.16	-3669317.07	-3669316.97	0.0089	0.0061
Mercury	-14759-03-14 11:45 J	-3669229.11	-3669229.01	-3669228.91	0.0089	0.0054
Mercury	-14759-06-10 12:57 J	-3669141.06	-3669140.96	-3669140.84	0.0089	0.0047
Mercury	-14759-09-06 14:09 J	-3669053.02	-3669052.91	-3669052.78	0.0089	0.0041
Mercury	-14759-12-03 15:35 J	-3668964.97	-3668964.85	-3668964.73	0.0089	0.0033
Mercury	-14758-03-01 16:48 J	-3668876.92	-3668876.80	-3668876.67	0.0089	0.0026
Mercury	-14758-05-28 18:14 J	-3668788.87	-3668788.74	-3668788.61	0.0089	0.0019
Mercury	-14758-08-24 19:26 J	-3668700.82	-3668700.69	-3668700.56	0.0089	0.0012
Mercury	-14758-11-20 20:52 J	-3668612.76	-3668612.63	-3668612.50	0.0089	0.0006
Mercury	-14757-02-16 22:04 J	-3668524.71	-3668524.58	-3668524.45	0.0089	0.0002
Mercury	-14757-05-14 23:16 J	-3668436.66	-3668436.53	-3668436.40	0.0089	0.0009
Mercury	-14757-08-11 00:43 J	-3668348.60	-3668348.47	-3668348.34	0.0089	0.0016
Mercury	-14757-11-07 01:55 J	-3668260.55	-3668260.42	-3668260.29	0.0089	0.0023

Mercury	-14756-02-03 03:07 J	-3668172.49	-3668172.37	-3668172.24	0.0089	0.0030
Mercury	-14756-05-02 04:19 J	-3668084.43	-3668084.32	-3668084.19	0.0089	0.0038
Mercury	-14756-07-29 05:45 J	-3667996.37	-3667996.26	-3667996.15	0.0089	0.0044
Mercury	-14756-10-25 06:57 J	-3667908.31	-3667908.21	-3667908.10	0.0089	0.0051
Mercury	-14755-01-21 08:09 J	-3667820.25	-3667820.16	-3667820.05	0.0089	0.0059
Mercury	-14755-04-19 09:35 J	-3667732.19	-3667732.10	-3667732.01	0.0089	0.0065
Mercury	-14755-07-16 10:48 J	-3667644.12	-3667644.05	-3667643.97	0.0089	0.0073
Mercury	-14755-10-12 12:00 J	-3667556.05	-3667556.00	-3667555.93	0.0089	0.0080
Mercury	-14754-01-08 13:26 J	-3667467.97	-3667467.94	-3667467.91	0.0089	0.0087
Venus	-14749-11-19 06:43 J	-3665326.26	-3665326.22	-3665326.16	0.0089	0.0087
Venus	-14748-07-02 19:11 J	-3665100.77	-3665100.70	-3665100.59	0.0089	0.0081
Venus	-14747-02-13 07:55 J	-3664875.26	-3664875.17	-3664875.03	0.0089	0.0075
Venus	-14747-09-26 20:38 J	-3664649.76	-3664649.64	-3664649.49	0.0089	0.0070
Venus	-14746-05-10 09:21 J	-3664424.24	-3664424.11	-3664423.94	0.0089	0.0064
Venus	-14746-12-21 22:04 J	-3664198.73	-3664198.58	-3664198.40	0.0089	0.0058
Venus	-14745-08-03 10:48 J	-3663973.22	-3663973.05	-3663972.86	0.0089	0.0052
Venus	-14744-03-16 23:31 J	-3663747.70	-3663747.52	-3663747.33	0.0089	0.0045
Venus	-14744-10-28 12:00 J	-3663522.19	-3663522.00	-3663521.80	0.0089	0.0040
Venus	-14743-06-11 00:57 J	-3663296.66	-3663296.46	-3663296.26	0.0089	0.0034
Venus	-14742-01-22 13:26 J	-3663071.15	-3663070.94	-3663070.73	0.0089	0.0028
Venus	-14742-09-05 01:55 J	-3662845.63	-3662845.42	-3662845.21	0.0089	0.0022
Venus	-14741-04-17 14:24 J	-3662620.11	-3662619.90	-3662619.68	0.0089	0.0016
Venus	-14741-11-29 02:52 J	-3662394.59	-3662394.38	-3662394.16	0.0089	0.0010
Venus	-14740-07-12 15:35 J	-3662169.06	-3662168.85	-3662168.63	0.0089	0.0004
Venus	-14739-02-23 04:04 J	-3661943.54	-3661943.33	-3661943.11	0.0089	0.0003
Venus	-14739-10-06 16:33 J	-3661718.02	-3661717.81	-3661717.59	0.0089	0.0009
Venus	-14738-05-20 05:02 J	-3661492.49	-3661492.29	-3661492.07	0.0089	0.0015
Venus	-14738-12-31 17:31 J	-3661266.97	-3661266.77	-3661266.55	0.0089	0.0021
Venus	-14737-08-13 06:00 J	-3661041.44	-3661041.25	-3661041.03	0.0089	0.0027
Venus	-14736-03-26 18:28 J	-3660815.91	-3660815.73	-3660815.51	0.0089	0.0033

Venus	-14736-11-07 07:26 J	-3660590.38	-3660590.19	-3660589.99	0.0089	0.0038
Venus	-14735-06-20 20:09 J	-3660364.85	-3660364.66	-3660364.48	0.0089	0.0044
Venus	-14734-02-01 08:24 J	-3660139.32	-3660139.15	-3660138.96	0.0089	0.0050
Venus	-14734-09-14 20:52 J	-3659913.79	-3659913.63	-3659913.46	0.0089	0.0056
Venus	-14733-04-27 09:07 J	-3659688.26	-3659688.12	-3659687.95	0.0089	0.0062
Venus	-14733-12-08 21:35 J	-3659462.72	-3659462.60	-3659462.45	0.0089	0.0068
Venus	-14732-07-22 10:04 J	-3659237.18	-3659237.08	-3659236.94	0.0089	0.0074
Venus	-14731-03-04 22:48 J	-3659011.64	-3659011.55	-3659011.45	0.0089	0.0079
Venus	-14731-10-16 10:48 J	-3658786.09	-3658786.05	-3658785.97	0.0089	0.0085
Earth	-14702-11-20 00:00 J	-3648159.67	-3648159.50	-3648159.28	0.0088	0.0059
Moon	-14702-11-20 04:04 J	-3648159.53	-3648159.33	-3648159.12	0.0088	0.0056 *
Moon	-14701-11-21 10:04 J	-3647792.31	-3647792.08	-3647791.82	0.0088	0.0023
Earth	-14701-11-21 12:43 J	-3647792.22	-3647791.97	-3647791.71	0.0088	0.0019 *
Earth	-14700-11-24 00:28 J	-3647424.72	-3647424.48	-3647424.21	0.0088	0.0021
Moon	-14700-11-24 02:24 J	-3647424.65	-3647424.40	-3647424.13	0.0088	0.0023 *
Moon	-14699-11-26 12:00 J	-3647057.17	-3647057.00	-3647056.79	0.0088	0.0057
Earth	-14699-11-26 12:28 J	-3647057.14	-3647056.98	-3647056.76	0.0088	0.0060 *
Mars	-14682-12-04 10:33 J	-3640840.22	-3640840.06	-3640839.84	0.0088	0.0068
Mars	-14680-10-28 05:16 J	-3640146.58	-3640146.28	-3640145.99	0.0088	0.0001
Mars	-14678-09-21 23:02 J	-3639452.71	-3639452.54	-3639452.35	0.0088	0.0069
Mercury	-14677-09-09 00:28 J	-3639099.51	-3639099.48	-3639099.40	0.0088	0.0084
Mercury	-14677-12-06 04:48 J	-3639011.41	-3639011.30	-3639011.19	0.0088	0.0073
Mercury	-14676-03-04 08:24 J	-3638923.28	-3638923.15	-3638923.01	0.0088	0.0063
Mercury	-14676-05-31 12:00 J	-3638835.15	-3638835.00	-3638834.83	0.0088	0.0053
Mercury	-14676-08-27 15:35 J	-3638747.01	-3638746.85	-3638746.66	0.0088	0.0043
Mercury	-14676-11-23 19:26 J	-3638658.87	-3638658.69	-3638658.50	0.0088	0.0033
Mercury	-14675-02-19 23:02 J	-3638570.72	-3638570.54	-3638570.33	0.0088	0.0023
Mercury	-14675-05-19 03:07 J	-3638482.57	-3638482.37	-3638482.17	0.0088	0.0012
Mercury	-14675-08-15 06:43 J	-3638394.41	-3638394.22	-3638394.02	0.0088	0.0003
Mercury	-14675-11-11 10:33 J	-3638306.26	-3638306.06	-3638305.86	0.0088	0.0008

Mercury	-14674-02-07 13:55 J	-3638218.10	-3638217.92	-3638217.71	0.0088	0.0019
Mercury	-14674-05-06 17:45 J	-3638129.94	-3638129.76	-3638129.56	0.0088	0.0029
Mercury	-14674-08-02 21:21 J	-3638041.77	-3638041.61	-3638041.42	0.0088	0.0039
Mercury	-14674-10-30 01:11 J	-3637953.61	-3637953.45	-3637953.28	0.0088	0.0049
Mercury	-14673-01-26 04:48 J	-3637865.43	-3637865.30	-3637865.14	0.0088	0.0059
Mercury	-14673-04-23 08:38 J	-3637777.25	-3637777.14	-3637777.01	0.0088	0.0069
Mercury	-14673-07-20 12:00 J	-3637689.06	-3637689.00	-3637688.90	0.0088	0.0080
Venus	-14665-03-29 13:40 J	-3634880.00	-3634879.93	-3634879.87	0.0088	0.0084
Venus	-14665-11-10 02:24 J	-3634654.48	-3634654.40	-3634654.27	0.0088	0.0078
Venus	-14664-06-23 15:50 J	-3634428.94	-3634428.84	-3634428.69	0.0088	0.0073
Venus	-14663-02-04 05:16 J	-3634203.41	-3634203.28	-3634203.12	0.0088	0.0066
Venus	-14663-09-17 18:43 J	-3633977.87	-3633977.72	-3633977.55	0.0088	0.0060
Venus	-14662-05-01 08:09 J	-3633752.33	-3633752.16	-3633751.98	0.0088	0.0054
Venus	-14662-12-12 21:50 J	-3633526.77	-3633526.59	-3633526.40	0.0088	0.0048
Venus	-14661-07-25 11:16 J	-3633301.22	-3633301.03	-3633300.83	0.0088	0.0043
Venus	-14660-03-08 00:43 J	-3633075.67	-3633075.47	-3633075.27	0.0088	0.0037
Venus	-14660-10-19 14:09 J	-3632850.12	-3632849.91	-3632849.70	0.0088	0.0030
Venus	-14659-06-02 03:35 J	-3632624.56	-3632624.35	-3632624.13	0.0088	0.0024
Venus	-14658-01-13 17:02 J	-3632399.00	-3632398.79	-3632398.57	0.0088	0.0018
Venus	-14658-08-27 06:28 J	-3632173.45	-3632173.23	-3632173.00	0.0088	0.0012
Venus	-14657-04-08 19:55 J	-3631947.89	-3631947.67	-3631947.44	0.0088	0.0006
Venus	-14657-11-20 09:35 J	-3631722.32	-3631722.10	-3631721.88	0.0088	0.0000
Venus	-14656-07-03 23:02 J	-3631496.76	-3631496.54	-3631496.31	0.0088	0.0006
Venus	-14655-02-14 12:28 J	-3631271.20	-3631270.98	-3631270.75	0.0088	0.0012
Venus	-14655-09-28 01:55 J	-3631045.64	-3631045.42	-3631045.20	0.0088	0.0018
Venus	-14654-05-11 15:21 J	-3630820.07	-3630819.86	-3630819.64	0.0088	0.0025
Venus	-14654-12-23 05:02 J	-3630594.50	-3630594.29	-3630594.08	0.0088	0.0031
Venus	-14653-08-04 18:28 J	-3630368.93	-3630368.73	-3630368.52	0.0088	0.0037
Venus	-14652-03-18 07:40 J	-3630143.36	-3630143.18	-3630142.97	0.0088	0.0043
Venus	-14652-10-29 21:07 J	-3629917.79	-3629917.62	-3629917.42	0.0088	0.0049

Venus	-14651-06-12 10:33 J	-3629692.21	-3629692.06	-3629691.86	0.0088	0.0055
Venus	-14650-01-24 00:00 J	-3629466.63	-3629466.50	-3629466.31	0.0088	0.0062
Venus	-14650-09-06 14:09 J	-3629241.05	-3629240.91	-3629240.76	0.0088	0.0067
Venus	-14649-04-19 03:35 J	-3629015.47	-3629015.35	-3629015.22	0.0088	0.0073
Venus	-14649-11-30 17:16 J	-3628789.87	-3628789.78	-3628789.67	0.0088	0.0079
Venus	-14648-07-14 06:43 J	-3628564.27	-3628564.22	-3628564.14	0.0088	0.0085
Moon	-14619-05-24 06:57 J	-3618023.35	-3618023.21	-3618023.03	0.0089	0.0069
Earth	-14619-05-24 10:19 J	-3618023.19	-3618023.07	-3618022.90	0.0089	0.0072 *
Earth	-14618-05-26 21:21 J	-3617655.83	-3617655.61	-3617655.35	0.0089	0.0032
Moon	-14618-05-27 00:43 J	-3617655.69	-3617655.47	-3617655.22	0.0089	0.0036 *
Moon	-14617-05-28 06:57 J	-3617288.45	-3617288.21	-3617287.96	0.0089	0.0012
Earth	-14617-05-28 08:52 J	-3617288.38	-3617288.13	-3617287.87	0.0089	0.0008 *
Earth	-14616-05-30 19:26 J	-3616920.89	-3616920.69	-3616920.46	0.0089	0.0048
Moon	-14616-05-30 20:52 J	-3616920.85	-3616920.63	-3616920.39	0.0089	0.0045 *
Earth	-14615-06-02 06:28 J	-3616553.27	-3616553.23	-3616553.18	0.0089	0.0088
Mars	-14598-08-03 00:00 J	-3610282.82	-3610282.50	-3610282.16	0.0089	0.0021
Mars	-14596-06-29 04:19 J	-3609586.53	-3609586.32	-3609586.05	0.0089	0.0064
Mercury	-14596-12-22 05:31 J	-3609410.31	-3609410.27	-3609410.22	0.0089	0.0083
Mercury	-14595-03-20 06:43 J	-3609322.28	-3609322.22	-3609322.14	0.0089	0.0076
Mercury	-14595-06-16 08:09 J	-3609234.24	-3609234.16	-3609234.08	0.0089	0.0068
Mercury	-14595-09-12 09:21 J	-3609146.20	-3609146.11	-3609146.01	0.0089	0.0062
Mercury	-14595-12-09 10:33 J	-3609058.15	-3609058.06	-3609057.95	0.0089	0.0055
Mercury	-14594-03-07 12:00 J	-3608970.11	-3608970.00	-3608969.89	0.0089	0.0047
Mercury	-14594-06-03 13:11 J	-3608882.06	-3608881.95	-3608881.83	0.0089	0.0041
Mercury	-14594-08-30 14:38 J	-3608794.01	-3608793.89	-3608793.77	0.0089	0.0033
Mercury	-14594-11-26 15:50 J	-3608705.96	-3608705.84	-3608705.71	0.0089	0.0026
Mercury	-14593-02-22 17:02 J	-3608617.91	-3608617.79	-3608617.65	0.0089	0.0020
Mercury	-14593-05-20 18:28 J	-3608529.86	-3608529.73	-3608529.60	0.0089	0.0012
Mercury	-14593-08-16 19:40 J	-3608441.81	-3608441.68	-3608441.54	0.0089	0.0006
Mercury	-14593-11-12 21:07 J	-3608353.75	-3608353.62	-3608353.49	0.0089	0.0002

Mercury	-14592-02-08 22:19 J	-3608265.70	-3608265.57	-3608265.44	0.0089	0.0009
Mercury	-14592-05-07 23:31 J	-3608177.64	-3608177.52	-3608177.39	0.0089	0.0016
Mercury	-14592-08-04 00:57 J	-3608089.59	-3608089.46	-3608089.34	0.0089	0.0023
Mercury	-14592-10-31 02:09 J	-3608001.53	-3608001.41	-3608001.29	0.0089	0.0030
Mercury	-14591-01-27 03:21 J	-3607913.47	-3607913.36	-3607913.24	0.0089	0.0038
Mercury	-14591-04-25 04:33 J	-3607825.41	-3607825.31	-3607825.19	0.0089	0.0045
Mercury	-14591-07-22 06:00 J	-3607737.35	-3607737.25	-3607737.14	0.0089	0.0051
Mercury	-14591-10-18 07:11 J	-3607649.29	-3607649.20	-3607649.10	0.0089	0.0059
Mercury	-14590-01-14 08:38 J	-3607561.23	-3607561.14	-3607561.05	0.0089	0.0066
Mercury	-14590-04-12 09:50 J	-3607473.16	-3607473.09	-3607473.01	0.0089	0.0073
Mercury	-14590-07-09 11:02 J	-3607385.09	-3607385.04	-3607384.98	0.0089	0.0080
Mercury	-14590-10-05 12:28 J	-3607297.01	-3607296.98	-3607296.95	0.0089	0.0087
Venus	-14584-10-04 03:07 J	-3605106.40	-3605106.37	-3605106.29	0.0089	0.0086
Venus	-14583-05-17 16:04 J	-3604880.90	-3604880.83	-3604880.72	0.0089	0.0080
Venus	-14583-12-29 04:48 J	-3604655.40	-3604655.30	-3604655.16	0.0089	0.0074
Venus	-14582-08-11 17:31 J	-3604429.89	-3604429.77	-3604429.61	0.0089	0.0068
Venus	-14581-03-24 06:14 J	-3604204.38	-3604204.24	-3604204.07	0.0089	0.0062
Venus	-14581-11-04 18:57 J	-3603978.86	-3603978.71	-3603978.52	0.0089	0.0056
Venus	-14580-06-18 07:55 J	-3603753.34	-3603753.17	-3603752.98	0.0089	0.0050
Venus	-14579-01-29 20:24 J	-3603527.82	-3603527.65	-3603527.44	0.0089	0.0044
Venus	-14579-09-12 09:07 J	-3603302.30	-3603302.12	-3603301.91	0.0089	0.0038
Venus	-14578-04-25 22:04 J	-3603076.79	-3603076.58	-3603076.38	0.0089	0.0032
Venus	-14578-12-07 10:33 J	-3602851.27	-3602851.06	-3602850.85	0.0089	0.0025
Venus	-14577-07-19 23:02 J	-3602625.74	-3602625.54	-3602625.32	0.0089	0.0020
Venus	-14576-03-02 11:45 J	-3602400.22	-3602400.01	-3602399.80	0.0089	0.0013
Venus	-14576-10-14 00:14 J	-3602174.70	-3602174.49	-3602174.27	0.0089	0.0007
Venus	-14575-05-27 12:57 J	-3601949.18	-3601948.96	-3601948.75	0.0089	0.0001
Venus	-14574-01-08 01:26 J	-3601723.66	-3601723.44	-3601723.22	0.0089	0.0005
Venus	-14574-08-21 13:55 J	-3601498.13	-3601497.92	-3601497.70	0.0089	0.0011
Venus	-14573-04-03 02:09 J	-3601272.61	-3601272.41	-3601272.19	0.0089	0.0018

Venus	-14573-11-14 14:38 J	-3601047.08	-3601046.89	-3601046.67	0.0089	0.0024
Venus	-14572-06-28 03:21 J	-3600821.55	-3600821.36	-3600821.14	0.0089	0.0030
Venus	-14571-02-08 15:50 J	-3600596.02	-3600595.84	-3600595.63	0.0089	0.0036
Venus	-14571-09-22 04:19 J	-3600370.50	-3600370.32	-3600370.11	0.0089	0.0042
Venus	-14570-05-05 16:48 J	-3600144.97	-3600144.80	-3600144.60	0.0089	0.0048
Venus	-14570-12-17 05:16 J	-3599919.43	-3599919.28	-3599919.09	0.0089	0.0054
Venus	-14569-07-29 18:00 J	-3599693.90	-3599693.75	-3599693.58	0.0089	0.0060
Venus	-14568-03-12 06:14 J	-3599468.36	-3599468.24	-3599468.07	0.0089	0.0066
Venus	-14568-10-23 18:43 J	-3599242.82	-3599242.72	-3599242.57	0.0089	0.0072
Venus	-14567-06-06 07:11 J	-3599017.28	-3599017.20	-3599017.07	0.0089	0.0078
Venus	-14566-01-17 20:09 J	-3598791.73	-3598791.66	-3598791.59	0.0089	0.0083
Moon	-14538-11-19 01:55 J	-3588259.46	-3588259.42	-3588259.33	0.0088	0.0086
Earth	-14538-11-19 04:19 J	-3588259.38	-3588259.32	-3588259.20	0.0088	0.0082 *
Earth	-14537-11-20 16:19 J	-3587892.03	-3587891.82	-3587891.57	0.0088	0.0043
Moon	-14537-11-20 17:16 J	-3587892.00	-3587891.78	-3587891.53	0.0088	0.0040 *
Earth	-14536-11-23 04:48 J	-3587524.56	-3587524.30	-3587524.04	0.0088	0.0004
Moon	-14536-11-23 05:02 J	-3587524.54	-3587524.29	-3587524.04	0.0088	0.0006 *
Moon	-14535-11-25 15:21 J	-3587157.08	-3587156.86	-3587156.60	0.0088	0.0039
Earth	-14535-11-25 16:33 J	-3587157.03	-3587156.81	-3587156.55	0.0088	0.0036 *
Earth	-14534-11-28 04:48 J	-3586789.42	-3586789.30	-3586789.15	0.0088	0.0075
Moon	-14534-11-28 06:57 J	-3586789.32	-3586789.21	-3586789.03	0.0088	0.0074 *
Jupiter	-14519-04-19 17:31 J	-3581533.30	-3581532.77	-3581532.20	0.0088	0.0013
Mars	-14516-06-12 08:24 J	-3580383.41	-3580383.15	-3580382.87	0.0088	0.0037
Mars	-14514-05-07 01:11 J	-3579689.70	-3579689.45	-3579689.15	0.0088	0.0032
Mercury	-14512-06-05 21:07 J	-3578928.65	-3578928.62	-3578928.54	0.0088	0.0084
Mercury	-14512-09-02 00:57 J	-3578840.55	-3578840.46	-3578840.34	0.0088	0.0074
Mercury	-14512-11-29 04:33 J	-3578752.42	-3578752.31	-3578752.15	0.0088	0.0064
Mercury	-14511-02-25 08:38 J	-3578664.29	-3578664.14	-3578663.98	0.0088	0.0053
Mercury	-14511-05-24 12:14 J	-3578576.15	-3578575.99	-3578575.81	0.0088	0.0043
Mercury	-14511-08-20 16:04 J	-3578488.01	-3578487.83	-3578487.64	0.0088	0.0033

Mercury	-14511-11-16 19:40 J	-3578399.86	-3578399.68	-3578399.48	0.0088	0.0023
Mercury	-14510-02-12 23:31 J	-3578311.71	-3578311.52	-3578311.32	0.0088	0.0013
Mercury	-14510-05-12 03:21 J	-3578223.56	-3578223.36	-3578223.16	0.0088	0.0002
Mercury	-14510-08-08 06:57 J	-3578135.40	-3578135.21	-3578135.01	0.0088	0.0008
Mercury	-14510-11-04 10:48 J	-3578047.24	-3578047.05	-3578046.86	0.0088	0.0018
Mercury	-14509-01-31 14:09 J	-3577959.08	-3577958.91	-3577958.71	0.0088	0.0029
Mercury	-14509-04-28 18:00 J	-3577870.92	-3577870.75	-3577870.56	0.0088	0.0039
Mercury	-14509-07-25 21:35 J	-3577782.75	-3577782.60	-3577782.42	0.0088	0.0049
Mercury	-14509-10-22 01:26 J	-3577694.58	-3577694.44	-3577694.28	0.0088	0.0059
Mercury	-14508-01-18 05:02 J	-3577606.40	-3577606.29	-3577606.16	0.0088	0.0069
Mercury	-14508-04-16 08:52 J	-3577518.20	-3577518.13	-3577518.04	0.0088	0.0079
Venus	-14500-02-11 09:35 J	-3574660.15	-3574660.10	-3574660.00	0.0088	0.0083
Venus	-14500-09-24 22:48 J	-3574434.63	-3574434.55	-3574434.42	0.0088	0.0078
Venus	-14499-05-08 12:14 J	-3574209.10	-3574208.99	-3574208.84	0.0088	0.0071
Venus	-14499-12-20 01:40 J	-3573983.56	-3573983.43	-3573983.26	0.0088	0.0065
Venus	-14498-08-02 15:07 J	-3573758.02	-3573757.87	-3573757.69	0.0088	0.0059
Venus	-14497-03-15 04:19 J	-3573532.48	-3573532.32	-3573532.13	0.0088	0.0053
Venus	-14497-10-26 17:45 J	-3573306.94	-3573306.76	-3573306.56	0.0088	0.0047
Venus	-14496-06-09 07:11 J	-3573081.39	-3573081.20	-3573080.99	0.0088	0.0041
Venus	-14495-01-20 20:24 J	-3572855.84	-3572855.65	-3572855.43	0.0088	0.0036
Venus	-14495-09-03 09:50 J	-3572630.29	-3572630.09	-3572629.86	0.0088	0.0029
Venus	-14494-04-16 23:31 J	-3572404.73	-3572404.52	-3572404.30	0.0088	0.0023
Venus	-14494-11-28 13:11 J	-3572179.17	-3572178.95	-3572178.73	0.0088	0.0016
Venus	-14493-07-11 02:38 J	-3571953.61	-3571953.39	-3571953.16	0.0088	0.0010
Venus	-14492-02-21 16:04 J	-3571728.05	-3571727.83	-3571727.60	0.0088	0.0004
Venus	-14492-10-05 05:31 J	-3571502.49	-3571502.27	-3571502.04	0.0088	0.0003
Venus	-14491-05-18 18:57 J	-3571276.93	-3571276.71	-3571276.48	0.0088	0.0009
Venus	-14491-12-30 08:24 J	-3571051.36	-3571051.15	-3571050.92	0.0088	0.0015
Venus	-14490-08-12 21:50 J	-3570825.79	-3570825.59	-3570825.36	0.0088	0.0022
Venus	-14489-03-25 11:31 J	-3570600.23	-3570600.02	-3570599.80	0.0088	0.0027

Venus	-14489-11-06 00:57 J	-3570374.66	-3570374.46	-3570374.25	0.0088	0.0034
Venus	-14488-06-19 14:09 J	-3570149.09	-3570148.91	-3570148.70	0.0088	0.0040
Venus	-14487-01-31 03:35 J	-3569923.52	-3569923.35	-3569923.14	0.0088	0.0047
Venus	-14487-09-13 17:02 J	-3569697.95	-3569697.79	-3569697.59	0.0088	0.0053
Venus	-14486-04-27 06:28 J	-3569472.38	-3569472.23	-3569472.04	0.0088	0.0059
Venus	-14486-12-08 20:09 J	-3569246.79	-3569246.66	-3569246.49	0.0088	0.0065
Venus	-14485-07-21 09:50 J	-3569021.21	-3569021.09	-3569020.94	0.0088	0.0071
Venus	-14484-03-03 23:16 J	-3568795.62	-3568795.53	-3568795.40	0.0088	0.0077
Venus	-14484-10-15 12:43 J	-3568570.03	-3568569.97	-3568569.87	0.0088	0.0083
Moon	-14454-05-25 23:31 J	-3557755.69	-3557755.52	-3557755.30	0.0089	0.0056
Earth	-14454-05-26 01:26 J	-3557755.62	-3557755.44	-3557755.23	0.0089	0.0057 *
Earth	-14453-05-27 12:43 J	-3557388.21	-3557387.97	-3557387.71	0.0089	0.0018
Moon	-14453-05-27 13:11 J	-3557388.21	-3557387.95	-3557387.69	0.0089	0.0019 *
Earth	-14452-05-30 00:00 J	-3557020.75	-3557020.50	-3557020.25	0.0089	0.0023
Moon	-14452-05-30 00:43 J	-3557020.70	-3557020.47	-3557020.23	0.0089	0.0024 *
Moon	-14451-06-01 08:38 J	-3556653.31	-3556653.14	-3556652.93	0.0089	0.0060
Earth	-14451-06-01 10:48 J	-3556653.22	-3556653.05	-3556652.86	0.0089	0.0063 *
Mars	-14434-03-16 01:55 J	-3550521.61	-3550521.42	-3550521.17	0.0089	0.0068
Mars	-14432-02-09 06:00 J	-3549825.57	-3549825.25	-3549824.91	0.0089	0.0017
Mercury	-14431-09-18 04:33 J	-3549239.36	-3549239.31	-3549239.26	0.0089	0.0083
Mercury	-14431-12-15 05:45 J	-3549151.32	-3549151.26	-3549151.19	0.0089	0.0076
Mercury	-14430-03-13 07:11 J	-3549063.28	-3549063.20	-3549063.12	0.0089	0.0069
Mercury	-14430-06-09 08:24 J	-3548975.24	-3548975.15	-3548975.06	0.0089	0.0062
Mercury	-14430-09-05 09:35 J	-3548887.20	-3548887.10	-3548886.99	0.0089	0.0055
Mercury	-14430-12-02 11:02 J	-3548799.15	-3548799.04	-3548798.93	0.0089	0.0048
Mercury	-14429-02-28 12:14 J	-3548711.10	-3548710.99	-3548710.87	0.0089	0.0041
Mercury	-14429-05-26 13:26 J	-3548623.05	-3548622.94	-3548622.81	0.0089	0.0034
Mercury	-14429-08-22 14:52 J	-3548535.00	-3548534.88	-3548534.75	0.0089	0.0026
Mercury	-14429-11-18 16:04 J	-3548446.95	-3548446.83	-3548446.70	0.0089	0.0020
Mercury	-14428-02-14 17:31 J	-3548358.90	-3548358.77	-3548358.64	0.0089	0.0012

Mercury	-14428-05-13 18:43 J	-3548270.85	-3548270.72	-3548270.59	0.0089	0.0005
Mercury	-14428-08-09 19:55 J	-3548182.80	-3548182.67	-3548182.53	0.0089	0.0004
Mercury	-14428-11-05 21:21 J	-3548094.74	-3548094.61	-3548094.48	0.0089	0.0009
Mercury	-14427-02-01 22:33 J	-3548006.69	-3548006.56	-3548006.43	0.0089	0.0016
Mercury	-14427-04-30 23:45 J	-3547918.63	-3547918.51	-3547918.38	0.0089	0.0023
Mercury	-14427-07-28 00:57 J	-3547830.57	-3547830.46	-3547830.33	0.0089	0.0031
Mercury	-14427-10-24 02:24 J	-3547742.52	-3547742.40	-3547742.28	0.0089	0.0037
Mercury	-14426-01-20 03:35 J	-3547654.46	-3547654.35	-3547654.23	0.0089	0.0045
Mercury	-14426-04-18 04:48 J	-3547566.40	-3547566.30	-3547566.18	0.0089	0.0052
Mercury	-14426-07-15 06:14 J	-3547478.33	-3547478.24	-3547478.14	0.0089	0.0058
Mercury	-14426-10-11 07:26 J	-3547390.27	-3547390.19	-3547390.10	0.0089	0.0066
Mercury	-14425-01-07 08:52 J	-3547302.20	-3547302.13	-3547302.06	0.0089	0.0073
Mercury	-14425-04-04 10:04 J	-3547214.13	-3547214.08	-3547214.02	0.0089	0.0080
Mercury	-14425-07-01 11:16 J	-3547126.05	-3547126.03	-3547125.99	0.0089	0.0087
Venus	-14419-08-18 23:45 J	-3544886.55	-3544886.51	-3544886.43	0.0089	0.0085
Venus	-14418-04-01 12:28 J	-3544661.06	-3544660.98	-3544660.86	0.0089	0.0079
Venus	-14418-11-13 01:11 J	-3544435.55	-3544435.45	-3544435.31	0.0089	0.0074
Venus	-14417-06-25 14:09 J	-3544210.03	-3544209.91	-3544209.75	0.0089	0.0067
Venus	-14416-02-06 02:52 J	-3543984.52	-3543984.38	-3543984.21	0.0089	0.0061
Venus	-14416-09-19 15:21 J	-3543759.01	-3543758.86	-3543758.66	0.0089	0.0056
Venus	-14415-05-03 04:33 J	-3543533.49	-3543533.31	-3543533.12	0.0089	0.0049
Venus	-14415-12-14 17:02 J	-3543307.97	-3543307.79	-3543307.59	0.0089	0.0043
Venus	-14414-07-28 05:45 J	-3543082.45	-3543082.26	-3543082.05	0.0089	0.0036
Venus	-14413-03-09 18:14 J	-3542856.93	-3542856.74	-3542856.52	0.0089	0.0030
Venus	-14413-10-21 07:11 J	-3542631.41	-3542631.20	-3542630.99	0.0089	0.0023
Venus	-14412-06-03 19:55 J	-3542405.88	-3542405.67	-3542405.46	0.0089	0.0017
Venus	-14411-01-15 08:24 J	-3542180.36	-3542180.15	-3542179.93	0.0089	0.0011
Venus	-14411-08-28 20:52 J	-3541954.84	-3541954.63	-3541954.41	0.0089	0.0005
Venus	-14410-04-11 09:35 J	-3541729.32	-3541729.10	-3541728.89	0.0089	0.0002
Venus	-14410-11-22 22:04 J	-3541503.80	-3541503.58	-3541503.36	0.0089	0.0008

Venus	-14409-07-05 10:48 J	-3541278.27	-3541278.05	-3541277.84	0.0089	0.0014
Venus	-14408-02-15 23:16 J	-3541052.74	-3541052.53	-3541052.32	0.0089	0.0020
Venus	-14408-09-29 11:31 J	-3540827.22	-3540827.02	-3540826.80	0.0089	0.0027
Venus	-14407-05-13 00:00 J	-3540601.69	-3540601.50	-3540601.29	0.0089	0.0033
Venus	-14407-12-24 12:28 J	-3540376.16	-3540375.98	-3540375.77	0.0089	0.0039
Venus	-14406-08-07 01:11 J	-3540150.63	-3540150.45	-3540150.25	0.0089	0.0045
Venus	-14405-03-19 13:55 J	-3539925.09	-3539924.92	-3539924.74	0.0089	0.0051
Venus	-14405-10-31 02:24 J	-3539699.56	-3539699.40	-3539699.23	0.0089	0.0057
Venus	-14404-06-13 14:38 J	-3539474.02	-3539473.89	-3539473.72	0.0089	0.0064
Venus	-14403-01-25 03:07 J	-3539248.48	-3539248.37	-3539248.22	0.0089	0.0070
Venus	-14403-09-07 15:35 J	-3539022.94	-3539022.85	-3539022.72	0.0089	0.0076
Venus	-14402-04-21 04:04 J	-3538797.39	-3538797.33	-3538797.23	0.0089	0.0082
Venus	-14402-12-02 16:19 J	-3538571.82	-3538571.82	-3538571.75	0.0089	0.0088
Earth	-14373-11-19 20:38 J	-3527991.80	-3527991.64	-3527991.46	0.0088	0.0066
Moon	-14373-11-19 21:35 J	-3527991.77	-3527991.60	-3527991.42	0.0088	0.0062 *
Moon	-14372-11-22 06:14 J	-3527624.48	-3527624.24	-3527623.97	0.0088	0.0032
Earth	-14372-11-22 08:38 J	-3527624.38	-3527624.14	-3527623.88	0.0088	0.0027 *
Earth	-14371-11-24 20:38 J	-3527256.89	-3527256.64	-3527256.38	0.0088	0.0012
Moon	-14371-11-24 23:31 J	-3527256.78	-3527256.52	-3527256.27	0.0088	0.0016 *
Moon	-14370-11-27 04:48 J	-3526889.51	-3526889.30	-3526889.06	0.0088	0.0047
Earth	-14370-11-27 08:38 J	-3526889.34	-3526889.14	-3526888.92	0.0088	0.0051 *
Mars	-14352-01-25 10:33 J	-3520620.18	-3520620.06	-3520619.88	0.0088	0.0076
Mars	-14351-12-20 06:28 J	-3519926.52	-3519926.23	-3519925.93	0.0088	0.0007
Mars	-14349-11-12 23:31 J	-3519232.71	-3519232.52	-3519232.30	0.0088	0.0062
Mercury	-14347-03-02 18:00 J	-3518757.79	-3518757.75	-3518757.68	0.0088	0.0084
Mercury	-14347-05-29 21:35 J	-3518669.69	-3518669.60	-3518669.48	0.0088	0.0074
Mercury	-14347-08-26 01:11 J	-3518581.57	-3518581.45	-3518581.29	0.0088	0.0064
Mercury	-14347-11-22 05:02 J	-3518493.43	-3518493.29	-3518493.12	0.0088	0.0054
Mercury	-14346-02-18 09:07 J	-3518405.29	-3518405.12	-3518404.95	0.0088	0.0043
Mercury	-14346-05-17 12:43 J	-3518317.15	-3518316.97	-3518316.78	0.0088	0.0033

Mercury	-14346-08-13 16:19 J	-3518229.00	-3518228.82	-3518228.62	0.0088	0.0023
Mercury	-14346-11-09 20:09 J	-3518140.85	-3518140.66	-3518140.46	0.0088	0.0013
Mercury	-14345-02-06 00:00 J	-3518052.70	-3518052.50	-3518052.30	0.0088	0.0003
Mercury	-14345-05-04 03:35 J	-3517964.55	-3517964.35	-3517964.15	0.0088	0.0008
Mercury	-14345-07-31 07:11 J	-3517876.39	-3517876.20	-3517876.00	0.0088	0.0018
Mercury	-14345-10-27 10:48 J	-3517788.23	-3517788.05	-3517787.85	0.0088	0.0028
Mercury	-14344-01-23 14:38 J	-3517700.06	-3517699.89	-3517699.71	0.0088	0.0038
Mercury	-14344-04-21 18:28 J	-3517611.90	-3517611.73	-3517611.57	0.0088	0.0048
Mercury	-14344-07-18 21:35 J	-3517523.72	-3517523.60	-3517523.43	0.0088	0.0059
Mercury	-14344-10-15 01:26 J	-3517435.54	-3517435.44	-3517435.30	0.0088	0.0069
Mercury	-14343-01-11 05:02 J	-3517347.35	-3517347.29	-3517347.18	0.0088	0.0079
Venus	-14336-05-15 17:02 J	-3514665.79	-3514665.79	-3514665.78	0.0088	0.0088
Venus	-14336-12-27 06:00 J	-3514440.31	-3514440.25	-3514440.15	0.0088	0.0082
Venus	-14335-08-09 19:11 J	-3514214.79	-3514214.70	-3514214.57	0.0088	0.0076
Venus	-14334-03-23 08:38 J	-3513989.26	-3513989.14	-3513988.99	0.0088	0.0070
Venus	-14334-11-03 21:50 J	-3513763.72	-3513763.59	-3513763.42	0.0088	0.0064
Venus	-14333-06-16 11:02 J	-3513538.18	-3513538.04	-3513537.85	0.0088	0.0059
Venus	-14332-01-28 00:57 J	-3513312.64	-3513312.46	-3513312.28	0.0088	0.0052
Venus	-14332-09-10 14:09 J	-3513087.10	-3513086.91	-3513086.72	0.0088	0.0045
Venus	-14331-04-24 03:21 J	-3512861.55	-3512861.36	-3512861.15	0.0088	0.0039
Venus	-14331-12-05 16:48 J	-3512636.00	-3512635.80	-3512635.58	0.0088	0.0033
Venus	-14330-07-19 06:14 J	-3512410.44	-3512410.24	-3512410.02	0.0088	0.0027
Venus	-14329-02-29 19:40 J	-3512184.89	-3512184.68	-3512184.45	0.0088	0.0021
Venus	-14329-10-12 09:07 J	-3511959.33	-3511959.12	-3511958.89	0.0088	0.0014
Venus	-14328-05-25 22:33 J	-3511733.78	-3511733.56	-3511733.33	0.0088	0.0008
Venus	-14327-01-06 12:14 J	-3511508.21	-3511507.99	-3511507.76	0.0088	0.0002
Venus	-14327-08-20 01:40 J	-3511282.65	-3511282.43	-3511282.20	0.0088	0.0005
Venus	-14326-04-02 15:07 J	-3511057.09	-3511056.87	-3511056.64	0.0088	0.0011
Venus	-14326-11-14 04:48 J	-3510831.52	-3510831.30	-3510831.08	0.0088	0.0018
Venus	-14325-06-26 18:00 J	-3510605.95	-3510605.75	-3510605.52	0.0088	0.0024

Venus	-14324-02-07 07:40 J	-3510380.39	-3510380.18	-3510379.97	0.0088	0.0030
Venus	-14324-09-20 21:07 J	-3510154.82	-3510154.62	-3510154.41	0.0088	0.0037
Venus	-14323-05-04 10:19 J	-3509929.25	-3509929.07	-3509928.86	0.0088	0.0043
Venus	-14323-12-16 00:00 J	-3509703.67	-3509703.50	-3509703.30	0.0088	0.0050
Venus	-14322-07-29 13:40 J	-3509478.10	-3509477.93	-3509477.75	0.0088	0.0056
Venus	-14321-03-11 02:38 J	-3509252.52	-3509252.39	-3509252.21	0.0088	0.0063
Venus	-14321-10-22 16:04 J	-3509026.95	-3509026.83	-3509026.66	0.0088	0.0069
Venus	-14320-06-05 05:45 J	-3508801.36	-3508801.26	-3508801.12	0.0088	0.0075
Venus	-14319-01-16 19:26 J	-3508575.76	-3508575.69	-3508575.58	0.0088	0.0081
Venus	-14319-08-30 08:52 J	-3508350.15	-3508350.13	-3508350.07	0.0088	0.0087
Moon	-14290-05-25 05:02 J	-3497855.39	-3497855.29	-3497855.13	0.0089	0.0078
Earth	-14290-05-25 05:16 J	-3497855.36	-3497855.28	-3497855.16	0.0089	0.0082 *
Earth	-14289-05-26 16:33 J	-3497488.02	-3497487.81	-3497487.57	0.0089	0.0043
Moon	-14289-05-26 18:00 J	-3497487.94	-3497487.75	-3497487.52	0.0089	0.0047 *
Moon	-14288-05-29 01:26 J	-3497120.70	-3497120.44	-3497120.17	0.0089	0.0002
Earth	-14288-05-29 04:04 J	-3497120.58	-3497120.33	-3497120.07	0.0089	0.0003 *
Earth	-14287-05-31 14:52 J	-3496753.10	-3496752.88	-3496752.64	0.0089	0.0038
Moon	-14287-05-31 18:00 J	-3496752.98	-3496752.75	-3496752.51	0.0089	0.0033 *
Moon	-14286-06-02 22:33 J	-3496385.66	-3496385.56	-3496385.46	0.0089	0.0082
Earth	-14286-06-03 01:40 J	-3496385.53	-3496385.43	-3496385.28	0.0089	0.0077 *
Mars	-14269-09-22 06:57 J	-3490064.50	-3490064.21	-3490063.87	0.0089	0.0032
Mars	-14267-08-19 10:33 J	-3489368.30	-3489368.06	-3489367.76	0.0089	0.0054
Mercury	-14266-06-15 03:07 J	-3489068.40	-3489068.37	-3489068.32	0.0089	0.0084
Mercury	-14266-09-11 04:33 J	-3488980.37	-3488980.31	-3488980.24	0.0089	0.0076
Mercury	-14266-12-08 05:45 J	-3488892.33	-3488892.26	-3488892.17	0.0089	0.0070
Mercury	-14265-03-05 07:11 J	-3488804.29	-3488804.20	-3488804.10	0.0089	0.0062
Mercury	-14265-06-01 08:24 J	-3488716.24	-3488716.15	-3488716.04	0.0089	0.0055
Mercury	-14265-08-28 09:35 J	-3488628.20	-3488628.10	-3488627.98	0.0089	0.0049
Mercury	-14265-11-24 11:02 J	-3488540.15	-3488540.04	-3488539.92	0.0089	0.0041
Mercury	-14264-02-20 12:14 J	-3488452.10	-3488451.99	-3488451.86	0.0089	0.0034

Mercury	-14264-05-19 13:40 J	-3488364.05	-3488363.93	-3488363.80	0.0089	0.0027
Mercury	-14264-08-15 14:52 J	-3488276.00	-3488275.88	-3488275.75	0.0089	0.0020
Mercury	-14264-11-11 16:19 J	-3488187.95	-3488187.82	-3488187.69	0.0089	0.0013
Mercury	-14263-02-07 17:31 J	-3488099.90	-3488099.77	-3488099.64	0.0089	0.0006
Mercury	-14263-05-06 18:57 J	-3488011.84	-3488011.71	-3488011.58	0.0089	0.0002
Mercury	-14263-08-02 20:09 J	-3487923.79	-3487923.66	-3487923.53	0.0089	0.0008
Mercury	-14263-10-29 21:21 J	-3487835.73	-3487835.61	-3487835.48	0.0089	0.0016
Mercury	-14262-01-25 22:48 J	-3487747.68	-3487747.55	-3487747.43	0.0089	0.0023
Mercury	-14262-04-24 00:00 J	-3487659.62	-3487659.50	-3487659.38	0.0089	0.0030
Mercury	-14262-07-21 01:26 J	-3487571.56	-3487571.44	-3487571.33	0.0089	0.0037
Mercury	-14262-10-17 02:38 J	-3487483.50	-3487483.39	-3487483.28	0.0089	0.0044
Mercury	-14261-01-13 03:35 J	-3487395.44	-3487395.35	-3487395.23	0.0089	0.0052
Mercury	-14261-04-10 05:02 J	-3487307.38	-3487307.29	-3487307.18	0.0089	0.0058
Mercury	-14261-07-07 06:14 J	-3487219.32	-3487219.24	-3487219.14	0.0089	0.0065
Mercury	-14261-10-03 07:26 J	-3487131.25	-3487131.19	-3487131.10	0.0089	0.0073
Mercury	-14261-12-30 08:52 J	-3487043.18	-3487043.13	-3487043.06	0.0089	0.0079
Mercury	-14260-03-28 10:04 J	-3486955.10	-3486955.08	-3486955.04	0.0089	0.0087
Venus	-14254-07-03 20:24 J	-3484666.70	-3484666.65	-3484666.56	0.0089	0.0085
Venus	-14253-02-14 09:07 J	-3484441.20	-3484441.12	-3484441.00	0.0089	0.0079
Venus	-14253-09-26 21:50 J	-3484215.70	-3484215.59	-3484215.45	0.0089	0.0072
Venus	-14252-05-10 10:33 J	-3483990.18	-3483990.06	-3483989.89	0.0089	0.0066
Venus	-14252-12-21 23:45 J	-3483764.67	-3483764.51	-3483764.35	0.0089	0.0060
Venus	-14251-08-04 12:14 J	-3483539.15	-3483538.99	-3483538.80	0.0089	0.0053
Venus	-14250-03-18 00:57 J	-3483313.63	-3483313.46	-3483313.26	0.0089	0.0047
Venus	-14250-10-29 13:55 J	-3483088.11	-3483087.92	-3483087.73	0.0089	0.0041
Venus	-14249-06-11 02:38 J	-3482862.58	-3482862.39	-3482862.18	0.0089	0.0034
Venus	-14248-01-22 15:07 J	-3482637.06	-3482636.87	-3482636.65	0.0089	0.0028
Venus	-14248-09-05 03:50 J	-3482411.54	-3482411.34	-3482411.12	0.0089	0.0022
Venus	-14247-04-18 16:33 J	-3482186.02	-3482185.81	-3482185.59	0.0089	0.0015
Venus	-14247-11-30 05:16 J	-3481960.50	-3481960.28	-3481960.07	0.0089	0.0009

Venus	-14246-07-13 18:00 J	-3481734.97	-3481734.75	-3481734.54	0.0089	0.0003
Venus	-14245-02-24 06:28 J	-3481509.45	-3481509.23	-3481509.01	0.0089	0.0004
Venus	-14245-10-06 18:43 J	-3481283.93	-3481283.72	-3481283.50	0.0089	0.0011
Venus	-14244-05-20 07:26 J	-3481058.40	-3481058.19	-3481057.97	0.0089	0.0017
Venus	-14244-12-31 19:55 J	-3480832.87	-3480832.67	-3480832.46	0.0089	0.0023
Venus	-14243-08-14 08:09 J	-3480607.35	-3480607.16	-3480606.94	0.0089	0.0030
Venus	-14242-03-27 20:52 J	-3480381.82	-3480381.63	-3480381.43	0.0089	0.0036
Venus	-14242-11-08 09:21 J	-3480156.29	-3480156.11	-3480155.91	0.0089	0.0042
Venus	-14241-06-20 21:50 J	-3479930.76	-3479930.59	-3479930.39	0.0089	0.0049
Venus	-14240-02-01 10:19 J	-3479705.22	-3479705.07	-3479704.88	0.0089	0.0055
Venus	-14240-09-14 22:48 J	-3479479.69	-3479479.55	-3479479.38	0.0089	0.0061
Venus	-14239-04-28 11:16 J	-3479254.15	-3479254.03	-3479253.87	0.0089	0.0067
Venus	-14239-12-10 00:00 J	-3479028.61	-3479028.50	-3479028.37	0.0089	0.0073
Venus	-14238-07-23 12:43 J	-3478803.06	-3478802.97	-3478802.87	0.0089	0.0079
Venus	-14237-03-05 01:26 J	-3478577.50	-3478577.44	-3478577.39	0.0089	0.0085
Earth	-14208-11-21 12:57 J	-3467724.17	-3467723.96	-3467723.74	0.0088	0.0050
Moon	-14208-11-21 16:04 J	-3467724.02	-3467723.83	-3467723.60	0.0088	0.0050 *
Moon	-14207-11-23 21:35 J	-3467356.86	-3467356.60	-3467356.34	0.0088	0.0013
Earth	-14207-11-24 00:57 J	-3467356.71	-3467356.46	-3467356.20	0.0088	0.0012 *
Earth	-14206-11-26 12:43 J	-3466989.21	-3466988.97	-3466988.72	0.0088	0.0028
Moon	-14206-11-26 16:19 J	-3466989.06	-3466988.82	-3466988.56	0.0088	0.0030 *
Moon	-14205-11-27 21:35 J	-3466621.74	-3466621.60	-3466621.40	0.0088	0.0066
Earth	-14205-11-28 00:57 J	-3466621.63	-3466621.46	-3466621.29	0.0088	0.0067 *
Mars	-14187-08-04 09:07 J	-3460163.35	-3460163.12	-3460162.84	0.0088	0.0045
Mars	-14185-06-28 04:19 J	-3459469.59	-3459469.32	-3459469.02	0.0088	0.0025
Mercury	-14183-11-27 14:38 J	-3458586.93	-3458586.89	-3458586.81	0.0088	0.0084
Mercury	-14182-02-23 18:14 J	-3458498.82	-3458498.74	-3458498.61	0.0088	0.0074
Mercury	-14182-05-22 22:19 J	-3458410.70	-3458410.57	-3458410.42	0.0088	0.0063
Mercury	-14182-08-19 02:09 J	-3458322.56	-3458322.41	-3458322.25	0.0088	0.0053
Mercury	-14182-11-15 05:45 J	-3458234.42	-3458234.26	-3458234.08	0.0088	0.0043

Mercury	-14181-02-11 09:21 J	-3458146.28	-3458146.11	-3458145.91	0.0088	0.0033
Mercury	-14181-05-09 13:11 J	-3458058.13	-3458057.95	-3458057.75	0.0088	0.0023
Mercury	-14181-08-05 17:02 J	-3457969.99	-3457969.79	-3457969.59	0.0088	0.0012
Mercury	-14181-11-01 20:38 J	-3457881.83	-3457881.64	-3457881.44	0.0088	0.0003
Mercury	-14180-01-29 00:28 J	-3457793.68	-3457793.48	-3457793.28	0.0088	0.0008
Mercury	-14180-04-27 04:04 J	-3457705.52	-3457705.33	-3457705.13	0.0088	0.0018
Mercury	-14180-07-24 07:55 J	-3457617.36	-3457617.17	-3457616.98	0.0088	0.0028
Mercury	-14180-10-20 11:16 J	-3457529.20	-3457529.03	-3457528.84	0.0088	0.0039
Mercury	-14179-01-16 14:52 J	-3457441.03	-3457440.88	-3457440.70	0.0088	0.0049
Mercury	-14179-04-14 18:28 J	-3457352.86	-3457352.73	-3457352.56	0.0088	0.0059
Mercury	-14179-07-11 22:19 J	-3457264.68	-3457264.57	-3457264.43	0.0088	0.0069
Mercury	-14179-10-08 02:09 J	-3457176.49	-3457176.41	-3457176.32	0.0088	0.0079
Venus	-14171-03-30 13:11 J	-3454445.96	-3454445.95	-3454445.90	0.0088	0.0087
Venus	-14171-11-11 02:38 J	-3454220.46	-3454220.39	-3454220.29	0.0088	0.0081
Venus	-14170-06-24 15:50 J	-3453994.94	-3453994.84	-3453994.71	0.0088	0.0075
Venus	-14169-02-05 05:02 J	-3453769.41	-3453769.29	-3453769.13	0.0088	0.0069
Venus	-14169-09-17 18:43 J	-3453543.88	-3453543.72	-3453543.56	0.0088	0.0063
Venus	-14168-05-01 07:40 J	-3453318.34	-3453318.18	-3453318.00	0.0088	0.0056
Venus	-14168-12-12 21:07 J	-3453092.79	-3453092.62	-3453092.42	0.0088	0.0050
Venus	-14167-07-26 10:19 J	-3452867.25	-3452867.07	-3452866.86	0.0088	0.0044
Venus	-14166-03-08 23:45 J	-3452641.70	-3452641.51	-3452641.30	0.0088	0.0038
Venus	-14166-10-20 12:57 J	-3452416.16	-3452415.96	-3452415.74	0.0088	0.0031
Venus	-14165-06-02 02:24 J	-3452190.60	-3452190.40	-3452190.18	0.0088	0.0025
Venus	-14164-01-13 15:50 J	-3451965.05	-3451964.84	-3451964.61	0.0088	0.0019
Venus	-14164-08-27 05:16 J	-3451739.50	-3451739.28	-3451739.05	0.0088	0.0012
Venus	-14163-04-09 18:43 J	-3451513.94	-3451513.72	-3451513.49	0.0088	0.0006
Venus	-14163-11-21 08:24 J	-3451288.38	-3451288.15	-3451287.93	0.0088	0.0001
Venus	-14162-07-04 21:50 J	-3451062.81	-3451062.59	-3451062.37	0.0088	0.0008
Venus	-14161-02-15 11:02 J	-3450837.25	-3450837.04	-3450836.81	0.0088	0.0015
Venus	-14161-09-28 00:43 J	-3450611.69	-3450611.47	-3450611.25	0.0088	0.0020

Venus	-14160-05-11 13:55 J	-3450386.12	-3450385.92	-3450385.69	0.0088	0.0027
Venus	-14160-12-23 03:50 J	-3450160.54	-3450160.34	-3450160.13	0.0088	0.0033
Venus	-14159-08-05 17:02 J	-3449934.97	-3449934.79	-3449934.58	0.0088	0.0040
Venus	-14158-03-19 06:28 J	-3449709.40	-3449709.23	-3449709.02	0.0088	0.0047
Venus	-14158-10-30 20:09 J	-3449483.83	-3449483.66	-3449483.47	0.0088	0.0053
Venus	-14157-06-12 09:21 J	-3449258.26	-3449258.11	-3449257.93	0.0088	0.0060
Venus	-14156-01-23 23:02 J	-3449032.67	-3449032.54	-3449032.38	0.0088	0.0066
Venus	-14156-09-06 12:43 J	-3448807.09	-3448806.97	-3448806.84	0.0088	0.0072
Venus	-14155-04-20 01:40 J	-3448581.51	-3448581.43	-3448581.30	0.0088	0.0079
Venus	-14155-12-01 15:21 J	-3448355.90	-3448355.86	-3448355.77	0.0088	0.0085
Moon	-14125-05-25 17:02 J	-3437587.93	-3437587.79	-3437587.59	0.0089	0.0067
Earth	-14125-05-25 20:24 J	-3437587.80	-3437587.65	-3437587.47	0.0089	0.0068 *
Earth	-14124-05-28 07:11 J	-3437220.42	-3437220.20	-3437219.94	0.0089	0.0029
Moon	-14124-05-28 10:48 J	-3437220.27	-3437220.05	-3437219.79	0.0089	0.0029 *
Moon	-14123-05-30 15:21 J	-3436853.10	-3436852.86	-3436852.60	0.0089	0.0013
Earth	-14123-05-30 18:57 J	-3436852.96	-3436852.71	-3436852.45	0.0089	0.0012 *
Earth	-14122-06-02 06:00 J	-3436485.45	-3436485.25	-3436485.03	0.0089	0.0052
Moon	-14122-06-02 09:07 J	-3436485.31	-3436485.12	-3436484.88	0.0089	0.0051 *
Mars	-14105-05-05 10:33 J	-3430303.21	-3430303.06	-3430302.89	0.0089	0.0078
Mars	-14103-04-01 13:11 J	-3429607.29	-3429606.95	-3429606.62	0.0089	0.0006
Mercury	-14101-03-11 01:55 J	-3428897.45	-3428897.42	-3428897.36	0.0089	0.0085
Mercury	-14101-06-07 03:35 J	-3428809.41	-3428809.35	-3428809.29	0.0089	0.0077
Mercury	-14101-09-03 04:48 J	-3428721.38	-3428721.30	-3428721.22	0.0089	0.0070
Mercury	-14101-11-30 06:14 J	-3428633.33	-3428633.24	-3428633.15	0.0089	0.0063
Mercury	-14100-02-26 07:26 J	-3428545.29	-3428545.19	-3428545.09	0.0089	0.0056
Mercury	-14100-05-25 08:38 J	-3428457.24	-3428457.14	-3428457.03	0.0089	0.0049
Mercury	-14100-08-21 10:04 J	-3428369.20	-3428369.08	-3428368.97	0.0089	0.0042
Mercury	-14100-11-17 11:16 J	-3428281.15	-3428281.03	-3428280.91	0.0089	0.0035
Mercury	-14099-02-13 12:28 J	-3428193.10	-3428192.98	-3428192.85	0.0089	0.0028
Mercury	-14099-05-12 13:55 J	-3428105.05	-3428104.92	-3428104.79	0.0089	0.0020

Mercury	-14099-08-08 15:07 J	-3428017.00	-3428016.87	-3428016.74	0.0089	0.0013
Mercury	-14099-11-04 16:19 J	-3427928.94	-3427928.82	-3427928.68	0.0089	0.0007
Mercury	-14098-01-31 17:45 J	-3427840.89	-3427840.76	-3427840.63	0.0089	0.0001
Mercury	-14098-04-29 18:57 J	-3427752.84	-3427752.71	-3427752.58	0.0089	0.0008
Mercury	-14098-07-26 20:09 J	-3427664.78	-3427664.66	-3427664.52	0.0089	0.0016
Mercury	-14098-10-22 21:35 J	-3427576.73	-3427576.60	-3427576.47	0.0089	0.0022
Mercury	-14097-01-18 22:48 J	-3427488.67	-3427488.55	-3427488.42	0.0089	0.0029
Mercury	-14097-04-16 00:00 J	-3427400.61	-3427400.50	-3427400.37	0.0089	0.0037
Mercury	-14097-07-13 01:26 J	-3427312.55	-3427312.44	-3427312.32	0.0089	0.0043
Mercury	-14097-10-09 02:38 J	-3427224.49	-3427224.39	-3427224.28	0.0089	0.0051
Mercury	-14096-01-05 04:04 J	-3427136.43	-3427136.33	-3427136.23	0.0089	0.0057
Mercury	-14096-04-03 05:16 J	-3427048.36	-3427048.28	-3427048.19	0.0089	0.0065
Mercury	-14096-06-30 06:28 J	-3426960.30	-3426960.23	-3426960.15	0.0089	0.0072
Mercury	-14096-09-26 07:55 J	-3426872.23	-3426872.17	-3426872.11	0.0089	0.0079
Mercury	-14096-12-23 09:21 J	-3426784.15	-3426784.11	-3426784.08	0.0089	0.0086
Venus	-14089-05-17 17:02 J	-3424446.86	-3424446.79	-3424446.71	0.0089	0.0084
Venus	-14089-12-29 05:31 J	-3424221.36	-3424221.27	-3424221.15	0.0089	0.0078
Venus	-14088-08-11 18:00 J	-3423995.86	-3423995.75	-3423995.60	0.0089	0.0072
Venus	-14087-03-25 07:11 J	-3423770.34	-3423770.20	-3423770.05	0.0089	0.0065
Venus	-14087-11-05 19:40 J	-3423544.83	-3423544.68	-3423544.50	0.0089	0.0059
Venus	-14086-06-19 08:24 J	-3423319.30	-3423319.15	-3423318.95	0.0089	0.0053
Venus	-14085-01-30 21:21 J	-3423093.78	-3423093.61	-3423093.41	0.0089	0.0046
Venus	-14085-09-12 10:04 J	-3422868.26	-3422868.08	-3422867.87	0.0089	0.0039
Venus	-14084-04-25 23:02 J	-3422642.74	-3422642.54	-3422642.34	0.0089	0.0032
Venus	-14084-12-07 11:31 J	-3422417.22	-3422417.02	-3422416.80	0.0089	0.0026
Venus	-14083-07-21 00:28 J	-3422191.69	-3422191.48	-3422191.26	0.0089	0.0019
Venus	-14082-03-03 12:57 J	-3421966.16	-3421965.96	-3421965.73	0.0089	0.0014
Venus	-14082-10-15 01:55 J	-3421740.64	-3421740.42	-3421740.21	0.0089	0.0006
Venus	-14081-05-27 14:24 J	-3421515.11	-3421514.90	-3421514.68	0.0089	0.0002
Venus	-14080-01-08 03:07 J	-3421289.59	-3421289.37	-3421289.15	0.0089	0.0007

Venus	-14080-08-21 15:35 J	-3421064.06	-3421063.85	-3421063.63	0.0089	0.0014
Venus	-14079-04-04 04:04 J	-3420838.53	-3420838.33	-3420838.11	0.0089	0.0020
Venus	-14079-11-15 16:48 J	-3420613.01	-3420612.80	-3420612.59	0.0089	0.0026
Venus	-14078-06-29 05:16 J	-3420387.47	-3420387.28	-3420387.07	0.0089	0.0033
Venus	-14077-02-09 17:45 J	-3420161.94	-3420161.76	-3420161.56	0.0089	0.0039
Venus	-14077-09-22 06:00 J	-3419936.42	-3419936.25	-3419936.05	0.0089	0.0046
Venus	-14076-05-05 18:43 J	-3419710.88	-3419710.72	-3419710.53	0.0089	0.0052
Venus	-14076-12-17 07:26 J	-3419485.35	-3419485.19	-3419485.03	0.0089	0.0058
Venus	-14075-07-30 19:40 J	-3419259.81	-3419259.68	-3419259.51	0.0089	0.0065
Venus	-14074-03-13 08:09 J	-3419034.27	-3419034.16	-3419034.01	0.0089	0.0071
Venus	-14074-10-24 20:52 J	-3418808.72	-3418808.63	-3418808.51	0.0089	0.0077
Venus	-14073-06-06 09:35 J	-3418583.17	-3418583.10	-3418583.02	0.0089	0.0083
Moon	-14044-11-20 13:26 J	-3407824.08	-3407823.94	-3407823.76	0.0088	0.0069
Earth	-14044-11-20 17:31 J	-3407823.90	-3407823.77	-3407823.62	0.0088	0.0074 *
Earth	-14043-11-23 05:31 J	-3407456.51	-3407456.27	-3407456.03	0.0088	0.0034
Moon	-14043-11-23 08:09 J	-3407456.38	-3407456.16	-3407455.90	0.0088	0.0039 *
Moon	-14042-11-25 14:52 J	-3407089.14	-3407088.88	-3407088.63	0.0088	0.0008
Earth	-14042-11-25 17:31 J	-3407089.03	-3407088.77	-3407088.50	0.0088	0.0005 *
Earth	-14041-11-27 05:31 J	-3406721.49	-3406721.27	-3406721.04	0.0088	0.0043
Moon	-14041-11-27 06:43 J	-3406721.44	-3406721.22	-3406720.96	0.0088	0.0039 *
Earth	-14040-11-29 17:16 J	-3406353.86	-3406353.78	-3406353.67	0.0088	0.0082
Moon	-14040-11-29 17:02 J	-3406353.82	-3406353.79	-3406353.73	0.0088	0.0086 *
Mars	-14023-03-19 12:28 J	-3400400.05	-3400399.98	-3400399.86	0.0088	0.0083
Mars	-14021-02-11 07:40 J	-3399706.46	-3399706.18	-3399705.87	0.0088	0.0014
Mars	-14019-01-05 02:24 J	-3399012.60	-3399012.40	-3399012.15	0.0088	0.0056
Mercury	-14018-08-24 11:45 J	-3398416.06	-3398416.01	-3398415.94	0.0088	0.0083
Mercury	-14018-11-20 15:21 J	-3398327.96	-3398327.86	-3398327.74	0.0088	0.0073
Mercury	-14017-02-16 19:11 J	-3398239.83	-3398239.70	-3398239.55	0.0088	0.0063
Mercury	-14017-05-14 22:48 J	-3398151.70	-3398151.55	-3398151.38	0.0088	0.0053
Mercury	-14017-08-11 02:24 J	-3398063.56	-3398063.40	-3398063.21	0.0088	0.0043

Mercury	-14017-11-07 06:14 J	-3397975.41	-3397975.24	-3397975.04	0.0088	0.0033
Mercury	-14016-02-03 10:04 J	-3397887.27	-3397887.08	-3397886.88	0.0088	0.0022
Mercury	-14016-05-02 13:55 J	-3397799.12	-3397798.92	-3397798.72	0.0088	0.0012
Mercury	-14016-07-29 17:31 J	-3397710.96	-3397710.77	-3397710.57	0.0088	0.0003
Mercury	-14016-10-25 21:21 J	-3397622.81	-3397622.61	-3397622.41	0.0088	0.0008
Mercury	-14015-01-22 00:57 J	-3397534.65	-3397534.46	-3397534.26	0.0088	0.0019
Mercury	-14015-04-20 04:33 J	-3397446.49	-3397446.31	-3397446.11	0.0088	0.0029
Mercury	-14015-07-17 08:09 J	-3397358.33	-3397358.16	-3397357.97	0.0088	0.0039
Mercury	-14015-10-13 12:00 J	-3397270.16	-3397270.00	-3397269.83	0.0088	0.0049
Mercury	-14014-01-09 15:35 J	-3397181.98	-3397181.85	-3397181.69	0.0088	0.0059
Mercury	-14014-04-07 19:26 J	-3397093.81	-3397093.69	-3397093.57	0.0088	0.0069
Mercury	-14014-07-04 22:33 J	-3397005.61	-3397005.56	-3397005.45	0.0088	0.0080
Venus	-14006-02-12 10:19 J	-3394226.10	-3394226.07	-3394226.01	0.0088	0.0086
Venus	-14006-09-25 23:31 J	-3394000.59	-3394000.52	-3394000.41	0.0088	0.0080
Venus	-14005-05-08 12:43 J	-3393775.07	-3393774.97	-3393774.83	0.0088	0.0074
Venus	-14005-12-20 02:24 J	-3393549.53	-3393549.40	-3393549.25	0.0088	0.0067
Venus	-14004-08-02 15:35 J	-3393324.00	-3393323.85	-3393323.68	0.0088	0.0061
Venus	-14003-03-16 04:33 J	-3393098.46	-3393098.31	-3393098.11	0.0088	0.0055
Venus	-14003-10-27 18:14 J	-3392872.92	-3392872.74	-3392872.55	0.0088	0.0048
Venus	-14002-06-10 07:11 J	-3392647.38	-3392647.20	-3392646.98	0.0088	0.0043
Venus	-14001-01-21 20:52 J	-3392421.83	-3392421.63	-3392421.42	0.0088	0.0035
Venus	-14001-09-03 10:04 J	-3392196.28	-3392196.08	-3392195.86	0.0088	0.0029

14TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 14th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-14000-04-16 23:31 J	-3391970.73	-3391970.52	-3391970.30	0.0088	0.0022		
Venus	-14000-11-28 12:57 J	-3391745.18	-3391744.96	-3391744.74	0.0088	0.0016		
Venus	-13999-07-12 02:24 J	-3391519.62	-3391519.40	-3391519.18	0.0088	0.0009		
Venus	-13998-02-22 15:50 J	-3391294.07	-3391293.84	-3391293.62	0.0088	0.0003		
Venus	-13998-10-06 05:02 J	-3391068.51	-3391068.29	-3391068.06	0.0088	0.0004		
Venus	-13997-05-18 18:28 J	-3390842.95	-3390842.73	-3390842.51	0.0088	0.0010		
Venus	-13997-12-30 07:55 J	-3390617.38	-3390617.17	-3390616.94	0.0088	0.0017		
Venus	-13996-08-12 21:35 J	-3390391.82	-3390391.60	-3390391.38	0.0088	0.0024		
Venus	-13995-03-26 10:48 J	-3390166.25	-3390166.05	-3390165.83	0.0088	0.0030		
Venus	-13995-11-07 00:28 J	-3389940.68	-3389940.48	-3389940.28	0.0088	0.0037		
Venus	-13994-06-20 13:40 J	-3389715.11	-3389714.93	-3389714.72	0.0088	0.0044		
Venus	-13993-02-01 03:07 J	-3389489.54	-3389489.37	-3389489.17	0.0088	0.0050		
Venus	-13993-09-13 16:33 J	-3389263.96	-3389263.81	-3389263.62	0.0088	0.0057		
Venus	-13992-04-27 06:28 J	-3389038.39	-3389038.23	-3389038.08	0.0088	0.0063		
Venus	-13992-12-08 19:40 J	-3388812.80	-3388812.68	-3388812.53	0.0088	0.0070		
Venus	-13991-07-22 09:21 J	-3388587.21	-3388587.11	-3388586.99	0.0088	0.0076		
Venus	-13990-03-04 22:33 J	-3388361.62	-3388361.56	-3388361.46	0.0088	0.0082		
Moon	-13961-05-25 04:19 J	-3377687.35	-3377687.32	-3377687.25	0.0089	0.0087		
Moon	-13960-05-27 08:38 J	-3377320.31	-3377320.14	-3377319.93	0.0089	0.0058		
Earth	-13960-05-27 12:14 J	-3377320.18	-3377319.99	-3377319.77	0.0089	0.0052	*	
Earth	-13959-05-29 23:31 J	-3376952.77	-3376952.52	-3376952.26	0.0089	0.0013		
Moon	-13959-05-30 02:24 J	-3376952.66	-3376952.40	-3376952.14	0.0089	0.0008	*	
Moon	-13958-06-01 08:24 J	-3376585.38	-3376585.15	-3376584.90	0.0089	0.0023		
Earth	-13958-06-01 10:33 J	-3376585.29	-3376585.06	-3376584.81	0.0089	0.0027	*	
Earth	-13957-06-02 21:35 J	-3376217.76	-3376217.60	-3376217.42	0.0089	0.0067		
Moon	-13957-06-02 21:50 J	-3376217.72	-3376217.59	-3376217.40	0.0089	0.0071	*	

Mars	-13940-11-12 15:35 J	-3369846.12	-3369845.85	-3369845.53	0.0089	0.0042
Mars	-13938-10-09 19:26 J	-3369149.98	-3369149.69	-3369149.39	0.0089	0.0043
Mercury	-13937-12-06 00:57 J	-3368726.49	-3368726.46	-3368726.41	0.0089	0.0085
Mercury	-13936-03-04 02:24 J	-3368638.46	-3368638.40	-3368638.33	0.0089	0.0077
Mercury	-13936-05-31 03:35 J	-3368550.42	-3368550.35	-3368550.26	0.0089	0.0070
Mercury	-13936-08-27 04:48 J	-3368462.38	-3368462.30	-3368462.19	0.0089	0.0064
Mercury	-13936-11-23 06:14 J	-3368374.33	-3368374.24	-3368374.13	0.0089	0.0056
Mercury	-13935-02-19 07:26 J	-3368286.29	-3368286.19	-3368286.07	0.0089	0.0049
Mercury	-13935-05-18 08:38 J	-3368198.24	-3368198.14	-3368198.01	0.0089	0.0043
Mercury	-13935-08-14 10:19 J	-3368110.19	-3368110.07	-3368109.95	0.0089	0.0035
Mercury	-13935-11-10 11:31 J	-3368022.14	-3368022.02	-3368021.89	0.0089	0.0028
Mercury	-13934-02-06 12:43 J	-3367934.09	-3367933.97	-3367933.84	0.0089	0.0021
Mercury	-13934-05-05 14:09 J	-3367846.04	-3367845.91	-3367845.78	0.0089	0.0014
Mercury	-13934-08-01 15:21 J	-3367757.99	-3367757.86	-3367757.73	0.0089	0.0007
Mercury	-13934-10-28 16:33 J	-3367669.94	-3367669.81	-3367669.67	0.0089	0.0004
Mercury	-13933-01-24 18:00 J	-3367581.88	-3367581.75	-3367581.62	0.0089	0.0008
Mercury	-13933-04-21 19:11 J	-3367493.83	-3367493.70	-3367493.57	0.0089	0.0015
Mercury	-13933-07-18 20:24 J	-3367405.77	-3367405.65	-3367405.52	0.0089	0.0022
Mercury	-13933-10-14 21:35 J	-3367317.71	-3367317.60	-3367317.47	0.0089	0.0030
Mercury	-13932-01-10 23:02 J	-3367229.65	-3367229.54	-3367229.42	0.0089	0.0036
Mercury	-13932-04-09 00:14 J	-3367141.60	-3367141.49	-3367141.37	0.0089	0.0044
Mercury	-13932-07-06 01:40 J	-3367053.53	-3367053.43	-3367053.32	0.0089	0.0050
Mercury	-13932-10-02 02:52 J	-3366965.47	-3366965.38	-3366965.27	0.0089	0.0057
Mercury	-13932-12-29 04:04 J	-3366877.41	-3366877.33	-3366877.23	0.0089	0.0065
Mercury	-13931-03-27 05:31 J	-3366789.34	-3366789.27	-3366789.19	0.0089	0.0072
Mercury	-13931-06-23 06:43 J	-3366701.27	-3366701.22	-3366701.15	0.0089	0.0079
Mercury	-13931-09-19 08:09 J	-3366613.19	-3366613.16	-3366613.12	0.0089	0.0086
Venus	-13925-08-19 00:43 J	-3364452.47	-3364452.47	-3364452.44	0.0089	0.0089
Venus	-13924-04-01 13:40 J	-3364227.00	-3364226.93	-3364226.84	0.0089	0.0083
Venus	-13924-11-13 02:09 J	-3364001.50	-3364001.41	-3364001.28	0.0089	0.0077

Venus	-13923-06-26 15:21 J	-3363775.99	-3363775.86	-3363775.72	0.0089	0.0070
Venus	-13922-02-07 03:50 J	-3363550.48	-3363550.34	-3363550.17	0.0089	0.0063
Venus	-13922-09-20 16:48 J	-3363324.97	-3363324.80	-3363324.63	0.0089	0.0057
Venus	-13921-05-03 05:16 J	-3363099.45	-3363099.28	-3363099.09	0.0089	0.0050
Venus	-13921-12-14 18:14 J	-3362873.93	-3362873.74	-3362873.55	0.0089	0.0044
Venus	-13920-07-28 06:43 J	-3362648.40	-3362648.22	-3362648.01	0.0089	0.0037
Venus	-13919-03-10 19:40 J	-3362422.88	-3362422.68	-3362422.47	0.0089	0.0030
Venus	-13919-10-22 08:09 J	-3362197.36	-3362197.16	-3362196.94	0.0089	0.0024
Venus	-13918-06-04 21:07 J	-3361971.83	-3361971.62	-3361971.40	0.0089	0.0017
Venus	-13917-01-16 09:50 J	-3361746.30	-3361746.09	-3361745.87	0.0089	0.0011
Venus	-13917-08-28 22:33 J	-3361520.78	-3361520.56	-3361520.34	0.0089	0.0004
Venus	-13916-04-11 11:16 J	-3361295.25	-3361295.03	-3361294.82	0.0089	0.0003
Venus	-13916-11-22 23:45 J	-3361069.72	-3361069.51	-3361069.29	0.0089	0.0010
Venus	-13915-07-06 12:28 J	-3360844.19	-3360843.98	-3360843.76	0.0089	0.0016
Venus	-13914-02-17 00:57 J	-3360618.66	-3360618.46	-3360618.24	0.0089	0.0023
Venus	-13914-09-30 13:40 J	-3360393.14	-3360392.93	-3360392.73	0.0089	0.0029
Venus	-13913-05-13 01:55 J	-3360167.61	-3360167.42	-3360167.21	0.0089	0.0036
Venus	-13913-12-24 14:24 J	-3359942.08	-3359941.90	-3359941.70	0.0089	0.0043
Venus	-13912-08-07 03:07 J	-3359716.54	-3359716.37	-3359716.18	0.0089	0.0049
Venus	-13911-03-20 15:21 J	-3359491.01	-3359490.86	-3359490.67	0.0089	0.0056
Venus	-13911-11-01 04:04 J	-3359265.47	-3359265.33	-3359265.16	0.0089	0.0062
Venus	-13910-06-14 16:48 J	-3359039.93	-3359039.80	-3359039.66	0.0089	0.0068
Venus	-13909-01-26 05:02 J	-3358814.39	-3358814.29	-3358814.16	0.0089	0.0075
Venus	-13909-09-07 17:31 J	-3358588.84	-3358588.77	-3358588.67	0.0089	0.0081
Venus	-13908-04-21 06:28 J	-3358363.27	-3358363.23	-3358363.20	0.0089	0.0087
Saturn	-13904-10-04 01:40 J	-3356737.07	-3356736.43	-3356735.71	0.0089	0.0027
Moon	-13879-11-22 08:09 J	-3347556.33	-3347556.16	-3347555.95	0.0088	0.0057
Earth	-13879-11-22 10:04 J	-3347556.27	-3347556.08	-3347555.87	0.0088	0.0057 *
Earth	-13878-11-24 22:19 J	-3347188.82	-3347188.57	-3347188.31	0.0088	0.0019
Moon	-13878-11-24 23:16 J	-3347188.78	-3347188.53	-3347188.25	0.0088	0.0020 *

Earth	-13877-11-26 10:19 J	-3346821.32	-3346821.07	-3346820.82	0.0088	0.0020
Moon	-13877-11-26 10:33 J	-3346821.30	-3346821.06	-3346820.81	0.0088	0.0022 *
Moon	-13876-11-28 19:55 J	-3346453.84	-3346453.67	-3346453.44	0.0088	0.0059
Earth	-13876-11-28 22:04 J	-3346453.76	-3346453.58	-3346453.38	0.0088	0.0059 *
Mars	-13858-09-26 13:55 J	-3339943.15	-3339942.92	-3339942.66	0.0088	0.0051
Mars	-13856-08-20 08:24 J	-3339249.43	-3339249.15	-3339248.85	0.0088	0.0019
Mercury	-13853-05-20 08:52 J	-3338245.19	-3338245.13	-3338245.05	0.0088	0.0082
Mercury	-13853-08-16 12:28 J	-3338157.08	-3338156.98	-3338156.85	0.0088	0.0072
Mercury	-13853-11-12 16:19 J	-3338068.95	-3338068.82	-3338068.67	0.0088	0.0062
Mercury	-13852-02-08 19:55 J	-3337980.81	-3337980.67	-3337980.49	0.0088	0.0052
Mercury	-13852-05-07 23:31 J	-3337892.67	-3337892.52	-3337892.32	0.0088	0.0042
Mercury	-13852-08-04 03:35 J	-3337804.53	-3337804.35	-3337804.16	0.0088	0.0031
Mercury	-13852-10-31 07:26 J	-3337716.38	-3337716.19	-3337716.00	0.0088	0.0021
Mercury	-13851-01-27 11:02 J	-3337628.23	-3337628.04	-3337627.84	0.0088	0.0011
Mercury	-13851-04-25 14:52 J	-3337540.08	-3337539.88	-3337539.68	0.0088	0.0001
Mercury	-13851-07-22 18:28 J	-3337451.92	-3337451.73	-3337451.53	0.0088	0.0010
Mercury	-13851-10-18 22:04 J	-3337363.77	-3337363.58	-3337363.38	0.0088	0.0020
Mercury	-13850-01-15 01:55 J	-3337275.60	-3337275.42	-3337275.23	0.0088	0.0030
Mercury	-13850-04-13 05:31 J	-3337187.44	-3337187.27	-3337187.09	0.0088	0.0040
Mercury	-13850-07-10 09:21 J	-3337099.27	-3337099.11	-3337098.95	0.0088	0.0050
Mercury	-13850-10-06 12:28 J	-3337011.10	-3337010.98	-3337010.81	0.0088	0.0061
Mercury	-13849-01-02 16:19 J	-3336922.92	-3336922.82	-3336922.68	0.0088	0.0071
Mercury	-13849-03-30 19:55 J	-3336834.72	-3336834.67	-3336834.57	0.0088	0.0081
Venus	-13842-12-28 07:26 J	-3334006.22	-3334006.19	-3334006.11	0.0088	0.0085
Venus	-13841-08-09 20:38 J	-3333780.71	-3333780.64	-3333780.52	0.0088	0.0079
Venus	-13840-03-23 10:04 J	-3333555.19	-3333555.08	-3333554.94	0.0088	0.0072
Venus	-13840-11-03 23:16 J	-3333329.65	-3333329.53	-3333329.36	0.0088	0.0066
Venus	-13839-06-17 12:57 J	-3333104.12	-3333103.96	-3333103.79	0.0088	0.0059
Venus	-13838-01-29 01:55 J	-3332878.58	-3332878.42	-3332878.22	0.0088	0.0053
Venus	-13838-09-11 15:21 J	-3332653.04	-3332652.86	-3332652.66	0.0088	0.0046

Venus	-13837-04-24 04:33 J	-3332427.50	-3332427.31	-3332427.10	0.0088	0.0040
Venus	-13837-12-05 18:00 J	-3332201.94	-3332201.75	-3332201.53	0.0088	0.0034
Venus	-13836-07-19 07:40 J	-3331976.39	-3331976.18	-3331975.97	0.0088	0.0026
Venus	-13835-03-01 20:38 J	-3331750.84	-3331750.64	-3331750.41	0.0088	0.0020
Venus	-13835-10-13 10:04 J	-3331525.30	-3331525.08	-3331524.85	0.0088	0.0013
Venus	-13834-05-26 23:31 J	-3331299.74	-3331299.52	-3331299.30	0.0088	0.0007
Venus	-13833-01-07 12:57 J	-3331074.18	-3331073.96	-3331073.73	0.0088	0.0001
Venus	-13833-08-20 02:24 J	-3330848.62	-3330848.40	-3330848.18	0.0088	0.0007
Venus	-13832-04-02 15:50 J	-3330623.06	-3330622.84	-3330622.62	0.0088	0.0014
Venus	-13832-11-14 05:02 J	-3330397.50	-3330397.29	-3330397.06	0.0088	0.0020
Venus	-13831-06-27 18:28 J	-3330171.93	-3330171.73	-3330171.51	0.0088	0.0027
Venus	-13830-02-08 08:09 J	-3329946.37	-3329946.16	-3329945.95	0.0088	0.0034
Venus	-13830-09-21 21:21 J	-3329720.80	-3329720.61	-3329720.40	0.0088	0.0040
Venus	-13829-05-04 10:33 J	-3329495.23	-3329495.06	-3329494.85	0.0088	0.0048
Venus	-13829-12-16 00:28 J	-3329269.65	-3329269.48	-3329269.29	0.0088	0.0054
Venus	-13828-07-29 13:55 J	-3329044.07	-3329043.92	-3329043.74	0.0088	0.0060
Venus	-13827-03-12 03:07 J	-3328818.49	-3328818.37	-3328818.20	0.0088	0.0068
Venus	-13827-10-23 16:48 J	-3328592.91	-3328592.80	-3328592.66	0.0088	0.0074
Venus	-13826-06-06 06:00 J	-3328367.31	-3328367.25	-3328367.13	0.0088	0.0081
Venus	-13825-01-17 19:55 J	-3328141.70	-3328141.67	-3328141.61	0.0088	0.0087
Earth	-13796-05-26 17:16 J	-3317419.89	-3317419.78	-3317419.63	0.0089	0.0076
Moon	-13796-05-26 19:55 J	-3317419.78	-3317419.67	-3317419.51	0.0089	0.0077 *
Moon	-13795-05-29 03:35 J	-3317052.56	-3317052.35	-3317052.11	0.0089	0.0036
Earth	-13795-05-29 05:02 J	-3317052.52	-3317052.29	-3317052.06	0.0089	0.0037 *
Earth	-13794-05-31 16:04 J	-3316685.08	-3316684.83	-3316684.57	0.0089	0.0003
Moon	-13794-05-31 16:33 J	-3316685.07	-3316684.81	-3316684.54	0.0089	0.0003 *
Earth	-13793-06-02 02:52 J	-3316317.59	-3316317.38	-3316317.14	0.0089	0.0043
Moon	-13793-06-02 04:04 J	-3316317.54	-3316317.33	-3316317.11	0.0089	0.0043 *
Moon	-13792-06-04 11:02 J	-3315950.11	-3315950.04	-3315949.90	0.0089	0.0082
Earth	-13792-06-04 13:40 J	-3315950.00	-3315949.93	-3315949.80	0.0089	0.0082 *

Jupiter	-13778-08-03 07:26 J	-3310777.72	-3310777.19	-3310776.66	0.0089	0.0001
Mars	-13776-06-25 21:35 J	-3310084.64	-3310084.60	-3310084.52	0.0089	0.0088
Mars	-13774-05-22 23:45 J	-3309388.85	-3309388.51	-3309388.18	0.0089	0.0004
Mars	-13772-04-18 02:38 J	-3308692.52	-3308692.39	-3308692.23	0.0089	0.0081
Mercury	-13772-09-02 00:00 J	-3308555.53	-3308555.50	-3308555.44	0.0089	0.0085
Mercury	-13772-11-29 01:11 J	-3308467.50	-3308467.45	-3308467.37	0.0089	0.0078
Mercury	-13771-02-25 02:38 J	-3308379.46	-3308379.39	-3308379.30	0.0089	0.0070
Mercury	-13771-05-24 03:50 J	-3308291.42	-3308291.34	-3308291.23	0.0089	0.0064
Mercury	-13771-08-20 05:31 J	-3308203.37	-3308203.27	-3308203.17	0.0089	0.0056
Mercury	-13771-11-16 06:43 J	-3308115.33	-3308115.22	-3308115.11	0.0089	0.0049
Mercury	-13770-02-12 07:55 J	-3308027.28	-3308027.17	-3308027.05	0.0089	0.0042
Mercury	-13770-05-11 09:21 J	-3307939.23	-3307939.11	-3307938.99	0.0089	0.0035
Mercury	-13770-08-07 10:33 J	-3307851.18	-3307851.06	-3307850.93	0.0089	0.0028
Mercury	-13770-11-03 11:45 J	-3307763.13	-3307763.01	-3307762.88	0.0089	0.0021
Mercury	-13769-01-30 13:11 J	-3307675.08	-3307674.95	-3307674.82	0.0089	0.0014
Mercury	-13769-04-27 14:24 J	-3307587.03	-3307586.90	-3307586.77	0.0089	0.0007
Mercury	-13769-07-24 15:35 J	-3307498.98	-3307498.85	-3307498.71	0.0089	0.0004
Mercury	-13769-10-20 17:02 J	-3307410.92	-3307410.79	-3307410.66	0.0089	0.0008
Mercury	-13768-01-16 18:14 J	-3307322.87	-3307322.74	-3307322.61	0.0089	0.0015
Mercury	-13768-04-14 19:26 J	-3307234.81	-3307234.69	-3307234.56	0.0089	0.0022
Mercury	-13768-07-11 20:38 J	-3307146.75	-3307146.64	-3307146.51	0.0089	0.0030
Mercury	-13768-10-07 22:04 J	-3307058.70	-3307058.58	-3307058.46	0.0089	0.0036
Mercury	-13767-01-03 23:16 J	-3306970.64	-3306970.53	-3306970.41	0.0089	0.0043
Mercury	-13767-04-02 00:28 J	-3306882.58	-3306882.48	-3306882.36	0.0089	0.0051
Mercury	-13767-06-29 01:55 J	-3306794.51	-3306794.42	-3306794.31	0.0089	0.0057
Mercury	-13767-09-25 03:07 J	-3306706.45	-3306706.37	-3306706.27	0.0089	0.0065
Mercury	-13767-12-22 04:33 J	-3306618.38	-3306618.31	-3306618.23	0.0089	0.0071
Mercury	-13766-03-20 05:45 J	-3306530.31	-3306530.26	-3306530.19	0.0089	0.0079
Mercury	-13766-06-16 06:57 J	-3306442.23	-3306442.21	-3306442.16	0.0089	0.0086
Venus	-13760-07-03 21:35 J	-3304232.61	-3304232.60	-3304232.54	0.0089	0.0089

Venus	-13759-02-14 10:33 J	-3304007.13	-3304007.06	-3304006.96	0.0089	0.0082
Venus	-13759-09-27 23:02 J	-3303781.63	-3303781.54	-3303781.40	0.0089	0.0076
Venus	-13758-05-11 12:14 J	-3303556.12	-3303555.99	-3303555.84	0.0089	0.0068
Venus	-13758-12-23 01:11 J	-3303330.60	-3303330.45	-3303330.29	0.0089	0.0062
Venus	-13757-08-04 13:26 J	-3303105.09	-3303104.94	-3303104.75	0.0089	0.0056
Venus	-13756-03-18 02:24 J	-3302879.57	-3302879.40	-3302879.21	0.0089	0.0048
Venus	-13756-10-29 15:21 J	-3302654.05	-3302653.86	-3302653.67	0.0089	0.0042
Venus	-13755-06-12 03:50 J	-3302428.52	-3302428.34	-3302428.12	0.0089	0.0035
Venus	-13754-01-23 16:48 J	-3302203.00	-3302202.80	-3302202.59	0.0089	0.0028
Venus	-13754-09-06 05:31 J	-3301977.48	-3301977.27	-3301977.06	0.0089	0.0021
Venus	-13753-04-18 18:14 J	-3301751.95	-3301751.74	-3301751.52	0.0089	0.0015
Venus	-13753-11-30 06:57 J	-3301526.42	-3301526.21	-3301525.99	0.0089	0.0008
Venus	-13752-07-13 19:55 J	-3301300.89	-3301300.67	-3301300.45	0.0089	0.0001
Venus	-13751-02-24 08:24 J	-3301075.36	-3301075.15	-3301074.93	0.0089	0.0006
Venus	-13751-10-07 21:07 J	-3300849.83	-3300849.62	-3300849.40	0.0089	0.0013
Venus	-13750-05-21 09:50 J	-3300624.30	-3300624.09	-3300623.88	0.0089	0.0019
Venus	-13749-01-01 22:19 J	-3300398.77	-3300398.57	-3300398.36	0.0089	0.0026
Venus	-13749-08-14 10:48 J	-3300173.24	-3300173.05	-3300172.84	0.0089	0.0033
Venus	-13748-03-27 23:31 J	-3299947.71	-3299947.52	-3299947.32	0.0089	0.0040
Venus	-13748-11-08 12:00 J	-3299722.18	-3299722.00	-3299721.81	0.0089	0.0046
Venus	-13747-06-22 00:28 J	-3299496.64	-3299496.48	-3299496.29	0.0089	0.0053
Venus	-13746-02-02 13:11 J	-3299271.10	-3299270.95	-3299270.78	0.0089	0.0060
Venus	-13746-09-16 01:26 J	-3299045.57	-3299045.44	-3299045.28	0.0089	0.0066
Venus	-13745-04-28 13:40 J	-3298820.03	-3298819.93	-3298819.78	0.0089	0.0073
Venus	-13745-12-10 02:24 J	-3298594.48	-3298594.40	-3298594.28	0.0089	0.0079
Venus	-13744-07-23 15:21 J	-3298368.91	-3298368.86	-3298368.80	0.0089	0.0085
Moon	-13715-11-21 15:07 J	-3287655.98	-3287655.87	-3287655.69	0.0088	0.0076
Earth	-13715-11-21 15:35 J	-3287655.95	-3287655.85	-3287655.73	0.0088	0.0080 *
Earth	-13714-11-24 03:50 J	-3287288.56	-3287288.34	-3287288.10	0.0088	0.0041
Moon	-13714-11-24 04:19 J	-3287288.51	-3287288.32	-3287288.08	0.0088	0.0045 *

Moon	-13713-11-25 14:09 J	-3286921.18	-3286920.91	-3286920.64	0.0088	0.0003
Earth	-13713-11-25 16:04 J	-3286921.09	-3286920.83	-3286920.57	0.0088	0.0002 *
Earth	-13712-11-28 03:35 J	-3286553.57	-3286553.35	-3286553.10	0.0088	0.0038
Moon	-13712-11-28 07:11 J	-3286553.44	-3286553.20	-3286552.96	0.0088	0.0032 *
Moon	-13711-11-30 12:14 J	-3286186.07	-3286185.99	-3286185.85	0.0088	0.0081
Earth	-13711-11-30 15:35 J	-3286185.95	-3286185.85	-3286185.69	0.0088	0.0076 *
Mars	-13692-04-04 14:38 J	-3279486.17	-3279485.89	-3279485.59	0.0088	0.0019
Mars	-13690-02-27 08:52 J	-3278792.36	-3278792.13	-3278791.88	0.0088	0.0051
Mercury	-13688-02-14 06:00 J	-3278074.30	-3278074.25	-3278074.15	0.0088	0.0081
Mercury	-13688-05-13 09:50 J	-3277986.19	-3277986.09	-3277985.96	0.0088	0.0071
Mercury	-13688-08-09 13:55 J	-3277898.06	-3277897.92	-3277897.78	0.0088	0.0060
Mercury	-13688-11-05 17:31 J	-3277809.93	-3277809.77	-3277809.60	0.0088	0.0050
Mercury	-13687-02-01 21:07 J	-3277721.79	-3277721.62	-3277721.43	0.0088	0.0040
Mercury	-13687-05-01 00:57 J	-3277633.64	-3277633.46	-3277633.27	0.0088	0.0030
Mercury	-13687-07-28 04:33 J	-3277545.49	-3277545.31	-3277545.10	0.0088	0.0020
Mercury	-13687-10-24 08:38 J	-3277457.34	-3277457.14	-3277456.95	0.0088	0.0009
Mercury	-13686-01-20 12:14 J	-3277369.19	-3277368.99	-3277368.79	0.0088	0.0001
Mercury	-13686-04-18 16:04 J	-3277281.03	-3277280.83	-3277280.64	0.0088	0.0011
Mercury	-13686-07-15 19:26 J	-3277192.87	-3277192.69	-3277192.49	0.0088	0.0022
Mercury	-13686-10-11 23:16 J	-3277104.71	-3277104.53	-3277104.34	0.0088	0.0032
Mercury	-13685-01-08 02:52 J	-3277016.54	-3277016.38	-3277016.19	0.0088	0.0042
Mercury	-13685-04-05 06:43 J	-3276928.37	-3276928.22	-3276928.06	0.0088	0.0052
Mercury	-13685-07-02 10:19 J	-3276840.20	-3276840.07	-3276839.92	0.0088	0.0062
Mercury	-13685-09-28 14:09 J	-3276752.02	-3276751.91	-3276751.79	0.0088	0.0072
Mercury	-13685-12-25 17:31 J	-3276663.82	-3276663.77	-3276663.69	0.0088	0.0083
Venus	-13677-11-11 05:45 J	-3273786.32	-3273786.26	-3273786.18	0.0088	0.0083
Venus	-13676-06-24 18:43 J	-3273560.80	-3273560.72	-3273560.59	0.0088	0.0077
Venus	-13675-02-05 08:24 J	-3273335.28	-3273335.15	-3273335.01	0.0088	0.0070
Venus	-13675-09-18 21:21 J	-3273109.75	-3273109.61	-3273109.44	0.0088	0.0064
Venus	-13674-05-02 10:48 J	-3272884.21	-3272884.05	-3272883.87	0.0088	0.0057

Venus	-13674-12-14 00:00 J	-3272658.66	-3272658.50	-3272658.30	0.0088	0.0051
Venus	-13673-07-26 13:26 J	-3272433.12	-3272432.94	-3272432.73	0.0088	0.0044
Venus	-13672-03-09 02:52 J	-3272207.57	-3272207.38	-3272207.17	0.0088	0.0037
Venus	-13672-10-20 16:19 J	-3271982.03	-3271981.82	-3271981.61	0.0088	0.0030
Venus	-13671-06-03 05:16 J	-3271756.48	-3271756.28	-3271756.05	0.0088	0.0024
Venus	-13670-01-14 18:43 J	-3271530.93	-3271530.72	-3271530.49	0.0088	0.0017
Venus	-13670-08-28 08:09 J	-3271305.38	-3271305.16	-3271304.93	0.0088	0.0010
Venus	-13669-04-09 21:35 J	-3271079.83	-3271079.60	-3271079.38	0.0088	0.0004
Venus	-13669-11-21 11:02 J	-3270854.27	-3270854.04	-3270853.82	0.0088	0.0004
Venus	-13668-07-05 00:14 J	-3270628.71	-3270628.49	-3270628.26	0.0088	0.0010
Venus	-13667-02-15 13:26 J	-3270403.15	-3270402.94	-3270402.71	0.0088	0.0017
Venus	-13667-09-29 02:38 J	-3270177.59	-3270177.39	-3270177.16	0.0088	0.0024
Venus	-13666-05-12 16:19 J	-3269952.03	-3269951.82	-3269951.61	0.0088	0.0031
Venus	-13666-12-24 05:45 J	-3269726.46	-3269726.26	-3269726.05	0.0088	0.0037
Venus	-13665-08-05 18:57 J	-3269500.89	-3269500.71	-3269500.50	0.0088	0.0045
Venus	-13664-03-19 08:24 J	-3269275.31	-3269275.15	-3269274.95	0.0088	0.0051
Venus	-13664-10-30 22:04 J	-3269049.74	-3269049.58	-3269049.40	0.0088	0.0058
Venus	-13663-06-13 11:16 J	-3268824.16	-3268824.03	-3268823.86	0.0088	0.0065
Venus	-13662-01-25 00:43 J	-3268598.58	-3268598.47	-3268598.31	0.0088	0.0072
Venus	-13662-09-07 14:38 J	-3268372.99	-3268372.89	-3268372.78	0.0088	0.0078
Venus	-13661-04-20 03:50 J	-3268147.38	-3268147.34	-3268147.25	0.0088	0.0085
Moon	-13631-05-28 10:33 J	-3257152.23	-3257152.06	-3257151.86	0.0089	0.0064
Earth	-13631-05-28 11:16 J	-3257152.21	-3257152.03	-3257151.83	0.0089	0.0059 *
Earth	-13630-05-30 22:19 J	-3256784.81	-3256784.57	-3256784.31	0.0089	0.0020
Moon	-13630-05-30 23:45 J	-3256784.75	-3256784.51	-3256784.26	0.0089	0.0016 *
Moon	-13629-06-01 06:57 J	-3256417.46	-3256417.21	-3256416.95	0.0089	0.0014
Earth	-13629-06-01 09:21 J	-3256417.35	-3256417.11	-3256416.85	0.0089	0.0020 *
Earth	-13628-06-03 20:24 J	-3256049.83	-3256049.65	-3256049.45	0.0089	0.0058
Moon	-13628-06-03 23:31 J	-3256049.67	-3256049.52	-3256049.32	0.0089	0.0063 *
Mars	-13610-01-03 06:57 J	-3249627.46	-3249627.21	-3249626.91	0.0089	0.0050

Mars	-13609-11-29 08:52 J	-3248931.42	-3248931.13	-3248930.80	0.0089	0.0036
Mercury	-13607-05-29 23:16 J	-3248384.56	-3248384.53	-3248384.47	0.0089	0.0084
Mercury	-13607-08-26 00:43 J	-3248296.53	-3248296.47	-3248296.40	0.0089	0.0076
Mercury	-13607-11-22 01:55 J	-3248208.49	-3248208.42	-3248208.33	0.0089	0.0069
Mercury	-13606-02-18 03:07 J	-3248120.45	-3248120.37	-3248120.26	0.0089	0.0063
Mercury	-13606-05-17 04:33 J	-3248032.40	-3248032.31	-3248032.20	0.0089	0.0055
Mercury	-13606-08-13 05:45 J	-3247944.36	-3247944.26	-3247944.14	0.0089	0.0048
Mercury	-13606-11-09 06:57 J	-3247856.31	-3247856.21	-3247856.08	0.0089	0.0042
Mercury	-13605-02-05 08:38 J	-3247768.26	-3247768.14	-3247768.02	0.0089	0.0034
Mercury	-13605-05-03 09:50 J	-3247680.21	-3247680.09	-3247679.96	0.0089	0.0027
Mercury	-13605-07-30 11:02 J	-3247592.16	-3247592.04	-3247591.91	0.0089	0.0020
Mercury	-13605-10-26 12:28 J	-3247504.11	-3247503.98	-3247503.85	0.0089	0.0013
Mercury	-13604-01-22 13:40 J	-3247416.06	-3247415.93	-3247415.80	0.0089	0.0006
Mercury	-13604-04-20 14:52 J	-3247328.01	-3247327.88	-3247327.74	0.0089	0.0003
Mercury	-13604-07-17 16:19 J	-3247239.95	-3247239.82	-3247239.69	0.0089	0.0009
Mercury	-13604-10-13 17:31 J	-3247151.90	-3247151.77	-3247151.64	0.0089	0.0016
Mercury	-13603-01-09 18:57 J	-3247063.84	-3247063.71	-3247063.59	0.0089	0.0023
Mercury	-13603-04-07 20:09 J	-3246975.78	-3246975.66	-3246975.54	0.0089	0.0030
Mercury	-13603-07-04 21:21 J	-3246887.73	-3246887.61	-3246887.49	0.0089	0.0037
Mercury	-13603-09-30 22:33 J	-3246799.67	-3246799.56	-3246799.44	0.0089	0.0044
Mercury	-13603-12-27 23:45 J	-3246711.61	-3246711.51	-3246711.39	0.0089	0.0051
Mercury	-13602-03-26 00:57 J	-3246623.54	-3246623.46	-3246623.35	0.0089	0.0059
Mercury	-13602-06-22 02:24 J	-3246535.48	-3246535.40	-3246535.30	0.0089	0.0065
Mercury	-13602-09-18 03:35 J	-3246447.41	-3246447.35	-3246447.26	0.0089	0.0073
Mercury	-13602-12-15 04:48 J	-3246359.34	-3246359.30	-3246359.23	0.0089	0.0080
Mercury	-13601-03-12 06:14 J	-3246271.26	-3246271.24	-3246271.20	0.0089	0.0086
Venus	-13595-05-18 19:40 J	-3244012.72	-3244012.68	-3244012.63	0.0089	0.0087
Venus	-13595-12-30 07:55 J	-3243787.24	-3243787.17	-3243787.05	0.0089	0.0081
Venus	-13594-08-12 20:52 J	-3243561.73	-3243561.63	-3243561.49	0.0089	0.0074
Venus	-13593-03-25 09:50 J	-3243336.23	-3243336.09	-3243335.94	0.0089	0.0067

Venus	-13593-11-05 22:48 J	-3243110.71	-3243110.55	-3243110.39	0.0089	0.0060
Venus	-13592-06-19 11:16 J	-3242885.19	-3242885.03	-3242884.84	0.0089	0.0053
Venus	-13591-01-31 00:00 J	-3242659.67	-3242659.50	-3242659.30	0.0089	0.0046
Venus	-13591-09-13 12:43 J	-3242434.15	-3242433.97	-3242433.77	0.0089	0.0040
Venus	-13590-04-27 01:26 J	-3242208.63	-3242208.44	-3242208.23	0.0089	0.0033
Venus	-13590-12-08 14:24 J	-3241983.11	-3241982.90	-3241982.69	0.0089	0.0026
Venus	-13589-07-21 02:52 J	-3241757.58	-3241757.38	-3241757.16	0.0089	0.0019
Venus	-13588-03-03 15:35 J	-3241532.06	-3241531.85	-3241531.63	0.0089	0.0012
Venus	-13588-10-15 04:33 J	-3241306.53	-3241306.31	-3241306.10	0.0089	0.0005
Venus	-13587-05-28 17:16 J	-3241081.00	-3241080.78	-3241080.56	0.0089	0.0002
Venus	-13586-01-09 05:45 J	-3240855.47	-3240855.26	-3240855.04	0.0089	0.0009
Venus	-13586-08-22 18:28 J	-3240629.94	-3240629.73	-3240629.51	0.0089	0.0016
Venus	-13585-04-04 06:57 J	-3240404.41	-3240404.21	-3240403.99	0.0089	0.0023
Venus	-13585-11-15 19:55 J	-3240178.87	-3240178.67	-3240178.46	0.0089	0.0030
Venus	-13584-06-29 08:38 J	-3239953.33	-3239953.14	-3239952.94	0.0089	0.0036
Venus	-13583-02-09 21:07 J	-3239727.80	-3239727.62	-3239727.42	0.0089	0.0043
Venus	-13583-09-23 09:35 J	-3239502.27	-3239502.10	-3239501.91	0.0089	0.0050
Venus	-13582-05-06 22:04 J	-3239276.73	-3239276.58	-3239276.40	0.0089	0.0057
Venus	-13582-12-18 10:48 J	-3239051.19	-3239051.05	-3239050.89	0.0089	0.0064
Venus	-13581-07-30 23:16 J	-3238825.64	-3238825.53	-3238825.38	0.0089	0.0070
Venus	-13580-03-13 11:45 J	-3238600.10	-3238600.01	-3238599.88	0.0089	0.0077
Venus	-13580-10-25 00:28 J	-3238374.54	-3238374.48	-3238374.40	0.0089	0.0083
Moon	-13550-11-23 06:43 J	-3227388.39	-3227388.22	-3227388.02	0.0088	0.0064
Earth	-13550-11-23 09:35 J	-3227388.27	-3227388.10	-3227387.91	0.0088	0.0063 *
Earth	-13549-11-24 21:21 J	-3227020.84	-3227020.61	-3227020.34	0.0088	0.0024
Moon	-13549-11-25 00:43 J	-3227020.71	-3227020.47	-3227020.22	0.0088	0.0024 *
Moon	-13548-11-27 06:14 J	-3226653.50	-3226653.24	-3226652.98	0.0088	0.0015
Earth	-13548-11-27 09:50 J	-3226653.34	-3226653.09	-3226652.82	0.0088	0.0015 *
Earth	-13547-11-29 21:35 J	-3226285.78	-3226285.60	-3226285.37	0.0088	0.0054
Moon	-13547-11-30 01:26 J	-3226285.64	-3226285.44	-3226285.22	0.0088	0.0054 *

Mars	-13529-11-17 21:21 J	-3219722.82	-3219722.61	-3219722.36	0.0088	0.0055
Mars	-13527-10-12 18:00 J	-3219029.03	-3219028.75	-3219028.45	0.0088	0.0015
Mars	-13525-09-05 11:16 J	-3218335.07	-3218335.03	-3218334.92	0.0088	0.0085
Mercury	-13524-11-11 03:35 J	-3217903.41	-3217903.35	-3217903.24	0.0088	0.0079
Mercury	-13523-02-07 07:40 J	-3217815.29	-3217815.18	-3217815.05	0.0088	0.0068
Mercury	-13523-05-06 11:31 J	-3217727.16	-3217727.02	-3217726.87	0.0088	0.0058
Mercury	-13523-08-02 15:07 J	-3217639.03	-3217638.87	-3217638.69	0.0088	0.0048
Mercury	-13523-10-29 18:43 J	-3217550.89	-3217550.72	-3217550.53	0.0088	0.0038
Mercury	-13522-01-25 22:33 J	-3217462.74	-3217462.56	-3217462.36	0.0088	0.0028
Mercury	-13522-04-24 02:24 J	-3217374.59	-3217374.40	-3217374.20	0.0088	0.0017
Mercury	-13522-07-21 06:14 J	-3217286.44	-3217286.24	-3217286.04	0.0088	0.0007
Mercury	-13522-10-17 09:50 J	-3217198.28	-3217198.09	-3217197.89	0.0088	0.0004
Mercury	-13521-01-13 13:26 J	-3217110.13	-3217109.94	-3217109.73	0.0088	0.0014
Mercury	-13521-04-10 17:02 J	-3217021.97	-3217021.79	-3217021.58	0.0088	0.0024
Mercury	-13521-07-07 20:52 J	-3216933.80	-3216933.63	-3216933.44	0.0088	0.0034
Mercury	-13521-10-04 00:28 J	-3216845.64	-3216845.48	-3216845.30	0.0088	0.0044
Mercury	-13521-12-31 04:19 J	-3216757.47	-3216757.32	-3216757.16	0.0088	0.0054
Mercury	-13520-03-29 07:40 J	-3216669.29	-3216669.18	-3216669.02	0.0088	0.0065
Mercury	-13520-06-25 11:31 J	-3216581.11	-3216581.02	-3216580.90	0.0088	0.0075
Mercury	-13520-09-21 15:07 J	-3216492.90	-3216492.87	-3216492.80	0.0088	0.0085
Venus	-13512-09-26 04:19 J	-3213566.40	-3213566.32	-3213566.24	0.0088	0.0081
Venus	-13511-05-09 17:02 J	-3213340.88	-3213340.79	-3213340.65	0.0088	0.0075
Venus	-13511-12-21 06:43 J	-3213115.35	-3213115.22	-3213115.07	0.0088	0.0068
Venus	-13510-08-03 19:40 J	-3212889.81	-3212889.68	-3212889.50	0.0088	0.0062
Venus	-13509-03-16 09:07 J	-3212664.27	-3212664.12	-3212663.93	0.0088	0.0055
Venus	-13509-10-27 22:33 J	-3212438.73	-3212438.56	-3212438.36	0.0088	0.0048
Venus	-13508-06-10 12:00 J	-3212213.19	-3212213.00	-3212212.79	0.0088	0.0041
Venus	-13507-01-22 01:26 J	-3211987.64	-3211987.44	-3211987.23	0.0088	0.0035
Venus	-13507-09-04 14:38 J	-3211762.09	-3211761.89	-3211761.67	0.0088	0.0028
Venus	-13506-04-18 03:50 J	-3211536.54	-3211536.34	-3211536.11	0.0088	0.0021

Venus	-13506-11-29 17:31 J	-3211310.99	-3211310.77	-3211310.54	0.0088	0.0014
Venus	-13505-07-12 06:57 J	-3211085.43	-3211085.21	-3211084.99	0.0088	0.0007
Venus	-13504-02-22 20:24 J	-3210859.88	-3210859.65	-3210859.43	0.0088	0.0002
Venus	-13504-10-06 09:35 J	-3210634.32	-3210634.10	-3210633.88	0.0088	0.0007
Venus	-13503-05-19 22:48 J	-3210408.77	-3210408.55	-3210408.32	0.0088	0.0014
Venus	-13503-12-31 12:14 J	-3210183.20	-3210182.99	-3210182.77	0.0088	0.0021
Venus	-13502-08-14 01:26 J	-3209957.64	-3209957.44	-3209957.21	0.0088	0.0028
Venus	-13501-03-26 15:07 J	-3209732.07	-3209731.87	-3209731.66	0.0088	0.0035
Venus	-13501-11-07 04:19 J	-3209506.51	-3209506.32	-3209506.11	0.0088	0.0042
Venus	-13500-06-20 17:31 J	-3209280.94	-3209280.77	-3209280.57	0.0088	0.0049
Venus	-13499-02-01 06:57 J	-3209055.36	-3209055.21	-3209055.02	0.0088	0.0056
Venus	-13499-09-14 20:24 J	-3208829.79	-3208829.65	-3208829.47	0.0088	0.0062
Venus	-13498-04-28 10:19 J	-3208604.21	-3208604.07	-3208603.93	0.0088	0.0069
Venus	-13498-12-09 23:45 J	-3208378.62	-3208378.51	-3208378.39	0.0088	0.0076
Venus	-13497-07-22 12:57 J	-3208153.02	-3208152.96	-3208152.86	0.0088	0.0083
Earth	-13467-05-27 18:43 J	-3197251.80	-3197251.72	-3197251.59	0.0089	0.0081
Moon	-13467-05-27 20:52 J	-3197251.69	-3197251.63	-3197251.52	0.0089	0.0083 *
Moon	-13466-05-30 03:07 J	-3196884.59	-3196884.37	-3196884.12	0.0089	0.0041
Earth	-13466-05-30 06:14 J	-3196884.45	-3196884.24	-3196884.00	0.0089	0.0042 *
Earth	-13465-05-31 17:31 J	-3196517.02	-3196516.77	-3196516.51	0.0089	0.0003
Moon	-13465-05-31 20:52 J	-3196516.88	-3196516.63	-3196516.38	0.0089	0.0003 *
Moon	-13464-06-03 00:28 J	-3196149.69	-3196149.48	-3196149.23	0.0089	0.0039
Earth	-13464-06-03 04:19 J	-3196149.54	-3196149.32	-3196149.07	0.0089	0.0037 *
Earth	-13463-06-05 15:21 J	-3195781.98	-3195781.86	-3195781.71	0.0089	0.0075
Moon	-13463-06-05 18:28 J	-3195781.86	-3195781.73	-3195781.58	0.0089	0.0075 *
Mars	-13445-07-12 18:43 J	-3189170.04	-3189169.72	-3189169.38	0.0089	0.0010
Mars	-13443-06-08 20:52 J	-3188473.80	-3188473.63	-3188473.44	0.0089	0.0075
Mercury	-13443-11-27 21:35 J	-3188301.60	-3188301.60	-3188301.59	0.0089	0.0089
Mercury	-13442-02-23 22:33 J	-3188213.59	-3188213.56	-3188213.49	0.0089	0.0083
Mercury	-13442-05-23 00:00 J	-3188125.56	-3188125.50	-3188125.42	0.0089	0.0075

Mercury	-13442-08-19 01:11 J	-3188037.52	-3188037.45	-3188037.35	0.0089	0.0069
Mercury	-13442-11-15 02:52 J	-3187949.48	-3187949.38	-3187949.29	0.0089	0.0061
Mercury	-13441-02-11 04:04 J	-3187861.43	-3187861.33	-3187861.23	0.0089	0.0054
Mercury	-13441-05-09 05:16 J	-3187773.39	-3187773.28	-3187773.17	0.0089	0.0047
Mercury	-13441-08-05 06:43 J	-3187685.34	-3187685.22	-3187685.11	0.0089	0.0040
Mercury	-13441-11-01 07:55 J	-3187597.29	-3187597.17	-3187597.05	0.0089	0.0033
Mercury	-13440-01-28 09:07 J	-3187509.24	-3187509.12	-3187508.99	0.0089	0.0026
Mercury	-13440-04-26 10:33 J	-3187421.19	-3187421.06	-3187420.93	0.0089	0.0019
Mercury	-13440-07-23 11:45 J	-3187333.14	-3187333.01	-3187332.88	0.0089	0.0011
Mercury	-13440-10-19 13:11 J	-3187245.08	-3187244.95	-3187244.82	0.0089	0.0005
Mercury	-13439-01-15 14:24 J	-3187157.03	-3187156.90	-3187156.77	0.0089	0.0003
Mercury	-13439-04-13 15:35 J	-3187068.98	-3187068.85	-3187068.72	0.0089	0.0010
Mercury	-13439-07-10 16:48 J	-3186980.92	-3186980.80	-3186980.67	0.0089	0.0017
Mercury	-13439-10-06 18:00 J	-3186892.87	-3186892.75	-3186892.61	0.0089	0.0025
Mercury	-13438-01-02 19:26 J	-3186804.81	-3186804.69	-3186804.56	0.0089	0.0031
Mercury	-13438-03-31 20:38 J	-3186716.75	-3186716.64	-3186716.51	0.0089	0.0038
Mercury	-13438-06-27 21:50 J	-3186628.69	-3186628.59	-3186628.47	0.0089	0.0046
Mercury	-13438-09-23 23:16 J	-3186540.63	-3186540.53	-3186540.42	0.0089	0.0052
Mercury	-13438-12-21 00:28 J	-3186452.57	-3186452.48	-3186452.37	0.0089	0.0060
Mercury	-13437-03-18 01:40 J	-3186364.50	-3186364.43	-3186364.33	0.0089	0.0067
Mercury	-13437-06-14 03:07 J	-3186276.44	-3186276.37	-3186276.29	0.0089	0.0073
Mercury	-13437-09-10 04:19 J	-3186188.37	-3186188.32	-3186188.26	0.0089	0.0081
Mercury	-13437-12-07 05:31 J	-3186100.28	-3186100.27	-3186100.23	0.0089	0.0088
Venus	-13430-04-02 17:16 J	-3183792.81	-3183792.78	-3183792.69	0.0089	0.0086
Venus	-13430-11-14 06:14 J	-3183567.32	-3183567.24	-3183567.11	0.0089	0.0079
Venus	-13429-06-26 19:26 J	-3183341.80	-3183341.69	-3183341.55	0.0089	0.0072
Venus	-13428-02-07 08:09 J	-3183116.29	-3183116.16	-3183116.00	0.0089	0.0065
Venus	-13428-09-20 20:52 J	-3182890.78	-3182890.63	-3182890.45	0.0089	0.0058
Venus	-13427-05-04 09:50 J	-3182665.26	-3182665.09	-3182664.91	0.0089	0.0051
Venus	-13427-12-15 22:33 J	-3182439.74	-3182439.56	-3182439.37	0.0089	0.0044

Venus	-13426-07-29 11:16 J	-3182214.22	-3182214.03	-3182213.83	0.0089	0.0037
Venus	-13425-03-11 00:00 J	-3181988.70	-3181988.50	-3181988.29	0.0089	0.0030
Venus	-13425-10-22 12:43 J	-3181763.18	-3181762.97	-3181762.76	0.0089	0.0023
Venus	-13424-06-05 01:26 J	-3181537.65	-3181537.44	-3181537.22	0.0089	0.0016
Venus	-13423-01-16 14:09 J	-3181312.12	-3181311.91	-3181311.69	0.0089	0.0009
Venus	-13423-08-30 02:52 J	-3181086.60	-3181086.38	-3181086.16	0.0089	0.0002
Venus	-13422-04-12 15:21 J	-3180861.07	-3180860.86	-3180860.64	0.0089	0.0006
Venus	-13422-11-24 04:04 J	-3180635.54	-3180635.33	-3180635.11	0.0089	0.0013
Venus	-13421-07-06 17:02 J	-3180410.00	-3180409.79	-3180409.58	0.0089	0.0019
Venus	-13420-02-17 05:31 J	-3180184.47	-3180184.27	-3180184.06	0.0089	0.0026
Venus	-13420-09-30 18:00 J	-3179958.94	-3179958.75	-3179958.54	0.0089	0.0034
Venus	-13419-05-14 06:43 J	-3179733.40	-3179733.22	-3179733.02	0.0089	0.0040
Venus	-13419-12-25 19:11 J	-3179507.87	-3179507.70	-3179507.50	0.0089	0.0048
Venus	-13418-08-08 07:55 J	-3179282.33	-3179282.17	-3179281.98	0.0089	0.0054
Venus	-13417-03-20 20:24 J	-3179056.79	-3179056.65	-3179056.48	0.0089	0.0061
Venus	-13417-11-01 08:52 J	-3178831.25	-3178831.13	-3178830.97	0.0089	0.0068
Venus	-13416-06-14 21:21 J	-3178605.70	-3178605.61	-3178605.47	0.0089	0.0075
Venus	-13415-01-26 10:19 J	-3178380.15	-3178380.07	-3178379.97	0.0089	0.0081
Venus	-13415-09-08 22:33 J	-3178154.57	-3178154.56	-3178154.51	0.0089	0.0088
Earth	-13386-11-22 16:19 J	-3167487.88	-3167487.82	-3167487.72	0.0088	0.0084
Moon	-13386-11-22 19:40 J	-3167487.76	-3167487.68	-3167487.54	0.0088	0.0080 *
Moon	-13385-11-24 00:57 J	-3167120.66	-3167120.46	-3167120.23	0.0088	0.0050
Earth	-13385-11-24 04:19 J	-3167120.52	-3167120.32	-3167120.07	0.0088	0.0045 *
Earth	-13384-11-26 16:48 J	-3166753.05	-3166752.80	-3166752.54	0.0088	0.0006
Moon	-13384-11-26 20:24 J	-3166752.91	-3166752.65	-3166752.38	0.0088	0.0002 *
Moon	-13383-11-29 02:24 J	-3166385.63	-3166385.40	-3166385.15	0.0088	0.0029
Earth	-13383-11-29 05:02 J	-3166385.53	-3166385.29	-3166385.05	0.0088	0.0033 *
Earth	-13382-12-01 16:33 J	-3166017.94	-3166017.81	-3166017.63	0.0088	0.0071
Moon	-13382-12-01 18:28 J	-3166017.85	-3166017.73	-3166017.57	0.0088	0.0075 *
Mars	-13363-05-28 00:57 J	-3159265.74	-3159265.46	-3159265.16	0.0088	0.0021

Mars	-13361-04-20 21:07 J	-3158571.85	-3158571.62	-3158571.36	0.0088	0.0049
Mercury	-13359-05-11 21:50 J	-3157820.60	-3157820.59	-3157820.52	0.0088	0.0086
Mercury	-13359-08-08 02:09 J	-3157732.51	-3157732.41	-3157732.31	0.0088	0.0075
Mercury	-13359-11-04 05:45 J	-3157644.38	-3157644.26	-3157644.12	0.0088	0.0065
Mercury	-13358-01-31 09:21 J	-3157556.25	-3157556.11	-3157555.94	0.0088	0.0055
Mercury	-13358-04-29 13:11 J	-3157468.11	-3157467.95	-3157467.77	0.0088	0.0045
Mercury	-13358-07-26 16:48 J	-3157379.97	-3157379.80	-3157379.61	0.0088	0.0035
Mercury	-13358-10-22 20:52 J	-3157291.82	-3157291.63	-3157291.44	0.0088	0.0024
Mercury	-13357-01-19 00:28 J	-3157203.67	-3157203.48	-3157203.28	0.0088	0.0014
Mercury	-13357-04-16 04:19 J	-3157115.52	-3157115.32	-3157115.12	0.0088	0.0004
Mercury	-13357-07-13 07:55 J	-3157027.37	-3157027.17	-3157026.97	0.0088	0.0006
Mercury	-13357-10-09 11:31 J	-3156939.21	-3156939.02	-3156938.82	0.0088	0.0017
Mercury	-13356-01-05 15:07 J	-3156851.05	-3156850.87	-3156850.67	0.0088	0.0027
Mercury	-13356-04-03 18:57 J	-3156762.88	-3156762.71	-3156762.52	0.0088	0.0037
Mercury	-13356-06-30 22:48 J	-3156674.71	-3156674.55	-3156674.38	0.0088	0.0047
Mercury	-13356-09-27 02:38 J	-3156586.54	-3156586.39	-3156586.24	0.0088	0.0057
Mercury	-13356-12-24 05:45 J	-3156498.36	-3156498.26	-3156498.11	0.0088	0.0068
Mercury	-13355-03-22 09:35 J	-3156410.17	-3156410.10	-3156409.99	0.0088	0.0078
Venus	-13348-12-28 13:55 J	-3153571.94	-3153571.92	-3153571.86	0.0088	0.0086
Venus	-13347-08-11 03:21 J	-3153346.44	-3153346.36	-3153346.26	0.0088	0.0079
Venus	-13346-03-24 16:04 J	-3153120.93	-3153120.83	-3153120.68	0.0088	0.0073
Venus	-13346-11-05 05:31 J	-3152895.39	-3152895.27	-3152895.10	0.0088	0.0066
Venus	-13345-06-17 18:57 J	-3152669.86	-3152669.71	-3152669.53	0.0088	0.0059
Venus	-13344-01-29 08:24 J	-3152444.32	-3152444.15	-3152443.96	0.0088	0.0052
Venus	-13344-09-11 21:35 J	-3152218.78	-3152218.60	-3152218.40	0.0088	0.0045
Venus	-13343-04-25 11:02 J	-3151993.24	-3151993.04	-3151992.83	0.0088	0.0038
Venus	-13343-12-07 00:28 J	-3151767.68	-3151767.48	-3151767.26	0.0088	0.0031
Venus	-13342-07-20 13:55 J	-3151542.13	-3151541.92	-3151541.70	0.0088	0.0024
Venus	-13341-03-02 03:21 J	-3151316.58	-3151316.36	-3151316.14	0.0088	0.0017
Venus	-13341-10-13 16:33 J	-3151091.03	-3151090.81	-3151090.59	0.0088	0.0010

Venus	-13340-05-27 06:00 J	-3150865.48	-3150865.25	-3150865.03	0.0088	0.0003
Venus	-13339-01-07 19:26 J	-3150639.92	-3150639.69	-3150639.47	0.0088	0.0004
Venus	-13339-08-21 08:38 J	-3150414.36	-3150414.14	-3150413.91	0.0088	0.0011
Venus	-13338-04-03 21:50 J	-3150188.80	-3150188.59	-3150188.36	0.0088	0.0018
Venus	-13338-11-15 11:02 J	-3149963.24	-3149963.04	-3149962.81	0.0088	0.0026
Venus	-13337-06-28 00:28 J	-3149737.68	-3149737.48	-3149737.26	0.0088	0.0032
Venus	-13336-02-08 13:40 J	-3149512.11	-3149511.93	-3149511.71	0.0088	0.0040
Venus	-13336-09-22 03:07 J	-3149286.54	-3149286.37	-3149286.16	0.0088	0.0046
Venus	-13335-05-05 16:19 J	-3149060.98	-3149060.82	-3149060.62	0.0088	0.0053
Venus	-13335-12-17 06:28 J	-3148835.39	-3148835.23	-3148835.07	0.0088	0.0060
Venus	-13334-07-30 19:40 J	-3148609.82	-3148609.68	-3148609.53	0.0088	0.0067
Venus	-13333-03-12 09:07 J	-3148384.23	-3148384.12	-3148383.99	0.0088	0.0074
Venus	-13333-10-23 22:19 J	-3148158.64	-3148158.57	-3148158.46	0.0088	0.0081
Venus	-13332-06-06 11:45 J	-3147933.02	-3147933.01	-3147932.96	0.0088	0.0087
Saturn	-13328-05-24 01:40 J	-3146486.00	-3146485.43	-3146484.78	0.0088	0.0038
Earth	-13302-05-29 14:24 J	-3136984.06	-3136983.90	-3136983.70	0.0089	0.0063
Moon	-13302-05-29 18:00 J	-3136983.90	-3136983.75	-3136983.56	0.0089	0.0067 *
Moon	-13301-05-30 22:19 J	-3136616.80	-3136616.57	-3136616.30	0.0089	0.0021
Earth	-13301-05-31 01:55 J	-3136616.66	-3136616.42	-3136616.16	0.0089	0.0024 *
Earth	-13300-06-02 12:57 J	-3136249.20	-3136248.96	-3136248.70	0.0089	0.0015
Moon	-13300-06-02 16:19 J	-3136249.08	-3136248.82	-3136248.56	0.0089	0.0010 *
Moon	-13299-06-04 22:04 J	-3135881.75	-3135881.58	-3135881.38	0.0089	0.0058
Earth	-13299-06-04 23:45 J	-3135881.69	-3135881.51	-3135881.29	0.0089	0.0054 *
Moon	-13298-06-07 12:00 J	-3135514.01	-3135514.00	-3135513.95	0.0089	0.0089
Mars	-13281-02-24 07:40 J	-3129408.43	-3129408.18	-3129407.90	0.0089	0.0054
Mars	-13279-01-20 08:38 J	-3128712.43	-3128712.14	-3128711.80	0.0089	0.0032
Mercury	-13278-08-24 20:52 J	-3128130.64	-3128130.63	-3128130.59	0.0089	0.0088
Mercury	-13278-11-20 22:19 J	-3128042.62	-3128042.57	-3128042.51	0.0089	0.0080
Mercury	-13277-02-16 23:31 J	-3127954.58	-3127954.52	-3127954.43	0.0089	0.0074
Mercury	-13277-05-15 00:43 J	-3127866.54	-3127866.47	-3127866.37	0.0089	0.0067

Mercury	-13277-08-11 02:09 J	-3127778.50	-3127778.41	-3127778.30	0.0089	0.0059
Mercury	-13277-11-07 03:21 J	-3127690.45	-3127690.36	-3127690.24	0.0089	0.0053
Mercury	-13276-02-03 05:02 J	-3127602.40	-3127602.29	-3127602.18	0.0089	0.0045
Mercury	-13276-05-02 06:14 J	-3127514.36	-3127514.24	-3127514.12	0.0089	0.0038
Mercury	-13276-07-29 07:26 J	-3127426.31	-3127426.19	-3127426.06	0.0089	0.0031
Mercury	-13276-10-25 08:52 J	-3127338.26	-3127338.13	-3127338.01	0.0089	0.0024
Mercury	-13275-01-21 10:04 J	-3127250.21	-3127250.08	-3127249.95	0.0089	0.0017
Mercury	-13275-04-19 11:31 J	-3127162.15	-3127162.02	-3127161.89	0.0089	0.0010
Mercury	-13275-07-16 12:43 J	-3127074.10	-3127073.97	-3127073.84	0.0089	0.0003
Mercury	-13275-10-12 13:55 J	-3126986.05	-3126985.92	-3126985.79	0.0089	0.0005
Mercury	-13274-01-08 15:07 J	-3126897.99	-3126897.87	-3126897.73	0.0089	0.0012
Mercury	-13274-04-06 16:33 J	-3126809.94	-3126809.81	-3126809.68	0.0089	0.0019
Mercury	-13274-07-03 17:45 J	-3126721.88	-3126721.76	-3126721.63	0.0089	0.0026
Mercury	-13274-09-29 18:57 J	-3126633.82	-3126633.71	-3126633.58	0.0089	0.0033
Mercury	-13274-12-26 20:09 J	-3126545.77	-3126545.66	-3126545.53	0.0089	0.0041
Mercury	-13273-03-23 21:21 J	-3126457.71	-3126457.61	-3126457.49	0.0089	0.0048
Mercury	-13273-06-19 22:48 J	-3126369.65	-3126369.55	-3126369.44	0.0089	0.0054
Mercury	-13273-09-16 00:00 J	-3126281.58	-3126281.50	-3126281.40	0.0089	0.0062
Mercury	-13273-12-13 01:11 J	-3126193.52	-3126193.45	-3126193.35	0.0089	0.0069
Mercury	-13272-03-11 02:38 J	-3126105.45	-3126105.39	-3126105.31	0.0089	0.0075
Mercury	-13272-06-07 03:50 J	-3126017.38	-3126017.34	-3126017.28	0.0089	0.0083
Mercury	-13272-09-03 05:16 J	-3125929.28	-3125929.28	-3125929.28	0.0089	0.0089
Venus	-13265-02-15 16:04 J	-3123572.88	-3123572.83	-3123572.72	0.0089	0.0084
Venus	-13265-09-28 05:02 J	-3123347.38	-3123347.29	-3123347.16	0.0089	0.0077
Venus	-13264-05-11 18:00 J	-3123121.87	-3123121.75	-3123121.60	0.0089	0.0069
Venus	-13264-12-23 06:43 J	-3122896.35	-3122896.22	-3122896.04	0.0089	0.0063
Venus	-13263-08-05 19:26 J	-3122670.84	-3122670.69	-3122670.50	0.0089	0.0056
Venus	-13262-03-19 08:09 J	-3122445.32	-3122445.16	-3122444.95	0.0089	0.0049
Venus	-13262-10-30 21:21 J	-3122219.80	-3122219.61	-3122219.41	0.0089	0.0041
Venus	-13261-06-12 10:19 J	-3121994.27	-3121994.07	-3121993.87	0.0089	0.0034

Venus	-13260-01-23 22:48 J	-3121768.75	-3121768.55	-3121768.34	0.0089	0.0027
Venus	-13260-09-06 11:31 J	-3121543.23	-3121543.02	-3121542.80	0.0089	0.0019
Venus	-13259-04-20 00:14 J	-3121317.70	-3121317.49	-3121317.27	0.0089	0.0012
Venus	-13259-12-01 12:57 J	-3121092.18	-3121091.96	-3121091.74	0.0089	0.0005
Venus	-13258-07-15 01:40 J	-3120866.64	-3120866.43	-3120866.21	0.0089	0.0003
Venus	-13257-02-25 14:24 J	-3120641.12	-3120640.90	-3120640.68	0.0089	0.0009
Venus	-13257-10-08 02:52 J	-3120415.59	-3120415.38	-3120415.16	0.0089	0.0016
Venus	-13256-05-21 15:35 J	-3120190.05	-3120189.85	-3120189.64	0.0089	0.0023
Venus	-13255-01-02 04:19 J	-3119964.52	-3119964.32	-3119964.11	0.0089	0.0030
Venus	-13255-08-15 17:02 J	-3119738.98	-3119738.79	-3119738.59	0.0089	0.0038
Venus	-13254-03-29 05:45 J	-3119513.45	-3119513.26	-3119513.07	0.0089	0.0045
Venus	-13254-11-09 18:28 J	-3119287.91	-3119287.73	-3119287.56	0.0089	0.0052
Venus	-13253-06-22 07:11 J	-3119062.36	-3119062.20	-3119062.04	0.0089	0.0059
Venus	-13252-02-02 19:40 J	-3118836.82	-3118836.68	-3118836.53	0.0089	0.0066
Venus	-13252-09-16 08:09 J	-3118611.28	-3118611.16	-3118611.03	0.0089	0.0073
Venus	-13251-04-29 20:38 J	-3118385.72	-3118385.64	-3118385.53	0.0089	0.0079
Venus	-13251-12-11 09:07 J	-3118160.15	-3118160.12	-3118160.05	0.0089	0.0086
Earth	-13221-11-23 12:14 J	-3107220.14	-3107219.99	-3107219.79	0.0088	0.0066
Moon	-13221-11-23 15:07 J	-3107220.02	-3107219.87	-3107219.67	0.0088	0.0067 *
Moon	-13220-11-25 22:19 J	-3106852.81	-3106852.57	-3106852.32	0.0088	0.0026
Earth	-13220-11-26 00:28 J	-3106852.71	-3106852.48	-3106852.22	0.0088	0.0027 *
Earth	-13219-11-28 12:28 J	-3106485.22	-3106484.98	-3106484.71	0.0088	0.0013
Moon	-13219-11-28 13:26 J	-3106485.20	-3106484.94	-3106484.66	0.0088	0.0011 *
Earth	-13218-12-01 00:28 J	-3106117.68	-3106117.48	-3106117.25	0.0088	0.0051
Moon	-13218-12-01 00:43 J	-3106117.66	-3106117.47	-3106117.25	0.0088	0.0051 *
Jupiter	-13203-10-24 23:31 J	-3100675.90	-3100675.52	-3100675.09	0.0088	0.0060
Mars	-13199-01-10 09:50 J	-3099502.30	-3099502.09	-3099501.85	0.0088	0.0057
Mars	-13198-12-05 06:14 J	-3098808.52	-3098808.24	-3098807.94	0.0088	0.0014
Mars	-13196-10-29 01:55 J	-3098114.48	-3098114.42	-3098114.31	0.0088	0.0084
Mercury	-13194-02-05 20:24 J	-3097649.70	-3097649.65	-3097649.57	0.0088	0.0082

Mercury	-13194-05-05 00:00 J	-3097561.59	-3097561.50	-3097561.37	0.0088	0.0072
Mercury	-13194-08-01 03:50 J	-3097473.47	-3097473.34	-3097473.19	0.0088	0.0062
Mercury	-13194-10-28 07:26 J	-3097385.33	-3097385.19	-3097385.01	0.0088	0.0052
Mercury	-13193-01-24 11:31 J	-3097297.19	-3097297.02	-3097296.84	0.0088	0.0041
Mercury	-13193-04-21 15:07 J	-3097209.05	-3097208.87	-3097208.68	0.0088	0.0031
Mercury	-13193-07-18 18:57 J	-3097120.90	-3097120.71	-3097120.52	0.0088	0.0021
Mercury	-13193-10-14 22:33 J	-3097032.75	-3097032.56	-3097032.36	0.0088	0.0011
Mercury	-13192-01-11 02:24 J	-3096944.60	-3096944.40	-3096944.20	0.0088	0.0001
Mercury	-13192-04-09 06:00 J	-3096856.44	-3096856.25	-3096856.05	0.0088	0.0010
Mercury	-13192-07-06 09:50 J	-3096768.28	-3096768.09	-3096767.89	0.0088	0.0020
Mercury	-13192-10-02 13:26 J	-3096680.12	-3096679.94	-3096679.75	0.0088	0.0030
Mercury	-13192-12-29 17:16 J	-3096591.95	-3096591.78	-3096591.60	0.0088	0.0040
Mercury	-13191-03-27 20:38 J	-3096503.79	-3096503.64	-3096503.46	0.0088	0.0051
Mercury	-13191-06-24 00:28 J	-3096415.61	-3096415.48	-3096415.33	0.0088	0.0061
Mercury	-13191-09-20 04:04 J	-3096327.43	-3096327.33	-3096327.20	0.0088	0.0071
Mercury	-13191-12-17 07:55 J	-3096239.23	-3096239.17	-3096239.08	0.0088	0.0081
Venus	-13183-11-12 13:26 J	-3093351.98	-3093351.94	-3093351.84	0.0088	0.0084
Venus	-13182-06-26 02:38 J	-3093126.47	-3093126.39	-3093126.25	0.0088	0.0077
Venus	-13181-02-06 16:04 J	-3092900.95	-3092900.83	-3092900.68	0.0088	0.0070
Venus	-13181-09-19 05:16 J	-3092675.42	-3092675.28	-3092675.11	0.0088	0.0063
Venus	-13180-05-02 18:28 J	-3092449.88	-3092449.73	-3092449.54	0.0088	0.0056
Venus	-13180-12-14 07:55 J	-3092224.34	-3092224.17	-3092223.97	0.0088	0.0050
Venus	-13179-07-27 21:21 J	-3091998.79	-3091998.61	-3091998.40	0.0088	0.0042
Venus	-13178-03-10 10:33 J	-3091773.25	-3091773.06	-3091772.84	0.0088	0.0036
Venus	-13178-10-22 00:00 J	-3091547.70	-3091547.50	-3091547.28	0.0088	0.0028
Venus	-13177-06-03 13:26 J	-3091322.15	-3091321.94	-3091321.72	0.0088	0.0021
Venus	-13176-01-15 02:52 J	-3091096.59	-3091096.38	-3091096.15	0.0088	0.0014
Venus	-13176-08-28 16:19 J	-3090871.04	-3090870.82	-3090870.59	0.0088	0.0007
Venus	-13175-04-11 05:45 J	-3090645.49	-3090645.26	-3090645.04	0.0088	0.0001
Venus	-13175-11-22 18:57 J	-3090419.92	-3090419.71	-3090419.48	0.0088	0.0008

Venus	-13174-07-06 08:24 J	-3090194.36	-3090194.15	-3090193.92	0.0088	0.0015
Venus	-13173-02-16 21:35 J	-3089968.80	-3089968.60	-3089968.37	0.0088	0.0023
Venus	-13173-09-29 11:02 J	-3089743.24	-3089743.04	-3089742.82	0.0088	0.0029
Venus	-13172-05-13 00:28 J	-3089517.68	-3089517.48	-3089517.27	0.0088	0.0036
Venus	-13172-12-24 13:55 J	-3089292.11	-3089291.92	-3089291.72	0.0088	0.0044
Venus	-13171-08-07 03:21 J	-3089066.54	-3089066.36	-3089066.17	0.0088	0.0051
Venus	-13170-03-20 16:48 J	-3088840.97	-3088840.80	-3088840.63	0.0088	0.0058
Venus	-13170-11-01 06:00 J	-3088615.39	-3088615.25	-3088615.09	0.0088	0.0065
Venus	-13169-06-13 19:26 J	-3088389.81	-3088389.69	-3088389.56	0.0088	0.0072
Venus	-13168-01-25 08:52 J	-3088164.22	-3088164.13	-3088164.02	0.0088	0.0079
Venus	-13168-09-07 22:19 J	-3087938.61	-3087938.57	-3087938.51	0.0088	0.0086
Moon	-13138-05-28 20:38 J	-3077083.67	-3077083.64	-3077083.54	0.0089	0.0087
Earth	-13138-05-29 00:14 J	-3077083.56	-3077083.49	-3077083.38	0.0089	0.0083 *
Earth	-13137-05-30 11:45 J	-3076716.22	-3076716.01	-3076715.78	0.0089	0.0044
Moon	-13137-05-30 14:09 J	-3076716.12	-3076715.91	-3076715.66	0.0089	0.0043 *
Moon	-13136-06-01 21:07 J	-3076348.86	-3076348.62	-3076348.37	0.0089	0.0007
Earth	-13136-06-01 23:02 J	-3076348.79	-3076348.54	-3076348.28	0.0089	0.0006 *
Earth	-13135-06-04 09:50 J	-3075981.31	-3075981.09	-3075980.83	0.0089	0.0034
Moon	-13135-06-04 10:33 J	-3075981.30	-3075981.06	-3075980.82	0.0089	0.0036 *
Earth	-13134-06-06 21:07 J	-3075613.76	-3075613.62	-3075613.46	0.0089	0.0073
Moon	-13134-06-06 21:35 J	-3075613.73	-3075613.60	-3075613.43	0.0089	0.0072 *
Mars	-13116-09-02 23:31 J	-3068950.84	-3068950.52	-3068950.18	0.0089	0.0013
Mars	-13114-07-31 00:57 J	-3068254.63	-3068254.46	-3068254.25	0.0089	0.0073
Mercury	-13113-05-20 20:52 J	-3067959.67	-3067959.63	-3067959.59	0.0089	0.0085
Mercury	-13113-08-16 22:04 J	-3067871.64	-3067871.58	-3067871.51	0.0089	0.0078
Mercury	-13113-11-12 23:31 J	-3067783.60	-3067783.52	-3067783.44	0.0089	0.0071
Mercury	-13112-02-09 00:43 J	-3067695.56	-3067695.47	-3067695.38	0.0089	0.0064
Mercury	-13112-05-08 01:55 J	-3067607.51	-3067607.42	-3067607.31	0.0089	0.0057
Mercury	-13112-08-04 03:21 J	-3067519.47	-3067519.36	-3067519.25	0.0089	0.0049
Mercury	-13112-10-31 04:33 J	-3067431.42	-3067431.31	-3067431.19	0.0089	0.0043

Mercury	-13111-01-27 05:45 J	-3067343.37	-3067343.26	-3067343.13	0.0089	0.0036
Mercury	-13111-04-25 07:11 J	-3067255.32	-3067255.20	-3067255.07	0.0089	0.0028
Mercury	-13111-07-22 08:24 J	-3067167.27	-3067167.15	-3067167.02	0.0089	0.0022
Mercury	-13111-10-18 09:50 J	-3067079.22	-3067079.09	-3067078.96	0.0089	0.0014
Mercury	-13110-01-14 11:02 J	-3066991.17	-3066991.04	-3066990.91	0.0089	0.0008
Mercury	-13110-04-12 12:28 J	-3066903.11	-3066902.98	-3066902.85	0.0089	0.0001
Mercury	-13110-07-09 13:40 J	-3066815.06	-3066814.93	-3066814.80	0.0089	0.0007
Mercury	-13110-10-05 14:52 J	-3066727.00	-3066726.88	-3066726.75	0.0089	0.0015
Mercury	-13109-01-01 16:19 J	-3066638.95	-3066638.82	-3066638.69	0.0089	0.0021
Mercury	-13109-03-29 17:31 J	-3066550.89	-3066550.77	-3066550.64	0.0089	0.0028
Mercury	-13109-06-25 18:43 J	-3066462.83	-3066462.72	-3066462.59	0.0089	0.0036
Mercury	-13109-09-21 20:09 J	-3066374.77	-3066374.66	-3066374.55	0.0089	0.0043
Mercury	-13109-12-18 21:21 J	-3066286.72	-3066286.61	-3066286.50	0.0089	0.0050
Mercury	-13108-03-16 22:33 J	-3066198.65	-3066198.56	-3066198.45	0.0089	0.0057
Mercury	-13108-06-13 00:00 J	-3066110.59	-3066110.50	-3066110.41	0.0089	0.0064
Mercury	-13108-09-09 01:11 J	-3066022.52	-3066022.45	-3066022.37	0.0089	0.0071
Mercury	-13108-12-06 02:38 J	-3065934.46	-3065934.39	-3065934.33	0.0089	0.0078
Mercury	-13107-03-04 03:50 J	-3065846.38	-3065846.34	-3065846.30	0.0089	0.0085
Venus	-13101-05-19 03:07 J	-3063578.40	-3063578.37	-3063578.32	0.0089	0.0088
Venus	-13101-12-30 15:50 J	-3063352.91	-3063352.84	-3063352.73	0.0089	0.0081
Venus	-13100-08-13 04:48 J	-3063127.41	-3063127.30	-3063127.17	0.0089	0.0073
Venus	-13099-03-26 17:31 J	-3062901.90	-3062901.77	-3062901.61	0.0089	0.0067
Venus	-13099-11-07 06:14 J	-3062676.38	-3062676.24	-3062676.06	0.0089	0.0060
Venus	-13098-06-20 19:11 J	-3062450.86	-3062450.70	-3062450.51	0.0089	0.0052
Venus	-13097-02-01 08:24 J	-3062225.34	-3062225.15	-3062224.96	0.0089	0.0045
Venus	-13097-09-13 20:52 J	-3061999.82	-3061999.63	-3061999.43	0.0089	0.0038
Venus	-13096-04-27 09:35 J	-3061774.30	-3061774.10	-3061773.89	0.0089	0.0030
Venus	-13096-12-08 22:19 J	-3061548.77	-3061548.57	-3061548.35	0.0089	0.0023
Venus	-13095-07-22 11:16 J	-3061323.24	-3061323.03	-3061322.82	0.0089	0.0016
Venus	-13094-03-05 00:00 J	-3061097.72	-3061097.50	-3061097.29	0.0089	0.0009

Venus	-13094-10-16 12:28 J	-3060872.19	-3060871.98	-3060871.76	0.0089	0.0002
Venus	-13093-05-29 01:11 J	-3060646.67	-3060646.45	-3060646.23	0.0089	0.0006
Venus	-13092-01-09 13:40 J	-3060421.14	-3060420.93	-3060420.71	0.0089	0.0014
Venus	-13092-08-23 02:24 J	-3060195.61	-3060195.40	-3060195.18	0.0089	0.0021
Venus	-13091-04-05 15:07 J	-3059970.08	-3059969.87	-3059969.66	0.0089	0.0028
Venus	-13091-11-17 03:21 J	-3059744.54	-3059744.36	-3059744.14	0.0089	0.0035
Venus	-13090-06-30 16:04 J	-3059519.00	-3059518.83	-3059518.62	0.0089	0.0043
Venus	-13089-02-11 04:48 J	-3059293.47	-3059293.30	-3059293.11	0.0089	0.0049
Venus	-13089-09-23 17:31 J	-3059067.93	-3059067.77	-3059067.59	0.0089	0.0056
Venus	-13088-05-07 06:00 J	-3058842.39	-3058842.25	-3058842.08	0.0089	0.0064
Venus	-13088-12-18 18:43 J	-3058616.84	-3058616.72	-3058616.58	0.0089	0.0070
Venus	-13087-08-01 07:26 J	-3058391.28	-3058391.19	-3058391.07	0.0089	0.0078
Venus	-13086-03-14 20:09 J	-3058165.72	-3058165.66	-3058165.58	0.0089	0.0084
Moon	-13057-11-22 19:26 J	-3047319.76	-3047319.69	-3047319.56	0.0088	0.0082
Earth	-13057-11-22 20:52 J	-3047319.67	-3047319.63	-3047319.53	0.0088	0.0085 *
Earth	-13056-11-25 09:07 J	-3046952.33	-3046952.12	-3046951.89	0.0088	0.0047
Moon	-13056-11-25 10:04 J	-3046952.29	-3046952.08	-3046951.85	0.0088	0.0051 *
Earth	-13055-11-27 21:07 J	-3046584.88	-3046584.62	-3046584.36	0.0088	0.0008
Moon	-13055-11-27 21:50 J	-3046584.84	-3046584.59	-3046584.33	0.0088	0.0004 *
Moon	-13054-11-30 06:43 J	-3046217.46	-3046217.22	-3046216.95	0.0088	0.0027
Earth	-13054-11-30 08:52 J	-3046217.36	-3046217.13	-3046216.87	0.0088	0.0031 *
Earth	-13053-12-01 21:07 J	-3045849.77	-3045849.62	-3045849.45	0.0088	0.0068
Moon	-13053-12-01 23:16 J	-3045849.65	-3045849.53	-3045849.37	0.0088	0.0073 *
Jupiter	-13036-01-01 12:28 J	-3039975.19	-3039974.98	-3039974.71	0.0088	0.0079
Mars	-13034-07-20 17:02 J	-3039045.06	-3039044.79	-3039044.49	0.0088	0.0022
Mars	-13032-06-13 12:57 J	-3038351.20	-3038350.96	-3038350.72	0.0088	0.0049
Mercury	-13030-08-06 15:35 J	-3037566.85	-3037566.85	-3037566.84	0.0088	0.0088
Mercury	-13030-11-02 18:57 J	-3037478.78	-3037478.71	-3037478.60	0.0088	0.0078
Mercury	-13029-01-29 22:33 J	-3037390.67	-3037390.56	-3037390.41	0.0088	0.0068
Mercury	-13029-04-27 02:38 J	-3037302.53	-3037302.39	-3037302.24	0.0088	0.0057

Mercury	-13029-07-24 06:14 J	-3037214.40	-3037214.24	-3037214.06	0.0088	0.0047
Mercury	-13029-10-20 10:04 J	-3037126.26	-3037126.08	-3037125.90	0.0088	0.0037
Mercury	-13028-01-16 13:40 J	-3037038.11	-3037037.93	-3037037.73	0.0088	0.0027
Mercury	-13028-04-14 17:16 J	-3036949.96	-3036949.78	-3036949.57	0.0088	0.0017
Mercury	-13028-07-11 21:07 J	-3036861.81	-3036861.62	-3036861.41	0.0088	0.0007
Mercury	-13028-10-08 00:57 J	-3036773.66	-3036773.46	-3036773.26	0.0088	0.0004
Mercury	-13027-01-04 04:33 J	-3036685.50	-3036685.31	-3036685.11	0.0088	0.0014
Mercury	-13027-04-02 08:24 J	-3036597.34	-3036597.15	-3036596.96	0.0088	0.0024
Mercury	-13027-06-29 11:45 J	-3036509.18	-3036509.01	-3036508.81	0.0088	0.0035
Mercury	-13027-09-25 15:35 J	-3036421.01	-3036420.85	-3036420.67	0.0088	0.0045
Mercury	-13027-12-22 19:11 J	-3036332.84	-3036332.70	-3036332.53	0.0088	0.0055
Mercury	-13026-03-20 23:02 J	-3036244.66	-3036244.54	-3036244.40	0.0088	0.0065
Mercury	-13026-06-17 02:52 J	-3036156.47	-3036156.38	-3036156.27	0.0088	0.0075
Mercury	-13026-09-13 06:14 J	-3036068.26	-3036068.24	-3036068.17	0.0088	0.0086
Venus	-13018-02-14 00:43 J	-3033357.47	-3033357.47	-3033357.45	0.0088	0.0088
Venus	-13018-09-27 13:26 J	-3033132.00	-3033131.94	-3033131.83	0.0088	0.0081
Venus	-13017-05-10 02:52 J	-3032906.48	-3032906.38	-3032906.25	0.0088	0.0074
Venus	-13017-12-21 16:04 J	-3032680.95	-3032680.83	-3032680.67	0.0088	0.0067
Venus	-13016-08-04 05:16 J	-3032455.42	-3032455.28	-3032455.10	0.0088	0.0060
Venus	-13015-03-17 18:28 J	-3032229.89	-3032229.73	-3032229.53	0.0088	0.0053
Venus	-13015-10-29 07:40 J	-3032004.35	-3032004.18	-3032003.97	0.0088	0.0047
Venus	-13014-06-11 21:07 J	-3031778.80	-3031778.62	-3031778.40	0.0088	0.0039
Venus	-13013-01-23 10:48 J	-3031553.26	-3031553.05	-3031552.84	0.0088	0.0031
Venus	-13013-09-05 00:00 J	-3031327.71	-3031327.50	-3031327.28	0.0088	0.0024
Venus	-13012-04-18 13:11 J	-3031102.16	-3031101.95	-3031101.72	0.0088	0.0017
Venus	-13012-11-30 02:52 J	-3030876.60	-3030876.38	-3030876.16	0.0088	0.0010
Venus	-13011-07-13 16:19 J	-3030651.04	-3030650.82	-3030650.60	0.0088	0.0002
Venus	-13010-02-24 05:31 J	-3030425.49	-3030425.27	-3030425.04	0.0088	0.0005
Venus	-13010-10-07 18:57 J	-3030199.93	-3030199.71	-3030199.49	0.0088	0.0012
Venus	-13009-05-20 08:24 J	-3029974.37	-3029974.15	-3029973.93	0.0088	0.0019

Venus	-13009-12-31 21:35 J	-3029748.80	-3029748.60	-3029748.37	0.0088	0.0027
Venus	-13008-08-14 11:02 J	-3029523.23	-3029523.04	-3029522.82	0.0088	0.0034
Venus	-13007-03-28 00:28 J	-3029297.67	-3029297.48	-3029297.27	0.0088	0.0041
Venus	-13007-11-08 13:55 J	-3029072.10	-3029071.92	-3029071.73	0.0088	0.0048
Venus	-13006-06-22 03:21 J	-3028846.53	-3028846.36	-3028846.18	0.0088	0.0056
Venus	-13005-02-02 16:19 J	-3028620.95	-3028620.82	-3028620.64	0.0088	0.0064
Venus	-13005-09-15 05:45 J	-3028395.37	-3028395.26	-3028395.10	0.0088	0.0071
Venus	-13004-04-28 19:11 J	-3028169.79	-3028169.70	-3028169.57	0.0088	0.0077
Venus	-13004-12-10 08:38 J	-3027944.18	-3027944.14	-3027944.05	0.0088	0.0085

13TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 13th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-12973-05-29 20:24 J	-3016815.79	-3016815.65	-3016815.47	0.0089	0.0068		
Earth	-12973-05-29 21:21 J	-3016815.76	-3016815.61	-3016815.41	0.0089	0.0064	*	
Earth	-12972-06-01 09:07 J	-3016448.35	-3016448.12	-3016447.86	0.0089	0.0025		
Moon	-12972-06-01 09:35 J	-3016448.35	-3016448.10	-3016447.84	0.0089	0.0021	*	
Earth	-12971-06-03 20:38 J	-3016080.89	-3016080.64	-3016080.38	0.0089	0.0014		
Moon	-12971-06-03 21:50 J	-3016080.83	-3016080.59	-3016080.33	0.0089	0.0010	*	
Moon	-12970-06-06 05:02 J	-3015713.47	-3015713.29	-3015713.07	0.0089	0.0056		
Earth	-12970-06-06 07:55 J	-3015713.37	-3015713.17	-3015712.96	0.0089	0.0053	*	
Moon	-12969-06-07 21:21 J	-3015345.64	-3015345.61	-3015345.54	0.0089	0.0087		

Mars	-12952-04-16 17:31 J	-3009189.01	-3009188.77	-3009188.48	0.0089	0.0055
Mars	-12950-03-13 17:02 J	-3008493.09	-3008492.79	-3008492.46	0.0089	0.0030
Mercury	-12949-11-18 19:11 J	-3007876.70	-3007876.70	-3007876.68	0.0089	0.0089
Mercury	-12948-02-14 20:24 J	-3007788.69	-3007788.65	-3007788.59	0.0089	0.0083
Mercury	-12948-05-13 21:50 J	-3007700.65	-3007700.59	-3007700.51	0.0089	0.0075
Mercury	-12948-08-09 23:02 J	-3007612.61	-3007612.54	-3007612.44	0.0089	0.0068
Mercury	-12948-11-06 00:14 J	-3007524.57	-3007524.49	-3007524.38	0.0089	0.0062
Mercury	-12947-02-02 01:55 J	-3007436.52	-3007436.42	-3007436.32	0.0089	0.0054
Mercury	-12947-05-01 03:07 J	-3007348.48	-3007348.37	-3007348.26	0.0089	0.0047
Mercury	-12947-07-28 04:33 J	-3007260.43	-3007260.31	-3007260.20	0.0089	0.0040
Mercury	-12947-10-24 05:45 J	-3007172.38	-3007172.26	-3007172.14	0.0089	0.0033
Mercury	-12946-01-20 06:57 J	-3007084.33	-3007084.21	-3007084.08	0.0089	0.0026
Mercury	-12946-04-18 08:24 J	-3006996.28	-3006996.15	-3006996.02	0.0089	0.0018
Mercury	-12946-07-15 09:35 J	-3006908.23	-3006908.10	-3006907.97	0.0089	0.0012
Mercury	-12946-10-11 11:02 J	-3006820.17	-3006820.04	-3006819.91	0.0089	0.0005
Mercury	-12945-01-07 12:14 J	-3006732.12	-3006731.99	-3006731.86	0.0089	0.0003
Mercury	-12945-04-04 13:26 J	-3006644.07	-3006643.94	-3006643.81	0.0089	0.0010
Mercury	-12945-07-01 14:38 J	-3006556.01	-3006555.89	-3006555.75	0.0089	0.0018
Mercury	-12945-09-27 16:04 J	-3006467.95	-3006467.83	-3006467.70	0.0089	0.0024
Mercury	-12945-12-24 17:16 J	-3006379.90	-3006379.78	-3006379.65	0.0089	0.0031
Mercury	-12944-03-22 18:28 J	-3006291.84	-3006291.73	-3006291.60	0.0089	0.0039
Mercury	-12944-06-18 19:55 J	-3006203.78	-3006203.67	-3006203.56	0.0089	0.0045
Mercury	-12944-09-14 21:07 J	-3006115.72	-3006115.62	-3006115.51	0.0089	0.0052
Mercury	-12944-12-11 22:19 J	-3006027.66	-3006027.57	-3006027.46	0.0089	0.0060
Mercury	-12943-03-09 23:45 J	-3005939.59	-3005939.51	-3005939.42	0.0089	0.0067
Mercury	-12943-06-06 00:57 J	-3005851.53	-3005851.46	-3005851.38	0.0089	0.0074
Mercury	-12943-09-02 02:09 J	-3005763.45	-3005763.41	-3005763.35	0.0089	0.0081
Mercury	-12943-11-29 03:35 J	-3005675.37	-3005675.35	-3005675.33	0.0089	0.0088
Venus	-12936-04-03 02:24 J	-3003358.43	-3003358.40	-3003358.31	0.0089	0.0086
Venus	-12936-11-14 15:50 J	-3003132.94	-3003132.84	-3003132.73	0.0089	0.0078

Venus	-12935-06-28 04:48 J	-3002907.42	-3002907.30	-3002907.16	0.0089	0.0071
Venus	-12934-02-08 17:31 J	-3002681.91	-3002681.77	-3002681.61	0.0089	0.0063
Venus	-12934-09-22 06:14 J	-3002456.39	-3002456.24	-3002456.06	0.0089	0.0056
Venus	-12933-05-04 19:26 J	-3002230.87	-3002230.69	-3002230.51	0.0089	0.0049
Venus	-12933-12-16 07:55 J	-3002005.35	-3002005.17	-3002004.96	0.0089	0.0042
Venus	-12932-07-29 20:52 J	-3001779.82	-3001779.63	-3001779.42	0.0089	0.0034
Venus	-12931-03-12 09:50 J	-3001554.30	-3001554.09	-3001553.88	0.0089	0.0027
Venus	-12931-10-23 22:19 J	-3001328.77	-3001328.57	-3001328.35	0.0089	0.0020
Venus	-12930-06-06 11:16 J	-3001103.24	-3001103.03	-3001102.81	0.0089	0.0012
Venus	-12929-01-18 00:00 J	-3000877.72	-3000877.50	-3000877.28	0.0089	0.0004
Venus	-12929-08-30 12:43 J	-3000652.19	-3000651.97	-3000651.76	0.0089	0.0003
Venus	-12928-04-13 01:11 J	-3000426.66	-3000426.45	-3000426.23	0.0089	0.0011
Venus	-12928-11-24 13:40 J	-3000201.13	-3000200.93	-3000200.71	0.0089	0.0018
Venus	-12927-07-08 02:38 J	-2999975.59	-2999975.39	-2999975.18	0.0089	0.0025
Venus	-12926-02-18 15:07 J	-2999750.06	-2999749.87	-2999749.66	0.0089	0.0033
Venus	-12926-10-02 03:35 J	-2999524.53	-2999524.35	-2999524.14	0.0089	0.0040
Venus	-12925-05-14 16:04 J	-2999298.99	-2999298.83	-2999298.63	0.0089	0.0048
Venus	-12925-12-26 04:48 J	-2999073.46	-2999073.30	-2999073.11	0.0089	0.0054
Venus	-12924-08-08 17:45 J	-2998847.91	-2998847.76	-2998847.60	0.0089	0.0061
Venus	-12923-03-22 06:28 J	-2998622.37	-2998622.23	-2998622.09	0.0089	0.0069
Venus	-12923-11-02 18:28 J	-2998396.82	-2998396.73	-2998396.59	0.0089	0.0076
Venus	-12922-06-16 07:11 J	-2998171.25	-2998171.20	-2998171.10	0.0089	0.0083
Earth	-12892-11-24 18:43 J	-2987051.88	-2987051.72	-2987051.54	0.0088	0.0066
Moon	-12892-11-24 19:26 J	-2987051.83	-2987051.69	-2987051.50	0.0088	0.0068 *
Moon	-12891-11-27 04:19 J	-2986684.56	-2986684.32	-2986684.05	0.0088	0.0026
Earth	-12891-11-27 06:43 J	-2986684.46	-2986684.22	-2986683.96	0.0088	0.0028 *
Earth	-12890-11-29 18:43 J	-2986316.97	-2986316.72	-2986316.45	0.0088	0.0011
Moon	-12890-11-29 22:04 J	-2986316.83	-2986316.58	-2986316.32	0.0088	0.0009 *
Moon	-12889-12-01 03:07 J	-2985949.57	-2985949.37	-2985949.14	0.0088	0.0051
Earth	-12889-12-01 06:28 J	-2985949.43	-2985949.23	-2985948.99	0.0088	0.0050 *

Earth	-12888-12-03 18:28 J	-2985581.75	-2985581.73	-2985581.68	0.0088	0.0087
Moon	-12888-12-03 22:19 J	-2985581.60	-2985581.57	-2985581.51	0.0088	0.0087
Mars	-12870-03-05 01:55 J	-2979281.62	-2979281.42	-2979281.17	0.0088	0.0057
Mars	-12868-01-27 00:14 J	-2978587.77	-2978587.49	-2978587.19	0.0088	0.0015
Mars	-12867-12-21 20:09 J	-2977893.71	-2977893.66	-2977893.57	0.0088	0.0085
Mercury	-12865-05-02 14:09 J	-2977395.96	-2977395.91	-2977395.84	0.0088	0.0083
Mercury	-12865-07-29 17:45 J	-2977307.85	-2977307.76	-2977307.64	0.0088	0.0073
Mercury	-12865-10-25 21:21 J	-2977219.73	-2977219.61	-2977219.45	0.0088	0.0063
Mercury	-12864-01-22 01:11 J	-2977131.60	-2977131.45	-2977131.28	0.0088	0.0053
Mercury	-12864-04-20 04:48 J	-2977043.46	-2977043.30	-2977043.11	0.0088	0.0043
Mercury	-12864-07-17 08:52 J	-2976955.31	-2976955.13	-2976954.94	0.0088	0.0032
Mercury	-12864-10-13 12:28 J	-2976867.17	-2976866.98	-2976866.78	0.0088	0.0022
Mercury	-12863-01-09 16:19 J	-2976779.02	-2976778.82	-2976778.62	0.0088	0.0012
Mercury	-12863-04-07 19:55 J	-2976690.86	-2976690.67	-2976690.47	0.0088	0.0003
Mercury	-12863-07-04 23:45 J	-2976602.71	-2976602.51	-2976602.31	0.0088	0.0009
Mercury	-12863-10-01 03:21 J	-2976514.55	-2976514.36	-2976514.16	0.0088	0.0019
Mercury	-12863-12-28 06:57 J	-2976426.39	-2976426.21	-2976426.01	0.0088	0.0029
Mercury	-12862-03-26 10:48 J	-2976338.22	-2976338.05	-2976337.87	0.0088	0.0039
Mercury	-12862-06-22 14:38 J	-2976250.05	-2976249.89	-2976249.73	0.0088	0.0049
Mercury	-12862-09-18 18:00 J	-2976161.88	-2976161.75	-2976161.59	0.0088	0.0060
Mercury	-12862-12-15 21:35 J	-2976073.70	-2976073.60	-2976073.46	0.0088	0.0070
Mercury	-12861-03-13 01:26 J	-2975985.51	-2975985.44	-2975985.35	0.0088	0.0080
Venus	-12854-12-30 01:11 J	-2973137.49	-2973137.45	-2973137.38	0.0088	0.0085
Venus	-12853-08-11 14:24 J	-2972911.98	-2972911.90	-2972911.78	0.0088	0.0078
Venus	-12852-03-25 03:21 J	-2972686.46	-2972686.36	-2972686.20	0.0088	0.0071
Venus	-12852-11-05 16:33 J	-2972460.93	-2972460.81	-2972460.63	0.0088	0.0065
Venus	-12851-06-19 06:14 J	-2972235.40	-2972235.24	-2972235.06	0.0088	0.0057
Venus	-12850-01-30 19:26 J	-2972009.87	-2972009.69	-2972009.50	0.0088	0.0049
Venus	-12850-09-13 08:24 J	-2971784.33	-2971784.15	-2971783.94	0.0088	0.0042
Venus	-12849-04-25 21:35 J	-2971558.79	-2971558.60	-2971558.38	0.0088	0.0035

Venus	-12849-12-07 11:16 J	-2971333.23	-2971333.03	-2971332.81	0.0088	0.0028
Venus	-12848-07-21 00:43 J	-2971107.68	-2971107.47	-2971107.25	0.0088	0.0020
Venus	-12847-03-03 13:55 J	-2970882.14	-2970881.92	-2970881.69	0.0088	0.0013
Venus	-12847-10-15 03:21 J	-2970656.58	-2970656.36	-2970656.14	0.0088	0.0005
Venus	-12846-05-28 16:33 J	-2970431.03	-2970430.81	-2970430.58	0.0088	0.0003
Venus	-12845-01-09 06:14 J	-2970205.46	-2970205.24	-2970205.02	0.0088	0.0009
Venus	-12845-08-21 19:26 J	-2969979.90	-2969979.69	-2969979.47	0.0088	0.0017
Venus	-12844-04-04 08:38 J	-2969754.34	-2969754.14	-2969753.91	0.0088	0.0025
Venus	-12844-11-15 22:19 J	-2969528.78	-2969528.57	-2969528.36	0.0088	0.0031
Venus	-12843-06-29 11:16 J	-2969303.21	-2969303.03	-2969302.81	0.0088	0.0040
Venus	-12842-02-10 00:57 J	-2969077.64	-2969077.46	-2969077.26	0.0088	0.0046
Venus	-12842-09-23 14:24 J	-2968852.07	-2968851.90	-2968851.72	0.0088	0.0054
Venus	-12841-05-06 03:21 J	-2968626.50	-2968626.36	-2968626.17	0.0088	0.0062
Venus	-12841-12-17 17:02 J	-2968400.91	-2968400.79	-2968400.63	0.0088	0.0069
Venus	-12840-07-31 06:28 J	-2968175.33	-2968175.23	-2968175.10	0.0088	0.0076
Venus	-12839-03-13 20:09 J	-2967949.73	-2967949.66	-2967949.58	0.0088	0.0083
Moon	-12809-05-29 08:09 J	-2956915.22	-2956915.16	-2956915.08	0.0089	0.0086
Earth	-12809-05-29 08:24 J	-2956915.21	-2956915.15	-2956915.03	0.0089	0.0083 *
Earth	-12808-05-31 20:09 J	-2956547.87	-2956547.66	-2956547.43	0.0089	0.0044
Moon	-12808-05-31 21:21 J	-2956547.81	-2956547.61	-2956547.38	0.0089	0.0042 *
Moon	-12807-06-03 04:48 J	-2956180.56	-2956180.30	-2956180.03	0.0089	0.0008
Earth	-12807-06-03 07:40 J	-2956180.44	-2956180.18	-2956179.93	0.0089	0.0005 *
Earth	-12806-06-05 18:43 J	-2955812.95	-2955812.72	-2955812.48	0.0089	0.0033
Moon	-12806-06-05 21:50 J	-2955812.80	-2955812.59	-2955812.34	0.0089	0.0037 *
Moon	-12805-06-07 02:09 J	-2955445.55	-2955445.41	-2955445.23	0.0089	0.0070
Earth	-12805-06-07 05:31 J	-2955445.39	-2955445.27	-2955445.09	0.0089	0.0072 *
Mars	-12787-10-25 13:26 J	-2948731.26	-2948730.94	-2948730.60	0.0089	0.0012
Mars	-12785-09-20 13:11 J	-2948035.12	-2948034.95	-2948034.74	0.0089	0.0074
Mercury	-12784-08-15 19:26 J	-2947705.72	-2947705.69	-2947705.66	0.0089	0.0086
Mercury	-12784-11-11 20:38 J	-2947617.70	-2947617.64	-2947617.58	0.0089	0.0079

Mercury	-12783-02-07 21:50 J	-2947529.66	-2947529.59	-2947529.51	0.0089	0.0072
Mercury	-12783-05-06 23:16 J	-2947441.62	-2947441.53	-2947441.44	0.0089	0.0065
Mercury	-12783-08-03 00:28 J	-2947353.57	-2947353.48	-2947353.38	0.0089	0.0058
Mercury	-12783-10-30 01:40 J	-2947265.53	-2947265.43	-2947265.31	0.0089	0.0051
Mercury	-12782-01-26 03:07 J	-2947177.48	-2947177.37	-2947177.25	0.0089	0.0043
Mercury	-12782-04-24 04:19 J	-2947089.43	-2947089.32	-2947089.19	0.0089	0.0037
Mercury	-12782-07-21 05:45 J	-2947001.38	-2947001.26	-2947001.14	0.0089	0.0029
Mercury	-12782-10-17 06:57 J	-2946913.33	-2946913.21	-2946913.08	0.0089	0.0022
Mercury	-12781-01-13 08:24 J	-2946825.28	-2946825.15	-2946825.02	0.0089	0.0015
Mercury	-12781-04-10 09:35 J	-2946737.23	-2946737.10	-2946736.97	0.0089	0.0008
Mercury	-12781-07-07 11:02 J	-2946649.17	-2946649.04	-2946648.91	0.0089	0.0003
Mercury	-12781-10-03 12:14 J	-2946561.12	-2946560.99	-2946560.86	0.0089	0.0006
Mercury	-12781-12-30 13:26 J	-2946473.07	-2946472.94	-2946472.81	0.0089	0.0013
Mercury	-12780-03-28 14:52 J	-2946385.01	-2946384.88	-2946384.76	0.0089	0.0020
Mercury	-12780-06-24 16:04 J	-2946296.95	-2946296.83	-2946296.71	0.0089	0.0027
Mercury	-12780-09-20 17:16 J	-2946208.90	-2946208.78	-2946208.66	0.0089	0.0035
Mercury	-12780-12-17 18:43 J	-2946120.84	-2946120.72	-2946120.61	0.0089	0.0042
Mercury	-12779-03-15 19:55 J	-2946032.78	-2946032.67	-2946032.56	0.0089	0.0049
Mercury	-12779-06-11 21:07 J	-2945944.72	-2945944.62	-2945944.51	0.0089	0.0056
Mercury	-12779-09-07 22:33 J	-2945856.65	-2945856.56	-2945856.47	0.0089	0.0063
Mercury	-12779-12-04 23:31 J	-2945768.59	-2945768.52	-2945768.43	0.0089	0.0070
Mercury	-12778-03-03 00:43 J	-2945680.52	-2945680.47	-2945680.39	0.0089	0.0078
Mercury	-12778-05-30 02:09 J	-2945592.44	-2945592.41	-2945592.36	0.0089	0.0084
Venus	-12772-07-05 14:38 J	-2943363.89	-2943363.89	-2943363.88	0.0089	0.0089
Venus	-12771-02-16 02:52 J	-2943138.43	-2943138.38	-2943138.27	0.0089	0.0083
Venus	-12771-09-29 16:04 J	-2942912.94	-2942912.83	-2942912.70	0.0089	0.0075
Venus	-12770-05-13 04:48 J	-2942687.42	-2942687.30	-2942687.14	0.0089	0.0068
Venus	-12770-12-24 17:31 J	-2942461.91	-2942461.77	-2942461.59	0.0089	0.0061
Venus	-12769-08-06 06:43 J	-2942236.39	-2942236.22	-2942236.04	0.0089	0.0053
Venus	-12768-03-19 19:11 J	-2942010.87	-2942010.70	-2942010.49	0.0089	0.0046

Venus	-12768-10-31 08:24 J	-2941785.34	-2941785.15	-2941784.95	0.0089	0.0038
Venus	-12767-06-13 21:07 J	-2941559.81	-2941559.62	-2941559.40	0.0089	0.0030
Venus	-12766-01-25 10:04 J	-2941334.29	-2941334.08	-2941333.87	0.0089	0.0023
Venus	-12766-09-07 22:48 J	-2941108.76	-2941108.55	-2941108.33	0.0089	0.0015
Venus	-12765-04-20 11:31 J	-2940883.24	-2940883.02	-2940882.80	0.0089	0.0008
Venus	-12765-12-02 00:14 J	-2940657.71	-2940657.49	-2940657.27	0.0089	0.0001
Venus	-12764-07-15 13:11 J	-2940432.17	-2940431.95	-2940431.74	0.0089	0.0008
Venus	-12763-02-26 01:40 J	-2940206.64	-2940206.43	-2940206.21	0.0089	0.0015
Venus	-12763-10-09 14:09 J	-2939981.11	-2939980.91	-2939980.69	0.0089	0.0023
Venus	-12762-05-23 02:38 J	-2939755.58	-2939755.39	-2939755.17	0.0089	0.0030
Venus	-12761-01-03 15:21 J	-2939530.05	-2939529.86	-2939529.65	0.0089	0.0038
Venus	-12761-08-16 03:50 J	-2939304.51	-2939304.34	-2939304.13	0.0089	0.0045
Venus	-12760-03-29 16:33 J	-2939078.97	-2939078.81	-2939078.62	0.0089	0.0052
Venus	-12760-11-10 05:16 J	-2938853.43	-2938853.28	-2938853.11	0.0089	0.0059
Venus	-12759-06-23 17:45 J	-2938627.88	-2938627.76	-2938627.60	0.0089	0.0067
Venus	-12758-02-04 06:14 J	-2938402.34	-2938402.24	-2938402.10	0.0089	0.0074
Venus	-12758-09-17 18:57 J	-2938176.78	-2938176.71	-2938176.61	0.0089	0.0081
Venus	-12757-04-30 07:40 J	-2937951.19	-2937951.18	-2937951.14	0.0089	0.0088
Moon	-12728-11-24 01:55 J	-2927151.52	-2927151.42	-2927151.31	0.0088	0.0081
Earth	-12728-11-24 04:19 J	-2927151.37	-2927151.32	-2927151.22	0.0088	0.0085 *
Earth	-12727-11-26 16:19 J	-2926784.02	-2926783.82	-2926783.58	0.0088	0.0047
Moon	-12727-11-26 19:55 J	-2926783.88	-2926783.67	-2926783.46	0.0088	0.0051 *
Moon	-12726-11-29 00:57 J	-2926416.72	-2926416.46	-2926416.20	0.0088	0.0004
Earth	-12726-11-29 04:48 J	-2926416.56	-2926416.30	-2926416.04	0.0088	0.0008 *
Earth	-12725-11-30 16:19 J	-2926049.05	-2926048.82	-2926048.56	0.0088	0.0031
Moon	-12725-11-30 19:40 J	-2926048.92	-2926048.68	-2926048.41	0.0088	0.0026 *
Moon	-12724-12-03 01:26 J	-2925681.58	-2925681.44	-2925681.29	0.0088	0.0073
Earth	-12724-12-03 04:04 J	-2925681.47	-2925681.33	-2925681.14	0.0088	0.0069 *
Mars	-12705-09-11 11:45 J	-2918824.30	-2918824.01	-2918823.72	0.0088	0.0020
Mars	-12703-08-06 08:52 J	-2918130.36	-2918130.13	-2918129.87	0.0088	0.0051

Mercury	-12700-01-27 12:57 J	-2917225.03	-2917224.96	-2917224.86	0.0088	0.0078
Mercury	-12700-04-25 16:33 J	-2917136.92	-2917136.81	-2917136.67	0.0088	0.0068
Mercury	-12700-07-22 20:24 J	-2917048.79	-2917048.65	-2917048.49	0.0088	0.0058
Mercury	-12700-10-19 00:00 J	-2916960.65	-2916960.50	-2916960.32	0.0088	0.0048
Mercury	-12699-01-15 04:04 J	-2916872.51	-2916872.33	-2916872.15	0.0088	0.0037
Mercury	-12699-04-13 07:40 J	-2916784.36	-2916784.18	-2916783.98	0.0088	0.0027
Mercury	-12699-07-10 11:31 J	-2916696.21	-2916696.02	-2916695.82	0.0088	0.0017
Mercury	-12699-10-06 15:07 J	-2916608.06	-2916607.87	-2916607.67	0.0088	0.0007
Mercury	-12698-01-02 18:57 J	-2916519.91	-2916519.71	-2916519.51	0.0088	0.0003
Mercury	-12698-03-31 22:33 J	-2916431.75	-2916431.56	-2916431.36	0.0088	0.0014
Mercury	-12698-06-28 02:09 J	-2916343.59	-2916343.41	-2916343.21	0.0088	0.0024
Mercury	-12698-09-24 06:00 J	-2916255.43	-2916255.25	-2916255.06	0.0088	0.0034
Mercury	-12698-12-21 09:35 J	-2916167.26	-2916167.10	-2916166.92	0.0088	0.0044
Mercury	-12697-03-18 13:11 J	-2916079.09	-2916078.95	-2916078.78	0.0088	0.0055
Mercury	-12697-06-14 16:48 J	-2915990.91	-2915990.80	-2915990.65	0.0088	0.0065
Mercury	-12697-09-10 20:38 J	-2915902.73	-2915902.64	-2915902.52	0.0088	0.0075
Mercury	-12697-12-08 00:14 J	-2915814.52	-2915814.49	-2915814.42	0.0088	0.0085
Venus	-12689-11-13 01:40 J	-2912917.49	-2912917.43	-2912917.33	0.0088	0.0082
Venus	-12688-06-26 14:52 J	-2912691.97	-2912691.88	-2912691.74	0.0088	0.0075
Venus	-12687-02-07 04:33 J	-2912466.45	-2912466.31	-2912466.16	0.0088	0.0067
Venus	-12687-09-20 17:31 J	-2912240.92	-2912240.77	-2912240.60	0.0088	0.0060
Venus	-12686-05-04 06:28 J	-2912015.38	-2912015.23	-2912015.03	0.0088	0.0054
Venus	-12686-12-15 20:24 J	-2911789.84	-2911789.65	-2911789.46	0.0088	0.0045
Venus	-12685-07-28 09:21 J	-2911564.30	-2911564.11	-2911563.90	0.0088	0.0038
Venus	-12684-03-10 22:33 J	-2911338.75	-2911338.56	-2911338.34	0.0088	0.0031
Venus	-12684-10-22 12:00 J	-2911113.21	-2911113.00	-2911112.78	0.0088	0.0023
Venus	-12683-06-05 01:11 J	-2910887.66	-2910887.45	-2910887.22	0.0088	0.0016
Venus	-12682-01-16 14:52 J	-2910662.11	-2910661.88	-2910661.66	0.0088	0.0008
Venus	-12682-08-30 04:04 J	-2910436.55	-2910436.33	-2910436.11	0.0088	0.0001
Venus	-12681-04-11 17:16 J	-2910211.00	-2910210.78	-2910210.55	0.0088	0.0007

Venus	-12681-11-23 06:43 J	-2909985.43	-2909985.22	-2909984.99	0.0088	0.0014
Venus	-12680-07-06 19:55 J	-2909759.87	-2909759.67	-2909759.44	0.0088	0.0022
Venus	-12679-02-17 09:21 J	-2909534.31	-2909534.11	-2909533.89	0.0088	0.0030
Venus	-12679-09-30 23:02 J	-2909308.74	-2909308.54	-2909308.34	0.0088	0.0037
Venus	-12678-05-14 12:14 J	-2909083.17	-2909082.99	-2909082.79	0.0088	0.0044
Venus	-12678-12-26 01:55 J	-2908857.59	-2908857.42	-2908857.23	0.0088	0.0052
Venus	-12677-08-07 15:07 J	-2908632.02	-2908631.87	-2908631.69	0.0088	0.0059
Venus	-12676-03-21 04:48 J	-2908406.44	-2908406.30	-2908406.15	0.0088	0.0066
Venus	-12676-11-01 17:45 J	-2908180.86	-2908180.76	-2908180.62	0.0088	0.0074
Venus	-12675-06-15 07:11 J	-2907955.26	-2907955.20	-2907955.09	0.0088	0.0082
Moon	-12644-05-31 04:33 J	-2896647.46	-2896647.31	-2896647.11	0.0089	0.0066
Earth	-12644-05-31 07:26 J	-2896647.35	-2896647.19	-2896646.99	0.0089	0.0063 *
Earth	-12643-06-02 19:11 J	-2896279.95	-2896279.70	-2896279.45	0.0089	0.0024
Moon	-12643-06-02 22:19 J	-2896279.80	-2896279.57	-2896279.31	0.0089	0.0021 *
Moon	-12642-06-05 02:38 J	-2895912.63	-2895912.39	-2895912.13	0.0089	0.0011
Earth	-12642-06-05 06:28 J	-2895912.48	-2895912.23	-2895911.98	0.0089	0.0014 *
Earth	-12641-06-06 17:16 J	-2895544.97	-2895544.78	-2895544.56	0.0089	0.0053
Moon	-12641-06-06 20:24 J	-2895544.83	-2895544.65	-2895544.43	0.0089	0.0057 *
Moon	-12640-06-09 01:55 J	-2895177.45	-2895177.42	-2895177.36	0.0089	0.0088
Mars	-12623-06-08 11:02 J	-2888969.30	-2888969.04	-2888968.76	0.0089	0.0053
Mars	-12621-05-04 09:21 J	-2888273.40	-2888273.11	-2888272.77	0.0089	0.0033
Mercury	-12619-05-12 19:11 J	-2887534.74	-2887534.70	-2887534.64	0.0089	0.0083
Mercury	-12619-08-08 20:38 J	-2887446.70	-2887446.64	-2887446.57	0.0089	0.0075
Mercury	-12619-11-04 21:50 J	-2887358.66	-2887358.59	-2887358.50	0.0089	0.0068
Mercury	-12618-01-31 23:02 J	-2887270.62	-2887270.54	-2887270.43	0.0089	0.0062
Mercury	-12618-04-30 00:28 J	-2887182.58	-2887182.48	-2887182.37	0.0089	0.0054
Mercury	-12618-07-27 01:40 J	-2887094.53	-2887094.43	-2887094.31	0.0089	0.0047
Mercury	-12618-10-23 03:07 J	-2887006.48	-2887006.37	-2887006.25	0.0089	0.0040
Mercury	-12617-01-19 04:19 J	-2886918.43	-2886918.32	-2886918.19	0.0089	0.0033
Mercury	-12617-04-16 05:45 J	-2886830.38	-2886830.26	-2886830.13	0.0089	0.0026

Mercury	-12617-07-13 06:57 J	-2886742.33	-2886742.21	-2886742.08	0.0089	0.0019
Mercury	-12617-10-09 08:24 J	-2886654.28	-2886654.15	-2886654.02	0.0089	0.0012
Mercury	-12616-01-05 09:35 J	-2886566.23	-2886566.10	-2886565.97	0.0089	0.0005
Mercury	-12616-04-03 10:48 J	-2886478.18	-2886478.05	-2886477.91	0.0089	0.0004
Mercury	-12616-06-30 12:14 J	-2886390.12	-2886389.99	-2886389.86	0.0089	0.0010
Mercury	-12616-09-26 13:26 J	-2886302.07	-2886301.94	-2886301.81	0.0089	0.0017
Mercury	-12616-12-23 14:38 J	-2886214.01	-2886213.89	-2886213.76	0.0089	0.0024
Mercury	-12615-03-21 16:04 J	-2886125.95	-2886125.83	-2886125.71	0.0089	0.0031
Mercury	-12615-06-17 17:16 J	-2886037.89	-2886037.78	-2886037.66	0.0089	0.0038
Mercury	-12615-09-13 18:28 J	-2885949.83	-2885949.73	-2885949.61	0.0089	0.0045
Mercury	-12615-12-10 19:40 J	-2885861.77	-2885861.68	-2885861.56	0.0089	0.0053
Mercury	-12614-03-08 21:07 J	-2885773.71	-2885773.62	-2885773.52	0.0089	0.0059
Mercury	-12614-06-04 22:19 J	-2885685.65	-2885685.57	-2885685.48	0.0089	0.0066
Mercury	-12614-08-31 23:31 J	-2885597.58	-2885597.52	-2885597.43	0.0089	0.0074
Mercury	-12614-11-28 00:57 J	-2885509.51	-2885509.46	-2885509.40	0.0089	0.0080
Mercury	-12613-02-24 02:09 J	-2885421.42	-2885421.41	-2885421.38	0.0089	0.0088
Venus	-12607-05-20 14:52 J	-2883143.91	-2883143.88	-2883143.79	0.0089	0.0087
Venus	-12606-01-01 04:04 J	-2882918.42	-2882918.33	-2882918.22	0.0089	0.0079
Venus	-12606-08-14 16:48 J	-2882692.91	-2882692.80	-2882692.65	0.0089	0.0071
Venus	-12605-03-27 05:45 J	-2882467.40	-2882467.26	-2882467.10	0.0089	0.0064
Venus	-12605-11-07 18:28 J	-2882241.88	-2882241.73	-2882241.55	0.0089	0.0056
Venus	-12604-06-21 07:40 J	-2882016.36	-2882016.18	-2882016.00	0.0089	0.0049
Venus	-12603-02-01 20:09 J	-2881790.84	-2881790.66	-2881790.45	0.0089	0.0041
Venus	-12603-09-15 09:07 J	-2881565.31	-2881565.12	-2881564.91	0.0089	0.0034
Venus	-12602-04-28 21:50 J	-2881339.79	-2881339.59	-2881339.37	0.0089	0.0026
Venus	-12602-12-10 10:48 J	-2881114.26	-2881114.05	-2881113.83	0.0089	0.0018
Venus	-12601-07-22 23:45 J	-2880888.73	-2880888.51	-2880888.29	0.0089	0.0011
Venus	-12600-03-05 12:28 J	-2880663.20	-2880662.98	-2880662.76	0.0089	0.0003
Venus	-12600-10-17 01:11 J	-2880437.67	-2880437.45	-2880437.23	0.0089	0.0005
Venus	-12599-05-30 13:55 J	-2880212.13	-2880211.92	-2880211.70	0.0089	0.0012

Venus	-12598-01-11 02:24 J	-2879986.60	-2879986.40	-2879986.18	0.0089	0.0020
Venus	-12598-08-24 15:07 J	-2879761.07	-2879760.87	-2879760.66	0.0089	0.0028
Venus	-12597-04-06 03:35 J	-2879535.54	-2879535.35	-2879535.14	0.0089	0.0035
Venus	-12597-11-17 16:33 J	-2879310.00	-2879309.81	-2879309.62	0.0089	0.0043
Venus	-12596-07-01 04:48 J	-2879084.46	-2879084.30	-2879084.10	0.0089	0.0051
Venus	-12595-02-11 17:45 J	-2878858.92	-2878858.76	-2878858.59	0.0089	0.0058
Venus	-12595-09-25 06:00 J	-2878633.38	-2878633.25	-2878633.09	0.0089	0.0065
Venus	-12594-05-08 18:43 J	-2878407.84	-2878407.72	-2878407.59	0.0089	0.0072
Venus	-12594-12-20 06:57 J	-2878182.28	-2878182.21	-2878182.09	0.0089	0.0080
Venus	-12593-08-01 19:40 J	-2877956.70	-2877956.68	-2877956.61	0.0089	0.0087
Moon	-12563-11-25 23:31 J	-2866883.67	-2866883.52	-2866883.33	0.0088	0.0067
Earth	-12563-11-26 03:07 J	-2866883.53	-2866883.37	-2866883.18	0.0088	0.0065 *
Earth	-12562-11-28 15:07 J	-2866516.11	-2866515.87	-2866515.61	0.0088	0.0027
Moon	-12562-11-28 18:43 J	-2866515.97	-2866515.72	-2866515.46	0.0088	0.0024 *
Moon	-12561-11-30 00:57 J	-2866148.71	-2866148.46	-2866148.21	0.0088	0.0009
Earth	-12561-11-30 03:07 J	-2866148.62	-2866148.37	-2866148.11	0.0088	0.0012 *
Earth	-12560-12-02 15:07 J	-2865781.08	-2865780.87	-2865780.65	0.0088	0.0050
Moon	-12560-12-02 17:02 J	-2865781.00	-2865780.79	-2865780.56	0.0088	0.0051 *
Moon	-12559-12-05 02:24 J	-2865413.43	-2865413.40	-2865413.32	0.0088	0.0086
Earth	-12559-12-05 03:07 J	-2865413.39	-2865413.37	-2865413.33	0.0088	0.0088 *
Mars	-12541-04-26 23:02 J	-2859060.77	-2859060.54	-2859060.30	0.0088	0.0055
Mars	-12539-03-21 20:24 J	-2858366.93	-2858366.65	-2858366.35	0.0088	0.0017
Mars	-12537-02-13 18:00 J	-2857672.75	-2857672.75	-2857672.75	0.0088	0.0088
Mercury	-12536-07-28 08:09 J	-2857142.20	-2857142.16	-2857142.08	0.0088	0.0083
Mercury	-12536-10-24 12:00 J	-2857054.10	-2857054.00	-2857053.88	0.0088	0.0073
Mercury	-12535-01-20 15:35 J	-2856965.97	-2856965.85	-2856965.69	0.0088	0.0063
Mercury	-12535-04-18 19:40 J	-2856877.83	-2856877.68	-2856877.52	0.0088	0.0052
Mercury	-12535-07-15 23:16 J	-2856789.69	-2856789.53	-2856789.35	0.0088	0.0042
Mercury	-12535-10-12 03:07 J	-2856701.55	-2856701.37	-2856701.18	0.0088	0.0032
Mercury	-12534-01-08 06:43 J	-2856613.40	-2856613.22	-2856613.02	0.0088	0.0022

Mercury	-12534-04-06 10:33 J	-2856525.25	-2856525.06	-2856524.86	0.0088	0.0012
Mercury	-12534-07-03 14:24 J	-2856437.10	-2856436.90	-2856436.70	0.0088	0.0001
Mercury	-12534-09-29 18:00 J	-2856348.94	-2856348.75	-2856348.55	0.0088	0.0009
Mercury	-12534-12-26 21:50 J	-2856260.78	-2856260.59	-2856260.40	0.0088	0.0019
Mercury	-12533-03-24 01:11 J	-2856172.62	-2856172.45	-2856172.25	0.0088	0.0030
Mercury	-12533-06-20 05:02 J	-2856084.46	-2856084.29	-2856084.10	0.0088	0.0040
Mercury	-12533-09-16 08:38 J	-2855996.29	-2855996.14	-2855995.96	0.0088	0.0050
Mercury	-12533-12-13 12:28 J	-2855908.11	-2855907.98	-2855907.83	0.0088	0.0060
Mercury	-12532-03-11 16:19 J	-2855819.93	-2855819.82	-2855819.70	0.0088	0.0070
Mercury	-12532-06-07 20:09 J	-2855731.74	-2855731.66	-2855731.58	0.0088	0.0080
Venus	-12524-02-14 13:26 J	-2852922.97	-2852922.94	-2852922.87	0.0088	0.0086
Venus	-12524-09-28 03:07 J	-2852697.47	-2852697.37	-2852697.27	0.0088	0.0078
Venus	-12523-05-11 16:04 J	-2852471.95	-2852471.83	-2852471.69	0.0088	0.0071
Venus	-12523-12-23 05:16 J	-2852246.41	-2852246.28	-2852246.11	0.0088	0.0064
Venus	-12522-08-05 18:43 J	-2852020.88	-2852020.72	-2852020.54	0.0088	0.0056
Venus	-12521-03-18 07:40 J	-2851795.35	-2851795.18	-2851794.98	0.0088	0.0049
Venus	-12521-10-29 21:07 J	-2851569.81	-2851569.62	-2851569.41	0.0088	0.0042
Venus	-12520-06-12 10:19 J	-2851344.26	-2851344.07	-2851343.85	0.0088	0.0034
Venus	-12519-01-23 23:45 J	-2851118.72	-2851118.51	-2851118.29	0.0088	0.0026
Venus	-12519-09-06 12:57 J	-2850893.17	-2850892.96	-2850892.74	0.0088	0.0019
Venus	-12518-04-20 02:09 J	-2850667.62	-2850667.41	-2850667.18	0.0088	0.0012
Venus	-12518-12-01 15:35 J	-2850442.07	-2850441.85	-2850441.62	0.0088	0.0004
Venus	-12517-07-14 05:02 J	-2850216.51	-2850216.29	-2850216.07	0.0088	0.0004
Venus	-12516-02-24 18:14 J	-2849990.96	-2849990.74	-2849990.52	0.0088	0.0012
Venus	-12516-10-08 07:26 J	-2849765.40	-2849765.19	-2849764.97	0.0088	0.0019
Venus	-12515-05-21 20:38 J	-2849539.84	-2849539.64	-2849539.41	0.0088	0.0027
Venus	-12514-01-02 10:19 J	-2849314.27	-2849314.07	-2849313.86	0.0088	0.0034
Venus	-12514-08-15 23:31 J	-2849088.70	-2849088.52	-2849088.31	0.0088	0.0042
Venus	-12513-03-28 13:11 J	-2848863.13	-2848862.95	-2848862.76	0.0088	0.0050
Venus	-12513-11-09 02:09 J	-2848637.56	-2848637.41	-2848637.22	0.0088	0.0058

Venus	-12512-06-22 16:04 J	-2848411.98	-2848411.83	-2848411.68	0.0088	0.0065
Venus	-12511-02-03 05:16 J	-2848186.39	-2848186.28	-2848186.14	0.0088	0.0072
Venus	-12511-09-16 18:57 J	-2847960.80	-2847960.71	-2847960.61	0.0088	0.0080
Venus	-12510-04-30 07:55 J	-2847735.18	-2847735.17	-2847735.11	0.0088	0.0088
Earth	-12480-05-30 19:11 J	-2836746.78	-2836746.70	-2836746.58	0.0089	0.0082
Moon	-12480-05-30 23:02 J	-2836746.61	-2836746.54	-2836746.46	0.0089	0.0084 *
Moon	-12479-06-02 03:21 J	-2836379.58	-2836379.36	-2836379.13	0.0089	0.0040
Earth	-12479-06-02 06:28 J	-2836379.43	-2836379.23	-2836378.99	0.0089	0.0043 *
Earth	-12478-06-04 18:00 J	-2836012.00	-2836011.75	-2836011.49	0.0089	0.0005
Moon	-12478-06-04 21:21 J	-2836011.87	-2836011.61	-2836011.35	0.0089	0.0007 *
Moon	-12477-06-06 03:07 J	-2835644.58	-2835644.37	-2835644.13	0.0089	0.0037
Earth	-12477-06-06 05:02 J	-2835644.51	-2835644.29	-2835644.04	0.0089	0.0034 *
Earth	-12476-06-08 16:19 J	-2835276.96	-2835276.82	-2835276.66	0.0089	0.0073
Moon	-12476-06-08 17:31 J	-2835276.91	-2835276.77	-2835276.59	0.0089	0.0071 *
Jupiter	-12461-02-17 05:45 J	-2829910.78	-2829910.26	-2829909.72	0.0089	0.0006
Mars	-12458-12-17 08:09 J	-2828511.48	-2828511.16	-2828510.81	0.0089	0.0010
Mars	-12456-11-12 07:11 J	-2827815.34	-2827815.20	-2827815.00	0.0089	0.0077
Mercury	-12455-11-10 18:14 J	-2827451.77	-2827451.74	-2827451.70	0.0089	0.0086
Mercury	-12454-02-06 19:26 J	-2827363.74	-2827363.69	-2827363.62	0.0089	0.0079
Mercury	-12454-05-05 20:38 J	-2827275.71	-2827275.64	-2827275.55	0.0089	0.0072
Mercury	-12454-08-01 22:04 J	-2827187.66	-2827187.58	-2827187.49	0.0089	0.0064
Mercury	-12454-10-28 23:16 J	-2827099.62	-2827099.53	-2827099.42	0.0089	0.0058
Mercury	-12453-01-25 00:28 J	-2827011.58	-2827011.48	-2827011.36	0.0089	0.0051
Mercury	-12453-04-22 01:55 J	-2826923.53	-2826923.42	-2826923.30	0.0089	0.0043
Mercury	-12453-07-19 03:07 J	-2826835.48	-2826835.37	-2826835.24	0.0089	0.0037
Mercury	-12453-10-15 04:33 J	-2826747.43	-2826747.31	-2826747.18	0.0089	0.0029
Mercury	-12452-01-11 05:45 J	-2826659.38	-2826659.26	-2826659.13	0.0089	0.0022
Mercury	-12452-04-09 07:11 J	-2826571.33	-2826571.20	-2826571.07	0.0089	0.0015
Mercury	-12452-07-06 08:24 J	-2826483.28	-2826483.15	-2826483.02	0.0089	0.0008
Mercury	-12452-10-02 09:50 J	-2826395.22	-2826395.09	-2826394.96	0.0089	0.0002

Mercury	-12452-12-29 11:02 J	-2826307.17	-2826307.04	-2826306.91	0.0089	0.0006
Mercury	-12451-03-27 12:14 J	-2826219.12	-2826218.99	-2826218.86	0.0089	0.0014
Mercury	-12451-06-23 13:26 J	-2826131.06	-2826130.94	-2826130.81	0.0089	0.0021
Mercury	-12451-09-19 14:52 J	-2826043.00	-2826042.88	-2826042.76	0.0089	0.0028
Mercury	-12451-12-16 16:04 J	-2825954.95	-2825954.83	-2825954.71	0.0089	0.0035
Mercury	-12450-03-14 17:16 J	-2825866.89	-2825866.78	-2825866.66	0.0089	0.0042
Mercury	-12450-06-10 18:43 J	-2825778.83	-2825778.72	-2825778.61	0.0089	0.0049
Mercury	-12450-09-06 19:55 J	-2825690.77	-2825690.67	-2825690.56	0.0089	0.0056
Mercury	-12450-12-03 21:21 J	-2825602.70	-2825602.61	-2825602.52	0.0089	0.0063
Mercury	-12449-02-29 22:19 J	-2825514.64	-2825514.57	-2825514.48	0.0089	0.0070
Mercury	-12449-05-27 23:31 J	-2825426.57	-2825426.52	-2825426.44	0.0089	0.0078
Mercury	-12449-08-24 00:57 J	-2825338.49	-2825338.46	-2825338.41	0.0089	0.0084
Venus	-12442-04-04 16:04 J	-2822923.90	-2822923.83	-2822923.74	0.0089	0.0083
Venus	-12442-11-16 04:33 J	-2822698.40	-2822698.31	-2822698.17	0.0089	0.0076
Venus	-12441-06-28 17:45 J	-2822472.89	-2822472.76	-2822472.61	0.0089	0.0068
Venus	-12440-02-09 06:28 J	-2822247.37	-2822247.23	-2822247.05	0.0089	0.0060
Venus	-12440-09-22 19:11 J	-2822021.86	-2822021.70	-2822021.51	0.0089	0.0053
Venus	-12439-05-06 08:24 J	-2821796.34	-2821796.15	-2821795.96	0.0089	0.0045
Venus	-12439-12-17 20:52 J	-2821570.81	-2821570.63	-2821570.42	0.0089	0.0037
Venus	-12438-07-31 09:50 J	-2821345.29	-2821345.09	-2821344.88	0.0089	0.0029
Venus	-12437-03-12 22:48 J	-2821119.76	-2821119.55	-2821119.34	0.0089	0.0022
Venus	-12437-10-24 11:16 J	-2820894.23	-2820894.03	-2820893.80	0.0089	0.0015
Venus	-12436-06-07 00:14 J	-2820668.70	-2820668.49	-2820668.27	0.0089	0.0007
Venus	-12435-01-18 13:11 J	-2820443.17	-2820442.95	-2820442.73	0.0089	0.0002
Venus	-12435-09-01 01:55 J	-2820217.64	-2820217.42	-2820217.20	0.0089	0.0009
Venus	-12434-04-14 14:24 J	-2819992.10	-2819991.90	-2819991.68	0.0089	0.0018
Venus	-12434-11-26 03:07 J	-2819766.57	-2819766.37	-2819766.15	0.0089	0.0025
Venus	-12433-07-08 16:19 J	-2819541.03	-2819540.82	-2819540.62	0.0089	0.0033
Venus	-12432-02-19 04:33 J	-2819315.49	-2819315.31	-2819315.10	0.0089	0.0041
Venus	-12432-10-02 17:02 J	-2819089.95	-2819089.79	-2819089.59	0.0089	0.0048

Venus	-12431-05-16 06:00 J	-2818864.42	-2818864.25	-2818864.08	0.0089	0.0056
Venus	-12431-12-27 18:14 J	-2818638.87	-2818638.74	-2818638.57	0.0089	0.0064
Venus	-12430-08-10 06:57 J	-2818413.32	-2818413.21	-2818413.06	0.0089	0.0071
Venus	-12429-03-22 19:40 J	-2818187.77	-2818187.68	-2818187.56	0.0089	0.0078
Venus	-12429-11-03 08:24 J	-2817962.20	-2817962.15	-2817962.09	0.0089	0.0086
Earth	-12399-11-25 13:11 J	-2806983.01	-2806982.95	-2806982.84	0.0088	0.0083
Moon	-12399-11-25 16:19 J	-2806982.91	-2806982.82	-2806982.68	0.0088	0.0079 *
Moon	-12398-11-27 23:02 J	-2806615.73	-2806615.54	-2806615.32	0.0088	0.0049
Earth	-12398-11-28 01:11 J	-2806615.65	-2806615.45	-2806615.20	0.0088	0.0046 *
Earth	-12397-11-29 13:40 J	-2806248.18	-2806247.93	-2806247.66	0.0088	0.0007
Moon	-12397-11-29 14:38 J	-2806248.16	-2806247.89	-2806247.62	0.0088	0.0003 *
Earth	-12396-12-02 01:40 J	-2805880.66	-2805880.43	-2805880.17	0.0088	0.0031
Moon	-12396-12-02 01:55 J	-2805880.66	-2805880.42	-2805880.18	0.0088	0.0027 *
Moon	-12395-12-04 12:00 J	-2805513.12	-2805513.00	-2805512.82	0.0088	0.0073
Earth	-12395-12-04 13:11 J	-2805513.08	-2805512.95	-2805512.76	0.0088	0.0070 *
Mars	-12376-11-04 09:35 J	-2798603.38	-2798603.10	-2798602.80	0.0088	0.0018
Mars	-12374-09-29 06:14 J	-2797909.45	-2797909.24	-2797908.98	0.0088	0.0054
Mercury	-12371-04-24 07:11 J	-2796971.27	-2796971.20	-2796971.09	0.0088	0.0078
Mercury	-12371-07-21 10:48 J	-2796883.15	-2796883.05	-2796882.90	0.0088	0.0068
Mercury	-12371-10-17 14:52 J	-2796795.02	-2796794.88	-2796794.72	0.0088	0.0057
Mercury	-12370-01-13 18:28 J	-2796706.88	-2796706.73	-2796706.55	0.0088	0.0047
Mercury	-12370-04-11 22:19 J	-2796618.74	-2796618.57	-2796618.38	0.0088	0.0037
Mercury	-12370-07-09 01:55 J	-2796530.60	-2796530.42	-2796530.22	0.0088	0.0027
Mercury	-12370-10-05 05:45 J	-2796442.45	-2796442.26	-2796442.06	0.0088	0.0017
Mercury	-12369-01-01 09:35 J	-2796354.29	-2796354.10	-2796353.90	0.0088	0.0006
Mercury	-12369-03-29 13:26 J	-2796266.14	-2796265.94	-2796265.74	0.0088	0.0004
Mercury	-12369-06-25 17:02 J	-2796177.98	-2796177.79	-2796177.59	0.0088	0.0014
Mercury	-12369-09-21 20:38 J	-2796089.82	-2796089.64	-2796089.44	0.0088	0.0025
Mercury	-12369-12-19 00:14 J	-2796001.66	-2796001.49	-2796001.29	0.0088	0.0035
Mercury	-12368-03-17 04:04 J	-2795913.49	-2795913.33	-2795913.15	0.0088	0.0045

Mercury	-12368-06-13 07:55 J	-2795825.32	-2795825.17	-2795825.01	0.0088	0.0055
Mercury	-12368-09-09 11:45 J	-2795737.14	-2795737.01	-2795736.88	0.0088	0.0065
Mercury	-12368-12-06 14:52 J	-2795648.95	-2795648.88	-2795648.75	0.0088	0.0076
Mercury	-12367-03-04 18:43 J	-2795560.74	-2795560.72	-2795560.66	0.0088	0.0086
Venus	-12360-12-30 14:52 J	-2792702.95	-2792702.88	-2792702.80	0.0088	0.0082
Venus	-12359-08-13 03:50 J	-2792477.44	-2792477.34	-2792477.21	0.0088	0.0075
Venus	-12358-03-26 16:48 J	-2792251.92	-2792251.80	-2792251.63	0.0088	0.0068
Venus	-12358-11-07 06:14 J	-2792026.38	-2792026.24	-2792026.06	0.0088	0.0060
Venus	-12357-06-19 19:55 J	-2791800.85	-2791800.67	-2791800.49	0.0088	0.0052
Venus	-12356-01-31 08:52 J	-2791575.31	-2791575.13	-2791574.92	0.0088	0.0045
Venus	-12356-09-13 22:19 J	-2791349.77	-2791349.57	-2791349.36	0.0088	0.0037
Venus	-12355-04-27 11:45 J	-2791124.22	-2791124.01	-2791123.80	0.0088	0.0030
Venus	-12355-12-09 00:57 J	-2790898.67	-2790898.46	-2790898.24	0.0088	0.0022
Venus	-12354-07-22 14:24 J	-2790673.12	-2790672.90	-2790672.68	0.0088	0.0014
Venus	-12353-03-04 03:35 J	-2790447.57	-2790447.35	-2790447.12	0.0088	0.0007
Venus	-12353-10-15 16:48 J	-2790222.02	-2790221.80	-2790221.57	0.0088	0.0002
Venus	-12352-05-29 06:00 J	-2789996.46	-2789996.25	-2789996.02	0.0088	0.0010
Venus	-12351-01-09 19:26 J	-2789770.90	-2789770.69	-2789770.46	0.0088	0.0017
Venus	-12351-08-23 08:52 J	-2789545.34	-2789545.13	-2789544.91	0.0088	0.0024
Venus	-12350-04-05 22:04 J	-2789319.78	-2789319.58	-2789319.36	0.0088	0.0032
Venus	-12350-11-17 11:16 J	-2789094.21	-2789094.03	-2789093.82	0.0088	0.0040
Venus	-12349-06-30 00:43 J	-2788868.65	-2788868.47	-2788868.27	0.0088	0.0048
Venus	-12348-02-10 14:09 J	-2788643.07	-2788642.91	-2788642.73	0.0088	0.0055
Venus	-12348-09-24 03:21 J	-2788417.50	-2788417.36	-2788417.19	0.0088	0.0063
Venus	-12347-05-07 17:02 J	-2788191.91	-2788191.79	-2788191.65	0.0088	0.0070
Venus	-12347-12-19 06:14 J	-2787966.32	-2787966.24	-2787966.11	0.0088	0.0079
Venus	-12346-08-01 20:09 J	-2787740.71	-2787740.66	-2787740.60	0.0088	0.0086
Earth	-12315-06-01 18:43 J	-2776478.88	-2776478.72	-2776478.51	0.0089	0.0061
Moon	-12315-06-01 22:04 J	-2776478.75	-2776478.58	-2776478.40	0.0089	0.0065 *
Moon	-12314-06-04 04:19 J	-2776111.55	-2776111.32	-2776111.07	0.0089	0.0020

Earth	-12314-06-04 06:14 J	-2776111.47	-2776111.24	-2776110.98	0.0089	0.0023 *
Earth	-12313-06-05 17:31 J	-2775744.01	-2775743.77	-2775743.51	0.0089	0.0016
Moon	-12313-06-05 18:14 J	-2775744.01	-2775743.74	-2775743.48	0.0089	0.0013 *
Earth	-12312-06-08 04:19 J	-2775376.50	-2775376.32	-2775376.09	0.0089	0.0055
Moon	-12312-06-08 05:02 J	-2775376.47	-2775376.29	-2775376.09	0.0089	0.0058 *
Moon	-12311-06-10 13:40 J	-2775008.94	-2775008.93	-2775008.87	0.0089	0.0089
Mars	-12294-07-31 07:26 J	-2768749.43	-2768749.19	-2768748.89	0.0089	0.0051
Mars	-12292-06-26 05:02 J	-2768053.57	-2768053.29	-2768052.96	0.0089	0.0036
Mercury	-12290-05-11 17:02 J	-2767368.80	-2767368.79	-2767368.77	0.0089	0.0089
Mercury	-12290-08-07 18:28 J	-2767280.78	-2767280.73	-2767280.68	0.0089	0.0082
Mercury	-12290-11-03 19:40 J	-2767192.75	-2767192.68	-2767192.61	0.0089	0.0075
Mercury	-12289-01-30 20:52 J	-2767104.71	-2767104.63	-2767104.54	0.0089	0.0068
Mercury	-12289-04-27 22:04 J	-2767016.66	-2767016.58	-2767016.47	0.0089	0.0061
Mercury	-12289-07-24 23:31 J	-2766928.62	-2766928.52	-2766928.41	0.0089	0.0054
Mercury	-12289-10-21 00:43 J	-2766840.57	-2766840.47	-2766840.35	0.0089	0.0047
Mercury	-12288-01-17 02:09 J	-2766752.53	-2766752.41	-2766752.29	0.0089	0.0039
Mercury	-12288-04-15 03:21 J	-2766664.48	-2766664.36	-2766664.23	0.0089	0.0032
Mercury	-12288-07-12 04:33 J	-2766576.43	-2766576.31	-2766576.18	0.0089	0.0026
Mercury	-12288-10-08 06:00 J	-2766488.38	-2766488.25	-2766488.12	0.0089	0.0018
Mercury	-12287-01-04 07:11 J	-2766400.32	-2766400.20	-2766400.06	0.0089	0.0012
Mercury	-12287-04-02 08:38 J	-2766312.27	-2766312.14	-2766312.01	0.0089	0.0004
Mercury	-12287-06-29 09:50 J	-2766224.22	-2766224.09	-2766223.96	0.0089	0.0003
Mercury	-12287-09-25 11:02 J	-2766136.16	-2766136.04	-2766135.90	0.0089	0.0011
Mercury	-12287-12-22 12:28 J	-2766048.11	-2766047.98	-2766047.85	0.0089	0.0017
Mercury	-12286-03-20 13:40 J	-2765960.05	-2765959.93	-2765959.80	0.0089	0.0024
Mercury	-12286-06-16 14:52 J	-2765872.00	-2765871.88	-2765871.75	0.0089	0.0032
Mercury	-12286-09-12 16:04 J	-2765783.94	-2765783.83	-2765783.70	0.0089	0.0039
Mercury	-12286-12-09 17:31 J	-2765695.88	-2765695.77	-2765695.66	0.0089	0.0045
Mercury	-12285-03-06 18:43 J	-2765607.82	-2765607.72	-2765607.61	0.0089	0.0053
Mercury	-12285-06-02 20:09 J	-2765519.76	-2765519.66	-2765519.56	0.0089	0.0060

Mercury	-12285-08-29 21:21 J	-2765431.69	-2765431.61	-2765431.52	0.0089	0.0067
Mercury	-12285-11-25 22:33 J	-2765343.63	-2765343.56	-2765343.48	0.0089	0.0074
Mercury	-12284-02-22 00:00 J	-2765255.55	-2765255.50	-2765255.45	0.0089	0.0081
Mercury	-12284-05-21 01:11 J	-2765167.47	-2765167.45	-2765167.42	0.0089	0.0088
Venus	-12278-07-07 04:48 J	-2762929.35	-2762929.30	-2762929.25	0.0089	0.0087
Venus	-12277-02-17 17:02 J	-2762703.86	-2762703.79	-2762703.67	0.0089	0.0080
Venus	-12277-09-30 06:00 J	-2762478.36	-2762478.25	-2762478.11	0.0089	0.0072
Venus	-12276-05-13 19:11 J	-2762252.85	-2762252.70	-2762252.55	0.0089	0.0064
Venus	-12276-12-25 07:26 J	-2762027.33	-2762027.19	-2762027.00	0.0089	0.0057
Venus	-12275-08-07 20:24 J	-2761801.82	-2761801.65	-2761801.45	0.0089	0.0049
Venus	-12274-03-21 09:21 J	-2761576.30	-2761576.11	-2761575.91	0.0089	0.0040
Venus	-12274-11-01 22:04 J	-2761350.77	-2761350.58	-2761350.37	0.0089	0.0033
Venus	-12273-06-14 11:02 J	-2761125.25	-2761125.04	-2761124.83	0.0089	0.0025
Venus	-12272-01-25 23:45 J	-2760899.72	-2760899.51	-2760899.29	0.0089	0.0017
Venus	-12272-09-08 12:28 J	-2760674.19	-2760673.98	-2760673.76	0.0089	0.0009
Venus	-12271-04-22 01:11 J	-2760448.66	-2760448.45	-2760448.23	0.0089	0.0002
Venus	-12271-12-03 13:55 J	-2760223.13	-2760222.92	-2760222.70	0.0089	0.0007
Venus	-12270-07-17 02:52 J	-2759997.59	-2759997.38	-2759997.16	0.0089	0.0015
Venus	-12269-02-27 15:35 J	-2759772.06	-2759771.85	-2759771.64	0.0089	0.0022
Venus	-12269-10-10 04:04 J	-2759546.52	-2759546.33	-2759546.12	0.0089	0.0030
Venus	-12268-05-23 16:48 J	-2759320.99	-2759320.80	-2759320.59	0.0089	0.0038
Venus	-12267-01-04 05:16 J	-2759095.45	-2759095.28	-2759095.07	0.0089	0.0046
Venus	-12267-08-17 18:14 J	-2758869.90	-2758869.74	-2758869.56	0.0089	0.0054
Venus	-12266-03-31 06:43 J	-2758644.36	-2758644.22	-2758644.05	0.0089	0.0061
Venus	-12266-11-11 19:11 J	-2758418.82	-2758418.70	-2758418.54	0.0089	0.0069
Venus	-12265-06-24 08:09 J	-2758193.26	-2758193.16	-2758193.04	0.0089	0.0077
Venus	-12264-02-04 20:24 J	-2757967.70	-2757967.65	-2757967.56	0.0089	0.0085
Earth	-12234-11-27 12:00 J	-2746715.16	-2746715.00	-2746714.80	0.0088	0.0063
Moon	-12234-11-27 12:57 J	-2746715.12	-2746714.96	-2746714.76	0.0088	0.0066 *
Earth	-12233-11-29 00:14 J	-2746347.73	-2746347.49	-2746347.23	0.0088	0.0026

Moon	-12233-11-29 01:11 J	-2746347.69	-2746347.45	-2746347.20	0.0088	0.0023 *
Moon	-12232-12-01 10:19 J	-2745980.33	-2745980.07	-2745979.79	0.0088	0.0011
Earth	-12232-12-01 12:28 J	-2745980.24	-2745979.98	-2745979.72	0.0088	0.0013 *
Earth	-12231-12-04 00:14 J	-2745612.69	-2745612.49	-2745612.27	0.0088	0.0050
Moon	-12231-12-04 02:52 J	-2745612.58	-2745612.38	-2745612.17	0.0088	0.0052 *
Moon	-12230-12-06 08:24 J	-2745245.19	-2745245.15	-2745245.06	0.0088	0.0086
Earth	-12230-12-06 12:28 J	-2745244.98	-2745244.98	-2745244.97	0.0088	0.0088
Mars	-12212-06-19 19:40 J	-2738839.89	-2738839.68	-2738839.42	0.0088	0.0053
Mars	-12210-05-14 19:55 J	-2738145.96	-2738145.67	-2738145.38	0.0088	0.0019
Mercury	-12207-10-23 02:52 J	-2736888.44	-2736888.38	-2736888.31	0.0088	0.0082
Mercury	-12206-01-19 06:28 J	-2736800.33	-2736800.23	-2736800.11	0.0088	0.0072
Mercury	-12206-04-17 10:04 J	-2736712.20	-2736712.08	-2736711.92	0.0088	0.0062
Mercury	-12206-07-14 13:55 J	-2736624.07	-2736623.92	-2736623.75	0.0088	0.0052
Mercury	-12206-10-10 17:31 J	-2736535.93	-2736535.77	-2736535.58	0.0088	0.0042
Mercury	-12205-01-06 21:35 J	-2736447.78	-2736447.60	-2736447.41	0.0088	0.0031
Mercury	-12205-04-04 01:11 J	-2736359.64	-2736359.45	-2736359.25	0.0088	0.0021
Mercury	-12205-07-01 05:02 J	-2736271.48	-2736271.29	-2736271.09	0.0088	0.0011
Mercury	-12205-09-27 08:52 J	-2736183.33	-2736183.13	-2736182.93	0.0088	0.0001
Mercury	-12205-12-24 12:28 J	-2736095.17	-2736094.98	-2736094.78	0.0088	0.0010
Mercury	-12204-03-22 16:04 J	-2736007.01	-2736006.83	-2736006.63	0.0088	0.0020
Mercury	-12204-06-18 19:55 J	-2735918.85	-2735918.67	-2735918.48	0.0088	0.0030
Mercury	-12204-09-14 23:45 J	-2735830.69	-2735830.51	-2735830.33	0.0088	0.0040
Mercury	-12204-12-12 03:07 J	-2735742.52	-2735742.37	-2735742.19	0.0088	0.0051
Mercury	-12203-03-10 06:57 J	-2735654.34	-2735654.21	-2735654.06	0.0088	0.0061
Mercury	-12203-06-06 10:33 J	-2735566.16	-2735566.06	-2735565.93	0.0088	0.0071
Mercury	-12203-09-02 14:24 J	-2735477.96	-2735477.90	-2735477.82	0.0088	0.0081
Venus	-12195-04-03 02:24 J	-2732708.43	-2732708.40	-2732708.36	0.0088	0.0087
Venus	-12195-11-14 15:21 J	-2732482.94	-2732482.86	-2732482.74	0.0088	0.0079
Venus	-12194-06-28 04:48 J	-2732257.42	-2732257.30	-2732257.16	0.0088	0.0072
Venus	-12193-02-08 17:45 J	-2732031.89	-2732031.76	-2732031.59	0.0088	0.0064

Venus	-12193-09-21 07:11 J	-2731806.36	-2731806.20	-2731806.02	0.0088	0.0056
Venus	-12192-05-04 20:38 J	-2731580.82	-2731580.64	-2731580.45	0.0088	0.0048
Venus	-12192-12-16 09:50 J	-2731355.27	-2731355.09	-2731354.88	0.0088	0.0041
Venus	-12191-07-29 23:16 J	-2731129.73	-2731129.53	-2731129.31	0.0088	0.0033
Venus	-12190-03-12 12:28 J	-2730904.18	-2730903.98	-2730903.75	0.0088	0.0026
Venus	-12190-10-24 01:55 J	-2730678.64	-2730678.42	-2730678.20	0.0088	0.0017
Venus	-12189-06-05 15:21 J	-2730453.08	-2730452.86	-2730452.64	0.0088	0.0010
Venus	-12188-01-17 04:33 J	-2730227.53	-2730227.31	-2730227.08	0.0088	0.0002
Venus	-12188-08-30 18:00 J	-2730001.97	-2730001.75	-2730001.53	0.0088	0.0006
Venus	-12187-04-13 07:11 J	-2729776.42	-2729776.20	-2729775.98	0.0088	0.0014
Venus	-12187-11-24 20:24 J	-2729550.86	-2729550.65	-2729550.43	0.0088	0.0022
Venus	-12186-07-08 09:35 J	-2729325.30	-2729325.10	-2729324.88	0.0088	0.0030
Venus	-12185-02-18 23:02 J	-2729099.73	-2729099.54	-2729099.33	0.0088	0.0038
Venus	-12185-10-01 12:14 J	-2728874.17	-2728873.99	-2728873.79	0.0088	0.0046
Venus	-12184-05-15 01:26 J	-2728648.60	-2728648.44	-2728648.24	0.0088	0.0054
Venus	-12184-12-26 14:52 J	-2728423.02	-2728422.88	-2728422.70	0.0088	0.0062
Venus	-12183-08-09 04:48 J	-2728197.44	-2728197.30	-2728197.16	0.0088	0.0069
Venus	-12182-03-22 18:00 J	-2727971.85	-2727971.75	-2727971.63	0.0088	0.0076
Venus	-12182-11-03 06:57 J	-2727746.25	-2727746.21	-2727746.12	0.0088	0.0085
Moon	-12151-06-01 05:16 J	-2716578.36	-2716578.28	-2716578.17	0.0089	0.0082
Earth	-12151-06-01 06:28 J	-2716578.32	-2716578.23	-2716578.09	0.0089	0.0079 *
Earth	-12150-06-03 18:00 J	-2716210.96	-2716210.75	-2716210.51	0.0089	0.0041
Moon	-12150-06-03 18:28 J	-2716210.95	-2716210.73	-2716210.47	0.0089	0.0039 *
Earth	-12149-06-05 05:31 J	-2715843.52	-2715843.27	-2715843.01	0.0089	0.0003
Moon	-12149-06-05 06:43 J	-2715843.46	-2715843.22	-2715842.97	0.0089	0.0006 *
Moon	-12148-06-07 14:38 J	-2715476.12	-2715475.89	-2715475.65	0.0089	0.0038
Earth	-12148-06-07 16:33 J	-2715476.03	-2715475.81	-2715475.56	0.0089	0.0036 *
Earth	-12147-06-10 03:50 J	-2715108.48	-2715108.34	-2715108.19	0.0089	0.0074
Moon	-12147-06-10 06:14 J	-2715108.37	-2715108.24	-2715108.07	0.0089	0.0071 *
Mars	-12128-02-07 05:02 J	-2708291.61	-2708291.29	-2708290.95	0.0089	0.0007

Mars	-12126-01-04 02:24 J	-2707595.52	-2707595.40	-2707595.22	0.0089	0.0080
Mercury	-12125-02-05 17:02 J	-2707197.82	-2707197.79	-2707197.74	0.0089	0.0085
Mercury	-12125-05-03 18:14 J	-2707109.79	-2707109.74	-2707109.66	0.0089	0.0078
Mercury	-12125-07-30 19:55 J	-2707021.75	-2707021.67	-2707021.59	0.0089	0.0071
Mercury	-12125-10-26 21:07 J	-2706933.71	-2706933.62	-2706933.53	0.0089	0.0064
Mercury	-12124-01-22 22:19 J	-2706845.66	-2706845.57	-2706845.46	0.0089	0.0057
Mercury	-12124-04-20 23:45 J	-2706757.62	-2706757.51	-2706757.40	0.0089	0.0050
Mercury	-12124-07-18 00:57 J	-2706669.57	-2706669.46	-2706669.34	0.0089	0.0043
Mercury	-12124-10-14 02:09 J	-2706581.52	-2706581.41	-2706581.28	0.0089	0.0036
Mercury	-12123-01-10 03:35 J	-2706493.47	-2706493.35	-2706493.23	0.0089	0.0028
Mercury	-12123-04-08 04:48 J	-2706405.42	-2706405.30	-2706405.17	0.0089	0.0022
Mercury	-12123-07-05 06:14 J	-2706317.37	-2706317.24	-2706317.11	0.0089	0.0014
Mercury	-12123-10-01 07:26 J	-2706229.32	-2706229.19	-2706229.06	0.0089	0.0007
Mercury	-12123-12-28 08:38 J	-2706141.27	-2706141.14	-2706141.01	0.0089	0.0002
Mercury	-12122-03-26 10:04 J	-2706053.21	-2706053.08	-2706052.95	0.0089	0.0007
Mercury	-12122-06-22 11:16 J	-2705965.16	-2705965.03	-2705964.90	0.0089	0.0014
Mercury	-12122-09-18 12:28 J	-2705877.10	-2705876.98	-2705876.85	0.0089	0.0021
Mercury	-12122-12-15 13:40 J	-2705789.05	-2705788.93	-2705788.80	0.0089	0.0028
Mercury	-12121-03-12 14:52 J	-2705700.99	-2705700.88	-2705700.75	0.0089	0.0036
Mercury	-12121-06-08 16:19 J	-2705612.93	-2705612.82	-2705612.70	0.0089	0.0042
Mercury	-12121-09-04 17:31 J	-2705524.87	-2705524.77	-2705524.65	0.0089	0.0049
Mercury	-12121-12-01 18:43 J	-2705436.81	-2705436.72	-2705436.61	0.0089	0.0057
Mercury	-12120-02-27 19:55 J	-2705348.75	-2705348.67	-2705348.57	0.0089	0.0064
Mercury	-12120-05-26 21:21 J	-2705260.68	-2705260.61	-2705260.52	0.0089	0.0070
Mercury	-12120-08-22 22:33 J	-2705172.61	-2705172.56	-2705172.49	0.0089	0.0078
Mercury	-12120-11-18 23:45 J	-2705084.54	-2705084.51	-2705084.46	0.0089	0.0085
Venus	-12113-05-21 05:16 J	-2702709.34	-2702709.28	-2702709.19	0.0089	0.0084
Venus	-12112-01-01 18:14 J	-2702483.84	-2702483.74	-2702483.61	0.0089	0.0076
Venus	-12112-08-15 07:11 J	-2702258.33	-2702258.20	-2702258.05	0.0089	0.0068
Venus	-12111-03-28 20:09 J	-2702032.82	-2702032.66	-2702032.50	0.0089	0.0060

Venus	-12111-11-09 08:24 J	-2701807.30	-2701807.15	-2701806.95	0.0089	0.0053
Venus	-12110-06-22 21:21 J	-2701581.78	-2701581.61	-2701581.40	0.0089	0.0045
Venus	-12109-02-03 10:19 J	-2701356.26	-2701356.07	-2701355.86	0.0089	0.0036
Venus	-12109-09-15 23:02 J	-2701130.74	-2701130.54	-2701130.32	0.0089	0.0028
Venus	-12108-04-29 11:45 J	-2700905.21	-2700905.01	-2700904.79	0.0089	0.0021
Venus	-12108-12-11 00:43 J	-2700679.68	-2700679.47	-2700679.25	0.0089	0.0012
Venus	-12107-07-24 13:40 J	-2700454.15	-2700453.93	-2700453.71	0.0089	0.0004
Venus	-12106-03-07 02:24 J	-2700228.62	-2700228.40	-2700228.19	0.0089	0.0004
Venus	-12106-10-18 14:52 J	-2700003.09	-2700002.88	-2700002.66	0.0089	0.0012
Venus	-12105-05-31 03:50 J	-2699777.55	-2699777.34	-2699777.13	0.0089	0.0020
Venus	-12104-01-11 16:33 J	-2699552.02	-2699551.81	-2699551.60	0.0089	0.0028
Venus	-12104-08-25 05:16 J	-2699326.48	-2699326.28	-2699326.08	0.0089	0.0036
Venus	-12103-04-07 17:45 J	-2699100.94	-2699100.76	-2699100.56	0.0089	0.0044
Venus	-12103-11-19 06:28 J	-2698875.40	-2698875.23	-2698875.04	0.0089	0.0051
Venus	-12102-07-02 19:11 J	-2698649.85	-2698649.70	-2698649.52	0.0089	0.0059
Venus	-12101-02-13 07:40 J	-2698424.30	-2698424.18	-2698424.02	0.0089	0.0068
Venus	-12101-09-25 20:09 J	-2698198.75	-2698198.66	-2698198.52	0.0089	0.0075
Venus	-12100-05-09 09:07 J	-2697973.19	-2697973.12	-2697973.03	0.0089	0.0083
Earth	-12070-11-26 23:02 J	-2686814.61	-2686814.54	-2686814.41	0.0088	0.0082
Moon	-12070-11-26 23:45 J	-2686814.60	-2686814.51	-2686814.36	0.0088	0.0079 *
Moon	-12069-11-28 08:38 J	-2686447.34	-2686447.14	-2686446.89	0.0088	0.0047
Earth	-12069-11-28 11:16 J	-2686447.25	-2686447.03	-2686446.79	0.0088	0.0043 *
Earth	-12068-11-30 23:16 J	-2686079.79	-2686079.53	-2686079.27	0.0088	0.0006
Moon	-12068-12-01 02:24 J	-2686079.65	-2686079.40	-2686079.14	0.0088	0.0003 *
Moon	-12067-12-03 07:40 J	-2685712.42	-2685712.18	-2685711.92	0.0088	0.0028
Earth	-12067-12-03 11:02 J	-2685712.27	-2685712.04	-2685711.79	0.0088	0.0032 *
Earth	-12066-12-05 23:16 J	-2685344.69	-2685344.53	-2685344.37	0.0088	0.0070
Moon	-12066-12-06 02:24 J	-2685344.51	-2685344.40	-2685344.23	0.0088	0.0074 *
Mars	-12047-12-28 05:45 J	-2678382.54	-2678382.26	-2678381.95	0.0088	0.0016
Mars	-12045-11-21 05:02 J	-2677688.49	-2677688.29	-2677688.04	0.0088	0.0057

Mercury	-12042-04-22 22:19 J	-2676805.59	-2676805.57	-2676805.55	0.0088	0.0087
Mercury	-12042-07-20 01:55 J	-2676717.51	-2676717.42	-2676717.32	0.0088	0.0077
Mercury	-12042-10-16 05:31 J	-2676629.39	-2676629.27	-2676629.13	0.0088	0.0067
Mercury	-12041-01-12 09:07 J	-2676541.26	-2676541.12	-2676540.96	0.0088	0.0057
Mercury	-12041-04-09 12:43 J	-2676453.12	-2676452.97	-2676452.78	0.0088	0.0047
Mercury	-12041-07-06 16:48 J	-2676364.98	-2676364.80	-2676364.61	0.0088	0.0036
Mercury	-12041-10-02 20:38 J	-2676276.83	-2676276.64	-2676276.45	0.0088	0.0026
Mercury	-12041-12-30 00:14 J	-2676188.68	-2676188.49	-2676188.29	0.0088	0.0016
Mercury	-12040-03-28 04:04 J	-2676100.53	-2676100.33	-2676100.13	0.0088	0.0006
Mercury	-12040-06-24 07:40 J	-2676012.37	-2676012.18	-2676011.97	0.0088	0.0005
Mercury	-12040-09-20 11:31 J	-2675924.21	-2675924.02	-2675923.82	0.0088	0.0015
Mercury	-12040-12-17 15:07 J	-2675836.05	-2675835.87	-2675835.67	0.0088	0.0025
Mercury	-12039-03-15 18:57 J	-2675747.89	-2675747.71	-2675747.52	0.0088	0.0035
Mercury	-12039-06-11 22:19 J	-2675659.72	-2675659.57	-2675659.38	0.0088	0.0046
Mercury	-12039-09-08 02:09 J	-2675571.55	-2675571.41	-2675571.24	0.0088	0.0056
Mercury	-12039-12-05 06:00 J	-2675483.37	-2675483.25	-2675483.11	0.0088	0.0066
Mercury	-12038-03-03 09:50 J	-2675395.18	-2675395.09	-2675394.99	0.0088	0.0076
Mercury	-12038-05-30 13:11 J	-2675306.96	-2675306.95	-2675306.90	0.0088	0.0087
Venus	-12030-02-16 03:07 J	-2672488.42	-2672488.37	-2672488.27	0.0088	0.0083
Venus	-12030-09-29 16:33 J	-2672262.91	-2672262.81	-2672262.68	0.0088	0.0075
Venus	-12029-05-12 06:00 J	-2672037.39	-2672037.25	-2672037.11	0.0088	0.0067
Venus	-12029-12-23 18:57 J	-2671811.85	-2671811.71	-2671811.53	0.0088	0.0060
Venus	-12028-08-06 08:24 J	-2671586.32	-2671586.15	-2671585.96	0.0088	0.0052
Venus	-12027-03-19 21:35 J	-2671360.78	-2671360.60	-2671360.39	0.0088	0.0044
Venus	-12027-10-31 11:02 J	-2671135.24	-2671135.04	-2671134.83	0.0088	0.0036
Venus	-12026-06-14 00:28 J	-2670909.69	-2670909.48	-2670909.27	0.0088	0.0028
Venus	-12025-01-25 13:55 J	-2670684.14	-2670683.92	-2670683.71	0.0088	0.0021
Venus	-12025-09-07 03:07 J	-2670458.59	-2670458.37	-2670458.15	0.0088	0.0013
Venus	-12024-04-20 16:19 J	-2670233.04	-2670232.82	-2670232.59	0.0088	0.0005
Venus	-12024-12-02 05:45 J	-2670007.48	-2670007.26	-2670007.03	0.0088	0.0004

Venus	-12023-07-15 19:11 J	-2669781.92	-2669781.70	-2669781.48	0.0088	0.0011
Venus	-12022-02-26 08:24 J	-2669556.37	-2669556.15	-2669555.93	0.0088	0.0019
Venus	-12022-10-09 21:35 J	-2669330.81	-2669330.60	-2669330.39	0.0088	0.0027
Venus	-12021-05-22 10:48 J	-2669105.25	-2669105.05	-2669104.84	0.0088	0.0035
Venus	-12020-01-03 00:00 J	-2668879.68	-2668879.50	-2668879.29	0.0088	0.0044
Venus	-12020-08-16 13:26 J	-2668654.11	-2668653.94	-2668653.74	0.0088	0.0051
Venus	-12019-03-30 02:38 J	-2668428.54	-2668428.39	-2668428.21	0.0088	0.0059
Venus	-12019-11-10 16:19 J	-2668202.96	-2668202.82	-2668202.67	0.0088	0.0067
Venus	-12018-06-24 05:31 J	-2667977.38	-2667977.27	-2667977.14	0.0088	0.0075
Venus	-12017-02-04 18:43 J	-2667751.78	-2667751.72	-2667751.62	0.0088	0.0083

12TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 12th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-11986-06-03 06:00 J	-2656310.42	-2656310.25	-2656310.04	0.0089	0.0059		
Moon	-11986-06-03 07:11 J	-2656310.37	-2656310.20	-2656310.02	0.0089	0.0062	*	
Moon	-11985-06-04 14:52 J	-2655943.13	-2655942.88	-2655942.62	0.0089	0.0018		
Earth	-11985-06-04 17:31 J	-2655943.01	-2655942.77	-2655942.51	0.0089	0.0021	*	
Earth	-11984-06-07 04:48 J	-2655575.55	-2655575.30	-2655575.04	0.0089	0.0017		
Moon	-11984-06-07 07:55 J	-2655575.41	-2655575.17	-2655574.91	0.0089	0.0015	*	
Moon	-11983-06-09 12:43 J	-2655208.16	-2655207.97	-2655207.78	0.0089	0.0059		
Earth	-11983-06-09 15:50 J	-2655208.02	-2655207.84	-2655207.62	0.0089	0.0055	*	

Mars	-11965-09-21 04:33 J	-2648529.57	-2648529.31	-2648529.01	0.0089	0.0048
Mars	-11963-08-18 02:09 J	-2647833.71	-2647833.41	-2647833.11	0.0089	0.0038
Mercury	-11961-08-05 15:50 J	-2647114.84	-2647114.84	-2647114.81	0.0089	0.0089
Mercury	-11961-11-01 17:02 J	-2647026.83	-2647026.79	-2647026.72	0.0089	0.0082
Mercury	-11960-01-28 18:28 J	-2646938.79	-2646938.73	-2646938.65	0.0089	0.0074
Mercury	-11960-04-26 19:40 J	-2646850.75	-2646850.68	-2646850.58	0.0089	0.0068
Mercury	-11960-07-23 21:07 J	-2646762.71	-2646762.62	-2646762.52	0.0089	0.0060
Mercury	-11960-10-19 22:19 J	-2646674.66	-2646674.57	-2646674.45	0.0089	0.0053
Mercury	-11959-01-15 23:45 J	-2646586.62	-2646586.51	-2646586.39	0.0089	0.0046
Mercury	-11959-04-14 01:11 J	-2646498.57	-2646498.45	-2646498.33	0.0089	0.0039
Mercury	-11959-07-11 02:24 J	-2646410.52	-2646410.40	-2646410.28	0.0089	0.0032
Mercury	-11959-10-07 03:50 J	-2646322.47	-2646322.34	-2646322.22	0.0089	0.0025
Mercury	-11958-01-03 05:02 J	-2646234.42	-2646234.29	-2646234.16	0.0089	0.0018
Mercury	-11958-04-01 06:14 J	-2646146.37	-2646146.24	-2646146.11	0.0089	0.0011
Mercury	-11958-06-28 07:40 J	-2646058.31	-2646058.18	-2646058.05	0.0089	0.0004
Mercury	-11958-09-24 08:52 J	-2645970.26	-2645970.13	-2645970.00	0.0089	0.0004
Mercury	-11958-12-21 10:04 J	-2645882.21	-2645882.08	-2645881.95	0.0089	0.0011
Mercury	-11957-03-18 11:16 J	-2645794.15	-2645794.03	-2645793.90	0.0089	0.0018
Mercury	-11957-06-14 12:43 J	-2645706.10	-2645705.97	-2645705.85	0.0089	0.0025
Mercury	-11957-09-10 13:55 J	-2645618.04	-2645617.92	-2645617.80	0.0089	0.0032
Mercury	-11957-12-07 15:07 J	-2645529.98	-2645529.87	-2645529.75	0.0089	0.0039
Mercury	-11956-03-05 16:19 J	-2645441.92	-2645441.82	-2645441.70	0.0089	0.0046
Mercury	-11956-06-01 17:31 J	-2645353.86	-2645353.77	-2645353.65	0.0089	0.0054
Mercury	-11956-08-28 18:57 J	-2645265.80	-2645265.71	-2645265.61	0.0089	0.0060
Mercury	-11956-11-24 20:09 J	-2645177.73	-2645177.66	-2645177.57	0.0089	0.0067
Mercury	-11955-02-20 21:21 J	-2645089.67	-2645089.61	-2645089.53	0.0089	0.0075
Mercury	-11955-05-19 22:33 J	-2645001.60	-2645001.56	-2645001.49	0.0089	0.0082
Mercury	-11955-08-16 00:00 J	-2644913.51	-2644913.50	-2644913.47	0.0089	0.0088
Venus	-11949-08-22 17:16 J	-2642714.80	-2642714.78	-2642714.73	0.0089	0.0088
Venus	-11948-04-05 06:14 J	-2642489.33	-2642489.24	-2642489.13	0.0089	0.0080

Venus	-11948-11-16 19:11 J	-2642263.82	-2642263.70	-2642263.57	0.0089	0.0072
Venus	-11947-06-30 08:24 J	-2642038.30	-2642038.15	-2642038.00	0.0089	0.0064
Venus	-11946-02-10 21:07 J	-2641812.79	-2641812.62	-2641812.45	0.0089	0.0056
Venus	-11946-09-24 09:50 J	-2641587.27	-2641587.09	-2641586.91	0.0089	0.0048
Venus	-11945-05-06 22:33 J	-2641361.75	-2641361.56	-2641361.36	0.0089	0.0040
Venus	-11945-12-18 11:16 J	-2641136.23	-2641136.03	-2641135.82	0.0089	0.0032
Venus	-11944-08-01 00:14 J	-2640910.70	-2640910.49	-2640910.28	0.0089	0.0024
Venus	-11943-03-14 12:43 J	-2640685.18	-2640684.97	-2640684.75	0.0089	0.0016
Venus	-11943-10-26 01:40 J	-2640459.65	-2640459.43	-2640459.22	0.0089	0.0008
Venus	-11942-06-08 14:24 J	-2640234.12	-2640233.90	-2640233.68	0.0089	0.0001
Venus	-11941-01-20 02:52 J	-2640008.59	-2640008.38	-2640008.15	0.0089	0.0009
Venus	-11941-09-01 15:35 J	-2639783.06	-2639782.85	-2639782.63	0.0089	0.0017
Venus	-11940-04-15 04:04 J	-2639557.52	-2639557.33	-2639557.11	0.0089	0.0026
Venus	-11940-11-26 16:48 J	-2639331.99	-2639331.80	-2639331.58	0.0089	0.0033
Venus	-11939-07-10 05:45 J	-2639106.44	-2639106.26	-2639106.06	0.0089	0.0041
Venus	-11938-02-20 18:14 J	-2638880.90	-2638880.74	-2638880.54	0.0089	0.0049
Venus	-11938-10-04 06:57 J	-2638655.36	-2638655.21	-2638655.03	0.0089	0.0057
Venus	-11937-05-16 19:26 J	-2638429.81	-2638429.69	-2638429.52	0.0089	0.0066
Venus	-11937-12-28 08:09 J	-2638204.26	-2638204.16	-2638204.01	0.0089	0.0073
Venus	-11936-08-10 21:21 J	-2637978.69	-2637978.61	-2637978.51	0.0089	0.0081
Venus	-11935-03-24 09:50 J	-2637753.10	-2637753.09	-2637753.05	0.0089	0.0088
Earth	-11905-11-27 21:50 J	-2626546.77	-2626546.59	-2626546.40	0.0088	0.0062
Moon	-11905-11-28 01:11 J	-2626546.62	-2626546.45	-2626546.27	0.0088	0.0065 *
Moon	-11904-11-30 06:00 J	-2626179.50	-2626179.25	-2626179.00	0.0088	0.0021
Earth	-11904-11-30 09:21 J	-2626179.34	-2626179.11	-2626178.85	0.0088	0.0025 *
Earth	-11903-12-02 21:21 J	-2625811.86	-2625811.61	-2625811.35	0.0088	0.0014
Moon	-11903-12-03 00:43 J	-2625811.72	-2625811.47	-2625811.20	0.0088	0.0011 *
Moon	-11902-12-05 06:14 J	-2625444.43	-2625444.24	-2625444.03	0.0088	0.0054
Earth	-11902-12-05 09:07 J	-2625444.31	-2625444.12	-2625443.89	0.0088	0.0051 *
Moon	-11901-12-06 22:48 J	-2625076.59	-2625076.55	-2625076.46	0.0088	0.0086

Jupiter	-11886-06-08 14:38 J	-2619780.39	-2619779.89	-2619779.36	0.0088	0.0034
Mars	-11883-08-12 16:33 J	-2618619.03	-2618618.81	-2618618.54	0.0088	0.0051
Mars	-11881-07-06 15:35 J	-2617925.13	-2617924.85	-2617924.55	0.0088	0.0022
Mercury	-11877-01-17 21:07 J	-2616634.68	-2616634.62	-2616634.54	0.0088	0.0082
Mercury	-11877-04-15 00:43 J	-2616546.57	-2616546.47	-2616546.34	0.0088	0.0072
Mercury	-11877-07-12 04:19 J	-2616458.44	-2616458.32	-2616458.16	0.0088	0.0062
Mercury	-11877-10-08 08:09 J	-2616370.31	-2616370.16	-2616369.99	0.0088	0.0052
Mercury	-11876-01-04 12:14 J	-2616282.17	-2616281.99	-2616281.82	0.0088	0.0041
Mercury	-11876-04-02 15:50 J	-2616194.02	-2616193.84	-2616193.65	0.0088	0.0031
Mercury	-11876-06-29 19:26 J	-2616105.88	-2616105.69	-2616105.49	0.0088	0.0021
Mercury	-11876-09-25 23:16 J	-2616017.72	-2616017.53	-2616017.33	0.0088	0.0011
Mercury	-11876-12-23 03:07 J	-2615929.57	-2615929.37	-2615929.17	0.0088	0.0001
Mercury	-11875-03-21 06:43 J	-2615841.41	-2615841.22	-2615841.02	0.0088	0.0010
Mercury	-11875-06-17 10:19 J	-2615753.25	-2615753.07	-2615752.87	0.0088	0.0020
Mercury	-11875-09-13 14:09 J	-2615665.09	-2615664.91	-2615664.72	0.0088	0.0030
Mercury	-11875-12-10 18:00 J	-2615576.93	-2615576.75	-2615576.57	0.0088	0.0040
Mercury	-11874-03-08 21:21 J	-2615488.76	-2615488.61	-2615488.43	0.0088	0.0051
Mercury	-11874-06-05 01:11 J	-2615400.58	-2615400.45	-2615400.30	0.0088	0.0061
Mercury	-11874-09-01 04:48 J	-2615312.40	-2615312.30	-2615312.17	0.0088	0.0071
Mercury	-11874-11-28 08:52 J	-2615224.20	-2615224.13	-2615224.06	0.0088	0.0081
Venus	-11866-05-20 14:52 J	-2612493.89	-2612493.88	-2612493.84	0.0088	0.0087
Venus	-11865-01-01 04:19 J	-2612268.41	-2612268.32	-2612268.22	0.0088	0.0079
Venus	-11865-08-13 17:45 J	-2612042.89	-2612042.76	-2612042.64	0.0088	0.0072
Venus	-11864-03-27 06:14 J	-2611817.37	-2611817.24	-2611817.06	0.0088	0.0064
Venus	-11864-11-07 19:40 J	-2611591.84	-2611591.68	-2611591.49	0.0088	0.0056
Venus	-11863-06-21 08:52 J	-2611366.30	-2611366.13	-2611365.93	0.0088	0.0048
Venus	-11862-02-01 22:19 J	-2611140.76	-2611140.57	-2611140.36	0.0088	0.0040
Venus	-11862-09-15 11:31 J	-2610915.22	-2610915.02	-2610914.80	0.0088	0.0032
Venus	-11861-04-28 00:57 J	-2610689.67	-2610689.46	-2610689.24	0.0088	0.0024
Venus	-11861-12-09 14:24 J	-2610464.11	-2610463.90	-2610463.67	0.0088	0.0016

Venus	-11860-07-23 03:50 J	-2610238.56	-2610238.34	-2610238.12	0.0088	0.0008
Venus	-11859-03-05 17:16 J	-2610013.01	-2610012.78	-2610012.56	0.0088	0.0001
Venus	-11859-10-17 06:28 J	-2609787.45	-2609787.23	-2609787.01	0.0088	0.0008
Venus	-11858-05-30 19:40 J	-2609561.89	-2609561.68	-2609561.46	0.0088	0.0017
Venus	-11857-01-11 09:21 J	-2609336.33	-2609336.11	-2609335.90	0.0088	0.0025
Venus	-11857-08-23 22:33 J	-2609110.76	-2609110.56	-2609110.35	0.0088	0.0033
Venus	-11856-04-06 12:00 J	-2608885.20	-2608885.00	-2608884.80	0.0088	0.0041
Venus	-11856-11-18 00:43 J	-2608659.63	-2608659.47	-2608659.26	0.0088	0.0050
Venus	-11855-07-01 14:38 J	-2608434.06	-2608433.89	-2608433.72	0.0088	0.0057
Venus	-11854-02-12 03:21 J	-2608208.48	-2608208.36	-2608208.18	0.0088	0.0066
Venus	-11854-09-25 17:16 J	-2607982.90	-2607982.78	-2607982.65	0.0088	0.0073
Venus	-11853-05-08 06:28 J	-2607757.31	-2607757.23	-2607757.13	0.0088	0.0081
Moon	-11822-06-02 14:24 J	-2596409.99	-2596409.90	-2596409.77	0.0089	0.0081
Earth	-11822-06-02 17:31 J	-2596409.89	-2596409.77	-2596409.65	0.0089	0.0077 *
Earth	-11821-06-04 04:33 J	-2596042.52	-2596042.31	-2596042.06	0.0089	0.0040
Moon	-11821-06-04 08:09 J	-2596042.38	-2596042.16	-2596041.92	0.0089	0.0036 *
Moon	-11820-06-06 12:57 J	-2595675.21	-2595674.96	-2595674.70	0.0089	0.0006
Earth	-11820-06-06 16:33 J	-2595675.06	-2595674.81	-2595674.55	0.0089	0.0002 *
Earth	-11819-06-09 03:35 J	-2595307.57	-2595307.35	-2595307.11	0.0089	0.0037
Moon	-11819-06-09 06:57 J	-2595307.43	-2595307.21	-2595306.97	0.0089	0.0040 *
Moon	-11818-06-11 11:45 J	-2594940.14	-2594940.01	-2594939.84	0.0089	0.0072
Earth	-11818-06-11 14:52 J	-2594940.01	-2594939.88	-2594939.73	0.0089	0.0074 *
Mars	-11801-05-05 05:16 J	-2588767.31	-2588767.28	-2588767.24	0.0089	0.0089
Mars	-11799-03-31 23:45 J	-2588071.83	-2588071.51	-2588071.17	0.0089	0.0005
Mars	-11797-02-25 20:52 J	-2587375.74	-2587375.63	-2587375.48	0.0089	0.0082
Mercury	-11796-05-02 15:50 J	-2586943.87	-2586943.84	-2586943.79	0.0089	0.0085
Mercury	-11796-07-29 17:31 J	-2586855.83	-2586855.77	-2586855.71	0.0089	0.0078
Mercury	-11796-10-25 18:43 J	-2586767.80	-2586767.72	-2586767.64	0.0089	0.0071
Mercury	-11795-01-21 19:55 J	-2586679.76	-2586679.67	-2586679.58	0.0089	0.0064
Mercury	-11795-04-19 21:07 J	-2586591.71	-2586591.62	-2586591.51	0.0089	0.0057

Mercury	-11795-07-16 22:33 J	-2586503.67	-2586503.56	-2586503.45	0.0089	0.0050
Mercury	-11795-10-12 23:45 J	-2586415.62	-2586415.51	-2586415.39	0.0089	0.0043
Mercury	-11794-01-09 01:11 J	-2586327.57	-2586327.45	-2586327.33	0.0089	0.0035
Mercury	-11794-04-07 02:24 J	-2586239.52	-2586239.40	-2586239.27	0.0089	0.0028
Mercury	-11794-07-04 03:35 J	-2586151.47	-2586151.35	-2586151.22	0.0089	0.0022
Mercury	-11794-09-30 05:02 J	-2586063.42	-2586063.29	-2586063.16	0.0089	0.0014
Mercury	-11794-12-27 06:14 J	-2585975.37	-2585975.24	-2585975.11	0.0089	0.0007
Mercury	-11793-03-24 07:40 J	-2585887.31	-2585887.18	-2585887.05	0.0089	0.0002
Mercury	-11793-06-20 08:52 J	-2585799.26	-2585799.13	-2585799.00	0.0089	0.0007
Mercury	-11793-09-16 10:04 J	-2585711.21	-2585711.08	-2585710.95	0.0089	0.0014
Mercury	-11793-12-13 11:16 J	-2585623.15	-2585623.03	-2585622.90	0.0089	0.0022
Mercury	-11792-03-11 12:43 J	-2585535.09	-2585534.97	-2585534.85	0.0089	0.0028
Mercury	-11792-06-07 13:55 J	-2585447.04	-2585446.92	-2585446.80	0.0089	0.0035
Mercury	-11792-09-03 15:07 J	-2585358.98	-2585358.87	-2585358.75	0.0089	0.0043
Mercury	-11792-11-30 16:33 J	-2585270.92	-2585270.81	-2585270.70	0.0089	0.0049
Mercury	-11791-02-26 17:45 J	-2585182.86	-2585182.76	-2585182.66	0.0089	0.0057
Mercury	-11791-05-25 18:57 J	-2585094.79	-2585094.71	-2585094.61	0.0089	0.0064
Mercury	-11791-08-21 20:24 J	-2585006.73	-2585006.65	-2585006.57	0.0089	0.0071
Mercury	-11791-11-17 21:35 J	-2584918.66	-2584918.60	-2584918.53	0.0089	0.0078
Mercury	-11790-02-13 22:48 J	-2584830.58	-2584830.55	-2584830.50	0.0089	0.0085
Venus	-11784-07-07 17:45 J	-2582494.81	-2582494.76	-2582494.67	0.0089	0.0085
Venus	-11783-02-18 06:43 J	-2582269.31	-2582269.22	-2582269.09	0.0089	0.0076
Venus	-11783-10-01 19:26 J	-2582043.80	-2582043.69	-2582043.53	0.0089	0.0069
Venus	-11782-05-15 08:24 J	-2581818.29	-2581818.15	-2581817.97	0.0089	0.0060
Venus	-11782-12-26 21:35 J	-2581592.77	-2581592.60	-2581592.41	0.0089	0.0052
Venus	-11781-08-08 10:33 J	-2581367.25	-2581367.06	-2581366.87	0.0089	0.0043
Venus	-11780-03-21 23:16 J	-2581141.72	-2581141.53	-2581141.32	0.0089	0.0035
Venus	-11780-11-02 12:00 J	-2580916.20	-2580916.00	-2580915.79	0.0089	0.0027
Venus	-11779-06-16 00:43 J	-2580690.67	-2580690.47	-2580690.24	0.0089	0.0020
Venus	-11778-01-27 13:40 J	-2580465.14	-2580464.93	-2580464.71	0.0089	0.0011

Venus	-11778-09-10 02:24 J	-2580239.62	-2580239.40	-2580239.18	0.0089	0.0002
Venus	-11777-04-22 15:07 J	-2580014.09	-2580013.87	-2580013.65	0.0089	0.0006
Venus	-11777-12-04 03:35 J	-2579788.55	-2579788.35	-2579788.13	0.0089	0.0014
Venus	-11776-07-17 16:33 J	-2579563.02	-2579562.81	-2579562.60	0.0089	0.0022
Venus	-11775-02-28 05:02 J	-2579337.48	-2579337.29	-2579337.07	0.0089	0.0031
Venus	-11775-10-11 17:45 J	-2579111.95	-2579111.76	-2579111.56	0.0089	0.0038
Venus	-11774-05-25 06:28 J	-2578886.41	-2578886.23	-2578886.04	0.0089	0.0047
Venus	-11773-01-05 19:11 J	-2578660.87	-2578660.70	-2578660.52	0.0089	0.0055
Venus	-11773-08-18 08:09 J	-2578435.32	-2578435.16	-2578435.01	0.0089	0.0063
Venus	-11772-03-31 20:38 J	-2578209.77	-2578209.64	-2578209.51	0.0089	0.0071
Venus	-11772-11-12 09:21 J	-2577984.21	-2577984.11	-2577984.01	0.0089	0.0079
Venus	-11771-06-25 22:04 J	-2577758.63	-2577758.58	-2577758.53	0.0089	0.0086
Moon	-11741-11-27 04:33 J	-2566646.42	-2566646.31	-2566646.16	0.0088	0.0077
Earth	-11741-11-27 08:24 J	-2566646.25	-2566646.15	-2566646.03	0.0088	0.0080 *
Earth	-11740-11-29 20:09 J	-2566278.88	-2566278.66	-2566278.42	0.0088	0.0042
Moon	-11740-11-29 23:31 J	-2566278.73	-2566278.52	-2566278.28	0.0088	0.0046 *
Moon	-11739-12-02 05:45 J	-2565911.51	-2565911.26	-2565911.00	0.0088	0.0002
Earth	-11739-12-02 08:09 J	-2565911.42	-2565911.16	-2565910.90	0.0088	0.0005 *
Earth	-11738-12-04 19:40 J	-2565543.91	-2565543.68	-2565543.43	0.0088	0.0033
Moon	-11738-12-04 21:50 J	-2565543.84	-2565543.59	-2565543.33	0.0088	0.0029 *
Earth	-11737-12-06 07:40 J	-2565176.33	-2565176.18	-2565176.02	0.0088	0.0070
Moon	-11737-12-06 06:57 J	-2565176.32	-2565176.21	-2565176.05	0.0088	0.0074 *
Mars	-11719-03-28 00:14 J	-2558855.51	-2558855.49	-2558855.44	0.0088	0.0087
Mars	-11717-02-20 01:26 J	-2558161.72	-2558161.44	-2558161.13	0.0088	0.0014
Mars	-11715-01-14 00:14 J	-2557467.70	-2557467.49	-2557467.26	0.0088	0.0059
Mercury	-11713-07-17 16:19 J	-2556551.83	-2556551.82	-2556551.79	0.0088	0.0087
Mercury	-11713-10-13 19:55 J	-2556463.75	-2556463.67	-2556463.56	0.0088	0.0077
Mercury	-11712-01-09 23:31 J	-2556375.63	-2556375.52	-2556375.38	0.0088	0.0067
Mercury	-11712-04-08 03:21 J	-2556287.50	-2556287.36	-2556287.20	0.0088	0.0057
Mercury	-11712-07-05 06:57 J	-2556199.36	-2556199.21	-2556199.03	0.0088	0.0047

Mercury	-11712-10-01 11:02 J	-2556111.22	-2556111.04	-2556110.86	0.0088	0.0036
Mercury	-11712-12-28 14:38 J	-2556023.07	-2556022.89	-2556022.69	0.0088	0.0026
Mercury	-11711-03-26 18:28 J	-2555934.92	-2555934.73	-2555934.53	0.0088	0.0016
Mercury	-11711-06-22 22:04 J	-2555846.77	-2555846.58	-2555846.38	0.0088	0.0006
Mercury	-11711-09-19 01:55 J	-2555758.62	-2555758.42	-2555758.22	0.0088	0.0004
Mercury	-11711-12-16 05:31 J	-2555670.46	-2555670.27	-2555670.07	0.0088	0.0015
Mercury	-11710-03-14 09:07 J	-2555582.30	-2555582.12	-2555581.92	0.0088	0.0025
Mercury	-11710-06-10 12:57 J	-2555494.14	-2555493.96	-2555493.77	0.0088	0.0035
Mercury	-11710-09-06 16:48 J	-2555405.97	-2555405.80	-2555405.63	0.0088	0.0045
Mercury	-11710-12-03 20:09 J	-2555317.80	-2555317.66	-2555317.49	0.0088	0.0056
Mercury	-11709-03-01 00:00 J	-2555229.62	-2555229.50	-2555229.36	0.0088	0.0066
Mercury	-11709-05-28 03:35 J	-2555141.43	-2555141.35	-2555141.23	0.0088	0.0076
Mercury	-11709-08-24 07:40 J	-2555053.21	-2555053.18	-2555053.14	0.0088	0.0086
Venus	-11701-04-03 15:50 J	-2552273.90	-2552273.84	-2552273.76	0.0088	0.0084
Venus	-11701-11-15 05:16 J	-2552048.39	-2552048.28	-2552048.17	0.0088	0.0076
Venus	-11700-06-28 17:45 J	-2551822.87	-2551822.76	-2551822.59	0.0088	0.0068
Venus	-11699-02-09 06:57 J	-2551597.35	-2551597.21	-2551597.02	0.0088	0.0060
Venus	-11699-09-22 20:09 J	-2551371.82	-2551371.66	-2551371.46	0.0088	0.0052
Venus	-11698-05-06 09:21 J	-2551146.28	-2551146.11	-2551145.90	0.0088	0.0044
Venus	-11698-12-17 23:16 J	-2550920.74	-2550920.53	-2550920.33	0.0088	0.0036
Venus	-11697-07-30 12:28 J	-2550695.19	-2550694.98	-2550694.77	0.0088	0.0027
Venus	-11696-03-13 01:40 J	-2550469.65	-2550469.43	-2550469.21	0.0088	0.0019
Venus	-11696-10-24 14:52 J	-2550244.10	-2550243.88	-2550243.66	0.0088	0.0011
Venus	-11695-06-07 04:19 J	-2550018.55	-2550018.32	-2550018.10	0.0088	0.0003
Venus	-11694-01-18 17:45 J	-2549792.99	-2549792.76	-2549792.54	0.0088	0.0005
Venus	-11694-09-01 06:57 J	-2549567.43	-2549567.21	-2549566.99	0.0088	0.0013
Venus	-11693-04-13 20:24 J	-2549341.87	-2549341.65	-2549341.44	0.0088	0.0022
Venus	-11693-11-25 09:21 J	-2549116.30	-2549116.11	-2549115.88	0.0088	0.0030
Venus	-11692-07-08 22:48 J	-2548890.74	-2548890.55	-2548890.34	0.0088	0.0038
Venus	-11691-02-19 12:00 J	-2548665.17	-2548665.00	-2548664.79	0.0088	0.0047

Venus	-11691-10-03 01:26 J	-2548439.60	-2548439.44	-2548439.25	0.0088	0.0054
Venus	-11690-05-16 14:52 J	-2548214.03	-2548213.88	-2548213.72	0.0088	0.0062
Venus	-11690-12-28 04:19 J	-2547988.44	-2547988.32	-2547988.18	0.0088	0.0071
Venus	-11689-08-09 17:45 J	-2547762.85	-2547762.76	-2547762.65	0.0088	0.0079
Venus	-11688-03-23 06:57 J	-2547537.24	-2547537.21	-2547537.16	0.0088	0.0087
Moon	-11657-06-03 11:45 J	-2536142.18	-2536142.01	-2536141.81	0.0089	0.0062
Earth	-11657-06-03 15:35 J	-2536142.04	-2536141.85	-2536141.65	0.0089	0.0058 *
Earth	-11656-06-06 03:07 J	-2535774.62	-2535774.37	-2535774.12	0.0089	0.0020
Moon	-11656-06-06 06:14 J	-2535774.49	-2535774.24	-2535773.98	0.0089	0.0018 *
Moon	-11655-06-08 12:14 J	-2535407.22	-2535406.99	-2535406.73	0.0089	0.0015
Earth	-11655-06-08 14:52 J	-2535407.13	-2535406.88	-2535406.63	0.0089	0.0017 *
Earth	-11654-06-11 01:40 J	-2535039.61	-2535039.43	-2535039.21	0.0089	0.0055
Moon	-11654-06-11 03:21 J	-2535039.54	-2535039.36	-2535039.15	0.0089	0.0059 *
Mars	-11636-11-12 23:45 J	-2528309.78	-2528309.51	-2528309.22	0.0089	0.0046
Mars	-11634-10-09 18:57 J	-2527613.99	-2527613.71	-2527613.40	0.0089	0.0040
Mercury	-11632-10-31 14:38 J	-2526860.89	-2526860.89	-2526860.87	0.0089	0.0089
Mercury	-11631-01-27 16:04 J	-2526772.88	-2526772.83	-2526772.78	0.0089	0.0082
Mercury	-11631-04-25 17:16 J	-2526684.84	-2526684.78	-2526684.70	0.0089	0.0075
Mercury	-11631-07-22 18:28 J	-2526596.80	-2526596.73	-2526596.64	0.0089	0.0068
Mercury	-11631-10-18 19:55 J	-2526508.76	-2526508.67	-2526508.57	0.0089	0.0060
Mercury	-11630-01-14 21:07 J	-2526420.72	-2526420.62	-2526420.51	0.0089	0.0053
Mercury	-11630-04-12 22:19 J	-2526332.67	-2526332.57	-2526332.45	0.0089	0.0047
Mercury	-11630-07-09 23:45 J	-2526244.62	-2526244.51	-2526244.39	0.0089	0.0039
Mercury	-11630-10-06 00:57 J	-2526156.57	-2526156.46	-2526156.33	0.0089	0.0033
Mercury	-11629-01-02 02:24 J	-2526068.52	-2526068.40	-2526068.27	0.0089	0.0025
Mercury	-11629-03-30 03:35 J	-2525980.47	-2525980.35	-2525980.22	0.0089	0.0018
Mercury	-11629-06-26 05:02 J	-2525892.42	-2525892.29	-2525892.16	0.0089	0.0011
Mercury	-11629-09-22 06:14 J	-2525804.37	-2525804.24	-2525804.11	0.0089	0.0004
Mercury	-11629-12-19 07:40 J	-2525716.31	-2525716.18	-2525716.05	0.0089	0.0004
Mercury	-11628-03-17 08:52 J	-2525628.26	-2525628.13	-2525628.00	0.0089	0.0010

Mercury	-11628-06-13 10:04 J	-2525540.20	-2525540.08	-2525539.95	0.0089	0.0018
Mercury	-11628-09-09 11:31 J	-2525452.15	-2525452.02	-2525451.90	0.0089	0.0025
Mercury	-11628-12-06 12:43 J	-2525364.09	-2525363.97	-2525363.85	0.0089	0.0032
Mercury	-11627-03-04 13:55 J	-2525276.03	-2525275.92	-2525275.80	0.0089	0.0039
Mercury	-11627-05-31 15:21 J	-2525187.97	-2525187.86	-2525187.75	0.0089	0.0046
Mercury	-11627-08-27 16:33 J	-2525099.91	-2525099.81	-2525099.70	0.0089	0.0053
Mercury	-11627-11-23 17:31 J	-2525011.85	-2525011.77	-2525011.66	0.0089	0.0061
Mercury	-11626-02-19 18:57 J	-2524923.79	-2524923.71	-2524923.62	0.0089	0.0067
Mercury	-11626-05-18 20:09 J	-2524835.72	-2524835.66	-2524835.58	0.0089	0.0074
Mercury	-11626-08-14 21:21 J	-2524747.65	-2524747.61	-2524747.54	0.0089	0.0082
Mercury	-11626-11-10 22:33 J	-2524659.56	-2524659.56	-2524659.52	0.0089	0.0089
Venus	-11620-10-09 05:16 J	-2522500.29	-2522500.28	-2522500.25	0.0089	0.0089
Venus	-11619-05-22 18:14 J	-2522274.82	-2522274.74	-2522274.64	0.0089	0.0081
Venus	-11618-01-03 06:57 J	-2522049.32	-2522049.21	-2522049.07	0.0089	0.0073
Venus	-11618-08-16 19:40 J	-2521823.81	-2521823.68	-2521823.51	0.0089	0.0065
Venus	-11617-03-29 08:38 J	-2521598.29	-2521598.14	-2521597.95	0.0089	0.0056
Venus	-11617-11-09 21:50 J	-2521372.77	-2521372.59	-2521372.40	0.0089	0.0048
Venus	-11616-06-23 10:33 J	-2521147.24	-2521147.06	-2521146.85	0.0089	0.0040
Venus	-11615-02-03 23:31 J	-2520921.72	-2520921.52	-2520921.31	0.0089	0.0031
Venus	-11615-09-17 12:28 J	-2520696.19	-2520695.98	-2520695.77	0.0089	0.0023
Venus	-11614-05-01 01:11 J	-2520470.66	-2520470.45	-2520470.23	0.0089	0.0014
Venus	-11614-12-12 13:55 J	-2520245.13	-2520244.92	-2520244.70	0.0089	0.0006
Venus	-11613-07-25 02:52 J	-2520019.60	-2520019.38	-2520019.16	0.0089	0.0002
Venus	-11612-03-07 15:21 J	-2519794.07	-2519793.86	-2519793.64	0.0089	0.0011
Venus	-11612-10-19 04:04 J	-2519568.54	-2519568.33	-2519568.11	0.0089	0.0019
Venus	-11611-06-01 16:48 J	-2519343.00	-2519342.80	-2519342.59	0.0089	0.0027
Venus	-11610-01-13 05:31 J	-2519117.47	-2519117.27	-2519117.07	0.0089	0.0036
Venus	-11610-08-26 17:45 J	-2518891.93	-2518891.76	-2518891.55	0.0089	0.0045
Venus	-11609-04-08 06:28 J	-2518666.39	-2518666.23	-2518666.04	0.0089	0.0052
Venus	-11609-11-19 19:11 J	-2518440.84	-2518440.70	-2518440.52	0.0089	0.0060

Venus	-11608-07-03 08:09 J	-2518215.29	-2518215.16	-2518215.01	0.0089	0.0068
Venus	-11607-02-13 20:38 J	-2517989.73	-2517989.64	-2517989.51	0.0089	0.0077
Venus	-11607-09-27 09:21 J	-2517764.16	-2517764.11	-2517764.03	0.0089	0.0084
Moon	-11576-11-29 03:50 J	-2506378.51	-2506378.34	-2506378.17	0.0088	0.0065
Earth	-11576-11-29 05:31 J	-2506378.43	-2506378.27	-2506378.06	0.0088	0.0062 *
Earth	-11575-12-01 17:31 J	-2506011.00	-2506010.77	-2506010.50	0.0088	0.0024
Moon	-11575-12-01 18:43 J	-2506010.98	-2506010.72	-2506010.45	0.0088	0.0020 *
Earth	-11574-12-04 05:31 J	-2505643.52	-2505643.27	-2505643.01	0.0088	0.0014
Moon	-11574-12-04 05:31 J	-2505643.52	-2505643.27	-2505643.02	0.0088	0.0011 *
Moon	-11573-12-05 15:21 J	-2505276.04	-2505275.86	-2505275.62	0.0088	0.0055
Earth	-11573-12-05 17:16 J	-2505275.99	-2505275.78	-2505275.56	0.0088	0.0051 *
Earth	-11572-12-08 04:48 J	-2504908.30	-2504908.30	-2504908.26	0.0088	0.0088
Moon	-11572-12-08 07:26 J	-2504908.24	-2504908.19	-2504908.10	0.0088	0.0085
Mars	-11554-10-05 08:52 J	-2498398.36	-2498398.13	-2498397.86	0.0088	0.0050
Mars	-11552-08-29 10:04 J	-2497704.37	-2497704.08	-2497703.79	0.0088	0.0023
Mercury	-11548-04-13 14:52 J	-2496380.93	-2496380.88	-2496380.80	0.0088	0.0083
Mercury	-11548-07-10 18:28 J	-2496292.82	-2496292.73	-2496292.60	0.0088	0.0073
Mercury	-11548-10-06 22:04 J	-2496204.70	-2496204.58	-2496204.42	0.0088	0.0063
Mercury	-11547-01-03 02:24 J	-2496116.56	-2496116.40	-2496116.24	0.0088	0.0052
Mercury	-11547-04-01 06:00 J	-2496028.42	-2496028.25	-2496028.08	0.0088	0.0042
Mercury	-11547-06-28 09:35 J	-2495940.28	-2495940.10	-2495939.91	0.0088	0.0032
Mercury	-11547-09-24 13:11 J	-2495852.13	-2495851.95	-2495851.75	0.0088	0.0022
Mercury	-11547-12-21 17:02 J	-2495763.98	-2495763.79	-2495763.59	0.0088	0.0012
Mercury	-11546-03-19 20:52 J	-2495675.83	-2495675.63	-2495675.43	0.0088	0.0002
Mercury	-11546-06-16 00:28 J	-2495587.67	-2495587.48	-2495587.28	0.0088	0.0009
Mercury	-11546-09-12 04:04 J	-2495499.52	-2495499.33	-2495499.13	0.0088	0.0019
Mercury	-11546-12-09 07:55 J	-2495411.35	-2495411.17	-2495410.98	0.0088	0.0029
Mercury	-11545-03-06 11:45 J	-2495323.19	-2495323.01	-2495322.83	0.0088	0.0039
Mercury	-11545-06-02 15:07 J	-2495235.02	-2495234.87	-2495234.69	0.0088	0.0050
Mercury	-11545-08-29 18:43 J	-2495146.85	-2495146.72	-2495146.56	0.0088	0.0060

Mercury	-11545-11-25 22:33 J	-2495058.67	-2495058.56	-2495058.43	0.0088	0.0070
Mercury	-11544-02-22 02:24 J	-2494970.47	-2494970.40	-2494970.31	0.0088	0.0080
Venus	-11537-07-06 03:07 J	-2492279.37	-2492279.37	-2492279.36	0.0088	0.0088
Venus	-11536-02-16 15:50 J	-2492053.91	-2492053.84	-2492053.73	0.0088	0.0080
Venus	-11536-09-30 04:48 J	-2491828.40	-2491828.30	-2491828.15	0.0088	0.0073
Venus	-11535-05-13 18:00 J	-2491602.88	-2491602.75	-2491602.58	0.0088	0.0064
Venus	-11535-12-25 07:26 J	-2491377.34	-2491377.19	-2491377.00	0.0088	0.0056
Venus	-11534-08-07 21:07 J	-2491151.81	-2491151.62	-2491151.44	0.0088	0.0048
Venus	-11533-03-20 10:04 J	-2490926.27	-2490926.08	-2490925.88	0.0088	0.0039
Venus	-11533-10-31 23:16 J	-2490700.73	-2490700.53	-2490700.32	0.0088	0.0031
Venus	-11532-06-14 12:28 J	-2490475.19	-2490474.98	-2490474.76	0.0088	0.0023
Venus	-11531-01-26 01:40 J	-2490249.64	-2490249.43	-2490249.20	0.0088	0.0015
Venus	-11531-09-08 15:07 J	-2490024.09	-2490023.87	-2490023.64	0.0088	0.0007
Venus	-11530-04-22 04:33 J	-2489798.54	-2489798.31	-2489798.09	0.0088	0.0002
Venus	-11530-12-03 17:45 J	-2489572.98	-2489572.76	-2489572.53	0.0088	0.0010
Venus	-11529-07-16 07:11 J	-2489347.42	-2489347.20	-2489346.98	0.0088	0.0018
Venus	-11528-02-26 20:09 J	-2489121.85	-2489121.66	-2489121.43	0.0088	0.0028
Venus	-11528-10-10 09:35 J	-2488896.29	-2488896.10	-2488895.88	0.0088	0.0035
Venus	-11527-05-23 23:02 J	-2488670.72	-2488670.54	-2488670.34	0.0088	0.0043
Venus	-11526-01-04 12:43 J	-2488445.15	-2488444.97	-2488444.79	0.0088	0.0052
Venus	-11526-08-18 01:40 J	-2488219.57	-2488219.43	-2488219.25	0.0088	0.0060
Venus	-11525-03-30 15:07 J	-2487993.99	-2487993.87	-2487993.71	0.0088	0.0068
Venus	-11525-11-11 04:33 J	-2487768.41	-2487768.31	-2487768.19	0.0088	0.0076
Venus	-11524-06-24 18:00 J	-2487542.80	-2487542.75	-2487542.68	0.0088	0.0085
Earth	-11493-06-03 01:40 J	-2476241.53	-2476241.43	-2476241.28	0.0089	0.0077
Moon	-11493-06-03 05:16 J	-2476241.38	-2476241.28	-2476241.16	0.0089	0.0080 *
Moon	-11492-06-05 11:45 J	-2475874.24	-2475874.01	-2475873.78	0.0089	0.0035
Earth	-11492-06-05 13:40 J	-2475874.15	-2475873.93	-2475873.69	0.0089	0.0039 *
Earth	-11491-06-08 01:11 J	-2475506.71	-2475506.45	-2475506.19	0.0089	0.0002
Moon	-11491-06-08 01:55 J	-2475506.69	-2475506.42	-2475506.16	0.0089	0.0005 *

Earth	-11490-06-10 12:28 J	-2475139.20	-2475138.98	-2475138.74	0.0089	0.0036
Moon	-11490-06-10 12:43 J	-2475139.19	-2475138.97	-2475138.75	0.0089	0.0040 *
Moon	-11489-06-11 21:50 J	-2474771.72	-2474771.59	-2474771.40	0.0089	0.0070
Earth	-11489-06-11 23:31 J	-2474771.63	-2474771.52	-2474771.35	0.0089	0.0075 *
Mars	-11472-06-26 23:16 J	-2468547.57	-2468547.53	-2468547.45	0.0089	0.0088
Mars	-11470-05-23 17:02 J	-2467852.12	-2467851.79	-2467851.46	0.0089	0.0003
Mars	-11468-04-18 12:14 J	-2467156.11	-2467155.99	-2467155.86	0.0089	0.0083
Mercury	-11467-07-28 14:38 J	-2466689.92	-2466689.89	-2466689.85	0.0089	0.0086
Mercury	-11467-10-24 15:50 J	-2466601.89	-2466601.84	-2466601.77	0.0089	0.0079
Mercury	-11466-01-20 17:16 J	-2466513.86	-2466513.78	-2466513.70	0.0089	0.0072
Mercury	-11466-04-18 18:28 J	-2466425.81	-2466425.73	-2466425.64	0.0089	0.0065
Mercury	-11466-07-15 19:40 J	-2466337.77	-2466337.68	-2466337.57	0.0089	0.0058
Mercury	-11466-10-11 21:07 J	-2466249.73	-2466249.62	-2466249.51	0.0089	0.0050
Mercury	-11465-01-07 22:19 J	-2466161.68	-2466161.57	-2466161.45	0.0089	0.0043
Mercury	-11465-04-04 23:31 J	-2466073.63	-2466073.52	-2466073.39	0.0089	0.0037
Mercury	-11465-07-02 00:57 J	-2465985.58	-2465985.46	-2465985.33	0.0089	0.0029
Mercury	-11465-09-28 02:09 J	-2465897.53	-2465897.41	-2465897.28	0.0089	0.0022
Mercury	-11465-12-25 03:35 J	-2465809.48	-2465809.35	-2465809.22	0.0089	0.0015
Mercury	-11464-03-23 04:48 J	-2465721.43	-2465721.30	-2465721.17	0.0089	0.0008
Mercury	-11464-06-19 06:14 J	-2465633.37	-2465633.24	-2465633.11	0.0089	0.0001
Mercury	-11464-09-15 07:26 J	-2465545.32	-2465545.19	-2465545.06	0.0089	0.0006
Mercury	-11464-12-12 08:38 J	-2465457.26	-2465457.14	-2465457.01	0.0089	0.0014
Mercury	-11463-03-10 10:04 J	-2465369.21	-2465369.08	-2465368.95	0.0089	0.0020
Mercury	-11463-06-06 11:16 J	-2465281.15	-2465281.03	-2465280.90	0.0089	0.0028
Mercury	-11463-09-02 12:43 J	-2465193.09	-2465192.97	-2465192.85	0.0089	0.0035
Mercury	-11463-11-29 13:55 J	-2465105.03	-2465104.92	-2465104.80	0.0089	0.0042
Mercury	-11462-02-25 15:07 J	-2465016.97	-2465016.87	-2465016.76	0.0089	0.0049
Mercury	-11462-05-24 16:33 J	-2464928.91	-2464928.81	-2464928.71	0.0089	0.0056
Mercury	-11462-08-20 17:45 J	-2464840.85	-2464840.76	-2464840.67	0.0089	0.0063
Mercury	-11462-11-16 18:43 J	-2464752.78	-2464752.72	-2464752.63	0.0089	0.0071

Mercury	-11461-02-12 19:55 J	-2464664.72	-2464664.67	-2464664.59	0.0089	0.0078
Mercury	-11461-05-10 21:21 J	-2464576.64	-2464576.61	-2464576.56	0.0089	0.0084
Venus	-11455-08-24 05:16 J	-2462280.32	-2462280.28	-2462280.20	0.0089	0.0085
Venus	-11454-04-06 18:28 J	-2462054.83	-2462054.73	-2462054.62	0.0089	0.0077
Venus	-11454-11-18 07:11 J	-2461829.33	-2461829.20	-2461829.05	0.0089	0.0069
Venus	-11453-06-30 20:09 J	-2461603.81	-2461603.66	-2461603.49	0.0089	0.0060
Venus	-11452-02-11 08:52 J	-2461378.29	-2461378.13	-2461377.94	0.0089	0.0052
Venus	-11452-09-24 21:50 J	-2461152.77	-2461152.59	-2461152.39	0.0089	0.0044
Venus	-11451-05-08 10:33 J	-2460927.24	-2460927.06	-2460926.84	0.0089	0.0036
Venus	-11451-12-19 23:45 J	-2460701.72	-2460701.51	-2460701.30	0.0089	0.0027
Venus	-11450-08-02 12:28 J	-2460476.18	-2460475.98	-2460475.76	0.0089	0.0018
Venus	-11449-03-15 01:26 J	-2460250.66	-2460250.44	-2460250.22	0.0089	0.0010
Venus	-11449-10-26 14:09 J	-2460025.13	-2460024.91	-2460024.69	0.0089	0.0001
Venus	-11448-06-09 02:52 J	-2459799.59	-2459799.38	-2459799.16	0.0089	0.0008
Venus	-11447-01-20 15:35 J	-2459574.06	-2459573.85	-2459573.63	0.0089	0.0016
Venus	-11447-09-03 04:04 J	-2459348.53	-2459348.33	-2459348.11	0.0089	0.0025
Venus	-11446-04-16 17:02 J	-2459122.99	-2459122.79	-2459122.59	0.0089	0.0033
Venus	-11446-11-28 05:16 J	-2458897.46	-2458897.28	-2458897.07	0.0089	0.0041
Venus	-11445-07-10 18:14 J	-2458671.91	-2458671.74	-2458671.55	0.0089	0.0049
Venus	-11444-02-21 06:57 J	-2458446.37	-2458446.21	-2458446.04	0.0089	0.0057
Venus	-11444-10-04 19:11 J	-2458220.83	-2458220.70	-2458220.53	0.0089	0.0066
Venus	-11443-05-18 07:40 J	-2457995.27	-2457995.18	-2457995.03	0.0089	0.0075
Venus	-11443-12-29 20:24 J	-2457769.71	-2457769.65	-2457769.55	0.0089	0.0083
Earth	-11412-11-28 14:38 J	-2446477.96	-2446477.89	-2446477.75	0.0088	0.0081
Moon	-11412-11-28 15:35 J	-2446477.95	-2446477.85	-2446477.69	0.0088	0.0078 *
Earth	-11411-12-01 03:07 J	-2446110.59	-2446110.37	-2446110.14	0.0088	0.0043
Moon	-11411-12-01 03:35 J	-2446110.55	-2446110.35	-2446110.12	0.0088	0.0045 *
Moon	-11410-12-03 12:57 J	-2445743.23	-2445742.96	-2445742.69	0.0088	0.0004
Earth	-11410-12-03 14:38 J	-2445743.14	-2445742.89	-2445742.63	0.0088	0.0006 *
Earth	-11409-12-05 02:24 J	-2445375.64	-2445375.40	-2445375.15	0.0088	0.0031

Moon	-11409-12-05 04:48 J	-2445375.53	-2445375.30	-2445375.05	0.0088	0.0029 *
Moon	-11408-12-07 10:33 J	-2445008.20	-2445008.06	-2445007.89	0.0088	0.0071
Earth	-11408-12-07 13:55 J	-2445008.06	-2445007.92	-2445007.73	0.0088	0.0069 *
Mars	-11390-05-20 14:24 J	-2438634.92	-2438634.90	-2438634.87	0.0088	0.0087
Mars	-11388-04-13 15:50 J	-2437941.14	-2437940.84	-2437940.54	0.0088	0.0013
Mars	-11386-03-08 15:50 J	-2437247.04	-2437246.84	-2437246.60	0.0088	0.0060
Mercury	-11383-01-08 13:11 J	-2436210.01	-2436209.95	-2436209.84	0.0088	0.0079
Mercury	-11383-04-06 17:02 J	-2436121.89	-2436121.79	-2436121.65	0.0088	0.0069
Mercury	-11383-07-03 21:07 J	-2436033.76	-2436033.62	-2436033.47	0.0088	0.0058
Mercury	-11383-09-30 00:43 J	-2435945.63	-2435945.47	-2435945.30	0.0088	0.0048
Mercury	-11383-12-27 04:19 J	-2435857.49	-2435857.32	-2435857.13	0.0088	0.0038
Mercury	-11382-03-25 08:09 J	-2435769.34	-2435769.16	-2435768.97	0.0088	0.0028
Mercury	-11382-06-21 11:45 J	-2435681.19	-2435681.01	-2435680.81	0.0088	0.0018
Mercury	-11382-09-17 15:35 J	-2435593.04	-2435592.85	-2435592.65	0.0088	0.0008
Mercury	-11382-12-14 19:26 J	-2435504.89	-2435504.69	-2435504.49	0.0088	0.0003
Mercury	-11381-03-11 23:02 J	-2435416.73	-2435416.54	-2435416.34	0.0088	0.0013
Mercury	-11381-06-08 02:38 J	-2435328.57	-2435328.39	-2435328.19	0.0088	0.0023
Mercury	-11381-09-04 06:28 J	-2435240.41	-2435240.23	-2435240.04	0.0088	0.0033
Mercury	-11381-12-01 09:50 J	-2435152.25	-2435152.09	-2435151.90	0.0088	0.0044
Mercury	-11380-02-27 13:40 J	-2435064.08	-2435063.93	-2435063.76	0.0088	0.0054
Mercury	-11380-05-26 17:16 J	-2434975.90	-2434975.78	-2434975.63	0.0088	0.0064
Mercury	-11380-08-22 21:07 J	-2434887.71	-2434887.62	-2434887.50	0.0088	0.0074
Mercury	-11380-11-19 00:57 J	-2434799.51	-2434799.46	-2434799.40	0.0088	0.0084
Venus	-11372-05-21 02:09 J	-2432059.44	-2432059.41	-2432059.32	0.0088	0.0085
Venus	-11371-01-01 16:04 J	-2431833.94	-2431833.83	-2431833.72	0.0088	0.0076
Venus	-11371-08-15 05:02 J	-2431608.42	-2431608.29	-2431608.14	0.0088	0.0068
Venus	-11370-03-28 18:00 J	-2431382.89	-2431382.75	-2431382.57	0.0088	0.0060
Venus	-11370-11-09 07:11 J	-2431157.36	-2431157.20	-2431157.00	0.0088	0.0052
Venus	-11369-06-21 20:52 J	-2430931.83	-2430931.63	-2430931.44	0.0088	0.0044
Venus	-11368-02-02 09:50 J	-2430706.29	-2430706.09	-2430705.88	0.0088	0.0035

Venus	-11368-09-15 22:48 J	-2430480.75	-2430480.55	-2430480.33	0.0088	0.0027
Venus	-11367-04-29 12:14 J	-2430255.21	-2430254.99	-2430254.77	0.0088	0.0019
Venus	-11367-12-11 01:40 J	-2430029.65	-2430029.43	-2430029.21	0.0088	0.0010
Venus	-11366-07-24 14:52 J	-2429804.10	-2429803.88	-2429803.65	0.0088	0.0002
Venus	-11365-03-06 04:04 J	-2429578.55	-2429578.33	-2429578.10	0.0088	0.0007
Venus	-11365-10-17 17:16 J	-2429353.00	-2429352.78	-2429352.56	0.0088	0.0015
Venus	-11364-05-31 06:28 J	-2429127.44	-2429127.23	-2429127.01	0.0088	0.0024
Venus	-11363-01-11 19:55 J	-2428901.87	-2428901.67	-2428901.45	0.0088	0.0032
Venus	-11363-08-25 09:21 J	-2428676.30	-2428676.11	-2428675.90	0.0088	0.0040
Venus	-11362-04-07 22:48 J	-2428450.73	-2428450.55	-2428450.36	0.0088	0.0049
Venus	-11362-11-19 11:45 J	-2428225.16	-2428225.01	-2428224.82	0.0088	0.0058
Venus	-11361-07-02 01:11 J	-2427999.58	-2427999.45	-2427999.28	0.0088	0.0066
Venus	-11360-02-12 14:52 J	-2427773.99	-2427773.88	-2427773.75	0.0088	0.0074
Venus	-11360-09-26 03:50 J	-2427548.39	-2427548.34	-2427548.23	0.0088	0.0083
Earth	-11328-06-04 22:48 J	-2415973.72	-2415973.55	-2415973.34	0.0089	0.0059
Moon	-11328-06-04 23:31 J	-2415973.70	-2415973.52	-2415973.31	0.0089	0.0061 *
Earth	-11327-06-07 10:33 J	-2415606.30	-2415606.06	-2415605.80	0.0089	0.0022
Moon	-11327-06-07 11:31 J	-2415606.25	-2415606.02	-2415605.76	0.0089	0.0020 *
Moon	-11326-06-09 20:24 J	-2415238.91	-2415238.65	-2415238.39	0.0089	0.0014
Earth	-11326-06-09 22:19 J	-2415238.82	-2415238.57	-2415238.32	0.0089	0.0016 *
Earth	-11325-06-11 09:07 J	-2414871.30	-2414871.12	-2414870.90	0.0089	0.0054
Moon	-11325-06-11 12:00 J	-2414871.17	-2414871.00	-2414870.79	0.0089	0.0057 *
Mars	-11306-01-04 14:52 J	-2408090.14	-2408089.88	-2408089.58	0.0089	0.0045
Mars	-11305-11-30 08:38 J	-2407394.41	-2407394.14	-2407393.82	0.0089	0.0041
Mercury	-11302-04-24 14:09 J	-2406518.94	-2406518.91	-2406518.85	0.0089	0.0084
Mercury	-11302-07-21 15:35 J	-2406430.91	-2406430.85	-2406430.77	0.0089	0.0076
Mercury	-11302-10-17 16:48 J	-2406342.87	-2406342.80	-2406342.71	0.0089	0.0069
Mercury	-11301-01-13 18:00 J	-2406254.83	-2406254.75	-2406254.64	0.0089	0.0063
Mercury	-11301-04-10 19:40 J	-2406166.78	-2406166.68	-2406166.58	0.0089	0.0055
Mercury	-11301-07-07 20:52 J	-2406078.74	-2406078.63	-2406078.52	0.0089	0.0048

Mercury	-11301-10-03 22:19 J	-2405990.69	-2405990.57	-2405990.46	0.0089	0.0041
Mercury	-11301-12-30 23:31 J	-2405902.64	-2405902.52	-2405902.40	0.0089	0.0034
Mercury	-11300-03-29 00:43 J	-2405814.59	-2405814.47	-2405814.34	0.0089	0.0027
Mercury	-11300-06-25 02:09 J	-2405726.54	-2405726.41	-2405726.28	0.0089	0.0019
Mercury	-11300-09-21 03:21 J	-2405638.49	-2405638.36	-2405638.23	0.0089	0.0012
Mercury	-11300-12-18 04:33 J	-2405550.44	-2405550.31	-2405550.17	0.0089	0.0006
Mercury	-11299-03-16 06:00 J	-2405462.38	-2405462.25	-2405462.12	0.0089	0.0002
Mercury	-11299-06-12 07:11 J	-2405374.33	-2405374.20	-2405374.07	0.0089	0.0009
Mercury	-11299-09-08 08:24 J	-2405286.27	-2405286.15	-2405286.01	0.0089	0.0016
Mercury	-11299-12-05 09:50 J	-2405198.22	-2405198.09	-2405197.96	0.0089	0.0023
Mercury	-11298-03-03 11:02 J	-2405110.16	-2405110.04	-2405109.91	0.0089	0.0030
Mercury	-11298-05-30 12:14 J	-2405022.10	-2405021.99	-2405021.86	0.0089	0.0037
Mercury	-11298-08-26 13:26 J	-2404934.04	-2404933.94	-2404933.82	0.0089	0.0045
Mercury	-11298-11-22 14:52 J	-2404845.98	-2404845.88	-2404845.77	0.0089	0.0051
Mercury	-11297-02-18 16:04 J	-2404757.92	-2404757.83	-2404757.72	0.0089	0.0059
Mercury	-11297-05-16 17:16 J	-2404669.86	-2404669.78	-2404669.68	0.0089	0.0066
Mercury	-11297-08-12 18:43 J	-2404581.79	-2404581.72	-2404581.64	0.0089	0.0072
Mercury	-11297-11-08 19:55 J	-2404493.72	-2404493.67	-2404493.60	0.0089	0.0080
Mercury	-11296-02-04 21:07 J	-2404405.64	-2404405.62	-2404405.58	0.0089	0.0087
Venus	-11290-07-09 05:16 J	-2402060.36	-2402060.28	-2402060.19	0.0089	0.0082
Venus	-11289-02-19 17:45 J	-2401834.86	-2401834.76	-2401834.62	0.0089	0.0074
Venus	-11289-10-02 06:28 J	-2401609.35	-2401609.23	-2401609.06	0.0089	0.0065
Venus	-11288-05-15 19:40 J	-2401383.84	-2401383.68	-2401383.50	0.0089	0.0056
Venus	-11288-12-27 08:24 J	-2401158.32	-2401158.15	-2401157.95	0.0089	0.0048
Venus	-11287-08-09 21:21 J	-2400932.79	-2400932.61	-2400932.40	0.0089	0.0040
Venus	-11286-03-23 10:04 J	-2400707.27	-2400707.08	-2400706.86	0.0089	0.0031
Venus	-11286-11-03 23:02 J	-2400481.74	-2400481.54	-2400481.32	0.0089	0.0023
Venus	-11285-06-16 12:14 J	-2400256.21	-2400255.99	-2400255.78	0.0089	0.0014
Venus	-11284-01-28 00:57 J	-2400030.67	-2400030.46	-2400030.24	0.0089	0.0005
Venus	-11284-09-10 13:40 J	-2399805.14	-2399804.93	-2399804.71	0.0089	0.0004

Venus	-11283-04-24 02:24 J	-2399579.61	-2399579.40	-2399579.18	0.0089	0.0012
Venus	-11283-12-05 15:21 J	-2399354.07	-2399353.86	-2399353.65	0.0089	0.0021
Venus	-11282-07-19 03:50 J	-2399128.53	-2399128.34	-2399128.12	0.0089	0.0030
Venus	-11281-02-29 16:48 J	-2398902.99	-2398902.80	-2398902.60	0.0089	0.0038
Venus	-11281-10-12 05:16 J	-2398677.46	-2398677.28	-2398677.09	0.0089	0.0046
Venus	-11280-05-25 18:00 J	-2398451.91	-2398451.75	-2398451.57	0.0089	0.0055
Venus	-11279-01-06 06:28 J	-2398226.37	-2398226.23	-2398226.06	0.0089	0.0063
Venus	-11279-08-19 19:11 J	-2398000.82	-2398000.70	-2398000.56	0.0089	0.0071
Venus	-11278-04-02 08:09 J	-2397775.26	-2397775.16	-2397775.07	0.0089	0.0080
Venus	-11278-11-13 20:09 J	-2397549.67	-2397549.66	-2397549.60	0.0089	0.0088
Moon	-11247-11-30 08:38 J	-2386210.30	-2386210.14	-2386209.95	0.0088	0.0067
Earth	-11247-11-30 11:02 J	-2386210.21	-2386210.04	-2386209.84	0.0088	0.0062 *
Earth	-11246-12-02 23:02 J	-2385842.78	-2385842.54	-2385842.29	0.0088	0.0025
Moon	-11246-12-03 02:09 J	-2385842.65	-2385842.41	-2385842.16	0.0088	0.0021 *
Moon	-11245-12-04 07:26 J	-2385475.44	-2385475.19	-2385474.92	0.0088	0.0008
Earth	-11245-12-04 11:02 J	-2385475.30	-2385475.04	-2385474.78	0.0088	0.0012 *
Earth	-11244-12-06 22:33 J	-2385107.77	-2385107.56	-2385107.34	0.0088	0.0049
Moon	-11244-12-07 02:24 J	-2385107.60	-2385107.40	-2385107.19	0.0088	0.0053 *
Moon	-11243-12-09 06:57 J	-2384740.27	-2384740.21	-2384740.09	0.0088	0.0083
Earth	-11243-12-09 10:19 J	-2384740.12	-2384740.07	-2384740.00	0.0088	0.0086 *
Mars	-11225-11-26 20:24 J	-2378177.88	-2378177.65	-2378177.39	0.0088	0.0051
Mars	-11223-10-21 21:07 J	-2377483.89	-2377483.62	-2377483.31	0.0088	0.0023
Mercury	-11219-07-09 07:40 J	-2376127.20	-2376127.18	-2376127.12	0.0088	0.0086
Mercury	-11219-10-05 11:16 J	-2376039.11	-2376039.03	-2376038.91	0.0088	0.0076
Mercury	-11218-01-01 15:07 J	-2375950.98	-2375950.87	-2375950.72	0.0088	0.0066
Mercury	-11218-03-30 19:11 J	-2375862.85	-2375862.70	-2375862.55	0.0088	0.0055
Mercury	-11218-06-26 22:48 J	-2375774.71	-2375774.55	-2375774.37	0.0088	0.0045
Mercury	-11218-09-23 02:24 J	-2375686.57	-2375686.40	-2375686.21	0.0088	0.0035
Mercury	-11218-12-20 06:14 J	-2375598.42	-2375598.24	-2375598.04	0.0088	0.0025
Mercury	-11217-03-17 09:50 J	-2375510.28	-2375510.09	-2375509.88	0.0088	0.0015

Mercury	-11217-06-13 13:40 J	-2375422.12	-2375421.93	-2375421.73	0.0088	0.0005
Mercury	-11217-09-09 17:31 J	-2375333.97	-2375333.77	-2375333.57	0.0088	0.0006
Mercury	-11217-12-06 21:07 J	-2375245.81	-2375245.62	-2375245.42	0.0088	0.0016
Mercury	-11216-03-05 00:57 J	-2375157.65	-2375157.46	-2375157.27	0.0088	0.0026
Mercury	-11216-06-01 04:19 J	-2375069.49	-2375069.32	-2375069.13	0.0088	0.0037
Mercury	-11216-08-28 07:55 J	-2374981.32	-2374981.17	-2374980.98	0.0088	0.0047
Mercury	-11216-11-24 11:45 J	-2374893.15	-2374893.01	-2374892.85	0.0088	0.0057
Mercury	-11215-02-20 15:35 J	-2374804.97	-2374804.85	-2374804.72	0.0088	0.0067
Mercury	-11215-05-19 19:26 J	-2374716.78	-2374716.69	-2374716.60	0.0088	0.0077
Mercury	-11215-08-15 22:48 J	-2374628.55	-2374628.55	-2374628.52	0.0088	0.0088
Venus	-11207-04-05 01:55 J	-2371839.49	-2371839.42	-2371839.33	0.0088	0.0081
Venus	-11207-11-16 14:52 J	-2371613.98	-2371613.88	-2371613.73	0.0088	0.0074
Venus	-11206-06-30 04:04 J	-2371388.46	-2371388.33	-2371388.16	0.0088	0.0065
Venus	-11205-02-10 17:31 J	-2371162.93	-2371162.77	-2371162.59	0.0088	0.0056
Venus	-11205-09-23 06:28 J	-2370937.40	-2370937.23	-2370937.02	0.0088	0.0048
Venus	-11204-05-06 20:09 J	-2370711.86	-2370711.66	-2370711.46	0.0088	0.0039
Venus	-11204-12-18 09:07 J	-2370486.31	-2370486.12	-2370485.90	0.0088	0.0032
Venus	-11203-07-31 22:48 J	-2370260.77	-2370260.55	-2370260.34	0.0088	0.0023
Venus	-11202-03-14 11:45 J	-2370035.23	-2370035.01	-2370034.79	0.0088	0.0014
Venus	-11202-10-26 00:57 J	-2369809.68	-2369809.46	-2369809.23	0.0088	0.0006
Venus	-11201-06-07 14:09 J	-2369584.13	-2369583.91	-2369583.68	0.0088	0.0003
Venus	-11200-01-19 03:35 J	-2369358.57	-2369358.35	-2369358.13	0.0088	0.0011
Venus	-11200-09-01 16:33 J	-2369133.02	-2369132.81	-2369132.58	0.0088	0.0020
Venus	-11199-04-15 06:00 J	-2368907.46	-2368907.25	-2368907.03	0.0088	0.0028
Venus	-11199-11-26 19:11 J	-2368681.89	-2368681.70	-2368681.49	0.0088	0.0037
Venus	-11198-07-10 08:38 J	-2368456.32	-2368456.14	-2368455.94	0.0088	0.0045
Venus	-11197-02-20 21:35 J	-2368230.75	-2368230.60	-2368230.40	0.0088	0.0055
Venus	-11197-10-03 11:02 J	-2368005.18	-2368005.04	-2368004.87	0.0088	0.0063
Venus	-11196-05-17 00:43 J	-2367779.60	-2367779.47	-2367779.33	0.0088	0.0071
Venus	-11196-12-28 13:55 J	-2367554.00	-2367553.92	-2367553.80	0.0088	0.0079

Venus	-11195-08-11 03:35 J	-2367328.37	-2367328.35	-2367328.32	0.0088	0.0088
Earth	-11164-06-04 08:09 J	-2356073.26	-2356073.16	-2356073.02	0.0089	0.0079
Moon	-11164-06-04 08:52 J	-2356073.19	-2356073.13	-2356073.01	0.0089	0.0083 *
Moon	-11163-06-06 17:16 J	-2355706.02	-2355705.78	-2355705.54	0.0089	0.0036
Earth	-11163-06-06 19:40 J	-2355705.89	-2355705.68	-2355705.44	0.0089	0.0041 *
Earth	-11162-06-09 07:26 J	-2355338.45	-2355338.19	-2355337.93	0.0089	0.0003
Moon	-11162-06-09 10:19 J	-2355338.31	-2355338.07	-2355337.81	0.0089	0.0008 *
Moon	-11161-06-10 15:07 J	-2354971.09	-2354970.87	-2354970.63	0.0089	0.0038
Earth	-11161-06-10 18:28 J	-2354970.95	-2354970.73	-2354970.48	0.0089	0.0034 *
Earth	-11160-06-13 05:45 J	-2354603.40	-2354603.26	-2354603.10	0.0089	0.0072
Moon	-11160-06-13 09:07 J	-2354603.27	-2354603.12	-2354602.93	0.0089	0.0067 *
Jupiter	-11145-09-18 14:09 J	-2349027.42	-2349026.91	-2349026.36	0.0089	0.0011
Mars	-11143-08-18 12:14 J	-2348328.00	-2348327.99	-2348327.92	0.0089	0.0089
Mars	-11141-07-14 05:16 J	-2347632.61	-2347632.28	-2347631.95	0.0089	0.0003
Mars	-11139-06-09 23:31 J	-2346936.62	-2346936.52	-2346936.37	0.0089	0.0083
Mercury	-11138-10-23 12:57 J	-2346435.98	-2346435.96	-2346435.94	0.0089	0.0088
Mercury	-11137-01-19 14:09 J	-2346347.96	-2346347.91	-2346347.85	0.0089	0.0081
Mercury	-11137-04-16 15:21 J	-2346259.93	-2346259.86	-2346259.78	0.0089	0.0074
Mercury	-11137-07-13 16:33 J	-2346171.89	-2346171.81	-2346171.71	0.0089	0.0067
Mercury	-11137-10-09 18:00 J	-2346083.84	-2346083.75	-2346083.65	0.0089	0.0060
Mercury	-11136-01-05 19:11 J	-2345995.80	-2345995.70	-2345995.59	0.0089	0.0053
Mercury	-11136-04-03 20:38 J	-2345907.75	-2345907.64	-2345907.53	0.0089	0.0045
Mercury	-11136-06-30 21:50 J	-2345819.70	-2345819.59	-2345819.47	0.0089	0.0038
Mercury	-11136-09-26 23:02 J	-2345731.65	-2345731.54	-2345731.41	0.0089	0.0032
Mercury	-11136-12-24 00:28 J	-2345643.60	-2345643.48	-2345643.35	0.0089	0.0024
Mercury	-11135-03-22 01:40 J	-2345555.55	-2345555.43	-2345555.30	0.0089	0.0017
Mercury	-11135-06-18 03:07 J	-2345467.50	-2345467.37	-2345467.24	0.0089	0.0010
Mercury	-11135-09-14 04:19 J	-2345379.45	-2345379.32	-2345379.19	0.0089	0.0003
Mercury	-11135-12-11 05:45 J	-2345291.39	-2345291.26	-2345291.13	0.0089	0.0005
Mercury	-11134-03-09 06:57 J	-2345203.34	-2345203.21	-2345203.08	0.0089	0.0011

Mercury	-11134-06-05 08:09 J	-2345115.28	-2345115.16	-2345115.03	0.0089	0.0018
Mercury	-11134-09-01 09:21 J	-2345027.23	-2345027.11	-2345026.98	0.0089	0.0026
Mercury	-11134-11-28 10:48 J	-2344939.17	-2344939.05	-2344938.93	0.0089	0.0032
Mercury	-11133-02-24 12:00 J	-2344851.11	-2344851.00	-2344850.88	0.0089	0.0040
Mercury	-11133-05-22 13:26 J	-2344763.05	-2344762.94	-2344762.83	0.0089	0.0046
Mercury	-11133-08-18 14:38 J	-2344674.99	-2344674.89	-2344674.78	0.0089	0.0054
Mercury	-11133-11-14 15:50 J	-2344586.93	-2344586.84	-2344586.74	0.0089	0.0061
Mercury	-11132-02-10 17:16 J	-2344498.86	-2344498.78	-2344498.70	0.0089	0.0068
Mercury	-11132-05-09 18:28 J	-2344410.80	-2344410.73	-2344410.66	0.0089	0.0075
Mercury	-11132-08-05 19:40 J	-2344322.72	-2344322.68	-2344322.62	0.0089	0.0082
Mercury	-11132-11-01 21:07 J	-2344234.63	-2344234.62	-2344234.61	0.0089	0.0089
Venus	-11126-10-10 15:35 J	-2342065.89	-2342065.85	-2342065.79	0.0089	0.0087
Venus	-11125-05-23 04:19 J	-2341840.40	-2341840.32	-2341840.20	0.0089	0.0078
Venus	-11124-01-03 17:31 J	-2341614.90	-2341614.77	-2341614.63	0.0089	0.0070
Venus	-11124-08-17 06:00 J	-2341389.39	-2341389.25	-2341389.07	0.0089	0.0061
Venus	-11123-03-30 18:57 J	-2341163.87	-2341163.71	-2341163.52	0.0089	0.0053
Venus	-11123-11-11 07:40 J	-2340938.35	-2340938.18	-2340937.98	0.0089	0.0044
Venus	-11122-06-24 20:38 J	-2340712.83	-2340712.64	-2340712.43	0.0089	0.0036
Venus	-11121-02-05 09:35 J	-2340487.30	-2340487.10	-2340486.89	0.0089	0.0027
Venus	-11121-09-17 22:19 J	-2340261.78	-2340261.57	-2340261.35	0.0089	0.0018
Venus	-11120-05-01 11:16 J	-2340036.25	-2340036.03	-2340035.81	0.0089	0.0009
Venus	-11120-12-13 00:00 J	-2339810.71	-2339810.50	-2339810.28	0.0089	0.0002
Venus	-11119-07-26 12:57 J	-2339585.17	-2339584.96	-2339584.74	0.0089	0.0008
Venus	-11118-03-09 01:26 J	-2339359.64	-2339359.44	-2339359.21	0.0089	0.0018
Venus	-11118-10-20 14:24 J	-2339134.11	-2339133.90	-2339133.69	0.0089	0.0025
Venus	-11117-06-02 02:52 J	-2338908.57	-2338908.38	-2338908.16	0.0089	0.0035
Venus	-11116-01-13 15:35 J	-2338683.03	-2338682.85	-2338682.64	0.0089	0.0043
Venus	-11116-08-27 04:19 J	-2338457.48	-2338457.32	-2338457.13	0.0089	0.0052
Venus	-11115-04-09 16:48 J	-2338231.94	-2338231.80	-2338231.62	0.0089	0.0060
Venus	-11115-11-21 05:45 J	-2338006.39	-2338006.26	-2338006.11	0.0089	0.0068

Venus	-11114-07-04 18:00 J	-2337780.83	-2337780.75	-2337780.61	0.0089	0.0078
Venus	-11113-02-15 06:57 J	-2337555.26	-2337555.21	-2337555.13	0.0089	0.0085
Earth	-11083-11-29 18:00 J	-2326309.81	-2326309.75	-2326309.63	0.0088	0.0083
Moon	-11083-11-29 21:35 J	-2326309.68	-2326309.60	-2326309.47	0.0088	0.0081 *
Moon	-11082-12-02 02:38 J	-2325942.60	-2325942.39	-2325942.16	0.0088	0.0047
Earth	-11082-12-02 06:14 J	-2325942.45	-2325942.24	-2325942.01	0.0088	0.0046 *
Earth	-11081-12-03 18:14 J	-2325575.00	-2325574.74	-2325574.48	0.0088	0.0009
Moon	-11081-12-03 21:35 J	-2325574.86	-2325574.60	-2325574.33	0.0088	0.0006 *
Moon	-11080-12-06 02:52 J	-2325207.61	-2325207.38	-2325207.13	0.0088	0.0026
Earth	-11080-12-06 05:45 J	-2325207.49	-2325207.26	-2325207.00	0.0088	0.0029 *
Earth	-11079-12-08 17:16 J	-2324839.93	-2324839.78	-2324839.58	0.0088	0.0065
Moon	-11079-12-08 18:43 J	-2324839.86	-2324839.72	-2324839.52	0.0088	0.0068 *
Mars	-11059-06-06 00:57 J	-2317720.75	-2317720.46	-2317720.15	0.0088	0.0015
Mars	-11057-04-30 00:43 J	-2317026.66	-2317026.47	-2317026.22	0.0088	0.0059
Mercury	-11054-04-05 05:45 J	-2315956.31	-2315956.26	-2315956.19	0.0088	0.0083
Mercury	-11054-07-02 09:21 J	-2315868.20	-2315868.11	-2315867.99	0.0088	0.0073
Mercury	-11054-09-28 13:11 J	-2315780.08	-2315779.95	-2315779.81	0.0088	0.0063
Mercury	-11054-12-25 16:48 J	-2315691.95	-2315691.80	-2315691.63	0.0088	0.0053
Mercury	-11053-03-22 20:24 J	-2315603.81	-2315603.65	-2315603.46	0.0088	0.0043
Mercury	-11053-06-19 00:14 J	-2315515.66	-2315515.49	-2315515.30	0.0088	0.0033
Mercury	-11053-09-15 04:04 J	-2315427.52	-2315427.33	-2315427.13	0.0088	0.0022
Mercury	-11053-12-12 07:55 J	-2315339.37	-2315339.17	-2315338.97	0.0088	0.0012
Mercury	-11052-03-10 11:31 J	-2315251.21	-2315251.02	-2315250.82	0.0088	0.0003
Mercury	-11052-06-06 15:21 J	-2315163.06	-2315162.86	-2315162.66	0.0088	0.0008
Mercury	-11052-09-02 18:57 J	-2315074.90	-2315074.71	-2315074.51	0.0088	0.0019
Mercury	-11052-11-29 22:33 J	-2314986.74	-2314986.56	-2314986.36	0.0088	0.0029
Mercury	-11051-02-26 02:09 J	-2314898.57	-2314898.41	-2314898.22	0.0088	0.0039
Mercury	-11051-05-25 06:00 J	-2314810.41	-2314810.25	-2314810.08	0.0088	0.0049
Mercury	-11051-08-21 09:21 J	-2314722.23	-2314722.11	-2314721.94	0.0088	0.0060
Mercury	-11051-11-17 13:11 J	-2314634.05	-2314633.95	-2314633.81	0.0088	0.0070

Mercury	-11050-02-13 17:02 J	-2314545.86	-2314545.79	-2314545.70	0.0088	0.0080
Venus	-11043-07-07 11:16 J	-2311845.06	-2311845.03	-2311844.98	0.0088	0.0086
Venus	-11042-02-18 00:14 J	-2311619.57	-2311619.49	-2311619.37	0.0088	0.0078
Venus	-11042-10-01 13:11 J	-2311394.06	-2311393.95	-2311393.79	0.0088	0.0070
Venus	-11041-05-14 02:38 J	-2311168.53	-2311168.39	-2311168.22	0.0088	0.0062
Venus	-11041-12-25 15:50 J	-2310942.99	-2310942.84	-2310942.64	0.0088	0.0053
Venus	-11040-08-08 05:16 J	-2310717.46	-2310717.28	-2310717.07	0.0088	0.0045
Venus	-11039-03-21 18:28 J	-2310491.92	-2310491.73	-2310491.51	0.0088	0.0036
Venus	-11039-11-02 07:40 J	-2310266.38	-2310266.18	-2310265.96	0.0088	0.0028
Venus	-11038-06-15 21:07 J	-2310040.84	-2310040.62	-2310040.40	0.0088	0.0019
Venus	-11037-01-27 10:19 J	-2309815.29	-2309815.07	-2309814.84	0.0088	0.0010
Venus	-11037-09-08 23:31 J	-2309589.74	-2309589.52	-2309589.29	0.0088	0.0003
Venus	-11036-04-22 12:57 J	-2309364.19	-2309363.96	-2309363.74	0.0088	0.0007
Venus	-11036-12-04 01:55 J	-2309138.63	-2309138.42	-2309138.19	0.0088	0.0017
Venus	-11035-07-17 15:21 J	-2308913.07	-2308912.86	-2308912.64	0.0088	0.0025
Venus	-11034-02-28 04:33 J	-2308687.51	-2308687.31	-2308687.10	0.0088	0.0033
Venus	-11034-10-11 17:31 J	-2308461.95	-2308461.77	-2308461.56	0.0088	0.0042
Venus	-11033-05-24 06:57 J	-2308236.38	-2308236.21	-2308236.01	0.0088	0.0051
Venus	-11032-01-04 20:24 J	-2308010.80	-2308010.65	-2308010.47	0.0088	0.0059
Venus	-11032-08-18 09:50 J	-2307785.22	-2307785.09	-2307784.93	0.0088	0.0068
Venus	-11031-03-31 23:02 J	-2307559.63	-2307559.54	-2307559.41	0.0088	0.0076
Venus	-11031-11-12 12:28 J	-2307334.03	-2307333.98	-2307333.90	0.0088	0.0085

11TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 11th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-10999-06-06 03:35 J	-2295805.52	-2295805.35	-2295805.15	0.0089	0.0061		
Moon	-10999-06-06 06:43 J	-2295805.37	-2295805.22	-2295805.01	0.0089	0.0063	*	
Moon	-10998-06-08 12:00 J	-2295438.24	-2295438.00	-2295437.75	0.0089	0.0023		
Earth	-10998-06-08 15:21 J	-2295438.10	-2295437.86	-2295437.60	0.0089	0.0024	*	
Earth	-10997-06-10 02:52 J	-2295070.63	-2295070.38	-2295070.13	0.0089	0.0013		
Moon	-10997-06-10 06:14 J	-2295070.49	-2295070.24	-2295069.98	0.0089	0.0011	*	
Moon	-10996-06-12 11:31 J	-2294703.22	-2294703.02	-2294702.81	0.0089	0.0052		
Earth	-10996-06-12 13:55 J	-2294703.11	-2294702.92	-2294702.69	0.0089	0.0051	*	
Earth	-10995-06-15 01:11 J	-2294335.46	-2294335.45	-2294335.39	0.0089	0.0088		
Moon	-10995-06-15 02:52 J	-2294335.43	-2294335.38	-2294335.30	0.0089	0.0086	*	
Mars	-10977-02-26 00:28 J	-2287870.74	-2287870.48	-2287870.18	0.0089	0.0048		
Mars	-10975-01-21 16:48 J	-2287175.07	-2287174.80	-2287174.48	0.0089	0.0039		
Mercury	-10973-07-19 12:28 J	-2286265.01	-2286264.98	-2286264.95	0.0089	0.0086		
Mercury	-10973-10-15 13:40 J	-2286176.99	-2286176.93	-2286176.87	0.0089	0.0079		
Mercury	-10972-01-11 15:07 J	-2286088.95	-2286088.87	-2286088.80	0.0089	0.0072		
Mercury	-10972-04-09 16:19 J	-2286000.91	-2286000.82	-2286000.73	0.0089	0.0065		
Mercury	-10972-07-06 17:31 J	-2285912.86	-2285912.77	-2285912.67	0.0089	0.0058		
Mercury	-10972-10-02 18:57 J	-2285824.82	-2285824.71	-2285824.60	0.0089	0.0051		
Mercury	-10972-12-29 20:09 J	-2285736.77	-2285736.66	-2285736.54	0.0089	0.0044		
Mercury	-10971-03-27 21:21 J	-2285648.72	-2285648.61	-2285648.48	0.0089	0.0037		
Mercury	-10971-06-23 22:48 J	-2285560.67	-2285560.55	-2285560.43	0.0089	0.0029		
Mercury	-10971-09-20 00:00 J	-2285472.62	-2285472.50	-2285472.37	0.0089	0.0022		
Mercury	-10971-12-17 01:26 J	-2285384.57	-2285384.44	-2285384.31	0.0089	0.0015		
Mercury	-10970-03-15 02:38 J	-2285296.52	-2285296.39	-2285296.26	0.0089	0.0008		
Mercury	-10970-06-11 03:50 J	-2285208.47	-2285208.34	-2285208.20	0.0089	0.0003		
Mercury	-10970-09-07 05:16 J	-2285120.41	-2285120.28	-2285120.15	0.0089	0.0006		

Mercury	-10970-12-04 06:28 J	-2285032.36	-2285032.23	-2285032.10	0.0089	0.0013
Mercury	-10969-03-01 07:40 J	-2284944.30	-2284944.18	-2284944.05	0.0089	0.0020
Mercury	-10969-05-28 08:52 J	-2284856.25	-2284856.13	-2284856.00	0.0089	0.0028
Mercury	-10969-08-24 10:19 J	-2284768.19	-2284768.07	-2284767.95	0.0089	0.0034
Mercury	-10969-11-20 11:31 J	-2284680.13	-2284680.02	-2284679.90	0.0089	0.0041
Mercury	-10968-02-16 12:43 J	-2284592.07	-2284591.97	-2284591.85	0.0089	0.0048
Mercury	-10968-05-15 13:55 J	-2284504.01	-2284503.92	-2284503.81	0.0089	0.0056
Mercury	-10968-08-11 15:21 J	-2284415.95	-2284415.86	-2284415.76	0.0089	0.0062
Mercury	-10968-11-07 16:33 J	-2284327.88	-2284327.81	-2284327.72	0.0089	0.0069
Mercury	-10967-02-03 17:45 J	-2284239.81	-2284239.76	-2284239.68	0.0089	0.0077
Mercury	-10967-05-02 19:11 J	-2284151.74	-2284151.70	-2284151.65	0.0089	0.0083
Venus	-10961-08-24 14:24 J	-2281845.96	-2281845.90	-2281845.81	0.0089	0.0083
Venus	-10960-04-07 03:21 J	-2281620.47	-2281620.36	-2281620.23	0.0089	0.0075
Venus	-10960-11-18 15:50 J	-2281394.96	-2281394.84	-2281394.67	0.0089	0.0067
Venus	-10959-07-02 05:02 J	-2281169.44	-2281169.29	-2281169.11	0.0089	0.0058
Venus	-10958-02-12 18:00 J	-2280943.92	-2280943.75	-2280943.56	0.0089	0.0049
Venus	-10958-09-26 06:28 J	-2280718.40	-2280718.23	-2280718.01	0.0089	0.0041
Venus	-10957-05-08 19:26 J	-2280492.88	-2280492.69	-2280492.47	0.0089	0.0031
Venus	-10957-12-20 08:24 J	-2280267.35	-2280267.15	-2280266.93	0.0089	0.0022
Venus	-10956-08-02 21:21 J	-2280041.82	-2280041.61	-2280041.39	0.0089	0.0014
Venus	-10955-03-16 10:04 J	-2279816.29	-2279816.08	-2279815.86	0.0089	0.0005
Venus	-10955-10-27 23:02 J	-2279590.76	-2279590.54	-2279590.33	0.0089	0.0004
Venus	-10954-06-10 11:45 J	-2279365.22	-2279365.01	-2279364.79	0.0089	0.0013
Venus	-10953-01-22 00:14 J	-2279139.69	-2279139.49	-2279139.26	0.0089	0.0022
Venus	-10953-09-03 13:11 J	-2278914.15	-2278913.95	-2278913.74	0.0089	0.0030
Venus	-10952-04-17 01:40 J	-2278688.61	-2278688.43	-2278688.22	0.0089	0.0040
Venus	-10952-11-28 14:24 J	-2278463.07	-2278462.90	-2278462.70	0.0089	0.0048
Venus	-10951-07-12 03:35 J	-2278237.51	-2278237.35	-2278237.18	0.0089	0.0056
Venus	-10950-02-22 15:50 J	-2278011.97	-2278011.84	-2278011.67	0.0089	0.0066
Venus	-10950-10-06 04:19 J	-2277786.41	-2277786.32	-2277786.17	0.0089	0.0074

Venus	-10949-05-18 17:16 J	-2277560.85	-2277560.78	-2277560.69	0.0089	0.0082
Earth	-10918-12-01 13:11 J	-2266042.11	-2266041.95	-2266041.76	0.0088	0.0066
Moon	-10918-12-01 16:04 J	-2266041.96	-2266041.83	-2266041.64	0.0088	0.0071 *
Moon	-10917-12-02 22:33 J	-2265674.78	-2265674.56	-2265674.30	0.0088	0.0026
Earth	-10917-12-03 00:57 J	-2265674.69	-2265674.46	-2265674.20	0.0088	0.0029 *
Earth	-10916-12-05 12:43 J	-2265307.22	-2265306.97	-2265306.71	0.0088	0.0008
Moon	-10916-12-05 14:24 J	-2265307.16	-2265306.90	-2265306.63	0.0088	0.0004 *
Earth	-10915-12-08 00:28 J	-2264939.69	-2264939.48	-2264939.25	0.0088	0.0044
Moon	-10915-12-08 00:14 J	-2264939.68	-2264939.49	-2264939.26	0.0088	0.0049 *
Moon	-10914-12-10 10:48 J	-2264572.15	-2264572.05	-2264571.89	0.0088	0.0078
Earth	-10914-12-10 12:00 J	-2264572.07	-2264572.00	-2264571.88	0.0088	0.0081 *
Mars	-10895-01-18 23:45 J	-2257957.72	-2257957.51	-2257957.24	0.0088	0.0055
Mars	-10894-12-14 03:35 J	-2257263.63	-2257263.35	-2257263.04	0.0088	0.0020
Mercury	-10890-12-31 02:52 J	-2255785.43	-2255785.38	-2255785.29	0.0088	0.0082
Mercury	-10889-03-28 06:43 J	-2255697.32	-2255697.22	-2255697.09	0.0088	0.0072
Mercury	-10889-06-24 10:48 J	-2255609.19	-2255609.05	-2255608.91	0.0088	0.0061
Mercury	-10889-09-20 14:24 J	-2255521.06	-2255520.90	-2255520.74	0.0088	0.0051
Mercury	-10889-12-17 18:00 J	-2255432.92	-2255432.75	-2255432.57	0.0088	0.0041
Mercury	-10888-03-15 21:35 J	-2255344.77	-2255344.60	-2255344.40	0.0088	0.0031
Mercury	-10888-06-12 01:26 J	-2255256.62	-2255256.44	-2255256.24	0.0088	0.0021
Mercury	-10888-09-08 05:16 J	-2255168.47	-2255168.28	-2255168.08	0.0088	0.0010
Mercury	-10888-12-05 09:07 J	-2255080.32	-2255080.12	-2255079.92	0.0088	0.0001
Mercury	-10887-03-03 12:43 J	-2254992.16	-2254991.97	-2254991.77	0.0088	0.0010
Mercury	-10887-05-30 16:33 J	-2254904.01	-2254903.81	-2254903.62	0.0088	0.0020
Mercury	-10887-08-26 19:55 J	-2254815.84	-2254815.67	-2254815.47	0.0088	0.0031
Mercury	-10887-11-22 23:45 J	-2254727.68	-2254727.51	-2254727.33	0.0088	0.0041
Mercury	-10886-02-19 03:21 J	-2254639.51	-2254639.36	-2254639.19	0.0088	0.0051
Mercury	-10886-05-18 07:11 J	-2254551.33	-2254551.20	-2254551.05	0.0088	0.0061
Mercury	-10886-08-14 10:33 J	-2254463.15	-2254463.06	-2254462.92	0.0088	0.0072
Mercury	-10886-11-10 14:24 J	-2254374.95	-2254374.90	-2254374.81	0.0088	0.0082

Venus	-10878-05-22 09:21 J	-2251625.17	-2251625.11	-2251625.03	0.0088	0.0083
Venus	-10877-01-02 22:19 J	-2251399.66	-2251399.57	-2251399.43	0.0088	0.0075
Venus	-10877-08-15 11:45 J	-2251174.14	-2251174.01	-2251173.85	0.0088	0.0067
Venus	-10876-03-29 00:43 J	-2250948.61	-2250948.47	-2250948.28	0.0088	0.0058
Venus	-10876-11-09 14:09 J	-2250723.08	-2250722.91	-2250722.71	0.0088	0.0049
Venus	-10875-06-23 03:35 J	-2250497.54	-2250497.35	-2250497.15	0.0088	0.0041
Venus	-10874-02-03 16:33 J	-2250272.00	-2250271.81	-2250271.59	0.0088	0.0032
Venus	-10874-09-17 06:00 J	-2250046.46	-2250046.25	-2250046.03	0.0088	0.0023
Venus	-10873-04-29 19:11 J	-2249820.92	-2249820.70	-2249820.48	0.0088	0.0015
Venus	-10873-12-11 08:38 J	-2249595.36	-2249595.14	-2249594.92	0.0088	0.0006
Venus	-10872-07-24 21:50 J	-2249369.81	-2249369.59	-2249369.36	0.0088	0.0003
Venus	-10871-03-07 10:48 J	-2249144.26	-2249144.05	-2249143.82	0.0088	0.0013
Venus	-10871-10-19 00:14 J	-2248918.71	-2248918.49	-2248918.27	0.0088	0.0020
Venus	-10870-06-01 13:11 J	-2248693.15	-2248692.95	-2248692.73	0.0088	0.0030
Venus	-10869-01-13 02:24 J	-2248467.58	-2248467.40	-2248467.18	0.0088	0.0039
Venus	-10869-08-25 16:04 J	-2248242.02	-2248241.83	-2248241.64	0.0088	0.0047
Venus	-10868-04-08 05:02 J	-2248016.45	-2248016.29	-2248016.10	0.0088	0.0056
Venus	-10868-11-19 18:14 J	-2247790.87	-2247790.74	-2247790.57	0.0088	0.0064
Venus	-10867-07-03 07:40 J	-2247565.29	-2247565.18	-2247565.04	0.0088	0.0073
Venus	-10866-02-13 20:52 J	-2247339.69	-2247339.63	-2247339.52	0.0088	0.0082
Moon	-10835-06-05 06:43 J	-2235905.24	-2235905.22	-2235905.13	0.0089	0.0087
Earth	-10835-06-05 10:33 J	-2235905.13	-2235905.06	-2235904.94	0.0089	0.0082 *
Earth	-10834-06-07 22:04 J	-2235537.78	-2235537.58	-2235537.34	0.0089	0.0045
Moon	-10834-06-08 01:11 J	-2235537.67	-2235537.45	-2235537.20	0.0089	0.0040 *
Moon	-10833-06-09 07:40 J	-2235170.42	-2235170.18	-2235169.92	0.0089	0.0012
Earth	-10833-06-09 10:04 J	-2235170.33	-2235170.08	-2235169.82	0.0089	0.0008 *
Earth	-10832-06-11 21:35 J	-2234802.84	-2234802.60	-2234802.36	0.0089	0.0029
Moon	-10832-06-11 22:33 J	-2234802.79	-2234802.56	-2234802.30	0.0089	0.0034 *
Earth	-10831-06-14 08:09 J	-2234435.30	-2234435.16	-2234434.96	0.0089	0.0068
Moon	-10831-06-14 09:07 J	-2234435.29	-2234435.12	-2234434.94	0.0089	0.0063 *

Mars	-10812-09-04 12:00 J	-2227413.33	-2227413.00	-2227412.67	0.0089	0.0007
Mars	-10810-08-01 04:19 J	-2226717.44	-2226717.32	-2226717.15	0.0089	0.0080
Mercury	-10808-04-15 11:45 J	-2226094.04	-2226094.01	-2226093.96	0.0089	0.0084
Mercury	-10808-07-12 12:57 J	-2226006.01	-2226005.96	-2226005.88	0.0089	0.0078
Mercury	-10808-10-08 14:24 J	-2225917.97	-2225917.90	-2225917.81	0.0089	0.0070
Mercury	-10807-01-04 15:35 J	-2225829.93	-2225829.85	-2225829.75	0.0089	0.0063
Mercury	-10807-04-02 16:48 J	-2225741.89	-2225741.80	-2225741.68	0.0089	0.0057
Mercury	-10807-06-29 18:14 J	-2225653.84	-2225653.74	-2225653.62	0.0089	0.0049
Mercury	-10807-09-25 19:26 J	-2225565.79	-2225565.69	-2225565.56	0.0089	0.0043
Mercury	-10807-12-22 20:52 J	-2225477.75	-2225477.63	-2225477.50	0.0089	0.0035
Mercury	-10806-03-20 22:19 J	-2225389.70	-2225389.57	-2225389.45	0.0089	0.0028
Mercury	-10806-06-16 23:31 J	-2225301.64	-2225301.52	-2225301.39	0.0089	0.0021
Mercury	-10806-09-13 00:57 J	-2225213.59	-2225213.46	-2225213.33	0.0089	0.0014
Mercury	-10806-12-10 02:09 J	-2225125.54	-2225125.41	-2225125.28	0.0089	0.0007
Mercury	-10805-03-07 03:21 J	-2225037.49	-2225037.36	-2225037.23	0.0089	0.0002
Mercury	-10805-06-03 04:48 J	-2224949.43	-2224949.30	-2224949.17	0.0089	0.0008
Mercury	-10805-08-30 06:00 J	-2224861.38	-2224861.25	-2224861.12	0.0089	0.0015
Mercury	-10805-11-26 07:11 J	-2224773.32	-2224773.20	-2224773.07	0.0089	0.0022
Mercury	-10804-02-22 08:38 J	-2224685.27	-2224685.14	-2224685.02	0.0089	0.0029
Mercury	-10804-05-21 09:50 J	-2224597.21	-2224597.09	-2224596.97	0.0089	0.0036
Mercury	-10804-08-17 11:02 J	-2224509.15	-2224509.04	-2224508.92	0.0089	0.0043
Mercury	-10804-11-13 12:28 J	-2224421.09	-2224420.98	-2224420.88	0.0089	0.0050
Mercury	-10803-02-09 13:40 J	-2224333.03	-2224332.93	-2224332.83	0.0089	0.0057
Mercury	-10803-05-08 14:52 J	-2224244.97	-2224244.88	-2224244.79	0.0089	0.0064
Mercury	-10803-08-04 16:19 J	-2224156.90	-2224156.82	-2224156.75	0.0089	0.0071
Mercury	-10803-10-31 17:31 J	-2224068.83	-2224068.77	-2224068.71	0.0089	0.0078
Mercury	-10802-01-27 18:43 J	-2223980.76	-2223980.72	-2223980.68	0.0089	0.0085
Venus	-10797-11-26 00:00 J	-2221851.51	-2221851.50	-2221851.47	0.0089	0.0089
Venus	-10796-07-09 12:43 J	-2221626.04	-2221625.97	-2221625.85	0.0089	0.0080
Venus	-10795-02-20 01:40 J	-2221400.54	-2221400.43	-2221400.28	0.0089	0.0071

Venus	-10795-10-03 14:38 J	-2221175.04	-2221174.89	-2221174.73	0.0089	0.0062
Venus	-10794-05-17 03:35 J	-2220949.52	-2220949.35	-2220949.17	0.0089	0.0054
Venus	-10794-12-28 16:04 J	-2220724.00	-2220723.83	-2220723.62	0.0089	0.0045
Venus	-10793-08-10 05:02 J	-2220498.48	-2220498.29	-2220498.08	0.0089	0.0036
Venus	-10792-03-23 17:45 J	-2220272.95	-2220272.76	-2220272.54	0.0089	0.0027
Venus	-10792-11-04 06:43 J	-2220047.43	-2220047.22	-2220047.00	0.0089	0.0018
Venus	-10791-06-17 19:40 J	-2219821.90	-2219821.68	-2219821.46	0.0089	0.0009
Venus	-10790-01-29 08:24 J	-2219596.37	-2219596.15	-2219595.93	0.0089	0.0001
Venus	-10790-09-11 21:07 J	-2219370.84	-2219370.62	-2219370.40	0.0089	0.0009
Venus	-10789-04-24 09:50 J	-2219145.30	-2219145.09	-2219144.88	0.0089	0.0017
Venus	-10789-12-05 22:33 J	-2218919.76	-2218919.56	-2218919.35	0.0089	0.0026
Venus	-10788-07-19 11:16 J	-2218694.22	-2218694.03	-2218693.82	0.0089	0.0035
Venus	-10787-03-02 00:00 J	-2218468.68	-2218468.50	-2218468.30	0.0089	0.0044
Venus	-10787-10-13 12:28 J	-2218243.13	-2218242.98	-2218242.78	0.0089	0.0053
Venus	-10786-05-27 01:26 J	-2218017.58	-2218017.44	-2218017.27	0.0089	0.0062
Venus	-10785-01-07 14:09 J	-2217792.03	-2217791.91	-2217791.76	0.0089	0.0070
Venus	-10785-08-20 02:38 J	-2217566.46	-2217566.39	-2217566.27	0.0089	0.0079
Venus	-10784-04-02 15:35 J	-2217340.88	-2217340.85	-2217340.80	0.0089	0.0087
Moon	-10754-11-30 17:45 J	-2206141.81	-2206141.76	-2206141.69	0.0088	0.0086
Earth	-10754-11-30 19:26 J	-2206141.72	-2206141.69	-2206141.62	0.0088	0.0086 *
Earth	-10753-12-02 06:28 J	-2205774.42	-2205774.23	-2205773.99	0.0088	0.0051
Moon	-10753-12-02 07:26 J	-2205774.40	-2205774.19	-2205773.96	0.0088	0.0051 *
Earth	-10752-12-04 18:43 J	-2205406.98	-2205406.72	-2205406.46	0.0088	0.0013
Moon	-10752-12-04 18:43 J	-2205406.96	-2205406.72	-2205406.46	0.0088	0.0012 *
Moon	-10751-12-07 04:19 J	-2205039.57	-2205039.32	-2205039.05	0.0088	0.0022
Earth	-10751-12-07 06:14 J	-2205039.48	-2205039.24	-2205038.98	0.0088	0.0023 *
Earth	-10750-12-09 18:00 J	-2204671.94	-2204671.75	-2204671.56	0.0088	0.0060
Moon	-10750-12-09 20:38 J	-2204671.81	-2204671.64	-2204671.45	0.0088	0.0061 *
Mars	-10730-07-29 02:24 J	-2197500.69	-2197500.40	-2197500.10	0.0088	0.0019
Mars	-10728-06-22 04:19 J	-2196806.53	-2196806.32	-2196806.06	0.0088	0.0055

Mercury	-10725-09-26 00:00 J	-2195614.55	-2195614.50	-2195614.40	0.0088	0.0081
Mercury	-10725-12-23 03:50 J	-2195526.44	-2195526.34	-2195526.21	0.0088	0.0071
Mercury	-10724-03-21 07:26 J	-2195438.31	-2195438.19	-2195438.03	0.0088	0.0061
Mercury	-10724-06-17 11:31 J	-2195350.18	-2195350.02	-2195349.85	0.0088	0.0050
Mercury	-10724-09-13 15:07 J	-2195262.04	-2195261.87	-2195261.69	0.0088	0.0040
Mercury	-10724-12-10 18:43 J	-2195173.89	-2195173.72	-2195173.52	0.0088	0.0030
Mercury	-10723-03-08 22:33 J	-2195085.75	-2195085.56	-2195085.36	0.0088	0.0020
Mercury	-10723-06-05 02:24 J	-2194997.60	-2194997.40	-2194997.20	0.0088	0.0010
Mercury	-10723-09-01 06:14 J	-2194909.44	-2194909.24	-2194909.05	0.0088	0.0002
Mercury	-10723-11-28 09:50 J	-2194821.29	-2194821.09	-2194820.89	0.0088	0.0011
Mercury	-10722-02-24 13:26 J	-2194733.13	-2194732.94	-2194732.74	0.0088	0.0021
Mercury	-10722-05-23 17:16 J	-2194644.96	-2194644.78	-2194644.59	0.0088	0.0031
Mercury	-10722-08-19 20:38 J	-2194556.80	-2194556.64	-2194556.45	0.0088	0.0042
Mercury	-10722-11-16 00:28 J	-2194468.63	-2194468.48	-2194468.31	0.0088	0.0052
Mercury	-10721-02-12 04:19 J	-2194380.45	-2194380.32	-2194380.17	0.0088	0.0062
Mercury	-10721-05-10 08:09 J	-2194292.27	-2194292.16	-2194292.05	0.0088	0.0072
Mercury	-10721-08-06 11:16 J	-2194204.07	-2194204.03	-2194203.94	0.0088	0.0083
Venus	-10713-04-05 06:57 J	-2191405.29	-2191405.21	-2191405.12	0.0088	0.0080
Venus	-10713-11-16 19:40 J	-2191179.78	-2191179.68	-2191179.53	0.0088	0.0072
Venus	-10712-06-30 09:07 J	-2190954.26	-2190954.12	-2190953.95	0.0088	0.0063
Venus	-10711-02-10 22:33 J	-2190728.73	-2190728.56	-2190728.39	0.0088	0.0054
Venus	-10711-09-24 11:16 J	-2190503.20	-2190503.03	-2190502.82	0.0088	0.0046
Venus	-10710-05-08 00:43 J	-2190277.66	-2190277.47	-2190277.26	0.0088	0.0037
Venus	-10710-12-19 14:09 J	-2190052.11	-2190051.91	-2190051.69	0.0088	0.0028
Venus	-10709-08-01 03:35 J	-2189826.57	-2189826.35	-2189826.13	0.0088	0.0019
Venus	-10708-03-14 16:33 J	-2189601.02	-2189600.81	-2189600.58	0.0088	0.0011
Venus	-10708-10-26 06:00 J	-2189375.47	-2189375.25	-2189375.03	0.0088	0.0002
Venus	-10707-06-08 19:11 J	-2189149.92	-2189149.70	-2189149.47	0.0088	0.0007
Venus	-10706-01-20 08:24 J	-2188924.36	-2188924.15	-2188923.92	0.0088	0.0017
Venus	-10706-09-02 21:35 J	-2188698.80	-2188698.60	-2188698.37	0.0088	0.0025

Venus	-10705-04-15 10:48 J	-2188473.24	-2188473.05	-2188472.83	0.0088	0.0034
Venus	-10705-11-27 00:14 J	-2188247.68	-2188247.49	-2188247.29	0.0088	0.0043
Venus	-10704-07-10 13:26 J	-2188022.11	-2188021.94	-2188021.75	0.0088	0.0051
Venus	-10703-02-21 02:38 J	-2187796.54	-2187796.39	-2187796.21	0.0088	0.0060
Venus	-10703-10-04 15:35 J	-2187570.96	-2187570.85	-2187570.69	0.0088	0.0070
Venus	-10702-05-18 05:16 J	-2187345.37	-2187345.28	-2187345.17	0.0088	0.0078
Venus	-10702-12-29 18:28 J	-2187119.75	-2187119.73	-2187119.67	0.0088	0.0087
Moon	-10670-06-07 02:24 J	-2175637.54	-2175637.40	-2175637.21	0.0089	0.0067
Earth	-10670-06-07 04:19 J	-2175637.48	-2175637.32	-2175637.14	0.0089	0.0066 *
Earth	-10669-06-08 16:04 J	-2175270.07	-2175269.83	-2175269.58	0.0089	0.0029
Moon	-10669-06-08 16:19 J	-2175270.06	-2175269.82	-2175269.55	0.0089	0.0029 *
Earth	-10668-06-11 03:50 J	-2174902.60	-2174902.34	-2174902.08	0.0089	0.0008
Moon	-10668-06-11 04:04 J	-2174902.57	-2174902.33	-2174902.08	0.0089	0.0007 *
Moon	-10667-06-13 12:57 J	-2174535.17	-2174534.96	-2174534.72	0.0089	0.0045
Earth	-10667-06-13 14:52 J	-2174535.08	-2174534.88	-2174534.64	0.0089	0.0046 *
Earth	-10666-06-16 01:55 J	-2174167.49	-2174167.42	-2174167.29	0.0089	0.0083
Moon	-10666-06-16 04:48 J	-2174167.37	-2174167.30	-2174167.18	0.0089	0.0082 *
Mars	-10648-04-18 03:21 J	-2167651.60	-2167651.36	-2167651.07	0.0089	0.0053
Mars	-10646-03-14 19:40 J	-2166955.97	-2166955.68	-2166955.37	0.0089	0.0034
Mercury	-10643-01-10 11:02 J	-2165923.08	-2165923.04	-2165922.99	0.0089	0.0084
Mercury	-10643-04-08 12:14 J	-2165835.04	-2165834.99	-2165834.91	0.0089	0.0077
Mercury	-10643-07-05 13:40 J	-2165747.00	-2165746.93	-2165746.84	0.0089	0.0069
Mercury	-10643-10-01 14:52 J	-2165658.96	-2165658.88	-2165658.78	0.0089	0.0063
Mercury	-10643-12-28 16:19 J	-2165570.92	-2165570.82	-2165570.71	0.0089	0.0055
Mercury	-10642-03-26 17:31 J	-2165482.87	-2165482.77	-2165482.65	0.0089	0.0048
Mercury	-10642-06-22 18:43 J	-2165394.82	-2165394.72	-2165394.59	0.0089	0.0042
Mercury	-10642-09-18 20:09 J	-2165306.77	-2165306.66	-2165306.53	0.0089	0.0034
Mercury	-10642-12-15 21:21 J	-2165218.72	-2165218.61	-2165218.48	0.0089	0.0028
Mercury	-10641-03-12 22:48 J	-2165130.67	-2165130.55	-2165130.42	0.0089	0.0020
Mercury	-10641-06-09 00:00 J	-2165042.62	-2165042.50	-2165042.36	0.0089	0.0013

Mercury	-10641-09-05 01:26 J	-2164954.57	-2164954.44	-2164954.31	0.0089	0.0006
Mercury	-10641-12-02 02:38 J	-2164866.52	-2164866.39	-2164866.25	0.0089	0.0003
Mercury	-10640-02-28 04:04 J	-2164778.46	-2164778.33	-2164778.20	0.0089	0.0009
Mercury	-10640-05-27 05:16 J	-2164690.41	-2164690.28	-2164690.15	0.0089	0.0015
Mercury	-10640-08-23 06:28 J	-2164602.35	-2164602.23	-2164602.10	0.0089	0.0023
Mercury	-10640-11-19 07:55 J	-2164514.30	-2164514.17	-2164514.05	0.0089	0.0030
Mercury	-10639-02-15 09:07 J	-2164426.24	-2164426.12	-2164426.00	0.0089	0.0037
Mercury	-10639-05-14 10:19 J	-2164338.18	-2164338.07	-2164337.95	0.0089	0.0044
Mercury	-10639-08-10 11:45 J	-2164250.12	-2164250.01	-2164249.91	0.0089	0.0051
Mercury	-10639-11-06 12:57 J	-2164162.06	-2164161.96	-2164161.86	0.0089	0.0058
Mercury	-10638-02-02 14:09 J	-2164073.99	-2164073.91	-2164073.82	0.0089	0.0065
Mercury	-10638-05-01 15:35 J	-2163985.93	-2163985.85	-2163985.78	0.0089	0.0072
Mercury	-10638-07-28 16:48 J	-2163897.86	-2163897.80	-2163897.74	0.0089	0.0079
Mercury	-10638-10-24 18:00 J	-2163809.78	-2163809.75	-2163809.71	0.0089	0.0086
Venus	-10632-10-10 21:50 J	-2161631.63	-2161631.59	-2161631.52	0.0089	0.0086
Venus	-10631-05-24 11:02 J	-2161406.14	-2161406.04	-2161405.93	0.0089	0.0077
Venus	-10630-01-04 23:31 J	-2161180.64	-2161180.52	-2161180.36	0.0089	0.0068
Venus	-10630-08-18 12:28 J	-2160955.13	-2160954.98	-2160954.80	0.0089	0.0059
Venus	-10629-03-31 01:11 J	-2160729.61	-2160729.45	-2160729.25	0.0089	0.0051
Venus	-10629-11-11 14:09 J	-2160504.09	-2160503.91	-2160503.70	0.0089	0.0041
Venus	-10628-06-25 03:07 J	-2160278.56	-2160278.37	-2160278.15	0.0089	0.0032
Venus	-10627-02-05 15:50 J	-2160053.04	-2160052.84	-2160052.61	0.0089	0.0024
Venus	-10627-09-19 04:48 J	-2159827.51	-2159827.30	-2159827.08	0.0089	0.0014
Venus	-10626-05-02 17:31 J	-2159601.98	-2159601.77	-2159601.55	0.0089	0.0005
Venus	-10626-12-14 06:28 J	-2159376.45	-2159376.23	-2159376.02	0.0089	0.0004
Venus	-10625-07-26 19:11 J	-2159150.91	-2159150.70	-2159150.48	0.0089	0.0013
Venus	-10624-03-09 07:40 J	-2158925.38	-2158925.18	-2158924.96	0.0089	0.0022
Venus	-10624-10-20 20:24 J	-2158699.84	-2158699.65	-2158699.44	0.0089	0.0031
Venus	-10623-06-03 09:07 J	-2158474.30	-2158474.12	-2158473.91	0.0089	0.0040
Venus	-10622-01-14 21:35 J	-2158248.76	-2158248.60	-2158248.40	0.0089	0.0050

Venus	-10622-08-28 10:19 J	-2158023.21	-2158023.07	-2158022.88	0.0089	0.0058
Venus	-10621-04-09 23:31 J	-2157797.66	-2157797.52	-2157797.37	0.0089	0.0066
Venus	-10621-11-21 12:00 J	-2157572.10	-2157572.00	-2157571.87	0.0089	0.0075
Venus	-10620-07-05 00:43 J	-2157346.52	-2157346.47	-2157346.38	0.0089	0.0084
Earth	-10589-12-01 12:57 J	-2145874.10	-2145873.96	-2145873.79	0.0088	0.0071
Moon	-10589-12-01 14:09 J	-2145874.02	-2145873.91	-2145873.76	0.0088	0.0075 *
Moon	-10588-12-03 22:19 J	-2145506.81	-2145506.57	-2145506.31	0.0088	0.0030
Earth	-10588-12-04 00:28 J	-2145506.71	-2145506.48	-2145506.23	0.0088	0.0035 *
Earth	-10587-12-06 12:00 J	-2145139.25	-2145139.00	-2145138.74	0.0088	0.0003
Moon	-10587-12-06 15:07 J	-2145139.12	-2145138.87	-2145138.62	0.0088	0.0003 *
Moon	-10586-12-08 19:26 J	-2144771.89	-2144771.69	-2144771.44	0.0088	0.0044
Earth	-10586-12-08 23:16 J	-2144771.75	-2144771.53	-2144771.28	0.0088	0.0039 *
Earth	-10585-12-10 11:02 J	-2144404.17	-2144404.04	-2144403.90	0.0088	0.0075
Moon	-10585-12-10 14:09 J	-2144404.04	-2144403.91	-2144403.73	0.0088	0.0071 *
Jupiter	-10570-12-20 15:07 J	-2138916.27	-2138915.87	-2138915.37	0.0088	0.0052
Mars	-10566-03-12 23:45 J	-2137737.71	-2137737.51	-2137737.27	0.0088	0.0060
Mars	-10564-02-04 02:38 J	-2137043.68	-2137043.39	-2137043.09	0.0088	0.0015
Mercury	-10560-06-22 21:07 J	-2135443.68	-2135443.62	-2135443.53	0.0088	0.0080
Mercury	-10560-09-19 00:57 J	-2135355.57	-2135355.46	-2135355.33	0.0088	0.0070
Mercury	-10560-12-16 04:33 J	-2135267.44	-2135267.31	-2135267.15	0.0088	0.0060
Mercury	-10559-03-14 08:09 J	-2135179.31	-2135179.16	-2135178.98	0.0088	0.0050
Mercury	-10559-06-10 12:00 J	-2135091.17	-2135091.00	-2135090.81	0.0088	0.0040
Mercury	-10559-09-06 15:35 J	-2135003.02	-2135002.85	-2135002.65	0.0088	0.0030
Mercury	-10559-12-03 19:40 J	-2134914.87	-2134914.68	-2134914.49	0.0088	0.0019
Mercury	-10558-03-01 23:16 J	-2134826.72	-2134826.53	-2134826.33	0.0088	0.0009
Mercury	-10558-05-29 03:07 J	-2134738.57	-2134738.37	-2134738.17	0.0088	0.0001
Mercury	-10558-08-25 06:43 J	-2134650.41	-2134650.22	-2134650.02	0.0088	0.0012
Mercury	-10558-11-21 10:19 J	-2134562.25	-2134562.07	-2134561.87	0.0088	0.0022
Mercury	-10557-02-17 13:55 J	-2134474.09	-2134473.92	-2134473.72	0.0088	0.0032
Mercury	-10557-05-15 17:45 J	-2134385.93	-2134385.76	-2134385.58	0.0088	0.0042

Mercury	-10557-08-11 21:35 J	-2134297.75	-2134297.60	-2134297.44	0.0088	0.0052
Mercury	-10557-11-08 00:57 J	-2134209.58	-2134209.46	-2134209.30	0.0088	0.0063
Mercury	-10556-02-04 04:48 J	-2134121.39	-2134121.30	-2134121.18	0.0088	0.0073
Mercury	-10556-05-03 08:38 J	-2134033.19	-2134033.14	-2134033.07	0.0088	0.0083
Venus	-10549-07-07 14:38 J	-2131410.91	-2131410.89	-2131410.83	0.0088	0.0086
Venus	-10548-02-18 04:04 J	-2131185.43	-2131185.33	-2131185.23	0.0088	0.0078
Venus	-10548-10-01 16:33 J	-2130959.92	-2130959.81	-2130959.65	0.0088	0.0069
Venus	-10547-05-15 06:00 J	-2130734.40	-2130734.25	-2130734.08	0.0088	0.0060
Venus	-10547-12-26 19:26 J	-2130508.87	-2130508.69	-2130508.51	0.0088	0.0051
Venus	-10546-08-09 08:38 J	-2130283.33	-2130283.14	-2130282.94	0.0088	0.0043
Venus	-10545-03-21 21:35 J	-2130057.79	-2130057.60	-2130057.38	0.0088	0.0034
Venus	-10545-11-02 10:48 J	-2129832.25	-2129832.05	-2129831.83	0.0088	0.0025
Venus	-10544-06-16 00:00 J	-2129606.71	-2129606.50	-2129606.27	0.0088	0.0016
Venus	-10543-01-27 13:26 J	-2129381.16	-2129380.94	-2129380.71	0.0088	0.0007
Venus	-10543-09-10 02:52 J	-2129155.60	-2129155.38	-2129155.16	0.0088	0.0002
Venus	-10542-04-23 16:04 J	-2128930.05	-2128929.83	-2128929.61	0.0088	0.0011
Venus	-10542-12-05 05:16 J	-2128704.49	-2128704.28	-2128704.06	0.0088	0.0020
Venus	-10541-07-17 18:28 J	-2128478.93	-2128478.73	-2128478.51	0.0088	0.0029
Venus	-10540-02-28 07:40 J	-2128253.37	-2128253.18	-2128252.97	0.0088	0.0038
Venus	-10540-10-11 20:38 J	-2128027.81	-2128027.64	-2128027.43	0.0088	0.0048
Venus	-10539-05-25 09:50 J	-2127802.24	-2127802.09	-2127801.89	0.0088	0.0057
Venus	-10538-01-05 23:45 J	-2127576.66	-2127576.51	-2127576.36	0.0088	0.0065
Venus	-10538-08-19 12:57 J	-2127351.07	-2127350.96	-2127350.83	0.0088	0.0074
Venus	-10537-04-01 02:09 J	-2127125.48	-2127125.41	-2127125.32	0.0088	0.0082
Earth	-10506-06-06 08:24 J	-2115737.15	-2115737.15	-2115737.11	0.0089	0.0089
Earth	-10505-06-07 20:09 J	-2115369.85	-2115369.66	-2115369.43	0.0089	0.0052
Moon	-10505-06-07 22:19 J	-2115369.78	-2115369.57	-2115369.36	0.0089	0.0047 *
Moon	-10504-06-10 06:00 J	-2115002.49	-2115002.25	-2115001.98	0.0089	0.0020
Earth	-10504-06-10 08:24 J	-2115002.40	-2115002.15	-2115001.89	0.0089	0.0015 *
Earth	-10503-06-12 19:55 J	-2114634.91	-2114634.67	-2114634.42	0.0089	0.0022

Moon	-10503-06-12 23:02 J	-2114634.77	-2114634.54	-2114634.29	0.0089	0.0027 *
Moon	-10502-06-15 03:35 J	-2114267.53	-2114267.35	-2114267.12	0.0089	0.0055
Earth	-10502-06-15 07:26 J	-2114267.37	-2114267.19	-2114266.99	0.0089	0.0060 *
Mars	-10483-10-26 10:48 J	-2107194.38	-2107194.05	-2107193.73	0.0089	0.0013
Mars	-10481-09-21 02:38 J	-2106498.55	-2106498.39	-2106498.17	0.0089	0.0074
Mercury	-10479-10-07 10:04 J	-2105752.11	-2105752.08	-2105752.02	0.0089	0.0083
Mercury	-10478-01-03 11:16 J	-2105664.08	-2105664.03	-2105663.95	0.0089	0.0077
Mercury	-10478-04-01 12:57 J	-2105576.04	-2105575.96	-2105575.88	0.0089	0.0069
Mercury	-10478-06-28 14:09 J	-2105488.00	-2105487.91	-2105487.81	0.0089	0.0062
Mercury	-10478-09-24 15:35 J	-2105399.95	-2105399.85	-2105399.75	0.0089	0.0055
Mercury	-10478-12-21 16:48 J	-2105311.91	-2105311.80	-2105311.69	0.0089	0.0048
Mercury	-10477-03-18 18:14 J	-2105223.86	-2105223.74	-2105223.63	0.0089	0.0041
Mercury	-10477-06-14 19:26 J	-2105135.81	-2105135.69	-2105135.57	0.0089	0.0033
Mercury	-10477-09-10 20:38 J	-2105047.76	-2105047.64	-2105047.51	0.0089	0.0027
Mercury	-10477-12-07 22:04 J	-2104959.71	-2104959.58	-2104959.45	0.0089	0.0019
Mercury	-10476-03-05 23:16 J	-2104871.66	-2104871.53	-2104871.40	0.0089	0.0012
Mercury	-10476-06-02 00:43 J	-2104783.60	-2104783.47	-2104783.34	0.0089	0.0006
Mercury	-10476-08-29 01:55 J	-2104695.55	-2104695.42	-2104695.29	0.0089	0.0002
Mercury	-10476-11-25 03:07 J	-2104607.50	-2104607.37	-2104607.24	0.0089	0.0009
Mercury	-10475-02-21 04:19 J	-2104519.44	-2104519.32	-2104519.18	0.0089	0.0017
Mercury	-10475-05-20 05:45 J	-2104431.39	-2104431.26	-2104431.13	0.0089	0.0023
Mercury	-10475-08-16 06:57 J	-2104343.33	-2104343.21	-2104343.08	0.0089	0.0030
Mercury	-10475-11-12 08:09 J	-2104255.27	-2104255.16	-2104255.04	0.0089	0.0037
Mercury	-10474-02-08 09:21 J	-2104167.21	-2104167.11	-2104166.99	0.0089	0.0045
Mercury	-10474-05-07 10:48 J	-2104079.15	-2104079.05	-2104078.94	0.0089	0.0051
Mercury	-10474-08-03 12:00 J	-2103991.09	-2103991.00	-2103990.90	0.0089	0.0058
Mercury	-10474-10-30 13:11 J	-2103903.03	-2103902.95	-2103902.85	0.0089	0.0065
Mercury	-10473-01-26 14:24 J	-2103814.96	-2103814.90	-2103814.81	0.0089	0.0073
Mercury	-10473-04-23 15:50 J	-2103726.89	-2103726.84	-2103726.78	0.0089	0.0079
Mercury	-10473-07-20 17:02 J	-2103638.81	-2103638.79	-2103638.75	0.0089	0.0086

Venus	-10467-08-25 19:11 J	-2101411.77	-2101411.70	-2101411.62	0.0089	0.0083
Venus	-10466-04-08 08:09 J	-2101186.28	-2101186.16	-2101186.04	0.0089	0.0074
Venus	-10466-11-19 21:07 J	-2100960.77	-2100960.62	-2100960.47	0.0089	0.0065
Venus	-10465-07-02 10:04 J	-2100735.25	-2100735.08	-2100734.91	0.0089	0.0056
Venus	-10464-02-12 22:48 J	-2100509.73	-2100509.55	-2100509.36	0.0089	0.0047
Venus	-10464-09-26 11:45 J	-2100284.20	-2100284.01	-2100283.81	0.0089	0.0037
Venus	-10463-05-10 00:28 J	-2100058.68	-2100058.48	-2100058.27	0.0089	0.0028
Venus	-10463-12-21 13:26 J	-2099833.15	-2099832.94	-2099832.73	0.0089	0.0019
Venus	-10462-08-04 02:09 J	-2099607.62	-2099607.41	-2099607.19	0.0089	0.0011
Venus	-10461-03-16 15:07 J	-2099382.09	-2099381.87	-2099381.65	0.0089	0.0001
Venus	-10461-10-28 03:50 J	-2099156.56	-2099156.34	-2099156.12	0.0089	0.0008
Venus	-10460-06-10 16:33 J	-2098931.02	-2098930.81	-2098930.59	0.0089	0.0017
Venus	-10459-01-22 05:16 J	-2098705.48	-2098705.28	-2098705.07	0.0089	0.0026
Venus	-10459-09-04 18:00 J	-2098479.95	-2098479.75	-2098479.55	0.0089	0.0035
Venus	-10458-04-18 06:43 J	-2098254.41	-2098254.22	-2098254.03	0.0089	0.0044
Venus	-10458-11-29 19:26 J	-2098028.86	-2098028.69	-2098028.51	0.0089	0.0053
Venus	-10457-07-12 08:09 J	-2097803.31	-2097803.16	-2097803.00	0.0089	0.0062
Venus	-10456-02-22 20:52 J	-2097577.75	-2097577.63	-2097577.49	0.0089	0.0071
Venus	-10456-10-06 09:21 J	-2097352.19	-2097352.11	-2097352.00	0.0089	0.0080
Venus	-10455-05-19 22:19 J	-2097126.57	-2097126.57	-2097126.56	0.0089	0.0089
Earth	-10424-12-03 06:00 J	-2085606.45	-2085606.25	-2085606.05	0.0088	0.0056
Moon	-10424-12-03 08:52 J	-2085606.31	-2085606.13	-2085605.91	0.0088	0.0056 *
Moon	-10423-12-05 13:40 J	-2085239.17	-2085238.93	-2085238.67	0.0088	0.0019
Earth	-10423-12-05 17:31 J	-2085239.02	-2085238.77	-2085238.52	0.0088	0.0020 *
Earth	-10422-12-08 04:47 J	-2084871.56	-2084871.30	-2084871.05	0.0088	0.0017
Moon	-10422-12-08 08:09 J	-2084871.41	-2084871.16	-2084870.90	0.0088	0.0017 *
Moon	-10421-12-09 13:12 J	-2084504.13	-2084503.95	-2084503.73	0.0088	0.0053
Earth	-10421-12-09 16:19 J	-2084504.03	-2084503.82	-2084503.61	0.0088	0.0053 *
Moon	-10420-12-12 06:00 J	-2084136.27	-2084136.25	-2084136.22	0.0088	0.0088
Jupiter	-10403-02-17 16:04 J	-2078224.93	-2078224.83	-2078224.60	0.0088	0.0084

Mars	-10401-09-19 00:14 J	-2077280.77	-2077280.49	-2077280.19	0.0088	0.0026
Mars	-10399-08-14 02:24 J	-2076586.64	-2076586.40	-2076586.14	0.0088	0.0049
Mercury	-10395-03-19 18:00 J	-2075272.82	-2075272.75	-2075272.66	0.0088	0.0080
Mercury	-10395-06-15 21:35 J	-2075184.71	-2075184.60	-2075184.47	0.0088	0.0070
Mercury	-10395-09-12 01:12 J	-2075096.58	-2075096.45	-2075096.29	0.0088	0.0060
Mercury	-10395-12-09 05:02 J	-2075008.44	-2075008.29	-2075008.12	0.0088	0.0050
Mercury	-10394-03-07 08:38 J	-2074920.30	-2074920.14	-2074919.95	0.0088	0.0040
Mercury	-10394-06-03 12:14 J	-2074832.16	-2074831.99	-2074831.79	0.0088	0.0030
Mercury	-10394-08-30 16:19 J	-2074744.01	-2074743.82	-2074743.63	0.0088	0.0019
Mercury	-10394-11-26 19:55 J	-2074655.86	-2074655.67	-2074655.47	0.0088	0.0009
Mercury	-10393-02-22 23:45 J	-2074567.71	-2074567.51	-2074567.31	0.0088	0.0001
Mercury	-10393-05-21 03:21 J	-2074479.55	-2074479.36	-2074479.16	0.0088	0.0011
Mercury	-10393-08-17 06:57 J	-2074391.40	-2074391.21	-2074391.01	0.0088	0.0022
Mercury	-10393-11-13 10:33 J	-2074303.23	-2074303.06	-2074302.86	0.0088	0.0032
Mercury	-10392-02-09 14:24 J	-2074215.07	-2074214.90	-2074214.72	0.0088	0.0042
Mercury	-10392-05-08 18:00 J	-2074126.90	-2074126.75	-2074126.58	0.0088	0.0052
Mercury	-10392-08-04 21:50 J	-2074038.72	-2074038.59	-2074038.44	0.0088	0.0062
Mercury	-10392-11-01 01:12 J	-2073950.54	-2073950.45	-2073950.32	0.0088	0.0073
Mercury	-10391-01-28 05:02 J	-2073862.34	-2073862.29	-2073862.21	0.0088	0.0083
Venus	-10384-05-22 11:31 J	-2071191.08	-2071191.02	-2071190.95	0.0088	0.0083
Venus	-10383-01-03 00:14 J	-2070965.58	-2070965.49	-2070965.35	0.0088	0.0075
Venus	-10383-08-16 13:26 J	-2070740.06	-2070739.94	-2070739.77	0.0088	0.0066
Venus	-10382-03-30 02:38 J	-2070514.54	-2070514.39	-2070514.20	0.0088	0.0057
Venus	-10382-11-10 15:50 J	-2070289.01	-2070288.84	-2070288.64	0.0088	0.0048
Venus	-10381-06-23 05:02 J	-2070063.48	-2070063.29	-2070063.08	0.0088	0.0039
Venus	-10380-02-03 18:14 J	-2069837.94	-2069837.74	-2069837.52	0.0088	0.0030
Venus	-10380-09-17 07:26 J	-2069612.40	-2069612.19	-2069611.97	0.0088	0.0021
Venus	-10379-04-30 20:52 J	-2069386.85	-2069386.63	-2069386.41	0.0088	0.0012
Venus	-10379-12-12 10:19 J	-2069161.30	-2069161.07	-2069160.85	0.0088	0.0003
Venus	-10378-07-25 23:31 J	-2068935.74	-2068935.52	-2068935.30	0.0088	0.0006

Venus	-10377-03-07 12:28 J	-2068710.19	-2068709.98	-2068709.75	0.0088	0.0016
Venus	-10377-10-19 01:40 J	-2068484.63	-2068484.43	-2068484.21	0.0088	0.0024
Venus	-10376-06-01 14:52 J	-2068259.07	-2068258.88	-2068258.66	0.0088	0.0034
Venus	-10375-01-13 04:19 J	-2068033.50	-2068033.32	-2068033.11	0.0088	0.0042
Venus	-10375-08-26 17:31 J	-2067807.93	-2067807.77	-2067807.57	0.0088	0.0052
Venus	-10374-04-09 06:43 J	-2067582.36	-2067582.22	-2067582.04	0.0088	0.0061
Venus	-10374-11-20 19:55 J	-2067356.79	-2067356.67	-2067356.51	0.0088	0.0070
Venus	-10373-07-03 09:21 J	-2067131.20	-2067131.11	-2067131.00	0.0088	0.0078
Venus	-10372-02-13 22:33 J	-2066905.57	-2066905.56	-2066905.51	0.0088	0.0087
Moon	-10341-06-06 20:52 J	-2055469.75	-2055469.63	-2055469.45	0.0089	0.0073
Earth	-10341-06-07 00:28 J	-2055469.61	-2055469.48	-2055469.33	0.0089	0.0074 *
Earth	-10340-06-09 12:14 J	-2055102.22	-2055101.99	-2055101.75	0.0089	0.0037
Moon	-10340-06-09 15:21 J	-2055102.07	-2055101.86	-2055101.62	0.0089	0.0038 *
Moon	-10339-06-11 20:38 J	-2054734.90	-2054734.64	-2054734.38	0.0089	0.0000
Earth	-10339-06-12 00:14 J	-2054734.74	-2054734.49	-2054734.23	0.0089	0.0001 *
Earth	-10338-06-14 11:45 J	-2054367.23	-2054367.01	-2054366.77	0.0089	0.0037
Moon	-10338-06-14 14:52 J	-2054367.10	-2054366.88	-2054366.62	0.0089	0.0036 *
Moon	-10337-06-15 20:52 J	-2053999.76	-2053999.63	-2053999.48	0.0089	0.0074
Earth	-10337-06-15 23:16 J	-2053999.66	-2053999.53	-2053999.37	0.0089	0.0073 *
Mars	-10319-06-09 01:55 J	-2047432.66	-2047432.42	-2047432.18	0.0089	0.0060
Mars	-10317-05-04 15:21 J	-2046737.17	-2046736.86	-2046736.54	0.0089	0.0026
Mercury	-10314-07-04 09:07 J	-2045581.15	-2045581.12	-2045581.06	0.0089	0.0083
Mercury	-10314-09-30 10:19 J	-2045493.12	-2045493.07	-2045492.99	0.0089	0.0077
Mercury	-10314-12-27 11:45 J	-2045405.08	-2045405.01	-2045404.92	0.0089	0.0069
Mercury	-10313-03-24 12:57 J	-2045317.04	-2045316.96	-2045316.85	0.0089	0.0063
Mercury	-10313-06-20 14:38 J	-2045228.99	-2045228.89	-2045228.79	0.0089	0.0055
Mercury	-10313-09-16 15:50 J	-2045140.95	-2045140.84	-2045140.73	0.0089	0.0048
Mercury	-10313-12-13 17:02 J	-2045052.90	-2045052.79	-2045052.67	0.0089	0.0041
Mercury	-10312-03-11 18:28 J	-2044964.85	-2044964.73	-2044964.61	0.0089	0.0033
Mercury	-10312-06-07 19:40 J	-2044876.80	-2044876.68	-2044876.55	0.0089	0.0027

Mercury	-10312-09-03 21:07 J	-2044788.75	-2044788.62	-2044788.49	0.0089	0.0019
Mercury	-10312-11-30 22:19 J	-2044700.70	-2044700.57	-2044700.44	0.0089	0.0012
Mercury	-10311-02-26 23:45 J	-2044612.64	-2044612.51	-2044612.38	0.0089	0.0005
Mercury	-10311-05-26 00:57 J	-2044524.59	-2044524.46	-2044524.33	0.0089	0.0002
Mercury	-10311-08-22 02:09 J	-2044436.54	-2044436.41	-2044436.28	0.0089	0.0010
Mercury	-10311-11-18 03:35 J	-2044348.48	-2044348.35	-2044348.22	0.0089	0.0016
Mercury	-10310-02-14 04:47 J	-2044260.43	-2044260.30	-2044260.17	0.0089	0.0023
Mercury	-10310-05-13 06:00 J	-2044172.37	-2044172.25	-2044172.12	0.0089	0.0030
Mercury	-10310-08-09 07:12 J	-2044084.31	-2044084.20	-2044084.07	0.0089	0.0038
Mercury	-10310-11-05 08:38 J	-2043996.25	-2043996.14	-2043996.03	0.0089	0.0044
Mercury	-10309-02-01 09:50 J	-2043908.19	-2043908.09	-2043907.98	0.0089	0.0051
Mercury	-10309-04-29 11:02 J	-2043820.13	-2043820.04	-2043819.93	0.0089	0.0059
Mercury	-10309-07-26 12:14 J	-2043732.07	-2043731.99	-2043731.89	0.0089	0.0066
Mercury	-10309-10-22 13:40 J	-2043644.00	-2043643.93	-2043643.85	0.0089	0.0072
Mercury	-10308-01-18 14:52 J	-2043555.93	-2043555.88	-2043555.81	0.0089	0.0080
Mercury	-10308-04-16 16:04 J	-2043467.85	-2043467.83	-2043467.79	0.0089	0.0087
Venus	-10303-11-27 02:52 J	-2041417.38	-2041417.38	-2041417.35	0.0089	0.0089
Venus	-10302-07-10 15:35 J	-2041191.92	-2041191.85	-2041191.73	0.0089	0.0081
Venus	-10301-02-21 05:02 J	-2040966.41	-2040966.29	-2040966.15	0.0089	0.0071
Venus	-10301-10-03 18:00 J	-2040740.90	-2040740.75	-2040740.59	0.0089	0.0062
Venus	-10300-05-17 06:43 J	-2040515.38	-2040515.22	-2040515.03	0.0089	0.0053
Venus	-10300-12-28 19:40 J	-2040289.86	-2040289.68	-2040289.48	0.0089	0.0043
Venus	-10299-08-11 08:38 J	-2040064.33	-2040064.14	-2040063.93	0.0089	0.0034
Venus	-10298-03-24 21:35 J	-2039838.80	-2039838.60	-2039838.39	0.0089	0.0025
Venus	-10298-11-05 10:33 J	-2039613.28	-2039613.06	-2039612.85	0.0089	0.0015
Venus	-10297-06-17 23:16 J	-2039387.74	-2039387.53	-2039387.31	0.0089	0.0006
Venus	-10296-01-29 12:14 J	-2039162.21	-2039161.99	-2039161.78	0.0089	0.0003
Venus	-10296-09-12 00:43 J	-2038936.68	-2038936.47	-2038936.25	0.0089	0.0013
Venus	-10295-04-25 13:26 J	-2038711.14	-2038710.94	-2038710.72	0.0089	0.0022
Venus	-10295-12-07 01:55 J	-2038485.61	-2038485.42	-2038485.20	0.0089	0.0031

Venus	-10294-07-20 14:52 J	-2038260.06	-2038259.88	-2038259.67	0.0089	0.0040
Venus	-10293-03-02 03:35 J	-2038034.52	-2038034.35	-2038034.16	0.0089	0.0049
Venus	-10293-10-13 16:04 J	-2037808.98	-2037808.83	-2037808.65	0.0089	0.0058
Venus	-10292-05-27 04:47 J	-2037583.42	-2037583.30	-2037583.14	0.0089	0.0067
Venus	-10291-01-07 17:31 J	-2037357.86	-2037357.77	-2037357.64	0.0089	0.0076
Venus	-10291-08-21 06:14 J	-2037132.28	-2037132.24	-2037132.16	0.0089	0.0085
Moon	-10260-12-02 07:26 J	-2025706.27	-2025706.19	-2025706.08	0.0088	0.0081
Earth	-10260-12-02 10:33 J	-2025706.16	-2025706.06	-2025705.91	0.0088	0.0077 *
Earth	-10259-12-04 21:50 J	-2025338.80	-2025338.59	-2025338.34	0.0088	0.0042
Moon	-10259-12-05 01:26 J	-2025338.67	-2025338.44	-2025338.19	0.0088	0.0037 *
Moon	-10258-12-07 07:12 J	-2024971.44	-2024971.20	-2024970.94	0.0088	0.0010
Earth	-10258-12-07 09:50 J	-2024971.35	-2024971.09	-2024970.83	0.0088	0.0005 *
Earth	-10257-12-08 20:52 J	-2024603.86	-2024603.63	-2024603.37	0.0088	0.0031
Moon	-10257-12-08 21:50 J	-2024603.82	-2024603.59	-2024603.33	0.0088	0.0035 *
Moon	-10256-12-11 07:40 J	-2024236.33	-2024236.18	-2024235.98	0.0088	0.0063
Earth	-10256-12-11 07:55 J	-2024236.31	-2024236.17	-2024235.97	0.0088	0.0067 *
Mars	-10237-05-03 18:43 J	-2017517.90	-2017517.72	-2017517.51	0.0088	0.0067
Mars	-10235-03-28 23:31 J	-2016823.81	-2016823.52	-2016823.21	0.0088	0.0009
Mars	-10233-02-21 00:57 J	-2016129.52	-2016129.46	-2016129.33	0.0088	0.0084
Mercury	-10231-12-14 14:38 J	-2015101.95	-2015101.89	-2015101.79	0.0088	0.0080
Mercury	-10230-03-12 18:14 J	-2015013.84	-2015013.74	-2015013.60	0.0088	0.0070
Mercury	-10230-06-08 22:04 J	-2014925.71	-2014925.58	-2014925.43	0.0088	0.0060
Mercury	-10230-09-05 01:40 J	-2014837.58	-2014837.43	-2014837.25	0.0088	0.0050
Mercury	-10230-12-02 05:16 J	-2014749.44	-2014749.28	-2014749.09	0.0088	0.0040
Mercury	-10229-02-28 09:07 J	-2014661.30	-2014661.12	-2014660.92	0.0088	0.0030
Mercury	-10229-05-26 12:43 J	-2014573.15	-2014572.97	-2014572.76	0.0088	0.0020
Mercury	-10229-08-22 16:47 J	-2014485.00	-2014484.80	-2014484.61	0.0088	0.0009
Mercury	-10229-11-18 20:24 J	-2014396.85	-2014396.65	-2014396.45	0.0088	0.0001
Mercury	-10228-02-15 00:00 J	-2014308.69	-2014308.50	-2014308.30	0.0088	0.0011
Mercury	-10228-05-14 03:50 J	-2014220.53	-2014220.34	-2014220.15	0.0088	0.0021

Mercury	-10228-08-10 07:12 J	-2014132.37	-2014132.20	-2014132.00	0.0088	0.0032
Mercury	-10228-11-06 10:47 J	-2014044.21	-2014044.05	-2014043.86	0.0088	0.0042
Mercury	-10227-02-02 14:38 J	-2013956.04	-2013955.89	-2013955.72	0.0088	0.0052
Mercury	-10227-05-01 18:28 J	-2013867.86	-2013867.73	-2013867.58	0.0088	0.0062
Mercury	-10227-07-28 22:04 J	-2013779.68	-2013779.58	-2013779.46	0.0088	0.0072
Mercury	-10227-10-25 01:26 J	-2013691.48	-2013691.44	-2013691.35	0.0088	0.0083
Venus	-10219-04-06 07:40 J	-2010971.24	-2010971.18	-2010971.07	0.0088	0.0081
Venus	-10219-11-17 20:52 J	-2010745.74	-2010745.63	-2010745.49	0.0088	0.0072
Venus	-10218-07-01 09:50 J	-2010520.22	-2010520.09	-2010519.92	0.0088	0.0063
Venus	-10217-02-11 23:02 J	-2010294.70	-2010294.54	-2010294.35	0.0088	0.0054
Venus	-10217-09-24 12:00 J	-2010069.17	-2010069.00	-2010068.79	0.0088	0.0045
Venus	-10216-05-08 01:12 J	-2009843.64	-2009843.45	-2009843.23	0.0088	0.0036
Venus	-10216-12-19 14:38 J	-2009618.09	-2009617.89	-2009617.67	0.0088	0.0027
Venus	-10215-08-02 03:50 J	-2009392.55	-2009392.34	-2009392.12	0.0088	0.0018
Venus	-10214-03-15 17:02 J	-2009167.01	-2009166.79	-2009166.57	0.0088	0.0009
Venus	-10214-10-27 06:14 J	-2008941.46	-2008941.24	-2008941.02	0.0088	0.0001
Venus	-10213-06-08 19:26 J	-2008715.91	-2008715.69	-2008715.47	0.0088	0.0010
Venus	-10212-01-20 08:38 J	-2008490.35	-2008490.14	-2008489.91	0.0088	0.0019
Venus	-10212-09-02 21:50 J	-2008264.79	-2008264.59	-2008264.37	0.0088	0.0028
Venus	-10211-04-16 11:02 J	-2008039.23	-2008039.04	-2008038.82	0.0088	0.0038
Venus	-10211-11-28 00:28 J	-2007813.66	-2007813.48	-2007813.28	0.0088	0.0046
Venus	-10210-07-11 13:55 J	-2007588.09	-2007587.92	-2007587.74	0.0088	0.0055
Venus	-10209-02-22 03:21 J	-2007362.51	-2007362.36	-2007362.21	0.0088	0.0065
Venus	-10209-10-04 15:50 J	-2007136.93	-2007136.84	-2007136.69	0.0088	0.0075
Venus	-10208-05-18 05:16 J	-2006911.33	-2006911.28	-2006911.18	0.0088	0.0083
Moon	-10176-06-08 11:45 J	-1995202.18	-1995202.01	-1995201.79	0.0089	0.0057
Earth	-10176-06-08 15:07 J	-1995202.03	-1995201.87	-1995201.66	0.0089	0.0061 *
Earth	-10175-06-11 03:07 J	-1994834.61	-1994834.37	-1994834.11	0.0089	0.0024
Moon	-10175-06-11 06:28 J	-1994834.47	-1994834.23	-1994833.98	0.0089	0.0028 *
Moon	-10174-06-13 13:12 J	-1994467.19	-1994466.95	-1994466.70	0.0089	0.0017

Earth	-10174-06-13 15:07 J	-1994467.12	-1994466.87	-1994466.61	0.0089	0.0013 *
Earth	-10173-06-15 02:24 J	-1994099.59	-1994099.40	-1994099.16	0.0089	0.0051
Moon	-10173-06-15 03:35 J	-1994099.57	-1994099.35	-1994099.11	0.0089	0.0046 *
Earth	-10172-06-17 14:09 J	-1993731.95	-1993731.91	-1993731.83	0.0089	0.0087
Mars	-10154-12-17 05:02 J	-1986975.60	-1986975.29	-1986974.97	0.0089	0.0022
Mars	-10152-11-11 18:28 J	-1986279.93	-1986279.73	-1986279.48	0.0089	0.0065
Mercury	-10149-03-30 08:09 J	-1985410.20	-1985410.16	-1985410.11	0.0089	0.0084
Mercury	-10149-06-26 09:21 J	-1985322.17	-1985322.11	-1985322.04	0.0089	0.0077
Mercury	-10149-09-22 10:47 J	-1985234.13	-1985234.05	-1985233.97	0.0089	0.0070
Mercury	-10149-12-19 12:00 J	-1985146.09	-1985146.00	-1985145.90	0.0089	0.0063
Mercury	-10148-03-17 13:12 J	-1985058.04	-1985057.95	-1985057.84	0.0089	0.0056
Mercury	-10148-06-13 14:38 J	-1984969.99	-1984969.89	-1984969.77	0.0089	0.0048
Mercury	-10148-09-09 15:50 J	-1984881.95	-1984881.84	-1984881.71	0.0089	0.0042
Mercury	-10148-12-06 17:16 J	-1984793.90	-1984793.78	-1984793.65	0.0089	0.0034
Mercury	-10147-03-04 18:28 J	-1984705.85	-1984705.73	-1984705.60	0.0089	0.0028
Mercury	-10147-05-31 19:55 J	-1984617.79	-1984617.67	-1984617.54	0.0089	0.0020
Mercury	-10147-08-27 21:07 J	-1984529.74	-1984529.62	-1984529.48	0.0089	0.0014
Mercury	-10147-11-23 22:33 J	-1984441.69	-1984441.56	-1984441.43	0.0089	0.0006
Mercury	-10146-02-19 23:45 J	-1984353.64	-1984353.51	-1984353.37	0.0089	0.0003
Mercury	-10146-05-19 01:12 J	-1984265.58	-1984265.45	-1984265.32	0.0089	0.0009
Mercury	-10146-08-15 02:24 J	-1984177.53	-1984177.40	-1984177.27	0.0089	0.0016
Mercury	-10146-11-11 03:50 J	-1984089.47	-1984089.34	-1984089.22	0.0089	0.0023
Mercury	-10145-02-07 05:02 J	-1984001.41	-1984001.29	-1984001.17	0.0089	0.0030
Mercury	-10145-05-05 06:14 J	-1983913.36	-1983913.24	-1983913.12	0.0089	0.0037
Mercury	-10145-08-01 07:26 J	-1983825.30	-1983825.19	-1983825.07	0.0089	0.0044
Mercury	-10145-10-28 08:38 J	-1983737.24	-1983737.14	-1983737.02	0.0089	0.0051
Mercury	-10144-01-24 09:50 J	-1983649.17	-1983649.09	-1983648.98	0.0089	0.0059
Mercury	-10144-04-22 11:16 J	-1983561.11	-1983561.03	-1983560.93	0.0089	0.0065
Mercury	-10144-07-19 12:28 J	-1983473.05	-1983472.98	-1983472.89	0.0089	0.0072
Mercury	-10144-10-15 13:40 J	-1983384.97	-1983384.93	-1983384.86	0.0089	0.0080

Mercury	-10143-01-11 14:52 J	-1983296.89	-1983296.88	-1983296.83	0.0089	0.0087
Venus	-10138-10-11 23:16 J	-1981197.57	-1981197.53	-1981197.46	0.0089	0.0087
Venus	-10137-05-24 12:14 J	-1980972.08	-1980971.99	-1980971.86	0.0089	0.0077
Venus	-10136-01-05 00:57 J	-1980746.57	-1980746.46	-1980746.29	0.0089	0.0069
Venus	-10136-08-18 14:24 J	-1980521.06	-1980520.90	-1980520.73	0.0089	0.0059
Venus	-10135-04-01 03:07 J	-1980295.54	-1980295.37	-1980295.17	0.0089	0.0050
Venus	-10135-11-12 16:04 J	-1980070.01	-1980069.83	-1980069.62	0.0089	0.0040
Venus	-10134-06-26 05:16 J	-1979844.48	-1979844.28	-1979844.07	0.0089	0.0031
Venus	-10133-02-06 18:14 J	-1979618.95	-1979618.74	-1979618.52	0.0089	0.0021
Venus	-10133-09-19 06:57 J	-1979393.42	-1979393.21	-1979392.98	0.0089	0.0012
Venus	-10132-05-02 19:55 J	-1979167.88	-1979167.67	-1979167.45	0.0089	0.0003
Venus	-10132-12-14 08:52 J	-1978942.35	-1978942.13	-1978941.91	0.0089	0.0007
Venus	-10131-07-27 21:35 J	-1978716.81	-1978716.60	-1978716.38	0.0089	0.0017
Venus	-10130-03-10 10:33 J	-1978491.27	-1978491.06	-1978490.85	0.0089	0.0026
Venus	-10130-10-21 23:02 J	-1978265.73	-1978265.54	-1978265.33	0.0089	0.0035
Venus	-10129-06-03 11:45 J	-1978040.19	-1978040.01	-1978039.81	0.0089	0.0044
Venus	-10128-01-15 00:43 J	-1977814.64	-1977814.47	-1977814.30	0.0089	0.0053
Venus	-10128-08-28 12:57 J	-1977589.09	-1977588.96	-1977588.78	0.0089	0.0063
Venus	-10127-04-11 01:40 J	-1977363.54	-1977363.43	-1977363.28	0.0089	0.0072
Venus	-10127-11-22 14:24 J	-1977137.97	-1977137.90	-1977137.79	0.0089	0.0081
Moon	-10095-12-04 01:40 J	-1965438.61	-1965438.43	-1965438.25	0.0088	0.0062
Earth	-10095-12-04 03:07 J	-1965438.53	-1965438.37	-1965438.17	0.0088	0.0063 *
Earth	-10094-12-06 14:52 J	-1965071.12	-1965070.88	-1965070.63	0.0088	0.0027
Moon	-10094-12-06 15:35 J	-1965071.09	-1965070.85	-1965070.58	0.0088	0.0027 *
Earth	-10093-12-08 02:09 J	-1964703.66	-1964703.41	-1964703.15	0.0088	0.0010
Moon	-10093-12-08 03:07 J	-1964703.61	-1964703.37	-1964703.12	0.0088	0.0011 *
Moon	-10092-12-10 11:31 J	-1964336.23	-1964336.02	-1964335.77	0.0088	0.0044
Earth	-10092-12-10 13:26 J	-1964336.15	-1964335.94	-1964335.71	0.0088	0.0045 *
Earth	-10091-12-13 00:14 J	-1963968.56	-1963968.49	-1963968.36	0.0088	0.0082
Moon	-10091-12-13 03:21 J	-1963968.44	-1963968.36	-1963968.25	0.0088	0.0082 *

Mars	-10072-11-10 18:14 J	-1957061.00	-1957060.74	-1957060.44	0.0088	0.0033
Mars	-10070-10-05 22:19 J	-1956366.81	-1956366.57	-1956366.28	0.0088	0.0043
Mercury	-10066-09-10 11:31 J	-1954931.09	-1954931.02	-1954930.93	0.0088	0.0080
Mercury	-10066-12-07 15:07 J	-1954842.98	-1954842.87	-1954842.74	0.0088	0.0070
Mercury	-10065-03-04 18:43 J	-1954754.85	-1954754.72	-1954754.56	0.0088	0.0060
Mercury	-10065-05-31 22:19 J	-1954666.72	-1954666.57	-1954666.39	0.0088	0.0050
Mercury	-10065-08-28 02:09 J	-1954578.58	-1954578.41	-1954578.22	0.0088	0.0040
Mercury	-10065-11-24 05:45 J	-1954490.43	-1954490.26	-1954490.06	0.0088	0.0030
Mercury	-10064-02-20 09:35 J	-1954402.29	-1954402.10	-1954401.90	0.0088	0.0020
Mercury	-10064-05-19 13:26 J	-1954314.14	-1954313.94	-1954313.74	0.0088	0.0009
Mercury	-10064-08-15 17:02 J	-1954225.99	-1954225.79	-1954225.59	0.0088	0.0002
Mercury	-10064-11-11 20:52 J	-1954137.83	-1954137.63	-1954137.44	0.0088	0.0011
Mercury	-10063-02-08 00:28 J	-1954049.67	-1954049.48	-1954049.29	0.0088	0.0021
Mercury	-10063-05-07 04:04 J	-1953961.51	-1953961.33	-1953961.14	0.0088	0.0031
Mercury	-10063-08-03 07:26 J	-1953873.35	-1953873.19	-1953873.00	0.0088	0.0042
Mercury	-10063-10-30 11:16 J	-1953785.18	-1953785.03	-1953784.86	0.0088	0.0052
Mercury	-10062-01-26 14:52 J	-1953697.00	-1953696.88	-1953696.72	0.0088	0.0062
Mercury	-10062-04-24 18:43 J	-1953608.82	-1953608.72	-1953608.60	0.0088	0.0072
Mercury	-10062-07-21 22:33 J	-1953520.62	-1953520.56	-1953520.49	0.0088	0.0082
Venus	-10055-07-08 15:21 J	-1950976.87	-1950976.86	-1950976.81	0.0088	0.0087
Venus	-10054-02-19 04:19 J	-1950751.40	-1950751.32	-1950751.20	0.0088	0.0078
Venus	-10054-10-02 17:31 J	-1950525.89	-1950525.77	-1950525.62	0.0088	0.0069
Venus	-10053-05-15 06:28 J	-1950300.38	-1950300.23	-1950300.05	0.0088	0.0060
Venus	-10053-12-26 19:40 J	-1950074.84	-1950074.68	-1950074.48	0.0088	0.0051
Venus	-10052-08-09 08:52 J	-1949849.31	-1949849.13	-1949848.92	0.0088	0.0042
Venus	-10051-03-22 21:50 J	-1949623.78	-1949623.59	-1949623.37	0.0088	0.0033
Venus	-10051-11-03 11:16 J	-1949398.25	-1949398.03	-1949397.82	0.0088	0.0023
Venus	-10050-06-17 00:14 J	-1949172.70	-1949172.49	-1949172.27	0.0088	0.0014
Venus	-10049-01-28 13:26 J	-1948947.16	-1948946.94	-1948946.71	0.0088	0.0005
Venus	-10049-09-10 02:38 J	-1948721.61	-1948721.39	-1948721.16	0.0088	0.0004

Venus	-10048-04-23 15:50 J	-1948496.06	-1948495.84	-1948495.62	0.0088	0.0014
Venus	-10048-12-05 04:47 J	-1948270.50	-1948270.30	-1948270.07	0.0088	0.0024
Venus	-10047-07-18 18:14 J	-1948044.94	-1948044.74	-1948044.53	0.0088	0.0032
Venus	-10046-03-01 07:26 J	-1947819.38	-1947819.19	-1947818.99	0.0088	0.0041
Venus	-10046-10-12 20:52 J	-1947593.81	-1947593.63	-1947593.45	0.0088	0.0051
Venus	-10045-05-25 09:35 J	-1947368.24	-1947368.10	-1947367.92	0.0088	0.0060
Venus	-10044-01-05 23:02 J	-1947142.66	-1947142.54	-1947142.38	0.0088	0.0069
Venus	-10044-08-19 12:28 J	-1946917.06	-1946916.98	-1946916.86	0.0088	0.0078
Venus	-10043-04-02 01:40 J	-1946691.44	-1946691.43	-1946691.38	0.0088	0.0088
Earth	-10012-06-07 18:14 J	-1935301.80	-1935301.74	-1935301.63	0.0089	0.0084
Moon	-10012-06-07 20:52 J	-1935301.72	-1935301.63	-1935301.51	0.0089	0.0081 *
Moon	-10011-06-10 04:47 J	-1934934.49	-1934934.30	-1934934.07	0.0089	0.0049
Earth	-10011-06-10 06:28 J	-1934934.44	-1934934.23	-1934934.00	0.0089	0.0047 *
Earth	-10010-06-12 18:28 J	-1934566.98	-1934566.73	-1934566.47	0.0089	0.0011
Moon	-10010-06-12 18:43 J	-1934566.98	-1934566.72	-1934566.45	0.0089	0.0009 *
Earth	-10009-06-14 05:45 J	-1934199.49	-1934199.26	-1934199.00	0.0089	0.0027
Moon	-10009-06-14 07:12 J	-1934199.43	-1934199.20	-1934198.95	0.0089	0.0024 *
Moon	-10008-06-16 15:21 J	-1933832.02	-1933831.86	-1933831.66	0.0089	0.0064
Earth	-10008-06-16 17:16 J	-1933831.94	-1933831.78	-1933831.58	0.0089	0.0063 *

10TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 10th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mars	-9990-07-30 19:12 J	-1927213.88	-1927213.70	-1927213.48	0.0089	0.0070
Mars	-9988-06-25 08:09 J	-1926518.47	-1926518.16	-1926517.83	0.0089	0.0017
Mercury	-9985-12-25 06:57 J	-1925239.24	-1925239.21	-1925239.16	0.0089	0.0084
Mercury	-9984-03-23 08:09 J	-1925151.21	-1925151.16	-1925151.08	0.0089	0.0078
Mercury	-9984-06-19 09:21 J	-1925063.17	-1925063.11	-1925063.01	0.0089	0.0071
Mercury	-9984-09-15 10:47 J	-1924975.13	-1924975.05	-1924974.95	0.0089	0.0063
Mercury	-9984-12-12 12:28 J	-1924887.09	-1924886.98	-1924886.88	0.0089	0.0056
Mercury	-9983-03-10 13:40 J	-1924799.04	-1924798.93	-1924798.82	0.0089	0.0049
Mercury	-9983-06-06 14:52 J	-1924710.99	-1924710.88	-1924710.76	0.0089	0.0042
Mercury	-9983-09-02 16:04 J	-1924622.94	-1924622.83	-1924622.70	0.0089	0.0035
Mercury	-9983-11-29 17:31 J	-1924534.89	-1924534.77	-1924534.64	0.0089	0.0027
Mercury	-9982-02-25 18:43 J	-1924446.84	-1924446.72	-1924446.59	0.0089	0.0021
Mercury	-9982-05-24 20:09 J	-1924358.79	-1924358.66	-1924358.53	0.0089	0.0013
Mercury	-9982-08-20 21:21 J	-1924270.74	-1924270.61	-1924270.48	0.0089	0.0007
Mercury	-9982-11-16 22:47 J	-1924182.68	-1924182.55	-1924182.42	0.0089	0.0002
Mercury	-9981-02-13 00:00 J	-1924094.63	-1924094.50	-1924094.37	0.0089	0.0008
Mercury	-9981-05-11 01:12 J	-1924006.57	-1924006.45	-1924006.31	0.0089	0.0016
Mercury	-9981-08-07 02:38 J	-1923918.52	-1923918.39	-1923918.26	0.0089	0.0022
Mercury	-9981-11-03 03:50 J	-1923830.46	-1923830.34	-1923830.21	0.0089	0.0029
Mercury	-9980-01-30 05:02 J	-1923742.40	-1923742.29	-1923742.16	0.0089	0.0037
Mercury	-9980-04-28 06:28 J	-1923654.34	-1923654.23	-1923654.11	0.0089	0.0043
Mercury	-9980-07-25 07:40 J	-1923566.28	-1923566.18	-1923566.07	0.0089	0.0051
Mercury	-9980-10-21 08:52 J	-1923478.22	-1923478.13	-1923478.02	0.0089	0.0058
Mercury	-9979-01-17 10:19 J	-1923390.16	-1923390.07	-1923389.98	0.0089	0.0065
Mercury	-9979-04-15 11:31 J	-1923302.09	-1923302.02	-1923301.94	0.0089	0.0072
Mercury	-9979-07-12 12:57 J	-1923214.02	-1923213.96	-1923213.90	0.0089	0.0079
Mercury	-9979-10-08 14:09 J	-1923125.94	-1923125.91	-1923125.87	0.0089	0.0086
Venus	-9973-08-25 19:40 J	-1920977.74	-1920977.68	-1920977.59	0.0089	0.0084
Venus	-9972-04-08 08:24 J	-1920752.25	-1920752.15	-1920752.01	0.0089	0.0075

Venus	-9972-11-19 21:21 J	-1920526.74	-1920526.61	-1920526.44	0.0089	0.0065
Venus	-9971-07-03 10:47 J	-1920301.22	-1920301.05	-1920300.88	0.0089	0.0056
Venus	-9970-02-13 23:31 J	-1920075.69	-1920075.52	-1920075.32	0.0089	0.0046
Venus	-9970-09-27 12:43 J	-1919850.17	-1919849.97	-1919849.77	0.0089	0.0037
Venus	-9969-05-10 01:26 J	-1919624.64	-1919624.44	-1919624.23	0.0089	0.0027
Venus	-9969-12-21 14:24 J	-1919399.11	-1919398.90	-1919398.68	0.0089	0.0018
Venus	-9968-08-04 03:21 J	-1919173.57	-1919173.36	-1919173.14	0.0089	0.0009
Venus	-9967-03-17 16:19 J	-1918948.04	-1918947.82	-1918947.60	0.0089	0.0002
Venus	-9967-10-29 05:02 J	-1918722.50	-1918722.29	-1918722.07	0.0089	0.0011
Venus	-9966-06-11 18:00 J	-1918496.96	-1918496.75	-1918496.53	0.0089	0.0020
Venus	-9965-01-23 06:28 J	-1918271.42	-1918271.23	-1918271.01	0.0089	0.0031
Venus	-9965-09-04 19:26 J	-1918045.88	-1918045.69	-1918045.48	0.0089	0.0039
Venus	-9964-04-18 08:24 J	-1917820.33	-1917820.15	-1917819.97	0.0089	0.0049
Venus	-9964-11-29 20:38 J	-1917594.78	-1917594.64	-1917594.45	0.0089	0.0059
Venus	-9963-07-13 09:35 J	-1917369.22	-1917369.10	-1917368.94	0.0089	0.0068
Venus	-9962-02-23 22:33 J	-1917143.66	-1917143.56	-1917143.44	0.0089	0.0077
Venus	-9962-10-07 10:47 J	-1916918.08	-1916918.05	-1916917.97	0.0089	0.0086
Earth	-9931-12-03 08:09 J	-1905538.24	-1905538.16	-1905538.08	0.0088	0.0084
Moon	-9931-12-03 07:12 J	-1905538.21	-1905538.20	-1905538.14	0.0088	0.0088 *
Earth	-9930-12-05 19:12 J	-1905170.90	-1905170.70	-1905170.47	0.0088	0.0048
Moon	-9930-12-05 20:09 J	-1905170.86	-1905170.66	-1905170.43	0.0088	0.0044 *
Moon	-9929-12-07 04:19 J	-1904803.58	-1904803.32	-1904803.06	0.0088	0.0017
Earth	-9929-12-07 06:57 J	-1904803.46	-1904803.21	-1904802.95	0.0088	0.0012 *
Earth	-9928-12-09 18:00 J	-1904435.99	-1904435.75	-1904435.49	0.0088	0.0023
Moon	-9928-12-09 21:07 J	-1904435.85	-1904435.62	-1904435.37	0.0088	0.0027 *
Moon	-9927-12-12 01:55 J	-1904068.61	-1904068.42	-1904068.20	0.0088	0.0055
Earth	-9927-12-12 05:16 J	-1904068.45	-1904068.28	-1904068.06	0.0088	0.0059 *
Mars	-9908-06-25 13:40 J	-1897298.09	-1897297.93	-1897297.77	0.0088	0.0074
Mars	-9906-05-20 18:14 J	-1896604.05	-1896603.74	-1896603.44	0.0088	0.0002
Mars	-9904-04-13 21:21 J	-1895909.74	-1895909.61	-1895909.45	0.0088	0.0077

Mercury	-9901-06-06 08:09 J	-1894760.22	-1894760.16	-1894760.06	0.0088	0.0080
Mercury	-9901-09-02 11:45 J	-1894672.11	-1894672.01	-1894671.87	0.0088	0.0070
Mercury	-9901-11-29 15:35 J	-1894583.98	-1894583.85	-1894583.69	0.0088	0.0060
Mercury	-9900-02-25 19:12 J	-1894495.85	-1894495.70	-1894495.52	0.0088	0.0050
Mercury	-9900-05-24 22:47 J	-1894407.71	-1894407.55	-1894407.36	0.0088	0.0040
Mercury	-9900-08-21 02:38 J	-1894319.57	-1894319.39	-1894319.19	0.0088	0.0030
Mercury	-9900-11-17 06:14 J	-1894231.42	-1894231.24	-1894231.03	0.0088	0.0020
Mercury	-9899-02-13 10:19 J	-1894143.27	-1894143.07	-1894142.88	0.0088	0.0009
Mercury	-9899-05-12 13:55 J	-1894055.12	-1894054.92	-1894054.72	0.0088	0.0001
Mercury	-9899-08-08 17:31 J	-1893966.96	-1893966.77	-1893966.57	0.0088	0.0011
Mercury	-9899-11-04 21:07 J	-1893878.81	-1893878.62	-1893878.42	0.0088	0.0021
Mercury	-9898-02-01 00:57 J	-1893790.65	-1893790.46	-1893790.27	0.0088	0.0031
Mercury	-9898-04-30 04:19 J	-1893702.48	-1893702.32	-1893702.13	0.0088	0.0042
Mercury	-9898-07-27 07:55 J	-1893614.31	-1893614.17	-1893613.99	0.0088	0.0052
Mercury	-9898-10-23 11:31 J	-1893526.14	-1893526.02	-1893525.86	0.0088	0.0062
Mercury	-9897-01-19 15:21 J	-1893437.96	-1893437.86	-1893437.73	0.0088	0.0072
Mercury	-9897-04-16 19:12 J	-1893349.76	-1893349.70	-1893349.62	0.0088	0.0082
Venus	-9890-05-23 12:00 J	-1890757.05	-1890757.00	-1890756.93	0.0088	0.0084
Venus	-9889-01-04 01:12 J	-1890531.55	-1890531.45	-1890531.33	0.0088	0.0075
Venus	-9889-08-16 14:09 J	-1890306.04	-1890305.91	-1890305.75	0.0088	0.0066
Venus	-9888-03-30 03:07 J	-1890080.52	-1890080.37	-1890080.18	0.0088	0.0057
Venus	-9888-11-10 16:04 J	-1889854.99	-1889854.83	-1889854.62	0.0088	0.0048
Venus	-9887-06-24 05:31 J	-1889629.46	-1889629.27	-1889629.06	0.0088	0.0038
Venus	-9886-02-04 18:28 J	-1889403.93	-1889403.73	-1889403.51	0.0088	0.0029
Venus	-9886-09-18 07:40 J	-1889178.39	-1889178.18	-1889177.96	0.0088	0.0020
Venus	-9885-04-30 20:52 J	-1888952.85	-1888952.63	-1888952.41	0.0088	0.0010
Saturn	-9885-10-23 04:33 J	-1888777.90	-1888777.31	-1888776.60	0.0088	0.0039
Venus	-9885-12-12 10:04 J	-1888727.30	-1888727.08	-1888726.85	0.0088	0.0002
Venus	-9884-07-25 23:16 J	-1888501.75	-1888501.53	-1888501.31	0.0088	0.0008
Venus	-9883-03-08 12:14 J	-1888276.20	-1888275.99	-1888275.76	0.0088	0.0018

Venus	-9883-10-20 01:26 J	-1888050.65	-1888050.44	-1888050.22	0.0088	0.0027
Venus	-9882-06-02 14:38 J	-1887825.09	-1887824.89	-1887824.68	0.0088	0.0036
Venus	-9881-01-14 03:35 J	-1887599.52	-1887599.35	-1887599.14	0.0088	0.0047
Venus	-9881-08-26 17:02 J	-1887373.95	-1887373.79	-1887373.60	0.0088	0.0055
Venus	-9880-04-09 06:28 J	-1887148.37	-1887148.23	-1887148.07	0.0088	0.0064
Venus	-9880-11-20 19:55 J	-1886922.79	-1886922.67	-1886922.55	0.0088	0.0074
Venus	-9879-07-04 08:38 J	-1886697.19	-1886697.14	-1886697.04	0.0088	0.0083
Moon	-9847-06-09 09:35 J	-1875034.27	-1875034.10	-1875033.92	0.0089	0.0067
Earth	-9847-06-09 09:50 J	-1875034.23	-1875034.09	-1875033.92	0.0089	0.0070 *
Earth	-9846-06-11 21:50 J	-1874666.82	-1874666.59	-1874666.35	0.0089	0.0033
Moon	-9846-06-11 22:47 J	-1874666.76	-1874666.55	-1874666.30	0.0089	0.0038 *
Moon	-9845-06-13 06:43 J	-1874299.48	-1874299.22	-1874298.96	0.0089	0.0007
Earth	-9845-06-13 09:50 J	-1874299.35	-1874299.09	-1874298.84	0.0089	0.0003 *
Earth	-9844-06-15 21:21 J	-1873931.84	-1873931.61	-1873931.38	0.0089	0.0040
Moon	-9844-06-16 00:14 J	-1873931.70	-1873931.49	-1873931.24	0.0089	0.0036 *
Moon	-9843-06-18 05:02 J	-1873564.38	-1873564.29	-1873564.16	0.0089	0.0081
Earth	-9843-06-18 08:38 J	-1873564.25	-1873564.14	-1873563.98	0.0089	0.0076 *
Jupiter	-9828-04-04 04:04 J	-1868160.76	-1868160.33	-1868159.83	0.0089	0.0043
Mars	-9824-02-05 20:38 J	-1866756.92	-1866756.64	-1866756.31	0.0089	0.0033
Mars	-9822-01-02 10:04 J	-1866061.32	-1866061.08	-1866060.80	0.0089	0.0055
Mercury	-9820-09-21 05:31 J	-1865068.29	-1865068.27	-1865068.21	0.0089	0.0086
Mercury	-9820-12-18 07:12 J	-1864980.26	-1864980.20	-1864980.13	0.0089	0.0078
Mercury	-9819-03-16 08:38 J	-1864892.22	-1864892.14	-1864892.06	0.0089	0.0071
Mercury	-9819-06-12 09:50 J	-1864804.18	-1864804.09	-1864804.00	0.0089	0.0064
Mercury	-9819-09-08 11:02 J	-1864716.13	-1864716.04	-1864715.93	0.0089	0.0057
Mercury	-9819-12-05 12:28 J	-1864628.09	-1864627.98	-1864627.87	0.0089	0.0049
Mercury	-9818-03-03 13:40 J	-1864540.04	-1864539.93	-1864539.81	0.0089	0.0042
Mercury	-9818-05-30 14:52 J	-1864451.99	-1864451.88	-1864451.75	0.0089	0.0036
Mercury	-9818-08-26 16:19 J	-1864363.94	-1864363.82	-1864363.69	0.0089	0.0028
Mercury	-9818-11-22 17:31 J	-1864275.89	-1864275.77	-1864275.64	0.0089	0.0022

Mercury	-9817-02-18 18:57 J	-1864187.84	-1864187.71	-1864187.58	0.0089	0.0014
Mercury	-9817-05-16 20:09 J	-1864099.79	-1864099.66	-1864099.52	0.0089	0.0008
Mercury	-9817-08-12 21:35 J	-1864011.73	-1864011.60	-1864011.47	0.0089	0.0001
Mercury	-9817-11-08 22:47 J	-1863923.68	-1863923.55	-1863923.42	0.0089	0.0008
Mercury	-9816-02-05 00:14 J	-1863835.62	-1863835.49	-1863835.36	0.0089	0.0015
Mercury	-9816-05-04 01:26 J	-1863747.57	-1863747.44	-1863747.31	0.0089	0.0022
Mercury	-9816-07-31 02:38 J	-1863659.51	-1863659.39	-1863659.26	0.0089	0.0029
Mercury	-9816-10-27 04:04 J	-1863571.45	-1863571.33	-1863571.21	0.0089	0.0036
Mercury	-9815-01-23 05:16 J	-1863483.39	-1863483.28	-1863483.16	0.0089	0.0043
Mercury	-9815-04-21 06:43 J	-1863395.33	-1863395.22	-1863395.11	0.0089	0.0050
Mercury	-9815-07-18 07:55 J	-1863307.27	-1863307.17	-1863307.07	0.0089	0.0057
Mercury	-9815-10-14 08:52 J	-1863219.20	-1863219.13	-1863219.02	0.0089	0.0065
Mercury	-9814-01-10 10:19 J	-1863131.14	-1863131.07	-1863130.98	0.0089	0.0071
Mercury	-9814-04-08 11:31 J	-1863043.07	-1863043.02	-1863042.95	0.0089	0.0078
Mercury	-9814-07-05 12:43 J	-1862954.99	-1862954.97	-1862954.92	0.0089	0.0086
Venus	-9808-07-10 15:50 J	-1860757.90	-1860757.84	-1860757.72	0.0089	0.0082
Venus	-9807-02-21 05:02 J	-1860532.40	-1860532.29	-1860532.15	0.0089	0.0072
Venus	-9807-10-04 17:45 J	-1860306.89	-1860306.76	-1860306.58	0.0089	0.0063
Venus	-9806-05-18 06:57 J	-1860081.37	-1860081.21	-1860081.02	0.0089	0.0053
Venus	-9806-12-29 19:55 J	-1859855.85	-1859855.67	-1859855.47	0.0089	0.0043
Venus	-9805-08-11 08:52 J	-1859630.32	-1859630.13	-1859629.91	0.0089	0.0034
Venus	-9804-03-24 22:04 J	-1859404.79	-1859404.58	-1859404.37	0.0089	0.0024
Venus	-9804-11-05 10:47 J	-1859179.26	-1859179.05	-1859178.83	0.0089	0.0014
Venus	-9803-06-19 00:00 J	-1858953.72	-1858953.50	-1858953.28	0.0089	0.0004
Venus	-9802-01-30 12:57 J	-1858728.18	-1858727.96	-1858727.75	0.0089	0.0005
Venus	-9802-09-13 01:26 J	-1858502.64	-1858502.44	-1858502.21	0.0089	0.0016
Venus	-9801-04-25 14:24 J	-1858277.10	-1858276.90	-1858276.68	0.0089	0.0025
Venus	-9801-12-07 03:07 J	-1858051.56	-1858051.37	-1858051.16	0.0089	0.0034
Venus	-9800-07-20 16:19 J	-1857826.01	-1857825.82	-1857825.63	0.0089	0.0043
Venus	-9799-03-03 04:47 J	-1857600.46	-1857600.30	-1857600.11	0.0089	0.0053

Venus	-9799-10-14 17:31 J	-1857374.91	-1857374.77	-1857374.60	0.0089	0.0063
Venus	-9798-05-28 06:00 J	-1857149.35	-1857149.25	-1857149.10	0.0089	0.0073
Venus	-9797-01-08 18:57 J	-1856923.78	-1856923.71	-1856923.61	0.0089	0.0081
Moon	-9766-12-04 21:21 J	-1845270.75	-1845270.61	-1845270.41	0.0088	0.0068
Earth	-9766-12-05 00:14 J	-1845270.62	-1845270.49	-1845270.31	0.0088	0.0070 *
Earth	-9765-12-06 12:00 J	-1844903.24	-1844903.00	-1844902.76	0.0088	0.0034
Moon	-9765-12-06 15:07 J	-1844903.09	-1844902.87	-1844902.62	0.0088	0.0036 *
Moon	-9764-12-08 19:55 J	-1844535.92	-1844535.67	-1844535.41	0.0088	0.0005
Earth	-9764-12-08 23:31 J	-1844535.78	-1844535.52	-1844535.26	0.0088	0.0002 *
Earth	-9763-12-11 10:47 J	-1844168.27	-1844168.05	-1844167.81	0.0088	0.0038
Moon	-9763-12-11 14:09 J	-1844168.14	-1844167.91	-1844167.66	0.0088	0.0036 *
Moon	-9762-12-13 18:57 J	-1843800.81	-1843800.71	-1843800.55	0.0088	0.0076
Earth	-9762-12-13 21:50 J	-1843800.71	-1843800.59	-1843800.42	0.0088	0.0074 *
Mars	-9742-01-02 13:40 J	-1836841.18	-1836840.93	-1836840.64	0.0088	0.0040
Mars	-9741-11-26 18:28 J	-1836146.99	-1836146.73	-1836146.43	0.0088	0.0037
Mercury	-9736-03-03 05:31 J	-1834589.35	-1834589.27	-1834589.18	0.0088	0.0079
Mercury	-9736-05-30 09:07 J	-1834501.23	-1834501.12	-1834500.99	0.0088	0.0069
Mercury	-9736-08-26 12:43 J	-1834413.11	-1834412.97	-1834412.82	0.0088	0.0059
Mercury	-9736-11-22 16:19 J	-1834324.97	-1834324.82	-1834324.65	0.0088	0.0049
Mercury	-9735-02-18 20:09 J	-1834236.83	-1834236.66	-1834236.48	0.0088	0.0039
Mercury	-9735-05-17 23:45 J	-1834148.69	-1834148.51	-1834148.32	0.0088	0.0029
Mercury	-9735-08-14 03:21 J	-1834060.54	-1834060.36	-1834060.16	0.0088	0.0019
Mercury	-9735-11-10 07:12 J	-1833972.39	-1833972.20	-1833972.00	0.0088	0.0009
Mercury	-9734-02-06 11:02 J	-1833884.24	-1833884.04	-1833883.84	0.0088	0.0002
Mercury	-9734-05-05 14:38 J	-1833796.09	-1833795.89	-1833795.69	0.0088	0.0012
Mercury	-9734-08-01 18:14 J	-1833707.93	-1833707.74	-1833707.54	0.0088	0.0022
Mercury	-9734-10-28 21:50 J	-1833619.77	-1833619.59	-1833619.40	0.0088	0.0032
Mercury	-9733-01-25 01:40 J	-1833531.60	-1833531.43	-1833531.26	0.0088	0.0042
Mercury	-9733-04-22 05:16 J	-1833443.43	-1833443.28	-1833443.12	0.0088	0.0052
Mercury	-9733-07-19 08:38 J	-1833355.26	-1833355.14	-1833354.98	0.0088	0.0063

Mercury	-9733-10-15 12:14 J	-1833267.08	-1833266.99	-1833266.86	0.0088	0.0073
Mercury	-9732-01-11 16:04 J	-1833178.88	-1833178.83	-1833178.75	0.0088	0.0083
Venus	-9725-04-06 09:07 J	-1830537.19	-1830537.12	-1830537.03	0.0088	0.0081
Venus	-9725-11-17 22:04 J	-1830311.69	-1830311.58	-1830311.44	0.0088	0.0072
Venus	-9724-07-01 11:02 J	-1830086.17	-1830086.04	-1830085.87	0.0088	0.0063
Venus	-9723-02-12 00:28 J	-1829860.65	-1829860.48	-1829860.30	0.0088	0.0053
Venus	-9723-09-25 13:26 J	-1829635.13	-1829634.94	-1829634.74	0.0088	0.0044
Venus	-9722-05-09 02:24 J	-1829409.59	-1829409.40	-1829409.19	0.0088	0.0035
Venus	-9722-12-20 15:50 J	-1829184.05	-1829183.84	-1829183.63	0.0088	0.0025
Venus	-9721-08-02 04:47 J	-1828958.51	-1828958.30	-1828958.07	0.0088	0.0016
Venus	-9720-03-15 18:00 J	-1828732.97	-1828732.75	-1828732.53	0.0088	0.0006
Venus	-9720-10-27 06:57 J	-1828507.43	-1828507.21	-1828506.98	0.0088	0.0003
Venus	-9719-06-09 20:09 J	-1828281.88	-1828281.66	-1828281.44	0.0088	0.0012
Venus	-9718-01-21 09:07 J	-1828056.33	-1828056.12	-1828055.89	0.0088	0.0022
Venus	-9718-09-03 22:19 J	-1827830.77	-1827830.57	-1827830.35	0.0088	0.0031
Venus	-9717-04-16 11:16 J	-1827605.21	-1827605.03	-1827604.82	0.0088	0.0041
Venus	-9717-11-28 00:28 J	-1827379.65	-1827379.48	-1827379.28	0.0088	0.0050
Venus	-9716-07-11 13:26 J	-1827154.08	-1827153.94	-1827153.75	0.0088	0.0060
Venus	-9715-02-22 02:52 J	-1826928.50	-1826928.38	-1826928.23	0.0088	0.0069
Venus	-9715-10-05 16:19 J	-1826702.91	-1826702.82	-1826702.71	0.0088	0.0078
Venus	-9714-05-19 05:16 J	-1826477.28	-1826477.28	-1826477.24	0.0088	0.0088
Moon	-9683-06-08 16:19 J	-1815133.82	-1815133.82	-1815133.81	0.0089	0.0089
Moon	-9682-06-10 22:19 J	-1814766.74	-1814766.57	-1814766.35	0.0089	0.0059
Earth	-9682-06-11 01:26 J	-1814766.62	-1814766.44	-1814766.22	0.0089	0.0056 *
Earth	-9681-06-12 13:12 J	-1814399.18	-1814398.95	-1814398.68	0.0089	0.0021
Moon	-9681-06-12 17:02 J	-1814399.03	-1814398.79	-1814398.53	0.0089	0.0017 *
Moon	-9680-06-14 21:50 J	-1814031.84	-1814031.59	-1814031.33	0.0089	0.0013
Earth	-9680-06-15 01:12 J	-1814031.70	-1814031.45	-1814031.19	0.0089	0.0017 *
Earth	-9679-06-17 12:28 J	-1813664.16	-1813663.98	-1813663.75	0.0089	0.0053
Moon	-9679-06-17 15:35 J	-1813664.03	-1813663.85	-1813663.62	0.0089	0.0056 *

Moon	-9678-06-19 22:04 J	-1813296.63	-1813296.58	-1813296.52	0.0089	0.0087
Earth	-9678-06-20 00:28 J	-1813296.48	-1813296.48	-1813296.47	0.0089	0.0089
Jupiter	-9662-05-23 19:40 J	-1807479.75	-1807479.68	-1807479.47	0.0089	0.0087
Mars	-9661-09-19 13:26 J	-1806995.05	-1806994.94	-1806994.75	0.0089	0.0080
Mars	-9659-08-16 01:12 J	-1806299.77	-1806299.45	-1806299.13	0.0089	0.0007
Mercury	-9655-06-18 04:33 J	-1804897.33	-1804897.31	-1804897.26	0.0089	0.0086
Mercury	-9655-09-14 06:00 J	-1804809.30	-1804809.25	-1804809.18	0.0089	0.0078
Mercury	-9655-12-11 07:12 J	-1804721.26	-1804721.20	-1804721.11	0.0089	0.0072
Mercury	-9654-03-09 08:52 J	-1804633.22	-1804633.13	-1804633.04	0.0089	0.0064
Mercury	-9654-06-05 10:04 J	-1804545.18	-1804545.08	-1804544.98	0.0089	0.0057
Mercury	-9654-09-01 11:31 J	-1804457.13	-1804457.02	-1804456.91	0.0089	0.0050
Mercury	-9654-11-28 12:43 J	-1804369.08	-1804368.97	-1804368.85	0.0089	0.0043
Mercury	-9653-02-24 13:55 J	-1804281.03	-1804280.92	-1804280.79	0.0089	0.0036
Mercury	-9653-05-22 15:21 J	-1804192.98	-1804192.86	-1804192.74	0.0089	0.0028
Mercury	-9653-08-18 16:33 J	-1804104.93	-1804104.81	-1804104.68	0.0089	0.0022
Mercury	-9653-11-14 18:00 J	-1804016.88	-1804016.75	-1804016.62	0.0089	0.0014
Mercury	-9652-02-10 19:12 J	-1803928.83	-1803928.70	-1803928.57	0.0089	0.0007
Mercury	-9652-05-09 20:24 J	-1803840.78	-1803840.65	-1803840.51	0.0089	0.0003
Mercury	-9652-08-05 21:50 J	-1803752.72	-1803752.59	-1803752.46	0.0089	0.0007
Mercury	-9652-11-01 23:02 J	-1803664.67	-1803664.54	-1803664.41	0.0089	0.0014
Mercury	-9651-01-29 00:14 J	-1803576.61	-1803576.49	-1803576.36	0.0089	0.0022
Mercury	-9651-04-27 01:40 J	-1803488.55	-1803488.43	-1803488.31	0.0089	0.0028
Mercury	-9651-07-24 02:52 J	-1803400.49	-1803400.38	-1803400.26	0.0089	0.0035
Mercury	-9651-10-20 04:04 J	-1803312.43	-1803312.33	-1803312.21	0.0089	0.0043
Mercury	-9650-01-16 05:31 J	-1803224.37	-1803224.27	-1803224.16	0.0089	0.0049
Mercury	-9650-04-14 06:43 J	-1803136.31	-1803136.22	-1803136.11	0.0089	0.0057
Mercury	-9650-07-11 08:09 J	-1803048.25	-1803048.16	-1803048.07	0.0089	0.0064
Mercury	-9650-10-07 09:21 J	-1802960.18	-1802960.11	-1802960.03	0.0089	0.0071
Mercury	-9649-01-03 10:33 J	-1802872.11	-1802872.06	-1802871.99	0.0089	0.0078
Mercury	-9649-03-31 12:00 J	-1802784.04	-1802784.00	-1802783.96	0.0089	0.0085

Venus	-9644-10-11 23:45 J	-1800763.54	-1800763.51	-1800763.47	0.0089	0.0088
Venus	-9643-05-25 12:28 J	-1800538.07	-1800537.98	-1800537.86	0.0089	0.0078
Venus	-9642-01-06 01:40 J	-1800312.56	-1800312.43	-1800312.28	0.0089	0.0069
Venus	-9642-08-19 14:09 J	-1800087.05	-1800086.91	-1800086.72	0.0089	0.0060
Venus	-9641-04-01 03:21 J	-1799861.53	-1799861.36	-1799861.17	0.0089	0.0050
Venus	-9641-11-12 16:19 J	-1799636.00	-1799635.82	-1799635.61	0.0089	0.0040
Venus	-9640-06-26 05:16 J	-1799410.47	-1799410.28	-1799410.06	0.0089	0.0030
Venus	-9639-02-06 18:14 J	-1799184.94	-1799184.74	-1799184.52	0.0089	0.0021
Venus	-9639-09-20 07:26 J	-1798959.41	-1798959.19	-1798958.98	0.0089	0.0010
Venus	-9638-05-03 20:09 J	-1798733.87	-1798733.66	-1798733.44	0.0089	0.0002
Venus	-9638-12-15 09:07 J	-1798508.33	-1798508.12	-1798507.90	0.0089	0.0009
Venus	-9637-07-27 22:04 J	-1798282.79	-1798282.58	-1798282.36	0.0089	0.0019
Venus	-9636-03-10 11:02 J	-1798057.24	-1798057.04	-1798056.83	0.0089	0.0028
Venus	-9636-10-21 23:45 J	-1797831.70	-1797831.51	-1797831.30	0.0089	0.0038
Venus	-9635-06-04 12:28 J	-1797606.15	-1797605.98	-1797605.78	0.0089	0.0048
Venus	-9634-01-16 01:26 J	-1797380.59	-1797380.44	-1797380.26	0.0089	0.0058
Venus	-9634-08-29 14:09 J	-1797155.03	-1797154.91	-1797154.75	0.0089	0.0067
Venus	-9633-04-11 03:07 J	-1796929.47	-1796929.37	-1796929.25	0.0089	0.0077
Venus	-9633-11-22 15:35 J	-1796703.88	-1796703.85	-1796703.77	0.0089	0.0086
Moon	-9601-12-05 13:40 J	-1785003.14	-1785002.93	-1785002.72	0.0088	0.0051
Earth	-9601-12-05 16:47 J	-1785002.98	-1785002.80	-1785002.57	0.0088	0.0055 *
Earth	-9600-12-08 04:33 J	-1784635.56	-1784635.31	-1784635.05	0.0088	0.0019
Moon	-9600-12-08 07:26 J	-1784635.43	-1784635.19	-1784634.92	0.0088	0.0023 *
Moon	-9599-12-10 13:55 J	-1784268.15	-1784267.92	-1784267.66	0.0088	0.0020
Earth	-9599-12-10 16:04 J	-1784268.08	-1784267.83	-1784267.57	0.0088	0.0016 *
Earth	-9598-12-13 03:07 J	-1783900.55	-1783900.37	-1783900.13	0.0088	0.0052
Moon	-9598-12-13 05:02 J	-1783900.51	-1783900.29	-1783900.06	0.0088	0.0048 *
Earth	-9597-12-14 14:38 J	-1783532.90	-1783532.89	-1783532.83	0.0088	0.0087
Mars	-9579-08-17 07:55 J	-1777078.26	-1777078.17	-1777078.02	0.0088	0.0081
Mars	-9577-07-11 15:50 J	-1776384.15	-1776383.84	-1776383.54	0.0088	0.0004

Mars	-9575-06-05 19:26 J	-1775689.84	-1775689.69	-1775689.50	0.0088	0.0072
Mercury	-9572-11-28 02:09 J	-1774418.47	-1774418.41	-1774418.30	0.0088	0.0079
Mercury	-9571-02-24 05:45 J	-1774330.36	-1774330.26	-1774330.11	0.0088	0.0069
Mercury	-9571-05-23 09:35 J	-1774242.23	-1774242.10	-1774241.94	0.0088	0.0059
Mercury	-9571-08-19 13:40 J	-1774154.09	-1774153.93	-1774153.76	0.0088	0.0048
Mercury	-9571-11-15 17:16 J	-1774065.95	-1774065.78	-1774065.60	0.0088	0.0038
Mercury	-9570-02-11 20:52 J	-1773977.81	-1773977.63	-1773977.44	0.0088	0.0028
Mercury	-9570-05-11 00:43 J	-1773889.66	-1773889.47	-1773889.28	0.0088	0.0018
Mercury	-9570-08-07 04:19 J	-1773801.51	-1773801.32	-1773801.12	0.0088	0.0008
Mercury	-9570-11-03 08:09 J	-1773713.36	-1773713.16	-1773712.96	0.0088	0.0003
Mercury	-9569-01-30 11:31 J	-1773625.21	-1773625.02	-1773624.81	0.0088	0.0013
Mercury	-9569-04-27 15:21 J	-1773537.05	-1773536.86	-1773536.66	0.0088	0.0023
Mercury	-9569-07-24 18:57 J	-1773448.89	-1773448.71	-1773448.52	0.0088	0.0033
Mercury	-9569-10-20 22:33 J	-1773360.72	-1773360.56	-1773360.38	0.0088	0.0043
Mercury	-9568-01-17 02:24 J	-1773272.55	-1773272.40	-1773272.24	0.0088	0.0053
Mercury	-9568-04-15 06:14 J	-1773184.38	-1773184.24	-1773184.10	0.0088	0.0063
Mercury	-9568-07-12 09:21 J	-1773096.19	-1773096.11	-1773095.98	0.0088	0.0074
Mercury	-9568-10-08 12:57 J	-1773007.99	-1773007.96	-1773007.88	0.0088	0.0084
Venus	-9561-07-08 17:31 J	-1770542.78	-1770542.77	-1770542.73	0.0088	0.0087
Venus	-9560-02-19 06:14 J	-1770317.32	-1770317.24	-1770317.11	0.0088	0.0078
Venus	-9560-10-02 19:12 J	-1770091.81	-1770091.70	-1770091.54	0.0088	0.0069
Venus	-9559-05-16 08:38 J	-1769866.29	-1769866.14	-1769865.97	0.0088	0.0059
Venus	-9559-12-27 21:50 J	-1769640.76	-1769640.59	-1769640.39	0.0088	0.0050
Venus	-9558-08-10 11:02 J	-1769415.23	-1769415.04	-1769414.83	0.0088	0.0040
Venus	-9557-03-23 00:00 J	-1769189.69	-1769189.50	-1769189.28	0.0088	0.0031
Venus	-9557-11-03 13:12 J	-1768964.16	-1768963.95	-1768963.73	0.0088	0.0021
Venus	-9556-06-17 02:24 J	-1768738.62	-1768738.40	-1768738.18	0.0088	0.0012
Venus	-9555-01-28 15:35 J	-1768513.07	-1768512.85	-1768512.63	0.0088	0.0002
Venus	-9555-09-11 04:47 J	-1768287.52	-1768287.30	-1768287.08	0.0088	0.0007
Venus	-9554-04-24 17:45 J	-1768061.98	-1768061.76	-1768061.54	0.0088	0.0017

Venus	-9554-12-06 06:43 J	-1767836.42	-1767836.22	-1767836.00	0.0088	0.0027
Venus	-9553-07-18 19:55 J	-1767610.86	-1767610.67	-1767610.46	0.0088	0.0036
Venus	-9552-03-01 08:52 J	-1767385.30	-1767385.13	-1767384.92	0.0088	0.0046
Venus	-9552-10-12 22:04 J	-1767159.74	-1767159.58	-1767159.40	0.0088	0.0055
Venus	-9551-05-26 11:02 J	-1766934.17	-1766934.04	-1766933.87	0.0088	0.0065
Venus	-9550-01-07 00:28 J	-1766708.58	-1766708.48	-1766708.35	0.0088	0.0074
Venus	-9550-08-20 14:09 J	-1766482.98	-1766482.91	-1766482.84	0.0088	0.0084
Earth	-9518-06-10 06:28 J	-1754866.34	-1754866.23	-1754866.09	0.0089	0.0077
Moon	-9518-06-10 09:50 J	-1754866.21	-1754866.09	-1754865.93	0.0089	0.0074 *
Moon	-9517-06-11 14:38 J	-1754499.09	-1754498.89	-1754498.65	0.0089	0.0045
Earth	-9517-06-11 18:28 J	-1754498.95	-1754498.73	-1754498.49	0.0089	0.0041 *
Earth	-9516-06-14 06:28 J	-1754131.49	-1754131.23	-1754130.97	0.0089	0.0005
Moon	-9516-06-14 09:07 J	-1754131.38	-1754131.12	-1754130.86	0.0089	0.0002 *
Moon	-9515-06-16 16:04 J	-1753764.06	-1753763.83	-1753763.58	0.0089	0.0028
Earth	-9515-06-16 17:45 J	-1753763.99	-1753763.76	-1753763.50	0.0089	0.0031 *
Earth	-9514-06-19 05:16 J	-1753396.43	-1753396.28	-1753396.09	0.0089	0.0067
Moon	-9514-06-19 06:28 J	-1753396.38	-1753396.23	-1753396.06	0.0089	0.0070 *
Mars	-9495-03-29 18:00 J	-1746538.02	-1746537.75	-1746537.45	0.0089	0.0041
Mars	-9493-02-23 05:16 J	-1745842.55	-1745842.28	-1745841.99	0.0089	0.0046
Mercury	-9490-03-15 03:35 J	-1744726.37	-1744726.35	-1744726.30	0.0089	0.0086
Mercury	-9490-06-11 05:02 J	-1744638.34	-1744638.29	-1744638.22	0.0089	0.0078
Mercury	-9490-09-07 06:43 J	-1744550.30	-1744550.22	-1744550.15	0.0089	0.0071
Mercury	-9490-12-04 07:55 J	-1744462.26	-1744462.17	-1744462.08	0.0089	0.0064
Mercury	-9489-03-01 09:07 J	-1744374.22	-1744374.12	-1744374.01	0.0089	0.0057
Mercury	-9489-05-28 10:19 J	-1744286.17	-1744286.07	-1744285.95	0.0089	0.0050
Mercury	-9489-08-24 11:45 J	-1744198.12	-1744198.01	-1744197.89	0.0089	0.0043
Mercury	-9489-11-20 12:57 J	-1744110.07	-1744109.96	-1744109.83	0.0089	0.0036
Mercury	-9488-02-16 14:24 J	-1744022.02	-1744021.90	-1744021.77	0.0089	0.0028
Mercury	-9488-05-15 15:35 J	-1743933.97	-1743933.85	-1743933.72	0.0089	0.0021
Mercury	-9488-08-11 17:02 J	-1743845.92	-1743845.79	-1743845.66	0.0089	0.0014

Mercury	-9488-11-07 18:14 J	-1743757.87	-1743757.74	-1743757.61	0.0089	0.0007
Mercury	-9487-02-03 19:40 J	-1743669.81	-1743669.68	-1743669.55	0.0089	0.0001
Mercury	-9487-05-02 20:52 J	-1743581.76	-1743581.63	-1743581.50	0.0089	0.0007
Mercury	-9487-07-29 22:04 J	-1743493.70	-1743493.58	-1743493.45	0.0089	0.0015
Mercury	-9487-10-25 23:31 J	-1743405.65	-1743405.52	-1743405.39	0.0089	0.0021
Mercury	-9486-01-22 00:43 J	-1743317.59	-1743317.47	-1743317.34	0.0089	0.0028
Mercury	-9486-04-20 01:55 J	-1743229.53	-1743229.42	-1743229.29	0.0089	0.0036
Mercury	-9486-07-17 03:21 J	-1743141.47	-1743141.36	-1743141.24	0.0089	0.0042
Mercury	-9486-10-13 04:33 J	-1743053.41	-1743053.31	-1743053.20	0.0089	0.0050
Mercury	-9485-01-09 05:45 J	-1742965.35	-1742965.26	-1742965.15	0.0089	0.0057
Mercury	-9485-04-06 07:12 J	-1742877.29	-1742877.20	-1742877.11	0.0089	0.0064
Mercury	-9485-07-03 08:24 J	-1742789.22	-1742789.15	-1742789.06	0.0089	0.0071
Mercury	-9485-09-29 09:50 J	-1742701.15	-1742701.09	-1742701.03	0.0089	0.0078
Mercury	-9485-12-26 11:02 J	-1742613.07	-1742613.04	-1742613.00	0.0089	0.0085
Venus	-9479-08-26 20:38 J	-1740543.69	-1740543.64	-1740543.56	0.0089	0.0085
Venus	-9478-04-09 09:21 J	-1740318.20	-1740318.11	-1740317.97	0.0089	0.0076
Venus	-9478-11-20 22:33 J	-1740092.69	-1740092.56	-1740092.40	0.0089	0.0065
Venus	-9477-07-03 11:45 J	-1739867.17	-1739867.01	-1739866.83	0.0089	0.0055
Venus	-9476-02-14 00:43 J	-1739641.65	-1739641.47	-1739641.28	0.0089	0.0046
Venus	-9476-09-27 13:40 J	-1739416.13	-1739415.93	-1739415.73	0.0089	0.0036
Venus	-9475-05-11 02:24 J	-1739190.60	-1739190.40	-1739190.18	0.0089	0.0026
Venus	-9475-12-22 15:21 J	-1738965.07	-1738964.86	-1738964.64	0.0089	0.0016
Venus	-9474-08-05 04:33 J	-1738739.53	-1738739.31	-1738739.09	0.0089	0.0006
Venus	-9473-03-17 17:16 J	-1738513.99	-1738513.78	-1738513.56	0.0089	0.0004
Venus	-9473-10-29 06:14 J	-1738288.46	-1738288.24	-1738288.02	0.0089	0.0013
Venus	-9472-06-11 18:57 J	-1738062.91	-1738062.71	-1738062.49	0.0089	0.0023
Venus	-9471-01-23 07:40 J	-1737837.37	-1737837.18	-1737836.96	0.0089	0.0034
Venus	-9471-09-05 20:24 J	-1737611.82	-1737611.65	-1737611.44	0.0089	0.0044
Venus	-9470-04-19 09:35 J	-1737386.27	-1737386.10	-1737385.92	0.0089	0.0053
Venus	-9470-11-30 22:19 J	-1737160.71	-1737160.57	-1737160.40	0.0089	0.0062

Venus	-9469-07-13 11:02 J	-1736935.14	-1736935.04	-1736934.89	0.0089	0.0072
Venus	-9468-02-24 00:14 J	-1736709.57	-1736709.49	-1736709.40	0.0089	0.0082
Earth	-9437-12-04 22:47 J	-1725102.65	-1725102.55	-1725102.38	0.0088	0.0076
Moon	-9437-12-05 01:55 J	-1725102.55	-1725102.42	-1725102.25	0.0088	0.0073 *
Moon	-9436-12-07 08:52 J	-1724735.33	-1724735.13	-1724734.90	0.0088	0.0043
Earth	-9436-12-07 10:47 J	-1724735.28	-1724735.05	-1724734.82	0.0088	0.0040 *
Moon	-9435-12-09 22:19 J	-1724367.84	-1724367.57	-1724367.30	0.0088	0.0002
Earth	-9435-12-09 22:04 J	-1724367.83	-1724367.58	-1724367.32	0.0088	0.0005 *
Earth	-9434-12-12 09:07 J	-1724000.35	-1724000.12	-1723999.86	0.0088	0.0031
Moon	-9434-12-12 09:50 J	-1724000.32	-1724000.09	-1723999.85	0.0088	0.0029 *
Moon	-9433-12-13 18:28 J	-1723632.87	-1723632.73	-1723632.55	0.0088	0.0069
Earth	-9433-12-13 20:38 J	-1723632.79	-1723632.64	-1723632.45	0.0088	0.0066 *
Mars	-9413-02-24 11:02 J	-1716621.28	-1716621.04	-1716620.75	0.0088	0.0044
Mars	-9411-01-18 18:00 J	-1715927.01	-1715926.75	-1715926.45	0.0088	0.0033
Mercury	-9407-05-28 20:09 J	-1714335.67	-1714335.66	-1714335.62	0.0088	0.0087
Mercury	-9407-08-24 23:45 J	-1714247.58	-1714247.51	-1714247.40	0.0088	0.0077
Mercury	-9407-11-21 03:35 J	-1714159.47	-1714159.35	-1714159.21	0.0088	0.0067
Mercury	-9406-02-17 07:12 J	-1714071.34	-1714071.20	-1714071.04	0.0088	0.0057
Mercury	-9406-05-16 10:47 J	-1713983.20	-1713983.05	-1713982.87	0.0088	0.0047
Mercury	-9406-08-12 14:38 J	-1713895.06	-1713894.89	-1713894.70	0.0088	0.0037
Mercury	-9406-11-08 18:14 J	-1713806.92	-1713806.74	-1713806.54	0.0088	0.0027
Mercury	-9405-02-04 22:04 J	-1713718.77	-1713718.58	-1713718.38	0.0088	0.0016
Mercury	-9405-05-03 01:55 J	-1713630.62	-1713630.42	-1713630.22	0.0088	0.0006
Mercury	-9405-07-30 05:31 J	-1713542.47	-1713542.27	-1713542.07	0.0088	0.0004
Mercury	-9405-10-26 09:21 J	-1713454.31	-1713454.11	-1713453.92	0.0088	0.0014
Mercury	-9404-01-22 12:57 J	-1713366.15	-1713365.96	-1713365.77	0.0088	0.0024
Mercury	-9404-04-20 16:19 J	-1713277.99	-1713277.82	-1713277.62	0.0088	0.0035
Mercury	-9404-07-17 19:55 J	-1713189.82	-1713189.67	-1713189.48	0.0088	0.0045
Mercury	-9404-10-13 23:45 J	-1713101.65	-1713101.51	-1713101.35	0.0088	0.0055
Mercury	-9403-01-10 03:21 J	-1713013.48	-1713013.36	-1713013.21	0.0088	0.0065

Mercury	-9403-04-08 07:12 J	-1712925.29	-1712925.20	-1712925.09	0.0088	0.0075
Mercury	-9403-07-05 11:02 J	-1712837.08	-1712837.04	-1712836.99	0.0088	0.0085
Venus	-9396-05-23 15:07 J	-1710322.91	-1710322.87	-1710322.78	0.0088	0.0084
Venus	-9395-01-04 04:33 J	-1710097.42	-1710097.31	-1710097.18	0.0088	0.0074
Venus	-9395-08-17 17:16 J	-1709871.91	-1709871.78	-1709871.61	0.0088	0.0065
Venus	-9394-03-31 06:43 J	-1709646.39	-1709646.22	-1709646.04	0.0088	0.0055
Venus	-9394-11-11 19:26 J	-1709420.86	-1709420.69	-1709420.48	0.0088	0.0046
Venus	-9393-06-24 08:52 J	-1709195.33	-1709195.13	-1709194.92	0.0088	0.0036
Venus	-9392-02-04 21:50 J	-1708969.79	-1708969.59	-1708969.36	0.0088	0.0027
Venus	-9392-09-18 11:02 J	-1708744.25	-1708744.04	-1708743.81	0.0088	0.0017
Venus	-9391-05-02 00:14 J	-1708518.71	-1708518.49	-1708518.26	0.0088	0.0007
Venus	-9391-12-13 13:26 J	-1708293.16	-1708292.94	-1708292.71	0.0088	0.0003
Venus	-9390-07-27 02:38 J	-1708067.61	-1708067.39	-1708067.17	0.0088	0.0012
Venus	-9389-03-08 15:35 J	-1707842.06	-1707841.85	-1707841.63	0.0088	0.0022
Venus	-9389-10-20 04:47 J	-1707616.51	-1707616.30	-1707616.09	0.0088	0.0031
Venus	-9388-06-02 17:45 J	-1707390.95	-1707390.76	-1707390.56	0.0088	0.0041
Venus	-9387-01-14 06:43 J	-1707165.38	-1707165.22	-1707165.02	0.0088	0.0051
Venus	-9387-08-27 20:09 J	-1706939.81	-1706939.66	-1706939.49	0.0088	0.0060
Venus	-9386-04-10 09:07 J	-1706714.24	-1706714.12	-1706713.97	0.0088	0.0070
Venus	-9386-11-21 22:33 J	-1706488.65	-1706488.56	-1706488.46	0.0088	0.0079
Earth	-9353-06-11 00:00 J	-1694598.67	-1694598.50	-1694598.30	0.0089	0.0062
Moon	-9353-06-11 02:38 J	-1694598.55	-1694598.39	-1694598.20	0.0089	0.0065 *
Moon	-9352-06-13 11:02 J	-1694231.28	-1694231.04	-1694230.80	0.0089	0.0022
Earth	-9352-06-13 12:00 J	-1694231.24	-1694231.00	-1694230.75	0.0089	0.0026 *
Moon	-9351-06-15 23:45 J	-1693863.78	-1693863.51	-1693863.24	0.0089	0.0006
Earth	-9351-06-15 23:45 J	-1693863.76	-1693863.51	-1693863.25	0.0089	0.0010 *
Earth	-9350-06-18 11:16 J	-1693496.23	-1693496.03	-1693495.79	0.0089	0.0046
Moon	-9350-06-18 12:14 J	-1693496.18	-1693495.99	-1693495.77	0.0089	0.0049 *
Moon	-9349-06-19 19:55 J	-1693128.76	-1693128.67	-1693128.51	0.0089	0.0079
Earth	-9349-06-19 22:33 J	-1693128.63	-1693128.56	-1693128.43	0.0089	0.0082 *

Mars	-9332-11-10 13:55 J	-1686775.96	-1686775.92	-1686775.80	0.0089	0.0087
Mars	-9330-10-07 00:57 J	-1686080.78	-1686080.46	-1686080.13	0.0089	0.0002
Mars	-9328-09-01 12:00 J	-1685385.05	-1685385.00	-1685384.88	0.0089	0.0087
Mercury	-9326-12-10 03:07 J	-1684555.41	-1684555.37	-1684555.33	0.0089	0.0085
Mercury	-9325-03-07 04:19 J	-1684467.37	-1684467.32	-1684467.25	0.0089	0.0078
Mercury	-9325-06-03 05:31 J	-1684379.34	-1684379.27	-1684379.18	0.0089	0.0071
Mercury	-9325-08-30 06:57 J	-1684291.29	-1684291.21	-1684291.11	0.0089	0.0063
Mercury	-9325-11-26 08:09 J	-1684203.25	-1684203.16	-1684203.05	0.0089	0.0057
Mercury	-9324-02-22 09:35 J	-1684115.20	-1684115.10	-1684114.98	0.0089	0.0049
Mercury	-9324-05-21 11:02 J	-1684027.16	-1684027.04	-1684026.92	0.0089	0.0042
Mercury	-9324-08-17 12:14 J	-1683939.11	-1683938.99	-1683938.87	0.0089	0.0035
Mercury	-9324-11-13 13:40 J	-1683851.06	-1683850.93	-1683850.81	0.0089	0.0028
Mercury	-9323-02-09 14:52 J	-1683763.00	-1683762.88	-1683762.75	0.0089	0.0021
Mercury	-9323-05-08 16:19 J	-1683674.95	-1683674.82	-1683674.69	0.0089	0.0014
Mercury	-9323-08-04 17:31 J	-1683586.90	-1683586.77	-1683586.64	0.0089	0.0006
Mercury	-9323-10-31 18:43 J	-1683498.85	-1683498.72	-1683498.58	0.0089	0.0003
Mercury	-9322-01-27 20:09 J	-1683410.79	-1683410.66	-1683410.53	0.0089	0.0008
Mercury	-9322-04-25 21:21 J	-1683322.74	-1683322.61	-1683322.48	0.0089	0.0015
Mercury	-9322-07-22 22:47 J	-1683234.68	-1683234.55	-1683234.43	0.0089	0.0022
Mercury	-9322-10-19 00:00 J	-1683146.62	-1683146.50	-1683146.38	0.0089	0.0029
Mercury	-9321-01-15 01:12 J	-1683058.57	-1683058.45	-1683058.33	0.0089	0.0036
Mercury	-9321-04-12 02:24 J	-1682970.51	-1682970.40	-1682970.28	0.0089	0.0043
Mercury	-9321-07-09 03:35 J	-1682882.45	-1682882.35	-1682882.23	0.0089	0.0051
Mercury	-9321-10-05 05:02 J	-1682794.38	-1682794.29	-1682794.18	0.0089	0.0057
Mercury	-9320-01-01 06:14 J	-1682706.32	-1682706.24	-1682706.14	0.0089	0.0064
Mercury	-9320-03-30 07:26 J	-1682618.25	-1682618.19	-1682618.10	0.0089	0.0072
Mercury	-9320-06-26 08:38 J	-1682530.18	-1682530.14	-1682530.06	0.0089	0.0079
Mercury	-9320-09-22 10:04 J	-1682442.11	-1682442.08	-1682442.03	0.0089	0.0085
Venus	-9314-07-11 18:00 J	-1680323.82	-1680323.75	-1680323.64	0.0089	0.0082
Venus	-9313-02-22 07:12 J	-1680098.32	-1680098.20	-1680098.06	0.0089	0.0072

Venus	-9313-10-04 20:09 J	-1679872.81	-1679872.66	-1679872.49	0.0089	0.0062
Venus	-9312-05-18 09:07 J	-1679647.29	-1679647.12	-1679646.93	0.0089	0.0052
Saturn	-9312-08-16 01:12 J	-1679558.05	-1679557.45	-1679556.79	0.0089	0.0022
Venus	-9312-12-29 22:19 J	-1679421.76	-1679421.57	-1679421.38	0.0089	0.0042
Venus	-9311-08-12 11:16 J	-1679196.23	-1679196.03	-1679195.82	0.0089	0.0032
Venus	-9310-03-26 00:14 J	-1678970.70	-1678970.49	-1678970.28	0.0089	0.0022
Venus	-9310-11-06 12:57 J	-1678745.17	-1678744.96	-1678744.74	0.0089	0.0012
Venus	-9309-06-19 02:09 J	-1678519.63	-1678519.41	-1678519.19	0.0089	0.0002
Venus	-9308-01-30 14:52 J	-1678294.09	-1678293.88	-1678293.66	0.0089	0.0008
Venus	-9308-09-13 03:35 J	-1678068.55	-1678068.35	-1678068.13	0.0089	0.0018
Venus	-9307-04-26 16:19 J	-1677843.01	-1677842.82	-1677842.60	0.0089	0.0029
Venus	-9307-12-08 05:16 J	-1677617.47	-1677617.28	-1677617.07	0.0089	0.0038
Venus	-9306-07-21 18:28 J	-1677391.91	-1677391.73	-1677391.54	0.0089	0.0048
Venus	-9305-03-03 07:12 J	-1677166.36	-1677166.20	-1677166.03	0.0089	0.0058
Venus	-9305-10-14 19:55 J	-1676940.80	-1676940.67	-1676940.52	0.0089	0.0068
Venus	-9304-05-28 08:38 J	-1676715.23	-1676715.14	-1676715.01	0.0089	0.0077
Venus	-9303-01-08 21:21 J	-1676489.63	-1676489.61	-1676489.54	0.0089	0.0087
Moon	-9272-12-06 17:31 J	-1664834.96	-1664834.77	-1664834.55	0.0088	0.0056
Earth	-9272-12-06 17:31 J	-1664834.94	-1664834.77	-1664834.57	0.0088	0.0060 *
Earth	-9271-12-09 04:47 J	-1664467.54	-1664467.30	-1664467.04	0.0088	0.0024
Moon	-9271-12-09 06:14 J	-1664467.46	-1664467.24	-1664466.99	0.0088	0.0028 *
Moon	-9270-12-11 13:55 J	-1664100.18	-1664099.92	-1664099.65	0.0088	0.0014
Earth	-9270-12-11 16:04 J	-1664100.07	-1664099.83	-1664099.56	0.0088	0.0012 *
Earth	-9269-12-13 03:21 J	-1663732.56	-1663732.36	-1663732.12	0.0088	0.0046
Moon	-9269-12-13 06:43 J	-1663732.43	-1663732.22	-1663731.99	0.0088	0.0043 *
Moon	-9268-12-15 11:02 J	-1663365.09	-1663365.04	-1663364.94	0.0088	0.0084
Earth	-9268-12-15 14:38 J	-1663364.96	-1663364.89	-1663364.76	0.0088	0.0082 *
Mars	-9250-10-09 08:09 J	-1656858.20	-1656858.16	-1656858.04	0.0088	0.0085
Mars	-9248-09-02 15:50 J	-1656164.14	-1656163.84	-1656163.53	0.0088	0.0007
Mars	-9246-07-28 21:07 J	-1655469.77	-1655469.62	-1655469.40	0.0088	0.0070

Mercury	-9242-02-22 17:45 J	-1654164.79	-1654164.76	-1654164.69	0.0088	0.0085
Mercury	-9242-05-21 21:21 J	-1654076.69	-1654076.61	-1654076.49	0.0088	0.0075
Mercury	-9242-08-18 01:12 J	-1653988.57	-1653988.45	-1653988.31	0.0088	0.0065
Mercury	-9242-11-14 04:47 J	-1653900.44	-1653900.30	-1653900.13	0.0088	0.0055
Mercury	-9241-02-10 08:24 J	-1653812.30	-1653812.15	-1653811.96	0.0088	0.0045
Mercury	-9241-05-08 12:14 J	-1653724.16	-1653723.99	-1653723.80	0.0088	0.0035
Mercury	-9241-08-04 15:50 J	-1653636.02	-1653635.84	-1653635.64	0.0088	0.0025
Mercury	-9241-10-31 19:55 J	-1653547.87	-1653547.67	-1653547.48	0.0088	0.0014
Mercury	-9240-01-27 23:31 J	-1653459.72	-1653459.52	-1653459.32	0.0088	0.0004
Mercury	-9240-04-26 03:07 J	-1653371.56	-1653371.37	-1653371.17	0.0088	0.0006
Mercury	-9240-07-23 06:57 J	-1653283.41	-1653283.21	-1653283.02	0.0088	0.0016
Mercury	-9240-10-19 10:19 J	-1653195.25	-1653195.07	-1653194.87	0.0088	0.0027
Mercury	-9239-01-15 13:55 J	-1653107.08	-1653106.92	-1653106.72	0.0088	0.0037
Mercury	-9239-04-13 17:45 J	-1653018.92	-1653018.76	-1653018.58	0.0088	0.0047
Mercury	-9239-07-10 21:21 J	-1652930.75	-1652930.61	-1652930.45	0.0088	0.0057
Mercury	-9239-10-07 01:12 J	-1652842.57	-1652842.45	-1652842.32	0.0088	0.0067
Mercury	-9238-01-03 05:02 J	-1652754.38	-1652754.29	-1652754.20	0.0088	0.0077
Mercury	-9238-04-01 08:24 J	-1652666.15	-1652666.15	-1652666.12	0.0088	0.0088
Venus	-9231-04-07 13:55 J	-1650102.99	-1650102.92	-1650102.81	0.0088	0.0080
Venus	-9231-11-19 03:07 J	-1649877.49	-1649877.37	-1649877.22	0.0088	0.0070
Venus	-9230-07-02 15:50 J	-1649651.97	-1649651.84	-1649651.65	0.0088	0.0061
Venus	-9229-02-13 05:02 J	-1649426.45	-1649426.29	-1649426.09	0.0088	0.0051
Venus	-9229-09-25 18:28 J	-1649200.92	-1649200.73	-1649200.53	0.0088	0.0041
Venus	-9228-05-09 07:12 J	-1648975.39	-1648975.20	-1648974.98	0.0088	0.0032
Venus	-9228-12-20 20:38 J	-1648749.85	-1648749.64	-1648749.42	0.0088	0.0022
Venus	-9227-08-03 09:50 J	-1648524.30	-1648524.09	-1648523.86	0.0088	0.0012
Venus	-9226-03-16 23:02 J	-1648298.76	-1648298.54	-1648298.32	0.0088	0.0002
Venus	-9226-10-28 12:00 J	-1648073.22	-1648073.00	-1648072.77	0.0088	0.0008
Venus	-9225-06-10 01:12 J	-1647847.67	-1647847.45	-1647847.23	0.0088	0.0017
Venus	-9224-01-21 14:24 J	-1647622.11	-1647621.90	-1647621.68	0.0088	0.0027

Venus	-9224-09-04 03:21 J	-1647396.55	-1647396.36	-1647396.15	0.0088	0.0037
Venus	-9223-04-17 16:19 J	-1647170.99	-1647170.82	-1647170.61	0.0088	0.0047
Venus	-9223-11-29 05:45 J	-1646945.43	-1646945.26	-1646945.09	0.0088	0.0056
Venus	-9222-07-12 18:28 J	-1646719.85	-1646719.73	-1646719.56	0.0088	0.0067
Venus	-9221-02-23 07:40 J	-1646494.27	-1646494.18	-1646494.05	0.0088	0.0076
Venus	-9221-10-05 20:52 J	-1646268.66	-1646268.63	-1646268.56	0.0088	0.0086
Moon	-9189-06-10 05:45 J	-1634698.35	-1634698.26	-1634698.13	0.0089	0.0080
Earth	-9189-06-10 06:28 J	-1634698.30	-1634698.23	-1634698.11	0.0089	0.0082 *
Moon	-9188-06-12 18:00 J	-1634330.95	-1634330.75	-1634330.51	0.0089	0.0049
Earth	-9188-06-12 18:43 J	-1634330.93	-1634330.72	-1634330.49	0.0089	0.0046 *
Earth	-9187-06-15 06:57 J	-1633963.47	-1633963.21	-1633962.95	0.0089	0.0010
Moon	-9187-06-15 08:52 J	-1633963.37	-1633963.13	-1633962.88	0.0089	0.0009 *
Moon	-9186-06-17 16:04 J	-1633596.08	-1633595.83	-1633595.57	0.0089	0.0023
Earth	-9186-06-17 18:28 J	-1633595.96	-1633595.73	-1633595.47	0.0089	0.0026 *
Earth	-9185-06-19 06:00 J	-1633228.42	-1633228.25	-1633228.05	0.0089	0.0062
Moon	-9185-06-19 09:35 J	-1633228.26	-1633228.10	-1633227.91	0.0089	0.0064 *
Mars	-9166-05-20 22:47 J	-1626318.80	-1626318.55	-1626318.25	0.0089	0.0046
Mars	-9164-04-15 09:35 J	-1625623.38	-1625623.10	-1625622.81	0.0089	0.0041
Mercury	-9161-09-05 02:24 J	-1624384.44	-1624384.40	-1624384.34	0.0089	0.0083
Mercury	-9161-12-02 03:35 J	-1624296.40	-1624296.35	-1624296.27	0.0089	0.0077
Mercury	-9160-02-28 05:16 J	-1624208.36	-1624208.28	-1624208.20	0.0089	0.0069
Mercury	-9160-05-27 06:28 J	-1624120.32	-1624120.23	-1624120.13	0.0089	0.0062
Mercury	-9160-08-23 07:40 J	-1624032.28	-1624032.18	-1624032.07	0.0089	0.0055
Mercury	-9160-11-19 09:07 J	-1623944.23	-1623944.12	-1623944.01	0.0089	0.0048
Mercury	-9159-02-15 10:19 J	-1623856.18	-1623856.07	-1623855.95	0.0089	0.0041
Mercury	-9159-05-14 11:45 J	-1623768.13	-1623768.01	-1623767.89	0.0089	0.0033
Mercury	-9159-08-10 12:57 J	-1623680.08	-1623679.96	-1623679.83	0.0089	0.0027
Mercury	-9159-11-06 14:24 J	-1623592.03	-1623591.90	-1623591.77	0.0089	0.0019
Mercury	-9158-02-02 15:35 J	-1623503.98	-1623503.85	-1623503.72	0.0089	0.0012
Mercury	-9158-05-01 17:02 J	-1623415.92	-1623415.79	-1623415.66	0.0089	0.0005

Mercury	-9158-07-28 18:14 J	-1623327.87	-1623327.74	-1623327.61	0.0089	0.0002
Mercury	-9158-10-24 19:26 J	-1623239.81	-1623239.69	-1623239.55	0.0089	0.0010
Mercury	-9157-01-20 20:52 J	-1623151.76	-1623151.63	-1623151.50	0.0089	0.0016
Mercury	-9157-04-17 22:04 J	-1623063.70	-1623063.58	-1623063.45	0.0089	0.0023
Mercury	-9157-07-14 23:16 J	-1622975.65	-1622975.53	-1622975.40	0.0089	0.0031
Mercury	-9157-10-11 00:43 J	-1622887.59	-1622887.47	-1622887.35	0.0089	0.0037
Mercury	-9156-01-07 01:55 J	-1622799.53	-1622799.42	-1622799.30	0.0089	0.0044
Mercury	-9156-04-05 03:07 J	-1622711.47	-1622711.37	-1622711.26	0.0089	0.0052
Mercury	-9156-07-02 04:33 J	-1622623.41	-1622623.31	-1622623.21	0.0089	0.0058
Mercury	-9156-09-28 05:45 J	-1622535.34	-1622535.26	-1622535.17	0.0089	0.0066
Mercury	-9156-12-25 06:57 J	-1622447.28	-1622447.21	-1622447.13	0.0089	0.0073
Mercury	-9155-03-23 08:09 J	-1622359.20	-1622359.16	-1622359.09	0.0089	0.0080
Mercury	-9155-06-19 09:35 J	-1622271.12	-1622271.10	-1622271.06	0.0089	0.0087
Venus	-9150-10-13 02:52 J	-1620329.40	-1620329.38	-1620329.31	0.0089	0.0088
Venus	-9149-05-25 16:04 J	-1620103.92	-1620103.83	-1620103.70	0.0089	0.0078
Venus	-9148-01-06 05:16 J	-1619878.41	-1619878.28	-1619878.13	0.0089	0.0068
Venus	-9148-08-19 18:14 J	-1619652.89	-1619652.74	-1619652.56	0.0089	0.0058
Venus	-9147-04-02 07:12 J	-1619427.37	-1619427.20	-1619427.00	0.0089	0.0048
Venus	-9147-11-13 20:09 J	-1619201.85	-1619201.66	-1619201.45	0.0089	0.0038
Venus	-9146-06-27 09:21 J	-1618976.31	-1618976.11	-1618975.90	0.0089	0.0027
Venus	-9145-02-07 22:19 J	-1618750.78	-1618750.57	-1618750.35	0.0089	0.0017
Venus	-9145-09-20 11:02 J	-1618525.25	-1618525.04	-1618524.81	0.0089	0.0008
Venus	-9144-05-04 00:00 J	-1618299.71	-1618299.50	-1618299.28	0.0089	0.0003
Venus	-9144-12-15 12:43 J	-1618074.18	-1618073.97	-1618073.74	0.0089	0.0014
Venus	-9143-07-29 01:40 J	-1617848.63	-1617848.43	-1617848.21	0.0089	0.0024
Venus	-9142-03-11 14:24 J	-1617623.09	-1617622.90	-1617622.68	0.0089	0.0034
Venus	-9142-10-23 03:07 J	-1617397.54	-1617397.37	-1617397.16	0.0089	0.0044
Venus	-9141-06-04 16:04 J	-1617171.99	-1617171.83	-1617171.64	0.0089	0.0053
Venus	-9140-01-16 04:47 J	-1616946.43	-1616946.30	-1616946.12	0.0089	0.0064
Venus	-9140-08-29 17:45 J	-1616720.86	-1616720.76	-1616720.62	0.0089	0.0073

Venus	-9139-04-12 06:57 J	-1616495.28	-1616495.21	-1616495.13	0.0089	0.0083
Earth	-9108-12-06 00:57 J	-1604934.56	-1604934.46	-1604934.33	0.0088	0.0079
Moon	-9108-12-06 02:09 J	-1604934.51	-1604934.41	-1604934.26	0.0088	0.0076 *
Moon	-9107-12-08 09:21 J	-1604567.33	-1604567.11	-1604566.89	0.0088	0.0048
Earth	-9107-12-08 12:28 J	-1604567.20	-1604566.98	-1604566.75	0.0088	0.0044 *
Earth	-9106-12-10 23:45 J	-1604199.77	-1604199.51	-1604199.25	0.0088	0.0009
Moon	-9106-12-11 03:07 J	-1604199.63	-1604199.37	-1604199.12	0.0088	0.0005 *
Moon	-9105-12-12 07:12 J	-1603832.44	-1603832.20	-1603831.94	0.0088	0.0023
Earth	-9105-12-12 11:02 J	-1603832.28	-1603832.04	-1603831.79	0.0088	0.0026 *
Earth	-9104-12-14 22:04 J	-1603464.75	-1603464.58	-1603464.38	0.0088	0.0061
Moon	-9104-12-15 01:12 J	-1603464.60	-1603464.45	-1603464.25	0.0088	0.0066 *
Jupiter	-9087-09-09 10:19 J	-1597352.49	-1597352.07	-1597351.54	0.0088	0.0046
Mars	-9084-04-17 15:07 J	-1596401.13	-1596400.87	-1596400.61	0.0088	0.0046
Mars	-9082-03-12 21:35 J	-1595706.87	-1595706.60	-1595706.30	0.0088	0.0031
Mercury	-9078-11-19 15:50 J	-1593993.89	-1593993.84	-1593993.76	0.0088	0.0082
Mercury	-9077-02-15 19:26 J	-1593905.78	-1593905.69	-1593905.56	0.0088	0.0072
Mercury	-9077-05-13 23:16 J	-1593817.66	-1593817.53	-1593817.38	0.0088	0.0062
Mercury	-9077-08-10 02:52 J	-1593729.53	-1593729.38	-1593729.21	0.0088	0.0052
Mercury	-9077-11-06 06:28 J	-1593641.39	-1593641.23	-1593641.04	0.0088	0.0042
Mercury	-9076-02-02 10:19 J	-1593553.25	-1593553.07	-1593552.88	0.0088	0.0032
Mercury	-9076-05-01 13:55 J	-1593465.10	-1593464.92	-1593464.72	0.0088	0.0022
Mercury	-9076-07-28 17:45 J	-1593376.95	-1593376.76	-1593376.56	0.0088	0.0012
Mercury	-9076-10-24 21:21 J	-1593288.80	-1593288.61	-1593288.41	0.0088	0.0002
Mercury	-9075-01-21 00:57 J	-1593200.65	-1593200.46	-1593200.26	0.0088	0.0009
Mercury	-9075-04-19 04:47 J	-1593112.49	-1593112.30	-1593112.11	0.0088	0.0019
Mercury	-9075-07-16 08:24 J	-1593024.33	-1593024.15	-1593023.96	0.0088	0.0029
Mercury	-9075-10-12 12:14 J	-1592936.17	-1592935.99	-1592935.81	0.0088	0.0039
Mercury	-9074-01-08 15:21 J	-1592848.00	-1592847.86	-1592847.67	0.0088	0.0050
Mercury	-9074-04-06 19:12 J	-1592759.83	-1592759.70	-1592759.54	0.0088	0.0060
Mercury	-9074-07-03 22:47 J	-1592671.65	-1592671.55	-1592671.41	0.0088	0.0070

Mercury	-9074-09-30 02:38 J	-1592583.45	-1592583.39	-1592583.29	0.0088	0.0080
Venus	-9067-07-10 00:00 J	-1590108.53	-1590108.50	-1590108.43	0.0088	0.0085
Venus	-9066-02-20 13:12 J	-1589883.05	-1589882.95	-1589882.83	0.0088	0.0075
Venus	-9066-10-04 01:55 J	-1589657.55	-1589657.42	-1589657.26	0.0088	0.0066
Venus	-9065-05-16 15:07 J	-1589432.03	-1589431.87	-1589431.69	0.0088	0.0056
Venus	-9065-12-28 04:19 J	-1589206.50	-1589206.32	-1589206.12	0.0088	0.0046
Venus	-9064-08-10 17:16 J	-1588980.97	-1588980.78	-1588980.56	0.0088	0.0037
Venus	-9063-03-24 06:14 J	-1588755.43	-1588755.24	-1588755.01	0.0088	0.0027
Venus	-9063-11-04 19:26 J	-1588529.90	-1588529.69	-1588529.46	0.0088	0.0017
Venus	-9062-06-18 08:52 J	-1588304.35	-1588304.13	-1588303.91	0.0088	0.0007
Venus	-9061-01-29 22:04 J	-1588078.80	-1588078.58	-1588078.36	0.0088	0.0003
Venus	-9061-09-11 11:02 J	-1587853.25	-1587853.04	-1587852.81	0.0088	0.0013
Venus	-9060-04-25 00:00 J	-1587627.70	-1587627.50	-1587627.27	0.0088	0.0023
Venus	-9060-12-06 13:12 J	-1587402.14	-1587401.95	-1587401.73	0.0088	0.0033
Venus	-9059-07-20 02:38 J	-1587176.58	-1587176.39	-1587176.19	0.0088	0.0043
Venus	-9058-03-02 15:50 J	-1586951.02	-1586950.84	-1586950.66	0.0088	0.0052
Venus	-9058-10-14 04:47 J	-1586725.45	-1586725.30	-1586725.14	0.0088	0.0062
Venus	-9057-05-26 17:45 J	-1586499.87	-1586499.76	-1586499.62	0.0088	0.0072
Venus	-9056-01-07 06:57 J	-1586274.27	-1586274.21	-1586274.11	0.0088	0.0082
Earth	-9024-06-12 02:24 J	-1574430.56	-1574430.40	-1574430.22	0.0089	0.0065
Moon	-9024-06-12 04:04 J	-1574430.46	-1574430.33	-1574430.15	0.0089	0.0070 *
Moon	-9023-06-14 11:16 J	-1574063.28	-1574063.03	-1574062.78	0.0089	0.0025
Earth	-9023-06-14 14:24 J	-1574063.13	-1574062.90	-1574062.64	0.0089	0.0030 *
Earth	-9022-06-17 02:38 J	-1573695.65	-1573695.39	-1573695.13	0.0089	0.0006
Moon	-9022-06-17 06:00 J	-1573695.50	-1573695.25	-1573694.99	0.0089	0.0002 *
Moon	-9021-06-18 10:19 J	-1573328.26	-1573328.07	-1573327.83	0.0089	0.0046
Earth	-9021-06-18 14:09 J	-1573328.12	-1573327.91	-1573327.67	0.0089	0.0042 *
Earth	-9020-06-21 02:09 J	-1572960.53	-1572960.41	-1572960.28	0.0089	0.0077
Moon	-9020-06-21 05:02 J	-1572960.42	-1572960.29	-1572960.13	0.0089	0.0073 *
Mars	-9002-01-02 01:40 J	-1566556.43	-1566556.43	-1566556.38	0.0089	0.0089

Mars -9001-11-27 09:21 J -1565861.43 -1565861.11 -1565860.78 0.0089 0.0004

9TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 9th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-8999-10-23 19:12 J	-1565165.77	-1565165.70	-1565165.54	0.0089	0.0084		
Mercury	-8996-03-06 00:43 J	-1564301.48	-1564301.47	-1564301.45	0.0089	0.0089		
Mercury	-8996-06-02 01:55 J	-1564213.46	-1564213.42	-1564213.36	0.0089	0.0082		
Mercury	-8996-08-29 03:07 J	-1564125.43	-1564125.37	-1564125.29	0.0089	0.0075		
Mercury	-8996-11-25 04:33 J	-1564037.39	-1564037.31	-1564037.22	0.0089	0.0067		
Mercury	-8995-02-21 05:45 J	-1563949.34	-1563949.26	-1563949.15	0.0089	0.0061		
Mercury	-8995-05-20 07:12 J	-1563861.30	-1563861.20	-1563861.09	0.0089	0.0053		
Mercury	-8995-08-16 08:24 J	-1563773.25	-1563773.15	-1563773.03	0.0089	0.0047		
Mercury	-8995-11-12 10:04 J	-1563685.20	-1563685.08	-1563684.97	0.0089	0.0039		
Mercury	-8994-02-08 11:16 J	-1563597.15	-1563597.03	-1563596.91	0.0089	0.0032		
Mercury	-8994-05-07 12:28 J	-1563509.10	-1563508.98	-1563508.85	0.0089	0.0025		
Mercury	-8994-08-03 13:55 J	-1563421.05	-1563420.92	-1563420.79	0.0089	0.0017		
Mercury	-8994-10-30 15:07 J	-1563333.00	-1563332.87	-1563332.74	0.0089	0.0011		
Mercury	-8993-01-26 16:33 J	-1563244.94	-1563244.81	-1563244.68	0.0089	0.0003		
Mercury	-8993-04-23 17:45 J	-1563156.89	-1563156.76	-1563156.63	0.0089	0.0004		
Mercury	-8993-07-20 18:57 J	-1563068.83	-1563068.71	-1563068.57	0.0089	0.0012		
Mercury	-8993-10-16 20:24 J	-1562980.78	-1562980.65	-1562980.52	0.0089	0.0018		

Mercury	-8992-01-12 21:35 J	-1562892.72	-1562892.60	-1562892.47	0.0089	0.0025
Mercury	-8992-04-10 22:47 J	-1562804.66	-1562804.55	-1562804.42	0.0089	0.0033
Mercury	-8992-07-08 00:00 J	-1562716.61	-1562716.50	-1562716.37	0.0089	0.0040
Mercury	-8992-10-04 01:26 J	-1562628.55	-1562628.44	-1562628.32	0.0089	0.0046
Mercury	-8992-12-31 02:38 J	-1562540.48	-1562540.39	-1562540.28	0.0089	0.0054
Mercury	-8991-03-29 03:50 J	-1562452.42	-1562452.34	-1562452.23	0.0089	0.0061
Mercury	-8991-06-25 05:16 J	-1562364.36	-1562364.28	-1562364.19	0.0089	0.0067
Mercury	-8991-09-21 06:28 J	-1562276.29	-1562276.23	-1562276.15	0.0089	0.0074
Mercury	-8991-12-18 07:40 J	-1562188.22	-1562188.18	-1562188.12	0.0089	0.0082
Mercury	-8990-03-16 08:52 J	-1562100.13	-1562100.13	-1562100.10	0.0089	0.0089
Saturn	-8989-06-12 12:43 J	-1561646.52	-1561645.97	-1561645.38	0.0089	0.0040
Venus	-8985-08-27 01:40 J	-1560109.49	-1560109.43	-1560109.33	0.0089	0.0083
Venus	-8984-04-09 14:38 J	-1559883.99	-1559883.89	-1559883.74	0.0089	0.0074
Venus	-8984-11-21 04:19 J	-1559658.47	-1559658.32	-1559658.17	0.0089	0.0063
Venus	-8983-07-04 17:16 J	-1559432.95	-1559432.78	-1559432.60	0.0089	0.0053
Venus	-8982-02-15 06:14 J	-1559207.42	-1559207.24	-1559207.04	0.0089	0.0043
Venus	-8982-09-28 19:12 J	-1558981.90	-1558981.70	-1558981.49	0.0089	0.0032
Venus	-8981-05-11 08:09 J	-1558756.36	-1558756.16	-1558755.94	0.0089	0.0022
Venus	-8981-12-22 21:07 J	-1558530.83	-1558530.62	-1558530.40	0.0089	0.0012
Venus	-8980-08-05 10:19 J	-1558305.29	-1558305.07	-1558304.85	0.0089	0.0002
Venus	-8979-03-18 23:02 J	-1558079.75	-1558079.54	-1558079.32	0.0089	0.0009
Venus	-8979-10-30 12:00 J	-1557854.21	-1557854.00	-1557853.79	0.0089	0.0019
Venus	-8978-06-13 00:57 J	-1557628.67	-1557628.46	-1557628.26	0.0089	0.0029
Venus	-8977-01-24 13:26 J	-1557403.12	-1557402.94	-1557402.73	0.0089	0.0039
Venus	-8977-09-06 02:09 J	-1557177.57	-1557177.41	-1557177.21	0.0089	0.0049
Venus	-8976-04-19 14:52 J	-1556952.02	-1556951.88	-1556951.70	0.0089	0.0060
Venus	-8976-12-01 03:35 J	-1556726.46	-1556726.35	-1556726.19	0.0089	0.0070
Venus	-8975-07-14 16:33 J	-1556500.88	-1556500.81	-1556500.69	0.0089	0.0080
Venus	-8974-02-25 05:31 J	-1556275.27	-1556275.27	-1556275.23	0.0089	0.0089
Earth	-8943-12-07 20:38 J	-1544666.80	-1544666.64	-1544666.44	0.0088	0.0063

Moon	-8943-12-08 00:43 J	-1544666.65	-1544666.47	-1544666.27	0.0088	0.0060	*
Moon	-8942-12-10 04:47 J	-1544299.52	-1544299.30	-1544299.04	0.0088	0.0030	
Earth	-8942-12-10 08:09 J	-1544299.39	-1544299.16	-1544298.90	0.0088	0.0028	*
Earth	-8941-12-11 19:40 J	-1543931.93	-1543931.68	-1543931.42	0.0088	0.0008	
Moon	-8941-12-11 23:02 J	-1543931.80	-1543931.54	-1543931.28	0.0088	0.0011	*
Moon	-8940-12-14 04:19 J	-1543564.52	-1543564.32	-1543564.07	0.0088	0.0041	
Earth	-8940-12-14 06:43 J	-1543564.43	-1543564.22	-1543563.98	0.0088	0.0043	*
Earth	-8939-12-16 18:00 J	-1543196.85	-1543196.75	-1543196.61	0.0088	0.0078	
Moon	-8939-12-16 18:43 J	-1543196.81	-1543196.72	-1543196.58	0.0088	0.0080	*
Mars	-8921-11-30 12:28 J	-1536638.01	-1536637.98	-1536637.89	0.0088	0.0086	
Mars	-8919-10-25 22:47 J	-1535943.85	-1535943.55	-1535943.24	0.0088	0.0008	
Mars	-8917-09-19 04:47 J	-1535249.45	-1535249.30	-1535249.08	0.0088	0.0070	
Mercury	-8913-08-15 13:55 J	-1533822.98	-1533822.92	-1533822.81	0.0088	0.0079	
Mercury	-8913-11-11 17:45 J	-1533734.86	-1533734.76	-1533734.62	0.0088	0.0069	
Mercury	-8912-02-07 21:21 J	-1533646.74	-1533646.61	-1533646.45	0.0088	0.0059	
Mercury	-8912-05-07 01:26 J	-1533558.60	-1533558.44	-1533558.28	0.0088	0.0048	
Mercury	-8912-08-03 05:02 J	-1533470.47	-1533470.29	-1533470.11	0.0088	0.0038	
Mercury	-8912-10-30 08:38 J	-1533382.32	-1533382.14	-1533381.95	0.0088	0.0028	
Mercury	-8911-01-26 12:14 J	-1533294.18	-1533293.99	-1533293.79	0.0088	0.0018	
Mercury	-8911-04-24 16:04 J	-1533206.03	-1533205.83	-1533205.63	0.0088	0.0008	
Mercury	-8911-07-21 19:40 J	-1533117.88	-1533117.68	-1533117.48	0.0088	0.0002	
Mercury	-8911-10-17 23:16 J	-1533029.72	-1533029.53	-1533029.33	0.0088	0.0013	
Mercury	-8910-01-14 02:52 J	-1532941.56	-1532941.38	-1532941.18	0.0088	0.0023	
Mercury	-8910-04-12 06:28 J	-1532853.40	-1532853.23	-1532853.03	0.0088	0.0033	
Mercury	-8910-07-09 10:04 J	-1532765.24	-1532765.08	-1532764.89	0.0088	0.0043	
Mercury	-8910-10-05 13:55 J	-1532677.07	-1532676.92	-1532676.75	0.0088	0.0053	
Mercury	-8909-01-01 17:45 J	-1532588.89	-1532588.76	-1532588.62	0.0088	0.0063	
Mercury	-8909-03-29 21:21 J	-1532500.71	-1532500.61	-1532500.49	0.0088	0.0073	
Mercury	-8909-06-26 00:43 J	-1532412.50	-1532412.47	-1532412.39	0.0088	0.0084	
Venus	-8902-05-25 00:00 J	-1529888.58	-1529888.50	-1529888.41	0.0088	0.0080	

Venus	-8901-01-05 12:43 J	-1529663.08	-1529662.97	-1529662.82	0.0088	0.0071
Venus	-8901-08-18 01:40 J	-1529437.57	-1529437.43	-1529437.25	0.0088	0.0061
Venus	-8900-03-31 14:52 J	-1529212.05	-1529211.88	-1529211.69	0.0088	0.0051
Venus	-8900-11-12 03:50 J	-1528986.52	-1528986.34	-1528986.13	0.0088	0.0041
Venus	-8899-06-25 17:02 J	-1528760.99	-1528760.79	-1528760.58	0.0088	0.0031
Venus	-8898-02-06 06:14 J	-1528535.46	-1528535.24	-1528535.02	0.0088	0.0021
Venus	-8898-09-19 19:12 J	-1528309.92	-1528309.70	-1528309.48	0.0088	0.0011
Venus	-8897-05-02 08:24 J	-1528084.37	-1528084.15	-1528083.93	0.0088	0.0002
Venus	-8897-12-13 21:21 J	-1527858.82	-1527858.61	-1527858.38	0.0088	0.0009
Venus	-8896-07-27 10:33 J	-1527633.27	-1527633.06	-1527632.84	0.0088	0.0019
Venus	-8895-03-09 23:31 J	-1527407.72	-1527407.52	-1527407.30	0.0088	0.0029
Venus	-8895-10-21 12:28 J	-1527182.16	-1527181.98	-1527181.76	0.0088	0.0039
Venus	-8894-06-04 01:40 J	-1526956.60	-1526956.43	-1526956.23	0.0088	0.0049
Venus	-8893-01-15 15:21 J	-1526731.02	-1526730.86	-1526730.69	0.0088	0.0059
Venus	-8893-08-28 04:33 J	-1526505.44	-1526505.31	-1526505.17	0.0088	0.0068
Venus	-8892-04-10 17:31 J	-1526279.86	-1526279.77	-1526279.66	0.0088	0.0078
Moon	-8860-06-11 07:55 J	-1514530.25	-1514530.17	-1514530.06	0.0089	0.0082
Earth	-8860-06-11 10:47 J	-1514530.11	-1514530.05	-1514529.94	0.0089	0.0084 *
Earth	-8859-06-13 23:16 J	-1514162.74	-1514162.53	-1514162.31	0.0089	0.0048
Moon	-8859-06-14 02:38 J	-1514162.58	-1514162.39	-1514162.16	0.0089	0.0050 *
Moon	-8858-06-16 07:55 J	-1513795.42	-1513795.17	-1513794.91	0.0089	0.0012
Earth	-8858-06-16 11:02 J	-1513795.29	-1513795.04	-1513794.78	0.0089	0.0013 *
Earth	-8857-06-17 22:47 J	-1513427.79	-1513427.55	-1513427.29	0.0089	0.0023
Moon	-8857-06-18 02:09 J	-1513427.66	-1513427.41	-1513427.15	0.0089	0.0020 *
Moon	-8856-06-20 08:52 J	-1513060.30	-1513060.13	-1513059.93	0.0089	0.0060
Earth	-8856-06-20 10:47 J	-1513060.23	-1513060.05	-1513059.84	0.0089	0.0058 *
Mars	-8837-07-11 15:07 J	-1506099.13	-1506098.87	-1506098.58	0.0089	0.0047
Mars	-8835-06-06 23:02 J	-1505403.82	-1505403.54	-1505403.24	0.0089	0.0040
Mercury	-8832-12-01 00:14 J	-1504130.51	-1504130.49	-1504130.45	0.0089	0.0087
Mercury	-8831-02-27 01:26 J	-1504042.48	-1504042.44	-1504042.37	0.0089	0.0080

Mercury	-8831-05-26 02:52 J	-1503954.45	-1503954.38	-1503954.29	0.0089	0.0072
Mercury	-8831-08-22 04:33 J	-1503866.40	-1503866.31	-1503866.23	0.0089	0.0065
Mercury	-8831-11-18 05:45 J	-1503778.36	-1503778.26	-1503778.16	0.0089	0.0058
Mercury	-8830-02-14 06:57 J	-1503690.31	-1503690.21	-1503690.10	0.0089	0.0051
Mercury	-8830-05-13 08:24 J	-1503602.26	-1503602.15	-1503602.04	0.0089	0.0043
Mercury	-8830-08-09 09:35 J	-1503514.21	-1503514.10	-1503513.98	0.0089	0.0037
Mercury	-8830-11-05 11:02 J	-1503426.16	-1503426.04	-1503425.92	0.0089	0.0029
Mercury	-8829-02-01 12:14 J	-1503338.11	-1503337.99	-1503337.86	0.0089	0.0022
Mercury	-8829-04-29 13:40 J	-1503250.06	-1503249.93	-1503249.80	0.0089	0.0015
Mercury	-8829-07-26 14:52 J	-1503162.01	-1503161.88	-1503161.75	0.0089	0.0008
Mercury	-8829-10-22 16:19 J	-1503073.95	-1503073.82	-1503073.69	0.0089	0.0002
Mercury	-8828-01-18 17:31 J	-1502985.90	-1502985.77	-1502985.64	0.0089	0.0006
Mercury	-8828-04-16 18:43 J	-1502897.84	-1502897.72	-1502897.58	0.0089	0.0014
Mercury	-8828-07-13 20:09 J	-1502809.79	-1502809.66	-1502809.53	0.0089	0.0020
Mercury	-8828-10-09 21:21 J	-1502721.73	-1502721.61	-1502721.48	0.0089	0.0028
Mercury	-8827-01-05 22:33 J	-1502633.67	-1502633.56	-1502633.43	0.0089	0.0035
Mercury	-8827-04-04 00:00 J	-1502545.61	-1502545.50	-1502545.38	0.0089	0.0042
Mercury	-8827-07-01 01:12 J	-1502457.55	-1502457.45	-1502457.34	0.0089	0.0049
Mercury	-8827-09-27 02:24 J	-1502369.49	-1502369.40	-1502369.29	0.0089	0.0056
Mercury	-8827-12-24 03:50 J	-1502281.43	-1502281.34	-1502281.25	0.0089	0.0063
Mercury	-8826-03-22 05:02 J	-1502193.37	-1502193.29	-1502193.20	0.0089	0.0070
Mercury	-8826-06-18 06:14 J	-1502105.30	-1502105.24	-1502105.17	0.0089	0.0077
Mercury	-8826-09-14 07:40 J	-1502017.22	-1502017.18	-1502017.13	0.0089	0.0084
Venus	-8821-11-28 12:00 J	-1500115.01	-1500115.00	-1500114.96	0.0089	0.0089
Venus	-8820-07-12 00:57 J	-1499889.54	-1499889.46	-1499889.34	0.0089	0.0079
Venus	-8819-02-22 13:55 J	-1499664.04	-1499663.92	-1499663.76	0.0089	0.0069
Venus	-8819-10-06 02:52 J	-1499438.52	-1499438.38	-1499438.19	0.0089	0.0059
Venus	-8818-05-19 16:33 J	-1499213.00	-1499212.81	-1499212.63	0.0089	0.0048
Venus	-8818-12-31 05:16 J	-1498987.47	-1498987.28	-1498987.07	0.0089	0.0038
Venus	-8817-08-12 18:28 J	-1498761.93	-1498761.73	-1498761.52	0.0089	0.0027

Venus	-8816-03-26 07:26 J	-1498536.40	-1498536.19	-1498535.97	0.0089	0.0017
Venus	-8816-11-06 20:24 J	-1498310.86	-1498310.65	-1498310.43	0.0089	0.0007
Venus	-8815-06-20 09:35 J	-1498085.32	-1498085.10	-1498084.88	0.0089	0.0004
Venus	-8814-01-31 22:19 J	-1497859.78	-1497859.57	-1497859.35	0.0089	0.0014
Venus	-8814-09-14 11:16 J	-1497634.24	-1497634.03	-1497633.82	0.0089	0.0024
Venus	-8813-04-27 00:00 J	-1497408.69	-1497408.50	-1497408.29	0.0089	0.0035
Venus	-8813-12-08 12:28 J	-1497183.15	-1497182.98	-1497182.77	0.0089	0.0046
Venus	-8812-07-22 01:40 J	-1496957.59	-1496957.43	-1496957.25	0.0089	0.0055
Venus	-8811-03-04 14:24 J	-1496732.03	-1496731.90	-1496731.73	0.0089	0.0065
Venus	-8811-10-16 03:07 J	-1496506.47	-1496506.37	-1496506.24	0.0089	0.0076
Venus	-8810-05-29 16:04 J	-1496280.88	-1496280.83	-1496280.75	0.0089	0.0085
Moon	-8779-12-07 02:09 J	-1484766.51	-1484766.41	-1484766.26	0.0088	0.0077
Earth	-8779-12-07 05:45 J	-1484766.34	-1484766.26	-1484766.13	0.0088	0.0081 *
Earth	-8778-12-09 17:16 J	-1484398.99	-1484398.78	-1484398.55	0.0088	0.0046
Moon	-8778-12-09 19:55 J	-1484398.88	-1484398.67	-1484398.44	0.0088	0.0050 *
Moon	-8777-12-11 02:52 J	-1484031.62	-1484031.38	-1484031.13	0.0088	0.0007
Earth	-8777-12-11 04:47 J	-1484031.56	-1484031.30	-1484031.04	0.0088	0.0011 *
Earth	-8776-12-13 15:50 J	-1483664.08	-1483663.84	-1483663.58	0.0088	0.0024
Moon	-8776-12-13 16:47 J	-1483664.05	-1483663.80	-1483663.53	0.0088	0.0020 *
Earth	-8775-12-16 03:21 J	-1483296.54	-1483296.36	-1483296.16	0.0088	0.0059
Moon	-8775-12-16 03:50 J	-1483296.48	-1483296.34	-1483296.14	0.0088	0.0064 *
Mars	-8755-06-09 21:50 J	-1476180.85	-1476180.59	-1476180.32	0.0088	0.0046
Mars	-8753-05-04 06:28 J	-1475486.50	-1475486.23	-1475485.92	0.0088	0.0032
Mercury	-8748-02-13 08:52 J	-1473740.16	-1473740.13	-1473740.06	0.0088	0.0085
Mercury	-8748-05-12 12:28 J	-1473652.06	-1473651.98	-1473651.85	0.0088	0.0075
Mercury	-8748-08-08 16:04 J	-1473563.94	-1473563.83	-1473563.67	0.0088	0.0065
Mercury	-8748-11-04 19:55 J	-1473475.81	-1473475.67	-1473475.50	0.0088	0.0055
Mercury	-8747-01-31 23:31 J	-1473387.67	-1473387.52	-1473387.33	0.0088	0.0045
Mercury	-8747-04-30 03:35 J	-1473299.53	-1473299.35	-1473299.17	0.0088	0.0034
Mercury	-8747-07-27 07:12 J	-1473211.39	-1473211.20	-1473211.01	0.0088	0.0024

Mercury	-8747-10-23 10:47 J	-1473123.24	-1473123.05	-1473122.85	0.0088	0.0014
Mercury	-8746-01-19 14:24 J	-1473035.09	-1473034.90	-1473034.70	0.0088	0.0005
Mercury	-8746-04-17 18:14 J	-1472946.94	-1472946.74	-1472946.55	0.0088	0.0006
Mercury	-8746-07-14 21:50 J	-1472858.78	-1472858.59	-1472858.39	0.0088	0.0016
Mercury	-8746-10-11 01:26 J	-1472770.63	-1472770.44	-1472770.25	0.0088	0.0026
Mercury	-8745-01-07 05:16 J	-1472682.46	-1472682.28	-1472682.10	0.0088	0.0036
Mercury	-8745-04-04 08:24 J	-1472594.30	-1472594.15	-1472593.96	0.0088	0.0047
Mercury	-8745-07-01 12:14 J	-1472506.13	-1472505.99	-1472505.83	0.0088	0.0057
Mercury	-8745-09-27 15:50 J	-1472417.95	-1472417.84	-1472417.69	0.0088	0.0067
Mercury	-8745-12-24 19:40 J	-1472329.76	-1472329.68	-1472329.57	0.0088	0.0077
Mercury	-8744-03-22 23:31 J	-1472241.53	-1472241.52	-1472241.49	0.0088	0.0087
Venus	-8738-08-26 11:02 J	-1469894.08	-1469894.04	-1469893.98	0.0088	0.0085
Venus	-8737-04-08 00:00 J	-1469668.60	-1469668.50	-1469668.38	0.0088	0.0075
Venus	-8737-11-19 13:12 J	-1469443.09	-1469442.95	-1469442.80	0.0088	0.0065
Venus	-8736-07-03 01:40 J	-1469217.58	-1469217.43	-1469217.24	0.0088	0.0056
Venus	-8735-02-13 14:52 J	-1468992.05	-1468991.88	-1468991.68	0.0088	0.0046
Venus	-8735-09-27 03:50 J	-1468766.53	-1468766.34	-1468766.12	0.0088	0.0036
Venus	-8734-05-10 16:47 J	-1468540.99	-1468540.80	-1468540.57	0.0088	0.0026
Venus	-8734-12-22 06:14 J	-1468315.45	-1468315.24	-1468315.01	0.0088	0.0016
Venus	-8733-08-03 19:26 J	-1468089.91	-1468089.69	-1468089.47	0.0088	0.0005
Venus	-8732-03-17 08:24 J	-1467864.37	-1467864.15	-1467863.92	0.0088	0.0005
Venus	-8732-10-28 21:21 J	-1467638.82	-1467638.61	-1467638.38	0.0088	0.0015
Venus	-8731-06-11 10:19 J	-1467413.27	-1467413.07	-1467412.84	0.0088	0.0025
Venus	-8730-01-22 23:45 J	-1467187.71	-1467187.51	-1467187.30	0.0088	0.0035
Venus	-8730-09-05 12:43 J	-1466962.14	-1466961.97	-1466961.76	0.0088	0.0045
Venus	-8729-04-18 01:55 J	-1466736.58	-1466736.42	-1466736.23	0.0088	0.0055
Venus	-8729-11-29 15:07 J	-1466511.00	-1466510.87	-1466510.71	0.0088	0.0065
Venus	-8728-07-13 04:19 J	-1466285.42	-1466285.32	-1466285.19	0.0088	0.0075
Venus	-8727-02-23 17:31 J	-1466059.81	-1466059.77	-1466059.70	0.0088	0.0085
Moon	-8695-06-13 05:16 J	-1454262.41	-1454262.28	-1454262.11	0.0089	0.0071

Earth	-8695-06-13 08:52 J	-1454262.29	-1454262.13	-1454261.95	0.0089	0.0066 *
Earth	-8694-06-15 20:38 J	-1453894.86	-1453894.64	-1453894.38	0.0089	0.0031
Moon	-8694-06-15 23:16 J	-1453894.78	-1453894.53	-1453894.28	0.0089	0.0026 *
Moon	-8693-06-17 07:26 J	-1453527.44	-1453527.19	-1453526.94	0.0089	0.0001
Earth	-8693-06-17 08:52 J	-1453527.38	-1453527.13	-1453526.87	0.0089	0.0005 *
Earth	-8692-06-19 20:38 J	-1453159.86	-1453159.64	-1453159.40	0.0089	0.0040
Moon	-8692-06-19 21:07 J	-1453159.84	-1453159.62	-1453159.38	0.0089	0.0044 *
Earth	-8691-06-22 08:38 J	-1452792.27	-1452792.14	-1452792.00	0.0089	0.0075
Moon	-8691-06-22 09:50 J	-1452792.23	-1452792.09	-1452791.93	0.0089	0.0071 *
Mars	-8673-02-23 21:50 J	-1446336.60	-1446336.59	-1446336.51	0.0089	0.0089
Mars	-8671-01-19 05:16 J	-1445641.60	-1445641.28	-1445640.96	0.0089	0.0003
Mars	-8670-12-15 13:26 J	-1444946.04	-1444945.94	-1444945.82	0.0089	0.0084
Mercury	-8667-08-28 00:00 J	-1443959.53	-1443959.50	-1443959.44	0.0089	0.0084
Mercury	-8667-11-24 01:26 J	-1443871.50	-1443871.44	-1443871.37	0.0089	0.0076
Mercury	-8666-02-20 02:38 J	-1443783.46	-1443783.39	-1443783.30	0.0089	0.0070
Mercury	-8666-05-19 04:04 J	-1443695.42	-1443695.33	-1443695.23	0.0089	0.0062
Mercury	-8666-08-15 05:16 J	-1443607.37	-1443607.28	-1443607.16	0.0089	0.0056
Saturn	-8666-09-26 01:55 J	-1443565.48	-1443565.42	-1443565.21	0.0089	0.0088
Mercury	-8666-11-11 06:57 J	-1443519.32	-1443519.21	-1443519.10	0.0089	0.0048
Mercury	-8665-02-07 08:09 J	-1443431.27	-1443431.16	-1443431.04	0.0089	0.0041
Mercury	-8665-05-05 09:35 J	-1443343.22	-1443343.10	-1443342.98	0.0089	0.0034
Mercury	-8665-08-01 10:47 J	-1443255.17	-1443255.05	-1443254.92	0.0089	0.0027
Mercury	-8665-10-28 12:14 J	-1443167.12	-1443166.99	-1443166.86	0.0089	0.0019
Mercury	-8664-01-24 13:26 J	-1443079.07	-1443078.94	-1443078.81	0.0089	0.0012
Mercury	-8664-04-22 14:52 J	-1442991.01	-1442990.88	-1442990.75	0.0089	0.0006
Mercury	-8664-07-19 16:04 J	-1442902.96	-1442902.83	-1442902.70	0.0089	0.0002
Mercury	-8664-10-15 17:16 J	-1442814.90	-1442814.78	-1442814.64	0.0089	0.0010
Mercury	-8663-01-11 18:43 J	-1442726.85	-1442726.72	-1442726.59	0.0089	0.0016
Mercury	-8663-04-09 19:55 J	-1442638.79	-1442638.67	-1442638.54	0.0089	0.0023
Mercury	-8663-07-06 21:07 J	-1442550.74	-1442550.62	-1442550.49	0.0089	0.0031

Mercury	-8663-10-02 22:33 J	-1442462.68	-1442462.56	-1442462.44	0.0089	0.0037
Mercury	-8663-12-29 23:45 J	-1442374.62	-1442374.51	-1442374.39	0.0089	0.0044
Mercury	-8662-03-28 00:57 J	-1442286.56	-1442286.46	-1442286.34	0.0089	0.0052
Mercury	-8662-06-24 02:24 J	-1442198.50	-1442198.40	-1442198.30	0.0089	0.0058
Mercury	-8662-09-20 03:35 J	-1442110.43	-1442110.35	-1442110.26	0.0089	0.0066
Mercury	-8662-12-17 04:47 J	-1442022.36	-1442022.30	-1442022.22	0.0089	0.0073
Mercury	-8661-03-14 06:14 J	-1441934.29	-1441934.24	-1441934.18	0.0089	0.0080
Mercury	-8661-06-10 07:26 J	-1441846.21	-1441846.19	-1441846.15	0.0089	0.0087
Venus	-8656-10-13 12:00 J	-1439895.06	-1439895.00	-1439894.91	0.0089	0.0084
Venus	-8655-05-27 00:57 J	-1439669.57	-1439669.46	-1439669.32	0.0089	0.0074
Venus	-8654-01-07 13:55 J	-1439444.05	-1439443.92	-1439443.74	0.0089	0.0064
Venus	-8654-08-21 03:21 J	-1439218.53	-1439218.36	-1439218.18	0.0089	0.0053
Venus	-8653-04-02 16:04 J	-1438993.01	-1438992.83	-1438992.62	0.0089	0.0043
Venus	-8653-11-14 05:31 J	-1438767.48	-1438767.27	-1438767.07	0.0089	0.0032
Venus	-8652-06-27 18:28 J	-1438541.94	-1438541.73	-1438541.51	0.0089	0.0021
Venus	-8651-02-08 07:26 J	-1438316.40	-1438316.19	-1438315.97	0.0089	0.0011
Venus	-8651-09-21 20:24 J	-1438090.86	-1438090.65	-1438090.43	0.0089	0.0002
Venus	-8650-05-05 09:21 J	-1437865.32	-1437865.11	-1437864.89	0.0089	0.0010
Venus	-8650-12-16 22:19 J	-1437639.78	-1437639.57	-1437639.36	0.0089	0.0020
Venus	-8649-07-29 11:16 J	-1437414.23	-1437414.03	-1437413.82	0.0089	0.0031
Venus	-8648-03-11 23:45 J	-1437188.68	-1437188.51	-1437188.30	0.0089	0.0042
Venus	-8648-10-23 12:43 J	-1436963.13	-1436962.97	-1436962.78	0.0089	0.0052
Venus	-8647-06-06 01:40 J	-1436737.58	-1436737.43	-1436737.26	0.0089	0.0062
Venus	-8646-01-17 14:52 J	-1436512.01	-1436511.88	-1436511.76	0.0089	0.0072
Venus	-8646-08-31 03:07 J	-1436286.43	-1436286.37	-1436286.27	0.0089	0.0082
Moon	-8614-12-09 02:09 J	-1424498.58	-1424498.41	-1424498.23	0.0088	0.0062
Earth	-8614-12-09 02:52 J	-1424498.54	-1424498.38	-1424498.18	0.0088	0.0063 *
Moon	-8613-12-10 14:38 J	-1424131.14	-1424130.89	-1424130.64	0.0088	0.0030
Earth	-8613-12-10 14:24 J	-1424131.13	-1424130.90	-1424130.64	0.0088	0.0029 *
Earth	-8612-12-13 02:09 J	-1423763.67	-1423763.41	-1423763.15	0.0088	0.0006

Moon	-8612-12-13 02:52 J	-1423763.62	-1423763.38	-1423763.13	0.0088	0.0008	*
Moon	-8611-12-15 10:33 J	-1423396.28	-1423396.06	-1423395.81	0.0088	0.0040	
Earth	-8611-12-15 12:57 J	-1423396.17	-1423395.96	-1423395.71	0.0088	0.0042	*
Earth	-8610-12-18 00:14 J	-1423028.60	-1423028.49	-1423028.34	0.0088	0.0076	
Moon	-8610-12-18 03:07 J	-1423028.46	-1423028.37	-1423028.22	0.0088	0.0078	*
Mars	-8591-01-22 21:35 J	-1416417.65	-1416417.60	-1416417.50	0.0088	0.0085	
Mars	-8590-12-18 08:24 J	-1415723.45	-1415723.15	-1415722.84	0.0088	0.0006	
Mars	-8588-11-11 16:47 J	-1415028.95	-1415028.80	-1415028.60	0.0088	0.0072	
Mercury	-8584-11-10 07:55 J	-1413569.24	-1413569.17	-1413569.08	0.0088	0.0080	
Mercury	-8583-02-06 11:31 J	-1413481.12	-1413481.02	-1413480.89	0.0088	0.0070	
Mercury	-8583-05-05 15:07 J	-1413393.00	-1413392.87	-1413392.71	0.0088	0.0060	
Mercury	-8583-08-01 18:43 J	-1413304.86	-1413304.72	-1413304.54	0.0088	0.0050	
Mercury	-8583-10-28 22:33 J	-1413216.73	-1413216.56	-1413216.38	0.0088	0.0040	
Mercury	-8582-01-25 02:09 J	-1413128.59	-1413128.41	-1413128.21	0.0088	0.0030	
Mercury	-8582-04-23 05:45 J	-1413040.44	-1413040.26	-1413040.06	0.0088	0.0020	
Mercury	-8582-07-20 09:35 J	-1412952.29	-1412952.10	-1412951.90	0.0088	0.0010	
Mercury	-8582-10-16 13:26 J	-1412864.14	-1412863.94	-1412863.75	0.0088	0.0002	
Mercury	-8581-01-12 16:47 J	-1412775.99	-1412775.80	-1412775.59	0.0088	0.0011	
Mercury	-8581-04-09 20:24 J	-1412687.83	-1412687.65	-1412687.45	0.0088	0.0021	
Mercury	-8581-07-07 00:14 J	-1412599.67	-1412599.49	-1412599.30	0.0088	0.0031	
Mercury	-8581-10-03 03:50 J	-1412511.51	-1412511.34	-1412511.16	0.0088	0.0041	
Mercury	-8581-12-30 07:26 J	-1412423.34	-1412423.19	-1412423.02	0.0088	0.0051	
Mercury	-8580-03-28 11:16 J	-1412335.17	-1412335.03	-1412334.89	0.0088	0.0061	
Mercury	-8580-06-24 14:38 J	-1412246.99	-1412246.89	-1412246.76	0.0088	0.0072	
Mercury	-8580-09-20 18:14 J	-1412158.79	-1412158.74	-1412158.65	0.0088	0.0082	
Venus	-8573-07-10 11:16 J	-1409674.10	-1409674.03	-1409673.93	0.0088	0.0080	
Venus	-8572-02-21 00:14 J	-1409448.61	-1409448.49	-1409448.34	0.0088	0.0070	
Venus	-8572-10-04 13:12 J	-1409223.10	-1409222.95	-1409222.78	0.0088	0.0060	
Venus	-8571-05-18 02:09 J	-1408997.58	-1408997.41	-1408997.21	0.0088	0.0050	
Venus	-8571-12-29 15:21 J	-1408772.04	-1408771.86	-1408771.65	0.0088	0.0040	

Venus	-8570-08-12 04:19 J	-1408546.51	-1408546.32	-1408546.10	0.0088	0.0030
Venus	-8569-03-24 17:31 J	-1408320.98	-1408320.77	-1408320.55	0.0088	0.0020
Venus	-8569-11-05 06:28 J	-1408095.44	-1408095.23	-1408095.00	0.0088	0.0010
Venus	-8568-06-18 19:40 J	-1407869.90	-1407869.68	-1407869.46	0.0088	0.0001
Venus	-8567-01-30 08:38 J	-1407644.35	-1407644.14	-1407643.91	0.0088	0.0011
Venus	-8567-09-12 21:50 J	-1407418.80	-1407418.59	-1407418.37	0.0088	0.0021
Venus	-8566-04-26 10:47 J	-1407193.25	-1407193.05	-1407192.83	0.0088	0.0031
Venus	-8566-12-08 00:00 J	-1406967.69	-1406967.50	-1406967.30	0.0088	0.0041
Venus	-8565-07-20 12:43 J	-1406742.12	-1406741.97	-1406741.77	0.0088	0.0052
Venus	-8564-03-03 01:55 J	-1406516.55	-1406516.42	-1406516.24	0.0088	0.0062
Venus	-8564-10-14 15:07 J	-1406290.98	-1406290.87	-1406290.72	0.0088	0.0072
Venus	-8563-05-28 04:19 J	-1406065.38	-1406065.32	-1406065.22	0.0088	0.0082
Earth	-8531-06-12 18:28 J	-1394361.78	-1394361.73	-1394361.61	0.0089	0.0084
Moon	-8531-06-12 21:21 J	-1394361.69	-1394361.61	-1394361.49	0.0089	0.0082 *
Moon	-8530-06-15 06:14 J	-1393994.44	-1393994.24	-1393994.02	0.0089	0.0049
Earth	-8530-06-15 07:12 J	-1393994.41	-1393994.20	-1393993.98	0.0089	0.0048 *
Moon	-8529-06-16 18:43 J	-1393626.98	-1393626.72	-1393626.45	0.0089	0.0012
Earth	-8529-06-16 19:12 J	-1393626.96	-1393626.70	-1393626.45	0.0089	0.0013 *
Earth	-8528-06-19 06:57 J	-1393259.46	-1393259.21	-1393258.96	0.0089	0.0022
Moon	-8528-06-19 07:55 J	-1393259.40	-1393259.17	-1393258.91	0.0089	0.0021 *
Moon	-8527-06-21 15:35 J	-1392892.03	-1392891.85	-1392891.63	0.0089	0.0058
Earth	-8527-06-21 18:43 J	-1392891.91	-1392891.72	-1392891.52	0.0089	0.0057 *
Jupiter	-8512-10-08 11:16 J	-1387304.32	-1387304.03	-1387303.69	0.0089	0.0072
Mars	-8508-09-02 13:55 J	-1385879.18	-1385878.92	-1385878.62	0.0089	0.0045
Mars	-8506-07-29 21:07 J	-1385183.88	-1385183.62	-1385183.31	0.0089	0.0043
Mercury	-8502-02-25 22:47 J	-1383876.57	-1383876.55	-1383876.52	0.0089	0.0087
Mercury	-8502-05-25 00:00 J	-1383788.54	-1383788.50	-1383788.43	0.0089	0.0081
Mercury	-8502-08-21 01:12 J	-1383700.51	-1383700.45	-1383700.36	0.0089	0.0074
Mercury	-8502-11-17 02:38 J	-1383612.47	-1383612.39	-1383612.29	0.0089	0.0066
Mercury	-8501-02-13 03:50 J	-1383524.42	-1383524.34	-1383524.23	0.0089	0.0060

Mercury	-8501-05-11 05:31 J	-1383436.38	-1383436.27	-1383436.16	0.0089	0.0052
Mercury	-8501-08-07 06:43 J	-1383348.33	-1383348.22	-1383348.10	0.0089	0.0045
Mercury	-8501-11-03 08:09 J	-1383260.28	-1383260.16	-1383260.04	0.0089	0.0038
Mercury	-8500-01-30 09:21 J	-1383172.23	-1383172.11	-1383171.98	0.0089	0.0031
Mercury	-8500-04-28 10:47 J	-1383084.18	-1383084.05	-1383083.92	0.0089	0.0023
Mercury	-8500-07-25 12:00 J	-1382996.13	-1382996.00	-1382995.87	0.0089	0.0016
Mercury	-8500-10-21 13:26 J	-1382908.07	-1382907.94	-1382907.81	0.0089	0.0009
Mercury	-8499-01-17 14:38 J	-1382820.02	-1382819.89	-1382819.76	0.0089	0.0003
Mercury	-8499-04-15 16:04 J	-1382731.96	-1382731.83	-1382731.70	0.0089	0.0005
Mercury	-8499-07-12 17:16 J	-1382643.91	-1382643.78	-1382643.65	0.0089	0.0012
Mercury	-8499-10-08 18:28 J	-1382555.85	-1382555.73	-1382555.60	0.0089	0.0019
Mercury	-8498-01-04 19:55 J	-1382467.80	-1382467.67	-1382467.55	0.0089	0.0026
Mercury	-8498-04-02 21:07 J	-1382379.74	-1382379.62	-1382379.49	0.0089	0.0033
Mercury	-8498-06-29 22:19 J	-1382291.68	-1382291.57	-1382291.45	0.0089	0.0041
Mercury	-8498-09-25 23:45 J	-1382203.62	-1382203.51	-1382203.40	0.0089	0.0047
Mercury	-8498-12-23 00:57 J	-1382115.56	-1382115.46	-1382115.35	0.0089	0.0055
Mercury	-8497-03-20 02:09 J	-1382027.49	-1382027.41	-1382027.31	0.0089	0.0062
Mercury	-8497-06-16 03:35 J	-1381939.43	-1381939.35	-1381939.26	0.0089	0.0069
Mercury	-8497-09-12 04:47 J	-1381851.36	-1381851.30	-1381851.23	0.0089	0.0076
Mercury	-8497-12-09 06:00 J	-1381763.29	-1381763.25	-1381763.19	0.0089	0.0083
Venus	-8491-01-14 23:16 J	-1379900.54	-1379900.53	-1379900.49	0.0089	0.0089
Venus	-8491-08-28 12:00 J	-1379675.08	-1379675.00	-1379674.87	0.0089	0.0079
Venus	-8490-04-11 01:26 J	-1379449.58	-1379449.44	-1379449.29	0.0089	0.0068
Venus	-8490-11-22 14:09 J	-1379224.06	-1379223.91	-1379223.73	0.0089	0.0058
Venus	-8489-07-05 03:21 J	-1378998.53	-1378998.36	-1378998.16	0.0089	0.0047
Venus	-8488-02-15 16:33 J	-1378773.00	-1378772.81	-1378772.61	0.0089	0.0036
Venus	-8488-09-29 05:16 J	-1378547.47	-1378547.28	-1378547.06	0.0089	0.0027
Venus	-8487-05-12 18:28 J	-1378321.94	-1378321.73	-1378321.51	0.0089	0.0016
Venus	-8487-12-24 07:40 J	-1378096.40	-1378096.18	-1378095.96	0.0089	0.0005
Venus	-8486-08-06 20:38 J	-1377870.85	-1377870.64	-1377870.42	0.0089	0.0006

Venus	-8485-03-19 09:35 J	-1377645.31	-1377645.10	-1377644.88	0.0089	0.0016
Venus	-8485-10-30 22:33 J	-1377419.76	-1377419.56	-1377419.35	0.0089	0.0027
Venus	-8484-06-13 11:16 J	-1377194.21	-1377194.03	-1377193.82	0.0089	0.0038
Venus	-8483-01-25 00:28 J	-1376968.66	-1376968.48	-1376968.29	0.0089	0.0048
Venus	-8483-09-07 13:12 J	-1376743.10	-1376742.95	-1376742.77	0.0089	0.0058
Venus	-8482-04-21 02:09 J	-1376517.54	-1376517.41	-1376517.26	0.0089	0.0069
Venus	-8482-12-02 14:38 J	-1376291.97	-1376291.89	-1376291.77	0.0089	0.0079
Venus	-8481-07-15 03:50 J	-1376066.34	-1376066.34	-1376066.32	0.0089	0.0089
Moon	-8450-12-08 12:57 J	-1364598.08	-1364597.96	-1364597.80	0.0088	0.0076
Earth	-8450-12-08 13:12 J	-1364598.03	-1364597.95	-1364597.82	0.0088	0.0081 *
Earth	-8449-12-10 00:57 J	-1364230.67	-1364230.46	-1364230.23	0.0088	0.0046
Moon	-8449-12-10 02:24 J	-1364230.58	-1364230.40	-1364230.17	0.0088	0.0051 *
Moon	-8448-12-12 10:04 J	-1363863.34	-1363863.08	-1363862.81	0.0088	0.0007
Earth	-8448-12-12 12:28 J	-1363863.23	-1363862.98	-1363862.72	0.0088	0.0011 *
Earth	-8447-12-14 23:45 J	-1363495.75	-1363495.51	-1363495.25	0.0088	0.0024
Moon	-8447-12-15 03:07 J	-1363495.61	-1363495.37	-1363495.11	0.0088	0.0019 *
Moon	-8446-12-17 07:26 J	-1363128.35	-1363128.19	-1363127.99	0.0088	0.0063
Earth	-8446-12-17 10:47 J	-1363128.22	-1363128.05	-1363127.83	0.0088	0.0058 *
Mars	-8426-08-02 09:50 J	-1355960.35	-1355960.09	-1355959.82	0.0088	0.0044
Mars	-8424-06-26 18:43 J	-1355265.98	-1355265.72	-1355265.41	0.0088	0.0035
Mercury	-8419-05-11 03:07 J	-1353486.40	-1353486.37	-1353486.31	0.0088	0.0085
Mercury	-8419-08-07 06:43 J	-1353398.31	-1353398.22	-1353398.11	0.0088	0.0075
Mercury	-8419-11-03 10:33 J	-1353310.18	-1353310.06	-1353309.92	0.0088	0.0065
Mercury	-8418-01-30 14:09 J	-1353222.06	-1353221.91	-1353221.75	0.0088	0.0055
Mercury	-8418-04-28 17:45 J	-1353133.92	-1353133.76	-1353133.58	0.0088	0.0045
Mercury	-8418-07-25 21:21 J	-1353045.78	-1353045.61	-1353045.42	0.0088	0.0035
Mercury	-8418-10-22 01:12 J	-1352957.64	-1352957.45	-1352957.26	0.0088	0.0025
Mercury	-8417-01-18 04:47 J	-1352869.49	-1352869.30	-1352869.10	0.0088	0.0015
Mercury	-8417-04-15 08:38 J	-1352781.34	-1352781.14	-1352780.95	0.0088	0.0005
Mercury	-8417-07-12 12:14 J	-1352693.19	-1352692.99	-1352692.79	0.0088	0.0005

Mercury	-8417-10-08 15:35 J	-1352605.03	-1352604.85	-1352604.64	0.0088	0.0016
Mercury	-8416-01-04 19:12 J	-1352516.87	-1352516.70	-1352516.50	0.0088	0.0026
Mercury	-8416-04-02 23:02 J	-1352428.71	-1352428.54	-1352428.35	0.0088	0.0036
Mercury	-8416-06-30 02:38 J	-1352340.55	-1352340.39	-1352340.21	0.0088	0.0046
Mercury	-8416-09-26 06:14 J	-1352252.38	-1352252.24	-1352252.07	0.0088	0.0056
Mercury	-8416-12-23 10:04 J	-1352164.20	-1352164.08	-1352163.94	0.0088	0.0066
Mercury	-8415-03-21 13:55 J	-1352076.01	-1352075.92	-1352075.82	0.0088	0.0076
Mercury	-8415-06-17 17:02 J	-1351987.80	-1351987.79	-1351987.73	0.0088	0.0087
Venus	-8409-10-11 22:33 J	-1349679.59	-1349679.56	-1349679.48	0.0088	0.0085
Venus	-8408-05-25 11:31 J	-1349454.11	-1349454.02	-1349453.88	0.0088	0.0075
Venus	-8407-01-06 00:43 J	-1349228.59	-1349228.47	-1349228.29	0.0088	0.0065
Venus	-8407-08-19 14:24 J	-1349003.07	-1349002.90	-1349002.72	0.0088	0.0054
Venus	-8406-04-02 03:07 J	-1348777.55	-1348777.37	-1348777.17	0.0088	0.0044
Venus	-8406-11-13 16:04 J	-1348552.02	-1348551.83	-1348551.61	0.0088	0.0034
Venus	-8405-06-26 05:16 J	-1348326.49	-1348326.28	-1348326.06	0.0088	0.0024
Venus	-8404-02-06 18:28 J	-1348100.95	-1348100.73	-1348100.51	0.0088	0.0013
Venus	-8404-09-20 07:26 J	-1347875.41	-1347875.19	-1347874.96	0.0088	0.0004
Venus	-8403-05-03 20:38 J	-1347649.86	-1347649.64	-1347649.42	0.0088	0.0007
Venus	-8403-12-15 09:21 J	-1347424.31	-1347424.11	-1347423.88	0.0088	0.0018
Venus	-8402-07-28 22:33 J	-1347198.76	-1347198.56	-1347198.34	0.0088	0.0028
Venus	-8401-03-10 11:31 J	-1346973.21	-1346973.02	-1346972.81	0.0088	0.0038
Venus	-8401-10-22 00:43 J	-1346747.65	-1346747.47	-1346747.28	0.0088	0.0048
Venus	-8400-06-04 13:26 J	-1346522.08	-1346521.94	-1346521.75	0.0088	0.0059
Venus	-8399-01-16 02:52 J	-1346296.50	-1346296.38	-1346296.22	0.0088	0.0069
Venus	-8399-08-29 16:04 J	-1346070.91	-1346070.83	-1346070.72	0.0088	0.0079
Moon	-8366-06-14 16:47 J	-1334093.94	-1334093.80	-1334093.61	0.0089	0.0070
Earth	-8366-06-14 18:00 J	-1334093.91	-1334093.75	-1334093.56	0.0089	0.0065 *
Earth	-8365-06-16 06:00 J	-1333726.48	-1333726.25	-1333726.00	0.0089	0.0030
Moon	-8365-06-16 08:09 J	-1333726.39	-1333726.16	-1333725.91	0.0089	0.0026 *
Moon	-8364-06-18 15:21 J	-1333359.12	-1333358.86	-1333358.60	0.0089	0.0001

Earth	-8364-06-18 18:00 J	-1333359.01	-1333358.75	-1333358.49	0.0089	0.0005 *
Earth	-8363-06-21 05:31 J	-1332991.49	-1332991.27	-1332991.03	0.0089	0.0040
Moon	-8363-06-21 08:52 J	-1332991.33	-1332991.13	-1332990.89	0.0089	0.0045 *
Moon	-8362-06-23 14:09 J	-1332624.06	-1332623.91	-1332623.75	0.0089	0.0070
Earth	-8362-06-23 17:16 J	-1332623.90	-1332623.78	-1332623.62	0.0089	0.0075 *
Jupiter	-8346-12-13 21:21 J	-1326606.80	-1326606.61	-1326606.30	0.0089	0.0079
Mars	-8344-04-17 00:57 J	-1326116.52	-1326116.46	-1326116.34	0.0089	0.0086
Saturn	-8343-10-06 13:12 J	-1325579.29	-1325578.95	-1325578.51	0.0089	0.0071
Mars	-8342-03-13 06:14 J	-1325421.55	-1325421.24	-1325420.91	0.0089	0.0002
Mars	-8340-02-05 13:26 J	-1324725.97	-1324725.94	-1324725.84	0.0089	0.0088
Mercury	-8338-11-22 23:02 J	-1323705.58	-1323705.54	-1323705.50	0.0089	0.0084
Mercury	-8337-02-19 00:14 J	-1323617.55	-1323617.49	-1323617.42	0.0089	0.0077
Mercury	-8337-05-17 01:26 J	-1323529.51	-1323529.44	-1323529.35	0.0089	0.0070
Mercury	-8337-08-13 02:52 J	-1323441.47	-1323441.38	-1323441.28	0.0089	0.0062
Mercury	-8337-11-09 04:04 J	-1323353.42	-1323353.33	-1323353.22	0.0089	0.0056
Mercury	-8336-02-05 05:31 J	-1323265.38	-1323265.27	-1323265.16	0.0089	0.0048
Mercury	-8336-05-04 06:43 J	-1323177.33	-1323177.22	-1323177.10	0.0089	0.0041
Mercury	-8336-07-31 08:09 J	-1323089.28	-1323089.16	-1323089.04	0.0089	0.0034
Mercury	-8336-10-27 09:21 J	-1323001.23	-1323001.11	-1323000.98	0.0089	0.0027
Mercury	-8335-01-23 10:47 J	-1322913.18	-1322913.05	-1322912.92	0.0089	0.0020
Mercury	-8335-04-21 12:00 J	-1322825.12	-1322825.00	-1322824.86	0.0089	0.0013
Mercury	-8335-07-18 13:26 J	-1322737.07	-1322736.94	-1322736.81	0.0089	0.0006
Mercury	-8335-10-14 14:38 J	-1322649.02	-1322648.89	-1322648.75	0.0089	0.0003
Mercury	-8334-01-10 16:04 J	-1322560.96	-1322560.83	-1322560.70	0.0089	0.0009
Mercury	-8334-04-08 17:16 J	-1322472.91	-1322472.78	-1322472.65	0.0089	0.0016
Mercury	-8334-07-05 18:43 J	-1322384.85	-1322384.72	-1322384.60	0.0089	0.0023
Mercury	-8334-10-01 19:55 J	-1322296.79	-1322296.67	-1322296.55	0.0089	0.0030
Mercury	-8334-12-28 21:07 J	-1322208.73	-1322208.62	-1322208.50	0.0089	0.0037
Mercury	-8333-03-25 22:33 J	-1322120.67	-1322120.56	-1322120.45	0.0089	0.0044
Mercury	-8333-06-21 23:31 J	-1322032.61	-1322032.52	-1322032.40	0.0089	0.0052

Mercury	-8333-09-18 00:57 J	-1321944.55	-1321944.46	-1321944.35	0.0089	0.0058
Mercury	-8333-12-15 02:09 J	-1321856.49	-1321856.41	-1321856.31	0.0089	0.0065
Mercury	-8332-03-13 03:21 J	-1321768.42	-1321768.36	-1321768.27	0.0089	0.0073
Mercury	-8332-06-09 04:47 J	-1321680.35	-1321680.30	-1321680.23	0.0089	0.0079
Mercury	-8332-09-05 06:00 J	-1321592.27	-1321592.25	-1321592.20	0.0089	0.0086
Venus	-8327-11-29 23:45 J	-1319680.57	-1319680.51	-1319680.41	0.0089	0.0083
Venus	-8326-07-13 13:12 J	-1319455.07	-1319454.95	-1319454.82	0.0089	0.0073
Venus	-8325-02-24 01:55 J	-1319229.56	-1319229.42	-1319229.25	0.0089	0.0062
Venus	-8325-10-06 15:07 J	-1319004.04	-1319003.87	-1319003.68	0.0089	0.0052
Venus	-8324-05-20 03:50 J	-1318778.51	-1318778.34	-1318778.13	0.0089	0.0042
Venus	-8324-12-31 17:02 J	-1318552.98	-1318552.79	-1318552.57	0.0089	0.0031
Venus	-8323-08-14 06:14 J	-1318327.45	-1318327.24	-1318327.02	0.0089	0.0020
Venus	-8322-03-27 19:12 J	-1318101.91	-1318101.70	-1318101.48	0.0089	0.0009
Venus	-8322-11-08 08:09 J	-1317876.38	-1317876.16	-1317875.94	0.0089	0.0002
Venus	-8321-06-20 21:07 J	-1317650.83	-1317650.62	-1317650.40	0.0089	0.0012
Venus	-8320-02-01 10:04 J	-1317425.28	-1317425.08	-1317424.86	0.0089	0.0023
Venus	-8320-09-14 23:02 J	-1317199.74	-1317199.54	-1317199.33	0.0089	0.0034
Venus	-8319-04-28 11:45 J	-1316974.19	-1316974.01	-1316973.81	0.0089	0.0044
Venus	-8319-12-10 00:43 J	-1316748.63	-1316748.47	-1316748.29	0.0089	0.0055
Venus	-8318-07-23 13:40 J	-1316523.06	-1316522.93	-1316522.77	0.0089	0.0065
Venus	-8317-03-05 02:38 J	-1316297.49	-1316297.39	-1316297.26	0.0089	0.0076
Venus	-8317-10-16 15:07 J	-1316071.90	-1316071.87	-1316071.79	0.0089	0.0086
Moon	-8285-12-09 08:24 J	-1304330.31	-1304330.15	-1304329.94	0.0088	0.0063
Earth	-8285-12-09 11:45 J	-1304330.17	-1304330.01	-1304329.81	0.0088	0.0063 *
Earth	-8284-12-11 23:02 J	-1303962.77	-1303962.54	-1303962.28	0.0088	0.0028
Moon	-8284-12-12 02:24 J	-1303962.63	-1303962.40	-1303962.15	0.0088	0.0029 *
Moon	-8283-12-14 06:57 J	-1303595.47	-1303595.21	-1303594.96	0.0088	0.0008
Earth	-8283-12-14 10:33 J	-1303595.32	-1303595.06	-1303594.80	0.0088	0.0006 *
Earth	-8282-12-16 21:50 J	-1303227.81	-1303227.59	-1303227.36	0.0088	0.0041
Moon	-8282-12-17 00:57 J	-1303227.68	-1303227.46	-1303227.22	0.0088	0.0040 *

Moon	-8281-12-18 06:43 J	-1302860.33	-1302860.22	-1302860.08	0.0088	0.0077
Earth	-8281-12-18 09:35 J	-1302860.24	-1302860.10	-1302859.97	0.0088	0.0075 *
Mars	-8262-03-17 09:35 J	-1296197.19	-1296197.10	-1296196.98	0.0088	0.0083
Mars	-8260-02-08 22:04 J	-1295502.89	-1295502.58	-1295502.27	0.0088	0.0003
Mars	-8258-01-04 06:43 J	-1294808.34	-1294808.22	-1294808.03	0.0088	0.0076
Mercury	-8254-02-05 02:09 J	-1293315.48	-1293315.41	-1293315.32	0.0088	0.0080
Mercury	-8254-05-04 05:45 J	-1293227.36	-1293227.26	-1293227.13	0.0088	0.0070
Mercury	-8254-07-31 09:21 J	-1293139.24	-1293139.11	-1293138.95	0.0088	0.0060
Mercury	-8254-10-27 12:57 J	-1293051.11	-1293050.96	-1293050.78	0.0088	0.0050
Mercury	-8253-01-23 16:47 J	-1292962.97	-1292962.80	-1292962.62	0.0088	0.0040
Mercury	-8253-04-20 20:24 J	-1292874.83	-1292874.65	-1292874.45	0.0088	0.0030
Mercury	-8253-07-18 00:00 J	-1292786.68	-1292786.50	-1292786.30	0.0088	0.0020
Mercury	-8253-10-14 03:50 J	-1292698.53	-1292698.34	-1292698.14	0.0088	0.0010
Mercury	-8252-01-10 07:40 J	-1292610.38	-1292610.18	-1292609.99	0.0088	0.0002
Mercury	-8252-04-08 11:02 J	-1292522.23	-1292522.04	-1292521.83	0.0088	0.0011
Mercury	-8252-07-05 14:38 J	-1292434.07	-1292433.89	-1292433.69	0.0088	0.0021
Mercury	-8252-10-01 18:28 J	-1292345.91	-1292345.73	-1292345.54	0.0088	0.0031
Mercury	-8252-12-28 22:04 J	-1292257.75	-1292257.58	-1292257.40	0.0088	0.0041
Mercury	-8251-03-27 01:40 J	-1292169.58	-1292169.43	-1292169.26	0.0088	0.0051
Mercury	-8251-06-23 05:31 J	-1292081.41	-1292081.27	-1292081.12	0.0088	0.0061
Mercury	-8251-09-19 09:07 J	-1291993.23	-1291993.12	-1291993.00	0.0088	0.0071
Mercury	-8251-12-16 12:28 J	-1291905.03	-1291904.98	-1291904.89	0.0088	0.0082
Venus	-8244-08-26 23:45 J	-1289459.60	-1289459.51	-1289459.41	0.0088	0.0079
Venus	-8243-04-09 12:28 J	-1289234.10	-1289233.98	-1289233.83	0.0088	0.0069
Venus	-8243-11-21 01:26 J	-1289008.58	-1289008.44	-1289008.25	0.0088	0.0059
Venus	-8242-07-04 14:38 J	-1288783.06	-1288782.89	-1288782.69	0.0088	0.0049
Venus	-8241-02-15 03:50 J	-1288557.53	-1288557.34	-1288557.13	0.0088	0.0038
Venus	-8241-09-27 16:47 J	-1288332.00	-1288331.80	-1288331.58	0.0088	0.0028
Venus	-8240-05-11 06:14 J	-1288106.46	-1288106.24	-1288106.03	0.0088	0.0017
Venus	-8240-12-22 19:12 J	-1287880.91	-1287880.70	-1287880.47	0.0088	0.0008

Venus	-8239-08-05 08:24 J	-1287655.37	-1287655.15	-1287654.93	0.0088	0.0003
Venus	-8238-03-18 21:21 J	-1287429.83	-1287429.61	-1287429.39	0.0088	0.0014
Venus	-8238-10-30 10:19 J	-1287204.28	-1287204.07	-1287203.85	0.0088	0.0024
Venus	-8237-06-11 23:02 J	-1286978.72	-1286978.54	-1286978.31	0.0088	0.0036
Venus	-8236-01-23 12:28 J	-1286753.16	-1286752.98	-1286752.78	0.0088	0.0045
Venus	-8236-09-06 01:40 J	-1286527.59	-1286527.43	-1286527.25	0.0088	0.0055
Venus	-8235-04-19 14:24 J	-1286302.02	-1286301.90	-1286301.73	0.0088	0.0066
Venus	-8235-12-01 03:35 J	-1286076.44	-1286076.35	-1286076.22	0.0088	0.0076
Venus	-8234-07-14 16:47 J	-1285850.82	-1285850.80	-1285850.74	0.0088	0.0087
Earth	-8202-06-14 04:47 J	-1274193.38	-1274193.30	-1274193.18	0.0089	0.0082
Moon	-8202-06-14 06:43 J	-1274193.29	-1274193.22	-1274193.09	0.0089	0.0082 *
Moon	-8201-06-15 13:55 J	-1273826.14	-1273825.92	-1273825.70	0.0089	0.0046
Earth	-8201-06-15 17:02 J	-1273826.00	-1273825.79	-1273825.56	0.0089	0.0047 *
Earth	-8200-06-18 05:02 J	-1273458.54	-1273458.29	-1273458.03	0.0089	0.0012
Moon	-8200-06-18 08:38 J	-1273458.40	-1273458.14	-1273457.89	0.0089	0.0011 *
Moon	-8199-06-20 13:26 J	-1273091.18	-1273090.94	-1273090.69	0.0089	0.0022
Earth	-8199-06-20 17:02 J	-1273091.03	-1273090.79	-1273090.53	0.0089	0.0023 *
Earth	-8198-06-23 04:33 J	-1272723.49	-1272723.31	-1272723.10	0.0089	0.0058
Moon	-8198-06-23 07:40 J	-1272723.36	-1272723.18	-1272722.97	0.0089	0.0058 *
Mars	-8179-10-25 17:45 J	-1265659.03	-1265658.76	-1265658.47	0.0089	0.0041
Mars	-8177-09-19 23:16 J	-1264963.80	-1264963.53	-1264963.25	0.0089	0.0046
Mercury	-8173-05-22 21:21 J	-1263622.62	-1263622.61	-1263622.57	0.0089	0.0088
Mercury	-8173-08-18 22:47 J	-1263534.59	-1263534.55	-1263534.48	0.0089	0.0080
Mercury	-8173-11-15 00:00 J	-1263446.56	-1263446.50	-1263446.41	0.0089	0.0074
Mercury	-8172-02-11 01:26 J	-1263358.52	-1263358.44	-1263358.34	0.0089	0.0066
Mercury	-8172-05-10 03:07 J	-1263270.47	-1263270.37	-1263270.28	0.0089	0.0059
Mercury	-8172-08-06 04:19 J	-1263182.43	-1263182.32	-1263182.21	0.0089	0.0052
Mercury	-8172-11-02 05:31 J	-1263094.38	-1263094.27	-1263094.15	0.0089	0.0045
Mercury	-8171-01-29 06:57 J	-1263006.33	-1263006.21	-1263006.09	0.0089	0.0038
Mercury	-8171-04-27 08:09 J	-1262918.28	-1262918.16	-1262918.03	0.0089	0.0031

Mercury	-8171-07-24 09:35 J	-1262830.23	-1262830.10	-1262829.97	0.0089	0.0023
Mercury	-8171-10-20 10:47 J	-1262742.17	-1262742.05	-1262741.92	0.0089	0.0016
Mercury	-8170-01-16 12:14 J	-1262654.12	-1262653.99	-1262653.86	0.0089	0.0009
Mercury	-8170-04-14 13:26 J	-1262566.07	-1262565.94	-1262565.81	0.0089	0.0003
Mercury	-8170-07-11 14:52 J	-1262478.01	-1262477.88	-1262477.75	0.0089	0.0005
Mercury	-8170-10-07 16:04 J	-1262389.96	-1262389.83	-1262389.70	0.0089	0.0012
Mercury	-8169-01-03 17:16 J	-1262301.90	-1262301.78	-1262301.65	0.0089	0.0019
Mercury	-8169-03-31 18:28 J	-1262213.85	-1262213.73	-1262213.60	0.0089	0.0027
Mercury	-8169-06-27 19:55 J	-1262125.79	-1262125.67	-1262125.55	0.0089	0.0033
Mercury	-8169-09-23 21:07 J	-1262037.73	-1262037.62	-1262037.50	0.0089	0.0041
Mercury	-8169-12-20 22:19 J	-1261949.67	-1261949.57	-1261949.45	0.0089	0.0048
Mercury	-8168-03-18 23:45 J	-1261861.61	-1261861.51	-1261861.40	0.0089	0.0054
Mercury	-8168-06-15 00:57 J	-1261773.54	-1261773.46	-1261773.36	0.0089	0.0062
Mercury	-8168-09-11 02:24 J	-1261685.48	-1261685.40	-1261685.31	0.0089	0.0068
Mercury	-8168-12-08 03:35 J	-1261597.41	-1261597.35	-1261597.28	0.0089	0.0076
Mercury	-8167-03-06 04:47 J	-1261509.34	-1261509.30	-1261509.24	0.0089	0.0083
Venus	-8162-03-03 12:14 J	-1259686.03	-1259685.99	-1259685.95	0.0089	0.0088
Venus	-8162-10-15 00:43 J	-1259460.56	-1259460.47	-1259460.34	0.0089	0.0078
Venus	-8161-05-27 13:55 J	-1259235.05	-1259234.92	-1259234.76	0.0089	0.0067
Venus	-8160-01-08 02:52 J	-1259009.53	-1259009.38	-1259009.19	0.0089	0.0056
Venus	-8160-08-21 16:04 J	-1258784.01	-1258783.83	-1258783.63	0.0089	0.0045
Venus	-8159-04-04 05:02 J	-1258558.48	-1258558.29	-1258558.08	0.0089	0.0035
Venus	-8159-11-15 18:14 J	-1258332.95	-1258332.74	-1258332.53	0.0089	0.0024
Venus	-8158-06-29 07:12 J	-1258107.41	-1258107.20	-1258106.98	0.0089	0.0013
Venus	-8157-02-09 20:09 J	-1257881.87	-1257881.66	-1257881.44	0.0089	0.0003
Venus	-8157-09-22 09:07 J	-1257656.34	-1257656.12	-1257655.90	0.0089	0.0008
Venus	-8156-05-05 21:50 J	-1257430.79	-1257430.59	-1257430.37	0.0089	0.0020
Venus	-8156-12-17 10:47 J	-1257205.25	-1257205.05	-1257204.83	0.0089	0.0030
Venus	-8155-07-31 00:00 J	-1256979.69	-1256979.50	-1256979.30	0.0089	0.0041
Venus	-8154-03-13 12:43 J	-1256754.13	-1256753.97	-1256753.78	0.0089	0.0051

Venus	-8154-10-25 01:55 J	-1256528.58	-1256528.42	-1256528.26	0.0089	0.0062
Venus	-8153-06-06 14:38 J	-1256303.01	-1256302.89	-1256302.75	0.0089	0.0072
Venus	-8152-01-18 03:07 J	-1256077.42	-1256077.37	-1256077.26	0.0089	0.0084
Earth	-8121-12-08 23:45 J	-1244429.62	-1244429.51	-1244429.39	0.0088	0.0079
Moon	-8121-12-09 02:52 J	-1244429.49	-1244429.38	-1244429.21	0.0088	0.0075 *
Moon	-8120-12-11 07:12 J	-1244062.39	-1244062.20	-1244061.97	0.0088	0.0050
Earth	-8120-12-11 10:47 J	-1244062.27	-1244062.05	-1244061.82	0.0088	0.0045 *
Earth	-8119-12-13 22:04 J	-1243694.84	-1243694.58	-1243694.32	0.0088	0.0011
Moon	-8119-12-14 01:12 J	-1243694.71	-1243694.45	-1243694.18	0.0088	0.0007 *
Moon	-8118-12-16 07:12 J	-1243327.44	-1243327.20	-1243326.95	0.0088	0.0019
Earth	-8118-12-16 09:21 J	-1243327.35	-1243327.11	-1243326.86	0.0088	0.0024 *
Earth	-8117-12-17 20:09 J	-1242959.83	-1242959.66	-1242959.44	0.0088	0.0058
Moon	-8117-12-17 21:35 J	-1242959.79	-1242959.60	-1242959.41	0.0088	0.0062 *
Moon	-8116-12-20 07:55 J	-1242592.17	-1242592.17	-1242592.15	0.0088	0.0088
Mars	-8097-09-23 22:19 J	-1235739.83	-1235739.57	-1235739.28	0.0088	0.0041
Mars	-8095-08-19 10:19 J	-1235045.35	-1235045.07	-1235044.79	0.0088	0.0038
Mercury	-8090-08-05 21:21 J	-1233232.64	-1233232.61	-1233232.54	0.0088	0.0085
Mercury	-8090-11-02 01:12 J	-1233144.54	-1233144.45	-1233144.34	0.0088	0.0075
Mercury	-8089-01-29 04:47 J	-1233056.42	-1233056.30	-1233056.16	0.0088	0.0065
Mercury	-8089-04-26 08:24 J	-1232968.29	-1232968.15	-1232967.98	0.0088	0.0055
Mercury	-8089-07-23 12:00 J	-1232880.15	-1232880.00	-1232879.81	0.0088	0.0045
Mercury	-8089-10-19 15:50 J	-1232792.01	-1232791.84	-1232791.65	0.0088	0.0035
Mercury	-8088-01-15 19:26 J	-1232703.87	-1232703.69	-1232703.49	0.0088	0.0025
Mercury	-8088-04-13 23:16 J	-1232615.72	-1232615.53	-1232615.33	0.0088	0.0015
Mercury	-8088-07-11 02:52 J	-1232527.57	-1232527.38	-1232527.18	0.0088	0.0005
Mercury	-8088-10-07 06:43 J	-1232439.42	-1232439.22	-1232439.02	0.0088	0.0006
Mercury	-8087-01-03 10:19 J	-1232351.26	-1232351.07	-1232350.87	0.0088	0.0016
Mercury	-8087-04-01 13:55 J	-1232263.10	-1232262.92	-1232262.73	0.0088	0.0026
Mercury	-8087-06-28 17:31 J	-1232174.94	-1232174.77	-1232174.58	0.0088	0.0036
Mercury	-8087-09-24 21:21 J	-1232086.78	-1232086.61	-1232086.44	0.0088	0.0046

Mercury	-8087-12-22 00:43 J	-1231998.61	-1231998.47	-1231998.30	0.0088	0.0057
Mercury	-8086-03-20 04:19 J	-1231910.43	-1231910.32	-1231910.17	0.0088	0.0067
Mercury	-8086-06-16 07:55 J	-1231822.24	-1231822.17	-1231822.05	0.0088	0.0077
Mercury	-8086-09-12 11:45 J	-1231734.02	-1231734.01	-1231733.97	0.0088	0.0087
Venus	-8080-11-28 11:16 J	-1229465.07	-1229465.03	-1229464.94	0.0088	0.0084
Venus	-8079-07-12 00:57 J	-1229239.58	-1229239.46	-1229239.34	0.0088	0.0073
Venus	-8078-02-22 13:40 J	-1229014.07	-1229013.93	-1229013.77	0.0088	0.0063
Venus	-8078-10-06 02:24 J	-1228788.56	-1228788.40	-1228788.20	0.0088	0.0053
Venus	-8077-05-18 15:50 J	-1228563.03	-1228562.84	-1228562.64	0.0088	0.0042
Venus	-8077-12-30 04:47 J	-1228337.49	-1228337.30	-1228337.08	0.0088	0.0032
Venus	-8076-08-12 18:14 J	-1228111.95	-1228111.74	-1228111.52	0.0088	0.0021
Venus	-8075-03-26 07:12 J	-1227886.42	-1227886.20	-1227885.98	0.0088	0.0011
Venus	-8075-11-06 20:09 J	-1227660.88	-1227660.66	-1227660.43	0.0088	0.0002
Venus	-8074-06-20 09:21 J	-1227435.33	-1227435.11	-1227434.89	0.0088	0.0010
Venus	-8073-01-31 22:19 J	-1227209.78	-1227209.57	-1227209.34	0.0088	0.0021
Venus	-8073-09-13 11:31 J	-1226984.22	-1226984.02	-1226983.81	0.0088	0.0031
Venus	-8072-04-27 00:14 J	-1226758.67	-1226758.49	-1226758.28	0.0088	0.0042
Venus	-8072-12-08 13:26 J	-1226533.10	-1226532.94	-1226532.75	0.0088	0.0052
Venus	-8071-07-22 02:52 J	-1226307.53	-1226307.38	-1226307.22	0.0088	0.0063
Venus	-8070-03-04 15:35 J	-1226081.96	-1226081.85	-1226081.71	0.0088	0.0073
Venus	-8070-10-16 04:47 J	-1225856.36	-1225856.30	-1225856.22	0.0088	0.0084
Earth	-8037-06-15 03:50 J	-1213925.50	-1213925.34	-1213925.14	0.0089	0.0064
Moon	-8037-06-15 07:55 J	-1213925.33	-1213925.17	-1213925.00	0.0089	0.0068 *
Moon	-8036-06-17 13:12 J	-1213558.19	-1213557.95	-1213557.70	0.0089	0.0024
Earth	-8036-06-17 16:19 J	-1213558.05	-1213557.82	-1213557.57	0.0089	0.0029 *
Earth	-8035-06-20 04:19 J	-1213190.57	-1213190.32	-1213190.06	0.0089	0.0006
Moon	-8035-06-20 07:40 J	-1213190.45	-1213190.18	-1213189.92	0.0089	0.0002 *
Moon	-8034-06-22 14:09 J	-1212823.10	-1212822.91	-1212822.67	0.0089	0.0046
Earth	-8034-06-22 16:04 J	-1212823.05	-1212822.83	-1212822.59	0.0089	0.0041 *
Earth	-8033-06-24 04:04 J	-1212455.46	-1212455.33	-1212455.20	0.0089	0.0075

Moon	-8033-06-24 04:19 J	-1212455.46	-1212455.32	-1212455.14	0.0089	0.0071 *
Saturn	-8020-09-12 18:57 J	-1207627.06	-1207626.71	-1207626.21	0.0089	0.0068
Mars	-8015-06-09 06:14 J	-1205896.34	-1205896.24	-1205896.08	0.0089	0.0082
Mars	-8013-05-04 11:16 J	-1205201.35	-1205201.03	-1205200.71	0.0089	0.0005
Mercury	-8008-02-16 21:35 J	-1203451.63	-1203451.60	-1203451.54	0.0089	0.0084
Mercury	-8008-05-15 23:02 J	-1203363.60	-1203363.54	-1203363.46	0.0089	0.0076
Mercury	-8008-08-12 00:14 J	-1203275.56	-1203275.49	-1203275.39	0.0089	0.0070
Mercury	-8008-11-08 01:40 J	-1203187.51	-1203187.43	-1203187.33	0.0089	0.0062
Mercury	-8007-02-04 03:07 J	-1203099.47	-1203099.37	-1203099.26	0.0089	0.0055
Mercury	-8007-05-03 04:33 J	-1203011.42	-1203011.31	-1203011.20	0.0089	0.0048
Mercury	-8007-07-30 05:45 J	-1202923.37	-1202923.26	-1202923.14	0.0089	0.0041
Mercury	-8007-10-26 07:12 J	-1202835.32	-1202835.20	-1202835.08	0.0089	0.0034
Mercury	-8006-01-22 08:24 J	-1202747.27	-1202747.15	-1202747.02	0.0089	0.0027
Mercury	-8006-04-20 09:35 J	-1202659.22	-1202659.10	-1202658.97	0.0089	0.0020
Mercury	-8006-07-17 11:02 J	-1202571.17	-1202571.04	-1202570.91	0.0089	0.0012
Mercury	-8006-10-13 12:14 J	-1202483.12	-1202482.99	-1202482.85	0.0089	0.0006
Mercury	-8005-01-09 13:40 J	-1202395.06	-1202394.93	-1202394.80	0.0089	0.0002
Mercury	-8005-04-06 14:52 J	-1202307.01	-1202306.88	-1202306.75	0.0089	0.0009
Mercury	-8005-07-03 16:04 J	-1202218.95	-1202218.83	-1202218.69	0.0089	0.0017
Mercury	-8005-09-29 17:31 J	-1202130.90	-1202130.77	-1202130.64	0.0089	0.0023
Mercury	-8005-12-26 18:43 J	-1202042.84	-1202042.72	-1202042.59	0.0089	0.0030
Mercury	-8004-03-24 19:55 J	-1201954.78	-1201954.67	-1201954.54	0.0089	0.0038
Mercury	-8004-06-20 21:07 J	-1201866.72	-1201866.62	-1201866.49	0.0089	0.0045
Mercury	-8004-09-16 22:33 J	-1201778.66	-1201778.56	-1201778.45	0.0089	0.0051
Mercury	-8004-12-13 23:45 J	-1201690.60	-1201690.51	-1201690.40	0.0089	0.0059
Mercury	-8003-03-12 00:57 J	-1201602.53	-1201602.46	-1201602.36	0.0089	0.0066
Mercury	-8003-06-08 02:24 J	-1201514.47	-1201514.40	-1201514.32	0.0089	0.0072
Mercury	-8003-09-04 03:35 J	-1201426.40	-1201426.35	-1201426.28	0.0089	0.0080
Mercury	-8003-12-01 04:47 J	-1201338.31	-1201338.30	-1201338.25	0.0089	0.0087

8TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 8th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-7997-01-16 12:28 J		-1199466.04	-1199465.98	-1199465.87	0.0089	0.0083	
Venus	-7997-08-29 01:40 J		-1199240.54	-1199240.43	-1199240.28	0.0089	0.0072	
Venus	-7996-04-11 14:52 J		-1199015.03	-1199014.88	-1199014.71	0.0089	0.0061	
Venus	-7996-11-23 04:04 J		-1198789.51	-1198789.33	-1198789.15	0.0089	0.0050	
Venus	-7995-07-06 16:47 J		-1198563.98	-1198563.80	-1198563.59	0.0089	0.0040	
Venus	-7994-02-17 06:00 J		-1198338.45	-1198338.25	-1198338.04	0.0089	0.0028	
Venus	-7994-09-30 18:57 J		-1198112.92	-1198112.71	-1198112.49	0.0089	0.0017	
Venus	-7993-05-13 07:55 J		-1197887.38	-1197887.17	-1197886.95	0.0089	0.0007	
Venus	-7993-12-24 20:52 J		-1197661.84	-1197661.63	-1197661.41	0.0089	0.0005	
Venus	-7992-08-07 09:50 J		-1197436.30	-1197436.09	-1197435.87	0.0089	0.0015	
Venus	-7991-03-20 22:33 J		-1197210.75	-1197210.56	-1197210.34	0.0089	0.0027	
Venus	-7991-11-01 11:45 J		-1196985.21	-1196985.01	-1196984.81	0.0089	0.0037	
Venus	-7990-06-15 00:43 J		-1196759.65	-1196759.47	-1196759.28	0.0089	0.0048	
Venus	-7989-01-26 13:26 J		-1196534.09	-1196533.94	-1196533.76	0.0089	0.0059	
Venus	-7989-09-08 02:09 J		-1196308.52	-1196308.41	-1196308.25	0.0089	0.0070	
Venus	-7988-04-21 15:35 J		-1196082.95	-1196082.85	-1196082.76	0.0089	0.0080	
Earth	-7956-12-10 21:50 J		-1184161.75	-1184161.59	-1184161.38	0.0088	0.0062	
Moon	-7956-12-11 00:57 J		-1184161.65	-1184161.46	-1184161.27	0.0088	0.0061	*
Moon	-7955-12-13 07:26 J		-1183794.41	-1183794.19	-1183793.94	0.0088	0.0028	

Earth	-7955-12-13 09:21 J	-1183794.34	-1183794.11	-1183793.85	0.0088	0.0027 *
Earth	-7954-12-15 20:38 J	-1183426.89	-1183426.64	-1183426.38	0.0088	0.0007
Moon	-7954-12-15 21:21 J	-1183426.87	-1183426.61	-1183426.34	0.0088	0.0008 *
Earth	-7953-12-17 07:26 J	-1183059.39	-1183059.19	-1183058.94	0.0088	0.0042
Moon	-7953-12-17 08:52 J	-1183059.35	-1183059.13	-1183058.90	0.0088	0.0041 *
Moon	-7952-12-19 17:16 J	-1182691.90	-1182691.78	-1182691.63	0.0088	0.0076
Earth	-7952-12-19 18:28 J	-1182691.83	-1182691.73	-1182691.56	0.0088	0.0076 *
Jupiter	-7936-02-03 06:57 J	-1177167.27	-1177167.21	-1177167.03	0.0088	0.0086
Mars	-7933-05-08 23:02 J	-1175976.65	-1175976.54	-1175976.38	0.0088	0.0079
Mars	-7931-04-03 11:16 J	-1175282.33	-1175282.03	-1175281.71	0.0088	0.0002
Mars	-7929-02-26 21:21 J	-1174587.71	-1174587.61	-1174587.46	0.0088	0.0080
Mercury	-7925-05-01 20:24 J	-1173061.71	-1173061.65	-1173061.55	0.0088	0.0080
Mercury	-7925-07-29 00:00 J	-1172973.60	-1172973.50	-1172973.36	0.0088	0.0070
Mercury	-7925-10-25 03:50 J	-1172885.47	-1172885.34	-1172885.18	0.0088	0.0060
Mercury	-7924-01-21 07:26 J	-1172797.34	-1172797.19	-1172797.01	0.0088	0.0050
Mercury	-7924-04-19 11:02 J	-1172709.20	-1172709.04	-1172708.85	0.0088	0.0040
Mercury	-7924-07-16 14:52 J	-1172621.06	-1172620.88	-1172620.69	0.0088	0.0030
Mercury	-7924-10-12 18:28 J	-1172532.91	-1172532.73	-1172532.53	0.0088	0.0020
Mercury	-7923-01-08 22:19 J	-1172444.76	-1172444.57	-1172444.37	0.0088	0.0009
Mercury	-7923-04-07 01:55 J	-1172356.61	-1172356.42	-1172356.22	0.0088	0.0002
Mercury	-7923-07-04 05:31 J	-1172268.46	-1172268.27	-1172268.07	0.0088	0.0011
Mercury	-7923-09-30 09:21 J	-1172180.30	-1172180.11	-1172179.92	0.0088	0.0021
Mercury	-7923-12-27 12:57 J	-1172092.14	-1172091.96	-1172091.77	0.0088	0.0031
Mercury	-7922-03-25 16:33 J	-1172003.98	-1172003.81	-1172003.63	0.0088	0.0041
Mercury	-7922-06-21 20:24 J	-1171915.81	-1171915.65	-1171915.49	0.0088	0.0051
Mercury	-7922-09-17 23:31 J	-1171827.64	-1171827.52	-1171827.36	0.0088	0.0062
Mercury	-7922-12-15 03:21 J	-1171739.45	-1171739.36	-1171739.23	0.0088	0.0072
Mercury	-7921-03-12 06:57 J	-1171651.26	-1171651.21	-1171651.12	0.0088	0.0082
Venus	-7915-10-13 12:28 J	-1169245.07	-1169244.98	-1169244.87	0.0088	0.0078
Venus	-7914-05-27 01:12 J	-1169019.57	-1169019.45	-1169019.29	0.0088	0.0068

Venus	-7913-01-07 14:38 J	-1168794.05	-1168793.89	-1168793.71	0.0088	0.0057
Venus	-7913-08-20 03:35 J	-1168568.52	-1168568.35	-1168568.15	0.0088	0.0047
Venus	-7912-04-02 16:47 J	-1168343.00	-1168342.80	-1168342.59	0.0088	0.0036
Venus	-7912-11-14 05:45 J	-1168117.46	-1168117.26	-1168117.04	0.0088	0.0026
Venus	-7911-06-27 18:57 J	-1167891.92	-1167891.71	-1167891.49	0.0088	0.0015
Venus	-7910-02-08 08:09 J	-1167666.38	-1167666.16	-1167665.94	0.0088	0.0004
Venus	-7910-09-21 21:21 J	-1167440.83	-1167440.61	-1167440.39	0.0088	0.0006
Venus	-7909-05-04 10:19 J	-1167215.28	-1167215.07	-1167214.85	0.0088	0.0017
Venus	-7909-12-15 23:16 J	-1166989.73	-1166989.53	-1166989.31	0.0088	0.0028
Venus	-7908-07-29 12:28 J	-1166764.17	-1166763.98	-1166763.77	0.0088	0.0038
Venus	-7907-03-12 01:26 J	-1166538.61	-1166538.44	-1166538.24	0.0088	0.0049
Venus	-7907-10-23 14:52 J	-1166313.04	-1166312.88	-1166312.72	0.0088	0.0059
Venus	-7906-06-06 03:35 J	-1166087.47	-1166087.35	-1166087.20	0.0088	0.0070
Venus	-7905-01-17 17:16 J	-1165861.87	-1165861.78	-1165861.69	0.0088	0.0081
Moon	-7873-06-14 11:16 J	-1154025.10	-1154025.03	-1154024.90	0.0089	0.0081
Earth	-7873-06-14 14:52 J	-1154024.97	-1154024.88	-1154024.75	0.0089	0.0080 *
Earth	-7872-06-17 03:35 J	-1153657.57	-1153657.35	-1153657.13	0.0089	0.0045
Moon	-7872-06-17 05:31 J	-1153657.48	-1153657.27	-1153657.03	0.0089	0.0045 *
Moon	-7871-06-19 14:09 J	-1153290.16	-1153289.91	-1153289.66	0.0089	0.0010
Earth	-7871-06-19 15:35 J	-1153290.10	-1153289.85	-1153289.58	0.0089	0.0011 *
Earth	-7870-06-22 03:35 J	-1152922.59	-1152922.35	-1152922.09	0.0089	0.0024
Moon	-7870-06-22 03:50 J	-1152922.59	-1152922.34	-1152922.07	0.0089	0.0024 *
Earth	-7869-06-23 15:07 J	-1152555.04	-1152554.87	-1152554.65	0.0089	0.0059
Moon	-7869-06-23 16:47 J	-1152554.98	-1152554.80	-1152554.61	0.0089	0.0058 *
Mars	-7850-12-17 22:04 J	-1145438.86	-1145438.58	-1145438.28	0.0089	0.0037
Mars	-7848-11-12 03:07 J	-1144743.64	-1144743.37	-1144743.11	0.0089	0.0050
Mercury	-7844-08-17 20:38 J	-1143368.67	-1143368.64	-1143368.61	0.0089	0.0087
Mercury	-7844-11-13 21:50 J	-1143280.64	-1143280.59	-1143280.52	0.0089	0.0080
Mercury	-7843-02-09 23:16 J	-1143192.60	-1143192.53	-1143192.45	0.0089	0.0072
Mercury	-7843-05-09 00:28 J	-1143104.56	-1143104.48	-1143104.38	0.0089	0.0066

Mercury	-7843-08-05 01:40 J	-1143016.52	-1143016.43	-1143016.32	0.0089	0.0059
Mercury	-7843-11-01 03:07 J	-1142928.47	-1142928.37	-1142928.25	0.0089	0.0051
Mercury	-7842-01-28 04:19 J	-1142840.42	-1142840.32	-1142840.19	0.0089	0.0045
Mercury	-7842-04-26 05:45 J	-1142752.37	-1142752.26	-1142752.13	0.0089	0.0037
Mercury	-7842-07-23 07:12 J	-1142664.32	-1142664.20	-1142664.07	0.0089	0.0030
Mercury	-7842-10-19 08:38 J	-1142576.27	-1142576.14	-1142576.02	0.0089	0.0023
Mercury	-7841-01-15 09:50 J	-1142488.22	-1142488.09	-1142487.96	0.0089	0.0016
Mercury	-7841-04-12 11:02 J	-1142400.17	-1142400.04	-1142399.90	0.0089	0.0009
Mercury	-7841-07-09 12:28 J	-1142312.11	-1142311.98	-1142311.85	0.0089	0.0002
Mercury	-7841-10-05 13:40 J	-1142224.06	-1142223.93	-1142223.80	0.0089	0.0006
Mercury	-7840-01-01 15:07 J	-1142136.00	-1142135.87	-1142135.74	0.0089	0.0013
Mercury	-7840-03-30 16:19 J	-1142047.95	-1142047.82	-1142047.69	0.0089	0.0020
Mercury	-7840-06-26 17:45 J	-1141959.89	-1141959.76	-1141959.64	0.0089	0.0027
Mercury	-7840-09-22 18:57 J	-1141871.83	-1141871.71	-1141871.59	0.0089	0.0034
Mercury	-7840-12-19 19:55 J	-1141783.77	-1141783.67	-1141783.54	0.0089	0.0042
Mercury	-7839-03-17 21:35 J	-1141695.71	-1141695.60	-1141695.49	0.0089	0.0048
Mercury	-7839-06-13 22:47 J	-1141607.65	-1141607.55	-1141607.45	0.0089	0.0055
Mercury	-7839-09-09 23:45 J	-1141519.59	-1141519.51	-1141519.40	0.0089	0.0063
Mercury	-7839-12-07 01:26 J	-1141431.52	-1141431.44	-1141431.36	0.0089	0.0069
Mercury	-7838-03-05 02:24 J	-1141343.45	-1141343.40	-1141343.32	0.0089	0.0076
Mercury	-7838-06-01 04:04 J	-1141255.38	-1141255.33	-1141255.29	0.0089	0.0083
Venus	-7833-04-19 00:14 J	-1139471.51	-1139471.49	-1139471.41	0.0089	0.0088
Venus	-7833-11-30 13:26 J	-1139246.03	-1139245.94	-1139245.80	0.0089	0.0077
Venus	-7832-07-14 02:52 J	-1139020.51	-1139020.38	-1139020.22	0.0089	0.0065
Venus	-7831-02-24 15:50 J	-1138794.99	-1138794.84	-1138794.65	0.0089	0.0055
Venus	-7831-10-08 05:02 J	-1138569.47	-1138569.29	-1138569.09	0.0089	0.0043
Venus	-7830-05-21 18:00 J	-1138343.94	-1138343.75	-1138343.54	0.0089	0.0033
Venus	-7829-01-02 07:12 J	-1138118.41	-1138118.20	-1138117.99	0.0089	0.0021
Venus	-7829-08-14 20:09 J	-1137892.87	-1137892.66	-1137892.44	0.0089	0.0011
Venus	-7828-03-28 09:07 J	-1137667.34	-1137667.12	-1137666.90	0.0089	0.0001

Venus	-7828-11-08 22:04 J	-1137441.80	-1137441.58	-1137441.36	0.0089	0.0011
Venus	-7827-06-22 11:02 J	-1137216.25	-1137216.04	-1137215.83	0.0089	0.0022
Venus	-7826-02-02 23:45 J	-1136990.70	-1136990.51	-1136990.30	0.0089	0.0033
Venus	-7826-09-16 12:28 J	-1136765.15	-1136764.98	-1136764.77	0.0089	0.0045
Venus	-7825-04-29 01:12 J	-1136539.60	-1136539.45	-1136539.26	0.0089	0.0056
Venus	-7825-12-10 14:38 J	-1136314.04	-1136313.89	-1136313.74	0.0089	0.0066
Venus	-7824-07-24 03:21 J	-1136088.46	-1136088.36	-1136088.24	0.0089	0.0077
Venus	-7823-03-06 16:04 J	-1135862.85	-1135862.83	-1135862.77	0.0089	0.0088
Moon	-7792-12-10 09:07 J	-1124261.25	-1124261.12	-1124260.97	0.0088	0.0073
Earth	-7792-12-10 09:50 J	-1124261.19	-1124261.09	-1124260.94	0.0088	0.0078 *
Earth	-7791-12-12 21:07 J	-1123893.82	-1123893.62	-1123893.38	0.0088	0.0044
Moon	-7791-12-12 21:21 J	-1123893.82	-1123893.61	-1123893.37	0.0088	0.0047 *
Earth	-7790-12-15 08:38 J	-1123526.39	-1123526.14	-1123525.88	0.0088	0.0010
Moon	-7790-12-15 09:21 J	-1123526.35	-1123526.11	-1123525.85	0.0088	0.0006 *
Moon	-7789-12-16 17:02 J	-1123159.04	-1123158.79	-1123158.53	0.0088	0.0020
Earth	-7789-12-16 19:26 J	-1123158.93	-1123158.69	-1123158.43	0.0088	0.0025 *
Earth	-7788-12-19 06:14 J	-1122791.41	-1122791.24	-1122791.02	0.0088	0.0059
Moon	-7788-12-19 09:21 J	-1122791.27	-1122791.11	-1122790.91	0.0088	0.0063 *
Moon	-7787-12-21 13:55 J	-1122423.93	-1122423.92	-1122423.85	0.0088	0.0088
Jupiter	-7770-04-04 15:21 J	-1116476.20	-1116475.86	-1116475.41	0.0088	0.0062
Mars	-7768-11-16 12:43 J	-1115519.24	-1115518.97	-1115518.68	0.0088	0.0037
Mars	-7766-10-12 00:14 J	-1114824.74	-1114824.49	-1114824.20	0.0088	0.0043
Mercury	-7761-10-30 16:19 J	-1112978.87	-1112978.82	-1112978.76	0.0088	0.0084
Mercury	-7760-01-26 19:55 J	-1112890.77	-1112890.67	-1112890.56	0.0088	0.0074
Mercury	-7760-04-24 23:31 J	-1112802.65	-1112802.52	-1112802.38	0.0088	0.0064
Mercury	-7760-07-22 03:21 J	-1112714.52	-1112714.36	-1112714.21	0.0088	0.0054
Mercury	-7760-10-18 06:57 J	-1112626.38	-1112626.21	-1112626.04	0.0088	0.0044
Mercury	-7759-01-14 10:33 J	-1112538.24	-1112538.06	-1112537.88	0.0088	0.0034
Mercury	-7759-04-12 14:09 J	-1112450.10	-1112449.91	-1112449.72	0.0088	0.0024
Mercury	-7759-07-09 17:45 J	-1112361.95	-1112361.76	-1112361.56	0.0088	0.0014

Mercury	-7759-10-05 21:21 J	-1112273.80	-1112273.61	-1112273.41	0.0088	0.0005
Mercury	-7758-01-02 01:12 J	-1112185.65	-1112185.45	-1112185.25	0.0088	0.0006
Mercury	-7758-03-31 04:47 J	-1112097.49	-1112097.30	-1112097.11	0.0088	0.0016
Mercury	-7758-06-27 08:24 J	-1112009.33	-1112009.15	-1112008.96	0.0088	0.0026
Mercury	-7758-09-23 12:14 J	-1111921.17	-1111920.99	-1111920.81	0.0088	0.0036
Mercury	-7758-12-20 15:21 J	-1111833.01	-1111832.86	-1111832.67	0.0088	0.0047
Mercury	-7757-03-17 19:12 J	-1111744.84	-1111744.70	-1111744.54	0.0088	0.0057
Mercury	-7757-06-13 22:47 J	-1111656.66	-1111656.55	-1111656.41	0.0088	0.0067
Mercury	-7757-09-10 02:38 J	-1111568.47	-1111568.39	-1111568.29	0.0088	0.0077
Mercury	-7757-12-07 06:14 J	-1111480.25	-1111480.24	-1111480.20	0.0088	0.0087
Venus	-7750-01-15 00:14 J	-1109250.53	-1109250.49	-1109250.39	0.0088	0.0084
Venus	-7750-08-28 13:40 J	-1109025.05	-1109024.93	-1109024.80	0.0088	0.0072
Venus	-7749-04-10 02:24 J	-1108799.54	-1108799.40	-1108799.23	0.0088	0.0062
Venus	-7749-11-21 15:35 J	-1108574.02	-1108573.85	-1108573.66	0.0088	0.0051
Venus	-7748-07-05 04:47 J	-1108348.50	-1108348.30	-1108348.10	0.0088	0.0040
Venus	-7747-02-15 17:31 J	-1108122.97	-1108122.77	-1108122.55	0.0088	0.0030
Venus	-7747-09-29 06:43 J	-1107897.43	-1107897.22	-1107897.00	0.0088	0.0019
Venus	-7746-05-12 19:40 J	-1107671.89	-1107671.68	-1107671.45	0.0088	0.0009
Venus	-7746-12-24 09:07 J	-1107446.34	-1107446.12	-1107445.90	0.0088	0.0003
Venus	-7745-08-05 22:04 J	-1107220.80	-1107220.58	-1107220.36	0.0088	0.0013
Venus	-7744-03-19 11:02 J	-1106995.25	-1106995.04	-1106994.82	0.0088	0.0024
Venus	-7744-10-31 00:14 J	-1106769.69	-1106769.49	-1106769.28	0.0088	0.0035
Venus	-7743-06-13 13:12 J	-1106544.13	-1106543.95	-1106543.75	0.0088	0.0045
Venus	-7742-01-25 02:24 J	-1106318.56	-1106318.40	-1106318.22	0.0088	0.0056
Venus	-7742-09-07 15:21 J	-1106092.98	-1106092.86	-1106092.70	0.0088	0.0067
Venus	-7741-04-20 04:33 J	-1105867.40	-1105867.31	-1105867.19	0.0088	0.0078
Venus	-7741-12-01 17:45 J	-1105641.76	-1105641.76	-1105641.74	0.0088	0.0088
Moon	-7708-06-16 12:57 J	-1093757.10	-1093756.96	-1093756.77	0.0089	0.0067
Earth	-7708-06-16 13:55 J	-1093757.09	-1093756.92	-1093756.72	0.0089	0.0062 *
Moon	-7707-06-19 01:40 J	-1093389.67	-1093389.43	-1093389.15	0.0089	0.0024

Earth	-7707-06-19 01:55 J	-1093389.65	-1093389.42	-1093389.16	0.0089	0.0028 *
Earth	-7706-06-21 14:24 J	-1093022.16	-1093021.90	-1093021.64	0.0089	0.0007
Moon	-7706-06-21 15:35 J	-1093022.10	-1093021.85	-1093021.60	0.0089	0.0003 *
Moon	-7705-06-22 23:31 J	-1092654.73	-1092654.52	-1092654.28	0.0089	0.0046
Earth	-7705-06-23 02:38 J	-1092654.62	-1092654.39	-1092654.16	0.0089	0.0041 *
Earth	-7704-06-25 14:09 J	-1092287.02	-1092286.91	-1092286.76	0.0089	0.0076
Moon	-7704-06-25 16:47 J	-1092286.92	-1092286.80	-1092286.62	0.0089	0.0072 *
Saturn	-7697-12-22 22:33 J	-1089549.95	-1089549.56	-1089549.03	0.0089	0.0064
Mars	-7686-08-01 12:28 J	-1085676.10	-1085675.98	-1085675.78	0.0089	0.0078
Mars	-7684-06-26 15:07 J	-1084981.19	-1084980.87	-1084980.55	0.0089	0.0009
Mercury	-7679-05-14 20:24 J	-1083197.68	-1083197.65	-1083197.59	0.0089	0.0084
Mercury	-7679-08-10 21:50 J	-1083109.65	-1083109.59	-1083109.51	0.0089	0.0076
Mercury	-7679-11-06 23:31 J	-1083021.61	-1083021.52	-1083021.44	0.0089	0.0069
Mercury	-7678-02-03 00:43 J	-1082933.56	-1082933.47	-1082933.37	0.0089	0.0062
Mercury	-7678-05-02 01:55 J	-1082845.52	-1082845.42	-1082845.31	0.0089	0.0055
Mercury	-7678-07-29 03:21 J	-1082757.47	-1082757.36	-1082757.25	0.0089	0.0047
Mercury	-7678-10-25 04:33 J	-1082669.42	-1082669.31	-1082669.19	0.0089	0.0041
Mercury	-7677-01-21 06:00 J	-1082581.37	-1082581.25	-1082581.13	0.0089	0.0033
Mercury	-7677-04-18 07:12 J	-1082493.32	-1082493.20	-1082493.07	0.0089	0.0027
Mercury	-7677-07-15 08:38 J	-1082405.27	-1082405.14	-1082405.01	0.0089	0.0019
Mercury	-7677-10-11 09:50 J	-1082317.22	-1082317.09	-1082316.95	0.0089	0.0012
Mercury	-7676-01-07 11:16 J	-1082229.16	-1082229.03	-1082228.90	0.0089	0.0005
Mercury	-7676-04-05 12:28 J	-1082141.11	-1082140.98	-1082140.84	0.0089	0.0003
Mercury	-7676-07-02 13:55 J	-1082053.05	-1082052.92	-1082052.79	0.0089	0.0009
Mercury	-7676-09-28 15:07 J	-1081965.00	-1081964.87	-1081964.74	0.0089	0.0016
Mercury	-7676-12-25 16:19 J	-1081876.94	-1081876.82	-1081876.69	0.0089	0.0024
Mercury	-7675-03-23 17:45 J	-1081788.88	-1081788.76	-1081788.64	0.0089	0.0030
Mercury	-7675-06-19 18:57 J	-1081700.82	-1081700.71	-1081700.59	0.0089	0.0038
Mercury	-7675-09-15 20:09 J	-1081612.76	-1081612.66	-1081612.54	0.0089	0.0045
Mercury	-7675-12-12 21:35 J	-1081524.70	-1081524.60	-1081524.49	0.0089	0.0051

Mercury	-7674-03-10 22:47 J	-1081436.64	-1081436.55	-1081436.45	0.0089	0.0059
Mercury	-7674-06-07 00:00 J	-1081348.58	-1081348.50	-1081348.40	0.0089	0.0066
Mercury	-7674-09-03 01:26 J	-1081260.51	-1081260.44	-1081260.36	0.0089	0.0073
Mercury	-7674-11-30 02:38 J	-1081172.44	-1081172.39	-1081172.32	0.0089	0.0080
Mercury	-7673-02-26 03:50 J	-1081084.36	-1081084.34	-1081084.30	0.0089	0.0087
Venus	-7668-03-04 00:57 J	-1079251.52	-1079251.46	-1079251.34	0.0089	0.0082
Venus	-7668-10-15 14:09 J	-1079026.02	-1079025.91	-1079025.76	0.0089	0.0071
Venus	-7667-05-29 03:21 J	-1078800.50	-1078800.36	-1078800.18	0.0089	0.0060
Venus	-7666-01-09 16:33 J	-1078574.98	-1078574.81	-1078574.61	0.0089	0.0048
Venus	-7666-08-23 05:31 J	-1078349.45	-1078349.27	-1078349.05	0.0089	0.0038
Venus	-7665-04-04 18:43 J	-1078123.92	-1078123.72	-1078123.50	0.0089	0.0026
Venus	-7665-11-16 07:40 J	-1077898.38	-1077898.18	-1077897.95	0.0089	0.0016
Venus	-7664-06-29 20:52 J	-1077672.84	-1077672.63	-1077672.40	0.0089	0.0005
Venus	-7663-02-10 10:04 J	-1077447.30	-1077447.08	-1077446.86	0.0089	0.0007
Venus	-7663-09-23 22:47 J	-1077221.76	-1077221.55	-1077221.33	0.0089	0.0018
Venus	-7662-05-07 11:31 J	-1076996.21	-1076996.02	-1076995.80	0.0089	0.0030
Venus	-7662-12-19 00:28 J	-1076770.66	-1076770.48	-1076770.28	0.0089	0.0041
Venus	-7661-07-31 13:26 J	-1076545.10	-1076544.94	-1076544.75	0.0089	0.0052
Venus	-7660-03-14 02:09 J	-1076319.55	-1076319.41	-1076319.24	0.0089	0.0063
Venus	-7660-10-25 15:07 J	-1076093.98	-1076093.87	-1076093.73	0.0089	0.0073
Venus	-7659-06-08 03:50 J	-1075868.39	-1075868.34	-1075868.25	0.0089	0.0084
Earth	-7627-12-12 08:38 J	-1063993.32	-1063993.14	-1063992.94	0.0088	0.0060
Moon	-7627-12-12 10:19 J	-1063993.24	-1063993.07	-1063992.88	0.0088	0.0061 *
Moon	-7626-12-14 17:16 J	-1063626.02	-1063625.78	-1063625.51	0.0088	0.0026
Earth	-7626-12-14 19:40 J	-1063625.91	-1063625.68	-1063625.42	0.0088	0.0026 *
Earth	-7625-12-16 06:57 J	-1063258.46	-1063258.21	-1063257.95	0.0088	0.0008
Moon	-7625-12-16 10:33 J	-1063258.31	-1063258.06	-1063257.81	0.0088	0.0008 *
Moon	-7624-12-18 14:52 J	-1062891.11	-1062890.88	-1062890.65	0.0088	0.0042
Earth	-7624-12-18 18:00 J	-1062890.96	-1062890.75	-1062890.51	0.0088	0.0042 *
Earth	-7623-12-21 04:47 J	-1062523.41	-1062523.30	-1062523.14	0.0088	0.0076

Moon	-7623-12-21 08:24 J	-1062523.25	-1062523.15	-1062522.99	0.0088	0.0076 *
Mars	-7604-07-01 09:35 J	-1055756.22	-1055756.10	-1055755.91	0.0088	0.0076
Mars	-7602-05-27 00:28 J	-1055061.78	-1055061.48	-1055061.16	0.0088	0.0005
Mars	-7600-04-20 11:02 J	-1054367.08	-1054367.04	-1054366.92	0.0088	0.0085
Mercury	-7596-07-27 15:21 J	-1052807.94	-1052807.86	-1052807.78	0.0088	0.0079
Mercury	-7596-10-23 18:28 J	-1052719.83	-1052719.73	-1052719.59	0.0088	0.0070
Mercury	-7595-01-19 22:04 J	-1052631.70	-1052631.58	-1052631.41	0.0088	0.0060
Mercury	-7595-04-18 01:55 J	-1052543.57	-1052543.42	-1052543.25	0.0088	0.0050
Mercury	-7595-07-15 05:31 J	-1052455.43	-1052455.27	-1052455.08	0.0088	0.0040
Mercury	-7595-10-11 09:07 J	-1052367.29	-1052367.12	-1052366.92	0.0088	0.0030
Mercury	-7594-01-07 12:57 J	-1052279.15	-1052278.96	-1052278.76	0.0088	0.0020
Mercury	-7594-04-05 16:47 J	-1052191.00	-1052190.80	-1052190.61	0.0088	0.0009
Mercury	-7594-07-02 20:24 J	-1052102.85	-1052102.65	-1052102.45	0.0088	0.0001
Mercury	-7594-09-29 00:00 J	-1052014.69	-1052014.50	-1052014.30	0.0088	0.0011
Mercury	-7594-12-26 03:35 J	-1051926.54	-1051926.35	-1051926.15	0.0088	0.0021
Mercury	-7593-03-23 07:12 J	-1051838.38	-1051838.20	-1051838.01	0.0088	0.0031
Mercury	-7593-06-19 11:02 J	-1051750.21	-1051750.04	-1051749.87	0.0088	0.0041
Mercury	-7593-09-15 14:38 J	-1051662.05	-1051661.89	-1051661.73	0.0088	0.0051
Mercury	-7593-12-12 18:00 J	-1051573.87	-1051573.75	-1051573.59	0.0088	0.0062
Mercury	-7592-03-10 21:35 J	-1051485.69	-1051485.60	-1051485.47	0.0088	0.0072
Mercury	-7592-06-07 01:26 J	-1051397.50	-1051397.44	-1051397.36	0.0088	0.0082
Venus	-7586-04-18 12:43 J	-1049255.98	-1049255.97	-1049255.94	0.0088	0.0087
Venus	-7586-11-30 01:26 J	-1049030.53	-1049030.44	-1049030.32	0.0088	0.0077
Venus	-7585-07-12 14:38 J	-1048805.03	-1048804.89	-1048804.74	0.0088	0.0066
Venus	-7584-02-23 03:50 J	-1048579.52	-1048579.34	-1048579.17	0.0088	0.0055
Venus	-7584-10-06 16:19 J	-1048354.00	-1048353.82	-1048353.62	0.0088	0.0045
Venus	-7583-05-20 05:31 J	-1048128.47	-1048128.27	-1048128.06	0.0088	0.0034
Venus	-7583-12-31 18:43 J	-1047902.93	-1047902.72	-1047902.50	0.0088	0.0023
Venus	-7582-08-14 07:40 J	-1047677.39	-1047677.18	-1047676.95	0.0088	0.0013
Venus	-7581-03-26 20:52 J	-1047451.85	-1047451.63	-1047451.41	0.0088	0.0002

Venus	-7581-11-07 09:50 J	-1047226.31	-1047226.09	-1047225.87	0.0088	0.0009
Venus	-7580-06-20 22:47 J	-1047000.76	-1047000.55	-1047000.33	0.0088	0.0020
Venus	-7579-02-01 11:45 J	-1046775.20	-1046775.01	-1046774.79	0.0088	0.0031
Venus	-7579-09-15 00:43 J	-1046549.64	-1046549.47	-1046549.25	0.0088	0.0042
Venus	-7578-04-28 14:09 J	-1046324.08	-1046323.91	-1046323.72	0.0088	0.0053
Venus	-7578-12-10 03:07 J	-1046098.51	-1046098.37	-1046098.20	0.0088	0.0064
Venus	-7577-07-22 16:19 J	-1045872.92	-1045872.82	-1045872.69	0.0088	0.0074
Venus	-7576-03-05 05:16 J	-1045647.31	-1045647.28	-1045647.20	0.0088	0.0085
Moon	-7544-06-15 23:16 J	-1033856.62	-1033856.53	-1033856.39	0.0089	0.0080
Earth	-7544-06-16 00:14 J	-1033856.58	-1033856.49	-1033856.34	0.0089	0.0079 *
Earth	-7543-06-18 12:57 J	-1033489.18	-1033488.96	-1033488.73	0.0089	0.0044
Moon	-7543-06-18 14:38 J	-1033489.10	-1033488.89	-1033488.66	0.0089	0.0043 *
Moon	-7542-06-20 22:19 J	-1033121.82	-1033121.57	-1033121.30	0.0089	0.0011
Earth	-7542-06-21 01:12 J	-1033121.70	-1033121.45	-1033121.19	0.0089	0.0010 *
Earth	-7541-06-22 12:57 J	-1032754.19	-1032753.96	-1032753.70	0.0089	0.0025
Moon	-7541-06-22 16:33 J	-1032754.04	-1032753.81	-1032753.55	0.0089	0.0026 *
Moon	-7540-06-24 21:36 J	-1032386.77	-1032386.60	-1032386.39	0.0089	0.0058
Earth	-7540-06-25 00:57 J	-1032386.63	-1032386.46	-1032386.24	0.0089	0.0059 *
Mars	-7520-02-08 03:36 J	-1025218.63	-1025218.35	-1025218.04	0.0089	0.0033
Mars	-7518-01-04 06:14 J	-1024523.49	-1024523.24	-1024522.98	0.0089	0.0054
Mercury	-7515-11-12 19:26 J	-1023114.72	-1023114.69	-1023114.66	0.0089	0.0087
Mercury	-7514-02-08 20:38 J	-1023026.69	-1023026.64	-1023026.57	0.0089	0.0080
Mercury	-7514-05-07 22:04 J	-1022938.65	-1022938.58	-1022938.50	0.0089	0.0072
Mercury	-7514-08-03 23:16 J	-1022850.61	-1022850.53	-1022850.43	0.0089	0.0066
Mercury	-7514-10-31 00:28 J	-1022762.56	-1022762.48	-1022762.37	0.0089	0.0059
Mercury	-7513-01-27 01:55 J	-1022674.52	-1022674.42	-1022674.30	0.0089	0.0051
Mercury	-7513-04-24 03:21 J	-1022586.47	-1022586.36	-1022586.24	0.0089	0.0044
Mercury	-7513-07-21 04:47 J	-1022498.42	-1022498.30	-1022498.18	0.0089	0.0037
Mercury	-7513-10-17 06:00 J	-1022410.37	-1022410.25	-1022410.12	0.0089	0.0030
Mercury	-7512-01-13 07:26 J	-1022322.32	-1022322.19	-1022322.06	0.0089	0.0023

Mercury	-7512-04-11 08:38 J	-1022234.27	-1022234.14	-1022234.01	0.0089	0.0016
Mercury	-7512-07-08 10:04 J	-1022146.21	-1022146.08	-1022145.95	0.0089	0.0008
Mercury	-7512-10-04 11:16 J	-1022058.16	-1022058.03	-1022057.90	0.0089	0.0002
Mercury	-7512-12-31 12:43 J	-1021970.10	-1021969.97	-1021969.84	0.0089	0.0006
Mercury	-7511-03-29 13:55 J	-1021882.05	-1021881.92	-1021881.79	0.0089	0.0013
Mercury	-7511-06-25 15:07 J	-1021793.99	-1021793.87	-1021793.74	0.0089	0.0020
Mercury	-7511-09-21 16:19 J	-1021705.93	-1021705.82	-1021705.68	0.0089	0.0028
Mercury	-7511-12-18 17:45 J	-1021617.88	-1021617.76	-1021617.63	0.0089	0.0034
Mercury	-7510-03-16 18:57 J	-1021529.82	-1021529.71	-1021529.59	0.0089	0.0041
Mercury	-7510-06-12 20:09 J	-1021441.76	-1021441.66	-1021441.54	0.0089	0.0049
Mercury	-7510-09-08 21:36 J	-1021353.70	-1021353.60	-1021353.49	0.0089	0.0055
Mercury	-7510-12-05 22:47 J	-1021265.63	-1021265.55	-1021265.45	0.0089	0.0063
Mercury	-7509-03-03 00:00 J	-1021177.57	-1021177.50	-1021177.40	0.0089	0.0070
Mercury	-7509-05-30 01:26 J	-1021089.50	-1021089.44	-1021089.37	0.0089	0.0076
Mercury	-7509-08-26 02:38 J	-1021001.42	-1021001.39	-1021001.33	0.0089	0.0083
Venus	-7504-06-05 12:43 J	-1019257.00	-1019256.97	-1019256.90	0.0089	0.0087
Venus	-7503-01-17 01:40 J	-1019031.52	-1019031.43	-1019031.29	0.0089	0.0076
Venus	-7503-08-30 14:52 J	-1018806.01	-1018805.88	-1018805.71	0.0089	0.0065
Venus	-7502-04-13 03:50 J	-1018580.49	-1018580.34	-1018580.14	0.0089	0.0054
Venus	-7502-11-24 17:31 J	-1018354.96	-1018354.77	-1018354.58	0.0089	0.0042
Venus	-7501-07-07 06:28 J	-1018129.43	-1018129.23	-1018129.02	0.0089	0.0031
Venus	-7500-02-17 19:26 J	-1017903.89	-1017903.69	-1017903.47	0.0089	0.0020
Venus	-7500-10-01 08:38 J	-1017678.36	-1017678.14	-1017677.92	0.0089	0.0008
Venus	-7499-05-14 21:36 J	-1017452.82	-1017452.60	-1017452.38	0.0089	0.0003
Venus	-7499-12-26 10:33 J	-1017227.27	-1017227.06	-1017226.84	0.0089	0.0014
Venus	-7498-08-08 23:31 J	-1017001.72	-1017001.52	-1017001.30	0.0089	0.0025
Venus	-7497-03-21 12:14 J	-1016776.18	-1016775.99	-1016775.78	0.0089	0.0037
Venus	-7497-11-02 01:12 J	-1016550.63	-1016550.45	-1016550.26	0.0089	0.0048
Venus	-7496-06-15 14:09 J	-1016325.07	-1016324.91	-1016324.74	0.0089	0.0059
Venus	-7495-01-27 03:07 J	-1016099.50	-1016099.37	-1016099.23	0.0089	0.0070

Venus	-7495-09-09 15:50 J	-1015873.92	-1015873.84	-1015873.74	0.0089	0.0081
Moon	-7463-12-11 16:19 J	-1004092.95	-1004092.82	-1004092.65	0.0088	0.0072
Earth	-7463-12-11 19:12 J	-1004092.80	-1004092.70	-1004092.54	0.0088	0.0077 *
Earth	-7462-12-14 06:43 J	-1003725.43	-1003725.22	-1003724.98	0.0088	0.0043
Moon	-7462-12-14 09:36 J	-1003725.29	-1003725.10	-1003724.86	0.0088	0.0048 *
Moon	-7461-12-15 14:23 J	-1003358.15	-1003357.90	-1003357.64	0.0088	0.0004
Earth	-7461-12-15 18:00 J	-1003358.00	-1003357.75	-1003357.48	0.0088	0.0010 *
Earth	-7460-12-18 05:02 J	-1002990.53	-1002990.29	-1002990.03	0.0088	0.0025
Moon	-7460-12-18 08:09 J	-1002990.41	-1002990.16	-1002989.90	0.0088	0.0020 *
Moon	-7459-12-20 13:26 J	-1002623.10	-1002622.94	-1002622.75	0.0088	0.0063
Earth	-7459-12-20 15:50 J	-1002623.01	-1002622.84	-1002622.62	0.0088	0.0059 *
Moon	-7458-12-23 04:47 J	-1002255.33	-1002255.30	-1002255.23	0.0088	0.0087
Mars	-7438-01-08 22:04 J	-995298.85	-995298.58	-995298.27	0.0088	0.0034
Mars	-7437-12-03 12:14 J	-994604.23	-994603.99	-994603.70	0.0088	0.0047
Mercury	-7431-01-25 10:47 J	-992725.10	-992725.05	-992725.00	0.0088	0.0084
Mercury	-7431-04-23 14:23 J	-992637.00	-992636.90	-992636.80	0.0088	0.0074
Mercury	-7431-07-20 17:31 J	-992548.88	-992548.77	-992548.62	0.0088	0.0065
Mercury	-7431-10-16 21:07 J	-992460.75	-992460.62	-992460.45	0.0088	0.0055
Mercury	-7430-01-13 00:43 J	-992372.62	-992372.47	-992372.28	0.0088	0.0045
Mercury	-7430-04-11 04:33 J	-992284.48	-992284.31	-992284.12	0.0088	0.0035
Mercury	-7430-07-08 08:09 J	-992196.34	-992196.16	-992195.96	0.0088	0.0025
Mercury	-7430-10-04 11:45 J	-992108.19	-992108.01	-992107.80	0.0088	0.0015
Mercury	-7430-12-31 15:36 J	-992020.04	-992019.85	-992019.65	0.0088	0.0005
Mercury	-7429-03-28 19:12 J	-991931.89	-991931.70	-991931.50	0.0088	0.0006
Mercury	-7429-06-24 22:47 J	-991843.74	-991843.55	-991843.35	0.0088	0.0016
Mercury	-7429-09-21 02:23 J	-991755.58	-991755.40	-991755.20	0.0088	0.0026
Mercury	-7429-12-18 06:00 J	-991667.42	-991667.25	-991667.06	0.0088	0.0036
Mercury	-7428-03-16 09:36 J	-991579.25	-991579.10	-991578.92	0.0088	0.0046
Mercury	-7428-06-12 13:26 J	-991491.09	-991490.94	-991490.78	0.0088	0.0056
Mercury	-7428-09-08 17:02 J	-991402.91	-991402.79	-991402.65	0.0088	0.0066

Mercury	-7428-12-05 20:52 J	-991314.72	-991314.63	-991314.53	0.0088	0.0076
Mercury	-7427-03-04 00:00 J	-991226.51	-991226.50	-991226.44	0.0088	0.0087
Venus	-7421-03-02 12:43 J	-989036.02	-989035.97	-989035.86	0.0088	0.0082
Venus	-7421-10-14 01:55 J	-988810.53	-988810.42	-988810.28	0.0088	0.0071
Venus	-7420-05-27 15:07 J	-988585.03	-988584.87	-988584.70	0.0088	0.0060
Venus	-7419-01-08 04:19 J	-988359.50	-988359.32	-988359.14	0.0088	0.0049
Venus	-7419-08-21 16:47 J	-988133.98	-988133.80	-988133.58	0.0088	0.0039
Venus	-7418-04-04 06:00 J	-987908.45	-987908.25	-987908.03	0.0088	0.0028
Venus	-7418-11-15 18:57 J	-987682.92	-987682.71	-987682.48	0.0088	0.0017
Venus	-7417-06-28 08:09 J	-987457.38	-987457.16	-987456.94	0.0088	0.0006
Venus	-7416-02-08 21:07 J	-987231.84	-987231.62	-987231.39	0.0088	0.0005
Venus	-7416-09-22 10:04 J	-987006.29	-987006.08	-987005.85	0.0088	0.0016
Venus	-7415-05-05 23:02 J	-986780.74	-986780.54	-986780.32	0.0088	0.0027
Venus	-7415-12-17 12:00 J	-986555.18	-986555.00	-986554.78	0.0088	0.0039
Venus	-7414-07-31 01:12 J	-986329.62	-986329.45	-986329.25	0.0088	0.0049
Venus	-7413-03-12 14:38 J	-986104.05	-986103.89	-986103.72	0.0088	0.0060
Venus	-7413-10-24 03:36 J	-985878.47	-985878.35	-985878.21	0.0088	0.0070
Venus	-7412-06-06 16:33 J	-985652.88	-985652.81	-985652.71	0.0088	0.0082
Moon	-7379-06-17 19:40 J	-973588.85	-973588.68	-973588.50	0.0089	0.0065
Earth	-7379-06-17 22:47 J	-973588.72	-973588.55	-973588.35	0.0089	0.0061 *
Earth	-7378-06-20 11:02 J	-973221.28	-973221.04	-973220.78	0.0089	0.0027
Moon	-7378-06-20 14:23 J	-973221.14	-973220.90	-973220.64	0.0089	0.0023 *
Moon	-7377-06-21 19:40 J	-972853.93	-972853.68	-972853.42	0.0089	0.0003
Earth	-7377-06-21 23:31 J	-972853.78	-972853.52	-972853.26	0.0089	0.0007 *
Earth	-7376-06-24 11:16 J	-972486.25	-972486.03	-972485.79	0.0089	0.0041
Moon	-7376-06-24 13:55 J	-972486.12	-972485.92	-972485.67	0.0089	0.0046 *
Moon	-7375-06-26 20:52 J	-972118.77	-972118.63	-972118.47	0.0089	0.0071
Earth	-7375-06-26 23:02 J	-972118.65	-972118.54	-972118.38	0.0089	0.0076 *
Saturn	-7374-11-17 02:09 J	-971610.94	-971610.41	-971609.78	0.0089	0.0042
Mars	-7357-09-22 16:47 J	-965455.95	-965455.80	-965455.60	0.0089	0.0074

Mars	-7355-08-18 18:28 J	-964761.03	-964760.73	-964760.40	0.0089	0.0013
Mercury	-7350-08-09 19:12 J	-962943.73	-962943.70	-962943.65	0.0089	0.0084
Mercury	-7350-11-05 20:38 J	-962855.70	-962855.64	-962855.57	0.0089	0.0076
Mercury	-7349-02-01 21:50 J	-962767.66	-962767.59	-962767.50	0.0089	0.0070
Mercury	-7349-04-29 23:16 J	-962679.62	-962679.53	-962679.43	0.0089	0.0062
Mercury	-7349-07-27 00:28 J	-962591.57	-962591.48	-962591.37	0.0089	0.0055
Mercury	-7349-10-23 01:55 J	-962503.52	-962503.42	-962503.30	0.0089	0.0048
Mercury	-7348-01-19 03:21 J	-962415.48	-962415.36	-962415.24	0.0089	0.0041
Mercury	-7348-04-17 04:33 J	-962327.43	-962327.31	-962327.18	0.0089	0.0034
Mercury	-7348-07-14 06:00 J	-962239.37	-962239.25	-962239.12	0.0089	0.0027
Mercury	-7348-10-10 07:12 J	-962151.32	-962151.20	-962151.07	0.0089	0.0020
Mercury	-7347-01-06 08:38 J	-962063.27	-962063.14	-962063.01	0.0089	0.0012
Mercury	-7347-04-04 09:50 J	-961975.22	-961975.09	-961974.95	0.0089	0.0006
Mercury	-7347-07-01 11:16 J	-961887.16	-961887.03	-961886.90	0.0089	0.0002
Mercury	-7347-09-27 12:28 J	-961799.11	-961798.98	-961798.84	0.0089	0.0010
Mercury	-7347-12-24 13:55 J	-961711.05	-961710.92	-961710.79	0.0089	0.0016
Mercury	-7346-03-22 15:07 J	-961622.99	-961622.87	-961622.74	0.0089	0.0023
Mercury	-7346-06-18 16:19 J	-961534.94	-961534.82	-961534.69	0.0089	0.0031
Mercury	-7346-09-14 17:45 J	-961446.88	-961446.76	-961446.64	0.0089	0.0037
Mercury	-7346-12-11 18:57 J	-961358.82	-961358.71	-961358.59	0.0089	0.0044
Mercury	-7345-03-08 20:09 J	-961270.76	-961270.66	-961270.54	0.0089	0.0052
Mercury	-7345-06-04 21:36 J	-961182.69	-961182.60	-961182.50	0.0089	0.0058
Mercury	-7345-08-31 22:47 J	-961094.63	-961094.55	-961094.45	0.0089	0.0066
Mercury	-7345-11-28 00:00 J	-961006.56	-961006.50	-961006.41	0.0089	0.0073
Mercury	-7344-02-24 01:26 J	-960918.49	-960918.44	-960918.37	0.0089	0.0079
Mercury	-7344-05-23 02:38 J	-960830.41	-960830.39	-960830.35	0.0089	0.0086
Venus	-7339-04-20 12:57 J	-959037.03	-959036.96	-959036.85	0.0089	0.0081
Venus	-7339-12-02 02:09 J	-958811.53	-958811.41	-958811.26	0.0089	0.0069
Venus	-7338-07-15 15:07 J	-958586.01	-958585.87	-958585.68	0.0089	0.0059
Venus	-7337-02-26 04:47 J	-958360.49	-958360.30	-958360.12	0.0089	0.0047

Venus	-7337-10-08 17:31 J	-958134.96	-958134.77	-958134.56	0.0089	0.0036
Venus	-7336-05-22 06:43 J	-957909.42	-957909.22	-957909.00	0.0089	0.0024
Venus	-7335-01-02 19:40 J	-957683.88	-957683.68	-957683.45	0.0089	0.0014
Venus	-7335-08-16 09:07 J	-957458.34	-957458.12	-957457.90	0.0089	0.0002
Venus	-7334-03-29 22:04 J	-957232.80	-957232.58	-957232.36	0.0089	0.0010
Venus	-7334-11-10 10:47 J	-957007.25	-957007.05	-957006.83	0.0089	0.0021
Venus	-7333-06-22 23:45 J	-956781.70	-956781.51	-956781.29	0.0089	0.0033
Venus	-7332-02-03 12:57 J	-956556.15	-956555.96	-956555.77	0.0089	0.0044
Venus	-7332-09-17 01:55 J	-956330.59	-956330.42	-956330.25	0.0089	0.0055
Venus	-7331-04-30 14:23 J	-956105.03	-956104.90	-956104.74	0.0089	0.0066
Venus	-7331-12-12 03:07 J	-955879.45	-955879.37	-955879.24	0.0089	0.0078
Venus	-7330-07-25 16:04 J	-955653.84	-955653.83	-955653.77	0.0089	0.0089
Moon	-7298-12-13 13:40 J	-943825.09	-943824.93	-943824.72	0.0088	0.0061
Earth	-7298-12-13 17:02 J	-943824.95	-943824.79	-943824.58	0.0088	0.0060 *
Earth	-7297-12-15 04:47 J	-943457.55	-943457.30	-943457.06	0.0088	0.0026
Moon	-7297-12-15 07:55 J	-943457.41	-943457.17	-943456.91	0.0088	0.0026 *
Moon	-7296-12-17 13:55 J	-943090.17	-943089.92	-943089.67	0.0088	0.0007
Earth	-7296-12-17 15:50 J	-943090.09	-943089.84	-943089.58	0.0088	0.0008 *
Earth	-7295-12-20 02:23 J	-942722.60	-942722.40	-942722.15	0.0088	0.0042
Moon	-7295-12-20 03:36 J	-942722.57	-942722.35	-942722.09	0.0088	0.0042 *
Earth	-7294-12-22 13:40 J	-942355.04	-942354.93	-942354.77	0.0088	0.0075
Moon	-7294-12-22 13:40 J	-942355.04	-942354.93	-942354.78	0.0088	0.0075 *
Mars	-7275-08-23 18:14 J	-935535.88	-935535.74	-935535.54	0.0088	0.0074
Mars	-7273-07-18 09:07 J	-934841.42	-934841.12	-934840.80	0.0088	0.0008
Mercury	-7267-10-22 09:07 J	-932554.18	-932554.12	-932554.02	0.0088	0.0080
Mercury	-7266-01-18 12:57 J	-932466.07	-932465.96	-932465.83	0.0088	0.0070
Mercury	-7266-04-16 16:33 J	-932377.94	-932377.81	-932377.66	0.0088	0.0060
Mercury	-7266-07-13 20:09 J	-932289.81	-932289.66	-932289.49	0.0088	0.0050
Mercury	-7266-10-09 23:45 J	-932201.68	-932201.51	-932201.33	0.0088	0.0040
Mercury	-7265-01-06 03:21 J	-932113.54	-932113.36	-932113.17	0.0088	0.0030

Mercury	-7265-04-03 07:12 J	-932025.39	-932025.20	-932025.01	0.0088	0.0020
Mercury	-7265-06-30 10:47 J	-931937.25	-931937.05	-931936.86	0.0088	0.0010
Mercury	-7265-09-26 14:23 J	-931849.10	-931848.90	-931848.70	0.0088	0.0000
Mercury	-7265-12-23 18:00 J	-931760.94	-931760.75	-931760.55	0.0088	0.0010
Mercury	-7264-03-21 21:36 J	-931672.79	-931672.60	-931672.40	0.0088	0.0020
Mercury	-7264-06-18 01:12 J	-931584.63	-931584.45	-931584.26	0.0088	0.0030
Mercury	-7264-09-14 04:47 J	-931496.47	-931496.30	-931496.12	0.0088	0.0040
Mercury	-7264-12-11 08:38 J	-931408.30	-931408.14	-931407.98	0.0088	0.0050
Mercury	-7263-03-09 11:45 J	-931320.13	-931320.01	-931319.85	0.0088	0.0061
Mercury	-7263-06-05 15:21 J	-931231.95	-931231.86	-931231.72	0.0088	0.0071
Mercury	-7263-09-01 19:12 J	-931143.76	-931143.70	-931143.61	0.0088	0.0081
Venus	-7257-06-04 00:14 J	-929041.50	-929041.49	-929041.44	0.0088	0.0087
Venus	-7256-01-15 13:26 J	-928816.03	-928815.94	-928815.81	0.0088	0.0076
Venus	-7256-08-29 02:38 J	-928590.53	-928590.39	-928590.24	0.0088	0.0065
Venus	-7255-04-11 15:36 J	-928365.02	-928364.85	-928364.67	0.0088	0.0054
Venus	-7255-11-23 04:33 J	-928139.50	-928139.31	-928139.11	0.0088	0.0043
Venus	-7254-07-06 17:31 J	-927913.97	-927913.77	-927913.56	0.0088	0.0032
Venus	-7253-02-17 06:28 J	-927688.44	-927688.23	-927688.01	0.0088	0.0022
Venus	-7253-09-29 19:26 J	-927462.91	-927462.69	-927462.46	0.0088	0.0011
Venus	-7252-05-13 08:23 J	-927237.37	-927237.15	-927236.92	0.0088	0.0002
Venus	-7252-12-24 21:21 J	-927011.82	-927011.61	-927011.38	0.0088	0.0013
Venus	-7251-08-07 10:19 J	-926786.27	-926786.07	-926785.84	0.0088	0.0023
Venus	-7250-03-20 23:16 J	-926560.72	-926560.53	-926560.31	0.0088	0.0034
Venus	-7250-11-01 12:14 J	-926335.16	-926334.99	-926334.78	0.0088	0.0045
Venus	-7249-06-14 01:40 J	-926109.60	-926109.43	-926109.26	0.0088	0.0056
Venus	-7248-01-25 14:52 J	-925884.02	-925883.88	-925883.73	0.0088	0.0067
Venus	-7248-09-08 04:04 J	-925658.43	-925658.33	-925658.23	0.0088	0.0077
Earth	-7215-06-17 08:23 J	-913688.25	-913688.15	-913688.00	0.0089	0.0078
Moon	-7215-06-17 12:14 J	-913688.08	-913687.99	-913687.86	0.0089	0.0080 *
Moon	-7214-06-19 17:31 J	-913320.98	-913320.77	-913320.53	0.0089	0.0043

Earth	-7214-06-19 20:52 J	-913320.84	-913320.63	-913320.39	0.0089	0.0044 *
Earth	-7213-06-21 09:07 J	-912953.38	-912953.12	-912952.86	0.0089	0.0010
Moon	-7213-06-21 12:14 J	-912953.25	-912952.99	-912952.73	0.0089	0.0011 *
Moon	-7212-06-23 19:26 J	-912585.92	-912585.69	-912585.44	0.0089	0.0026
Earth	-7212-06-23 21:07 J	-912585.86	-912585.62	-912585.36	0.0089	0.0024 *
Earth	-7211-06-26 08:52 J	-912218.31	-912218.13	-912217.92	0.0089	0.0058
Moon	-7211-06-26 09:50 J	-912218.28	-912218.09	-912217.87	0.0089	0.0057 *
Jupiter	-7195-05-26 12:00 J	-906405.47	-906405.00	-906404.52	0.0089	0.0038
Mars	-7191-04-02 06:00 J	-904998.53	-904998.25	-904997.94	0.0089	0.0030
Mars	-7189-02-26 07:40 J	-904303.40	-904303.18	-904302.91	0.0089	0.0057
Mercury	-7185-02-07 17:45 J	-902860.77	-902860.76	-902860.73	0.0089	0.0088
Mercury	-7185-05-05 19:12 J	-902772.75	-902772.70	-902772.64	0.0089	0.0080
Mercury	-7185-08-01 20:23 J	-902684.71	-902684.65	-902684.57	0.0089	0.0074
Mercury	-7185-10-28 21:50 J	-902596.67	-902596.59	-902596.50	0.0089	0.0066
Mercury	-7184-01-24 23:02 J	-902508.63	-902508.54	-902508.43	0.0089	0.0059
Mercury	-7184-04-23 00:28 J	-902420.58	-902420.48	-902420.37	0.0089	0.0052
Mercury	-7184-07-20 01:55 J	-902332.53	-902332.42	-902332.30	0.0089	0.0045
Mercury	-7184-10-16 03:21 J	-902244.48	-902244.36	-902244.24	0.0089	0.0038
Mercury	-7183-01-12 04:33 J	-902156.43	-902156.31	-902156.18	0.0089	0.0031
Mercury	-7183-04-10 06:00 J	-902068.38	-902068.25	-902068.13	0.0089	0.0024
Mercury	-7183-07-07 07:12 J	-901980.33	-901980.20	-901980.07	0.0089	0.0016
Mercury	-7183-10-03 08:38 J	-901892.27	-901892.14	-901892.01	0.0089	0.0010
Mercury	-7183-12-30 09:50 J	-901804.22	-901804.09	-901803.96	0.0089	0.0002
Mercury	-7182-03-28 11:16 J	-901716.16	-901716.03	-901715.90	0.0089	0.0005
Mercury	-7182-06-24 12:28 J	-901628.11	-901627.98	-901627.85	0.0089	0.0012
Mercury	-7182-09-20 13:40 J	-901540.05	-901539.93	-901539.80	0.0089	0.0019
Mercury	-7182-12-17 15:07 J	-901451.99	-901451.87	-901451.74	0.0089	0.0026
Mercury	-7181-03-14 16:19 J	-901363.94	-901363.82	-901363.69	0.0089	0.0033
Mercury	-7181-06-10 17:31 J	-901275.88	-901275.77	-901275.64	0.0089	0.0041
Mercury	-7181-09-06 18:57 J	-901187.82	-901187.71	-901187.60	0.0089	0.0047

Mercury	-7181-12-03 20:09 J	-901099.75	-901099.66	-901099.55	0.0089	0.0055
Mercury	-7180-03-01 21:21 J	-901011.69	-901011.61	-901011.50	0.0089	0.0062
Mercury	-7180-05-28 22:47 J	-900923.63	-900923.55	-900923.46	0.0089	0.0068
Mercury	-7180-08-25 00:00 J	-900835.56	-900835.50	-900835.42	0.0089	0.0076
Mercury	-7180-11-21 01:12 J	-900747.48	-900747.45	-900747.39	0.0089	0.0083
Mercury	-7179-02-17 02:38 J	-900659.39	-900659.39	-900659.38	0.0089	0.0089
Venus	-7175-07-23 00:28 J	-899042.53	-899042.48	-899042.42	0.0089	0.0086
Venus	-7174-03-05 13:26 J	-898817.05	-898816.94	-898816.81	0.0089	0.0075
Venus	-7174-10-17 02:09 J	-898591.54	-898591.41	-898591.24	0.0089	0.0064
Venus	-7173-05-29 15:07 J	-898366.02	-898365.87	-898365.67	0.0089	0.0053
Venus	-7172-01-10 04:33 J	-898140.50	-898140.31	-898140.11	0.0089	0.0041
Venus	-7172-08-23 17:31 J	-897914.96	-897914.77	-897914.55	0.0089	0.0030
Venus	-7171-04-06 06:28 J	-897689.43	-897689.23	-897689.00	0.0089	0.0019
Venus	-7171-11-17 19:40 J	-897463.89	-897463.68	-897463.46	0.0089	0.0007
Venus	-7170-07-01 08:52 J	-897238.35	-897238.13	-897237.91	0.0089	0.0005
Venus	-7169-02-11 21:50 J	-897012.80	-897012.59	-897012.37	0.0089	0.0016
Venus	-7169-09-24 10:33 J	-896787.25	-896787.06	-896786.84	0.0089	0.0028
Venus	-7168-05-07 23:31 J	-896561.70	-896561.52	-896561.31	0.0089	0.0040
Venus	-7168-12-19 12:28 J	-896336.14	-896335.98	-896335.79	0.0089	0.0051
Venus	-7167-08-02 01:55 J	-896110.58	-896110.42	-896110.26	0.0089	0.0062
Venus	-7166-03-15 14:09 J	-895885.01	-895884.91	-895884.76	0.0089	0.0074
Venus	-7166-10-27 03:07 J	-895659.42	-895659.37	-895659.28	0.0089	0.0085
Earth	-7134-12-13 02:38 J	-883924.49	-883924.39	-883924.24	0.0088	0.0077
Moon	-7134-12-13 05:02 J	-883924.41	-883924.29	-883924.11	0.0088	0.0073 *
Moon	-7133-12-14 12:00 J	-883557.19	-883557.00	-883556.77	0.0088	0.0048
Earth	-7133-12-14 13:55 J	-883557.12	-883556.92	-883556.68	0.0088	0.0044 *
Earth	-7132-12-17 01:12 J	-883189.70	-883189.45	-883189.19	0.0088	0.0010
Moon	-7132-12-17 01:55 J	-883189.69	-883189.42	-883189.16	0.0088	0.0006 *
Earth	-7131-12-19 12:14 J	-882822.22	-882821.99	-882821.73	0.0088	0.0024
Moon	-7131-12-19 13:12 J	-882822.18	-882821.95	-882821.70	0.0088	0.0020 *

Moon	-7130-12-21 21:50 J	-882454.77	-882454.59	-882454.38	0.0088	0.0061
Earth	-7130-12-21 23:31 J	-882454.70	-882454.52	-882454.31	0.0088	0.0057 *
Moon	-7129-12-23 13:12 J	-882086.98	-882086.95	-882086.86	0.0088	0.0086
Mars	-7109-03-02 05:02 J	-875078.57	-875078.29	-875077.99	0.0088	0.0032
Mars	-7107-01-25 18:57 J	-874383.95	-874383.71	-874383.44	0.0088	0.0049
Mercury	-7102-04-22 04:04 J	-872471.35	-872471.33	-872471.28	0.0088	0.0086
Mercury	-7102-07-19 07:55 J	-872383.26	-872383.17	-872383.07	0.0088	0.0076
Mercury	-7102-10-15 11:31 J	-872295.14	-872295.02	-872294.89	0.0088	0.0066
Mercury	-7101-01-11 15:07 J	-872207.01	-872206.87	-872206.72	0.0088	0.0056
Mercury	-7101-04-08 18:43 J	-872118.88	-872118.72	-872118.55	0.0088	0.0046
Mercury	-7101-07-05 22:19 J	-872030.74	-872030.57	-872030.39	0.0088	0.0036
Mercury	-7101-10-02 01:55 J	-871942.60	-871942.42	-871942.23	0.0088	0.0026
Mercury	-7101-12-29 05:31 J	-871854.46	-871854.27	-871854.07	0.0088	0.0017
Mercury	-7100-03-27 09:07 J	-871766.31	-871766.12	-871765.92	0.0088	0.0007
Mercury	-7100-06-23 12:57 J	-871678.16	-871677.96	-871677.77	0.0088	0.0004
Mercury	-7100-09-19 16:19 J	-871590.01	-871589.82	-871589.62	0.0088	0.0014
Mercury	-7100-12-16 19:55 J	-871501.85	-871501.67	-871501.47	0.0088	0.0024
Mercury	-7099-03-14 23:31 J	-871413.69	-871413.52	-871413.33	0.0088	0.0034
Mercury	-7099-06-11 03:07 J	-871325.53	-871325.37	-871325.19	0.0088	0.0044
Mercury	-7099-09-07 06:43 J	-871237.36	-871237.22	-871237.05	0.0088	0.0054
Mercury	-7099-12-04 10:33 J	-871149.19	-871149.06	-871148.92	0.0088	0.0064
Mercury	-7098-03-02 14:09 J	-871061.01	-871060.91	-871060.80	0.0088	0.0074
Mercury	-7098-05-29 18:00 J	-870972.80	-870972.75	-870972.70	0.0088	0.0084
Venus	-7092-04-18 23:45 J	-868821.56	-868821.51	-868821.40	0.0088	0.0082
Venus	-7092-11-30 12:43 J	-868596.07	-868595.97	-868595.81	0.0088	0.0071
Venus	-7091-07-14 01:55 J	-868370.56	-868370.42	-868370.24	0.0088	0.0060
Venus	-7090-02-24 14:52 J	-868145.04	-868144.88	-868144.67	0.0088	0.0049
Venus	-7090-10-08 04:19 J	-867919.52	-867919.32	-867919.12	0.0088	0.0037
Venus	-7089-05-20 17:16 J	-867693.99	-867693.78	-867693.57	0.0088	0.0026
Venus	-7088-01-01 06:28 J	-867468.45	-867468.23	-867468.01	0.0088	0.0015

Venus	-7088-08-14 19:26 J	-867242.91	-867242.69	-867242.47	0.0088	0.0004
Venus	-7087-03-28 08:23 J	-867017.37	-867017.15	-867016.93	0.0088	0.0007
Venus	-7087-11-08 21:21 J	-866791.83	-866791.61	-866791.39	0.0088	0.0018
Venus	-7086-06-22 10:19 J	-866566.28	-866566.07	-866565.86	0.0088	0.0029
Venus	-7085-02-02 23:16 J	-866340.72	-866340.53	-866340.32	0.0088	0.0041
Venus	-7085-09-15 12:28 J	-866115.15	-866114.98	-866114.80	0.0088	0.0051
Venus	-7084-04-29 01:26 J	-865889.59	-865889.44	-865889.28	0.0088	0.0063
Venus	-7084-12-10 14:38 J	-865664.01	-865663.89	-865663.77	0.0088	0.0074
Venus	-7083-07-24 03:50 J	-865438.40	-865438.34	-865438.28	0.0088	0.0085
Earth	-7050-06-19 06:00 J	-853420.43	-853420.25	-853420.06	0.0089	0.0061
Moon	-7050-06-19 08:09 J	-853420.33	-853420.16	-853419.97	0.0089	0.0065 *
Moon	-7049-06-20 16:47 J	-853053.04	-853052.80	-853052.56	0.0089	0.0023
Earth	-7049-06-20 18:00 J	-853052.98	-853052.75	-853052.49	0.0089	0.0028 *
Moon	-7048-06-23 06:28 J	-852685.49	-852685.23	-852684.96	0.0089	0.0003
Earth	-7048-06-23 06:28 J	-852685.48	-852685.23	-852684.97	0.0089	0.0007 *
Earth	-7047-06-25 18:28 J	-852317.95	-852317.73	-852317.49	0.0089	0.0040
Moon	-7047-06-25 19:26 J	-852317.89	-852317.69	-852317.46	0.0089	0.0044 *
Moon	-7046-06-28 04:04 J	-851950.46	-851950.33	-851950.13	0.0089	0.0070
Earth	-7046-06-28 06:14 J	-851950.36	-851950.24	-851950.08	0.0089	0.0074 *
Mars	-7028-11-14 18:28 J	-845235.90	-845235.73	-845235.53	0.0089	0.0072
Mars	-7026-10-10 17:45 J	-844541.06	-844540.76	-844540.43	0.0089	0.0015
Mercury	-7021-11-03 17:31 J	-842689.80	-842689.77	-842689.72	0.0089	0.0085
Mercury	-7020-01-30 18:57 J	-842601.77	-842601.71	-842601.64	0.0089	0.0078
Mercury	-7020-04-28 20:23 J	-842513.73	-842513.65	-842513.57	0.0089	0.0071
Mercury	-7020-07-25 21:36 J	-842425.68	-842425.60	-842425.50	0.0089	0.0064
Mercury	-7020-10-21 23:02 J	-842337.64	-842337.54	-842337.44	0.0089	0.0056
Mercury	-7019-01-18 00:14 J	-842249.59	-842249.49	-842249.37	0.0089	0.0049
Mercury	-7019-04-16 01:40 J	-842161.54	-842161.43	-842161.31	0.0089	0.0042
Mercury	-7019-07-13 02:52 J	-842073.49	-842073.38	-842073.25	0.0089	0.0035
Mercury	-7019-10-09 04:19 J	-841985.44	-841985.32	-841985.19	0.0089	0.0028

Mercury	-7018-01-05 05:31 J	-841897.39	-841897.27	-841897.14	0.0089	0.0021
Mercury	-7018-04-03 06:57 J	-841809.34	-841809.21	-841809.08	0.0089	0.0014
Mercury	-7018-06-30 08:23 J	-841721.28	-841721.15	-841721.02	0.0089	0.0007
Mercury	-7018-09-26 09:36 J	-841633.23	-841633.10	-841632.97	0.0089	0.0001
Mercury	-7018-12-23 11:02 J	-841545.17	-841545.04	-841544.91	0.0089	0.0008
Mercury	-7017-03-20 12:14 J	-841457.12	-841456.99	-841456.86	0.0089	0.0015
Mercury	-7017-06-16 13:40 J	-841369.06	-841368.93	-841368.81	0.0089	0.0022
Mercury	-7017-09-12 14:52 J	-841281.00	-841280.88	-841280.75	0.0089	0.0029
Mercury	-7017-12-09 16:19 J	-841192.94	-841192.82	-841192.70	0.0089	0.0036
Mercury	-7016-03-07 17:31 J	-841104.88	-841104.77	-841104.66	0.0089	0.0043
Mercury	-7016-06-03 18:28 J	-841016.82	-841016.73	-841016.61	0.0089	0.0051
Mercury	-7016-08-30 20:09 J	-840928.76	-840928.66	-840928.56	0.0089	0.0057
Mercury	-7016-11-26 21:07 J	-840840.70	-840840.62	-840840.52	0.0089	0.0064
Mercury	-7015-02-22 22:47 J	-840752.63	-840752.55	-840752.47	0.0089	0.0071
Mercury	-7015-05-22 00:00 J	-840664.56	-840664.50	-840664.44	0.0089	0.0078
Mercury	-7015-08-18 01:26 J	-840576.48	-840576.44	-840576.41	0.0089	0.0085
Venus	-7010-06-07 00:00 J	-838822.58	-838822.50	-838822.39	0.0089	0.0080
Venus	-7009-01-18 13:26 J	-838597.07	-838596.94	-838596.80	0.0089	0.0069
Venus	-7009-08-31 02:09 J	-838371.56	-838371.41	-838371.23	0.0089	0.0058
Venus	-7008-04-13 15:36 J	-838146.04	-838145.85	-838145.67	0.0089	0.0046
Venus	-7008-11-25 04:19 J	-837920.51	-837920.32	-837920.11	0.0089	0.0035
Venus	-7007-07-08 17:16 J	-837694.98	-837694.78	-837694.55	0.0089	0.0024
Venus	-7006-02-19 06:28 J	-837469.44	-837469.23	-837469.01	0.0089	0.0012
Venus	-7006-10-02 19:40 J	-837243.90	-837243.68	-837243.46	0.0089	0.0001
Venus	-7005-05-15 08:38 J	-837018.36	-837018.14	-837017.93	0.0089	0.0012
Venus	-7005-12-26 21:21 J	-836792.81	-836792.61	-836792.39	0.0089	0.0023
Venus	-7004-08-09 10:33 J	-836567.25	-836567.06	-836566.85	0.0089	0.0035
Venus	-7003-03-22 23:16 J	-836341.70	-836341.53	-836341.33	0.0089	0.0046
Venus	-7003-11-03 12:14 J	-836116.14	-836115.99	-836115.81	0.0089	0.0058
Venus	-7002-06-17 01:26 J	-835890.57	-835890.44	-835890.29	0.0089	0.0069

Venus -7001-01-28 13:55 J -835664.99 -835664.92 -835664.80 0.0089 0.0081

7TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 7th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-6969-12-13 23:16 J		-823656.70	-823656.53	-823656.32	0.0088	0.0061	
Moon	-6969-12-13 23:31 J		-823656.69	-823656.52	-823656.31	0.0088	0.0062	*
Earth	-6968-12-16 10:33 J		-823289.30	-823289.06	-823288.81	0.0088	0.0027	
Moon	-6968-12-16 11:31 J		-823289.25	-823289.02	-823288.77	0.0088	0.0026	*
Moon	-6967-12-18 19:12 J		-822921.96	-822921.70	-822921.44	0.0088	0.0004	
Earth	-6967-12-18 21:50 J		-822921.85	-822921.59	-822921.33	0.0088	0.0006	*
Earth	-6966-12-21 08:52 J		-822554.36	-822554.13	-822553.90	0.0088	0.0039	
Moon	-6966-12-21 11:31 J		-822554.23	-822554.02	-822553.78	0.0088	0.0040	*
Moon	-6965-12-22 16:04 J		-822186.97	-822186.83	-822186.66	0.0088	0.0071	
Earth	-6965-12-22 20:09 J		-822186.81	-822186.66	-822186.51	0.0088	0.0072	*
Mars	-6946-10-15 20:52 J		-815315.78	-815315.63	-815315.44	0.0088	0.0073	
Mars	-6944-09-09 13:55 J		-814621.22	-814620.92	-814620.59	0.0088	0.0009	
Mercury	-6937-01-17 02:23 J		-812300.45	-812300.40	-812300.32	0.0088	0.0083	
Mercury	-6937-04-14 06:00 J		-812212.34	-812212.25	-812212.13	0.0088	0.0073	
Mercury	-6937-07-11 09:36 J		-812124.22	-812124.10	-812123.95	0.0088	0.0063	
Mercury	-6937-10-07 13:12 J		-812036.09	-812035.95	-812035.78	0.0088	0.0053	
Mercury	-6936-01-03 16:47 J		-811947.96	-811947.80	-811947.62	0.0088	0.0043	

Mercury	-6936-04-01 20:38 J	-811859.82	-811859.64	-811859.46	0.0088	0.0033
Mercury	-6936-06-29 00:14 J	-811771.68	-811771.49	-811771.30	0.0088	0.0023
Mercury	-6936-09-25 03:50 J	-811683.53	-811683.34	-811683.14	0.0088	0.0013
Mercury	-6936-12-22 07:26 J	-811595.38	-811595.19	-811594.99	0.0088	0.0003
Mercury	-6935-03-20 11:02 J	-811507.23	-811507.04	-811506.84	0.0088	0.0007
Mercury	-6935-06-16 14:38 J	-811419.08	-811418.89	-811418.69	0.0088	0.0017
Mercury	-6935-09-12 18:28 J	-811330.92	-811330.73	-811330.54	0.0088	0.0027
Mercury	-6935-12-09 22:04 J	-811242.76	-811242.58	-811242.40	0.0088	0.0037
Mercury	-6934-03-08 01:40 J	-811154.59	-811154.43	-811154.26	0.0088	0.0047
Mercury	-6934-06-04 04:47 J	-811066.43	-811066.30	-811066.13	0.0088	0.0058
Mercury	-6934-08-31 08:23 J	-810978.25	-810978.15	-810978.00	0.0088	0.0068
Mercury	-6934-11-27 12:14 J	-810890.06	-810889.99	-810889.88	0.0088	0.0078
Mercury	-6933-02-23 16:04 J	-810801.83	-810801.83	-810801.81	0.0088	0.0088
Venus	-6928-07-21 10:19 J	-808827.08	-808827.07	-808827.02	0.0088	0.0087
Venus	-6927-03-03 23:16 J	-808601.62	-808601.53	-808601.40	0.0088	0.0076
Venus	-6927-10-15 12:14 J	-808376.12	-808375.99	-808375.83	0.0088	0.0065
Venus	-6926-05-29 01:12 J	-808150.61	-808150.45	-808150.26	0.0088	0.0054
Venus	-6925-01-09 14:23 J	-807925.08	-807924.90	-807924.69	0.0088	0.0043
Venus	-6925-08-22 03:21 J	-807699.55	-807699.36	-807699.14	0.0088	0.0032
Venus	-6924-04-04 16:19 J	-807474.02	-807473.82	-807473.59	0.0088	0.0021
Venus	-6924-11-16 05:45 J	-807248.48	-807248.26	-807248.04	0.0088	0.0009
Venus	-6923-06-29 18:43 J	-807022.94	-807022.72	-807022.50	0.0088	0.0002
Venus	-6922-02-10 07:40 J	-806797.40	-806797.18	-806796.96	0.0088	0.0013
Venus	-6922-09-23 20:38 J	-806571.85	-806571.64	-806571.42	0.0088	0.0024
Venus	-6921-05-06 09:21 J	-806346.30	-806346.11	-806345.89	0.0088	0.0036
Venus	-6921-12-17 22:19 J	-806120.74	-806120.57	-806120.36	0.0088	0.0048
Venus	-6920-07-31 11:31 J	-805895.17	-805895.02	-805894.84	0.0088	0.0058
Venus	-6919-03-14 00:28 J	-805669.60	-805669.48	-805669.33	0.0088	0.0069
Venus	-6919-10-25 13:26 J	-805444.01	-805443.94	-805443.83	0.0088	0.0081
Earth	-6886-06-18 13:40 J	-793520.03	-793519.93	-793519.79	0.0089	0.0079

Moon	-6886-06-18 13:12 J	-793520.02	-793519.95	-793519.84	0.0089	0.0082	*
Moon	-6885-06-20 02:09 J	-793152.64	-793152.41	-793152.17	0.0089	0.0043	
Earth	-6885-06-20 02:23 J	-793152.62	-793152.40	-793152.18	0.0089	0.0045	*
Earth	-6884-06-22 14:23 J	-792785.15	-792784.90	-792784.63	0.0089	0.0012	
Moon	-6884-06-22 16:04 J	-792785.07	-792784.83	-792784.58	0.0089	0.0014	*
Moon	-6883-06-24 23:45 J	-792417.75	-792417.51	-792417.25	0.0089	0.0025	
Earth	-6883-06-25 02:38 J	-792417.63	-792417.39	-792417.13	0.0089	0.0022	*
Earth	-6882-06-27 14:09 J	-792050.09	-792049.91	-792049.68	0.0089	0.0056	
Moon	-6882-06-27 17:31 J	-792049.96	-792049.77	-792049.56	0.0089	0.0054	*
Mars	-6862-05-25 05:45 J	-784778.54	-784778.26	-784777.95	0.0089	0.0029	
Mars	-6860-04-19 04:47 J	-784083.50	-784083.30	-784083.02	0.0089	0.0059	
Mercury	-6856-07-31 17:16 J	-782518.82	-782518.78	-782518.72	0.0089	0.0083	
Mercury	-6856-10-27 18:28 J	-782430.79	-782430.73	-782430.65	0.0089	0.0076	
Mercury	-6855-01-23 19:55 J	-782342.74	-782342.67	-782342.58	0.0089	0.0068	
Mercury	-6855-04-21 21:07 J	-782254.70	-782254.62	-782254.51	0.0089	0.0062	
Mercury	-6855-07-18 22:33 J	-782166.65	-782166.56	-782166.45	0.0089	0.0054	
Mercury	-6855-10-15 00:00 J	-782078.61	-782078.50	-782078.38	0.0089	0.0047	
Mercury	-6854-01-11 01:26 J	-781990.56	-781990.44	-781990.32	0.0089	0.0040	
Mercury	-6854-04-09 02:38 J	-781902.51	-781902.39	-781902.26	0.0089	0.0033	
Mercury	-6854-07-06 04:04 J	-781814.46	-781814.33	-781814.20	0.0089	0.0026	
Mercury	-6854-10-02 05:16 J	-781726.40	-781726.28	-781726.15	0.0089	0.0019	
Mercury	-6854-12-29 06:43 J	-781638.35	-781638.22	-781638.09	0.0089	0.0011	
Mercury	-6853-03-26 07:55 J	-781550.30	-781550.17	-781550.03	0.0089	0.0005	
Mercury	-6853-06-22 09:21 J	-781462.24	-781462.11	-781461.98	0.0089	0.0003	
Mercury	-6853-09-18 10:33 J	-781374.19	-781374.06	-781373.92	0.0089	0.0010	
Mercury	-6853-12-15 12:00 J	-781286.13	-781286.00	-781285.87	0.0089	0.0017	
Mercury	-6852-03-13 13:12 J	-781198.07	-781197.95	-781197.82	0.0089	0.0024	
Mercury	-6852-06-09 14:23 J	-781110.02	-781109.90	-781109.77	0.0089	0.0031	
Mercury	-6852-09-05 15:36 J	-781021.96	-781021.85	-781021.72	0.0089	0.0039	
Mercury	-6852-12-02 17:02 J	-780933.90	-780933.79	-780933.67	0.0089	0.0045	

Mercury	-6851-02-28 18:14 J	-780845.83	-780845.74	-780845.62	0.0089	0.0052
Mercury	-6851-05-27 19:26 J	-780757.77	-780757.69	-780757.58	0.0089	0.0060
Mercury	-6851-08-23 20:52 J	-780669.71	-780669.63	-780669.53	0.0089	0.0066
Mercury	-6851-11-19 22:04 J	-780581.64	-780581.58	-780581.49	0.0089	0.0074
Mercury	-6850-02-15 23:16 J	-780493.57	-780493.53	-780493.46	0.0089	0.0081
Mercury	-6850-05-15 00:43 J	-780405.49	-780405.47	-780405.43	0.0089	0.0087
Venus	-6846-09-08 10:04 J	-778828.11	-778828.08	-778828.00	0.0089	0.0086
Venus	-6845-04-20 23:16 J	-778602.63	-778602.53	-778602.40	0.0089	0.0075
Venus	-6845-12-02 12:14 J	-778377.13	-778376.99	-778376.82	0.0089	0.0063
Venus	-6844-07-16 01:40 J	-778151.60	-778151.43	-778151.25	0.0089	0.0052
Venus	-6843-02-26 14:23 J	-777926.08	-777925.90	-777925.69	0.0089	0.0040
Venus	-6843-10-10 03:36 J	-777700.55	-777700.35	-777700.14	0.0089	0.0028
Venus	-6842-05-23 16:47 J	-777475.02	-777474.80	-777474.59	0.0089	0.0017
Venus	-6841-01-04 05:45 J	-777249.48	-777249.26	-777249.04	0.0089	0.0005
Venus	-6841-08-16 18:43 J	-777023.93	-777023.72	-777023.50	0.0089	0.0007
Venus	-6840-03-30 07:40 J	-776798.39	-776798.18	-776797.96	0.0089	0.0018
Venus	-6840-11-10 20:38 J	-776572.84	-776572.64	-776572.43	0.0089	0.0030
Venus	-6839-06-24 09:21 J	-776347.29	-776347.11	-776346.90	0.0089	0.0042
Venus	-6838-02-04 22:33 J	-776121.73	-776121.56	-776121.37	0.0089	0.0053
Venus	-6838-09-18 11:16 J	-775896.16	-775896.03	-775895.86	0.0089	0.0065
Venus	-6837-05-01 00:28 J	-775670.58	-775670.48	-775670.36	0.0089	0.0076
Venus	-6837-12-12 12:57 J	-775444.98	-775444.96	-775444.88	0.0089	0.0088
Earth	-6805-12-13 08:23 J	-763756.27	-763756.15	-763756.03	0.0088	0.0078
Moon	-6805-12-13 09:50 J	-763756.21	-763756.09	-763755.94	0.0088	0.0075 *
Moon	-6804-12-15 16:19 J	-763389.02	-763388.82	-763388.58	0.0088	0.0050
Earth	-6804-12-15 18:57 J	-763388.91	-763388.71	-763388.47	0.0088	0.0045 *
Earth	-6803-12-18 06:00 J	-763021.49	-763021.25	-763020.98	0.0088	0.0013
Moon	-6803-12-18 09:36 J	-763021.35	-763021.10	-763020.84	0.0088	0.0009 *
Moon	-6802-12-20 13:55 J	-762654.17	-762653.92	-762653.67	0.0088	0.0017
Earth	-6802-12-20 17:16 J	-762654.03	-762653.78	-762653.53	0.0088	0.0021 *

Earth	-6801-12-22 03:50 J	-762286.53	-762286.34	-762286.12	0.0088	0.0054
Moon	-6801-12-22 07:12 J	-762286.37	-762286.20	-762285.98	0.0088	0.0059 *
Moon	-6800-12-24 12:28 J	-761919.05	-761918.98	-761918.87	0.0088	0.0083
Earth	-6800-12-24 15:07 J	-761918.90	-761918.87	-761918.80	0.0088	0.0086 *
Mars	-6780-04-24 04:04 J	-754858.60	-754858.33	-754858.02	0.0088	0.0033
Mars	-6778-03-19 20:23 J	-754163.89	-754163.65	-754163.37	0.0088	0.0049
Mercury	-6773-10-13 00:00 J	-752129.55	-752129.50	-752129.40	0.0088	0.0081
Mercury	-6772-01-09 03:36 J	-752041.44	-752041.35	-752041.21	0.0088	0.0071
Mercury	-6772-04-07 07:12 J	-751953.32	-751953.20	-751953.04	0.0088	0.0061
Mercury	-6772-07-04 11:02 J	-751865.19	-751865.04	-751864.87	0.0088	0.0051
Mercury	-6772-09-30 14:38 J	-751777.05	-751776.89	-751776.71	0.0088	0.0041
Mercury	-6772-12-27 18:14 J	-751688.91	-751688.74	-751688.55	0.0088	0.0031
Mercury	-6771-03-25 21:50 J	-751600.77	-751600.59	-751600.39	0.0088	0.0021
Mercury	-6771-06-22 01:40 J	-751512.62	-751512.43	-751512.23	0.0088	0.0011
Mercury	-6771-09-18 05:16 J	-751424.47	-751424.28	-751424.08	0.0088	0.0001
Mercury	-6771-12-15 08:52 J	-751336.32	-751336.13	-751335.93	0.0088	0.0010
Mercury	-6770-03-13 12:28 J	-751248.17	-751247.98	-751247.78	0.0088	0.0020
Mercury	-6770-06-09 15:50 J	-751160.01	-751159.84	-751159.64	0.0088	0.0030
Mercury	-6770-09-05 19:26 J	-751071.85	-751071.69	-751071.50	0.0088	0.0040
Mercury	-6770-12-02 23:16 J	-750983.68	-750983.53	-750983.36	0.0088	0.0050
Mercury	-6769-02-29 02:52 J	-750895.51	-750895.38	-750895.22	0.0088	0.0060
Mercury	-6769-05-27 06:28 J	-750807.33	-750807.23	-750807.10	0.0088	0.0070
Mercury	-6769-08-23 10:04 J	-750719.14	-750719.08	-750718.98	0.0088	0.0080
Venus	-6763-06-05 08:52 J	-748607.19	-748607.13	-748607.03	0.0088	0.0082
Venus	-6762-01-16 22:04 J	-748381.69	-748381.58	-748381.44	0.0088	0.0071
Venus	-6762-08-30 11:02 J	-748156.19	-748156.04	-748155.86	0.0088	0.0060
Venus	-6761-04-12 00:00 J	-747930.67	-747930.50	-747930.30	0.0088	0.0049
Venus	-6761-11-23 13:12 J	-747705.14	-747704.95	-747704.74	0.0088	0.0037
Venus	-6760-07-07 02:09 J	-747479.61	-747479.41	-747479.19	0.0088	0.0026
Venus	-6759-02-17 15:21 J	-747254.08	-747253.86	-747253.64	0.0088	0.0015

Venus	-6759-10-01 04:19 J	-747028.54	-747028.32	-747028.09	0.0088	0.0004
Venus	-6758-05-14 17:31 J	-746802.99	-746802.77	-746802.55	0.0088	0.0008
Venus	-6758-12-26 06:28 J	-746577.44	-746577.23	-746577.01	0.0088	0.0019
Venus	-6757-08-07 19:26 J	-746351.89	-746351.69	-746351.47	0.0088	0.0031
Venus	-6756-03-21 08:23 J	-746126.33	-746126.15	-746125.94	0.0088	0.0042
Venus	-6756-11-01 21:21 J	-745900.77	-745900.61	-745900.42	0.0088	0.0053
Venus	-6755-06-15 10:33 J	-745675.21	-745675.06	-745674.91	0.0088	0.0065
Venus	-6754-01-26 23:16 J	-745449.62	-745449.53	-745449.39	0.0088	0.0076
Venus	-6754-09-09 12:28 J	-745223.99	-745223.98	-745223.93	0.0088	0.0087
Earth	-6721-06-19 09:36 J	-733252.28	-733252.10	-733251.92	0.0089	0.0063
Moon	-6721-06-19 11:02 J	-733252.18	-733252.04	-733251.85	0.0089	0.0067 *
Moon	-6720-06-21 18:57 J	-732884.95	-732884.71	-732884.45	0.0089	0.0026
Earth	-6720-06-21 21:50 J	-732884.82	-732884.59	-732884.33	0.0089	0.0030 *
Earth	-6719-06-24 10:19 J	-732517.33	-732517.07	-732516.81	0.0089	0.0004
Moon	-6719-06-24 13:55 J	-732517.18	-732516.92	-732516.66	0.0089	0.0000 *
Moon	-6718-06-26 18:43 J	-732149.93	-732149.72	-732149.48	0.0089	0.0041
Earth	-6718-06-26 22:19 J	-732149.80	-732149.57	-732149.33	0.0089	0.0037 *
Earth	-6717-06-28 10:04 J	-731782.21	-731782.08	-731781.90	0.0089	0.0071
Moon	-6717-06-28 13:55 J	-731782.08	-731781.92	-731781.74	0.0089	0.0066 *
Mars	-6698-01-06 15:36 J	-725016.04	-725015.85	-725015.67	0.0089	0.0072
Mars	-6697-12-01 14:09 J	-724321.21	-724320.91	-724320.59	0.0089	0.0014
Mercury	-6691-01-29 15:36 J	-722435.87	-722435.85	-722435.82	0.0089	0.0088
Mercury	-6691-04-27 16:47 J	-722347.84	-722347.80	-722347.73	0.0089	0.0081
Mercury	-6691-07-24 18:14 J	-722259.81	-722259.74	-722259.66	0.0089	0.0073
Mercury	-6691-10-20 19:26 J	-722171.77	-722171.69	-722171.59	0.0089	0.0067
Mercury	-6690-01-16 20:52 J	-722083.72	-722083.63	-722083.52	0.0089	0.0059
Mercury	-6690-04-14 22:04 J	-721995.67	-721995.58	-721995.46	0.0089	0.0053
Mercury	-6690-07-11 23:31 J	-721907.63	-721907.52	-721907.40	0.0089	0.0045
Mercury	-6690-10-08 00:57 J	-721819.58	-721819.46	-721819.34	0.0089	0.0038
Mercury	-6689-01-04 02:23 J	-721731.53	-721731.40	-721731.28	0.0089	0.0031

Mercury	-6689-04-01 03:36 J	-721643.47	-721643.35	-721643.22	0.0089	0.0024
Mercury	-6689-06-28 05:02 J	-721555.42	-721555.29	-721555.16	0.0089	0.0017
Mercury	-6689-09-24 06:14 J	-721467.37	-721467.24	-721467.11	0.0089	0.0010
Mercury	-6689-12-21 07:40 J	-721379.31	-721379.18	-721379.05	0.0089	0.0002
Mercury	-6688-03-19 08:52 J	-721291.26	-721291.13	-721290.99	0.0089	0.0005
Mercury	-6688-06-15 10:19 J	-721203.20	-721203.07	-721202.94	0.0089	0.0012
Mercury	-6688-09-11 11:31 J	-721115.15	-721115.02	-721114.89	0.0089	0.0019
Mercury	-6688-12-08 12:43 J	-721027.09	-721026.97	-721026.84	0.0089	0.0026
Mercury	-6687-03-06 13:55 J	-720939.03	-720938.92	-720938.79	0.0089	0.0034
Mercury	-6687-06-02 15:21 J	-720850.97	-720850.86	-720850.74	0.0089	0.0040
Mercury	-6687-08-29 16:33 J	-720762.91	-720762.81	-720762.69	0.0089	0.0047
Mercury	-6687-11-25 17:45 J	-720674.85	-720674.76	-720674.64	0.0089	0.0055
Mercury	-6686-02-21 19:12 J	-720586.79	-720586.70	-720586.60	0.0089	0.0061
Mercury	-6686-05-20 20:23 J	-720498.72	-720498.65	-720498.55	0.0089	0.0068
Mercury	-6686-08-16 21:36 J	-720410.65	-720410.60	-720410.51	0.0089	0.0076
Mercury	-6686-11-12 23:02 J	-720322.58	-720322.54	-720322.48	0.0089	0.0082
Mercury	-6685-02-09 00:14 J	-720234.49	-720234.49	-720234.47	0.0089	0.0089
Venus	-6681-07-23 09:21 J	-718608.19	-718608.11	-718608.01	0.0089	0.0081
Venus	-6680-03-05 22:19 J	-718382.69	-718382.57	-718382.42	0.0089	0.0069
Venus	-6680-10-17 11:31 J	-718157.18	-718157.02	-718156.84	0.0089	0.0057
Venus	-6679-05-31 00:43 J	-717931.65	-717931.47	-717931.28	0.0089	0.0046
Venus	-6678-01-11 13:26 J	-717706.13	-717705.94	-717705.72	0.0089	0.0035
Venus	-6678-08-25 02:38 J	-717480.59	-717480.39	-717480.17	0.0089	0.0023
Venus	-6677-04-06 15:50 J	-717255.06	-717254.84	-717254.62	0.0089	0.0011
Venus	-6677-11-18 04:47 J	-717029.52	-717029.30	-717029.08	0.0089	0.0001
Venus	-6676-07-01 17:45 J	-716803.97	-716803.76	-716803.54	0.0089	0.0013
Venus	-6675-02-12 06:28 J	-716578.43	-716578.23	-716578.01	0.0089	0.0025
Venus	-6675-09-25 19:26 J	-716352.88	-716352.69	-716352.48	0.0089	0.0036
Venus	-6674-05-09 08:23 J	-716127.33	-716127.15	-716126.96	0.0089	0.0048
Venus	-6674-12-20 21:07 J	-715901.77	-715901.62	-715901.44	0.0089	0.0060

Venus	-6673-08-02 10:33 J	-715676.19	-715676.06	-715675.93	0.0089	0.0071
Venus	-6672-03-15 23:02 J	-715450.60	-715450.54	-715450.44	0.0089	0.0083
Earth	-6640-12-15 03:36 J	-703488.53	-703488.35	-703488.17	0.0088	0.0063
Moon	-6640-12-15 06:57 J	-703488.38	-703488.21	-703488.04	0.0088	0.0065 *
Moon	-6639-12-17 10:47 J	-703121.29	-703121.05	-703120.81	0.0088	0.0028
Earth	-6639-12-17 14:09 J	-703121.14	-703120.91	-703120.65	0.0088	0.0031 *
Earth	-6638-12-20 01:12 J	-702753.71	-702753.45	-702753.20	0.0088	0.0002
Moon	-6638-12-20 04:04 J	-702753.59	-702753.33	-702753.07	0.0088	0.0000 *
Moon	-6637-12-21 09:21 J	-702386.33	-702386.11	-702385.87	0.0088	0.0037
Earth	-6637-12-21 11:31 J	-702386.23	-702386.02	-702385.76	0.0088	0.0036 *
Earth	-6636-12-23 22:47 J	-702018.70	-702018.55	-702018.37	0.0088	0.0068
Moon	-6636-12-23 23:45 J	-702018.66	-702018.51	-702018.31	0.0088	0.0066 *
Jupiter	-6620-08-23 15:36 J	-696297.06	-696296.85	-696296.52	0.0088	0.0077
Mars	-6617-12-06 17:45 J	-695095.90	-695095.76	-695095.57	0.0088	0.0075
Mars	-6615-11-01 11:16 J	-694401.33	-694401.03	-694400.70	0.0088	0.0008
Mercury	-6608-07-09 21:36 J	-691958.66	-691958.60	-691958.49	0.0088	0.0079
Mercury	-6608-10-06 01:26 J	-691870.55	-691870.44	-691870.31	0.0088	0.0069
Mercury	-6607-01-02 05:02 J	-691782.42	-691782.29	-691782.13	0.0088	0.0059
Mercury	-6607-03-31 08:38 J	-691694.29	-691694.14	-691693.97	0.0088	0.0049
Mercury	-6607-06-27 12:14 J	-691606.15	-691605.99	-691605.80	0.0088	0.0039
Mercury	-6607-09-23 15:50 J	-691518.01	-691517.84	-691517.64	0.0088	0.0029
Mercury	-6607-12-20 19:40 J	-691429.87	-691429.68	-691429.49	0.0088	0.0019
Mercury	-6606-03-18 23:16 J	-691341.72	-691341.53	-691341.33	0.0088	0.0009
Mercury	-6606-06-15 02:52 J	-691253.57	-691253.38	-691253.18	0.0088	0.0002
Mercury	-6606-09-11 06:28 J	-691165.42	-691165.23	-691165.03	0.0088	0.0011
Mercury	-6606-12-08 10:04 J	-691077.27	-691077.08	-691076.88	0.0088	0.0021
Mercury	-6605-03-05 13:55 J	-690989.11	-690988.92	-690988.74	0.0088	0.0031
Mercury	-6605-06-01 17:31 J	-690900.95	-690900.77	-690900.60	0.0088	0.0041
Mercury	-6605-08-28 20:38 J	-690812.78	-690812.64	-690812.46	0.0088	0.0052
Mercury	-6605-11-25 00:14 J	-690724.61	-690724.49	-690724.33	0.0088	0.0062

Mercury	-6604-02-21 03:50 J	-690636.43	-690636.34	-690636.20	0.0088	0.0072
Mercury	-6604-05-20 07:40 J	-690548.23	-690548.18	-690548.09	0.0088	0.0082
Venus	-6598-04-20 07:12 J	-688387.29	-688387.20	-688387.08	0.0088	0.0077
Venus	-6598-12-01 20:09 J	-688161.79	-688161.66	-688161.50	0.0088	0.0066
Venus	-6597-07-14 08:52 J	-687936.28	-687936.13	-687935.94	0.0088	0.0055
Venus	-6596-02-24 22:19 J	-687710.76	-687710.57	-687710.38	0.0088	0.0043
Venus	-6596-10-08 11:02 J	-687485.24	-687485.04	-687484.82	0.0088	0.0032
Venus	-6595-05-22 00:00 J	-687259.70	-687259.50	-687259.27	0.0088	0.0021
Venus	-6594-01-02 13:26 J	-687034.16	-687033.94	-687033.72	0.0088	0.0009
Venus	-6594-08-16 02:23 J	-686808.62	-686808.40	-686808.17	0.0088	0.0003
Venus	-6593-03-28 15:21 J	-686583.07	-686582.86	-686582.64	0.0088	0.0014
Venus	-6593-11-09 04:19 J	-686357.53	-686357.32	-686357.10	0.0088	0.0025
Venus	-6592-06-22 17:31 J	-686131.97	-686131.77	-686131.57	0.0088	0.0036
Venus	-6591-02-03 06:14 J	-685906.41	-685906.24	-685906.03	0.0088	0.0048
Venus	-6591-09-16 19:26 J	-685680.84	-685680.69	-685680.51	0.0088	0.0060
Venus	-6590-04-30 08:09 J	-685455.26	-685455.16	-685455.00	0.0088	0.0071
Venus	-6590-12-11 21:21 J	-685229.67	-685229.61	-685229.51	0.0088	0.0082
Moon	-6557-06-18 11:16 J	-673352.07	-673352.03	-673351.94	0.0089	0.0086
Earth	-6557-06-18 15:07 J	-673351.96	-673351.87	-673351.77	0.0089	0.0082 *
Earth	-6556-06-21 03:07 J	-672984.57	-672984.37	-672984.14	0.0089	0.0049
Moon	-6556-06-21 06:57 J	-672984.42	-672984.21	-672983.98	0.0089	0.0046 *
Moon	-6555-06-23 12:28 J	-672617.23	-672616.98	-672616.73	0.0089	0.0019
Earth	-6555-06-23 15:50 J	-672617.08	-672616.84	-672616.57	0.0089	0.0016 *
Earth	-6554-06-26 04:19 J	-672249.57	-672249.32	-672249.06	0.0089	0.0018
Moon	-6554-06-26 06:57 J	-672249.45	-672249.21	-672248.94	0.0089	0.0021 *
Moon	-6553-06-27 14:23 J	-671882.10	-671881.90	-671881.68	0.0089	0.0049
Earth	-6553-06-27 16:19 J	-671882.01	-671881.82	-671881.59	0.0089	0.0052 *
Earth	-6552-06-30 04:19 J	-671514.37	-671514.32	-671514.22	0.0089	0.0085
Moon	-6552-06-30 05:31 J	-671514.30	-671514.27	-671514.21	0.0089	0.0087 *
Mars	-6533-07-15 22:33 J	-664558.83	-664558.56	-664558.24	0.0089	0.0031

Mars	-6531-06-10 21:36 J	-663863.82	-663863.60	-663863.34	0.0089	0.0057
Mercury	-6527-10-26 14:52 J	-662264.90	-662264.88	-662264.84	0.0089	0.0086
Mercury	-6526-01-22 16:04 J	-662176.87	-662176.83	-662176.75	0.0089	0.0080
Mercury	-6526-04-20 17:31 J	-662088.83	-662088.77	-662088.68	0.0089	0.0072
Mercury	-6526-07-17 19:12 J	-662000.79	-662000.70	-662000.61	0.0089	0.0065
Mercury	-6526-10-13 20:23 J	-661912.75	-661912.65	-661912.55	0.0089	0.0058
Mercury	-6525-01-09 21:36 J	-661824.70	-661824.60	-661824.48	0.0089	0.0051
Mercury	-6525-04-06 23:02 J	-661736.65	-661736.54	-661736.42	0.0089	0.0044
Mercury	-6525-07-04 00:14 J	-661648.60	-661648.49	-661648.36	0.0089	0.0037
Mercury	-6525-09-30 01:40 J	-661560.55	-661560.43	-661560.30	0.0089	0.0029
Mercury	-6525-12-27 03:07 J	-661472.50	-661472.37	-661472.24	0.0089	0.0022
Mercury	-6524-03-25 04:19 J	-661384.45	-661384.32	-661384.19	0.0089	0.0015
Mercury	-6524-06-21 05:45 J	-661296.39	-661296.26	-661296.13	0.0089	0.0008
Mercury	-6524-09-17 06:57 J	-661208.34	-661208.21	-661208.07	0.0089	0.0003
Mercury	-6524-12-14 08:23 J	-661120.28	-661120.15	-661120.02	0.0089	0.0006
Mercury	-6523-03-12 09:36 J	-661032.23	-661032.10	-661031.97	0.0089	0.0013
Mercury	-6523-06-08 11:02 J	-660944.17	-660944.04	-660943.91	0.0089	0.0020
Mercury	-6523-09-04 12:14 J	-660856.11	-660855.99	-660855.86	0.0089	0.0027
Mercury	-6523-12-01 13:26 J	-660768.05	-660767.94	-660767.81	0.0089	0.0035
Mercury	-6522-02-27 14:38 J	-660680.00	-660679.89	-660679.76	0.0089	0.0042
Mercury	-6522-05-26 16:04 J	-660591.93	-660591.83	-660591.71	0.0089	0.0048
Mercury	-6522-08-22 17:16 J	-660503.87	-660503.78	-660503.67	0.0089	0.0056
Mercury	-6522-11-18 18:28 J	-660415.81	-660415.73	-660415.62	0.0089	0.0063
Mercury	-6521-02-14 19:55 J	-660327.74	-660327.67	-660327.58	0.0089	0.0069
Mercury	-6521-05-12 21:07 J	-660239.68	-660239.62	-660239.54	0.0089	0.0077
Mercury	-6521-08-08 22:19 J	-660151.60	-660151.57	-660151.51	0.0089	0.0084
Venus	-6517-10-24 18:14 J	-658613.77	-658613.74	-658613.68	0.0089	0.0087
Venus	-6516-06-07 07:26 J	-658388.29	-658388.19	-658388.06	0.0089	0.0076
Venus	-6515-01-18 20:52 J	-658162.78	-658162.63	-658162.47	0.0089	0.0064
Venus	-6515-09-01 09:36 J	-657937.26	-657937.10	-657936.90	0.0089	0.0053

Venus	-6514-04-14 22:47 J	-657711.73	-657711.55	-657711.34	0.0089	0.0040
Venus	-6514-11-26 12:00 J	-657486.20	-657486.00	-657485.79	0.0089	0.0028
Venus	-6513-07-09 01:12 J	-657260.66	-657260.45	-657260.23	0.0089	0.0017
Venus	-6512-02-19 14:09 J	-657035.12	-657034.91	-657034.69	0.0089	0.0005
Venus	-6512-10-03 03:07 J	-656809.59	-656809.37	-656809.15	0.0089	0.0007
Venus	-6511-05-16 15:50 J	-656584.04	-656583.84	-656583.61	0.0089	0.0019
Venus	-6511-12-28 05:02 J	-656358.49	-656358.29	-656358.08	0.0089	0.0031
Venus	-6510-08-10 18:00 J	-656132.94	-656132.75	-656132.55	0.0089	0.0042
Venus	-6509-03-23 06:43 J	-655907.38	-655907.22	-655907.03	0.0089	0.0054
Venus	-6509-11-03 19:55 J	-655681.81	-655681.67	-655681.52	0.0089	0.0066
Venus	-6508-06-17 08:38 J	-655456.23	-655456.14	-655456.02	0.0089	0.0077
Venus	-6507-01-28 21:21 J	-655230.61	-655230.61	-655230.57	0.0089	0.0089
Saturn	-6478-04-22 11:02 J	-644555.64	-644555.04	-644554.33	0.0088	0.0031
Moon	-6476-12-14 07:26 J	-643588.29	-643588.19	-643588.05	0.0088	0.0078
Earth	-6476-12-14 11:16 J	-643588.13	-643588.03	-643587.93	0.0088	0.0081 *
Earth	-6475-12-16 21:36 J	-643220.80	-643220.60	-643220.38	0.0088	0.0049
Moon	-6475-12-17 00:28 J	-643220.67	-643220.48	-643220.25	0.0088	0.0053 *
Moon	-6474-12-19 07:12 J	-642853.45	-642853.20	-642852.95	0.0088	0.0013
Earth	-6474-12-19 08:23 J	-642853.39	-642853.15	-642852.88	0.0088	0.0017 *
Earth	-6473-12-20 19:26 J	-642485.94	-642485.69	-642485.43	0.0088	0.0016
Moon	-6473-12-20 20:09 J	-642485.92	-642485.66	-642485.39	0.0088	0.0013 *
Earth	-6472-12-23 06:14 J	-642118.45	-642118.24	-642118.02	0.0088	0.0049
Moon	-6472-12-23 06:43 J	-642118.41	-642118.22	-642118.02	0.0088	0.0053 *
Moon	-6471-12-25 14:52 J	-641750.99	-641750.88	-641750.74	0.0088	0.0078
Earth	-6471-12-25 16:47 J	-641750.87	-641750.80	-641750.68	0.0088	0.0082 *
Jupiter	-6454-10-29 20:38 J	-635598.95	-635598.64	-635598.25	0.0088	0.0068
Mars	-6451-06-15 22:19 J	-634638.84	-634638.57	-634638.26	0.0088	0.0036
Mars	-6449-05-10 14:52 J	-633944.12	-633943.88	-633943.59	0.0088	0.0047
Mercury	-6443-01-07 15:50 J	-631875.85	-631875.84	-631875.82	0.0088	0.0087
Mercury	-6443-04-05 18:57 J	-631787.78	-631787.71	-631787.60	0.0088	0.0078

Mercury	-6443-07-02 22:33 J	-631699.66	-631699.56	-631699.42	0.0088	0.0068
Mercury	-6443-09-29 02:09 J	-631611.54	-631611.41	-631611.25	0.0088	0.0058
Mercury	-6443-12-26 05:45 J	-631523.41	-631523.26	-631523.08	0.0088	0.0048
Mercury	-6442-03-24 09:36 J	-631435.27	-631435.10	-631434.92	0.0088	0.0038
Mercury	-6442-06-20 13:12 J	-631347.13	-631346.95	-631346.76	0.0088	0.0028
Mercury	-6442-09-16 16:47 J	-631258.99	-631258.80	-631258.60	0.0088	0.0018
Mercury	-6442-12-13 20:23 J	-631170.84	-631170.65	-631170.45	0.0088	0.0008
Mercury	-6441-03-11 00:14 J	-631082.69	-631082.49	-631082.30	0.0088	0.0003
Mercury	-6441-06-07 03:50 J	-630994.54	-630994.34	-630994.15	0.0088	0.0012
Mercury	-6441-09-03 07:26 J	-630906.38	-630906.19	-630906.00	0.0088	0.0022
Mercury	-6441-11-30 11:02 J	-630818.22	-630818.04	-630817.86	0.0088	0.0032
Mercury	-6440-02-26 14:38 J	-630730.06	-630729.89	-630729.72	0.0088	0.0042
Mercury	-6440-05-25 18:00 J	-630641.89	-630641.75	-630641.58	0.0088	0.0053
Mercury	-6440-08-21 21:36 J	-630553.72	-630553.60	-630553.45	0.0088	0.0063
Mercury	-6440-11-18 01:12 J	-630465.54	-630465.45	-630465.32	0.0088	0.0073
Mercury	-6439-02-14 04:47 J	-630377.34	-630377.30	-630377.22	0.0088	0.0083
Venus	-6434-07-22 15:50 J	-628392.88	-628392.84	-628392.75	0.0088	0.0084
Venus	-6433-03-04 05:16 J	-628167.40	-628167.28	-628167.15	0.0088	0.0072
Venus	-6433-10-15 17:45 J	-627941.90	-627941.76	-627941.59	0.0088	0.0061
Venus	-6432-05-29 06:43 J	-627716.39	-627716.22	-627716.02	0.0088	0.0050
Venus	-6431-01-09 20:09 J	-627490.86	-627490.66	-627490.46	0.0088	0.0038
Venus	-6431-08-23 08:52 J	-627265.33	-627265.13	-627264.91	0.0088	0.0027
Venus	-6430-04-05 22:04 J	-627039.80	-627039.58	-627039.36	0.0088	0.0015
Venus	-6430-11-17 11:02 J	-626814.26	-626814.04	-626813.82	0.0088	0.0004
Venus	-6429-06-30 00:00 J	-626588.72	-626588.50	-626588.28	0.0088	0.0008
Venus	-6428-02-10 12:57 J	-626363.17	-626362.96	-626362.74	0.0088	0.0019
Venus	-6428-09-24 01:55 J	-626137.62	-626137.42	-626137.20	0.0088	0.0031
Venus	-6427-05-07 14:52 J	-625912.06	-625911.88	-625911.67	0.0088	0.0042
Venus	-6427-12-19 03:50 J	-625686.50	-625686.34	-625686.15	0.0088	0.0054
Venus	-6426-08-01 17:02 J	-625460.92	-625460.79	-625460.63	0.0088	0.0065

Venus	-6425-03-14 05:45 J	-625235.34	-625235.26	-625235.13	0.0088	0.0077
Moon	-6392-06-20 05:16 J	-613084.42	-613084.28	-613084.12	0.0089	0.0071
Earth	-6392-06-20 08:23 J	-613084.31	-613084.15	-613083.98	0.0089	0.0068 *
Earth	-6391-06-22 20:38 J	-612716.86	-612716.64	-612716.39	0.0089	0.0035
Moon	-6391-06-22 23:16 J	-612716.76	-612716.53	-612716.27	0.0089	0.0032 *
Moon	-6390-06-25 08:23 J	-612349.40	-612349.15	-612348.90	0.0089	0.0004
Earth	-6390-06-25 09:21 J	-612349.36	-612349.11	-612348.85	0.0089	0.0002 *
Earth	-6389-06-26 21:36 J	-611981.83	-611981.60	-611981.34	0.0089	0.0032
Moon	-6389-06-26 21:50 J	-611981.82	-611981.59	-611981.32	0.0089	0.0035 *
Earth	-6388-06-29 09:36 J	-611614.25	-611614.10	-611613.90	0.0089	0.0065
Moon	-6388-06-29 10:33 J	-611614.22	-611614.06	-611613.86	0.0089	0.0062 *
Mars	-6369-02-28 07:26 J	-604796.35	-604796.19	-604796.01	0.0089	0.0075
Mars	-6367-01-23 03:36 J	-604101.65	-604101.35	-604101.02	0.0089	0.0012
Mercury	-6362-07-23 14:09 J	-602093.94	-602093.91	-602093.86	0.0089	0.0085
Mercury	-6362-10-19 15:21 J	-602005.91	-602005.86	-602005.78	0.0089	0.0079
Mercury	-6361-01-15 17:02 J	-601917.87	-601917.79	-601917.71	0.0089	0.0071
Mercury	-6361-04-12 18:28 J	-601829.82	-601829.73	-601829.64	0.0089	0.0064
Mercury	-6361-07-09 19:40 J	-601741.78	-601741.68	-601741.57	0.0089	0.0057
Mercury	-6361-10-05 21:07 J	-601653.73	-601653.62	-601653.51	0.0089	0.0049
Mercury	-6360-01-01 22:19 J	-601565.68	-601565.57	-601565.45	0.0089	0.0042
Mercury	-6360-03-30 23:45 J	-601477.63	-601477.51	-601477.39	0.0089	0.0035
Mercury	-6360-06-27 00:57 J	-601389.58	-601389.46	-601389.33	0.0089	0.0029
Mercury	-6360-09-23 02:23 J	-601301.53	-601301.40	-601301.27	0.0089	0.0021
Mercury	-6360-12-20 03:36 J	-601213.47	-601213.35	-601213.21	0.0089	0.0015
Mercury	-6359-03-18 05:02 J	-601125.42	-601125.29	-601125.16	0.0089	0.0007
Mercury	-6359-06-14 06:28 J	-601037.36	-601037.23	-601037.10	0.0089	0.0002
Mercury	-6359-09-10 07:40 J	-600949.31	-600949.18	-600949.05	0.0089	0.0007
Mercury	-6359-12-07 09:07 J	-600861.25	-600861.12	-600860.99	0.0089	0.0014
Mercury	-6358-03-05 10:19 J	-600773.20	-600773.07	-600772.94	0.0089	0.0021
Mercury	-6358-06-01 11:31 J	-600685.14	-600685.02	-600684.89	0.0089	0.0029

Mercury	-6358-08-28 12:57 J	-600597.08	-600596.96	-600596.84	0.0089	0.0035
Mercury	-6358-11-24 14:09 J	-600509.02	-600508.91	-600508.79	0.0089	0.0042
Mercury	-6357-02-20 15:21 J	-600420.96	-600420.86	-600420.74	0.0089	0.0050
Mercury	-6357-05-18 16:47 J	-600332.90	-600332.80	-600332.70	0.0089	0.0056
Mercury	-6357-08-14 18:00 J	-600244.84	-600244.75	-600244.65	0.0089	0.0063
Mercury	-6357-11-10 19:12 J	-600156.77	-600156.70	-600156.61	0.0089	0.0071
Mercury	-6356-02-06 20:23 J	-600068.70	-600068.65	-600068.57	0.0089	0.0078
Mercury	-6356-05-05 21:50 J	-599980.62	-599980.59	-599980.54	0.0089	0.0084
Venus	-6352-09-08 16:04 J	-598393.90	-598393.83	-598393.73	0.0089	0.0083
Venus	-6351-04-22 05:16 J	-598168.40	-598168.28	-598168.14	0.0089	0.0071
Venus	-6351-12-03 18:28 J	-597942.89	-597942.73	-597942.56	0.0089	0.0059
Venus	-6350-07-17 07:55 J	-597717.36	-597717.17	-597716.99	0.0089	0.0047
Venus	-6349-02-27 20:38 J	-597491.83	-597491.64	-597491.43	0.0089	0.0035
Venus	-6349-10-10 09:36 J	-597266.30	-597266.10	-597265.87	0.0089	0.0024
Venus	-6348-05-23 22:47 J	-597040.76	-597040.55	-597040.33	0.0089	0.0011
Venus	-6347-01-04 12:00 J	-596815.22	-596815.00	-596814.78	0.0089	0.0001
Venus	-6347-08-18 00:57 J	-596589.67	-596589.46	-596589.24	0.0089	0.0013
Venus	-6346-03-31 13:55 J	-596364.13	-596363.92	-596363.71	0.0089	0.0025
Venus	-6346-11-12 02:52 J	-596138.58	-596138.38	-596138.18	0.0089	0.0037
Venus	-6345-06-24 15:36 J	-595913.02	-595912.85	-595912.65	0.0089	0.0049
Venus	-6344-02-05 04:33 J	-595687.46	-595687.31	-595687.14	0.0089	0.0060
Venus	-6344-09-18 17:16 J	-595461.89	-595461.78	-595461.63	0.0089	0.0072
Venus	-6343-05-02 06:28 J	-595236.30	-595236.23	-595236.15	0.0089	0.0084
Moon	-6311-12-16 02:38 J	-583320.52	-583320.39	-583320.22	0.0088	0.0070
Earth	-6311-12-16 04:04 J	-583320.47	-583320.33	-583320.14	0.0088	0.0068 *
Moon	-6310-12-18 15:07 J	-582953.11	-582952.87	-582952.61	0.0088	0.0032
Earth	-6310-12-18 14:52 J	-582953.09	-582952.88	-582952.62	0.0088	0.0036 *
Earth	-6309-12-20 02:09 J	-582585.66	-582585.41	-582585.15	0.0088	0.0003
Moon	-6309-12-20 03:36 J	-582585.60	-582585.35	-582585.10	0.0088	0.0006 *
Moon	-6308-12-22 10:47 J	-582218.29	-582218.05	-582217.80	0.0088	0.0033

Earth	-6308-12-22 12:57 J	-582218.20	-582217.96	-582217.71	0.0088	0.0030 *
Earth	-6307-12-24 23:02 J	-581850.69	-581850.54	-581850.33	0.0088	0.0063
Moon	-6307-12-25 02:52 J	-581850.56	-581850.38	-581850.18	0.0088	0.0059 *
Mars	-6287-01-28 06:00 J	-574876.34	-574876.25	-574876.07	0.0088	0.0080
Mars	-6286-12-24 02:38 J	-574181.70	-574181.39	-574181.07	0.0088	0.0004
Mars	-6284-11-17 18:43 J	-573486.75	-573486.72	-573486.63	0.0088	0.0086
Mercury	-6279-10-04 12:28 J	-571704.99	-571704.98	-571704.93	0.0088	0.0087
Mercury	-6279-12-31 16:04 J	-571616.90	-571616.83	-571616.72	0.0088	0.0077
Mercury	-6278-03-29 19:55 J	-571528.79	-571528.67	-571528.54	0.0088	0.0067
Mercury	-6278-06-25 23:31 J	-571440.66	-571440.52	-571440.37	0.0088	0.0057
Mercury	-6278-09-22 03:07 J	-571352.53	-571352.37	-571352.20	0.0088	0.0047
Mercury	-6278-12-19 06:43 J	-571264.39	-571264.22	-571264.04	0.0088	0.0037
Mercury	-6277-03-16 10:19 J	-571176.25	-571176.07	-571175.88	0.0088	0.0027
Mercury	-6277-06-12 13:55 J	-571088.11	-571087.92	-571087.73	0.0088	0.0017
Mercury	-6277-09-08 17:31 J	-570999.96	-570999.77	-570999.57	0.0088	0.0007
Mercury	-6277-12-05 21:07 J	-570911.81	-570911.62	-570911.42	0.0088	0.0003
Mercury	-6276-03-04 00:43 J	-570823.66	-570823.47	-570823.27	0.0088	0.0013
Mercury	-6276-05-31 04:04 J	-570735.51	-570735.33	-570735.13	0.0088	0.0023
Mercury	-6276-08-27 07:40 J	-570647.35	-570647.18	-570646.98	0.0088	0.0033
Mercury	-6276-11-23 11:16 J	-570559.19	-570559.03	-570558.84	0.0088	0.0043
Mercury	-6275-02-19 14:52 J	-570471.02	-570470.88	-570470.71	0.0088	0.0053
Mercury	-6275-05-18 18:28 J	-570382.85	-570382.73	-570382.58	0.0088	0.0063
Mercury	-6275-08-14 22:19 J	-570294.67	-570294.57	-570294.45	0.0088	0.0073
Mercury	-6275-11-11 01:55 J	-570206.47	-570206.42	-570206.35	0.0088	0.0083
Venus	-6269-06-05 13:26 J	-568173.03	-568172.94	-568172.85	0.0088	0.0079
Venus	-6268-01-17 02:09 J	-567947.53	-567947.41	-567947.26	0.0088	0.0068
Venus	-6268-08-30 14:52 J	-567722.03	-567721.88	-567721.69	0.0088	0.0057
Venus	-6267-04-13 04:04 J	-567496.51	-567496.33	-567496.13	0.0088	0.0045
Venus	-6267-11-24 16:47 J	-567270.99	-567270.80	-567270.58	0.0088	0.0034
Venus	-6266-07-08 05:45 J	-567045.46	-567045.26	-567045.03	0.0088	0.0022

Venus	-6265-02-18 18:57 J	-566819.93	-566819.71	-566819.49	0.0088	0.0010
Venus	-6265-10-01 07:55 J	-566594.39	-566594.17	-566593.95	0.0088	0.0001
Venus	-6264-05-14 20:52 J	-566368.85	-566368.63	-566368.41	0.0088	0.0013
Venus	-6264-12-26 10:04 J	-566143.29	-566143.08	-566142.87	0.0088	0.0024
Venus	-6263-08-08 22:47 J	-565917.74	-565917.55	-565917.33	0.0088	0.0036
Venus	-6262-03-22 11:45 J	-565692.18	-565692.01	-565691.81	0.0088	0.0048
Venus	-6262-11-03 00:57 J	-565466.61	-565466.46	-565466.29	0.0088	0.0059
Venus	-6261-06-15 13:40 J	-565241.04	-565240.93	-565240.78	0.0088	0.0071
Venus	-6260-01-27 03:21 J	-565015.43	-565015.36	-565015.28	0.0088	0.0082
Earth	-6228-06-19 12:00 J	-553184.02	-553184.00	-553183.95	0.0089	0.0088
Moon	-6227-06-21 23:31 J	-552816.71	-552816.52	-552816.30	0.0089	0.0052
Earth	-6227-06-22 00:28 J	-552816.66	-552816.48	-552816.26	0.0089	0.0055 *
Moon	-6226-06-24 12:14 J	-552449.23	-552448.99	-552448.72	0.0089	0.0026
Earth	-6226-06-24 13:12 J	-552449.19	-552448.95	-552448.69	0.0089	0.0022 *
Earth	-6225-06-26 01:40 J	-552081.69	-552081.43	-552081.17	0.0089	0.0011
Moon	-6225-06-26 03:21 J	-552081.60	-552081.36	-552081.11	0.0089	0.0015 *
Moon	-6224-06-28 11:16 J	-551714.25	-551714.03	-551713.78	0.0089	0.0041
Earth	-6224-06-28 13:40 J	-551714.13	-551713.93	-551713.68	0.0089	0.0045 *
Earth	-6223-07-01 02:38 J	-551346.51	-551346.39	-551346.26	0.0089	0.0077
Moon	-6223-07-01 05:31 J	-551346.34	-551346.27	-551346.14	0.0089	0.0082 *
Mars	-6204-09-06 10:47 J	-544339.34	-544339.05	-544338.76	0.0089	0.0035
Mars	-6202-08-02 07:12 J	-543644.44	-543644.20	-543643.93	0.0089	0.0052
Mercury	-6197-04-18 13:12 J	-541922.98	-541922.95	-541922.90	0.0089	0.0085
Mercury	-6197-07-15 14:52 J	-541834.95	-541834.88	-541834.82	0.0089	0.0078
Mercury	-6197-10-11 16:04 J	-541746.91	-541746.83	-541746.75	0.0089	0.0071
Mercury	-6196-01-07 17:16 J	-541658.86	-541658.78	-541658.68	0.0089	0.0064
Mercury	-6196-04-05 18:43 J	-541570.82	-541570.72	-541570.61	0.0089	0.0056
Mercury	-6196-07-02 19:55 J	-541482.77	-541482.67	-541482.55	0.0089	0.0050
Mercury	-6196-09-28 21:21 J	-541394.72	-541394.61	-541394.48	0.0089	0.0042
Mercury	-6196-12-25 22:47 J	-541306.67	-541306.55	-541306.42	0.0089	0.0035

Mercury	-6195-03-24 00:14 J	-541218.62	-541218.49	-541218.36	0.0089	0.0028
Mercury	-6195-06-20 01:26 J	-541130.56	-541130.44	-541130.31	0.0089	0.0021
Mercury	-6195-09-16 02:52 J	-541042.51	-541042.38	-541042.25	0.0089	0.0014
Mercury	-6195-12-13 04:04 J	-540954.46	-540954.33	-540954.19	0.0089	0.0008
Mercury	-6194-03-11 05:31 J	-540866.40	-540866.27	-540866.14	0.0089	0.0001
Mercury	-6194-06-07 06:43 J	-540778.35	-540778.22	-540778.08	0.0089	0.0008
Mercury	-6194-09-03 08:09 J	-540690.29	-540690.16	-540690.03	0.0089	0.0015
Mercury	-6194-11-30 09:21 J	-540602.23	-540602.11	-540601.98	0.0089	0.0022
Mercury	-6193-02-26 10:47 J	-540514.17	-540514.05	-540513.93	0.0089	0.0029
Mercury	-6193-05-24 12:00 J	-540426.12	-540426.00	-540425.88	0.0089	0.0036
Mercury	-6193-08-20 13:26 J	-540338.06	-540337.94	-540337.83	0.0089	0.0043
Mercury	-6193-11-16 14:23 J	-540250.00	-540249.90	-540249.78	0.0089	0.0051
Mercury	-6192-02-12 15:50 J	-540161.93	-540161.84	-540161.73	0.0089	0.0057
Mercury	-6192-05-11 17:16 J	-540073.87	-540073.78	-540073.69	0.0089	0.0064
Mercury	-6192-08-07 18:14 J	-539985.80	-539985.74	-539985.65	0.0089	0.0071
Mercury	-6192-11-03 19:55 J	-539897.73	-539897.67	-539897.61	0.0089	0.0078
Mercury	-6191-01-30 21:07 J	-539809.65	-539809.62	-539809.58	0.0089	0.0085
Venus	-6187-07-24 13:40 J	-538174.03	-538173.93	-538173.82	0.0089	0.0078
Venus	-6186-03-07 02:52 J	-537948.53	-537948.38	-537948.23	0.0089	0.0066
Venus	-6186-10-18 15:50 J	-537723.01	-537722.84	-537722.66	0.0089	0.0054
Venus	-6185-05-31 05:02 J	-537497.48	-537497.29	-537497.09	0.0089	0.0042
Venus	-6184-01-11 18:14 J	-537271.95	-537271.74	-537271.53	0.0089	0.0030
Venus	-6184-08-25 07:26 J	-537046.41	-537046.19	-537045.98	0.0089	0.0018
Venus	-6183-04-07 20:23 J	-536820.87	-536820.65	-536820.43	0.0089	0.0006
Venus	-6183-11-19 09:21 J	-536595.32	-536595.11	-536594.89	0.0089	0.0007
Venus	-6182-07-02 22:33 J	-536369.77	-536369.56	-536369.34	0.0089	0.0018
Venus	-6181-02-13 11:31 J	-536144.22	-536144.02	-536143.81	0.0089	0.0030
Venus	-6181-09-26 00:14 J	-535918.67	-535918.49	-535918.29	0.0089	0.0043
Venus	-6180-05-09 13:12 J	-535693.11	-535692.95	-535692.77	0.0089	0.0055
Venus	-6180-12-21 01:55 J	-535467.54	-535467.42	-535467.26	0.0089	0.0067

Venus	-6179-08-03 14:52 J	-535241.96	-535241.88	-535241.75	0.0089	0.0079
Moon	-6147-12-15 10:33 J	-523420.13	-523420.06	-523419.95	0.0088	0.0083
Earth	-6147-12-15 10:48 J	-523420.09	-523420.05	-523419.97	0.0088	0.0086 *
Earth	-6146-12-17 21:50 J	-523052.78	-523052.59	-523052.37	0.0088	0.0054
Moon	-6146-12-17 23:31 J	-523052.70	-523052.52	-523052.32	0.0088	0.0057 *
Moon	-6145-12-19 05:45 J	-522685.51	-522685.26	-522685.00	0.0088	0.0019
Earth	-6145-12-19 08:52 J	-522685.38	-522685.13	-522684.88	0.0088	0.0021 *
Earth	-6144-12-21 19:26 J	-522317.94	-522317.69	-522317.43	0.0088	0.0011
Moon	-6144-12-21 22:33 J	-522317.81	-522317.56	-522317.30	0.0088	0.0008 *
Moon	-6143-12-24 02:09 J	-521950.61	-521950.41	-521950.17	0.0088	0.0046
Earth	-6143-12-24 06:14 J	-521950.46	-521950.24	-521950.01	0.0088	0.0043 *
Earth	-6142-12-26 17:16 J	-521582.92	-521582.78	-521582.65	0.0088	0.0075
Moon	-6142-12-26 19:40 J	-521582.80	-521582.68	-521582.50	0.0088	0.0073 *
Mars	-6122-08-07 09:07 J	-514419.37	-514419.12	-514418.81	0.0088	0.0041
Mars	-6120-07-02 03:50 J	-513724.58	-513724.34	-513724.03	0.0088	0.0043
Mercury	-6114-07-01 09:50 J	-511534.11	-511534.09	-511534.04	0.0088	0.0086
Mercury	-6114-09-27 13:26 J	-511446.03	-511445.94	-511445.84	0.0088	0.0076
Mercury	-6114-12-24 16:33 J	-511357.91	-511357.81	-511357.66	0.0088	0.0067
Mercury	-6113-03-21 20:23 J	-511269.79	-511269.65	-511269.49	0.0088	0.0057
Mercury	-6113-06-18 00:00 J	-511181.65	-511181.50	-511181.33	0.0088	0.0047
Mercury	-6113-09-14 03:36 J	-511093.52	-511093.35	-511093.16	0.0088	0.0037
Mercury	-6113-12-11 07:11 J	-511005.38	-511005.20	-511005.01	0.0088	0.0027
Mercury	-6112-03-09 10:48 J	-510917.24	-510917.05	-510916.85	0.0088	0.0017
Mercury	-6112-06-05 14:38 J	-510829.09	-510828.89	-510828.70	0.0088	0.0007
Mercury	-6112-09-01 18:00 J	-510740.94	-510740.75	-510740.55	0.0088	0.0004
Mercury	-6112-11-28 21:36 J	-510652.79	-510652.60	-510652.40	0.0088	0.0013
Mercury	-6111-02-25 01:11 J	-510564.63	-510564.45	-510564.26	0.0088	0.0023
Mercury	-6111-05-24 04:48 J	-510476.48	-510476.30	-510476.11	0.0088	0.0033
Mercury	-6111-08-20 08:23 J	-510388.31	-510388.15	-510387.97	0.0088	0.0043
Mercury	-6111-11-16 12:00 J	-510300.15	-510300.00	-510299.84	0.0088	0.0053

Mercury	-6110-02-12 15:36 J	-510211.98	-510211.85	-510211.70	0.0088	0.0063
Mercury	-6110-05-11 19:11 J	-510123.80	-510123.70	-510123.58	0.0088	0.0073
Mercury	-6110-08-07 22:48 J	-510035.60	-510035.55	-510035.48	0.0088	0.0083
Venus	-6105-09-06 21:07 J	-508178.63	-508178.62	-508178.56	0.0088	0.0087
Venus	-6104-04-20 10:04 J	-507953.17	-507953.08	-507952.95	0.0088	0.0075
Venus	-6104-12-01 22:48 J	-507727.68	-507727.55	-507727.37	0.0088	0.0064
Venus	-6103-07-15 12:00 J	-507502.17	-507502.00	-507501.81	0.0088	0.0052
Venus	-6102-02-26 00:57 J	-507276.65	-507276.46	-507276.26	0.0088	0.0040
Venus	-6102-10-09 13:40 J	-507051.13	-507050.93	-507050.71	0.0088	0.0029
Venus	-6101-05-22 02:38 J	-506825.60	-506825.39	-506825.16	0.0088	0.0017
Venus	-6100-01-02 15:50 J	-506600.06	-506599.84	-506599.62	0.0088	0.0005
Venus	-6100-08-16 04:48 J	-506374.52	-506374.30	-506374.08	0.0088	0.0006
Venus	-6099-03-29 17:31 J	-506148.98	-506148.77	-506148.54	0.0088	0.0018
Venus	-6099-11-10 06:14 J	-505923.43	-505923.24	-505923.01	0.0088	0.0030
Venus	-6098-06-23 19:26 J	-505697.88	-505697.69	-505697.49	0.0088	0.0041
Venus	-6097-02-04 08:23 J	-505472.31	-505472.15	-505471.96	0.0088	0.0053
Venus	-6097-09-16 21:21 J	-505246.74	-505246.61	-505246.44	0.0088	0.0065
Venus	-6096-04-30 10:33 J	-505021.16	-505021.06	-505020.94	0.0088	0.0076
Venus	-6096-12-11 23:45 J	-504795.51	-504795.51	-504795.49	0.0088	0.0088
Moon	-6063-06-21 02:23 J	-492916.50	-492916.40	-492916.24	0.0089	0.0077
Earth	-6063-06-21 04:04 J	-492916.46	-492916.33	-492916.19	0.0089	0.0075 *
Earth	-6062-06-23 15:50 J	-492549.04	-492548.84	-492548.59	0.0089	0.0043
Moon	-6062-06-23 18:28 J	-492548.94	-492548.73	-492548.49	0.0089	0.0041 *
Moon	-6061-06-25 01:26 J	-492181.69	-492181.44	-492181.17	0.0089	0.0011
Earth	-6061-06-25 04:48 J	-492181.55	-492181.30	-492181.04	0.0089	0.0010 *
Earth	-6060-06-27 16:48 J	-491814.03	-491813.80	-491813.53	0.0089	0.0024
Moon	-6060-06-27 20:38 J	-491813.88	-491813.64	-491813.39	0.0089	0.0026 *
Moon	-6059-06-30 01:55 J	-491446.62	-491446.42	-491446.21	0.0089	0.0054
Earth	-6059-06-30 05:02 J	-491446.46	-491446.29	-491446.06	0.0089	0.0057 *
Mars	-6040-04-20 16:04 J	-484576.94	-484576.83	-484576.67	0.0089	0.0081

Mars	-6038-03-16 12:14 J	-483882.30	-483881.99	-483881.68	0.0089	0.0005
Mercury	-6032-01-13 12:00 J	-481752.02	-481752.00	-481751.94	0.0089	0.0086
Mercury	-6032-04-11 13:40 J	-481663.99	-481663.93	-481663.86	0.0089	0.0078
Mercury	-6032-07-08 15:07 J	-481575.95	-481575.87	-481575.79	0.0089	0.0071
Mercury	-6032-10-04 16:19 J	-481487.90	-481487.82	-481487.72	0.0089	0.0064
Mercury	-6032-12-31 17:45 J	-481399.86	-481399.76	-481399.65	0.0089	0.0056
Mercury	-6031-03-29 18:57 J	-481311.81	-481311.71	-481311.59	0.0089	0.0050
Mercury	-6031-06-25 20:23 J	-481223.76	-481223.65	-481223.53	0.0089	0.0042
Mercury	-6031-09-21 21:36 J	-481135.71	-481135.60	-481135.47	0.0089	0.0036
Mercury	-6031-12-18 23:16 J	-481047.66	-481047.53	-481047.41	0.0089	0.0028
Mercury	-6030-03-17 00:28 J	-480959.60	-480959.48	-480959.35	0.0089	0.0021
Mercury	-6030-06-13 01:55 J	-480871.55	-480871.42	-480871.29	0.0089	0.0014
Mercury	-6030-09-09 03:07 J	-480783.50	-480783.37	-480783.23	0.0089	0.0007
Mercury	-6030-12-06 04:33 J	-480695.44	-480695.31	-480695.18	0.0089	0.0001
Mercury	-6029-03-03 05:45 J	-480607.39	-480607.26	-480607.12	0.0089	0.0008
Mercury	-6029-05-30 07:11 J	-480519.33	-480519.20	-480519.07	0.0089	0.0015
Mercury	-6029-08-26 08:23 J	-480431.27	-480431.15	-480431.02	0.0089	0.0022
Mercury	-6029-11-22 09:50 J	-480343.22	-480343.09	-480342.97	0.0089	0.0029
Mercury	-6028-02-18 11:02 J	-480255.16	-480255.04	-480254.92	0.0089	0.0036
Mercury	-6028-05-17 12:14 J	-480167.10	-480166.99	-480166.87	0.0089	0.0043
Mercury	-6028-08-13 13:26 J	-480079.04	-480078.94	-480078.82	0.0089	0.0051
Mercury	-6028-11-09 14:52 J	-479990.97	-479990.88	-479990.77	0.0089	0.0057
Mercury	-6027-02-05 16:04 J	-479902.91	-479902.83	-479902.73	0.0089	0.0064
Mercury	-6027-05-04 17:16 J	-479814.84	-479814.78	-479814.69	0.0089	0.0072
Mercury	-6027-07-31 18:57 J	-479726.77	-479726.71	-479726.65	0.0089	0.0078
Mercury	-6027-10-27 20:09 J	-479638.69	-479638.66	-479638.62	0.0089	0.0085
Venus	-6023-10-25 20:38 J	-478179.68	-478179.64	-478179.56	0.0089	0.0086
Venus	-6022-06-08 09:50 J	-477954.19	-477954.09	-477953.95	0.0089	0.0074
Venus	-6021-01-19 23:02 J	-477728.68	-477728.54	-477728.36	0.0089	0.0062
Venus	-6021-09-01 12:14 J	-477503.16	-477502.99	-477502.79	0.0089	0.0050

Venus	-6020-04-15 01:26 J	-477277.63	-477277.44	-477277.23	0.0089	0.0037
Venus	-6020-11-26 14:38 J	-477052.09	-477051.89	-477051.67	0.0089	0.0025
Venus	-6019-07-10 04:04 J	-476826.55	-476826.33	-476826.11	0.0089	0.0013
Venus	-6018-02-20 17:02 J	-476601.00	-476600.79	-476600.57	0.0089	0.0002
Venus	-6018-10-04 06:14 J	-476375.46	-476375.24	-476375.03	0.0089	0.0012
Venus	-6017-05-16 19:11 J	-476149.91	-476149.70	-476149.49	0.0089	0.0024
Venus	-6017-12-28 07:55 J	-475924.36	-475924.17	-475923.96	0.0089	0.0036
Venus	-6016-08-10 20:52 J	-475698.79	-475698.63	-475698.42	0.0089	0.0049
Venus	-6015-03-24 09:50 J	-475473.23	-475473.09	-475472.91	0.0089	0.0061
Venus	-6015-11-04 22:48 J	-475247.66	-475247.55	-475247.40	0.0089	0.0072
Venus	-6014-06-18 11:45 J	-475022.06	-475022.01	-475021.92	0.0089	0.0084

6TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 6th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-5982-12-17 00:14 J	-463152.60	-463152.49	-463152.34	0.0088	0.0077		
Earth	-5982-12-17 03:21 J	-463152.48	-463152.36	-463152.19	0.0088	0.0073	*	
Earth	-5981-12-18 14:23 J	-462785.13	-462784.90	-462784.67	0.0088	0.0041		
Moon	-5981-12-18 17:45 J	-462784.98	-462784.76	-462784.51	0.0088	0.0037	*	
Moon	-5980-12-20 21:50 J	-462417.83	-462417.59	-462417.33	0.0088	0.0013		
Earth	-5980-12-21 01:26 J	-462417.70	-462417.44	-462417.19	0.0088	0.0009	*	
Earth	-5979-12-23 12:00 J	-462050.24	-462050.00	-462049.74	0.0088	0.0023		

Moon	-5979-12-23 15:36 J	-462050.10	-462049.85	-462049.60	0.0088	0.0027 *
Moon	-5978-12-25 20:38 J	-461682.82	-461682.64	-461682.42	0.0088	0.0052
Earth	-5978-12-25 22:33 J	-461682.74	-461682.56	-461682.34	0.0088	0.0056 *
Earth	-5977-12-27 09:07 J	-461315.13	-461315.12	-461315.05	0.0088	0.0088
Mars	-5958-03-21 14:52 J	-454656.91	-454656.88	-454656.77	0.0088	0.0086
Mars	-5956-02-13 11:31 J	-453962.33	-453962.02	-453961.70	0.0088	0.0002
Mars	-5954-01-09 05:16 J	-453267.38	-453267.28	-453267.14	0.0088	0.0081
Mercury	-5949-03-27 06:43 J	-451363.24	-451363.22	-451363.17	0.0088	0.0086
Mercury	-5949-06-23 10:19 J	-451275.16	-451275.07	-451274.97	0.0088	0.0076
Mercury	-5949-09-19 13:26 J	-451187.04	-451186.94	-451186.79	0.0088	0.0067
Mercury	-5949-12-16 17:02 J	-451098.92	-451098.79	-451098.62	0.0088	0.0057
Mercury	-5948-03-14 20:52 J	-451010.79	-451010.63	-451010.46	0.0088	0.0047
Mercury	-5948-06-11 00:28 J	-450922.65	-450922.48	-450922.30	0.0088	0.0037
Mercury	-5948-09-07 04:04 J	-450834.51	-450834.33	-450834.14	0.0088	0.0027
Mercury	-5948-12-04 07:40 J	-450746.37	-450746.18	-450745.99	0.0088	0.0017
Mercury	-5947-03-02 11:16 J	-450658.22	-450658.03	-450657.83	0.0088	0.0007
Mercury	-5947-05-29 14:52 J	-450570.08	-450569.88	-450569.68	0.0088	0.0003
Mercury	-5947-08-25 18:28 J	-450481.92	-450481.73	-450481.54	0.0088	0.0013
Mercury	-5947-11-21 21:50 J	-450393.77	-450393.59	-450393.39	0.0088	0.0023
Mercury	-5946-02-18 01:26 J	-450305.61	-450305.44	-450305.25	0.0088	0.0033
Mercury	-5946-05-17 05:02 J	-450217.45	-450217.29	-450217.11	0.0088	0.0043
Mercury	-5946-08-13 08:38 J	-450129.29	-450129.14	-450128.97	0.0088	0.0053
Mercury	-5946-11-09 12:14 J	-450041.12	-450040.99	-450040.84	0.0088	0.0063
Mercury	-5945-02-05 15:50 J	-449952.94	-449952.84	-449952.72	0.0088	0.0073
Mercury	-5945-05-03 19:26 J	-449864.74	-449864.69	-449864.61	0.0088	0.0083
Venus	-5940-07-22 18:14 J	-447958.81	-447958.74	-447958.66	0.0088	0.0082
Venus	-5939-03-05 06:43 J	-447733.33	-447733.22	-447733.07	0.0088	0.0071
Venus	-5939-10-16 19:40 J	-447507.83	-447507.68	-447507.50	0.0088	0.0059
Venus	-5938-05-30 08:52 J	-447282.32	-447282.13	-447281.94	0.0088	0.0047
Venus	-5937-01-10 21:36 J	-447056.79	-447056.60	-447056.38	0.0088	0.0036

Venus	-5937-08-23 10:33 J	-446831.26	-446831.06	-446830.84	0.0088	0.0024
Venus	-5936-04-05 23:31 J	-446605.73	-446605.52	-446605.29	0.0088	0.0012
Venus	-5936-11-17 12:28 J	-446380.20	-446379.98	-446379.76	0.0088	0.0001
Venus	-5935-07-01 01:26 J	-446154.66	-446154.44	-446154.22	0.0088	0.0011
Venus	-5934-02-11 14:23 J	-445929.11	-445928.90	-445928.68	0.0088	0.0023
Venus	-5934-09-25 03:07 J	-445703.56	-445703.37	-445703.16	0.0088	0.0035
Venus	-5933-05-07 15:50 J	-445478.01	-445477.84	-445477.63	0.0088	0.0047
Venus	-5933-12-19 05:16 J	-445252.44	-445252.28	-445252.11	0.0088	0.0058
Venus	-5932-08-01 18:00 J	-445026.87	-445026.75	-445026.60	0.0088	0.0070
Venus	-5931-03-15 06:57 J	-444801.27	-444801.21	-444801.11	0.0088	0.0082
Moon	-5898-06-22 15:36 J	-432649.03	-432648.85	-432648.64	0.0089	0.0058
Earth	-5898-06-22 18:57 J	-432648.87	-432648.71	-432648.50	0.0089	0.0063 *
Earth	-5897-06-24 07:40 J	-432281.42	-432281.18	-432280.93	0.0089	0.0030
Moon	-5897-06-24 11:02 J	-432281.26	-432281.04	-432280.78	0.0089	0.0035 *
Moon	-5896-06-26 17:02 J	-431914.04	-431913.79	-431913.53	0.0089	0.0007
Earth	-5896-06-26 20:23 J	-431913.91	-431913.65	-431913.39	0.0089	0.0003 *
Earth	-5895-06-29 08:23 J	-431546.37	-431546.15	-431545.90	0.0089	0.0036
Moon	-5895-06-29 11:45 J	-431546.26	-431546.01	-431545.76	0.0089	0.0031 *
Moon	-5894-07-01 19:11 J	-431178.82	-431178.70	-431178.54	0.0089	0.0073
Earth	-5894-07-01 20:52 J	-431178.79	-431178.63	-431178.46	0.0089	0.0068 *
Jupiter	-5879-12-02 05:16 J	-425546.53	-425546.28	-425545.95	0.0089	0.0075
Mars	-5875-10-28 14:52 J	-424120.13	-424119.88	-424119.58	0.0089	0.0043
Mars	-5873-09-22 11:45 J	-423425.26	-423425.01	-423424.72	0.0089	0.0045
Mercury	-5868-10-10 11:02 J	-421581.07	-421581.04	-421580.99	0.0089	0.0086
Mercury	-5867-01-06 12:28 J	-421493.03	-421492.98	-421492.91	0.0089	0.0078
Mercury	-5867-04-04 13:40 J	-421404.99	-421404.93	-421404.84	0.0089	0.0072
Mercury	-5867-07-01 15:07 J	-421316.95	-421316.87	-421316.77	0.0089	0.0064
Mercury	-5867-09-27 16:48 J	-421228.90	-421228.80	-421228.70	0.0089	0.0057
Mercury	-5867-12-24 18:00 J	-421140.86	-421140.75	-421140.64	0.0089	0.0050
Mercury	-5866-03-22 19:26 J	-421052.81	-421052.69	-421052.57	0.0089	0.0043

Mercury	-5866-06-18 20:38 J	-420964.76	-420964.64	-420964.51	0.0089	0.0036
Mercury	-5866-09-14 22:04 J	-420876.70	-420876.58	-420876.45	0.0089	0.0028
Mercury	-5866-12-11 23:16 J	-420788.65	-420788.53	-420788.39	0.0089	0.0022
Mercury	-5865-03-09 00:43 J	-420700.60	-420700.47	-420700.34	0.0089	0.0014
Mercury	-5865-06-05 02:09 J	-420612.54	-420612.41	-420612.28	0.0089	0.0007
Mercury	-5865-09-01 03:21 J	-420524.49	-420524.36	-420524.22	0.0089	0.0003
Mercury	-5865-11-28 04:48 J	-420436.43	-420436.30	-420436.17	0.0089	0.0007
Mercury	-5864-02-24 06:00 J	-420348.38	-420348.25	-420348.12	0.0089	0.0015
Mercury	-5864-05-23 07:26 J	-420260.32	-420260.19	-420260.06	0.0089	0.0021
Mercury	-5864-08-19 08:38 J	-420172.26	-420172.14	-420172.01	0.0089	0.0029
Mercury	-5864-11-15 10:04 J	-420084.20	-420084.08	-420083.96	0.0089	0.0036
Mercury	-5863-02-11 11:16 J	-419996.14	-419996.03	-419995.91	0.0089	0.0043
Mercury	-5863-05-10 12:43 J	-419908.08	-419907.97	-419907.86	0.0089	0.0050
Mercury	-5863-08-06 13:55 J	-419820.02	-419819.92	-419819.82	0.0089	0.0057
Mercury	-5863-11-02 15:21 J	-419731.95	-419731.86	-419731.77	0.0089	0.0064
Mercury	-5862-01-29 16:33 J	-419643.89	-419643.81	-419643.73	0.0089	0.0071
Mercury	-5862-04-27 17:45 J	-419555.82	-419555.76	-419555.69	0.0089	0.0078
Mercury	-5862-07-24 19:11 J	-419467.74	-419467.70	-419467.66	0.0089	0.0085
Venus	-5858-09-09 17:16 J	-417959.85	-417959.78	-417959.67	0.0089	0.0081
Venus	-5857-04-22 06:57 J	-417734.35	-417734.21	-417734.08	0.0089	0.0069
Venus	-5857-12-03 19:55 J	-417508.84	-417508.67	-417508.50	0.0089	0.0057
Venus	-5856-07-17 08:52 J	-417283.31	-417283.13	-417282.93	0.0089	0.0045
Venus	-5855-02-27 22:04 J	-417057.77	-417057.58	-417057.37	0.0089	0.0032
Venus	-5855-10-11 11:02 J	-416832.24	-416832.04	-416831.81	0.0089	0.0021
Venus	-5854-05-25 00:28 J	-416606.70	-416606.48	-416606.26	0.0089	0.0008
Venus	-5853-01-05 13:40 J	-416381.15	-416380.93	-416380.71	0.0089	0.0005
Venus	-5853-08-18 02:52 J	-416155.60	-416155.38	-416155.17	0.0089	0.0017
Venus	-5852-03-31 15:36 J	-415930.05	-415929.85	-415929.63	0.0089	0.0029
Venus	-5852-11-12 04:33 J	-415704.49	-415704.31	-415704.10	0.0089	0.0041
Venus	-5851-06-25 17:45 J	-415478.93	-415478.76	-415478.58	0.0089	0.0053

Venus	-5850-02-06 06:43 J	-415253.36	-415253.22	-415253.06	0.0089	0.0066
Venus	-5850-09-19 19:55 J	-415027.77	-415027.67	-415027.56	0.0089	0.0078
Moon	-5817-12-17 16:33 J	-402884.97	-402884.81	-402884.61	0.0088	0.0062
Earth	-5817-12-17 20:09 J	-402884.84	-402884.66	-402884.46	0.0088	0.0060 *
Earth	-5816-12-20 06:43 J	-402517.45	-402517.22	-402516.96	0.0088	0.0028
Moon	-5816-12-20 09:07 J	-402517.35	-402517.12	-402516.85	0.0088	0.0027 *
Moon	-5815-12-22 16:04 J	-402150.08	-402149.83	-402149.58	0.0088	0.0002
Earth	-5815-12-22 18:00 J	-402150.01	-402149.75	-402149.49	0.0088	0.0004 *
Earth	-5814-12-25 04:33 J	-401782.54	-401782.31	-401782.07	0.0088	0.0036
Moon	-5814-12-25 04:48 J	-401782.53	-401782.30	-401782.05	0.0088	0.0038 *
Earth	-5813-12-26 15:07 J	-401415.02	-401414.87	-401414.69	0.0088	0.0068
Moon	-5813-12-26 15:50 J	-401414.98	-401414.84	-401414.65	0.0088	0.0067 *
Mars	-5793-09-27 18:00 J	-394199.99	-394199.75	-394199.45	0.0088	0.0047
Mars	-5791-08-23 13:55 J	-393505.20	-393504.92	-393504.63	0.0088	0.0037
Mercury	-5785-12-22 03:36 J	-391192.37	-391192.35	-391192.29	0.0088	0.0086
Mercury	-5784-03-20 07:11 J	-391104.28	-391104.20	-391104.09	0.0088	0.0076
Mercury	-5784-06-16 10:48 J	-391016.17	-391016.05	-391015.91	0.0088	0.0066
Mercury	-5784-09-12 14:23 J	-390928.04	-390927.90	-390927.74	0.0088	0.0056
Mercury	-5784-12-09 17:45 J	-390839.91	-390839.76	-390839.58	0.0088	0.0047
Mercury	-5783-03-07 21:21 J	-390751.78	-390751.61	-390751.42	0.0088	0.0037
Mercury	-5783-06-04 00:57 J	-390663.64	-390663.46	-390663.27	0.0088	0.0027
Mercury	-5783-08-31 04:33 J	-390575.49	-390575.31	-390575.11	0.0088	0.0017
Mercury	-5783-11-27 08:09 J	-390487.35	-390487.16	-390486.96	0.0088	0.0007
Mercury	-5782-02-23 11:45 J	-390399.20	-390399.01	-390398.81	0.0088	0.0003
Mercury	-5782-05-22 15:21 J	-390311.05	-390310.86	-390310.66	0.0088	0.0013
Mercury	-5782-08-18 18:57 J	-390222.90	-390222.71	-390222.52	0.0088	0.0023
Mercury	-5782-11-14 22:19 J	-390134.74	-390134.57	-390134.38	0.0088	0.0033
Mercury	-5781-02-11 01:55 J	-390046.58	-390046.42	-390046.24	0.0088	0.0043
Mercury	-5781-05-09 05:31 J	-389958.42	-389958.27	-389958.10	0.0088	0.0053
Mercury	-5781-08-05 09:07 J	-389870.25	-389870.12	-389869.97	0.0088	0.0063

Mercury	-5781-11-01 12:28 J	-389782.07	-389781.98	-389781.85	0.0088	0.0073
Mercury	-5780-01-28 16:04 J	-389693.87	-389693.83	-389693.75	0.0088	0.0083
Venus	-5775-06-06 14:38 J	-387738.98	-387738.89	-387738.78	0.0088	0.0078
Venus	-5774-01-18 03:50 J	-387513.48	-387513.34	-387513.20	0.0088	0.0066
Venus	-5774-08-31 16:19 J	-387287.97	-387287.82	-387287.63	0.0088	0.0055
Venus	-5773-04-13 05:16 J	-387062.46	-387062.28	-387062.07	0.0088	0.0043
Venus	-5773-11-24 18:14 J	-386836.94	-386836.74	-386836.53	0.0088	0.0031
Venus	-5772-07-08 07:11 J	-386611.41	-386611.20	-386610.98	0.0088	0.0019
Venus	-5771-02-18 20:09 J	-386385.88	-386385.66	-386385.44	0.0088	0.0007
Venus	-5771-10-02 09:07 J	-386160.34	-386160.12	-386159.90	0.0088	0.0005
Venus	-5770-05-15 21:36 J	-385934.80	-385934.60	-385934.37	0.0088	0.0017
Venus	-5770-12-27 10:48 J	-385709.25	-385709.05	-385708.83	0.0088	0.0028
Venus	-5769-08-08 23:45 J	-385483.70	-385483.51	-385483.31	0.0088	0.0040
Venus	-5768-03-22 12:28 J	-385258.15	-385257.98	-385257.79	0.0088	0.0052
Venus	-5768-11-03 01:11 J	-385032.58	-385032.45	-385032.28	0.0088	0.0064
Venus	-5767-06-16 13:55 J	-384807.00	-384806.92	-384806.78	0.0088	0.0076
Venus	-5766-01-28 03:36 J	-384581.36	-384581.35	-384581.32	0.0088	0.0087
Earth	-5734-06-21 21:21 J	-372748.68	-372748.61	-372748.50	0.0089	0.0083
Moon	-5734-06-22 00:57 J	-372748.52	-372748.46	-372748.36	0.0089	0.0084 *
Moon	-5733-06-23 07:26 J	-372381.40	-372381.19	-372380.98	0.0089	0.0050
Earth	-5733-06-23 09:50 J	-372381.28	-372381.09	-372380.86	0.0089	0.0051 *
Earth	-5732-06-25 22:33 J	-372013.81	-372013.56	-372013.30	0.0089	0.0018
Moon	-5732-06-26 00:28 J	-372013.73	-372013.48	-372013.21	0.0089	0.0019 *
Moon	-5731-06-28 09:36 J	-371646.34	-371646.10	-371645.84	0.0089	0.0016
Earth	-5731-06-28 10:48 J	-371646.30	-371646.05	-371645.78	0.0089	0.0015 *
Moon	-5730-06-30 22:48 J	-371278.77	-371278.55	-371278.31	0.0089	0.0046
Earth	-5730-06-30 23:02 J	-371278.74	-371278.54	-371278.31	0.0089	0.0047 *
Earth	-5729-07-02 11:02 J	-370911.12	-370911.04	-370910.90	0.0089	0.0080
Moon	-5729-07-02 12:43 J	-370911.05	-370910.97	-370910.84	0.0089	0.0081 *
Jupiter	-5712-01-23 10:48 J	-364862.39	-364862.05	-364861.59	0.0089	0.0059

Mars	-5711-06-11 22:04 J	-364357.60	-364357.58	-364357.54	0.0089	0.0089
Mars	-5709-05-06 15:21 J	-363663.17	-363662.86	-363662.55	0.0089	0.0003
Mars	-5707-04-01 11:45 J	-362968.11	-362968.01	-362967.90	0.0089	0.0084
Mercury	-5703-07-07 09:50 J	-361410.11	-361410.09	-361410.05	0.0089	0.0086
Mercury	-5703-10-03 11:02 J	-361322.08	-361322.04	-361321.96	0.0089	0.0080
Mercury	-5703-12-30 12:43 J	-361234.04	-361233.97	-361233.89	0.0089	0.0072
Mercury	-5702-03-28 14:09 J	-361146.00	-361145.91	-361145.82	0.0089	0.0065
Mercury	-5702-06-24 15:21 J	-361057.95	-361057.86	-361057.75	0.0089	0.0058
Mercury	-5702-09-20 16:48 J	-360969.91	-360969.80	-360969.69	0.0089	0.0050
Mercury	-5702-12-17 18:00 J	-360881.86	-360881.75	-360881.63	0.0089	0.0044
Mercury	-5701-03-14 19:26 J	-360793.81	-360793.69	-360793.56	0.0089	0.0036
Mercury	-5701-06-10 20:38 J	-360705.75	-360705.64	-360705.50	0.0089	0.0030
Mercury	-5701-09-06 22:04 J	-360617.70	-360617.58	-360617.44	0.0089	0.0022
Mercury	-5701-12-03 23:31 J	-360529.65	-360529.52	-360529.39	0.0089	0.0015
Mercury	-5700-03-02 00:57 J	-360441.59	-360441.46	-360441.33	0.0089	0.0008
Mercury	-5700-05-29 02:09 J	-360353.54	-360353.41	-360353.27	0.0089	0.0002
Mercury	-5700-08-25 03:36 J	-360265.48	-360265.35	-360265.22	0.0089	0.0007
Mercury	-5700-11-21 04:48 J	-360177.43	-360177.30	-360177.16	0.0089	0.0014
Mercury	-5699-02-17 06:14 J	-360089.37	-360089.24	-360089.11	0.0089	0.0021
Mercury	-5699-05-16 07:26 J	-360001.31	-360001.19	-360001.06	0.0089	0.0028
Mercury	-5699-08-12 08:52 J	-359913.25	-359913.13	-359913.01	0.0089	0.0035
Mercury	-5699-11-08 10:04 J	-359825.19	-359825.08	-359824.96	0.0089	0.0042
Mercury	-5698-02-04 11:16 J	-359737.13	-359737.03	-359736.91	0.0089	0.0049
Mercury	-5698-05-03 12:43 J	-359649.07	-359648.97	-359648.86	0.0089	0.0056
Mercury	-5698-07-30 13:55 J	-359561.00	-359560.92	-359560.82	0.0089	0.0063
Mercury	-5698-10-26 15:07 J	-359472.93	-359472.87	-359472.78	0.0089	0.0071
Mercury	-5697-01-22 16:33 J	-359384.86	-359384.81	-359384.74	0.0089	0.0077
Mercury	-5697-04-19 17:45 J	-359296.79	-359296.76	-359296.70	0.0089	0.0085
Venus	-5694-12-12 00:28 J	-357965.48	-357965.48	-357965.46	0.0089	0.0089
Venus	-5693-07-24 13:26 J	-357740.03	-357739.94	-357739.81	0.0089	0.0077

Venus	-5692-03-07 02:52 J	-357514.52	-357514.38	-357514.22	0.0089	0.0065
Venus	-5692-10-18 15:50 J	-357289.00	-357288.84	-357288.65	0.0089	0.0053
Venus	-5691-06-01 05:02 J	-357063.47	-357063.29	-357063.08	0.0089	0.0040
Venus	-5690-01-12 18:28 J	-356837.94	-356837.73	-356837.52	0.0089	0.0028
Venus	-5690-08-26 07:26 J	-356612.40	-356612.19	-356611.97	0.0089	0.0016
Venus	-5689-04-07 20:38 J	-356386.86	-356386.64	-356386.42	0.0089	0.0003
Venus	-5689-11-19 09:50 J	-356161.31	-356161.09	-356160.87	0.0089	0.0009
Venus	-5688-07-02 23:02 J	-355935.75	-355935.54	-355935.33	0.0089	0.0022
Venus	-5687-02-13 11:45 J	-355710.20	-355710.01	-355709.79	0.0089	0.0035
Venus	-5687-09-27 00:57 J	-355484.64	-355484.46	-355484.26	0.0089	0.0047
Venus	-5686-05-10 14:09 J	-355259.07	-355258.91	-355258.74	0.0089	0.0059
Venus	-5686-12-22 02:38 J	-355033.49	-355033.39	-355033.23	0.0089	0.0072
Venus	-5685-08-03 15:50 J	-354807.89	-354807.84	-354807.74	0.0089	0.0084
Earth	-5653-12-17 01:40 J	-342984.53	-342984.43	-342984.30	0.0088	0.0079
Moon	-5653-12-17 04:04 J	-342984.40	-342984.33	-342984.22	0.0088	0.0083 *
Moon	-5652-12-19 12:00 J	-342617.21	-342617.00	-342616.78	0.0088	0.0043
Earth	-5652-12-19 12:14 J	-342617.18	-342616.99	-342616.75	0.0088	0.0048 *
Moon	-5651-12-21 23:16 J	-342249.78	-342249.53	-342249.26	0.0088	0.0019
Earth	-5651-12-21 23:16 J	-342249.77	-342249.53	-342249.27	0.0088	0.0016 *
Earth	-5650-12-24 10:04 J	-341882.33	-341882.08	-341881.82	0.0088	0.0016
Moon	-5650-12-24 11:31 J	-341882.26	-341882.02	-341881.78	0.0088	0.0021 *
Moon	-5649-12-25 18:00 J	-341514.96	-341514.75	-341514.51	0.0088	0.0044
Earth	-5649-12-25 20:38 J	-341514.83	-341514.64	-341514.40	0.0088	0.0049 *
Earth	-5648-12-28 07:40 J	-341147.27	-341147.18	-341147.05	0.0088	0.0080
Moon	-5648-12-28 10:48 J	-341147.12	-341147.05	-341146.96	0.0088	0.0084 *
Mars	-5627-04-06 20:23 J	-333742.96	-333742.65	-333742.33	0.0088	0.0008
Mars	-5625-03-01 15:07 J	-333048.00	-333047.87	-333047.69	0.0088	0.0076
Mercury	-5620-09-18 00:57 J	-331021.50	-331021.46	-331021.42	0.0088	0.0085
Mercury	-5620-12-15 04:04 J	-330933.41	-330933.33	-330933.22	0.0088	0.0076
Mercury	-5619-03-13 07:40 J	-330845.29	-330845.18	-330845.04	0.0088	0.0066

Mercury	-5619-06-09 11:16 J	-330757.17	-330757.03	-330756.87	0.0088	0.0056
Mercury	-5619-09-05 14:52 J	-330669.04	-330668.88	-330668.71	0.0088	0.0046
Mercury	-5619-12-02 18:14 J	-330580.90	-330580.74	-330580.55	0.0088	0.0037
Mercury	-5618-02-28 21:50 J	-330492.76	-330492.59	-330492.39	0.0088	0.0027
Mercury	-5618-05-28 01:26 J	-330404.62	-330404.44	-330404.24	0.0088	0.0017
Mercury	-5618-08-24 05:16 J	-330316.48	-330316.28	-330316.09	0.0088	0.0007
Mercury	-5618-11-20 08:52 J	-330228.33	-330228.13	-330227.94	0.0088	0.0003
Mercury	-5617-02-16 12:28 J	-330140.18	-330139.98	-330139.79	0.0088	0.0013
Mercury	-5617-05-14 15:50 J	-330052.02	-330051.84	-330051.65	0.0088	0.0023
Mercury	-5617-08-10 19:26 J	-329963.87	-329963.69	-329963.51	0.0088	0.0033
Mercury	-5617-11-06 22:48 J	-329875.71	-329875.55	-329875.37	0.0088	0.0043
Mercury	-5616-02-03 02:23 J	-329787.54	-329787.40	-329787.23	0.0088	0.0053
Mercury	-5616-05-02 06:00 J	-329699.37	-329699.25	-329699.10	0.0088	0.0063
Mercury	-5616-07-29 09:36 J	-329611.20	-329611.10	-329610.98	0.0088	0.0073
Mercury	-5616-10-25 13:11 J	-329523.00	-329522.95	-329522.88	0.0088	0.0083
Venus	-5611-09-07 22:19 J	-327744.59	-327744.57	-327744.49	0.0088	0.0086
Venus	-5610-04-21 11:16 J	-327519.13	-327519.03	-327518.89	0.0088	0.0074
Venus	-5610-12-03 00:14 J	-327293.63	-327293.49	-327293.31	0.0088	0.0062
Venus	-5609-07-15 13:11 J	-327068.11	-327067.95	-327067.75	0.0088	0.0050
Venus	-5608-02-26 02:23 J	-326842.60	-326842.40	-326842.20	0.0088	0.0038
Venus	-5608-10-09 15:07 J	-326617.07	-326616.87	-326616.65	0.0088	0.0026
Venus	-5607-05-23 04:04 J	-326391.54	-326391.33	-326391.11	0.0088	0.0014
Venus	-5606-01-03 17:16 J	-326166.00	-326165.78	-326165.56	0.0088	0.0002
Venus	-5606-08-17 06:00 J	-325940.46	-325940.25	-325940.02	0.0088	0.0010
Venus	-5605-03-29 18:43 J	-325714.92	-325714.72	-325714.49	0.0088	0.0022
Venus	-5605-11-10 07:26 J	-325489.38	-325489.19	-325488.97	0.0088	0.0034
Venus	-5604-06-23 20:23 J	-325263.83	-325263.65	-325263.45	0.0088	0.0046
Venus	-5603-02-04 09:21 J	-325038.26	-325038.11	-325037.93	0.0088	0.0058
Venus	-5603-09-17 22:33 J	-324812.69	-324812.56	-324812.42	0.0088	0.0069
Venus	-5602-05-01 11:16 J	-324587.10	-324587.03	-324586.93	0.0088	0.0081

Saturn	-5580-07-17 19:40 J	-316474.07	-316473.68	-316473.16	0.0089	0.0068
Earth	-5569-06-22 12:43 J	-312481.10	-312480.97	-312480.79	0.0089	0.0071
Moon	-5569-06-22 14:23 J	-312481.06	-312480.90	-312480.70	0.0089	0.0066 *
Earth	-5568-06-25 01:26 J	-312113.66	-312113.44	-312113.20	0.0089	0.0038
Moon	-5568-06-25 01:11 J	-312113.64	-312113.45	-312113.21	0.0089	0.0043 *
Moon	-5567-06-27 13:11 J	-311746.21	-311745.95	-311745.68	0.0089	0.0002
Earth	-5567-06-27 14:09 J	-311746.17	-311745.91	-311745.65	0.0089	0.0006 *
Earth	-5566-06-30 02:09 J	-311378.64	-311378.41	-311378.15	0.0089	0.0027
Moon	-5566-06-30 04:33 J	-311378.55	-311378.31	-311378.06	0.0089	0.0022 *
Moon	-5565-07-01 11:45 J	-311011.20	-311011.01	-311010.83	0.0089	0.0063
Earth	-5565-07-01 14:23 J	-311011.07	-311010.90	-311010.69	0.0089	0.0059 *
Moon	-5564-07-04 06:00 J	-310643.28	-310643.25	-310643.18	0.0089	0.0087
Mars	-5546-12-19 20:38 J	-303900.88	-303900.64	-303900.37	0.0089	0.0051
Mars	-5544-11-13 14:09 J	-303206.17	-303205.91	-303205.60	0.0089	0.0037
Mercury	-5538-04-03 08:52 J	-301239.16	-301239.13	-301239.10	0.0089	0.0087
Mercury	-5538-06-30 10:04 J	-301151.13	-301151.08	-301151.01	0.0089	0.0080
Mercury	-5538-09-26 11:31 J	-301063.09	-301063.02	-301062.94	0.0089	0.0072
Mercury	-5538-12-23 12:43 J	-300975.05	-300974.97	-300974.87	0.0089	0.0066
Mercury	-5537-03-20 14:09 J	-300887.00	-300886.91	-300886.80	0.0089	0.0058
Mercury	-5537-06-16 15:50 J	-300798.95	-300798.84	-300798.74	0.0089	0.0051
Mercury	-5537-09-12 17:02 J	-300710.90	-300710.79	-300710.67	0.0089	0.0044
Mercury	-5537-12-09 18:28 J	-300622.85	-300622.73	-300622.61	0.0089	0.0037
Mercury	-5536-03-07 19:40 J	-300534.80	-300534.68	-300534.55	0.0089	0.0030
Mercury	-5536-06-03 21:07 J	-300446.75	-300446.62	-300446.49	0.0089	0.0022
Mercury	-5536-08-30 22:19 J	-300358.70	-300358.57	-300358.43	0.0089	0.0016
Mercury	-5536-11-26 23:45 J	-300270.64	-300270.51	-300270.38	0.0089	0.0008
Mercury	-5535-02-23 01:11 J	-300182.59	-300182.45	-300182.32	0.0089	0.0002
Mercury	-5535-05-22 02:23 J	-300094.53	-300094.40	-300094.27	0.0089	0.0006
Mercury	-5535-08-18 03:50 J	-300006.47	-300006.34	-300006.21	0.0089	0.0013
Mercury	-5535-11-14 05:02 J	-299918.42	-299918.29	-299918.16	0.0089	0.0020

Mercury	-5534-02-10 06:28 J	-299830.36	-299830.23	-299830.11	0.0089	0.0027
Mercury	-5534-05-09 07:40 J	-299742.30	-299742.18	-299742.05	0.0089	0.0035
Mercury	-5534-08-05 09:07 J	-299654.24	-299654.12	-299654.00	0.0089	0.0042
Mercury	-5534-11-01 10:19 J	-299566.18	-299566.07	-299565.96	0.0089	0.0049
Mercury	-5533-01-28 11:31 J	-299478.11	-299478.02	-299477.91	0.0089	0.0056
Mercury	-5533-04-25 12:57 J	-299390.05	-299389.96	-299389.86	0.0089	0.0063
Mercury	-5533-07-22 14:09 J	-299301.98	-299301.91	-299301.82	0.0089	0.0070
Mercury	-5533-10-18 15:36 J	-299213.91	-299213.85	-299213.78	0.0089	0.0077
Mercury	-5532-01-14 16:48 J	-299125.83	-299125.80	-299125.75	0.0089	0.0084
Venus	-5529-10-25 20:23 J	-297745.68	-297745.65	-297745.56	0.0089	0.0086
Venus	-5528-06-08 10:04 J	-297520.20	-297520.08	-297519.94	0.0089	0.0073
Venus	-5527-01-19 23:02 J	-297294.68	-297294.54	-297294.36	0.0089	0.0061
Venus	-5527-09-02 12:28 J	-297069.16	-297068.98	-297068.79	0.0089	0.0048
Venus	-5526-04-16 01:26 J	-296843.63	-296843.44	-296843.23	0.0089	0.0036
Venus	-5526-11-27 14:23 J	-296618.10	-296617.90	-296617.67	0.0089	0.0024
Venus	-5525-07-10 03:50 J	-296392.55	-296392.34	-296392.12	0.0089	0.0011
Venus	-5524-02-20 17:02 J	-296167.01	-296166.79	-296166.57	0.0089	0.0002
Venus	-5524-10-04 06:00 J	-295941.46	-295941.25	-295941.03	0.0089	0.0014
Venus	-5523-05-17 18:43 J	-295715.91	-295715.72	-295715.50	0.0089	0.0028
Venus	-5523-12-29 07:55 J	-295490.35	-295490.17	-295489.96	0.0089	0.0040
Venus	-5522-08-11 21:07 J	-295264.79	-295264.62	-295264.43	0.0089	0.0052
Venus	-5521-03-24 09:50 J	-295039.22	-295039.09	-295038.91	0.0089	0.0065
Venus	-5521-11-04 23:02 J	-294813.63	-294813.54	-294813.41	0.0089	0.0077
Venus	-5520-06-18 12:14 J	-294588.00	-294587.99	-294587.95	0.0089	0.0089
Moon	-5488-12-18 17:31 J	-282716.94	-282716.77	-282716.59	0.0088	0.0066
Earth	-5488-12-18 18:28 J	-282716.89	-282716.73	-282716.55	0.0088	0.0066 *
Earth	-5487-12-21 04:48 J	-282349.52	-282349.30	-282349.05	0.0088	0.0035
Moon	-5487-12-21 06:43 J	-282349.43	-282349.22	-282348.97	0.0088	0.0035 *
Moon	-5486-12-23 12:57 J	-281982.22	-281981.96	-281981.69	0.0088	0.0004
Earth	-5486-12-23 15:50 J	-281982.09	-281981.84	-281981.58	0.0088	0.0003 *

Earth	-5485-12-25 02:23 J	-281614.63	-281614.40	-281614.15	0.0088	0.0029
Moon	-5485-12-25 06:00 J	-281614.48	-281614.25	-281614.00	0.0088	0.0029 *
Moon	-5484-12-27 09:36 J	-281247.27	-281247.10	-281246.89	0.0088	0.0060
Earth	-5484-12-27 12:57 J	-281247.12	-281246.96	-281246.75	0.0088	0.0061 *
Mars	-5464-11-19 02:09 J	-273980.65	-273980.41	-273980.13	0.0088	0.0052
Mars	-5462-10-14 23:45 J	-273285.78	-273285.51	-273285.19	0.0088	0.0033
Mercury	-5455-06-14 21:36 J	-270850.63	-270850.60	-270850.53	0.0088	0.0085
Mercury	-5455-09-11 01:26 J	-270762.53	-270762.44	-270762.33	0.0088	0.0075
Mercury	-5455-12-08 05:02 J	-270674.41	-270674.29	-270674.16	0.0088	0.0065
Mercury	-5454-03-06 08:09 J	-270586.29	-270586.16	-270585.99	0.0088	0.0056
Mercury	-5454-06-02 11:45 J	-270498.16	-270498.01	-270497.83	0.0088	0.0046
Mercury	-5454-08-29 15:36 J	-270410.02	-270409.85	-270409.67	0.0088	0.0036
Mercury	-5454-11-25 19:11 J	-270321.88	-270321.70	-270321.51	0.0088	0.0026
Mercury	-5453-02-21 22:48 J	-270233.74	-270233.55	-270233.36	0.0088	0.0016
Mercury	-5453-05-20 02:23 J	-270145.60	-270145.40	-270145.21	0.0088	0.0006
Mercury	-5453-08-16 06:00 J	-270057.45	-270057.25	-270057.06	0.0088	0.0004
Mercury	-5453-11-12 09:21 J	-269969.30	-269969.11	-269968.91	0.0088	0.0014
Mercury	-5452-02-08 12:57 J	-269881.14	-269880.96	-269880.77	0.0088	0.0024
Mercury	-5452-05-07 16:19 J	-269792.99	-269792.82	-269792.63	0.0088	0.0034
Mercury	-5452-08-03 19:55 J	-269704.83	-269704.67	-269704.49	0.0088	0.0044
Mercury	-5452-10-30 23:16 J	-269616.66	-269616.53	-269616.35	0.0088	0.0054
Mercury	-5451-01-27 02:52 J	-269528.49	-269528.38	-269528.23	0.0088	0.0064
Mercury	-5451-04-25 06:28 J	-269440.32	-269440.23	-269440.10	0.0088	0.0074
Mercury	-5451-07-22 10:04 J	-269352.12	-269352.08	-269352.00	0.0088	0.0084
Venus	-5446-07-23 19:40 J	-267524.75	-267524.68	-267524.58	0.0088	0.0081
Venus	-5445-03-05 08:23 J	-267299.27	-267299.15	-267299.00	0.0088	0.0069
Venus	-5445-10-16 21:21 J	-267073.77	-267073.61	-267073.43	0.0088	0.0057
Venus	-5444-05-30 10:19 J	-266848.25	-266848.07	-266847.87	0.0088	0.0045
Venus	-5443-01-10 23:31 J	-266622.72	-266622.52	-266622.31	0.0088	0.0033
Venus	-5443-08-24 12:28 J	-266397.20	-266396.98	-266396.77	0.0088	0.0021

Venus	-5442-04-07 01:11 J	-266171.67	-266171.45	-266171.23	0.0088	0.0009
Venus	-5442-11-18 14:09 J	-265946.13	-265945.91	-265945.69	0.0088	0.0003
Venus	-5441-07-01 02:52 J	-265720.59	-265720.38	-265720.15	0.0088	0.0015
Venus	-5440-02-11 16:04 J	-265495.04	-265494.83	-265494.62	0.0088	0.0027
Venus	-5440-09-25 04:48 J	-265269.49	-265269.30	-265269.09	0.0088	0.0039
Venus	-5439-05-08 17:45 J	-265043.93	-265043.76	-265043.58	0.0088	0.0051
Venus	-5439-12-20 06:43 J	-264818.37	-264818.22	-264818.06	0.0088	0.0063
Venus	-5438-08-02 19:26 J	-264592.79	-264592.69	-264592.56	0.0088	0.0075
Venus	-5437-03-15 08:23 J	-264367.16	-264367.15	-264367.11	0.0088	0.0087
Moon	-5404-06-24 02:38 J	-252213.59	-252213.39	-252213.19	0.0089	0.0059
Earth	-5404-06-24 04:19 J	-252213.50	-252213.32	-252213.11	0.0089	0.0058 *
Earth	-5403-06-26 17:02 J	-251846.03	-251845.79	-251845.53	0.0089	0.0026
Moon	-5403-06-26 19:40 J	-251845.91	-251845.68	-251845.43	0.0089	0.0025 *
Moon	-5402-06-29 02:38 J	-251478.65	-251478.39	-251478.13	0.0089	0.0006
Earth	-5402-06-29 05:45 J	-251478.51	-251478.26	-251477.99	0.0089	0.0007 *
Earth	-5401-06-30 18:00 J	-251110.97	-251110.75	-251110.50	0.0089	0.0039
Moon	-5401-06-30 21:35 J	-251110.81	-251110.60	-251110.35	0.0089	0.0040 *
Moon	-5400-07-03 02:52 J	-250743.51	-250743.38	-250743.21	0.0089	0.0071
Earth	-5400-07-03 06:14 J	-250743.38	-250743.24	-250743.07	0.0089	0.0071 *
Mars	-5380-06-27 21:21 J	-243443.91	-243443.61	-243443.30	0.0089	0.0011
Mars	-5378-05-23 15:21 J	-242749.01	-242748.86	-242748.68	0.0089	0.0076
Mercury	-5374-12-29 07:26 J	-241068.20	-241068.19	-241068.15	0.0089	0.0088
Mercury	-5373-03-26 09:07 J	-240980.17	-240980.12	-240980.06	0.0089	0.0080
Mercury	-5373-06-22 10:33 J	-240892.13	-240892.06	-240891.98	0.0089	0.0073
Mercury	-5373-09-18 11:45 J	-240804.09	-240804.01	-240803.91	0.0089	0.0066
Mercury	-5373-12-15 13:11 J	-240716.05	-240715.95	-240715.85	0.0089	0.0058
Mercury	-5372-03-13 14:24 J	-240628.00	-240627.90	-240627.78	0.0089	0.0052
Mercury	-5372-06-09 15:50 J	-240539.95	-240539.84	-240539.72	0.0089	0.0044
Mercury	-5372-09-05 17:02 J	-240451.90	-240451.79	-240451.66	0.0089	0.0038
Mercury	-5372-12-02 18:43 J	-240363.85	-240363.72	-240363.60	0.0089	0.0030

Mercury	-5371-02-28 19:55 J	-240275.79	-240275.67	-240275.54	0.0089	0.0023
Mercury	-5371-05-27 21:21 J	-240187.74	-240187.61	-240187.48	0.0089	0.0016
Mercury	-5371-08-23 22:33 J	-240099.69	-240099.56	-240099.42	0.0089	0.0009
Mercury	-5371-11-20 00:00 J	-240011.63	-240011.50	-240011.37	0.0089	0.0001
Mercury	-5370-02-16 01:11 J	-239923.58	-239923.45	-239923.31	0.0089	0.0007
Mercury	-5370-05-15 02:38 J	-239835.52	-239835.39	-239835.26	0.0089	0.0013
Mercury	-5370-08-11 03:50 J	-239747.46	-239747.34	-239747.20	0.0089	0.0020
Mercury	-5370-11-07 05:16 J	-239659.40	-239659.28	-239659.15	0.0089	0.0027
Mercury	-5369-02-03 06:28 J	-239571.34	-239571.23	-239571.10	0.0089	0.0034
Mercury	-5369-05-01 07:40 J	-239483.28	-239483.18	-239483.05	0.0089	0.0042
Mercury	-5369-07-28 09:07 J	-239395.22	-239395.12	-239395.00	0.0089	0.0048
Mercury	-5369-10-24 10:19 J	-239307.16	-239307.07	-239306.95	0.0089	0.0056
Mercury	-5368-01-20 11:45 J	-239219.09	-239219.01	-239218.91	0.0089	0.0062
Mercury	-5368-04-18 12:57 J	-239131.03	-239130.96	-239130.86	0.0089	0.0070
Mercury	-5368-07-15 14:24 J	-239042.96	-239042.90	-239042.82	0.0089	0.0076
Mercury	-5368-10-11 15:35 J	-238954.88	-238954.85	-238954.79	0.0089	0.0084
Venus	-5364-09-09 17:16 J	-237525.86	-237525.78	-237525.67	0.0089	0.0081
Venus	-5363-04-23 06:14 J	-237300.36	-237300.24	-237300.08	0.0089	0.0069
Venus	-5363-12-04 19:40 J	-237074.84	-237074.68	-237074.50	0.0089	0.0056
Venus	-5362-07-18 08:52 J	-236849.31	-236849.13	-236848.93	0.0089	0.0043
Venus	-5361-02-28 22:04 J	-236623.78	-236623.58	-236623.37	0.0089	0.0031
Venus	-5361-10-11 11:02 J	-236398.24	-236398.04	-236397.81	0.0089	0.0019
Venus	-5360-05-25 00:28 J	-236172.70	-236172.48	-236172.26	0.0089	0.0005
Venus	-5359-01-05 13:26 J	-235947.15	-235946.94	-235946.72	0.0089	0.0007
Venus	-5359-08-19 02:38 J	-235721.60	-235721.39	-235721.17	0.0089	0.0020
Venus	-5358-04-01 15:35 J	-235496.05	-235495.85	-235495.64	0.0089	0.0032
Venus	-5358-11-13 04:48 J	-235270.49	-235270.30	-235270.11	0.0089	0.0045
Venus	-5357-06-25 17:31 J	-235044.92	-235044.77	-235044.58	0.0089	0.0058
Venus	-5356-02-06 06:57 J	-234819.34	-234819.21	-234819.07	0.0089	0.0070
Venus	-5356-09-19 19:40 J	-234593.74	-234593.68	-234593.58	0.0089	0.0082

Earth	-5324-12-18 00:43 J	-222816.53	-222816.47	-222816.37	0.0088	0.0084
Moon	-5323-12-20 07:55 J	-222449.36	-222449.17	-222448.93	0.0088	0.0049
Earth	-5323-12-20 11:31 J	-222449.21	-222449.02	-222448.80	0.0088	0.0053 *
Earth	-5322-12-22 22:04 J	-222081.82	-222081.58	-222081.32	0.0088	0.0022
Moon	-5322-12-23 01:40 J	-222081.67	-222081.43	-222081.18	0.0088	0.0026 *
Moon	-5321-12-24 05:31 J	-221714.52	-221714.27	-221714.02	0.0088	0.0015
Earth	-5321-12-24 09:07 J	-221714.37	-221714.12	-221713.86	0.0088	0.0010 *
Earth	-5320-12-26 19:26 J	-221346.90	-221346.69	-221346.45	0.0088	0.0042
Moon	-5320-12-26 22:19 J	-221346.80	-221346.57	-221346.32	0.0088	0.0037 *
Moon	-5319-12-29 04:19 J	-220979.44	-220979.32	-220979.20	0.0088	0.0077
Earth	-5319-12-29 06:00 J	-220979.37	-220979.25	-220979.08	0.0088	0.0073 *
Mars	-5298-05-29 06:28 J	-213523.54	-213523.23	-213522.90	0.0088	0.0012
Mars	-5296-04-23 02:38 J	-212828.53	-212828.39	-212828.17	0.0088	0.0073
Mercury	-5290-03-11 18:57 J	-210679.74	-210679.71	-210679.63	0.0088	0.0084
Mercury	-5290-06-07 22:33 J	-210591.64	-210591.56	-210591.44	0.0088	0.0074
Mercury	-5290-09-04 02:24 J	-210503.53	-210503.40	-210503.26	0.0088	0.0064
Mercury	-5290-12-01 06:00 J	-210415.40	-210415.25	-210415.10	0.0088	0.0054
Mercury	-5289-02-27 09:07 J	-210327.27	-210327.12	-210326.93	0.0088	0.0045
Mercury	-5289-05-25 12:43 J	-210239.13	-210238.97	-210238.78	0.0088	0.0035
Mercury	-5289-08-21 16:33 J	-210150.99	-210150.81	-210150.62	0.0088	0.0025
Mercury	-5289-11-17 20:09 J	-210062.85	-210062.66	-210062.47	0.0088	0.0015
Mercury	-5288-02-13 23:45 J	-209974.71	-209974.51	-209974.32	0.0088	0.0005
Mercury	-5288-05-13 03:21 J	-209886.56	-209886.36	-209886.17	0.0088	0.0005
Mercury	-5288-08-09 06:43 J	-209798.41	-209798.22	-209798.02	0.0088	0.0015
Mercury	-5288-11-05 10:19 J	-209710.25	-209710.07	-209709.88	0.0088	0.0025
Mercury	-5287-02-01 13:40 J	-209622.10	-209621.93	-209621.74	0.0088	0.0035
Mercury	-5287-04-30 17:16 J	-209533.94	-209533.78	-209533.60	0.0088	0.0045
Mercury	-5287-07-27 20:52 J	-209445.77	-209445.63	-209445.47	0.0088	0.0055
Mercury	-5287-10-24 00:14 J	-209357.60	-209357.49	-209357.34	0.0088	0.0065
Mercury	-5286-01-20 03:50 J	-209269.42	-209269.34	-209269.22	0.0088	0.0075

Mercury	-5286-04-18 07:26 J	-209181.22	-209181.19	-209181.12	0.0088	0.0085
Venus	-5282-10-25 04:48 J	-207530.30	-207530.30	-207530.29	0.0088	0.0088
Venus	-5281-06-06 17:16 J	-207304.87	-207304.78	-207304.66	0.0088	0.0076
Venus	-5280-01-18 06:14 J	-207079.38	-207079.24	-207079.07	0.0088	0.0064
Venus	-5280-08-31 19:11 J	-206853.87	-206853.70	-206853.51	0.0088	0.0052
Venus	-5279-04-14 07:55 J	-206628.35	-206628.17	-206627.96	0.0088	0.0040
Venus	-5279-11-25 20:52 J	-206402.83	-206402.63	-206402.41	0.0088	0.0028
Venus	-5278-07-09 09:50 J	-206177.30	-206177.09	-206176.87	0.0088	0.0016
Venus	-5277-02-19 22:48 J	-205951.77	-205951.55	-205951.32	0.0088	0.0004
Venus	-5277-10-02 11:45 J	-205726.23	-205726.01	-205725.79	0.0088	0.0009
Venus	-5276-05-16 00:28 J	-205500.69	-205500.48	-205500.26	0.0088	0.0021
Venus	-5276-12-27 13:26 J	-205275.13	-205274.94	-205274.72	0.0088	0.0033
Venus	-5275-08-10 02:24 J	-205049.58	-205049.40	-205049.20	0.0088	0.0045
Venus	-5274-03-23 15:21 J	-204824.02	-204823.86	-204823.69	0.0088	0.0057
Venus	-5274-11-04 04:19 J	-204598.45	-204598.32	-204598.18	0.0088	0.0069
Venus	-5273-06-16 17:16 J	-204372.86	-204372.78	-204372.70	0.0088	0.0081
Earth	-5240-06-23 07:55 J	-192313.28	-192313.17	-192313.02	0.0089	0.0077
Moon	-5240-06-23 11:02 J	-192313.16	-192313.04	-192312.87	0.0089	0.0073 *
Moon	-5239-06-25 17:16 J	-191945.98	-191945.78	-191945.55	0.0089	0.0049
Earth	-5239-06-25 20:52 J	-191945.84	-191945.63	-191945.39	0.0089	0.0045 *
Earth	-5238-06-28 09:35 J	-191578.35	-191578.10	-191577.83	0.0089	0.0013
Moon	-5238-06-28 13:26 J	-191578.20	-191577.94	-191577.68	0.0089	0.0008 *
Moon	-5237-06-29 18:57 J	-191210.95	-191210.71	-191210.45	0.0089	0.0015
Earth	-5237-06-29 22:19 J	-191210.82	-191210.57	-191210.32	0.0089	0.0019 *
Earth	-5236-07-02 10:33 J	-190843.26	-190843.06	-190842.84	0.0089	0.0051
Moon	-5236-07-02 12:14 J	-190843.17	-190842.99	-190842.75	0.0089	0.0056 *
Moon	-5235-07-04 21:21 J	-190475.71	-190475.61	-190475.49	0.0089	0.0079
Earth	-5235-07-04 23:02 J	-190475.62	-190475.54	-190475.44	0.0089	0.0083 *
Mars	-5216-02-09 06:00 J	-183681.49	-183681.25	-183681.01	0.0089	0.0057
Mars	-5214-01-04 22:48 J	-182986.83	-182986.55	-182986.24	0.0089	0.0030

Mercury	-5209-09-24 06:43 J	-180897.24	-180897.22	-180897.18	0.0089	0.0087
Mercury	-5209-12-21 08:09 J	-180809.21	-180809.16	-180809.10	0.0089	0.0080
Mercury	-5208-03-19 09:21 J	-180721.17	-180721.11	-180721.02	0.0089	0.0073
Mercury	-5208-06-15 10:48 J	-180633.13	-180633.05	-180632.95	0.0089	0.0065
Mercury	-5208-09-11 12:00 J	-180545.09	-180545.00	-180544.89	0.0089	0.0059
Mercury	-5208-12-08 13:40 J	-180457.04	-180456.93	-180456.82	0.0089	0.0051
Mercury	-5207-03-06 15:07 J	-180368.99	-180368.87	-180368.76	0.0089	0.0044
Mercury	-5207-06-02 16:19 J	-180280.94	-180280.82	-180280.70	0.0089	0.0037
Mercury	-5207-08-29 17:45 J	-180192.89	-180192.76	-180192.64	0.0089	0.0030
Mercury	-5207-11-25 18:57 J	-180104.83	-180104.71	-180104.58	0.0089	0.0023
Mercury	-5206-02-21 20:24 J	-180016.78	-180016.65	-180016.52	0.0089	0.0015
Mercury	-5206-05-20 21:50 J	-179928.73	-179928.59	-179928.46	0.0089	0.0009
Mercury	-5206-08-16 23:02 J	-179840.67	-179840.54	-179840.41	0.0089	0.0002
Mercury	-5206-11-13 00:28 J	-179752.61	-179752.48	-179752.35	0.0089	0.0006
Mercury	-5205-02-09 01:40 J	-179664.56	-179664.43	-179664.30	0.0089	0.0013
Mercury	-5205-05-07 02:52 J	-179576.50	-179576.38	-179576.24	0.0089	0.0021
Mercury	-5205-08-03 04:19 J	-179488.44	-179488.32	-179488.19	0.0089	0.0027
Mercury	-5205-10-30 05:31 J	-179400.38	-179400.27	-179400.14	0.0089	0.0035
Mercury	-5204-01-26 06:57 J	-179312.32	-179312.21	-179312.09	0.0089	0.0041
Mercury	-5204-04-24 08:09 J	-179224.26	-179224.16	-179224.04	0.0089	0.0049
Mercury	-5204-07-21 09:35 J	-179136.20	-179136.10	-179135.99	0.0089	0.0055
Mercury	-5204-10-17 10:48 J	-179048.13	-179048.05	-179047.95	0.0089	0.0063
Mercury	-5203-01-13 12:00 J	-178960.07	-178960.00	-178959.90	0.0089	0.0070
Mercury	-5203-04-11 13:26 J	-178872.00	-178871.94	-178871.86	0.0089	0.0077
Mercury	-5203-07-08 14:38 J	-178783.92	-178783.89	-178783.83	0.0089	0.0084
Venus	-5200-12-12 00:43 J	-177531.48	-177531.47	-177531.43	0.0089	0.0089
Venus	-5199-07-25 13:55 J	-177306.01	-177305.92	-177305.79	0.0089	0.0077
Venus	-5198-03-08 03:21 J	-177080.50	-177080.36	-177080.20	0.0089	0.0064
Venus	-5198-10-19 16:33 J	-176854.98	-176854.81	-176854.62	0.0089	0.0051
Venus	-5197-06-01 05:31 J	-176629.45	-176629.27	-176629.06	0.0089	0.0039

Venus	-5196-01-12 18:57 J	-176403.92	-176403.71	-176403.50	0.0089	0.0026
Venus	-5196-08-26 08:09 J	-176178.37	-176178.16	-176177.94	0.0089	0.0013
Venus	-5195-04-08 21:21 J	-175952.83	-175952.61	-175952.39	0.0089	0.0001
Venus	-5195-11-20 10:19 J	-175727.28	-175727.07	-175726.85	0.0089	0.0013
Venus	-5194-07-03 23:16 J	-175501.73	-175501.53	-175501.31	0.0089	0.0026
Venus	-5193-02-14 12:14 J	-175276.17	-175275.99	-175275.78	0.0089	0.0038
Venus	-5193-09-27 01:26 J	-175050.61	-175050.44	-175050.25	0.0089	0.0051
Venus	-5192-05-10 14:09 J	-174825.04	-174824.91	-174824.74	0.0089	0.0064
Venus	-5192-12-22 03:21 J	-174599.46	-174599.36	-174599.23	0.0089	0.0076
Venus	-5191-08-04 16:19 J	-174373.83	-174373.82	-174373.76	0.0089	0.0089
Earth	-5159-12-19 17:45 J	-162548.89	-162548.76	-162548.58	0.0089	0.0071
Moon	-5159-12-19 21:35 J	-162548.74	-162548.60	-162548.43	0.0089	0.0070 *
Moon	-5158-12-22 01:40 J	-162181.64	-162181.43	-162181.19	0.0088	0.0040
Earth	-5158-12-22 04:48 J	-162181.52	-162181.30	-162181.06	0.0088	0.0040 *
Earth	-5157-12-23 15:35 J	-161814.10	-161813.85	-161813.59	0.0088	0.0009
Moon	-5157-12-23 18:28 J	-161813.99	-161813.73	-161813.47	0.0088	0.0009 *
Moon	-5156-12-26 00:57 J	-161446.69	-161446.46	-161446.21	0.0088	0.0022
Earth	-5156-12-26 02:09 J	-161446.65	-161446.41	-161446.16	0.0088	0.0023 *
Earth	-5155-12-28 12:57 J	-161079.16	-161078.96	-161078.75	0.0088	0.0054
Moon	-5155-12-28 12:57 J	-161079.15	-161078.96	-161078.73	0.0088	0.0054 *
Earth	-5154-12-30 23:45 J	-160711.57	-160711.51	-160711.44	0.0088	0.0085
Moon	-5154-12-31 00:14 J	-160711.53	-160711.49	-160711.41	0.0088	0.0086 *
Jupiter	-5137-05-11 11:02 J	-154735.58	-154735.04	-154734.47	0.0088	0.0013
Mars	-5134-01-10 13:26 J	-153761.15	-153760.94	-153760.66	0.0088	0.0056
Mars	-5133-12-05 12:43 J	-153066.25	-153065.97	-153065.65	0.0088	0.0030
Mercury	-5126-12-06 16:48 J	-150508.86	-150508.80	-150508.73	0.0088	0.0082
Mercury	-5125-03-03 19:55 J	-150420.75	-150420.67	-150420.54	0.0088	0.0073
Mercury	-5125-05-30 23:31 J	-150332.64	-150332.52	-150332.37	0.0088	0.0063
Mercury	-5125-08-27 03:21 J	-150244.51	-150244.36	-150244.20	0.0088	0.0053
Mercury	-5125-11-23 06:57 J	-150156.38	-150156.21	-150156.04	0.0088	0.0043

Mercury	-5124-02-19 10:04 J	-150068.24	-150068.08	-150067.88	0.0088	0.0034
Mercury	-5124-05-18 13:55 J	-149980.10	-149979.92	-149979.73	0.0088	0.0024
Mercury	-5124-08-14 17:31 J	-149891.96	-149891.77	-149891.57	0.0088	0.0014
Mercury	-5124-11-10 21:07 J	-149803.81	-149803.62	-149803.42	0.0088	0.0004
Mercury	-5123-02-07 00:43 J	-149715.67	-149715.47	-149715.28	0.0088	0.0006
Mercury	-5123-05-06 04:19 J	-149627.52	-149627.32	-149627.13	0.0088	0.0016
Mercury	-5123-08-02 07:40 J	-149539.36	-149539.18	-149538.99	0.0088	0.0026
Mercury	-5123-10-29 11:16 J	-149451.20	-149451.03	-149450.85	0.0088	0.0036
Mercury	-5122-01-25 14:52 J	-149363.04	-149362.88	-149362.71	0.0088	0.0046
Mercury	-5122-04-23 18:14 J	-149274.88	-149274.74	-149274.58	0.0088	0.0056
Mercury	-5122-07-20 21:50 J	-149186.71	-149186.59	-149186.45	0.0088	0.0066
Mercury	-5122-10-17 01:26 J	-149098.52	-149098.44	-149098.33	0.0088	0.0076
Mercury	-5121-01-13 05:02 J	-149010.31	-149010.29	-149010.24	0.0088	0.0086
Venus	-5117-09-08 02:24 J	-147310.45	-147310.40	-147310.30	0.0088	0.0083
Venus	-5116-04-21 15:07 J	-147084.97	-147084.87	-147084.71	0.0088	0.0071
Venus	-5116-12-03 04:04 J	-146859.48	-146859.33	-146859.15	0.0088	0.0059
Venus	-5115-07-16 16:48 J	-146633.96	-146633.80	-146633.59	0.0088	0.0047
Venus	-5114-02-27 06:00 J	-146408.45	-146408.25	-146408.04	0.0088	0.0034
Venus	-5114-10-10 18:57 J	-146182.92	-146182.71	-146182.49	0.0088	0.0022
Venus	-5113-05-23 07:55 J	-145957.39	-145957.17	-145956.95	0.0088	0.0010
Venus	-5112-01-03 20:52 J	-145731.85	-145731.63	-145731.41	0.0088	0.0003
Venus	-5112-08-17 09:35 J	-145506.31	-145506.10	-145505.87	0.0088	0.0015
Venus	-5111-03-30 22:33 J	-145280.76	-145280.56	-145280.34	0.0088	0.0027
Venus	-5111-11-11 11:31 J	-145055.21	-145055.02	-145054.82	0.0088	0.0039
Venus	-5110-06-25 00:28 J	-144829.66	-144829.48	-144829.30	0.0088	0.0051
Venus	-5109-02-05 13:11 J	-144604.08	-144603.95	-144603.78	0.0088	0.0064
Venus	-5109-09-18 02:09 J	-144378.50	-144378.41	-144378.28	0.0088	0.0076
Earth	-5075-06-25 01:55 J	-132045.59	-132045.42	-132045.23	0.0089	0.0063
Moon	-5075-06-25 04:48 J	-132045.45	-132045.30	-132045.09	0.0089	0.0066 *
Moon	-5074-06-27 11:45 J	-131678.24	-131678.01	-131677.76	0.0089	0.0030

Earth	-5074-06-27 14:52 J	-131678.13	-131677.88	-131677.64	0.0089	0.0031	*
Earth	-5073-06-29 03:21 J	-131310.62	-131310.36	-131310.10	0.0089	0.0001	
Moon	-5073-06-29 05:31 J	-131310.54	-131310.27	-131310.00	0.0089	0.0001	*
Moon	-5072-07-01 15:21 J	-130943.07	-130942.86	-130942.61	0.0089	0.0035	
Earth	-5072-07-01 15:50 J	-130943.07	-130942.84	-130942.59	0.0089	0.0033	*
Moon	-5071-07-04 03:50 J	-130575.51	-130575.34	-130575.14	0.0089	0.0063	
Earth	-5071-07-04 04:04 J	-130575.48	-130575.33	-130575.13	0.0089	0.0065	*
Mars	-5051-08-19 09:07 J	-123224.41	-123224.12	-123223.80	0.0089	0.0017	
Mars	-5049-07-14 02:09 J	-122529.58	-122529.41	-122529.20	0.0089	0.0071	
Mercury	-5044-06-21 05:45 J	-120726.28	-120726.26	-120726.21	0.0089	0.0086	
Mercury	-5044-09-17 07:26 J	-120638.25	-120638.19	-120638.13	0.0089	0.0079	
Mercury	-5044-12-14 08:38 J	-120550.21	-120550.14	-120550.05	0.0089	0.0072	
Mercury	-5043-03-12 10:04 J	-120462.17	-120462.08	-120461.99	0.0089	0.0065	
Mercury	-5043-06-08 11:16 J	-120374.12	-120374.03	-120373.92	0.0089	0.0058	
Mercury	-5043-09-04 12:43 J	-120286.07	-120285.97	-120285.85	0.0089	0.0050	
Mercury	-5043-12-01 14:09 J	-120198.02	-120197.91	-120197.79	0.0089	0.0043	
Mercury	-5042-02-27 15:21 J	-120109.97	-120109.86	-120109.73	0.0089	0.0036	
Mercury	-5042-05-26 16:47 J	-120021.92	-120021.80	-120021.67	0.0089	0.0029	
Mercury	-5042-08-22 18:14 J	-119933.87	-119933.74	-119933.61	0.0089	0.0022	
Mercury	-5042-11-18 19:40 J	-119845.81	-119845.68	-119845.55	0.0089	0.0015	
Mercury	-5041-02-14 20:52 J	-119757.76	-119757.63	-119757.49	0.0089	0.0008	
Mercury	-5041-05-12 22:19 J	-119669.70	-119669.57	-119669.44	0.0089	0.0001	
Mercury	-5041-08-08 23:31 J	-119581.65	-119581.52	-119581.38	0.0089	0.0007	
Mercury	-5041-11-05 00:57 J	-119493.59	-119493.46	-119493.33	0.0089	0.0014	
Mercury	-5040-02-01 02:24 J	-119405.53	-119405.40	-119405.27	0.0089	0.0021	
Mercury	-5040-04-30 03:35 J	-119317.47	-119317.35	-119317.22	0.0089	0.0028	
Mercury	-5040-07-27 05:02 J	-119229.41	-119229.29	-119229.17	0.0089	0.0035	
Mercury	-5040-10-23 06:14 J	-119141.35	-119141.24	-119141.12	0.0089	0.0042	
Mercury	-5039-01-19 07:26 J	-119053.29	-119053.19	-119053.07	0.0089	0.0049	
Mercury	-5039-04-17 08:38 J	-118965.23	-118965.14	-118965.03	0.0089	0.0057	

Mercury	-5039-07-14 10:04 J	-118877.16	-118877.08	-118876.98	0.0089	0.0063
Mercury	-5039-10-10 11:16 J	-118789.10	-118789.03	-118788.94	0.0089	0.0070
Mercury	-5038-01-06 12:28 J	-118701.03	-118700.98	-118700.90	0.0089	0.0078
Mercury	-5038-04-04 14:09 J	-118612.95	-118612.91	-118612.87	0.0089	0.0084
Venus	-5035-10-26 22:19 J	-117311.63	-117311.57	-117311.48	0.0089	0.0084
Venus	-5034-06-09 11:45 J	-117086.14	-117086.01	-117085.87	0.0089	0.0071
Venus	-5033-01-21 00:43 J	-116860.62	-116860.47	-116860.29	0.0089	0.0059
Venus	-5033-09-02 14:09 J	-116635.09	-116634.91	-116634.71	0.0089	0.0045
Venus	-5032-04-16 03:21 J	-116409.56	-116409.36	-116409.15	0.0089	0.0033
Venus	-5032-11-27 16:33 J	-116184.02	-116183.81	-116183.59	0.0089	0.0020
Venus	-5031-07-11 05:45 J	-115958.47	-115958.26	-115958.04	0.0089	0.0007
Venus	-5030-02-21 18:57 J	-115732.93	-115732.71	-115732.49	0.0089	0.0006
Venus	-5030-10-05 07:55 J	-115507.38	-115507.17	-115506.95	0.0089	0.0019
Venus	-5029-05-17 20:52 J	-115281.83	-115281.63	-115281.42	0.0089	0.0032
Venus	-5029-12-29 09:50 J	-115056.27	-115056.09	-115055.89	0.0089	0.0044
Venus	-5028-08-11 23:16 J	-114830.70	-114830.53	-114830.36	0.0089	0.0057
Venus	-5027-03-25 12:00 J	-114605.12	-114605.00	-114604.85	0.0089	0.0070
Venus	-5027-11-06 00:43 J	-114379.53	-114379.47	-114379.36	0.0089	0.0083

5TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 5th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth	-4995-12-19 01:40 J	-102648.45	-102648.43	-102648.38	0.0089	0.0088
Earth	-4994-12-21 12:28 J	-102281.17	-102280.98	-102280.78	0.0089	0.0057
Moon	-4994-12-21 14:09 J	-102281.10	-102280.91	-102280.68	0.0089	0.0053 *
Moon	-4993-12-22 21:35 J	-101913.82	-101913.60	-101913.35	0.0088	0.0031
Earth	-4993-12-22 23:02 J	-101913.78	-101913.54	-101913.29	0.0088	0.0026 *
Moon	-4992-12-25 09:07 J	-101546.38	-101546.12	-101545.85	0.0088	0.0010
Earth	-4992-12-25 09:50 J	-101546.35	-101546.09	-101545.83	0.0088	0.0005 *
Earth	-4991-12-27 20:09 J	-101178.88	-101178.66	-101178.41	0.0088	0.0036
Moon	-4991-12-27 21:50 J	-101178.81	-101178.59	-101178.34	0.0088	0.0032 *
Moon	-4990-12-30 04:04 J	-100811.46	-100811.33	-100811.15	0.0088	0.0072
Earth	-4990-12-30 06:57 J	-100811.36	-100811.21	-100811.03	0.0088	0.0067 *
Mars	-4969-07-19 21:35 J	-93303.90	-93303.60	-93303.27	0.0088	0.0014
Mars	-4967-06-14 19:40 J	-92608.83	-92608.68	-92608.46	0.0088	0.0072
Mercury	-4961-09-01 14:24 J	-90337.96	-90337.90	-90337.80	0.0088	0.0080
Mercury	-4961-11-28 18:14 J	-90249.85	-90249.74	-90249.62	0.0088	0.0070
Mercury	-4960-02-24 21:21 J	-90161.73	-90161.61	-90161.45	0.0088	0.0061
Mercury	-4960-05-24 00:57 J	-90073.60	-90073.46	-90073.29	0.0088	0.0051
Mercury	-4960-08-20 04:33 J	-89985.47	-89985.31	-89985.13	0.0088	0.0041
Mercury	-4960-11-16 08:09 J	-89897.33	-89897.16	-89896.97	0.0088	0.0031
Mercury	-4959-02-12 12:00 J	-89809.19	-89809.00	-89808.82	0.0088	0.0021
Mercury	-4959-05-11 15:21 J	-89721.05	-89720.86	-89720.66	0.0088	0.0011
Mercury	-4959-08-07 18:57 J	-89632.90	-89632.71	-89632.51	0.0088	0.0001
Mercury	-4959-11-03 22:19 J	-89544.76	-89544.57	-89544.37	0.0088	0.0009
Mercury	-4958-01-31 01:55 J	-89456.60	-89456.42	-89456.22	0.0088	0.0019
Mercury	-4958-04-29 05:45 J	-89368.45	-89368.26	-89368.08	0.0088	0.0028
Mercury	-4958-07-26 09:07 J	-89280.29	-89280.12	-89279.94	0.0088	0.0038
Mercury	-4958-10-22 12:43 J	-89192.13	-89191.97	-89191.80	0.0088	0.0048
Mercury	-4957-01-18 16:19 J	-89103.96	-89103.82	-89103.67	0.0088	0.0058
Mercury	-4957-04-15 19:40 J	-89015.79	-89015.68	-89015.55	0.0088	0.0068
Mercury	-4957-07-12 23:16 J	-88927.61	-88927.53	-88927.43	0.0088	0.0078

Venus	-4952-07-24 01:12 J	-87090.54	-87090.45	-87090.33	0.0088	0.0077
Venus	-4951-03-06 13:55 J	-86865.05	-86864.92	-86864.75	0.0088	0.0065
Venus	-4951-10-18 02:38 J	-86639.55	-86639.39	-86639.20	0.0088	0.0053
Venus	-4950-05-31 15:21 J	-86414.04	-86413.86	-86413.64	0.0088	0.0041
Venus	-4949-01-12 04:47 J	-86188.51	-86188.30	-86188.09	0.0088	0.0028
Venus	-4949-08-24 17:31 J	-85962.98	-85962.77	-85962.55	0.0088	0.0016
Venus	-4948-04-07 06:28 J	-85737.45	-85737.23	-85737.01	0.0088	0.0004
Venus	-4948-11-18 19:12 J	-85511.92	-85511.70	-85511.48	0.0088	0.0009
Venus	-4947-07-02 08:09 J	-85286.37	-85286.16	-85285.94	0.0088	0.0021
Venus	-4946-02-12 20:52 J	-85060.82	-85060.63	-85060.41	0.0088	0.0034
Venus	-4946-09-26 09:50 J	-84835.27	-84835.09	-84834.89	0.0088	0.0046
Venus	-4945-05-08 22:47 J	-84609.71	-84609.55	-84609.37	0.0088	0.0058
Venus	-4945-12-20 12:00 J	-84384.13	-84384.00	-84383.87	0.0088	0.0070
Venus	-4944-08-03 00:28 J	-84158.53	-84158.48	-84158.39	0.0088	0.0083
Moon	-4911-06-24 06:00 J	-72145.37	-72145.25	-72145.13	0.0089	0.0077
Earth	-4911-06-24 07:40 J	-72145.27	-72145.18	-72145.06	0.0089	0.0081 *
Earth	-4910-06-26 20:24 J	-71777.86	-71777.65	-71777.43	0.0089	0.0049
Moon	-4910-06-26 21:07 J	-71777.81	-71777.62	-71777.38	0.0089	0.0053 *
Moon	-4909-06-28 08:52 J	-71410.37	-71410.13	-71409.88	0.0089	0.0013
Earth	-4909-06-28 08:52 J	-71410.37	-71410.13	-71409.86	0.0089	0.0018 *
Moon	-4908-06-30 20:09 J	-71042.92	-71042.66	-71042.39	0.0089	0.0011
Earth	-4908-06-30 21:35 J	-71042.85	-71042.60	-71042.33	0.0089	0.0015 *
Earth	-4907-07-03 10:04 J	-70675.29	-70675.08	-70674.84	0.0089	0.0046
Moon	-4907-07-03 12:28 J	-70675.18	-70674.98	-70674.76	0.0089	0.0050 *
Moon	-4906-07-05 19:40 J	-70307.82	-70307.68	-70307.52	0.0089	0.0073
Earth	-4906-07-05 22:19 J	-70307.67	-70307.57	-70307.42	0.0089	0.0078 *
Mars	-4887-04-03 00:28 J	-63461.69	-63461.48	-63461.24	0.0089	0.0060
Mars	-4885-02-26 14:52 J	-62767.16	-62766.88	-62766.57	0.0089	0.0027
Mercury	-4879-03-18 05:31 J	-60555.31	-60555.27	-60555.24	0.0089	0.0085
Mercury	-4879-06-14 06:43 J	-60467.28	-60467.22	-60467.15	0.0089	0.0078

Mercury	-4879-09-10 07:55 J	-60379.24	-60379.17	-60379.08	0.0089	0.0071
Mercury	-4879-12-07 09:21 J	-60291.20	-60291.11	-60291.01	0.0089	0.0063
Mercury	-4878-03-05 10:33 J	-60203.15	-60203.06	-60202.94	0.0089	0.0057
Mercury	-4878-06-01 12:00 J	-60115.10	-60115.00	-60114.88	0.0089	0.0049
Mercury	-4878-08-28 13:26 J	-60027.05	-60026.94	-60026.82	0.0089	0.0042
Mercury	-4878-11-24 14:52 J	-59939.00	-59938.88	-59938.76	0.0089	0.0035
Mercury	-4877-02-20 16:19 J	-59850.95	-59850.82	-59850.69	0.0089	0.0028
Mercury	-4877-05-18 17:31 J	-59762.89	-59762.77	-59762.64	0.0089	0.0021
Mercury	-4877-08-14 18:57 J	-59674.84	-59674.71	-59674.58	0.0089	0.0013
Mercury	-4877-11-10 20:23 J	-59586.79	-59586.65	-59586.52	0.0089	0.0007
Mercury	-4876-02-06 21:36 J	-59498.73	-59498.60	-59498.46	0.0089	0.0002
Mercury	-4876-05-05 23:02 J	-59410.67	-59410.54	-59410.41	0.0089	0.0008
Mercury	-4876-08-02 00:14 J	-59322.62	-59322.49	-59322.35	0.0089	0.0015
Mercury	-4876-10-29 01:26 J	-59234.56	-59234.44	-59234.30	0.0089	0.0023
Mercury	-4875-01-25 02:52 J	-59146.50	-59146.38	-59146.25	0.0089	0.0029
Mercury	-4875-04-23 04:04 J	-59058.44	-59058.33	-59058.20	0.0089	0.0037
Mercury	-4875-07-20 05:31 J	-58970.38	-58970.27	-58970.15	0.0089	0.0043
Mercury	-4875-10-16 06:43 J	-58882.32	-58882.22	-58882.10	0.0089	0.0051
Mercury	-4874-01-12 08:09 J	-58794.25	-58794.16	-58794.05	0.0089	0.0057
Mercury	-4874-04-10 09:21 J	-58706.19	-58706.11	-58706.01	0.0089	0.0064
Mercury	-4874-07-07 10:33 J	-58618.12	-58618.06	-58617.97	0.0089	0.0072
Mercury	-4874-10-03 12:00 J	-58530.05	-58530.00	-58529.93	0.0089	0.0078
Mercury	-4874-12-30 13:12 J	-58441.97	-58441.95	-58441.90	0.0089	0.0086
Venus	-4870-09-10 19:55 J	-57091.75	-57091.67	-57091.54	0.0089	0.0079
Venus	-4869-04-23 09:21 J	-56866.24	-56866.11	-56865.95	0.0089	0.0065
Venus	-4869-12-04 22:33 J	-56640.72	-56640.56	-56640.37	0.0089	0.0053
Venus	-4868-07-18 12:00 J	-56415.18	-56415.00	-56414.79	0.0089	0.0040
Venus	-4867-03-01 01:26 J	-56189.65	-56189.44	-56189.23	0.0089	0.0027
Venus	-4867-10-12 14:38 J	-55964.11	-55963.89	-55963.67	0.0089	0.0014
Venus	-4866-05-26 03:50 J	-55738.56	-55738.34	-55738.12	0.0089	0.0001

Venus	-4865-01-06 16:47 J	-55513.01	-55512.80	-55512.58	0.0089	0.0012
Venus	-4865-08-19 06:00 J	-55287.45	-55287.25	-55287.03	0.0089	0.0025
Venus	-4864-04-01 19:12 J	-55061.90	-55061.70	-55061.50	0.0089	0.0038
Venus	-4864-11-13 08:09 J	-54836.33	-54836.16	-54835.98	0.0089	0.0051
Venus	-4863-06-26 21:07 J	-54610.76	-54610.62	-54610.46	0.0089	0.0064
Venus	-4862-02-07 10:04 J	-54385.18	-54385.08	-54384.95	0.0089	0.0076
Venus	-4862-09-20 23:02 J	-54159.54	-54159.54	-54159.50	0.0089	0.0089
Earth	-4830-12-20 20:09 J	-42380.79	-42380.66	-42380.51	0.0089	0.0074
Moon	-4830-12-20 19:55 J	-42380.79	-42380.67	-42380.51	0.0089	0.0073 *
Moon	-4829-12-22 06:00 J	-42013.46	-42013.25	-42013.00	0.0089	0.0045
Earth	-4829-12-22 06:43 J	-42013.42	-42013.22	-42012.98	0.0089	0.0044 *
Earth	-4828-12-24 17:45 J	-41646.01	-41645.76	-41645.50	0.0088	0.0013
Moon	-4828-12-24 19:55 J	-41645.91	-41645.67	-41645.42	0.0088	0.0011 *
Moon	-4827-12-27 01:26 J	-41278.69	-41278.44	-41278.18	0.0088	0.0017
Earth	-4827-12-27 04:33 J	-41278.55	-41278.31	-41278.05	0.0088	0.0019 *
Earth	-4826-12-29 15:07 J	-40911.07	-40910.87	-40910.64	0.0088	0.0050
Moon	-4826-12-29 18:14 J	-40910.93	-40910.74	-40910.51	0.0088	0.0051 *
Moon	-4825-12-30 21:36 J	-40543.68	-40543.60	-40543.45	0.0088	0.0080
Earth	-4825-12-31 01:26 J	-40543.51	-40543.44	-40543.30	0.0088	0.0081 *
Mars	-4805-03-03 04:47 J	-33541.52	-33541.30	-33541.03	0.0088	0.0057
Mars	-4803-01-27 06:14 J	-32846.53	-32846.24	-32845.93	0.0088	0.0029
Mercury	-4796-03-02 09:07 J	-30255.13	-30255.12	-30255.08	0.0088	0.0087
Mercury	-4796-05-29 12:43 J	-30167.05	-30166.97	-30166.87	0.0088	0.0077
Mercury	-4796-08-25 15:50 J	-30078.94	-30078.84	-30078.70	0.0088	0.0068
Mercury	-4796-11-21 19:26 J	-29990.82	-29990.69	-29990.53	0.0088	0.0058
Mercury	-4795-02-17 23:16 J	-29902.69	-29902.53	-29902.37	0.0088	0.0048
Mercury	-4795-05-17 02:52 J	-29814.56	-29814.38	-29814.21	0.0088	0.0038
Mercury	-4795-08-13 06:00 J	-29726.42	-29726.25	-29726.05	0.0088	0.0029
Mercury	-4795-11-09 09:36 J	-29638.28	-29638.10	-29637.90	0.0088	0.0019
Mercury	-4794-02-05 13:26 J	-29550.14	-29549.94	-29549.75	0.0088	0.0009

Mercury	-4794-05-04 17:02 J	-29461.99	-29461.79	-29461.60	0.0088	0.0002
Mercury	-4794-07-31 20:23 J	-29373.84	-29373.65	-29373.45	0.0088	0.0011
Mercury	-4794-10-28 00:00 J	-29285.69	-29285.50	-29285.31	0.0088	0.0021
Mercury	-4793-01-24 03:21 J	-29197.53	-29197.36	-29197.17	0.0088	0.0031
Mercury	-4793-04-21 06:57 J	-29109.37	-29109.21	-29109.03	0.0088	0.0041
Mercury	-4793-07-18 10:19 J	-29021.21	-29021.07	-29020.89	0.0088	0.0051
Mercury	-4793-10-14 13:55 J	-28933.04	-28932.92	-28932.76	0.0088	0.0061
Mercury	-4792-01-10 17:31 J	-28844.87	-28844.77	-28844.64	0.0088	0.0071
Mercury	-4792-04-08 21:07 J	-28756.68	-28756.62	-28756.53	0.0088	0.0081
Venus	-4788-10-25 11:31 J	-27096.07	-27096.02	-27095.93	0.0088	0.0083
Venus	-4787-06-08 00:14 J	-26870.60	-26870.49	-26870.34	0.0088	0.0071
Venus	-4786-01-19 13:11 J	-26645.09	-26644.95	-26644.77	0.0088	0.0059
Venus	-4786-09-02 02:23 J	-26419.58	-26419.40	-26419.21	0.0088	0.0046
Venus	-4785-04-14 14:52 J	-26194.07	-26193.88	-26193.66	0.0088	0.0034
Venus	-4785-11-26 03:36 J	-25968.55	-25968.35	-25968.12	0.0088	0.0022
Venus	-4784-07-09 16:48 J	-25743.02	-25742.80	-25742.58	0.0088	0.0009
Venus	-4783-02-20 05:31 J	-25517.48	-25517.27	-25517.04	0.0088	0.0004
Venus	-4783-10-03 18:14 J	-25291.95	-25291.74	-25291.51	0.0088	0.0016
Venus	-4782-05-17 07:11 J	-25066.40	-25066.20	-25065.98	0.0088	0.0028
Venus	-4782-12-28 19:55 J	-24840.85	-24840.67	-24840.45	0.0088	0.0041
Venus	-4781-08-10 08:52 J	-24615.29	-24615.13	-24614.94	0.0088	0.0053
Venus	-4780-03-23 22:04 J	-24389.72	-24389.58	-24389.43	0.0088	0.0065
Venus	-4780-11-04 10:33 J	-24164.14	-24164.06	-24163.93	0.0088	0.0078
Earth	-4746-06-26 03:35 J	-11877.50	-11877.35	-11877.16	0.0089	0.0066
Moon	-4746-06-26 04:33 J	-11877.45	-11877.31	-11877.13	0.0089	0.0069 *
Moon	-4745-06-27 14:38 J	-11510.12	-11509.89	-11509.62	0.0089	0.0032
Earth	-4745-06-27 16:48 J	-11510.04	-11509.80	-11509.56	0.0089	0.0034 *
Earth	-4744-06-30 05:16 J	-11142.54	-11142.28	-11142.02	0.0089	0.0003
Moon	-4744-06-30 07:55 J	-11142.42	-11142.17	-11141.91	0.0089	0.0006 *
Moon	-4743-07-02 13:55 J	-10775.15	-10774.92	-10774.66	0.0089	0.0032

Earth	-4743-07-02 17:31 J	-10775.01	-10774.77	-10774.52	0.0089	0.0029 *
Earth	-4742-07-05 06:14 J	-10407.43	-10407.24	-10407.05	0.0089	0.0060
Moon	-4742-07-05 09:07 J	-10407.29	-10407.12	-10406.90	0.0089	0.0059 *
Mars	-4722-10-11 07:40 J	-3004.48	-3004.18	-3003.88	0.0089	0.0017
Mars	-4720-09-04 22:47 J	-2309.72	-2309.55	-2309.34	0.0089	0.0070
Mercury	-4715-12-13 04:33 J	-384.34	-384.31	-384.25	0.0089	0.0084
Mercury	-4714-03-11 06:14 J	-296.31	-296.24	-296.17	0.0089	0.0076
Mercury	-4714-06-07 07:26 J	-208.26	-208.19	-208.10	0.0089	0.0069
Mercury	-4714-09-03 08:52 J	-120.22	-120.13	-120.03	0.0089	0.0062
Mercury	-4714-11-30 10:19 J	-32.17	-32.07	-31.96	0.0089	0.0054
Mercury	-4713-02-26 11:31 J	55.88	55.98	56.10	0.0089	0.0048
Mercury	-4713-05-24 12:57 J	143.93	144.04	144.17	0.0089	0.0040
Mercury	-4713-08-20 14:23 J	231.98	232.10	232.23	0.0089	0.0033
Mercury	-4713-11-16 15:50 J	320.03	320.16	320.29	0.0089	0.0026
Mercury	-4712-02-12 17:16 J	408.09	408.22	408.35	0.0089	0.0019
Mercury	-4712-05-11 18:28 J	496.14	496.27	496.41	0.0089	0.0012
Mercury	-4712-08-07 19:55 J	584.20	584.33	584.46	0.0089	0.0004
Mercury	-4712-11-03 21:21 J	672.25	672.39	672.52	0.0089	0.0004
Mercury	-4711-01-30 22:33 J	760.31	760.44	760.57	0.0089	0.0010
Mercury	-4711-04-28 23:45 J	848.37	848.49	848.63	0.0089	0.0018
Mercury	-4711-07-26 01:11 J	936.43	936.55	936.68	0.0089	0.0024
Mercury	-4711-10-22 02:23 J	1024.49	1024.60	1024.73	0.0089	0.0032
Mercury	-4710-01-18 03:50 J	1112.54	1112.66	1112.78	0.0089	0.0038
Mercury	-4710-04-16 05:02 J	1200.61	1200.71	1200.83	0.0089	0.0045
Mercury	-4710-07-13 06:14 J	1288.67	1288.76	1288.88	0.0089	0.0053
Mercury	-4710-10-09 07:40 J	1376.73	1376.82	1376.93	0.0089	0.0059
Mercury	-4709-01-05 08:52 J	1464.80	1464.87	1464.97	0.0089	0.0067
Mercury	-4709-04-02 10:19 J	1552.86	1552.93	1553.01	0.0089	0.0073
Mercury	-4709-06-29 11:31 J	1640.94	1640.98	1641.05	0.0089	0.0080
Mercury	-4709-09-25 12:43 J	1729.02	1729.03	1729.07	0.0089	0.0088

Venus	-4706-12-13 05:45 J	2902.68	2902.74	2902.82	0.0089	0.0085
Venus	-4705-07-25 18:43 J	3128.18	3128.28	3128.43	0.0089	0.0073
Venus	-4704-03-08 07:55 J	3353.69	3353.83	3354.02	0.0089	0.0060
Venus	-4704-10-19 21:21 J	3579.22	3579.39	3579.59	0.0089	0.0046
Venus	-4703-06-02 10:33 J	3804.75	3804.94	3805.16	0.0089	0.0034
Venus	-4702-01-14 00:00 J	4030.29	4030.50	4030.72	0.0089	0.0020
Venus	-4702-08-27 13:12 J	4255.84	4256.05	4256.28	0.0089	0.0008
Venus	-4701-04-09 02:24 J	4481.39	4481.60	4481.82	0.0089	0.0006
Venus	-4701-11-20 15:21 J	4706.94	4707.14	4707.37	0.0089	0.0020
Venus	-4700-07-04 04:33 J	4932.50	4932.69	4932.91	0.0089	0.0032
Venus	-4699-02-14 18:00 J	5158.06	5158.25	5158.44	0.0089	0.0045
Venus	-4699-09-28 06:57 J	5383.63	5383.79	5383.96	0.0089	0.0058
Venus	-4698-05-11 19:55 J	5609.21	5609.33	5609.47	0.0089	0.0071
Venus	-4698-12-23 08:52 J	5834.81	5834.87	5834.96	0.0089	0.0084
Earth	-4665-12-21 15:36 J	17886.98	17887.15	17887.35	0.0089	0.0060
Moon	-4665-12-21 18:14 J	17887.07	17887.26	17887.46	0.0089	0.0056 *
Moon	-4664-12-23 23:16 J	18254.24	18254.47	18254.73	0.0089	0.0034
Earth	-4664-12-24 02:52 J	18254.38	18254.62	18254.86	0.0089	0.0029 *
Earth	-4663-12-26 13:26 J	18621.81	18622.06	18622.32	0.0089	0.0002
Moon	-4663-12-26 17:02 J	18621.96	18622.21	18622.47	0.0089	0.0006 *
Moon	-4662-12-28 20:38 J	18989.13	18989.36	18989.61	0.0088	0.0029
Earth	-4662-12-29 00:00 J	18989.27	18989.50	18989.75	0.0088	0.0033 *
Earth	-4661-12-30 10:48 J	19356.78	19356.95	19357.14	0.0088	0.0063
Moon	-4661-12-30 13:40 J	19356.92	19357.07	19357.26	0.0088	0.0068 *
Mars	-4640-09-10 16:48 J	26915.90	26916.20	26916.53	0.0088	0.0013
Mars	-4638-08-06 16:48 J	27611.05	27611.20	27611.40	0.0088	0.0073
Mercury	-4632-11-27 07:11 J	29915.77	29915.80	29915.88	0.0088	0.0084
Mercury	-4631-02-23 10:48 J	30003.87	30003.95	30004.07	0.0088	0.0074
Mercury	-4631-05-22 14:38 J	30091.98	30092.11	30092.24	0.0088	0.0064
Mercury	-4631-08-18 17:45 J	30180.11	30180.24	30180.41	0.0088	0.0055

Mercury	-4631-11-14 21:21 J	30268.24	30268.39	30268.57	0.0088	0.0045
Mercury	-4630-02-11 00:57 J	30356.37	30356.54	30356.73	0.0088	0.0035
Mercury	-4630-05-10 04:33 J	30444.51	30444.69	30444.88	0.0088	0.0025
Mercury	-4630-08-06 08:09 J	30532.65	30532.84	30533.03	0.0088	0.0015
Mercury	-4630-11-02 11:31 J	30620.79	30620.98	30621.18	0.0088	0.0006
Mercury	-4629-01-29 15:07 J	30708.94	30709.13	30709.33	0.0088	0.0005
Mercury	-4629-04-26 18:43 J	30797.09	30797.28	30797.47	0.0088	0.0014
Mercury	-4629-07-23 22:19 J	30885.24	30885.43	30885.62	0.0088	0.0024
Mercury	-4629-10-20 01:40 J	30973.40	30973.57	30973.76	0.0088	0.0034
Mercury	-4628-01-16 05:16 J	31061.56	31061.72	31061.89	0.0088	0.0044
Mercury	-4628-04-14 08:38 J	31149.72	31149.86	31150.03	0.0088	0.0054
Mercury	-4628-07-11 12:14 J	31237.89	31238.01	31238.16	0.0088	0.0064
Mercury	-4628-10-07 15:50 J	31326.07	31326.16	31326.28	0.0088	0.0074
Mercury	-4627-01-03 19:26 J	31414.27	31414.31	31414.38	0.0088	0.0084
Venus	-4623-09-09 11:02 J	33123.87	33123.96	33124.08	0.0088	0.0077
Venus	-4622-04-22 23:45 J	33349.36	33349.49	33349.66	0.0088	0.0065
Venus	-4622-12-04 12:43 J	33574.86	33575.03	33575.22	0.0088	0.0052
Venus	-4621-07-17 01:26 J	33800.38	33800.56	33800.77	0.0088	0.0040
Venus	-4620-02-27 14:23 J	34025.90	34026.10	34026.32	0.0088	0.0027
Venus	-4620-10-11 03:07 J	34251.42	34251.63	34251.86	0.0088	0.0015
Venus	-4619-05-24 16:04 J	34476.95	34477.17	34477.40	0.0088	0.0003
Venus	-4618-01-05 05:02 J	34702.50	34702.71	34702.94	0.0088	0.0011
Venus	-4618-08-18 17:45 J	34928.04	34928.24	34928.47	0.0088	0.0023
Venus	-4617-03-31 06:43 J	35153.58	35153.78	35153.99	0.0088	0.0035
Venus	-4617-11-11 19:26 J	35379.13	35379.31	35379.51	0.0088	0.0048
Venus	-4616-06-25 08:23 J	35604.70	35604.85	35605.02	0.0088	0.0060
Venus	-4615-02-05 21:07 J	35830.28	35830.38	35830.53	0.0088	0.0073
Venus	-4615-09-19 10:19 J	36055.89	36055.93	36055.99	0.0088	0.0085
Moon	-4582-06-25 09:07 J	48022.77	48022.88	48023.01	0.0089	0.0079
Earth	-4582-06-25 11:45 J	48022.91	48022.99	48023.11	0.0089	0.0082 *

Earth	-4581-06-27 00:14 J	48390.32	48390.51	48390.74	0.0089	0.0051
Moon	-4581-06-27 03:21 J	48390.45	48390.64	48390.86	0.0089	0.0054 *
Moon	-4580-06-29 09:21 J	48757.64	48757.89	48758.15	0.0089	0.0016
Earth	-4580-06-29 12:57 J	48757.80	48758.04	48758.30	0.0089	0.0020 *
Earth	-4579-07-02 01:40 J	49125.31	49125.57	49125.83	0.0089	0.0012
Moon	-4579-07-02 05:02 J	49125.46	49125.71	49125.98	0.0089	0.0009 *
Moon	-4578-07-04 11:02 J	49492.75	49492.96	49493.18	0.0089	0.0047
Earth	-4578-07-04 13:40 J	49492.87	49493.07	49493.32	0.0089	0.0044 *
Earth	-4577-07-06 02:09 J	49860.47	49860.59	49860.75	0.0089	0.0075
Moon	-4577-07-06 04:47 J	49860.56	49860.70	49860.88	0.0089	0.0071 *
Mars	-4558-05-26 02:23 J	56758.38	56758.60	56758.84	0.0089	0.0059
Mars	-4556-04-19 16:19 J	57452.90	57453.18	57453.49	0.0089	0.0027
Mercury	-4550-06-13 02:52 J	59698.61	59698.62	59698.65	0.0089	0.0088
Mercury	-4550-09-09 04:33 J	59786.63	59786.69	59786.74	0.0089	0.0081
Mercury	-4550-12-06 05:45 J	59874.67	59874.74	59874.82	0.0089	0.0074
Mercury	-4549-03-03 07:12 J	59962.72	59962.80	59962.89	0.0089	0.0066
Mercury	-4549-05-30 08:23 J	60050.76	60050.85	60050.96	0.0089	0.0060
Mercury	-4549-08-26 09:50 J	60138.81	60138.91	60139.03	0.0089	0.0052
Mercury	-4549-11-22 11:16 J	60226.86	60226.97	60227.09	0.0089	0.0045
Mercury	-4548-02-18 12:43 J	60314.91	60315.03	60315.15	0.0089	0.0038
Mercury	-4548-05-17 14:09 J	60402.96	60403.09	60403.21	0.0089	0.0031
Mercury	-4548-08-13 15:21 J	60491.02	60491.14	60491.27	0.0089	0.0024
Mercury	-4548-11-09 16:47 J	60579.07	60579.20	60579.33	0.0089	0.0016
Mercury	-4547-02-05 18:14 J	60667.13	60667.26	60667.39	0.0089	0.0009
Mercury	-4547-05-04 19:40 J	60755.18	60755.32	60755.45	0.0089	0.0004
Mercury	-4547-07-31 20:52 J	60843.24	60843.37	60843.50	0.0089	0.0005
Mercury	-4547-10-27 22:19 J	60931.30	60931.43	60931.56	0.0089	0.0012
Mercury	-4546-01-23 23:31 J	61019.35	61019.48	61019.61	0.0089	0.0019
Mercury	-4546-04-22 00:57 J	61107.41	61107.54	61107.67	0.0089	0.0026
Mercury	-4546-07-19 02:09 J	61195.47	61195.59	61195.72	0.0089	0.0033

Mercury	-4546-10-15 03:21 J	61283.53	61283.64	61283.77	0.0089	0.0041
Mercury	-4545-01-11 04:47 J	61371.59	61371.70	61371.82	0.0089	0.0048
Mercury	-4545-04-08 06:00 J	61459.66	61459.75	61459.86	0.0089	0.0055
Mercury	-4545-07-05 07:26 J	61547.72	61547.81	61547.91	0.0089	0.0062
Mercury	-4545-10-01 08:38 J	61635.79	61635.86	61635.95	0.0089	0.0069
Mercury	-4545-12-28 10:04 J	61723.86	61723.92	61723.99	0.0089	0.0075
Mercury	-4544-03-26 11:16 J	61811.93	61811.97	61812.03	0.0089	0.0083
Mercury	-4544-06-22 12:43 J	61900.03	61900.03	61900.04	0.0089	0.0089
Venus	-4541-10-27 04:47 J	63122.62	63122.70	63122.82	0.0089	0.0079
Venus	-4540-06-09 18:00 J	63348.12	63348.25	63348.42	0.0089	0.0066
Venus	-4539-01-21 07:26 J	63573.65	63573.81	63574.00	0.0089	0.0053
Venus	-4539-09-03 20:38 J	63799.18	63799.36	63799.57	0.0089	0.0040
Venus	-4538-04-17 09:50 J	64024.71	64024.91	64025.13	0.0089	0.0027
Venus	-4538-11-28 23:16 J	64250.26	64250.47	64250.69	0.0089	0.0013
Venus	-4537-07-11 12:43 J	64475.81	64476.03	64476.25	0.0089	0.0000
Venus	-4536-02-22 01:40 J	64701.36	64701.57	64701.80	0.0089	0.0014
Venus	-4536-10-05 14:52 J	64926.92	64927.12	64927.34	0.0089	0.0026
Venus	-4535-05-19 03:50 J	65152.48	65152.66	65152.87	0.0089	0.0040
Venus	-4535-12-30 17:02 J	65378.05	65378.21	65378.40	0.0089	0.0053
Venus	-4534-08-13 06:14 J	65603.63	65603.76	65603.92	0.0089	0.0066
Venus	-4533-03-25 19:12 J	65829.22	65829.30	65829.42	0.0089	0.0079
Moon	-4501-12-20 22:04 J	77787.29	77787.42	77787.58	0.0089	0.0073
Earth	-4501-12-21 01:12 J	77787.45	77787.55	77787.71	0.0089	0.0076 *
Earth	-4500-12-23 12:28 J	78154.80	78155.02	78155.24	0.0089	0.0045
Moon	-4500-12-23 15:35 J	78154.95	78155.15	78155.39	0.0089	0.0047 *
Moon	-4499-12-25 19:40 J	78522.08	78522.32	78522.58	0.0089	0.0013
Earth	-4499-12-25 23:02 J	78522.22	78522.46	78522.72	0.0089	0.0015 *
Earth	-4498-12-28 09:50 J	78889.67	78889.91	78890.17	0.0088	0.0016
Moon	-4498-12-28 12:14 J	78889.76	78890.01	78890.28	0.0088	0.0014 *
Moon	-4497-12-29 18:43 J	79257.09	79257.28	79257.51	0.0088	0.0049

Earth	-4497-12-29 20:38 J	79257.15	79257.36	79257.59	0.0088	0.0047 *
Moon	-4495-01-01 07:40 J	79624.69	79624.82	79624.96	0.0088	0.0075
Earth	-4495-01-01 06:57 J	79624.70	79624.79	79624.94	0.0088	0.0078 *
Mars	-4476-04-25 02:24 J	86678.37	86678.60	86678.87	0.0088	0.0055
Mars	-4474-03-21 04:04 J	87373.39	87373.67	87373.99	0.0088	0.0032
Mercury	-4467-08-24 06:00 J	90086.69	90086.75	90086.85	0.0088	0.0080
Mercury	-4467-11-20 09:35 J	90174.80	90174.90	90175.03	0.0088	0.0070
Mercury	-4466-02-16 13:12 J	90262.92	90263.05	90263.20	0.0088	0.0060
Mercury	-4466-05-15 16:19 J	90351.04	90351.18	90351.36	0.0088	0.0051
Mercury	-4466-08-11 19:55 J	90439.17	90439.33	90439.52	0.0088	0.0041
Mercury	-4466-11-07 23:31 J	90527.31	90527.48	90527.67	0.0088	0.0031
Mercury	-4465-02-04 03:07 J	90615.45	90615.63	90615.82	0.0088	0.0021
Mercury	-4465-05-02 06:43 J	90703.59	90703.78	90703.97	0.0088	0.0011
Mercury	-4465-07-29 10:19 J	90791.73	90791.93	90792.12	0.0088	0.0002
Mercury	-4465-10-25 13:40 J	90879.88	90880.07	90880.27	0.0088	0.0009
Mercury	-4464-01-21 17:16 J	90968.03	90968.22	90968.41	0.0088	0.0018
Mercury	-4464-04-19 20:38 J	91056.18	91056.36	91056.55	0.0088	0.0028
Mercury	-4464-07-17 00:14 J	91144.34	91144.51	91144.69	0.0088	0.0038
Mercury	-4464-10-13 03:35 J	91232.50	91232.65	91232.83	0.0088	0.0048
Mercury	-4463-01-09 07:12 J	91320.67	91320.80	91320.96	0.0088	0.0058
Mercury	-4463-04-07 10:47 J	91408.84	91408.95	91409.09	0.0088	0.0068
Mercury	-4463-07-04 14:09 J	91497.02	91497.09	91497.20	0.0088	0.0078
Mercury	-4463-09-30 18:00 J	91585.25	91585.25	91585.27	0.0088	0.0088
Venus	-4459-12-11 22:04 J	93118.37	93118.42	93118.52	0.0088	0.0083
Venus	-4458-07-25 11:02 J	93343.84	93343.96	93344.11	0.0088	0.0070
Venus	-4457-03-06 23:45 J	93569.34	93569.49	93569.68	0.0088	0.0058
Venus	-4457-10-18 12:43 J	93794.85	93795.03	93795.23	0.0088	0.0045
Venus	-4456-06-01 01:26 J	94020.37	94020.56	94020.78	0.0088	0.0033
Venus	-4455-01-12 14:38 J	94245.90	94246.11	94246.33	0.0088	0.0020
Venus	-4455-08-26 03:35 J	94471.43	94471.65	94471.87	0.0088	0.0007

Venus	-4454-04-08 16:19 J	94696.96	94697.18	94697.40	0.0088	0.0006
Venus	-4454-11-20 05:02 J	94922.50	94922.71	94922.93	0.0088	0.0018
Venus	-4453-07-02 17:45 J	95148.04	95148.24	95148.46	0.0088	0.0031
Venus	-4452-02-13 06:43 J	95373.60	95373.78	95373.98	0.0088	0.0043
Venus	-4452-09-26 19:26 J	95599.16	95599.31	95599.50	0.0088	0.0056
Venus	-4451-05-10 08:24 J	95824.72	95824.85	95825.00	0.0088	0.0068
Venus	-4451-12-21 21:07 J	96050.32	96050.38	96050.49	0.0088	0.0081
Moon	-4417-06-26 06:00 J	108290.61	108290.75	108290.92	0.0089	0.0070
Earth	-4417-06-26 09:35 J	108290.74	108290.90	108291.08	0.0089	0.0066 *
Earth	-4416-06-28 22:04 J	108658.19	108658.42	108658.67	0.0089	0.0035
Moon	-4416-06-29 01:40 J	108658.33	108658.57	108658.82	0.0089	0.0032 *
Moon	-4415-07-01 07:55 J	109025.59	109025.83	109026.09	0.0089	0.0008
Earth	-4415-07-01 10:47 J	109025.69	109025.95	109026.21	0.0089	0.0004 *
Earth	-4414-07-03 23:16 J	109393.23	109393.47	109393.72	0.0089	0.0027
Moon	-4414-07-04 00:57 J	109393.29	109393.54	109393.80	0.0089	0.0030 *
Moon	-4413-07-05 10:33 J	109760.76	109760.94	109761.14	0.0089	0.0056
Earth	-4413-07-05 11:16 J	109760.80	109760.97	109761.19	0.0089	0.0059 *
Jupiter	-4396-08-24 19:40 J	116019.83	116020.32	116020.84	0.0089	0.0025
Mars	-4393-12-02 12:14 J	117215.71	117216.01	117216.32	0.0089	0.0014
Mars	-4391-10-28 02:24 J	117910.45	117910.60	117910.80	0.0089	0.0073
Mercury	-4385-03-09 02:38 J	119869.59	119869.61	119869.66	0.0089	0.0085
Mercury	-4385-06-05 04:19 J	119957.62	119957.68	119957.74	0.0089	0.0078
Mercury	-4385-09-01 05:31 J	120045.66	120045.73	120045.82	0.0089	0.0071
Mercury	-4385-11-28 06:57 J	120133.70	120133.79	120133.89	0.0089	0.0064
Mercury	-4384-02-24 08:24 J	120221.75	120221.85	120221.96	0.0089	0.0056
Mercury	-4384-05-23 09:35 J	120309.80	120309.90	120310.02	0.0089	0.0050
Mercury	-4384-08-19 11:02 J	120397.85	120397.96	120398.09	0.0089	0.0042
Mercury	-4384-11-15 12:28 J	120485.90	120486.02	120486.15	0.0089	0.0035
Mercury	-4383-02-11 13:55 J	120573.96	120574.08	120574.21	0.0089	0.0028
Mercury	-4383-05-10 15:21 J	120662.01	120662.14	120662.27	0.0089	0.0021

Mercury	-4383-08-06 16:33 J	120750.06	120750.19	120750.33	0.0089	0.0014
Mercury	-4383-11-02 18:00 J	120838.12	120838.25	120838.38	0.0089	0.0006
Mercury	-4382-01-29 19:26 J	120926.18	120926.31	120926.44	0.0089	0.0001
Mercury	-4382-04-27 20:38 J	121014.23	121014.36	121014.50	0.0089	0.0009
Mercury	-4382-07-24 22:04 J	121102.29	121102.42	121102.55	0.0089	0.0015
Mercury	-4382-10-20 23:16 J	121190.35	121190.47	121190.60	0.0089	0.0022
Mercury	-4381-01-17 00:43 J	121278.41	121278.53	121278.66	0.0089	0.0029
Mercury	-4381-04-14 01:55 J	121366.47	121366.58	121366.71	0.0089	0.0037
Mercury	-4381-07-11 03:21 J	121454.53	121454.64	121454.76	0.0089	0.0043
Mercury	-4381-10-07 04:33 J	121542.59	121542.69	121542.81	0.0089	0.0051
Mercury	-4380-01-03 06:00 J	121630.65	121630.75	121630.85	0.0089	0.0057
Mercury	-4380-04-01 07:12 J	121718.72	121718.80	121718.90	0.0089	0.0065
Mercury	-4380-06-28 08:24 J	121806.79	121806.85	121806.94	0.0089	0.0072
Mercury	-4380-09-24 09:50 J	121894.86	121894.91	121894.98	0.0089	0.0078
Mercury	-4380-12-21 11:02 J	121982.94	121982.96	121983.01	0.0089	0.0086
Venus	-4376-01-28 15:35 J	123117.10	123117.15	123117.24	0.0089	0.0085
Venus	-4376-09-11 04:47 J	123342.59	123342.70	123342.85	0.0089	0.0072
Venus	-4375-04-24 18:00 J	123568.10	123568.25	123568.43	0.0089	0.0058
Venus	-4375-12-06 07:12 J	123793.62	123793.80	123794.00	0.0089	0.0045
Venus	-4374-07-19 20:52 J	124019.16	124019.37	124019.57	0.0089	0.0032
Venus	-4373-03-01 09:50 J	124244.70	124244.91	124245.13	0.0089	0.0019
Venus	-4373-10-12 23:02 J	124470.24	124470.46	124470.68	0.0089	0.0006
Venus	-4372-05-26 12:14 J	124695.79	124696.01	124696.23	0.0089	0.0008
Venus	-4371-01-07 01:26 J	124921.35	124921.56	124921.77	0.0089	0.0021
Venus	-4371-08-20 14:24 J	125146.91	125147.10	125147.31	0.0089	0.0034
Venus	-4370-04-03 03:21 J	125372.47	125372.64	125372.84	0.0089	0.0048
Venus	-4370-11-14 16:33 J	125598.05	125598.19	125598.37	0.0089	0.0061
Venus	-4369-06-27 05:45 J	125823.63	125823.74	125823.88	0.0089	0.0074
Venus	-4368-02-07 18:57 J	126049.25	126049.29	126049.36	0.0089	0.0087
Moon	-4336-12-22 19:26 J	138055.13	138055.31	138055.52	0.0089	0.0057

Earth	-4336-12-22 22:19 J	138055.26	138055.43	138055.63	0.0089	0.0061	*
Earth	-4335-12-25 08:52 J	138422.65	138422.87	138423.13	0.0089	0.0031	
Moon	-4335-12-25 11:16 J	138422.75	138422.97	138423.23	0.0089	0.0035	*
Moon	-4334-12-27 19:26 J	138790.06	138790.31	138790.56	0.0089	0.0004	
Earth	-4334-12-27 20:09 J	138790.08	138790.34	138790.60	0.0089	0.0000	*
Moon	-4333-12-29 06:43 J	139157.53	139157.78	139158.04	0.0088	0.0027	
Earth	-4333-12-29 06:43 J	139157.55	139157.78	139158.03	0.0088	0.0031	*
Earth	-4332-12-31 17:31 J	139525.06	139525.23	139525.43	0.0088	0.0061	
Moon	-4332-12-31 18:28 J	139525.13	139525.27	139525.47	0.0088	0.0066	*
Moon	-4330-01-03 01:11 J	139892.54	139892.55	139892.61	0.0088	0.0088	
Mars	-4311-11-02 16:48 J	147135.89	147136.20	147136.53	0.0088	0.0010	
Mars	-4309-09-27 17:31 J	147831.11	147831.23	147831.42	0.0088	0.0077	
Mercury	-4302-02-22 01:26 J	150169.53	150169.56	150169.62	0.0088	0.0085	
Mercury	-4302-05-21 05:02 J	150257.62	150257.71	150257.81	0.0088	0.0075	
Mercury	-4302-08-17 08:09 J	150345.73	150345.84	150345.99	0.0088	0.0066	
Mercury	-4302-11-13 11:45 J	150433.85	150433.99	150434.15	0.0088	0.0056	
Mercury	-4301-02-09 15:21 J	150521.98	150522.14	150522.31	0.0088	0.0046	
Mercury	-4301-05-07 18:43 J	150610.12	150610.28	150610.47	0.0088	0.0037	
Mercury	-4301-08-03 22:19 J	150698.25	150698.43	150698.62	0.0088	0.0027	
Mercury	-4301-10-31 01:55 J	150786.39	150786.58	150786.77	0.0088	0.0017	
Mercury	-4300-01-27 05:31 J	150874.53	150874.73	150874.92	0.0088	0.0007	
Mercury	-4300-04-25 08:52 J	150962.68	150962.87	150963.07	0.0088	0.0003	
Mercury	-4300-07-22 12:28 J	151050.83	151051.02	151051.21	0.0088	0.0013	
Mercury	-4300-10-18 15:50 J	151138.98	151139.16	151139.36	0.0088	0.0023	
Mercury	-4299-01-14 19:26 J	151227.13	151227.31	151227.50	0.0088	0.0032	
Mercury	-4299-04-12 23:02 J	151315.29	151315.46	151315.63	0.0088	0.0042	
Mercury	-4299-07-10 02:24 J	151403.45	151403.60	151403.77	0.0088	0.0052	
Mercury	-4299-10-06 06:00 J	151491.62	151491.75	151491.90	0.0088	0.0062	
Mercury	-4298-01-02 09:21 J	151579.80	151579.89	151580.02	0.0088	0.0072	
Mercury	-4298-03-31 12:57 J	151667.99	151668.04	151668.12	0.0088	0.0082	

Venus	-4294-10-26 22:04 J	153338.33	153338.42	153338.55	0.0088	0.0076
Venus	-4293-06-08 11:02 J	153563.82	153563.96	153564.13	0.0088	0.0063
Venus	-4292-01-20 00:00 J	153789.34	153789.50	153789.70	0.0088	0.0051
Venus	-4292-09-02 12:57 J	154014.86	154015.04	154015.25	0.0088	0.0038
Venus	-4291-04-16 01:55 J	154240.38	154240.58	154240.80	0.0088	0.0025
Venus	-4291-11-27 14:38 J	154465.90	154466.11	154466.34	0.0088	0.0013
Venus	-4290-07-11 03:50 J	154691.44	154691.66	154691.88	0.0088	0.0001
Venus	-4289-02-21 16:33 J	154916.98	154917.19	154917.42	0.0088	0.0013
Venus	-4289-10-04 05:16 J	155142.52	155142.72	155142.94	0.0088	0.0026
Venus	-4288-05-17 18:00 J	155368.07	155368.25	155368.47	0.0088	0.0039
Venus	-4288-12-29 07:11 J	155593.63	155593.80	155593.99	0.0088	0.0051
Venus	-4287-08-11 19:55 J	155819.19	155819.33	155819.49	0.0088	0.0064
Venus	-4286-03-25 08:24 J	156044.77	156044.85	156044.99	0.0088	0.0077
Earth	-4253-06-25 18:28 J	168191.20	168191.27	168191.41	0.0089	0.0082
Moon	-4253-06-25 21:50 J	168191.31	168191.41	168191.55	0.0089	0.0079 *
Moon	-4252-06-28 05:31 J	168558.53	168558.73	168558.93	0.0089	0.0053
Earth	-4252-06-28 07:55 J	168558.62	168558.83	168559.05	0.0089	0.0050 *
Earth	-4251-06-30 20:38 J	168926.11	168926.36	168926.61	0.0089	0.0019
Moon	-4251-06-30 22:04 J	168926.16	168926.42	168926.69	0.0089	0.0016 *
Earth	-4250-07-03 09:07 J	169293.63	169293.88	169294.14	0.0089	0.0012
Moon	-4250-07-03 09:21 J	169293.64	169293.89	169294.14	0.0089	0.0009 *
Moon	-4249-07-04 20:09 J	169661.14	169661.34	169661.60	0.0089	0.0046
Earth	-4249-07-04 21:07 J	169661.18	169661.38	169661.63	0.0089	0.0043 *
Earth	-4248-07-07 09:21 J	170028.78	170028.89	170029.06	0.0089	0.0074
Moon	-4248-07-07 12:14 J	170028.86	170029.01	170029.16	0.0089	0.0070 *
Mars	-4229-07-17 11:16 J	176978.76	176978.97	176979.24	0.0089	0.0056
Mars	-4227-06-11 23:02 J	177673.20	177673.46	177673.77	0.0089	0.0032
Mercury	-4221-09-07 01:11 J	179952.55	179952.55	179952.57	0.0089	0.0089
Mercury	-4221-12-04 02:52 J	180040.57	180040.62	180040.67	0.0089	0.0082
Mercury	-4220-03-02 04:04 J	180128.61	180128.67	180128.75	0.0089	0.0075

Mercury	-4220-05-29 05:31 J	180216.65	180216.73	180216.82	0.0089	0.0068
Mercury	-4220-08-25 06:43 J	180304.70	180304.78	180304.89	0.0089	0.0061
Mercury	-4220-11-21 08:09 J	180392.74	180392.84	180392.96	0.0089	0.0053
Mercury	-4219-02-17 09:35 J	180480.79	180480.90	180481.02	0.0089	0.0046
Mercury	-4219-05-16 11:02 J	180568.85	180568.96	180569.08	0.0089	0.0039
Mercury	-4219-08-12 12:28 J	180656.90	180657.02	180657.15	0.0089	0.0032
Mercury	-4219-11-08 13:55 J	180744.95	180745.08	180745.21	0.0089	0.0025
Mercury	-4218-02-04 15:07 J	180833.00	180833.13	180833.26	0.0089	0.0018
Mercury	-4218-05-03 16:33 J	180921.06	180921.19	180921.32	0.0089	0.0010
Mercury	-4218-07-30 18:00 J	181009.12	181009.25	181009.38	0.0089	0.0003
Mercury	-4218-10-26 19:11 J	181097.17	181097.30	181097.44	0.0089	0.0005
Mercury	-4217-01-22 20:38 J	181185.23	181185.36	181185.49	0.0089	0.0011
Mercury	-4217-04-19 21:50 J	181273.29	181273.41	181273.55	0.0089	0.0019
Mercury	-4217-07-16 23:16 J	181361.35	181361.47	181361.60	0.0089	0.0025
Mercury	-4217-10-13 00:28 J	181449.41	181449.52	181449.65	0.0089	0.0033
Mercury	-4216-01-09 01:55 J	181537.47	181537.58	181537.70	0.0089	0.0039
Mercury	-4216-04-07 03:07 J	181625.53	181625.63	181625.75	0.0089	0.0047
Mercury	-4216-07-04 04:33 J	181713.59	181713.69	181713.80	0.0089	0.0054
Mercury	-4216-09-30 05:45 J	181801.66	181801.74	181801.85	0.0089	0.0061
Mercury	-4216-12-27 07:11 J	181889.72	181889.80	181889.89	0.0089	0.0068
Mercury	-4215-03-25 08:24 J	181977.79	181977.85	181977.93	0.0089	0.0075
Mercury	-4215-06-21 09:50 J	182065.87	182065.91	182065.97	0.0089	0.0082
Mercury	-4215-09-17 11:02 J	182153.96	182153.96	182153.99	0.0089	0.0089
Venus	-4212-12-13 15:50 J	183337.07	183337.16	183337.29	0.0089	0.0078
Venus	-4211-07-27 05:31 J	183562.59	183562.73	183562.89	0.0089	0.0064
Venus	-4210-03-09 18:43 J	183788.11	183788.28	183788.47	0.0089	0.0051
Venus	-4210-10-21 07:40 J	184013.63	184013.82	184014.03	0.0089	0.0038
Venus	-4209-06-02 20:52 J	184239.17	184239.37	184239.59	0.0089	0.0024
Venus	-4208-01-14 10:19 J	184464.71	184464.93	184465.15	0.0089	0.0011
Venus	-4208-08-27 23:31 J	184690.26	184690.48	184690.70	0.0089	0.0003

Venus	-4207-04-10 12:43 J	184915.81	184916.03	184916.24	0.0089	0.0016
Venus	-4207-11-22 01:26 J	185141.37	185141.56	185141.78	0.0089	0.0030
Venus	-4206-07-05 14:38 J	185366.93	185367.11	185367.32	0.0089	0.0043
Venus	-4205-02-16 03:50 J	185592.50	185592.66	185592.84	0.0089	0.0056
Venus	-4205-09-28 17:02 J	185818.08	185818.21	185818.36	0.0089	0.0069
Venus	-4204-05-12 06:14 J	186043.68	186043.76	186043.85	0.0089	0.0082
Earth	-4172-12-22 09:50 J	197955.80	197955.91	197956.07	0.0089	0.0076
Moon	-4172-12-22 12:00 J	197955.86	197956.00	197956.16	0.0089	0.0073 *
Moon	-4171-12-24 19:55 J	198323.13	198323.33	198323.55	0.0089	0.0048
Earth	-4171-12-24 20:24 J	198323.16	198323.35	198323.59	0.0089	0.0046 *
Moon	-4170-12-27 06:14 J	198690.51	198690.76	198691.04	0.0089	0.0013
Earth	-4170-12-27 07:26 J	198690.56	198690.81	198691.07	0.0089	0.0015 *
Earth	-4169-12-28 18:00 J	199058.01	199058.25	199058.51	0.0089	0.0015
Moon	-4169-12-28 19:55 J	199058.09	199058.33	199058.58	0.0089	0.0013 *
Moon	-4168-12-31 01:40 J	199425.37	199425.57	199425.81	0.0088	0.0048
Earth	-4168-12-31 04:19 J	199425.48	199425.68	199425.92	0.0088	0.0046 *
Earth	-4166-01-02 15:07 J	199793.02	199793.13	199793.29	0.0088	0.0076
Moon	-4166-01-02 18:43 J	199793.16	199793.28	199793.45	0.0088	0.0073 *
Mars	-4147-06-17 02:24 J	206898.35	206898.60	206898.88	0.0088	0.0051
Mars	-4145-05-12 06:28 J	207593.49	207593.77	207594.08	0.0088	0.0036
Mercury	-4138-11-19 00:28 J	210340.45	210340.52	210340.60	0.0088	0.0080
Mercury	-4137-02-15 03:35 J	210428.56	210428.65	210428.79	0.0088	0.0071
Mercury	-4137-05-13 07:11 J	210516.68	210516.80	210516.95	0.0088	0.0061
Mercury	-4137-08-09 10:48 J	210604.80	210604.95	210605.12	0.0088	0.0051
Mercury	-4137-11-05 14:38 J	210692.94	210693.11	210693.28	0.0088	0.0041
Mercury	-4136-02-01 17:45 J	210781.07	210781.24	210781.43	0.0088	0.0032
Mercury	-4136-04-30 21:21 J	210869.21	210869.39	210869.58	0.0088	0.0022
Mercury	-4136-07-28 00:57 J	210957.35	210957.54	210957.73	0.0088	0.0012
Mercury	-4136-10-24 04:33 J	211045.49	211045.69	211045.88	0.0088	0.0002
Mercury	-4135-01-20 07:55 J	211133.64	211133.83	211134.03	0.0088	0.0008

Mercury	-4135-04-18 11:16 J	211221.79	211221.97	211222.17	0.0088	0.0018
Mercury	-4135-07-15 15:07 J	211309.94	211310.13	211310.31	0.0088	0.0027
Mercury	-4135-10-11 18:28 J	211398.10	211398.27	211398.45	0.0088	0.0037
Mercury	-4134-01-07 21:50 J	211486.26	211486.41	211486.59	0.0088	0.0047
Mercury	-4134-04-06 01:26 J	211574.42	211574.56	211574.72	0.0088	0.0057
Mercury	-4134-07-03 04:48 J	211662.59	211662.70	211662.84	0.0088	0.0067
Mercury	-4134-09-29 08:24 J	211750.77	211750.85	211750.96	0.0088	0.0077
Mercury	-4134-12-26 12:00 J	211838.99	211839.00	211839.04	0.0088	0.0087
Venus	-4129-01-28 10:04 J	213332.85	213332.92	213333.02	0.0088	0.0081
Venus	-4129-09-09 23:16 J	213558.33	213558.47	213558.60	0.0088	0.0068
Venus	-4128-04-23 11:31 J	213783.83	213783.98	213784.17	0.0088	0.0056
Venus	-4128-12-05 00:28 J	214009.34	214009.52	214009.73	0.0088	0.0043
Venus	-4127-07-18 13:40 J	214234.86	214235.07	214235.28	0.0088	0.0030
Venus	-4126-03-01 02:38 J	214460.39	214460.61	214460.83	0.0088	0.0017
Venus	-4126-10-12 15:21 J	214685.92	214686.14	214686.36	0.0088	0.0005
Venus	-4125-05-25 04:19 J	214911.46	214911.68	214911.90	0.0088	0.0008
Venus	-4124-01-05 17:16 J	215137.01	215137.22	215137.44	0.0088	0.0021
Venus	-4124-08-19 06:00 J	215362.55	215362.75	215362.96	0.0088	0.0034
Venus	-4123-04-01 18:28 J	215588.11	215588.27	215588.48	0.0088	0.0047
Venus	-4123-11-13 07:11 J	215813.66	215813.80	215813.99	0.0088	0.0060
Venus	-4122-06-26 20:24 J	216039.24	216039.35	216039.49	0.0088	0.0072
Venus	-4121-02-07 09:21 J	216264.85	216264.89	216264.96	0.0088	0.0085
Earth	-4088-06-27 17:02 J	228459.06	228459.21	228459.41	0.0089	0.0066
Moon	-4088-06-27 18:00 J	228459.10	228459.25	228459.44	0.0089	0.0069 *
Earth	-4087-06-30 06:00 J	228826.53	228826.75	228827.01	0.0089	0.0035
Moon	-4087-06-30 06:28 J	228826.54	228826.77	228827.01	0.0089	0.0031 *
Moon	-4086-07-02 17:02 J	229193.95	229194.21	229194.48	0.0089	0.0008
Earth	-4086-07-02 18:57 J	229194.03	229194.29	229194.55	0.0089	0.0004 *
Earth	-4085-07-04 07:26 J	229561.57	229561.81	229562.06	0.0089	0.0027
Moon	-4085-07-04 09:35 J	229561.68	229561.90	229562.16	0.0089	0.0031 *

Moon	-4084-07-06 16:48 J	229929.00	229929.20	229929.41	0.0089	0.0054
Earth	-4084-07-06 19:55 J	229929.15	229929.33	229929.54	0.0089	0.0058 *
Earth	-4083-07-09 08:09 J	230296.84	230296.84	230296.88	0.0089	0.0089
Mars	-4063-01-24 23:16 J	237436.17	237436.47	237436.78	0.0089	0.0009
Mars	-4062-12-20 11:16 J	238130.85	238130.97	238131.15	0.0089	0.0078
Mercury	-4056-06-04 01:11 J	240123.53	240123.55	240123.60	0.0089	0.0086
Mercury	-4056-08-31 02:38 J	240211.56	240211.61	240211.68	0.0089	0.0079
Mercury	-4056-11-27 04:04 J	240299.60	240299.67	240299.76	0.0089	0.0071
Mercury	-4055-02-23 05:16 J	240387.64	240387.72	240387.83	0.0089	0.0065
Mercury	-4055-05-22 06:57 J	240475.69	240475.79	240475.90	0.0089	0.0057
Mercury	-4055-08-18 08:24 J	240563.74	240563.85	240563.96	0.0089	0.0050
Mercury	-4055-11-14 09:35 J	240651.79	240651.90	240652.03	0.0089	0.0043
Mercury	-4054-02-10 11:02 J	240739.84	240739.96	240740.09	0.0089	0.0035
Mercury	-4054-05-09 12:28 J	240827.90	240828.02	240828.15	0.0089	0.0028
Mercury	-4054-08-05 13:40 J	240915.95	240916.07	240916.21	0.0089	0.0022
Mercury	-4054-11-01 15:07 J	241004.00	241004.13	241004.27	0.0089	0.0014
Mercury	-4053-01-28 16:33 J	241092.06	241092.19	241092.32	0.0089	0.0007
Mercury	-4053-04-25 18:00 J	241180.11	241180.25	241180.38	0.0089	0.0002
Mercury	-4053-07-22 19:11 J	241268.17	241268.30	241268.44	0.0089	0.0008
Mercury	-4053-10-18 20:38 J	241356.23	241356.36	241356.49	0.0089	0.0014
Mercury	-4052-01-14 21:50 J	241444.29	241444.41	241444.54	0.0089	0.0022
Mercury	-4052-04-12 23:16 J	241532.35	241532.47	241532.60	0.0089	0.0029
Mercury	-4052-07-10 00:43 J	241620.41	241620.53	241620.65	0.0089	0.0036
Mercury	-4052-10-06 01:55 J	241708.47	241708.58	241708.70	0.0089	0.0043
Mercury	-4051-01-02 03:21 J	241796.53	241796.64	241796.75	0.0089	0.0050
Mercury	-4051-03-31 04:33 J	241884.59	241884.69	241884.80	0.0089	0.0057
Mercury	-4051-06-27 06:00 J	241972.66	241972.75	241972.84	0.0089	0.0064
Mercury	-4051-09-23 07:11 J	242060.73	242060.80	242060.88	0.0089	0.0071
Mercury	-4051-12-20 08:38 J	242148.80	242148.86	242148.92	0.0089	0.0078
Mercury	-4050-03-18 09:50 J	242236.88	242236.91	242236.96	0.0089	0.0085

Venus	-4047-03-17 03:35 J	243331.58	243331.65	243331.74	0.0089	0.0083
Venus	-4047-10-28 16:33 J	243557.07	243557.19	243557.34	0.0089	0.0070
Venus	-4046-06-11 05:45 J	243782.59	243782.74	243782.93	0.0089	0.0057
Venus	-4045-01-22 19:11 J	244008.12	244008.30	244008.50	0.0089	0.0043
Venus	-4045-09-04 08:24 J	244233.65	244233.85	244234.07	0.0089	0.0030
Venus	-4044-04-17 21:35 J	244459.19	244459.40	244459.62	0.0089	0.0016
Venus	-4044-11-29 10:48 J	244684.73	244684.95	244685.17	0.0089	0.0003
Venus	-4043-07-13 00:00 J	244910.29	244910.50	244910.72	0.0089	0.0011
Venus	-4042-02-23 12:57 J	245135.84	245136.04	245136.26	0.0089	0.0024
Venus	-4042-10-07 02:09 J	245361.40	245361.59	245361.79	0.0089	0.0038
Venus	-4041-05-19 15:21 J	245586.96	245587.14	245587.32	0.0089	0.0051
Venus	-4041-12-31 04:04 J	245812.54	245812.67	245812.84	0.0089	0.0064
Venus	-4040-08-13 17:16 J	246038.13	246038.22	246038.35	0.0089	0.0078
Moon	-4007-12-24 07:26 J	258223.63	258223.81	258224.03	0.0089	0.0057
Earth	-4007-12-24 08:38 J	258223.68	258223.86	258224.05	0.0089	0.0060 *
Earth	-4006-12-26 18:57 J	258591.06	258591.29	258591.55	0.0089	0.0030
Moon	-4006-12-26 21:21 J	258591.17	258591.39	258591.63	0.0089	0.0034 *
Moon	-4005-12-28 02:38 J	258958.35	258958.61	258958.87	0.0089	0.0003
Earth	-4005-12-28 05:45 J	258958.49	258958.74	258959.00	0.0089	0.0001 *
Earth	-4004-12-30 16:19 J	259325.94	259326.18	259326.43	0.0089	0.0030
Moon	-4004-12-30 19:55 J	259326.08	259326.33	259326.57	0.0089	0.0026 *
Moon	-4002-01-01 23:16 J	259693.31	259693.47	259693.66	0.0088	0.0064
Earth	-4002-01-02 03:07 J	259693.45	259693.63	259693.82	0.0088	0.0060 *
Moon	-4001-01-04 16:04 J	260061.14	260061.17	260061.25	0.0088	0.0087

4TH MILLENNIUM BCE

This is a list of transits visible from Neptune in the 4th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-3982-12-25 18:14 J		267355.95	267356.26	267356.59	0.0088	0.0006	
Mars	-3980-11-19 21:07 J		268051.29	268051.38	268051.52	0.0088	0.0082	
Mercury	-3973-05-18 19:55 J		270423.30	270423.33	270423.39	0.0088	0.0085	
Mercury	-3973-08-14 23:02 J		270511.39	270511.46	270511.58	0.0088	0.0076	
Mercury	-3973-11-11 02:38 J		270599.50	270599.61	270599.75	0.0088	0.0066	
Mercury	-3972-02-07 06:14 J		270687.63	270687.76	270687.92	0.0088	0.0056	
Mercury	-3972-05-06 09:36 J		270775.75	270775.90	270776.08	0.0088	0.0047	
Mercury	-3972-08-02 13:11 J		270863.89	270864.05	270864.24	0.0088	0.0037	
Mercury	-3972-10-29 16:48 J		270952.02	270952.20	270952.39	0.0088	0.0027	
Mercury	-3971-01-25 20:23 J		271040.16	271040.35	271040.54	0.0088	0.0017	
Mercury	-3971-04-24 00:00 J		271128.31	271128.50	271128.69	0.0088	0.0007	
Mercury	-3971-07-21 03:21 J		271216.45	271216.64	271216.84	0.0088	0.0003	
Mercury	-3971-10-17 06:57 J		271304.60	271304.79	271304.98	0.0088	0.0012	
Mercury	-3970-01-13 10:33 J		271392.75	271392.94	271393.13	0.0088	0.0022	
Mercury	-3970-04-11 13:55 J		271480.90	271481.08	271481.27	0.0088	0.0032	
Mercury	-3970-07-08 17:16 J		271569.06	271569.22	271569.40	0.0088	0.0042	
Mercury	-3970-10-04 20:52 J		271657.22	271657.37	271657.54	0.0088	0.0052	
Mercury	-3969-01-01 00:14 J		271745.39	271745.51	271745.67	0.0088	0.0062	
Mercury	-3969-03-29 03:50 J		271833.57	271833.66	271833.79	0.0088	0.0072	
Mercury	-3969-06-25 07:26 J		271921.76	271921.81	271921.89	0.0088	0.0082	
Venus	-3965-04-30 22:04 J		273327.39	273327.42	273327.46	0.0088	0.0086	
Venus	-3965-12-12 10:33 J		273552.84	273552.94	273553.08	0.0088	0.0074	
Venus	-3964-07-25 23:31 J		273778.34	273778.48	273778.65	0.0088	0.0061	
Venus	-3963-03-08 12:28 J		274003.85	274004.02	274004.21	0.0088	0.0048	

Venus	-3963-10-20 01:26 J	274229.36	274229.56	274229.77	0.0088	0.0035
Venus	-3962-06-02 14:23 J	274454.89	274455.10	274455.31	0.0088	0.0022
Venus	-3961-01-14 03:21 J	274680.42	274680.64	274680.86	0.0088	0.0010
Venus	-3961-08-26 16:19 J	274905.96	274906.18	274906.40	0.0088	0.0004
Venus	-3960-04-09 05:02 J	275131.50	275131.71	275131.93	0.0088	0.0017
Venus	-3960-11-20 18:00 J	275357.04	275357.25	275357.46	0.0088	0.0029
Venus	-3959-07-04 06:43 J	275582.60	275582.78	275582.98	0.0088	0.0042
Venus	-3958-02-14 19:40 J	275808.16	275808.32	275808.50	0.0088	0.0055
Venus	-3958-09-28 08:23 J	276033.73	276033.85	276034.01	0.0088	0.0068
Venus	-3957-05-10 21:21 J	276259.32	276259.39	276259.49	0.0088	0.0081
Earth	-3924-06-27 03:21 J	288359.55	288359.64	288359.77	0.0089	0.0080
Moon	-3924-06-27 04:33 J	288359.60	288359.69	288359.83	0.0089	0.0079 *
Moon	-3923-06-29 14:09 J	288726.90	288727.09	288727.33	0.0089	0.0052
Earth	-3923-06-29 16:33 J	288726.98	288727.19	288727.41	0.0089	0.0049 *
Earth	-3922-07-02 05:16 J	289094.47	289094.72	289094.98	0.0089	0.0019
Moon	-3922-07-02 08:23 J	289094.61	289094.85	289095.11	0.0089	0.0017 *
Moon	-3921-07-03 14:38 J	289461.86	289462.11	289462.38	0.0089	0.0011
Earth	-3921-07-03 18:14 J	289462.01	289462.26	289462.52	0.0089	0.0012 *
Earth	-3920-07-06 06:28 J	289829.56	289829.77	289830.01	0.0089	0.0043
Moon	-3920-07-06 10:19 J	289829.72	289829.93	289830.16	0.0089	0.0046 *
Moon	-3919-07-08 15:50 J	290197.03	290197.16	290197.33	0.0089	0.0071
Earth	-3919-07-08 18:57 J	290197.17	290197.29	290197.46	0.0089	0.0074 *
Mars	-3900-09-08 23:02 J	297199.22	297199.46	297199.73	0.0089	0.0050
Mars	-3898-08-04 11:02 J	297893.69	297893.96	297894.25	0.0089	0.0037
Mercury	-3892-12-03 00:14 J	300206.50	300206.51	300206.52	0.0089	0.0089
Mercury	-3891-03-01 01:26 J	300294.52	300294.56	300294.62	0.0089	0.0082
Mercury	-3891-05-28 02:52 J	300382.55	300382.62	300382.70	0.0089	0.0074
Mercury	-3891-08-24 04:04 J	300470.60	300470.67	300470.77	0.0089	0.0068
Mercury	-3891-11-20 05:31 J	300558.64	300558.73	300558.84	0.0089	0.0060
Mercury	-3890-02-16 07:11 J	300646.69	300646.80	300646.91	0.0089	0.0053

Mercury	-3890-05-15 08:23 J	300734.74	300734.85	300734.97	0.0089	0.0046
Mercury	-3890-08-11 09:50 J	300822.79	300822.91	300823.03	0.0089	0.0039
Mercury	-3890-11-07 11:16 J	300910.85	300910.97	300911.09	0.0089	0.0031
Mercury	-3889-02-03 12:28 J	300998.90	300999.02	300999.15	0.0089	0.0025
Mercury	-3889-05-01 13:55 J	301086.95	301087.08	301087.21	0.0089	0.0017
Mercury	-3889-07-28 15:21 J	301175.01	301175.14	301175.27	0.0089	0.0010
Mercury	-3889-10-24 16:33 J	301263.06	301263.19	301263.33	0.0089	0.0005
Mercury	-3888-01-20 18:00 J	301351.12	301351.25	301351.38	0.0089	0.0004
Mercury	-3888-04-18 19:26 J	301439.18	301439.31	301439.44	0.0089	0.0011
Mercury	-3888-07-15 20:38 J	301527.23	301527.36	301527.49	0.0089	0.0018
Mercury	-3888-10-11 22:04 J	301615.29	301615.42	301615.55	0.0089	0.0025
Mercury	-3887-01-07 23:16 J	301703.35	301703.47	301703.60	0.0089	0.0033
Mercury	-3887-04-06 00:43 J	301791.41	301791.53	301791.65	0.0089	0.0039
Mercury	-3887-07-03 01:55 J	301879.47	301879.58	301879.70	0.0089	0.0047
Mercury	-3887-09-29 03:21 J	301967.54	301967.64	301967.75	0.0089	0.0053
Mercury	-3887-12-26 04:33 J	302055.60	302055.69	302055.79	0.0089	0.0061
Mercury	-3886-03-24 06:00 J	302143.67	302143.75	302143.84	0.0089	0.0067
Mercury	-3886-06-20 07:11 J	302231.74	302231.80	302231.88	0.0089	0.0075
Mercury	-3886-09-16 08:38 J	302319.81	302319.86	302319.92	0.0089	0.0081
Mercury	-3886-12-13 09:50 J	302407.90	302407.91	302407.94	0.0089	0.0089
Venus	-3883-06-18 14:52 J	303326.11	303326.12	303326.17	0.0089	0.0089
Venus	-3882-01-30 04:04 J	303551.58	303551.67	303551.81	0.0089	0.0076
Venus	-3882-09-12 17:45 J	303777.09	303777.24	303777.41	0.0089	0.0062
Venus	-3881-04-25 06:43 J	304002.61	304002.78	304002.98	0.0089	0.0049
Venus	-3881-12-06 20:09 J	304228.14	304228.34	304228.55	0.0089	0.0035
Venus	-3880-07-20 09:21 J	304453.69	304453.89	304454.11	0.0089	0.0021
Venus	-3879-03-02 22:48 J	304679.23	304679.45	304679.67	0.0089	0.0008
Venus	-3879-10-14 11:45 J	304904.77	304904.99	304905.21	0.0089	0.0006
Venus	-3878-05-28 00:43 J	305130.32	305130.53	305130.75	0.0089	0.0020
Venus	-3877-01-08 13:55 J	305355.88	305356.08	305356.29	0.0089	0.0033

Venus	-3877-08-21 02:52 J	305581.45	305581.62	305581.82	0.0089	0.0046
Venus	-3876-04-03 16:04 J	305807.02	305807.17	305807.34	0.0089	0.0060
Venus	-3876-11-15 05:16 J	306032.60	306032.72	306032.85	0.0089	0.0073
Venus	-3875-06-28 18:00 J	306258.22	306258.25	306258.33	0.0089	0.0086
Earth	-3843-12-23 20:23 J	318124.24	318124.35	318124.52	0.0089	0.0075
Moon	-3843-12-23 22:48 J	318124.33	318124.45	318124.62	0.0089	0.0072 *
Moon	-3842-12-26 03:50 J	318491.46	318491.66	318491.89	0.0089	0.0048
Earth	-3842-12-26 07:11 J	318491.59	318491.80	318492.04	0.0089	0.0045 *
Earth	-3841-12-27 18:00 J	318859.00	318859.25	318859.50	0.0089	0.0015
Moon	-3841-12-27 21:21 J	318859.15	318859.39	318859.65	0.0089	0.0012 *
Moon	-3840-12-30 01:11 J	319226.30	319226.55	319226.81	0.0089	0.0012
Earth	-3840-12-30 04:19 J	319226.44	319226.68	319226.95	0.0089	0.0016 *
Earth	-3838-01-01 14:52 J	319593.91	319594.12	319594.35	0.0089	0.0045
Moon	-3838-01-01 18:00 J	319594.04	319594.25	319594.48	0.0089	0.0048 *
Moon	-3837-01-03 23:45 J	319961.37	319961.49	319961.66	0.0088	0.0072
Earth	-3837-01-04 01:26 J	319961.44	319961.56	319961.71	0.0088	0.0075 *
Jupiter	-3821-11-26 11:45 J	326132.47	326132.99	326133.56	0.0088	0.0023
Mars	-3818-08-09 05:45 J	327118.49	327118.74	327119.04	0.0088	0.0046
Mars	-3816-07-04 10:48 J	327813.68	327813.95	327814.24	0.0088	0.0042
Mercury	-3808-02-12 18:57 J	330594.23	330594.29	330594.38	0.0088	0.0080
Mercury	-3808-05-11 22:48 J	330682.34	330682.45	330682.56	0.0088	0.0070
Mercury	-3808-08-08 01:55 J	330770.45	330770.58	330770.73	0.0088	0.0061
Mercury	-3808-11-04 05:31 J	330858.58	330858.73	330858.89	0.0088	0.0051
Mercury	-3807-01-31 09:07 J	330946.71	330946.88	330947.05	0.0088	0.0041
Mercury	-3807-04-29 12:14 J	331034.85	331035.01	331035.21	0.0088	0.0032
Mercury	-3807-07-26 15:50 J	331122.98	331123.16	331123.36	0.0088	0.0022
Mercury	-3807-10-22 19:26 J	331211.12	331211.31	331211.51	0.0088	0.0012
Mercury	-3806-01-18 23:02 J	331299.27	331299.46	331299.66	0.0088	0.0002
Mercury	-3806-04-17 02:23 J	331387.41	331387.60	331387.80	0.0088	0.0008
Mercury	-3806-07-14 06:00 J	331475.56	331475.75	331475.94	0.0088	0.0018

Mercury	-3806-10-10 09:36 J	331563.72	331563.90	331564.09	0.0088	0.0027
Mercury	-3805-01-06 12:57 J	331651.87	331652.04	331652.22	0.0088	0.0037
Mercury	-3805-04-03 16:33 J	331740.03	331740.19	331740.36	0.0088	0.0047
Mercury	-3805-06-30 19:55 J	331828.20	331828.33	331828.49	0.0088	0.0057
Mercury	-3805-09-26 23:31 J	331916.37	331916.48	331916.62	0.0088	0.0067
Mercury	-3805-12-24 02:52 J	332004.55	332004.62	332004.73	0.0088	0.0077
Mercury	-3804-03-22 06:28 J	332092.76	332092.77	332092.81	0.0088	0.0087
Venus	-3800-03-15 22:33 J	333547.37	333547.44	333547.56	0.0088	0.0079
Venus	-3800-10-27 11:31 J	333772.85	333772.98	333773.14	0.0088	0.0066
Venus	-3799-06-10 00:28 J	333998.35	333998.52	333998.70	0.0088	0.0053
Venus	-3798-01-21 13:26 J	334223.87	334224.06	334224.26	0.0088	0.0040
Venus	-3798-09-04 02:23 J	334449.39	334449.60	334449.81	0.0088	0.0027
Venus	-3797-04-16 14:52 J	334674.92	334675.12	334675.35	0.0088	0.0015
Venus	-3797-11-28 04:04 J	334900.45	334900.67	334900.89	0.0088	0.0002
Venus	-3796-07-11 16:48 J	335125.99	335126.20	335126.42	0.0088	0.0012
Venus	-3795-02-22 05:31 J	335351.53	335351.73	335351.96	0.0088	0.0025
Venus	-3795-10-05 18:28 J	335577.08	335577.27	335577.48	0.0088	0.0038
Venus	-3794-05-19 07:11 J	335802.64	335802.80	335803.00	0.0088	0.0051
Venus	-3794-12-30 20:09 J	336028.21	336028.34	336028.51	0.0088	0.0064
Venus	-3793-08-12 09:07 J	336253.80	336253.88	336254.01	0.0088	0.0077
Earth	-3759-06-29 02:09 J	348627.43	348627.59	348627.78	0.0089	0.0064
Moon	-3759-06-29 05:16 J	348627.57	348627.72	348627.89	0.0089	0.0068 *
Moon	-3758-07-01 11:31 J	348994.74	348994.98	348995.23	0.0089	0.0029
Earth	-3758-07-01 14:52 J	348994.90	348995.12	348995.38	0.0089	0.0034 *
Earth	-3757-07-03 04:04 J	349362.41	349362.67	349362.93	0.0089	0.0003
Moon	-3757-07-03 07:26 J	349362.55	349362.81	349363.08	0.0089	0.0007 *
Moon	-3756-07-05 13:55 J	349729.84	349730.08	349730.32	0.0089	0.0031
Earth	-3756-07-05 16:48 J	349729.96	349730.20	349730.46	0.0089	0.0028 *
Earth	-3755-07-08 05:16 J	350097.54	350097.72	350097.93	0.0089	0.0058
Moon	-3755-07-08 07:40 J	350097.62	350097.82	350098.05	0.0089	0.0054 *

Earth	-3754-07-10 18:14 J	350465.24	350465.26	350465.29	0.0089	0.0088
Mars	-3736-04-24 02:09 J	356962.59	356962.59	356962.64	0.0089	0.0089
Mars	-3734-03-19 11:31 J	357656.68	357656.98	357657.28	0.0089	0.0004
Mars	-3732-02-10 22:19 J	358351.36	358351.43	358351.58	0.0089	0.0084
Mercury	-3727-08-30 00:00 J	360377.47	360377.50	360377.55	0.0089	0.0085
Mercury	-3727-11-26 01:40 J	360465.51	360465.57	360465.63	0.0089	0.0078
Mercury	-3726-02-22 02:52 J	360553.55	360553.62	360553.71	0.0089	0.0071
Mercury	-3726-05-21 04:19 J	360641.59	360641.68	360641.78	0.0089	0.0064
Mercury	-3726-08-17 05:45 J	360729.64	360729.74	360729.85	0.0089	0.0056
Mercury	-3726-11-13 06:57 J	360817.69	360817.79	360817.91	0.0089	0.0050
Mercury	-3725-02-09 08:23 J	360905.74	360905.85	360905.98	0.0089	0.0042
Mercury	-3725-05-07 09:50 J	360993.79	360993.91	360994.04	0.0089	0.0035
Mercury	-3725-08-03 11:16 J	361081.85	361081.97	361082.10	0.0089	0.0028
Mercury	-3725-10-30 12:43 J	361169.90	361170.03	361170.16	0.0089	0.0021
Mercury	-3724-01-26 14:09 J	361257.95	361258.09	361258.22	0.0089	0.0014
Mercury	-3724-04-24 15:21 J	361346.01	361346.14	361346.28	0.0089	0.0007
Mercury	-3724-07-21 16:48 J	361434.07	361434.20	361434.33	0.0089	0.0001
Mercury	-3724-10-17 18:00 J	361522.12	361522.25	361522.39	0.0089	0.0008
Mercury	-3723-01-13 19:26 J	361610.18	361610.31	361610.44	0.0089	0.0015
Mercury	-3723-04-11 20:38 J	361698.24	361698.36	361698.50	0.0089	0.0022
Mercury	-3723-07-08 22:04 J	361786.30	361786.42	361786.55	0.0089	0.0029
Mercury	-3723-10-04 23:16 J	361874.36	361874.47	361874.60	0.0089	0.0036
Mercury	-3722-01-01 00:28 J	361962.42	361962.52	361962.65	0.0089	0.0044
Mercury	-3722-03-30 01:55 J	362050.48	362050.58	362050.70	0.0089	0.0050
Mercury	-3722-06-26 03:07 J	362138.54	362138.63	362138.75	0.0089	0.0058
Mercury	-3722-09-22 04:33 J	362226.61	362226.69	362226.79	0.0089	0.0064
Mercury	-3722-12-19 05:45 J	362314.68	362314.74	362314.83	0.0089	0.0072
Mercury	-3721-03-16 07:11 J	362402.75	362402.80	362402.87	0.0089	0.0078
Mercury	-3721-06-12 08:23 J	362490.83	362490.85	362490.90	0.0089	0.0086
Venus	-3718-05-03 15:50 J	363546.08	363546.16	363546.26	0.0089	0.0081

Venus	-3718-12-15 04:48 J	363771.58	363771.70	363771.87	0.0089	0.0068
Venus	-3717-07-27 18:28 J	363997.11	363997.27	363997.46	0.0089	0.0054
Venus	-3716-03-10 07:40 J	364222.64	364222.82	364223.03	0.0089	0.0040
Venus	-3716-10-21 20:52 J	364448.17	364448.37	364448.59	0.0089	0.0027
Venus	-3715-06-04 10:19 J	364673.71	364673.93	364674.15	0.0089	0.0013
Venus	-3714-01-15 23:31 J	364899.26	364899.48	364899.70	0.0089	0.0001
Venus	-3714-08-29 12:43 J	365124.82	365125.03	365125.25	0.0089	0.0015
Venus	-3713-04-11 01:40 J	365350.37	365350.57	365350.79	0.0089	0.0028
Venus	-3713-11-22 14:52 J	365575.93	365576.12	365576.32	0.0089	0.0042
Venus	-3712-07-06 03:50 J	365801.50	365801.66	365801.85	0.0089	0.0055
Venus	-3711-02-16 17:02 J	366027.08	366027.21	366027.36	0.0089	0.0069
Venus	-3711-09-30 05:45 J	366252.68	366252.74	366252.85	0.0089	0.0083
Earth	-3679-12-23 09:07 J	378024.87	378024.88	378024.92	0.0089	0.0088
Earth	-3678-12-25 19:26 J	378392.14	378392.31	378392.52	0.0089	0.0059
Moon	-3678-12-25 23:31 J	378392.28	378392.48	378392.68	0.0089	0.0055 *
Moon	-3677-12-27 03:07 J	378759.41	378759.63	378759.88	0.0089	0.0032
Earth	-3677-12-27 06:28 J	378759.53	378759.77	378760.01	0.0089	0.0029 *
Earth	-3676-12-29 17:02 J	379126.96	379127.21	379127.47	0.0089	0.0001
Moon	-3676-12-29 19:40 J	379127.05	379127.32	379127.58	0.0089	0.0004 *
Moon	-3674-01-01 01:55 J	379494.35	379494.58	379494.82	0.0089	0.0027
Earth	-3674-01-01 03:21 J	379494.41	379494.64	379494.90	0.0089	0.0031 *
Earth	-3673-01-03 13:55 J	379861.90	379862.08	379862.28	0.0089	0.0060
Moon	-3673-01-03 13:40 J	379861.90	379862.07	379862.28	0.0089	0.0063 *
Moon	-3672-01-05 01:26 J	380229.53	380229.56	380229.63	0.0088	0.0087
Mars	-3654-03-23 14:23 J	386881.10	386881.10	386881.15	0.0088	0.0088
Mars	-3652-02-15 22:19 J	387576.10	387576.43	387576.75	0.0088	0.0001
Mercury	-3644-08-13 14:23 J	390677.08	390677.10	390677.17	0.0088	0.0085
Mercury	-3644-11-09 18:00 J	390765.17	390765.25	390765.37	0.0088	0.0075
Mercury	-3643-02-05 21:50 J	390853.28	390853.41	390853.54	0.0088	0.0065
Mercury	-3643-05-05 00:57 J	390941.41	390941.54	390941.70	0.0088	0.0056

Mercury	-3643-08-01 04:33 J	391029.54	391029.69	391029.86	0.0088	0.0046
Mercury	-3643-10-28 08:09 J	391117.67	391117.84	391118.02	0.0088	0.0036
Mercury	-3642-01-24 11:31 J	391205.80	391205.98	391206.17	0.0088	0.0027
Mercury	-3642-04-22 15:07 J	391293.94	391294.13	391294.32	0.0088	0.0017
Mercury	-3642-07-19 18:43 J	391382.09	391382.28	391382.47	0.0088	0.0007
Mercury	-3642-10-15 22:04 J	391470.23	391470.42	391470.62	0.0088	0.0003
Mercury	-3641-01-12 01:40 J	391558.38	391558.57	391558.76	0.0088	0.0013
Mercury	-3641-04-09 05:02 J	391646.53	391646.71	391646.90	0.0088	0.0023
Mercury	-3641-07-06 08:23 J	391734.68	391734.85	391735.04	0.0088	0.0033
Mercury	-3641-10-02 12:14 J	391822.84	391823.01	391823.18	0.0088	0.0042
Mercury	-3641-12-29 15:36 J	391911.00	391911.15	391911.31	0.0088	0.0052
Mercury	-3640-03-27 19:11 J	391999.17	391999.30	391999.44	0.0088	0.0062
Mercury	-3640-06-23 22:33 J	392087.34	392087.44	392087.56	0.0088	0.0072
Mercury	-3640-09-20 02:09 J	392175.54	392175.59	392175.67	0.0088	0.0082
Venus	-3636-06-17 11:02 J	393541.92	393541.96	393542.04	0.0088	0.0084
Venus	-3635-01-29 00:00 J	393767.39	393767.50	393767.64	0.0088	0.0071
Venus	-3635-09-11 12:57 J	393992.88	393993.04	393993.21	0.0088	0.0058
Venus	-3634-04-25 01:40 J	394218.39	394218.57	394218.77	0.0088	0.0045
Venus	-3634-12-06 14:23 J	394443.90	394444.10	394444.31	0.0088	0.0032
Venus	-3633-07-19 03:21 J	394669.43	394669.64	394669.86	0.0088	0.0019
Venus	-3632-03-01 16:19 J	394894.96	394895.18	394895.40	0.0088	0.0006
Venus	-3632-10-13 05:02 J	395120.49	395120.71	395120.93	0.0088	0.0007
Venus	-3631-05-26 17:45 J	395346.03	395346.24	395346.46	0.0088	0.0020
Venus	-3630-01-07 06:43 J	395571.58	395571.78	395571.99	0.0088	0.0033
Venus	-3630-08-20 19:40 J	395797.14	395797.32	395797.51	0.0088	0.0046
Venus	-3629-04-02 08:38 J	396022.70	396022.86	396023.03	0.0088	0.0059
Venus	-3629-11-13 21:21 J	396248.28	396248.39	396248.52	0.0088	0.0072
Venus	-3628-06-27 10:19 J	396473.89	396473.93	396473.99	0.0088	0.0085
Moon	-3595-06-28 09:21 J	408527.77	408527.89	408528.03	0.0089	0.0077
Earth	-3595-06-28 12:14 J	408527.92	408528.01	408528.16	0.0089	0.0079 *

Earth	-3594-07-01 01:26 J	408895.36	408895.56	408895.79	0.0089	0.0048
Moon	-3594-07-01 05:16 J	408895.51	408895.72	408895.94	0.0089	0.0050 *
Moon	-3593-07-02 12:00 J	409262.76	409263.00	409263.26	0.0089	0.0017
Earth	-3593-07-02 14:23 J	409262.85	409263.10	409263.36	0.0089	0.0018 *
Earth	-3592-07-05 03:07 J	409630.38	409630.63	409630.89	0.0089	0.0013
Moon	-3592-07-05 04:48 J	409630.44	409630.70	409630.97	0.0089	0.0011 *
Moon	-3591-07-07 15:07 J	409997.92	409998.13	409998.35	0.0089	0.0045
Earth	-3591-07-07 15:36 J	409997.94	409998.15	409998.39	0.0089	0.0043 *
Moon	-3590-07-10 03:07 J	410365.50	410365.63	410365.82	0.0089	0.0072
Earth	-3590-07-10 04:33 J	410365.55	410365.69	410365.84	0.0089	0.0073 *
Mars	-3571-11-01 13:40 J	417419.83	417420.07	417420.36	0.0089	0.0044
Mars	-3569-09-26 00:00 J	418114.24	418114.50	418114.77	0.0089	0.0043
Mercury	-3562-02-27 22:48 J	420460.44	420460.45	420460.48	0.0089	0.0088
Mercury	-3562-05-27 00:14 J	420548.47	420548.51	420548.57	0.0089	0.0081
Mercury	-3562-08-23 01:55 J	420636.50	420636.58	420636.65	0.0089	0.0074
Mercury	-3562-11-19 03:07 J	420724.55	420724.63	420724.72	0.0089	0.0067
Mercury	-3561-02-15 04:33 J	420812.59	420812.69	420812.79	0.0089	0.0060
Mercury	-3561-05-13 05:45 J	420900.64	420900.74	420900.86	0.0089	0.0053
Mercury	-3561-08-09 07:11 J	420988.69	420988.80	420988.92	0.0089	0.0045
Mercury	-3561-11-05 08:38 J	421076.74	421076.86	421076.99	0.0089	0.0038
Mercury	-3560-02-01 10:04 J	421164.80	421164.92	421165.05	0.0089	0.0031
Mercury	-3560-04-30 11:31 J	421252.85	421252.98	421253.11	0.0089	0.0024
Mercury	-3560-07-27 12:57 J	421340.90	421341.04	421341.17	0.0089	0.0017
Mercury	-3560-10-23 14:09 J	421428.96	421429.09	421429.22	0.0089	0.0010
Mercury	-3559-01-19 15:36 J	421517.01	421517.15	421517.28	0.0089	0.0003
Mercury	-3559-04-17 16:48 J	421605.07	421605.20	421605.34	0.0089	0.0005
Mercury	-3559-07-14 18:14 J	421693.13	421693.26	421693.39	0.0089	0.0012
Mercury	-3559-10-10 19:40 J	421781.19	421781.32	421781.45	0.0089	0.0019
Mercury	-3558-01-06 20:52 J	421869.25	421869.37	421869.50	0.0089	0.0026
Mercury	-3558-04-04 22:19 J	421957.31	421957.43	421957.55	0.0089	0.0033

Mercury	-3558-07-01 23:16 J	422045.37	422045.47	422045.60	0.0089	0.0041
Mercury	-3558-09-28 00:57 J	422133.43	422133.54	422133.65	0.0089	0.0047
Mercury	-3558-12-25 02:23 J	422221.49	422221.60	422221.70	0.0089	0.0054
Mercury	-3557-03-22 03:36 J	422309.56	422309.65	422309.75	0.0089	0.0061
Mercury	-3557-06-18 05:02 J	422397.62	422397.71	422397.79	0.0089	0.0068
Mercury	-3557-09-14 06:14 J	422485.69	422485.76	422485.83	0.0089	0.0075
Mercury	-3557-12-11 07:26 J	422573.77	422573.81	422573.87	0.0089	0.0082
Mercury	-3556-03-09 08:52 J	422661.86	422661.87	422661.89	0.0089	0.0089
Venus	-3554-08-05 03:21 J	423540.60	423540.64	423540.71	0.0089	0.0087
Venus	-3553-03-17 16:48 J	423766.08	423766.20	423766.33	0.0089	0.0073
Venus	-3553-10-29 05:45 J	423991.60	423991.74	423991.92	0.0089	0.0060
Venus	-3552-06-11 19:11 J	424217.12	424217.30	424217.50	0.0089	0.0046
Venus	-3551-01-23 08:38 J	424442.66	424442.86	424443.07	0.0089	0.0032
Venus	-3551-09-05 21:50 J	424668.20	424668.41	424668.63	0.0089	0.0018
Venus	-3550-04-19 11:16 J	424893.75	424893.97	424894.19	0.0089	0.0004
Venus	-3550-12-01 00:14 J	425119.30	425119.51	425119.73	0.0089	0.0010
Venus	-3549-07-13 13:26 J	425344.86	425345.06	425345.28	0.0089	0.0023
Venus	-3548-02-24 02:38 J	425570.42	425570.61	425570.82	0.0089	0.0037
Venus	-3548-10-07 15:36 J	425795.98	425796.15	425796.34	0.0089	0.0051
Venus	-3547-05-21 04:19 J	426021.55	426021.68	426021.86	0.0089	0.0065
Venus	-3546-01-01 17:45 J	426247.14	426247.24	426247.36	0.0089	0.0078
Moon	-3514-12-25 04:19 J	438292.55	438292.68	438292.85	0.0089	0.0070
Earth	-3514-12-25 07:40 J	438292.69	438292.82	438292.97	0.0089	0.0073 *
Earth	-3513-12-26 18:00 J	438660.05	438660.25	438660.49	0.0089	0.0044
Moon	-3513-12-26 20:52 J	438660.15	438660.37	438660.59	0.0089	0.0047 *
Moon	-3512-12-29 04:19 J	439027.44	439027.68	439027.93	0.0089	0.0011
Earth	-3512-12-29 04:48 J	439027.46	439027.70	439027.97	0.0089	0.0015 *
Moon	-3511-12-31 15:36 J	439394.89	439395.15	439395.42	0.0089	0.0012
Earth	-3511-12-31 15:21 J	439394.90	439395.14	439395.40	0.0089	0.0016 *
Earth	-3509-01-03 01:55 J	439762.37	439762.58	439762.81	0.0089	0.0045

Moon	-3509-01-03 03:21 J	439762.45	439762.64	439762.86	0.0089	0.0049 *
Moon	-3508-01-04 09:36 J	440129.77	440129.90	440130.08	0.0088	0.0071
Earth	-3508-01-04 12:14 J	440129.90	440130.01	440130.17	0.0088	0.0075 *
Mars	-3489-09-30 08:23 J	447338.58	447338.85	447339.16	0.0088	0.0040
Mars	-3487-08-26 14:38 J	448033.87	448034.11	448034.41	0.0088	0.0049
Mercury	-3479-05-10 13:40 J	450848.01	450848.07	450848.17	0.0088	0.0080
Mercury	-3479-08-06 17:16 J	450936.12	450936.22	450936.35	0.0088	0.0070
Mercury	-3479-11-02 20:52 J	451024.24	451024.37	451024.51	0.0088	0.0060
Mercury	-3478-01-30 00:00 J	451112.36	451112.50	451112.67	0.0088	0.0051
Mercury	-3478-04-28 03:36 J	451200.49	451200.65	451200.83	0.0088	0.0041
Mercury	-3478-07-25 07:11 J	451288.62	451288.80	451288.98	0.0088	0.0031
Mercury	-3478-10-21 10:33 J	451376.76	451376.94	451377.14	0.0088	0.0022
Mercury	-3477-01-17 14:09 J	451464.90	451465.09	451465.28	0.0088	0.0012
Mercury	-3477-04-14 17:45 J	451553.04	451553.24	451553.43	0.0088	0.0002
Mercury	-3477-07-11 21:07 J	451641.19	451641.38	451641.58	0.0088	0.0008
Mercury	-3477-10-08 00:28 J	451729.34	451729.52	451729.72	0.0088	0.0018
Mercury	-3476-01-04 03:50 J	451817.49	451817.66	451817.86	0.0088	0.0028
Mercury	-3476-04-02 07:40 J	451905.65	451905.82	451906.00	0.0088	0.0037
Mercury	-3476-06-29 11:02 J	451993.81	451993.96	451994.13	0.0088	0.0047
Mercury	-3476-09-25 14:38 J	452081.97	452082.11	452082.26	0.0088	0.0057
Mercury	-3476-12-22 18:00 J	452170.14	452170.25	452170.39	0.0088	0.0067
Mercury	-3475-03-20 21:36 J	452258.32	452258.40	452258.50	0.0088	0.0077
Mercury	-3475-06-17 00:57 J	452346.53	452346.54	452346.59	0.0088	0.0087
Venus	-3471-05-02 11:45 J	453761.91	453761.99	453762.12	0.0088	0.0077
Venus	-3471-12-14 00:28 J	453987.39	453987.52	453987.70	0.0088	0.0064
Venus	-3470-07-27 13:55 J	454212.90	454213.08	454213.26	0.0088	0.0050
Venus	-3469-03-09 02:38 J	454438.41	454438.61	454438.81	0.0088	0.0037
Venus	-3469-10-20 15:21 J	454663.93	454664.14	454664.35	0.0088	0.0024
Venus	-3468-06-03 04:04 J	454889.46	454889.67	454889.89	0.0088	0.0011
Venus	-3467-01-14 17:02 J	455114.99	455115.21	455115.44	0.0088	0.0003

Venus	-3467-08-28 06:00 J	455340.53	455340.75	455340.97	0.0088	0.0015
Venus	-3466-04-10 18:28 J	455566.07	455566.27	455566.49	0.0088	0.0029
Venus	-3466-11-22 07:11 J	455791.62	455791.80	455792.01	0.0088	0.0042
Venus	-3465-07-04 20:09 J	456017.18	456017.34	456017.53	0.0088	0.0055
Venus	-3464-02-15 09:07 J	456242.76	456242.88	456243.04	0.0088	0.0068
Venus	-3464-09-28 22:04 J	456468.35	456468.42	456468.52	0.0088	0.0081
Moon	-3431-06-28 01:40 J	468428.56	468428.57	468428.62	0.0089	0.0088
Moon	-3430-06-30 09:07 J	468795.73	468795.88	468796.06	0.0089	0.0067
Earth	-3430-06-30 11:31 J	468795.82	468795.98	468796.19	0.0089	0.0063 *
Earth	-3429-07-02 00:14 J	469163.28	469163.51	469163.77	0.0089	0.0033
Moon	-3429-07-02 01:40 J	469163.32	469163.57	469163.83	0.0089	0.0028 *
Earth	-3428-07-04 13:26 J	469530.80	469531.06	469531.32	0.0089	0.0002
Moon	-3428-07-04 13:26 J	469530.82	469531.06	469531.32	0.0089	0.0007 *
Moon	-3427-07-07 00:57 J	469898.30	469898.54	469898.80	0.0089	0.0032
Earth	-3427-07-07 01:55 J	469898.34	469898.58	469898.84	0.0089	0.0028 *
Earth	-3426-07-09 14:38 J	470265.92	470266.11	470266.31	0.0089	0.0058
Moon	-3426-07-09 16:48 J	470266.02	470266.20	470266.42	0.0089	0.0054 *
Earth	-3425-07-11 03:21 J	470633.62	470633.64	470633.68	0.0089	0.0088
Mars	-3407-06-16 16:19 J	477183.11	477183.18	477183.33	0.0089	0.0084
Mars	-3405-05-11 01:55 J	477877.28	477877.58	477877.89	0.0089	0.0003
Mars	-3403-04-05 12:00 J	478571.97	478572.00	478572.03	0.0089	0.0089
Mercury	-3398-11-24 23:02 J	480631.42	480631.46	480631.50	0.0089	0.0085
Mercury	-3397-02-21 00:14 J	480719.45	480719.51	480719.58	0.0089	0.0078
Mercury	-3397-05-19 01:40 J	480807.50	480807.57	480807.66	0.0089	0.0070
Mercury	-3397-08-15 03:07 J	480895.54	480895.63	480895.73	0.0089	0.0063
Mercury	-3397-11-11 04:19 J	480983.59	480983.68	480983.80	0.0089	0.0057
Mercury	-3396-02-07 06:00 J	481071.64	481071.75	481071.86	0.0089	0.0049
Mercury	-3396-05-06 07:26 J	481159.69	481159.81	481159.93	0.0089	0.0042
Mercury	-3396-08-02 08:38 J	481247.74	481247.86	481247.99	0.0089	0.0035
Mercury	-3396-10-29 10:04 J	481335.80	481335.92	481336.05	0.0089	0.0027

Mercury	-3395-01-25 11:31 J	481423.85	481423.98	481424.11	0.0089	0.0020
Mercury	-3395-04-23 12:43 J	481511.91	481512.03	481512.17	0.0089	0.0014
Mercury	-3395-07-20 14:09 J	481599.96	481600.09	481600.23	0.0089	0.0006
Mercury	-3395-10-16 15:36 J	481688.02	481688.15	481688.28	0.0089	0.0001
Mercury	-3394-01-12 17:02 J	481776.07	481776.21	481776.34	0.0089	0.0008
Mercury	-3394-04-10 18:14 J	481864.13	481864.26	481864.39	0.0089	0.0016
Mercury	-3394-07-07 19:40 J	481952.19	481952.32	481952.45	0.0089	0.0022
Mercury	-3394-10-03 20:52 J	482040.25	482040.37	482040.50	0.0089	0.0030
Mercury	-3394-12-30 22:19 J	482128.31	482128.43	482128.55	0.0089	0.0037
Mercury	-3393-03-27 23:31 J	482216.37	482216.48	482216.60	0.0089	0.0044
Mercury	-3393-06-24 00:57 J	482304.44	482304.54	482304.65	0.0089	0.0051
Mercury	-3393-09-20 02:09 J	482392.50	482392.59	482392.70	0.0089	0.0058
Mercury	-3393-12-17 03:36 J	482480.56	482480.65	482480.75	0.0089	0.0065
Mercury	-3392-03-15 04:48 J	482568.63	482568.70	482568.79	0.0089	0.0072
Mercury	-3392-06-11 06:14 J	482656.71	482656.76	482656.83	0.0089	0.0079
Mercury	-3392-09-07 07:26 J	482744.79	482744.81	482744.86	0.0089	0.0086
Venus	-3389-06-19 04:04 J	483760.59	483760.67	483760.79	0.0089	0.0079
Venus	-3388-01-30 17:31 J	483986.09	483986.23	483986.39	0.0089	0.0065
Venus	-3388-09-13 06:28 J	484211.62	484211.77	484211.98	0.0089	0.0052
Venus	-3387-04-26 19:55 J	484437.15	484437.33	484437.54	0.0089	0.0038
Venus	-3387-12-08 09:21 J	484662.69	484662.89	484663.11	0.0089	0.0024
Venus	-3386-07-21 22:48 J	484888.24	484888.45	484888.67	0.0089	0.0010
Venus	-3385-03-03 12:00 J	485113.79	485114.00	485114.22	0.0089	0.0005
Venus	-3385-10-15 00:57 J	485339.34	485339.54	485339.77	0.0089	0.0019
Venus	-3384-05-28 14:23 J	485564.90	485565.10	485565.31	0.0089	0.0032
Venus	-3383-01-09 03:21 J	485790.46	485790.64	485790.84	0.0089	0.0046
Venus	-3383-08-22 16:33 J	486016.04	486016.19	486016.37	0.0089	0.0059
Venus	-3382-04-05 06:00 J	486241.62	486241.75	486241.87	0.0089	0.0073
Venus	-3382-11-16 18:43 J	486467.24	486467.28	486467.34	0.0089	0.0087
Earth	-3350-12-24 19:26 J	498193.28	498193.31	498193.38	0.0089	0.0087

Moon	-3349-12-26 05:16 J	498560.55	498560.72	498560.94	0.0089	0.0056
Earth	-3349-12-26 06:14 J	498560.58	498560.76	498560.97	0.0089	0.0058 *
Moon	-3348-12-28 16:04 J	498927.92	498928.17	498928.42	0.0089	0.0030
Earth	-3348-12-28 16:48 J	498927.97	498928.20	498928.46	0.0089	0.0029 *
Earth	-3347-12-31 03:50 J	499295.40	499295.66	499295.91	0.0089	0.0002
Moon	-3347-12-31 05:16 J	499295.48	499295.72	499295.97	0.0089	0.0004 *
Moon	-3345-01-02 11:16 J	499662.73	499662.97	499663.23	0.0089	0.0028
Earth	-3345-01-02 14:09 J	499662.86	499663.09	499663.34	0.0089	0.0031 *
Earth	-3344-01-04 00:28 J	500030.35	500030.52	500030.73	0.0089	0.0060
Moon	-3344-01-04 04:19 J	500030.50	500030.68	500030.86	0.0089	0.0062 *
Moon	-3343-01-06 07:55 J	500397.78	500397.83	500397.90	0.0088	0.0086
Mars	-3325-05-14 16:33 J	507101.10	507101.19	507101.33	0.0088	0.0082
Mars	-3323-04-10 01:11 J	507796.22	507796.55	507796.87	0.0088	0.0007
Mercury	-3315-11-08 09:36 J	510930.86	510930.90	510930.97	0.0088	0.0084
Mercury	-3314-02-04 12:43 J	511018.95	511019.03	511019.15	0.0088	0.0075
Mercury	-3314-05-03 16:19 J	511107.07	511107.18	511107.32	0.0088	0.0065
Mercury	-3314-07-30 19:55 J	511195.19	511195.33	511195.49	0.0088	0.0055
Mercury	-3314-10-26 23:16 J	511283.32	511283.47	511283.64	0.0088	0.0046
Mercury	-3313-01-23 02:52 J	511371.45	511371.62	511371.80	0.0088	0.0036
Mercury	-3313-04-20 06:28 J	511459.58	511459.77	511459.95	0.0088	0.0026
Mercury	-3313-07-17 09:36 J	511547.72	511547.90	511548.10	0.0088	0.0017
Mercury	-3313-10-13 13:11 J	511635.86	511636.05	511636.25	0.0088	0.0007
Mercury	-3312-01-09 16:48 J	511724.01	511724.20	511724.39	0.0088	0.0003
Mercury	-3312-04-07 20:09 J	511812.15	511812.34	511812.54	0.0088	0.0013
Mercury	-3312-07-04 23:31 J	511900.30	511900.48	511900.68	0.0088	0.0023
Mercury	-3312-10-01 02:52 J	511988.46	511988.62	511988.82	0.0088	0.0033
Mercury	-3312-12-28 06:43 J	512076.61	512076.78	512076.95	0.0088	0.0042
Mercury	-3311-03-26 10:04 J	512164.78	512164.92	512165.09	0.0088	0.0052
Mercury	-3311-06-22 13:40 J	512252.94	512253.07	512253.21	0.0088	0.0062
Mercury	-3311-09-18 17:02 J	512341.12	512341.21	512341.33	0.0088	0.0072

Mercury	-3311-12-15 20:38 J	512429.30	512429.36	512429.44	0.0088	0.0082
Venus	-3307-08-04 00:00 J	513756.44	513756.50	513756.60	0.0088	0.0082
Venus	-3306-03-17 12:43 J	513981.91	513982.03	513982.19	0.0088	0.0069
Venus	-3306-10-29 01:26 J	514207.41	514207.56	514207.75	0.0088	0.0056
Venus	-3305-06-10 14:09 J	514432.92	514433.09	514433.31	0.0088	0.0043
Venus	-3304-01-22 03:36 J	514658.44	514658.65	514658.86	0.0088	0.0029
Venus	-3304-09-04 16:19 J	514883.97	514884.18	514884.40	0.0088	0.0016
Venus	-3303-04-18 05:02 J	515109.49	515109.71	515109.94	0.0088	0.0003
Venus	-3303-11-29 17:45 J	515335.03	515335.24	515335.47	0.0088	0.0011
Venus	-3302-07-13 06:28 J	515560.57	515560.77	515560.99	0.0088	0.0024
Venus	-3301-02-23 19:26 J	515786.12	515786.31	515786.52	0.0088	0.0037
Venus	-3301-10-06 08:09 J	516011.67	516011.84	516012.03	0.0088	0.0050
Venus	-3300-05-19 21:07 J	516237.23	516237.38	516237.54	0.0088	0.0063
Venus	-3300-12-31 09:36 J	516462.82	516462.90	516463.03	0.0088	0.0077
Earth	-3266-06-29 21:21 J	528696.28	528696.39	528696.54	0.0089	0.0077
Moon	-3266-06-29 22:04 J	528696.31	528696.42	528696.59	0.0089	0.0076 *
Earth	-3265-07-01 10:19 J	529063.72	529063.93	529064.16	0.0089	0.0047
Moon	-3265-07-01 10:47 J	529063.75	529063.95	529064.17	0.0089	0.0048 *
Moon	-3264-07-03 21:07 J	529431.12	529431.38	529431.65	0.0089	0.0017
Earth	-3264-07-03 23:16 J	529431.22	529431.47	529431.73	0.0089	0.0017 *
Earth	-3263-07-06 12:00 J	529798.74	529799.00	529799.26	0.0089	0.0013
Moon	-3263-07-06 14:23 J	529798.85	529799.10	529799.35	0.0089	0.0012 *
Moon	-3262-07-08 20:52 J	530166.16	530166.37	530166.61	0.0089	0.0044
Earth	-3262-07-09 00:28 J	530166.31	530166.52	530166.76	0.0089	0.0043 *
Earth	-3261-07-10 12:43 J	530533.90	530534.03	530534.20	0.0089	0.0073
Moon	-3261-07-10 16:19 J	530534.05	530534.18	530534.35	0.0089	0.0072 *
Jupiter	-3245-01-29 23:45 J	536215.47	536215.49	536215.65	0.0089	0.0089
Mars	-3242-12-25 03:50 J	537640.40	537640.66	537640.95	0.0089	0.0038
Mars	-3240-11-18 13:12 J	538334.80	538335.05	538335.31	0.0089	0.0049
Mercury	-3233-05-24 21:21 J	540714.39	540714.39	540714.42	0.0089	0.0089

Mercury	-3233-08-20 22:47 J	540802.41	540802.45	540802.51	0.0089	0.0081
Mercury	-3233-11-17 00:14 J	540890.45	540890.51	540890.59	0.0089	0.0074
Mercury	-3232-02-13 01:55 J	540978.49	540978.58	540978.67	0.0089	0.0067
Mercury	-3232-05-12 03:07 J	541066.54	541066.63	541066.74	0.0089	0.0060
Mercury	-3232-08-08 04:33 J	541154.59	541154.69	541154.80	0.0089	0.0052
Mercury	-3232-11-04 05:45 J	541242.64	541242.74	541242.87	0.0089	0.0046
Mercury	-3231-01-31 07:12 J	541330.69	541330.80	541330.93	0.0089	0.0039
Mercury	-3231-04-29 08:52 J	541418.74	541418.87	541418.99	0.0089	0.0031
Mercury	-3231-07-26 10:04 J	541506.80	541506.92	541507.05	0.0089	0.0024
Mercury	-3231-10-22 11:31 J	541594.85	541594.98	541595.11	0.0089	0.0017
Mercury	-3230-01-18 12:57 J	541682.91	541683.04	541683.17	0.0089	0.0010
Mercury	-3230-04-16 14:23 J	541770.96	541771.10	541771.23	0.0089	0.0004
Mercury	-3230-07-13 15:36 J	541859.02	541859.15	541859.29	0.0089	0.0005
Mercury	-3230-10-09 17:02 J	541947.08	541947.21	541947.34	0.0089	0.0012
Mercury	-3229-01-05 18:14 J	542035.13	542035.26	542035.39	0.0089	0.0019
Mercury	-3229-04-02 19:40 J	542123.19	542123.32	542123.45	0.0089	0.0026
Mercury	-3229-06-29 20:52 J	542211.26	542211.37	542211.50	0.0089	0.0033
Mercury	-3229-09-25 22:19 J	542299.32	542299.43	542299.55	0.0089	0.0040
Mercury	-3229-12-22 23:31 J	542387.38	542387.48	542387.60	0.0089	0.0047
Mercury	-3228-03-21 00:57 J	542475.44	542475.54	542475.65	0.0089	0.0054
Mercury	-3228-06-17 02:09 J	542563.51	542563.59	542563.70	0.0089	0.0062
Mercury	-3228-09-13 03:36 J	542651.57	542651.65	542651.74	0.0089	0.0068
Mercury	-3228-12-10 04:47 J	542739.64	542739.70	542739.78	0.0089	0.0075
Mercury	-3227-03-08 06:00 J	542827.72	542827.75	542827.82	0.0089	0.0083
Mercury	-3227-06-04 07:40 J	542915.81	542915.82	542915.83	0.0089	0.0089
Venus	-3225-09-20 15:21 J	543755.09	543755.14	543755.23	0.0089	0.0085
Venus	-3224-05-04 04:47 J	543980.58	543980.70	543980.84	0.0089	0.0071
Venus	-3224-12-15 18:00 J	544206.09	544206.25	544206.43	0.0089	0.0057
Venus	-3223-07-29 07:12 J	544431.62	544431.80	544432.01	0.0089	0.0043
Venus	-3222-03-11 20:23 J	544657.16	544657.35	544657.57	0.0089	0.0030

Venus	-3222-10-23 09:50 J	544882.70	544882.91	544883.13	0.0089	0.0015
Venus	-3221-06-04 23:02 J	545108.25	545108.46	545108.68	0.0089	0.0002
Venus	-3220-01-16 12:14 J	545333.80	545334.01	545334.23	0.0089	0.0013
Venus	-3220-08-30 01:26 J	545559.36	545559.56	545559.78	0.0089	0.0027
Venus	-3219-04-12 14:38 J	545784.92	545785.11	545785.31	0.0089	0.0040
Venus	-3219-11-24 03:36 J	546010.49	546010.65	546010.84	0.0089	0.0055
Venus	-3218-07-07 16:47 J	546236.08	546236.20	546236.36	0.0089	0.0068
Venus	-3217-02-18 06:14 J	546461.68	546461.76	546461.85	0.0089	0.0082
Moon	-3185-12-25 16:33 J	558461.04	558461.19	558461.38	0.0089	0.0068
Earth	-3185-12-25 17:31 J	558461.10	558461.23	558461.39	0.0089	0.0072 *
Earth	-3184-12-28 04:04 J	558828.46	558828.67	558828.91	0.0089	0.0043
Moon	-3184-12-28 06:14 J	558828.57	558828.76	558828.99	0.0089	0.0048 *
Moon	-3183-12-30 12:00 J	559195.74	559196.00	559196.26	0.0089	0.0010
Earth	-3183-12-30 14:52 J	559195.87	559196.12	559196.38	0.0089	0.0014 *
Earth	-3181-01-02 01:26 J	559563.32	559563.56	559563.82	0.0089	0.0016
Moon	-3181-01-02 05:02 J	559563.46	559563.71	559563.97	0.0089	0.0012 *
Moon	-3180-01-03 08:52 J	559930.66	559930.87	559931.08	0.0088	0.0049
Earth	-3180-01-03 12:00 J	559930.80	559931.00	559931.24	0.0088	0.0045 *
Earth	-3179-01-05 22:33 J	560298.32	560298.44	560298.60	0.0088	0.0074
Moon	-3179-01-06 01:40 J	560298.42	560298.57	560298.74	0.0088	0.0070 *
Mars	-3160-11-22 09:50 J	567558.63	567558.91	567559.23	0.0088	0.0035
Mars	-3158-10-18 17:31 J	568253.98	568254.23	568254.49	0.0088	0.0054
Mercury	-3150-08-05 08:52 J	571101.79	571101.87	571101.95	0.0088	0.0079
Mercury	-3150-11-01 11:45 J	571189.90	571189.99	571190.12	0.0088	0.0070
Mercury	-3149-01-28 15:36 J	571278.01	571278.15	571278.29	0.0088	0.0060
Mercury	-3149-04-25 18:43 J	571366.14	571366.28	571366.45	0.0088	0.0051
Mercury	-3149-07-22 22:19 J	571454.27	571454.43	571454.61	0.0088	0.0041
Mercury	-3149-10-19 01:55 J	571542.40	571542.58	571542.76	0.0088	0.0031
Mercury	-3148-01-15 05:02 J	571630.54	571630.71	571630.91	0.0088	0.0022
Mercury	-3148-04-13 08:38 J	571718.67	571718.86	571719.06	0.0088	0.0012

Mercury	-3148-07-10 12:14 J	571806.82	571807.01	571807.20	0.0088	0.0002
Mercury	-3148-10-06 15:36 J	571894.96	571895.15	571895.35	0.0088	0.0008
Mercury	-3147-01-02 19:12 J	571983.11	571983.30	571983.49	0.0088	0.0017
Mercury	-3147-03-31 22:33 J	572071.26	572071.44	572071.63	0.0088	0.0027
Mercury	-3147-06-28 01:55 J	572159.41	572159.58	572159.77	0.0088	0.0037
Mercury	-3147-09-24 05:16 J	572247.57	572247.72	572247.90	0.0088	0.0047
Mercury	-3147-12-21 08:38 J	572335.73	572335.86	572336.03	0.0088	0.0057
Mercury	-3146-03-19 12:14 J	572423.90	572424.01	572424.15	0.0088	0.0067
Mercury	-3146-06-15 16:04 J	572512.08	572512.17	572512.27	0.0088	0.0076
Mercury	-3146-09-11 19:40 J	572600.29	572600.32	572600.36	0.0088	0.0086
Venus	-3143-11-05 11:31 J	573750.98	573750.98	573751.01	0.0088	0.0088
Venus	-3142-06-19 00:14 J	573976.42	573976.51	573976.65	0.0088	0.0075
Venus	-3141-01-30 13:26 J	574201.91	574202.06	574202.23	0.0088	0.0061
Venus	-3141-09-12 02:09 J	574427.42	574427.59	574427.79	0.0088	0.0048
Venus	-3140-04-25 14:52 J	574652.94	574653.12	574653.34	0.0088	0.0035
Venus	-3140-12-07 04:04 J	574878.46	574878.67	574878.89	0.0088	0.0021
Venus	-3139-07-20 16:47 J	575103.98	575104.20	575104.43	0.0088	0.0008
Venus	-3138-03-03 05:45 J	575329.52	575329.74	575329.96	0.0088	0.0005
Venus	-3138-10-14 18:28 J	575555.06	575555.27	575555.49	0.0088	0.0019
Venus	-3137-05-27 07:12 J	575780.60	575780.80	575781.01	0.0088	0.0032
Venus	-3136-01-07 19:55 J	576006.16	576006.33	576006.53	0.0088	0.0046
Venus	-3136-08-21 08:38 J	576231.72	576231.86	576232.04	0.0088	0.0059
Venus	-3135-04-03 21:36 J	576457.29	576457.40	576457.54	0.0088	0.0072
Venus	-3135-11-15 10:33 J	576682.90	576682.94	576683.00	0.0088	0.0085
Moon	-3102-06-29 08:09 J	588596.81	588596.84	588596.90	0.0089	0.0087
Moon	-3101-06-30 17:45 J	588964.08	588964.24	588964.44	0.0089	0.0066
Earth	-3101-06-30 20:09 J	588964.16	588964.34	588964.53	0.0089	0.0061 *
Earth	-3100-07-03 08:38 J	589331.64	589331.86	589332.12	0.0089	0.0032
Moon	-3100-07-03 12:14 J	589331.77	589332.01	589332.26	0.0089	0.0027 *
Moon	-3099-07-05 18:28 J	589699.01	589699.27	589699.53	0.0089	0.0006

Earth	-3099-07-05 21:50 J	589699.15	589699.41	589699.68	0.0089	0.0002 *
Earth	-3098-07-08 10:04 J	590066.69	590066.92	590067.18	0.0089	0.0028
Moon	-3098-07-08 13:40 J	590066.85	590067.07	590067.33	0.0089	0.0033 *
Moon	-3097-07-09 19:40 J	590434.13	590434.32	590434.54	0.0089	0.0053
Earth	-3097-07-09 22:33 J	590434.27	590434.44	590434.66	0.0089	0.0058 *
Earth	-3096-07-12 11:31 J	590801.95	590801.98	590802.04	0.0089	0.0087
Jupiter	-3079-03-24 15:07 J	596900.75	596901.13	596901.61	0.0089	0.0051
Mars	-3078-08-09 07:55 J	597403.69	597403.83	597403.99	0.0089	0.0078
Mars	-3076-07-03 14:23 J	598097.81	598098.10	598098.41	0.0089	0.0009
Mercury	-3068-02-18 21:21 J	600885.36	600885.39	600885.44	0.0089	0.0085
Mercury	-3068-05-17 23:02 J	600973.39	600973.46	600973.52	0.0089	0.0078
Mercury	-3068-08-14 00:14 J	601061.44	601061.51	601061.60	0.0089	0.0071
Mercury	-3068-11-10 01:40 J	601149.48	601149.57	601149.67	0.0089	0.0063
Mercury	-3067-02-06 02:52 J	601237.53	601237.62	601237.74	0.0089	0.0057
Mercury	-3067-05-05 04:19 J	601325.58	601325.68	601325.80	0.0089	0.0050
Mercury	-3067-08-01 06:00 J	601413.63	601413.75	601413.87	0.0089	0.0042
Mercury	-3067-10-28 07:26 J	601501.68	601501.81	601501.93	0.0089	0.0035
Mercury	-3066-01-24 08:38 J	601589.74	601589.86	601589.99	0.0089	0.0028
Mercury	-3066-04-22 10:04 J	601677.79	601677.92	601678.05	0.0089	0.0020
Mercury	-3066-07-19 11:31 J	601765.85	601765.98	601766.11	0.0089	0.0013
Mercury	-3066-10-15 12:57 J	601853.90	601854.04	601854.17	0.0089	0.0006
Mercury	-3065-01-11 14:09 J	601941.96	601942.09	601942.23	0.0089	0.0003
Mercury	-3065-04-08 15:36 J	602030.02	602030.15	602030.28	0.0089	0.0008
Mercury	-3065-07-05 17:02 J	602118.08	602118.21	602118.34	0.0089	0.0015
Mercury	-3065-10-01 18:14 J	602206.14	602206.26	602206.39	0.0089	0.0023
Mercury	-3065-12-28 19:40 J	602294.20	602294.32	602294.45	0.0089	0.0029
Mercury	-3064-03-26 20:52 J	602382.26	602382.37	602382.50	0.0089	0.0037
Mercury	-3064-06-22 22:19 J	602470.32	602470.43	602470.55	0.0089	0.0043
Mercury	-3064-09-18 23:45 J	602558.38	602558.49	602558.60	0.0089	0.0050
Mercury	-3064-12-16 00:57 J	602646.45	602646.54	602646.65	0.0089	0.0058

Mercury	-3063-03-14 02:23 J	602734.51	602734.60	602734.69	0.0089	0.0064
Mercury	-3063-06-10 03:36 J	602822.58	602822.65	602822.74	0.0089	0.0072
Mercury	-3063-09-06 04:47 J	602910.65	602910.70	602910.77	0.0089	0.0079
Mercury	-3063-12-03 06:14 J	602998.73	602998.76	602998.81	0.0089	0.0086
Venus	-3060-08-05 16:04 J	603975.08	603975.17	603975.30	0.0089	0.0077
Venus	-3059-03-19 05:16 J	604200.58	604200.72	604200.89	0.0089	0.0063
Venus	-3059-10-30 18:43 J	604426.10	604426.28	604426.47	0.0089	0.0049
Venus	-3058-06-13 07:55 J	604651.63	604651.83	604652.04	0.0089	0.0035
Venus	-3057-01-24 21:21 J	604877.17	604877.39	604877.60	0.0089	0.0021
Venus	-3057-09-06 10:33 J	605102.72	605102.94	605103.16	0.0089	0.0007
Venus	-3056-04-19 23:31 J	605328.27	605328.48	605328.70	0.0089	0.0007
Venus	-3056-12-01 12:28 J	605553.82	605554.02	605554.25	0.0089	0.0022
Venus	-3055-07-15 01:40 J	605779.39	605779.57	605779.79	0.0089	0.0036
Venus	-3054-02-25 14:52 J	606004.96	606005.12	606005.32	0.0089	0.0049
Venus	-3054-10-09 03:50 J	606230.53	606230.66	606230.84	0.0089	0.0064
Venus	-3053-05-21 17:16 J	606456.12	606456.22	606456.34	0.0089	0.0077
Earth	-3021-12-25 05:02 J	618361.67	618361.71	618361.79	0.0089	0.0086
Moon	-3021-12-25 07:26 J	618361.80	618361.81	618361.85	0.0089	0.0088
Moon	-3020-12-27 12:00 J	618728.82	618729.00	618729.22	0.0089	0.0056
Earth	-3020-12-27 15:21 J	618728.97	618729.14	618729.36	0.0089	0.0058 *
Earth	-3019-12-30 01:55 J	619096.35	619096.58	619096.84	0.0089	0.0029
Moon	-3019-12-30 05:31 J	619096.50	619096.73	619096.98	0.0089	0.0030 *
Moon	-3017-01-01 09:21 J	619463.64	619463.89	619464.15	0.0089	0.0003
Earth	-3017-01-01 12:57 J	619463.78	619464.04	619464.29	0.0089	0.0001 *
Earth	-3016-01-02 23:02 J	619831.23	619831.46	619831.71	0.0089	0.0030
Moon	-3016-01-03 01:55 J	619831.34	619831.58	619831.84	0.0089	0.0028 *
Moon	-3015-01-05 07:55 J	620198.67	620198.83	620199.03	0.0088	0.0061
Earth	-3015-01-05 09:36 J	620198.73	620198.90	620199.11	0.0088	0.0059 *
Earth	-3014-01-07 19:55 J	620566.32	620566.33	620566.40	0.0088	0.0088
Moon	-3014-01-07 21:07 J	620566.33	620566.38	620566.48	0.0088	0.0085 *

3RD MILLENNIUM BCE

This is a list of transits visible from Neptune in the 3rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-2996-07-06 14:23 J		627320.99	627321.10	627321.29	0.0088	0.0078	
Mars	-2994-06-02 01:26 J		628016.24	628016.56	628016.89	0.0088	0.0012	
Mercury	-2985-02-03 04:19 J		631184.63	631184.68	631184.73	0.0088	0.0084	
Mercury	-2985-05-01 07:26 J		631272.73	631272.81	631272.92	0.0088	0.0075	
Mercury	-2985-07-28 11:02 J		631360.84	631360.96	631361.09	0.0088	0.0065	
Mercury	-2985-10-24 14:09 J		631448.96	631449.09	631449.25	0.0088	0.0056	
Mercury	-2984-01-20 17:45 J		631537.09	631537.24	631537.41	0.0088	0.0046	
Mercury	-2984-04-18 21:07 J		631625.22	631625.38	631625.56	0.0088	0.0037	
Mercury	-2984-07-16 00:43 J		631713.35	631713.53	631713.72	0.0088	0.0027	
Mercury	-2984-10-12 04:04 J		631801.49	631801.67	631801.86	0.0088	0.0017	
Mercury	-2983-01-08 07:40 J		631889.63	631889.82	631890.01	0.0088	0.0008	
Mercury	-2983-04-06 11:02 J		631977.77	631977.96	631978.16	0.0088	0.0002	
Mercury	-2983-07-03 14:23 J		632065.92	632066.10	632066.30	0.0088	0.0012	
Mercury	-2983-09-29 17:45 J		632154.06	632154.24	632154.44	0.0088	0.0022	
Mercury	-2983-12-26 21:07 J		632242.21	632242.38	632242.58	0.0088	0.0032	
Mercury	-2982-03-25 00:57 J		632330.37	632330.54	632330.71	0.0088	0.0041	
Mercury	-2982-06-21 04:19 J		632418.53	632418.68	632418.84	0.0088	0.0051	
Mercury	-2982-09-17 07:40 J		632506.69	632506.82	632506.97	0.0088	0.0061	

Mercury	-2982-12-14 11:02 J	632594.86	632594.96	632595.09	0.0088	0.0071
Mercury	-2981-03-11 14:23 J	632683.05	632683.10	632683.20	0.0088	0.0081
Venus	-2978-09-20 12:00 J	633970.92	633971.00	633971.09	0.0088	0.0080
Venus	-2977-05-03 00:43 J	634196.40	634196.53	634196.68	0.0088	0.0067
Venus	-2977-12-14 13:12 J	634421.90	634422.05	634422.25	0.0088	0.0054
Venus	-2976-07-28 02:38 J	634647.41	634647.61	634647.80	0.0088	0.0040
Venus	-2975-03-10 15:07 J	634872.93	634873.13	634873.35	0.0088	0.0027
Venus	-2975-10-22 03:50 J	635098.45	635098.66	635098.89	0.0088	0.0014
Venus	-2974-06-04 17:02 J	635323.99	635324.21	635324.43	0.0088	0.0001
Venus	-2973-01-16 06:00 J	635549.53	635549.75	635549.97	0.0088	0.0013
Venus	-2973-08-28 18:28 J	635775.07	635775.27	635775.49	0.0088	0.0027
Venus	-2972-04-11 07:26 J	636000.62	636000.81	636001.01	0.0088	0.0040
Venus	-2972-11-22 19:55 J	636226.17	636226.33	636226.52	0.0088	0.0054
Venus	-2971-07-06 08:52 J	636451.74	636451.87	636452.02	0.0088	0.0067
Venus	-2970-02-16 22:04 J	636677.34	636677.42	636677.51	0.0088	0.0080
Earth	-2937-06-30 04:33 J	648864.57	648864.69	648864.83	0.0089	0.0076
Moon	-2937-06-30 07:26 J	648864.70	648864.81	648864.96	0.0089	0.0076 *
Moon	-2936-07-02 13:55 J	649231.86	649232.08	649232.31	0.0089	0.0046
Earth	-2936-07-02 17:16 J	649232.02	649232.22	649232.47	0.0089	0.0047 *
Earth	-2935-07-05 06:28 J	649599.52	649599.77	649600.03	0.0089	0.0017
Moon	-2935-07-05 09:50 J	649599.65	649599.91	649600.17	0.0089	0.0017 *
Moon	-2934-07-07 16:04 J	649966.93	649967.17	649967.43	0.0089	0.0012
Earth	-2934-07-07 19:12 J	649967.05	649967.30	649967.56	0.0089	0.0013 *
Earth	-2933-07-09 07:55 J	650334.61	650334.83	650335.06	0.0089	0.0042
Moon	-2933-07-09 09:36 J	650334.69	650334.90	650335.16	0.0089	0.0043 *
Moon	-2932-07-11 19:26 J	650702.19	650702.31	650702.48	0.0089	0.0072
Earth	-2932-07-11 20:09 J	650702.21	650702.34	650702.52	0.0089	0.0072 *
Mars	-2912-02-15 17:02 J	657860.95	657861.21	657861.51	0.0089	0.0034
Mars	-2910-01-11 00:14 J	658555.28	658555.51	658555.77	0.0089	0.0053
Mercury	-2904-08-19 19:55 J	660968.33	660968.33	660968.34	0.0089	0.0089

Mercury	-2904-11-15 21:07 J	661056.34	661056.38	661056.44	0.0089	0.0082
Mercury	-2903-02-11 22:47 J	661144.38	661144.45	661144.52	0.0089	0.0075
Mercury	-2903-05-11 00:00 J	661232.42	661232.50	661232.60	0.0089	0.0068
Mercury	-2903-08-07 01:26 J	661320.47	661320.56	661320.67	0.0089	0.0061
Mercury	-2903-11-03 02:52 J	661408.52	661408.62	661408.73	0.0089	0.0053
Mercury	-2902-01-30 04:19 J	661496.57	661496.68	661496.80	0.0089	0.0046
Mercury	-2902-04-28 05:31 J	661584.62	661584.73	661584.86	0.0089	0.0040
Mercury	-2902-07-25 07:12 J	661672.67	661672.80	661672.92	0.0089	0.0032
Mercury	-2902-10-21 08:38 J	661760.73	661760.86	661760.99	0.0089	0.0025
Mercury	-2901-01-17 09:50 J	661848.78	661848.91	661849.05	0.0089	0.0018
Mercury	-2901-04-14 11:16 J	661936.84	661936.97	661937.10	0.0089	0.0010
Mercury	-2901-07-11 12:43 J	662024.90	662025.03	662025.16	0.0089	0.0003
Mercury	-2901-10-07 14:09 J	662112.95	662113.09	662113.22	0.0089	0.0004
Mercury	-2900-01-03 15:21 J	662201.01	662201.14	662201.28	0.0089	0.0011
Mercury	-2900-04-01 16:47 J	662289.07	662289.20	662289.33	0.0089	0.0018
Mercury	-2900-06-28 18:00 J	662377.13	662377.25	662377.38	0.0089	0.0026
Mercury	-2900-09-24 19:26 J	662465.19	662465.31	662465.44	0.0089	0.0032
Mercury	-2900-12-21 20:52 J	662553.25	662553.37	662553.49	0.0089	0.0039
Mercury	-2899-03-19 22:04 J	662641.32	662641.42	662641.54	0.0089	0.0047
Mercury	-2899-06-15 23:31 J	662729.38	662729.48	662729.59	0.0089	0.0053
Mercury	-2899-09-12 00:43 J	662817.44	662817.53	662817.64	0.0089	0.0061
Mercury	-2899-12-09 02:09 J	662905.51	662905.59	662905.68	0.0089	0.0067
Mercury	-2898-03-07 03:21 J	662993.58	662993.64	662993.72	0.0089	0.0075
Mercury	-2898-06-03 04:47 J	663081.66	663081.70	663081.76	0.0089	0.0081
Mercury	-2898-08-30 06:00 J	663169.75	663169.75	663169.78	0.0089	0.0089
Venus	-2896-11-07 03:07 J	663969.55	663969.63	663969.72	0.0089	0.0083
Venus	-2895-06-20 16:19 J	664195.05	664195.18	664195.33	0.0089	0.0069
Venus	-2894-02-01 05:31 J	664420.57	664420.73	664420.91	0.0089	0.0055
Venus	-2894-09-14 18:43 J	664646.09	664646.28	664646.49	0.0089	0.0041
Venus	-2893-04-27 07:55 J	664871.63	664871.83	664872.05	0.0089	0.0027

Venus	-2893-12-08 21:07 J	665097.17	665097.38	665097.60	0.0089	0.0013
Venus	-2892-07-22 10:33 J	665322.72	665322.94	665323.16	0.0089	0.0001
Venus	-2891-03-04 23:31 J	665548.27	665548.48	665548.71	0.0089	0.0016
Venus	-2891-10-16 12:43 J	665773.83	665774.03	665774.24	0.0089	0.0030
Venus	-2890-05-30 01:40 J	665999.39	665999.57	665999.77	0.0089	0.0044
Venus	-2889-01-10 14:52 J	666224.97	666225.12	666225.30	0.0089	0.0058
Venus	-2889-08-23 04:04 J	666450.56	666450.67	666450.82	0.0089	0.0072
Venus	-2888-04-05 17:02 J	666676.17	666676.21	666676.30	0.0089	0.0086
Earth	-2856-12-27 02:09 J	678629.46	678629.59	678629.76	0.0089	0.0072
Moon	-2856-12-27 06:28 J	678629.60	678629.77	678629.93	0.0089	0.0067 *
Moon	-2855-12-29 09:50 J	678996.71	678996.91	678997.13	0.0089	0.0048
Earth	-2855-12-29 12:57 J	678996.83	678997.04	678997.27	0.0089	0.0043 *
Earth	-2854-12-31 23:16 J	679364.22	679364.47	679364.73	0.0089	0.0014
Moon	-2853-01-01 01:55 J	679364.32	679364.58	679364.84	0.0089	0.0010 *
Moon	-2852-01-02 08:09 J	679731.60	679731.84	679732.09	0.0089	0.0011
Earth	-2852-01-02 09:50 J	679731.66	679731.91	679732.17	0.0089	0.0014 *
Moon	-2851-01-04 19:40 J	680099.12	680099.32	680099.57	0.0089	0.0048
Earth	-2851-01-04 19:55 J	680099.13	680099.33	680099.57	0.0089	0.0044 *
Earth	-2850-01-07 06:43 J	680466.64	680466.78	680466.94	0.0088	0.0072
Moon	-2850-01-07 07:26 J	680466.68	680466.81	680466.99	0.0088	0.0069 *
Mars	-2830-01-14 05:16 J	687778.43	687778.72	687779.04	0.0088	0.0031
Mars	-2829-12-09 14:23 J	688473.89	688474.10	688474.38	0.0088	0.0059
Mercury	-2821-10-30 02:23 J	691355.55	691355.60	691355.70	0.0088	0.0081
Mercury	-2820-01-26 06:14 J	691443.65	691443.76	691443.87	0.0088	0.0071
Mercury	-2820-04-24 09:21 J	691531.77	691531.89	691532.04	0.0088	0.0062
Mercury	-2820-07-21 12:57 J	691619.89	691620.04	691620.20	0.0088	0.0052
Mercury	-2820-10-17 16:33 J	691708.02	691708.19	691708.36	0.0088	0.0042
Mercury	-2819-01-13 19:40 J	691796.15	691796.32	691796.51	0.0088	0.0033
Mercury	-2819-04-11 23:16 J	691884.29	691884.47	691884.66	0.0088	0.0023
Mercury	-2819-07-09 02:38 J	691972.43	691972.61	691972.81	0.0088	0.0014

Mercury	-2819-10-05 06:14 J	692060.57	692060.76	692060.95	0.0088	0.0004
Mercury	-2818-01-01 09:36 J	692148.71	692148.90	692149.10	0.0088	0.0006
Mercury	-2818-03-30 12:57 J	692236.86	692237.04	692237.24	0.0088	0.0016
Mercury	-2818-06-26 16:19 J	692325.01	692325.18	692325.38	0.0088	0.0026
Mercury	-2818-09-22 19:55 J	692413.16	692413.33	692413.51	0.0088	0.0035
Mercury	-2818-12-19 23:16 J	692501.31	692501.47	692501.65	0.0088	0.0045
Mercury	-2817-03-17 02:38 J	692589.48	692589.61	692589.78	0.0088	0.0055
Mercury	-2817-06-13 06:00 J	692677.64	692677.75	692677.90	0.0088	0.0065
Mercury	-2817-09-09 09:36 J	692765.82	692765.90	692766.02	0.0088	0.0075
Mercury	-2817-12-06 13:26 J	692854.01	692854.06	692854.11	0.0088	0.0084
Venus	-2814-12-22 22:33 J	693965.43	693965.44	693965.50	0.0088	0.0087
Venus	-2813-08-04 11:45 J	694190.88	694190.99	694191.12	0.0088	0.0073
Venus	-2812-03-18 00:14 J	694416.37	694416.51	694416.69	0.0088	0.0060
Venus	-2812-10-29 13:26 J	694641.87	694642.06	694642.25	0.0088	0.0046
Venus	-2811-06-12 01:55 J	694867.39	694867.58	694867.80	0.0088	0.0033
Venus	-2810-01-23 15:21 J	695092.92	695093.14	695093.35	0.0088	0.0019
Venus	-2810-09-06 04:04 J	695318.45	695318.67	695318.89	0.0088	0.0006
Venus	-2809-04-18 16:47 J	695543.99	695544.20	695544.43	0.0088	0.0008
Venus	-2809-11-30 05:45 J	695769.52	695769.74	695769.95	0.0088	0.0021
Venus	-2808-07-13 18:14 J	695995.07	695995.26	695995.48	0.0088	0.0035
Venus	-2807-02-24 07:26 J	696220.63	696220.81	696221.00	0.0088	0.0048
Venus	-2807-10-07 19:55 J	696446.19	696446.33	696446.50	0.0088	0.0062
Venus	-2806-05-21 09:07 J	696671.77	696671.88	696671.99	0.0088	0.0075
Moon	-2773-06-29 08:38 J	708764.84	708764.86	708764.95	0.0089	0.0087
Earth	-2772-07-02 01:12 J	709132.39	709132.55	709132.77	0.0089	0.0062
Moon	-2772-07-02 05:02 J	709132.55	709132.71	709132.90	0.0089	0.0066 *
Moon	-2771-07-04 12:28 J	709499.79	709500.02	709500.27	0.0089	0.0028
Earth	-2771-07-04 14:52 J	709499.88	709500.12	709500.37	0.0089	0.0032 *
Earth	-2770-07-07 03:50 J	709867.40	709867.66	709867.92	0.0089	0.0002
Moon	-2770-07-07 05:31 J	709867.46	709867.73	709868.00	0.0089	0.0007 *

Moon	-2769-07-08 15:50 J	710234.94	710235.16	710235.41	0.0089	0.0032
Earth	-2769-07-08 16:33 J	710234.95	710235.19	710235.44	0.0089	0.0027 *
Moon	-2768-07-11 03:50 J	710602.46	710602.66	710602.89	0.0089	0.0052
Earth	-2768-07-11 05:31 J	710602.53	710602.73	710602.93	0.0089	0.0056 *
Earth	-2767-07-13 18:00 J	710970.18	710970.25	710970.32	0.0089	0.0085
Mars	-2749-09-30 18:28 J	717624.11	717624.27	717624.45	0.0089	0.0074
Mars	-2747-08-26 01:40 J	718318.28	718318.57	718318.88	0.0089	0.0012
Mercury	-2739-05-16 19:26 J	721139.29	721139.31	721139.36	0.0089	0.0087
Mercury	-2739-08-12 20:52 J	721227.32	721227.37	721227.45	0.0089	0.0080
Mercury	-2739-11-08 22:33 J	721315.37	721315.44	721315.52	0.0089	0.0072
Mercury	-2738-02-05 00:00 J	721403.41	721403.50	721403.59	0.0089	0.0065
Mercury	-2738-05-04 01:12 J	721491.46	721491.55	721491.66	0.0089	0.0058
Mercury	-2738-07-31 02:38 J	721579.51	721579.61	721579.73	0.0089	0.0051
Mercury	-2738-10-27 04:04 J	721667.56	721667.67	721667.79	0.0089	0.0043
Mercury	-2737-01-23 05:31 J	721755.61	721755.73	721755.86	0.0089	0.0036
Mercury	-2737-04-20 06:57 J	721843.67	721843.79	721843.92	0.0089	0.0029
Mercury	-2737-07-17 08:23 J	721931.72	721931.85	721931.98	0.0089	0.0022
Mercury	-2737-10-13 09:50 J	722019.77	722019.91	722020.04	0.0089	0.0015
Mercury	-2736-01-09 11:02 J	722107.83	722107.96	722108.10	0.0089	0.0008
Mercury	-2736-04-07 12:28 J	722195.89	722196.02	722196.16	0.0089	0.0001
Mercury	-2736-07-04 13:55 J	722283.95	722284.08	722284.21	0.0089	0.0007
Mercury	-2736-09-30 15:07 J	722372.00	722372.13	722372.27	0.0089	0.0014
Mercury	-2736-12-27 16:33 J	722460.06	722460.19	722460.32	0.0089	0.0021
Mercury	-2735-03-25 17:45 J	722548.12	722548.24	722548.38	0.0089	0.0029
Mercury	-2735-06-21 19:12 J	722636.18	722636.30	722636.43	0.0089	0.0035
Mercury	-2735-09-17 20:23 J	722724.25	722724.35	722724.48	0.0089	0.0043
Mercury	-2735-12-14 21:50 J	722812.31	722812.41	722812.53	0.0089	0.0049
Mercury	-2734-03-12 23:16 J	722900.37	722900.47	722900.58	0.0089	0.0056
Mercury	-2734-06-09 00:28 J	722988.44	722988.52	722988.62	0.0089	0.0064
Mercury	-2734-09-05 01:55 J	723076.51	723076.58	723076.67	0.0089	0.0070

Mercury	-2734-12-02 03:07 J	723164.58	723164.63	723164.71	0.0089	0.0078
Mercury	-2733-02-28 04:33 J	723252.66	723252.69	723252.74	0.0089	0.0084
Venus	-2731-02-08 13:40 J	723964.07	723964.07	723964.09	0.0089	0.0089
Venus	-2731-09-22 02:38 J	724189.51	724189.61	724189.75	0.0089	0.0076
Venus	-2730-05-05 15:50 J	724415.02	724415.16	724415.34	0.0089	0.0062
Venus	-2730-12-17 05:02 J	724640.54	724640.71	724640.92	0.0089	0.0048
Venus	-2729-07-29 18:43 J	724866.08	724866.28	724866.49	0.0089	0.0033
Venus	-2728-03-12 07:55 J	725091.62	725091.83	725092.05	0.0089	0.0019
Venus	-2728-10-23 21:07 J	725317.16	725317.38	725317.60	0.0089	0.0005
Venus	-2727-06-06 10:04 J	725542.71	725542.92	725543.14	0.0089	0.0010
Venus	-2726-01-17 23:16 J	725768.26	725768.47	725768.69	0.0089	0.0024
Venus	-2726-08-31 12:28 J	725993.83	725994.02	725994.22	0.0089	0.0038
Venus	-2725-04-13 01:40 J	726219.39	726219.57	726219.75	0.0089	0.0052
Venus	-2725-11-24 14:38 J	726444.97	726445.11	726445.26	0.0089	0.0066
Venus	-2724-07-08 03:50 J	726670.57	726670.66	726670.76	0.0089	0.0080
Moon	-2692-12-26 09:21 J	738529.88	738529.89	738529.95	0.0089	0.0088
Earth	-2692-12-26 12:57 J	738529.99	738530.04	738530.10	0.0089	0.0086
Earth	-2691-12-28 22:47 J	738897.28	738897.45	738897.66	0.0089	0.0058
Moon	-2691-12-29 00:57 J	738897.35	738897.54	738897.75	0.0089	0.0057 *
Moon	-2690-12-31 08:23 J	739264.63	739264.85	739265.10	0.0089	0.0031
Earth	-2690-12-31 09:07 J	739264.66	739264.88	739265.14	0.0089	0.0030 *
Moon	-2688-01-01 19:55 J	739632.06	739632.33	739632.59	0.0089	0.0001
Earth	-2688-01-01 19:55 J	739632.08	739632.33	739632.59	0.0089	0.0001 *
Earth	-2687-01-04 06:00 J	739999.52	739999.75	740000.01	0.0089	0.0028
Moon	-2687-01-04 07:55 J	739999.60	739999.83	740000.07	0.0089	0.0027 *
Moon	-2686-01-06 13:40 J	740366.89	740367.07	740367.29	0.0088	0.0057
Earth	-2686-01-06 16:04 J	740367.00	740367.17	740367.40	0.0088	0.0057 *
Earth	-2685-01-09 02:38 J	740734.56	740734.61	740734.70	0.0088	0.0085
Moon	-2685-01-09 06:00 J	740734.68	740734.75	740734.85	0.0088	0.0083 *
Mars	-2667-08-28 08:09 J	747540.70	747540.84	747541.04	0.0088	0.0075

Mars	-2665-07-23 18:57 J	748235.98	748236.29	748236.63	0.0088	0.0016
Mercury	-2656-04-29 21:36 J	751438.39	751438.40	751438.43	0.0088	0.0087
Mercury	-2656-07-27 00:43 J	751526.47	751526.53	751526.64	0.0088	0.0078
Mercury	-2656-10-23 04:19 J	751614.57	751614.68	751614.81	0.0088	0.0068
Mercury	-2655-01-19 07:40 J	751702.69	751702.82	751702.98	0.0088	0.0059
Mercury	-2655-04-17 11:16 J	751790.82	751790.97	751791.13	0.0088	0.0049
Mercury	-2655-07-14 14:52 J	751878.95	751879.12	751879.29	0.0088	0.0039
Mercury	-2655-10-10 18:00 J	751967.08	751967.25	751967.44	0.0088	0.0030
Mercury	-2654-01-06 21:36 J	752055.22	752055.40	752055.59	0.0088	0.0020
Mercury	-2654-04-05 00:57 J	752143.35	752143.54	752143.74	0.0088	0.0011
Mercury	-2654-07-02 04:33 J	752231.50	752231.69	752231.88	0.0088	0.0001
Mercury	-2654-09-28 07:55 J	752319.64	752319.83	752320.02	0.0088	0.0009
Mercury	-2654-12-25 11:16 J	752407.79	752407.97	752408.16	0.0088	0.0019
Mercury	-2653-03-22 14:38 J	752495.94	752496.11	752496.30	0.0088	0.0029
Mercury	-2653-06-18 18:14 J	752584.09	752584.26	752584.44	0.0088	0.0038
Mercury	-2653-09-14 21:36 J	752672.25	752672.40	752672.57	0.0088	0.0048
Mercury	-2653-12-12 00:57 J	752760.41	752760.54	752760.70	0.0088	0.0058
Mercury	-2652-03-10 04:19 J	752848.58	752848.68	752848.82	0.0088	0.0068
Mercury	-2652-06-06 07:40 J	752936.76	752936.82	752936.93	0.0088	0.0078
Mercury	-2652-09-02 11:31 J	753024.98	753024.98	753025.01	0.0088	0.0088
Venus	-2649-11-05 21:36 J	754185.34	754185.40	754185.52	0.0088	0.0080
Venus	-2648-06-19 10:47 J	754410.81	754410.95	754411.10	0.0088	0.0066
Venus	-2647-01-30 23:31 J	754636.32	754636.48	754636.67	0.0088	0.0053
Venus	-2647-09-13 12:28 J	754861.83	754862.02	754862.23	0.0088	0.0039
Venus	-2646-04-27 01:12 J	755087.35	755087.55	755087.77	0.0088	0.0026
Venus	-2646-12-08 14:09 J	755312.88	755313.09	755313.31	0.0088	0.0012
Venus	-2645-07-21 03:07 J	755538.41	755538.63	755538.85	0.0088	0.0002
Venus	-2644-03-03 16:04 J	755763.95	755764.17	755764.39	0.0088	0.0015
Venus	-2644-10-15 04:33 J	755989.50	755989.69	755989.91	0.0088	0.0029
Venus	-2643-05-28 17:16 J	756215.05	756215.22	756215.43	0.0088	0.0043

Venus	-2642-01-09 06:28 J	756440.61	756440.77	756440.95	0.0088	0.0056
Venus	-2642-08-22 19:12 J	756666.18	756666.30	756666.45	0.0088	0.0070
Venus	-2641-04-04 08:09 J	756891.78	756891.84	756891.92	0.0088	0.0083
Moon	-2608-07-01 06:00 J	769032.66	769032.75	769032.90	0.0089	0.0078
Earth	-2608-07-01 08:23 J	769032.74	769032.85	769033.00	0.0089	0.0077 *
Earth	-2607-07-03 21:21 J	769400.19	769400.39	769400.62	0.0089	0.0048
Moon	-2607-07-03 22:04 J	769400.20	769400.42	769400.66	0.0089	0.0046 *
Earth	-2606-07-06 10:47 J	769767.69	769767.95	769768.21	0.0089	0.0018
Moon	-2606-07-06 11:16 J	769767.72	769767.97	769768.21	0.0089	0.0019 *
Moon	-2605-07-07 22:19 J	770135.17	770135.43	770135.71	0.0089	0.0012
Earth	-2605-07-07 23:45 J	770135.24	770135.49	770135.75	0.0089	0.0011 *
Earth	-2604-07-10 12:28 J	770502.79	770503.02	770503.26	0.0089	0.0040
Moon	-2604-07-10 14:52 J	770502.91	770503.12	770503.37	0.0089	0.0040 *
Moon	-2603-07-12 22:04 J	770870.27	770870.42	770870.59	0.0089	0.0070
Earth	-2603-07-13 00:57 J	770870.40	770870.54	770870.73	0.0089	0.0070 *
Mars	-2583-04-10 00:57 J	778081.27	778081.54	778081.84	0.0089	0.0030
Mars	-2581-03-04 07:40 J	778775.61	778775.82	778776.08	0.0089	0.0056
Mercury	-2574-02-10 19:26 J	781310.27	781310.31	781310.35	0.0089	0.0084
Mercury	-2574-05-09 20:52 J	781398.30	781398.37	781398.44	0.0089	0.0077
Mercury	-2574-08-05 22:04 J	781486.34	781486.42	781486.51	0.0089	0.0070
Mercury	-2574-11-01 23:31 J	781574.39	781574.48	781574.58	0.0089	0.0062
Mercury	-2573-01-29 00:57 J	781662.44	781662.54	781662.65	0.0089	0.0055
Mercury	-2573-04-26 02:09 J	781750.49	781750.59	781750.72	0.0089	0.0049
Mercury	-2573-07-23 03:50 J	781838.54	781838.66	781838.78	0.0089	0.0041
Mercury	-2573-10-19 05:16 J	781926.59	781926.72	781926.84	0.0089	0.0034
Mercury	-2572-01-15 06:28 J	782014.65	782014.77	782014.90	0.0089	0.0027
Mercury	-2572-04-13 07:55 J	782102.70	782102.83	782102.97	0.0089	0.0020
Mercury	-2572-07-10 09:21 J	782190.76	782190.89	782191.02	0.0089	0.0012
Mercury	-2572-10-06 10:47 J	782278.82	782278.95	782279.08	0.0089	0.0005
Mercury	-2571-01-02 12:14 J	782366.87	782367.01	782367.14	0.0089	0.0003

Mercury	-2571-03-31 13:26 J	782454.93	782455.06	782455.20	0.0089	0.0009
Mercury	-2571-06-27 14:52 J	782542.99	782543.12	782543.25	0.0089	0.0016
Mercury	-2571-09-23 16:04 J	782631.05	782631.17	782631.31	0.0089	0.0024
Mercury	-2571-12-20 17:31 J	782719.11	782719.23	782719.36	0.0089	0.0030
Mercury	-2570-03-18 18:57 J	782807.17	782807.29	782807.41	0.0089	0.0037
Mercury	-2570-06-14 20:09 J	782895.23	782895.34	782895.46	0.0089	0.0045
Mercury	-2570-09-10 21:36 J	782983.30	782983.40	782983.51	0.0089	0.0051
Mercury	-2570-12-07 22:47 J	783071.36	783071.45	783071.56	0.0089	0.0059
Mercury	-2569-03-05 00:14 J	783159.43	783159.51	783159.61	0.0089	0.0065
Mercury	-2569-06-01 01:26 J	783247.50	783247.56	783247.65	0.0089	0.0073
Mercury	-2569-08-28 02:52 J	783335.57	783335.62	783335.69	0.0089	0.0079
Mercury	-2569-11-24 04:04 J	783423.65	783423.67	783423.72	0.0089	0.0087
Venus	-2567-12-24 12:28 J	784183.96	784184.02	784184.13	0.0089	0.0083
Venus	-2566-08-07 02:23 J	784409.46	784409.60	784409.75	0.0089	0.0068
Venus	-2565-03-19 15:36 J	784634.98	784635.15	784635.33	0.0089	0.0054
Venus	-2565-10-31 04:33 J	784860.51	784860.69	784860.90	0.0089	0.0040
Venus	-2564-06-13 18:00 J	785086.05	785086.25	785086.47	0.0089	0.0025
Venus	-2563-01-25 07:12 J	785311.59	785311.80	785312.03	0.0089	0.0011
Venus	-2563-09-07 20:38 J	785537.14	785537.36	785537.58	0.0089	0.0003
Venus	-2562-04-21 09:36 J	785762.69	785762.90	785763.12	0.0089	0.0018
Venus	-2562-12-02 22:47 J	785988.25	785988.45	785988.66	0.0089	0.0032
Venus	-2561-07-15 11:45 J	786213.82	786213.99	786214.19	0.0089	0.0046
Venus	-2560-02-26 00:43 J	786439.39	786439.53	786439.71	0.0089	0.0061
Venus	-2560-10-09 13:55 J	786664.98	786665.08	786665.22	0.0089	0.0074
Venus	-2559-05-23 02:52 J	786890.61	786890.62	786890.67	0.0089	0.0089
Moon	-2527-12-28 08:38 J	798797.70	798797.86	798798.02	0.0089	0.0068
Earth	-2527-12-28 08:38 J	798797.73	798797.86	798798.02	0.0089	0.0073 *
Moon	-2526-12-30 17:45 J	799165.04	799165.24	799165.48	0.0089	0.0049
Earth	-2526-12-30 18:57 J	799165.09	799165.29	799165.53	0.0089	0.0045 *
Earth	-2524-01-01 05:45 J	799532.49	799532.74	799532.99	0.0089	0.0016

Moon	-2524-01-01 07:26 J	799532.57	799532.81	799533.06	0.0089	0.0012 *
Moon	-2523-01-03 12:57 J	799899.79	799900.04	799900.30	0.0089	0.0008
Earth	-2523-01-03 16:04 J	799899.92	799900.17	799900.43	0.0089	0.0012 *
Earth	-2522-01-06 01:55 J	800267.37	800267.58	800267.83	0.0089	0.0041
Moon	-2522-01-06 05:16 J	800267.52	800267.72	800267.96	0.0089	0.0046 *
Moon	-2521-01-08 08:52 J	800634.72	800634.87	800635.07	0.0088	0.0065
Earth	-2521-01-08 12:43 J	800634.88	800635.03	800635.20	0.0088	0.0069 *
Jupiter	-2504-07-04 00:00 J	807021.00	807021.50	807022.05	0.0088	0.0033
Mars	-2501-03-06 19:26 J	807998.01	807998.31	807998.63	0.0088	0.0029
Mars	-2499-01-31 05:31 J	808693.52	808693.73	808693.98	0.0088	0.0061
Mercury	-2491-01-24 19:26 J	811609.28	811609.31	811609.38	0.0088	0.0085
Mercury	-2491-04-22 23:02 J	811697.38	811697.46	811697.57	0.0088	0.0075
Mercury	-2491-07-20 02:09 J	811785.49	811785.59	811785.74	0.0088	0.0066
Mercury	-2491-10-16 05:45 J	811873.61	811873.74	811873.90	0.0088	0.0056
Mercury	-2490-01-12 09:21 J	811961.73	811961.89	811962.06	0.0088	0.0046
Mercury	-2490-04-10 12:43 J	812049.86	812050.03	812050.21	0.0088	0.0037
Mercury	-2490-07-07 16:04 J	812138.00	812138.17	812138.36	0.0088	0.0027
Mercury	-2490-10-03 19:26 J	812226.13	812226.31	812226.51	0.0088	0.0018
Mercury	-2490-12-30 23:02 J	812314.27	812314.46	812314.65	0.0088	0.0008
Mercury	-2489-03-28 02:38 J	812402.41	812402.61	812402.80	0.0088	0.0003
Mercury	-2489-06-24 06:00 J	812490.56	812490.75	812490.94	0.0088	0.0012
Mercury	-2489-09-20 09:07 J	812578.71	812578.88	812579.08	0.0088	0.0022
Mercury	-2489-12-17 12:57 J	812666.86	812667.04	812667.22	0.0088	0.0031
Mercury	-2488-03-15 16:04 J	812755.01	812755.17	812755.35	0.0088	0.0041
Mercury	-2488-06-11 19:26 J	812843.17	812843.31	812843.48	0.0088	0.0051
Mercury	-2488-09-07 23:02 J	812931.33	812931.46	812931.61	0.0088	0.0061
Mercury	-2488-12-05 02:23 J	813019.50	813019.60	813019.73	0.0088	0.0071
Mercury	-2487-03-03 06:14 J	813107.69	813107.76	813107.84	0.0088	0.0080
Venus	-2484-02-07 07:55 J	814179.82	814179.83	814179.89	0.0088	0.0087
Venus	-2484-09-20 20:52 J	814405.27	814405.37	814405.51	0.0088	0.0073

Venus	-2483-05-04 10:04 J	814630.75	814630.92	814631.08	0.0088	0.0059
Venus	-2483-12-15 22:19 J	814856.26	814856.43	814856.64	0.0088	0.0046
Venus	-2482-07-29 11:16 J	815081.77	815081.97	815082.18	0.0088	0.0032
Venus	-2481-03-11 00:00 J	815307.30	815307.50	815307.73	0.0088	0.0019
Venus	-2481-10-22 12:57 J	815532.82	815533.04	815533.26	0.0088	0.0005
Venus	-2480-06-05 01:40 J	815758.36	815758.57	815758.80	0.0088	0.0009
Venus	-2479-01-16 14:38 J	815983.90	815984.11	815984.33	0.0088	0.0023
Venus	-2479-08-30 03:36 J	816209.45	816209.65	816209.85	0.0088	0.0036
Venus	-2478-04-12 16:19 J	816435.01	816435.18	816435.37	0.0088	0.0050
Venus	-2478-11-24 04:47 J	816660.57	816660.70	816660.87	0.0088	0.0064
Venus	-2477-07-06 18:00 J	816886.16	816886.25	816886.36	0.0088	0.0077
Moon	-2444-06-30 15:07 J	828933.11	828933.13	828933.18	0.0089	0.0088
Earth	-2443-07-03 04:04 J	829300.49	829300.67	829300.85	0.0089	0.0063
Moon	-2443-07-03 04:47 J	829300.55	829300.70	829300.88	0.0089	0.0068 *
Moon	-2442-07-05 14:09 J	829667.86	829668.09	829668.36	0.0089	0.0031
Earth	-2442-07-05 16:33 J	829667.97	829668.19	829668.45	0.0089	0.0035 *
Earth	-2441-07-07 05:45 J	830035.49	830035.74	830036.01	0.0089	0.0005
Moon	-2441-07-07 08:23 J	830035.61	830035.85	830036.11	0.0089	0.0010 *
Moon	-2440-07-09 14:52 J	830402.89	830403.12	830403.38	0.0089	0.0029
Earth	-2440-07-09 18:43 J	830403.04	830403.28	830403.54	0.0089	0.0024 *
Earth	-2439-07-12 07:40 J	830770.62	830770.82	830771.04	0.0089	0.0053
Moon	-2439-07-12 10:47 J	830770.76	830770.95	830771.19	0.0089	0.0049 *
Moon	-2438-07-14 16:47 J	831138.17	831138.20	831138.28	0.0089	0.0087
Earth	-2438-07-14 20:23 J	831138.27	831138.35	831138.47	0.0089	0.0082 *
Mars	-2420-11-23 01:26 J	837844.41	837844.56	837844.77	0.0089	0.0073
Mars	-2418-10-18 06:28 J	838538.48	838538.77	838539.07	0.0089	0.0014
Mercury	-2410-08-11 17:16 J	841393.22	841393.22	841393.24	0.0089	0.0089
Mercury	-2410-11-07 18:57 J	841481.24	841481.29	841481.34	0.0089	0.0082
Mercury	-2409-02-03 20:09 J	841569.28	841569.34	841569.42	0.0089	0.0075
Mercury	-2409-05-01 21:36 J	841657.32	841657.40	841657.50	0.0089	0.0068

Mercury	-2409-07-28 23:02 J	841745.37	841745.46	841745.57	0.0089	0.0060
Mercury	-2409-10-25 00:28 J	841833.42	841833.52	841833.63	0.0089	0.0053
Mercury	-2408-01-21 01:40 J	841921.47	841921.57	841921.70	0.0089	0.0047
Mercury	-2408-04-19 03:21 J	842009.52	842009.64	842009.76	0.0089	0.0039
Mercury	-2408-07-16 04:47 J	842097.58	842097.70	842097.83	0.0089	0.0032
Mercury	-2408-10-12 06:14 J	842185.63	842185.76	842185.89	0.0089	0.0024
Mercury	-2407-01-08 07:26 J	842273.69	842273.81	842273.95	0.0089	0.0018
Mercury	-2407-04-06 08:52 J	842361.74	842361.87	842362.01	0.0089	0.0010
Mercury	-2407-07-03 10:19 J	842449.80	842449.93	842450.06	0.0089	0.0003
Mercury	-2407-09-29 11:45 J	842537.86	842537.99	842538.12	0.0089	0.0004
Mercury	-2407-12-26 12:57 J	842625.91	842626.04	842626.18	0.0089	0.0012
Mercury	-2406-03-24 14:23 J	842713.97	842714.10	842714.23	0.0089	0.0018
Mercury	-2406-06-20 15:50 J	842802.03	842802.16	842802.29	0.0089	0.0025
Mercury	-2406-09-16 17:02 J	842890.09	842890.21	842890.34	0.0089	0.0032
Mercury	-2406-12-13 18:28 J	842978.15	842978.27	842978.39	0.0089	0.0039
Mercury	-2405-03-10 19:40 J	843066.22	843066.32	843066.44	0.0089	0.0047
Mercury	-2405-06-06 21:07 J	843154.28	843154.38	843154.49	0.0089	0.0053
Mercury	-2405-09-02 22:19 J	843242.34	843242.43	843242.54	0.0089	0.0061
Mercury	-2405-11-29 23:45 J	843330.41	843330.49	843330.58	0.0089	0.0067
Mercury	-2404-02-26 00:57 J	843418.48	843418.54	843418.63	0.0089	0.0075
Mercury	-2404-05-25 02:23 J	843506.56	843506.60	843506.66	0.0089	0.0081
Mercury	-2404-08-21 03:36 J	843594.65	843594.65	843594.68	0.0089	0.0089
Venus	-2402-03-27 22:33 J	844178.44	844178.44	844178.44	0.0089	0.0089
Venus	-2402-11-08 11:16 J	844403.87	844403.97	844404.11	0.0089	0.0076
Venus	-2401-06-21 00:57 J	844629.39	844629.54	844629.71	0.0089	0.0061
Venus	-2400-02-01 14:09 J	844854.92	844855.09	844855.29	0.0089	0.0047
Venus	-2400-09-15 03:21 J	845080.45	845080.64	845080.86	0.0089	0.0033
Venus	-2399-04-28 16:47 J	845305.99	845306.20	845306.42	0.0089	0.0018
Venus	-2399-12-10 06:00 J	845531.53	845531.75	845531.97	0.0089	0.0004
Venus	-2398-07-23 19:12 J	845757.09	845757.30	845757.53	0.0089	0.0011

Venus	-2397-03-05 08:23 J	845982.65	845982.85	845983.07	0.0089	0.0025
Venus	-2397-10-16 21:36 J	846208.21	846208.40	846208.60	0.0089	0.0040
Venus	-2396-05-30 10:47 J	846433.77	846433.95	846434.12	0.0089	0.0054
Venus	-2395-01-10 23:16 J	846659.35	846659.47	846659.64	0.0089	0.0069
Venus	-2395-08-24 12:28 J	846884.96	846885.02	846885.13	0.0089	0.0083
Moon	-2363-12-27 15:50 J	858698.15	858698.16	858698.23	0.0089	0.0088
Earth	-2363-12-27 17:16 J	858698.21	858698.22	858698.27	0.0089	0.0088 *
Earth	-2362-12-30 03:50 J	859065.49	859065.66	859065.86	0.0089	0.0060
Moon	-2362-12-30 06:14 J	859065.60	859065.76	859065.96	0.0089	0.0061 *
Moon	-2361-12-31 11:02 J	859432.74	859432.96	859433.22	0.0089	0.0032
Earth	-2361-12-31 14:23 J	859432.87	859433.10	859433.34	0.0089	0.0032 *
Earth	-2359-01-03 00:43 J	859800.27	859800.53	859800.78	0.0089	0.0004
Moon	-2359-01-03 04:19 J	859800.43	859800.68	859800.93	0.0089	0.0003 *
Moon	-2358-01-05 07:26 J	860167.58	860167.81	860168.07	0.0089	0.0026
Earth	-2358-01-05 11:02 J	860167.72	860167.96	860168.21	0.0089	0.0025 *
Earth	-2357-01-07 21:07 J	860535.19	860535.38	860535.60	0.0088	0.0053
Moon	-2357-01-08 00:00 J	860535.31	860535.50	860535.72	0.0088	0.0054 *
Moon	-2356-01-09 05:02 J	860902.64	860902.71	860902.84	0.0088	0.0081
Earth	-2356-01-09 07:26 J	860902.72	860902.81	860902.93	0.0088	0.0081 *
Mars	-2338-10-19 16:33 J	867760.05	867760.19	867760.39	0.0088	0.0075
Mars	-2336-09-14 05:31 J	868455.42	868455.73	868456.07	0.0088	0.0016
Mercury	-2327-10-21 17:16 J	871780.18	871780.22	871780.30	0.0088	0.0083
Mercury	-2326-01-17 20:52 J	871868.27	871868.37	871868.48	0.0088	0.0073
Mercury	-2326-04-16 00:00 J	871956.39	871956.50	871956.65	0.0088	0.0064
Mercury	-2326-07-13 03:36 J	872044.51	872044.65	872044.81	0.0088	0.0054
Mercury	-2326-10-09 06:43 J	872132.63	872132.78	872132.96	0.0088	0.0045
Mercury	-2325-01-05 10:19 J	872220.76	872220.93	872221.11	0.0088	0.0035
Mercury	-2325-04-02 13:40 J	872308.90	872309.07	872309.26	0.0088	0.0026
Mercury	-2325-06-29 17:16 J	872397.03	872397.22	872397.41	0.0088	0.0016
Mercury	-2325-09-25 20:38 J	872485.17	872485.36	872485.56	0.0088	0.0007

Mercury	-2325-12-23 00:14 J	872573.32	872573.51	872573.70	0.0088	0.0004
Mercury	-2324-03-21 03:36 J	872661.46	872661.65	872661.84	0.0088	0.0013
Mercury	-2324-06-17 06:57 J	872749.61	872749.79	872749.98	0.0088	0.0023
Mercury	-2324-09-13 10:19 J	872837.76	872837.93	872838.12	0.0088	0.0033
Mercury	-2324-12-10 13:40 J	872925.92	872926.07	872926.25	0.0088	0.0043
Mercury	-2323-03-08 17:31 J	873014.07	873014.23	873014.38	0.0088	0.0052
Mercury	-2323-06-04 20:52 J	873102.24	873102.37	873102.51	0.0088	0.0062
Mercury	-2323-09-01 00:14 J	873190.41	873190.51	873190.63	0.0088	0.0072
Mercury	-2323-11-28 03:36 J	873278.60	873278.65	873278.73	0.0088	0.0082
Venus	-2320-12-23 06:28 J	874399.69	874399.77	874399.87	0.0088	0.0080
Venus	-2319-08-05 18:57 J	874625.17	874625.29	874625.46	0.0088	0.0067
Venus	-2318-03-19 07:55 J	874850.67	874850.83	874851.02	0.0088	0.0053
Venus	-2318-10-30 20:38 J	875076.17	875076.36	875076.57	0.0088	0.0039
Venus	-2317-06-12 09:21 J	875301.69	875301.89	875302.11	0.0088	0.0026
Venus	-2316-01-23 22:19 J	875527.22	875527.43	875527.66	0.0088	0.0012
Venus	-2316-09-06 11:16 J	875752.75	875752.97	875753.19	0.0088	0.0002
Venus	-2315-04-20 00:00 J	875978.29	875978.50	875978.72	0.0088	0.0016
Venus	-2315-12-01 12:28 J	876203.83	876204.02	876204.24	0.0088	0.0030
Venus	-2314-07-15 01:40 J	876429.38	876429.57	876429.76	0.0088	0.0043
Venus	-2313-02-25 14:23 J	876654.95	876655.10	876655.28	0.0088	0.0057
Venus	-2313-10-08 03:07 J	876880.52	876880.63	876880.78	0.0088	0.0071
Venus	-2312-05-21 15:50 J	877106.13	877106.16	877106.24	0.0088	0.0085
Moon	-2279-07-02 06:14 J	889200.68	889200.76	889200.89	0.0089	0.0082
Earth	-2279-07-02 08:52 J	889200.78	889200.87	889201.01	0.0089	0.0080 *
Earth	-2278-07-04 21:50 J	889568.22	889568.41	889568.65	0.0089	0.0051
Moon	-2278-07-05 01:40 J	889568.36	889568.57	889568.79	0.0089	0.0048 *
Moon	-2277-07-06 07:40 J	889935.58	889935.82	889936.08	0.0089	0.0024
Earth	-2277-07-06 11:02 J	889935.72	889935.96	889936.23	0.0089	0.0022 *
Earth	-2276-07-09 00:14 J	890303.25	890303.51	890303.77	0.0089	0.0007
Moon	-2276-07-09 03:50 J	890303.41	890303.66	890303.93	0.0089	0.0009 *

Moon	-2275-07-11 10:33 J	890670.71	890670.94	890671.18	0.0089	0.0034
Earth	-2275-07-11 13:26 J	890670.82	890671.06	890671.29	0.0089	0.0036 *
Earth	-2274-07-14 01:55 J	891038.42	891038.58	891038.77	0.0089	0.0065
Moon	-2274-07-14 04:04 J	891038.51	891038.67	891038.87	0.0089	0.0066 *
Mars	-2254-06-02 05:16 J	898301.44	898301.72	898302.00	0.0089	0.0030
Mars	-2252-04-26 09:36 J	898995.69	898995.90	898996.15	0.0089	0.0057
Mercury	-2245-05-07 16:47 J	901564.18	901564.20	901564.23	0.0089	0.0088
Mercury	-2245-08-03 18:00 J	901652.21	901652.25	901652.32	0.0089	0.0081
Mercury	-2245-10-30 19:26 J	901740.25	901740.31	901740.40	0.0089	0.0074
Mercury	-2244-01-26 21:07 J	901828.29	901828.38	901828.47	0.0089	0.0066
Mercury	-2244-04-24 22:33 J	901916.34	901916.44	901916.54	0.0089	0.0059
Mercury	-2244-07-22 00:00 J	902004.39	902004.50	902004.61	0.0089	0.0051
Mercury	-2244-10-18 01:12 J	902092.44	902092.55	902092.68	0.0089	0.0045
Mercury	-2243-01-14 02:38 J	902180.50	902180.61	902180.74	0.0089	0.0037
Mercury	-2243-04-12 04:04 J	902268.55	902268.67	902268.80	0.0089	0.0030
Mercury	-2243-07-09 05:31 J	902356.60	902356.73	902356.86	0.0089	0.0023
Mercury	-2243-10-05 06:57 J	902444.66	902444.79	902444.92	0.0089	0.0016
Mercury	-2242-01-01 08:23 J	902532.72	902532.85	902532.98	0.0089	0.0009
Mercury	-2242-03-30 09:50 J	902620.77	902620.91	902621.04	0.0089	0.0002
Mercury	-2242-06-26 11:02 J	902708.83	902708.96	902709.10	0.0089	0.0006
Mercury	-2242-09-22 12:28 J	902796.89	902797.02	902797.15	0.0089	0.0013
Mercury	-2242-12-19 13:55 J	902884.95	902885.08	902885.21	0.0089	0.0020
Mercury	-2241-03-16 15:21 J	902973.01	902973.14	902973.26	0.0089	0.0027
Mercury	-2241-06-12 16:33 J	903061.07	903061.19	903061.32	0.0089	0.0034
Mercury	-2241-09-08 18:00 J	903149.13	903149.25	903149.37	0.0089	0.0041
Mercury	-2241-12-05 19:12 J	903237.19	903237.30	903237.42	0.0089	0.0048
Mercury	-2240-03-03 20:38 J	903325.26	903325.36	903325.47	0.0089	0.0055
Mercury	-2240-05-30 22:04 J	903413.32	903413.42	903413.51	0.0089	0.0062
Mercury	-2240-08-26 23:16 J	903501.39	903501.47	903501.56	0.0089	0.0069
Mercury	-2240-11-23 00:43 J	903589.46	903589.53	903589.60	0.0089	0.0076

Mercury	-2239-02-19 01:55 J	903677.54	903677.58	903677.63	0.0089	0.0083
Venus	-2237-02-09 20:38 J	904398.29	904398.36	904398.45	0.0089	0.0083
Venus	-2237-09-22 09:50 J	904623.79	904623.91	904624.07	0.0089	0.0068
Venus	-2236-05-05 23:31 J	904849.30	904849.48	904849.65	0.0089	0.0054
Venus	-2236-12-17 12:28 J	905074.83	905075.02	905075.23	0.0089	0.0040
Venus	-2235-07-31 01:55 J	905300.38	905300.58	905300.80	0.0089	0.0025
Venus	-2234-03-13 15:21 J	905525.92	905526.14	905526.36	0.0089	0.0011
Venus	-2234-10-25 04:33 J	905751.47	905751.69	905751.91	0.0089	0.0004
Venus	-2233-06-06 17:31 J	905977.03	905977.23	905977.46	0.0089	0.0019
Venus	-2232-01-18 06:57 J	906202.59	906202.79	906202.99	0.0089	0.0033
Venus	-2232-08-31 19:55 J	906428.16	906428.33	906428.53	0.0089	0.0047
Venus	-2231-04-14 09:07 J	906653.73	906653.88	906654.05	0.0089	0.0062
Venus	-2231-11-25 22:19 J	906879.32	906879.43	906879.55	0.0089	0.0076
Moon	-2198-12-29 08:23 J	918965.72	918965.85	918966.03	0.0089	0.0071
Earth	-2198-12-29 12:28 J	918965.89	918966.02	918966.16	0.0089	0.0075 *
Earth	-2197-12-30 22:47 J	919333.24	919333.45	919333.67	0.0089	0.0047
Moon	-2197-12-31 01:55 J	919333.39	919333.58	919333.80	0.0089	0.0052 *
Moon	-2195-01-02 05:45 J	919700.50	919700.74	919701.00	0.0089	0.0015
Earth	-2195-01-02 09:07 J	919700.64	919700.88	919701.14	0.0089	0.0019 *
Earth	-2194-01-04 19:26 J	920068.06	920068.31	920068.57	0.0089	0.0009
Moon	-2194-01-04 22:04 J	920068.16	920068.42	920068.68	0.0089	0.0004 *
Moon	-2193-01-07 04:33 J	920435.47	920435.69	920435.91	0.0088	0.0041
Earth	-2193-01-07 05:45 J	920435.51	920435.74	920435.98	0.0088	0.0037 *
Earth	-2192-01-08 15:50 J	920803.00	920803.16	920803.35	0.0088	0.0065
Moon	-2192-01-08 16:33 J	920803.00	920803.19	920803.39	0.0088	0.0060 *
Mars	-2172-04-28 00:57 J	928217.24	928217.54	928217.86	0.0088	0.0030
Mars	-2170-03-24 12:43 J	928912.82	928913.03	928913.29	0.0088	0.0061
Mercury	-2162-07-18 15:07 J	931951.07	931951.13	931951.21	0.0088	0.0081
Mercury	-2162-10-14 18:14 J	932039.17	932039.26	932039.39	0.0088	0.0072
Mercury	-2161-01-10 21:50 J	932127.28	932127.41	932127.55	0.0088	0.0062

Mercury	-2161-04-08 00:57 J	932215.41	932215.54	932215.71	0.0088	0.0053
Mercury	-2161-07-05 04:33 J	932303.53	932303.69	932303.86	0.0088	0.0043
Mercury	-2161-10-01 07:55 J	932391.66	932391.83	932392.01	0.0088	0.0034
Mercury	-2161-12-28 11:16 J	932479.80	932479.97	932480.16	0.0088	0.0024
Mercury	-2160-03-26 14:52 J	932567.93	932568.12	932568.31	0.0088	0.0014
Mercury	-2160-06-22 18:14 J	932656.07	932656.26	932656.45	0.0088	0.0005
Mercury	-2160-09-18 21:50 J	932744.21	932744.41	932744.60	0.0088	0.0005
Mercury	-2160-12-16 00:57 J	932832.36	932832.54	932832.74	0.0088	0.0015
Mercury	-2159-03-14 04:33 J	932920.51	932920.69	932920.88	0.0088	0.0024
Mercury	-2159-06-10 07:55 J	933008.66	933008.83	933009.01	0.0088	0.0034
Mercury	-2159-09-06 11:16 J	933096.81	933096.97	933097.15	0.0088	0.0044
Mercury	-2159-12-03 14:38 J	933184.97	933185.11	933185.28	0.0088	0.0054
Mercury	-2158-03-01 18:00 J	933273.14	933273.25	933273.40	0.0088	0.0064
Mercury	-2158-05-28 21:50 J	933361.31	933361.41	933361.52	0.0088	0.0073
Mercury	-2158-08-25 01:12 J	933449.50	933449.55	933449.62	0.0088	0.0083
Venus	-2155-03-26 15:36 J	934394.15	934394.15	934394.17	0.0088	0.0088
Venus	-2155-11-07 04:04 J	934619.57	934619.67	934619.80	0.0088	0.0074
Venus	-2154-06-20 17:02 J	934845.06	934845.21	934845.38	0.0088	0.0060
Venus	-2153-02-01 05:45 J	935070.57	935070.74	935070.94	0.0088	0.0047
Venus	-2153-09-13 18:28 J	935296.08	935296.27	935296.49	0.0088	0.0033
Venus	-2152-04-27 07:26 J	935521.60	935521.81	935522.03	0.0088	0.0019
Venus	-2152-12-08 20:09 J	935747.12	935747.34	935747.56	0.0088	0.0005
Venus	-2151-07-22 08:52 J	935972.65	935972.87	935973.09	0.0088	0.0009
Venus	-2150-03-04 21:21 J	936198.19	936198.39	936198.62	0.0088	0.0023
Venus	-2150-10-16 10:33 J	936423.74	936423.94	936424.14	0.0088	0.0036
Venus	-2149-05-28 23:02 J	936649.29	936649.46	936649.65	0.0088	0.0050
Venus	-2148-01-09 12:00 J	936874.86	936875.00	936875.16	0.0088	0.0064
Venus	-2148-08-23 00:43 J	937100.45	937100.53	937100.65	0.0088	0.0078
Moon	-2114-07-03 22:33 J	949468.30	949468.44	949468.61	0.0089	0.0071
Earth	-2114-07-04 02:38 J	949468.44	949468.61	949468.78	0.0089	0.0067 *

Earth	-2113-07-05 15:07 J	949835.91	949836.13	949836.38	0.0089	0.0039
Moon	-2113-07-05 18:14 J	949836.03	949836.26	949836.52	0.0089	0.0035 *
Moon	-2112-07-08 01:55 J	950203.33	950203.58	950203.83	0.0089	0.0014
Earth	-2112-07-08 04:19 J	950203.43	950203.68	950203.95	0.0089	0.0010 *
Earth	-2111-07-10 17:16 J	950570.97	950571.22	950571.48	0.0089	0.0019
Moon	-2111-07-10 18:28 J	950571.02	950571.27	950571.54	0.0089	0.0023 *
Earth	-2110-07-13 05:45 J	950938.54	950938.74	950938.98	0.0089	0.0048
Moon	-2110-07-13 06:00 J	950938.54	950938.75	950938.98	0.0089	0.0044 *
Moon	-2109-07-14 18:00 J	951306.16	951306.25	951306.38	0.0089	0.0080
Earth	-2109-07-14 18:57 J	951306.17	951306.29	951306.43	0.0089	0.0076 *
Mars	-2090-01-15 01:26 J	958064.43	958064.56	958064.76	0.0089	0.0074
Mars	-2089-12-09 06:28 J	958758.48	958758.77	958759.07	0.0089	0.0012
Mercury	-2080-02-01 16:04 J	961735.14	961735.17	961735.20	0.0089	0.0087
Mercury	-2080-04-30 17:16 J	961823.17	961823.22	961823.29	0.0089	0.0080
Mercury	-2080-07-27 18:43 J	961911.21	961911.28	961911.37	0.0089	0.0072
Mercury	-2080-10-23 20:09 J	961999.26	961999.34	961999.44	0.0089	0.0065
Mercury	-2079-01-19 21:50 J	962087.31	962087.41	962087.51	0.0089	0.0058
Mercury	-2079-04-17 23:02 J	962175.36	962175.46	962175.58	0.0089	0.0051
Mercury	-2079-07-15 00:28 J	962263.41	962263.52	962263.64	0.0089	0.0044
Mercury	-2079-10-11 01:55 J	962351.46	962351.58	962351.71	0.0089	0.0036
Mercury	-2078-01-07 03:21 J	962439.52	962439.64	962439.77	0.0089	0.0029
Mercury	-2078-04-05 04:47 J	962527.57	962527.70	962527.83	0.0089	0.0022
Mercury	-2078-07-02 06:14 J	962615.63	962615.76	962615.89	0.0089	0.0015
Mercury	-2078-09-28 07:40 J	962703.68	962703.82	962703.95	0.0089	0.0008
Mercury	-2078-12-25 09:07 J	962791.74	962791.88	962792.01	0.0089	0.0003
Mercury	-2077-03-22 10:19 J	962879.80	962879.93	962880.07	0.0089	0.0007
Mercury	-2077-06-18 11:45 J	962967.86	962967.99	962968.12	0.0089	0.0014
Mercury	-2077-09-14 13:12 J	963055.92	963056.05	963056.18	0.0089	0.0021
Mercury	-2077-12-11 14:23 J	963143.98	963144.10	963144.23	0.0089	0.0028
Mercury	-2076-03-09 15:50 J	963232.04	963232.16	963232.28	0.0089	0.0035

Mercury	-2076-06-05 17:16 J	963320.10	963320.22	963320.34	0.0089	0.0042
Mercury	-2076-09-01 18:14 J	963408.16	963408.26	963408.39	0.0089	0.0050
Mercury	-2076-11-28 19:55 J	963496.23	963496.33	963496.43	0.0089	0.0056
Mercury	-2075-02-24 21:21 J	963584.29	963584.39	963584.48	0.0089	0.0063
Mercury	-2075-05-23 22:33 J	963672.36	963672.44	963672.52	0.0089	0.0070
Mercury	-2075-08-20 00:00 J	963760.43	963760.50	963760.57	0.0089	0.0077
Mercury	-2075-11-16 01:12 J	963848.51	963848.55	963848.60	0.0089	0.0084
Venus	-2073-12-24 18:00 J	964618.16	964618.25	964618.38	0.0089	0.0077
Venus	-2072-08-07 07:40 J	964843.67	964843.82	964843.98	0.0089	0.0062
Venus	-2071-03-20 20:52 J	965069.19	965069.37	965069.56	0.0089	0.0047
Venus	-2071-11-01 10:19 J	965294.73	965294.93	965295.13	0.0089	0.0033
Venus	-2070-06-14 23:31 J	965520.27	965520.48	965520.70	0.0089	0.0018
Venus	-2069-01-26 12:57 J	965745.82	965746.04	965746.26	0.0089	0.0004
Venus	-2069-09-08 02:09 J	965971.38	965971.59	965971.81	0.0089	0.0011
Venus	-2068-04-21 15:21 J	966196.93	966197.14	966197.35	0.0089	0.0025
Venus	-2068-12-03 04:19 J	966422.50	966422.68	966422.89	0.0089	0.0040
Venus	-2067-07-16 17:45 J	966648.08	966648.24	966648.42	0.0089	0.0054
Venus	-2066-02-27 07:12 J	966873.66	966873.80	966873.94	0.0089	0.0069
Venus	-2066-10-10 19:40 J	967099.27	967099.32	967099.42	0.0089	0.0084
Moon	-2033-12-30 03:07 J	979233.48	979233.63	979233.82	0.0089	0.0065
Earth	-2033-12-30 06:14 J	979233.59	979233.76	979233.94	0.0089	0.0063 *
Earth	-2031-01-01 16:19 J	979600.96	979601.18	979601.43	0.0089	0.0036
Moon	-2031-01-01 18:57 J	979601.05	979601.29	979601.53	0.0089	0.0035 *
Moon	-2030-01-04 02:09 J	979968.35	979968.59	979968.84	0.0088	0.0008
Earth	-2030-01-04 03:07 J	979968.38	979968.63	979968.89	0.0088	0.0007 *
Moon	-2029-01-06 12:43 J	980335.78	980336.03	980336.29	0.0088	0.0022
Earth	-2029-01-06 13:12 J	980335.82	980336.05	980336.31	0.0088	0.0021 *
Earth	-2028-01-07 23:45 J	980703.28	980703.49	980703.71	0.0088	0.0048
Moon	-2028-01-08 00:43 J	980703.34	980703.53	980703.75	0.0088	0.0048 *
Moon	-2027-01-10 06:57 J	981070.68	981070.79	981070.94	0.0088	0.0077

Earth	-2027-01-10 09:50 J	981070.80	981070.91	981071.06	0.0088	0.0076 *
Mars	-2009-12-09 18:00 J	987979.13	987979.25	987979.44	0.0088	0.0078
Mars	-2007-11-05 08:23 J	988674.53	988674.85	988675.18	0.0088	0.0014

2ND MILLENNIUM BCE

This is a list of transits visible from Neptune in the 2nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-1997-04-13 12:28 J		992121.95	992122.02	992122.10	0.0088	0.0080	
Mercury	-1997-07-10 15:36 J		992210.06	992210.15	992210.28	0.0088	0.0071	
Mercury	-1997-10-06 18:43 J		992298.17	992298.28	992298.44	0.0088	0.0062	
Mercury	-1996-01-02 22:19 J		992386.29	992386.43	992386.60	0.0088	0.0052	
Mercury	-1996-04-01 01:40 J		992474.42	992474.57	992474.75	0.0088	0.0043	
Mercury	-1996-06-28 05:16 J		992562.55	992562.72	992562.90	0.0088	0.0033	
Mercury	-1996-09-24 08:23 J		992650.68	992650.85	992651.05	0.0088	0.0024	
Mercury	-1996-12-21 12:00 J		992738.82	992739.00	992739.19	0.0088	0.0014	
Mercury	-1995-03-19 15:36 J		992826.96	992827.15	992827.34	0.0088	0.0004	
Mercury	-1995-06-15 18:57 J		992915.10	992915.29	992915.48	0.0088	0.0006	
Mercury	-1995-09-11 22:19 J		993003.24	993003.43	993003.62	0.0088	0.0015	
Mercury	-1995-12-09 01:40 J		993091.39	993091.57	993091.76	0.0088	0.0025	
Mercury	-1994-03-07 05:02 J		993179.54	993179.71	993179.89	0.0088	0.0035	
Mercury	-1994-06-03 08:23 J		993267.70	993267.85	993268.03	0.0088	0.0045	
Mercury	-1994-08-30 12:00 J		993355.86	993356.00	993356.16	0.0088	0.0054	

Mercury	-1994-11-26 15:21 J	993444.02	993444.14	993444.28	0.0088	0.0064
Mercury	-1993-02-22 18:43 J	993532.19	993532.28	993532.40	0.0088	0.0074
Mercury	-1993-05-20 22:04 J	993620.38	993620.42	993620.50	0.0088	0.0084
Venus	-1990-02-08 12:43 J	994613.98	994614.03	994614.13	0.0088	0.0082
Venus	-1990-09-22 01:40 J	994839.44	994839.57	994839.72	0.0088	0.0068
Venus	-1989-05-04 14:38 J	995064.94	995065.11	995065.28	0.0088	0.0054
Venus	-1989-12-16 03:21 J	995290.45	995290.64	995290.84	0.0088	0.0040
Venus	-1988-07-29 15:50 J	995515.96	995516.16	995516.38	0.0088	0.0027
Venus	-1987-03-12 04:47 J	995741.48	995741.70	995741.92	0.0088	0.0013
Venus	-1987-10-23 17:31 J	995967.01	995967.23	995967.45	0.0088	0.0002
Venus	-1986-06-06 06:14 J	996192.55	996192.76	996192.98	0.0088	0.0015
Venus	-1985-01-17 19:12 J	996418.09	996418.30	996418.51	0.0088	0.0029
Venus	-1985-08-30 07:40 J	996643.64	996643.82	996644.02	0.0088	0.0043
Venus	-1984-04-12 20:23 J	996869.20	996869.35	996869.53	0.0088	0.0057
Venus	-1984-11-24 09:07 J	997094.77	997094.88	997095.02	0.0088	0.0071
Venus	-1983-07-07 21:36 J	997320.37	997320.40	997320.48	0.0088	0.0085
Earth	-1950-07-03 05:45 J	1009368.68	1009368.74	1009368.85	0.0089	0.0084
Moon	-1950-07-03 08:38 J	1009368.83	1009368.86	1009368.94	0.0089	0.0087 *
Moon	-1949-07-04 17:16 J	1009736.04	1009736.22	1009736.45	0.0089	0.0053
Earth	-1949-07-04 18:43 J	1009736.10	1009736.28	1009736.51	0.0089	0.0056 *
Earth	-1948-07-07 08:09 J	1010103.60	1010103.84	1010104.10	0.0089	0.0027
Moon	-1948-07-07 08:52 J	1010103.63	1010103.87	1010104.14	0.0089	0.0030 *
Earth	-1947-07-09 21:07 J	1010471.12	1010471.38	1010471.64	0.0089	0.0001
Moon	-1947-07-09 21:36 J	1010471.15	1010471.40	1010471.66	0.0089	0.0005 *
Moon	-1946-07-12 07:40 J	1010838.58	1010838.82	1010839.09	0.0089	0.0027
Earth	-1946-07-12 09:50 J	1010838.67	1010838.91	1010839.16	0.0089	0.0030 *
Earth	-1945-07-13 22:19 J	1011206.26	1011206.43	1011206.65	0.0089	0.0059
Moon	-1945-07-14 00:57 J	1011206.37	1011206.54	1011206.74	0.0089	0.0061 *
Moon	-1944-07-16 07:55 J	1011573.76	1011573.83	1011573.93	0.0089	0.0084
Earth	-1944-07-16 11:16 J	1011573.94	1011573.97	1011574.04	0.0089	0.0087

Mars	-1925-07-24 01:26 J	1018521.29	1018521.56	1018521.85	0.0089	0.0033
Mars	-1923-06-18 06:14 J	1019215.53	1019215.76	1019216.01	0.0089	0.0054
Mercury	-1916-10-29 14:52 J	1021906.10	1021906.12	1021906.17	0.0089	0.0086
Mercury	-1915-01-25 16:33 J	1021994.13	1021994.19	1021994.25	0.0089	0.0079
Mercury	-1915-04-23 18:00 J	1022082.17	1022082.25	1022082.33	0.0089	0.0072
Mercury	-1915-07-20 19:12 J	1022170.22	1022170.30	1022170.40	0.0089	0.0065
Mercury	-1915-10-16 20:38 J	1022258.27	1022258.36	1022258.47	0.0089	0.0058
Mercury	-1914-01-12 22:04 J	1022346.32	1022346.42	1022346.54	0.0089	0.0050
Mercury	-1914-04-10 23:45 J	1022434.37	1022434.49	1022434.61	0.0089	0.0043
Mercury	-1914-07-08 01:12 J	1022522.43	1022522.55	1022522.67	0.0089	0.0036
Mercury	-1914-10-04 02:23 J	1022610.48	1022610.60	1022610.74	0.0089	0.0029
Mercury	-1914-12-31 03:50 J	1022698.54	1022698.66	1022698.80	0.0089	0.0022
Mercury	-1913-03-28 05:16 J	1022786.59	1022786.72	1022786.86	0.0089	0.0014
Mercury	-1913-06-24 06:43 J	1022874.65	1022874.78	1022874.92	0.0089	0.0007
Mercury	-1913-09-20 08:09 J	1022962.71	1022962.84	1022962.97	0.0089	0.0000
Mercury	-1913-12-17 09:36 J	1023050.76	1023050.90	1023051.03	0.0089	0.0007
Mercury	-1912-03-15 10:47 J	1023138.82	1023138.95	1023139.09	0.0089	0.0015
Mercury	-1912-06-11 12:14 J	1023226.88	1023227.01	1023227.14	0.0089	0.0021
Mercury	-1912-09-07 13:40 J	1023314.94	1023315.07	1023315.20	0.0089	0.0028
Mercury	-1912-12-04 14:52 J	1023403.00	1023403.12	1023403.25	0.0089	0.0036
Mercury	-1911-03-02 16:19 J	1023491.07	1023491.18	1023491.30	0.0089	0.0043
Mercury	-1911-05-29 17:31 J	1023579.13	1023579.23	1023579.35	0.0089	0.0050
Mercury	-1911-08-25 18:57 J	1023667.19	1023667.29	1023667.40	0.0089	0.0057
Mercury	-1911-11-21 20:23 J	1023755.26	1023755.35	1023755.44	0.0089	0.0064
Mercury	-1910-02-17 21:36 J	1023843.33	1023843.40	1023843.49	0.0089	0.0071
Mercury	-1910-05-16 23:02 J	1023931.40	1023931.46	1023931.53	0.0089	0.0078
Mercury	-1910-08-13 00:14 J	1024019.48	1024019.51	1024019.56	0.0089	0.0085
Venus	-1908-03-28 02:23 J	1024612.54	1024612.60	1024612.68	0.0089	0.0085
Venus	-1908-11-08 15:21 J	1024838.02	1024838.14	1024838.29	0.0089	0.0071
Venus	-1907-06-22 04:47 J	1025063.54	1025063.70	1025063.89	0.0089	0.0056

Venus	-1906-02-02 18:00 J	1025289.07	1025289.25	1025289.46	0.0089	0.0042
Venus	-1906-09-16 07:26 J	1025514.61	1025514.81	1025515.03	0.0089	0.0027
Venus	-1905-04-28 20:52 J	1025740.15	1025740.37	1025740.59	0.0089	0.0012
Venus	-1905-12-10 10:04 J	1025965.70	1025965.92	1025966.14	0.0089	0.0003
Venus	-1904-07-23 23:31 J	1026191.26	1026191.48	1026191.69	0.0089	0.0018
Venus	-1903-03-06 12:28 J	1026416.83	1026417.02	1026417.24	0.0089	0.0032
Venus	-1903-10-18 01:55 J	1026642.40	1026642.58	1026642.77	0.0089	0.0047
Venus	-1902-05-31 14:38 J	1026867.97	1026868.11	1026868.29	0.0089	0.0062
Venus	-1901-01-12 04:04 J	1027093.57	1027093.67	1027093.80	0.0089	0.0076
Saturn	-1886-05-04 10:47 J	1032684.37	1032684.95	1032685.60	0.0089	0.0028
Earth	-1869-12-29 13:12 J	1039133.95	1039134.05	1039134.18	0.0089	0.0079
Moon	-1869-12-29 14:23 J	1039133.98	1039134.10	1039134.26	0.0089	0.0075 *
Moon	-1868-12-31 23:02 J	1039501.29	1039501.46	1039501.67	0.0089	0.0056
Earth	-1868-12-31 23:16 J	1039501.29	1039501.47	1039501.70	0.0089	0.0052 *
Moon	-1866-01-03 09:07 J	1039868.63	1039868.88	1039869.15	0.0089	0.0020
Earth	-1866-01-03 10:04 J	1039868.68	1039868.92	1039869.17	0.0089	0.0024 *
Earth	-1865-01-05 20:23 J	1040236.09	1040236.35	1040236.60	0.0088	0.0004
Moon	-1865-01-05 22:33 J	1040236.20	1040236.44	1040236.69	0.0088	0.0001 *
Moon	-1864-01-07 03:21 J	1040603.42	1040603.64	1040603.90	0.0088	0.0036
Earth	-1864-01-07 06:28 J	1040603.54	1040603.77	1040604.02	0.0088	0.0031 *
Earth	-1863-01-09 16:47 J	1040971.02	1040971.20	1040971.40	0.0088	0.0059
Moon	-1863-01-09 19:55 J	1040971.16	1040971.33	1040971.56	0.0088	0.0055 *
Earth	-1862-01-12 02:38 J	1041338.59	1041338.61	1041338.70	0.0088	0.0087
Mars	-1843-06-19 01:26 J	1048436.26	1048436.56	1048436.88	0.0088	0.0033
Mars	-1841-05-14 14:24 J	1049131.86	1049132.10	1049132.35	0.0088	0.0058
Mercury	-1832-01-08 09:21 J	1052292.84	1052292.89	1052292.99	0.0088	0.0080
Mercury	-1832-04-06 13:12 J	1052380.94	1052381.05	1052381.16	0.0088	0.0070
Mercury	-1832-07-03 16:19 J	1052469.05	1052469.18	1052469.33	0.0088	0.0061
Mercury	-1832-09-29 19:55 J	1052557.18	1052557.33	1052557.48	0.0088	0.0051
Mercury	-1832-12-26 23:02 J	1052645.30	1052645.46	1052645.64	0.0088	0.0042

Mercury	-1831-03-25 02:38 J	1052733.43	1052733.61	1052733.78	0.0088	0.0032
Mercury	-1831-06-21 05:45 J	1052821.56	1052821.74	1052821.93	0.0088	0.0023
Mercury	-1831-09-17 09:21 J	1052909.70	1052909.89	1052910.08	0.0088	0.0013
Mercury	-1831-12-14 12:43 J	1052997.84	1052998.03	1052998.22	0.0088	0.0004
Mercury	-1830-03-12 16:04 J	1053085.98	1053086.17	1053086.36	0.0088	0.0006
Mercury	-1830-06-08 19:26 J	1053174.12	1053174.31	1053174.50	0.0088	0.0016
Mercury	-1830-09-04 22:47 J	1053262.27	1053262.45	1053262.64	0.0088	0.0025
Mercury	-1830-12-02 02:09 J	1053350.42	1053350.59	1053350.77	0.0088	0.0035
Mercury	-1829-02-28 05:31 J	1053438.57	1053438.73	1053438.90	0.0088	0.0045
Mercury	-1829-05-26 08:38 J	1053526.73	1053526.86	1053527.03	0.0088	0.0055
Mercury	-1829-08-22 12:28 J	1053614.90	1053615.02	1053615.16	0.0088	0.0064
Mercury	-1829-11-18 15:50 J	1053703.07	1053703.16	1053703.27	0.0088	0.0074
Mercury	-1828-02-14 19:12 J	1053791.26	1053791.30	1053791.37	0.0088	0.0084
Venus	-1826-12-24 10:04 J	1054833.81	1054833.92	1054834.03	0.0088	0.0076
Venus	-1825-08-05 22:19 J	1055059.30	1055059.43	1055059.60	0.0088	0.0063
Venus	-1824-03-19 11:02 J	1055284.80	1055284.96	1055285.16	0.0088	0.0049
Venus	-1824-10-30 23:45 J	1055510.31	1055510.49	1055510.71	0.0088	0.0035
Venus	-1823-06-13 12:43 J	1055735.83	1055736.03	1055736.25	0.0088	0.0021
Venus	-1822-01-25 01:40 J	1055961.36	1055961.57	1055961.80	0.0088	0.0007
Venus	-1822-09-07 14:24 J	1056186.89	1056187.10	1056187.33	0.0088	0.0008
Venus	-1821-04-20 02:52 J	1056412.42	1056412.62	1056412.85	0.0088	0.0022
Venus	-1821-12-01 15:35 J	1056637.96	1056638.15	1056638.37	0.0088	0.0036
Venus	-1820-07-15 04:19 J	1056863.51	1056863.68	1056863.88	0.0088	0.0050
Venus	-1819-02-25 17:31 J	1057089.08	1057089.23	1057089.38	0.0088	0.0063
Venus	-1819-10-09 06:14 J	1057314.66	1057314.76	1057314.87	0.0088	0.0077
Moon	-1785-07-03 20:52 J	1069636.24	1069636.37	1069636.53	0.0089	0.0075
Earth	-1785-07-03 21:21 J	1069636.26	1069636.39	1069636.56	0.0089	0.0073 *
Earth	-1784-07-06 10:19 J	1070003.72	1070003.93	1070004.17	0.0089	0.0045
Moon	-1784-07-06 12:00 J	1070003.78	1070004.00	1070004.23	0.0089	0.0042 *
Moon	-1783-07-08 21:07 J	1070371.13	1070371.38	1070371.65	0.0089	0.0020

Earth	-1783-07-08 23:45 J	1070371.23	1070371.49	1070371.75	0.0089	0.0016	*
Earth	-1782-07-11 12:43 J	1070738.77	1070739.03	1070739.29	0.0089	0.0012	
Moon	-1782-07-11 15:50 J	1070738.91	1070739.16	1070739.42	0.0089	0.0015	*
Moon	-1781-07-12 21:35 J	1071106.19	1071106.40	1071106.66	0.0089	0.0038	
Earth	-1781-07-13 01:12 J	1071106.34	1071106.55	1071106.80	0.0089	0.0041	*
Earth	-1780-07-15 13:55 J	1071473.94	1071474.08	1071474.27	0.0089	0.0069	
Moon	-1780-07-15 17:31 J	1071474.11	1071474.23	1071474.41	0.0089	0.0073	*
Jupiter	-1763-10-18 19:55 J	1077777.85	1077778.33	1077778.85	0.0089	0.0025	
Mars	-1761-03-07 21:21 J	1078284.26	1078284.39	1078284.54	0.0089	0.0078	
Mars	-1759-01-30 23:16 J	1078978.19	1078978.47	1078978.78	0.0089	0.0009	
Mercury	-1751-07-26 13:40 J	1082077.05	1082077.07	1082077.12	0.0089	0.0087	
Mercury	-1751-10-22 15:07 J	1082165.08	1082165.13	1082165.21	0.0089	0.0080	
Mercury	-1750-01-18 16:47 J	1082253.13	1082253.20	1082253.28	0.0089	0.0072	
Mercury	-1750-04-16 18:14 J	1082341.17	1082341.26	1082341.36	0.0089	0.0065	
Mercury	-1750-07-13 19:40 J	1082429.22	1082429.32	1082429.43	0.0089	0.0057	
Mercury	-1750-10-09 21:07 J	1082517.27	1082517.38	1082517.49	0.0089	0.0050	
Mercury	-1749-01-05 22:19 J	1082605.33	1082605.43	1082605.56	0.0089	0.0044	
Mercury	-1749-04-03 00:00 J	1082693.38	1082693.50	1082693.63	0.0089	0.0036	
Mercury	-1749-06-30 01:26 J	1082781.43	1082781.56	1082781.69	0.0089	0.0029	
Mercury	-1749-09-26 02:52 J	1082869.49	1082869.62	1082869.75	0.0089	0.0021	
Mercury	-1749-12-23 04:19 J	1082957.55	1082957.68	1082957.81	0.0089	0.0014	
Mercury	-1748-03-21 05:45 J	1083045.60	1083045.74	1083045.87	0.0089	0.0007	
Mercury	-1748-06-17 06:57 J	1083133.66	1083133.79	1083133.93	0.0089	0.0003	
Mercury	-1748-09-13 08:24 J	1083221.72	1083221.85	1083221.99	0.0089	0.0007	
Mercury	-1748-12-10 09:50 J	1083309.78	1083309.91	1083310.04	0.0089	0.0014	
Mercury	-1747-03-08 11:16 J	1083397.84	1083397.97	1083398.10	0.0089	0.0021	
Mercury	-1747-06-04 12:28 J	1083485.90	1083486.02	1083486.15	0.0089	0.0029	
Mercury	-1747-08-31 13:55 J	1083573.96	1083574.08	1083574.20	0.0089	0.0036	
Mercury	-1747-11-27 15:21 J	1083662.02	1083662.14	1083662.26	0.0089	0.0043	
Mercury	-1746-02-23 16:33 J	1083750.09	1083750.19	1083750.31	0.0089	0.0050	

Mercury	-1746-05-22 18:00 J	1083838.15	1083838.25	1083838.36	0.0089	0.0057
Mercury	-1746-08-18 19:12 J	1083926.22	1083926.30	1083926.40	0.0089	0.0064
Mercury	-1746-11-14 20:38 J	1084014.29	1084014.36	1084014.45	0.0089	0.0071
Mercury	-1745-02-10 22:04 J	1084102.36	1084102.42	1084102.49	0.0089	0.0078
Mercury	-1745-05-08 23:16 J	1084190.44	1084190.47	1084190.52	0.0089	0.0085
Venus	-1743-02-09 22:47 J	1084832.37	1084832.45	1084832.57	0.0089	0.0079
Venus	-1743-09-23 12:14 J	1085057.87	1085058.01	1085058.18	0.0089	0.0065
Venus	-1742-05-07 01:40 J	1085283.39	1085283.57	1085283.76	0.0089	0.0050
Venus	-1742-12-18 14:38 J	1085508.93	1085509.11	1085509.33	0.0089	0.0036
Venus	-1741-07-31 04:19 J	1085734.47	1085734.68	1085734.90	0.0089	0.0020
Venus	-1740-03-13 17:45 J	1085960.02	1085960.24	1085960.46	0.0089	0.0006
Venus	-1740-10-25 06:43 J	1086185.57	1086185.78	1086186.01	0.0089	0.0010
Venus	-1739-06-07 19:55 J	1086411.13	1086411.33	1086411.55	0.0089	0.0024
Venus	-1738-01-19 09:21 J	1086636.70	1086636.89	1086637.09	0.0089	0.0039
Venus	-1738-09-01 22:19 J	1086862.27	1086862.43	1086862.62	0.0089	0.0054
Venus	-1737-04-14 11:31 J	1087087.86	1087087.98	1087088.14	0.0089	0.0068
Venus	-1737-11-26 00:43 J	1087313.47	1087313.53	1087313.63	0.0089	0.0083
Moon	-1704-12-31 04:47 J	1099401.56	1099401.70	1099401.88	0.0089	0.0070
Earth	-1704-12-31 06:14 J	1099401.62	1099401.76	1099401.95	0.0089	0.0068 *
Earth	-1702-01-02 16:47 J	1099768.98	1099769.20	1099769.43	0.0089	0.0040
Moon	-1702-01-02 18:43 J	1099769.07	1099769.28	1099769.52	0.0089	0.0039 *
Moon	-1701-01-04 23:31 J	1100136.23	1100136.48	1100136.74	0.0089	0.0015
Earth	-1701-01-05 03:07 J	1100136.38	1100136.63	1100136.89	0.0089	0.0013 *
Earth	-1700-01-06 13:26 J	1100503.81	1100504.06	1100504.31	0.0088	0.0015
Moon	-1700-01-06 16:47 J	1100503.95	1100504.20	1100504.45	0.0088	0.0017 *
Moon	-1699-01-08 20:09 J	1100871.13	1100871.34	1100871.57	0.0088	0.0041
Earth	-1699-01-08 23:31 J	1100871.27	1100871.48	1100871.72	0.0088	0.0042 *
Earth	-1698-01-11 09:35 J	1101238.77	1101238.90	1101239.08	0.0088	0.0070
Moon	-1698-01-11 12:28 J	1101238.89	1101239.02	1101239.20	0.0088	0.0072 *
Mars	-1679-01-30 14:24 J	1108198.02	1108198.10	1108198.26	0.0088	0.0082

Mars	-1678-12-27 06:43 J	1108893.46	1108893.78	1108894.12	0.0088	0.0011
Mercury	-1668-10-05 06:57 J	1112463.72	1112463.79	1112463.88	0.0088	0.0079
Mercury	-1667-01-01 10:04 J	1112551.82	1112551.92	1112552.05	0.0088	0.0070
Mercury	-1667-03-30 13:40 J	1112639.94	1112640.07	1112640.21	0.0088	0.0060
Mercury	-1667-06-26 16:47 J	1112728.06	1112728.20	1112728.37	0.0088	0.0051
Mercury	-1667-09-22 20:24 J	1112816.18	1112816.35	1112816.52	0.0088	0.0041
Mercury	-1667-12-19 23:31 J	1112904.31	1112904.48	1112904.67	0.0088	0.0032
Mercury	-1666-03-18 03:07 J	1112992.45	1112992.63	1112992.82	0.0088	0.0022
Mercury	-1666-06-14 06:28 J	1113080.58	1113080.77	1113080.96	0.0088	0.0013
Mercury	-1666-09-10 09:50 J	1113168.72	1113168.91	1113169.10	0.0088	0.0003
Mercury	-1666-12-07 13:12 J	1113256.86	1113257.05	1113257.24	0.0088	0.0006
Mercury	-1665-03-04 16:33 J	1113345.00	1113345.19	1113345.38	0.0088	0.0016
Mercury	-1665-05-31 19:55 J	1113433.15	1113433.33	1113433.52	0.0088	0.0026
Mercury	-1665-08-27 23:31 J	1113521.30	1113521.48	1113521.65	0.0088	0.0035
Mercury	-1665-11-24 02:38 J	1113609.45	1113609.61	1113609.78	0.0088	0.0045
Mercury	-1664-02-20 06:00 J	1113697.61	1113697.75	1113697.91	0.0088	0.0055
Mercury	-1664-05-19 09:07 J	1113785.78	1113785.88	1113786.03	0.0088	0.0065
Mercury	-1664-08-15 12:57 J	1113873.95	1113874.04	1113874.15	0.0088	0.0074
Mercury	-1664-11-11 16:19 J	1113962.14	1113962.18	1113962.25	0.0088	0.0084
Venus	-1661-03-26 17:45 J	1114828.20	1114828.24	1114828.32	0.0088	0.0085
Venus	-1661-11-07 06:28 J	1115053.66	1115053.77	1115053.92	0.0088	0.0071
Venus	-1660-06-20 19:12 J	1115279.15	1115279.30	1115279.49	0.0088	0.0057
Venus	-1659-02-01 08:09 J	1115504.67	1115504.84	1115505.05	0.0088	0.0043
Venus	-1659-09-14 21:07 J	1115730.18	1115730.38	1115730.60	0.0088	0.0029
Venus	-1658-04-28 09:50 J	1115955.70	1115955.91	1115956.13	0.0088	0.0015
Venus	-1658-12-09 22:47 J	1116181.23	1116181.45	1116181.67	0.0088	0.0002
Venus	-1657-07-22 11:16 J	1116406.76	1116406.97	1116407.20	0.0088	0.0014
Venus	-1656-03-05 00:00 J	1116632.30	1116632.50	1116632.72	0.0088	0.0028
Venus	-1656-10-16 12:43 J	1116857.85	1116858.03	1116858.23	0.0088	0.0042
Venus	-1655-05-30 01:26 J	1117083.40	1117083.56	1117083.74	0.0088	0.0056

Venus	-1654-01-10 14:09 J	1117308.97	1117309.09	1117309.24	0.0088	0.0070
Venus	-1654-08-24 02:52 J	1117534.57	1117534.62	1117534.70	0.0088	0.0084
Moon	-1620-07-05 09:21 J	1129903.71	1129903.89	1129904.12	0.0089	0.0058
Earth	-1620-07-05 12:43 J	1129903.86	1129904.03	1129904.23	0.0089	0.0062 *
Earth	-1619-07-08 01:40 J	1130271.34	1130271.57	1130271.83	0.0089	0.0034
Moon	-1619-07-08 05:02 J	1130271.49	1130271.71	1130271.96	0.0089	0.0038 *
Moon	-1618-07-10 11:16 J	1130638.72	1130638.97	1130639.24	0.0089	0.0002
Earth	-1618-07-10 15:07 J	1130638.87	1130639.13	1130639.39	0.0089	0.0006 *
Earth	-1617-07-12 03:50 J	1131006.42	1131006.66	1131006.92	0.0089	0.0023
Moon	-1617-07-12 06:57 J	1131006.54	1131006.79	1131007.06	0.0089	0.0019 *
Moon	-1616-07-14 13:40 J	1131373.88	1131374.07	1131374.29	0.0089	0.0054
Earth	-1616-07-14 16:19 J	1131373.99	1131374.18	1131374.42	0.0089	0.0051 *
Earth	-1615-07-17 05:02 J	1131741.62	1131741.71	1131741.86	0.0089	0.0079
Moon	-1615-07-17 06:43 J	1131741.66	1131741.78	1131741.95	0.0089	0.0075 *
Mars	-1596-09-14 18:28 J	1138741.03	1138741.27	1138741.56	0.0089	0.0039
Mars	-1594-08-09 21:21 J	1139435.16	1139435.39	1139435.66	0.0089	0.0048
Mercury	-1586-04-22 12:43 J	1142248.01	1142248.03	1142248.07	0.0089	0.0087
Mercury	-1586-07-19 14:09 J	1142336.04	1142336.09	1142336.16	0.0089	0.0079
Mercury	-1586-10-15 15:21 J	1142424.08	1142424.14	1142424.23	0.0089	0.0073
Mercury	-1585-01-11 16:47 J	1142512.12	1142512.20	1142512.31	0.0089	0.0066
Mercury	-1585-04-08 18:28 J	1142600.17	1142600.27	1142600.38	0.0089	0.0058
Mercury	-1585-07-05 19:55 J	1142688.22	1142688.33	1142688.45	0.0089	0.0051
Mercury	-1585-10-01 21:21 J	1142776.28	1142776.39	1142776.51	0.0089	0.0043
Mercury	-1585-12-28 22:47 J	1142864.33	1142864.45	1142864.58	0.0089	0.0036
Mercury	-1584-03-27 00:14 J	1142952.39	1142952.51	1142952.64	0.0089	0.0029
Mercury	-1584-06-23 01:40 J	1143040.44	1143040.57	1143040.70	0.0089	0.0022
Mercury	-1584-09-19 03:07 J	1143128.50	1143128.63	1143128.76	0.0089	0.0015
Mercury	-1584-12-16 04:33 J	1143216.55	1143216.69	1143216.82	0.0089	0.0008
Mercury	-1583-03-14 06:00 J	1143304.61	1143304.75	1143304.88	0.0089	0.0002
Mercury	-1583-06-10 07:12 J	1143392.67	1143392.80	1143392.94	0.0089	0.0008

Mercury	-1583-09-06 08:38 J	1143480.73	1143480.86	1143480.99	0.0089	0.0014
Mercury	-1583-12-03 10:04 J	1143568.79	1143568.92	1143569.05	0.0089	0.0021
Mercury	-1582-03-01 11:16 J	1143656.85	1143656.97	1143657.10	0.0089	0.0029
Mercury	-1582-05-28 12:43 J	1143744.91	1143745.03	1143745.16	0.0089	0.0035
Mercury	-1582-08-24 14:09 J	1143832.98	1143833.09	1143833.21	0.0089	0.0042
Mercury	-1582-11-20 15:21 J	1143921.04	1143921.14	1143921.26	0.0089	0.0050
Mercury	-1581-02-16 16:47 J	1144009.10	1144009.20	1144009.31	0.0089	0.0057
Mercury	-1581-05-14 18:14 J	1144097.17	1144097.26	1144097.36	0.0089	0.0063
Mercury	-1581-08-10 19:26 J	1144185.24	1144185.31	1144185.40	0.0089	0.0071
Mercury	-1581-11-06 20:52 J	1144273.31	1144273.37	1144273.44	0.0089	0.0078
Mercury	-1580-02-02 22:04 J	1144361.39	1144361.42	1144361.48	0.0089	0.0085
Venus	-1579-05-14 05:45 J	1144826.73	1144826.74	1144826.80	0.0089	0.0089
Venus	-1579-12-25 19:12 J	1145052.20	1145052.30	1145052.44	0.0089	0.0074
Venus	-1578-08-08 08:52 J	1145277.71	1145277.87	1145278.04	0.0089	0.0059
Venus	-1577-03-20 22:19 J	1145503.24	1145503.43	1145503.62	0.0089	0.0044
Venus	-1577-11-01 11:16 J	1145728.77	1145728.97	1145729.19	0.0089	0.0029
Venus	-1576-06-15 00:28 J	1145954.31	1145954.52	1145954.75	0.0089	0.0015
Venus	-1575-01-26 13:55 J	1146179.86	1146180.08	1146180.30	0.0089	0.0001
Venus	-1575-09-09 03:07 J	1146405.42	1146405.63	1146405.85	0.0089	0.0015
Venus	-1574-04-22 16:04 J	1146630.98	1146631.17	1146631.39	0.0089	0.0031
Venus	-1574-12-04 05:31 J	1146856.55	1146856.73	1146856.93	0.0089	0.0045
Venus	-1573-07-16 18:43 J	1147082.13	1147082.28	1147082.45	0.0089	0.0060
Venus	-1572-02-27 07:40 J	1147307.72	1147307.82	1147307.96	0.0089	0.0075
Venus	-1572-10-10 21:07 J	1147533.38	1147533.38	1147533.41	0.0089	0.0089
Earth	-1540-12-30 12:28 J	1159301.97	1159302.02	1159302.13	0.0089	0.0084
Moon	-1540-12-30 16:04 J	1159302.07	1159302.17	1159302.28	0.0089	0.0080 *
Moon	-1538-01-01 19:55 J	1159669.15	1159669.33	1159669.53	0.0089	0.0060
Earth	-1538-01-01 22:47 J	1159669.28	1159669.45	1159669.67	0.0089	0.0057 *
Earth	-1537-01-04 09:07 J	1160036.66	1160036.88	1160037.14	0.0089	0.0030
Moon	-1537-01-04 13:12 J	1160036.81	1160037.05	1160037.30	0.0089	0.0025 *

Moon	-1536-01-05 16:47 J	1160403.95	1160404.20	1160404.45	0.0089	0.0006
Earth	-1536-01-05 19:40 J	1160404.07	1160404.32	1160404.58	0.0089	0.0003 *
Earth	-1535-01-08 05:31 J	1160771.50	1160771.73	1160771.99	0.0088	0.0026
Moon	-1535-01-08 08:09 J	1160771.61	1160771.84	1160772.10	0.0088	0.0029 *
Moon	-1534-01-10 14:38 J	1161138.91	1161139.11	1161139.33	0.0088	0.0049
Earth	-1534-01-10 15:50 J	1161138.97	1161139.16	1161139.38	0.0088	0.0053 *
Moon	-1533-01-13 01:55 J	1161506.50	1161506.58	1161506.69	0.0088	0.0083
Earth	-1533-01-13 02:09 J	1161506.50	1161506.59	1161506.72	0.0088	0.0080 *
Mars	-1514-08-09 22:04 J	1168655.13	1168655.42	1168655.74	0.0088	0.0037
Mars	-1512-07-05 12:14 J	1169350.78	1169351.01	1169351.30	0.0088	0.0055
Mercury	-1503-07-02 03:50 J	1172634.60	1172634.66	1172634.76	0.0088	0.0079
Mercury	-1503-09-28 07:40 J	1172722.71	1172722.82	1172722.93	0.0088	0.0069
Mercury	-1503-12-25 10:33 J	1172810.82	1172810.94	1172811.09	0.0088	0.0060
Mercury	-1502-03-23 13:55 J	1172898.94	1172899.08	1172899.25	0.0088	0.0051
Mercury	-1502-06-19 17:31 J	1172987.07	1172987.23	1172987.40	0.0088	0.0041
Mercury	-1502-09-15 20:38 J	1173075.19	1173075.36	1173075.55	0.0088	0.0032
Mercury	-1502-12-13 00:14 J	1173163.33	1173163.51	1173163.70	0.0088	0.0022
Mercury	-1501-03-10 03:35 J	1173251.46	1173251.65	1173251.84	0.0088	0.0013
Mercury	-1501-06-06 06:57 J	1173339.60	1173339.79	1173339.98	0.0088	0.0003
Mercury	-1501-09-02 10:19 J	1173427.74	1173427.93	1173428.12	0.0088	0.0007
Mercury	-1501-11-29 13:40 J	1173515.88	1173516.07	1173516.26	0.0088	0.0016
Mercury	-1500-02-25 16:47 J	1173604.03	1173604.20	1173604.39	0.0088	0.0026
Mercury	-1500-05-24 20:09 J	1173692.18	1173692.34	1173692.53	0.0088	0.0036
Mercury	-1500-08-20 23:45 J	1173780.33	1173780.49	1173780.66	0.0088	0.0045
Mercury	-1500-11-17 02:52 J	1173868.49	1173868.62	1173868.79	0.0088	0.0055
Mercury	-1499-02-13 06:14 J	1173956.65	1173956.76	1173956.91	0.0088	0.0065
Mercury	-1499-05-12 09:50 J	1174044.82	1174044.91	1174045.02	0.0088	0.0074
Mercury	-1499-08-08 13:12 J	1174133.01	1174133.05	1174133.12	0.0088	0.0084
Venus	-1496-02-08 14:52 J	1175048.03	1175048.12	1175048.22	0.0088	0.0079
Venus	-1496-09-22 03:35 J	1175273.51	1175273.65	1175273.80	0.0088	0.0065

Venus	-1495-05-05 16:19 J	1175499.01	1175499.18	1175499.36	0.0088	0.0051
Venus	-1495-12-17 05:02 J	1175724.51	1175724.71	1175724.91	0.0088	0.0037
Venus	-1494-07-30 17:45 J	1175950.03	1175950.24	1175950.46	0.0088	0.0023
Venus	-1493-03-12 06:28 J	1176175.56	1176175.77	1176176.00	0.0088	0.0009
Venus	-1493-10-23 19:26 J	1176401.09	1176401.31	1176401.53	0.0088	0.0006
Venus	-1492-06-06 07:55 J	1176626.63	1176626.83	1176627.06	0.0088	0.0020
Venus	-1491-01-17 20:52 J	1176852.17	1176852.37	1176852.58	0.0088	0.0034
Venus	-1491-08-31 09:35 J	1177077.73	1177077.90	1177078.09	0.0088	0.0048
Venus	-1490-04-13 22:19 J	1177303.28	1177303.43	1177303.59	0.0088	0.0062
Venus	-1490-11-25 11:16 J	1177528.86	1177528.97	1177529.07	0.0088	0.0076
Earth	-1456-07-04 14:09 J	1189803.99	1189804.09	1189804.23	0.0089	0.0079
Moon	-1456-07-04 17:45 J	1189804.15	1189804.24	1189804.37	0.0089	0.0080 *
Moon	-1455-07-07 00:00 J	1190171.31	1190171.50	1190171.74	0.0089	0.0050
Earth	-1455-07-07 03:50 J	1190171.45	1190171.66	1190171.88	0.0089	0.0051 *
Earth	-1454-07-09 17:02 J	1190538.96	1190539.21	1190539.46	0.0089	0.0023
Moon	-1454-07-09 19:55 J	1190539.09	1190539.33	1190539.60	0.0089	0.0026 *
Moon	-1453-07-11 04:19 J	1190906.43	1190906.68	1190906.94	0.0089	0.0006
Earth	-1453-07-11 06:00 J	1190906.49	1190906.75	1190907.01	0.0089	0.0005 *
Earth	-1452-07-13 18:43 J	1191274.05	1191274.28	1191274.54	0.0089	0.0033
Moon	-1452-07-13 19:40 J	1191274.08	1191274.32	1191274.59	0.0089	0.0031 *
Earth	-1451-07-16 07:26 J	1191641.65	1191641.81	1191642.02	0.0089	0.0061
Moon	-1451-07-16 08:09 J	1191641.67	1191641.84	1191642.02	0.0089	0.0063 *
Moon	-1450-07-18 18:14 J	1192009.24	1192009.26	1192009.35	0.0089	0.0087
Earth	-1450-07-18 20:24 J	1192009.35	1192009.35	1192009.39	0.0089	0.0089 *
Mars	-1432-04-29 12:14 J	1198503.95	1198504.01	1198504.14	0.0089	0.0085
Mars	-1430-03-24 15:21 J	1199197.84	1199198.14	1199198.44	0.0089	0.0001
Mars	-1428-02-15 17:45 J	1199892.23	1199892.24	1199892.33	0.0089	0.0089
Mercury	-1421-01-17 11:16 J	1202418.96	1202418.97	1202419.01	0.0089	0.0088
Mercury	-1421-04-14 12:43 J	1202506.99	1202507.03	1202507.10	0.0089	0.0080
Mercury	-1421-07-11 14:24 J	1202595.03	1202595.10	1202595.18	0.0089	0.0073

Mercury	-1421-10-07 15:50 J	1202683.07	1202683.16	1202683.25	0.0089	0.0066
Mercury	-1420-01-03 17:02 J	1202771.12	1202771.21	1202771.32	0.0089	0.0059
Mercury	-1420-04-01 18:28 J	1202859.17	1202859.27	1202859.39	0.0089	0.0052
Mercury	-1420-06-28 20:09 J	1202947.23	1202947.34	1202947.46	0.0089	0.0044
Mercury	-1420-09-24 21:35 J	1203035.28	1203035.40	1203035.52	0.0089	0.0037
Mercury	-1420-12-21 23:02 J	1203123.33	1203123.46	1203123.59	0.0089	0.0029
Mercury	-1419-03-20 00:28 J	1203211.39	1203211.52	1203211.65	0.0089	0.0022
Mercury	-1419-06-16 01:55 J	1203299.45	1203299.58	1203299.71	0.0089	0.0015
Mercury	-1419-09-12 03:21 J	1203387.50	1203387.64	1203387.77	0.0089	0.0008
Mercury	-1419-12-09 04:33 J	1203475.56	1203475.69	1203475.83	0.0089	0.0003
Mercury	-1418-03-07 06:00 J	1203563.62	1203563.75	1203563.89	0.0089	0.0007
Mercury	-1418-06-03 07:26 J	1203651.68	1203651.81	1203651.94	0.0089	0.0013
Mercury	-1418-08-30 08:52 J	1203739.74	1203739.87	1203740.00	0.0089	0.0021
Mercury	-1418-11-26 10:19 J	1203827.80	1203827.93	1203828.06	0.0089	0.0028
Mercury	-1417-02-22 11:31 J	1203915.86	1203915.98	1203916.11	0.0089	0.0035
Mercury	-1417-05-20 12:57 J	1204003.93	1204004.04	1204004.16	0.0089	0.0042
Mercury	-1417-08-16 14:24 J	1204091.99	1204092.10	1204092.21	0.0089	0.0049
Mercury	-1417-11-12 15:50 J	1204180.06	1204180.16	1204180.26	0.0089	0.0056
Mercury	-1416-02-08 16:47 J	1204268.12	1204268.20	1204268.31	0.0089	0.0064
Mercury	-1416-05-07 18:14 J	1204356.19	1204356.26	1204356.35	0.0089	0.0070
Mercury	-1416-08-03 19:55 J	1204444.27	1204444.33	1204444.40	0.0089	0.0077
Mercury	-1416-10-30 21:21 J	1204532.35	1204532.39	1204532.43	0.0089	0.0084
Venus	-1414-03-29 02:38 J	1205046.53	1205046.61	1205046.69	0.0089	0.0083
Venus	-1414-11-09 15:21 J	1205272.03	1205272.14	1205272.31	0.0089	0.0069
Venus	-1413-06-22 04:47 J	1205497.55	1205497.70	1205497.90	0.0089	0.0054
Venus	-1412-02-02 18:14 J	1205723.08	1205723.26	1205723.48	0.0089	0.0039
Venus	-1412-09-16 07:40 J	1205948.62	1205948.82	1205949.04	0.0089	0.0024
Venus	-1411-04-29 21:07 J	1206174.16	1206174.38	1206174.60	0.0089	0.0008
Venus	-1411-12-11 10:19 J	1206399.71	1206399.93	1206400.15	0.0089	0.0007
Venus	-1410-07-24 23:31 J	1206625.28	1206625.48	1206625.70	0.0089	0.0022

Venus	-1409-03-06 12:43 J	1206850.84	1206851.03	1206851.24	0.0089	0.0036
Venus	-1409-10-18 01:40 J	1207076.41	1207076.57	1207076.77	0.0089	0.0052
Venus	-1408-05-31 15:21 J	1207301.99	1207302.14	1207302.28	0.0089	0.0066
Venus	-1407-01-12 04:19 J	1207527.60	1207527.68	1207527.78	0.0089	0.0081
Earth	-1374-01-01 05:45 J	1219569.60	1219569.74	1219569.90	0.0089	0.0072
Moon	-1374-01-01 08:52 J	1219569.75	1219569.87	1219570.02	0.0089	0.0075 *
Moon	-1373-01-03 12:57 J	1219936.84	1219937.04	1219937.27	0.0089	0.0043
Earth	-1373-01-03 15:50 J	1219936.96	1219937.16	1219937.40	0.0089	0.0046 *
Earth	-1372-01-05 02:09 J	1220304.35	1220304.59	1220304.85	0.0089	0.0019
Moon	-1372-01-05 03:50 J	1220304.42	1220304.66	1220304.93	0.0089	0.0022 *
Moon	-1371-01-07 11:45 J	1220671.75	1220671.99	1220672.24	0.0089	0.0012
Earth	-1371-01-07 12:28 J	1220671.77	1220672.02	1220672.28	0.0089	0.0009 *
Moon	-1370-01-09 22:19 J	1221039.19	1221039.43	1221039.68	0.0089	0.0033
Earth	-1370-01-09 22:33 J	1221039.22	1221039.44	1221039.68	0.0089	0.0036 *
Earth	-1369-01-12 08:38 J	1221406.70	1221406.86	1221407.05	0.0088	0.0063
Moon	-1369-01-12 10:47 J	1221406.80	1221406.95	1221407.13	0.0088	0.0066 *
Moon	-1368-01-13 15:50 J	1221774.13	1221774.16	1221774.24	0.0088	0.0087
Mars	-1350-03-23 11:45 J	1228416.96	1228416.99	1228417.10	0.0088	0.0086
Mars	-1348-02-16 04:47 J	1229112.37	1229112.70	1229113.03	0.0088	0.0007
Mercury	-1339-12-30 22:19 J	1232717.42	1232717.43	1232717.45	0.0088	0.0087
Mercury	-1338-03-29 01:26 J	1232805.49	1232805.56	1232805.66	0.0088	0.0078
Mercury	-1338-06-25 04:33 J	1232893.59	1232893.69	1232893.83	0.0088	0.0069
Mercury	-1338-09-21 08:09 J	1232981.71	1232981.84	1232981.98	0.0088	0.0059
Mercury	-1338-12-18 11:16 J	1233069.83	1233069.97	1233070.14	0.0088	0.0050
Mercury	-1337-03-15 14:52 J	1233157.95	1233158.12	1233158.29	0.0088	0.0040
Mercury	-1337-06-11 18:00 J	1233246.08	1233246.25	1233246.44	0.0088	0.0031
Mercury	-1337-09-07 21:21 J	1233334.21	1233334.39	1233334.58	0.0088	0.0022
Mercury	-1337-12-05 00:57 J	1233422.35	1233422.54	1233422.73	0.0088	0.0012
Mercury	-1336-03-03 04:19 J	1233510.49	1233510.68	1233510.87	0.0088	0.0003
Mercury	-1336-05-30 07:40 J	1233598.63	1233598.82	1233599.01	0.0088	0.0007

Mercury	-1336-08-26 10:47 J	1233686.77	1233686.95	1233687.15	0.0088	0.0017
Mercury	-1336-11-22 14:09 J	1233774.92	1233775.09	1233775.28	0.0088	0.0027
Mercury	-1335-02-18 17:31 J	1233863.06	1233863.23	1233863.41	0.0088	0.0036
Mercury	-1335-05-17 20:52 J	1233951.22	1233951.37	1233951.54	0.0088	0.0046
Mercury	-1335-08-14 00:28 J	1234039.37	1234039.52	1234039.67	0.0088	0.0055
Mercury	-1335-11-10 03:35 J	1234127.54	1234127.65	1234127.79	0.0088	0.0065
Mercury	-1334-02-06 06:57 J	1234215.71	1234215.79	1234215.91	0.0088	0.0075
Mercury	-1334-05-05 10:47 J	1234303.90	1234303.95	1234304.00	0.0088	0.0084
Venus	-1332-05-12 23:02 J	1235042.46	1235042.46	1235042.49	0.0088	0.0088
Venus	-1332-12-24 11:31 J	1235267.88	1235267.98	1235268.12	0.0088	0.0074
Venus	-1331-08-07 00:43 J	1235493.37	1235493.53	1235493.69	0.0088	0.0059
Venus	-1330-03-20 13:12 J	1235718.87	1235719.05	1235719.25	0.0088	0.0045
Venus	-1330-11-01 01:55 J	1235944.38	1235944.58	1235944.79	0.0088	0.0031
Venus	-1329-06-13 14:38 J	1236169.90	1236170.11	1236170.33	0.0088	0.0017
Venus	-1328-01-25 03:35 J	1236395.43	1236395.65	1236395.87	0.0088	0.0003
Venus	-1328-09-07 16:19 J	1236620.97	1236621.18	1236621.40	0.0088	0.0012
Venus	-1327-04-21 05:02 J	1236846.50	1236846.71	1236846.92	0.0088	0.0026
Venus	-1327-12-02 17:45 J	1237072.05	1237072.24	1237072.44	0.0088	0.0040
Venus	-1326-07-16 06:00 J	1237297.60	1237297.75	1237297.95	0.0088	0.0055
Venus	-1325-02-26 18:57 J	1237523.17	1237523.29	1237523.45	0.0088	0.0069
Venus	-1325-10-09 07:40 J	1237748.77	1237748.82	1237748.91	0.0088	0.0083
Earth	-1291-07-06 05:02 J	1250071.58	1250071.71	1250071.91	0.0089	0.0069
Moon	-1291-07-06 07:40 J	1250071.65	1250071.82	1250072.02	0.0089	0.0064 *
Moon	-1290-07-08 17:02 J	1250439.01	1250439.21	1250439.44	0.0089	0.0045
Earth	-1290-07-08 18:28 J	1250439.06	1250439.27	1250439.52	0.0089	0.0041 *
Moon	-1289-07-10 07:40 J	1250806.55	1250806.82	1250807.09	0.0089	0.0008
Earth	-1289-07-10 07:55 J	1250806.58	1250806.83	1250807.09	0.0089	0.0013 *
Earth	-1288-07-12 21:07 J	1251174.12	1251174.38	1251174.64	0.0089	0.0015
Moon	-1288-07-12 22:19 J	1251174.18	1251174.43	1251174.68	0.0089	0.0011 *
Moon	-1287-07-15 07:55 J	1251541.61	1251541.83	1251542.07	0.0089	0.0047

Earth	-1287-07-15 09:50 J	1251541.70	1251541.91	1251542.15	0.0089	0.0043 *
Earth	-1286-07-17 22:33 J	1251909.31	1251909.44	1251909.62	0.0089	0.0071
Moon	-1286-07-18 02:09 J	1251909.43	1251909.59	1251909.77	0.0089	0.0066 *
Mars	-1267-11-06 09:50 J	1258960.67	1258960.91	1258961.18	0.0089	0.0045
Mars	-1265-09-30 12:43 J	1259654.78	1259655.03	1259655.30	0.0089	0.0042
Mercury	-1257-10-13 10:19 J	1262589.91	1262589.93	1262589.96	0.0089	0.0088
Mercury	-1256-01-09 11:31 J	1262677.94	1262677.98	1262678.05	0.0089	0.0081
Mercury	-1256-04-07 12:57 J	1262765.98	1262766.04	1262766.13	0.0089	0.0074
Mercury	-1256-07-04 14:24 J	1262854.02	1262854.10	1262854.20	0.0089	0.0066
Mercury	-1256-09-30 16:04 J	1262942.07	1262942.17	1262942.27	0.0089	0.0059
Mercury	-1256-12-27 17:31 J	1263030.12	1263030.23	1263030.34	0.0089	0.0052
Mercury	-1255-03-25 18:43 J	1263118.17	1263118.28	1263118.41	0.0089	0.0045
Mercury	-1255-06-21 20:09 J	1263206.23	1263206.34	1263206.47	0.0089	0.0038
Mercury	-1255-09-17 21:35 J	1263294.28	1263294.40	1263294.54	0.0089	0.0031
Mercury	-1255-12-14 23:16 J	1263382.34	1263382.47	1263382.60	0.0089	0.0023
Mercury	-1254-03-13 00:43 J	1263470.39	1263470.53	1263470.66	0.0089	0.0016
Mercury	-1254-06-09 01:55 J	1263558.45	1263558.58	1263558.72	0.0089	0.0009
Mercury	-1254-09-05 03:21 J	1263646.51	1263646.64	1263646.78	0.0089	0.0003
Mercury	-1254-12-02 04:47 J	1263734.57	1263734.70	1263734.84	0.0089	0.0006
Mercury	-1253-02-28 06:14 J	1263822.63	1263822.76	1263822.89	0.0089	0.0013
Mercury	-1253-05-26 07:26 J	1263910.69	1263910.81	1263910.95	0.0089	0.0021
Mercury	-1253-08-22 08:52 J	1263998.75	1263998.87	1263999.00	0.0089	0.0027
Mercury	-1253-11-18 10:19 J	1264086.81	1264086.93	1264087.06	0.0089	0.0034
Mercury	-1252-02-14 11:45 J	1264174.87	1264174.99	1264175.11	0.0089	0.0041
Mercury	-1252-05-13 12:57 J	1264262.94	1264263.04	1264263.16	0.0089	0.0049
Mercury	-1252-08-09 14:24 J	1264351.00	1264351.10	1264351.21	0.0089	0.0056
Mercury	-1252-11-05 15:50 J	1264439.07	1264439.16	1264439.26	0.0089	0.0062
Mercury	-1251-02-01 17:02 J	1264527.14	1264527.21	1264527.31	0.0089	0.0070
Mercury	-1251-04-30 18:28 J	1264615.21	1264615.27	1264615.35	0.0089	0.0077
Mercury	-1251-07-27 19:55 J	1264703.29	1264703.33	1264703.38	0.0089	0.0083

Venus	-1249-02-10 22:33 J	1265266.34	1265266.44	1265266.56	0.0089	0.0078
Venus	-1249-09-23 11:45 J	1265491.85	1265491.99	1265492.16	0.0089	0.0063
Venus	-1248-05-07 01:12 J	1265717.37	1265717.55	1265717.74	0.0089	0.0048
Venus	-1248-12-18 14:24 J	1265942.91	1265943.10	1265943.32	0.0089	0.0033
Venus	-1247-08-01 04:04 J	1266168.46	1266168.67	1266168.89	0.0089	0.0018
Venus	-1246-03-14 17:16 J	1266394.00	1266394.22	1266394.44	0.0089	0.0003
Venus	-1246-10-26 06:28 J	1266619.56	1266619.77	1266619.99	0.0089	0.0013
Venus	-1245-06-07 19:40 J	1266845.11	1266845.32	1266845.53	0.0089	0.0028
Venus	-1244-01-19 08:38 J	1267070.68	1267070.86	1267071.07	0.0089	0.0043
Venus	-1244-09-01 21:50 J	1267296.26	1267296.41	1267296.60	0.0089	0.0058
Venus	-1243-04-15 11:02 J	1267521.85	1267521.96	1267522.11	0.0089	0.0073
Venus	-1243-11-27 00:00 J	1267747.48	1267747.50	1267747.58	0.0089	0.0088
Moon	-1211-12-31 09:35 J	1279469.86	1279469.90	1279469.99	0.0089	0.0086
Earth	-1211-12-31 11:45 J	1279469.98	1279469.99	1279470.04	0.0089	0.0088 *
Earth	-1209-01-02 22:19 J	1279837.25	1279837.43	1279837.62	0.0089	0.0061
Moon	-1209-01-02 23:31 J	1279837.33	1279837.48	1279837.69	0.0089	0.0065 *
Earth	-1208-01-04 08:09 J	1280204.62	1280204.84	1280205.09	0.0089	0.0035
Moon	-1208-01-04 08:24 J	1280204.63	1280204.85	1280205.09	0.0089	0.0032 *
Moon	-1207-01-06 17:16 J	1280571.96	1280572.22	1280572.49	0.0089	0.0010
Earth	-1207-01-06 18:43 J	1280572.03	1280572.28	1280572.54	0.0089	0.0008 *
Earth	-1206-01-09 04:47 J	1280939.46	1280939.70	1280939.96	0.0089	0.0020
Moon	-1206-01-09 06:57 J	1280939.56	1280939.79	1280940.04	0.0089	0.0023 *
Moon	-1205-01-11 12:00 J	1281306.78	1281307.00	1281307.23	0.0089	0.0043
Earth	-1205-01-11 15:21 J	1281306.92	1281307.14	1281307.36	0.0089	0.0046 *
Earth	-1204-01-13 01:12 J	1281674.42	1281674.55	1281674.71	0.0088	0.0073
Moon	-1204-01-13 04:33 J	1281674.58	1281674.69	1281674.84	0.0088	0.0076 *
Jupiter	-1187-01-02 06:00 J	1287872.20	1287872.75	1287873.32	0.0088	0.0016
Mars	-1185-09-29 19:55 J	1288874.06	1288874.33	1288874.65	0.0088	0.0041
Mars	-1183-08-26 11:31 J	1289569.74	1289569.98	1289570.28	0.0088	0.0052
Mercury	-1174-09-26 19:12 J	1292888.30	1292888.30	1292888.35	0.0088	0.0087

Mercury	-1174-12-23 23:02 J	1292976.37	1292976.46	1292976.55	0.0088	0.0077
Mercury	-1173-03-21 01:55 J	1293064.48	1293064.58	1293064.71	0.0088	0.0068
Mercury	-1173-06-17 05:16 J	1293152.59	1293152.72	1293152.87	0.0088	0.0059
Mercury	-1173-09-13 08:52 J	1293240.71	1293240.87	1293241.03	0.0088	0.0049
Mercury	-1173-12-10 12:00 J	1293328.84	1293329.00	1293329.18	0.0088	0.0040
Mercury	-1172-03-08 15:35 J	1293416.97	1293417.15	1293417.33	0.0088	0.0030
Mercury	-1172-06-04 18:43 J	1293505.10	1293505.28	1293505.47	0.0088	0.0021
Mercury	-1172-08-31 22:04 J	1293593.24	1293593.42	1293593.61	0.0088	0.0011
Mercury	-1172-11-28 01:26 J	1293681.37	1293681.56	1293681.76	0.0088	0.0003
Mercury	-1171-02-24 04:47 J	1293769.51	1293769.70	1293769.89	0.0088	0.0008
Mercury	-1171-05-23 08:09 J	1293857.66	1293857.84	1293858.03	0.0088	0.0018
Mercury	-1171-08-19 11:31 J	1293945.80	1293945.98	1293946.17	0.0088	0.0027
Mercury	-1171-11-15 14:38 J	1294033.95	1294034.11	1294034.30	0.0088	0.0037
Mercury	-1170-02-11 18:28 J	1294122.10	1294122.27	1294122.43	0.0088	0.0046
Mercury	-1170-05-10 21:35 J	1294210.26	1294210.40	1294210.56	0.0088	0.0056
Mercury	-1170-08-07 00:43 J	1294298.42	1294298.53	1294298.68	0.0088	0.0066
Mercury	-1170-11-03 04:33 J	1294386.60	1294386.69	1294386.79	0.0088	0.0075
Mercury	-1169-01-30 07:40 J	1294474.79	1294474.82	1294474.88	0.0088	0.0085
Venus	-1167-03-27 20:09 J	1295262.29	1295262.34	1295262.45	0.0088	0.0082
Venus	-1167-11-08 09:21 J	1295487.75	1295487.89	1295488.03	0.0088	0.0067
Venus	-1166-06-21 21:50 J	1295713.24	1295713.41	1295713.59	0.0088	0.0053
Venus	-1165-02-02 10:33 J	1295938.76	1295938.94	1295939.15	0.0088	0.0039
Venus	-1165-09-14 23:16 J	1296164.27	1296164.47	1296164.69	0.0088	0.0025
Venus	-1164-04-28 12:00 J	1296389.79	1296390.00	1296390.23	0.0088	0.0011
Venus	-1164-12-10 00:57 J	1296615.32	1296615.54	1296615.76	0.0088	0.0004
Venus	-1163-07-23 13:40 J	1296840.85	1296841.07	1296841.28	0.0088	0.0018
Venus	-1162-03-06 02:09 J	1297066.40	1297066.59	1297066.81	0.0088	0.0033
Venus	-1162-10-17 14:52 J	1297291.95	1297292.12	1297292.32	0.0088	0.0047
Venus	-1161-05-30 03:50 J	1297517.51	1297517.66	1297517.82	0.0088	0.0061
Venus	-1160-01-10 16:19 J	1297743.09	1297743.18	1297743.31	0.0088	0.0076

Moon	-1127-07-05 07:55 J	1309971.78	1309971.83	1309971.93	0.0089	0.0085
Earth	-1127-07-05 07:55 J	1309971.79	1309971.83	1309971.94	0.0089	0.0085 *
Moon	-1126-07-07 20:38 J	1310339.18	1310339.36	1310339.59	0.0089	0.0057
Earth	-1126-07-07 21:35 J	1310339.21	1310339.40	1310339.61	0.0089	0.0057 *
Earth	-1125-07-09 10:19 J	1310706.70	1310706.93	1310707.20	0.0089	0.0030
Moon	-1125-07-09 12:28 J	1310706.79	1310707.02	1310707.27	0.0089	0.0030 *
Moon	-1124-07-11 20:52 J	1311074.11	1311074.37	1311074.64	0.0089	0.0002
Earth	-1124-07-12 00:00 J	1311074.24	1311074.50	1311074.76	0.0089	0.0002 *
Earth	-1123-07-14 12:43 J	1311441.80	1311442.03	1311442.29	0.0089	0.0026
Moon	-1123-07-14 16:04 J	1311441.93	1311442.17	1311442.43	0.0089	0.0025 *
Moon	-1122-07-16 21:50 J	1311809.22	1311809.41	1311809.63	0.0089	0.0054
Earth	-1122-07-17 01:55 J	1311809.38	1311809.58	1311809.80	0.0089	0.0053 *
Earth	-1121-07-18 14:24 J	1312177.02	1312177.10	1312177.23	0.0089	0.0081
Moon	-1121-07-18 17:45 J	1312177.15	1312177.24	1312177.38	0.0089	0.0080 *
Mars	-1101-05-15 08:24 J	1319417.56	1319417.85	1319418.15	0.0089	0.0005
Mars	-1099-04-09 09:50 J	1320111.83	1320111.91	1320112.06	0.0089	0.0083
Mercury	-1092-07-10 09:07 J	1322760.86	1322760.88	1322760.91	0.0089	0.0088
Mercury	-1092-10-06 10:33 J	1322848.89	1322848.94	1322849.00	0.0089	0.0081
Mercury	-1091-01-02 12:00 J	1322936.93	1322937.00	1322937.08	0.0089	0.0073
Mercury	-1091-03-31 13:12 J	1323024.98	1323025.05	1323025.16	0.0089	0.0067
Mercury	-1091-06-27 14:52 J	1323113.02	1323113.12	1323113.23	0.0089	0.0059
Mercury	-1091-09-23 16:19 J	1323201.08	1323201.18	1323201.29	0.0089	0.0052
Mercury	-1091-12-20 17:45 J	1323289.13	1323289.24	1323289.36	0.0089	0.0045
Mercury	-1090-03-18 19:12 J	1323377.18	1323377.30	1323377.43	0.0089	0.0037
Mercury	-1090-06-14 20:38 J	1323465.24	1323465.36	1323465.49	0.0089	0.0030
Mercury	-1090-09-10 22:04 J	1323553.29	1323553.42	1323553.55	0.0089	0.0023
Mercury	-1090-12-07 23:31 J	1323641.35	1323641.48	1323641.61	0.0089	0.0016
Mercury	-1089-03-05 00:57 J	1323729.41	1323729.54	1323729.67	0.0089	0.0009
Mercury	-1089-06-01 02:24 J	1323817.46	1323817.60	1323817.73	0.0089	0.0002
Mercury	-1089-08-28 03:50 J	1323905.52	1323905.66	1323905.79	0.0089	0.0006

Mercury	-1089-11-24 05:02 J	1323993.58	1323993.71	1323993.85	0.0089	0.0013
Mercury	-1088-02-20 06:28 J	1324081.64	1324081.77	1324081.91	0.0089	0.0020
Mercury	-1088-05-19 07:55 J	1324169.71	1324169.83	1324169.96	0.0089	0.0027
Mercury	-1088-08-15 09:07 J	1324257.77	1324257.88	1324258.01	0.0089	0.0035
Mercury	-1088-11-11 10:33 J	1324345.83	1324345.94	1324346.07	0.0089	0.0041
Mercury	-1087-02-07 12:00 J	1324433.89	1324434.00	1324434.12	0.0089	0.0048
Mercury	-1087-05-06 13:26 J	1324521.96	1324522.06	1324522.17	0.0089	0.0055
Mercury	-1087-08-02 14:38 J	1324610.03	1324610.11	1324610.22	0.0089	0.0063
Mercury	-1087-10-29 16:04 J	1324698.10	1324698.17	1324698.26	0.0089	0.0070
Mercury	-1086-01-25 17:16 J	1324786.17	1324786.22	1324786.30	0.0089	0.0077
Mercury	-1086-04-23 18:43 J	1324874.25	1324874.28	1324874.34	0.0089	0.0084
Venus	-1085-05-14 05:45 J	1325260.69	1325260.74	1325260.79	0.0089	0.0087
Venus	-1085-12-25 18:57 J	1325486.17	1325486.29	1325486.43	0.0089	0.0072
Venus	-1084-08-08 08:24 J	1325711.69	1325711.85	1325712.03	0.0089	0.0057
Venus	-1083-03-21 21:50 J	1325937.22	1325937.41	1325937.61	0.0089	0.0042
Venus	-1083-11-02 11:02 J	1326162.76	1326162.96	1326163.18	0.0089	0.0027
Venus	-1082-06-16 00:28 J	1326388.31	1326388.52	1326388.74	0.0089	0.0012
Venus	-1081-01-27 13:55 J	1326613.86	1326614.08	1326614.30	0.0089	0.0004
Venus	-1081-09-09 03:07 J	1326839.42	1326839.63	1326839.85	0.0089	0.0019
Venus	-1080-04-22 16:19 J	1327064.98	1327065.18	1327065.39	0.0089	0.0034
Venus	-1080-12-04 05:31 J	1327290.55	1327290.73	1327290.92	0.0089	0.0049
Venus	-1079-07-17 18:57 J	1327516.14	1327516.29	1327516.44	0.0089	0.0064
Venus	-1078-02-28 07:55 J	1327741.74	1327741.83	1327741.94	0.0089	0.0079
Earth	-1045-01-02 04:33 J	1339737.59	1339737.69	1339737.84	0.0089	0.0077
Moon	-1045-01-02 05:16 J	1339737.63	1339737.72	1339737.83	0.0089	0.0080 *
Moon	-1044-01-03 13:26 J	1340104.85	1340105.06	1340105.30	0.0089	0.0046
Earth	-1044-01-03 15:21 J	1340104.93	1340105.14	1340105.35	0.0089	0.0050 *
Earth	-1043-01-06 01:12 J	1340472.32	1340472.55	1340472.81	0.0089	0.0024
Moon	-1043-01-06 04:19 J	1340472.45	1340472.68	1340472.93	0.0089	0.0028 *
Moon	-1042-01-08 08:38 J	1340839.61	1340839.86	1340840.12	0.0089	0.0007

Earth	-1042-01-08 11:45 J	1340839.74	1340839.99	1340840.25	0.0089	0.0004	*
Earth	-1041-01-10 21:50 J	1341207.18	1341207.41	1341207.66	0.0089	0.0030	
Moon	-1041-01-11 01:26 J	1341207.33	1341207.56	1341207.82	0.0089	0.0027	*
Moon	-1040-01-12 04:47 J	1341574.54	1341574.70	1341574.90	0.0089	0.0061	
Earth	-1040-01-12 07:40 J	1341574.65	1341574.82	1341575.04	0.0089	0.0057	*
Earth	-1039-01-14 18:14 J	1341942.19	1341942.26	1341942.36	0.0089	0.0083	
Moon	-1039-01-14 20:38 J	1341942.27	1341942.36	1341942.50	0.0089	0.0080	*
Mars	-1019-04-09 04:33 J	1349331.37	1349331.69	1349332.03	0.0088	0.0005	
Mercury	-1009-06-22 17:16 J	1353059.18	1353059.22	1353059.26	0.0088	0.0085	
Mercury	-1009-09-18 20:24 J	1353147.27	1353147.35	1353147.45	0.0088	0.0076	
Mercury	-1009-12-15 23:31 J	1353235.37	1353235.48	1353235.62	0.0088	0.0067	
Mercury	-1008-03-14 02:38 J	1353323.49	1353323.61	1353323.77	0.0088	0.0058	
Mercury	-1008-06-10 06:14 J	1353411.61	1353411.76	1353411.93	0.0088	0.0048	
Mercury	-1008-09-06 09:21 J	1353499.74	1353499.89	1353500.08	0.0088	0.0039	
Mercury	-1008-12-03 12:57 J	1353587.87	1353588.04	1353588.22	0.0088	0.0029	
Mercury	-1007-03-01 16:19 J	1353676.00	1353676.18	1353676.37	0.0088	0.0020	
Mercury	-1007-05-28 19:40 J	1353764.13	1353764.32	1353764.51	0.0088	0.0010	
Mercury	-1007-08-24 23:02 J	1353852.27	1353852.46	1353852.65	0.0088	0.0001	
Mercury	-1007-11-21 02:24 J	1353940.41	1353940.60	1353940.79	0.0088	0.0009	
Mercury	-1006-02-17 05:31 J	1354028.55	1354028.73	1354028.93	0.0088	0.0019	
Mercury	-1006-05-16 09:07 J	1354116.70	1354116.88	1354117.06	0.0088	0.0028	
Mercury	-1006-08-12 12:14 J	1354204.85	1354205.01	1354205.19	0.0088	0.0038	
Mercury	-1006-11-08 15:21 J	1354293.00	1354293.14	1354293.32	0.0088	0.0048	
Mercury	-1005-02-04 18:57 J	1354381.16	1354381.29	1354381.45	0.0088	0.0057	
Mercury	-1005-05-02 22:19 J	1354469.32	1354469.43	1354469.57	0.0088	0.0067	
Mercury	-1005-07-30 02:09 J	1354557.49	1354557.59	1354557.68	0.0088	0.0076	
Mercury	-1005-10-26 05:16 J	1354645.69	1354645.72	1354645.76	0.0088	0.0086	
Venus	-1002-02-09 18:28 J	1355482.16	1355482.27	1355482.38	0.0088	0.0075	
Venus	-1002-09-23 06:57 J	1355707.64	1355707.79	1355707.96	0.0088	0.0061	
Venus	-1001-05-05 19:26 J	1355933.14	1355933.31	1355933.51	0.0088	0.0047	

Venus -1001-12-17 07:55 J 1356158.64 1356158.83 1356159.05 0.0088 0.0033

1ST MILLENNIUM BCE

This is a list of transits visible from Neptune in the 1st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-1000-07-30 20:52 J		1356384.16	1356384.37	1356384.59	0.0088	0.0018	
Venus	-999-03-13 09:35 J		1356609.68	1356609.90	1356610.13	0.0088	0.0004	
Venus	-999-10-24 22:19 J		1356835.21	1356835.43	1356835.65	0.0088	0.0011	
Venus	-998-06-07 11:02 J		1357060.75	1357060.96	1357061.17	0.0088	0.0025	
Venus	-997-01-18 23:31 J		1357286.30	1357286.48	1357286.70	0.0088	0.0040	
Venus	-997-08-31 12:28 J		1357511.86	1357512.02	1357512.20	0.0088	0.0054	
Venus	-996-04-14 01:26 J		1357737.42	1357737.56	1357737.70	0.0088	0.0068	
Venus	-996-11-25 13:40 J		1357963.02	1357963.07	1357963.16	0.0088	0.0083	
Earth	-962-07-07 00:57 J		1370239.40	1370239.54	1370239.69	0.0089	0.0073	
Moon	-962-07-07 03:07 J		1370239.49	1370239.63	1370239.81	0.0089	0.0069	*
Moon	-961-07-08 10:19 J		1370606.74	1370606.93	1370607.17	0.0089	0.0051	
Earth	-961-07-08 13:55 J		1370606.87	1370607.08	1370607.32	0.0089	0.0046	*
Earth	-960-07-11 02:52 J		1370974.38	1370974.62	1370974.89	0.0089	0.0019	
Moon	-960-07-11 06:43 J		1370974.53	1370974.78	1370975.05	0.0089	0.0014	*
Moon	-959-07-13 12:43 J		1371341.78	1371342.03	1371342.29	0.0089	0.0005	
Earth	-959-07-13 16:19 J		1371341.92	1371342.18	1371342.44	0.0089	0.0009	*
Earth	-958-07-16 04:47 J		1371709.48	1371709.70	1371709.96	0.0089	0.0037	

Moon	-958-07-16 08:24 J	1371709.62	1371709.85	1371710.09	0.0089	0.0041 *
Moon	-957-07-17 16:33 J	1372077.00	1372077.19	1372077.38	0.0089	0.0059
Earth	-957-07-17 18:00 J	1372077.09	1372077.25	1372077.45	0.0089	0.0064 *
Mars	-938-12-29 07:55 J	1379180.58	1379180.83	1379181.08	0.0089	0.0049
Mars	-936-11-22 07:26 J	1379874.56	1379874.81	1379875.10	0.0089	0.0037
Mercury	-927-04-06 07:55 J	1382931.82	1382931.83	1382931.86	0.0089	0.0088
Mercury	-927-07-03 09:21 J	1383019.84	1383019.89	1383019.96	0.0089	0.0081
Mercury	-927-09-29 10:47 J	1383107.89	1383107.95	1383108.04	0.0089	0.0073
Mercury	-927-12-26 12:28 J	1383195.93	1383196.02	1383196.11	0.0089	0.0066
Mercury	-926-03-24 13:55 J	1383283.98	1383284.08	1383284.18	0.0089	0.0059
Mercury	-926-06-20 15:07 J	1383372.03	1383372.13	1383372.25	0.0089	0.0052
Mercury	-926-09-16 16:33 J	1383460.08	1383460.19	1383460.32	0.0089	0.0045
Mercury	-926-12-13 18:00 J	1383548.14	1383548.25	1383548.38	0.0089	0.0038
Mercury	-925-03-10 19:40 J	1383636.19	1383636.32	1383636.45	0.0089	0.0030
Mercury	-925-06-06 21:07 J	1383724.25	1383724.38	1383724.51	0.0089	0.0023
Mercury	-925-09-02 22:33 J	1383812.31	1383812.44	1383812.57	0.0089	0.0016
Mercury	-925-11-30 00:00 J	1383900.36	1383900.50	1383900.63	0.0089	0.0009
Mercury	-924-02-26 01:12 J	1383988.42	1383988.55	1383988.69	0.0089	0.0004
Mercury	-924-05-25 02:38 J	1384076.48	1384076.61	1384076.75	0.0089	0.0007
Mercury	-924-08-21 04:04 J	1384164.54	1384164.67	1384164.81	0.0089	0.0013
Mercury	-924-11-17 05:31 J	1384252.60	1384252.73	1384252.86	0.0089	0.0020
Mercury	-923-02-13 06:43 J	1384340.66	1384340.78	1384340.92	0.0089	0.0028
Mercury	-923-05-12 08:09 J	1384428.72	1384428.84	1384428.97	0.0089	0.0035
Mercury	-923-08-08 09:35 J	1384516.79	1384516.90	1384517.02	0.0089	0.0042
Mercury	-923-11-04 11:02 J	1384604.85	1384604.96	1384605.08	0.0089	0.0048
Mercury	-922-01-31 12:14 J	1384692.92	1384693.01	1384693.13	0.0089	0.0056
Mercury	-922-04-29 13:40 J	1384780.98	1384781.07	1384781.17	0.0089	0.0063
Mercury	-922-07-26 15:07 J	1384869.05	1384869.13	1384869.22	0.0089	0.0070
Mercury	-922-10-22 16:19 J	1384957.13	1384957.18	1384957.26	0.0089	0.0077
Mercury	-921-01-18 17:45 J	1385045.21	1385045.24	1385045.30	0.0089	0.0084

Venus	-920-03-29 01:55 J	1385480.52	1385480.58	1385480.70	0.0089	0.0082
Venus	-920-11-09 15:50 J	1385706.02	1385706.16	1385706.31	0.0089	0.0066
Venus	-919-06-23 05:02 J	1385931.54	1385931.71	1385931.90	0.0089	0.0051
Venus	-918-02-03 18:28 J	1386157.08	1386157.27	1386157.48	0.0089	0.0036
Venus	-918-09-17 07:55 J	1386382.63	1386382.83	1386383.05	0.0089	0.0021
Venus	-917-04-29 21:21 J	1386608.17	1386608.39	1386608.61	0.0089	0.0005
Venus	-917-12-11 10:33 J	1386833.73	1386833.94	1386834.17	0.0089	0.0011
Venus	-916-07-25 00:00 J	1387059.30	1387059.50	1387059.72	0.0089	0.0026
Venus	-915-03-07 13:12 J	1387284.86	1387285.05	1387285.26	0.0089	0.0041
Venus	-915-10-19 02:24 J	1387510.44	1387510.60	1387510.78	0.0089	0.0056
Venus	-914-06-01 15:50 J	1387736.03	1387736.16	1387736.29	0.0089	0.0071
Venus	-913-01-13 05:02 J	1387961.65	1387961.71	1387961.77	0.0089	0.0086
Earth	-880-01-02 22:04 J	1400005.26	1400005.42	1400005.60	0.0089	0.0065
Moon	-880-01-03 00:43 J	1400005.39	1400005.53	1400005.71	0.0089	0.0068 *
Moon	-879-01-05 04:33 J	1400372.48	1400372.69	1400372.94	0.0089	0.0038
Earth	-879-01-05 08:38 J	1400372.64	1400372.86	1400373.10	0.0089	0.0039 *
Earth	-878-01-07 18:57 J	1400740.04	1400740.29	1400740.55	0.0089	0.0012
Moon	-878-01-07 22:19 J	1400740.18	1400740.43	1400740.69	0.0089	0.0014 *
Moon	-877-01-10 02:09 J	1401107.34	1401107.59	1401107.84	0.0089	0.0017
Earth	-877-01-10 05:02 J	1401107.47	1401107.71	1401107.97	0.0089	0.0015 *
Earth	-876-01-11 15:21 J	1401474.92	1401475.14	1401475.38	0.0089	0.0041
Moon	-876-01-11 17:16 J	1401475.00	1401475.22	1401475.47	0.0089	0.0039 *
Moon	-875-01-14 00:28 J	1401842.39	1401842.52	1401842.70	0.0089	0.0070
Earth	-875-01-14 01:40 J	1401842.42	1401842.57	1401842.75	0.0089	0.0067 *
Mars	-856-11-20 19:40 J	1409093.04	1409093.32	1409093.63	0.0088	0.0043
Mars	-854-10-17 13:26 J	1409788.81	1409789.06	1409789.36	0.0088	0.0051
Mercury	-844-03-19 14:38 J	1413230.07	1413230.11	1413230.18	0.0088	0.0084
Mercury	-844-06-15 17:45 J	1413318.17	1413318.24	1413318.36	0.0088	0.0075
Mercury	-844-09-11 21:21 J	1413406.27	1413406.39	1413406.53	0.0088	0.0065
Mercury	-844-12-09 00:28 J	1413494.39	1413494.52	1413494.68	0.0088	0.0056

Mercury	-843-03-07 03:50 J	1413582.51	1413582.66	1413582.83	0.0088	0.0047
Mercury	-843-06-03 07:12 J	1413670.64	1413670.80	1413670.98	0.0088	0.0037
Mercury	-843-08-30 10:33 J	1413758.77	1413758.94	1413759.13	0.0088	0.0028
Mercury	-843-11-26 13:55 J	1413846.90	1413847.08	1413847.27	0.0088	0.0018
Mercury	-842-02-22 17:16 J	1413935.04	1413935.22	1413935.41	0.0088	0.0009
Mercury	-842-05-21 20:38 J	1414023.17	1414023.36	1414023.55	0.0088	0.0002
Mercury	-842-08-18 00:00 J	1414111.31	1414111.50	1414111.69	0.0088	0.0011
Mercury	-842-11-14 03:21 J	1414199.46	1414199.64	1414199.83	0.0088	0.0020
Mercury	-841-02-10 06:28 J	1414287.60	1414287.77	1414287.96	0.0088	0.0030
Mercury	-841-05-08 09:50 J	1414375.75	1414375.91	1414376.09	0.0088	0.0040
Mercury	-841-08-04 13:26 J	1414463.91	1414464.06	1414464.22	0.0088	0.0049
Mercury	-841-10-31 16:33 J	1414552.07	1414552.19	1414552.35	0.0088	0.0059
Mercury	-840-01-27 20:24 J	1414640.23	1414640.35	1414640.47	0.0088	0.0068
Mercury	-840-04-25 23:31 J	1414728.40	1414728.48	1414728.58	0.0088	0.0078
Mercury	-840-07-23 02:52 J	1414816.62	1414816.62	1414816.64	0.0088	0.0088
Venus	-838-05-14 03:35 J	1415476.60	1415476.65	1415476.74	0.0088	0.0083
Venus	-838-12-25 16:19 J	1415702.06	1415702.18	1415702.34	0.0088	0.0069
Venus	-837-08-07 05:16 J	1415927.55	1415927.72	1415927.90	0.0088	0.0054
Venus	-836-03-20 17:45 J	1416153.06	1416153.24	1416153.45	0.0088	0.0040
Venus	-836-11-01 06:43 J	1416378.57	1416378.78	1416378.99	0.0088	0.0025
Venus	-835-06-14 19:12 J	1416604.08	1416604.30	1416604.52	0.0088	0.0011
Venus	-834-01-26 08:09 J	1416829.62	1416829.84	1416830.06	0.0088	0.0004
Venus	-834-09-08 20:38 J	1417055.15	1417055.36	1417055.58	0.0088	0.0018
Venus	-833-04-21 09:07 J	1417280.69	1417280.88	1417281.10	0.0088	0.0033
Venus	-833-12-02 21:50 J	1417506.23	1417506.41	1417506.60	0.0088	0.0047
Venus	-832-07-16 10:47 J	1417731.79	1417731.95	1417732.11	0.0088	0.0061
Venus	-831-02-26 23:16 J	1417957.38	1417957.47	1417957.60	0.0088	0.0076
Moon	-798-07-06 02:24 J	1430139.56	1430139.60	1430139.68	0.0089	0.0086
Earth	-798-07-06 06:00 J	1430139.73	1430139.75	1430139.80	0.0089	0.0088
Earth	-797-07-07 18:57 J	1430507.12	1430507.29	1430507.49	0.0089	0.0061

Moon	-797-07-07 22:19 J	1430507.27	1430507.43	1430507.65	0.0089	0.0062 *
Moon	-796-07-10 04:33 J	1430874.47	1430874.69	1430874.94	0.0089	0.0033
Earth	-796-07-10 07:55 J	1430874.60	1430874.83	1430875.08	0.0089	0.0034 *
Earth	-795-07-12 21:07 J	1431242.12	1431242.38	1431242.64	0.0089	0.0007
Moon	-795-07-12 23:31 J	1431242.22	1431242.48	1431242.75	0.0089	0.0007 *
Moon	-794-07-15 08:09 J	1431609.60	1431609.84	1431610.09	0.0089	0.0021
Earth	-794-07-15 09:50 J	1431609.67	1431609.91	1431610.18	0.0089	0.0021 *
Earth	-793-07-16 22:33 J	1431977.24	1431977.44	1431977.68	0.0089	0.0048
Moon	-793-07-16 23:02 J	1431977.24	1431977.46	1431977.70	0.0089	0.0047 *
Earth	-792-07-19 11:31 J	1432344.87	1432344.98	1432345.14	0.0089	0.0075
Moon	-792-07-19 12:43 J	1432344.91	1432345.03	1432345.17	0.0089	0.0075 *
Mars	-772-07-07 08:52 J	1439637.58	1439637.87	1439638.17	0.0089	0.0007
Mars	-770-06-01 09:07 J	1440331.77	1440331.88	1440332.04	0.0089	0.0080
Mercury	-762-01-01 07:12 J	1443102.78	1443102.80	1443102.84	0.0089	0.0087
Mercury	-762-03-30 08:38 J	1443190.81	1443190.86	1443190.93	0.0089	0.0080
Mercury	-762-06-26 10:04 J	1443278.85	1443278.92	1443279.01	0.0089	0.0072
Mercury	-762-09-22 11:45 J	1443366.90	1443366.99	1443367.08	0.0089	0.0065
Mercury	-762-12-19 12:57 J	1443454.94	1443455.04	1443455.15	0.0089	0.0058
Mercury	-761-03-16 14:24 J	1443543.00	1443543.10	1443543.22	0.0089	0.0051
Mercury	-761-06-12 15:50 J	1443631.05	1443631.16	1443631.29	0.0089	0.0044
Mercury	-761-09-08 17:16 J	1443719.10	1443719.22	1443719.35	0.0089	0.0036
Mercury	-761-12-05 18:57 J	1443807.16	1443807.29	1443807.41	0.0089	0.0029
Mercury	-760-03-03 20:24 J	1443895.21	1443895.35	1443895.48	0.0089	0.0022
Mercury	-760-05-30 21:35 J	1443983.27	1443983.40	1443983.54	0.0089	0.0015
Mercury	-760-08-26 23:02 J	1444071.33	1444071.46	1444071.60	0.0089	0.0008
Mercury	-760-11-23 00:28 J	1444159.39	1444159.52	1444159.66	0.0089	0.0002
Mercury	-759-02-19 01:55 J	1444247.45	1444247.58	1444247.72	0.0089	0.0007
Mercury	-759-05-18 03:21 J	1444335.51	1444335.64	1444335.77	0.0089	0.0014
Mercury	-759-08-14 04:33 J	1444423.57	1444423.69	1444423.83	0.0089	0.0022
Mercury	-759-11-10 06:00 J	1444511.63	1444511.75	1444511.88	0.0089	0.0029

Mercury	-758-02-06 07:26 J	1444599.69	1444599.81	1444599.94	0.0089	0.0035
Mercury	-758-05-05 08:52 J	1444687.76	1444687.87	1444687.99	0.0089	0.0042
Mercury	-758-08-01 10:04 J	1444775.82	1444775.92	1444776.04	0.0089	0.0050
Mercury	-758-10-28 11:31 J	1444863.89	1444863.98	1444864.09	0.0089	0.0057
Mercury	-757-01-24 12:57 J	1444951.95	1444952.04	1444952.14	0.0089	0.0063
Mercury	-757-04-21 14:09 J	1445040.02	1445040.09	1445040.18	0.0089	0.0071
Mercury	-757-07-18 15:35 J	1445128.09	1445128.15	1445128.22	0.0089	0.0077
Mercury	-757-10-14 16:47 J	1445216.17	1445216.20	1445216.26	0.0089	0.0085
Venus	-755-02-10 23:45 J	1445700.38	1445700.49	1445700.62	0.0089	0.0075
Venus	-755-09-24 12:57 J	1445925.89	1445926.04	1445926.22	0.0089	0.0060
Venus	-754-05-08 02:38 J	1446151.42	1446151.61	1446151.80	0.0089	0.0044
Venus	-754-12-19 15:50 J	1446376.96	1446377.16	1446377.38	0.0089	0.0029
Venus	-753-08-01 05:16 J	1446602.51	1446602.72	1446602.95	0.0089	0.0014
Venus	-752-03-14 18:43 J	1446828.07	1446828.28	1446828.51	0.0089	0.0003
Venus	-752-10-26 07:55 J	1447053.62	1447053.83	1447054.05	0.0089	0.0018
Venus	-751-06-08 21:07 J	1447279.19	1447279.38	1447279.60	0.0089	0.0033
Venus	-750-01-20 10:33 J	1447504.76	1447504.94	1447505.13	0.0089	0.0048
Venus	-750-09-02 23:31 J	1447730.35	1447730.48	1447730.66	0.0089	0.0064
Venus	-749-04-15 12:43 J	1447955.95	1447956.03	1447956.16	0.0089	0.0079
Moon	-716-01-02 01:26 J	1459905.52	1459905.56	1459905.67	0.0089	0.0085
Earth	-716-01-02 05:31 J	1459905.63	1459905.73	1459905.85	0.0089	0.0080 *
Earth	-715-01-04 15:50 J	1460272.97	1460273.16	1460273.37	0.0089	0.0054
Moon	-715-01-04 18:57 J	1460273.10	1460273.29	1460273.53	0.0089	0.0050 *
Moon	-714-01-06 23:45 J	1460640.27	1460640.49	1460640.73	0.0089	0.0032
Earth	-714-01-07 02:09 J	1460640.36	1460640.59	1460640.84	0.0089	0.0028 *
Earth	-713-01-09 12:43 J	1461007.78	1461008.03	1461008.29	0.0089	0.0001
Moon	-713-01-09 14:38 J	1461007.85	1461008.11	1461008.38	0.0089	0.0003 *
Moon	-712-01-10 22:33 J	1461375.21	1461375.44	1461375.69	0.0089	0.0021
Earth	-712-01-10 22:47 J	1461375.22	1461375.45	1461375.71	0.0089	0.0026 *
Moon	-711-01-13 07:40 J	1461742.64	1461742.82	1461743.05	0.0089	0.0056

Earth	-711-01-13 08:52 J	1461742.69	1461742.87	1461743.10	0.0089	0.0052 *
Earth	-710-01-15 19:12 J	1462110.20	1462110.30	1462110.44	0.0089	0.0078
Moon	-710-01-15 21:07 J	1462110.26	1462110.38	1462110.53	0.0089	0.0074 *
Mars	-690-05-31 07:26 J	1469550.47	1469550.81	1469551.14	0.0088	0.0004
Mercury	-680-12-14 12:28 J	1473400.98	1473401.02	1473401.11	0.0088	0.0082
Mercury	-679-03-12 16:19 J	1473489.07	1473489.18	1473489.28	0.0088	0.0072
Mercury	-679-06-08 19:12 J	1473577.18	1473577.30	1473577.44	0.0088	0.0063
Mercury	-679-09-04 22:33 J	1473665.30	1473665.44	1473665.60	0.0088	0.0054
Mercury	-679-12-02 01:40 J	1473753.42	1473753.57	1473753.75	0.0088	0.0045
Mercury	-678-02-28 05:02 J	1473841.55	1473841.71	1473841.89	0.0088	0.0035
Mercury	-678-05-27 08:24 J	1473929.68	1473929.85	1473930.04	0.0088	0.0026
Mercury	-678-08-23 12:00 J	1474017.81	1474018.00	1474018.18	0.0088	0.0016
Mercury	-678-11-19 15:07 J	1474105.95	1474106.13	1474106.32	0.0088	0.0007
Mercury	-677-02-15 18:28 J	1474194.08	1474194.27	1474194.46	0.0088	0.0003
Mercury	-677-05-13 21:50 J	1474282.22	1474282.41	1474282.60	0.0088	0.0013
Mercury	-677-08-10 01:12 J	1474370.37	1474370.55	1474370.74	0.0088	0.0022
Mercury	-677-11-06 04:19 J	1474458.51	1474458.68	1474458.87	0.0088	0.0032
Mercury	-676-02-02 07:55 J	1474546.66	1474546.83	1474547.00	0.0088	0.0041
Mercury	-676-05-01 11:02 J	1474634.82	1474634.96	1474635.13	0.0088	0.0051
Mercury	-676-07-28 14:24 J	1474722.98	1474723.10	1474723.25	0.0088	0.0061
Mercury	-676-10-24 18:00 J	1474811.14	1474811.25	1474811.37	0.0088	0.0070
Mercury	-675-01-20 21:07 J	1474899.32	1474899.38	1474899.48	0.0088	0.0080
Venus	-673-03-28 02:09 J	1475696.50	1475696.59	1475696.71	0.0088	0.0076
Venus	-673-11-08 14:38 J	1475921.98	1475922.11	1475922.29	0.0088	0.0062
Venus	-672-06-22 03:35 J	1476147.47	1476147.65	1476147.85	0.0088	0.0047
Venus	-671-02-02 16:19 J	1476372.99	1476373.18	1476373.40	0.0088	0.0033
Venus	-671-09-16 05:16 J	1476598.50	1476598.72	1476598.94	0.0088	0.0018
Venus	-670-04-29 17:45 J	1476824.03	1476824.24	1476824.47	0.0088	0.0004
Venus	-670-12-11 06:28 J	1477049.55	1477049.77	1477049.99	0.0088	0.0011
Venus	-669-07-23 18:57 J	1477275.09	1477275.29	1477275.51	0.0088	0.0026

Venus	-668-03-06 07:55 J	1477500.64	1477500.83	1477501.03	0.0088	0.0040
Venus	-668-10-17 20:09 J	1477726.19	1477726.34	1477726.53	0.0088	0.0055
Venus	-667-05-31 09:07 J	1477951.76	1477951.88	1477952.02	0.0088	0.0069
Venus	-666-01-11 21:35 J	1478177.36	1478177.40	1478177.49	0.0088	0.0084
Moon	-633-07-06 21:21 J	1490407.27	1490407.39	1490407.57	0.0089	0.0072
Earth	-633-07-07 00:28 J	1490407.41	1490407.52	1490407.68	0.0089	0.0076 *
Earth	-632-07-09 13:26 J	1490774.86	1490775.06	1490775.30	0.0089	0.0049
Moon	-632-07-09 15:50 J	1490774.96	1490775.16	1490775.39	0.0089	0.0053 *
Moon	-631-07-12 02:09 J	1491142.35	1491142.59	1491142.85	0.0089	0.0018
Earth	-631-07-12 02:38 J	1491142.37	1491142.61	1491142.88	0.0089	0.0022 *
Moon	-630-07-14 15:50 J	1491509.89	1491510.16	1491510.43	0.0089	0.0001
Earth	-630-07-14 15:50 J	1491509.90	1491510.16	1491510.42	0.0089	0.0005 *
Earth	-629-07-16 04:47 J	1491877.46	1491877.70	1491877.95	0.0089	0.0032
Moon	-629-07-16 06:14 J	1491877.54	1491877.76	1491878.00	0.0089	0.0037 *
Moon	-628-07-18 14:38 J	1492244.92	1492245.11	1492245.33	0.0089	0.0055
Earth	-628-07-18 17:31 J	1492245.05	1492245.23	1492245.44	0.0089	0.0059 *
Earth	-627-07-21 06:14 J	1492612.72	1492612.76	1492612.85	0.0089	0.0086
Mars	-608-02-19 10:04 J	1499400.69	1499400.92	1499401.18	0.0089	0.0050
Mars	-606-01-14 10:04 J	1500094.66	1500094.92	1500095.21	0.0089	0.0036
Mercury	-598-09-28 06:14 J	1503273.74	1503273.76	1503273.81	0.0089	0.0086
Mercury	-598-12-25 07:40 J	1503361.77	1503361.82	1503361.90	0.0089	0.0079
Mercury	-597-03-22 09:35 J	1503449.82	1503449.90	1503449.98	0.0089	0.0071
Mercury	-597-06-18 10:47 J	1503537.86	1503537.95	1503538.05	0.0089	0.0064
Mercury	-597-09-14 12:14 J	1503625.91	1503626.01	1503626.12	0.0089	0.0057
Mercury	-597-12-11 13:40 J	1503713.97	1503714.07	1503714.19	0.0089	0.0049
Mercury	-596-03-09 15:21 J	1503802.02	1503802.14	1503802.26	0.0089	0.0042
Mercury	-596-06-05 16:47 J	1503890.07	1503890.20	1503890.32	0.0089	0.0035
Mercury	-596-09-01 18:14 J	1503978.13	1503978.26	1503978.39	0.0089	0.0028
Mercury	-596-11-28 19:40 J	1504066.19	1504066.32	1504066.45	0.0089	0.0020
Mercury	-595-02-24 21:07 J	1504154.24	1504154.38	1504154.51	0.0089	0.0013

Mercury	-595-05-23 22:33 J	1504242.30	1504242.44	1504242.57	0.0089	0.0006
Mercury	-595-08-19 23:45 J	1504330.36	1504330.49	1504330.63	0.0089	0.0004
Mercury	-595-11-16 01:12 J	1504418.42	1504418.55	1504418.69	0.0089	0.0009
Mercury	-594-02-12 02:38 J	1504506.48	1504506.61	1504506.75	0.0089	0.0016
Mercury	-594-05-11 04:04 J	1504594.54	1504594.67	1504594.80	0.0089	0.0022
Mercury	-594-08-07 05:31 J	1504682.60	1504682.73	1504682.86	0.0089	0.0030
Mercury	-594-11-03 06:43 J	1504770.67	1504770.78	1504770.91	0.0089	0.0037
Mercury	-593-01-30 08:09 J	1504858.73	1504858.84	1504858.96	0.0089	0.0044
Mercury	-593-04-27 09:35 J	1504946.79	1504946.90	1504947.01	0.0089	0.0051
Mercury	-593-07-24 11:02 J	1505034.86	1505034.96	1505035.06	0.0089	0.0058
Mercury	-593-10-20 12:14 J	1505122.93	1505123.01	1505123.11	0.0089	0.0065
Mercury	-592-01-16 13:40 J	1505211.00	1505211.07	1505211.15	0.0089	0.0072
Mercury	-592-04-14 15:07 J	1505299.07	1505299.13	1505299.19	0.0089	0.0079
Mercury	-592-07-11 16:19 J	1505387.16	1505387.18	1505387.23	0.0089	0.0086
Venus	-591-05-15 08:24 J	1505694.78	1505694.85	1505694.95	0.0089	0.0083
Venus	-591-12-26 21:35 J	1505920.28	1505920.40	1505920.56	0.0089	0.0068
Venus	-590-08-09 11:31 J	1506145.80	1506145.98	1506146.16	0.0089	0.0052
Venus	-589-03-22 00:43 J	1506371.34	1506371.53	1506371.74	0.0089	0.0037
Venus	-589-11-02 13:55 J	1506596.88	1506597.08	1506597.30	0.0089	0.0022
Venus	-588-06-16 03:21 J	1506822.43	1506822.64	1506822.87	0.0089	0.0006
Venus	-587-01-27 16:47 J	1507047.98	1507048.20	1507048.42	0.0089	0.0010
Venus	-587-09-10 06:14 J	1507273.55	1507273.76	1507273.97	0.0089	0.0025
Venus	-586-04-23 19:12 J	1507499.12	1507499.30	1507499.51	0.0089	0.0041
Venus	-586-12-05 08:38 J	1507724.70	1507724.86	1507725.04	0.0089	0.0056
Venus	-585-07-17 22:19 J	1507950.30	1507950.43	1507950.56	0.0089	0.0071
Venus	-584-02-28 11:02 J	1508175.93	1508175.96	1508176.04	0.0089	0.0087
Moon	-551-01-03 21:35 J	1520173.27	1520173.40	1520173.58	0.0089	0.0070
Earth	-551-01-04 00:14 J	1520173.36	1520173.51	1520173.69	0.0089	0.0068 *
Earth	-550-01-06 10:47 J	1520540.73	1520540.95	1520541.18	0.0089	0.0042
Moon	-550-01-06 11:45 J	1520540.76	1520540.99	1520541.22	0.0089	0.0041 *

Earth	-549-01-08 21:07 J	1520908.14	1520908.38	1520908.64	0.0089	0.0016
Moon	-549-01-08 21:07 J	1520908.15	1520908.38	1520908.63	0.0089	0.0017 *
Moon	-548-01-10 06:14 J	1521275.51	1521275.76	1521276.03	0.0089	0.0012
Earth	-548-01-10 07:40 J	1521275.57	1521275.82	1521276.08	0.0089	0.0010 *
Earth	-547-01-12 17:45 J	1521643.02	1521643.24	1521643.49	0.0089	0.0037
Moon	-547-01-12 20:38 J	1521643.14	1521643.36	1521643.60	0.0089	0.0036 *
Moon	-546-01-15 00:57 J	1522010.38	1522010.54	1522010.74	0.0089	0.0064
Earth	-546-01-15 04:04 J	1522010.51	1522010.67	1522010.87	0.0089	0.0063 *
Earth	-545-01-17 14:38 J	1522378.11	1522378.11	1522378.13	0.0089	0.0088
Moon	-545-01-17 18:00 J	1522378.22	1522378.25	1522378.32	0.0089	0.0087
Mars	-526-01-11 23:45 J	1529312.21	1529312.49	1529312.79	0.0088	0.0042
Mars	-525-12-07 18:57 J	1530008.04	1530008.29	1530008.58	0.0088	0.0052
Mercury	-515-06-14 08:09 J	1533483.84	1533483.84	1533483.84	0.0088	0.0088
Mercury	-515-09-10 10:47 J	1533571.89	1533571.95	1533572.05	0.0088	0.0079
Mercury	-515-12-07 14:09 J	1533659.99	1533660.09	1533660.22	0.0088	0.0070
Mercury	-514-03-05 17:31 J	1533748.11	1533748.23	1533748.38	0.0088	0.0060
Mercury	-514-06-01 20:38 J	1533836.22	1533836.36	1533836.53	0.0088	0.0051
Mercury	-514-08-29 00:00 J	1533924.35	1533924.50	1533924.68	0.0088	0.0042
Mercury	-514-11-25 03:21 J	1534012.47	1534012.64	1534012.82	0.0088	0.0032
Mercury	-513-02-21 06:43 J	1534100.60	1534100.78	1534100.97	0.0088	0.0023
Mercury	-513-05-19 10:04 J	1534188.74	1534188.92	1534189.11	0.0088	0.0013
Mercury	-513-08-15 13:26 J	1534276.87	1534277.06	1534277.25	0.0088	0.0004
Mercury	-513-11-11 16:47 J	1534365.01	1534365.20	1534365.39	0.0088	0.0006
Mercury	-512-02-07 20:09 J	1534453.15	1534453.34	1534453.53	0.0088	0.0015
Mercury	-512-05-06 23:16 J	1534541.29	1534541.47	1534541.66	0.0088	0.0025
Mercury	-512-08-03 02:24 J	1534629.44	1534629.60	1534629.79	0.0088	0.0035
Mercury	-512-10-30 06:00 J	1534717.59	1534717.75	1534717.92	0.0088	0.0044
Mercury	-511-01-26 09:07 J	1534805.75	1534805.88	1534806.05	0.0088	0.0054
Mercury	-511-04-24 12:43 J	1534893.91	1534894.03	1534894.17	0.0088	0.0063
Mercury	-511-07-21 16:04 J	1534982.08	1534982.17	1534982.29	0.0088	0.0073

Mercury	-511-10-17 19:12 J	1535070.26	1535070.30	1535070.38	0.0088	0.0083
Venus	-509-06-29 12:28 J	1535690.97	1535691.02	1535691.10	0.0088	0.0083
Venus	-508-02-10 01:12 J	1535916.43	1535916.55	1535916.71	0.0088	0.0069
Venus	-508-09-23 13:55 J	1536141.92	1536142.08	1536142.27	0.0088	0.0054
Venus	-507-05-07 02:52 J	1536367.43	1536367.62	1536367.82	0.0088	0.0039
Venus	-507-12-18 15:21 J	1536592.94	1536593.14	1536593.36	0.0088	0.0025
Venus	-506-08-01 04:19 J	1536818.46	1536818.68	1536818.90	0.0088	0.0010
Venus	-505-03-13 17:02 J	1537043.99	1537044.21	1537044.43	0.0088	0.0005
Venus	-505-10-25 05:45 J	1537269.52	1537269.74	1537269.95	0.0088	0.0019
Venus	-504-06-07 18:00 J	1537495.06	1537495.25	1537495.47	0.0088	0.0034
Venus	-503-01-19 06:43 J	1537720.61	1537720.78	1537720.98	0.0088	0.0049
Venus	-503-09-01 19:26 J	1537946.17	1537946.31	1537946.48	0.0088	0.0063
Venus	-502-04-15 07:55 J	1538171.75	1538171.83	1538171.95	0.0088	0.0078
Moon	-469-07-06 08:52 J	1550307.84	1550307.87	1550307.94	0.0089	0.0087
Moon	-468-07-08 19:55 J	1550675.18	1550675.33	1550675.53	0.0089	0.0065
Earth	-468-07-08 20:24 J	1550675.19	1550675.35	1550675.56	0.0089	0.0063 *
Moon	-467-07-11 08:09 J	1551042.61	1551042.84	1551043.11	0.0089	0.0034
Earth	-467-07-11 09:50 J	1551042.68	1551042.91	1551043.15	0.0089	0.0036 *
Earth	-466-07-13 22:33 J	1551410.19	1551410.44	1551410.71	0.0089	0.0010
Moon	-466-07-14 00:57 J	1551410.28	1551410.54	1551410.79	0.0089	0.0011 *
Moon	-465-07-15 08:38 J	1551777.60	1551777.86	1551778.12	0.0089	0.0019
Earth	-465-07-15 11:31 J	1551777.73	1551777.98	1551778.24	0.0089	0.0017 *
Earth	-464-07-18 00:14 J	1552145.30	1552145.51	1552145.75	0.0089	0.0044
Moon	-464-07-18 04:04 J	1552145.45	1552145.67	1552145.90	0.0089	0.0042 *
Moon	-463-07-20 09:50 J	1552512.77	1552512.91	1552513.07	0.0089	0.0072
Earth	-463-07-20 12:57 J	1552512.91	1552513.04	1552513.22	0.0089	0.0071 *
Jupiter	-446-05-11 13:12 J	1558651.56	1558652.05	1558652.55	0.0089	0.0030
Mars	-443-08-29 14:38 J	1559857.82	1559858.11	1559858.41	0.0089	0.0006
Mars	-441-07-23 14:24 J	1560552.00	1560552.10	1560552.25	0.0089	0.0081
Mercury	-433-06-24 05:45 J	1563444.71	1563444.74	1563444.80	0.0089	0.0084

Mercury	-433-09-20 07:12 J	1563532.74	1563532.80	1563532.88	0.0089	0.0077
Mercury	-433-12-17 08:38 J	1563620.79	1563620.86	1563620.96	0.0089	0.0070
Mercury	-432-03-15 10:19 J	1563708.84	1563708.93	1563709.03	0.0089	0.0062
Mercury	-432-06-11 11:45 J	1563796.89	1563796.99	1563797.10	0.0089	0.0055
Mercury	-432-09-07 13:12 J	1563884.94	1563885.05	1563885.17	0.0089	0.0047
Mercury	-432-12-04 14:38 J	1563973.00	1563973.11	1563973.24	0.0089	0.0040
Mercury	-431-03-02 16:19 J	1564061.05	1564061.18	1564061.30	0.0089	0.0033
Mercury	-431-05-29 17:45 J	1564149.11	1564149.24	1564149.37	0.0089	0.0026
Mercury	-431-08-25 18:57 J	1564237.16	1564237.29	1564237.43	0.0089	0.0019
Mercury	-431-11-21 20:24 J	1564325.22	1564325.35	1564325.49	0.0089	0.0012
Mercury	-430-02-17 21:50 J	1564413.28	1564413.41	1564413.55	0.0089	0.0005
Mercury	-430-05-16 23:16 J	1564501.34	1564501.47	1564501.61	0.0089	0.0005
Mercury	-430-08-13 00:43 J	1564589.40	1564589.53	1564589.67	0.0089	0.0011
Mercury	-430-11-09 02:09 J	1564677.46	1564677.59	1564677.72	0.0089	0.0017
Mercury	-429-02-05 03:35 J	1564765.52	1564765.65	1564765.78	0.0089	0.0024
Mercury	-429-05-03 05:02 J	1564853.58	1564853.71	1564853.84	0.0089	0.0031
Mercury	-429-07-30 06:14 J	1564941.65	1564941.76	1564941.89	0.0089	0.0039
Mercury	-429-10-26 07:40 J	1565029.71	1565029.82	1565029.94	0.0089	0.0046
Mercury	-428-01-22 09:07 J	1565117.78	1565117.88	1565117.99	0.0089	0.0053
Mercury	-428-04-20 10:33 J	1565205.84	1565205.94	1565206.04	0.0089	0.0060
Mercury	-428-07-17 11:45 J	1565293.91	1565293.99	1565294.09	0.0089	0.0067
Mercury	-428-10-13 13:12 J	1565381.98	1565382.05	1565382.13	0.0089	0.0074
Mercury	-427-01-09 14:24 J	1565470.06	1565470.10	1565470.17	0.0089	0.0081
Mercury	-427-04-07 15:50 J	1565558.15	1565558.16	1565558.19	0.0089	0.0088
Venus	-426-03-30 06:57 J	1565914.70	1565914.79	1565914.93	0.0089	0.0076
Venus	-426-11-10 20:24 J	1566140.20	1566140.35	1566140.53	0.0089	0.0060
Venus	-425-06-23 09:50 J	1566365.73	1566365.91	1566366.11	0.0089	0.0044
Venus	-424-02-03 23:16 J	1566591.27	1566591.47	1566591.69	0.0089	0.0029
Venus	-424-09-17 12:43 J	1566816.82	1566817.03	1566817.25	0.0089	0.0013
Venus	-423-05-01 02:09 J	1567042.37	1567042.59	1567042.81	0.0089	0.0003

Venus	-423-12-12 15:21 J	1567267.92	1567268.14	1567268.36	0.0089	0.0018
Venus	-422-07-26 04:33 J	1567493.50	1567493.69	1567493.90	0.0089	0.0033
Venus	-421-03-07 17:45 J	1567719.07	1567719.24	1567719.44	0.0089	0.0049
Venus	-421-10-19 07:26 J	1567944.66	1567944.81	1567944.96	0.0089	0.0064
Venus	-420-06-01 20:09 J	1568170.26	1568170.34	1568170.46	0.0089	0.0080
Earth	-387-01-03 09:21 J	1580073.81	1580073.89	1580074.01	0.0089	0.0082
Moon	-387-01-03 10:19 J	1580073.89	1580073.93	1580074.01	0.0089	0.0086 *
Earth	-386-01-05 19:55 J	1580441.14	1580441.33	1580441.53	0.0089	0.0056
Moon	-386-01-05 20:24 J	1580441.17	1580441.35	1580441.57	0.0089	0.0052 *
Moon	-385-01-08 03:50 J	1580808.44	1580808.66	1580808.93	0.0089	0.0035
Earth	-385-01-08 06:14 J	1580808.53	1580808.76	1580809.01	0.0089	0.0030 *
Earth	-384-01-09 16:33 J	1581175.94	1581176.19	1581176.45	0.0089	0.0005
Moon	-384-01-09 19:12 J	1581176.05	1581176.30	1581176.55	0.0089	0.0001 *
Moon	-383-01-11 23:31 J	1581543.23	1581543.48	1581543.73	0.0089	0.0017
Earth	-383-01-12 02:52 J	1581543.38	1581543.62	1581543.88	0.0089	0.0022 *
Earth	-382-01-14 13:12 J	1581910.85	1581911.05	1581911.28	0.0089	0.0048
Moon	-382-01-14 16:19 J	1581911.00	1581911.18	1581911.41	0.0089	0.0053 *
Moon	-381-01-16 20:09 J	1582278.21	1582278.34	1582278.52	0.0089	0.0070
Earth	-381-01-16 23:31 J	1582278.36	1582278.48	1582278.64	0.0089	0.0074 *
Mars	-361-07-21 14:09 J	1589769.76	1589770.09	1589770.43	0.0088	0.0007
Mercury	-350-03-11 06:00 J	1593654.73	1593654.75	1593654.82	0.0088	0.0085
Mercury	-350-06-07 09:07 J	1593742.81	1593742.88	1593743.00	0.0088	0.0076
Mercury	-350-09-03 12:43 J	1593830.92	1593831.03	1593831.16	0.0088	0.0066
Mercury	-350-11-30 15:50 J	1593919.03	1593919.16	1593919.32	0.0088	0.0057
Mercury	-349-02-26 19:12 J	1594007.15	1594007.30	1594007.47	0.0088	0.0048
Mercury	-349-05-24 22:33 J	1594095.28	1594095.44	1594095.61	0.0088	0.0038
Mercury	-349-08-21 01:40 J	1594183.40	1594183.57	1594183.76	0.0088	0.0029
Mercury	-349-11-17 05:02 J	1594271.53	1594271.71	1594271.90	0.0088	0.0020
Mercury	-348-02-13 08:24 J	1594359.67	1594359.85	1594360.04	0.0088	0.0010
Mercury	-348-05-12 11:45 J	1594447.80	1594447.99	1594448.18	0.0088	0.0001

Mercury	-348-08-08 15:07 J	1594535.94	1594536.13	1594536.32	0.0088	0.0009
Mercury	-348-11-04 18:28 J	1594624.08	1594624.27	1594624.45	0.0088	0.0018
Mercury	-347-01-31 21:35 J	1594712.23	1594712.40	1594712.59	0.0088	0.0028
Mercury	-347-04-30 00:43 J	1594800.37	1594800.53	1594800.72	0.0088	0.0038
Mercury	-347-07-27 04:19 J	1594888.53	1594888.68	1594888.85	0.0088	0.0047
Mercury	-347-10-23 07:26 J	1594976.68	1594976.81	1594976.97	0.0088	0.0057
Mercury	-346-01-19 11:02 J	1595064.84	1595064.96	1595065.09	0.0088	0.0066
Mercury	-346-04-17 14:09 J	1595153.01	1595153.09	1595153.20	0.0088	0.0076
Mercury	-346-07-14 17:31 J	1595241.21	1595241.23	1595241.29	0.0088	0.0086
Venus	-344-05-14 12:00 J	1595910.89	1595911.00	1595911.12	0.0088	0.0075
Venus	-344-12-26 00:28 J	1596136.38	1596136.52	1596136.70	0.0088	0.0061
Venus	-343-08-08 13:26 J	1596361.88	1596362.06	1596362.25	0.0088	0.0046
Venus	-342-03-22 02:09 J	1596587.39	1596587.59	1596587.80	0.0088	0.0031
Venus	-342-11-02 14:52 J	1596812.91	1596813.12	1596813.34	0.0088	0.0017
Venus	-341-06-15 03:35 J	1597038.43	1597038.65	1597038.88	0.0088	0.0003
Venus	-340-01-26 16:33 J	1597263.97	1597264.19	1597264.41	0.0088	0.0013
Venus	-340-09-09 05:02 J	1597489.51	1597489.71	1597489.93	0.0088	0.0028
Venus	-339-04-22 17:31 J	1597715.05	1597715.23	1597715.44	0.0088	0.0043
Venus	-339-12-04 06:28 J	1597940.61	1597940.77	1597940.94	0.0088	0.0057
Venus	-338-07-17 18:43 J	1598166.18	1598166.28	1598166.43	0.0088	0.0072
Venus	-337-02-28 07:26 J	1598391.80	1598391.81	1598391.88	0.0088	0.0087
Moon	-304-07-08 02:52 J	1610575.48	1610575.62	1610575.79	0.0089	0.0072
Earth	-304-07-08 04:19 J	1610575.56	1610575.68	1610575.83	0.0089	0.0076 *
Earth	-303-07-10 17:16 J	1610943.03	1610943.22	1610943.46	0.0089	0.0050
Moon	-303-07-10 20:09 J	1610943.16	1610943.34	1610943.56	0.0089	0.0054 *
Moon	-302-07-13 03:07 J	1611310.39	1611310.63	1611310.90	0.0089	0.0020
Earth	-302-07-13 06:43 J	1611310.53	1611310.78	1611311.04	0.0089	0.0023 *
Earth	-301-07-14 19:40 J	1611678.06	1611678.32	1611678.58	0.0089	0.0004
Moon	-301-07-14 23:16 J	1611678.21	1611678.47	1611678.73	0.0089	0.0001 *
Moon	-300-07-17 04:47 J	1612045.48	1612045.70	1612045.95	0.0089	0.0035

Earth	-300-07-17 08:38 J	1612045.62	1612045.86	1612046.11	0.0089	0.0030 *
Earth	-299-07-19 21:07 J	1612413.20	1612413.38	1612413.60	0.0089	0.0057
Moon	-299-07-20 00:00 J	1612413.31	1612413.50	1612413.73	0.0089	0.0053 *
Moon	-298-07-22 07:26 J	1612780.80	1612780.81	1612780.88	0.0089	0.0088
Earth	-298-07-22 10:04 J	1612780.85	1612780.92	1612781.03	0.0089	0.0083 *
Mars	-279-04-13 21:21 J	1619621.14	1619621.39	1619621.64	0.0089	0.0047
Mars	-277-03-07 18:57 J	1620315.04	1620315.29	1620315.57	0.0089	0.0039
Mercury	-269-12-23 03:50 J	1623527.66	1623527.66	1623527.69	0.0089	0.0089
Mercury	-268-03-21 05:16 J	1623615.68	1623615.72	1623615.79	0.0089	0.0082
Mercury	-268-06-17 06:57 J	1623703.72	1623703.79	1623703.87	0.0089	0.0074
Mercury	-268-09-13 08:24 J	1623791.77	1623791.85	1623791.95	0.0089	0.0067
Mercury	-268-12-10 09:50 J	1623879.82	1623879.91	1623880.02	0.0089	0.0059
Mercury	-267-03-08 11:16 J	1623967.87	1623967.97	1623968.09	0.0089	0.0052
Mercury	-267-06-04 12:57 J	1624055.92	1624056.04	1624056.16	0.0089	0.0045
Mercury	-267-08-31 14:24 J	1624143.98	1624144.10	1624144.23	0.0089	0.0037
Mercury	-267-11-27 15:50 J	1624232.04	1624232.16	1624232.29	0.0089	0.0030
Mercury	-266-02-23 17:16 J	1624320.09	1624320.22	1624320.35	0.0089	0.0023
Mercury	-266-05-22 18:43 J	1624408.15	1624408.28	1624408.42	0.0089	0.0016
Mercury	-266-08-18 20:09 J	1624496.21	1624496.34	1624496.48	0.0089	0.0009
Mercury	-266-11-14 21:35 J	1624584.27	1624584.40	1624584.54	0.0089	0.0002
Mercury	-265-02-10 23:02 J	1624672.33	1624672.46	1624672.60	0.0089	0.0006
Mercury	-265-05-09 00:28 J	1624760.39	1624760.52	1624760.65	0.0089	0.0013
Mercury	-265-08-05 01:55 J	1624848.45	1624848.58	1624848.71	0.0089	0.0020
Mercury	-265-11-01 03:07 J	1624936.51	1624936.63	1624936.77	0.0089	0.0028
Mercury	-264-01-28 04:33 J	1625024.57	1625024.69	1625024.82	0.0089	0.0034
Mercury	-264-04-26 06:00 J	1625112.64	1625112.75	1625112.87	0.0089	0.0041
Mercury	-264-07-23 07:12 J	1625200.70	1625200.80	1625200.93	0.0089	0.0049
Mercury	-264-10-19 08:38 J	1625288.77	1625288.86	1625288.98	0.0089	0.0056
Mercury	-263-01-15 10:04 J	1625376.83	1625376.92	1625377.02	0.0089	0.0063
Mercury	-263-04-13 11:31 J	1625464.90	1625464.98	1625465.07	0.0089	0.0069

Mercury	-263-07-10 12:43 J	1625552.98	1625553.03	1625553.11	0.0089	0.0077
Mercury	-263-10-06 14:09 J	1625641.06	1625641.09	1625641.15	0.0089	0.0083
Venus	-262-07-01 17:16 J	1625909.16	1625909.22	1625909.33	0.0089	0.0082
Venus	-261-02-12 06:43 J	1626134.65	1626134.78	1626134.94	0.0089	0.0067
Venus	-261-09-24 19:55 J	1626360.17	1626360.33	1626360.53	0.0089	0.0052
Venus	-260-05-08 09:21 J	1626585.70	1626585.89	1626586.10	0.0089	0.0036
Venus	-260-12-19 22:47 J	1626811.24	1626811.45	1626811.67	0.0089	0.0020
Venus	-259-08-02 12:14 J	1627036.79	1627037.01	1627037.23	0.0089	0.0005
Venus	-258-03-16 01:40 J	1627262.35	1627262.57	1627262.79	0.0089	0.0011
Venus	-258-10-27 14:38 J	1627487.91	1627488.11	1627488.33	0.0089	0.0027
Venus	-257-06-09 04:04 J	1627713.48	1627713.67	1627713.86	0.0089	0.0042
Venus	-256-01-20 17:02 J	1627939.06	1627939.21	1627939.39	0.0089	0.0058
Venus	-256-09-03 06:28 J	1628164.66	1628164.77	1628164.91	0.0089	0.0073
Venus	-255-04-16 19:26 J	1628390.30	1628390.31	1628390.37	0.0089	0.0089
Moon	-222-01-05 03:50 J	1640341.52	1640341.66	1640341.84	0.0089	0.0069
Earth	-222-01-05 06:43 J	1640341.62	1640341.78	1640341.94	0.0089	0.0069 *
Earth	-221-01-07 16:33 J	1640708.98	1640709.19	1640709.42	0.0089	0.0044
Moon	-221-01-07 19:55 J	1640709.12	1640709.33	1640709.55	0.0089	0.0044 *
Moon	-220-01-08 23:16 J	1641076.24	1641076.47	1641076.74	0.0089	0.0019
Earth	-220-01-09 02:52 J	1641076.38	1641076.62	1641076.88	0.0089	0.0018 *
Earth	-219-01-11 13:12 J	1641443.80	1641444.05	1641444.31	0.0089	0.0008
Moon	-219-01-11 16:47 J	1641443.95	1641444.20	1641444.46	0.0089	0.0009 *
Moon	-218-01-13 20:38 J	1641811.14	1641811.36	1641811.60	0.0089	0.0034
Earth	-218-01-13 23:16 J	1641811.25	1641811.47	1641811.72	0.0089	0.0034 *
Earth	-217-01-16 09:21 J	1642178.73	1642178.89	1642179.10	0.0089	0.0060
Moon	-217-01-16 11:45 J	1642178.82	1642178.99	1642179.20	0.0089	0.0061 *
Moon	-216-01-17 18:57 J	1642546.24	1642546.29	1642546.38	0.0089	0.0085
Earth	-216-01-17 20:09 J	1642546.28	1642546.34	1642546.42	0.0089	0.0085 *
Mars	-197-03-04 08:24 J	1649531.56	1649531.85	1649532.16	0.0088	0.0039
Mars	-195-01-29 05:02 J	1650227.47	1650227.71	1650227.98	0.0088	0.0056

Mercury	-186-12-06 04:47 J	1653825.65	1653825.70	1653825.79	0.0088	0.0081
Mercury	-185-03-03 07:55 J	1653913.75	1653913.83	1653913.96	0.0088	0.0072
Mercury	-185-05-30 11:31 J	1654001.86	1654001.98	1654002.12	0.0088	0.0062
Mercury	-185-08-26 14:38 J	1654089.97	1654090.11	1654090.27	0.0088	0.0053
Mercury	-185-11-22 17:45 J	1654178.09	1654178.24	1654178.42	0.0088	0.0044
Mercury	-184-02-18 21:21 J	1654266.22	1654266.39	1654266.56	0.0088	0.0034
Mercury	-184-05-18 00:28 J	1654354.35	1654354.52	1654354.71	0.0088	0.0025
Mercury	-184-08-14 03:50 J	1654442.48	1654442.66	1654442.85	0.0088	0.0016
Mercury	-184-11-10 07:12 J	1654530.61	1654530.80	1654530.99	0.0088	0.0006
Mercury	-183-02-06 10:33 J	1654618.75	1654618.94	1654619.13	0.0088	0.0003
Mercury	-183-05-05 13:40 J	1654706.89	1654707.07	1654707.26	0.0088	0.0013
Mercury	-183-08-01 17:02 J	1654795.03	1654795.21	1654795.40	0.0088	0.0022
Mercury	-183-10-28 20:09 J	1654883.17	1654883.34	1654883.53	0.0088	0.0032
Mercury	-182-01-24 23:45 J	1654971.32	1654971.49	1654971.66	0.0088	0.0041
Mercury	-182-04-23 02:52 J	1655059.47	1655059.62	1655059.78	0.0088	0.0051
Mercury	-182-07-20 06:28 J	1655147.63	1655147.77	1655147.91	0.0088	0.0060
Mercury	-182-10-16 09:35 J	1655235.80	1655235.90	1655236.02	0.0088	0.0070
Mercury	-181-01-12 12:43 J	1655323.97	1655324.03	1655324.13	0.0088	0.0080
Venus	-180-08-15 22:47 J	1655905.39	1655905.45	1655905.54	0.0088	0.0082
Venus	-179-03-29 11:31 J	1656130.85	1656130.98	1656131.13	0.0088	0.0067
Venus	-179-11-10 00:28 J	1656356.34	1656356.52	1656356.70	0.0088	0.0052
Venus	-178-06-23 12:57 J	1656581.85	1656582.04	1656582.25	0.0088	0.0038
Venus	-177-02-04 01:55 J	1656807.38	1656807.58	1656807.80	0.0088	0.0023
Venus	-177-09-16 14:52 J	1657032.90	1657033.12	1657033.34	0.0088	0.0008
Venus	-176-04-30 03:21 J	1657258.43	1657258.64	1657258.87	0.0088	0.0007
Venus	-176-12-11 15:50 J	1657483.96	1657484.16	1657484.39	0.0088	0.0022
Venus	-175-07-25 04:33 J	1657709.50	1657709.69	1657709.91	0.0088	0.0037
Venus	-174-03-07 17:45 J	1657935.06	1657935.24	1657935.42	0.0088	0.0051
Venus	-174-10-19 06:14 J	1658160.62	1658160.76	1658160.91	0.0088	0.0066
Venus	-173-05-31 18:43 J	1658386.21	1658386.28	1658386.38	0.0088	0.0081

Moon	-140-07-07 15:21 J	1670476.09	1670476.14	1670476.20	0.0089	0.0086
Moon	-139-07-09 21:50 J	1670843.25	1670843.41	1670843.60	0.0089	0.0066
Earth	-139-07-10 01:26 J	1670843.39	1670843.56	1670843.76	0.0089	0.0063 *
Earth	-138-07-12 14:24 J	1671210.88	1671211.10	1671211.36	0.0089	0.0037
Moon	-138-07-12 18:00 J	1671211.03	1671211.25	1671211.51	0.0089	0.0034 *
Moon	-137-07-14 00:28 J	1671578.28	1671578.52	1671578.79	0.0089	0.0013
Earth	-137-07-14 04:04 J	1671578.41	1671578.67	1671578.93	0.0089	0.0010 *
Earth	-136-07-16 16:47 J	1671945.96	1671946.20	1671946.47	0.0089	0.0017
Moon	-136-07-16 19:40 J	1671946.07	1671946.32	1671946.59	0.0089	0.0019 *
Moon	-135-07-19 04:47 J	1672313.48	1672313.70	1672313.93	0.0089	0.0040
Earth	-135-07-19 05:45 J	1672313.53	1672313.74	1672313.99	0.0089	0.0043 *
Earth	-134-07-21 18:28 J	1672681.13	1672681.27	1672681.45	0.0089	0.0069
Moon	-134-07-21 18:57 J	1672681.16	1672681.29	1672681.48	0.0089	0.0071 *
Mars	-116-11-27 04:47 J	1679384.65	1679384.70	1679384.78	0.0089	0.0087
Mars	-114-10-22 03:21 J	1680078.35	1680078.64	1680078.93	0.0089	0.0001
Mars	-112-09-15 02:24 J	1680772.52	1680772.60	1680772.70	0.0089	0.0085
Mercury	-104-09-19 03:35 J	1683698.63	1683698.65	1683698.70	0.0089	0.0086
Mercury	-104-12-16 05:02 J	1683786.66	1683786.71	1683786.79	0.0089	0.0079
Mercury	-103-03-14 06:28 J	1683874.70	1683874.77	1683874.87	0.0089	0.0072
Mercury	-103-06-10 08:09 J	1683962.75	1683962.84	1683962.94	0.0089	0.0064
Mercury	-103-09-06 09:35 J	1684050.80	1684050.90	1684051.01	0.0089	0.0057
Mercury	-103-12-03 11:02 J	1684138.86	1684138.96	1684139.08	0.0089	0.0049
Mercury	-102-03-01 12:43 J	1684226.91	1684227.03	1684227.15	0.0089	0.0042
Mercury	-102-05-28 14:09 J	1684314.97	1684315.09	1684315.22	0.0089	0.0035
Mercury	-102-08-24 15:35 J	1684403.02	1684403.15	1684403.28	0.0089	0.0027
Mercury	-102-11-20 17:02 J	1684491.08	1684491.21	1684491.34	0.0089	0.0020
Mercury	-101-02-16 18:28 J	1684579.14	1684579.27	1684579.41	0.0089	0.0013
Mercury	-101-05-14 19:55 J	1684667.20	1684667.33	1684667.47	0.0089	0.0006
Mercury	-101-08-10 21:21 J	1684755.26	1684755.39	1684755.53	0.0089	0.0001
Mercury	-101-11-06 22:47 J	1684843.32	1684843.45	1684843.58	0.0089	0.0008

Mercury	-100-02-03 00:14 J	1684931.38	1684931.51	1684931.64	0.0089	0.0016
Mercury	-100-05-02 01:40 J	1685019.44	1685019.57	1685019.70	0.0089	0.0023
Mercury	-100-07-29 03:07 J	1685107.50	1685107.63	1685107.75	0.0089	0.0030
Mercury	-100-10-25 04:33 J	1685195.56	1685195.69	1685195.81	0.0089	0.0037
Mercury	-99-01-21 05:31 J	1685283.63	1685283.73	1685283.86	0.0089	0.0045
Mercury	-99-04-19 06:57 J	1685371.69	1685371.79	1685371.91	0.0089	0.0052
Mercury	-99-07-16 08:24 J	1685459.76	1685459.85	1685459.96	0.0089	0.0058
Mercury	-99-10-12 09:50 J	1685547.83	1685547.91	1685548.01	0.0089	0.0065
Mercury	-98-01-08 11:02 J	1685635.90	1685635.96	1685636.05	0.0089	0.0073
Mercury	-98-04-06 12:28 J	1685723.98	1685724.02	1685724.10	0.0089	0.0080
Mercury	-98-07-03 14:09 J	1685812.06	1685812.09	1685812.13	0.0089	0.0086
Venus	-98-10-03 03:50 J	1685903.66	1685903.66	1685903.69	0.0089	0.0089
Venus	-97-05-15 17:02 J	1686129.11	1686129.21	1686129.35	0.0089	0.0074
Venus	-97-12-27 06:43 J	1686354.62	1686354.78	1686354.95	0.0089	0.0058
Venus	-96-08-09 19:55 J	1686580.15	1686580.33	1686580.54	0.0089	0.0043
Venus	-95-03-23 09:21 J	1686805.69	1686805.89	1686806.11	0.0089	0.0027
Venus	-95-11-03 22:33 J	1687031.23	1687031.44	1687031.67	0.0089	0.0012
Venus	-94-06-17 12:00 J	1687256.78	1687257.00	1687257.22	0.0089	0.0005
Venus	-93-01-29 01:12 J	1687482.34	1687482.55	1687482.77	0.0089	0.0020
Venus	-93-09-10 14:24 J	1687707.91	1687708.10	1687708.31	0.0089	0.0036
Venus	-92-04-24 03:35 J	1687933.48	1687933.65	1687933.84	0.0089	0.0051
Venus	-92-12-05 16:47 J	1688159.07	1688159.20	1688159.36	0.0089	0.0067
Venus	-91-07-19 06:00 J	1688384.69	1688384.75	1688384.86	0.0089	0.0083
Earth	-58-01-04 17:16 J	1700242.14	1700242.22	1700242.33	0.0089	0.0082
Moon	-58-01-04 20:24 J	1700242.32	1700242.35	1700242.42	0.0089	0.0087 *
Moon	-57-01-07 00:00 J	1700609.31	1700609.50	1700609.72	0.0089	0.0052
Earth	-57-01-07 03:21 J	1700609.47	1700609.64	1700609.86	0.0089	0.0057 *
Earth	-56-01-08 13:55 J	1700976.85	1700977.08	1700977.33	0.0089	0.0031
Moon	-56-01-08 17:02 J	1700976.99	1700977.21	1700977.46	0.0089	0.0036 *
Moon	-55-01-10 21:35 J	1701344.15	1701344.40	1701344.65	0.0089	0.0001

Earth	-55-01-11 00:28 J	1701344.26	1701344.52	1701344.77	0.0089	0.0006 *
Earth	-54-01-13 10:19 J	1701711.70	1701711.93	1701712.19	0.0089	0.0021
Moon	-54-01-13 12:00 J	1701711.75	1701712.00	1701712.27	0.0089	0.0016 *
Moon	-53-01-15 20:09 J	1702079.15	1702079.34	1702079.56	0.0089	0.0050
Earth	-53-01-15 20:38 J	1702079.16	1702079.36	1702079.59	0.0089	0.0046 *
Moon	-52-01-17 06:00 J	1702446.61	1702446.75	1702446.95	0.0089	0.0067
Earth	-52-01-17 06:28 J	1702446.65	1702446.77	1702446.95	0.0089	0.0072 *
Mars	-34-10-17 03:07 J	1709293.56	1709293.63	1709293.76	0.0088	0.0084
Mars	-32-09-12 01:40 J	1709989.25	1709989.57	1709989.92	0.0088	0.0012
Mercury	-21-06-05 00:28 J	1713908.50	1713908.52	1713908.57	0.0088	0.0086
Mercury	-21-09-01 03:35 J	1713996.58	1713996.65	1713996.76	0.0088	0.0077
Mercury	-21-11-28 07:26 J	1714084.69	1714084.81	1714084.92	0.0088	0.0067
Mercury	-20-02-24 10:19 J	1714172.80	1714172.93	1714173.08	0.0088	0.0058
Mercury	-20-05-23 13:26 J	1714260.92	1714261.06	1714261.23	0.0088	0.0049
Mercury	-20-08-19 16:33 J	1714349.04	1714349.19	1714349.38	0.0088	0.0040
Mercury	-20-11-15 20:09 J	1714437.17	1714437.34	1714437.52	0.0088	0.0030
Mercury	-19-02-11 23:16 J	1714525.30	1714525.47	1714525.66	0.0088	0.0021
Mercury	-19-05-11 02:38 J	1714613.43	1714613.61	1714613.80	0.0088	0.0012
Mercury	-19-08-07 06:00 J	1714701.56	1714701.75	1714701.94	0.0088	0.0002
Mercury	-19-11-03 09:21 J	1714789.70	1714789.89	1714790.08	0.0088	0.0007
Mercury	-18-01-30 12:28 J	1714877.84	1714878.02	1714878.21	0.0088	0.0017
Mercury	-18-04-28 15:35 J	1714965.98	1714966.15	1714966.35	0.0088	0.0027
Mercury	-18-07-25 19:12 J	1715054.13	1715054.30	1715054.48	0.0088	0.0036
Mercury	-18-10-21 22:19 J	1715142.28	1715142.43	1715142.60	0.0088	0.0046
Mercury	-17-01-18 01:40 J	1715230.43	1715230.57	1715230.73	0.0088	0.0055
Mercury	-17-04-15 04:47 J	1715318.59	1715318.70	1715318.85	0.0088	0.0065
Mercury	-17-07-12 08:24 J	1715406.76	1715406.85	1715406.96	0.0088	0.0074
Mercury	-17-10-08 11:31 J	1715494.95	1715494.98	1715495.06	0.0088	0.0084
Venus	-15-06-30 23:16 J	1716125.35	1716125.47	1716125.59	0.0088	0.0073
Venus	-14-02-11 11:45 J	1716350.84	1716350.99	1716351.17	0.0088	0.0059

Venus	-14-09-25 00:28 J	1716576.34	1716576.52	1716576.73	0.0088	0.0044
Venus	-13-05-07 13:12 J	1716801.86	1716802.05	1716802.27	0.0088	0.0029
Venus	-13-12-19 02:09 J	1717027.37	1717027.59	1717027.81	0.0088	0.0014
Venus	-12-08-01 14:52 J	1717252.90	1717253.12	1717253.34	0.0088	0.0002
Venus	-11-03-15 03:35 J	1717478.44	1717478.65	1717478.87	0.0088	0.0016
Venus	-11-10-26 16:19 J	1717703.98	1717704.18	1717704.39	0.0088	0.0031
Venus	-10-06-09 04:47 J	1717929.53	1717929.70	1717929.91	0.0088	0.0046
Venus	-9-01-20 17:31 J	1718155.10	1718155.23	1718155.41	0.0088	0.0061
Venus	-9-09-02 06:14 J	1718380.67	1718380.76	1718380.90	0.0088	0.0076